UNITED STATES SECURITIES AND EXCHANGE COMMISSION

	washington, D.C. 20349	
	Form 10-K	
✓ ANNUAL REPORT PURSUANT TO SEC	(Mark One) FION 13 OR 15 (d) OF THE SECUL the fiscal year ended June 27, 2020 OR	RITIES EXCHANGE ACT OF 1934
☐ TRANSITION REPORT PURSUANT TO SE	CCTION 13 OR 15(d) OF THE SEC For the transition period from	URITIES EXCHANGE ACT OF 1934
	to	
	ommission File Number 001-36861	
	nentum Holdings Inc. ne of Registrant as specified in its charter)	
Delaware		47-3108385
	er Park Drive, San Jose, California 95131 orincipal executive offices including Zip code)	(I.R.S. Employer Identification Number)
(Registran	(408) 546-5483 t's telephone number, including area code)	
Securities reg	gistered pursuant to Section 12(b) of the Act	
Title of each class	Trading Symbol(s)	Name of exchange on which registered
Common Stock, par value of \$0.001 per share	LITE gistered pursuant to Section 12(g) of the Act:	Nasdaq Global Select Market
Indicate by check mark if the registrant is a well-known seas Yes □ No ⊠	None	rities Act.
Indicate by check mark if the registrant is not required to file	reports pursuant to Section 13 or 15(d) of the	Act. Yes □ No ⊠
Indicate by check mark whether the Registrant (1) has filed during the preceding 12 months (or for such shorter period the requirements for the past 90 days. Yes ⊠ No □		
Indicate by check mark whether the registrant has submitt Regulation S-T (§ 232.405 of this chapter) during the preceding \boxtimes No \square		

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						t of the effectiveness of its internal accounting firm that prepared or is	
Indicate by check mark w	hether the	registrant is a shell compa	ny (as defir	ned in Rule 12b-2 of the Exchan	ge Act). Y	es □ No ⊠	
approximately \$3,735 million	based on a	the closing sales price of mon stock held by office	the registr	ant's common stock as reported s and holders of more than five	d on the N	d by non-affiliates of the registra NASDAQ Stock Market on Decem f the outstanding common stock has	ber 27,
As of August 18, 2020, th	e Registraı	nt had 75.2 million shares	of common	stock outstanding.			
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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this "Annual Report") contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, (the "Exchange Act"). These statements relate to, among other things, our markets and industry, products and strategy, the impact of the COVID-19 pandemic and related responses of business and governments to the pandemic on our business and results of operations, sales, gross margins, operating expenses, capital expenditures and requirements, liquidity, product development and R&D efforts, manufacturing plans, litigation, effective tax rates and tax reserves, our corporate and financial reporting structure, our plans for growth and innovation, our plans to discontinue certain operations and product lines, our expectations regarding US-China relations, market and regulatory conditions, the successful integration of Oclaro's business (including personnel), and our expected synergies and non-GAAP earnings accretion from the acquisition of Oclaro, and are often identified by the use of words such as, but not limited to, "anticipate," "believe," "can," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "project," "seek," "should," "target," "will," "would," "contemplate," "believe," "predict," "potential" and similar expressions or variations intended to identify forward-looking statements. These statements are based on the beliefs and assumptions of our management, which are in turn based on information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section entitled "*Risk Factors*" included under Part

PART I

ITEM 1. BUSINESS

General

Overview

Lumentum Holdings Inc. ("we," "us," "our", "Lumentum" or the "Company") is an industry-leading provider of optical and photonic products defined by revenue and market share addressing a range of end market applications including Optical Communications ("OpComms") and Commercial Lasers ("Lasers") for manufacturing, inspection and life-science applications. We seek to use our core optical and photonic technology, and our volume manufacturing capability, to expand into attractive emerging markets that benefit from advantages that optical or photonics-based solutions provide, including 3D sensing for consumer electronics and diode light sources for a variety of consumer and industrial applications. The majority of our customers tend to be original equipment manufacturers ("OEMs") that incorporate our products into their products which then address end-market applications. For example, we sell fiber optic components that network equipment manufacturers ("NEMs") assemble into communications networking systems, which they sell to network service providers, operators or enterprises with their own networks. Similarly, many of our customers for our Lasers products incorporate our products into tools they produce, which are used for manufacturing processes by their customers. For 3D sensing, we sell diode lasers to manufacturers of consumer electronics products for mobile, personal computing, gaming, and other applications who then integrate our devices within their products, for eventual resale to consumers and also into other industrial applications. Further, we have begun shipping prototype units of diode lasers and optical devices to automotive customers for sensing and LiDAR applications.

We believe the world is becoming more reliant on ever-increasing amounts of data flowing through optical networks and data centers, which require new networks and data centers to satisfy this demand. As manufacturers demand higher levels of precision, new materials, and factory and energy efficiency, suppliers of manufacturing tools globally are turning to laser based approaches, including the types of lasers Lumentum supplies. Laser based 3D sensing is a rapidly developing market. The technology enables computer vision applications that enhance security, safety, and new functionality in the electronic devices that people rely on every day. We believe the global markets in which Lumentum participates have fundamentally robust, long-term trends that increase the need for our photonics products and technologies.

We operate in two reportable segments: OpComms and Lasers.

We have a global marketing and sales footprint that enables us to address global market opportunities for our products. We have manufacturing capabilities and facilities in North America, Asia-Pacific, and Europe, with employees engaged in research and development ("R&D"), administration, manufacturing, support and sales and marketing activities. Our headquarters are located in San Jose, California, and we employed approximately 5,473 full-time employees around the world as of June 27, 2020.

Lumentum was incorporated in Delaware as a wholly owned subsidiary of JDS Uniphase Corporation ("JDSU") on February 10, 2015. In August 2015, we were spun-off from JDSU (the "Separation") and became an independent publicly-traded company through the distribution of our common stock by JDSU to its stockholders (the "Separation"). In 2015, JDSU was renamed Viavi Solutions Inc. ("Viavi"). Our business traces its origins to Uniphase Corporation, which was formed in 1979, and became publicly traded in 1992. Uniphase was originally a supplier of commercial lasers, and later, a leading supplier of optical transmission products. In 1999, JDS Fitel Inc., a pioneer in products for fiber optic networking which was formed in 1981, merged with Uniphase to become JDSU, a global leader in optical networking. Subsequent acquisitions by JDSU broadened the depth and breadth of the OpComms and Lasers businesses, as well as the intellectual property, technology and product offerings, of what is now Lumentum. Notable amongst these acquisitions in the OpComms business were Agility Communications, Inc. in 2005 and Picolight, Inc. in 2007 which respectively brought widely tunable, long wavelength laser technology for metro and long haul networking applications and short wavelength vertical-cavity surface-emitting lasers ("VCSELs") for enterprise, datacenter networking, and 3D sensing applications. The fundamental laser component technologies which we acquired through these acquisitions, form the basis of optical networks today, and we believe will continue to do so for the foreseeable future. These technologies will enable us to develop highly integrated products to satisfy our communications customers' ever increasing needs for smaller, lower power and lower cost optical products. Notable acquisitions in the Lasers business were Lightwave Electronics Corporation in 2005 and Time-Bandwidth Products Inc. ("Time-Bandwidth") in 2014. Both of these Lasers acquisitions brought high power pulsed solid-state laser products and technology to our business, which address the micro laser machining market and expanded our addressable market. In December 2018, we completed the acquisition of ("Oclaro"), a provider of optical components and modules for the long-haul, metro and data center markets. Oclaro's products provide differentiated solutions for optical networks and high-speed interconnects driving the next wave of streaming video, cloud computing, application virtualization and other bandwidth-intensive and high-speed applications. This acquisition strengthened our product portfolio, by adding Oclaro's indium phosphide laser and photonic integrated circuit and coherent component and module capabilities which broadened our revenue mix; and positions us strongly to meet the future needs of our customers.

Industry Trends and Business Risks

Our business is driven by end-market applications which benefit from the performance advantages of optical solutions.

The OpComms markets we serve are experiencing continually increasing needs for higher data transmission speeds, fiber optic network capacity and network agility. This is driven by rapid growth in both the number of higher bandwidth broadband applications such as high-definition video, online gaming, cloud computing and the number and scale of datacenters that require fiber optic links to enable the higher speeds and increased scale necessary to deliver high bandwidth video and other services. Our technology, which was originally developed for communications applications is also finding use in other emerging market opportunities including 3D sensing applications that employ our laser technology in mobile devices, computers, augmented and virtual reality and other consumer electronics devices. Additionally, our products are used in emerging automotive, industrial, security, safety and surveillance applications.

In the Lasers markets, customer demand is driven by the need to enable faster, higher precision volume manufacturing techniques with lower power consumption, more environmentally friendly, reduced manufacturing footprint and increased productivity. These capabilities are critical as industries develop products that are smaller and lighter, increasing productivity and yield and lowering their energy consumption.

Our optical and laser solutions, developed in close collaboration with OEM partners, are well-positioned to meet demand resulting from these trends. We do, however, expect to continue to encounter a number of industry and market risks and uncertainties. These risks and uncertainties may limit our visibility, and consequently, our ability to predict future revenue, profitability and general financial performance, and could create quarter over quarter variability in our financial measures. For example, the demand environment in China has fluctuated significantly in recent years, and has created volatility and uncertainty in our future demand. We cannot predict when or to what extent these uncertainties will be resolved. Our revenues, profitability and general financial performance may also be affected by: (i) pricing pressures, particularly within our OpComms markets, due to, among other things, a highly concentrated customer base, increasing competition, particularly from Asia-Pacific-based competitors, and a general commoditization trend for certain products; (ii) high product mix variability which affects revenue and gross margin; (iii) fluctuations in customer buying patterns, which cause volatility in demand, revenue and profitability; (iv) the current trend of communication industry consolidation and vertical integration, which is expected to continue, that directly affects our customer base and adds additional risk and uncertainty to our financial and business projections; and (v) ongoing risks related to the economic impact of the COVID-19 pandemic.

Reportable Segments

We have two operating segments, OpComms and Lasers. The two operating segments were primarily determined based on how our Chief Operating Decision Maker ("CODM") views and evaluates our operations. Operating results are regularly reviewed by our CODM to make decisions about resources to be allocated to the segments and to assess their performance. Other factors, including market separation and customer specific applications, go-to-market channels, products and manufacturing, are considered in determining the formation of these operating segments. We do not track our property, plant, and equipment by operating segments. For the geographic identification of these assets and for further information regarding our operating segments, refer to "Note 20. Operating Segments and Geographic Information".

OpComms

Markets

Our OpComms products address the following markets: telecommunications ("Telecom"), data communications ("Datacom") and consumer and industrial ("Consumer and Industrial").

Our OpComms products include a wide range of components, modules and subsystems to support customers including carrier networks for access (local), metro (intracity), long-haul (city-to-city and worldwide) and submarine (undersea) applications. Additionally, our products address enterprise, cloud, and data center applications, including storage-access networks ("SANs"), local-area networks ("LANs") and wide-area networks ("WANs"). These products enable the transmission and transport of video, audio and data over high-capacity fiber-optic cables. We maintain leading positions in these fast growing OpComms markets through our extensive product portfolio, including reconfigurable optical add/drop multiplexers ("ROADMs"), coherent DWDM pluggable transceivers, and tunable small form-factor pluggable transceivers. We also sell laser chips for use in the manufacture of high-speed Datacom transceivers.

In the Consumer and Industrial market, our OpComms products include laser light sources, which are integrated into 3D sensing platforms being used in applications for mobile devices, gaming, payment kiosks, computers, and other consumer electronics devices. New emerging applications include virtual and augmented reality, as well as automotive and industrial segments. Our products include vertical cavity surface emitting lasers ("VCSELs") and edge emitting lasers which are used in 3D sensing depth imaging systems. These systems simplify the way people interact with technology by enabling the use of natural user interfaces. Systems are used for biometric identification, surveillance, and process efficiency, among numerous other application spaces. Emerging applications for this technology include various mobile device applications, autonomous vehicles, self-navigating robotics and drones in industrial applications and 3D capture of objects coupled with 3D printing. In addition, our industrial diode lasers are used primarily as pump sources for pulsed and kilowatt class fiber lasers.

Following the acquisition of Oclaro, during our fiscal 2019, we made several strategic changes to our OpComms business to better position it for growth and profitability. These changes included attaining acquisition cost synergies related to redundant capabilities and divestiture of Telecom Lithium Niobate modulators and Datacom transceiver modules because of their muted growth and profitability trends. These changes were substantially completed in fiscal 2020. We expect our Indium Phosphide photonic integrated circuits will continue to replace Lithium Niobate modulators over time and focusing on the development and sale of Datacom chips has enabled us to participate in the growth of the Datacom and 5G wireless markets.

Customers

Our OpComms customers include Alphabet, Apple, Ciena, Cisco Systems (which announced the acquisition of Acacia Communications, another customer of ours), Huawei Technologies (including HiSilicon), Infinera, Innolight, Nokia Networks (including Alcatel-Lucent International), O-Net, and ZTE. During fiscal 2020, 2019, and 2018, net revenue generated from a single customer which represented 10% or more of our total net revenue of the applicable fiscal year is summarized in the table below:

		Years Ended		
	June 27, 2020	June 29, 2019	June 30, 2018	
Apple	26.0%	21.0%	30.0%	
Huawei	13.2%	15.2%	11.0%	
Ciena	*	13.7%	11.0%	

^{*}Represents less than 10% of total net revenue

Trends

We believe the optical communications market has started to expand beyond a small number of very large service providers, and is transitioning to a variety of open and captive networks created for in-house use by large video services, search engines and companies offering a variety of cloud computing services. We believe that the trend towards an increase in demand for optical solutions, which increase network capacity, is in response to growing bandwidth demand driven by increased transmission of video, voice and data over optical communications networks. Additionally, service providers also seek to decrease the total cost of ownership of their networks. To remain competitive, network operators worldwide must offer broader suites of digital services at competitive prices. To do this, they are migrating to Internet-protocol ("IP") networks and expanding long-haul, metro regional and metro access networks, which effectively deliver broadband services, while lowering capital and operating costs of dense-wavelength-division multiplexing networks.

The growing demand for capacity encourages the adoption of OpComms products across the Datacom and Telecom markets. Demand for capacity in the Datacom market is driven by the growing needs of LANs and WANs. Growth in Datacom is also driven by web and cloud services companies that are expanding data center infrastructure, increasing the need for network capacity within and between these data centers.

Demand in the Telecom market is driven by new bandwidth-intensive applications that can result in sudden and severe changes in demand almost anywhere on the network. Increasing agility in optical networks by employing ROADMs, wavelength selective switches, wavelength tunable transmission products and other agile optical products provides an effective way to respond to unpredictable bandwidth demands and to manage expenses. With more agile optical networks, a network operator can add capacity by using remote management applications rather than dispatching technicians to perform manual operations in the field.

In addition, the high-end routers, switches and cross-connect equipment that must handle legacy and internet-protocol traffic are becoming increasingly complex in order to meet higher bandwidth, scalability, speed and reliability needs. Products must provide higher levels of functionality and performance in compact designs that must also meet requirements for quality, reliability, and cost.

We believe increasing speeds at the edge of the network, including the significant increase in speed in 5G mobile networks, combined with increasing demand for high bandwidth applications and services, including streaming video, will result in increasing demand for additional capacity in datacenter interconnect, metro regional and long-haul networks. The dynamically reconfigurable nature of today's networks enables lower operating costs and other competitive advantages, allowing communications service providers to use and scale network capacity more flexibly, streamline service provisioning, accelerate rerouting around points of failure and modify network topology through simple point-and-click network management systems.

Our optical products are well-positioned to meet these demands. Our innovations, particularly in the area of photonic integration, have resulted in products that have more functionality, are significantly smaller in size, require less power, and are more cost-effective than our historical products. Higher levels of integration have also led to development of our Super Transport Blade, which delivers all transport functions (wavelength switching, pre-amplification, post-amplification, optical supervisory channel and monitoring) in a single, integrated platform, essentially replacing three blades with one.

Offerings

In addition to a full selection of active and passive components, we offer increasing levels of functionality and integration in modules, circuit packs and subsystems for transmission, amplification, wavelength management and more.

In the Telecom market, we provide transmission and transport solutions for optical networks that make up the backbone of the wireline Telecom infrastructure, thereby enabling the internet, connections between cloud datacenters, and backhaul of data from wireless mobile networks. Transmission products, such as our tunable transponder, transceiver and transmitter modules, transmit and receive high-speed data signals at the ingress/egress points of networks. These products use dense wavelength division multiplexing technology to maximize the fiber transmission capacity while lowering the cost per bit to meet the needs of increasing internet and cloud demand. We also offer components including tunable lasers, receivers and modulators to address the higher end of these same network applications.

Our transport products, such as ROADMs, amplifiers and optical channel monitors provide switching, routing and the conditioning of signals. We also make components for transport, including 980nm, multi-mode and Raman pumps for optical amplifiers, and passive components. Passive components include switches, attenuators, photodetectors, gain flattening filters, isolators, wavelength-division multiplexing ("WDM") filters, arrayed waveguide gratings ("AWGs"), multiplex/de-multiplexers and integrated passive modules.

Our innovation led to the Super Transport Blade, which integrates all major optical transport functions into a single-slot blade. This all-in-one solution reduces the size, cost and power requirements of optical components, incorporates nano wavelength selective switch technology and enables greater chassis density and a smaller footprint.

In the Datacom market, optical transceivers are used to connect servers, switches, routers and other information technology infrastructure critical for today's internet applications, web services, video streaming, enterprise networks and service provider solutions. The emerging data center and Web 2.0 markets are two of the fastest growing segments in optical communications, both in terms of capital network equipment investment and growth of high data rate optical transceivers. Additionally, the increased bandwidth needs for 5G wireless applications will drive growth in high speed optical modules. Historically, we have supplied optical transceivers, but we have shifted our strategy to supplying the underlying optical components, high-speed source lasers and receiver photo diodes used in optical transceivers to address these market segments.

For the 100G and higher data rates, we offer several source laser technologies to balance technical and commercial requirements. For high volume, short distance applications we developed our VCSELs. VCSELs are ideal for short reach applications because they enable low power, low cost optical solutions that are highly scalable. For high-performance, longer distance applications we have our directly modulated laser ("DML") and electro-absorption modulated laser ("EML") dies supporting module applications with speeds from 10Gb/s through 800Gb/s. Our individual lasers and compact laser arrays offer an innovative solution for the LANs, SANs, broadband Internet, 5G Wireless and metro-area network as well as hyperscale datacenter applications.

Our 3D sensing technology enables real time depth information to any photo or video image. This represents a fundamental transition for image capture akin to the transition from monochrome to color and gives devices the ability to see the world around them in three dimensions. The immediate applications include full body imaging for gaming, 3D scanning for space mapping and facial recognition for security. Emerging applications for this technology include various mobile device applications, autonomous vehicles, self-navigating robotics and drones in industrial applications and 3D capture of objects coupled with 3D printing. 3D sensing can be applied to any device with a camera. The technologies to achieve accurate and stable 3D sensing are converging to laser based solutions. We are a leading supplier of the critical laser illumination sources for 3D sensing systems being used in applications for gaming, computing, mobile devices, and home entertainment.

Strategy

In our OpComms segment, we are focused on technology leadership through innovation with our customers, cost leadership and functional integration. We endeavor to align the latest technologies with industry leading, scalable manufacturing and operations to drive the next phase of optical communications technologies and products for Telecom and Datacom applications that are faster, more agile and more reliable, making us a valuable business and technology partner for NEMs, consumer electronic companies, cloud service providers and data center operators.

Competition

We compete against various companies in the markets we serve, including II-VI, Acacia Communications, Accelink, ams AG, Broadcom Inc., Furukawa Electric, Mitsubishi Electric, Neophotonics, and Sumitomo Electric Industries, as well as, private companies and subsidiaries of public companies providing optical communications components such as Fujitsu Optical Components - a subsidiary of Fujitsu, Nistica - a subsidiary of Molex, and O-Net. Additionally, Cisco has announced its plan to acquire Acacia Communications.

Lasers

Markets

Our Lasers products serve our customers in markets and applications such as sheet metal processing, general manufacturing, biotechnology, graphics and imaging, remote sensing, and precision machining such as drilling in printed circuit boards, wafer singulation, glass cutting and solar cell scribing.

Our Lasers products are used in a variety of OEM applications including diode-pumped solid-state, fiber, diode, direct-diode and gas lasers such as argonion and helium-neon lasers. Fiber lasers provide kW-class output powers combined with excellent beam quality and are used in sheet metal processing and metal welding applications. Diode-pumped solid-state lasers provide excellent beam quality, low noise and exceptional reliability and are used in biotechnology, graphics and imaging, remote sensing, materials processing and precision machining applications. Diode and direct-diode lasers address a wide variety of applications, including laser pumping, thermal exposure, illumination, ophthalmology, image recording, printing, plastic welding and selective soldering. Gas lasers such as argon-ion and helium-neon lasers provide a stable, low-cost and reliable solution over a wide range of operating conditions, making them well-suited for complex, high-resolution OEM applications such as flow cytometry, DNA sequencing, graphics and imaging and semiconductor inspection.

We also provide high-powered and ultrafast lasers for the industrial and scientific markets. Manufacturers use high-power, ultrafast lasers to create micro parts for consumer electronics and to process semiconductor, LED, and other types of chips. Use of ultrafast lasers for micromachining applications is being driven primarily by the increasing use of consumer electronics and connected devices globally.

Our portfolio of Lasers products includes components and subsystems used in a variety of OEM applications that range in output power from milliwatts to kilowatts and include ultraviolet, visible and infrared wavelengths. We support customer applications in the biotechnology, graphics and imaging, remote sensing, materials processing and other precision machining areas.

Customers

Our Lasers customers include Amada, ASML Holding, Beckman Coulter, DISCO, Electro Scientific Industries (recently acquired by MKS Instruments, a competitor of ours), Han's Laser Technology, KLA-Tencor, Lasertec, Life Technologies, and NR Electric. During fiscal 2020, 2019, and 2018, we did not have any single customer attributable to our Lasers segment that generated net revenue of 10% or more of our total net revenue for the applicable fiscal year.

Trends

As technology advances, industries such as consumer electronics manufacturing increasingly turn to lasers when they need more precision, higher productivity and energy efficient, or "green," alternatives for problems that cannot be solved by mechanical, electronic or other means. For example, these industries are using lasers to develop products that are smaller and lighter to increase productivity and yield and to lower their energy consumption. Lasers have been used for years to help achieve the scale and precision needed in semiconductor processing. In biotech applications, lasers have been instrumental for advances (and new standard procedures) in cytology, hematology, genome sequencing and crime scene investigations, among others. We believe the long-term trends in these industries will likely lead to increased demand for lasers.

Sheet metal processing and metal welding applications are increasingly using kW-class fiber lasers instead of kW-class CO2 lasers. Fiber lasers generate higher productivity at lower cost in such applications because they exhibit lower power consumption, better quality and generally lower user maintenance costs.

In addition, demand continues for electronic products, as well as products and components in other industries, with greater functionality while becoming smaller, lighter and less expensive. Innovative next generation product designs require precise micromachining and materials processing, such as micro bending, soldering and welding. At the scale and processing speed needed, lasers are replacing mature mechanical tools such as drills for minute holes, or "vias," in printed circuit boards and saws and scribes for singulating silicon wafers, resulting in greater precision and productivity. As these trends continue, we believe that manufacturers and other industries will increase their reliance on lasers in order to maintain or increase their competitiveness.

We believe we are well-positioned with key OEM providers of laser solutions to these industries. We continue to develop our laser portfolio to offer smaller and more cost-effective products designed specifically for the performance, integration, reliability and support needs of our OEM customers.

Offerings

Our broad range of Lasers products includes diode-pumped solid-state, fiber, diode, direct-diode and gas lasers such as argon-ion and helium-neon lasers. Diode-pumped solid-state and fiber lasers that provide excellent beam quality, low noise and exceptional reliability are used in biotechnology, graphics and imaging, remote sensing, materials processing and precision machining applications. Diode and direct-diode lasers address a wide variety of applications, including laser pumping, thermal exposure, illumination, ophthalmology, image recording, printing, plastic welding and selective soldering. Gas lasers such as argon-ion and helium-neon lasers provide a stable, low-cost and reliable solution over a wide range of operating conditions, making them well suited for complex, high-resolution OEM applications such as flow cytometry, DNA sequencing, graphics and imaging and semiconductor inspection.

Strategy

In our Lasers segment, we leverage our long-term relationships with OEM customers to drive commercial laser innovation. Using established manufacturing, engineering, lasers and photonics expertise, we deliver products that meet cost-of-ownership and reliability needs while delivering on volume production demands.

Competition

We compete against various public and private companies in the commercial laser markets we serve including Coherent, MKS Instruments and IPG Photonics.

Acquisitions

We evaluate strategic opportunities regularly and, where appropriate, may acquire additional businesses, products, or technologies that are complementary to, or broaden the markets for our products. We believe we have strengthened our business model by expanding our addressable markets, customer base and expertise, diversifying our product portfolio and fortifying our core businesses from acquisitions as well as through organic initiatives.

On December 10, 2018, we completed our merger with Oclaro, a provider of optical components and modules for the long-haul, metro and data center markets. Oclaro's products provide differentiated solutions for optical networks and high-speed interconnects driving the next wave of streaming video, cloud computing, application virtualization and other bandwidth-intensive and high-speed applications. This acquisition strengthened our product portfolio, including gaining Oclaro's indium phosphide laser and photonic integrated circuit and coherent component and module capabilities; broadens our revenue mix; and positions us strongly to meet the future needs of our customers. Refer to "Note 4. Business Combinations" for further discussion of the merger.

Research and Development

We devote substantial resources to R&D for the development of new and enhanced products to serve our markets. Once the design of a product is complete, our engineering efforts shift to enhancing both product performance and our ability to manufacture it in greater volume and at lower cost.

In our OpComms segment, we are maintaining our capability to provide products throughout the network, while focusing on several important sub-segments. We continue to maintain strong investments in Telecom components and modules such as ROADMs and tunable devices needed for long-haul and metro markets, as well as high performance DML, EML, and VCSEL chips for Datacom transceivers. We are also responding to our customers' requests for higher levels of integration, including the integration of optics, electronics and software in our modules, subsystems and circuit packs. We are providing optical technology for 3D sensing systems that simplify the way that people interact with technology. These solutions are initially being used in computing, mobile, and industrial applications, including automotive applications.

In our Lasers segment, we continue to develop new product offerings in both solid-state and fiber lasers that take advantage of technologies and components we develop. These products are targeted at serving customers engaging in biotechnology, graphics and imaging, remote sensing, and materials processing and precision micromachining markets.

Manufacturing

Our significant manufacturing facilities are located in the United States, Thailand, China, the United Kingdom, Slovenia, Japan, and Switzerland.

In fiscal 2020, as part of our plan to discontinue development and manufacturing of Lithium Niobate modulators, we sold the assets associated with certain Lithium Niobate product lines manufactured by our San Donato, Italy site. Development and manufacturing will also be discontinued in our San Jose, California manufacturing locations within the next few quarters in order to facilitate our customers' transition to new products. We expect our Indium Phosphide photonic integrated circuits will replace Lithium Niobate modulators over time.

In fiscal 2019, we also announced our plan to discontinue the development and manufacturing of future Datacom transceiver modules which impacted the California and China based Datacom module teams. This affected manufacturing in our Thailand factory as well. While we expect strong growth in Datacom volumes in the future, the market at the transceiver level is gross margin challenged due to extreme competition. Following the Oclaro acquisition, we have a differentiated leadership position across a range of photonic chips on which the Datacom, wireless, and access markets critically rely.

In our fiscal fourth quarter of 2019, we moved into our Slovenia factory, which is now fully operational.

Our significant contract manufacturing partners are located primarily in Thailand, Taiwan and Malaysia. We rely on the capabilities of our contract manufactures to procure components and manage the inventory in these locations.

Sources and Availability of Raw Materials

We use various suppliers and contract manufacturers to supply parts and components for the manufacture and support of multiple product lines. Although our intention is to establish at least two sources of supply for materials whenever possible, for certain components we have sole or limited source supply arrangements. We may not be able to procure these components from alternative sources at acceptable prices and quality within a reasonable time, or at all; therefore, the risk of loss or interruption of such arrangements could impact our ability to deliver certain products on a timely basis.

Intellectual Property

Intellectual property rights that apply to our various products include patents, trade secrets and trademarks. We do not intend to broadly license our intellectual property rights unless we can obtain adequate consideration or enter into acceptable patent cross-license agreements. As of June 27, 2020, we owned 966 U.S. patents and 807 foreign patents with expiration dates ranging from July 2020 through June 2039, and had 611 patent applications pending throughout the world.

Seasonality

Our revenue may be influenced on a quarter to quarter basis by customer demand patterns and new product introductions. Some of our products may be incorporated into consumer electronic products, which are subject to seasonality and fluctuations in demand.

Backlog

Backlog consists of purchase orders for products for which we have assigned shipment dates.

As of June 27, 2020 and June 29, 2019, our backlog was \$557.8 million and \$453.1 million, respectively. Due to possible changes in product delivery schedules and cancellation of product orders, and because our sales often reflect orders shipped in the same quarter in which they are received, our backlog at any particular date is not necessarily indicative of actual revenue or the level of orders for any succeeding period. A portion of our revenue arises from vendor-managed inventory arrangements where the timing and volume of customer utilization is difficult to predict.

Employees

As of June 27, 2020, we employed approximately 5,473 full-time employees, including approximately 3,981 employees in manufacturing, 831 employees in R&D and 661 employees in SG&A.

Outside of the United States, our business is subject to labor laws that differ from those in the United States. We follow the statutory requirements of those countries where we operate. We consider our employee relations to be good.

Environmental

Our R&D, manufacturing and distribution operations involve the use of hazardous substances and are regulated under international, federal, state and local laws governing health and safety and the environment. We apply strict standards for protection of the environment and occupational health and safety to sites inside and outside the United States, even if not subject to regulation imposed by foreign governments. We believe that our properties and operations at our facilities comply in all material respects with applicable environmental laws and occupational health and safety laws. However, the risk of environmental liabilities cannot be completely eliminated and there can be no assurance that the application of environmental and health and safety laws will not require us to incur significant expenditures. We are also regulated under a number of international, federal, state and local laws regarding recycling, product packaging and product content requirements. The environmental, product content/disposal and recycling laws are gradually becoming more stringent and may cause us to incur significant expenditures in the future.

In connection with our separation from JDSU and trading as an independent public company, we agreed to indemnify Viavi for any liability associated with contamination from past operations at all properties transferred to us from Viavi, to the extent the resulting issues primarily related to our business. We have not been presented with any claims to date.

International Operations

During fiscal 2020, 2019 and 2018, net revenue from customers outside the United States based on the geographic region and country where our product is initially shipped, represented 91.1%, 93.6% and 90.8% of net revenue, respectively. In certain circumstances customers may request shipment of our products to a contract manufacturer in one country, which may differ from the location of their end customers. Our net revenue is primarily denominated in U.S. dollars, including our net revenue from customers outside the United States based on customer shipment locations as presented above.

Please refer to "Note 20. Operating Segments and Geographic Information" in the Notes to Consolidated Financial Statements. For information regarding risks associated with our international operations, see "Item 1A. Risk Factors."

Available Information

Our website is located at www.lumentum.com, and our investor relations website is located at www.investor.lumentum.com. Copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as amended, are available free of charge on our investor relations website as soon as reasonably practicable after we file such material electronically with or furnish it to the Securities and Exchange Commission (the "SEC"). The SEC also maintains a website that contains our SEC filings at www.sec.gov.

Investors and others should note that we routinely use the Investors section of our website to announce material information to investors and the marketplace. While not all of the information that the Company posts on its corporate website is of a material nature, some information could be deemed to be material. Accordingly, the Company encourages investors, the media and others interested in the Company to review the information that it shares on www.lumentum.com. Information in, or that can be accessed through, our website is not incorporated into this Form 10-K.

ITEM 1A. RISK FACTORS

Investors in our securities should carefully consider all of the relevant factors disclosed by us, including the following factors that could affect our results of operations, financial condition or stock price.

Risks Related to Our Business

Our business operations, financial performance, results of operations, financial position and the achievement of our strategic objectives may be materially and adversely affected by the ongoing COVID-19 pandemic.

Our business, results of operations and financial performance have been negatively impacted by the COVID-19 pandemic and related public health responses, such as shelter-in-place orders, social distancing protocols, and travel restrictions in many of the countries and regions in which we have operations or manufacturing partners.

As a result of the COVID-19 outbreak around the world, Lumentum implemented certain travel restrictions beginning in early February 2020, temporarily closed or limited the number of employees permitted onsite in our offices and manufacturing sites in several heavily impacted locations, and implemented work-from-home rules at most of our facilities. These restrictions have been lifted in some locations where local governments have relaxed restrictions due to decreases in the number of COVID-19 cases, but we continue to monitor changes in each location and we may need or choose to impose restrictions again as the situation evolves. These measures as well as additional workforce disruptions due to quarantines, governmental actions, and/or the social distancing measures we have taken to mitigate the impact of COVID-19 at certain of our locations around the world in an effort to protect the health and well-being of our employees, customers, suppliers and the communities in which we operate, have caused, and may continue to cause, disruption and delays in our ability to operate and manufacture, test and assemble products in our internal facilities, particularly in California, China, Thailand and the United Kingdom. Our ability to continue certain research and development activities has also been limited which could materially and adversely affect our ability to develop new products and technologies on the timelines we previously anticipated.

In addition, we have experienced disruption and delays in our supply chain and with our manufacturing partners, primarily in Malaysia in the first half of 2020, which imposed limitations on which businesses could operate and the amount of the workforce permitted to perform manufacturing operations, and those limitations could be reinstated if the number of COVID-19 cases in particular regions were to increase. Our supply chain has also been affected by these measures and our suppliers may not have the materials, capacity or capability to supply us with the components necessary for continuing our manufacturing operations or development efforts at our normal levels. There are also restrictions and delays on logistics, such as air cargo carriers, as well as increased logistics costs due to limited capacity and high demands for freight forwarders. These disruptions, delays and restrictions have adversely affected our revenue and results of operations and could be extended or further restrictions could be put in place in other regions, which would materially and adversely impact our revenue, results of operations and financial condition.

The COVID-19 pandemic has created economic uncertainty and volatility in the financial markets around the world, resulting in an economic downturn that has affected and may continue to affect demand for our products and impact our results of operations. The ultimate impact of the COVID-19 pandemic on our operations and financial performance depends on many factors that are not within our control, including, but not limited, to: governmental, business and individuals' actions that have been and continue to be taken in response to the pandemic (including restrictions on travel and transport and workforce pressures); the impact of the pandemic and actions taken in response on global and regional economies, travel, and economic activity; the availability of federal, state, local or non-U.S. funding programs; general economic uncertainty in key global markets and financial market volatility; global economic conditions and levels of economic growth; and the pace of recovery when the COVID-19 pandemic subsides. In addition, the global economic volatility has significantly impacted the foreign exchange markets, and the currencies of various countries in which we operate and have significant volume of local-currency denominated expenses have seen significant volatility. Although the magnitude of the impact of COVID-19 on our business operations remains uncertain and difficult to predict, and the situation remains a highly dynamic, we have experienced and will continue to experience in subsequent periods, disruptions to our business that will adversely impact our business, financial condition and results of operations.

Changing technology and intense competition require us to continuously innovate while controlling product costs, and our failure to do so may result in decreased revenues and profitability.

The markets in which we operate are dynamic and complex, and our success depends upon our ability to deliver both our current product offerings and new products and technologies on time and at acceptable prices to our customers. The markets for our products are characterized by rapid technological change, frequent new product introductions, substantial capital investment, changes in customer requirements, continued price pressures and a constantly evolving industry. Historically, these pricing pressures have led to a continued decline of average selling prices across our business. The development of new, technologically advanced products is a complex and uncertain process requiring high levels of innovation and the accurate prediction of technology and

market trends, and is further impacted by the disruptions caused by COVID-19 on our ability to continue with research and development activities. The introduction of new products also often requires significant investment to ramp up production capacity, the benefit of which may not be realized if we are not successful in the production of such products or if customer demand does not develop as expected. Ramping of production capacity also entails risks of delays which can limit our ability to realize the full benefit of new product introductions. We cannot assure you that we will be able to identify, develop, manufacture, market or support new or enhanced products successfully, if at all, or on a timely basis. We also cannot assure you that potential markets for our new products will materialize on the timelines we anticipate, or at all, or that our technology will meet our customers' specifications. Our future performance will depend on the successful development, introduction, deployment and market acceptance of new and enhanced features and products that meet our customers' current and future needs.

The market for optical communications products in particular has matured over time and these products have increasingly become subject to commoditization. Both legacy competitors as well as new entrants, predominantly Asia-based competitors, have intensified market competition in recent years leading to pricing pressure. To preserve our revenues and product margin structures, we remain reliant on an integrated customer and market approach that anticipates end customer needs as Telecom and Datacom requirements evolve. We also must continue to develop more advanced, differentiated products that command a premium with customers, while conversely continuing to focus on streamlining product costs for established legacy products. If we fail to continue to develop enhanced or new products, or over time are unable to adjust our cost structure to continue to competitively price more mature products, our financial condition and results of operations could be materially and adversely affected.

We rely on a limited number of customers for a significant portion of our sales; and the majority of our customers do not have contractual purchase commitments.

We have consistently relied on a small number of customers for a significant portion of our sales and in certain of our markets, such as 3D sensing and commercial lasers, this customer concentration is particularly acute. We expect that this customer concentration will continue in the future, and we expect that our growth prospects will continue to depend on a small number of customers. Many of our customers purchase products under purchase orders or under contracts that do not contain volume or long-term purchase commitments. Some customers provide us with their expected forecasts for our products several months in advance, but these customers may decrease, cancel or delay purchase orders already in place, including on short notice, particularly in light of the impacts of COVID-19 on their businesses and markets, and the impact of any such actions may be intensified given our dependence on a limited number of large customers. In addition, changes in the business requirements, vendor selection, project prioritization, financial prospects, capital resources, and expenditures, or purchasing behavior (including product mix purchased or timing of purchases) of our key customers, or any real or perceived quality issues related to the products that we sell to such customers, could significantly decrease our sales to such customers or could lead to delays or cancellations of planned purchases of our products or services, which increases the risk of quarterly fluctuations in our revenues and operating results. Our relationships with large customers may also be harmed to the extent the impacts of the COVID-19 pandemic prevent us from being able to satisfy their orders in a timely manner. There are also continuing trade tensions, including an uncertain regulatory environment, in the U.S. and countries in Asia, which could materially impact our sales to key customers in these regions. Further, we may be required to purchase raw materials, increase production capacity or make other changes to our business to accommodate certain large customers. If forecasted orders do not materialize, we may need to reduce investment in R&D activities, we may fail to optimize our manufacturing capacity, we may incur liabilities with our suppliers for reimbursement of capital expenditures, or we may have excess inventory. In addition, if we incur expenses in response to forecasted demand and do not have a corresponding increase in revenue, our profitability may suffer. Any of these factors could adversely affect our business, financial condition and results of operations.

Our ability to sell our products to a significant customer has been restricted.

On May 16, 2019, Huawei Technologies Co. Ltd. and 68 designated non-U.S. affiliates (collectively, "Huawei") were added to the Entity List of the Bureau of Industry and Security of the U.S. Department of Commerce, which imposes limitations on the supply of certain U.S. items and product support to Huawei. We suspended shipments of all products to Huawei until we were able to review our product portfolio and determine whether our products are subject to the Export Administration Regulations ("EAR"), and therefore within the scope of the Entity List restrictions. We resumed shipments of certain of our products to Huawei during the quarter ended June 29, 2019 after determining that such products are not subject to the EAR. In May 2020 and August 2020, additional regulatory restrictions were imposed on the sale of items with certain U.S. controlled technology or software to Huawei and related entities. We continue to review the applicability of these limitations and other changes implemented by the Bureau of Industry and Security on our ability to sell our products.

Notwithstanding our determination in 2019 that we were able to ship certain products in compliance with applicable law, we believe that under the current regulatory regime, our business with Huawei has been and will continue to be more limited than it was in the past. For example, we may be unable to supply certain additional products or be limited or unable to work with Huawei on future product developments while Huawei remains on the Entity List, which may negatively impact our financial condition

and results of operations. Huawei may seek to obtain similar or substitute products from our competitors that are not subject to these restrictions, or to develop similar or substitute products themselves.

Tensions between the governments of the US and China have continued to escalate. We cannot be certain what additional actions the U.S. government may take with respect to Huawei, including changes to the Entity List restrictions, export regulations, tariffs or other trade restrictions. We are unable to predict the duration of the restrictions enacted in May 2019 or of additional actions, such as the changes published in May through August 2020, or the recent restrictions on Huawei's access to foreign-made chips made using U.S. technology which could have a long-term adverse effect on our business. The U.S. government has added other customers of ours to the Entity List, such as FiberHome Technologies Group in May 2020, and may continue to do so or otherwise restrict our ability to ship products which may harm our business, financial condition and results of operations.

