ANDREA ELECTRONICS CORP Form 10-K March 29, 2019 <u>Table of Contents</u>

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the Fiscal Year Ended December 31, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period from \_\_\_\_\_ to \_\_\_\_

Commission file number 1-4324

# ANDREA ELECTRONICS CORPORATION

(Exact name of registrant as specified in its charter)

New York (State or other jurisdiction of incorporation or organization)

620 Johnson Avenue Suite 1B, Bohemia, New York (Address of principal executive offices) Registrant's telephone number, including area code: 631-719-1800

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

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

Common Stock, par value \$.01 per share

Title of class

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

11-0482020 (I.R.S. employer identification no.)

> 11716 (Zip Code)

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 the 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. (Check one)

Large accelerated Filer

Accelerated filer Smaller reporting company Emerging growth company

Non-accelerated Filer (Do not check if a smaller reporting 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 Exchange Act). Yes No

The aggregate market value of the voting and non-voting common equity held by non-affiliates was \$3,738,100 based upon the closing price of \$0.07 per share as quoted on the OTC Bulletin Board on June 29, 2018.

The number of shares outstanding of the registrant s Common Stock as of March 21, 2019, was 68,104,957.

# DOCUMENTS INCORPORATED BY REFERENCE

None

# TABLE OF CONTENTS

TITLE		PAGE
	PART I	-
ITEM 1.	Business	<u>1</u>
ITEM 1A.	Risk Factors	<u>6</u>
ITEM 1B.	Unresolved Staff Comments	<u>10</u>
ITEM 2.	Properties	<u>10</u>
ITEM 3.	Legal Proceedings	<u>10</u> <u>11</u>
ITEM 4.	Mine Safety Disclosures	<u>11</u>
<u>11 LMI 4.</u>	PART II	<u>11</u>
	Market for Registrant's	
	<u>Common Equity, Related</u>	
1000 A 2	Stockholder Matters and	
	Issuer Purchases of Equity	11
ITEM 5.	<u>Securities</u>	<u>11</u>
<u>ITEM 6.</u>	Selected Financial Data	<u>11</u>
	Management's Discussion	
	and Analysis of Financial	
	Condition and Results of	
<u>ITEM 7.</u>	Operations	<u>11</u>
	<b>Quantitative and Qualitative</b>	
	Disclosure About Market	
ITEM 7A.	<u>Risk</u>	<u>16</u>
	Financial Statements and	
<u>ITEM 8.</u>	Supplementary Data	<u>16</u>
	Changes in and	—
	Disagreements With	
	Accountants on Accounting	
ITEM 9.	and Financial Disclosure	<u>16</u>
ITEM 9A	Controls and Procedures	<u>16</u> <u>16</u>
ITEM 9B.	Other Information	<u>10</u> <u>17</u>
<u>HEM 9B.</u>		<u>17</u>
	PART III	
	Directors, Executive	
	Officers and Corporate	17
<u>ITEM 10.</u>	Governance	<u>17</u>
<u>ITEM 11.</u>	Executive Compensation	<u>19</u>
	Security Ownership Of	
	Certain Beneficial Owners	
	and Management and	
<u>ITEM 12.</u>	Related Stockholder Matters	<u>21</u>
	Certain Relationships and	
	Related Transactions, and	
<u>ITEM_13.</u>	Director Independence	<u>23</u>
	Principal Accountant Fees	
<u>ITEM 14.</u>	And Services	<u>23</u>
	PART IV	—
	Exhibits and Financial	
ITEM 15.	Statement Schedules	<u>23</u>
		<u></u>
<u>SIGNATURES</u>		
STOLULI UILLO		

# PART I

# **ITEM 1. BUSINESS**

### Overview

Andrea Electronics Corporation ("Andrea," "us," "we," "our") designs, develops and manufactures state-of-the-art digital microphone products and noise reduction software that facilitate natural language, human/machine interfaces. Our technologies eliminate unwanted background noise to enable the optimum performance of various speech-based and audio applications. We are incorporated under the laws of the State of New York and have been engaged in the electronic communications industry since 1934.

Andrea's products and technologies optimize the performance of speech-based applications and audio applications primarily in the following markets:

# Speech recognition applications;

# Communications; and

# Audio and video recording.

Andrea Digital Signal Processing ("DSP") Microphone and Audio Software Business – Our patented and patent-pending digital noise canceling technologies enable a speaker to be at a distance from the microphone (we refer to this capability as "far-field" microphone use) and free the speaker from having to use a close talking microphone. Our Digital Super Directional Array ("DSDA") and PureAudio microphone products convert sound received by an array of microphones into digital signals that are then processed to cancel background noise from the signal to be transmitted. These two adaptive technologies represent the core technologies within our portfolio of far-field technologies. In addition to DSDA and PureAudio, Andrea has developed and commercialized several other digital, far-field noise canceling technologies, including, among others, Andrea EchoStop, a high-quality acoustic echo canceller which enables speaker phone functionality with technology for canceling speaker feedback.

All of our digital, far-field microphone technologies are software-based and operate using either a dedicated DSP or a general purpose processor (for example, the Intel Pentium). The software, which may encompass one or all of our far-field noise canceling technologies, can be applied to improve the performance of a single microphone or multiple microphones. In addition, our digital, far-field, noise canceling technologies can be tailored to be used individually or combined depending on particular customer requirements.

We are currently marketing our far-field technologies at Original Equipment Manufacturers ("OEMs") that have new sophisticated voice applications that require new digital microphone performance. Our far-field, digital noise canceling technologies and related products comprise our Andrea DSP Microphone and Audio Software line of business. Net revenues from such technologies and products during the years ended December 31, 2018 and 2017 were approximately 100% and 14%, respectively, of our total revenues. We dedicate a significant amount of our marketing and research and development resources to this business segment, as we believe that voice interface products will increasingly require high performance, untethered (hands-free and headset-free) microphone technology.

