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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2017

OR

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

For the transition period from __________ to __________

Commission File Number: 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.)**

13139 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 Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the Registrant has submitted electronically 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 (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

(Check one):

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

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

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

As of June 30, 2017, the aggregate market value of the common stock held by non-affiliates of the Registrant was $1,121,657,372 based upon the closing sales price of the Registrant's common stock as reported on the NASDAQ Global Markets on June 30, 2017 of $61.79 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 February 23, 2018, the Registrant had 19,500,728 outstanding shares of Common Stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement for the Registrant's 2018 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, 2017.

Applied Optoelectronics, Inc.
Table of Contents

PART I

Forward-Looking Information

This Annual Report on Form 10-K contains forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to our management, including statements appearing under the heading, "Management's Discussion and Analysis of Financial Condition and Results of Operations". The statements contained in this Annual Report on Form 10-K that are not purely historical are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. In some cases, you can identify forward-looking statements by terminology such as ''may,'' ''will,'' ''should,'' ''expects,'' ''plans,'' ''anticipates,'' ''believes,'' ''estimates," "strategy," "future," "likely," or "would" or by other similar expressions that convey uncertainty of future events or outcomes. 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; pricing pressure; a decline in demand for our customers' products or their rate of deployment of their products; general conditions in the internet data center, cable television or CATV, telecommunications or telecom and fiber-to-the-home or FTTH, changes in the world economy (particularly in the United States and China); the negative effects of seasonality; impact of the Tax Cuts and Jobs Act of 2017, including impact on deferred tax assets and the one-time transition tax on unremitted foreign earnings; realization of deferred tax assets; and other risks and uncertainties described more fully under "Risk Factors" in this Annual Report on Form 10-K and those discussed in the company's other documents filed with or furnished to the Securities and Exchange Commission. You should not rely on forward-looking statements as predictions of future events. All forward-looking statements in this Annual Report on Form 10-K 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.

Item 1. Business

BUSINESS

Overview

Applied Optoelectronics, Inc. (the "Company") is a leading, vertically integrated provider of fiber-optic networking products, primarily for four networking end-markets: internet data center, cable television, or CATV, telecommunications, or telecom, 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 four of our target markets, which increasingly demand faster connectivity and innovation.

The four 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 four 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 transceivers, 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 eight 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 2017, our revenue was $382.3 million and our gross margin was 43.5%. We have grown our annual revenue at a compound annual growth rate, or CAGR, of 35.4% between 2009 and 2017. In the years ended December 31, 2017, 2016 and 2015, we had net income of $74.0 million, $31.2 million and $10.8 million, respectively. At December 31, 2017, our retained earnings was $38.1 million. At December 31, 2016, we had an accumulated deficit of $37.0 million. In 2017, we earned 80.2% of our total revenue from the internet data center market, and 15.9% of our total revenue from the CATV market. In 2017, our key customers in the data center market included Amazon.com (Amazon), Facebook, Inc. (Facebook) and Microsoft Corp (Microsoft). In 2017, 2016, and 2015, Amazon accounted for 35.4%, 54.6%, and 52.5% of our revenue, Facebook accounted for 28.6%, 3.6% and 0.0% of our revenue and Microsoft accounted for 13.8%, 18.3%, and 11.6% of our revenue, respectively. In 2017, our key customers in the CATV market included Cisco Systems, Inc. (Cisco); a large CATV equipment company in China; and Arris Group, Inc. (Arris). In 2017, 2016 and 2015, Cisco accounted for 4.8%, 5.4%, and 10.4%, of our revenue, respectively; our large China-based customer accounted for 3.4%, 1.2%, and 1.0% of our revenue, respectively; and Arris accounted for 3.2%, 5.8% and 4.5%, of our revenue, respectively.

Industry Background

During 2017, our four target markets, internet data center, CATV, telecom 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 (Gbps), to optical fiber as a transport medium, typically providing speeds from 10 Gbps to 100 Gbps. 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 consequently, 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 begun to upgrade their networks with new technologies like DOCSIS 3.1, which enables 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 to assemble portions of their products, within the past eight 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 Telecom Market.*** The telecom market is composed of customers who deploy wireline optical networks, other than Passive Optical Networks, or PONs, for telecommunications access networks, including for backhaul of cellular telephone signals. As demand for mobile internet connectivity has increased in recent years, reliable and high-speed optical networks have become increasingly important. In particular, the use of wavelength division multiplexing (WDM) to expand the capacity of mobile networks has led to increased demand for WDM components (including lasers and transceivers) by telecom equipment manufacturers. In coming years, we believe that the deployment of advanced 5G networks will result in increased demand for optical components, especially those used in connecting between antennas and base stations, as well as for backhaul as mentioned above.

- ***Trends in the FTTH Market.*** The FTTH market generally refers to the PONs that telecommunications service providers deploy. The most commonly deployed PON technology is Gigabit PON, or GPON, which delivers up to 2.5 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.*** Many 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 four target markets, internet data centers, CATV, telecom 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.

- ***Develop new products for the Telecom market.*** Our addressable telecom market has often been limited by our relatively small portfolio of products for this market. In many cases, our telecom product offerings are identical or nearly identical to products that we sell in other markets (for example CATV or internet data center). As we continue to develop new technological capabilities, we intend to develop products specifically for telecom markets.

- ***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 and telecom 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, telecom 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, 2017, we owned a total of 109 U.S. issued patents and 132 patents issued in China and Taiwan, plus a number of pending U.S. and foreign/international patent applications. Our issued U.S. and foreign patents will expire between 2018 and 2036. While our patents are an important element of our success, our business as a whole is not dependent on any one patent or group of patents. We do not anticipate any material effect on our business due to any patents expiring in 2018, and we continue to obtain new patents through our ongoing research and development.

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 $35.4 million, $31.8 million, and $20.9 million for the years 2017, 2016 and 2015, respectively.

As of December 31, 2017, we had a total of 300 employees working in the R&D department, including 16 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, and we have an additional research and development facility in Duluth, Georgia. In our Sugar Land 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 Sugar Land 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 Sugar Land facility. In addition, in our Taiwan location, we manufacture transceivers for the internet data center, telecom, 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 and transceivers 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.

We sell our products to customers worldwide, and in addition to these external customer sales many of our products are used internally in the production of transceivers and equipment that 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 2017, 2016 and 2015, we obtained 97.0%, 96.0% and 95.7% 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 2017, the three customers who contributed most to our data center revenue were Amazon, Facebook and Microsoft. Our CATV products were used by three large CATV original equipment manufacturers, or OEMs, consisting of Cisco; a large CATV equipment company in China; and Arris (which acquired the Motorola Home Business in 2013 and Pace Plc in 2016). In 2017, revenue from the internet data center market, CATV market, the telecom market, FTTH market and other markets provided 80.2%, 15.9%, 3.4%, 0.1% and 0.4% of our revenue, respectively, compared to 77.2%, 16.7%, 5.0%, 0.6% and 0.5%, respectively, in 2016.

In our telecom market, we manufacture and sell optical products which include transceivers 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 four 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 O 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.”

Additional Financial Information

For certain financial information regarding our business, see “Item 6. Selected Financial Data.”

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, InnoLight Technology (Suzhou) Ltd., Foxconn Interconnect Technology Ltd., Lumentum Holding, Inc., Mitsubishi, Molex, LLC, Oclaro, Inc., Source Photonics, Inc. 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.

Seasonality

See Part II, Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Seasonality,” regarding seasonality of certain of the Company’s products.

Employees

As of December 31, 2017, we employed 3,054 full-time employees, of which 35 held Ph.D. degrees in a science or engineering field. Of our employees, 373 are located in the U.S., 1,373 are located in Taiwan and 1,308 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 as a result of an employment related strike or any employee related dispute 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, Texas, 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 previously 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. Prime World also operates a division in 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 13139 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 our 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 2017, 2016 and 2015, our top ten customers represented 94.9%, 95.5% and 88.7% of our revenue, respectively. In 2017, Amazon represented 35.4% of our revenue, Facebook represented 28.6% of our revenue and Microsoft represented 13.8% 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. However, many of our current revenue expectations and forecasts reflect significant anticipated orders from a limited number of key customers. 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. 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.

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.

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.

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 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.

Our revenues, growth rates and operating results are likely to fluctuate significantly as a result of factors that are outside our control, which could adversely impact our operating results.

Our revenues, growth rates and operating results are likely to fluctuate significantly in the future as a result of factors that are outside our control. We may not achieve similar revenues, growth rates or operating results in future periods. Our revenues, growth rates and operating results for any prior quarterly or annual period should not be relied upon as any indication of our future revenues, growth rates or operating results. The timing of order placement, size of orders and satisfaction of contractual customer acceptance criteria, changes in the pricing of our products due to competitive pressures as well as order or shipment delays or deferrals, with respect to our products, may cause material fluctuations in revenues. For example, we expect revenues for the three months ended March 31, 2018 to decrease by a range of 26 percent to 30 percent as compared to the three months ended March 31, 2017 due primarily to lower sales of 40G data center transceivers, which includes a reduction in average selling prices for certain products, which includes a reduction in average selling prices for certain products, as a result of price negotiations with our customers. Our lengthy sales cycle, which may extend to more than one year, may cause our revenues and operating results to vary from period to period and it may be difficult to predict the timing and amount of any variation. Delays or deferrals in purchasing decisions by our customers may increase as we develop new or enhanced products for existing and new markets, including automotive and biotechnology markets. Our current and anticipated future dependence on a small number of customers increases the revenue impact of each such customer's decision to delay or defer purchases from us, or decision not to purchase products from us. Our expense levels in the future will be based, in large part, on our expectations regarding future revenue sources and, as a result, operating results for any quarterly period in which anticipated material orders fail to occur, or are delayed or deferred, could be significantly harmed.

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 that these fluctuations may have on our revenue and operating results.

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.

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 2017, 2016 and 2015, the CATV market represented 15.9%, 16.7% and 28.3% 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. 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 and 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 have limited operating history in the telecom and FTTH markets, and our business could be harmed if these markets do not develop as we expect.

For 2017 and 2016, respectively, we generated 3.4% and 5.0% of our revenue from the telecom market and 0.1%, and 0.6% of our revenue from the FTTH market. In the telecom market, we generally have sold products that were originally designed for other markets (such as internet data center or FTTH) or are variations of such products. As we gain experience in this market, we have begun to develop products specifically designed for telecom customers. Given our limited experience in this market, the products that we develop may prove to be unsuitable for customer use, or we may be unable to derive profit margins from this market that are similar to what we derive from our other markets. The products that we offer in the FTTH market are relatively new and have not yet gained widespread customer acceptance. For example, our WDM-PON products designed for the FTTH market, have not, 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 Gbps 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 and 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 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 our Molecular Beam Epitaxy, or 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 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.

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 2,655 of our employees as of December 31, 2017 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.

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;
- seasonality of certain of our products and manufacturing capabilities;
- 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 and North America General Manager and Senior Vice President 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 or more of our contract manufacturers is unable to meet our customer demand in a timely fashion, this could have a material adverse effect on the revenue from our products. If one or more contract manufacturers 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.

Data breaches and cyber attacks could compromise our operations, our customers' operations, or the operations of our contract manufacturers upon whom we rely, and cause significant damage to our business and reputation.

Cyber attacks have become more prevalent and much harder to detect and defend against. Companies, including companies in our industry, have been increasingly subject to a wide variety of security incidents, cyber attacks and other attempts to gain unauthorized access to their systems or to deny access and disrupt their systems and operations. These threats can come from a variety of sources, ranging in sophistication from an individual hacker to a state-sponsored attack. Cyber threats may be generic, or they may be custom-crafted against our information systems.

In the ordinary course of our business, we and our data center customers maintain sensitive data on our respective networks, including intellectual property, employee personal information and proprietary or confidential business information relating to our business and that of our customers and business partners. The secure maintenance of this information is critical to our business and reputation. Despite our implementation of network security measures, our network and storage applications may be subject to computer viruses, denial of service attacks, ransomware and other forms of cyber terrorism, unauthorized access by hackers or may be breached due to operator error, malfeasance or other system disruptions. Our customers' network and storage applications may be subject to similar disruptions. It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents. Data breaches and any unauthorized access or disclosure of our information, employee information or intellectual property could compromise our intellectual property, trade secrets and other sensitive business information, any of which could result in legal action against us, exposure of our intellectual property to our competitors, damages, fines and other adverse effects. A data security breach could also lead to public exposure of personal information of our employees, customers and others. Any such theft, loss or misuse of personal data collected, used, stored or transferred by us to run our business could result in significantly increased security costs or costs related to defending legal claims. Cyber attacks, such as computer viruses or other forms of cyber terrorism, may disrupt access to our network or storage applications. Such disruptions could result in delays or cancellations of customer orders or the production or shipment of our products. Data security breaches involving our data center customers could affect their financial condition and ability to continue to purchase our products. Further, cyber attacks may cause us to incur significant remediation costs, result in product development delays, disrupt key business operations and divert attention of management and key information technology resources. These incidents could also subject us to liability, expose us to significant expense and cause significant harm to our reputation and business.

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 2017, 2016 and 2015, 22.7%, 15.8% and 19.0% 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.

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 and Taiwan. In addition, we are subject to various state taxes in states where we have nexus. We base our tax position on the anticipated nature and conduct of our business and our understanding of the tax laws of the countries and states 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, such as the recently enacted U.S. tax reform legislation commonly referred to as the U.S. Tax Cuts and Jobs Act of 2017 (the “Tax Act”). 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.

The Tax Act significantly changes how the U.S. taxes corporations. The Tax Act requires complex computations to be performed that were not previously required in U.S. tax law, significant judgments to be made in interpretation of the provisions of the Tax Act and significant estimates in calculations, and the preparation and analysis of information not previously relevant or regularly produced. The U.S. Treasury Department, the IRS, and other standard-setting bodies could interpret or issue guidance on how provisions of the Tax Act will be applied or otherwise administered that is different from our interpretation. As we complete our analysis of the Tax Act, collect and prepare necessary data, and interpret any additional guidance, we may make adjustments to provisional amounts that we have recorded that may materially impact our provision for income taxes in the period in which the adjustments are made.

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 BB&T Bank in the U.S., and our Taiwan location has a finance lease agreement. 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, 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 BB&T are secured by our accounts receivable, inventory, intellectual property, and all business assets with the exception of real estate and equipment. 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, including under our Registration Statement filed with the SEC in October 2016, 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.

Our business could be negatively impacted as a result of shareholder activism.

In recent years, shareholder activists have become involved in numerous public companies. Shareholder activists frequently propose to involve themselves in the governance, strategic direction, and operations of the Company. We may in the future become subject to such shareholder activity and demands. Such demands may disrupt our business and divert the attention of our management and employees, and any perceived uncertainties as to our future direction resulting from such a situation could result in the loss of potential business opportunities, be exploited by our competitors, cause concern to our current or potential customers, and make it more difficult to attract and retain qualified personnel and business partners, all of which could adversely affect our business. In addition, actions of activist shareholders may cause significant fluctuations in our stock price based on temporary or speculative market perceptions or other factors that do not necessarily reflect the underlying fundamentals and prospects of our business.

The unfavorable outcome of any pending or future litigation or administrative action and expenses incurred in connection with litigation could result in financial losses or harm to our business.

We are, and in the future may be, subject to legal actions in the ordinary course of our operations, both domestically and internationally. There can be no assurances as to the favorable outcome of any litigation. In addition it can be costly to defend litigation and these costs could negatively impact our financial results. As disclosed in “Item 3. Legal Proceedings,” on August 5, 2017, a shareholder class action lawsuit was filed in the U.S. District Court for the Southern District of Texas against us and two of our officers. The complaint in this matter alleges that we made materially false and misleading statements or failed to disclose material facts and requests damages and other relief. This lawsuit and any other such litigation could result in substantial costs and divert our management’s attention from other business concerns, which could seriously harm our business.

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 an effective system of disclosure controls and internal control over financial reporting, 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, since we no longer qualify as an "emerging growth company" under the JOBS Act as of December 31, 2017, we have to provide an auditor's attestation report on our internal controls in annual reports on Form 10-K as 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 a system of disclosure and internal controls that we believe provide reasonable assurance that we will be able to timely report our financial results and 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 an effective system of disclosure controls and 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 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, 2017, we had U.S. accumulated net operating losses, or NOLs, of approximately $37.7 million, federal and state research and development credits ("R&D credits") of $4.6 million, and foreign tax credits of $2.0 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, tax 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 believe that we have experienced ownership changes, however, we do not believe those limitations would result in a loss of tax benefits. In addition, should we experience additional ownership changes, our NOL carry forwards and tax credits may be further limited.

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 previously 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, damaged 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, 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 filed our latest conflict minerals report on Form SD on May 26, 2017. We have previously determined, as part of our compliance efforts, that certain products or components we obtain from our suppliers contain conflict minerals. Based on our Reasonable Country of Origin Inquiry on the source of our conflict minerals for the year ended December 31, 2017, we had reason to believe that certain of such conflict minerals likely originated in covered countries. If we are unable to conclude in the future 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.

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.

Risks Related to Our Operations in China

Our business operations conducted in China are critical to our success. A total of $122.3 million, $57.4 million and $20.6 million or 32.0%, 22.0% and 11.0%, of our revenue in the years ended December 31, 2017, 2016 and 2015 was attributable to our product manufacturing plants in China, respectively. Additionally, a substantial portion of our property, plant and equipment, 29.9%, 23.0% and 22% as of December 31, 2017, 2016 and 2015, 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 2012 through 2017. 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. In November 2017, we received approval from the Chinese government to extend this preferential tax treatment for three years, ending November 2020. 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. 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.

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.

Chinese 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 Chinese 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.

Chinese labor laws and regulations provide certain protections for our employees located in China, and changes to those labor laws and regulations may increase our costs and reduce our flexibility. The China Labor Contract Law, which went into effect in 2008, together with its implementing rules, provides increased rights to Chinese employees compared to prior employment laws in China. Under the rules under the China Labor Contract Law, 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. Any further changes to these laws may increase our costs and reduce our flexibility.

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 and maintaining 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. For example, announcements made by competitors regarding factors influencing their business may cause fluctuations in the valuation of companies throughout our industry, including fluctuations in the valuation of our stock.

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 have been and may become the target of this type of litigation in the future. For example, on August 3, 2017 we provided guidance for the third quarter of 2017, and on August 4, 2017 the market price of our stock decreased significantly. We subsequently learned of potential class action litigation based on volatility in the market price for our stock. See "*Item 3. Legal Proceedings.*" 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 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. Commencing December 31, 2017, we became a "large accelerated filer" and, accordingly, no longer qualify as an emerging growth company and are no longer able to rely on certain exemptions that were available to us as an emerging growth company. Legal, accounting, administrative and other costs and expenses may increase in the future as we continue to incur both increased external audit fees as well as additional spending to ensure continued regulatory compliance.

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. 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.

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 depends 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.

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
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) We manufacture laser chips (utilizing our MBE and MOCVD process), subassemblies and components in our Sugar Land, Texas facility. In May 2016, we completed the expansion of our laser fabrication facilities and office space in Sugar Land, Texas that added 115,600 square feet of additional space to our original facility.

(2) We relocated our research and development office from a temporary location to the office in Duluth, Georgia at the end of February 2016. The lease covering the Georgia office commenced on December 1, 2015 and expires on November 30, 2018.

(3) In our China facility, we manufacture certain more labor intensive components and optical equipment systems, such as optical subassemblies and transceivers for the internet data center market, CATV transmitters (at the headend) and CATV outdoor equipment (at the node). Our China subsidiary acquired the land use rights to the real property on which our current facility is located from the Chinese government. Such land use rights expire on October 7, 2054. Our China subsidiary owns the facility located on such real property. Our China subsidiary also obtained from the Chinese government the land use rights to a second real property located within a close proximity to our current facility. We plan to construct a new manufacturing facility on the second real property in the future. The land use rights for the second real property expire on December 28, 2067.

(4) In our Taiwan location, we manufacture optical components, such as our butterfly lasers, which incorporate laser chips, subassemblies and components manufactured within our Sugar Land facility. In addition, in our Taiwan location, we manufacture transceivers for the internet data center market, telecom, FTTH and other markets. Our Taiwan subsidiary relocated its entire operation to this new facility in November 2014. The lease covering the new facility commenced on June 1, 2014 and expires on May 31, 2029.

Item 3. Legal Proceedings

From time to time, we may be subject to legal proceedings and litigation arising in the ordinary course of business, including, but not limited to, inquiries, investigations, audits and other regulatory proceedings, such as described below. Except for the lawsuit described below, we believe that there are no claims or actions pending or threatened against us, the ultimate disposition of which would have a material adverse effect on us.

On August 5, 2017, a lawsuit was filed in the U.S. District Court for the Southern District of Texas against the Company and two of our officers in *Mona Abouzied v. Applied Optoelectronics, Inc., Chih-Hsiang (Thompson) Lin, and Stefan J. Murry, et al.*, Case No. 4:17-cv-02399. The complaint in this matter seeks class action status on behalf of our shareholders, alleging violations of Sections 10(b) and 20(a) of the Exchange Act against the Company, our chief executive officer, and our chief financial officer, arising out of our announcement on August 3, 2017 that "we see softer than expected demand for our 40G solutions with one of our large customers that will offset the sequential growth and increased demand we expect in 100G.". The original complaint requests unspecified damages and other relief. We dispute the allegations set forth in the original complaint and intend to vigorously contest the matter. An amended complaint is due to be filed in this matter by March 5, 2018.

Item 4. Mine Safety Disclosure

Not Applicable.

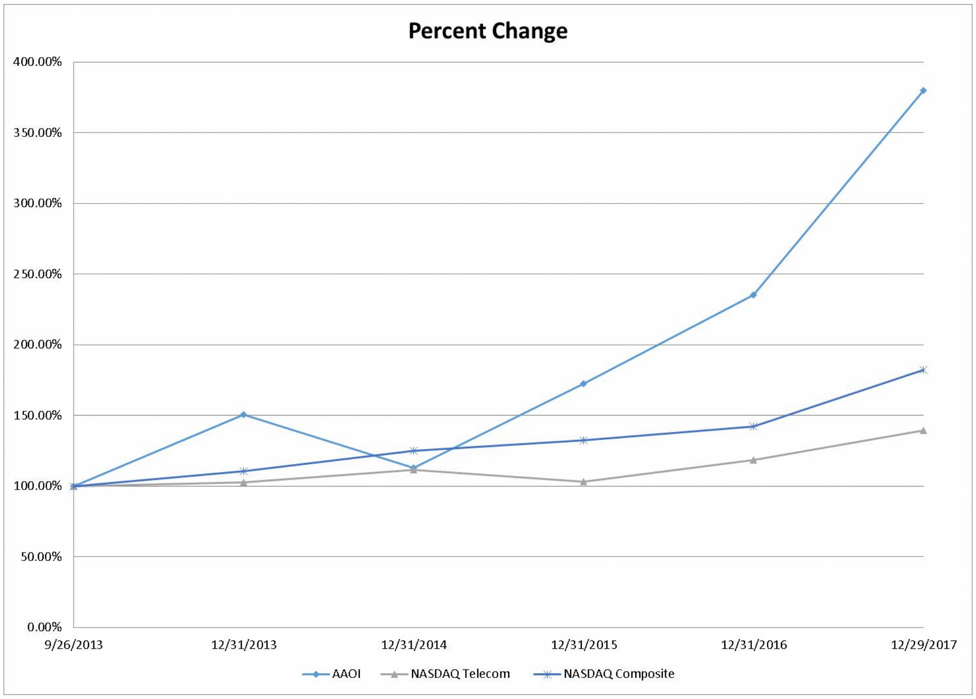
PART II

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 February 23, 2018 there were 44 holders of record of our common stock (not including beneficial holders of our common stock holding 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 2016:		
First Quarter	$11.34	$ 18.96
Second Quarter	$ 8.08	$ 16.48
Third Quarter	$10.34	$ 22.47
Fourth Quarter	$18.85	$ 27.28
Fiscal Year 2017:		
First Quarter	$21.88	$ 60.19
Second Quarter	$40.28	$ 75.59
Third Quarter	$55.13	$103.41
Fourth Quarter	$36.70	$ 65.75

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 is being "furnished" and 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 %
12/31/2013	150.70 %	102.48 %	110.28 %
12/31/2014	112.65 %	111.61 %	125.05 %
12/31/2015	172.29 %	103.25 %	132.21 %
12/31/2016	235.34 %	118.59 %	142.13 %
12/29/2017	379.72 %	139.28 %	182.27 %

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

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, 2017, 2016 and 2015 and the consolidated balance sheet data as of December 31, 2017 and 2016 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, 2014 and 2013 and the consolidated balance sheet data as of December 31, 2015, 2014 and 2013 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.

The following table sets forth our consolidated results of operations for the periods presented (in thousands, except share and per share data):

	Years ended December 31,				
	2017	2016	2015	2014	2013
Consolidated Statements of Operations Data:					
Revenue	$ 382,329	$ 260,713	$ 189,903	$ 130,449	$ 78,424
Cost of goods sold (1)	216,049	173,759	129,450	86,203	55,396
Gross profit	166,280	86,954	60,453	44,246	23,028
Operating expenses:					
Research and development (1)	35,365	31,780	20,852	15,970	8,512
Sales and marketing (1)	8,702	6,627	6,381	6,043	4,191
General and administrative (1)	35,262	25,527	19,771	17,095	10,632
Total operating expenses	79,329	63,934	47,004	39,108	23,335
Income (loss) from operations	86,951	23,020	13,449	5,138	(307)
Interest and other income (expense), net:					
Interest income	221	247	328	369	104
Interest expense	(858)	(1,717)	(1,018)	(326)	(1,125)
Other income (expense), net	(1,788)	(547)	(1,591)	(699)	(78)
Total interest and other income (expense), net	(2,425)	(2,017)	(2,281)	(656)	(1,099)
Income (loss) before income taxes	84,526	21,003	11,168	4,482	(1,406)
Income tax (expense) benefit	(10,575)	10,231	(375)	(199)	—
Net income (loss) attributable to common stockholders	$ 73,951	$ 31,234	$ 10,793	$ 4,283	$ (1,406)
Net income (loss) per share attributable to common stockholders:					
Basic	$ 3.87	$ 1.82	$ 0.69	$ 0.30	$ (0.14)
Diluted	$ 3.67	$ 1.76	$ 0.65	$ 0.28	$ (0.14)
Weighted average shares used to compute net income (loss) per share attributable to common stockholders:					
Basic	19,097,355	17,201,731	15,626,753	14,307,477	9,964,955
Diluted	20,139,105	17,712,928	16,532,850	15,186,961	9,964,955

(1) 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 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 awards and was included in cost of goods sold and operating expenses as follows:

The following table provides share-based compensation expense for the periods presented (in thousands):

	Years ended December 31, 2017	2016	2015
Cost of goods sold	$ 461	$ 190	$ 70
Research and development	1,496	591	230
Sales and marketing	481	357	217
General and administrative	5,357	2,695	1,603
Total share-based compensation expense	$ 7,795	$ 3,833	$ 2,120

The following table provides selected balance sheet data for the periods presented (in thousands):

	As of December 31, 2017	2016	2015	2014	2013
Consolidated balance sheet data:					
Total cash, restricted cash, cash equivalents and short-term investments	$ 83,984	$ 52,008	$ 40,679	$ 40,873	$ 30,751
Working capital (1)	158,989	97,579	79,848	64,638	38,879
Total assets	452,984	322,318	273,475	183,670	111,057
Short-term obligations (2)	559	8,172	33,906	10,862	19,532
Long-term obligations (3)	49,000	34,961	33,997	20,057	8,923
Convertible preferred stock	—	—	—	—	—
Common stock and additional paid-in-capital	285,395	265,282	233,353	192,127	144,036
Total retained earnings (deficit)	$ 38,138	$ (37,013)	$ (68,247)	$ (79,040)	$ (83,323)

(1) Working capital is defined as total current assets less total current liabilities.
(2) Short-term obligations are defined as short-term loans, capital leases, notes payable and bank acceptance payable.
(3) Long-term obligations are defined as long-term loans, capital leases and notes payable.

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 four networking end-markets: internet data centers, CATV, telecom 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, telecom 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 four 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 Gbps 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. In the telecom market, we benefit from deployment of new high-speed fiber-optic networks by telecom network operators.

In 2017, our revenue was $382.3 million and our gross margin was 43.5%. We have grown our annual revenue at a compound annual growth rate, or CAGR, of 35.4% between 2009 and 2017. In the years ended December 31, 2017, 2016 and 2015, we had net income of $74.0 million, $31.2 million and $10.8 million, respectively. At December 31, 2017, our retained earnings was $38.1 million. At December 31, 2016, we had an accumulated deficit of $37.0 million. In 2017, we earned 80.2% of our total revenue from the internet data center market, and 15.9% of our total revenue from the CATV market.

We sell our products to leading OEMs in the CATV and FTTH markets as well as internet data center operators. In 2017, revenue from the internet data center market, CATV market, telecom market and FTTH markets provided 80.2%, 15.9%. 3.4%, and 0.1% of our revenue, respectively, compared to 77.2%, 16.7%, 5.0%, and 0.6% of our 2016 revenue, respectively. In 2017, our key customers in the data center market included Amazon.com (Amazon), Facebook, Inc. (Facebook) and Microsoft Corp (Microsoft). In 2017, 2016, and 2015, Amazon accounted for 35.4%, 54.6%, and 52.5% of our revenue, Facebook accounted for 28.6%, 3.6% and 0.0% of our revenue and Microsoft accounted for 13.8%, 18.3%, and 11.6% of our revenue, respectively. In 2017, our key customers in the CATV market included Cisco Systems, Inc. (Cisco); a large CATV equipment company in China; and Arris Group, Inc. (Arris). In 2017, 2016 and 2015, Cisco accounted for 4.8%, 5.4%, and 10.4%, of our revenue, respectively; our large China-based customer accounted for 3.4%, 1.2%, and 1.0% of our revenue, respectively; and Arris accounted for 3.2%, 5.8% and 4.5%, of our revenue, respectively.

In 2017, our revenue growth of 46.6% over the prior-year was driven primarily by demand for our 40 Gbps and 100 Gbps data center transceiver products, as large data center operators continued deployment of high capacity optical interconnect networks within their data centers. Also significant in our results for the year was the increase in orders from our customers for CATV equipment and modules that meet the new DOCSIS 3.1 cable-internet standard. We believe that the increase in these orders is being driven by network upgrades mainly by CATV service providers in North America.

We expect continued sales of our 40 Gbps and 100 Gbps products in 2018, and we expect that sales of 100 Gbps products will likely exceed sales of 40 Gbps products. However, 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, manufacturing utilization rate and changes in manufacturing efficiency.

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, most 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 2017, 2016 and 2015, we had 19, 30, and 47 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, we achieved profitability in 2014, and we continued to be profitable in 2016 and 2017. We have grown our revenue at a 35.4% CAGR between 2009 and 2017, including 46.6% growth year-over-year from 2016 to 2017.

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 in this market. We sell a wide variety of products among our four 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 2016 and 2017 within the internet data center market. Moreover, within these markets, revenue tends to be concentrated among a small number of customers. In 2016 and 2017, we have taken several actions to increase the diversity of our customer base. These actions include hiring additional sales staff to improve our ability to serve new customers and introduction of new 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 2017 and 2016, we had three and two customers that each accounted for more than 10% of our revenue, respectively.

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, telecom, 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 2017, 2016 and 2015, as well as the corresponding percentage of our total revenue for each period (in thousands, except percentages):

Market	Years ended December 31, 2017	2016	2015
Data Center	$ 306,712	$ 201,314	$ 123,286
CATV	60,756	43,567	53,675
Telecom	12,899	12,938	9,652
FTTH	490	1,567	2,458
Other	1,472	1,327	832
Total	$ 382,329	$ 260,713	$ 189,903

	Percentage of Revenue		
Data Center	80.2 %	77.2 %	64.9 %
CATV	15.9 %	16.7 %	28.3 %
Telecom	3.4 %	5.0 %	5.1 %
FTTH	0.1 %	0.6 %	1.3 %
Other	0.4 %	0.5 %	0.4 %
Total Revenue	100 %	100 %	100 %

In 2017, 2016 and 2015, our top ten customers represented 94.9%, 95.5% and 88.7% of our revenue, respectively.

