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 1-5005

INTRICON CORPORATION

(Exact name of registrant as specified in its charter)

Pennsylvania	23-1069060
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1260 Red Fox Road Arden Hills, Minnesota	55112
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code (651) 636-9770

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common stock, par value $1.00 per share	IIN	Nasdaq Global Market

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 (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer ☐

Accelerated filer ☒

Non-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 accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

The aggregate market value of the voting common shares held by non-affiliates of the registrant on June 30, 2019 was $191,747,196. Common shares held by each officer and director and by each person who owns 10% or more of the outstanding common shares have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of outstanding shares of the registrant's common shares on February 24, 2020 was 8,813,115.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's definitive proxy statement for the 2020 annual meeting of shareholders are incorporated by reference into Part III of this report; provided, however, that the Audit Committee Report and any other information in such Proxy Statement that is not required to be included in this Annual Report on Form 10-K, shall not be deemed to be incorporated herein or filed for the purposes of the Securities Act of 1933, as amended or the Securities Exchange Act of 1934, as amended.

Table of Contents

PART I

ITEM 1. Business

Company Overview

IntriCon Corporation (together with its subsidiaries referred herein as the "Company", or "IntriCon", "we", "us" or "our") is an international company engaged in designing, developing, engineering and manufacturing miniature interventional, implantable and body-worn medical devices. Our mission is to be a recognized leader in miniature medical devices that enable affordable and accessible health care and improve the quality of life for those we serve. The Company serves as a joint development manufacturing partner (JDM) to leading medical device original equipment manufacturers (OEMs) by designing, developing, engineering, manufacturing and distributing micro-miniature products, microelectronics, micro-mechanical assemblies, complete assemblies and software solutions, primarily for high growth markets, such as diabetes, drug delivery, surgical navigation, and hearing health. The Company, headquartered in Arden Hills, Minnesota, has facilities in Minnesota, Illinois, Singapore, Indonesia and Germany, and operates through subsidiaries. The Company is a Pennsylvania corporation formed in 1930, and has gone through several transformations since its formation. The Company's core business of body-worn devices was established in 1993 through the acquisition of Resistance Technologies Inc., now known as IntriCon, Inc. The majority of IntriCon's current management came to the Company with the Resistance Technologies Inc. acquisition, including IntriCon's President and CEO, who was a co-founder of Resistance Technologies Inc.

Information contained in this Annual Report on Form 10-K and expressed in U.S. dollars or number of shares are presented in thousands (000s), except for per share data and as otherwise noted.

Business Highlights

Major Events in 2019

In January 2019, the Company purchased the source code for the Sentibo Smart Brain self-fitting software from Soundperience for 1,829 Euros, positioning the Company to capitalize on the pending over-the-counter (OTC) hearing aid regulation. Sentibo Smart Brain self-fitting software is designed to improve both channel productivity and the quality of first-time fittings, resulting in lower prices, greater access and increased customer satisfaction. In addition, the Company transferred its 49% ownership interest in Soundperience to the majority owner of Soundperience.

On June 25, 2019, the Company's officers, pursuant to delegated authority from the board, approved plans to discontinue the operations of its United Kingdom (UK) subsidiary within our body worn device segment. For all periods presented, the Company classified this business as discontinued operations, and accordingly, has reclassified historical financial data presented herein.

During the 2019 second quarter, we continued to experience negative cash flows within our Hearing Help Express (HHE) reporting unit and as of June 30, 2019, determined the fair value of the goodwill was less than its carrying amount, which resulted in non-cash impairment charges to goodwill of $1,257 and intangible assets of $2,508.

Major Events in 2018

In February 2018, the Company closed on an additional 33% ownership interest in Soundperience, bringing its total ownership to 49% and its total investment to 1,500 Euros, as of December 31, 2018, consisting of an equity investment and license agreement. As of December 31, 2018, Soundperience and Signison were accounted for in the Company's financial statements using the equity method.

In March 2018, the Company entered into a new 5-year lease for an additional 37,000 square foot manufacturing and clean room facility near our Corporate Headquarters in Arden Hills, Minnesota. In addition, during 2018 the Company added 13 new molding presses, as well as a high-speed printed circuit board assembly line. In June 2018, the Company entered into an additional 10,000 square foot medical assembly space in Singapore. The added capacity and equipment will aid us in meeting the anticipated rising demand in our medical business.

On August 20, 2018, the Company completed a public offering and sale of 1,725 shares of common stock at a price to the public of $55.00 per share less an underwriting discount of $3.30 per share. The net proceeds from this offering, after deducting underwriting discounts and offering expenses, totaled approximately $88,967 and were used to repay debt, fund capital expenditures, to repurchase 500 shares of common stock owned by directors and officers and for working capital and other general corporate purposes. The amount of domestic and foreign bank debt repaid from the offering was $16,381.

Major Events in 2017

In December 2017, the Company acquired the remaining 80-percent stake in Hearing Help Express, Inc. (referred to as "Hearing Help Express" or "HHE"), a direct-to-end-consumer mail order hearing aid provider, for $650 in cash, repayment of $1,833 in debt to HHE's 80% holder and an earn-out. The results of HHE were consolidated into the Company's financial statements beginning October 31, 2016. Prior to the acquisition of 100% ownership in December 2017, the Company allocated income and losses to the noncontrolling interest based on ownership percentage.

The Company entered into an agreement to acquire a 49% stake in Soundperience for 1,500 Euros. As of December 31, 2017, the Company had an investment in Soundperience of $1,415, consisting of a 16% ownership interest, cash advances and a license agreement.

Market Overview:

IntriCon serves as a JDM to leading medical device OEMs by designing, developing, engineering, manufacturing and distributing micro-miniature products, microelectronics, micro-mechanical assemblies, complete assemblies and software solutions, primarily for high growth markets, such as diabetes, drug delivery, surgical navigation, and hearing health and the professional audio communication market. Revenue from these markets is reported on the respective diabetes, other medical, hearing health value based direct-to-end-consumer, value based indirect-to-end-consumer and legacy OEM, and professional audio lines in the discussion of our results of operations in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 21 "Revenue by Market" to the Company's consolidated financial statements included herein.

Diabetes, Drug Delivery, and Surgical Navigation Markets

The Company manufactures microelectronics, micro-mechanical assemblies, high-precision injection-molded plastic components and complete devices for leading and emerging medical device manufacturers. The medical industry is faced with pressures to reduce the cost of healthcare. Driven by its core technologies, IntriCon helps shift the point of care from expensive traditional settings, such as hospitals, to less expensive non-traditional settings like the home. IntriCon currently serves this market by offering medical manufacturers the capabilities to design, develop, manufacture and distribute medical devices that are easier to use, are more miniature, use less power, and are lighter. Increasingly, the medical industry is looking for wireless, low-power capabilities in their devices.

IntriCon currently has a presence in the diabetes, drug delivery and surgical navigation markets. For diabetes, IntriCon works with Medtronic to manufacture their wireless continuous glucose monitors (CGM), sensor assemblies, and accessories associated with Medtronic's insulin pump and CGM system. In September 2016, the FDA approved Medtronic's current generation insulin pump system, the MiniMed 670G system. The MiniMed 670G is the world's first hybrid closed loop insulin delivery system and we are excited that our components are designed into and support such a revolutionary diabetes management system. In June 2017, the 670G was launched in the U.S. and Medtronic began fulfilling orders from patients enrolled in their Priority Access Program. In March 2018, the FDA approved the Guardian Connect, Medtronic's standalone CGM system that allows patients to stay ahead of high and low glucose events. Looking ahead, we believe there are opportunities to expand our diabetes product offering with Medtronic, as well as move into new markets outside of the diabetes market. In late 2019, Medtronic received approval and began distributing the 670G system in select European countries.

IntriCon has a suite of medical coils and micro coils that it offers to various OEM customers. These products are currently used in pacemaker programming and interventional catheter positioning applications.

IntriCon manufactures bubble sensors and flow restrictors that monitor and control the flow of fluid in an intravenous infusion system as well as a family of safety needle products for an OEM customer that utilizes IntriCon's insert and straight molding capabilities. These products are assembled using full automation, including built-in quality checks within the production lines.

During 2018, we expanded our infrastructure to support anticipated growth from current medical customers and future growth from increased business development. Expansion efforts in 2018 included a newly leased 37,000-square-foot medical manufacturing and clean room facility in Minnesota, an additional 10,000-square-foot medical assembly space in Singapore, 13 new molding presses and a high-speed printed circuit board assembly line. In addition to these investments, our current customers invested several million dollars in tooling and automation within our facilities. While we have begun limited production on certain products in our new facilities, we are still working with current medical customers to complete required validation and qualification of several key production lines.

The Company is committed to increasing investments to support its medical business development efforts. In early 2019, the Company hired a vice president of medical business development, to leverage our core competencies and diversify our medical revenue base. The Company believes it has significant opportunities to serve the emerging home care markets through its already developed core competencies and capabilities to develop devices that are more technologically advanced, smaller and lightweight.

Hearing Healthcare Market

In the United States alone, there are approximately 40 million adults that report some degree of hearing loss. In adults, the most common cause of hearing loss is aging and noise. In fact, by the age of 65, one out of three people have hearing loss. The hearing-impaired population is expected to grow significantly over the next decade due to an aging population and more frequent exposure to loud sounds that can cause noise-induced hearing loss. It is estimated that hearing aids can help more than 90 percent of people with hearing loss, however the current market penetration into the U.S. hearing impaired population is approximately 20 percent, a percentage that has remained essentially unchanged for the last four decades. The primary deterrents to greater penetration are cost and access. Along with this, the legacy hearing aid distribution channel is an oligopoly of six large hearing aid manufacturers who utilize bricks and mortar and licensed audiologists to sell devices while controlling the channel dynamics. As a result, the average cost of a hearing aid sold in the US market today is over $2,400 per device, more than double the cost from fifteen years ago. Approximately 70 percent of the hearing impaired have hearing loss in both ears (referred to as a binaural loss), driving the total cost to almost $5,000 on average for a set of hearing aids.

Today in the US market, the legacy channel pushes all hearing impaired through the same inefficient, costly channel. However, a very large portion of the hearing-impaired market – mostly notably those with mild to moderate losses – could be properly served with the proper combination of high quality, outcome-based devices, advanced fitting software and consumer services/care best practices – all at much lower cost. We believe fundamental change is needed and are excited about the opportunity that we created through thoughtful hard work and planning: a chance to deliver superior outcomes-based affordable hearing healthcare, by combining state-of-the-art devices and software technology, along with best practices customer service and at a much lower cost directly to consumers across the country, many of whom have not been able to afford care previously.

We believe a perfect vortex of factors has come together over the last few years to enable the emergence of a market disruptive, high-quality, low cost distribution model. These factors include the continued consolidation of retail (causing escalating hearing aid prices), consumer outcry, consumer education, advancements in technology (such as behind-the-ear devices, advanced digital signal processing, low-power wireless, and self-fitting software) as well as regulatory actions and pronouncements by the U.S. Food and Drug Administration (FDA), the President’s Council of Advisors on Science and Technology and the National Academies of Science, Engineering and Medicine.

In early January 2016, the FDA weighed in on low hearing aid penetration rates with an announcement that highlighted statistics from the National Institute on Deafness and Other Communication Disorders. They found that 37.5 million U.S. adults aged 18 and older report some form of hearing loss. However, only 30 percent of adults over 70, and 16 percent of those aged 20 to 69, who could benefit from wearing hearing aids, have ever used them. Based on these statistics, the FDA reopened the public comment period on draft guidance related to the agency’s premarket requirements for hearing aids and personal sound amplifiers (PSAPs). In April 2016, the FDA hosted a public workshop to, among other things, gather stakeholder and public input on draft guidance related to the agency’s premarket requirements for hearing aids and PSAPs. The FDA’s intent was to consider ways in which it can most effectively regulate hearing aids to promote accessibility and affordability while encouraging innovation. In December 2016, the FDA announced important steps to better support consumer access to hearing aids. The agency issued a guidance document explaining that it does not intend to enforce the requirement that individuals age 18 and older receive a medical evaluation or sign a waiver prior to purchasing most hearing aids, effective immediately. It also announced its commitment to consider creating a category of over-the-counter (OTC) hearing aids.

Furthermore, there have been significant public policy developments during 2017. On August 18, 2017, President Donald Trump signed into law H.R. 2430, the FDA Reauthorization Act of 2017, which includes a section concerning the regulation of OTC hearing aids. The law is designed to enable adults with mild to moderate hearing loss to access OTC hearing aids without being seen by a hearing care professional. The law requires the FDA to create and regulate a category of OTC hearing aids to ensure they meet the same high standards for safety, consumer labeling, and manufacturing protection that all other medical devices must meet. Additionally, the law mandates that the FDA establish an OTC hearing aid category for adults with “perceived” mild to moderate hearing loss within three years of passage of the legislation. We believe this law has the potential to remove the significant barriers existing today that prevent innovative hearing health solutions. We believe that this law will invigorate competition, spur innovation and facilitate the development of an ecosystem of hearing health care that provides affordable and accessible solutions to millions of unserved or underserved Americans. Today, IntriCon serves both the value-based hearing healthcare channel and the legacy hearing health channel.

Value-Based Hearing Healthcare

The Company believes the value-based hearing healthcare (VBHH) market offers significant growth opportunities. In contrast to the legacy channel dynamics, the VBHH market channel is flexible and able to serve the end consumer through a variety of modalities which may include self-fitting, remote programing and adjustments, customer support call centers and bricks and mortar stores. The average price of a hearing aid sold through this channel is less than twenty-five percent of the average $2,400 device price typically sold through the legacy channel. In 2018, the Company commissioned an ethnographic research study, which identified a $3+ billion annual VBHH market opportunity. To best approach this market opportunity, the Company has sharpened its Indirect-to-end-Consumer (ITEC) focus to identify potential high-profile partners that value its ability to deliver superior hearing aids, self-fitting software and customer care to the U.S. market. Moreover, the Company has refocused its Direct-to-End-Consumer (DTEC) efforts towards supporting product development and as a testing platform. Over the past decade we have invested in the manufacturing footprint, product technology and fitting software to provide individuals access to affordable, quality outcomes-based hearing healthcare.

The Company is also focused on serving its current value-based ITEC customers, who also sell products and services directly to the end consumer. We have established ourselves as a leader in supplying this portion of the market with advanced, outcome-based products and accessories. The Company has formed strong relationships with various customers in the channel, including geriatric product retailers and other indirect-to-end-consumer hearing aid providers.

In January 2019, the Company purchased the source code for the Sentibo Smart Brain self-fitting software from Soundperience, positioning the Company to capitalize on the pending over-the-counter (OTC) hearing aid regulation. Sentibo Smart Brain self-fitting software is designed to improve both channel productivity and the quality of first-time fittings, resulting in lower prices, greater access and increased customer satisfaction. This software is being used in the German market today, most notably through Signison, the Company's joint venture with the majority owner of Soundperience.

We strongly believe that incorporating self-fitting technology is a critical step in creating our high-quality, low-cost hearing healthcare ecosystem. The Sentibo Smart Brain self-fitting software technology has the potential to drastically reduce the price of hearing aids, drive greater access and increase customer satisfaction.

Legacy OEM Hearing Health Channel

We also believe there are niches in the legacy hearing health channel that will embrace our outcomes-based products and technologies in the United States and Europe. High costs of legacy devices and retail consolidation have constrained the growth potential of the independent audiologist and dispenser. We believe our software and product offering can provide independent audiologists and dispensers the ability to compete with larger retailers, such as Costco, and manufacturer owned retail distributors.

Professional Audio Communications

IntriCon entered the high-quality audio communication device market in 2001, and now has a line of miniature, professional audio headset products used by customers focusing on emergency response needs. The line includes several communication devices that are extremely portable and perform well in noisy or hazardous environments. These products are well suited for applications in the fire, law enforcement, safety, aviation and military markets. In addition, the Company has a line of miniature ear- and head-worn devices used by performers and support staff in the music and stage performance markets.

Core Technologies Overview:

Over the past several years, the Company has increased investments in the continued development of critical core technologies: Microminiaturization, Miniature Transducers, Ultra-Low-Power (ULP) Digital Signal Processing (DSP), ULP Wireless and Fitting Software. These core technologies serve as the foundation of current and future product platform development, designed to meet the rising demand for smaller, portable, more advanced devices and the need for greater efficiencies in the delivery models. The continued advancements in this area have allowed the Company to further enhance the mobility and effectiveness of miniature body-worn devices.

Microminiaturization
IntriCon excels at miniaturizing body-worn devices. We began honing our microminiaturization skills over 30 years ago, supplying components to the hearing health industry. Our core miniaturization technology allows us to make devices for our markets that are one cubic inch and smaller. We also are specialists in devices that run on very low power, as evidenced by our ULP wireless and DSP. Less power means a smaller battery, which enables us to reduce size even further, and develop devices that fit into the palm of one's hand.

Miniature Transducers
IntriCon's advanced transducer technology has been pushing the limits of size and performance for over a decade. Included in our transducer line are our miniature medical coils and micro coils used in pacemaker programming and interventional catheter positioning applications. We believe that with the increase of greater interventional care, our coil technology harbors significant value.

ULP DSP
DSP converts real-world analog signals into a digital format. Through our nanoDSP™ technology, IntriCon offers an extensive range of ULP DSP amplifiers for hearing, medical and professional audio applications. Our proprietary nanoDSP incorporates advanced ultra-miniature hardware with sophisticated signal processing algorithms to produce devices that are smaller and more effective. The Company further expanded its DSP portfolio including improvements to its Reliant CLEAR™ feedback canceller, offering increased added stable gain and faster reaction time. Additionally, the DSP technologies are utilized in the Audion8™, our eight-channel hearing aid amplifier, the Audion16™ and Audion16+™, our wide dynamic range compression sixteen-channel hearing aid amplifier. The amplifiers are feature-rich and are designed to fit a wide array of applications. In addition to multiple compression channels, the amplifiers have a complete set of proven adaptive features which greatly improve the user experience with proven outcomes.

ULP Wireless
Wireless connectivity is fast becoming a required technology, and wireless capabilities are especially critical in new body-worn devices. IntriCon's BodyNet™ ULP technology, including the nanoLink™ and PhysioLink™ wireless systems, offers solutions for transmitting the body's activities to caregivers and wireless audio links for professional communications and surveillance products, including diabetes monitoring and audio streaming for hearing devices.

IntriCon has commercialized its Physiolink3 wireless technology into the hearing health and hearing health direct-to-end-consumer markets, and intends to incorporate Physiolink3 into product platforms serving the medical and professional audio communication markets. This system is based on 2.4GHz proprietary digital radio protocol in the industrial-scientific-medical (ISM) frequency band and enables audio and data streaming and command and control to ear-worn and body-worn applications over distances of up to ten meters. The Physiolink3 technology can be used to increase productivity in the emerging VBHH channels through in office wireless programming, remote cloud-based fitting and consumer directed self-fitting of hearing aids. This will provide both greater access and lower costs for patients. In addition, remote control functions improve the patient experience while using the device especially for those with diminished dexterity. The Physiolink3 technology builds on the Physiolink2 capabilities by adding wireless streaming at much lower power levels than any technology currently on the market. This will allow for accessories to enhance the user experience in noisy environments by allowing audio streaming directly to the hearing aid.

Fitting Software
The ability to efficiently and effectively fit hearing aids is critical to building a value based eco-system of hearing healthcare. By developing more advanced fitting software systems, individuals can benefit from fittings that conform to their specific loss, while eliminating the need for an in-person appointment. In addition to the traditional fitting software, AccuFit, used in the conventional channel, IntriCon has made significant investments in various advanced fitting software solutions, including its purchase of the source code for the Sentibo Smart Brain self-fitting software, that can enable remote and self-fitting solutions. IntriCon believes these advanced fitting solutions, along with the other components of the eco-system, will drive access, affordability and superior customer satisfaction to the millions of individuals that cannot receive care today, primarily due to high cost and low access.

In January 2019, the Company purchased the source code for the Sentibo Smart Brain self-fitting software from Soundperience. The Sentibo Smart Brain System is the first psycho-acoustic way of analyzing peripheral hearing and central hearing processing. It was developed by an international research team based on the latest scientific findings from the fields of audiology and brain research. The software is a sophisticated self-fitting hearing aid and brain training software technology that is being used in the German market today, most notably through our Signison joint venture. We view this software technology as a critical component to our domestic value-based hearing healthcare model. Sentibo, as well as our other proprietary fitting systems, are designed to improve both channel productivity and the quality of first-time fittings, resulting in lower prices, greater access and increased customer satisfaction.

Marketing and Competition:

IntriCon intends to allocate more capital and resources in marketing and sales to leverage its existing core competencies and technologies platforms in order to accelerate the diversification of its revenue base within its core markets of drug delivery, surgical navigation, and hearing health. In addition, the Company believes this will allow it to advance its technology portfolio, advance new product platforms, and strengthen its position as a leading JDM.

Currently, IntriCon sells some of its hearing device products directly to domestic hearing instrument manufacturers, and distributors and partnerships through an internal sales force. As a result of the investments in Hearing Help Express in 2016 and 2017, the Company began marketing and selling hearing aid devices directly to consumers through direct mail advertising, internet and a call center. In February 2020, however, the Company announced its decision to pivot its Hearing Help Express focus entirely towards supporting product development and as a testing platform in order to best capture the near-term benefits. As a result of this re-positioning, we anticipate that advertising and marketing spend related to Hearing Help Express will decrease significantly beginning in the second quarter of 2020. Sales of other medical and professional audio communications products are also made primarily through an internal sales force.

Internationally, sales representatives employed by IntriCon GmbH (“GmbH”), a wholly-owned German subsidiary, solicit sales from European hearing instrument, medical device and professional audio communications manufacturers and suppliers.

In recent years, a small number of customers have accounted for a substantial portion of the Company’s sales. In 2019, one customer in our medical market accounted for approximately 60 percent of the Company’s net revenue. During 2019, the top five customers accounted for approximately $82,854, or 73 percent, of the Company’s net revenue. See Note 4 to the consolidated financial statements for a discussion of net revenue and long-lived assets by geographic area and customer information.