Patent Monetization, Intellectual Property and Licensing - Our products and technologies are developed in part using our proprietary intellectual property, and we believe that the strength of our intellectual property rights will be important to the success of our business. We utilize patent and trade secret protection, confidentiality agreements with customers and partners, disclosure and invention assignment agreements with employees and consultants and other contractual provisions to protect our intellectual property and other proprietary information. We plan to license specific, custom designs to our customers, charging royalties at a fixed amount per product or a percentage of sales. More generally, we intend to vigorously defend and monetize our intellectual property through licensing arrangements and, where necessary, enforcement actions against those entities using our patented solutions in their products. Royalties resulting from these patent monetization efforts can be structured in a variety of ways, including but not limited to one-time paid up licenses or on-going royalty arrangements. We expect to generate a portion of our revenues with these types of licensing arrangements. As part of our plan to aggressively pursue patent monetization, we entered into a Revenue Sharing and Note Purchase Agreement with AND34 Funding LLC ("AND34"), and on December 24, 2014, the Company entered into an Amended and Restated Revenue Sharing and Note Purchase Agreement (the "Revenue Sharing Agreement") with AND34, which was retroactively effective as of February 14, 2014. Under the Revenue Sharing Agreement, the Company granted AND34 a perpetual predetermined share in the rights of the Company's specified future revenues from currently owned patents. Under the terms of the Revenue Sharing Agreement with AND34, Andrea issued and sold to AND34 Notes of \$10,800,000 which were repaid as of December 31, 2016. On August 10, 2016, Andrea and AND34 executed a Rider to the Revenue Sharing Agreement ("Rider") pursuant to which the parties agreed that Andrea would issue and sell to AND34 additional Notes up to an aggregate amount of \$7,000,000. The Rider was subsequently amended to issue \$500,000 of additional Notes, collectively an aggregate amount of \$7,500,000 (the "Additional Notes"), or such greater amount as AND34 may agree to in its

sole discretion, during the four-year period beginning on the date of execution of the Rider. The Additional Notes have a maturity date of August 31, 2020. The proceeds of the Additional Notes will be used to pay patent monetization expenses. As of December 31, 2018, there was \$1,484,422 in Additional Notes outstanding. Total revenues from this segment during the years ended December 31, 2018 and 2017 was approximately 0% and 86%, respectively, of our total revenues.

## **Table of Contents**

For more financial information regarding our operating segments, see Note 13 of the accompanying consolidated financial statements.

### **Industry Background**

Our primary mission is to provide the emerging "voice interface" markets with state-of-the-art digital microphone solutions. The idea underlying these markets is that natural language spoken by the human voice will become an important means by which to communicate and control many types of computing devices and other appliances and equipment that contain microprocessors. We are designing and marketing our products and technologies so they can be used for "natural language, human/machine" interfaces including:

Siri®

Amazon Alexa<sup>TM</sup>

Google Now<sup>TM</sup>

Microsoft Cortana<sup>TM</sup>

### IBM Watson®

End users of these applications and interfaces will require high quality microphone and speakerphone products that enhance voice transmission, particularly in noisy office and mobile environments. We also believe that these applications will increasingly require microphones that are located at a distance from the person speaking, or far-field microphone technology. We believe that there will be significant growth in this marketplace during the next several years.

#### **Our Strategy**

Our strategy is to:

maintain and advance our market position with our Andrea DSP Microphone and Audio Software technologies and products;

develop relationships with companies that have significant distribution capabilities for our Andrea DSP Microphone and Audio Software technologies and products;

broaden our Andrea DSP Microphone and Audio Software product lines through a healthy level of internal research and development;

design our products to satisfy specific end-user requirements identified by our collaborative partners;

outsource manufacturing of our products in order to reduce fixed overhead and achieve economies of scale; and

vigorously defend and monetize our intellectual property through licensing arrangements and, where necessary, enforcement actions against those entities using our patented solutions in their products.

An important element of our strategy for expanding the channels of distribution and broadening the base of users for our products is our collaborative arrangements with manufacturers of computing and communications equipment and software publishers that are actively engaged in the various markets in which our products have application. In addition, we have been increasing our own direct marketing efforts to original equipment manufacturers for incorporation into, or for use with their products.

The success of our strategy will depend on our ability to, among other things:

increase total revenues of Andrea DSP Microphone and Audio Software products;

continue to contain costs;

introduce additional Andrea DSP Microphone and Audio Software products;

maintain the competitiveness of our technologies through focused and targeted research and development;

achieve widespread adoption of our products and technologies through ongoing marketing efforts; and

defend and monetize our intellectual property.

### **Table of Contents**

### **Our Technologies**

We design our Andrea DSP Microphone and Audio Software to transmit voice signals with the high level of quality, intelligibility and reliability required by the broad range of voice-based applications in computing and telecommunications. We achieve this through the use of several audio technologies that employ software processes that are proprietary to us. Software processes of this type are commonly referred to as algorithms.

#### Andrea DSP Microphone and Audio Software Technology

This set of technologies is generally based on the use of an array of microphones from which the analog signals are converted to digital form and then processed using digital electronic circuitry and software to eliminate unwanted noise in the speaker's environment. Our Andrea DSP Microphone and Audio Software Products provide clear acoustic and audio input performance where the desired audio signal is at a distance from the microphone. Our technology is portable and can be embedded into new platforms such as micro DSP's, mobile OS and wireless chipsets. We believe that our Andrea DSP Microphone and Audio Software technology achieve far-field microphone performance previously unattainable through microphones based on mechanical acoustic designs and microphones based on analog signal processing.

Our Andrea DSP Microphone and Audio Software Products include the use of the following technologies, among other technologies and techniques:

*Digital Super Directional Array* ("*DSDA*"<sup>®</sup>). Andrea's patented DSDA adaptive beam forming system enables more intelligible audio by forming a beam toward the speaker and eliminating background noises that are outside of the beam. DSDA microphone technology enables high quality far-field communications by centering microphone sensitivity on a user's voice and canceling noise outside of that signal. DSDA continuously samples the ever changing acoustic parameters within an environment and adaptively identifies interfering noises that are extraneous to the voice signal, resulting in increased intelligibility of the array microphone's output.

*PureAudio*<sup>®</sup>. Andrea's patented PureAudio and award winning noise reduction speech enhancement algorithm significantly improves intelligibility of voice audio and accuracy in speech driven applications used in noisy environments. PureAudio is a noise canceling algorithm that enhances speech by sampling the ambient noise in an environment and attenuating the noise from sources near or around the desired speech signals, thus delivering a clear audio signal. Designed specifically to improve the signal-to-noise ratio, PureAudio is effective in canceling stationary noises such as computer and ventilation fans, tires and engines.

 $EchoStop^{\text{(B)}}$ . Andrea's patented full duplex acoustic echo cancellation algorithm enables both loudspeakers to broadcast and microphones to transmit simultaneously providing a high quality speakerphone function. EchoStop is an advanced acoustic echo canceller (stereo version available) developed for use with conferencing systems such as group audio and videoconferencing systems and cellular car phone kits. EchoStop allows true two-way communication (often referred to as full duplex) over a conferencing system, even when the system is used in large spatial environments that may be vulnerable to extensive reverberation. EchoStop incorporates noise reduction to reduce the background noise of both the microphone input and the loudspeaker output, thus preventing the accumulation of interfering noise over conferencing systems that facilitate communication among multiple sites.