Revenue is recognized when the product has shipped and title and risk have 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 and risk pass 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, 2017, 32.0% of our total revenue was manufactured at our China-based subsidiary, with $13.9 million denominated in RMB and 63.2% of our total revenue was manufactured at 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 2018.

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 products in three of our four facilities in the U.S., Taiwan and China. Generally, laser chips and optical components are manufactured in our Sugar Land 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 31.8% and 43.5%, 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. 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. Because we sell to a limited number of well-established customers, we employ a limited number of sales professionals who are able to cover large markets. We compensate our sales staff through base salary and commissions, with base salary being the largest component of overall compensation. Total sales commissions to employees amounted to less than one percent of our revenue in 2017, 2016 and 2015. Additionally, we pay commissions to third parties on certain product lines and identified customers, which also amounted to less than one percent of our revenue in 2017, 2016 and 2015. As such, our sales and marketing expense does not directly increase with revenue. In the future, we expect sales and marketing expense to increase on a dollar basis as we incrementally increase our overall sales activities, but expect our sales and marketing expense to decline as a percentage of revenue, to the extent our revenue increases over time.

General and administrative. General and administrative expense consists primarily of personnel costs, including share-based compensation, primarily for our finance, human resources, legal and information technology personnel and certain executive officers, as well as professional services costs related to accounting, tax, banking, legal and information technology services, depreciation of capital equipment and facility costs. We expect general and administrative expense to increase as we continue to grow in both size and complexity as a public company. We expect rising costs including increased audit and legal fees, costs to comply with the Sarbanes-Oxley Act and the rules and regulations applicable to companies listed on a national stock exchange, as well as investor relations expense and higher insurance premiums. In the future, we expect general and administrative 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.

Other income (expense)

Interest income consists of income earned on our cash, cash equivalents and short-term investments. Interest expense consists of amounts paid for interest on our short-term and long-term debt borrowings.

Other income (expense), net is primarily made up of foreign currency transaction gains and losses. The functional currency of our China subsidiary is the RMB and the foreign currency transaction gains and losses of our China subsidiary primarily result from their transactions in U.S. dollars. The functional currency of our Taiwan location is the NT dollar and the foreign currency transaction gains and losses of our Taiwan location primarily result from their transactions in U.S. dollars.

Income taxes

We are a U.S. registered company and are subject to income taxes in the U.S. We also operate in a number of countries throughout the world, including Taiwan and China. Consequently, our effective tax rate is impacted by the geographic distribution of our earnings or losses and the tax laws and regulations in each geographical region. We expect that our income taxes will vary in relation to our profitability and the geographic distribution of our profits. In 2017 our effective tax rate was 12.5%. In 2016 and 2015, our effective tax rate was (48.7%) and 3.3%, respectively. Our effective U.S. federal income tax rate was 0% prior to 2015 as we incurred operating losses and had recorded a full valuation allowance against those losses, which was removed in July 2016. At December 31, 2017, our U.S. accumulated net operating loss, or NOL, was $37.7 million, our federal and state research and development credits were $4.6 million and our foreign tax credits were $2.0 million. If we earn profits in the U.S., we expect to reduce our cash tax obligations by the utilization of NOL carry forwards and tax credits. Our NOL benefits expire over the eight-year period from 2025 to 2032. 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, capital loss carry forwards and other pre-change tax attributes to offset its post-change income may be limited going forward. Based upon an analysis of our equity ownership, we have experienced an ownership change; however, our NOL carry forwards and tax credits are not materially 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 and tax credits may be further limited.

Our wholly owned subsidiary, Global Technology, Inc., has received preferential tax concessions in China as a national high-tech enterprise. In March 2007, China's parliament enacted the PRC Enterprise Income Tax Law, or the EIT Law, under which, effective January 1, 2008, China adopted a uniform income tax rate of 25% for all enterprises including foreign invested enterprises. Global Technology, Inc. was recognized as a national high-tech enterprise in 2008 and was entitled to a 15% tax rate for a three year period from November 2008 to November 2011. In 2011 and 2014 Global Technology, Inc. renewed its national high-tech enterprise certificate and therefore extended its three year tax preferential status through September 2017. In November 2017, Global Technology, Inc. again renewed its national high-tech enterprise certificate and therefore extended its three year tax preferential status from November 2017 until November 2020.

For the years ended December 31, 2017 and 2016, we had $0.2 million and $1.8 million, respectively, of unrecognized tax benefits related to U.S. tax benefits recognized for which we do not meet the more likely than not threshold. We believe that it is reasonably possible that none of our remaining unrecognized tax positions may be recognized by the end of 2018.

Tax Cuts and Jobs Act

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) a new provision designed to tax global intangible low-taxed income (GILTI); (5) eliminating the corporate alternative minimum tax (AMT) and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax (BEAT), a new minimum tax; (7) creating a new limitation on deductible interest expense; and (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

Shortly after enactment of the Tax Act, the SEC staff issued SAB 118, which provides guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under ASC 740. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act.

In connection with our initial analysis of the impact of the Tax Act, we have calculated our best estimate of the impact of the Tax Act in our year end income tax provision in accordance with our understanding of the Tax Act and guidance available as of the date of this filing and as a result have recorded a discrete net tax expense of $7.8 million in the period ending December 31, 2017. This net expense primarily consists of a provisional amount of additional net tax expense for the corporate rate reduction of $2.8 million and a provisional amount of net tax expense for the one-time transition tax of $5.0 million. We have not completed our accounting for the income tax effects of certain elements of the Tax Act.

See additional information regarding income taxes in Note L.

Seasonality

We believe that the demand for our CATV products is seasonal. Historically, revenue derived from our CATV products has usually been highest in the second or third quarter and lowest in the first quarter of each year. The first quarter of the year has historically been negatively affected by reduced economic activity due to the Chinese New Year holiday and the lower level of deployment of outdoor CATV equipment in cold weather environments.

We are uncertain whether the demand for our internet data center, FTTH and telecom products is seasonal, as our sales data does not indicate a significant trend with respect to these products. In 2017, we began to manufacture a meaningful quantity of internet data center products in our Ningbo, China factory. This factory experiences a lengthy shut-down associated with the Lunar New Year holiday which occurs in Q1 of each year. In addition to the factory shut-down, it is also common for employees in the factory to fail to return to work following resumption of operations. In the years 2017, 2016, and 2015, the percentage of employees in our China factory who resigned or were terminated during Q1, relative to the average number of employees during the quarter was 42%, 51%, and 68%, respectively. As a result of this employee turnover, we must hire and train replacement employees. These replacement employees require a period of training and improvement, and this impacts the quantity of products we can produce in the quarter. The combined effect of the factory shut-down and employee turnover in the quarter may also contribute to negative seasonality in Q1.

Our gross margin varies quarter to quarter and varies primarily due to the product mix in a particular quarter, as well as from the level of manufacturing efficiencies, production yields (particularly in the laser chip fabrication process) and overall supply costs.

Results of Operations

The following table set forth our results of operations for the periods presented and as a percentage of our revenue for those periods. The period-to-period comparison of our financial results is not necessarily indicative of our financial results to be achieved in future periods.

	Years ended December 31,		
	2017	2016	2015
Revenue, net	100.0 %	100.0 %	100.0 %
Cost of goods sold	56.5 %	66.6 %	68.2 %
Gross profit	43.5 %	33.4 %	31.8 %
Operating expenses			
Research and development	9.2 %	12.2 %	11.0 %
Sales and marketing	2.3 %	2.5 %	3.4 %
General and administrative	9.2 %	9.8 %	10.3 %
Total operating expenses	20.7 %	24.5 %	24.7 %
Income from operations	22.7 %	8.9 %	7.1 %
Interest and other income (expense), net	(0.6)%	(0.8)%	(1.2)%
Income before income taxes	22.1 %	8.1 %	5.9 %
Income tax (expense) benefit	(2.8)%	3.9 %	(0.2)%
Net income	19.3 %	12.0 %	5.7 %

Comparison of Years Ended December 31, 2017 and 2016

Revenue

We generate revenue through the sale of our products to equipment providers and network operators for the internet data center, CATV, FTTH, telecom 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 charts provide the revenue contribution from each of the markets we served for the years ended December 31, 2017 and 2016 (in thousands, except percentages):

	Years ended December 31,				Change	
	2017	% of Revenue	2016	% of Revenue	Amount	%
Data Center	$ 306,712	80.2%	$ 201,314	77.2%	$ 105,398	52.4 %
CATV	60,756	15.9%	43,567	16.7%	17,189	39.5 %
Telecom	12,899	3.4%	12,938	5.0%	(39)	(0.3)%
FTTH	490	0.1%	1,567	0.6%	(1,077)	(68.7)%
Other	1,472	0.4%	1,327	0.5%	145	10.9 %
Total Revenue	$ 382,329	100.0%	$ 260,713	100.0%	$ 121,616	46.6 %

Revenues in the internet data center market were driven primarily by increasing demand for our 40 Gbps and 100 Gbps transceivers as our customers continued to upgrade their technology infrastructure. We expect to continue to sell 40 Gbps products to our customers in 2018, however we believe that revenue generated from our 40 Gbps products will likely decline as customers continue their transition to 100 Gbps products. The decrease in revenue in our FTTH market is due to a decline in demand for certain older legacy products. The increase in revenue in the CATV market for the year was a result of increased demand from our customers who are supplying equipment for CATV network upgrades which began during the year. The decrease in revenue in our telecom segment was primarily attributable to reduced orders from some of our telecom customers, particularly in China.

In the years ended December 31, 2017 and 2016, our top ten customers represented 94.9% and 95.5% of our revenue, respectively.

Cost of goods sold and gross margin

	Years ended December 31,				Change	
	2017		2016			
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
	(in thousands, except percentages)					
Cost of goods sold	$216,049	56.5 %	$173,759	66.6 %	$42,290	24.3 %
Gross margin	166,280	43.5 %	86,954	33.4 %		

Cost of goods sold increased by $42.3 million, or 24.3%, from 2016 to 2017, primarily due to a 46.6% increase in sales over the prior year. The increase in gross margin for the year ended December 31, 2017 compared to the same period ended December 31, 2016 was primarily the result of lower production costs associated with certain 40 Gbps and 100 Gbps products. Production costs were reduced due mainly to improved product yields, related to process improvements and automation, as well as raw material cost reduction.

Operating expenses

	Years ended December 31,					
	2017		2016		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Research and development	$35,365	9.2 %	$31,780	12.2 %	$ 3,585	11.3 %
Sales and marketing	8,702	2.3 %	6,627	2.5 %	2,075	31.3 %
General and administrative	35,262	9.2 %	25,527	9.8 %	9,735	38.1 %
Total operating expenses	$79,329	20.7 %	$63,934	24.5 %	$15,395	24.1 %

Research and development expense

Research and development expense increased by $3.6 million, or 11.3%, from 2016 to 2017. Research and development costs consist of R&D work orders, R&D material usage and other project related costs related to 40 Gbps, 100 Gbps, and 200/400 Gbps data center products, DOCSIS 3.1-capable CATV products, including remote-PHY products, and other new product development, and depreciation expense resulting from R&D equipment investments. Research and development costs increased due mainly to an increase in personnel-related costs and increased overhead costs associated with our new building in Sugar Land, offset by a decrease in materials and supplies used in R&D activities and a decrease in costs from R&D work orders.

Sales and marketing expense

Sales and marketing expense increased by $2.1 million, or 31.3%, from 2016 to 2017. This was due to an increase in personnel costs, including sales commissions, an increase in customs taxes and duties, partially offset by decreased commissions to third parties.

General and administrative expense

General and administrative expense increased by $9.7 million, or 38.1%, from 2016 to 2017. These increases were primarily due to an increase in personnel-related costs, share-based compensation expenses, overhead costs due to our new building in Sugar Land, and additional professional service fees.

General and administrative expenses include costs to comply with Section 404 of the Sarbanes-Oxley Act, or SOX, and other regulations governing public companies, costs of directors' and officers' liability insurance and investor relations activities. As of June 30, 2017, the market value of our common stock held by non-affiliates exceeded $700 million. As of December 31, 2017, we are a "large accelerated filer" and, accordingly no longer qualify as an emerging growth company and no longer are able to rely on certain exemptions that were available to us as an emerging growth company. We anticipate that general and administrative expenses will continue to increase in absolute dollars in the future as we continue to incur both increased external audit fees as well as additional spending to ensure continued SOX and other regulatory compliance.

Other income (expense), net

	Years ended December 31,					
	2017		2016		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Interest income	$ 221	0.1 %	$ 247	0.1 %	$ (26)	(10.5)%
Interest expense	(858)	(0.2)%	(1,717)	(0.7)%	859	(50.0)%
Other income (expense), net	(1,788)	(0.5)%	(547)	(0.2)%	(1,241)	226.9 %
Total other expense, net	$(2,425)	(0.6)%	$(2,017)	(0.8)%	$ (408)	20.2 %

Interest income decreased over the same prior year periods due to lower investment balances.

Interest expense decreased by 50.0% from 2016 to 2017 due to the repayment of debt that had been previously borrowed to fund expansion projects.

Other income (expense) for 2017 was expense of $1.8 million, a $1.2 million unfavorable increase as compared to 2016. These increases were due to the increase of foreign exchange losses resulting from the unfavorable fluctuation of certain Asian currencies against the U.S. dollar. We qualify as a high-tech enterprise in China, as determined by the Chinese government, and are paid subsidies from time to time by the Chinese government to foster local high-tech manufacturing. We received $0.2 million of government subsidies during 2017 and 2016, respectively.

Benefit (provision) for income taxes

	Years ended December 31,			
	2017	2016	Change	
	(in thousands, except percentages)			
Benefit (provision) for income taxes	$(10,575)	$10,231	(20,806)	(203.4)%

Our income tax expense consists of U.S. income tax, state taxes, Taiwan and China income tax recorded during the periods. Our effective tax rate is affected by recurring items, such as tax rates in state and foreign jurisdictions and the relative amounts of income we earn in those jurisdictions.

We recorded a tax expense of $10.6 million for the year ended December 31, 2017 as compared to the tax benefit of $10.2 million for the year ended December 31, 2016. The income tax expense in the year ended December 31, 2017 was primarily related to the provisional impact of changes to tax law, offset by the recognition of excess tax benefits attributable to share-based compensation as well as the recognition of research and development credits. The income tax benefit recorded in the year ended December 31, 2016 was primarily related to the release of the valuation allowance previously recorded against U.S. and Taiwan deferred tax assets.

On December 22, 2017, the Tax Act was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. We have estimated the impact of the Tax Act in our year-end income tax provision in accordance with our understanding of the Tax Act and guidance available as of the date of this filing and as a result have recorded $7.8 million as additional income tax expense in the fourth quarter of 2017, the period of enactment. The provisional amount related to the remeasurement of certain deferred tax assets and liabilities, based on the rates at which they are expected to reverse in the future, was $2.8 million. The provisional amount related to the one-time transition tax on the mandatory deemed repatriation of foreign earnings was $5.0 million based on cumulative foreign earnings of $62.8 million.

Comparison of Years Ended December 31, 2016 and 2015

Revenue

The following charts provide the revenue contribution from each of the markets we served for the years ended December 31, 2016 and 2015 (in thousands, except percentages):

	Years ended December 31,				Change	
	2016	% of Revenue	2015	% of Revenue	Amount	%
Data Center	$201,314	77.2%	$123,286	64.9%	$ 78,028	63.3 %
CATV	43,567	16.7%	53,675	28.3%	(10,108)	(18.8)%
Telecom	12,938	5.0%	9,652	5.1%	3,286	34.0 %
FTTH	1,567	0.6%	2,458	1.3%	(891)	(36.2)%
Other	1,327	0.5%	832	0.4%	495	59.5 %
Total Revenue	$260,713	100.0%	$189,903	100.0%	$ 70,810	37.3 %

Revenues in the internet data center market were driven primarily by increasing demand for our 40 Gbps and 100 Gbps transceivers as our customers continued to upgrade their technology infrastructure. The decrease in revenue in our FTTH market is due to decreased demand from our major FTTH customer as a result of their decision to halt their deployments. The decrease in revenue in the CATV market for the year was a result of decreased customer orders, primarily in the first half of the year, due to uncertainty of timing surrounding various network upgrades by North American CATV operators. The increase in revenue in our telecom segment was driven primarily by sales of recently designed products and increased deployments of high-speed telecom access networks by telecom operators.

In the years ended December 31, 2016 and 2015, our top ten customers represented 95.5% and 88.7% of our revenue, respectively.

Cost of goods sold and gross margin

	Years ended December 31,					
	2016		2015		Change	
	Amount	% of Revenue	Amount	% of Revenue	Amount	%
	(in thousands, except percentages)					
Cost of goods sold	$173,759	66.6 %	$129,450	68.2 %	$44,309	34.2 %
Gross margin	86,954	33.4 %	60,453	31.8 %		

Cost of goods sold increased by $44.3 million, or 34.2%, from 2015 to 2016, primarily due to a 37.3% increase in sales over the prior year. Within our markets, we may sell similar products in different geographic regions at different prices, resulting in different gross margins among our products. Also, within our business there are various different product types which may have different gross margins. The increase in gross margin for the year ended December 31, 2016 compared to the same period ended December 31, 2015 was primarily the result of cost reduction of our data center products, along with higher gross margin on our 100 Gbps products compared to earlier sales of 40 Gbps products.

Operating expenses

	Years ended December 31,					
	2016		2015		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Research and development	$31,780	12.2 %	$20,852	11.0 %	$10,928	52.4 %
Sales and marketing	6,627	2.5 %	6,381	3.4 %	246	3.9 %
General and administrative	25,527	9.8 %	19,771	10.3 %	5,756	29.1 %
Total operating expenses	$63,934	24.5 %	$47,004	24.7 %	$16,930	36.0 %

Research and development expense

Research and development expense increased by $10.9 million, or 52.4%, from 2015 to 2016. This was primarily due to increases in personnel costs, R&D work orders and project costs related to 100 Gbps data center products, 200 Gbps/400 Gbps data center products, DOCSIS 3.1-capable CATV products, other new product development and an increase in depreciation expense resulting from additional R&D equipment investments. The percentage of research and development expenses over revenue increased from 11.0% to 12.2%, from the year ended December 31, 2015 compared to the year ended December 31, 2016.

Sales and marketing expense

Sales and marketing expense increased by $0.2 million, or 3.9%, from 2015 to 2016. This was due to an increase in personnel costs. The percentage of sales and marketing expenses over revenue decreased from 3.4% to 2.5% from the year ended December 31, 2015 compared to the year ended December 31, 2016.

General and administrative expense

General and administrative expense increased by $5.8 million, or 29.1%, from 2015 to 2016. This was primarily due to an increase in personnel costs, professional fees associated with being a public company and depreciation expense related to our factory in Sugar Land, Texas. The percentage of general and administrative expenses over revenue decreased from 10.3 % to 9.8% from the year ended December 31, 2015 compared to the year ended December 31, 2016.

Other income (expense), net

	Years ended December 31,					
	2016		2015		Change	
	Amount	% of revenue	Amount	% of revenue	Amount	%
	(in thousands, except percentages)					
Interest income	$ 247	0.1 %	$ 328	0.2 %	$ (81)	(24.7)%
Interest expense	(1,717)	(0.7)%	(1,018)	(0.5)%	(699)	68.7 %
Other income (expense), net	(547)	(0.2)%	(1,591)	(0.8)%	1,044	(65.6)%
Total other expense, net	$(2,017)	(0.8)%	$(2,281)	(1.1)%	$ 264	(11.6)%

Interest income decreased over the same prior year periods due to lower investment balances.

Interest expense increased overall for the periods with additional borrowing activities during the year ended December 31, 2016 to fund facility expansion projects in the U.S. and Taiwan.

Other expense, net decreased by $1.0 million from 2015 to 2016 due to foreign currency gains mainly due to the appreciation of New Taiwan Dollars against U.S. dollars at the end of 2016 compared to the 2015. We qualify as a high-tech enterprise in China, as determined by the Chinese government, and are paid subsidies from time to time by the Chinese government to foster local high-tech manufacturing, which are recorded as other income. We received $0.2 million and $0.3 million in subsidy during each of the years ended December 31, 2016 and 2015, respectively.

Benefit (provision) for income taxes

	Years ended December 31,			
	2016	2015	Change	
	(in thousands, except percentages)			
Benefit (provision) for income taxes	$10,231	$ (375)	10,606	103.7 %

Our income tax expense consists of U.S. income tax, U.S. alternative minimum tax, state taxes and Taiwan income tax recorded during the periods. Our effective tax rate is affected by recurring items, such as tax rates in state and foreign jurisdictions and the relative amounts of income we earn in those jurisdictions.

We recorded a tax benefit of $10.2 million for the year ended December 31, 2016 as compared to the tax provision of $0.4 million for the year ended December 31, 2015, respectively. The income tax benefit recorded in the year ended December 31, 2016 was primarily related to the release of the valuation allowance previously recorded against U.S. and Taiwan deferred tax assets.

Liquidity and Capital Resources

From inception until our initial public offering in September 2013, we financed our operations through private sales of equity securities, cash generated from operations and from various lending arrangements. As of December 31, 2017, we had $1.0 million of unused borrowing capacity from all of our loan agreements. As of December 31, 2017, our cash, cash equivalents, restricted cash and short-term investments totaled $84.0 million. Cash and cash equivalents are held for working capital purposes and are invested primarily in money market or time deposit funds. We do not enter into investments for trading or speculative purposes. On October 17, 2016, we filed a Registration Statement on Form S-3 with the Securities and Exchange Commission, which was declared effective on November 1, 2016, providing for the public offer and sale of certain securities of the Company from time to time, at our discretion, up to an aggregate amount of $250 million. Between November 22, 2016 and March 2, 2017, the Company sold 1.6 million shares of common stock at a weighted average price of $31.55 per share, providing proceeds of $48.8 million, net of expenses and underwriting discounts and commissions.

The table below sets forth selected cash flow data for the periods presented (in thousands):

	Years ended December 31,		
	2017	2016	2015
Net cash provided by (used in) operating activities	$ 84,284	$ 57,104	$ (15,212)
Net cash used in investing activities	(70,159)	(41,535)	(61,620)
Net cash provided by financing activities	18,244	1,655	77,533
Effect of exchange rates on cash and cash equivalents	(385)	1,947	(592)
Net increase (decrease) in cash	$ 31,984	$ 19,171	$ 109

Operating activities

In 2017, net cash provided by operating activities was $84.3 million. Net cash provided by operating activities consisted of our net income of $74.0 million, after the exclusion of non-cash items of $30.4 million, increase in accounts payable from our vendors of $7.2 million, an increase in accrued liabilities of $4.1 million and an increase in accrued income tax of $6.2 million. These cash increases were offset by an increase in accounts receivable from our customers of $10.1 million, an increase in inventory of $21.9 million and an increase in other current assets of $5.6 million.

In 2016, net cash provided by operating activities was $57.1 million. Net cash provided by operating activities consisted of our net income of $31.2 million, after the exclusion of non-cash items of $9.5 million as well as $10.2 million from the reduction of inventories, increase in accounts payable from our vendors of $9.1 million, decrease in prepaid assets of $4.1 million and an increase in accrued liabilities and accrued income tax of $4.1 million. These cash increases were offset by an increase in accounts receivable from our customers of $11.1 million in 2016.

In 2015, net cash used in operating activities was $15.2 million. Cash used was primarily from an increase in inventories of $37.5 million to support revenue growth, an increase in accounts receivable from our customers of $7.5 million and a decrease in accounts payable to our vendors of $1.3 million. The cash used was offset by an increase in accrued liabilities of $5.0 million in 2016.

Investing activities

Our investing activities consisted primarily of capital expenditures and purchases of intangible assets.

In 2017, net cash used in investing activities was $70.2 million. The net cash used consisted of spending on property, plant and equipment of $67.0 million and an increase of $2.9 million in deferred charges associated with the purchase of new machinery and equipment.

In 2016, net cash used in investing activities was $41.5 million. Spending on property, plant and equipment of $49.4 million was offset by the maturity of short-term investments of $7.7 million.

In 2015, net cash used in investing activities was $61.6 million for the purchase of additional machinery and equipment and for investment in the construction of our U.S. and Taiwan plants. Deferred charges also increased associated with the purchase of new machinery and equipment as well as patent spending.

Financing activities

Our financing activities have historically consisted primarily of proceeds from the issuance of common stock and arrangements with various commercial lenders.

In 2017, our financing activities provided $18.2 million in cash. We received $21.6 million in net proceeds from the sale of our common stock pursuant to an at-the-market offering and $6.2 million in net borrowings associated with our bank loans. These activities were offset by $10.7 million related to tax withholding associated with employee share-based compensation.

In 2016, our financing activities provided $4.6 million in cash. We repaid $22.9 million in net borrowings associated with our bank loans, $2.5 million in net repayments of acceptance payable, offset by decreased restricted cash of $3.0 million related to our bank loan requirements. We also received $27.2 million in net proceeds from the sale of our common stock pursuant to an at-the-market offering.

In 2015, our financing activities provided $73.1 million in cash. We received $37.5 million in net borrowings associated with our bank loans, $1.9 million in net proceeds from acceptance payable, offset by increased restricted cash of $4.4 million related to our bank loan requirements. We also received $38.6 million in net proceeds from the sale of our common stock pursuant to an at-the-market offering.

Loans and commitments

We have lending arrangements with several financial institutions, including a revolving line of credit with Branch, Banking and Trust Company ("BB&T") in the U.S. and a finance lease agreement for our Taiwan branch. As of December 31, 2017, we had $1.0 million of unused borrowing capacity.

On June 14, 2016, we executed a Change in Terms Agreement, Notice of Final Agreement and Modification of the Construction Loan Agreement (the "Modification Agreement") in connection with our Construction Loan Agreement with East West Bank for up to $22.0 million dollars to finance the construction of our campus expansion plan in Sugar Land, Texas, originally dated January 26, 2015 (the "Construction Loan Agreement"). Upon signing the original Construction Loan Agreement, we deposited $11.0 million into a restricted bank account for owner's contribution of construction costs. The Modification Agreement had a fifteen-month draw down period with monthly interest payments commencing on February 26, 2015 and ending on July 31, 2016. Thereafter, the entire outstanding principal balance was to be converted to a sixty-six month term loan with principal and interest payments due monthly amortized over three hundred months. The first principal and interest payment commenced on August 26, 2016, and would have continued on the same day of each month thereafter. The final principal and interest payment would have been due on January 26, 2022 and would have included all unpaid principal and all accrued and unpaid interest. We were permitted to pay without penalty all or a portion of the amount owed earlier than due. Under the Construction Loan Agreement, the loan bore interest at an annual rate based on the one-month LIBOR Borrowing Rate plus 2.75%, and the interest rate was adjusted to LIBOR Borrowing Rate plus 2.0% under the Modification Agreement.

On October 5, 2016, we executed a Change in Terms Agreement, Notice of Final Agreement and Second Modification to the Construction Loan Agreement (the "Second Modifications") to the Construction Loan Agreement with East West Bank. The Second Modifications amended and restated in part our Promissory Note and Construction Loan Agreement, which was originally executed on January 26, 2015, and the Modification Agreement. The draw down period end date, under the Second Modifications, was amended from July 31, 2016 to September 30, 2016. And thereafter, the entire outstanding principal balance was to be converted to a sixty-four month term loan, amended from a sixty-six month term loan, with principal and interest payments due monthly amortized over three hundred months. The first principal and interest payment was due on October 26, 2016 and would have continued on the same day of each month thereafter. The final principal and interest payment would have been due on January 26, 2022 and would have included all unpaid principal and all accrued and unpaid interest. Except as expressly changed by the Second Modifications, the terms of the original obligation and the Modification Agreement remained unchanged. On September 28, 2017, we repaid the outstanding balance of $11.2 million and terminated the loan.

On June 24, 2016, we entered into a First Amendment to the Credit Agreement with East West Bank and Comerica Bank (the “First Amendment”), a second lien deed of trust, multiple security agreements and promissory notes evidencing two credit facilities and a term loan originally entered into on June 30, 2015. The First Amendment increased our revolving lines of credit from $25 million to $40 million, which would have matured on June 30, 2018, and retained a $10.0 million term loan which would have matured on June 30, 2020. The First Amendment also provided for an additional $10.0 million equipment term loan with a one year drawdown period commencing on April 1, 2016 and maturing five years from the closing date of the First Amendment. The interest rate on these loans was adjusted by the First Amendment from the LIBOR Borrowing Rate plus 2.75% or 3.0% to LIBOR Borrowing Rate plus 2.0%. On September 28, 2017, the Company terminated the credit agreement and all outstanding balances of the loans had been repaid.

We also had a term loan with East West Bank of $5.0 million with monthly payments of principal and interest that would have matured on July 31, 2019. On February 27, 2017, we repaid the outstanding balance of $2.8 million and terminated the loan.

On September 28, 2017, we entered into a Loan Agreement, a Promissory Note, an Addendum to the Promissory Note, a BB&T Security Agreement, a Trademark Security Agreement, and a Patent Security Agreement (together the “Credit Facility”) with BB&T. The Credit Facility provides us with a three year, $50 million, revolving line of credit. Borrowings under the Credit Facility will be used for general corporate purposes. We will make monthly payments of accrued interest with the final monthly payment being for all principal and all accrued interest not yet paid. Our obligations under the Credit Facility will be secured by our accounts receivable, inventory, intellectual property, and all business assets with the exception of real estate and equipment. Borrowings under the Credit Facility will bear interest at a rate equal to the one-month LIBOR plus 1.50%. The Credit Facility requires us to maintain certain financial covenants and also contains representations and warranties, and events of default applicable to us that are customary for agreements of this type. As of December 31, 2017, we were in compliance with all covenants under the Credit Facility. As of December 31, 2017, $49.0 million was outstanding under the Credit Facility.

On May 27, 2015, our Taiwan branch entered into a Purchase and Sale Contract and a Finance Lease Agreement with Chailease Finance Co, Ltd. (“Chailease”) in connection with certain equipment, structured as a sale lease-back transaction. Pursuant to the Purchase and Sale Contract, our Taiwan branch sold certain equipment to Chailease for a purchase price of 180,148,532 New Taiwan dollars, approximately $6.0 million, and simultaneously leased the equipment back from Chailease pursuant to the Finance Lease Agreement. The monthly lease payments range from 3,784,000 New Taiwan dollars, approximately $0.1 million, to 3,322,413 New Taiwan dollars, approximately $0.1 million, during the term of the Finance Lease Agreement, including an initial payment in an amount of 60,148,532 New Taiwan dollars, approximately $2.0 million. The Finance Lease Agreement has a three-year term, with monthly payments, maturing on May 27, 2018. The title to the equipment will be transferred to our Taiwan branch upon the expiration of the Finance Lease Agreement. As of December 31, 2017, $0.6 million was outstanding under this Finance Lease Agreement.

On March 31, 2016, our Taiwan branch entered into a Purchase and Sale Contract and a Finance Lease Agreement with Chailease in connection with certain equipment, structured as a sale lease-back transaction. Pursuant to the Purchase and Sale Contract, our Taiwan branch sold certain equipment to Chailease for a purchase price of 312,927,180 New Taiwan dollars, approximately $10.1 million, and simultaneously leased the equipment back from Chailease pursuant to the Finance Lease Agreement. The Finance Lease Agreement had a three-year term with monthly lease payments range from 6,772,500 New Taiwan dollars, approximately $0.2 million, to 7,788,333 New Taiwan dollars, approximately $0.3 million, during the term of the Finance Lease Agreement, including an initial payment in an amount of 62,927,180 New Taiwan dollars, approximately $2.0 million. Based on the payments made under the Finance Lease Agreement, the annual interest rate was calculated to be 4.0%. The title to the equipment was to be transferred to our Taiwan branch upon the expiration of the Finance Lease Agreement. On October 6, 2017, we repaid the outstanding balance and terminated the loan and title to equipment was transferred to our Taiwan branch.

Our Chinese subsidiary had credit facilities with China Construction Bank totaling $13.2 million, which could be drawn in U.S. currency, RMB currency, issuing bank acceptance notes to vendors with different interest rates or issuing standby letters of credit. We pledged the land use rights and buildings of our Chinese subsidiary as collateral for the credit facility. Our Chinese subsidiary used $10.0 million of its credit facility to issue standby letters of credit as collateral for our Taiwan branch line of credit with China Construction Bank. On March 29, 2017, we repaid the outstanding balance and terminated the loan.

