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

Form 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended June 29, 2024
OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to
Commission File Number 001-36861

Lumentum Holdings Inc.
(Exact name of Registrant as specified in its charter)

Delaware	**47-3108385**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1001 Ridder Park Drive, San Jose, California 95131
(Address of principal executive offices including Zip code)

(408) 546-5483
(Registrant's telephone number, including area code)

Securities registered 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	Nasdaq Global Select Market

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐	Non-accelerated filer	☐	Smaller reporting company	☐
						Emerging growth company	☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately $2,152 million, based on the closing sales price of the registrant's common stock on December 29, 2023 (the last business day of the registrant's most recently completed second fiscal quarter) of $52.42 per share, as reported on the NASDAQ Stock Market. Shares of common stock held by officers, directors and holders of more than five percent of the outstanding common stock have been excluded from this calculation because such persons may be deemed to be affiliates.

As of August 14, 2024, the Registrant had 68.0 million shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the information called for by Part III of this Annual Report on Form 10-K are hereby incorporated by reference from the definitive proxy statement for the registrant's annual meeting of stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after the registrant's fiscal year ended June 29, 2024.

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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 export regulation changes, the expected benefits of our acquisitions, macroeconomic conditions, including supply chain conditions and inventory management by our customers, the effects of the COVID-19 pandemic, instability and uncertainty in the banking and financial services markets, and tightening credit markets on our business and results of operations, sales, gross margins, operating expenses, capital expenditures and requirements, liquidity, product development and research and development efforts, manufacturing plans, litigation, effective tax rates and tax reserves, our corporate and financial reporting structure, our plans for growth and innovation, our expectations regarding U.S.-China relations, market and regulatory conditions, trends and uncertainties in our business and financial results, 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 I, Item 1A of this Annual Report. Furthermore, such forward-looking statements speak only as of the date of this Annual Report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date of such statements.

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 essential to a range of cloud, artificial intelligence and machine learning (“AI/ML”), telecommunications, consumer, and industrial end-market applications. We operate in two end-market focused reportable segments, Cloud & Networking and Industrial Tech.

Our Cloud & Networking products include a comprehensive portfolio of optical and photonic components, modules, and subsystems supplied to cloud and communications network operators and network equipment manufacturers building cloud data center infrastructure, including products for AI/ML and data center interconnect (“DCI”) applications, and communications service provider networks, including products for access (local), metro (intracity), long-haul (city-to-city and worldwide), and submarine (undersea) network infrastructure. Our Cloud & Networking products also support network equipment manufacturers building enterprise network infrastructure. Demand for our Cloud & Networking products is driven by the rapid growth in cloud and network capacity required for expanding cloud computing and services, including for AI/ML, streaming video and video conferencing, gaming, wireless and mobile devices, and internet of things (“IoT”).

Our Industrial Tech products include solid-state lasers, kilowatt-class fiber lasers, diode lasers, ultrafast lasers, and gas lasers, which address applications in numerous end-markets. In the industrial manufacturing end-market, our lasers are incorporated into our customers’ manufacturing machine tools used for the precision processing of materials in a range of industries including semiconductor device and microelectronics fabrication, electric vehicle and battery production, metal cutting and welding, and advanced manufacturing. Our lasers also address certain semiconductor inspection and life-science applications. Our products can also be used in the industrial end-market in imaging and sensing systems for process feedback and control, quality assurance, and waste reduction. Adoption of our products in the industrial end-market is driven by the needs of customers to advance semiconductor and microelectronics industry roadmaps, including those that support cloud data center and AI/ML infrastructure, and by Industry 4.0/5.0 trends, including increasing manufacturing precision and flexibility and reducing waste and environmental impact. Demand for our products in the industrial end-market is driven by end-customer investments in manufacturing capacity. In the consumer end-market, our laser light sources are integrated into our customers’ 3D sensing cameras, which are used in mobile devices and other consumer electronics devices to enable applications including biometric identification, computational photography and virtual and augmented reality. In the automotive end-market, our lasers are used in our customers’ LiDAR and other optical sensor devices, which are being used in advanced driver assistance systems (“ADAS”) and in-cabin driver and occupant monitoring systems.

We have a global footprint that enables us to address global market opportunities for our products with employees engaged in research and development (“R&D”), administration, manufacturing, support and sales and marketing activities. We have manufacturing capabilities and facilities in North America, South America, Asia-Pacific and Europe. Our headquarters are located in San Jose, California, and we employed approximately 7,257 full-time employees around the world as of June 29, 2024.

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 and became an independent publicly traded company through the distribution of our common stock by JDSU to its stockholders. In 2015, the remaining parent company, 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 became 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 what is now Lumentum’s businesses, as well as the intellectual property, technology and product offerings of the company. The fundamental laser and photonic component technologies which we acquired through various acquisitions form the basis of cloud and communications optical network infrastructure today. These technologies will continue to enable us to develop highly integrated products to satisfy our customers’ ever-increasing needs for smaller, lower power and lower cost optical and photonic products.

In December 2018, we completed the acquisition of Oclaro, Inc. (“Oclaro”). 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 helps position us well to meet the future needs of our customers.

In August 2022, we completed the acquisition of NeoPhotonics Corporation (“NeoPhotonics”). The addition of NeoPhotonics expanded our opportunities in optical components used in cloud and telecom network infrastructure.

In August 2022, we completed a transaction to acquire IPG Photonics’ telecom transmission product lines (“IPG telecom transmission product lines”) that develop and market products for use in telecommunications and datacenter infrastructure, including coherent Digital Signal Processors (“DSPs”), application-specific integrated circuits (“ASICs”) and optical transceivers.

In November 2023, we completed the acquisition of Cloud Light Technology Limited (“Cloud Light”). Cloud Light designs, markets, and manufactures advanced optical modules for data center interconnect applications. The acquisition enables us to be well-positioned to serve the growing needs of cloud and networking customers, particularly those customers focused on optimizing their data center infrastructure for the demands of AI/ML.

Industry Trends and Business Risks

Our business is driven by end-market applications leveraging the performance advantages of advanced optical and photonic solutions. We operate within global markets characterized by robust, long-term growth trends that are increasing demand for our products and technologies.

The convergence of factors including the growing reliance on data transmission, the rapid adoption of AI/ML, and the increasing digitalization of society is driving expansion in cloud data centers and the demand for higher-bandwidth network solutions. Lumentum's products and technologies are at the forefront of these trends, engineered to support increased data volumes and computational loads while meeting the industry's need for advanced network capabilities.

Additionally, the manufacturing industry's pursuit of higher precision, innovative materials, and improved efficiency fuels demand for industrial laser-based solutions. Lumentum is well-positioned to capitalize on this trend through the provision of ultrafast lasers for micromachining and advanced material processing, as well as laser-based 3D sensing and LiDAR technologies for applications across various sectors.

Our optical and photonic solutions, developed in close partnership with OEMs and end users, are well-positioned to capitalize on these emerging market opportunities. While we maintain a positive outlook on the long-term prospects for our products and technologies, we acknowledge the presence of industry and market risks and uncertainties. Fluctuations in supply and demand, exacerbated by the COVID-19 pandemic and subsequent inventory adjustments, coupled with evolving export regulations, have led to volatility in our financial performance and created uncertainty regarding future customer demand.

Industry Inventory Correction

In response to supply shortages caused by the COVID-19 pandemic, certain customers accumulated higher-than-normal inventory levels, including our products, as a precautionary measure. As supply constraints started easing, towards the latter half of fiscal year 2023, customers began reducing purchases of our products to align their inventory levels with more normalized levels of end-market demand. This inventory correction was amplified by similar actions subsequently taken by our customers' customers, who also sought to reduce their excess inventory by decreasing purchases. Consequently, our business has experienced a prolonged period of lower revenue, leading to significant underutilization of manufacturing capacity and reduced profit margins in fiscal year 2024. While we anticipate an eventual normalization of inventory levels across the supply chain, the timing and pace of this recovery remain uncertain and could be influenced by macroeconomic and financial market conditions.

For more information on risks associated with supply chain constraints and customer inventory, refer to Item 1A “Risk Factors” of this Annual Report.

Geopolitical Landscape Developments

As a global business with operations spanning diverse geographic regions, we are exposed to geopolitical risks. Fluctuations in the geopolitical landscape, including war, military conflicts, changes in export regulations, and shifts in national priorities and foreign relations policies, can significantly impact our business. For instance, modifications to trade restrictions and export regulations can adversely affect both product demand and our ability to supply customers, which would harm revenue and profit margins. Recent and continuing changes in export regulations pertaining to specific Chinese customers have resulted in substantial revenue losses from the Chinese market and inventory write-offs. Moreover, disruptions in our customers' supply chains due to geopolitical events could reduce or delay their demand for our products, ultimately impacting our revenue.

For more information on risks associated with the change in geopolitical landscape and regulatory actions, refer to Item 1A “Risk Factors” of this Annual Report.

Reportable Segments

Prior to fiscal year 2024, we operated in two reportable segments consisting of Optical Communications (“OpComms”) and Commercial Lasers (“Lasers”). During the fiscal first quarter of 2024, our chief operating decision maker (“CODM”) implemented changes in how he organizes the business, allocates resources, and assesses performance. We changed our organizational structure to better align with trends in our markets and our customer and product mix. Beginning in fiscal year 2024, our new operating segments are Cloud & Networking and Industrial Tech. The Cloud & Networking segment includes the Telecom & Datacom product lines that were previously part of the OpComms segment. The Industrial Tech segment includes the previous Lasers segment and the Industrial & Consumer product lines that were previously part of the OpComms segment. The two operating segments were primarily determined based on how the CODM views and evaluates our operations. The CODM regularly reviews operating results to make decisions about resources to be allocated to the segments and to assess their performance.

In conjunction with this change, our CODM began to evaluate each segment’s performance and allocates resources based on segment revenue and segment profit, instead of gross profit, as our CODM believes segment profit is a more comprehensive profitability measure for each operating segment. Segment profit includes operating expenses directly managed by operating segments, including research and development, and direct sales and marketing expenses. Segment profit does not include stock-based compensation, acquisition or integration related costs, amortization and impairment of acquisition-related intangible assets, restructuring and related charges, and certain other charges. Additionally, we do not allocate certain marketing and general and administrative expenses, as these expenses are not directly attributable to our operating segments.

Comparative prior period segment information has been recast to conform to the new segment structure and segment profitability measure. The change in our operating segments had no impact on our previously reported consolidated results of operations, financial condition, or cash flows.

We do not track all of 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 17. Operating Segments and Geographic Information” to the consolidated financial statements.

Cloud & Networking

Markets

We maintain leading market positions in the fast-growing Cloud & Networking markets through our extensive product and technology portfolio and close relationships with a wide range of market leading customers. We provide a wide range of optical and photonic components, modules, and subsystems to support the high-speed transmission of data over high-capacity fiber optic links in cloud data center, AI/ML, enterprise and communications services networking applications. Customers include cloud and network service providers, AI infrastructure providers, and network equipment manufacturers (“NEMs”). Within cloud data center, AI/ML, and enterprise applications, our products are used in the high-speed interconnection of networked servers, AI accelerators, storage, and switches. Within communication service provider networking applications, our products are used in the infrastructure for high-capacity access (local), metro (intracity), long-haul (city-to-city and worldwide) and submarine (undersea) optical networks.

Customers

During fiscal 2024, 2023, and 2022, 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 29, 2024	**July 1, 2023**	**July 2, 2022**
Google	18.9 %	*	*
Apple	*	12.1 %	28.7 %
Ciena	11.4 %	15.3 %	12.6 %
Nokia	*	10.5 %	*
*Represents less than 10% of total net revenue			

Trends

The convergence of cloud computing and artificial intelligence (AI) is driving rapid innovation and expansion in optical hardware for hyperscale cloud operators. The immense computational demands of training and running AI models are driving a shift to high-speed photonics from traditional electrical interconnects. Additionally, the surging data traffic generated by video streaming, search engines, e-commerce, and other cloud services fuels the expansion of data center infrastructure.

Photonic solutions offer substantial advantages over electrical connections, including ultra-fast data transmission at higher volumes and reduced susceptibility to electromagnetic interference. As a result, high-speed photonics are increasingly deployed to alleviate data traffic bottlenecks, accelerating AI model training and enhancing high-performance computing (HPC) efficiency. To address these challenges, web-scale companies are investing heavily in optical hardware solutions, including high-speed optical transceivers.

A key innovation within data center photonics is the adoption of 200G lane speed optical components, which double data transfer rates compared to traditional 100G lanes. This advancement can significantly accelerate AI and HPC applications, optimizes the utilization of compute cluster hardware, and positions data centers for future scaling as AI demands intensify.