*Direction Finding and Tracking Array ("DFTA"®)*. Andrea's patented DFTA technology utilizes an array of microphones and a unique algorithm to detect the presence of a user's voice, determine the direction of the voice and follow and track it when it moves. In a videoconferencing setting, this unique technology can provide direction to a videoconferencing camera and allow the system to steer and concentrate on the speaker, thus providing a "video-follow-audio" capability.

#### Our Products and their Markets and Applications

Our Andrea DSP Microphone and Audio Software Products have been designed for applications that are controlled by or depend on speech across a broad range of hardware and software platforms. These products incorporate our DSP microphone technologies and are designed to cancel background noise in a range of noisy environments, such as homes, offices, factories and automobiles. We also manufacture a line of accessories for these products. For commercial markets, we have designed our Andrea DSP Microphone and Audio Software Products for the following applications:

Mass transit and automotive communication systems;

Automated teller machines;

Information kiosks;

Home automation;

Internet of Things ("IoT") digital assistants;

TV set top box;

Audio and Video recording;

Robotics; and

# Video surveillance. Andrea DSP Microphone and Audio Noise Reduction Software Products

We develop our Andrea DSP Microphone and Audio Noise Reduction Software Products primarily through customer-specific integration efforts, and we either license our related algorithms, sell a product incorporating our related algorithms, or both. In addition, we have developed stand-alone products for specific customers who then sell such products to end users. As a result, such products are not available from us directly. However, as part of our strategy to increase sales to prospective customers desiring high-quality microphone performance for certain customer-specific environments, we have developed the following products that may be purchased directly from Andrea:

*DA-350 Auto Array Microphone ("DA-350").* The DA-350 is a linear four element array microphone with Digital Signal Processing ("DSP") circuitry contained within a single microphone housing. The product also has integrated adaptive beam forming and noise reduction digital filtering software. A model with Acoustic Echo Cancellation is also available. The DA-350 is ideal for achieving superior far-field voice intelligibility and accuracy of Automatic Speech Recognition ("ASR") in high noise environments.

*DA-250 OEM Array Microphone ("DA-250").* The DA-250 is a small compact Stereo Array Microphone and DSP circuit board platform that can easily be integrated into many different OEM devices that would greatly benefit from directional noise canceling microphone performance, but in the past has been unattainable with an embedded microphone configuration. Requiring only two tiny holes in the faceplate of a device, the DA-250 Stereo Array Microphone can deliver directional microphone sensitivity without the need for acoustic baffling, as found in large parabolic waveguides or long shotgun tube type microphones.

*USB-SA Array Microphone*. The USB-SA Array Microphone provides a USB digital audio adapter to bypass a computer's standard integrated sound system, providing a high fidelity/low noise digital audio platform that is isolated from the computer's motherboard. This external digital audio system utilizes the computer's central processor to run Andrea's AudioCommander<sup>TM</sup> adaptive beam forming directional microphone and noise reduction software.

*PureAudio*<sup>™</sup> *VST3 Plug-in* ("*PureAudio*"). A Noise Reduction & Center Channel Focus VST3 Plug-in for Audio/Video Editing Post-Processing. PureAudio's Adaptive Digital Noise Reduction Filter reduces up to -40dB of repetitive noises, while supporting wide frequency bandwidth sample rates of up to 48Khz. The variable control allows the user to select the level of noise cancellation for the desired amount to be applied to the embedded noisy segment. Center Channel Focus is a new feature for the broadcast industry. This is an adaptive audio algorithm that cancels the stereo ambient sound mixed into the broadcast main audio stream. This feature focuses and highlights the center channel voice audio for better intelligibility and listening to the speech content of the recording. The software functions are perfect for editing mobile journalism interviews that take place in real world noisy environments.

Andrea AudioCommander<sup>TA</sup>Andrea's PC Audio Control Panel, AudioCommander, includes a speaker volume adjustment with received PureAudio noise reduction control and a 10-band graphic equalizer with 18 built-in presets to customize sound for a user's listening preference. It also includes a microphone volume adjustment with noise reduction, beam forming, and acoustic echo cancellation controls. The software also includes an audio wizard that sets microphone levels to optimize PC audio for speech-enabled applications including speech recognition, internet telephony and command and speech control functions.

Andrea Audio Software for Mac. Andrea Audio Software for Mac provides an intuitive graphic user interface to control stereo array microphone beam forming, noise cancellation on the input and EQ filters for the output of Andrea's USB-SA audio devices running on the Apple Mac OS.

Andrea PureAudio Live Recorder. PureAudio<sup>™</sup> Live Recorder is a full function digital voice and audio recording application for use with Apple<sup>™</sup> iOS devices. The PureAudio<sup>™</sup> Live Recorder is enhanced with Andrea's patented digital noise reduction microphone technology. PureAudio<sup>™</sup> digitally reduces background noise, while enhancing the recorded sound quality and intelligibility when making recordings in real-world noisy mobile environments.

Andrea PureAudio Pro Recorder. In addition to the features offered in PureAudio Live Recorder, PureAudio Pro Recorder offers unlimited bookmarks for easy navigation of large recordings, 10-band graphic equalizer to customize your listening experience, aggressive PureAudio for recording in noisy environments, stereo recording for capturing surround sound recordings and beam forming noise cancellation to reduce sounds coming from the sides. PureAudio Pro Recorder is an easy to use, intuitive stereo recorder for capturing music and offers background noise reduction for crystal clear recordings of voice notes, lectures and interviews with almost unlimited recording time.

# **Our Collaborative Arrangements**

An important element of our strategy is to promote widespread adoption of our products and technologies by collaborating with large enterprises and market and technology leaders in security systems and services, industrial system integrators, voice activated services, communications, computer manufacturing, and software publishing. In addition to the arrangements we are involved in, we are currently discussing additional arrangements with other companies, but we cannot assure you that any of these discussions will result in any definitive agreements.

### Patents, Trademarks, and Other Intellectual Property Rights

Our products and technologies are developed in part using our proprietary intellectual property, and we believe that the strength of our intellectual property rights will be important to the success of our business. We utilize patent and trade secret protection, confidentiality agreements with customers and partners, disclosure and invention assignment agreements with employees and consultants and other contractual provisions to protect our intellectual property and other proprietary information. We plan to license specific, custom designs to our customers, charging royalties at a fixed amount per product or a percentage of sales. More generally, we intend to vigorously defend and monetize our intellectual property through licensing arrangements and, where necessary, enforcement actions against those entities using our patented solutions in their products. Royalties resulting from these patent monetization efforts can be structured in a variety of ways, including but not limited to one-time paid up licenses or on-going royalty arrangements. We expect to generate a portion of our revenues with these types of licensing arrangements.