As of December 31, 2017, there were no security deposits associated with the loan facilities.

Future liquidity needs

We believe that our existing cash and cash equivalents, cash flows from our operating activities, and available credit will be sufficient to meet our anticipated cash needs for the next 12 months. Our future capital requirements will depend on many factors including our growth rate, the timing and extent of spending to support our research and development efforts, the expansion of our sales and marketing activities, the introduction of new and enhanced products, the expansion of our manufacturing capacity and the continuing market acceptance of our products. In the event that additional liquidity is required to meet our long-term investments, we may need to explore additional sources of liquidity by additional bank credit facilities or raising capital through additional equity or debt financing, including equity financing under our Registration Statement filed with the SEC in October 2016. The sale of additional equity or convertible securities could result in additional dilution to our stockholders, and the terms and prices of any such sale may not be acceptable to us. If we are unable to raise additional capital when desired, our business, operating results and financial condition would be adversely affected.

Contractual Obligations and Commitments

The following summarizes our contractual obligations as of December 31, 2017 (in thousands):

	Payments due by period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Notes payable and long-term debt[1]	$49,586	$ 586	$49,000	$ —	$ —
Operating leases[2]	12,082	1,066	2,023	2,040	6,953
Lease of land use rights[3]	3,915	3,915	—	—	—
Total commitments	$65,583	$ 5,567	$51,023	$2,040	$ 6,953

1) We have several loan and security agreements in China, Taiwan and the U.S. that provide various credit facilities, including lines of credit, bank acceptance payable and term loans. The amount presented in the table represents the principal portion and estimated interest expense for the obligations.
2) We have entered into various non-cancellable operating lease agreements for our offices in Taiwan and the U.S.
3) We entered into a long-term lease agreement for land use rights in China.

Inflation

We believe that the relatively low rate of inflation in the U.S. over the past few years has not had a significant impact on our sales or operating results or on the prices of raw materials. To the extent we expand our operations in China and Taiwan, such actions may result in inflation having a more significant impact on our operating results in the future.

Off-Balance Sheet Arrangements

During 2017, 2016 and 2015, we did not have any off-balance sheet arrangements that we believe have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that would be material to investors.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. These principles require us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, expenses and cash flows, and related disclosure of contingent assets and liabilities. Our estimates include those related to revenue recognition, share-based compensation expense, impairment analysis of goodwill and long-lived assets, valuation of inventory, warranty liabilities and accounting for income taxes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates. To the extent that there are material differences between these estimates and our actual results, our future financial statements will be affected.

We believe that of our significant accounting policies, which are described in Note B to our consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K, the following accounting policies involve a greater degree of judgment and complexity. Accordingly, we believe these are the most critical to fully understand and evaluate our financial condition and results of operations.

Revenue recognition

We generally employ a direct sales model in North America, and in the rest of the world we use both direct and indirect channels. Our revenue recognition policy is to recognize gross revenue whether our products are sold on a direct or indirect basis, because our reseller customers (indirect channel) take title to our products and honor the same terms and conditions as do our direct sales customers. We recognize revenue from the sale of our products provided that persuasive evidence of an arrangement exists, performance obligations have been satisfied, the price is fixed or determinable and collectability is reasonably assured. Contracts or customer purchase orders are used to determine the existence of an arrangement. Shipping documents are used to verify delivery. We assess whether the price is fixed or determinable based on the payment terms associated with the transaction. We assess collectability based primarily on the creditworthiness of the customer as determined by credit checks and the customer's payment history. Customers are generally extended net 30 credit terms from the date of shipment, with some extensions for more creditworthy customers.

Whether our products are sold on a direct or indirect basis, 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). In some cases we may provide for title transfer to the customer upon delivery of the goods to the customer. We determine payments made to third party sales representatives are appropriately recorded to sales and marketing expense and not a reduction of revenue. Shipping and handling costs are included in cost of goods sold. We present revenue net of sales returns and allowances, sales taxes and any similar assessments. We provide a limited warranty as part of our standard terms and conditions of sale. This warranty provides for the repair or replacement of our products, at our discretion, that we determine (i) are defective in workmanship, material, or not in compliance with the mutually agreed written applicable specification and (ii) has in fact failed under normal use on or before one year from the date of original shipment of the products. Some of our customers are provided limited warranties between three to five years, on certain limited and identified products. Warranty costs associated with returned goods that are repaired or replaced are charged to cost of goods sold.

During our ordinary course of business, we may enter into new product development agreements to design, customize and develop new products for our customers. Such new product development agreements often involve material cost and engineering hours and therefore non-recurring engineering service (NRE) charges are agreed upon for the customer to reimburse our related costs. We adopt the milestone method in revenue recognition for NRE revenues by using cost-input measurement. We capitalize cost input up to the contractual agreement amount and recognize NRE revenues based upon the agreement schedule. Contracts or customer purchase orders are often used to determine the existence of service agreement.

Share-Based Compensation

We account for share-based compensation in accordance with the provisions of ASC 718, *Compensation—Stock Compensation*. Share-based compensation expense is recognized based on the estimated grant date fair value in order to recognize compensation cost for those shares expected to vest. Compensation cost is recognized on a straight-line basis over the vesting period of the options and adjusted as forfeitures occur.

Long-lived assets

Depreciation and amortization of the intangible assets and other long-lived assets is provided using the straight-line method over their respective estimated useful lives, reflecting the pattern of economic benefits associated with these assets. Changes in circumstances such as technological advances, changes to our business model, or changes in our capital strategy could cause the actual useful lives of intangible assets or other long-lived assets to differ from initial estimates. In those cases where we determine that the useful life of an asset should be revised, we depreciate the remaining net book value over the new estimated useful life.

Our long-lived assets are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. We value on an asset-by-asset basis our long-lived assets and will recognize an impairment loss when the sum of such valuation is less than the carrying amount of such assets. The values, based on reasonable and supportable assumptions and projections, require subjective judgments. Depending on the assumptions and estimates used, the values projected in the evaluation of long-lived assets can vary within a range of outcomes. We consider the likelihood of possible outcomes in determining the best estimate for the value of the assets. We did not record any asset impairment charges in 2017 or 2016.

Valuation of inventories

Inventories are stated at the lower of cost (average-cost method) or market. Work in process and finished goods includes materials, labor and allocated overhead. We assess the valuation of our inventory on a periodic basis and provide an allowance for the value of estimated excess and obsolete inventory based on estimates of future demand. During the years ended December 31, 2017, 2016 and 2015, we recorded excess and obsolete inventory charges of $1.9 million, $3.7 million, and $2.8 million, respectively. For the years December 21, 2017, 2016 and 2015, the direct inventory write-offs related to scrap and damaged inventories were $6.8 million, $5.0 million and $1.0 million, respectively.

We have an accounting policy to write down the value of obsolete inventory. We considered the following factors in our determination of the appropriate reserve level: how often we buy material in bulk; the overall market value of raw material, semi-finished goods and finished goods across our varied product lines and within markets; changes in expected demand for our products; the change in valuations historically; the determined safety stock for key customers; and the likelihood of postponement in delivery schedules for materials already placed in finished goods inventory.

Accounting for income taxes

We account for income taxes in accordance with the provisions of ASC 740, Income Taxes. The liability method is used to account for deferred income taxes. Under the liability method, deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The ability to realize deferred tax assets is evaluated annually and a valuation allowance is provided if it is unlikely that the deferred tax assets will not give rise to future benefits in our tax returns.

We record uncertain tax positions in accordance with ASC 740 on the basis of a two-step process in which (1) we determine whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, we recognize the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

We recognize interest and penalties related to unrecognized tax benefits on the income tax expense line in the accompanying consolidated statement of operations. Accrued interest and penalties are included on the related tax liability line in the consolidated balance sheet.

Tax Cuts and Jobs Act

On December 22, 2017, the U.S. government enacted the Tax Act. The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) a new provision designed to tax global intangible low-taxed income (GILTI); (5) eliminating the corporate alternative minimum tax (AMT) and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax (BEAT), a new minimum tax; (7) creating a new limitation on deductible interest expense; and (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

Shortly after enactment of the Tax Act, the SEC staff issued SAB 118, which provides guidance on accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under ASC 740. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Tax Act for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act.

In connection with our initial analysis of the impact of the Tax Act, we have calculated our best estimate of the impact of the Tax Act in our year end income tax provision in accordance with our understanding of the Tax Act and guidance available as of the date of this filing and as a result have recorded a discrete net tax expense of $7.8 million in the period ending December 31, 2017. This net expense primarily consists of a provisional amount of additional net tax expense for the corporate rate reduction of $2.8 million and a provisional amount of net tax expense for the one-time transition tax of $5.0 million. We have not completed our accounting for the income tax effects of certain elements of the Tax Act.

See additional information regarding income taxes in Note L.

Recent Accounting Pronouncements

Recent Accounting Pronouncements Adopted in 2017

In March 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-09, Improvements to Employee Share-Based Payment Accounting, to simplify several aspects of accounting for share-based payment transactions, including the following areas: accounting for excess tax benefits and tax deficiencies; classifying excess tax benefits on the statement of cash flows; accounting for forfeitures; classifying awards that permit share repurchases to satisfy statutory tax withholding requirements; classifying tax payments on behalf of employees on the statement of cash flows; and, for nonpublic entities only, determining the expected term and electing the intrinsic value measurement alternative for stock option awards. The guidance is effective for public business entities in fiscal years beginning after December 15, 2016, and in the interim periods within those fiscal years. The guidance requires a mix of prospective, modified retrospective and retrospective transition. We adopted the provisions of ASU 2016-09 as of January 1, 2017. The impact from adoption of the provisions related to forfeiture rates was reflected in our condensed consolidated financial statements on a modified retrospective basis, resulting in an adjustment of $0.01 million to retained earnings. Provisions related to windfall tax benefits have been adopted prospectively resulting in an adjustment of $1.2 million to retained earnings. Provisions related to the statement of cash flows remain unchanged from prior periods.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows: Restricted Cash, providing guidance on the presentation of restricted cash or restricted cash equivalents in the statement of cash flows. ASU 2016-18 is effective for interim and annual periods beginning after December 15, 2017, with early adoption permitted. The amendments in this ASU would be applied using a retrospective approach. We adopted the provisions of ASU 2016-18 as of July 1, 2017 with no material impact on the financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The ASU update addresses eight specific cash flow issues that currently result in diverse practices, including debt prepayment or debt extinguishment costs, contingent consideration payments made after a business combination and separately identifiable cash flows and applicability of the predominance principle. ASU 2016-15 is effective for interim and annual periods beginning after December 15, 2017, with early adoption permitted. We adopted the provisions of ASU 2016-15 as of July 1, 2017 with no material impact on the financial statements.

In May 2017, the FASB issued ASU No. 2017-09, Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting, which clarifies when modification accounting should be applied for changes to terms or conditions of a share-based payment award. This ASU will be applied prospectively and is effective for fiscal years beginning after December 15, 2017, and interim periods within those years, with early adoption permitted. We adopted the provisions of ASU 2017-09 as of July 1, 2017 with no material impact on the financial statements.

Recent Accounting Pronouncements Yet to be Adopted

The FASB issued ASU No. 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. The guidance is intended to improve the recognition and measurement of financial instruments. The ASU affects public and private companies, not-for-profit organizations, and employee benefit plans that hold financial assets or owe financial liabilities. The guidance is effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. We plan to adopt this pronouncement in 2018 and do not expect any material impact on the financial statements.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The amendments in ASU 2015-14 defer the effective date of ASU 2014-09 for all entities by one year. Public business entities should apply the guidance in ASU 2014-09 to annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. In applying the new guidance, we will: 1) identify the contracts with our customers, 2) identify the performance obligations in the contracts, 3) determine the transaction price, 4) allocate the transaction price to the performance obligations of the contract, and 5) recognize revenue when (or as) we satisfy a performance obligation. Since this guidance was issued, we have undertaken an accounting assessment phase focusing on developing a scoping plan and a review plan to determine the gaps between existing revenue recognition policies and the requirements of the new revenue guidance. This accounting assessment involved developing a training and education process for our personnel, performing sales contract walkthroughs to identify financial obligations, reviewing existing revenue streams and mapping contract features to revenue streams.

As a result of this process, we have identified several areas where the new guidance may cause revenue recognition differences, possibly affecting either the timing or amount of revenue recognized in a given financial period. These areas include:

- Revenue associated with customer rebates. In some cases, we offer cash rebates to certain customers when they purchase our products. Under the new guidance, any rebates expected to be offered to the customers must be deducted from the sales price of the goods in the same period in which the revenue for the products is recognized. In 2017, the aggregate amount of these rebates was immaterial and they are not expected to be material in 2018.
- Timing of revenue recognition for certain engineering service contracts. From time to time, we undertake engineering services for our customers. Typically, these services involve customizing or modifying products to better suit specific customer requirements. In some cases, customers pay all or a portion of the costs associated with these services. Under the new guidance, each of the services offered must be analyzed as a separate performance obligation and the timing of revenue recognition for some of these performance obligations may differ from our current practice. In 2017, the effect of these timing differences was not material, and material changes are not expected in 2018 as we adopt this new standard.
- Revenue generated from shipping and handling activities. Depending on our agreement with our customers, we may in some cases provide shipping and handling services for products it sells. There is disparity in the agreements related to various customers, especially concerning the timing of transfer of control of the goods to the customer, and the relationship of this timing relative to the shipping and handling activities themselves. As a result of this disparity, in order to simplify its Accounting, we expect to utilize the practical expedient provided in ASC 606-10-25-18B, and treat all product shipping and handling activities as fulfillment activities, and therefore recognize the gross revenue associated with the contract, inclusive of any shipping and handling revenue. This is similar to our current practice and therefore the effect of the new guidance is immaterial.
- Revenue generated from product warranty. Generally we offer a warranty on products we sells to our customers. The warranty period is typically one year from the date of purchase, but in some cases customers have negotiated longer warranty periods. Our obligation under our warranty provision generally includes troubleshooting, repair and/or replacement of any goods that are found to have manufacturing defects. We have concluded that this represents an assurance-type warranty, as

described in the guidance, and therefore does not constitute a separate performance obligation. Therefore, revenue associated with products, even when under warranty, will continue to be recognized on a gross basis. This is similar to our current practices and therefore the new guidance is not expected to result in a material change in revenue amount or timing.

We plan to adopt the new standard using the modified-retrospective method on January 1, 2018, as required.

On February 25, 2016, the FASB released ASU No. 2016-02, Leases, to complete its project to overhaul lease accounting. The ASU codifies ASC 842, Leases, which will replace the guidance in ASC 840. The guidance will require lessees to recognize most leases on the balance sheet for capital and operating leases. The guidance is effective for public business entities in fiscal years beginning after December 15, 2018. We are evaluating the impact of the accounting standard on our financial statements by reviewing the standard itself, as well as reviewing literature about the new standard produced by nationally-recognized accounting firms and other third parties.

In January 2018, the FASB released guidance on the accounting for tax on the global intangible low-taxed income ("GILTI") provisions of the Tax Act. The GILTI provisions impose a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. The guidance indicates that either accounting for deferred taxes related to GILTI inclusions or to treat any taxes on GILTI inclusions as period cost are both acceptable methods subject to an accounting policy election. Effective the first quarter of 2018, we will elect to treat any potential GILTI inclusions as a period cost as we are not projecting any material impact from GILTI inclusions.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Market Risks

Market risk represents the risk of loss that may impact our financial statements through adverse changes in financial market prices and rates and inflation. Our market risk exposure results primarily from fluctuations in foreign exchange and interest rates. We manage our exposure to these market risks through our regular operating and financing activities. We have not historically attempted to reduce our market risks through hedging instruments; we may, however, do so in the future.

Interest Rate Fluctuation Risk

Our cash equivalents consisted primarily of money market funds, and interest and non-interest bearing bank deposits. Our primary objective is to maintain the security of our principal balances and ensure liquidity. We attempt to maximize the return on these balances without significantly increasing risk, but have little opportunity to do so given the short-term nature of our investments and current interest rate environments. We do not anticipate any material effect on our cash balances or investment portfolio due to fluctuations in interest rates.

We are exposed to market risk due to the possibility of changing interest rates associated with certain debt instruments. As of December 31, 2017, our U.S. debt bears a variable rate of interest that is based on LIBOR. The debt subject to variable rates is subject to fluctuation in the LIBOR. As of December 31, 2017, we had not hedged our interest rate risk.

With respect to our interest expense for the three months ended December 31, 2017, an increase of 1.0% in each of our interest rates would have resulted in an increase of $0.5 million in our interest expense for such period.

Foreign Exchange Rates

We operate on an international basis with a large portion of our business conducted in our Taiwan branch and China subsidiary. We use the U.S. dollar as our reporting currency for our consolidated financial statements. The financial records of our China subsidiary and our Taiwan branch are maintained in their respective local currencies, the RMB and the NT dollar, which are the functional currencies for our China subsidiary and our Taiwan branch, respectively. Assets and liabilities are translated at prevailing exchange rates at the balance sheet date, equity accounts are translated at historical exchange rates and revenues, expenses, gains and losses are translated using the average rate for the then current period using a monthly average. Translation adjustments are reported as cumulative translation adjustments and are shown as a separate component of accumulated other comprehensive income in our statement of stockholders' equity and comprehensive income.

All transactions in currencies other than their functional currencies during the year are subject to foreign exchange risk when the exchange rate fluctuates on the respective relevant dates of such transactions. Transaction gains and losses are recognized in our statements of operations in other income (expense). Monetary assets and liabilities existing at the balance sheet date denominated in currencies other than the functional currencies are re-measured at the exchange rates prevailing on the Balance Sheet date and unrealized exchange differences are recorded in our consolidated income statement. In October 2015, we determined that certain U.S. loans to foreign subsidiaries are long-term investments. Therefore, exchange gain/(loss) arising from re-measurement of U.S. loans were recorded in the Cumulative Translation Adjustment accounts.

During the year ended December 31, 2017, we recognized $2.0 million of exchange losses arising from foreign currency transactions and re-measurement of monetary assets and liabilities dominated in non-functional currency on balance sheet date.

During the year ended December 31, 2017, 3.6% of our revenue was denominated in RMB and less than 1% of revenue was denominated in NT dollars. In the year ended December 31, 2017, 19.5% of our operating expenses were denominated in RMB and 31.2% of our operating expenses were denominated in NT dollars. Accordingly, fluctuations in exchange rates directly affect our cost of goods sold and net income, and have a significant impact on our operating margins. If exchange rates of RMB and NT dollars for U.S. dollars were 1% higher during the year ended December 31, 2017, our operating expenses would have been higher by $0.4 million.

As of December 31, 2017, we held the U.S. dollar denominated liabilities net of assets of approximately $21.3 million in our China subsidiary and $35.5 million in our Taiwan branch. With respect to these U.S. Dollar denominated net liabilities as of December 31, 2017, if exchange rates of RMB and NT dollars for U.S. dollars were 1% higher during the year ended December 31, 2017, our other operating expenses would have been reduced by $0.6 million. Any significant revaluation of the RMB and NT dollars may materially and adversely affect the cash flows, revenues, and net income as reported in U.S. Dollars.

We currently do not use derivative financial instruments to mitigate this exposure. We continue to review this issue and may consider hedging certain foreign exchange risks through the use of currency forwards or options in future years.

Item 8. Financial Statements and Supplementary Data

The information required by this item is incorporated by reference to the consolidated financial statements and accompanying notes set forth on pages F-1 through F-30 of this Annual Report on Form 10-K

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

Not applicable.

Item 9A. Controls and Procedures

a. Evaluation of Disclosure Controls and Procedures.

The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their control objectives.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2017. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered in this report, our disclosure controls and procedures were effective.

b. Management's Annual Report on Internal Control over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act). Internal control over financial reporting is a process designed by, or under the supervision of, the issuer's principal executive and principal financial officers, or persons performing similar functions, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that our degree of compliance with the policies or procedures may deteriorate.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of the end of the period covered by this Annual Report on Form 10-K based on the framework in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organization of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2017.

Grant Thornton LLP, the independent registered public accounting firm that audited the consolidated financial statements included in this Annual Report on Form 10-K, has issued a report, included below, on the effectiveness of our internal control over financial reporting as of December 31, 2017.

c. Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) identified in connection with management's evaluation required by the Rules 13a-15(d) and 15d-15(d) under the Exchange Act that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
Applied Optoelectronics, Inc.

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of Applied Optoelectronics, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2017, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements of the Company as of and for the year ended December 31, 2017, and our report dated February 28, 2018 expressed an unqualified opinion on those financial statements.

Basis for opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

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

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

/s/ GRANT THORNTON LLP

Houston, Texas
February 28, 2018

Item 9B. Other Information

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required regarding our directors is incorporated herein by reference from the information contained in our definitive Proxy Statement for the 2018 Annual Meeting of Stockholders (our "Proxy Statement"), a copy of which will be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2017.

The information required regarding our executive officers is incorporated herein by reference from the information contained in the section entitled "Management" in our Proxy Statement.

The information required regarding Section 16(a) beneficial ownership reporting compliance is incorporated by reference from the information contained in our Proxy Statement.

The information required with respect to procedures by which security holders may recommend nominees to our board of directors, the composition of our Audit Committee, and whether the Company has an "audit committee financial expert", is incorporated by reference from the information contained in our Proxy Statement.

Adoption of Code of Ethics

The Company has adopted a Code of Business Conduct and Ethics (the "Code") applicable to all of our board of director members, employees and executive officers, including our Chief Executive Officer (Principal Executive Officer), and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer). The Company has made the Code available on our website at http://www.ao-inc.com.

The Company intends to satisfy the public disclosure requirements regarding (1) any amendments to the Code, or (2) any waivers under the Code given to our Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer by posting such information on our website at www.ao-inc.com. There were no amendments to the Code or waivers granted thereunder relating to the Principal Executive Officer, Principal Financial Officer or Principal Accounting Officer during 2017.

Item 11. Executive Compensation

The information required regarding the compensation of our directors and executive officers is incorporated herein by reference from the information contained in the sections entitled "Executive Compensation," and "Director Compensation," "Compensation Committee Report" in our Proxy Statement.

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

The information required regarding security ownership of our 5% or greater stockholders and of our directors and management is incorporated herein by reference from the information contained in the section entitled "Security Ownership of Certain Beneficial Owners and Management" in our Proxy Statement.

The information required regarding securities authorized for issuance our equity compensation plans is incorporated herein by reference from the information contained in the section entitled "Employee Benefit Plans" in our Proxy Statement.

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

The information required regarding related transactions is incorporated herein by reference from the information contained in our Proxy Statement.

Item 14. Principal Accounting Fees and Services

The information required by Part III, Item 14, regarding principal accounting fees and services is incorporated by reference from the information contained in our Proxy Statement, a copy of which will be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2017.

PART IV

Item 15. Exhibits, Financial Statements Schedules

a) (1) The consolidated financial statements are listed on the Index to Consolidated Financial Statements to this report beginning on page F-1.

(a)(2) Financial Statement Schedules. Financial statement schedules have been omitted, as the information required to be set forth therein is included in the Consolidated Financial Statements or Notes thereto appearing in this Annual Report on Form 10-K.

(a)(3) Exhibits. See the Exhibit immediately following Item 16. Form 10-K Summary of this Form 10-K.

.

Item 16. Form 10-K Summary

None.

EXHIBIT INDEX

Number	Exhibit Description	Incorporated By Reference Form	File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation of the registrant, as currently in effect	10-Q	001-36083	3.1	November 14, 2013
3.2	Amended and Restated Bylaws of the registrant, as currently in effect	10-Q	001-36083	3.2	November 14, 2013
4.1	Common Stock Specimen	8-K	001-36083	4.1	November 14, 2016
10.1	Form of Indemnification Agreement between the registrant each of its Directors and certain of its Executive Officers	S-1	333-190591	10.1	August 13, 2013
10.2†	2004 Incentive Share Plan	S-1	333-190591	10.4	August 13, 2013
10.2.1†	Form of Stock Option Agreement under 2004 Incentive Share Plan	S-1	333-190591	10.4.1	August 13, 2013
10.3†	2006 Incentive Share Plan	S-1	333-190591	10.5	August 13, 2013
10.3.1†	First Amendment to 2006 Incentive Share Plan	S-1/A	333-190591	10.5.1	August 27, 2013
10.3.2†	Form of Stock Option Agreement under 2006 Incentive Share Plan	S-1	333-190591	10.5.2	August 13, 2013
10.4†	Amended and Restated 2013 Equity Incentive Plan	10-K	001-36083	10.6	March 9, 2017
10.4.1†	Form of Restricted Stock Award Agreement under 2013 Equity Incentive Plan	S-1	333-190591	10.6.1	August 13, 2013
10.4.2†	Form of Restricted Stock Unit Award Agreement under 2013 Equity Incentive Plan	S-1	333-190591	10.6.2	August 13, 2013
10.4.3†	Form of Stock Appreciation Right Award Agreement under 2013 Equity Incentive Plan	S-1	333-190591	10.6.3	August 13, 2013
10.4.4†	Form of Notice of Stock Option Award and Stock Option Award Agreement under 2013 Equity Incentive Plan	S-1	333-190591	10.6.4	August 13, 2013
10.5†	Employment Agreement regarding Change of Control or Separation of Service between the registrant and Chih-Hsiang (Thompson) Lin, dated January 28, 2007	S-1	333-190591	10.12	August 13, 2013
10.5.1†	Amended and Restated Employment Agreement regarding Change of Control or Separation of Service between the registrant and Chih-Hsiang (Thompson) Lin, dated April 16, 2013	S-1	333-190591	10.12.1	August 13, 2013
10. 6†	Employment Agreement, dated August 5, 2016, between Applied Optoelectronics, Inc. and Stefan J. Murry	10-Q/A	001-36083	10.20	August 9, 2016
10.7†	Employment Agreement, dated August 5, 2016, between Applied Optoelectronics, Inc. and Mr. Joshua Yeh	10-Q/A	001-36083	10.21	August 9, 2016

Number	Exhibit Description	Form	Incorporated By Reference File No.	Exhibit	Filing Date
10.8†	Employment Agreement, dated August 5, 2016, between Applied Optoelectronics, Inc. and Dr. Fred Chang	10-Q/A	001-36083	10.22	August 9, 2016
10.9†*	Employment Agreement, dated August 5, 2016, between Applied Optoelectronics, Inc. and David C. Kuo				
10.10	Translation of Chinese form of RMB Working Capital Loan Agreement between the Global Technology Inc. and China Construction Bank	10-K	001-36083	10.11.13	March 6, 2014
10.11	Translation of Chinese form of USD Trust Receipt Loan Agreement between Global Technology Inc. and China Construction Bank	10-K	001-36083	10.12	March 6, 2014
10.12	Translation of Lease Agreement dated April 1, 2014 between the Company and Taiwan Asset Management Corporation for office and manufacturing space at No. 18, Gong 4th Rd., Gong'er Industrial Park, Linkou District, New Taipei City 244, Taiwan (R.O.C.)	8-K	001-36083	1.01	April 7, 2014
10.13	Construction Loan Agreement, dated January 26, 2015, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.1	January 30, 2015
10.13.1	Commercial Security Agreement, dated January 26, 2015, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.2	January 30, 2015
10.13.2	Promissory Note, dated January 26, 2015, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.3	January 30, 2015
10.14	Translation of Comprehensive Credit Line Contract and General Agreement, dated April 1, 2015, between Applied Optoelectronics, Inc., Taiwan Branch, and China Construction Bank, Taipei Branch	8-K	001-36083	10.1	April 7, 2015
10.14.1	Translation of Approval Notice of China Construction Bank, Taipei Branch	8-K	001-36083	10.2	April 7, 2015
10.15	Translation of Purchase and Sale Contract between Applied Optoelectronics, Inc., Taiwan Branch, and Chailease Finance Co., Ltd.	8-K	001-36083	10.1	June 2, 2015
10.15.1	Translation of Finance Lease Agreement between Applied Optoelectronics, Inc., Taiwan Branch, and Chailease Finance Co., Ltd.	8-K	001-36083	10.2	June 2, 2015
10.16	Credit Agreement, dated June 30, 2015, among Applied Optoelectronics, Inc., East West Bank and Comerica Bank	8-K	001-36083	10.1	July 7, 2015
10.16.1	Security Agreement, dated June 30, 2015, among Applied Optoelectronics, Inc., East West Bank and Comerica Bank	8-K	001-36083	10.2	July 7, 2015

Number	Exhibit Description	Form	Incorporated By Reference File No.	Exhibit	Filing Date
10.16.2	Patent Security Agreement, dated June 30, 2015, among Applied Optoelectronics, Inc., East West Bank and Comerica Bank	8-K	001-36083	10.3	July 7, 2015
10.16.3	Trademark Security Agreement, dated June 30, 2015, among Applied Optoelectronics, Inc., East West Bank and Comerica Bank	8-K	001-36083	10.4	July 7, 2015
10.16.4	East West Bank Promissory Note, dated June 30, 2015, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.5	July 7, 2015
10.16.5	Comerica Bank Promissory Note, dated June 30, 2015, between Applied Optoelectronics, Inc. and Comerica Bank	8-K	001-36083	10.6	July 7, 2015
10.16.6	2nd Lien Construction Deed of Trust, dated June 30, 2015, among Applied Optoelectronics, Inc., East West Bank and Comerica Bank	8-K	001-36083	10.7	July 7, 2015
10.17	Translation of Purchase and Sale Contract between Applied Optoelectronics, Inc., Taiwan Branch, and Chailease Finance Co., Ltd.	8-K	001-36083	10.1	July 7, 2015
10.17.1	Translation of Finance Lease Agreement and Promissory Note between Applied Optoelectronics, Inc., Taiwan Branch, and Chailease Finance Co., Ltd.	8-K	001-36083	10.2	July 7, 2015
10.18	Office Lease Agreement between Applied Optoelectronics, Inc. and GIG VAOI Breckinridge, LLC dated November 5, 2015	10-Q	001-36083	10.1	November 9, 2015
10.19	Translation of Purchase and Sale Contract, Finance Lease Agreement and Promissory Note between Applied Optoelectronics, Inc., Taiwan Branch, and Chailease Finance Co., Ltd.	8-K	001-36083	10.1	April 6, 2016
10.20	Translation of the General Crediting Agreement, dated April 8, 2016, between Applied Optoelectronics, Inc. and E. Sun Commercial Bank Co., Ltd.	8-K	001-36083	10.1	April 14, 2016
10.20.1	Translation of the Promissory Note, dated April 8, 2016, between Applied Optoelectronics, Inc. and E. Sun Commercial Bank Co., Ltd.	8-K	001-36083	10.2	April 14, 2016
10.20.2	Translation of Loan Approval Notice by E. Sun Commercial Bank Co., Ltd.	8-K	001-36083	10.3	April 14, 2016
10.21	Translation of Comprehensive Credit Line Contract and General Agreement, dated April 22, 2016, between Applied Optoelectronics, Inc., Taiwan Branch, and China Construction Bank, Taipei Branch	8-K	001-36083	10.1	April 28, 2016
10.21.1	Translation of Approval Notice of China Construction Bank, Taipei Branch, dated March 29, 2016	8-K	001-36083	10.2	April 28, 2016

Number	Exhibit Description	Form	Incorporated By Reference File No.	Exhibit	Filing Date
10.21.2	Translation of the Promissory Note, dated April 22, 2016 between China Construction Bank – Taipei Branch and Applied Optoelectronics, Inc., Taiwan Branch	8-K	001-36083	10.3	April 28, 2016
10.22	Change in Terms Agreement, dated June 14, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.1	June 17, 2016
10.22.1	Notice of Final Agreement, dated June 14, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.2	June 17, 2016
10.22.2	Modification to the Construction Loan Agreement, dated June 14, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.3	June 17, 2016
10.23	First Amendment to Credit Agreement and Limited Consent, dated June 24, 2016, between Applied Optoelectronics, Inc., East West Bank and Comerica Bank	8-K	001-36083	10.1	June 30, 2016
10.23.1	$17,500,000 Amended and Restated Revolving Credit Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and Comerica Bank	8-K	001-36083	10.2	June 30, 2016
10.23.2	$2,500,000 Amended and Restated Revolving Credit Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and Comerica Bank	8-K	001-36083	10.3	June 30, 2016
10.23.3	$5,000,000 Amended and Restated Term Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and Comerica Bank	8-K	001-36083	10.4	June 30, 2016
10.23.4	$5,000,000 Term Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and Comerica Bank	8-K	001-36083	10.5	June 30, 2016
10.23.5	$17,500,000 Amended and Restated Revolving Credit Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.6	June 30, 2016
10.23.6	$2,500,000 Amended and Restated Revolving Credit Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.7	June 30, 2016
10.23.7	$5,000,000 Amended and Restated Term Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.8	June 30, 2016
10.23.8	$5,000,000 Term Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.9	June 30, 2016
10.23.9	First Modification to Promissory Note, dated June 24, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.10	June 30, 2016

			Incorporated By Reference		
Number	Exhibit Description	Form	File No.	Exhibit	Filing Date
10.24	Change in Terms Agreement, dated October 5, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.1	October 7, 2016
10.24.1	Notice of Final Agreement, dated October 5, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.2	October 7, 2016
10.24.2	Second Modification to the Construction Loan Agreement, dated October 5, 2016, between Applied Optoelectronics, Inc. and East West Bank	8-K	001-36083	10.3	October 7, 2016
10.25	Translation of Early Termination Agreement, dated January 25, 2017, between Applied Optoelectronics, Inc. and Chailease Finance Company, Ltd.	8-K	001-36083	10.1	January 30, 2017
10.26	Loan Agreement, dated September 28, 2017, between Applied Optoelectronics, Inc. and Branch Banking and Trust Company	8-K	001-36083	10.1	October 4, 2017
10.26.1	Promissory Note, dated September 28, 2017, between Applied Optoelectronics, Inc. and Branch Banking and Trust Company	8-K	001-36-83	10.2	October 4, 2017
10.26.2	Addendum to the Promissory Note, dated September 28, 2017, between Applied Optoelectronics, Inc. and Branch Banking and Trust Company	8-K	001-36-83	10.3	October 4, 2017
10.26.3	BB&T Security Agreement, dated September 28, 2017, between Applied Optoelectronics, Inc. and Branch Banking and Trust Company	8-K	001-36083	10.4	October 4, 2017
10.26.4	Trademark Security Agreement, dated September 28, 2017, between Applied Optoelectronics, Inc. and Branch Banking and Trust Company	8-K	001-36083	10.5	October 4, 2017
10.26.5	Patent Security Agreement, dated September 28, 2017, between Applied Optoelectronics, Inc. and Branch Banking and Trust Company	8-K	001-36083	10.6	October 4, 2017
10.27	Translation of Early Termination Agreement, dated October 5, 2017, between Prime World International Holdings Ltd., and Chailease Finance Co., Ltd.	8-K	001-36083	10.1	October 11, 2017
10.28	Supply Agreement, effective November 8, 2017, between Applied Optoelectronics, Inc. and Facebook, Inc.	8-K	001-36083	10.1	February 24, 2018
10.29	Master Purchase Agreement, effective January 2, 2018, between Applied Optoelectronics, Inc. and Facebook, Inc.	8-K	001-36083	10.2	February 24, 2018

			Incorporated By Reference		
Number	Exhibit Description	Form	File No.	Exhibit	Filing Date
10.30*	Translation of Lease Agreement between Global Technology, Inc. and the People's Republic of China in Zhejiang Province, Ningbo City, Land Resources Bureau				
10.30.1*	Translation of Investment and Construction Agreement between Global Technology, Inc. and the People's Republic of China in Zhejiang Province, Ningbo City, Land Resources Bureau				
23.1*	Consent of Grant Thornton LLP				
24.1	Power of Attorney (see the signature page in this Annual Report on Form 10-K).				
31.1*	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of The Sarbanes-Oxley Act of 2002.				
31.2*	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of The Sarbanes-Oxley Act of 2002.				
32.1*	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350 as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002.				
101.INS	XBRL Instance Document				
101.SCH	XBRL Taxonomy Extension Schema Document				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				

* Filed herewith.
† Management contract, compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of the Securities and Exchange Act of 1934, the registrant has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, on February 28, 2018.