IntriCon markets its high-performance microphone products to the radio communication and professional audio industries and has several larger competitors who have greater financial resources. IntriCon holds a small market share in the global market for microphone capsules and other related products.

Employees. As of December 31, 2019, the Company had a total of 780 full time equivalent employees, of whom 75 are executive and administrative personnel, 22 are sales personnel, 43 are engineering personnel and 640 are operations personnel. The Company considers its relations with its employees to be satisfactory. None of the Company’s employees are represented by a union.

As a supplier of consumer and medical products and parts, IntriCon is subject to claims for personal injuries allegedly caused by its products. The Company maintains what it believes to be adequate insurance coverage.

Research and Development. IntriCon conducts research and development activities primarily to improve its existing products and proprietary technology. The Company is committed to investing in the research and development of proprietary technologies, that enhance our position as a JDM. The Company believes the continued development of key proprietary technologies will be the catalyst for long-term revenues and margin growth. Research and development expenditures were $3,830, $4,671 and $4,458, in 2019, 2018 and 2017, respectively. These amounts are net of any customer and grant reimbursed research and development.

IntriCon owns numerous United States patents which cover various product designs and processes. Although the Company believes that these patents collectively add value to the Company, the costs associated with the submission of patent applications are expensed as incurred given the uncertainty of the patents providing future economic benefit to the Company.

Regulation. A large portion of our business operates in a marketplace subject to extensive and rigorous regulation by the FDA and by comparable agencies in foreign countries. In the United States, the FDA regulates the design control, development, manufacturing, labeling, record keeping, distribution and surveillance procedures for medical devices.

United States Food and Drug Administration
FDA regulations classify medical devices based on perceived risk to public health as either Class I, II or III devices. Class I devices are subject to general controls, Class II devices are subject to special controls and Class III devices are subject to pre-market approval ("PMA") requirements. While most Class I devices are exempt from pre-market submission, it is necessary for most Class II devices to be cleared by a 510(k) pre-market notification prior to marketing. A "cleared" 510(k) establishes that the device is "substantially equivalent" to a predicate device which was legally marketed prior to May 28, 1976 or which itself has been found to be substantially equivalent, through the 510(k) process, after May 28, 1976. It is "substantially equivalent" if it has the same intended use and the same technological characteristics as the predicate. The 510(k) pre-market notification must be supported by data establishing the claim of substantial equivalence to the satisfaction of the FDA. The process of obtaining a 510(k) clearance typically can take several months to a year or longer. If the product is notably new or different and substantial equivalence cannot be established, the FDA will require the manufacturer to submit a PMA application for a Class III device that must be reviewed and approved by the FDA prior to sale and marketing of the device in the United States. The process of obtaining PMA approval can be expensive, uncertain, lengthy and frequently requires anywhere from one to several years from the date of FDA submission, if approval is obtained at all. A "De Novo" application may be submitted for a new type of Class II device for which there is no predicate. The FDA controls the indicated uses for which a product may be marketed and strictly prohibits the marketing of medical devices for unapproved uses. The FDA can require the manufacturer to withdraw products from the market for failure to comply with laws or the occurrence of safety risks.

Our wireless and non-wireless hearing aids are air-conduction devices and, as such, are Class I and Class II medical devices. Air-conduction hearing aids are exempt from the 510(k) pre-market notification process. These hearing aids may be marketed either through distribution channels owned, in whole or in part, by IntriCon or through non-affiliated distribution channels. In the latter sense, IntriCon acts as the contract manufacturer to the distributing organization, assisting in design, development and manufacturing. Our manufacturing operations are subject to periodic inspections by the FDA, whose primary purpose is to audit the Company's compliance with the Quality System Regulations published by the FDA (21 CFR Part 820) and other applicable government standards. Strict regulatory action may be initiated in response to audit deficiencies or to product performance problems. We believe that our manufacturing and quality control procedures are in compliance with the requirements of the FDA regulations. Our most recent FDA inspections were conducted in May of 2019. No issues (observations) arising from those inspections were noted.

International Regulation
International regulatory bodies have established varying regulations governing product standards, packaging and labeling requirements, import restrictions, tariff regulations, duties and tax. Many of these regulations are similar to those of the FDA. We believe we are in compliance with the regulatory requirements in the foreign countries in which our medical devices are marketed.

Medical device law in the European Union (EU) requires that our quality system conforms to international quality standards and that our medical devices conform to "essential requirements" set forth by the Medical Device Directive ("MDD"). In order to keep pace with accelerating technical reality and manufacturing risks, medical device law in Europe is changing rapidly. Effective May 5, 2017, the MDD has been replaced with a broader, more reaching Medical Device Regulation ("MDR") with a three-year transition period and comes into force May 26, 2020. IntriCon intends to comply with the MDR prior to the end of the transition period.

IntriCon manufacturing facilities are audited at least annually by an International Organization for Standardization ("ISO") registrar to verify conformity of products and quality systems to the relevant standards and regulations. The ISO registrar for our US facilities is British Standards Institute ("BSI") while the registrar for our Asian facilities is SGS United Kingdom Ltd.

Technical documentation, including the essential requirements matrix, for each product placed on the market in the EU is audited by our European Notified Body (also BSI). Successful audits verify conformance to the essential requirements set forth by the MDD for the class of medical devices we produce and result in a CE Certificate. This entitles us to place the "CE" mark on our devices distributed in Europe. In 2014, IntriCon obtained "CE" certification for our own hearing aid devices and we are supplying these devices into the European market. Our hearing aids may also bear the CE mark of our customers who then assume regulatory responsibilities for those devices they place on the EU market under their own name.

Our European Authorized Representative, CE Partner 4U, reviews and retains our technical documentation and registers our products as required with applicable authorities in all EU member states.

Third Party Reimbursement
The availability and level of reimbursement from third-party payers for procedures utilizing our products is significant to our business. Our products are purchased primarily by OEM customers who sell into clinics, hospitals and other end-users, who in turn bill various third party payers for the services provided to the patients. These payers, which include Medicare, Medicaid, private health insurance plans and managed care organizations, reimburse all or part of the costs and fees associated with the procedures utilizing our products.

In response to the national focus on rising health care costs, numerous changes to reduce costs have been proposed or have begun to emerge. There have been, and may continue to be, proposals by legislators, regulators and third party payers to curb these costs. The development or increased use of more cost effective treatments for diseases could cause such payers to decrease or deny reimbursement for surgeries or devices to favor alternatives that do not utilize our products. A significant number of Americans enroll in some form of managed care plan. Higher managed care utilization typically drives down the payments for health care procedures, which in turn places pressure on medical supply prices. This causes hospitals to implement tighter vendor selection and certification processes, by reducing the number of vendors used, purchasing more products from fewer vendors and trading discounts on price for guaranteed higher volumes to vendors. Hospitals have also sought to control and reduce costs over the last decade by joining group purchasing organizations or purchasing alliances. OEM customers also seek to reduce their costs by attempting to reduce the prices they pay for our products. We cannot predict what continuing or future impact these practices, the existing or proposed legislation, or such third-party payer measures within a constantly changing healthcare landscape may have on our future business, financial condition or results of operations.

Forward-Looking Statements

Certain statements included or incorporated by reference in this Annual Report on Form 10-K or the Company's other public filings and releases, which are not historical facts, or that include forward-looking terminology such as "may", "will", "believe", "anticipate", "expect", "should", "optimistic", "continue", "estimate", "intend", "plan", "would", "could", "guidance", "potential", "opportunity", "project", "forecast", "confident", "projections", "scheduled", "designed", "future", "discussion", "if" or the negative thereof or other variations thereof, are forward-looking statements (as such term is defined in Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933, and the regulations thereunder), which are intended to be covered by the safe harbors created thereby. These statements may include, but are not limited to statements in "Business," "Legal Proceedings", "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Notes to the Consolidated Financial Statements", such as the Company's ability to compete, strategic alliances and their benefits, the adequacy of insurance coverage, government regulation, potential increases in demand for the Company's products, net operating loss carryforwards, the ability to meet cash requirements for operating needs, the ability to meet liquidity needs, assumptions used to calculate future levels of funding of employee benefit plans, the adequacy of insurance coverage, the impacts of new accounting pronouncements and litigation.

Forward-looking statements also include, without limitation, statements as to the Company's expected future results of operations and growth, the Company's ability to meet working capital requirements, the Company's business strategy, the expected increases in operating efficiencies, anticipated trends in the Company's body-worn device markets, the effect of compliance with environmental protection laws and other government regulations, estimates of goodwill impairments and amortization expense of other intangible assets, estimates of asset impairment, the effects of changes in accounting pronouncements, the effects of litigation and the amount of insurance coverage, and statements as to trends or the Company's or management's beliefs, expectations and opinions. Forward-looking statements are subject to risks and uncertainties and may be affected by various risks, uncertainties and other factors that can cause actual results and developments to be materially different from those expressed or implied by such forward-looking statements, including, without limitation, the risk factors discussed in Item 1A of this Annual Report on Form 10-K.

The Company does not undertake to update any forward-looking statement that may be made from time to time by or on behalf of the Company.

Available Information

The Company files or furnishes its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and other information with the Securities and Exchange Commission ("SEC"). The Company's reports, proxy and information statements and other SEC filings are also available on the SEC's website as part of the EDGAR database (http://www.sec.gov).

The Company maintains an internet website at www.IntriCon.com. The information on the website is not and should not be considered part of this annual report on Form 10-K and is not incorporated by reference in this document. This website is, and is only intended to be, for reference purposes only.

The Company makes available free of charge on or through its website its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC.

In addition, we will provide, at no cost (other than for exhibits), paper or electronic copies of our reports and other filings made with the SEC. Requests should be directed to:

Corporate Secretary
IntriCon Corporation
1260 Red Fox Road
Arden Hills, Minnesota 55112

ITEM 1A. Risk Factors

You should carefully consider the risks described below. If any of the risks events actually occur, our business, financial condition or results of future operations could be materially adversely affected. This Annual Report on Form 10-K contains forward-looking statements that involve risk and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of many factors, including the risks faced by us described below and elsewhere in this Annual Report on Form 10-K.

The loss of one or more of our major customers could adversely affect our results of operations.

We are dependent on a small number of customers for a majority of our revenues. In fiscal year 2019, our largest customer accounted for approximately 60 percent of our net revenue and our five largest customers accounted for approximately 73 percent of our net revenue. A significant decrease or delay in the sales to or loss of any of our major customers could have a material adverse effect on our business and results of operations. Our revenues are largely dependent upon the ability of customers to develop and sell products that incorporate our products. No assurance can be given that our major customers will not experience financial, technical, regulatory or other difficulties or delays that could adversely affect their operations and, in turn, our results of operations.

We have in the past and may in the future explore acquisitions that complement or expand our business. Acquisitions pose significant risks and may materially adversely affect our business, financial condition and operating results.

As part of our business strategy, we have in the past and may in the future pursue acquisitions of other businesses or technologies that we believe could complement, enhance or expand our current business or product lines, diversify our revenue base or that might otherwise offer us growth opportunities. We may have difficulty finding these opportunities or, if we do identify these opportunities, we may not be able to complete the transactions for various reasons, including a failure to secure financing.

Our prior acquisitions have resulted, and future acquisitions may result, in the recording of goodwill and other intangible assets subject to potential impairment in the future, adversely affecting our operating results. For example, in 2017, we completed the acquisition of Hearing Help Express. Our acquisition of Hearing Help Express represents an exciting business opportunity; however, we did not have any prior experience in the direct-to-end-consumer mail order hearing aid business, and we may not be able to profitably operate this business, which may result in not realizing the value paid for the acquisition. We recorded goodwill and intangible assets of $4,177 in connection with this acquisition. As of and for the period ended June 30, 2019, the fair value of our Hearing Help Express reporting unit was less than its carrying amount, which resulted in non-cash impairment charges to goodwill of $1,257 and intangible assets of $2,508. Our success will be largely influenced by management's ability to hire and retain skilled direct-to-end-consumer personnel and determine the proper customer base and marketing channels to achieve our planned profitability levels. In February 2020, we announced our decision to pivot the Hearing Help Express focus entirely towards supporting product development and as a testing platform in order to best capture the near-term benefits. If we are not able to successfully operate this business using our new strategy, further impairment charges may be required.

Acquisitions involve a number of risks, including: the diversion of our management's attention from our existing business to integrate the operations and personnel of the acquired or combined business or joint venture; possible adverse effects on our operating results during the integration process; unanticipated liabilities and litigation; and our possible inability to achieve the intended objectives or achieve the anticipated benefits of the transaction. In addition, we may not be able to successfully or profitably integrate, operate, maintain and manage our newly acquired operations or employees. Future acquisitions also may result in dilutive issuances of equity securities or the incurrence of additional debt.

Downturns in the domestic economic environment could cause a severe disruption in our operations.

Adverse changes in the economy could negatively affect our business, which could exacerbate many of the risk factors we have identified including, but not limited to, the following:

Liquidity:

- The domestic economic environment, including credit markets, could worsen and reduce liquidity and this could have a negative impact on financial institutions and the country's financial system, which could, in turn, have a negative impact on the business of our customers and on our business.
- Investments held by the Company are subject to market conditions which could decline in value and reduce liquidity.
- If interest rates rise, this could disrupt domestic and world markets and could adversely affect the economy as a whole and our liquidity, costs of borrowing and results of operations.

Demand:

- Any downturn in the economy or a return to recession could result in lower sales to our customers. Additionally, our customers may not have access to sufficient cash or short-term credit to obtain our products or services.

Prices:

- In the event of a downturn, certain markets could experience deflation, which would negatively impact our average prices and reduce our margins.

Health care policy changes, including U.S. health care reform legislation signed in 2010, may have a material adverse effect on us.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act and the Health Care and Education Affordability Reconciliation Act of 2010, collectively referred to as the Affordable Care Act. Elements of this legislation, such as comparative effectiveness research, an independent payment advisory board, payment system reforms, including shared savings pilots, and other provisions, could meaningfully change the way health care is developed and delivered, and may materially impact numerous aspects of our business.

If we are unable to continue to develop new products that are inexpensive to manufacture, our results of operations could be adversely affected.

We may not be able to continue to achieve our historical profit margins due to advancements in technology. The ability to continue our profit margins is dependent upon our ability to stay competitive by developing products that are technologically advanced and inexpensive to manufacture.

Our need for continued investment in research and development may increase expenses and reduce our profitability.

Our industry is characterized by the need for continued investment in research and development. If we fail to invest sufficiently in research and development, our products could become less attractive to existing and potential customers and our business and financial condition could be materially and adversely affected. As a result of the need to maintain or increase spending levels in this area and the difficulty in reducing costs associated with research and development, our operating results could be materially harmed if our research and development efforts fail to result in new products or if revenues fall below expectations. In addition, as a result of our commitment to invest in research and development, management believes that research and development expenses as a percentage of revenues could increase in the future.

We operate in a highly competitive business and if we are unable to be competitive, our financial condition could be adversely affected.

Several of our competitors have been able to offer more standardized and less technologically advanced hearing and professional audio communication products at lower prices. Price competition has had an adverse effect on our sales and margins. Many of our competitors are larger than us and have greater research and development resources, marketing and financial resources, manufacturing capability and customer support organizations than we have. There can be no assurance that we will be able to maintain or enhance our technical capabilities or compete successfully with our existing and future competitors.

Merger and acquisition activity in our hearing health market has resulted in a smaller customer base. Reliance on fewer customers may have an adverse effect on us.

Several of our customers in the hearing health market have undergone mergers or acquisitions, resulting in a smaller customer base with larger customers. If we are unable to maintain satisfactory relationships with the reduced customer base, it may adversely affect our operating profits and revenue.

Our failure, or the failure of our customers, to obtain required governmental approvals and maintain regulatory compliance for regulated products would adversely affect our ability to generate revenue from those products.

The markets in which we and our customers operate are subject to extensive and rigorous regulation by the FDA and by comparable agencies in foreign countries. In the United States, the FDA regulates the design control, development, manufacturing, labeling, record keeping, and surveillance procedures for our medical devices and those of our customers.

The process of obtaining marketing clearance or approvals from the FDA for new products and new applications for existing products can be time-consuming and expensive, and there is no assurance that such clearance/approvals will be granted, or that the FDA review will not involve delays that would adversely affect our ability to commercialize additional products or additional applications for existing products. Some of our products in the research and development stage may be subject to a lengthy and expensive pre-market approval process with the FDA. The FDA has the authority to control the indicated uses of a device. Products can also be withdrawn from the market due to failure to comply with regulatory standards or the occurrence of unforeseen problems. The FDA regulations depend heavily on administrative interpretation, and there can be no assurance that future interpretations made by the FDA or other regulatory bodies, with possible retroactive effect, will not adversely affect us.

We are in the process of preparing the Sentibo Smart Brain self-fitting software technology for submission to the FDA for approval. This technology is crucial to our development of the over-the-counter market for our hearing aids. Any delays in FDA approval could have an adverse impact on our entry into this market.

The registration system for our medical devices in the EU requires that our quality system conform to international quality standards. Manufacturing facilities and processes under which our hearing aid devices and OEM components and assemblies are produced, are inspected and audited by various certifying bodies. These audits verify our compliance with applicable requirements and standards. Further, the FDA, various state agencies and foreign regulatory agencies inspect our facilities to determine whether we are in compliance with various regulations relating to quality systems, such as manufacturing practices, validation, testing, quality control, product labeling and product surveillance. A determination that we are in violation of such regulations could lead to imposition of civil penalties, including fines, product recalls or product seizures, suspensions or shutdown of production and, in extreme cases, criminal sanctions, depending on the nature of the violation.

Further, to the extent that any of our customers to whom we supply products become subject to regulatory actions or delays, our sales to those customers could be reduced, delayed or suspended, which could have a material adverse effect on our sales and earnings.

Implementation of our growth strategy may not be successful, which could affect our ability to increase revenues.

Our growth strategy includes developing new products and entering new markets, as well as identifying and integrating acquisitions. Our ability to compete in new markets will depend upon a number of factors including, among others:

- our ability to create demand for products in new markets;
- our ability to manage growth effectively;
- our ability to strengthen our sales and marketing presence;
- our ability to successfully identify, complete and integrate acquisitions;
- our ability to respond to changes in our customers' businesses by updating existing products and introducing, in a timely fashion, new products which meet the needs of our customers;
- our ability to fund growth;
- the quality of our new products; and
- our ability to respond rapidly to technological change.

The failure to do any of the foregoing could have a material adverse effect on our business, financial condition and results of operations. In addition, we may face competition in these new markets from various companies that may have substantially greater research and development resources, marketing and financial resources, manufacturing capability and customer support organizations.

The Company is subject to risks arising from its international sales and operations.

We derived approximately 17 percent of our 2019 revenues from customers located outside of the U.S. In 2019, we operated in Singapore, Indonesia, and Germany. Approximately 7 percent of our revenues were derived from our facilities in these countries in 2019. As of December 31, 2019, approximately 10 percent of our long-lived assets are located in these countries. Political or economic instability in foreign countries could have an adverse impact on our results of operations due to disruption of production or diminished revenues in these countries. Our future revenues, costs of operations and profit results could be affected by a number of factors related to our international operations, including changes in foreign currency exchange rates, changes in economic conditions from country to country, changes in a country's political condition, trade protection measures, licensing and other legal requirements and local tax issues. Unanticipated currency fluctuations in the euro, Singapore dollar and other currencies could lead to lower reported consolidated revenues due to the translation of this currency into U.S. dollars when we consolidate our revenues and results from operations.

We face the risk that the coronavirus or other health epidemics could disrupt our operations or the operations of our customers or suppliers.

Our business could be adversely affected by the effects of a widespread outbreak of contagious disease, such as the recent outbreak of respiratory illness caused by a coronavirus first identified in Wuhan, Hubei Province, China. Because we have manufacturing facilities in Singapore and Batam, we may be vulnerable to an outbreak of the coronavirus or other contagious diseases in that region. The effects of such an outbreak could include the temporary shutdown of our facilities, disruptions or restrictions on the ability to ship our products to our customers as well as disruptions that may affect our suppliers. Any disruption of our ability to manufacture or distribute our products or of the ability of our suppliers to deliver key components on a timely basis could have a material adverse effect on our sales and operating results. In addition, a significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn that could affect demand for our products and impact our operating results.

Events in Europe could negatively affect our ability to conduct business in those countries.

Following a referendum in June 2016 in which voters in the United Kingdom approved an exit from the European Union, the United Kingdom formally exited the European Union (often referred to as Brexit) on January 31, 2020. In 2019, we derived approximately 17 percent of our revenues from sales outside the U.S., including 7 percent from Europe. The effects of Brexit will depend on any agreements the U.K. makes to retain access to EU markets either during a transitional period or more permanently. Brexit could introduce significant uncertainties into global financial markets and adversely impact the markets in which we and our customers operate. While we have not experienced any immediate adverse impacts on our financial condition as a result of Brexit, adverse consequences such as deterioration in economic conditions, volatility in currency exchange rates, including the British pound and the euro, or adverse changes in regulation could have a negative impact on our future operations, operating results and financial condition. All of these potential consequences could be further magnified if additional countries were to exit the European Union.

The recent debt crisis in certain European countries could cause the value of the euro to deteriorate, reducing the purchasing power of our European customers. Financial difficulties experienced by our suppliers and customers, including distributors, could result in product delays and inventory issues; risks to accounts receivable could also include delays in collection and greater bad debt expense. Also, the effect of the debt crisis in certain European countries could have an adverse effect on the capital markets generally, specifically impacting our ability and the ability of our customers to finance our and their respective businesses on acceptable terms, if at all, the availability of materials and supplies and demand for our products.

We are subject to tax legislation in numerous countries; changes in tax laws or challenges to our tax positions could adversely affect our business, results of operations and financial condition.

We are a global corporation with a presence in the United States, Singapore, Indonesia and Germany. As such, we are subject to tax laws, regulations and policies of the U.S. federal, state and local governments and of comparable taxing authorities in other country jurisdictions. Changes in tax laws, as well as other factors, could cause us to experience fluctuations in our tax obligations and effective tax rates in 2020 and thereafter and otherwise adversely affect our tax positions and/or our tax liabilities. There can be no assurance that our effective tax rates, tax payments, tax credits or incentives will not be adversely affected by these or other initiatives.