Andrea maintains a number of patents in the United States covering claims to certain of its products and technology, which expire at various dates ranging from 2019 to 2033. We also have other patent applications currently pending; however, we cannot assure you that patents will be issued with respect to these currently pending or future applications which we may file, nor can we assure you that the strength or scope of our existing patents, or any new patents, will be of sufficient scope or strength or provide meaningful protection or commercial advantage to us.

### **Research and Development**

We consider our technology to be of substantial importance to our competitiveness. To maintain this competitiveness, we have organized our research and development efforts using a "market and applications" approach for meeting the requirements of new and existing customers. Consistent with this approach, our engineering staff interacts closely with our sales and marketing personnel and directly with customers. The engineering staff is responsible for the research and development of new products and the improvement and support of existing products. For the years ended December 31, 2018 and 2017, total research and development expenses were \$601,349 and \$813,051, respectively. For fiscal 2019, we currently expect research and development efforts will succeed. See Part II "*Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations*" of this Form 10-K.

# Sales and Marketing

We employ a sales staff as well as outside sales representatives and sales organizations to market our Andrea DSP Microphone and Audio Software Products. Andrea DSP Microphone and Audio Software Products are marketed to computer OEMs, distributors of personal computers and communications equipment, software publishers, and industrial system integrators. Under our existing collaborative agreements, our collaborators have various marketing and sales rights to our Andrea DSP Microphone and Audio Software. We are seeking to enter into additional collaborative arrangements for the marketing and sale of our Andrea DSP Microphone and Audio Software Products, but we cannot assure you that we will be successful in these efforts. Market acceptance of the Andrea DSP Microphone and Audio Software Products and achievement of patent monetization is critical to our success.

#### **Production Operations**

In 2018 and 2017, all of our assembly operations were performed with subcontractors in Asia or in the United States. Most of the components for the Andrea DSP Microphone and Audio Software Products are available from several sources and are not characteristically in short supply. However, certain specialized components, such as microphones and DSP boards, are available from a limited number of suppliers and subject to long lead times. To date, we have been able to obtain sufficient supplies of these more specialized components, but we cannot assure you that we will continue to be able to do so. Shortages of, or interruptions in, the supply of these more specialized components could have a material adverse effect on our sales of Andrea DSP Microphone Products.

### **Table of Contents**

### Competition

The markets for our Andrea DSP Microphone and Audio Software Products are highly competitive. Competition in these markets is based on varying combinations of product features, quality and reliability of performance, price, sales, marketing and technical support, ease of use, compatibility with evolving industry standards and other systems and equipment, name recognition, and development of new products and enhancements. Most of our current and potential competitors in these markets have significantly greater financial, marketing, technical, and other resources than us. Consequently, these competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements, or to devote greater resources to the development, marketing, and sale of their products than we can.

We believe that our ability to compete successfully will depend upon our ability to develop and maintain advanced technology, develop proprietary products, attract and retain qualified personnel, obtain patent or other proprietary protection for our products and technologies and manufacture, assemble and market products, either alone or through third parties, in a profitable manner.

#### Employees

At December 31, 2018, we had eight employees, of whom one was engaged in production and related operations, three were engaged in research and development, and five were engaged in management, administration, sales and customer support duties. None of our employees are unionized or covered by a collective bargaining agreement. We believe that we generally enjoy good relations with our employees. In addition to our regular employees, we utilize eleven independent consultants (three are sales representatives, two are engaged for administration purposes and six are engaged in research and development activities).

### **Available Information**

We file reports with the Securities and Exchange Commission (the "SEC"). The SEC maintains an Internet site that contains reports, proxy, and information statements and other information regarding issuers at http://www.sec.gov. Our website is not part of this annual report on Form 10-K.

# **ITEM 1A. RISK FACTORS**

# Andrea is a party to the Revenue Sharing Agreement under which a perpetual predetermined share of its Monetization Revenues will be allocated to AND34 and under which a default could cause a material adverse effect on its financial position.

Under the Revenue Sharing Agreement that we entered into with AND34, Monetization Revenues will first be applied 100% to the payment of accrued and unpaid interest on, and then will be allocated to AND34 and the Company in accordance with certain predetermined percentages. During the years ended December 31, 2018 and 2017, \$300,000 and \$5,700,000, respectively, of notes payable were issued to AND34. At December 31, 2018, there was \$1,551,284 of accrued and unpaid interest and related outstanding principal notes issued to AND34. The Revenue Sharing Agreement contains many stipulations between the parties regarding the handling of various matters related to the monetization of our patents. Following an Event of Default, under the Revenue Sharing Agreement and the Rider, AND34 may proceed to protect and enforce their rights by suit or other appropriate proceeding, either for specific performance or in aid of the exercise of any power granted under the Revenue Sharing Agreement, the Rider or ancillary documents including the notes.

### Andrea is limited in its ability to get traditional funding.

The terms of the Revenue Sharing Agreement expressly prohibit the Company from incurring any other indebtedness in connection with the patents covered by the Revenue Sharing Agreement prior to June 30, 2020, barring certain exceptions. One such exception is that the Company may incur indebtedness not secured by the Revenue Sharing Agreement patents if both (i) the new holder of such indebtedness acknowledges in writing the rights of the purchasers in the Revenue Sharing Agreement and (ii) the purchasers in the Revenue Sharing Agreement are granted a right of first refusal to provide such indebtedness. Further, in order to incur third party indebtedness, the Company would need to offer some form of collateral and currently much of the Company's intellectual property is serving as collateral in connection with the Revenue Sharing Agreement. In addition, the conversion price adjustment provisions of the Company's Series C and Series D Convertible Preferred Stock, and the current low quotation price of the Company's common stock on the OTCQB limit our ability to get traditional funding.

#### **Table of Contents**

# Our operating results are subject to significant fluctuation; period-to-period comparisons of our operating results may not necessarily be meaningful and you should not rely on them as indications of our future performance.