APPLIED OPTOELECTRONICS, INC.

By: /s/ CHIH-HSIANG (THOMPSON) LIN
Chih-Hsiang (Thompson) Lin,
President and Chief Executive Officer and Chairman of the Board of Directors

February 28, 2018

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Chih-Hsiang (Thompson) Lin and Stefan J. Murry, and each of them, jointly and severally, his attorneys-in-fact, each with the power of substitution, for him in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities and Exchange Act of 1934, this Form 10-K has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Date
/s/ Chih-Hsiang (Thompson) Lin Chih-Hsiang (Thompson) Lin, *President, Chief Executive Officer and Chairman of the Board of Directors (principal executive officer)*	February 28, 2018
/s/ STEFAN J. MURRY Stefan J. Murry, *Chief Financial Officer (principal financial officer and principal accounting officer)*	February 28, 2018

Signature	Date
/s/ William H. Yeh William H. Yeh, *Director*	February 28, 2018
/s/ Richard B. Black Richard B. Black, *Director*	February 28, 2018
/s/ Che-Wei Lin Che-Wei Lin, *Director*	February 28, 2018
/s/ Alex Ignatiev Alex Ignatiev, *Director*	February 28, 2018
/s/ Alan Moore Alan Moore, *Director*	February 28, 2018
/s/ Min-Chu (Mike) Chen Min-Chu (Mike) Chen, *Director*	February 28, 2018

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders
Applied Optoelectronics, Inc.

Opinion on the financial statements
We have audited the accompanying consolidated balance sheets of Applied Optoelectronics, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2017 and 2016, the related consolidated statements of operations, comprehensive income, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in the 2013 Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), and our report dated February 28, 2018 expressed an unqualified opinion.

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GRANT THORNTON LLP

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

Houston, Texas
February 28, 2018

Applied Optoelectronics, Inc. and Subsidiaries
CONSOLIDATED BALANCE SHEETS
(in thousands, except per share data)

	December 31, 2017	December 31, 2016
ASSETS		
Current Assets		
Cash and cash equivalents	$ 82,936	$ 50,224
Restricted cash	1,012	1,732
Short-term investments	36	44
Accounts receivable - trade, net of allowance of $33 and $31, respectively	59,850	49,766
Inventories	75,768	51,817
Prepaid income tax	1,394	—
Prepaid expenses and other current assets	8,701	3,969
Total current assets	229,697	157,552
Cash restricted for construction in progress	—	8
Property, plant and equipment, net	197,943	144,098
Land use rights, net	804	778
Intangible assets, net	4,007	3,993
Deferred income tax assets	12,801	11,421
Other assets, net	7,732	4,468
TOTAL ASSETS	$ 452,984	$ 322,318
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Current portion of notes payable and long-term debt	$ 559	$ 7,865
Accounts payable	43,624	36,375
Bank acceptance payable	—	307
Accrued income taxes	7,422	974
Accrued liabilities	19,103	14,452
Total current liabilities	70,708	59,973
Notes payable and long-term debt, less current portion	49,000	34,961
TOTAL LIABILITIES	119,708	94,934
Stockholders' equity:		
Preferred Stock; 5,000 shares authorized at $0.001 par value; no shares issued and outstanding at December 31, 2017 and December 31, 2016, respectively	—	—
Common Stock; 45,000 shares authorized at $0.001 par value; 19,451 and 18,400 shares issued and outstanding at December 31, 2017 and December 31, 2016, respectively	19	18
Additional paid-in capital	285,376	265,264
Accumulated other comprehensive gain (loss)	9,743	(885)
Retained earnings (accumulated deficit)	38,138	(37,013)
TOTAL STOCKHOLDERS' EQUITY	333,276	227,384
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 452,984	$ 322,318

The accompanying notes are an integral part of these consolidated financial statements.

Applied Optoelectronics, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except share and per share data)

	Year ended December 31,		
	2017	2016	2015
Revenue, net	$ 382,329	$ 260,713	$ 189,903
Cost of goods sold	216,049	173,759	129,450
Gross profit	166,280	86,954	60,453
Operating expenses			
Research and development	35,365	31,780	20,852
Sales and marketing	8,702	6,627	6,381
General and administrative	35,262	25,527	19,771
Total operating expenses	79,329	63,934	47,004
Income from operations	86,951	23,020	13,449
Other income (expense)			
Interest income	221	247	328
Interest expense	(858)	(1,717)	(1,018)
Other income (expense), net	(1,788)	(547)	(1,591)
Total other income (expense)	(2,425)	(2,017)	(2,281)
Income before income taxes	84,526	21,003	11,168
Income tax (expense) benefit	(10,575)	10,231	(375)
Net income	$ 73,951	$ 31,234	$ 10,793
Net income per share			
Basic	$ 3.87	$ 1.82	$ 0.69
Diluted	$ 3.67	$ 1.76	$ 0.65
Weighted average shares used to compute net income per share:			
Basic	19,097,355	17,201,731	15,626,753
Diluted	20,139,105	17,712,928	16,532,850

The accompanying notes are an integral part of these consolidated financial statements.

Applied Optoelectronics, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Year ended December 31,		
	2017	2016	2015
Net income	$ 73,951	$ 31,234	$ 10,793
Gain on foreign currency translation adjustment	10,628	(1,177)	(1,633)
Comprehensive income	$ 84,579	$ 30,057	$ 9,160

The accompanying notes are an integral part of these consolidated financial statements.

Applied Optoelectronics, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
Years ended December 2015, 2016 and 2017
(in thousands)

	Preferred Stock		Common Stock		Additional	Accumulated other	Retained earnings/	
	Number of shares	Amount	Number of shares	Amount	paid-in capital	comprehensive gain (loss)	(Accumulated deficit)	Stockholders' equity
January 1, 2015	—	$ —	14,824	$ 15	$ 192,112	$ 1,925	$ (79,040)	$ 115,012
Public offering of common stock, net	—	—	1,857	2	38,646	—	—	38,648
Issuance of shares under equity plans	—	—	77	—	—	—	—	—
Stock options exercised	—	—	81	—	452	—	—	452
Share-based compensation	—	—	—	—	2,120	—	—	2,120
Net income	—	—	—	—	—	—	10,793	10,793
Loss on foreign currency translation adjustment	—	—	—	—	—	(1,633)	—	(1,633)
Other	—	—	—	—	6	—	—	6
December 31, 2015	—	$ —	16,839	$ 17	$ 233,336	$ 292	$ (68,247)	$ 165,398
Public offering of common stock, net	—	—	1,126	1	27,236	—	—	27,237
Issuance of shares under equity plans	—	—	276	—	—	—	—	—
Stock options exercised	—	—	159	—	859	—	—	859
Share-based compensation	—	—	—	—	3,833	—	—	3,833
Net income	—	—	—	—	—	—	31,234	31,234
Loss on foreign currency translation adjustment	—	—	—	—	—	(1,177)	—	(1,177)
December 31, 2016	—	$ —	18,400	$ 18	$ 265,264	$ (885)	$ (37,013)	$ 227,384
Public offering of common stock, net	—	—	459	1	21,571	—	—	21,572
Stock options exercised, net of shares withheld for employee tax	—	—	418	—	(6,630)	—	—	(6,630)
Issuance of restricted stock, net of shares withheld for employee tax	—	—	174	—	(2,631)	—	—	(2,631)
Share-based compensation	—	—	—	—	7,795	—	—	7,795
Cumulative effect of previously unrecognized tax benefits	—	—	—	—	—	—	1,207	1,207
Foreign currency translation adjustment	—	—	—	—	—	10,628	—	10,628
Other	—	—	—	—	7	—	(7)	—
Net income	—	—	—	—	—	—	73,951	73,951
December 31, 2017	—	$ —	19,451	$ 19	$ 285,376	$ 9,743	$ 38,138	$ 333,276

The accompanying notes are an integral part of these consolidated financial statements.

Applied Optoelectronics, Inc. and Subsidiaries
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year ended December 31,		
	2017	2016	2015
Operating activities:			
Net income	$ 73,951	$ 31,234	$ 10,793
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Lower of cost or market reserve adjustment to inventory	1,866	3,707	2,832
Depreciation and amortization	20,381	14,188	9,424
Deferred income taxes, net	(114)	(11,426)	—
Loss on disposal of assets	97	126	78
Share-based compensation	7,795	3,833	2,120
Unrealized foreign exchange loss (gain)	330	(937)	2,462
Changes in operating assets and liabilities:			
Accounts receivable, trade	(10,080)	(11,147)	(7,531)
Notes receivable	—	—	977
Prepaid tax	(1,386)	—	—
Inventories	(21,876)	10,207	(37,502)
Other current assets	(4,185)	4,119	(2,624)
Accounts payable	7,249	9,105	(1,258)
Accrued income taxes	6,204	988	220
Accrued liabilities	4,052	3,107	4,797
Net cash provided by (used in) operating activities	84,284	57,104	(15,212)
Investing activities:			
Purchase of short-term investments	—	—	(175)
Maturities of short-term investments	8	7,752	—
Purchase of property, plant and equipment	(66,968)	(49,442)	(57,080)
Proceeds from disposal of equipment	171	14	351
Deposits and prepaid for equipment	(2,871)	688	(4,238)
Purchase of intangible assets	(499)	(547)	(478)
Net cash used in investing activities	(70,159)	(41,535)	(61,620)
Financing activities:			
Proceeds from issuance of notes payable and long-term debt	—	28,858	16,944
Principal payments of long-term debt and notes payable	(42,758)	(5,855)	(2,413)
Proceeds from line of credit borrowings	88,003	117,172	144,386
Repayments of line of credit borrowings	(39,003)	(163,068)	(121,386)
Proceeds from bank acceptance payable	—	5,850	8,257
Repayments of bank acceptance payable	(309)	(8,398)	(6,361)
Repayments of note payable	—	(1,000)	(1,000)
Exercise of stock options	1,460	859	452
Payments of tax withholding on behalf of employees related to share-based compensation	(10,721)	—	—
Proceeds from common stock offering, net	21,572	27,237	38,648
Other	—	—	6
Net cash provided by financing activities	18,244	1,655	77,533
Effect of exchange rate changes on cash	(385)	1,947	(592)
Net increase in cash, cash equivalents and restricted cash	31,984	19,171	109
Cash, cash equivalents and restricted cash at beginning of period	51,964	32,793	32,684
Cash, cash equivalents and restricted cash at end of period	$ 83,948	$ 51,964	$ 32,793
Supplemental disclosure of cash flow information:			
Cash paid for:			
Interest	$ 872	$ 1,689	$ 1,070
Income taxes	5,835	(12)	650

The accompanying notes are an integral part of these consolidated financial statements.

Applied Optoelectronics, Inc. and Subsidiaries
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE A—ORGANIZATION AND OPERATIONS

Applied Optoelectronics, Inc. ("AOI" or the "Company") was incorporated in the State of Texas on February 28, 1997. In March 2013, the Company converted into a Delaware corporation. The Company is a leading, vertically integrated provider of fiber-optic networking products, primarily for four networking end-markets: internet data center, cable television, telecommunications and fiber-to-the-home. The Company designs and manufactures a wide range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment.

The Company has manufacturing and research and development facilities located in the U.S., Taiwan and China. At its corporate headquarters and manufacturing facilities in Sugar Land, Texas, the Company primarily manufactures lasers and laser components and performs research and development activities for laser component and optical module products. The Company operates in Taipei, Taiwan and Ningbo, China through its wholly-owned subsidiary Prime World International Holdings, Ltd. ("Prime World", incorporated in the British Virgin Islands). Prime World is the parent of Global Technology, Inc. ("Global", incorporated in the People's Republic of China). Through Global, the Company primarily manufactures certain of its data center transceiver products, including subassemblies and transceivers, as well as Cable TV Broadband ("CATV") systems and equipment, and performs research and development activities for the CATV products. Prime World also operates a branch in Taiwan, which primarily manufactures transceivers. The Company also has a research and development center in Duluth, Georgia.

.

NOTE B—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

1. *Basis of Presentation*

The consolidated financial statements include the accounts of the Company and all of its wholly-owned subsidiaries and are prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). All intercompany balances and transactions have been eliminated in consolidation.

2. *Reclassifications*

Certain amounts in the prior year's financial statements have been reclassified to conform to the current year presentation. This reclassification includes the presentation of revenue in Note O – Segment and Geographic Revenue. In 2015, revenue by geographic region was reclassified between the United States, Taiwan and China to conform to the current year presentation by classifying consigned inventory revenue based on manufacturing location rather than consignment sale location.

3. *Use of Estimates*

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported. Actual results could differ from those estimates in the consolidated financial statements and accompanying notes. Significant estimates and assumptions that impact these financial statements relate to, among other things, allowance for doubtful accounts, inventory reserve, product warranty costs, share-based compensation expense, estimated useful lives of property and equipment, and taxes.

4. *Foreign Currency Translation*

The functional currency for the Company's foreign operations is the local currency. The assets and liabilities of these operations are translated at the rate of exchange in effect on the balance sheet date and sales and expenses are translated at monthly average rates. The resulting gains or losses from translation are included in a separate component of other comprehensive income. There is no tax effect on the foreign currency translation because it is management's intent to reinvest the undistributed earnings of its foreign subsidiaries indefinitely. Transaction gains and losses resulting from re-measuring monetary asset and liability accounts that are denominated in a currency other than a subsidiary's functional currency are included in net foreign exchange gain and loss and are included in net income except for intercompany long-term investment nature. The after-tax translation gain or losses from long-term investment nature of intercompany balances are treated as translation adjustments and included in comprehensive income.

5. *Fair Value*

The carrying value of cash, cash equivalents and short-term investments, accounts receivable, accounts payable, and note receivable approximate their historical fair values due to their short-term maturities. The carrying value of the debt approximates its fair value due to the short-term nature of the debt since it renews frequently at current interest rates. Management believes that the interest rates in effect at each year end represent the current market rates for similar borrowings.

The fair value measurement standard defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The standard characterizes inputs used in determining fair value according to a hierarchy that prioritized inputs based on the degree to which they are observable. The three levels of the fair value hierarchy are as follows:

Level 1—Inputs represent quoted prices in active markets for identical assets or liabilities.

Level 2—Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.

Level 3—Inputs that are not observable from objective sources, such as management's internally developed assumptions used in pricing an asset or liability.

Assets and liabilities that are required to be fair valued on a recurring basis include money market funds, marketable securities, equity instruments and contingent consideration.

Money market funds are valued with Level 1 inputs, using quoted market prices, and are included in cash and cash equivalents on the Company's consolidated balance sheets.

6. *Cash and Cash Equivalents*

The Company considers all highly liquid securities with an original maturity of ninety days or less from the date of purchase to be cash equivalents. Cash in foreign accounts was approximately $21.0 million and $10.7 million at December 31, 2017 and 2016, respectively.

The Company maintains cash and cash equivalents at U.S. financial institutions for which the combined account balances in individual institutions may exceed Federal Deposit Insurance Corporation ("FDIC") insurance coverage and, as a result, there is a concentration of credit risk related to amounts on deposit in excess of FDIC insurance coverage. As of December 31, 2017, approximately $58.8 million of U.S. deposits were not covered by FDIC insurance. The Company has not experienced any losses and believes it is not exposed to any significant risk with such accounts.

7. *Restricted Cash/Compensating Balances*

The Company is required to maintain a compensation deposit equal to 30% of its bank acceptance notes to vendors and a standby letter of credit issued for guaranty of its Taiwan credit facility with a China bank. The Company's Taiwan subsidiary also uses time deposits for customs guarantees as well as compensation balances with a Taiwan bank for its credit facility. As of December 31, 2017 and 2016, the amount of restricted cash was $1.0 million and $1.7 million, respectively.

8. *Accounts Receivable/Allowance for Doubtful Accounts*

The Company carries its accounts receivable at the net amount that it estimates to be collectible. An allowance for uncollectable accounts is maintained through a charge against operations. The allowance is determined by management review of outstanding amounts per customer, historical payments and the aging of accounts.

9. *Concentration of Credit Risk and Significant Customers*

Financial instruments which potentially subject the Company to concentrations of credit risk include cash, cash equivalents and accounts receivable. The Company places all cash and cash equivalents with high-credit quality financial institutions.

The Company performs ongoing credit valuations of its customers' financial condition whenever deemed necessary and generally does not require deposits or collateral to support customer receivables. The historical amount of losses on uncollectible accounts has been within the Company's estimates. The Company generates much of its revenue from a limited number of customers. In 2017, 2016 and 2015, its top five customers represented 86.1%, 87.8% and 81.8% of its revenue, respectively. In 2017, Amazon, Facebook and Microsoft represented 35.4%, 28.6% and 13.8% of its revenue, respectively. In 2016, Amazon, Microsoft and Arris represented 54.6%, 18.3% and 5.8% of its revenue, respectively. In 2015, Amazon, Microsoft and Cisco represented 52.5%, 11.6% and 10.4% of its revenue, respectively. The five largest receivable balances for customers represented an aggregate of 82.6%, and 88.3% of total accounts receivable at December 31, 2017 and 2016, respectively. As of December 31, 2017, Amazon and Microsoft represented 36.1% and 19.5% of total accounts receivable, respectively. As of December 31, 2016, Amazon and Arris represented 62.1% and 10.6% of total accounts receivable, respectively. No other customer represented greater than ten percent of revenue in 2017, 2016 or 2015 or greater than ten percent of total accounts receivable at December 31, 2017 or 2016.

10. *Inventories*

Inventories are stated at the lower of cost (average-cost method) or market. Work in process and finished goods includes materials, labor and allocated overhead. The Company assesses the valuation of its inventory on a periodic basis and provides write-offs for the value of estimated excess and obsolete inventory based on estimates of future demand.

11. *Property, Plant and Equipment*

Property, plant and equipment are stated at cost, net of accumulated depreciation and amortization. The Company calculates depreciation using the straight-line method over the following estimated useful lives:

	Useful lives
Buildings	20 - 42 years
Land improvements	10 years
Machinery and equipment	2 - 20 years
Furniture and fixtures	3 - 7 years
Computer equipment and software	3 - 10 years
Leasehold improvements	The shorter of the life of the applicable lease or the useful life of the improvement
Transportation equipment	5 years

Major improvements are capitalized and expenditures for maintenance and repairs are expensed as incurred. Construction in progress represents property, plant and equipment under construction or being installed. Costs include original cost, installation, construction and other direct costs which include interest on borrowings used to finance the asset. Construction in progress is transferred to the appropriate fixed asset account and depreciation commences when the asset has been substantially completed and placed in service.

Land use rights allow the Company rights for 50 years to certain land in Ningbo, China on which the Company built a facility that included office space, manufacturing operations and employee dormitories. The land use rights are recorded at cost and are amortized on the straight-line basis over the useful life of the related contract. The land use rights expire on October 7, 2054 and December 28, 2067.

12. *Intangible Assets*

Intangible assets consist of intellectual property that is stated at cost less accumulated amortization. As of December 31, 2017, the Company had 241 total patents issued. The costs incurred to obtain such patents have been capitalized and are being amortized over an estimated life of 20 years. The Company periodically evaluates its intangible assets to determine whether events or changes in circumstances indicate that a patent or trademark may not be applicable to the Company's current products or is no longer in use. If such a determination is made, the intangible asset is impaired and the remaining value of the patent or trademark will be expensed at that time.

13. *Impairment of Long-Lived Assets*

The Company accounts for impairment of long-lived assets in accordance with Accounting Standards Codification ("ASC") 360, *Property, Plant and Equipment*, ("ASC 360"). Long-lived assets consist primarily of property, plant and equipment. In accordance with ASC 360, the Company periodically evaluates long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When triggering event indicators are present, the Company obtains appraisals on an asset by asset basis, and will recognize an impairment loss when the sum of the appraised values is less than the carrying amounts of such assets. The appraised values, based on reasonable and supportable assumptions and projections, require subjective judgments. Depending on the assumptions and estimates used, the appraised values projected in the evaluation of long-lived assets can vary within a range of outcomes. The appraisals consider the likelihood of possible outcomes in determining the best estimate for the value of the assets.

The measurement for such an impairment loss is then based on the fair value of the asset as determined by the appraisals.

14. *Comprehensive Income (Loss)*

ASC 220, *Comprehensive Income*, ("ASC 220") establishes rules for reporting and display of comprehensive income and its components. ASC 220 requires that unrealized gains and losses on the Company's foreign currency translation adjustments be included in comprehensive income.

15. *Share-based Compensation*

The Company accounts for share-based compensation in accordance with the provisions of ASC 718, *Compensation —Stock Compensation*. Share-based compensation expense is recognized based on the estimated grant date fair value in order to recognize compensation cost for those shares expected to vest. Compensation cost is recognized on a straight-line basis over the vesting period of the options and adjusted as forfeitures occur.

16. *Revenue Recognition*

The Company derives revenue from the manufacture and sale of fiber optic networking products. Revenue recognition follows the criteria of ASC 605, *Revenue Recognition*. Specifically, the Company recognizes revenue when persuasive evidence exists of an arrangement with a customer, usually in the form of a customer purchase order; performance obligations have been satisfied; title and risk of loss have transferred to the customer; the price is fixed or determinable; and collectability is reasonably assured.

17. *Product Warranty*

The Company generally offers a one-year limited warranty for its products but it can extend for longer periods of three to five years for certain products sold to certain customers. The Company estimates the costs that may be incurred under its basic limited warranty and records a liability for the amount of such costs at the time when product defective occurs. Factors that affect the Company's warranty liability include the historical and anticipated rates of warranty claims and cost to repair. While the Company believes that its warranty accrual is adequate, the actual warranty costs may exceed the accrual, cost of sales will increase in the future. As of December 31, 2017 and 2016, the amount of accrued warranty was $1.1 million and $0.7 million, respectively.

18. *Advertising Costs*

Advertising costs are charged to operations as incurred and amounted to approximately $0.3 million, $0.2 million and $0.1 million for the years ended December 31, 2017, 2016 and 2015, respectively.

19. *Research and Development*

Research and development costs are charged to operations as incurred. The Company receives reimbursement for certain development costs, which are capitalized when incurred, up to the reimbursable amount.

20. *Income Taxes*

The Company accounts for income taxes in accordance with the provisions of ASC 740, *Income Taxes*. The liability method is used to account for deferred income taxes. Under the liability method, deferred tax assets and liabilities are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The ability to realize deferred tax assets is evaluated annually and a valuation allowance is provided if it is unlikely that the deferred tax assets will not give rise to future benefits in the Company’s tax returns.

The Company records uncertain tax positions in accordance with ASC 740 on the basis of a two-step process in which (1) it determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, it recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

The Company recognizes interest and penalties related to unrecognized tax benefits on the income tax expense line in the accompanying consolidated statement of operations. Accrued interest and penalties are included on the related tax liability line in the consolidated balance sheet.

21. *Recent Accounting Pronouncements*

Recent Accounting Pronouncements Adopted in 2017

In March 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-09, Improvements to Employee Share-Based Payment Accounting, to simplify several aspects of accounting for share-based payment transactions, including the following areas: accounting for excess tax benefits and tax deficiencies; classifying excess tax benefits on the statement of cash flows; accounting for forfeitures; classifying awards that permit share repurchases to satisfy statutory tax withholding requirements; classifying tax payments on behalf of employees on the statement of cash flows; and, for nonpublic entities only, determining the expected term and electing the intrinsic value measurement alternative for stock option awards. The guidance is effective for public business entities in fiscal years beginning after December 15, 2016, and in the interim periods within those fiscal years. The guidance requires a mix of prospective, modified retrospective and retrospective transition. The Company adopted the provisions of ASU 2016-09 as of January 1, 2017. The impact from adoption of the provisions related to forfeiture rates was reflected in the Company's condensed consolidated financial statements on a modified retrospective basis, resulting in an adjustment of $0.01 million to retained earnings. Provisions related to windfall tax benefits have been adopted prospectively resulting in an adjustment of $1.2 million to retained earnings. Provisions related to the statement of cash flows remain unchanged from prior periods.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows: Restricted Cash, providing guidance on the presentation of restricted cash or restricted cash equivalents in the statement of cash flows. ASU 2016-18 is effective for interim and annual periods beginning after December 15, 2017, with early adoption permitted. The amendments in this ASU would be applied using a retrospective approach. The Company adopted the provisions of ASU 2016-18 as of July 1, 2017 with no material impact on the financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. The ASU update addresses eight specific cash flow issues that currently result in diverse practices, including debt prepayment or debt extinguishment costs, contingent consideration payments made after a business combination and separately identifiable cash flows and applicability of the predominance principle. ASU 2016-15 is effective for interim and annual periods beginning after December 15, 2017, with early adoption permitted. The Company adopted the provisions of ASU 2016-15 as of July 1, 2017 with no material impact on the financial statements.

In May 2017, the FASB issued ASU No. 2017-09, Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting, which clarifies when modification accounting should be applied for changes to terms or conditions of a share-based payment award. This ASU will be applied prospectively and is effective for fiscal years beginning after December 15, 2017, and interim periods within those years, with early adoption permitted. The Company adopted the provisions of ASU 2017-09 as of July 1, 2017 with no material impact on the financial statements.

Recent Accounting Pronouncements Yet to be Adopted

The FASB issued ASU No. 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. The guidance is intended to improve the recognition and measurement of financial instruments. The ASU affects public and private companies, not-for-profit organizations, and employee benefit plans that hold financial assets or owe financial liabilities. The guidance is effective for public companies for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company plans to adopt this pronouncement in 2018 and does not expect any material impact on its financial statements.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The amendments in ASU 2015-14 defer the effective date of ASU 2014-09 for all entities by one year. Public business entities should apply the guidance in ASU 2014-09 to annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. In applying the new guidance, the Company will: 1) identify the contracts with its customers, 2) identify the performance obligations in the contracts, 3) determine the transaction price, 4) allocate the transaction price to the performance obligations of the contract, and 5) recognize revenue when (or as) the Company satisfies a performance obligation. Since this guidance was issued, the Company has undertaken an accounting assessment phase focusing on developing a scoping plan and a review plan to determine the gaps between existing revenue recognition policies and the requirements of the new revenue guidance. This accounting assessment involved developing a training and education process for the Company personnel, performing sales contract walkthroughs to identify financial obligations, reviewing existing revenue streams and mapping contract features to revenue streams.

As a result of this process, the Company has identified several areas where the new guidance may cause revenue recognition differences, possibly affecting either the timing or amount of revenue recognized in a given financial period. These areas include:

- Revenue associated with customer rebates. In some cases, the Company offers cash rebates to certain customers when they purchase its products. Under the new guidance, any rebates expected to be offered to the customers must be deducted from the sales price of the goods in the same period in which the revenue for the products is recognized. In 2017, the aggregate amount of these rebates was immaterial and they are not expected to be material in 2018.
- Timing of revenue recognition for certain engineering service contracts. From time to time, the Company undertakes engineering services for its customers. Typically, these services involve customizing or modifying products to better suit specific customer requirements. In some cases, customers pay all or a portion of the costs associated with these services. Under the new guidance, each of the services offered must be analyzed as a separate performance obligation and the timing of revenue recognition for some of these performance obligations may differ from the Company's current practice. In 2017, the effect of these timing differences was not material, and material changes are not expected in 2018 as the Company adopts this new standard.
- Revenue generated from shipping and handling activities. Depending on its agreement with its customers, the Company may in some cases provide shipping and handling services for products it sells. There is disparity in the agreements related to various customers, especially concerning the timing of transfer of control of the goods to the customer, and the relationship of this timing relative to the shipping and handling activities themselves. As a result of this disparity, in order to simplify its

Accounting, the Company expects to utilize the practical expedient provided in ASC 606-10-25-18B, and treat all product shipping and handling activities as fulfillment activities, and therefore recognize the gross revenue associated with the contract, inclusive of any shipping and handling revenue. This is similar to the Company's current practice and therefore the effect of the new guidance is immaterial.

- Revenue generated from product warranty. Generally the Company offers a warranty on products it sells to its customers. The warranty period is typically one year from the date of purchase, but in some cases customers have negotiated longer warranty periods. The Company's obligation under its warranty provision generally includes troubleshooting, repair and/or replacement of any goods that are found to have manufacturing defects. The Company has concluded that this represents an assurance-type warranty, as described in the guidance, and therefore does not constitute a separate performance obligation. Therefore, revenue associated with products, even when under warranty, will continue to be recognized on a gross basis. This is similar to the Company's current practices and therefore the new guidance is not expected to result in a material change in revenue amount or timing.