If we fail to meet our financial and other covenants under our loan agreements with our lenders, absent a waiver, we will be in default of the loan agreements and our lenders can take actions that would adversely affect our business.

There can be no assurances that we will be able to maintain compliance with the financial and other covenants in our loan agreements. In the event we are unable to comply with these covenants during future periods, it is uncertain whether our lenders will grant waivers for our non-compliance. If there is an event of default by us under our loan agreements, our lenders have the option to, among other things, accelerate any and all of our obligations under the loan agreements which would have a material adverse effect on our business, financial condition and results of operations.

Our success depends on our senior management team and if we are not able to retain them, it could have a materially adverse effect on us.

We are highly dependent upon the continued services and experience of our senior management team, including Mark S. Gorder, our President, Chief Executive Officer and a member of the Board of Directors. We depend on the services of Mr. Gorder and the other members of our senior management team to, among other things, continue the development and implementation of our business strategies and maintain and develop our client relationships. Certain members of our management team, including Mr. Gorder, are approaching retirement and the Company must locate and employ suitable replacements from within or without the Company. We do not maintain key-man life insurance for any members of our senior management team.

Cybersecurity incidents could disrupt business operations, result in the loss of critical and confidential information, and adversely impact our reputation and results of operations.

Global cybersecurity threats can range from uncoordinated individual attempts to gain unauthorized access to our information technology (IT) systems to sophisticated and targeted measures known as advanced persistent threats. While we employ comprehensive measures to prevent, detect, address and mitigate these threats (including access controls, insurance, vulnerability assessments, continuous monitoring of our IT networks and systems, maintenance of backup and protective systems and user training and education), cybersecurity incidents, depending on their nature and scope, could potentially result in the misappropriation, destruction, corruption or unavailability of critical data and confidential or proprietary information (our own or that of third parties) and the disruption of business operations. The potential consequences of a material cybersecurity incident include reputational damage, loss of customers, litigation with customers and other parties, loss of trade secrets and other proprietary business data, diminution in the value of our investment in research, development and engineering, and increased cybersecurity protection and remediation costs, which in turn could adversely affect our competitiveness and results of operations.

Our future success depends in part on the continued service of our engineering and technical personnel and our ability to identify, hire and retain additional personnel.

There is intense competition for qualified personnel in our markets. We may not be able to continue to attract and retain engineers or other qualified personnel necessary for the development and growth of our business or to replace engineers or other qualified personnel who may leave our employ in the future. The failure to retain and recruit key technical personnel could cause additional expense, potentially reduce the efficiency of our operations and could harm our business.

We and/or our customers may be unable to protect our and their proprietary technology and intellectual property rights or keep up with that of competitors.

Our ability to compete effectively against other companies in our markets depends, in part, on our ability and the ability of our customers to protect our and their current and future proprietary technology under patent, copyright, trademark, trade secret and unfair competition laws. We cannot assure that our means of protecting our proprietary rights in the United States or abroad will be adequate, or that others will not develop technologies similar or superior to our technology or design around the proprietary rights we own or license. In addition, we may incur substantial costs in attempting to protect our proprietary rights.

Also, despite the steps taken by us to protect our proprietary rights, it may be possible for unauthorized third parties to copy or reverse-engineer aspects of our and our customers' products, develop similar technology independently or otherwise obtain and use information that we or our customers regard as proprietary. We and our customers may be unable to successfully identify or prosecute unauthorized uses of our or our customers' technology.

If we become subject to material intellectual property infringement claims, we could incur significant expenses and could be prevented from selling specific products.

We may become subject to material claims that we infringe the intellectual property rights of others in the future. We cannot assure that, if made, these claims will not be successful. Any claim of infringement could cause us to incur substantial costs defending against the claim even if the claim is invalid, and could distract management from other business. Any judgment against us could require substantial payment in damages and could also include an injunction or other court order that could prevent us from offering certain products.

Moreover, in recent years, individuals and groups that are non-practicing entities, commonly referred to as "patent trolls," have purchased patents and other intellectual property assets for the purpose of making claims of infringement in order to extract settlements. From time to time, we may receive threatening letters or notices or may be the subject of claims that our solutions and underlying technology infringe or violate the intellectual property rights of others. Responding to such claims, regardless of their merit, can be time consuming, costly to defend in litigation, divert management's attention and resources, damage our reputation and brand, and cause us to incur significant expenses.

Environmental liability and compliance obligations may affect our operations and results.

Our manufacturing operations are subject to a variety of environmental laws and regulations as well as internal programs and policies governing:

- air emissions;
- wastewater discharges;
- the storage, use, handling, disposal and remediation of hazardous substances, wastes and chemicals; and
- employee health and safety.

If violations of environmental laws occur, we could be held liable for damages, penalties, fines and remedial actions. Our operations and results could be adversely affected by any material obligations arising from existing laws, as well as any required material modifications arising from new regulations that may be enacted in the future. We may also be held liable for past disposal of hazardous substances generated by our business or former businesses or businesses we acquire. In addition, it is possible that we may be held liable for contamination discovered at our present or former facilities.

We are subject to numerous asbestos-related lawsuits, which could adversely affect our financial position, results of operations or liquidity.

We are a defendant along with a number of other parties in lawsuits alleging that plaintiffs have or may have contracted asbestos-related diseases as a result of exposure to asbestos products or equipment containing asbestos sold by one or more named defendants. These lawsuits relate to the discontinued heat technologies segment which we sold in March 2005. Due to the non-informative nature of the complaints, we do not know whether any of the complaints state valid claims against us. Certain insurance carriers have informed us that the primary policies for the period August 1, 1970-1978 have been exhausted and that the carriers will no longer provide defense and insurance coverage under those policies. However, we have other primary and excess insurance policies that we believe afford coverage for later years. Some of these other primary insurers have accepted defense and insurance coverage for these suits, and some of them have either ignored our tender of defense of these cases, or have denied coverage, or have accepted the tenders but asserted a reservation of rights and/or advised us that they need to investigate further. Because settlement payments are applied to all years a litigant was deemed to have been exposed to asbestos, we believe we will have funds available for defense and insurance coverage under the non-exhausted primary and excess insurance policies. However, unlike the older policies, the more recent policies have deductible amounts for defense and settlements costs that we will be required to pay; accordingly, we expect that our litigation costs will increase in the future as the older policies are exhausted. Further, many of the policies covering later years (approximately 1984 and thereafter) have exclusions for any asbestos products or operations, and thus do not provide insurance coverage for asbestos-related lawsuits. If our insurance policies do not cover the costs and any awards for the asbestos-related lawsuits, we will have to use our cash or obtain additional financing to pay the asbestos-related obligations and settlement costs. There is no assurance that we will have the cash or be able to obtain additional financings on favorable terms to pay asbestos related obligations or settlements should they occur. The ultimate outcome of any legal matter cannot be predicted with certainty. In light of the significant uncertainty associated with asbestos lawsuits, there is no guarantee that these lawsuits will not materially adversely affect our financial position, results of operations or liquidity.

The market price of our common stock has been and is likely to continue to be volatile and there has been limited trading volume in our stock, which may make it difficult for shareholders to resell common stock when they want to and at prices they find attractive.

The market price of our common stock has been and is likely to be highly volatile, and there has been limited trading volume in our common stock. For example, our stock traded between a low sale price of $16.81 and a high sale price of $29.59 in 2019. The common stock market price could be subject to wide fluctuations in response to a variety of factors, including the following:

- announcements of fluctuations in our or our competitors' operating results;
- regulatory or other delays affecting our or our customers' products;
- the timing and announcement of sales or acquisitions of assets by us or our competitors;
- changes in estimates or recommendations by securities analysts;
- adverse or unfavorable publicity about our products, technologies or us;
- the commencement of material litigation, or an unfavorable verdict, against us;
- terrorist attacks, war and threats of attacks and war;
- additions or departures of key personnel; and
- sales of common stock by us or our shareholders.

In addition, the stock market in recent years has experienced significant price and volume fluctuations. Such volatility has affected many companies irrespective of, or disproportionately to, the operating performance of these companies. These broad fluctuations and limited trading volume may materially adversely affect the market price of our common stock, and your ability to sell our common stock.

Most of our outstanding shares are available for resale in the public market without restriction. The sale of a large number of these shares could adversely affect the share price and could impair our ability to raise capital through the sale of equity securities or make acquisitions for common stock.

"Anti-takeover" provisions may make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to shareholders.

We are a Pennsylvania corporation. Anti-takeover provisions in Pennsylvania law and our charter and bylaws could make it more difficult for a third party to acquire control of us. These provisions could adversely affect the market price of the common stock and could reduce the amount that shareholders might receive if we are sold. For example, our charter provides that the board of directors may issue preferred stock without shareholder approval. In addition, our bylaws provide for a classified board, with each board member serving a staggered three-year term. Directors may be removed by shareholders only with the approval of the holders of at least two-thirds of all of the shares outstanding and entitled to vote.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud. As a result, current and potential shareholders and customers could lose confidence in our financial reporting, which could harm our business, the trading price of our stock and our ability to retain our current customers or obtain new customers.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, referred to as Section 404, we are required to include in our Annual Reports on Form 10-K, reports of our management and our independent registered public accounting firm on our internal control over financial reporting. While we have reported no "material weaknesses" in the Form 10-K for the fiscal year ended December 31, 2019, we cannot guarantee that we will not have material weaknesses in the future. Compliance with the requirements of Section 404 is expensive and time-consuming. If in the future we fail to complete this evaluation in a timely manner, or if we determine that we have a material weakness, we could be subject to regulatory scrutiny and a loss of public confidence in our internal control over financial reporting. In addition, any failure to establish an effective system of disclosure controls and procedures could cause our current and potential investors and customers to lose confidence in our financial reporting and disclosure required under the Securities Exchange Act of 1934, which could adversely affect our business and the market price of our common stock.

ITEM 1B. Unresolved Staff Comments

Not applicable.

ITEM 2. Properties

The Company leases seven facilities, four domestically and three internationally, as follows:

- a 47,000 square foot manufacturing facility in Arden Hills, Minnesota, which also serves as the Company's headquarters. At this facility, the Company manufactures body-worn devices, other than plastic component parts. Annual base rent expense, including real estate taxes and other charges, is approximately $529. This lease expires in January 2022.
- a 49,000 square foot manufacturing facility in Arden Hills, Minnesota at which the Company manufactures body-worn devices, and plastic component parts. Annual base rent expense is approximately $380. This lease expires in July 2023.
- a 46,000 square foot building in Vadnais Heights, Minnesota at which IntriCon produces plastic component parts for body-worn devices. Annual base rent expense, including real estate taxes and other charges, is approximately $395. This lease expires in December 2022.
- a 22,000 square foot facility in DeKalb, Illinois which houses Hearing Help Express's sales and administrative offices and warehouse. Annual base rent expense is approximately $203. We are also responsible for our pro rata share of common area costs, real estate taxes and insurance costs. This lease expires in February 2022.
- a 35,000 square foot facility in Singapore which houses production facilities, warehouse and administrative offices. Annual base rent expense, including real estate taxes and other charges, is approximately $637. This lease expires in October 2020.
- a 33,000 square foot facility in Indonesia which houses production facilities, warehouse and administrative offices. Annual base rent expense, including real estate taxes and other charges is approximately $85. This lease expires in September 2024.
- a 2,000 square foot facility in Germany which houses sales and administrative offices. Annual base rent expense, including real estate taxes and other charges, is approximately $32. This lease expires in June 2022.

- See Note 12 to the Company's consolidated financial statements in Item 8 of the Annual Report on Form 10-K.

ITEM 3. Legal Proceedings

The Company is a defendant along with a number of other parties in lawsuits alleging that plaintiffs have or may have contracted asbestos-related diseases as a result of exposure to asbestos products or equipment containing asbestos sold by one or more named defendants. These lawsuits relate to the discontinued heat technologies segment which was sold in March 2005. Due to the non-informative nature of the complaints, the Company does not know whether any of the complaints state valid claims against the Company. Certain insurance carriers have informed the Company that the primary policies for the period August 1, 1970-1978 have been exhausted and that the carriers will no longer provide defense and insurance coverage under those policies. However, the Company has other primary and excess insurance policies that the Company believes afford coverage for later years. Some of these other primary insurers have accepted defense and insurance coverage for these suits, and some of them have either ignored the Company's tender of defense of these cases, or have denied coverage, or have accepted the tenders but asserted a reservation of rights and/or advised the Company that they need to investigate further. Because settlement payments are applied to all years a litigant was deemed to have been exposed to asbestos, the Company believes that it will have funds available for defense and insurance coverage under the non-exhausted primary and excess insurance policies. However, unlike the older policies, the more recent policies have deductible amounts for defense and settlements costs that the Company will be required to pay; accordingly, the Company expects that its litigation costs will increase in the future. Further, many of the policies covering later years (approximately 1984 and thereafter) have exclusions for any asbestos products or operations, and thus do not provide insurance coverage for asbestos-related lawsuits. The Company does not believe that the asserted exhaustion of some of the primary insurance coverage for the 1970-1978 period will have a material adverse effect on its financial condition, liquidity, or results of operations. Management believes that the number of insurance carriers involved in the defense of the suits, and the significant number of policy years and policy limits under which these insurance carriers are insuring the Company, make the ultimate disposition of these lawsuits not material to the Company's consolidated financial position or results of operations.

The Company's former wholly owned French subsidiary, Selas SAS, filed for insolvency in France. The Company may be subject to additional litigation or liabilities as a result of the completion of the French insolvency proceeding, including liabilities under guarantees aggregating approximately $438.

The Company is also involved from time to time in other lawsuits arising in the normal course of business. While it is not possible to predict with certainty the outcome of these matters, management is of the opinion that the disposition of these lawsuits and claims will not materially affect the Company's consolidated financial position, liquidity, or results of operations.

ITEM 4. Mine Safety Disclosures

Not applicable.

ITEM 4A. Information about our Executive Officers

The names, ages and offices (as of February 24, 2020) of the Company's executive officers were as follows:

Name	Age	Position
Mark S. Gorder	73	President, Chief Executive Officer and Director of the Company
Scott Longval	43	Executive Vice President, Chief Financial Officer and Chief Operating Officer
Michael P. Geraci	61	Senior Vice President, Sales and Marketing
Dennis L. Gonsior	61	Senior Vice President, Global Operations

Mr. Gorder joined the Company in October 1993 when Resistance Technology, Inc. (RTI) (now known as IntriCon, Inc.) was acquired by the Company. Mr. Gorder received a Bachelor of Arts degree in Mathematics from the St. Olaf College, a Bachelor of Science degree in Electrical Engineering from the University of Minnesota and a Master of Business Administration from the University of Minnesota. Prior to the acquisition, Mr. Gorder was President and one of the founders of RTI, which began operations in 1977. Mr. Gorder was promoted to Vice President of the Company and elected to the Board of Directors in April 1996. In December 2000, he was elected President and Chief Operating Officer and in April 2001, Mr. Gorder assumed the role of Chief Executive Officer.

Mr. Longval has served as the Company's Chief Financial Officer since July 2006 and was also appointed as Executive Vice President in January 2019 and Chief Operating Officer in April 2019. Mr. Longval received a Bachelor of Science degree in Accounting from the University of St. Thomas. Prior to being appointed as CFO, Mr. Longval served as the Company's Corporate Controller since September 2005. Prior to joining the Company, Mr. Longval was Principal Project Analyst at ADC Telecommunications, Inc., a provider of innovative network infrastructure products and services, from March 2005 until September 2005. From May 2002 until March 2005 he was employed by Accellent, Inc., formerly MedSource Technologies, a provider of outsourcing solutions to the medical device industry, most recently as Manager of Financial Planning and Analysis. From September 1998 until April 2002, he was employed by Arthur Andersen, most recently as experienced audit senior.

Mr. Geraci joined the Company in October 1983. Mr. Geraci received a Bachelor of Science degree in Electrical Engineering from Bradley University and a Master of Business Administration from the University of Minnesota – Carlson School of Business. He has served as the Company's Vice President of Sales and Marketing since January 1995.

Mr. Gonsior joined the Company in February 1982. Mr. Gonsior received a Bachelor of Science degree from Saint Cloud State University. He has served as the Company's Vice President of Operations since January 1996.

PART II

ITEM 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The Company's common shares are listed on the NASDAQ Global Market under the ticker symbol "IIN".

The closing sale price of the Company's common stock on February 24, 2020, was $16.21 per share.

At February 24, 2020 the Company had 264 shareholders of record of common stock. Such number does not reflect shareholders who beneficially own common stock in nominee or street name.

The Company currently intends to retain any future earnings to support operations and to finance the growth and development of its business and does not intend to pay cash dividends on its common stock for the foreseeable future. Any payment of future dividends will be at the discretion of the Board of Directors and will depend upon, among other things, the Company's earnings, financial condition, capital requirements, level of indebtedness, contractual restrictions with respect to the payment of dividends, and other factors that the Board of Directors deems relevant. Terms of the Company's banking agreements prohibit the payment of cash dividends without prior bank approval.

See "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters — Equity Compensation Plans" of this Annual Report on Form 10-K for disclosure regarding our equity compensation plans.

ITEM 6. Selected Financial Data

Year Ended December 31,	2019	2018 (a)	2017 (a)	2016 (a)(b)	2015 (a)(b)
Revenue, net	$ 113,493	$ 113,948	$ 86,954	$ 65,231	$ 68,113
Gross profit	30,986	36,231	25,270	14,817	18,562
Operating expenses	33,026	27,856	21,686	15,962	14,566
Interest income (expense), net	920	(314)	(716)	(553)	(369)
Other expense, net	(743)	(815)	(406)	(644)	(261)
Income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations	(1,863)	7,246	2,462	(2,342)	3,366
Income tax expense	(201)	(484)	(8)	(217)	(19)
Income (loss) from continuing operations before non-controlling interest and discontinued operations	(2,064)	6,762	2,454	(2,559)	3,347
Loss on disposal of discontinued operations	(1,116)	—	(164)	—	—
Loss from discontinued operations, net of income taxes	(597)	(1,215)	(1,170)	(2,541)	(1,230)
Net income (loss)	(3,777)	5,547	1,120	(5,100)	2,117
Less: Loss allocated to non-controlling interest	—	—	(938)	(157)	(111)
Net income (loss) attributable to shareholders	$ (3,777)	$ 5,547	$ 2,058	$ (4,943)	$ 2,228
Basic income (loss) per share attributable to shareholders:					
Continuing operations	$ (0.23)	$ 0.89	$ 0.50	$ (0.37)	$ 0.59
Discontinued operations	(0.20)	(0.16)	(0.20)	(0.39)	(0.21)
Net income (loss)	$ (0.43)	$ 0.73	$ 0.30	$ (0.76)	$ 0.38
Diluted income (loss) per share attributable to shareholders:					
Continuing operations	$ (0.23)	$ 0.78	$ 0.46	$ (0.37)	$ 0.55
Discontinued operations	(0.20)	(0.14)	(0.18)	(0.39)	(0.20)
Net income (loss)	$ (0.43)	$ 0.64	$ 0.28	$ (0.76)	$ 0.35
Weighted average number of shares outstanding during year:					
Basic	8,748	7,599	6,852	6,497	5,907
Diluted	8,748	8,630	7,307	6,497	6,241

Other Financial Highlights

Year Ended December 31,	2019	2018 (a)	2017 (a)	2016 (a)(b)	2015 (a)(b)
Working capital (c)	$ 53,349	$ 62,897	$ 8,985	$ 8,456	$ 11,302
Total assets	113,593	115,248	54,474	43,758	41,886
Long-term debt	—	—	9,321	9,284	7,929
Equity	90,492	91,974	21,439	19,011	18,897
Depreciation and amortization	3,277	2,891	2,134	2,023	1,755

(a) In 2019, the Company classified its United Kingdom operations as discontinued operations. The Company revised its financial statements for all periods to reflect the discontinued operations.

(b) In 2016, the Company classified its cardiac diagnostic monitoring operations as discontinued operations. The Company revised its financial statements for 2016 and 2015 to reflect the discontinued operations.

(c) Working capital is equal to current assets less current liabilities.

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Company Overview

IntriCon Corporation (together with its subsidiaries, the "Company" or "IntriCon", "we", "us" or "our") is an international company engaged in designing, developing, engineering and manufacturing miniature interventional, implantable and body-worn medical devices. Our mission is to be a recognized leader in miniature medical devices that enable affordable and accessible health care and improve the quality of life for those we serve. The Company serves as a JDM to leading medical device OEMs by designing, developing, engineering, manufacturing and distributing micro-miniature products, microelectronics, micro-mechanical assemblies, complete assemblies and software solutions, primarily for high growth markets, such as diabetes, drug delivery, surgical navigation, and hearing health.

Business Highlights

In January 2019, the Company purchased the source code for the Sentibo Smart Brain self-fitting software from Soundperience for 1,829 Euros, positioning the Company to capitalize on the pending over-the-counter (OTC) hearing aid regulation. Sentibo Smart Brain self-fitting software is designed to improve both channel productivity and the quality of first-time fittings, resulting in lower prices, greater access and increased customer satisfaction. In addition, the Company transferred its 49% ownership interest in Soundperience to the majority owner of Soundperience.

On June 25, 2019, the Company's officers, pursuant to delegated authority from the board, approved plans to discontinue the operations of its United Kingdom (UK) subsidiary within our body worn device segment. For all periods presented, the Company classified this business as discontinued operations, and accordingly, has reclassified historical financial data presented herein.

As of and for the period ended June 30, 2019, the fair value of the goodwill within our Hearing Help Express reporting unit was less than its carrying amount, which resulted in non-cash impairment charges to goodwill of $1,257 and intangible assets of $2,508.

Forward–Looking Statements

The following discussion and analysis of our financial condition and results of operations should be read together with our financial statements and the related notes appearing in Item 8 of this report. This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward- looking statements as a result of many factors, including but not limited to those under the heading "Risk Factors" in Item 1A of this Annual Report on Form 10-K. See also Item 1. "Business—Forward-Looking Statements" for more information.

