

ICAD INC  
Form 10-K  
March 30, 2018  
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**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, 2017**

**OR**

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

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

**Commission file number 1-9341**

**iCAD, INC.**

**(Exact name of registrant as specified in its charter)**

<b>Delaware</b> <b>(State or other jurisdiction of</b> <b>incorporation or organization)</b>	<b>02-0377419</b> <b>(I.R.S. Employer</b> <b>Identification No.)</b>
<b>98 Spit Brook Road, Suite 100, Nashua, New</b> <b>Hampshire</b> <b>( Address of principal executive offices)</b>	<b>03062</b> <b>( Zip Code)</b>
<b>Registrant s telephone number, including area code: (603) 882-5200</b>	

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

<b>Title of Class</b>	<b>Name of each exchange on which registered</b>
<b>Common Stock, \$.01 par value</b>	<b>The NASDAQ Stock Market LLC</b>

**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 requirement for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer (do not check if a smaller reporting company)

Smaller reporting company

Emerging growth company

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant, based upon the closing price for the registrant's Common Stock on June 30, 2017 was \$58,099,626. Shares of voting stock held by each officer and director and by each person who, as of June 30, 2017, may be deemed to have beneficially owned more than 10% of the outstanding voting stock have been excluded. This determination of affiliate status for purposes of this calculation is not necessarily a conclusive determination of affiliate status for any other purpose.

As of March 26, 2018, the registrant had 16,603,474 shares of Common Stock outstanding.

Documents Incorporated by Reference: Certain portions of the registrant's definitive Proxy Statement for its 2018 Annual Meeting of Stockholders are incorporated by reference into Items 11, 12, 13 and 14 of Part III of this Annual Report on Form 10-K.

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Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995:

Certain information included in this annual report on Form 10-K that are not historical facts contain forward looking statements that involve a number of known and unknown risks, uncertainties and other factors that could cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievement expressed or implied by such forward looking statements. These risks and uncertainties include, but are not limited to, the Company's ability to defend itself in litigation matters, to achieve business and strategic objectives, the risks of uncertainty of patent protection, the impact of supply and manufacturing constraints or difficulties, uncertainty of future sales levels, protection of patents and other proprietary rights, the impact of supply and manufacturing constraints or difficulties, product market acceptance, possible technological obsolescence of products, increased competition, litigation and/or government regulation, changes in Medicare reimbursement policies, risks relating to our existing and future debt obligations, competitive factors, the effects of a decline in the economy or markets served by the Company and other risks detailed in this report and in the Company's other filings with the United States Securities and Exchange Commission (SEC). The words believe, demonstrate, intend, expect, estimate, anticipate, likely, seek, would, could, may, consider, confident and similar expressions identify forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statement was made. Unless the context otherwise requires, the terms iCAD, Company, we, our registrant, and us means iCAD, Inc. and any consolidated subsidiaries.

**PART I**

**Item 1. Business.**

**General**

iCAD, Inc. is a global medical technology leader providing innovative cancer detection and therapy solutions. The Company reports in two operating segments: Cancer Detection (Detection) and Cancer Therapy (Therapy). The Company was incorporated in 1984 as Howtek, Inc. under the laws of the state of Delaware. In 2002 the Company changed its name to iCAD, Inc. and changed its ticker symbol to ICAD.

The iCAD website is [www.icadmed.com](http://www.icadmed.com). On this website the following documents are available at no charge: 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 (Exchange Act), as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC.

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Our SEC filings are also available on the SEC's website at <http://www.sec.gov>. Alternatively, you may access any document we have filed by visiting the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The information on the website listed above, 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.

The Company's headquarters are located in Nashua, New Hampshire, with manufacturing facilities in Nashua, New Hampshire and, an operations, research, development, manufacturing and warehousing facility in San Jose, California.

## **Company Overview and Strategy**

iCAD continues to evolve from a business focused on image analysis for the early detection of cancers to a broader player in the oncology market. As a global medical technology leader, the Company's strategy is to provide customers with a broad portfolio of innovative oncology solutions that address the two primary stages of the cancer care, detection and treatment. The Company believes that early detection, together with earlier targeted intervention, provides patients and healthcare providers with the best tools available to achieve better clinical outcomes resulting in market demand that will drive adoption of iCAD's solutions.

### ***Cancer Detection:***

Approximately 40 million mammograms were performed in the U.S. in 2017. Although mammography is the most effective method for early detection of breast cancer, studies have shown that an estimated 20% or more of all breast cancers go undetected in the screening stage. More than half of the cancers missed are due to observational errors. Computer aided detection (CAD), when used in conjunction with mammography, has been proven to help reduce the risk of these observational errors by as much as 20%. Earlier cancer detection typically leads to more effective, less invasive, and less costly treatment options which ultimately should translate into improved patient survival rates.

The Company intends to address the detection and diagnosis stages of the cancer care cycle through continued extension of its image analysis and clinical decision support solutions for mammography, breast tomosynthesis, and CT imaging. iCAD believes that advances in digital imaging techniques should bolster its efforts to develop additional commercially viable CAD and breast density assessment advanced image analysis and workflow solutions. CAD and density assessment for breast tomosynthesis is a growth area which the Company believes will provide additional benefits for early breast cancer detection. The Company believes that CAD and breast density assessment for tomosynthesis has the potential to help radiologists better detect cancer and manage the workflow efficiency issues created by large 3D datasets. The Company completed development of a tomosynthesis CAD and workflow tool in 2015 and launched the product in the European market in April 2016, HealthCanada in June 2016 and in the United States after FDA clearance in April 2017. The Company also developed a breast density assessment product for tomosynthesis that assesses breast density using 2D synthetic images that are generated from 3D tomosynthesis datasets. The Company's tomosynthesis breast density solution is pending FDA clearance and is expected in 2018.

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The Company believes that the CAD and breast density assessment solutions for breast tomosynthesis may represent a significant growth opportunity over the next three to five years. With over 5,600 installation opportunities for tomosynthesis systems in the U.S., there is a significant future opportunity for CAD and density assessment solutions for tomosynthesis. The Company anticipates that CAD for tomosynthesis will become the standard of care in the near future, similar to what CAD for 2D mammography is today in the U.S.

In the U.S., approximately 8,726 facilities (with approximately 18,451 accredited full field digital mammography ( FFDM ) and tomosynthesis mammography systems) were Mammography Quality Standards Act (MQSA) certified to provide mammography screening in 2017. The majority of these centers are using 2D digital mammography FFDM systems and we believe approximately 46% of the market has converted to 3D mammography or tomosynthesis.

With several European countries currently exploring the advantages of radiologists reading digital mammograms with CAD, the Company believes there is growth opportunity for mammography CAD in the international markets both from the analog to digital conversion and as more countries accept the use of radiologists using CAD, rather than two radiologists having to read each case. Based on the report published by the European Commission in April 2012, breast cancer is one of the most prevalent forms of cancer and it is also responsible for the most cancer-related deaths among women in the European Union ( EU ). The number of expected breast cancer cases based on the 2012 report was expected to continue to rise as the incidence of cancer increases steeply with age and life expectancy. On average one out of every 10 women in the EU is expected to develop breast cancer at some point in her life. As a result, most countries in Western Europe have or are planning to implement mammography screening programs resulting in an expected increase in the number of mammograms performed in the coming years.

Although sales of CAD with 2D mammography in Europe have been historically lower than in the U.S., the Company believes sales of its CAD for tomosynthesis will be adopted with a higher attachment rate in Europe than previously due to workflow improvements and reading time reduction that we believe the solution offers.

***Cancer Therapy:***

Radiation therapy is the medical use of ionizing radiation, generally as part of cancer treatment to control or kill malignant cells. Radiation therapy may be curative in a number of types of cancer if the cancer cells are localized to one area of the body. It may also be used as part of curative therapy to prevent tumor recurrence after surgery to remove a primary malignant tumor (for example, early stages of breast cancer). The clinical goal in radiation oncology is to deliver the highest radiation dose possible directly to the tumor to kill the cancer cells while minimizing radiation exposure to healthy tissue surrounding the tumor in order to limit complications and side effects. Global incidence rates of new cancer cases are rising, primarily due to aging populations and changing lifestyle habits. However, survival rates are also improving as a result of earlier detection and enhanced treatment options.

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The three main types of radiation therapy are external beam radiation therapy ( EBRT ), brachytherapy or sealed source radiation therapy, and systemic radioisotope therapy or unsealed source radiotherapy. One of the differences relates to the position of the radiation source; external is outside the body, brachytherapy uses sealed radioactive sources placed precisely in the treatment area, and systemic radioisotopes are given by infusion or oral ingestion. Brachytherapy uses temporary or permanent placement of radioactive sources. Conventional EBRT typically involves multiple treatments of a tumor in up to 50 radiation sessions (fractions). In the case of brachytherapy, radiation of healthy tissues further away from the sources is reduced. In addition, if the patient moves or if there is any tumor movement within the body during treatment, the radiation source(s) retain their correct position in relation to the tumor. These aspects of brachytherapy offer advantages over EBRT in that brachytherapy is able to direct high doses of radiation to the size and shape of the cancerous area while sparing healthy tissue and organs.

Brachytherapy is commonly used as an effective treatment for endometrial, cervical, prostate, breast, and skin cancer, and can also be used to treat tumors in many other body sites. Electronic Brachytherapy (eBx) is a type of radiotherapy that utilizes a miniaturized high dose rate X-ray source to apply radiation directly to the cancerous site. The Xoft® Axxent® Electronic Brachytherapy (eBx®) System® ( Xoft System ) is a proprietary electronic brachytherapy platform designed to deliver isotope-free (non-radioactive) radiation treatment in virtually any clinical setting without the limitations of radionuclides.

The process for delivering radiation therapy typically includes a radiation oncologist, a medical physicist responsible for planning the treatment and performing appropriate quality assurance procedures and, in certain instances, other specialty physicians depending upon the type of cancer e.g. a breast surgeon for breast cancer, a dermatologist for skin cancer, a gynecologist for endometrial or cervical cancer.

The Company s Xoft System is a disruptive radiation oncology treatment solution with significant cost, mobility, and treatment time advantages over its competitors or other standards of care. While the primary applications of this system currently are localized breast cancer treatment using a ten to fifteen-minute breast Intraoperative Radiation Therapy ( IORT ) protocol and the treatment of non-melanoma skin cancers ( NMSC ), the Xoft System platform can also be used to treat a wide and growing array of additional cancers, including gynecological and other non-breast IORT clinical indications.

There are approximately 300,000 new cases of breast cancer in the United States each year. The Company believes that the Xoft System is uniquely well positioned to offer a differentiated treatment alternative for the approximately 111,000 of these 300,000 annual new cases of early stage breast cancer in the U.S. where patients fit the clinical criteria to make this treatment a viable alternative to conventional radiation treatments. The Xoft System does not require a shielded environment and is relatively small in size, which means that it can easily be transported for use in virtually any clinical setting (including the operating room where IORT is delivered) under radiation oncology supervision. The Xoft System may also be used for Accelerated Partial Breast Irradiation ( APBI ), which can be delivered twice daily for five days. There is a growing body of clinical evidence in support of breast IORT and Category I Current Procedural Terminology ( CPT ) codes have been in place for several years, providing reimbursement for the hospital, radiation oncologist, and surgeon for performing the IORT treatment.

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Basal and Squamous Cell Carcinoma are two of the most prevalent types of NMSC in the U.S., with more than 5.4 million cases being diagnosed annually. The Xoft System enables radiation oncologists and dermatologists to collaborate in offering their patients a non-surgical treatment option that is particularly appropriate for certain challenging lesion locations on the ear, face, scalp, neck and extremities. Xoft also offers the Axxent Hub web-based software platform that enables centers to improve patient safety, conduct treatment planning, enhance and monitor workflow, and improve communication between clinical specialties.

The Company views additional Xoft System platform indications as important opportunities in both the U.S. and international markets. The Xoft System is also marketed for gynecological cancers including endometrial and cervical cancer. In 2013 the Company received FDA clearance for an application for the treatment of cervical cancer and launched a new applicator to treat cervical cancer in 2015. Vaginal cancer is the fourth most common cancer affecting women worldwide and cervical cancer incidence rates outside of the U.S. are very high due to inadequate penetration of screening modalities. The Company believes an additional strategic growth opportunity exists in the application of the Xoft System for the treatment of other cancers beyond NMSC and breast cancer in the IORT setting including integration with minimally invasive surgical techniques and systems.

On January 4, 2018, the Company adopted a plan to discontinue offering radiation therapy professional services to practices that provide the Company's electronic brachytherapy solution for the treatment of NMSC under the subscription service model within the Therapy Segment. As a result, the Company will no longer offer the subscription service model to customers. The Company will continue to offer its capital sales model for both skin cancer treatment and IORT, which provides a brachytherapy system and related source and service agreements. The discontinuance of the subscription service model is expected to reduce radiation therapy professional services delivery costs, decrease cash burn, and re-focus the Company on the higher margin capital product and service offerings.



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The table below presents the revenue and percentage of revenue attributable to the Company's products and services, in 2017, 2016 and 2015 (in thousands):

	For the year ended December 31,					
	2017	%	2016	%	2015	%
<b>Detection:</b>						
Digital & MRI CAD revenue	\$ 11,649	41.5%	\$ 8,682	33.0%	\$ 11,216	27.0%
Film based revenue		0.0%		0.0%	10	0.0%
Service	6,661	23.7%	8,451	32.1%	8,017	19.3%
<b>Detection revenue</b>	<b>18,310</b>	<b>65.2%</b>	<b>17,133</b>	<b>65.1%</b>	<b>19,243</b>	<b>46.3%</b>
<b>Therapy:</b>						
Product	1,905	6.8%	1,789	6.8%	2,972	7.2%
Service	7,887	28.1%	7,416	28.2%	19,339	46.5%
<b>Therapy revenue</b>	<b>9,792</b>	<b>34.8%</b>	<b>9,205</b>	<b>34.9%</b>	<b>22,311</b>	<b>53.7%</b>
<b>Total revenue</b>	<b>\$ 28,102</b>	<b>100.0%</b>	<b>\$ 26,338</b>	<b>100.0%</b>	<b>\$ 41,554</b>	<b>100.0%</b>

**Cancer Therapy Segment Overview and Products**

The Xoft System utilizes a miniaturized high dose rate yet low energy X-ray source to apply radiation directly to the cancerous site. The goal is to direct the radiation dose to the size and shape of the cancerous area while sparing healthy tissue and organs. The Xoft System delivers clinical dose rates similar to traditional radioactive systems. However, because of the electronic nature of the Xoft technology, the dose fall off is much faster, thus lowering the radiation exposure outside of the prescribed area. Given this rapid dose fall off, there is no need for a lead vault as compared to traditional isotope based radiation therapy, enabling the Xoft System to be transported to different locations within the same facility or between multiple facilities.

Intraoperative radiation therapy ( IORT ) can be delivered during an operative procedure, in as little as eight minutes, and may be used as a primary or secondary modality. This technology enables radiation oncology departments in hospitals, clinics and physician offices to perform traditional radiotherapy treatments and offer advanced treatments such as IORT. Current customers of the Xoft System include university research and community hospitals, private and governmental institutions, doctors' offices, cancer care clinics, veterinary facilities, and strategic partnerships with radiation oncology service providers that enable the supervised delivery of the technology in dermatologist offices.

Of the approximately 300,000 women who are diagnosed with breast cancer every year in the U.S., the majority, or 60% are diagnosed with early stage breast cancer. About 60% of early stage breast cancers qualify as candidates for treatment with eBx. Currently, a majority of early stage breast cancer patients who are treated with radiation therapy follow a five to seven-week daily protocol of traditional external beam radiation while a small portion are treated with a five-day protocol using brachytherapy. IORT aims to simplify radiation treatment for early-stage breast cancer patients by delivering one precise dose of radiation directly to the lumpectomy cavity in a single, safe and effective procedure.



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Breast cancer is a relatively common disease and is often treatable by surgery, followed by radiotherapy with an additional therapy such as chemotherapy and/or hormonal therapy. Early detection has led to earlier diagnosis with small, early stage diseases that can be removed by local excision rather than a complete mastectomy. Microscopic cancerous cells can be present and easily managed with the application of radiotherapy. The protocol for many years for most women included a day procedure for a lumpectomy and five to seven weeks of daily radiation. IORT allows the physician to treat the remaining breast tissue in the operating room while the patient is still under anesthesia, eliminating the need for five to seven weeks of daily traditional radiation therapy. In the last few years, in Europe and in the U.S., shorter treatment protocols of external beam radiation therapy hypo-fractionated to as few as three weeks have emerged as alternatives.

In a scientific paper presented at the 2010 ASCO Meeting, Dr. Jayant Vaidya of the University College London, UK, concluded that in the 2,200 patient multinational clinical trial (TARGIT-A trial) IORT, generated with 50 kV electronic brachytherapy, is equivalent to conventional external beam radiotherapy. In December 2012, Dr. Vaidya presented five-year follow up data on the TARGIT-A trial at a forum in conjunction with the San Antonio Breast Cancer Symposium. Following this presentation, in November 2013 the Lancet online published the five-year update results of the TARGIT-A trial. The updated results of the trial demonstrated that local recurrence rates in the TARGIT (IORT) group were within the non-inferiority boundary when compared to the results in the group who received external beam radiation therapy and that mortality rates from causes other than breast cancer were lower in the TARGIT (IORT) group. In addition, the data revealed that at five years, the local recurrence rate in patients who were treated with IORT concurrent with lumpectomy was 2.3% compared with the recurrence rate for patients who received traditional external beam radiation therapy which was 1.3%. Given the study had a non-inferiority boundary of 2.5%, the study revealed that IORT is a non-inferior treatment relative to external beam radiation therapy for patients who meet the established clinical criteria.

Additionally, in 2016, Melinda Epstein, PhD, et al. of Hoag Memorial Hospital Presbyterian in Newport Beach, CA published two clinical papers on their experience with the Xofig System for the treatment of early-stage breast cancer with IORT. In June 2016, the Annals of Surgical Oncology published data on 702 patients treated from June 2010 to January 2016, demonstrating a 1.7% recurrence rate. Further, less than 5% of patients had significant complications, concluding that IORT safely delivers radiation and allows some women who cannot (or decline to) undergo whole breast radiation to consider breast-conserving therapy rather than mastectomy. In August 2016, The Breast Journal published 20-month mean follow-up data on 146 patients with pure ductal carcinoma in situ (DCIS) treated with IORT. The data showed a 2.1% recurrence rate with relatively few complications and again concluded that x-ray based IORT is a promising treatment modality that greatly simplifies the delivery of post-excision radiation therapy.

Further, in 2017, researchers from Hoag Memorial Hospital Presbyterian published another clinical paper in the Annals of Surgical Oncology on their experience with the Xofig System in treating 204 early-stage breast cancers in a prospective, X-ray IORT trial from June 2010 to September 2013. With a median follow-up of 50 months, results indicated there have been seven ipsilateral breast tumor events (IBTE), no regional or distant recurrences, and no breast cancer-

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related deaths. Kaplan-Meier analysis projects that 2.9% of patients will recur locally at 4 years. The site's low complication and recurrence rates support the cautious use and continued study of IORT in selected women with low-risk breast cancer. The Hoag Memorial Hospital Presbyterian IORT series is currently the largest single-facility IORT series with the Xofter System in the United States.

Also, in 2017, the Company announced results of a landmark study that showed the benefits of IORT compared to external beam radiation therapy (EBRT) in the treatment of early-stage breast cancer. The analysis demonstrated that IORT could result in direct cost savings for the U.S. healthcare system of more than \$630 million over the lifetime of patients diagnosed annually with early-stage breast cancer, as well as significantly benefit patient health by minimizing radiation exposure and offering a better quality of life. The results of the study were published in November 2017 in the peer-reviewed *Cost Effectiveness and Resource Allocation* and determined IORT to be the preferred method of treatment.

As the Company continues to focus on broadening global awareness and patient access to IORT, 2017 also brought meaningful progress in the area of international research. Physicians from Taiwan published a clinical paper in November 2017 in the peer-reviewed *PLOS One* journal. The multi-center study examined patient selection and the oncologic safety of IORT with the Xofter System for the management of early-stage breast cancer. From 2013-2015, 26 hospitals in Taiwan performed a total of 261 IORT procedures. With a mean follow-up of 15.6 months, locoregional recurrence was observed in 0.8% of patients. The study concluded that preliminary results of IORT in Taiwan showed it is well accepted by patients and clinicians.

In August 2017, the Company announced that its balloon applicators received approval from the China Food & Drug Administration (CFDA) for the treatment of early-stage breast cancer. With this CFDA approval, the complete suite of Xofter System products is now available to clinicians and patients in China. In addition to the Chinese market, the company continues to build positive momentum and has regulatory approval in key geographies such as Spain, Australia, and Switzerland.

The reimbursement for IORT has improved from 2011 when the American Medical Association (AMA) established Category I CPT codes for IORT based on clinical evidence. These codes and payment values became effective beginning January 2013. In 2014, CMS announced that the payment value for IORT treatments would increase for the 2015 year from the payment values in 2011. Current IORT payment values have remained consistent with the values established in 2014.

NMSC is considered an epidemic in the U.S. with over 3.5 million cases diagnosed annually. Of those cases, approximately 20%-30% have specific diagnoses and lesion characteristics that make such patients potential candidates for electronic brachytherapy treatment. The Xofter System is a viable alternative treatment option for patients with lesions in cosmetically challenging locations (ear, nose, scalp, neck), locations that experience difficulties in healing (lower legs, upper chest, fragile skin), patients on anticoagulants, and patients who are anxious about surgery. The Xofter System has been used to treat more than 10,000 NMSC lesions. Recent clinical data published from 2015 to 2017 demonstrates promising local control and supports eBrachy as a

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convenient, effective, nonsurgical treatment option offering minimal toxicity and excellent cosmesis for eligible NMSC patients. In 2017, the Company announced that results of a matched-pair cohort study of 369 early-stage NMSC patients treated with the Xoft System or Mohs micrographic surgery showed that rates of recurrence of cancer were virtually identical at a mean follow-up of 3.4 years. Mohs micrographic surgery is accepted as the most effective technique for removing basal cell carcinoma and squamous cell carcinoma. The study results were published online in the peer-reviewed Journal of Contemporary Brachytherapy.

Since 2016, electronic brachytherapy for the treatment of NMSC has been reimbursed under a skin-specific Category III CPT code. Reimbursement for the treatment delivery is provided through the Category III CPT code, 0394T, which covers high dose rate electronic brachytherapy, skin surface application, per fraction, and includes basic dosimetry, when performed. There are additional Category I CPT codes reportable with the service as determined by physician orders, medical necessity, and documentation. Coverage policies and payment values associated with CPT code 0394T are determined by the regional U.S. Medicare Administrative Contractors. There are several Medicare Administrative Contractors that have published rates for the 0394T code and others that reimburse on a case-by-case basis.

Gynecological cancers are also appropriate for treatment with electronic brachytherapy. There are approximately 50,000 new cases of endometrial cancer each year in the U.S. and nearly 300,000 new cases worldwide. In 2017, the first-ever European analysis of electronic brachytherapy using the Xoft System for endometrial and cervical cancer treatment was presented at the ESTRO meeting. Researchers from Miguel Servet University Hospital in Zaragoza, Spain presented promising study results demonstrating excellent outcomes in acute toxicity in 29 endometrial or cervical cancer patients treated with the Xoft System from September 2015 to September 2016. Additional research showed that electronic brachytherapy delivered a lower dose of radiation to surrounding healthy organs at risk, such as the bladder and rectum, than would have been delivered had <sup>192</sup>Ir been utilized instead of the Xoft System.

Additionally, electronic brachytherapy is appropriate for use in other IORT clinical settings where surgical resection is unable to completely eliminate all cancer cells. In the U.S. and international settings, the Company believes that IORT for prostate, pelvic, gastrointestinal, abdominal, spinal, and soft tissue sarcoma applications remains a potential market given the minimal shielding requirements associated with this treatment modality.

***Electronic Brachytherapy products:******Electronic Brachytherapy (eBx<sup>®</sup>) Treatment for Breast Cancer*****Xoft System**

The portable Xoft system uses isotope-free miniaturized X-ray tube technology to deliver therapy directly to cancer sites with minimal radiation exposure to surrounding healthy tissue. The Xoft System is FDA-cleared, CE marked and licensed in a growing number of countries for the treatment of cancer anywhere in the body, including early-stage breast cancer, NMSC and gynecological cancers. The Company offers FDA-cleared applicators for the utilization of the Xoft system including breast applicators for IORT and APBI in the treatment of breast cancer,

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vaginal applicators for the treatment of endometrial cancer, cervical applicators for the treatment of cervical cancer, and skin applicators for the treatment of non-melanoma skin cancers. The flexible single-use breast IORT and APBI applicators are offered in a variety of sizes based on clinical need. The endometrial, cervical and skin applicators are reusable and are manufactured in various sizes based on the anatomical requirements of the patient or the size of the lesion. The Company also provides the 50kV isotope-free energy source, a comprehensive service warranty program, and various accessories such as the Axxent eBx Rigid Shield for internal IORT shielding. The 50kV energy source is typically sold as an annual contract customized to individual customer volume/usage requirements.

The Company has made several enhancements to the Xofter system controller including a new software interface enabling enhanced system functionality and an upgraded high voltage connection improving system performance. In 2014, the Company developed and launched a new SPX Controller which includes an optimized skin treatment arm customized for compatibility in confined patient treatment rooms in physician office-based facilities. This controller complements the MPX Controller which is designed for multi-application use. In 2016, the Company unveiled a new Streamlined Module for Advanced Radiation Therapy (SMART) solution for its Xofter System and Axxent Hub cloud-based oncology collaboration software solution. Comprising a new Wi-Fi enabled Xofter System and enhanced Axxent Hub cloud software, the SMART solution improves workflow efficiency and the flexibility and security of skin eBx treatments while also improving clinical collaboration and supervision.

In early 2013, the Company received FDA clearance for a new applicator for use in the treatment of cervical cancer and launched this product in the U.S and international markets in 2015. This new applicator further expands the Company's product portfolio in the gynecological cancer market and enables customers to offer comprehensive electronic brachytherapy solutions to their patients in need of gynecological radiation therapy.

## **Cancer Detection Segment Overview and Products**

Mammography CAD systems use sophisticated algorithms to analyze image data and mark suspicious areas in the image that may indicate cancer. The locations of the abnormalities are marked in a manner that allows the reader of the image to reference the same areas in the original mammogram for further review. The use of CAD aids in the detection of potential abnormalities for the radiologist to review. After initially reviewing the case films or digital images, a radiologist reviews the CAD results and subsequently re-examines suspicious areas that warrant a second look before making a final interpretation of the study. The radiologist determines if a clinically significant abnormality exists and whether further diagnostic evaluation is warranted. As a medical imaging tool, CAD is most prevalent as an adjunct to mammography given the documented success of CAD for detecting breast cancer.

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***Digital Mammography CAD products:***

*Advanced Image Analysis and Workflow Solutions in Breast Imaging (Mammography)*

iCAD develops and markets a comprehensive range of high-performance Artificial Intelligent cancer detection and workflow solutions for digital mammography systems worldwide. iCAD's PowerLook Mammo Detection (also known as SecondLook Digital) is based on sophisticated patented algorithms that analyze the data, automatically identifying and marking suspicious regions in 2D full field digital mammography images. The solution provides the radiologist with a second look which helps the radiologist detect actionable missed cancers earlier than screening mammography alone. PowerLook Mammo Detection detects and identifies suspicious masses and micro-calcifications utilizing image processing, pattern recognition and artificial intelligence techniques. Information from thousands of mammography images are incorporated into these algorithms enabling the product to distinguish between characteristics of cancerous and normal tissue. The result is earlier detection of hard-to-find cancers, improved workflow for radiologists, and higher quality patient care.

In June 2012, iCAD introduced its next generation PowerLook Advanced Mammography Platform® (AMP) recently rebranded as PowerLook Breast Health Solutions. The technology expands on iCAD's legacy SecondLook Digital platform and is the mammography platform upon which all future breast imaging offerings from iCAD will be built. PowerLook Breast Health Solutions is the first product suite of its kind to integrate cancer detection and breast density assessment software, which aids radiologists by standardizing their approach to breast density assessment and categorization. The Company acquired the breast density assessment solution from VuComp in April 2015 and subsequently released it to market under the product name iReveal and recently rebranded to PowerLook Density Assessment. Thirty states now mandate reporting of a breast density score to patients as part of the annual mammogram, PowerLook Density Assessment provides an automated, consistent and standardized reporting tool to assist with this process.

Included with PowerLook is a multi-vendor CAD and density assessment server that allows hospitals and imaging facilities to connect up to four mammography acquisition devices regardless of vendor. This reduces the need for separate CAD servers while lowering hardware and service costs. iCAD's PowerLook also provides a powerful flexible DICOM connectivity solution enabling universal compatibility with leading picture archive and communication systems ( PACS ) and Review Workstations. The Company expects additional modules to be released and integrated into PowerLook AMP platform in the future.

**PowerLook Server**

PowerLook Server is designed to function with leading digital mammography systems (digital breast tomosynthesis, FFDM and computed radiography) including systems sold by GE Healthcare, Siemens Medical Systems, Fuji Medical Systems, Hologic, Inc., Sectra Medical Systems, Philips, Carestream, IMS Giotto, Agfa Corporation, and Planmed. The algorithms in the PowerLook solutions have been optimized for each digital imaging provider based upon characteristics of their unique detectors.

PowerLook Server is a computer server residing on a customer's network that receives patient studies from the imaging modality, performs analysis and sends the results to PACS and/or review workstations. Workflow and efficiency are critical in digital imaging environments therefore iCAD has developed flexible, powerful DICOM integration capabilities that enable PowerLook AMP to integrate with leading PACS and review workstations from multiple providers. iCAD has worked with its OEM partners to ensure its product results are integrated and easily viewed using each review workstation's graphical user interface.





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**Table of Contents***Magnetic Resonance Imaging ( MRI )*

In July 2012, iCAD entered into a strategic partnership agreement with Invivo Corp., a subsidiary of Philips Healthcare. With this agreement, iCAD began developing the DynaCAD product software for breast and prostate MR image analysis workstations to help radiologists find cancer earlier and more efficiently. Invivo sells the DynaCAD product both directly and through the Philips global distribution network. In August 2015, Invivo exercised a contractual right to a perpetual paid up license in exchange for a payment of approximately \$2.0 million. In January 2017, the MRI products and related assets were sold to Invivo Corp. for \$3.2 million. Prior to the January 2017 sale of the MRI products and related assets, the paid-up license fee was being amortized over the remaining life of the agreement.

*Breast Tomosynthesis*

Digital Breast Tomosynthesis ( DBT ) was introduced in the United States in 2010 by Hologic, Inc., followed by GE Healthcare who received FDA approval for their tomosynthesis system in August 2014, Siemens approval followed in April 2015, and Fuji was approved in early 2017. Tomosynthesis has been demonstrated to have multiple advantages over traditional 2D mammography. It has improved tissue visualization and detection and results in lower recall rates for patients. Tomosynthesis improves the sensitivity and specificity of cancer diagnosis when compared to mammography. Clinical studies indicate that digital breast tomosynthesis improves the ability to distinguish malignant from benign tumors and can detect early signs of cancer hidden by overlapping tissues. This helps reduce the overall number of biopsies performed and the call back rates. Initial studies have indicated that tomosynthesis has the ability to detect 41% more invasive cancers than conventional mammography, and it also reduces false-positives by up to 40%.

Artificial intelligence can play an important role in improving the accuracy and efficiency of reading breast tomosynthesis cases by automatically identifying breast masses and micro-calcifications. In 2015, the Company completed development of its cancer detection and workflow solution for DBT to aid radiologists in their review of DBT as a means of improving lesion detection and reducing the time to read the large tomosynthesis datasets. The initial solution is developed for use with GE Healthcare's digital breast tomosynthesis for the detection of soft tissue densities (masses, architectural distortions and asymmetries). In January 2017, the Company submitted an amendment to its original PMA application for its 3D tomosynthesis product and the Company received FDA Approval in March of 2017. The Company is continuing to develop a multi-vendor DBT solution that will detect calcifications and contain additional functionality and workflow tools. The Company received CE mark in early 2018 and expects Health Canada and FDA clearance in late 2018.

**Table of Contents****Computed Tomography Applications and Colonic Polyp Detection**

CT Colonography ( CT ) is a well-established and widely used imaging technology that is used to image cross-sectional slices of various parts of the human body. When combined, these slices provide detailed volumetric representations of the imaged areas. With recent image quality improvements and greatly increased imaging speeds, CT imaging use has expanded in both the number of procedures performed as well as the applications for which it is utilized. While the increased image quality and number of cross sectional slices per scan provides valuable diagnostic information, it adds to the challenge of managing and interpreting the large volume of data generated. The Company believes that the challenges in CT imaging present it with opportunities to provide automated image analysis and clinical decision support solutions.

CTC is a less invasive technique than traditional colonoscopy for imaging the colon. However, the process of reading a CTC exam can be lengthy and tedious as the interpreting physician is often required to traverse the entire length of the colon multiple times. Computer Aided Detection ( CAD ) technology can play an important role in improving the accuracy and efficiency of reading CTC cases by automatically identifying potential polyps. CAD technology has been developed to aid radiologists in their review of CTC images as a means of improving polyp detection. The Company believes that CAD could become an important adjunct to CTC.

**Advanced Image Analysis and Workflow Solutions in CT Colonography****VeraLook**

iCAD introduced a CAD solution, VeraLook, a CAD algorithm for CTC, in August 2010 following FDA clearance of the product. This solution is designed to support detection of colonic polyps in conjunction with CTC. iCAD believes that VeraLook is a natural extension of iCAD's core competencies in image analysis and image processing. The system works in conjunction with third party display workstations and PACS vendors. Field testing of the product was initiated in 2008 and iCAD conducted a multi-reader clinical study of iCAD's VeraLook product, for use with CTC. Results of the Company's clinical study, *Impact of Computer-Aided Detection for CT Colonography in a Multireader, Multicase Trial* demonstrated that reader sensitivity improved 5.5% for patients with both small and large polyps with the use of VeraLook. The use of VeraLook reduced specificity of readers by 2.5%. The clinical relevance of VeraLook was improved reader performance while maintaining high reader specificity. Throughout 2016, iCAD distributed the VeraLook product with advanced visualization reading workstations manufactured by Vital Images, a Toshiba Medical System Group Company and added Philips Healthcare in the U.S. in early 2018. In 2014, iCAD received CFDA (China Food and Drug Administration) approval to sell VeraLook in China.

**Sales and Marketing**

iCAD, through its Xoft subsidiary, markets the Xoft System in the United States and select countries worldwide. The Company has expanded its installed base of Xoft Systems in the U.S. and has established increasing installations in a number of countries located in Europe and Asia. Xoft has established strong partnerships in Australia, Bulgaria, Canada, China, Hong Kong, Macau Egypt/ Saudi Arabia, India, Italy, Mexico, Portugal, Russia, South Korea, Spain, Sweden, Switzerland, The Netherlands, Luxemburg, Taiwan, Turkey, United Kingdom and Ireland, and is actively exploring market entry in South and Central America.

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Xoft's direct U.S. sales force sells the system on the basis of its clinical effectiveness as a platform high dose rate, low energy radiation therapy solution for hospitals, ambulatory care centers and free-standing radiation oncology facilities and other office-based uses, e.g. dermatology clinical practices. The Xoft System offers a distinct competitive advantage in that it is a highly mobile unit with minimal shielding requirements that can easily be moved from room to room within a single healthcare institution or be transported from facility to facility given its relatively compact form factor.

Breast IORT is a strategic focus of the Company due to the significant clinical /lifestyle benefits to the patient and economic advantages to the facility. NMSC is an additional strategic priority given the high incidence rate of the disease and the benefits of the Xoft System in this clinical indication. Based on the additional clinical applications including gynecological cancers, other IORT applications (in addition to breast IORT), as well as its potential to scale in the future to address other indications for use, the Company believes the Xoft System offers unique flexibility and opportunities for growth.

Core to the Company's eBx market development strategy is a comprehensive medical education program. Xoft actively participates in several key industry scientific conferences in the United States and Europe including but not limited to ASTRO, ESTRO and ASBrS on an annual basis. More recently, Xoft has participated in key dermatology conferences in the U.S. including AAD. At select industry conferences and at independent venues, the Company provides specific additional eBx professional education programs and product demonstrations in the form of live educational sessions in U.S. markets. The Company supported its medical education program in 2017 with educational webinars and clinical presentations at key industry meetings to broaden physician awareness of the Xoft System and eBx technology in the U.S. The Company also maintains a scientific advisory board composed of leading clinician experts who share a commitment to raising awareness of the unique benefits the Xoft eBx system offers to providers and patients alike.

