

APPLIED OPTOELECTRONICS, INC.
Form 10-K
March 14, 2016

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, 2015

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: 001-36083

Applied Optoelectronics, Inc.

(Exact name of registrant as specified in its charter)

Delaware **76-0533927**
(State or other jurisdiction of incorporation or organization) **(I.R.S. Employer Identification No.)**

13115 Jess Pirtle Blvd.

Sugar Land, TX 77478

(Address of principal executive offices)

(281) 295-1800

(Registrant's telephone number)

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

(Title of each class)	(Name of each exchange on which registered)
Common Stock, Par value \$0.001	NASDAQ Global Market

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

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act of 1933 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 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 and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes No

Indicate by check mark 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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

(Check one):

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

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

As of June 30, 2015, the aggregate market value of the voting common stock held by non-affiliates of the Registrant was approximately \$250.6 million based upon the closing sales price of the Registrant's common stock as reported on the NASDAQ Global Markets on June 30, 2015 of \$17.36 per share. Shares of common stock held by officers, directors and holders of more than ten percent of the outstanding common stock have been excluded from this calculation because such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 7, 2016, the Registrant had 17,055,597 outstanding shares of Common Stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement for the Registrant's 2016 Annual Meeting of Stockholders are incorporated by reference in Part III of this Annual Report on Form 10-K to the extent stated herein. The Proxy Statement will be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days of the Registrant's fiscal year ended December 31, 2015.

Applied Optoelectronics, Inc.

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PART I

Item 1. Business

Forward-Looking Information

This report contains forward-looking statements. These forward-looking statements involve risks and uncertainties, as well as assumptions and current expectations, which could cause the company's actual results to differ materially from those anticipated in such forward-looking statements. These risks and uncertainties include but are not limited to: reduction in the size or quantity of customer orders; change in demand for the company's products due to industry conditions; changes in manufacturing operations; volatility in manufacturing costs; delays in shipments of products; disruptions in the supply chain; change in the rate of design wins or the rate of customer acceptance of new products; the company's reliance on a small number of customers for a substantial portion of its revenues; potential pricing pressure; a decline in demand for our customers products or their rate of deployment of their products; general conditions in the CATV, internet data center or FTTH markets; changes in the world economy (particularly in the United States and China); the negative effects of seasonality; and other risks and uncertainties described more fully in the company's documents filed with or furnished to the Securities and Exchange Commission. More information about these and other risks that may impact the company's business are set forth in the Section titled "Risk Factors". In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "anticipates," "believes," or "estimates" or by other similar expressions that convey uncertainty of future events or outcomes. You should not rely on forward-looking statements as predictions of future events. All forward-looking statements in this press release are based upon information available to us as of the date hereof, and qualified in their entirety by this cautionary statement. Except as required by law, we assume no obligation to update forward-looking statements for any reason after the date of this report to conform these statements to actual results or to changes in the company's expectations.

BUSINESS

Overview

We are a leading, vertically integrated provider of fiber-optic networking products, primarily for three networking end-markets: internet data center, cable television, or CATV, and fiber-to-the-home, or FTTH. We design and manufacture a range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment.

In designing products for our customers, we begin with the fundamental building blocks of lasers and laser components. From these foundational products, we design and manufacture a wide range of products to meet our customers' needs and specifications, and such products differ from each other by their end market, intended use and level of integration. We are primarily focused on the higher-performance segments within all three of our target markets, which increasingly demand faster connectivity and innovation.

The three end markets we target are all driven by significant bandwidth demand fueled by the growth of network-connected devices, video traffic, cloud computing and online social networking. To address this increased bandwidth demand, CATV and telecommunications service providers are competing directly against each other by providing bundles of voice, video and data services to their subscribers and investing to enhance the capacity, reliability and capability of their networks. The trend of rising bandwidth consumption also impacts the internet data center market, as reflected in the shift to higher speed server connections. As a result of these trends, fiber-optic networking technology is becoming essential in all three of our target markets, as it is often the only economic way to deliver the desired bandwidth.

The internet data center market is our largest and fastest growing market. Our customers in this market are generally large internet-based ("Web 2.0") data center operators, to whom we supply optical transceivers that plug into switches and servers within the data center and allow these network devices to send and receive data over fiber optic cables. The majority of the data center optical transceivers that we sell utilize our own lasers and subassemblies (we refer to the transceivers subassemblies as "light engines"), and we believe that our in-house technology and manufacturing capability for these lasers and subassemblies gives us an advantage over many of our competitors who often lack either development or manufacturing capabilities for these advanced optical modules.

The CATV market is our most established market, for which we supply a broad array of products including lasers, transmitters and turn-key equipment. Sales of headend, node and distribution equipment have contributed significantly to our revenue in recent years as a result of our ability to meet the needs of CATV equipment vendors who have continued to outsource both the design and manufacturing of this equipment. While equipment vendors have relied upon third parties to assemble portions of their products, within the past six years certain of our customers have accelerated the outsourcing of the design and manufacturing of both headend equipment and node equipment to third parties. The shift is due in part to the sophisticated engineering expertise needed to perform this work. We believe that our extensive high-speed optical, mixed-signal semiconductor and mechanical engineering capabilities position us well to benefit from these industry dynamics.

Our vertically integrated manufacturing model provides us several advantages, including rapid product development, fast response times to customer requests and control over product quality and manufacturing costs. We design, manufacture and integrate our own analog and digital lasers using a combination of Metal Organic Chemical Vapor Deposition, or MOCVD, and our proprietary Molecular Beam Epitaxy, or MBE, fabrication process, which we believe is unique in our industry. We manufacture the majority of the laser chips and optical components that are used in our products. The lasers we manufacture are proven to be reliable over time and highly tolerant of changes in temperature and humidity, making them well-suited to the CATV and FTTH markets where networking equipment is often installed outdoors.

In 2015, our revenue was \$189.9 million and our gross margin was 31.8%. We have grown our annual revenue at a compound annual growth rate, or CAGR, of 33.6% between 2009 and 2015. In the year ended December 31, 2013, we incurred losses of \$1.4 million. In the years ended December 31, 2015 and 2014, we had a net income of \$ 10.8 million and \$4.3 million, respectively, and our accumulated deficit at December 31, 2014 and December 31, 2015 was \$79.0 million and \$68.2 million, respectively. In 2015, we earned 64.9% of our total revenue from the internet data center market, and 28.3% of our total revenue from the CATV market. In 2015, our key customers in the CATV market included Cisco Systems and Biogenomics Corp., a distributor. In 2015, 2014 and 2013, Cisco Systems accounted for 10.4%, 8.9%, and 21.8%, respectively, of our revenue and Biogenomics Corp. accounted for 2.9%, 6.2% and 8.7%, respectively, of our revenue. In 2015, our key customers in the data center market included Amazon and Microsoft. In 2015, 2014, and 2013, Amazon accounted for 52.5%, 45.8%, and 18.2% of our revenue, respectively, and Microsoft accounted for 11.6%, 3.6%, and 6.1% of our revenue, respectively.

Industry Background

During 2015, our three target markets, internet data centers, CATV and FTTH, experienced a significant growth in bandwidth consumption and the corresponding need for network infrastructure improvement to support this growth.

The prevailing trends in our target markets include:

Trends in the Internet Data Center Market. To support the substantial increase in bandwidth consumption, internet data center operators are increasing the scale of their internet data centers and accelerating data transmission rates. As a result, there is an ongoing transition from the use of copper cable, typically at speeds up to 1 gigabit per second, to optical fiber as a transport medium, typically providing speeds from 10 gigabits per second to 100 gigabits per second. In recent years, a number of leading internet companies have adopted more open internet data center architectures, using a mix of systems and components from a variety of vendors, and in some cases designing their own equipment. For these companies, compatibility of new networking equipment with legacy infrastructure is not as important, and as a consequence, these companies are more willing to work with non-traditional equipment vendors, which we believe creates an open and growing opportunity for optical device vendors. Moreover, transmission speeds have continued to increase among the companies who have previously transitioned from

copper-based to fiber-based infrastructure, resulting in opportunities for optical device vendors to supply new optical transceivers capable of operating at these higher data rates.

Trends in the CATV Market. In recent years, CATV service providers have invested extensively to support high speed, two-way communications and we expect that they will continue to do so. In North America, in particular, CATV service providers have expressed interest in emerging new technologies like DOCSIS 3.1, which will enable them to offer higher speed connections to their customers. In order to increase available bandwidth for their customers beyond the bandwidth possible with the introduction of DOCSIS 3.1, cable MSOs have been reducing the number of customers that are connected to a single node. By reducing the number of “homes per node,” the average bandwidth available to each customer is increased. Other new technologies, such as Converged Cable Access Platform (CCAP) and “Remote PHY” are under development by cable equipment suppliers. These technologies are being developed to be a cost-effective solution to provide higher available bandwidth to CATV customers.

While equipment vendors have historically relied upon third parties only to assemble portions of their products, within the past six years, certain of our customers have accelerated the outsourcing of both the design and manufacturing of both headend equipment and node equipment to third parties. The shift is due in part to the sophisticated engineering expertise needed to perform this work, along with the proliferation of new equipment designs needed to support DOCSIS 3.1.

Trends in the FTTH Market. The FTTH market generally refers to the Passive Optical Networks, or PONs, that telecommunications service providers deploy. The most commonly deployed PON technology is Gigabit PON, or GPON, which delivers up to 2.5 gigabits per second (Gbps) of data, but due to the splitting of the bandwidth among multiple users, the actual bandwidth delivered to an individual subscriber is far less than 2.5 Gbps. One approach that does support true 1 Gbps service to the home is wavelength division multiplexing PON, or WDM-PON, a technology that enables the transmission of multiple wavelengths of data over a single fiber-optic strand.

We experience certain challenges within our target markets, including continuous pressure to innovate and deliver highly integrated products that perform reliably in harsh, demanding environments and to produce high-quality devices in large volumes at competitive prices.

Our Solutions

By addressing the challenges in our target markets, we provide the following benefits to our customers:

Enable customers to deliver innovative products. We leverage our extensive expertise in high-speed optical, mixed-signal semiconductor and mechanical engineering, and MOCVD and our proprietary MBE laser fabrication process to deliver technologically advanced products to our customers.

Enhance efficiency and cost effectiveness of our customers' supply chains. We design and sell products at the level of integration desired by a customer, from components to turn-key equipment, providing our customers a dependable, cost-effective and simplified supply chain.

Deliver high quality, reliable products in high volume. As a vertically integrated supplier, we are able to monitor and maintain quality control throughout the production process, using our internally produced components where possible for our final products. With manufacturing facilities in the U.S., Taiwan and China, we can support high volume production and timely delivery for our customers around the world.

Provide sophisticated design solutions to our customers. We believe our in-house expertise in both analog and digital optical engineering enables us to design comprehensive solutions that meet many of the different network architectures and protocols used by our customers.

Our Strengths

Our key competitive strengths include the following:

Proprietary technological expertise and track record of innovation. We continue to develop innovative products by leveraging our technological expertise, including our proprietary MBE and MOCVD laser fabrication process.

Innovative light engine design and manufacturing. High-speed data center interconnect transceivers increasingly rely on multiple parallel optical signals. Our expertise in designing and manufacturing light engines, which combine lasers and photodiodes with channel multiplexing and de-multiplexing elements, gives us the ability to quickly develop new products for our data center customers.

Proven system design capabilities. We have extensive expertise and proven design capabilities in high-speed optical, mixed-signal semiconductor and mechanical engineering, which we believe position us to take advantage of the continuing shift to outsourced design and manufacturing among CATV equipment vendors.

Highly customized products. Most of our products have some level of customization, making it more difficult for our customers to switch rapidly to another supplier. We believe this element of customization contributes to longer product lifecycles and more stable product pricing.

Industry-leading position in the CATV market. We have continued to be awarded new design and manufacturing opportunities for CATV components and equipment. We serve a majority of the largest CATV equipment manufacturers in the world and our knowledge of both their requirements and the needs of their customers (the CATV network operators) allows us to access these new opportunities.

Vertically integrated, geographically distributed manufacturing model. Our vertically integrated design and manufacturing process encompasses various steps from laser design and fabrication to complete optical system design and assembly. Furthermore, we have geographically distributed our manufacturing by strategically locating our operations in the U.S., China and Taiwan to reduce development time and production costs, to better support our customers and to help protect our intellectual property.

Our Strategy

We seek to be the leading global provider of optical components, modules and equipment for each of our three target markets, internet data centers, CATV, and FTTH. Our strategy includes the following key elements:

Continue to penetrate the internet data center market. In the internet data center market, we primarily target internet data center operators who have adopted an open system architecture—one in which the optical connectivity solutions can be provided by a different vendor than the vendor which provides their servers and switches.

Extend our leadership in CATV networking. We intend to maintain our position as the leading producer of optical components used in CATV networks, and to capture an increasing share of the CATV equipment market as the major equipment vendors continue to outsource the design and manufacturing of such products.

Continue to penetrate the FTTH market. We believe our WDM-PON technology is a cost-effective solution for delivering 1 Gbps bandwidth to a home. We intend to capture an increasing share of the FTTH market by delivering optical modules enabling 1 Gbps synchronous service to the home through our customers, who are either internet service providers or manufacturers of networking equipment supplying internet service providers.

Continue to invest in our capabilities and infrastructure. We intend to continue to invest in new products, new technology and our production infrastructure and facilities to maintain and strengthen our competitive position. We engage in an active research and development program to develop new products and enhance existing products.

Selectively pursue other opportunities that leverage our existing expertise. Our expertise in designing and manufacturing outdoor equipment for the CATV industry positions us well to pursue applications that are also characterized by having varying and demanding environments, including wireless and wireline telecom infrastructure, industrial robotics, aerospace and defense, and oil and gas exploration.

Pursue complementary acquisition and strategic alliance opportunities. We evaluate and selectively pursue acquisition opportunities or strategic alliances that we believe will enhance or complement our current product offerings, augment our technology roadmap, or diversify our revenue base.

Our Technology

We believe that we have technology leadership in four key areas: semiconductor laser manufacturing, electronic technologies that enhance the performance of our lasers, optical hybrid integration and mixed-signal semiconductor design.