Results of Operations: 2019 Compared with 2018

Consolidated Net Revenue

Our net revenue is comprised of two segments: our body-worn device segment (consisting of three markets: medical, hearing health, and professional audio) and our hearing health direct-to-end-consumer (DTEC) segment. Below is a summary of our revenue by main markets for the years ended December 31, 2019 and 2018:

	2019	2018	Change Dollars	Change Percent
Medical:				
Diabetes	$ 68,606	$ 65,197	$ 3,409	5.2%
Other Medical	13,487	10,448	3,039	29.1%
Total	$ 82,093	$ 75,645	$ 6,448	8.5%
Hearing Health:				
Value Based DTEC	$ 6,120	$ 6,858	$ (738)	-10.8%
Value Based ITEC	8,910	11,949	(3,039)	-25.4%
Legacy OEM	9,892	12,257	(2,365)	-19.3%
Total	$ 24,922	$ 31,064	$ (6,142)	-19.8%
Professional Audio Communications	$ 6,478	$ 7,239	$ (761)	-10.5%
Total Net Revenue	$ 113,493	$ 113,948	$ (455)	-0.4%

In 2019, we experienced an 8.5 percent increase in medical revenue driven by higher sales to Medtronic within the diabetes business as well as growth within our medical coils business within the other medical business. IntriCon currently serves the market by offering medical manufacturers the capabilities to design, develop and manufacture medical devices that are easier to use, are more miniature, use less power, and are lighter. IntriCon has a strong presence in the diabetes market with its Medtronic partnership. The Company believes there are growth opportunities in this market as well other emerging home care markets that could benefit from its capabilities to develop devices that are more technologically advanced, smaller and lightweight. In addition to the diabetes growth, the Company experienced strong sales growth in medical coils, increasing 82 percent from the prior year.

Net revenue in our hearing health business for the year ended December 31, 2019 decreased 19.8 percent over the same period in 2018. The decrease was primarily within the value based indirect-to-end-consumer business due to restructuring activities within a large insurance customer's hearing health business, as they pivot towards a more traditional "brick-and-mortar" approach that no longer aligns with our partnership strategy to reach the end customer. In addition, net revenue in our hearing health direct-to-end-consumer business decreased due to lower advertising spend in 2019 in an effort to reduce costs. The Company is optimistic about the progress that has been made and the long-term prospects of the value-based hearing healthcare market. Market dynamics, such as low penetration rates, an aging population, regulatory scrutiny, and the need for reduced cost and convenience, have resulted in the emergence of alternative care models, including the direct-to-the-consumer channel and pending over-the-counter channel. IntriCon believes it is very well positioned to serve these value-based hearing healthcare market channels. The Company believes long-term success in the hearing health market will largely be driven by the indirect-to-end consumer channel. As such, in February 2020 the Company re-prioritized investments to more clearly focus on securing high-profile partners that value our ability to deliver an "eco-system of care" platform, which includes superior hearing aids, self-fitting software and customer care to the U.S. market.

Net revenue to the professional audio device sector decreased 10.5 percent in 2019 compared to the same period in 2018 due to a decrease in orders. IntriCon will continue to leverage its core technology in professional audio to support existing customers.

Gross Profit

Gross profit, both in dollars and as a percent of revenue, for the years ended December 31, 2019 and 2018, were as follows:

	2019		2018		Change	
	Dollars	Percent of Revenue	Dollars	Percent of Revenue	Dollars	Percent
Gross Profit	$ 30,986	27.3%	$ 36,231	31.8%	$ (5,245)	-14.5%

The 2019 gross profit decrease as a percentage of revenue over the prior year was primarily due to product mix and a full year of ramp-up costs associated with the new manufacturing facility that was entered into in June 2018.

Sales and Marketing, General and Administrative and Research and Development Expenses

Sales and marketing, general and administrative and research and development expenses for the years ended December 31, 2019 and 2018 were:

	2019		2018		Change	
	Dollars	Percent of Revenue	Dollars	Percent of Revenue	Dollars	Percent
Sales and Marketing	$ 11,498	10.1%	$ 11,467	10.1%	$ 31	0.3%
General and Administrative	13,933	12.3%	11,718	10.3%	2,215	18.9%
Research and Development	3,830	3.4%	4,671	4.1%	(841)	-18.0%

Sales and marketing expenses remained consistent with the prior year. General and administrative expenses increased from the prior year primarily related to increased stock compensation expense as well as other external services and support costs to drive business growth. Research and development expenses were lower than the prior year period primarily due to reduced outside service costs and tech fees.

Impairment Loss

Impairment loss for the year ended 2019 was $3,765. The impairment losses related to a write-off of goodwill and intangible assets due to the fair value being less than its carrying value within our Hearing Help Express reporting unit. There were no impairment losses identified for the prior year periods.

Interest Income (Expense), net

Interest income for 2019 was $920 compared to expense of $314 in 2018. The change was primarily due to the full debt repayment during the second half of 2018 with the proceeds from our August 2018 public offering and our investment of proceeds into investment securities in 2019.

Other Expense, net

In 2019, other expense, net was $743 compared to $815 in 2018. The change in other expense, net primarily related to reduced losses incurred in our Signison partnership accounted for under the equity method.

***Income Tax* Expense**

Income taxes were as follows:

	2019	2018
Income tax expense	$ 201	$ 484
Percentage of income tax expense of income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations	10.79%	6.68%

The expense in 2019 and 2018 was primarily due to foreign taxes on international operations. The Company is in a net operating loss ("NOL") position for US federal and state income tax purposes, but our deferred tax asset related to the NOL carry forwards have been largely offset by a full valuation allowance. We incur minimal income tax expense for the current period domestic operations. We have approximately $30,871 of gross NOL carry forwards available to offset future U.S. federal income taxes that begin to expire in 2023.

Loss on Disposal of Discontinued Operations

Loss on disposal of discontinued operations was $1,116 and $0 for the years ended December 31, 2019 and December 31, 2018 due to the disposal of assets of our United Kingdom subsidiary in 2019.

Loss from Discontinued Operations

Loss from discontinued operations, net of income taxes, was $597 and $1,215 for the years ended December 31, 2019 and December 31, 2018, respectively, due to the operations of our United Kingdom subsidiary.

Results of Operations: 2018 Compared with 2017

Consolidated Net Revenue

Below is a summary of our revenue by main markets for the years ended December 31, 2018 and 2017:

	2018	2017	Change Dollars	Change Percent
Medical:				
Diabetes	$ 65,197	$ 43,365	$ 21,832	50.3%
Other Medical	10,448	10,087	361	3.6%
Total	$ 75,645	$ 53,452	$ 22,193	41.5%
Hearing Health:				
Value Based DTEC	$ 6,858	$ 6,492	$ 366	5.6%
Value Based ITEC	11,949	9,395	2,554	27.2%
Legacy OEM	12,257	11,449	808	7.1%
Total	$ 31,064	$ 27,336	$ 3,728	13.6%
Professional Audio Communications	$ 7,239	$ 6,166	$ 1,073	17.4%
Total Net Revenue	$ 113,948	$ 86,954	$ 26,994	31.0%

In 2018, we experienced a 41.5 percent increase in medical revenue primarily driven by higher sales to Medtronic while the rest of the medical market remained relatively stable.

Net revenue in our hearing health business for the year ended December 31, 2018, excluding our hearing health direct-to-end-consumer business, increased 16.1 percent over the same period in 2017. The increase was primarily due to gains in our value-based hearing healthcare markets.

Net revenue in our hearing health direct-to-end-consumer business for the year ended December 31, 2018 increased 5.6 percent over the same period in 2017, primarily due to an increase in advertising, which drove sales.

Net revenue to the professional audio device sector increased 17.4 percent in 2018 compared to the same period in 2017. IntriCon will continue to leverage its core technology in professional audio to support existing customers.

Gross Profit

Gross profit, both in dollars and as a percent of revenue, for the years ended December 31, 2018 and 2017, were as follows:

	2018		2017		Change	
	Dollars	Percent of Revenue	Dollars	Percent of Revenue	Dollars	Percent
Gross Profit	$ 36,231	31.8%	$ 25,270	29.1%	$ 10,961	43.4%

The 2018 gross profit increase as a percentage of revenue over the prior year was primarily due to higher overall sales volumes slightly offset by ramp-up costs associated with the new manufacturing facility.

Sales and Marketing, General and Administrative and Research and Development Expenses

Sales and marketing, general and administrative and research and development expenses for the years ended December 31, 2018 and 2017 were:

	2018		2017		Change	
	Dollars	Percent of Revenue	Dollars	Percent of Revenue	Dollars	Percent
Sales and Marketing	$ 11,467	10.1%	$ 8,262	9.5%	$ 3,205	38.8%
General and Administrative	11,718	10.3%	8,966	10.3%	2,752	30.7%
Research and Development	4,671	4.1%	4,458	5.1%	213	4.8%

Sales and marketing expenses increased over the prior year due to increased hearing health direct-to-end-consumer advertising spending, bad debt expense, other outsider services and support costs. General and administrative and research and development expenses were greater than the prior year period primarily due to increased other external services and support costs to drive business growth.

Interest Expense

Interest expense for 2018 was $314, a decrease of $402 from $716 in 2017. The decrease in interest expense was primarily due to lower average outstanding debt balances during the year due to the full debt repayment during the second half of 2018 with the proceeds from our August 2018 public offering.

Other Expense, net

In 2018, other expense, net was $815 compared to $406 in 2017. The change in other expense primarily related to additional losses incurred in our partnerships accounted for under the equity method during the current period.

***Income Tax* Expense**

Income taxes were as follows:

	2018	2017
Income tax expense	$ 484	$ 8
Percentage of income tax expense of income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations	6.68%	0.32%

The expense in 2018 and 2017 was primarily due to foreign taxes on international operations. The Company is in a net operating loss ("NOL") position for US federal and state income tax purposes, but our deferred tax asset related to the NOL carry forwards have been largely offset by a full valuation allowance. We incur minimal income tax expense for the current period domestic operations. As of December 31, 2018, we had approximately $38,432 of NOL carry forwards available to offset future U.S. federal income taxes that begin to expire in 2023.

Loss on Disposal of Discontinued Operations

Loss on disposal of discontinued operations was $0 and $164 for the years ended December 31, 2018 and December 31, 2017 due to the sale of the Company's cardiac diagnostic monitoring business in 2017.

Loss from Discontinued Operations

Loss from discontinued operations was $1,215 and $1,170 for the years ended December 31, 2018 and December 31, 2017, respectively, due to the operations of the United Kingdom subsidiary and the Company's cardiac diagnostic monitoring business.

Loss Allocated to Non-Controlling Interest

Loss allocated to non-controlling interest of $0 and $938 for the years ended December 31, 2018 and December 31, 2017 was primarily due to losses within HHE. In December 2017, we obtained 100% ownership of HHE, therefore a non-controlling interest no longer existed in 2018.

Liquidity and Capital Resources

Our primary sources of cash have been cash flows from operations, bank borrowings, investment income and sales of equity. For the last three years, cash has been used for repayments of bank borrowings, the acquisition of HHE and other assets, as well as purchases of equipment and working capital to support growth.

As of December 31, 2019, we had approximately $9,162 of cash, cash equivalents and restricted cash on hand. Sources of our cash for the year ended December 31, 2019 have been from our operating and investing activities, as described below.

Consolidated net working capital decreased to $53,349 at December 31, 2019 from $62,897 at December 31, 2018. Our cash flows from operating, investing and financing activities, as reflected in the statement of cash flows for the years ended December 31, are summarized as follows:

	2019	2018	2017
Cash provided by (used in) continuing operations:			
Operating activities	$ 1,525	$ 1,475	$ 5,362
Investing activities	(227)	(44,993)	(4,673)
Financing activities	(109)	52,000	(36)
Effect of exchange rate changes on cash	1	(141)	268
Net increase in cash from continuing operations	$ 1,190	$ 8,341	$ 921

Operating Activities. In 2019, the most significant items that contributed to the $1,525 provided by operating activities were add backs for non-cash depreciation and amortization, impairment losses, and stock-based compensation, as well as decreases in accounts receivable, and inventory, partially offset by increases in contract assets as well as decreases in accounts payable and accrued expenses. Days sales in inventory decreased from 79 at December 31, 2018 to 73 at December 31, 2019. Days payables outstanding decreased from 65 days at December 31, 2018 to 52 days at December 31, 2019. Day sales outstanding decreased from 34 days at December 31, 2018 to 29 days at December 31, 2019.

Cash generated from operations may be affected by a number of factors. See “Forward Looking Statements” and “Item 1A Risk Factors” contained in this Form 10-K for a discussion of some of the factors that can negatively impact the amount of cash we generate from our operations.

Investing Activities. In 2019, net cash used in investing activities of $227 consisted of $4,593 in purchases of machinery and equipment, $818 for the acquisition of other assets and $609 for the investment in several of the Company’s joint ventures, including Signison and others, partially offset by $5,793 net proceeds derived from investment securities.

Financing Activities. In 2019, net cash used in financing activities of $109 was comprised primarily of payments for financing leases and withholding of common stock upon vesting of restricted stock units for payment of withholding taxes, partially offset by the exercise of stock options and employee stock purchase plan shares.

We had the following bank arrangements at December 31:

	2019	2018
Total borrowing capacity under existing facilities	$ 9,589	$ 13,884
Facility borrowings:		
Domestic revolving credit facility	—	—
Capital expenditure loan facility	—	—
Domestic term loan	—	—
Foreign overdraft and letter of credit facility	—	—
Total borrowings and commitments	—	—
Remaining availability under existing facilities	$ 9,589	$ 13,884

During the second half of 2018, we utilized proceeds from our public offering and repaid all of our domestic and foreign bank debt. During 2019, we did not borrow on any of our available facilities.

Domestic Credit Facilities

The Company and its domestic subsidiaries are parties to a credit facility with CIBC Bank USA. The credit facility, as amended through December 31, 2019, provides for a $7,000 revolving credit facility, with a $200 sub facility for letters of credit. Under the revolving credit facility, the availability of funds depends on a borrowing base composed of stated percentages of the Company’s eligible trade receivables and eligible inventory, and eligible equipment less a reserve. The credit facility matures on December 15, 2022.

On April 17, 2019, the Company entered into a Thirteenth Amendment to the Loan and Security Agreement with CIBC Bank USA which: reduced our borrowing capacity to its current $7,000 level; lessened restrictions surrounding acquisitions, business investments, distributions and disposition of assets; eliminated the mandatory prepayment requirement with respect to proceeds from asset sales and capital and debt financings; and eliminated the annual capital expenditure covenant.

The Company was in compliance with all applicable covenants under the credit facility as of December 31, 2019.

Foreign Credit Facility

In addition to its domestic credit facilities, the Company's wholly-owned subsidiary, IntriCon, PTE LTD., entered into an international senior secured credit agreement with Oversea-Chinese Banking Corporation Ltd. that provides for an asset-based line of credit. Borrowings bear interest at a rate of .75% to 2.5% over the lender's prevailing prime lending rate.

Capital Adequacy

We believe that funds expected to be generated from operations, funds maintained in liquid investments and funds available under our revolving credit loan facility will be sufficient to meet our anticipated cash requirements for operating needs for at least the next 12 months. While management believes that we will be able to meet our liquidity needs for at least the next 12 months, no assurance can be given that we will be able to do so.

Contractual Obligations

The following table represents our contractual obligations and commercial commitments, excluding interest expense, as of December 31, 2019.

Contractual Obligations	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Pension and other postretirement benefit obligations	$ 1,228	$ 191	$ 504	$ 388	$ 145
Leases	5,183	2,034	3,066	83	—
Technology access liability	2,225	1,236	989	—	—
Self-fitting software	1,207	285	922	—	—
Total contractual obligations	$ 6,411	$ 2,225	$ 3,570	$ 471	$ 145

Foreign Currency Fluctuation

Generally, the effect of changes in foreign currencies on our results of operations is partially or wholly offset by our ability to make corresponding price changes in the local currency. From time to time, the impact of fluctuations in foreign currencies may have a material effect on the financial results of the Company. Foreign currency transaction amounts included in the statements of operations include losses of $48, $64, and $89 in 2019, 2018 and 2017, respectively. See Note 15 to the Company's consolidated financial statements included herein.

Off-Balance Sheet Obligations

We had no material off-balance sheet obligations as of December 31, 2019.

Related Party Transactions

For a discussion of related party transactions, see Note 19 to the Company's consolidated financial statements included herein.

Litigation

For a discussion of litigation, see “Item 3. Legal Proceedings” and Note 18 to the Company’s consolidated financial statements included herein.

New Accounting Pronouncements

See Note 1 of the Notes to the Consolidated Financial Statements under Item 8 of this Annual Report on Form 10-K, for information pertaining to recently adopted accounting standards or accounting standards to be adopted in the future.

Critical Accounting Policies and Estimates

The significant accounting policies of the Company are described in Note 1 to the consolidated financial statements and have been reviewed with the audit committee of our Board of Directors. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the reporting period. The accounting policies of the Company with significant estimates and assumptions are described below.

Revenue Recognition

For its body-worn device segment, the Company recognizes revenue when a performance obligation is satisfied by transferring control of a distinct good or service to a customer. Control transfers over time during the manufacturing process for our medical market while the remaining markets control transfers at a point in time. For its hearing health direct-to-end-consumer segment, the Company recognizes revenue after the customer trial period has ended (generally 60 days from shipment).

Body-worn device segment customers generally have 30 days to notify the Company if the product is damaged or defective. Beyond that, there are no significant obligations that remain after shipment other than warranty obligations. Contracts with customers do not include product return rights, other than for non-conformance; however, the Company may elect in certain circumstances to accept returns of products. The Company records revenue for product sales net of returns and discounts. Sales and use tax are reported on a net basis.

In general, the Company warrants its products to be free from defects in material and workmanship and will fully conform to and perform to specifications for a period of one year. The Company develops a warranty reserve based on historical experience. While the Company’s warranty costs have historically been within its expectations, the Company cannot guarantee that it will continue to experience the same warranty return rates or repair costs that it has experienced in the past.

Accounts Receivable Reserves

This reserve is an estimate of the amount of accounts receivable that are uncollectible. The reserve is based on a combination of specific customer knowledge, general economic conditions and historical trends. Management believes the results could be materially different if economic conditions change for our customers.

Inventory Valuation

Inventory is recorded at the lower of our cost and net realizable value. Net realizable value is defined as the estimated selling price in the ordinary course of business, less reasonably predictable cost of completion, disposal and transportation. An inventory reserve is recorded for excess and obsolete inventory based on historical trends, product life cycles, forecasts of future inventory needs and on-hand inventory levels. Management believes reserve levels could be materially affected by changes in technology, our customer base, customer needs, general economic conditions and the success of certain Company sales programs.

Goodwill and Intangible Assets

Goodwill is reviewed for impairment annually or more frequently if changes in circumstances or the occurrence of events suggest impairment exists. The Company may apply a qualitative assessment to determine if it is more likely than not that goodwill is impaired. If the Company does not pass the qualitative assessment, or choses to skip the assessment, it performs a test comparing fair value of a reporting unit to its carrying value. The Company would need to recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit’s fair value. As of and for the period ended June 30, 2019, the fair value of the goodwill within our Hearing Help Express reporting unit was less than its carrying amount, which resulted in non-cash impairment charges to goodwill of $1,257 and intangible assets of $2,508. There were no further adjustments made to the carrying amount of goodwill and intangible assets as of December 31, 2019. The Company concluded that no impairment of goodwill or intangible assets occurred during the years ended December 31, 2018 and 2017.

Long-lived Assets

Long-lived assets are recorded at cost. The Company assesses the carrying amount for impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. This assessment includes certain assumptions related to future needs for the asset to help generate future cash flow. Changes in those assessments, future economic conditions or technological changes could have a material adverse impact on the carrying value of these assets.

Deferred Taxes

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities and projected future taxable income in making this assessment. Actual future operating results, as well as changes in our future performance, could have a material impact on the valuation allowance.

Employee Benefit Obligations

We provide retirement and health care insurance for certain domestic retirees and employees of our Selas operations discontinued in 2005. We measure the costs of our obligation based on our best estimate. The net periodic costs are recognized as employees render the services necessary to earn the post-retirement benefit. Several assumptions and statistical variables are used in the models to calculate the expense and liability related to the plans. We determine assumptions about the discount rate, the expected rate of return on plan assets and the future rate of compensation increases. The actuarial models also use assumptions on demographic factors such as retirement, mortality and turnover. Changes in actuarial assumptions could vary materially from actual results due to economic events and different rates of retirement, mortality and withdrawal.

ITEM 7A. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

ITEM 8. Financial Statements and Supplementary Data

Management's Report on Internal Control over Financial Reporting

Management of IntriCon Corporation and its subsidiaries ("the Company") is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) of the Securities Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that (1) pertain to maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

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

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, using criteria set forth in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on this assessment, the Company's management believes that, as of December 31, 2019, the Company's internal control over financial reporting was effective based on those criteria.

The Company's independent registered public accounting firm has audited the Company's internal control over financial reporting as of December 31, 2019, as stated in the Report of Independent Registered Public Accounting Firm appearing under Item 8.

There were no changes in our internal control over financial reporting during the most recent fiscal quarter covered by this report that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the board of directors of IntriCon Corporation and Subsidiaries:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of IntriCon Corporation and Subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework: (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated 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 their operations and their cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework: (2013)* issued by COSO.

Adoption of New Accounting Standard

As discussed in Notes 1 and 12 to the consolidated financial statements, the Company has changed its method of accounting for operating leases as of January 1, 2019 due to the adoption of ASU 2016-02, Leases (Topic 842).

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting 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 the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Baker Tilly Virchow Krause, LLP

We have served as the Company's auditor since 2005.