The Company further supports breast IORT through its ongoing ExBRT Clinical Trial—a post-market clinical trial designed to enroll 1,000 patients at up to 50 sites. The study enables facilities interested in treating early stage breast cancer patients with the Xoft System to participate in a common clinical protocol and follow enrolled patients for up to ten years. The ExBRT study is led by brachytherapy and breast care physicians including breast surgeons, radiation oncologists, pathologists, and medical physicists from leading U.S. breast cancer care institutions. In February 2018, the study completed enrollment of 1,200 patients at 27 centers in the U.S. and Europe. Clinical results from the ExBRT study are expected to be presented at key medical conferences in 2018.

iCAD's mammography products are sold through its direct regional sales organization in the U.S. as well as through its OEM partners, including GE Healthcare, Fuji Medical Systems, and Siemens Medical Systems. The VeraLook CTC CAD product is primarily distributed by Vital Images and Philips Healthcare, which will integrate the iCAD solution in the U.S..

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The Company's cancer detection products are marketed on the basis of their clinical superiority and their ability to assist radiologists detect more cancers earlier, while seamlessly integrating into the clinical workflow of the radiologist. As part of its sales and marketing efforts, iCAD has developed and executed a variety of public relations and local outreach programs with numerous iCAD customers. Additional investments continue to be made to cultivate relationships with the leaders in breast cancer solutions such as at worldwide or national trade shows, where industry leaders discuss the future of image analysis solutions in these clinical disciplines.

## **Competition**

The Company's existing eBx products face competition in breast IORT primarily from one company: Carl Zeiss Meditec, Inc., ( Zeiss ) a multinational company, where eBx products are only one of that company's many products. Zeiss manufactures and sells eBx products for the delivery of IORT. Zeiss has expanded their product portfolio to include additional anatomical areas beyond breast IORT. Zeiss now offers a range of radiation therapy applicators for use in various applications including spine, the gastrointestinal tract, skin, and endometrial cancers. Zeiss has an established base of breast IORT installations in Europe where the majority of the TARGIT-A trial clinical sites are located. IntraOp Medical is an additional competitor in the high dose rate ( HDR ) radiation therapy market.

The Company's NMSC products face numerous competitors utilizing a variety of technologies. Surface Radiation Therapy (SRT) systems, including Sensus Healthcare, directly compete with the Xofig System in this market in which Dermatologists and Radiation Oncologists seek mobile, efficient, non-surgical treatment options. In late 2013, Elekta received clearance for its electronic brachytherapy system Esteya for use in the treatment of NMSC. This system utilizes a low energy 69.5 kV source and a range of surface applicators in a small footprint system profile. Other competitors in the NMSC market include surgery (excision, Mohs surgery, and destruction). Mohs surgery remains the primary treatment option for dermatologists in the majority of NMSC cases. Traditional radiation therapy including external beam radiation therapy is also a treatment modality used to treat NMSC patients.

New market opportunities including expansion of the gynecological product portfolio and other IORT applications beyond breast IORT have brought competitive dynamics to the Company's efforts. Larger, more diversified radiation therapy companies offering a wide variety of clinical solutions for HDR brachytherapy including Varian Medical Systems and Elekta compete in these areas. These multi-national firms offer broad product portfolios including a full range of HDR brachytherapy afterloaders and applicators as well as traditional radiation therapy solutions including linear accelerators, treatment planning solutions, and workflow management capabilities.

The Company currently faces direct competition in its cancer detection and density assessment business from Hologic, Inc., Volpara, Parascript, and StatLife. The Company believes that its market leadership in mammography CAD and density assessment and strong relationships with its strategic partners will provide it with a competitive advantage in the mammography CAD and density assessment market.

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The Company has a strong OEM relationship with GE Healthcare worldwide supporting its PowerLook Tomo Detection for breast tomosynthesis. The Company believes that there is no direct competition at this time. With the pending release of the multi-vendor solution PowerLook Tomo Detection 2.0, the Company expects to expand its OEM partnerships with other DBT providers.

The Company's CT Colon solution faces competition from the traditional imaging CT equipment manufacturers and emerging CAD companies. Siemens Medical, GE Healthcare, and Philips Medical Systems currently offer polyp detection products outside the U.S. Siemens Medical received FDA clearance for CT Polyp CAD in 2014. The Company expects that CT manufacturers will offer a colonic polyp detection solution as an advanced feature of their image management and display products typically sold with their CT equipment. The Company believes that current regulatory requirements present a significant barrier to entry into this market and that its market leadership in mammography CAD provides it with a competitive advantage within the CT Colonography community.

iCAD operates in highly competitive and rapidly changing markets with competitive products available from nationally and internationally recognized companies. Many of these competitors have significantly greater financial, technical and human resources than iCAD and these competitors are well established in the healthcare market. In addition, some companies have developed or may develop technologies or products that could compete with the products the Company manufactures and distributes or that would render our products obsolete or noncompetitive. Moreover, competitors may achieve patent protection, regulatory approval, or product commercialization before we do, which would limit our ability to compete with them. These and other competitive pressures could have a material adverse effect on the Company's business.

## **Manufacturing and Professional Services**

The Company's CAD products are manufactured and assembled by the Company. In addition, the Company conducts purchasing and supply chain management, planning/scheduling, manufacturing engineering, service repairs, quality assurance, inventory management, and warehousing. Once the product has shipped, it is usually installed by one of the Company's OEM partners at the customer site. When a product sale is made directly to the end customer by iCAD, the product is generally installed by iCAD personnel at the customer site.

iCAD's professional services staff is composed of a team of trained and specialized individuals providing comprehensive product support on a pre-sales and post-sales basis. This includes pre-sale product demonstrations, product installations, applications training, and call center management (or technical support). The support center is the single point of contact for the customer, providing remote diagnostics, troubleshooting, training, and service dispatch. Service repair efforts are generally performed at the customer site by third party service organizations or in the Company's repair depot by the Company's repair technicians.

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Xoft's portable Xoft System is manufactured and assembled for Xoft by contract manufacturers. Xoft's electronic brachytherapy miniaturized X-ray source, which is used to deliver radiation directly to the cancerous site, is manufactured in the Company's San Jose, CA facility. Xoft operations consist of manufacturing, engineering, administration, purchasing, planning and scheduling, service repairs, quality assurance, inventory management, and warehousing. Once the product has shipped, it is typically installed by Xoft personnel at the customer site.

Xoft's field service and customer service staff is composed of a team of trained and specialized individuals providing comprehensive product support, physics support, radiation therapists and billing support on a pre-sales and post-sales basis. The field service staff also provides product installations, maintenance, training and service repair efforts generally performed at the customer site. The customer service staff provides pre-sale product demonstrations, customer support, troubleshooting, service dispatch and call center management.

## **Government Regulation**

The Company's systems are medical devices subject to extensive regulation by the FDA under the Federal Food, Drug, and Cosmetic Act with potentially significant costs for compliance. The FDA's regulations govern, among other things, product development, product testing, product labeling, product storage, pre-market clearance or approval, advertising and promotion, and sales and distribution. The Company's devices are also subject to FDA clearance or approval before they can be marketed in the U.S. and may be subject to additional regulatory approvals before they can be marketed outside the U.S. There is no guarantee that future products or product modifications will receive the necessary approvals.

The FDA's Quality System Regulations require that the Company's operations follow extensive design, testing, control, documentation and other quality assurance procedures during the manufacturing process. The Company is subject to FDA regulations covering labeling and adverse event reporting including the FDA's general prohibition of promoting products for unapproved or off-label uses.

The Company's manufacturing facilities are subject to periodic inspections by the FDA and corresponding state agencies. Compliance with extensive international regulatory requirements is also required. Failure to fully comply with applicable regulations could result in the Company receiving warning letters, non-approvals, suspensions of existing approvals, civil penalties and criminal fines, product seizures and recalls, operating restrictions, injunctions, and criminal prosecution.

We are also subject to a variety of federal, state and foreign laws which broadly relate to our interactions with healthcare practitioners and other participants in the healthcare system, including, among others, the following:

anti-kickback, false claims, physician self-referral, and anti-bribery laws, such as the Foreign Corrupt Practices Act, or FCPA, the UK's Bribery Act 2010, or the UK Anti-Bribery Act;

state law and regulation regarding fee splitting and other relationships between health care providers and non-professional entities, including companies providing management and reimbursement services;

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laws regulating the privacy and security of personally identifiable information, such as the Health Insurance Portability and Accountability Act of 1996, or HIPAA, and the Health Information Technology for Economic and Clinical Health Act, or HITECH Act; and

healthcare reform laws, such as the Patient Protection and Affordable Care Act and the Health Care and Education Affordability Reconciliation Act of 2010, which we refer to together as PPACA, which include regulatory mandates and other measures designed to constrain medical costs, as well as stringent reporting requirements of financial relationships between device manufacturers and physicians and teaching hospitals.

In addition, we are subject to numerous federal, state, foreign and local laws relating to safe working conditions, manufacturing practices, environmental protection, fire hazard control and disposal of hazardous or potentially hazardous substances, among others. We may be required to incur significant costs to comply with these laws and regulations in the future, and complying with these laws may result in a material adverse effect upon our business, financial condition and results of operations.

Additionally, in order to market and sell our products in certain countries outside of the U.S., we must obtain and maintain regulatory approvals and comply with the regulations of each specific country. These regulations, including the requirements for approvals, and the time required for regulatory review vary by country.

Federal, state, and foreign regulations regarding the manufacture and sale of medical devices and management services and software are subject to future change. We cannot predict what impact, if any, such changes might have on our business.

## **Reimbursement**

The federal and state governments of the United States establish guidelines and pay reimbursements to hospitals and free-standing clinics for diagnostic examinations and therapeutic procedures under Medicare at the federal level and Medicaid at the state level. Private insurers often establish payment levels and policies based on reimbursement rates and guidelines established by the government.

The federal government reviews and adjusts coverage policies and reimbursement levels periodically and also consider various Medicare and other healthcare reform proposals that could significantly affect both private and public reimbursement for healthcare services in hospitals and free-standing clinics. State government reimbursement for services is determined pursuant to each state's Medicaid plan, which is established by state law and regulations, subject to requirements of federal law and regulations.

Market acceptance of our medical products in the U.S. and other countries is dependent upon the purchasing and procurement practices of our customers, patient demand for our products and procedures, and the reimbursement of patients' medical expenses by government healthcare programs, private insurers or other healthcare payors.

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The provisions of the Affordable Care Act went into effect in 2012. We are continuing to evaluate the Affordable Care Act and its impact on our business. We believe that elements of the program including the shift to value-based healthcare and increased focus on patient satisfaction will benefit the Company in the future. Other elements of this legislation, including comparative effectiveness research, payment system reforms (including shared savings pilots) and other provisions, could meaningfully change the way healthcare is developed and delivered, and may materially impact numerous aspects of our business, including the demand and availability of our products, the reimbursement available for our products from governmental and third-party payors, and reduced medical procedure volumes. Additionally, we are now evaluating the possible effect of the repeal or replacement of the Affordable Care Act.

## **Intellectual Property**

The Company primarily relies on a combination of patents, trade secrets and copyright law, third-party and employee confidentiality agreements, and other protective measures to protect its intellectual property rights pertaining to our products and technologies.

The Company has many patents covering its CAD and eBx technologies expiring between 2018 and 2028. These patents help the Company maintain a proprietary position in its markets. Additionally, the Company has a number of patent applications pending domestically, some of which have been also filed internationally, and the Company plans to file additional domestic and foreign patent applications when it believes such protection will benefit the Company. These patents and patent applications relate to current and future uses of iCAD's cancer detection and digitizer technologies and products, including cancer detection solutions for tomosynthesis, CAD for CT colonography and lung and CAD for MRI breast and prostate, as well as Xoft's current and future eBx technologies and products. The Company has also secured a non-exclusive patent license from the National Institute of Health which relates broadly to CAD in colonography, a non-exclusive patent license from Cytyc/Hologic which relates to balloon applicators for breast brachytherapy, and a non-exclusive license from Zeiss which relates to brachytherapy. The Company believes it has all the necessary licenses from third parties for software and other technologies in its products; however, we do not know if current or future patent applications will issue with the full scope of the claims sought, if at all, or whether any patents issued will be challenged or invalidated.

## **Sources and Availability of Materials**

The Company depends upon a limited number of suppliers and manufacturers for its products, and certain components in its products may be available from a sole or limited number of suppliers. The Company's products are generally either manufactured and assembled for it by a sole manufacturer, by a limited number of manufacturers or assembled by it from supplies it obtains from a limited number of suppliers. Critical components required to manufacture these products, whether by outside manufacturers or directly, may be available from a sole or limited number of component suppliers. The Company generally does not have long-term arrangements with any of its manufacturers or suppliers. The loss of a sole or key manufacturer or supplier would impair the Company's ability to deliver products to customers in a timely manner and would adversely affect its sales and operating results. The Company's business would be harmed if any of its manufacturers or suppliers could not meet its quality and performance specifications and quantity and delivery requirements.



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### **Major Customers**

The Company operates in two segments: Cancer Detection ( Detection ) and Cancer Therapy ( Therapy ). The Company markets its products for digital mammography and cancer therapy systems through its direct regional sales organization. Cancer detection products are also sold through OEM partners, including GE Healthcare, Fuji Medical Systems, Siemens Medical and Invivo. OEM partners generated approximately 55% of Detection revenues and 36% of revenue overall. GE Healthcare was the largest single customer with approximately \$7.1 million in 2017, \$3.9 million in 2016, and \$4.1 million in 2015 or 25%, 15%, and 10% of total revenues, respectively.

### **Engineering and Product Development**

The Company spent \$9.6 million, \$10.3 million, and \$9.8 million on research and development activities including depreciation and amortization, during the years ended December 31, 2017, 2016 and 2015, respectively. Research and development expenses are primarily attributed to personnel, consulting, subcontract, licensing and data collection expenses relating to the Company's new product development and clinical testing.

### **Employees**

As of December 31, 2017, the Company had 119 employees, of whom 115 are full time employees, with 31 involved in sales and marketing, 20 in research and development, 56 in service, manufacturing, technical support and operations functions, and 12 in administrative functions. None of the Company's employees is represented by a labor organization. The Company considers its relations with employees to be good.

### **Environmental Protection**

Compliance with federal, state and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, has not had a material effect upon the capital expenditures, earnings (losses) or competitive position of the Company.

### **Financial Geographic Information**

The Company's primary market is in the United States through its direct sales force and OEM partners. Export sales are typically through OEM and channel partners. Total export sales represented approximately \$3.9 million or 14% of revenue in 2017 as compared to \$2.3 million or 9% of revenue in 2016 and \$2.3 million or 6% of total revenue in 2015. Export sales by region are as follows (in thousands):

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Region	Percent of Export sales		
	2017	2016	2015
Europe	68%	36%	63%
China	9%	21%	2%
Taiwan	11%	19%	15%
Canada	5%	15%	11%
Other	7%	8%	9%
Total	100%	100%	100%
Total Export sales	\$ 3,931	\$ 2,323	\$ 2,278

Significant export sales in Europe are as follows:

Region	Percent of Export sales		
	2017	2016	2015
France	41%	15%	21%
Spain	9%	7%	5%
Germany	7%	3%	
Bulgaria	2%	3%	26%
United Kingdom	2%	3%	9%

**Foreign Regulations**

International sales of the Company's products are subject to foreign government regulation, the requirements of which vary substantially from country to country. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA approval, and the requirements may differ. Obtaining and maintaining foreign regulatory approvals is an expensive and time-consuming process. The Company cannot be certain that it will be able to obtain the necessary regulatory approvals timely or at all in any foreign country in which it plans to market its CAD products and the Xoft system, and if it fails to receive and maintain such approvals, its ability to generate revenue may be significantly diminished.

**Product Liability Insurance**

The Company believes that it maintains appropriate product liability insurance with respect to its products. The Company cannot be certain that with respect to its current or future products, such insurance coverage will continue to be available on terms acceptable to the Company or that such coverage will be adequate for liabilities that may actually be incurred.

**Item 1A. Risk Factors.**

We operate in a changing environment that involves numerous known and unknown risks and uncertainties that could materially adversely affect our operations. The following highlights some of the factors that have affected, and/or in the future could affect, our operations.



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**We have incurred significant losses from inception through 2017 and there can be no assurance that we will be able to achieve and sustain future profitability.**

We have incurred significant losses since our inception. We incurred a net loss of \$14.3 million in fiscal 2017 and have an accumulated deficit of \$201.9 million at December 31, 2017. We may not be able to achieve profitability.

**We rely on intellectual property and proprietary rights to maintain our competitive position and may not be able to protect these rights.**

We rely heavily on proprietary technology that we protect primarily through licensing arrangements, patents, trade secrets, proprietary know-how and non-disclosure agreements. There can be no assurance that any pending or future patent applications will be granted or that any current or future patents, regardless of whether we are an owner or a licensee of the patent, will not be challenged, rendered unenforceable, invalidated, or circumvented or that the rights will provide a competitive advantage to us. There can also be no assurance that our trade secrets or non-disclosure agreements will provide meaningful protection of our proprietary information. Further, we cannot assure you that others will not independently develop similar technologies or duplicate any technology developed by us or that our technology will not infringe upon patents or other rights owned by others. There is a risk that our patent applications will not result in granted patents or that granted patents will not provide significant protection for our products and technology. Unauthorized third parties may infringe our intellectual property rights, or copy or reverse engineer portions of our technology. Our competitors may independently develop similar technology that our patents do not cover. In addition, because patent applications in the U.S. are not generally publicly disclosed until eighteen months after the application is filed, applications may have been filed by third parties that relate to our technology. Moreover, there is a risk that foreign intellectual property laws will not protect our intellectual property rights to the same extent as intellectual property laws in the U.S. The rights provided by a patent are finite in time. Over the coming years, certain patents relating to current products will expire in the U.S. and abroad thus allowing third parties to utilize certain of our technologies. In the absence of significant patent protection, we may be vulnerable to competitors who attempt to copy our products, processes or technology

In addition, in the future, we may be required to assert infringement claims against third parties, and there can be no assurance that one or more parties will not assert infringement claims against us. Any resulting litigation or proceeding could result in significant expense to us and divert the efforts of our management personnel, whether or not such litigation or proceeding is determined in our favor. In addition, to the extent that any of our intellectual property and proprietary rights was ever deemed to violate the proprietary rights of others in any litigation or proceeding or as a result of any claim, we may be prevented from using them, which could cause a termination of our ability to sell our products. Litigation could also result in a judgment or monetary damages being levied against us.

**Unfavorable results of legal proceedings could materially adversely affect our financial results**

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From time to time, we are a party to or otherwise involved in legal proceedings, claims and government inspections or investigations and other legal matters, both inside and outside the United States, arising in the ordinary course of our business or otherwise. Legal proceedings are often lengthy, taking place over a period of years with interim motions or judgments subject to multiple levels of review (such as appeals or rehearings) before the outcome is final. Litigation is subject to significant uncertainty and may be expensive, time-consuming, and disruptive to our operations. For these and other reasons, we may choose to settle legal proceedings and claims, regardless of their actual merit.

If a legal proceeding were finally resolved against us, it could result in significant compensatory damages, and in certain circumstances, punitive or trebled damages, disgorgement of revenue or profits, remedial corporate measures or injunctive relief imposed on us. If our existing insurance does not cover the amount or types of damages awarded, or if other resolutions or actions taken as a result of the legal proceeding were to restrain our ability to market one or more of our material products or services, our consolidated financial position, results of operations or cash flows could be materially adversely affected. In addition, legal proceedings, and any adverse resolution thereof, can result in adverse publicity and damage to our reputation, which could adversely impact our business.

**We may be exposed to significant product liability for which we may not have sufficient insurance coverage or be able to procure sufficient insurance coverage.**

Our product and general liability insurance coverage may be inadequate with respect to potential claims and adequate insurance coverage may not be available in sufficient amounts or at a reasonable cost in the future. If available at all, product liability insurance for the medical device industry generally is expensive. Future product liability claims could be costly to defend and/or costly to resolve and could harm our reputation and business.

**Sales and market acceptance of our products is dependent upon the coverage and reimbursement decisions made by third-party payors. The failure of third-party payors to provide appropriate levels of coverage and reimbursement for the use of our products and treatments facilitated by our products could harm our business and prospects.**

Sales and market acceptance of our medical products and the treatments facilitated by our products in the United States and other countries is dependent upon the coverage decisions and reimbursement policies established by government healthcare programs and private health insurers. Market acceptance of our products and treatments has and will continue to depend upon our customers' ability to obtain an appropriate level of coverage for, and reimbursement from third-party payors for, these products and treatments. In the U.S., CMS establishes coverage and reimbursement policies for healthcare providers treating Medicare and Medicaid beneficiaries. Under current CMS policies, varying reimbursement levels have been established for our products and treatments. Coverage policies for Medicare patients may vary by regional Medicare carriers in the absence of a national coverage determination and reimbursement rates for treatments may vary based on the geographic price index. Coverage and reimbursement policies and rates applicable to patients with private insurance are dependent upon individual

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private payor decisions which may not follow the policies and rates established by CMS. The use of our products and treatments outside the United States is similarly affected by coverage and reimbursement policies adopted by foreign governments and private insurance carriers. We cannot provide assurance that government or private third-party payors will continue to reimburse for our products or services using the existing codes, nor can we provide assurance that the payment rates will be adequate. If providers and physicians are unable to obtain reimbursement for our products or services at cost-effective levels, this could have a material adverse effect on our business and operations. In addition, in the event that the current coding and/or payment methodology for these products or services changes, this could have a material adverse effect on our business and business operations.

**Our business is dependent upon future market growth of full field digital mammography systems, digital computer aided detection products, and tomosynthesis as well as advanced image analysis and workflow solutions for use with MRI and CT and the market growth of electronic brachytherapy: this growth may not occur or may occur too slowly to benefit us.**

Our future business is substantially dependent on the continued growth in the market for electronic brachytherapy, full field digital mammography systems, digital computer aided detection products and tomosynthesis as well as advanced image analysis and workflow solutions for use with MRI and CT. The market for these products may not continue to develop or may develop at a slower rate than we anticipate due to a variety of factors, including, general economic conditions, delays in hospital spending for capital equipment, the significant costs associated with the procurement of full field digital mammography systems and CAD products and MRI and CT systems and the reliance on third party insurance reimbursement. In addition, we may not be able to successfully develop or obtain FDA clearance for our proposed products.

**A limited number of customers account for a significant portion of our total revenue. The loss of a principal customer could seriously hurt our business.**

Our principal sales distribution channel for our digital products is through our OEM partners which accounted for 36% of our total revenue in 2017, with one major customer, GE Healthcare at 25% of our revenue. In addition, six customers accounted for 37% of our total revenue, which includes both OEM partners and direct customers. A limited number of major customers have in the past and may continue in the future to account for a significant portion of our revenue. The loss of our relationships with principal customers or a decline in sales to principal customers could materially adversely affect our business and operating results.

**The markets for our newly developed products and treatments and newly introduced enhancements to our existing products and treatments may not develop as expected.**

The successful commercialization of our newly developed products and treatments and newly introduced enhancements to our existing products and treatments are subject to numerous risks, both known and unknown, including:

uncertainty of the development of a market for such product or treatment;

trends relating to, or the introduction or existence of, competing products, technologies or alternative treatments or therapies that may be more effective, safer or easier to use than our products, technologies, treatments or therapies;



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the perceptions of our products or treatments as compared to other products and treatments;

recommendation and support for the use of our products or treatments by influential customers, such as hospitals, radiological practices, breast surgeons and radiation oncologists and treatment centers;

the availability and extent of data demonstrating the clinical efficacy of our products or treatments;

competition, including the presence of competing products sold by companies with longer operating histories, more recognizable names and more established distribution networks; and

other technological developments.

Often, the development of a significant market for a product or treatment will depend upon the establishment of a reimbursement code or an appropriate reimbursement level for use of the product or treatment. Moreover, even if addressed, such reimbursement codes or levels frequently are not established until after a product or treatment is developed and commercially introduced, which can delay the successful commercialization of a product or treatment.

If we are unable to successfully commercialize and create a significant market for our newly developed products and treatments and newly introduced enhancements to our existing products and treatments, our business and prospects could be harmed.

**If goodwill and/or other intangible assets that we have recorded in connection with our acquisitions become impaired, we could have to take significant charges against earnings.**

In connection with the accounting for our acquisitions, we have recorded a significant amount of goodwill and other intangible assets. We have recorded multiple impairments: \$26.8 million in September 2011, \$14.0 million in June 2015, \$4.7 million in September 2017 and \$2.0 million in December 2017. Under current accounting guidelines, we must assess, at least annually and potentially more frequently, whether the value of our goodwill of \$8.4 million at December 31, 2017 and our other intangible assets have been impaired. Any reduction or impairment of the value of goodwill or other intangible assets will result in a charge against earnings which could materially adversely affect our reported results of operations in future periods.

**The healthcare industry is highly regulated, and government authorities may determine that we have failed to comply with applicable laws, rules or regulations.**

The healthcare industry is subject to extensive and complex federal, state and local laws, rules and regulations, compliance with which imposes substantial costs on us. Such laws and regulations include those that are directed at payment for services and the conduct of operations, preventing fraud and abuse, and prohibiting general business corporations, such as ours, from engaging in practices that may influence professional decision-making, such as splitting fees with physicians. Many healthcare laws are complex, and their application to specific services and relationships may not be clear. Further, healthcare laws differ from state to state and it is



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difficult to ensure our business complies with evolving laws in all states. In addition, we believe that our business will continue to be subject to increasing regulation, the scope and effect of which we cannot predict. Federal and state legislatures and agencies periodically consider proposals to revise or create additional statutory and regulatory requirements. Such proposals, if implemented, could impact our operations, the use of our services, and our ability to market new services, or could create unexpected liabilities for us.

We may in the future become the subject of regulatory or other investigations or proceedings, and our interpretations of applicable laws, rules and regulations may be challenged. For example, regulatory authorities or other parties may assert that our arrangements with the physician practices to which we lease equipment and provide management services violate anti-kickback, fee splitting, or self-referral laws and regulations and could require us to restructure these arrangements, which could have a material adverse effect on our business, financial condition, results of operations, cash flows and the trading price of our common stock. Such investigations, proceedings and challenges could also result in substantial defense costs to us and a diversion of management's time and attention. In addition, violations of these laws are punishable by monetary fines, civil and criminal penalties, exclusion from participation in government-sponsored healthcare programs, and forfeiture of amounts collected in violation of such laws and regulations, any of which could have a material adverse effect on our business, financial condition, results of operations, cash flows and the trading price of our common stock.

**We may incur substantial costs defending our interpretations of federal and state government regulations and if we lose, the government could force us to restructure our operations and subject us to fines, monetary penalties and possibly exclude us from participation in government-sponsored health care programs such as Medicare and Medicaid.**

Our operations, including our arrangements with healthcare providers, are subject to extensive federal and state government regulation and are subject to audits, inquiries and investigations from government agencies from time to time. Those laws may have related rules and regulations that are subject to interpretation and may not provide definitive guidance as to their application to our operations, including our arrangements with physicians and professional corporations.

We believe we are in substantial compliance with these laws, rules and regulations based upon what we believe are reasonable and defensible interpretations of these laws, rules and regulations. However, federal and state laws are broadly worded and may be interpreted or applied by prosecutorial, regulatory or judicial authorities in ways that we cannot predict. Accordingly, our arrangements and business practices may be the subject of government scrutiny or be found to violate applicable laws. If federal or state government officials challenge our operations or arrangements with third parties that we have structured based upon our interpretation of these laws, rules and regulations, the challenge could potentially disrupt our business operations and we may incur substantial defense costs, even if we successfully defend our interpretation of these laws, rules and regulations. In addition, if the government successfully challenges our interpretation as to the applicability of these laws, rules and regulations as they relate to our operations and arrangements with third parties, it may have a material adverse effect on our business, financial condition and results of operations.

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In the event regulatory action were to limit or prohibit us from carrying on our business as we presently conduct it or from expanding our operations into certain jurisdictions, we may need to make structural, operational and organizational modifications to our Company or our contractual arrangements with physicians and professional corporations. Our operating costs could increase significantly as a result. We could also lose contracts or our revenues could decrease under existing contracts. Any restructuring would also negatively impact our operations because our management's time and attention would be diverted from running our business in the ordinary course.

### **Regulations related to conflict minerals may cause us to incur additional expenses and could limit the supply and increase the cost of certain metals used in manufacturing our products.**

In August 2012, the SEC adopted a rule requiring disclosures of specified minerals, known as conflict minerals, that are necessary to the functionality or production of products manufactured or contracted to be manufactured by public companies. The conflict minerals rule requires companies annually to perform diligence, disclose and report whether or not such minerals originate from the Democratic Republic of Congo and other specified countries. The rule could affect sourcing at competitive prices and availability in sufficient quantities of certain minerals used in the manufacture of our products, including tungsten. The number of suppliers who provide conflict-free minerals may be limited. In addition, there may be material costs associated with complying with the disclosure requirements, such as costs related to determining the source of certain minerals used in our products, as well as costs of possible charges to products, processes or sources of supply as a consequence of such verification activities. Since our supply chain is complex, we may not be able to sufficiently verify the origins of the relevant minerals used in our products through the due diligence procedures that we implement, which may harm our reputation. In addition, we may encounter challenges to satisfy those customers who require that all of the components of our products be certified conflict-free, which could place us at a competitive disadvantage if we are unable to do so.

### **Compliance with the many laws and regulations governing the healthcare industry could restrict our sales and marketing practices, and exclusion from such programs as a result of a violation of these laws could have a material adverse effect on our business.**

Once our products are sold, we must comply with various U.S. federal and state laws, rules and regulations pertaining to healthcare fraud and abuse, including false claims laws, anti-kickback laws and physician self-referral laws, rules and regulations. Violations of the fraud and abuse laws are punishable by criminal and civil sanctions, including, in some instances, exclusion from participation in federal and state healthcare programs, including Medicare, Medicaid, Veterans Administration health programs, workers' compensation programs and TRICARE. Compliance with these laws could restrict our sales and marketing practices, and exclusion from such programs as a result of a violation of these laws could have a material adverse effect on our business.

#### ***Anti-Kickback Statutes***

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The federal Anti-Kickback Statute prohibits persons from knowingly or willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce:

the referral of an individual for a service or product for which payment may be made by Medicare, Medicaid or other government-sponsored healthcare program; or

purchasing, ordering, arranging for, or recommending the ordering of, any service or product for which payment may be made by a government-sponsored healthcare program.

The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. The statutory penalties for violating the Anti-Kickback Statute include imprisonment for up to five years and criminal fines of up to \$25,000 per violation. In addition, through application of other laws, conduct that violates the Anti-Kickback Statute can also give rise to False Claims Act lawsuits, civil monetary penalties and possible exclusion from Medicare and Medicaid and other federal healthcare programs. In addition to the Federal Anti-Kickback Statute, many states have their own anti-kickback laws. Often, these laws closely follow the language of the federal law, although they do not always have the same scope, exceptions, safe harbors or sanctions. In some states, these anti-kickback laws apply not only to payment made by a government health care program but also with respect to other payers, including commercial insurance companies.

Government officials have focused recent kickback enforcement efforts on, among other things, the sales and marketing activities of healthcare companies, including medical device manufacturers, and recently have brought cases against individuals or entities with personnel who allegedly offered unlawful inducements to potential or existing customers in an attempt to procure their business. This trend is expected to continue. Settlements of these cases by healthcare companies have involved significant fines and/or penalties and in some instances criminal plea or deferred prosecution agreements.

***Our relationships with healthcare providers and our marketing practices are subject to the federal Anti-Kickback Statute and similar state laws.***

We are subject to the federal Anti-Kickback Statute, which prohibits the knowing and willful offer, payment, solicitation or receipt of any form of remuneration in return for, or to induce, the referral of business or ordering of services paid for by Medicare or other federal programs. Remuneration has been broadly interpreted to mean anything of value, including, for example, gifts, discounts, credit arrangements, and in-kind goods or services, as well as cash. Certain federal courts have held that the Anti-Kickback Statute can be violated if one purpose of a payment is to induce referrals. The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Violations of the Anti-Kickback Statute can result in imprisonment, civil or criminal fines or exclusion from Medicare and other governmental programs. Many states have adopted laws similar to the federal Anti-Kickback Statute. Some of these state prohibitions apply to referral of patients for healthcare items or services reimbursed by any payor, not only the Medicare and Medicaid programs. Additionally, we could be subject to private actions brought pursuant to the False Claims Act's whistleblower or qui tam provisions which, among other things, allege that our practices or relationships violate the Anti-Kickback Statute. The

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False Claims Act imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The qui tam provisions of the False Claims Act allow a private individual to bring actions on behalf of the federal government alleging that the defendant has submitted a false claim to the federal government, and to share in any monetary recovery. In recent years, the number of suits brought by private individuals has increased dramatically. In addition, various states have enacted false claim laws analogous to the False Claims Act. Many of these state laws apply where a claim is submitted to any third-party payor and not merely a federal healthcare program.

Although we have attempted to structure our marketing initiatives and business relationships to comply with the Anti-Kickback Statute, we cannot assure you that we will not have to defend against alleged violations from private or public entities or that the Office of Inspector General or other authorities will not find that our marketing practices and relationships violate the statute. If we are found to have violated the Anti-Kickback Statute or a similar state statute, we may be subject to civil and criminal penalties, including exclusion from the Medicare or Medicaid programs, or may be required to enter into settlement agreements with the government to avoid such sanctions. Typically, such settlement agreements require substantial payments to the government in exchange for the government to release its claims, and may also require us to enter into a Corporate Integrity Agreement.

***Physician Self-Referral Laws***

The federal ban on physician self-referrals, commonly known as the Stark Law, prohibits, subject to certain exceptions, physician referrals of Medicare and Medicaid patients to an entity providing certain designated health services if the physician or an immediate family member of the physician has any financial relationship with the entity. The Stark Law also prohibits the entity receiving the referral from billing for any good or service furnished pursuant to an unlawful referral, and any person collecting any amounts in connection with an unlawful referral is obligated to refund these amounts. A person who engages in a scheme to circumvent the Stark Law's referral prohibition may be fined up to \$100,000 for each such arrangement or scheme. The penalties for violating the Stark Law also include civil monetary penalties of up to \$15,000 per service, could result in denial of payment, disgorgements of reimbursement received under a non-compliant agreement, and possible exclusion from Medicare, Medicaid or other federal healthcare programs. In addition to the Stark Law, many states have their own self-referral laws. Often, these laws closely follow the language of the federal law, although they do not always have the same scope, exceptions, safe harbors or sanctions. In some states these self-referral laws apply not only to payment made by a federal health care program but also with respect to other payers, including commercial insurance companies. In addition, some state laws require physicians to disclose any financial interest they may have with a healthcare provider to their patients when referring patients to that provider even if the referral itself is not prohibited.

***If we fail to comply with federal and state physician self-referral laws and regulations as they are currently interpreted or may be interpreted in the future, or if other legislative restrictions are issued, we could incur a significant loss of revenue and be subject to significant monetary penalties, which could have a material adverse effect on our business, financial condition and results of operations.***

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We are subject to federal and state laws and regulations that limit the circumstances under which physicians who have a financial relationship with entities that furnish certain specified healthcare services may refer to such entities for the provision of such services, including clinical laboratory services, radiology and other imaging services and certain other diagnostic services. These laws and regulations also prohibit such entities from billing for services provided in violation of the laws and regulations.

We have financial relationships with physicians in the form of equipment leases and services arrangements. While we believe our arrangements with physicians are in material compliance with applicable laws and regulations, government authorities might take a contrary position or prohibited referrals may occur. Further, because we cannot be certain that we will have knowledge of all physicians who may hold an indirect ownership interest, referrals from any such physicians may cause us to violate these laws and regulations.

Violation of these laws and regulations may result in the prohibition of payment for services rendered, significant fines and penalties, and exclusion from Medicare, Medicaid and other federal and state healthcare programs, any of which could have a material adverse effect on our business, financial condition and results of operations. In addition, expansion of our operations to new jurisdictions, new interpretations of laws in our existing jurisdictions, or new physician self-referral laws could require structural and organizational modifications of our relationships with physicians to comply with those jurisdictions' laws. Such structural and organizational modifications could result in lower profitability and failure to achieve our growth objectives.

### ***False Claims Laws***

The federal False Claims Act, or FCA, prohibits any person from knowingly presenting, or causing to be presented, a false claim or knowingly making, or causing to be made, a false statement to obtain payment from the federal government. Those found in violation of the FCA can be subject to fines and penalties of three times the damages sustained by the government, plus mandatory civil penalties of between \$5,000 and \$10,000 (adjusted for inflation) for each separate false claim. Actions filed under the FCA can be brought by any individual on behalf of the government, a *qui tam* action, and this individual, known as a *relator* or, more commonly, as a *whistleblower*, may share in any amounts paid by the entity to the government in damages and penalties or by way of settlement. In addition, certain states have enacted laws modeled after the FCA, and this legislative activity is expected to increase. *Qui tam* actions have increased significantly in recent years, causing greater numbers of healthcare companies, including medical device manufacturers, to defend false claim actions, pay damages and penalties or be excluded from Medicare, Medicaid or other federal or state healthcare programs as a result of investigations arising out of such actions.