We also manufacture customized products for Huawei, and therefore may be unable to sell certain finished goods inventory to alternative customers, or may be unable to utilize such manufacturing capabilities for products for alternative customers, which may result in excess and obsolete changes in future periods. Such charges could also occur with respect to customized products we manufacture for other customers should the U.S. government add such customers to the Entity List or otherwise restrict our ability to sell to such customers.

Continued competition in our markets may lead to an accelerated reduction in our prices, revenues and market share.

The end markets for optical products have experienced significant industry consolidation during the past few years. As a result, the markets for optical subsystems, components and laser diodes are highly competitive. Our current competitors include a number of domestic and international public and private companies, many of which may have substantially greater financial, technical, marketing and distribution resources and brand name recognition than we have. Our competitors include II-VI (which acquired Finisar in September 2019), Acacia Communications (which has entered into an agreement to be acquired by Cisco), AMS (which acquired OSRAM in December 2019), Broadcom, Coherent, Fujitsu Optical Components, Furukawa Electric, IPG Photonics, MACOM, Mitsubishi Electric, Molex, Neophotonics, nLight, O-net Communications, Sumitomo Electric Industries and Trumpf. We may not be able to compete successfully against either current or future competitors. Our competitors may continue to enter markets or gain or retain market share through introduction of new or improved products or with aggressive low pricing strategies that may impact the efficacy of our approach. Additionally, the merger or consolidation of significant competitors, for example, II-VI's acquisition of Finisar in September of 2019, the pending acquisition of Acacia Communications by Cisco, and the acquisition of OSRAM by AMS in December 2019, may enable our competitors to offer a different market approach, or a lower cost structure through economies of scale or other efficiencies that we may be unable to match and which may intensify competition in the various markets. Increased competition could result in significant price erosion, reduced revenue, lower margins or loss of market share, any of which would significantly harm our business.

The manufacturing of our products may be adversely affected if we are unable to manufacture certain products in our manufacturing facilities or if our contract manufacturers and suppliers fail to meet our production requirements.

We manufacture some of our finished good products as well as some of the components that we provide to our contract manufacturers in our China, Japan, Thailand, U.K., and San Jose, California manufacturing facilities. For some of the components and finished good products, we are the sole manufacturer. Our manufacturing processes are highly complex, and issues are often difficult to detect and correct. From time to time we have experienced problems achieving acceptable yields in our manufacturing facilities, resulting in delays in the availability of our products and inability to meet customer demand. In addition, if we experience problems with our manufacturing facilities or are unable to continue operations at any of these sites, including as a result of COVID-19 impacts, it would be costly and require a long period of time to move the manufacture of these components and finished good products to a different facility or contract manufacturer which could then result in interruptions in supply, and would likely materially impact our financial condition and results of operations. Our manufacturing is heavily concentrated in central Asia, and we would be severely impacted if there were further escalation of COVID-19 in that region.

We also rely on several independent contract manufacturers to supply us with certain products. For many products, a particular contract manufacturer may be the sole source of the finished good products. We depend on these manufacturers to meet our production and capacity requirements and to provide quality products to our customers. If operations at these contract manufacturers is adversely impacted, such as by restrictions due to COVID-19 or any resulting economic impact to their business, this would likely materially impact our financial condition and results of operations.

In addition, despite rigorous testing for quality, both by us and the contract manufacturers to whom we sell products, we may receive and ship defective products. We may incur significant costs to correct defective products which could result in the loss of future sales and revenue, indemnification costs or costs to replace or repair the defective products, litigation and damage to our reputation and customer relations. Defective products may also cause diversion of management attention from our business and product development efforts.

Additionally, our ability to fulfill our customers' demand, or the ability of our contract manufacturers to fulfill their obligations, may be affected by natural disasters, including a global pandemic such as COVID-19, changes in legal requirements, labor strikes and other labor unrest and economic, political or other forces that are beyond our control. For example, in the past we experienced a labor strike at one of our contract manufacturers which threatened the contract manufacturer's ability to fulfill its product commitments to us and, in turn, our ability to fulfill our obligations to our customers. Further, certain of our contract manufacturers are located in China, which exposes us to risks associated with Chinese laws and regulations and U.S. laws, regulations and policies with respect to China, such as those related to import and export policies, tariffs, taxation and intellectual property. Chinese laws and regulations are subject to frequent change, and if our contract manufacturers are unable to obtain or retain the requisite legal permits or otherwise to comply with Chinese legal requirements, we may be forced to obtain products from other manufacturers or to make other operational changes, including transferring our manufacturing to another manufacturer or to our own manufacturing facilities. Any such developments could have a material impact on our ability to meet our customers' expectations and may materially impact our operating results. The United States has imposed tariffs on the import of certain products manufactured in China, and may propose further tariffs in the future, which could increase costs associated with the manufacturing of our products in China, and potentially other countries, and negatively impact our sales levels and profit margins.

In addition, for a variety of reasons, including changes in circumstances at our contract manufacturers or regarding our own business strategies, we may choose or be required to transfer the manufacturing of certain products to other manufacturing sites, including to our own manufacturing facilities. For example, in 2019 we transitioned the manufacturing of our products with one of our contract manufacturers in China to our Shenzhen and Thailand manufacturing facilities and to other contract manufacturers. As a result of such transfers, our contract manufacturers may prioritize other customers or otherwise be unable or unwilling to meet our demand. There also may be delays with the transfer of manufacturing equipment and successfully setting up that equipment at the transfer sites and training new operators. If such transfers are unsuccessful or take a longer period of time than expected, it could result in interruptions in supply and would likely impact our financial condition and results of operations.

Some of our purchase commitments with contract manufacturers are not cancellable which may impact our results of operations if customer forecasts driving these purchase commitments do not materialize and we are unable to sell the products to other customers. Alternatively, our contract manufacturers may not be able to meet our demand which would inhibit our ability to meet our customers' demands and maintain or grow our revenues. Furthermore, it could be costly and require a long period of time to move products from one contract manufacturer to another which could result in interruptions in supply and adversely impact our financial condition and results of operations.

In addition, many of our products are sourced from suppliers based outside of the United States, primarily in Asia. Uncertainty with respect to our suppliers' abilities due to COVID-19 impacts, tax and trade policies, tariffs and government regulations affecting trade between the United States and other countries has recently increased. Major developments in tax policy or trade relations, such as the imposition of tariffs on imported products, could increase our product and product-related costs or require us to seek alternative suppliers, either of which could result in decreased sales or increased product and product-related costs.

If our customers do not qualify our manufacturing lines or the manufacturing lines of our subcontractors for volume shipments, our operating results could suffer.

Certain of our customers do not purchase products, other than limited numbers of evaluation units, prior to qualification of the manufacturing line for volume production. Our existing manufacturing lines, as well as each new manufacturing line, must pass through varying levels of qualification with certain of our customers. Some of our customers require that our manufacturing lines pass their specific qualification standards and that we, and any subcontractors that we may use, be registered under international quality standards. We may encounter quality control issues as a result of setting up new manufacturing lines in our facilities, relocating our manufacturing lines or introducing new products to fill production. We may be unable to obtain, or we may experience delays in obtaining, customer qualification of our manufacturing lines. If we introduce new contract manufacturing partners and move any production lines from existing internal or external facilities, the new production lines will likely need to be re-qualified with our customers. Any delays or failure to obtain qualifications would harm our operating results and customer relationships.

We depend on a limited number of suppliers for raw materials, packages and components, and any failure or delay by these suppliers in meeting our requirements could have an adverse effect on our business and results of operations.

We purchase raw materials, packages and components from a limited number of suppliers, who are often small and specialized. Additionally, some of our suppliers are our sole sources for certain materials, equipment and components. We depend on the timely and continued supply and quality of the materials, packages and components that our suppliers supply to us. We have not entered into long-term agreements with many of these suppliers. As a result, these suppliers may stop supplying us materials and equipment at any time. Our business and results of operations have been, and could continue to be, adversely affected by this dependency. Specific concerns we periodically encounter with our sole suppliers or limited number of suppliers include receipt of defective parts or contaminated materials, stoppages or delays of supply, insufficient resources to supply our requirements, substitution of more expensive or less reliable materials, increases in the price of supplies, and an inability to obtain reduced pricing from our

suppliers in response to competitive pressures. Additionally, these suppliers may be unable to operate under restrictions due to COVID-19 or any resulting economic impact to their business and ability to continue operations, and the supply of and costs of raw materials may be negatively impacted by the COVID-19 pandemic, trade protection policies such as tariffs, or escalating trade tensions, particularly with countries in Asia. Any disruption in the supply of the raw materials, packaging or components used in the manufacture and delivery of our products could have a material adverse impact on our business, financial condition and results of operations.

We contract with a number of large OEM and end-user service providers and product companies that have considerable bargaining power, which may require us to agree to terms and conditions that could have an adverse effect on our business or ability to recognize revenues.

Large OEM and end-user service providers and product companies comprise a significant portion of our customer base. These customers generally have greater purchasing power than smaller entities and, accordingly, often request and receive more favorable terms from suppliers, including us. As we seek to expand our sales to existing customers and acquire new customers, we may be required to agree to terms and conditions that are favorable to our customers and that may affect the timing of our ability to recognize revenue, increase our costs and have an adverse effect on our business, financial condition, and results of operations. Furthermore, large customers have increased buying power and ability to require onerous terms in our contracts with them, including pricing, warranties, and indemnification terms. If we are unable to satisfy the terms of these contracts, it could result in liabilities of a material nature, including litigation, damages, additional costs, loss of market share and loss of reputation. Additionally, the terms these large customers require, such as most-favored nation or exclusivity provisions, may impact our ability to do business with other customers and generate revenues from such customers.

Our products may contain defects that could cause us to incur significant costs, divert our attention from product development efforts and result in loss of customers.

Our products are complex and defects may be found from time to time. Networking products in particular frequently contain undetected software or hardware defects when first introduced or as new versions are released. In addition, our products are often embedded in or deployed in conjunction with our customers' products which incorporate a variety of components produced by third parties. As a result, when problems occur, it may be difficult to identify the source of the problem. These problems may cause us to incur significant damages or warranty and repair costs, divert the attention of our engineering personnel from our product development efforts and cause significant customer relation problems or loss of customers, all of which would harm our business.

We are subject to risks arising from our international operations, which may adversely affect our business, financial condition, and results of operations.

We derive a majority of our revenue from our international operations, and we plan to continue expanding our business in international markets in the future. In addition, we have extensive international manufacturing capabilities through third-party contract manufacturers, as well as through our own international facilities, with employees engaged in R&D, administration, manufacturing, support and sales and marketing activities.

As a result of our international operations, in addition to similar risks we face in our U.S. operations, we are affected by economic, business, regulatory, social, and political conditions in foreign countries, including the following:

- impacts related to business disruptions and restrictions related to COVID-19;
- changes in general IT spending;
- the imposition of government controls, inclusive of critical infrastructure protection;
- changes in or limitations imposed by trade protection laws or other regulatory orders or requirements in the United States or in other countries, including tariffs, sanctions, or other costs or requirements which may affect our ability to import or export our products from various countries or increase the cost to do so, including government action to restrict our ability to sell to foreign customers where sales of products may require export licenses (such as the U.S. Department of Commerce's addition of Huawei to the Entity List in May 2019, the addition of FiberHome in May 2020, amendment to the Foreign-Produced Direct Product Rule in August 2020 and the prohibition of export and sale of certain products to ZTE Corporation in early 2018) and increased tariffs on various products that have been proposed by the U.S. government and other non-U.S. governments;
- the imposition of sanctions on customers in China may cause those customers to seek domestic alternatives to our products, including developing alternatives internally;
- varying and potentially conflicting laws and regulations;

- potential global or regional recession as a result of the COVID-19 pandemic and related responses of individuals, governments, private industry;
- wage inflation or a tightening of the labor market;
- political developments of foreign nations, including Brexit and recent political developments in Hong Kong and the potential impact such developments or further actions could have on our customers in Hong Kong; and
- the impact of the following on service provider and government spending patterns as well as our contract and internal manufacturing: political
 considerations, unfavorable changes in tax treaties or laws, unfavorable events that affect foreign currencies, natural disasters, epidemic disease,
 labor unrest, earnings expatriation restrictions, misappropriation of intellectual property, military actions, acts of terrorism, political and social unrest
 and difficulties in staffing and managing international operations.

Additionally, our business is impacted by fluctuations in local economies and currencies. The COVID 19 pandemic and resulting global economic volatility has significantly impacted the foreign exchange markets, and the currencies of various countries in which we operate and have significant volume of local-currency denominated expenses have seen significant volatility. We expect such volatility to continue, which could negatively impact our results by making our non-U.S. operations more expensive when reported in US dollars, primarily due to the costs of payroll.

Moreover, local laws and customs in many countries differ significantly from or conflict with those in the United States or other countries in which we operate. In many foreign countries, particularly in those with developing economies, it is common for others to engage in business practices that are prohibited by our internal policies and procedures or U.S. regulations applicable to us. There can be no assurance that our employees, contractors, channel partners and agents will not take actions in violation of our policies and procedures, which are designed to ensure compliance with U.S. and foreign laws and policies. Violations of laws or key control policies by our employees, contractors, channel partners, or agents could result in termination of our relationships with customers and suppliers, financial reporting problems, fines and/or penalties for us, or prohibition on the importation or exportation of our products, and could have a material adverse effect on our business, financial condition and results of operations.

In addition to the above risks related to our international operations, we also face risks related to health epidemics, such as the COVID-19 pandemic. An outbreak of a contagious disease, and other adverse public health developments, particularly in Asia, could have a material and adverse effect on our business operations. The effects could include restrictions on our ability to travel to support our sites in Asia or our customers located there, disruptions in our ability to distribute products, and/or temporary closures of our facilities in Asia or the facilities of our suppliers or customers and their contract manufacturers. Disruption to the operations of our suppliers or customers and their contract manufacturers due to COVID-19 have impacted and will likely continue to impact our sales and operating results. For additional information regarding the impact of COVID-19 on our business, see the risk factor above titled "Our business operations, financial performance, results of operations, financial position and the achievement of our strategic objectives may be materially and adversely affected by the ongoing COVID-19 pandemic."

Any or all of these factors could have a material adverse impact on our business, financial condition, and results of operations.

The threat of increasing tariffs, particularly to goods traded between the United States and China, could materially and adversely affect our business and results of operations.

Since the beginning of 2018, there has been increasing rhetoric, in some cases coupled with legislative or executive action, from several U.S. and foreign leaders regarding instituting tariffs against foreign imports of certain materials. More specifically, since 2018, the United States and China applied or proposed to apply tariffs to certain of each other's exports, and we expect these actions to continue for the foreseeable future. The institution of trade tariffs both globally and between the United States and China specifically carries the risk of negatively impacting overall economic conditions, which could have negative repercussions on our industry and our business. Furthermore, imposition of tariffs or new or revised export, import or doing-business regulations, including trade sanctions, could cause a decrease in the sales of our products to customers located in China or other customers selling to Chinese end users, which would directly impact our business and results of operations.

We face a number of risks related to our strategic transactions.

We have in the past made several acquisitions, including our acquisition of Oclaro in December 2018. We may continue to expand and diversify our operations with additional acquisitions. We may be unable to identify or complete prospective acquisitions for many reasons, including increasing competition from other potential acquirers, the effects of consolidation in our industries and potentially high valuations of acquisition candidates. In addition, applicable antitrust laws and other regulations may limit our ability to acquire targets or force us to divest an acquired business. If we are unable to identify suitable targets or complete acquisitions, our growth prospects may suffer, and we may not be able to realize sufficient scale and technological advantages to compete effectively in all markets.

In connection with acquisitions, risks to us and our business include:

- diversion of management's attention from normal daily operations of the business;
- unforeseen expenses, delays or conditions imposed upon the acquisition or transaction, including due to required regulatory approvals or consents;
- unanticipated changes in the combined business due to potential divestitures or other requirements imposed by antitrust regulators;
- unanticipated changes in the acquired business, including due to regulatory action or changes in the operating results or financial condition of the business;
- the inability to retain and obtain required regulatory approvals, licenses and permits;
- difficulties and costs in integrating the operations, technologies, products, IT and other systems, assets, facilities and personnel of the purchased businesses;
- loss of customers, suppliers or partners;
- potential difficulties in completing projects associated with in-process R&D; and
- an acquisition or strategic transaction may not further our business strategy as we expected or we may overpay for, or otherwise not realize the
 expected return on, our investments.

We have in the past, and may in the future, also divest or reduce our investment in certain businesses or product lines from time to time. For example, in the fourth quarter of fiscal year 2019, we completed the divestiture of our Datacom module business in Japan, and in the second quarter of fiscal year 2020 we sold the assets associated with certain Lithium Niobate product lines manufactured by our San Donato, Italy site. Such divestitures involve risks, such as difficulty separating portions of or entire businesses, distracting employees, incurring potential loss of revenue, negatively impacting margins, and potentially disrupting customer relationships. We may also incur significant costs associated with exit or disposal activities, related impairment charges, or both.

If we are unable to successfully manage any of these risks in relation to any future acquisitions or divestitures, our business, financial condition and results of operations could be adversely impacted.

We may be unable to successfully implement our acquisitions strategy or integrate acquired companies and personnel with existing operations.

To the extent we are successful in making acquisitions, we may be unsuccessful in implementing our acquisitions strategy, or integrating acquired companies or product lines and personnel with existing operations, or the integration may be more difficult or more costly than anticipated. Some of the risks that may affect our ability to integrate or realize any anticipated benefits from acquired companies, businesses or assets include those associated with:

- loss of customers, suppliers or partners;
- potential difficulties in completing projects associated with in-process R&D;
- an acquisition or strategic transaction may not further our business strategy as we expected or we may overpay for, or otherwise not realize the
 expected return on, our investments;
- we may face unanticipated liabilities or our exposure for known contingencies and liabilities may exceed our estimates;
- insufficient net revenue to offset increased expenses associated with acquisitions;
- unexpected losses of key employees of the acquired company, or inability to maintain our company culture;
- conforming the acquired company's standards, processes, procedures and controls with our operations, including integrating Enterprise Resource Planning ("ERP") systems and other key business applications;
- coordinating new product and process development;
- increasing complexity from combining operations;
- increasing the scope, geographic diversity and complexity of our operations;

- difficulties in consolidating facilities and transferring processes and know-how;
- diversion of management's attention from other business concerns;
- dilution of our current stockholders as a result of any issuance of equity securities as acquisition consideration;
- expenditure of cash that would otherwise be available to operate our business; and
- incurrence of indebtedness on terms that are unfavorable to us, limit our operational flexibility or that we are unable to repay.

In addition, following an acquisition, we may have difficulty forecasting the financial results of the combined company and the market price of our common stock could be adversely affected if the effect of any acquisitions on our consolidated financial results is dilutive or is below the market's or financial analysts' expectations, or if there are unanticipated changes in the business or financial performance of the target company or the combined company. Any failure to successfully integrate acquired businesses may disrupt our business and adversely impact our business, financial condition and results of operations.

Changes in demand and customer requirements for our products may reduce manufacturing yields, which could negatively impact our profitability.

Manufacturing yields depend on a number of factors, including the volume of production due to customer demand and the nature and extent of changes in specifications required by customers for which we perform design-in work. Changes in manufacturing processes required as a result of changes in product specifications, changing customer needs, introduction of new product lines and changes in contract manufacturers may reduce manufacturing yields, resulting in low or negative margins on those products. Moreover, an increase in the rejection rate of products during the quality control process, before, during or after manufacture, results in lower gross margins from lower yields and additional rework costs. Any reduction in our manufacturing yields will adversely affect our gross margins and could have a material impact on our operating results.

We may not be able to realize tax savings from our international tax structure, which could materially and adversely affect our operating results.

We initiated a new international corporate structure more closely aligned with our international operations during the third quarter of fiscal 2018. The new corporate structure is intended to reduce our overall effective tax rate through changes among our wholly-owned subsidiaries in how we use our intellectual property, and how we structure our international procurement and sales operations. The new structure includes legal entities located in jurisdictions with income tax rates lower than the U.S. statutory tax rate. The intercompany arrangements are intended to result in income earned by such entities in accordance with arm's-length principles and commensurate with functions performed, risks assumed and ownership of valuable corporate assets. We have not yet operationalized the new structure to the full extent possible due to various factors including the acquisition of Oclaro in the second quarter of fiscal 2019. We are currently in the process of assessing the Oclaro transaction's impact to our tax structure and, depending on the outcome, we may make modifications to the new structure in order to achieve better tax and operational efficiency. If we are unable to fully adopt a new international structure, if substantial modifications to the new international structure or the way we operate our business are made in light of the Oclaro acquisition or for other reasons, if changes in domestic and international tax laws negatively impact the structure, if we do not operate our business consistent with the new structure and applicable tax provisions, if we fail to achieve our revenue and profit goals, or if it is successfully challenged by the U.S. or foreign tax authorities, we may be unable to realize the anticipated tax savings which could materially and adversely affect our operating and financial results.

Changes in tax laws could have a material adverse effect on our business, cash flow, results of operations or financial conditions.

As a multinational corporation, we are subject to income taxes as well as non-income based taxes, in both the U.S. and various foreign jurisdictions. Significant uncertainties exist with respect to the amount of our tax liabilities, including those arising from potential changes in laws in the countries in which we do business and the possibility of adverse determinations with respect to the application of existing laws. Many judgments are required in determining our worldwide provision for income taxes and other tax liabilities, and we are under audit by various tax authorities, which often do not agree with positions taken by us on our tax returns. Any unfavorable resolution of these uncertainties may have a significant adverse impact on our tax rate.

Increasingly, countries around the world are actively considering or have enacted changes in relevant tax, accounting and other laws, regulations and interpretations. In particular, the Tax Cuts and Jobs Act (the "Tax Act") contains many significant changes to the U.S. tax laws that affected our fiscal year ended June 27, 2020, and which will continue to affect our fiscal years

thereafter. Information regarding the Tax Act and the impact of the Tax Act on our tax profile is included in our Annual Report on Form 10-K for our fiscal year ended June 29, 2019.

The reduction in the U.S. federal statutory rate is expected to positively impact our federal cash tax liability. However, the ultimate impact is subject to the effect of other complex provisions in the Tax Act (including the BEAT and GILTI), and it is possible that any impact of BEAT, GILTI, or other provisions of the Tax Act could significantly reduce, or outweigh, the benefit of the reduction in the U.S. federal statutory rate. The U.S. Treasury Department and the Internal Revenue Service (IRS), and other standards-setting bodies have issued and may continue to issue guidance on how the provisions of the Tax Act will be applied, which may be different from our interpretation. The Tax Act requires complex computations not previously required or produced, and significant judgments and assumptions in the interpretation of the law were made in producing our provisional estimates. We also anticipate that uncertainty in the application of the Tax Act to our ongoing operations as well as possible adverse future law changes attributable to changes in the U.S. political environment could have an adverse impact on our future tax rate. Other countries also continue to enact and consider enacting new laws, which could adversely affect us. The foregoing items could increase our future tax expense, could change our future intentions regarding reinvestment of foreign earnings, and could have a material adverse effect on our business, financial condition and results of operations.

The income and non-income tax regimes we are subject to or operate under are unsettled and may be subject to significant change. Changes in tax laws or tax rulings, or changes in interpretations of existing laws, could materially affect our financial position and results of operations. Many countries in Europe, as well as a number of other countries and organizations, have recently proposed or recommended changes to existing tax laws or have enacted new laws that could increase our tax obligations where we do business or require us to change the manner in which we operate our business. The Organization for Economic Cooperation and Development has been working on a set of internationally accepted tax rules as a part of a Base Erosion and Profit Sharing (BEPS) Project aimed at tax avoidance, and that the roll-out of BEPS action steps by various jurisdictions may change aspects of the existing framework under which our tax obligations are determined in many of the countries in which we do business.

On June 22, 2020, the U.S. Supreme Court declined a Writ of Certiorari in the case of *Altera Corp vs. Commissioner* challenging a decision by the Ninth Circuit Court of Appeals (which itself reversed a previous decision of the U.S. Tax Court) holding that the U.S. Treasury Department's regulations requiring the inclusion of stock-based compensation expense in a taxpayer's cost-sharing calculations were valid. We have a research and development cost sharing arrangement with one of our foreign affiliates. Our financial statements have been prepared consistent with this outcome.

Our subsidiary in Thailand currently operates under a tax holiday which will expire in fiscal 2025 unless extension is granted by the Thailand government and we continue to meet the requirements thereunder. If we do not meet the tax holiday requirements, if we are not granted an extension by the Thailand government, or if we decide not to apply for an extension of the tax holiday, income earned in Thailand will be subject to a higher statutory income tax rate, which may cause our effective tax rate to increase and reduce our liquidity and cash flow.

Our operating results may be subject to volatility due to fluctuations in foreign currency.

We are exposed to foreign exchange risks with regard to our international operations which may affect our operating results. Since we conduct business in currencies other than U.S. dollars but report our financial results in U.S. dollars, we face exposure to fluctuations in currency exchange rates. Although we price our products primarily in U.S. dollars, a portion of our operating expenses are incurred in foreign currencies. For example, a portion of our expenses are denominated in U.K. pound sterling, Chinese yuan and Thai baht. Fluctuations in the exchange rate between these currencies and other currencies in which we collect revenues and/or pay expenses could have a material effect on our future operating results. Recently, our exposure to foreign currencies has increased as our non-US manufacturing footprint has expanded. In addition to the acquisition of Oclaro, which increased our non-US manufacturing footprint, we continue to look for opportunities to leverage the lower cost of non-US manufacturing, including the United Kingdom, Thailand, and Japan. While these geographies are lower cost than the US and such concentration will in general lower our total cost to manufacture, this increase in concentration in non-US manufacturing will also increase the volatility of our results. If the value of the U.S. dollar depreciates relative to certain other foreign currencies, it would increase our costs as expressed in U.S. dollars. Conversely, if the U.S. dollar strengthens relative to other currencies, such strengthening could raise the relative cost of our products to non-U.S. customers, especially as compared to foreign competitors, and could reduce demand. The COVID 19 pandemic has had a significant impact on the exchange markets, which heightened this risk in the recent months, and we expect this higher level of volatility in foreign exchange markets will likely continue.

Our ability to develop, market, and sell products could be harmed if we are unable to retain or hire key personnel.

Our future success depends upon our ability to recruit and retain the services of executive, engineering, sales and marketing, and support personnel. The supply of highly qualified individuals, in particular engineers in very specialized technical areas, or sales people specializing in the service provider, enterprise and commercial laser markets, is limited and competition for such individuals is intense. None of our officers or key employees is bound by an employment agreement for any specific term. The loss of the services of any of our key employees, the inability to attract or retain personnel in the future or delays in hiring required personnel and the complexity and time involved in replacing or training new employees, could delay the development and introduction of new products, and negatively impact our ability to market, sell, or support our products.

We may require additional capital to support business growth, and this capital might not be available on acceptable terms, if at all.

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including supporting the development and introduction of new products, addressing new markets, engaging in strategic transactions and partnerships, improving or expanding our operating infrastructure or acquiring complementary businesses and technologies. In March 2017, we issued and sold a total of \$450 million in aggregate principal amount of 2024 Notes, and in December 2019, we issued and sold a total of \$1,050 million in aggregate principal amount of 2026 Notes. We may in the future engage in additional equity or debt financings to secure additional funds. If we raise additional funds through future issuances of equity, equity-linked or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing we may secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and to respond to business challenges could be significantly impaired, and our business may be harmed.

Our ability to hire and retain employees may be negatively impacted by changes in immigration laws, regulations and procedures.

Foreign nationals who are not U.S. citizens or permanent residents constitute an important part of our U.S. workforce, particularly in the areas of engineering and product development. Our ability to hire and retain these workers and their ability to remain and work in the United States are impacted by laws and regulations, as well as by procedures and enforcement practices of various government agencies. Changes in immigration laws, regulations or procedures, including those that have been and may be enacted in the future by the current U.S. presidential administration and in the United Kingdom or the European Union in connection with Brexit, may adversely affect our ability to hire or retain such workers, increase our operating expenses and negatively impact our ability to deliver our products and services.

Any failure, disruption or security breach of our information technology infrastructure or information management systems could have an adverse impact on our business and operations.

Our business depends significantly on effective and efficient information management systems, and the reliability and security of our information technology infrastructure are essential to the health and expansion of our business. For example, the information gathered and processed by our information management systems assists us in managing our supply chain, monitoring customer accounts, and protecting our proprietary and confidential business information, plans, trade secrets, and intellectual property, among other things. In addition, these systems may also contain personal data or other protected information about our employees, our customers' employees, or others. We must continue to expand and update this infrastructure in response to our changing requirements as well as evolving security standards and risks.

In some cases, we may rely upon third-party providers of hosting, support and other services to meet our information technology requirements. Any failure to manage, expand and update our information technology infrastructure, including our ERP system and other applications, any failure in the extension implementation or operation of this infrastructure, or any failure by our hosting and support partners or other third-party service providers in the performance of their services could materially harm our business. In addition, we have partnered with third parties to support our information technology systems and to help design, build, test, implement and maintain our information management systems. Our merger, acquisition and divestiture activity may also require transitions to or from, and the integration of, various information management systems within our overall enterprise architecture, including our ERP system and other applications. Those systems that we acquire may also pose security risks of which we are unaware or unable to mitigate, particularly during the transition of these systems.

Like other companies, we are subject to ongoing attempts by malicious actors, including through hacking, malware, ransomware, denial-of-service attacks, social engineering, exploitation of internet-connected devices, and other attacks, to obtain unauthorized access or acquisition of confidential information or otherwise affect service reliability and threaten the confidentiality, integrity and availability of information on our systems. We have been in the past, and may be in the future, subject to social engineering and other cybersecurity attacks, and these attacks may become more prevalent while our workforce is distributed following shelter-in-place orders. Further, our third party service providers may have been and may be in the future subject to such attacks. In addition, actions by our employees, service providers, partners, contractors or others, whether malicious or in error, could affect the security of our systems. Further, a breach of our information technology infrastructure could result in the misappropriation of intellectual property, business plans or trade secrets. Any failure of our systems or those of our third-party service providers could result in unauthorized access or acquisition of such proprietary information, and any actual or perceived security breach could cause significant damage to our reputation and adversely impact our relationships with our customers. Additionally, while our security systems are designed to maintain the physical security of our facilities and information systems, accidental or willful security breaches or other unauthorized access by third parties to our facilities or our information systems could lead to misappropriation of proprietary and confidential information.

Despite our implementation of security measures, our systems and those of our third-party service providers are vulnerable to damage from these types of attacks or errors. In addition, our systems may be impacted by natural disasters, terrorism or other similar disruptions. Any system failure, accident or security breach affecting us or our third-party providers could result in disruptions to our operations and loss of, or unauthorized access or damage to, our data or in inappropriate disclosure of confidential information. Any actual or alleged disruption to, or security breach affecting, our systems or those of our third-party partners could cause significant damage to our reputation, lead to theft of our protected intellectual property and trade secrets, result in legal obligations or liability, affect our relationships with our customers, and ultimately harm our business. In addition, we may be required to incur significant costs to protect against or mitigate damage caused by these disruptions or security breaches in the future.

Our revenues, operating results, and cash flows may fluctuate from period to period due to a number of factors, including unfavorable economic and market conditions, which makes predicting financial results difficult.

Spending on optical communication and laser products is subject to cyclical and uneven fluctuations, which could cause our financial results to fluctuate unpredictably. It can be difficult to predict the degree to which end-customer demand and the seasonality and uneven sales patterns of our OEM partners or other customers will affect our business in the future, particularly as we or they release new or enhanced products. While our fourth fiscal quarters are typically strongest, future buying patterns may differ from historical seasonality. Further, if our revenue mix changes, it may also cause results to differ from historical seasonality. Accordingly, our quarterly and annual revenues, operating results, cash flows, and other financial and operating metrics may vary significantly in the future, and the results of any prior periods should not be relied upon as an indication of future performance.

Adverse changes to and uncertainty in the global economy, particularly in light of the impacts of COVID-19 and a potential global recession resulting therefrom, may lead to decreased demand for our products, revenue fluctuations, and increased price competition for our products, and may increase the risk of excess and obsolete inventories and higher overhead costs as a percentage of revenue. Declines or uncertainty in particular geographic regions, such as China or Europe, may impact IT-related spending generally, and consequently may lead to lower growth or a decline in our markets. The loss or delay of orders from any of our significant customers could cause our revenue and profitability to suffer. The impact of economic challenges on the global financial markets could further negatively impact our operations by affecting the solvency of our customers, the solvency of our key suppliers or the ability of our customers to obtain credit to finance purchases of our products. If economic conditions deteriorate or remain uncertain, our financial condition and results of operations would likely be materially and adversely impacted.

If we have insufficient proprietary rights or if we fail to protect our rights, our business would be materially harmed.

We seek to protect our products and product roadmaps in part by developing and/or securing proprietary rights relating to those products, including patents, trade secrets, know-how and continuing technological innovation. The steps we take to protect our intellectual property may not adequately prevent misappropriation or ensure that others will not develop competitive technologies or products. Other companies may be investigating or developing technologies that are similar to our own. It is possible that patents may not be issued from any of our pending applications or those we may file in the future and, if patents are issued, the claims allowed may not be sufficiently broad to deter or prohibit others from making, using or selling products that are similar to ours, or such patents could be invalidated or ruled unenforceable. We do not own patents in every country in which we sell or distribute our products, and thus others may be able to offer identical products in countries where we do not have intellectual property protections. In addition, the laws of some territories in which our products are or may be developed, manufactured or sold, including Europe, Asia-Pacific or Latin America, may not protect our products and intellectual property rights to the same extent as the laws of the United States. Any patents issued to us may be challenged, invalidated or circumvented. Additionally, we are currently a licensee for a number of third-party technologies including software and intellectual property rights from academic

institutions, our competitors and others, and we are required to pay royalties to these licensors for the use thereof. In the future, if such licenses are unavailable or if we are unable to obtain such licenses on commercially reasonable terms, we may not be able to rely on such third-party technologies which could inhibit our development of new products, impede the sale of some of our current products, substantially increase the cost to provide these products to our customers, and could have a significant adverse impact on our operating results.

We also seek to protect our important trademarks by endeavoring to register them in certain countries. We have not registered our trademarks in every country in which we sell or distribute our products, and thus others may be able to use the same or confusingly similar marks in countries where we do not have trademark registrations. We have adopted Lumentum as a house trademark and trade name for our company, and are in the process of establishing rights in this name and brand. We have also adopted the Lumentum logo as a house trademark for our company, and are in the process of establishing rights in this brand. Trademarks associated with the Lumentum brand have been registered in the United States or other jurisdictions, however, the efforts we take to maintain registration and protect trademarks, including the Lumentum brand, may not be sufficient or effective. Although we have registered marks associated with the Lumentum brand, third parties may seek to oppose or otherwise challenge these registrations. There is the possibility that, despite efforts, the scope of the protection obtained for our trademarks, including the Lumentum brand, will be insufficient or that a registration may be deemed invalid or unenforceable in one or more jurisdictions throughout the world.

Further, a breach of our information technology infrastructure could result in the misappropriation of intellectual property, business plans or trade secrets. Any failure of our systems or those of our third-party service providers could result in unauthorized access or acquisition of such proprietary information, and any actual or perceived security breach could cause significant damage to our reputation and adversely impact our relationships with our customers.

Our products may be subject to claims that they infringe the intellectual property rights of others, the resolution of which may be time-consuming and expensive, as well as require a significant amount of resources to prosecute, defend, or make our products non-infringing.

Lawsuits and allegations of patent infringement and violation of other intellectual property rights occur regularly in our industry. We have in the past received, and anticipate that we will receive in the future, notices from third parties claiming that our products infringe upon their proprietary rights, with two distinct sources of such claims becoming increasingly prevalent. First, large technology companies, including some of our customers and competitors, are seeking to monetize their patent portfolios and have developed large internal organizations that may approach us with demands to enter into license agreements. Second, patent-holding companies that do not make or sell products (often referred to as "patent trolls") may claim that our products infringe upon their proprietary rights. We respond to these claims in the course of our business operations. The litigation or settlement of these matters, regardless of the merit of the claims, could result in significant expense and divert the efforts of our technical and management personnel, regardless of whether or not we are successful. If we are unsuccessful, we could be required to expend significant resources to develop non-infringing technology or to obtain licenses to the technology that is the subject of the litigation. We may not be successful in such development, or such licenses may not be available on commercially reasonable terms, or at all. Without such a license, or if we are the subject of an exclusionary order, our ability to make our products could be limited and we could be enjoined from future sales of the infringement related to our products and may incur significant expenses to defend against such claims. If we are unsuccessful defending against such claims, we may be required to indemnify our customers against any damages awarded.

We also face risks that third parties may assert trademark infringement claims against us in one or more jurisdictions throughout the world related to our Lumentum and Oclaro brands and/or other trademarks. The litigation or settlement of these matters, regardless of the merit of the claims, could result in significant expense and divert the efforts of our technical and management personnel, regardless of whether or not we are successful. If we are unsuccessful, trademark infringement claims against us could result in significant monetary liability or prevent us from selling some or all of our products or services under the challenged trademark. In addition, resolution of claims may require us to alter our products, labels or packaging, license rights from third parties, or cease using the challenged trademark altogether, which could adversely affect our revenues and operating results.

We face certain litigation risks that could harm our business.

We are now, and in the future we may become, subject to various legal proceedings and claims that arise in or outside the ordinary course of business. The results of legal proceedings are difficult to predict. Moreover, many of the complaints filed against us may not specify the amount of damages that plaintiffs seek, and we therefore may be unable to estimate the possible range of damages that might be incurred should these lawsuits be resolved against us. While we may be unable to estimate the potential damages arising from such lawsuits, certain of them assert types of claims that, if resolved against us, could give rise to substantial damages. Thus, an unfavorable outcome or settlement of one or more of these lawsuits could have a material adverse effect on our financial condition, liquidity and results of operations. Even if these lawsuits are not resolved against us, the uncertainty and expense associated with unresolved lawsuits could seriously harm our business, financial condition and reputation. Litigation is generally costly, time-consuming and disruptive to normal business operations. The costs of defending these lawsuits have been significant in the past, will continue to be costly and may not be covered by our insurance policies. The defense of these lawsuits could also result in continued diversion of our management's time and attention away from business operations, which could harm our business. For additional discussion regarding litigation, see "Part II, Item 1. Legal Proceedings."

Our products incorporate and rely upon licensed third-party technology, and if licenses of third-party technology do not continue to be available to us or are not available on terms acceptable to us, our revenues and ability to develop and introduce new products could be adversely affected.

We integrate licensed third-party technology into certain of our products. From time to time, we may be required to license additional technology from third-parties to develop new products or product enhancements. Third-party licenses may not be available or continue to be available to us on commercially reasonable terms. The failure to comply with the terms of any license, including free open source software, may result in our inability to continue to use such license. Our inability to maintain or re-license any third-party licenses required in our products or our inability to obtain third-party licenses necessary to develop new products and product enhancements, could potentially require us to develop substitute technology or obtain substitute technology of lower quality or performance standards or at a greater cost, any of which could delay or prevent product shipment and harm our business, financial condition, and results of operations.

We are subject to laws and other regulations worldwide including with respect to environmental matters, securities laws, privacy and data protection, compliance with which could increase our expenses and harm our operating results.

Our operations and our products are subject to various federal, state and foreign laws and regulations, including those governing pollution and protection of human health and the environment in the jurisdictions in which we operate or sell our products. These laws and regulations govern, among other things, wastewater discharges and the handling and disposal of hazardous materials in our products. Our failure to comply with current and future environmental or health or safety requirements could cause us to incur substantial costs, including significant capital expenditures, to comply with such environmental laws and regulations and to clean up contaminated properties that we own or operate. Such clean-up or compliance obligations could result in disruptions to our operations. Additionally, if we are found to be in violation of these laws, we could be subject to governmental fines or civil liability for damages resulting from such violations. These costs could have a material adverse impact on our financial condition or operating results.

From time to time new regulations are enacted, and it is difficult to anticipate how such regulations will be implemented and enforced. We continue to evaluate the necessary steps for compliance with regulations as they are enacted. These regulations include, for example, the Registration, Evaluation, Authorization and Restriction of Chemicals ("REACH"), the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive ("WEEE") enacted in the European Union which regulate the use of certain hazardous substances in, and require the collection, reuse and recycling of waste from, certain products we manufacture. These regulations and similar legislation may require us to re-design our products to ensure compliance with the applicable standards, for example by requiring the use of different types of materials, which could have an adverse impact on the performance of our products, add greater testing lead-times for product introductions or other similar effects. We believe we comply with all such legislation where our products are sold and we continuously monitor these laws and the regulations being adopted under them to determine our responsibilities.

In addition, pursuant to Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the SEC has promulgated rules requiring disclosure regarding the use of certain "conflict minerals" that are mined from the Democratic Republic of Congo and adjoining countries and procedures regarding a manufacturer's efforts to prevent the sourcing of such minerals. Complying with these disclosure requirements involves substantial diligence efforts to determine the source of any conflict minerals used in our products and may require third-party auditing of our diligence process. These efforts may demand internal resources that would otherwise be directed towards operations activities.

Since our supply chain is complex, we may face reputational challenges if we are unable to sufficiently verify the origins of the conflict minerals used in our products. Additionally, if we are unable to satisfy those customers who require that all of the

components of our products are determined to be conflict free, they may choose a competitor's products which could materially impact our financial condition and operating results.