Differentiated semiconductor laser manufacturing. We use a combination of MBE and MOCVD processes in the fabrication of our lasers. We believe that the combination of these two epitaxial processes allows our products to benefit from the advantages afforded by each of these techniques. Among the differentiators of MBE relative to MOCVD fabrication are a lower process temperature and the use of solid phase materials rather than gaseous sources to grow wafers and the growth of more highly strained crystals. These factors contribute to longer operating lives of our lasers, improved laser efficiency and threshold current, among other performance attributes that make them well-suited to our target markets. While we believe that these advantages of MBE are important, MBE does have disadvantages including the inability to use certain dopant materials (for example Iron), difficulty in certain types of regrowth, and the necessity to maintain complex ultra-high vacuum equipment. By utilizing MOCVD in a portion of our production process, we are able to ameliorate some of these disadvantages. However, the epitaxial and processing steps required in the fabrication of our devices are very complex, with numerous critical steps requiring highly precise control. As a result of some of these challenges, production yields and the performance attributes of laser devices are highly variable and optimizing these characteristics requires numerous enhancements and modifications to standard MBE equipment and the MBE process. To our knowledge, we are unique in incorporating MBE processes in the production of communications lasers in high volume, and believe it would be difficult and time-consuming for other vendors to replicate our production technology.

Laser enhancement technology. Certain properties of the semiconductor lasers predominantly used in traditional communications devices, such as chirp and wavelength drift, negatively affect their ability to transmit signals over long fiber distances or prevent them from transmitting signals with acceptable fidelity in certain applications. We have developed laser enhancement circuitry that can correct many of these deficiencies. We believe that our technology will become more essential with wider deployment of higher capacity CATV and FTTH systems, which place more stringent demands on laser performance.

Optical hybrid-integration technology. Reducing the size, power consumption and complexity of optical devices is essential for achieving the price and performance targets of our customers. Our ability to integrate multiple optical networking functions into a single device and to co-package multiple devices into smaller form factors helps us meet customer requirements, and we believe can also create new opportunities. For instance, the transmission speed between network elements (switches and servers, for example) within the data center has continued to increase. However, the rate at which this data can be converted from electrical signals to optical signals by laser diodes has not increased at the same pace. Therefore, to achieve data rates of 40 Gbps and above, many customers utilize multiple lower data rate lasers co-packaged together into a single optical module, which we refer to as a light engine. The technology required to cost-effectively and reliably co-package these lasers and the associated electronic control circuitry is complex. Our extensive experience with the processes and the manufacturing technologies required to produce these devices gives us a competitive advantage.

Similarly, in FTTH networks, installing new fiber-optic cable is expensive and difficult, and in some situations prohibitively so for a network service provider. As a consequence, network operators seek to maximize the utilization of their installed fiber plant. In long-haul and metropolitan networks, the number of service providers who deployed WDM technology as fiber utilization rose. Fiber utilization in access networks is rising, but the use of WDM technology in the access segment has been problematic due to the relatively high cost and power consumption of the requisite optical devices. We have developed proprietary miniaturized optical packaging, electronic control circuitry and testing algorithms to create a hybrid WDM-PON solution that addresses these historical impediments that we believe will make WDM-PON a cost-effective alternative for deployment.

Mixed-signal design. As CATV providers continue to evolve from primarily broadcast-video content providers to a mixture of HD video content together with data-connectivity providers, the networks they utilize to offer these services must evolve as well. Older analog networks are giving way to hybrid networks that incorporate both analog and digital signals. For example, many newer networks are being designed with “digital return-path” capabilities. In this type of network, signals traveling from the headend to the residence are transported as analog signals, whereas signals traveling in the opposite direction (that is, originating at the residence and being transmitted towards the headend) are carried as digital signals. This combination of analog and digital signaling creates unique design challenges. Our engineers have many years of experience in developing equipment, modules and components that are well suited to these sorts of mixed-signal architectures. We believe that having deep experience in both digital and analog signaling allows us to offer superior solutions to our customers, compared with companies who have expertise in only one of these signal types.

Our Products

Our products include an array of optical communications solutions at varying levels of integration. We begin from the fundamental building blocks of lasers and laser components. From these foundational products, we design and manufacture a wide range of products from optical modules to complete turn-key equipment. We design our products to target customers in our identified markets to meet their needs and specifications.

Our components often incorporate one or more of our optical laser chips inside a precision housing that provides mechanical protection as well as standardized electrical contacts. More complex optical components may also include optical filters (for example, for use in WDM) or other optical elements by which optical signals are routed internally within the component. These more advanced components may also include coolers, heaters and sensors that allow the temperature of the laser chip to be measured and controlled. We manufacture the majority of the laser chips and optical components that are used in our own products.

At the next level of integration, our module or sub-assembly products typically contain one or more of our optical components and some additional control circuitry. Examples of modules include our transceiver line primarily used in internet data center markets and FTTH markets.

At the highest level of integration and complexity, our equipment products typically contain one or more optical components, modules and additional electronic control circuitry required to enable these subsystems to operate independently. For example, our CATV transmitter equipment requires utilization of our optical components and assembly onto a circuit board and to an external housing. Examples of equipment include our CATV transmitter and CATV nodes.

Intellectual Property

We rely on a combination of patent, copyright, trademark and trade secret laws, as well as confidentiality and licensing arrangements, to establish and protect our intellectual property. We employ various methods to protect these intellectual property rights, including maintaining a technological infrastructure with significant security measures, limiting disclosure and restricting access to only those individuals with an operational need for such information, and having employees, consultants and suppliers execute confidentiality agreements with us. While we expect our intellectual property to provide competitive advantages, we also find meaningful value from unpatented proprietary process knowledge, know-how and trade secrets.

Patents

As of December 31, 2015, we owned a total of 74 U.S. issued patents and 104 patents issued in China and Taiwan, plus a number of pending US and foreign/international patent applications. Our issued US and foreign patents will expire between 2016 and 2034.

Our portfolio of patents and patent applications covers several different technology families including:

- laser structure and design;
- optical signal conditioning and laser control;
- laser fabrication;
- photodiode and optical receiver design and fabrication;
- optical device and module designs;
- optical device packaging equipment and techniques; and
- optical network enhancements.

Trademarks

We have registered the trademarks APPLIED OPTOELECTRONICS, INC., AOI and our logo with the U.S. Patent and Trademark Office on the Principal Register. These marks are also registered in, or have applications for registration pending in, various foreign trademark offices.

Research and Development

To maintain our growth and competitiveness, we engage in an active research and development program to develop new products and enhance existing products. As a result of these efforts, we anticipate releasing various new or enhanced products over the next several years. Our research and development expenses were approximately \$20.9 million, \$16.0 million, and \$8.5 million for the years 2015, 2014 and 2013, respectively.

As of December 31, 2015, we had a total of 268 employees working in the R&D department, including 18 with Ph.D. degrees. We continue to recruit talented engineers to further enhance our research and development capabilities. We have research and development departments in our facilities in Texas, Georgia, China and Taiwan. Our research and development teams collaborate on joint projects, and by co-locating with our manufacturing operations enable us to achieve an efficient cost structure and improve our time to market.

A key factor in our research and development success is our highly collaborative process for new product development. Particularly in our equipment and module businesses, we often collaborate very closely with our customers from a very early stage in product development. By purposefully fostering this close collaboration, we believe that we can more rapidly develop leading solutions meeting the needs of our customers.

Manufacturing and Operations

We have three manufacturing sites: Sugar Land, Texas, Ningbo, China and Taipei, Taiwan. Our research and development functions are generally partnered with our manufacturing locations. In our U.S. facility, we manufacture laser chips (utilizing our MBE and MOCVD process), subassemblies and components. The subassemblies are used in the manufacture of components by our other manufacturing facilities or sold to third parties as modules. We manufacture our laser chips only within our U.S. facility, where our laser design team is located. In our Taiwan location, we manufacture optical components, such as our butterfly lasers, which incorporate laser chips, subassemblies and components manufactured within our U.S. facility. In addition, in our Taiwan location, we manufacture transceivers for the internet data center, FTTH, and other markets. In our China facility, we take advantage of lower labor costs and manufacture certain more labor intensive components and optical equipment systems, such as optical subassemblies for the internet data center market, CATV transmitters (at the headend) and CATV outdoor equipment (at the node). Each facility conducts testing on the components, modules or subsystems it manufactures and each facility is certified to ISO 9001:2008.

Our products are sold to our customers worldwide and also supply our internal component needs for the transceivers and equipment we manufacture. With a vertically integrated manufacturing process, we produce many of our own laser chips and other parts required to manufacture our optical components. Through this model, we are able to reduce development time and product costs as well as enhance quality control. We incorporate our own components into our transceivers, subsystems and equipment products wherever possible. In instances where we do not produce components ourselves, we source them from external suppliers and regularly evaluate these relationships in an attempt to reduce risk and lower cost.

We depend on a limited number of suppliers for certain raw materials and components used in our products. We regularly review our vendor relationships in an attempt to mitigate risks and lower costs, especially where we depend on one or two vendors for critical components or raw materials. While maintaining inventories that we believe are sufficient to meet our near-term needs, we strive not to carry significant inventories of externally sourced raw materials. Accordingly, we maintain ongoing communications with our vendors in order to help prevent any interruptions in supply, and have implemented a supply-chain management program to maintain quality and lower purchase prices through standardized purchasing efficiencies and design requirements.

Customers

Our customers are primarily internet data center operators, CATV and telecommunications equipment manufacturers, and internet service providers. We generally employ a direct sales model in North America and in the rest of the world we use both direct and indirect sales channels. In 2015, 2014 and 2013, we obtained 95.7%, 92.6% and 88.4% of our revenue, respectively, through our direct sales efforts and the remainder of our revenue through our indirect sales channels. Our sales channel partners provide logistical services and day-to-day customer support. Where we sell through an indirect sales channel, we work with the end customer to establish technological specifications for our

products. Our equipment customers typically offer our equipment under their brand-name and our equipment is often customized with unique design or performance criteria by each of these customers. We also from time to time offer design or manufacturing services to customers to assist them in more effectively using our products and realizing time-to-market advantages.

In 2015, the two customers who contributed most to our data center revenue were Amazon.com and Microsoft. Our CATV products were used by the three largest CATV OEMs, consisting of Cisco Systems, Inc., Arris Group Inc. (which acquired the Motorola Home Business in 2013) and Aurora Networks, a subsidiary of Pace plc (which acquired Harmonic Inc.'s optical business in 2013 and itself being acquired by Pace plc subsequently). In 2016, Arris Group Inc. completed its purchase of Pace plc, making the combined company one of our largest CATV customers. The two customers that contributed most to our revenue in the FTTH market in 2015 were Genexis B.V. and a leading internet service provider. In 2015, revenue from the internet data center market, CATV market, FTTH market and other markets provided 64.9%, 28.3%, 1.3%, and 5.5% of our revenue, respectively, compared to 49.4%, 36.9%, 10.4%, and 3.8%, respectively, in 2014.

In addition to our three main target markets, we also manufacture and sell optical products designed for telecommunications. These products include optical products designed to transmit signals used in 4G Long Term Evolution, or LTE, mobile networks, and various products targeted at the metro-scale telecommunications networking market. We have various other products designed for diverse applications, both inside and outside of communications technology, which generally are derivatives of products developed for our three target markets.

We support our sales efforts by attendance at industry trade shows, technical conferences, advertising in various trade journals and magazines and other promotional efforts. These efforts are aimed at attracting new customers and enhancing our existing customer relationships.

Backlog

We generally make sales pursuant to short-term purchase orders without deposits and subject to rescheduling, revision or cancellation on short notice. We accordingly believe that purchase orders are not an accurate indicator of our future sales and any backlog of purchase orders is not a reliable indicator of our future revenue.

Financial Information by Geographic Region

For information regarding our revenue and long-lived assets by geographic region, see Note N to the Consolidated Financial Statements. For risks relating to our operations see “Item 1A. Risk Factors” and particularly the risks under the caption “Risks related to our operations in China.”

Competition

The optical networking market is intensely competitive. Because of the broad nature of our product offerings, we do not believe that we face a single major competitor across all of our markets. We do, however, experience intense competition in each product area from a number of manufacturers and we anticipate that competition will increase. Our major competitors in one or more of our markets include EMCORE Corporation, Finisar Corporation, Foxconn Interconnect Technology Ltd., Lumentum Holding, Inc., Mitsubishi, Molex, LLC, Oclaro, Inc., Source Photonics, and Sumitomo Electric Industries, Ltd.

Many of our competitors are larger than we are and have significantly greater financial, marketing and other resources.

In addition, several of our competitors have large market capitalizations or cash reserves and are much better positioned to acquire other companies to gain new technologies or products that may displace our products. Network equipment providers, who are our customers, and network service providers, who are supplied by our customers, may decide to manufacture the optical subsystems incorporated into their network systems in-house. We also encounter potential customers that, because of existing relationships, are committed to the products offered by these competitors.

We believe the principal competitive factors in our target markets include the following:

- use of internally manufactured components;

- product breadth and functionality;

- timing and pace of new product development;

- breadth of customer base;

- technological expertise;

- reliability of products;

- product pricing; and

- manufacturing efficiency.

We believe that we compete favorably with respect to the above factors based on our MBE and MOCVD processes, our vertically integrated model, the performance and reliability of our product offerings, and our technical expertise in light engine design and manufacture.

Employees

As of December 31, 2015, we employed 2,513 full-time employees, of which 34 held Ph.D. degrees in a science or engineering field. Of our employees 257 are located in the U.S., 1,186 are located in Taiwan, and 1,070 are located in China. None of our employees are represented by any collective bargaining agreement, but certain employees of our China subsidiary are members of a trade union. We have never suffered any work stoppage and believe that we have satisfactory relations with our employees.

Environmental Matters

Our research and development and manufacturing operations and our products are subject to a variety of federal, state, local and foreign environmental, health and safety laws and regulations, including those governing discharges of pollutants to air and water, the use, storage, handling and disposal of hazardous materials, employee health and safety, and the hazardous material content in our products. Our environmental management systems in our facilities in Sugar Land, TX, Ningbo, China and Taipei, Taiwan are all certified to meet the requirements of ISO14001:2004. However, there can be no assurance that violations of applicable laws at any of our facilities will not occur in the future as a result of human error, accident, equipment failure or other causes. We use, store and dispose of hazardous materials in our manufacturing operations and hazardous materials are present in our products. We incur costs to comply with environmental, health and safety requirements, and any failure to comply, or the identification of contamination for which we are found liable, could cause us to incur substantial costs, including cleanup costs, monetary fines, or civil or criminal penalties, and subject us to property damage and personal injury claims, and result in the suspension of production, alteration of our manufacturing processes, redesign of our products, or curtailment of sales and adverse publicity. Liability under environmental, health and safety laws can be joint and several and without regard to fault or negligence. For example, pursuant to environmental laws and regulations, including but not limited to the Comprehensive Environmental Response Compensation and Liability Act, or CERCLA, we may be liable for the full amount of any remediation-related costs at properties we currently own or formerly owned, such as our currently owned Sugar Land, Texas facility, or at properties at which we operated, as well as at properties we will own or operate in the future, and properties to which we have sent hazardous substances, whether or not we caused the contamination.