Minneapolis, Minnesota

March 16, 2020

INTRICON CORPORATION
Consolidated Statements of Operations
(In Thousands, Except Per Share Amounts)

Year Ended December 31,	2019	2018	2017
Revenue, net	$ 113,493	$ 113,948	$ 86,954
Cost of goods sold	82,507	77,717	61,684
Gross profit	30,986	36,231	25,270
Operating expenses:			
Sales and marketing	11,498	11,467	8,262
General and administrative	13,933	11,718	8,966
Research and development	3,830	4,671	4,458
Impairment loss (Note 5 and 6)	3,765	—	—
Total operating expenses	33,026	27,856	21,686
Operating income (loss)	(2,040)	8,375	3,584
Interest income (expense), net	920	(314)	(716)
Other expense, net	(743)	(815)	(406)
Income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations	(1,863)	7,246	2,462
Income tax expense	201	484	8
Income (loss) from continuing operations before non-controlling interest and discontinued operations	(2,064)	6,762	2,454
Loss on disposal of discontinued operations (Note 2)	(1,116)	—	(164)
Loss from discontinued operations, net of income taxes (Note 2)	(597)	(1,215)	(1,170)
Net income (loss)	(3,777)	5,547	1,120
Less: Loss allocated to non-controlling interest	—	—	(938)
Net income (loss) attributable to IntriCon shareholders	$ (3,777)	$ 5,547	$ 2,058
Basic income (loss) per share:			
Continuing operations	$ (0.23)	$ 0.89	$ 0.50
Discontinued operations	(0.20)	(0.16)	(0.20)
Net income (loss) per share:	$ (0.43)	$ 0.73	$ 0.30
Diluted income (loss) per share:			
Continuing operations	$ (0.23)	$ 0.78	$ 0.46
Discontinued operations	(0.20)	(0.14)	(0.18)
Net income (loss) per share:	$ (0.43)	$ 0.64	$ 0.28
Average shares outstanding:			
Basic	8,748	7,599	6,852
Diluted	8,748	8,630	7,307

(See accompanying notes to the consolidated financial statements)

INTRICON CORPORATION
Consolidated Statements of Comprehensive Income (Loss)
(In Thousands)

	Year Ended December 31,		
	2019	2018	2017
Net income (loss)	$ (3,777)	$ 5,547	$ 1,120
Realized foreign currency translation loss from discontinued operations previously unrealized, net of taxes of $0 (Note 2)	280	—	—
Realized foreign currency translation gain from investment in partnerships, net of taxes of $0	118	—	—
Unrealized foreign currency translation adjustment from continuing operations, net of taxes of $0	(10)	(206)	235
Interest rate swap, net of taxes of $0	—	(8)	26
Pension and postretirement obligations, net of taxes of $0	19	20	20
Comprehensive income (loss)	$ (3,370)	$ 5,353	$ 1,401

(See accompanying notes to the consolidated financial statements)

INTRICON CORPORATION
Consolidated Balance Sheets
(In Thousands, Except Per Share Amounts)

	December 31, 2019	December 31, 2018
Current assets:		
Cash, cash equivalents and restricted cash	$ 9,162	$ 8,047
Short-term investment securities	23,451	38,093
Accounts receivable, less allowance for doubtful accounts of $325 at December 31, 2019 and $807 at December 31, 2018	8,993	11,266
Inventories	16,377	18,163
Contract assets	10,237	5,624
Other current assets	1,975	2,146
Current assets of discontinued operations	80	1,205
Total current assets	70,275	84,544
Machinery and equipment	41,073	36,725
Less: Accumulated depreciation	27,522	25,303
Net machinery and equipment	13,551	11,422
Goodwill	9,551	10,808
Intangible assets, net	—	2,585
Operating lease right-of-use assets, net	4,372	—
Investment in partnerships	1,160	2,091
Long-term investment securities	8,629	—
Other assets, net	6,055	3,427
Noncurrent assets of discontinued operations	—	371
Total assets	$ 113,593	$ 115,248
Current liabilities:		
Current financing leases	$ 101	$ —
Current operating leases	1,729	—
Accounts payable	9,876	12,871
Accrued salaries, wages and commissions	2,274	4,409
Other accrued liabilities	2,869	4,031
Liabilities of discontinued operations	77	336
Total current liabilities	16,926	21,647
Noncurrent financing leases	30	—
Noncurrent operating leases	2,937	—
Other postretirement benefit obligations	382	377
Accrued pension liabilities	655	706
Other long-term liabilities	2,171	544
Total liabilities	23,101	23,274
Commitments and contingencies		
Shareholders' equity:		
Common stock, $1.00 par value per share; 20,000 shares authorized; 8,781 and 8,664 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively	8,781	8,664
Additional paid-in capital	86,770	84,999
Accumulated deficit	(4,286)	(509)
Accumulated other comprehensive loss	(520)	(927)
Total shareholders' equity	90,745	92,227
Non-controlling interest	(253)	(253)
Total equity	90,492	91,974
Total liabilities and equity	$ 113,593	$ 115,248

INTRICON CORPORATION
Consolidated Statements of Cash Flows
(In Thousands)

Year Ended December 31,	2019	2018	2017
Cash flows from operating activities:			
Net income (loss)	$ (3,777)	5,547	$ 1,120
Loss from discontinued operations, net of tax	1,713	1,215	1,334
Income (loss) from continuing operations	(2,064)	6,762	2,454
Adjustments to reconcile net income (loss) from continuing operations to net cash provided by operating activities:			
Depreciation and amortization	3,277	2,891	2,134
Impairment of goodwill and intangible assets	3,765	—	—
Loss on disposition of property	—	—	9
Equity in loss of partnerships	288	390	421
Amortization of debt issuance costs	—	158	80
Stock-based compensation	1,886	1,395	844
Change in allowance for doubtful accounts	(482)	475	162
Changes in operating assets and liabilities:			
Accounts receivable	2,769	(3,219)	(2,042)
Inventories	1,609	(5,086)	(2,643)
Contract assets	(4,613)	(2,645)	(1,117)
Other assets	440	(403)	(933)
Accounts payable	(3,057)	1,851	3,767
Accrued expenses	(2,077)	(700)	2,120
Other liabilities	(216)	(394)	106
Net cash provided by operating activities of continuing operations	1,525	1,475	5,362
Net cash (used in) operating activities of discontinued operations	(55)	(1,298)	(1,132)
Net cash provided by operating activities	1,470	177	4,230
Cash flows from investing activities:			
Proceeds from sale of machinery and equipment	—	—	19
Purchases of machinery and equipment	(4,593)	(5,503)	(2,266)
Payments for acquisition of other assets	(818)	—	—
Purchase of investment securities	(43,797)	(38,093)	—
Proceeds from sale of investment securities	38,015	—	—
Proceeds from maturities of investment securities	11,575	—	—
Purchase of Hearing Help Express	—	—	(650)
Investment in partnerships	(609)	(1,397)	(1,776)
Net cash provided by (used in) investing activities of continuing operations	(227)	(44,993)	(4,673)
Net cash (used in) investing activities of discontinued operations	(15)	(4)	(47)
Net cash (used in) investing activities	(242)	(44,997)	(4,720)
Cash flows from financing activities:			
Proceeds from long-term debt	—	14,169	19,162
Repayments of long-term debt	—	(25,868)	(19,373)
Payment of debt issuance costs	—	(88)	(139)
Proceeds from issuance of common stock, net of costs	—	88,967	—
Payments for repurchase of common stock and related costs	—	(25,907)	—
Payment of financing leases	(111)	—	—
Exercise of stock options and employee stock purchase plan shares	306	727	314
Withholding of common stock upon vesting of restricted stock units	(304)	—	—
Net cash provided by (used in) financing activities	(109)	52,000	(36)
Effect of exchange rate changes on cash of continuing operations	1	(141)	268
Effect of exchange rate changes on cash of discontinued operations	(5)	(9)	13
Effect of exchange rate changes on cash	(4)	(150)	281
Net change in cash, cash equivalents and restricted cash	1,115	7,030	(245)
Cash, cash equivalents and restricted cash, beginning of period	8,047	1,017	1,262
Cash, cash equivalents and restricted cash, end of period	$ 9,162	8,047	$ 1,017

(See accompanying notes to the consolidated financial statements)

INTRICON CORPORATION
Consolidated Statements of Equity
(In Thousands)

	Common Stock Number of Shares	Common Stock Amount	Additional Paid-in Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Loss	Non-Controlling Interest	Total Equity
Balance December 31, 2016	6,820	$ 6,820	$ 21,383	$ (8,114)	$ (1,014)	$ 455	$ 19,530
Exercise of stock options, net	69	69	131	—	—	—	200
Shares issued under the employee stock purchase plan	11	11	103	—	—	—	114
Stock-based compensation	—	—	844	—	—	—	844
Net income	—	—	—	2,058	—	(938)	1,120
Amounts impacting other comprehensive loss	—	—	—	—	281	—	281
Acquisition non-controlling interest	—	—	—	—	—	(650)	(650)
Allocation of non-controlling interest at acquisition	—	—	(880)	—	—	880	—
Balance December 31, 2017	6,900	6,900	21,581	(6,056)	(733)	(253)	21,439
Exercise of stock options, net	532	532	(23)	—	—	—	509
Shares issued under the employee stock purchase plan	7	7	211	—	—	—	218
Stock-based compensation	—	—	1,395	—	—	—	1,395
Issuance of common stock	1,725	1,725	87,242	—	—	—	88,967
Repurchase of common stock	(500)	(500)	(25,407)	—	—	—	(25,907)
Net income	—	—	—	5,547	—	—	5,547
Amounts impacting other comprehensive loss	—	—	—	—	(194)	—	(194)
Balance December 31, 2018	8,664	8,664	84,999	(509)	(927)	(253)	91,974
Exercise of stock options, net	69	69	29	—	—	—	98
Withholding of common stock upon vesting of restricted stock units	36	36	(340)	—	—	—	(304)
Shares issued under the employee stock purchase plan	9	9	199	—	—	—	208
Stock-based compensation	3	3	1,883	—	—	—	1,886
Net income	—	—	—	(3,777)	—	—	(3,777)
Amounts impacting other comprehensive loss	—	—	—	—	407	—	407
Balance December 31, 2019	8,781	$ 8,781	$ 86,770	$ (4,286)	$ (520)	$ (253)	$ 90,492

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Headquartered in Arden Hills, Minnesota, IntriCon Corporation (together with its subsidiaries, referred to as the Company, we, us or our) is an international company engaged in designing, developing, engineering, manufacturing and distributing body-worn devices. The Company designs, develops, engineers, manufactures and distributes micro-miniature products, microelectronics, micro-mechanical assemblies, complete assemblies and software solutions, primarily for the medical market, the emerging value based hearing healthcare market, the hearing health direct-to-end-consumer and indirect-to-end-consumer markets and the professional audio communication market. In addition to its operations in the state of Minnesota, the Company has facilities in the state of Illinois, and in Singapore, Indonesia, and Germany.

Basis of Presentation – On June 25, 2019, the Company's officers, pursuant to delegated authority from the board, approved plans to discontinue the operations of its United Kingdom (UK) subsidiary within our body worn device segment. For all periods presented, the Company classified this business as discontinued operations, and, accordingly, has reclassified historical financial data presented herein. See further information in Note 2.

Consolidation – The consolidated financial statements include the accounts of the Company and its consolidated subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Principles of Consolidation – The Company evaluates its voting and variable interests in entities on a qualitative and quantitative basis. The Company consolidates entities in which it concludes it has the power to direct the activities that most significantly impact an entity's economic success and has the obligation to absorb losses or the right to receive benefits that could be significant to the entity.

Discontinued Operations – The Company records discontinued operations when the disposal of a separately identified business unit constitutes a strategic shift in the Company's operations.

Segment Disclosures – A business segment is a distinguishable component of an enterprise that is engaged in providing an individual product or service or a group of related products or services and that is subject to risks and returns that are different from those of other business segments. The Company has determined that the Company operates in two reportable segments, our body-worn device segment and our direct-to-end-consumer hearing health segment, as further described in Note 3.

Use of Estimates – The Company makes estimates and assumptions relating to the reporting of assets and liabilities, the recording of reported amounts of revenues and expenses and the disclosure of contingent assets and liabilities to prepare these consolidated financial statements. Actual results could differ from those estimates. Considerable management judgment is necessary in estimating future cash flows and other factors affecting the valuation of goodwill, intangible assets, and employee benefit obligations including the operating and macroeconomic factors that may affect them. The Company uses historical financial information, internal plans and projections and industry information in making such estimates.

Revenue Recognition – Revenue is measured based on consideration specified in the contract with a customer, adjusted for any applicable estimates of variable consideration and other factors affecting the transaction price, including noncash consideration, consideration paid or payable to customers and significant financing components. Revenue from all customers is recognized when a performance obligation is satisfied by transferring control of a distinct good or service to a customer.

Individual promised goods and services in a contract are considered a performance obligation and accounted for separately if the customer can benefit from the good or service on its own or with other resources that are readily available to the customer and the good or service is separately identifiable from other promises in the arrangement. When an arrangement includes multiple performance obligations, the consideration is allocated between the performance obligations in proportion to their estimated stand-alone selling price. Costs related to products delivered are recognized in the period incurred, unless criteria for capitalization of costs are met. Cost of goods sold consist primarily of direct labor, manufacturing overhead, materials and components.

The Company excludes from revenue taxes collected from a customer that are assessed by a governmental authority and imposed on and concurrent with a specific revenue-producing transaction.

The Company includes shipping and handling fees in revenue. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of goods sold.

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer advances and deposits (contract liabilities) on the Consolidated Balance Sheet.

When more than one party is involved in providing goods or services to a customer, the Company determines whether it is a principal or an agent in these transactions by evaluating the nature of its promise to the customer. The Company is a principal and therefore records revenue on a gross basis if it controls a promised good or service before transferring that good or service to the customer. The Company is an agent and records as revenue the net amount it retains for its agency services if its role is to arrange for another entity to provide the goods or services.

Performance obligations - A performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account. A contract's transaction price is allocated to each distinct performance obligation in proportion to the standalone selling price for each and recognized as revenue when, or as, the performance obligation is satisfied. The Company's various performance obligations and the timing or method of revenue recognition in each of the Company's markets are discussed below:

Medical market - Customer orders from the medical market consist of a specified number of assembled and customized parts that the customer further integrates into their production process to produce market ready products. Customer orders do not include additional follow-on goods or services.

With the exception of prompt payment discounts, the transaction price for medical market products is the invoiced amount. Variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives or other items impacting transaction price are not present.

All of the Company's products manufactured for the medical market are designed to each customer's specifications, do not have an alternative use and cannot be sold or redirected by the Company to others. The Company has an enforceable right to payment for any finished or in-process units, including a reasonable margin, if the customer terminates the contract for reasons other than the Company's failure to perform as promised. The Company considers contractual arrangements, laws and legal precedent in determining enforceable right. Control of these units is deemed to transfer to the customer over time during the manufacturing process, using the same measure of progress toward satisfying the promise to deliver the units to the customer. Each order is for a series of distinct units that comprise a single performance obligation. Consequently, the transaction price is recognized as revenue over time based on actual costs incurred in the manufacturing process to date relative to total expected costs to produce all ordered units.

Medical market products are invoiced when shipped and paid within normal commercial terms. The Company records a contract asset for revenue recognized over time in the production process for customized products that have not been shipped or invoiced to the customer.

Hearing health market - Customer orders from the hearing health market consist of hearing aid devices and related accessories. Each unit of product delivered under a customer order represents a distinct and separate performance obligation as the customer can benefit from each unit on its own or with other resources that are readily available to the customer and each unit of product is separately identifiable from other products in the arrangement.

With the exception of prompt payment discounts, the transaction price for the hearing health markets products is the invoiced amount. Variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives or other items impacting transaction price are not present.

Nearly all of the Company's products manufactured for the hearing health market can be reworked without significant cost and sold to another customer in the event of the customer's termination of an order before delivery, and therefore have an alternative use to the Company. Generally, revenue is recognized upon the transfer of control of the products which is based on shipment terms; however, in certain cases the amount of shipment is adjusted for expected future returns and related consideration received.

Professional audio market - The Company sells body-worn audio devices with application in the aviation, fire, law enforcement, safety and military markets as well as for performers and production staff in the music and stage performance markets. Each unit on a customer's purchase order represents a distinct and separate performance obligation as the customer can benefit from each unit on its own or with other resources that are readily available to the customer and each unit is separately identifiable from the others because one does not significantly affect, modify or customize another.

Variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives or other items impacting the transaction price are not present. Invoiced amounts are deemed to approximate standalone selling price.

The products manufactured for the professional audio market can be reworked without significant cost and sold to another customer in the event of the customer's termination of an order before delivery and therefore have an alternative use to the Company. Transfer of control of the goods, and revenue recognition, occurs at the point in time of shipment or delivery of the products to the customer depending on the applicable shipping terms. Professional audio market products are billed when shipped and paid within normal commercial terms.

Hearing health direct-to-end-consumer (DTEC) market - The hearing health DTEC business distributes hearing aids and related accessories to the end consumer and is the Company's only business market that generates revenue from sales to the end consumer. The Company also sells a limited number of service plans for the hearing aids. Each product or service is a distinct performance obligation as each is independently useful either on its own or together with other products procured from the Company or other vendors and each product or service is separately identifiable from the others because one does not significantly affect, modify or customize another. Invoiced amounts approximate standalone selling price.

The hearing health DTEC business offers a 60-day trial period to the end consumer for hearing aids, during which customers can return the hearing aids for a full refund or exchange for a different hearing aid. The Company recognizes revenue only after completion of the 60-day trial period, when the customer's commitment to the arrangement is deemed to exist and an enforceable right to payment is established.

The transaction price for hearing aid accessories and service plans is the invoiced amount. Variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives or other items impacting transaction price are not present. Hearing aid accessories are billed and revenue is recognized upon shipment to the customer. Invoices are paid within normal commercial terms. Annual service plans are billed along with the hearing aid at the end of the 60-day trial period or upon renewal of the service plan, and paid within normal commercial terms. As the customer consumes the benefits of the service plan relatively evenly over the plan term, revenue for service plans is recognized on a straight-line basis commencing at the end of the trial period.

Sales Commissions - The Company has elected to apply the practical expedient provided by ASC 340-40-25-4 and recognize the incremental costs of obtaining contracts as an expense when incurred, as the amortization period of the assets that would have otherwise been recognized is one year or less. These costs are included in sales and marketing expenses on the consolidated statements of operations.

Fair Value Measurements – The Company follows the authoritative guidance on fair value measurements and disclosures with respect to assets and liabilities that are measured at fair value on both a recurring and nonrecurring basis. Fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The authoritative guidance also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability, based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The categorization of financial assets and financial liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The hierarchy is broken down into three levels defined as follows:

- Level 1 – Inputs are quoted prices in active markets for identical assets or liabilities.
- Level 2 – Inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability either directly or indirectly.
- Level 3 – Inputs are unobservable for the asset or liability.

The Company reviews the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. The Company's policy is to recognize transfers into and out of levels within the fair value hierarchy at the end of the fiscal quarter in which the actual event or change in circumstances that caused the transfer occurs. There were no transfers between Level 1, Level 2, or Level 3 during the years ended December 31, 2019 and 2018. When a determination is made to classify an asset or liability within Level 3, the determination is based upon the significance of the unobservable inputs to the overall fair value measurement.

The carrying value of cash, cash equivalents and restricted cash, accounts receivable, contract assets, notes payable, and trade accounts payables approximate fair value because of the short maturity of those instruments. The fair values of the Company's long-term debt obligations, pension and post-retirement obligations approximate their carrying values based upon current market rates of interest.

Concentration of Cash – The Company deposits its cash in what management believes are high credit quality financial institutions. The balance, at times, may exceed federally insured limits.

Restricted Cash – Restricted cash consists of deposits required to secure a credit facility at our Singapore location and deposits required to fund retirement related benefits for certain employees.

Investment Securities – As of December 31, 2018, investment securities were classified as available for sale securities and were marked-to-market at the reporting period with realized gains and losses recorded in net income. In 2019, investments were transferred from marketable equity securities to commercial paper, corporate notes and bonds. As of December 31, 2019, investment securities are classified as held to maturity based on our intent and ability to hold these investments until maturity. As a result, these investments are recorded at amortized cost. Available for sale securities are classified as current if expected to be used in operations, sold or transferred to alternative investment vehicles within the next 12 months while held to maturity securities are classified as current if the maturity date occurs within the next 12 months. Investment income included in interest income (expense), net on the consolidated statement of operations was $996 and $332 during 2019 and 2018, respectively.

Accounts Receivable – Amounts recorded in receivables, net, on the consolidated balance sheet include amounts billed and currently due from customers. The amounts due are stated at their net estimated realizable value. An allowance for doubtful accounts is maintained to provide for the estimated amount of receivables that will not be collected. The Company reviews customers' credit history before extending unsecured credit and establishes an allowance for uncollectible accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information. Invoices are generally due 30 days after presentation. Accounts receivable over 30 days are considered past due. The Company does not accrue interest on past due accounts receivables. Receivables are written off once all collection attempts have failed and are based on individual credit evaluation and specific circumstances of the customer. The allowance for doubtful accounts balance was $325 and $807 as of December 31, 2019 and 2018, respectively.

Inventories – Inventories are stated at the lower of cost or net realizable value. The Company reduces the carrying value of inventories for items that are determined to be excess, obsolete or slow-moving based on changes in customer demand, technology developments, or other economic factors. The cost of the inventories is determined by the first-in, first-out method.

Contract Assets - Contract assets primarily include unbilled amounts recognized as revenue for customized products manufactured for the medical market. The customized goods have no alternative use to the Company and the Company has an enforceable right to payment for performance completed to date. The Company begins revenue recognition when these goods enter the manufacturing process and continues based on a measure of progress toward completion using a cost-to-cost input method that considers labor and overhead costs incurred and materials used to date in the manufacturing process relative to total expected production costs. Given the relatively short duration of the production process, contract assets are classified as current. Contract assets are reclassified to accounts receivable upon shipment of and invoicing for the products, at which point the right to consideration becomes unconditional.

Machinery and Equipment – Machinery and equipment are carried at cost. Depreciation is computed on a straight-line basis using estimated useful lives of 5 to 40 years for buildings and improvements and 3 to 12 years for machinery and equipment. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or the estimated useful life of the asset. Improvements are capitalized and expenditures for maintenance, repairs and minor renewals are charged to expense when incurred. At the time assets are retired or sold, the costs and accumulated depreciation are eliminated and the resulting gain or loss, if any, is reflected in the consolidated statement of operations. Depreciation expense was $2,554, $1,909 and $1,679 for the years ended December 31, 2019, 2018 and 2017, respectively.