To enable seamless data exchange between geographically dispersed data center units, high-speed data center interconnects (DCIs) are being constructed. DCI technology optimizes resource utilization by allowing cloud data centers to leverage computing power across multiple locations.

The exponential growth of data across industries is driving the expansion of long-haul, metro, and access networks. Dense wavelength-division multiplexing (DWDM) technologies are being leveraged to increase data speeds while reducing costs. High-end networking equipment must now handle both legacy and internet protocol traffic while meeting stringent requirements for bandwidth, scalability, speed, reliability, compactness, and cost-effectiveness.

The dynamic and unpredictable nature of network traffic demands agile optical networks capable of adapting to changing conditions. Technologies like Reconfigurable Optical Add-Drop Multiplexers (ROADMs), wavelength-selective switches, and tunable transmission products facilitate remote capacity adjustments, reducing the need for manual interventions.

Furthermore, the widespread deployment of 5G mobile networks and bandwidth-intensive applications is increasing data speeds at the network edge. This development further accelerates the need for capacity expansion across data center interconnects, metro regional networks, and long-haul networks.

Overall, the convergence of cloud computing, AI, and surging data demands is revolutionizing high-speed optical technologies. These advancements increase demand for faster, more reliable, and scalable data transmission across data centers and networks.

Offerings

Lumentum is a leading provider of high-speed optical transceivers and optical components that underpin today's AI and cloud computing applications. Optical transceivers and data interconnect solutions are essential for connecting servers, switches, and routers within data centers. We also manufacture key components used in optical transceivers and data interconnect solutions, including high-speed laser transmitters, photonic integrated circuits, and photodiodes, high-power laser light sources, as well as VCSELs and VCSEL arrays for short-reach data transmission. In data center interconnects, Lumentum offers both its own coherent pluggable transceivers and the underlying ultra-narrow linewidth laser and coherent components used by transceiver customers.

Beyond standard offerings, we deliver customized solutions tailored to specific customer needs, such as high-power laser sources, compact laser arrays, and advanced packaging schemes like co-packaged optics and integrated photonics assemblies.

In metro and long-haul optical networks, Lumentum offers a comprehensive suite of coherent and direct detect optical transmission components and modules and optical transport solutions. Our tunable transceivers and transmitter modules and high-speed coherent components, are essential to dense wavelength division multiplexing (DWDM) systems, and maximize fiber capacity and minimize cost per bit.

For transport solutions, we provide ROADMs, optical amplifiers, and optical channel monitors to efficiently switch, route, and condition optical signals. Our product range also encompasses pumps for optical amplifiers and passive components like switches, attenuators, and wavelength-division multiplexers (WDMs). Our product portfolio extends beyond individual components to include modules, circuit packs, and subsystems for amplification, switching, and wavelength management.

Lumentum's commitment to innovation, particularly in photonic integration, drives the development of optical products that meet the evolving demands of data centers. Each product generation offers enhanced functionality, reduced size, lower power consumption, and improved cost-effectiveness. By providing a wide range of innovative optical solutions, from components to integrated modules and subsystems, we enable our customers to build the high-performance data center and communication networks of today and engineer those of the future.

Strategy

In our Cloud & Networking segment, we are focused on technology leadership through innovation in close partnership with our customers, cost leadership and functional and vertical integration. We endeavor to align the latest technologies with industry leading, scalable manufacturing and operations to make us a valuable business and technology partner for cloud data center and network operators, AI/ML infrastructure providers, and NEMs. We aim to drive the next phase of data center infrastructure and communication data network scaling with technologies and products that are faster, more energy efficient, more agile and more reliable.

Competition

We compete against various public and private companies providing optical communications components, modules, and systems. Some of these competitors are also our customers for certain of our products.

Industrial Tech

Markets

Within the industrial market, our diode lasers serve as pump sources for high-power fiber lasers used in metal fabrication and other demanding applications. Our ultrafast lasers cater to industries such as printed circuit board manufacturing, semiconductor processing, electric vehicle battery production, solar cell production, and flat panel display fabrication, where precise micromachining is essential.

In the consumer electronics sector, our laser light sources are integral components of 3D sensing cameras used in smartphones, computers, and other consumer electronics devices. These 3D sensing capabilities enable applications such as biometric identification, augmented and virtual reality, and computational photography. Beyond consumer electronics, our lasers power emerging technologies such as automotive LiDAR for advanced driver assistance systems and industrial robotics.

Customers

During fiscal 2024, 2023, and 2022, there were no Industrial Tech customers which represented 10% or more of our total net revenue.

Trends

The industrial laser market is driven by the relentless pursuit of precision and efficiency in material processing. Fiber lasers have surpassed CO2 lasers in sheet metal processing and welding due to their superior power, beam quality, power efficiency and cost-effectiveness. This technology empowers manufacturers across metal fabrication, automotive, and electronics to produce smaller, lighter, and more functional products from advanced materials.

The trend toward miniaturization necessitates precise micromachining with minimal heat impact. Solid-state and ultrafast lasers excel in these tasks, replacing traditional tools for processes like creating vias in circuit boards and singulating wafers. Ultrafast lasers, with their exceptionally short pulses, are particularly adept at the delicate and precise micromachining required in semiconductor, display, solar cell, and EV battery production.

In the consumer market, laser light sources are integral to 3D sensors used in mobile devices, gaming, payment systems, computers, and other consumer electronics. This technology enables real-time depth perception, transforming image capture and granting devices the ability to perceive the world in three dimensions. Applications span biometric identification, computational photography, virtual and augmented reality, and natural user interfaces. Furthermore, 3D sensing continues to find evolving applications in automotive autonomy and safety systems, industrial robotics, drones, and 3D object capture for imaging and printing.

Offerings

We also offer a comprehensive range of industrial lasers to address diverse manufacturing needs. Our fiber lasers deliver kilowatt-class output power and excellent beam quality, making them ideal for sheet metal processing and general manufacturing applications. Additionally, high-power, solid-state and ultrafast lasers are used by manufacturers for precision machining tasks like drilling in printed circuit boards, wafer singulation, glass cutting, and solar cell scribing. Increasing global demand for various offerings such as renewable energy, semiconductor products, consumer electronics, flat panel displays, LEDs, and connected devices drives the adoption of our laser products for these micromachining applications. Our 3D sensing products are primarily laser light sources, including higher performance VCSELs and VCSEL arrays.

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Strategy

In our Industrial Tech segment, we leverage our long-term relationships with OEM customers and our broad product and manufacturing technology portfolio to create innovative and valuable solutions that enable our customers to win in their markets. We also are expanding our addressable market and potential long-term growth opportunities by expanding into new markets that can benefit from our technologies, including photonic components and subsystems for industrial sensing applications.

Competition

We compete against various public and private companies in the industrial and consumer markets we serve.

Mergers and 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 through acquisitions as well as through organic initiatives.

On November 7, 2023, we completed the acquisition of Cloud Light (the “Cloud Light Closing Date”). Cloud Light designs, markets, and manufactures advanced optical modules for data center applications. The acquisition enables us to be well-positioned to serve the growing needs of Cloud & Networking customers, particularly those customers focused on optimizing their data center infrastructure for the demands of AI/ML. During fiscal 2023, we completed our acquisition of NeoPhotonics and IPG telecom transmission product lines. Refer to “Note 4. Business Combination” to the consolidated financial statements for additional information.

Research and Development

We devote substantial resources to research and development (“R&D”) for the development of new and enhanced products to serve our current markets and attractive new markets for our technology. We also expend significant engineering resources to enhance both product performance and our ability to manufacture products in greater volume and at lower cost.

In our Cloud & Networking segment, we are maintaining our capability to provide leading products throughout the network, while focusing on several important sub-segments. We are making significant investments in next generation optical components for cloud data center and AI/ML applications, including higher speed and higher optical power laser chips for use in high-speed datacom transceivers and data interconnection solutions. We are also investing in the development of new high-speed optical transceiver modules for use in cloud data center, AI/ML, and DCI applications. We continue to invest in research and development to develop innovative components and modules for telecommunications networks, such as higher capacity ROADMs and tunable laser and coherent components and transceiver modules needed for long-haul and metro applications. We are also responding to market needs for higher levels of integration, including the integration of optics, electronics and software in our modules, subsystems and circuit packs.

In our Industrial Tech segment, we continue to develop new solid-state, fiber, and ultrafast short pulse lasers, that leverage our technologies. These products are targeted at serving customers engaging in the semiconductor device, solar cell, display, and electric vehicle and battery manufacturing markets as well as broader materials processing and precision micromachining end-markets. We also continue to develop new and enhanced laser diode products with higher performance and efficiency at lower cost for the consumer, automotive, and industrial end-markets.

Manufacturing

We use a combination of our own wafer fabrication facilities, or wafer fabs, assembly and test facilities, as well as third-party contract manufacturers to produce our products. Our significant manufacturing facilities are located in the United States, Thailand, China, the United Kingdom, Slovenia, and Japan.

In fiscal 2023, we expanded our manufacturing footprint with the acquisitions of NeoPhotonics and the IPG telecom transmission product lines. In fiscal 2024, we acquired Cloud Light which further added manufacturing facilities in Asia. We have undertaken various initiatives to consolidate and restructure certain of our manufacturing and operational sites, particularly in light of efficiencies and synergies achievable from prior acquisitions, while also expanding overall manufacturing capacity for new and high growth product lines.

Our significant contract manufacturing partners are located primarily in Thailand, Taiwan, Malaysia and the Philippines. We rely on the capabilities of our contract manufacturers to plan and 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 manufacturing 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 alternate sources at acceptable prices and quality within a reasonable time, or at all, therefore, the risk of loss or interruption of such supply could impact our ability to deliver certain products on a timely basis. Risks associated with reliance on third parties for the timely and reliable delivery of raw materials are discussed in greater detail in Item 1A “Risk Factors” of this Annual Report.

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 29, 2024, we owned approximately 1,025 U.S. patents and 1,100 foreign patents with expiration dates through 2044 and had approximately 790 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 29, 2024 and July 1, 2023, our backlog was $420.7 million and $389.9 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 significant portion of our revenue arises from vendor-managed inventory (“VMI”) arrangements where the timing and volume of customer utilization is difficult to predict. Products that are shipped through VMI are not included in our reported backlog amounts above.

Human Capital Resources

As of June 29, 2024, we employed approximately 7,257 full-time employees, including approximately 5,248 employees in manufacturing, 1,256 employees in R&D and 753 employees in SG&A. Of the 7,257 employees, approximately 3.5% are represented by three national collective bargaining agreements with local chapters in Slovenia, Italy and Brazil and three labor unions in China. One of the collective bargaining agreements will be subject to renewal in December 2025. We believe that our relations with both our union and non-union employees are in good standing.

We believe that the future performance of our Company relies upon the strength of our employees, and our ability to recruit, retain, develop and motivate the services of executive, engineering, sales and marketing, and support personnel is critical to our success. We strive to meet these objectives by offering competitive pay and benefits in a diverse, inclusive and safe workplace and by providing opportunities for our employees to grow and develop their careers.

Competitive Pay and Benefits

We provide compensation and benefits packages that we believe are competitive within the applicable market. We use a combination of compensation and other programs (which vary by region and salary grade) to attract, motivate and retain our employees, including semi-annual or annual performance bonuses, stock awards, an employee stock purchase plan, health savings and flexible spending accounts, paid time off, family leave, tuition assistance programs, health and wellness benefits and programs, and on-site fitness centers. We review our benefits packages annually, or more frequently as needed, to ensure we remain competitive with our peers and continue to attract and retain talent throughout our organization.

Employee Recruitment, Retention and Development

We are committed to recruiting, hiring, retaining, promoting and engaging a diverse workforce to best serve our global customers. We have established relationships with professional associations and industry groups to proactively attract talent, and we partner with universities for our internship program. We believe that our commitment to our internship program and university partnerships contributes to developing the next generation of talent and provides a pipeline of recent college graduates into our talent pool.

Diversity, Inclusion & Belonging

Lumentum is committed to creating a diverse and inclusive workplace that includes employees with diverse backgrounds and experiences and believes employee and thought diversity delivers more innovation and ultimately better business results. As part of our efforts to continue to ensure Lumentum's practices support a culture of diversity we are committed to ensuring pay equity as a standard global practice, increasing the representation of underrepresented populations, increasing the percentage of women in all leadership positions, and developing a pipeline of future leaders through our early career hire initiatives for new employees. Our commitment and implementation of these practices also supports compliance with applicable laws and our business development efforts as many of our large customers have specific requirements for their suppliers in these areas relating to our workforce, responsible governance and ethical business practices. Helping to advance some of these efforts, Lumentum's Diversity, Inclusion, and Belonging Council is comprised of global representation from all of our business and functional organizations and our employee resource groups support women in North America, Switzerland, Slovenia, UK, Italy, and Japan, early career hires in North America and EMEA, Black, Asian American and Pacific Islander, LatinX in North America, LGBTQIA+, Persons with Disabilities, Working Parents, and our Veteran employees.