We expect that our operations and products will be affected by new environmental requirements on an ongoing basis. Environmental, health and safety requirements have become more stringent over time, and changes to existing requirements could restrict our ability to expand our facilities, require us to acquire costly pollution control equipment, or cause us to incur other significant expenses or to modify our manufacturing processes or the hazardous material content of our products. Identification of presently unidentified environmental conditions, more vigorous enforcement by a governmental authority, enactment of more stringent legal requirements or other unanticipated events could give rise to adverse publicity, restrict our operations, affect the design or marketability of our products or otherwise cause us to incur material environmental costs.

We face increasing complexity in our product design and procurement operations as we adjust to new and upcoming requirements relating to the materials composition of our products. Some jurisdictions in which our products are sold have enacted requirements regarding the hazardous material content of certain products. For example, member states of the European Union and China are among a growing number of jurisdictions that have placed restrictions on the use of lead, among other chemicals, in electronic products, which affect the composition and packaging of our products. The passage of such requirements in additional jurisdictions, or the tightening of standards or elimination of certain exemptions in jurisdictions where our products are already subject to such requirements, could cause us to incur significant expenditures to make our products compliant with new requirements, or could limit the markets into which we may sell our products. Other governmental regulations may require us to reengineer our products to use components that are more environmentally compatible, resulting in additional costs to us.

Sources of Raw Materials

We depend on a limited number of suppliers for certain raw materials, components, and equipment used in our products. We continually review our supplier relationships to mitigate risks and lower costs, especially where we depend on one or two suppliers for critical components or raw materials. While maintaining inventories that we believe are sufficient to meet our near-term needs, we strive not to carry significant inventories of raw materials. Accordingly, we maintain ongoing communications with our suppliers in order to prevent any interruptions in supply, and have implemented a supply-chain management program to maintain quality and lower purchase prices through standardized purchasing efficiencies and design requirements. To date, we generally have been able to obtain sufficient quantities of critical supplies in a timely manner.

We are subject to rules promulgated by the SEC pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding the use of "conflict minerals". These rules have imposed and will continue to impose additional costs and may introduce new risks related to our ability to verify the origin of any "conflict minerals" used in our products.

Export Regulations

The Bureau of Industry and Security (BIS) of the U.S. Department of Commerce is responsible for regulating the export of most commercial items that are classified as dual-use goods that may have both commercial and military applications. A limited number of our products are exported by license under the Export Control Classification Number, or ECCN, of 5A991. Export Control Classification requirements are dependent upon an item's technical characteristics, the destination, the end-use, and the end-user, and other activities of the end-user. Should the ECCN change, then the export of our products to certain countries would be restricted. However, we currently do not export our products to any countries on the restricted list, and therefore a change in the ECCN would not materially impact our business.

Corporate Information

We were incorporated in the State of Texas in 1997. In March 2013, Applied Optoelectronics, Inc., a Texas corporation, converted into a Delaware corporation. Prime World International Holdings, Ltd. (“Prime World”) is a wholly-owned subsidiary of the Company incorporated in the British Virgin Islands on January 13, 2006. Prime World is the parent company of Global Technology, Inc. (“Global”). Global was established in June 2002 in the People’s Republic of China (“PRC”) and was acquired by Prime World on March 30, 2006. The Company also operates a division, AOI—Taiwan, which is qualified to do business in Taiwan and primarily manufactures transceivers and performs research and development activities.

Our principal executive offices are located at 13115 Jess Pirtle Blvd., Sugar Land, TX 77478, and our telephone number is (281) 295-1800. Our website address is www.ao-inc.com. Information contained on our website is not incorporated by reference into this Annual Report on Form 10-K.

Available Information

We file electronically with the United States Securities and Exchange Commission, or SEC, our 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. We make available on our website at www.ao-inc.com free of charge, copies of these reports as soon as reasonably practicable after filing these reports with, or furnishing them to, the SEC.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this Annual Report on Form 10-K, including our consolidated financial statements and related notes. If any of the following risks actually occur, we may be unable to conduct our business as currently planned and our financial condition and results of operations could be seriously harmed. In addition, the trading price of our common stock could decline due to the occurrence of any of these risks and you may lose all or part of your investment.

Risks Inherent in Our Business

We are dependent on our key customers for a significant portion of our revenue and the loss of, or a significant reduction in orders from, any of our key customers would adversely impact our revenue and results of operations.

We generate much of our revenue from a limited number of customers. In 2015, 2014 and 2013, our top ten customers represented 88.7%, 87.2% and 76.9% of our revenue, respectively. In 2015, Amazon represented 52.5% of our revenue and Microsoft represented 11.6% of our revenue. As a result, the loss of, or a significant reduction in orders from any of our key customers would materially and adversely affect our revenue and results of operations. We typically do not have long-term contracts with our customers and instead rely on recurring purchase orders. If our key customers do not continue to purchase our existing products or fail to purchase additional products from us, our revenue would decline and our results of operations would be adversely affected.

Adverse events affecting our key customers could also negatively affect our ability to retain their business and obtain new purchase orders, which could adversely affect our revenue and results of operations. For example, in recent years, there has been consolidation among various network equipment manufacturers and this trend is expected to continue. For example, in January 2016, Arris Group Inc. (“Arris”) completed plans to purchase Pace Plc (“Pace”). Pace and Arris have historically been our customers, and if we fail to achieve historical levels of sales of our products to the new entity, the loss or reduction in sales could have an adverse effect on our business, financial condition, results of operations, and cash flows. We are unable to predict the impact that industry consolidation would have on our existing or potential customers. We may not be able to offset any potential decline in revenue arising from the consolidation of our existing customers with revenue from new customers or additional revenue from the merged company.

If our customers do not qualify our products for use on a timely basis, our results of operations may suffer.

Prior to the sale of new products, our customers typically require us to “qualify” our products for use in their applications. At the successful completion of this qualification process, we refer to the resulting sales opportunity as a “design win.” Additionally, new customers often audit our manufacturing facilities and perform other evaluations during this qualification process. The qualification process involves product sampling and reliability testing and collaboration with our product management and engineering teams in the design and manufacturing stages. If we are unable to accurately predict the amount of time required to qualify our products with customers, or are unable to qualify our products with certain customers at all, then our ability to generate revenue could be delayed or our revenue would be lower than expected and we may not be able to recover the costs associated with the qualification process or with our product development efforts, which would have an adverse effect on our results of operations.

In addition, due to rapid technological changes in our markets, a customer may cancel or modify a design project before we have qualified our product or begun volume manufacturing of a qualified product. It is unlikely that we would be able to recover the expenses for cancelled or unutilized custom design projects. Some of these unrecoverable expenses for cancelled or unutilized custom design projects may be significant. It is difficult to predict with any certainty whether our customers will delay or terminate product qualification or the frequency with which customers will cancel or modify their projects, but any such delay, cancellation or modification would have a negative effect on our results of operations.

Our ability to successfully qualify and scale capacity for new technologies and products is important to our ability to grow our business and market presence, and we may invest a significant amount to scale our capacity to meet potential demand from customers for our new technologies and products. If we are unable to qualify and sell any of our new products in volume, on time, or at all, our results of operations may be adversely affected.

Customer demand is difficult to forecast accurately and, as a result, we may be unable to match production with customer demand.

We make planning and spending decisions, including determining the levels of business that we will seek and accept, production schedules, component procurement commitments, personnel needs and other resource requirements, based on our estimates of product demand and customer requirements. Our products are typically purchased pursuant to individual purchase orders. While our customers may provide us with their demand forecasts, they are typically not contractually committed to buy any quantity of products beyond firm purchase orders. Furthermore, many of our customers may increase, decrease, cancel or delay purchase orders already in place without significant penalty. The short-term nature of commitments by our customers and the possibility of unexpected changes in demand for their products reduce our ability to accurately estimate future customer requirements. On occasion, customers may require rapid increases in production, which can strain our resources, cause our manufacturing to be negatively impacted by materials shortages, necessitate more onerous procurement commitments and reduce our gross margin. We may not have sufficient capacity at any given time to meet the volume demands of our customers, or one or more of our suppliers may not have sufficient capacity at any given time to meet our volume demands. If any of our major customers decrease, stop or delay purchasing our products for any reason, we will likely have excess manufacturing capacity or inventory and our business and results of operations would be harmed.

We face intense competition which could negatively impact our results of operations and market share.

The markets into which we sell our products are highly competitive. Our competitors range from large, international companies offering a wide range of products to smaller companies specializing in niche markets. Current and potential competitors may have substantially greater name recognition, financial, marketing, research and manufacturing resources than we do, and there can be no assurance that our current and future competitors will not be more successful than us in specific product lines or markets. Some of our competitors may also have better-established relationships with our current or potential customers. Some of our competitors have more resources to develop or acquire new products and technologies and create market awareness for their products and technologies. In addition, some of our competitors have the financial resources to offer competitive products at below-market pricing levels that could prevent us from competing effectively and result in a loss of sales or market share or cause us to lower prices for our products. In recent years, there has been consolidation in our industry and we expect such consolidation to continue. Consolidation involving our competitors could result in even more intense competition. Network equipment manufacturers, who are our customers, and network service providers may decide to manufacture the optical subsystems incorporated into their network systems in-house instead of outsourcing such products to companies such as us. We also encounter potential customers that, because of existing relationships with our competitors, are committed to the products offered by our competitors.

We are subject to the cyclical nature of the markets in which we compete and any future downturn will likely reduce demand for our products and revenue.

In each of our target markets, including the CATV market, our sales depend on the aggregate capital expenditures of service providers as they build out and upgrade their network infrastructure. These markets are highly cyclical and characterized by constant and rapid technological change, price erosion, evolving standards and wide fluctuations in product supply and demand. In the past, these markets have experienced significant downturns, often connected with, or in anticipation of, the maturation of product cycles. These downturns have been characterized by diminished product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices. Our historical results of operations have been subject to these cyclical fluctuations, and we may experience substantial period-to-period fluctuations in our future results of operations. Any future downturn in any of the markets in which we compete could significantly reduce the demand for our products and therefore may result in a significant reduction in our revenue. Our revenue and results of operations may be materially and adversely affected in the future due to changes in demand from individual customers or cyclical changes in any of the markets utilizing our products. We may not be able to accurately predict these cyclical fluctuations and the impact of these fluctuations may have on our revenue and operating results.

We must continually develop successful new products and enhance existing products, and if we fail to do so or if our release of new or enhanced products is delayed, our business may be harmed.

The markets for our products are characterized by frequent new product introductions, changes in customer requirements and evolving industry standards, all with an underlying pressure to reduce cost and meet stringent reliability and qualification requirements. Our future performance will depend on our successful development, introduction and market acceptance of new and enhanced products that address these challenges. If we are unable to make our new or enhanced products commercially available on a timely basis, we may lose existing and potential customers and our financial results would suffer.

In addition, due to the costs and length of research, development and manufacturing process cycles, we may not recognize revenue from new products until long after such expenditures, if at all, and our margins may decrease if our costs are higher than expected, adversely affecting our financial condition and results of operation.

Although the length of our product development cycle varies widely by product and customer, it may take 18 months or longer before we receive our first order. As a result, we may incur significant expenses long before customers accept and purchase our products.

Product development delays may result from numerous factors, including:

- modification of product specifications and customer requirements;
- unanticipated engineering complexities;
- difficulties in reallocating engineering resources and overcoming resource limitations; and
- rapidly changing technology or competitive product requirements.

The introduction of new products by us or our competitors could result in a slowdown in demand for our existing products and could result in a write-down in the value of our inventory. We have in the past experienced a slowdown in demand for existing products and delays in new product development, and such delays will likely occur in the future. To the extent we experience product development delays for any reason or we fail to qualify our products and obtain their approval for use, which we refer to as a design win, our competitive position would be adversely affected and our ability to grow our revenue would be impaired.

Furthermore, our ability to enter a market with new products in a timely manner can be critical to our success because it is difficult to displace an existing supplier for a particular type of product once a customer has chosen a supplier, even if a later-to-market product provides better performance or cost efficiency.

The development of new, technologically advanced products is a complex and uncertain process requiring frequent innovation, highly-skilled engineering and development personnel and significant capital, as well as the accurate anticipation of technological and market trends. We cannot assure you that we will be able to identify, develop, manufacture, market or support new or enhanced products successfully or on a timely basis. Further, we cannot assure you that our new products will gain market acceptance or that we will be able to respond effectively to product introductions by competitors, technological changes or emerging industry standards. We also may not be able to develop the underlying core technologies necessary to create new products and enhancements, license these technologies from third parties, or remain competitive in our markets.

If the CATV market does not continue to develop as we expect, or if there is any downturn in this market, our business would be adversely affected.

Historically, we have generated much of our revenue from the CATV market. In 2015, 2014 and 2013, the CATV market represented 28.3%, 36.3% and 60.4% of our revenue, respectively. In the CATV market, we are relying on

expected increasing demand for bandwidth-intensive services and applications such as on-demand television programs, high-definition television channels, or HDTV, social media, peer-to-peer file sharing and online video creation and viewing from network service providers. Without network and bandwidth growth, the need for our products will not increase and may decline, adversely affecting our financial condition and results of operations. Although demand for broadband access is increasing, network and bandwidth growth may be limited by several factors, including an uncertain regulatory environment, high infrastructure costs to purchase and install equipment and uncertainty as to which competing content delivery solution, such as telecommunications, wireless or satellite, will gain the most widespread acceptance. CATV network operators may reduce or forego equipment purchases in anticipation of the availability of next generation DOCSIS 3.1 solutions that are expected to be available soon, which may adversely affect our sales. If the trend of outsourcing for the design and manufacture of CATV equipment does not continue, or continues at a slower pace than currently expected, our customers' demand for our design and manufacturing services may not grow as quickly as expected. If expectations for the growth of the CATV market are not realized, our financial condition or results of operations will be adversely affected. In addition, if the CATV market is adversely impacted, whether due to competitive pressure from telecommunication service providers, regulatory changes, or otherwise, our business would be adversely affected. We may not be able to offset any potential decline in revenue from the CATV market with revenue from new customers in other markets.

We will be expanding to new facilities in our Sugar Land, TX location. These facilities will add significant additional costs and if we fail to adequately utilize the additional production capacity, our results of operations will suffer.