Intangible Assets – Definite-lived intangible assets consist of various acquired Hearing Help Express trademarks and customer relationships which are amortized over eighteen to twenty years. Amortization expense was $77, $155 and $180 for the years ended December 31, 2019, 2018 and 2017, respectively. As of and for the period ended June 30, 2019, the fair value of the intangible assets within our Hearing Help Express reporting unit was less than its carrying amount, which resulted in a non-cash impairment charge to intangible assets of $2,508. There were no further adjustments made to the carrying amount of intangible assets as of December 31, 2019.

Impairment of Long-lived Assets and Long-lived Assets to be Disposed of – The Company reviews its long-lived assets, certain identifiable intangibles, other assets and goodwill for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset group to future net undiscounted cash flows expected to be generated by the asset group. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. As of December 31, 2019, the Company has determined that no impairment of long-lived assets from continuing operations exists outside of impairments included in Note 6.

Goodwill is reviewed for impairment annually or more frequently if changes in circumstances or the occurrence of events suggest impairment exists. The Company may apply a qualitative assessment to determine if it is more likely than not that goodwill is impaired. If a reporting unit does not pass the qualitative assessment, or the Company choses to skip the assessment, it performs a test comparing fair value of a reporting unit to its carrying value. The Company recognizes an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. As of and for the period ended June 30, 2019, the fair value of the goodwill within our Hearing Help Express reporting unit was less than its carrying amount, which resulted in a non-cash impairment charge to goodwill of $1,257. There were no further adjustments made to the carrying amount of goodwill as of December 31, 2019.

Leases – At inception of a contract a determination is made whether an arrangement meets the definition of a lease. A contract contains a lease if there is an identified asset and the Company has the right to control the asset. Operating leases are recorded as right-of-use ("ROU") assets with corresponding current and noncurrent operating lease liabilities on our consolidated balance sheets. Financing leases are included within machinery and equipment with corresponding current and noncurrent financing lease liabilities on our consolidated balance sheets.

ROU assets represent our right to use an underlying asset for the duration of the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Recognition on the commencement date is based on the present value of lease payments over the lease term using an incremental borrowing rate. Leases with a term of 12 months or less at the commencement date are not recognized on the balance sheet and are expensed as incurred.

The Company has lease agreements with lease and non-lease components, which are accounted for as a single lease component for all asset classes. Leases are accounted for at a portfolio level when similar in nature with identical or nearly identical provisions and similar effective dates and lease terms.

Other Assets, Net – The principal amounts included in other assets, net are technology related assets, of which, $3,679 relates to self-fitting software as of December 31, 2019. In addition, $1,866 and $2,259 relates to technology access as of December 31, 2019 and 2018, respectively. The Company capitalizes costs of acquired technology which provide a future economic benefit. Amortization expense was $456, $739 and $455 for the years ended December 31, 2019, 2018 and 2017, respectively.

Investment in Partnerships – Certain of the Company's investments in equity securities are long-term, strategic investments in companies. Depending on whether the Company has significant influence over the entity, the Company accounts for these investments under the cost or equity method of accounting. Under the cost method, the Company records the investment at the amount the Company paid and recognizes income as dividends are paid. Under the equity method, the Company records the investment at the amount the Company paid and adjusts for the Company's share of the investee's income or loss and dividends paid. If payment for an investment exceeds the underlying book value of the investment, the Company allocates the difference to the fair value of the investment assets and to goodwill; and records related amortization of those assets within the equity investment balance and related equity in income (loss) of the investment. The investments are reviewed quarterly for changes in circumstances or the occurrence of events that suggest the Company's investment may not be recoverable.

Other Long-Term Liabilities – The amounts included in other long-term liabilities relate to contractual payments due to third parties beyond the next 12 months.

Income Taxes – Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, operating losses and tax credit carry forwards. 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. Valuation allowances are established to the extent the future benefit from the deferred tax assets realization is more likely than not unable to be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. The Company recognizes accrued interest and penalties related to uncertain tax positions in income tax expense. At December 31, 2019 and 2018, the Company had no accrual for the payment of tax related interest and there was no tax interest or penalties recognized in the consolidated statements of operations. The Company's federal and state tax returns are potentially open to examinations for fiscal years 2003-2005, 2009-2013 and 2015-2018.

Employee Benefit Obligations – The Company provides pension and health care insurance for certain domestic retirees and employees of its operations discontinued in 2005. These obligations have been included in continuing operations as the Company retained these obligations. The Company also provides retirement related benefits for certain foreign employees. The Company measures the costs of its obligation based on actuarial determinations. The net periodic costs are recognized as employees render the services necessary to earn the post-retirement benefit and the obligation is recorded on the consolidated balance sheet as accrued pension liabilities.

Assumptions about the discount rate and the expected rate of return on plan assets are determined by the Company. The Company believes the assumptions are within accepted guidelines and ranges. However, these actuarial assumptions could vary materially from actual results due to economic events and different rates of retirement, mortality and withdrawal.

Stock Based Compensation and Equity Plans – Under the Company stock-based compensation plans, executives, employees and outside directors receive awards of options to purchase common stock and restricted stock units. Under all awards, the terms are fixed at the grant date. For stock options, the exercise price equals the market price of the Company's stock on the date of the grant. Options under the plans generally vest over three years, and have a maximum term of 10 years. The Company expenses grant-date fair values of stock options, based on the Black-Scholes model, ratably over the vesting period of the related share-based award. Restricted stock units are valued based on the grant price and are expensed evenly over the vesting period. The restricted stock units vest in equal, annual installments over a three year period beginning on the first anniversary of the date of grant at which time common stock is issued with respect to vested units. The plans also permits the granting of stock awards, stock appreciation rights, restricted stock and other equity based awards.

Product Warranty – The Company offers a warranty on various products and services. The Company estimates the costs that may be incurred under its warranties and records a liability in the amount of such costs at the time the product is sold. Factors that affect the Company's warranty liability include the number of units sold, historical and anticipated rates of warranty claims and cost per claim. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the amounts as necessary. The amount of the reserve recorded is equal to the costs to repair or otherwise satisfy the claim. Historically, the Company has not incurred any significant amounts of warranty expense on its products. A warranty reserve of $65 and $20 was recorded as of December 31, 2019 and 2018, respectively.

Patent Costs – Costs associated with the submission of a patent application are expensed as incurred given the uncertainty of the patents providing future economic benefit to the Company.

Advertising Costs – Advertising costs amounted to $2,650, $3,419 and $1,696 in 2019, 2018 and 2017, respectively, and are charged to expense when incurred.

Research and Development Costs – Research and development costs, net of customer funding, amounted to $3,830, $4,671 and $4,458 in 2019, 2018 and 2017, respectively, and are charged to expense when incurred, net of customer funding. The Company accrues proceeds received under governmental grants when earned and estimable as a reduction to research and development expense.

Customer Funded Tooling Costs – The Company designs and develops molds and tools for reimbursement on behalf of several customers. The Company does not consider tooling transactions as ongoing central operations of the Company, and therefore, customer payments are not included in revenue in the consolidated statements of operations. Costs associated with the design and development of the molds and tools are charged to expense, net of the customer reimbursement amount. Net customer funded tooling resulted in income (expense) of $25, ($184) and $95 for the years ended December 31, 2019, 2018 and 2017, respectively, and is included in cost of goods sold in the consolidated statements of operations.

Income (Loss) Per Share – Basic income (loss) per share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding during the year. Diluted income (loss) per common share reflects the potential dilution of securities that could share in the earnings. The Company uses the treasury stock method for calculating the dilutive effect of stock options.

Comprehensive Income (Loss) – Comprehensive income (loss) consists of net income (loss), change in fair value of derivative instruments, pension and post-retirement obligations and foreign currency translation adjustments and is presented in the consolidated statements of comprehensive income (loss).

Foreign Currency Translation – The Company's German subsidiary accounts for its transactions in its functional currency, the euro. Foreign assets and liabilities are translated into United States dollars using the year-end exchange rates. Equity is translated at average historical exchange rates. Results of operations are translated using the average exchange rates throughout the year. Translation gains or losses are accumulated as a separate component of equity.

Subsequent Event Policy – The Company has evaluated events occurring after the date of the consolidated financial statements for events requiring recording or disclosure in the consolidated financial statements.

Derivative Financial Instruments — When deemed appropriate, the Company enters into derivative instruments. The Company does not use derivative financial instruments for speculative or trading purposes. All derivative transactions are linked to an existing balance sheet item or firm commitment, and the notional amount does not exceed the value of the exposure being hedged.

We recognize all derivative financial instruments in the consolidated financial statements at fair value regardless of the purpose or intent for holding the instrument. Generally, changes in fair values of derivatives accounted for as cash flow hedges, to the extent they are effective as hedges, are recorded in other comprehensive income (loss), net of tax or, if ineffective, on the consolidated statements of operations.

Recent Accounting Pronouncements

In December 2019, the FASB issued ASU 2019-12, *Simplifying the Accounting for Income Taxes* as part of its overall simplification initiative to reduce costs and complexity in applying accounting standards while maintaining or improving the usefulness of the information provided to users of the financial statements. Amendments include removal of certain exceptions to the general principals of ASC 740, *Income Taxes*, and simplification in several other areas such as accounting for franchise tax (or similar tax) that is partially based on income. ASU 2019-12 is effective for interim and annual periods beginning after December 15, 2020. The Company is currently reviewing this standard to assess the impact on our financial position, results of operations and cash flows.

In January 2020, the FASB issued ASU 2020-01, *Clarifying the Interactions between Topic 321, Topic 323, and Topic 815*, which clarifies that a company should consider observable transactions that require a company to either apply or discontinue the equity method of accounting under ASC 323, *Investments – Equity Method and Joint Venture*, for the purposes of applying the measurement alternative in accordance with ASC 321, *Investments – Equity Securities*, immediately before applying or upon discontinuing the equity method. ASU 2020-01 is effective for interim and annual periods beginning after December 15, 2020. The Company is currently reviewing this standard to assess the impact on our financial position, results of operations and cash flows.

2. DISCONTINUED OPERATIONS

On June 25, 2019, the Company's officers, pursuant to delegated authority from the board, approved plans to discontinue the operations of its UK subsidiary within the body worn device segment. As of December 31, 2019, we continue to settle the remaining assets and liabilities of the subsidiary. The final closing of the UK subsidiary is expected to occur during the first half of 2020.

At June 30, 2019, the net realizable value of certain assets was less than their carrying value resulting in a loss on disposal.

The Company considered the disposal a strategic shift in accordance with ASC 205 and the results of the UK operations have been classified as loss on discontinued operations, net of income taxes, in the accompanying Consolidated Statements of Operations, Comprehensive Income (Loss) and Cash Flows. Current assets, noncurrent assets, and liabilities of the discontinued operations have been reclassified and reflected on the accompanying Consolidated Balance Sheets as "Current assets of discontinued operations," "Noncurrent assets of discontinued operations," and "Liabilities of discontinued operations", respectively. Prior periods relating to our discontinued operations have also been reclassified to reflect consistency within our consolidated financial statements.

During the year ended December 31, 2019, we derecognized approximately $761 of non-cash operating lease ROU assets and lease liabilities from our discontinued operations.

The total assets and liabilities of the UK subsidiary at December 31 were as follows:

	December 31, 2019	December 31, 2018
Accounts receivable, net	$ —	$ 213
Inventories	—	818
Other current assets	80	174
Current assets of discontinued operations	80	1,205
Machinery and equipment	—	436
Less: Accumulated depreciation	—	126
Net machinery and equipment	—	310
Other assets, net	—	61
Total assets	$ 80	$ 1,576
Accounts payable	—	320
Other accrued liabilities	77	16
Current liabilities of discontinued operations	77	336
Net assets	$ 3	$ 1,240

The loss on disposal of discontinued operations, as a result of the plan to discontinue the operations of the UK, for the year ended December 31, 2019 was computed as follows:

Accounts receivable, net	$ 77
Write-down of inventory to net realizable value	278
Write-down of machinery and equipment to salvage value	298
Other assets and liabilities, net	71
Realized loss on foreign currency	280
Net assets disposed	1,004
Additional disposal costs, net	112
Loss on disposal of discontinued operations	$ 1,116

The following table shows the results of the UK subsidiary's discontinued operations:

	Year Ended December 31,		
	2019	2018	2017
Revenue, net	$ 1,068	$ 2,514	$ 3,683
Cost of goods sold	667	1,582	2,206
Gross profit	401	932	1,477
Sales and marketing	314	902	1,185
General and administrative	684	1,291	1,373
Total operating expenses	998	2,193	2,558
Other income, net	—	46	39
Loss from discontinued operations, net of taxes	$ (597)	$ (1,215)	$ (1,042)

In December 2016, the Company's board of directors approved plans to discontinue its cardiac diagnostic monitoring business. The Company sold the cardiac diagnostic monitoring business on February 17, 2017 to Datrix, LLC and recorded a $164 loss on the sale.

The following table shows the results of the cardiac diagnostic monitoring discontinued operations:

	Year Ended December 31,		
	2019	2018	2017
Revenue, net	$ —	$ —	$ 140
Operating costs and expenses	—	—	(268)
Net loss from discontinued operations	—	—	(128)

3. SEGMENT REPORTING

The Company currently operates in two reportable segments: body-worn devices and hearing health direct-to-end-consumer (DTEC). The nature of distribution and services has been deemed separately identifiable. Therefore, segment reporting has been applied.

Income (loss) from continuing operations is total revenues, net less cost of goods sold and operating expenses. Identifiable assets by industry segment include assets directly identifiable with those operations. The accounting policies applied to determine segment information are the same as those described in the summary of significant accounting policies. The Company evaluates the performance of each segment based on income and loss from operations before income taxes. The following table summarizes data by industry segment:

Year Ended December 31, 2019	Body Worn Devices	Hearing Health DTEC	Total
Revenue, net	$ 107,373	$ 6,120	$ 113,493
Impairment loss	—	3,765	3,765
Income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations	6,417	(8,280)	(1,863)
Depreciation and amortization	3,080	197	3,277
Capital expenditures	4,457	136	4,593

Year Ended December 31, 2018	Body Worn Devices	Hearing Health DTEC	Total
Revenue, net	$ 107,090	$ 6,858	$ 113,948
Income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations	10,792	(3,546)	7,246
Depreciation and amortization	2,678	213	2,891
Capital expenditures	5,338	165	5,503

Year Ended December 31, 2017	Body Worn Devices	Hearing Health DTEC	Total
Revenue, net	$ 80,462	$ 6,492	$ 86,954
Income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations	3,653	(1,191)	2,462
Depreciation and amortization	1,922	212	2,134
Capital expenditures	2,111	155	2,266

The following table summarizes the identifiable assets (excluding goodwill and intangible assets), goodwill and intangible assets by industry segment as of the following dates:

	December 31, 2019	December 31, 2018
Body Worn Devices:		
Identifiable assets (excluding goodwill)	$ 101,311	$ 97,725
Goodwill	9,551	9,551
Hearing Health DTEC:		
Identifiable assets (excluding goodwill and intangible assets)	2,651	2,554
Intangible assets	—	2,585
Goodwill	—	1,257

4. GEOGRAPHIC AND CUSTOMER INFORMATION

The geographical distribution of long-lived assets, consisting of machinery and equipment, and net revenue to geographical areas is set forth below:

Long-lived Assets, Net

	December 31, 2019	December 31, 2018
United States	$ 12,215	$ 10,065
Singapore	1,263	1,240
Other	73	117
Consolidated	$ 13,551	$ 11,422

Long-lived assets consist of machinery and equipment. Excluded from long-lived assets are investments in partnerships, patents, license agreements, intangible assets and goodwill. The Company capitalizes long-lived assets pertaining to the production of specialized parts. These assets are periodically reviewed to assure the net realizable value from the estimated future production based on forecasted cash flows exceeds the carrying value of the assets.

	Year Ended December 31,		
Net Revenue to Geographical Areas	**2019**	**2018**	**2017**
United States	$ 94,530	$ 96,822	$ 73,073
Europe	5,611	5,846	5,566
Asia	9,374	10,009	7,477
All other countries	3,978	1,271	838
Consolidated	$ 113,493	$ 113,948	$ 86,954

Geographic net revenue is allocated based on the location of the customer.

Customer Information

One customer accounted for 60 percent, 57 percent and 50 percent of the Company’s consolidated net revenue in 2019, 2018 and 2017, respectively. During 2019, 2018 and 2017, the top five customers accounted for approximately 73 percent, 72 percent and 66 percent of the Company’s consolidated net revenue, respectively.

Two customers accounted for a combined 51 and 53 percent of the Company's consolidated accounts receivable at December 31, 2019 and 2018, respectively.

One customer accounted for 86 and 78 percent of the Company's consolidated contract assets at December 31, 2019 and 2018, respectively.

5. GOODWILL

As of and for the period ended June 30, 2019, the fair value of the goodwill within our Hearing Help Express reporting unit was less than its carrying amount, which resulted in a non-cash impairment charge to goodwill of $1,257. There were no further adjustments made to the carrying amount of goodwill as of December 31, 2019. Previously, the Company concluded that no impairment of goodwill occurred during the years ended December 31, 2018 or 2017.

The changes in the carrying amount of goodwill for the years presented are as follows:

Carrying amount at December 31, 2018	$	10,808
Impairment of goodwill of Hearing Help Express		(1,257)
Carrying amount at December 31, 2019	$	9,551

6. INTANGIBLE ASSETS

Our Hearing Help Express reporting unit reported a non-cash impairment charge to intangible assets of $2,508 for the period ended June 30, 2019.

Intangible assets consisted of the following:

Carrying amount at December 31, 2018	$	2,585
Amortization of intangible assets of Hearing Help Express		(77)
Impairment of intangible assets of Hearing Help Express		(2,508)
Carrying amount at December 31, 2019	$	—

The definite-lived intangible assets consisted of various acquired Hearing Help Express trademarks and customer relationships. Prior to impairment, the asset life of trademarks was 20 years and the life of the customer list was 18 years.

7. INVESTMENT IN PARTNERSHIPS

Investment in partnerships consisted of the following:

	December 31, 2019	December 31, 2018
Investment in Signison	$ 852	$ 865
Investment in and cash advance for Soundperience	—	1,022
Other	308	204
Total	$ 1,160	$ 2,091

The Company has a 50% ownership interest in Signison as of December 31, 2019. Signison is accounted for in the Company's consolidated financial statements using the equity method.

As of December 31, 2018, the Company held a 49% ownership interest in Soundperience, which was accounted for using the equity method. In January 2019, the Company purchased the source code for self-fitting software from Soundperience in exchange for 1,829 Euros, our 49% ownership in Soundperience and the related license agreement. See Note 10.

8. INVESTMENT SECURITIES

As of December 31, 2019, the Company invests in commercial paper, corporate notes and bonds with original maturities of less than two years. The Company classifies these investments as held to maturity based on our intent and ability to hold these investments until maturity. As a result, these investments are recorded at amortized cost, which approximates fair value, using level 1 inputs, as of December 31, 2019. Amortization related to discounts on investment securities was $221 for 2019.

The maturity dates of our investments as of December 31, 2019 are as follows:

	Less than one year	1-5 years	Total
Commercial Paper Original Maturities of 91 Days or More	$ 8,461	$ —	$ 8,461
Corporate Notes and Bonds	14,990	8,629	23,619
Total Investments	$ 23,451	$ 8,629	$ 32,080

As of December 31, 2018, the Company invested $38,093 in certain liquid investment securities which were classified as available for sale investments and measured at fair value based on Level 1 inputs. These investments were valued using quoted market prices in an active market. All of the available for sale securities were invested in a money market account as of December 31, 2018. The Company held no available for sale securities as of December 31, 2019.

9. INVENTORIES

Inventories consisted of the following:

	Raw materials	Work-in process	Finished products and components	Total
December 31, 2019				
Domestic	$ 10,379	$ 736	$ 2,375	$ 13,490
Foreign	2,482	215	190	2,887
Total	$ 12,861	$ 951	$ 2,565	$ 16,377
December 31, 2018				
Domestic	$ 10,657	$ 2,484	$ 1,583	$ 14,724
Foreign	2,671	653	115	3,439
Total	$ 13,328	$ 3,137	$ 1,698	$ 18,163

10. OTHER ASSETS, NET

Other assets, net consisted of the following at:

	December 31, 2019	December 31, 2018
Self-fitting software	$ 3,679	$ —
Technology access	1,866	2,259
Other	510	1,168
Total	$ 6,055	$ 3,427

In January 2019, the Company purchased the source code for self-fitting software from Soundperience for 1,829 Euros and transferred our 49% ownership interest in Soundperience and related license agreement to the majority owner. The Company has capitalized the self-fitting software based on the cost of the consideration transferred and will begin amortizing the asset when it is placed into service. Included in the capitalized cost of the self-fitting software is $586 of cash paid at closing as well as $869 due in quarterly installments over the next four years, $533 due in January 2023 and $1,691 for the value of the ownership interests and license agreement transferred. The future payments are due in Euros and the related liabilities are revalued based on exchange rates as of each reporting period. As of December 31, 2019, outstanding liabilities consist of $285 other accrued current liabilities and $921 other long-term liabilities.

11. OTHER ACCRUED LIABILITIES

Other accrued liabilities at December 31:

	2019	2018
Pension	$ 120	$ 119
Postretirement benefit obligation	71	73
Deferred revenue	327	786
Technology access liability	1,236	2,225
Other	1,115	828
Total	$ 2,869	$ 4,031

The technology access liability, reflected above, relates to amounts owed to gain access to technology. On November 1, 2019, an amendment was entered into between the parties to extend the terms of repayment to quarterly installments through December 2021. As a result, $989 was reclassified to noncurrent as of December 31, 2019.

12. LEASES

The Company’s significant accounting policies are detailed in “Note 1: Summary of Significant Accounting Policies”. In February 2016, the FASB issued ASU 2016-02 “Leases” (Topic 842). Topic 842 supersedes the lease accounting guidance previously set forth in the Accounting Standards Codification (ASC) Topic 840 “Leases,” and requires lessees to recognize a lease liability and a right-of-use asset (ROU) for all leases that extend beyond one year. The Company adopted Topic 842 with a date of initial application of January 1, 2019, which resulted in a ROU asset and lease liability of approximately $6,000, including discontinued operations.