Material Government Regulations

Our business activities are international and subject us to various federal, state, local and foreign laws in the countries in which we operate, and our products and services are subject to certain laws and regulations affecting the sale of our products.

Environment

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.

Global Trade and Export Controls

As our business operates in many global jurisdictions, the import and export of our products and services are subject to laws and regulations including international treaties, U.S. export controls and sanctions laws, customs regulations, and local trade rules around the world which vary widely across different countries and may change from time-to-time. Such laws, rules and regulations may delay the introduction of some of our products or impact our competitiveness through restricting our ability to do business in certain places or with certain entities and individuals, or by requiring us to comply with laws concerning transfer and disclosure of sensitive or controlled technology. For example, the U.S. and other governments have imposed restrictions on the import and export of, among other things, certain telecommunications products and components. The consequences of any failure to comply with domestic and foreign trade regulations and export controls could limit our ability to conduct business in certain areas or with certain customers.

For additional information concerning regulatory compliance and a discussion of the risks associated with governmental regulations that may materially impact us, refer to Item 1A "Risk Factors" of this Annual Report.

International Operations

During fiscal 2024, 2023 and 2022, net revenue from customers outside the United States based on the geographic region and country where our product is initially shipped represented 73.8%, 86.3% and 89.8% of net revenue, respectively. Frequently, customers request shipment of our products to their factories, contract manufacturer factories, or other locations in countries that differ from their headquarter location. 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 described above. Refer to "Note 17. Operating Segments and Geographic Information" to the consolidated financial statements. For information regarding risks associated with our international operations, refer to Item 1A "Risk Factors" of this Annual Report.

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

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this Annual Report on Form 10-K, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes, before making a decision to invest in our common stock. Our business, financial condition, results of operations or prospects could also be harmed by risks and uncertainties not currently known to us or that we currently do not believe are material. If any of the risks actually occur, our business, financial condition, results of operations and prospects could be adversely affected. In that event, the market price of our common stock could decline, and you could lose part or all of your investment.

Risk Factor Summary

Our business operations are subject to numerous risks, factors and uncertainties, including those outside of our control, which could cause our actual results to be harmed, including risks regarding the following:

Risks Related to our Business

- unfavorable economic and market conditions;
- our reliance on a limited number of suppliers and customers;
- order cancellations, reductions or delays in delivery schedules by our customers or distributors;
- failure of banking institutions and liquidity concerns at other financial institutions;
- our backlog may not be an accurate indicator of our level and timing of future revenue;
- our gross margins and operating margins may vary overtime;
- challenges relating to supply chain constraints;
- changes in technology and intense competition;
- our ability to sell to a significant customer, as well as tariffs and other trade and export restrictions between the U.S. and China;
- the impact of a widespread health crisis;
- our international operations structure;

- volatility and maintenance of our real property portfolio;
- our ability to timely procure components needed to manufacture our products;
- our ability to manufacture our products;
- our leverage in negotiations with large customers;
- design and manufacturing defects or quality issues in our products;
- changes in laws and the adoption and interpretation of administrative rules and regulations, including U.S. and international customs and export regulations;
- our strategic transactions and implementation strategy for our acquisitions, including the recently completed acquisition of Cloud Light;
- restructuring and related charges;
- changes in spending levels, demand and customer requirements for our products;
- changes in tax laws;
- fluctuations in foreign currency;
- our future capital requirements;
- actual or perceived security or privacy breaches or incidents, as well as defects, errors or vulnerabilities in our technology and that of third-party providers;
- the unpredictability of our results of operations;
- our ability to protect our product and proprietary rights;
- factors relating to our intellectual property rights as well as the intellectual property rights of others; and
- litigation risks, including intellectual property litigation;
- our reliance on licensed third-party technology; and
- our ability to maintain an effective system of disclosure controls and internal control over financial reporting

Risks Related to Human Capital

- our ability to hire and retain key personnel
- the effects of immigration policy on our ability to hire and retain employees; and
- employment related disputes and claims

Risks Related to Legal, Regulatory and Compliance

- our ability to obtain government authorization to export our products; and
- changes in social and environmental responsibility regulations, policies and provisions, as well as customer and investor demands

Risks Related to Our Common Stock

- the volatility of the trading price of our common stock;
- our ability to service our current and future debt;
- dilution related to our convertible notes;
- our intention not to pay dividends for the foreseeable future;
- provisions of Delaware law and our certificate of incorporation and bylaws that may make a merger, tender offer or proxy contest difficult; and

- exclusive forum provisions in our bylaws

Risks Related to Our Business

Our operating results may be adversely affected by unfavorable changes in macroeconomics and market conditions and the uncertain geopolitical environment.

Our business and operating results depend significantly on general market and economic conditions. The current global macroeconomic environment is volatile and continues to be significantly and adversely impacted by inflation and a dynamic demand environment. Additionally, instability in the global credit markets, the impact of uncertainty regarding inflation, banking instability, capital expenditure reductions, unemployment, stock market volatility, the instability in the geopolitical environment in many parts of the world (including as a result of the on-going Russia-Ukraine war, Israel-Hamas war, and China-Taiwan relations), the current economic challenges in China, including global economic ramifications of Chinese economic difficulties, and other disruptions may continue to put pressure on global economic conditions. Further, conditions in the global economy have an inherent degree of uncertainty. As a result, it is difficult to estimate the level of growth or contraction of the global economy as a whole. It is even more difficult to estimate growth or contraction in various parts, sectors, and regions of the economy, including the markets in which we participate. All aspects of our forecasts depend on estimates of growth or contraction in the markets we serve.

Adverse changes to and uncertainty in the global economy has affected industries in which our customers operate and has resulted in decreases in the rate of demand, consumption or use of certain of our customers' products which, in turn, has resulted in, and may continue to result in decreased demand for our products, revenue fluctuations, increased price competition for our products, and increased the risk of excess and obsolete inventories as well as higher overhead costs as a percentage of revenue. Additionally, customers who had built up large inventories when supply chains were tight are now bringing down inventories as supply constraints are easing and in some cases these customers have delayed projected shipments. These losses or delays of orders have harmed our revenue and profitability and future losses or delays may further harm our results of operations. 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. Further, supply chain disruptions have led and may continue to lead to increased costs and have harmed and may continue to harm our ability to meet customer demand, adversely affecting our revenue and profitability. If global economic and market conditions, or economic conditions in key markets, remain uncertain or deteriorate further, our prospects for growth may be negatively impacted, and we may experience material and adverse impacts on our business, operating results, and financial condition.

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. We do not have a guarantee of supply from these suppliers and as a result, there is no assurance that we would be able to secure the equipment or components that we require, in sufficient quantity, quality and on reasonable terms. Our business and results of operations have been, and could continue to be, adversely affected by this dependency. Alternative sources to mitigate the risk that the failure of any sole supplier will adversely affect our business are not feasible in all circumstances. If we were to lose any one of these or other critical sources, or there is as an industry-wide increase in demand for, or the discontinuation of, raw materials used in our products, it could be difficult for us, or we may be unable, to find an alternative supplier or raw material, in which case our operations could be adversely affected.

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. Furthermore, the COVID-19 pandemic and related supply chain disruptions and labor market constraints have created heightened risk that sole suppliers or limited number of suppliers may be unable to meet their obligations to us. Difficulties in obtaining the materials, or services used in the conduct of our business or additional fees or higher prices to do so, have adversely affected our revenue and results of operations, and further challenges or decisions to seek alternate suppliers to secure supply in order to meet demand would increase our costs and reduce our profitability.

Our financial results may be adversely affected due to changes in product demand impacted by recessions, increases in interest rates, stagflation and other economic conditions.

Customer demand for our products may be impacted by weak economic conditions, inflation, stagflation, recessionary or lower-growth environments, rising interest rates, tightening credit markets, equity market volatility or other negative economic factors in the U.S. or other countries. For example, under these conditions or expectation of such conditions, our customers may cancel orders, delay purchasing decisions or reduce their use of our services. In addition, these economic conditions could result in higher inventory levels and the possibility of resulting excess capacity charges from our contract manufacturers if we need to slow production to reduce inventory levels. Further, in the event of a recession or threat of a recession our contract manufacturers, suppliers and other third-party partners may suffer their own financial and economic challenges and as a result they may demand pricing accommodations, delay payment, or become insolvent, which could harm our ability to meet our customer demands or collect revenue or otherwise could harm our business. Similarly, disruptions in financial and/or credit markets may impact our ability to manage normal commercial relationships with our contract manufacturers, customers, suppliers and creditors and could cause us to not be able to continue to access preferred sources of liquidity when we would like, and our borrowing costs could increase. Thus, if the current economic conditions continue to deteriorate or experience a sustained period of weakness or slower growth, our business and financial results could be materially and adversely affected.

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

In August 2020, the Bureau of Industry and Security of the U.S. Department of Commerce (“BIS”) issued final rules that further restricted access by Huawei Technologies Co. Ltd. (“Huawei”) to items produced domestically and abroad from U.S. technology and software. The final rules prevent us from selling certain products subject to the Export Administration Regulations (“EAR”) to identified Huawei entities without a license issued by BIS. Further, even if there are products unaffected by the rule or for which we are able to obtain an export license, Huawei may not be able to source products from other suppliers due to the final rules, which could impact Huawei’s demand for our products. We are dependent upon our ability to obtain export licenses or use exceptions to export license requirements, from U.S. and other foreign regulatory agencies. In certain cases, the exceptions are technical and fact specific and may be open to interpretation. There is no assurance that we will be issued these licenses or be able to make use of these exceptions, and failure to obtain such licenses or exceptions could limit our ability to sell our products into certain countries and negatively impact our business, financial condition and operating results. We have submitted voluntary disclosures to BIS regarding certain product shipments we made to Huawei following the adoption of the final rules. While we have received requests for additional information in this matter, we have not yet received any determinations from BIS. In the event that we are found to have violated the EAR, even inadvertently, we may be subject to significant monetary and non-monetary penalties, criminal proceedings or a denial of export privileges.

Under the current regulatory regime, our business with Huawei has been significantly more limited than it was in the past, and is now completely restricted. For example, we are currently unable to supply any products and may be limited or unable to work with Huawei on future product developments while Huawei remains on the Entity List, which has negatively impacted our revenue from Huawei and has negatively impacted 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.

We cannot be certain what additional actions the U.S. government may take with respect to Huawei or other entities in China or other countries, including additional changes to the Entity List restrictions, export regulations, tariffs or other trade restrictions. We are unable to predict the duration and scope of the restrictions enacted in May 2019 and thereafter, including the 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 also 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. BIS has continued to add other China-based technology companies to the Entity List, including those tied to super computing and artificial intelligence, further expanding the scope of companies subject to trade and export restrictions. In addition, various other U.S. agencies have implemented and are considering additional changes to regulations to increase controls over advanced computing chips/computers and related technologies. Any further limitation that impedes our ability to export or sell our products and services could materially adversely affect our business, results of operations, financial condition and cash flows.

We also manufactured customized products for Huawei, and therefore have been unable to sell certain finished goods inventory to alternative customers or may be unable to utilize such manufacturing capabilities for products for alternative customers. In addition, we sold various non-customized products to Huawei in which Huawei represents a significant portion of the related products’ demand. We have taken charges for common components which became excess as a result of the inability to sell to Huawei. Additional charges may also occur with respect to customized products that we manufacture for other customers in the event that such customers were to be added to the Entity List or otherwise if our ability to sell to such customers were restricted. We believe this trade and export uncertainty has caused and may in the future cause delays or cancellations, which could adversely affect our business, financial conditions and operating results. For example, in December 2023, we were notified by certain critical IC suppliers that service the industry broadly that their products do not comply with the latest export regulations. Consequently, we stopped all of our product shipments to Huawei, our historically largest networking customer in China in the beginning of calendar year 2024. We expect the export restrictions related to Huawei will continue, and we may be subject to additional export restrictions that may adversely impact our business.

Inflation and increased borrowing costs could impact our cash flows and profitability.

Prolonged periods of inflation may continue to adversely affect our business, results of operations, financial condition and liquidity by increasing our overall cost structure, particularly if we are unable to achieve commensurate increases in the prices we charge our customers. Inflation has resulted in and may continue to result in higher interest rates and capital costs, supply shortages, increased costs of labor and other similar effects. As a result of inflation, we are subject to risk from increasing market prices of certain components, supplies, and raw materials, which are incorporated into our products or used by our manufacturing partners or suppliers to manufacture our products. These components, supplies and commodities have from time-to-time become restricted, or general market factors and conditions have affected pricing of such components, supplies and raw materials (such as inflation or supply chain constraints), and future restrictions or market conditions impacting pricing may adversely affect our business and results of operations. In addition, higher interest rates and tightening credit markets may impact our customers and partners and their ability to purchase products or pay in a timely manner may be adversely impacted.