In 2015, we began construction of two new buildings located immediately adjacent to our existing headquarters building in Sugar Land, TX. The projected cost of construction for these new facilities is approximately \$33 million, and we expect to invest significant additional resources to add production equipment to the new facilities. Much of this equipment must be ordered far in advance of its delivery date, and accordingly we must make the decision to purchase equipment long before we see additional orders for our products. While we endeavor to order equipment that is flexible in utilization, if we over-estimate aggregate demand for our products, or if we fail to accurately predict the types of products that customers will demand in the future, we may be forced to under-utilize this equipment, which could result in asset impairment charges, additional costs to reconfigure equipment to be used in other production, or other charges that would negatively affect our results of operations.

Our new factory in Sugar Land, TX may experience unforeseen difficulties in commencing operations, or may cost more than we expect to bring online.

We expect to complete our new facility in Sugar Land, TX in the second quarter of 2016. However, construction delays or difficulties that may arise in the new facility may result in delays to the commencement of operations in the new facility, or may cause us to incur additional costs to fix any deficiencies in the new facility. We expect to begin utilizing the additional production capacity from the new facility in 2016, and any delay to our start-up schedule could cause us to have insufficient production capacity to meet customer orders. If we are unable to produce sufficient products to meet customer demand, it would negatively affect our sales, competitive position and reputation.

We have limited operating history in the FTTH market, and our business could be harmed if this market does not develop as we expect.

For 2014 and 2015, respectively, we generated 10.4%, and 1.3% of our revenue from the FTTH market. We have only recently begun offering products to the FTTH market, and our WDM-PON products designed for this market have not yet, and may never, gain widespread acceptance by large internet service providers. Our business in this market is dependent on the deployment of our optical components, modules and subassemblies. We are relying on increasing demand for bandwidth-intensive services and telecommunications service providers' acceptance and deployment of WDM-PON as a technology supporting 1 gigabit per second service to the home. Without network and bandwidth growth and adoption of our solutions by operators in these markets, we will not be able to sell our products in these markets in high volume or at our targeted margins, which would adversely affect our financial condition and results of operations. For example, WDM-PON technology may not be adopted by equipment and service providers in the FTTH market as rapidly as we expect or in the volumes we need to achieve acceptable margins. Network and bandwidth growth may be limited by several factors, including an uncertain regulatory environment, high infrastructure costs to purchase and install equipment and uncertainty as to which competing content delivery solution, such as CATV, will gain the most widespread acceptance. In addition, as we enter new markets or expand our product offerings in existing markets, our margins may be adversely affected due to competition in those markets and commoditization of competing products. If our expectations for the growth of these markets are not realized, our financial condition or results of operations will be adversely affected.

If we encounter manufacturing problems, we may lose sales and damage our customer relationships.

We may experience delays, disruptions or quality control problems in our manufacturing operations. These and other factors may cause less than acceptable yields at our wafer fabrication facility. Manufacturing yields depend on a number of factors, including the quality of available raw materials, the degradation or change in equipment calibration and the rate and timing of the introduction of new products. Changes in manufacturing processes required as a result of changes in product specifications, changing customer needs and the introduction of new product lines may significantly reduce our manufacturing yields, resulting in low or negative margins on those products. In addition, we

use an MBE fabrication process to make our lasers, in addition to Metal Organic Chemical Vapor Deposition, or MOCVD, the technique most commonly used in optical manufacturing by communications optics vendors, and our Molecular Beam Epitaxy, or MBE, fabrication process relies on custom-manufactured equipment. If our MBE or MOCVD fabrication facility in Sugar Land, Texas were to be damaged or destroyed for any reason, our manufacturing process would be severely disrupted. Any such manufacturing problems would likely delay product shipments to our customers, which would negatively affect our sales, competitive position and reputation. We may also experience delays in production, typically in February, during the Chinese New Year holiday when our facilities in China and Taiwan are closed.

Increasing costs and shifts in product mix may adversely impact our gross margins.

Our gross margins on individual products and among products fluctuate over each product's life cycle. Our overall gross margins have fluctuated from period to period as a result of shifts in product mix, the introduction of new products, decreases in average selling prices and our ability to reduce product costs, and these fluctuations are expected to continue in the future. We may not be able to accurately predict our product mix from period to period, and as a result we may not be able to forecast accurately our overall gross margins. The rate of increase in our costs and expenses may exceed the rate of increase in our revenue, either of which would materially and adversely affect our business, our results of operations and our financial condition.

Given the high fixed costs associated with our vertically integrated business, a reduction in demand for our products will likely adversely impact our gross profits and our results of operations.

We have a high fixed cost base due to our vertically integrated business model, including the fact that 1,960 of our employees as of December 31, 2015 were employed in manufacturing and research and development operations. We may not be able to adjust these fixed costs quickly to adapt to rapidly changing market conditions. Our gross profit and gross margin are greatly affected by our sales volume and volatility on a quarterly basis and the corresponding absorption of fixed manufacturing overhead expenses. In addition, because we are a vertically integrated manufacturer, insufficient demand for our products may subject us to the risk of high inventory carrying costs and increased inventory obsolescence. Given our vertical integration, the rate at which we turn inventory has historically been low when compared to our cost of sales. We do not expect this to change significantly in the future and believe that we will have to maintain a relatively high level of inventory compared to our cost of sales. As a result, we continue to expect to have a significant amount of working capital invested in inventory. We may be required to write down inventory costs in the future and our high inventory costs may have an adverse effect on our gross profits and our results of operations.

We have a history of losses and have a substantial accumulated deficit.

We have a history of losses and have a substantial accumulated deficit. In the years ended December 31, 2013 and 2012, we experienced net losses of \$1.4 million and \$0.9 million, respectively. In 2014 and 2015, we experienced profit of \$4.3 million and \$10.8 million, respectively. As of December 31, 2015 and 2014, our accumulated deficit was \$68.2 million and \$79.0 million, respectively. Our losses in past years were due to expenditures made to expand our business, including expenditures for hiring additional research and development, and sales and marketing personnel, and expenditures to expand and maintain our manufacturing facilities and research and development operations. We expect to continue to make significant expenditures related to our business, including expenditures for hiring additional research and development, and sales and marketing personnel, and expenditures to maintain and expand our manufacturing facilities and research and development operations. In addition, we have incurred significant additional time demands and legal, accounting and other expenses since we became a public company in September 2013. Our management and other personnel devote a substantial amount of time to complying with the applicable rules and requirements of being a public company.

Our financial results may vary significantly from quarter-to-quarter due to a number of factors, which may lead to volatility in our stock price.

Our quarterly revenue and operating results have varied in the past and will likely continue to vary significantly from quarter to quarter. This variability may lead to volatility in our stock price as research analysts and investors respond to these quarterly fluctuations. These fluctuations are due to numerous factors, including:

- the timing, size and mix of sales of our products;
- fluctuations in demand for our products, including the increase, decrease, rescheduling or cancellation of significant customer orders;
- our ability to design, manufacture and deliver products which meet customer requirements in a timely and cost-effective manner;
- new product introductions and enhancements by us or our competitors;
- the gain or loss of key customers;

- the rate at which our present and potential customers and end users adopt our technologies;
- changes in our pricing and sales policies or the pricing and sales policies of our competitors;
- quality control or yield problems in our manufacturing operations;
- supply disruption for certain raw materials and components used in our products;
- capacity constraints of our outside contract manufacturers for a portion of the manufacturing process for some of our products;
- length and variability of the sales cycles of our products;
- unanticipated increases in costs or expenses;
- the loss of key employees;
- different capital expenditure and budget cycles for our customers, affecting the timing of their spending for our products;

- political stability in the areas of the world in which we operate;
- fluctuations in foreign currency exchange rates;
- changes in accounting rules;
- the evolving and unpredictable nature of the markets for products incorporating our solutions; and
- general economic conditions and changes in such conditions specific to our target markets.

The foregoing factors are difficult to forecast, and these, as well as other factors, could materially adversely affect our quarterly and annual operating results. In addition, a significant amount of our operating expenses is relatively fixed in nature due to our internal manufacturing, research and development, sales and general administrative efforts. Any failure to adjust spending quickly enough to compensate for a revenue shortfall could magnify the adverse impact of such revenue shortfall on our results of operations. For these reasons, you should not rely on quarter-to-quarter comparisons of our results of operations as an indicator of future performance. Moreover, our operating results may not meet our announced guidance or the expectations of research analysts or investors, in which case the price of our common stock could decrease significantly. There can be no assurance that we will be able to successfully address these risks.

We depend on key personnel to develop and maintain our technology and manage our business in a rapidly changing market.

The continued services of our executive officers and other key engineering, sales, marketing, manufacturing and support personnel is essential to our success. For example, our ability to achieve new design wins depends upon the experience and expertise of our engineers. Any of our key employees, including our Chief Executive Officer, Chief Financial Officer, Senior Vice President of Network Equipment Module Business Unit, Senior Vice President of Optical Module Division and Asia General Manager, may resign at any time. We do not have key person life insurance policies covering any of our employees. To implement our business plan, we also intend to hire additional employees, particularly in the areas of engineering, manufacturing and sales. Our ability to continue to attract and retain highly skilled employees is a critical factor in our success. Competition for highly skilled personnel is intense. We may not be successful in attracting, assimilating or retaining qualified personnel to satisfy our current or future needs. Our ability to develop, manufacture and sell our products, and thus our financial condition and results of operations, would be adversely affected if we are unable to retain existing personnel or hire additional qualified personnel.

We depend on a limited number of suppliers and any supply interruption could have an adverse effect on our business.

We depend on a limited number of suppliers for certain raw materials and components used in our products. Some of these suppliers could disrupt our business if they stop, decrease or delay shipments or if the materials or components they ship have quality or reliability issues. Some of the raw materials and components we use in our products are available only from a sole source or have been qualified only from a single supplier. Furthermore, other than our current suppliers, there are a limited number of entities from whom we could obtain certain materials and components. We may also face shortages if we experience increased demand for materials or components beyond what our qualified suppliers can deliver. Our inability to obtain sufficient quantities of critical materials or components could adversely affect our ability to meet demand for our products, adversely affecting our financial condition and results of operation.

We typically have not entered into long-term agreements with our suppliers and, therefore, our suppliers could stop supplying materials and components to us at any time or fail to supply adequate quantities of materials or components to us on a timely basis. It is difficult, costly, time consuming and, on short notice, sometimes impossible for us to identify and qualify new suppliers. Our customers generally restrict our ability to change the components in our products. For more critical components, any changes may require repeating the entire qualification process. Our reliance on a limited number of suppliers or a single qualified vendor may result in delivery and quality problems, and reduced control over product pricing, reliability and performance.

We depend upon outside contract manufacturers for a portion of the manufacturing process for some of our products.

Almost all of our products are manufactured internally. However we also rely upon manufacturers in China, Taiwan and other Asia locations to provide back-end manufacturing and produce the finished portion of a few of our products. Our reliance on a contract manufacturer for these products makes us vulnerable to possible capacity constraints and reduced control over delivery schedules, manufacturing yields, manufacturing quality/controls and costs. If one of our contract manufacturers is unable to meet all of our customer demand in a timely fashion, this could have a material adverse effect on the revenue from our products. If the contract manufacturer for one of our products was unable or unwilling to manufacture such product in required volumes and at high quality levels or to continue our existing supply arrangement, we would have to identify, qualify and select an acceptable alternative contract manufacturer or move these manufacturing operations to our internal manufacturing facilities. An alternative contract manufacturer may not be available to us when needed or may not be in a position to satisfy our quality or production requirements on commercially reasonable terms, including price. Any significant interruption in manufacturing our products would require us to reduce our supply of products to our customers, which in turn, would reduce our revenue, harm our relationships with the customer of these products and cause us to forego potential revenue opportunities.

Our products could contain defects that may cause us to incur significant costs or result in a loss of customers.

Our products are complex and undergo quality testing as well as formal qualification by our customers. Our customers' testing procedures are limited to evaluating our products under likely and foreseeable failure scenarios and over varying amounts of time. For various reasons, such as the occurrence of performance problems that are unforeseeable in testing or that are detected only when products age or are operated under peak stress conditions, our products may fail to perform as expected long after customer acceptance. Failures could result from faulty components or design, problems in manufacturing or other unforeseen reasons. As a result, we could incur significant costs to repair or replace defective products under warranty, particularly when such failures occur in installed systems. Our products are typically embedded in, or deployed in conjunction with, our customers' products, which incorporate a variety of components, modules and subsystems and may be expected to interoperate with modules produced by third parties. As a result, not all defects are immediately detectable and when problems occur, it may be difficult to identify the source of the problem. While we have not experienced material failures in the past, we will continue to face this risk going forward because our products are widely deployed in many demanding environments and applications worldwide. In addition, we may in certain circumstances honor warranty claims after the warranty has expired or for problems not covered by warranty to maintain customer relationships. Any significant product failure could result in litigation, damages, repair costs and lost future sales of the affected product and other products, divert the attention of our engineering personnel from our product development efforts and cause significant customer relations problems, all of which would harm our business. Although we carry product liability insurance, this insurance may not adequately cover our costs arising from defects in our products or otherwise.

We face a variety of risks associated with our international sales and operations.

We currently derive, and expect to continue to derive, a significant portion of our revenue from sales to international customers. In 2015, 2014 and 2013, 19.0%, 29.5% and 41.0% of our revenue was derived from sales that occurred outside of North America, respectively. In addition, a significant portion of our manufacturing operations is based in Ningbo, China and Taipei, Taiwan. Our international revenue and operations are subject to a number of material risks, including:

- difficulties in staffing, managing and supporting operations in more than one country;
- difficulties in enforcing agreements and collecting receivables through foreign legal systems;
- fewer legal protections for intellectual property in foreign jurisdictions;
- foreign and U.S. taxation issues and international trade barriers;

·difficulties in obtaining any necessary governmental authorizations for the export of our products to certain foreign jurisdictions;

·fluctuations in foreign economies;

·fluctuations in the value of foreign currencies and interest rates;

·trade and travel restrictions;

·domestic and international economic or political changes, hostilities and other disruptions in regions where we currently operate or may operate in the future;

·difficulties and increased expenses in complying with a variety of U.S. and foreign laws, regulations and trade standards, including the Foreign Corrupt Practices Act; and

·different and changing legal and regulatory requirements in the jurisdictions in which we currently operate or may operate in the future.

Negative developments in any of these factors in China or Taiwan or other countries could result in a reduction in demand for our products, the cancellation or delay of orders already placed, difficulties in producing and delivering our products, threats to our intellectual property, difficulty in collecting receivables, and a higher cost of doing business. Although we maintain certain compliance programs throughout the company, violations of U.S. and foreign laws and regulations may result in criminal or civil sanctions, including material monetary fines, penalties and other costs against us or our employees, and may have a material adverse effect on our business.

