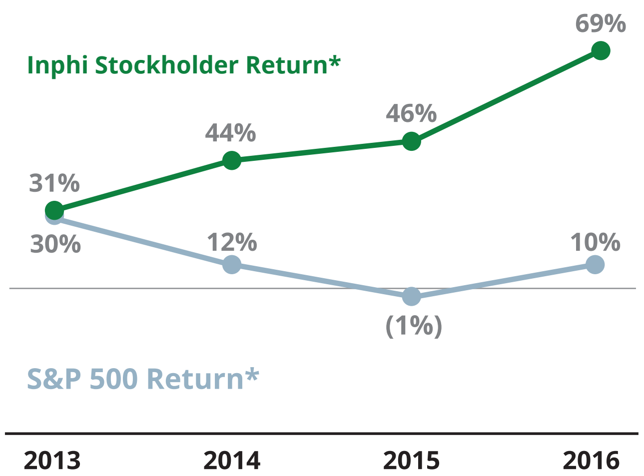
Inphi®

2016 Annual Report

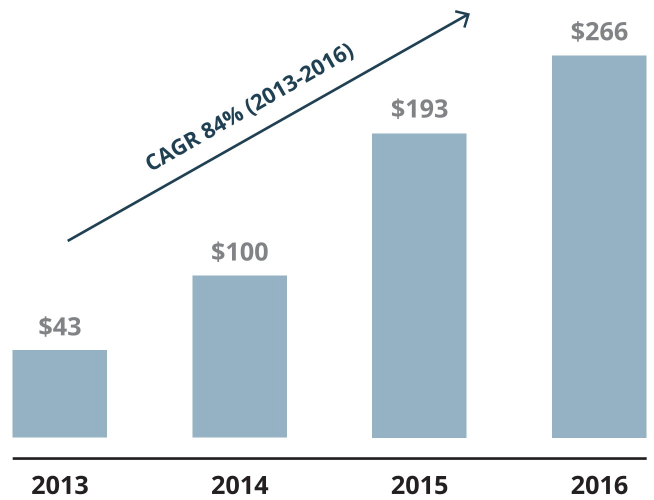
World-leading innovations

Inphi Leadership in Data Movement Interconnects Yields Superior Stockholder Returns

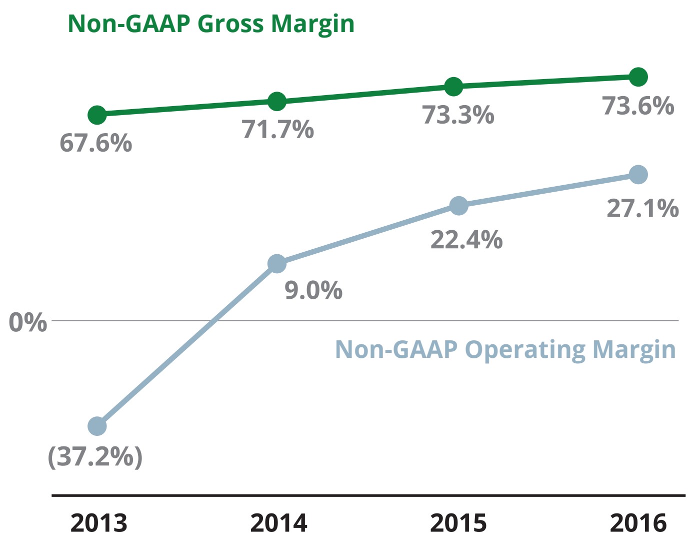
Inphi Shareholder Return vs. S&P 500*



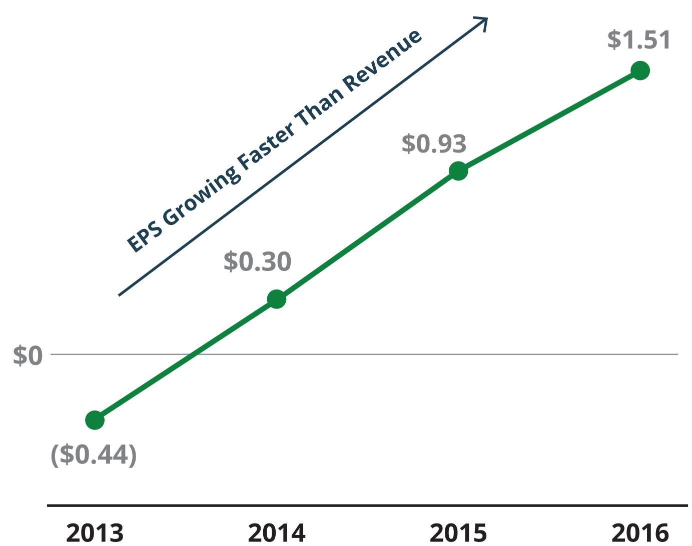
Non-GAAP Annual Revenue ($M)**



Non-GAAP Operating Margin & Gross Margin**



Non-GAAP EPS**



*As measured by change from opening price on first trading day of year to closing price on last trading day of year

**Pro forma, Non-GAAP results adjusted for discontinued operations of the sale of the Memory Business

April 26, 2017

Dear Inphi Stockholders:

2016 was another strong year for Inphi. We continued to deliver on our financial commitments, while strategically focusing our product portfolio on the rapidly growing data center interconnect market.

Good shareholder return, driven by strong financial results

We delivered a 69% stock price appreciation, well ahead of the S&P 500 10% return for the year. In 2016, we increased our top line non-GAAP revenue by 38% to $266 million, while we increased non-GAAP earnings per share to $1.51, a 62% increase over the $0.93 we reported in 2015 from continuing operations. Over the past four years, from January 1, 2013 to December 31, 2016, Inphi stock price appreciated 465%, compared to 59% for the S&P 500. During that same 2013-2016 period, our yearly non-GAAP revenue from continuing operations increased six fold, resulting in our non-GAAP operating margin rising from negative territory in 2013 to 27.1% for 2016. The revenue growth was driven by the 67% organic annual growth rate of our core communication business. While focused on growth, we continue to invest in R&D to enable future revenue growth and shareholder return at the high end of our peer group. We thank you, our loyal stockholders, for your continued support as we scale Inphi to the next level.

End-user trends create exponential data and bandwidth demands

In 2015, we highlighted the following end-user trends driving data and bandwidth demand in our infrastructure markets: video streaming, social networking, e-commerce, big data, 4G wireless, cloud computing and Internet of Things. These end markets have been growing at double digit CAGRs, based on third party market research. In 2016, we identified new trends that are accelerating the increased data and traffic across telecom and cloud providers, including new media created by the merger of network and content providers, chatbots, artificial intelligence, augmented/virtual/mixed reality devices and applications, 5G wireless, secure cloud, and autonomous vehicles. In our view, these end-user trends create a rapidly growing demand environment for our products and solutions.

Underlying infrastructure markets go from cyclical to secular growth

Some of our investors still remember the optical bubble of the year 2000. At that time, the end-market demand was not sustained. Now, the growing end-user trends are supporting the growth of four infrastructure markets that we are focused on serving: China telecom, North America telecom, cloud providers and enterprise markets. In China, 2016 witnessed strong growth driven by the rollout of the National Backbone infrastructure as part of the China Broadband five-year plan. As I write this letter, we expect the second phase of this plan to roll out for provincial backbones in the second half of 2017. In the United States, a healthy competition between the top service providers is upping the bandwidth requirements from 40 to 100, 200 and 400 Gigabits-per-second networks. In cloud data centers, the rollout of 100 Gigabit-per-second is in full force, and we expect our inter-data center ColorZ™ solution to be a big growth driver for 80 kilometer distances. Finally, we expect a fourth leg of growth when large Fortune 500 enterprises adopt optical solutions, as they migrate from 10 to 25 Gigabit per second NIC cards. These four legs should provide more stability and present a move to secular growth for Inphi.

2016 ushered in a new Inphi

In order to position Inphi to serve these emerging markets, we completed three major transformations in our business in 2016:

1. We announced ColorZ, our solution for 80 kilometer inter-data center interconnect, with Microsoft at the Optical Fiber Conference (OFC), in March;
2. We completed the sale of our memory business to Rambus in August; and
3. We closed on our acquisition of ClariPhy, a leader in coherent DSP for long haul and metro, in December.

In addition, we furthered our success in our core communication business during 2016:

1. We shipped more than 1.5 million units of coherent TiAs and drivers in 2016, clearly demonstrating our leadership in optical interconnects;
2. We introduced our Silicon Photonics technology platform for 100G DWDM;
3. We were first to sample 45 Gbaud and 64 Gbaud TiA and driver offerings for long haul and metro markets; and
4. We introduced our second generation 50/100/400 Gigabit per second PAM transceivers and our 10/25/28 Gigabit per second quad retimers.

These three transformations, combined with continued progress in our core communications business, morphed Inphi from a provider of high-speed analog components, to a leader in the emerging and rapidly growing market for data center interconnects (DCI). The new Inphi is well positioned to serve the needs of our customers and partners in long haul, metro, metro DCI, DCI edge, and inside data center market segments.

Now focused on five product lines

We have long been proud of our ability to work with our customers to supply award-winning, leading-edge components and solutions for the data center of tomorrow. We are particularly pleased to have done so as our business has evolved from a leading supplier of amplifiers and drivers to an annuity business built on five related but individually thriving product lines:

- TransImpedence Amplifier, or TiA;
- Driver;
- Optical PHY;
- ColorZ DWDM; and
- Coherent DSP from our ClariPhy acquisition.

We believe these five product families create an exceptionally strong and stable foundation to absorb unexpected bumps in any one sector. We are now well positioned to offer platform solutions for our system, module and data center customers.

Long haul and metro TiA and Driver connections around the globe

Our long haul and metro TiA and driver were the stars of our portfolio, growing 76% on a year-over-year basis. Our driver revenue was up 110% over last year and is approaching the scale of our TiA business. With cumulative shipments of TiA and drivers surpassing 2.7 million units, we are building on our customers' trust in us and focused on forming even stronger relationships in the year ahead.

As one step in that process, we closed the year by sampling the first 64 Gigabaud devices for the emerging 64 QAM flex coherent market.

Speeding data movement with optical PHY products

Moving to our optical PHY product line, we also achieved strong revenue growth of more than 40% over 2015. We saw particularly strong demand for our CFP and CFP2 platforms with much of the demand from our international customers, especially in China. We also saw robust demand for our 10/40 Gigabit server PHY product line. As we look ahead, it is our PAM design wins that will likely propel rapid growth for Inphi inside the data centers, in the years ahead.

Accelerating momentum in the DCI edge market

Our proudest accomplishment was the unveiling of our ColorZ solution with Microsoft at OFC 2016. ColorZ is the industry's first Silicon Photonics 100G PAM4 platform solution for 80km DWDM Data Center Interconnects. It enables linking data centers within a metro area, as if they were one mega data center. ColorZ is delivered in the industry standard QSFP28 module form factor, and plugs right into a switch. The ColorZ solution consumes less than 5 watts of power, and enables 3.6 terabits of front plate switch density. ColorZ can deliver hundreds of millions of dollars in Capex savings due to the solution being more cost effective and plugging right into a switch.

It also enables significant OPEX savings as it only requires 20% of the power of alternative solutions. We expect our customers to ramp ColorZ in production, throughout 2017. Our continued focus and investment on ColorZ again demonstrates our intent to remain at the cutting edge of performance while providing compelling value to our customers. We look for significant contributions from this product line over the next five years and beyond.

A roadmap to leadership for Terabit optical interconnects

Building on this success, as we turn to 2017 we remain focused on anticipating the needs of our customers and delivering the products they require. We are focused on the merger of electronics and optics to deliver terabit-scale solutions for next generation data center interconnects. Our portfolio of high-speed analog, low-power expertise, high-performance DSP, and optics components and sub-system understanding is unique and positions us well to lead in the future. We will continue to innovate while operating efficiently and flexibly enough to pursue strategic opportunities when we see them. As always, we are fully committed to producing superior stockholder return. We thank you again for your support and confidence.

Sincerely,

Ford Tamer

Ford Tamer
Inphi President and Chief Executive Officer

Inphi Corporation
Reconciliation of GAAP to Non-GAAP Measures

(amounts in thousands except per share data)	2013 FY	2014 FY	2015 FY	2016 FY
GAAP revenue to Non-GAAP revenue				
GAAP revenue from continuing operations	$ 42,951	$ 96,145	$ 192,710	$ 266,277
Cortina revenue lost due to purchase accounting	-	3,865	408	-
Non-GAAP revenue from continuing operations	$ 42,951	$ 100,010	$ 193,118	$ 266,277
GAAP gross margin to Non-GAAP gross margin				
GAAP gross margin from continuing operations	$ 28,018	$ 51,901	$ 120,016	$ 180,696
Adjustments to GAAP gross margin:				
Stock-based compensation	1,021	1,154	1,359	1,796
Acquisition related adjustments	-	18,619	20,119	13,460
Non-GAAP gross margin from continuing operations	$ 29,039	$ 71,674	$ 141,494	$ 195,952
Non-GAAP gross margin as % of non-GAAP revenue	67.6%	71.7%	73.3%	73.6%
GAAP operating margin to Non-GAAP operating margin				
GAAP operating margin from continuing operations	$ (32,779)	$ (35,896)	$ (9,542)	$ 24,948
Adjustments to GAAP operating margin:				
Stock-based compensation	13,380	18,523	23,313	27,998
Acquisition related adjustments	-	21,016	26,294	17,411
Write-off of prototype mask sets	-	2,075	-	-
Indirect expenses associated with discontinued operations	3,264	3,264	3,264	1,904
Abandoned office costs	146	-	-	-
Non-GAAP operating margin from continuing operations	$ (15,989)	$ 8,982	$ 43,329	$ 72,261
Non-GAAP operating margin as % of non-GAAP revenue	-37.2%	9.0%	22.4%	27.1%
GAAP net loss to Non-GAAP net income				
GAAP net income (loss) from continuing operations	$ (33,124)	$ (36,532)	$ (15,961)	$ 26,513
Adjustments to GAAP net incom (loss) from continuing operations:			-	-
Stock-based compensation	13,380	18,523	23,313	27,998
Acquisition related adjustments	-	21,016	26,294	17,411
Write-off of prototype mask sets	-	2,075	-	-
Indirect expenses associated with discontinued operations	3,264	3,264	3,264	1,904
Abandoned office costs	146	-	-	-
Accretion and amortization expense on convertible debt	-	-	592	14,156
Gain on sale of cost method investment	-	-	-	(1,138)
Valuation allowance, delta in interim period tax allocation and tax effect of the adjustments above from GAAP to non-GAAP	3,343	2,148	1,265	(20,390)
Non-GAAP net income from continuing operations	$ (12,991)	$ 10,494	$ 38,767	$ 66,454
Shares used in computing non-GAAP diluted earnings per share	29,493,005	34,720,857	41,525,023	44,032,582
Non-GAAP diluted earnings per share from continuing operations	$ (0.44)	$ 0.30	$ 0.93	$ 1.51

This page intentionally left blank

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, 2016

Or

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

Commission file number 001-34942

Inphi Corporation
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**77-0557980**
(State or Other Jurisdiction of Incorporation or Organization)	*(I.R.S. Employer Identification No.)*

2953 Bunker Hill Lane, Suite 300, Santa Clara, California 95054
(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code: (408) 217-7300

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

Title of Class	Name of Exchange on Which Registered
Common Stock, $0.001 par value	**New York Stock Exchange**

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

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☑

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 Exchange Act Rule 12b-2). Yes ☐ No ☑

As of June 30, 2016, the aggregate market value of the Registrant's common stock held by non-affiliates of the Registrant was approximately $1.3 billion, based on the closing price of $32.03 per share of common stock as reported on the New York Stock Exchange for that date.

The total number of shares outstanding of the Registrant's common stock, $0.001 par value per share, as of February 24, 2017 was 41,622,444

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates by reference certain information from the registrant's definitive proxy statement for the 2017 Annual Meeting of Stockholders to be filed no later than 120 days after the conclusion of the registrant's fiscal year ended December 31, 2016.

This page intentionally left blank

INPHI CORPORATION

ANNUAL REPORT ON FORM 10-K

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2016

TABLE OF CONTENTS

This page intentionally left blank

PART I

ITEM 1. *BUSINESS*

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. When used in this report, the terms "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "estimate," "predict," "potential," "plan," or the negative of these terms, and similar expressions intended to identify forward-looking statements. These statements include statements regarding our anticipated trends and challenges in our business and the markets in which we operate, including the market for 25G to 600G high-speed analog semiconductor solutions, demand for our current products, our plans for future products and anticipated features and benefits thereof, expansion of our product offerings and enhancements of existing products, anticipated benefits of our acquisitions of ClariPhy and Cortina and divestiture of our memory product business, critical accounting policies and estimates, our expectations regarding our expenses and revenue, sources of revenue, our tax benefits, the benefits of our products and services, our technological capabilities and expertise, timing of the development of our products, our liquidity position and sufficiency thereof, including our anticipated cash needs and uses of cash, our operating and capital expenditures and requirements and our needs for additional financing and potential consequences thereof, repatriation of cash balances from our foreign subsidiaries, our contractual obligations, our anticipated growth and growth strategies, our ability to retain and attract customers, particularly in light of our dependence on a limited number of customers for a substantial portion of our revenue, competition, interest rate sensitivity, adequacy of our disclosure controls, our legal proceedings and warranty claims. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these or any other forward-looking statements. These risks and uncertainties include, but are not limited to, those risks discussed below, as well as factors affecting our results of operations, our ability to manage our growth, our ability to sustain or increase profitability, demand for our solutions, the effect of declines in average selling prices for our products, our ability to compete, our ability to rapidly develop new technology and introduce new products, our ability to safeguard our intellectual property, our ability to qualify for tax holidays and incentives, trends in the semiconductor industry and fluctuations in general economic conditions, and the risks set forth throughout this Report, including the risks set forth under Part I, " Item 1A, Risk Factors". Readers are cautioned not to place undue reliance on these forward-looking statements, which are based on current expectations and reflect management's opinions only as of the date hereof. These forward-looking statements speak only as of the date of this Report. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any changes in events, conditions or circumstances on which any such statement is based.

All references to "Inphi," "we," "us" or "our" mean Inphi Corporation.

Inphi®, iKON™, InphiNityCore™, ColorZ™ and the Inphi logo are trademarks or service marks owned by Inphi. All other trademarks, service marks and trade names appearing in this report are the property of their respective owners.

Overview

Our Company

We are a fabless provider of high-speed analog and mixed signal semiconductor solutions for the communications and datacenter markets. Our analog and mixed signal semiconductor solutions provide high signal integrity at leading-edge data speeds while reducing system power consumption. Our semiconductor solutions are designed to address bandwidth bottlenecks in networks, maximize throughput and minimize latency in computing environments and enable the rollout of next generation communications and datacenter infrastructures. Our solutions provide a vital high-speed interface between analog signals and digital information in high-performance systems such as telecommunications transport systems, enterprise networking equipment and datacenters. We provide 25G to 600G high-speed analog semiconductor solutions for the communications market.

On October 3, 2014, we completed the acquisition of Cortina Systems, Inc. including its high-speed interconnect and optical transport product lines (Cortina) for approximately $52.5 million in cash and approximately 5.3 million shares of our common stock in accordance with the Agreement and Plan of Merger dated July 30, 2014 as amended by Amendment No. 1 to the Agreement and Plan of Merger dated September 25, 2014. We acquired Cortina to expand the Company's resources and market share in high-speed optical and networking interconnects.

On August 4, 2016, we completed the sale of our memory product business to Rambus Inc. for $90 million in cash, $11.25 million of which is being held in escrow for a period of the twelve months following the closing as security for our indemnification obligations pursuant to the asset purchase agreement, dated June 29, 2016 by and among us, Rambus, Bell ID Singapore Ptd Ltd. and Inphi International Pte. Ltd. The divestiture of the memory product business was part of a strategic plan to focus on and increase investments in the communication business. As a result of the sale, our financial statements and accompanying notes for current and prior periods have been retrospectively reclassified to present the results of operations of memory product business as discontinued operations. In addition, discussions this Form 10-K Report focused only on continuing operations.

On December 12, 2016, we completed the acquisition of ClariPhy Communications, Inc. (ClariPhy) for $303.7 million in cash. We acquired ClariPhy to provide a more complete coherent platform to our customers in long haul, metro and datacenter interconnect applications.

We leverage our proprietary high-speed analog and mixed signal processing expertise and our deep understanding of system architectures to address data bottlenecks in current and emerging communications, enterprise network, computing and storage architectures. We develop these solutions as a result of our competitive strengths, including our system-level simulation capabilities, analog design expertise, strong relationships with industry leaders, extensive broad process technology experience and high-speed package modeling and design expertise. We use our core technology and strength in high-speed analog design to enable our customers to deploy next generation communications systems that operate with high performance at high speed. We believe we are at the forefront of developing semiconductor solutions that deliver up to 4T speeds throughout the network infrastructure, including core, metro and the datacenter.

We have ongoing, informal collaborative discussions with industry and technology leaders such as Ciena Corporation (Ciena), Cisco Systems, Inc. (Cisco), Huawei Technologies Co., Ltd. (Huawei), Juniper Networks Inc. (Juniper), Microsoft Corporation (Microsoft) and Nokia Corporation (Nokia), to design architectures and products that solve bandwidth bottlenecks in existing and next generation communications systems. Although, we generally do not have any formal collaboration agreements with these entities, we often engage in informal discussions with these entities with respect to anticipated technological challenges, next generation customer requirements and industry conventions and standards. We help define industry conventions and standards within the markets we target by collaborating with technology leaders, original equipment manufacturers, or OEMs, systems manufacturers and standards bodies. Our products are designed into systems sold by OEMs, including Ciena, Cisco, Huawei, Juniper, Microsoft and Nokia. We believe we are one of a limited number of suppliers to these OEMs for the type of products we sell, and in some cases we may be the sole supplier for certain applications. We sell both directly to these OEMs and to other intermediary systems or module manufacturers that, in turn, sell to these OEMs.

Our Business

Our semiconductor solutions leverage our deep understanding of high-speed analog and mixed signal processing and our system architecture knowledge to address data bottlenecks in current and emerging network and datacenter architectures. We design and develop our products for the communications and computing markets, which typically have two to three year design cycles, and product life cycles of five or more years. We believe our leadership position in developing high-speed analog semiconductors is a result of the following core strengths:

- ***System-Level Simulation Capabilities.*** We design our high-speed analog semiconductor solutions to be critical components in complex systems. In order to understand and solve system problems, we work closely with systems vendors to develop proprietary component, channel and system simulation models. We use these proprietary simulation and validation tools to accurately predict system performance prior to fabricating the semiconductor or alternatively, to identify and optimize critical semiconductor parameters to satisfy customer system requirements. We use these simulation and validation capabilities to reduce our customers' time to market and engineering investments, thus enabling us to establish differentiated design relationships with our customers.

- ***Analog Design Expertise.*** We believe that we are a leader in developing broadband analog semiconductors operating at high frequencies of up to 100 GHz. High-speed analog circuit design is extremely challenging because, as frequencies increase, semiconductors are increasingly sensitive to temperature, power supply noise, process variation and interaction with neighboring circuit elements. Development of components that work robustly at high frequencies requires an understanding of analog circuit design, including electromagnetic theory and practical experience in implementation and testing. Our analog design expertise has enabled us to design and commercially ship several first in the world technologies including the first 100G linear transimpedance amplifier, or TIA, and the first 400G linear modulator driver that is now being widely deployed in volume globally in Long Haul and Metro networking infrastructures. We launched the world's first 50/100/200/400G PAM4 interconnect ICs for cloud interconnects. The chipset solution included multiple variants of the PAM4 PHY IC based on a highly adaptable and scalable InphiNityCore™ digital signal processing (DSP) engine and the OmniConnect™ transmitter for copper and optics media along with a companion linear TIA for Nx50G PAM4 interfaces.

- ***Strong Relationships with Industry Leaders.*** We develop many of our high-speed analog semiconductor solutions for applications and systems that are driven by industry leaders in the communications, datacenter and computing markets. Through our established relationships with industry leaders, we have repeatedly demonstrated the ability to address their technological challenges. As a result, we are designed into several of their current systems and believe we are well-positioned to develop high-speed analog semiconductor solutions for their emerging architectures. We have ongoing, informal collaborative discussions with communication, networking companies, and datacenter companies such as Cisco, Ciena, Huawei, Juniper and Microsoft, among others to address their next generation 100G and beyond 100G efforts. Specifically, we engage in informal discussions with these entities with respect to anticipated technological challenges, next generation customer requirements and industry conventions and standards. As a result of our development efforts with industry leaders, we help define industry conventions and standards within the markets we target by collaborating with technology leaders, OEMs and systems manufacturers, as well as standards bodies such as the Institute of Electrical and Electronic Engineers, or IEEE, and the Optical Internetworking Forum, or OIF, to establish industry standards.

- ***Broad Process Technology.*** We employ process technology experts, device technologists and circuit designers who have extensive experience in many process technologies including CMOS, SiGe and III-V technologies such as gallium arsenide, or GaAs, or indium phosphide, or InP. We have developed specific internal models and design kits for each process to support a uniform design methodology across all of our semiconductor solutions. For example, our products using 16 nanometer CMOS technology require development of accurate models for sub-circuits such as integrated phase lock loop, or PLLs, varactors and inductors. In addition, for III-V materials-based processes, in-house model development is a necessity and we believe also provides a substantial competitive advantage because these processes have complex material and device interactions. Combined with our fabless manufacturing strategy, our design expertise, proprietary model libraries and uniform design methodology allow us to use the best possible materials and substrates to design and develop our semiconductor solutions. We believe that our ability to design high-speed analog semiconductors in a wide range of materials and process technologies allows us to provide superior performance, power, cost and reliability for a specific set of market requirements.

- ***High-Speed Package Modeling and Design.*** We have developed deep expertise in high-speed package modeling and design, since introducing the first high-speed 50 GHz MUX and DEMUX product in 2001. At high frequencies, the interaction between an analog device, its package and the external environment can significantly affect product performance. Accurately modeling and developing advanced packaging allows semiconductor solutions to address this challenge. Due to the advanced nature of this work, there is a limited supply of engineers with experience in high-speed package modeling and design, and therefore, this required expertise can be difficult to acquire for companies that have not invested in developing such a skill set. We have developed an infrastructure to simulate electrical, mechanical and thermal properties of devices and packages that we integrate within our semiconductor design process and implement at our third-party packaging providers. Modeling is an inherently iterative process, and since our model libraries are used extensively by our circuit designers, the accuracy and value of these models increases over time. Our current packaging and modeling techniques enable us to deliver semiconductors that are energy efficient, offer high-speed processing and enable advanced signal integrity, all in a small footprint.

We believe that our system-level simulation capabilities, our analog design and broad process technology design capabilities as well as our strengths in packaging enable us to differentiate ourselves by delivering advanced high-speed analog signal processing solutions. For example, we believe we are the first vendor who has successfully commercialized DSP base 100G Ethernet PHYs running PAM4 standard CMOS process.

We believe the key benefits that our solutions provide to our customers are as follows:

- ***High Performance.*** Our high-speed analog semiconductor solutions are designed to meet the specific technical requirements of our customers in their respective end-markets. In many cases, our close design relationships and deep engineering expertise put us in a position where we are one of a limited group of semiconductor vendors that can provide the necessary solution. For instance, in the broadband communications market, we believe our products achieve the highest signal integrity and attain superior signal transmission distance at required error-free or low error rates.

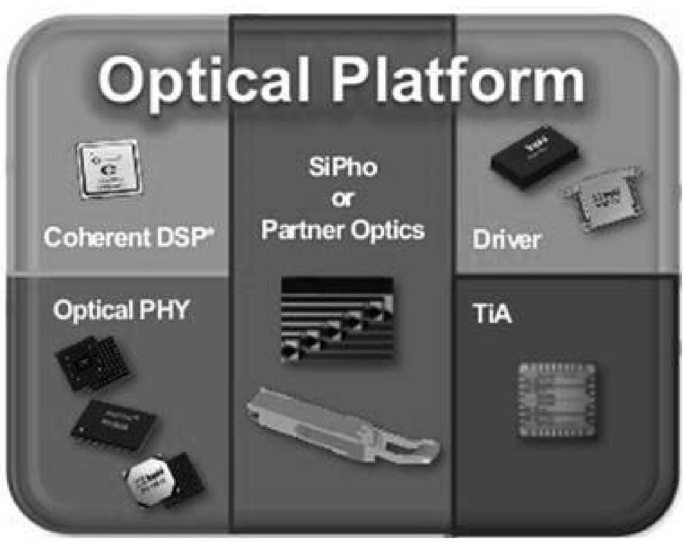
- ***Low Power and Small Footprint.*** In each of the end markets that we serve, the power budget of the overall system is a key consideration for systems designers. Power consumption greatly impacts system operation cost, footprint and cooling requirements, and is increasingly becoming a point of focus for our customers. We believe that our high speed analog signal processing solutions enable our customers to implement system architectures that reduce overall system power consumption. We also believe that, at high frequencies, our high-speed analog semiconductor devices typically consume less power than competitors' standard designs, which often incorporate power-consuming digital signal processing to perform data transfer functions, thereby further reducing overall system power consumption. In addition, in many of our applications, we are able to design and deliver semiconductors that have a smaller footprint and therefore reduce the overall system size.

- ***Faster Time to Market.*** Our customers compete in markets that require high-speed, reliable semiconductors that can be integrated into their systems as soon as new market opportunities develop. To meet our customers' time-to-market requirements, we work closely with them early in their design cycles and are actively involved in their development processes. Over the past ten years, we have developed methodologies and simulation environments that accurately predict the behavior of complex integrated circuits within various communications systems. In addition, we have developed an extensive internal library of proven building block circuits such as amplifiers, phase frequency detectors and transmitters that are reused to shorten design cycles and reduce risk.

Products

Our leading edge, high-speed, mixed signal semiconductor solutions equate to the planes, trains and trucks used by physical delivery services to quickly and reliably speed information from place to place.

Our long haul and metro solutions are our planes, working across distances of 100s to 1000s kilometers. Products include our coherent transimpedance amplifiers, drivers and DSPs which set the gold standard for leading edge performance, quality, and reliability. Our data center edge interconnect solutions are our trains, delivering a large amount of packages, across 80km distances. Our ColorZ™ is the industry's first 100G DWDM solution in QSFP28 form factor, utilizing advanced silicon photonics and PAM4 modulation, to deliver up to 4Tb/s of bandwidth over a single fiber. Our inside data center interconnects are our trucks, working across hundreds of meters up to kilometers. Our PAM interconnects along with accompanying TIAs and drivers deliver low power, cost effective solutions for cloud and enterprise customers.



As of December 31, 2016, we have a wide ranging product portfolio, including products that have commercially shipped, products for which we have shipped engineering samples and products under development, that perform a wide range of functions such as amplifying, encoding, multiplexing, demultiplexing, and retiming signals at speeds up to 400 Gbps. These products are key enablers for servers, routers, switches, storage and other equipment that process, store and transport data traffic. We introduced 10 and 26 new products in 2016 and 2015, respectively. We design and develop our products for the communications and computing markets, which typically have two to three year design cycles, and product life cycles as long as five years or more.

In 2012, we introduced and began to ship in commercial volume a dual, differential input linear transimpedance/variable-gain amplifier that we identify as product number IN3250TA-SO2D. Sales of IN3250TA-SO2D product comprised 25%, 18% and 22% of our total revenue in 2016, 2015 and 2014, respectively. In 2010, we introduced and began to ship in commercial volume a dual, differential linear transimpedance amplifier which we identify as product number 2850TA-SO1D. Sales of 2850TA-SO1D product comprised 12% of our total revenue in 2014. There were no other products that generated more than 10% of our total revenue in 2016, 2015 or 2014.

Customers

We sell our products directly to OEMs and indirectly to OEMs through module manufacturers, original design manufacturers or ODMs and sub-systems providers. We work closely with technology leaders to design architectures and products that help solve bandwidth bottlenecks in and between systems. These technology leaders often design our products into reference designs, which they provide to their customers and suppliers. In the networking market, we work closely with OEMs to deliver high performance communication links. These OEMs design our products into their systems and then require their ODM and electronics manufacturing services suppliers to purchase and use that specific product from us. We also work directly with optical module manufacturers to design our products into their modules, which they sell to OEMs.

We work closely with our customers throughout design cycles that often last two to three years and we are able to develop long-term relationships with them as our technology becomes embedded in their products. As a result, we believe we are well-positioned to not only be designed into their current systems, but also to continually develop next generation high-speed analog semiconductor solutions for their future products. During the year ended December 31, 2016, we sold our products to more than 100 customers.

Sales to customers in Asia accounted for 70%, 62% and 60% of our total revenue in 2016, 2015 and 2014, respectively. Because many of our customers or their OEM manufacturers are located in Asia, we anticipate that a majority of our future revenue will continue to come from sales to that region. Although a large percentage of our sales are made to customers in Asia, we believe that a significant number of the systems designed by these customers and incorporating our semiconductor products are then sold to end users outside Asia.

We currently rely, and expect to continue to rely, on a limited number of customers for a significant portion of our revenue. In the year ended December 31, 2016, we believe that sales to Huawei and Cisco, directly and indirectly, through subcontractors, accounted for approximately 16% and 12% of our total revenue, respectively and that our 10 largest customers collectively accounted for 73% of our total revenue In the year ended December 31, 2015, we believe that sales to Huawei and Cisco, directly and indirectly, through subcontractors, accounted for approximately 11% and 17% of our total revenue, respectively and that our 10 largest customers collectively accounted for 73% of our total revenue. In the year ended December 31, 2014, sales to Neophotonics, Fujitsu and Alcatel-Lucent accounted for 14%, 11% and 11% of our total revenue, respectively and our 10 largest customers collectively accounted for 71% of our total revenue. No other single customer directly or indirectly accounted for more than 10% of our total revenue in 2016, 2015 or 2014.

Sales and Marketing

Our design cycle from initial engagement to volume shipment is typically two to three years, with product life cycles in the markets we serve ranging from three to 10 years or more. For many of our products, early engagement with our customers' technical staff is necessary for success. To ensure an adequate level of early engagement, our application and development engineers work closely with our customers to identify and propose solutions to their systems challenges.

In addition to our direct customers, we work closely with technology leaders such as Ciena, Cisco, Huawei, Infinera, Juniper, Nokia and Microsoft for the datacenter, networking and communications market to anticipate and solve next generation challenges facing our customers. As part of the sales and product development process, we often design our products in close collaboration with these industry leaders and help define their architecture. We also participate actively in setting industry standards with organizations such as IEEE and OIF to have a voice in the definition of future market trends.

We sell our products worldwide through multiple channels, including our direct sales force and a network of sales representatives and distributors. For the year ended December 31, 2016, 85% of our revenue was generated by our direct sales team and third-party sales representatives. We operate marketing representative offices in China, Japan, Taiwan, Germany, and the United States and employ marketing personnel that meet with our customers locally and interact with our channel partners locally. We have twenty eight direct sales and marketing professionals including four in Japan, thirteen in Asia, eight in North America and three in EMEA. We utilize nine distributors in Asia, one sales representative and two distributors in Europe, two distributors in Israel, two distributors in Japan and six sales representatives and three distributors in North America. Our channel network includes more than one hundred sales and support professionals to support our products and customers, including eight in Japan, thirty-eight in Asia (other than Japan), forty five in North America and fifteen in Europe, the Middle East and Africa, or EMEA. All of these sales a professionals are sales agents and are employed by our distributors and sales representatives. We believe these distributors and sales representatives have the requisite technical experience in our target markets and are able to leverage existing relationships and understanding of our customers' products to effectively sell our products. Given the breadth of our target markets, customers and products, we provide our direct and indirect sales teams with regular training and share product information with our customers and sales team using web-based tools.

Manufacturing

We operate a fabless business model and use third-party foundries and assembly and test manufacturing contractors to manufacture, assemble and test our semiconductor products. We also inspect and test parts in our Westlake Village, California, facility. This outsourced manufacturing approach allows us to focus our resources on the design, sale and marketing of our products. In addition, we believe outsourcing many of our manufacturing and assembly activities provides us the flexibility needed to respond to new market opportunities, simplifies our operations and significantly reduces our capital requirements.