Unstable market and economic conditions and adverse developments with respect to financial institutions and associated liquidity risk may have serious adverse consequences on our business and financial condition.

Disruptions in access to bank deposits or lending commitments due to bank failures could materially and adversely affect our liquidity, our business and financial condition. Even with our continued effort to mitigate counterparty risk by working with highly liquid, well capitalized counterparties, the failure of any bank in which we deposit our funds could reduce the amount of cash we have available for our operations or delay our ability to access such funds. Any such failure may increase the possibility of a sustained deterioration of financial market liquidity. The value of our investment portfolio could also be impacted if we hold debt instruments which were issued by any institutions that fail or become illiquid. Our ability to obtain raw materials for our supply chain and collections of cash from sales may be unduly impacted if any of our vendors or customers are affected by illiquidity events.

Our backlog may not be an accurate indicator of our level and timing of future revenues.

Our backlog may not be a reliable indicator of future operating results. As customer buying patterns normalize, order growth moderates, and supply chain conditions improve, we expect our backlog to reduce to a level generally in line with historical levels. Further, customer behaviors have been changing as a result of worldwide macroeconomic factors, which has reduced demand and may continue to reduce demand for certain of our products and services. If we are not able to respond to and manage the impact of these supply challenges and behavioral changes effectively, or if general macroeconomic conditions or conditions in the industries in which we operate deteriorate, our business, operating results, financial condition, and cash flows could be adversely affected.

We expect our gross margins and operating margins to vary over time.

Our gross margins, operating margins and segment profit are expected to vary, and may be adversely affected in the future by numerous factors, including, but not limited to:

- an increase or decrease in demand of our products;
- changes in product mix;
- increased price competition in one or more of the markets in which we compete;
- modifications to our pricing strategy to gain or retain footprint in markets or with customers;
- currency fluctuations that impact our costs or the cost of our products to our customers;
- inflation;
- increases in material, labor, manufacturing, logistics, warranty costs, or inventory carrying costs;
- issues with manufacturing or component availability;
- issues relating to the distribution of our products, quality or efficiencies;

- increased costs due to changes in component pricing or charges incurred due to the inaccurately forecasting product demand or underutilization of manufacturing capacity;
- warranty related issues;
- factors beyond our control such as natural disasters, climate change, acts of war or terrorism, and public health emergencies;
- changing market, economic, and political conditions, including the impact of tariffs and other trade restrictions, regulatory restrictions on imports or exports or efforts to withdraw from or materially modify international trade agreements, or
- our introduction of new products and enhancements, or entry into new markets with different pricing and cost structures.

We have also seen, and may continue to see, our gross margins negatively impacted by increases in component costs, logistics costs, elevated inventory balances, and pricing pressure. Failure to sustain or improve our gross margins reduces our profitability and may materially and adversely affect our business, financial condition and results of operations.

Challenges relating to supply chain constraints, including semiconductor components, could adversely impact our business, results of operations and financial condition.

Due to increased demand across a range of industries, our business and customers' businesses have experienced and could experience supply constraints due to both constrained manufacturing capacity, as well as component parts shortages. These supply constraints have adversely affected and could further affect availability, lead-times and cost of components, and could increase the likelihood of unexpected cancellations or delays of previously committed supply of key components. These challenges have resulted in extended lead-times to our customers and have had a negative impact on our ability to recognize associated revenue and have resulted in and may continue to result in an increase in accelerated ordering for certain of our products. As a result of accelerated ordering, our customers have had inventory backlog that they are now managing down, resulting in reduced ordering as compared to recent levels. Ordering patterns may be difficult to predict and we have experienced and may continue to experience negative impacts to our revenue and profitability as well as our ability to achieve our forecasts.

We continue to work with our suppliers to ensure that we are able to continue manufacturing and distributing our products, and in the quantities requested by our customers. 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. Limits on manufacturing availability or capacity or delays in production or delivery of components or raw materials could delay or inhibit our ability to obtain supply of components and produce finished goods inventory, and there can be no assurance that the supply chain impacts will not reoccur in the future. These supply chain constraints and their related challenges could result in shortages, increased material costs or use of cash, engineering design changes, and delays in new product introductions, each of which could adversely impact our business, results of operations and financial condition.

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 and enhancements, 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 and we expect that these historical trends will continue. 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. 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. Future demand for our products is uncertain and will primarily depend on continued technological development and the introduction of new or enhanced products.

If this does not continue, sales of our products may decline which could adversely impact our business, results of operations and financial condition.

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 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 that enable us to increase revenues while maintaining consistent margins, 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 imaging and 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 financial performance in certain business lines and growth prospects will continue to depend in part 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. Therefore, these customers may alter their purchasing behavior with little or no notice to us for various reasons, including developing, or, in the case of our distributors, their customers developing, their own product solutions; choosing to purchase or distribute product from our competitors; incorrectly forecasting end market demand for their products; or experiencing a reduction in their market share in the markets for which they purchase our products. Additionally, increased inventory at our customers has impacted our revenue, as our customers have decided to lower their inventory levels and these impacts are expected to continue in the near term and in future periods. As a result, it is difficult to forecast our revenues and to determine the appropriate levels of inventory required to meet future demand. For example, we have from time-to-time experienced excess and obsolete charges due to customer transitions to the next generation of products. We may also experience increased inventory levels and increased carrying costs and risk of excess or obsolete inventory due to unanticipated reductions in purchases by our customers. In addition, 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, or may experience financial difficulty which affects their ability to pay for products, particularly in light of the global macroeconomic uncertainty, and have done so from time-to-time, and the impact of any such actions may be intensified given our dependence on a limited number of large customers. We cannot accurately predict what or how many products our customers will need in the future. Anticipating demand is difficult because our customers face unpredictable demand for their own products and in recent periods have become increasingly focused on cash preservation and tighter inventory management.

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, have led to decreased sales to such customers or delays or cancellations of planned purchases of our products or services, which has unfavorably impacted our revenues and operating results, and may continue to impact our business and results of operations. We may also experience pricing pressure with certain of our customers that may adversely affect our revenue and margins, or, if the ongoing relationship no longer benefits us, we may decide to suspend or terminate our relationship with such customers. There are also continuing trade tensions, including an uncertain regulatory environment, in the U.S. and countries in Asia, and in particular, China, which have impacted and could continue to 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 and incur charges for such underutilization, 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.

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

The end markets for optical products have experienced significant industry consolidation during the past few years. We expect this trend to continue as companies attempt to strengthen or hold their market positions in an evolving industry and as companies are acquired or are unable to continue operations. As a result, the markets for optical subsystems, components and laser diodes are highly competitive and the intensity of such competition is increasing. 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. As we expand into new markets, we face competition not only from our existing competitors, but also from new competitors, including existing companies with strong technological and sales positions in those markets. We may not be able to compete successfully against either current or future competitors, particularly, in light of increasing consolidation. 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. These competitors may be able to devote greater resources than we can to the development, promotion, sale and support of their products. Additionally, the merger or consolidation of significant competitors have resulted in, and will likely result in, competitors with greater resources, which may enable them 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. Further, our competitors may seek to vertically integrate by buying suppliers that also supply products or components to us, which could enable them to further reduce prices, or could increase our costs. Our current or potential customers may also determine to develop and produce products for their own use which may be competitive to our products. Such vertical integration could reduce the market opportunity for our products. 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.

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:

- adverse social, political and economic conditions, such as inflation, rising interest rates and risk of global or regional recession;
- effects of adverse changes in currency rates;
- impacts related to business disruptions and restrictions related to pandemics and endemics, such as COVID-19, including supply chain disruptions and labor shortages and differential impacts in different regions and geographies;
- changes in general IT spending;
- less effective protection of intellectual property;
- 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 (See Risk Factor entitled "Our ability to sell our products to a significant customer has been restricted"); the restrictions in China on the export of gallium and germanium; and increased tariffs on various products that have been proposed and implemented 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, and our customers demand for our products could be impacted by their inability to obtain other materials subject to sanctions. For example, sanctions on sales to certain parties of U.S. semiconductors and semiconductor equipment has caused a delay in 5G deployment in China while the affected companies seek alternative solutions, which has reduced the demand for our products from some of our Chinese

customers;

- varying and potentially conflicting laws and regulations;
- overlapping, differing or more burdensome tax structure and laws;
- markets for 5G infrastructure not developing in the manner or in the time periods we anticipate, including as a result of unfavorable developments with evolving laws and regulations worldwide;
- wage inflation or a tightening of the labor market;
- the impact of recessions and other economic conditions in economies outside the United States, including, for example, dips in the manufacturing Purchasing Managers Index as well as the Institute for Supply Management data in the Eurozone;
- tax and customs changes that adversely impact our global sourcing strategy, manufacturing practices, transfer-pricing, or competitiveness of our products for global sales;
- volatility in oil prices and increased costs, or limited supply of other natural resources;
- political developments, geopolitical unrest or other conflicts in foreign nations, including Brexit, the Russia-Ukraine war, the Israel-Hamas war and political developments in Hong Kong and Taiwan and the potential impact such developments or further actions could have on our customers in the markets in which we operate; and
- the impact of the following on service provider and government spending patterns as well as our contract and internal manufacturing: political considerations, changes in or delays in government budgeting processes, unfavorable changes in tax treaties or laws, unfavorable events that affect foreign currencies on an absolute or relative basis, 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. 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 U.S. 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.

Like most other multinational companies, we are also highly dependent upon the ability to ship products to customers and to receive shipments from our suppliers. In the event of a disruption in the worldwide or regional shipping infrastructure, our access to supplies and our ability to deliver products to customers would correspondingly be negatively impacted. As a result of shipping disruptions, we have experienced among other things, increased costs to ship products and delays in receiving components and any disruption in the future would likely materially and adversely affect our operating results and financial condition.

In addition to the above risks related to our international operations, we also face risks related to pandemics and epidemics. 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.

In the past, these and similar risks have disrupted our operations and the operations of our suppliers, customers and contract manufacturers and increased our costs, and we expect that they may do so in the future. Any or all of these factors could have a material and adverse impact on our business, financial condition, and results of operations.

We are subject to the risks of owning real property.

Our buildings subject us to the risks of owning real property, which include, but are not limited to:

- adverse changes in the value of these properties due to economic conditions, the movement by many companies to a hybrid work environment, interest rate changes, changes in the neighborhood in which the property is located, or other factors;
- the possible need for structural improvements in order to comply with zoning, seismic and other legal or regulatory requirements;
- the potential disruption of our business and operations arising from or connected with a relocation due to moving or to renovating the facility;
- increased cash commitments for improvements to the buildings or the property, or both;
- increased operating expenses for the buildings or the property, or both; and
- the risk of financial loss in excess of amounts covered by insurance, or uninsured risks, such as the loss caused by damage to the buildings as a result of earthquakes, floods and/or other natural disasters.

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, United Kingdom, 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 social, geopolitical, environmental or health factors, damage caused by natural disasters, or other problems or events beyond our control, including pandemics or widespread health epidemics, 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 business and operations would be severely impacted if there were any future widespread health crisis or related restrictions imposed by governments or private industry in regions we operate.

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. There are a number of risks associated with our reliance on contract manufacturers including:

- reduced control over delivery schedules and planning;
- availability of manufacturing capability and capacity, particularly during periods of high demand;
- reliance on the quality assurance procedures of third parties;
- risks associated with data security breaches or cyber-attacks targeting our contract manufacturers, including manufacturing disruptions or unauthorized access to information; and
- potential misappropriation of our intellectual property.

Additionally, if operations at these contract manufacturers are adversely impacted, such as by natural disasters, or restrictions due to the impact of a widespread health crisis disruptions or any resulting economic impact to their business, this would likely materially impact our financial condition and results of operations. Our ability to control the quality of products produced by contract manufacturers has and may in the future be impaired by pandemics or widespread health epidemics disruptions, and quality issues might not be resolved in a timely manner. Additionally, if our contract manufacturers continue experiencing disruptions or discontinue operations, we may be required to identify and qualify alternative manufacturers, which is expensive and time consuming. If we are required to change or qualify a new contract manufacturer, this would likely cause business disruptions and adversely affect our results of operations and could harm our existing customer relationships.

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.

Our manufacturing operations and those of our contract manufacturers may be affected by natural disasters such as earthquakes, typhoons, tsunamis, fires and public health crises, including global pandemics, 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 one of our former contract manufacturers experienced a labor strike 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. We are heavily dependent on a small number of manufacturing sites. Our business and operations would be severely impacted by any significant business disruptions for which we may not receive adequate recovery from insurance. There is also an increased focus on corporate social and environmental responsibility in our industry. As a result, a number of our customers may adopt policies that include social and environmental responsibility provisions that their suppliers should comply with. These provisions may be difficult and expensive to comply with, given the complexity of our supply chain. We may be unable to cause our suppliers or contract manufacturers to comply with these provisions which may adversely affect our relationships with customers.