We are also subject to laws and regulations with respect to personal data we collect from our employees, customers, and others. These laws and regulations are subject to frequent modifications and updates and require ongoing supervision. For example, the European Union adopted a General Data Protection Regulation ("GDPR") that became effective in May 2018, and has established new, and in some cases more stringent, requirements for data protection in Europe, and which provides for substantial penalties for noncompliance. We have made certain modifications to our practices in order to comply with these or other requirements, and may be required to make additional modifications in order to comply with these or other requirements relating to privacy and data protection in the future, each of which may require us to incur significant costs and expenses. Additionally, California enacted legislation in June 2018, the California Consumer Privacy Act ("CCPA"), which went into effect on January 1, 2020 and which, among other things, requires covered companies to provide new disclosures to California consumers. Similar legislation has been proposed or adopted in other states. Aspects of the CCPA and these other state laws and regulations, as well as their enforcement, remain unclear. The effects of the CCPA and these other state laws and regulations relating to privacy and data protection continue to evolve in various jurisdictions, with existing laws and regulations subject to new and differing interpretations and new laws and regulations being proposed and adopted. It is possible that our practices may be deemed not to comply with those privacy and data protection legal requirements that apply to us now or in the future.

Further, in June 2016, a referendum was passed in the United Kingdom to leave the European Union, commonly referred to as "Brexit." The United Kingdom officially left the European Union on January 31, 2020, with a transitional period set to end on December 31, 2020. Brexit created an uncertain political and economic environment in the United Kingdom and other European Union countries. For example, while the United Kingdom has enacted a Data Protection Bill that substantially implements GDPR, which became law in May 2018 and was the subject of statutory amendments in 2019 that further aligned it with the GDPR, there remains uncertainty with regard to how data transfers between the United Kingdom and the European Union will be regulated following Brexit.

Our failure or perceived failure to comply with any of the foregoing legal and regulatory requirements could result in increased costs for our products, monetary penalties, damage to our reputation, government inquiries and investigations, and legal action. Furthermore, the legal and regulatory requirements that are applicable to our business are subject to change from time to time, which increases our monitoring and compliance costs and the risk that we may fall out of compliance. Additionally, we may be required to ensure that our suppliers comply with applicable laws and regulations. If we or our suppliers fail to comply with such laws or regulations, we could face sanctions for such noncompliance, and our customers may refuse to purchase our products, which would have a material adverse effect on our business, financial condition and results of operations.

Our sales may decline if we are unable to obtain government authorization to export certain of our products, and we may be subject to legal and regulatory consequences if we do not comply with applicable export control laws and regulations.

Exports of certain of our products are subject to export controls imposed by the U.S. government and administered by the U.S. Departments of State and Commerce. In certain instances, these regulations may require pre-shipment authorization from the administering department. For products subject to the Export Administration Regulations ("EAR") administered by the Department of Commerce's Bureau of Industry and Security, the requirement for a license is dependent on the type and end use of the product, the final destination, the identity of the end user and whether a license exception might apply. Virtually all exports of products subject to the International Traffic in Arms Regulations ("ITAR") administered by the Department of State's Directorate of Defense Trade Controls, require a license. Certain of our fiber optics products are subject to EAR and certain of our RF-over-fiber products, as well as certain products and technical data, are developed with government funding, and are currently subject to ITAR. Products and the associated technical data developed and manufactured in our foreign locations are subject to export controls of the applicable foreign nation.

Given the current global political climate, obtaining export licenses can be difficult and time-consuming. Failure to obtain export licenses for these shipments could significantly reduce our revenue and materially adversely affect our business, financial condition and results of operations. Compliance with U.S. government regulations also subjects us to additional fees and costs. The absence of comparable restrictions on competitors in other countries may adversely affect our competitive position.

Further, there is increased attention from the government and the media regarding potential threats to U.S. national security and foreign policy relating to certain foreign entities, particularly Chinese entities, and the imposition of enhanced restrictions or sanctions regarding the export of our products or on specific foreign entities that would restrict their ability to do business with U.S. companies may materially adversely affect our business. For example, on May 16, 2019, Huawei was added to the Entity List of the Bureau of Industry and Security of the U.S. Department of Commerce and additional regulatory restrictions were imposed in May and August 2020 to the Foreign-Produced Direct Product Rule, which impose limitations on the supply of certain

U.S. items and product support to Huawei, and FiberHome Technologies was added to the Entity List on May 22, 2020. We cannot predict what additional actions the U.S. government may take with respect to Huawei or other of our customers, including modifications to or interpretations of Entity List restrictions, export restrictions, tariffs, or other trade limitations or barriers.

Our association with customers that are or become subject to U.S. regulatory scrutiny or export restrictions could negatively impact our business. Governmental actions such as these could subject us to actual or perceived reputational harm among current or prospective investors, suppliers or customers of our customers, other parties doing business with us, or the general public. Any such reputational harm could result in the loss of investors, suppliers or customers, which could harm our business, financial condition, operating results or prospects.

In addition, certain of our significant customers and suppliers have products that are subject to U.S. export controls, and therefore these customers and suppliers may also be subject to legal and regulatory consequences if they do not comply with applicable export control laws and regulations. Such regulatory consequences could disrupt our ability to obtain components from our suppliers, or to sell our products to major customers, which could significantly increase our costs, reduce our revenue and materially adversely affect our business, financial condition and results of operations.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, our ability to produce timely and accurate financial statements or comply with applicable regulations could be impaired.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, and Nasdaq listing requirements. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant resources, including accounting-related costs and significant management oversight.

Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could cause us to delay reporting of our financial results, be subject to one or more investigations or enforcement actions by state or federal regulatory agencies, stockholder lawsuits or other adverse actions requiring us to incur defense costs, pay fines, settlements or judgments. Any such failures could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the trading price of our common stock. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on the NASDAQ stock market.

Risks Related to Our Common Stock

Our stock price may be volatile and may decline regardless of our operating performance.

Our common stock is listed on the Nasdaq Global Select Market ("NASDAQ") under the symbol "LITE". Since shares of our common stock commenced trading on the NASDAQ stock market in August 2015, the reported high and low closing prices of our common stock per NASDAQ has ranged from \$14.12 to \$92.85, through June 27, 2020. The market price of our common stock may fluctuate significantly due to a number of factors, some of which may be beyond our control, including:

- general economic and market conditions and other external factors, particularly in light of the market volatility driven by the impact of COVID-19;
- actual or anticipated fluctuations in our quarterly or annual operating results;
- changes in earnings estimates by securities analysts or our ability to meet those estimates;
- the operating and stock price performance of other comparable companies;
- a shift in our investor base;
- the financial performance of other companies in our industry, and of our customers;
- success or failure of our business strategy;
- credit market fluctuations which could negatively impact our ability to obtain financing as needed;
- changes to the regulatory and legal environment in which we and our customers operate;
- announcements by us, competitors, customers, or our contract manufacturers of significant acquisitions or dispositions;
- investor perception of us and our industry;

- changes in accounting standards, policies, guidance, interpretations or principles;
- litigation or disputes in which we may become involved;
- overall market fluctuations;
- sales of our shares by our officers, directors, or significant stockholders; and
- the timing and amount of dividends and share repurchases, if any.

In addition, 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 technology companies. Stock prices of many technology companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business and adversely affect our business, results of operations, financial condition and cash flows.

Servicing our 2024 Notes and 2026 Notes may require a significant amount of cash, and we may not have sufficient cash flow or the ability to raise the funds necessary to satisfy our obligations under the 2024 Notes or 2026 Notes, and our current and future indebtedness may limit our operating flexibility or otherwise affect our business.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the 2024 Notes and 2026 Notes, or to make cash payments in connection with any conversion of the 2024 Notes, 2026 Notes or upon any fundamental change if holders of the applicable series of notes require us to repurchase their notes for cash, depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our indebtedness and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring indebtedness or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations. In addition, our existing and future indebtedness could have important consequences to our stockholders and significant effects on our business. For example, it could:

- make it more difficult for us to satisfy our debt obligations, including the 2024 Notes and the 2026 Notes;
- increase our vulnerability to general adverse economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund working capital and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- restrict us from exploiting business opportunities;
- place us at a competitive disadvantage compared to our competitors that have less indebtedness; and
- limit our availability to borrow additional funds for working capital, capital expenditures, acquisitions, debt service requirements, execution of
 our business strategy or other general purposes.

Transactions relating to our 2024 Notes and 2026 Notes may dilute the ownership interest of existing stockholders, or may otherwise depress the price of our common stock.

If the 2024 Notes or the 2026 Notes are converted by holders of such series, we have the ability under the applicable indenture to deliver cash, equity, common stock, or any combination of cash or common stock, at our election upon conversion of the applicable series of convertible notes. If we elect to deliver common stock upon conversion of the 2024 Notes or the 2026 Notes, it would dilute the ownership interests of existing stockholders. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, certain holders of the 2024 Notes or the 2026 Notes may engage in short selling to hedge their position in the convertible notes. Anticipated future conversions of the 2024 Notes or 2026 Notes into shares of our common stock could depress the price of our common stock.

We do not expect to pay dividends on our common stock.

We do not currently expect to pay dividends on our common stock. The payment of any dividends to our stockholders in the future, and the timing and amount thereof, if any, is within the discretion of our board of directors. Our board of directors' decisions regarding the payment of dividends will depend on many factors, such as our financial condition, earnings, capital requirements, potential debt service obligations or restrictive covenants, industry practice, legal requirements, regulatory constraints and other factors that our board of directors deems relevant.

In addition, because we are a holding company with no material direct operations, we are dependent on loans, dividends and other payments from our operating subsidiaries to generate the funds necessary to pay dividends on our common stock. However, our operating subsidiaries' ability to make such distributions will be subject to their operating results, cash requirements and financial condition and the applicable provisions of Delaware law that may limit the amount of funds available for distribution. Our ability to pay cash dividends may also be subject to covenants and financial ratios related to existing or future indebtedness, and other agreements with third parties.

Certain provisions in our charter and Delaware corporate law could hinder a takeover attempt.

We are subject to the provisions of Section 203 of the DGCL which prohibits us, under some circumstances, from engaging in business combinations with some stockholders for a specified period of time without the approval of the holders of substantially all of our outstanding voting stock. Such provisions could delay or impede the removal of incumbent directors and could make more difficult a merger, tender offer or proxy contest involving us, even if such events could be beneficial, in the short-term, to the interests of our stockholders. In addition, such provisions could limit the price that some investors might be willing to pay in the future for shares of our common stock. Our certificate of incorporation and bylaws contain provisions providing for the limitations of liability and indemnification of our directors and officers, allowing vacancies on our board of directors to be filled by the vote of a majority of the remaining directors, granting our board of directors the authority to establish additional series of preferred stock and to designate the rights, preferences and privileges of such shares (commonly known as "blank check preferred") and providing that our stockholders can take action only at a duly called annual or special meeting of stockholders, which may only be called by the chairman of the board of directors, the chief executive officer or the board of directors. These provisions may also have the effect of deterring hostile takeovers or delaying changes in control or changes in our management.

Our bylaws designate Delaware courts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could discourage lawsuits against us or our directors and officers.

Our bylaws provide that, unless we consent in writing to an alternative forum, the state or federal courts of Delaware are the sole and exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting breach of fiduciary duty, or other wrongdoing, by our directors, officers or other employees to us or our stockholders; any action asserting a claim against Lumentum pursuant to the Delaware General Corporation Law or our certificate of incorporation or bylaws; any action asserting a claim against Lumentum governed by the internal affairs doctrine; or any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws. This exclusive forum provision may limit the ability of our stockholders to bring a claim in a judicial forum that such stockholders find favorable for disputes with us or our directors or officers, which may discourage such lawsuits against us or our directors and officers.

Alternatively, if a court outside of Delaware were to find this exclusive forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings described above, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition or results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We own and lease various properties in the United States and eleven other countries around the world. We use the properties for executive and administrative offices, data centers, product development offices, customer service offices and manufacturing facilities. Our current corporate headquarters is approximately 238,000 square feet and located in San Jose, California which we own. As of June 27, 2020, our leased and owned properties in total are approximately 2,100,000 square feet, of which we own approximately 900,000 square feet, including the 560,000 square feet manufacturing site in Thailand, the 238,000 square feet on the San Jose campus, and the 80,000 square feet manufacturing facility in San Jose. Larger leased sites include properties located in Canada, China, Japan, the United Kingdom and the United States. We believe our existing properties, including both owned and leased sites, are in good condition and suitable for the conduct of our business.

From time to time we consider various alternatives related to our long-term facilities' needs. While we believe our existing facilities are adequate to meet our immediate needs, it may become necessary to lease, acquire, or sell additional or alternative space to accommodate future business needs.

ITEM 3. LEGAL PROCEEDINGS

We are subject to a variety of claims and suits that arise from time to time in the ordinary course of our business. While management currently believes that resolving claims against us, individually or in the aggregate, will not have a material adverse impact on our financial position, results of operations or cash flows, these matters are subject to inherent uncertainties and management's view of these matters may change in the future. Should we experience an unfavorable final outcome, there exists the possibility of a material adverse impact on our financial position, results of operations or cash flows for the period in which the effect becomes reasonably estimable.

Merger Litigation

In connection with our acquisition of Oclaro, seven lawsuits were filed by purported stockholders of Oclaro challenging the proposed merger (the "Merger"). Two of the seven suits were putative class actions filed against Oclaro, its directors, Lumentum, Prota Merger Sub, Inc. and Prota Merger, LLC: Nicholas Neinast v. Oclaro, Inc., et al., No. 3:18-cv-03112-VC, in the United States District Court for the Northern District of California (filed May 24, 2018) (the "Neinast Lawsuit"); and Adam Franchi v. Oclaro, Inc., et al., No. 1:18-cv-00817-GMS, in the United States District Court for the District of Delaware (filed June 9, 2018) (the "Franchi Lawsuit). Both the Neinast Lawsuit and the Franchi Lawsuit were voluntarily dismissed with prejudice.

The other five suits, styled as Gerald F. Wordehoff v. Oclaro, Inc., et al., No. 5:18-cv-03148-NC (the "Wordehoff Lawsuit"), Walter Ryan v. Oclaro, Inc., et al., No. 3:18-cv-03174-VC (the "Ryan Lawsuit"), Jayme Walker v. Oclaro, Inc., et al., No. 5:18-cv-03203-EJD (the "Walker Lawsuit"), Kevin Garcia v. Oclaro, Inc., et al., No. 5:18-cv-03262-VKD (the "Garcia Lawsuit"), and SaiSravan B. Karri v. Oclaro, Inc., et al., No. 3:18-cv-03435-JD (the "Karri Lawsuit" and, together with the other six lawsuits, the "Lawsuits"), were filed in the United States District Court for the Northern District of California on May 25, 2018, May 29, 2018, May 30, 2018, May 31, 2018, and June 9, 2018, respectively. These five Lawsuits named Oclaro and its directors as defendants only and did not name Lumentum. The Wordehoff, Ryan, Walker, and Garcia Lawsuits have been voluntarily dismissed, and the Wordehoff, Ryan, and Walker dismissals were with prejudice. The Karri Lawsuit has not yet been dismissed. The Ryan Lawsuit was, and the Karri Lawsuit is, a putative class action.

The Lawsuits generally alleged, among other things, that Oclaro and its directors violated Section 14(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Rule 14a-9 promulgated thereunder by disseminating an incomplete and misleading Form S-4, including proxy statement/prospectus. The Lawsuits further alleged that Oclaro's directors violated Section 20(a) of the Exchange Act by failing to exercise proper control over the person(s) who violated Section 14(a) of the Exchange Act.

The remaining Lawsuit (the Karri Lawsuit) currently purports to seek, among other things, damages to be awarded to the plaintiff and any class, if a class is certified, and litigation costs, including attorneys' fees. A lead plaintiff and counsel has been selected, and an amended complaint was filed on April 15, 2019, which also names Lumentum as a defendant. A motion to dismiss the amended complaint has been fully briefed and is currently pending, and defendants intend to defend the Karri Lawsuit vigorously.

ITEM 4. MINE SAFETY DISCLOSURES

None.

PART II

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

Our common stock trades on the NASDAQ Stock Market under the symbol "LITE". According to records of our transfer agent, we had 2,708 stockholders of record as of August 18, 2020 and we believe there is a substantially greater number of beneficial holders.

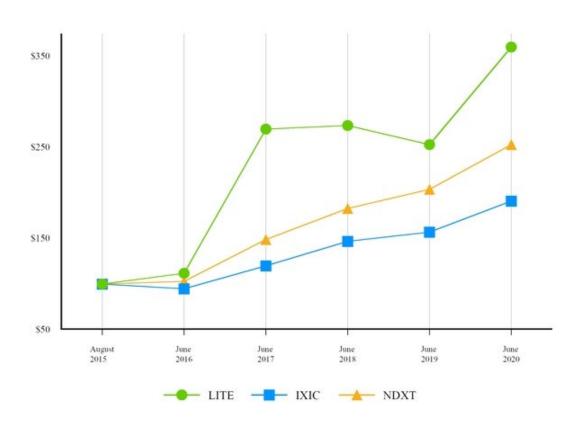
We do not expect to pay cash dividends on our common stock in the foreseeable future.

Stock Performance Graph

This performance graph shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the Exchange Act), or incorporated by reference into any filing of Lumentum Holdings Inc. under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The following graph compares the cumulative total return of our common stock with the total return for the NASDAQ Composite Index (the "IXIC") and the NASDAQ 100 Technology Sector Index (the "NDXT") from August 4, 2015 through June 27, 2020. The stock price performance on the following graph is not necessarily indicative of future stock price performance.

COMPARISON OF CUMULATIVE TOTAL RETURN Among LITE, the NDXT, and the IXIC



Recent Sale of Unregistered Equity Securities

None.

Issuer Purchases of Equity Securities

In December 2019, we purchased approximately \$200 million or 2.9 million shares of our common stock concurrently with the pricing of the 2026 Notes in privately negotiated transactions effected through the initial purchaser of the 2026 Notes or its affiliates as its agent.

ITEM 6. SELECTED FINANCIAL DATA

This table sets forth selected financial data of Lumentum (*in millions*, except share and per share amounts) for the periods indicated. This data should be read in conjunction with the discussion in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 of this Annual Report and our audited consolidated financial statements included in Item 8 of this Annual Report. The selected data in this section are not intended to replace the Consolidated Financial Statements included in this Annual Report.

Our historical consolidated financial statements for the fiscal year ended July 2, 2016 include allocations of expenses arising from shared services and infrastructure provided by Viavi to us, including costs of information technology, human resources, accounting, legal, real estate and facilities, corporate marketing, insurance, treasury and other corporate and infrastructure services. The financial information included here may not necessarily reflect our financial position and results of operations or what our financial position and results of operations would have been had we been an independent, publicly-traded company during the entirety of the periods presented or be indicative of our future performance as an independent company. There were no allocations of expenses from Viavi for the other fiscal years presented below.

			Years Ended		
	 June 27, 2020 (1)	 June 29, 2019 (2)	 June 30, 2018 (3)	 July 1, 2017 (4)	 July 2, 2016
Consolidated Statements of Operations Data:					
Net revenue	\$ 1,678.6	\$ 1,565.3	\$ 1,247.7	\$ 1,001.6	\$ 903.0
Gross profit	650.2	425.9	432.1	318.1	277.3
Income (loss) from operations	204.1	(21.6)	139.9	47.6	11.5
Net income (loss)	135.5	(36.4)	248.1	(102.5)	9.3
Cumulative dividends on Series A Preferred Stock	_	(0.3)	(0.9)	(0.9)	(0.8)
Accretion of Series A Preferred Stock	_	_		_	(11.7)
Earnings allocated to Series A Preferred Stock	_	(1.2)	(5.7)	_	
Net income (loss) attributable to common stockholders	\$ 135.5	\$ (37.9)	\$ 241.5	\$ (103.4)	\$ (3.2)
Net income (loss) per share attributable to common stockholders:					
Basic	\$ 1.79	\$ (0.54)	\$ 3.88	\$ (1.71)	\$ (0.05)
Diluted	\$ 1.75	\$ (0.54)	\$ 3.82	\$ (1.71)	\$ (0.05)
Shares used to compute net income (loss) per share attributable to common stockholders:					
Basic	75.9	70.7	62.3	60.6	59.1
Diluted	77.6	70.7	63.3	60.6	59.1

				Balance as of				
	Jun	e 27, 2020 ⁽¹⁾	June 29, 2019 (2)	June 30, 2018 (3)	July 1, 2017 (4)			July 2, 2016
Consolidated Balance Sheet Data:			 					
Cash and cash equivalents	\$	298.0	\$ 432.6	\$ 397.3	\$	272.9	\$	157.1
Short-term investments		1,255.8	335.9	314.2		282.4		_
Total assets		3,292.6	2,716.6	1,581.5		1,232.9		726.3
Convertible notes		1,120.3	351.9	334.2		317.5		_
Term loan, non-current		_	484.0	_		_		_
Derivative liability		_	_	52.4		51.6		10.3
Other non-current liabilities		36.0	33.7	19.0		25.0		9.1
Total redeemable convertible preferred stock		_	_	35.8		35.8		35.8
Total stockholders' equity		1,749.2	1,497.1	926.1		618.8		497.4

- (1) In fiscal 2020, we repaid, in full, all amounts outstanding under our Term Loan Facility. In December 2019, we issued \$1,050.0 million of the 2026 Notes in a private offering. We used approximately \$196 million of the net proceeds of the offering to repay in full all amounts outstanding under our term loan facility, and a portion of the net proceeds of the offering to purchase approximately \$200 million of our common stock concurrently with the pricing of the offering in privately negotiated transactions.
- (2) On December 10, 2018, we completed the acquisition of Oclaro, a provider of optical components and modules for the long-haul, metro and data center markets, for \$1.4 billion, which was funded through the issuance of Lumentum common stock, new debt, and cash balances of the combined company. Refer to "Note 4. Business Combinations" in the notes to consolidated financial statements for further discussion of the merger. Results of operations and financial position of the business acquired have been included in our consolidated financial statements subsequent to the date of acquisition.
- (3) During the second quarter of fiscal 2018, we had a credit of \$207.0 million primarily related to a release of a U.S. valuation allowance, which was offset by a write-down of deferred tax assets in the amount of \$83.0 million due to the lower corporate tax rate enacted under the 2017 "Tax Cuts and Jobs Act" reform.
- (4) During the third quarter of fiscal 2017, we completed the acquisition of a privately held company. Results of operations and financial position of the business acquired have been included in our consolidated financial statements subsequent to the date of acquisition.

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

You should read the following discussion in conjunction with the audited consolidated financial statements and the corresponding notes included elsewhere in this Annual Report. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements. The matters discussed in these forward-looking statements are subject to risk, uncertainties and other factors that could cause actual results to differ materially from those made, projected or implied in the forward-looking statements. Please see "Risk Factors" and "Forward-Looking Statements" for a discussion of the uncertainties, risks and assumptions associated with these statements.

Overview

We are an industry-leading provider of optical and photonic products defined by revenue and market share addressing a range of end-market applications including Optical Communications, which we refer to as OpComms, and Lasers for manufacturing, inspection and life-science applications. We seek to use our core optical and photonic technology and our volume manufacturing capability to expand into attractive emerging markets that benefit from advantages that optical or photonics-based solutions provide, including 3D sensing for consumer electronics and diode light sources for a variety of consumer and industrial applications. We have two operating segments, OpComms and Lasers. The two operating segments were primarily determined based on how the Chief Operating Decision Maker ("CODM") views and evaluates our operations. Operating results are regularly reviewed by the CODM to make decisions about resources to be allocated to the segments and to assess their performance. Other factors, including market separation and customer specific applications, go-to-market channels, products and manufacturing, are considered in determining the formation of these operating segments.

We believe the world is becoming more reliant on ever-increasing amounts of data flowing through optical networks and data centers, which require new networks and data centers to satisfy this demand. As manufacturers demand higher levels of precision, new materials, and factory and energy efficiency, suppliers of manufacturing tools globally are turning to laser based approaches, including the types of lasers Lumentum supplies. Laser based 3D sensing is a rapidly developing market. The technology enables computer vision applications that enhance security, safety, and new functionality in the electronic devices that people rely on every day. We believe the global markets in which Lumentum participates have fundamentally robust, long-term trends that increase the need for our photonics products and technologies.

On December 10, 2018, we completed the acquisition of Oclaro, a provider of optical components and modules for the long-haul, metro and data center markets. Refer to "Note 4. Business Combinations" in the notes to consolidated financial statements for further discussion of the merger.

OpComms

Our OpComms products address the following markets: Telecom, Datacom and Consumer and Industrial.

Our OpComms products include a wide range of components, modules and subsystems to support customers including carrier networks for access (local), metro (intracity), long-haul (city-to-city and worldwide) and submarine (undersea) applications. Additionally, our products address enterprise, cloud, and data center applications, including storage-access networks ("SANs"), local-area networks ("LANs") and wide-area networks ("WANs"). These products enable the transmission and transport of video, audio and data over high-capacity fiber-optic cables. We maintain leading positions in these fast growing OpComms markets through our extensive product portfolio, including reconfigurable optical add/drop multiplexers ("ROADMs"), coherent DWDM pluggable transceivers, and tunable small form-factor pluggable transceivers. We also sell laser chips for use in the manufacture of high-speed Datacom transceivers.

In the Consumer and Industrial market, our OpComms products include laser light sources, which are integrated into 3D sensing platforms being used in applications for mobile devices, gaming, computers, and other consumer electronics devices. New emerging applications include virtual and augmented reality, as well as automotive and industrial segments. Our products include vertical cavity surface emitting lasers ("VCSELs") and edge emitting lasers which are used in 3D sensing depth imaging systems. These systems simplify the way people interact with technology by enabling the use of natural user interfaces. Systems are used for biometric identification, surveillance, and process efficiency, among numerous other application spaces. Emerging applications for this technology include various mobile device applications, autonomous vehicles, self-navigating robotics and drones in industrial applications and 3D capture of objects coupled with 3D printing. In addition, our industrial diode lasers are used primarily as pump sources for pulsed and kilowatt class fiber lasers.

Our OpComms customers include Alphabet, Apple, Ciena, Cisco Systems (which announced the acquisition of Acacia Communications, another customer of ours), Huawei Technologies (including HiSilicon), Infinera, Innolight, Nokia Networks (including Alcatel-Lucent International), O-Net, and ZTE.

Following the acquisition of Oclaro, during our fiscal 2019, we made several strategic changes to our OpComms business to better position it for growth and profitability. These changes included attaining acquisition cost synergies related to redundant capabilities and divestiture of Telecom Lithium Niobate modulators and Datacom transceiver modules because of their muted growth and profitability trends. These changes were substantially completed in fiscal 2020. We expect our Indium Phosphide photonic integrated circuits will continue to replace Lithium Niobate modulators over time and focusing on the development and sale of Datacom chips has enabled us to participate in the growth of the Datacom and 5G wireless markets.

Related to the strategic changes in our OpComms business, we entered into two strategic transactions to sell some of the discontinued product lines. In the second quarter of fiscal year 2020, we entered into an agreement with Advanced Fiber Resources (Zhuhai) Ltd. ("AFR"), a leading provider of passive optical components, to sell the assets associated with certain Lithium Niobate product lines manufactured by our San Donato site for \$17.0 million. The transaction was closed in the third quarter of fiscal year 2020. For further information regarding this transaction, refer to "Note 5. Assets and Liabilities Held For Sale" in the notes to consolidated financial statements. On April 18, 2019, we closed a transaction selling many of our Datacom transceiver module product lines to Cambridge Industries Group ("CIG"). For further information regarding this transaction, refer to "Note 4. Business Combinations" in the notes to consolidated financial statements.

Lasers

Our Lasers products serve our customers in markets and applications such as sheet metal processing, general manufacturing, biotechnology, graphics and imaging, remote sensing, and precision machining such as drilling in printed circuit boards, wafer singulation, glass cutting and solar cell scribing.

Our Lasers products are used in a variety of OEM applications including diode-pumped solid-state, fiber, diode, direct-diode and gas lasers such as argonion and helium-neon lasers. Fiber lasers provide kW-class output powers combined with excellent beam quality and are used in sheet metal processing and metal welding applications. Diode-pumped solid-state lasers provide excellent beam quality, low noise and exceptional reliability and are used in biotechnology, graphics and imaging, remote sensing, materials processing and precision machining applications. Diode and direct-diode lasers address a wide variety of applications, including laser pumping, thermal exposure, illumination, ophthalmology, image recording, printing, plastic welding and selective soldering. Gas lasers such as argon-ion and helium-neon lasers provide a stable, low-cost and reliable solution over a wide range of operating conditions, making them well-suited for complex, high-resolution OEM applications such as flow cytometry, DNA sequencing, graphics and imaging and semiconductor inspection.

We also provide high-powered and ultrafast lasers for the industrial and scientific markets. Manufacturers use high-power, ultrafast lasers to create micro parts for consumer electronics and to process semiconductor, LED, and other types of chips. Use of ultrafast lasers for micromachining applications is being driven primarily by the increasing use of consumer electronics and connected devices globally.

Our Lasers customers include Amada, ASML Holding, Beckman Coulter, DISCO, Electro Scientific Industries (recently acquired by MKS Instruments, a competitor of ours), Han's Laser Technology, KLA-Tencor, Lasertec, Life Technologies, and NR Electric.

Impact of COVID-19 to our Business

The outbreak of the COVID-19 has been declared a pandemic by the World Health Organization and continues to spread globally. The spread of COVID-19 has caused public health officials to recommend, and governments to enact, precautions to mitigate the spread of the virus, including travel restrictions and bans, extensive social distancing guidelines and issuing a "shelter-in-place" order in many regions of the world. The pandemic and these related responses have caused, and are expected to continue to cause a global slowdown of economic activity (including the decrease in demand for a broad variety of goods and services), disruptions in global supply chains and significant volatility and disruption of financial markets. We have adopted several measures in response to the COVID-19 outbreak including complying with local, state or federal orders that require employees to work from home, instructing employees to work from home in certain jurisdictions, limiting the number of employees onsite which slowed our manufacturing operations in certain countries, enhanced use of personal protective equipment and restricting non-critical business travel by our employees.

In the geographies we have operations, we have in general been deemed an essential business and been permitted to continue manufacturing and new product development operations in a more limited capacity during the pandemic. This stems from our critical role in global supply chains for the world's communications and health-care systems. Given the rapidly evolving situation, it is difficult to predict precisely when our ability to supply our products will improve or the magnitude and duration of the impact of the COVID-19 pandemic to our markets. We will continue to actively monitor the situation and may take further actions altering our business operations that we determine are in the best interests of our employees, customers, communities, business partners, suppliers, and stockholders, or as required by federal, state, or local authorities. It is not clear what the potential effects any such

alterations or modifications may have on our business, including the effects on our customers, employees, and prospects, or on our financial results for fiscal year 2021.

While the recent outbreak of the COVID-19 did not have a material adverse effect on our reported results for our third and fourth quarters, we are actively monitoring the impact of the coronavirus outbreak. The extent to which our operations will be impacted by the outbreak will depend largely on future developments, which are highly uncertain and cannot be accurately predicted, including new information which may emerge concerning the severity of the outbreak and actions by government authorities and private businesses to contain the outbreak or recover from its impact, among other things.

Our primary strategic focus for several years has been technology and product leadership combined with close customer relationships in long-term healthy and growing markets. We believe this strategy is even more apt, and our long-term opportunity is not diminished, with COVID-19. We believe there may be long-term opportunities, as the world's experience with COVID-19 could drive an increasingly digital and virtual world touching all aspects of life and work that increasingly emphasizes communications systems, cloud services, augmented and virtual reality, and enhanced security. Additionally, ever advancing electronic devices are needed to consume, produce, and communicate digital and virtual content. All these trends could drive the need for higher volumes of higher performing optical devices that we could supply. As such, we expect to continue to invest strongly in new products, technology, and customer programs.

For more information on risks associated with the COVID-19 outbreak, see the section titled "Risk Factors" in Item 1A of Part I.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles ("GAAP") as set forth in the Financial Accounting Standards Board's Accounting Standards Codification ("ASC"), and we consider the various staff accounting bulletins and other applicable guidance issued by the United States Securities and Exchange Commission ("SEC"). GAAP, as set forth within the ASC, requires us to make certain estimates, judgments and assumptions. We believe that the estimates, judgments and assumptions upon which we rely are reasonable based upon information available to us at the time that these estimates, judgments and assumptions are made. These estimates, judgments and assumptions can affect the reported amounts of assets and liabilities as of the date of the financial statements as well as the reported amounts of revenues and expenses during the periods presented. To the extent there are differences between these estimates, judgments or assumptions and actual results, our financial statements will be affected. The accounting policies that reflect our more significant estimates, judgments and assumptions and which we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

- Inventory Valuation
- Revenue Recognition
- Income Taxes
- Long-lived Asset Valuation
- Goodwill

Except for the adoption of ASU 2016-02, Leases (Topic 842) and the resulting changes in our accounting policies and disclosures for lease accounting, there have been no significant changes to our significant accounting policies as of and for the year ended June 27, 2020. Refer to "Note 1. Description of Business and Summary of Significant Accounting Policies" for the details of ASU 2016-02 (Topic 842) adoption.

Inventory Valuation

Inventory is valued at standard cost, which approximates actual cost computed on a first-in, first-out basis, not in excess of net realizable value. We assess the value of our inventory on a quarterly basis and write down those inventories which are obsolete or in excess of our forecasted demand to the lower of their cost or estimated net realizable value. Our estimates of forecasted demand are based upon our analysis and assumptions including, but not limited to, expected product lifecycles, product development plans and historical usage by product. Our product line management personnel play a key role in our excess review process by providing updated sales forecasts, managing product transitions and working with manufacturing to minimize excess inventory. If actual market conditions are less favorable than our forecasts, or actual demand from our customers is lower than our estimates, we may be required to record additional inventory write-downs. If actual market conditions are more favorable than anticipated, inventory previously written down may be sold, resulting in lower cost of sales and higher income from operations than expected in that period.

Revenue Recognition

Adoption of Topic 606

Pursuant to Topic 606, our revenues are recognized upon the application of the following steps:

- identification of the contract, or contracts, with a customer;
- identification of the performance obligations in the contract;
- determination of the transaction price;
- allocation of the transaction price to the performance obligations in the contract; and
- recognition of revenues when, or as, the contractual performance obligations are satisfied.

The majority of our revenue comes from product sales, consisting of sales of Lasers and OpComms hardware products to our customers. Our revenue contracts generally include only one performance obligation. Revenues are recognized at a point in time when control of the promised goods or services are transferred to our customers upon shipment or delivery, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. We have entered into vendor managed inventory ("VMI") programs with our customers. Under these arrangements, we receive purchase orders from our customers, and the inventory is shipped to the VMI location upon receipt of the purchase order. The customer then pulls the inventory from the VMI hub based on its production needs. Revenue under VMI programs is recognized when control transfers to the customer, which is generally once the customer pulls the inventory from the hub.

Revenue from all sales types is recognized at the transaction price. The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring goods or services to the customer, adjusted for estimated variable consideration, if any. We typically estimate the impact on the transaction price for discounts offered to the customer for early payments on receivables or net of accruals for estimated sales returns. These estimates are based on historical returns, analysis of credit memo data and other known factors. Actual returns could differ from these estimates. We allocate the transaction price to each distinct product based on its relative standalone selling price. The product price as specified on the purchase order is considered the standalone selling price as it is an observable input that depicts the price as if sold to a similar customer in similar circumstances.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by us from a customer and deposited with the relevant government authority, are excluded from revenue. Our revenue arrangements do not contain significant financing components as our standard payment terms are less than one year.

If a customer pays consideration, or if we have a right to an amount of consideration that is unconditional before we transfer a good or service to the customer, those amounts are classified as deferred revenue or deposits received from customers which are included in other current liabilities or other long-term liabilities when the payment is made or when it is due, whichever is earlier.

Transaction Price Allocated to the Remaining Performance Obligations

Remaining performance obligations represent the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied as of the end of the reporting period. Unsatisfied and partially unsatisfied performance obligations consist of contract liabilities and non-cancellable backlog. Non-cancellable backlog includes goods and services for which customer purchase orders have been accepted that are scheduled or in the process of being scheduled for shipment. A portion of our revenue arises from vendor-managed inventory arrangements where the timing and volume of customer utilization is difficult to predict.

The following table includes estimated revenue expected to be recognized in the future for backlog related performance obligations that are unsatisfied as of June 27, 2020 (in millions):

	Less than 1 year	1-2 years	Greater than 2 years	Total
Performance Obligations	\$525.5	\$32.3	\$—	\$557.8

Warranty

Hardware products regularly include warranties to the end customers such that the product continues to function according to published specifications. We typically offer a twelve-month warranty for most of our products. However, in some instances depending upon the product, specific market, product line and geography in which we operate, and what is common in the industry, our warranties can vary and range from six months to five years. These standard warranties are assurance type warranties and do not offer any services in addition to the assurance that the product will continue working as specified. Therefore, warranties are not considered separate performance obligations in the arrangement. Instead, the expected cost of the warranty is accrued as expense in accordance with authoritative guidance.

We provide reserves for the estimated costs of product warranties at the time revenue is recognized. We estimate the costs of our warranty obligations based on our historical experience of known product failure rates, use of materials to repair or replace defective products and service delivery costs incurred in correcting product failures. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise.

Shipping and Handling Costs

We record shipping and handling costs related to revenue transactions within cost of sales as a period cost.

Contract Costs

We recognize the incremental direct costs of obtaining a contract, which consist of sales commissions, when control over the products they relate to transfers to the customer. Applying the practical expedient, we recognize commissions as expense when incurred, as the amortization period of the commission asset we would have otherwise recognized is less than one year.

Contract Balances

We record accounts receivable when we have an unconditional right to consideration. Contract liabilities are recorded when cash payments are received or due in advance of performance. Contract liabilities consist of advance payments and deferred revenue, where we have unsatisfied performance obligations. Contract liabilities are classified as deferred revenue and customer deposits, and are included in other current liabilities within our consolidated balance sheet. Payment terms vary by customer. The time between invoicing and when payment is due is not significant.

The following table reflects the changes in contract balances as of June 27, 2020 (in millions, except percentages):

Contract balances	Balance sheet location	June 27, 2020	June 29, 2019	Change	Percentage Change
Accounts receivable, net	Accounts receivable, net	\$233.5	\$238.0	\$(4.5)	(1.9)%
Deferred revenue and customer deposits	Other current liabilities	\$1.9	\$2.9	\$(1.0)	(34.5)%

Disaggregation of Revenue

We disaggregate revenue by geography and by product. Refer to "Note 20. Operating Segments and Geographic Information" for a presentation of disaggregated revenue. We do not present other levels of disaggregation, such as by type of products, customer, markets, contracts, duration of contracts, timing of transfer of control and sales channels, as this information is not used by our CODM to manage the business.

Income Taxes

In accordance with the authoritative guidance on accounting for income taxes, we recognize income taxes using an asset and liability approach. This approach requires the recognition of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in our consolidated financial statements

or tax returns. The measurement of current and deferred taxes is based on provisions of the enacted tax law, and the effects of future changes in tax laws or rates are not anticipated.

The authoritative guidance provides for recognition of deferred tax assets if the realization of such deferred tax assets is more likely than not to occur based on an evaluation of both positive and negative evidence and the relative weight of the evidence. We consider future growth, forecasted earnings, future taxable income, the mix of earnings in the jurisdictions in which we operate, historical earnings, taxable income in prior years, if carryback is permitted under the law, and prudent and feasible tax planning strategies in determining the need for a valuation allowance. In the event we were to determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to the deferred tax assets valuation allowance would be charged to earnings in the period in which we make such a determination, or goodwill would be adjusted at our final determination of the valuation allowance related to an acquisition within the measurement period. If we later determine that it is more likely than not that the net deferred tax assets would be realized, we would reverse the applicable portion of the previously provided valuation allowance as an adjustment to earnings at such time.

We are subject to income tax audits by the respective tax authorities of the jurisdictions in which we operate. The determination of our income tax liabilities in each of these jurisdictions requires the interpretation and application of complex, and sometimes uncertain, tax laws and regulations. The authoritative guidance on accounting for income taxes prescribes both recognition and measurement criteria that must be met for the benefit of a tax position to be recognized in the financial statements. If a tax position taken, or expected to be taken, in a tax return does not meet such recognition or measurement criteria, an unrecognized tax benefit liability is recorded. If we ultimately determine that an unrecognized tax benefit liability is no longer necessary, we reverse the liability and recognize a tax benefit in the period in which it is determined that the unrecognized tax benefit liability is no longer necessary.

The recognition and measurement of current taxes payable or refundable and deferred tax assets and liabilities requires that we make certain estimates and judgments. Changes to these estimates or a change in judgment may have a material impact on our tax provision in a future period.

Long-lived Asset Valuation

We test long-lived assets for recoverability, at the asset group level, when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset, significant adverse changes in the business climate or legal factors, accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset, current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset, or current expectation that the asset will more likely than not be sold or disposed significantly before the end of its estimated useful life.

Recoverability is assessed based on the difference between the carrying amount of the asset and the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized when the carrying amount is not recoverable and exceeds fair value.

