

APPLIED OPTOELECTRONICS, INC.  
Form 10-K  
March 06, 2014

**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, 2013**

**OR**

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

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

**Commission File Number: 001-36083**

**Applied Optoelectronics, Inc.**

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

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

**13115 Jess Pirtle Blvd.**

**Sugar Land, TX 77478**

**(Address of principal executive offices)**

**(281) 295-1800**

**(Registrant's telephone number)**

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

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

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

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act of 1933 Yes  No

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

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

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). Yes  No

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

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

Large accelerated filer  Accelerated filer

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

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

As of June 30, 2013, the last business day of the Registrant's most recently completed second fiscal quarter, the registrant's common stock was not listed on any exchange or over-the-counter market. The Registrant's common stock began trading on the NASDAQ Global Markets on September 26, 2013.

As of January 31, 2014, the Registrant had 12,660,885 outstanding shares of Common Stock.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement for the Registrant's 2013 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, 2013.

**Applied Optoelectronics, Inc.**

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## **PART I**

### **Item 1. Business**

#### **Forward-Looking Information**

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

## **BUSINESS**

### **Overview**

We are a leading, vertically integrated provider of fiber-optic networking products, primarily for three networking end-markets: cable television, or CATV, fiber-to-the-home, or FTTH, and internet data center. We design and manufacture a range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment. In designing products for our customers, we begin with the fundamental building blocks of lasers and laser components. From these foundational products, we design and manufacture a wide range of products to meet our customers' needs and specifications, and such products differ from

each other by their end market, intended use and level of integration. We are primarily focused on the higher-performance segments within all three of our target markets, which increasingly demand faster connectivity and innovation.

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

The CATV market is our largest and most established market, for which we supply a broad array of products including lasers, transmitters and turn-key equipment. In 2012, we were the leading provider of optical components and the second largest provider of subsystems to the CATV industry, according to research firm Ovum Limited, or Ovum. Sales of headend, node and distribution equipment have contributed significantly to our growth in recent years as a result of our ability to meet the needs of CATV equipment vendors who have begun to outsource both the design and manufacture of this equipment. While equipment vendors have relied upon third parties to assemble portions of their products, within the past four 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. 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 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 2013, our revenue was \$78.4 million and our gross margin was 29.4%. We have grown our annual revenue at a CAGR of 33.1% between 2009 and 2013. In the years ended December 31, 2011, 2012, and 2013, we incurred losses of \$5.3 million, \$0.9 million, and \$1.4 million, respectively, and our accumulated deficit at December 31, 2012 and December 31, 2013 was \$81.9 million and \$83.3 million, respectively. In 2013, we earned 60.4% of our total revenue from the CATV market, and 24.7% of our total revenue from the data center market. In 2013, our key customers in the CATV market included Cisco Systems and Biogenomics Corp., a distributor. In 2011, 2012 and 2013, Cisco Systems accounted for 26.8%, 33.2%, and 21.8%, respectively, of our revenue and Biogenomics Corp. accounted for 11.7%, 11.2% and 8.7%, respectively, of our revenue. In 2013, our key customers in the data center market included Amazon and Microsoft. In 2012 and 2013, Amazon accounted for 5.8% and 18.2% of our revenue, respectively, and Microsoft accounted for 2.6% and 6.1% of our revenue, respectively.

## Industry Background

Our three target markets of CATV, FTTH and internet data centers share a common trend of a significant growth in bandwidth consumption, and the corresponding need for network infrastructure improvement to support it.

The prevailing themes in our target markets include:

***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, particularly in countries with less developed CATV networks, such as China.

While equipment vendors have historically only relied upon third parties to assemble portions of their products, within the past four 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.



***Trends in the FTTH Market.*** The FTTH market generally refers to the Passive Optical Networks, or PONs, that telecommunications service providers are deploying. The most commonly deployed PON technology is Gigabit PON, or GPON, which delivers up to 2.5 gigabits per second 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 gigabits per second. One approach that does support true 1 gigabit per second 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.

***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, to optical fiber as a transport medium, typically providing speeds from 10 gigabit to 40 gigabit. In recent years, a number of leading Internet companies have begun to adopt more open internet data center architectures, using a mix of systems and components from a variety of vendors, and in some cases designing their own equipment. For these companies, compatibility of new networking equipment with legacy infrastructure is not as important, and as a consequence, these companies are more willing to work with non-traditional equipment vendors, which creates an open and growing opportunity for optical device vendors.

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.

## **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 deep expertise in high-speed optical, mixed-signal semiconductor and mechanical engineering and our proprietary MBE laser fabrication process to deliver technologically advanced products to our customers.

***Enhance efficiency and cost effectiveness of our customers' supply chain.*** 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:

***Industry-leading position in the CATV market.*** We are the leading provider of optical components and the second largest provider of subsystems to the CATV market, according to Ovum.

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

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

***Proven system design capabilities.*** We have deep 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.

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

## Our Strategy

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

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

***Continue to penetrate the FTTH market.*** We believe our WDM-PON technology is a cost-effective solution for delivering 1 gigabit bandwidth to a home. We intend to capture an increasing share of the FTTH market by delivering 1G asynchronous service to the home through internet service provider customers.

***Continue to penetrate the internet data center market.*** In the internet data center, 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.

***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.

***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.

## 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 MBE fabrication process to make our lasers, rather than MOCVD, the technique most commonly used in optical chip manufacturing by traditional communications optics vendors. 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. 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 using an MBE process to produce 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, 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, service providers 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.

WDM-PON is a term used for a variety of multi-wavelength PON architectures. Various technologies have been utilized by several companies to deploy WDM-PON networks in the past. These existing technologies are generally believed to be too costly to deploy or suffer from operational limitations that limit their use to only certain deployment scenarios. By contrast, we believe our optical hybrid-integration technology can be deployed in a wide range of circumstances due to its lower cost per bit delivered, and as the market migrates to higher bandwidth connections we expect that our solutions will become increasingly attractive. In the internet data center market, we target 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. We believe this segment of the market will grow meaningfully in coming years, and that we are well positioned to capture this business as an independent optics vendor.

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

## **Our Products**

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

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

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

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

Our products mainly differ from each other by their end market, intended use and level of integration. We have over 10,600 product stock-keeping units, or SKUs, including approximately 4,600 component product SKUs, approximately 3,500 module product SKUs and approximately 2,600 equipment product SKUs.

## **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, 2013, we owned a total of 113 U.S. and foreign issued patents, 58 of which were issued in the U.S. and 55 of which were issued in China and Taiwan. Our issued patents will expire between 2018 and 2028.

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. A U.S. trademark registration is also pending for the mark “AAOI.”

## **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 \$6.5 million, \$7.6 million, and \$8.5 million for the years 2011, 2012 and 2013, respectively.

As of December 31, 2013, we had a total of 142 employees working in the R&D department, including 12 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, 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 partnered with our manufacturing locations. In our U.S. facility, we manufacture laser chips (utilizing our MBE process), sub-assemblies and components. The sub-assemblies are used in the manufacture of components by our other manufacturing facilities or sold to third parties as modules. We manufacture our laser chips only within our U.S. facility, where our laser design team is located. In our Taiwan location, we manufacture optical components, such as our butterfly lasers, which incorporate laser chips, sub-assemblies and components manufactured within our U.S. facility. In addition, in our Taiwan location, we manufacture transceivers for the FTTH, internet data center 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 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 9001:2000.

Our products are sold to our customers worldwide and also supply our internal component needs for the transceivers and equipment we manufacture. With a vertically integrated manufacturing process, we produce many of our own laser chips and other parts required to manufacture our optical components. Through this model, we are able to reduce development time and product costs as well as enhance quality control. We incorporate our own components into our

transceivers, subsystems and equipment products wherever possible. In instances where we do not produce components ourselves, we source them from external suppliers and regularly evaluate these relationships in an attempt to reduce risk and lower cost.

We depend on a limited number of suppliers for certain raw materials and components used in our products. We regularly review our vendor relationships in an attempt to mitigate risks and lower costs, especially where we depend on one or two vendors for critical components or raw materials. While maintaining inventories that we believe are sufficient to meet our near-term needs, we strive not to carry significant inventories of 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. To date, we generally have been able to obtain sufficient quantities of quality supplies in a timely manner.

## Customers

Our customers are primarily CATV and telecommunications equipment manufacturers, internet service providers and internet data center operators. 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 2011, 2012, and 2013 we obtained 84.3%, 85.4% and 88.4% of our revenue, respectively, through our direct sales efforts and the remainder of our revenue through our indirect sales channels. Our sales channel partners provide logistical services and day-to-day customer support. Where we sell through an indirect sales channel, we work with the end customer to establish technological specifications for our products. Our equipment customers typically offer our equipment under their brand-name and our equipment is often customized with unique design or performance criteria by each of these customers. We also from time to time offer design or manufacturing services to customers to assist them in more effectively using our products and realizing time-to-market advantages.

In 2013, our products were used by the three largest CATV OEMs, consisting of Cisco Systems, Inc., Arris Group Inc. (which acquired the Motorola Home Business in 2013) and Aurora Networks, a subsidiary of Pace plc (which acquired the Harmonic Inc.'s optical business in 2013 and itself being acquired by Pace plc subsequently). The two customers that contributed most to our revenue in the FTTH market in 2013 were Genexis B.V. and a leading internet service provider. In 2013, our key customers in the internet data center market included Amazon and Microsoft. In 2013, revenue from the CATV market, data center market, FTTH market and other markets provided 60.4%, 24.7% and 5.6%, and 9.3% of our revenue, respectively, compared to 78.6%, 8.3%, 5.8% and 7.3%, respectively in 2012.

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.

## 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 Avago, Inc., EMCORE Corporation, Finisar Corporation, JDS Uniphase Corporation, Mitsubishi, NeoPhotonics Corporation, Oclaro, 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 processes, our vertically integrated model, the performance and reliability of our product offerings and the compelling value we offer to our customers.

## **Employees**

As of December 31, 2013, we employed 1,146 full-time employees, of which 26 held Ph.D. degrees in a science or engineering field. Of our employees, 229 are located in the U.S., 644 are in China, and 273 are in Taiwan. None of our employees are represented by any collective bargaining agreement, but certain employees of our China subsidiary are members of a trade union. We have never suffered any work stoppage and believe that we have satisfactory relations with our employees.

## **Environmental Matters**

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

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

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

## **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 so called dual-use goods that may have both commercial and military applications. A limited number of our products are exported by license under the Export Control Classification Number, or ECCN, of 5A991. Export Control Classification requirements are dependent upon an item's technical characteristics, the destination, the end-use, and the end-user, and other activities of the end-user. Should the 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. Our principal executive offices are located at 13115 Jess Pirtle Blvd., Sugar Land, TX 77478, and our telephone number is (281) 295-1800. Our website address is [www.ao-inc.com](http://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](http://www.ao-inc.com) free of charge, copies of these reports as soon as reasonably practicable after filing these reports with, or furnishing them to, the SEC.

## Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this Annual Report on Form 10-K before purchasing our common stock. 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 2011, 2012 and 2013, our top ten customers represented 76.6%, 77.6%, and 76.9% of our revenue, respectively. In 2013, Cisco Systems, Inc. represented 21.8% of our revenue, Amazon represented 18.2% of our revenue and Biogenomics Corp., a distributor, represented 8.7% of our total revenue. As a result, the loss of, or a significant reduction in orders from any of our key customers would materially and adversely affect our revenue and results of operations. We typically do not have long-term contracts with our customers and instead rely on recurring purchase orders. If our key customers do not continue to purchase our existing products or fail to purchase additional products from us, our revenue would decline and our results of operations would be adversely affected.

Adverse events affecting our key customers could also negatively affect our ability to retain their business and obtain new purchase orders, which could adversely affect our revenue and results of operations. For example, in recent years, there has been consolidation among various network equipment manufacturers and this trend is expected to continue. We are unable to predict the impact that industry consolidation would have on our existing or potential customers. We may not be able to offset any potential decline in revenue arising from the consolidation of our existing customers with revenue from new customers or additional revenue from the merged company.

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

Prior to the sale of new products, our customers typically require us to obtain their approval and qualify our products for use in their applications. Additionally, new customers often audit our manufacturing facilities and perform other evaluations during this 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. 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. If we are unable to qualify and sell any of our new products in volume, on time, or at all, our results of operations may be adversely affected.

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

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

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

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

***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 2011, 2012, and 2013 the CATV market represented 81.4%, 78.6% and 60.4% of our revenue, respectively. In the CATV market, we are relying on expected increasing demand for bandwidth-intensive services and applications such as on-demand television programs, high-definition television channels, or HDTV, social media, peer-to-peer file sharing and online video creation and viewing from network service providers. Without network and bandwidth growth, the need for our products will not increase and may decline, adversely affecting our financial condition and results of operations. Although demand for broadband access is increasing, network and bandwidth growth may be limited by several factors, including an uncertain regulatory environment, high infrastructure costs to purchase and install equipment and uncertainty as to which competing content delivery solution, such as telecommunications, wireless or satellite, will gain the most widespread acceptance. CATV network operators may reduce or forego equipment purchases in anticipation of the availability of next generation DOCSIS3.1 solutions that are expected to be available soon, which may adversely affect our sales. If the trend of outsourcing for the design and manufacture of CATV equipment does not continue, or continues at a slower pace than currently expected, our customers' demand for our design and manufacturing services may not grow as quickly as expected. If expectations for the growth of the CATV market are not realized, our financial condition or results of operations will be adversely affected. In February 2014, Time Warner and Comcast, the two largest CATV providers in the U.S., announced that they agreed to merge. We are unable to predict what impact this transaction, if completed, would have on the CATV market or on our business. 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 FTTH and internet data center markets, and our business could be harmed if these markets do not develop as we expect.***

We have only recently begun offering products to the FTTH and internet data center markets. Our business in these markets is dependent on the deployment of our optical components, modules and subassemblies. In the FTTH market, we are relying on increasing demand for bandwidth-intensive services and telecommunications service providers' acceptance and deployment of WDM-PON as a technology supporting 1 gigabit per second service to the home. In the internet data center market, we are relying on the emergence of new internet data center providers and their adoption of open internet data center architectures that use a mix of systems and components from a variety of vendors, including non-traditional equipment vendors. 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, and internet data centers may elect to use larger vendors that require internet data center operators to purchase the optical modules for their systems from such larger vendors. Also, internet data centers may not expand as much or as quickly as expected and any slowdown in expansion could adversely impact our business and growth prospects. Network and bandwidth growth may be limited by several factors, including an uncertain regulatory environment, high infrastructure costs to purchase and install equipment and uncertainty as to which competing content delivery solution, such as CATV, will gain the most widespread acceptance. In addition, as we enter new markets or expand our product offerings in existing markets, our margins may be adversely affected due to competition in those markets and commoditization of competing products. If our expectations for the growth of these markets are not realized, our financial condition or results of operations will be adversely affected.

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

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

***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.



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

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

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

We have a high fixed cost base due to our vertically integrated business model, including the fact that 938 of our employees as of December 31, 2013 were employed in manufacturing and research and development operations. We may not be able to adjust these fixed costs quickly to adapt to rapidly changing market conditions. Our gross profit and gross margin are greatly affected by our sales volume and volatility on a quarterly basis and the corresponding absorption of fixed manufacturing overhead expenses. In addition, because we are a vertically integrated manufacturer, insufficient demand for our products may subject us to the risk of high inventory carrying costs and increased inventory obsolescence. Given our vertical integration, the rate at which we turn inventory has historically been low when compared to our cost of sales. We do not expect this to change significantly in the future and believe that we will have to maintain a relatively high level of inventory compared to our cost of sales. As a result, we continue to expect to have a significant amount of working capital invested in inventory. We may be required to write down inventory costs in the future and our high inventory costs may have an adverse effect on our gross profits and our results of operations.

***We have a history of losses which may continue in the future.***

We have a history of losses and we may incur additional losses in future periods. In the years ended December 31, 2011, 2012 and 2013, we experienced net losses of \$5.3 million, \$0.9 million and \$1.4 million, respectively. As of December 31, 2012 and December 31, 2013, our accumulated deficit was \$81.9 million and \$83.3 million, respectively. These losses were due to expenditures made to expand our business, including expenditures for hiring additional research and development and sales and marketing personnel, and expenditures to expand and maintain our manufacturing facilities and research and development operations. We expect to continue to make significant expenditures related to our business, including expenditures for hiring additional research and development and sales and marketing personnel, and expenditures to maintain and expand our manufacturing facilities and research and development operations. In addition, we have incurred significant additional time demands and legal, accounting and other expenses since we became a public company in September 2013. Our management and other personnel devote a substantial amount of time to complying with the applicable rules and requirements of being a public company.

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

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

- the timing, size and mix of sales of our products;

fluctuations in demand for our products, including the increase, decrease, rescheduling or cancellation of significant customer orders;

our ability to design, manufacture and deliver products to our customers in a timely and cost-effective manner and that meet customer requirements;

- new product introductions and enhancements by us or our competitors;
- the gain or loss of key customers;
- the rate at which our present and potential customers and end users adopt our technologies;

- changes in our pricing and sales policies or the pricing and sales policies of our competitors;
- quality control or yield problems in our manufacturing operations;
- 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 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. Certain 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 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, Chief Strategy Officer, Senior Vice President of Network Equipment Module Business Unit 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 and manufacturing. 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.

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

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

cover our costs arising from defects in our products or otherwise.

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

We currently derive, and expect to continue to derive, a significant portion of our revenue from sales to international customers. In 2011, 2012 and 2013, 52.2%, 55.7% and 41.0% of our revenue was derived from sales that occurred outside of North America, respectively. In addition, a significant portion of our manufacturing operations is based in Ningbo, China and Taipei, Taiwan. Our international revenue and operations are subject to a number of material risks, including:

- difficulties in staffing, managing and supporting operations in more than one country;
- difficulties in enforcing agreements and collecting receivables through foreign legal systems;
- fewer legal protections for intellectual property in foreign jurisdictions;

- foreign and U.S. taxation issues and international trade barriers;

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

- fluctuations in foreign economies;

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

- trade and travel restrictions;

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

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

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

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

Our business operations conducted in China and Taiwan are important to our success. A substantial portion of our property, plant and equipment is located in China and Taiwan. We expect to make further investments in China and Taiwan in the future. Therefore, our business, financial condition, results of operations and prospects are subject to economic, political, legal, and social events and developments in China and Taiwan. China does not recognize the sovereignty of Taiwan. Although significant economic and cultural relations have been established during recent years between China and Taiwan, relations have often been strained and the government of China has previously threatened to use military force to gain control over Taiwan. Factors affecting military, political or economic conditions in China and Taiwan could have a material adverse effect on our financial condition and results of operations, as well as the market price and the liquidity of our common shares.