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***Increased Regulatory Scrutiny of Relationships with Healthcare Providers***

Certain state governments and the federal government have enacted legislation, including the Physician Payments Sunshine Act provisions under the Federal Patient Protection and Affordable Care Act, aimed at increasing transparency of our interactions with healthcare providers. As a result, we are required by law to disclose payments, gifts, and other transfers of value to certain healthcare providers in certain states and to the federal government. Any failure to comply with these legal and regulatory requirements could result in a range of fines, penalties, and/or sanctions, and could affect our business. In addition, we have devoted and will continue to devote substantial time and financial resources to develop and implement enhanced structure, policies, systems and processes to comply with these enhanced legal and regulatory requirements, which may also impact our business.

***Third-Party Reimbursement***

Because we expect to receive payment for our products directly from our customers, we do not anticipate relying directly on payment for any of our products from third-party payers, such as Medicare, Medicaid, commercial health insurers and managed care companies. However, our business will be affected by coverage policies adopted by federal and state governmental authorities, such as Medicare and Medicaid, as well as private payers, which often follow the coverage policies of these public programs. Such policies may affect which products customers purchase and the prices they are willing to pay for those products in a particular jurisdiction. For example, our business will be indirectly impacted by the ability of a hospital or medical facility to obtain coverage and third-party reimbursement for procedures performed using our products. These third-party payers may deny coverage if they determine that a device used in a procedure was not medically necessary, was not used in accordance with cost-effective treatment methods, as determined by the third-party payer, or was used for an unapproved indication. They may also pay an inadequate amount for the procedure which could cause healthcare providers to use a lower cost competitor's device or perform a medical procedure without our device.

Reimbursement decisions by particular third-party payers depend upon a number of factors, including each third-party payer's determination that use of a product is:

- a covered benefit under its health plan;
- appropriate and medically necessary for the specific indication;
- cost effective; and
- neither experimental nor investigational.

Many third-party payers use coverage decisions and payment amounts determined by the Centers for Medicare and Medicaid Services, or CMS, which administers the U.S. Medicare program, as guidelines in setting their coverage and reimbursement policies. Medicare periodically reviews its reimbursement practices for various products. As a result, there is no certainty as to the future Medicare reimbursement rate for our products. In addition, those third-party payers that do not follow the CMS guidelines may adopt different coverage and reimbursement policies for our current and future products. It is possible that some third-party payers will not offer any coverage for our current or future products.



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Furthermore, the healthcare industry in the United States is increasingly focused on cost containment as government and private insurers seek to control healthcare costs by imposing lower payment rates and negotiating reduced contract rates with third-party payers. If third-party payers deny coverage or reduce their current levels of payment, or if our production costs increase faster than increases in reimbursement levels, we may be unable to sell our products on a profitable basis.

**Healthcare reform legislation in the United States may adversely affect our business and/or results of operations.**

In March 2010, significant reforms to the U.S. healthcare system were adopted in the form of the Patient Protection and Affordable Care Act (the PPACA). The PPACA includes provisions that, among other things, reduce and/or limit Medicare reimbursement, require all individuals to have health insurance (with limited exceptions) and impose new and/or increased taxes. Specifically, beginning in 2013, the medical device industry was required to subsidize healthcare reform in the form of a 2.3% excise tax on United States sales of most medical devices. In December 2015, as part of the Omnibus Appropriations Act, collection of the medical device excise tax was suspended thru 2017. That postponement has been extended again for 2018 and 2019. We are unable to predict whether the postponement will be continued beyond 2019. While the PPACA is intended to expand health insurance coverage to uninsured persons in the United States, other elements of this legislation, such as Medicare provisions aimed at improving quality and decreasing costs, comparative effectiveness research, an independent payment advisory board, and pilot programs to evaluate alternative payment methodologies, make it difficult to determine the overall impact on sales of, and reimbursement for, our products. We are unable to predict what additional legislation or regulation relating to the health care industry or third-party coverage and reimbursement may be enacted in the future or what effect such legislation or regulation would have on our business. Any cost containment measures or other health care system reforms that are adopted could have a material and adverse effect on our ability to commercialize our existing and future products successfully.

**Healthcare industry consolidation could impose pressure on our prices, reduce potential customer base and reduce demands for our systems.**

Many hospitals and imaging centers have consolidated to create larger healthcare enterprises with greater market and purchasing power. If this consolidation trend continues, it could reduce the size of our potential customer base and give the resulting enterprises greater bargaining or purchasing power, which may lead to erosion of the prices for our systems or decreased margins for our systems. In addition, when hospitals and imaging centers combine, they often consolidate infrastructure, and consolidation of our customers could result in fewer overall customers.

**Our products and manufacturing facilities are subject to extensive regulation with potentially significant costs for compliance.**

Our CAD systems for the computer aided detection of cancer and Axxent eBx systems are medical devices subject to extensive regulation by the FDA under the Federal Food, Drug, and Cosmetic Act. In addition, our manufacturing operations are subject to FDA regulation and we are also subject to FDA regulations covering labeling, adverse event reporting, and the FDA's general prohibition against promoting products for unapproved or off-label uses.



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Our failure to fully comply with applicable regulations could result in the issuance of warning letters, non-approvals, suspensions of existing approvals, civil penalties and criminal fines, product seizures and recalls, operating restrictions, injunctions, and criminal prosecution. Moreover, unanticipated changes in existing regulatory requirements or adoption of new requirements could increase our application, operating and compliance burdens and adversely affect our business, financial condition and results of operations.

Sales of our products in certain countries outside of the U.S. are also subject to extensive regulatory approvals. Obtaining and maintaining foreign regulatory approvals is an expensive and time-consuming process. We cannot be certain that we will be able to obtain the necessary regulatory approvals timely or at all in any foreign country in which we plan to market our CAD products and Axxent eBx systems, and if we fail to receive such approvals, our ability to generate revenue may be significantly diminished.

### **We may not be able to obtain regulatory approval for any of the other products that we may consider developing.**

We have received FDA approvals for our currently offered products. Before we are able to commercialize any new product, we must obtain regulatory approvals for each indicated use for that product. The process for satisfying these regulatory requirements is lengthy and costly and will require us to comply with complex standards for research and development, clinical trials, testing, manufacturing, quality control, labeling, and promotion of products.

### **Our products may be recalled even after we have received FDA or other governmental approval or clearance.**

If the safety or efficacy of any of our products is called into question, the FDA and similar governmental authorities in other countries may require us to recall our products, even if our product received approval or clearance by the FDA or a similar governmental body. Such a recall would divert the focus of our management and our financial resources and could materially and adversely affect our reputation with customers and our financial condition and results of operations.

### **We may be subject to criminal or civil sanctions if we fail to comply with privacy regulations regarding the use and disclosure of sensitive personally identifiable information.**

Numerous state and federal laws and regulations govern the collection, dissemination, use, privacy, confidentiality, security, availability and integrity of personally identifiable information, including The Health Insurance Portability and Accountability Act of 1996, as amended, and the regulations that have been issued thereunder ( HIPAA ). In the provision of services to our customers, we and our third-party vendors may collect, use, maintain and transmit patient health information in ways that are subject to many of these laws and regulations.

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Our customers are covered entities, and we are a business associate of our customers under HIPAA as a result of our contractual obligations to perform certain functions on behalf of and provide certain services to those customers. If we or any of our subcontractors experience a breach of the privacy or security of patient information, the breach reporting requirements and the liability for business associates under HIPAA could result in substantial financial liability and reputational harm.

Federal and state consumer laws are being applied increasingly by the Federal Trade Commission and state attorneys general to regulate the collection, use and disclosure of personal or patient health information, through web sites or otherwise, and to regulate the presentation of web site content. Numerous other federal and state laws protect the confidentiality, privacy, availability, integrity and security of personally identifiable information. These laws in many cases are more restrictive than, and not preempted by, HIPAA and may be subject to varying interpretations by courts and government agencies, creating complex compliance issues for us and our customers and potentially exposing us to additional expense, adverse publicity and liability. We may not remain in compliance with the diverse privacy requirements in all of the jurisdictions in which we do business.

HIPAA and federal and state laws and regulations may require users of personally identifiable information to implement specified security measures. Evolving laws and regulations in this area could require us to incur significant additional costs to re-design our products in a timely manner to reflect these legal requirements, which could have an adverse impact on our results of operations.

New personally identifiable information standards, whether implemented pursuant to HIPAA, congressional action or otherwise, could have a significant effect on the manner in which we must handle healthcare related data, and the cost of complying with standards could be significant. If we do not properly comply with existing or new laws and regulations related to patient health information, we could be subject to criminal or civil sanctions.

If our security measures are breached or fail and unauthorized access is obtained to a customer's data, our service may be perceived as insecure, the attractiveness of our services to current or potential customers may be reduced, and we may incur significant liabilities.

Our services involve the storage and transmission of customers' proprietary information and patient information, including health, financial, payment and other personal or confidential information. We rely on proprietary and commercially available systems, software, tools and monitoring, as well as other processes, to provide security for processing, transmission and storage of such information. Because of the sensitivity of this information and due to requirements under applicable laws and regulations, the effectiveness of such security efforts is very important. If our security measures are breached or fail as a result of third-party action, employee error, malfeasance or otherwise, someone may be able to obtain unauthorized access to customer or patient data. Improper activities by third-parties, advances in computer and software capabilities and encryption technology, new tools and discoveries and other events or developments may facilitate or result in a compromise or breach of our computer systems. Techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched against a target, and we may be unable to anticipate these techniques or fail to implement adequate preventive measures. Our security measures may not be effective in preventing such unauthorized access. If a breach of our security occurs, we could face damages for contract breach, penalties for violation of applicable laws or regulations, possible lawsuits by individuals affected by the breach and significant remediation costs and efforts to prevent future occurrences. In addition, whether there is an actual or a perceived breach of our security, the market perception of the effectiveness of our security measures could be harmed and we could lose current or potential customers.



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**Data protection laws in Europe and around the world may restrict our activities and increase our costs.**

Various statutes and rules in Europe and around the world regulate privacy and data protection which may affect our collection, use, storage, and transfer of information both abroad and in the United States. New laws and regulations are being enacted, so that this area remains in a state of flux. Monitoring and complying with these laws requires substantial financial resources. Failure to comply with these laws may result in, among other things, civil and criminal liability, negative publicity, restrictions on further use of data, and/or liability under contractual warranties. In addition, changes in these laws (including newly released interpretations of these laws by courts and regulatory bodies) may limit our data access, use and disclosure, and may require increased expenditures by us.

The European Union's General Data Protection Regulation (GDPR), will take effect in May 2018 and will require us to meet new and more stringent requirements regarding the handling of personal data about EU residents. Failure to meet the GDPR requirements could result in penalties of up to 4% of worldwide revenue.

**Our effective tax rate may fluctuate and we may incur obligations in tax jurisdictions in excess of amounts that have been accrued.**

As a global company, we are subject to taxation in numerous countries, states and other jurisdictions. In preparing our financial statements, we record the amount of tax payable in each of the countries, states and other jurisdictions in which we operate. Our future effective tax rate, however, may be lower or higher than prior years due to numerous factors, including a change in our geographic earnings mix, changes in the measurement of our deferred taxes, and recently enacted and future tax law changes in jurisdictions in which we operate. We are also subject to ongoing tax audits in various jurisdictions, and tax authorities may disagree with certain positions we have taken and assess additional taxes. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations, which could adversely affect our business, results of operations and cash flows.

**Changes in interpretation or application of Generally Accepted Accounting Principles may adversely affect our operating results.**

We prepare our financial statements to conform to GAAP. These principles are subject to interpretation by the Financial Accounting Standards Board (FASB), American Institute of Certified Public Accountants, the SEC and various other regulatory or accounting bodies. A change in interpretations of, or our application of, these principles can have a significant effect on our reported results and may even affect our reporting of transactions completed before a change is announced. In addition, when we are required to adopt new accounting standards, our methods of accounting for certain items may change, which could cause our results of operations to fluctuate from period to period and make it more difficult to compare our financial results to prior periods.

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As our operations evolve over time, we may introduce new products or new technologies that require us to apply different accounting principles, including ones regarding revenue recognition, than we have applied in past periods. The application of different types of accounting principles and related potential changes may make it more difficult to compare our financial results from quarter to quarter, and the trading price of our common stock could suffer or become more volatile as a result.

**Our acquisitions involve risks.**

We have completed acquisitions in the past and we may make acquisitions in the future. Such transactions involve numerous risks, including possible adverse effects on our operating results or the market price of our common stock. Some of the potential risks involved with acquisitions are the following:

difficulty in realizing anticipated financial or strategic benefits of such acquisition;

diversion of capital and potential dilution of stockholder ownership;

the risks related to increased indebtedness, as well as the risk such financing will not be available on satisfactory terms or at all;

diversion of management's attention and other resources from current operations, including potential strain on financial and managerial controls and reporting systems and procedures;

management of employee relations across facilities;

difficulties in the assimilation of different corporate cultures and practices, as well as in the assimilation and retention of broad and geographically dispersed personnel and operations;

difficulties and unanticipated expenses related to the integration of departments, systems (including accounting systems), technologies, books and records, procedures and controls (including internal accounting controls, procedures and policies), as well as in maintaining uniform standards, including environmental management systems;

assumption of known and unknown liabilities, some of which may be difficult or impossible to quantify;

inability to realize cost savings, sales increases or other benefits that we anticipate from such acquisitions, either as to amount or in the expected time frame;

non-cash impairment charges or other accounting charges relating to the acquired assets; and

maintaining strong relationships with our and our acquired companies' customers after the acquisitions. If our integration efforts are not successful, we may not be able to maintain the levels of revenues, earnings or operating efficiency that we and the acquired companies achieved or might achieve separately.

**Our acquisitions may not result in the benefits and revenue growth we expect.**

We integrate companies that we acquire including the operations, services, products and personnel of each company within our management policies, procedures and strategies. We cannot be sure that we will achieve the benefits of revenue growth that we expect from these acquisitions or that we will not incur unforeseen additional costs or expenses in connection with these acquisitions. To effectively

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manage our expected future growth, we must continue to successfully manage our integration of these companies and continue to improve our operational systems, internal procedures, working capital management, and financial and operational controls. If we fail in any of these areas, our business could be adversely affected.

### **Our quarterly and annual operating and financial results and our gross margins are likely to fluctuate significantly in future periods.**

Our quarterly and annual operating and financial results are difficult to predict and may fluctuate significantly from period to period. Our revenue and results of operations may fluctuate as a result of a variety of factors that are outside of our control including, but not limited to, general economic conditions, the timing of orders from our OEM partners, our OEM partners ability to manufacture and ship their digital mammography systems, our timely receipt by the FDA for the clearance to market our products, our ability to timely engage other OEM partners for the sale of our products, the timing of product enhancements and new product introductions by us or our competitors, the pricing of our products, changes in customers' budgets, competitive conditions and the possible deferral of revenue under our revenue recognition policies.

### **The markets for many of our products are subject to changing technology.**

The markets for many products we sell are subject to changing technology, new product introductions and product enhancements, and evolving industry standards. The introduction or enhancement of products embodying new technology or the emergence of new industry standards could render our existing products obsolete or result in short product life cycles or our inability to sell our products without offering a significant discount. Accordingly, our ability to compete is in part dependent on our ability to continually offer enhanced and improved products.

If we are unable to successfully introduce new technology solutions or services or fail to keep pace with advances in technology, our business, financial condition and results of operations will be adversely affected.

Our business depends on our ability to adapt to evolving technologies and industry standards and introduce new technology solutions and services accordingly. If we cannot adapt to changing technologies, our technology solutions and services may become obsolete, and our business would suffer. Because the healthcare information technology market is constantly evolving, our existing technology may become obsolete and fail to meet the requirements of current and potential customers. Our success will depend, in part, on our ability to continue to enhance our existing technology solutions and services, develop new technology that addresses the increasingly sophisticated and varied needs of our customers, and respond to technological advances and emerging industry standards and practices on a timely and cost-effective basis. The development of our proprietary technology entails significant technical and business risks. We may not be successful in developing, using, marketing, selling, or maintaining new technologies effectively or adapting our proprietary technology to evolving customer requirements or emerging industry standards, and, as a result, our business and reputation could suffer. We may not be able to introduce new technology solutions on schedule, or at all, or such solutions may not achieve market acceptance. Moreover, competitors may develop competitive products that could adversely affect our results of operations. A failure by us to introduce new products or to introduce these products on schedule could have an adverse effect on our business, financial condition and results of operations.

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**We depend upon a limited number of suppliers and manufacturers for our products, and certain components in our products may be available from a sole or limited number of suppliers.**

Our products are generally either manufactured and assembled for us by a sole manufacturer, by a limited number of manufacturers or assembled by us from supplies we obtain from a limited number of suppliers. Critical components required to manufacture our products, whether by outside manufacturers or directly by us, may be available from a sole or limited number of component suppliers. We generally do not have long-term arrangements with any of our manufacturers or suppliers. The loss of a sole or key manufacturer or supplier could materially impair our ability to deliver products to our customers in a timely manner and would adversely affect our sales and operating results. Our business would be harmed if any of our manufacturers or suppliers could not meet our quality and performance specifications and quantity and delivery requirements.

**We distribute our products in highly competitive markets and our sales may suffer as a result.**

We operate in highly competitive and rapidly changing markets that contain competitive products available from nationally and internationally recognized companies. Many of these competitors have significantly greater financial, technical and human resources than us and are well established. In addition, some companies have developed or may develop technologies or products that could compete with the products we manufacture and distribute or that would render our products obsolete or noncompetitive. Our competitors may achieve patent protection, regulatory approval, or product commercialization that would limit our ability to compete with them. These and other competitive pressures could have a material adverse effect on our business.

**Disruptions in service or damage to our third-party providers data centers could adversely affect our business.**

We rely on third-parties who provide access to data centers. Our information technologies and systems are vulnerable to damage or interruption from various causes, including (i) acts of God and other natural disasters, war and acts of terrorism and (ii) power losses, computer systems failures, internet and telecommunications or data network failures, operator error, losses of and corruption of data and similar events. We conduct business continuity planning and work with our third-party providers to protect against fires, floods, other natural disasters and general business interruptions to mitigate the adverse effects of a disruption, relocation or change in operating environment at the data centers we utilize. In addition, the occurrence of any of these events could result in interruptions, delays or cessations in service to our customers. Any of these events could impair or prohibit our ability to provide our services, reduce the attractiveness of our services to current or potential customers and adversely impact our financial condition and results of operations.



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In addition, despite the implementation of security measures, our infrastructure, data centers, or systems that we interface with, including the Internet and related systems, may be vulnerable to physical break-ins, hackers, improper employee or contractor access, computer viruses, programming errors, denial-of-service attacks or other attacks by third-parties seeking to disrupt operations or misappropriate information or similar physical or electronic breaches of security. Any of these can cause system failure, including network, software or hardware failure, which can result in service disruptions. As a result, we may be required to expend significant capital and other resources to protect against security breaches and hackers or to alleviate problems caused by such breaches.

**If our products fail to perform properly due to errors or similar problems, our business could suffer.**

Complex software, may contain defects or errors, some of which may remain undetected for a period of time. It is possible that such errors may be found after the introduction of new software or enhancements to existing software. We continually introduce new solutions and enhancements to our solutions, and, despite testing by us, it is possible that errors may occur in our software. If we detect any errors before we introduce a solution, we might have to delay deployment for an extended period of time while we address the problem. If we do not discover software errors that affect our new or current solutions or enhancements until after they are deployed, we would need to provide enhancements to correct such errors. Errors in our software could result in:

harm to our reputation;

lost sales;

delays in commercial releases;

product liability claims;

delays in or loss of market acceptance of our solutions;

license terminations or renegotiations;

unexpected expenses and diversion of resources to remedy errors; and

privacy and security vulnerabilities.

Furthermore, our customers might use our software together with products from other companies or those that they have developed internally. As a result, when problems occur, it might be difficult to identify the source of the problem. Even when our software does not cause these problems, the existence of these errors might cause us to incur significant costs, divert the attention of our technical personnel from our solution development efforts; impact our reputation and cause significant customer relations problems.



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**We cannot be certain of the future effectiveness of our internal controls over financial reporting or the impact of the same on our operations or the market price for our common stock.**

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 ( Section 404 ), we are required to include in our Annual Report on Form 10-K our assessment of the effectiveness of our internal controls over financial reporting. We have dedicated a significant amount of time and resources to ensure compliance with this legislation for the year ended December 31, 2017 and will continue to do so for future fiscal periods. Although we believe that we currently have adequate internal control procedures in place, we cannot be certain that future material changes to our internal controls over financial reporting will be effective. If we cannot adequately maintain the effectiveness of our internal controls over financial reporting, we might be subject to sanctions or investigation by regulatory authorities, such as the SEC. Any such action could adversely affect our financial results and the market price of our common stock.

**An inability to meet the requirements of Section 404 could adversely affect investor confidence and, as a result, our stock price.**

We are required to comply with the requirements of Section 404. Although we have implemented procedures to comply with the requirements of Section 404, there is no assurance that we will continue to meet the requirements. Failure to meet the ongoing requirements of Section 404, our inability to comply with Section 404 s requirements, and the costs of ongoing compliance could have a material adverse effect on investor confidence and our stock price.

**Our future prospects depend on our ability to retain current key employees and attract additional qualified personnel.**

Our success depends in large part on the continued service of our executive officers and other key employees. We may not be able to retain the services of our executive officers and other key employees. The loss of executive officers or other key personnel could have a material adverse effect on us.

In addition, in order to support our continued growth, we will be required to effectively recruit, develop and retain additional qualified personnel. If we are unable to attract and retain additional necessary personnel, it could delay or hinder our plans for growth. Competition for such personnel is intense, and there can be no assurance that we will be able to successfully attract, assimilate or retain sufficiently qualified personnel. The failure to retain and attract necessary personnel could have a material adverse effect on our business, financial condition and results of operations.

**Our international operations expose us to various risks, any number of which could harm our business.**

Our revenue from sales outside of the United States represented approximately 14% of our revenue for 2017. We are subject to the risks inherent in conducting business across national boundaries, any one of which could adversely impact our business. In addition to currency fluctuations, these risks include, among other things: economic downturns; changes in or interpretations of local law, governmental policy or regulation; restrictions on the transfer of funds into or out of the country; varying tax systems; and government protectionism. One or more of the foregoing factors could impair our current or future operations and, as a result, harm our overall business.

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**The market price of our common stock has been, and may continue to be volatile, which could reduce the market price of our common stock.**

The publicly traded shares of our common stock have experienced, and may experience in the future, significant price and volume fluctuations. This market volatility could reduce the market price of our common stock without regard to our operating performance. In addition, the trading price of our common stock could change significantly in response to actual or anticipated variations in our quarterly operating results, announcements by us or our competitors, factors affecting the medical imaging industry generally, changes in national or regional economic conditions, changes in securities analysts' estimates for us or our competitors or industry's future performance or general market conditions, making it more difficult for shares of our common stock to be sold at a favorable price or at all. The market price of our common stock could also be reduced by general market price declines or market volatility in the future or future declines or volatility in the prices of stocks for companies in our industry.

**A substantial number of shares of our common stock are eligible for future sale, and the sale of shares of common stock into the market, or the perception that such sales may occur, may depress our stock price.**

Sales of substantial additional shares of our common stock in the public market, or the perception that these sales may occur, may significantly lower the market price of our common stock. We are unable to estimate the amount, timing or nature of future sales of shares of our common stock. We have previously issued a substantial number of shares of common stock, which are eligible for resale under Rule 144 of the Securities Act of 1933, as amended, or the Securities Act, and may become freely tradable. We have also registered shares that are issuable upon the exercise of options and warrants. If holders of options or warrants choose to exercise their securities and sell shares of common stock issued upon the exercise in the public market, or if holders of currently restricted common stock choose to sell such shares of common stock in the public market under Rule 144 or otherwise, or attempt to publicly sell such shares all at once or in a short time period, the prevailing market price for our common stock may decline.

**Future issuances of shares of our common stock may cause significant dilution of equity interests of existing holders of common stock and decrease the market price of shares of our common stock.**

We have previously issued options that are exercisable into a significant number of shares of our common stock. Should existing holders of options exercise their securities into shares of our common stock, it may cause significant dilution of equity interests of existing holders of our common stock and reduce the market price of shares of our common stock.

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**Provisions in our corporate charter and in Delaware law could make it more difficult for a third party to acquire us, discourage a takeover and adversely affect existing stockholders.**

Our certificate of incorporation authorizes the Board of Directors to issue up to 1,000,000 shares of preferred stock. The preferred stock may be issued in one or more series, the terms of which may be determined at the time of issuance by our Board of Directors, without further action by stockholders, and may include, among other things, voting rights (including the right to vote as a series on particular matters), preferences as to dividends and liquidation, conversion and redemption rights, and sinking fund provisions. Although there are currently no shares of preferred stock outstanding, future holders of preferred stock may have rights superior to our common stock and such rights could also be used to restrict our ability to merge with, or sell our assets to a third party.

We are also subject to the provisions of Section 203 of the Delaware General Corporation Law, which could prevent us from engaging in a business combination with a 15% or greater stockholder for a period of three years from the date such person acquired that status unless appropriate board or stockholder approvals are obtained.

These provisions could deter unsolicited takeovers or delay or prevent changes in our control or management, including transactions in which stockholders might otherwise receive a premium for their shares over the then current market price. These provisions may also limit the ability of stockholders to approve transactions that they may deem to be in their best interests.

**Changes in credit markets or to our credit rating could impact our ability to obtain financing for business operations or result in increased borrowing costs and interest expense.**

Our credit ratings reflect each credit rating agency's then opinion of our financial strength, operating performance and ability to meet our debt obligations. We utilize the short- and long-term debt markets to obtain capital from time to time. Adverse changes in our credit ratings may result in increased borrowing costs for future long-term debt or short-term borrowing facilities and may limit financing options, including access to the unsecured borrowing market. We may also be subject to additional restrictive covenants that would reduce flexibility. Macroeconomic conditions, such as continued or increased volatility or disruption in the credit markets, may adversely affect our ability to refinance existing debt or obtain additional financing for working capital, capital expenditures or to fund new acquisitions.

**Our existing and future debt obligations could impair our liquidity and financial condition, and in the event we are unable to meet our debt obligations the lenders could foreclose on our assets.**

In connection with our Loan and Security Agreement entered into on August 7, 2017, as amended by that certain First Loan Modification Agreement entered into on March 22, 2018 (the "Loan Agreement"), Silicon Valley Bank agreed to provide \$13 million in financing to the Company, with Silicon Valley Bank making revolving loans to the Company in the principal amount of up to \$4 million and providing a term loan facility up to \$9 million to be drawn in two tranches. Our debt obligations:

Could impair our liquidity;

Could make it more difficult for us to satisfy our other obligations;

Require us to dedicate a substantial portion of our cash flow to payments on our debt obligations, which reduces the availability of our cash flow to fund working capital, capital expenditures and other corporate requirements;

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Impose restrictions on our ability to incur indebtedness, other than permitted indebtedness, and could impede us from obtaining additional financing in the future for working capital, capital expenditures, mergers, acquisitions and general corporate purposes;

Impose restrictions on us with respect to the use of our available cash, including in connection with future acquisitions;

Require us to maintain net revenues ranging from \$10.25 million to \$14.0 million for each calendar quarter ended until December 31, 2017 and maintain minimum Detection revenues ranging from \$8.622 million to \$9.517 million for each calendar quarter ended until December 31, 2018;

Require us to maintain adjusted EBITDA ranging from negative \$4.5 million to \$1.00 as of the last day of each calendar quarter until December 31, 2018;

Require us to agree with Silicon Valley Bank and provide all necessary financial information in connection with minimum detection revenue levels for the periods following December 31, 2018 by a defined date or the indebtedness under the Loan Agreement shall be accelerated to April 30 of the applicable following year;

Make us more vulnerable in the event of a downturn in our business prospects and could limit our flexibility to plan for, or react to, changes in our licensing markets;

Could result in a prepayment premium if we elected to prepay the indebtedness under the Loan Agreement prior to the maturity date; and

Could place us at a competitive disadvantage when compared to our competitors who have less debt. We have pledged substantially all of our assets to secure our obligations under the Loan Agreement, excluding any intellectual property. In the event that we were to fail in the future to make any required payment under the Loan Agreement or fail to comply with the financial and operating covenants contained in the Loan Agreement, in some cases subject to applicable cure periods, we would be in default regarding the indebtedness. A debt default would enable the lenders to foreclose on the assets securing such debt and could significantly diminish the market value and marketability of our common stock and could result in the acceleration of the payment obligations under our indebtedness.

**Item 1B. Unresolved Staff Comments.**

Not applicable

**Item 2. Properties.**

The Company's executive offices are leased pursuant to a five-year lease (the Lease) that commenced on December 15, 2006, with renewals in January 2012 and August 2016, referred to as the August 2016 Lease Renewal, consisting of approximately 11,000 square feet of office space located at 98 Spit Brook Road, Suite 100 in Nashua, New Hampshire (the Premises). The August 2016 Lease renewal provides for an annual base rent of \$184,518 for the period from March 2017 to February 2020. Additionally, the Company is required to pay its proportionate share of the building and real estate tax expenses and obtain insurance for the Premises.



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The Company leases a facility consisting of approximately 24,350 square feet of office, manufacturing and warehousing space located at 101 Nicholson Lane, San Jose, CA. The operating lease commenced September 2012 and provided for an annual payment of \$295,140 through September 2017 in equal monthly installments. In September 2016, the Company extended this lease for the period from October 2017 to March 2020 with annual payments of \$540,588 from October 2017 to September 2018, \$558,120 from October 2018 to September 2019 and \$286,368 for the period from October 2019 to March 2020, with all amounts payable in equal monthly installments. Additionally, the Company is required to pay its proportionate share of the building and real estate tax expenses and obtain insurance for the facility.

In addition to the foregoing leases relating to its principal properties, the Company also has a lease for an additional facility in Nashua, New Hampshire used for product repairs, manufacturing and warehousing.

If the Company is required to seek additional or replacement facilities, it believes there are adequate facilities available at commercially reasonable rates.

**Item 3. Legal Proceedings.**

The Company may be a party to various legal proceedings and claims arising out of the ordinary course of its business. Although the final results of all such matters and claims cannot be predicted with certainty, the Company currently believes that there are no current proceedings or claims pending against it of which the ultimate resolution would have a material adverse effect on its financial condition or results of operations. However, should we fail to prevail in any legal matter or should several legal matters be resolved against us in the same reporting period, such matters could have a material adverse effect on our operating results and cash flows for that particular period. In all cases, at each reporting period, the Company evaluates whether or not a potential loss amount or a potential range of loss is probable and reasonably estimable under ASC 450, Contingencies. Legal costs are expensed as incurred.

**Item 4. Mine Safety Disclosures.**

Not applicable.

**Table of Contents****PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.**

The Company's common stock is traded on the NASDAQ Capital Market under the symbol ICAD. The following table sets forth the range of high and low sale prices for each quarterly period during 2017 and 2016.

Fiscal year ended	High	Low
December 31, 2017		
First Quarter	\$ 5.11	\$ 3.19
Second Quarter	6.07	3.95
Third Quarter	4.67	3.13
Fourth Quarter	4.89	3.29
Fiscal year ended		
December 31, 2016		
First Quarter	\$ 5.24	\$ 3.60
Second Quarter	6.23	4.60
Third Quarter	6.49	4.51
Fourth Quarter	5.49	2.82

As of March 12, 2018, there were 235 holders of record of the Company's common stock. In addition, the Company believes that there are in excess of 3,300 holders of its common stock whose shares are held in street name.

The Company has not paid any cash dividends on its common stock to date, and the Company does not expect to pay cash dividends in the foreseeable future. Future dividend policy will depend on the Company's earnings, capital requirements, financial condition, and other factors considered relevant by the Company's Board of Directors. There are no non-statutory restrictions on the Company's present ability to pay dividends.

See Item 12 of this Form 10-K for certain information with respect to the Company's equity compensation plans in effect at December 31, 2017.

*Issuer's Purchases of Equity Securities.* For the majority of restricted stock units granted, the number of shares issued on the date that the restricted stock units vest is net of the minimum statutory tax withholding requirements that we pay in cash to the appropriate taxing authorities on behalf of our employees. The Company had the following repurchases of securities in the quarter ended December 31, 2017:

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Month of purchase	Total number of shares purchased (1)	Average price paid per share	Maximum dollar value of shares that may yet be purchased under the plans
October 1 - October 31, 2017	15,272	\$ 4.66	\$
November 1 - November 30, 2017	109	\$ 4.47	\$
December 1 - December 31, 2017	5,409	\$ 3.52	\$
Total	20,790	\$ 4.36	\$

- (1) Represents shares of common stock surrendered by employees to the Company to pay employee withholding taxes due upon the vesting of restricted stock. These transactions are exempt under Section (4)(a)(2) of the Securities Act.

**Item 6. Selected Financial Data.**

The following selected consolidated financial data is not necessarily indicative of the results of future operations and should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K (amounts in thousands).

**Selected Statement of Operations Data**

	Year Ended December 31,				
	2017	2016	2015	2014	2013
Total Revenue	\$ 28,102	\$ 26,338	\$ 41,554	\$ 43,924	\$ 33,067
Gross margin	18,176	18,518	29,350	31,227	23,085
Gross margin %	64.7%	70.3%	70.6%	71.1%	69.8%
Total operating expenses	32,344	28,488	59,429	30,412	24,861
Income (loss) from operations	(14,168)	(9,970)	(30,079)	815	(1,776)
Other (expense) income, net	(106)	(53)	(2,352)	(1,671)	(5,706)
Net loss	\$ (14,256)	\$ (10,099)	\$ (32,447)	\$ (1,009)	\$ (7,608)
Net income (loss) per share					
Basic	\$ (0.87)	\$ (0.63)	\$ (2.07)	\$ (0.07)	\$ (0.70)
Diluted	\$ (0.87)	\$ (0.63)	\$ (2.07)	\$ (0.07)	\$ (0.70)
Weighted average shares outstanding					
Basic	16,343	15,932	15,686	14,096	10,842
Diluted	16,343	15,932	15,686	14,096	10,842

**Selected Balance Sheet Data**

	As of December 31,				
	2017	2016	2015	2014	2013

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Cash and cash equivalents	\$ 9,387	\$ 8,585	\$ 15,280	\$ 32,220	\$ 11,880
Total current assets	21,209	19,933	27,767	44,616	22,043
Total assets	32,131	38,651	48,640	93,770	58,916
Total current liabilities	12,070	12,855	14,279	22,049	22,452
Long term deferred revenue	506	668	1,079	1,525	1,726
Notes and lease payable, long term	5,146		86	6,622	12,005
Stockholders' equity	\$ 14,276	\$ 25,038	\$ 32,746	\$ 62,779	\$ 21,377

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

**Overview**

iCAD, Inc. is an industry-leading provider of advanced image analysis, workflow solutions and radiation therapy for the early identification and treatment of cancer. The Company reports in two segments – Cancer Detection ( Detection ) and Cancer Therapy ( Therapy ).

The Company has grown primarily through acquisitions to become a broad player in the oncology market.

In the Detection segment, the Company's solutions include advanced image analysis and workflow solutions that enable healthcare professionals to better serve patients by identifying pathologies and pinpointing the most prevalent cancers earlier, a comprehensive range of high-performance, upgradeable Computer-Aided Detection (CAD) systems and workflow solutions for mammography, Magnetic Resonance Imaging (MRI) and Computed Tomography (CT).

The Company intends to continue the extension of its superior image analysis and clinical decision support solutions for mammography, MRI and CT imaging. iCAD believes that advances in digital imaging techniques should bolster its efforts to develop additional commercially viable CAD/advanced image analysis and workflow products.

In the Therapy segment the Company offers an isotope-free cancer treatment platform technology. The Xoft Electronic Brachytherapy System ( Xoft System ) can be used for the treatment of early-stage breast cancer, endometrial cancer, cervical cancer and skin cancer. We believe the Xoft System platform indications represent strategic opportunities in the United States and International markets to offer differentiated treatment alternatives. In addition, the Xoft System generates additional recurring revenue for the sale of consumables and related accessories which will continue to drive growth in this segment.

On January 4, 2018, the Company adopted a plan to discontinue offering radiation therapy professional services to practices that provide the Company's electronic brachytherapy solution for the treatment of NMSC under the subscription service model within the Therapy Segment. As a result, the Company will no longer offer the subscription service model to customers. The Company will continue to offer its capital sales model for both skin cancer treatment and IORT, which provides a brachytherapy system and related source and service agreements. The discontinuance of the subscription service model is expected to reduce radiation therapy professional services delivery costs, decrease cash burn, and re-focus the Company on the higher margin capital product and service offerings.

Based on the decision to discontinue offering radiation therapy professional services within the Cancer Therapy Segment, the Company revised its forecasts related to the Therapy segment, which we deemed to be a triggering event. As a result, the Company recorded a goodwill and long-lived asset impairment charge of approximately \$2.0 million for the period ended December 31, 2017 (see Note h and Note i to the consolidated financial statements for additional discussion).

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In connection with the preparation of the financial statements for the third quarter ended September 30, 2017 and the second quarter ended June 30, 2015, the Company evaluated the Therapy reporting unit for both long-lived asset and goodwill impairment. As a result of this assessment, the Company recorded material impairment charges in the Therapy reporting unit (see Note h and Note i to the consolidated financial statements for additional discussion).