The Company did not apply Topic 842 retrospectively using the transition option in ASU 2018-11, “Targeted Improvements” to ASC 842, to not restate comparative periods in transition and instead to use the effective date of ASC 842, “Leases”, as the date of initial application of transition. In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard which allowed us to carry forward the historical lease classification.

The Company’s leases pertain primarily to engineering, manufacturing, sales and administrative facilities, with an initial term of one year or more. The Company has three leased facilities in Minnesota, two that expire in 2022 and one that expires in 2023, one leased facility in Illinois that expires in 2022, one leased facility in Singapore that expires in 2020, one leased facility in Indonesia that expires in 2024, and one leased facility in Germany that expires in 2022.

Certain foreign leases allow for variable lease payments that depend on an index or a market rate adjustment for the respective country and are adjusted on an annual basis. The adjustment is recognized as incurred in profit and loss. The facility leases include options to extend for terms ranging from one to five years. Lease options that the Company is reasonably certain to execute, are included in the determination of the ROU asset and lease liability. Our Indonesia lease includes embedded forward starting leases that will begin in 2022 and 2024 for additional square footage, which will result in the recognition of an additional ROU asset and lease liability in those periods of approximately $103 and $72, respectively. The Company also leases equipment that include bargain purchase options at termination. These leases have been classified as finance leases.

As of December 31, 2019, the Company has a weighted-average lease term of 1.4 years for its finance leases, and 3.1 years for its operating leases. As of December 31, 2019, the Company has a weighted-average discount rate of 5.56% for its finance leases, and 5.25% for its operating leases. Discount rates are determined based on 5 year term incremental borrowing rates at inception of the lease. Operating cash flows from continuing operations for the year ended December 31, 2019 from operating leases were $1,898. Non-cash increases for the year ended December 31, 2019, to the operating lease ROU assets, lease incentive other assets and lease liabilities from continuing operations were $741, $140, and $881, respectively. Financing lease assets are classified as machinery and equipment within the consolidated balance sheet.

The following table summarizes lease costs by type:

Year Ended December 31,	**2019**
Lease cost	
Finance lease cost:	
Amortization of right-of-use assets	$ 103
Interest on lease liabilities	10
Operating lease cost	1,862
Variable lease cost*	564
Total lease cost	$ 2,539

*Variable lease costs consists primarily of taxes, insurance, and common area or other maintenance costs for our domestic and foreign building leases.

Total expense for 2018 and 2017 under leases pertaining primarily to engineering, manufacturing, sales and administrative facilities, with an initial term of one year or more, was $2,327 and $1,728, respectively.

Maturities of lease liabilities are as follows:

	Operating Leases	**Financing Leases**	**Total**
2020	1,929	105	2,034
2021	1,591	31	1,622
2022	1,026	—	1,026
2023	418	—	418
2024	83	—	83
Total lease payments	5,047	136	5,183
Less: Interest	(381)	(5)	(386)
Present value of lease liabilities	$ 4,666	$ 131	$ 4,797

As previously disclosed in Note 20 of the Notes to the Consolidated Financial Statements in our 2018 Annual Report on Form 10-K, prior to the adoption of ASU 2016-02, *Leases (Topic 842)*, the future minimum payments required under lease agreements as of December 31, 2018 were 2019 - $2,417; 2020 - $2,255; 2021 - $1,689; 2022 - $950; 2023 - $188.

13. DOMESTIC AND FOREIGN INCOME TAXES

Domestic and foreign income taxes (benefits) were comprised as follows:

	Year Ended December 31,		
	2019	2018	2017
Current			
Federal	$ 24	$ —	$ 129
State	—	—	17
Foreign	173	227	211
Total Current	$ 197	$ 227	$ 357
Deferred			
Federal	—	12	(126)
State	—	—	—
Foreign	4	245	(223)
Total Deferred	$ 4	$ 257	$ (349)
Income Tax Expense	$ 201	$ 484	$ 8
Income (loss) from continuing operations before income taxes, non-controlling interest and discontinued operations			
Foreign	360	1,258	700
Domestic	(2,223)	5,988	1,762
Total	$ (1,863)	$ 7,246	$ 2,462

The following is a reconciliation of the statutory federal income tax rate to the effective tax rate based on income (loss):

	Year Ended December 31,		
	2019	2018 (a)	2017 (a)
Tax provision at statutory rate	21.00%	21.00%	34.00%
Change in valuation allowance	(23.61)	43.36	(247.26)
Impact of permanent items, including stock based compensation expense and impairment loss	(0.27)	(52.73)	5.25
Effect of foreign tax rates	0.34	0.51	(4.44)
State taxes net of federal benefit	(1.00)	0.14	3.11
Effect of dividend of foreign subsidiary in prior year	—	—	35.18
Prior year provision to return true-up	(5.82)	(5.61)	19.47
Non-controlling interest	(0.66)	0.16	0.98
Change in expected future rate	—	—	156.54
Other	(0.77)	(0.15)	(2.51)
Domestic and foreign income tax rate	(10.79)%	6.68%	0.32%

(a) Historical effective tax rates have been adjusted due to discontinued operations. Please refer to Note 2 for further information.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2019, and 2018 are presented below:

	Year Ended December 31,	
	2019	2018 (a)
Deferred tax assets:		
Net operating loss carry forwards	$ 7,749	$ 8,789
Inventory	509	678
Compensation accruals	960	1,046
Accruals and reserves	109	206
Credits	308	382
Contract assets	1,489	55
Other	175	317
Total Deferred tax assets	11,299	11,473
Less: valuation allowance	(10,605)	(10,165)
Deferred tax assets net of valuation allowance	$ 694	$ 1,308
Deferred tax liabilities		
Depreciation and amortization	(689)	(1,068)
Undistributed earnings of foreign subsidiary	—	—
Total deferred tax liabilities	(689)	(1,068)
Net deferred tax	$ 5	$ 240

(a) Historical balances have been adjusted due to discontinued operations. Please refer to Note 2 for further information.

The valuation allowance is maintained against deferred tax assets which the Company has determined are more likely than not to be unrealized. The change in valuation allowance was ($440), ($3,384), and $5,846 for the years ended December 31, 2019, 2018 and 2017, respectively. For tax reporting purposes, the Company has actual federal and state net operating loss carryforwards of $30,871 and $6,031, respectively, as of December 31, 2019. These net operating loss carryforwards begin to expire in 2023 for federal tax purposes and began to expire in 2019 for state tax purposes. Subsequently recognized tax benefits, if any, related to the valuation allowance for deferred tax assets or realization of net operating loss carryforwards will be reported in the consolidated statements of operations. If substantial changes in the Company’s ownership occur, there could be an annual limitation on the amount of the carryforwards that are available to be utilized.

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The Company regularly assesses the likelihood that the deferred tax assets will be recovered from future taxable income. The Company considers projected future taxable income and ongoing tax planning strategies, then records a valuation allowance to reduce the carrying value of the net deferred taxes to an amount that is more likely than not able to be realized. Based upon the Company's assessment of all available evidence, including the previous three years of United States based taxable income and loss after permanent items, estimates of future profitability, and the Company's overall prospects of future business, the Company determined that it is more likely than not that the Company will not be able to realize a portion of the deferred tax assets in the future. The Company will continue to assess the potential realization of deferred tax assets on an annual basis, or an interim basis if circumstances warrant. If the Company's actual results and updated projections vary significantly from the projections used as a basis for this determination, the Company may need to change the valuation allowance against the gross deferred tax assets.

The Company recognizes the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more-likely-than-not threshold, the amount recognized in the financial statements is the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement with the relevant taxing authority. The Company has analyzed all tax positions for which the statute of limitations remains open. As a result of the assessment, the Company has not recorded any liabilities for unrecognized income tax benefits or retained earnings. The Company does not have any unrecognized tax benefits as of December 31, 2019, 2018 and 2017.

The Company is subject to income taxes in the U.S. federal jurisdiction, and various states and foreign jurisdictions. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and regulations and require significant judgment to apply. The Company is still subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for the years 2003 to 2005, 2009 to 2013 and for the years 2015 and after. There are no on-going or pending IRS, state, or foreign examinations.

The Company recognizes penalties and interest accrued related to liability on unrecognized tax benefits in income tax expense for all periods presented. As of December 31, 2019 and 2018, the Company has no amounts accrued for the payment of interest and penalties.

The Tax Cuts and Jobs Act enacted in December of 2017 introduced a new Global Intangible Low-Taxed Income ("GILTI") provision that requires certain income earned by foreign subsidiaries to be included currently in the gross income of the U.S. shareholder. The Company has chosen to treat GILTI as a current-period cost when incurred.

14. EMPLOYEE BENEFIT PLANS

The Company has a defined contribution plan for most of its domestic employees. Under these plans, eligible employees may contribute amounts through payroll deductions supplemented by employer contributions for investment in various investments specified in the plans. The Company contributions to these plans were $700, $569 and $445 for the years ended December 31, 2019, 2018 and 2017.

The Company provides post-retirement medical benefits to certain former domestic employees who met minimum age and service requirements. In 1999, a plan amendment was instituted which limits the liability for post-retirement benefits beginning January 1, 2000 for certain employees who retire after that date. This plan amendment resulted in a $1,100 unrecognized prior service cost reduction which is recognized as employees render the services necessary to earn the post-retirement benefit. The Company's policy is to pay the cost of these post-retirement benefits when required on a cash basis. The Company also has provided certain foreign employees with retirement related benefits.

The following table presents the amounts recognized in the Company's consolidated balance sheets at December 31, 2019 and 2018 for post-retirement medical benefits:

	2019	2018
Change in Projected Benefit Obligation:		
Projected benefit obligation at January 1	$ 450	$ 533
Interest cost	16	16
Actuarial loss	63	(21)
Participant contributions	10	13
Benefits paid	(86)	(91)
Projected benefit obligation at December 31	$ 453	$ 450
Change in fair value of plan assets:		
Employer contributions	76	78
Participant contributions	10	13
Benefits paid	(86)	(91)
Funded status	$ (453)	$ (450)
Current liabilities	71	73
Noncurrent liabilities	382	377
Net amount recognized	$ 453	$ 450
Amount recognized in other comprehensive income (loss)	—	—
Unrecognized net actuarial gain	—	—
Total	$ —	$ —

Accrued post-retirement medical benefit costs are classified as other post-retirement benefit obligations as of December 31, 2019 and 2018 on the consolidated balance sheets.

Net periodic post-retirement medical benefit costs for 2019, 2018, and 2017 included the following components:

For measurement purposes, a 5.6% annual rate of increase in the per capita cost of covered benefits (i.e., health care cost trend rate) was assumed for 2019; the rate was assumed to decrease gradually to 4.6% by the year 2066 and remain at that level thereafter. The difference in the health care cost trend rate assumption may have a significant effect on the amounts reported.

The assumptions used for the years ended December 31 were as follows:

	2019	2018	2017
Annual increase in cost of benefits	5.6%	5.7%	5.8%
Discount rate used to determine year-end obligations	3.5%	3.9%	3.3%
Discount rate used to determine year-end expense	3.9%	3.3%	3.3%

In addition to the post-retirement medical benefits, the Company provides retirement related benefits to certain former executive employees and to certain employees of foreign subsidiaries. The liabilities established for these benefits at December 31, 2019 and 2018 are illustrated below.

	2019	2018
Current portion	$ 120	$ 119
Long-term portion	655	706
Total liability at December 31	$ 775	$ 825

The Company calculated the fair values of the pension plans above utilizing a discounted cash flow, using standard life expectancy tables, annual pension payments, and a discount rate of 4.0%.

Employer benefit payments (medical and pension), which reflect expected future service, are expected to be paid in the following years:

2020	$ 191
2021	179
2022	167
2023	157
2024	147
Years 2025-2029	387

15. CURRENCY TRANSLATION AND TRANSACTION ADJUSTMENTS

All assets and liabilities of foreign operations in which the functional currency is not the U.S. dollar are translated into U.S. dollars at prevailing rates of exchange in effect at the balance sheet date. Revenues and expenses are translated using average rates of exchange for the year. Adjustments resulting from the process of translating the financial statements of foreign subsidiaries into U.S. dollars are reported as a separate component of equity, net of tax, where appropriate.

Realized foreign currency transaction amounts included in the consolidated statements of operations include losses of $48, $64 and $89 in 2019, 2018 and 2017, respectively.

16. COMMON STOCK AND STOCK OPTIONS

The Company has a 2006 Equity Incentive Plan and a 2015 Equity Incentive Plan. The 2015 Equity Incentive Plan, which was approved by the shareholders on April 24, 2015, replaced the 2006 Equity Incentive Plan. New grants may not be made under the 2006 plan; however certain option grants under these plans remain exercisable as of December 31, 2019. The aggregate number of shares of common stock for which awards could be granted under the 2015 Equity Incentive Plan as of the date of adoption was 500 shares. Additionally, as outstanding options under the 2006 plan or 2015 plan expire, terminate, are cancelled or forfeited or are withheld in a net exercise, the shares of the Company’s common stock subject to such options will become available for issuance under the 2015 Equity Incentive Plan.

Under the plans, executives, employees and outside directors receive awards of restricted stock units (RSUs) and/or options to purchase common stock. The Company may also grant stock awards, stock appreciation rights, restricted stock and other equity-based awards, although no such awards, other than awards under the director program and management purchase program described below, had been granted as of December 31, 2019. Under all awards, the terms are fixed on the grant date. Generally, the exercise price of stock options equals the market price of the Company’s stock on the date of the grant. RSUs under the plans generally vest over three years. Options under the plans generally vest over three years, and have a maximum term of 10 years.

The Company granted 79 RSUs for the year ended December 31, 2019. The RSUs vest in equal, annual installments over a three year period beginning on the first anniversary of the date of grant at which time common stock is issued with respect to vested units.

Additionally, the board has established the non-employee directors’ stock fee election program, referred to as the director program, as an award under the 2015 equity incentive plan. The director program gives each non-employee director the right under the 2015 equity incentive plan to elect to have some or all of his quarterly director fees paid in common shares rather than cash. No shares were issued under the director program for the years ended December 31, 2019, 2018 and 2017.

On July 23, 2008, the Compensation Committee of the Board of Directors approved the non-employee director and executive officer stock purchase program, referred to as the management purchase program, as an award under the 2015 Plan. The purpose of the management purchase program is to permit the Company's non-employee directors and executive officers to purchase shares of the Company's Common Stock directly from the Company. Pursuant to the management purchase program, as amended, participants may elect to purchase shares of Common Stock from the Company not exceeding an aggregate of $100 during any fiscal year. Participants may make such election one time during each twenty business day period following the public release of the Company's earnings announcement, referred to as a window period, and only if such participant is not in possession of material, non-public information concerning the Company and subject to the discretion of the Board to prohibit any transactions in Common Stock by directors and executive officers during a window period. There were no shares purchased under the program during the years ended December 31, 2019, 2018 and 2017.

Stock award activity during the periods indicated was as follows:

	Outstanding Awards				
	Stock Options	RSUs	Total	Stock Option Weighted-Average Exercise Price (a)	Aggregate Intrinsic Value
Outstanding at December 31, 2016	1,385	—	1,385	$ 6.54	
Awards forfeited or cancelled	(30)	—	(30)	12.42	
Awards granted	303	—	303	7.28	
Awards exercised or released	(220)	—	(220)	10.67	
Outstanding at December 31, 2017	1,438	—	1,438	6.00	
Awards forfeited or cancelled	(8)	—	(8)	7.20	
Awards granted	0	98	98	—	
Awards exercised or released	(600)	—	(600)	5.65	
Outstanding at December 31, 2018	830	98	928	6.25	
Awards forfeited or cancelled	(3)	(1)	(4)	6.42	
Awards granted	—	79	79	—	
Awards exercised or released	(81)	(48)	(129)	4.91	
Outstanding at December 31, 2019	746	128	874	$ 6.39	$ 10,965
Exercisable at December 31, 2018			576	$ 5.81	$ 11,855
Exercisable at December 31, 2019			668	$ 6.30	$ 7,819
Available for future grant at December 31, 2019			183		

The number of shares available for future grant at December 31, 2019, does not include a total of up to 369 shares subject to options outstanding under the 2006 plan which will become available for grant under the 2015 Equity Incentive Plan as outstanding options under the 2006 plan expire, terminate, are cancelled or forfeited or are withheld in a net exercise of such options.

The weighted-average remaining contractual term of options exercisable and options outstanding at December 31, 2019 was 4.53 and 4.81 years. The total intrinsic value of options exercised during fiscal 2019, 2018 and 2017, was $1,627, $25,724 and $631, respectively.

The weighted-average per share grant date fair value of restricted stock units granted was $23.83 in 2019 and $20.61 in 2018. The weighted-average per share grant date fair value of options granted was $4.20 in 2017, using the Black-Scholes option-pricing model. No options were issued in 2019 and 2018.

The fair value of each stock option granted is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted average assumptions:

	2017	
Dividend yield	0.0	%
Expected volatility	59.29 - 63.51	%
Risk-free interest rate	1.87-2.16	%
Expected life (years)	6.0	

The Black-Scholes option-pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of subjective assumptions, including the expected stock price volatility.

The Company calculates expected volatility for stock options and awards using the Company’s historical volatility.

The expected term for stock options and awards is calculated based on the Company’s estimate of future exercise at the time of grant.

The Company currently estimates a zero percent forfeiture rate for stock options and regularly reviews this estimate. There were no forfeitures during fiscal years 2019, 2018 and 2017.

The risk-free rates for the expected terms of the stock options and awards and the employee stock purchase plan is based on the U.S. Treasury yield curve in effect at the time of grant.

The Company recorded $1,886, $1,395 and $844 of non-cash stock compensation expense for the years ended December 31, 2019, 2018 and 2017, respectively. There were 11 and 38 stock options that were forfeited using the “net exercise” method of exercise for the year ended December 31, 2019 and 2018, respectively. As of December 31, 2019, there was $1,957 of total non-cash stock compensation expense related to non-vested awards that is expected to be recognized over a weighted-average period of 1.82 years.

The Company also has an Employee Stock Purchase Plan (the “Purchase Plan”). The Purchase Plan, as amended, provides that a maximum of 300 shares may be sold under the Purchase Plan. There were 9, 7, and 11 shares purchased under the Purchase Plan during the years ended December 31, 2019, 2018 and 2017, respectively.

On August 20, 2018, the Company completed a public offering and sale of 1,725 shares of common stock at a price to the public of $55.00 per share less an underwriting discount of $3.30 per share. The net proceeds from this offering, after deducting underwriting discounts and offering expenses, totaled approximately $88,967 and were used to repay debt, fund capital expenditures, to repurchase 500 shares of common stock owned by directors and officers and for working capital and other general corporate purposes.

17. INCOME (LOSS) PER SHARE

The following table sets forth the computation of basic and diluted income (loss) per share:

	Year Ended December 31,		
	2019	2018	2017
Numerator:			
Income (loss) from continuing operations before non-controlling interest and discontinued operations	$ (2,064)	$ 6,762	$ 2,454
Loss on disposal of discontinued operations (Note 2)	(1,116)	—	(164)
Loss from discontinued operations, net of income taxes (Note 2)	(597)	(1,215)	(1,170)
Net income (loss)	(3,777)	5,547	1,120
Less: Loss allocated to non-controlling interest	—	—	(938)
Net income (loss) attributable to IntriCon shareholders	$ (3,777)	$ 5,547	$ 2,058
Denominator:			
Basic – weighted shares outstanding	8,748	7,599	6,852
Weighted shares assumed upon exercise of stock awards	—	1,031	455
Diluted – weighted shares outstanding	8,748	8,630	7,307
Basic income (loss) per share attributable to IntriCon shareholders:			
Continuing operations	$ (0.23)	$ 0.89	$ 0.50
Discontinued operations	(0.20)	(0.16)	(0.20)
Net income (loss) per share:	$ (0.43)	$ 0.73	$ 0.30
Diluted income (loss) per share attributable to IntriCon shareholders:			
Continuing operations	$ (0.23)	$ 0.78	$ 0.46
Discontinued operations	(0.20)	(0.14)	(0.18)
Net income (loss) per share:	$ (0.43)	$ 0.64	$ 0.28

The dilutive impact summarized above relates to the periods when the average market price of Company stock exceeded the exercise price of the potentially dilutive awards. Earnings per common share was based on the weighted average number of common shares outstanding during the periods when computing the basic earnings per share. When dilutive, stock options are included as equivalents using the treasury stock method when computing the diluted earnings per share. Shares represented by RSUs are also included in the dilution calculation.

The Company excluded all stock options in 2019 from the computation of the diluted income per share because their effect would be anti-dilutive due to the Company's net loss for the year. The Company excluded in the money stock options of 5 and 28 in 2018 and 2017, respectively, from the computation of the diluted income per share because their effect would be anti-dilutive. For additional disclosures regarding the stock options, see Note 16.

18. CONTINGENCIES AND COMMITMENTS

The Company is a defendant along with a number of other parties in lawsuits alleging that plaintiffs have or may have contracted asbestos-related diseases as a result of exposure to asbestos products or equipment containing asbestos sold by one or more named defendants. These lawsuits relate to the discontinued heat technologies segment which was sold in March 2005. Due to the non-informative nature of the complaints, the Company does not know whether any of the complaints state valid claims against the Company. Certain insurance carriers have informed the Company that the primary policies for the period August 1, 1970-1978 have been exhausted and that the carriers will no longer provide defense and insurance coverage under those policies. However, the Company has other primary and excess insurance policies that the Company believes afford coverage for later years. Some of these other primary insurers have accepted defense and insurance coverage for these suits, and some of them have either ignored the Company's tender of defense of these cases, or have denied coverage, or have accepted the tenders but asserted a reservation of rights and/or advised the Company that they need to investigate further. Because settlement payments are applied to all years a litigant was deemed to have been exposed to asbestos, the Company believes that it will have funds available for defense and insurance coverage under the non-exhausted primary and excess insurance policies. However, unlike the older policies, the more recent policies have deductible amounts for defense and settlements costs that the Company will be required to pay; accordingly, the Company expects that its litigation costs will increase in the future. Further, many of the policies covering later years (approximately 1984 and thereafter) have exclusions for any asbestos products or operations, and thus do not provide insurance coverage for asbestos-related lawsuits. The Company does not believe that the asserted exhaustion of some of the primary insurance coverage for the 1970-1978 period will have a material adverse effect on its financial condition, liquidity, or results of operations. Management believes that the number of insurance carriers involved in the defense of the suits, and the significant number of policy years and policy limits under which these insurance carriers are insuring the Company, make the ultimate disposition of these lawsuits not material to the Company's consolidated financial position or results of operations.