We subject our third-party manufacturing contractors to qualification requirements in order to meet the high quality and reliability standards required of our products. We carefully qualify critical partners and processes before applying the technology to our products. Our engineers work closely with our foundries and other contractors to increase yield, lower manufacturing costs and improve product quality.

- ***Wafer Fabrication.*** We currently utilize a wide range of semiconductor processes to develop and manufacture our products. Each of our foundries tends to specialize in a particular semiconductor wafer process technology. We choose the semiconductor process and foundry that we believe provides the best combination of performance attributes for any particular product. For most of our products, we utilize a single foundry for semiconductor wafer production. Our international headquarters in Singapore purchases all wafer material and owns the material until the manufacturing process is complete and the product is shipped to a customer either inside or outside North America or to physical inventory for the respective region. Our principal foundries are Taiwan Semiconductor Manufacturing Company Ltd., or TSMC, in Taiwan, Sumitomo Electric Device Innovations Inc., or SEDI, in Japan, WIN Semiconductors Corp. in Taiwan, and TowerJazz Semiconductor Ltd. in North America.

- ***Package and Assembly.*** Upon the completion of processing at the foundry, the finished wafers are shipped to our third-party assemblers for packaging and assembly. Currently, our principal packaging and assembly contractors are STATS ChipPAC Ltd. in Korea, Kyocera Corporation in North America and Japan, Amkor Technology in Korea and ASEM Technology in Malaysia.

- ***Test.*** At the last stage of integrated circuit production, our third-party test service providers test the packaged and assembled integrated circuits. Currently, Advanced Semiconductor Engineering or ASE in California, STATS ChipPAC in Korea, Evans Analytical Group or EAG in North America, ISE Labs in North America, Silicon Turnkey Solutions in North America, Giga Solution Tech in Taiwan, Amkor Technology in Korea, ASEM Technology in Malaysia and Presto Engineering in North America are our test partners. We also perform testing in our Westlake Village, California, facility.

We are committed to maintaining the highest level of quality in our products. Our objective is that our products meet all of our customer requirements, are delivered on-time and function reliably throughout their useful lives. As part of our total quality assurance program, our quality management system has been certified to ISO 9001:2008 standards. Our manufacturing partners are also ISO 9001 certified.

Research and Development

We focus our research and development efforts on developing products that address bandwidth bottlenecks in networks and minimize latency in computing environments. We believe that our continued success depends on our ability to both introduce improved versions of our existing products and to develop new products for the markets that we serve. We devote a portion of our resources to expanding our core technology including efforts in system-level simulation, high-speed analog design, supporting a broad range of process technologies and high-speed package modeling and design.

We develop models that are used as an input to a combination of proprietary and commercially available simulation tools. We use these tools to predict overall system performance based on the performance of our product. After our product is manufactured, we perform system measurements and refine our model set to improve the model's accuracy and predictive ability. As a result, our models and simulation tools have improved over time and we have been able to very accurately predict overall system performance prior to fabricating a part.

We have assembled a core team of experienced engineers and systems designers in four design centers located in the United States, Canada, Singapore, United Kingdom and Argentina. Our technical team typically has, on average, more than 20 years of industry experience with more than 50% having advanced degrees (Masters and above) and more than 15% having Ph.Ds. These engineers and designers are involved in advancing our core technologies, as well as applying these core technologies to our product development activities across a number of areas including telecommunications transport systems, enterprise networking equipment, datacenters and enterprise servers, storage platforms, test and measurement and military systems. In 2016, 2015 and 2014, our research and development expenses were $108.0, $87.8, and $56.5 million, respectively.

Competition

The global semiconductor market in general, and the communications market in particular, are highly competitive. We expect competition to increase and intensify as more and larger semiconductor companies enter our markets. Increased competition could result in price pressure, reduced profitability and loss of market share, any of which could materially and adversely affect our business, revenue and operating results.

Currently, our competitors range from large, international companies offering a wide range of semiconductor products to smaller companies specializing in narrow markets. Our primary competitors include Acacia Communications, Inc, Broadcom Ltd., GigaPeak Inc., M/A-COM Technology Solutions Inc., Maxlinear, Inc., Microsemi Corporation, NTT Electronics Corporation, Qorvo Inc. and Semtech Corp. as well as other smaller analog signal processing companies. We expect competition in our target markets to increase in the future as existing competitors improve or expand their product offerings.

Our ability to compete successfully depends on elements both within and outside of our control, including industry and general economic trends. During past periods of downturns in our industry, competition in the markets in which we operate intensified as our customers reduced their purchase orders. Many of our competitors are significantly larger, have greater financial, technical, marketing, distribution, customer support and other resources, are more established than we are, and have significantly better brand recognition and broader product offerings with which to withstand similar adverse economic or market conditions in the future. These developments may materially and adversely affect our current and future target markets and our ability to compete successfully in those markets.

We compete or plan to compete in different target markets to various degrees on the basis of a number of principal competitive factors, including:

- product performance;
- power budget;
- features and functionality;
- customer relationships;
- size;
- ease of system design;
- product roadmap;
- reputation and reliability;

- customer support; and
- price.

We believe we compete favorably with respect to each of these factors. We maintain our competitive position through our ability to successfully design, develop and market complex high-speed analog solutions for the customers that we serve.

Intellectual Property

We rely on a combination of intellectual property rights, including patents, trade secrets, copyrights and trademarks, and contractual protections, to protect our core technology and intellectual property. As of December 31, 2016, we had 647 issued and allowed patents and other patent applications pending in the United States. The 503 issued and allowed patents in the United States expire in the years beginning in 2017 through 2035. Many of our issued patents and pending patent applications relate to high-speed circuit and package designs.

We may not receive competitive advantages from any rights granted under our patents, and our patent applications may not result in the issuance of any patents. In addition, any future patent may be opposed, contested, circumvented, designed around by a third party or found to be unenforceable or invalidated. Others may develop technologies that are similar or superior to our proprietary technologies, duplicate our proprietary technologies or design around patents owned or licensed by us.

In addition to our own intellectual property, we also use third-party licensors for certain technologies embedded in our semiconductor solutions. These are typically non-exclusive contracts provided under paid-up licenses. These licenses are generally perpetual or automatically renewed for so long as we continue to pay any maintenance fees that may be due. To date, maintenance fees have not constituted a significant portion of our annual capital expenditures. We have entered into a number of licensing arrangements pursuant to which we license third-party technologies. We do not believe our business is dependent to any significant degree on any individual third-party license.

We generally control access to and use of our confidential information through the use of internal and external controls, including contractual protections with employees, contractors and customers. We rely in part on United States and international copyright laws to protect our mask work. All employees and consultants are required to execute confidentiality agreements in connection with their employment and consulting relationships with us. We also require them to agree to disclose and assign to us all inventions conceived or made in connection with the employment or consulting relationship.

Despite our efforts to protect our intellectual property, unauthorized parties may still copy or otherwise obtain and use our software, technology or other information that we regard as proprietary intellectual property. In addition, we intend to expand our international operations, and effective patent, copyright, trademark and trade secret protection may not be available or may be limited in foreign countries.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights and positions, which has resulted in protracted and expensive litigation for many companies. We have in the past received and, particularly as a public company, we expect that in the future we may receive, communications from various industry participants alleging our infringement of their patents, trade secrets or other intellectual property rights. Any lawsuits could subject us to significant liability for damages, invalidate our proprietary rights and harm our business and our ability to compete. Any litigation, regardless of success or merit, could cause us to incur substantial expenses, reduce our sales and divert the efforts of our technical and management personnel. In the event we receive an adverse result in any litigation, we could be required to pay substantial damages, seek licenses from third parties, which may not be available on reasonable terms or at all, cease sale of products, expend significant resources to develop alternative technology or discontinue the use of processes requiring the relevant technology.

Cybersecurity

We have designed and implemented and continue to maintain a security program consisting of policies, procedures, and technology meant to maintain the privacy, security and integrity of information, systems, and networks. Among other things, the program includes controls designed to limit and monitor access to authorized systems, networks, and data, prevent inappropriate access or modification, and monitor for threats or vulnerability.

Employees

At December 31, 2016, we employed 586 full-time equivalent employees, including 384 in research, product development and engineering, 61 in sales and marketing, 48 in general and administrative management and 93 in manufacturing engineering and operations. We consider relations with our employees to be good and have never experienced a work stoppage. None of our employees are either represented by a labor union or subject to a collective bargaining agreement, except for certain employees in Argentina.

Other

We were incorporated in Delaware in November 2000 as TCom Communications, Inc. and changed our name to Inphi Corporation in February 2001. Our principal executive offices are located at 2953 Bunker Hill Lane, Suite 300, Santa Clara, California 95054. Our telephone number at that location is (408) 217-7300. Our website address is *www.inphi.com*. Information on our website is not part of this report and should not be relied upon in determining whether to make an investment decision. The inclusion of our website address in this report does not include or incorporate by reference into this report any information on our website.

We electronically file our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, with the SEC. The public may read or copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is http://www.sec.gov. You may obtain a free copy of our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports with the SEC on our website.

ITEM 1A. *RISK FACTORS*

Risks Related to Our Business

Our revenue and operating results can fluctuate from period to period, which could cause our share price to fluctuate.

Our revenue and operating results have fluctuated in the past and may fluctuate from period to period in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include the following factors, as well as other factors described elsewhere herein:

- the receipt, reduction or cancellation of orders by customers;
- fluctuations in the levels of component inventories held by our customers;
- the gain or loss of significant customers;
- changes in orders or purchasing patterns from one or more of our major customers;
- market acceptance of our products and our customers' products;
- our ability to develop, introduce and market new products and technologies on a timely basis;
- the timing and extent of product development costs;
- new product announcements and introductions by us or our competitors;
- incurrence of research and development and related new product expenditures;
- cyclical fluctuations in our markets;
- fluctuations in our manufacturing yields;

- significant warranty claims, including those not covered by our suppliers;
- changes in our product mix or customer mix;
- intellectual property disputes; and
- loss of key personnel or the inability to attract qualified engineers.

As a result of these and other factors, the results of any prior quarterly or annual periods should not be relied upon as indications of our future revenue or operating performance. Fluctuations in our revenue and operating results could cause our share price to decline.

We incurred net losses in the past. We may incur net losses in the future.

As of December 31, 2016, we had a retained earnings of $2.0 million. However, we have incurred net losses in the past and may incur net losses in the future. We generated a net income (loss) from continuing operations of $26.5 million, ($16.0) million, ($36.5) million for years ended December 31, 2016, 2015, and 2014, respectively.

We depend on a limited number of customers for a substantial portion of our revenue, and the loss of, or a significant reduction in orders from, one or more of our major customers could negatively impact our revenue and operating results. In addition, if we offer more favorable prices to attract or retain customers, our average selling prices and gross margins would decline.

In the year ended December 31, 2016, we believe that sales to Huawei and Cisco, directly and indirectly, through subcontractors, accounted for approximately 16% and 12% of our total revenue, respectively and that our 10 largest customers collectively accounted for 73% of our total revenue In the year ended December 31, 2015, we believe that sales to Huawei and Cisco, directly and indirectly, through subcontractors, accounted for approximately 11% and 17% of our total revenue, respectively and that our 10 largest customers collectively accounted for 73% of our total revenue. In the year ended December 31, 2014, sales to Neophotonics, Fujitsu and Alcatel-Lucent accounted for 14%, 11% and 11% of our total revenue, respectively and our 10 largest customers collectively accounted for 71% of our total revenue. We believe our operating results for the foreseeable future will continue to depend on sales to a relatively small number of customers. In the future, these customers may decide not to purchase our products at all, may purchase fewer products than they did in the past or may alter their purchasing patterns. Further, the amount of revenue attributable to any single customer or our customer concentration generally, may fluctuate in any given period.

In addition, our relationships with some customers may deter other potential customers who compete with these customers from buying our products. To attract new customers or retain existing customers, we may offer these customers favorable prices on our products. In that event, our average selling prices and gross margins would decline. The loss of a key customer, a reduction in sales to any key customer or our inability to attract new significant customers could negatively impact our revenue and materially and adversely affect our results of operations.

We do not have long-term purchase commitments from our customers and if our customers cancel or change their purchase commitments, our revenue and operating results could suffer.

Substantially all of our sales to date have been made on a purchase order basis. We do not have any long-term commitments with any of our customers. As a result, our customers may cancel, change or delay product purchase commitments with little or no notice to us and without penalty. This in turn could cause our revenue to decline and materially and adversely affect our results of operations.

We may face claims of intellectual property infringement, which could be time-consuming, costly to defend or settle and result in the loss of significant rights and which could harm our relationships with our customers and distributors.

The semiconductor industry is characterized by companies that hold patents and other intellectual property rights and that vigorously pursue, protect and enforce intellectual property rights. From time to time, third parties may assert against us and our customers and distributors their patent and other intellectual property rights to technologies that are important to our business.

Claims that our products, processes or technology infringe third-party intellectual property rights, regardless of their merit or resolution, could be costly to defend or settle and could divert the efforts and attention of our management and technical personnel. For example, Netlist, Inc. filed suit against us in the United States District Court, Central District of California, in September 2009, alleging that our iMB™ and certain other memory module components infringe three of Netlist's patents. This litigation is ongoing.

Infringement claims also could harm our relationships with our customers or distributors and might deter future customers from doing business with us. We do not know whether we will prevail in these proceedings given the complex technical issues and inherent uncertainties in intellectual property litigation. If any pending or future proceedings result in an adverse outcome, we could be required to:

- cease the manufacture, use or sale of the infringing products, processes or technology;
- pay substantial damages for infringement;
- expend significant resources to develop non-infringing products, processes or technology, which may not be successful;
- license technology from the third-party claiming infringement, which license may not be available on commercially reasonable terms, or at all;
- cross-license our technology to a competitor to resolve an infringement claim, which could weaken our ability to compete with that competitor; or
- pay substantial damages to our customers or end users to discontinue their use of or to replace infringing technology sold to them with non-infringing technology, if available.

Any of the foregoing results could have a material adverse effect on our business, financial condition and results of operations.

Winning business is subject to lengthy competitive selection processes that require us to incur significant expenditures prior to generating any revenue or without any guarantee of any revenue related to this business. Even if we begin a product design, a customer may decide to cancel or change its product plans, which could cause us to generate no revenue from a product. If we fail to generate revenue after incurring substantial expenses to develop our products, our business and operating results would suffer.

We are focused on winning more competitive bid processes, known as "design wins," that enable us to sell our high-speed analog semiconductor solutions for use in our customers' products. These selection processes typically are lengthy and can require us to incur significant design and development expenditures and dedicate scarce engineering resources in pursuit of a single customer opportunity. We may not win the competitive selection process and may never generate any revenue despite incurring significant design and development expenditures. Failure to obtain a design win could prevent us from offering an entire generation of a product. This could cause us to lose revenue and require us to write off obsolete inventory, and could weaken our position in future competitive selection processes. Even after securing a design win, we may experience delays in generating revenue from our products as a result of the lengthy development cycle typically required. Our customers generally take a considerable amount of time to evaluate our products. Our design cycle from initial engagement to volume shipment is typically two to three years.

The delays inherent in these lengthy sales cycles increase the risk that a customer will decide to cancel, curtail, reduce or delay its product plans or adopt a competing design from one of our competitors, causing us to lose anticipated revenue. In addition, any delay or cancellation of a customer's plans could materially and adversely affect our financial results, as we may have incurred significant expense without generating any revenue. Finally, our customers' failure to successfully market and sell their products could reduce demand for our products and materially and adversely affect our business, financial condition and results of operations. If we were unable to generate revenue after incurring substantial expenses to develop any of our products, our business would suffer.

Our customers require our products and our third-party contractors to undergo a lengthy and expensive qualification process which does not assure product sales. If we are unsuccessful in or delayed in qualifying any of our products with a customer, our business and operating results would suffer.

Prior to purchasing our products, our customers require that both our products and our third-party contractors undergo extensive qualification processes, which involve testing of our products in the customers' systems, as well as testing for reliability. This qualification process may continue for several months. However, qualification of a product by a customer does not assure any sales of the product to that customer. Even after successful qualification and sales of a product to a customer, a subsequent revision in our third party contractors' manufacturing process or our selection of a new supplier may require a new qualification process with our customers, which may result in delays and in our holding excess or obsolete inventory. After our products are qualified, it can take several months or more before the customer commences volume production of components or systems that incorporate our products. Despite these uncertainties, we devote substantial resources, including design, engineering, sales, marketing and management efforts, to qualifying our products with customers in anticipation of sales. If we are unsuccessful or delayed in qualifying any of our products with a customer, sales of those products to the customer may be precluded or delayed, which may impede our growth and cause our business to suffer.

The complexity of our products could result in undetected defects and we may be subject to warranty claims and product liability, which could result in a decrease in customers and revenue, unexpected expenses and loss of market share. In addition, our product liability insurance may not adequately cover our costs arising from product defects or otherwise.

Our products are sold as components or as modules for use in larger electronic equipment sold by our customers. A product usually goes through an intense qualification and testing period performed by our customers before being used in production. We primarily outsource our product testing to third parties and also perform some testing in our Westlake Village, California, facility. We inspect and test parts, or have them inspected and tested in order to screen out parts that may be weak or potentially suffer a defect incurred through the manufacturing process. From time to time, we are subject to warranty or product liability claims that may require us to make significant expenditures to defend these claims or pay damage awards.

Generally, our agreements seek to limit our liability to the replacement of the part or to the revenue received for the product, but these limitations on liability may not be effective or sufficient in scope in all cases. If a customer's equipment fails in use, the customer may incur significant monetary damages including an equipment recall or associated replacement expenses, as well as lost revenue. The customer may claim that a defect in our product caused the equipment failure and assert a claim against us to recover monetary damages. The process of identifying a defective or potentially defective product in systems that have been widely distributed may be lengthy and require significant resources. We may test the affected product to determine the root cause of the problem and to determine appropriate solutions. We may find an appropriate solution or a temporary fix while a permanent solution is being determined. If we are unable to determine the root cause, find an appropriate solution or offer a temporary fix, we may delay shipment to customers. As a result, we may incur significant replacement costs and contract damage claims from our customers as well as harm to our reputation. In certain situations, circumstances might warrant that we consider incurring the costs or expense related to a recall of one of our products in order to avoid the potential claims that may be raised should the customer reasonably rely upon our product only to suffer a failure due to a design or manufacturing process defect. Defects in our products could harm our relationships with our customers and damage our reputation. Customers may be reluctant to buy our products, which could harm our ability to retain existing customers and attract new customers and our financial results. In addition, the cost of defending these claims and satisfying any arbitration award or judicial judgment with respect to these claims could harm our business prospects and financial condition. Although we carry product liability insurance, this insurance may not adequately cover our costs arising from defects in our products or otherwise.

We rely on our relationships with industry and technology leaders to enhance our product offerings and our inability to continue to develop or maintain such relationships in the future would harm our ability to remain competitive.

We develop many of our semiconductor products for applications in systems that are driven by industry and technology leaders in the communications market. We also work with OEMs, system manufacturers and standards bodies to define industry conventions and standards within our target markets. We believe these relationships enhance our ability to achieve market acceptance and widespread adoption of our products. If we are unable to continue to develop or maintain these relationships, our semiconductor solutions would become less desirable to our customers, our sales would suffer and our competitive position could be harmed.

If we fail to accurately anticipate and respond to market trends or fail to develop and introduce new or enhanced products to address these trends on a timely basis, our ability to attract and retain customers could be impaired and our competitive position could be harmed.

We operate in industries characterized by rapidly changing technologies and industry standards as well as technological obsolescence. We have developed products that may have long product life cycles of 10 years or more, as well as other products in more volatile high growth or rapidly changing areas, which may have shorter life cycles of only two to three years. We believe that our future success depends on our ability to develop and introduce new technologies and products that generate new sources of revenue to replace, or build upon, existing product revenue streams that may be dependent upon limited product life cycles. If we are not able to repeatedly introduce, in successive years, new products that ship in volume, our revenue will likely not grow and may decline significantly and rapidly. For example, in 2012, we introduced and began to ship in commercial volume a dual, differential input linear transimpedance/variable-gain amplifier that we identify as product number IN3250TA-SO2D. Sales of IN3250TA-SO2D product comprised 25%, 18% and 22% of our total revenue in 2016, 2015 and 2014, respectively. In 2010, we introduced and began to ship in commercial volume a dual, differential linear transimpedance amplifier which we identify as product number 2850TA-SO1D. Sales of 2850TA-SO1D product comprised 12% of our total revenue in 2014. There were no other products that generated more than 10% of our total revenue in 2016, 2015 or 2014.

The 2850TA-SO1D product matured in 2015 and as a result, sales of these products declined and were supplanted in part by newer parts which we developed. This underscores the importance of the need for us to continually develop and introduce new products to diversify our revenue base as well as generate new revenue to replace and build upon the success of previously introduced products which may be rapidly maturing.

To compete successfully, we must design, develop, market and sell new or enhanced products that provide increasingly higher levels of performance and reliability while meeting the cost expectations of our customers. The introduction of new products by our competitors, the delay or cancellation of a platform for which any of our semiconductor solutions are designed, the market acceptance of products based on new or alternative technologies or the emergence of new industry standards could render our existing or future products uncompetitive from a pricing standpoint, obsolete and otherwise unmarketable. Our failure to anticipate or timely develop new or enhanced products or technologies in response to technological shifts could result in decreased revenue and our competitors winning design wins. In particular, we may experience difficulties with product design, manufacturing, marketing or certification that could delay or prevent our development, introduction or marketing of new or enhanced products. Although we believe our products are fully compliant with applicable industry standards, proprietary enhancements may not in the future result in full conformance with existing industry standards under all circumstances. Due to the interdependence of various components in the systems within which our products and the products of our competitors operate, customers are unlikely to change to another design, once adopted, until the next generation of a technology. As a result, if we fail to introduce new or enhanced products that meet the needs of our customers or penetrate new markets in a timely fashion, and our designs do not gain acceptance, we will lose market share and our competitive position, very likely on an extended basis, and operating results will be adversely affected.

If sufficient market demand for 100G/200G/400G solutions does not develop or develops more slowly than expected, or if we fail to accurately predict market requirements or market demand for 100G/200G/400G solutions, our business, competitive position and operating results would suffer.

We are currently investing significant resources to develop semiconductor solutions supporting 100G/200G/400G data transmission rates in order to increase the number of such solutions in our product line. If we fail to accurately predict market requirements or market demand for 100G/200G/400G semiconductor solutions, or if our 100G/200G/400G semiconductor solutions are not successfully developed or competitive in the industry, our business will suffer. If 100G/200G/400G networks are deployed to a lesser extent or more slowly than we currently anticipate, we may not realize any benefits from our investment. As a result, our business, competitive position, market share and operating results would suffer.

Our target markets may not grow or develop as we currently expect and are subject to market risks, any of which could materially harm our business, revenue and operating results.

To date, a substantial portion of our revenue has been attributable to demand for our products in the communications and datacenter markets and the growth of these overall markets. These markets have fluctuated in size and growth in recent times. Our operating results are impacted by various trends in these markets. These trends include the deployment and broader market adoption of next generation technologies, such as 100G and 100Gbe CMOS CDR and Serdes, in datacenters, communications and enterprise networks, timing of next generation network upgrades, the introduction and broader market adoption of next generation server platforms and the timing of enterprise upgrades. We are unable to predict the timing or direction of the development of these markets with any accuracy. In addition, because some of our products are not limited in the systems or geographic areas in which they may be deployed, we cannot always determine with accuracy how, where or into which applications our products are being deployed. If our target markets do not grow or develop in ways that we currently expect, demand for our semiconductor products may decrease and our business and operating results could suffer.

We rely on a limited number of third parties to manufacture, assemble and test our products, and the failure to manage our relationships with our third-party contractors successfully could adversely affect our ability to market and sell our products and our reputation. Our revenue and operating results would suffer if these third parties fail to deliver products or components in a timely manner and at reasonable cost or if manufacturing capacity is reduced or eliminated as we may be unable to obtain alternative manufacturing capacity.

We operate an outsourced manufacturing business model. As a result, we rely on third-party foundry wafer fabrication and assembly and test capacity. We also perform testing in our Westlake Village, California, facility. We generally use a single foundry for the production of each of our various semiconductors. Currently, our principal foundries are SEDI, TSMC, TowerJazz Semiconductor Ltd., and WIN Semiconductors. We also use third-party contract manufacturers for a significant majority of our assembly and test operations, including Kyocera, ASE, Presto, EAG, AIC and STATS ChipPAC.

Relying on third-party manufacturing, assembly and testing presents significant risks to us, including the following:

- failure by us, our customers or their end customers to qualify a selected supplier;
- capacity shortages during periods of high demand;
- reduced control over delivery schedules and quality;
- shortages of materials;
- misappropriation of our intellectual property;
- limited warranties on wafers or products supplied to us; and
- potential increases in prices.

The ability and willingness of our third-party contractors to perform is largely outside our control. If one or more of our contract manufacturers or other outsourcers fails to perform its obligations in a timely manner or at satisfactory quality levels, our ability to bring products to market and our reputation could suffer. For example, if that manufacturing capacity is reduced or eliminated at one or more facilities, including as a response to the recent worldwide decline in the semiconductor industry, or any of those facilities are unable to keep pace with the growth of our business, we could have difficulties fulfilling our customer orders and our revenue could decline. In addition, if these third parties fail to deliver quality products and components on time and at reasonable prices, we could have difficulties fulfilling our customer orders, our revenue could decline and our business, financial condition and results of operations would be adversely affected.

Additionally, as many of our fabrication and assembly and test contractors are located in the Pacific Rim region, principally in Taiwan, our manufacturing capacity may be similarly reduced or eliminated due to natural disasters, including earthquakes, political unrest, war, labor strikes, work stoppages or public health crises. This could cause significant delays in shipments of our products until we are able to shift our manufacturing, assembly or test from the affected contractor to another third-party vendor. There can be no assurance that alternative capacity could be obtained on favorable terms, if at all.

Our costs may increase substantially if the wafer foundries that supply our products do not achieve satisfactory product yields or quality.

The wafer fabrication process is an extremely complicated process where the slightest changes in the design, specifications or materials can result in material decreases in manufacturing yields or even the suspension of production. From time to time, our third-party wafer foundries have experienced, and are likely to experience, manufacturing defects and reduced manufacturing yields related to errors or problems in their manufacturing processes or the interrelationship of their processes with our designs. In some cases, our third-party wafer foundries may not be able to detect these defects early in the fabrication process or determine the cause of such defects in a timely manner. We may incur substantial research and development expense for prototype or development stage products as we qualify the products for production.

Generally, in pricing our semiconductors, we assume that manufacturing yields will continue to increase, even as the complexity of our semiconductors increases. Once our semiconductors are initially qualified with our third-party wafer foundries, minimum acceptable yields are established. We are responsible for the costs of the wafers if the actual yield is above the minimum. If actual yields are below the minimum we are not required to purchase the wafers. The minimum acceptable yields for our new products are generally lower at first and increase as we achieve full production. Unacceptably low product yields or other product manufacturing problems could substantially increase the overall production time and costs and adversely impact our operating results on sales of our products. Product yield losses will increase our costs and reduce our gross margin. In addition to significantly harming our operating results and cash flow, poor yields may delay shipment of our products and harm our relationships with existing and potential customers.

We do not have any long-term supply contracts with our contract manufacturers or suppliers, and any disruption in our supply of products or materials could have a material adverse effect on our business, revenue and operating results.

We currently do not have long-term supply contracts with any of our third-party contract manufacturers. We make substantially all of our purchases on a purchase order basis, and our contract manufacturers are not required to supply us products for any specific period or in any specific quantity. We expect that it would take approximately nine to 12 months to transition from our current foundry or assembly services to new providers. Such a transition would likely require a qualification process by our customers or their end customers. We generally place orders for products with some of our suppliers several months prior to the anticipated delivery date, with order volumes based on our forecasts of demand from our customers. Accordingly, if we inaccurately forecast demand for our products, we may be unable to obtain adequate and cost-effective foundry or assembly capacity from our third-party contractors to meet our customers' delivery requirements, or we may accumulate excess inventories. On occasion, we have been unable to adequately respond to unexpected increases in customer purchase orders and therefore, were unable to benefit from this incremental demand. None of our third-party contract manufacturers have provided any assurance to us that adequate capacity will be available to us within the time required to meet additional demand for our products.

Our foundry vendors and assembly and test vendors may allocate capacity to the production of other companies' products while reducing deliveries to us on short notice. In particular, other customers that are larger and better financed than us or that have long-term agreements with our foundry vendor or assembly and test vendors may cause our foundry vendor or assembly and test vendors to reallocate capacity to those customers, decreasing the capacity available to us. We do not have long-term supply contracts with our third-party contract manufacturers and if we enter into costly arrangements with suppliers that include nonrefundable deposits or loans in exchange for capacity commitments, commitments to purchase specified quantities over extended periods or investment in a foundry, our operating results could be harmed. We may not be able to make any such arrangement in a timely fashion or at all, and any arrangements may be costly, reduce our financial flexibility, and not be on terms favorable to us. Moreover, if we are able to secure foundry capacity, we may be obligated to use all of that capacity or incur penalties. These penalties may be expensive and could harm our financial results. To date, we have not entered into such arrangements with our suppliers. If we need another foundry or assembly and test subcontractor because of increased demand, or if we are unable to obtain timely and adequate deliveries from our providers, we might not be able to cost effectively and quickly retain other vendors to satisfy our requirements.

Many of our customers depend on us as the sole source for a number of our products. If we are unable to deliver these products as the sole supplier or as one of a limited number of suppliers, our relationships with these customers and our business would suffer.

A number of our customers do not have alternative sources for our semiconductor solutions and depend on us as the sole supplier or as one of a limited number of suppliers for these products. Since we outsource our manufacturing to third-party contractors, our ability to deliver our products is substantially dependent on the ability and willingness of our third-party contractors to perform, which is largely outside our control. A failure to deliver our products in sufficient quantities or at all to our customers that depend on us as a sole supplier or as one of a limited number of suppliers may be detrimental to their business and, as a result, our relationship with the customer would be negatively impacted. If we are unable to maintain our relationships with these customers after such failure, our business and financial results may be harmed.

If we are unable to attract, train and retain qualified personnel, particularly our design and technical personnel, we may not be able to execute our business strategy effectively.

Our future success depends on our ability to attract and retain qualified personnel, including our management, sales and marketing, and finance, and particularly our design and technical personnel. We do not know whether we will be able to retain all of these personnel as we continue to pursue our business strategy. Historically, we have encountered difficulties in hiring qualified engineers because there is a limited pool of engineers with the expertise required in our field. Competition for these personnel is intense in the semiconductor industry. As the source of our technological and product innovations, our design and technical personnel represent a significant asset. The loss of the services of one or more of our key employees, especially our key design and technical personnel, or our inability to attract and retain qualified design and technical personnel, could harm our business, financial condition and results of operations.

We may not be able to effectively manage our growth, and we may need to incur significant expenditures to address the additional operational and control requirements of our growth, either of which could harm our business and operating results.

To effectively manage our growth, we must continue to expand our operational, engineering and financial systems, procedures and controls and to improve our accounting and other internal management systems. This may require substantial managerial and financial resources, and our efforts in this regard may not be successful. Our current systems, procedures and controls may not be adequate to support our future operations. If we fail to adequately manage our growth, or to improve our operational, financial and management information systems, or fail to effectively motivate or manage our new and future employees, the quality of our products and the management of our operations could suffer, which could adversely affect our operating results.

We face intense competition and expect competition to increase in the future. If we fail to compete effectively, it could have an adverse effect on our revenue, revenue growth rate, if any, and market share.

The global semiconductor market in general, and the communications and computing markets in particular, are highly competitive. We compete or plan to compete in different target markets to various degrees on the basis of a number of principal competitive factors, including product performance, power budget, features and functionality, customer relationships, size, ease of system design, product roadmap, reputation and reliability, customer support and price. We expect competition to increase and intensify as more and larger semiconductor companies enter our markets. Increased competition could result in price pressure, reduced profitability and loss of market share, any of which could materially and adversely affect our business, revenue and operating results.

Currently, our competitors range from large, international companies offering a wide range of semiconductor products to smaller companies specializing in narrow markets. Our primary competitors include Acacia Communications, Inc., Broadcom Ltd., GigaPeak Inc., M/A-COM Technology Solutions Inc., Maxlinear, Inc., Microsemi Corporation, NTT Electronics Corporation, Qorvo Inc. and Semtech Corp.as well as other analog signal processing companies. We expect competition in the markets in which we participate to increase in the future as existing competitors improve or expand their product offerings.

Our ability to compete successfully depends on elements both within and outside of our control, including industry and general economic trends. During past periods of downturns in our industry, competition in the markets in which we operate intensified as our customers reduced their purchase orders. Many of our competitors have substantially greater financial and other resources with which to withstand similar adverse economic or market conditions in the future. These developments may materially and adversely affect our current and future target markets and our ability to compete successfully in those markets.

We use a significant amount of intellectual property in our business. Monitoring unauthorized use of our intellectual property can be difficult and costly and if we are unable to protect our intellectual property, our business could be adversely affected.

Our success depends in part upon our ability to protect our intellectual property. To accomplish this, we rely on a combination of intellectual property rights, including patents, copyrights, trademarks and trade secrets in the United States and in selected foreign countries where we believe filing for such protection is appropriate. Effective protection of our intellectual property rights may be unavailable, limited or not applied for in some countries. Some of our products and technologies are not covered by any patent or patent application, as we do not believe patent protection of these products and technologies is critical to our business strategy at this time. A failure to timely seek patent protection on products or technologies generally precludes us from seeking future patent protection on these products or technologies. We cannot guarantee that:

- any of our present or future patents or patent claims will not lapse or be invalidated, circumvented, challenged or abandoned;

- our intellectual property rights will provide competitive advantages to us;
- our ability to assert our intellectual property rights against potential competitors or to settle current or future disputes will not be limited by our agreements with third parties;
- any of our pending or future patent applications will be issued or have the coverage originally sought;
- our intellectual property rights will be enforced in jurisdictions where competition may be intense or where legal protection may be weak;
- any of the trademarks, copyrights, trade secrets or other intellectual property rights that we presently employ in our business will not lapse or be invalidated, circumvented, challenged or abandoned; or
- we will not lose the ability to assert our intellectual property rights against or to license our technology to others and collect royalties or other payments.

In addition, our competitors or others may design around our protected patents or technologies. Effective intellectual property protection may be unavailable or more limited in one or more relevant jurisdictions relative to those protections available in the United States, or may not be applied for in one or more relevant jurisdictions. If we pursue litigation to assert our intellectual property rights, an adverse decision in any of these legal actions could limit our ability to assert our intellectual property rights, limit the value of our technology or otherwise negatively impact our business, financial condition and results of operations.

Monitoring unauthorized use of our intellectual property is difficult and costly. Unauthorized use of our intellectual property may have occurred or may occur in the future. Although we have taken steps to minimize the risk of this occurring, any such failure to identify unauthorized use and otherwise adequately protect our intellectual property would adversely affect our business. Moreover, if we are required to commence litigation, whether as a plaintiff or defendant, not only would this be time-consuming, but we would also be forced to incur significant costs and divert our attention and efforts of our employees, which could, in turn, result in lower revenue and higher expenses.

We also rely on contractual protections with our customers, suppliers, distributors, employees and consultants, and we implement security measures designed to protect our trade secrets. We cannot assure you that these contractual protections and security measures will not be breached, that we will have adequate remedies for any such breach or that our suppliers, employees or consultants will not assert rights to intellectual property arising out of such contracts.

In addition, we have a number of third-party patent and intellectual property license agreements. Some of these license agreements require us to make one-time payments or ongoing royalty payments. We cannot guarantee that the third-party patents and technology we license will not be licensed to our competitors or others in the semiconductor industry. In the future, we may need to obtain additional licenses, renew existing license agreements or otherwise replace existing technology. We are unable to predict whether these license agreements can be obtained or renewed or the technology can be replaced on acceptable terms, or at all.

Average selling prices of our products generally decrease over time, which could negatively impact our revenue and gross margins.