Goodwill

Goodwill represents the excess of the purchase price of an acquired business over the fair value of the identifiable assets acquired and liabilities assumed. We test for impairment of goodwill on an annual basis in the fourth quarter and at any other time when events occur or circumstances indicate that the carrying amount of goodwill may not be recoverable.

We have the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. The qualitative factors we assess include long-term prospects of our performance, share price trends and market capitalization, and Company specific events. Unanticipated events and circumstances may occur that affect the accuracy of our assumptions, estimates and judgments. For example, if the price of our common stock were to significantly decrease combined with other adverse changes in market conditions, thus indicating that the underlying fair value of our reporting units may have decreased, we might be required to reassess the value of our goodwill in the period such circumstances were identified.

If we determine that as a result of the qualitative assessment that it is more likely than not (i.e., greater than 50% likelihood) that the fair value of a reporting unit is less than its carrying amount, then the quantitative test is required. Otherwise, no further testing is required. The quantitative goodwill impairment test requires us to estimate the fair value of our reporting units. If the carrying value of a reporting unit exceeds its fair value, the goodwill of that reporting unit is potentially impaired and we record an impairment loss equal to the excess of the carrying value of the reporting unit's goodwill over its fair value, not to exceed the carrying amount of goodwill. The fair value of each of our goodwill reporting units is generally estimated using a combination of public company multiples and discounted cash flow methodologies.

Based on the impairment analysis performed in the fourth quarter of each year presented, the fair value of our reporting units substantially exceeded the carrying value; as such, our annual qualitative assessment did not indicate that a more detailed quantitative analysis was necessary.

In many cases, the accounting treatment of a particular transaction is specifically dictated by GAAP and does not require management's judgment in its application. There are also areas in which management's judgment in selecting among available alternatives would not produce a materially different result. Our senior management has reviewed our critical accounting policies and related disclosures with the Audit Committee of our board of directors.

Recently Issued Accounting Pronouncements

Refer to "Note 2. Recently Issued Accounting Pronouncements" in the notes to consolidated financial statements.

Results of Operations

The results of operations for the periods presented are not necessarily indicative of results to be expected for future periods. The following table summarizes selected consolidated statements of operations items as a percentage of net revenue:

		Years Ended							
	June 27, 2020	June 29, 2019	June 30, 2018						
Segment net revenue:									
OpComms	90.3 %	87.5 %	84.9 %						
Lasers	9.7	12.5	15.1						
Net revenue	100.0	100.0	100.0						
Cost of sales	58.1	69.8	65.1						
Amortization of acquired developed intangibles	3.2	3.0	0.3						
Gross profit	38.7	27.2	34.6						
Operating expenses:									
Research and development	11.8	11.8	12.6						
Selling, general and administrative	14.0	12.8	10.3						
Restructuring and related charges	0.5	2.0	0.6						
Impairment charges	0.3	2.0	_						
Total operating expenses	26.6	28.6	23.4						
Income (loss) from operations	12.2	(1.4)	11.2						
Unrealized gain (loss) on derivative liability	_	0.6	(0.1)						
Interest expense	(3.6)	(2.3)	(1.5)						
Other income (expense), net	1.9	1.0	0.7						
Income (loss) before income taxes	10.4	(2.1)	10.4						
Provision for (benefit from) income taxes	2.3	0.2	(9.5)						
Net income (loss)	8.1 %	(2.3)%	19.9 %						

Financial Data for Fiscal 2020, 2019 and 2018

The following table summarizes selected consolidated statements of operations items (in millions, except for percentages):

	2020	2019	Change	Percentage Change	_	2019	2018	Change	Percentage Change
Segment net revenue:									
OpComms	\$ 1,515.1	\$ 1,370.2	\$ 144.9	10.6 %	\$	1,370.2	\$ 1,059.2	\$ 311.0	29.4 %
Lasers	163.5	195.1	(31.6)	(16.2)		195.1	188.5	6.6	3.5
Net revenue	\$ 1,678.6	\$ 1,565.3	\$ 113.3	7.2 %	\$	1,565.3	\$ 1,247.7	\$ 317.6	25.5 %
Gross profit	\$ 650.2	\$ 425.9	\$ 224.3	52.7 %	\$	425.9	\$ 432.1	\$ (6.2)	(1.4)%
Gross margin	38.7%	27.2%				27.2%	34.6%		
Research and development	\$ 198.6	\$ 184.6	\$ 14.0	7.6 %	\$	184.6	\$ 156.8	\$ 27.8	17.7 %
Percentage of net revenue	11.8%	11.8%				11.8%	12.6%		
Selling, general and administrative	\$ 235.2	\$ 200.3	\$ 34.9	17.4 %	\$	200.3	\$ 128.2	\$ 72.1	56.2 %
Percentage of net revenue	14.0%	12.8%				12.8%	10.3%		
Restructuring and related charges	\$ 8.0	\$ 31.9	\$ (23.9)	(74.9)%	\$	31.9	\$ 7.2	\$ 24.7	343.1 %
Percentage of net revenue	0.5%	2.0%				2.0%	0.6%		
Impairment charges	\$ 4.3	\$ 30.7	\$ (26.4)	(86.0)%	\$	30.7	\$ _	\$ 30.7	100.0 %
Percentage of net revenue	0.3%	2.0%				2.0%	%		

Net Revenue

Net revenue increased by \$113.3 million, or 7.2%, during fiscal 2020 compared to fiscal 2019. This increase was primarily due to the increased sales of Telecom and Datacom of \$68.9 million and Consumer and Industrial of \$76.0 million, offset by decreased sales of Lasers of \$31.6 million.

OpComms net revenue increased by \$144.9 million, or 10.6%, during fiscal 2020 compared to fiscal 2019, primarily driven by increased sales of Telecom and Datacom products, driven by the acquisition of Oclaro, as well as increased sales in 3D sensing products for mobile devices.

Lasers net revenue decreased by \$31.6 million, or 16.2%, during fiscal 2020 compared to fiscal 2019, primarily due to decreased sales of our kilowatt class fiber lasers.

Net revenue increased by \$317.6 million, or 25.5%, during fiscal 2019 compared to fiscal 2018. This increase was primarily due to the acquisition of Oclaro, which closed in December 2018, and organic growth in our Telecom business.

OpComms net revenue increased by \$311.0 million, or 29.4%, during fiscal 2019 compared to fiscal 2018, primarily driven by increased sales of Telecom Products of \$310.2 million, specifically ROADM products. OpComms net revenue in fiscal 2019 includes \$250.1 million from the acquisition of Oclaro from the date of closing.

Lasers net revenue increased by \$6.6 million, or 3.5%, during fiscal 2019 compared to fiscal 2018, primarily due to increased sales of our kilowatt class fiber lasers, offset by lower sales of our solid state lasers products.

During our fiscal 2020, 2019, and 2018, net revenue generated from a single customer which represented 10% or greater of total net revenue is summarized as follows:

		Years Ended	
	June 27, 2020	June 29, 2019	June 30, 2018
Apple	26.0%	21.0%	30.0%
Huawei	13.2%	15.2%	11.0%
Ciena	*	13.7%	11.0%

^{*}Represents less than 10% of total net revenue

Revenue by Region

We operate in three geographic regions: Americas, Asia-Pacific and EMEA. Net revenue is assigned to the geographic region and country where our product is initially shipped. For example, certain customers may request shipment of our product to a contract manufacturer in one country, however, the location of the end customers may differ. The following table presents net revenue by the three geographic regions we operate in and net revenue from countries within those regions that represented 10% or more of our total net revenue (in millions, except for percentages):

		Years Ended											
	_	June 2	27, 2020		June 2	29, 2019		June 3	30, 2018				
Net revenue:													
Americas:													
United States	\$	149.8	8.9%	\$	100.9	6.4%	\$	115.1	9.2%				
Mexico		122.8	7.3		214.9	13.7		145.8	11.7				
Other Americas		5.5	0.3		4.3	0.3		7.0	0.6				
Total Americas	\$	278.1	16.5%	\$	320.1	20.4%	\$	267.9	21.5%				
	=												
Asia-Pacific:													
Hong Kong	\$	532.0	31.8%	\$	387.9	24.8%	\$	183.0	14.7%				
South Korea		260.9	15.5		162.4	10.4		146.1	11.7				
Japan		137.9	8.2		176.0	11.2		194.7	15.6				
Other Asia-Pacific		346.0	20.6		356.1	22.7		354.2	28.3				
Total Asia-Pacific	\$	1,276.8	76.1%	\$	1,082.4	69.1%	\$	878.0	70.3%				
EMEA	\$	123.7	7.4%	\$	162.8	10.5%	\$	101.8	8.2%				
Total net revenue	\$	1,678.6		\$	1,565.3		\$	1,247.7					

During fiscal 2020, 2019 and 2018, net revenue from customers outside the United States, based on customer shipping location, represented 91.1%, 93.6% and 90.8% of net revenue, respectively.

Gross Margin and Segment Gross Margin

The following table summarizes segment gross margin for fiscal 2020, 2019 and 2018 (in millions, except for percentages):

		Gı	ross Profit		Gross Margin						
		Ye	ars Ended		Years Ended						
	 2020		2019	2018	2020	2019	2018				
OpComms	\$ 704.0	\$	534.1	\$ 402.3	46.5%	39.0%	38.0%				
Lasers	76.2		84.4	82.8	46.6%	43.3%	43.9%				
Segment total	\$ 780.2	\$	618.5	\$ 485.1	46.5%	39.5%	38.9%				
Unallocated corporate items:											
Stock-based compensation	(16.1)		(15.1)	(12.6)							
Amortization of acquired intangibles	(53.8)		(46.6)	(3.2)							
Amortization of fair value adjustments	(5.8)		(54.6)	_							
Inventory and fixed asset write down due to product lines exit (1)	(7.0)		(20.8)	_							
Integration related costs	(4.9)		(6.6)	_							
Expenses related to COVID-19 outbreak	(6.6)		_	_							
Other charges (2)	(35.8)		(48.9)	(37.2)							
Total	\$ 650.2	\$	425.9	\$ 432.1	38.7%	27.2%	34.6%				

- (1) In fiscal 2020 and 2019, we recorded inventory and fixed assets write down charges of \$7.0 million and \$20.8 million related to the decision to exit the Datacom module and Lithium Niobate product lines.
- (2) "Other charges" of unallocated corporate items for the year ended June 27, 2020 primarily include costs of transferring product lines to new production facilities, including Thailand of \$11.5 million. We also incurred excess and obsolete inventory charges driven by the decline in demand from Huawei of \$12.8 million during the year ended June 27, 2020. In addition, for the year ended June 27, 2020, we incurred \$6.2 million impairment charges associated with excess capacity related to our Fiber laser business. Other charges for the years ended June 29, 2019 and June 30, 2018, primarily include costs of transferring product lines to Thailand of \$45.8 million and \$27.0 million, respectively.

In addition, there were net expenses of \$6.6 million related to COVID-19 outbreak during the year ended June 27, 2020, which include incremental costs for payroll expense such as overtime pay, pay for employees who are not working, facilities costs such as gloves, masks and temperature gauges, and under-utilized capacity at certain facilities, in which manufacturing output was impacted. These COVID-19 related costs are offset by benefits realized from government credits for employers' payroll tax.

The unallocated corporate items for the periods presented include the effects of amortization of acquired developed technologies and other intangibles, share-based compensation and certain other charges. We do not allocate these items to the gross margin for each segment because management does not include such information in measuring the performance of the operating segments.

Gross Margin

Gross margin in fiscal 2020 increased to 38.7% from 27.2% in fiscal 2019. The increase was primarily driven by better gross margins within Telecom, due to the acquisition of Oclaro, better gross margins within Datacom, due to the sale and exit of our Datacom transceiver module business which historically generated lower margins, increased revenue of our Datacom chip products, which have higher margins, and increased revenue of 3D sensing products for mobile devices, which have higher margins. In addition, for the year June 27, 2020, we had lower amortization of fair value adjustments related to the Oclaro acquisition of \$48.8 million, as well as lower inventory and fixed asset write down charges due to product lines exit of \$13.8 million.

Gross margin in fiscal 2019 decreased to 27.2% from 34.6% in fiscal 2018. The decrease was primarily due to amortization of intensibles and amortization of inventory step up related to the acquisition of Oclaro of \$54.6 million, as well as inventory write down charges of \$20.8 million due to our exit of Datacom module and Lithium Niobate product lines.

We sell products in certain markets that are consolidating, undergoing product, architectural and business model transitions, have high customer concentrations, are highly competitive, are price sensitive and/or are affected by customer seasonal and mix variant buying patterns. We expect these factors to continue to result in variability of our gross margin.

Although the magnitude of the impact of COVID-19 on our business operations remains uncertain and difficult to predict, and this remains a highly dynamic situation, we have experienced and we expect that we may continue to experience in subsequent periods, disruptions to our and our customers' businesses that will adversely impact our business, financial condition and results of operations.

Segment Gross Margin

OpComms

OpComms gross margin in fiscal 2020 increased to 46.5% from 39.0% in fiscal 2019. The increase was primarily driven by better gross margins within Telecom, due to the acquisition of Oclaro, better gross margins within Datacom, due to the sale of our lower margin Datacom transceiver module business and increased revenue of our higher margin Datacom chip products, and increased revenue of 3D sensing products for mobile devices.

OpComms gross margin in fiscal 2019 increased to 39.0% from 38.0% in fiscal 2018. This increase was primarily due to increased sales of our ROADM products, which have higher gross margins than the average for the segment as well as increased sales of our transmission products due to the acquisition of Oclaro which have higher gross margins than legacy transmission products. This was partially offset by decreased sales of our 3D sensing products which have higher gross margins than the average for this segment.

Lasers

Lasers gross margin in fiscal 2020 increased to 46.6% from 43.3% in fiscal 2019. This increase was primarily driven by the streamlining of our manufacturing supply chain related to our kilowatt class fiber products.

Lasers gross margin in fiscal 2019 decreased to 43.3% from 43.9% in fiscal 2018. This decrease was primarily due to decreased sales of our solid state products which have higher gross margins than the average for the segment. This was partially offset by increased revenue and manufacturing utilization for our kilowatt class fiber products.

Research and Development ("R&D")

R&D expense increased by \$14.0 million, or 7.6%, in fiscal 2020 compared to fiscal 2019. The increase in R&D expense was primarily due to an increase of \$10.7 million in payroll related expense, mainly due to the acquisition of Oclaro, partially offset by the sale of our Datacom transceiver module business. In addition, we had an increase of \$7.6 million in investments in key product lines and R&D materials. These increases were offset by \$2.8 million higher non-recurring engineering credits from customers and government grants.

R&D expense increased by \$27.8 million, or 17.7%, in fiscal 2019 compared to fiscal 2018. The increase in R&D expense was primarily due to the increase in investments in key product lines and R&D materials. In addition, we had an increase in payroll related expense of \$10.1 million as a result of our acquisition of Oclaro.

We believe that continuing our investments in R&D is critical to attaining our strategic objectives. Despite the uncertainty related to COVID-19 and the global economic outlook, we plan to continue to invest in R&D and new products that we believe will further differentiate us in the marketplace and expect our investment in R&D to increase in absolute dollars in future quarters.

Selling, General and Administrative ("SG&A")

SG&A expense increased by \$34.9 million, or 17.4%, in fiscal 2020 compared to fiscal 2019. The increase in SG&A expense was primarily due to the increase in amortization of intangibles of \$16.8 million and integration related costs of \$9.2 million as a result of the Oclaro acquisition, as well as the increase in payroll related expense of \$16.2 million, offset by lower discretionary travel and trade shows of \$2.6 million, partially due to COVID-19 restrictions in third and fourth quarters of fiscal 2020.

SG&A expense increased by \$72.1 million, or 56.2%, in fiscal 2019 compared to fiscal 2018. The increase was primarily attributable to additional costs from our acquisition of Oclaro, including \$14.6 million of payroll related expense, \$2.4 million of facility related expense, \$13.3 million in charges related to the acceleration of equity awards under certain Oclaro executive severance and retention agreements, \$9.0 million related to the success fee on the closing of the Oclaro transaction, \$8.0 million related to the amortization of acquired intangibles, and \$3.1 million related to the incremental stock-based compensation expense of Oclaro awards. The remainder of the increase was primarily driven by higher payroll related expense and stock-based compensation.

From time to time, we expect to incur non-core expenses, such as mergers and acquisition-related expenses and litigation expenses, which will likely increase our SG&A expenses and potentially impact our profitability expectations in any particular quarter.

Restructuring and Related Charges

We have initiated various strategic restructuring events primarily intended to reduce costs, consolidate our operations, rationalize the manufacturing of our products and align our business in response to market conditions and as a result of our acquisition of Oclaro in the second quarter of fiscal 2019.

During fiscal 2020, we recorded \$8.0 million in restructuring and related charges in our consolidated statements of operations. The charges were mainly attributable to severance charges associated with the decision to move certain manufacturing from San Jose, California to our facility in Thailand.

During fiscal 2019, we recorded \$31.9 million in restructuring and related charges in our consolidated statements of operations, primarily attributable to severance and employee related benefits associated with the wind down of operations for Lithium Niobate modulators and Datacom modules of \$21.1 million. In fiscal 2019, we also recorded \$1.6 million of lease restructuring charges for the former Oclaro corporate headquarters and restructuring charges primarily associated with acquisition related synergies. In addition, the charges included severance and employee related benefits associated with Oclaro's executive severance and retention agreements. These retention agreements provided, under certain circumstances, for payments and benefits upon an involuntary termination of employment.

Refer to "Note 14. Restructuring and Related Charges" in the notes to consolidated financial statements.

Impairment Charges

In the third quarter of fiscal 2019, we announced our plan to discontinue the development and manufacturing of future Datacom transceiver modules which impacted the California and China based Datacom module teams. As a result of these actions, we recorded impairment charges of \$4.3 million and \$30.7 million in fiscal 2020 and 2019, respectively, to our long-lived assets that were not deemed to be useful. While we expect strong growth in Datacom volumes in the future, gross margins at the transceiver market level are lower due to extreme competition. Following the Oclaro acquisition, we have a differentiated leadership position across a range of photonic chips on which the Datacom, wireless, and access markets critically rely.

Interest Expense

The components of interest expense are as follows for the years presented (in millions):

		Years Ended	
	June 27, 2020	June 29, 2019	June 30, 2018
\$	(61.2)	\$ (36.3)	\$ (18.2)

For fiscal 2020, we recorded interest expense of \$61.2 million. The increase in interest expense during fiscal 2020 as compared to fiscal 2019 was mainly driven by the increase in amortization of the debt discount and contractual interest expense due to the issuance of our 0.50% Convertible Notes due in 2026 (the "2026 Notes"), as well as the loss on early extinguishment of debt of \$8.0 million, which represents the write-off of the issuance costs in conjunction with payback of our term loan facility in the second quarter of fiscal 2020.

For fiscal 2019, we recorded interest expense of \$36.3 million. The increase in interest expense during fiscal 2019 as compared to fiscal 2018 was mainly driven by interest expense on our term loan and ticking fees.

Other Income, Net

The components of other income (expense), net are as follows for the years presented (in millions):

			Ye	ars Ended	
	June	27, 2020	Jun	ne 29, 2019	June 30, 2018
Foreign exchange gains (losses), net	\$	(1.4)	\$	(0.6)	\$ (0.3)
Interest income		15.8		13.9	8.5
Other income, net		17.0		2.5	0.3
Total other income (expense), net	\$	31.4	\$	15.8	\$ 8.5

During fiscal 2020, other income, net increased by \$15.6 million as compared to fiscal 2019, mainly driven by a gain on the sale of Lithium Niobate modulators business of \$13.8 million, completed in fiscal 2020.

During fiscal 2019, other income, net increased by \$7.3 million as compared to fiscal 2018, mainly driven by higher interest income due to higher interest rates on our investment portfolio.

Unrealized Gain (Loss) on Derivative Liability

Unrealized gain (loss) on Series A Preferred Stock derivative liability amounted to \$8.8 million and \$(0.8) million in fiscal 2019 and 2018, respectively. On November 2, 2018, all 35,805 shares of our Series A Preferred Stock were converted to common stock with the outstanding balance of the embedded derivative liability reclassed to additional paid in capital. There will be no further adjustments to "unrealized gain (loss) on derivative liability" due to this conversion.

For further discussion of our derivative liability, see "Note 11. Non-Controlling Interest Redeemable Convertible Preferred Stock and Derivative Liability" in the notes to consolidated financial statements.

Provision for (Benefit from) Income Taxes (in millions):

			Y	Years Ended							
	June	27, 2020	Ju	une 29, 2019	Ju	ly 1, 2017					
Provision for (benefit from) income taxes	\$	38.8	\$	3.1	\$	(118.7)					

Our provision for income taxes for fiscal 2020 differs from the 21% U.S. statutory rate primarily due to the Global Intangible Low-Taxed Income ("GILTI") and subpart F inclusions and an increase to the valuation allowance because it is not more-likely-than-not that certain deferred tax assets will be realizable, which are partially offset by the income tax benefit of the earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate as well as the U.S. federal R&D tax credit.

Our provision for income taxes for fiscal 2019 differs from the 21% U.S. statutory rate primarily due to GILTI and subpart F inclusions and the income tax expense from non-deductible stock-based compensation and increased valuation allowance in the

U.K. and Thailand, partially offset by the income tax benefit of the earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate as well as the U.S. federal R&D tax credit.

Our provision for income taxes for fiscal 2018 differed from the tax provision based on the U.S. statutory federal income tax rate of approximately 28% as a result of \$207.2 million of income tax benefit related to the release of valuation allowance against our U.S. federal and certain state deferred tax assets, partially offset by \$80.5 million of income tax expense related to the remeasurement of our net deferred tax assets as a result of reduction in the U.S. federal corporate tax rate. Our provision for income taxes was also impacted by the benefit our foreign income being taxed at lower rates than the U.S. statutory rate, as well as the benefit of research and development tax credits.

The comparability of our operating results of fiscal 2019 compared to the corresponding prior year was impacted by the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act"), which was enacted on December 22, 2017. The Tax Act introduced significant changes to U.S. income tax law including reducing the U.S. federal statutory tax rate from 35% to 21% and imposing new taxes on certain foreign-sourced earnings and certain intercompany payments. Due to the timing of the enactment and the complexity involved in applying the provisions of the Tax Act, we made reasonable estimates of the effects and recorded provisional amounts in our financial statements as of fiscal 2018 in accordance with SEC Staff Accounting Bulletin No. 118 ("SAB 118"). During the period ended December 29, 2018, we completed our accounting for the Tax Act with no material adjustment to our provisional estimates recorded.

Contractual Obligations

The following table summarizes our contractual obligations as of June 27, 2020, and the effect such obligations are expected to have on our liquidity and cash flow over the next five years (in millions):

	Payments due by period										
	Total			Less than 1 year		- 3 years	3	3 - 5 years		ore than 5 years	
Contractual Obligations											
Asset retirement obligations	\$	4.9	\$	0.3	\$	1.0	\$	1.4	\$	2.2	
Finance lease liabilities, including imputed interest		0.6		0.6		_		_		_	
Operating lease liabilities, including imputed interest (1)		77.8		13.1		23.6		15.8		25.3	
Pension plan contributions (2)		0.5		0.5		_		_		_	
Purchase obligations (3)		261.5		251.1		10.1		0.3		_	
Convertible notes - principal (4)		1,500.0		_		_		450.0		1,050.0	
Convertible notes - interest (4)		38.6		6.3		12.7		11.7		7.9	
Total	\$	1,883.9	\$	271.9	\$	47.4	\$	479.2	\$	1,085.4	

- (1) The amounts of operating lease liabilities in the table above do not include any sublease income amounts nor do they include payments for short-term leases or variable lease payments. As of June 27, 2020, we expect to receive sublease income of approximately \$5.4 million over the next three years. Refer to "Note 9. Leases" in the notes to consolidated financial statements.
- (2) The amount in the preceding table represents planned contributions to our defined benefit plans. Although additional future contributions will be required, the amount and timing of these contributions will be affected by actuarial assumptions, the actual rate of returns on plan assets, the level of market interest rates, legislative changes, and the amount of voluntary contributions to the plan. Any contributions for the following fiscal year and later will depend on the value of the plan assets in the future and thus are uncertain. As such, we have not included any amounts beyond one year in the table above. Refer to "Note 18. Employee Retirement Plans" in the notes to consolidated financial statements.
- (3) Purchase obligations represent legally-binding commitments to purchase inventory and other commitments made in the normal course of business to meet operational requirements. Refer to "Note 19. Commitments and Contingencies" in the notes to consolidated financial statements.
- (4) Includes principal and interest on our 0.25% Convertible Notes due in 2024 (the "2024 Notes" and together with the 2026 Notes, the "Notes") through March 2024, and principal and interest on our 0.5% 2026 Notes through December 2026. We have the right to redeem the 2024 Notes and the 2026 Notes in whole or in part at any time on or after March 15, 2024 and on or after December 15, 2026, respectively. Refer to "Note 12. Debt" in the notes to consolidated financial statements.

As of June 27, 2020, our other non-current liabilities also include \$17.3 million of unrecognized tax benefit for uncertain tax positions. We are unable to reliably estimate the timing of future payments related to uncertain tax positions and therefore have excluded them from the preceding table.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as such term is defined in rules promulgated by the SEC, that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to investors.

Defined Benefit Plans

The Company sponsors defined benefit pension plans covering employees in Japan, Switzerland, and Thailand. Pension plan benefits are based primarily on participants' compensation and years of service credited as specified under the terms of each country's plan. Employees are entitled to a lump sum benefit upon retirement or upon certain instances of termination. The funding policy is consistent with the local requirements of each country. As of June 27, 2020, a defined benefit plan in Switzerland was partially funded, while defined benefit plans in Japan and Thailand were unfunded. As of June 27, 2020, our projected benefit obligations, net in Japan, Switzerland, and Thailand were \$2.9 million, \$6.4 million, and \$2.5 million, respectively. They were recorded in our consolidated balance sheets as other non-current liabilities and represent the total projected benefit obligation ("PBO") less the fair value of plan assets.

A key actuarial assumption in calculating the net periodic cost and the PBO is the discount rate. Changes in the discount rate impact the interest cost component of the net periodic benefit cost calculation and PBO due to the fact that the PBO is calculated on a net present value basis. Decreases in the discount rate will generally increase pre-tax cost, recognized expense and the PBO. Increases in the discount rate tend to have the opposite effect. We estimate a 50 basis point decrease or increase in the discount rate would cause a corresponding increase or decrease, respectively, in the PBO of \$1.9 million or \$(1.7) million, based upon data as of June 27, 2020.

We expect to contribute \$0.5 million to our defined benefit pension plans in fiscal 2021.

Financial Condition

Liquidity and Capital Resources

As of June 27, 2020 and June 29, 2019, our cash and cash equivalents of \$298.0 million and \$432.6 million, respectively, were largely held in the United States. As of June 27, 2020 and June 29, 2019, our short-term investments of \$1,255.8 million and \$335.9 million, respectively, were all held in the United States. Cash equivalents and short-term investments are primarily comprised of money market funds, treasuries, and highly liquid investment grade fixed income securities. Our investment policy and strategy is focused on the preservation of capital and supporting our liquidity requirements.

The total amount of cash outside the United States as of June 27, 2020 was \$81.3 million, which was primarily held by entities incorporated in the British Virgin Islands, China, Hong Kong, Japan, Thailand, and the United Kingdom. Although the cash currently held in the United States as well as the cash generated in the United States from future operations is expected to cover our normal operating requirements, a substantial amount of additional cash could be required for other purposes, such as capital expenditures to support our business and growth, including costs associated with increasing internal manufacturing capabilities, particularly in our Thailand facility, strategic transactions and partnerships, and future acquisitions.

Our intent is to indefinitely reinvest funds held outside the United States, except for the funds held in the Cayman Islands, Japan and Hong Kong, and our current plans do not demonstrate a need to repatriate them to fund our domestic operations. However, if in the future, we encounter a significant need for liquidity domestically or at a particular location that we cannot fulfill through borrowings, equity offerings, or other internal or external sources, or the cost to bring back the money is insignificant from a tax perspective, we may determine that cash repatriations are necessary or desirable. Repatriation could result in additional material taxes. These factors may cause us to have an overall tax rate higher than other companies or higher than our tax rates have been in the past. If conditions warrant, we may seek to obtain additional financing through debt or equity sources. To the extent we issue additional shares, our existing stockholders may be diluted. However, any such financing may not be available on terms favorable to us, or may not be available at all.

During fiscal 2020 and 2019, the debt component of our 2024 Notes was recorded in long-term liabilities. However, if our stock price exceeds \$78.80 for 20 of the last 30 trading days of the first quarter of fiscal 2021, the 2024 Notes would become callable at the option of the holders.

Fiscal 2020

As of June 27, 2020, our consolidated balance of cash and cash equivalents decreased by \$134.6 million, to \$298.0 million from \$432.6 million as of June 29, 2019. The decrease in cash and cash equivalents was mainly due to cash used in investing activities of \$987.7 million, offset by cash provided by operating activities of \$524.3 million and cash provided by financing activities of \$328.8 million during the year ended June 27, 2020.

Cash provided by operating activities of \$524.3 million during the year ended June 27, 2020, primarily resulted from \$323.4 million of non-cash items (such as depreciation, stock-based compensation, amortization of intangibles, amortization of debt discount and debt issuance costs on our term loan and the Notes, and other non-cash items), net income of \$135.5 million, and \$65.4 million of changes in our operating assets and liabilities.

Cash used in investing activities of \$987.7 million during the year ended June 27, 2020, was primarily attributable to purchases of short-term investments, net of sales and maturities of \$917.8 million. In addition, we had capital expenditures of \$86.0 million, payment for asset acquisition of \$4.0 million, offset by proceeds from sales of product lines of \$20.1 million.

Cash provided by financing activities of \$328.8 million during the year ended June 27, 2020, primarily resulted from the proceeds of the issuance of the 2026 Notes of \$1,042.2 million, net of issuance costs, offset by repayment of our term loan facility of \$497.5 million and the repurchase of shares of our common stock of \$200.0 million.

Fiscal 2019

As of June 29, 2019, our consolidated balance of cash and cash equivalents increased by \$35.3 million, to \$432.6 million from \$397.3 million as of June 30, 2018. The increase in cash and cash equivalents was mainly due to cash provided by financing activities of \$485.1 million, primarily related to \$490.8 million in proceeds from a term loan, net of debt issuance costs, used to fund the Oclaro acquisition, and cash provided by operating activities of \$330.1 million during the year ended June 29, 2019; which was offset by cash used in investing activities of \$779.7 million, principally related to net cash of \$619.8 million paid to acquire Oclaro.

Cash provided by operating activities of \$330.1 million during the year ended June 29, 2019, primarily resulted from \$314.4 million of non-cash items (such as depreciation, stock-based compensation, amortization of intangibles, amortization of discount on the 2024 Notes, amortization of the debt issuance costs on the term loan, amortization of fair value adjustment in connection with the acquisition of Oclaro, impairment charges, net of unrealized gain on derivative liability and other non-cash items) and \$52.1 million of changes in our operating assets and liabilities, offset by our net loss of \$36.4 million.

Cash used in investing activities of \$779.7 million during the year ended June 29, 2019, was primarily attributable to \$619.8 million paid to acquire all outstanding shares of common stock of Oclaro, net of cash received through the acquisition of Oclaro. In addition, we had capital expenditures of \$166.0 million (mainly attributable to the purchase of the property for \$54.6 million), payment for asset acquisition of \$1.3 million, purchases of short-term investments, net of sales of \$18.1 million, offset by proceeds from sales of product lines of \$25.5 million.

Cash provided by financing activities of \$485.1 million during the year ended June 29, 2019, primarily resulted from \$490.8 million of proceeds from a term loan, net of debt issuance costs, used to partially finance the Oclaro acquisition, offset by the repayment of a term loan of \$2.5 million. In addition, we received \$9.3 million from the issuance of common stock under our employee stock plan, offset by the repayment of finance lease obligations of \$8.8 million, tax payments related to restricted stock of \$2.4 million, a payment of an acquisition related holdback of \$1.0 million, and dividend payments on our Series A Preferred Stock of \$0.7 million.

Fiscal 2018

As of June 30, 2018, our consolidated balance of cash and cash equivalents increased by \$124.4 million, to \$397.3 million from \$272.9 million as of July 1, 2017. The increase in cash and cash equivalents was mainly due to cash provided by operating activities of \$247.5 million during fiscal 2018 offset by purchases of short-term investments, net of sales of \$33.8 million and capital expenditures of \$93.2 million.

Cash provided by operating activities was \$247.5 million for the year ended June 30, 2018, primarily resulting from \$248.1 million of net income and \$18.5 million of non-cash items (such as depreciation, stock-based compensation, amortization of intangibles, amortization of discount on the 2024 Notes, net of the release of the valuation allowance), offset by \$19.1 million of changes in our operating assets and liabilities. Changes in our operating assets and liabilities related primarily to an increase in accounts receivable of \$30.8 million, offset by an increase in accrued expenses and other current and non-current liabilities of \$11.9 million.

Cash used in investing activities of \$127.0 million for the year ended June 30, 2018, was primarily attributable to capital expenditures of \$93.2 million and purchases of short-term investments, net of sales of \$33.8 million.

Cash provided by financing activities was \$3.8 million for the year ended June 30, 2018, resulting primarily from the issuance of common stock under the 2015 Employee Stock Purchase Plan of \$9.2 million offset by repayment of finance lease obligation of \$6.4 million.

Liquidity and Capital Resources Requirements

We believe that our cash and cash equivalents as of June 27, 2020, and cash flows from our operating activities will be sufficient to meet our liquidity and capital spending requirements for at least the next 12 months. However, if market conditions are favorable, we may evaluate alternatives to opportunistically pursue additional financing.

There are a number of factors that could positively or negatively impact our liquidity position, including:

- global economic conditions which affect demand for our products and services and impact the financial stability of our suppliers and customers, including the impact of COVID-19;
- fluctuations in demand for our products as a result of changes in regulations, tariffs or other trade barriers, and trade relations in general;
- changes in accounts receivable, inventory or other operating assets and liabilities, which affect our working capital;
- increase in capital expenditures to support our business and growth;
- the tendency of customers to delay payments or to negotiate favorable payment terms to manage their own liquidity positions;
- timing of payments to our suppliers;
- factoring or sale of accounts receivable;
- volatility in fixed income and credit, which impact the liquidity and valuation of our investment portfolios;
- volatility in foreign exchange markets, which impacts our financial results;
- possible investments or acquisitions of complementary businesses, products or technologies, or other strategic transactions or partnerships;
- issuance of debt or equity securities, or other financing transactions, including bank debt;
- · potential funding of pension liabilities either voluntarily or as required by law or regulation; and
- the settlement of any conversion or redemption of the 2024 Notes and the 2026 Notes in cash.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

COVID-19 Risk

There are a number of market risk factors related to the COVID-19 pandemic and associated global economic impacts. We continue to actively evaluate these risks, and have taken reserves and financial positions as of June 27, 2020 that we believe are reasonable based on the information currently available. However, the COVID-19 pandemic and regional shelters-in-place is an unprecedented phenomenon that is continually evolving, and there could be significant changes and/or charges resulting in the future. These market risks include, for example:

- Accounts receivable collectability there could be significant bad debt expenses incurred if our customers experience financial difficulties.
- Accounts receivable collections timing our working capital and cash flows could be impacted if we start to agree to longer payment terms for our
 customers. Although we have not done so, a broader market move to longer payment terms could delay our collection timing as well.
- Inventory (excess and obsolete) our customers may not be able to purchase inventory that we have built for them, or their demand may slow down
 to a point where inventory becomes aged.
- Short-term investment values as seen in past economic slowdowns, there may be credit losses and defaults which cause losses and/or liquidity issues in our investment portfolio.
- Long-term assets such as fixed assets, goodwill, and intangibles a market slowdown could impair the value of these assets.
- Tax valuation we have significant NOL's (Net Operating losses) in the United States which have associated deferred tax assets on our balance sheet, and these could be deemed unrecoverable in the future.

In addition, all of the below market risks are heightened in light of the current market situation. Foreign exchange markets could be impacted and cause significant fluctuations in our future expenses. The price of our common stock has fluctuated significantly in the past and global equity markets are experiencing significant volatility following the COVID-19 outbreak. Interest rates have already reduced dramatically since the onset of the outbreak, and our future income from these investments likely will be negatively impacted in the future.

Foreign Exchange Risk

We conduct our business and sell our products to customers primarily in Asia, Europe, and North America. Due to the impact of changes in foreign currency exchange rates between the U.S. Dollar and foreign currencies, for the fiscal years ended June 27, 2020, June 29, 2019, and June 30, 2018, we recorded foreign exchange losses, net of \$1.4 million, \$0.6 million, and \$0.3 million, respectively, in the other income (expense), net in the consolidated statements of operations.

Although we sell primarily in the U.S. Dollar, we have foreign currency exchange risks related to our expenses denominated in currencies other than the U.S. Dollar, principally the Chinese Yuan, Canadian Dollar, Thai Baht, Japanese Yen, UK Pound, Swiss Franc and Euro. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. In the event our foreign currency denominated assets, liabilities, sales or expenses increase, our operating results may be more greatly affected by fluctuations in the exchange rates of the currencies in which we do business.

Equity Price Risk

We are exposed to equity price risk related to the conversion options embedded in our 2026 Notes and 2024 Notes.

We issued the 2026 Notes in December 2019 and the 2024 Notes in March 2017 with an aggregate principal amount of \$1,050 million and \$450 million, respectively. Both the 2026 Notes and the 2024 Notes are carried at face value less amortized discount on the consolidated balance sheet. The 2026 Notes and the 2024 Notes bear interest at a rate of 0.50% and 0.25% per year, respectively. Since the Notes bear interest at fixed rates, we have no financial statement risk associated with changes in interest rates. However, the potential value of the shares to be distributed to the holders of our Notes changes when the market price of our stock fluctuates. The 2026 Notes will mature on December 15, 2026, unless earlier repurchased by us or converted pursuant to their terms, at a conversion price of approximately \$99.29 per share. The 2024 Notes will mature on March 15, 2024, unless earlier repurchased by us or converted pursuant to their terms, at a conversion price of approximately \$60.62 per share.

Interest Rate Fluctuation Risk

As of June 27, 2020, we had cash, cash equivalents, and short-term investments of \$1,553.8 million. Cash equivalents and short-term investments are primarily comprised of money market funds, treasuries, and highly liquid investment grade fixed income securities. Our investment policy and strategy is focused on the preservation of capital and supporting our liquidity requirements. We do not enter into investments for trading or speculative purposes. As of June 27, 2020, the weighted-average life of our investment portfolio was less than six months.

Our fixed-income portfolio is subject to fluctuations in interest rates, which could affect our results of operations. Based on our investment portfolio balance as of June 27, 2020, a hypothetical increase or decrease in interest rates of 1% (100 basis points) would have resulted in a decrease or an increase in the fair value of our portfolio of approximately \$5.4 million, and a hypothetical increase or decrease of 0.50% (50 basis points) would have resulted in a decrease or an increase in the fair value of our portfolio of approximately \$2.7 million.

Bank Liquidity Risk

As of June 27, 2020, we had approximately \$114.2 million of unrestricted cash (excluding money market funds and U.S. Treasury securities) in operating accounts that are held with domestic and international financial institutions. These cash balances could be lost or become inaccessible if the underlying financial institutions fail or if they are unable to meet the liquidity requirements of their depositors and if they are not supported by the national government of the country in which such financial institution is located. Notwithstanding, to date, we have not incurred any losses and have had full access to our operating accounts. We believe any failures of domestic and international financial institutions could impact our ability to fund our operations in the short term.

ITEM 8. FINANCIAL STATEMENTS AND SUMMARY DATA

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Lumentum Holdings Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Lumentum Holdings Inc. and subsidiaries (the "Company") as of June 27, 2020 and June 29, 2019, the related consolidated statements of operations, comprehensive income (loss), cash flows, and redeemable convertible preferred stock and stockholders' equity for each of the three years in the period ended June 27, 2020, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of June 27, 2020 and June 29, 2019, and the results of its operations and its cash flows for each of the three years in the period ended June 27, 2020, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of June 27, 2020, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated August 25, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Notes 1 and 2 to the financial statements, the Company has changed its method of accounting for leases in the year ended June 27, 2020 due to the adoption of Accounting Standards Update No. 2016-02, Leases (Topic 842).

Basis for Opinion

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Inventories, Valuation of Inventory - Refer to Notes 1 and 8 to the Financial Statements

Critical Audit Matter Description

The Company assesses the value of inventory and writes down those inventories which are obsolete or in excess of forecasted demand to the lower of their cost or estimated net realizable value. The Company's estimates of forecasted demand are based upon analysis and assumptions including, but not limited to, expected product lifecycles, product development plans and historical usage by product.