The Company plans to adopt the new standard using the modified-retrospective method on January 1, 2018, as required.

On February 25, 2016, the FASB released ASU No. 2016-02, Leases, to complete its project to overhaul lease accounting. The ASU codifies ASC 842, Leases, which will replace the guidance in ASC 840. The guidance will require lessees to recognize most leases on the balance sheet for capital and operating leases. The guidance is effective for public business entities in fiscal years beginning after December 15, 2018. The Company is evaluating the impact of the accounting standard on its financial statements by reviewing the standard itself, as well as reviewing literature about the new standard produced by nationally-recognized accounting firms and other third parties.

In January 2018, the FASB released guidance on the accounting for tax on the global intangible low-taxed income ("GILTI") provisions of the Tax Cuts and Jobs Act (the "Tax Act"). The GILTI provisions impose a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations. The guidance indicates that either accounting for deferred taxes related to GILTI inclusions or to treat any taxes on GILTI inclusions as period cost are both acceptable methods subject to an accounting policy election. Effective the first quarter of 2018, the Company will elect to treat any potential GILTI inclusions as a period cost as it is not projecting any material impact from GILTI inclusions.

NOTE C—CASH, CASH EQUIVALENTS AND RESTRICTED CASH

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the statement of financial position that sum to the total of the same such amounts in the statement of cash flows (in thousands):

	As of December 31,	
	2017	2016
Cash and cash equivalents	$ 82,936	$ 50,224
Restricted cash	1,012	1,740
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	$ 83,948	$ 51,964

NOTE D—EARNINGS PER SHARE

Basic net income per share has been computed using the weighted-average number of shares of common stock outstanding during the period. Diluted net income per share has been computed using the weighted-average number of shares of common stock and dilutive potential common shares from options, restricted stock units and warrants outstanding during the period. In periods with net losses, normally dilutive shares become anti-dilutive. Therefore, basic and dilutive earnings per share are the same.

The following table presents the computation of the basic and diluted net income per share for the periods indicated (in thousands, except per share amounts):

	Year ended December 31, 2017	2016	2015
Numerator:			
Net income	$ 73,951	$ 31,234	$ 10,793
Denominator:			
Weighted average shares used to compute net income per share			
Basic	19,097	17,202	15,627
Effective of dilutive options and restricted stock units	1,042	511	906
Diluted	20,139	17,713	16,533
Net income per share			
Basic	$ 3.87	$ 1.82	$ 0.69
Diluted	$ 3.67	$ 1.76	$ 0.65

NOTE E—INVENTORIES

At December 31, 2017 and 2016, inventories consisted of the following (in thousands):

	As of December 31, 2017	2016
Raw materials	$ 26,648	$ 21,518
Work in process and sub-assemblies	31,060	24,334
Finished goods	18,060	5,965
	$ 75,768	$ 51,817

For the years ended December 31, 2017, 2016 and 2015, the lower of cost or market reserve adjustment expensed for inventory was $1.9 million, $3.7 million and $2.8 million, respectively. For the years December 21, 2017, 2016 and 2015, the direct inventory write-offs related to scrap and damaged inventories were $6.8 million, $5.0 million and $1.0 million, respectively.

NOTE F—PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consisted of the following for the periods indicated (in thousands):

	As of December 31, 2017	2016
Land improvements	$ 806	$ 792
Building and improvements	78,785	69,368
Machinery and equipment	168,993	108,724
Furniture and fixtures	4,663	4,227
Computer equipment and software	8,248	6,836
Transportation equipment	718	236
	262,213	190,183
Less accumulated depreciation and amortization	(70,194)	(49,175)
	192,019	141,008
Construction in progress	4,823	1,989
Land	1,101	1,101
Property, plant and equipment, net	$ 197,943	$ 144,098

For the years ended December 31, 2017, 2016 and 2015, depreciation expense of property, plant and equipment was $19.9 million $13.7 million and $9.0 million, respectively.

NOTE G—INTANGIBLE ASSETS

Intangible assets consisted of the following for the periods indicated (in thousands):

	2017		
	Gross Amount	Accumulated amortization	Intangible assets, net
Patents	$ 6,524	$ (2,519)	$ 4,005
Trademarks	14	(12)	2
Total intangible assets	$ 6,538	$ (2,531)	$ 4,007

	2016		
	Gross Amount	Accumulated amortization	Intangible assets, net
Patents	$ 5,987	$ (1,997)	$ 3,990
Trademarks	14	(11)	3
Total intangible assets	$ 6,001	$ (2,008)	$ 3,993

For the years ended December 31, 2017, 2016 and 2015, amortization expense for intangible assets, included in general and administrative expenses on the income statement, was $0.5 million, $0.5 million and $0.4 million, respectively. The remaining weighted average amortization period for intangible assets is approximately 8.0 years.

At December 31, 2017, future amortization expense for intangible assets is estimated to be (in thousands):

2018	$ 485
2019	485
2020	485
2021	486
2022	486
thereafter	1,580
	$ 4,007

NOTE H—FAIR VALUE OF FINANCIAL INSTRUMENTS

The following table presents a summary of the Company’s financial instruments measured at fair value on a recurring basis as of December 31, 2017 (in thousands):

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable remaining inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Cash and cash equivalents	$ 82,936	$ —	$ —	$ 82,936
Restricted cash	1,012	—	—	1,012
Short term investments	36	—	—	36
Total assets	$ 83,984	$ —	$ —	$ 83,984
Liabilities:				
Bank acceptance payable	—	$ —	—	$ —
Total liabilities	$ —	$ —	$ —	$ —

The following table presents a summary of the Company's financial instruments measured at fair value on a recurring basis as of December 31, 2016 (in thousands):

	Quoted prices in active markets for identical assets (Level 1)	Significant other observable remaining inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets:				
Cash and cash equivalents	$ 50,224	$ —	$ —	$ 50,224
Restricted cash	1,740	—	—	1,740
Short term investments	44	—	—	44
Total assets	$ 52,008	$ —	$ —	$ 52,008
Liabilities:				
Bank acceptance payable	—	$ 307	—	$ 307
Total liabilities	$ —	$ 307	$ —	$ 307

NOTE I—NOTES PAYABLE AND LONG-TERM DEBT

Notes payable and long-term debt consisted of the following for the periods indicated (in thousands):

	December 31, 2017	2016
Revolving line of credit with a U.S. bank up to $50,000 with interest at LIBOR plus 1.5%, maturing September 28, 2020	$ 49,000	$ —
Term loan with a U.S. bank with monthly payments of principal and interest at LIBOR plus 2%	—	2,925
Term loan with a U.S. bank with monthly payments of principal and interest at LIBOR plus 2%	—	9,500
Term loan with a U.S. bank with monthly payments of principal and interest at LIBOR plus 2%	—	21,670
Notes payable to a finance company due in monthly installments with 4.5% interest, maturing May 27, 2018	559	2,919
Notes payable to a finance company due in monthly installments with 4% interest, maturing March 31, 2019	—	5,812
Total	49,559	42,826
Less current portion	(559)	(7,865)
Non-current portion	$ 49,000	$ 34,961
Bank Acceptance Notes Payable		
Bank acceptance notes issued to vendors with a zero percent interest rate	$ —	$ 307

The current portion of long-term debt is the amount payable within one year of the balance sheet date of December 31, 2017.

Maturities of notes payable and long-term debt are as follows for the future years ending December 31 (in thousands):

2018	$ 559
2019	—
2020	49,000
2021	—
2022	—
2023 and thereafter	—
Total outstanding	$ 49,559

On June 14, 2016, the Company executed a Change in Terms Agreement, Notice of Final Agreement and Modification of the Construction Loan Agreement (the "Modification Agreement") in connection with the Construction Loan Agreement with East West Bank for up to $22.0 million dollars to finance the construction of the Company's campus expansion plan in Sugar Land, Texas, originally dated January 26, 2015 (the "Construction Loan Agreement"). Upon signing the original Construction Loan Agreement, the Company deposited $11.0 million into a restricted bank account for owner's contribution of construction costs. The Modification Agreement had a fifteen-month draw down period with monthly interest payments commencing on February 26, 2015 and ending on July 31, 2016. Thereafter, the entire outstanding principal balance was to be converted to a sixty-six month term loan with principal and interest payments due monthly amortized over three hundred months. The first principal and interest payment commenced on August 26, 2016, and continue the same day of each month thereafter. The final principal and interest payment would have been due on January 26, 2022 and would have included all unpaid principal and all accrued and unpaid interest. The Company was permitted to pay without penalty all or a portion of the amount owed earlier than due. Under the Construction Loan Agreement, the loan bore interest at an annual rate based on the one-month LIBOR Borrowing Rate plus 2.75%, and the interest rate was adjusted to LIBOR Borrowing Rate plus 2.0% under the Modification Agreement.

On October 5, 2016, the Company executed a Change in Terms Agreement, Notice of Final Agreement and Second Modification to the Construction Loan Agreement (the "Second Modifications") to the Construction Loan Agreement with East West Bank. The Second Modifications amended and restated in part the Company's Promissory Note and Construction Loan Agreement, which was originally executed on January 26, 2015, and the Modification Agreement. The draw down period end date, under the Second Modifications, was amended from July 31, 2016 to September 30, 2016. And thereafter, the entire outstanding principal balance was to be converted to a sixty-four month term loan, amended from a sixty-six month term loan, with principal and interest payments due monthly amortized over three hundred months. The first principal and interest payment was due on October 26, 2016 and would have continued on the same day of each month thereafter. The final principal and interest payment was due on January 26, 2022 and would have included all unpaid principal and all accrued and unpaid interest. Except as expressly changed by the Second Modifications, the terms of the original obligation and the Modification Agreement remained unchanged. On September 28, 2017, the Company repaid the outstanding balance of $11.2 million and terminated the loan.

On June 24, 2016, the Company entered into a First Amendment to the Credit Agreement with East West Bank and Comerica Bank ("First Amendment"), a second lien deed of trust, multiple security agreements and promissory notes evidencing two credit facilities and a term loan originally entered into on June 30, 2015. The First Amendment increased the Company's revolving lines of credit from $25 million to $40 million, which would have matured on June 30, 2018, and retained a $10.0 million term loan which would have matured on June 30, 2020. The First Amendment also provided for an additional $10.0 million equipment term loan with a one year drawdown period commencing on April 1, 2016 and maturing five years from the closing date of the First Amendment. The interest rate on these loans was adjusted by the First Amendment from the LIBOR Borrowing Rate plus 2.75% or 3.0% to LIBOR Borrowing Rate plus 2.0%. On September 28, 2017, the Company terminated the Credit Agreement and all outstanding balances of the loans had been repaid.

The Company also had a term loan with East West Bank of $5.0 million with monthly payments of principal and interest that matured on July 31, 2019. On February 27, 2017, the Company repaid the outstanding balance of $2.8 million and terminated the loan.

On September 28, 2017, the Company entered into a Loan Agreement, a Promissory Note, an Addendum to the Promissory Note, a BB&T Security Agreement, a Trademark Security Agreement, and a Patent Security Agreement (together the "Credit Facility") with Branch Banking and Trust Company ("BB&T"). The Credit Facility provides the Company with a three year, $50 million, revolving line of credit. Borrowings under the Credit Facility will be used for general corporate purposes. The Company will make monthly payments of accrued interest with the final monthly payment being for all principal and all accrued interest not yet paid. The Company's obligations under the Credit Facility will be secured by the Company's accounts receivable, inventory, intellectual property, and all business assets with the exception of real estate and equipment. Borrowings under the Credit Facility will bear interest at a rate equal to the one-month LIBOR plus 1.50%. The Credit Facility requires the Company to maintain certain financial covenants and also contains representations and warranties, and events of default applicable to the Company that are customary for agreements of this type. As of December 31, 2017, the Company was in compliance with all covenants under the Credit Facility. As of December 31, 2017, $49.0 million was outstanding under the Credit Facility.

On May 27, 2015, the Company's Taiwan branch entered into a Purchase and Sale Contract and a Finance Lease Agreement with Chailease Finance Co, Ltd. ("Chailease") in connection with certain equipment, structured as a sale lease-back transaction. Pursuant to the Purchase and Sale contract, the Company's Taiwan branch sold certain equipment to Chailease for a purchase price of 180,148,532 New Taiwan dollars, approximately $6.0 million, and simultaneously leased the equipment back from Chailease pursuant to the Finance Lease Agreement. The monthly lease payments range from 3,784,000 New Taiwan dollars, approximately $0.1 million, to 3,322,413 New Taiwan dollars, approximately $0.1 million, during the term of the Finance Lease Agreement, including an initial payment in an amount of 60,148,532 New Taiwan dollars, approximately $2.0 million. The Finance Lease Agreement has a three-year term, with monthly payments, maturing on May 27, 2018. The title to the equipment will be transferred to the Company's Taiwan branch upon the expiration of the Finance Lease Agreement. As of December 31, 2017, $0.6 million was outstanding under this Finance Lease Agreement.

On March 31, 2016, the Company's Taiwan branch entered into a Purchase and Sale Contract and a Finance Lease Agreement with Chailease in connection with certain equipment, structured as a sale lease-back transaction. Pursuant to the Purchase and Sale Contract, the Company's Taiwan branch sold certain equipment to Chailease for a purchase price of 312,927,180 New Taiwan dollars, approximately $10.1 million, and simultaneously leased the equipment back from Chailease pursuant to the Finance Lease Agreement. The Finance Lease Agreement had a three-year term with monthly lease payments range from 6,772,500 New Taiwan dollars, approximately $0.2 million, to 7,788,333 New Taiwan dollars, approximately $0.3 million, during the term of the Finance Lease Agreement, including an initial payment in an amount of 62,927,180 New Taiwan dollars, approximately $2.0 million. Based on the payments made under the Finance Lease Agreement, the annual interest rate was calculated to be 4.0%. The title to the equipment was to be transferred to the Company's Taiwan branch upon the expiration of the Finance Lease Agreement. On October 6, 2017, the Company repaid the outstanding balance and terminated the loan and title to the equipment was transferred to its Taiwan branch.

The Company's Chinese subsidiary had credit facilities with China Construction Bank totaling $13.2 million, which could be drawn in U.S. currency, RMB currency, issuing bank acceptance notes to vendors with different interest rates or issuing standby letters of credit. The Company pledged the land use rights and buildings of its Chinese subsidiary as collateral for the credit facility. The Company's Chinese subsidiary used $10.0 million of its credit facility to issue standby letters of credit as collateral for the Company's Taiwan branch line of credit with China Construction Bank. On March 29, 2017, the Company repaid the outstanding balance and terminated the loan.

As of December 31, 2017 and 2016, the Company had $1.0 million and $75.8 million of unused borrowing capacity, respectively.

One-month LIBOR rates were 1.56425% and 0.77167% at December 31, 2017 and 2016, respectively.

As of December 31, 2017 and 2016, there was $1.0 million and $1.7 million of restricted cash, investments or security deposit associated mainly with the loan facilities, respectively.

NOTE J—ACCRUED LIABILITIES

Accrued liabilities consisted of the following for the periods indicated (in thousands):

	As of December 31,	
	2017	**2016**
Accrued payroll	$ 11,693	$ 9,231
Accrued rent	1,180	959
Accrued employee benefits	2,035	1,572
Accrued state and local taxes	951	607
Advance payments	441	252
Accrued product warranty	1,118	705
Accrued commission expenses	425	205
Accrued professional fees	181	163
Accrued other	1,079	758
	$ 19,103	$ 14,452

NOTE K—OTHER INCOME AND EXPENSE

Other income and expense consisted of the following for the periods indicated (in thousands):

	Year ended December 31, 2017	2016	2015
Foreign exchange transaction loss	$ (2,012)	$ (617)	$ (1,847)
Government subsidy income	211	164	217
Other non-operating gain	110	32	117
Loss on disposal of assets	(97)	(126)	(78)
	$ (1,788)	$ (547)	$ (1,591)

NOTE L—INCOME TAXES

The sources of the Company's income from operations before income taxes were as follows (in thousands):

	Year ended December 31, 2017	2016	2015
Domestic	$ 17,497	$ 10,047	14,062
Foreign	67,029	10,956	(2,894)
Total income before income taxes	$ 84,526	$ 21,003	11,168

The provision for income tax expense (benefit) for the years ended December 31, was as follows (in thousands):

Current:	2017	2016	2015
Federal	$ —	$ (15)	$ 168
State	(292)	256	207
Foreign	10,965	962	—
Total	$ 10,673	$ 1,203	$ 375
Deferred:			
Federal	$ 2,015	$ (10,794)	$ —
State	(1,669)	(130)	—
Foreign	(444)	(510)	—
Total	$ (98)	$ (11,434)	$ —
Income tax (benefit) expense	$ 10,575	$ (10,231)	$ 375

Deferred income tax assets and liabilities result principally from net operating losses, different methods of recognizing depreciation, reserves for doubtful accounts and inventory, research & development credits and foreign tax credits. At December 31, the net deferred tax assets and liabilities are comprised of the following approximate amounts (in thousands):

	2017	2016
NOL carryforward	$ 7,739	$ 12,866
Inventory reserves	837	869
AMT credit	345	424
Unrealized gains and losses	92	(6)
Share-based compensation	732	1,453
Foreign tax credit	2,018	—
Research and development credits	4,626	—
Other	573	255
Deferred tax assets	16,962	15,861
Less valuation allowance	—	(1,663)
Deferred tax assets, net	16,962	14,198
Depreciation and amortization	(4,161)	(2,777)
Deferred tax liabilities	(4,161)	(2,777)
Deferred tax assets, net	$ 12,801	$ 11,421

A valuation allowance was established to reduce a deferred tax asset to the amount that will more likely than not be realized. This reduction was primarily necessary due to the uncertainty of the Company’s ability to utilize all of the net operating loss carry forwards. The valuation allowance decreased by $1.7 million in 2017 and decreased by approximately $13.1 million in 2016. The decrease in 2017 was the result of the removal of its valuation allowance on China deferred income tax assets. The decrease in 2016 was primarily the result of the removal of its valuation allowance on U.S. and Taiwan deferred income tax assets.

Management assesses the available positive and negative evidence to estimate whether sufficient future taxable income will be generated to permit use of the existing deferred tax assets. In considering whether or not to continue to maintain the valuation allowance, the Company considers all available positive and negative evidence, including: historical profits and losses, forecasts of future profits or losses, and trends in the industries that the Company serves that may affect its ability to continue to generate profits. Objective evidence, such as historical losses, limits the ability to consider other subjective evidence, such as its projections for future growth.

On the basis of this evaluation, as of December 31, 2017, management determined that there is sufficient positive evidence to conclude that it is more likely than not that additional deferred taxes of $1.7 million are realizable. It therefore reduced the valuation allowance accordingly. The amount of the deferred tax asset considered realizable, however, could be adjusted if estimates of future taxable income during the carryforward period are increased or if objective negative evidence is no longer present and additional weight is given to subjective evidence such as its projections for growth.

The Company has a U.S. net operating loss carry forward of approximately $37.7 million, which, if unused, expires between 2025 and 2032. The Company has U.S. and state research and development tax credits of $4.6 million, which, if unused, expire between 2028 and 2037. In addition, the Company has foreign tax credits of $2.0 million, which, if unused, will expire in 2027. Utilization of U.S. net operating losses and tax credit carry forwards are subject to an annual limitation due to the ownership change limitations set forth in Internal Revenue Code Section 382. During 2015 and 2016, the Company updated its Section 382 analysis resulting in the recognition of additional utilizable net operating losses. Additional ownership changes could result in the expiration of the net operating loss and tax credit carryforwards before utilization.

On January 1, 2017, the Company adopted ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting." The new standard requires that the tax impact related to the difference between share-based compensation for book and tax purposes be recognized as income tax benefit or expense in its condensed consolidated statement of operations in the reporting period in which such awards vest. The standard also required a modified retrospective adoption for previously unrecognized excess tax benefits. Accordingly, the Company recognized a deferred tax asset of $1.2 million and a corresponding credit to retained earnings in conjunction with the adoption. The effects of adopting the other provisions of ASU 2016-09 were not significant. See also Note 2 —Significant Accounting Policies —Recent Accounting Pronouncements for additional information.

A reconciliation of the U.S. federal income tax rate of 35% for the years ended December 31, to the Company's effective income tax rate follows (in thousands):

	2017	2016	2015
Expected taxes	$ 29,584	$ 7,351	$ 3,797
Non-deductible/non-taxable items	1,212	565	157
Foreign rate differences	(11,656)	(654)	(1,267)
Foreign permanent differences	416	(1,005)	—
Increase (decrease) in valuation allowance	(1,700)	(13,063)	2,052
Share-based compensation	(10,348)	—	—
Section 382 limitation	—	(3,065)	(4,382)
Changes in tax rates	2,768	(361)	—
Repatriation tax, net of foreign tax credit	5,067	—	—
Research and development credits	(2,821)	—	—
Uncertain tax positions	(1,616)	—	—
Other, net	(331)	1	18
Tax (benefit) expense	$ 10,575	$ (10,231)	$ 375

The Company's provision for income taxes in 2017 was higher than in 2016 primarily due to an increase in pre-tax income and the provisional effect of the 2017 Tax Act, partially offset by excess tax benefits from stock-based compensation and recording research and development credits, including a portion of which were previously uncertain. The 2017 changes in tax laws or rates includes an estimate of the impact due to change in US tax rate of $2.8 million and an estimate of the repatriation tax of $5.0 million, as discussed further below.

The Company's provision for income taxes in 2016 was lower than in 2015 primarily due to the release of its valuation allowances on U.S. and Taiwan deferred income taxes, partially offset by an increase in pre-tax income.

The Company's wholly owned subsidiary, Prime World is a tax-exempt entity under the Income Tax Code of the British Virgin Islands.

The Company's wholly owned subsidiary, Global Technology, Inc., has enjoyed preferential tax concessions in China as a national high-tech enterprise. In March 2007, China's parliament enacted the PRC Enterprise Income Tax Law, or the EIT Law, under which, effective January 1, 2008, China adopted a uniform income tax rate of 25% for all enterprises including foreign invested enterprises. Global Technology, Inc. was recognized as a National high-tech enterprise in 2008 and was entitled to a 15% tax rate for a three year period from November 2008 to November 2017. Global Technology, Inc. renewed its National high-tech enterprise certificate and was therefore extended its three-year tax preferential status from November 2017 to November 2020. This tax holiday reduced its 2017 income tax provision by approximately $1.4 million, but had no overall effect on the 2016 and 2015 income tax provision due to a full valuation allowance. This tax holiday increased its fiscal 2017 diluted earnings per share by approximately $0.07, but had no effect on its 2016 or 2015 diluted earnings per share due to the full valuation allowance. Effective January 1, 2016, China expanded the scope of the National high-tech enterprise to include additional deductions for qualifying research and development.

In general, it is the Company's practice and intention to reinvest the earnings of its non-U.S. subsidiaries in those operations. The 2017 Tax Act includes a mandatory one-time tax on accumulated earnings of foreign subsidiaries, and as a result, all previously unremitted earnings for which no U.S. deferred tax liability had been accrued have now been subject to U.S. tax. As of December 31, 2017, the Company had not made a provision for state income taxes or additional foreign withholding taxes on approximately $63 million of the excess of the amount for financial reporting over the tax basis of investments in foreign subsidiaries that is indefinitely reinvested outside the U.S. While the transition tax described below results in a reduction to undistributed foreign earnings to tax in the future, an actual repatriation from our foreign subsidiaries could still be subject to additional foreign withholding taxes and U.S. state taxes. The Company will record the tax effects of any change in its prior assertion with respect to these investments, and disclose any unrecognized deferred tax liability for temporary differences related to its foreign investments, if practicable, in the period that the Company is first able to make a reasonable estimate.

As of December 31, 2017, December 31, 2016 and December 31, 2015, the total amount of unrecognized tax benefit was $0.2 million, $1.8 million, and $1.8 million, respectively. The following is a tabular reconciliation of the total amounts of unrecognized tax benefits (in thousands):

	2017	2016	2015
Unrecognized tax benefits — January 1	$ 1,797	$ 1,797	$ 1,659
Gross increases — tax positions in prior period		—	332
Gross decreases — tax positions in prior period	(1,616)	—	(194)
Unrecognized tax benefits — December 31	$ 181	$ 1,797	$ 1,797

As of December 31, 2017 the Company had $0.2 million of unrecognized tax benefits related to U.S. tax benefits recognized for prior branch losses. During 2017 the Company assessed its unrecognized tax benefits related to research and development credits from prior years. As a result, the Company recognized the full benefit for research and development credits and an increase in deferred tax assets in the amount of $1.6 million. As of December 31, 2016 and 2015, the Company had $1.8 million of unrecognized tax benefits related to U.S. tax benefits recognized for prior year branch losses and research and development credits, respectively. If recognized, none of the amounts would have an impact on the Company's effective tax rate, but rather would result in adjustments to other tax accounts, primarily deferred taxes. The Company believes that it is reasonably possible that none of its remaining unrecognized tax positions may be recognized by the end of 2018.

The Company recognizes interest accrued related to unrecognized tax benefits and penalties as income tax expense. Related to the unrecognized tax benefits noted above, it has not accrued penalties or interest during 2017 as a result of net operating losses. During 2016, the Company also accrued no penalties or interest.

The Company is subject to taxation in the United States and various states and foreign jurisdictions. The Company's open tax years subject to examination in the U.S. federal and state jurisdictions are 2014 through 2016. To the extent allowed by law, the taxing authorities may have the right to examine prior periods where net operating losses or tax credits were generated and carried forward, and make adjustments up to the amount of the net operating loss or tax credit carryforward. The Company is subject to examination for tax years 2009 forward for various foreign jurisdictions.

.

Effects of the Tax Cuts and Jobs Act

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). On December 22, 2017, H.R.1, known as the "Tax Cuts and Jobs Act," was signed into law. The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) a new provision designed to tax global intangible low-taxed income (GILTI); (5) eliminating the corporate alternative minimum tax (AMT) and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax (BEAT), a new minimum tax; (7) creating a new limitation on deductible interest expense; and (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017. Among other things, the Tax Act permanently lowers the corporate tax rate to 21 percent from the existing maximum rate of 35 percent, subjecting foreign earnings in excess of an allowable return to U.S. taxation, adopting a territorial tax regime and imposing a one-time transitional tax on deemed repatriated earnings of foreign subsidiaries ("repatriation tax), effective for tax years including or commencing January 1, 2018. As a result of the reduction of the corporate tax rate to 21 percent, U.S. generally accepted accounting principles require companies to revalue their deferred tax assets and liabilities with resulting tax effects accounted for in the reporting period of enactment. The Company estimates that the change in tax rate will have an impact of $2.8 million, while the Company estimates the repatriation tax will have an impact of $5.0 million, based on $9.0 million of income tax, offset by foreign tax credits of $4.0 million.

The Tax Act reduces the corporate tax rate to 21 percent, effective January 1, 2018. Consequently, the Company has recorded a decrease related to Deferred Tax Assets of $2.8 million, with a corresponding net adjustment to deferred income tax expense of $2.8 million for the year ended December 31, 2017. While the Company is able to make a reasonable estimate of the impact of the reduction in corporate rate, it may be affected by other analyses related to the Tax Act, including, but not limited to, the calculation of deemed repatriation of deferred foreign income and the state tax effect of adjustments made to federal temporary differences.

The Deemed Repatriation Transition Tax (Transition Tax) is a tax on previously untaxed accumulated and current earnings and profits (E&P) of certain of the Company's foreign subsidiaries. To determine the amount of the Transition Tax, the Company must determine, in addition to other factors, the amount of post-1986 E&P of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. The Company is able to make a reasonable estimate of the Transition Tax and recorded a provisional Transition Tax obligation of $5.0 million. However, the Company is continuing to gather additional information to more precisely compute the amount of the Transition Tax.

The Tax Act creates a new requirement that certain income (i.e., GILTI) earned by controlled foreign corporations (CFCs) must be included currently in the gross income of the CFCs' U.S. shareholder. Because of the complexity of the new GILTI tax rules, the Company is continuing to evaluate this provision of the Tax Act and the application of ASC 740. Under U.S. GAAP, the Company is allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the "period cost method") or (2) factoring such amounts into a company's measurement of its deferred taxes (the "deferred method"). The Company selected the period cost method. Because whether the Company expects to have future U.S. inclusions in taxable income related to GILTI depends on not only its current structure and estimated future results of global operations but also its intent and ability to modify its structure and/or its business, the Company is not yet able to reasonably estimate the effect of this provision of the Tax Act.

The Tax Act also repealed corporate AMT for tax years beginning after December 31, 2017. AMT credit carryforwards that have not yet been used may be refunded in future years even though no income tax liability exists or continue to offset any regular income tax liability in years 2018 through 2020. The Company has continued to present the AMT credit carryforwards as a deferred tax asset until the period in which amounts are determined to be recoverable as a refund.

The Company also recognized a provisional reduction to net deferred tax assets of $0.7 million attributable to the accelerated depreciation for certain assets placed into service after September 27, 2017. This provisional adjustment resulted in a decrease in income tax payable of $1.1 million. The income tax effects for this position requires further analysis due to the volume of data required to complete the calculations, and the Company expects to complete that analyses in the second half of 2018.

In connection with the Company's initial analysis of the impact of the Tax Act and based on its best estimate of the impact of the Tax Act in the Company's year end income tax provision in accordance with its understanding of the Act and guidance available as of the date of this filing, the Company does not expect other provisions of the Act, such as the BEAT provisions, interest limitations, and NOL limitations to have a material impact on the financial statements.

NOTE M—SHARE-BASED COMPENSATION

Equity Plans

The Company's board of directors and stockholders approved the following equity plans:

- the 1998 Share Incentive Plan
- the 2000 Share Incentive Plan
- the 2004 Share Incentive Plan
- the 2006 Share Incentive Plan
- the Amended and Restated 2013 Equity Incentive Plan ("2013 Plan")

The Company issues stock options to employees, consultants and non-employee directors. Stock option awards generally vest over a four year period and have a maximum term of ten years. Stock options under these plans have been granted with an exercise price equal to the fair market value on the date of the grant. Nonqualified and Incentive Stock Options and restrictive stock units ("RSUs") may be granted from these plans. Prior to the Company's initial public offering in September 2013, the fair market value of the Company's stock had been historically determined by the board of directors and from time to time with the assistance of third party valuation specialists.

Stock Options

Options have been granted to the Company's employees under the five incentive plans and generally become exercisable as to 25% of the shares on the first anniversary date following the date of grant and semi-annually thereafter. All options expire ten years after the date of grant.

The following is a summary of option activity (shares and intrinsic values in thousands):

	Number of shares	Weighted Average Exercise Price	Weighted Average Share Price on Date of Exercise	Weighted Average Fair Value	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding, January 1, 2015	1,423	$ 8.96		4.48		$ 3,486
Exercised	(81)	7.09	$ 16.53	2.62		762
Forfeited	(32)	8.96		4.43		212
Outstanding, December 31, 2015	1,310	9.07		4.59		10,598
Exercised	(159)	6.91	$ 19.90	2.56		2,071
Forfeited	(21)	7.96		3.29		273
Outstanding, December 31, 2016	1,130	9.40		4.90		15,872
Exercised	(418)	8.56	$ 59.31	4.51		21,224
Forfeited	(176)	9.42		4.97		4,998
Outstanding, December 31, 2017	536	$ 10.04		$ 5.19	5.62	$ 14,888
Exercisable, December 31, 2017	525	$ 9.96			5.61	$ 12,499
Vested and expected to vest	536	$ 10.04			5.62	$ 14,888

As of December 31, 2017, there was approximately $12,000 of unrecognized stock option expense, net of estimated forfeitures, which is expected to be recognized over 0.08 years.

Restricted Stock Unit/Awards

The following is a summary of RSU/RSA activity (shares and intrinsic values in thousands):

	Number of shares	Weighted Average Share Price on Date of Release	Weighted Average Fair Value	Aggregate Intrinsic Value
Outstanding at January 1, 2015	21		18.22	238
Granted	156	$ 13.62	11.06	1,722
Released	(19)		18.24	257
Cancelled/Forfeited	(6)		10.00	99
Outstanding, December 31, 2015	152		11.20	2,611
Granted	497	$ 13.50	15.73	7,815
Released	(122)		14.09	1,644
Cancelled/Forfeited	(10)		15.38	180
Outstanding, December 31, 2016	517		14.79	12,128
Granted	510		38.87	19,803
Released	(289)	$ 60.87	20.92	17,579
Cancelled/Forfeited	(31)		24.23	1,181
Outstanding, December 31, 2017	707		$ 29.23	$ 26,732
Exercisable, December 31, 2017	4			$ 140
Vested and expected to vest	703			$ 26,592

The aggregate intrinsic value of RSUs and RSAs outstanding at December 31, 2017 was $26.7 million. Unrecognized compensation expense related to these RSUs and RSAs at December 31, 2017 was $18.8 million. This expense is expected to be recognized over 2.82 years.