Our operating results may be impacted by a decline in the average selling prices of our semiconductors. If competition increases in our target markets, we may need to reduce the average unit price of our products in anticipation of competitive pricing pressures, new product introductions by us or our competitors and for other reasons. If we are unable to offset any reductions in our average selling prices by increasing our sales volumes or introducing new products with higher margins, our revenue and gross margins will suffer. To maintain our revenue and gross margins, we must develop and introduce new products and product enhancements on a timely basis and continually reduce our costs as well as our customers' costs. Failure to do so would cause our revenue and gross margins to decline.

We are subject to order and shipment uncertainties, and differences between our estimates of customer demand and product mix and our actual results could negatively affect our inventory levels, sales and operating results.

Our revenue is generated on the basis of purchase orders with our customers rather than long-term purchase commitments. In addition, our customers can cancel purchase orders or defer the shipments of our products under certain circumstances. Our products are manufactured using semiconductor foundries according to our estimates of customer demand, which requires us to make separate demand forecast assumptions for every customer, each of which may introduce significant variability into our aggregate estimates. It is difficult for us to forecast the demand for our products, in part because of the complex supply chain between us and the end-user markets that incorporate our products. Due to our lengthy product development cycle, it is critical for us to anticipate changes in demand for our various product features and the applications they serve to allow sufficient time for product development and design. We have limited visibility into future customer demand and the product mix that our customers will require, which could adversely affect our revenue forecasts and operating margins. Moreover, because some of our target markets are relatively new, many of our customers have difficulty accurately forecasting their product requirements and estimating the timing of their new product introductions, which ultimately affects their demand for our products. Our failure to accurately forecast demand can lead to product shortages that can impede production by our customers and harm our customer relationships. Conversely, our failure to forecast declining demand or shifts in product mix can result in excess or obsolete inventory. For example, some of our customers may cancel purchase orders or delay the shipment of their products that incorporate our products as a result of component shortages they may experience due to earthquakes and tsunamis in Japan or Taiwan, or likewise with respect to flooding in Thailand, which may result in excess or obsolete inventory and impact our sales and operating results. In addition, the rapid pace of innovation in our industry could also render significant portions of our inventory obsolete. Excess or obsolete inventory levels could result in unexpected expenses or increases in our reserves that could adversely affect our business, operating results and financial condition. In contrast, if we were to underestimate customer demand or if sufficient manufacturing capacity were unavailable, we could forego revenue opportunities, potentially lose market share and damage our customer relationships. In addition, any significant future cancellations or deferrals of product orders or the return of previously sold products due to manufacturing defects could materially and adversely impact our profit margins, increase our write-offs due to product obsolescence and restrict our ability to fund our operations.

We rely on third-party sales representatives and distributors to assist in selling our products. If we fail to retain or find additional sales representatives and distributors, or if any of these parties fail to perform as expected, it could reduce our future sales.

For the year ended December 31, 2016, we derived 85% of our total revenue from sales by our direct sales team and third-party sales representatives and 15% of our sales were made through third-party distributors. For the year ended December 31, 2015, we derived 80% of our total revenue from sales by our direct sales team and third-party sales representatives and approximately 20% of our sales were made through third-party distributors. For the year ended December 31, 2014 we derived 89% of our total revenue from sales by our direct sales team and third-party sales representatives and approximately 11% of our sales were made through third-party distributors, respectively. We are unable to predict the extent to which these third-party sales representatives and distributors will be successful in marketing and selling our products. Moreover, many of these third-party sales representatives and distributors also market and sell competing products, which may affect the extent to which they promote our products. Even where our relationships are formalized in contracts, our third-party sales representatives and distributors often have the right to terminate their relationships with us at any time. Our future performance will also depend, in part, on our ability to attract additional third-party sales representatives and distributors who will be able to market and support our products effectively, especially in markets in which we have not previously sold our products. If we cannot retain our current distributors or find additional or replacement third-party sales representatives and distributors, our business, financial condition and results of operations could be harmed. Additionally, if we terminate our relationship with a distributor, we may be obligated to repurchase unsold products. We record a reserve for estimated returns and price credits. If actual returns and credits exceed our estimates, our operating results could be harmed.

The facilities of our third-party contractors and distributors are located in regions that are subject to earthquakes and other natural disasters.

The facilities of our third-party contractors and distributors are subject to risk of catastrophic loss due to fire, flood or other natural or man-made disasters. A number of our facilities and those of our contract manufacturers are located in areas with above average seismic activity and also subject to typhoons and other Pacific storms. Several foundries that manufacture our wafers are located in Taiwan, Japan and California, and a majority of our third-party contractors who assemble and test our products are located in Asia. In addition, our headquarters are located in California. The risk of an earthquake in the Pacific Rim region or California is significant due to the proximity of major earthquake fault lines. Any catastrophic loss to any of these facilities would likely disrupt our operations, delay production, shipments and revenue and result in significant expenses to repair or replace the facility. In particular, any catastrophic loss at our California locations would materially and adversely affect our business.

We rely on third-party technologies for the development of our products and our inability to use such technologies in the future would harm our ability to remain competitive.

We rely on third parties for technologies that are integrated into our products, such as wafer fabrication and assembly and test technologies used by our contract manufacturers, as well as licensed architecture technologies. If we are unable to continue to use or license these technologies on reasonable terms, or if these technologies fail to operate properly, we may not be able to secure alternatives in a timely manner or at all, and our ability to remain competitive would be harmed. In addition, if we are unable to successfully license technology from third parties to develop future products, we may not be able to develop such products in a timely manner or at all.

Our business would be adversely affected by the departure of existing members of our senior management team and other key personnel.

Our success depends, in large part, on the continued contributions of our senior management team, in particular, the services of certain key personnel, including Dr. Loi Nguyen, one of our founders and our Senior Vice President of Optical Interconnect. Changes in our management team could negatively affect our operations and our relationships with our customers, employees and market leaders. In addition, we have not entered into non-compete agreements with members of our senior management team. The loss of any member of our senior management team or key personnel could harm our ability to implement our business strategy and respond to the rapidly changing market conditions in which we operate.

We may acquire businesses, form joint ventures or make investments in other companies or technologies that disrupt our business, be difficult to integrate, impair our operating results, dilute our stockholders' ownership, increase our debt, divert management resources or cause us to incur significant expense.

As part of our business strategy, we have pursued and may continue to pursue in the future acquisitions of businesses and assets, as well as technology licensing arrangements that we believe will complement our business, semiconductor solutions or technologies. For example, we acquired ClariPhy in December 2016 to help expand our optical networking platform portfolio. We also may pursue strategic alliances that leverage our core technology and industry experience to expand our product offerings or distribution, or make investments in other companies. Any acquisition involves a number of risks, many of which could harm our business, including:

- difficulty in integrating the operations, technologies, products, existing contracts, accounting and personnel of the acquired company or business;
- realizing the anticipated benefits of any acquisition;
- difficulty in transitioning and supporting customers, if any, of the acquired company;
- difficulty in transitioning and collaborating with suppliers, if any, of the acquired company;
- diversion of financial and management resources from existing operations;
- the risk that the price we pay or other resources that we devote may exceed the value we realize, or the value we could have realized if we had allocated the purchase price or other resources to another opportunity;
- potential loss of key employees, customers and strategic alliances from either our current business or the acquired company's business;
- inability to successfully bring newly acquired products to market or achieve design wins with such products;
- fluctuations in industry trends that change the demand or purchasing volume of newly acquired products;
- assumption of unanticipated problems or latent liabilities, such as problems with the quality of the acquired products;
- inability to generate sufficient revenue to offset acquisition costs;
- dilutive effect on our stock as a result of any equity-based acquisitions;

- inability to successfully complete transactions with a suitable acquisition candidate; and
- in the event of international acquisitions, risks associated with accounting and business practices that are different from applicable U.S. practices and requirements.

Acquisitions also frequently result in the recording of goodwill and other intangible assets that are subject to potential impairments, which could harm our financial results. For example, during the year ended December 31, 2015, we abandoned a project related to in-process research and development in connection with the Cortina acquisition and recorded an impairment charge of $1.8 million. If we fail to properly evaluate acquisitions or investments, it may impair our ability to achieve the anticipated benefits of any such acquisitions or investments, and we may incur costs in excess of what we anticipate. The failure to successfully evaluate and execute acquisitions or investments or otherwise adequately address these risks could materially harm our business and financial results.

To finance any acquisitions or investments, we may choose to issue shares of our common stock or convertible debt as consideration, which could dilute the ownership of our stockholders. If the price of our common stock is low or volatile, we may not be able to acquire other companies for stock. In addition, newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operating flexibility, and would also require us to incur interest expense. Additional funds may not be available on terms that are favorable to us, or at all.

We may not realize the anticipated benefits of our acquisitions, which in turn could harm our business and operating results.

We may not achieve all of the anticipated benefits of any of our acquisitions in a timely manner or at all, including our acquisitions of Cortina and ClariPhy, due to a number of factors including: failure to successfully integrate the acquired business, unanticipated costs or liabilities associated with the acquisitions, incurrence of acquisition-related costs, harm to our relationships with existing customers as a result of the acquisitions, harm to our brands and reputation, the loss of key employees of the acquired companies, negative market reaction thereto, inability to successfully extend and expand product offerings, significant impairments of anticipated goodwill and other intangible assets and the use of resources that are needed in other parts of our business.

We may sell one or more of our product lines, from time to time, as a result of our evaluation of our products and markets, and any divestiture could adversely affect our continuing business and our expenses, revenues, results of operation, cash flows and financial position.

We periodically evaluate our various product lines and may, as a result, consider the divestiture of one or more of those product lines. For example, in August 2016, we sold our memory product business to Rambus Inc. for $90 million in cash. Any divestiture could adversely affect our continuing business and expenses, revenues, results of operations, cash flows and financial position.

Divestitures of product lines have inherent risks, including the expense of selling the product line, the possibility that any anticipated sale will not occur, delays in closing any sale, the risk of lower-than-expected proceeds from the sale of the divested business, unexpected costs associated with the separation of the business to be sold from the seller's information technology and other operating systems, and potential post-closing claims for indemnification or breach of transition services obligations of the seller. For example, $11.25 million of the purchase price for the sale of our memory product business to Rambus is being held in escrow for a period of 12 months as security for our indemnification obligation obligations pursuant to the asset purchase agreement. Expected cost savings, which are offset by revenue losses from divested businesses, may also be difficult to achieve or maximize due to the seller's fixed cost structure, and a seller may experience varying success in reducing fixed costs or transferring liabilities previously associated with the divested business.

Our business, particularly the high-speed interconnect and optical transport business, is dependent on capital expenditures by service providers, and any downturn that they experience could negatively impact our business.

Our business, particularly the high-speed interconnect and optical transport business, which we acquired in connection with our acquisition of Cortina, depends on continued capital expenditures by communication service providers and is subject to the cyclicality of such expenditures. Our communications semiconductor products are sold primarily to network equipment vendors that in turn sell their equipment to service providers. If the demand for our customers' products declines or fails to increase, as a result of lower capital expenditures by service providers or any other factors, demand for our products will be similarly affected. The global economic downturn caused a significant reduction in capital spending on communications network equipment. While we are beginning to see improvement, there are no guarantees that this growth will continue, which could result in market volatility or another downturn. If there is another downturn, our business, operating results and financial condition may be materially harmed.

Our high-speed interconnect and optical transport business that we acquired in connection with Cortina has historically relied on a small number of key customers for a substantial portion of its revenue, and the loss of one or more of these key customers or the diminished demand for these products from one or more such key customers would significantly reduce our revenue and profits.

A small number of customers have historically accounted for a substantial portion of the revenues from our high-speed interconnect and optical transport business in any particular period. We anticipate that our relationships with these key customers will continue to be important to this business, and we expect that this customer concentration will increase in the future. We have no long-term volume purchase commitments from our key customers. These customers may decide not to purchase our products at all, may purchase fewer products than they did in the past or may otherwise alter their purchasing patterns. Reductions, delays and cancellation of orders from our key customers or the loss of one or more key customers would significantly reduce our revenue and profits.

The failure of our distributors to perform as expected could materially reduce our future revenue or negatively impact our reported financial results.

Our high-speed interconnect and optical transport business that we acquired in connection with Cortina has historically relied on a number of distributors, in particular Arrow Electronics, Inc. and Paltek Corporation, to help generate customer demand, provide technical support and other value-added services to its customers, fill customer orders and stock its products. These distributors do not sell those products exclusively, and to the extent they choose to emphasize a competitor's products over our products, our results of operations could be harmed. Our contracts with these distributors may be terminated by either party with notice. Our distributors are located all over the world, and are of various sizes and financial conditions. Lower sales, lower earnings, debt downgrades, the inability to access capital markets and higher interest rates could potentially affect our distributors' operations. Further, our distributors have contractual rights to return unsold inventory to us, and, if this were to happen, we could incur significant cost in finding alternative sales channels for these products or through write-offs. Any adverse condition experienced by our distributors could negatively impact their level of support for our products or the rate at which they make payments to us and, consequently, could harm our results of operations. We rely on accurate and timely sales reports from our distributors in order for our financial results to represent the actual sales that our distributors make for us in any given period. Any inaccuracies or delays in these reports could negatively affect our ability to produce accurate and timely financial reports and to recognize revenue. We also rely on distributors for sales forecasts, and any inaccuracies in such forecasts could impair the accuracy of our projections and planned operations.

Our portfolio of marketable securities is significant and subject to market, interest and credit risk that may reduce its value.

We maintain a significant portfolio of marketable securities. Changes in the value of this portfolio could adversely affect our earnings. In particular, the value of our investments may decline due to increases in interest rates, downgrades of money market funds, U.S. Treasuries, municipal bonds, corporate bonds, certificates of deposit and asset backed securities included in our portfolio, instability in the global financial markets that reduces the liquidity of securities included in our portfolio, declines in the value of collateral underlying the asset-backed securities included in our portfolio and other factors. Each of these events may cause us to record charges to reduce the carrying value of our investment portfolio or sell investments for less than our acquisition cost. Although we attempt to mitigate these risks by investing in high quality securities and continuously monitoring our portfolio's overall risk profile, the value of our investments may nevertheless decline.

Tax benefits that we receive may be terminated or reduced in the future, which would increase our costs.

We continue to expand our international presence to take advantage of the opportunity to recruit additional engineering design talent, as well as to more closely align our operations geographically with our customers and suppliers in Asia. In certain international jurisdictions, we have also entered into agreements with local governments to provide us with, among other things, favorable local tax rates if certain minimum criteria are met. These agreements may require us to meet several requirements as to investment, headcount and activities to retain this status. We currently believe that we will be able to meet all the terms and conditions specified in these agreements. However, if adverse changes in the economy or changes in technology affect international demand for our products in an unforeseen manner or if we fail to otherwise meet the conditions of the local agreements, or if we fail to extend the favorable local tax rate, we may be subject to additional taxes, which in turn would increase our costs.

Changes in our effective tax rate may harm our results of operations. A number of factors may increase our future effective tax rates, including:

- the jurisdictions in which profits are determined to be earned and taxed;
- the resolution of issues arising from tax audits with various tax authorities;
- changes in the measurement of our deferred tax assets and liabilities and in deferred tax valuation allowances;
- changes in the value of assets or services transferred or provided from one jurisdiction to another;
- adjustments to income taxes upon finalization of various tax returns;
- increases in expenses not deductible for tax purposes, including write-offs of acquired in-process research and development and impairments of goodwill in connection with acquisitions;
- changes in available tax credits;
- changes in tax laws or the interpretation of such tax laws, and changes in U.S. generally accepted accounting principles; and
- a decision to repatriate non-U.S. earnings for which we have not previously provided for U.S. taxes.

We are subject to regulatory compliance requirements, including Section 404 of the Sarbanes-Oxley Act of 2002, which are costly to comply with, and our failure to comply with these requirements could harm our business and operating results.

As a public company, we incur significant legal, accounting and other expenses related to compliance with laws such as Section 404 of the Sarbanes-Oxley Act of 2002. Compliance with Section 404 requires that our management report on, and our independent registered public accounting firm attest to, the effectiveness of our internal control over financial reporting in our annual reports on Form 10-K. Section 404 compliance has in the past diverted, and may continue to divert, internal resources, and require a significant amount of time and effort. If we fail to comply with Section 404, or if in the future our Chief Executive Officer, Chief Financial Officer or independent registered public accounting firm determines that our internal control over financial reporting is not effective, we could be subject to sanctions or investigations by The New York Stock Exchange, or NYSE, the Securities and Exchange Commission, or the SEC, or other regulatory authorities.

Furthermore, investor perceptions of our company may suffer, and this could cause a decline in the market price of our stock. Irrespective of compliance with Section 404, any failure of our internal controls could have a material adverse effect on our stated results of operations and harm our reputation.

The conditional conversion feature of our convertible senior notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of our convertible senior notes is triggered, holders of notes will be entitled to convert the notes at any time during specified periods at their option. If one or more holders elect to convert their notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our common stock, thereby incurring share dilution (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

The accounting method for convertible debt securities that may be settled in cash, such as the notes, could have a material effect on our reported financial results.

Under Accounting Standards Codification 470-20, Debt with Conversion and Other Options, which we refer to as ASC 470-20, an entity must separately account for the liability and equity components of the convertible debt instruments (such as the notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The effect of ASC 470-20 on the accounting for the notes is that the equity component is required to be included in the additional paid-in capital section of stockholders' equity on our consolidated balance sheet, and the value of the equity component would be treated as debt discount for purposes of accounting for the debt component of the notes. As a result, we are required to record a greater amount of non-cash interest expense in current periods presented as a result of the amortization of the discounted carrying value of the notes to their face amount over the term of the notes. We will report lower net income in our financial results because ASC 470-20 will require interest to include both the current period's amortization of the debt discount and the instrument's non-convertible interest rate, which could adversely affect our reported or future financial results, the trading price of our common stock and the trading price of the notes.

In addition, under certain circumstances, convertible debt instruments (such as the notes) that may be settled entirely or partly in cash are currently accounted for utilizing the treasury stock method, the effect of which is that the shares issuable upon conversion of the notes are not included in the calculation of diluted earnings per share except to the extent that the conversion value of the notes exceeds their principal amount. Under the treasury stock method, for diluted earnings per share purposes, the transaction is accounted for as if the number of shares of common stock that would be necessary to settle such excess, if we elected to settle such excess in shares, are issued. We cannot be sure that the accounting standards in the future will continue to permit the use of the treasury stock method. If we are unable to use the treasury stock method in accounting for the shares issuable upon conversion of the notes, then our diluted earnings per share would be adversely affected.

We are leveraged financially, which could adversely affect our ability to adjust our business to respond to competitive pressures and to obtain sufficient funds to satisfy our future growth, business needs and development plans.

We have substantial existing indebtedness. For example, in September 2016 and December 2015, we issued $287.5 million and $230.0 million, respectively in aggregate principal of convertible senior notes. The degree to which we are leveraged could have negative consequences, including, but not limited to, the following:

- we may be more vulnerable to economic downturns, less able to withstand competitive pressures and less flexible in responding to changing business and economic conditions;
- our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, general corporate or other purposes may be limited;
- a substantial portion of our cash flows from operations in the future may be required for the payment of the principal amount of our existing indebtedness when it becomes due; and
- we may elect to make cash payments upon any conversion of the convertible notes, which would reduce our cash on hand.

Our ability to meet our payment obligations under our convertible notes depends on our ability to generate significant cash flow in the future. This, to some extent, is subject to general economic, financial, competitive, legislative, and regulatory factors as well as other factors that are beyond our control. There can be no assurance that our business will generate cash flow from operations, or that additional capital will be available to us, in an amount sufficient to enable us to meet our debt payment obligations and to fund other liquidity needs. If we are unable to generate sufficient cash flow to service our debt obligations, we may need to refinance or restructure our debt, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we were unable to implement one or more of these alternatives, we may be unable to meet our debt payment obligations, which could have a material adverse effect on our business, results of operations, or financial condition.

Our business could be negatively impacted by information technology security events and other disruptions.

We face various cyber security threats, including threats to our information technology infrastructure and attempts to gain access to our proprietary or classified information, denial-of-service attacks, requests for money transfers, ransomware, as well as threats to the physical security of our facilities and employees. In addition, we face cyber threats from entities that may seek to target us through our customers, vendors, subcontractors, employees, and other third parties with whom we do business. Accordingly, we maintain information security partners and staff, policies and procedures for managing risk to our information systems, and conduct employee training on cyber security to mitigate persistent and continuously evolving cyber security threats. We have experienced cyber security threats such as viruses and attacks by hackers targeting our information technology systems. Although such events have not had a significant impact to date on our financial condition, results of operations or liquidity or reputation, future threats could, among other things, cause harm to our business and our reputation; disrupt our operations; expose us to potential liability, regulatory actions and the loss of business; as well as impact our results of operations materially. Due to the evolving nature of these security threats, we cannot predict the potential impact of any future incident.

Risks Related to Our Industry

We may be unable to make the substantial and productive research and development investments, which are required to remain competitive in our business.

The semiconductor industry requires substantial investment in research and development in order to develop and bring to market new and enhanced technologies and products. Many of our products originated with our research and development efforts and have provided us with a significant competitive advantage. Our research and development expense was $108.0 in 2016, $87.8 million in 2015, and $56.5 million in 2014. We are committed to investing in new product development in order to remain competitive in our target markets. We do not know whether we will have sufficient resources to maintain the level of investment in research and development required to remain competitive. In addition, we cannot assure you that the technologies which are the focus of our research and development expenditures will become commercially successful.

Our business, financial condition and results of operations could be adversely affected by worldwide economic conditions, as well as political and economic conditions in the countries in which we conduct business.

Our business and operating results are impacted by worldwide economic conditions. Uncertainty about current global economic conditions may cause businesses to continue to postpone spending in response to tighter credit, unemployment or negative financial news. This in turn could have a material negative effect on the demand for our semiconductor products or the products into which our semiconductors are incorporated. Multiple factors relating to our international operations and to particular countries in which we operate could negatively impact our business, financial condition and results of operations. These factors include:

- changes in political, regulatory, legal or economic conditions;
- restrictive governmental actions, such as restrictions on the transfer or repatriation of funds and foreign investments and trade protection measures, including export duties and quotas and customs duties and tariffs;
- disruptions of capital and trading markets;
- changes in import or export requirements;
- transportation delays;
- civil disturbances or political instability;
- geopolitical turmoil, including terrorism, war or political or military coups;
- public health emergencies;
- differing employment practices and labor standards;
- limitations on our ability under local laws to protect our intellectual property;
- local business and cultural factors that differ from our customary standards and practices;
- nationalization and expropriation;
- changes in tax or intellectual property laws;
- currency fluctuations relating to our international operating activities; and
- difficulty in obtaining distribution and support.

A significant portion of our products are manufactured, assembled and tested outside the United States. Any conflict or uncertainty in these countries, including due to natural disasters, public health concerns, political unrest or safety concerns, could harm our business, financial condition and results of operations. In addition, if the government of any country in which our products are manufactured or sold sets technical standards for products manufactured in or imported into their country that are not widely shared, it may lead some of our customers to suspend imports of their products into that country, require manufacturers in that country to manufacture products with different technical standards and disrupt cross-border manufacturing relationships which, in each case, could harm our business.

Changes in current or future laws or regulations or the imposition of new laws or regulations, including new or changed tax regulations, environmental laws and export control laws, or new interpretations thereof, by federal or state agencies or foreign governments could impair our ability to compete in international markets.

Changes in current laws or regulations applicable to us, the imposition of new laws and regulations in the United States or other jurisdictions in which we do business, such as China, Japan, Korea, Singapore and Taiwan, any changes or uncertainties with respect to such laws or regulations or with respect to trade relations between the United States and any such jurisdictions or any adverse outcome as a result of a review or examination by the applicable taxing authority, could materially and adversely affect our business, financial condition and results of operations. For example, we have entered into agreements with local governments to provide us with, among other things, favorable local tax rates if certain minimum criteria are met, as discussed in our risk factor entitled "Tax benefits that we received may be terminated or reduced in the future, which would increase our costs." These agreements may require us to meet several requirements as to investment, headcount and activities to retain this status. If we fail to otherwise meet the conditions of the local agreements, we may be subject to additional taxes, which in turn would increase our costs. In addition, potential future U.S. tax legislation could impact the tax benefits we effectively realize under these agreements.

Due to environmental concerns, the use of lead and other hazardous substances in electronic components and systems is receiving increased attention. In response, the European Union passed the Restriction on Hazardous Substances, or RoHS, Directive, legislation that limits the use of lead and other hazardous substances in electrical equipment. The RoHS Directive became effective July 1, 2006. We believe that our current product designs and material supply chains are in compliance with the RoHS Directive. If our product designs or material supply chains are deemed not to be in compliance with the RoHS Directive, we and our third-party manufacturers may need to redesign products with components meeting the requirements of the RoHS Directive and we may incur additional expense as well as loss of market share and damage to our reputation.

We are also subject to export control laws, regulations and requirements that limit which products we sell and where and to whom we sell our products. In some cases, it is possible that export licenses would be required from U.S. government agencies for some of our products in accordance with the Export Administration Regulations and the International Traffic in Arms Regulations. We may not be successful in obtaining the necessary export licenses in all instances. Any limitation on our ability to export or sell our products imposed by these laws would adversely affect our business, financial condition and results of operations. In addition, changes in our products or changes in export and import laws and implementing regulations may create delays in the introduction of new products in international markets, prevent our customers from deploying our products internationally or, in some cases, prevent the export or import of our products to certain countries altogether. While we are not aware of any other current or proposed export or import regulations which would materially restrict our ability to sell our products in countries such as China, Japan, Korea, Singapore or Taiwan, 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 these regulations, could result in decreased use of our products by, or in our decreased ability to export or sell our products to, existing or potential customers with international operations. In such event, our business and results of operations could be adversely affected. In addition, we are subject to economic and trade sanctions programs that are administered by the U.S. Treasury Department's Office of Foreign Assets Control, or OFAC, that prohibit or restrict transactions to or from or dealings with specified countries, their governments, and in certain circumstances, with individuals and entities that are specially-designated nationals of those countries, narcotics traffickers and terrorists or terrorist organizations. Violations of these trade control laws and sanctions regulations are punishable by civil penalties, including fines, denial of export privileges, injunctions, asset seizures, debarment from government contracts, and revocations or restrictions of licenses, as well as criminal fines and imprisonment.

We are also subject to risks associated with compliance with applicable anti-corruption laws, including the Foreign Corrupt Practices Act, or FCPA, which generally prohibits companies and their employees and intermediaries from making payments to foreign officials for the purpose of obtaining or keeping business, securing an advantage, or directing business to another, and requires public companies to maintain accurate books and records and a system of internal accounting controls. Under the FCPA, companies may be held liable for actions taken by directors, officers, employees, agents, or other strategic or local partners or representatives. If we or our intermediaries fail to comply with the requirements of the FCPA or similar laws, governmental authorities in the United States and elsewhere could seek to impose civil and criminal fines and penalties which could have a material adverse effect on our business, results of operations and financial condition.

Our product or manufacturing standards could also be impacted by new or revised environmental rules and regulations or other social initiatives. For instance, the SEC adopted disclosure requirements in 2012 relating to the sourcing of certain minerals from the Democratic Republic of Congo and certain other adjoining countries. These rules, which required reporting starting in 2014, could adversely affect our costs, the availability of minerals used in our products and our relationships with customers and suppliers. Also, since our supply chain is complex, we may face reputational challenges with our customers, stockholders, and other stakeholders if we are unable to sufficiently verify the origins for any conflict minerals used in the products that we sell.

We are subject to the cyclical nature of the semiconductor industry, which has suffered and may suffer from future recessionary downturns.

The semiconductor industry is highly cyclical and is characterized by constant and rapid technological change, rapid product obsolescence and price erosion, evolving standards and wide fluctuations in product supply and demand. The industry experienced a significant downturn during the current global recession. These downturns have been characterized by diminished product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices. The most recent downturn and any future downturns could negatively impact our business and operating results. Furthermore, any upturn in the semiconductor industry could result in increased competition for access to third-party foundry and assembly capacity. We are dependent on the availability of this capacity to manufacture and assemble our integrated circuits. None of our third-party foundry or assembly contractors has provided assurances that adequate capacity will be available to us in the future.

Our products must conform to industry standards in order to be accepted by end users in our markets.

Our products comprise only a part of larger electronic systems. All components of these systems must uniformly comply with industry standards in order to operate efficiently together. These industry standards are often developed and promoted by larger companies who are industry leaders and provide other components of the systems in which our products are incorporated. In driving industry standards, these larger companies are able to develop and foster product ecosystems within which our products can be used. We work with a number of these larger companies in helping develop industry standards with which our products are compatible. If larger companies do not support the same industry standards that we do, or if competing standards emerge, market acceptance of our products could be adversely affected, which would harm our business.

Some industry standards may not be widely adopted or implemented uniformly, and competing standards may still emerge that may be preferred by our customers. Products for communications and computing applications are based on industry standards that are continually evolving. Our ability to compete in the future will depend on our ability to identify and ensure compliance with these evolving industry standards. The emergence of new industry standards could render our products incompatible with products developed by other suppliers or make it difficult for our products to meet the requirements of certain OEMs. As a result, we could be required to invest significant time and effort and to incur significant expense to redesign our products to ensure compliance with relevant standards. If our products are not in compliance with prevailing industry standards for a significant period of time, we could miss opportunities to achieve crucial design wins. We may not be successful in developing or using new technologies or in developing new products or product enhancements that achieve market acceptance. Our pursuit of necessary technological advances may require substantial time and expense.

Industry consolidation may lead to increased competition and may harm our operating results.

There has been a trend toward industry consolidation in our markets for several years. We expect this trend to continue as companies attempt to improve the leverage of growing research and development costs, strengthen or hold their market positions in an evolving industry or are unable to continue operations. Companies that are strategic alliance partners in some areas of our business may acquire or form alliances with our competitors, thereby reducing their business with us. We believe that industry consolidation may result in stronger competitors that are better able to compete as sole-source vendors for customers. This could lead to more variability in our operating results and could have a material adverse effect on our business, operating results and financial condition.

Risks Related to Our Common Stock

The trading price and volume of our common stock is subject to price volatility. This volatility may affect the price at which you could sell our common stock.

The trading price of our common stock has experienced wide fluctuations. For example, the closing sale prices for our common stock have ranged from $22.48 to $48.08 in the twelve-month period ended December 31, 2016. Volatility in the market price of our common stock may occur in the future in response to many risk factors discussed herein and others beyond our control, including but not limited to:

- actual or anticipated fluctuations in our financial condition and operating results;
- changes in the economic performance or market valuations of other companies that provide high-speed analog semiconductor solutions;
- loss of a significant amount of existing business;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rates;
- issuance of new or updated research or reports by securities analysts;
- our announcement of actual results for a fiscal period that are higher or lower than projected results or our announcement of revenue or earnings guidance that is higher or lower than expected;
- regulatory developments in our target markets affecting us, our customers or our competitors;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- sales or expected sales of additional common stock or equity or equity-linked securities;
- terrorist attacks or natural disasters or other such events impacting countries where we or our customers have operations; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme 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 cause the market price of shares of our common stock to decline. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be 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. Each of these factors, among others, could harm the value of our common stock.

Due to the nature of our compensation program, our executive officers can sell shares of our common stock, often pursuant to trading plans established under Rule 10b5-1 of the Exchange Act, and certain of our executive officers currently have 10b5-1 trading plans in place. As a result, sales of common stock by our executive officers may not be indicative of their respective opinions of our performance at the time of sale or of our potential future performance. Nonetheless, the market price of our common stock may be affected by sales of shares by our executive officers.

If securities or industry analysts do not publish research or reports about our business, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of the analysts who cover us downgrade our stock, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We may not be able to obtain capital when desired on favorable terms, if at all, or without dilution to our stockholders and our failure to raise capital when needed could prevent us from executing our growth strategy.

We believe that our existing cash and cash equivalents, investments in marketable securities, and cash flows from our operating activities, will be sufficient to meet our anticipated cash needs for at least the next 12 to 18 months. We operate in an industry, however, that makes our prospects difficult to evaluate. It is possible that we may not generate sufficient cash flow from operations or otherwise have the capital resources to meet our future capital needs. If this occurs, we may need additional financing to execute on our current or future business strategies, including to:

- invest in our research and development efforts by hiring additional technical and other personnel;
- expand our operating infrastructure;
- acquire complementary businesses, products, services or technologies; or
- otherwise pursue our strategic plans and respond to competitive pressures.

If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operational flexibility, and would also require us to incur interest expense. There is no assurance that additional financing will be available on terms favorable to us, or at all. If adequate funds are not available or are not available on acceptable terms, if and when needed, our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our products, or otherwise respond to competitive pressures could be significantly limited.

Delaware law and our corporate charter and bylaws contain anti-takeover provisions that could delay or discourage takeover attempts that stockholders may consider favorable, which could also reduce the market price of our common stock.

Provisions in our restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. These provisions include the following:

- the right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors;
- the classification of our board of directors so that only a portion of our directors are elected each year, with each director serving a three-year term;
- the requirement for advance notice for nominations for election to our board of directors or for proposing matters that can be acted upon at a stockholders' meeting;
- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;
- the ability of our board of directors to issue, without stockholder approval, up to 10,000,000 shares of preferred stock with rights set by our board of directors, which rights could be senior to those of common stock;
- the required approval of holders of at least two-thirds of the shares entitled to vote at an election of directors to adopt, amend or repeal our bylaws or amend or repeal the provisions of our certificate of incorporation regarding the election and removal of directors and the ability of stockholders to take action by written consent;

- the elimination of the right of stockholders to call a special meeting of stockholders and to take action by written consent; and
- designating the state and federal courts located within the State of Delaware as the exclusive forums for derivative actions, claims of breach of fiduciary duty by any director, officer or other employee, claims arising pursuant to any provisions of the Delaware General Corporation Law and claims governed by the internal affairs doctrine.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law. These provisions may prohibit or restrict large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us. These provisions in our restated certificate of incorporation and amended and restated bylaws and under Delaware law could discourage potential takeover attempts and could 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 of our common stock being lower than they would without these provisions.

We do not currently intend to pay dividends on our common stock and, consequently, the ability to achieve a return on an investment in our stock will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our common stock and do not currently intend to do so for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. The success of an investment in shares of our common stock will depend upon any future appreciation in their value. There is no guarantee that our common stock will appreciate in value.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

None.

ITEM 2. *PROPERTIES*

We lease 57,914 square feet of office space in Santa Clara, California which currently serves as our principal executive office, which will expire on August 17, 2019. We also lease 40,962 square feet of office space in Westlake Village, California under a lease that will expire on December 31, 2017. We also lease 27,797 square feet of office in Irvine, California under a lease that will expire on July 31, 2019, as well as 4,286 square feet of office space which will expire on March 31, 2020. Our Singapore subsidiary currently leases 6,374 square feet of office space in Singapore under a lease that expires on April 30, 2017. Our United Kingdom subsidiary currently leases office space in Northamptonshire, England under a lease that expires on September 28, 2018. We also occupy space in Folsom, California, consisting of 7,532 square feet under a lease that expires on November 30, 2020, and space in Raleigh, North Carolina, consisting of 15,440 square feet under a lease that expires on March 31, 2017. Our Canada subsidiary currently leases 13,951 square feet in Ottawa, Canada under a lease that expires on October 31, 2021. Our Argentina subsidiary currently leases 7,800 square feet in Cordoba, Argentina under a lease that expires on March 31, 2021. We believe that our current facilities are sufficient to meet our needs for the foreseeable future. For additional information regarding our obligations under property leases, see Note 17 of Notes to Consolidated Financial Statements, included in Part II, "Item 8, Financial Statements and Supplementary Data".

ITEM 3. *LEGAL PROCEEDINGS –*

We are currently a party to the following legal proceedings:

Netlist, Inc. v. Inphi Corporation, Case No. 09-cv-6900 (C.D. Cal.)

On September 22, 2009, Netlist filed suit in the United States District Court, Central District of California, or the Court, asserting that we infringe U.S. Patent No. 7,532,537. Netlist filed an amended complaint on December 22, 2009, further asserting that we infringe U.S. Patent Nos. 7,619,912 and 7,636,274, collectively with U.S. Patent No. 7,532,537, the patents-in-suit, and seeking both unspecified monetary damages to be determined and an injunction to prevent further infringement. These infringement claims allege that our iMB™ and certain other memory module components infringe the patents-in-suit. We answered the amended complaint on February 11, 2010 and asserted that we do not infringe the patents-in-suit and that the patents-in-suit are invalid. In 2010, we filed *inter partes* requests for reexamination with the United States Patent and Trademark Office (the "USPTO"), asserting that the patents-in-suit are invalid. As a result of the proceedings at the USPTO, the Court has stayed the litigation, with the parties advising the Court on status every 120 days.