Our business operations conducted in China and Taiwan are important to our success. A substantial portion of our property, plant and equipment is located in China and Taiwan. We expect to make further investments in China and Taiwan in the future. Therefore, our business, financial condition, results of operations and prospects are subject to economic, political, legal, and social events and developments in China and Taiwan. Factors affecting military, political or economic conditions in China and Taiwan could have a material adverse effect on our financial condition and results of operations, as well as the market price and the liquidity of our common shares.

In some instances, we rely on third parties to assist in selling our products, and the failure of those parties to perform as expected could reduce our future revenue.

Although we primarily sell our products through direct sales, we also sell our products to some of our customers through third party sales representatives and distributors. Many of such third parties also market and sell products from our competitors. Our third party sales representatives and distributors may terminate their relationships with us at any time, or with short notice. Our future performance will also depend, in part, on our ability to attract additional third party sales representatives and distributors that will be able to market and support our products effectively, especially in markets in which we have not previously distributed our products. If our current third party sales representatives and distributors fail to perform as expected, our revenue and results of operations could be harmed.

Failure to manage our growth effectively may adversely affect our financial condition and results of operations.

Successful implementation of our business plan in our target markets requires effective planning and management. Our production volumes are increasing significantly and we have announced plans to increase our production capacity in response to demand for our products, adding both personnel as well as expanding our physical manufacturing facilities. We currently operate facilities in Sugar Land, Texas, Ningbo, China, Taipei, Taiwan, and Duluth, Georgia. We currently manufacture our lasers using a proprietary process and customized equipment located only in our Sugar Land, Texas facility, and it will be costly to duplicate that facility, to scale our laser manufacturing capacity or to mitigate the risks associated with operating a single facility. The challenges of managing our geographically dispersed operations have increased and will continue to increase the demand on our management systems and resources. Moreover, we are continuing to improve our financial and managerial controls, reporting systems and procedures. Any failure to manage our expansion and the resulting demands on our management systems and resources effectively may adversely affect our financial condition and results of operations.

Our loan agreements contain restrictive covenants that may adversely affect our ability to conduct our business.

We have lending arrangements with several financial institutions, including loan agreements with East West Bank and Comerica Bank in the U.S., and our Taiwan location and China subsidiary have several lines of credit arrangements. Our loan agreements governing our long-term debt obligations in the U.S. contain certain financial and operating covenants that limit our management's discretion with respect to certain business matters. Among other things, these covenants require us to maintain certain financial ratios and restrict our ability to incur additional debt, create liens or other encumbrances, change the nature of our business, pay dividends, sell or otherwise dispose of assets and merge or consolidate with other entities. These restrictions may limit our flexibility in responding to business opportunities, competitive developments and adverse economic or industry conditions. Any failure by us or our subsidiaries to comply with these agreements could harm our business, financial condition and operating results. In addition, our obligations under our loan agreements with East West Bank and Comerica Bank are secured by substantially all of our U.S. assets. A breach of any of covenants under our loan agreements, or a failure to pay interest or indebtedness when due under any of our credit facilities, could result in a variety of adverse consequences, including the acceleration of our indebtedness.

We may not be able to obtain additional capital when desired, on favorable terms or at all.

We operate in a market that makes our prospects difficult to evaluate and, to remain competitive, we will be required to make continued investments in capital equipment, facilities and technological improvements. We expect that substantial capital will be required to expand our manufacturing capacity and fund working capital for anticipated growth. If we do not generate sufficient cash flow from operations or otherwise have the capital resources to meet our future capital needs, we may need additional financing to implement our business strategy, which includes:

- expansion of research and development;
- expansion of manufacturing capabilities;
- hiring of additional technical, sales and other personnel; and
- acquisitions of complementary businesses.

If we raise additional funds through the issuance of our common stock or convertible securities, the ownership interests of our stockholders could be significantly diluted. These newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. Additional financing may not, however, be available on terms favorable to us, or at all, if and when needed, and our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our infrastructure or respond to competitive pressures could be significantly limited. If we cannot raise required capital when needed, we may be unable to meet the demands of existing and prospective customers, adversely affecting our sales and market opportunities and consequently our business, financial condition and results of operations.

Future acquisitions may adversely affect our financial condition and results of operations.

As part of our business strategy, we may pursue acquisitions of companies that we believe could enhance or complement our current product portfolio, augment our technology roadmap or diversify our revenue base. Acquisitions involve numerous risks, any of which could harm our business, including:

- difficulties integrating the acquired business;
- unanticipated costs, capital expenditures or liabilities or changes related to research in progress and product development;
- diversion of financial and management resources from our existing business;
- difficulties integrating the business relationships with suppliers and customers of the acquired business with our existing business relationships;
- risks associated with entering markets in which we have little or no prior experience; and
- potential loss of key employees, particularly those of the acquired organizations.

Acquisitions may also result in the recording of goodwill and other intangible assets subject to potential impairment in the future, adversely affecting our operating results. We may not achieve the anticipated benefits of an acquisition if we fail to evaluate it properly, and we may incur costs in excess of what we anticipate. A failure to evaluate and execute an acquisition appropriately or otherwise adequately address these risks may adversely affect our financial condition and results of operations.

We may be subject to disruptions or failures in information technology systems and network infrastructures that could have a material adverse effect on our business and financial condition.

We rely on the efficient and uninterrupted operation of complex information technology systems and network infrastructures to operate our business. A disruption, infiltration or failure of our information technology systems as a result of software or hardware malfunctions, system implementations or upgrades, computer viruses, third-party security breaches, employee error, theft or misuse, malfeasance, power disruptions, natural disasters or accidents could cause a breach of data security, loss of intellectual property and critical data and the release and misappropriation of sensitive competitive information and partner, customer, and employee personal data. Any of these events could harm our competitive position, result in a loss of customer confidence, cause us to incur significant costs to remedy any damages and ultimately materially adversely affect our business and financial condition.

Our future results of operations may be subject to volatility as a result of exposure to fluctuations in currency exchange rates.

We have significant foreign currency exposure, and are affected by fluctuations among the U.S. dollar, the Chinese renminbi, or RMB, and the New Taiwan dollar, or NT dollar, because a substantial portion of our business is conducted in China and Taiwan. Our sales, raw materials, components and capital expenditures are denominated in U.S. dollars, RMB and NT dollars in varying amounts.

Foreign currency fluctuations may adversely affect our revenue and our costs and expenses, and hence our results of operations. The value of the NT dollar or the RMB against the U.S. dollar and other currencies may fluctuate and be affected by, among other things, changes in political and economic conditions. The RMB currency is no longer being pegged solely to the value of the U.S. dollar. In the long term, the RMB may appreciate or depreciate significantly in value against the U.S. dollar, depending upon the fluctuation of the basket of currencies against which it is currently valued, or it may be permitted to enter into a full float, which may also result in a significant appreciation or depreciation of the RMB against the U.S. dollar. In addition, our currency exchange variations may be magnified by Chinese exchange control regulations that restrict our ability to convert RMB into foreign currency.

Our sales in Europe are denominated in U.S. dollars and fluctuations in the Euro or our customers' other local currencies relative to the U.S. dollar may impact our customers and affect our financial performance. If our customers' local currencies weaken against the U.S. dollar, we may need to lower our prices to remain competitive in our international markets which could have a material adverse effect on our margins. If our customers' local currencies strengthen against the U.S. dollar and if the local sales prices cannot be raised due to competitive pressures, we will experience a deterioration of our margins.

To date, we have not entered into any hedging transactions in an effort to reduce our exposure to foreign currency exchange risk. While we may decide to enter into hedging transactions in the future, the availability and effectiveness of these hedging transactions may be limited and we may not be able to successfully hedge our exposure.

Natural disasters or other catastrophic events could harm our operations.

Our operations in the U.S., China and Taiwan could be subject to significant risk of natural disasters, including earthquakes, hurricanes, typhoons, flooding and tornadoes, as well as other catastrophic events, such as epidemics, terrorist attacks or wars. For example, our corporate headquarters and wafer fabrication facility in Sugar Land, Texas, is located near the Gulf of Mexico, an area that is susceptible to hurricanes. We use a proprietary MBE laser manufacturing process that requires customized equipment, and this process is currently conducted and located solely at our wafer fabrication facility in Sugar Land, Texas, such that a natural disaster, terrorist attack or other catastrophic event that affects that facility would materially harm our operations. In addition, our manufacturing facility in Taipei, Taiwan, is susceptible to typhoons and earthquakes, and our manufacturing facility in Ningbo, China, has from time to time, suffered electrical outages. Any disruption in our manufacturing facilities arising from these and other natural disasters or other catastrophic events could cause significant delays in the production or shipment of our products until we are able to shift production to different facilities or arrange for third parties to manufacture our products. We may not be able to obtain alternate capacity on favorable terms or at all. Our property insurance coverage with respect to natural disaster is limited and is subject to deductible and coverage limits. Such coverage may not be adequate or continue to be available at commercially reasonable rates and terms. The occurrence of any of these circumstances may adversely affect our financial condition and results of operation.

If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, our business and results of operations could be materially harmed.

Our success depends on our ability to protect our intellectual property and other proprietary rights. We rely on a combination of patent, trademark, copyright, trade secret and unfair competition laws, as well as license agreements and other contractual provisions, to establish and protect our intellectual property and other proprietary rights. We have applied for patent registrations in the U.S. and in other foreign countries, some of which have been issued. In addition, we have registered certain trademarks in the U.S. We cannot guarantee that our pending applications will be approved by the applicable governmental authorities. Moreover, our existing and future patents and trademarks may

not be sufficiently broad to protect our proprietary rights or may be held invalid or unenforceable in court. A failure to obtain patents or trademark registrations or a successful challenge to our registrations in the U.S. or other foreign countries may limit our ability to protect the intellectual property rights that these applications and registrations intended to cover.

Policing unauthorized use of our technology is difficult and we cannot be certain that the steps we have taken will prevent the misappropriation, unauthorized use or other infringement of our intellectual property rights. Further, we may not be able to effectively protect our intellectual property rights from misappropriation or other infringement in foreign countries where we have not applied for patent protections, and where effective patent, trademark, trade secret and other intellectual property laws may be unavailable, or may not protect our proprietary rights as fully as U.S. law. We may seek to secure comparable intellectual property protections in other countries. However, the level of protection afforded by patent and other laws in other countries may not be comparable to that afforded in the U.S.

We also attempt to protect our intellectual property, including our trade secrets and know-how, through the use of trade secret and other intellectual property laws, and contractual provisions. We enter into confidentiality and invention assignment agreements with our employees and independent consultants. We also use non-disclosure agreements with other third parties who may have access to our proprietary technologies and information. Such measures, however, provide only limited protection, and there can be no assurance that our confidentiality and non-disclosure agreements will not be breached, especially after our employees end their employment, and that our trade secrets will not otherwise become known by competitors or that we will have adequate remedies in the event of unauthorized use or disclosure of proprietary information. Unauthorized third parties may try to copy or reverse engineer our products or portions of our products, otherwise obtain and use our intellectual property, or may independently develop similar or equivalent trade secrets or know-how. If we fail to protect our intellectual property and other proprietary rights, or if such intellectual property and proprietary rights are infringed or misappropriated, our business, results of operations or financial condition could be materially harmed.

In the future, we may need to take legal actions to prevent third parties from infringing upon or misappropriating our intellectual property or from otherwise gaining access to our technology. Protecting and enforcing our intellectual property rights and determining their validity and scope could result in significant litigation costs and require significant time and attention from our technical and management personnel, which could significantly harm our business. We may not prevail in such proceedings, and an adverse outcome may adversely impact our competitive advantage or otherwise harm our financial condition and our business.

We may be involved in intellectual property disputes in the future, which could divert management's attention, cause us to incur significant costs and prevent us from selling or using the challenged technology.

Participants in the markets in which we sell our products have experienced frequent litigation regarding patent and other intellectual property rights. While we have a policy in place that is designed to reduce the risk of infringement of intellectual property rights of others and we have conducted a limited review of other companies' relevant patents, there can be no assurance that third parties will not assert infringement claims against us. We cannot be certain that our products would not be found infringing on the intellectual property rights of others. Regardless of their merit, responding to such claims can be time consuming, divert management's attention and resources and may cause us to incur significant expenses. Intellectual property claims against us could force us to do one or more of the following:

- obtain from a third party claiming infringement a license to the relevant technology, which may not be available on reasonable terms, or at all;
- stop manufacturing, selling, incorporating or using our products that use the challenged intellectual property;
- pay substantial monetary damages; or
- expend significant resources to redesign the products that use the technology and to develop non-infringing technology.

Any of these actions could result in a substantial reduction in our revenue and could result in losses over an extended period of time.

In any potential intellectual property dispute, our customers could also become the target of litigation. Because we often indemnify our customers for intellectual property claims made against them with respect to our products, any claims against our customers could trigger indemnification claims against us. These obligations could result in substantial expenses such as legal expenses, damages for past infringement or royalties for future use. Any indemnity claim could also adversely affect our relationships with our customers and result in substantial costs to us.

If we fail to obtain the right to use the intellectual property rights of others that are necessary to operate our business, and to protect their intellectual property, our business and results of operations will be adversely affected.

From time to time we may choose to or be required to license technology or intellectual property from third parties in connection with the development of our products. We cannot assure you that third party licenses will be available to us on commercially reasonable terms, if at all. Generally, a license, if granted, would include payments of up-front fees, ongoing royalties or both. These payments or other terms could have a significant adverse impact on our results of operations. Our inability to obtain a necessary third party license required for our product offerings or to develop new products and product enhancements could require us to substitute technology of lower quality or performance standards, or of greater cost, either of which could adversely affect our business. If we are not able to obtain licenses from third parties, if necessary, then we may also be subject to litigation to defend against infringement claims from these third parties. Our competitors may be able to obtain licenses or cross-license their technology on better terms than we can, which could put us at a competitive disadvantage.

If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be adversely affected.

Preparing our consolidated financial statements involves a number of complex manual and automated processes, which are dependent upon individual data input or review and require significant management judgment. One or more of these elements may result in errors that may not be detected and could result in a material misstatement of our consolidated financial statements. The Sarbanes-Oxley Act requires, among other things, that as a publicly-traded company we disclose whether our internal control over financial reporting and disclosure controls and procedures are effective. In addition, for so long as we qualify as an “emerging growth company” under the JOBS Act, which may be up to five years following our initial public offering in September 2013, we will not have to provide an auditor’s attestation report on our internal controls in future annual reports on Form 10-K as otherwise required by Section 404(b) of the Sarbanes-Oxley Act. During the course of any evaluation, documentation or attestation, we or our independent registered public accounting firm may identify weaknesses and deficiencies that we may not otherwise identify in a timely manner or at all as a result of the deferred implementation of this additional level of review.