We identified the valuation of inventory as a critical audit matter because of the significant assumptions management makes with regards to estimating the excess and obsolete write downs. This required a high degree of auditor judgment and an increased extent of effort when performing audit procedures to evaluate the reasonableness of management's estimates of forecasted demand.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's estimates of forecasted demand used in the valuation of inventory excess and obsolete write downs included the following, among others:

- We tested the effectiveness of controls over the review and approval of the valuation of inventory for excess and obsolete write downs, including controls
 designed to review and approve forecasted demand and the underlying assumptions regarding expected product lifecycles, product development plans and
 historical usage by product.
- To understand the assumptions behind the inventory excess and obsolete write downs, including the related forecasted demand, we made inquiries of
 business unit managers as well as executives, sales, and operations personnel about the expected product lifecycles and product development plans and
 historical usage by product.
- We selected a sample of inventory products and tested the forecasted demand by comparing internal and external information (e.g. historical usage, contracts, communications with customers, expected product lifecycles, product development plans, and macroeconomic conditions) with the Company's forecasted demand.
- We selected a sample of inventory products and evaluated management's ability to accurately estimate forecasted demand by comparing historical usage by product to estimates made in prior years.
- We considered the existence of contradictory evidence based on reading of internal communications to management and the board of directors, Company
 press releases, and analysts' reports, as well as our observations and inquires as to changes within the business.

/s/ DELOITTE & TOUCHE LLP

San Jose, California August 25, 2020

We have served as the Company's auditor since 2017.

LUMENTUM HOLDINGS INC. CONSOLIDATED STATEMENTS OF OPERATIONS (in millions, except per share data)

	June 27, 2020			June 29, 2019		June 30, 2018
Net revenue	\$	1,678.6	\$	1,565.3	\$	1,247.7
Cost of sales		974.6		1,092.9		812.4
Amortization of acquired developed intangibles		53.8		46.5		3.2
Gross profit		650.2		425.9		432.1
Operating expenses:						
Research and development		198.6		184.6		156.8
Selling, general and administrative		235.2		200.3		128.2
Restructuring and related charges		8.0		31.9		7.2
Impairment charges		4.3		30.7		_
Total operating expenses		446.1		447.5		292.2
Income (loss) from operations		204.1		(21.6)		139.9
Unrealized gain (loss) on derivative liability		_		8.8		(0.8)
Interest expense		(61.2)		(36.3)		(18.2)
Other income (expense), net		31.4		15.8		8.5
Income (loss) before income taxes		174.3		(33.3)		129.4
Provision for (benefit from) income taxes		38.8		3.1		(118.7)
Net income (loss)	\$	135.5	\$	(36.4)	\$	248.1
Items reconciling net income (loss) to net income (loss) attributable to common stockholders:						
Less: Cumulative dividends on Series A Preferred Stock		_		(0.3)		(0.9)
Less: Earnings allocated to Series A Preferred Stock		_		(1.2)		(5.7)
Net income (loss) attributable to common stockholders - Basic and Diluted	\$	135.5	\$	(37.9)	\$	241.5
Net income (loss) per share attributable to common stockholders:						
Basic	\$	1.79	\$	(0.54)	\$	3.88
Diluted	\$	1.75	\$	(0.54)	\$	3.82
Shares used to compute net income (loss) per share attributable to common stockholders:						
Basic		75.9		70.7		62.3
Diluted		77.6		70.7		63.3

 $See\ accompanying\ Notes\ to\ Consolidated\ Financial\ Statements.$

LUMENTUM HOLDINGS INC. CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) (in millions)

	Years Ended						
	Jun	e 27, 2020	June	e 29, 2019	June	30, 2018	
Net income (loss)	\$	135.5	\$	(36.4)	\$	248.1	
Other comprehensive income (loss), net of tax:							
Net change in cumulative translation adjustment		_		(0.6)		(0.2)	
Net change in unrealized gain (loss) on available-for-sale securities		1.5		2.5		(1.6)	
Net change in defined benefit obligations		(0.7)		(1.2)		0.8	
Other comprehensive income (loss), net of tax		0.8		0.7		(1.0)	
Comprehensive income (loss), net of tax	\$	136.3	\$	(35.7)	\$	247.1	

 $See\ accompanying\ Notes\ to\ Consolidated\ Financial\ Statements.$

LUMENTUM HOLDINGS INC. CONSOLIDATED BALANCE SHEETS (in millions, except share and per share data)

		June 27, 2020		June 29, 2019
ASSETS				
Current assets:				
Cash and cash equivalents	\$	298.0	\$	432.6
Short-term investments		1,255.8		335.9
Accounts receivable, net		233.5		238.0
Inventories		188.9		228.8
Prepayments and other current assets		73.8		97.5
Total current assets		2,050.0		1,332.8
Property, plant and equipment, net		393.0		433.3
Operating lease right-of-use assets, net		78.7		
Goodwill		368.9		368.9
Other intangible assets, net		316.8		395.4
Deferred income taxes		81.2		169.6
Other non-current assets		4.0		16.6
Total assets	\$	3,292.6	\$	2,716.6
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	\$	150.8	\$	160.8
Accrued payroll and related expenses		53.4		42.3
Accrued expenses		23.7		46.7
Term loan, current		_		5.0
Operating lease liabilities, current		10.8		_
Other current liabilities		44.3		39.2
Total current liabilities		283.0		294.0
Convertible notes		1,120.3		351.9
Term loan, non-current		<u> </u>		484.0
Operating lease liabilities, non-current		57.6		
Deferred tax liability		46.5		55.9
Other non-current liabilities		36.0		33.7
Total liabilities		1,543.4		1,219.5
Commitments and contingencies (Note 19)		<u>-</u>		·
Redeemable convertible preferred stock:				
Stockholders' equity:				
Common stock, \$0.001 par value, 990,000,000 authorized shares, 75,100,664 and 76,653,478 shares issued and outstanding as of June 27, 2020 and June 29, 2019, respectively	l	0.1		0.1
Additional paid-in capital		1,676.6		1,360.8
Retained earnings		64.6		129.1
Accumulated other comprehensive income		7.9		7.1
Total stockholders' equity	-	1,749.2		1,497.1
Total liabilities and stockholders' equity	\$	3,292.6	\$	2,716.6
Total habitudes and stockholders equity	Ψ	3,272.0	Ψ	2,710.0

See accompanying Notes to Consolidated Financial Statements.

LUMENTUM HOLDINGS INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (in millions)

		Years Ended	
	June 27, 2020	June 29, 2019	June 30, 2018
OPERATING ACTIVITIES:			
Net income (loss)	\$ 135.5	\$ (36.4)	\$ 248.1
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation expense	113.3	102.9	74.0
Stock-based compensation	73.2	60.7	46.8
Loss on early extinguishment of debt	8.0	_	_
Unrealized (gain) loss on derivative liability	_	(8.8)	0.8
Gain on sale of product lines	(14.5)	_	_
Amortization of acquired intangibles	78.6	54.6	3.2
Impairment and other losses on property, plant and equipment	21.8	32.9	0.6
Amortization of debt discount and debt issuance costs	39.6	18.5	16.7
Amortization of inventory fair value adjustment in connection with Oclaro acquisition	5.8	54.6	_
Release of valuation allowance, net	_	_	(124.0)
Other non-cash (income) expenses	(2.4)	(1.0)	0.4
Changes in operating assets and liabilities:			
Accounts receivable	5.0	27.7	(30.8)
Inventories	32.7	40.6	(7.7)
Operating lease right-of-use assets, net	11.6	_	_
Prepayments and other current and non-currents assets	17.3	(10.8)	6.1
Income taxes, net	31.3	(5.6)	(7.3)
Accounts payable	(11.7)	(10.6)	4.8
Accrued payroll and related expenses	11.1	(0.1)	3.9
Operating lease liabilities	(11.6)		_
Accrued expenses and other current and non-current liabilities	(20.3)	10.9	11.9
Net cash provided by operating activities	524.3	330.1	247.5
INVESTING ACTIVITIES:			
Payments for acquisition of property, plant and equipment	(86.0)	(166.0)	(93.2)
Payment for asset acquisition	(4.0)	(1.3)	_
Payment for Oclaro acquisition, net of cash acquired	_	(619.8)	<u> </u>
Proceeds from sale of product lines	20.1	25.5	_
Purchases of short-term investments	(1,341.3)	(269.7)	(634.3)
Proceeds from maturities and sales of short-term investments	423.5	251.6	600.5
Net cash used in investing activities	(987.7)	(779.7)	(127.0)
FINANCING ACTIVITIES:	(701.1)	(112.1)	(127.0)
Repurchase of common stock	(200.0)		
Proceeds from the issuance of 0.50% Convertible Notes due 2026, net of issuance costs	1,042.2	_	
Tax payments related to restricted stock	(14.0)	(2.4)	_
Payment of dividends - Series A Preferred Stock	(14.0)	(0.7)	(0.7)
Payment of acquisition related holdback	_		(0.7)
		(1.0)	- 0.2
Proceeds from term loop, not of insurance costs	9.9	9.3 490.8	9.2
Principal payments on finance losses	(12.5)		— (C.4)
Principal payments on finance leases	(12.5)	(8.8)	(6.4)
Proceeds from the exercise of stock options	0.7	0.4	1.7
Repayment of term loan	(497.5)	(2.5)	
Net cash provided by financing activities	328.8	485.1	3.8
Effect of exchange rates on cash and cash equivalents	_	(0.2)	0.1

LUMENTUM HOLDINGS INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (in millions)

Increase in cash and cash equivalents	(134.6)	35.3	124.4
Cash and cash equivalents at beginning of period	432.6	397.3	272.9
Cash and cash equivalents at end of period	\$ 298.0	\$ 432.6	\$ 397.3
Supplemental disclosure of cash flow information:			
Cash paid for taxes	\$ 7.6	\$ 8.7	\$ 12.7
Cash paid for interest	13.4	15.1	1.3
Supplemental disclosure of non-cash transactions:			
Unpaid property, plant and equipment in accounts payable and accrued expenses	\$ 12.3	\$ 14.3	\$ 17.2
Equipment acquired under finance lease	_	_	15.6
Right-of-use assets obtained in exchange for new operating lease liabilities	2.2	_	_
Issuance of common stock upon conversion of Series A Preferred Stock	_	79.4	_
Net transfer of assets from property plant and equipment to assets held-for-sale	3.1	4.9	_
Issuance of common stock and replacement awards in connection with Oclaro acquisition	_	460.1	_

See accompanying Notes to Consolidated Financial Statements.

LUMENTUM HOLDINGS INC.

CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (in millions)

	Series A	Redeer vertibl	mable e	Comi	mon S	Stock	dditional Paid-In		Retained Earnings (Accumulated		Accumulated ther Comprehensive	Si	Total
	Shares	An	nount	Shares	A	mount	Capital	Deficit)		Income (Loss)		Equity	
Balance as of July 1, 2017		\$	35.8	61.5	\$	0.1	\$ 694.5	\$	(83.2)	\$	7.4	\$	618.8
Net income	_		_	_		_	_		248.1		_		248.1
Other comprehensive loss	_		_	_		_	_		_		(1.0)		(1.0)
Declared dividend for preferred stock	_		_	_		_	_		(0.9)		_		(0.9)
Issuance of shares pursuant to equity plans, net of tax withholdings	_		_	1.1		_	1.7		_		_		1.7
ESPP shares issued	_		_	0.2		_	9.2		_		_		9.2
Stock-based compensation	_		_	_		_	47.6		_		_		47.6
Cumulative effect of stock compensation accounting change	_		_	_		_	0.2		2.4		_		2.6
Balance as of June 30, 2018		\$	35.8	62.8	\$	0.1	\$ 753.2	\$	166.4	\$	6.4	\$	926.1
Net loss			_						(36.4)		_		(36.4)
Other comprehensive income	_		_	_		_	_		_		0.7		0.7
Declared dividend for preferred stock	_		_	_		_	_		(0.3)		_		(0.3)
Issuance of shares pursuant to equity plans, net of tax withholdings	_		_	1.1		_	(0.4)		_		_		(0.4)
Issuance of shares pursuant to merger agreement, net of tax withholdings	_		_	11.0		_	460.1		_		_		460.1
ESPP shares issued	_		_	0.3		_	9.3		_		_		9.3
Stock-based compensation	_		_	_		_	59.2		_		_		59.2
Cumulative-effect adjustment for adoption of Topic 606	_		_	_		_	_		(0.6)		_		(0.6)
Conversion of preferred stock to common stock			(35.8)	1.5			79.4				_		79.4
Balance as of June 29, 2019		\$	_	76.7	\$	0.1	\$ 1,360.8	\$	129.1	\$	7.1	\$	1,497.1
Net income							 _		135.5		_		135.5
Other comprehensive income	_		_	_		_	_		_		0.8		0.8
Issuance of shares pursuant to equity plans, net of tax withholdings	_		_	1.1		_	(14.0)		_		_		(14.0)
Exercise of stock options	_		_	_		_	0.7		_		_		0.7
Equity component of the 2026 Notes, net of tax of \$67.0 million and issuance costs of \$2.3 million	_		_	_		_	245.9		_		_		245.9
ESPP shares issued	_		_	0.2		_	9.9		_		_		9.9
Repurchases of common stock	_		_	(2.9)		_	_		(200.0)		_		(200.0)
Stock-based compensation	_		_	_		_	73.3		_		_		73.3
Balance as of June 27, 2020	_	\$	_	75.1	\$	0.1	\$ 1,676.6	\$	64.6	\$	7.9	\$	1,749.2

See accompanying Notes to Consolidated Financial Statements.

LUMENTUM HOLDINGS INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Description of Business and Summary of Significant Accounting Policies

<u>Description of Business</u>

Lumentum Holdings Inc. ("we," "us," "our", "Lumentum" or the "Company") is an industry-leading provider of optical and photonic products defined by revenue and market share addressing a range of end market applications including Optical Communications ("OpComms") and Commercial Lasers ("Lasers") for manufacturing, inspection and life-science applications. We seek to use our core optical and photonic technology, and our volume manufacturing capability, to expand into attractive emerging markets that benefit from advantages that optical or photonics-based solutions provide, including 3D sensing for consumer electronics and diode light sources for a variety of consumer and industrial applications. The majority of our customers tend to be original equipment manufacturers ("OEMs") that incorporate our products into their products which then address end-market applications. For example, we sell fiber optic components that network equipment manufacturers ("NEMs") assemble into communications networking systems, which they sell to network service providers, operators or enterprises with their own networks. Similarly, many of our customers for our Lasers products incorporate our products into tools they produce, which are used for manufacturing processes by their customers. For 3D sensing, we sell diode lasers to manufacturers of consumer electronics products for mobile, personal computing, gaming, and other applications who then integrate our devices within their products, for eventual resale to consumers and also into other industrial applications.

Basis of Presentation

The preparation of the consolidated financial statements in accordance with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. Management bases its estimates on historical experience and various other assumptions believed to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact the Company in the future, actual results may be different from the estimates. Our critical accounting policies are those that affect our financial statements materially and involve difficult, subjective or complex judgments by management. Those policies are inventory valuation, revenue recognition, income taxes, long-lived asset valuation, business combinations and goodwill.

On December 10, 2018, we completed our merger with Oclaro, Inc. ("Oclaro"), a provider of optical components and modules for the long-haul, metro and data center markets. Our consolidated financial statements include the operating results of Oclaro beginning from the date of acquisition. Refer to "Note 4. Business Combinations" for further discussion of the merger.

The COVID-19 pandemic has created and may continue to create significant uncertainty in global financial markets, which has disrupted and harmed, and may continue to disrupt and harm, the Company's business, financial condition, and results of operations. The extent of the impact of COVID-19 on the Company's operational and financial performance will depend on certain developments, including but not limited to the duration and spread of the outbreak, duration of local, state and federal issued public health orders in each jurisdiction where we operate or in which our customers and suppliers operate, impact on our customers and our sales cycles, impact on our supply chain and manufacturing partners, impact on our employees and impact on regional and worldwide economies and financial markets in general, all of which are uncertain and cannot be predicted.

Fiscal Years

We utilize a 52-53 week fiscal year ending on the Saturday closest to June 30th. Every fifth or sixth fiscal year will have a 53-week period. The additional week in a 53-week year is added to the third quarter, making such quarter consist of 14 weeks. Our fiscal 2021 will be a 53-week year. Our fiscal 2020, 2019, and 2018 ended on June 27, 2020, June 29, 2019 and June 30, 2018, respectively, and were 52-week years.

Principles of Consolidation

The preparation of the consolidated financial statements in accordance with GAAP in the United States requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. Management bases its estimates on historical experience and various other assumptions believed to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact the Company in the future, actual results may be different from the estimates.

Certain prior period amounts have been reclassified to conform to the current period presentation, including the reclassification of capital lease obligations that existed as of June 29, 2019 to finance lease liabilities within other current liabilities and other non-current liabilities in our consolidated balance sheets, as a result of the adoption of the new accounting guidance for leases. Refer to "Note 2. Recently Issued Accounting Pronouncements" for details. The reclassification of the prior period amounts did not impact previously reported consolidated financial statements.

LUMENTUM HOLDINGS INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Summary of Significant Accounting Policies

Our significant accounting policies are those that affect our financial statements materially and involve difficult, subjective or complex judgments by management. We believe that of our significant accounting policies described below, certain accounting policies involve a greater degree of judgment and complexity and are the most critical to aid in fully understanding and evaluating our consolidated financial statements. These policies are inventory valuation, revenue recognition, income taxes, long-lived asset valuation, and goodwill. For a description of our critical accounting policies, also refer to "Management's Discussion and Analysis of Financial Condition and Results of Operations", *Critical Accounting Policies and Estimates*.

Leases

We adopted Topic 842 on June 30, 2019, the first day of fiscal year 2020, using the modified retrospective transition approach. Refer to "Note 2. Recently Issued Accounting Pronouncements" regarding the impact of adoption.

We determine if an arrangement is a lease at inception for arrangements with an initial term of more than 12 months, and classify it as either finance or operating.

Finance leases are generally those that allow us to substantially utilize or pay for the entire asset over its estimated useful life. Finance leases are recorded in property, plant and equipment, net, and finance lease liabilities within other current and other non-current liabilities on our consolidated balance sheets. We have lease arrangements with lease and non-lease components, and the non-lease components for our finance leases are accounted for separately, based on estimated stand-alone values, and are not included in the initial measurement of our finance lease assets and corresponding liabilities. Finance lease assets are amortized in operating expenses on a straight-line basis over the shorter of the estimated useful lives of the assets or the lease term, with the interest component included in interest expense and recognized using the effective interest method over the lease term.

Operating leases are recorded in operating lease right-of-use assets, net, and operating lease liabilities, current and non-current on our consolidated balance sheets. For operating leases of buildings, we account for non-lease components, such as common area maintenance, as a component of the lease, and include it in the initial measurement of our operating lease assets and corresponding liabilities. Operating lease assets are amortized on a straight-line basis in operating expenses over the lease term.

Our lease liabilities are recognized based on the present value of the remaining fixed lease payments, over the lease term, using a discount rate of similarly secured borrowings available to us. For the purpose of lease liability measurement, we consider only payments that are fixed and determinable at the time of commencement. Any variable payments that depend on an index or rate are expensed as incurred. Our lease terms may include options to extend when it is reasonably certain that we will exercise that option. Our lease assets also include any lease payments made and exclude any lease incentives received prior to commencement. Our lease assets are tested for impairment in the same manner as long-lived assets used in operations. We generally recognize sublease income on a straight-line basis over the sublease term.

Cash and Cash Equivalents

We consider highly-liquid fixed income securities with original maturities of three months or less at the time of purchase to be cash equivalents. As of fiscal year ended June 27, 2020, our cash equivalents consist of money market funds and U.S. Treasury securities. As of fiscal year ended June 27, 2020, our cash and cash equivalents did not include any investments with original maturities of three months or less.

LUMENTUM HOLDINGS INC. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Short-Term Investments

We classify our investments in debt as available-for-sale and record these investments at fair value. Investments with an original maturity of three months or less at the date of purchase are considered cash equivalents, while all other investments are classified as short-term based on management's intent and ability to use the funds in current operations. Unrealized gains and losses are reported as a component of other comprehensive loss. Realized gains and losses are determined based on the specific identification method, and are reflected as interest and other income (expense), net in our Consolidated Statements of Operations. We regularly review our investment portfolio to identify and evaluate investments that have indicators of possible impairment. Factors considered in determining whether a loss is other-than-temporary include, but are not limited to: the length of time and extent a security's fair value has been below its cost, the financial condition and near-term prospects of the investee, the credit quality of the security's issuer, likelihood of recovery and our intent and ability to hold the security for a period of time sufficient to allow for any anticipated recovery in value. For our debt instruments, we also evaluate whether we have the intent to sell the security or it is more likely than not that we will be required to sell the security before recovery of its cost basis.

Fair Value of Financial Instruments

We define fair value as the price that would be received from selling an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities which are required to be recorded at fair value, we consider the principal or most advantageous market in which to transact and the market-based risk. We apply fair value accounting for all financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring basis. The carrying amounts reported in the consolidated financial statements approximate the fair value for cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities due to their short-term nature.

Basic and Diluted Net Income (Loss) per Common Share

Basic income (loss) per share is computed by dividing net income (loss) available to common stockholders by the weighted average number of common shares outstanding during the reporting period. The weighted average number of shares is calculated by taking the number of shares outstanding and weighting them by the amount of time that they were outstanding. Diluted earnings per share reflects the potential dilution that could occur if stock options, preferred stock, and other commitments to issue common stock were exercised or equity awards vest resulting in the issuance of common stock that could share in the earnings of the Company.

Diluted loss per share is the same as basic loss per share during periods where net losses are incurred since the inclusion of the potential common stock equivalents would be anti-dilutive as a result of the net loss.

Our Series A Preferred Stock was considered a participating security where the holders of Series A Preferred Stock had the right to participate in undistributed earnings with holders of common stock. On November 2, 2018, the remaining 35,805 shares of our Series A Preferred Stock were converted into 1.5 million shares of our common stock. Refer to "Note 11. Non-Controlling Interest Redeemable Convertible Preferred Stock and Derivative Liability" for further discussion. Prior to conversion, the holders of our Series A Preferred Stock were entitled to share in dividends, on an as-converted basis, if the holders of our common stock were to receive dividends. Up through the date of conversion, we used the two-class method to compute earnings per share. The two-class method is an earnings allocation formula that determines earnings per share for each class of common stock and participating security according to dividends declared (or accumulated) and participation rights in undistributed earnings. In determining the amount of net earnings to allocate to common stockholders, earnings are allocated to both common and participating securities based on their respective weighted-average shares outstanding during the period. Diluted earnings per common share is calculated similar to basic earnings per common share except that it gives effect to all potentially dilutive common stock equivalents outstanding for the period, using the treasury stock method.

Potentially dilutive common shares result from the assumed exercise of outstanding stock options, assumed vesting of outstanding equity awards, assumed issuance of stock under the employee stock purchase plan, and assumed conversion of our outstanding \$450 million in aggregate principal amount of 0.25% Convertible Notes due in 2024 (the "2024 Notes") and \$1,050 million in aggregate principal amount of 0.50% Convertible Notes due in 2026 (the "2026 Notes" and together with the 2024 Notes, the "convertible notes"), all using the treasury stock method as we have the ability and intent to settle the face value of the convertible notes in cash.

The dilutive effect of securities from the 2015 Equity Incentive Plan is reflected in diluted earnings per share by application of the treasury stock method, which includes consideration of unamortized share-based compensation expense and the dilutive effect of in-the-money options and non-vested restricted stock units. Under the treasury stock method, the amount the employee

must pay for exercising stock options and the amount of unamortized share-based compensation expense are collectively assumed to be used to repurchase hypothetical shares. An increase in the fair value of our common stock can result in a greater dilutive effect from potentially dilutive awards.

Anti-dilutive potential shares from 2015 Equity Incentive Plan are excluded from the calculation of diluted earnings per share if their exercise price exceeded the average market price during the period or the share-based awards were determined to be anti-dilutive based on applying the treasury stock method.

Inventory Valuation

Inventory is valued at standard cost, which approximates actual cost computed on a first-in, first-out basis, not in excess of net realizable value. We assess the value of our inventory on a quarterly basis and write down those inventories which are obsolete or in excess of our forecasted demand to the lower of their cost or estimated net realizable value. Our estimates of forecasted demand are based upon our analysis and assumptions including, but not limited to, expected product lifecycles, product development plans and historical usage by product. Our product line management personnel play a key role in our excess review process by providing updated sales forecasts, managing product transitions and working with manufacturing to minimize excess inventory. If actual market conditions are less favorable than our forecasts, or actual demand from our customers is lower than our estimates, we may be required to record additional inventory write-downs. If actual market conditions are more favorable than anticipated, inventory previously written down may be sold, resulting in lower cost of sales and higher income from operations than expected in that period.

Revenue Recognition

Adoption of Topic 606

Pursuant to Topic 606, our revenues are recognized upon the application of the following steps:

- identification of the contract, or contracts, with a customer;
- identification of the performance obligations in the contract;
- determination of the transaction price;
- allocation of the transaction price to the performance obligations in the contract; and
- · recognition of revenues when, or as, the contractual performance obligations are satisfied.

The majority of our revenue comes from product sales, consisting of sales of Lasers and OpComms hardware products to our customers. Our revenue contracts generally include only one performance obligation. Revenues are recognized at a point in time when control of the promised goods or services are transferred to our customers upon shipment or delivery, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. We have entered into vendor managed inventory ("VMI") programs with our customers. Under these arrangements, we receive purchase orders from our customers, and the inventory is shipped to the VMI location upon receipt of the purchase order. The customer then pulls the inventory from the VMI hub based on its production needs. Revenue under VMI programs is recognized when control transfers to the customer, which is generally once the customer pulls the inventory from the hub.

Revenue from all sales types is recognized at the transaction price. The transaction price is determined based on the consideration to which we will be entitled in exchange for transferring goods or services to the customer adjusted for estimated variable consideration, if any. We typically estimate the impact on the transaction price for discounts offered to the customers for early payments on receivables or net of accruals for estimated sales returns. These estimates are based on historical returns, analysis of credit memo data and other known factors. Actual returns could differ from these estimates. We allocate the transaction price to each distinct product based on its relative standalone selling price. The product price as specified on the purchase order is considered the standalone selling price as it is an observable input that depicts the price as if sold to a similar customer in similar circumstances.

Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by us from a customer and deposited with the relevant government authority, are excluded from revenue. Our revenue arrangements do not contain significant financing components as our standard payment terms are less than one year.

If a customer pays consideration, or the Company has a right to an amount of consideration that is unconditional before we transfer a good or service to the customer, those amounts are classified as deferred revenue or deposits received from customers which are included in other current liabilities or other long-term liabilities when the payment is made or it is due, whichever is earlier.

Transaction Price Allocated to the Remaining Performance Obligations

Remaining performance obligations represent the transaction price allocated to performances obligations that are unsatisfied or partially unsatisfied as of the end of the reporting period. Unsatisfied and partially unsatisfied performance obligations consist of contract liabilities and non-cancellable backlog. Non-cancellable backlog includes goods and services for which customer purchase orders have been accepted that are scheduled or in the process of being scheduled for shipment. A portion of our revenue arises from vendor managed inventory arrangements where the timing and volume of customer utilization is difficult to predict.

The following table includes estimated revenue expected to be recognized in the future for backlog related performance obligations that are unsatisfied as of June 27, 2020 (in millions):

	Less than 1 year	1-2 years	Greater than 2 years	Total
Performance Obligations	\$525.5	\$32.3	\$—	\$557.8

Warranty

Hardware products regularly include warranties to the end customers such that the product continues to function according to published specifications. We typically offer a twelve month warranty for most of our products. However, in some instances depending upon the product, specific market, product line and geography in which we operate, and what is common in the industry, our warranties can vary and range from six months to five years. These standard warranties are assurance type warranties and do not offer any services in addition to the assurance that the product will continue working as specified. Therefore, warranties are not considered separate performance obligations in the arrangement. Instead, the expected cost of warranty is accrued as expense in accordance with authoritative guidance.

We provide reserves for the estimated costs of product warranties at the time revenue is recognized. We estimate the costs of our warranty obligations based on our historical experience of known product failure rates, use of materials to repair or replace defective products and service delivery costs incurred in correcting product failures. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise.

Shipping and Handling Costs

We record shipping and handling costs related to revenue transactions within cost of sales as a period cost.

Contract Costs

The Company recognizes the incremental direct costs of obtaining a contract, which consist of sales commissions, when control over the products they relate to transfers to the customer. Applying the practical expedient, the Company recognizes commissions as expense when incurred, as the amortization period of the commission asset the Company would have otherwise recognized is less than one year.

Contract Balances

The Company records accounts receivable when it has an unconditional right to consideration. Contract liabilities are recorded when cash payments are received or due in advance of performance. Contract liabilities consist of advance payments and deferred revenue, where the Company has unsatisfied performance obligations. Contract liabilities are classified as deferred revenue and customer deposits, and are included in other current liabilities within our consolidated balance sheet. Payment terms vary by customer. The time between invoicing and when payment is due is not significant.

The following table reflects the changes in contract balances as of June 27, 2020 (in millions, except percentages):

Contract balances	Balance sheet location	June 27, 2020	June 29, 2019	Change	Percentage Change
Accounts receivable, net	Accounts receivable, net	\$233.5	\$238.0	\$(4.5)	(1.9)%
Deferred revenue and customer deposits	Other current liabilities	\$1.9	\$2.9	\$(1.0)	(34.5)%

Disaggregation of Revenue

We disaggregate revenue by geography and by product. Refer to "Note 20. Operating Segments and Geographic Information" for a presentation of disaggregated revenue. We do not present other levels of disaggregation, such as by type of products, customer, markets, contracts, duration of contracts, timing of transfer of control and sales channels, as this information is not used by our Chief Operating Decision Maker to manage the business.

Income Taxes

In accordance with the authoritative guidance on accounting for income taxes, we recognize income taxes using an asset and liability approach. This approach requires the recognition of taxes payable or refundable for the current year and deferred tax liabilities and assets for the future tax consequences of events that have been recognized in our consolidated financial statements or tax returns. The measurement of current and deferred taxes is based on provisions of the enacted tax law, and the effects of future changes in tax laws or rates are not anticipated.

The authoritative guidance provides for recognition of deferred tax assets if the realization of such deferred tax assets is more likely than not to occur based on an evaluation of both positive and negative evidence and the relative weight of the evidence. We consider future growth, forecasted earnings, future taxable income, the mix of earnings in the jurisdictions in which we operate, historical earnings, taxable income in prior years, if carryback is permitted under the law, and prudent and feasible tax planning strategies in determining the need for a valuation allowance. In the event we were to determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to the deferred tax assets valuation allowance would be charged to earnings in the period in which we make such a determination, or goodwill would be adjusted at our final determination of the valuation allowance related to an acquisition within the measurement period. If we later determine that it is more likely than not that the net deferred tax assets would be realized, we would reverse the applicable portion of the previously provided valuation allowance as an adjustment to earnings at such time.

We are subject to income tax audits by the respective tax authorities of the jurisdictions in which we operate. The determination of our income tax liabilities in each of these jurisdictions requires the interpretation and application of complex, and sometimes uncertain, tax laws and regulations. The authoritative guidance on accounting for income taxes prescribes both recognition and measurement criteria that must be met for the benefit of a tax position to be recognized in the financial statements. If a tax position taken, or expected to be taken, in a tax return does not meet such recognition or measurement criteria, an unrecognized tax benefit liability is recorded. If we ultimately determine that an unrecognized tax benefit liability is no longer necessary, we reverse the liability and recognize a tax benefit in the period in which it is determined that the unrecognized tax benefit liability is no longer necessary.

The recognition and measurement of current taxes payable or refundable and deferred tax assets and liabilities requires that we make certain estimates and judgments. Changes to these estimates or a change in judgment may have a material impact on our tax provision in a future period.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is computed by the straight-line method generally over the following estimated useful lives of the assets: 10 to 40 years for building and improvements, 3 to 5 years for machinery and equipment, and 2 to 5 years for furniture, fixtures, software and office equipment. Leasehold improvements are amortized using the straight-line method over the shorter of the estimated useful lives of the assets or the term of the lease.

Goodwill

Goodwill represents the excess of the purchase price of an acquired business over the fair value of the identifiable assets acquired and liabilities assumed. We test for impairment of goodwill on an annual basis in the fourth quarter and at any other time when events occur or circumstances indicate that the carrying amount of goodwill may not be recoverable.

We have the option to first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. The qualitative factors we assess include long-term prospects of our performance, share price trends and market capitalization, and Company specific events. Unanticipated events and circumstances may occur that affect the accuracy of our assumptions, estimates and judgments. For example, if the price of our common stock were to significantly decrease combined with other adverse changes in market conditions, thus indicating that the underlying fair value of our reporting units may have decreased, we might be required to reassess the value of our goodwill in the period such circumstances were identified.

If we determine that as a result of the qualitative assessment that it is more likely than not (i.e., greater than 50% likelihood) that the fair value of a reporting unit is less than its carrying amount, then the quantitative test is required. Otherwise, no further testing is required. The quantitative goodwill impairment test requires us to estimate the fair value of our reporting units. If the carrying value of a reporting unit exceeds its fair value, the goodwill of that reporting unit is potentially impaired and we record an impairment loss equal to the excess of the carrying value of the reporting unit over its fair value, not to exceed the carrying amount of goodwill. The fair value of each of our goodwill reporting units is generally estimated using a combination of public company multiples and discounted cash flow methodologies.

Based on the impairment analysis performed in the fourth quarter of each year presented, the fair value of each of our reporting units substantially exceeded the carrying value; as such, our annual qualitative assessment did not indicate that a more detailed quantitative analysis was necessary.

Intangible Assets

Intangible assets consist primarily of intangible assets purchased through acquisitions. Purchased intangible assets include acquired developed technologies (developed and core technology), customer relationships, in-process research and development, and order backlog. Intangible assets, with the exception of customer relationships and order backlog, are amortized using the straight-line method over the estimated economic useful lives of the assets, which is the period during which expected cash flows support the fair value of such intangible assets. Customer relationships and order backlog are amortized using an accelerated method of amortization over the expected customer lives, which more accurately reflects the pattern of realization of economic benefits expected to be obtained.

Long-lived Asset Valuation

We test long-lived assets for recoverability, at the asset group level, when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset, significant adverse changes in the business climate or legal factors, accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset, current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset, or current expectation that the asset will more likely than not be sold or disposed significantly before the end of its estimated useful life.

Recoverability is assessed based on the difference between the carrying amount of the asset and the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized when the carrying amount is not recoverable and exceeds fair value.

Pension Benefits

The funded status of our retirement-related benefit plan is measured as the difference between the fair value of plan assets and the benefit obligation at fiscal year end, the measurement date. The funded status of an underfunded benefit plan, of which the fair value of plan assets is less than the benefit obligation, is recognized as a non-current net pension liability in the consolidated balance sheets unless the fair value of plan assets is not sufficient to cover the expected payments to be made over the next year (or operating cycle, if longer) from the measurement date. For defined benefit pension plans, the benefit obligation is the projected benefit obligation ("PBO") which represents the actuarial present value of benefits expected to be paid upon retirement.

Net periodic pension cost (income) ("NPPC") is recorded in the consolidated statements of operations and includes service cost, interest cost, expected return on plan assets, amortization of prior service cost and (gains) losses previously recognized as a component of accumulated other comprehensive income. Service cost represents the actuarial present value of participant benefits attributed to services rendered by employees in the current year. Interest cost represents the time value of money cost associated with the passage of time. (Gains) losses arise as a result of differences between actual experience and assumptions or as a result of changes in actuarial assumptions. Prior service cost (credit) represents the cost of benefit improvements attributable to prior service granted in plan amendments. (Gains) losses and prior service cost (credit) that arise during the current year are first

recognized as a component of accumulated other comprehensive income in the consolidated balances sheets, net of tax. Prior service cost is amortized as a component of NPPC over the average remaining service period of active plan participants starting at the date the plan amendment is adopted. Deferred actuarial (gains) losses are subsequently recognized as a component of NPPC if they exceed the greater of 10% of PBO or the fair value of plan assets, with the excess amortized over the average remaining service period of active plan participants.

The measurement of the benefit obligation and NPPC is based on our estimates and actuarial valuations, provided by third-party actuaries, which are approved by management. These valuations reflect the terms of the plans and use participant-specific information such as compensation, age and years of service, as well as certain assumptions, including estimates of discount rates, expected return on plan assets, rate of compensation increases, and mortality rates. We evaluate these assumptions annually at a minimum. In estimating the expected return on plan assets, we consider historical returns on plan assets, adjusted for forward-looking considerations, inflation assumptions and the impact of the active management of the plan's invested assets.

Concentration of Credit and Other Risks

Financial instruments that potentially subject our business to concentration of credit risk consist primarily of cash, short-term investments, and trade receivables. We perform credit evaluations of our customers' financial condition and generally do not require collateral from our customers. These evaluations require significant judgment and are based on a variety of factors including, but not limited to, current economic trends, payment history, bad debt write-off experience, and financial review of the customer.

Although the Company deposits its cash with financial institutions that management believes are of high credit quality, its deposits, at times, may exceed federally insured limits. The Company's investment portfolio consists of investment grade securities diversified amongst security types, industries, and issuers. The Company's investment policy limits the amount of credit exposure in the investment portfolio by imposing credit rating minimums and limiting purchases of a single issuer, security type, geography and industry, except for Treasury securities. The Company believes no significant concentration risk exists with respect to these investments.

We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. When we become aware that a specific customer is unable to meet their financial obligations, we record a specific allowance to reflect the level of credit risk in the customer's outstanding receivable balance. In addition, we record additional allowances based on certain percentages of aged receivable balances. These percentages take into account a variety of factors including, but not limited to, current economic trends, payment history and bad debt write-off experience. We classify bad debt expenses as selling, general and administrative ("SG&A") expense.

During fiscal 2020, 2019, and 2018, a few customers generated more than 10% of total net revenue. Refer to "Note 20. Operating Segments and Geographic Information" in the Notes to Consolidated Financial Statements.

Our accounts receivable was concentrated with one customer as of June 27, 2020, who represented 14% of gross accounts receivable, compared with three customers as of June 29, 2019, who represented 17%, 17% and 10% of gross accounts receivable, respectively.

We rely on a limited number of suppliers for a number of key components contained in our products. We also rely on a limited number of significant independent contract manufacturers for the production of certain key components and subassemblies contained in our products.

We generally use a rolling twelve months forecast based on anticipated product orders, customer forecasts, product order history and backlog to determine our materials requirements. Lead times for the parts and components that we order vary significantly and depend on factors such as the specific supplier, contract terms and demand for a component at a given time. If the forecast does not meet or if it exceeds actual demand, we may have excess or shortfalls of some materials and components, as well as excess inventory purchase commitments. We could experience reduced or delayed product shipments or incur additional inventory write-downs and cancellation charges or penalties, which would increase costs and could have a material adverse impact on our results of operations.

Foreign Currency Translation

Concurrent with the acquisition of Oclaro on December 10, 2018, we established the functional currency for our worldwide operations as the U.S. dollar. The change in our functional currency is a result of significant changes in economic facts and circumstances, primarily the acquisition of Oclaro, a U.S. dollar-denominated functional currency company. The combined business, which requires the integration of our supply chain, manufacturing operations and sales organization, will predominantly use the U.S. dollar, including when negotiating customer and major supplier contracts.

Translation adjustments reported prior to December 10, 2018, remain as a component of accumulated other comprehensive income in our consolidated balance sheet. The translated values for any non-monetary assets and liabilities as of December 10, 2018 become the new accounting basis for those assets. Accordingly, monetary assets and liabilities denominated in foreign currencies have been remeasured into U.S. dollars using the exchange rates in effect at the balance sheet date. Foreign currency re-measurement gains (losses) are included in interest and other income (expense), net.

Stock-based Compensation

Compensation expense related to stock-based transactions is measured and recognized in the financial statements based on fair value at the grant date.

Restricted stock units ("RSUs") are grants of shares of our common stock, the vesting of which is based on the requisite service requirement. Generally, our RSUs are subject to forfeiture and expected to vest over one to four years. For new-hire grants, RSUs generally vest ratably on an annual basis over four years. For annual refresh grants, RSUs generally vest ratably on an annual, or combination of annual and quarterly, basis over three years.

Restricted stock awards ("RSAs") are grants of shares of our common stock that are subject to various restrictions, including restrictions on transferability and forfeiture provisions. RSAs are expected to vest over one to four years, and the shares acquired may not be transferred by the holder until the vesting conditions (if any) are satisfied.

Performance stock units ("PSUs") are grants of shares of our common stock that vest upon the achievement of certain performance and service conditions. We account for the fair value of PSUs using the closing market price of our common stock on the date of grant. We begin recognizing compensation expense when we conclude that it is probable that the performance conditions will be achieved. We reassess the probability of vesting at each reporting period and adjust our compensation cost based on this probability assessment. Our PSUs are subject to risk of forfeiture until performance and service conditions are satisfied and generally vest over three years.

We estimate the fair value of the rights to acquire stock under our 2015 Employee Stock Purchase Plan (the "2015 Purchase Plan") using the Black-Scholes option pricing formula. Our 2015 Purchase Plan provides for consecutive six-month offering periods. We recognize such compensation expense on a straight-line basis over the requisite service period. We calculate the volatility factor based on our historical stock prices.