As to the proceeding at the USPTO, reexamination has been ordered for all of the patents that were alleged to infringe, and at present, the USPTO has determined that none of the originally filed claims are valid, with certain amended claims being determined patentable. The Reexamination Certificate for U.S. Patent No. 7,532,537 was issued on August 2, 2016 based upon amended claims, and the parties continue to assert their respective positions with respect to the reexamination proceedings for U.S. Patent Nos. 7,619,912 and 7,636,274.

While we intend to defend the foregoing USPTO proceedings and lawsuit vigorously, the USPTO proceedings and litigation, whether or not determined in our favor or settled, could be costly and time-consuming and could divert management's attention and resources, which could adversely affect our business.

Based on the nature of USPTO proceedings and litigation, we are currently unable to predict the final outcome of this lawsuit and therefore, cannot determine the likelihood of loss nor estimate a range of possible loss. However, because of the nature and inherent uncertainties of litigation, should the outcome of these actions be unfavorable, our business, financial condition, results of operations or cash flows could be materially and adversely affected.

Other Litigation Matters

In March 2015, we settled a patent dispute involving Cortina and Vitesse Semiconductor Corporation (Vitesse). The patent dispute involved a certain patent family owned by Vitesse associated with error correction. We paid Vitesse $750,000 to resolve the dispute. Based on the Agreement and Plan of Merger dated July 30, 2014, as amended by Amendment No. 1 to the Agreement and Plan of Merger dated September 25, 2014, we were indemnified for this settlement arising from this claim, up to an amount of $750,000.

We are not currently a party to any other material litigation. The semiconductor industry is characterized by frequent claims and litigation, including claims regarding patent and other intellectual property rights as well as improper hiring practices. We may from time to time become involved in litigation relating to claims arising from our ordinary course of business. These claims, even if not meritorious, could result in the expenditure of significant financial and managerial resources.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Market for Registrant's Common Equity

Our common stock is traded on the New York Stock Exchange under the symbol "IPHI". The following table sets forth the range of high and low sales prices for our common stock in each quarter:

2016	Low	High
Fourth Quarter	$ 35.92	$ 48.46
Third Quarter	29.73	44.54
Second Quarter	25.89	34.87
First Quarter	22.07	34.61

2015	Low	High
Fourth Quarter	$ 22.83	$ 32.32
Third Quarter	20.30	25.99
Second Quarter	17.27	27.11
First Quarter	17.05	21.33

As of February 24, 2017, we had approximately 46 holders of record of our common stock. This number does not include the number of persons whose shares are in nominee or in "street name" accounts through brokers.

We have never declared or paid any cash dividends on shares of our capital stock. We expect to retain all of our earnings to finance the expansion and development of our business and we do not currently intend to pay any cash dividends on our capital stock in the foreseeable future. Our board of directors will determine future dividends, if any.

Director and Executive Officers have currently and may from time to time in the future, establish pre-set trading plans in accordance with Rule 10b5-1 promulgated under the Securities Exchange Act of 1934.

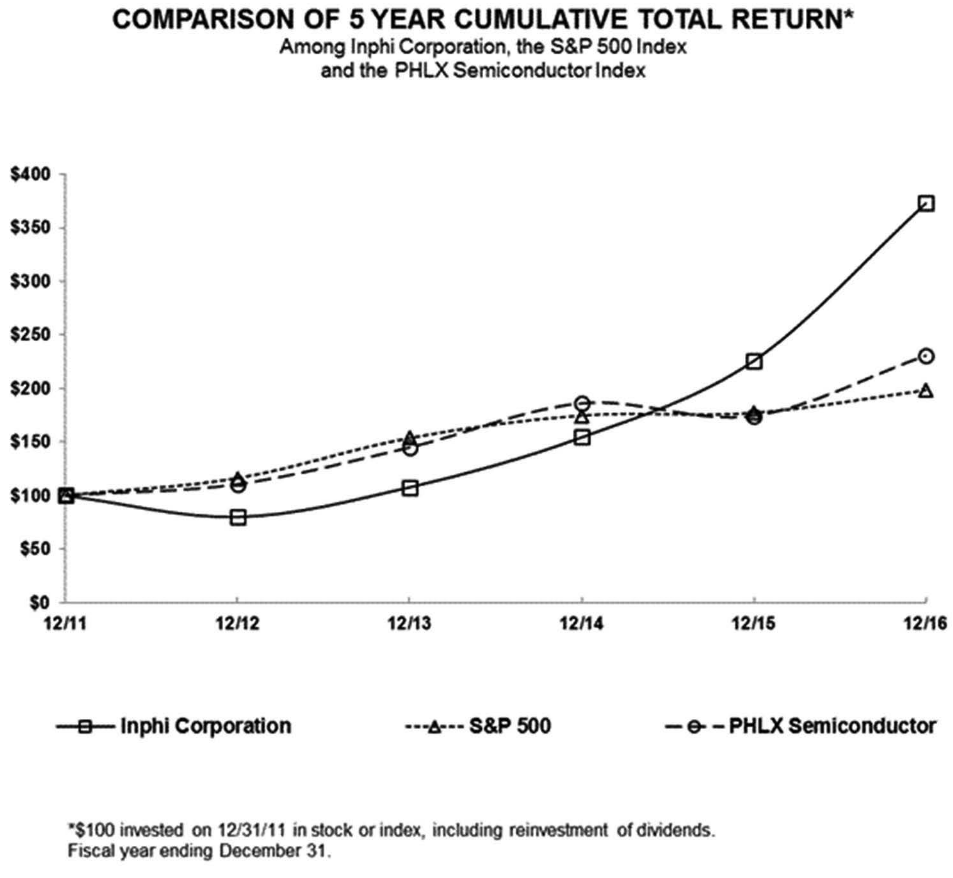
Securities Authorized for Issuance under Equity Compensation Plans

Information regarding the securities authorized for issuance under our equity compensation plans can be found under Part III, "Item 12, Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters".

Share Performance Graph

The following information is not deemed to be “soliciting material” or to be “filed” with the Securities and Exchange Commission or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 or to the liabilities of Section 18 of the Securities Exchange Act of 1934, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent we specifically incorporate it by reference into such a filing.

Set forth below is a line graph showing the cumulative total stockholder return (change in stock price plus reinvested dividends) assuming the investment of $100 on December 31, 2011 in each of our common stock, the S&P 500 Index and PHLX Semiconductor Index for the period commencing on December 31, 2011 and ending on December 31, 2016. The comparisons in the table are required by the Securities and Exchange Commission and are not intended to forecast or be indicative of future performance of our common stock.



ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read together with Part II, "Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this report. The selected balance sheet data as of December 31, 2016 and 2015, and the selected statements of operations data for each of the years ended December 31, 2016, 2015, and 2014 have been derived from our audited financial statements included elsewhere in this report. The selected balance sheet data as of December 31, 2014, 2013 and 2012 have been derived from our audited financial statements not included in this report. Our statements of operations have been retrospectively reclassified to present the results of operations of the memory product business as discontinued operations. Historical results are not necessarily indicative of the results to be expected in the future.

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except share and per share data)				
Consolidated Statement of Operations Data:					
Revenue[1]	$ 266,277	$ 192,710	$ 96,145	$ 42,951	$ 34,913
Cost of revenue[1] [2]	85,581	72,694	44,244	14,933	9,284
Gross profit	180,696	120,016	51,901	28,018	25,629
Operating expense:					
Research and development[1] [2]	108,013	87,774	56,508	38,248	28,816
Sales and marketing[1] [2]	26,534	21,462	15,136	10,935	8,637
General and administrative[1] [2]	21,201	20,322	16,153	11,614	12,300
Total operating expense	155,748	129,558	87,797	60,797	49,753
Income (loss) from operations	24,948	(9,542)	(35,896)	(32,779)	(24,124)
Interest expense[3]	(17,406)	(783)	—	—	—
Other income	3,914	221	495	876	914
Income (loss) before income taxes from continuing operations	11,456	(10,104)	(35,401)	(31,903)	(23,210)
Provision (benefit) for income taxes[4]	(15,057)	5,857	1,131	1,221	12,023
Net income (loss) from continuing operations	26,513	(15,961)	(36,532)	(33,124)	(35,233)
Discontinued operations:					
Gain from sale	78,544	—	—	—	—
Income (loss) from discontinued operations	(3,802)	4,535	14,531	20,476	16,192
Provision for income taxes	(1,799)	(2,125)	(607)	(530)	(1,650)
Net income from discontinued operations	72,943	2,410	13,924	19,946	14,542
Net income (loss)	$ 99,456	$ (13,551)	$ (22,608)	$ (13,178)	$ (20,691)
Earnings per share:					
Basic					
Net income (loss) from continuing operations	$ 0.65	$ (0.41)	$ (1.12)	$ (1.12)	$ (1.24)
Net income from discontinued operations	1.80	$ 0.06	0.43	0.67	0.51
Basic earnings per share	$ 2.45	$ (0.35)	$ (0.69)	$ (0.45)	$ (0.73)
Diluted					
Net income (loss) from continuing operations	$ 0.60	$ (0.41)	$ (1.12)	$ (1.12)	$ (1.24)
Net income from discontinued operations	1.65	$ 0.06	0.43	0.67	0.51
Diluted earnings per share	$ 2.25	$ (0.35)	$ (0.69)	$ (0.45)	$ (0.73)
Weighted-average shares used in computing earnings per share:					
Basic	40,565,433	38,580,330	32,707,868	29,493,005	28,378,680
Diluted	44,124,881	38,580,330	32,707,868	29,493,005	28,378,680

(1) On October 3, 2014, we completed the acquisition of Cortina, including its high-speed interconnect and optical transport product lines, for approximately $52.5 million in cash and approximately 5.3 million shares of our common stock in accordance with the Agreement and Plan of Merger dated July 30, 2014 as amended by Amendment No. 1 to the Agreement and Plan of Merger dated September 25, 2014. The results of operations of Cortina and estimated fair value of assets acquired and liabilities assumed were included in our consolidated financial statements from the acquisition date. This acquisition resulted in a significant change in our statement of operations in 2016, 2015 and 2014 which includes:

(i) Charge to cost of goods sold resulting from the step-up inventory acquired from Cortina; and

(ii) Charge to cost of goods sold and operating expenses from amortization of acquired intangibles.

Footnotes continued on the following page.

	As of December 31,				
	2016	2015	2014	2013	2012
			(in thousands)		
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$ 144,867	$ 283,044	$ 30,366	$ 31,667	$ 30,161
Investments in marketable securities	249,476	43,616	38,908	90,890	91,107
Working capital	433,250	344,897	108,623	129,013	131,310
Total assets	990,595	505,046	278,459	182,342	170,074
Long-term convertible debt	396,857	171,701	—	—	—
Other liabilities	131,214	42,675	39,285	22,949	17,109
Total stockholders' equity	462,524	290,670	239,174	159,393	152,965

Footnotes continued from the prior page.

(2) Stock-based compensation expense is included in our results of operations as follows:

	As of December 31,				
	2016	2015	2014	2013	2012
			(in thousands)		
Operating expenses:					
Cost of revenue	$ 1,796	$ 1,359	$ 1,154	$ 1,021	$ 675
Research and development	17,390	13,268	9,670	6,177	4,255
Sales and marketing	4,405	3,213	2,998	2,080	1,569
General and administrative	4,407	5,473	4,701	4,102	3,240
Discontinued operations	2,194	4,980	3,937	3,598	2,720

(3) The interest expense resulted from convertible debts issued in December 2015 and September 2016.

(4) The provision for income taxes for the year ended December 31, 2012 included the establishment of valuation allowance against deferred tax assets. The benefit for income taxes for the year ended December 31, 2016 included the release of valuation allowance against deferred tax assets as a result of acquisition of ClariPhy.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations and this report contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. When used in this report, the terms "may," "might," "will," "objective," "intend," "should," "could," "can," "would," "expect," "believe," "estimate," "predict," "potential," "plan," or the negative of these terms, and similar expressions intended to identify forward-looking statements. These statements include statements regarding our anticipated trends and challenges in our business and the markets in which we operate, including the market for 25G to 600G high-speed analog semiconductor solutions, demand for our current products, our plans for future products and anticipated features and benefits thereof, expansion of our product offerings and enhancements of existing products, anticipated benefits of our acquisitions of ClariPhy and Cortina and divestiture of our memory product business, critical accounting policies and estimates, our expectations regarding our expenses and revenue, sources of revenue, our tax benefits, the benefits of our products and services, our technological capabilities and expertise, timing of the development of our products, our liquidity position and sufficiency thereof, including our anticipated cash needs and uses of cash, our operating and capital expenditures and requirements and our needs for additional financing and potential consequences thereof, repatriation of cash balances from our foreign subsidiaries, our contractual obligations, our anticipated growth and growth strategies, our ability to retain and attract customers, particularly in light of our dependence on a limited number of customers for a substantial portion of our revenue, competition, interest rate sensitivity, adequacy of our disclosure controls, our legal proceedings and warranty claims. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these or any other forward-looking statements. These risks and uncertainties include, but are not limited to, those risks discussed below, as well as factors affecting our results of operations, our ability to manage our growth, our ability to sustain or increase profitability, demand for our solutions, the effect of declines in average selling prices for our products, our ability to compete, our ability to rapidly develop new technology and introduce new products, our ability to safeguard our intellectual property, our ability to qualify for tax holidays and incentives, trends in the semiconductor industry and fluctuations in general economic conditions, and the risks set forth throughout this Report, including the risks set forth under Part I, " Item 1A, Risk Factors". Readers are cautioned not to place undue reliance on these forward-looking statements, which are based on current expectations and reflect management's opinions only as of the date hereof. These forward-looking statements speak only as of the date of this Report. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any changes in events, conditions or circumstances on which any such statement is based.

The following discussion and analysis should be read in conjunction with the consolidated financial statements and related notes that are included elsewhere in this Annual Report on Form 10-K.

Overview

We are a fabless provider of high-speed analog and mixed signal semiconductor solutions for the communications and datacenter markets. Our analog and mixed signal semiconductor solutions provide high signal integrity at leading-edge data speeds while reducing system power consumption. Our semiconductor solutions are designed to address bandwidth bottlenecks in networks, maximize throughput and minimize latency in computing environments and enable the rollout of next generation communications and datacenter infrastructures. Our solutions provide a vital high-speed interface between analog signals and digital information in high-performance systems such as telecommunications transport systems, enterprise networking equipment and datacenter. We provide 25G to 600G high-speed analog semiconductor solutions for the communications market. We have a wide range product portfolio with many products sold in communication and datacenter markets as of December 31, 2016. We have ongoing, informal collaborative discussions with industry and technology leaders such as Ciena Corporation, Cisco Systems, Inc., Huawei Technologies Co., Ltd., Juniper Networks Inc., Microsoft Corporation and Nokia Corporation, to design architectures and products that solve bandwidth bottlenecks in existing and next generation communications systems. Although we do not have any formal agreements with these entities, we engage in informal discussions with these entities with respect to anticipated technological challenges, next generation customer requirements and industry conventions and standards. We help define industry conventions and standards within the markets we target by collaborating with technology leaders, OEMs, systems manufacturers and standards bodies.

The recent history of our product development and sales and marketing efforts is as follows:

- In 2009, we began development of our low power CMOS SerDes product for next generation 100G Ethernet in enterprise networks.

- In 2010, we introduced and began to ship in commercial volume the industry's first transimpedance ampliform for 100G reconfigurable colorless networks, which we identify as product number 2850TA-SO1D.

- In 2011, we shipped engineering samples of our Optical PHY 100 Gb/sec CMOS CDR and SerDes Gearbox products.

- In 2012, we started shipping samples of the IN3250TA, our second-generation transimpedance amplifier, or TIA, for 100G reconfigurable colorless networks. We also introduced the industry's first quad linear driver designed for linear transmitters to enable next-generation 100G/400G coherent systems to address the need for higher speed and higher performance networking infrastructure. We also announced the availability of the world's first production ready 100G CMOS PHY/SerDes Gearbox products for next-generation data center, enterprise and service provider line cards.

- In 2013, we introduced the second generation 100G CMOS SerDes gearbox integrated circuit, or GB IC, for data center, enterprise and service provider line cards. The new GB IC with Tri-rate™ foundation is designed to enable seamless support of 10G, 40G and 100G Ethernet and optical transport network on a single line card. We also began shipping the industry's first quad linear driver designed for linear transmitters to enable next-generation 100G/400G coherent systems to address the need for higher speed, higher performance networking infrastructure.

- In 2014, we completed the acquisition of Cortina Systems Inc. which expands our market share of the high-speed optical and networking interconnects. This added more than 130 products in our portfolio which includes high-speed interconnect and optical transport products. We also started sampling the IN3252TA, the industry's first 32 Gbps dual high gain linear/variable-gain amplifier. The IN3252TA is designed specifically to address the demanding requirements for 100G coherent transmission for the Metro market. We also announced the availability of a new iKON™ family of 100G Clock and Data Recovery Retimer integrated circuits (IC) targeted at next-generation 2-Terabit line cards. The first product in this series, the IN112525-LC 100G CMOS CDR Retimer IC, is designed to accelerate deployment for higher density 100G in service center and data center networks. We also announced the availability of IN3216DZ, the first single chip quad channel linear Mach Zehnder driver in bare die form to address the network needs for 100G coherent systems in small form factors for the metro market. Specifically designed to be co-packaged with MZ modulators, the IN3216DZ will reduce size and cost of 100G coherent systems to enable higher density metro solutions. We also started sampling 45GBaud Linear Coherent Product Family, the industry's first linear ICs enabling 400G coherent solutions for next-generation metro to long haul applications. The initial product offerings includes IN4514SZ, a high-performance octal linear differential to single-ended Mach-Zehnder Modulator Driver and IN4550TA, a quad linear TIA/VGA Amplifier.

- In 2015, we started sampling a new product in our 45GBaud Linear Coherent Product Family, IN4518SZ. The IN4518SZ is a quad linear differential to single-ended Mach-Zehnder Modulator Driver, pin-compatible with the linear driver IN3214SZ, for 200G coherent Optical interconnect applications. The IN4518SZ extends the reach of 200G coherent for long haul applications and enables one set of hardware to serve multiple segments in the long haul and metro markets. We also announced the availability of the industry's first, highly integrated, lowest power 4-level Pulse Amplitude Modulation (PAM4) chipset solutions for intra-data center and inter-data center cloud interconnects. The PAM4 chipset solution is a family of PAM4 PHY ICs for 40G (IN014020-XL), 50G (IN015050-SF), 100G (IN015025-CA), 400G (IN015025-CD) and a companion linear TIA (IN2860TA) to enable platform solutions for multi-rate PAM4 interconnects. We also started sampling IN3217SZ, a quad linear differential to single-ended Mach-Zehnder Modulator Driver in a Surface Mount Technology (SMT) package. The new SMT quad linear driver extends the product portfolio by utilizing cost effective packaging for higher volume 100G/200G coherent long haul and metro optical interconnect applications.

- In 2016, we completed the acquisition of ClariPhy Communications, Inc. With this acquisition, we expect to provide a complete coherent platform to our customers in long haul, metro, and datacenter interconnect applications. We also introduced ColorZ™ reference design, the industry's first Silicon Photonics 100G PAM4 platform solution for 80km DWDM Data Center Interconnect in QSFP28 form factor. Utilizing advanced Pulse Amplitude Modulation signaling, ColorZ delivers up to 4Tb/s of bandwidth over a single fiber and allows multiple data centers located up to 80 km of each other to be connected and act like a single data center. We further introduced a highly integrated Silicon Photonics (SiPho) technology platform for 100Gbit/s data center applications. The single-chip SiPho optics includes multi-channel modulators, photodetectors, multiplexers, demultiplexers, optical power monitors and fiber coupling structures all integrated onto a single integrated circuit. We also announced the availability of the industry's lowest power Clock and Data Recovery Retimer for module applications, IN012525-CQ CMOS CDR and 45GBaud Linear Coherent Product Family, the industry's first linear ICs enabling 400G coherent solutions for next-generation long haul, metro, and data center applications. We also announced the industry's first 400GbE platform solution for next-generation 400G CFP8 modules. The platform solution includes our PAM4 digital signal processing (DSP) IC that supports IEEE P802.3bs 400G/s Ethernet standard alongside its companion market leading linear TIA and linear drivers for client based cloud interconnects. With the introduction of these new products, we are offering customers an end-to-end platform solution for moving data faster within and between data centers. We also announced the production availability of a new product in the 32GBaud Linear Coherent Product Family. The IN3217SZ, a quad linear Mach-Zehnder Modulator Driver in a SMT package, extends the product portfolio by utilizing cost effective packaging for the 100G/200G coherent long haul and metro optical interconnect applications. We also announced the sampling of IN6450TA, the world's first 64GBaud dual channel linear TIA/VGA amplifier. The IN6450TA supports data rates of 400Gbps to 600Gbps on a single wavelength for long haul, metro, and data center interconnect networks using coherent technology.

Our products are designed into systems sold by OEMs, including Ciena, Cisco, Huawei, Juniper, Microsoft and Nokia. We believe we are one of a limited number of suppliers to these OEMs for the types of products we sell, and in some cases we may be the sole supplier for certain applications. We sell both directly to these OEMs and to module manufacturers, original design manufacturers, or ODMs, and subsystems providers that, in turn, sell to these OEMs. During the year ended December 31, 2016, we sold our products to more than 100 customers. A significant portion of our revenue has been generated by a limited number of customers. We believe that sales to Huawei and Cisco, directly and indirectly, through subcontractors, accounted for approximately 16% and 12% of our total revenue, respectively, in the year ended December 31, 2016. In the year ended December 31, 2015, we believe that sales to Huawei and Cisco, directly and indirectly, through subcontractors, accounted for approximately 11% and 17% of our total revenue, respectively. In the year ended December 31, 2014, sales to Neophotonics, Fujitsu and Alcatel-Lucent, accounted for 14%, 11% and 11% of our total revenue, respectively. Substantially all of our sales to date, including our sales to Huawei and Cisco, are made on a purchase order basis. Since the beginning of 2006, we have shipped more than 40 million high-speed analog semiconductors. Our total revenue increased to $266.3 million and $192.7 million for the years ended December 31, 2016 and 2015. The increase in revenue was a result of increase in consumption of our dual linear TIAs, quad linear driver products and complementary metal oxide semiconductor based 100G physical layers (iPHY) products and partially due to the acquisition of Cortina Systems as of October 3, 2014. As of December 31, 2016, our retained earnings was $2.0 million.

Sales to customers in Asia accounted for 70%, 62% and 60% of our total revenue in 2016, 2015 and 2014, respectively. Because many of our customers or their OEM manufacturers are located in Asia, we anticipate that a majority of our future revenue will continue to come from sales to that region. Although a large percentage of our sales are made to customers in Asia, we believe that a significant number of the systems designed by these customers are then sold to end users outside Asia.

In April 2010, we received approval from the government of Singapore to set up an international headquarters from which to conduct our international operations. Because of its geographic alignment with suppliers and customers, we established our operations in Singapore to become a new international headquarters office for receiving and fulfilling orders for product shipped to locations outside the United States. Singapore has a strong university system and an established group of technology-based companies from which to recruit new engineers. We intend to build a team of engineering capability in Singapore both for development as well as testing associated with manufacturing. International operations in Singapore commenced on May 1, 2010 and during 2010, we transitioned our international operations from the United States to our Singapore subsidiary.

Demand for new features changes rapidly. It is difficult for us to forecast the demand for our products, in part because of the complex supply chain between us and the end-user markets that incorporate our products. Due to our lengthy product development cycle, it is critical for us to anticipate changes in demand for our various product features and the applications they serve to allow sufficient time for product development and design. Our failure to accurately forecast demand can lead to product shortages that can impede production by our customers and harm our customer relationships. Conversely, our failure to forecast declining demand or shifts in product mix can result in excess or obsolete inventory.

Although revenue generated by each design win and the timing of the recognition of that revenue can vary significantly, we consider ongoing design wins to be a key factor in our future success. We consider a design win to occur when an OEM or contract manufacturer notifies us that it has selected our products to be incorporated into a product or system under development. The design win process is typically lengthy, and as a result, our sales cycles will vary based on the market served, whether the design win is with an existing or new customer and whether our product is under consideration for inclusion in a first or subsequent generation product. In addition, our customers' products that incorporate our semiconductors can be complex and can require a substantial amount of time to define, design and produce in volume. As a result, we can incur significant design and development expenditures in circumstances where we do not ultimately recognize, or experience delays in recognizing revenue. Our customers generally order our products on a purchase order basis. We do not have any long-term purchase commitments (in excess of one year) from any of our customers. Once our product is incorporated into a customer's design, however, we believe that our product 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 semiconductor. Our design cycle from initial engagement to volume shipment is typically two to three years. Product life cycles in the markets we serve typically range from two to 10 years or more and vary by application.

Summary of Consolidated Financial Results

As discussed in more detail below, for the year ended December 31, 2016, compared to the year ended December 31, 2015, we delivered the following financial performance. The financial results for the years ended December 31, 2016 and 2015, include the results of operations of ClariPhy and Cortina from the acquisition date and the effect of purchase price accounting.

- Total revenue increased by $73.6 million, or 38% to $266.3 million.
- Gross profit as a percentage of revenue increased from 62% to 68%.
- Total operating expenses increased by $26.2 million, or 20% to $155.7 million.
- Income from operations increased by $34.5 million to $24.9 million.
- Benefit for income taxes was $15.1 million in 2016 compared to provision for income taxes of $5.9 million in 2015.
- Diluted net income per share from continuing operations increased by $1.01, to $0.60.

The increase in our revenue for the year ended December 31, 2016 was a result of increase in consumption of our dual linear TIAs, quad linear driver products and Optical PHY products.

The increase in gross margin was due to increase in sale of high margin products as discussed above, lower product cost from the inventory fair value step-up related to the acquired Cortina inventories for the year ended December 31, 2016 as compared to year ended December 31, 2015.

Total operating expenses increased due primarily to an increase in salaries and stock-based compensation partially from increase in headcount. Our expenses primarily consist of personnel costs, which include compensation, benefits, payroll related taxes and stock-based compensation. From December 31, 2015 to December 31, 2016, we hired 27 new employees, primarily in the engineering department. In addition, the acquisition of ClariPhy added 163 employees. We expect expenses to continue to increase in absolute dollars as we continue to invest resources to develop more products, to support the growth of our business. Our diluted income per share from continuing operations increased primarily due to increase in revenue and benefit from income taxes, partially offset by increase in operating expenses.

In September 2016, we issued $287.5 million aggregate principal amount of 0.75% Convertible Senior Notes due 2021. The net proceeds from this offering were approximately $279.8 million, after deducting initial purchasers' discount and commissions and debt offering expenses. The net proceeds were partially used to purchase the capped call options of $22.5 million.

Critical Accounting Policies and Significant Management Estimates

Our consolidated financial statements are prepared in accordance with U.S. Generally Accepted Accounting Principles, or GAAP. In connection with the preparation of our consolidated financial statements, we are required to make assumptions and estimates about future events, and apply judgments that affect the reported amounts of assets, liabilities, revenue, expenses and the related disclosures. We base our assumptions, estimates and judgments on historical experience, current trends and other factors that management believes to be relevant at the time our consolidated financial statements are prepared. On a regular basis, we review the accounting policies, assumptions, estimates and judgments to ensure that our consolidated financial statements are presented fairly and in accordance with GAAP. However, because future events and their effects cannot be determined with certainty, actual results could differ from our assumptions and estimates, and such differences could be material.

Our significant accounting policies are discussed in Note 1 of the Notes to our Consolidated Financial Statements. We believe that the following accounting estimates are the most critical to aid in fully understanding and evaluating our reported financial results, and they require our most difficult, subjective or complex judgments, resulting from the need to make estimates about the effect of matters that are inherently uncertain. We have reviewed these critical accounting estimates and related disclosures with our audit committee.

Revenue Recognition

Our products are fully functional at the time of shipment and do not require additional production, modification or customization. We recognize revenue from product sales when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable and collection is reasonably assured. Our fee is considered fixed or determinable at the execution of an agreement, based on specific products and quantities to be delivered at specified prices, which is evidenced by a customer purchase order or other persuasive evidence of an arrangement. Our agreements with non-distributor customers do not include rights of return or acceptance provisions. Product revenue is recognized upon shipment of product to customers, net of accruals for estimated sales returns and allowances, which to date, have not been significant.

Approximately 15% of our sales were made through third-party distributors in 2016. Sales to distributors are included in deferred revenue and we include the related costs in inventory until sales and delivery to the end customers occurs. Certain distributors may receive a credit for the price discounts associated with the distributors' customers that purchased those products. We estimate the extent of these distributor price discounts at each reporting period to reduce accounts receivable and deferred revenue, but we do not issue these discounts to the distributor until the inventory is sold to the distributors' customers. Revenue recognition on product sales through distributors is highly dependent on receiving pertinent and accurate data from our distributors in a timely fashion. Distributors provide us periodic data prior to the release of our consolidated financial statements regarding the product, price, quantity and end customer when products are resold, as well as the quantities of our products they still have in stock.

We recognize revenue from the sales and licensing of certain intellectual properties when the following fundamental criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the sales price is fixed or determinable, and (iv) collection of resulting receivables is reasonably assured.

We monitor collectability of accounts receivable primarily through review of the accounts receivable aging. Our policy is to record an allowance for doubtful accounts based on specific collection issues we have identified, aging of underlying receivables and historical experience of uncollectible balances. As of December 31, 2016 and 2015, our allowance for doubtful accounts was $155,000 and $165,000, respectively.

We have not made any material changes in the accounting methodology we use to record the allowance for doubtful accounts during the past three years. If actual results are not consistent with the assumptions and estimates used, for example, if the financial condition of the customer deteriorated, we may be required to record additional expense that could materially negatively impact our operating results. To date, however, substantially all of our receivables have been collected within the following quarter.

Inventory Valuation

We value our inventory, which includes materials, labor and overhead, at the lower of cost or market. Cost is computed using standard cost, which approximates actual cost, on a first-in, first-out basis. We periodically write-down our inventory to the lower of cost or market based on our estimates that consider historical usage and future demand. These factors are impacted by market and economic conditions, technology changes, new product introductions and changes in strategic direction. The calculation of our inventory valuation requires management to make assumptions and to apply judgment regarding forecasted customer demand and technological obsolescence that may turn out to be inaccurate. Inventory valuation reserves were $3,967,000 and $3,974,000 as of December 31, 2016 and 2015, respectively. Inventory valuation reserves, once established, are not reversed until the related inventory has been sold or scrapped.

We have not made any material changes in the accounting methodology we use to record inventory reserves during the past three years. We do not believe there is a reasonable likelihood that there will be a material change in the future estimates or assumptions that we use to calculate our inventory reserve. However, if estimates regarding customer demand are inaccurate or changes in technology affect demand for certain products in an unforeseen manner, we may be exposed to losses or gains that could be material.

Product Warranty

Our products are under warranty against defects in material and workmanship generally for a period of one or two years. We accrue for estimated warranty cost at the time of sale based on anticipated warranty claims and actual historical warranty claims experience including knowledge of specific product failures that are outside of our typical experience. The warranty obligation is determined based on product failure rates, cost of replacement and failure analysis cost. We monitor product returns for warranty-related matters and monitor both a specific and general accrual for the related warranty expense based on specific circumstances and general historical experience. Our warranty obligation requires management to make assumptions regarding failure rates and failure analysis costs. If actual warranty costs differ significantly from these estimates, adjustments may be required in the future, which would adversely affect our gross margins and operating results. The warranty liability as of December 31, 2016 and 2015 was $110,000.

Business combinations

We use the acquisition method of accounting for business combinations and recognize assets acquired and liabilities assumed measured at their fair values on the date acquired. This requires us to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. Goodwill as of the acquisition date is measured as the excess of consideration transferred over the net of the acquisition date fair values of the assets acquired and the liabilities assumed. While we use our best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, our estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we may adjust the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recognized in our consolidated statements of operations.

Accounting for business combinations requires our management to make significant estimates and assumptions, especially at the acquisition date, including our estimates for intangible assets, contractual obligations assumed and pre-acquisition contingencies, where applicable. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based, in part, on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Critical estimates in valuing certain of the intangible assets we have acquired include, but are not limited to: future expected cash flows from product sales, customer contracts and acquired technologies, expected costs to develop in-process research and development into commercially viable products, estimated cash flows from the projects when completed, and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Goodwill and Long-Lived Assets

Goodwill is recorded as the difference, if any, between the aggregate consideration paid for an acquisition and the fair value of the acquired net tangible and intangible assets. We evaluate goodwill on an annual basis in the fourth quarter or more frequently if we believe indicators of impairment exist. Significant management judgment is required in performing periodic impairment tests. To review for impairment, we first assess qualitative factors to determine whether events or circumstances lead to a determination that it is more likely than not that the fair value of any of our reporting unit is less than its carrying amount. Our qualitative assessment of the recoverability of goodwill, whether performed annually or based on specific events or circumstances, considers various macroeconomic, industry-specific and company-specific factors. Those factors include: (i) severe adverse industry or economic trends; (ii) significant company-specific actions, including exiting an activity in conjunction with restructuring of operations; (iii) current, historical or projected deterioration of our financial performance; or (iv) a sustained decrease in our market capitalization below our net book value. After assessing the totality of events and circumstances, if we determine that it is not more likely than not that the fair value of any of our reporting unit is less than its carrying amount, no further assessment is performed. If however, we determine that it is more likely than not that the fair value of any of our reporting unit is less than its carrying amount, we calculate the fair value of that reporting unit and compare the fair value to the reporting unit's net book value. The estimate of implied fair value of goodwill may require valuations of certain internally generated and unrecognized intangible assets such as our technology, customer relationships, patents and trademarks. If the carrying amount of goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to the excess. If our actual results, or the plans and estimates used in future impairment analyses, are lower than the original estimates used to assess the recoverability of these assets, we could incur additional impairment charges.

We assess the impairment of long-lived assets, which consist primarily of property and equipment and intangible assets, including purchased in-process research and development, whenever events or changes in circumstances indicate that such assets might be impaired and the carrying value may not be recoverable. Events or changes in circumstances that may indicate that an asset is impaired include significant decreases in the market value of an asset, significant underperformance relative to expected historical or projected future results of operations, a change in the extent or manner in which an asset is utilized, significant declines in the estimated fair value of the overall Company for a sustained period, shifts in technology, loss of key management or personnel, changes in the Company's operating model or strategy and competitive forces. If events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and the expected undiscounted future cash flows attributable to the asset are less than the carrying amount of the asset, an impairment loss equal to the excess of the asset's carrying value over its fair value is recorded. Fair value is determined based on the present value of estimated expected future cash flows using a discount rate commensurate with the risk involved, quoted market prices or appraised values, depending on the nature of the assets. Assumptions and estimates about future values and remaining useful lives are complex and often subjective.

The acquisition of ClariPhy on December 12, 2016 increased our goodwill and identifiable intangible assets by $96,637,000 and $235,898,000, respectively. See Note 2 to the Notes to our Consolidated Financial Statements. There was no evidence of impairment based on the annual impairment testing for the year ended December 31, 2016.

Stock-Based Compensation

We account for stock-based compensation in accordance with authoritative guidance which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors based on the grant date fair values of the awards. The fair value of stock option awards is estimated using the Black-Scholes option pricing model. The fair value of restricted stock units is based on the fair market value of our common stock on the date of grant. The performance-based stock units are subject to the achievement of a pre-established revenue goal and earnings per share on a non-GAAP basis. Once the goals are met, the performance-based stock units are subject to four years of vesting from the original grant date, contingent upon continuous service. The fair value of the performance-based stock units is calculated using the same method as our standard restricted stock units described above once the performance goals are met. The value of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in our consolidated statements of operations. We elected to treat share-based payment awards with graded vesting schedules and time-based service conditions as a single award and recognize stock-based compensation expense on a straight-line basis (net of estimated forfeitures) over the requisite service period. Stock-based compensation expenses are classified in the consolidated statement of operations based on the department to which the related employee reports.