We have implemented internal controls that we believe provide reasonable assurance that we will be able to avoid accounting errors or material weaknesses in future periods. However, our internal controls cannot guarantee that no accounting errors exist or that all accounting errors, no matter how immaterial, will be detected because a control system, no matter how well designed and operated, can provide only reasonable, but not absolute assurance that the control system's objectives will be met. If we are unable to implement and maintain effective internal control over financial reporting, our ability to accurately and timely report our financial results could be adversely impacted. This could result in late filings of our annual and quarterly reports under the Securities Exchange Act of 1934, or the Exchange Act, restatements of our consolidated financial statements, a decline in our stock price, suspension or delisting of our common stock by NASDAQ, or other material adverse effects on our business, reputation, results of operations or financial condition.

Our ability to use our net operating losses and certain other tax attributes may be limited.

As of December 31, 2015, we had U.S. accumulated net operating losses, or NOLs, of approximately \$50.3 million for U.S. federal income tax purposes. Under Section 382 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change NOLs, R&D credits and other pre-change tax attributes to offset its post-change income may be limited. An ownership change is generally defined as a greater than 50% change in equity ownership by value over a 3-year period. Based upon an analysis of our equity ownership, we have experienced an ownership change and our NOL is limited in dollar amount. The amount of NOL available each year may decrease by the amount of NOL utilized and may increase by the amount of any operating losses incurred. Should we experience additional ownership changes, our NOL carry forwards may be further limited.

Changes in our effective tax rate may adversely affect our results of operation and our business.

We are subject to income taxes in the U.S. and other foreign jurisdictions, including China. We base our tax position on the anticipated nature and conduct of our business and our understanding of the tax laws of the countries in which we have assets or conduct activities. Our tax position may be reviewed or challenged by tax authorities. Moreover, the tax laws currently in effect may change, and such changes may have retroactive effect. We have inter-company arrangements in place providing for administrative and financing services and transfer pricing, which involve a significant degree of judgment and are often subject to close review by tax authorities. The tax authorities may challenge our positions related to these agreements. If the tax authorities successfully challenge our positions, our effective tax rate may increase, adversely affecting our results of operation and our business.

Our manufacturing operations are subject to environmental regulation that could limit our growth or impose substantial costs, adversely affecting our financial condition and results of operations.

Our properties, operations and products are subject to the environmental laws and regulations of the jurisdictions in which we operate and sell products. These laws and regulations govern, among other things, air emissions, wastewater discharges, the management and disposal of hazardous materials, the contamination of soil and groundwater, employee health and safety and the content, performance, packaging and disposal of products. Our failure to comply with current and future environmental laws and regulations, or the identification of contamination for which we are liable, could subject us to substantial costs, including fines, clean-up costs, third-party property damages or personal injury claims, and make significant investments to upgrade our facilities or curtail our operations. Liability under environmental, health and safety laws can be joint and several and without regard to fault or negligence. For example, pursuant to environmental laws and regulations, including but not limited to the Comprehensive Environmental Response Compensation and Liability Act, or CERCLA, we may be liable for the full amount of any remediation-related costs at properties we currently own or formerly owned, such as our currently owned Sugar Land, Texas facility, or at properties at which we operated, as well as at properties we will own or operate in the future, and properties to which we have sent hazardous substances, whether or not we caused the contamination. Identification of presently unidentified environmental conditions, more vigorous enforcement by a governmental authority, enactment of more stringent legal requirements or other unanticipated events could give rise to adverse publicity, restrict our operations, affect the design or marketability of our products or otherwise cause us to incur material environmental costs, adversely affecting our financial condition and results of operations.

We are exposed to risks and increased expenses and business risk as a result of Restriction on Hazardous Substances, or RoHS directives.

Following the lead of the European Union, or EU, various governmental agencies have either already put into place or are planning to introduce regulations that regulate the permissible levels of hazardous substances in products sold in various regions of the world. For example, the RoHS directive for EU took effect on July 1, 2006. The labeling provisions of similar legislation in China went into effect on March 1, 2007. Consequently, many suppliers of products sold into the EU have required their suppliers to be compliant with the new directive. Many of our customers have adopted this approach and have required our full compliance. Though we have devoted a significant amount of resources and effort in planning and executing our RoHS program, it is possible that some of our products might be incompatible with such regulations. In such events, we could experience the following consequences: loss of revenue, damages reputation, diversion of resources, monetary penalties, and legal action.

Failure to comply with the U.S. Foreign Corrupt Practices Act could subject us to penalties and other adverse consequences.

We are subject to the U.S. Foreign Corrupt Practices Act which generally prohibits U.S. companies from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business. In addition, we are required to maintain records that accurately and fairly represent our transactions and have an adequate system of internal accounting controls. Foreign companies, including some that may compete with us, may not be subject to these prohibitions, and therefore may have a competitive advantage over us. If we are not successful in implementing and maintaining adequate preventative measures, we may be responsible for acts of our employees or other agents engaging in such conduct. We could suffer severe penalties and other consequences that may have a material adverse effect on our financial condition and results of operations.

We are subject to governmental export and import controls that could subject us to liability or impair our ability to compete in international markets.

We are subject to export and import control laws, trade regulations and other trade requirements that limit which products we sell and where and to whom we sell our products. Specifically, the Bureau of Industry and Security of the U.S. Department of Commerce is responsible for regulating the export of most commercial items that are so called dual-use goods that may have both commercial and military applications. A limited number of our products are exported by license under the Export Control Classification Number, or ECCN, of 5A991. Export Control Classification requirements are dependent upon an item's technical characteristics, the destination, the end-use, and the end-user, and other activities of the end-user. Should the regulations applicable to our products change, or the restrictions applicable to countries to which we ship our products change, then the export of our products to such countries could be restricted. As a result, our ability to export or sell our products to certain countries could be restricted, which could adversely affect our business, financial condition and results of operations. Changes in our products or any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons or technologies targeted by such regulations, could result in delayed or decreased sales of our products to existing or potential customers. In such event, our business and results of operations could be adversely affected.

Rapidly changing standards and regulations could make our products obsolete, which would cause our revenue and results of operations to suffer.

We design our products to conform to regulations established by governments and to standards set by industry standards bodies worldwide, such as the American National Standards Institute, the European Telecommunications Standards Institute, the International Telecommunications Union and the Institute of Electrical and Electronics Engineers, Inc. Various industry organizations are currently considering whether and to what extent to create standards applicable to our products. Because certain of our products are designed to conform to current specific

industry standards, if competing or new standards emerge that are preferred by our customers, we would have to make significant expenditures to develop new products. If our customers adopt new or competing industry standards with which our products are not compatible, or the industry groups adopt standards or governments issue regulations with which our products are not compatible, our existing products would become less desirable to our customers and our revenue and results of operations would suffer.

Compliance with regulations related to conflict minerals could increase costs and affect the manufacturing and sale of our products.

Public companies are required to disclose the use of tin, tantalum, tungsten and gold (collectively, “conflict minerals”) mined from the Democratic Republic of the Congo and adjoining countries (the “covered countries”) if a conflict mineral(s) is necessary to the functionality of a product manufactured, or contracted to be manufactured, by the company. We may determine, as part of our compliance efforts, that certain products or components we obtain from our suppliers contain conflict minerals. If we are unable to conclude that all our products are free from conflict minerals originating from covered countries, this could have a negative impact on our business, reputation and/or results of operations. We may also encounter challenges to satisfy customers who require that our products be certified as conflict free, which could place us at a competitive disadvantage if we are unable to substantiate such a claim. Compliance with these rules could also affect the sourcing and availability of some of the minerals used in the manufacture of products or components we obtain from our suppliers, including our ability to obtain products or components in sufficient quantities and/or at competitive prices. Certain of our customers are requiring additional information from us regarding the origin of our raw materials, and complying with these customer requirements may cause us to incur additional costs, such as costs related to determining the origin of any minerals used in our products. Our supply chain is complex and we may be unable to verify the origins for all metals used in our products. We may also encounter challenges with our customers and stockholders if we are unable to certify that our products are conflict free.

Risks Related to Our Operations in China

Our business operations conducted in China are critical to our success. A total of \$20.6 million, \$22.0 million and \$31.9 million or 11%, 16.9% and 40.6%, of our revenue in the years ended December 31, 2015, 2014 and 2013 was attributable to our product manufacturing plants in China, respectively. Additionally, a substantial portion of our property, plant and equipment, 22% and 26% as of December 31, 2015 and 2014, was located in China, respectively. We expect to make further investments in China in the foreseeable future. Therefore, our business, financial condition, results of operations and prospects are to a significant degree subject to economic, political, legal, and social events and developments in China.

Adverse changes in economic and political policies in China, or Chinese laws or regulations could have a material adverse effect on business conditions and the overall economic growth of China, which could adversely affect our business.

The Chinese economy differs from the economies of most developed countries in many respects, including the level of government involvement, level of development, growth rate, control of foreign exchange and allocation of resources. The Chinese economy has been transitioning from a planned economy to a more market-oriented economy. Despite reforms, the government continues to exercise significant control over China's economic growth by way of the allocation of resources, control over foreign currency-denominated obligations and monetary policy and provision of preferential treatment to particular industries or companies.

In addition, the laws, regulations and legal requirements in China, including the laws that apply to foreign-invested enterprises, or FIEs, are subject to frequent changes. The interpretation and enforcement of such laws is uncertain. Protections of intellectual property rights and confidentiality in China may not be as effective as in the U.S. or other countries or regions with more developed legal systems. Any litigation in China may be protracted and result in substantial costs and diversion of resources and management attention. Any adverse changes to these laws, regulations and legal requirements or their interpretation or enforcement could have a material adverse effect on our business.

Furthermore, while China's economy has experienced rapid growth in the past 20 years, growth has been uneven across different regions, among various economic sectors and over time. China has also in the past and may in the future experience economic downturns due to, for example, government austerity measures, changes in government policies relating to capital spending, limitations placed on the ability of commercial banks to make loans, reduced levels of exports and international trade, inflation, lack of financial liquidity, stock market volatility and global economic conditions. Any of these developments could contribute to a decline in business and consumer spending in addition to other adverse market conditions, which could adversely affect our business.

The termination and expiration or unavailability of our preferential tax treatments in China may have a material adverse effect on our operating results.

Prior to January 1, 2008, entities established in China were generally subject to a 30% state and 3% local enterprise income tax rate. In accordance with the China Income Tax Law for Enterprises with Foreign Investment and Foreign Enterprises, effective through December 31, 2007, our China subsidiary enjoyed preferential income tax rates. Effective January 1, 2008, the China Enterprise Income Tax Law, or the EIT law, imposes a single uniform income tax rate of 25% on all Chinese enterprises, including FIEs, and eliminates or modifies most of the tax exemptions, reductions and preferential treatment available under the previous tax laws and regulations. As a result, our China subsidiary may be subject to the uniform income tax rate of 25% unless we are able to qualify for preferential status. Currently, we have qualified for a preferential 15% tax rate that is available for state-encouraged new high technology enterprises. The preferential rate has applied to calendar years 2015, 2014, 2013 and 2012. We have not yet realized any benefit from the 10% reduction in income tax rate due to losses incurred by our China subsidiary; however, if we fail to continue to qualify for this preferential rate in the future, we may incur higher tax rates on our income in China. In order to retain the preferential tax rate, we must meet certain operating conditions, satisfy certain product requirements, meet certain headcount requirements and maintain certain levels of research expenditures. We applied for an additional three years of preferential status with the Chinese government in 2014 and received approval as a high-technology enterprise through September 2017. Any future increase in the enterprise income tax rate applicable to us or the expiration or other limitation of preferential tax rates available to us could increase our tax liabilities and reduce our net income.

China regulation of loans to and direct investment by offshore holding companies in China entities may delay or prevent us from making loans or additional capital contributions to our China subsidiary.

Any loans that we wish to make to our China subsidiary are subject to China regulations and approvals. For example, any loans to our China subsidiary to finance their activities cannot exceed statutory limits, must be registered with State Administration of Foreign Exchange, or SAFE, or its local counterpart, and must be approved by the relevant government authorities. Any capital contributions to our China subsidiary must be approved by the Ministry of Commerce or its local counterpart. In addition, under Circular 142, our China subsidiary, as a FIE, may not be able to convert our capital contributions to them into RMB for equity investments or acquisitions in China.

We cannot assure you that we will be able to obtain these government registrations or approvals on a timely basis, if at all, with respect to our future loans or capital contributions to our China subsidiary. If we fail to receive such registrations or approvals, our ability to capitalize our China subsidiary may be negatively affected, which could materially and adversely affect our liquidity and ability to fund and expand our business.

Our China subsidiary is subject to Chinese labor laws and regulations and Chinese labor laws may increase our operating costs in China.

The China Labor Contract Law, together with its implementing rules, provides increased rights to Chinese employees. Previously, an employer had discretionary power in deciding the probation period, not to exceed six months. Additionally, the employment contract could only be terminated for cause. Under these rules, the probation period varies depending on contract terms and the employment contract can only be terminated during the probation period for cause upon three days' notice. Additionally, an employer may not be able to terminate a contract during the probation period on the grounds of a material change of circumstances or a mass layoff. The law also has specific provisions on conditions when an employer has to sign an employment contract with open-ended terms. If an employer fails to enter into an open-ended contract in certain circumstances, the employer must pay the employee twice their monthly wage beginning from the time the employer should have executed an open-ended contract. Additionally an employer must pay severance for nearly all terminations, including when an employer decides not to renew a fixed-term contract. These laws may increase our costs and reduce our flexibility.

The turnover of direct labor in manufacturing industries in China is high, which could adversely affect our production, shipments and results of operations.

Employee turnover of direct labor in the manufacturing sector in China is high and retention of such personnel is a challenge to companies located in or with operations in China. Although direct labor costs do not represent a high proportion of our overall manufacturing costs, direct labor is required for the manufacture of our products. If our direct labor turnover rates are higher than we expect, or we otherwise fail to adequately manage our direct labor turnover rates, then our results of operations could be adversely affected.

An increase in our labor costs in China may adversely affect our business and our profitability.

A significant portion of our workforce is located in China. Labor costs in China have been increasing recently due to labor unrest, strikes and changes in employment laws. If labor costs in China continue to increase, our costs will increase. If we are not able to pass these increases on to our customers, our business, profitability and results of operations may be adversely affected.

We may have difficulty establishing and maintaining adequate management and financial controls over our China operations.