On January 30, 2017, the Company completed the sale of certain intellectual property relating to the VersaVue Software and the DynaCAD product and related assets to Invivo for \$3,200,000 in cash with a holdback amount of \$350,000.

The Company's headquarters are located in Nashua, New Hampshire, with manufacturing facilities in Nashua, New Hampshire and, an operations, research, development, manufacturing and warehousing facility in San Jose, California.

## **Critical Accounting Policies**

The Company's discussion and analysis of its financial condition, results of operations, and cash flows are based on its consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, the Company evaluates these estimates, including those related to revenue recognition, allowance for doubtful accounts, inventory valuation and obsolescence, intangible assets, goodwill, warrants, income taxes, contingencies and litigation. Additionally, the Company uses assumptions and estimates in calculations to determine stock-based compensation and the value of warrants. The Company bases its estimates on historical experience and on various other assumptions that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The Company's critical accounting policies include:

Revenue recognition;

Allowance for doubtful accounts;

Inventory;

Valuation of long-lived and intangible assets;

Goodwill;

Stock based compensation; and

Income taxes.

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**Table of Contents****Revenue Recognition**

The Company recognizes revenue primarily from the sale of products and from the sale of services and supplies. Revenue is recognized when delivery has occurred, persuasive evidence of an arrangement exists, fees are fixed or determinable and collectability of the related receivable is probable. For product revenue, delivery has occurred upon shipment provided title and risk of loss have passed to the customer. Services and supplies revenue are considered to be delivered as the services are performed or over the estimated life of the supply agreement.

The Company recognizes revenue from the sale of its digital, film-based CAD and cancer therapy products and services in accordance with Financial Accounting Standards Board ( FASB ) Accounting Standards Codification ( ASC ) Update No. 2009-13, Multiple-Deliverable Revenue Arrangements ( ASU 2009-13 ) and ASC Update No. 2009-14, Certain Arrangements That Contain Software Elements ( ASU 2009-14 ) and ASC 985-605, Software ( ASC 985-605 ). Revenue from the sale of certain CAD products is recognized in accordance with ASC 840 Leases ( ASC 840 ). For multiple element arrangements, revenue is allocated to all deliverables based on their relative selling prices. In such circumstances, a hierarchy is used to determine the selling price to be used for allocating revenue to deliverables as follows: (i) vendor-specific objective evidence of fair value ( VSOE ), (ii) third-party evidence of selling price ( TPE ) and (iii) best estimate of the selling price ( BEBP ). VSOE generally exists only when the deliverable is sold separately and is the price actually charged for that deliverable. The process for determining BEBP for deliverables without VSOE or TPE considers multiple factors including relative selling prices; competitive prices in the marketplace, and management judgment; however, these may vary depending upon the unique facts and circumstances related to each deliverable.

The Company uses customer purchase orders that are subject to the Company's terms and conditions or, in the case of an Original Equipment Manufacturer ( OEM ) are governed by distribution agreements. In accordance with the Company's distribution agreements, the OEM does not have a right of return, and title and risk of loss passes to the OEM upon shipment. The Company generally ships Free On Board shipping point and uses shipping documents and third-party proof of delivery to verify delivery and transfer of title. In addition, the Company assesses whether collection is probable by considering a number of factors, including past transaction history with the customer and the creditworthiness of the customer, as obtained from third party credit references.

If the terms of the sale include customer acceptance provisions and compliance with those provisions cannot be demonstrated, all revenue is deferred and not recognized until such acceptance occurs. The Company considers all relevant facts and circumstances in determining when to recognize revenue, including contractual obligations to the customer, the customer's post-delivery acceptance provisions, if any, and the installation process.

The Company has determined that iCAD's digital and film based sales generally follow the guidance of FASB ASC Topic 605 Revenue Recognition ( ASC 605 ) as the software has been considered essential to the functionality of the product per the guidance of ASU 2009-14. Typically, the responsibility for the installation process lies with the OEM partner. On occasion, when iCAD is responsible for product installation, the installation element is considered a separate unit of accounting because the delivered product has stand-alone value to the customer.



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In these instances, the Company allocates revenue to the deliverables based on the framework established within ASU 2009-13. Therefore, the installation and training revenue is recognized as the services are performed according to the BESP of the element. Revenue from the digital and film based equipment, when there is installation, is recognized based on the relative selling price allocation of the BESP, when delivered.

Revenue from certain CAD products is recognized in accordance with ASC 985-605. Sales of this product include training, and the Company has established VSOE for this element. Product revenue is determined based on the residual value in the arrangement and is recognized when delivered. Revenue for training is deferred and recognized when the training has been completed.

Sales of the Company's Therapy segment products typically include a controller, accessories, source agreements and services. The Company allocates revenue to the deliverables in the arrangement based on the BESP in accordance with ASU 2009-13. Product revenue is generally recognized when the product has been delivered and service and source revenue is typically recognized over the life of the service and source agreement. The Company includes the following in service and supplies revenue: the sale of physics and management services, the lease of electronic brachytherapy equipment, development fees, supplies and the right to use the Company's AxxentHub software. Physics and management services revenue and development fees are considered to be delivered as the services are performed or over the estimated life of the agreement. The Company typically bills items monthly over the life of the agreement except for development fees, which are generally billed in advance or over a 12 month period and the fee for treatment supplies which is generally billed in advance.

The Company defers revenue from the sale of certain service contracts and recognizes the related revenue on a straight-line basis in accordance with ASC Topic 605-20, Services. The Company provides for estimated warranty costs on original product warranties at the time of sale.

## **Allowance for Doubtful Accounts**

The Company's policy is to maintain allowances for estimated losses from the inability of its customers to make required payments. Credit limits are established through a process of reviewing the financial results, stability and payment history of each customer. Where appropriate, the Company obtains credit rating reports and financial statements of customers when determining or modifying credit limits. The Company's senior management reviews accounts receivable on a periodic basis to determine if any receivables may potentially be uncollectible. The Company includes any accounts receivable balances that it determines may likely be uncollectible, along with a general reserve for estimated probable losses based on historical experience, in its overall allowance for doubtful accounts. An amount would be written off against the allowance after all attempts to collect the receivable had failed. Based on the information available to the Company, it believes the allowance for doubtful accounts as of December 31, 2017 is adequate.

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### **Inventory**

Inventory is valued at the lower of cost or net realizable value, with cost determined by the first-in, first-out method. The Company regularly reviews inventory quantities on hand and records a provision for excess and/or obsolete inventory primarily based upon historical usage of its inventory as well as other factors.

### **Goodwill**

In accordance with FASB ASC Topic 350-20, Intangibles Goodwill and Other, (ASC 350-20), the Company tests goodwill for impairment on an annual basis and between annual tests if events and circumstances indicate it is more likely than not that the fair value of the Company is less than the carrying value of the Company.

Factors the Company considers important, which could trigger an impairment of such asset, include the following:

significant underperformance relative to historical or projected future operating results;

significant changes in the manner or use of the assets or the strategy for the Company's overall business;

significant negative industry or economic trends;

significant decline in the Company's stock price for a sustained period; and

a decline in the Company's market capitalization below net book value.

The Company's Chief Operating Decision Maker (CODM) is the Chief Executive Officer (CEO). The Company determined that it has two reporting units and two reportable segments based on the information that is provided to the CODM. The two segments and reporting units are Cancer Detection (Detection) and Cancer Therapy (Therapy). Each reportable segment generates revenue from the sale of medical equipment and related services and/or sale of supplies. Upon initial adoption, goodwill was allocated to the reporting units based on the relative fair value of the reporting units.

The Company records an impairment charge if such an assessment were to indicate that the fair value of a reporting unit was less than the carrying value. When the Company evaluates potential impairments outside of its annual measurement date, judgment is required in determining whether an event has occurred that may impair the value of goodwill or intangible assets. The Company utilizes either discounted cash flow models or other valuation models, such as comparative transactions and market multiples, to determine the fair value of its reporting units. The Company makes assumptions about future cash flows, future operating plans, discount rates, comparable companies, market multiples, purchase price premiums and other factors in those models. Different assumptions and judgment determinations could yield different conclusions that would result in an impairment charge to income in the period that such change or determination was made.



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In January 2018 the Company adopted a plan to discontinue offering radiation therapy professional services to practices that provide the Company's electronic brachytherapy solution for the treatment of NMSC under the subscription service model within the Therapy Segment. As result, the Company will no longer offer the subscription service model to customers. Based on the decision to discontinue offering radiation therapy professional within the Therapy Segment, the Company revised its forecasts related to the Therapy segment, which we deemed to be a triggering event.

The Company elected to early adopt ASU 2017-04, Intangibles – Goodwill and Other: Simplifying the Test for Goodwill Impairment ( ASU 2017-04 ) as of September 30, 2017 which affected both the third quarter and fourth quarter impairment tests. ASU 2017-04 specifies that goodwill impairment is the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. In accordance with the standard, the fair value of the Therapy reporting unit as of the fourth quarter was \$0.1 million and the carrying value was \$2.1 million. The deficiency exceeded the carrying value of goodwill and the balance of \$1.7 million was recorded as an impairment charge in the quarter ended December 31, 2017.

As a result of the underperformance of the Therapy reporting unit as compared to expected future results, the Company determined there was a triggering event in the third quarter of 2017. As a result, the Company completed an interim impairment assessment. The interim test resulted in the fair value of the Therapy reporting unit being less than the carrying value of the reporting unit. The fair value of the Therapy reporting unit was \$3.5 million and the carrying value was \$7.5 million. The deficiency of \$4.0 million was recorded as an impairment charge in the third quarter ended September 30, 2017. The Company did not identify a triggering event within the Detection reporting unit and accordingly did not perform an interim test.

As a result of external factors and general uncertainty related to reimbursement for non-melanoma skin cancer and in conjunction with the long-lived asset impairment testing, the Company performed an impairment assessment of the Therapy reporting unit as of June 30, 2015. As a result the Company recorded a goodwill impairment charge of \$14.0 million during the quarter ended June 30, 2015.

The Company determines the fair value of reporting units based on the present value of estimated future cash flows, discounted at an appropriate risk adjusted rate. This approach was selected as it measures the income producing assets, primarily technology and customer relationships. This method estimates the fair value based upon the ability to generate future cash flows, which is particularly applicable when future profit margins and growth are expected to vary significantly from historical operating results.

The Company uses internal forecasts to estimate future cash flows and includes an estimate of long-term future growth rates based on the most recent views of the long-term forecast for the reporting unit. Accordingly, actual results can differ from those assumed in the forecasts. Discount rates are derived from a capital asset pricing model and analyzing published rates for industries relevant to the reporting unit to estimate the cost of equity financing. The Company uses discount rates that are commensurate with the risks and uncertainty inherent in the respective businesses and in the internally developed forecasts.

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Other significant assumptions include terminal value margin rates, future capital expenditures, and changes in future working capital requirements. While there are inherent uncertainties related to the assumptions used and to the application of these assumptions to this analysis, the income approach provides a reasonable estimate of the fair value of the Therapy reporting unit.

The Company performed the annual impairment assessment at October 1, 2017 and compared the fair value of each of reporting unit to its carrying value as of this date. Fair value exceeded the carrying value for the Detection reporting unit, and the carrying value approximated fair value of the Therapy reporting unit after the impairment as of September 30, 2017. The carrying values of the reporting units were determined based on an allocation of our assets and liabilities through specific allocation of certain assets and liabilities, to the reporting units and an apportionment of the remaining net assets based on the relative size of the reporting units' revenues and operating expenses compared to the Company as a whole. The determination of reporting units also requires management judgment.

Fair values for the reporting units are based on a weighting of the income approach and the market approach. For purposes of the income approach, fair value is determined based on the present value of estimated future cash flows, discounted at an appropriate risk adjusted rate. The Company uses internal forecasts to estimate future cash flows and includes estimates of long-term future growth rates based on our most recent views of the long-term forecast for each segment. Accordingly, actual results can differ from those assumed in our forecasts. Discount rates are derived from a capital asset pricing model and by analyzing published rates for industries relevant to our reporting units to estimate the cost of equity financing. The Company uses discount rates that are commensurate with the risks and uncertainty inherent in the respective businesses and in our internally developed forecasts.

In the market approach, the Company uses a valuation technique in which values are derived based on market prices of publicly traded companies with similar operating characteristics and industries. A market approach allows for comparison to actual market transactions and multiples. It can be somewhat limited in its application because the population of potential comparable publicly-traded companies can be limited due to differing characteristics of the comparative business and ours, as well as the fact that market data may not be available for divisions within larger conglomerates or non-public subsidiaries that could otherwise qualify as comparable, and the specific circumstances surrounding a market transaction (e.g., synergies between the parties, terms and conditions of the transaction, etc.) may be different or irrelevant with respect to our business.

The Company corroborates the total fair values of the reporting units using a market capitalization approach; however, this approach cannot be used to determine the fair value of each reporting unit value. The blend of the income approach and market approach is more closely aligned to our business profile, including markets served and products available. In addition, required rates of return, along with uncertainties inherent in the forecast of future cash flows, are reflected in the selection of the discount rate. Equally important, under the blended approach, reasonably likely scenarios and associated sensitivities can be developed for alternative future states that may not be reflected in an observable market price. The Company assesses each valuation methodology based upon the relevance and availability of the data at the time the valuation is performed and weights the methodologies appropriately.

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### **Long Lived Assets**

In accordance with FASB ASC Topic 360, *Property, Plant and Equipment*, (ASC 360), the Company assesses long-lived assets for impairment if events and circumstances indicate it is more likely than not that the fair value of the asset group is less than the carrying value of the asset group.

ASC 360-10-35 uses *events and circumstances* criteria to determine when, if at all, an asset (or asset group) is evaluated for recoverability. Thus, there is no set interval or frequency for recoverability evaluation. In accordance with ASC 360-10-35-21 the following factors are examples of events or changes in circumstances that indicate the carrying amount of an asset (asset group) may not be recoverable and thus is to be evaluated for recoverability.

A significant decrease in the market price of a long-lived asset (asset group);

A significant adverse change in the extent or manner in which a long-lived asset (asset group) is being used or in its physical condition;

A significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset (asset group), including an adverse action or assessment by a regulator;

An accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset (asset group);

A current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset (asset group).

In accordance with ASC 360-10-35-17, if the carrying amount of an asset or asset group (in use or under development) is evaluated and found not to be fully recoverable (the carrying amount exceeds the estimated gross, undiscounted cash flows from use and disposition), then an impairment loss must be recognized. The impairment loss is measured as the excess of the carrying amount over the assets (or asset group's) fair value. The Company has determined the *Asset Group* to be the assets of the Therapy segment, which the Company considered to be the lowest level for which the identifiable cash flows were largely independent of the cash flows of other assets and liabilities.

The Company completed an interim goodwill impairment assessment for the Therapy reporting unit in the third quarter of 2017 and noted that there was an impairment of goodwill. As a result, the Company determined this was a triggering event to review long-lived assets for impairment. Accordingly, the Company completed an analysis pursuant to ASC 360-10-35-17 and determined that the carrying value of the asset group exceeded the undiscounted cash flows, and that long-lived assets were impaired. The Company recorded long-lived asset impairment charges of approximately \$0.7 million in the third quarter ended September 30, 2017 based on the deficiency between the book value of the assets and the fair value as determined in the



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analysis. The Company also completed a goodwill assessment in the fourth quarter of 2017, and in connection with that assessment, the Company completed an analysis pursuant to ASC 360-10-35-17 and determined that the undiscounted cash flows exceeded the carrying value of the asset group and that long-lived assets were not impaired.

As a result of external factors and general uncertainty related to reimbursement for the treatment of NMSC, the Company evaluated the long-lived assets of the Therapy segment and reviewed them for impairment in 2015. In connection with the preparation of the financial statements for the second quarter ended June 30, 2015, the Company completed its analysis pursuant to ASC 360-10-35-17 and determined that the carrying value of the Asset Group was approximately \$36.8 million, which exceeded the undiscounted cash flows by approximately \$2.8 million. Accordingly, the Company completed the Step 2 analysis to determine the fair value of the Asset Group. The Company recorded long-lived asset impairment charges of approximately \$13.4 million in the second quarter ended June 30, 2015 and as a result the long-lived assets in the Asset Group were recorded at their current fair values.

The Company did not record any impairment charges for the year ended December 31, 2016.

A considerable amount of judgment and assumptions are required in performing the impairment tests, principally in determining the fair value of the Asset Group and the reporting unit. While the Company believes the judgments and assumptions are reasonable, different assumptions could change the estimated fair values and, therefore additional impairment charges could be required. Significant negative industry or economic trends, disruptions to the Company's business, loss of significant customers, inability to effectively integrate acquired businesses, unexpected significant changes or planned changes in use of the assets may adversely impact the assumptions used in the fair value estimates and ultimately result in future impairment charges.

Intangible assets subject to amortization consist primarily of patents, technology intangibles, trade names, customer relationships and distribution agreements purchased in the Company's previous acquisitions. These assets are amortized on a straight-line basis or the pattern of economic benefit over their estimated useful lives of 5 to 10 years.

**Stock-Based Compensation**

The Company maintains stock-based incentive plans, under which it provides stock incentives to employees, directors and contractors. The Company grants to employees, directors and contractors, options to purchase common stock at an exercise price equal to the market value of the stock at the date of grant. The Company may grant restricted stock to employees and directors. The underlying shares of the restricted stock grant are not issued until the shares vest, and compensation expense is based on the stock price of the shares at the time of grant. The Company follows ASC 718, *Compensation - Stock Compensation*, (ASC 718), for all stock-based compensation. The Company granted performance based restricted stock during 2016 based on achievement of certain revenue targets. Compensation cost for performance based restricted stock requires significant judgment regarding probability of the performance objectives and compensation cost is re-measured at every reporting period. As a result compensation cost could vary significantly during the performance measurement period.



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The Company uses the Black-Scholes option pricing model to value stock options which requires extensive use of accounting judgment and financial estimates, including estimates of the expected term participants will retain their vested stock options before exercising them, the estimated volatility of its common stock price over the expected term, and the number of options that will be forfeited prior to the completion of their vesting requirements. Fair value of restricted stock is determined based on the stock price of the underlying option on the date of the grant. Application of alternative assumptions could produce significantly different estimates of the fair value of stock-based compensation and consequently, the related amounts recognized in the Consolidated Statements of Operations.

**Income Taxes**

The Company follows the liability method under ASC 740, *Income Taxes* (ASC 740). The primary objectives of accounting for taxes under ASC 740 are to (a) recognize the amount of tax payable for the current year and (b) recognize the amount of deferred tax liability or asset for the future tax consequences of events that have been reflected in the Company's financial statements or tax returns. The Company has provided a full valuation allowance against its deferred tax assets at December 31, 2017 and 2016 as it is more likely than not that the deferred tax asset will not be realized.

ASC 740-10 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements and prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740-10 also provides guidance on de-recognition, classification, interest and penalties, disclosure and transition.

In addition, uncertain tax positions and tax related valuation allowances assumed in connection with a business combination are initially estimated as of the acquisition date and the Company reevaluates these items quarterly, with any adjustments to preliminary estimates being recorded to goodwill, provided that the Company is within the measurement period (which may be up to one year from the acquisition date) and continues to collect information in order to determine their estimated values. Subsequent to the measurement period or final determination of the tax allowance's or contingency's estimated value, changes to these uncertain tax positions and tax related valuation allowances may affect the provision for income taxes presented in the Company's statement of operations.

**Year Ended December 31, 2017 compared to Year Ended December 31, 2016**

*Revenue.* Revenue for the year ended December 31, 2017 was \$28.1 million compared with revenue of \$26.3 million for the year ended December 31, 2016, an increase of \$1.8 million or 6.7%. Therapy revenue increased \$1.2 million and Detection revenue increased \$0.6 million.

The table below presents the components of revenue for 2017 and 2016 (in thousands):

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	<b>For the year ended December 31,</b>			
	<b>2017</b>	<b>2016</b>	<b>Change</b>	<b>% Change</b>
<b>Detection revenue</b>				
Product revenue	\$ 11,649	\$ 8,682	\$ 2,967	34.2%
Service and supplies revenue	6,661	8,451	(1,790)	(21.2)%
Subtotal	18,310	17,133	1,177	6.9%
<b>Therapy revenue</b>				
Product revenue	1,905	1,789	116	6.5%
Service and supplies revenue	7,887	7,416	471	6.4%
Subtotal	9,792	9,205	587	6.4%
<b>Total revenue</b>	<b>\$ 28,102</b>	<b>\$ 26,338</b>	<b>\$ 1,764</b>	<b>6.7%</b>

Detection revenues increased 6.9% or \$1.2 million from \$17.1 million for the year ended December 31, 2016 to \$18.3 million for the year ended December 31, 2017. Detection product revenue increased by \$3.0 million and Detection service revenue decreased \$1.8 million. The increase in Detection product revenue is primarily due to a \$4.1 million increase in digital CAD systems offset by a \$1.0 million decrease in MRI products. The increase in digital CAD products is driven by increases in demand primarily from our OEM customers. In January 2017, we completed the sale of our MRI assets to Invivo. As a result MRI product revenue decreased \$1.0 million and MRI service revenue decreased \$0.9 million. Detection service and supplies revenue decreased \$1.8 million due to decreases in MRI service revenue of \$0.9 million and a decrease in digital service revenue of approximately \$0.9 million. The decrease in digital service revenue is due primarily to the conversion and upgrade cycle from Secondlook digital to Tomo CAD.

Therapy revenue increased 6.4% or \$0.6 million to \$9.8 million for the year ended December 31, 2017 from \$9.2 million in the year ended December 31, 2016. The increase in Therapy revenue was driven by an increase in Therapy product revenue of \$0.1 million and an increase in Therapy service and supplies revenue of \$0.5 million.

The increase in Therapy product and service revenue for the year ended December 31, 2017 is due primarily to an increase in international controller sales in 2017. The Company believes that the international market can continue to be a growth area for controller sales.

*Gross Profit.* Gross profit was \$18.2 million for the year ended December 31, 2017 compared to \$18.5 million for the year ended December 31, 2016, a decrease of \$0.3 million. Therapy gross profit decreased \$1.4 million from \$3.4 million in the year ended December 31, 2016 to \$2.0 million in the year ended December 31, 2017. Detection gross profit increased \$1.1 million from \$15.1 million in the year ended December 31, 2016 to \$16.2 million in the year ended December 31, 2017. Detection gross profit increased due primarily to the increase in Detection product sales, which have higher gross profits than Detection service revenues.

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Therapy gross profit decreased due to the increased cost associated with the service delivery model that provided electronic brachytherapy solutions for the treatment of NMSC to Dermatology practices. In addition, the Company recorded an inventory reserve in cost of revenue for the year ended December 31, 2017 of approximately \$1.0 million which is composed of \$0.5 million in product and \$0.5 million in service. In January 2018, the Company announced that the services to provide electronic brachytherapy solutions for the treatment of NMSC to Dermatology practices would be discontinued. We believe that gross margins should improve in 2018 as a result of this decision.

Gross profit percent was 64.7% for the year ended December 31, 2017 compared to 70.3% for the year ended December 31, 2016. Cost of revenue for the year ended December 31, 2017 includes the inventory reserve of \$1.0 million, as noted above. Cost of revenue for the year ended December 31, 2016 includes a credit of \$0.5 million related to a refund of the Medical Device Excise Tax ( MDET ). Gross profit will fluctuate due to the costs related to manufacturing, amortization and the impact of product mix in each segment. Cost of revenue and gross profit for 2017 and 2016 were as follows (in thousands):

	<b>For the year ended December 31,</b>			
	<b>2017</b>	<b>2016</b>	<b>Change</b>	<b>% Change</b>
Products	\$ 2,660	\$ 918	\$ 1,742	189.8%
Service and supplies	6,229	5,713	516	9.0%
Amortization and depreciation	1,037	1,189	(152)	(12.8%)
Total cost of revenue	9,926	7,820	2,106	26.9%
Gross profit	\$ 18,176	\$ 18,518	\$ (342)	(1.8%)
Gross profit %	64.7%	70.3%	(5.6%)	
	<b>For the year ended December 31,</b>			
	<b>2017</b>	<b>2016</b>	<b>Change</b>	<b>% Change</b>
Detection gross profit	\$ 16,218	\$ 15,113	\$ 1,105	7.3%
Therapy gross profit	1,958	3,405	(1,447)	(42.5%)
Gross profit	\$ 18,176	\$ 18,518	\$ (342)	(1.8%)

**Table of Contents***Operating Expenses:*

Operating expenses for 2017 and 2016 are as follows (in thousands):

	<b>For the year ended December 31,</b>			
	<b>2017</b>	<b>2016</b>	<b>Change</b>	<b>% Change</b>
<b>Operating expenses:</b>				
Engineering and product development	\$ 9,327	\$ 9,518	\$ (191)	(2.0%)
Marketing and sales	10,503	10,179	324	3.2%
General and administrative	7,877	7,675	202	2.6%
Amortization and depreciation	452	1,116	(664)	(59.5%)
Gain on sale of MRI assets	(2,508)		(2,508)	
Goodwill and long-lived asset impairment	6,693		6,693	
<b>Total operating expenses</b>	<b>\$ 32,344</b>	<b>\$ 28,488</b>	<b>\$ 3,856</b>	<b>13.5%</b>

*Engineering and Product Development.* Engineering and product development costs for the year ended December 31, 2017 decreased by \$0.2 million or 2.0%, from \$9.5 million in 2016 to \$9.3 million in 2017. Therapy engineering and product development costs decreased by approximately \$0.4 million and Detection engineering and product development costs increased by \$0.2 million. The decrease in the Therapy segment is due primarily to a decrease in personnel expenses, consulting costs and clinical trial expenses. The increase in Detection research and development expense is due to an increase in personnel expenses, primarily stock compensation.

*Marketing and Sales.* Marketing and sales expense for the year ended December 31, 2017 increased by \$0.3 million or 3.2%, from \$10.2 million in 2016 to \$10.5 million in 2017. Therapy marketing and sales expenses decreased approximately \$0.3 million and Detection marketing and sales expenses increased \$0.6 million. The increase in Detection marketing and sales expense is due to an increase in commissions and stock compensation expense. The decrease in Therapy marketing and sales expense was due primarily to a decrease in personnel expenses.

*General and Administrative.* General and administrative expenses for the year ended December 31, 2016 increased by \$0.2 million or 2.6%, from \$7.7 million in 2016 to \$7.9 million in 2017. The increase in general and administrative expenses was due primarily to increases in stock compensation expense, rent and consulting offset by a decrease in personnel expenses.

*Amortization and Depreciation.* Amortization and depreciation decreased by \$0.6 million from \$1.1 million to \$0.5 million. The decrease is due primarily to the impairment of intangible assets and reductions due to assets that have become fully depreciated.

*Gain from sale of MRI assets.* The Company entered into an Asset Purchase Agreement with Invivo Corporation to sell certain MRI assets in December 2016 and the transaction closed on January 30, 2017. As a result, the Company recorded a gain on sale from MRI assets of \$2.5 million in the first quarter of 2017.

*Goodwill and long-lived asset impairment.* The Company recorded an impairment charge of \$4.7 million in the third quarter of 2017 and an impairment charge of \$2.0 million in the fourth quarter of 2017 for a total of \$6.7 million in 2017. There were no impairment charges during fiscal year 2016.



**Table of Contents***Other Income and Expense (in thousands)*

	<b>For the year ended December 31,</b>			
	<b>2017</b>	<b>2016</b>	<b>Change</b>	<b>Change%</b>
Interest expense	\$ (124)	\$ (63)	(61)	96.8%
Loss from extinguishment of debt				100.0%
Interest income	18	10	8	80.0%
	\$ (106)	\$ (53)	\$ (53)	100.0%
Income tax (benefit) expense	\$ (18)	\$ 76	(94)	(123.7)%

*Interest Expense.* The Company recorded \$124,000 of interest expense in 2017 as compared with \$63,000 of interest expense during the year ended December 31, 2016. In August 2017, the Company closed a debt facility with Silicon Valley Bank and as a result, interest expense has increased.

*Interest income.* Interest income of \$18,000 and \$10,000 for the years ended December 31, 2017, and 2016, respectively, reflects income earned from our money market accounts.

*Tax benefit (expense).* The Company had a tax benefit of \$18,000 for the year ended December 31, 2017 as compared to tax expense of \$76,000 for the year ended December 31, 2016. The tax benefit for the year ended December 31, 2017 is the result of applying for New Hampshire research and development credits, offset by state non-income and franchise based taxes. Tax expense for the year ended December 31, 2016 is due primarily to state non-income and franchise based taxes.

**Year Ended December 31, 2016 compared to Year Ended December 31, 2015**

*Revenue.* Revenue for the year ended December 31, 2016 was \$26.3 million compared with revenue of \$41.6 million for the year ended December 31, 2015, a decrease of \$15.2 million or 36.6%. Therapy revenue decreased \$13.1 million and Detection revenue decreased \$2.1 million.

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The table below presents the components of revenue for 2016 and 2015 (in thousands):

	<b>For the year ended December 31,</b>			
	<b>2016</b>	<b>2015</b>	<b>Change</b>	<b>% Change</b>
<b>Detection revenue</b>				
Product revenue	\$ 8,682	\$ 11,226	\$ (2,544)	(22.7)%
Service and supplies revenue	8,451	8,017	434	5.4%
Subtotal	17,133	19,243	(2,110)	(11.0)%
<b>Therapy revenue</b>				
Product revenue	1,789	2,972	(1,183)	(39.8)%
Service and supplies revenue	7,416	19,339	(11,923)	(61.7)%
Subtotal	9,205	22,311	(13,106)	(58.7)%
<b>Total revenue</b>	<b>\$ 26,338</b>	<b>\$ 41,554</b>	<b>\$ (15,216)</b>	<b>(36.6)%</b>

Detection revenues decreased 11.0 % or \$2.1 million from \$19.2 million for the year ended December 31, 2015 to \$17.1 million for the year ended December 31, 2016. Detection product revenue decreased by \$2.5 million and Detection service revenue increased \$0.4 million. The decrease in Detection product revenue is primarily due to a \$0.4 million decrease in digital CAD systems and a \$2.1 million decrease in MRI products. The decrease in digital CAD and MRI products are driven by decreases in demand primarily from our OEM customers. Detection service and supplies revenue increased \$0.4 million primarily due to increases in our installed base for Powerlook AMP.

Therapy revenue decreased 58.7% or \$13.1 million to \$9.2 million for the year ended December 31, 2016 from \$22.3 million in the year ended December 31, 2015. The decrease in Therapy revenue was driven by a decrease in Therapy product revenue of \$1.2 million and a decrease in Therapy service and supplies revenue of \$11.9 million.

The decrease in Therapy product and service revenue for the year ended December 31, 2016 is primarily due to the negative impact of customer reaction to the uncertainty of reimbursement rates for NSMC in the United States. Product revenue from the sale of our Axxent eBx systems can vary significantly due to an increase or decrease in the number of units sold which can cause a significant fluctuation in product revenue in the period.

*Gross Profit.* Gross profit was \$18.5 million for the year ended December 31, 2016 compared to \$29.4 million for the year ended December 31, 2015, a decrease of \$10.8 million, Therapy gross profit decreased \$9.9 million from \$13.3 million in the year ended December 31, 2015 to \$3.4 million in the year ended December 31, 2016. Detection gross profit decreased \$0.9 million from \$16.0 million in the year ended December 31, 2015 to \$15.1 million in the year ended December 31, 2016. The decrease in Therapy gross profit was due primarily to the decrease in Therapy revenue. Detection gross profit decreased due primarily to the decrease in Detection product sales, which have higher gross profits than Detection service revenues.

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Gross profit percent was 70.3% for the year ended December 31, 2016 compared to 70.6% for the year ended December 31, 2015. Included in cost of revenue for the year ended December 31, 2016 is a credit of \$491,000 related to a refund of the Medical Device Excise Tax ( MDET ). Gross profit will fluctuate due to the costs related to manufacturing, amortization and the impact of product mix in each segment. Cost of revenue and gross profit for 2016 and 2015 were as follows (in thousands):

	<b>For the year ended December 31,</b>			
	<b>2016</b>	<b>2015</b>	<b>Change</b>	<b>% Change</b>
Products	\$ 918	\$ 3,130	\$ (2,212)	(70.7%)
Service and supplies	5,713	7,357	(1,644)	(22.3%)
Amortization and depreciation	1,189	1,717	(528)	(30.8%)
Total cost of revenue	7,820	12,204	(4,384)	(35.9%)
Gross profit	\$ 18,518	\$ 29,350	\$ (10,832)	(36.9%)
Gross profit %	70.3%	70.6%	(0.3%)	

	<b>For the year ended December 31,</b>			
	<b>2016</b>	<b>2015</b>	<b>Change</b>	<b>% Change</b>
Detection gross profit	\$ 15,113	\$ 16,019	\$ (906)	(5.7%)
Therapy gross profit	3,405	13,331	(9,926)	(74.5%)
Gross profit	\$ 18,518	\$ 29,350	\$ (10,832)	(36.9%)

*Operating Expenses:*

Operating expenses for 2016 and 2015 are as follows (in thousands):

	<b>For the year ended December 31,</b>			
	<b>2016</b>	<b>2015</b>	<b>Change</b>	<b>% Change</b>
Operating expenses:				
Engineering and product development	\$ 9,518	\$ 9,163	\$ 355	3.9%
Marketing and sales	10,179	12,404	(2,225)	(17.9%)
General and administrative	7,675	8,788	(1,113)	(12.7%)
Amortization and depreciation	1,116	1,631	(515)	(31.6%)
Goodwill impairment		27,443	(27,443)	(100.0%)
Total operating expenses	\$ 28,488	\$ 59,429	\$ (30,941)	(52.1%)

*Engineering and Product Development.* Engineering and product development costs for the year ended December 31, 2016 increased by \$0.3 million or 3.9%, from \$9.2 million in 2015 to \$9.5 million in 2016. Therapy engineering and product development costs decreased by approximately \$0.3 million and Detection engineering and product development costs increased by \$0.6 million. The decrease in the Therapy segment is due primarily to a decrease in



personnel expenses. The increase in the Detection segment is due primarily to an increase in personnel expenses of \$0.8 million offset by a decrease in clinical trial expenses of \$0.2 million. The Company continues to invest in ongoing clinical trials, and research expenses in support of new products and reimbursement codes.

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*Marketing and Sales.* Marketing and sales expense for the year ended December 31, 2016 decreased by \$2.2 million or 17.9%, from \$12.4 million in 2015 to \$10.2 million in 2016. Therapy marketing and sales expenses decreased approximately \$2.1 million and Detection marketing and sales expenses decreased \$0.1 million. The decrease in Therapy marketing and sales expense was due primarily to a decrease in personnel expenses and commissions.

*General and Administrative.* General and administrative expenses for the year ended December 31, 2015 decreased by \$1.1 million or 12.7%, from \$8.8 million in 2015 to \$7.7 million in 2016. The decrease in general and administrative expenses was due primarily to decreases in personnel costs of \$0.5 million, bad debt expense of \$0.2 million and a gain on litigation settlement in 2016 of \$0.2 million and other costs of approximately \$0.2 million.

*Amortization and Depreciation.* Amortization and depreciation decreased by \$0.5 million from \$1.6 million to \$1.1 million. The primary decrease is due to revised values of assets due to an impairment of intangible assets of the Therapy reporting unit in June 2015 which was offset by an increase in amortization due to the acquisition of VuComp assets in January 2016.

*Goodwill and long-lived asset impairment.* In connection with the preparation of the financial statements for the second quarter ended June 30, 2015, the Company evaluated the Therapy reporting unit for both long-lived asset and goodwill impairment and recorded an impairment charge of \$14.0 million related to goodwill and an impairment charge of \$13.4 million related to long-lived assets for a total of \$27.4 million. There was no impairment charge in 2016.

*Other Income and Expense (in thousands)*

	<b>For the year ended December 31,</b>			
	<b>2016</b>	<b>2015</b>	<b>Change</b>	<b>Change%</b>
Interest expense	\$ (63)	\$ (650)	587	(90.3)%
Loss from extinguishment of debt		(1,723)	1,723	(100.0)%
Interest income	10	21	(11)	(52.4)%
	\$ (53)	\$ (2,352)	\$ 2,299	(97.7)%
Income tax expense	\$ 76	\$ 16	60	375.0%

*Interest Expense.* The Company recorded \$63,000 of interest expense in 2016 as compared with \$650,000 of interest expense during the year ended December 31, 2015. The reduction in interest expense is due primarily to the reduction in interest related to the Deerfield facility agreement that was terminated on March 31, 2015.

*Loss from extinguishment of debt.* The loss of \$1.7 million for the year ended December 31, 2015 represents the loss associated with the payoff of the Deerfield facility agreement, which was terminated on March 31, 2015. The Company paid \$11.25 million which represented the entire obligation. The loss on extinguishment represents the unamortized discount on the Facility agreement, and the write-off of the deferred debt costs. The Facility Agreement was to mature on December 29, 2016 and was able to be repaid at the Company's option without penalty or premium.