Our results of operations have historically been and are subject to continued substantial annual and quarterly fluctuations. The causes of these fluctuations include, among other things:

the volume of sales of our products under our collaborative marketing arrangements;

the cost of development of our products;

the mix of products we sell;

the mix of distribution channels we use;

the timing of our new product releases and those of our competitors;

fluctuations in the computer and communications hardware and software marketplace; and

#### general economic conditions.

We cannot assure you that the level of revenues and gross profit, if any, that we achieve in any particular fiscal period will not be significantly lower than in other fiscal periods. Our total revenues for the years ended December 31, 2018 and 2017 were approximately \$1.5 million and \$6.9 million, respectively. Net loss for the year ended December 31, 2018 was approximately \$945,000, or \$0.01 net loss per share on a basic and diluted basis, versus net loss of approximately \$1.2 million, or \$0.02 net loss per share on a basic and diluted basis, for the year ended December 31, 2017. We continue to explore opportunities to grow sales in other business areas and vigorously defend and monetize our intellectual property.

# Shares Eligible For Future Sale May Have An Adverse Effect On Market Price; Andrea Shareholders May Experience Substantial Dilution.

Sales of a substantial number of shares of our common stock in the public market could have the effect of depressing the prevailing market price of our common stock. Of the 200,000,000 shares of common stock presently authorized, 68,104,957 were outstanding as of March 21, 2019. The number of shares outstanding does not include an aggregate of 14,161,313 shares of common stock that are issuable. This number of issuable common shares is equal to approximately 21% of the 68,104,957 outstanding shares. These issuable common shares are comprised of: a) 10,008,001 shares of our common stock reserved for issuance upon exercise of outstanding awards granted under our 2006 Stock Plan; b) 524,736 shares of common stock that are issuable upon conversion of the Series C Preferred Stock; and c) 3,628,576 shares of common stock issuable upon conversion of the Series D Preferred Stock.

# Conversions of our Series C Preferred Stock and Series D Preferred Stock may result in substantial dilution to other holders of our common stock.

As of March 21, 2019, we had 11.469249 shares of Series C Preferred Stock and 907,144 shares of Series D Preferred Stock outstanding. The issuance of shares of common stock upon conversion of the Series C Preferred Stock is limited to that amount which, after giving effect to the conversion, would cause the holder not to beneficially own in excess of 4.99% or, together with other shares beneficially owned during the 60 day period prior to such conversion, not to beneficially own in excess of 9.99% of the outstanding shares of common stock. The issuance of common stock upon conversion of the Series D Preferred Stock also is limited to that amount which, after giving effect to the conversion, would cause the holder not to beneficially own in excess of 4.99% of the outstanding shares of common stock. The issuance of the holder not to beneficially own in excess of 4.99% of the outstanding shares of our common stock, except that each holder has a right to terminate such limitation upon 61 days notice to us. Beneficial ownership for purposes of calculation of such percentage limitations does not include shares whose acquisition is subject to similar limitations. If all shares of common stock, the number of new shares of common stock required to be issued, are assumed to be converted into or exercised for shares of common stock, the number of new shares of common stock required to be issued as a result would aggregate 4,153,312 shares, which is equal to approximately 6% of the 68,104,957 outstanding shares.

# If we conduct offerings in the future, the price at which we offer our securities may trigger a price protection provision for our Series C Preferred Stock and Series D Preferred Stock.

The shares of Series C and Series D Preferred Stock are subject to antidilution provisions, which are triggered in the event of certain stock splits, recapitalizations, or other dilutive transactions. In addition, issuances of common stock at a price below the conversion price then in effect (currently \$0.2551 and \$0.25 for the Series C and Series D, respectively), or the issuance of warrants, options, rights, or convertible securities which have an exercise price or conversion price less than that conversion price, other than for certain previously outstanding securities and certain "excluded securities" (as defined in the certificate of amendment), require the adjustment of the conversion price to that lower price at which shares of common stock have been issued or may be acquired. In the event that Andrea issues securities in the future which have a conversion price in the Series C or Series D Preferred Stock, the purchasers may elect to substitute the more favorable variable price when making conversions of the Series C or Series D Preferred Stock. This would make it more likely that the Series C and Series D Preferred Stock would be converted into common stock, resulting in dilution to our other holders of common stock as outlined in the risk factor above.

#### **Table of Contents**

# Short sales of our common stock may be attracted by or accompany conversions of Series C Preferred Stock and Series D Preferred Stock, which sales may cause downward pressure upon the price of our common stock.

Short sales of our common stock may be attracted by or accompany the sale of converted common stock, which in the aggregate could cause downward pressure upon the price of the common stock, regardless of our operating results, thereby attracting additional short sales of the common stock.

# If we fail to commercialize and fully market our Andrea DSP Microphone and Audio Software products, our total revenues may not increase at a high enough rate to improve our results of operations or may not increase at all.

Our business, results of operations and financial condition depend on the successful commercialization of our Andrea DSP Microphone and Audio Software products and technologies. We introduced our first Andrea DSP Microphone products in 1998 and we continued to introduce complementary products and technologies over the last several years. We primarily target the computer market, the audio and video conferencing markets and the market for in-vehicle computing, among others. The success of these products is subject to the risks frequently encountered by companies in an early stage of product commercialization, particularly companies in the computing and communications industries.

# If we are unable to obtain market acceptance of Andrea DSP Microphone and Audio Software products and technologies, or if market acceptance of these products and technologies occurs at a slow rate, then our business, results of operations and financial condition will be materially and adversely affected.

We, and our competitors, are focused on developing and commercializing products and technologies that enhance the use of voice, particularly in noisy environments, for a broad range of computer and communications applications. These products and technologies have been rapidly evolving and the number of our competitors has grown, but the markets for these products and technologies are subject to a high level of uncertainty and have been developing slowly. We, alone or together with our industry, may be unsuccessful in obtaining market acceptance of these products and technologies.

# If we fail to develop and successfully introduce new products and technologies in response to competition and evolving technology, we may not be able to attract new customers or retain current customers.

The markets in which we sell our Andrea DSP Microphone and Audio Software products are highly competitive. We may not compete successfully with any of our competitors. Most of our current and potential competitors have significantly greater financial, research and development, marketing, technical support and other resources than we do. Consequently, these competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements, or devote greater resources to the development, marketing, and sale of their products than we can. The introduction of products incorporating new technologies could render our products obsolete and unmarketable and could exert price pressures on existing products.

We are currently engaged in the development of digital signal processing products and technologies for the voice, speech and natural language interface markets. We may not succeed in developing these new digital signal processing products and technologies, and any of these new digital signal processing products or technologies may not gain market acceptance.

Further, the markets for our products and technologies are characterized by evolving industry and government standards and specifications that may require us to devote substantial time and expense to adapt our products and technologies. For example, certain of our Andrea DSP Microphone and Audio Software products are subject to the Federal Communications Commission requirements. We may not successfully anticipate and adapt our products and technologies in a cost effective and timely manner to changes in technology and industry standards or to introductions of new products and technologies by others that render our then existing products and technologies obsolete.