We account for stock options issued to non-employees in accordance with the guidance for equity-based payments to non-employees. Stock option awards to non-employees are accounted for at fair value using the Black-Scholes option pricing model. Our management believes that the fair value of stock options is more reliably measured than the fair value of the services received. The fair value of the unvested portion of the options granted to non-employees is re-measured each period. The resulting increase in value, if any, is recognized as expense during the period the related services are rendered.

The Black-Scholes option pricing model requires management to make assumptions and to apply judgment in determining the fair value of our awards. The most significant assumptions and judgments include estimating the fair value of underlying stock, expected volatility and expected term. In addition, the recognition of stock-based compensation expense is impacted by estimated forfeiture rates.

Historically, we granted stock options to employees. We estimated the expected volatility from the historical volatilities of several unrelated public companies within the semiconductor industry because our common stock has limited trading history. When selecting the public companies used in the volatility calculation, we selected companies in the semiconductor industry with comparable characteristics to us, including stage of development, lines of business, market capitalization, revenue and financial leverage. The weighted average expected life of options was calculated using the simplified method. This decision was based on the lack of relevant historical data due to our limited experience and the lack of active market for our common stock. The risk-free interest rate is based on the U.S. Treasury yields in effect at the time of grant for periods corresponding to the expected term of the options. The expected dividend rate is zero based on the fact that we have not historically paid dividends and have no intention to pay cash dividends in the foreseeable future. The forfeiture rate is established based on the historical average period of time that options were outstanding and adjusted for expected changes in future exercise patterns.

We do not believe there is a reasonable likelihood that there will be material changes in the estimates and assumptions we use to determine stock-based compensation expense. In the future, if we determine that other option valuation models are more reasonable, the stock-based compensation expense that we record in the future may differ significantly from what we have recorded using the Black-Scholes option pricing model.

Income Taxes

Deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when and where the differences are expected to reverse. We record a valuation allowance to reduce deferred tax assets to the amount that we believe is more likely than not to be realized. In assessing the need for a valuation allowance, we consider all positive and negative evidence, including scheduled reversals of deferred tax liabilities, historical levels of income, projections of future income, expectations and risk associated with estimates of future taxable income and ongoing prudent and practical tax planning strategies. To the extent that we believe it is more likely than not that some portion of our deferred tax assets will not be realized, we would increase the valuation allowance against deferred tax assets. The determination of recording or releasing a tax valuation allowance is made, in part, pursuant to an assessment performed by management regarding the likelihood that we will generate sufficient future taxable income against which the benefits of our deferred tax assets may or may not be realized. This assessment requires management to exercise significant judgment and make estimates with respect to our ability to generate revenue, gross profits, operating income and taxable income in future periods. Among other factors, management must make assumptions regarding current and projected overall business and semiconductor industry conditions, operating efficiencies, our ability to timely develop, introduce and consistently manufacture new products to meet our customers' needs and specifications, our ability to adapt to technological changes and the competitive environment, which may impact our ability to generate taxable income and, in turn, realize the value of our deferred tax assets. Although, we believe that the judgment we used is reasonable, actual results can differ due to a change in market conditions, changes in tax laws and other factors.

We have valuation allowance against deferred tax assets for the years ended December 31, 2016, 2015 and 2014. The decision to establish the valuation allowance in 2012 was due to negative evidence that included our cumulative losses in U.S., Singapore and Taiwan after considering permanent tax differences and the passage of California tax law requiring use of single sales factor which reduces the amount of California taxable income starting 2013. During the year ended December 31, 2016, we released a portion of the federal valuation allowance against deferred tax assets as a result of the consolidation of our deferred tax assets with ClariPhy's deferred tax liabilities. We also released the entire Singapore valuation allowance as a result of the full utilization of the Singapore deferred tax asset during the year primarily due to the gain from the sale of the memory product business, yielding a deferred tax liability as of December 31, 2016. The valuation allowance release resulted in the recognition of an income tax benefit.

In accordance with FASBs guidance on Accounting for Uncertainty in Income Taxes, we perform a comprehensive review of uncertain tax positions regularly. The guidance prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken, or expected to be taken, in a tax return. We determine the tax liability for uncertain tax positions based on a two-step process. The first step is to determine whether it is more likely than not based on technical merits that each income tax position would be sustained upon examination. The second step is to measure the tax benefit as the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement with a tax authority that has full knowledge of all relevant information. The assessment of each tax position requires significant judgment and estimates. We believe our tax return positions are fully supported, but tax authorities could challenge certain positions, which may not be fully sustained. All tax positions are periodically analyzed and adjusted as a result of events, such as the resolution of tax audits, issuance of new regulations or new case law, negotiations with tax authorities, and expiration of statutes of limitations.

Results of Operations and Key Operating Metrics

The following describes the line items in the statements of operations, which we consider to be our key operating metrics.

Revenue. We generate revenue from sales of our semiconductor products to end customers. A portion of our products is sold indirectly to customers through distributors.

We design and develop high-speed analog semiconductor solutions for the communications and datacenter markets. Our revenue is driven by various trends in these markets. These trends include the deployment and broader market adoption of next generation 400G technologies in communications and enterprise networks and the timing of next generation network.

Our revenue is also impacted by changes in the number and average selling prices of our semiconductor products. Our products are typically characterized by a life cycle that begins with higher average selling prices and lower volumes, followed by broader market adoption, higher volumes, and average selling prices that are lower than initial levels.

We operate in industries characterized by rapidly changing technologies and industry standards as well as technological obsolescence. Our revenue growth is dependent on our ability to continually develop and introduce new products to meet the changing technology and performance requirements of our customers, diversify our revenue base and generate new revenue to replace, or build upon, the success of previously introduced products which may be rapidly maturing. As a result, our revenue is impacted to a more significant extent by product life cycles for a variety of products and to a much lesser extent, if any, by any single product. In 2012, we introduced and began to ship in commercial volume a dual, differential input linear transimpedance/variable-gain amplifier that we identify as product number IN3250TA-SO2D. Sales of IN3250TA-SO2D product comprised 25%, 18% and 22% of our total revenue in 2016, 2015 and 2014, respectively. In 2010, we introduced and began to ship in commercial volume a dual, differential linear transimpedance amplifier which we identify as product number 2850TA-SO1D. Sales of 2850TA-SO1D product comprised 12% of our total revenue in 2014. In 2017, we expect that revenue from sales of IN3250TA-SO2D will continue to be significant.

The following table is based on the geographic location to which our product is initially shipped. In most cases this will differ from the ultimate location of the end user of a product containing our technology. For sales to our distributors, their geographic location may be different from the geographic locations of the ultimate end customer. Sales by geography for the periods indicated were:

	Year Ended December 31,		
	2016	2015	2014
	(in thousands)		
China	$ 103,071	$ 61,448	$ 26,414
United States	29,976	34,605	15,662
Japan	36,308	24,410	15,111
Thailand	35,837	25,123	7,924
Italy	19,677	10,952	9,823
Other	41,408	36,172	21,211
	$ 266,277	$ 192,710	$ 96,145

Cost of revenue. Cost of revenue includes cost of materials such as wafers processed by third-party foundries, costs associated with packaging and assembly, test and shipping, cost of personnel, including stock-based compensation, as well as equipment associated with manufacturing support, logistics and quality assurance, warranty costs, write down of inventories, amortization of production mask costs, amortization of developed technology, amortization of step-up values of inventory, overhead and other indirect costs, such as allocated occupancy and information technology, or IT, costs.

As some semiconductor products mature and unit volumes increase, their average selling prices may decline. These declines are often paired with improvements in manufacturing yields and lower wafer, assembly and test costs, which offset some of the margin reduction that results from lower prices. However, our gross profit, period over period, may fluctuate as a result of changes in average selling prices due to new product introductions or existing product transitions into larger scale commercial volumes, manufacturing costs as well as our product and customer mix.

Research and development. Research and development expense includes personnel-related expenses, including salaries, stock-based compensation and employee benefits. It also includes pre-production engineering mask costs, software license expenses, prototype wafer, packaging and test costs, design and development costs, testing and evaluation costs, third-party fees paid to consultants, depreciation expense, allocated facilities costs and other indirect costs. All research and development costs are expensed as incurred. We enter into development agreements with some of our customers. Recoveries from nonrecurring engineering services related to early stage technology are recorded as an offset to product development expense incurred in support of this effort and serve as a mechanism to partially recover development expenditures. These reimbursements are recognized upon completion and acceptance by the customer of contract deliverables or milestones. We expect research and development expense to increase in absolute dollars as we continue to invest resources to develop more products and enhance our existing product portfolio.

Sales and marketing. Sales and marketing expense consists primarily of salaries, stock-based compensation, employee benefits, travel, promotions, trade shows, marketing and customer support, commission payments to employees, depreciation expense and other indirect costs. We expect sales and marketing expense to increase in absolute dollars to support the growth of our business and promote our products to current and potential customers.

General and administrative. General and administrative expense consists primarily of salaries, stock-based compensation, employee benefits and expenses for executive management, legal, and finance. In addition, general and administrative expenses include fees for professional services and other indirect costs. We expect general and administrative expense to increase in absolute dollars due to the general growth of our business and the costs associated with continuing to be a public company for, among other things, SEC reporting and compliance, director fees, insurance, transfer agent fees and similar expenses.

Provision (benefit) for income taxes. For the year ended December 31, 2014, we recorded provision for income taxes of $1.1 million, which reflects an effective tax rate of (3%). The effective tax rate of (3%) differs from the statutory rate of 34% primarily due to the an increase in valuation allowance, foreign income taxes provided at lower rates, geographic mix in profitability, unrecognized tax benefits, transaction cost adjustments, and recognition of research and development credits. For the year ended December 31, 2015, we recorded provision for income taxes of $5.9 million, which reflects an effective tax rate of (58%). The effective tax rate of (58%) differs from the statutory rate of 34% primarily due to increase in valuation allowance, foreign income taxes provided at lower rates, geographic mix in profitability, unrecognized tax benefits, stock-based compensation adjustment, taxation of Subpart F income, and recognition of research and development credits. For the year ended December 31, 2016, we recorded income tax benefit of $15.1 million, which reflects an effective tax rate of (131%). The effective tax rate of (131%) differs from the statutory rate of 34% primarily due to change in valuation allowance, foreign income taxes provided at lower rates, geographic mix in profitability, unrecognized tax benefits, stock-based compensation adjustments, transaction cost adjustments and recognition of research and development credits. The change in valuation allowance during the year ended December 31, 2016, included an income tax benefit of $17.8 million from the partial release of federal valuation allowance and full release of Singapore valuation allowance. The partial release of the federal valuation allowance against deferred tax assets resulted from the consolidation of the Company's federal deferred tax assets with ClariPhy's federal deferred tax liabilities. The full release of the Singapore valuation allowance against deferred tax assets resulted from the Company's full utilization of its deferred tax asset during the year primarily due to the gain from the sale of the memory product business.

The following table sets forth a summary of our statement of operations for the periods indicated:

	Year Ended December 31,		
	2016	2015	2014
		(in thousands)	
Total revenue	$ 266,277	$ 192,710	$ 96,145
Cost of revenue	85,581	72,694	44,244
Gross profit	180,696	120,016	51,901
Operating expense:			
Research and development	108,013	87,774	56,508
Sales and marketing	26,534	21,462	15,136
General and administrative	21,201	20,322	16,153
Total operating expenses	155,748	129,558	87,797
Income (loss) from operations	24,948	(9,542)	(35,896)
Interest expense	(17,406)	(783)	—
Other income	3,914	221	495
Income (loss) before income taxes from continuing operations	11,456	(10,104)	(35,401)
Provision (benefit) for income taxes	(15,057)	5,857	1,131
Net income (loss) from continuing operations	26,513	(15,961)	(36,532)
Discontinued operations:			
Gain from sale	78,544	—	—
Income (loss) from discontinued operations	(3,802)	4,535	14,531
Provision for income taxes	(1,799)	(2,125)	(607)
Net income from discontinued operations	72,943	2,410	13,924
Net income (loss)	$ 99,456	$ (13,551)	$ (22,608)

The following table sets forth a summary of our statement of operations as a percentage of each line item to the revenue:

	Year Ended December 31,		
	2016	2015	2014
Total revenue	100%	100%	100%
Cost of revenue	32	38	46
Gross profit	68	62	54
Operating expense:			
Research and development	40	45	58
Sales and marketing	10	11	16
General and administrative	8	11	17
Total operating expenses	58	67	91
Income (loss) from operations	10	(5)	(37)
Interest expense	(7)	—	—
Other income	1	—	—
Income (loss) before income taxes from continuing operations	4	(5)	(37)
Provision (benefit) for income taxes	(6)	3	1
Net income (loss) from continuing operations	10	(8)	(38)
Discontinued operations:			
Gain from sale	29	—	—
Income (loss) from discontinued operations	(1)	2	15
Provision for income taxes	(1)	(1)	(1)
Net income from discontinued operations	27	1	14
Net income (loss)	37%	(7)%	(24)%

Comparison of the Years Ended December 31, 2016, 2015 and 2014

Revenue

	Year Ended December 31,			Change			
				2016		2015	
	2016	2015	2014	Amount	%	Amount	%
				(dollars in thousands)			
Total revenue	$266,277	$192,710	$ 96,145	$ 73,567	38%	$ 96,565	100%

Total revenue for the year ended December 31, 2016 increased by $73.6 million due to a year over year increase in average selling price of 12% and an increase in the number of units sold of 23%. The increases in average selling price and number of units sold was due to product mix, mainly from sale of dual linear TIA, quad linear driver products and Optical PHY products, including new product introductions.

Total revenue for the year ended December 31, 2015 increased by $96.6 million due to a year over year increase in number of units sold of 126%, partially offset by a decrease in the average selling price of 11%. The increase in number of units sold was due to sales of dual linear TIA, quad linear driver products and Optical PHY products, and a full year of Cortina product sales in 2015 as compared to the single quarter of product sales included in 2014. The decrease in the average selling price was due to product and customer mix as well as a natural decline in prices as products mature in the market and from competitive pricing.

Cost of Revenue and Gross Profit

	Year Ended December 31,			Change			
				2016		2015	
	2016	2015	2014	Amount	%	Amount	%
	(dollars in thousands)						
Cost of revenue	$ 85,581	$ 72,694	$ 44,244	$ 12,887	18%	$ 28,450	64%
Gross profit	180,696	120,016	51,901	60,680	51%	68,115	131%
Gross profit as a percentage of revenue	68%	62%	54%	—	6%	—	8%

Cost of revenue and gross profit for the year ended December 31, 2016 increased by $12.9 million and $60.7 million, respectively, compared to the prior year primarily due to increased sales and mix of our higher margin products, including dual linear TIA, quad linear driver products and Optical PHY products. Gross profit as a percentage of revenue increased due to sale of high margin products and higher product cost in 2015 as a result of inventory fair value step-up related to the acquired Cortina inventories sold in 2015.

Cost of revenue and gross profit for the year ended December 31, 2015 increased by $28.5 million and $68.1 million, respectively, compared to the prior year primarily due to increase in revenue from sales of our dual linear TIA, quad linear driver products, Optical PHY products and high-speed interconnect and optical transport products, which generated higher margin, amortization of inventory step-up related to the acquired Cortina inventories and amortization of acquired intangibles. Gross profit as a percentage of revenue increased due to sale of high margin products as discussed above and lower amortization of inventory fair value step-up related to the acquired Cortina inventories of $4.0 million, offset by increase of amortization of acquired intangibles by $8.6 million.

Research and Development

	Year Ended December 31,			Change			
				2016		2015	
	2016	2015	2014	Amount	%	Amount	%
	(dollars in thousands)						
Research and development	$108,013	$ 87,774	$ 56,508	$ 20,239	23%	$ 31,266	55%

Research and development expense for the year ended December 31, 2016 increased by $20.2 million due to the increase in personnel costs and stock-based compensation expense of $5.5 million and $4.1 million, respectively, which in turn was also partially due to an increase in research and development headcount in 2016. In addition, CAD software tool license expense increased by $2.3 million, primarily due to an increase in headcount and engineering activities. Further, the reimbursement from customers related to research and development contracts was higher by $8.3 million in 2015 due to completion of development contracts entered with the customers. Depreciation and allocated expenses also increased by $3.5 million, primarily, due to an increase in equipment and research and development activities. The increases were partially offset by the absence of an impairment charge related to abandoned in-process research and development costs of $1.8 million in 2015. The increase in research and development expense was primarily driven by our strategy to continue to expand our product offerings and enhance our existing products.

Research and development expense for the year ended December 31, 2015 increased by $31.3 million, primarily due to the increase in research and development headcount from new employees hired in 2015 and as a result of the acquisition of Cortina, which resulted in a $12.9 million and $3.6 million increase in personnel costs and stock-based compensation expense, respectively. In addition, CAD software tool license expense increased by $4.5 million, primarily due to an increase in headcount and engineering activities. Further, external test services, pre-production engineering mask costs and laboratory supplies increased by $3.1 million. We abandoned a project related to in-process research and development costs which resulted in an impairment charge of $1.8 million. Depreciation and allocated expenses also increased by $5.4 million, primarily, due to an increase in equipment and research and development activities. The increase in research and development expense was primarily driven by acquisition of Cortina and our strategy to continue to expand our product offerings and enhance our existing products.

Sales and Marketing

	Year Ended December 31,			Change			
				2016		2015	
	2016	2015	2014	Amount	%	Amount	%
	(dollars in thousands)						
Sales and marketing	$ 26,534	$ 21,462	$ 15,136	$ 5,072	24%	$ 6,326	42%

Sales and marketing expense for the year ended December 31, 2016 increased by $5.1 million, primarily due to an increase in personnel costs, including stock-based compensation expense of $2.9 million, to support increasing sales activities from new developed products. Commission expense increased by $0.6 million due to higher compensation and higher revenue. In addition, amortization of intangible asset related to ClariPhy acquisition was $0.4 million. Product samples and trade shows expense increased by $0.5 million primarily associated with new products introduced into the market.

Sales and marketing expense for the year ended December 31, 2015 increased by $6.3 million, primarily due to an increase in personnel costs, including stock-based compensation expense of $3.6 million, to support increasing sales activities from newly developed products and from the Cortina acquisition. Commission expense increased by $1.6 million due to higher compensation and higher revenue. In addition, amortization of intangible asset related to Cortina acquisition increased by $0.6 million.

General and Administrative

	Year Ended December 31,			Change			
				2016		2015	
	2016	2015	2014	Amount	%	Amount	%
	(dollars in thousands)						
General and administrative	$ 21,201	$ 20,322	$ 16,153	$ 879	4%	$ 4,169	26%

General and administrative expenses for the year ended December 31, 2016 increased by $0.9 million, primarily due to increase in outside legal fees of $1.1 million in connection with the acquisition of ClariPhy and an increase in salaries of $0.9 million due to higher salaries and new hires. The increases were partially offset by a decrease in stock-based compensation by $1.1 million in connection with the completion of four year vesting of an initial grant to an officer in the first quarter 2016.

General and administrative expenses for the year ended December 31, 2015 increased by $4.2 million, primarily due to an increase in personnel costs and stock-based compensation expense of $2.1 million as a result of new hires in connection with the Cortina acquisition, as well as grants awarded. Amortization of intangibles and accounting and consultant fees increased by $0.3 million and $0.5 million, respectively, due to the Cortina acquisition. In addition, we incurred a loss of $0.5 million from the disposal of certain property and equipment in connection with the Cortina acquisition.

Provision (benefit) for Income Taxes

	Year Ended December 31,			Change			
				2016		2015	
	2016	2015	2014	Amount	%	Amount	%
	(dollars in thousands)						
Provision (benefit) for income taxes	$ (15,057)	$ 5,857	$ 1,131	$ (20,914)	(357%)	$ 4,726	418%

For the year ended December 31, 2016, we recorded an income tax benefit of $15.1 million, which reflects an effective tax rate of (131%). The effective tax rate of (131%) differs from the statutory rate of 34% primarily due to the change in valuation allowance, foreign income taxes provided at lower rates, geographic mix in profitability, unrecognized tax benefits, stock-based compensation adjustments, transaction cost adjustments, and recognition of research and development credits. The change in valuation allowance during the year ended December 31, 2016, included an income tax benefit of $17.8 million from the partial release of federal valuation allowance and full release of the Singapore valuation allowance. The partial release of the federal valuation allowance against deferred tax assets resulted from the consolidation of the Company's federal deferred tax assets with ClariPhy's federal deferred tax liabilities. The full release of the Singapore valuation allowance against deferred tax assets resulted from the Company's full utilization of its deferred tax asset during the year primarily due to the gain from the sale of the memory product business.

For the year ended December 31, 2015, we recorded a provision for income taxes of $5.9 million, which reflects an effective tax rate of (58%). The effective tax rate of (58%) differs from the statutory rate of 34% primarily due to change in the valuation allowance, foreign income taxes provided at lower rates, geographic mix in profitability, unrecognized tax benefits, stock-based compensation adjustments, taxation of Subpart F income and recognition of research and development credits.

For the year ended December 31, 2014, we recorded a provision for income taxes of $1.1 million, which reflects an effective tax rate of (3%). The effective tax rate of (3%) differs from the statutory rate of 34% primarily due to the change in valuation allowance, foreign income taxes provided at lower rates, geographic mix in profitability, unrecognized tax benefits, transaction costs adjustments and recognition of research and development credits.

We operate under tax holiday in Singapore, which is effective through May 2020. The tax holiday is conditional upon our meeting certain employment, activities and investment thresholds over time. As of December 31, 2016, we believe we have met all of the required thresholds.

Liquidity and Capital Resources

As of December 31, 2016, we had cash and cash equivalents and investments in marketable securities of $394.3 million. Our primary uses of cash are to fund operating expenses, purchase inventory, acquire property and equipment and business acquisitions. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the changes in our outstanding accounts payable and accrued expenses. Our primary sources of cash are cash receipts on accounts receivable from our revenue. In 2016 and 2015, we issued convertible debt, which resulted in an increase in cash and cash equivalents. Aside from the growth in amounts billed to our customers, net cash collections of accounts receivable are impacted by the efficiency of our cash collections process, which can vary from period to period, depending on the timing of shipments and payment cycles of our major customers.

The following table summarizes our cash flows for the periods indicated:

	Years Ended December 31,		
	2016	2015	2014
		(in thousands)	
Net cash provided by operating activities	$ 63,073	$ 72,543	$ 8,441
Net cash used in investing activities	(448,213)	(23,871)	(11,744)
Net cash provided by financing activities	246,963	204,006	2,002
Net increase (decrease) in cash and cash equivalents	$ (138,177)	$ 252,678	$ (1,301)

Net Cash Provided by Operating Activities

Net cash provided by operating activities in 2016 primarily reflected net income of $99.5 million, depreciation and amortization of $31.2 million, stock-based compensation of $30.2 million, amortization of deferred tax charge of $0.9 million, amortization of premiums on marketable securities of $1.5 million, accretion of convertible debt and amortization of issuance expenses of $14.2 million, a change in income tax payable/receivable of $1.4 million, an increase in accounts payable of $3.5 million and other liabilities by $2.0 million, partially offset by a gain from sale of discontinued operations and cost method investment of $79.7 million, deferred income taxes of $15.5 million, increases in accounts receivable of $17.0 million, inventories of $6.4 million, prepaid expenses of $1.4 million and a decrease in deferred revenue of $1.3 million. Our accounts payable increased due to increased production volume. Our other liabilities increased due to amounts payable to Rambus. Our accounts receivable increased due to higher product shipments to customers and longer credit term. Our inventories increased as a result of growing production for expected delivery to customers in the first quarter of 2017. Our prepaid expenses and other assets increased due to additional subscriptions. Our deferred revenue decreased due to the sale of our memory product business.

Net cash provided by operating activities in 2015 primarily reflected depreciation and amortization of $26.9 million, stock-based compensation of $28.3 million, loss on disposal and abandonment of property and equipment of $1.9 million, impairment of in-process research and development of $1.8 million, amortization of deferred tax charge of $0.9 million, amortization of premiums on marketable securities of $0.5 million, accretion of convertible debt and amortization of issuance expenses of $0.6 million, decreases in accounts receivable by $6.5 million, inventories of $8.8 million, prepaid expenses and other assets of $2.2 million, change in income tax payable/receivable by $6.4 million and an increase in accrued expenses by $3.4 million, partially offset by a net loss of $13.6 million and a decrease in other liabilities of $1.4 million. Our accounts receivable decreased due to collections from customers. Our inventories decreased due to shipments to customers and amortization of fair value step-up on Cortina inventories. Our prepaid expenses and other current assets decreased due to settlement of a non-trade receivable. Our accrued expenses increased due to accrual of employee related expenses. Other liabilities decreased due to deposits received from customers used in 2015 and decrease in deferred rent on building leases.

Net cash provided by operating activities in 2014 primarily reflected depreciation and amortization of $14.1 million, stock-based compensation of $22.5 million, abandonment of assets of $1.2 million, amortization of deferred tax charge of $0.9 million, amortization of premiums on marketable securities of $0.8 million, a decrease in inventories of $10.1 million and an increase in deferred revenue of $5.4 million, partially offset by a net loss of $22.6 million, increase in accounts receivable by $8.7 million, an increase in prepaid expenses by $3.3 million, a decrease in accounts payable and accrued expenses by $10.3 million and a decrease in other liabilities of $1.7 million. Our inventories, net of acquired inventories from the Cortina acquisition decreased due to shipments to customers. Our deferred revenue increased as a result of the acquisition of Cortina and distributors increased their inventory level for shipment to customers in the first quarter of 2015. Accounts receivable increased due to higher shipments made in the last month of the quarter, including Cortina's products. Our prepaid expenses and other assets increased as a result of new subscriptions with vendors and related prepayments. Our accounts payable and accrued expenses, net of assumed liabilities from Cortina acquisition, decreased due to payment to vendors and employees. Other liabilities decreased due to amortization of advance payment received from a customer in 2013.

Net Cash Used in Investing Activities

In 2016, net cash used in investing activities consisted of cash used to purchase investment in marketable securities of $330.6 million, the acquisition of ClariPhy for $294.4 million, net of cash acquired, purchases of property and equipment of $22.3 million, mainly for laboratory, production and computer equipment and leasehold improvements for our offices, and the purchase of minority interest in an early stage private companies for $8.0 million partially offset by sales and maturities of marketable securities of $122.1 million, proceeds from the sale of discontinued operations of $78.8 million and cost method investment of $6.3 million.

In 2015, net cash used in investing activities consisted of cash used to purchase investment in marketable securities of $21.9 million, purchases of property and equipment of $16.6 million, mainly for laboratory, production and computer equipment and software and the purchase of a minority interest in an early stage private company for $2.0 million, partially offset by sales and maturities of marketable securities of $16.5 million.

In 2014, net cash used in investing activities consisted of cash used to purchase investment in marketable securities of $38.6 million, the acquisition of Cortina for $35.3 million, net of cash acquired, purchases of property and equipment of $21.2 million, mainly for laboratory, production and computer equipment and leasehold improvements for our offices, the purchase of a minority interest in an early stage private company for $5.0 million and the purchase of patents for $1.6 million, partially offset by sales and maturities of marketable securities of $89.9 million.

Net Cash Provided by Financing Activities

Net cash provided by financing activities in 2016, consisted primarily of net proceeds from issuance of convertible debt of $279.5 million, proceeds from the exercise of stock options and employee stock purchase plan of $11.3 million. This was partially offset, by the purchase of capped call options related to convertible debt issued of $22.5 million, minimum tax withholding paid on behalf of employees for net share settlement of $20.4 million and a loan to a supplier of $0.7 million.

Net cash provided by financing activities in 2015, consisted primarily of the net proceeds from the issuance of convertible debt of $224 million, proceeds from the exercise of stock options and employee stock purchase plan of $10.7 million. This was offset, in part, by the purchase of capped call options related to convertible debt issued of $17.8 million and minimum tax withholding paid on behalf of employees for net share settlement of $12.9 million.

Net cash provided by financing activities in 2014, consisted primarily of proceeds from the exercise of stock options and employee stock purchase plan of $7.0 million. This was offset, in part, by the minimum tax withholding paid on behalf of employees for net share settlement of $5.0 million.

Operating and Capital Expenditure Requirements

Our principal sources of liquidity as of December 31, 2016 consisted of $394.3 million of cash, cash equivalents and investments in marketable securities. Based on our current operating plan, we believe that our existing cash and cash equivalents and investments in marketable securities from operations will be sufficient to finance our operational cash needs through at least the next 12 - 18 months. In the future, we expect our operating and capital expenditures to increase as we increase headcount, expand our business activities and grow our end customer base which will result in higher needs for working capital. Our ability to generate cash from operations is also subject to substantial risks described in Part I, "Item 1A., Risk Factors." If any of these risks occur, we may be unable to generate or sustain positive cash flow from operating activities. We would then be required to use existing cash and cash equivalents to support our working capital and other cash requirements. If additional funds are required to support our working capital requirements, acquisitions or other purposes, we may seek to raise funds through equity or debt financing or from other sources. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we raise additional funds by obtaining loans from third parties, the terms of those financing arrangements may include negative covenants or other restrictions on our business that could impair our operating flexibility, and would also require us to incur interest expense. We can provide no assurance that additional financing will be available at all or, if available, that we would be able to obtain additional financing on terms favorable to us.

Contractual Obligations, Commitments and Contingencies

The following table summarizes our outstanding contractual obligations as of December 31, 2016:

	Payments due by period				
	Total	**Less Than 1 Year**	**1-3 Years**	**3-5 Years**	**More Than 5 Years**
			(in thousands)		
Convertible debt	$ 517,500	—	—	$ 517,500	—
Interest payable on convertible debt	21,059	$ 4,672	$ 9,487	6,900	—
Operating lease obligations	15,026	6,050	7,478	1,370	$ 128
Obligations related to intangibles	49,863	14,612	35,251	—	—
Obligations under capital lease	2,917	1,010	1,362	545	—

As of December 31, 2016, we recorded a liability for our uncertain tax position of $1.5 million. We are unable to reasonably estimate the timing of payments in individual years due to uncertainties in the timing of the effective settlement of tax positions.

We depend upon third-party subcontractors to manufacture our wafers. Our subcontractor relationships typically allow for the cancellation of outstanding purchase orders, but require payment of all expenses incurred through the date of cancellation. As of December 31, 2016, the total value of open purchase orders for wafers was approximately $9.5 million. As of December 31, 2016, we have a commitment to pay $1 million for software license starting in 2017.

Off-Balance Sheet Arrangements

Since our inception, we have not engaged in any off-balance sheet arrangements, such as the use of structured finance, special purpose entities or variable interest entities.

Recent Authoritative Accounting Guidance

See Note 1 of the Notes to our Consolidated Financial Statements for information regarding recently issued accounting pronouncements.

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

Interest Rate Sensitivity

We had cash and cash equivalents and investments in marketable securities of $394.3 and $326.7 million at December 31, 2016 and December 31, 2015, respectively, which was held for working capital purposes. Our exposure to market interest-rate risk relates primarily to our investment portfolio. We do not use derivative financial instruments to hedge the market risks of our investments. We manage our total portfolio to encompass a diversified pool of investment-grade securities to preserve principal and maintain liquidity. We place our investments with high-quality issuers, money market funds and debt securities. Our investment portfolio as of December 31, 2016 consisted of money market funds, U.S. Treasuries, municipal bonds, corporate bonds, variable rate demand notes, commercial paper and asset backed securities. Investments in both fixed rate and floating rate instruments carry a degree of interest rate risk. Fixed rate securities may have their market value adversely impacted due to an increase in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fall short of expectations due to changes in interest rates or if the decline in fair value of our publicly traded debt investments is judged to be other-than-temporary. We may suffer losses in principal if we are forced to sell securities that have declined in market value due to changes in interest rates. However, because any debt securities we hold are classified as available-for-sale, no gains or losses are realized in the income statement due to changes in interest rates unless such securities are sold prior to maturity or unless declines in value are determined to be other-than-temporary. These securities are reported at fair value with the related unrealized gains and losses, net of applicable taxes, included in accumulated other comprehensive income (loss), reported in a separate component of stockholders' equity. Although, we currently expect that our ability to access or liquidate these investments as needed to support our business activities will continue, we cannot ensure that this will not change. We believe that, if market interest rates were to change immediately and uniformly by 10% from levels at December 31, 2016, the impact on the fair value of these securities or our cash flows or income would not be material.

In a declining interest rate environment, as short-term investments mature, reinvestment occurs at less favorable market rates. Given the short-term nature of certain investments, the current interest rate environment may negatively impact our investment income.

As of December 31, 2016, we had outstanding debt of $517.5 million in the form of Convertible Notes. The fair value of our Convertible Notes is subject to interest rate risk, market risk and other factors due to the convertible feature. The fair value of the Convertible Notes will generally increase as interest rates fall and decrease as interest rates rise. In addition, the fair value of the Convertible Notes will generally increase as our common stock price increases and will generally decrease as our common stock price declines in value. The interest and market value changes affect the fair value of our Convertible Notes but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligation.

Our cash and cash equivalents and investment in marketable securities at December 31, 2016 consisted of $316.4 million held domestically, with the remaining balance of $77.9 million held by foreign subsidiaries. There may be adverse tax effects upon repatriation of these funds to the United States. We do not plan to repatriate cash balances from foreign subsidiaries to fund our operations in the United States.

Foreign Currency Risk

To date, our international customer and vendor agreements have been denominated almost exclusively in United States dollars. Accordingly, we have limited exposure to foreign currency exchange rates and currently enter into immaterial foreign currency hedging transactions.

ITEM 8. *FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA*

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Inphi Corporation:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, comprehensive income (loss), stockholders' equity and cash flows present fairly, in all material respects, the financial position of Inphi Corporation and its subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included 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, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 13 to the consolidated financial statements, the Company changed the manner in which it accounts for certain elements of its employee share-based payments in 2016.

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

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

As described in Management's Annual Report on Internal Control Over Financial Reporting, management has excluded ClariPhy Communication Inc. from its assessment of internal control over financial reporting as of December 31, 2016 because it was acquired by the Company in a purchase business combination during 2016. We have also excluded ClariPhy Communication Inc. from our audit of internal control over financial reporting. ClariPhy Communication Inc. is a wholly-owned subsidiary whose total assets and total revenues represent approximately 3% and 0.4% respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2016.