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*Interest income.* Interest income of \$10,000 and \$21,000 for the years ended December 31, 2016, and 2015, respectively, reflects income earned from our money market accounts.

*Tax benefit (expense).* The Company recorded tax expense of \$76,000 and \$16,000 for the years ended December 31, 2016, and 2015, respectively. For the year ended December 31, 2015, the Company recorded a net tax expense of \$16,000. This resulted from a tax benefit due primarily to the reversal of a deferred tax liability of approximately \$79,000 offset by tax expense of approximately \$95,000. The deferred tax liability was the result of tax amortizable goodwill that was recognized due to the impairment of goodwill. Tax expense in 2016 and 2015 relates primarily to state non-income and franchise based taxes.

## **Segment Analysis**

The Company operates in and reports results for two segments: Cancer Detection and Cancer Therapy. Segment operating income (loss) includes Cost of Sales, Engineering and Product Development, Marketing and Sales, and depreciation and amortization for the respective segment. Adjusted EBITDA is a Non-GAAP measure and excludes Stock Compensation, Depreciation and Amortization expense of the respective segment. The Company does not allocate General and Administrative and depreciation and amortization expense included in General and Administrative expenses, as well as Other Income and Expense to a segment, and accordingly those are included as reconciling items to the Loss before income tax. These non-GAAP metrics may be inconsistent with similar measures presented by other companies and should only be used in conjunction with our results reported according to U.S. GAAP. Any financial measure other than those prepared in accordance with U.S. GAAP should not be considered a substitute for, or superior to, measures of financial performance prepared in accordance with U.S. GAAP. Management considers these non-GAAP financial measures to be an important indicator of the Company's operational strength and performance of its business and a good measure of its historical operating trends, in particular the extent to which ongoing operations impact the Company's overall financial performance. A summary of Segment revenues, segment operating income (loss) and segment adjusted EBITDA for the fiscal years ended December 31, 2017, 2016, and 2015 are below (in thousands):

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	Year Ended December 31,		
	2017	2016	2015
<b>Segment revenues:</b>			
Detection	\$ 18,310	\$ 17,133	\$ 19,243
Therapy	9,792	9,205	22,311
Total Revenue	\$ 28,102	\$ 26,338	\$ 41,554
<b>Segment gross profit:</b>			
Detection	\$ 16,218	\$ 15,113	\$ 16,019
Therapy	1,958	3,405	13,331
Segment gross profit	\$ 18,176	\$ 18,518	\$ 29,350
<b>Segment operating income (loss):</b>			
Detection	\$ 6,401	\$ 5,694	\$ 7,233
Therapy	(15,102)	(7,752)	(28,405)
Segment operating income (loss)	\$ (8,701)	\$ (2,058)	\$ (21,172)
General, administrative, depreciation and amortization expense	\$ (7,975)	\$ (7,912)	\$ (8,907)
Interest expense	(124)	(63)	(650)
Gain on sale of MRI assets	2,508		
Other income	18	10	21
Loss on debt extinguishment			(1,723)
Loss before income tax	\$ (14,274)	\$ (10,023)	\$ (32,431)
<b>Segment adjusted EBITDA:</b>			
Detection segment operating income	\$ 6,401	\$ 5,694	\$ 7,233
Stock compensation	1,085	493	430
Depreciation	172	223	220
Amortization	246	696	532
Restructuring			182
Detection adjusted EBITDA	\$ 7,904	\$ 7,106	\$ 8,597
Therapy segment operating income (loss)	\$ (15,102)	\$ (7,752)	\$ (28,405)
Stock compensation	648	518	465
Depreciation	768	970	1,142
Amortization	222	252	1,213
Restructuring			405
Goodwill and long-lived asset impairment	6,693		27,443
Therapy adjusted EBITDA	\$ (6,771)	\$ (6,012)	\$ 2,263



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Detection gross profit increased to approximately \$16.2 million or 89% of revenue for the year ended December 31, 2017 from \$15.1 million or 88% of revenue for the year ended December 31, 2016.. Detection cost of sales also had a reduction of \$0.2 million in 2016 related to Medical Device Excise tax refunds. Detection segment operating income for the year ended December 31, 2017 increased by \$0.7 million to \$6.4 million from \$5.7 million for the year ended December 31, 2016. The increase in segment operating income for the year ended December 31, 2017 as compared to the year ended December 31, 2016 was due primarily to the increase in revenue for the year ended December 31, 2017 as compared to the year ended December 31, 2016. Detection operating expenses increased by \$0.4 million to \$9.8 million for the year ended December 31, 2017 as compared to \$9.4 million for the year ended December 31, 2016, reflecting increases in marketing and sales expenses, which is primarily increased commissions and personnel related expenses.

Detection gross profit decreased to approximately \$15.1 million or 88% of revenue for the year ended December 31, 2016 from \$16.0 million or 83% of revenue for the year ended December 31, 2015, which is the result of changes in both revenue and product mix. Detection segment operating income for the year ended December 31, 2016 decreased by \$1.5 million to \$5.7 million from \$7.2 million for the year ended December 31, 2015. The decrease in segment operating income for the year ended December 31, 2016 as compared to the year ended December 31, 2015 was due primarily to the decrease in revenue for the year ended December 31, 2016 as compared to the year ended December 31, 2015. Detection operating expenses increased by \$0.6 million to \$9.4 million for the year ended December 31, 2016 as compared to \$8.8 million for the year ended December 31, 2015, reflecting additional investments in research and development, primarily to support new product development.

Therapy gross profit decreased by approximately \$1.4 million to \$2.0 million or 20% of revenue for the year ended December 31, 2017 from approximately \$3.4 million or 37% of revenue for the year ended December 31, 2016. The decrease in Therapy gross profit is due primarily to the inventory reserve of \$1.0 million and increased labor costs associated with the Therapy subscription business, which the Company is exiting in 2018. Therapy cost of sales also had a reduction of \$0.3 million in 2016 related to Medical Device Excise tax refunds. Therapy operating expenses for the year ended December 31, 2017 were approximately \$17.1 million as compared to \$11.2 million for the year ended December 31, 2016. The increase in operating expenses is due primarily to the goodwill and long-lived asset impairment charge of \$6.7 million offset by reductions in clinical expenses, research and development, and personnel expenses in marketing. Therapy segment operating loss increased to a loss of \$15.1 million for the year ended December 31, 2017 from a loss of \$7.8 million for the period ended December 31, 2016.

Therapy gross profit decreased by approximately \$9.9 million to \$3.4 million or 37% of revenue for the year ended December 31, 2016 from approximately \$13.3 million or 60% of revenue for the year ended December 31, 2015, which reflects the decline in revenue from \$22.3 million to \$9.2 million for the same periods. The decline in gross profit percent is due primarily to the fixed manufacturing expenses in cost of sales. Therapy operating expenses for the year ended December 31, 2016 were approximately \$11.2 million as compared to \$14.2 million for the year ended December 31, 2015. The decrease in operating expenses is due primarily to the cost reduction efforts initiated in 2015 due to reimbursement uncertainty. Therapy segment operating loss improved to a loss of \$7.8 million for the year ended December 31, 2016 from a loss of \$28.4 million for the period ended December 31, 2015. The operating loss of \$28.4 million for the year ended December 31, 2015 is due primarily to the impairment loss of \$27.4 million.

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**Table of Contents****Liquidity and Capital Resources**

The Company believes that its cash and cash equivalents balance of \$9.4 million as of December 31, 2017, and projected cash balances are sufficient to sustain operations through at least the next 12 months. The Company's ability to generate cash adequate to meet its future capital requirements will depend primarily on operating cash flow. If sales or cash collections are reduced from current expectations, or if expenses and cash requirements are increased, the Company may require additional financing, although there are no guarantees that the Company will be able to obtain the financing if necessary. The Company will continue to closely monitor its liquidity and the capital and credit markets.

The Company had working capital of \$9.1 million at December 31, 2017. The ratio of current assets to current liabilities at December 31, 2017 and 2016 was 1.76 and 1.55, respectively. In January 2017, the Company closed an Asset Purchase agreement for \$3.2 million with Invivo to sell certain MRI assets and received \$2.9 million in cash, which was net of a \$350,000 holdback in escrow. In August 2017 the Company entered into a debt facility that provides an initial term loan of \$6.0 million and a \$4.0 million revolving line of credit. Such debt facility was modified in March 2018. The Company also has the option to secure an additional \$3.0 million in term loan in 2018, subject to meeting minimum Detection revenues.

Net cash used for operating activities for the year ended December 31, 2017 was \$7.3 million as compared \$5.5 million for 2016. The increase in cash used for operating activities during the year ended December 31, 2017 was due primarily to the net change in operating assets and liabilities for 2017 of approximately \$3.9 million as compared to cash due to changes in operating assets and liabilities of approximately \$109,000 in 2016, which was offset by a decrease in net loss less adjustments of approximately \$2.0 million. The change in operating assets was due primarily to an increase in accounts receivable, which can fluctuate based on timing of collections. We expect that changes in operating assets and liabilities will continue to be a significant driver of changes in cash used in or provided by operations.

The net cash provided by investing activities for the year ended December 31, 2017 was \$2.5 million, as compared to cash used for investing activities of \$0.4 million for the year ended December 31, 2016. The cash provided by investing activities in 2017 was due primarily to the proceeds from the sale of MRI assets. The cash used for investing activities in 2016 was due primarily to purchases of fixed assets.

Net cash provided by financing activities for the year ended December 31, 2017 was \$5.7 million which was composed of \$6.0 million received from the debt facility offset by taxes paid for restricted stock issuance. Net cash used for financing activities for the year ended December 31, 2016 was \$0.9 million, which was due primarily to cash repayments of lease obligations.

The following table summarizes as of December 31, 2017, for the periods presented, the Company's future estimated cash payments under existing contractual obligations, and the financing obligations as noted below (in thousands).

**Table of Contents****Contractual Obligations**

	<b>Total</b>	<b>Payments due by period</b>			
		<b>Less than 1 year</b>	<b>1-3 years</b>	<b>3-5 years</b>	<b>5+ years</b>
Operating Lease Obligations	\$ 1,693	\$ 764	\$ 929	\$	\$
Capital Lease Obligations	47	17	30		
Settlement Obligations	463	463			
Notes Payable - principal and interest	6,549	1,086	4,280	1,183	
Other Commitments	953	771	77	28	77
<b>Total Contractual Obligations</b>	<b>\$ 9,705</b>	<b>\$ 3,101</b>	<b>\$ 5,316</b>	<b>\$ 1,211</b>	<b>\$ 77</b>

**Lease Obligations:***Operating Leases:*

As of December 31, 2017, the Company had three lease obligations related to its facilities.

The Company's executive offices are leased pursuant to a five-year lease (the "Lease") that commenced on December 15, 2006, with renewals in January, 2012, and August 2016 consisting of approximately 11,000 square feet of office space located at 98 Spit Brook Road, Suite 100 in Nashua, New Hampshire (the "Premises"). The August 2016 Lease renewal provides for an annual base rent of \$184,518 for the period from March 2017 to February 2020. Additionally, the Company is required to pay its proportionate share of the building and real estate tax expenses and obtain insurance for the Premises.

The Company leases a facility consisting of approximately 24,350 square feet of office, manufacturing and warehousing space located at 101 Nicholson Lane, San Jose, CA. The operating lease commenced September 2012 with a current annual payment of \$295,140 through September 2017, with all amounts payable in equal monthly installments. In September 2016, the Company extended this lease for the period from October 2017 to March 2020 with annual payments of \$540,588 from October 2017 to September 2018, \$558,120 from October 2018 to September 2019 and \$286,368 for the period from October 2019 to March 2020, with all amounts payable in equal monthly installments. Additionally, the Company is required to pay its proportionate share of the building and real estate tax expenses and obtain insurance for the facility.

In addition to the foregoing leases relating to its principal properties, the Company also has a lease for an additional facility in Nashua, New Hampshire used for product repairs, manufacturing and warehousing.

*Capital Lease:*

In August 2017, the Company assumed an equipment lease obligation with payments including interest payable, totaling \$50,000. The leases were determined to be capital leases and accordingly the equipment was capitalized and a liability of \$42,000 was recorded. The equipment will be depreciated over the expected life of 3 years.



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**Table of Contents****Royalty Obligations:**

As a result of the acquisition of Xoft, the Company recorded a royalty obligation pursuant to a settlement agreement entered into between Xoft and Hologic, in August 2007. Xoft received a nonexclusive, irrevocable, perpetual, worldwide license, including the right to sublicense certain Hologic patents, and a non-compete covenant as well as an agreement not to seek further damages with respect to the alleged patent violations. In return the Company had a remaining obligation to pay a minimum annual royalty payment of \$250,000 payable through 2016. In addition to the minimum annual royalty payments, the litigation settlement agreement with Hologic also provided for payment of royalties based upon a specified percentage of future net sales on any products that practice the licensed rights. The estimated fair value of the patent license and non-compete covenant is \$100,000 and was amortized over the estimated useful life of approximately four years. As of December 31, 2017 the remaining liability for minimum royalty obligations totaling \$0.4 million is recorded within accrued expenses and accounts payable.

In December 2011, the Company settled patent litigation with Zeiss. The Company determined that this settlement should be recorded as a measurement period adjustment and accordingly recorded the present value of the litigation to the opening balance sheet of Xoft. The Company paid the remaining obligation of \$0.5 million in June 2017.

**Notes Payable:**

On August 7, 2017, the Company entered into a Loan and Security Agreement, which was modified by the First Loan Modification Agreement dated March 22, 2018 (the Loan Agreement ) with Silicon Valley Bank (the Bank ) that provides an initial term loan facility (amounts borrowed thereunder, the Term Loan ) of \$6.0 million and a \$4.0 million revolving line of credit (amounts borrowed thereunder, the Revolving Loans ). The Company also has the option to borrow an additional \$3.0 million Term Loan under the Loan Agreement, subject to meeting a Detection revenue minimum of at least \$21.5 million for a trailing twelve month period ending prior to July 30, 2019.

The Company will begin repayment of the first tranche of the Term Loan on September 1, 2018 in 36 equal monthly installments of principal. If the adjusted EBITDA minimum of \$(750,000) for a trailing three month period ending between March 22, 2018 and July 31, 2018 (the Adjusted EBITDA Event ) is met, the Company will begin repayment of the Term Loans beginning on March 1, 2019 in which case the Company would make 30 equal monthly installments of principal. The Company will begin repayment of the second tranche of the Term Loan on October 1, 2019 and make 30 equal monthly installments of principal.

The outstanding Revolving Loans will accrue interest at a floating per annum rate equal to 1.50% above the prime rate for periods when the ratio of the Company's unrestricted cash to the Company's outstanding liabilities to the Bank plus the amount of the Company's total liabilities that mature within one year is at least 1.25 to 1.0. At all other times, the interest rate shall be 0.50% above the prime rate. The outstanding Term Loans will accrue interest at a floating per annum rate equal to the prime rate.

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The maturity date of the Revolving Loans and the Term Loans is March 1, 2022. However, the maturity date will become April 30, 2019, April 30, 2020 or April 30, 2021 if, on or before March 15, 2019, or 2020 or 2021, as applicable, the Company does not agree in writing to the Detection revenue and adjusted EBITDA covenant levels proposed by the Bank with respect to the upcoming applicable calendar year.

If the Revolving Loans are paid in full and the Loan Agreement is terminated prior to the maturity date, then the Company will pay to the Bank a termination fee in an amount equal to two percent (2.0%) of the maximum revolving line of credit. If the Company prepays the Term Loans prior to the maturity date, then the Company will pay to the Bank an amount equal to 1.0%-3.0% of the Term Loans, depending on when such Term Loans are repaid. The Loan Agreement requires the Company to maintain net revenues during the trailing six month period ending on the last day of each calendar quarter as follows: June 30, 2017 - \$10.25 million; September 30, 2017 - \$11.5 million; and December 31, 2017 - \$14 million. The Loan Agreement requires the Company to maintain minimum detection revenues during the trailing six month period ending on the last day of each calendar quarter as follows: March 31, 2018 - \$8.622 million; June 30, 2018 - \$8.373 million; September 30, 2018 - \$8.648 million and December 31, 2018 - \$9.517 million. The Loan Agreement requires the Company to maintain adjusted EBITDA during the trailing six month period ending on the last day of each calendar quarter as follows: March 31, 2018 - \$(4.5 million); June 30, 2018 - \$(3.75 million); September 30, 2018 - \$(1 million) and December 31, 2018 - \$1.00. As of December 31, 2017 the Company was in compliance with the covenants in the Loan Agreement.

Obligations to the Bank under the Loan Agreement or otherwise are secured by a first priority security interest in substantially all of the assets, including intellectual property, accounts, receivables, equipment, general intangibles, inventory and investment property, and all of the proceeds and products of the foregoing, of each of the Company and Xoft, Inc. and Xoft Solutions LLC, wholly-owned subsidiaries of the Company.

**Other Commitments:**

Other Commitments include non-cancelable purchase orders with three key suppliers executed in the normal course of business.

**Effect of New Accounting Pronouncements**

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), or ASU 2014-09, which superseded nearly all existing revenue recognition guidance under U.S. GAAP. Since then, the FASB has also issued ASU 2016-08, Revenue from Contracts with Customers (Topic 606), Principals versus Agent Considerations and ASU 2016-10, Revenue from Contracts with Customers (Topic 606), Identifying Performance Obligations and Licensing, which further elaborate on the original ASU No. 2014-09. The core principle of these updates is to recognize revenue when promised goods or services are transferred to

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customers in an amount that reflects the consideration to which the entity expects to be entitled for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgments and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. In July 2015, the FASB approved a one-year deferral of the effective date to January 1, 2018, with early adoption to be permitted as of the original effective date of January 1, 2017. Once this standard becomes effective, companies may use either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each reporting period with the option to elect certain practical expedients, or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures).

The Company has performed an assessment of its revenue streams and customer classes. During the fourth quarter of 2017, the Company completed its implementation plan and finalized contract reviews and detailed policy drafting. The Company will adopt the guidance effective January 1, 2018 using the modified retrospective approach, by recognizing the cumulative effect of initially applying the new standard as an increase to the opening balance of retained earnings. We expect this adjustment to be less than \$0.1 million and do not expect a material impact on our revenue recognition practices on an ongoing basis. The Company will adopt certain practical expedients and make certain policy elections related to the accounting for significant finance components, sales taxes, shipping and handling, costs to obtain a contract, and immaterial promised goods or services, which will mitigate certain impacts of adopting Topic 606.

The immaterial impact of adopting Topic 606 primarily relates to (a) the deferral of commissions on our long-term service arrangements and warranty periods greater than one year, which previously were expensed as incurred but under the amendments to ASC 340-40 will generally be capitalized and amortized over the period of contract performance or a longer period if renewals are expected and the renewal commission is not commensurate with the initial commission, (b) a small number of open contracts which include extended payment terms where the pattern and timing of revenue recognition will change, and (c) policy changes related to the determination of stand-alone selling prices of performance obligations and resulting allocation of the transaction price among performance obligations with differing patterns of transfer of control to the customer in contracts with multiple deliverables. Additionally, sales of certain CAD products contain lease components in which the Company leases equipment and provides professional services to hospitals and imaging centers. As lease contracts are not within the scope of Topic 606, the Company will continue to account for the lease components of these arrangements in accordance with ASC 840 *Leases* and the remaining consideration will be allocated to the other performance obligations identified in accordance with Topic 606. The consideration allocated to the lease component will be recognized as lease revenue on a straight-line basis over the specified term of the agreement. Revenue for the non-lease components, such as service contracts, will also be recognized over time.

The impact to our results is not material because the analysis of our contracts under the new revenue recognition standard supports the recognition of revenue at a point in time for product sales and over time for service contracts (as well as for the lease components of certain CAD products), which is consistent with our current revenue recognition model. A significant portion

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of our revenue is generated from sales of cancer detection products and cancer therapy systems, and revenue is recognized when delivery has occurred as our performance obligation would be complete. The revenue components that are not primarily associated with the sale of these products, such as physics and management services, development fees, and supplies, are also not expected to be materially impacted by the adoption of the new standard.

For performance obligations where the transfer of control occurs over-time, a time-based measure of progress (e.g., straight-line) continues to best depict the transfer of control of services to the customer for fixed fee service contracts and source agreements that represent stand-ready obligations to make goods or services available for the customer to use as and when the customer decides. For professional service contracts entered into with customers on a time and materials basis, an input-based measure of progress based on the number of days incurred or hours expended continues to best depict our progress toward complete satisfaction of the performance obligation. In addition, the number of our performance obligations under the new standard is not materially different from our contract deliverables under the existing standard. Lastly, the accounting for the estimate of variable consideration is not materially different compared to our current practice.

We also do not expect the standard to have a material impact on our consolidated balance sheet. The immaterial impact primarily relates to capitalization of commissions on our long-term service arrangements and warranty periods greater than one year and reclassifications among financial statement accounts to align with the new standard. Most notably, capitalized commissions will be classified as deferred contract costs and advance payments and deferred revenue will be combined and reclassified as contract liabilities. Our contract balances will be reported in a net contract asset or liability position on a contract-by-contract basis at the end of each reporting period.

Adoption of the standard would result in an increase in other current and long-term assets of approximately \$0.1 million as of December 31, 2017, driven by capitalization of commissions on our long-term service arrangements and warranty periods greater than one year, as well as the reclassification of approximately \$0.4 million in deferred revenue as of December 31, 2017 related to the lease components of certain CAD products which are outside the scope of Topic 606 to accrued expenses.

There are also certain considerations related to internal control over financial reporting that are associated with implementing Topic 606. The Company is currently evaluating its internal control framework over revenue recognition and making adjustments to the framework to enable the preparation of financial information and to obtain and disclose the information required under Topic 606. This evaluation is not expected to result in any material changes to the Company's existing internal control framework over revenue recognition.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. The standard establishes a right-of-use ( ROU ) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The new standard is effective for fiscal years beginning after December 15,

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2018, including interim periods within those fiscal years. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. We are currently evaluating the impact of our pending adoption of the new standard on our consolidated financial statements, however the adoption of the standard is expected to increase both assets and liabilities for leases that would previously have been off-balance sheet operating leases.

On January 1, 2017, we adopted the Financial Accounting Standards Board ( FASB ) Accounting Standards Update ( ASU ) No. 2016-09, Compensation Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting ( ASU 2016-09 ), which simplifies several aspects of the accounting for employee share-based payment transactions, including income taxes consequences, classification of awards as either equity or liabilities, and classification in the statement of cash flows. Under ASU 2016-09, excess tax benefits and tax deficiencies are recognized as income tax expense or benefit in the income statement, and excess tax benefits are recognized regardless of whether the benefit reduces taxes payable in the current period. The tax effects of exercised or vested awards are treated as discrete items in the reporting period in which they occur. As a result of the adoption, the net operating loss deferred tax assets increased by \$1.9 million and are offset by a corresponding increase in the valuation allowance. The Company has elected to continue to estimate and apply a forfeiture rate based on awards expected to vest.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230) , a consensus of the FASB s Emerging Issues Task Force. This update is intended to reduce diversity in practice in how certain transactions are classified in the statement of cash flows. The update requires cash payments for debt prepayment or debt extinguishment costs to be classified as cash outflows for financing activities. It also requires cash payments made soon after an acquisition s consummation date (approximately three months or less) to be classified as cash outflows for investing activities. Payments made thereafter should be classified as cash outflows for financing activities up to the amount of the original contingent consideration liability. Payments made in excess of the amount of the original contingent consideration liability should be classified as cash outflows for operating activities. The amendment is effective for annual periods beginning after December 15, 2017, and interim periods thereafter. Early adoption is permitted. The Company does not expect the adoption of this amendment will have a material impact on our consolidated financial statements.

In November 2016, the FASB issued Accounting Standards Update No. 2016-18, Restricted Cash , which requires entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. As a result, entities will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. The amendments in this update should be applied using a retrospective transition method to each period presented. This update is effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years with early adoption permitted, including adoption in an interim period. The adoption of this standard will change the presentation of our statement of cash flows to include our restricted cash balance with the non-restricted cash balances. We do not anticipate that the adoption of ASU 2016-18 will have a material impact on our consolidated financial statements.

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In February 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*, to simplify how all entities assess goodwill for impairment by eliminating Step 2 from the goodwill impairment test. As amended, the goodwill impairment test will consist of one step comparing the fair value of a reporting unit with its carrying amount. An entity should recognize a goodwill impairment charge for the amount by which the reporting unit's carrying amount exceeds its fair value. This update is effective for annual periods beginning after December 15, 2019, and interim periods within those periods. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company elected to early adopt this standard in connection with the goodwill impairment analysis completed during the third quarter of 2017.

**Item 7A. Quantitative and Qualitative Disclosures about Market Risk.**

We believe we are not subject to material foreign currency exchange rate fluctuations, as most of our sales and expenses are domestic and therefore are denominated in the U.S. dollar. We do not hold derivative securities and have not entered into contracts embedded with derivative instruments, such as foreign currency and interest rate swaps, options, forwards, futures, collars, and warrants, either to hedge existing risks or for speculative purposes.

**Item 8. Financial Statements and Supplementary Data.**

See Financial Statements and Schedule attached hereto.

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.**

Not Applicable.

**Item 9A. Controls and Procedures.**

**(a) Evaluation of Disclosure Controls and Procedures.**

The Company, under the supervision and with the participation of its management, including its principal executive officer and principal financial officer, evaluated the effectiveness of the design and operation of its disclosure controls and procedures as of the end of the period covered by this annual report on Form 10-K. Based on this evaluation, the principal executive officer and principal financial officer concluded that the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) were effective as of December 31, 2017.

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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. The Company conducts periodic evaluations to enhance, where necessary its procedures and controls.

**(b) Management's Annual Report on Internal Control Over Financial Reporting.**

The Company, under the supervision and with the participation of its management, including its principal executive officer and principal financial officer, is responsible for the preparation and integrity of the Company's Consolidated Financial Statements, establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f)) for the Company and all related information appearing in this Annual Report on Form 10-K.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. 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.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2017, using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control - Integrated Framework (2013). Based on its assessment, our Chief Executive Officer and our Chief Financial Officer concluded that our internal control over financial reporting was effective as of December 31, 2017.

**(c) Changes in Internal Control Over Financial Reporting.**

The Company's principal executive officer and principal financial officer conducted an evaluation of the Company's internal control over financial reporting (as defined in Exchange Act Rule 13a-15(f)) to determine whether any changes in internal control over financial reporting occurred during the quarter ended December 31, 2017, that have materially affected or which are reasonably likely to materially affect internal control over financial reporting. Based on that evaluation there has been no such change during such period.

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**Item 9B. Other Information.**

Not applicable



**Table of Contents****PART III****Item 10. Directors, Executive Officers and Corporate Governance.**

The following information includes information each director and executive officer has given us about his or her age, all positions he or she holds, his or her principal occupation and business experience for the past five years, and the names of other publicly-held companies of which he or she currently serves as a director or has served as a director during the past five years. In addition to the information presented below regarding each director's specific experience, qualifications, attributes and skills that led our Board to the conclusion that he or she should serve as a director, we also believe that all of our directors have a reputation for integrity, honesty and adherence to high ethical standards. They each have demonstrated business acumen and an ability to exercise sound judgment, as well as a commitment of service to iCAD and our Board.

There are no family relationships among any of the directors or executive officers of iCAD.

<b>Name</b>	<b>Age</b>	<b>Position with iCAD</b>	<b>Director/Officer Since</b>
Dr. Lawrence Howard	64	Chairman of the Board, and Director	2006
Rachel Brem, MD	58	Director	2004
Anthony Ecock	55	Director	2008
Robert Goodman, MD	76	Director	2014
Steven Rappaport	68	Director	2006
Andy Sassine	53	Director	2015
Somu Subramaniam	63	Director	2010
Elliot Sussman, MD	65	Director	2002
Kenneth Ferry	63	Chief Executive Officer, and Director	2006
Richard Christopher	47	Executive Vice President, Chief Financial Officer, Treasurer and Secretary	2016
Stacey Stevens	48	Executive Vice President of Marketing and Strategy	2006

The Company's Certificate of Incorporation provides for the annual election of all of its directors. The Board elects officers on an annual basis and our officers generally serve until their successors are duly elected and qualified.

Upon the recommendation of the Company's Nominating and Corporate Governance Committee, the Board of Directors fixed the size of the Company's Board at nine directors.



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*Dr. Lawrence Howard* was appointed Chairman of the Board in 2007 and has been a director of the Company since November 2006. Dr. Howard has been, since March 1997, a general partner of Hudson Ventures, L.P. (formerly known as Hudson Partners, L.P.), a limited partnership that is the general partner of Hudson Venture Partners, L.P. ( HVP ), a limited partnership that is qualified as a small business investment company. Since March 1997, Dr. Howard has also been a managing member of Hudson Management Associates LLC, a limited liability company that provides management services to HVP. Since November 2000, Dr. Howard has been a General Partner of Hudson Venture Partners II, and a limited partner of Hudson Venture II, L.P. In September of 2016, Dr. Howard became a member of of the Board of Directors of Biocancell Ltd., an Israeli Company with a drug for the treatment of non-invasive bladder cancer, for which Biocancell is seeking FDA approval. In early 2017 Dr. Howard became chairman of the Board of Biocancell. We believe Dr. Howard's qualifications to serve on our Board of Directors include his financial expertise and his understanding of our products and market.

*Dr. Rachel Brem* has been, since 2000, the Breast Cancer Program Leader at the George Washington University Cancer Center, Director of Breast Imaging and Intervention at The George Washington University Medical Center, Professor of Radiology and the Vice Chairman of the Department of Radiology. Dr. Brem has extensively published in topics related to breast cancer, and specifically in her areas of interest, which are new technologies for the earlier diagnosis of breast cancer. Dr. Brem is the recipient of Newsweek's Best Cancer Doctors, Castle Connolly America's Top Doctors and America's Top Doctors for Cancer, Best of Washington Awards for Physicians and Surgeons, as well as Jewish Woman International's Ten Women to Watch, the fellowship in the American College of Radiology and the Society of Breast Imaging. Dr. Brem is a nationally and internationally recognized expert on Breast Cancer. Dr. Brem is a member of the scientific advisory board of The Prevent Cancer Foundation as well as FORCE (Facing our risk of cancer, for women who are BRCA positive) and is a member of the Board of the Katzen Cancer Research Center. We believe Dr. Brem's qualifications to serve on our Board of Directors include her expertise in the medical field specifically the diagnosis of breast cancer as well as her understanding of our products and market.

*Anthony Ecock* has been, since 2016, a Managing Director in the Carlyle Equity Opportunity Fund, a \$2.4 billion middle market generalist fund within The Carlyle Group. Prior to joining Carlyle, Mr. Ecock started and built the operating partner team at Welsh, Carson, Anderson & Stowe ( WCAS ) which he joined in 2007. Before joining WCAS, Mr. Ecock served as VP and GM of Enterprise Sales for General Electric Healthcare, an \$18 billion division. Prior to joining GE, he was SVP and GM Patient Monitoring at Philips, Agilent and Hewlett Packard. Mr. Ecock spent twelve years at the consulting firm Bain & Company, where he was a partner in strategy and operations and program director for consultant training. Prior to business school, Mr. Ecock was a senior financial analyst at Cummins Engine Company. Mr. Ecock has been Chairman of the Board of Aptuit, United Surgical Partners and Electronic Evidence Discovery. Mr. Ecock received his MBA from Harvard University, where he was a Baker Scholar, and his BS in Economics with majors in Finance and Accounting, with honors from The Wharton School. We believe Mr. Ecock's qualifications to serve on our Board of Directors include his financial expertise and his years of experience in the healthcare and technology markets.

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*Dr. Robert Goodman* is a Professor of Radiation Oncology and a physician member of the Business Development Group in the Radiation Oncology department at the University of Pennsylvania School of Medicine. From 2014 to 2016, Dr. Goodman served as senior advisor to the President at the Thomas Jefferson University in Philadelphia. From 2001 to 2014, Dr. Goodman served with Jersey City Radiation Oncology, and from 1998 to 2011 as chair of Radiation Oncology at St. Barnabas Medical Center. From 1977 to 1990, Dr. Goodman served as the Pancoast Professor and Chair of the Department of Radiation Oncology at the University of Pennsylvania. Dr. Goodman also has served as Acting Executive Director of the Hospital of the University of Pennsylvania. He has published extensively in the oncology literature in highly respected peer-reviewed journals and has co-authored a textbook on breast cancer. We believe Dr. Goodman's qualifications to serve on our Board of Directors include his extensive clinical background and his business leadership experience.

*Steven Rappaport* has been a partner of RZ Capital, LLC since July 2002, a private investment firm that also provides administrative services for a limited number of clients. From March 1995 to July 2002, Mr. Rappaport was Director, President and Principal of Loanet, Inc., an online real-time accounting service used by brokers and institutions to support domestic and international securities borrowing and lending activities. Loanet, Inc. was acquired by SunGard Data Systems in May 2001. From March 1992 to December 1994, Mr. Rappaport was Executive Vice President of Metallurg, Inc. (Metallurg), a producer and seller of high quality specialty metals and alloys, and President of Metallurg's subsidiary, Shieldalloy Corporation. He served as Director of Metallurg from 1985 to 1998. From March 1987 to March 1992, Mr. Rappaport was Director, Executive Vice President and Secretary of Telerate, Inc. (Telerate), an electronic distributor of financial information. Telerate was acquired by Dow Jones over a number of years commencing in 1985 and culminating in January 1990, when it became a wholly-owned subsidiary. Mr. Rappaport practiced corporate and tax law at the New York law firm of Hartman & Craven from August 1974 to March 1987. He became a partner in the firm in 1979. Mr. Rappaport is currently serving as an independent director of a number of open and closed end American Stock Exchange funds of which Credit Suisse serves as the investment adviser and a number of open and closed end mutual funds of which Aberdeen Investment Trust serves as the adviser. In addition, Mr. Rappaport serves as a director of several privately owned businesses and several not for profit organizations. We believe Mr. Rappaport's qualifications to serve on our Board of Directors include his extensive financial and legal expertise combined with his experience as an executive officer, partner and director.

*Andy Sassine* has served in various positions at Fidelity Investments from 1999 to 2012, rising to the position of Portfolio Manager. Prior to joining Fidelity, he served as a vice president in the Acquisition Finance Group at Fleet National Bank. Mr. Sassine serves on the board of directors of Gemphire Therapeutics, Inc., a NASDAQ traded, clinical-stage biopharma focusing on developing and commercializing therapies for Dyslipidemia and NASH. Mr. Sassine previously served on the boards of MYnd Analytics, Inc., Acorn energy, Freedom Meditech, Inc., and MD Revolution. Mr. Sassine has been a member of the Henry B. Tippie College of Business, University of Iowa Board of Advisors since 2009 and served on the Board of Trustees at the Clarke Schools for Hearing and Speech from 2009 through 2014. Mr. Sassine holds a Bachelor of Arts degree from the University of Iowa and an MBA from the Wharton School at the University of Pennsylvania. We believe Mr. Sassine's extensive knowledge and experience as a fund manager and board member of other companies of a similar size to our company qualifies him to serve as a member of our Board of Directors.

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*Somu Subramaniam* is currently a Managing Partner and co-founder of New Science Ventures, a New York-based venture capital firm that invests in both early and late stage companies, using novel scientific approaches to address significant unmet needs and create order of magnitude improvements in performance. He serves on the Board of Directors of Achronix Semiconductor Corporation, Alexar Therapeutics, Ario Pharmaceuticals, Cambridge Epigenetix, Dali Wireless, Dezima Pharma, Juventas Therapeutics, Oxyrane, Resolve Therapeutics, Svelte Medical Systems, TigerText, Vaultive, Vascular Therapeutics and iCAD. Somu has also served on the Boards of Ception (acquired by Cephalon), BioVex (acquired by Amgen), Lightwire (acquired by Cisco). Prior to starting New Science Ventures in 2004, Mr. Subramaniam was a Director at McKinsey & Co. and at various times led their Strategy Practice, Technology Practice and Healthcare Practice. While at McKinsey, he advised leading multinational companies in the pharmaceuticals, medical devices, biotechnology, photonics, software and semiconductor industries. He was also a member of McKinsey's Investment Committee. We believe Mr. Subramaniam's qualifications to serve on our Board include his extensive financial and legal expertise combined with his experience as an executive officer, partner and director. Dr. Elliot Sussman is currently a Chairman of The Villages Health and Professor of Medicine at the University of South Florida College of Medicine. From 1993 to 2010, Dr. Sussman served as President and Chief Executive Officer of Lehigh Valley Health Network. Dr. Sussman served as a Fellow in General Medicine and a Robert Wood Johnson Clinical Scholar at the University of Pennsylvania, and trained as a resident at the Hospital of the University of Pennsylvania. Dr. Sussman is a director and the Chairperson of the compensation committee of the Board of Directors of Universal Health Realty Income Trust, a public company involved in real estate investment trust primarily engaged in investing in healthcare and human service-related facilities. We believe Dr. Sussman's qualifications to serve on our Board include his experience as a Chief Executive Officer of a leading healthcare network, combined with his medical background and his understanding of our products and market.