# If our marketing collaborators do not effectively market their products that include or incorporate our products, our sales growth will be adversely affected.

We have entered into collaborative and distribution arrangements with software publishers and computer hardware manufacturers relating to the marketing and sale of Andrea DSP Microphone and Audio Software products through inclusion or incorporation with the products of our collaborators. Our success is dependent to a substantial degree on the efforts of these collaborators to market their products that include or incorporate our products. Our collaborators may not successfully market these products. In addition, our collaborators generally are not contractually obligated to any minimum level of sales of our products or technologies, and we have no control over their marketing efforts. Furthermore, our collaborators may develop their own microphone products and technologies that may replace our products or technologies or to which they may give higher priority.

# Shortages of, or interruptions in, the supply of more specialized components for our products could have a material adverse effect on our sales of these products.

The majority of our assembly operations are fulfilled by subcontractors (primarily in the Far East) using purchased components. Some specialized components for the Andrea DSP Microphone products, such as microphones and digital signal processing boards, are available from a limited number of suppliers (and in some cases foreign) and subject to long lead times. We may not be able to continue to obtain sufficient supplies of these more specialized components, particularly if the sales of our products increase substantially or market demand for these components otherwise increases. If our subcontractors fail to meet our production and shipment schedules, our business, results of operations and financial condition would be materially and adversely affected.

# The Company depends on component and product manufacturing and logistical services provided by third parties, many of whom are located outside of the United States.

Substantially all of the Company's components and products are manufactured in whole or in part by a few third-party manufacturers. Many of these manufacturers are located outside of the United States. The Company has also outsourced much of its transportation and logistics management. While these arrangements may lower operating costs, they also reduce the Company's direct control over production and distribution. It is uncertain what effect such diminished control will have on the quality or quantity of products or the Company's flexibility to respond to changing conditions. If manufacturing or logistics in these locations is disrupted for any reason, including but not limited to, natural disasters, information technology system failures, military actions or economic, business, labor, environmental, public health, or political issues, the Company's consolidated financial condition and operating results could be materially adversely affected.

# Our ability to compete may be limited by our failure to adequately protect our intellectual property or by patents granted to third parties.

We rely on a combination of patents, patent applications, trade secrets, copyrights, trademarks, and nondisclosure agreements with our employees, independent contractors, licensees and potential licensees, limited access to and dissemination of our proprietary information, and other measures to protect our intellectual property and proprietary rights. However, the steps that we have taken to protect our intellectual property may not prevent its misappropriation or circumvention. In addition, numerous patents have been granted to other parties in the fields of noise cancellation, noise reduction, computer voice recognition, digital signal processing and related subject matter. We expect that products in these fields will increasingly be subject to claims under these patents as the numbers of products and competitors in these fields grow and the functionality of products overlap. Claims of this type could have an adverse effect on our ability to manufacture and market our products or to develop new products and technologies, because the parties holding these patents may refuse to grant licenses or only grant licenses with onerous royalty requirements. Moreover, the laws of other countries do not protect our proprietary rights to our technologies to the same extent as the laws of the United States.

# An unfavorable ruling in any current litigation proceeding or future proceeding may adversely affect our business, results of operations and financial condition.

From time to time we are subject to litigation incidental to our business. For example, we are subject to the risk of adverse claims, interference proceedings before the U.S. Patent and Trademark Office, oppositions to patent applications outside the United States, and litigation alleging infringement of the proprietary rights of others. Litigation to establish the validity of patents, to assert infringement claims against others, and to defend against patent infringement claims can be expensive and time-consuming, even if the outcome is in our favor.

For example, as discussed in Part II "*Item 3 – Legal Proceedings*" of this Form 10-K, we are currently involved in appealing an unfavorable ruling by the ITC in our patent infringement claims against Apple Inc. In line with our business strategy, we have dedicated significant resources to vigorously prosecuting these patent infringement claims, and not succeeding on these claims could be detrimental to our Company.

# Changes in economic and political conditions outside the United States could adversely affect our business, results of operations and financial condition.

We generate revenues from regions outside the United States. For the years ended December 31, 2018 and 2017, total revenues from sales to customers outside the United States accounted for approximately 24% and 91%, respectively, of our total revenues. International sales and operations are subject to a number of risks, including:

trade restrictions in the form of license requirements;

restrictions on exports and imports and other government controls;

changes in tariffs and taxes;

difficulties in staffing and managing international operations;

problems in establishing and managing distributor relationships;

general economic conditions; and

political and economic instability or conflict.

To date, we have invoiced our international revenues in U.S. dollars and have not engaged in any foreign exchange or hedging transactions. We may not be able to continue to invoice all of our revenues in U.S. dollars in order to avoid engaging in foreign exchange or hedging transactions. If we are required to invoice any material amount of international revenues in non-U.S. currencies, fluctuations in the value of non-U.S. currencies relative to the U.S. dollar may adversely affect our business, results of operations and financial condition or require us to incur hedging costs to counter such fluctuations.

# If we are unable to attract and retain the necessary managerial, technical and other personnel necessary for our business, then our business, results of operations and financial condition will be harmed.

Our performance is substantially dependent on the performance of our executive officers and key employees. The loss of the services of any of these executive officers or key employees could have a material adverse effect on our business, results of operations and financial condition. Our future success depends on our continuing ability to attract and retain highly qualified managers and technical personnel. Competition for qualified personnel is intense and we may not be able to attract, assimilate or retain qualified personnel in the future.

#### We have significantly less financial resources than most of our competitors which limits our ability to implement new products or enhancements to our current products and may require us to implement future restructuring plans, which could adversely affect our future sales and financial condition.

Financial resource constraints could limit our ability to execute our product strategy or require us to implement restructuring plans, particularly if we are unable to generate cash from operations or obtain additional sources of financing. Any future restructuring actions may slow our development of new or enhanced products by limiting our research and development and engineering activities. Our cash balances are also lower than those of our competitors, which may limit our ability to develop competitive new products on a timely basis. If we are unable to successfully introduce new or enhanced products, our sales and financial condition will be adversely affected.

#### A significant amount of our business involves licensing our proprietary software, a strategy that increases business risk and volatility.

We have licensed certain of our proprietary software to third parties and may seek to enter into additional license arrangements in the future. We cannot assure you, however, that others will be interested in licensing our software on commercially favorable terms or at all. We also cannot ensure that licensees will honor agreed-upon market restrictions, not infringe upon or misappropriate our intellectual property or maintain the confidentiality of our proprietary information.

#### ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

### **ITEM 2. PROPERTIES**

Andrea has a lease for its corporate headquarters, which is located at 620 Johnson Avenue, Suite 1B, Bohemia, New York. The lease, which currently expires in October 2020, is for approximately 3,000 square feet of space used for research and development, sales and executive offices. We believe that we maintain our machinery, equipment and tooling in good operating condition and that these assets are adequate for our current business and are adequately insured. See Notes 5 and 11 of the accompanying Consolidated Financial Statements for further information concerning our property and equipment and leased facilities.

#### **Table of Contents**

### **ITEM 3. LEGAL PROCEEDINGS**

In September 2016, the Company filed a complaint with the United States District Court for the Eastern District of New York, alleging patent infringement against Apple Inc. ("Apple") and requesting monetary and injunctive relief (the "New York Litigation"). The New York Litigation was stayed pending final disposition of a parallel case that the Company filed against Apple with the United States International Trade Commission ("ITC"). The ITC's final decision finding that Apple did not violate the ITC's statute was issued on March 22, 2018. Apple informed the New York judge of this final decision on May 30, 2018. The ITC's final decision does not affect Andrea's right to continue prosecuting the New York litigation.

In January 2017, Apple filed four (4) petitions for inter partes review ("IPR") of the Company's patents asserted in the New York Litigation with the United States Patent and Trademark Office (PTO). The Company filed its Patent Owner's Preliminary Response in two of these IPR proceedings on May 1, 2017. The PTO instituted the four IPR proceedings requested by Apple on July 24, 2017. The Company filed its Patent Owner's Response in two of these IPR proceedings on November 7, 2017. On March 19, 2018, both the Company and Apple requested oral argument in these two IPR proceedings, which occurred on April 25, 2018. On July 12, 2018, the PTO issued its final written decisions in those two IPR proceedings, ruling that claims 6-9 of the Company's U.S. Patent No. 6,363,345 remain valid and enforceable after the PTO's review. On September 13, 2018, Apple filed its Notice of Appeal of that ruling to the United States Court of Appeals for the Federal Circuit (the "Federal Circuit"). Apple filed its Appeal Brief with the Federal Circuit on January 31, 2019. The Company filed its Response to Apple's Appeal Brief on March 12, 2019.

On July 20, 2018, after the PTO's final written decisions, the Company informed the New York judge of the status of the PTO proceedings, and its intention to move forward with the New York Litigation regarding claims 6-9 of the Company's U.S. Patent No. 6,363,345. Apple asked the New York judge to maintain the previously entered stay of the New York Litigation pending its appeal of the PTO holdings to the Federal Circuit. At the New York judge's request, the parties fully briefed their competing arguments regarding whether to lift or maintain the stay and submitted those briefs to the New York judge on December 13, 2018. The Company and Apple are still awaiting the New York judge's ruling on whether to lift the stay.

Andrea intends to vigorously prosecute the New York Litigation and Apple's appeal of the IPR results to the Federal Circuit.

#### **ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

#### PART II

# ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Andrea's common stock is currently quoted on the OTCQB tier of the OTC Market Group's quotation platform. On March 21, 2019, there were approximately 318 holders of record of Andrea's Common Stock.

No cash dividends were paid on Andrea's Common Stock in 2018 or 2017.

During the three months ended December 31, 2018, the Company did not repurchase any of its common stock.

# ITEM 6. SELECTED FINANCIAL DATA

Not applicable as Andrea is a smaller reporting company.

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

#### Overview

Our mission is to provide the emerging "voice interface" markets with state-of-the-art digital microphone products and noise reduction software that facilitate natural language, human/machine interfaces.

Examples of the applications and interfaces for which Andrea DSP Microphone and Audio Software Products provide benefits include: Internet and other computer-based speech; telephony communications; multi-point conferencing; speech recognition; and other applications and interfaces that incorporate natural language processing. We believe that end users of these applications and interfaces will require high quality microphone and earphone products that enhance voice transmission, particularly in noisy environments, for use with personal computers, mobile personal computing devices, cellular and other wireless communication devices and automotive communication systems. Our Andrea DSP Microphone and Audio Software Products use "far-field" digital signal processing technology to provide high quality transmission of voice where the user is at a distance from the microphone. High quality audio communication technologies will be required for emerging far-field voice applications, ranging from continuous speech dictation, to Internet telephony and multiparty video teleconferencing and collaboration, to natural language-driven interfaces for automobiles, home and office automation and other machines and devices into which voice-controlled microprocessors are expected to be introduced during the next several years.

#### **Table of Contents**

# **Our Critical Accounting Policies**

Our consolidated financial statements and the notes to our consolidated financial statements contain information that is pertinent to management's discussion and analysis. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and determination of revenues and expenses in the reporting period. Management bases its estimates on historical experience and on various other assumptions that are believed 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. On a continual basis, management reviews its estimates utilizing currently available information, changes in facts and circumstances, historical experience and reasonable assumptions. After such reviews, and if deemed appropriate, those estimates are adjusted accordingly. Actual results may vary from these estimates and assumptions to be made that were uncertain at the time the estimate was made; and 2) changes in the estimate, or the use of different estimating methods that could have been selected and could have a material impact on the Company's consolidated results of operations or financial condition.

The following critical accounting policies that affect the more significant judgments and estimates used in the preparation of the consolidated financial statements have been identified. In addition to the recording and presentation of our convertible preferred stock, we believe that the following are some of the more critical judgment areas in the application of our accounting policies that affect our consolidated financial condition and results of operations. We have discussed the application of these critical accounting policies with our Audit Committee. The following critical accounting policies are not intended to be a comprehensive list of all of the Company's accounting policies or estimates.

<u>Revenue Recognition</u> – On January 1, 2018 the Company adopted ASU No. 2014-09, "Revenue from Contracts with Customers" (Topic 606) ("ASU No. 2014-09"), which is described below in Recent Accounting Pronouncements. In accordance with Topic 606, the Company recognizes revenue using the following five-step approach:

- 1. Identify the contract with a customer.
- 2. Identify the performance obligations in the contract.
- 3. Determine the transaction price of the contract.
- 4. Allocate the transaction price to the performance obligations in the contract.
- 5. Recognize revenue when the performance obligations are met or delivered.

Andrea utilizes the modified retrospective approach when reviewing its current accounting policies to identify potential differences that would result from applying the new requirements to its customer contracts. This approach includes the evaluation of sales terms, performance obligations, variable consideration, and costs to obtain and fulfill contracts. Based on the Company's review, management did not need to record a cumulative effect adjustment to retained earnings as of the date of initial application and application of this guidance did not have a material impact on its consolidated financial statements.