Restructuring Accrual

Costs associated with restructuring activities are recognized when they are obligated. However, in the case of leases, the expense is estimated and accrued when the property is vacated. Given the significance of, and the timing of the execution of such activities, this process is complex and involves periodic reassessments of estimates made from the time the property was vacated, including evaluating real estate market conditions for expected vacancy periods and sublease income. We recognize a liability for post-employment benefits for workforce reductions related to restructuring activities when payment is probable and the amount is reasonably estimable. We continually evaluate the adequacy of the remaining liabilities under our restructuring initiatives. Although we believe that these estimates accurately reflect the costs of our restructuring plans, actual results may differ, thereby requiring us to record additional provisions or reverse a portion of such provisions. Refer to "Note 14. Restructuring and Related Charges" in the Notes to Consolidated Financial Statements.

Business Combinations

In accordance with the guidance for business combinations, we determine whether a transaction or other event is a business combination, which requires that the assets acquired and liabilities assumed constitute a business. Each business combination is then accounted for by applying the acquisition method. If the assets acquired are not a business, we account for the transaction or other event as an asset acquisition. Under both methods, we recognize the identifiable assets acquired, the liabilities assumed, and any noncontrolling interest in the acquired entity. We capitalize acquisition-related costs and fees associated with asset acquisitions and immediately expense acquisition-related costs and fees associated with business combinations.

We allocate the fair value of purchase consideration to the tangible assets acquired, liabilities assumed and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. When determining the fair values of assets acquired and liabilities assumed, we make significant estimates and assumptions, especially with respect to intangible assets. Critical estimates in valuing certain intangible assets include, but are not limited to, future expected cash flows from customer relationships and acquired developed technology and discount rates. Our estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ materially from estimates. Other estimates associated

with the accounting for acquisitions may change as additional information becomes available regarding the assets acquired and liabilities assumed. Any change in facts and circumstances that existed as of the acquisition date and impacts our preliminary estimates is recorded to goodwill if identified within the measurement period. Subsequent to the measurement period or our final determination of fair value of assets and liabilities whichever is earlier the adjustments will affect our earnings.

In addition, we estimate the economic lives of certain acquired assets and these lives are used to calculate depreciation and amortization expense. If our estimates of the economic lives change, depreciation or amortization expenses could be accelerated or slowed.

Research and Development ("R&D") Expense

Costs related to R&D, which primarily consists of labor and benefits, supplies, facilities, consulting and outside service fees, are charged to expense as incurred.

Loss Contingencies

We are subject to the possibility of various loss contingencies arising in the ordinary course of business. We consider the likelihood of loss or impairment of an asset or the incurrence of a liability, as well as our ability to reasonably estimate the amount of loss in determining loss contingencies. An estimated loss is accrued when it is probable that an asset has been impaired or a liability has been incurred and the amount of loss can be reasonably estimated. We regularly evaluate current information available to determine whether such accruals should be adjusted and whether new accruals are required.

Asset Retirement Obligations ("ARO")

Our ARO are legal obligations associated with the retirement of long-lived assets pertaining to leasehold improvements. These liabilities are initially recorded at fair value and the related asset retirement costs are capitalized by increasing the carrying amount of the related assets by the same amount as the liability. Asset retirement costs are subsequently depreciated over the useful lives of the related assets. Subsequent to initial recognition, we record period-to-period changes in the ARO liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate of undiscounted cash flows. We derecognize ARO liabilities when the related obligations are settled.

Note 2. Recently Issued Accounting Pronouncements

Accounting Pronouncements Recently Adopted

In February 2016, FASB issued ASU 2016-02, *Leases (Topic 842)* and subsequent amendments to the initial guidance: ASU 2017-13, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01 (collectively, Topic 842). Effective June 30, 2019, we adopted Topic 842, using the modified retrospective transition approach. We applied the new guidance to all leases existing as of the date of adoption. Our reported results beginning with the first quarter of fiscal 2020 reflect the application of Topic 842, while prior period amounts have not been adjusted and continue to be reported in accordance with our historical accounting under Topic 840.

We elected the practical expedient package permitted under the transition approach. As such, we did not reassess whether any expired or existing contracts are or contain leases, we did not reassess our historical lease classification, and we did not reassess our initial direct costs for any leases that existed prior to June 30, 2019. We have also elected to combine lease and non-lease components at a portfolio level for our operating leases of buildings and not to report leases with an initial term of 12 months or less on our balance sheet.

As of the date of adoption, we recognized operating lease assets of \$91.5 million, with corresponding operating lease liabilities of \$81.5 million on the consolidated balance sheets. The difference between the operating lease right-of-use assets and operating lease liabilities primarily represents the existing asset recognized in relation to the favorable terms of an operating lease acquired through a business combination offset by our deferred rent and ASC 420 "cease-use" balances.

All existing leases that were classified as capital leases under Topic 840 are classified as finance leases under the new guidance. As of adoption, we recognized finance lease assets of \$12.4 million in property, plant and equipment, net, with corresponding finance lease liabilities of \$12.4 million on the consolidated balance sheets. For further information regarding the impact of Topic 842 adoption, see "Note 1. Description of Business and Summary of Significant Accounting Policies" and "Note 9. Leases".

In February 2018, FASB issued ASU 2018-02, *Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which allows companies to reclassify stranded tax effects resulting from the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act"), from accumulated other comprehensive income to retained earnings. The guidance also requires certain new disclosures regardless of the election. The amendments in ASU 2018-02 are effective for all entities for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. We adopted ASU 2018-02 in the first quarter of fiscal 2020 with no impact to our consolidated financial statements.

In January 2017, FASB issued ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment*. ASU 2017-04 removes the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment. A goodwill impairment charge will be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The amendments contained in ASU 2017-04 are effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted, which should be applied prospectively. We early adopted ASU 2017-04 in our first quarter of fiscal 2020. The implementation of ASU 2017-04 did not have an impact on our consolidated financial statements.

Accounting Pronouncements Not Yet Effective

In August 2020, FASB issued ASU 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity, which simplifies the accounting for convertible instruments by removing the separation models for (1) convertible debt with a cash conversion feature and (2) convertible instruments with a beneficial conversion feature. As a result, a convertible debt instrument will be accounted for as a single liability measured at its amortized cost. These changes will reduce reported interest expense and increase reported net income for entities that have issued a convertible instrument that was bifurcated according to previously existing rules. Also, ASU 2020-06 requires the application of the if-converted method for calculating diluted earnings per share and the treasury stock method will be no longer available. The new guidance is effective for fiscal years beginning after December 15, 2021, with early adoption permitted no earlier than fiscal years beginning after December 15, 2020. ASU 2020-06 is effective for us in our first quarter of fiscal 2023. We are currently evaluating the impact of ASU 2020-06 on our consolidated financial statements.*

In December 2019, FASB issued ASU 2019-12, Simplifying the Accounting for Income Taxes (Topic 740), which is intended to simplify various aspects related to accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and which also clarifies and amends existing guidance to improve consistent application. ASU 2019-12 is effective for us at the beginning of fiscal 2022, including interim periods within that reporting period, although early adoption is permitted. We are currently evaluating the impact of ASU 2019-12 on our consolidated financial statements.

In August 2018, FASB issued ASU 2018-14, Compensation-Retirement Benefits-Defined Benefit Plans-General (Topic 715-20): Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans. ASU 2018-14 modifies the disclosure requirements for defined benefit pension plans and other post-retirement benefit plans. The new guidance is effective for fiscal years ending after December 15, 2020, with early adoption permitted. ASU 2018-14 should be applied retrospectively to all periods presented and is effective for us in our first quarter of fiscal 2022. We are currently evaluating the impact of ASU 2018-14 on our consolidated financial statements.

In August 2018, FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement. ASU 2018-13 modifies the disclosure requirements for fair value measurements. The new guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. ASU 2018-13 requires that certain of the amendments be applied prospectively, while other amendments should be applied retrospectively to all periods presented. ASU 2018-13 is effective for us in our first quarter of fiscal 2021. The adoption of this standard is not expected to have a significant impact on our consolidated financial statements.

In August 2018, FASB issued ASU 2018-15, Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. This standard requires capitalization of the implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. Further, the standard also requires the Company to expense the capitalized implementation costs of a hosting arrangement over the term of the hosting arrangement. This standard is effective for us in our first quarter of fiscal 2021. Early adoption is permitted. The adoption of this standard is not expected to have a significant impact on our consolidated financial statements.

In June 2016, FASB issued ASU 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments and a subsequent amendment, ASU 2018-19 (collectively, Topic 326). Topic 326 requires measurement

and recognition of expected credit losses for financial assets held. Topic 326 is effective for annual periods beginning after December 15, 2019, including interim periods within those periods, with early adoption permitted. ASU 2016-13 is effective for us in our first quarter of fiscal 2021. The adoption of Topic 326 will not have a material impact on our consolidated financial statements.

Note 3. Earnings Per Share

The following table sets forth the computation of basic and diluted net income (loss) attributable to common stockholders per share (in millions, except per share data):

	Years Ended					
	Jun	e 27, 2020	June 29, 2019		Jun	e 30, 2018
Basic Earnings per Common Share						
Net income (loss)	\$	135.5	\$	(36.4)	\$	248.1
Less: Cumulative dividends on Series A Preferred Stock		_		(0.3)		(0.9)
Less: Earnings allocated to Series A Preferred Stock		_		(1.2)		(5.7)
Net income (loss) attributable to common stockholders - Basic	\$	135.5	\$	(37.9)	\$	241.5
Weighted average common shares outstanding including Series A Preferred Stock		75.9		70.7		63.8
Less: Weighted average Series A Preferred Stock		_		_		(1.5)
Basic weighted average common shares outstanding		75.9		70.7		62.3
Net income (loss) per share attributable to common stockholders - Basic	\$	1.79	\$	(0.54)	\$	3.88
Diluted Earnings per Common Share						
Net income (loss) attributable to common stockholders - Diluted	\$	135.5	\$	(37.9)	\$	241.5
Weighted average common shares outstanding for basic earnings per common share		75.9		70.7		62.3
Effect of dilutive securities from 2015 Equity Incentive Plan		0.8		_		1.0
Shares issuable assuming conversion of the 2024 Notes		0.9		_		_
Diluted weighted average common shares outstanding		77.6		70.7		63.3
Net income (loss) per share attributable to common stockholders - Diluted	\$	1.75	\$	(0.54)	\$	3.82

For the year ended June 29, 2019, our diluted earnings per share attributable to common stockholders is the same as basic EPS as we are in net loss position. For the year ended June 30, 2018, our diluted earnings per share attributable to common stockholders is calculated using the "treasury stock" method because it is more dilutive than the "if-converted" method.

Our Series A Preferred Stock was considered a participating security, meaning that it had the right to participate in undistributed earnings with our common stock. On November 2, 2018, the remaining 35,805 shares of our Series A Preferred Stock were converted into 1.5 million shares of our common stock. Refer to "Note 11. Non-Controlling Interest Redeemable Convertible Preferred Stock and Derivative Liability" for further discussion. Prior to conversion, the holders of our Series A Preferred Stock were entitled to share in dividends, on an as-converted basis, if the holders of our common stock were to receive dividends. Through the date of conversion, we used the two-class method to compute earnings per share. The two-class method is an earnings allocation formula that determines earnings per share for each class of common stock and participating security according to dividends declared (or accumulated) and participation rights in undistributed earnings. In determining the amount of net earnings to allocate to common stockholders, earnings are allocated to both common and participating securities based on their respective weighted-average shares outstanding during the period. Diluted earnings per common share is calculated similar to basic earnings per common share except

that it gives effect to all potentially dilutive common stock equivalents outstanding for the period, using the treasury stock method. Diluted earnings per common share is computed using the more dilutive of the treasury stock method or the if-converted method.

Potentially dilutive common shares result from the assumed exercise of outstanding stock options, assumed vesting of outstanding equity awards, assumed issuance of stock under the employee stock purchase plan, and assumed conversion of our outstanding convertible notes, all using the treasury stock method.

We have the ability and intent to settle the face value of our convertible notes in cash. Therefore, we use the treasury stock method for calculating the dilutive impact of the convertible notes. The 2026 Notes will have no impact on diluted earnings per share until the average price of our common stock exceeds the conversion price of \$99.29. The potentially dilutive shares resulting from the 2024 Notes were included in the calculation of diluted income per share for the year ended June 27, 2020, since the average price of our common stock exceeded the conversion price of \$60.62. Refer to "Note 12. Debt" for further discussion.

Anti-dilutive potential shares from the 2015 Equity Incentive Plan are excluded from the calculation of diluted earnings per share if their exercise price exceeded the average market price during the period or the share-based awards were determined to be anti-dilutive based on applying the treasury stock method. Anti-dilutive shares excluded from the calculation of diluted earnings per share were not material for the years presented. However, during the year ended June 29, 2019, 0.6 million of potentially dilutive securities were excluded from the computation of diluted earnings per share due to net loss generated for the period, since the effect would have been anti-dilutive.

Note 4. Business Combinations

On December 10, 2018, we acquired all of the outstanding common stock of Oclaro, a provider of optical components and modules for the long-haul, metro and data center markets. Oclaro's products provide differentiated solutions for optical networks and high-speed interconnects driving the next wave of streaming video, cloud computing, application virtualization and other bandwidth-intensive and high-speed applications. This acquisition strengthened our product portfolio, including gaining Oclaro's indium phosphide laser and photonic integrated circuit and coherent component and module capabilities; broadens our revenue mix; and positions us strongly to meet the future needs of our customers.

Pursuant to the merger agreement, Prota Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Lumentum ("Merger Sub"), merged with and into Oclaro (the "Merger"), with Oclaro surviving the Merger. Each outstanding share of Oclaro common stock, par value \$0.01 per share, was automatically converted into the right to receive the following consideration (collectively, the "Merger Consideration"), without interest:

- \$5.60 in cash (the "Cash Consideration") and:
- 0.0636 of a share of Lumentum common stock, par value \$0.001 per share (the "Exchange Ratio").

The total fair value of consideration given in connection with the acquisition of Oclaro consisted of the following:

	Shares	Per Share	Total Consideration (in millions)
Cash paid for outstanding Oclaro common stock		\$	964.8
Lumentum common shares issued to Oclaro stockholders	10,941,436 \$	41.80	457.4
Replacement equity awards for Oclaro equity awards			2.7
Total consideration		\$	1,424.9

The total transaction consideration was \$1.4 billion, which was funded by the issuance of Lumentum common stock, new debt, and cash balances of the combined company. We also recorded \$18.3 million in acquisition-related costs in the year ended June 29, 2019, representing professional and other direct acquisition costs. These costs were recorded within selling, general and administrative operating expense and within interest and other income (expense), net in our consolidated statements of operations. The Company also incurred \$9.3 million of debt financing costs which has been recorded as a contra liability. "Refer to Note 12. Debt."

The final purchase price allocation is as follows (in millions):

	Final As Adjusted June 29, 2019
Cash and cash equivalents	\$ 345.0
Accounts receivable, net	68.0
Inventories	155.0
Prepayments and other current assets	33.7
Property, plant and equipment, net	134.7
Intangibles	444.0
Deferred income tax asset	42.6
Other non-current assets	16.6
Accounts payable	(57.8)
Accrued payroll and related expenses	(11.4)
Accrued expenses	(8.3)
Other current liabilities	(6.1)
Deferred tax liability	(75.8)
Other non-current liabilities	(12.9)
Goodwill	357.6
Total purchase price	\$ 1,424.9

The measurement period adjustments recorded in fiscal 2019 were primarily related to the sale of several product lines within our Datacom business based in Sagamihara, Japan and the transfer of related employees to Cambridge Industries Group ("CIG"). This business was acquired on December 10, 2018 as part of the acquisition of Oclaro. These assets and liabilities were recorded at fair value less cost to sell and the adjustments to fair value were recorded as measurement period adjustments. The measurement period adjustments recorded in fiscal 2019 also included tax adjustment of \$31.5 million upon the completion of additional analysis involving refining the amount of Oclaro's tax attributes that may be utilizable going forward, deferred tax asset valuation allowances, and the effects of the Tax Act

Goodwill and intangibles have been assigned to the OpComms segment. Goodwill of \$357.6 million arising from the acquisition is attributed to the expected synergies, including future cost efficiencies, and other benefits that are expected to be generated by combining Lumentum and Oclaro. Substantially all of the goodwill recognized is not expected to be deductible for tax purposes. See "Note 10. Goodwill and Other Intangible Assets" for more information on goodwill and IPR&D.

Following our acquisition of Oclaro, in third quarter of fiscal 2019, we completed the sale of our Datacom transceiver module business based in Sagamihara, Japan and the transfer of related employees to CIG for \$25.5 million in net cash. These product lines were initially acquired by us through the acquisition of Oclaro. This business did not meet the criteria for assets held-for-sale under the relevant accounting guidance as of December 10, 2018, the date of our acquisition of Oclaro, in our purchase price allocation. The assets and liabilities transferred to CIG were \$33.5 million and \$7.0 million, respectively.

Following our acquisition of Oclaro, we announced our plan to discontinue development and manufacturing of Lithium Niobate modulators and wind down these operations in our San Donato, Italy site. In fiscal year 2020, we sold our assets associated with certain Lithium Niobate product lines manufactured by our San Donato site for \$17 million to Advanced Fiber Resources (Zhuhai) Ltd. ("AFR"). In fiscal 2020, we received the final proceeds of \$16.9 million, net of \$0.1 million retainer from AFR, and recognized a gain of \$13.8 million, which was recorded in our other income (expense), net in the consolidated statements of operations. Refer to "Note 5. Assets Held For Sale and Related Dispositions" for further discussion.

Supplemental Pro Forma Information

The supplemental pro forma financial information presented below is for illustrative purposes only and is not necessarily indicative of the financial position or results of operations that would have been realized if the acquisition had been completed on the date indicated, does not reflect synergies that might have been achieved, nor is it indicative of future operating results or financial position. The pro forma adjustments are based upon currently available information and certain assumptions we believe are reasonable under the circumstances.

The following supplemental pro forma information presents the combined results of operations for the year June 29, 2019, as if Oclaro had been acquired as of the beginning of fiscal year 2018. The supplemental pro forma information includes adjustments to amortization and depreciation for acquired intangible assets and property and equipment, adjustments to share-based compensation expense, the fair value adjustments on the inventories acquired, transaction costs, interest expense and amortization of the term loan debt issuance costs.

The unaudited supplemental pro forma financial information for the periods presented is as follows (in millions):

			 ears Ended ine 29, 2019
Net revenue			\$ 1,779.4
Net income			21.5

Note 5. Assets Held For Sale and Related Dispositions

We continually evaluate our existing portfolio of businesses to maximize long-term shareholder value. We consider assets and liabilities as held-for-sale when management approves and commits to a plan to actively market assets or a group of assets for sale. Assets held-for-sale are recorded initially at the lower of its carrying value or its estimated fair value, less estimated costs to sell. Upon designation as an asset held-for-sale, we discontinue recording depreciation expense on such asset.

Sale of Lithium Niobate modulators

Following our acquisition of Oclaro, we announced our plan to discontinue development and manufacturing of Lithium Niobate modulators and wind down these operations in our San Donato, Italy site. In fiscal year 2020, we sold our assets associated with certain Lithium Niobate product lines manufactured by our San Donato site for \$17.0 million to Advanced Fiber Resources (Zhuhai) Ltd. ("AFR"). In fiscal 2020, we received the final proceeds of \$16.9 million, net of \$0.1 million retainer from AFR, and recognized a gain of \$13.8 million, which was recorded in our other income (expense), net in the consolidated statements of operations. The assets sold of \$6.6 million primarily consisted of property, plant and equipment, net, inventory, and operating lease right-of-use assets, net, offset by liabilities transferred of \$3.5 million primarily attributable to operating lease liabilities.

In fiscal year 2020, we also sold certain assets that did not have any carrying value, including licenses to manufacture specific Lithium Niobate products and recognized a gain of \$0.7 million, which was recorded in our other income (expense), net in the consolidated statements of operations.

With the close of these transactions, our telecom transmission product strategy is now focused on Indium Phosphide photonic integrated circuits, as well as components and modules that incorporate these Indium Phosphide photonic integrated circuits.

Datacom transceiver modules

As of June 29, 2019, we had \$4.9 million of long-lived assets related to our plan to discontinue the development of future Datacom transceiver modules. As these assets were not deemed to be useful, we retired them from active use and classified them as held-for-sale on our balance sheet. This is a result of the strategic change we made in the third quarter of fiscal year 2019 when we announced the exit from the Datacom transceiver modules and investments in the new Datacom chips development. In fiscal year 2020, we sold \$3.0 million and impaired \$1.6 million of these Datacom assets held-for-sale. As of June 27, 2020, \$0.3 million is expected to be disposed in the next quarter.

Other assets held-for-sale

As of June 27, 2020, we also have \$0.4 million of land, building, and improvements as assets held-for-sale for one of our manufacturing sites in Slovenia.

Note 6. Cash, Cash Equivalents and Short-term Investments

The following table summarizes our cash, cash equivalents and short-term investments by category for the periods presented (in millions):

	ortized Cost	Gross Unrealized Gains			Gross Unrealized Losses	Fair Value
June 27, 2020:						
Cash	\$ 114.2	\$	_	\$	_	\$ 114.2
Cash equivalents:						
Money market funds	159.6		_		_	159.6
U.S. Treasury securities	24.2					24.2
Total cash and cash equivalents	\$ 298.0	\$	_	\$	_	\$ 298.0
Short-term investments:						
Certificates of deposit	\$ 12.9	\$	_	\$	_	\$ 12.9
Commercial paper	179.9		0.3		_	180.2
Corporate debt securities	435.0		1.7		(0.1)	436.6
Foreign government bonds	1.7		_		_	1.7
U.S. Agency securities	59.5		_		_	59.5
U.S. Treasury securities	563.9		1.0		_	564.9
Total short-term investments	\$ 1,252.9	\$	3.0	\$	(0.1)	\$ 1,255.8
June 29, 2019:						
Cash	\$ 213.8	\$	_	\$	_	\$ 213.8
Cash equivalents:						
Commercial paper	37.4		_		_	37.4
Money market funds	168.1		_		_	168.1
U.S. Treasury securities	 13.3					 13.3
Total cash and cash equivalents	\$ 432.6	\$		\$		\$ 432.6
Short-term investments:						
Certificates of deposit	\$ 1.9	\$	_	\$	_	\$ 1.9
Commercial paper	22.3		_		_	22.3
Asset-backed securities	54.9		0.2		_	55.1
Corporate debt securities	207.6		0.9		(0.1)	208.4
Municipal bonds	1.3		_		_	1.3
Mortgage-backed securities	6.6		_		_	6.6
Foreign government bonds	6.2		_		_	6.2
U.S. Agency securities	4.6					4.6
U.S. Treasury securities	29.4		0.1		_	 29.5
Total short-term investments	\$ 334.8	\$	1.2	\$	(0.1)	\$ 335.9

We use the specific-identification method to determine any realized gains or losses from the sale of our short-term investments classified as available-for-sale. During fiscal 2020, 2019 and 2018, we did not realize significant gains or losses on a gross level from the sale of our short-term investments classified as available-for-sale.

The components of other income (expense), net are as follows for the years presented (in millions):

	Years Ended							
		June 27, 2020		June 29, 2019	June 30, 2018			
Foreign exchange gains (losses), net	\$	(1.4)	\$	(0.6)	\$	(0.3)		
Interest income		15.8		13.9		8.5		
Other income, net		17.0		2.5		0.3		
Total other income (expense), net	\$	31.4	\$	15.8	\$	8.5		

Other income, net in fiscal 2020 includes a gain on the sale of Lithium Niobate modulators business of \$13.8 million and a gain on the sale of certain assets to manufacture specific Lithium Niobate products of \$0.7 million, which were completed in fiscal 2020. Refer to "Note 5. Assets Held For Sale and Related Dispositions".

The following table summarizes unrealized losses on our cash equivalents and short-term investments by category and length of time the investment has been in a continuous unrealized loss position as of the periods presented (in millions):

	Less than 12 months		12 Months or Greater				Total				
	Fair Value	Un	realized Losses	Fair	Fair Value		Unrealized Losses		Fair Value	Unre	ealized Losses
June 27, 2020:											
Certificates of deposit	\$ 3.1	\$		\$	_	\$	_	\$	3.1	\$	_
Commercial paper	51.1		_		_		_		51.1		_
Corporate debt securities	96.5	,	(0.1)		_		_		96.5		(0.1)
Foreign government bonds	1.7	'	_		_		_		1.7		_
U.S. Agency securities	47.0)	_		_		_		47.0		_
U.S. government bonds	159.8	3	_		_		_		159.8		_
Total	\$ 359.2	\$	(0.1)	\$		\$	_	\$	359.2	\$	(0.1)
June 29, 2019:											
Asset-backed securities	\$ 4.2	\$	_	\$	5.9	\$	_	\$	10.1	\$	_
Corporate debt securities	9.6)	_		35.9		(0.1)		45.5		(0.1)
Foreign government bonds	_	-	_		2.1		_		2.1		_
U.S. government bonds	6.9)	_		_		_		6.9		_
Total	\$ 20.7	\$	_	\$	43.9	\$	(0.1)	\$	64.6	\$	(0.1)

The following table classifies our short-term investments by contractual maturities (in millions):

	June 27, 2020					June 2	9, 2019	
	Am	Amortized Cost		Fair Value		Amortized Cost		air Value
Due in 1 year	\$	1,237.4	\$	1,239.9	\$	178.9	\$	179.1
Due in 1 year through 5 years		15.5		15.9		148.1		149.0
Due in 5 years through 10 years		_		_		6.0		6.0
Due after 10 years		_		_		1.8		1.8
	\$	\$ 1,252.9		\$ 1,255.8		334.8	\$	335.9

All available-for-sale securities have been classified as current, based on management's intent and ability to use the funds in current operations.

Note 7. Fair Value Measurements

We determine fair value based on the fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value assumes that the transaction to sell the asset or transfer the liability occurs in the principal or most advantageous market for the asset or liability and establishes that the fair value of an asset or liability shall be determined based on the assumptions that market participants would use in pricing the asset or liability. The classification of a financial asset or liability within the hierarchy is based upon the lowest level input that is significant to the fair value measurement. The fair value hierarchy prioritizes the inputs into three levels that may be used to measure fair value:

Level 1: Inputs are unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2: Inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the

asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the

financial instrument.

Level 3: Inputs are unobservable inputs based on our assumptions.

The fair value of our Level 1 financial instruments, such as money market funds, which are traded in active markets, is based on quoted market prices for identical instruments. The fair value of our Level 2 fixed income securities is obtained from an independent pricing service, which may use quoted market prices for identical or comparable instruments or model driven valuations using observable market data or inputs corroborated by observable market data. Our marketable securities are held by custodians who obtain investment prices from a third-party pricing provider that incorporates standard inputs in various asset price models. Our procedures include controls to ensure that appropriate fair values are recorded, including comparing the fair values obtained from our pricing service against fair values obtained from another independent source.

Our pension assets consist of multiple institutional funds ("pension funds") of which the fair values are based on the quoted prices of the underlying funds. Pension funds are mainly classified as Level 2 assets since such funds are not directly traded in active markets. Refer to "Note 18. Employee Retirement Plans."

Financial assets and liabilities measured at fair value on a recurring basis are summarized below (in millions):

	Level 1	Level 2			Level 3	Total
June 27, 2020 (1)						
Assets:						
Cash equivalents:						
Money market funds	\$ 159.6	\$	_	\$	_	\$ 159.6
U.S. Treasury securities	24.2				_	24.2
Short-term investments:						
Certificates of deposit	_		12.9		_	12.9
Commercial paper	_		180.2		_	180.2
Corporate debt securities			436.6		_	436.6
Foreign government bonds	_		1.7		_	1.7
U.S. Agency securities	_		59.5		_	59.5
U.S. Treasury securities	564.9		_		_	564.9
Total assets	\$ 748.7	\$	690.9	\$	_	\$ 1,439.6

(1) Excludes \$114.2 million in cash held in our bank accounts as of June 27, 2020.

		Level 1	Level 2	Level 3	 Total
June 29, 2019: (1)					
Assets:					
Cash equivalents:					
Commercial paper	\$	_	\$ 37.4	\$ —	\$ 37.4
Money market funds		168.1			168.1
U.S. Treasury securities		13.3	_		13.3
Short-term investments:					
Certificates of deposit		_	1.9	_	1.9
Commercial paper		_	22.3		22.3
Asset-backed securities		_	55.1	_	55.1
Corporate debt securities		_	208.4		208.4
Municipal bonds		_	1.3	_	1.3
Mortgage-backed securities		_	6.6	_	6.6
Foreign government bonds		_	6.2	_	6.2
U.S. Agency securities		_	4.6		4.6
U.S. Treasury securities		29.5	_	_	29.5
Total assets	\$	210.9	\$ 343.8	\$ —	\$ 554.7
Other accrued liabilities:	_				
Acquisition contingencies	\$		\$ —	\$ 2.7	\$ 2.7
Total other accrued liabilities	\$	_	\$ —	\$ 2.7	\$ 2.7

(1) Excludes \$213.8 million in cash held in our bank accounts as of June 29, 2019.

Financial Instruments Not Recorded at Fair Value on a Recurring Basis

We report our financial instruments at fair value with the exception of the 2026 Notes and the 2024 Notes ("Note 12. Debt"). The estimated fair value of the notes was determined based on the trading price of the notes as of the last day of trading for the period. We consider the fair value of the notes to be a Level 2 measurement as they are not actively traded in markets.

The carrying amounts and estimated fair values of the 2026 Notes and the 2024 Notes are as follows for the periods presented (in millions):

	Jui	ne 27,	2020	June 29, 2019				
	Carrying Amount	mount Estimated Fair Value			Carrying Amount		Estimated Fair Value	
2026 Notes	\$ 749.7	\$	1,070.2	\$	_	\$	_	
2024 Notes	370.6		620.0		351.9		527.0	
	\$ 1,120.3	\$	1,690.2	\$	351.9	\$	527.0	

Assets Measured at Fair Value on a Non-Recurring Basis

We periodically review our intangible and other long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Determination of recoverability is based on the lowest level of identifiable estimated undiscounted cash flows resulting from use of the asset and its eventual disposition. If not recoverable, an impairment loss would be calculated based on the excess of the carrying amount over the fair value.

Management utilizes various valuation methods, including an income approach, a market approach and a cost approach, to estimate the fair value of intangibles and other long-lived assets. During the annual impairment testing performed in the fourth quarter of fiscal 2020, we concluded that our intangible and other long-lived assets were not impaired.

Note 8. Balance Sheet Details

Accounts receivable allowance

As of June 27, 2020 and June 29, 2019, our accounts receivable allowance balance was \$1.8 million and \$4.5 million respectively. In fiscal 2020, we wrote off \$2.8 million of accounts receivable and the associated accounts receivable allowance, which we assumed in Oclaro acquisition.

Inventories

The components of inventories were as follows (in millions):

	June 27, 2020	June 29	, 2019
Raw materials and purchased parts	\$ 57.9	\$	78.3
Work in process	67.6		72.5
Finished goods	63.4		78.0
Inventories (1)	\$ 188.9	\$	228.8

(1) The inventory balance as of June 29, 2019 includes \$5.7 million, net of amortization, related to the inventory step-up adjustment from the Oclaro acquisition. As of June 27, 2020, the inventory step-up adjustment from the Oclaro acquisition was fully amortized.

Operating lease right-of-use assets, net

Operating lease right-of-use assets, net were as follows (in millions):

	June 27, 2020
Operating lease right-of-use assets	\$ 90.3
Less: accumulated amortization	(11.6)
Operating lease right-of-use assets, net	\$ 78.7

Property, plant and equipment, net

The components of property, plant and equipment, net were as follows (in millions):

	June 27, 2020	June 29, 2019
Land	\$ 44.1	\$ 44.2
Buildings and improvement	114.8	103.7
Machinery and equipment (1)	487.0	500.5
Computer equipment and software	27.5	25.4
Furniture and fixtures	7.2	4.9
Leasehold improvements	27.8	31.2
Finance lease right-of-use assets (1)	28.1	16.0
Construction in progress	54.7	46.8
	 791.2	 772.7
Less: Accumulated depreciation (1)	(398.2)	(339.4)
Property, plant and equipment, net	\$ 393.0	\$ 433.3

⁽¹⁾ Included in the table above is our equipment acquired under finance leases. As of June 27, 2020 and June 29, 2019, the accumulated depreciation of finance lease right-of-use assets was \$27.5 million and \$11.2 million, respectively. For fiscal 2019 in accordance with Topic 842, we have reclassified \$16.0 million of equipment acquired under finance leases from machinery and equipment to finance lease right-of-use assets to conform to current period presentation.

During fiscal 2020, 2019 and 2018, we recorded depreciation expense of \$113.3 million, \$102.9 million, and \$74.0 million, respectively.

Our construction in progress primarily includes machinery and equipment which we expect to place in service in the next 12 months.

Other current liabilities

The components of other current liabilities were as follows (in millions):

	Jun	June 27, 2020		June 29, 2019
Warranty accrual (1)	\$	5.0	\$	7.5
Restructuring accrual and related charges (2)		5.2		14.6
Deferred revenue and customer deposits		1.9		2.9
Finance lease liabilities, current (3)		0.6		0.4
Income tax payable (4)		28.8		8.7
Other current liabilities		2.8		5.1
Other current liabilities	\$	44.3	\$	39.2

- (1) Refer to "Note 19. Commitments and Contingencies."
- (2) Refer to "Note 14. Restructuring and Related Charges."
- (3) For fiscal 2019 in accordance with Topic 842, we have reclassified amounts from capital lease obligations to finance lease liabilities to conform to current period presentation. Refer to "Note 9. Leases."
 - (4) Refer to "Note 16. Income Taxes."

Other non-current liabilities

The components of other non-current liabilities were as follows (in millions):

	June 27, 2020		June 29, 2019
Asset retirement obligation	\$	4.6	\$ 4.5
Pension and related accrual (1)		11.8	7.9
Deferred rent		_	2.2
Unrecognized tax benefit		17.3	18.7
Other non-current liabilities		2.3	0.4
Other non-current liabilities	\$	36.0	\$ 33.7

⁽¹⁾ We have defined benefit pension plans in Japan, Switzerland, and Thailand. As of June 27, 2020, the projected benefit obligations in Japan, Switzerland, and Thailand were \$2.9 million, \$6.4 million, and \$2.5 million, respectively. As of June 29, 2019, the projected benefit obligations in Japan and Switzerland were \$2.8 million and \$5.0 million, respectively. Pension and related accruals as of June 29, 2019 also include \$0.1 million attributable to post-retirement benefits for executives.

Note 9. Leases

We lease certain real and personal property from unrelated third parties under non-cancellable operating leases that expire at various dates through fiscal 2033. These operating leases are mainly for administrative offices, research-and-development and manufacturing facilities, as well as sales offices in various countries around the world. Certain leases require us to pay property taxes, insurance and routine maintenance, and include escalation clauses. Many leases include one or more options to renew. We do not assume renewals in our determination of the lease term unless the renewals are deemed to be reasonably assured at lease commencement.

We have also entered into various finance leases to obtain servers and certain other equipment for our operations. These arrangements are typically for two to four years.

As of June 27, 2020, we sublease certain floors of our offices in the United Kingdom, the United States, Canada, and Japan. These subleases will expire at various dates by fiscal year 2023. We anticipate receiving approximately \$5.4 million in sublease income over the next three years.

The components of lease costs, lease term, and discount rate are as follows:

(in millions)		
(in millions)		June 27, 2020
Finance lease cost:		
Amortization of right-of-use assets	\$	16.3
Interest		0.1
Operating lease cost		15.5
Variable lease cost		1.8
Short-term lease cost		2.6
Sublease income		(2.6)
Total lease cost	\$	33.7
	-	
Weighted average remaining lease term (in years):		
Operating leases		8.6
Finance leases		1.0
Weighted average discount rate:		
Operating leases		3.5%
Finance leases		4.4%

As of June 27, 2020, maturities of our operating and finance lease liabilities, which do not include short-term leases and variable lease payments, were as follows (*in millions*):

Fiscal Years	Operating Leases (1)	Finance Leases	Total
2021	\$ 13.1	\$ 0.6	\$ 13.7
2022	12.4	_	12.4
2023	11.2	_	11.2
2024	9.5	_	9.5
2025	6.3	_	6.3
Thereafter	25.3	_	25.3
Total minimum lease payments	\$ 77.8	\$ 0.6	\$ 78.4
Less: amount representing interest	(9.4)	_	(9.4)
Present value of total lease liabilities	\$ 68.4	\$ 0.6	\$ 69.0

⁽¹⁾ Non-cancellable sublease proceeds for fiscal 2021, 2022, and 2023 of \$2.5 million, \$2.3 million, and \$0.6 million, respectively, are not included in the table above.

Prior to our adoption of Topic 842, future minimum lease payments as of June 29, 2019, which were undiscounted, were net of our sublease income amounts, and included lease and non-lease components, were as follows (in millions):

Fiscal Years	Operating Leases	Finance Leases	Total		
2020	\$ 13.9	\$ 0.8	\$ 14.7		
2021	12.1	_	12.1		
2022	11.2	_	11.2		
2023	11.3	_	11.3		
2024	9.8	_	9.8		
Thereafter	31.7	_	31.7		
Total minimum operating lease payments	\$ 90.0	\$ 0.8	\$ 90.8		

Note 10. Goodwill and Other Intangible Assets

Goodwill

On December 10, 2018, we completed the acquisition of Oclaro. We recognized goodwill in the amount of \$357.6 million for the acquisition of Oclaro and allocated it to our OpComms segment. The following table presents our goodwill balance by the reportable segments during the years ended June 27, 2020 and June 29, 2019 (in millions):

	Optical Communications	C	Commercial Lasers	Total
Balance as of June 30, 2018	\$ 5.9	\$	5.4	\$ 11.3
Acquisition of Oclaro in fiscal year 2019	357.6		_	357.6
Balance as of June 29, 2019 and June 27, 2020	\$ 363.5	\$	5.4	\$ 368.9

Impairment of Goodwill

We review goodwill for impairment during the fourth quarter of each fiscal year or more frequently if events or circumstances indicate that an impairment loss may have occurred. Based on the impairment analysis performed in the fourth quarter of each year presented, the fair value of each of our reporting units substantially exceeded the carrying value; as such, our annual qualitative assessment did not indicate that a more detailed quantitative analysis was necessary.

Other Intangibles

In connection with our acquisition of Oclaro in fiscal year 2019, we recorded \$443.0 million as the fair value of the acquired developed technologies and other intangible assets. This amount excludes \$1.0 million of in-process research and development assets that were subsequently sold to CIG.

The intangible assets are amortized on a straight-line basis over the estimated useful lives, except for customer relationships and order backlog, which are amortized using an accelerated method of amortization over the expected customer lives, which more accurately reflects the pattern of realization of economic benefits expected to be obtained. Acquired developed technologies and order backlog are amortized to cost of sales and customer relationships is amortized to selling, general and administrative. IPR&D is initially capitalized at fair value as an intangible asset with an indefinite life and assessed for impairment thereafter. When an IPR&D project is completed, the IPR&D is reclassified as an amortizable purchased intangible asset and amortized over the asset's estimated useful life expected to range between 4 to 9 years.

The following tables present details of our other intangibles, including those acquired in connection with the Oclaro acquisition, as of the periods presented (in millions, except for weighted average remaining amortization period):

June 27, 2020	Gross Cari	ying Amounts	Accu	mulated Amortization	Net Ca	arrying Amounts	Weighted average remaining amortization period (years)
Acquired developed technologies (1)	\$	371.5	\$	(176.9)	\$	194.6	3.7
Customer relationships		149.3		(37.1)		112.2	6.5
In-process research and development (1)		10.0		_		10.0	n/a
Order backlog		22.0		(22.0)		_	_
Other intangibles		2.7		(2.7)		_	_
Total intangible assets	\$	555.5	\$	(238.7)	\$	316.8	

(1) During the year ended June 27, 2020, we completed \$84.0 million of IPR&D projects, and reclassified the value assigned to them to acquired developed technologies. The amount will be amortized over the assets' estimated useful life of 4 to 7 years.

June 29, 2019	Gross Carrying	Amounts	Accumulated Amortization		Net Carr	ying Amounts	Weighted average remaining amortization period (years)
Acquired developed technologies	\$	287.5	\$	(125.2)	\$	162.3	3.8
Customer relationships		149.3		(12.3)		137.0	7.5
In-process research and development		94.0		_		94.0	n/a
Order backlog		22.0		(19.9)		2.1	0.5
Other intangibles		2.7		(2.7)		_	_
Total intangible assets	\$	555.5	\$	(160.1)	\$	395.4	

During fiscal 2020, 2019 and 2018, we recorded \$78.6 million, \$54.6 million, and \$3.2 million, respectively, of amortization related to intangibles assets.