*Kenneth Ferry* has served as the Company's Chief Executive Officer since May 2006. He has over 25 years of experience in the healthcare technology field, with more than 10 years' experience in senior management positions. Prior to joining the Company, from October 2003 to May 2006, Mr. Ferry was Senior Vice President and General Manager for the Global Patient Monitoring business for Philips Medical Systems, a leader in the medical imaging and patient monitoring systems business. In this role he was responsible for Research & Development, Marketing, Business Development, Supply Chain and Manufacturing, Quality and Regulatory, Finance and Human Resources. From September 2001 to October 2003, Mr. Ferry served as a Senior Vice President in the North America Field Organization of Philips Medical Systems. From 1983 to 2001, Mr. Ferry served in a number of management positions with Hewlett Packard Company, a global provider of products, technologies, software solutions and services to individual consumers and businesses and Agilent Technologies, Inc., a provider of core bio-analytical and electronic measurement solutions to the communications, electronics, life sciences and chemical analysis industries. We believe Mr. Ferry's qualifications to serve on our Board of Directors include his global executive leadership skills and significant experience as an executive in the healthcare industry.

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*Richard Christopher* is the Company's Executive Vice President and Chief Financial Officer. Previously, Mr. Christopher served as Chief Financial and Operating Officer of Caliber Imaging & Diagnostics, Inc., a medical technologies company that designs, develops and markets microscopes and other proprietary software. From March 2014 to October 2015, Mr. Christopher served as Chief Financial Officer of Caliber Imaging & Diagnostics, Inc. From December 2000 to April 2013, Mr. Christopher worked for DUSA Pharmaceuticals, Inc., a vertically integrated specialty dermatology company. During his time at DUSA Pharmaceuticals, Inc., Mr. Christopher served as Vice President, Financial Planning and Business Analysis, Vice President, Finance and Chief Financial Officer and Director of Financial Planning and Business Analysis. Mr. Christopher graduated from Suffolk University with a Masters of Science Degree in Accounting and from Bentley University with a Bachelor of Science Degree in Finance.

*Stacey Stevens* is now the Company's Executive Vice President, Chief Strategy and Commercial Officer. Ms. Stevens previously served as the Company's Senior Vice President of Marketing and Strategy from June 2006 to February 2016. Prior to joining iCAD, Ms. Stevens' experience included a variety of sales, business development, and marketing management positions with Philips Medical Systems, Agilent Technologies, Inc. and Hewlett Packard's Healthcare Solutions Group (which was acquired in 2001 by Philips Medical Systems). From February 2005 until joining the Company she was Vice President, Marketing Planning at Philips Medical Systems, where she was responsible for the leadership of all global marketing planning functions for Philips' Healthcare Business. From 2003 to January 2005, she was Vice President of Marketing for the Cardiac and Monitoring Systems Business Unit of Philips where she was responsible for all marketing and certain direct sales activities for the America's Field Operation. Prior to that, Ms. Stevens held several key marketing management positions in the Ultrasound Business Unit of Hewlett-Packard/Agilent and Philips Medical Systems. Ms. Stevens earned a Bachelor of Arts Degree in Political Science from the University of New Hampshire, and an MBA from Boston University's Graduate School of Management.

**Audit Committee and Audit Committee Financial Expert**

Our Board of Directors maintains an Audit Committee which is composed of Mr. Rappaport (Chair), Mr. Ecock and Dr. Sussman. Our Board has determined that each member of the Audit Committee meets the definition of an Independent Director under applicable NASDAQ Marketplace Rules. In addition, the Board has determined that each member of the Audit Committee meets the independence requirements of applicable SEC rules and that Mr. Rappaport qualifies as an audit committee financial expert under applicable SEC rules.

**Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Exchange Act requires certain of our officers and our directors, and persons who own more than 10 percent of a registered class of our equity securities, to file reports of ownership and changes in ownership with the SEC. Officers, directors, and greater than 10 percent stockholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file.

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Based solely on our review of copies of such forms received by us, we believe that during the year ended December 31, 2017; all filing requirements applicable to all of our officers, directors, and greater than 10% beneficial stockholders were timely complied with.

**Code of Ethics**

We have developed and adopted a comprehensive Code of Business Conduct and Ethics to cover all of our employees. Copies of the Code of Business Conduct and Ethics can be obtained, without charge, upon written request, addressed to:

iCAD, Inc.

98 Spit Brook Road, Suite 100

Nashua, NH 03062

Attention: Corporate Secretary

**Item 11. Executive Compensation.**

The Company will furnish to the Securities and Exchange Commission a definitive proxy statement not later than 120 days after the end of the fiscal year ended December 31, 2017. The response to this item will be contained in our proxy statement for our 2018 annual meeting of stockholders under the captions Executive Compensation, Compensation of Directors, Compensation Committee Interlocks and Insider Participation, and Compensation Committee Report, and is incorporated herein by reference.

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

The response to this item will be contained in our proxy statement for our 2018 annual meeting of stockholders in part under the caption Stock Ownership of Certain Beneficial Owners and Management and in part below.

**Table of Contents****Equity Compensation Plans**

The following table provides certain information with respect to all of our equity compensation plans in effect as of December 31, 2017.

Plan Category:	Number of securities to be issued upon exercise of outstanding options and rights	Weighted-average exercise price of outstanding options (excluding securities reflected in column (a))	Number of securities remaining available for issuance under equity compensation plans
Equity compensation plans approved by security holders:	1,425,348	\$ 5.05	1,482,496
Equity compensation plans not approved by security holders (1):	0	\$ 0.00	-0-
<b>Total</b>	<b>1,425,348</b>	<b>\$ 5.05</b>	<b>1,482,496</b>

(1) Represents the aggregate number of shares of common stock issuable upon exercise of individual arrangements with non-plan option holders. See Note 6 of Notes to our consolidated financial statements for a description of our Stock Option and Stock Incentive Plans and certain information regarding the terms of the non-plan options.

**Item 13. Certain Relationships and Related Transactions, and Director Independence.**

The response to this item is contained in our proxy statement for our 2018 annual meeting of stockholders under the captions Certain Relationships and Related Transactions, Corporate Governance Matters Director Independence and Compensation Committee Report, and is incorporated herein by reference.

**Item 14. Principal Accounting Fees and Services.**

The response to this item is contained in our proxy statement for our 2018 annual meeting of stockholders under the caption Ratification of Appointment of Independent Registered Public Accounting Firm, and is incorporated herein by reference.



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**PART IV**

**Item 15. Exhibits, Financial Statement Schedules.**

a) The following documents are filed as part of this Annual Report on Form 10-K:

- i. Financial Statements See Index on page 94.
- ii. Financial Statement Schedule See Index on page 94. All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are not applicable and, therefore, have been omitted.
- iii. Exhibits the following documents are filed as exhibits to this Annual Report on Form 10-K:
  - 2(a) Plan and Agreement of Merger dated February 15, 2002, by and among the Registrant, ISSI Acquisition Corp. and Intelligent Systems Software, Inc., Maha Sallam, Kevin Woods and W. Kip Speyer, [incorporated by reference to Annex A of the Company's proxy statement/prospectus dated May 24, 2002 contained in the Registrant's Registration Statement on Form S-4, File No. 333-86454].
  - 2(b) Amended and Restated Plan and Agreement of Merger dated as of December 15, 2003 among the Registrant, Qualia Computing, Inc., Qualia Acquisition Corp., Steven K. Rogers, Thomas E. Shoup and James Corbett [incorporated by reference to Exhibit 2(a) to the Registrant's Current Report on Form 8-K for the event dated December 31, 2003].
  - 2(c) Asset Purchase Agreement as of dated June 20, 2008 between the Registrant and 3TP LLC dba CAD Sciences [incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K for the event dated July 18, 2008]. \*\*
  - 2(d) Agreement and Plan of Merger dated December 15, 2010 by and among the Registrant, XAC, Inc., Xoft, Inc. and Jeffrey Bird as representative of the Xoft, Inc.'s stockholders [incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K for the event dated December 30, 2010]. \*\*
  - 2(e) Asset Purchase Agreement by and between iCAD, Inc. and Radion, Inc., dated as of July 15, 2014. [incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K for the event dated July 15, 2014]. \*\*



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- 2(f) Asset Purchase Agreement by and between iCAD, Inc. and DermEbx, a series of Radion Capital Partners, LLC, dated as of July 15, 2014. [incorporated by reference to Exhibit 2.2 to the Registrant's Current Report on Form 8-K for the event dated July 15, 2014]. \*\*
- 2(g) Asset Purchase Agreement by and between iCAD, Inc. and Invivo Corporation. [incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K for the event dated December 22, 2016]. \*\*
- 3(a) Certificate of Incorporation of the Registrant as amended through June 16, 2015 [incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 6, 2015].
- 3(b) Amended and Restated By-laws of the Registrant [incorporated by reference to Exhibit 3 (b) to the Registrant's Report on Form 10-K for the year ended December 31, 2007].
- 4.1 Form of Warrant issued on January 9, 2012 [incorporated by reference to Exhibit 4.1 of the Registrant's report on Form 8-K filed with the SEC on January 3, 2012].
- 4.2 Form of B Warrant issued on January 9, 2012 [incorporated by reference to Exhibit 4.2 of the Registrant's report on Form 8-K filed with the SEC on January 3, 2012].
- 4.3 Registration Rights Agreement, dated as of December 29, 2011 [incorporated by reference to Exhibit 4.3 of the Registrant's report on Form 8-K filed with the SEC on January 3, 2012].
- 10(a) 2002 Stock Option Plan [incorporated by reference to Annex F to the Registrant's Registration Statement on Form S-4 (File No. 333-86454)].\*
- 10(b) 2004 Stock Incentive Plan [incorporated by reference to Exhibit B to the Registrant's definitive proxy statement on Schedule 14A filed with the SEC on May 28, 2004].\*
- 10(c) Form of Option Agreement under the Registrant's 2002 Stock Option Plan [incorporated by reference to Exhibit 10.2 to the Registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2004].\*

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- 10(d) Form of Option Agreement under the Registrant's 2004 Stock Incentive Plan [incorporated by reference to Exhibit 10.3 to the Registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2004].\*
- 10(e) 2005 Stock Incentive Plan [incorporated by reference to Exhibit 10.1 to the Registrant's report on Form DEF14A filed with the SEC on May 25, 2005].\*
- 10(f) Form of Option Agreement under the Registrant's 2005 Stock Incentive Plan [incorporated by reference to Exhibit 10.2 to the Registrant's report on Form 8-K filed with the SEC on June 28, 2005].\*
- 10(g) 2016 Stock Incentive Plan [incorporated by reference to Exhibit 10.1 to the Registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2016].
- 10(h) Form of Indemnification Agreement with each of the Registrant's directors and officers [incorporated by reference to Exhibit 10.6 of Registrant's Quarterly report on Form 10-Q for the quarter ended June 30, 2006].
- 10(i) Form of Indemnification Agreement with each of the Registrant's directors and officers [incorporated by reference to Exhibit 10.1 of Registrant's Quarterly report on Form 10-Q for the quarter ended September 30, 2014].
- 10(j) Lease Agreement dated December 6, 2006 between the Registrant and Gregory D. Stoye and John J. Flatley, Trustees of the 1993 Flatley Family Trust, of Nashua, NH [incorporated by reference to Exhibit 10(mm) to the Registrant's Report on Form 10-K for the year ended December 31, 2006].
- 10(k) 2007 Stock Incentive Plan, as amended [incorporated by reference to Appendix A to the Company's definitive proxy statement on Schedule 14A filed with the SEC on May 6, 2009].\*
- 10(l) Form of Option Agreement under the Registrant's 2007 Stock Incentive Plan. [incorporated by reference to Exhibit 10(vv) to the Registrant's Report on Form 10-K for the year ended December 31, 2009]\*

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- 10(m) Form of Restricted Stock Agreement under the Registrant's 2007 Stock Incentive Plan. [incorporated by reference to Exhibit 10(vv) to the Registrant's Report on Form 10-K for the year ended December 31, 2009].\*
- 10(n) Employment Agreement entered into as of September 25, 2012 between the Registrant and Kenneth Ferry [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on September 26, 2012] \*
- 10(o) Employment Agreement entered into as of June 1, 2008 between the Registrant and Stacey Stevens [incorporated by reference to Exhibit 10.8 of the Registrant's report on Form 10-Q filed with the SEC on August 8, 2008]. \*
- 10(p) Employment Agreement dated as of June 1, 2008 between the Registrant and Jonathan Go [incorporated by reference to Exhibit 10.9 of the Registrant's report on Form 10-Q filed with the SEC on August 8, 2008]. \*
- 10(q) Employment Agreement dated April 26, 2011 between the Registrant and Kevin C. Burns [incorporated by reference to Exhibit 10.2 of the Registrant's report on Form 8-K filed with the SEC on April 27, 2011].
- 10(r) Option Agreement dated April 26, 2011 between the Registrant and Kevin C. Burns [incorporated by reference to Exhibit 10.3 of the Registrant's report on Form 8-K filed with the SEC on April 27, 2011].\*
- 10(s) Facility Agreement including form of Promissory note, dated as of December 29, 2011, by and among the Company, Deerfield Private Design Fund II, L.P., Deerfield Private Design International II, L.P., Deerfield Special Situations Fund, L.P., and Deerfield Special Situations Fund International Limited [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on January 3, 2012].
- 10(t) Form of Security Agreement by and among the Company, Deerfield Private Design Fund II, L.P., Deerfield Private Design International II, L.P., Deerfield Special Situations Fund, L.P., and Deerfield Special Situations Fund International Limited [incorporated by reference to Exhibit 10.2 of the Registrant's report on Form 8-K filed with the SEC on January 3, 2012].

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- 10(u) Form of Security Agreement by and among Xoft, Inc., Deerfield Private Design Fund II, L.P., Deerfield Private Design International II, L.P., Deerfield Special Situations Fund, L.P., and Deerfield Special Situations Fund International Limited [incorporated by reference to Exhibit 10.3 of the Registrant's report on Form 8-K filed with the SEC on January 3, 2012].
  
- 10(v) Revenue Purchase Agreement, dated as of December 29, 2011, by and among the Company, Deerfield Private Design Fund II, L.P., Deerfield Special Situations Fund, L.P. and Horizon Sante TTNP SARL [incorporated by reference to Exhibit 10.4 of the Registrant's report on Form 8-K filed with the SEC on January 3, 2012].
  
- 10(w) Revenue Purchase Termination and Amendment of Facility Agreement, dated as of April 28, 2014, by and among the Company, Deerfield Private Design Fund II, L.P., Deerfield Special Situations Fund, L.P. and Horizon Sante TTNP SARL [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 10-Q filed with the SEC on May 14, 2014].
  
- 10(x) Settlement Agreement, dated as of December 22, 2011, by and among the Company, Carl Zeiss Meditec, AG and Carl Zeiss Meditec, Inc. [incorporated by reference to Exhibit 10(y) to the Registrant's Report on Form 10-K for the year ended December 31, 2011]
  
- 10(y) Amendment No. 1 to the Employment Agreement dated April 26, 2011 between the Registrant and Kevin C. Burns [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on November 25, 2013].\*
  
- 10(z) Amendment No. 2 to the Employment Agreement dated April 26, 2011 between the Registrant and Kevin C. Burns [incorporated by reference to the Registrant's report on Form 8-K filed with the SEC on February 11, 2015].\*
  
- 10(aa) Change in Control Bonus Agreement dated October 29, 2015 between the Registrant and Ken Ferry [incorporated by reference to Exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on November 4, 2015].\*
  
- 10(bb) Change in Control Bonus Agreement dated October 29, 2015 between the Registrant and Kevin Burns [incorporated by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on November 4, 2015].\*

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- 10(cc) Change in Control Bonus Agreement dated October 29, 2015 between the Registrant and Stacey Stevens [incorporated by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on November 4, 2015].\*
  
- 10(dd) Asset Purchase Agreement dated December 16, 2016 between the Registrant and Invivo Corporation [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on December 22, 2016].
  
- 10(ee) Employment Agreement dated November 4, 2016 between the Registrant and Richard Christopher [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on November 10, 2016].
  
- 10(ff) First Amendment to Lease dated September 19, 2016 between the Registrant and The Irvine Company [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on September 21, 2016].
  
- 10(gg) Employment Agreement dated December 22, 2016 between the Registrant and Kenneth Ferry [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on December 28, 2016].
  
- 10(hh) Amendment No. 1 to Employment Agreement dated as of June 1, 2008 between the Registrant and Stacey M. Stevens [incorporated by reference to Exhibit 10.2 of the Registrant's report on Form 8-K filed with the SEC on December 28, 2016].
  
- 10(ii) Loan and Security Agreement dated August 7, 2017 by and among Silicon Valley Bank, the Company, Xoft, Inc. and Xoft Solutions, LLC [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on August 10, 2017].
  
- 10(jj) 2012 Stock Incentive Plan [incorporated by reference to Appendix B to the Registrant's definitive proxy statement on Schedule 14A filed with the SEC on April 9, 2012].\*
  
- 10(kk) Amendment No. 1 to the 2012 Stock Incentive Plan [incorporated by reference to Appendix A to the Registrant's definitive proxy statement on Schedule 14A filed with the SEC on April 2, 2014].\*
  
- 10(ll) First Loan Modification Agreement dated March 22, 2018 by and among Silicon Valley Bank, the Company, Xoft, Inc. and Xoft Solutions, LLC [incorporated by reference to Exhibit 10.1 of the Registrant's report on Form 8-K filed with the SEC on March 23, 2018].





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21	<u>Subsidiaries</u>
23.1	<u>Consent of BDO USA, LLP, Independent Registered Public Accounting Firm.</u>
31.1	<u>Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
32.1	<u>Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
32.2	<u>Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
101	The following materials formatted in XBRL (eXtensible Business Reporting Language); (i) Consolidated Balance Sheets as of December 31, 2017 and December 31, 2016, (ii) Consolidated Statements of Operations for the twelve months ended December 31, 2017 and 2016 and 2015, (iii) Consolidated Statements of Cash Flows for the twelve months ended December 31, 2017 and 2016 and 2015, and (iv) Notes to Consolidated Financial Statements.

\* Denotes a management compensation plan or arrangement.

\*\* The Registrant has omitted certain schedules and exhibits pursuant to Item 601(b)(2) of Regulation S-K and shall furnish supplementally to the SEC copies any of the omitted schedules and exhibits upon request by the SEC.

(b) Exhibits See (a) iii above.

(c) Financial Statement Schedule See (a) ii above.

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**Item 16. Summary.**

None

**Table of Contents****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.

Date: March 30, 2018

iCAD, INC.

By: /s/ Kenneth Ferry  
Kenneth Ferry  
Chief Executive Officer, Director

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.

Signature	Title	Date
/s/ Lawrence Howard Dr. Lawrence Howard	Chairman of the Board, Director	March 30, 2018
/s/ Kenneth Ferry Kenneth Ferry	Chief Executive Officer Director (Principal Executive Officer)	March 30, 2018
/s/ Richard Christopher Richard Christopher	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	March 30, 2018
/s/ Rachel Brem Rachel Brem, M.D.	Director	March 30, 2018
/s/ Anthony Ecock Anthony Ecock	Director	March 30, 2018
/s/ Robert Goodman Robert Goodman, M.D.	Director	March 30, 2018
/s/ Steven Rappaport Steven Rappaport	Director	March 30, 2018
/s/ Andy Sassine Andy Sassine	Director	March 30, 2018
/s/ Somu Subramaniam Somu Subramaniam	Director	March 30, 2018
/s/ Elliot Sussman	Director	March 30, 2018

Elliot Sussman, M.D.

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Stockholders and Board of Directors

iCAD, Inc.

Nashua, New Hampshire

**Opinion on the Consolidated Financial Statements**

We have audited the accompanying consolidated balance sheets of iCAD, Inc. (the Company) and subsidiaries as of December 31, 2017 and 2016, the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and subsidiaries at December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

**Basis for Opinion**

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the 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. We believe that our audits provide a reasonable basis for our opinion.

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/s/ BDO USA, LLP

We have served as the Company's auditor since 1989.

Boston, Massachusetts

March 30, 2018

**Table of Contents****iCAD, INC. AND SUBSIDIARIES****Consolidated Balance Sheets**

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
	(in thousands except shares and per share data)	
<u>Assets</u>		
Current assets:		
Cash and cash equivalents	\$ 9,387	\$ 8,585
Trade accounts receivable, net of allowance for doubtful accounts of \$107 in 2017 and \$172 in 2016	8,599	5,189
Inventory, net	2,123	3,727
Prepaid expenses and other current assets	1,100	1,128
Assets held for sale		1,304
<b>Total current assets</b>	<b>21,209</b>	<b>19,933</b>
Property and equipment:		
Equipment	5,722	7,180
Leasehold improvements	62	62
Furniture and fixtures	305	305
Marketing assets	376	376
	6,465	7,923
Less accumulated depreciation and amortization	5,889	6,538
<b>Net property and equipment</b>	<b>576</b>	<b>1,385</b>
Other assets:		
Other assets	53	53
Intangible assets, net of accumulated amortization of \$7,433 in 2017 and \$7,518 in 2016	1,931	3,183
Goodwill	8,362	14,097
<b>Total other assets</b>	<b>10,346</b>	<b>17,333</b>
<b>Total assets</b>	<b>\$ 32,131</b>	<b>\$ 38,651</b>
<u>Liabilities and Stockholders' Equity</u>		
Current liabilities:		
Accounts payable	\$ 1,362	\$ 1,577
Accrued expenses	4,475	4,988
Notes payable - current portion	817	
Capital lease payable, short-term portion	12	86
Deferred revenue	5,404	5,372



Liabilities held for sale		832
<b>Total current liabilities</b>	<b>12,070</b>	<b>12,855</b>
Other long-term liabilities	119	83
Deferred revenue, long-term portion	506	668
Notes payable, long-term portion	5,119	
Capital lease long-term portion	27	
Deferred tax	14	7
<b>Total liabilities</b>	<b>17,855</b>	<b>13,613</b>
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Preferred stock, \$ .01 par value: authorized 1,000,000 shares; none issued.		
Common stock, \$ .01 par value: authorized 30,000,000 shares; issued 16,711,752 in 2017 and 16,260,663 in 2016; outstanding 16,525,681 in 2017 and 16,074,832 in 2016		
	167	163
Additional paid-in capital	217,389	213,899
Accumulated deficit	(201,865)	(187,609)
Treasury stock at cost, 185,831 shares in 2017 and 2016	(1,415)	(1,415)
<b>Total stockholders' equity</b>	<b>14,276</b>	<b>25,038</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 32,131</b>	<b>\$ 38,651</b>

*See accompanying notes to consolidated financial statements.*

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**iCAD, INC. AND SUBSIDIARIES**  
**Consolidated Statements of Operations**

	<b>For the Years Ended</b>		
	<b>December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
	(in thousands except per share data)		
<b>Revenue:</b>			
Products	\$ 13,554	\$ 10,471	\$ 14,198
Service and supplies	14,548	15,867	27,356
<b>Total revenue</b>	<b>28,102</b>	<b>26,338</b>	<b>41,554</b>
<b>Cost of Revenue:</b>			
Products	2,660	918	3,130
Service and supplies	6,229	5,713	7,357
Amortization and depreciation	1,037	1,189	1,717
<b>Total cost of revenue</b>	<b>9,926</b>	<b>7,820</b>	<b>12,204</b>
<b>Gross profit</b>	<b>18,176</b>	<b>18,518</b>	<b>29,350</b>
<b>Operating expenses:</b>			
Engineering and product development	9,327	9,518	9,163
Marketing and sales	10,503	10,179	12,404
General and administrative	7,877	7,675	8,788
Amortization and depreciation	452	1,116	1,631
Gain on sale of MRI assets	(2,508)		
Goodwill and long-lived asset impairment	6,693		27,443
<b>Total operating expenses</b>	<b>32,344</b>	<b>28,488</b>	<b>59,429</b>
<b>Loss from operations</b>	<b>(14,168)</b>	<b>(9,970)</b>	<b>(30,079)</b>
<b>Other (expense) income:</b>			
Interest expense	(124)	(63)	(650)
Loss from extinguishment of debt			(1,723)
Interest income	18	10	21
<b>Other expense, net</b>	<b>(106)</b>	<b>(53)</b>	<b>(2,352)</b>
<b>Loss before income tax expense</b>	<b>(14,274)</b>	<b>(10,023)</b>	<b>(32,431)</b>
Income tax (benefit) expense	(18)	76	16
<b>Net loss and comprehensive loss</b>	<b>\$ (14,256)</b>	<b>\$ (10,099)</b>	<b>\$ (32,447)</b>

Net loss per share:

Basic	\$ (0.87)	\$ (0.63)	\$ (2.07)
Diluted	\$ (0.87)	\$ (0.63)	\$ (2.07)
Weighted average number of shares used in computing loss per share:			
Basic	16,343	15,932	15,686
Diluted	16,343	15,932	15,686

*See accompanying notes to consolidated financial statements.*

**Table of Contents****iCAD, INC. AND SUBSIDIARIES****Consolidated Statements of Stockholders Equity**

(in thousands except shares)

	<b>Common Stock Number of Shares Issued</b>	<b>Par Value</b>	<b>Additional Paid-in Capital</b>	<b>Accumulated Deficit</b>	<b>Treasury Stock</b>	<b>Stockholders Equity</b>
Balance at December 31, 2014	15,732,177	\$ 157	\$ 209,100	\$ (145,063)	\$ (1,415)	\$ 62,779
Issuance of common stock relative to vesting of restricted stock, net of 13,058 shares forfeited for tax obligations	111,700	1	(88)			(87)
Issuance of common stock pursuant to stock option plans	79,472	1	365			366
Stock-based compensation			2,135			2,135
Net loss				(32,447)		(32,447)
Balance at December 31, 2015	15,923,349	\$ 159	\$ 211,512	\$ (177,510)	\$ (1,415)	\$ 32,746
Issuance of common stock relative to vesting of restricted stock, net of 27,299 shares forfeited for tax obligations	261,731	3	(117)			(114)
Issuance of common stock pursuant to stock option plans	75,583	1	197			198
Stock-based compensation			2,307			2,307
Net loss				(10,099)		(10,099)
Balance at December 31, 2016	16,260,663	\$ 163	\$ 213,899	\$ (187,609)	\$ (1,415)	\$ 25,038
Issuance of common stock relative to vesting of restricted stock, net of 55,115 shares forfeited for tax obligations	414,319	4	(245)			(241)
Issuance of common stock pursuant to stock option plans	36,530		79			79
Stock-based compensation			3,656			3,656
Net loss				(14,256)		(14,256)
Balance at December 31, 2017	16,711,512	\$ 167	\$ 217,389	\$ (201,865)	\$ (1,415)	\$ 14,276

*See accompanying notes to consolidated financial statements.*



**Table of Contents****iCAD, INC. AND SUBSIDIARIES****Consolidated Statements of Cash Flows**

	<b>For the Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
	(in thousands)		
<b>Cash flow from operating activities:</b>			
Net loss	\$ (14,256)	\$ (10,099)	\$ (32,447)
<b>Adjustments to reconcile net loss to net cash provided by (used for) operating activities:</b>			
Amortization	494	983	1,768
Depreciation	995	1,322	1,580
Bad debt provision	45	177	383
Inventory obsolescence reserve	1,052	114	55
Stock-based compensation expense	3,656	2,307	2,135
Amortization of debt discount and debt costs		(23)	341
Gain from acquisition settlement		(249)	
Goodwill and long-lived asset impairment	6,693		27,443
Interest on settlement obligations	26	82	146
Deferred tax	8	7	
Loss on disposal of assets	52	10	125
Gain on sale of MRI assets	(2,158)		
Loss on extinguishment of debt			1,723
<b>Changes in operating assets and liabilities, net of acquisition:</b>			
Accounts receivable	(3,474)	2,201	1,772
Inventory	554	482	(2,042)
Prepaid and other assets	29	(504)	(197)
Accounts payable	(215)	(16)	(557)
Accrued expenses	(505)	309	(2,060)
Deferred revenue	(333)	(2,581)	(2,068)
<b>Total adjustments</b>	<b>6,919</b>	<b>4,621</b>	<b>30,547</b>
<b>Net cash used for operating activities</b>	<b>(7,337)</b>	<b>(5,478)</b>	<b>(1,900)</b>
<b>Cash flow from investing activities:</b>			
Additions to patents, technology and other	(5)	(12)	(40)
Additions to property and equipment	(390)	(337)	(932)
Acquisition of VuComp M-Vu CAD		(6)	
Acquisition of VuComp M-Vu Breast Density			(1,700)
Sale of MRI assets	2,850		
<b>Net cash provided by (used for) investing activities</b>	<b>2,455</b>	<b>(355)</b>	<b>(2,672)</b>

<b>Cash flow from financing activities:</b>			
Issuance of common stock for cash, net			
Stock option exercises	79	198	366
Taxes paid related to restricted stock issuance	(241)	(114)	(87)
Debt issuance costs	(74)		
Principal payments of capital lease obligations	(80)	(946)	(1,397)
Proceeds from debt financing	6,000		
Principal repayment of debt financing, net			(11,250)
<b>Net cash provided by (used for) financing activities</b>	<b>5,684</b>	<b>(862)</b>	<b>(12,368)</b>
Increase (decrease) in cash and equivalents	802	(6,695)	(16,940)
Cash and equivalents, beginning of year	8,585	15,280	32,220
Cash and equivalents, end of year	\$ 9,387	\$ 8,585	\$ 15,280
<b>Supplemental disclosure of cash flow information:</b>			
Interest paid	\$ 79	\$ 70	\$ 558
Taxes paid	\$ 60	\$ 67	\$ 128
Escrow due from MRI asset sale	\$ 350		
Equipment purchased under capital lease	\$ 42		

*See accompanying notes to consolidated financial statements.*

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**iCAD, INC. AND SUBSIDIARIES**

Notes to Consolidated Financial Statements

**(1) Summary of Significant Accounting Policies**

**(a) Nature of Operations and Use of Estimates**

iCAD, Inc. and subsidiaries (the Company or iCAD ) is a provider of advanced image analysis, workflow solutions and radiation therapy for the early identification and treatment of cancer.

The Company has grown primarily through acquisitions to become a broad player in the oncology market. Its solutions include advanced image analysis and workflow solutions that enable healthcare professionals to better serve patients by identifying pathologies and pinpointing the most prevalent cancers earlier, a comprehensive range of high-performance, upgradeable Computer-Aided Detection (CAD) systems and workflow solutions for mammography, MRI and CT, and the Xoft System which is an isotope-free cancer treatment platform technology. CAD is reimbursable in the U.S. under federal and most third-party insurance programs.

The Company intends to continue the extension of its image analysis and clinical decision support solutions for mammography, MRI and CT imaging. iCAD believes that advances in digital imaging techniques should bolster its efforts to develop additional commercially viable CAD/advanced image analysis and workflow products. The Company's management believes that early detection in combination with earlier targeted intervention will provide patients and care providers with the best tools available to achieve better clinical outcomes resulting in a market demand that will drive top line growth.

The Company's headquarters are located in Nashua, New Hampshire, with manufacturing and contract manufacturing facilities in New Hampshire and Massachusetts, and an operations, research, development, manufacturing and warehousing facility in San Jose, California.

The Company operates in two segments: Cancer Detection ( Detection ) and Cancer Therapy ( Therapy ). The Detection segment consists of advanced image analysis and workflow products, and the Therapy segment consists of radiation therapy products. The Company sells its products throughout the world through its direct sales organization as well as through various OEM partners, distributors and resellers. See Note 8 for segment, major customer and geographical information.

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. It is reasonably possible that changes may occur in the near term that would affect management's estimates with respect to assets and liabilities.



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In January 2018 the Company adopted a plan to discontinue offering radiation therapy professional services to practices that provide the Company's electronic brachytherapy solution for the treatment of non-melanoma skin cancer under the subscription service model within the Therapy Segment.

### **(b) Principles of Consolidation**

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries: Xoft, Inc. and Xoft Solutions, LLC. All material inter-company transactions and balances have been eliminated in consolidation.

### **(c) Cash and cash equivalents**

The Company defines cash and cash equivalents as all bank accounts, money market funds, deposits and other money market instruments with original maturities of 90 days or less, which are unrestricted as to withdrawal. Cash and cash equivalents are maintained at financial institutions and, at times, balances may exceed federally insured limits. The Company has never experienced any losses related to these balances. Insurance coverage is \$250,000 per depositor at each financial institution, and the Company's non-interest bearing cash balances exceed federally insured limits. Interest-bearing amounts on deposit in excess of federally insured limits at December 31, 2017 approximated \$8.5 million.

### **(d) Financial instruments**

Financial instruments consist of cash and cash equivalents, accounts receivable, accounts payable, and notes payable. Due to their short term nature and market rates of interest, the carrying amounts of the financial instruments approximated fair value as of December 31, 2017 and 2016.

### **(e) Accounts Receivable and Allowance for Doubtful Accounts**

Accounts receivable are customer obligations due under normal trade terms. Credit limits are established through a process of reviewing the financial history and stability of each customer. The Company performs continuing credit evaluations of its customers' financial condition and generally does not require collateral.

The Company's policy is to maintain allowances for estimated losses from the inability of its customers to make required payments. The Company's senior management reviews accounts receivable on a periodic basis to determine if any receivables may potentially be uncollectible. The Company includes any accounts receivable balances that it determines may likely be uncollectible, along with a general reserve for estimated

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probable losses based on historical experience, in its overall allowance for doubtful accounts. An amount would be written off against the allowance after all attempts to collect the receivable had failed. Based on the information available, the Company believes the allowance for doubtful accounts as of December 31, 2017 and 2016 is adequate.

The following table summarizes the allowance for doubtful accounts for the three years ended December 31, 2017 (in thousands):

	<b>2017</b>	<b>2016</b>	<b>2015</b>
Balance at beginning of period	\$ 172	\$ 236	\$ 203
Additions charged to costs and expenses	45	177	383
Reductions	(110)	(241)	(350)
Balance at end of period	\$ 107	\$ 172	\$ 236

**(f) Inventory**

Inventory is valued at the lower of cost or net realizable value, with cost determined by the first-in, first-out method. The Company regularly reviews inventory quantities on hand and records an allowance for excess and/or obsolete inventory primarily based upon the estimated usage of its inventory as well as other factors. At December 31, 2017 and 2016, inventories consisted of the following (in thousands), which includes an inventory reserve of approximately \$1.2 million and \$0.3 million as December 31, 2017 and 2016, respectively.

	<b>As of</b>	
	<b>December 31,</b>	
	<b>2017</b>	<b>2016</b>
Raw materials	\$ 992	\$ 2,503
Work in process	63	75
Finished Goods	1,068	1,149
Inventory	\$ 2,123	\$ 3,727

**(g) Property and Equipment**

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets or the remaining lease term, if shorter, for leasehold improvements (see below).

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	Estimated life
Equipment	3-5 years
Leasehold improvements	3-5 years
Furniture and fixtures	3-5 years
Marketing assets	3-5 years

**(h) Goodwill**

In accordance with FASB Accounting Standards Codification ( ASC ) Topic 350-20, *Intangibles Goodwill and Other* , ( ASC 350-20 ), the Company tests goodwill for impairment on an annual basis and between annual tests if events and circumstances indicate it is more likely than not that the fair value of the reporting unit is less than the carrying value of the reporting unit.

Factors the Company considers important, which could trigger an impairment of such asset, include the following:

significant underperformance relative to historical or projected future operating results;

significant changes in the manner or use of the assets or the strategy for the Company's overall business;

significant negative industry or economic trends;

significant decline in the Company's stock price for a sustained period; and

a decline in the Company's market capitalization below net book value.

The Company records an impairment charge when such assessment indicates that the fair value of a reporting unit was less than the carrying value. In evaluating potential impairments outside of the annual measurement date, judgment is required in determining whether an event has occurred that may impair the value of goodwill or intangible assets. The Company utilizes either discounted cash flow models or other valuation models, such as comparative transactions and market multiples, to determine the fair value of reporting units. The Company makes assumptions about future cash flows, future operating plans, discount rates, comparable companies, market multiples, purchase price premiums and other factors in those models. Different assumptions and judgment determinations could yield different conclusions that would result in an impairment charge to income in the period that such change or determination was made.

In January 2018 the Company adopted a plan to discontinue offering radiation therapy professional services to practices that provide the Company's electronic brachytherapy solution for the treatment of non-melanoma skin cancer under the subscription service model within the Therapy Segment. As result, the Company will no longer offer the subscription service model to customers. Based on the decision to discontinue offering radiation therapy professional services within the Therapy Segment, the Company revised its forecasts related to the Therapy segment, which the Company deemed to be a triggering event.

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The Company elected to early adopt ASU 2017-04, Intangibles – Goodwill and Other: Simplifying the Test for Goodwill Impairment ( ASU 2017-04 ) as of September 30, 2017 which affected both the third quarter and fourth quarter impairment tests. ASU 2017-04 specifies that goodwill impairment is the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. In accordance with the standard, the fair value of the Therapy reporting unit as of the fourth quarter was \$0.1 million and the carrying value was \$2.1 million. The deficiency exceeded the carry value of goodwill and the balance of \$1.7 million was recorded as an impairment charge in the quarter ended December 31, 2017.