Businesses in China have historically not adopted a western style of management and financial reporting concepts and practices, which includes strong corporate governance, internal controls and computer, financial and other control systems. Moreover, familiarity with U.S. GAAP principles and reporting procedures is less common in China. As a consequence, we may have difficulty finding accounting personnel experienced with U.S. GAAP, and we may have difficulty training and integrating our China-based accounting staff with our U.S.-based finance organization. As a result of these factors, we may experience difficulty in establishing management and financial controls over our China operations. These difficulties include collecting financial data and preparing financial statements, books of account and corporate records and instituting business practices that meet U.S. public-company reporting requirements. We may, in turn, experience difficulties in implementing and maintaining adequate internal controls as required under Section 404 of the Sarbanes-Oxley Act.

Risks Related to Our Common Stock

Our stock price has been and is likely to be volatile.

The market price of our common stock has been and is likely to be subject to wide fluctuations in response to, among other things, the risk factors described in this section of this Annual Report on Form 10-K, and other factors beyond our control, such as fluctuations in the valuation of companies perceived by investors to be comparable to us.

Furthermore, the stock markets have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions, such as recessions, interest rate changes or international currency fluctuations, may negatively affect the market price of our common stock.

In the past, many companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may become the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

We have incurred and will continue to incur significant increased expenses and administrative burdens as a public company, which could have a material adverse effect on our operations and financial results.

We face increased legal, accounting, administrative and other costs and expenses as a public company that we did not incur as a private company, and greater expenditures may be necessary in the future with the advent of new laws, regulations and stock exchange listing requirements pertaining to public companies. These increased costs will require us to divert a significant amount of money that we could otherwise use to expand our business and achieve our strategic objectives. The Sarbanes-Oxley Act, including the requirements of Section 404, as well as rules and regulations subsequently implemented by the SEC, the Public Company Accounting Oversight Board and the NASDAQ Global Market, impose additional reporting and other obligations on public companies. Compliance with public company requirements has increased our costs and made some activities more time-consuming. For example, we have created board committees and adopted internal controls and disclosure controls and procedures. In addition, we will have incurred and will continue to incur additional expenses associated with our SEC reporting requirements. Furthermore, if we identify any issues in complying with those requirements (for example, if we or our auditors identify a material weakness or significant deficiency in our internal control over financial reporting), we could incur additional costs rectifying those issues, and the existence of those issues could adversely affect us, our reputation or investor perceptions of us. Advocacy efforts by stockholders and third parties may also prompt additional changes in governance and reporting requirements, which could further increase our costs.

We currently do not intend to pay dividends on our common stock and, consequently, your only opportunity to achieve a return on your investment is if the price of our common stock appreciates.

We currently do not plan to declare or pay dividends on shares of our common stock in the foreseeable future. In addition, the terms of our loan and security agreement with East West Bank and Comerica Bank restrict our ability to pay dividends. Consequently, your only opportunity to achieve a return on any shares of our common stock that you may acquire will be if the market price of our common stock appreciates and you sell your shares at a profit. There is no guarantee that the price of our common stock in the market will ever exceed the price that you pay.

Our charter documents, stock incentive plans and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

Our amended and restated certificate of incorporation and our amended and restated bylaws and our stock incentive plans contain provisions that could delay or prevent a change in control of our company. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- providing for a classified board of directors with staggered, three-year terms;
- not providing for cumulative voting in the election of directors;
- authorizing our board of directors to issue, without stockholder approval, preferred stock rights senior to those of common stock;
- prohibiting stockholder action by written consent;
- limiting the persons who may call special meetings of stockholders;
 - requiring advance notification of stockholder nominations and proposals; and
 - change of control provisions in our stock incentive plans, and the individual stock option agreements, which provide that a change of control may accelerate the vesting of the stock options issued under such plans.

In addition, we are governed by the provisions of Section 203 of the Delaware General Corporate Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding common stock, from engaging in certain business combinations without the approval of substantially all of our stockholders for a certain period of time.

These and other provisions in our amended and restated certificate of incorporation, our amended and restated bylaws and under Delaware law could discourage potential takeover attempts, reduce the price that investors might be willing to pay for shares of our common stock in the future and result in the market price being lower than it would be without these provisions.

Some provisions of our named executive officers' agreements regarding change of control or separation of service contain obligations for us to make separation payments to them upon their termination.

Certain provisions contained in our employment agreements with our named executive officers regarding change of control or separation of service may obligate us to make lump sum severance payments and related payments upon the termination of their employment with us, other than such executive officer's resignation without good reason or our termination of their employment as a result of their disability or for cause. In the event we are required to make these separation payments, it could have a material adverse effect on our results of operations for the fiscal period in which such payments are made.

If research analysts do not publish research about our business or if they issue unfavorable commentary or downgrade our common stock, our stock price and trading volume could decline.

The trading market for our common stock will depend on the research and reports that research analysts publish about us and our business. The price of our common stock could decline if one or more research analysts downgrade our common stock or if those analysts issue other unfavorable commentary or cease publishing reports about us or our business. If one or more of the research analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price or trading volume to decline.

As an "emerging growth company" within the meaning of the Securities Act, we will utilize certain modified disclosure requirements, and we cannot be certain if these reduced requirements will make our common stock less attractive to investors.

We are an emerging growth company within the meaning of the rules under the Securities Act. We have in this Annual Report on Form 10-K utilized, and we plan in future filings with the SEC to continue to utilize, the modified disclosure requirements available to emerging growth companies, including reduced disclosure about our executive compensation and omission of compensation discussion and analysis, and an exemption from the requirement of holding a nonbinding advisory vote on executive compensation and an exemption from the requirement that outside auditors attest as to our internal control over financial reporting. As a result, our stockholders may not have access to certain information they may deem important.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can utilize the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to utilize this extended transition period. Our financial statements may therefore not be comparable to those of companies that comply with such new or revised accounting standards as they become applicable to public companies.

We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We could remain an “emerging growth company” for up to five years, or until the earliest of (i) the last day of the first fiscal year in which our annual gross revenue exceed \$1 billion, (ii) the date that we become a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter or (iii) the date on which we have issued more than \$1 billion in non-convertible debt during the preceding three-year period.

Item 1B. Unresolved Staff Comments

Not Applicable.

Item 2. Properties

We maintain manufacturing, research and development, sales and administrative offices in the U.S., China and Taiwan. Our corporate headquarters is located at our facility in Sugar Land, Texas. The table below provides information regarding our facilities.

Location	Owned or Lease Expiration Date	Approximate Square Footage	Use
Sugar Land, Texas	Owned (1)	139,450	Administration, sales, manufacturing, research and development
Sugar Land, Texas	June 30, 2016 (5)	7,066	Research and development
Lawrenceville, Georgia	February 29, 2016 (2)	386	Research and development
Duluth, Georgia	November 30, 2018 (2)	2,983	Research and development
Ningbo, China	Owned (3)	458,849	Administration, sales, manufacturing, research and development
Taipei, Taiwan	May 31, 2029 (4)	268,797	Administration, sales, manufacturing, research and development

(1) The property is subject to a mortgage in favor of East West Bank and Comerica bank, securing our long-term debt obligations. Construction began in January 2015 on new facilities to expand our laser fabrication facilities and office space in Sugar Land, Texas. These facilities add 115,600 square feet of additional space to our original facility. We expect to fully occupy these new facilities by April 2016.

(2) We opened a new research and development office in November 2015 and moved from our temporary location in Lawrenceville, Georgia to the office in Duluth, Georgia at the end of February 2016.

(3) Our China subsidiary acquired the land use rights to the real property on which our new facility is located from the Chinese government. The land use rights expire on October 7, 2054. Our China subsidiary owns the facility located on the property.

(4) Our Taiwan subsidiary relocated its entire operation to this new facility in November 2014. Lease covering the new facility commenced on June 1, 2014 and expires on May 31, 2029.

(5) We expect to vacate our leased R&D facility in Sugar Land upon the completion of our new owned facility in Sugar Land, which we anticipate to be in April 2016. Accordingly, we do not expect to renew the lease for the current leased facility in Sugar Land.

Item 3. Legal Proceedings

We anticipate that we will from time to time be subject to various claims and legal actions during the ordinary course of our business. We are not aware of any material claims or legal actions to which we, our properties or our officers or directors are subject.

Item 4. Mine Safety Disclosure

Not Applicable.

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

On September 26, 2013, our common stock began to trade on the NASDAQ Global Market under the symbol “AAOI”. Prior to that time, there was no public market for our common stock. As of March 4, 2016 there were 75 holders of record of our common stock (not including beneficial holders of our common stock holder in street name). The following table sets forth, for the periods indicated, the high and low sales prices of our common stock as reported by the NASDAQ Global Market.

	Low	High
Fiscal Year 2013:		
Third Quarter	\$9.37	\$10.44
Fourth Quarter	\$9.07	\$16.61

Fiscal Year 2014:		
First Quarter	\$11.19	\$28.01
Second Quarter	\$15.52	\$24.58
Third Quarter	\$15.61	\$24.10
Fourth Quarter	\$9.26	\$16.66

Fiscal Year 2015:		
First Quarter	\$8.38	\$14.08
Second Quarter	\$13.02	\$19.20
Third Quarter	\$16.05	\$22.51
Fourth Quarter	\$16.11	\$21.30

The graph below shows the cumulative total stockholder return of an investment of \$100 (and the reinvestment of any dividends thereafter) on September 26, 2013 (the first trading day of our common stock) in (i) our common stock, (ii) the NASDAQ Composite Index and (iii) the NASDAQ Telecommunications Index. Our stock price performance shown in the graph below is not indicative of future stock price performance. The following graph and related information shall not be deemed “soliciting material” or be deemed to be “filed” with the SEC, nor shall such information be incorporated by reference into any future filing, except to the extent that we specifically state that such graph and related information are incorporated by reference into such filing.

PERCENT CHANGE			
Date	AAOI	NASDAQ Telecom	NASDAQ Composite
9/26/2013	100.00%	100.00%	100.00%
9/30/2013	100.40%	99.42%	99.58%
12/31/2013	150.70%	102.48%	110.28%
3/31/2014	247.69%	102.84%	110.87%
6/30/2014	232.93%	107.30%	116.39%
9/30/2014	161.65%	106.44%	118.64%
12/31/2014	112.65%	111.61%	125.05%
3/31/2015	139.36%	110.59%	129.40%
6/30/2015	174.30%	109.10%	131.67%
9/30/2015	188.55%	100.38%	121.99%
12/31/2015	172.29%	103.25%	132.21%

For equity compensation plan information refer to Item 12 of this Annual Report on Form 10-K.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock, and we do not anticipate paying any cash dividends on our common stock for the foreseeable future. We currently intend to retain all available funds and future earnings for use in the operation and expansion of our business. Any future determination to pay cash dividends will be at the discretion of our board of directors and will depend upon our financial condition, results of operations, terms of financing arrangements, applicable Delaware law, capital requirements and such other factors as our board of directors deems relevant. In addition, the terms of our loan agreements governing our long-term debt obligations restricts us from paying dividends.

Unregistered Sales of Equity Securities and Use of Proceeds

Not applicable.

Item 6. Selected Financial Data**SELECTED CONSOLIDATED FINANCIAL DATA**

The selected consolidated financial data in this section is not intended to replace our consolidated financial statements and the related notes. You should read this summary consolidated financial data together with the sections titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our audited consolidated financial statements and related notes, all included elsewhere in this Annual Report on Form 10-K. We derived the consolidated statements of operations data for the years ended December 31, 2015, 2014 and 2013 and the consolidated balance sheet data as of December 31, 2015 and 2014 from our consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K. The consolidated statement of operations data for the years ended December 31, 2012 and 2011 and the consolidated balance sheet data as of December 31, 2013, 2012 and 2011 are derived from our audited consolidated financial statements that have previously been filed with the SEC. Our historical results are not necessarily indicative of the results to be expected in the future and results of interim periods are not necessarily indicative of results for the entire year.

	Years ended December 31,				
	2015	2014	2013	2012	2011
	(in thousands, except share and per share data)				
Consolidated Statements of Operations Data:					
Revenue	\$ 189,903	\$ 130,449	\$ 78,424	\$ 63,421	\$ 47,840
Cost of goods sold (1)	129,450	86,203	55,396	44,492	34,468
Gross profit	60,453	44,246	23,028	18,929	13,372
Operating expenses:					
Research and development (1)	20,852	15,970	8,512	7,603	6,451
Sales and marketing (1)	6,381	6,043	4,191	3,135	2,412
General and administrative (1)	19,771	17,095	10,632	8,012	8,243
Total operating expenses	47,004	39,108	23,335	18,750	17,106
Income (loss) from operations	13,449	5,138	(307)	179	(3,734)
Interest and other income (expense), net:					
Interest income	328	369	104	26	15
Interest expense	(1,018)	(326)	(1,125)	(1,381)	(1,338)
Other income (expense), net	(1,591)	(699)	(78)	231	(271)
Total interest and other income (expense), net	(2,281)	(656)	(1,099)	(1,124)	(1,594)
Income (loss) before income taxes	11,168	4,482	(1,406)	(945)	(5,328)

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Provision for income taxes	(375)	(199)	–	–	–			
Net income (loss) attributable to common stockholders	\$10,793		\$4,283		\$(1,406)	\$(945)	\$(5,328)
Net income (loss) per share attributable to common stockholders:										
Basic	\$0.69		\$0.30		\$(0.14)	\$(3.56)	\$(20.21)
Diluted	\$0.65		\$0.28		\$(0.14)	\$(3.56)	\$(20.21)
Weighted average shares used to compute net income (loss) per share attributable to common stockholders:										
Basic	15,626,753		14,307,477		9,964,955		265,576		263,658	
Diluted	16,532,850		15,186,961		9,964,955		265,576		263,658	

These expenses include share-based compensation expense. Share-based compensation expense is accounted for at fair value, using the Black-Scholes option-pricing model for stock options and at the fair market value based on (1) quoted market prices of the Company's stock as of the grant date for restricted stock units and restricted stock awards. Share-based compensation expense is recognized over the vesting period of the stock options and was included in cost of goods sold and operating expenses as follows:

	Years ended December 31,		
	2015	2014	2013
	(in thousands)		
Cost of goods sold	\$70	\$88	\$56
Research and development	230	115	53
Sales and marketing	217	98	52
General and administrative	1,603	1,760	908
Total share-based compensation expense	\$2,120	\$2,061	\$1,069

	Years ended December 31,				
	2015	2014	2013	2012	2011
	(in thousands)				
Consolidated balance sheet data:					
Total cash, cash equivalents and short-term investments	\$40,679	\$40,873	\$30,751	\$11,226	\$2,074
Working capital (1)	79,848	64,638	38,879	13,669	(1,911)
Total assets	273,475	183,670	111,057	65,748	53,723
Total debt (2)	67,903	29,919	28,455	24,584	22,597
Convertible preferred stock	—	—	—	105,367	94,373
Common stock and additional paid-in-capital	233,353	192,127	144,036	5,542	5,303
Total deficit	\$(68,247)	\$(79,040)	\$(83,323)	\$(81,917)	\$(80,972)

(1) Working capital is defined as total current assets less total current liabilities.