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

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

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

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

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

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

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

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

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

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

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

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

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

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

***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, 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. While the international reaction to the RMB revaluation has generally been positive, there remains significant international pressure on the Chinese government to adopt an even more flexible currency policy, which may result in a further and more significant appreciation of the RMB against 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 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 our manufacturing facility in Ningbo, China, has from time to time, suffered electrical outages. Any disruption in our manufacturing facilities arising from these and other natural disasters or other catastrophic events could cause significant delays in the production or shipment of our products until we are able to shift production to different facilities or arrange for third parties to manufacture our products. We may not be able to obtain alternate capacity on favorable terms or at all. Our property insurance coverage with respect to natural disaster is limited and is subject to deductible and coverage limits. Such coverage may not be adequate or continue to be available at commercially reasonable rates and terms. The occurrence of any of these circumstances may adversely affect our financial condition and results of operation.

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

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

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

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

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

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

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

• obtain from a third party claiming infringement a license to the relevant technology, which may not be available on reasonable terms, or at all;

- stop manufacturing, selling, incorporating or using our products that use the challenged intellectual property;

- pay substantial monetary damages; or

• expend significant resources to redesign the products that use the technology and to develop non-infringing technology.

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

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

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



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

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

Preparing our consolidated financial statements involves a number of complex manual and automated processes, which are dependent upon individual data input or review and require significant management judgment. One or more of these elements may result in errors that may not be detected and could result in a material misstatement of our consolidated financial statements. We have not performed an evaluation of our internal control over financial reporting, such as would be required by Section 404 of the Sarbanes-Oxley Act, nor have we engaged our independent registered public accounting firm to perform an audit of our internal control over financial reporting. In addition, for so long as we qualify as an “emerging growth company” under the JOBS Act, which may be up to five years following our initial public offering in September 2013, we will not have to provide an auditor’s attestation report on our internal controls in future annual reports on Form 10-K as otherwise required by Section 404(b) of the Sarbanes-Oxley Act. During the course of any evaluation, documentation or attestation, we or our independent registered public accounting firm may identify weaknesses and deficiencies that we may not otherwise identify in a timely manner or at all as a result of the deferred implementation of this additional level of review.

In connection with the audit of our financial statements for the period ended December 31, 2012, we identified a material weakness related to the inappropriate recording of certain inventory returned for re-work in China as a reduction in cost of sales. We remediated this material weakness in 2013 and we did not identify any material weaknesses in connection with the audit of our financial statements for the period ended December 31, 2013.

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

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

As of December 31, 2013, we had U.S. accumulated net operating losses, or NOLs, of approximately \$65.7 million for U.S. federal income tax purposes. We also had research and development credit carry forwards totaling \$1.6 million as of December 31, 2013, which begin to expire in 2020. 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. An ownership change is generally defined as a greater than 50% change in equity ownership by value over a 3-year period. Based upon an analysis of our equity ownership, we have experienced an ownership change and our NOL carry forwards are limited in dollar amount. As of December 31, 2013, of the total accumulated NOL, only \$40.3 million is available for utilization in 2014 and thereafter to shelter federal taxable income. Each year after 2014, an additional \$0.3 million is added to the total available NOL, until a maximum of \$43.9 million is reached. The amount of NOL available each year may decrease by the amount of NOL utilized and may increase by the amount of any operating losses incurred. Should we experience additional ownership changes, our NOL carry forwards may be further limited.

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

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

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

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

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

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

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

We are subject to export and import control laws, trade regulations and other trade requirements that limit which products we sell and where and to whom we sell our products. Specifically, the Bureau of Industry and Security of the

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

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

We design our products to conform to regulations established by governments and to standards set by industry standards bodies worldwide, such as The American National Standards Institute, the European Telecommunications Standards Institute, the International Telecommunications Union and the Institute of Electrical and Electronics Engineers, Inc. Various industry organizations are currently considering whether and to what extent to create standards applicable to our products. Because certain of our products are designed to conform to current specific industry standards, if competing or new standards emerge that are preferred by our customers, we would have to make significant expenditures to develop new products. If our customers adopt new or competing industry standards with which our products are not compatible, or the industry groups adopt standards or governments issue regulations with which our products are not compatible, our existing products would become less desirable to our customers and our revenue and results of operations would suffer.

***Customer demands and new regulations related to conflict-free minerals may adversely affect us.***

The Dodd-Frank Wall Street Reform and Consumer Protection Act imposes new disclosure requirements regarding the use of “conflict” minerals mined from the Democratic Republic of Congo and adjoining countries in products, whether or not these products are manufactured by third parties. These new requirements could affect the pricing, sourcing and availability of minerals used in the manufacture of our products. Certain of our customers are requiring additional information from us regarding the origin of our raw materials, and complying with these customer requirements may cause us to incur additional costs, such as costs related to determining the origin of any minerals used in our products. Our supply chain is complex and we may be unable to verify the origins for all metals used in our products. We may also encounter challenges with our customers and stockholders if we are unable to certify that our products are conflict free.

## **Risks Related to Our Operations in China**

***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 new and high technology enterprises. The preferential rate applies to calendar years 2012, 2013 and 2014. We have not yet realized benefits from this reduction in tax rate because we have not yet generated taxable 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.

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

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

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

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

The China Labor Contract Law, together with its implementing rules, provides increased rights to Chinese employees. Previously, an employer had discretionary power in deciding the probation period, not to exceed six months.



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

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

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

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

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

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

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

## **Risks Related to Our Common Stock**

***Our executive officers and directors own a significant percentage of our stock and have significant control of our management and affairs, and they can take actions that may be against your best interests.***

As of January 31, 2014, our executive officers and directors, and entities that are affiliated with them, beneficially own an aggregate of approximately 5.2% of our outstanding common stock. As a result, these stockholders, acting together, may have significant influence over our management and affairs and matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, such as mergers, consolidations or the sale of substantially all of our assets. Consequently, this concentration of ownership may have the effect of delaying or preventing a change in control, including a merger, consolidation or other business combination involving us, or discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control, even if such a change in control would benefit our other stockholders.

***Our stock price could decline due to the large number of outstanding shares of our common stock eligible for future sale.***

Sales of substantial amounts of our common stock in the public market, or the perception that these sales could occur, could cause the market price of our common stock to decline. These sales could also make it more difficult for us to sell equity or equity-related securities in the future at a time and price that we deem appropriate.

As of January 31, 2014, we had an aggregate of 12,660,885 shares of common stock outstanding, assuming no exercise of outstanding options or warrants. The 3,600,000 shares sold pursuant to our initial public offering are immediately tradable without restriction. Of the remaining shares outstanding, approximately 8.8 million shares will be eligible for sale upon the expiration of lock-up agreements, subject in some cases to volume and other restrictions of Rule 144 under the Securities Act. The lock-up agreements expire 180 days after September 25, 2013, subject to potential extensions in the event we release earning results or material news or a material event relating to us occurs near the end of the lock-up period and in the event that we cease to be an emerging growth company. Raymond James & Associates, Inc. and Piper Jaffray & Co., as representatives of the underwriters, may, in their sole discretion and at any time without notice, release all or any portion of the securities subject to lock-up agreements.

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

We currently do not plan to declare or pay dividends on shares of our common stock in the foreseeable future. In addition, the terms of our loan and security agreement with East West Bank restrict our ability to pay dividends.

***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, the provisions of Section 203 of the Delaware General Corporate Law governs us. 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. See “Description of Capital Stock—Preferred stock” and “Description of Capital Stock—Anti-takeover effects of Delaware law.”

***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.

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

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

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

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

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

We are an emerging growth company within the meaning of the rules under the Securities Act. We have in this Annual Report on Form 10-K utilized, and we plan in future filings with the SEC to continue to utilize, the modified disclosure requirements available to emerging growth companies, including reduced disclosure about our executive

compensation and omission of compensation discussion and analysis, and an exemption from the requirement of holding a nonbinding advisory vote on executive compensation and an exemption from the requirement that outside auditors attest as to our internal control over financial reporting. As a result, our stockholders may not have access to certain information they may deem important.

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

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

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

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



**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)                      | 23,850                     | Administration, sales, manufacturing, research and development |
| Sugar Land, Texas | May 31, 2015                   | 7,066                      | Research and development                                       |
| Ningbo, China     | Owned (2)                      | 458,849                    | Administration, sales, manufacturing, research and development |
| Taipei, Taiwan    | March 31, 2015 (3)             | 55,269                     | Administration, sales, manufacturing, research and development |

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(1) The property is subject to a mortgage in favor of East West Bank, securing our short-term debt obligations.

Our China subsidiary acquired the land use rights to the real property on which our new facility is located from the (2) Chinese government. The land use rights expire on October 7, 2054. Our China subsidiary owns the facility located on the property.

(3) Leases covering four floors expire on March 31, 2015.

In 2013, we expanded the amount of square footage utilized by our Taiwan facility, adding a fourth floor to our then existing lease space. We believe that our existing facilities are adequate to meet our needs in 2014, and that we will be able to obtain additional commercial space as needed. To meet planned growth in 2015, we plan in late 2014 to investigate expansion of our laser fabrication facilities in Sugar Land, Texas, and expansion of our transceiver manufacturing facilities in Taipei, Taiwan.

**Item 3. Legal Proceedings**

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

**Item 4. Mine Safety Disclosure**

Not Applicable.

**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 January 31, 2014, there were 359 holders of record of our common stock (not including beneficial holders of our common stock holder in street name). The following table sets forth, for the periods indicated, the high and low sales prices of our common stock as reported by the NASDAQ Global Market.

|   | High     | Low     |
|---|----------|---------|
| Fiscal Year 2013:                       |          |         |
| Third Quarter (from September 26, 2013) | \$ 10.44 | \$ 9.37 |
| Fourth Quarter                          | \$ 16.61 | \$ 9.07 |

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

On September 25, 2013, our registration statement on Form S-1 (File No. 333-190591) for our initial public offering was declared effective by the Securities and Exchange Commission. The offering commenced on September 26, 2013. We sold 3,600,000 shares of our common stock at a price to the public of \$10.00 per share and the transaction was completed on October 1, 2013. Raymond James & Associates, Inc. and Piper Jaffray & Co. were the managing underwriters.

We received net proceeds of \$31.5 million after deducting underwriting discounts and commissions of \$2.5 million and other offering expenses of approximately \$2.0 million. On October 22, 2013, the underwriters exercised their over-allotment option and selling stockholders sold 540,000 shares of common stock at the same price. No such discounts, commissions or offering expenses were paid by us to directors, officers or persons owning ten percent or more of our common stock or to their associates, or to our affiliates.

There has been no material change in the planned use of proceeds from our initial public offering as described in our final prospectus filed with the SEC pursuant to Rule 424(b). As of December 31, 2013, we had used \$16.8 million of the net proceeds for working capital, the continued expansion of our existing business and general corporate purposes including the repayment of outstanding indebtedness.

## 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 prohibit us from paying dividends.

**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, 2011, 2012 and 2013 and the consolidated balance sheet data as of December 31, 2012 and 2013 from our consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K. Our historical results are not necessarily indicative of the results to be expected in the future and results of interim periods are not necessarily indicative of results for the entire year.

|   | Years ended December 31,                        |          |          |          |            |
|---|---|----------|----------|----------|------------|
|   | 2009  | 2010     | 2011     | 2012     | 2013       |
| Consolidated Statements of Operations Data:   | (in thousands, except share and per share data) |          |          |          |            |
| Revenue   | \$24,969  | 40,489   | 47,840   | 63,421   | \$78,424   |
| Cost of goods sold (1)  | 21,525  | 27,539   | 34,468   | 44,492   | 55,396     |
| Gross profit  | \$3,444   | 12,950   | 13,372   | 18,929   | \$23,028   |
| Operating expenses:   |   |          |          |          |            |
| Research and development (1)  | 5,707   | 5,176    | 6,451    | 7,603    | 8,512      |
| Sales and marketing (1)   | 2,018   | 1,993    | 2,412    | 3,135    | 4,191      |
| General and administrative (1)  | 7,298   | 8,382    | 8,243    | 8,012    | 10,632     |
| Asset impairment charges  | —   | 492      | —        | —        | —          |
| Total operating expenses  | \$15,023  | 16,043   | 17,106   | 18,750   | \$23,335   |
| Income (loss) from operations   | (11,579 )                                       | (3,093 ) | (3,734 ) | 179      | (307 )     |
| Interest and other income (expense), net:   |   |          |          |          |            |
| Interest income   | 7   | 34       | 15       | 26       | 104        |
| Interest expense  | (1,038 )  | (906 )   | (1,338 ) | (1,381 ) | (1,125 )   |
| Other income (expense), net   | 68  | 585      | (271 )   | 231      | (78 )      |
| Total interest and other income (expense), net  | \$(963 )  | (287 )   | (1,594 ) | (1,124 ) | \$(1,099 ) |
| Loss before income taxes  | (12,542 )                                       | (3,380 ) | (5,328 ) | (945 )   | (1,406 )   |
| Benefit from (provision for) income taxes   | 38  | —        | —        | —        | —          |
| Net loss attributable to common stockholders  | \$(12,504 )                                     | (3,380 ) | (5,328 ) | (945 )   | \$(1,406 ) |
| Net loss per share attributable to common stockholders:   |   |          |          |          |            |
| Basic and diluted   | \$(48.39 )                                      | (13.06 ) | (20.21 ) | (3.56 )  | \$(0.14 )  |
| Weighted average shares used to compute net loss per share attributable to common stockholders: |   |          |          |          |            |
| Basic and diluted   | 258,414   | 258,901  | 263,658  | 265,576  | 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. Share-based compensation expense is recognized over the vesting period of the stock options and was included in cost of goods sold and operating expenses as follows:

|  | Years ended  |       |         |
|--|--------------|-------|---------|
|  | December 31, |       |         |
|  | 2011         | 2012  | 2013    |
| Cost of goods sold                     | \$35         | \$7   | \$56    |
| Research and development               | 50           | 8     | 53      |
| Sales and marketing                    | 58           | 9     | 52      |
| General and administrative             | 420          | 137   | 907     |
| Total share-based compensation expense | \$563        | \$161 | \$1,068 |

|   | Years ended December 31, |          |          |          |           |
|---|--------------------------|----------|----------|----------|-----------|
|   | 2009                     | 2010     | 2011     | 2012     | 2013      |
|   | <b>(in thousands)</b>    |          |          |          |           |
| Consolidated balance sheet data:                  |                          |          |          |          |           |
| Cash, cash equivalents and short-term investments | 2,867                    | 4,643    | 2,074    | \$11,226 | 30,751    |
| Working capital (1)                               | 7,511                    | (2,322 ) | (1,911 ) | 13,669   | 38,879    |
| Total assets                                      | 45,560                   | 52,934   | 53,723   | 65,748   | 111,057   |
| Total debt (2)                                    | 14,300                   | 23,071   | 22,597   | 24,584   | 28,455    |
| Convertible preferred stock                       | 90,423                   | 90,423   | 94,373   | 105,367  | –         |
| Common stock and additional paid-in-capital       | 3,939                    | 4,723    | 5,303    | 5,542    | 144,036   |
| Total deficit                                     | (72,263)                 | (75,643) | (80,972) | (81,917) | (83,323 ) |

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

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

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

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

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

#### **Overview**

We are a leading, vertically integrated provider of fiber-optic networking products. We target three networking end-markets: CATV, FTTH and internet data centers. 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 CATV, FTTH and internet data center markets which increasingly demand faster connectivity and innovation. Our vertically integrated manufacturing model provides us several advantages, including rapid product development, fast response times to customer requests and control over product quality and manufacturing costs.

The three end markets we target are all driven by significant bandwidth demand fueled by the growth of network-connected devices, video traffic, cloud computing and online social networking. Within the 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. Within the internet data center market, we benefit from the increasing use of higher-capacity optical networking technology as a replacement for copper cables, particularly as speeds reach 10 gigabits per second and above, as well as the movement to open internet data center architectures and the increasing use of in-house equipment design among leading internet companies.



We sell our products to leading original equipment manufacturers, or OEMs, in the CATV and FTTH markets as well as internet data center operators. In 2013, we earned 60.4% of our total revenue from the CATV market, and 24.7% of our total revenue from the data center market. In 2013, our key customers in the CATV market included Cisco Systems and Biogenomics Corp., a distributor. In 2011, 2012 and 2013, Cisco Systems accounted for 26.8%, 33.2%, and 21.8%, respectively, of our revenue and Biogenomics Corp. accounted for 11.7%, 11.2% and 8.7%, respectively, of our revenue. In 2013, our key customers that contributed most to our FTTH revenue were Genexis B.V. and a leading internet service provider, which accounted for 2.8% and 2.0% of our total revenue, respectively. In 2013, our key customers in the data center market included Amazon and Microsoft. In 2012 and 2013, Amazon accounted for 5.8% and 18.2% of our revenue, respectively, and Microsoft accounted for 2.6% and 6.1% of our revenue, respectively. In 2013, revenue from the CATV market, data center market, FTTH market and other markets provided 60.4%, 24.7%, 5.6%, and 9.3% of our revenue, respectively, compared to 78.6%, 8.3%, 5.8% and 7.3% of our 2012 revenue, respectively.