The Company's former wholly owned French subsidiary, Selas SAS, filed for insolvency in France. The Company may be subject to additional litigation or liabilities as a result of the completion of the French insolvency proceeding, including liabilities under guarantees aggregating approximately $438.

The Company is also involved from time to time in other lawsuits arising in the normal course of business. While it is not possible to predict with certainty the outcome of these matters, management is of the opinion that the disposition of these lawsuits and claims will not materially affect our consolidated financial position, liquidity or results of operations.

On October 5, 2007, the Company entered into employment agreements with its executive officers. The agreements call for payments ranging from one to two years base salary and unpaid bonus, if any, to the executives should there be a change of control as defined in the agreement and the executives are not retained for a period of at least one year following such change of control. Under the agreements, all stock options granted to the executives would vest immediately and be exercisable in accordance with the terms of such stock options. The Company also agreed that if it enters into an agreement to sell substantially all of its assets, it will obligate the buyer to fulfill its obligations pursuant to the agreements. The agreements terminate, except to the extent that any obligation remains unpaid, upon the earlier of termination of the executive's employment prior to a change of control or asset sale for any reason or the termination of the executive after a change of control for any reason other than by involuntary termination as defined in the agreements.

19. RELATED-PARTY TRANSACTIONS

The Company uses the law firm of Blank Rome LLP for legal services. A partner of that firm is the son-in-law of the Chairman of our Board of Directors, however, on May 1, 2019, the Chairman retired from the Company's Board of Directors. The Company paid approximately $234, $498, and $140, to Blank Rome LLP for legal services and costs in 2019, 2018 and 2017, respectively.

The Company has a 50% ownership in Signison, a German based hearing health company. Signison owes the Company a notes receivable of $852 which is included in investment in partnership on the balance sheet as of December 31, 2019.

The Company used $25,850 of the proceeds from the 2018 equity offering to repurchase 500 shares of common stock from certain directors and officers. The price paid by the Company for each share was the same price per share that the Company received in the offering.

20. SUPPLEMENTAL DISCLOSURE OF CASH FLOWS

Supplemental disclosures of cash flow information:

	Year Ended December 31,		
	2019	2018	2017
Interest received	$ 1,069	$ 381	$ 1
Interest paid	72	680	716
Income taxes received	73	—	—
Income taxes paid	148	190	166

	Year Ended December 31,		
Noncash Investing and Financing Transactions:	2019	2018	2017
Self-fitting software acquired through liabilities incurred and exchange of investment in partnership	3,093	—	—
Technology access liability	—	(375)	2,600

Machinery and equipment purchases that remain in accounts payable as of December 31, 2019 and 2018 were $61 and $1,030, respectively.

21. REVENUE BY MARKET

The following table sets forth, for the periods indicated, net revenue by market:

	Year Ended December 31,		
	2019	2018	2017
Medical:			
Diabetes	$ 68,606	$ 65,197	$ 43,365
Other Medical	13,487	10,448	10,087
Hearing Health:			
Value Based DTEC	6,120	6,858	6,492
Value Based ITEC	8,910	11,949	9,395
Legacy OEM	9,892	12,257	11,449
Professional Audio Communications:	6,478	7,239	6,166
Total Revenue, net	$ 113,493	$ 113,948	$ 86,954

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. As of the end of the period covered by this report (the "Evaluation Date"), the Company carried out an evaluation, under the supervision and with the participation of management, including the Chief Executive Officer (principal executive officer) and the Chief Financial Officer (principal financial officer), of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) or 15d-15(e) of the Exchange Act). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in applicable rules and forms, and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting. The report of management required under this Item 9A is contained in Item 8 of this Annual Report on Form 10-K under the caption "Management's Report on Internal Control Over Financial Reporting."

Independent Registered Public Accounting Firm's Attestation Report on Internal Control Over Financial Reporting. The attestation report of Baker Tilly Virchow Krause, LLP, our independent registered public accounting firm, required under this Item 9A, is contained in Item 8 of this Annual Report on Form 10-K under the caption "Report of Independent Registered Public Accounting Firm".

Changes in Internal Controls over Financial Reporting. There were no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the most recent fiscal quarter covered by this report that would have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. 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. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. Other Information

None.

PART III

ITEM 10. Directors, Executive Officers and Corporate Governance

The information called for by Item 10 is incorporated by reference from the Company's definitive proxy statement relating to its 2020 annual meeting of shareholders, including but not necessarily limited to the sections of the 2020 proxy statement entitled "Proposal 1 – Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance."

The information concerning executive officers contained in Item 4A hereof is incorporated by reference into this Item 10.

Code of Ethics

The Company has adopted a code of ethics that applies to its directors, officers and employees, including its principal executive officer, principal financial and accounting officer, controller and persons performing similar functions. Copies of the Company's code of ethics are available without charge upon written request directed to Cari Sather, Director of Human Resources, IntriCon Corporation, 1260 Red Fox Road, Arden Hills, Minnesota 55112. The Company intends to satisfy the disclosure requirement under Item 10 of Form 8-K regarding any future amendments to a provision of its code of ethics by posting such information on the Company's website: www.intricon.com.

ITEM 11. Executive Compensation

The information called for by Item 11 is incorporated by reference from the Company's definitive proxy statement relating to its 2020 annual meeting of shareholders, including but not necessarily limited to the sections of the 2020 proxy statement entitled "Director Compensation for 2020," and "Executive Compensation".

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information called for by Item 12 is incorporated by reference from the Company's definitive proxy statement relating to its 2019 annual meeting of shareholders, including but not necessarily limited to the section of the 2019 proxy statement entitled "Share Ownership of Certain Beneficial Owners, Directors and Certain Officers."

Equity Compensation Plan Information

The following table details information regarding the Company's existing equity compensation plans as of December 31, 2019:

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	(b) Weighted-average exercise price of outstanding options, warrants and rights (2)	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (3)
Equity compensation plans approved by security holders	874	$ 6.39	266
Equity Compensation plans not approved by security holders	—	—	—
Total	874	$ 6.39	266

(1) The amount in column (a) includes outstanding options to purchase 746 shares of common stock and unvested restricted stock units for 128 shares of common stock.

(2) The weighted average exercise price in column (b) is based only on outstanding stock options.

(3) The amount shown in column (c) includes 183 shares issuable under the Company's 2015 Equity Incentive Plan (the "2015 Plan") and 82 shares available for purchase under the Company's Employee Stock Purchase Plan. Under the terms of the 2015 Plan, as outstanding options under the Company's 2006 Equity Incentive Plan expire, terminate, are cancelled or forfeited or are withheld in a net exercise, the shares of common stock subject to such options will become available for issuance under the 2015 Plan. As of December 31, 2019, 369 shares of common stock were subject to outstanding options under the 2006 Equity Incentive Plan. Accordingly, if any of these options expire, terminate, are cancelled or forfeited or are withheld in a net exercise, the shares of common stock subject to such options also will be available for issuance under the 2015 Plan.

ITEM 13. Certain Relationships and Related Transactions, and Director Independence

The information called for by Item 13 is incorporated by reference from the Company's definitive proxy statement relating to its 2020 annual meeting of shareholders, including but not necessarily limited to the sections of the 2020 proxy statement entitled "Certain Relationships and Related Party Transactions" and "Independence of the Board of Directors."

ITEM 14. Principal Accounting Fees and Services

The information called for by Item 14 is incorporated by reference from the Company's definitive proxy statement relating to its 2020 annual meeting of shareholders, including but not necessarily limited to the sections of the 2020 proxy statement entitled "Independent Registered Public Accounting Fee Information."

PART IV

ITEM 15. Exhibits, Financial Statement Schedules

(a) The following documents are filed as a part of this report:

1) Financial Statements – The consolidated financial statements of the Registrant are set forth in Item 8 of Part II of this report.

Consolidated Statements of Operations for the years ended December 31, 2019, 2018 and 2017.

Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2019, 2018 and 2017.

Consolidated Balance Sheets at December 31, 2019 and 2018.

Consolidated Statements of Cash Flows for the years ended December 31, 2019, 2018 and 2017.

Consolidated Statements of Equity for the years ended December 31, 2019, 2018 and 2017.

Notes to Consolidated Financial Statements.

3) Exhibits –

3.1	The Company's Amended and Restated Articles of Incorporation, as amended. (Incorporated by reference from the Company's Current Report on Form 8-K filed with the Commission on April 24, 2008.)
3.2	The Company's Amended and Restated By-Laws. (Incorporated by reference from the Company's Current Report on Form 8-K filed with the Commission October 12, 2007.)
4.1	Specimen Common Stock Certificate. (Incorporated by reference from the Company's Registration Statement on Form S-3 (registration no. 333-200182) filed with the Commission on November 13, 2014.)
4.2*	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934
+10.1	Supplemental Retirement Plan (amended and restated effective January 1, 1995). (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 1995.)
+10.2	2006 Equity Incentive Plan, as amended. (Incorporated by reference from Appendix A to the Company's proxy statement filed with the SEC on March 15, 2012.)
+10.3	Form of Stock Option Agreement issued to executive officers pursuant to the 2006 Equity Incentive Plan. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006.)
+10.4	Form of Stock Option Agreement issued to directors pursuant to the 2006 Equity Incentive Plan. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006.)
+10.5	Non-Employee Directors Stock Fee Election Program. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2006.)
+10.6	Non-Employee Director and Executive Officer Stock Purchase Program, as amended. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2008.)
10.7	Agreement by and between K/S HIMPP and IntriCon Corporation dated December 1, 2006 and the schedules thereto. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2006.)
+10.8	Employment Agreement with Mark S. Gorder. (Incorporated by reference from the Company's Current Report on Form 8-K filed with the Commission October 12, 2007.)
+10.9	Form of Employment Agreement with executive officers. (Incorporated by reference from the Company's Current Report on Form 8-K filed with the Commission October 12, 2007.)
10.10.1	Eleventh Amendment to Loan and Security Agreement and Waiver among the Company, IntriCon, Inc., I-Management, LLC, Hearing Help Express, Inc., and CIBC Bank USA (formerly known as The PrivateBank and Trust Company), dated as of December 15, 2017. Exhibit A to this Amendment contains the fully amended Loan and Security Agreement among the parties. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017.)
10.10.2	Twelfth Amendment to Loan and Security Agreement among the Company, IntriCon, Inc., Hearing Help Express, Inc. and CIBC Bank USA (formerly known as The PrivateBank and Trust Company), dated as of July, 23, 2018. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018.)
10.10.3	Thirteenth Amendment to Loan and Security Agreement among the Company, IntriCon, Inc., Hearing Help Express, Inc. and CIBC Bank USA (formerly known as The PrivateBank and Trust Company), dated as of April 17, 2019.(Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019.)

10.11	Amended and Restated Revolving Note from the Company, IntriCon, Inc. and Hearing Help Express, Inc. to CIBC Bank USA (formerly known as The PrivateBank and Trust Company), dated April 17, 2019. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019.)
10.12	Amended and Restated Term Note from the Company, IntriCon, Inc., I-Management, LLC and Hearing Help Express, Inc. to CIBC Bank USA (formerly known as The PrivateBank and Trust Company), dated December 15, 2017. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017.)
10.13	Amended and Restated CapEx Note from the Company, IntriCon, Inc. and Hearing Help Express, Inc. to CIBC Bank USA (formerly known as The PrivateBank and Trust Company), dated July 23, 2018. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018).
+10.14	Annual Incentive Plan for Executives and Key Employees. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012.)
+10.15	Amended and Restated Amendment to Equity Plans. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2013.)
+10.16	Amendment No. 2 to Equity Plans. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016.)
+10.17	2015 Equity Incentive Plan. (Incorporated by reference from Appendix A to the Company's proxy statement filed with the SEC on March 6, 2015.)
+10.18	Form of Stock Option Agreement issued to employees pursuant to the 2015 Equity Incentive Plan. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015.)
+10.19	Form of Stock Option Agreement issued to directors pursuant to the 2015 Equity Incentive Plan. (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015.)
+10.20	Form of Performance Stock Option Agreement issued to employees pursuant to the 2015 Equity Incentive Plan. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017.)
+10.21	Form of Restricted Stock Unit Agreement issued to employees pursuant to the 2015 Equity Incentive Plan. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017.)
+10.22	Form of Restricted Stock Unit Agreement issued to directors pursuant to the 2015 Equity Incentive Plan. (Incorporated by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017.)
+10.23	Employee Stock Purchase Plan, as amended (Incorporated by reference from Appendix A to the Company's proxy statement filed with the SEC on March 11, 2016).
10.24	Master Supply Agreement effective as of May 14, 2019 between Medtronic, Inc. and the Company and related Business Unit Supply Agreement and Automation Agreement (Certain provisions of this exhibit have been omitted pursuant to Item 601 (b)(10)(iv) of Regulation S-K.) (Incorporated by reference from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019.)
16.1	Baker Tilly Virchow Krause, LLP letter dated January 27, 2020. (Incorporated by reference from the Company's Current Report on Form 8-K filed with the Commission on January 27, 2020.)
16.2	Baker Tilly Virchow Krause, LLP letter dated March 16, 2020. (Incorporated by reference from the Company's Current Report on Form 8-K/A filed with the Commission on March 16, 2020.)
21.1*	List of significant subsidiaries of the Company.
23.1*	Consent of Independent Registered Public Accounting Firm (Baker Tilly Virchow Krause, LLP).
31.1*	Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

31.2*	Certification of principal financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of principal executive officer pursuant to U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of principal financial officer pursuant to U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from IntriCon Corporation's Annual Report on Form 10-K for the year ended December 31, 2019, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Operations for the years ended December 31, 2019, 2018 and 2017; (ii) Consolidated Statements of Comprehensive Income (Loss); (iii) Consolidated Balance Sheets as of December 31, 2019 and 2018; (iv) Consolidated Statements of Cash Flows for the years ended December 31, 2019, 2018 and 2017; (v) Consolidated Statements of Equity for the years ended December 31, 2019, 2018 and 2017; and (vi) Notes to Consolidated Financial Statements.

* Filed herewith.

\+ Denotes management contract, compensatory plan or arrangement.

ITEM 16. Form 10-K Summary

None.

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.

INTRICON CORPORATION (Registrant)

By: /s/ Scott Longval
Scott Longval
Executive Vice President, Chief Financial Officer and Chief Operating Officer

Dated: March 16, 2020

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

/s/ Mark S. Gorder

Mark S. Gorder
President and Chief Executive
Officer and Director (principal executive officer)
March 16, 2020

/s/ Scott Longval

Scott Longval
Executive Vice President, Chief Financial Officer
and Chief Operating Officer
(principal accounting and financial officer)
March 16, 2020

/s/Nicholas A. Giordano

Nicholas A. Giordano
Director
March 16, 2020

/s/Robert N. Masucci

Robert N. Masucci
Director
March 16, 2020

/s/ Raymond O. Huggenberger

Raymond O. Huggenberger
Director
March 16, 2020

/s/ Philip I. Smith

Philip I. Smith
Director
March 16, 2020

Exhibit 4.2

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

IntriCon Corporation has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): our common stock, par value $1.00 per share (the "common stock"). References herein to "we," "us" and "our company" refer to IntriCon Corporation and not to any of our subsidiaries.

DESCRIPTION OF COMMON STOCK

The following description of the common stock of IntriCon Corporation is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Amended and Restated Articles of Incorporation, as amended (the "Articles") and our Amended and Restated By-Laws (the "By-Laws"), each of which is incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit is a part. We encourage you to read our Articles, By-Laws and the applicable provisions of the Pennsylvania Business Corporation Law of 1988, as amended for additional information.

Authorized Capitalization

As of December 31, 2019, our authorized capital stock consisted of (i) 20,000,000 shares of common stock, par value $1.00 per share, of which 8,781,311 shares were issued and outstanding, and (ii) 1,000,000 shares of preferred stock, par value $1.00 per share, of which no shares were issued and outstanding. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any then outstanding preferred stock.

Dividend Rights.

The holders of our common stock may receive cash dividends, if and when declared by our board of directors out of funds legally available for that purpose, and subject to preferential rights of the holders of preferred stock outstanding at the time.

Voting Rights.

Subject to the rights specifically granted to holders of any then outstanding preferred stock, our common shareholders are entitled to vote together as a class on all matters submitted to a vote of our shareholders, including the election of directors. Each share of common stock entitles the holder thereof to one vote on each matter to come before the shareholders, except as otherwise provided in our Articles or By-Laws. Holders of our common stock do not have cumulative voting rights with respect to the election of directors.

No Pre-emptive or Other Rights.

Holders of common stock are not entitled to pre-emptive, subscription, conversion or redemption rights.

Right to Receive Liquidation Distributions.

Upon our dissolution or liquidation, holders of our common stock are entitled to share ratably in our net assets after payment or provision for all liabilities and any preferential liquidation rights of our preferred stock then outstanding.

Anti-Takeover Provisions

Our Articles and By-Laws contain a number of provisions relating to corporate governance and to the rights of shareholders. Certain of these provisions may be deemed to have a potential "anti-takeover" effect by delaying, deferring or preventing a change of control of us.

Preferred Stock

Our ability to issue preferred shares in the future having terms established by the board of directors without shareholder approval, while providing flexibility in connection with possible acquisitions and other corporate purposes, could adversely affect the voting power of holders of common stock. One of the effects of undesignated preferred stock whose terms may be set by the board of directors may be to enable our board of directors to discourage an attempt to obtain control of our company by means of a tender offer, proxy contest, merger or otherwise.

Classified Board of Directors

Our By-Laws provide that our directors be classified into three classes, as nearly equal in number as possible, with one class being elected each year. Each director holds office for a term of three years and until his or her successor is duly elected and qualified unless his or her term ends earlier due to death, resignation or removal. Any director or the entire board of directors may be removed only for cause and only upon the affirmative vote of two-thirds of all of the shares outstanding and entitled to vote; provided that the board of directors retains the right conferred by Pennsylvania corporate law to declare vacant the office of a director for reasons specified therein.

Under the classified board provisions described above, it would take at least two elections of directors for any individual or group to gain control of our board of directors. Accordingly, these provisions could discourage a third party from initiating a proxy contest, making a tender offer or otherwise attempting to gain control of us.

Removal of Directors

Our directors may be removed only for cause and only upon the affirmative vote of the holders of at least two-thirds of all of the shares of common stock outstanding and entitled to vote. This provision could also discourage a third party from initiating a proxy contest, making a tender offer or otherwise attempting to gain control of us.

Amendment to By-Laws

Our By-Laws provide that the affirmative vote of the holders of at least two-thirds of our voting stock then outstanding, voting together as a single class, is required to amend or repeal provisions of our By-Laws relating to a classified board or the removal of a director or the entire board of directors. Except for such provision, our By-Laws generally may be amended by our board or by the affirmative vote of the holders of a majority of the outstanding shares entitled to vote, present in person or represented by proxy, at a meeting at which a quorum is present, though such a majority may be less than a majority of all of the shares entitled to vote thereon.

Advance Notice Procedures

Our By-Laws establish procedures for the nomination of directors by shareholders and the proposal by shareholders of matters to be considered at meetings of the shareholders, including the submission of certain information within the time periods prescribed in the By-Laws.

EXHIBIT 21.1

Significant Subsidiaries of
IntriCon Corporation

Subsidiary	**Place of Incorporation**
IntriCon GmbH Vertrieb von Elecktronikteilen	Germany
IntriCon, Inc.	Minnesota
IntriCon PTE LTD.	Singapore
PT IntriCon Indonesia	Indonesia
Hearing Help Express, Inc.	Illinois

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements on Forms S-3 (Registration Nos. 333-200182, 333-224723, and 333-226334, as amended) and Forms S-8 (Registration Nos. 333-16377, 333-66433, 333-59694, 333-129104, 333-134256, as amended, 333-145577, 333-168586, as amended, 333-173837, 333-181160, as amended, 333-204123, and 333-211326) of IntriCon Corporation and Subsidiaries of our report dated March 16, 2020, relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears on page 33 of this annual report on Form 10-K for the year ended December 31, 2019.

/s/ BAKER TILLY VIRCHOW KRAUSE, LLP

Minneapolis, Minnesota
March 16, 2020

EXHIBIT 31.1

CERTIFICATION

I, Mark S. Gorder, certify that:

1. I have reviewed this annual report on Form 10-K of IntriCon 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2020

/s/ Mark S. Gorder
President and Chief Executive Officer
(principal executive officer)

EXHIBIT 31.2

CERTIFICATION

I, Scott Longval, certify that:

1. I have reviewed this annual report on Form 10-K of IntriCon 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2020

/s/ Scott Longval
Executive Vice President, Chief Financial Officer and
Chief Operating Officer
(principal financial officer)

EXHIBIT 32.1

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

I, Mark S. Gorder, Chief Executive Officer (principal executive officer) of IntriCon Corporation (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1) the annual report on Form 10-K of the Company for the year ended December 31, 2019 (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 16, 2020

/s/ Mark S. Gorder
Mark S. Gorder
President and Chief Executive Officer
(principal executive officer)

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Section 1350 of Chapter 63 of Title 18 of the United States Code) and is not being filed as part of the Report or as a separate disclosure document.

EXHIBIT 32.2

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

I, Scott Longval, Chief Financial Officer (principal financial officer)of IntriCon Corporation (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

1) the annual report on Form 10-K of the Company for the year ended December 31, 2019 (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 16, 2020

/s/ Scott Longval

Scott Longval
Executive Vice President, Chief Financial Officer and Chief Operating Officer
(principal financial officer)

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Section 1350 of Chapter 63 of Title 18 of the United States Code) and is not being filed as part of the Report or as a separate disclosure document.