Share-Based Compensation

The Company recognizes compensation expense on a straight-line basis over the applicable vesting term of the award and expense is adjusted as forfeitures occur.

In 2014, the Company ceased issuing stock options and began issuing RSUs and RSAs as share-based compensation to employees. The Company estimates the fair value of RSUs and RSAs at the fair market value on the grant date.

Employee share-based compensation expenses recognized for the years ended December 31, were as follows (in thousands):

Share-Based compensation - by expense type:

	2017	2016	2015
Cost of goods sold	$ 461	$ 190	$ 70
Research and development	1,496	591	230
Sales and marketing	481	357	217
General and administrative	5,357	2,695	1,603
Total share-based compensation expense	$ 7,795	$ 3,833	$ 2,120

Share-Based compensation - by award type:

	2017	2016	2015
Employee stock options	$ 853	$ 1,460	$ 1,538
Restricted stock units	6,942	2,373	582
Total share-based compensation expense	$ 7,795	$ 3,833	$ 2,120

NOTE N—STOCKHOLDERS' EQUITY

Common Stock

The Company's Amended and Restated Certificate of Incorporation authorizes the issuance of up to 45,000,000 shares of common stock, all of which have been designated voting common stock.

Preferred Stock

The Company's Amended and Restated Certificate of Incorporation authorizes the issuance of up to 5,000,000 shares of preferred stock.

Warrants

As of December 31, 2017 and 2016, the Company had no outstanding warrants to purchase common or preferred stock.

Public Offerings of Common Stock

On June 3, 2015, the Company filed a Registration Statement on Form S-3 (the "Form S-3") with the Securities and Exchange Commission effective June 23, 2015, providing for the public offer and sale of certain securities of the Company from time to time, at its discretion, up to an aggregate amount of $140 million. In connection with the Company's Form S-3, the Company entered into an Equity Distribution Agreement with Raymond James & Associates, Inc. (the "sales agent") pursuant to which the Company may issue and sell shares of the Company's stock having an aggregate offering price of up to $40 million (the "ATM Offering") from time to time through the sales agent. On July 16, 2015, the Company commenced sales of common stock through the ATM Offering. The Company completed its ATM Offering in August 2015 and sold 1.9 million shares at a weighted average price of $21.54 per share, providing proceeds of $38.6 million, net of expenses and underwriting discounts and commissions.

On October 17, 2016, the Company filed a Registration Statement on Form S-3 with the Securities and Exchange Commission effective November 1, 2016, providing for the public offer and sale of certain securities of the Company from time to time, at its discretion, up to an aggregate amount of $250 million. In connection with such Form S-3, the Company entered into an Equity Distribution Agreement with Raymond James & Associates, Inc. pursuant to which the Company may issue and sell shares of the Company's stock having an aggregate offering price of up to $50.0 million (the "Second ATM Offering") from time to time through Raymond James & Associates, Inc. On November 22, 2016, the Company commenced sales of common stock through the Second ATM Offering. The Company completed its Second ATM Offering in March 2017 and sold 1.6 million shares of common stock at a weighted average price of $31.55 per share, providing proceeds of $48.8 million, net of expenses and underwriting discounts and commissions.

Recovery of Stockholder Short Swing Profit

In November 2015, a member of the board of directors of the Company paid $6,000 to the Company, representing the disgorgement of short swing profits under Section 16(b) under the Exchange Act. The amount was recorded as additional paid-in capital.

NOTE O—SEGMENT AND GEOGRAPHIC INFORMATION

The Company operates in one reportable segment. The Company's Chief Executive Officer, who is considered to be the chief operating decision maker, manages the Company's operations as a whole and reviews financial information presented on a consolidated basis, accompanied by information about product revenue, for purposes of evaluating financial performance and allocating resources.

The following tables set forth the Company's revenue and asset information by geographic region. Revenue is classified based on the location of where the product is manufactured. Long-lived assets in the tables below comprise only property, plant, equipment and intangible assets (in thousands):

	For the years ended December 31,		
	2017	**2016**	**2015**
Revenues:			
United States	$ 18,209	$ 18,035	$ 16,766
Taiwan	241,820	161,611	141,107
China	122,300	81,067	32,030
	$ 382,329	$ 260,713	$ 189,903

	As of December 31,		
	2017	**2016**	**2015**
Long-lived assets:			
United States	$ 75,446	$ 66,028	$ 44,280
Taiwan	67,379	48,728	45,420
China	59,929	34,113	24,753
	$ 202,754	$ 148,869	$ 114,453

The Company serves four primary markets, the internet data center, CATV, telecom and FTTH markets. Of the Company's total revenues in 2017, the Company earned $306.7 million, or 80.2%, from the internet data center market, $60.8 million, or 15.9%, from the CATV market, $0.5 million, or 0.1%, from the FTTH market and $12.9 million, or 3.4%, from the telecom market. Of the Company's total revenues in 2016, the Company earned $201.3 million, or 77.2%, from the internet data center market, $43.6 million, or 16.7%, from the CATV market, $12.9 million, or 5.0%, from the telecom market and $1.6 million, or 0.6%, from the FTTH market. Of the Company's total revenues in 2015, the Company earned $123.2 million, or 64.9%, from the internet data center market, $53.7 million, or 28.3%, from the CATV market, $9.7 million, or 5.1%, from the telecom market and $2.5 million, or 1.3%, from the FTTH market.

NOTE P—EMPLOYEE BENEFIT PLANS

On August 1, 2000, the Company established a 401(k) profit sharing plan covering employees meeting certain age and service requirements. The plan provides for discretionary Company contributions to be allocated based on the employee's eligible contributions. The Company made contributions of $0.6 million, $0.6 million and $0.4 million to the 401(k) plan for the years ended December 31, 2017, 2016 and 2015, respectively.

Employees of Global participate in a state-mandated social security program in China. Under this program, pension costs are recorded on the basis of required monthly contributions to employees' individual accounts during their service periods. Under the regulations of the People's Republic of China, Global is required to make fixed contributions to a fund, which is under the administration of the local labor departments.

Employees of the Company's Taiwan branch participate in a pension program under the Taiwan Labor Pension Act. Pension expense for Global was $0.8 million, $0.6 million and $0.3 million in the years ended for the year ended December 31, 2017, 2016 and 2015, respectively. Pension expense for the Company's Taiwan branch was $0.9 million, $0.8 million and $0.6 million for the years ended December 31, 2017, 2016 and 2015, respectively.

NOTE Q—COMMITMENTS AND CONTINGENCIES

Commitments

The Company conducts part of its operations from leased facilities and also leases equipment. Rent expense was each $1.1 million for the years ended December 31, 2017, 2016 and 2015, respectively.

The Company entered into a long-term lease agreement for land use rights in China. The agreement specified a lease fee of $5.0 million of which $1.1 million was paid in 2017 and the remaining $3.9 million will be paid in 2018.

At December 31, 2017, the approximate minimum rental commitments under noncancellable leases in excess of one year that expire at varying dates through 2029 were as follows (in thousands):

Year ending December 31,	Amount
2018	$ 1,066
2019	1,015
2020	1,007
2021	1,020
2022	1,020
thereafter	6,954
	$ 12,082

The Company entered into a long-term lease agreement for land use rights in China. The agreement specified a lease fee of $5.0 million of which $1.1 million was paid in 2017 and the remaining $3.9 million will be paid in 2018.

Employment Agreements and Consultancy Agreements

The Company has entered into employment and indemnification agreements with three executive officers. These agreements provide that if their employment is terminated as a result of a change of control of the Company, or if their employment is terminated for certain other reasons set forth in the agreements, the Company will be required to pay a severance payment in an amount equal to their annual base salary, and other additional compensation due under the terms of the agreements.

The Company has also entered into employment and indemnification agreements with one other executive officer. These agreements provide that if their employment is terminated as a result of a change of control of the Company, the Company will be required to pay a severance payment in an amount equal to their six months of their annual base salary, and other additional compensation due under the terms of the agreements.

Contingencies

From time to time, the Company may be subject to legal proceedings and litigation arising in the ordinary course of business, including, but not limited to, inquiries, investigations, audits and other regulatory proceedings, such as described below. Except for the lawsuit described below, the Company believes that there are no claims or actions pending or threatened against us, the ultimate disposition of which would have a material adverse effect on it.

On August 5, 2017, a lawsuit was filed in the U.S. District Court for the Southern District of Texas against the Company and two of its officers in *Mona Abouzied v. Applied Optoelectronics, Inc., Chih-Hsiang (Thompson) Lin, and Stefan J. Murry, et al.*, Case No. 4:17-cv-02399. The complaint in this matter seeks class action status on behalf of the Company's shareholders, alleging violations of Sections 10(b) and 20(a) of the Exchange Act against the Company, its chief executive officer, and its chief financial officer, arising out of the Company's announcement on August 3, 2017 that "we see softer than expected demand for our 40G solutions with one of our large customers that will offset the sequential growth and increased demand we expect in 100G." The original complaint requests unspecified damages and other relief. The Company disputes the allegations set forth in the original complaint and intends to vigorously contest the matter. An amended complaint is due to be filed in this matter by March 5, 2018.

NOTE R—SUBSEQUENT EVENTS

The Company has evaluated subsequent events through the date the financial statements were issued.

On January 8, 2018, the Company repaid its revolving bank line of credit of $49 million.

On February 8, 2018, the Company's Chinese subsidiary, Global, entered into a 187.8 million RMB, equivalent to approximately $30.3 million USD, Construction Agreement (the "Agreement") with Zhejiang Xinyu Construction Group Co., Ltd. (the "General Contractor"). Pursuant to the Agreement the General Contractors agree to construct a new 744,000 square feet industrial facility (the "New Facility"), to be located at the V-03-1 plot of Wangchun Industrial Park in Ningbo, China. The New Facility will be used to expand Global's current design and manufacturing capabilities. The construction of the New Facility is anticipated to begin on March 10, 2018 and has a targeted completion date of September 1, 2019.

NOTE S—SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

The following tables set forth a summary of the Company's quarterly financial information for each of the four quarters for the years ended December 31, 2017 and 2016 (in thousands, except per share data):

Year ended December 31, 2017	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenue	$ 96,224	$ 117,371	$ 88,879	$ 79,855
Cost of goods sold	54,752	64,089	49,507	47,701
Gross profit	41,472	53,282	39,372	32,154
Gross margin	43.1%	45.4%	44.3%	40.3%
Operating expenses:				
Research and development	7,432	8,073	9,190	10,670
Sales and marketing	1,903	2,158	2,551	2,090
General and administrative	7,822	8,786	9,580	9,074
Total operating expenses	17,157	19,017	21,321	21,834
Income from operations	24,315	34,265	18,051	10,320
Interest and other income (expense), net	(872)	(111)	(541)	(901)
Net income before taxes	23,443	34,154	17,510	9,419
Income tax (expense) benefit	(3,654)	(5,083)	1,865	(3,703)
Net income	$ 19,789	$ 29,071	$ 19,375	$ 5,716
Net income per share—basic	$ 1.06	$ 1.52	$ 1.00	$ 0.29
Net income per share—diluted	$ 1.00	$ 1.43	$ 0.95	$ 0.28

Year ended December 31, 2016	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenue	$ 50,422	$ 55,254	$ 70,137	$ 84,900
Cost of goods sold	36,169	37,952	46,976	52,662
Gross profit	14,253	17,302	23,161	32,238
Gross margin	28.3%	31.3%	33.0%	38.0%
Operating expenses:				
Research and development	8,396	7,814	8,362	7,208
Sales and marketing	1,680	1,610	1,594	1,743
General and administrative	5,733	5,906	6,445	7,443
Total operating expenses	15,809	15,330	16,401	16,394
Income (loss) from operations	(1,556)	1,972	6,760	15,844
Interest and other income (expense), net	34	(1,317)	(356)	(378)
Net income (loss) before taxes	(1,522)	655	6,404	15,466
Income tax (expense) benefit	192	(52)	11,332	(1,241)
Net income (loss)	$ (1,330)	$ 603	$ 17,736	$ 14,225
Net income (loss) per share—basic	$ (0.08)	$ 0.04	$ 1.03	$ 0.81
Net income (loss) per share—diluted	$ (0.08)	$ 0.03	$ 0.97	$ 0.77

Exhibit 10.30

Contract for the Assignment of the Right to Use State-owned Construction Land

Prepared by

Ministry of Land and Resources of the People's Republic of China

State Administration for Industry and Commerce of the People's Republic of China

Contract for the Assignment of the Right to Use State-owned Construction Land

Both parties hereto:

Assignor:	Land and Resources Bureau of Ningbo Municipal (County),
	Zhejiang Province (autonomous region or municipality directly under the Central Government), People's Republic of China;
Address:	No. 116, 142 Long, Qixiang Road, Haishu District, Ningbo ;
Post code:	315012 ;
Tel:	0574-87237626 ;
Fax:	0574-87237600 ;
Opening Bank:	Gulou Sub-branch of Industrial and Commercial Bank of China (No. 69 Zhong Shan Xi Road, Haishu District, Ningbo) ;
Account No.:	3901110029200025883 (non-tax funds special account of the Finance Bureau in Haishu District, Ningbo) ;
Assignee:	GLOBAL Technology Inc ;
Address:	88 Qiushi Road, Haishu District, Ningbo ;
Post code :	0574-88133818 13567480960(Zhang Lili) ;
Tel :	;
Fax :	;
Opening Bank :	;
Account No.:	

Chapter 1 General Principles

Article 1 In accordance with the Property Law of the People's Republic of China, the Contract Law of the People's Republic of China, the Land Administration Law of the People's Republic of China, the Law of the People's Republic of China on Urban Real Estate Administration and other laws, relevant administrative regulations and provisions on land supply policies, both parties conclude this contract on the principles of equality, free will, paid service and good faith.

Article 2 The ownership of the assigned land belongs to the People's Republic of China. The assignor may transfer the right to use state-owned construction land under the legal authorization. The underground resources and objects buried do not fall within the scope of the assignment under the right to use state-owned construction land.

Article 3 The assignee shall have the right to occupy, use, monetize and legally dispose the state-owned construction land acquired according to laws within the time limit for assignment, and shall be entitled to use the land to build buildings, structures and ancillary facilities in accordance with laws.

Chapter 2 Delivery of Assigned Land and Payment of the Assignment Charge

Article 4 The assignment number under this contract shall be Ningbo Wangchun Industrial Park V-03-1 Lot, and the total area of the land shall be twenty four thousand and one hundred square meters (in Upper Case), 24,100 square meters (in Lower Case), of which twenty four thousand and one hundred square meters (in Upper Case), 24,100 square meters (in Lower Case) is for assignment.

The land assigned under this contract is located in Wangchun Industrial Park, Haishu District, east to Yaohuang River, south to the boundary of the lot, west to Kechuang South Road, and north to Shan Hai Road.

The plane boundary of the land assigned under this contract is __/__. See Annex 1 for a plane boundary map of the assigned land.

The vertical boundary of the assigned land under this contract shall be ____/______as upper limit, __/__as the lower limit, with a height difference of __/__ meter. See Annex 2 for the vertical boundary of the assigned land.

The space scope of the assigned land is the space range enclosed by the vertical plane that is based on the above boundary spots and the height plane between the upper and lower boundaries.

Article 5 The land assigned under this contract is for industrial use (for design and manufacture of optical fiber cable communication equipment).

Article 6 The assignor agrees to deliver the land to the assignee before January 5, 2018, and the assignor agrees that the land shall meet the conditions as prescribed in paragraph B of this article when the land is delivered:

A. Site levelling shall be _________/_________;

Surrounding infrastructure shall be _________/_________;

B. Current land conditions: As is.

Article 7 The term of assignment under the right to use state-owned construction land under this contract shall be fifty (50) year(s), counting from the date of delivery of the land as stipulated in Article 6 hereof.

Article 8 The charge for assignment under the right to use state-owned construction land under this contract shall be RMB thirty two million five hundred and eighty three thousand and two hundred yuan (in Upper Case), 32583200.00 (in Lower Case), or RMB one thousand three hundred and fifty two yuan (in Upper Case) per square meter, RMB 1352.00 per square meters (in Lower Case). The land assignment price does not include the deed tax, the city municipal infrastructure supporting fees and other relevant fees and taxes.

Article 9 The deposit under this contract shall be RMB six million five hundred and sixteen thousand six hundred and forty yuan (in Upper Case), 6516640.00 (in Lower Case), which may be deducted from the land assignment price.

Article 10 The assignee agrees to pay to the assignor the charge for assigning the right to use state-owned construction land in accordance with paragraph A of this article;

A. Full payment of the charge for assigning the right to use state-owned construction land by January 5, 2018;

B. The charge for assigning the right to use state-owned construction land shall be paid to the assignor in accordance with the following time and amount by __/__phase(s).

Phase I RMB __/__yuan (in Upper Case) _/_(in Lower Case) shall be paid prior to ______________.

Phase II RMB _/_yuan (in Upper Case) _/_ (in Lower Case) shall be paid prior to ______________.

Phase __/__RMB __/__yuan (in Upper Case) ___/__(in Lower Case) shall be paid prior to ______________.

Article 11 The assignee shall, after paying off the entire amount for assigning the land as agreed upon in this contract, apply for the registration of assigning the right to use state-owned construction land by presenting this contract and the payment vouchers and other relevant evidential materials.

Chapter 3 Development, Construction and Utilization of the Land

Article 12 The assignee agrees that the intensity of investment in the development of the land under this contract shall be governed by the provisions of paragraph A of this article:

A. If the land under this contract is used for the construction of an industrial project, the assignee agrees that the total amount of the project investment under this contract shall not be less than RMB three hundred and sixty one million, five hundred thousand yuan (in Upper Case), 361500000.00 (in Lower Case), and the investment scale shall be no less than RMB fifteen thousand yuan (in Upper Case) per square meter, 15000.00 per square meters (in Lower Case).

B. If the land under this contract is used for the construction of non-industrial projects, the assignee undertakes that the total amount of development investment under this contract shall be no less than RMB __/__yuan (in Upper Case), __/__(in Lower Case).

Article 13 Where the assignee builds any new buildings, structures or ancillary facilities within the area under this contract, it shall meet the planning conditions for the assignment of the land as determined by the municipal (county) government administrative department in charge of city planning (see Annex 3). Wherein:

Main building nature: industrial;

The nature of ancillary buildings: subject to planning conditions;

Total building area: ____/____ square meters;

Building volume ratio: 1.5≤R≤2.3;

Constructional height limit: 30 meters;

Building density: ≤50%;

Greening rate: ≤20%;

Other requirements for land use 1. Construction requirements (including those on underground space) shall be implemented according to planning conditions and relevant documents. 2. The assignee shall take into consideration the status quo of the public ring website in the plot and keep the line unblocked. 3. The assignee and the assignor should sign the Agreement on Investment and Construction of Industrial Land in Ningbo with the Management Committee of Ningbo Wangchun Industrial Park at the same time as the assignment contract signed by such both parties. 4. The land parcel shall be subject to phased administration of warrants. After the land assignment fee is fully collected, the use right for construction land may be registered for the first time, the certificate of the real estate registration right will be issued, which shall indicate the project development and construction period, initial operation period and transfer restriction conditions, etc.; only after the completion of the construction project and the examination and acceptance organized by the land department may the ownership of the building be registered for the first time and the title certificate of the immovable property be exchanged; upon the expiration of the initial operation period of a project, the assignee shall not transfer the ownership of the house or the right to use the land for construction, unless as determined by the industrial land investment agreement organized by the Administration Committee of Ningbo Wangchun Industrial Park.

Article 14 The assignee agrees that the construction of supporting structures for the land under this contract shall be governed by the provisions of paragraph A of this article:

A. The land under this contract shall be used for the construction of industrial projects. In accordance with the planning and design conditions established by the planning department, the occupied area of the assigned land for the internal administrative office and living service facilities of the enterprise shall not exceed ____/____ % of the assigned land area, i.e. not more than ___/___ square meters; for ancillary facilities such as office and logistics services, the floor area shall not exceed 10% of the gross floor area. The assignee agrees not to build a complete set of workers' residences, expert buildings, hotels, guest houses and training centers (except for the staff dormitory) within the scope of the assigned land;

B. Where the land under this contract is to be used for the construction of a residential project, the total number of the residential construction units within the assigned land shall not be less than ______/____ set(s) according to the planning and construction conditions determined by the administrative department of planning and construction. Among them, the number of housing units with a gross floor area of ninety (90) square meters or below shall be not less than ____/____ set(s), and the requirements for the construction of housing units shall be ____/____. The proportion of the living space under this contract for a flat area of less than ninety (90) square meters shall not be less than _____/___% of the total floor area for the land development and construction. For the affordable housing, low-rent housing and other government-guaranteed housing that belong to the supporting construction within the land under the contract, the assignee agrees to perform them in the manner set out in sub-clause ____/____ as below:

1. Transfer to the government;

2. Buy-back by the government;

3. Subject to the relevant provisions of the government on the administration of the construction and sale of affordable housing;

4. The construction area of guaranteed housing that need to be built in the land hereunder is ___/__square meters. The assignee shall apply to the Haishu District housing department for buying back such housing at the average sales price of the commercial housing registered at the time the first pre-sale permit is obtained. The repurchase payment is to be settled before the pre-sale permit is obtained.

Article 15 The assignee agrees to simultaneously construct the following supporting projects within the scope of the land under this contract and transfer them to the relevant departments free of charge after completion:

A. ___________/_____________;

B. ___________/_____________.

Article 16 The assignee agrees that the construction project under this contract shall commence by January 4, 2019 and be completed by January 4, 2021.

According to rules and regulations, the assignee should make a written declaration to the ministry of land and resources ten (10) days before the start and completion of the project. Where the construction is not started or completed within the time limit stipulated in the contract, the reason for delaying the reporting shall be submitted to the ministry of land and resources for examination and approval within thirty (30) days prior to the time limit. Where the assignor agrees to extend the construction, the time for the completion of the project shall be extended accordingly, but the extension period shall not exceed one year. Those that fail to implement the declaration system will be publicized to the public and will be restricted from participating in land acquisition activities for at least one year.

Article 17 When the assignee carries out construction within the land under the contract, the relevant provisions shall govern the connection of the relevant water, gas, sewage and other facilities with the main line outside the land, as well as the interface and the introduction of electricity substation project.

Where the assignee agrees that the various pipelines and wires laid by the government enter, pass or go across the assigned land for the needs of public utilities, but this function of land use should be affected, the government or the public utilities entities shall make reasonable compensation.

Article 18 The assignee shall use the land according to the land use and volume ratio agreed upon in this contract and shall not alter it without authorization. In case of any need to change the purpose of the land specified in this contract during the term of assignment, both parties agree to deal with it in accordance with paragraph A of this article:

A. The assignor withdraws the right to use land for construction by offering compensation;

B. To process the approval procedures for change of land use in accordance with laws, sign an agreement on changing the contract for assigning the right to use state-owned construction land or sign a new contract for assigning the right to use state-owned construction land; the assignee shall, repay the price for assigning the right to the use of state-owned construction land at the difference between the market price appraised for the construction land that is of a new use purpose at the time the above change is approved and the market price appraised for the construction land of the old use purpose, and shall thereby go through the land change registration.

Article 19 The government reserves the right to adjust the planning of the land under this contract during the use term of the land. In case the original planning needs to be modified, the existing buildings on the land shall not be affected, but In case rebuilding, reconstruction or renewal of the building, structure and its ancillary facilities within the use term of the land shall be carried out in accordance with the plan in force at the time, such plan also governs the application for renewal thereof at the time of expiration.

Article 20 The assignor shall not recover the right to use the state-owned construction land lawfully used by the assignee before the expiration of the use term agreed upon in this contract. Under special circumstances, where the right to use state-owned construction land is withdrawn in advance according to the needs of the public interest, the assignor shall report it for approval in accordance with the legal procedures. The land user shall be compensated according to the value of the buildings, structures and attached facilities on the land, the appraised market price for the right to use the state-owned construction land during the remaining use term and the direct loss as determined by the appraisal.

Chapter 4 Assignment, Lease and Mortgage of the Right to Use State-owned Construction Land

Article 21 After paying the charge for assigning the right to use state-owned construction land according to the stipulations of this contract, and obtaining the state-owned land use certificate, assignee is entitled to transfer, lease or mortgage all or part of the right to use state-owned construction land under this contract. In the case of the initial transfer, the conditions set forth in paragraph B of this article shall be satisfied:

A. Making investment and development in accordance with the provisions of this contract, and completing twenty five (25)% or more of the total investment in development;

B. Making investment and development in accordance with the provisions of this contract, having formed the conditions for the industrial land or other construction land.

Article 22 A contract for the assignment, lease or mortgage of the right to use state-owned construction land may not contravene the provisions of the laws and regulations of the state and the stipulations of this contract.

Article 23 After all or part of the right to use state-owned construction land is assigned, the rights and obligations set forth in this contract and the land registration documents shall be transferred accordingly, and the service life of the right to use state-owned construction land shall be the use term specified in this contract reducing the number of the years in which the assignee has used the land.

The rights and obligations stated in this contract and the land registration documents shall remain with the assignee after all or part of the right to use the state-owned construction land under this contract is leased.

Article 24 Where the right to use state-owned construction land is assigned or mortgaged, both parties to the assignment or mortgage shall apply to the ministry of land and resources administration for land alteration registration by presenting this contract and the corresponding assignment or mortgage contract and the state-owned land use certificate.

Chapter 5 Expiration

Article 25 In the condition that the land user needs to continually use the parcel under this Contract after the service life specified in this Contract has expired, the application for renewal shall be submitted to the assignor no later than one year before the expiration of the term; the assignor shall approve the application except that the parcel under this Contract is to be recovered in accordance with the public interest of the society by the assignor.

When the term of the right to use construction land for dwelling houses expires, it shall be renewed automatically.

If the assignor agrees to renew the Contract, the land user shall transact the compensated land-use formalities, such as assignment, lease and so on, and re-sign the contract for compensated land-use, such as assignment contract, lease contract, then pay the land assignment charge or rent and other compensated land-use fees.

Article 26 In the condition that the application for renewal has not been approved because of the social public interests, the land user should return the state-owned land use certificate, and cancel the registration of the right to use state-owned construction land in accordance with the relevant provisions, then the right to use state-owned construction land shall be taken back by the assignor without compensation. The assignor and the land user agree that the buildings, structures and their ancillary facilities on the parcel under this Contract shall be disposed according to paragraph A of this article:

(A) The assignor shall recover the buildings, structures and their ancillary facilities on the parcel and give the land user corresponding compensation in accordance with the residual value at the time of recovering the buildings, structures and their ancillary facilities on the parcel;

(B) The assignor shall recover the buildings, structures and their ancillary facilities on the parcel without compensation.

Article 27 The land user who fails to apply for renewal in the stipulated time should return the state-owned land use certificate, and cancel the registration of the right to use state-owned construction land in accordance with the relevant provisions, then the right to use state-owned construction land shall be recovered by the assignor without compensation. The buildings, structures and their ancillary facilities on the parcel under this Contract will be recovered by the assignor without compensation, and the land user shall maintain the normal use function of the buildings, structures and their ancillary facilities on the parcel without causing any man-made damage. If the ground buildings, structures and their ancillary facilities lose their normal function, the assignor may request the land user to move or demolish the ground buildings, structures and their ancillary facilities and restore the site formation.

Chapter 6 Force Majeure

Article 28 Neither Party shall be responsible for the nonperformance of part or this entire Contract resulting from force majeure, but each Party shall take all necessary remedial measures to reduce the losses due to force majeure where conditions permit. Force majeure occurring during the delay of performance shall not have an exemption effect.

Article 29 The Party subjected to force majeure shall, within seven (7) days, notify the other Party in writing of the force majeure situation by letter, telegram, facsimile and so on, and within 15 days after the occurrence of the force majeure, submit to the other Party the report and supporting document proving that part or all of this Contract cannot be performed or needs to be deferred.

Chapter 7 Liabilities for Breach of Contract

Article 30 The assignor shall, in accordance with this Contract, pay the assignment charge for the right to use state-owned construction land on time. In the condition that the assignor fails to pay the assignment charge for the right to use state-owned construction land on time, for every day in delay, it shall pay one (1)‰ of the deferred payment to the assignor as liquidated damages for late payment; if the deferring lasts for over sixty (60) days and the assignment charge for the right to use state-owned construction land is still unpaid after the urging from the assignor, the assignor has the right to terminate the Contract, in this case, the assignee has no right to request the return of the deposit, and the assignor may ask the assignee to make compensation.

Article 31 In the condition that the assignee cancels the project construction for its own reasons, or intends to terminate this Contract and request the return of the land, the assignor shall, upon approval of the people's government that has approved the land transfer scheme, respectively, according to the following provisions, refund all or part of the assignment charge (excluding interest) for the state-owned construction land except the deposit stipulated in this Contract; where the use right of state-owned construction land is recovered, the buildings, structures and their ancillary facilities built within the scope of the parcel shall not be compensated for, and the assignor may also require the assignee to remove the buildings, structures and their ancillary facilities that have been built. If, however, the assignor is willing to continue to make use of the buildings, structures and their ancillary facilities built within the scope of the parcel, it shall make certain compensation to the assignee:

A. If the assignee submits the application no less than sixty (60) days prior to the commencement date stipulated in this Contract, the assignor shall refund the assignment charge for the use right of the state-owned construction land which has been paid by the assignee after deducting the deposit;

B. If the assignee submits the application more than one (1) year but less than two (2) years after the commencement date stipulated in this Contract at the same time no less than sixty (60) days prior to two (2) years before the expiration, the assignor shall refund the residual assignment charge for the use right of the state-owned construction land which has been paid after deducting the deposit and idle fee according to relevant provisions.

Article 32 If the assignor causes the land to be idle for more than one (1) year but less than two (2) years, it shall pay the land idle fee in accordance with the law; if the land is idle for two years and the construction has not been started, the assignor shall have the right to recover the right to use the state-owned construction land without compensation.

Article 33 If the assignee fails to commence construction on the date stipulated in this Contract or on the agreed date of extension, for every day in delay, it shall pay one (1)‰ of the assignment charge for the right to use the state-owned construction land to the assignor as liquidated damages, and the assignor shall have the right to require the assignee to continue to perform this Contract.

If the assignee fails to complete construction on the date stipulated in this Contract or on the agreed date of extension, for every day in delay, it shall pay one (1)‰ of the assignment charge for the right to use the state-owned construction land to the assignor as liquidated damages.

Article 34 If the total project investment and investment intensity have not met the standard stipulated in this Contract, the assignor may, according to the proportion of the actual different part to the agreed total investment and investment intensity index, require the assignee to pay liquidated damages equivalent to the same proportion of the assignment charge for the right to use the state-owned construction land, and the assignor shall have the right to require the assignee to continue to perform this Contract.

Article 35 If any index under this Contract such as the parcel volume fraction, construction density and so on is lower than the minimum standard stipulated in this Contract, the assignor may, according to the proportion of the actual different part to the agreed minimum standard, require the assignee to pay liquidated damages equivalent to the same proportion of the assignment charge for the right to use the state-owned construction land, and the assignor shall have the right to require the assignee to continue to perform this Contract; if any index under this Contract such as the parcel volume fraction, construction density and so on is higher than the maximum standard stipulated in this Contract, the assignor may have the right to recover the area more than the maximum standard, at the same time, the assignor may, according to the proportion of the actual difference part to the agreed standard, require the assignee to pay liquidated damages equivalent to the same proportion of the assignment charge for the right to use the state-owned construction land.

Article 36 If the greening rate, the proportion of building area of enterprise internal administrative offices and service facilities of the industrial construction project and so on are higher than the agreed standard, the assignee shall pay to the assignor one (1) ‰ of the assignment charge as liquidated damages, and dismantle the corresponding greening and construction facilities at its own expense.