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

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

In 2011, 2012 and 2013, we had 11, 15 and 17 design wins, respectively. We define a design win as the successful completion of the evaluation stage, where our customer has tested our product, verified that our product meets substantially all of their requirements and has informed us that they intend to purchase the product from us. Although we believe that our ability to obtain design wins is a key strength and can provide meaningful and recurring revenue, an increase or decrease in the mere number of design wins does not necessarily correlate to a likely increase or decrease in revenue, particularly in the short term. As such, the number of design wins we achieve on a quarterly or annual basis and any increase or decrease in design wins will not necessarily result in a corresponding increase or decrease in revenue in the same or immediately succeeding quarter or year. For example, if our total number of design wins in an annual or quarterly period increases or decreases compared to the total number of design wins in a prior period, this does not necessarily mean that our revenue in such period will be higher or lower than our revenue in the prior period. In fact, our experience is that some design wins result in significant revenue and some do not, and the timing of such revenue is difficult to predict as it depends on the success of the end customer's product that uses our components. Thus, some design wins result in orders and significant revenue shortly after the design win is awarded and other design wins do not result in significant orders and revenue for several months or longer after the initial design win (if at all). We do believe that over a period of years the collective impact of design wins correlates to our overall revenue growth.

We believe we have an attractive financial profile, with strong revenue performance and control over our manufacturing costs through our vertically integrated manufacturing model. While we have incurred substantial losses since our inception, and as of December 31, 2013 had an accumulated deficit of \$83.3 million, we achieved profitability (net income on a GAAP basis) in the third quarter of 2013 and recorded a slight loss (\$0.5 million) in the fourth quarter of 2013. We have grown our revenue at a 33.1% CAGR between 2009 and 2013, including 23.7% growth year-over-year from 2012 to 2013.



## Factors Affecting Our Performance

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

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

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

*Decreasing Customer Concentration within End Markets.* Historically, our revenue has been significantly concentrated within the CATV market and among a few customers within this market. Over the past two years, we have developed new products within the FTTH and internet data center markets. 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. Although the CATV market is our largest market today, we anticipate that sales in the FTTH and internet data center markets will account for a more significant percentage of our total revenue in the future. We believe that our entry into the FTTH and internet data center markets with new customers and with new products will continue to facilitate revenue growth and customer diversification.

*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 CATV, FTTH and internet data center 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. We also anticipate that our revenue derived from the FTTH and internet data center markets will increase as a percentage of our revenue as we further penetrate and extend our products into these markets. The following chart provides the revenue contribution from each of the markets we serve for the years 2011, 2012 and 2013 , as well as the corresponding percentage of our total revenue for each period:

| Market                             | Mar.<br>31,<br>2011 | Jun. 30,<br>2011 | Sep.<br>30,<br>2011 | Dec.<br>31,<br>2011 | Mar.<br>31,<br>2012 | Jun. 30,<br>2012 | Sep.<br>30,<br>2012 | Dec.<br>31,<br>2012 | Mar.<br>31,<br>2013 | Jun. 30,<br>2013 | Sep.<br>30,<br>2013 | Dec.<br>31,<br>2013 |
|------------------------------------|---------------------|------------------|---------------------|---------------------|---------------------|------------------|---------------------|---------------------|---------------------|------------------|---------------------|---------------------|
| (in thousands, except percentages) |                     |                  |                     |                     |                     |                  |                     |                     |                     |                  |                     |                     |
| CATV                               | 7,422               | 9,228            | 9,878               | 12,411              | 9,760               | 13,274           | 13,530              | 13,277              | 8,259               | 10,514           | 14,559              | 14,041              |
| Datacenter                         | –                   | –                | 14                  | –                   | 670                 | 647              | 977                 | 2,998               | 3,620               | 6,640            | 3,216               | 5,910               |
| FTTH                               | 907                 | 552              | 752                 | 1,103               | 1,063               | 417              | 698                 | 1,512               | 1,087               | 705              | 982                 | 1,603               |
| Other                              | 1,178               | 1,709            | 1,450               | 1,236               | 1,012               | 1,299            | 1,211               | 1,074               | 1,351               | 1,738            | 2,009               | 2,190               |
| Total                              | 9,507               | 11,489           | 12,094              | 14,750              | 12,505              | 15,637           | 16,416              | 18,861              | 14,317              | 19,597           | 20,766              | 23,744              |

|            | Percentage of Revenue |        |        |        |        |        |        |        |        |        |        |        |
|------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| CATV       | 78.1%                 | 80.3%  | 81.7%  | 84.1%  | 78.0%  | 84.9%  | 82.4%  | 70.4%  | 57.7%  | 53.7%  | 70.3%  | 59.1%  |
| Datacenter | 0.0%                  | 0.0%   | 0.1%   | 0.0%   | 5.4%   | 4.1%   | 6.0%   | 15.9%  | 25.3%  | 33.9%  | 15.5%  | 24.9%  |
| FTTH       | 9.5%                  | 4.8%   | 6.2%   | 7.5%   | 8.5%   | 2.7%   | 4.2%   | 8.0%   | 7.6%   | 3.6%   | 4.7%   | 6.7%   |
| Other      | 12.4%                 | 14.9%  | 12.0%  | 8.4%   | 8.1%   | 8.3%   | 7.4%   | 5.7%   | 9.4%   | 8.8%   | 9.5%   | 9.3%   |
| Total      | 100.0%                | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

In 2011, 2012, and 2013, our top ten customers represented 76.6%, 77.6% and 76.9% of our revenue, respectively. While the percentage earned from our top ten customers remained consistent, the increase in data center revenue, from 8.3% in 2012 to 24.7% in 2013 resulted in more diversification across our top ten customers. In 2013, our key customers in the CATV market included Cisco Systems, Biogenomics Corp., a distributor in China, and Aurora Networks. In 2011, 2012 and 2013, Cisco Systems accounted for 26.8%, 33.2%, and 21.8%, respectively, of our revenue and Biogenomics Corp. accounted for 11.7%, 11.2% and 8.7%, respectively, of our revenue. In 2013, our key customers in the data center market included Amazon and Microsoft. In 2012 and 2013, Amazon accounted for 5.8% and 18.2% of our revenue, respectively, and Microsoft accounted for 2.6% and 6.1% of our revenue, respectively.

In 2013, our key customers that contributed most to our FTTH revenue were Genexis B.V. and a leading internet service provider, which accounted for 2.8% and 2.0% of our total revenue, respectively.

Revenue is recognized when the product is shipped and title has transferred to the customer. We bear all costs and risks of loss or damage to the goods up to that point. On most orders, our terms of sale provide that title passes to the customer upon placement by us with a common carrier (upon shipment). A majority of our annual sales are denominated in U.S. dollars, but some sales from our Taiwan location and China-based subsidiary are denominated in NT dollars and RMB, respectively. For the year ended December 31, 2013, 17.4% of our total revenue was derived from our China-based subsidiary, with \$6.3 million denominated in RMB, \$2.0 million sold directly by our Taiwan location and an immaterial amount denominated in NT dollars. We expect a similar portion of our sales to be denominated in foreign currencies in 2014.

During 2013, our average sales price across our product lines declined less than 8.0% compared to 2012. Certain of our competitors in the optical industry, who may have narrower market focus than us or broader product lines within a

market, have publically stated that they typically experience annual price declines of 10-15%. Revenue from period to period is driven by the volume of shipments and may be impacted by pricing pressures, among other factors.

*Cost of goods sold and gross margin*

Our cost of goods sold consists of material costs, direct labor, allocated overhead and periodic cost variances, including reserves for excess and obsolete inventory, with each representing approximately 65.1%, 12.6%, 17.3%, 5.0% of our total cost of goods sold, respectively, in 2013.

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

We manufacture our products in all three of our facilities in the U.S., Taiwan and China. Generally, laser chips and optical components are manufactured in our U.S. facility, optical components and subassemblies are manufactured in our Taiwan facility, and equipment is manufactured in our China facility. Because of our vertical integration model, we utilize our own 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 28.0% and 32.9%, 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 sell similar products to different geographic regions at different prices, and therefore realize different gross margins among those similar products. We generally realize a lower gross margin in sales to Asian markets. Our strategy is to improve our gross margins through vertical integration such as utilization of our own laser chips and optical sub-components in our solutions. We expect that our gross margins are likely to continue to fluctuate from quarter to quarter because of the variety of products we sell and the relative product mix within a quarter.

### *Operating expenses*

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

*Research and development.* Research and development, or R&D, expense consists primarily of personnel costs, including share-based compensation for R&D personnel, and R&D work orders (that include material, direct labor and allocated overhead), as well as allocated development costs, such as engineering services, software and hardware tools, depreciation of capital equipment and facility costs. We record all research and development expense as incurred. Customers rely upon us to assist them with the development of new products and modification of existing



products because of our extensive optical design and manufacturing expertise. We work closely with our customers in the critical design phase of product development, and are often reimbursed for those development efforts. By virtue of our overseas R&D operations and by focusing on customer-specific projects, our research and development expenses have tended to represent a lower percentage of revenue compared to some of our competitors. In the future, we expect research and development expense to increase on a dollar basis, but continue to decline as a percentage of revenue, to the extent our revenue increases over time.

*Sales and marketing.* Sales and marketing expense consists primarily of personnel costs, including stock 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 2013. 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 2013. 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 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 in the short term, as we develop the infrastructure necessary to operate as a public company, 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 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 conduct our business globally. However, our operating income is subject to varying rates of tax in the U.S., Taiwan and China. Consequently, our effective tax rate is dependent upon 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. Our effective U.S. federal income tax rate was 0% in the past three years as we have incurred operating losses. At December 31, 2013, our U.S. accumulated net operating loss, or NOL, was \$65.7 million. As we earn profits in the U.S., we expect to reduce our cash tax obligations by the utilization of NOL carry forwards. Our NOL benefits expire over the twelve-year period from 2020 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 and our NOL carry forwards are limited in dollar amount. As of December 31, 2013, of the total accumulated NOL only \$40.3 million is available for utilization in 2014 and thereafter to shelter federal taxable income. Each year after 2014, an additional \$0.3 million is added to the total available NOL, until a maximum of \$43.9 million is reached. The amount of NOL available each year may decrease by the amount of NOL utilized and may increase by the amount of any operating losses incurred. Should we experience additional ownership changes our NOL carry forwards may be further limited.

Our 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 2011. In 2011, Global Technology, Inc. renewed its National high-tech enterprise certificate and was therefore extended its three year tax preferential status from November 2011 to November 2014.

For 2011 and 2012, there were no identified uncertain tax positions. During 2013, our liabilities for uncertain tax positions increased by \$2.2 million based on tax positions related to our net operating loss carryforwards. As of December 31, 2013, we had \$2.2 million, of unrecognized tax benefits on net operating loss carryforwards that must be certified under the dual consolidated loss rules. If recognized, there would be no impact our effective tax rate as a result of the full valuation allowance previously recognized. We believe that it is reasonably possible that \$0 of our remaining unrecognized tax positions may be recognized by the end of 2014 as a result of a lapse of the statute of limitations.

## 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.

|                               | <b>Years ended December 31,</b> |             |             |
|-------------------------------|---------------------------------|-------------|-------------|
|                               | <b>2011</b>                     | <b>2012</b> | <b>2013</b> |
| Revenue, net                  | 100.0%                          | 100.0%      | 100.0%      |
| Cost of goods sold            | 72.0%                           | 70.2%       | 70.6%       |
| Gross profit                  | 28.0%                           | 29.8%       | 29.4%       |
| Operating expenses            |                                 |             |             |
| Research and development      | 13.5%                           | 12.0%       | 10.9%       |
| Sales and marketing           | 5.0%                            | 4.9%        | 5.3%        |
| General and administrative    | 17.2%                           | 12.6%       | 13.6%       |
| Total operating expenses      | 35.8%                           | 29.6%       | 29.8%       |
| Income (loss) from operations | -7.8%                           | 0.3%        | -0.4%       |
| Other income (expense)        |                                 |             |             |
| Interest expense              | -3.3%                           | -1.8%       | -1.4%       |
| Other income (expense), net   | 0.0%                            | 0.0%        | 0.0%        |
| Total other expense           | -3.3%                           | -1.8%       | -1.4%       |
| Loss before income taxes      | -11.1%                          | -1.5%       | -1.8%       |
| Income taxes                  | 0.0%                            | 0.0%        | 0.0%        |
| Net loss                      | -11.1%                          | -1.5%       | -1.8%       |

**Comparison of Years Ended December 31, 2013 and 2012***Revenue*

|         | Years ended December 31,           |          | Change   |       |
|---------|------------------------------------|----------|----------|-------|
|         | 2012                               | 2013     | Amount   | %     |
|         | (in thousands, except percentages) |          |          |       |
| Revenue | \$63,421                           | \$78,424 | \$15,003 | 23.7% |

Of our total revenue in 2013, we generated \$47.3 million, or 60.4%, from the CATV market, \$19.3 million, or 24.7%, from the internet data center market, \$4.4 million, or 5.6%, from the FTTH market, and \$7.3 million, or 9.3%, from other markets. Total revenue increased by \$15.0 million, or 23.7%, from 2012 to 2013.

The increase in revenue was attributable to a \$14.1 million increase from the internet data center market, and a \$2.7 million increase from other markets, partially offset by a \$2.5 million decrease from our CATV market. The increase in revenues in the internet data center market were driven by increasing sales to customers we added late in 2012. The decline in revenues in the CATV market in 2013 was a result of market-wide weakness, particularly in China, as well as delays in orders as a consequence of mergers among several of our CATV customers.

*Cost of goods sold and gross margin*

|                    | Years ended December 31,                  |              |          |              | Change   |       |
|--------------------|---|--------------|----------|--------------|----------|-------|
|                    | 2012                                      | 2013         | 2012     | 2013         | Amount   | %     |
|                    | Amount                                    | % of revenue | Amount   | % of revenue |          |       |
|                    | <b>(in thousands, except percentages)</b> |              |          |              |          |       |
| Cost of goods sold | \$44,492                                  | 70.2%        | \$55,396 | 70.6%        | \$10,904 | 24.5% |
| Gross margin       |   | 29.8%        |          | 29.4%        |          |       |

Cost of goods sold increased by \$10.9 million, or 24.5%, from 2012 to 2013, primarily due to the combination of an \$7.2 million increase in direct material costs and a \$3.7 million increase in labor and overhead costs, both of which were associated with our increase in revenues. Within our markets, we sell similar products in different geographic regions at different prices, resulting in different gross margins among our products. The decrease in gross margin was

primarily the result of a higher percentage of sales of lower margin CATV equipment in Asia and a lower percentage of higher margin component sales in the U.S.

*Operating expenses*

|                            | Years ended December 31,           |              |          |              | Change  |       |
|----------------------------|------------------------------------|--------------|----------|--------------|---------|-------|
|                            | 2012                               |              | 2013     |              | Amount  | %     |
|                            | Amount                             | % of revenue | Amount   | % of revenue |         |       |
|                            | (in thousands, except percentages) |              |          |              |         |       |
| Research and development   | \$7,603                            | 12.0%        | \$8,512  | 10.9%        | \$909   | 11.9% |
| Sales and marketing        | 3,135                              | 4.9%         | 4,191    | 5.3%         | 1,056   | 33.7% |
| General and administrative | 8,012                              | 12.6%        | 10,632   | 13.6%        | 2,620   | 32.7% |
| Total operating expenses   | \$18,750                           | 29.6%        | \$23,335 | 29.8%        | \$4,585 | 24.4% |

*Research and development expense*

Research and development expense increased by \$0.9 million, or 11.9%, from 2012 to 2013. This was primarily due to increases in personnel costs and R&D work order and project costs related to new product development.

*Sales and marketing expense*

Sales and marketing expense increased by \$1.1 million, or 33.7%, from 2012 to 2013. This was due to an increase in personnel costs due to additional sales and marketing staff to better serve our customers, and an increase in sales commissions directly related to our revenue growth.

*General and administrative expense*

General and administrative expense increased by \$2.6 million, or 32.7%, from 2012 to 2013. This was primarily due to an increase in share-based compensation expense as well as an increase in personnel costs, expenses related to being a public company, professional fees and travel expenses.

*Other income (expense), net*

|                                   | Years ended December 31,           |              |           |              | Change |          |
|-----------------------------------|------------------------------------|--------------|-----------|--------------|--------|----------|
|                                   | 2012                               | 2013         | 2012      | 2013         | Amount | %        |
|                                   | Amount                             | % of revenue | Amount    | % of revenue | Amount | %        |
|                                   | (in thousands, except percentages) |              |           |              |        |          |
| Interest income                   | \$26                               | 0.0%         | \$104     | 0.1%         | \$78   | 300.0%   |
| Interest expense                  | (1,381)                            | (2.2%)       | (1,125)   | (1.4%)       | 256    | 18.5%    |
| Other income (expense), net       | 231                                | 0.4%         | (78)      | (0.1%)       | (309)  | (133.8%) |
| Total Other income (expense), net | \$(1,124)                          | (1.8%)       | \$(1,099) | (1.4%)       | \$25   | 2.2%     |

Total net other expense decreased slightly from 2012 to 2013. Interest expense decreased while average loan balances increased from 2012 to 2013 due to a further reduction in interest rates in 2013. Our net other expense decreased by \$0.3 million from 2012 to 2013 primarily due to a \$0.6 million unrealized foreign currency revaluation loss from U.S. denominated accounts in 2013 when the NT dollar depreciated against the U.S. dollar which was offset by an additional \$0.2 million of government subsidies received by our China subsidiary.



*Benefit from (provision for) income taxes*

|   | Years ended December 31,           |      |        |
|---|------------------------------------|------|--------|
|   | 2012                               | 2013 | Change |
|   | (in thousands, except percentages) |      |        |
| Benefit from (provision for) income taxes | \$-                                | \$-  | \$-    |
| Effective tax rate                        | 0.0%                               | 0.0% | 0.0%   |

Our effective tax rate was 0.0% for 2012 and 2013, as we did not generate positive taxable income.