In addition, for a variety of reasons, including changes in circumstances at our contract manufacturers, restrictions or inability to operate, 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. 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 supply chain 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. We may also incur charges if we do not utilize our allocated manufacturing capacity which would increase our costs and decrease our margins. 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.

Further, certain of our suppliers 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 suppliers 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. In addition, many of our products are sourced from suppliers based outside of the United States, primarily in Asia. We may continue to face uncertainty with respect to our suppliers' abilities to supply products due to supply chain and inventory impacts, tax and trade policies, tariffs and government regulations affecting trade between the United States and other countries. Major developments in tax policy or trade relations, such as the imposition of tariffs on imported products, for example, tariffs on the import of certain products manufactured in China, 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. Any such developments could have a material impact on our ability to meet our customers' expectations and may materially impact our operating results and financial condition.

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 reputation, operating results, and customer relationships.

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 and quality issues are 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, which may contain defects. 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 manufacturing resources, and cause significant customer relation problems or loss of customers, or risk exposure to product liability suits, all of which would harm our business. Additionally, changes in our or our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a material and adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve and maintain our projected yields or product reliability, our business, operating results, financial condition and customer relationships would be adversely affected.

Adverse changes in political, regulatory and economic policies, including 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.

Regulatory activity, such as tariffs, export controls, and economic sanctions laws have in the past and may continue to materially limit our ability to make sales to customers in China, which has in the past and may continue to harm our results of operations and financial condition. Since the beginning of 2018, there has been 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. Adverse regulatory activity, such as export controls, economic sanctions and 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. Moreover, to the extent the governments of China, the United States or other countries seek to promote use of domestically produced products or to reduce the dependence upon or use of products from another (sometimes referred to as "decoupling"), they may adopt or apply regulations or policies that have the effect of reducing business opportunities for us. Such actions may take the form of specific restrictions on particular customers, products, technology areas, or business combinations. For example, in the area of investments and mergers and acquisitions, the United States has recently announced new requirements for approval by the United States government of outbound investments; and the approval by China regulatory authorities is required for business combinations of companies that conduct business in China over specific thresholds, regardless of where those businesses are based. Restrictions may also be imposed based on whether the supplier is considered unreliable or a security risk. For example, the Chinese government adopted a law that would restrict purchases from suppliers deemed to be "unreliable suppliers". In May 2023, the Cyberspace Administration of China banned the sale of Micron's products to certain entities in China and stated that such products pose significant security risks to China's critical information infrastructure supply chain and national security. Furthermore, imposition of tariffs or new or revised export, import or doing-business regulations, including trade sanctions, could cause a decrease in the demand for, or sales of our products to customers located in China or other customers selling to Chinese end users or increase the cost for our products, which would directly impact our business and results of operations.

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

We expect to continue to expand and diversify our operations with additional acquisitions and strategic transactions, such as our acquisitions of Cloud Light, NeoPhotonics and the IPG telecom transmission product lines, as well as acquisitions of complementary technologies, products, assets and businesses. We may be unable to identify or complete prospective acquisitions for many reasons, including competition from other potential acquirers, the effects of consolidation in our industries and potentially high valuations of acquisition candidates. Even if we do identify acquisitions or enter into agreements with respect to such acquisitions, we may not be able to complete the acquisition due to regulatory requirements or restrictions, competition, or other reasons, as occurred with the termination of our merger agreement with Coherent in March 2021. In addition, applicable antitrust laws and other regulations may limit our ability to acquire targets or force us to divest all or a portion of our business or 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, or fees that may be triggered upon a failure to consummate an acquisition or transaction for certain reasons;
- the inability to retain and obtain required regulatory approvals, licenses and permits;
- loss of employees, customers, suppliers or partners due to uncertainty of a transaction; and
- failure to consummate an acquisition resulting in negative publicity and/or negative impression of us in the investment community that could impact on our stock price

We have also faced litigation in connection with acquisitions, some of which continues following the consummation of the acquisition. Such litigation may be costly and diverts management time and attention.

We have in the past, and may in the future, divest or reduce our investment in certain businesses or product lines from time-to-time. Such divestitures involve risks, such as difficulty separating portions from our other 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, such as our acquisitions of Cloud Light, NeoPhotonics and the IPG telecom transmission product lines, we may be unsuccessful in implementing our acquisitions strategy, or integrating acquired companies, businesses or product lines and personnel with existing operations, the integration may be more difficult or more costly than anticipated, or the transaction may not further our business strategy as we expected or we may overpay for, or otherwise not realize the expected return on, our investment. Some of the challenges involved integrating businesses and acquisitions include:

- difficulty preserving relationships with customers, suppliers or partners;
- potential difficulties in completing projects associated with in-process R&D;
- unanticipated liabilities or our exposure for known contingencies and liabilities may exceed our estimates;
- insufficient net revenue or unexpected expenses that negatively impact our margins and profitability;
- unexpected losses of key employees of the acquired company, inability to attract, recruit, retain, and motivate current and prospective employees or inability to maintain our company culture;

- unexpected expenses for cost of litigation against us or our directors and officers, or against the acquired company;
- 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, including administrative functions, finance and human resources;
- increasing the scope, geographic diversity and complexity of our operations;
- difficulties in integrating operations across different cultures and languages and to address the particular economic, currency, political, and regulatory risks associated with specific countries;
- difficulties in integrating acquired technology;
- difficulties in coordinating and integrating geographically separated personnel, organizations, systems and facilities;
- difficulty managing customer transitions or entering into new markets;
- difficulties in consolidating facilities and transferring processes and know-how;
- diversion of management's attention from other business concerns;
- temporary loss of productivity or operational efficiency;
- dilution of our current stockholders as a result of any issuance of equity securities as acquisition consideration;
- adverse tax or accounting impact;
- expenditure of cash that would otherwise be available to operate our business; and
- 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 manufacturing, 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.

Restructuring activities could disrupt our business and affect our results of operations.

We have taken steps, including implementing reductions in force and internal reorganizations to reduce the cost of our operations, improve efficiencies, or realign our organization and staffing to better match our market opportunities and our technology development initiatives. We may take similar steps in the future as we seek to realize operating synergies, to achieve our target operating model and profitability objectives, or to reflect more closely changes in the strategic direction of our business or the evolution of our site strategy and workplace. These changes could be disruptive to our business, including our research and development efforts, and may result in the recording of special charges, including workforce reduction or restructuring costs. Substantial expense or charges resulting from restructuring activities could adversely affect our results of operations and use of cash in those periods in which we undertake such actions.

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

During fiscal 2023, the Company completed an international restructuring that included the intra-entity transfer of certain intellectual property and other assets used in the business among various subsidiaries. This structure may be challenged by tax authorities, and if such challenges are successful, the tax consequence we expect to realize could be adversely impacted. If substantial modifications to our international structure or the way we operate our business are made, such as if future acquisitions or divestitures occur, if changes in domestic and international tax laws negatively impact the structure, if we do not operate our business consistent with the structure and applicable tax provisions, if we fail to achieve our revenue and profit goals, or if the international structure or our application of arm's-length principles to intercompany arrangements is successfully challenged by the U.S. or foreign tax authorities, our effective tax rate may increase, which could have a material adverse effect on 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 August 2022, President Biden signed into law the Inflation Reduction Act of 2022 (the "IRA") and the CHIPS and Science Act of 2022. These laws introduce new tax provisions and provide for various incentives and tax credits. The IRA applies to tax years beginning after December 31, 2022 and introduces a 15% corporate alternative minimum tax and a 1% excise tax on certain stock repurchases made by publicly traded U.S. corporations. While we are not currently expecting a material impact to our provision for income taxes by the 15% corporate alternative minimum tax under the IRA, it could materially affect our financial results, including our earnings and cash flow, if we become subject to this tax in the future.

Many countries, and organizations such as the Organization for Economic Cooperation and Development (the "OECD") have proposed implementing changes to existing tax laws, including a proposed global minimum tax of 15%, also known as Pillar Two, which was agreed to by more than 140 member jurisdictions in 2021 and adopted by European Union member states on December 12, 2022 to go into effect starting in 2024. Many countries have made changes to their tax laws to adopt certain parts of the OECD's proposals. To the extent legislation has been enacted, Pillar Two will be effective for us in fiscal 2025. Any of these developments or changes in federal, state, or international tax laws or tax rulings could adversely affect our effective tax rate and our operating results. There can be no assurance that our effective tax rates, tax payments, or incentives will not be adversely affected by these or other developments or changes in law.

Other countries also continue to enact and consider enacting new laws, which could increase our tax obligations, cause us to change the way we do business or our operations or otherwise 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.

Our subsidiary in Thailand has been granted certain tax holidays by the Thailand government. As we do not currently meet the tax holiday requirements, income earned in Thailand is subject to the regular statutory income tax rate.

We are also subject to the continuous examination of our income tax and other returns by the Internal Revenue Service and other tax authorities globally, and we have a number of such reviews underway at any time. It is possible that tax authorities may disagree with certain positions we have taken, and an adverse outcome of such a review or audit could have a negative effect on our financial position and operating results. There can be no assurance that the outcomes from such examinations, or changes in tax law or regulation impacting our effective tax rates, will not have an adverse effect on our business, financial condition and results of operations.

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. Due to these fluctuations, operating results may differ materially from expectations, and we may record significant gains or losses on the remeasurement of intercompany balances. 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 the 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-U.S. manufacturing footprint has expanded. We continue to look for opportunities to leverage the lower cost of non-U.S. manufacturing, including the United Kingdom, China, Thailand, and Japan. While these geographies are lower cost than the U.S. and such concentration will in general lower our total cost to manufacture, this increase in concentration in non-U.S. 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 including the cost of local operating expenses and procurement of materials or services that we purchase in foreign currencies, 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. Global economic volatility has had a significant impact on the exchange markets, which heightened this risk, and we expect the higher level of volatility in foreign exchange markets will likely continue.

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. Investments, partnerships and acquisitions involve risks and uncertainties which could materially and adversely affect our operating and financial results. In December 2019, we issued and sold a total of $1,050 million in aggregate principal amount of 2026 Notes. In March 2022, we issued and sold a total of $861 million aggregate principal amount of 2028 Notes. In June 2023, we issued and sold a total of $603.7 million aggregate principal amount of 2029 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. In addition, uncertainty in the macroeconomic environment, increasing interest rates and other factors have resulted in volatility in the capital markets and less favorable financing terms. 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.

If we fail to effectively manage our growth or, alternatively, our spending during downturns, our business could be disrupted, which could harm our operating results.

We expect to appropriately scale our business, internal systems and organization, and to continue to improve our operational, financial and management controls, reporting systems and procedures. Growth in sales, combined with the challenges of managing geographically dispersed operations, can place a significant strain on our management systems and resources, and our anticipated growth in future operations could continue to place such a strain. The failure to effectively manage our growth could disrupt our business and harm our operating results, and even if we are able to upgrade our systems and expand our staff, any such expansion will likely be expensive and complex. Our ability to successfully offer our products and implement our business plan in evolving markets requires an effective planning and management process. In economic downturns, we must effectively manage our spending and operations to ensure our competitive position during the downturn, as well as our future opportunities when the economy improves, remains intact. The failure to effectively manage our spending and operations could disrupt our business and harm our operating results.

A widespread health crisis could materially and adversely affect our business operations, financial performance, results of operations, financial position and the achievement of our strategic objectives.

The outbreak of a widespread health crisis, whether global in scope or localized in an area in which we, our customers or our suppliers do business, could have a material and adverse effect on our operations and the operations of our suppliers and customers. Potential impacts on our operations and financial performance include:

- significant reductions in demand for one or more of our products or a curtailment to one or more of our product lines caused by, among other things, any temporary inability of our customers to purchase and utilize our products due to shutdown orders or financial hardship;

- workforce constraints triggered by any applicable shutdown orders or stay-at-home policies;
- disruptions to our third-party contract manufacturing and raw materials supply arrangements caused by constraints over our suppliers' workforce capacity, financial, or operational difficulties;
- disruption in our own ability to produce and ship products;
- heightened risk and uncertainty regarding the loss or disruption of essential third-party service providers, including transportation services, contract manufacturing, marketing, and distribution services;
- requirements to comply with governmental and regulatory responses such as quarantines, import/export restrictions, price controls, or other governmental or regulatory actions, including closures or other restrictions that limit or close our operating and manufacturing facilities, restrict our workforce's ability to travel or perform necessary business functions, or otherwise impact our suppliers or customers, which could adversely impact our operating results;
- general economic uncertainty in key global markets and financial market volatility; and
- increased operating expenses and potentially reduced efficiency of operations.