/s/ PricewaterhouseCoopers LLP
San Jose, California
March 1, 2017

Inphi Corporation
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 144,867	$ 283,044
Investments in marketable securities	249,476	43,616
Accounts receivable, net	49,999	30,418
Inventories	32,039	12,628
Prepaid expenses and other current assets	23,139	3,901
Current assets held for sale	—	5,268
Total current assets	499,520	378,875
Property and equipment, net	44,471	33,624
Goodwill	105,077	8,440
Identifiable intangible assets, net	327,063	66,289
Deferred tax charge	1,384	2,322
Other assets, net	13,080	12,126
Noncurrent assets held for sale	—	3,370
Total assets	$ 990,595	$ 505,046
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 14,039	$ 5,851
Deferred revenue	3,630	4,654
Accrued employee expenses	16,588	13,719
Other accrued expenses	7,277	3,246
Other current liabilities	24,736	1,018
Current liabilities held for sale	—	5,490
Total current liabilities	66,270	33,978
Convertible debt	396,857	171,701
Other long-term liabilities	64,944	8,697
Total liabilities	528,071	214,376
Commitments and contingencies (Note 17)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 10,000,000 shares authorized; no shares issued	—	—
Common stock, $0.001 par value; 500,000,000 shares authorized; 41,303,353 and 39,389,280 issued and outstanding at December 31, 2016 and 2015, respectively	41	39
Additional paid-in capital	459,928	392,616
Retained earnings (accumulated deficit)	1,976	(102,741)
Accumulated other comprehensive income	579	756
Total stockholders' equity	462,524	290,670
Total liabilities and stockholders' equity	$ 990,595	$ 505,046

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

Inphi Corporation
Consolidated Statements of Income
(in thousands, except share and per share amounts)

	Year Ended December 31, 2016	2015	2014
Revenue	$ 266,277	$ 192,710	$ 96,145
Cost of revenue	85,581	72,694	44,244
Gross profit	180,696	120,016	51,901
Operating expenses:			
Research and development	108,013	87,774	56,508
Sales and marketing	26,534	21,462	15,136
General and administrative	21,201	20,322	16,153
Total operating expenses	155,748	129,558	87,797
Income (loss) from operations	24,948	(9,542)	(35,896)
Interest expense	(17,406)	(783)	—
Other income, net	3,914	221	495
Income (loss) before income taxes from continuing operations	11,456	(10,104)	(35,401)
Provision (benefit) for income taxes	(15,057)	5,857	1,131
Net income (loss) from continuing operations	26,513	(15,961)	(36,532)
Discontinued operations:			
Gain from sale	78,544	—	—
Income (loss) from discontinued operations	(3,802)	4,535	14,531
Provision for income taxes	(1,799)	(2,125)	(607)
Net income from discontinued operations	72,943	2,410	13,924
Net income (loss)	$ 99,456	$ (13,551)	$ (22,608)
Earnings per share:			
Basic			
Net income (loss) from continuing operations	$ 0.65	$ (0.41)	$ (1.12)
Net income from discontinued operations	1.80	0.06	0.43
Basic earnings per share	$ 2.45	$ (0.35)	$ (0.69)
Diluted			
Net income (loss) from continuing operations	$ 0.60	$ (0.41)	$ (1.12)
Net income from discontinued operations	1.65	0.06	0.43
Diluted earnings per share	$ 2.25	$ (0.35)	$ (0.69)
Weighted-average shares used in computing earnings per share:			
Basic	40,565,433	38,580,330	32,707,868
Diluted	44,124,881	38,580,330	32,707,868

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

Inphi Corporation
Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	Year Ended December 31,		
	2016	**2015**	**2014**
Net income (loss)	$ 99,456	$ (13,551)	$ (22,608)
Other comprehensive income (loss):			
Available for sale investments:			
Change in unrealized gain, net of $0, $0 and $45 tax expense in 2016, 2015 and 2014, respectively	(172)	(87)	11
Realized gain reclassified into earnings, net of tax	(5)	(9)	(97)
Comprehensive income (loss)	$ 99,279	$ (13,647)	$ (22,694)

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

Inphi Corporation
Consolidated Statements of Stockholders' Equity
(in thousands, except share amounts)

	Common Stock		Additional Paid-in Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income	Total Stock-holders' Equity
	Shares	Amount				
Balance at December 31, 2013	30,244,439	$ 30	$ 225,007	$ (66,582)	$ 938	$ 159,393
Issuance of common stock from exercise of stock options	788,196	1	4,297	—	—	4,298
Issuance of common stock from restricted stock unit grant, net of shares withheld for tax	738,862	1	(4,965)	—	—	(4,964)
Issuance of common stock from employee stock purchase plan	264,886	—	2,668	—	—	2,668
Income tax benefit adjustment from stock option exercises	—	—	55	—	—	55
Stock-based compensation expense	—	—	22,460	—	—	22,460
Issuance of stock from Cortina acquisition	5,274,580	5	77,953	—	—	77,958
Net loss	—	—	—	(22,608)	—	(22,608)
Other comprehensive loss, net	—	—	—	—	(86)	(86)
Balance at December 31, 2014	37,310,963	$ 37	$ 327,475	$ (89,190)	$ 852	$ 239,174
Issuance of common stock from exercise of stock options	722,913	1	6,144	—	—	6,145
Issuance of common stock from restricted stock unit grants, net of shares withheld for tax	1,028,650	1	(12,914)	—	—	(12,913)
Issuance of common stock from employee stock purchase plan	326,764	—	4,583	—	—	4,583
Income tax benefit from stock option exercises	—	—	4,305	—	—	4,305
Stock-based compensation expense	—	—	28,293	—	—	28,293
Conversion feature of convertible debt, net of issuance costs	—	—	52,532	—	—	52,532
Purchase of capped calls	—	—	(17,802)	—	—	(17,802)
Net loss	—	—	—	(13,551)	—	(13,551)
Other comprehensive loss, net	—	—	—	—	(96)	(96)
Balance at December 31, 2015	39,389,290	$ 39	$ 392,616	$ (102,741)	$ 756	$ 290,670
Issuance of common stock from exercise of stock options	587,229	1	5,786	—	—	5,787
Issuance of common stock from restricted stock unit grants, net of shares withheld for tax	1,041,743	1	(20,478)	—	—	(20,477)
Issuance of common stock from employee stock purchase plan	285,101	—	5,518	—	—	5,518
Stock-based compensation expense	—	—	30,192	—	—	30,192
Conversion feature of convertible debt, net of issuance costs	—	—	68,834	—	—	68,834
Purchase of capped calls	—	—	(22,540)	—	—	(22,540)
Net income	—	—	—	99,456	—	99,456
Cumulative effect of change in accounting principle	—	—	—	5,261	—	5,261
Other comprehensive loss, net	—	—	—	—	(177)	(177)
Balance at December 31, 2016	41,303,363	$ 41	$ 459,928	$ 1,976	$ 579	$ 462,524

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

Inphi Corporation
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended December 31,		
	2016	2015	2014
Cash flows from operating activities			
Net income (loss)	$ 99,456	$ (13,551)	$ (22,608)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	31,216	26,884	14,114
Stock-based compensation	30,192	28,293	22,460
Gain from sale of discontinued operations	(78,544)	—	—
Gain from sale of cost method investment	(1,138)	—	—
Loss on disposal and abandonment of property and equipment	—	1,958	1,195
Impairment of in-process research and development	—	1,750	—
Deferred income taxes	(15,539)	(142)	487
Amortization of deferred tax charge	938	939	938
Accretion of convertible debt and amortization of issuance expenses	14,178	592	—
Amortization of premiums on marketable securities	1,496	554	800
Other noncash items	(5)	(9)	2
Changes in assets and liabilities:			
Accounts receivable	(17,028)	6,496	(8,686)
Inventories	(6,384)	8,822	10,119
Prepaid expenses and other assets	(1,389)	2,200	(3,255)
Income tax payable/receivable	1,411	6,441	(576)
Accounts payable	3,523	(209)	(1,302)
Accrued expenses	(45)	3,413	(9,006)
Deferred revenue	(1,280)	(443)	5,424
Other liabilities	2,015	(1,445)	(1,665)
Net cash provided by operating activities	63,073	72,543	8,441
Cash flows from investing activities			
Purchases of property and equipment	(22,348)	(16,557)	(21,171)
Proceeds from sale of property and equipment	—	75	—
Purchases of marketable securities	(330,592)	(21,906)	(38,557)
Sales of marketable securities	5,504	3,937	53,157
Maturities of marketable securities	116,627	12,580	36,715
Proceeds from sale of cost method investment	6,345	—	—
Proceeds from sale of discontinued operations	78,750	—	—
Purchase of patents	—	—	(1,580)
Acquisition of business, net of cash acquired	(294,444)	—	(35,308)
Payment of debt related to purchase of intangible asset	(55)	—	—
Purchase of cost-method investment in private companies	(8,000)	(2,000)	(5,000)
Net cash used in investing activities	(448,213)	(23,871)	(11,744)
Cash flows from financing activities			
Proceeds from exercise of stock options	5,748	6,145	4,298
Proceeds from employee stock purchase plan	5,518	4,583	2,668
Proceeds from issuance of convertible debt, net of issuance costs	279,459	223,993	—
Purchase of capped call options	(22,540)	(17,802)	—
Minimum tax withholding paid on behalf of employees for net share settlement	(20,477)	(12,913)	(4,964)
Long-term loan provided	(725)	—	—
Payment of capital lease obligations	(20)	—	—
Net cash provided by financing activities	246,963	204,006	2,002
Net increase (decrease) in cash and cash equivalents	(138,177)	252,678	(1,301)
Cash and cash equivalents at beginning of year	283,044	30,366	31,667
Cash and cash equivalents at end of year	$ 144,867	$ 283,044	$ 30,366
Supplemental cash flow information			
Acquisition of Cortina Systems, Inc. in exchange for common stock	$ —	$ —	$ 77,958
Interest paid	2,537	—	—
Income taxes paid	156	723	715
Supplemental disclosure of non-cash investing and financing activities			
Intangible assets financed with debt	39,046	—	—

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

Inphi Corporation
Notes to Consolidated Financial Statements
(Dollars in thousands except share and per share amounts)

1. Organization and Summary of Significant Accounting Policies

Inphi Corporation (the "Company"), a Delaware corporation, was incorporated in November 2000. The Company is a fabless provider of high-speed analog and mixed signal semiconductor solutions for the communications and datacenter. The Company's semiconductor solutions are designed to address bandwidth bottlenecks in networks, maximize throughput and minimize latency in computing environments and enable the rollout of next generation communications and datacenter. In addition, the semiconductor solutions provide a vital high-speed interface between analog signals and digital information in high-performance systems such as telecommunications transport systems, enterprise networking equipment and datacenter.

On October 3, 2014, the Company completed the acquisition of Cortina Systems, Inc. including its high-speed interconnect and optical transport product lines (Cortina) for approximately $52,509 in cash and approximately 5.3 million shares of the Company's common stock in accordance with the Agreement and Plan of Merger dated July 30, 2014 as amended by Amendment No. 1 to the Agreement and Plan of Merger dated September 25, 2014. The revenue and expenses of Cortina are included in the consolidated statement of income from October 3, 2014 onwards.

On August 4, 2016, the Company completed the sale of the memory product business to Rambus Inc. (Rambus) for $90,000 in cash inclusive of $11,250 which was placed into escrow for a period of twelve months following the closing as security for the Company's indemnification obligations pursuant to the agreement and recorded as other current assets. The Company's consolidated financial statements and accompanying notes for current and prior periods have been retrospectively reclassified to present the results of operations of the memory product business as discontinued operations. In addition, the assets and liabilities to be disposed of have been treated and classified as held for sale in the balance sheet as of December 31, 2015. For more information on discontinued operations, see Note 3.

On December 12, 2016, the Company completed the acquisition of ClariPhy Communications Inc. (ClariPhy) for $303,661 in cash. The revenue and expenses of ClariPhy are included in the consolidated statement of income from December 12, 2016.

The Company is subject to certain risks and uncertainties and believes changes in any of the following areas could have a material adverse effect on the Company's future financial position or results of operations or cash flows: ability to sustain profitable operations due to losses incurred and accumulated deficit in prior years, dependence on limited number of customers for a substantial portion of revenue, product defects, risks related to intellectual property matters, lengthy sales cycle and competitive selection process, lengthy and expensive qualification process, ability to develop new or enhance products in a timely manner, market development of and demand for the Company's products, reliance on third parties to manufacture, assemble and test products and ability to compete.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") and include the accounts of Inphi, Cortina, ClariPhy and subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Business Combinations

The Company accounts for acquisitions of business using the purchase method of accounting, which requires the Company to recognize separately from goodwill the assets acquired and the liabilities assumed at their acquisition date fair values. While the Company uses its best estimates and assumptions to accurately value assets acquired and liabilities assumed at the acquisition date as well as contingent consideration, where applicable, the estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the values of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to the consolidated statements of income.

Accounting for business combinations requires management to make significant estimates and assumptions, especially at the acquisition date including the Company's estimates for intangible assets, contractual obligations assumed and pre-acquisition contingencies where applicable. Although, the Company believes the assumptions and estimates made in the past have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Critical estimates in valuing certain of the intangible assets the Company acquired include future expected cash flows from product sales, customer contracts and acquired technologies, expected costs to develop in-process research and development (IPR&D) into commercially viable products and estimated cash flows from the projects when completed and discount rates. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

On an ongoing basis, management evaluates its estimates, including those related to (i) the collectibility of accounts receivable and allowance for distributors' price discounts; (ii) write down for excess and obsolete inventories; (iii) warranty obligations; (iv) the value assigned to and estimated useful lives of long-lived assets; (v) the realization of tax assets and estimates of tax liabilities and tax reserves; (vi) the valuation of equity securities; (vii) amounts recorded in connection with acquisitions; (viii) recoverability of intangible assets and goodwill and (ix) the recognition and disclosure of fair value of convertible debt and contingent liabilities. These estimates are based on historical data and experience, as well as various other factors that management believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. The Company engages third party valuation specialists to assist with estimates related to the valuation of financial instruments and assets associated with various contractual arrangements, and valuation of assets acquired in connection with acquisitions. Such estimates often require the selection of appropriate valuation methodologies and models, and significant judgment in evaluating ranges of assumptions and financial inputs. Actual results may differ from those estimates under different assumptions or circumstances.

Foreign Currency Translation

The Company and its subsidiaries use the U.S. dollar as its functional currency. Foreign currency assets and liabilities are remeasured into U.S. dollars at the end-of-period exchange rates except for non-monetary assets and liabilities, which are remeasured at historical exchange rates. Revenue and expenses are remeasured at the exchange rate in effect during the period the transaction occurred, except for those expenses related to balance sheet amounts, which are remeasured at historical exchange rates. Gains or losses from foreign currency transactions are included in the Consolidated Statements of Income as part of "Other income (expense)". Foreign currency loss in 2016, 2015 and 2014 were $434, $524, and $136, respectively.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original or remaining maturity of three months or less at the date of purchase to be cash equivalents. The Company maintains its cash and cash equivalents with major financial institutions and, at times, such balances with any one financial institution may exceed Federal Deposit Insurance Corporation insurance limits. Cash equivalents primarily consist of money market funds.

Fair Market Value of Financial Instruments

The carrying amount reflected in the balance sheet for cash and cash equivalents, accounts receivable, prepaid and other current assets, accounts payable, accrued expenses and other current liabilities, approximate fair value due to the short-term nature of these financial instruments.

Investments in Marketable Securities

Investments in marketable securities consist of available-for-sale securities. These investments are recorded at fair value with changes in fair value, net of applicable taxes, recorded as unrealized gains (losses) as a component of accumulated other comprehensive income in stockholders' equity. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in Other (expense) income, net. The cost basis for realized gains and losses on available-for-sale securities is determined on a specific identification basis. Investments are made based on the Company's investment policy which restricts the types of investments that can be made. The Company classified available-for-sale securities as short-term as the investments are available to be used in current operations.

Inventories

Inventories are stated at the lower of cost or market. Cost is computed using standard cost, which approximates actual cost, on a first-in, first-out basis. Inventories are reduced for write downs based on periodic reviews for evidence of slow-moving or obsolete parts. The write-down is based on comparison between inventory on hand and estimated future sales for each specific product. Once written down, inventory write downs are not reversed until the inventory is sold or scrapped. Inventory write downs are also established when conditions indicate that the net realizable value is less than cost due to physical deterioration, obsolescence, changes in price level or other causes. Inventory valuation reserves were $3,967 and $3,974 as of December 31, 2016 and 2015, respectively.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization is provided on property and equipment over the estimated useful lives on a straight-line basis. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or lease terms. Repairs and maintenance are charged to expense as incurred. Useful lives by asset category are as follows:

Asset Category	Years
Office equipment	3 years
Software	3 years
Leasehold improvements	Shorter of lease term or estimated useful life
Production equipment	2 years
Computer equipment	5 years
Lab equipment	5 years
Furniture and fixtures	7 years

Equipment Under Capital Leases

The Company leases certain of its equipment under capital lease agreements. The assets and liabilities under capital leases are initially recorded at the fair value of the assets under lease. The capital lease obligation outstanding at December 31, 2016 was $2,430.

Intangible Assets

Intangible assets represent rights acquired for developed technology, customer relationships, trade mark, patents and IPR&D in connection with the business acquisitions. Intangible assets with finite useful lives are amortized over periods ranging from one to ten years using a method that reflects the pattern in which the economic benefits of the intangible asset are consumed, or if that pattern cannot be reliably determined, using a straight-line amortization method. Acquired IPR&D is capitalized and amortization commences upon completion of the underlying projects. If any of the projects are abandoned, the Company would be required to impair the related IPR&D asset.

Impairment of Long-lived Assets and Goodwill

Long-lived Assets

The Company assesses the impairment of long-lived assets, which consist primarily of property and equipment and intangible assets, whenever events or changes in circumstances indicate that such assets might be impaired and the carrying value may not be recoverable. Events or changes in circumstances that may indicate that an asset is impaired include significant decreases in the market value of an asset, significant underperformance relative to expected historical or projected future results of operations, a change in the extent or manner in which an asset is utilized, significant declines in the estimated fair value of the overall Company for a sustained period, shifts in technology, loss of key management or personnel, changes in the Company's operating model or strategy and competitive forces.

If events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable and the expected undiscounted future cash flows attributable to the asset are less than the carrying amount of the asset, an impairment loss equal to the excess of the asset's carrying value over its fair value is recorded. Fair value is determined based on the present value of estimated expected future cash flows using a discount rate commensurate with the risk involved, quoted market prices or appraised values, depending on the nature of the assets.

Goodwill

Goodwill is recorded when the consideration paid for a business acquisition exceeds the fair value of net tangible and intangible assets acquired. Goodwill is measured and tested for impairment on an annual basis during the fourth fiscal quarter or more frequently if the Company believes indicators of impairment exist.

To review for impairment, the Company first assesses qualitative factors to determine whether events or circumstances lead to a determination that it is more likely than not that the fair value of any of our reporting unit is less than its carrying amount. The qualitative assessment of the recoverability of goodwill, whether performed annually or based on specific events or circumstances, considers various macroeconomic, industry-specific and company-specific factors. Those factors include: (i) severe adverse industry or economic trends; (ii) significant company-specific actions, including exiting an activity in conjunction with restructuring of operations; (iii) current, historical or projected deterioration of our financial performance; or (iv) a sustained decrease in our market capitalization below our net book value. After assessing the totality of events and circumstances, if the Company determines that it is not more likely than not that the fair value of any of our reporting unit is less than its carrying amount, no further assessment is performed. If however, the Company determines that it is more likely than not that the fair value of any of the reporting unit is less than its carrying amount, the Company calculates the fair value of that reporting unit and compares the fair value to the reporting unit's net book value. If the carrying amount of goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to the excess. There was no impairment of goodwill in 2016, 2015 and 2014.

Internal Use Software Costs

Certain external computer software costs acquired for internal use are capitalized. Training costs and maintenance are expensed as incurred, while upgrades and enhancements are capitalized if it is probable that such expenditures will result in additional functionality. Capitalized costs are included within property and equipment. In 2016, the Company adopted the guidance related to accounting for fees paid in a cloud computing arrangement. See discussion below.

Revenue Recognition

The Company's products are fully functional at the time of shipment and do not require additional production, modification, or customization. The Company recognizes revenue when there is persuasive evidence of an arrangement, delivery has occurred, the fee is fixed or determinable, and collection is reasonably assured. The Company's sales arrangements do not include multiple elements.

Product revenue is recognized upon shipment of product to customers, net of accruals for estimated sales returns and allowances, which to date, have not been significant. Product revenue on sales made through distributors with rights of return or price protection is deferred until the distributors sell the product to end customers. Sales to distributors are included in deferred revenue and the Company includes the related costs in inventory until sale to the end customers occurs. Certain distributors may receive a credit for the price discounts associated with the distributors' customers that purchased those products. The Company estimates the extent of these distributor price discounts at each reporting period to reduce accounts receivable and deferred revenue, but does not issue these discounts to the distributor until the inventory is sold to the distributors' customers. The Company's sales to direct customers are made primarily pursuant to standard purchase orders for delivery of products. The Company generally allows customers to cancel or change purchase orders within limited notice periods prior to the scheduled shipment.

The Company recognizes revenue from the sales and licensing of its intellectual property when the following fundamental criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery has occurred, (iii) the sales price is fixed or determinable, and (iv) collection of resulting receivables is reasonably assured.

Occasionally, the Company enters into development agreements with some of its customers and recognizes revenue from these agreements upon completion and acceptance by the customer of contract deliverables or as services are provided, depending on the terms of the arrangement. Revenue is deferred for any amounts billed or received prior to completion of milestones or delivery of services.

Revenue from non-product sales was less than 1% and 2% of total revenue for the years ended December 31, 2016 and 2015, respectively.

Cost of Revenue

Cost of revenue includes cost of materials, such as wafers processed by third-party foundries, cost associated with packaging and assembly, test and shipping, cost of personnel, including stock-based compensation, and equipment associated with manufacturing support, logistics and quality assurance, warranty cost, amortization of developed technology, amortization of step-up values of inventory, write down of inventories, amortization of production mask costs, overhead and an allocated portion of occupancy costs.

Warranty

The Company's products are under warranty against defects in material and workmanship generally for a period of one or two years. The Company accrues for estimated warranty cost at the time of sale based on anticipated warranty claims and actual historical warranty claims experience including knowledge of specific product failures that are outside of the Company's typical experience. The warranty obligation is determined based on product failure rates, cost of replacement and failure analysis cost. If actual warranty costs differ significantly from these estimates, adjustments may be required in the future. As of both December 31, 2016 and 2015, the warranty liability was $110.

Research and Development Expense

Research and development expense consists of costs incurred in performing research and development activities including salaries, stock-based compensation, employee benefits, occupancy costs, pre-production engineering mask costs, overhead costs and prototype wafer, packaging and test costs. Research and development costs are expensed as incurred. The Company enters into development agreements with some of the Company's customers. Recoveries from nonrecurring engineering services from early stage technology are recorded as an offset to product development expense incurred in support of this effort and serve as a mechanism to partially recover development expenditures. These reimbursements are recognized upon completion and acceptance by the customer of contract deliverables or milestones. The Company recorded approximately $2,400, $10,750, $10,250 as offset to research and development expense for the years ended December 31, 2016, 2015 and 2014, respectively.

Sales and Marketing Expense

Sales and marketing expense consists of salaries, stock-based compensation, employee benefits, travel, trade show costs and others. The Company expenses sales and marketing costs as incurred. Advertising expenses for the years ended December 31, 2016, 2015 and 2014 were not material.

General and Administrative Expense

General and administrative expense consists of salaries, stock-based compensation, employee benefits and expenses for executive management, legal, finance and others. In addition, general and administrative expense includes fees for professional services and occupancy costs. These costs are expensed as incurred.

Income Taxes

Deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company must also make judgments in evaluating whether deferred tax assets will be recovered from future taxable income. To the extent that it believes that recovery is not likely, the Company must establish a valuation allowance. The carrying value of the Company's net deferred tax asset is based on whether it is more likely than not that the Company will generate sufficient future taxable income to realize these deferred tax assets. A valuation allowance is established for deferred tax assets which the Company does not believe meet the "more likely than not" criteria. The Company's judgments regarding future taxable income may change over time due to changes in market conditions, changes in tax laws, tax planning strategies or other factors. If the Company's assumptions and consequently its estimates change in the future, the valuation allowance the Company has established may be increased or decreased, resulting in a material respective increase or decrease in income tax expense (benefit) and related impact on the Company's reported net income (loss).

In accordance with FASBs guidance on Accounting for Uncertainty in Income Taxes, the Company performs a comprehensive review of uncertain tax positions regularly. In this regard, an uncertain tax position represents an expected treatment of a tax position taken in a filed tax return, or planned to be taken in a future tax return or claim, which has not been reflected in measuring income tax expense for financial reporting purposes. Until these positions are sustained by the taxing authorities, the Company does not recognize the tax benefits resulting from such positions and reports the tax effects as a liability for uncertain tax positions in the consolidated financial statements. The Company recognizes potential interest and penalties on uncertain tax positions within provision (benefit) for income taxes on the consolidated statement of income.

Stock-Based Compensation

Stock-based compensation for stock option and restricted stock units issued to the Company's employees is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which is the vesting period, on a straight-line basis. The fair value of restricted stock units is based on the fair market value of the Company's common stock on the date of grant. Historically, the Company granted stock options to employees and the Company uses the Black-Scholes option-pricing model for valuing stock option awards granted to employees and directors at the grant date. Determining the fair value of stock option awards at the grant date requires the input of various assumptions, including fair value of the underlying common stock, expected future share price volatility, expected term, risk-free interest rate and dividend rate. Changes in these assumptions can materially affect the fair value of the options. The Company based its estimate of expected volatility on the estimated volatility of similar entities whose share prices are publicly available. The risk-free interest rate is based on the U.S. Treasury yields in effect at the time of grant for periods corresponding to the expected life of the options. The weighted average expected life of options was calculated using the simplified method. This decision was based on the lack of relevant historical data due to the Company's limited experience. The expected dividend yield is zero because the Company has not historically paid dividends and has no present intention to pay dividends. The Company establishes the estimated forfeiture rates based on historical experience. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service period which is equal to the vesting period.

The Company has elected to treat share-based payment awards with graded vesting schedules and time-based service conditions as single awards and recognizes stock-based compensation expense on a straight-line basis (net of estimated forfeitures) over the requisite service period.

The Company recognizes non-employee stock-based compensation expenses based on the estimated fair value of the equity instrument determined using the Black-Scholes option-pricing model. Management believes that the fair value of the stock options is more reliably measured than the fair value of the services received. The fair value of each non-employee variable stock award is re-measured each period until a commitment date is reached, which is generally the vesting date.

Earnings per Share

Basic earnings per share is calculated by dividing income allocable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share is calculated by dividing the net income allocable to common stockholders by the weighted average number of common shares outstanding, adjusted for the effects of potentially dilutive common stock, which are comprised of stock options, restricted stock units, employee share purchase plan and the shares that could be issued upon conversion of the Company's convertible debt. The capped call options in connection with the issuance of the convertible notes are excluded from the calculation of diluted earnings per share as their impact is always anti-dilutive.

Segment Information

The Company operates in one reporting segment related to the design, development and sale of high speed analog connectivity components that operate to maintain, amplify and improve signal integrity at high speeds in a wide variety of applications. The Company's chief operating decision-maker is its Chief Executive Officer, who reviews operating results on an aggregate basis and manages the Company's operations as a single operating segment.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued guidance on "Revenue from Contracts with Customers." The new revenue recognition guidance provides a five-step analysis of transactions to determine when and how revenue is recognized. The guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The new guidance was initially effective for the Company on January 1, 2017. The new guidance permits the use of either the retrospective or cumulative effect transition method. In July 2015, the FASB voted to defer the effective date of the new revenue recognition standard by one year. The guidance may be adopted as early as January 1, 2017, the effective date of the original guidance. In March 2016, the FASB issued a guidance in the assessment whether an entity is a principal or an agent in the new revenue standard (gross versus net revenue presentation). In April 2016, the FASB issued a guidance which amends the revenue guidance on identifying performance obligations and accounting for licenses of intellectual property. The guidance changed the previous proposals on renewals of right-of-use licenses and contractual restrictions. The guidance has the same effective date and transition requirements as the new revenue standard. The Company selected the cumulative effect transition method. Under the new guidance, the Company likely to recognize revenue on sales to distributors upon shipment and transfer of control (known as "sell-in" revenue recognition), rather than deferring recognition until distributors report that they have sold the products to their customers (known as "sell-through" revenue recognition). The Company is currently evaluating other effects that the new revenue standards will have on its consolidated financial statements and related disclosures.

In April 2015, the FASB issued new guidance related to accounting for fees paid in a cloud computing arrangement. The new standard provides guidance to customers about whether a cloud computing arrangement includes a software license. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. Upon adoption, cash paid for cloud computing arrangements that include software will be classified as an investing activity on our statement of cash flows. The Company adopted this standard at the beginning of 2016 which resulted in an increase in intangible assets.

In July 2015, the FASB issued guidance applying to inventory measured using any other method other than last-in, last-out method. Under this guidance inventory is measured at the lower of cost and net realizable value. The net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The guidance is applied prospectively and is effective for the Company beginning January 1, 2017. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements and related disclosures.

In September 2015, the FASB issued guidance that requires an acquirer in a business combination to recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. The guidance also requires disclosure of the effect on earnings of changes in depreciation, amortization or other income effects, if any, as a result of the adjustment to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. This guidance is effective for the Company beginning January 1, 2016. The adoption of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In January 2016, the FASB issued guidance that requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. However, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. The guidance simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment. When a qualitative assessment indicates that impairment exists, an entity is required to measure the investment at fair value. The guidance eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet, and requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes. The guidance also requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. Separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (that is, securities or loans and receivables) on the balance sheet or the accompanying notes to the financial statements is required under this guidance. The guidance further clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity’s other deferred tax assets. The guidance is applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption and is effective for the Company in its first quarter of fiscal 2018. Early adoption is permitted only if certain criteria is met. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

In February 2016, the FASB issued guidance that requires companies that lease assets (lessees) to recognize on the balance sheet the assets and liabilities for the rights and obligations created by the leases with lease terms of more than 12 months. This guidance is effective for the Company beginning January 1, 2019. Early adoption is permitted. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

In March 2016, the FASB issued a guidance that eliminate the requirement that when an investment qualifies for use of the equity method as a result of an increase in the level of ownership interest or degree of influence, an investor must adjust the investment, results of operations, and retained earnings retroactively on a step-by-step basis as if the equity method had been in effect during all previous periods that the investment had been held. The guidance require that the equity method investor add the cost of acquiring the additional interest in the investee to the current basis of the investor’s previously held interest and adopt the equity method of accounting as of the date the investment becomes qualified for equity method accounting. Therefore, upon qualifying for the equity method of accounting, no retroactive adjustment of the investment is required. The guidance also requires that an entity that has an available-for-sale equity security that becomes qualified for the equity method of accounting recognize through earnings the unrealized holding gain or loss in accumulated other comprehensive income at the date the investment becomes qualified for use of the equity method. The guidance is effective for the Company beginning after January 1, 2017. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

In March 2016, the FASB issued a guidance that will change certain aspects of accounting for share-based payments to employees. The new guidance requires all income tax effects of awards to be recognized in the income statement when the awards vest or are settled. It also allows an employer to repurchase more of an employee’s shares than the minimum for tax withholding purposes without triggering liability accounting and to make a policy election to account for forfeitures as they occur. The new guidance allows entities to estimate forfeiture or recognize forfeitures when they occur. It also requires presentation of excess tax benefits as an operating activity and cash paid by employer to taxing authorities on the employees’ behalf for withheld shares as financing activity on the statement of cash flows. The Company early adopted this standard at the beginning of 2016 and the effect of adoption is discussed in Note 13 of the consolidated financial statements.

In August 2016, the FASB issued guidance related to the classification of certain transactions on the statement of cash flows. The guidance will be effective for calendar year-end public companies in 2018, however early adoption is permitted. The Company is currently evaluating the impact that this guidance will have on its consolidated financial statements.

(Dollars in thousands except share and per share amounts)

In October 2016, the FASB issued a guidance which amends the financial reporting for the income tax consequences of intra-entity transfers other than inventory. The guidance requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset (with the exception of inventory) when the transfer occurs. The guidance will be effective for calendar year-end public companies in 2018, however early adoption is permitted. The Company is currently evaluating the impact that this guidance will have on its consolidated financial statements.

In January 2017, the FASB issued a guidance on classifying the definition of a business. This guidance clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This guidance will be effective for calendar year-end public companies in 2018. Early adoption is permitted for transactions for which the acquisition date occurs before the effective date of the guidance only when the transaction has not been reported in financial statements that have been issued.

In January 2017, the FASB issued a guidance to simplify the measurement of goodwill by eliminating the Step 2 impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. The new guidance requires an entity to compare the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. Additionally, an entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. The new guidance becomes effective for goodwill impairment tests in fiscal years beginning after December 15, 2019, though early adoption is permitted. The Company is currently assessing the impact of this new guidance

2. Acquisitions

On December 12, 2016, the Company completed the acquisition of ClariPhy Communications, Inc. for $303,661 in cash. The Company acquired ClariPhy to provide a complete coherent platform to the Company's customers in long haul, metro, and datacenter interconnect applications. Cash of $30,000 was placed in an escrow fund for up to 24 months following the closing for the satisfaction of certain potential indemnification claims. The consolidated financial statements include the results of operations of ClariPhy as of the acquisition date.

The acquisition has been accounted for using the purchase method of accounting which requires, among other things, that assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date. The Company allocated the purchase price to tangible and intangible assets acquired and liabilities assumed based on their estimated fair values. The fair value of identifiable intangible assets acquired was based on estimates and assumptions made by management at the time of acquisition. As additional information becomes available, such as finalization of the estimated fair value of tax related items, the Company may revise the preliminary purchase price allocation during the measurement period (which will not exceed 12 months from the acquisition date). Any such revisions or changes may be material as the Company finalizes the fair values of the tangible and intangible assets acquired and liabilities assumed.

The following table summarizes the preliminary purchase price allocation as of the acquisition date:

Cash	$	7,417
Receivables		2,552
Inventories		13,774
Other current assets		2,739
Property and equipment		6,163
Identifiable intangible assets		138,558
In-process research and development		97,340
Other noncurrent assets		753
Accounts payable, accrued expenses and other current liabilities		(13,667)
Deferred tax liabilities, noncurrent		(42,958)
Other liabilities		(5,647)
Total identifiable net assets		207,024
Goodwill		96,637
Net assets acquired	$	303,661

(Dollars in thousands except share and per share amounts)

As of the acquisition date, the fair value of receivables, other assets, accounts payable, accrued expenses and other liabilities approximated the book value acquired.

The following table summarizes the estimated fair value of intangible assets and their estimated useful lives as of the date of acquisition:

	Estimated Fair Value	Estimated Useful Life (Years)
Developed technology	$ 66,450	1 - 6
Customer relationships	62,370	7
Trade name	1,390	5
Software	8,348	1 - 3
In-process research and development	97,340	—
	$ 235,898	

Developed technology was valued using the multi-period excess earnings method under the income approach. This method involves discounting the direct cash flow expected to be generated by the technologies over their remaining lives, net of returns on contributory assets. The estimated useful life was determined based on the technology cycle related to each product family and its expected contribution to forecasted revenue. Customer relationships were valued using the incremental cash flow approach which involved discounting management's estimate of the incremental revenues afforded by having the existing customer relationships in place as of the acquisition date, net of operating expense, taxes and returns on contributory assets. The estimated useful life was determined based on the estimated customer product or program ramp-up period required to develop the similar existing customer revenue base. Trade name was valued based on application of relief-from-royalty approach under the income approach. This method is based on the application of a royalty rate to forecasted revenue. The estimated useful life was determined based on the expected life of the trade names, the history of the trade names and the cash flows anticipated over the forecasted periods. In-process research and development was valued using the multi-period excess earnings method under the income approach, with the additional inclusion of estimated costs required to complete the projects.

The Company capitalized $97,340 of IPR&D costs related to the ClariPhy acquisition. Upon completion of the projects, the related IPR&D assets will be amortized over their estimated useful lives. If the projects are abandoned, the Company will be required to impair the related IPR&D asset. The following table summarizes the details of IPR&D are:

Description	IPR&D	Percentage of Completion	Estimated Cost to Complete	Expected Release Date
M200	$ 60,500	67%	$ 12,064	2018
Lightspeed III	36,840	26%	39,176	2019

Discount rates of 17% to 20% were applied to the projected cash flows to reflect the risk related to these IPR&D projects.

Goodwill is calculated as the excess of the consideration transferred over the net assets recognized and is attributable to the work force of ClariPhy, the Company's going concern value with the opportunity to leverage its work force to develop new technologies and the ability of the Company to grow the business faster and more profitable than was possible by ClariPhy as a stand-alone company. Goodwill is not amortized and is not deductible for tax purposes.

(Dollars in thousands except share and per share amounts)

The Company incurred acquisition costs of $1,738 which are included in general and administrative expense in the consolidated statement of income for the year ended December 31, 2016.

ClariPhy contributed revenue of $1,128 and pre-tax loss of $2,361 to the Company for the period from December 12, 2016 to December 31, 2016.

Pro Forma Information

The following unaudited pro forma financial information presents a summary of the Company's consolidated results of operations for the years ended December 31, 2016 and the year ended December 31, 2015, assuming the ClariPhy acquisition had been completed as of January 1, 2015. The pro forma information includes adjustments to amortization and depreciation for intangible assets and property and equipment acquired, amortization of the purchase accounting effect on inventory acquired from ClariPhy, interest income for reduction in short-term investments to fund the acquisition and interest expense from assumed debt issued to fund the acquisition.