*Comparison of Years Ended December 31, 2012 and 2011**Revenue*

|         | Years ended                        |          | Change   |       |
|---------|------------------------------------|----------|----------|-------|
|         | December 31,                       |          |          |       |
|         | 2011                               | 2012     | Amount   | %     |
|         | (in thousands, except percentages) |          |          |       |
| Revenue | \$47,840                           | \$63,421 | \$15,581 | 32.6% |

Of our total revenue in 2012, we generated \$49.8 million, or 78.6%, from the CATV market, \$5.3 million, or 8.3%, from the internet data center market, \$3.7 million, or 5.8%, from the FTTH market, and \$4.6 million, or 7.3%, from other markets. Total revenue increased by \$15.6 million, or 32.6%, from 2011 to 2012. The increase in revenue was attributable to an \$11.0 million increase in revenue from our CATV market, a \$5.3 million increase from the internet data center market, and a \$0.4 million increase in the FTTH market, which increases were partially offset by a \$1.0 million decrease from other markets. Our CATV market revenue increased in 2012 primarily due to increased capital expenditures by CATV service providers and increased shipments of our CATV equipment products. Revenues in 2012 were also driven by sales increases from two customers in the internet data center market. Our FTTH market revenue increased primarily because of the sale of new transceiver products to existing customers. Revenue declined in other markets because of a de-emphasis by our sales staff and the decline in sales of certain legacy products within those markets.

*Cost of goods sold and gross margin*

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|                                    | Years ended December 31, |              |          |              | Change   |       |
|------------------------------------|--------------------------|--------------|----------|--------------|----------|-------|
|                                    | 2011                     | 2012         | 2011     | 2012         | Amount   | %     |
|                                    | Amount                   | % of revenue | Amount   | % of revenue | Amount   | %     |
| (in thousands, except percentages) |                          |              |          |              |          |       |
| Cost of goods sold                 | \$34,468                 | 72.0%        | \$44,492 | 70.2%        | \$10,024 | 29.1% |
| Gross margin                       |                          | 28.0%        |          | 29.8%        |          |       |

Cost of goods sold increased by \$10.0 million, or 29.1%, from 2011 to 2012, primarily due to a combination of an \$8.5 million increase in direct material costs and a \$1.3 million increase in labor and overhead costs, both of which were associated with our increase in revenues. The increase in gross margin was caused by lower direct labor costs and lower overhead from improved efficiency, combined with a reduction in our inventory reserve. The inventory reserves were higher in 2011 primarily due to discontinued products and aging of inventory on hand.

*Operating expenses*

|                            | Years ended December 31,           |              |          |              | Change  |         |
|----------------------------|------------------------------------|--------------|----------|--------------|---------|---------|
|                            | 2011                               | 2012         | 2011     | 2012         | Amount  | %       |
|                            | Amount                             | % of revenue | Amount   | % of revenue |         |         |
|                            | (in thousands, except percentages) |              |          |              |         |         |
| Research and development   | \$6,451                            | 13.5%        | \$7,603  | 12.0%        | \$1,152 | 17.9%   |
| Sales and marketing        | 2,412                              | 5.0%         | 3,135    | 4.9%         | 723     | 30.0%   |
| General and administrative | 8,243                              | 17.2%        | 8,012    | 12.6%        | (231 )  | (2.8% ) |
| Total operating expenses   | \$17,106                           | 35.8%        | \$18,750 | 29.6%        | \$1,644 | 9.6%    |

*Research and development expense*

Research and development expense increased by \$1.2 million, or 17.9%, from 2011 to 2012, \$0.7 million of which was attributable to R&D material expenses associated with new product development. The remaining \$0.5 million increase was a result of a reallocation of existing personnel costs to R&D work orders and an increase in R&D staffing. Because our R&D staff is integral to new product development, our R&D staff often rotate between R&D work orders (non-production orders) and production orders. As we shift those personnel from production back to R&D, our R&D expenses vary.

*Sales and marketing expense*

Sales and marketing expense increased by \$0.7 million, or 30.0%, from 2011 to 2012. This was due to a \$0.5 million increase in personnel costs due to additional sales and marketing staff to better serve our customers, and an increase in sales commissions of \$0.2 million because of our revenue growth.

*General and administrative expense*

General and administrative expense decreased by \$0.2 million, or 2.8 %, from 2011 to 2012. This was primarily due to a decrease in share-based compensation expense because of the use of a reduced volatility assumption and prior grants becoming fully vested.

*Other income (expense), net*

|                                   | Years ended December 31,           |              |           |              | Change |         |
|-----------------------------------|------------------------------------|--------------|-----------|--------------|--------|---------|
|                                   | 2011                               |              | 2012      |              | Amount | %       |
|                                   | Amount                             | % of revenue | Amount    | % of revenue |        |         |
|                                   | (in thousands, except percentages) |              |           |              |        |         |
| Interest income                   | \$15                               | 0.0%         | \$26      | 0.0%         | \$11   | 71.3%   |
| Interest expense                  | (1,338)                            | (2.8% )      | (1,381)   | (2.2% )      | (45 )  | (3.3% ) |
| Other income (expense), net       | (271 )                             | (0.6% )      | 231       | 0.4%         | 502    | 186.0%  |
| Total Other income (expense), net | \$(1,594)                          | (3.3% )      | \$(1,124) | (1.8% )      | \$470  | 29.5%   |

Total net other expense decreased by \$0.5 million, or 29.5%, from 2011 to 2012. Interest expense remained relatively unchanged from 2011 to 2012. While average loan balances increased from 2011 to 2012 by about \$2.0 million, we benefited from a reduction in interest rates in 2012. The net other expense decreased by \$0.5 million from 2011 to 2012 primarily due to foreign currency revaluation gains from U.S. denominated accounts in 2012 when the NT dollar appreciated against the U.S. dollar.

| Benefit from (provision for) income taxes | Years ended                        |      |        |
|---|------------------------------------|------|--------|
|   | December 31,                       |      |        |
|   | 2011                               | 2012 | Change |
|   | (in thousands, except percentages) |      |        |
| Benefit from (provision for) income taxes | \$-                                | \$-  | \$-    |
| Effective tax rate                        | 0.0%                               | 0.0% | 0.0%   |

Our effective tax rate was 0.0% for 2011 and 2012, as we did not generate positive taxable income.

### Liquidity and Capital Resources

From inception until our initial public offering, we financed our operations through private sales of equity securities and cash generated from operations and from various lending arrangements. On October 1, 2013, we completed our initial public offering, in which we issued and sold 3,600,000 shares of our common stock at a public offering price of \$10.00 per share, providing proceeds of \$31.5 million, net of underwriting discounts and commissions and offering expenses. At December 31, 2013, our cash, cash equivalents, restricted cash and short-term investments totaled \$30.8 million. Cash and cash equivalents were held for working capital purposes and were invested primarily in money market funds. We do not enter into investments for trading or speculative purposes.

The table below sets forth selected cash flow data for the periods presented:

| Years Ended December 31,                              | 2011           | 2012     | 2013       |
|---|----------------|----------|------------|
|   | (in thousands) |          |            |
| Net cash provided by (used in) operating activities   | \$(4,125)      | \$(358 ) | \$(6,552 ) |
| Net cash used in investing activities                 | (1,571)        | (3,290 ) | (17,736)   |
| Net cash provided by financing activities             | 2,836          | 12,754   | 35,368     |
| Effect of exchange rates on cash and cash equivalents | 136            | (150 )   | 203        |
| Net increase (decrease) in cash and cash equivalents  | \$(2,724)      | \$8,956  | \$11,283   |

#### *Operating activities*

In 2013, net cash used in operating activities was \$6.6 million. Cash used in operating activities primarily related to an increase in receivables from customers from the sale of our products in excess of cash paid to our suppliers. During the year ended December 31, 2013, we recognized a net loss of \$1.4 million. The net loss incorporated non-cash charges, including depreciation and amortization of \$3.4 million, share-based compensation expenses of \$1.1 million and non-cash increases to our inventory reserve accounts of \$0.5 million. We also spent \$7.5 million to increase our inventories to support increases in sales volumes, but this was offset by an increase in accounts payable.

In 2012, net cash used in operating activities was \$0.4 million. Cash used in operating activities primarily related to payments to suppliers in excess of cash received from our customers from the sale of our products. During 2012, we recognized a net loss of \$0.9 million. However, that net loss incorporated non-cash charges, including depreciation and amortization of \$2.9 million, share-based compensation expense of \$0.1 million and non-cash increases to our inventory reserve accounts of \$0.9 million. In addition, we spent \$0.5 million in 2012 to increase our inventories in anticipation of expected increases in sales volumes.

In 2011, net cash used in operating activities was \$4.1 million. Cash used in operating activities primarily related to payments to suppliers in excess of cash received from our customers from the sale of our products. During 2011, we recognized a net loss of \$5.3 million. However, that net loss incorporated non-cash charges, including depreciation and amortization of \$3.1 million, share-based compensation expense of \$0.6 million and non-cash increases to our inventory reserve accounts of \$1.6 million. In addition, we spent \$1.6 million in 2011 to increase our inventories in anticipation of expected increases in sales volumes.

*Investing activities*

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

In 2013, we used \$17.7 million of cash for investing activities, of which \$9.3 million of cash was used for the purchase of additional machinery and equipment to support our research and development efforts and manufacturing activities and \$8.0 million of cash was used for the purchase of short-term investments.

In 2012, we used \$3.3 million of cash for investing activities. We used \$3.2 million of cash for the purchase of additional machinery and equipment to support our research and development efforts and manufacturing activities, partially offset by \$0.1 million of cash provided by the sale of obsolete equipment.

In 2011, we used \$1.6 million of cash for investing activities. We used \$1.8 million of cash for the purchase of property and equipment, partially offset by \$0.4 million of cash provided by the sale of obsolete equipment.

*Financing activities*

Our financing activities consisted primarily of proceeds from the issuance of common stock and preferred stock and activity associated with our various lending arrangements.

In 2013, our financing activities provided \$35.4 million in cash. We received \$31.5 million in net proceeds from our initial public offering. We received \$3.5 million in net borrowings associated with our bank loans and received \$0.7 million from the exercise of stock options and warrants. These increases were offset by an increase in our restricted cash by \$0.2 million, related to the compensating balances required by our loans in China

In 2012, our financing activities provided \$12.8 million in cash. We received \$10.2 million in cash from the issuance of preferred stock, \$2.7 million in net borrowings associated with our bank loans and \$0.8 million from the issuance of notes payable, offset in part by \$0.7 million of payments of principal on our term loans and notes payable and \$0.2 million to repay loans from stockholders.

In 2011, our financing activities provided \$2.8 million in cash, primarily resulting from \$2.9 million of cash from the issuance of preferred stock and \$1.6 million in net borrowings associated with our bank loans, offset in part by \$0.2 million of payments of principal on our term loans and notes payable and \$1.2 million to repay loans from stockholders.

*Loans and commitments*

We have lending arrangements with several financial institutions, including a loan and security agreement with East West Bank in the U.S., several lines of credit arrangements for our China subsidiary and financing agreements for our Taiwan location.

As of December 31, 2013, our loan and security agreement in the U.S. included a \$7.0 million revolving line of credit which matures on November 15, 2015. Also included with the same bank is a term loan with monthly payments of principal and interest that matures on November 15, 2014. As of December 31, 2013, we had \$7.0 million outstanding under the revolving line of credit and \$3.1 million outstanding on the term loan.



On September 10, 2013, our loan and security agreement in the U.S. was amended to add \$5.0 million of borrowing capability to the existing credit line, for the purpose of financing equipment. The additional equipment term loan allows us to draw up to the lesser of (i) \$5.0 million, or (ii) 90% of the costs of equipment purchased between March 31, 2013 and March 10, 2014. Through March 10, 2014, we are required to pay interest only on the then-outstanding balance, and then pay equal principal payments plus accrued interest monthly for the following 42 months. The interest rate for such equipment term loan is the bank's prime lending rate plus 0.75%, currently a total of 4.0%. As of December 31 2013, \$1.85 million has been drawn against this equipment term loan.

Our loan and security agreement requires us to maintain certain financial covenants, including a minimum current ratio, maximum debt over net worth ratio and minimum debt service coverage. The agreement also restricts our minimum cash deposits and the percentage of deposit with other banks. As of December 31, 2013, we were in compliance with all covenants contained in this agreement.

As of December 31, 2013, our China subsidiary had a line of credit facility and bank acceptances with China banks totaling \$18.0 million. As of December 31, 2013, a total of \$12.1 million was outstanding under various notes, each with its own maturity date and each renewing annually from January 2014 to August 2014. The notes that begin to mature in January 2014 are expected to be renewed on the same terms and with new one year terms. These loans have renewed each year for the past three years. While there can be no assurance of renewal as each loan matures, we expect these loans to renew this year as they have over the past periods. On January 6, 2014, we paid off \$4.5 million in loans with maturity dates ranging January 2014 to March 2014 to China bank.

As of December 31, 2013, our China subsidiary had a U.S. currency based loan of \$2.4 million under various notes with four-month terms.

In July 2013, our Taiwan location extended its outstanding note payable with a financing company to mature on July 31, 2015.

In December 2013, our Taiwan location entered into one year revolving Credit Facility Agreements with Taiwan banks, for a total of \$8.0 million. Borrowings under the Credit Facility will be used for general corporate purposes. Our obligations under the Credit Facility are secured by our \$8 million cash deposit in a one-year CD with such banks. Borrowings under the Credit Facility will bear interest at a rate equal to the Taiwan Time Deposit Interest Rate Index plus 0.41%, which is currently 1.78%. As of December 31, 2013, \$3.8 million was outstanding under this credit facility.

A customary business practice in China is for customers to exchange accounts receivable with notes receivable issued by their bank. From time to time we accept notes receivable from certain of our customers in China. These notes

receivable are non-interest bearing and are generally due within six months, and such notes receivable may be redeemed with the issuing bank prior to maturity at a discount. Historically, we have collected on the notes receivable in full at the time of maturity.

Frequently, we also direct our banking partners to issue notes payable to our suppliers in China in exchange for accounts payable. Our China subsidiary's banks issue the notes to vendors and issue payment to the vendors upon redemption. We owe the payable balance to the issuing bank. The notes payable are non-interest bearing and are generally due within six months of issuance. As a condition of the notes payable lending arrangements, we are required to keep a compensating balance at the issuing banks that is a percentage of the total notes payable balance until the notes payable are paid by our China subsidiary. These balances are classified as restricted cash on our consolidated balance sheets. As of December 31, 2013, our restricted cash totaled \$0.7 million.

*Future liquidity needs*

We believe that our existing cash, cash equivalents, short term investments, and cash flows from our operating activities, will be sufficient to meet our anticipated cash needs for the next 12 to 24 months. Our future capital requirements will depend on many factors including our growth rate, the timing and extent of spending to support our development efforts, the expansion of our sales and marketing activities, the introduction of new and enhanced products, the costs to increase our manufacturing capacity and the continuing market acceptance of our products. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. 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, 2013:

|   | Payments due by period |                        |           |           |                         |
|---|------------------------|------------------------|-----------|-----------|-------------------------|
|   | Total                  | Less<br>than<br>1 Year | 1-3 Years | 3-5 Years | More<br>than<br>5 Years |
|   | <b>(in thousands)</b>  |                        |           |           |                         |
| Notes payable and long-term debt <sup>(1)</sup> | \$28,455               | \$19,532               | \$ 8,923  | \$ –      | \$ –                    |
| Operating leases <sup>(2)</sup>                 | 914                    | 689                    | 225       | –         | –                       |
| Purchase obligations <sup>(3)</sup>             | 35                     | 26                     | 9         | –         | –                       |
| Total commitments                               | \$29,404               | \$20,247               | \$ 9,157  | \$ –      | \$ –                    |

We have several loan and security agreements in China, Taiwan and the U.S. that provide various credit facilities, (1) including lines of credit and term loans. The amount presented in the table represents the principal portion of the obligations.

(2) We have entered into various non-cancellable operating lease agreements for our offices in Taiwan and the U.S.

(3) We are obligated to make payments under various arrangements with suppliers for the procurement of goods and services.

**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 Rates*

We are exposed to interest rate fluctuations on our cash, cash equivalents and short-term investments. We had unrestricted cash and cash equivalents of \$1.8 million, \$10.7 million and \$22.0 million at December 31, 2011, 2012 and 2013, respectively. Our cash, cash equivalents and short-term investments are subject to limited interest rate risk and are primarily maintained in money market funds and bank deposits.

We have entered into various loan agreements with East West Bank in the U.S., China Construction Bank in China and Mega Bank and Chailease Finance Co LTD in Taiwan. At December 31, 2013:

the revolving line of credit for our U.S.-based loans had a principal balance of \$7.0 million, bearing interest at rates based on the prime rate plus a premium of 0.5% or floor rate of 3.75% whichever is higher, maturing on November 15, 2015,

the term loan with a U.S. bank had a principal balance of \$3.1 million, with monthly payment of principal and interest at prime rate plus 0.75% or floor rate 4%, maturing on November 15, 2014,

our term loan with a U.S. bank had a principal balance of \$1.9 million, interest payment only through March 10, 2014, and then equal principal and interest monthly installment payment for the following 42 months, maturing in September 2017,

the Chinese-based revolving line of credit loan had a principal balance of \$7.1 million, bearing interest at 108%-110% of LIBOR or 6.48% to 6.6%,

- the Chinese-based revolving loan had a principal balance of \$2.4 million, bearing interest at 4.1% to 4.15%,
- the Chinese bank acceptance notes issued to vendors had a balance of \$2.3 million, bearing no interest rate,

the Taiwanese-based revolving line of credit had a principal balance of \$3.8 million, bearing interest at 1.78%, maturing in December 2014, and

the Taiwanese-based term loan had \$0.9 million principal balance outstanding, with monthly payment of principal and interest at interest rate of 4.95%, maturing on July 30, 2015.

With respect to our interest expense for the year ended December 31, 2013, an increase or decrease of 1.0% in each of our interest rates would have resulted in an increase of \$0.3 million in our interest expense for such period.

### *Foreign Exchange Rates*

We operate on an international basis with a portion of our revenue and expenses being incurred in currencies other than the U.S. dollar. Fluctuations in the value of these foreign currencies in which we conduct our business relative to the U.S. dollar affects our results and will cause U.S. dollar translation of such currencies to vary from one period to another. We cannot predict the effect of exchange rate fluctuations upon our future operating results. The effect on our results of operations from currency fluctuations is reduced, however, because we have revenue and expenses in each of these foreign currencies.