For example, the COVID-19 pandemic and related countermeasures impacted the global economy and caused macroeconomic uncertainty. Governmental authorities around the globe implemented, and may again in the future implement, numerous and evolving measures in response to the virus or other public health concerns. The implementation of health and safety practices by us or our suppliers, distributors or customers could impact customer demand, supplier deliveries, our productivity, and costs, which could have a material and adverse impact on our business, financial condition and results of operations.

The ultimate impact of a widespread health crisis 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; the impact of the pandemic and actions taken in response on global and regional economies, travel, and economic activity; general economic uncertainty in key global markets and financial market volatility, including increasing levels of inflation in the United States; and global economic conditions and levels of economic growth. In addition, the global economic volatility has significantly impacted the foreign exchange markets, and the currencies of various countries in which we operate and in which we have significant volume of local-currency denominated expenses have seen significant volatility.

Any failure, disruption or security breach or incident of or impacting 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 operation, 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, financial reporting, 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 contain personal data or other confidential or otherwise protected information about our employees, our customers' employees, or other business partners. 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 or that are used by acquired entities or businesses 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 to, or acquisition or other processing of confidential or other information or otherwise affect service reliability and threaten the confidentiality, integrity and availability of our systems and information stored or otherwise processed on our systems. Cyber threats have increased in recent years, in part due to increased remote work and frequent attacks, including in the form of phishing emails, malware attachments and malicious websites. Additionally, cybersecurity researchers have warned of increased risks of cyber-attacks, in connection with the Russia-Ukraine war. While we work to safeguard our internal network systems and validate the security of our third-party service providers to mitigate these potential risks, including through information security policies and employee awareness and training, there is no assurance that such actions have been or will be sufficient to prevent cyber-attacks or security breaches or incidents. 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 with substantial portion of our workforce being distributed geographically, particularly given the increased remote access to our networks and systems as a result. Further, our third-party service providers may have been and may be in the future subject to such attacks or otherwise may suffer security breaches or incidents. In addition, actions by our employees, service providers, partners, contractors, or others, whether malicious or in error, could affect the security of our systems and information. Further, a breach or compromise of our information technology infrastructure or that of our third-party service providers could result in the misappropriation of intellectual property, business plans, trade secrets or other information. Additionally, while our security systems are designed to maintain the physical security of our facilities and information systems, accidental or willful security breaches or incidents or other unauthorized access by third parties to our facilities or our information systems could lead to unauthorized access to, or misappropriation, disclosure, or other processing of proprietary, confidential and other information. Moreover, new laws and regulations, such as the European Union's General Data Protection Regulation, the California Consumer Privacy Act ("CCPA"), and China's Personal Information Protection Law, add to the complexity of our compliance obligations and increases our compliance costs. Although we have established internal controls and procedures intended to comply with such laws and regulations, any actual or alleged failure to fully comply could result in significant penalties and other liabilities, harm to our reputation and market position, business and financial condition.

Despite our implementation of security measures, our systems and those of our third-party service providers are vulnerable to damage from these or other types of attacks, errors or acts of omissions. In addition, our systems may be impacted by natural disasters, terrorism or other similar disruptions. Any system failure, disruption, accident or security breach or incident affecting us or our third-party service providers could result in disruptions to our operations and loss or unavailability of, or unauthorized access or damage to, inappropriate access to, or use, disclosure or other processing of confidential information and other information maintained or otherwise processed by us on our behalf. Any actual or alleged disruption to, or security breach or incident affecting, our systems or those of our third-party partners could cause significant damage to our reputation, lead to theft or misappropriation of our intellectual property and trade secrets, result in claims, investigations, and other proceedings by or before regulators, and claims, demands and litigation, legal obligations or liability, affect our relationships with our customers, require us to bear significant remediation and other costs and ultimately harm our business, financial condition and operating results. In addition, we may be required to incur significant costs to protect against or mitigate damage caused by disruptions or security breaches or incidents. Our costs incurred in efforts to prevent, detect, alleviate or otherwise address cyber or other security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant and such efforts may not be successful. All of these costs, expenses, liability and other matters may not be covered adequately by insurance and may result in an increase in our costs for insurance or insurance not being available to us on economically feasible terms, or at all. Insurers may also deny us coverage as to any future claim. Any of these results could harm our financial condition, business and reputation.

Our revenues, operating results, and cash flows may fluctuate from period to period due to a number of factors, 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. We are also subject to changes in buying patterns among our OEM partners and other customers, including unpredictable changes in their desired inventory levels. 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 have and may in the future vary significantly in the future. We attempt to identify changes in market conditions as soon as possible; however, the dynamics of the market in which we operate make prediction of and timely reaction to such events difficult. Due to these and other factors, the results of any prior periods should not be relied upon as an indication of future performance. Quarterly fluctuations from the above factors may cause our revenue, operating results, and cash flows to underperform in relation to our guidance, long-term financial targets or the expectations of financial analysts or investors, which may cause volatility or decreases in our stock price.

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. Protecting against the unauthorized use of our products, technology and other proprietary rights is difficult, time-consuming and expensive; therefore, 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. Additionally, there may be existing patents that we are unaware of, which could be pertinent to our business. It is not possible for us to know whether there are patent applications pending that our products might infringe upon since these applications are often not made publicly available until a patent is issued or published. 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.

Further, governments and courts are considering new issues in intellectual property law with respect to work created by artificial intelligence (“AI”) technology, which could result in different intellectual property rights in development processes, procedures and technologies we create with AI technology, which could have a material adverse effect on our business.

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 infringing product or products, which could adversely affect our revenues and operating results. Additionally, we often indemnify our customers against claims of 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 brands and/or other trademarks and our exposure to these risks may increase as a result of acquisitions. 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, 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 or restrictions on or changes to our business. 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, refer to “Part I, Item 3. Legal Proceedings,” and “Note 16. Commitments and Contingencies” to the consolidated financial statements.

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.

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, and to integrate our acquisitions into our disclosure controls and procedures and internal control over financial reporting, we have expended, and anticipate that we will continue to expend, significant time and operational 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 and customer perception of our business may suffer. 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 Human Capital

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, manufacturing, sales and marketing, and support personnel. The supply of highly qualified individuals, in particular engineers in very specialized technical areas, or salespeople specializing in the service provider, enterprise and commercial laser markets, is limited and competition for such individuals is intense. Competition is particularly intense in certain jurisdictions where we have research and development centers, including Silicon Valley, and for engineering talent generally. Also, the increase of remote work among employees in our industries has increased employee mobility and turnover, making it difficult for us to retain or hire employees. Further, to attract and retain top talent, we have offered, and we believe we will need to continue to offer, competitive compensation and benefits packages. Job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived value of our equity awards declines, it may adversely affect our ability to attract and retain highly qualified employees. There can be no assurance that the programs, initiatives, rewards and recognition that are part of our people strategy will be successful in attracting and retaining the talent necessary to execute on our business plans. 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, particularly during the integration of acquisitions, 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. Similarly, the failure to properly manage the necessary knowledge transfer required for employee transitions could impact our ability to maintain industry and innovation leadership. The loss of members of our management team or other key personnel could be disruptive to our business and, were it necessary, it could be difficult to replace such individuals. If we are unable to attract and retain qualified personnel, we may be unable to manage our business effectively, and our business, financial condition and results of operations 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 and global events such as COVID-19 may interfere with our ability to hire or retain workers who require visas or entry permits. For example, numerous U.S. Embassies suspended or delayed the processing of new visa applications for a period of time during the pandemic due to COVID-19 related concerns impacting embassy operations and staffing. Additional changes in immigration laws, regulations or procedures in jurisdictions in which we hire workers 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.

Risks Related to Legal, Regulatory and Compliance

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 EAR administered by the BIS, 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 ITAR. Products and the associated technical data developed and manufactured in our foreign locations are subject to export controls of the applicable foreign nation. There is no assurance that we will be issued these licenses or be granted exceptions, and failure to obtain such licenses or exceptions could limit our ability to sell our products into certain countries and negatively impact our business, financial condition and/or operating results.

The requirement to obtain a license could put us at a competitive disadvantage by restricting our ability to sell products to customers in certain countries or by giving rise to delays or expenses related to obtaining a license. 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, relationships with our customers 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, additional regulatory restrictions were imposed in May and August 2020 and in October 2022 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. These actions have resulted in escalating tensions between the U.S. and China and create the possibility that the Chinese government may take additional steps to retaliate against U.S. companies or industries. We are currently unable to supply any products to Huawei and we cannot predict whether we will again be able to sell to Huawei. Further, we cannot predict what additional actions the U.S. government may take with respect to Huawei beyond what is described above or to 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, 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. Our failure or perceived failure to comply with any of the foregoing legal and regulatory requirements, or other actual or asserted obligations relating to export controls has in the past and could in the future result in increased costs for our products, damage to our reputation, government inquiries, subpoenas, investigations. If we fail to comply with any of these export regulations, we could be subject to civil, criminal, monetary and non-monetary penalties and costly consent decrees, which would lead to disruptions to our business, restrictions on our ability to export products and technology, and adversely affect our business and results of operation.

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.

Social and environmental responsibility regulations, policies and provisions, as well as customer and investor demands, may make our supply chain more complex and may adversely affect our relationships with customers and investors.

There is an increasing focus on environmental, social, and governance ("ESG") matters both in the United States and globally. A number of our customers have adopted, or may adopt, procurement policies that include social and environmental responsibility provisions or requirements that their suppliers should comply with, or they may seek to include such provisions or requirements in their procurement terms and conditions. An increasing number of investors are also requiring companies to disclose corporate social and environmental policies, practices and metrics. These legal and regulatory requirements, as well as investor expectations, on corporate environmental and social responsibility practices and disclosure, are subject to change, can be unpredictable, and may be difficult and expensive for us to comply with, given the complexity of our supply chain. If we are unable to comply with, or are unable to cause our suppliers or contract manufacturers to comply with such policies or provisions, or meet the requirements of our customers and investors, a customer may stop purchasing products from us or an investor may sell their shares, and may take legal action against us, which could harm our reputation, revenue and results of operations. We expect increased worldwide regulatory activity relating to climate change in the future. Future compliance with these laws and regulations, as well as meeting related customer and investor expectations, may adversely affect our business and results of operations.

Our reputation and/or business could be negatively impacted by ESG matters and/or our reporting of such matters.

We communicate certain ESG-related initiatives, goals, and/or commitments regarding environmental matters, diversity, responsible sourcing and social investments, and other matters, in our annual Corporate Social Responsibility Report, on our website, in certain filings with the SEC, and elsewhere. These initiatives, goals, or commitments could be difficult to achieve and costly to implement. In addition, we could be criticized for the timing, scope or nature of these initiatives, goals, or commitments, for any revisions to them, or for our disclosures related to such matters, or for our policies and practices related to these matters. Our actual or perceived failure to achieve our ESG-related initiatives, goals, or commitments could negatively impact our reputation or otherwise materially harm our business.

We may be adversely affected by climate change regulations.

In many of the countries in which we operate, government bodies are increasingly enacting legislation and regulations in response to potential impacts of climate change. These laws and regulations are mandatory in some cases, and have the potential to impact our operations directly or indirectly as a result of required compliance by our customers or supply chain. Inconsistency of regulations may also affect the costs of compliance with such laws and regulations. Assessments of the potential impact of future climate change legislation, regulation, and international treaties and accords are uncertain, given the wide scope of potential regulatory change in countries in which we operate.

We may incur increased capital expenditures resulting from required compliance with revised or new legislation or regulations, added costs to purchase raw materials, lower profits from sales of our products, increased insurance premiums and deductibles, changes in competitive position relative to industry peers, changes to profit or loss arising from increased or decreased demand for goods produced by us, or changes in costs of goods sold, which would have an adverse effect on our business, financial condition and results of operations.

We are subject to laws and 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 ("RoHS") and the Waste 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. We may face challenges with government regulators and our customers and suppliers if we are unable to sufficiently make any required determination that the metals used in our products are conflict free. 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 all 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 to our collection and other processing of personal data of 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. Brazil passed the General Data Protection Law that became effective in August 2020 to regulate processing of personal data of individuals, which also provides for substantial penalties for noncompliance. Additionally, California has the California Consumer Privacy Act ("CCPA"), which went into effect on January 1, 2020. In November 2020, California passed the California Privacy Rights Act ("CPRA"), which went into effect on January 1, 2023. The CPRA amends and augments the CCPA, including by expanding individuals' rights and the obligations of businesses that handle personal data. Similar legislation has been proposed or adopted in several other states. Aspects of the CCPA, CPRA and these other laws and regulations, as well as their enforcement, remain unclear. The U.S. federal government also is contemplating federal privacy legislation. The effects and impact of these or other laws and regulations relating to privacy and data protection are potentially significant and may require us to modify our data processing practices and policies and to incur substantial costs and expenses in efforts to comply. 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, the United Kingdom has implemented legislation similar to the GDPR, including the UK Data Protection Act and legislation referred to as the UK GDPR, which provides for substantial penalties, similar to the GDPR. Aspects of United Kingdom data protection law remains unclear following the United Kingdom's exit from the European Union, including with respect to data transfers between the United Kingdom and other jurisdictions. We cannot fully predict how the Data Protection Act, the UK GDPR, and other United Kingdom data protection laws or regulations may develop in the medium to longer term nor the effects of divergent laws and guidance regarding data transfers. We may find it necessary to make further changes to our handling of personal data of residents of the European Economic Area, Switzerland and the United Kingdom, each of which may require us to incur significant costs and expenses.