	Pro Forma Year Ended December 31, 2016 (unaudited)	Pro Forma Year Ended December 31, 2015 (unaudited)
Revenue	$ 304,820	$ 228,040
Net income (loss)	$ 48,481	$ (48,356)
Earnings per share – basic	$ 1.20	$ (1.25)
Earnings per share – diluted	$ 1.10	$ (1.25)

The unaudited pro forma consolidated results were prepared using the acquisition method of accounting and are based on the historical financial information of the Company and ClariPhy, reflecting the results of operations for the year ended December 31, 2016 and 2015. The unaudited pro forma consolidated results are not necessarily indicative of what the Company's consolidated results of operations actually would have been had the Company completed the acquisition as of the beginning of the period presented. In addition, the unaudited pro forma consolidated results do not purport to project the future results of operations of the combined company nor do they reflect the expected realization of any cost savings associated with the acquisition.

On October 3, 2014, the Company completed the acquisition of Cortina Systems, Inc. including its high-speed interconnect and optical transport product lines for approximately $52,509 in cash and approximately 5.3 million shares. The Company did not acquire as part of the merger, Cortina Systems, Inc.'s access and digital Home business, which Cortina Systems, Inc. divested prior to the closing of the acquisition. The Company acquired Cortina to expand the Company's resources and market share of the high-speed optical and networking interconnects. Cash of $16,500 was placed in an escrow fund for up to 12 months following the closing for the satisfaction of certain potential indemnification claims. The escrow fund was released in October 2015. The consolidated financial statements include the results of operations of Cortina as of the acquisition date.

The fair value of consideration transferred is shown in the table below:

Cash	$ 52,509
Common stock	77,958
	$ 130,467

The acquisition has been accounted for using the purchase method of accounting which requires, among other things, that assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date.

(Dollars in thousands except share and per share amounts)

The following table summarizes the purchase price allocation as of the acquisition date:

Cash	$	17,201
Receivables		15,155
Inventories		30,002
Other current assets		1,685
Property and equipment		4,751
Identifiable intangible assets		80,660
In-process research and development		1,750
Other noncurrent assets		366
Accounts payable, accrued expenses and other current liabilities		(22,545)
Deferred tax liabilities, noncurrent		(725)
Other liabilities		(1,112)
Total identifiable net assets		127,188
Goodwill		3,279
Net assets acquired	$	130,467

As of the acquisition date, the fair value of receivables, other assets, accounts payable and accrued expenses approximated the book value acquired.

The following table summarizes the estimated fair value of intangible assets and their estimated useful lives as of the date of acquisition:

		Estimated Fair Value	Estimated Useful Life (Years)
Developed technology	$	71,570	5 - 8
Customer relationships		8,170	10
Trade name		920	5
In-process research and development		1,750	—
	$	82,410	

Developed technology was valued using the multi-period excess earnings method under the income approach. This method involves discounting the direct cash flow expected to be generated by the technologies over their remaining lives, net of returns on contributory assets. The estimated useful life was determined based on the technology cycle related to each product family and its expected contribution to forecast revenue. Customer relationships were valued using the incremental cash flow approach which involved discounting management's estimate of the incremental revenues afforded by having the existing customer relationships in place as of the acquisition date, net of operating expense, taxes and returns on contributory assets. The estimated useful life was determined based on the estimated customer product or program ramp-up period required to develop the similar existing customer revenue base. Trade name was valued based on application of relief-from-royalty approach under the income approach. This method is based on the application of a royalty rate to forecasted revenue. The estimated useful life was determined based on the expected life of the trade names, the history of the trade names and the cash flows anticipated over the forecasted periods. In-process research and development was valued using the multi-period excess earnings method under the income approach, with the additional inclusion of estimated costs required to complete the projects.

The Company capitalized $1,750 of IPR&D costs related to the Cortina acquisition. In the year ended December 31, 2015, the Company abandoned the project related to in-process research and development and recorded an impairment charge of $1,750 included in the research and development expenses in the consolidated statements of income.

Goodwill is calculated as the excess of the consideration transferred over the net assets recognized and is attributable to the workforce of Cortina. Goodwill is not amortized and is not deductible for tax purposes. During the year ended December 31, 2015, the Company recorded a measurement period adjustment of $251. The adjustment has been recorded retrospectively to reflect measurement period adjustments to the provisional acquisition accounting values as of the acquisition date. The changes in provisional values resulted in a retrospective decrease of $251 in goodwill and income tax payable.

(Dollars in thousands except share and per share amounts)

The Company incurred acquisition costs of $1,091 which are included in general and administrative expense in the consolidated statement of income for the year ended December 31, 2014.

Cortina contributed revenue of $21,018 and pre-tax loss of $10,018 to the Company for the period from October 3, 2014 to December 31, 2014.

Pro Forma Information

The following unaudited pro forma financial information presents a summary of the Company's consolidated results of operations for the year ended December 31, 2014, assuming the Cortina acquisition had been completed as of January 1, 2013. The pro forma information includes adjustments to amortization and depreciation for intangible assets and property and equipment acquired, amortization of the purchase accounting effect on inventory acquired from Cortina, and interest income for reduction in short-term investments to fund the acquisition.

	Pro Forma Year Ended December 31, 2014
	(unaudited)
Revenue	$ 224,116
Net loss	$ (8,500)
Earnings per share – basic	$ (0.23)
Earnings per share – diluted	$ (0.23)

The unaudited pro forma consolidated results were prepared using the acquisition method of accounting and are based on the historical financial information of the Company and Cortina, reflecting the results of operations for the year ended December 31, 2014. The unaudited pro forma consolidated results are not necessarily indicative of what the Company's consolidated results of operations actually would have been had the Company completed the acquisition as of the beginning of the period presented. In addition, the unaudited pro forma consolidated results do not purport to project the future results of operations of the combined company nor do they reflect the expected realization of any cost savings associated with the acquisition.

3. Discontinued Operations

On August 4, 2016, the Company completed the sale of its memory product business (the "Business") to Rambus Inc. (Rambus) for $90,000 in cash, $11,250 of which was placed into escrow for a period of the twelve months following the closing as security for the Company's indemnification obligations pursuant to the Asset Purchase Agreement dated June 29, 2016. The divestiture of the Business was part of a strategic plan to focus on and increase investments in the Company's communication business. The Company recorded a gain of $78,544 in the year ended December 31, 2016. The assets and liabilities of the Business as of December 31, 2015 have been reclassified as held for sale and the results of operations are shown in net income from discontinued operations. The Company's consolidated financial statements and the accompanying notes for current and prior periods have been restated to reflect the discontinued operations presentation.

(Dollars in thousands except share and per share amounts)

The carrying amounts of the major classes of assets and liabilities that are reclassified as held for sale on the condensed consolidated balance sheet as of December 31, 2015 were as follows:

Assets		
Current assets		
Inventories	$	5,200
Prepaid expenses and other current assets		68
Total current assets held for sale		5,268
Noncurrent assets		
Property and equipment, net		2,656
Goodwill		714
Assets held for sale	$	8,638
Liabilities		
Accounts payable	$	2,538
Deferred revenue		2,013
Other accrued expenses		939
Liabilities held for sale	$	5,490

The components of the gain on sale of the Business were as follows:

Cash proceeds from sale (including amounts held in escrow)	$	90,000
Less book value of assets sold:		
Inventories		(5,947)
Prepaid expenses		(250)
Property and equipment		(7,051)
Goodwill		(714)
Deferred revenue		1,757
Liabilities		749
Gain on sale	$	78,544

The results of discontinued operations for the years ended December 31, 2016, 2015 and 2014 were as follows:

	Year Ended December 31,		
	2016	**2015**	**2014**
Revenue	$ 24,418	$ 53,906	$ 59,997
Cost of revenue	(13,367)	(25,600)	(26,244)
Operating expenses	(15,029)	(23,771)	(19,222)
Other income	176	—	—
Gain on sale	78,544	—	—
Provision for income taxes	(1,799)	(2,125)	(607)
Net income from discontinued operations	$ 72,943	$ 2,410	$ 13,924

The results of discontinued operations include the following:

	Year Ended December 31,		
	2016	**2015**	**2014**
Depreciation and amortization	$ 1,103	$ 2,044	$ 2,858
Stock-based compensation expense	2,194	4,980	3,937
Property and equipment expenditures	2,455	2,265	2,389

(Dollars in thousands except share and per share amounts)

In connection with the sale of the Business, the Company entered into a transition service agreement with Rambus under which the Company will provide certain services on an interim, transitional basis, for a period of six months. The total amount billed to Rambus for the year ended December 31, 2016 was $1,563.

4. Investments

The following table summarizes the investments by investment category:

	December 31, 2016			
	Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Available-for-sale securities:				
US treasury securities	$ 3,999	$ 1	$ —	$ 4,000
Municipal bonds	45,289	3	(121)	45,171
Corporate notes/bonds	112,330	36	(161)	112,205
Variable rate demand notes	58,930	—	—	58,930
Asset backed securities	5,221	2	—	5,223
Commercial paper	23,945	2	—	23,947
Total investments	$ 249,714	$ 44	$ (282)	$ 249,476

	December 31, 2015			
	Cost	Gross Unrealized Gain	Gross Unrealized Loss	Fair Value
Available-for-sale securities:				
US treasury securities	$ 2,998	$ —	$ (5)	$ 2,993
Municipal bonds	20,042	13	(19)	20,036
Corporate notes/bonds	14,700	1	(44)	14,657
Government agency bonds	4,011	—	(4)	4,007
Asset backed securities	1,926	—	(3)	1,923
Total investments	$ 43,677	$ 14	$ (75)	$ 43,616

As of December 31, 2016, the Company had 98 investments that were in an unrealized loss position. The gross unrealized losses on these investments at December 31, 2016 were primarily due to changes in interest rates and determined to be temporary in nature. The Company reviews the investments to identify and evaluate investments that have an indication of possible other-than-temporary impairment. Factors considered in determining whether a loss is other-than-temporary include the length of time and extent to which fair value has been less than the cost basis, the financial condition and near-term prospects of the investee, and the intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value.

The realized gain related to the Company's available-for-sale investment, which was reclassified from other comprehensive income, was included in other income in the consolidated statements of income.

The contractual maturities of available-for-sale securities at December 31, 2016 are presented in the following table:

	Cost	Fair Value
Due in one year or less	$ 134,350	$ 134,274
Due between one and five years	60,434	60,272
Due after five years	54,930	54,930
	$ 249,714	$ 249,476

(Dollars in thousands except share and per share amounts)

In 2016 and 2015, the Company used cash to purchase a minority interests in early stage private companies for $8,000 and $2,000, respectively. The Company's ownership in these entities are less than 10% and the Company does not have the ability to exercise significant influence over operating and financial policies of the entities, therefore, the investments are accounted for under the cost method and included in other assets in the Company's consolidated balance sheets. As of December 31, 2016 and 2015, the total cost method investments was $10,000 and $9,621, respectively. No impairments were recorded for these cost method investments for the years ended December 31, 2016 and 2015. In July 2016, the Company sold its minority interest in a cost method investment for $8,759, of which $2,414 was held in escrow. The gain on sale of $1,138 was included in other income in the consolidated statements of income for the year ended December 31, 2016.

5. Concentrations

Financial instruments that subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents and trade accounts receivable. The Company extends differing levels of credit to customers and does not require collateral deposits. As of December 31, 2016 and 2015, the Company has allowance for doubtful accounts of $155 and $165, respectively. As of December 31, 2016 and 2015, the Company has allowance for distributors' price discount of $2,643 and $2,241, respectively.

The following table summarizes the significant customers' and distributors' accounts receivable and revenue as a percentage of total accounts receivable and total revenue, respectively:

	December 31,	
Accounts Receivable	**2016**	**2015**
Customer A	22%	*
Customer B	13	*
Customer C	*	13%

	Year Ended December 31,		
Revenue	**2016**	**2015**	**2014**
Customer A	13%	*	*
Customer D	*	*	13%
Customer E	*	*	11
Customer F	*	*	10

* Less than 10% of total receivable or total revenue

Customer A is a subcontractor of a direct customer that would be a "Customer G" above. In the aggregate, revenue to Customer A and Customer G as a percentage of total revenue was approximately 16% and 11% for the years ended December 31, 2016 and 2015, respectively. In addition, the Company sells direct and indirectly through subcontractors to what would be a "Customer H" above. The Company believes in the aggregate, revenue to Customer H, including its subcontractors as a percentage of total revenue was approximately 12% and 17% for the years ended December 31, 2016 and 2015, respectively.

6. Inventories

Inventories consist of the following:

	December 31,	
	2016	**2015**
Raw materials	$ 1,648	$ 2,491
Work in process	15,999	2,511
Finished goods	14,392	7,626
	$ 32,039	$ 12,628

(Dollars in thousands except share and per share amounts)

Finished goods include amounts held by distributors of $805 and $1,435 as of December 31, 2016 and 2015, respectively.

7. Property and Equipment, net

Property and equipment consist of the following:

	December 31, 2016	December 31, 2015
Laboratory and production equipment	$ 64,402	$ 46,875
Office, software and computer equipment	25,248	18,556
Furniture and fixtures	1,396	1,264
Leasehold improvements	6,707	5,866
	97,753	72,561
Less accumulated depreciation	(53,282)	(38,937)
	$ 44,471	$ 33,624

Depreciation and amortization expense for the years ended December 31, 2016, 2015 and 2014 was $15,943, $12,106 and $8,040, respectively.

As of December 31, 2016 and 2015, computer software costs included in property and equipment were $6,453 and $5,929, respectively. Amortization expense of capitalized computer software costs was $1,152, $1,011 and $614 for the years ended December 31, 2016, 2015 and 2014, respectively.

Property and equipment not paid as of December 31, 2016 and 2015 was $4,221 and $1,949, respectively.

The Company leases certain equipment under capital lease agreements. Assets held under capital leases are included in property and equipment above. Gross amount and accumulated depreciation of assets under capital lease as of December 31, 2016 was $2,960 and $36, respectively.

The minimum lease payments under capital leases as of December 31, 2016 are as follows:

2017	$ 1,010
2018	772
2019	590
2020	418
2021	127
Total minimum lease payments	2,917
Less: Amount representing interest	487
Minimum lease payments, net of interest	$ 2,430

(Dollars in thousands except share and per share amounts)

8. Goodwill and Identifiable Intangible Assets

The following table presents details of identifiable intangible assets:

	December 31, 2016			December 31, 2015		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Developed technology	$ 138,020	$ 26,579	$ 111,441	$ 71,570	$ 14,356	$ 57,214
Customer relationships	70,540	2,227	68,313	8,170	1,018	7,152
Trade name	2,310	426	1,884	920	230	690
Patents	1,579	552	1,027	1,579	346	1,233
Software	47,394	336	47,058	—	—	—
In-process research and development	97,340	—	97,340	—	—	—
	$ 357,183	$ 30,120	$ 327,063	$ 82,239	$ 15,950	$ 66,289

The following table presents amortization of intangible assets for the years ended December 31, 2016:

	Year Ended December 31,		
	2016	2015	2014
Cost of goods sold	$ 12,223	$ 11,499	$ 2,857
Research and development	336	—	—
Sales and marketing	1,209	817	201
General and administrative	402	418	158
	$ 14,170	$ 12,734	$ 3,216

In the year ended December 31, 2015, the Company abandoned the project related to in-process research and development and recorded an impairment charge of $1,750 included in the research and development expenses in the consolidated statements of income.

Based on the amount of intangible assets subject to amortization at December 31, 2016, the expected amortization expense for each of the next five fiscal years and thereafter is as follows:

2017	$ 56,828
2018	54,897
2019	50,889
2020	22,954
2021	19,783
Thereafter	24,372
	$ 229,723

The weighted-average amortization periods remaining by intangible asset category were as follows (in years):

Developed technology	4.3
Customer relationship	7.0
Trade name	4.4
Patents	6.0
Software	2.8

During the year ended December 31, 2016, goodwill increase of $95,923, as a result of an addition of $96,637 from ClariPhy acquisition, partially offset by a reduction of $714 from the sale of memory product business. There was no change in goodwill during the year ended December 31, 2015.

9. Convertible Debt

In December 2015, the Company issued $230,000 of 1.125% convertible senior notes due 2020 (Convertible Notes 2015). The Convertible Notes 2015 will mature December 1, 2020, unless earlier converted or repurchased. Interest on the Convertible Notes 2015 is payable on June 1 and December 1 of each year, beginning on June 1, 2016. The initial conversion rate is 24.8988 shares of common stock per $1 principal amount of Convertible Notes 2015, which represents an initial conversion price of approximately $40.16 per share. The Convertible Notes 2015 will be subject to repurchase at the option of the holders following certain fundamental corporate changes, at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. Certain corporate events that occur prior to the stated maturity date can cause the Company to increase the conversion rate for a holder.

Prior to the close of business on the business day immediately preceding June 1, 2020, holders may convert all or any portion of their Convertible Notes 2015 only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on March 31, 2016 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (ii) during the five business day period after any five consecutive trading day period (the "measurement period") in which the "trading price" per $1 principal amount of notes, as determined following a request by a holder of notes in accordance with procedures specified in the indenture governing the Convertible Notes 2015, for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the common stock and the conversion rate on each such trading day.; or (iii) upon the occurrence of specified corporate events. On or after June 1, 2020, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their notes at any time, regardless of the foregoing circumstances. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of common stock or a combination of cash and shares of common stock, at the Company's election. The Company's current intent is to settle the principal amount of the Convertible Notes 2015 in cash upon conversion. If the conversion value exceeds the principal amount, the Company would deliver shares of its common stock in respect to the remainder of its conversion obligation in excess of the aggregate principal amount (conversion spread).

The Convertible Notes 2015 are not redeemable at the Company's option prior to maturity.

The Convertible Notes 2015 are governed by the terms of indenture (Indenture). The Indenture do not contain any financial or operating covenants, or restrictions on the payments of dividends, the incurrence of indebtedness or the issuance or repurchase of securities by the Company or any of its subsidiaries. The Indenture contains customary terms and covenants in events of default. If an event of default (other than certain events of bankruptcy, insolvency or reorganization involving the Company) occurs and is continuing, the Trustee under the Indenture by notice to the Company, or the holders of at least 25% in principal amount of the outstanding Convertible Notes 2015 by notice to the Company and the Trustee, may, and the Trustee at the request of such holders shall, declare 100% of the principal of and accrued and unpaid interest, if any, on all the Convertible Notes 2015 to be due and payable. Upon the occurrence of certain events of bankruptcy, insolvency or reorganization involving the Company, 100% of the principal of and accrued and unpaid interest, if any, on all of the Convertible Notes 2015 will become due and payable automatically. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately. Notwithstanding the foregoing, the Indenture provides that, to the extent the Company elects, the sole remedy for an event of default relating to certain failures by the Company to comply with certain reporting covenants in the Indenture consists exclusively of the right to receive additional interest on the Convertible Notes 2015. As of December 31, 2016, none of the conditions allowing holders of the Convertible Notes 2015 to convert had been met.

In accounting for the issuance of the Convertible Notes 2015, the Company separated the Convertible Notes 2015 into liability and equity components. The carrying amount of the liability component was calculated by measuring the estimated fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the face value of the Convertible Notes 2015 as a whole. The excess of the face amount of the liability component over its carrying amount is amortized to interest expense over the term of the Convertible Notes 2015 using the effective interest method. The gross proceeds of $230,000 were accordingly allocated between long-term debt for $175,974 and stockholders' equity for $54,026. Issuance costs of $6,359, of which $6,007 were paid as of December 31, 2015 and the remainder paid in 2016, were allocated between long-term debt ($4,864) and equity ($1,495). The total interest expense recognized for the year ended December 31, 2016 was $12,853, which consists of $2,577 of contractual interest expense, $9,427 of amortization of debt discount and $849 of amortization of debt issuance costs. The total interest expense recognized for the year ended December 31, 2015 was $783, which consists of $192 of contractual interest expense, $543 of amortization of debt discount and $48 of amortization of debt issuance costs. The issuance costs allocated to long-term debt is presented in the balance sheet as offset against long-term debt.

In connection with the issuance of the Convertible Notes 2015, the Company entered into capped call transactions (Capped Call) in private transactions. Under the Capped Call, the Company purchased capped call options that in aggregate relate to 100% of the total number of shares of the Company's common stock underlying the Convertible Notes 2015, with a strike price approximately equal to the conversion price of the Convertible Notes 2015 and with a cap price equal to $52.06 per share. The capped calls were purchased for $17,802 and recorded as a reduction to additional paid-in-capital in accordance with ASC 815-40, Contracts in Entity's Own Equity.

The purchased Capped Call allows the Company to receive shares of its common stock and/or cash from counterparties equal to the amounts of common stock and/or cash related to the excess of the market price per share of the common stock, as measured under the terms of the Capped Call over the strike price of the Capped Call during the relevant valuation period. The purchased Capped Call is intended to reduce the potential dilution to common stock upon future conversion of the Convertible Notes 2015 by effectively increasing the initial conversion price to $52.06 as well as to offset potential cash payments the Company is required to make in excess of the principal amount of the Convertible Notes 2015 in applicable events.

The Capped Call is a separate transaction entered into by the Company with the option counterparties, are not part of the terms of the Convertible Notes 2015 and will not change the holders' rights under the Convertible Notes 2015.

In September 2016, the Company issued $287,500 of 0.75% convertible senior notes due 2021 (Convertible Notes 2016 and together with the Convertible Notes 2015, the Convertible Notes). The Convertible Notes 2016 will mature September 1, 2021, unless earlier converted or repurchased. Interest on the Convertible Notes 2016 is payable on March 1 and September 1 of each year, beginning on March 1, 2017. The initial conversion rate is 17.7508 shares of common stock per $1 principal amount of Convertible Notes 2016, which represents an initial conversion price of approximately $56.34 per share. The Convertible Notes 2016 will be subject to repurchase at the option of the holders following certain fundamental corporate changes, at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date. The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. Certain corporate events that occur prior to the stated maturity date can cause the Company to increase the conversion rate for a holder.

Prior to the close of business on the business day immediately preceding March 1, 2021, holders may convert all or any portion of their Convertible Notes 2016 only under the following circumstances: (i) during any calendar quarter commencing after the calendar quarter ending on December 31, 2016 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (ii) during the five business day period after any five consecutive trading day period (the "measurement period") in which the "trading price" per $1 principal amount of notes, as determined following a request by a holder of notes in accordance with procedures specified in the indenture governing the Convertible Notes 2016, for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the common stock and the conversion rate on each such trading day.; or (iii) upon the occurrence of specified corporate events. On or after March 1, 2021, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their notes at any time, regardless of the foregoing circumstances. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of common stock or a combination of cash and shares of common stock, at the Company's election. The Company's current intent is to settle the principal amount of the Convertible Notes 2016 in cash upon conversion. If the conversion value exceeds the principal amount, the Company would deliver shares of its common stock in respect to the remainder of its conversion obligation in excess of the aggregate principal amount (conversion spread).

The Convertible Notes 2016 are not redeemable at the Company's option prior to maturity.

The Convertible Notes 2016 are governed by the terms of an indenture (Indenture 2016). The Indenture 2016 does not contain any financial or operating covenants, or restrictions on the payments of dividends, the incurrence of indebtedness or the issuance or repurchase of securities by the Company or any of its subsidiaries. The Indenture 2016 contains customary terms and covenants in events of default. If an event of default (other than certain events of bankruptcy, insolvency or reorganization involving the Company) occurs and is continuing, the Trustee under the Indenture 2016 by notice to the Company, or the holders of at least 25% in principal amount of the outstanding Convertible Notes 2016 by notice to the Company and the Trustee under the Indenture 2016, may, and the Trustee at the request of such holders shall, declare 100% of the principal of and accrued and unpaid interest, if any, on all the Convertible Notes 2016 to be due and payable. Upon the occurrence of certain events of bankruptcy, insolvency or reorganization involving the Company, 100% of the principal of and accrued and unpaid interest, if any, on all of the Convertible Notes 2016 will become due and payable automatically. Upon such a declaration of acceleration, such principal and accrued and unpaid interest, if any, will be due and payable immediately. Notwithstanding the foregoing, the Indenture 2016 provides that, to the extent the Company elects, the sole remedy for an event of default relating to certain failures by the Company to comply with certain reporting covenants in the Indenture 2016 consists exclusively of the right to receive additional interest on the Convertible Notes 2016. As of December 31, 2016, none of the conditions allowing holders of the Convertible Notes 2016 to convert had been met.

In accounting for the issuance of the Convertible Notes 2016, the Company separated the Convertible Notes 2016 into liability and equity components. The carrying amount of the liability component was calculated by measuring the estimated fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the fair value of the liability component from the face value of the Convertible Notes 2016 as a whole. The excess of the face amount of the liability component over its carrying amount is amortized to interest expense over the term of the Convertible Notes 2016 using the effective interest method. The gross proceeds of $287,500 were accordingly allocated between long-term debt for $216,775 and stockholders' equity for $70,725. Issuance costs of $7,689, were allocated between long-term debt ($5,798) and equity ($1,891). The total interest expense recognized for the year ended December 31, 2016 was $4,553, which consists of $651 of contractual interest expense, $3,607 of amortization of debt discount and $295 of amortization of debt issuance costs. The issuance costs allocated to long-term debt is presented in the balance sheet as offset against long-term debt as of December 31, 2016.

In connection with the issuance of the Convertible Notes 2016, the Company entered into capped call transactions (Capped Call 2016) in private transactions. Under the Capped Call 2016, the Company purchased capped call options that in aggregate relate to 100% of the total number of shares of the Company's common stock underlying the Convertible Notes 2016, with a strike price approximately equal to the conversion price of the Convertible Notes 2016 and with a cap price equal to approximately $73.03 per share. The capped calls were purchased for $22,540 and recorded as a reduction to additional paid-in-capital in accordance with ASC 815-40, Contracts in Entity's Own Equity.

The purchased Capped Call 2016 allows the Company to receive shares of its common stock and/or cash from counterparties equal to the amounts of common stock and/or cash related to the excess of the market price per share of the common stock, as measured under the terms of the Capped Call 2016 over the strike price of the Capped Call 2016 during the relevant valuation period. The purchased Capped Call 2016 is intended to reduce the potential dilution to common stock upon future conversion of the Convertible Notes 2016 by effectively increasing the initial conversion price to approximately $73.03 as well as to offset potential cash payments the Company is required to make in excess of the principal amount of the Convertible Notes 2016 in applicable events.

The Capped Call 2016 is a separate transaction entered into by the Company with the option counterparties, are not part of the terms of the Convertible Notes 2016 and will not change the holders' rights under the Convertible Notes 2016.

(Dollars in thousands except share and per share amounts)

10. Other Liabilities

Other current liabilities consist of the following:

	December 31, 2016	December 31, 2015
Obligations under capital lease	$ 797	$ —
Intangible asset liability	14,688	—
Others	9,251	1,018
	$ 24,736	$ 1,018

Other long-term liabilities consist of the following:

	December 31, 2016	December 31, 2015
Deferred rent	$ 1,067	$ 1,728
Income tax payable	1,554	6,969
Obligations under capital lease	1,633	—
Intangible asset liability	32,651	—
Deferred tax liabilities	27,371	—
Others	668	—
	$ 64,944	$ 8,697

11. Income Taxes

Income (loss) from continuing operations before income taxes consists of the following:

	Year Ended December 31, 2016	2015	2014
United States	$ (15,202)	$ (5,642)	$ (12,153)
Foreign	26,658	(4,462)	(23,248)
Total	$ 11,456	$ (10,104)	$ (35,401)

Income tax provision consisted of the following:

	Year Ended December 31, 2016	2015	2014
Current:			
U.S. Federal	$ 938	$ 5,272	$ 514
U.S. State	(22)	187	—
Foreign	35	541	(240)
	951	6,000	274
Deferred:			
U.S. Federal	(16,755)	(114)	895
U.S. State	—	(15)	—
Foreign	747	(14)	(38)
	(16,008)	(143)	857
Total	(15,057)	$ 5,857	$ 1,131

(Dollars in thousands except share and per share amounts)

Income tax provision differed from the amounts computed by applying the U.S. federal income tax rate of 34% in 2016, 2015 and 2014 to loss before income taxes as a result of the following:

	Year Ended December 31,		
	2016	2015	2014
Expenses (benefit) at statutory rate	$ 3,895	$ (3,435)	$ (12,036)
State income taxes	222	(4)	1,569
Research and development credits	(8,566)	(8,526)	(6,249)
Change in valuation allowance	9,768	12,748	7,871
Impact of foreign operations	(13,570)	2,652	7,843
Unrecognized tax benefits	3,151	3,044	984
Stock-based compensation	(9,925)	143	114
Tax exempt income	(123)	(60)	(83)
Prior year return to provision adjustment	(524)	(392)	291
Acquisition transaction cost	591	—	444
Withholding tax	—	(350)	350
Other	24	37	33
	$ (15,057)	$ 5,857	$ 1,131

Significant components of the Company's net deferred taxes consist of the following:

	December 31,	
	2016	2015
Deferred tax assets		
Net operating loss carry forwards	$ 38,337	$ 8,940
Research and development credits	46,492	36,619
Stock-based compensation	9,225	8,214
Accrued expenses and allowances	2,621	2,724
Amortization and depreciation	-	765
Other temporary differences	3,088	3,424
Foreign tax credit	1,290	2,466
Valuation allowance	(38,631)	(33,567)
Total deferred tax assets	62,422	29,585
Deferred tax liabilities		
Subpart F income on foreign subsidiaries earnings	—	(6,044)
Acquired intangible assets	(55,563)	(5,186)
Acquired tangible assets	(3,629)	—
Convertible debt	(30,177)	(18,136)
Amortization and depreciation	(415)	—
Other deferred tax liabilities	(9)	(169)
Total deferred tax liabilities	(89,793)	(29,535)
Deferred tax assets (liabilities), net	$ (27,371)	$ 50

At December 31, 2016 and 2015, the Company has recorded a deferred tax charge of $1,384 and $2,322, respectively, which represents the tax on the intercompany transfer of intangible assets in connection with the Company's international reorganization during 2010. The deferred tax charge is being amortized over the estimated useful life of 8 years to income tax expense.

Valuation Allowance

The Company records a valuation allowance to reduce deferred tax assets to the amount that the Company believes is more likely than not to be realized. The determination of recording or releasing tax valuation allowances is made, in part, pursuant to an assessment performed by management regarding the likelihood that the Company will generate sufficient future taxable income against which benefits of the deferred tax assets may or may not be realized. This assessment requires management to exercise significant judgment and make estimates with respect to the Company's ability to generate revenue, gross profits, operating income and taxable income in future periods. Amongst other factors, management must make assumptions regarding overall current and projected business and semiconductor industry conditions, operating efficiencies, the Company's ability to timely develop, introduce and consistently manufacture new products to customers' specifications, acceptance of new products, customer concentrations, technological change and the competitive environment which may impact the Company's ability to generate taxable income and, in turn, realize the value of the deferred tax assets. The Company uses the tax law ordering approach of intraperiod allocation to allocate the benefit of windfall tax benefits based on provisions in the tax law that identify the sequence in which those amounts are utilized for tax purposes. Additionally, when determining whether uncertain tax positions are a source of income for valuation allowance purposes, the Company applies the tax law ordering approach to determine how these liabilities will ultimately be satisfied.

At December 31, 2014 and 2015, a full valuation allowance was recorded on the U.S., Singapore, Canada and Taiwan deferred tax assets. At December 31, 2016, the Company has a full valuation allowance recorded against the U.S., Canada, Taiwan and United Kingdom deferred tax assets.

The valuation allowance increased (decreased) $5,064, ($6,115), and $17,234 in the years ended December 31, 2016, 2015 and 2014, respectively.

The net increase of $5,064 in the valuation allowance for the year ended December 31, 2016 is comprised of $16,044 decrease charged to additional paid-in capital, offset by $305 increase charged to other comprehensive income, $3,088 increase charged to goodwill, $7,068 increase charged to retained earnings, and $10,647 increase charged to income tax provision. The net decrease of $6,115 in the valuation allowance for the year ended December 31, 2015 is comprised of $18,383 decrease charged to additional paid-in capital, $2,168 decrease charged to other comprehensive income, offset by $767 increase charged to goodwill, and $13,669 increase charged to income tax provision. The increase of $17,234 in the valuation allowance for the year ended December 31, 2014 is comprised of $1,165 increase charged to goodwill and $16,069 increase charged to income tax provision.

The change in valuation allowance during the year ended December 31, 2016, included an income tax benefit of $17,827 from the partial release of the federal valuation allowance and full release of the Singapore valuation allowance. The partial release of the federal valuation allowance against deferred tax assets resulted from the consolidation of the Company's federal deferred tax assets with ClariPhy's federal deferred tax liabilities upon acquisition. The full release of the Singapore valuation allowance resulted from the Company's full utilization of its deferred tax asset during the year primarily due to the gain from the sale of the memory product business.

General Income Tax Disclosures

The Company has net operating loss ("NOL") carryforwards for federal and state income tax purposes of approximately $187,009 and $86,659, respectively at December 31, 2016, that will begin to expire in 2022 for federal income tax purposes and in 2028 for state income tax purposes. As discussed in Note 1, the Company early adopted the new guidance on accounting for share-based payments to employees beginning January 1, 2016. The guidance requires all income tax effects of share-based payments to employees to be recognized in the income statement when the awards are vested or settled. As a result of the adoption, the Company recorded in the financial statements federal and state NOL carryover of $34,132 and $12,417, respectively, that arose from excess stock option deductions that were previously not recognized in the financial statements. At December 31, 2016, the Company has NOL carryforwards of $2,837 for its Taiwan subsidiary which begin to expire in 2019, and NOL carryforwards of $4,815 for the United Kingdom subsidiary, which does not expire. A full valuation allowance has been provided on U.S. NOL, Taiwan NOL, and United Kingdom NOL.

(Dollars in thousands except share and per share amounts)

At December 31, 2016, the Company has federal and state research and development ("R&D") tax credit carryforwards of $32,529 and $34,022, respectively. The federal tax credits will begin to expire in 2024, unless previously utilized. Some state tax credits will begin to expire in 2021 and some do not expire. At December 31, 2016, the Company has Canadian tax credits and research expenditure claim carryforwards for its Canadian subsidiary of $7,920 and $3,122, respectively. The tax credits will begin to expire in 2027, and the research expenditure claim carryforwards do not expire. A full valuation allowance has been provided on R&D tax credit and research expenditure claim carryforwards.

Pursuant to Internal Revenue Code sections 382 and 383, use of the Company's NOL and R&D credits generated prior to June 2004 are subject to an annual limitation due to a cumulative ownership percentage change that occurred in that period. The Company has had two changes in ownership, one in December 2000 and the second in June 2004, that resulted in an annual limitation on NOL and R&D credit utilization. The NOL and R&D credit carryover of Cortina, are also subject to annual limitation under Internal Revenue Code sections 382 and 383. The acquisition of Cortina caused an ownership change that resulted in an annual limitation, as well as Cortina's legacy annual limitation amount from ownership changes prior to acquisition. The NOL and R&D credit carryforward which will expire unused due to annual limitation is not recognized for financial statement purposes and is not reflected in the above carryover amounts.

The Company's NOL carryforwards include Cortina's federal and state pre-acquisition NOL of $49,152 and $1,909, respectively. These NOL carryforwards will begin to expire in 2024 for federal and 2032 for state. The Company's NOL carryforwards also include ClariPhy's federal and state pre-acquisition NOL of $46,156 and $70,890, respectively. These NOL carryforwards will begin to expire in 2032 for federal and 2028 for state. The Company's R&D credit carryforwards included Cortina's federal and state pre-acquisition credits of $6,033 and $7,977, respectively. The federal R&D credit carryforward will begin to expire in 2027. While some state tax credits will begin to expire in 2022, most do not expire. The utilization of Cortina and ClariPhy's pre-acquisition tax attributes is subject to certain annual limitations under Internal Revenue Code sections 382 and 383. No benefit for these tax attributes was recorded upon the close of the acquisition, as the benefit from these tax attributes did not meet the "more-likely-than-not" standard.

The Company operates under tax holiday in Singapore, which is effective through May 2020. The tax holiday is conditional upon meeting certain employment, activities and investment thresholds. As of December 31, 2016, the Company believes it has met all of the required thresholds.