We maintain certain assets, including certain bank accounts, accounts receivables, land and building, in RMB and the NT dollar, which are sensitive to foreign currency exchange rate fluctuations. Additionally, certain of our current and long-term liabilities are denominated in these currencies. As of December 31, 2013, fluctuation in RMB and NT dollar currency exchange rates resulted in assets and liabilities denominated in these currencies being translated into \$0.5 million and \$0.4 million more U.S. dollars than at December 31, 2012, respectively.

Additionally, the value of the RMB against the U.S. dollar and other currencies fluctuates and is affected by, among other things, changes in political and economic conditions in China. The conversion of RMB into foreign currencies, including U.S. dollars, has been based on rates set by the People's Bank of China. On July 21, 2005, the Chinese government changed its policy of pegging the value of the RMB to the U.S. dollar and began allowing modest appreciation of the RMB against the U.S. dollar. Fluctuation of the RMB exchange rate is, however, restricted to a rise or fall of no more than 0.5% per day versus the U.S. dollar, and the People's Bank of China continues to intervene in the foreign exchange market to prevent significant short-term fluctuations in the RMB exchange rate. Nevertheless, under China's current exchange rate regime, the RMB may appreciate or depreciate significantly in value against the U.S. dollar in the medium to long term. The RMB has appreciated 8.46% against the U.S. dollar from January 1, 2011 to December 31, 2013. There remains international pressure on the Chinese government to adopt a substantial liberalization of its currency policy, which could result in a further and more significant appreciation in the value of the RMB against the U.S. dollar.

We use the U.S. dollar as our functional and reporting currency for our financial statements. All transactions in currencies other than the U.S. dollar during the year are re-measured at the exchange rates prevailing on the respective relevant dates of such transactions. Monetary assets and liabilities existing at the balance sheet date denominated in currencies other than the U.S. dollar are re-measured at the exchange rates prevailing on such date. Exchange differences are recorded in our consolidated income statement. The financial records of our China subsidiary and our Taiwan location 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 location, respectively. Assets and liabilities are translated at the 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 annual rate in 2011, a quarterly average rate in 2012 and a monthly average rate in 2013. 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 (deficit) and comprehensive income. Transaction gains and losses are recognized in our statements of operations in other income (expenses).

We incurred approximately 49.4% of our operating expenses in currencies other than the U.S. dollar during 2013. As of December 31, 2013, we held the U.S. dollar equivalent of approximately \$14.3 million in RMB and \$0.1 million in NT dollars, included in cash, cash equivalents and short-term investments. Fluctuations in exchange rates directly affect our cost of revenues and net income, and have a significant impact on fluctuations in our operating margins. For example, in 2013, 92.2% of our revenues were generated from sales denominated in U.S. dollars, and 21.4% of our operating costs and expenses were denominated in RMB and 28.0% of our operating costs were denominated in NT dollars. Fluctuations in exchange rates also affect our balance sheet. For example, if we need to convert U.S. dollars into RMB or NT dollars for our operations, appreciation of the RMB or the NT dollar against the U.S. dollar would have an adverse effect on the RMB or NT dollar amount that we receive from the conversion. With respect to our total cash and short-term investments as of December 31, 2013, a 1.0% change in the exchange rates between the RMB and the U.S. dollar would result in a \$0.1 million change in our total cash and short-term investments, and a 1.0% change in the exchange rates between the NT dollar and the U.S. dollar would result in an immaterial change in our total cash, cash equivalents and short-term investments.

Fluctuations in currency exchange rates of the above currencies we hold against the U.S. dollar would have a corresponding impact on the U.S. dollar equivalent of such currencies included in the cash, cash equivalents and short-term investments reported in our financial statements from period to period.

### *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 2011, 2012 and 2013, we did not have any relationships with unconsolidated organizations or financial partnerships, such as structured finance or special purpose entities that would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.



### *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 prospectus, 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, delivery has occurred, 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 and customer acceptance, when applicable, are used to verify delivery. We assess whether the price is fixed or determinable based on the payment terms associated with the transaction and whether the sales price is subject to refund or adjustment. 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 extension to net 60 credit terms for some 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 provided 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 determined (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 involves 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 percentage-of-completion 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*

Stock option fair value is calculated on the date of grant using the Black-Scholes valuation model. The compensation cost is then recognized on a straight-line basis over the requisite service period of the option, which is generally the option vesting term of four years. The Black-Scholes valuation model requires us to estimate key assumptions such as expected term, volatility, dividend yield and risk-free interest rates that determine the stock option fair value. In addition, we estimate forfeitures at the time of grant. As there had been no market for our common stock prior to our initial public offering, the expected volatility for options granted to date was derived from an analysis of reported data for a peer group of companies that issued options with similar terms. The expected volatility has been determined using an average of the expected volatility reported by this peer group of companies. We use a risk free interest rate based on the 10-year Treasury as reported during the period. The expected term of the options has been determined utilizing the simplified method which calculates a simple average based on vesting period and option life. We do not anticipate paying dividends in the near future. Estimated forfeitures are based on historical experience and future work force projections.

#### *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 2013 or 2012.

*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, 2013, 2012 and 2011, we recorded excess and obsolete inventory charges of \$0.5 million, \$0.9 million, and \$1.6 million, respectively. Of the \$1.6 million in inventory reserves during 2011, \$1.0 million was recorded in the fourth quarter of 2011 and was associated with the application of our inventory reserve policy.

During 2011, we reviewed our inventory policy to determine if the existing reserve for obsolescence and loss was appropriate. The policy at the time provided reserves on a schedule that weighted inventory over a two year period, but the maximum reserve was 80% of inventory value, regardless of the age of inventory. We modified the policy to account for more distinct periods, and to fully reserve any inventory that was over two years old. The policy provides for aging of inventory as follows:

- Less than 360 days—10%
- Between 360 and 540 days—50%
- Between 540 and 720—80%
- Over 720 days—100%

We considered the following factors in our determination of the appropriate reserve level: how often we buy material in bulk that lasts for more than 12 months of supply; changes in material costs over a 24 month period; 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.

### **Recent Accounting Pronouncements**

*ASU 2011-04.* In May 2011, the FASB issued ASU 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS*. This ASU represents the converged guidance of the FASB and the IASB on measuring fair value and for disclosing information about fair value measurements. The amendments in this ASU clarify our board of directors' intent about the application of existing fair value measurement and disclosure requirements and changes particular principles or requirements for measuring fair value and for disclosing information about fair value measurements. ASU 2011-04 is effective prospectively for interim and annual reporting periods beginning after December 15, 2011. We adopted the provisions of ASU 2011-04 on January 1, 2012, and the adoption of this standard did not have a material impact on our financial position, results of operations, or cash flows.

## **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-27 of this Annual Report on Form 10-K

### **Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

#### **Item 9.**

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.

### **b. Management’s Annual Report on Internal Control Over Financial Reporting.**

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, 2013. Based upon such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of such date.

### **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.

**Other Information**

**Item 9B.**

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 2013 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, 2013.

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](http://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 2013.

#### **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**

Information required by Part III, Item 14, will be included in our Proxy Statement relating to our 2013 annual meeting of stockholders to be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year ended December 31, 2013, and is incorporated herein by reference.

### **Part IV**

#### **Item 15. Exhibits, Financial Statements Schedules**

(a) Exhibits.

See the Exhibit Index which follows the signature page of this Annual Report on Form 10-K, which is incorporated herein by reference.

(b) 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.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, on March 6, 2014.

### APPLIED OPTOELECTRONICS, INC.

/s/ Chih-Hsiang (Thompson) Lin

By: Chih-Hsiang (Thompson) Lin,  
*President and Chief Executive Officer and  
Chairman of the Board of Directors*

March 6, 2014

### POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Chih-Hsiang (Thompson) Lin and James L. Dunn, Jr., 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 Act of 1933, this Form 10-K has been signed by the following persons in the capacities and on the dates indicated.

#### Signature

#### Date

/s/ Chih-Hsiang (Thompson) Lin

March 6, 2014

Chih-Hsiang (Thompson) Lin,

*President, Chief Executive Officer and and  
Chairman of the Board of Directors*

*(principal executive officer)*

/s/ James L. Dunn, Jr.

James L. Dunn, Jr.,

*Chief Financial Officer*

March 6, 2014

*(principal financial officer and*

*principal accounting officer)*

**Signature** **Date**

/s/

William  
H. Yeh

March 6, 2014

William  
H. Yeh,

*Director*

/s/

Richard  
B. Black

March 6, 2014

Richard  
B. Black,

*Director*

/s/

Che-Wei  
Lin

March 6, 2014

Che-Wei  
Lin,

*Director*

/s/ Alex  
Ignatiev

March 6, 2014

Alex  
Ignatiev,

*Director*

/s/ Alan March 6, 2014

Moore

Alan  
Moore,

*Director*

/s/  
Min-Chu  
(Mike)  
Chen

Min-Chu March 6, 2014  
(Mike)  
Chen,

*Director*

**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    | Form of Registration Rights Agreement  | S-1                       | 333-190591 | 4.1 August 13, 2013    |
| 4.2    | Form of Shareholders' Agreement  | S-1                       | 333-190591 | 4.2 August 13, 2013    |
| 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   | †1998 Incentive Share Plan   | S-1                       | 333-190591 | 10.2 August 13, 2013   |
| 10.2.1 | †Form of Stock Option Agreement under 1998 Incentive Share Plan  | S-1                       | 333-190591 | 10.2.1 August 13, 2013 |
| 10.2.2 | †Form of Stock Option Agreement under 1998 Incentive Share Plan  | S-1                       | 333-190591 | 10.2.2 August 13, 2013 |
| 10.3   | †2000 Incentive Share Plan   | S-1                       | 333-190591 | 10.3 August 13, 2013   |
| 10.3.1 | †Form of Stock Option Agreement under 2000 Incentive Share Plan  | S-1                       | 333-190591 | 10.3.1 August 13, 2013 |
| 10.3.2 | †Form of Stock Option Agreement under 2000 Incentive Share Plan  | S-1                       | 333-190591 | 10.3.2 August 13, 2013 |
| 10.4   | †2004 Incentive Share Plan   | S-1                       | 333-190591 | 10.4 August 13, 2013   |
| 10.4.1 | †Form of Stock Option Agreement under 2004 Incentive Share Plan  | S-1                       | 333-190591 | 10.4.1 August 13, 2013 |
| 10.5   | †2006 Incentive Share Plan   | S-1                       | 333-190591 | 10.5 August 13, 2013   |
| 10.5.1 | †First Amendment to 2006 Incentive Share Plan  | S-1/A                     | 333-190591 | 10.5.1                 |

|        |  |                |        |                      |
|--------|--|----------------|--------|----------------------|
|        |  |                |        | August 27,<br>2013   |
| 10.5.2 | †Form of Stock Option Agreement under 2006 Incentive Share Plan S-1/A 333-190591 |                | 10.5.2 | August 27,<br>2013   |
| 10.6   | †2013 Equity Incentive Plan  | 10-Q 001-36083 | 10.1   | November 14,<br>2013 |
| 10.6.1 | †Form of Restricted Stock Award Agreement under 2013 Equity Incentive Plan       | S-1 333-190591 | 10.6.1 | August 13,<br>2013   |

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| Number | Exhibit Description  | Incorporated by Reference |            | Exhibit | Filing Date       |
|--------|--|---------------------------|------------|---------|-------------------|
|        |  | Form                      | File No.   |         |                   |
| 10.6.2 | † Form of Restricted Stock Unit Award Agreement under 2013 Equity Incentive Plan   | S-1                       | 333-190591 | 10.6.2  | August 13, 2013   |
| 10.6.3 | † Form of Stock Appreciation Right Award Agreement under 2013 Equity Incentive Plan  | S-1                       | 333-190591 | 10.6.3  | August 13, 2013   |
| 10.6.4 | † 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   |
| 10.7   | Lease Agreement effective May 1, 2012 between the registrant and 12808 W. Airport, LLC   | S-1                       | 333-190591 | 10.7    | August 13, 2013   |
| 10.7.1 | First Amendment to Lease Agreement effective June 15, 2012 between the registrant and 12808 W. Airport, LLC  | S-1                       | 333-190591 | 10.7.1  | August 13, 2013   |
| 10.8   | Translation of Chinese lease agreement dated January 10, 2012 between the registrant and Admiral Overseas Corporation for space on 4F, NO.700, Jhongjheng Rd., Jhonghe District, New Taipei City 23552, Taiwan (R.O.C.)                      | S-1                       | 333-190591 | 10.8    | August 13, 2013   |
| 10.8.1 | Translation of Chinese Amendment to Office Lease Agreement dated August 28, 2013 between the registrant and Admiral Overseas Corporation for space on 4F, No.700, Jhongjheng Rd., Jhonghe District, New Taipei City 23552, Taiwan (R.O.C.)   | 10-Q                      | 001-36083  | 10.3    | November 14, 2013 |
| 10.9   | Translation of Chinese lease agreement dated April 1, 2012 between the registrant and Admiral Overseas Corporation for space on 6-7F, NO.700, Jhongjheng Rd., Jhonghe District, New Taipei City 23552, Taiwan (R.O.C.)                       | S-1                       | 333-190591 | 10.9    | August 13, 2013   |
| 10.9.1 | Translation of Chinese Amendment to Office Lease Agreement dated August 28, 2013 between the registrant and Admiral Overseas Corporation for space on 6-7F, No.700, Jhongjheng Rd., Jhonghe District, New Taipei City 23552, Taiwan (R.O.C.) | 10-Q                      | 001-36083  | 10.3    | November 14, 2013 |



| Number  | Exhibit Description   | Incorporated by Reference |                         |
|---------|---|---------------------------|-------------------------|
|         |   | Form File No.             | Exhibit Filing Date     |
| 10.10   | Translation of Chinese lease agreement dated September 11, 2013 between the registrant and Admiral Overseas Corporation for space on 5F, No.700, Jhongjheng Rd., Jhonghe District, New Taipei City 23552, Taiwan (R.O.C.) | 10-Q 001-36083            | 10.3 November 14, 2013  |
| 10.11   | Amended and Restated Loan and Security Agreement effective May 20, 2009 between registrant and United Commercial Bank   | S-1 333-190591            | 10.10 August 13, 2013   |
| 10.11.1 | First Amendment to Amended and Restated Loan and Security Agreement effective May 3, 2010 between the registrant and East West Bank (as successor in interest to United Commercial Bank)                                  | S-1 333-190591            | 10.10.1 August 13, 2013 |
| 10.11.2 | Second Amendment to Amended and Restated Loan and Security Agreement effective October 28, 2010 between the registrant and East West Bank   | S-1 333-190591            | 10.10.2 August 13, 2013 |
| 10.11.3 | Third Amendment to Amended and Restated Loan and Security Agreement effective December 6, 2010 between the registrant and East West Bank  | S-1 333-190591            | 10.10.3 August 13, 2013 |
| 10.11.4 | Fourth Amendment to Amended and Restated Loan and Security Agreement effective May 5, 2011 between the registrant and East West Bank  | S-1 333-190591            | 10.10.4 August 13, 2013 |
| 10.11.5 | Fifth Amendment to Amended and Restated Loan and Security Agreement effective November 30, 2011 between the registrant and East West Bank   | S-1 333-190591            | 10.10.5 August 13, 2013 |
| 10.11.6 | Sixth Amendment to Amended and Restated Loan and Security Agreement effective March 29, 2012 between the registrant and East West Bank  | S-1 333-190591            | 10.10.6 August 13, 2013 |
| 10.11.7 | Seventh Amendment to Amended and Restated Loan and Security Agreement effective June 29, 2012 between the registrant and East West Bank   | S-1 333-190591            | 10.10.7 August 13, 2013 |

| Number    | Exhibit Description  | Incorporated by Reference |            |                             |
|-----------|--|---------------------------|------------|-----------------------------|
|           |  | Form                      | File No.   | Exhibit Filing Date         |
| 10.11.8   | Eighth Amendment to Amended and Restated Loan and Security Agreement effective November 2, 2012 between the registrant and East West Bank    | S-1                       | 333-190591 | 10.10.8 August 13, 2013     |
| 10.11.9   | Ninth Amendment to Amended and Restated Loan and Security Agreement effective April 11, 2013 between the registrant and East West Bank       | S-1                       | 333-190591 | 10.10.9 August 13, 2013     |
| 10.11.10  | Tenth Amendment to Amended and Restated Loan and Security Agreement effective September 10, 2013 between the registrant and East West Bank   | S-1/A                     | 333-190591 | 10.10.10 September 11, 2013 |
| 10.11.11  | Eleventh Amendment to Amended and Restated Loan and Security Agreement effective November 13, 2013 between the registrant and East West Bank | 8-K                       | 001-36083  | 10.1 November 19, 2013      |
| 10.11.12  | Twelfth Amendment to Amended and Restated Loan and Security Agreement effective December 11, 2013 between the registrant and East West Bank  | 8-K                       | 001-36083  | 10.1 December 17, 2013      |
| 10.11.13* | Translation of Chinese form of RMB Working Capital Loan Agreement between the Global Technology Inc. and China Construction Bank             |                           |            |                             |
| 10.12     | Translation of Chinese form of USD Trust Receipt Loan Agreement between Global Technology Inc. and China Construction Bank                   |                           |            |                             |
| 10.13     | * Translation of Chinese Loan Agreement dated December 31, 2013 between the registrant and E. Sun Commercial Bank Co., Ltd.                  |                           |            |                             |
| 10.14     | Translation of Chinese Loan Agreement dated December 20, 2013 between the registrant and Mega International Commercial Bank Co., Ltd.        |                           |            |                             |

| Number  | Exhibit | Description  | Incorporated by Reference |            |                         |
|---------|---------|--|---------------------------|------------|-------------------------|
|         |         |  | Form                      | File No.   | Exhibit Filing Date     |
| 10.15   | †       | 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   |
| 10.15.1 | †       | 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 |
| 10.15   | †       | Employment Agreement regarding Change of Control or Separation of Service between the registrant and Stefan J. Murry, dated January 28, 2007   | S-1                       | 333-190591 | 10.13 August 13, 2013   |
| 10.16   | †       | Employment Agreement regarding Change of Control or Separation of Service between the registrant and Shu-Hua (Joshua) Yeh, dated June 1, 2012  | S-1                       | 333-190591 | 10.14 August 13, 2013   |
| 10.17   | †       | Employment Agreement between the registrant and James L. Dunn, Jr., dated April 16, 2013   | S-1                       | 333-190591 | 10.15 August 13, 2013   |
| 10.18   | †       | Employment Agreement between the registrant and Hung-Lun (Fred) Chang, dated April 16, 2013  | S-1                       | 333-190591 | 10.16 August 13, 2013   |
| 21.1    |         | Subsidiaries of the registrant   | S-1                       | 333-190591 | 21.1 August 13, 2013    |
| 23.1    |         | *Consent of Grant Thornton LLP   |                           |            |                         |
| 23.3    |         | *Consent of Ovum Limited   |                           |            |                         |
| 24.1    |         | Power of Attorney (see page 59 to 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.