Article 37 The assignor shall deliver the land on time after the assignee has paid the assignment charge for the right to use the state-owned construction land according to the Contract. If the assignor fails to provide the assigned land on time, the assignor shall, for every day in delay, pay one (1) ‰ of the assignment charge for the right to use the state-owned construction land to the assignee as liquidated damages, and the actual delivery day shall be the initial day of the service life. Where the assignor has postponed the delivery of land for more than sixty (60) days, the assignee shall be entitled to terminate the Contract if the assignor is not able to deliver the land after being urged to do so, and the assignor should double the return of the deposit and refund the remainder of the assignment charge for the right to use the state-owned construction land, at the same time the assignee may request the assignor to make compensation for the losses.

Article 38 If the assignor fails to deliver the land on time or the land delivered fails to meet the land conditions stipulated in this Contract or the assignor unilaterally alters the conditions of use of the land, the assignee shall have the right to require the assignor to perform obligations in accordance with the Contract and compensate for the direct losses caused by the delay. The service life of land shall commence on the date when the land has met the agreed conditions.

Chapter 8 Applicable Law and Dispute Resolution

Article 39 The conclusion, validity, explanation, performance and dispute resolution of this Contract shall be governed by the laws of the People's Republic of China.

Article 40 A dispute arising from the performance of this Contract shall be settled by negotiation between the Parties, if no agreement can be reached through negotiation, the dispute shall be settled in the manner agreed under paragraph B of this article:

A. Submitting the dispute to ____/__Arbitration Commission for arbitration;

B. Bringing an action in the people's court according to law.

Chapter 9 Supplementary Provisions

Article 41 The parcel assignment scheme under this Contract has been approved by Ningbo Municipal People's Government, and this Contract shall take effect from the date of the signing of the Parties.

Article 42 The Parties of this Contract shall guarantee the validity and authenticity of the names and communication addresses, telephone and fax numbers, bank accounts, agents and other information; any change in the information of one Party shall be told to the other Party in written form within fifteen (15) days after the date of change, otherwise the corresponding responsibility shall be borne by the Party that has changed the information.

Article 43 This Contract and the attachments have eighteen (18) pages altogether; in case of any inconsistency between different languages, the Chinese version shall prevail.

Article 44 The price, amount, area in this Contract should be represented at the same time in uppercase and lowercase, the uppercase and the lowercase amount should be consistent, in case of any inconsistency between the uppercase amount and the lowercase amount, the uppercase amount shall prevail.

Article 45 The matters not included in this Contract may be agreed by both Parties as a Contract attachment, and shall has the same legal effect with this Contract.

Article 46 This Contract is in duplicate, and each Party holds one copy with the equal legal effect.

Assignor (seal):	Assignee (seal):
Legal representative (Agent):	Legal representative (Agent):
(Signature):	(Signature):
	December 29th, 2017

Annex 1

Plane boundary map of the assigned land

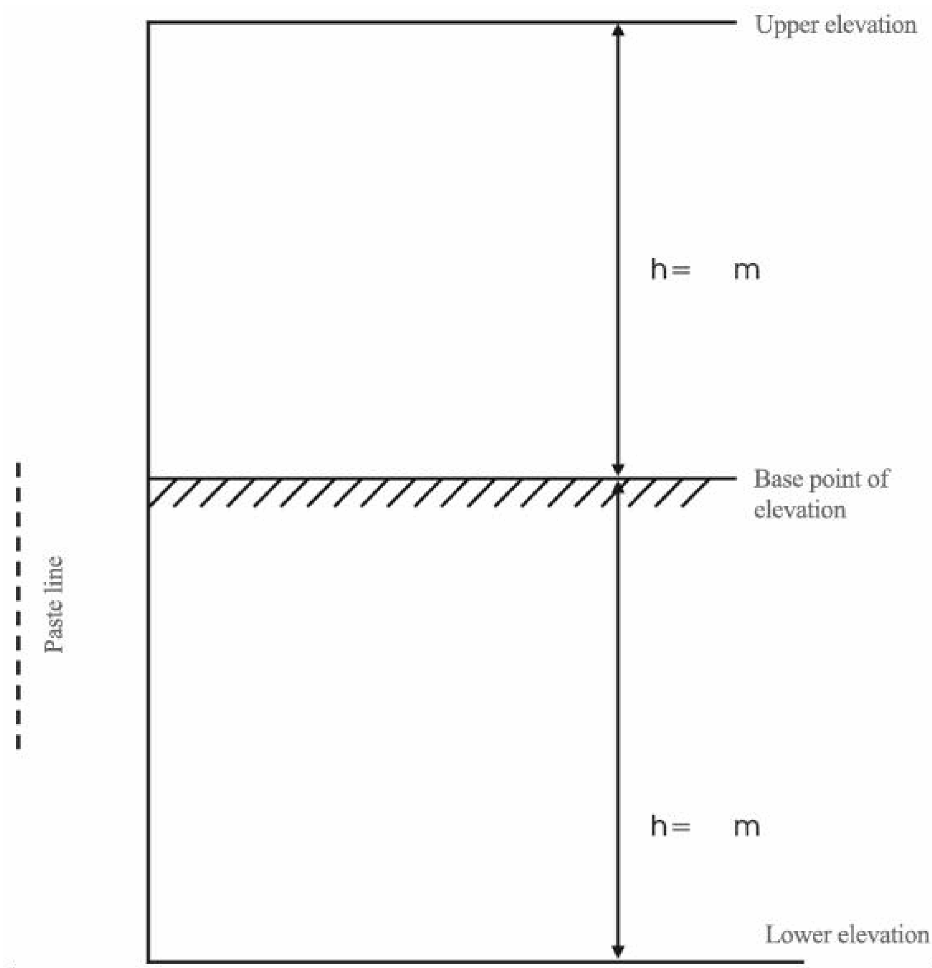
North

Paste line for plane boundary map

Plotting Scale: 1:________________

Annex 2

Vertical boundary of the assigned land



Elevation system adopted: _______________

Plotting Scale: 1:________________

Annex 3

Planning conditions of the assigned land established by the ____municipal (county) government administrative department in charge of city planning

Exhibit 10.30.1

Agreement on Investment and Construction of Industrial Land in Ningbo

Party A: Management Committee of Ningbo Wangchun Industrial Park ("Party A")

Party B: GLOBAL Technology Inc. ("Party B")

WHEREAS, in accordance with the regulations and requirements set forth in the Property, Contract, Land Administration, and other applicable Laws of the People's Republic of China, and in the Notice on Further Promote Economic and Intensive Land Use (file No.129〔2011〕 issued by the Ningbo government), in the spirits of equality, free will, integrity, and economic and intensive land use, Party A and Party B hereto agree as follows:

Section I Introduction

1. Project Name: Land V-03-1 of Ningbo Wangchun Industrial Park.

2. Construction Site Location: Ningbo Wangchun Industrial Park, as indicated on the Red-Lined Site Plan.

3. Budget: the aggregate investment shall be RMB 361.5 million or above, and the investment intensity shall be RMB 15 thousand/square meters or above.

4. Profits: in the Developmental Period (3 years), the average annual production value shall not be less than RMB 5 million/mu, with an average annual revenue of 0.7 million/mu or above; and in the Profitable Period (3 years), the average annual production value shall not be less than 10 million/mu, with an average annual revenue of 1.5 million/mu or above.

Note: the Developmental Period shall be defined as the first 3 years, and the Profitable Period is the 4th - 6th year, upon completion and acceptance of the project.

Section II Use and Management of the Industrial Land

1. The land shall be an area of 24100 square meters, with a plot ratio of 1.5<R<2.3, a building density of ≤50%, a greening rate of ≤20%, and subject to any other prerequisites set forth in the Project Requirements and Contract for the

Assignment of the Right to Use State-owned Construction Land.

2. Nature and term of the land use: the project shall make use of the land as industrial land, for the industry of design and manufacture of optical fiber/cable based communication devices, during a period of 50 years.

3. Party B shall give Party A the deposit of RMB 100 thousand/mu in a lump sum for kick-off insurance within 10 days of signing of this agreement. No part of deposit shall be deducted from the assignment fee, Party B shall request for refund by a proof of starting construction, and Party A shall return the deposit in full within 15 days of receiving the request. If Party B fails to start construction in 2 years of obtaining the use rights of the Land, the deposit becomes non-refundable.

4. Construction Management of the Project Land

(1) Party B shall be liable for completing the project planning and design scheme (including a floor plan, an aerial view, and a rendered elevation of the main building) and construction plan within 100 days of winning the bid for the land, and send a copy to the Planning Department and Party A respectively for reviewing.

(2) The project shall be in compliance with all terms and conditions specified by the Planning Department.

(3) Party B shall commence and complete the project within the period set forth in the Contract for the Assignment of the Right to Use State-owned Construction Land. In case that commencing or completion of the project is not feasible, Party B shall send a time extension request to Party A and the assigner, and postpone the commencing or/and completion date with the consent of Party A and the assigner, but the time extension shall be within 1 year.

(4) If Party B fails to achieve the expected annual production value of 10 million/mu or annual revenue of 1.5 million/mu in the Profitable Period, Party B then become ineligible for any incentive or supportive policies of Haishu District, and shall pay to Party A for liquidated damages of RMB 350 thousand/mu.

(5) In case that Party B needs to lease, transfer or contribute the project land for shares, such lease, transfer or contribution for shares must be approved by Party A and the Haishu District government. Otherwise, Party A has the right to cease supplying electricity, water and other resources, and report the case to relevant

authority for further actions.

Section III Rights and Obligations of Both Parties

(Part A) Rights and Obligations of Party A

1. After Party B signing the Contract for the Assignment of the Right to Use State-owned Construction Land and paying assignment fee and other applicable fees, Party A shall assist Party B in obtaining local government's certificate of compliance.

2. Party A shall be liable for offer one-stop high quality service for the project, to enable Party B to bring out a smooth construction, and assist Party B in getting through any industry and commerce, tax registration, planning, environmental protection, and housing construction related approval procedures, where Party B shall be liable for preparing fundamental application documents and fees.

3. Party A shall coordinate the setting-up of temporary water and electricity supply and pipe networks to the red line of the site, Party B shall assume any other wiring expenses.

4. In accordance with the power system planning of industrial park and Party B's need of electricity, Party A has the right to request Party B build houses for ring network stations, which Party B must comply and assume corresponding construction fees.

(Part B) Rights and Obligations of Party B

1. Party B shall arrange the construction in strict accordance with the scheme approved by the Planning Department, and commence, complete and put the project into production, ensuring building quality and assuming applicable expenses.

2. Party B shall strictly abide by applicable PROC laws and regulations regarding environmental protection, work safety and other aspects.

3. During the construction, Party B shall submit monthly investment report to Party A, stating the actual progress of investment in the project.

4. Party B shall be responsible for the road, water supply and drainage, greening and other private facilities inside the red line, and the drainage system shall be in compliance with national standard.

5. All pipes and wires that Party A sets up for public utilities shall be allowed to

go in, out, through or over the project land with Party B's consent.

Section IV Liabilities for Breach of Contract

1. Party A shall be liable for any failures of starting construction resulting from Party A, and with the consent of assigner, allow Party B to postpone the commencing, completion and putting the project into production.

2. In case that Party B fails to start construction by the date specified in this agreement or otherwise agreed to, Party B shall be payable to the assigner for liquidated damages of 1‰ of the total assignment fee of Contract for the Assignment of the Right to Use State-owned Construction Land for each day overdue, and the assigner shall have the right to request Party B for fulfillment of this agreement.

3. If the aggregate investment or investment intensity turns out to be below the standards specified in this agreement, the assigner shall be entitled to request Party B to pay for liquidated damages pro rata and continue to fulfill this agreement.

4. If the floor space index floor area ratio of the project land turns out to be below the minimum specified in this agreement, the assigner shall be entitled to demand Party B to pay for liquidated damages pro rata and continue to fulfill this agreement.

5. If the greening rate or building density exceeds the standards specified in this agreement, Party B shall be payable to the assigner for liquidated damages of 1‰ of the assignment fee.

6. Any transfer, lease or mortgage contract for the right to use state-owned construction land shall be in compliance with PROC laws and regulations, and the terms and conditions set forth in the Contract for the Assignment of the Right to Use State-owned Construction Land, this Agreement, and the Small and Micro Businesses Land Use Commitment of Agreement Fulfillment.

Section V This agreement shall be signed at the same time of and take equivalent legal effect with the Contract for the Assignment of the Right to Use State-owned Construction Land, and Party B's failure in signing this agreement accordingly shall be perceived as a waiver of the right to accept the assignment of the land. This agreement may be complemented by any other terms and conditions agreed by both parties.

Section VI In case this agreement turns out to be unfulfillable due to force majeure, both Parties shall come to a settlement through negotiation.

Section VII This agreement shall be executed in quadruplicate, Party A and Party B shall keep two copies each.

Party A: Management Committee of Ningbo Wangchun Industrial Park	Party B: GLOBAL Technology Inc.
(Seal)	(Seal)
Legal Representative (Authorized Agent)	Legal Representative (Authorized Agent)
(Signature):	(Signature):

Date:29th December, 2017

Exhibit 10.9

EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT (this "***Agreement***") is dated as of August 5, 2016, by and between Applied Optoelectronics, Inc., a Delaware corporation (the "***Company***"), and David C. Kuo, an individual currently residing at xxxxxxxxxxxxxxxxxxxxxxxxxxx (the "***Executive***").

WHEREAS, the Company desires to employ the Executive on the terms and conditions and for the consideration hereinafter set forth and the Executive is willing to serve as an employee of the Company on such terms and conditions and for such consideration.

NOW THEREFORE, for and in consideration of the mutual promises, covenants and obligations contained herein, the Company and the Executive hereby agree as follows:

1. **Employment and Duties.**

(a) General. The Executive shall serve as General Counsel and Vice President of Legal department of the Company, reporting to the Company's Chief Executive Officer. The Executive shall have such duties and responsibilities, commensurate with the Executive's position, as may be reasonably assigned to the Executive from time to time by the Company. The Executive's principal place of employment shall be 13139 Jess Pirtle Blvd., Sugar Land, TX 77478.

(b) Exclusive Services. For so long as the Executive is employed by the Company, the Executive shall devote his full attention to his duties hereunder, shall faithfully serve the Company, shall in all respects conform to and comply with the lawful and good faith directions and instructions given to him by the Company and shall use his best efforts to promote and serve the interests of the Company. Further, the Executive shall not, directly or indirectly, render services to any other person or organization without the consent of the Company or otherwise engage in activities that would interfere significantly with his faithful performance of his duties hereunder. Notwithstanding the foregoing, the Executive may (i) serve on corporate, civic, children sports organization or charitable boards or engage in charitable activities without remuneration therefor and (ii) manage personal investments, provided that such activity does not contravene the first sentence of this Section 1(b) or any other provision of this Agreement.

2 . **Term of Employment.** The Executive's employment under this Agreement shall commence as of ______________ (the "***Effective Date***") and shall continue until the termination of the Executive's employment with the Company under this Agreement. The period from the Effective Date until the termination of the Executive's employment under this Agreement is referred to as the "***Term***".

3 . **Compensation and Other Benefits.** Subject to the provisions of this Agreement, the Company shall pay and provide the following compensation and other benefits to the Executive during the Term as compensation for services rendered hereunder:

(a) Base Salary. The Company shall pay to the Executive an annual salary (the "***Base Salary***") at the rate of USD $160,963.00, which may be adjusted from time to time by the Compensation Committee of the Company's Board of Directors (the "***Board***"), payable in

---

substantially equal installments at such intervals as may be determined by the Company in accordance with the Company's then current ordinary payroll practices as established from time to time. The Base Salary shall be reviewed in good faith by the Compensation Committee of the Board, based upon the Executive's performance, not less often than annually.

(b) Bonus. For each fiscal year during the Term, the Executive shall be eligible to receive an incentive bonus equal to the milestone bonus set by the Company or Compensation Committee for such year if the applicable performance goals are satisfied. Such bonus, if any, shall be paid to the Executive no later than March 15th of the calendar year following the calendar year in which the bonus is earned.

(c) Employee Benefits. The Executive shall be entitled to participate in all employee benefit arrangements that the Company may offer to its executives of a like status from time to time, and as may be amended from time to time.

(d) Expenses. The Company shall reimburse the Executive for reasonable travel and other business-related expenses incurred by the Executive in the fulfillment of his duties hereunder upon presentation of written documentation thereof, in accordance with the applicable expense reimbursement policies and procedures of the Company as in effect from time to time.

(e) Indemnification. To the fullest extent permitted by the indemnification provisions of the Articles of Incorporation and/or Bylaws of the Company in effect from time to time and the indemnification provisions of the corporation statute of the jurisdiction of the Company's incorporation in effect from time to time (collectively the "***Indemnification Provisions***"), and in each case subject to the conditions thereof, the Company shall (i) indemnify the Executive, as a director and officer of the Company or a trustee or fiduciary of an employee benefit plan of the Company against all liabilities and reasonable expenses that the Executive may incur in any threatened, pending, or completed action, suit or proceeding, whether civil, criminal or administrative, or investigative and whether formal or informal, because the Executive is or was a director or officer of the Company or a trustee or fiduciary of such employee benefit plan, and against which the Executive may be indemnified by the Company, and (ii) pay for or reimburse the reasonable expenses incurred by the Executive in the defense of any proceeding to which the Executive is a party because the Executive is or was a director or officer of the Company or a trustee or fiduciary of such employee benefit plan.

4. **Termination of Employment.**

(a) Termination of Employment Prior to a Change of Control. Except as provided in Section 4(b), and subject to satisfaction of Section 4(d), if prior to a Change of Control the Executive's employment is terminated by the Company for any reason other than Cause or the Executive resigns his or her employment with the Company for Good Reason, then the Executive shall be entitled to receive the following benefits (collectively, the "***Severance Benefits***"): (i) a payment equal to fifty percent (50%) the then current annual Base Salary; (ii) a payment equal to fifty percent (50%) of the dollar amount of the Executive's full target bonus percentage as in effect for the twelve (12) month period immediately prior to such termination (for this purpose any performance targets shall be deemed immediately and fully satisfied); and (iii) $15,000 for the purpose of the Executive to fund health coverage continuation benefits. Severance Benefits shall be paid to the Executive no later than the thirtieth (30th) day immediately following the Executive's "separation from service" (as defined under Section 409A of the Internal Revenue Code of 1986, as amended (the "***Code***")), provided the Executive first executes a release of any and all claims against the Company (set forth in Section 4(d), below) and the revocation period specified therein has expired without the Executive revoking such release. Notwithstanding the foregoing and for avoidance of doubt, if the Executive's employment is terminated by the Company for Cause or by the Executive without Good Reason, then the Executive shall be entitled to only any unpaid then current annual Base Salary through and including the date of termination or resignation, and the Executive shall not be entitled to or receive any Severance Benefits. The Executive shall have no further right to receive any other compensation or benefits after such termination or resignation of employment, except for the continuation of health benefits as provided under applicable law.

For purposes of this Agreement the term "***Change of Control***" shall be deemed to have occurred on the date that one or more of the following occurs: (i) Individuals who, on the date hereof, constitute the entire Board of the Company ("***Incumbent Directors***") cease for any reason to constitute at least a majority of the Board; provided, however, that any individual becoming a director subsequent to the date hereof whose election, or nomination for election by the Company's stockholders, was approved by a vote of at least a majority of the then Incumbent Directors shall be considered as though such individual was an Incumbent Director, but excluding, for this purpose any such individual whose initial assumption of office occurs as a result of either an actual or threatened election contest, as such terms are used in Rule 14a-11 under the Securities Exchange Act of 1934, as amended ("***Exchange Act***") or other actual or threatened solicitation of proxies or consents by or on behalf of any Person (as defined below) other than the Board; or (ii) (a) the consummation of any merger, consolidation or recapitalization of the Company (or, if the capital stock of the Company is affected, any subsidiary of the Company), or any sale, lease, or other transfer (in one transaction or a series of transactions contemplated or arranged by any party as a single plan) of all or substantially all of the assets of the Company (each of the foregoing being an "***Acquisition Transaction***") where: (A) the stockholders of the Company immediately prior to such Acquisition Transaction would not immediately after such Acquisition Transaction beneficially own, directly or indirectly, shares or other ownership interests representing in the aggregate fifty-one percent (51%) or more of (1) the then outstanding common stock or other equity interests of the corporation or other entity surviving or resulting from such merger, consolidation or recapitalization or acquiring such assets of the Company, as the case may be (the "***Surviving Entity***") (or of its ultimate parent corporation or other entity, if any), and (2) the Combined Voting Power of the then outstanding Voting Securities of the Surviving Entity (or of its ultimate parent corporation or other entity, if any) or (B) the Incumbent Directors at the time of the initial approval of such Acquisition Transaction would not immediately after such Acquisition Transaction constitute a majority of the Board, or similar managing group, of the Surviving Entity (or of its ultimate parent corporation or other entity, if any), or (b) the filing of any plan for the liquidation or dissolution of the Company. For purposes of this Section 4(a) and this Agreement, the following terms shall have the following meanings: (i) the term "***Affiliate***" shall mean, as to a specified Person, another Person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the specified Person, within the meaning of such terms as used in Rule 405 under the Securities Act of 1933, as amended

("***Securities Act***"), or any successor rule; (ii) the term "***Combined Voting Power***" shall mean the aggregate votes entitled to be cast generally in the election of the Board, or similar managing group, of a corporation or other entity by holders of then outstanding Voting Securities of such corporation or other entity; (iii) the term "***Person***" shall mean any individual, entity (including, without limitation, any corporation, partnership, trust, joint venture, association or governmental body) or group (as defined in Sections 14(d)(3) or 15(d)(2) of the Exchange Act and the rules and regulations thereunder); provided, however, that Person shall not include the Company, any of its subsidiaries, any employee benefit plan of the Company or any of its majority-owned subsidiaries or any entity organized, appointed or established by the Company or such subsidiaries for or pursuant to the terms of any such plan; and (iv) the term "***Voting Securities***" shall mean all securities of a corporation or other entity having the right under ordinary circumstances to vote in an election of the Board, or similar managing group, of such corporation or other entity.

For purposes of this Agreement, the term "***Cause***" shall mean to include: (i) the Executive's conviction of or plea of *nolo contendre* to any felony offense or to a crime that the Board determines, in its sole discretion, is a crime of moral turpitude (whether or not a felony); (ii) the Executive commits willful misconduct (that is, done in bad faith or without reasonable belief that such action is in the best interest of the Company) or violates any law in connection with the performance of any of his or her duties, including, without limitation, (A) misappropriation of funds or property of the Company or any of its affiliates or customers, (B) securing or attempting to secure personally any profit in connection with any transaction entered into on behalf of the Company or any of its affiliates, or (C) making any material misrepresentation to the Board, the Company, or any of the Company's affiliates; (iii) the Executive materially violates or fails to comply with any written Company policy; (iv) the Executive materially breaches any term of this Agreement; or (v) the willful and continued failure or neglect of the Executive to substantially perform his or her duties with the Company (other than any such failure resulting from incapacity due to physical or mental illness). The Board shall not have Cause to terminate the Executive's employment under this Section 4 unless and until the Board provides written notice to the Executive that identifies the Executive's alleged violation of policy, breach of this Agreement, or failure to perform (or neglect of) any duty and the Executive fails to cure such violation of policy, breach of this Agreement or failure to perform (or neglect of) any duty within 60 days therefrom.

For purposes of this Agreement, the term "***Good Reason***" shall mean to include: (i) the Executive being assigned any duties or the significant reduction of the Executive's duties or a significant change of the Executive's title, any of which is inconsistent with his or her position or title with the Company and responsibilities in effect immediately prior to such assignment, except in each case in connection with a promotion; (ii) a reduction by the Company in the Executive's Base Salary as in effect immediately prior to such reduction, provided that Good Reason shall not be deemed to exist where the Executive's Base Salary is reduced as part of an overall cost reduction program that affects all senior executives of the Company and does not disproportionately affect the Executive; (iii) the failure of any successor entity to the Company to expressly assume in writing the terms of this Agreement; and (iv) any material breach by the Company of any material provision of this agreement which has not been cured within 30 days of the Executive providing the Company with written notice of such breach.

(b) Termination of Employment after a Change of Control. Subject to satisfaction of Section 4(d), if, within six (6) months immediately preceding a Change of Control or within twelve (12) months immediately following a Change of Control, the Executive's employment is terminated by the Company for any reason other than Cause or is terminated by the Executive for Good Reason, then the Executive shall be entitled to receive the following benefits: (i) a payment equal to one times (1x) the then current annual Base Salary; (ii) a payment equal to the dollar amount of the Executive's full target bonus percentage as in effect for the twelve (12) month period immediately prior to such termination (for this purpose any performance targets shall be deemed immediately and fully satisfied); (iii) $15,000 for the purpose of the Executive to fund health coverage continuation benefits; and (iv) accelerated vesting of the Executive's awards granted under any incentive share plan or equity incentive plan (or similar arrangement) of the Company, meaning that all vesting restrictions shall lapse and all awards granted to the Executive shall be accelerated and fully vested, and all vested options shall be exercisable until the later of (x) the 15th day of the third month following the date at which the stock options would otherwise have expired in accordance with their original terms, (y) December 31 of the calendar year in which the stock options would otherwise have expired in accordance with their original terms and (z) such longer period (not to exceed twelve months following the "separation from service" (as defined under Section 409A of the Code); provided, however, that the foregoing shall not be construed to cause an incentive stock option to fail to meet the statutory requirements of Section 422 of the Code. Benefits under this Section 4(b) shall be paid to the Executive no later than the thirtieth (30th) day immediately following the Executive's "separation from service" (as defined under Section 409A of the Code, provided the Executive first executes a release of any and all claims against the Company (set forth in Section 4(d), below) and the revocation period specified therein has expired without the Executive revoking such release. Notwithstanding the foregoing and for avoidance of doubt, if (i) the Executive's employment is terminated for Cause within six (6) months immediately preceding a Change of Control or within twelve (12) months immediately following a Change of Control, or (ii) the Executive's employment is terminated by the Company for Cause or by the Executive without Good Reason after the expiration of twelve (12) months from a Change of Control; then the Executive shall be entitled to only any unpaid then current annual Base Salary through and including the date of termination as set forth in Section 4(a) of this Agreement and the Executive shall not be entitled to or receive any benefit pursuant to this Section 4(b).

(c) Board Resignation. Upon termination of the Executive's employment for any reason, the Executive shall be deemed to have resigned from any Board position (and any committees thereof) and from any and all positions with the Company's affiliates, effective as of the date of such termination.

(d) Waiver and Release. Notwithstanding any other provisions of this Agreement to the contrary, unless expressly waived in writing by the Board in its sole discretion, the Company shall not make or provide any Severance Benefits under this Section 4 (other than accrued Base Salary as of the termination date) unless the Executive timely executes and delivers to the Company a general release (which shall be provided by the Company not later than five (5) days from the date on which the Executive's employment is terminated and be substantially in the form attached hereto as **Exhibit A**), whereby the Executive (or his estate or legally appointed personal representative) releases the Company (and affiliates of the Company and other designated persons) from all employment based or related claims of the Executive and all obligations of the Company to the Executive other than with respect to (x) the Company's obligations to make and provide the Severance Benefits and (y) any vested benefits to which the Executive is entitled under the terms of any Company benefit or equity plan, and the Executive does not revoke such release within any applicable revocation period following the Executive's delivery of the executed release to the Company. If the requirements of this Section 4(d) are not satisfied by the Executive (or his estate or legally appointed personal representative), then no Severance Benefits (other than accrued salary as of the termination date) shall be due to the Executive (or his estate) pursuant to this Agreement.

(e) Notice of Termination. Any termination of employment by the Company or the Executive shall be communicated by a written "***Notice of Termination***" to the other party hereto given in accordance with Section 8(*l*) of this Agreement. In the event of a termination by the Company for Cause, the Notice of Termination shall (i) indicate the specific termination provision in this Agreement relied upon, (ii) set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Executive's employment under the provision so indicated and (iii) specify the date of termination. The failure by the Executive or the Company to set forth in the Notice of Termination any fact or circumstance which contributes to a showing of Cause shall not waive any right of the Executive or the Company, respectively, hereunder or preclude the Executive or the Company, respectively, from asserting such fact or circumstance in enforcing the Executive's or the Company's rights hereunder.

5. **Section 280G Payments.** Notwithstanding anything in this Agreement to the contrary, if the Executive is a "disqualified individual" (as defined in Section 280G(c) of the Code), and the payments and benefits provided for in this Agreement, together with any other payments and benefits which the Executive has the right to receive from the Company or any other person, would constitute a "parachute payment" (as defined in Section 280G(b)(2) of the Code), then the payments and benefits provided for in this Agreement shall be either (a) reduced (but not below zero) so that the present value of such total amounts and benefits received by the Executive from the Company and/or such person(s) will be $1.00 less than three (3) times the Executive's "base amount" (as defined in Section 280G(b)(3) of the Code) and so that no portion of such amounts and benefits received by the Executive shall be subject to the excise tax imposed by Section 4999 of the Code or (b) paid in full, whichever produces the better "net after-tax position" to the Executive (taking into account any applicable excise tax under Section 4999 of the Code and any other applicable taxes). The reduction of payments and benefits hereunder, if applicable, shall be made by reducing, first, payments or benefits to be paid in cash hereunder in the order in which such payment or benefit would be paid or provided (beginning with such payment or benefit that would be made last in time and continuing, to the extent necessary, through to such payment or benefit that would be made first in time) and, then, reducing any benefit to be provided in-kind hereunder in a similar order. The determination as to whether any such reduction in the amount of the payments and benefits provided hereunder is necessary shall be made by the Company in good faith. If a reduced payment or benefit is made or provided and through error or otherwise that payment or benefit, when aggregated with other payments and benefits from the Company (or its affiliates) used in determining if a "parachute payment" exists, exceeds $1.00 less than three

(3) times the Executive's base amount, then the Executive shall immediately repay such excess to the Company upon notification that an overpayment has been made. Nothing in this paragraph shall require the Company to be responsible for, or have any liability or obligation with respect to, the Executive's excise tax liabilities under Section 4999 of the Code.

6 . **Section 409A of the Code.** This Agreement is intended to either avoid the application of, or comply with, Section 409A of the Code. To that end this Agreement shall at all times be interpreted in a manner that is consistent with Section 409A. Notwithstanding any other provision in this Agreement to the contrary, the Company shall have the right, in its sole discretion, to adopt such amendments to this Agreement or take such other actions (including amendments and actions with retroactive effect) as it determines is necessary or appropriate for this Agreement to comply with Section 409A. Further:

(a) Any reimbursement of any costs and expenses by the Company to the Executive under this Agreement shall be made by the Company in no event later than the close of the Executive's taxable year following the taxable year in which the cost or expense is incurred by the Executive. The expenses incurred by the Executive in any calendar year that are eligible for reimbursement under this Agreement shall not affect the expenses incurred by the Executive in any other calendar year that are eligible for reimbursement hereunder and the Executive's right to receive any reimbursement hereunder shall not be subject to liquidation or exchange for any other benefit.

(b) Each payment that the Executive may receive under this Agreement shall be treated as a "separate payment" for purposes of Section 409A of the Code.

7 . **Agreement Ancillary to Other Agreements.** This Agreement is ancillary to and part of the Inventions, Confidentiality, Non-Competition and Non-Solicitation Agreement, attached hereto as **Exhibit B**, between the Company and the Executive and furthers the Company's agreements to: (i) disclose, and to continue to disclose its Confidential Information and Trade Secrets to the Executive; (ii) provide initial and continued training, education and development to the Executive; (iii) provide the Executive with Confidential Information and Trade Secrets about, and the opportunity to develop relationships with, the Company's employees, Customers and Suppliers, and employees and agents of its Customers and Suppliers. A default under or breach of the Inventions, Confidentiality, Non-Competition and Non-Solicitation Agreement shall constitute a material breach of this Agreement.

8. **Miscellaneous.**

(a) Defense of Claims. The Executive agrees that, during the Term, and for a period of twelve (12) months after termination of the Executive's employment, upon request from the Company, the Executive will cooperate with the Company in the defense of any claims or actions that may be made by or against the Company that affect the Executive's prior areas of responsibility, except if the Executive's reasonable interests are adverse to the Company in such claim or action. The Company agrees to promptly reimburse the Executive for all of the Executive's reasonable legal fees, travel and other direct expenses incurred, or to be reasonably incurred, to comply with the Executive's obligations under this Section 8(a).