The following table presents details of amortization for the periods presented (in millions):

	Years ended					
	Ju	June 27, 2020		June 29, 2019		June 30, 2018
Cost of sales	\$	53.8	\$	46.6	\$	3.2
Selling, general and administrative		24.8		8.0		_
Total amortization of intangibles	\$	78.6	\$	54.6	\$	3.2

Based on the carrying amount of our acquired developed technologies and other intangibles, excluding IPR&D, as of June 27, 2020, and assuming no future impairment of the underlying assets, the estimated future amortization is as follows (in millions):

Fiscal Years	
2021	\$ 82.6
2022	80.1
2023	56.6
2024	36.8
2025	25.7
Thereafter	25.0
Total	\$ 306.8

Note 11. Non-Controlling Interest Redeemable Convertible Preferred Stock and Derivative Liability

On July 31, 2015, our wholly-owned subsidiary, Lumentum Inc., issued 40,000 shares of its Series A Preferred Stock to Viavi Solutions Inc. ("Viavi"). Pursuant to a securities purchase agreement between us, Viavi and Amada Holdings Co., Ltd. ("Amada"), 35,805 shares of Series A Preferred Stock were sold by Viavi to Amada in August 2015. The remaining 4,195 shares of the Series A Preferred Stock were canceled. The Series A Preferred Stock was referred to as our Non-Controlling Interest Redeemable Convertible Preferred Stock of \$35.8 million on our consolidated balance sheets through the date of conversion in fiscal

2019.

On October 15, 2018, we issued a 30-day notice of intent to the holders of Series A Preferred Stock to convert all shares of Series A Preferred Stock at a conversion price equal to the Issuance Value divided by \$24.63 plus the accrued and unpaid dividends on each share and any past due dividends, whether or not authorized or declared. On November 2, 2018, we received notice from Amada of their intent to convert the Series A Preferred Stock and we issued 1.5 million shares of our common stock to Amada upon the conversion of the 35,805 shares of Series A Preferred Stock and recorded \$79.4 million in additional paid in capital in the balance sheet.

Through the date of conversion, holders of Series A Preferred Stock, in preference to holders of common stock or any other class or series of our outstanding capital stock ranking in any such event junior to the Series A Preferred Stock, were entitled to receive, when and as declared by the board of directors, quarterly cumulative cash dividends at the annual rate of 2.5% of the

Issuance Value per share on each outstanding share of Series A Preferred Stock. The accrued dividends were payable on March 31, June 30, September 30 and December 31 of each year commencing on September 30, 2015. During each of the years ended June 29, 2019 and June 30, 2018, we paid \$0.7 million in dividends to the holders of Series A Preferred Stock.

Through the date of conversion, the Series A Preferred Stock conversion feature was bifurcated from the Series A Preferred Stock and accounted for separately as a derivative liability. The derivative liability was measured at fair value each reporting period, and at the date of conversion, with the change in fair value recorded in the consolidated statements of operations.

The following table provides a reconciliation of the fair value of the embedded derivative for the Series A Preferred Stock for the years ended June 29, 2019 and June 30, 2018 (in millions):

		Ended			
	June 29, 2019		June 3	ne 30, 2018	
Balance as of beginning of period	\$	52.4	\$	51.6	
Unrealized (gain) loss on the Series A Preferred Stock derivative liability up through the conversion date	(8.8)			0.8	
Settlement of the derivative liability upon conversion of Series A Preferred Stock		(43.6)		_	
Balance as of end of period	\$		\$	52.4	

Note 12. Debt

Convertible Notes

2026 Notes

In December 2019, we issued \$1,050.0 million in aggregate principal amount of the 2026 Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended (the "Securities Act"). The 2026 Notes are governed by an indenture between the Company and U.S. Bank National Association (the "2026 Indenture"). We used approximately \$196 million of the net proceeds of the offering to repay in full all amounts outstanding under our term loan credit facility, and a portion of the net proceeds of the offering to purchase approximately \$200 million of our common stock concurrently with the pricing of the offering in privately negotiated transactions. The 2026 Notes are unsecured and do not contain any financial covenants, restrictions on dividends, incurrence of senior debt or other indebtedness, or the issuance or repurchase of securities by us.

The 2026 Notes will bear interest at a rate of 0.50% per year, payable semi-annually in arrears on June 15 and December 15 of each year, beginning on June 15, 2020. The 2026 Notes will mature on December 15, 2026, unless earlier redeemed, repurchased by us, or converted pursuant to their terms.

The initial conversion rate is 10.0711 shares of common stock per \$1,000 principal amount of the 2026 Notes (which is equivalent to an initial conversion price of approximately \$99.29 per share). The conversion rate is subject to adjustment upon the occurrence of certain specified events but will not be adjusted for accrued and unpaid interest. In addition, upon the occurrence of a make-whole fundamental change or our issuance of a notice of redemption, we will, in certain circumstances, increase the conversion rate by a number of additional shares for a holder that elects to convert the 2026 Notes in connection with such make-whole fundamental change or notice of redemption.

Prior to the close of business on the business day immediately preceding September 15, 2026, holders of the 2026 Notes may convert their 2026 Notes only under the following circumstances:

- during any fiscal quarter commencing after the fiscal quarter ended on March 28, 2020 (and only during such fiscal quarter), if the last reported sale price
 of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading
 day of the immediately preceding fiscal quarter is greater than or equal to 130% of the conversion price of the 2026 Notes, or \$129.08 on each applicable
 trading day;
- during the five business day period after any five consecutive trading day period (the "2026 measurement period") in which the trading price per \$1,000 principal amount of the 2026 Notes for each trading day of the 2026 measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate for the notes on each such trading day;

- if we call any or all of the 2026 Notes for redemption, at any time prior to the close of business on the second business day immediately preceding the relevant redemption date; or
- upon the occurrence of specified corporate events, as specified in each indenture governing the 2026 Notes.

On or after September 15, 2026 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert the 2026 Notes at any time. Upon conversion, we may satisfy our conversion obligation in cash, shares of common stock or a combination of cash and shares of common stock, at our election.

We may redeem for cash, stock or combination of both for all or any portion of the 2026 Notes, at our option, on or after December 20, 2023, if the last reported sale price of its common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading-day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which we provide a notice of redemption at a redemption price equal to 100% of the principal amount of the 2026 Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the 2026 Notes. Upon the occurrence of a fundamental change (as defined in the 2026 Indenture), holders may require us to repurchase all or a portion of the 2026 Notes for cash at a price equal to 100% of the principal amount of the 2026 Notes to be repurchased, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

In accordance with accounting for debt with conversions and other options, we bifurcated the principal amount of the 2026 Notes into liability and equity components. The liability component of the 2026 Notes was valued at \$734.8 million based on the contractual cash flows discounted at an appropriate comparable market non-convertible debt borrowing rate at the date of issuance of 5.8% with the equity component representing the residual amount of the proceeds of \$315.2 million, which was recorded as a debt discount.

We incurred approximately \$7.8 million in transaction costs in connection with the issuance of the 2026 Notes and these costs were allocated pro rata based on the relative carrying amounts of the liability and equity components. The debt discount and debt issuance costs attributable to the liability component will be amortized to interest expense using an effective interest rate of 5.8% over the expected life of the 2026 Notes. Debt issuance costs attributable to the equity component are netted with the equity component in stockholders' equity, and the equity component is not remeasured as long as it continues to meet the conditions for equity classification.

2024 Notes

In March 2017, we issued \$450.0 million of the 2024 Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The 2024 Notes are governed by an indenture between the Company, as the issuer, and U.S. Bank National Association, as trustee (the "2024 Indenture"). The 2024 Notes are unsecured and do not contain any financial covenants, restrictions on dividends, incurrence of senior debt or other indebtedness, or the issuance or repurchase of securities by us.

The 2024 Notes bear interest at a rate of 0.25% per year. Interest on the 2024 Notes is payable semi-annually in arrears on March 15 and September 15 of each year, beginning on September 15, 2017. The 2024 Notes will mature on March 15, 2024, unless earlier repurchased by us or converted pursuant to their terms.

The initial conversion rate of the 2024 Notes is 16.4965 shares of common stock per \$1,000 principal amount of 2024 Notes, which is equivalent to an initial conversion price of approximately \$60.62 per share, a 132.5% premium to the fair market value at the date of issuance. Prior to the close of business on the business day immediately preceding December 15, 2023, the 2024 Notes will be convertible only under the following circumstances:

- during any fiscal quarter (and only during such fiscal quarter), if the last reported sale price of our 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 fiscal quarter is greater than or equal to 130% of the applicable conversion price, or \$78.80 on each applicable trading day;
- during the five consecutive business day period after any five consecutive trading day period (the "2024 measurement period") in which the trading price per \$1,000 principal amount of notes for each trading day of such 2024 measurement period was less than 98% of the product of the last reported sale price of our common stock and the applicable conversion rate on each such trading day;
- upon the occurrence of specified corporate events.

On or after December 15, 2023 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2024 Notes at any time. In addition, upon the occurrence of a make-whole fundamental change (as defined in the 2024 Indenture), we will, in certain circumstances, increase the conversion rate by a number of additional shares for a holder that elects to convert 2024 Notes in connection with such make-whole fundamental change.

We may not redeem the 2024 Notes prior to their maturity date and no sinking fund is provided for the 2024 Notes. Upon the occurrence of a fundamental change, holders may require us to repurchase all or a portion of their 2024 Notes for cash at a price equal to 100% of the principal amount of the 2024 Notes to be repurchased, plus any accrued and unpaid interest.

We considered the features embedded in the 2024 Notes other than the conversion feature, including the holders' put feature, our call feature, and the makewhole feature, and concluded that they are not required to be bifurcated and accounted for separately from the host debt instrument.

Prior to the Tax Matters Agreement settlement condition ("TMA settlement condition"), because we could only settle the 2024 Notes in cash, we determined that the conversion feature met the definition of a derivative liability. We separated the derivative liability from the host debt instrument based on the fair value of the derivative liability. As of the issuance date, March 8, 2017, the derivative liability fair value of \$129.9 million was calculated using the binomial valuation approach. The residual principal amount of the 2024 Notes of \$320.1 million before issuance costs was allocated to the debt component. We incurred approximately \$7.7 million in transaction costs in connection with the issuance of the 2024 Notes. These costs were allocated to the debt component and recognized as a debt discount. We amortize the debt discount, including both the initial value of the derivative liability and the transaction costs, over the term of the 2024 Notes using the effective interest method. The effective interest rate of the 2024 Notes is 5.4% per year.

During the fiscal year ended July 1, 2017, we satisfied the TMA settlement condition. As such, the value of the conversion option will no longer be marked to market and was reclassified to additional paid-in capital within stockholders' equity on our consolidated balance sheet. The value of the conversion option at the time of issuance will be treated as an original issue discount for purposes of accounting for the debt component of the notes. The debt component will accrete up to the principal amount over the expected term of the debt.

Our convertible notes consisted of the following components as of the periods presented (in millions):

Liability component:		June 2	June 29, 2019	
	20	24 Notes	2026 Notes	 2024 Notes
Principal	\$	450.0	\$ 1,050.0	\$ 450.0
Unamortized debt discount and debt issuance costs		(79.4)	(300.3)	(98.1)
Net carrying amount of the liability component	\$	370.6	\$ 749.7	\$ 351.9

During all periods presented, the debt component of our 2024 Notes was recorded in long-term liabilities. However, if our stock price exceeds \$78.80 for 20 of the last 30 trading days of the first quarter of fiscal 2021, the 2024 Notes would become callable at the option of the holders. Therefore, the debt component of our 2024 notes (approximately \$371 million as of June 27, 2020) would be reclassified to current liabilities in our condensed consolidated balance sheet.

The following table sets forth interest expense information related to the convertible notes for the periods presented (in millions, except percentages):

	June 27, 2020		June 29, 2019		June 30, 2018
Contractual interest expense	\$	3.9	\$	1.1	\$ 1.2
Amortization of the debt discount and debt issuance costs		39.1		17.7	16.7
Total interest expense	\$	43.0	\$	18.8	\$ 17.9

The future interest and principal payments related to our convertible notes are as follows as of June 27, 2020 (in millions):

Fiscal Years	2024 Notes	2026 Notes	Total
2021	\$ 1.1	\$ 5.2	\$ 6.3
2022	1.1	5.3	6.4
2023	1.1	5.2	6.3
2024	451.2	5.3	456.5
2025	_	5.2	5.2
Thereafter	_	1,057.9	1,057.9
Total convertible notes payments	\$ 454.5	\$ 1,084.1	\$ 1,538.6

Term Loan Facility

On December 10, 2018 (the "Closing Date"), concurrent with the closing of the Oclaro merger, we entered into a Credit and Guarantee Agreement (the "Credit Agreement"), by and among us, certain of our subsidiaries, the lenders party thereto, and Deutsche Bank, as administrative agent and collateral agent for the lenders. The Credit Agreement provides for a senior secured term loan facility (the "Term Loan Facility") in an aggregate principal amount of \$500.0 million. The term loans available under the Term Loan Facility were fully drawn on the Closing Date and the proceeds of the term loans were used to consummate the merger and pay fees and expenses in connection with the merger and the Term Loan Facility.

In fiscal 2019, we incurred \$9.3 million of debt issuance costs in connection with the Term Loan Facility which were capitalized and recorded as a contra liability in our consolidated balance sheet. These costs were amortized to interest expense using the effective interest rate method from the issuance date of December 10, 2018.

In fiscal 2020, we repaid, in full, all amounts outstanding under our Term Loan Facility. During the year ended June 27, 2020, we incurred an \$8.0 million loss for the unamortized debt issuance costs as a result of this full repayment.

The following table sets forth interest expense information related to the term loan for the periods presented (in millions):

	June	June 27, 2020		ne 29, 2019
Contractual interest expense	\$	9.6	\$	13.8
Ticking fee		_		2.7
Amortization of the debt issuance costs		0.5		0.8
Loss on early extinguishment of debt		8.0		_
Total interest expense	\$	18.1	\$	17.3

For each of the years ended June 27, 2020 and June 29, 2019, we recorded \$0.1 million and \$0.2 million interest expense related to our finance leases, respectively.

The following table sets forth balance sheet information related to the term loan as of the periods presented (in millions):

June 27, 2		J	June 29, 2019
\$	497.5	\$	500.0
	(497.5)		(2.5)
	_		(8.5)
\$		\$	489.0
====			
\$	_	\$	5.0
\$	_	\$	484.0
	\$ \$ \$ \$ \$	\$ — \$ —	\$ 497.5 \$ (497.5) \$ — \$ — \$ — \$

Note 13. Accumulated Other Comprehensive Income (Loss)

Our accumulated other comprehensive income (loss) consists of the accumulated net unrealized gains or losses on foreign currency translation adjustments, the defined benefit obligations, and available-for-sale securities.

The components of accumulated other comprehensive income (loss) were as follows for the periods as presented (in millions):

	Foreign currency translation adjustment net of tax (1)	s, Defined benefit obligations, net of tax (2)	Unrealized gain (loss) on available-for-sale securities, net of tax (3)	Total
Beginning balance as of July 1, 2017	\$ 10.5	\$ (3.1)	\$	\$ 7.4
Other comprehensive income (loss)	(0.2)	0.8	(1.6)	(1.0)
Ending balance as of June 30, 2018	10.3	(2.3)	(1.6)	6.4
Other comprehensive income (loss)	(0.6)	(1.2)	2.5	0.7
Ending balance as of June 29, 2019	9.7	(3.5)	0.9	7.1
Other comprehensive income (loss)	<u> </u>	(0.7)	1.5	0.8
Ending balance as of June 27, 2020	\$ 9.7	\$ (4.2)	\$ 2.4	\$ 7.9

- (1) In fiscal 2019, as a result of significant changes in economic facts and circumstances, primarily due to the acquisition of Oclaro, we established the functional currency for our worldwide operations as the U.S. dollar. Translation adjustments reported prior to December 10, 2018, remain as a component of accumulated other comprehensive income in our consolidated balance sheets, until all or a part of the investment in the subsidiaries is sold or liquidated.
- (2) We evaluate the assumptions over the fair value of our defined benefit obligations annually and make changes as necessary. During each of fiscal 2020, 2019, and 2018, our income (loss) on defined benefit obligations is presented net of tax of \$0.2 million.
 - (3) In fiscal 2020 and 2019, our unrealized gain on available-for-sale securities is presented net of tax of \$0.3 million and \$0.2 million, respectively.

Note 14. Restructuring and Related Charges

We have initiated various strategic restructuring actions primarily intended to reduce costs, consolidate our operations, rationalize the manufacturing of our products and align our business in response to market conditions and as a result of our acquisition of Oclaro on December 10, 2018.

The following table summarizes the activity of restructuring and related charges during the periods presented (in millions):

	Years Ended					
	June 27, 2020		June 29, 2019			June 30, 2018
Balance as of beginning of period	\$	14.6	\$	1.9	\$	3.8
Charges		8.0		31.9		7.2
Payments		(17.4)		(19.2)		(9.1)
Balance as of end of period	\$	5.2	\$	14.6	\$	1.9

During fiscal 2020, we recorded \$8.0 million in restructuring and related charges in our consolidated statements of operations. The charges were mainly attributable to severance charges associated with the decision to move certain manufacturing from San Jose, California to our facility in Thailand.

During fiscal 2019, we recorded \$31.9 million in restructuring and related charges in our consolidated statements of operations, primarily attributable to severance and employee related benefits associated with the wind down of operations for Lithium Niobate modulators and Datacom modules of \$21.1 million. In addition, the charges included severance and employee related benefits associated with Oclaro's executive severance and retention agreements. These retention agreements provided,

under certain circumstances, for payments and benefits upon an involuntary termination of employment. In fiscal 2019, we also recorded \$1.6 million of lease restructuring charges for the former Oclaro corporate headquarters and restructuring charges primarily associated with acquisition related synergies.

During fiscal 2018, we recorded \$7.2 million in restructuring and related charges in the consolidated statements of operations, where \$3.4 million related to severance costs and employee benefits and \$3.8 million related to restructuring plans approved prior to fiscal 2016 primarily related to the shutdown of our manufacturing facility in Bloomfield, Connecticut as a result of the transfer of certain production processes into existing sites in the United States or to contract manufacturers.

Any changes in the estimates of executing our restructuring activities will be reflected in our future results of operations.

Note 15. Impairment and Other Charges

Impairment charges associated with product lines exit

The following table summarizes the activity of impairment charges during the periods presented (in millions):

	Years Ended						
	June 27, 2020		June 29, 2019		June 30, 2018		
\$	4.3	\$	30.7	\$	_		

In the third quarter of fiscal 2019, we announced our plan to discontinue the development and manufacturing of future Datacom transceiver modules which impacted the California and China based Datacom module teams. As a result of these actions, we recorded impairment charges of \$4.3 million and \$30.7 million in fiscal 2020 and 2019, respectively, to our Long-lived assets that were not deemed to be useful. While we expect strong growth in Datacom volumes in the future, gross margins at the transceiver market level are lower due to extreme competition. Following the Oclaro acquisition, we have a differentiated leadership position across a range of photonic chips on which the Datacom, wireless, and access markets critically rely.

In fiscal 2020 and 2019, we also recorded inventory and fixed assets write down charges of \$7.0 million and \$20.8 million related to the decision to exit the Datacom module and Lithium Niobate product lines in our cost of goods sold of consolidated statements of operations. Refer to "Note 5. Assets Held For Sale and Related Dispositions" for details on the exit from these product lines.

These actions do not qualify as discontinued operations for disclosure purposes as they do not represent a strategic shift having a major effect on an entity's operations and financial results.

Other losses on property, plant and equipment

We also had other fixed assets losses, mainly attributable to the retirement and disposal of fixed assets, and not associated with the exit from product lines. The impact of such losses on our results of operations by function during the periods presented was as follows (in millions):

	Years Ended						
	June 27, 2020			29, 2019	June 30, 2018		
Cost of sales	\$	16.1	\$	2.2	\$	0.4	
Research and development		0.8				0.1	
Selling, general and administrative		0.6		_		0.1	
	\$	17.5	\$	2.2	\$	0.6	

Note 16. Income Taxes

Our income (loss) before income taxes consisted of the following (in millions):

		Years Ended					
	June 27, 20	020	June 29, 2019		June 30, 2018		
Domestic	\$	(33.1)	\$	(21.9)	\$	37.8	
Foreign		207.4		(11.4)		91.6	
Income (loss) before income taxes	\$	174.3	\$	(33.3)	\$	129.4	

Our income tax (benefit) expense consisted of the following (in millions):

	Years Ended					
	June 27, 2020		June 29, 2019		June 30, 2018	
ederal:						
Current	\$	2.9	\$	13.8	\$	1.2
Deferred		19.3		(0.1)		(120.4)
		22.2		13.7		(119.2)
rate:						
Current		0.1		0.1		1.0
Deferred		(0.4)		0.4		(1.3)
		(0.3)		0.5		(0.3)
oreign:						
Current		23.4		10.3		1.2
Deferred		(6.5)		(21.4)		(0.4)
		16.9		(11.1)		0.8
tal income tax (benefit) expense	\$	38.8	\$	3.1	\$	(118.7)

The comparability of our operating results of fiscal 2019 compared to the corresponding prior year was impacted by the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act"), which was enacted on December 22, 2017.

The provision for income taxes differs from the amount computed by applying the U.S. Federal statutory income tax rate to our income before provision for income taxes as follows (in millions):

Years Ended					
June 27, 2020	June 29, 2019	June 30, 2018			
36.6	\$ (7.0)	\$ 36.3			
(24.6)	(17.8)	(24.3)			
13.4	7.4	(206.0)			
	_	80.5			
(10.2)	(7.1)	(11.0)			
4.8	5.9	(1.0)			
22.9	13.4	2.0			
(1.7)	4.8	7.9			
(2.4)	0.5	(3.1)			
	3.0				
38.8	\$ 3.1	\$ (118.7)			
	36.6 (24.6) 13.4 — (10.2) 4.8 22.9 (1.7) (2.4) —	36.6 \$ (7.0) (24.6) (17.8) 13.4 7.4 — — (10.2) (7.1) 4.8 5.9 22.9 13.4 (1.7) 4.8 (2.4) 0.5 — 3.0			

Our provision for income taxes for fiscal 2020 differs from the 21% U.S. statutory rate primarily due to GILTI and subpart F inclusions and an increase to the valuation allowance because it is not more-likely-than-not that certain deferred tax assets will be realizable, which are partially offset by the income tax benefit of the earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate as well as tax credits.

Our provision for income taxes for fiscal 2019 differs from the 21% U.S. statutory rate primarily due to GILTI and subpart F inclusions, partially offset by the income tax benefit of the earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate as well as tax credits.

Our provision for income taxes for fiscal 2018 differed from the tax provision based on the U.S. statutory federal income tax rate of approximately 28% as a result of \$207.2 million of income tax benefit related to the release of valuation allowance against our U.S. federal and certain state deferred tax assets, partially offset by \$80.5 million of income tax expense related to the remeasurement of our net deferred tax assets as a result of reduction in the U.S. federal corporate tax rate.

The components of our net deferred taxes consisted of the following (in millions):

		Years Ended			
	June 27, 2020		June 29, 2019		
Gross deferred tax assets:			,		
Intangibles	\$	101.1	\$	111.7	
Tax credit carryforwards		67.8		66.5	
Net operating loss carryforwards		129.8		134.6	
Inventories		7.4		11.3	
Accruals and reserves		13.1		19.6	
Fixed assets		23.2		32.3	
Capital loss carryforwards		11.5		12.1	
Unclaimed research and experimental development expenditure		33.4		25.6	
Stock-based compensation		3.6		3.4	
Lease liabilities		17.7		_	
Other		0.2		_	
Gross deferred tax assets		408.8		417.1	
Valuation allowance		(200.8)		(190.3)	
Deferred tax assets		208.0		226.8	
Gross deferred tax liabilities:					
Intangible amortization		(68.5)		(90.8)	
Convertible notes		(79.4)		(20.1)	
Right-of-use assets		(21.3)		_	
Other		(4.1)		(2.2)	
Deferred tax liabilities		(173.3)		(113.1)	
Total net deferred tax assets	\$	34.7	\$	113.7	

We assess our ability to realize the deferred tax assets on a quarterly basis and establish a valuation allowance if the deferred tax assets are not more-likely-than-not to be realized. We weigh all available positive and negative evidence, including our earnings history and results of recent operations, reversals of deferred tax liabilities, projected future taxable income and the character of such income, and tax planning strategies.

As of each reporting date, we consider new evidence, both positive and negative, that could affect our view of the future realization of deferred tax assets. During fiscal 2020, we determined it is not more-likely-than-not that certain U.S. federal and states deferred tax assets are realizable. We, therefore, have recorded a valuation allowance against certain U.S. federal, states, and foreign deferreds resulting in an income tax expense of \$10.5 million. A majority of the increase to our valuation allowance relates to certain foreign tax credits and foreign deferred tax assets.

Due to the weight of negative evidence, we continue to maintain a full valuation allowance on our California, Canada and the U.K. deferred tax assets, and partial valuation allowance on our Federal deferred tax asset and Thailand deferred tax assets. In the event the Company determines that it will be able to realize all or a portion of the deferred tax assets in the future, the valuation allowance will be reversed in the period in which the Company makes such determination. Based on the information currently available, we do not believe that a significant portion of our valuation allowance for the U.K., Thailand, the U.S., California, and Canada will be released in the next 12 months. Such a release would result in the recognition of certain deferred tax assets and a decrease in the income tax expense for the period in which the release is recorded.

As a result of meeting certain capital funding, capital investments and hiring requirements, income from operations in Thailand was exempt from income tax in fiscal 2020 and fiscal 2019. However, the aggregate dollar and per-share effect were not significant in both fiscal years.

As of June 27, 2020, the Company had federal and foreign net operating loss carryforwards of \$154.6 million and \$498.3 million, respectively. These carryforwards will begin to expire in the fiscal years 2022 and 2025, respectively. The federal and foreign tax attributes carried forward are subject to various rules which impose limitations on the utilization.

Additionally, the Company has federal, state, and foreign research and other tax credit carryforwards of \$15.6 million, \$39.3 million, and \$43.8 million, respectively. The federal credits will begin to expire in the fiscal year ending 2033 and California credits can be carried forward indefinitely. The foreign tax credits began to expire in the fiscal year ending 2022.

The Tax Act generally provides greater flexibility for us to access and utilize our cash held by certain of our foreign subsidiaries and we intend to repatriate all or some of the earnings of our subsidiaries in the Cayman Islands, Japan, and Hong Kong. As to all other foreign subsidiaries, we intend to reinvest these earnings indefinitely outside of the U.S. As a result, U.S. income and foreign withholding taxes associated with the repatriation of \$20.2 million of undistributed earnings of foreign subsidiaries, other than the Cayman Islands, Japan, and Hong Kong subsidiaries, have not been provided for. We estimate that an additional \$1.8 million of foreign withholding taxes would have to be provided if these earnings were repatriated back to the U.S. and such withholding taxes may be available as foreign tax credit or deduction to reduce U.S. tax liability.

The aggregate changes in the balance of our unrecognized tax benefits between June 30, 2018 and June 27, 2020 are as follows (in millions):

Balance at June 30, 2018	\$	25.8
Additions based on the tax positions related to the prior year		3.7
Decreases related to settlement with Tax Authorities		(0.7)
Additions based on tax positions related to current year		29.2
Balance at June 29, 2019	\$	58.0
Decreases based on the tax positions related to the prior year	'	(8.2)
Decreases related to settlement with Tax Authorities		(2.0)
Additions based on tax positions related to current year		7.7
Balance at June 27, 2020	\$	55.5

As of June 27, 2020, we had \$26.8 million of unrecognized tax benefits, which, if recognized, would affect the effective tax rate. We are subject to examination of income tax returns by various domestic and foreign tax authorities. The timing of resolutions and closures of tax audits is highly unpredictable. Although it is possible that certain tax audits may be concluded within the next 12 months, we cannot reasonably estimate the impact to tax expense and net income from tax exams that could be resolved or closed within next 12 months. However, we believe that we have adequately provided under GAAP for potential audit outcomes. Subject to audit timing and uncertainty, we expect the amount of unrecognized tax benefit that would become recognized due to expiration of the statute of limitations and affect the effective tax rate to be \$9.8 million over the next 12 months.

Our policy is to recognize accrued interest and penalties related to unrecognized tax benefits within the income tax provision. The amount of interest and penalties accrued as of June 27, 2020 and June 29, 2019 were \$1.4 million and \$1.0 million, respectively.

The major tax jurisdictions where we file tax returns are the U.S. federal government, the state of California, Japan, the United Kingdom, Thailand, China and Canada. As of June 27, 2020, our fiscal 2010 to 2020 tax returns are open to potential examination in one or more jurisdictions. In addition, certain net operating loss and credit carryforwards may extend the ability of the tax authorities to examine our tax returns beyond the regular limits.

On June 22, 2020, the U.S. Supreme Court declined a Writ of Certiorari in the case of Altera Corp vs. Commissioner challenging a decision by the Ninth Circuit Court of Appeals (which itself reversed a previous decision of the U.S. Tax Court) holding that the U.S. Treasury Department's regulations requiring the inclusion of stock-based compensation expense in a taxpayer's cost-sharing calculations were valid. Our financial statements have been prepared consistent with this outcome.

Note 17. Equity

<u>Description of Lumentum Stock-Based Benefit Plans</u>

Equity Incentive Plan

As of June 27, 2020, we had 2.2 million shares subject to stock options, restricted stock units, restricted stock awards, and performance stock units issued and outstanding under the 2015 Equity Incentive Plan (the "2015 Plan").

Restricted stock units, restricted stock awards, and performance stock units are performance-based, time-based or a combination of both and are expected to vest over one to four years. The fair value of these grants is based on the closing market

price of our common stock on the date of award. The exercise price for stock options is equal to the fair value of the underlying stock at the date of grant. We issue new shares of common stock upon exercise of stock options. Options generally become exercisable over a three-year or four-year period and, if not exercised, expire from five to ten years after the date of grant.

As of June 27, 2020, 3.5 million shares of common stock under the 2015 Plan were available for grant.

Replacement Awards

In connection with the acquisition of Oclaro, we issued equity awards to Oclaro employees, consisting of stock options and restricted stock units ("replacement awards") in exchange for their Oclaro equity awards. The replacement awards consisted of less than 0.1 million stock options with a weighted average grant date fair value of \$41.80. The terms of these replacement awards are substantially similar to the original Oclaro equity awards. The fair value of the replacement awards for services rendered through December 10, 2018, the acquisition date, was recognized as a component of the merger consideration, with the remaining fair value of the replacement awards related to the post-combination services recorded as stock-based compensation over the remaining vesting period.

Restricted Stock Units

Restricted stock units ("RSUs") under the 2015 Plan are grants of shares of our common stock, the vesting of which is based on the requisite service requirement. Generally, our RSUs are subject to forfeiture and are expected to vest over one to four years. For annual refresh grants, RSUs generally vest ratably on an annual, or combination of annual and quarterly, basis over three years.

Restricted Stock Awards

Restricted stock awards ("RSAs") under the 2015 Plan are grants of shares of our common stock that are subject to various restrictions, including restrictions on transferability and forfeiture provisions. RSAs usually vest over one to four years, and the shares acquired may not be transferred by the holder until the vesting conditions (if any) are satisfied.

Performance Stock Units

Performance stock units ("PSUs") under the 2015 Plan are grants of shares of our common stock that vest upon the achievement of certain performance and service conditions. We begin recognizing compensation expense when we conclude that it is probable that the performance conditions will be achieved. We reassess the probability of vesting at each reporting period and adjust our compensation cost based on this probability assessment. Our PSUs are subject to risk of forfeiture until performance and service conditions are satisfied and generally vest over three years.

Employee Stock Purchase Plan

Our 2015 Employee Stock Purchase Plan (the "2015 Purchase Plan") provides eligible employees with the opportunity to acquire an ownership interest in the Company through periodic payroll deductions and provides a 15% purchase price discount as well as a six-month look-back period. The 2015 Purchase Plan is structured as a qualified employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986. The 2015 Purchase Plan will terminate upon the date on which all shares available for issuance have been sold. Of the 3.0 million shares authorized under the 2015 Purchase Plan, 1.8 million shares remained available for issuance as of June 27, 2020.

Stock-Based Compensation

The impact on our results of operations of recording stock-based compensation by function during the periods presented was as follows (in millions):

		Years Ended						
	J	June 27, 2020		June 29, 2019		June 30, 2018		
Cost of sales	\$	16.1	\$	15.1	\$	12.6		
Research and development		15.9		13.8		14.2		
Selling, general and administrative		41.2		41.8		20.0		
	\$	73.2	\$	70.7	\$	46.8		

Total income tax benefit associated with stock-based compensation recognized in our consolidated statements of operations during the years presented was as follows (in millions):

	 Years Ended						
	June 27, 2020		June 29, 2019		June 30, 2018		
Income tax benefit associated with stock-based compensation	\$ 10.6	\$	8.9	\$	16.6		

Approximately \$3.6 million and \$3.5 million of stock-based compensation was capitalized to inventory as of June 27, 2020 and June 29, 2019, respectively.

In fiscal 2019, in connection with the acquisition of Oclaro, we accelerated certain equity awards for Oclaro employees. The total stock-based compensation expense associated with the acceleration of equity awards was \$15.2 million, out of which \$10.0 million was settled in cash in our second quarter of fiscal 2019. Refer to "Note 4. Business Combinations."

Stock Option and Stock Award Activity

We did not grant any stock options during fiscal 2020, 2019, or 2018, other than those assumed in connection with the Oclaro merger. As of June 27, 2020, there were less than 0.05 million stock options outstanding under the 2015 Plan, all of which were replacement awards issued in connection with the Oclaro acquisition.

The following table summarizes our awards activity in fiscal 2020, 2019, and 2018 (in millions, except per share amounts):

	Restricted Stock Units			Restricted S	Stock	Awards	Performance Stock Un								
	Number of Shares	Weighted- Average Grant Date Fair Value per Share		Average Grant Date Fair Value		Average Grant Date Fair Value		Average Grant Date Fair Value		Weighted- Average Grant Date Number of Fair Value Shares per Share		Average rant Date air Value	Number of Shares	A Gr Fa	eighted- verage ant Date ir Value r Share
Balance as of July 1, 2017	1.9	\$	27.9	0.3	\$	32.5	_	\$	_						
Granted	1.1		54.5	_			0.1		52.0						
Vested/Exercised	(1.1)		26.6	(0.2)		32.5	_		_						
Canceled	(0.2)		38.8	_		_	_		_						
Balance as of June 30, 2018	1.7	\$	43.1	0.1	\$	32.5	0.1	\$	52.0						
Assumed in Oclaro merger	1.0		41.8	_		_			_						
Granted	1.0		60.3	_		_	0.2		55.9						
Vested/Exercised	(1.0)		41.5	(0.1)		32.5	(0.1)		49.0						
Canceled	(0.5)		50.2	_		32.8	_		53.8						
Balance as of June 29, 2019	2.2	\$	52.4	_	\$	32.5	0.2	\$	56.0						
Granted	1.1		60.3			_	0.2		61.9						
Vested/Exercised	(1.2)		52.1	_		32.4	(0.1)		54.7						
Canceled	(0.2)		52.3			_			57.3						
Balance as of June 27, 2020	1.9	\$	56.6		\$	_	0.3	\$	60.6						

As of June 27, 2020, \$98.0 million of stock-based compensation cost related to awards granted to our employees remains to be amortized. That cost is expected to be recognized over an estimated amortization period of 1.8 years.

A summary of awards available for grant is as follows (in millions):

	Awards Available for Grant
Balance as of July 1, 2017	6.6
Granted	(1.2)
Canceled	0.2
Balance as of June 30, 2018	5.6
Granted	(1.2)
Canceled	0.3
Balance as of June 29, 2019	4.7
Granted	(1.3)
Canceled	0.1
Balance as of June 27, 2020	3.5

Employee Stock Purchase Plan Activity

The 2015 Purchase Plan expense for fiscal 2020, 2019 and 2018 were \$3.5 million, \$3.6 million, and \$3.3 million, respectively. The expense related to the 2015 Purchase Plan is recorded on a straight-line basis over the relevant subscription period. During fiscal 2020, 2019, and 2018, there were 0.2 million, 0.3 million, and 0.2 million shares issued to employees through the 2015 Purchase Plan.

We estimate the fair value of the 2015 Purchase Plan shares on the date of grant using the Black-Scholes option-pricing model. The assumptions used to estimate the fair value of the 2015 Purchase Plan shares during the periods presented were as follows:

	June 27, 2020	June 29, 2019
Expected term (years)	0.5	0.5
Expected volatility	56.0%	60.1%
Risk-free interest rate	0.87%	2.47%
Dividend yield	<u> </u>	%

Repurchase and Retirement of Common Stock

In December 2019, concurrently with the issuance of the 2026 Notes, we repurchased 2.9 million shares of our common stock in privately negotiated transactions at an average price of \$69.68 per share for an aggregate purchase price of \$200 million. These shares were retired immediately.

Note 18. Employee Retirement Plans

Defined Contribution Plans

In the United States, the Company sponsors the Lumentum 401(k) Retirement Plan (the "401(k) Plan"), a defined contribution plan under ERISA, which provides retirement benefits for its eligible employees through tax deferred salary deductions. The 401(k) Plan allows employees to contribute up to 50% of their annual compensation, with contributions limited to \$19,500 in calendar year 2020 as set by the Internal Revenue Service. Employees are eligible for matching contributions after completing 180 days of service. The Company's match is contributed on a per-pay-period basis and is based on employees' before-tax contributions and compensation each pay period. All matching contributions are made in cash and vest immediately under the 401(k) Plan. In fiscal 2020, 2019, and 2018, our contribution expense to the 401(k) Plan was \$3.8 million, \$3.7 million, and \$3.4 million, respectively.

We also have defined contribution plans outside of the United States, almost in every country we operate in, either as required by statutory law or as provided by the Company's supplemental offering. Our contribution expense to all defined contribution plans outside the United States were \$6.7 million, \$4.8 million, and \$2.9 million for fiscal years 2020, 2019, and 2018, respectively.

Defined Benefit Plans

The Company sponsors defined benefit pension plans covering employees in Japan, Switzerland, and Thailand. Pension plan benefits are based primarily on participants' compensation and years of service credited as specified under the terms of each country's plan. Employees are entitled to a lump sum benefit upon retirement or upon certain instances of termination. The funding policy is consistent with the local requirements of each country.

We account for our defined benefit obligations in accordance with the authoritative guidance which requires us to record our obligation to the participants, as well as the corresponding net periodic cost. We determine our obligation to the participants and our net periodic cost principally using actuarial valuations provided by third-party actuaries. As of June 27, 2020, our projected benefit obligations, net in Japan, Switzerland, and Thailand were \$2.9 million, \$6.4 million, and \$2.5 million, respectively. They were recorded in our consolidated balance sheets as other non-current liabilities and represent the total projected benefit obligation ("PBO") less the fair value of plan assets.

As of June 27, 2020, the defined benefit plan in Switzerland was partially funded, while the defined benefit plans in Japan and Thailand were unfunded.

The change in the benefit obligations of pension plans in Japan, Switzerland, and Thailand, and the change in plan assets in Switzerland were as follows (in millions):

		2020		2019
Change in projected benefit obligation:				
Benefit obligation at beginning of year	\$	16.1	\$	12.1
Assumed pension liability in Japan in connection with Oclaro acquisition		_		7.2
Service cost		3.5		1.2
Interest cost		0.2		0.1
Plan participants' contributions		0.5		0.5
Actuarial (gains) losses		0.9		1.2
Benefits paid		(0.7)		(1.1)
Transfer of benefit obligation in connection with disposition				(4.9)
Plan amendments		_		(0.6)
Foreign exchange impact		0.4		0.4
Benefit obligation at end of year	\$	20.9	\$	16.1
Change in plan assets:				
Fair value of plan assets at beginning of year	\$	8.3	\$	8.6
Actual return on plan assets		_		(0.3)
Employer contribution		0.6		0.4
Plan participants' contribution		0.6		0.4
Benefits paid		(0.7)		(1.0)
Foreign exchange impact		0.3		0.2
Fair value of plan assets at end of year	\$	9.1	\$	8.3
Funded status (1)	\$	(11.8)	<u> </u>	(7.8)
	<u>-</u>	(3333)		(,,,,
Changes in benefit obligations and plan assets recognized in other comprehensive (income) loss:				
Prior service cost	\$	_	\$	(0.6)
Amortization of accumulated net actuarial gain (loss)		(0.3)		(0.1)
Net actuarial (gain) loss		1.2		2.1
	\$	0.9	\$	1.4
Accumulated benefit obligation	\$	17.8	\$	14.4

(1) As of June 27, 2020 and June 29, 2019, \$11.8 million and \$7.8 million were recorded in other non-current liabilities on our consolidated balance sheets to account for the PBO. Refer to "Note 8. Balance Sheet Details" in the Notes to Consolidated Financial Statements.

Net periodic pension costs in Japan, Switzerland, and Thailand include the following components for the periods presented:

	2020		2019	2018
Service cost	\$	3.5	\$ 1.2	\$ 0.9
Interest cost		0.2	0.1	0.1
Expected return on plan assets		(0.3)	(0.3)	(0.2)
Amortization of net loss		0.3	0.1	0.2
Net periodic pension cost	\$	3.7	\$ 1.1	\$ 1.0

Assumptions

Underlying both the calculation of the PBO and net periodic cost are actuarial valuations. These valuations use participant-specific information such as salary, age and assumptions about interest rates, compensation increases and other factors. At a minimum, we evaluate these assumptions annually and make changes as necessary.

The discount rate reflects the estimated rate at which the pension benefits could be effectively settled. In developing the discount rate, we consider the yield available on an appropriate AA or AAA corporate bond index, adjusted to reflect the term of the plan's liabilities.