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\* Filed herewith.

XBRL(Extensible Business Reporting Language) information is furnished and not filed for purposes of Sections 11 and 12 of the Securities Act of 1933 and Section 18 of the Securities Exchange Act of 1934, and is not subject to

\*\*liability under those sections, is not part of any registration statement or prospectus to which it relates and is not incorporated or deemed to be incorporated by reference into any registration statement, prospectus or other document.

† Management contract, compensatory plan or arrangement.

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Board of Directors and Stockholders

Applied Optoelectronics, Inc.

We have audited the accompanying consolidated balance sheets of Applied Optoelectronics, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive loss, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Applied Optoelectronics, Inc. and subsidiaries as of December 31, 2013 and 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America.

/s/ GRANT THORNTON LLP

Houston, Texas

March 6, 2014

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

|  | December 31,     |                 |
|--|------------------|-----------------|
|  | 2013             | 2012            |
| <b>ASSETS</b>  |                  |                 |
| Current Assets   |                  |                 |
| Cash and cash equivalents  | \$22,006         | \$10,723        |
| Restricted cash  | 775              | 503             |
| Short-term investments   | 7,970            | –               |
| Accounts receivable - trade, net of allowance of \$42, \$59 and \$61, respectively   | 22,089           | 13,525          |
| Bank acceptance receivable   | –                | 1,034           |
| Inventories  | 19,608           | 12,493          |
| Prepaid expenses and other current assets  | 5,488            | 968             |
| Total current assets   | 77,936           | 39,246          |
| Property, plant and equipment, net of accumulated depreciation of \$28,145, \$24,967 and \$22,556, respectively  | 31,134           | 24,838          |
| Land use rights, net   | 959              | 674             |
| Intangible assets, net   | 851              | 795             |
| Other assets, net  | 177              | 195             |
| <b>TOTAL ASSETS</b>  | <b>\$111,057</b> | <b>\$65,748</b> |
| <b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>  |                  |                 |
| Current liabilities  |                  |                 |
| Current portion of notes payable and long-term debt  | \$17,185         | \$13,900        |
| Accounts payable   | 15,010           | 6,913           |
| Bank acceptance payable  | 2,347            | 1,521           |
| Accrued liabilities  | 4,515            | 3,243           |
| Total current liabilities  | 39,057           | 25,577          |
| Notes payable and long-term debt, less current portion   | 8,923            | 9,163           |
| <b>TOTAL LIABILITIES</b>   | <b>47,980</b>    | <b>34,740</b>   |
| Stockholders' equity (deficit):  |                  |                 |
| Redeemable Convertible Preferred Stock and Convertible Preferred Stock; 5,000 shares authorized; no shares issued and outstanding at December 31, 2013, \$0.001 par value; 172,200 shares authorized; 5,547 shares issued and outstanding at December 31, 2012, no par value | –                | 105,367         |
| Common Stock; 45,000 shares authorized; 12,644 shares issued and outstanding at December 31, 2013, \$0.001 par value; 300,000 shares authorized; 266 shares issued and outstanding at December 31, 2012, no par value  | 13               | 1,074           |
| Additional paid-in capital   | 144,023          | 4,468           |
| Accumulated other comprehensive gain   | 2,364            | 2,016           |
| Accumulated deficit  | (83,323)         | (81,917)        |
| <b>TOTAL STOCKHOLDERS' EQUITY</b>  | <b>63,077</b>    | <b>31,008</b>   |
| <b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>  | <b>\$111,057</b> | <b>\$65,748</b> |

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

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

|   | Year ended December 31, |           |            |
|---|-------------------------|-----------|------------|
|   | 2013                    | 2012      | 2011       |
| Revenue, net  | \$78,424                | \$63,421  | \$47,840   |
| Cost of goods sold  | 55,396                  | 44,492    | 34,468     |
| Gross profit  | 23,028                  | 18,929    | 13,372     |
| Operating expenses  |                         |           |            |
| Research and development  | 8,512                   | 7,603     | 6,451      |
| Sales and marketing   | 4,191                   | 3,135     | 2,412      |
| General and administrative  | 10,632                  | 8,012     | 8,243      |
| Total operating expenses  | 23,335                  | 18,750    | 17,106     |
| Income (loss) from operations   | (307 )                  | 179       | (3,734 )   |
| Other income (expense)  |                         |           |            |
| Interest expense  | (1,125 )                | (1,381 )  | (1,338 )   |
| Other income (expense), net   | 26                      | 257       | (256 )     |
| Total other expense   | (1,099 )                | (1,124 )  | (1,594 )   |
| Loss before income taxes  | (1,406 )                | (945 )    | (5,328 )   |
| Income taxes  | —                       | —         | —          |
| Net loss  | \$(1,406 )              | \$(945 )  | \$(5,328 ) |
| Net loss per share—basic and diluted, as revised                        | \$(0.14 )               | \$(3.56 ) | \$(20.21 ) |
| Weighted average shares used to compute net loss per share, as revised: |                         |           |            |
| Basic and diluted   | 9,964,955               | 265,576   | 263,658    |

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

**Applied Optoelectronics, Inc. and Subsidiaries**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**

**(in thousands)**

|   | Year ended December 31, |         |           |
|---|-------------------------|---------|-----------|
|   | 2013                    | 2012    | 2011      |
| Net loss  | \$(1,406)               | \$(945) | \$(5,328) |
| Foreign currency translation adjustment, net of tax of \$0, \$0 and \$0 | 348                     | 44      | 434       |
| Comprehensive loss  | \$(1,058)               | \$(901) | \$(4,894) |

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

**Applied Optoelectronics, Inc. and Subsidiaries****CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)****Years ended December 2011, 2012 and 2013****(in thousands)**

|   | Preferred Stock        |           | Common Stock           |         |           | Additional<br>paid-in<br>capital | Accumulated<br>deficit | Accumulated<br>other<br>comprehensive<br>gain | Stockholders'<br>equity |
|---|------------------------|-----------|------------------------|---------|-----------|----------------------------------|------------------------|---|-------------------------|
|   | Number<br>of<br>shares | Amount    | Number<br>of<br>shares | Amount  |           |                                  |                        |   |                         |
| December 31, 2010   | 4,118                  | \$90,424  | 261                    | \$1,052 | \$3,671   | \$ (75,644 )                     | \$ 1,538               | \$ 21,041                                     |                         |
| Preferred stock issued,<br>net                                  | 223                    | 3,949     | —                      | —       | —         | —                                | —                      | 3,949   |                         |
| Issuance of stock for<br>consultancy service                    | —                      | —         | 1                      | 1       | —         | —                                | —                      | 1   |                         |
| Stock options exercised   | —                      | —         | 3                      | 16      | —         | —                                | —                      | 16  |                         |
| Stock based<br>compensation                                     | —                      | —         | —                      | —       | 563       | —                                | —                      | 563   |                         |
| Net loss  | —                      | —         | —                      | —       | —         | (5,328 )                         | —                      | (5,328 )                                      |                         |
| Foreign currency<br>translation adjustment                      | —                      | —         | —                      | —       | —         | —                                | 434                    | 434   |                         |
| December 31, 2011   | 4,341                  | \$94,373  | 265                    | \$1,069 | \$4,234   | \$ (80,972 )                     | \$ 1,972               | \$ 20,676                                     |                         |
| Preferred stock issued,<br>net                                  | 1,206                  | 10,994    | —                      | —       | —         | —                                | —                      | 10,994  |                         |
| Stock options exercised   | —                      | —         | 1                      | 5       | —         | —                                | —                      | 5   |                         |
| Stock based<br>compensation                                     | —                      | —         | —                      | —       | 161       | —                                | —                      | 161   |                         |
| Issuance of warrants  | —                      | —         | —                      | —       | 73        | —                                | —                      | 73  |                         |
| Net loss  | —                      | —         | —                      | —       | —         | (945 )                           | —                      | (945 )  |                         |
| Foreign currency<br>translation adjustment                      | —                      | —         | —                      | —       | —         | —                                | 44                     | 44  |                         |
| December 31, 2012   | 5,547                  | \$105,367 | 266                    | \$1,074 | \$4,468   | \$ (81,917 )                     | \$ 2,016               | \$ 31,008                                     |                         |
| Public offering of<br>common stock, net                         | —                      | —         | 3,600                  | 3       | 31,445    | —                                | —                      | 31,448  |                         |
| Convert preferred stock<br>common stock upon<br>public offering | (5,601)                | (105,801) | 8,739                  | (1,211) | 107,012   | —                                | —                      | —   |                         |
| Stock options exercised   | —                      | —         | 29                     | 87      | 86        | —                                | —                      | 173   |                         |
| Warrants exercised  | 54                     | 434       | 10                     | 60      | —         | —                                | —                      | 494   |                         |
| Stock based<br>compensation                                     | —                      | —         | —                      | —       | 1,012     | —                                | —                      | 1,012   |                         |
| Net loss  | —                      | —         | —                      | —       | —         | (1,406 )                         | —                      | (1,406 )                                      |                         |
| Foreign currency<br>translation adjustment                      | —                      | —         | —                      | —       | —         | —                                | 348                    | 348   |                         |
| December 31, 2013   | —                      | \$—       | 12,644                 | \$13    | \$144,023 | \$ (83,323 )                     | \$ 2,364               | \$ 63,077                                     |                         |

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

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

|   | Year ended December 31, |          |            |
|---|-------------------------|----------|------------|
|   | 2013                    | 2012     | 2011       |
| Operating activities:   |                         |          |            |
| Net loss  | \$(1,406 )              | \$(945 ) | \$(5,328 ) |
| Adjustments to reconcile net loss to net cash used in operating activities: |                         |          |            |
| Provision for obsolete inventory  | 492                     | 858      | 1,579      |
| Depreciation and amortization   | 3,407                   | 2,942    | 3,112      |
| Loss on disposal of assets  | 1                       | 36       | 80         |
| Share-based compensation and warrant expense                                | 1,069                   | 161      | 563        |
| Changes in operating assets and liabilities:                                |                         |          |            |
| Accounts receivable   | (8,457 )                | (1,158 ) | (4,498 )   |
| Bank acceptance receivable  | 1,036                   | (1,034 ) | –          |
| Inventory   | (7,520 )                | (538 )   | (1,578 )   |
| Other current assets  | (4,622 )                | (261 )   | 473        |
| Accounts payable  | 8,079                   | (961 )   | 1,534      |
| Accrued liabilities   | 1,369                   | 542      | (62 )      |
| Net cash used in operating activities                                       | (6,552 )                | (358 )   | (4,125 )   |
| Investing activities:   |                         |          |            |
| Purchase of short-term investments  | (7,970 )                | –        | –          |
| Purchase of property, plant and equipment                                   | (9,600 )                | (3,178 ) | (1,790 )   |
| Proceeds from disposal of equipment   | –                       | 138      | 387        |
| Deposits and deferred charges   | (43 )                   | (41 )    | (1 )       |
| Purchase of intangible assets   | (123 )                  | (209 )   | (167 )     |
| Net cash used in investing activities                                       | (17,736)                | (3,290 ) | (1,571 )   |
| Financing activities:   |                         |          |            |
| Proceeds from issuance of notes payable and long-term debt                  | 2,851                   | 845      | –          |
| Principal payments of long-term debt and notes payable                      | (285 )                  | (707 )   | (245 )     |
| Proceeds from line of credit borrowings                                     | 23,192                  | 15,560   | 16,098     |
| Repayments of line of credit borrowings                                     | (23,008)                | (13,692) | (15,200)   |
| Proceeds from bank acceptance payable                                       | 6,778                   | 3,746    | 662        |
| Repayments of bank acceptance payable                                       | (6,026 )                | (2,894 ) | –          |
| Repayments of shareholder loans   | –                       | (150 )   | (1,200 )   |
| Increase in restricted cash   | (249 )                  | (193 )   | (155 )     |
| Exercise of stock options   | 173                     | 5        | 16         |
| Exercise of warrants  | 494                     | –        | –          |
| Common stock issued for consultant services                                 | –                       | –        | 1          |
| Proceeds from initial public offering, net                                  | 31,448                  | –        | –          |
| Issuance of preferred stock, net  | –                       | 10,234   | 2,859      |
| Net cash provided by financing activities                                   | 35,368                  | 12,754   | 2,836      |
| Effect of exchange rate changes on cash                                     | 203                     | (150 )   | 136        |
| Net increase (decrease) in cash   | 11,283                  | 8,956    | (2,724 )   |
| Cash and cash equivalents at beginning of year                              | 10,723                  | 1,767    | 4,492      |

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|   |          |          |         |
|---|----------|----------|---------|
| Cash and cash equivalents at end of year            | \$22,006 | \$10,723 | \$1,768 |
| Supplemental disclosure of cash flow information:   |          |          |         |
| Cash paid for:                                      |          |          |         |
| Interest  | 1,133    | 1,469    | 1,392   |
| Income taxes  | 1        | –        | 1       |
| Conversion of shareholders' loan to preferred stock | –        | 760      | 1,100   |

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

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**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. The Company is a leading, vertically integrated provider of fiber-optic networking products, primarily for three networking end-markets: cable television, fiber-to-the-home and internet data centers. The Company designs and manufactures a range of optical communications products at varying levels of integration, from components, subassemblies and modules to complete turn-key equipment.

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

**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. *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, share-based compensation expense, estimated useful lives of property and equipment, and taxes.

3. *Foreign Currency Translation*

All assets and liabilities of foreign subsidiaries are translated into U.S. dollars at the exchange rate as of the balance sheet date. Revenue and expense accounts are translated at weighted-average rates for the reporting period. Translation adjustments do not impact the results of operations and are reported as a separate component of stockholders' equity. Foreign currency transaction gains and losses are included in the consolidated statements of operations.

4. *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.



5. *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 \$6.6 million and \$1.1 million at December 31, 2013 and 2012, 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, 2013, approximately \$16.0 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.

6. *Restricted Cash/Compensating Balances*

The Company is required to maintain a compensation deposit equal to 30% of its bank acceptance notes to vendors with a China bank. The Company’s Taiwan subsidiary also uses time deposits for customs guarantee. As of December 31, 2013 and 2012, the amount of restricted cash was \$0.8 million and \$0.5 million, respectively.

7. *Short-Term Investments*

The Company invests its excess cash in bank certificates of deposit. As of December 31, 2013, the Company invested \$8.0 million in certificates of deposit in RMB currencies with Taiwan banks. The maturity dates range from 6 months to 12 months.

The Company arranged a revolving line of credit agreement with the same Taiwan bank by pledging 100% of its certificates of deposit. As of December 31, 2013, the pledged certificate of deposit for such arrangement amount is \$4.0 million.

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. *Bank Acceptance Receivable*

The Company carries its bank acceptance receivables at face value or discounted value if they are not interest bearing. The maturity date of the receivables are all within one year of the original issuance date and are carried at face value.

10. *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 2013, 2012 and 2011, its top ten customers represented 76.9%, 77.6% and 76.6% of its revenue, respectively. In 2013, Cisco Systems, Inc. represented 21.8% of its revenue, Amazon represented 18.2% of its revenue and Biogenomics Corp., a distributor, represented 8.7% of its total revenue. The five largest receivable balances for customers represented an aggregate of 66%, and 58% of total accounts receivable at December 31, 2013 and 2012, respectively.

11.

*Fair Value Accounting*

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.

12.

*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.

13.

*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:

|                                 | <b>Useful lives</b>   |
|---------------------------------|---|
| Buildings                       | 20 - 40 years   |
| Land improvements               | 10 years  |
| Machinery and equipment         | 3 - 20 years  |
| Furniture and fixtures          | 1 - 8 years   |
| Computer equipment and software | 3 - 7 years   |
| Leasehold improvements          | The shorter of the life of the applicable lease or the useful life of the improvement |
| Transportation equipment        | 5 years   |

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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.

14. *Intangible Assets*

Intangible assets consist of intellectual property that is stated at cost less accumulated amortization. As of December 31, 2013, the Company had 113 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.

15. *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.

16. *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.

17. *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, net of an estimated forfeiture rate, 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.

18. *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; delivery to a third party carrier has occurred; title and risk of loss have transferred to the customer; the price is fixed or determinable; collectability is reasonably assured and there are no uncertainties with respect to customer acceptance. The Company may offer units (samples) to current and potential customers at no charge for evaluation or qualification purposes. Such sample units are expensed as selling or research and development costs when shipped.

19. *Advertising Costs*

Advertising costs are charged to operations as incurred and amounted to approximately \$121,000, \$80,000 and \$104,000 for the years ended December 31, 2013, 2012 and 2011, respectively.

20. *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.

21. *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 realizability of deferred tax assets are 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.

Uncertain tax provisions are recorded at their net recognizable amount, based on the amount of tax, interest and penalties that management deems is more likely than not to be sustained upon settlement with the tax authorities in the domestic and international jurisdictions in which the Company operates. The Company records tax-related interest and penalties as a component of income tax expense.

22. *Supplemental Cash Flow Information*

During the years ended December 31, 2012 and 2011, \$0.8 million and \$1.1 million in aggregate principal amount of the convertible shareholder notes was converted by the holders, respectively. Upon conversion, 72,381 shares and 60,556 shares of Series G Preferred Stock were issued to the holders, respectively.

23.