The following table summarizes the changes in gross unrecognized tax benefits:

	Year Ended December 31,		
	2016	**2015**	**2014**
Balance as of January 1	$ 46,453	$ 44,081	$ 8,031
Increases based on tax positions related to the current year	5,450	4,459	3,102
Decreases based on tax positions of prior year	(1,766)	(1,923)	(61)
Gross increases for acquired unrecognized tax benefits	6,585	—	33,935
Statute of limitation expirations	(219)	(164)	(926)
Balance as of December 31	$ 56,503	$ 46,453	$ 44,081

As of December 31, 2016, the Company had approximately $1,168 of unrecognized tax benefits that if recognized would affect the effective income tax rate. The Company believes that before the end of next year, it is reasonably possible that the gross unrecognized tax benefit may decrease by approximately $100 due to statute of limitation expiration in foreign jurisdictions.

The Company recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense. The Company recorded $119 and $44 interest in the years ended December 31, 2016 and 2015, respectively. The Company had $222, $163, and $151 of interest and penalties accrued as of December 31, 2016, 2015 and 2014, respectively.

(Dollars in thousands except share and per share amounts)

The Company files income tax returns in the U.S. federal jurisdiction, various states and certain foreign jurisdictions. The Company is no longer subject to U.S. federal income tax examinations for tax years ended on or before December 31, 2011 or to California state income tax examinations for tax years ended on or before December 31, 2010. However, to the extent allowed by law, the tax authorities may have the right to examine prior periods where net operating losses or tax credits were generated and carried forward, and make adjustments up to the amount of the net operating loss or credit carryforward.

The Company does not provide for U.S. income taxes on undistributed earnings of its controlled foreign corporations as the Company intends to reinvest these earnings indefinitely outside the United States. At December 31, 2016, foreign subsidiaries had cumulative undistributed earnings of $86,227 that, if repatriated, is not expected to result in additional tax liability as these earnings would be absorbed by the NOL and research credit carryover.

In February 2016, the California Franchise Tax Board examination concluded its examination, resulting in adjustments to NOL and R&D credit carryforwards which had no impact on the Company's income tax provision as a result of the full valuation allowance in California.

The Company is currently under examination by the Inland Revenue Authority of Singapore for the years 2010, 2011 and 2012. As of the report date, the examination is ongoing.

12. Earnings Per Share

The following shows the reconciliation of weighted average shares used in the calculation of basic and diluted earnings per share:

	Year Ended December 31,		
	2016	2015	2014
Denominator			
Weighted average common stock-basic	40,565,433	38,580,330	32,707,868
Effect of potentially dilutive securities:		—	—
Add options to purchase common stock	1,300,649	—	—
Add unvested restricted stock unit	2,158,260	—	—
Add employee stock purchase plan	8,240	—	—
Add convertible debt	92,299	—	—
Weighted average common stock—diluted	44,124,881	38,580,330	32,707,868

The following securities were not included in the computation of diluted earnings per share as inclusion would have been anti-dilutive:

	Year Ended December 31,		
	2016	2015	2014
Common stock options	—	2,563,230	3,350,112
Unvested restricted stock unit	284,871	4,672,806	3,705,415
Convertible debt	5,834,522	376,576	—
	6,119,393	7,612,612	7,055,527

As discussed in Note 2, the Company early adopted ASU 2016-09. Based on the new guidance, the excess tax benefit is no longer included in the weighted diluted common stock calculation under the treasury stock method and therefore, increased the total weighted diluted common stock by 993,720 in the year ended December 31, 2016, respectively. This change was applied prospectively.

(Dollars in thousands except share and per share amounts)

13. Stock-Based Compensation

In June 2010, the Board of Directors (the "Board") approved the Company's 2010 Stock Incentive Plan (the "2010 Plan"), which became effective in November 2010. The 2010 Plan provides for the grants of restricted stock, stock appreciation rights and stock unit awards to employees, non-employee directors, advisors and consultants. The Compensation Committee administers the 2010 Plan, including the determination of the recipient of an award, the number of shares subject to each award, whether an option is to be classified as an incentive stock option or nonstatutory option, and the terms and conditions of each award, including the exercise and purchase prices and the vesting or duration of the award. Options granted under the 2010 Plan are exercisable only upon vesting. At December 31, 2016, 3,478,535 shares of common stock have been reserved for future grants under the 2010 Plan.

Stock Option Awards

The Company did not grant any stock options during the years ended December 31, 2016, 2015 and 2014.

The following table summarizes information regarding options outstanding:

	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at December 31, 2015	2,256,396	$ 10.61	5.29	$ 37,036
Granted	—	—		
Exercised	(587,229)	9.86		
Canceled	(21,322)	11.86		
Outstanding at December 31, 2016	1,647,845	$ 10.86	4.28	$ 55,636
Exercisable at December 31, 2016	1,644,260	$ 10.86	4.27	$ 55,508
Vested and expected to vest in the future as of December 31, 2016	1,647,845	$ 10.86	4.28	$ 55,636

The intrinsic value of options outstanding, exercisable and vested and expected to vest is calculated based on the difference between the exercise price and the fair value of the Company's common stock as of the respective balance sheet dates.

The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was $15,390, $10,696, and $7,800, respectively. The intrinsic value of exercised options is calculated based on the difference between the exercise price and the fair value of the Company's common stock as of the exercise date. Cash received from the exercise of stock options was $5,748, $6,145, $4,298 respectively, for the years ended December 31, 2016, 2015 and 2014.

Restricted Stock Units and Awards

The Company granted restricted stock units ("RSUs") to members of the Board and employees. Most of the Company's outstanding RSUs vest over four years with vesting contingent upon continuous service. The Company estimates the fair value of RSUs using the market price of the common stock on the date of the grant. The fair value of these awards is amortized on a straight-line basis over the vesting period.

(Dollars in thousands except share and per share amounts)

The following table summarizes information regarding outstanding restricted stock units:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Outstanding at December 31, 2015	4,600,869	$ 15.37
Granted	2,538,642	37.31
Vested	(1,663,139)	14.26
Canceled	(1,027,742)	19.75
Outstanding at December 31, 2016	4,448,630	$ 27.29
Expected to vest in the future as of December 31, 2016	4,378,800	

The RSUs includes performance-based stock units subject to achievement of pre-established revenue goal and earnings per share on non-GAAP basis. Once the goals are met, the performance-based stock units are subject to four years of vesting from the original grant date, contingent upon continuous service. The total performance-based units that vested for the year ended December 31, 2016 was 36,036. As of December 31, 2016, the total performance-based units outstanding was 330,856.

Employee Stock Purchase Plan

In December 2011, the Company adopted the Employee Stock Purchase Plan ("ESPP"). Participants purchase the Company's stock using payroll deductions, which may not exceed 15% of their total cash compensation. Pursuant to the terms of the ESPP, the "look-back" period for the stock purchase price is six months. Offering and purchase periods will begin on February 10 and August 10 of each year. Participants will be granted the right to purchase common stock at a price per share that is 85% of the lesser of the fair market value of the Company's common shares at the beginning or the end of each six-month period.

The ESPP imposes certain limitations upon an employee's right to acquire common stock, including the following: (i) no employee shall be granted a right to participate if such employee immediately after the election to purchase common stock, would own stock possessing 5% or more to the total combined voting power or value of all classes of stock of the Company, and (ii) no employee may be granted rights to purchase more than $25 fair value of common stock for each calendar year. The maximum aggregate number of shares of common stock available for purchase under the ESPP is 1,750,000. Total common stock issued under the ESPP during the years ended December 31, 2016, 2015 and 2014 was 285,101, 326,764, and 264,886 respectively.

The fair value of employee stock purchase plan is estimated at the start of offering period using the Black-Scholes option pricing model with the following average assumptions for the years ended December 31, 2016, 2015 and 2014:

	Year Ended December 31,		
	2016	**2015**	**2014**
Risk-free interest rate	0.45%	0.14%	0.07%
Expected life (in years)	0.50	0.50	0.50
Dividend yield	—	—	—
Expected volatility	54%	42%	40%
Estimated fair value	$ 8.99	$ 5.77	3.55

(Dollars in thousands except share and per share amounts)

Stock-Based Compensation Expense

Stock-based compensation expense is included in the Company's results of operations as follows:

	Year Ended December 31,		
	2016	**2015**	**2014**
Cost of revenue	$ 1,796	$ 1,359	$ 1,154
Research and development	17,390	13,268	9,670
Sales and marketing	4,405	3,213	2,998
General and administrative	4,407	5,473	4,701
Discontinued operations	2,194	4,980	3,937
	$ 30,192	$ 28,293	$ 22,460

As of December 31, 2016, total unrecognized compensation cost related to unvested stock options and awards prior to the consideration of expected forfeitures, was approximately $103,946, which is expected to be recognized over a weighted-average period of 3.09 years.

The Company early adopted the new guidance on accounting for share-based payments to employees beginning January 1, 2016. The effect of adoption resulted to a net credit of $5,261 on the beginning balance of accumulated deficit from previously unrecorded deferred tax assets for net operating loss carryover generated by windfall tax benefit. The adoption increased weighted average diluted common stock by 993,720 in the year ended December 31, 2016. In addition, the current period's excess tax benefit related to stock-based compensation is presented as operating activity in the statement of cash flows. The change in the cash flow was adopted retrospectively and the Company reclassified $4,305 and $55 of excess tax benefit for the years ended December 31, 2015 and 2014, respectively, from financing activity to operating activity.

14. Employee Benefit Plan

The Company has established a 401(k) tax-deferred savings plan (the "Plan") which permits participants to make contributions by salary deduction pursuant to Section 401(k) of the Internal Revenue Code of 1986, as amended. The Company may, at its discretion, make matching contributions to the Plan. Furthermore, the Company is responsible for administrative costs of the Plan. The Company accrued $2,625 contribution to the Plan for the year ended December 31, 2016. The Company accrued $1,131 contribution to the Plan for the year ended December 31, 2015 which the Company contributed in 2016.

15. Fair Value Measurements

The guidance on fair value measurements requires fair value measurements to be classified and disclosed in one of the following three categories:

Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2: Quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability, or

Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

The Company measures its investments in marketable securities at fair value using the market approach which uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. The Company has cash equivalents which consist of money market funds valued using the amortized cost method, in accordance with Rule 2a-7 under the 1940 Act which approximates fair value.

(Dollars in thousands except share and per share amounts)

The convertible notes are carried on the Consolidated Balance Sheets at their original issuance value including accreted interest, net of unamortized debt discount and issuance cost. The Convertible Notes are not marked to fair value at the end of each reporting period. As of December 31, 2016 and 2015, the fair value of Convertible Notes was determined on the basis of market prices observable for similar instruments and is considered Level 2 in the fair value hierarchy.

The following table presents information about assets and liabilities required to be carried at fair value on a recurring basis:

December 31, 2016	**Total**	**Level 1**	**Level 2**
Assets			
Cash equivalents:			
Money market funds	$ 17,267	$ 10,110	$ 7,157
Investment in marketable securities:			
US treasury securities	4,000	4,000	—
Municipal bonds	45,171	—	45,171
Corporate notes/bonds	112,205	—	112,205
Variable rate demand notes	58,930	—	58,930
Asset backed securities	5,223	—	5,223
Commercial paper	23,947	—	23,947
	$ 266,743	$ 14,110	$ 252,633
Liabilities			
Convertible Notes	$ 616,831	$ —	$ 616,831

December 31, 2015	**Total**	**Level 1**	**Level 2**
Assets			
Cash equivalents:			
Money market funds	$ 102,008	$ —	$ 102,008
Investment in marketable securities:			
US treasury securities	2,993	2,993	—
Municipal bonds	20,036	—	20,036
Corporate notes/bonds	14,657	—	14,657
Government agency bonds	4,007	—	4,007
Asset backed securities	1,923	—	1,923
	$ 145,624	$ 2,993	$ 142,631
Liabilities			
Convertible Notes	$ 221,950	$ —	$ 221,950

(Dollars in thousands except share and per share amounts)

16. Segment and Geographic Information

The Company operates in one reportable segment. Revenue by region is classified based on the locations to which the product is transported, which may differ from the customer's principal offices.

The following table sets forth the Company's revenue by geographic region:

	Year Ended December 31,		
	2016	2015	2014
China	$ 103,071	$ 61,448	$ 26,414
United States	29,976	34,605	15,662
Japan	36,308	24,410	15,111
Thailand	35,837	25,123	7,924
Italy	19,677	10,952	9,823
Other	41,408	36,172	21,211
	$ 266,277	$ 192,710	$ 96,145

As of December 31, 2016, $6,567 of long-lived tangible assets are located outside the United States of which $5,068 are located in Taiwan. As of December 31, 2015, $7,271 of long-lived tangible assets are located outside the United States of which $5,756 are located in Taiwan.

17. Commitments and Contingencies

Leases

The Company leases its facility under noncancelable lease agreements expiring in various years through 2026. The Company also licenses certain software used in its research and development activities under a term license subscription and maintenance arrangement.

Future minimum lease payments under noncancelable operating leases having initial terms in excess of one year are as follows:

	December 31, 2016
2017	$ 6,050
2018	4,097
2019	3,381
2020	1,149
2021	221
2022 and thereafter	128
	$ 15,026

For the years ended December 31, 2016, 2015 and 2014, lease operating expense was $13,870, $11,869, and $8,193 respectively.

Noncancelable Purchase Obligations

The Company depends upon third party subcontractors to manufacture wafers. The Company's subcontractor relationships typically allow for the cancellation of outstanding purchase orders, but require payment of all expenses incurred through the date of cancellation. As of December 31, 2016, the total value of open purchase orders for wafers was approximately $9,465. As of December 31, 2016, the Company has a commitment to pay $999 for software license starting in 2017.

Legal Proceedings

Netlist, Inc. v. Inphi Corporation, Case No. 09-cv-6900 (C.D. Cal.)

On September 22, 2009, Netlist filed suit in the United States District Court, Central District of California, or the Court, asserting that the Company infringes U.S. Patent No. 7,532,537. Netlist filed an amended complaint on December 22, 2009, further asserting that the Company infringes U.S. Patent Nos. 7,619,912 and 7,636,274, collectively with U.S. Patent No. 7,532,537, the patents-in-suit, and seeking both unspecified monetary damages to be determined and an injunction to prevent further infringement. These infringement claims allege that the iMB™ and certain other memory module components infringe the patents-in-suit. The Company answered the amended complaint on February 11, 2010 and asserted that the Company does not infringe the patents-in-suit and that the patents-in-suit are invalid. In 2010, the Company filed *inter partes* requests for reexamination with the United States Patent and Trademark Office (the "USPTO"), asserting that the patents-in-suit are invalid. As a result of the proceedings at the USPTO, the Court has stayed the litigation, with the parties advising the Court on status every 120 days.

As to the proceeding at the USPTO, reexamination has been ordered for all of the patents that were alleged to infringe, and at present, the USPTO has determined that none of the originally filed claims are valid, with certain amended claims being determined patentable. The Reexamination Certificate for U.S. Patent No. 7,532,537 was issued on August 2, 2016 based upon amended claims, and the parties continue to assert their respective positions with respect to the reexamination proceedings for U.S. Patent Nos. 7,619,912 and 7,636,274.

While the Company intends to defend the foregoing USPTO proceedings and lawsuit vigorously, the USPTO proceedings and litigation, whether or not determined in the Company's favor or settled, could be costly and time-consuming and could divert management's attention and resources, which could adversely affect the Company's business.

Based on the nature of USPTO proceedings and litigation, the Company is currently unable to predict the final outcome of this lawsuit and therefore, cannot determine the likelihood of loss nor estimate a range of possible loss. However, because of the nature and inherent uncertainties of litigation, should the outcome of these actions be unfavorable, the Company's business, financial condition, results of operations or cash flows could be materially and adversely affected.

In March 2015, the Company settled a patent dispute involving Cortina and Vitesse Semiconductor Corporation (Vitesse). The patent dispute involved a certain patent family owned by Vitesse associated with error correction. The Company paid Vitesse $750 to resolve the dispute. Based on the Agreement and Plan of Merger dated July 30, 2014, as amended by Amendment No. 1 to the Agreement and Plan of Merger dated September 25, 2014, the Company was indemnified for this settlement arising from this claim, up to an amount of $750.

Indemnifications

In the ordinary course of business, the Company may provide indemnifications of varying scope and terms to customers, vendors, lessors, investors, directors, officers, employees and other parties with respect to certain matters, including, but not limited to, losses arising out of the Company's breach of such agreements, services to be provided by the Company, or from intellectual property infringement claims made by third-parties. These indemnifications may survive termination of the underlying agreement and the maximum potential amount of future payments the Company could be required to make under these indemnification provisions may not be subject to maximum loss clauses. The Company has not incurred material costs to defend lawsuits or settle claims related to these indemnifications. Accordingly, the Company has no liabilities recorded for these agreements as of December 31, 2016 and December 31, 2015.

Supplementary Financial Information (Unaudited)

Quarterly Results of Operations

	Year Ended December 31, 2016			
	Mar. 31, 2016	Jun. 30, 2016	Sept. 30, 2016	Dec. 31, 2016
	(in thousands, except per share amounts)			
Total revenue	$ 54,091	$ 60,524	$ 70,750	$ 80,912
Gross profit	36,970	41,249	48,188	54,289
Net income (loss) from continuing operations	(90)	943	6,596	19,064
Net income (loss) from discontinued operations	310	(412)	72,976	69
Net income (loss)	220	531	79,572	19,133
Basic earnings per share	0.01	0.01	1.95	0.46
Diluted earnings per share	0.01	0.01	1.80	0.42

	Year Ended December 31, 2016			
	Mar. 31, 2015	Jun. 30, 2015	Sept. 30, 2015	Dec. 31, 2015
	(in thousands, except per share amounts)			
Total revenue	$ 42,946	$ 49,513	$ 47,377	$ 52,874
Gross profit	20,781	31,986	30,733	36,516
Net income (loss) from continuing operations	(11,308)	(544)	(1,883)	(2,226)
Net income (loss) from discontinued operations	1,600	544	781	(515)
Net income (loss)	(9,708)	—	(1,102)	(2,741)
Basic earnings per share	(0.26)	—	(0.03)	(0.07)
Diluted earnings per share	(0.26)	—	(0.03)	(0.07)

(1) On October 3, 2014, we completed the acquisition of Cortina, including its high-speed interconnect and optical transport product lines. The results of operations of Cortina and estimated fair value of assets acquired and liabilities assumed were included in our financial statements from the acquisition date. This acquisition resulted in a significant change in our statement of operations in 2014 which includes increase cost of goods sold resulting from the step-up inventory acquired from Cortina and amortization of acquired intangibles.

(2) In August 2016, we completed the sale of its memory product business to Rambus Inc. As a result of the sale, the Company's consolidated financial statements for current and prior periods have been retrospectively reclassified to present the results of operations of the memory product business as discontinued operations.

ITEM 9 — *CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE*

None.

ITEM 9A— *CONTROLS AND PROCEDURES*

(a) *Evaluation of disclosure controls and procedures*. We maintain "disclosure controls and procedures," as such term is defined in Rules 13a-15 (e) and 15d – 15(e) under the Securities Exchange Act 1934, or the Exchange Act (as amended), that are designed to provide reasonable assurance that information required to be disclosed by us in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer (principal executive officer) and Chief Financial Officer (principal financial officer), as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Our disclosure controls and procedures have been designed to provide reasonable, not absolute assurance. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on their evaluation as of the end of the period covered by this Annual Report on Form 10-K, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

(b) *Management's Annual Report on Internal Control over Financial Reporting.* Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2016. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO, in *Internal Control — Integrated Framework (2013).* Based on the assessment using those criteria, our management concluded that as of December 31, 2016, our internal control over financial reporting was effective. Our evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2016 did not include the internal controls of ClariPhy. We excluded ClariPhy from our assessment of internal controls over financial reporting as of December 31, 2016 because it was acquired in a business combination during December 2016. ClariPhy is a wholly owned subsidiary of the Company whose total assets and total revenues represent 3% and 0.4%, respectively of the related consolidated financial statement amounts as of and for the year ended December 31, 2016. The effectiveness of our internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included in Part II "Item 8, Financial Statements and Supplementary Data".

(c) *Changes in Internal Control over Financial Reporting*. There has been no change in our "internal control over financial reporting" as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during our most recent fiscal quarter that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B — *OTHER INFORMATION*

None.

PART III

ITEM 10 — *DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE*

The information required by this item is incorporated by reference from the information under the captions “Election of Directors,” “Section 16(a) Beneficial Ownership Reporting Compliance” and “Corporate Governance” contained in our proxy statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for our 2017 annual Meeting of Stockholders to be held on May 25, 2017 pursuant to Regulation 14A and no later than 120 days after December 31, 2016 (the Proxy Statement)..

ITEM 11 — *EXECUTIVE COMPENSATION*

The information required by this item is incorporated by reference from the information under the captions “Election of Director,” “Compensation of Directors,” “Compensation Discussion and Analysis,” “Corporate Governance,” “Compensation Committee Report” and “Executive Compensation” contained in the Proxy Statement.

ITEM 12 — *SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS*

The information required by this item with respect to security ownership of certain beneficial owners and management is incorporated by reference from the information under the captions “Security Ownership of Certain Beneficial Owners and Management” and “Executive Compensation” contained in the Proxy Statement.

Equity Compensation Plan Information

The following table summarizes the number of outstanding options granted to our employees, consultants and directors, as well as the number of shares of common stock remaining available for future issuance under our equity compensation plans as of December 31, 2016.

	Number of Securities to be Issued upon Exercise of Outstanding Options and Rights (a)	Weighted Average Exercise Price of Outstanding Options and Rights (1) (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))
Equity compensation plans approved by security holders (2)	4,855,187	10.86	3,971,622
Equity compensation plans not approved by security holders (3)	1,241,288	—	—
Total	6,096,475	10.86	3.971,622

(1) The calculation of the weighted average exercise price includes only stock options and does not include the outstanding RSUs which do not have an exercise price.

(2) Consists of two plans: the Company’s 2010 Stock Incentive Plan and the Company’s 2011 Employee Stock Purchase Plan. 3,478,535 shares and 493,087 shares, respectively, remain available for issuance under the Company’s 2010 Stock Incentive Plan and the Company’s 2011 Employee Stock Purchase Plan.

(3) Of the shares reflected in this row, 257,350 were granted in connection with our acquisition of Cortina on October 3, 2014 and 983,938 were granted in connection with our acquisition of ClariPhy on December 12, 2016. Such RSU non-plan inducement awards were granted to target company employees joining our operations in order to create a retention incentive for those employees.

ITEM 13 — *CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE*

The information required by this item with respect to security ownership of certain beneficial owners and management is incorporated by reference from the information under the captions “Election of Directors,” “Corporate Governance” and “Certain Relationships and Related Person Transactions” contained in the Proxy Statement.

ITEM 14 — *PRINCIPAL ACCOUNTANT FEES AND SERVICES*

The information required by this item is incorporated by reference from the information under the captions “Audit Committee Report” and “Ratification of the Appointment of Independent Registered Public Accountants” contained in the Proxy Statement.

PART IV

ITEM 15 — *EXHIBITS AND FINANCIAL STATEMENT SCHEDULES*

1. Financial Statements. See “Index to Consolidated Financial Statements” under Part II, “Item 8, Financial Statements and Supplementary Data”.

   (a) Documents filed as part of this report:

   (1) Financial Statements

   Reference is made to the Index to Consolidated Financial Statements of Inphi Corporation under Part II, “Item 8, Financial Statements and Supplementary Data”.

   (2) Financial Statement Schedules

   All financial statement schedules have been omitted because they are not applicable or not required or because the information is included elsewhere in the Consolidated Financial Statements or the Notes thereto.

   (3) Exhibits

   See Item 15(b) below. Each management contract or compensatory plan or arrangement required to be filed has been identified.

   (b) Exhibits

   The exhibits listed in the Exhibit Index below are filed or incorporated by reference as part of this report.

   (c) *Financial Statements and Schedules*

   Reference is made to Item 15(a)(2) above.

ITEM 16 — FORM 10-K SUMMARY.

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

INPHI CORPORATION

By: /s/ Ford Tamer
Ford Tamer
Chief Executive Officer
(Principal Executive Officer)

Date: March 1, 2017

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Ford Tamer and John Edmunds, and each of them, his or her true and lawful attorneys-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any amendments to this 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 their substitute or substitutes may do or cause to be done by virtue hereof.

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

Name	Title	Date
/s/ Ford Tamer Ford Tamer	Chief Executive Officer (Principal Executive Officer), President and Director	March 1, 2017
/s/ John Edmunds John Edmunds	Chief Financial Officer and Chief Accounting Officer (Principal Financial and Accounting Officer)	March 1, 2017
/s/ Diosdado P. Banatao Diosdado P. Banatao	Chairman of the Board	March 1, 2017
/s/ Nicholas Brathwaite Nicholas Brathwaite	Director	March 1, 2017
/s/ Chenming C. Hu Chenming C. Hu	Director	March 1, 2017
/s/ David Liddle David Liddle	Director	March 1, 2017
/s/ Bruce McWilliams Bruce McWilliams	Director	March 1, 2017
/s/ Elissa Murphy Elissa Murphy	Director	March 1, 2017
/s/ Sam S. Srinivasan Sam S. Srinivasan	Lead Director	March 1, 2017

EXHIBIT INDEX

Exhibit Number	Description
2.1	Agreement and Plan of Merger dated July 30, 2014 by and among the Company, Cortina, Catalina Acquisition Corporation, a Delaware corporation and wholly owned subsidiary of the Company, and the Stockholder's Agent (incorporated by reference to exhibit 2.1 of the Registrant's Current Report on Form 8-K filed with the SEC on August 1, 2014).
2.2	Agreement and Plan of Merger dated July 30, 2014 by and among the Company, Cortina, Catalina Acquisition Corporation, a Delaware corporation and wholly owned subsidiary of the Company, and the Stockholder's Agent, as amended by Amendment No. 1 thereto dated September 25, 2014 (incorporated by reference to exhibit 2.1 of the Registrant's Current Report on Form 8-K filed with the SEC on October 6, 2014).
2.3	Agreement and Plan of Merger dated as of November 1, 2016 by and among the Registrant, Clarice Acquisition Corporation, a Delaware corporation and wholly owned subsidiary of the Registrant, ClariPhy Communications, Inc., a Delaware corporation, and Fortis Advisors LLC, a Delaware limited liability company, solely in its capacity as Securityholders' Agent (incorporated by reference to exhibit 2.1 of the Registrant's Current Report on Form 8-K filed with the SEC on November 1, 2016).
3(i)	Restated Certificate of Incorporation of the Registrant (incorporated by reference to exhibit 3(i) of the Registrant's annual report on Form 10-K filed with the SEC on March 7, 2011).
3(ii)	Amended and Restated Bylaws of the Registrant (incorporated by reference to exhibit 3.1 of the Registrant's current report on Form 8-K filed with the SEC on October 20, 2015).
4.1	Specimen Common Stock Certificate (incorporated by reference to exhibit 4.1 filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).
4.2	Amended and Restated Investors' Rights Agreement dated as of August 12, 2010 (incorporated by reference to exhibit 4.2 of the Registrant's annual report on Form 10-K filed with the SEC on March 7, 2011).
4.3	Indenture dated as of December 8, 2015, between Registrant and Wells Fargo Bank, National Association, as trustee (including form of Note) (incorporated by reference to exhibit 4.1 of the Registrant's Current Report on Form 8-K filed with the SEC on December 8, 2015).
4.4	Indenture dated as of September 12, 2016, between Inphi Corporation and Wells Fargo Bank, National Association, as trustee (including form of Note) (incorporated by reference to exhibit 4.1 of the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2016).
10.1+	Inphi Corporation 2000 Stock Option/Stock Issuance Plan (as amended on June 2, 2010) and related form stock option plan agreements (incorporated by reference to exhibit 10.1 filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).
10.2+	Inphi Corporation 2010 Stock Incentive Plan and related form agreements (incorporated by reference to exhibit 10.2 of the Registrant's annual report on Form 10-K filed with the SEC on March 7, 2011).
10.3+	Form of Indemnification Agreement between the Registrant and its officers and directors (incorporated by reference to exhibit 10.3 filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).
10.4+	Offer letter dated December 10, 2007 between John Edmunds and the Registrant, as amended (incorporated by reference to exhibit 10.6 to filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).
10.5+	Change of Control and Severance Agreement dated June 8, 2010, by and between John Edmunds and the Registrant (incorporated by reference to exhibit 10.7 filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).
10.6+	Offer letter dated October 3, 2007 between Ron Torten and the Registrant, as amended (incorporated by reference to exhibit 10.8 filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).
10.7+	Offer letter dated February 1, 2012 between Ford Tamer and the Registrant (incorporated by reference to exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on February 3, 2012).
10.8+	Change of Control and Severance Agreement dated February 1, 2012 by and between Ford Tamer and the Registrant (incorporated by reference to exhibit 10.3 of the Registrant's Current Report on Form 8-K filed with the SEC on February 3, 2012).
10.9+	Change of Control and Severance Agreement dated September 4, 2012, by and between Charlie Roach and the Registrant (incorporated by reference to exhibit 10.4 of the Registrant's Quarterly Report on Form 1O-Q for the three months ended September 30, 2012).
10.10	Lease Agreement dated June 4, 2010, by and between the Registrant and LBA Realty Fund III—Company VII, LLC (incorporated by reference to exhibit 10.12 filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).

10.11	Lease Agreement dated September 20, 2012, by and between the Registrant and Bayland Corporation (incorporated by reference to exhibit 10.2 of the Registrant's Quarterly Report on Form 1O-Q for the three months ended September 30, 2012).
10.12	Second Amendment to Lease Agreement dated September 30, 2012, by and between the Registrant and LBA Realty Fund III—Company VII, LLC (incorporated by reference to exhibit 10.3 of the Registrant's Quarterly Report on Form 1O-Q for the three months ended September 30, 2012).
10.13+	Amended and Restated Employee Stock Purchase Plan (incorporated by reference to exhibit 10.1 of the Registrant's Quarterly Report on Form 1O-Q for the three months ended June 30, 2015).
10.14	Base Capped Call Confirmation dated December 2, 2015, by and between Registrant and Morgan Stanley & Co. LLC (incorporated by reference to exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on December 8, 2015).
10.15	Base Capped Call Confirmation dated December 2, 2015, by and between Registrant and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on December 8, 2015).
10.16	Additional Capped Call Confirmation dated December 4, 2015, by and between Registrant and Morgan Stanley & Co. LLC (incorporated by reference to exhibit 10.3 of the Registrant's Current Report on Form 8-K filed with the SEC on December 8, 2015).
10.17	Additional Capped Call Confirmation dated December 4, 2015, between Registrant and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to exhibit 10.4 of the Registrant's Current Report on Form 8-K filed with the SEC on December 8, 2015).
10.18	Asset Purchase Agreement dated June 29, 2016 by and among Rambus Inc., Bell ID Singapore Ptd Ltd, Inphi Corporation and Inphi International Pte. Ltd. (incorporated by reference to exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q for the three months ended June 30, 2016).
10.19	Base Capped Call Confirmation, dated September 6, 2016, between Inphi Corporation and Morgan Stanley & Co. LLC (incorporated by reference to exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2016).
10.20	Base Capped Call Confirmation, dated September 6, 2016, between Inphi Corporation and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2016).
10.21	Additional Capped Call Confirmation, dated September 7, 2016, between Inphi Corporation and Morgan Stanley & Co. LLC (incorporated by reference to exhibit 10.3 of the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2016).
10.22	Additional Capped Call Confirmation, dated September 7, 2016, between Inphi Corporation and JPMorgan Chase Bank, National Association, London Branch (incorporated by reference to exhibit 10.4 of the Registrant's Current Report on Form 8-K filed with the SEC on September 12, 2016).
10.23+	Form of Stock Unit Agreement (U.S. and Non-U.S. Employees and Consultants) under the Inphi Corporation 2010 Stock Incentive Plan (incorporated by reference to exhibit 10.1 of the Registrant's Quarterly Report on Form 10-Q for the three months ended September 30, 2016).
10.24+	Form of Stock Option Agreement (U.S. and Non-U.S. Employees and Consultants) under the Inphi Corporation 2010 Stock Incentive Plan (incorporated by reference to exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q for the three months ended September 30, 2016).
10.25+	Amendment to the Severance and Change of Control Agreement between Charlie Roach and the Registrant, effective as of November 2, 2016 (incorporated by reference to exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q for the three months ended September 30, 2016).
10.26+	Amendment to the Change of Control Severance Agreement between Richard Ogawa and the Registrant, effective as of November 2, 2016 (incorporated by reference to exhibit 10.4 of the Registrant's Quarterly Report on Form 10-Q for the three months ended September 30, 2016).
10.27+	Change of Control Severance Agreement dated April 22, 2013 between Richard Ogawa and the Registrant (incorporated by reference to exhibit 10.5 of the Registrant's Quarterly Report on Form 10-Q for the three months ended September 30, 2016).
10.28+	Amendment to the Change of Control Severance Agreement between Ron Torten and the Registrant, effective as of November 2, 2016 (incorporated by reference to exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q for the three months ended September 30, 2016)
10.29+	Change of Control Severance Agreement dated January 22, 2014 between Ron Torten and the Registrant (incorporated by reference to exhibit 10.7 of the Registrant's Quarterly Report on Form 10-Q for the three months ended September 30, 2016).
10.30+	Form of Notice of Stock Unit Award and Stock Unit Agreement (incorporated by reference to exhibit 10.1 of the Registrant's Registration Statement on Form S-8 filed with the SEC on January 11, 2017)

21.1	List of Subsidiaries (incorporated by reference to the exhibit of the same number filed with Registration Statement on Form S-1 (File No. 333-167564), as amended).
23.1	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.
24.1	Power of Attorney (see page 91 of this report).
31.1	Certificate of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
31.2	Certificate of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
32.1(1)	Certificate of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
32.2(1)	Certificate of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350).
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

\+ Indicates management contract or compensatory plan.

(1) The material contained in Exhibit 32.1 and Exhibit 32.2 is not deemed “filed” with the SEC and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filing, except to the extent that the registrant specifically incorporates it by reference.

Board of Directors

Dado Banatao
Managing Partner, Tallwood Venture Capital

Nicholas Brathwaite
Founding Partner, Riverwood Capital

Dr. Chenming Hu
University of California, Berkeley,
EECS, Professor of the Graduate School

David Liddle
Private Investor

Dr. Bruce McWilliams
President and Chief Executive Officer, Intermolecular

Elissa Murphy
Vice President, Google

William J. Ruehle
Private Investor

Sam Srinivasan
Private Investor

Dr. Ford Tamer
President and CEO, Inphi Corporation

Inphi Leadership

Dr. Ford Tamer
President and CEO

Dr. Loi Nguyen
Founder, Senior Vice President, Optical Interconnect

John Edmunds
Senior Vice President and CFO

Richard Ogawa
Senior Vice President and General Counsel

Charlie Roach
Senior Vice President of Worldwide Sales

Siddharth Sheth
Senior Vice President, Networking Interconnect

Dr. Ron Torten
Senior Vice President of Operations and
Information Technology

Lawrence Tse
Senior Vice President of Engineering

Nariman Yousefi
Senior Vice President, Coherent DSP

Investor Information

Stock Exchange Listing
NYSE

Ticker Symbol
IPHI

Investor Relations
(408) 217-7308
investors@inphi.com

American Stock Transfer & Trust Company, LLC
Phone: 800-937-5449
www.amstock.com

Corporate Headquarters
Inphi Corporation
2953 Bunker Hill Lane, Ste. 300
Santa Clara, CA 95054
Phone: (408) 217-7300
www.inphi.com

Forward-Looking Statements

This Annual Report to Stockholders contains forward-looking statements that involve risks and uncertainties. These forward-looking statements include, but are not limited to, statements regarding our strategy, the anticipated benefits and features of our products, use of our products, market acceptance and market share of our products, industry and market trends and investments in technology. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to differ materially from those expressed or implied by such forward-looking statements, and reported results should not be considered as an indication of future performance. More information regarding such risks and uncertainties is contained in our Form 10-K attached hereto, and in other reports filed by us with the SEC from time-to-time. You are cautioned not to unduly rely on these forward-looking statements, which speak only as of the date of this Annual Report. Inphi Corporation undertakes no obligation to publicly revise any forward-looking statement to reflect circumstances or event after the date of this Annual Report or to report the occurrence of unanticipated events.

2953 Bunker Hill Lane. Suite 300
Santa Clara, CA 95054
Phone (408) 217-7300
Fax (408) 217-7350
Sales@inphi.com