The expected return on assets was estimated by using the weighted average of the real expected long-term return (net of inflation) on the relevant classes of assets based on the target asset mix and adding the chosen inflation assumption.

The following table summarizes the weighted-average assumptions used to determine net periodic cost and benefit obligation for our defined benefit plans in Japan, Switzerland, and Thailand:

	Defined Benefit Plans		
	2020	2019	
Assumptions used to determine net periodic cost:			
Discount rate	0.8%	0.4%	
Expected long-term return on plan assets	3.2%	3.2%	
Salary increase rate	4.1%	2.2%	
Assumptions used to determine benefit obligation at end of year:			
Discount rate	0.4%	0.4%	
Salary increase rate	2.7%	2.2%	

Fair Value Measurement of Plan Assets

The following table sets forth the plan assets of our defined benefit plan in Switzerland at fair value and the percentage of assets allocations as of June 27, 2020 (in millions, except percentage data):

Fair value measurement as of June 27, 2020 **Quoted Prices in** Significant Other Active Markets for Percentage of Plan Identical Assets **Observable Inputs Target Allocation** Total Asset (Level 1) (Level 2) Assets: Global equity 29% 2.6 28% \$ \$ 2.6 Fixed income 3.0 30% 3.0 33% Alternative investment 16% 1.5 21% 1.5 Cash 2% 0.2 1% 0.2 Other assets 20% 1.8 20% 1.8 **Total Assets** 100% 9.1 100% 0.2 \$ 8.9 \$

The following table sets forth the plan's assets at fair value and the percentage of assets allocations as of June 29, 2019 (in millions, except percentage data):

				Fair value measurement as of June 29, 2019				
	Target Allocation	Total	Percentage of Plan Asset	Quoted Prices in Active Markets for Identical Assets		Obse	nificant Other ervable Inputs (Level 2)	
Assets:								
Global equity	28%	\$ 2.3	28%	\$	_	\$	2.3	
Fixed income	30%	2.6	31%		_		2.6	
Alternative investment	21%	1.3	16%		_		1.3	
Cash	1%	0.3	3%		0.3		_	
Other assets	20%	1.8	22%		_		1.8	
Total Assets	100%	\$ 8.3	100%	\$	0.3	\$	8.0	

Our pension assets consist of multiple institutional funds ("pension funds") of which the fair values are based on the quoted prices of the underlying funds. Pension funds are classified as Level 2 assets since such funds are not directly traded in active markets. Global equity consists of several funds that invest primarily in Swiss and foreign equities; fixed income consists of several funds that invest primarily in investment grade domestic and overseas bonds; other assets consist of several funds that primarily invest in hedge fund, private equity, global real estate and infrastructure funds.

Future Benefit Payments

We estimate our expected benefit payments to defined benefit pension plans' participants based on the same assumptions used to measure our PBO at year-end which includes benefits attributable to estimated future compensation increases.

The following benefit payments are estimated to be paid from our defined benefit pension plans:

Fiscal Years	Total
2021	\$ 1.1
2022	0.5
2023	0.7
2024	0.6
2025	0.8
Next five years	4.6

We expect to contribute \$0.5 million to our defined benefit pension plans in fiscal 2021.

Note 19. Commitments and Contingencies

Purchase Obligations

Purchase obligations of \$261.5 million as of June 27, 2020, represent legally-binding commitments to purchase inventory and other commitments made in the normal course of business to meet operational requirements.

Although open purchase orders are considered enforceable and legally binding, the terms generally allow the option to cancel, reschedule and adjust the requirements based on our business needs prior to the delivery of goods or performance of services. Obligations to purchase inventory and other commitments are generally expected to be fulfilled within one year.

We depend on a limited number of contract manufacturers, subcontractors and suppliers for raw materials, packages and standard components. We generally purchase these single or limited source products through standard purchase orders or one-year supply agreements and have no significant long-term guaranteed supply agreements with such vendors. While we seek to maintain a sufficient safety stock of such products and maintain on-going communications with our suppliers to guard against interruptions or cessation of supply, our business and results of operations could be adversely affected by a stoppage or delay of supply, substitution of more expensive or less reliable products, receipt of defective parts or contaminated materials, increases in the price of such supplies, or our inability to obtain reduced pricing from our suppliers in response to competitive pressures.

Product Warranties

We provide reserves for the estimated costs of product warranties at the time revenue is recognized. We typically offer a twelve month warranty for most of our products. However, in some instances depending upon the product, product components or application of our products by the end customer, our warranties can vary and generally range from six months to five years. We estimate the costs of our warranty obligations on an annualized basis based on our historical experience of known product failure rates, use of materials to repair or replace defective products and service delivery costs incurred in correcting product failures. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise with specific products. We assess the adequacy of our recorded warranty liabilities and adjust the amounts as necessary.

The following table presents the changes in our warranty reserve during the periods presented (in millions):

	Years Ended					
		June 27, 2020		June 29, 2019		
Balance as of beginning of period	\$	7.5	\$	6.6		
Warranties assumed in Oclaro acquisition		_		1.8		
Provision for warranty		2.9		5.9		
Utilization of reserve		(5.4)		(6.8)		
Balance as of end of period	\$	5.0	\$	7.5		

Environmental Liabilities

Our research and development ("R&D"), manufacturing and distribution operations involve the use of hazardous substances and are regulated under international, federal, state and local laws governing health and safety and the environment. We apply strict standards for protection of the environment and occupational health and safety to sites inside and outside the United States, even if not subject to regulations imposed by foreign governments. We believe that our properties and operations at our facilities comply in all material respects with applicable environmental laws and occupational health and safety laws. However, the risk of environmental liabilities cannot be completely eliminated and there can be no assurance that the application of environmental and health and safety laws will not require us to incur significant expenditures. We are also regulated under a number of international, federal, state and local laws regarding recycling, product packaging and product content requirements. The environmental, product content/disposal and recycling laws are gradually becoming more stringent and may cause us to incur significant expenditures in the future.

Legal Proceedings

We are subject to a variety of claims and suits that arise from time to time in the ordinary course of our business. While management currently believes that resolving claims against us, individually or in the aggregate, will not have a material adverse impact on our financial position, results of operations or statements of cash flows, these matters are subject to inherent uncertainties

and management's view of these matters may change in the future. We accrue for loss contingencies when it is both probable that we will incur the loss and when we can reasonably estimate the amount of the loss or range of loss.

Merger Litigation

In connection with our acquisition of Oclaro, seven lawsuits were filed by purported stockholders of Oclaro challenging the proposed merger (the "Merger"). Two of the seven suits were putative class actions filed against Oclaro, its directors, Lumentum, Prota Merger Sub, Inc. and Prota Merger, LLC: Nicholas Neinast v. Oclaro, Inc., et al., No. 3:18-cv-03112-VC, in the United States District Court for the Northern District of California (filed May 24, 2018) (the "Neinast Lawsuit"); and Adam Franchi v. Oclaro, Inc., et al., No. 1:18-cv-00817-GMS, in the United States District Court for the District of Delaware (filed June 9, 2018) (the "Franchi Lawsuit). Both the Neinast Lawsuit and the Franchi Lawsuit were voluntarily dismissed with prejudice.

The other five suits, styled as Gerald F. Wordehoff v. Oclaro, Inc., et al., No. 5:18-cv-03148-NC (the "Wordehoff Lawsuit"), Walter Ryan v. Oclaro, Inc., et al., No. 3:18-cv-03174-VC (the "Ryan Lawsuit"), Jayme Walker v. Oclaro, Inc., et al., No. 5:18-cv-03203-EJD (the "Walker Lawsuit"), Kevin Garcia v. Oclaro, Inc., et al., No. 5:18-cv-03262-VKD (the "Garcia Lawsuit"), and SaiSravan B. Karri v. Oclaro, Inc., et al., No. 3:18-cv-03435-JD (the "Karri Lawsuit" and, together with the other six lawsuits, the "Lawsuits"), were filed in the United States District Court for the Northern District of California on May 25, 2018, May 29, 2018, May 30, 2018, May 31, 2018, and June 9, 2018, respectively. These five Lawsuits named Oclaro and its directors as defendants only and did not name Lumentum. The Wordehoff, Ryan, Walker, and Garcia Lawsuits have been voluntarily dismissed, and the Wordehoff, Ryan, and Walker dismissals were with prejudice. The Karri Lawsuit has not yet been dismissed. The Ryan Lawsuit was, and the Karri Lawsuit is, a putative class action.

The Lawsuits generally alleged, among other things, that Oclaro and its directors violated Section 14(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Rule 14a-9 promulgated thereunder by disseminating an incomplete and misleading Form S-4, including proxy statement/prospectus. The Lawsuits further alleged that Oclaro's directors violated Section 20(a) of the Exchange Act by failing to exercise proper control over the person(s) who violated Section 14(a) of the Exchange Act.

The remaining Lawsuit (the Karri Lawsuit) currently purports to seek, among other things, damages to be awarded to the plaintiff and any class, if a class is certified, and litigation costs, including attorneys' fees. A lead plaintiff and counsel has been selected, and an amended complaint was filed on April 15, 2019, which also names Lumentum as a defendant. A motion to dismiss the amended complaint has been fully briefed and is currently pending, and defendants intend to defend the Karri Lawsuit vigorously.

Indemnifications

In the normal course of business, we enter into agreements that contain a variety of representations and warranties and provide for general indemnification. Exposure under these agreements is unknown because claims may be made against us in the future and we may record charges in the future as a result of these indemnification obligations. As of June 27, 2020, we did not have any material indemnification claims that were probable or reasonably possible.

Audit Proceedings

We are under audit by various domestic and foreign tax authorities with regards to income tax and indirect tax matters. In some, although not all cases, we have reserved for potential adjustments to our provision for income taxes and accrual of indirect taxes that may result from examinations by these tax authorities or final outcomes in judicial proceedings, and we believe that the final outcome of these examinations, agreements or judicial proceedings will not have a material effect on our results of operations. If events occur which indicate payment of these amounts is unnecessary, the reversal of the liabilities would result in the recognition of benefits in the period we determine the liabilities are no longer necessary. If our estimates of the federal, state, and foreign income tax liabilities and indirect tax liabilities are less than the ultimate assessment, it could result in a further charge to expense.

In connection with our acquisition of Oclaro, in fiscal 2019, we recorded \$1.1 million in Malaysia Goods and Services Tax ("GST") refund claims within prepaid expenses and other current assets in our consolidated balance sheet. The refund claim represented an initial claim of \$2.5 million of GST, net of reserves, that was previously denied by the Malaysian tax authorities in 2016. During the year ended June 27, 2020, we were able to favorably resolve this audit and received refunds for all of our outstanding GST claims.

Note 20. Operating Segments and Geographic Information

Our chief executive officer is our Chief Operating Decision Maker ("CODM"). The CODM allocates resources to the segments based on their business prospects, competitive factors, net revenue and gross margin. We do not track all of our property, plant and equipment by operating segments. The geographic identification of these assets is set forth below.

We are an industry leading provider of optical and photonic products defined by revenue and market share addressing a range of end-market applications including optical communications and commercial lasers. We have two operating segments, Optical Communications, which we refer to as OpComms, and Commercial Lasers, which we refer to as Lasers. Our OpComms products address the following markets: telecommunications and data communications ("Telecom and Datacom"), and consumer and industrial ("Consumer and Industrial"), and include product lines from the acquisition of Oclaro. The two operating segments were primarily determined based on how the CODM views and evaluates our operations. Operating results are regularly reviewed by the CODM to make decisions about resources to be allocated to the segments and to assess their performance. Other factors, including market separation and customer specific applications, go-to-market channels, products and manufacturing, are considered in determining the formation of these operating segments.

OpComms

Our OpComms products address the following markets: Telecom, Datacom and Consumer and Industrial.

Our OpComms products include a wide range of components, modules and subsystems to support customers including carrier networks for access (local), metro (intracity), long-haul (city-to-city and worldwide) and submarine (undersea) applications. Additionally, our products address enterprise, cloud, and data center applications, including storage-access networks ("SANs"),

local-area networks ("LANs") and wide-area networks ("WANs"). These products enable the transmission and transport of video, audio and data over high-capacity fiber-optic cables. We maintain leading positions in these fast growing OpComms markets through our extensive product portfolio, including reconfigurable optical add/drop multiplexers ("ROADMs"), coherent DWDM pluggable transceivers, and tunable small form-factor pluggable transceivers. We also sell laser chips for use in the manufacture of high-speed Datacom transceivers.

In the Consumer and Industrial market, our OpComms products include laser light sources, which are integrated into 3D sensing platforms being used in applications for mobile devices, gaming, payment kiosks, computers, and other consumer electronics devices. New emerging applications include virtual and augmented reality, as well as automotive and industrial segments. Our products include vertical cavity surface emitting lasers ("VCSELs") and edge emitting lasers which are used in 3D sensing depth imaging systems. These systems simplify the way people interact with technology by enabling the use of natural user interfaces. Systems are used for biometric identification, surveillance, and process efficiency, among numerous other application spaces. Emerging applications for this technology include various mobile device applications, autonomous vehicles, self-navigating robotics and drones in industrial applications and 3D capture of objects coupled with 3D printing. In addition, our industrial diode lasers are used primarily as pump sources for pulsed and kilowatt class fiber lasers.

Lasers

Our Lasers products serve our customers in markets and applications such as sheet metal processing, general manufacturing, biotechnology, graphics and imaging, remote sensing, and precision machining such as drilling in printed circuit boards, wafer singulation, glass cutting and solar cell scribing.

Our Lasers products are used in a variety of OEM applications including diode-pumped solid-state, fiber, diode, direct-diode and gas lasers such as argonion and helium-neon lasers. Fiber lasers provide kW-class output powers combined with excellent beam quality and are used in sheet metal processing and metal welding applications. Diode-pumped solid-state lasers provide excellent beam quality, low noise and exceptional reliability and are used in biotechnology, graphics and imaging, remote sensing, materials processing and precision machining applications. Diode and direct-diode lasers address a wide variety of applications, including laser pumping, thermal exposure, illumination, ophthalmology, image recording, printing, plastic welding and selective soldering. Gas lasers such as argon-ion and helium-neon lasers provide a stable, low-cost and reliable solution over a wide range of operating conditions, making them well-suited for complex, high-resolution OEM applications such as flow cytometry, DNA sequencing, graphics and imaging and semiconductor inspection.

We also provide high-powered and ultrafast lasers for the industrial and scientific markets. Manufacturers use high-power, ultrafast lasers to create micro parts for consumer electronics and to process semiconductor, LED, and other types of chips. Use of ultrafast lasers for micromachining applications is being driven primarily by the increasing use of consumer electronics and connected devices globally.

We do not allocate research and development, sales and marketing, or general and administrative expenses to our segments because management does not include the information in its measurement of the performance of the operating segments. In addition, we do not allocate amortization and impairment of acquisition-related intangible assets, stock-based compensation and certain other charges impacting the gross margin of each segment because management does not include this information in its measurement of the performance of the operating segments.

Information on reportable segments utilized by our CODM is as follows (in millions):

			Yea	ars Ended	
	J	June 27, 2020	June	29, 2019	June 30, 2018
Net revenue:					
OpComms	\$	1,515.1	\$	1,370.2	\$ 1,059.2
Lasers		163.5		195.1	188.5
Net revenue	\$	1,678.6	\$	1,565.3	\$ 1,247.7
Gross profit:					
OpComms	\$	704.0	\$	534.1	\$ 402.3
Lasers		76.2		84.4	82.8
Total segment gross profit		780.2		618.5	485.1
Unallocated corporate items:					
Stock-based compensation		(16.1)		(15.1)	(12.6)
Amortization of acquired intangibles		(53.8)		(46.6)	(3.2)
Amortization of fair value adjustments		(5.8)		(54.6)	_
Inventory and fixed asset write down due to product lines exit (1)		(7.0)		(20.8)	_
Integration related costs		(4.9)		(6.6)	_
Expenses related to COVID-19 outbreak		(6.6)		_	_
Other charges (2)		(35.8)		(48.9)	(37.2)
Gross profit	\$	650.2	\$	425.9	\$ 432.1

(1) In fiscal 2020 and 2019, we recorded inventory and fixed assets write down charges of \$7.0 million and \$20.8 million related to the decision to exit the Datacom module and Lithium Niobate product lines.

(2) "Other charges" of unallocated corporate items for the year ended June 27, 2020 primarily include costs of transferring product lines to new production facilities, including Thailand of \$11.5 million. We also incurred excess and obsolete inventory charges of \$12.8 million driven by the decline in demand from Huawei during the year ended June 27, 2020. In addition, for the year ended June 27, 2020, we incurred \$6.2 million impairment charges associated with excess capacity related to our Fiber laser business. Other charges for the years ended June 29, 2019 and June 30, 2018, primarily include costs of transferring product lines to Thailand of \$45.8 million and \$27.0 million, respectively.

In addition, we recorded net expenses of \$6.6 million related to COVID-19 outbreak during the year ended June 27, 2020, which include incremental costs for payroll expense such as overtime pay, pay for employees who are not working, facilities costs such as gloves, masks and temperature gauges, and under-utilized capacity at certain facilities, in which manufacturing output was impacted. These COVID-19 related costs are offset by benefits realized from government credits for employers' payroll tax.

Disaggregation of Revenue

We disaggregate revenue by product and by geography. We do not present other levels of disaggregation, such as by type of products, customer, markets, contracts, duration of contracts, timing of transfer of control and sales channels, as this information is not used by our CODM to manage the business.

The table below discloses our total net revenue attributable to each of our two reportable segments. In addition, it discloses the percentage of our total net revenue attributable to our product offerings which serve Telecom and Datacom, and Consumer and Industrial markets which accounted for 10% or more of our total net revenue during the periods presented (*in millions, except percentage data*):

	Years Ended									
	June 27, 2020 June 29, 2019						June 30, 2018			
OpComms:						,				
Telecom and Datacom	\$	1,021.8	60.9%	\$	952.9	60.8%	\$	626.7	50.2%	
Consumer and Industrial		493.3	29.4%		417.3	26.7%		432.5	34.7%	
Total OpComms	\$	1,515.1	90.3%	\$	1,370.2	87.5%	\$	1,059.2	84.9%	
Lasers		163.5	9.7%		195.1	12.5%		188.5	15.1%	
Total Revenue	\$	1,678.6		\$	1,565.3		\$	1,247.7		

We operate in three geographic regions: Americas, Asia-Pacific, and EMEA (Europe, Middle East, and Africa). Net revenue is assigned to the geographic region and country where our product is initially shipped. For example, certain customers may request shipment of our product to a contract manufacturer in one country, which may differ from the location of their end customers. The following table presents net revenue by the three geographic regions we operate in and net revenue from countries that represented 10% or more of our total net revenue (in millions, except percentage data):

		Years Ended									
	_	June 2	27, 2020		June	29, 2019		June 3	30, 2018		
Net revenue:	_					_					
Americas:											
United States	\$	149.8	8.9%	\$	100.9	6.4%	\$	115.1	9.2%		
Mexico		122.8	7.3		214.9	13.7		145.8	11.7		
Other Americas		5.5	0.3		4.3	0.3		7.0	0.6		
Total Americas	\$	278.1	16.5%	\$	320.1	20.4%	\$	267.9	21.5%		
	-						_				
Asia-Pacific:											
Hong Kong	\$	532.0	31.8%	\$	387.9	24.8%	\$	183.0	14.7%		
South Korea		260.9	15.5		162.4	10.4		146.1	11.7		
Japan		137.9	8.2		176.0	11.2		194.7	15.6		
Other Asia-Pacific		346.0	20.6		356.1	22.7		354.2	28.3		
Total Asia-Pacific	\$	1,276.8	76.1%	\$	1,082.4	69.1%	\$	878.0	70.3%		
EMEA	\$	123.7	7.4%	\$	162.8	10.5%	\$	101.8	8.2%		
Total net revenue	\$	1,678.6		\$	1,565.3		\$	1,247.7			
	<u> </u>			_			_				

During fiscal 2020, 2019 and 2018, net revenue from customers outside the United States, based on customer shipping location, represented 91.1%, 93.6% and 90.8% of net revenue, respectively.

During the years ended June 27, 2020, June 29, 2019, and June 30, 2018, net revenue generated from a single customer which represented 10% or greater of total net revenue is summarized as follows:

		Years Ended	
	June 27, 2020	June 29, 2019	June 30, 2018
Customer A	26.0%	21.0%	30.0%
Customer B	13.2%	15.2%	11.0%
Customer C	*	13.7%	11.0%

^{*}Represents less than 10% of total net revenue

Our accounts receivable was concentrated with one customer as of June 27, 2020, who represented 14% of gross accounts receivable, compared with three customers as of June 29, 2019, who represented 17%, 17% and 10% of gross accounts receivable, respectively.

Long-lived assets, namely net property, plant and equipment, net, were identified based on the physical location of the assets in the corresponding geographic areas as of the periods indicated (in millions):

	Jun	e 27, 2020	Ju	ine 29, 2019
Property, Plant and Equipment, net				
Thailand	\$	122.6	\$	157.1
United States		139.1		156.2
China		43.2		33.5
Japan		32.3		28.3
Other countries		55.8		58.2
Total long-lived assets	\$	393.0	\$	433.3

We purchase a substantial portion of our inventory from contract manufacturers and vendors located primarily in Taiwan, Thailand, and Malaysia. During fiscal 2020, 2019, and 2018, our total net inventory purchases from contract manufacturers represented approximately 39%, 46%, and 54% of our total cost of sales, respectively. During fiscal 2020, 2019, and 2018, our net inventory purchases which represented 10% or greater of total net purchases, were concentrated with two, three, and three contract manufacturers, respectively.

Note 21. Quarterly Financial Information (Unaudited)

The following table presents our quarterly consolidated statements of operations for fiscal 2020 and 2019 (in millions, except per share data):

	June	27, 2020	Marc	eh 28, 2020	D	ecember 28, 2019	Se	September 28, 2019 June		une 29, 2019 March 30, 2019		De	December 29, 2018		otember 29, 2018	
Net revenue	\$	368.1	\$	402.8	\$	457.8	\$	449.9	\$	404.6	\$	432.9	\$	373.7	\$	354.1
Cost of sales		217.4		231.2		256.3		269.7		304.6		316.5		244.5		227.3
Amortization of acquired developed		150		12.0		10.4		10.5		12.2		20.1				0.0
intangibles		15.0		13.9		12.4		12.5		13.2		28.1		4.4	_	0.8
Gross profit		135.7		157.7		189.1		167.7		86.8		88.3		124.8		126.0

Operating expenses:										
Research and development		49.0	48.7	51.0	49.9	49.5	57.7	42	.8	34.6
Selling, general and administrative		54.8	61.3	62.4	56.7	49.4	55.2	62	.7	33.0
Restructuring and related charges	1	3.1	2.7	0.9	1.3	1.7	21.1	7	.8	1.3
Impairment charges		1.8	2.5	_	_	_	30.7	-	_	_
Total operating expenses		108.7	115.2	114.3	107.9	100.6	164.7	 113	.3	68.9
Income (loss) from operations		27.0	42.5	74.8	59.8	(13.8)	(76.4)	11	.5	57.1
Unrealized gain (loss) on derivative liability		_	_	_	_	_	_	10	.9	(2.1
Interest expense		(15.9)	(15.6)	(18.3)	(11.4)	(11.4)	(11.3)	(8	.5)	(5.1
Other income (expense), net		3.5	21.7	1.2	5.0	4.1	5.2	3	.8	2.7
Income (loss) before income taxes	e	14.6	48.6	57.7	53.4	(21.1)	(82.5)	17	.7	52.6
Provision for (benefit from) income taxes		19.2	5.2	8.6	5.8	4.7	(8.2)	1	.4	5.2
Net income (loss)	\$	(4.6)	\$ 43.4	\$ 49.1	\$ 47.6	\$ (25.8)	\$ (74.3)	\$ 16	5.3	\$ 47.4
Net income (loss) attributable to common stockholders - Basic Net income (loss) attributable to	: \$	(4.6)	\$ 43.4	\$ 49.1	\$ 47.6	(25.8)	\$ (74.3)	\$ 16	.1	\$ 46.1
common stockholders - Diluted	\$	(4.6)	\$ 43.4	\$ 49.1	\$ 47.6	(25.8)	\$ (74.3)	\$ 5	.4	\$ 46.1
Net income (loss) per share attributable to common stockholders:										
Basic	\$	(0.06)	\$ 0.58	\$ 0.64	\$ 0.62	\$ (0.34)	(0.98)	0.2		\$ 0.73
Diluted	\$	(0.06)	\$ 0.56	\$ 0.63	\$ 0.61	\$ (0.34)	\$ (0.98)	\$ 0.0	98	\$ 0.72
Shares used to compute net income (loss) per share attributable to common stockholders:	;									
Basic		75.0	74.8	76.8	76.9	76.5	76.2	66	.8	63.1
Diluted		75.0	77.5	78.0	77.6	76.5	76.2	67	.8	63.9

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Management, with the participation of our chief executive officer and our chief financial officer, evaluated the effectiveness of our disclosure controls and procedures as of June 27, 2020. The term "disclosure controls and procedures," as defined in Rules 13a-15 and 15d-15 under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of June 27, 2020, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were effective at a reasonable assurance level.

(b) Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Management conducted an assessment of the effectiveness of our internal control over financial reporting based on the criteria set forth in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on the assessment, management has concluded that its internal control over financial reporting was effective as of June 27, 2020 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. GAAP.

Deloitte & Touche LLP, the independent registered public accounting firm that audited the consolidated financial statements included in this Form 10-K, has issued a report, included herein, on the effectiveness of the Company's internal control over financial reporting as of June 27, 2020.

(c) Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting as defined in Exchange Act Rules 13a-15(f) and 15d-15(f), identified in connection with the evaluation required by Exchange Act Rules 13a-15(d) or 15d-15(d) that occurred during our most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(d) Inherent Limitations on Effectiveness of Controls

Our management, including the CEO and CFO, recognizes that our disclosure controls and procedures or our internal control over financial reporting cannot prevent or detect all possible instances of errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Lumentum Holdings Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Lumentum Holdings Inc. and subsidiaries (the "Company") as of June 27, 2020, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 27, 2020, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended June 27, 2020, of the Company and our report dated August 25, 2020, expressed an unqualified opinion on those financial statements and included an explanatory paragraph relating to the Company's adoption of Accounting Standards Update No. 2016-02, Leases (Topic 842).

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Report on Internal Control Over Financial Reporting*. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ DELOITTE & TOUCHE LLP

San Jose, California August 25, 2020

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ITEM 9B. OTHER INFORMATION

None.

PART III

The SEC allows us to include information required in this report by referring to other documents or reports we have already filed or will soon be filing. This is called "incorporation by reference." We intend to file our definitive proxy statement for our 2020 annual meeting of stockholders (the "Proxy Statement") pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this report, and certain information to be contained therein is incorporated in this report by reference.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required for this Item is set forth in the Proxy Statement and incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required for this Item is set forth in the Proxy Statement and incorporated herein by reference.

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

The information required for this Item is set forth in the Proxy Statement and incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required for this Item is set forth in the Proxy Statement and incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required for this Item is set forth in the Proxy Statement and incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENTS SCHEDULES

1. Financial Statements

The financial statements filed as part of this report are listed in the "Index to Financial Statements" under Part II, Item 8 of this report.

	Page
Report of Independent Registered Public Accounting Firm	<u>55</u>
Consolidated Statements of Operations—Years Ended June 27, 2020, June 29, 2019, and June 30, 2018	<u>57</u>
Consolidated Statements of Comprehensive Income (Loss)—Years Ended June 27, 2020, June 29, 2019, and June 30, 2018	<u>58</u>
Consolidated Balance Sheets—June 27, 2020 and June 29, 2019	<u>59</u>
Consolidated Statements of Cash Flows—Years Ended June 27, 2020, June 29, 2019, and June 30, 2018	<u>60</u>
Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity—Years Ended June 27, 2020, June 29, 2019, and June 30, 2018	<u>62</u>
Notes to Consolidated Financial Statements	<u>63</u>

2. Financial Statement Schedules

The following additional financial statement schedules should be considered in conjunction with our consolidated financial statements. All other financial statement schedules have been omitted because the required information is not present in amounts sufficient to require submission of the schedule, not applicable, or because the required information is included in the Consolidated Financial Statements or Notes thereto.

LUMENTUM HOLDINGS INC.

FINANCIAL STATEMENT SCHEDULES

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

					(i	n millions)			
	Balance at Beginning of Period		Assumed in Oclaro Acquisition		Increase (decrease) to Income Statement		Write Offs and Other Adjustments		Balance at End of Period
Accounts receivable allowance:									
Fiscal year ended June 27, 2020	\$	4.5	\$	_	\$	0.1	\$	(2.8)	\$ 1.8
Fiscal year ended June 29, 2019	\$	2.6	\$	3.3	\$	(0.2)	\$	(1.2)	\$ 4.5
Fiscal year ended June 30, 2018	\$	1.8	\$	_	\$	0.9	\$	(0.1)	\$ 2.6

	(in millions)											
Description	Balane	ee at Beginning of Period	A	Additions Charged to Expenses or Other Accounts*	Deductions Credited to Expenses or Other Accounts**			ance at End of Period				
Deferred tax valuation allowance:						_		_				
Fiscal year ended June 27, 2020	\$	190.3	\$	16.3	\$	(5.8)	\$	200.8				
Fiscal year ended June 29, 2019	\$	99.4	\$	153.9	\$	(63.0)	\$	190.3				
Fiscal year ended June 30, 2018	\$	296.4	\$	234.1	\$	(431.1)	\$	99.4				

^{*} Additions include current year additions charged to expenses and current year build due to increases in net deferred tax assets, return to provision true-ups, other adjustments to deferred taxes.

3. Exhibits

The following exhibits are filed herewith or are incorporated by reference to exhibits previously filed with the Securities and Exchange Commission.

		Incorporated by Reference			Filed
Exhibit No.	Exhibit Description	Form	Exhibit	Filing Date	Herewith
2.1	Contribution Agreement	8-K	2.1	8/6/2015	
	Agreement and Plan of Merger, dated as of March 11, 2018, by and among Lumentum Holdings Inc., Oclaro, Inc., Prota Merger Sub,				
2.1	Inc. and Prota Merger, LLC	8-K	2.1	3/12/2018	
2.2	Separation and Distribution Agreement	8-K	2.2	8/6/2015	
3.1	Amended and Restated Certificate of Incorporation	8-K	3.1	8/6/2015	
3.2	Amended and Restated Bylaws	8-K	3.2	8/6/2015	
4.1	Indenture, dated March 8, 2017, between Lumentum Holdings Inc. and U.S. Bank National Association Form of 0.250% Convertible Senior Notes due 2024 (included in	8-K	4.1	3/9/2017	
4.2	Exhibit 4.2)	8-K	4.2	3/9/2017	
4.3	Description of Capital Stock	10-K	4.4	8/27/2019	

^{**} Deductions include current year releases credited to expenses and current year reductions due to decreases in net deferred tax assets, return to provision true-ups, other adjustments to deferred taxes.

4.4	Indenture, dated December 12, 2019, between Lumentum Holdings	0.17	4.1	12/12/2010	
4.4	Inc. and U.S. Bank National Association.	8-K	4.1	12/12/2019	
4.5	Form of 0.50% Convertible Senior Note due 2026 (included in Exhibit 4.4).	8-K	4.2	12/12/2019	
10.1	Tax Matters Agreement	8-K	10.1	8/6/2015	
10.2*	Employee Matters Agreement	8-K	10.2	8/6/2015	
10.3	Intellectual Property Matters Agreement	8-K	10.3	8/6/2015	
10.4	2015 Equity Incentive Plan as amended	8-K	10.2	11/9/2016	
10.5	2015 Employee Stock Purchase Plan	S-8	99.2	7/29/2015	
10.6*	Executive Officer Performance-Based Incentive Plan	8-K	10.3	11/9/2016	
	Change in Control and Severance Benefits Plan, effective May 8,				
10.7	<u>2018</u>	10-K	10.6	8/28/2018	
10.8*	Employment Agreement for Alan Lowe	8-K	10.4	8/6/2015	
10.9*	Form of Indemnification Agreement	10-K	10.8	9/25/2015	
10.10*	Offer Letter, by and between the Registrant and Wajid Ali, dated as of January 11, 2019	10-Q	10.1	5/7/2019	
	Real Estate Purchase and Sale Agreement between MNCVAD-				
10.11	Graymark Ridder Park LLC and Lumentum Operations LLC, dated May 7, 2019	10-K	10.15	8/27/2019	
21.1	Subsidiaries of Lumentum Holdings Inc.				X
23.1	Consent of Independent Registered Public Accounting Firm (Deloitte & Touche LLP)				X
	Certification of the Chief Executive Officer pursuant to Securities				
21.1	Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to				v
31.1	Section 302 of the Sarbanes-Oxley Act of 2002.				X
	Certification of the Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to				
31.2	Section 302 of the Sarbanes-Oxley Act of 2002.				X
	Certification of the Chief Executive Officer pursuant to 18				
	U.S.C. Section 1350, as adopted pursuant to Section 906 of the				
32.1†	Sarbanes-Oxley Act of 2002.				X
	Certification of the Chief Financial Officer pursuant to 18				
32.2†	U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				X
32.2	The following financial information from Lumentum Holdings Inc.'s				11
	Annual Report on Form 10-K for the fiscal year ended June 27, 2020				
	formatted in Inline XBRL (eXtensible Business Reporting				
	Language): (i) Consolidated Statements of Operations for the fiscal				
	years ended June 27, 2020, June 29, 2019, and June 30, 2018; (ii) Consolidated Statements of Comprehensive Income (Loss) for the				
	fiscal years ended June 27, 2020, June 29, 2019, and June 30, 2018;				
	(iii) Consolidated Balance Sheets as of June 27, 2020 and June 29,				
	2019; (iv) Consolidated Statements of Cash Flows for the fiscal years				
	ended June 27, 2020, June 29, 2019, and June 30, 2018; (v) Consolidated Statements of Redeemable Convertible Preferred Stock				
	and Stockholders' Equity for the fiscal years ended June 27, 2020,				
	June 29, 2019, and June 30, 2018; and (vi) Notes to the Consolidated				
101	Financial				X

The cover page from Lumentum Holdings Inc.'s Annual Report on Form 10-K for the fiscal year ended June 27, 2020, formatted in Inline XBRL (included as Exhibit 101).

X

† The certifications furnished in Exhibits 32.1 and 32.2 that accompany this Annual Report on Form 10-K, are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10-K, irrespective of any general incorporation language contained in such filing.

^{*} Indicates management contract or compensatory plan or arrangement.

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ITEM 16. FORM 10-K SUMMARY.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: August 25, 2020 <u>LUMENTUM HOLDINGS INC.</u>

By: /s/ Wajid Ali

By: Wajid Ali

Executive Vice President and Chief Financial Officer (Principal Financial Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Wajid Ali and Judy Hamel, and each of them individually, as his or her attorney-in-fact, each with full power of substitution, for him or her in any and all capacities to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact, or his or her substitute, may do or cause to be done by virtue hereof.

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

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Signature	Title	Date	
/s/ ALAN LOWE Alan Lowe	President, Chief Executive Officer and Director (principal executive officer)	August 25, 2020	
/s/ WAJID ALI Wajid Ali	Executive Vice President, Chief Financial Officer (principal financial officer)	August 25, 2020	
/s/ MATTHEW SEPE Matthew Sepe	Chief Accounting Officer (principal accounting officer)	August 25, 2020	
/s/ HAROLD COVERT Harold Covert	Director	August 25, 2020	
/s/ JULIE JOHNSON Julie Johnson	Director	August 25, 2020	
/s/ PENELOPE HERSCHER Penelope Herscher	Director	August 25, 2020	
/s/ BRIAN LILLIE Brian Lillie	Director	August 25, 2020	
/s/ SAMUEL THOMAS Samuel Thomas	Director	August 25, 2020	
/s/ IAN SMALL Ian Small	Director	August 25, 2020	

LIST OF SUBSIDIARIES LUMENTUM HOLDINGS INC.

AS OF JUNE 27, 2020

Name of Entity

State or Other Jurisdiction of Incorporation or Organization

Tunic of Energy	O' guinzation
DOMESTIC	
CCOP International Holdings Inc.	Delaware
Lumentum Inc.	Delaware
Lumentum Operations LLC	Delaware
Lumentum Italy	Delaware
Lumentum Fiber Optics, Inc.	Delaware
Lumentum Optics Inc.	Delaware
INTERNATIONAL	
Bookham International Ltd.	Cayman Islands
Bookham Nominees Ltd.	United Kingdom
Lumentum Asia Limited	Hong Kong
Lumentum (BVI) Ltd	British Virgin Islands
Lumentum Canada Ltd.	Canada
Lumentum Communication Technology (Shenzhen) Co., Ltd.	China
Lumentum d.o.o. Optièna vlakna	Slovenia
Lumentum HoldCo Limited	Hong Kong
Lumentum HoldCo Limited - Taiwan Branch	Taiwan
Lumentum International (Thailand) Co., Ltd.	Thailand
Lumentum International (Thailand) Co., Ltd Branch	Thailand
Lumentum International Tech Co.	Cayman Islands
Lumentum Israel Ltd	Israel
Lumentum Japan Inc.	Japan
Lumentum K.K.	Japan
Lumentum Netherlands B.V.	Netherlands
Lumentum Netherlands B.V France Branch	France
Lumentum Netherlands B.V Germany Branch	Germany
Lumentum Netherlands B.V Italy Branch	Italy
Lumentum Ottawa Inc.	Canada
Lumentum SK Limited	South Korea
Lumentum Switzerland AG	Switzerland
Lumentum Taiwan Co., Ltd.	Taiwan
Lumentum Tech LLC	Cayman Islands
Lumentum Technologies Limited	Canada
Lumentum Italy Inc. (branch office San Donato, Italy)	Italy
Oclaro Germany GmbH	Germany
Oclaro Innovations LLP	United Kingdom
Oclaro Malaysia Sdn Bhd	Malaysia
Oclaro Technology (Shenzhen) Co. Ltd.	China

Lumentum Technology UK Limited	United Kingdom
Oclaro Thailand Ltd.	Thailand
Lumentum Technologies Limited	Canada
Oclaro (Canada) Inc.	Canada
Oclaro (North America), Inc. (branch office San Donato, Italy)	Italy
Oclaro Germany GmbH	Germany
Oclaro Innovations LLP	United Kingdom
Oclaro Malaysia Sdn Bhd	Malaysia
Oclaro Technology (Shenzhen) Co. Ltd.	China
Lumentum Technology UK Limited	United Kingdom
Oclaro Technology Limited (rep office-Hong Kong)	Hong Kong
Oclaro Thailand Ltd.	Thailand

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-228905, 333-215937, and 333-205918 on Form S-8 of our reports dated August 25, 2020, relating to the financial statements of Lumentum Holdings Inc., and the effectiveness of Lumentum Holdings Inc.'s internal control over financial reporting appearing in this Annual Report on Form 10-K for the year ended June 27, 2020.

/s/ DELOITTE & TOUCHE LLP

San Jose, California

August 25, 2020

LUMENTUM HOLDINGS INC. CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

- I, Alan Lowe, certify that:
- 1. I have reviewed the Annual Report on Form 10-K of Lumentum Holdings Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d 15(f)) for the registrant and have:
- a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 25, 2020

/s/ ALAN LOWE

Alan Lowe President and Chief Executive Officer (Principal Executive Officer)

LUMENTUM HOLDINGS INC. CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

- I, Wajid Ali, certify that:
- 1. I have reviewed the Annual Report on Form 10-K of Lumentum Holdings Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d 15(f)) for the registrant and have:
- a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 25, 2020

/s/ WAJID ALI

Wajid Ali

Executive Vice President and Chief Financial Officer

(Principal Financial Officer)

LUMENTUM HOLDINGS INC. CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Lumentum Holdings Inc. (the "Company") for the year ended June 27, 2020 as filed with the Securities and Exchange Commission (the "Report"), I, Alan Lowe, President and Chief Executive Officer (Principal Executive Officer) of the Company, hereby certify as of the date hereof, solely for purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

- 1. The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

Dated: August 25, 2020

/s/ ALAN LOWE

Alan Lowe

President and Chief Executive Officer

(Principal Executive Officer)

The foregoing certification is being furnished pursuant to 18 U.S.C. Section 1350. It is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and it is not to be incorporated by reference into any filing of Lumentum Holdings Inc., regardless of any general incorporation language in such filing.

LUMENTUM HOLDINGS INC. CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Lumentum Holdings Inc. (the "Company") for the year ended June 27, 2020 as filed with the Securities and Exchange Commission (the "Report"), I, Wajid Ali, Executive Vice President,

Chief Financial Officer (Principal Financial Officer) of the Company, hereby certify as of the date hereof, solely for purposes of Title 18, Chapter 63, Section 1350 of the United States Code, that to the best of my knowledge:

- 1. The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and
- 2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company at the dates and for the periods indicated.

Dated: August 25, 2020

/s/ WAJID ALI

Wajid Ali

Executive Vice President and Chief Financial Officer

(Principal Financial Officer)

The foregoing certification is being furnished pursuant to 18 U.S.C. Section 1350. It is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and it is not to be incorporated by reference into any filing of Lumentum Holdings Inc., regardless of any general incorporation language in such filing.