As a result of the underperformance of the Therapy reporting unit as compared to expected future results, the Company determined there was a triggering event in the third quarter of 2017. As a result, the Company completed an interim impairment assessment. The interim test resulted in the fair value of the Therapy reporting unit being less than the carrying value of the reporting unit. The fair value of the Therapy reporting unit was \$3.5 million and the carrying value was \$7.5 million. The deficiency of \$4.0 million was recorded as an impairment charge in the third quarter ended September 30, 2017. The Company did not identify a triggering event within the Detection reporting unit and accordingly did not perform an interim test.

As a result of external factors and general uncertainty related to reimbursement for non-melanoma skin cancer and in conjunction with the long-lived asset impairment testing, the Company performed an impairment assessment of the Therapy reporting unit as of June 30, 2015. As calculated under the prior method of determining goodwill impairments, the Step 2 test resulted in an approximate fair value of goodwill of \$5.7 million which resulted in a goodwill impairment loss of \$14.0 million for the quarter ended June 30, 2015.

The Company determines the fair value of reporting units based on the present value of estimated future cash flows, discounted at an appropriate risk adjusted rate. This approach was selected as it measures the income producing assets, primarily technology and customer relationships. This method estimates the fair value based upon the ability to generate future cash flows, which is particularly applicable when future profit margins and growth are expected to vary significantly from historical operating results.

The Company uses internal forecasts to estimate future cash flows and includes an estimate of long-term future growth rates based on the most recent views of the long-term forecast for the reporting unit. Accordingly, actual results can differ from those assumed in the forecasts. Discount rates are derived from a capital asset pricing model and analyzing published rates for industries relevant to the reporting unit to estimate the cost of equity financing. The Company uses discount rates that are commensurate with the risks and uncertainty inherent in the respective businesses and in the internally developed forecasts.

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Other significant assumptions include terminal value margin rates, future capital expenditures, and changes in future working capital requirements. While there are inherent uncertainties related to the assumptions used and to the application of these assumptions to this analysis, the income approach provides a reasonable estimate of the fair value of the Therapy reporting unit.

The Company performed the annual impairment assessment at October 1, 2017 and compared the fair value of each of reporting unit to its carrying value as of this date. Fair value exceeded the carrying value for the Detection reporting unit, and the carrying value approximated fair value of the Therapy reporting unit after the impairment as of September 30, 2017. The carrying values of the reporting units were determined based on an allocation of our assets and liabilities through specific allocation of certain assets and liabilities, to the reporting units and an apportionment of the remaining net assets based on the relative size of the reporting units' revenues and operating expenses compared to the Company as a whole. The determination of reporting units also requires management judgment.

The Company determines the fair values for each reporting unit using a weighting of the income approach and the market approach. For purposes of the income approach, fair value is determined based on the present value of estimated future cash flows, discounted at an appropriate risk adjusted rate. The Company uses internal forecasts to estimate future cash flows and includes estimates of long-term future growth rates based on our most recent views of the long-term forecast for each segment. Accordingly, actual results can differ from those assumed in our forecasts. Discount rates are derived from a capital asset pricing model and by analyzing published rates for industries relevant to our reporting units to estimate the cost of equity financing. The Company uses discount rates that are commensurate with the risks and uncertainty inherent in the respective businesses and in our internally developed forecasts.

In the market approach, the Company uses a valuation technique in which values are derived based on market prices of publicly traded companies with similar operating characteristics and industries. A market approach allows for comparison to actual market transactions and multiples. It can be somewhat limited in its application because the population of potential comparable publicly-traded companies can be limited due to differing characteristics of the comparative business and ours, as well as market data may not be available for divisions within larger conglomerates or non-public subsidiaries that could otherwise qualify as comparable, and the specific circumstances surrounding a market transaction (e.g., synergies between the parties, terms and conditions of the transaction, etc.) may be different or irrelevant with respect to the business.

The Company corroborates the total fair values of the reporting units using a market capitalization approach; however, this approach cannot be used to determine the fair value of each reporting unit value. The blend of the income approach and market approach is more closely aligned to the business profile of the Company, including markets served and products available. In addition, required rates of return, along with uncertainties inherent in the forecast of future cash flows, are reflected in the selection of the discount rate. In addition, under the blended approach, reasonably likely scenarios

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and associated sensitivities can be developed for alternative future states that may not be reflected in an observable market price. The Company will assess each valuation methodology based upon the relevance and availability of the data at the time the valuation is performed and weights the methodologies appropriately.

In April 2015, the Company acquired VuComp's M-Vu<sup>®</sup> Breast Density product for \$1.7 million. The product has been integrated into the Company's Powerlook AMP system, which is a component of the Detection reporting unit. The Company determined that the acquisition was a business combination and accordingly recorded goodwill of \$0.8 million.

In January 2016, the Company completed the acquisition of VuComp's M-Vu CAD and other assets for \$6,000. The customers, related technology and clinical data acquired are being used for the Company's Cancer Detection products and the Company recorded goodwill of \$293,000 to the Detection segment.

In December 2016, the Company entered into an Asset Purchase Agreement with Invivo Corporation. The Company conveyed to Buyer all right, title and interest to certain intellectual property relating to the VersaVue Software and the DynaCAD product and related assets. As a result of the agreement, the Company determined that it had assets held for sale as of December 31, 2016 and the sale constituted the sale of a business. As of December 31, 2016, the Company allocated \$394,000 of goodwill to assets held for sale. The allocation was based on the fair value of the assets sold relative to the fair value of the Detection reporting unit as of the date of the agreement.

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A rollforward of goodwill activity by reportable segment is as follows (in thousands):

	Detection	Therapy	Total
Accumulated Goodwill	\$	\$	\$ 47,937
Accumulated impairment			(26,828)
Fair value allocation	7,663	13,446	
Acquisition of DermEbx and Radion		6,154	6,154
Acquisition measurement period adjustments		116	116
Acquisition of VuComp	800		800
Impairment		(13,981)	(13,981)
Balance at December 31, 2015	8,463	5,735	14,198
Acquisition of VuComp	293		293
Sale of MRI assets	(394)		(394)
Balance at December 31, 2016	8,362	5,735	14,097
Impairment		(5,735)	(5,735)
Balance at December 31, 2017	\$ 8,362	\$	\$ 8,362
Accumulated Goodwill	699	6,270	54,906
Fair value allocation	7,663	13,446	
Accumulated impairment		(19,716)	(46,544)
Balance at December 31, 2017	\$ 8,362	\$	\$ 8,362

**(i) Long Lived Assets**

In accordance with FASB ASC Topic 360, *Property, Plant and Equipment*, (ASC 360), the Company assesses long-lived assets for impairment if events and circumstances indicate it is more likely than not that the fair value of the asset group is less than the carrying value of the asset group.

ASC 360-10-35 uses *events and circumstances* criteria to determine when, if at all, an asset (or asset group) is evaluated for recoverability. Thus, there is no set interval or frequency for recoverability evaluation. In accordance with ASC 360-10-35-21, the following factors are examples of events or changes in circumstances that indicate the carrying amount of an asset (asset group) may not be recoverable and thus is to be evaluated for recoverability.

A significant decrease in the market price of a long-lived asset (asset group);

A significant adverse change in the extent or manner in which a long-lived asset (asset group) is being used or in its physical condition;

A significant adverse change in legal factors or in the business climate that could affect the value of a long-lived asset (asset group), including an adverse action or assessment by a regulator;

An accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of a long-lived asset (asset group);



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A current period operating or cash flow loss combined with a history of operating or cash flow losses or a projection or forecast that demonstrates continuing losses associated with the use of a long-lived asset (asset group).

In accordance with ASC 360-10-35-17, if the carrying amount of an asset or asset group (in use or under development) is evaluated and found not to be fully recoverable (the carrying amount exceeds the estimated gross, undiscounted cash flows from use and disposition), then an impairment loss must be recognized. The impairment loss is measured as the excess of the carrying amount over the asset's (or asset group's) fair value. The Company determined the Asset Group to be the assets of the Therapy segment, which the Company considered to be the lowest level for which the identifiable cash flows were largely independent of the cash flows of other assets and liabilities.

The Company completed an interim goodwill impairment assessment for the Therapy reporting unit in the third quarter of 2017 and noted that there was an impairment of goodwill. As a result, the Company determined this was a triggering event to review long-lived assets for impairment. Accordingly, the Company completed an analysis pursuant to ASC 360-10-35-17 and determined that the carrying value of the asset group exceeded the undiscounted cash flows, and that long-lived assets were impaired. The Company recorded long-lived asset impairment charges of approximately \$0.7 million in the third quarter ended September 30, 2017 based on the deficiency between the book value of the assets and the fair value as determined in the analysis.

The Company also completed a goodwill assessment in the fourth quarter of 2017, and in connection with that assessment, the Company completed an analysis pursuant to ASC 360-10-35-17 and determined that the undiscounted cash flows exceeded the carrying value of the asset group and that long-lived assets were not impaired. At December 31, 2017, the long-lived assets in the respective asset groups are recorded at their current fair values.

The Company did not record any impairment charges for the year ended December 31, 2016.

As a result of external factors and general uncertainty related to reimbursement for the treatment of NMSC, the Company evaluated the long-lived assets of the Therapy segment and reviewed them for impairment in 2015. In connection with the preparation of the financial statements for the second quarter ended June 30, 2015, the Company completed its analysis pursuant to ASC 360-10-35-17 and determined that the carrying value of the Asset Group was approximately \$36.8 million, which exceeded the undiscounted cash flows by approximately \$2.8 million. Accordingly the Company completed the Step 2 analysis to determine the fair value of the asset group. The Company recorded long-lived asset impairment charges of approximately \$13.4 million in the second quarter ended June 30, 2015 and as a result the long-lived assets in the Asset Group were recorded at their current fair values.

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A considerable amount of judgment and assumptions are required in performing the impairment tests, principally in determining the fair value of the Asset Group. While the Company believes the judgments and assumptions are reasonable, different assumptions could change the estimated fair values, and, therefore additional impairment charges could be required. Significant negative industry or economic trends, disruptions to the Company's business, loss of significant customers, inability to effectively integrate acquired businesses, unexpected significant changes or planned changes in use of the assets may adversely impact the assumptions used in the fair value estimates and ultimately result in future impairment charges.

Intangible assets subject to amortization consist primarily of patents, technology, customer relationships and trade names purchased in the Company's previous acquisitions. These assets, which include assets from the acquisition of the assets of VuComp, DermEbx and Radion and the acquisition of Xoft, Inc., are amortized on a straight-line basis consistent with the pattern of economic benefit over their estimated useful lives of 5 to 15 years. A summary of intangible assets for 2017 and 2016 are as follows (in thousands):

	2017	2016	Weighted average useful life
<b>Gross Carrying Amount</b>			
Patents and licenses	\$ 556	\$ 583	5 years
Technology	8,257	9,567	10 years
Customer relationships	292	292	7 years
Tradename	259	259	10 years
<b>Total amortizable intangible assets</b>	<b>9,364</b>	<b>10,701</b>	
<b>Accumulated Amortization</b>			
Patents and licenses	\$ 503	\$ 477	
Technology	6,610	6,754	
Customer relationships	61	28	
Tradename	259	259	
<b>Total accumulated amortization</b>	<b>7,433</b>	<b>7,518</b>	
<b>Total amortizable intangible assets, net</b>	<b>\$ 1,931</b>	<b>\$ 3,183</b>	

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Amortization expense related to intangible assets was approximately \$494,000, \$983,000 and \$1,768,000 for the years ended December 31, 2017, 2016, and 2015, respectively. Estimated remaining amortization of the Company's intangible assets is as follows (in thousands):

For the years ended December 31:	Estimated amortization expense
2018	\$ 417
2019	379
2020	305
2021	228
2022	299
Thereafter	303
	\$ 1,931

**(j) Revenue Recognition**

The Company recognizes revenue primarily from the sale of products, services and supplies. Revenue is recognized when delivery has occurred, persuasive evidence of an arrangement exists, fees are fixed or determinable and collectability of the related receivable is probable. For product revenue, delivery has occurred upon shipment provided title and risk of loss have passed to the customer. Services and supplies revenue are considered to be delivered as the services are performed or over the estimated life of the supply agreement.

The Company recognizes revenue from the sale of its digital, film-based CAD and cancer therapy products and services in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Update No. 2009-13, *Multiple-Deliverable Revenue Arrangements* (ASU 2009-13) and ASC Update No. 2009-14, *Certain Arrangements That Contain Software Elements* (ASU 2009-14) and ASC 985-605, *Software* (ASC 985-605). Revenue from the sale of certain CAD products is recognized in accordance with ASC 840 *Leases* (ASC 840). For multiple element arrangements, revenue is allocated to all deliverables based on their relative selling prices. In such circumstances, a hierarchy is used to determine the selling price to be used for allocating revenue to deliverables as follows: (i) vendor-specific objective evidence of fair value (VSOE), (ii) third-party evidence of selling price (TPE), and (iii) best estimate of the selling price (BESP). VSOE generally exists only when the deliverable is sold separately and is the price actually charged for that deliverable. The process for determining BESP for deliverables without VSOE or TPE considers multiple factors including relative selling prices; competitive prices in the marketplace, and management judgment, however, these may vary depending upon the unique facts and circumstances related to each deliverable.

The Company uses customer purchase orders that are subject to the Company's terms and conditions or, in the case of an Original Equipment Manufacturer (OEM) are governed by distribution agreements. In accordance with the Company's distribution agreements, the OEM does not have a right of return, and title and risk of loss passes to the OEM upon shipment. The Company generally ships Free On Board shipping point and uses

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shipping documents and third-party proof of delivery to verify delivery and transfer of title. In addition, the Company assesses whether collection is probable by considering a number of factors, including past transaction history with the customer and the creditworthiness of the customer, as obtained from third party credit references.

If the terms of the sale include customer acceptance provisions and compliance with those provisions cannot be demonstrated, all revenue is deferred and not recognized until such acceptance occurs. The Company considers all relevant facts and circumstances in determining when to recognize revenue, including contractual obligations to the customer, the customer's post-delivery acceptance provisions, if any, and the installation process.

The Company has determined that iCAD's digital and film based sales generally follow the guidance of FASB ASC Topic 605 *Revenue Recognition* (ASC 605) as the software has been considered essential to the functionality of the product per the guidance of ASU 2009-14. Typically, the responsibility for the installation process lies with the OEM partner. On occasion, when iCAD is responsible for product installation, the installation element is considered a separate unit of accounting because the delivered product has stand-alone value to the customer. In these instances, the Company allocates the revenue to the deliverables based on the framework established within ASU 2009-13. Therefore, the installation and training revenue is recognized as the services are performed according to the BEBP of the element. Revenue from the digital and film based equipment when there is installation, is recognized based on the relative selling price allocation of the BEBP, when delivered.

Revenue from certain CAD products is recognized in accordance with ASC 985-605. Sales of this product include training, and the Company has established VSOE for this element. Product revenue is determined based on the residual value in the arrangement and is recognized when delivered. Revenue for training is deferred and recognized when the training has been completed.

Sales of the Company's Therapy segment products typically include a controller, accessories, source agreements and services. The Company allocates revenue to the deliverables in the arrangement based on the BEBP in accordance with ASU 2009-13. Product revenue is generally recognized when the product has been delivered and service and/or supplies revenue is typically recognized over the life of the service and/or supplies agreement. The Company includes in service and supplies revenue the following: the sale of physics and management services, the lease of electronic brachytherapy equipment, development fees, supplies and the right to use the Company's AxxentHub software. Physics and management services revenue and development fees are considered to be delivered as the services are performed or over the estimated life of the agreement. The Company typically bills items monthly over the life of the agreement except for development fees, which are generally billed in advance or over a 12 month period and the fee for treatment supplies which is generally billed in advance.

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The Company defers revenue from the sale of certain service contracts and recognizes the related revenue on a straight-line basis in accordance with ASC Topic 605-20, *Services*. The Company provides for estimated warranty costs on original product warranties at the time of sale.

**(k) Cost of Revenue**

Cost of revenue consists of the costs of products purchased for resale, cost relating to service including costs of service contracts to maintain equipment after the warranty period, inbound freight and duty, manufacturing, warehousing, material movement, inspection, scrap, rework, depreciation and in-house product warranty repairs, amortization of acquired technology and medical device tax. Included in cost of revenue for the year ended December 31, 2016 is a credit of \$491,000 related to a refund of the Medical Device Excise Tax ( MDET ). The MDET refund of \$491,000 for the year ended December 31, 2016 related to refunds of the MDET for the periods from April 2013 to December 2015. The MDET refund was not material to any prior period or the current period; accordingly, prior periods have not been restated.

**(l) Warranty Costs**

The Company provides for the estimated cost of standard product warranty against defects in material and workmanship based on historical warranty trends, including the cost of product returns during the warranty period. Warranty provisions and claims for the years ended December 31, 2017, 2016 and 2015, were as follows (in thousands):

	2017	2016	2015
Beginning accrual balance	\$ 11	\$ 19	\$ 14
Warranty provision	49	47	54
Usage	(50)	(55)	(49)
Ending accrual balance	\$ 10	\$ 11	\$ 19

The warranty accrual above includes long-term warranty obligations of \$0, \$0 and \$2,000 for the years ended December 31, 2017, 2016 and 2015 respectively.

**(m) Engineering and Product Development Costs**

Engineering and product development costs relate to research and development efforts including Company sponsored clinical trials which are expensed as incurred.

**(n) Advertising Costs**

The Company expenses advertising costs as incurred. Advertising expense for the years ended December 31, 2017, 2016 and 2015 was approximately \$990,000, \$955,000 and \$950,000 respectively.

**Table of Contents****(o) Net Loss per Common Share**

The Company follows FASB ASC 260-10, Earnings per Share, which requires the presentation of both basic and diluted earnings per share on the face of the statements of operations. The Company's basic net loss per share is computed by dividing net loss by the weighted average number of shares of common stock outstanding for the period and, if there are dilutive securities, diluted income per share is computed by including common stock equivalents which includes shares issuable upon the exercise of stock options, net of shares assumed to have been purchased with the proceeds, using the treasury stock method.

A summary of the Company's calculation of net loss per share is as follows (in thousands, except per share amounts):

	<b>2017</b>	<b>2016</b>	<b>2015</b>
Net loss available to common shareholders	\$ (14,256)	\$ (10,099)	\$ (32,447)
Basic shares used in the calculation of earnings per share	16,343	15,932	15,686
Effect of dilutive securities:			
Stock options			
Restricted stock			
Diluted shares used in the calculation of earnings per share	16,343	15,932	15,686
Net loss per share :			
Basic	\$ (0.87)	\$ (0.63)	\$ (2.07)
Diluted	\$ (0.87)	\$ (0.63)	\$ (2.07)

The following table summarizes the number of shares of common stock for securities, warrants and restricted stock that were not included in the calculation of diluted net loss per share because such shares are antidilutive:

	<b>2017</b>	<b>2016</b>	<b>2015</b>
Common stock options	1,465,115	1,425,348	1,571,998
Restricted Stock	415,147	511,398	516,396
	<b>1,880,262</b>	<b>1,936,746</b>	<b>2,088,394</b>

Restricted common stock can be issued to directors, executives or employees of the Company and are subject to time-based vesting. These potential shares were excluded from the computation of basic loss per share as these shares are not considered outstanding until vested.

**(p) Income Taxes**

The Company follows the liability method under ASC Topic 740, Income Taxes, (ASC 740). The primary objectives of accounting for taxes under ASC 740 are to (a) recognize the amount of tax payable for the current year and (b) recognize the amount of



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deferred tax liability or asset for the future tax consequences of events that have been reflected in the Company's financial statements or tax returns. The Company has provided a full valuation allowance against its deferred tax assets at December 31, 2017 and 2016, as it is more likely than not that the deferred tax asset will not be realized. Any subsequent changes in the valuation allowance will be recorded through operations in the provision (benefit) for income taxes.

ASC 740-10 clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements and prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. ASC 740-10 also provides guidance on de-recognition, classification, interest and penalties, disclosure and transition.

**(q) Stock-Based Compensation**

The Company maintains stock-based incentive plans, under which it provides stock incentives to employees, directors and contractors. The Company may grant to employees, directors and contractors, options to purchase common stock at an exercise price equal to the market value of the stock at the date of grant. The Company may grant restricted stock to employees and directors. The underlying shares of the restricted stock grant are not issued until the shares vest, and compensation expense is based on the stock price of the shares at the time of grant. The Company follows FASB ASC Topic 718, Compensation—Stock Compensation (ASC 718), for all stock-based compensation. Under this application, the Company is required to record compensation expense over the vesting period for all awards granted.

The Company uses the Black-Scholes option pricing model to value stock options which requires extensive use of accounting judgment and financial estimates, including estimates of the expected term participants will retain their vested stock options before exercising them, the estimated volatility of its common stock price over the expected term, the risk free rate, expected dividend yield, and the number of options that will be forfeited prior to the completion of their vesting requirements.

The fair value of restricted stock is determined based on the stock price of the underlying option on the date of the grant. The Company granted performance based restricted stock during 2016 based on achievement of certain revenue targets. Compensation cost for performance based restricted stock requires significant judgment regarding probability of the performance objectives and compensation cost is re-measured at every reporting period. As a result compensation cost could vary significantly during the performance measurement period.

Application of alternative assumptions could produce significantly different estimates of the fair value of stock-based compensation and consequently, the related amounts recognized in the Consolidated Statements of Operations.



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**(r) Fair Value Measurements**

The Company follows the provisions of FASB ASC Topic 820, Fair Value Measurement and Disclosures (ASC 820). This topic defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles and enhances disclosures about fair value measurements. Fair value is defined under ASC 820 as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value under ASC 820 must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

Level 1 Quoted prices in active markets for identical assets or liabilities.

Level 2 Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The Company's assets that are measured at fair value on a recurring basis relate to the Company's money market accounts.

The money market funds are included in cash and cash equivalents in the accompanying balance sheet, and are considered a level 1 investment as they are valued at quoted market prices in active markets.

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The following table sets forth Company's assets which are measured at fair value on a recurring basis by level within the fair value hierarchy.

**Fair value measurements using: (000 s) as of December 31, 2017**

	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Money market accounts	\$ 8,853	\$	\$	\$ 8,853
<b>Total Assets</b>	<b>\$ 8,853</b>	<b>\$</b>	<b>\$</b>	<b>\$ 8,853</b>

**Fair value measurements using: (000 s) as of December 31, 2016**

	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Money market accounts	\$ 6,622	\$	\$	\$ 6,622
<b>Total Assets</b>	<b>\$ 6,622</b>	<b>\$</b>	<b>\$</b>	<b>\$ 6,622</b>

*Items Measured at Fair Value on a Nonrecurring Basis*

Certain assets, including long-lived assets and goodwill, are measured at fair value on a nonrecurring basis. These assets are recognized at fair value when they are deemed to be impaired. In 2015 the Company recorded a \$27.4 million impairment consisting of \$14.0 million related to goodwill and \$13.4 million related to long-lived assets as discussed in Note (h) and Note (i) and re-measured long-lived assets and goodwill of the Therapy reporting unit at fair value as of the impairment date. In 2017 the Company recorded a \$6.7 million impairment consisting of \$5.7 million related to goodwill and \$1.0 million related to long-lived and other assets. The fair values of long-lived assets and goodwill were measured using Level 3 inputs.

**(s) Recently Issued and Recently Adopted Accounting Standards**

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), or ASU 2014-09, which superseded nearly all existing revenue recognition guidance under U.S. GAAP. Since then, the FASB has also issued ASU 2016-08, Revenue from Contracts with Customers (Topic 606), Principals versus Agent Considerations and ASU 2016-10, Revenue from Contracts with Customers (Topic 606), Identifying Performance Obligations and Licensing, which further elaborate on the original ASU No. 2014-09. The core principle of these updates is to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration to which the entity expects to be entitled for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgments and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. In July 2015, the FASB approved a one-year deferral of the effective date to January 1, 2018, with early adoption to be permitted as of the original effective date of January 1, 2017. Once this standard becomes effective, companies may use either of the following transition methods: (i) a full retrospective approach reflecting the application of the standard in each reporting period with the option to elect certain practical expedients, or (ii) a retrospective approach with the cumulative effect of initially adopting ASU 2014-09 recognized at the date of adoption (which includes additional footnote disclosures).



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The Company has performed an assessment of its revenue streams and customer classes. During the fourth quarter of 2017, the Company completed its implementation plan and finalized contract reviews and detailed policy drafting. The Company will adopt the guidance effective January 1, 2018 using the modified retrospective approach, by recognizing the cumulative effect of initially applying the new standard as an increase to the opening balance of retained earnings. We expect this adjustment to be less than \$0.1 million and do not expect a material impact on our revenue recognition practices on an ongoing basis. The Company will adopt certain practical expedients and make certain policy elections related to the accounting for significant finance components, sales taxes, shipping and handling, costs to obtain a contract, and immaterial promised goods or services, which will mitigate certain impacts of adopting Topic 606.

The immaterial impact of adopting Topic 606 primarily relates to (a) the deferral of commissions on our long-term service arrangements and warranty periods greater than one year, which previously were expensed as incurred but under the amendments to ASC 340-40 will generally be capitalized and amortized over the period of contract performance or a longer period if renewals are expected and the renewal commission is not commensurate with the initial commission, (b) a small number of open contracts which include extended payment terms where the pattern and timing of revenue recognition will change, and (c) policy changes related to the determination of stand-alone selling prices of performance obligations and resulting allocation of the transaction price among performance obligations with differing patterns of transfer of control to the customer in contracts with multiple deliverables. Additionally, sales of certain CAD products contain lease components in which the Company leases equipment and provides professional services to hospitals and imaging centers. As lease contracts are not within the scope of Topic 606, the Company will continue to account for the lease components of these arrangements in accordance with ASC 840 *Leases* and the remaining consideration will be allocated to the other performance obligations identified in accordance with Topic 606. The consideration allocated to the lease component will be recognized as lease revenue on a straight-line basis over the specified term of the agreement. Revenue for the non-lease components, such as service contracts, will also be recognized over time.

The impact to our results is not material because the analysis of our contracts under the new revenue recognition standard supports the recognition of revenue at a point in time for product sales and over time for service contracts (as well as for the lease components of certain CAD products), which is consistent with our current revenue recognition model. A significant portion of our revenue is generated from sales of cancer detection products and cancer therapy systems, and revenue is recognized when delivery has occurred as our performance obligation would be complete. The revenue components that are not primarily associated with the sale of these products, such as physics and management services, development fees, and supplies, are also not expected to be materially impacted by the adoption of the new standard.

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For performance obligations where the transfer of control occurs over-time, a time-based measure of progress (e.g., straight-line) continues to best depict the transfer of control of services to the customer for fixed fee service contracts and source agreements that represent stand-ready obligations to make goods or services available for the customer to use as and when the customer decides. For professional service contracts entered into with customers on a time and materials basis, an input-based measure of progress based on the number of days incurred or hours expended continues to best depict our progress toward complete satisfaction of the performance obligation. In addition, the number of our performance obligations under the new standard is not materially different from our contract deliverables under the existing standard. Lastly, the accounting for the estimate of variable consideration is not materially different compared to our current practice.

We also do not expect the standard to have a material impact on our consolidated balance sheet. The immaterial impact primarily relates to capitalization of commissions on our long-term service arrangements and warranty periods greater than one year and reclassifications among financial statement accounts to align with the new standard. Most notably, capitalized commissions will be classified as deferred contract costs and advance payments and deferred revenue will be combined and reclassified as contract liabilities. Our contract balances will be reported in a net contract asset or liability position on a contract-by-contract basis at the end of each reporting period.

Adoption of the standard would result in an increase in other current and long-term assets of approximately \$0.1 million as of December 31, 2017, driven by capitalization of commissions on our long-term service arrangements and warranty periods greater than one year, as well as the reclassification of approximately \$0.4 million in deferred revenue as of December 31, 2017 related to the lease components of certain CAD products which are outside the scope of Topic 606 to accrued expenses.

There are also certain considerations related to internal control over financial reporting that are associated with implementing Topic 606. The Company is currently evaluating its internal control framework over revenue recognition and making adjustments to the framework to enable the preparation of financial information and to obtain and disclose the information required under Topic 606. This evaluation is not expected to result in any material changes to the Company's existing internal control framework over revenue recognition.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. The standard establishes a right-of-use ( ROU ) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The new standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical

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expedients available. We are currently evaluating the impact of our pending adoption of the new standard on our consolidated financial statements, however the adoption of the standard is expected to increase both assets and liabilities for leases that would previously have been off-balance sheet operating leases.

On January 1, 2017, we adopted the Financial Accounting Standards Board ( FASB ) Accounting Standards Update ( ASU ) No. 2016-09, Compensation Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting ( ASU 2016-09 ), which simplifies several aspects of the accounting for employee share-based payment transactions, including income taxes consequences, classification of awards as either equity or liabilities, and classification in the statement of cash flows. Under ASU 2016-09, excess tax benefits and tax deficiencies are recognized as income tax expense or benefit in the income statement, and excess tax benefits are recognized regardless of whether the benefit reduces taxes payable in the current period. The tax effects of exercised or vested awards are treated as discrete items in the reporting period in which they occur. As a result of the adoption, the net operating loss deferred tax assets increased by \$1.9 million and are offset by a corresponding increase in the valuation allowance. The Company has elected to continue to estimate and apply a forfeiture rate based on awards expected to vest.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230) , a consensus of the FASB s Emerging Issues Task Force. This update is intended to reduce diversity in practice in how certain transactions are classified in the statement of cash flows. The update requires cash payments for debt prepayment or debt extinguishment costs to be classified as cash outflows for financing activities. It also requires cash payments made soon after an acquisition s consummation date (approximately three months or less) to be classified as cash outflows for investing activities. Payments made thereafter should be classified as cash outflows for financing activities up to the amount of the original contingent consideration liability. Payments made in excess of the amount of the original contingent consideration liability should be classified as cash outflows for operating activities. The amendment is effective for annual periods beginning after December 15, 2017, and interim periods thereafter. Early adoption is permitted. The Company does not expect the adoption of this amendment will have a material impact on our consolidated financial statements.

In November 2016, the FASB issued Accounting Standards Update No. 2016-18, Restricted Cash , which requires entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. As a result, entities will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. The amendments in this update should be applied using a retrospective transition method to each period presented. This update is effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years with early adoption permitted, including adoption in an interim period. The adoption of this standard will change the presentation of our statement of cash flows to include our restricted cash balance with the non-restricted cash balances. We do not anticipate that the adoption of ASU 2016-18 will have a material impact on our consolidated financial statements.

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In February 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*, to simplify how all entities assess goodwill for impairment by eliminating Step 2 from the goodwill impairment test. As amended, the goodwill impairment test will consist of one step comparing the fair value of a reporting unit with its carrying amount. An entity should recognize a goodwill impairment charge for the amount by which the reporting unit's carrying amount exceeds its fair value. This update is effective for annual periods beginning after December 15, 2019, and interim periods within those periods. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company elected to early adopt this standard in connection with the goodwill impairment analysis completed during the third quarter of 2017.

**(2) Acquisitions***Acquisition of VuComp Cancer detection portfolio*

On January 13, 2016, the Company completed the acquisition of the VuCOMP cancer detection portfolio, including the M-Vu computer aided detection (CAD) technology platform. The acquisition includes an extensive library of related clinical data, VuCOMP's key personnel and the customer base that existed at closing of the transaction. The acquisition of the key personnel and clinical data is expected to contribute to the ongoing development of the Company's CAD technology which will be used for future cancer detection research and patents. As the Company considered this to be a business combination, the assets were valued in accordance with ASC Topic 805, *Business Combinations* (ASC 805).

As noted below, the Company acquired VuComp's M-Vu Breast Density product in April 2015. In connection with the diligence of the January 2016 acquisition, VuComp disclosed that it had previously entered into a license agreement pursuant to which it issued an irrevocable, royalty-free worldwide license to a third party. On December 24, 2015, iCAD notified VuComp of a claim under the April 2015 asset purchase agreement based on the disclosure of the third party license agreement, which iCAD believed constituted a breach of VuComp's representation as to its exclusive ownership of its intellectual property at the time of the April 2015 transaction. In connection with the purchase of the VuComp cancer detection portfolio, the Company provided a release of the aforementioned claim. The Company determined that this claim was a component of the purchase price. The Company determined the value of litigation settlement as the excess of the fair value of the business acquired over the cash consideration paid. As a result the Company recorded a gain on litigation settlement of \$249,000 in the first quarter of 2016, which is a component of the purchase price as noted below:

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	Amount (000 s)
Cash	\$ 6
Acquisition litigation settlement	249
<b>Purchase price</b>	<b>\$ 255</b>

The amount allocated to the acquired assets was estimated primarily through the use of discounted cash flow valuation techniques. Appraisal assumptions utilized under this method include a forecast of estimated future net cash flows, as well as discounting the future net cash flows to their present value. The following is a summary of the allocation of the total purchase price based on the estimated fair values as of the date of the acquisition and the amortizable life:

	Amount (000 s)	Estimated amortizable life
Current assets	\$ 84	
Property and equipment	65	3 Years
Identifiable intangible assets	699	1-10 Years
Goodwill	293	
Current liabilities	(280)	
Long-term liabilities	(606)	
<b>Purchase price</b>	<b>\$ 255</b>	

The assets obtained in the acquisition of VuComp's M-Vu Cancer detection portfolio (including the M-Vu breast density product) and the anticipated future revenues are included in the Detection segment and, accordingly, the goodwill resulting from the purchase price allocation is included in goodwill of the Detection segment. The Company has tax basis in the goodwill that resulted from the VuComp acquisition of \$293,000 which is amortized over a 15 year period.

*Acquisition of VuComp M-Vu Breast Density Assets:*

On April 29, 2015, pursuant to the terms of the Asset Purchase Agreement with VuComp, the Company purchased VuComp's M-Vu Breast Density asset for \$1,700,000 in cash. The Company considered the acquisition to be an acquisition of a business as the Company acquired the Breast Density product and certain customer liabilities which



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were considered to be an integrated set of activities at acquisition. Under the terms of the agreement, the Company acquired the breast density intellectual property product, which has been integrated with the Company's PowerLook Advanced Mammography Platform (AMP). PowerLook AMP is a modular solution designed to provide advanced tools for breast disease detection and analysis, including CAD for tomosynthesis. As the Company considered this to be a business combination, the assets were valued in accordance with ASC Topic 805, *Business Combinations* (ASC 805).

The amount allocated to the acquired assets was estimated primarily through the use of discounted cash flow valuation techniques. Appraisal assumptions utilized under this method include a forecast of estimated future net cash flows, as well as discounting the future net cash flows to their present value. The acquired technology is being amortized over the estimated useful life of approximately eight years and nine months from the closing of the transaction. The following is a summary of the allocation of the total purchase price based on the estimated fair values as of the date of the acquisition and the amortizable life (in thousands):

	Amount	Estimated Amortizable Life
Developed Technology	\$ 900	8 years 9 months
Goodwill	800	
Purchase price	\$ 1,700	

The assets obtained in the acquisition of VuComp's M-Vu Breast Density product and the anticipated future revenues are included in the Detection segment and, accordingly, the goodwill resulting from the purchase price allocation is included in goodwill of the Detection segment. The goodwill is deductible for income tax purposes.

**(3) Sale of MRI Assets**

In December 2016, the Company entered into an Asset Purchase Agreement with Invivo Corporation. In accordance with the agreement, the Company sold to Invivo all right, title and interest to certain intellectual property relating to the Company's VersaVue Software and DynaCAD product and related assets for \$3.2 million. The Company closed the transaction on January 30, 2017 less a holdback reserve of \$350,000 for a net of approximately \$2.9 million. The holdback reserve of \$350,000 has been recorded as an asset in other assets and will be paid to the Company within eighteen months from the closing date, less any amounts, if any, due and payable or reserved under the indemnification provisions in the Asset Purchase agreement.

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The Company determined the sale constituted the sale of a business in accordance with ASC 805. The Company performed an evaluation to determine if the sale constituted discontinued operations and concluded that the sale did not represent a major strategic shift, and accordingly it was not considered to be discontinued operations. In connection with the transaction, the Company allocated \$394,000 of goodwill which was a component of the gain on the sale. The allocation was based on the fair value of the assets sold relative to the fair value of the Detection reporting unit as of the date of the agreement, based on the guidance from ASC 350-20-40-3.