New technology trends, such as AI, require us to keep pace with evolving regulations and industry standards. In the United States, the European Union, and China there are various current and proposed regulatory frameworks relating to the use of AI in products and services. We expect that the legal and regulatory environment relating to emerging technologies such as AI will continue to develop and could increase the cost of doing business, and create compliance risks and potential liability, all which may have a material adverse effect on our financial condition and results of operations.

Our failure or perceived failure to comply with any of the foregoing legal and regulatory requirements, or other actual or asserted obligations relating to privacy, data protection or information security could result in increased costs for our products, monetary penalties, damage to our reputation, government inquiries, subpoenas, investigations and other legal proceedings, legal claims, demands and litigation and other obligations and liabilities. 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.

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”. The market price of our common stock has fluctuated and may fluctuate significantly due to a number of factors, some of which may be beyond our control and may often be unrelated or disproportionate to our operating performance. These include:

- general economic and market conditions and other external factors;
- changes in global economic conditions, including those resulting from trade tensions, rising inflation, and fluctuations in foreign currency exchange and interest rates;
- speculation in the press or investment community about our strategic position;
- 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;
- general market, economic and political conditions, including market conditions in the semiconductor industry;
- pandemics and similar major health concerns, including the COVID-19 pandemic;
- success or failure of our business strategy;
- credit market fluctuations which could negatively impact our ability to obtain financing as needed;
- changes in governmental regulation including taxation and tariff policies;
- changes in global political tensions that may affect business with our customers;
- announcements by us, competitors, customers, or our contract manufacturers of significant acquisitions or dispositions, strategic alliances or overall movement toward industry consolidations among our customers and competitors;
- investor perception of us and our industry;
- changes in recommendations by securities analysts;
- changes in accounting standards, policies, guidance, interpretations or principles;
- differences, whether actual or perceived, between our corporate social responsibility and ESG practices and disclosure and investor expectations;
- litigation or disputes in which we may become involved;
- overall market fluctuations;
- issuances of our shares upon conversion of some or all of the convertible notes;
- sales of our shares by our officers, directors, or significant stockholders; and
- the timing and amount of 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 existing and future indebtedness, including the 2026 Notes, 2028 Notes and 2029 Notes (collectively referred to as the "convertible 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 convertible 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 under the convertible notes, or to make cash payments in connection with any conversion of the convertible notes or upon any fundamental change if holders of the applicable series of the convertible notes require us to repurchase their convertible 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 under the convertible 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 convertible notes may dilute the ownership interest of existing stockholders, or may otherwise depress the price of our common stock.

If the convertible notes are converted by holders of such series, we have the ability under the applicable indenture to deliver cash, common stock, or any combination of cash or common stock, at our election upon conversion of the applicable series of the convertible notes. If we elect to deliver common stock upon conversion of the convertible 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 convertible notes may engage in short selling to hedge their position in the convertible notes. Anticipated future conversions of the convertible 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 Delaware General Corporate Law 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 different 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 1C. CYBERSECURITY

Risk Management and Strategy

Cybersecurity risk management is an important part of and is integrated into our overall enterprise risk management framework, with cybersecurity risks being among the core enterprise risks identified for oversight by our Board of Directors (the “Board”) through our annual enterprise risk assessment. We maintain an enterprise-wide cybersecurity risk assessment program and framework that is designed to identify, assess, and manage cybersecurity risk, vulnerabilities, and threats. The foundation of our cybersecurity program is based on the International Organization for Standardization (ISO) and the National Institute of Standards and Technology ("NIST") Cybersecurity Framework. In alignment with the concepts and principles articulated in these standards, we have implemented controls related to cybersecurity threats and incidents including monitoring, log collection and analysis, threat hunting and intelligence surveillance, and regular vulnerability scans/penetration tests. Additionally, in furtherance of assessing, identifying, and managing material cybersecurity risks, we:

- Leverage technology solutions to provide protection for our assets and detect threats in our environment;
- Regular vulnerability assessments and penetration testing to identify, assess, and remediate weaknesses;
- Maintain an enterprise-wide disaster recovery governance program, which includes cybersecurity-related disaster recovery policies and procedures related thereto;
- Regularly perform cybersecurity-related disaster recovery testing designed to ensure that the Company’s mission-critical systems are recoverable, in support of our business continuity needs; and
- Work with each of our business and corporate groups with our internal cybersecurity program to integrate cybersecurity requirements into operating environments as appropriate, which drives business strategies, budgeting,

and similar processes. In addition, executive management, as well as our Board, regularly review our financial planning processes for these areas, inclusive of our cybersecurity programs.

Changes or additions to our cybersecurity risk assessment program and related practices and procedures described above in response to cybersecurity needs are reviewed by our Cybersecurity Steering Committee (“CSC”), which is an executive management-level cross-functional group.

We regularly engage independent third parties to assess our cybersecurity program and practices, and to assist with risk mitigation. The effectiveness of our cybersecurity environment is regularly tested by internal personnel and these third parties. These assessments are performed in conformance with ISO standards and requirements. Enhancements to our cybersecurity program and practices are identified from assessment findings, and if deemed appropriate, implemented.

In addition, we evaluate critical systems and applications hosted by third parties for cybersecurity risks and we also assess the security posture and features of those services. This includes review and monitoring of the third party, and inclusion of cybersecurity requirements in contractual agreements to ensure third party services meet our standards for such providers, and the cybersecurity risks associated with the use of these services is appropriate.

For additional information regarding whether any risks from cybersecurity threats are reasonably likely to materially affect our company, including our business strategy, results of operations, or financial condition, please refer to Item 1A, “Risk Factors - Any failure, disruption or security breach or incident of or impacting our information technology infrastructure or information systems have an adverse impact on our business and operations.” We believe that risks from prior cybersecurity threats, including as a result of any previous cybersecurity incidents, have not materially affected our business to date. However, we can provide no assurance that there will not be incidents in the future or that they will not materially affect us, including our business strategy, results of operations, or financial condition.

Governance

Our Board oversees our enterprise risk management program and practices, and the Audit Committee assists the Board in its oversight of cybersecurity matters. Quarterly updates are presented to our Audit Committee by our Chief Information Security Officer (“CISO”) on cybersecurity risks and threats. In addition, our Audit Committee provides Board-level oversight for management’s actions with respect to practices, procedures and controls used to identify, assess, and manage our key cybersecurity programs and risks, and, as necessary, responses to any significant cybersecurity incidents.

Our cybersecurity program is led by our CISO who manages a team of cybersecurity professionals. Our CISO has over 20 years of experience in cybersecurity and technology, including as a CISO at another public company. Members of our cybersecurity team, combined, have over 80 years of cybersecurity experience and hold professional certifications, including Certified Information Systems Security Professional (“CISSP”).

As noted above, we also maintain a Cybersecurity Steering Committee, or CSC, which consists of our Group Vice President, IT and CISO, Executive Vice President, Chief Financial Officer, Executive Vice President, Chief Human Resources Officer, Senior Vice President, General Counsel, Senior Vice President, Global Operations, Senior Vice President, Chief Accounting Officer, and Vice President, Internal Audit. The CSC group has the primary day to day responsibility to monitor and manage cybersecurity risks. The CSC provides oversight of the cybersecurity initiatives within Lumentum and is responsible integrating cybersecurity risk management practices with critical business processes so that cybersecurity is appropriately addressed throughout Lumentum.

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, which we own, is approximately 238,000 square feet and located in San Jose, California. As of June 29, 2024, our leased and owned properties in total are approximately 3,350,000 square feet, of which we own approximately 2,147,000 square feet, including the 1,173,000 square feet manufacturing sites in Thailand, the 183,000 square feet manufacturing site in the United Kingdom, the 250,000 square feet manufacturing sites in China, the 238,000 square feet on the San Jose campus, the 130,000 square feet manufacturing and R&D site in Japan, and the 36,000 square feet manufacturing and R&D sites in Slovenia. Leased sites include properties located in Canada, China, Italy, Japan, Switzerland, Taiwan, the United Kingdom, the United States, Brazil and South Korea. 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. In July 2024, we completed a transaction to purchase the land and building of our wafer fabrication facility located in Sagamihara, Japan. Our lease of the building at the premises was terminated as a result of the purchase.

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. As such, we regularly evaluate developments in legal matters that could affect the amount of the previously accrued liability and record adjustments as appropriate. 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. For a description of our material pending legal proceedings, refer to "Note 16. Commitments and Contingencies" to the consolidated financial statements.

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 2,044 stockholders of record as of August 14, 2024, and we believe there is a substantially greater number of beneficial holders.

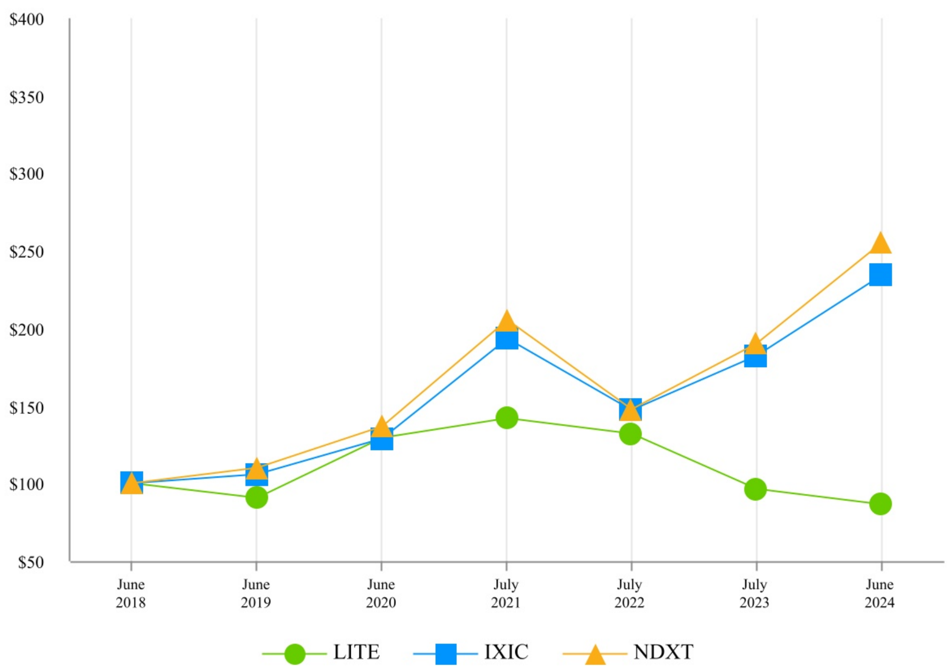
We do not expect to pay cash dividends on our common stock in the foreseeable future.

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 market close on June 29, 2018 (the last trading day before the beginning of our fifth preceding fiscal year) through June 29, 2024. 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

The following table sets forth issuer purchases of equity securities for the fourth quarter of fiscal 2024 (*in millions, except share and per share amounts*):

Period	Total number of shares purchased	Average price paid per share [1]	Total number of shares purchased as part of publicly announced plans or programs	Maximum number (or approximation dollar value) of shares that may yet be purchased under the plans or programs [2]
March 31, 2024 to April 27, 2024				$ 569.6
April 28, 2024 to June 1, 2024				$ 569.6
June 2, 2024 to June 29, 2024				$ 569.6
Total	—	$ —	—	$ 569.6

[1] Average price paid per share includes costs associated with the repurchases.

[2] On May 7, 2021, our board of directors approved the 2021 share buyback program, which authorizes us to use up to $700.0 million to purchase our own shares of common stock. On March 3, 2022, our board of directors approved an increase in our share buyback program, which authorizes us to use up to an aggregate amount of $1.0 billion (an increase from $700.0 million) to purchase our own shares of common stock through May 2024. On April 5, 2023, our board of directors approved a further increase in our share buyback program, which authorizes us to use up to an aggregate amount of $1.2 billion (an increase from $1.0 billion) to purchase our own shares of common stock through May 2025, but may be suspended or terminated at any time.

ITEM 6. [RESERVED]

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. Refer to "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, essential to range of cloud, artificial intelligence and machine learning ("AI/ML"), telecommunications, consumer, and industrial end-market applications.