The Company disaggregates its revenues into three contract types: (1) product revenues (2) service related revenues and (3) license revenues and then further disaggregates its revenues by operating segment. Generally, product revenue is comprised of microphones and microphone connectivity product revenues. Product revenue is recognized when the Company satisfies its performance obligation by transferring promised goods to a customer. Product revenue is measured at the transaction price, which is based on the amount of consideration that the Company expects to receive in exchange for transferring the promised goods to the customer. Contracts with customers are comprised of time. The Company does not have arrangements for returns from customers and does not have any future obligations directly or indirectly related to product resale by customers. The Company has no sales incentive programs. Service related and licensing revenues are recognized based on the terms and conditions of individual contracts using the five step approach listed above, which identifies performance obligations and transaction price. Typically, Andrea receives licensing reports from its licensees approximately one quarter in arrears due to the fact that its agreements require customers to report revenues between 30-60 days after the end of the quarter. Under this accounting policy, the licensing revenues reported are not based upon estimates. In addition, service related revenues, which are short-term in nature, are generally performed on a time-and-material basis under separate service arrangements and the corresponding revenue is generally recognized as the services are performed.

### **Table of Contents**

<u>Accounts Receivable</u> – We are required to estimate the collectability of our trade receivables. Judgment is required in assessing the realization of these receivables, including the current creditworthiness of each customer and related aging of the past due balances. We evaluate specific accounts when we become aware of a situation where a customer may not be able to meet its financial obligations due to deterioration of its financial viability, credit ratings or bankruptcy. The reserve requirements are based on the best facts available to us and are reevaluated and adjusted as additional information is received. Our reserves are also determined by using percentages applied to certain aged receivable categories. At December 31, 2018 and 2017, our allowance for doubtful accounts was \$4,793 and \$5,092, respectively.

<u>Inventories</u> – We are required to state our inventories at net realizable value. In assessing the ultimate realization of inventories, we are required to make considerable judgments as to future demand requirements and compare that with our current inventory levels. Our reserve requirements generally increase as our projected demand requirements decrease due to market conditions, technological and product life cycle changes as well as longer than previously expected usage periods. We have evaluated the current levels of inventories, considering historical total revenues and other factors and, based on this evaluation, recorded adjustments to cost of revenues to adjust inventories to net realizable value. We have inventories of \$213,056 and \$136,449 at December 31, 2018 and 2017, respectively. It is possible that additional charges to inventory may occur in the future if there are further declines in market conditions, or if additional restructuring actions are taken.

Long Lived Assets – ASC 360 "Property, Plant and Equipment" ("ASC 360") requires management judgments regarding the future operating and disposition plans for marginally performing assets, and estimates of expected realizable values for assets to be sold. Andrea accounts for its long-lived assets in accordance with ASC 360 for purposes of determining and measuring impairment of its other intangible assets. Andrea's policy is to periodically review the value assigned to its long lived assets to determine if they have been permanently impaired by adverse conditions which may affect Andrea. If required, an impairment charge would be recorded based on an estimate of future discounted cash flows. Considerable management judgment is necessary to estimate undiscounted future operating cash flows and fair values and, accordingly, actual results could vary significantly from such estimates. No impairment charges were recognized during the years ended December 31, 2018 and 2017.

Deferred Tax Assets – We currently have significant deferred tax assets. ASC 740, "Income Taxes" ("ASC 740"), requires a valuation allowance be established when it is more likely than not that all or a portion of deferred tax assets will not be realized. Furthermore, ASC 740 provides that it is difficult to conclude that a valuation allowance is not needed when there is negative evidence such as cumulative losses in recent years. Therefore, cumulative losses weigh heavily in the overall assessment. Accordingly, and after considering changes in previously existing positive and negative evidence, the Company determined that a full valuation allowance against the deferred tax assets was required. Andrea will reduce its valuation allowance in future periods to the extent that we can demonstrate our ability to utilize the assets. The future realization of a portion of our reserved deferred tax assets related to tax benefits associated with the exercise of stock options, if and when realized, will not result in a tax benefit in the consolidated statement of operations, but rather will result in an increase in additional paid in capital. We will continue to re-assess our reserves on deferred income tax assets in future periods on a quarterly basis.

<u>Contingencies</u> – We are subject to proceedings, lawsuits and other claims, including proceedings under laws and government regulations related to securities, environmental, labor, product and other matters. We are required to assess the likelihood of any adverse judgments or outcomes to these matters, as well as potential ranges of probable losses. A determination of the amount of reserves required, if any, for these contingencies is based on an analysis of each individual issue with the assistance of legal counsel. The amount of any reserves may change in the future due to new developments in each matter.

The impact of changes in the estimates and judgments pertaining to revenue recognition, receivables and inventories is directly reflected in our segments' loss from operations. Although any charges related to our deferred tax provision are not reflected in our segment results, the long-term forecasts supporting the realization of those assets and changes in them are significantly affected by the actual and expected results of each segment.

#### **Cautionary Statement Regarding Forward-Looking Statements**

Certain information contained in this Management's Discussion and Analysis of Financial Condition and Results of Operations for the year ended December 31, 2018 and other items set forth in this Annual Report on Form 10-K are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The words "anticipates," "estimates," "expects," "intends," "plans," "seeks," variations of such words, and similar expressions are intended to identify forward-looking statements. We have based these forward-looking statements on our current expectations, estimates and projections about our business and industry, our beliefs and certain assumptions made by our management. Investors are cautioned that matters subject to forward-looking statements involve risks and uncertainties including economic, competitive, governmental, technological and other factors that may affect our business and prospects. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. These statements are based on current expectations and speak as of the date of such statements. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of future events, new information or

otherwise. In order to obtain the benefits of these "safe harbor" provisions for any such forward-looking statements, we caution investors and prospective investors about the following significant factors, which, among others, have in some cases affected our actual results and are in the future likely to affect our actual results and could cause them to differ materially from those expressed in any such forward-looking statements. Factors which could have a material adverse effect on the operations of the Company and its subsidiaries include, but are not limited to, our ability to enforce our patents, changes in economic, competitive, governmental, technological and other factors that may affect our business and prospects. Additional factors are discussed in Part I, "*Item 1A – Risk Factors*" of this Form 10-K.

# **Results Of Operations**

# Year Ended December 31, 2018 Compared to Year Ended December 31, 2017

# Total Revenues

	For the Year Ended December 31			%		
	2018		2017		Change	
Patent Monetization revenues						
License revenues	\$	1,241	\$	6,003,594	(100)	(a)
Total Patent Monetization revenues		1,241		6,003,594	,	