The value of the net assets sold is as follows (in thousands):

<b>Assets</b>	
Accounts Receivable	\$ 116
Intangible assets	810
Allocated Goodwill	394
<b>Total Assets</b>	<b>\$ 1,320</b>
<b>Liabilities</b>	
Deferred Revenue	\$ 746
<b>Total Liabilities</b>	<b>\$ 746</b>
<b>Net Assets Sold</b>	<b>\$ 574</b>

In connection with the sale the Company agreed to provide certain transition services to Invivo. The fair value of the transition services were determined based on the cost to provide plus a reasonable profit margin and have been recognized as revenue over the term of approximately ninety days from the closing date. The Company recorded a gain of \$2.5 million as of January 30, 2017. The components of the gain on the sale are as follows (in thousands):

<b>Gain on Sale</b>	
Cash received	\$ 2,850
Holdback reserve	350
Fair value of transition services	(118)
Net Assets sold	(574)
<b>Total</b>	<b>\$ 2,508</b>

**(4) Financing Arrangements**

On August 7, 2017, the Company entered into a Loan and Security Agreement, which was modified by the First Loan Modification Agreement dated March 22, 2018 (the **Loan Agreement**) with Silicon Valley Bank (the **Bank**) that provides an initial term loan facility (amounts borrowed thereunder, the **Term Loan**) of \$6.0 million and a \$4.0 million revolving line of credit (amounts borrowed thereunder, the **Revolving Loans**). The Company also has the option to borrow an additional \$3.0 million Term Loan under the Loan Agreement, subject to meeting a Detection revenue

minimum of at least \$21.5 million for a trailing twelve month period ending prior to July 30, 2019.

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The Company will begin repayment of the first tranche of the Term Loan on September 1, 2018 in 36 equal monthly installments of principal. If the adjusted EBITDA minimum of \$(750,000) for a trailing three month period ending between March 22, 2018 and July 31, 2018 (the Adjusted EBITDA Event ) is met, the Company will begin repayment of the Term Loans beginning on March 1, 2019 in which case the Company would make 30 equal monthly installments of principal. The Company will begin repayment of the second tranche of the Term Loan on October 1, 2019 and make 30 equal monthly installments of principal.

The outstanding Revolving Loans will accrue interest at a floating per annum rate equal to 1.50% above the prime rate for periods when the ratio of the Company's unrestricted cash to the Company's outstanding liabilities to the Bank plus the amount of the Company's total liabilities that mature within one year is at least 1.25 to 1.0. At all other times, the interest rate shall be 0.50% above the prime rate. The outstanding Term Loans will accrue interest at a floating per annum rate equal to the prime rate.

The maturity date of the Revolving Loans and the Term Loans is March 1, 2022. However, the maturity date will become April 30, 2019, April 30, 2020 or April 30, 2021 if, on or before March 15, 2019, or 2020 or 2021, as applicable, the Company does not agree in writing to the Detection revenue and adjusted EBITDA covenant levels proposed by the Bank with respect to the upcoming applicable calendar year.

If the Revolving Loans are paid in full and the Loan Agreement is terminated prior to the maturity date, then the Company will pay to the Bank a termination fee in an amount equal to two percent (2.0%) of the maximum revolving line of credit. If the Company prepays the Term Loans prior to the maturity date, then the Company will pay to the Bank an amount equal to 1.0%-3.0% of the Term Loans, depending on when such Term Loans are repaid. The Loan Agreement requires the Company to maintain net revenues during the trailing six month period ending on the last day of each calendar quarter as follows: June 30, 2017 \$10.25 million; September 30, 2017 \$11.5 million; and December 31, 2017 \$14 million. The Loan Agreement requires the Company to maintain minimum detection revenues during the trailing six month period ending on the last day of each calendar quarter as follows: March 31, 2018 \$8.622 million; June 30, 2018 \$8.373 million; September 30, 2018 \$8.648 million and December 31, 2018 \$9.517 million. The Loan Agreement requires the Company to maintain adjusted EBITDA during the trailing six month period ending on the last day of each calendar quarter as follows: March 31, 2018 \$(4.5 million); June 30, 2018 \$(3.75 million); September 30, 2018 \$(1 million) and December 31, 2018 \$1.00. As of December 31, 2017 the Company is in compliance with the revenue covenants in the Loan Agreement.

Obligations to the Bank under the Loan Agreement or otherwise are secured by a first priority security interest in substantially all of the assets, including intellectual property, accounts, receivables, equipment, general intangibles, inventory and investment property, and all of the proceeds and products of the foregoing, of each of the Company and Xoft, Inc. and Xoft Solutions LLC, wholly-owned subsidiaries of the Company.

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In connection with the Loan Agreement, the Company incurred approximately \$74,000 of closing costs. In accordance with ASU 2015-03 the closing costs have been deducted from the carrying value of the debt and will be amortized over the expected term of 36 months.

The current repayment schedule for the term loan is based on repayment beginning on September 1, 2018. If the Adjusted EBITDA Event occurs, the Company could elect to defer repayment until October 2019. The carrying value of the Term Loan (net of debt issuance costs) as of December 31, 2017 is as follows (in thousands):

	December 31, 2017
Principal Amount of Term Loan	\$ 6,000
Unamortized closing costs	(64)
<b>Carrying amount of Term Loan</b>	<b>5,936</b>
Less current portion of Term Loan	(817)
<b>Notes payable long-term portion</b>	<b>\$ 5,119</b>

Principal and interest payments are as follows (in thousands):

<b>Fiscal Year</b>	<b>Amount Due</b>
2018	\$ 1,086
2019	\$ 2,183
2020	\$ 2,097
2021	\$ 1,183
<b>Total</b>	<b>\$ 6,549</b>

The following amounts are included in interest expense in our consolidated statement of operations for the years ended December 31, 2017, 2016 and 2015 (in thousands):

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	December 31, 2017	December 31, 2016	December 31, 2015
Cash interest expense	\$ 98	\$	\$ 163
Non-cash amortization of debt discount	\$	\$	\$ 254
Amortization of debt costs	9		13
Amortization of settlement obligations	26	82	146
Interest expense capital lease	1	70	220
Capital lease fair value amortization	(10)	(89)	(146)
<b>Total interest expense</b>	<b>\$ 124</b>	<b>\$ 63</b>	<b>\$ 650</b>

The amortization of debt costs represents the costs incurred with the financing, which is primarily the closing costs which have been capitalized and will be expensed using the effective interest method. The amortization of the settlement obligations represents the interest associated with the settlement agreement for Zeiss. See Note 9(f) to our Consolidated Financial Statements.

**(5) Accrued Expenses**

Accrued expenses consist of the following at December 31 (in thousands):

	2017	2016
Accrued salary and related expenses	\$ 1,388	\$ 1,878
Accrued accounts payable	2,523	2,269
Accrued professional fees	418	316
Accrued short term settlement costs		474
Other accrued expenses	70	48
Deferred rent	76	3
	<b>\$ 4,475</b>	<b>\$ 4,988</b>

**(6) Stockholders Equity****(a) Stock Options**

The Company has six stock option or stock incentive plans, which are described as follows:

The 2002 Stock Option Plan (the 2002 Plan ).

The 2002 Plan was adopted by the Company's stockholders in June 2002. The 2002 Plan provides for the granting of non-qualifying and incentive stock options to employees and other persons to purchase up to an aggregate of 100,000 shares of the Company's common stock. The purchase price of each share for which an option is granted is determined by the Board of Directors or the Committee appointed by the Board of Directors provided that the purchase price of

each share for which an incentive option is granted cannot be less than the fair market value of the Company's common stock on the date of grant, except for options granted to 10% stockholders for whom the exercise price cannot be less than 110% of the market price. Incentive options granted to date under the

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2002 Plan vest 100% over periods extending from six months to five years from the date of grant and expire no later than ten years after the date of grant, except for 10% holders whose options expire not later than five years after the date of grant. Non-qualifying options granted under the 2002 Plan are generally exercisable over a ten year period, vesting 1/3 each on the first, second, and third anniversaries of the date of grant. At December 31, 2017, there are no further options available for grant under the 2002 Plan.

**The 2004 Stock Incentive Plan (the 2004 Plan )**

The 2004 Plan was adopted by the Company's stockholders in June 2004. The 2004 Plan provides for the grant of any or all of the following types of awards: (a) stock options, (b) restricted stock, (c) deferred stock and (d) other stock-based awards. The 2004 Plan provides for the granting of non-qualifying and incentive stock options to employees and other persons to purchase up to an aggregate of 200,000 shares of the Company's common stock. The purchase price of each share for which an option is granted is determined by the Board of Directors or the Committee appointed by the Board of Directors provided that the purchase price of each share for which an option is granted cannot be less than the fair market value of the Company's common stock on the date of grant, except for incentive options granted to 10% stockholders for whom the exercise price cannot be less than 110% of the market price. Incentive options granted under the 2004 Plan generally vest 100% over periods extending from the date of grant to five years from the date of grant and expire not later than ten years after the date of grant, except for 10% holders whose options expire not later than five years after the date of grant. Non-qualifying options granted under the 2004 Plan are generally exercisable over a ten year period, vesting 1/3 each on the first, second, and third anniversaries of the date of grant. At December 31, 2017, there are no further shares available for grant under the 2004 Plan.

**The 2005 Stock Incentive Plan (the 2005 Plan )**

The 2005 Plan was adopted by the Company's stockholders in June 2005. The 2005 Plan provides for the grant of any or all of the following types of awards: (a) stock options, (b) restricted stock, (c) deferred stock and (d) other stock-based awards. The 2005 Plan provides for the granting of non-qualifying and incentive stock options to employees and other persons to purchase up to an aggregate of 120,000 shares of the Company's common stock. The purchase price of each share for which an option is granted is determined by the Board of Directors or the Committee appointed by the Board of Directors provided that the purchase price of each share for which an option is granted cannot be less than the fair market value of the Company's common stock on the date of grant, except for incentive options granted to 10% stockholders for whom the exercise price cannot be less than 110% of the market price. Incentive options granted under the 2005 Plan generally vest 100% over periods extending from the date of grant to three years from the date of grant and expire not later than five years after the date of grant, except for 10% stockholders whose options expire not later than five years after the date of grant. Non-qualifying options granted under the 2005 Plan are generally exercisable over a ten year period, vesting 1/3 each on the first, second, and third anniversaries of the date of grant. At December 31, 2017, there are no further options available for grant under the 2005 Plan.



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**The 2007 Stock Incentive Plan (the 2007 Plan )**

The 2007 Plan was adopted by the Company's stockholders in July 2007 and amended in June 2009. The 2007 Plan provides for the grant of any or all of the following types of awards: (a) stock options, (b) restricted stock, (c) deferred stock and (d) other stock-based awards. Awards may be granted singly, in combination, or in tandem. Subject to anti-dilution adjustments as provided in the 2007 Plan, (i) the 2007 Plan provides for a total of 1,050,000 shares of the Company's common stock to be available for distribution pursuant to the 2007 Plan, and (ii) the maximum number of shares of the Company's common stock with respect to which stock options, restricted stock, deferred stock, or other stock-based awards may be granted to any participant under the 2007 Plan during any calendar year or part of a year may not exceed 160,000 shares.

The 2007 Plan provides that it will be administered by the Company's Board of Directors ( Board ) or a committee of two or more members of the Board appointed by the Board. The administrator will generally have the authority to administer the 2007 Plan, determine participants who will be granted awards under the 2007 Plan, the size and types of awards, the terms and conditions of awards and the form and content of the award agreements representing awards. Awards under the 2007 Plan may be granted to employees, directors, consultants and advisors of the Company and its subsidiaries. However, only employees of the Company and its subsidiaries will be eligible to receive options that are designated as incentive stock options.

With respect to options granted under the 2007 Plan, the exercise price must be at least 100% (110% in the case of an incentive stock option granted to a 10% stockholder) of the fair market value of the common stock subject to the award, determined as of the date of grant. Restricted stock awards are shares of common stock that are awarded subject to the satisfaction of the terms and conditions established by the administrator. In general, awards that do not require exercise may be made in exchange for such lawful consideration, including services, as determined by the administrator. At December 31, 2017, there were no shares available for issuance under the 2007 Plan.

**The 2012 Stock Incentive Plan (the 2012 Plan )**

The 2012 Plan was adopted by the Company's stockholders in May 2012 and amended in May 2014. The 2012 Plan, as amended, provides for the grant of any or all of the following types of awards: (a) stock options, (b) restricted stock, (c) deferred stock and (d) other stock-based awards. Awards may be granted singly, in combination, or in tandem. Subject to anti-dilution adjustments as provided in the amended 2012 Plan, (i) the amended 2012 Plan provides for a total of 1,600,000 shares of the Company's common stock to be available for distribution pursuant to the amended 2012 Plan, and (ii) the maximum number of shares of the Company's common stock with respect to which stock options, restricted stock, deferred stock, or other stock-based awards may be granted to any participant under the amended 2012 Plan during any calendar year or part of a year may not exceed 250,000 shares.

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The 2012 Plan provides that it will be administered by the Company's Board of Directors ( Board ) or a committee of two or more members of the Board appointed by the Board. The administrator will generally have the authority to administer the 2012 Plan, determine participants who will be granted awards under the 2012 Plan, the size and types of awards, the terms and conditions of awards and the form and content of the award agreements representing awards. Awards under the 2012 Plan may be granted to employees, directors, consultants and advisors of the Company and its subsidiaries. However, only employees of the Company and its subsidiaries will be eligible to receive options that are designated as incentive stock options.

With respect to options granted under the 2012 Plan, the exercise price must be at least 100% (110% in the case of an incentive stock option granted to a 10% stockholder) of the fair market value of the common stock subject to the award, determined as of the date of grant. Restricted stock awards are shares of common stock that are awarded subject to the satisfaction of the terms and conditions established by the administrator. In general, awards that do not require exercise may be made in exchange for such lawful consideration, including services, as determined by the administrator. At December 31, 2017, there were 222,377 shares available for issuance under the 2012 Plan.

**The 2016 Stock Incentive Plan (the 2016 Plan )**.

The 2016 Plan was adopted by the Company's stockholders in May 2016. The 2016 Plan provides for the grant of any or all of the following types of awards: (a) non-qualified stock options and incentive stock options, (b) stock appreciation rights, (c) restricted stock awards and restricted stock units, (d) unrestricted stock awards, (e) cash-based awards, (f) performance share awards and (g) dividend equivalent rights.

Subject to anti-dilution adjustments as provided in the 2016 Plan, (i) the 2016 Plan provides for a total of 1,700,000 shares of the Company's common stock to be available for distribution pursuant to the 2016 Plan, and (ii) the maximum number of shares of the Company's common stock with respect to which stock options or stock appreciation rights may be granted to any one individual under the 2016 Plan during any one calendar year period may not exceed 1,000,000 shares. No more than 1,000,000 shares of common stock may be issued in the form of incentive stock options and no more than 50,000 shares of stock may be issued pursuant to awards to non-employee directors.

The 2016 Plan provides that it will be administered by the Company's Compensation Committee. The Compensation Committee has the authority to administer the 2016 Plan, determine participants, from among the individuals eligible for awards, who will be granted awards under the 2016 Plan, make any combination of awards to participants and determine the specific terms and conditions of awards subject to the 2016 Plan. Awards under the 2016 Plan may be granted to full or part-time officers, employees, non-employee directors and other key persons (including consultants) of the Company and its subsidiaries.

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With respect to stock options granted under the 2016 Plan, the exercise price will be determined by the Compensation Committee but may not be less than 100% of the fair market value of the common stock subject to the award, determined as of the date of grant. Regarding incentive stock options, including that the aggregate grant date fair market value of the shares of stock with respect to which incentive stock options granted under the 2016 Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed \$100,000. To the extent that any incentive stock option exceeds this limit, it shall constitute a non-qualified stock option. Restricted stock awards are shares of common stock that are awarded subject to the satisfaction of the terms and conditions established by the Compensation Committee. In general, awards that do not require exercise may be made in exchange for such lawful consideration, including services, as determined by the Compensation Committee. At December 31, 2017, there were 815,500 shares available for issuance under the 2016 Plan.

A summary of stock option activity for all stock option plans is as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding, January 1, 2015	1,417,887	\$ 4.34	
Granted	363,239	\$ 6.58	
Exercised	(79,472)	\$ 4.60	
Forfeited	(129,656)	\$ 7.38	
Outstanding, December 31, 2015	1,571,998	\$ 5.05	
Granted	127,500	\$ 5.46	
Exercised	(75,583)	\$ 2.62	
Forfeited	(198,567)	\$ 6.19	
Outstanding, December 31, 2016	1,425,348	\$ 5.05	
Granted	200,813	\$ 4.14	
Exercised	(36,530)	\$ 2.18	
Forfeited	(124,516)	\$ 4.71	
Outstanding, December 31, 2017	1,465,115	\$ 5.03	5.3 years
Exercisable at December 31, 2015	1,087,725	\$ 4.33	
Exercisable at December 31, 2016	1,054,211	\$ 4.71	
Exercisable at December 31, 2017	1,301,651	\$ 4.95	5.0 years

Available for future grants at December 31, 2017 from all plans: 1,037,877

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The Company's stock-based compensation expense, including options and restricted stock by category is as follows (amounts in thousands):

	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Cost of revenue	\$ 5	\$ 6	\$ 14
Engineering and product development	715	329	223
Marketing and sales	1,003	677	659
General and administrative expense	1,933	1,295	1,239
	<b>\$ 3,656</b>	<b>\$ 2,307</b>	<b>\$ 2,135</b>

As of December 31, 2017, there was \$2.0 million of total unrecognized compensation costs related to unvested options and restricted stock. That cost is expected to be recognized over a weighted average period of 1.1 years.

Options granted under the stock incentive plans were valued utilizing the Black-Scholes model using the following assumptions and had the following fair values:

	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Average risk-free interest rate	1.61%	0.98%	0.97%
Expected dividend yield	None	None	None
Expected life	3.5 years	3.5 years	3.5 years
Expected volatility	64.2% to 72.0%	68.5% to 75.3%	60.5% to 75.2%
Weighted average exercise price	\$ 4.14	\$ 5.46	\$ 6.58
Weighted average fair value	\$ 1.99	\$ 2.66	\$ 3.17

The Company's 2017, 2016 and 2015, average expected volatility and average expected life is based on the average of the Company's historical information. The risk-free rate is based on the rate of U.S. Treasury zero-coupon issues with a remaining term equal to the expected life of option grants. The Company has paid no dividends on its common stock in the past and does not anticipate paying any dividends in the future.

Intrinsic values of options (in thousands) and the closing market price used to determine the intrinsic values are as follows:

	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Outstanding	\$ 449	\$ 409	\$ 1,910
Exercisable	442	409	1,610
Exercised	79	201	317

stock price at 12/31

\$ 3.44

\$ 3.24

\$ 5.17

**Table of Contents****(b) Restricted Stock**

The Company's restricted stock awards typically vest in either one year or three equal annual installments with the first installment vesting one year from grant date. The Company granted a total of 162,500 shares of performance based restricted stock during 2016 with performance measured on meeting a revenue target based on growth for fiscal year 2017 and vesting in three equal installments with the first installment vesting upon measurement of the goal. In addition, a maximum of 108,333 additional shares are available to be earned based on exceeding the revenue goal. The Company expects approximately 190,000 shares to be earned under the performance grant with 63,200 shares vested on the measurement date and approximately 63,200 shares vesting on the second and third anniversary of the initial vesting.

A summary of restricted stock activity for all equity incentive plans is as follows:

	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Beginning outstanding balance	511,398	516,396	309,317
Granted	394,599	345,778	352,666
Vested	(469,434)	(289,030)	(124,758)
Forfeited	(21,416)	(61,746)	(20,829)
<b>Ending outstanding balance</b>	<b>415,147</b>	<b>511,398</b>	<b>516,396</b>

Intrinsic values of restricted stock (in thousands) and the closing market price used to determine the intrinsic values are as follows:

	<b>Years Ended December 31,</b>		
	<b>2017</b>	<b>2016</b>	<b>2015</b>
Outstanding	\$ 1,428	\$ 1,657	\$ 2,670
Vested	1,615	936	645
stock price at 12/31	\$ 3.44	\$ 3.24	\$ 5.17

**Table of Contents****(7) Income Taxes**

The components of income tax expense for the years ended December 31, 2017, 2016 and 2015 are as follows (in thousands):

	2017	2016	2015
<b>Current provision (benefit):</b>			
Federal	\$	\$	\$
State	(26)	69	95
	\$ (26)	\$ 69	\$ 95
<b>Deferred provision:</b>			
Federal	\$ 7	\$ 6	\$ (65)
State	1	1	(14)
	\$ 8	\$ 7	\$ (79)
<b>Total</b>	<b>\$ (18)</b>	<b>\$ 76</b>	<b>\$ 16</b>

A summary of the differences between the Company's effective income tax rate and the Federal statutory income tax rate for the years ended December 31, 2017, 2016 and 2015 is as follows:

	2017	2016	2015
Federal statutory rate	34.0%	34.0%	34.0%
State income taxes, net of federal benefit	1.4%	2.8%	2.5%
Net state impact of deferred rate change	(0.3%)	0.2%	(0.1%)
Stock compensation expense	(1.9%)	(3.2%)	(0.7%)
Tax amortization on goodwill	(0.1%)	(0.1%)	0.2%
Goodwill impairment	(13.7%)	0.0%	(10.0%)
Other permanent differences	(0.4%)	(0.4%)	(0.1%)
Change in valuation allowance	97.4%	(37.3%)	(26.6%)
Tax credits	1.5%	3.2%	0.9%
Federal Rate Change	(133.5%)	0.0%	0.0%
Accrual to TR	(0.7%)	0.0%	0.0%
Increase Xoft NOLs under 382 Study	16.2%	0.0%	0.0%
<b>Effective income tax</b>	<b>(0.10%)</b>	<b>(0.8%)</b>	<b>0.1%</b>

Deferred tax assets and liabilities are recognized for the expected future tax consequences of net operating loss carryforwards, tax credit carryforwards and temporary differences between the financial statement carrying amounts and the income tax basis of assets and liabilities. A valuation allowance is applied against any net deferred tax asset if, based on the available evidence, it is more likely than not that the deferred tax assets will not be realized.

Deferred income taxes reflect the impact of temporary differences between the amount of assets and liabilities for financial reporting purposes and such amounts as measured by tax laws and regulations. The Company has fully reserved the net deferred tax assets, as it is more likely than not that the deferred tax assets will not be utilized. Deferred tax assets (liabilities) are composed of the following at December 31 (in thousands):



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	2017	2016
Inventory (Section 263A)	\$ 287	\$ 418
Inventory reserves	305	105
Receivable reserves	27	65
Other accruals	224	434
Deferred revenue	129	215
Accumulated depreciation/amortization	320	477
Stock options	1,901	2,558
Developed technology	2,201	3,594
Tax credits	3,130	3,090
NOL carryforward	31,113	40,865
Net deferred tax assets	39,637	51,821
Valuation allowance	(39,637)	(51,821)
Goodwill tax amortization	(14)	(7)
Deferred tax liability	\$ (14)	\$ (7)

The decrease in the net deferred tax assets and corresponding valuation allowance during the year ended December 31, 2017 related primarily to the decrease in corporate tax rate from 34% to 21% starting on January 1, 2018. The increase in net deferred tax assets and corresponding valuation allowance during the year ended December 31, 2016 is primarily attributable to additional net operating losses, additional research and development credits, and differences in amortization periods on the Company's intangible assets. The Company completed an asset acquisition in January 2016 which resulted in \$293,307 of goodwill. For book purposes, the goodwill was classified as an indefinite lived asset and tested for impairment each year. For tax, the Company is allowed amortization expense over a 15 year life. Due to the indefinite life of the asset for book purposes, the Company could not assume there would be a deferred tax asset available to offset the liability in future years. This created a tax expense equal to the tax effected amount of tax amortization, or \$7,434 in 2017 and \$6,844 in 2016.

As of December 31, 2017, the Company has net operating loss carryforwards totaling approximately \$131.2 million expiring between 2019 and 2037. A portion of the total net operating loss carryforwards amounting to approximately \$54.0 million relate to the acquisition of Xoft, Inc. As of December 31, 2017, the Company has provided a valuation allowance for its net operating loss carryforwards due to the uncertainty of the Company's ability to generate sufficient taxable income in future years to obtain the benefit from the utilization of the net operating loss carryforwards. In the event of a deemed change in control, an annual limitation imposed on the utilization of the net operating losses may result in the expiration of all or a portion of the net operating loss carryforwards. There were no net operating losses utilized for the years ended December 31, 2017 or 2016.

The Company currently has approximately \$9.9 million (including approximately \$8.5 million that relate to Xoft, Inc.) in net operating losses that are subject to limitations, of which approximately \$2.0 million (including approximately \$656,000 that relates to Xoft, Inc.) can be used annually through 2029. The Company has available tax credit

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carryforwards (adjusted to reflect provisions of the Tax Reform Act of 1986) to offset future income tax liabilities totaling approximately \$3.1 million. The tax credits related to Xoft have been fully reserved for and as a result no deferred tax asset has been recorded. The credits expire in various years through 2037.

ASC 740-10 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return and also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition.

As of December 31, 2017 and 2016, the Company had no unrecognized tax benefits and no adjustments to liabilities or operations were required under ASC 740-10. The Company's practice is to recognize interest and penalty expenses related to uncertain tax positions in income tax expense, which was zero for the years ended December 31, 2017, 2016 and 2015. The Company files United States federal and various state income tax returns. Generally, the Company's three preceding tax years remain subject to examination by federal and state taxing authorities. The Company completed an examination by the Internal Revenue Service with respect to the 2008 tax year in January 2011, which resulted in no changes to the tax return originally filed. The Company is not under examination by any other federal or state jurisdiction for any tax year.

The Company does not anticipate that it is reasonably possible that unrecognized tax benefits as of December 31, 2017 will significantly change within the next 12 months.

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act ( TCJA ) tax reform legislation. This legislation makes significant change in U.S. tax law including a reduction in the corporate tax rates, changes to net operating loss carryforwards and carrybacks, and a repeal of the corporate alternative minimum tax. The legislation reduced the U.S. corporate tax rate from the current rate of 34% down to 21% starting on January 1, 2018. As a result of the enacted law, the Company was required to revalue deferred tax assets and liabilities at the 21%. This revaluation resulted in a provision of \$19.1 million to income tax expense in continuing operations and a corresponding reduction in the valuation allowance. As a result, there was no impact to the Company's income statement as a result of reduction in tax rates. The other provisions of the TCJA did not have a material impact on our consolidated financial statements. Our preliminary estimate of the TCJA and the remeasurement of our deferred tax assets and liabilities is subject to the finalization of management's analysis related to certain matters, such as developing interpretations of the provisions of the TCJA, changes to certain estimates and the filing of our tax returns. U.S. Treasury regulations, administrative interpretations or court decisions interpreting the TCJA may require further adjustments and changes in our estimates. The final determination of the TCJA and the remeasurement of our deferred assets and liabilities will be completed as additional information becomes available, but no later than one year from the enactment of the TCJA.

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**(8) Segment Reporting, Geographical Information and Major Customers**

**(a) Segment Reporting**

In accordance with FASB Topic ASC 280, *Segments*, operating segments are defined as components of an enterprise that engage in business activities for which discrete financial information is available and regularly reviewed by the chief operating decision maker ( CODM ) in deciding how to allocate resources and assess performance.

The Company's CODM is the Chief Executive Officer ( CEO ). Each reportable segment generates revenue from the sale of medical equipment and related services and/or sale of supplies. The Company has determined there are two segments: Cancer Detection and Cancer Therapy.

The Detection segment consists of our advanced image analysis and workflow products, and the Therapy segment consists of our radiation therapy ( Axxent ) products, and related services. The primary factors used by our CODM to allocate resources are based on revenues, gross profit, operating income or loss, and earnings or loss before interest, taxes, depreciation, amortization, and other specific and non-recurring items ( Adjusted EBITDA ) of each segment. Included in segment operating income are stock compensation, amortization of technology and depreciation expense. There are no intersegment revenues.

We do not track our assets by operating segment and our CODM does not use asset information by segment to allocate resources or make operating decisions.

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Segment revenues, gross profit, segment operating income or loss, and a reconciliation of segment operating income or loss to GAAP loss before income tax is as follows (in thousands, including prior periods which have been presented for consistency):

	Year Ended December 31,		
	2017	2016	2015
<b>Segment revenues:</b>			
Detection	\$ 18,310	\$ 17,133	\$ 19,243
Therapy	9,792	9,205	22,311
Total Revenue	\$ 28,102	\$ 26,338	\$ 41,554
<b>Segment gross profit:</b>			
Detection	\$ 16,218	\$ 15,113	\$ 16,019
Therapy	1,958	3,405	13,331
Segment gross profit	\$ 18,176	\$ 18,518	\$ 29,350
<b>Segment operating income (loss):</b>			
Detection	\$ 6,401	\$ 5,694	\$ 7,233
Therapy	(15,102)	(7,752)	(28,405)
Segment operating income (loss)	\$ (8,701)	\$ (2,058)	\$ (21,172)
General, administrative, depreciation and amortization expense			
	\$ (7,975)	\$ (7,912)	\$ (8,907)
Interest expense	(124)	(63)	(650)
Gain on sale of MRI assets	2,508		
Other income	18	10	21
Loss on debt extinguishment			(1,723)
Loss before income tax	\$ (14,274)	\$ (10,023)	\$ (32,431)

Segment depreciation and amortization included in segment operating income (loss) is as follows (in thousands):

<b>Detection depreciation and amortization</b>			
Depreciation	\$ 172	\$ 223	\$ 220
Amortization	246	696	532
<b>Therapy depreciation and amortization</b>			
Depreciation	\$ 768	\$ 970	\$ 1,142
Amortization	222	252	1,213

**(b) Geographic Information**

The Company's sales are made to customers, distributors and dealers of mammography, electronic brachytherapy equipment and other medical equipment, and to foreign distributors of mammography and electronic brachytherapy equipment. Export sales to a single country did not exceed 10% of total revenue in any year. Total export sales were approximately \$3.9 million or 14% of total revenue in 2017, \$2.3 million or 9% of total revenue in 2016 and \$2.3 million or 6% of total revenue in 2015.

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As of December 31, 2017 and 2016, the Company had outstanding receivables of \$2.1 million and \$0.3 million, respectively, from distributors and customers of its products who are located outside of the U.S.

**(c) Major Customers**

The Company had one major customer, GE Healthcare, with revenues of approximately \$7.1 million in 2017, \$3.9 million in 2016, and \$4.1 million in 2015 or 25%, 15%, and 10% of total revenue, respectively. Cancer detection products are also sold through OEM partners, including GE Healthcare, Fuji Medical Systems, Siemens Medical, Vital Images and Invivo. For the year ended December 31, 2017, these five OEM partners composed approximately 55% of Detection revenues and 39% of revenue overall. OEM partners composed 47% of Detection revenues and 30% of revenue overall for the year ended December 31, 2016 and 53% of Detection revenues and 25% of revenue overall for the year ended December 31, 2015.

OEM partners represented \$3.7 million or 43% of outstanding receivables as of December 31, 2017, with GE Healthcare accounting for \$2.9 million or 34% of this amount. The two largest Cancer Therapy customers composed \$0.9 million or 11% of outstanding receivables as of December 31, 2017. These seven customers in total represented \$4.6 million or 54% of outstanding receivables as of December 31, 2017.

**(9) Commitments and Contingencies**

**(a) Lease Obligations**

As of December 31, 2017, the Company had three lease obligations related to its facilities. The Company's executive offices are leased pursuant to a five-year lease (the "Lease") that commenced on December 15, 2006, with renewals in January, 2012 and August 2016 of office space located at 98 Spit Brook Road, Suite 100 in Nashua, New Hampshire (the "Premises"). The August 2016 Lease renewal provides for an annual base rent of \$184,518 for the period from March 2017 to February 2020. Additionally, the Company is required to pay its proportionate share of the building and real estate tax expenses and obtain insurance for the Premises.

The Company leases a facility in San Jose California under a non-cancelable operating lease which commenced in September 2012. The operating lease commenced September 2012 with a current annual payment of \$295,140 through September 2017, with all amounts payable in equal monthly installments. In September 2016, the Company extended this lease for the period from October 2017 to March 2020 with annual payments of \$540,588 from October 2017 to September 2018, \$558,120 from October 2018 to September 2019 and \$286,368 for the period from October 2019 to March 2020, with all amounts payable in equal monthly installments. Additionally, the Company is required to pay its proportionate share of the building and real estate tax expenses and obtain insurance for the facility.

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In addition to the foregoing leases relating to its principal properties, the Company also has a lease for an additional facility in Nashua, New Hampshire used for product repairs, manufacturing and warehousing.

Rent expense for all leases for the years ended December 31, 2017, 2016 and 2015 was \$899,000, \$745,000 and \$663,000, respectively.

Future minimum rental payments due under these agreements as of December 31, 2016 are as follows (in thousands):

Fiscal Year	Operating Leases
2018	\$ 764
2019	755
2020	174
	\$ 1,693

**(b) Capital lease obligations**

In August, 2017, the Company assumed an equipment lease obligation with payments totaling \$50,000. The leases were determined to be capital leases and accordingly the equipment was capitalized and a liability of \$42,000 was recorded. The equipment will be depreciated over the expected life of 3 years. The remaining minimum lease payments are as follows (in thousands):

Fiscal Year	Capital Lease
2018	\$ 17
2019	17
2020	13
subtotal minimum lease obligation	47
less interest	(8)
Total, net	39
less current portion	(12)
long term portion	\$ 27

**(c) Other Commitments**

The Company has non-cancelable purchase orders with three key suppliers executed in the normal course of business that total approximately \$0.3 million. In connection with the Company's employee savings plans, the matching contribution for 2017 was approximately \$0.5 million in cash. The matching contribution for 2018 is estimated to be approximately \$0.5 million in cash.



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**(d) Employment Agreements**

The Company has entered into employment agreements with certain key executives. The employment agreements provide for minimum annual salaries and performance-based annual bonus compensation as defined in their respective agreements. In addition, the employment agreements provide that if employment is terminated without cause, the executive will receive an amount equal to their respective base salary then in effect for the greater of the remainder of the original term of employment or, for Mr. Ferry, a period of two years from the date of termination, for Mr. Christopher and Ms. Stevens, a period of eighteen months from the date of termination, in each case, plus the pro rata portion of any annual bonus earned in any employment year through the date of termination.

**(e) Foreign Tax Claim**

In July 2007, a dissolved former Canadian subsidiary of the Company, CADx Medical Systems Inc. ( CADx Medical ), received a tax re-assessment of approximately \$6,800,000 from the Canada Revenue Agency ( CRA ) resulting from CRA s audit of CADx Medical s Canadian federal tax return for the year ended December 31, 2002. In February 2010, the CRA reviewed the matter and reduced the tax re-assessment to approximately \$703,000, excluding interest and penalties. The CRA has the right to pursue the matter until July 2020. The Company believes that it is not liable for the re-assessment against CADx Medical and continues to defend this position. As the Company believes that a probability of a loss is remote, no accrual was recorded as of December 31, 2017.

**(f) Royalty Obligations**

In connection with prior litigation, the Company received a nonexclusive, irrevocable, perpetual, worldwide license, including the right to sublicense certain Hologic patents, and a non-compete covenant as well as an agreement not to seek further damages with respect to the alleged patent violations. In return the Company had a remaining obligation to pay a minimum annual royalty payment of \$250,000 payable through 2016. In addition to the minimum annual royalty payments, the litigation settlement agreement with Hologic also provides for payment of royalties if such royalties exceed the minimum payment based upon a specified percentage of future net sales on any products that practice the licensed rights. The estimated fair value of the patent license and non-compete covenant is \$100,000 and is being amortized over the estimated remaining useful life of approximately four years. In addition, a liability has been recorded within accrued expenses and accounts payable for future payment and for minimum royalty obligations totaling \$0.4 million.

During December 2011, the Company settled litigation with Zeiss with a final payment of pay \$0.5 million which was paid in June 2017.

**Table of Contents****(g) Litigation**

The Company may be a party to various legal proceedings and claims arising out of the

ordinary course of its business. Although the final results of all such matters and claims cannot be predicted with certainty, the Company currently believes that there are no current proceedings or claims pending against it of which the ultimate resolution would have a material adverse effect on its financial condition or results of operations. However, should we fail to prevail in any legal matter or should several legal matters be resolved against us in the same reporting period, such matters could have a material adverse effect on our operating results and cash flows for that particular period. In all cases, at each reporting period, the Company evaluates whether or not a potential loss amount or a potential range of loss is probable and reasonably estimable under ASC 450, Contingencies. Legal costs are expensed as incurred.

**(10) Quarterly Financial Data** (in thousands, except per share data, and unaudited)

	<b>Net sales</b>	<b>Gross profit</b>	<b>Net loss</b>	<b>Income (loss) per share</b>	<b>Weighted average number of shares outstanding</b>
<b><u>2017</u></b>					
First quarter	\$ 6,791	\$ 4,689	\$ (457)	(\$ 0.03)	16,135
Second quarter	6,409	4,503	\$(2,631)	(\$ 0.16)	16,310
Third quarter	7,000	4,643	\$(6,933)	(\$ 0.42)	16,424
Fourth quarter	7,902	4,341	\$(4,235)	(\$ 0.26)	16,501
<b><u>2016</u></b>					
First quarter	\$ 6,038	\$ 4,186	\$(2,533)	(\$ 0.16)	15,826
Second quarter	7,369	5,702	\$(1,575)	(\$ 0.10)	15,904
Third quarter	6,003	4,101	\$(2,675)	(\$ 0.17)	15,957
Fourth quarter	6,928	4,529	\$(3,316)	(\$ 0.21)	16,042