*New Accounting Standards Adopted in this Report*

*ASU 2011-04.* In May 2011, the FASB issued ASU 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS*. This ASU represents the converged guidance of the FASB and the IASB on measuring fair value and for disclosing information about fair value measurements. The amendments in this ASU clarify the board of directors' intent about the application of existing fair value measurement and disclosure requirements and changes particular principles or requirements for measuring fair value and for disclosing information about fair value measurements. ASU 2011-04 is effective prospectively for interim and annual reporting periods beginning after December 15, 2011. The Company adopted the provisions of ASU 2011-04 on January 1, 2012, and the adoption of this standard did not have a material impact on the Company's financial position, results of operations or cash flows.



24.

*Reverse Stock Split*

On May 1, 2013, the Company's board of directors approved, and holders of the requisite number of outstanding shares of our capital stock approved on May 21, 2013, an amendment to our certificate of incorporation to effect a reverse stock split with respect to our securities. Based on the prior board and stockholder approvals, on August 16, 2013 the Company's board of directors determined that the ratio for the reverse stock split would be 30-to-one. The reverse stock split was effected on August 20, 2013, the date that the amendment to our certificate of incorporation was filed with the Delaware Secretary of State. The reverse stock split is reflected in the accompanying consolidated financial statements and related notes on a retroactive basis for all periods presented.

**NOTE C—EARNINGS PER SHARE**

Basic net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period. Diluted net loss 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 calculation of basic and diluted EPS:

|  | Year ended December 31,               |          |           |
|--|---------------------------------------|----------|-----------|
|  | 2013                                  | 2012     | 2011      |
|  | (in thousands, except per share data) |          |           |
| Numerator:   |                                       |          |           |
| Net loss   | \$(1,406)                             | \$(945 ) | \$(5,328) |
| Denominator:   |                                       |          |           |
| Weighted average shares used to compute net loss per share |                                       |          |           |
| Basic and diluted  | 9,965                                 | 266      | 264       |
| Net loss per share   |                                       |          |           |
| Basic and diluted  | \$(0.14 )                             | \$(3.56) | \$(20.21) |

The following potentially dilutive securities were excluded from the computation of diluted net loss per share as their effect would have been antidilutive:

| 2013 | 2012 | 2011 |
|------|------|------|
|------|------|------|

|                          | (in<br>thousands) |     |     |
|--------------------------|-------------------|-----|-----|
| Employee stock options   | 595               | 419 | 377 |
| Preferred stock warrants | 33                | 96  | 122 |
| Restricted stock units   | 33                | —   | —   |
|                          | 661               | 515 | 499 |

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**NOTE D—INVENTORIES**

At December 31, 2013 and 2012, inventories consisted of the following:

|                 | 2013           | 2012     |
|-----------------|----------------|----------|
|                 | (in thousands) |          |
| Raw materials   | \$8,832        | \$4,755  |
| Work in process | 8,708          | 4,434    |
| Finished goods  | 2,068          | 3,304    |
|                 | \$19,608       | \$12,493 |

For the years ended December 31, 2013, 2012 and 2011, the lower of cost or market adjustment expensed for inventory was \$0.5 million, \$0.9 million and \$1.6 million, respectively.

**NOTE E—PROPERTY, PLANT AND EQUIPMENT**

At December 31, 2013 and 2012, property, plant and equipment consisted of the following:

|  | 2013           | 2012     |
|--|----------------|----------|
|  | (in thousands) |          |
| Land improvements                              | \$103          | \$93     |
| Building and improvements                      | 16,016         | 15,239   |
| Machinery and equipment                        | 37,490         | 29,977   |
| Furniture and fixtures                         | 1,047          | 739      |
| Computer equipment and software                | 3,563          | 2,851    |
| Transportation equipment                       | 188            | 173      |
|  | 58,407         | 49,072   |
| Less accumulated depreciation and amortization | (28,145)       | (24,967) |
|  | 30,262         | 24,105   |
| Construction in progress                       | 139            | —        |
| Land   | 733            | 733      |
| Property, plant and equipment, net             | \$31,134       | \$24,838 |

For the years ended December 31, 2013, 2012 and 2011, depreciation expense of property, plant and equipment was \$3.3 million \$2.9 million and \$3.1 million, respectively.

**NOTE F—INTANGIBLE ASSETS**

At December 31, 2013 and 2012, intangible assets consisted of the following:

|                         | 2013           |              |   |             |
|-------------------------|----------------|--------------|---|-------------|
|                         | Gross          | Accumulated  |   | Intangible  |
|                         | Amount         | amortization |   | assets, net |
|                         | (in thousands) |              |   |             |
| Patents                 | \$1,632        | \$ (784      | ) | \$ 848      |
| Trademarks              | 10             | (7           | ) | 3           |
| Total intangible assets | 1,642          | (791         | ) | 851         |

|                         | 2012           |              |   |             |
|-------------------------|----------------|--------------|---|-------------|
|                         | Gross          | Accumulated  |   | Intangible  |
|                         | Amount         | amortization |   | assets, net |
|                         | (in thousands) |              |   |             |
| Patents                 | \$1,509        | \$ (718      | ) | \$ 791      |
| Trademarks              | 10             | (6           | ) | 4           |
| Total intangible assets | 1,519          | (724         | ) | 795         |

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For the years ended December 31, 2013, 2012 and 2011, amortization expense for intangible assets, included in general and administrative expenses on the income statement, was \$68,000 \$60,000 and \$46,000, respectively. The remaining weighted average amortization period for intangible assets is approximately 12 years.

At December 31, 2013, approximate amortization expense for intangible assets was as follows (in thousands):

|            |       |
|------------|-------|
| 2014       | \$68  |
| 2015       | 68    |
| 2016       | 68    |
| 2017       | 68    |
| 2018       | 68    |
| Thereafter | 511   |
|            | \$851 |

#### NOTE G—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, 2013 (in thousands):

|                           | Quoted<br>prices in<br>active<br>markets<br>for<br>identical<br>assets<br>(Level 1) | Significant<br>other<br>observable<br>remaining<br>inputs<br>(Level 2) | Significant<br>unobservable<br>inputs (Level<br>3) | Total    |
|---------------------------|---|--|--|----------|
| Assets:                   |   |  |  |          |
| Cash and cash equivalents | \$ 22,006   | \$ —   | \$ —   | \$22,006 |
| Restricted cash           | 775   | —  | —  | 775      |
| Short term investments    | 7,970   | —  | —  | 7,970    |
| Total assets              | \$ 30,751   | \$ —   | \$ —   | \$30,751 |
| Liabilities:              |   |  |  |          |
| Bank acceptance payable   |   | \$ 2,347   |  | \$2,347  |
| Total liabilities         | \$—   | \$ 2,347   | \$ —   | \$2,347  |

The following table presents a summary of the Company's financial instruments measured at fair value on a recurring basis as of December 31, 2012 (in thousands):

|                            | Quoted<br>prices in<br>active<br>markets<br>for<br>identical<br>assets<br>(Level 1) | Significant<br>other<br>observable<br>remaining<br>inputs<br>(Level 2) | Significant<br>unobservable<br>inputs (Level<br>3) | Total     |
|----------------------------|---|--|--|-----------|
| Assets:                    |   |  |  |           |
| Cash and cash equivalents  | \$ 10,723   | \$ –   | \$ –   | \$ 10,723 |
| Restricted cash            | 503   | –  | –  | 503       |
| Bank acceptance receivable | –   | 1,034  | –  | 1,034     |
| Total assets               | \$ 11,226   | \$ 1,034   | \$ –   | \$ 12,260 |
| Liabilities:               |   |  |  |           |
| Interest rate swap         | \$–   | \$ 11  | \$ –   | \$ 11     |
| Bank acceptance payable    | –   | 1,521  | –  | 1,521     |
| Total liabilities          | \$–   | \$ 1,532   | \$ –   | \$ 1,532  |

**NOTE H—NOTES PAYABLE AND LONG-TERM DEBT**

Notes payable and long-term debt consisted of the following:

|  | December 31,   |         |
|--|----------------|---------|
|  | 2013           | 2012    |
|  | (in thousands) |         |
| Term loan with a U.S. bank with monthly payments of principal and interest at prime plus 1.125% (floor rate: 4.375%), maturing May 3, 2014   | \$—            | \$ 141  |
| Term loan with a U.S. bank with monthly payments of principal and interest at prime plus 0.75% (floor rate: 4%), maturing November 15, 2014  | 3,076          | 3,181   |
| Revolving line of credit with a U.S. bank up to \$7,000 with interest at prime plus 0.5% (floor rate: 3.75%), maturing November 15, 2015   | 7,000          | 8,637   |
| Term loan with a U.S. bank with monthly payments of principal and interest at prime plus 0.75% (floor rate: 4.00%), maturing September 10, 2017  | 1,850          | —       |
| Revolving line of credit with a China bank up to \$12,000 with interest at 108%-110% of China Prime rate which ranged from 6.48% to 6.60% in 2013 with various maturity dates from January 2014 to August 2014 | 7,053          | 10,668  |
| Revolving line of credit with a China bank up to \$3,280 with interest ranged from 4.10% to 4.15% with various maturity dates from January 2014 to March 2014  | 2,413          | —       |
| Note payable to a finance company due in monthly installments with 9% interest, maturing October 31, 2013  | —              | 38      |
| Revolving line of credit with a Taiwan bank up to \$4,000 with interest at Taiwan Time Deposit Interest Rate Index plus 0.41% or LIBOR plus 1.28% maturing in December 2014                                    | 3,795          | —       |
| Note payable to a finance company due in monthly installments with 4.95% interest, maturing July 30, 2015  | 921            | 398     |
| Total  | 26,108         | 23,063  |
| Less current portion   | 17,185         | 13,900  |
| Long term portion  | \$8,923        | \$9,163 |
| Bank Acceptance Payable  |                |         |
| Bank acceptance notes issued to vendors with a zero percent interest rate, a 30% guarantee deposit of \$741, and maturity dates ranging from January 2014 to June 2014   | 2,347          | 1,521   |

The current portion of long-term debt is the amount payable within one year of the balance sheet date of December 31, 2013. The prime rate of interest was 3.25% on December 31, 2013 and 2012.

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

|                   |          |
|-------------------|----------|
| 2014              | \$17,185 |
| 2015              | 7,998    |
| 2016              | 529      |
| 2017              | 396      |
| Total outstanding | \$26,108 |

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The U.S. bank loans and line of credit agreement require the Company to meet certain financial covenants including a minimum current ratio, debt service coverage, unrestricted cash and maximum debt over tangible net worth ratio requirements. Collateral for the U.S. bank loans and line of credit includes substantially all of the assets of the Company. As of December 31, 2013, the Company was in compliance with all of its financial and operational covenants associated with these loans.

As of December 31, 2013, the Company had \$9.1 million of unused borrowing capacity.

In December 2013, the Company renewed its U.S. revolving line of credit of \$7.0 million with the same U.S. bank with a maturity date of November 15, 2015. The interest rate on this line of credit is the prime rate plus 0.50% or the floor rate 3.75%, whichever is higher.

The Company issued warrants to the same U.S. bank in connection with the renewals of the loan in 2009, 2010 and 2012. The Company estimated the fair value of these warrants at the date of the grant using the Black-Scholes option-pricing model and records the expense over the life of the warrants. As of December 31, 2013, 32,665 warrants related to these loans are outstanding. As of December 31, 2013, \$16,000 remains to be expensed for these warrants and this expense is expected to be recognized over the next four years.

The Company, through its China subsidiary, established RMB and USD currency lines of credit for \$12.1 million and \$3.3 million with a China Bank as of December 31, 2013. The interest rate for RMB line of credit ranged 108% and 110% of the China prime rate. The interest rate for USD currency ranged from 4.1% to 4.2%. This credit line is a revolving line that is renewable by its anniversary. Collateral for the loans includes the land use rights, building and equipment located in China.

The Company extended its equipment financing agreement of \$1.0 million with a Taiwan bank in 2013. The financing agreement required equipment collateral. The agreement requires monthly installment payments over 24 months and ends in July 2015. The financing agreement bears interest at the rate of 4.95%.

The Company, through its Taiwan branch, established a \$8 million revolving line of credit with Taiwan banks in 2013. The financing agreement required collateral of its time deposit of \$8.0 million that is included in short-term investment. The interest rate for the revolving line of credit is variable every six months at Taiwan Time Deposit Interest Rate Index plus 0.41% maturing in December 2014, which is 1.78% as of December 31, 2013.

#### **NOTE I—SHORT-TERM LOAN WITH SHAREHOLDERS**

In 2010, the Company borrowed \$3.2 million from 12 shareholders under the terms of unsecured promissory note agreements. These notes bore an interest rate of 6% with maturity dates of 18 months from the effective dates of the notes originally maturing on October 21, 2011, but extended to December 31, 2012. The note holders were also issued warrants that expire by April 23, 2020, to purchase 51,200 shares of the Company's Series F Preferred Stock, with an exercise price of \$7.50 per share. As part of the loan maturity date extension, additional warrants to purchase 6,081 shares of the Company's Series G Preferred Stock were issued in 2011 with an exercise price of \$18.00 per share that expire on April 23, 2020.

In 2011, two of the note holders converted their respective notes into shares of Series G Preferred Stock and four of the notes were repaid in full. In 2012, five of the remaining note holders converted their respective notes into shares of Series G Preferred Stock and one of the notes was repaid. As of December 31, 2012, all principal and interest related to these notes had been fully satisfied.

During the year ended December 31, 2013, warrants related to these loans were exercised for 64,219 shares of common stock.

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**NOTE J—ACCRUED LIABILITIES**

Accrued liabilities consisted of the following as of December 31:

|                           | 2013           | 2012    |
|---------------------------|----------------|---------|
|                           | (in thousands) |         |
| Accrued payroll           | \$2,279        | \$1,631 |
| Accrued employee benefits | 489            | 429     |
| Accrued taxes             | 270            | 167     |
| Accrued interest          | 34             | 74      |
| Advance payments          | 128            | 189     |
| Accrued commission        | 148            | 69      |
| Accrued professional fees | —              | 22      |
| Accrued other             | 1,167          | 662     |
|                           | \$4,515        | \$3,243 |

**NOTE K—OTHER INCOME AND EXPENSE**

Other income and expense consisted of the following as of December 31:

|   | 2013           | 2012  | 2011    |
|---|----------------|-------|---------|
|   | (in thousands) |       |         |
| Interest income                         | \$104          | \$26  | \$15    |
| Unrealized foreign exchange gain (loss) | (342)          | 217   | (352)   |
| Realized foreign exchange gain (loss)   | (70 )          | (79 ) | 83      |
| Government subsidy income               | 322            | 92    | 77      |
| Other non-operating gain (loss)         | 4              | 38    | 1       |
| Gain (loss) on disposal of assets       | 8              | (37 ) | (80 )   |
|   | \$26           | \$257 | \$(256) |

**NOTE L—INCOME TAXES**

The sources of our income or loss from operations before income taxes were as follows:

|          | Year ended December 31, |           |           |
|----------|-------------------------|-----------|-----------|
|          | 2013                    | 2012      | 2011      |
|          | (in thousands)          |           |           |
| Domestic | \$(684 )                | \$(3,077) | \$(3,513) |

|              |           |          |           |
|--------------|-----------|----------|-----------|
| Foreign loss | (722 )    | 2,132    | (1,815)   |
| Total loss   | \$(1,406) | \$(945 ) | \$(5,328) |

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Deferred income tax assets and liabilities result principally from net operating losses, different methods of recognizing depreciation, reserve for doubtful accounts, inventory reserves for obsolescence and accrued vacation, together with timing differences between book and tax reporting. At December 31, the net deferred tax assets and liabilities are comprised of the following approximate amounts:

|                              | 2013           | 2012     |
|------------------------------|----------------|----------|
|                              | (in thousands) |          |
| NOL Carryforward             | \$14,908       | \$22,673 |
| Inventory reserves           | 489            | 389      |
| Stock compensation           | 624            | 511      |
| Fixed assets and intangibles | (1,631 )       | 1,582 )  |
| Impairment loss              | (615 )         | (614 )   |
| Other                        | 335            | 267      |
|                              | 14,110         | 21,644   |
| Less valuation allowance     | (14,110)       | (21,644) |
| Deferred tax assets, net     | \$-            | \$-      |

The valuation allowance was established to reduce the deferred tax asset for the amount that will likely not be realized. This reduction is 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 \$7.5 million in 2013 and increased by approximately \$1.5 million and \$0.8 million in 2012 and 2011, respectively.

As of December 31, 2013 and 2012, and for the periods then ended, the Company had no uncertain tax positions.

The Company has a U.S. net operating loss carry forward of approximately \$65.7 million, which expires between 2020 and 2033. The Company also has U.S. research and development tax credits of \$1.6 million which expire between 2020 and 2032. The Company has a net operating loss carryforward from its China operations of approximately \$3.6 million, which expires between 2014 and 2017. Utilization of net operating losses and tax credit carryforwards are subject to a substantial annual limitation due to the ownership change limitations set forth in Internal Revenue Code Section 382. Based upon analysis performed with respect to Section 382 of the Internal Revenue Code, approximately \$21.7 million of the total available U.S. net operating loss carry forwards will not be available for utilization as an offset to taxable income in future periods. Because of changes in control that are deemed to have occurred under Section 382, the Company's net operating loss carry forward available in calendar year 2013 to shelter taxable income was limited to \$41.3 million at December 31, 2013, with an additional \$3.7 million becoming available between 2014 and 2025. The additional \$3.7 million is subject to an annual limitation of the \$0.3 million. Additional ownership changes could result in the expiration of the net operating loss and tax credit carryforward before utilization.

The Company files income tax returns in the U.S federal jurisdiction and various states and foreign jurisdictions. As of December 31, 2013, the Company's federal returns for the year ended December 31, 2011 through the current period are still open to examination. In addition, all of the net operating losses and research and development credit carry forwards that may be utilized in future years are still subject to examination. The Company is not currently subject to U.S. federal, state and local, or non-U.S. income tax examinations by any tax authorities.