(2) Total debt is defined as short-term loans, notes payable and total long-term debt.

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

MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our consolidated financial statements and the accompanying notes appearing elsewhere in this Annual Report on Form 10-K. This discussion and other parts of this Annual Report on Form 10-K contain forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in “Risk Factors.”

Overview

We are a leading, vertically integrated provider of fiber-optic networking products. We target three networking end-markets: internet data centers, CATV and FTTH. We design and manufacture a range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment. In designing products for our customers, we begin with the fundamental building blocks of lasers and laser components. From these foundational products, we design and manufacture a wide range of products to meet our customers’ needs and specifications, and such products differ from each other by their end market, intended use and level of integration. We are primarily focused on the higher-performance segments within the internet data center, CATV, and FTTH markets which increasingly demand faster connectivity and innovation. Our vertically integrated manufacturing model provides us several advantages, including rapid product development, fast response times to customer requests and control over product quality and manufacturing costs.

The three end markets we target are all driven by significant bandwidth demand fueled by the growth of network-connected devices, video traffic, cloud computing and online social networking. Within the internet data center market, we benefit from the increasing use of higher-capacity optical networking technology as a replacement for copper cables, particularly as speeds reach 10 gigabits per second and above, as well as the movement to open internet data center architectures and the increasing use of in-house equipment design among leading internet companies. Within the CATV market, we benefit from a number of ongoing trends including the global build-out of CATV infrastructure, the move to higher bandwidth networks among CATV service providers and the outsourcing of system design among CATV networking equipment companies. In the FTTH market, we benefit from continuing PON deployments and system upgrades among telecommunication service providers.

We sell our products to leading original equipment manufacturers, or OEMs, in the CATV and FTTH markets as well as internet data center operators. In 2015, we earned 28.3% of our total revenue from the CATV market, and 64.9% of our total revenue from the data center market. In 2015, our key customers in the CATV market included Cisco Systems and Arris Group, Inc. In 2015, 2014 and 2013, Cisco Systems accounted for 10.4%, 8.9%, and 21.8%, respectively, of our revenue and Arris Group, Inc. accounted for 4.5%, 4.5% and 3.3%, respectively, of our revenue. In 2015, our key customers that contributed most to our FTTH revenue were a leading internet service provider and Genexis B.V., which accounted for 0.5% and less than one percent of our total revenue, respectively. In 2015, our key customers in the internet data center market included Amazon and Microsoft. In 2015 and 2014, Amazon accounted for 52.5% and 45.8% of our revenue, respectively, and Microsoft accounted for 11.6% and 3.6% of our revenue, respectively. In 2015, revenue from the CATV market, data center market, FTTH market and other markets provided 28.3%, 64.9%, 1.3%, and 5.5% of our revenue, respectively, compared to 36.3%, 49.4%, 10.4%, and 3.9% of our 2014 revenue, respectively.

In 2015, our revenue growth of 45.6% over the prior-year was driven primarily by demand for our 40Gbps data center transceiver products, as large data center operators continued deployment of high capacity optical interconnect networks within their data centers.

We expect continued sales of our 40Gbps products in 2016, although we believe that many large data center operators will begin to move to 100Gbps products in 2016. Thus, quarter-to-quarter results may show considerable variability as is usual in a period of technology transition. Similar to revenue, our gross margins can fluctuate materially depending on a variety of factors including average selling price changes, product mix, raw material cost reduction or increase, volume, manufacturing utilization and ongoing manufacturing process improvements.

Our sales model focuses on direct engagement and close coordination with our customers to determine product design, qualifications, performance and price. Our strategy is to use our direct sales force to sell to key accounts and to expand our use of distributors for increased coverage in certain international markets and certain domestic market segments. We have direct sales personnel that cover the U.S., Taiwan and China focusing primarily on major OEM customers and internet data center operators. Throughout our sales cycle, we work closely with our customers to qualify our products into their product lines. As a result, we strive to build strategic and long-lasting customer relationships and deliver products that are customized to our customers' requirements.

Our business depends on winning competitive bid selection processes to develop components, systems and equipment for use in our customers' products. These selection processes are typically lengthy, and as a result our sales cycles will vary based on the level of customization required, market served, whether the design win is with an existing or new customer and whether our solution being designed in our customers' product is our first generation or subsequent generation product. We do not have any long-term purchase commitments (in excess of one year) with any of our customers, all of whom purchase our products on a purchase order basis. Once one of our solutions is incorporated into a customer's design, however, we believe that our solution is likely to continue to be purchased for that design throughout that product's life cycle because of the time and expense associated with redesigning the product or substituting an alternative solution.

In 2015, 2014 and 2013, we had 47, 15 and 17 design wins, respectively. We define a design win as the successful completion of the evaluation stage, where our customer has tested our product, verified that our product meets substantially all of their requirements and has informed us that they intend to purchase the product from us. Although we believe that our ability to obtain design wins is a key strength and can provide meaningful and recurring revenue, an increase or decrease in the mere number of design wins does not necessarily correlate to a likely increase or decrease in revenue, particularly in the short term. As such, the number of design wins we achieve on a quarterly or annual basis and any increase or decrease in design wins will not necessarily result in a corresponding increase or decrease in revenue in the same or immediately succeeding quarter or year. For example, if our total number of design wins in an annual or quarterly period increases or decreases compared to the total number of design wins in a prior period, this does not necessarily mean that our revenue in such period will be higher or lower than our revenue in the prior period. In fact, our experience is that some design wins result in significant revenue and some do not, and the timing of such revenue is difficult to predict as it depends on the success of the end customer's product that uses our components. Thus, some design wins result in orders and significant revenue shortly after the design win is awarded and other design wins do not result in significant orders and revenue for several months or longer after the initial design win (if at all). We do believe that over a period of years the collective impact of design wins correlates to our overall revenue growth.

We believe we have an attractive financial profile, with strong revenue performance and control over our manufacturing costs through our vertically integrated manufacturing model. While we have incurred substantial losses since our inception, and as of December 31, 2015 had an accumulated deficit of \$68.2 million, we achieved profitability in 2014, and we continued to be profitable in 2015. We have grown our revenue at a 33.6% CAGR between 2009 and 2015, including 45.6% growth year-over-year from 2014 to 2015.

Factors Affecting Our Performance

Increasing Consumer Demand for Bandwidth. Bandwidth demand in all of our target markets is driving service provider investment in new equipment and in turn generating demand for our products. Increasingly, optical networking technologies are being incorporated into networking equipment, replacing legacy copper-based networking technologies. This shift to optical networking solutions benefits us as a provider of those solutions.

Pricing, Product Cost and Margins. Our solution pricing varies depending upon the end market, the complexity of the product and the level of competition. Our product costs also vary with complexity as well as the degree to which we can utilize components designed and manufactured ourselves. We tend to realize higher gross margins on products that incorporate a higher percentage of our own components. We often initially experience lower gross margins on new products, as our pricing is based upon anticipated volume-driven cost reductions over the life of the design win. Thus, if we are unable to realize our expected cost reductions, we may experience declining gross margins on such products.

Our product pricing is established when the product is initially introduced to the market, and thereafter through periodic negotiations with customers. We generally do not agree to periodic automatic price reductions. Furthermore, due to the dynamics in the CATV market and the value of our outsourced design services to our customers, we believe we face less downward price pressure than many of our competitors. We sell a wide variety of products among our three target markets and our gross margin is heavily dependent in any quarter on the product mix achieved during that period.

Customer Concentration within End Markets. Historically, our revenue has been significantly concentrated, first within the CATV market and in 2014 and 2015 within the internet data center market. Moreover, within these markets, revenue tends to be concentrated among a small number of customers. In 2014 and 2015, we have taken several actions to increase the diversity of our customer base. These actions include the creation of a new sales incentive program, hiring additional sales staff to improve our ability to serve new customers, and additional customized design of products that we believe will appeal to new customers. Furthermore, we have developed additional original design manufacturer, or ODM, relationships with customers in each of our target markets which should enable us to diversify our revenue base. In 2015 we had three customers that each accounted for more than 10% of our revenue, compared with only two such customers in 2014.

Product Development. We invest heavily to develop new and innovative products. The majority of our research and development expense is allocated to product development, usually with a specific customer and customer platform in mind. We believe our close coordination with our customers regarding their future product requirements enhances the efficiency of our research and development expenditures.

Discussion of Financial Performance

Revenue

We generate revenue through the sale of our products to equipment providers for the internet data center, CATV, FTTH and other markets. We derive a significant portion of our revenue from our top ten customers, and we anticipate that we will continue to do so for the foreseeable future. The following chart provides the revenue contribution from each of the markets we serve for the years 2015, 2014 and 2013, as well as the corresponding percentage of our total revenue for each period:

Market	Years ended December 31,		
	2015	2014	2013
	(in thousands, except percentages)		
CATV	\$53,675	\$47,389	\$47,373
Data Center	123,286	64,453	19,386
FTTH	2,458	13,591	4,377
Other	10,484	5,016	7,288
Total	\$189,903	\$130,449	\$78,424
	Percentage of Revenue		
CATV	28.3%	36.3%	60.4%
Data Center	64.9%	49.4%	24.7%
FTTH	1.3%	10.4%	5.6%
Other	5.5%	3.9%	9.4%
Total Revenue	100.0%	100.0%	100.0%

In 2015, 2014 and 2013, our top ten customers represented 88.7%, 87.2% and 76.9% of our revenue, respectively. In 2015, our key customers in the CATV market included Cisco Systems, Arris Group, Inc. and Pace plc. In 2015, 2014 and 2013, Cisco Systems accounted for 10.4%, 8.9%, and 21.8%, respectively, of our revenue and Arris Group, Inc. accounted for 4.5%, 4.5% and 3.3%, respectively, of our revenue. In 2015, our key customers in the internet data center market included Amazon and Microsoft. In 2015 and 2014, Amazon accounted for 52.5% and 45.8% of our revenue, respectively, and Microsoft accounted for 11.6% and 3.6% of our revenue, respectively.

In 2015, our key customers that contributed most to our FTTH revenue were a leading internet service provider and Genexis B.V., which accounted for less than one percent of our total revenue.

Revenue is recognized when the product is shipped and title has transferred to the customer. We bear all costs and risks of loss or damage to the goods up to that point. On most orders, our terms of sale provide that title passes to the customer upon placement by us with a common carrier (upon shipment). A majority of our annual sales are denominated in U.S. dollars, but some sales from our Taiwan location and China-based subsidiary are denominated in NT dollars and RMB, respectively. For the year ended December 31, 2015, 10.9% of our total revenue was derived from our China-based subsidiary, with \$3.3 million denominated in RMB and 60.9% of our total revenue was derived from our Taiwan-based facility with an immaterial amount denominated in NT dollars. We expect a similar portion of our sales to be denominated in foreign currencies in 2015.

Cost of goods sold and gross margin

Our cost of goods sold is impacted by variances arising from changes in yields and production volume, as well as increases or decreases in the cost of raw materials used in production. We typically experience lower yields and higher associated costs on new products. In general, our cost of goods sold for a particular product declines over time as a result of increasing efficiencies in the manufacturing processes, or supply cost declines, as well as yield improvements and testing enhancements.

We manufacture our products in all three of our facilities in the U.S., Taiwan and China. Generally, laser chips and optical components are manufactured in our U.S. facility, optical components and subassemblies are manufactured in our Taiwan facility, and optical components and optical equipment are manufactured in our China facility. Because of our vertical integration model, we generally utilize our own optical component products in our semi-finished and finished goods that we sell between and among our respective manufacturing operations. We base those internal sales upon established transfer pricing methodologies. However, we eliminate all of those internal sales, and cost of goods sold transactions, to arrive at total revenue and cost of goods sold on a consolidated basis.

We have a global set of suppliers to help balance considerations related to product availability, quality and cost. Components of our cost of goods sold are denominated in U.S. or NT dollars or RMB, depending upon the manufacturing location.

Gross profit as a percentage of total revenue, or gross margin, has been and is expected to continue to be affected by a variety of factors, including the introduction of new products, production volumes, the mix of products sold, the geographic region in which products are sold, changes in the cost and volumes of materials purchased from our suppliers, changes in labor costs, changes in overhead costs, reserves for excess and obsolete inventories and changes in the average selling prices of our products. Although our overall gross margins over the past three years have been between 27.8% and 34.8%, our gross margins vary more broadly on a product-by-product basis. Our newer and more advanced products typically have higher average selling prices and higher gross margins; however, until the product volumes scale, the gross margin from newer and advanced products may initially be lower. Within our markets, we may sell similar products to different geographic regions at different prices, and therefore realize different gross margins among those similar products. We generally realize a lower gross margin in sales to Asian markets. Our strategy is to improve our gross margins through vertical integration such as utilization of our own laser chips and optical sub-components in our solutions. We expect that our gross margins are likely to continue to fluctuate from quarter to quarter because of the variety of products we sell and the relative product mix within a quarter.

Operating expenses

Our operating expenses consist of research and development, sales and marketing, and general and administrative expenses. Personnel costs are the most significant component of operating expenses and include salaries, benefits, bonuses and share-based compensation. With regard to sales and marketing expense, personnel costs also include sales commissions.

Research and development. Research and development, or R&D, expense consists primarily of personnel costs, including share-based compensation for R&D personnel, and R&D work orders (that include material, direct labor and allocated overhead), as well as allocated development costs, such as engineering services, software and hardware tools, depreciation of capital equipment and facility costs. We record all research and development expense as incurred. Customers rely upon us to assist them with the development of new products and modification of existing products because of our extensive optical design and manufacturing expertise. We work closely with our customers in the critical design phase of product development and are often reimbursed for those development efforts. By virtue of our overseas R&D operations and by focusing on customer-specific projects, our research and development expenses have tended to represent a lower percentage of revenue compared to some of our competitors. In the future, we expect research and development expense to increase on a dollar basis, but continue to decline as a percentage of revenue, to the extent that our revenue increases over time.

Sales and marketing. Sales and marketing expense consists primarily of personnel costs, including share-based compensation for our sales and marketing personnel, as well as travel and trade show expense, sales commissions and the allocation of overall corporate services and facility costs. We sell our products to customers who either incorporate our products into their offering or resell our products to end customers. Beca