(b) Non-disparagement. The Parties agree that at no time during the Executive's employment by the Company or thereafter shall either Party make, or cause or assist any other person to make, any statement or other communication to any third party which impugns or attacks, or is otherwise critical of, the reputation, business, products, services or character of the other Party, or their affiliates or any of its respective directors, officers or employees.

(c) Source of Payments. All payments provided under this Agreement, other than payments made pursuant to a plan or agreement which provides otherwise, shall be paid in cash from the general funds of the Company, and no special or separate fund shall be established, and no other segregation of assets shall be made, to assure payment. The Executive shall have no right, title or interest whatsoever in or to any investments which the Company may make to aid the Company in meeting its obligations hereunder. To the extent that any person acquires a right to receive payments from the Company hereunder, such right shall be no greater than the right of an unsecured creditor of the Company.

(d) Arbitration. Any dispute or controversy arising under or in connection with this Agreement or otherwise in connection with the Executive's employment by the Company that cannot be mutually resolved by the parties to this Agreement and their respective advisors and representatives shall be settled exclusively by arbitration in Harris County, Houston, Texas in accordance with the rules of the American Arbitration Association before one arbitrator of exemplary qualifications and stature, who shall be selected jointly by an individual to be designated by the Company and an individual to be selected by the Executive, or if such two individuals cannot agree on the selection of the arbitrator, who shall be selected by the American Arbitration Association.

(e) Amendment, Waiver. This Agreement may not be modified, amended or waived in any manner, except by an instrument in writing signed by both parties hereto. The waiver by either party of compliance with any provision of this Agreement by the other party shall not operate or be construed as a waiver of any other provision of this Agreement, or of any subsequent breach by such party of a provision of this Agreement.

(f) Entire Agreement. This Agreement contains the entire agreement and understanding of the parties hereto with respect to the matters covered herein and supersedes all prior or contemporaneous negotiations, commitments, agreements and writings with respect to the subject matter hereof, all such other negotiations, commitments, agreements and writings shall have no further force or effect, and the parties to any such other negotiation, commitment, agreement or writing shall have no further rights or obligations thereunder.

(g) Governing Law/Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas, without regard to conflict of laws principles thereof. Each party to this Agreement hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts in Houston, Texas, for the purposes of any proceeding arising out of or based upon this Agreement.

(h) No Waiver. The failure of a party to insist upon strict adherence to any term of this Agreement on any occasion shall not be considered a waiver of such party's rights or deprive such party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.

(i) Severability. In the event that any one or more of the provisions of this Agreement shall be or become invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions of this Agreement shall not be affected thereby.

(j) No Assignment. Neither this Agreement nor any of the Executive's rights and duties hereunder, shall be assignable or delegable by the Executive. Any purported assignment or delegation by the Executive in violation of the foregoing shall be null and void ab initio and of no force and effect. This Agreement may be assigned by the Company to a person or entity which is an affiliate or a successor in interest to substantially all of the business operations of the Company. Upon such assignment, the rights and obligations of the Company hereunder shall become the rights and obligations of such affiliate or successor person or entity.

(k) Successors; Binding Agreement. This Agreement shall inure to the benefit of and be binding upon personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

(l) Notices. For the purpose of this Agreement, notices and all other communications provided for in the Agreement shall be in writing and shall be deemed to have been duly given when delivered by hand or overnight courier or three (3) days after it has been mailed by United States registered mail, return receipt requested, postage prepaid, addressed to the respective addresses set forth below in this Agreement, or to such other address as either party may have furnished to the other in writing in accordance herewith, except that notice of change of address shall be effective only upon receipt.

If to the Company: 13139 Jess Pirtle Blvd.
Sugar Land, Texas 77478

If to Executive: xxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxx

(m) Prior Employment. The Company has employed the Executive for the Executive's general skills, management abilities and experience in the Company's business or related industries. The Executive acknowledges that he has been specifically instructed not to bring, disclose or use in any fashion any confidential information, trade secrets, proprietary information, data or technology, nor any confidential pricing information, belonging to any prior employer. In no event is the Executive authorized to use or disclose any such information to the Company or any of its employees.

(n) Executive's Representations. The Executive hereby represents to the Company that (i) all confidential information, trade secrets or proprietary information, data or technology, belonging to any prior employer, including those that might have been contained on the Executive's personal computer, cell phone or other electronic communications or storage device have been returned and/or deleted in accordance with any policy of or agreement with the

Executive's prior employer and (ii) the execution and delivery of this Agreement by the Executive and the Company and the performance by the Executive of his duties hereunder shall not constitute a breach of, or otherwise contravene, the terms of any employment agreement or other agreement or policy to which the Executive is a party or otherwise bound.

(o) Withholding of Taxes. The Company may withhold from any amounts or benefits payable under this Agreement all taxes it may be required to withhold pursuant to any applicable law or regulation.

(p) Counterparts. This Agreement may be signed in counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

(q) Survival. This Agreement shall terminate upon the termination of employment of the Executive; however, the following Section 4 (Termination of Employment) and the corresponding **Exhibit A** (Waiver and Release), Section 7 (Agreement Ancillary to Other Agreements) and the corresponding **Exhibit B** (Inventions, Confidentiality, Non-Competition and Non-Solicitation Agreement) shall survive the termination of the Executive's employment and/or the expiration or termination of this Agreement, regardless of the reasons for such expiration or termination.

(r) Clawback of Incentive Compensation. Any incentive compensation payable to the Executive under this Agreement or any other agreement shall be subject to any policy, whether in existence as of the Effective Date of this Agreement or later adopted, established by the Company that provides for the clawback or recovery of amounts due to restatement of the Company's financial records or due to fraud or other malfeasance in connection with the eligibility for or calculation of any amounts, that were paid to the Executive under circumstances requiring clawback or recovery as set forth in such policy. The Company shall not apply such policy retroactively to the Executive except to the extent it deems warranted, in good faith, due to the Executive's own fraud or malfeasance. The Company will make any determinations for clawback or recover in its sole discretion and in accordance with such policy and any applicable law or regulations; provided that such policy is generally applicable to other executive officers.

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement effective as of the Effective Date.

EXECUTIVE:	**APPLIED OPTOELECTRONICS, INC.:**
/s/ DAVID C. KUO	By: /s/CHIH-HSIANG LIN
Print Name: David C. Kuo	Its: President and CEO
Date: 2016-8-5	Date: 2016-8-5

EXHIBIT A

WAIVER AND RELEASE

Pursuant to the terms of the Employment Agreement (the "***Agreement***") dated as of _________________, by and between Applied Optoelectronics, Inc., a Delaware corporation, and myself, and in exchange for the salary continuation and benefits payable under the Agreement (the "***Severance Benefits***"), I hereby waive all claims against and release (i) Applied Optoelectronics, Inc., its officers, employees, agents, insurers, predecessors, successors and assigns (collectively referred to as the "***Company***"), (ii) all of the affiliates of the Company and their directors, officers, employees, agents, insurers, predecessors, successors and assigns, and (iii) the Company and its affiliates' employee benefit plans and the fiduciaries and agents of said plans (collectively referred to as the "***Benefit Plans***") from any and all claims, demands, actions, liabilities and damages arising out of or relating in any way to my employment with or separation from employment with the Company and its affiliates other than amounts due pursuant to the Agreement and the rights and benefits I am entitled to under the Benefit Plans. (the Company, its affiliates and the Benefit Plans are sometimes hereinafter collectively referred to as the "***Released Parties***".)

I understand that signing this Waiver and Release is an important legal act. I acknowledge that I have been advised in writing to consult an attorney before signing this Waiver and Release. I understand that, in order to be eligible for the Severance Benefits, I must sign (and return to the Company) this Waiver and Release before I will receive the Severance Benefits. I acknowledge that I have been given at least ___ days to consider whether to accept the Severance Benefits and whether to execute this Waiver and Release.

In exchange for the payment to me of the Severance Benefits, (1) I agree not to sue the Released Parties in any local, state and/or federal court regarding or relating in any way to my employment with or separation from employment with the Company and its affiliates, and (2) I knowingly and voluntarily waive all claims and release the Released Parties from any and all claims, demands, actions, liabilities, and damages, whether known or unknown, arising out of or relating in any way to my employment with or separation from employment with the Company and its affiliates, except to the extent that my rights are vested under the terms of the Agreement or any employee benefit plans sponsored by the Company and its affiliates and except with respect to such rights or claims as may arise after the date this Waiver and Release is executed. This Waiver and Release includes, but is not limited to, claims and causes of action under: Title VII of the Civil Rights Act of 1964, as amended; the Age Discrimination in Employment Act of 1967, as amended, including the Older Workers Benefit Protection Act of 1990; the Civil Rights Act of 1866, as amended; the Civil Rights Act of 1991; the Americans with Disabilities Act of 1990; the Workers Adjustment and Retraining Notification Act of 1988; the Pregnancy Discrimination Act of 1978; the Employee Retirement Income Security Act of 1974, as amended; the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended; the Family and Medical Leave Act of 1993; the Fair Labor Standards Act; the Occupational Safety and Health Act; the Texas Labor Code et. seq.; claims in connection with workers' compensation, retaliation or "whistle blower" statutes; and/or contract, tort, defamation, slander, wrongful termination or any other state or federal regulatory, statutory or common law. Further, I expressly represent that no promise or agreement which is not expressed in this Waiver and Release has been made to me in executing this Waiver and Release, and that I am relying on my own judgment in executing this Waiver and Release, and that I am not relying on any statement or representation of the Company or its affiliates or any of their agents. I agree that this Waiver and Release is valid, fair, adequate and reasonable, is with my full knowledge and consent, was not procured through fraud, duress or mistake and has not had the effect of misleading, misinforming or failing to inform me.

Notwithstanding the foregoing and anything in this Waiver and Release to the contrary, I do not release and expressly retain (a) all rights to payment or providing for post-employment benefits, under the Agreement or employee benefit plans, (b) all rights to indemnity, contribution, and a defense, and directors and officers and other liability coverage that I may have under any statute, Company policy or by this or any other agreement; and (c) the right to any, unpaid reasonable business expenses and any accrued benefits payable under any Company welfare plan or tax-qualified plan.

I acknowledge that payment of the Severance Benefits is not an admission by any one or more of the Released Parties that they engaged in any wrongful or unlawful act or that they violated any federal or state law or regulation. I acknowledge that neither the Company nor its affiliates have promised me continued employment or represented to me that I will be rehired in the future. I acknowledge that my employer and I contemplate an unequivocal, complete and final dissolution of my employment relationship. I acknowledge that this Waiver and Release does not create any right on my part to be rehired by the Company or its affiliates, and I hereby waive any right to future employment by the Company or its affiliates.

I understand that for a period of 7 calendar days following the date that I sign this Waiver and Release, I may revoke my acceptance of this Waiver and Release, provided that my written statement of revocation is received on or before that seventh day by Chih-Hsiang (Thompson) Lin, the Chief Executive Officer at 13139 Jess Pirtle Blvd., Sugar Land, TX 77478, facsimile number: 281-966-6988, in which case the Waiver and Release will not become effective. If I timely revoke my acceptance of this Waiver and Release, the Company shall have no obligation under this Waiver and Release nor the Agreement to provide the Severance Benefits to me. I understand that failure to revoke my acceptance of the offer within 7 calendar days from the date I sign this Waiver and Release will result in this Waiver and Release being permanent and irrevocable.

Should any of the provisions set forth in this Waiver and Release be determined to be invalid by a court, agency or other tribunal of competent jurisdiction, it is agreed that such determination shall not affect the enforceability of other provisions of this Waiver and Release. I acknowledge that this Waiver and Release sets forth the entire understanding and agreement between me and the Company and its affiliates concerning the subject matter of this Waiver and Release and supersede any prior or contemporaneous oral and/or written agreements or representations, if any, between me and the Company or its affiliates.

I understand that the payment of the Severance Benefits, and any negotiations about the Agreement, this Waiver and Release, or the termination and separation of the employment relationship are to be held in absolute confidence and are not to be disclosed in any manner to any person or organization at any time with the exception that the Executive may consult with an advisor or attorney or as otherwise required by law and the exception that the Executive may be required to disclose such information as provided by law. Executive further agrees that the consideration being provided to him by Executive for this Waiver and Release is predicated upon the Executive's agreement to abide by the confidentiality provisions of this paragraph. Executive further agrees that should he be adjudicated to have breached the terms of this paragraph that he will be subject to all legal and equitable relief afforded by law, including the reimbursement of any attorneys' fees and/or expenses by the Company in recovering any such sums of money.

I acknowledge that I have read this Waiver and Release, have had an opportunity to ask questions and have it explained to me and that I understand that this Waiver and Release will have the effect of knowingly and voluntarily waiving any action I might pursue, including breach of contract, personal injury, retaliation, discrimination on the basis of race, age, sex, national origin, or disability and any other claims arising prior to the date of this Waiver and Release. By execution of this document, I do not waive or release or otherwise relinquish any legal rights I may have which are attributable to or arise out of acts, omissions, or events of the Company or its affiliates which occur after the date of the execution of this Waiver and Release.

EXECUTIVE:	**APPLIED OPTOELECTRONICS, INC.:**
______________________________	By: ______________________________
	Its: ______________________________
Date: ______________________________	Date: ______________________________

EXHIBIT B

INVENTIONS, CONFIDENTIALITY,
NON-COMPETITION AND NON-SOLICITATION AGREEMENT

As a condition of employment with Applied Optoelectronics, Inc., a Delaware corporation, its subsidiaries, affiliates, successors, or assigns (together, the "***Company***"), Employee's receipt of compensation now and hereafter paid to Employee by the Company, and in exchange for the Company's agreement to provide Employee with access to the Company's Confidential Information and Trade Secrets (as defined below), Employee and the Company enter into this Inventions, Confidentiality, Non-Competition and Non-Solicitation Agreement (the "***Agreement***"), effective as of the date signed by Employee below.

1 . **Confidential Information and Trade Secrets of Company.** During the term of employment, the Company will provide Employee with access to and the opportunity to become familiar with its confidential information and various trade secrets, including but not limited to any information, data or compilation of information or data developed, acquired or generated by Company, or its employees (including information and materials conceived, originating, discovered, or developed in whole or in part by Executive at the request of or for the benefit of Company or while employed by Company), which is not generally known to persons who are not employees of Company, and which Company generally does not share other than with its employees, or with its customers and suppliers on an individual transactional basis. Confidential Information and Trade Secrets (defined below) may be written, verbal or recorded by electronic, magnetic or other methods, whether or not expressly identified as "Confidential" by Company.

(a) "***Confidential Information and Trade Secrets***" includes, but is not limited to, the following information and materials:

(i) Financial information of any kind pertaining to Company, including, without limitation, information about the profit margins, profitability, pricing, income and expenses of Company or any of its products or lines of business;

(ii) All information about and all communications received from, sent to or exchanged between Company and any person or entity which has purchased, licensed, exchanged or otherwise entered into a transaction with Company, or to which Company has made a proposal with respect to the purchase, sale, license, exchange or other transaction involving any component, products or services which form any part of Company's Business (defined below) (such person or entity being hereinafter referred to as customer or customers);

(iii) Any and all information and records relating to Company's contracts or transactions with, or charges, prices or sales to, its customers, including invoices, proposals, confirmations, bills of ladings, statements, accounting records, bids, payment records or any other information or documents regarding amounts charged to or paid by customers, for any software, products or services which form any part of Company's Business;

(iv) All information regarding Company's scientific, technical or technological information, designs, processes, procedures, formulas, equipment or systems, including without limitation, any components, modules, circuits, software, programs, codes, algorithms, calculations, drawings, plans, or specifications related to the development, design, construction, fabrication, manufacture, operation or furnishing of any software, products, services, or equipment which constitute any part of the Company's Business, including Company Products. As used in this Agreement, "***Company Products***" shall mean any and all computer software, optical component, module, circuitry, equipment, products, services, together with any updates, substitutions, enhancements or modifications thereof, and any user manuals, programming manuals and other documentation of any kind.

(b) "***Company Business***" shall mean the developing and manufacturing of advanced optical devices, including laser diodes, photodiodes, related modules and circuitry, and equipment for applications in fiber-to-the-home, cable television, point to point communications, and wireless.

(c) Executive acknowledges that all notes, data, forms, reference and training materials, leads, memoranda, computer programs, computer print-outs, disks and the information contained in any computer, and any other records which contain, reflect or describe any Confidential Information and Trade Secrets, belong exclusively to Company. Upon the termination of Executive's employment with the Company, Executive shall promptly return such materials and all copies thereof in Executive's possession to Company, regardless of whether such termination is the result of termination for Good Reason or for Cause.

(d) During Executive's employment with Company and thereafter, Executive will not copy, publish, convey, transfer, disclose nor use, directly or indirectly, for Executive's own benefit or for the benefit of any other person or entity (except Company) any Confidential Information and Trade Secrets; provided, that any copying or other prohibited use of Confidential Information and Trade Secrets shall not include copying or otherwise using Confidential Information and Trade Secrets in connection with communications with current or potential customers or vendors that the Executive reasonably expects to have a direct benefit to the Company. Executive will abide by all rules, guidelines, policies and procedures relating to Confidential Information and Trade Secrets implemented and/or amended from time to time by Company.

(e) Executive acknowledges that any actual or threatened breach of the covenants contained herein will cause Company irreparable harm and that money damages would not provide an adequate remedy to Company for any such breach. For these reasons, and because of the unique nature of the Confidential Information and Trade Secrets and the necessity to preserve such Confidential Information and Trade Secrets in order to protect Company's property rights in the event of a breach or threatened breach of any of the provisions herein, Company, in addition to any other remedies available to it at law or in equity, shall be entitled to immediate injunctive relief against Executive to enforce the provisions of this Agreement and shall be entitled to recover from Executive its reasonable attorneys' fees and other expenses incurred in connection with such proceedings.

2 . **Employee Confidentiality Obligations.** Employee agrees to keep all such information confidential and not to disclose any such Confidential Information and Trade Secrets, directly or indirectly, to any third party without the prior express written consent of the Company. Employee also agrees not to use such Confidential Information and Trade Secrets in any way, either during the term of this Agreement or at any time thereafter, except as required in the course of employment with the Company. All such Confidential Information and Trade Secrets, including but not limited to files, records, customer lists, manuals, documents, drawings, specifications, personal notes, personal property, and similar items related to the business of the Company, whether or not prepared by Employee, shall remain the exclusive property of the Company.

3 . **Return of Documents, Equipment, Etc.** Immediately upon the termination of this Agreement or whenever requested by the Company, Employee shall immediately deliver to Human Resources all property of the Company in Employee's possession or under Employee's control, including but not limited to all items listed above and all other records, files, lists, supplies, and personal property of the Company.

4 . **Confidential Data of Customers of the Company.** In the course of performing duties under this Agreement, Employee will have access to and be handling substantial information concerning customers and clients of the Company. All information is considered confidential by the Company and shall not be disclosed, directly or indirectly, to any person or entity prior to termination of this Agreement or thereafter without the prior written consent of the Company.

5 . **Inventions, Patents, and Copyright Works.** Employee recognizes, acknowledges, and agrees that the Company is the owner of certain inventions (whether patentable or not), discoveries, improvements, designs, ideas (whether or not shown or described in writing or reduced to practice) scientific and technical information, data and know-how of any nature including, and in addition to, any Confidential Information and Trade Secrets, and certain trademarks, tradenames, domain names, and copyrightable works including, but limited to, literary works (including all written material), books, brochures, catalogs, manuals, training materials, directories, compilations of information, compilations of inspection or testing procedures, computer programs, software (object and source code), protocols, system architectures, advertisements, artistic and graphic works (including designs, graphs, drawings, blueprints, and other works), recordings, models, photographs, slides, motion pictures, audio-visual works, and the like, regardless of the form or manner in which documented or recorded (collectively, "***Intellectual Property***"). Further, Employee agrees as follows:

(a) Keep Records. Employee agrees to keep and maintain adequate and current written records of all Intellectual Property made by Employee (solely or jointly with others) during the term of employment with the Company. The records will be in the form of notes, sketches, drawings and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times.

(b) Notification of Company. Employee agrees to promptly disclose to the Company all Intellectual Property and other proprietary information which Employee may author, create, make, conceive, or develop, either solely or jointly with others, whether inside or outside normal working hours or on or off Company premises, during the term of employment with the Company.

(c) Transfer of Rights. Employee agrees that all Intellectual Property that Employee develops (in whole or in part, either alone or jointly with others) shall be the sole property of the Company and its assigns, and the Company and its assigns shall be the sole owner of all patents, copyrights, mask-work rights, and registrations and other rights in connection therewith. Employee acknowledges that all original works of authorship that are made by Employee (solely or jointly with others) within the scope of and during the period of employment with the Company shall be considered "works made for hire" under applicable copyright law, to the extent possible. Employee agrees to and does hereby assign, grant, and convey to the Company, its successors and assigns, Employee's entire right, title, and interest in and to all Intellectual Property and other proprietary rights and information which Employee may author, create, make, receive, or develop, either solely or jointly with others, whether inside or outside normal working hours or on or off Company premises, during the term of employment with the Company. To perfect the Company's ownership of such Intellectual Property, Employee hereby assigns to the Company any rights that Employee may have or acquire in such Intellectual Property, including the right to modify such Intellectual Property, and otherwise waives and/or releases all rights of restraint and moral rights in the Intellectual Property.

(d) Assistance in Preparation of Applications. As to all such Intellectual Property, Employee further agrees to assist the Company in every proper way (but at the Company's expense) to obtain and from time to time enforce patents, copyrights, trade secrets, or other intellectual property or propriety rights, mask-work rights or other rights in such Intellectual Property in any and all countries, and Employee will execute all documents for use in applying for and obtaining such rights and enforcing them as the Company may desire, together with any assignments of them to the Company or persons designated by the Company. If the Company is unable for any reason whatsoever to secure Employee's signature to any lawful and necessary document required to apply for or execute any application with respect to such Intellectual Property (including renewals, extensions, continuations, divisions or continuations in whole or in part thereof), Employee hereby irrevocably designates and appoints the Company and its duly authorized officers and agents, as Employee's agents and attorneys-in-fact to act for and in Employee's behalf and to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents, copyrights, trade secrets or other intellectual property or propriety rights, mask work rights or other rights thereon, with the same legal force and effect as if executed by Employee.

6. **Non-Competition and Non-Solicitation of Customers and Clients.** Employee hereby acknowledges and recognizes that, throughout Executive's employment with the Company, Company agrees to give Executive access to certain of its Confidential Information and Trade Secrets (defined above) concerning Company's Business and its employees, customers and customer representatives, suppliers and supplier representatives, and Company's transactional histories as well as information about the logistics, details and expenses of Company in connection with any goods, products or services which form any part of Company's Business. Company agrees to provide this information to Executive in order to allow Executive to perform Executive's

duties under this Agreement, and to develop relationships with customers, customer representatives, suppliers and supplier representatives of the Company.

(a) Company agrees to provide, and to continue to provide, Executive with both specialized knowledge and education in Company's Business, in order to allow Executive to perform Executive's duties in an efficient, proper and effective manner. Such knowledge and education may consist of verbal instructions and information, the furnishing of written materials, consultation and counseling, sales, staff and employee meetings, training sessions and seminars, in addition to formal or informal information and orientation methodologies and procedures. Executive will have access to certain of Company's transactional histories, and the details of prior purchases, sales, trades or exchanges, in order that Executive can learn Company's Business and/or improve Executive's skills, experience and knowledge.

(b) In consideration of Company's employment of Executive as a highly valued employee, the Company's agreement to provide Executive with access to certain Confidential Information and Trade Secrets, and the Company's agreement to provide specialized knowledge and education, Executive agrees to refrain from competing with Company or otherwise engaging in Restricted Activities, as defined below, during the Restricted Period.

(c) Executive agrees that during the term of his employment with Company and for a period of one (1) year after the Executive's employment with the Company terminates (the "***Restricted Period***"), regardless of whether the termination occurs with or without cause and regardless of who terminates this Agreement, Executive will not directly or indirectly, as an employee, officer, director, shareholder, proprietor, agent, partner, recruiter, consultant, independent contractor or in any other individual or representative capacity engage in any of the Restricted Activities within the Restricted Area.

(d) "***Restricted Activities***" means and includes the following:

(i) Conducting, engaging or participating, directly or indirectly, as the chief executive officer or division head, agent, independent contractor, consultant, partner, shareholder, investor, lender, underwriter, supplier, customer or in any other similar capacity, in any business that competes with any part of the Company's Business;

(ii) Recruiting, hiring, and/or attempting to recruit or hire, directly or by assisting others, any other employee, temporary or permanent, contract, part time or full time of the Company. For purposes of this covenant "any other employee" shall refer to employees, consultants or others who are under contract to provide services to the Company and who are still actively employed by, or doing business with, the Company at the time of the attempted recruiting or hiring, or were so employed or doing business at any time within six (6) months prior to the time of such attempted recruiting or hiring; and

(iii) Using, disclosing, publishing, copying, distributing or communicating any Confidential Information and Trade Secrets to, or for the use or benefit of Executive or any other person or entity other than Company.

(e) "***Restricted Area***" shall mean and include each of the following:

(i) The state of Texas;

(ii) Within a one-hundred (100) mile radius of the location of any office, facility or other business location of any customer, customer representative, supplier or supplier representative; and

(iii) Within a one-hundred (100) miles radius of any office, facility or other business location of Company.

(f) The Company and Executive acknowledge that the provisions contained in this Section 6 shall not prevent Executive or Executive's Affiliates from owning solely as an investment, directly or indirectly, securities of any publicly traded corporation engaged in the Company's Business if Executive and Executive's Affiliates do not, directly or indirectly, beneficially own in the aggregate more than 5% of all classes of outstanding equity securities of such entity.

(g) Executive and the Company agree that the limitations as to time and scope of activity to be restrained are reasonable and do not impose a greater restraint on Executive than is necessary to protect the property rights and other business interests of Company.

(h) If Executive fails to comply with, or breaches, or threatens to breach, any of the provisions herein, Company in addition to any other remedies available to it at law or in equity, shall be entitled to immediate injunctive relief to enforce the provisions of this Section 6 and shall be entitled to recover from Executive reasonable attorneys' fees and other expenses incurred by Company in connection with such proceedings.

7 . **Non-Solicitation of Employees.** For a period of one (1) year after Employee's termination of employment, whether by termination of this Agreement or otherwise, and without regard to the reason for such termination of employment, Employee promises and agrees not to solicit any other employee of the Company for any purpose which would directly or indirectly interfere or conflict with the other employee's employment by the Company.

8 . **Extraordinary Remedies and Attorneys' Fees.** The Company and Employee agree that any breach by Employee of any of the provisions or covenants contained in the Agreement would cause irreparable harm and damage to the Company, in an amount that would be difficult to quantify, measure, or ascertain. Therefore, in the event of a breach of this Agreement by Employee, the Company shall be entitled to relief through restraining order, injunction, and all other available remedies, including claims for monetary damages incurred because of such breach. These remedies may be pursued concurrently and in any order, and the pursuit of any of these remedies shall not be deemed to limit the other remedies available to the Company in law or in equity. If any action at law or in equity, including an action for declaratory or injunctive relief, is brought to enforce or interpret the provisions of this Agreement, the prevailing party shall be entitled to recover costs of court and reasonable attorneys' fees from the other party or parties to such action, which fees may be set by the court in the trial of such action or may be enforced in a

separate action brought for that purpose, and which fees shall be in addition to any other relief that may be awarded.

9 . **Survival of Provisions and Covenants.** Each and every provision or covenant contained in this contract shall survive the termination of this Agreement as expressly provided herein, and shall constitute an independent agreement between Employee and the Company. Further, the existence of any claim by Employee against the Company shall not constitute a defense to the enforcement of its rights by the Company.

1 0 . **Severability.** It is the intent and agreement of the parties to this Agreement that, in case any one or more of the provisions of this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein except that this shall not prohibit any modification allowed or agreed upon pursuant to the terms of this Agreement or any right of reformation.

1 1 . **Assignment.** This Agreement is binding upon and shall inure to the benefit of the parties hereto, together with their respective executors, administrators, successors, personal representatives, heirs, and assigns. Notwithstanding the foregoing, the rights, duties and benefits to Employee hereunder are personal to Employee, and no such right or benefit may be assigned by it. The Company shall have the right to assign or transfer this Agreement to its successors or assigns. The terms "successors" and "assigns" shall include any person, corporation, partnership or other entity that buys all or substantially all of Company's assets or all of its stock, or with which Company merges or consolidates. Any purported assignment of this Agreement, other than as provided above, shall be void.

1 2 . **Previously Received Information.** Employee hereby represents to the Company that Employee is under no obligation or agreement that would prevent Employee from becoming an employee of the Company or carrying out the duties of Employee's proposed position of employment with the Company.

13. **Governing Law and Venue.** This Agreement shall be governed by, and construed in accordance with, the procedural and substantive laws of the State of Texas. The Company and Employee irrevocably and unconditionally consent to submit to the exclusive jurisdiction of the state or federal courts located in Harris County, Texas as the sole venue and location for any actions, suits, or proceedings arising out of or relating to any aspect of this Agreement and all issues arising out of or relating to the employment relationship between the Company and Employee.

1 4 . **Employee Acknowledgement.** Employee recognizes and acknowledges that Employee has freely entered into this Agreement for the full consideration expressed herein, the sufficiency and receipt of which Employee hereby acknowledges, and that Employee has had the opportunity to consult with counsel of Employee's choice with full knowledge and careful consideration of the consequences and meaning of execution of this Agreement.

1 5 . **Entire Agreement.** Upon Employee's acceptance, this letter will contain the entire agreement and understanding between Employee and the Company with respect to the matters addressed herein and shall supersede any prior or contemporaneous agreements, understandings, communications, offers, representations, warranties, or commitments by or on behalf of the Company and its affiliates (oral or written). The terms of Employee's employment may in the future be amended, but only in writing signed by both Employee and a duly authorized officer of the Company.

[SIGNATURES ON NEXT PAGE]

AGREED AND ACCEPTED:

APPLIED OPTOELECTRONICS, INC.

By: ______________________________

Its: ______________________________

Date: ______________________________

AGREED AND ACCEPTED:

"EMPLOYEE"

____
Signature

____
Print Name

Date: ______________________________

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated February 28, 2018, with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of Applied Optoelectronics, Inc. on Form 10-K for the year ended December 31, 2017. We consent to the incorporation by reference of said reports in the Registration Statements of Applied Optoelectronics Inc. on Form S-3 (File No. 333-214146) and on Forms S-8 (File No. 333-217871 and File No. 333-192407).

/s/ GRANT THORNTON LLP

Houston, Texas
February 28, 2018

Exhibit 31.1

CERTIFICATION

I, Chih-Hsiang (Thompson) Lin, certify that:

1. I have reviewed this Annual Report on Form 10-K of Applied Optoelectronics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

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

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

Date: February 28, 2018

/s/ CHIH-HSIANG (THOMPSON) LIN
Chih-Hsiang (Thompson) Lin
President, Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Stefan J. Murry, certify that:

1. I have reviewed this Annual Report on Form 10-K of Applied Optoelectronics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: February 28, 2018

/s/ STEFAN J. MURRY
Stefan J. Murry
Chief Financial Officer

Exhibit 32.1

CERTIFICATION

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Section 1350 of Chapter 63 of Title 18 of the U.S. Code (18 U.S.C. § 1350), Chih-Hsiang (Thompson) Lin, President and Chief Executive Officer of Applied Optoelectronics, Inc. (the “Company”), and Stefan J. Murry, Chief Financial Officer of the Company, each hereby certifies that, to the best of his knowledge:

1. The Company’s Annual Report on Form 10-K for the period ended December 31, 2017, to which this Certification is attached as Exhibit 32.1 (the “Annual Report”) fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned have set their hands hereto as of the 28th day of February, 2018.

/s/ CHIH-HSIANG (THOMPSON) LIN	/s/ STEFAN J. MURRY
Chih-Hsiang (Thompson) Lin	Stefan J. Murry
President and Chief Executive Officer	Chief Financial Officer

This certification accompanies the Annual Report to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Applied Optoelectronics, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Annual Report), irrespective of any general incorporation language contained in such filing.