A reconciliation of the U.S. federal income tax rate of 34% for the years ended December 31, 2013, 2012 and 2011 to the Company's effective income tax rate follows:

| 2013           | 2012 | 2011 |
|----------------|------|------|
| (in thousands) |      |      |

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|  |           |           |             |
|--|-----------|-----------|-------------|
| Expected (benefit) taxes                   | \$ (467 ) | \$ (293 ) | \$ (1,808 ) |
| Non-deductible expenses                    | 619       | (760 )    | 1,003       |
| (Decrease) Increase in valuation allowance | (7,533)   | 1,545     | 845         |
| Section 382 limitation                     | 7,423     | –         | –           |
| Other                                      | (42 )     | (492 )    | (40 )       |
| Tax expense                                | \$–       | \$–       | \$–         |

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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 2011. In 2011, Global Technology, Inc. renewed its National high-tech enterprise certificate and was therefore extended its three year tax preferential status from November 2011 to November 2014.

For 2011 and 2012, there were no identified uncertain tax positions. During 2013, our liabilities for uncertain tax positions increased by \$2.2 million based on tax positions related to our net operating loss carryforwards. As of December 31, 2013, we had \$2.2 million, of unrecognized tax benefits on net operating loss carryforwards that must be certified under the dual consolidated loss rules. If recognized, there would be no impact our effective tax rate as a result of the full valuation allowance previously recognized. We believe that it is reasonably possible that \$0 of our remaining unrecognized tax positions may be recognized by the end of 2014 as a result of a lapse of the statute of limitations.

#### **NOTE M—SHARE-BASED COMPENSATION**

The Company's board of directors and stockholders previously approved, the 1998 Share Incentive Plan, the 2000 Share Incentive Plan, the 2004 Share Incentive Plan and the 2006 Share Incentive Plan, (collectively the "Prior Plans"). As of December 31, 2013, the Company had options outstanding to purchase 708,473 shares of common stock under its Prior Plans with a weighted average exercise price of \$6.68 per share. Following the Company's initial public offering in September 2013, no further awards will be granted under the Prior Plans. However, all outstanding awards under the Prior Plans will continue to exist and will continue to be governed by their existing terms.

On April 12, 2013, our board of directors adopted and approved the Company's 2013 Equity Incentive Plan, (the "2013 Plan"), and it was subsequently approved by the Company's stockholders on May 21, 2013. As of December 31, 2013, the Company had options outstanding to purchase 759,429 shares of common stock under the 2013 Plan with a weighted average exercise price of \$9.97 per share.

The Company issues stock options to employees, consultants and non-employee directors. Stock option awards for the Prior Plans and the 2013 Plan 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, 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.

Under the 2013 Plan, participants may be granted RSUs, representing an unfunded, unsecured right to receive common stock on the date specified in the recipient's award. The RSUs granted under the plan generally vest over one year at a rate of 1/12<sup>th</sup> per month. The Company recognizes compensation expense on a straight-line basis over the applicable vesting term of the award.

During the year ended December 31, 2013, the Company granted 33,000 RSUs with a total grant-date fair value of \$0.3 million. The resulting compensation expense recorded in the year ended December 31, 2013 was approximately \$0.2 million. At December 31, 2013, there was \$0.1 million of unrecognized compensation cost related to RSUs, all of which is expected to be realized within one year.

The Company estimates the fair value of employee stock options at the date of the grant using the Black-Scholes option-pricing model with the following assumptions:

|                         | 2013           | 2012  | 2011  |
|-------------------------|----------------|-------|-------|
| Expected volatility     | 52 to 70%      | 70.0% | 70.0% |
| Risk-free interest rate | 0.96% to 2.97% | 1.01% | 2.32% |
| Expected term (years)   | 6.25           | 6.25  | 6.25  |
| Expected dividend yield | -              | -     | -     |
| Estimated forfeitures   | 7.5%           | 10%   | 13%   |



As there had been no market for the Company's common stock prior to its initial public offering, the expected volatility for options granted to date was derived from an analysis of reported data for a peer group of companies that issued options with similar terms. The expected volatility has been determined using an average of the expected volatility reported by this peer group of companies. The Company uses a risk free interest rate based on the 10-year Treasury as reported during the period. The expected term of the options has been determined utilizing the simplified method which calculates a simple average based on vesting period and option life. The Company does not anticipate paying dividends in the near future. Estimated forfeitures are based on historical experience and future work force projections.

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

|  | 2013           | 2012  | 2011  |
|--|----------------|-------|-------|
|  | (in thousands) |       |       |
| Cost of goods sold                     | \$56           | \$7   | \$35  |
| Research and development               | 53             | 8     | 50    |
| Sales and marketing                    | 52             | 9     | 58    |
| General and administrative             | 907            | 137   | 420   |
| Total share-based compensation expense | \$1,068        | \$161 | \$563 |

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:

|                                | Number<br>of<br>shares            | Exercise price | Weighted<br>average<br>exercise<br>price |
|--------------------------------|-----------------------------------|----------------|--|
|                                | (in thousands, except price data) |                |  |
| Outstanding, January 1, 2011   | 288                               | 3.00 - 7.50    | 5.838                                    |
| Granted                        | 124                               | 6.00           | 6.000                                    |
| Exercised                      | (3 )                              | 3.00 - 6.00    | 6.000                                    |
| Forfeited                      | (25 )                             | 6.00           | 6.000                                    |
| Expired                        | (7 )                              | 4.50 - 6.00    | 5.973                                    |
| Outstanding, December 31, 2011 | 377                               | 3.00 - 7.50    | 5.877                                    |
| Granted                        | 88                                | 6.00           | 6.000                                    |
| Exercised                      | (1 )                              | 6.00 - 7.50    | 6.291                                    |
| Forfeited                      | (19 )                             | 6.00           | 6.000                                    |

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|                                |       |              |       |
|--------------------------------|-------|--------------|-------|
| Expired                        | (26 ) | 3.00 - 7.50  | 5.301 |
| Outstanding, December 31, 2012 | 419   | 3.00 - 7.50  | 5.936 |
| Granted                        | 1,099 | 7.50 - 12.90 | 9.214 |
| Exercised                      | (29 ) | 4.50 - 6.00  | 5.875 |
| Forfeited                      | (16 ) | 3.00 - 7.50  | 7.099 |
| Expired                        | (5 )  | 3.00 - 7.50  | 5.986 |
| Outstanding, December 31, 2013 | 1,468 | 3.00 - 12.90 | 8.379 |
| Exercisable, December 31, 2013 | 275   | 3.00 - 7.50  | 5.915 |
| Vested and expected to vest    | 1,325 | 3.00 - 12.90 | 8.287 |

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The following table summarizes information about the options outstanding at December 31, 2013:

| Range of exercise prices | Number of shares outstanding      | Weighted average exercise price | Aggregate intrinsic value | Weighted average remaining contractual life (years) | Number of shares exercisable | Weighted average exercise price | Aggregate intrinsic value | Weighted average remaining contractual life (years) |
|--------------------------|-----------------------------------|---------------------------------|---------------------------|---|------------------------------|---------------------------------|---------------------------|---|
|                          | (in thousands, except price data) |                                 |                           |   |                              |                                 |                           |   |
| \$3.00 - \$6.00          | 371                               | 5.914                           | \$ 3,373                  | 6.59  | 270                          | 5.881                           | \$ 2,463                  | 6.22  |
| 7.50 - 12.90             | 1,097                             | 9.213                           | 6,360                     | 9.49  | 5                            | 7.500                           | 43                        | 1.77  |
| Total                    | 1,468                             | 8.379                           | \$ 9,733                  | 8.76  | 275                          | 5.915                           | \$ 2,506                  | 6.13  |

As of December 31, 2013, total compensation cost related to unvested stock options not yet recognized was \$5.1 million, which is expected to be expensed over a weighted-average period of 3.41 years.

The aggregate intrinsic value of options outstanding and options exercisable as of December 31, 2013 and December 31, 2012 was \$2.5 million and \$0.7 million, respectively.

The number and weighted average fair value of options granted in 2013, 2012 and 2011 is as follows:

| 2013                        | 2012                        | 2011                        |
|-----------------------------|-----------------------------|-----------------------------|
| Shares                      | Shares                      | Shares                      |
| Weighted average fair value | Weighted average fair value | Weighted average fair value |
| (shares in thousands)       |                             |                             |
| 1,099                       | 88                          | 124                         |
| \$ 4.9986                   | \$ 4.9260                   | \$ 0.3930                   |

#### NOTE N—STOCKHOLDERS' EQUITY

##### 1. *Common Stock*

The Company has authorized the issuance of up to 45,000,000 shares of common stock, all of which have been designated voting common stock, under its Amended and Restated Certificate of Incorporation.

2.

*Convertible Preferred Stock*

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

3.

*Warrants*

As of December 31, 2013, the Company had outstanding warrants to purchase:

- 15,999 shares of common stock at an exercise price of \$6.25 per share.
- 9,999 shares of common stock at an exercise price of \$15.00 per share.
- 6,667 shares of common stock at an exercise price of \$10.50 per share.

For the year ended December 31, 2013, \$57,000 of expense was recorded related to these warrants. At December 31, 2013, \$16,000 of deferred compensation remains to be expensed for these warrants. During the year ended December 31, 2013, warrants were exercised for 74,219 shares of common stock.

*Public Offering of Common Stock*

On September 25, 2013, the Company sold 3.6 million shares of its common stock in its initial public offering at a price of \$10.00 per share, providing proceeds of \$31.5 million net of expenses and underwriting discounts and commissions. The Company's initial public offering closed on October 1, 2013.

**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 product manufacturing plants. Long-lived assets in the tables below comprise only property, plant, equipment and intangible assets (in thousands):

|               | For the year ended    |          |          |
|---------------|-----------------------|----------|----------|
|               | December 31,          |          |          |
|               | 2013                  | 2012     | 2011     |
| Revenues:     | <b>(in thousands)</b> |          |          |
| United States | \$14,705              | \$12,192 | \$18,767 |
| Taiwan        | 31,863                | 15,200   | 6,547    |
| China         | 31,856                | 36,029   | 22,526   |
|               | \$78,424              | \$63,421 | \$47,840 |

|                    | As of December 31,    |          |          |
|--------------------|-----------------------|----------|----------|
|                    | 2013                  | 2012     | 2011     |
| Long-lived assets: | <b>(in thousands)</b> |          |          |
| United States      | \$9,415               | 8,966    | \$9,457  |
| Taiwan             | 7,192                 | 3,719    | 2,325    |
| China              | 16,337                | 13,595   | 14,052   |
|                    | \$32,944              | \$26,280 | \$25,834 |

The Company serves three primary markets, the CATV, internet data center and FTTH markets. Of the Company's total revenues in 2013, the Company earned \$47.4 million, or 60.4%, from the CATV market, \$19.4 million, or

24.7%, from the internet data center market, \$4.4 million, or 5.6%, from the FTTH market, and \$7.3 million, or 9.3%, from other markets. Of the Company's total revenues in 2012, the Company earned \$49.8 million, or 78.6%, from the CATV market, \$5.3 million, or 8.3%, from the internet data center market, \$3.7 million, or 5.8% from the FTTH market, and \$4.6 million, or 7.3% from other markets.

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#### **NOTE P—MAJOR CUSTOMERS**

The Company currently derives its revenues from customers in the United States and throughout the rest of the world. Generally, the Company does not require deposits or other collateral to support customer receivables. The Company performs an initial and periodic credit evaluation of its customers and maintains an allowance for uncollectible accounts for potential uncollectible accounts. 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 2013, 2012 and 2011, its top ten customers represented 76.9%, 77.6% and 76.6% of its revenue, respectively. In 2013, Cisco Systems, Inc. represented 21.8% of its revenue, Amazon represented 18.2% of its revenue and Biogenomics Corp., a distributor, represented 8.7% of its total revenue. The five largest receivable balances for customers represented an aggregate of 66%, and 58% of total accounts receivable at December 31, 2013 and 2012, respectively.

#### **NOTE Q—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 no contributions to the 401(k) plan for the years ended December 31, 2013, 2012 and 2011.

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 AOI—Taiwan participate in a pension program under the Taiwan Labor Pension Act. Pension expense for Global was \$384,000, \$244,000 and \$206,000 in 2013, 2012 and 2011, respectively. Pension expense for AOI—Taiwan was \$203,000, \$168,000 and \$123,000 in 2013, 2012 and 2011, respectively.

#### **NOTE R—COMMITMENTS AND CONTINGENCIES**

1. *Commitments*

The Company conducts part of its operations from leased facilities and also leases equipment. Rent expense was \$0.6 million, \$0.6 million and \$0.4 million for the years ended December 31, 2013, 2012 and 2011, respectively.

At December 31, 2013, the approximate minimum rental commitments under noncancellable leases in excess of one year that expire at varying dates through 2017 were as follows:

| <u>Year ending December 31,</u> | Amount<br>(in<br>thousands) |
|---------------------------------|-----------------------------|
| 2014                            | \$ 689                      |
| 2015-2017                       | 225                         |
|                                 | \$ 914                      |

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2. *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 two other executive officers. 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.

In 2012, the Company entered into consulting agreements with two of its shareholders and board members for a period of one year from June 2012 to June 2013. Each agreement provides that a consulting fee will be paid to the consultant within 30 days after submission of the invoice by the consultant. The Company incurred \$35,000 and \$41,000 of consulting service fees to these consultants in 2013 and 2012, respectively.

3. *Contingencies*

The Company may be party to litigation, claims or assessments in the ordinary course of business. Management is not aware of any of these matters that would have a material effect on the financial condition, results of operations or cash flows of the Company.

**NOTE S—RELATED PARTY TRANSACTIONS**

The Company had the following related parties' activities with its shareholders:

|                         | 2013           | 2012  | 2011   |
|-------------------------|----------------|-------|--------|
|                         | (in thousands) |       |        |
| Interest expense        | \$—            | \$ 36 | \$ 176 |
| Consulting service fees | 35             | 41    | 150    |
| Note payable            | —              | —     | 910    |
| Interest payable        | —              | —     | 122    |

**NOTE T—SUBSEQUENT EVENTS**

We have evaluated subsequent events through the date the financial statements were available to be issued.

On January 28, 2014, the Company's board of directors granted stock options for 107,800 shares of the Company's common stock to various employees of the Company. The stock options have an exercise price of \$13.84 per share and vest over a four year period from date of grant.

On January 3, 2014 the Company paid down \$7.0 million of loans subsequent to year-end.

On January 6, 2014 the Company paid down \$4.5 million of loans of its China subsidiary subsequent to year-end.

Subsequent to year end, the Company drew down \$4.0 million of loans of its Taiwan bank facility.

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**NOTE U—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, 2013 and 2012.

| Year ended December 31, 2012  | First<br>Quarter  | Second<br>Quarter | Third<br>Quarter | Fourth<br>Quarter |
|---|---|-------------------|------------------|-------------------|
|   | <b>(in thousands, except percentages, share<br/>and per share data)</b> |                   |                  |                   |
| Revenue   | \$12,506  | \$15,638          | \$16,416         | \$18,861          |
| Cost of goods sold  | 8,393   | 10,938            | 11,743           | 13,418            |
| Gross profit  | \$4,113   | \$4,700           | \$4,673          | \$5,443           |
| Gross margin  | 32.9%   | 30.1%             | 28.5%            | 28.9%             |
| Operating expenses:   |   |                   |                  |                   |
| Research and development  | \$1,574   | \$1,708           | \$2,178          | \$2,144           |
| Sales and marketing   | 814   | 806               | 759              | 756               |
| General and administrative  | 1,961   | 1,947             | 1,892            | 2,213             |
| Total operating expenses  | \$4,349   | \$4,460           | \$4,829          | \$5,112           |
| Income (loss) from operations   | \$(236 )  | \$240             | \$(156 )         | \$331             |
| Interest and other income (expense), net                                | (287 )  | (332 )            | (225 )           | (280 )            |
| Net income (loss)   | \$(523 )  | \$(92 )           | \$(381 )         | \$51              |
| Net loss per share—basic, as revised                                    | \$(1.97 )   | \$(0.35 )         | \$(1.43 )        | \$0.20            |
| Net loss per share—diluted, as revised                                  | \$(1.97 )   | \$(0.35 )         | \$(1.43 )        | \$0.07            |
| Weighted average shares used to compute net loss per share, as revised: |   |                   |                  |                   |
| Basic   | 265,168   | 265,590           | 265,920          | 265,920           |
| Diluted   | 265,168   | 265,590           | 265,920          | 695,241           |

| Year ended December 31, 2013  | First<br>Quarter  | Second<br>Quarter | Third<br>Quarter | Fourth<br>Quarter |
|---|---|-------------------|------------------|-------------------|
|   | <b>(in thousands, except percentages, share and per share data)</b> |                   |                  |                   |
| Revenue   | \$14,317  | \$19,597          | \$20,766         | \$23,744          |
| Cost of goods sold  | 9,732   | 14,150            | 14,445           | 17,068            |
| Gross profit  | \$4,585   | \$5,447           | \$6,321          | \$6,676           |
| Gross margin  | 32.0%   | 27.8%             | 30.4%            | 28.1%             |
| Operating expenses:   |   |                   |                  |                   |
| Research and development  | \$2,004   | \$1,898           | \$2,211          | \$2,400           |
| Sales and marketing   | 907   | 1,053             | 1,034            | 1,198             |
| General and administrative  | 2,374   | 2,447             | 2,435            | 3,375             |
| Total operating expenses  | \$5,285   | \$5,398           | \$5,680          | \$6,973           |
| Income (loss) from operations   | \$(700 )  | \$49 )            | \$641 )          | \$(297 )          |
| Interest and other income (expense), net                                | (294 )  | (331 )            | (250 )           | (223 )            |
| Net income (loss)   | \$(994 )  | \$(282 )          | \$390 )          | \$(520 )          |
| Net loss per share—basic, as revised                                    | \$(3.74 )   | \$(1.04 )         | \$0.04 )         | \$(0.04 )         |
| Net loss per share—diluted, as revised                                  | \$(3.74 )   | \$(1.04 )         | \$0.04 )         | \$(0.04 )         |
| Weighted average shares used to compute net loss per share, as revised: |   |                   |                  |                   |
| Basic   | 265,920   | 270,912           | 8,995,397        | 12,630,603        |
| Diluted   | 265,920   | 270,912           | 9,154,692        | 12,630,603        |