We believe the global markets in which Lumentum participates have fundamentally robust, long-term trends that will increase the need for our photonics products and technologies. We believe the world is becoming more reliant on ever-increasing amounts of data flowing through optical networks and data centers. Lumentum's products and technology enable the scaling of cloud data centers and communications networks and to higher capacities. The advent of AI/ML has caused a dramatic surge in the growing demands on data networking in cloud data centers and accelerated the usage of optical components and modules. We expect that the accelerating shift to digital and virtual approaches to many aspects of work and life will continue into the future. Virtual meetings, video calls, and hybrid in-person and virtual environments for work and other aspects of life will continue to drive strong needs for bandwidth growth and present dynamic new challenges that our technology addresses. 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 and LiDAR for security, industrial and automotive applications are rapidly developing markets. The technology enables computer vision applications that enhance security, safety, and new functionality in the electronic devices that people rely on every day. The use of LiDAR and in-cabin 3D sensing in automobile and delivery vehicles over time significantly adds to our long-term market opportunity. Additionally, we expect 3D-enabled machine vision solutions to expand significantly in industrial applications in the coming years.

To maintain and grow our market and technology leadership positions, we are continually investing in new and differentiated products and technologies and customer programs that address both nearer-term and longer-term growth opportunities, both organically and through acquisitions, as well as continually improving and optimizing our operations. Over many years, we have developed close relationships with market leading customers. 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.

Prior to fiscal year 2024, we operated in two reportable segments consisting of Optical Communications ("OpComms") and Commercial Lasers ("Lasers"). During the fiscal first quarter of 2024, our chief operating decision maker ("CODM") implemented changes in how he organizes the business, allocates resources, and assesses performance. We changed our organizational structure to better align with trends in our markets and our customer and product mix. Our new operating segments are Cloud & Networking and Industrial Tech. The Cloud & Networking segment includes the Telecom & Datacom product lines that were previously part of the OpComms segment. The Industrial Tech segment includes previous Lasers segment and the Industrial & Consumer product lines that were previously part of the OpComms segment. The two operating segments were primarily determined based on how the CODM views and evaluates our operations. The CODM regularly reviews operating results to make decisions about resources to be allocated to the segments and to assess their performance.

In conjunction with this change, our CODM now evaluates each segment's performance and allocates resources based on segment revenue and segment profit, instead of gross profit, as our CODM believes segment profit is a more comprehensive profitability measure for each operating segment. Segment profit includes operating expenses directly managed by operating segments, including research and development, and direct sales and marketing expenses. Segment profit does not include stock-based compensation, acquisition or integration related costs, amortization and impairment of acquisition-related intangible assets, restructuring and related charges, and certain other charges. Additionally, we do not allocate corporate marketing and strategic marketing expenses and general and administrative expenses, as these expenses are not directly attributable to our operating segments.

Comparative prior period segment information has been recast to conform to the new segment structure and segment profitability measure. The change in our operating segments had no impact on our previously reported consolidated results of operations, financial condition, or cash flows.

Cloud & Networking

Our Cloud & Networking products include a comprehensive portfolio of optical and photonic components, modules, and subsystems supplied to network operator and network equipment manufacturer customers building cloud data center infrastructure, including products for artificial intelligence and machine learning (“AI/ML”) and data center interconnect (“DCI”) applications, and communications service provider networks, including products for access (local), metro (intracity), long-haul (city-to-city and worldwide), and submarine (undersea) network infrastructure. Our Cloud & Networking products also support network equipment manufacturers building enterprise network infrastructure, including storage-area networks (“SANs”), local-area networks (“LANs”) and wide-area networks (“WANs”). Demand for our Cloud & Networking products is driven by the continual growth in network capacity required for cloud computing and services, including for AI/ML, streaming video and video conferencing, wireless and mobile devices, and internet of things (“IoT”).

Industrial Tech

Our Industrial Tech products include solid-state lasers, kilowatt-class fiber lasers, ultrafast lasers, diode lasers, and gas lasers, which address applications in numerous end-markets. In the consumer end-market, our laser light sources are integrated into our customers’ 3D sensing cameras, which are used in mobile devices, payment kiosks, and other consumer electronics devices to enable applications including biometric identification, computational photography and virtual and augmented reality. In the automotive end-market, our lasers are used in our customers’ LiDAR and other optical sensor devices, which are increasingly being used in advanced driver assistance systems (“ADAS”) and in-cabin driver and occupant monitoring systems. In the industrial manufacturing end-market, our lasers are incorporated into our customers’ manufacturing machine tools used for the precision processing of materials in a range of industries including semiconductor device and microelectronics fabrication, electric vehicle and battery production, metal cutting and welding, and advanced manufacturing. Our products can also be used in the industrial end-market in imaging and sensing systems for process feedback and control, quality assurance, and waste reduction. Adoption of our products in the industrial end-market is driven by the needs of customers to advance semiconductor and microelectronics industry roadmaps, and by Industry 4.0/5.0 trends, including increasing manufacturing precision and flexibility and reducing waste and environmental impact. Demand for our products in the industrial end-market is driven by end-customer investments in manufacturing capacity. Our lasers also address certain semiconductor inspection and life-science applications.

Cloud Light Acquisition

On November 7, 2023 (the “Closing date”), we completed the acquisition of Cloud Light. Cloud Light designs, markets, and manufactures advanced optical modules for data center interconnect applications. The acquisition enables us to be well-positioned to serve the growing needs of cloud & networking customers, particularly those focused on optimizing their data center infrastructure for the demands of AI/ML. On the Closing date, we paid $705.0 million of total cash consideration to Cloud Light. Additionally, each of Cloud Light’s outstanding options was exchanged for a combination of cash and options to acquire Lumentum common stock having equivalent value (the “replacement options”). These replacement options have a total fair value of $38.9 million as of the Closing date, of which $23.5 million attributable to pre-acquisition service is recorded as part of the purchase price consideration and the remaining $15.4 million is recorded as post-acquisition stock-based compensation expense over the vesting period of three years from the Closing date. We also incurred a total of $9.6 million of merger-related costs, representing professional and other direct acquisition costs, which was recorded as general and administrative expense in the consolidated statement of operations for the year ended June 29, 2024. Refer to “Note 4. Business Combination” to the consolidated financial statements for additional information.

Supply Chain Constraints

Our business and our customers’ businesses have been negatively impacted by worldwide logistics and supply chain issues, including constraints on available cargo capabilities and limited availability of once broadly available supplies of both raw materials and finished components. COVID-19 also created dynamics in the semiconductor component supply chains that have led to shortages of the types of components we and our customers require in our products. Although the supply chain constraints started to improve in the latter half of fiscal 2023, we felt its ongoing effects in fiscal 2024, as described below, and these constraints or effects may impact our ability to supply our products to our customers and may reduce our revenue and profit margin if they continue or reoccur. In addition, if our customers are unable to procure needed semiconductor components, their demand for our products will decrease. Due to the global supply chain constraints, we had to incur incremental supply and procurement costs in order to increase our ability to fulfill demands from our customers.

In addition, in response to component shortages, certain of our customers accumulated inventory that they are now managing down as supply conditions improve. Accordingly, customer orders have declined in recent periods and certain customers have not taken the shipments we had originally projected due to their inventory management. As customers manage their inventory down, our revenue has declined and our margins are adversely impacted as we are not able to fully recover costs, such as underutilized manufacturing capacity, associated with the forecasted demand and we may incur excess and obsolescence charges from unsold inventory. In the fiscal fourth quarter of 2024, inventory reduced by $22.3 million compared to the fiscal third quarter of 2024, due to our focused effort to manage our production and inventory levels. Over the next several quarters, we plan to continue to manage our inventory closely and lower the days of inventory on hand.

For more information on risks associated with supply chain constraints and customer inventory, refer to Item 1A "Risk Factors" of this Annual Report.

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"). We also 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 we make these estimates, judgments and assumptions. 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, these difference will affect our financial statements. 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
- Business Combinations
- Goodwill and Intangible Assets - Impairment Assessment

Inventory Valuation

Our inventories are recorded 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 inventories 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, inventories previously written down may be sold, resulting in lower cost of sales and higher income from operations than expected in that period.

Our inventories are sensitive to technical obsolescence in the near term due to the use in industries characterized by the continuous introduction of new product lines, rapid technological advances, and product obsolescence. Based on certain assumptions and judgments made from the information available at that time, we determine the amount of allowance for potential inventory obsolescence. If these estimates and related assumptions or the market changes, we may be required to record additional reserves. Historically, actual results have not varied materially from our estimates.

Revenue Recognition

Pursuant to Topic 606, we recognize our revenues 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 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 of goods or rendering of services, 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.

We exclude from revenue the taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, which are collected by us from a customer and deposited with the relevant government authority.

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 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 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.

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.

We provide reserves for the estimated costs of product warranties that we record as cost of sales 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 discrete 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 29, 2024 (*in millions, except percentages*):

Contract balances	Balance sheet location	June 29, 2024	July 1, 2023	Change	Percentage Change
Accounts receivable, net	Accounts receivable, net	$ 194.7	$ 246.1	$ (51.4)	(20.9)%
Deferred revenue and customer deposits	Other current liabilities	$ 0.6	$ 2.1	$ (1.5)	(71.4)%

Disaggregation of Revenue

We disaggregate revenue by geography and by product. Refer to "Note 18. Revenue Recognition" to the consolidated financial statements 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 ("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 carry-back 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.

Our income tax provision is highly dependent upon the geographic distribution of our worldwide earnings or losses, tax laws and regulations in various jurisdictions, tax incentives, the availability of tax credits and loss carryforwards, and the effectiveness of our tax planning strategies. The application of tax laws and regulations is subject to legal and factual interpretation, judgment and uncertainty. Tax laws themselves are subject to change as a result of changes in fiscal policy, changes in legislation, and the evolution of regulations and court rulings and tax audits.

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.

Business Combinations

In accordance with the guidance for business combinations, we determine whether a transaction or 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 event as an asset acquisition. Under both methods, we recognize the identifiable assets acquired, the liabilities assumed, and noncontrolling interest, if any, 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 assets acquired and liabilities assumed based on their estimated fair values at the acquisition date. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. We make significant estimates and assumptions to determine assets acquired and liabilities assumed, in particular intangible assets and pre-acquisition contingencies, as applicable.

Critical estimates in valuing intangible assets include, but are not limited to, discount rates, the period required for customer revenues to mature, and future expected cash flows from customer relationships, acquired developed technology and acquired in-process research and development assets. Our estimates of fair value are based upon assumptions using the best information available. These assumptions are inherently uncertain and unpredictable and, as a result, actual results may differ materially from these estimates.

We may identify certain pre-acquisition contingencies as of the acquisition date and may extend our review and evaluation of these pre-acquisition contingencies throughout the measurement period in order to obtain sufficient information to assess whether these contingencies should be included as a part of the fair value of assets acquired and liabilities assumed and, if so, the amounts to be included.

Certain 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 to 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. Although we believe that the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based in part on historical experience and information obtained from the management of the acquired companies and are inherently uncertain. Unanticipated events and circumstances may occur that may affect the accuracy or validity of such assumptions, estimates or actual results.

Goodwill and Intangible Assets - Impairment Assessment

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 goodwill impairment on an annual basis in the fiscal 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 may reassess the value of our goodwill in the period such circumstances were identified.

If we determine that, as a result of the qualitative assessment, 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, we perform the quantitative test by estimating the fair value of our reporting units. If the carrying value of a reporting unit exceeds its fair value, we record goodwill 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. Performing a quantitative goodwill impairment test includes the determination of the fair value of a reporting unit and involves significant estimates and assumptions. These estimates and assumptions include, among others, revenue growth rates and operating margins used to calculate projected future cash flows, risk-adjusted discount rates, future economic and market conditions, and the determination of appropriate market comparables.

We make judgments about the recoverability of purchased finite lived intangible assets whenever events or changes in circumstances indicate that impairment may exist. In such situations, we are required to evaluate whether the net book values of our finite lived intangible assets are recoverable. We determine whether finite lived intangible assets are recoverable based upon the forecasted future cash flows that are expected to be generated by the lowest level associated asset grouping. Assumptions and estimates about future values and remaining useful lives of our intangible assets are complex and subjective and include, among others, forecasted undiscounted cash flows to be generated by certain asset groupings. These assumptions and estimates can be affected by a variety of factors, including external factors such as industry and economic trends and internal factors such as changes in our business strategy and our internal forecasts.

Recently Issued Accounting Pronouncements

Refer to “Note 2. Recently Issued Accounting Pronouncements” to the 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 29, 2024	July 1, 2023	July 2, 2022
Segment net revenue:			
Cloud & Networking	79.8 %	74.8 %	58.9 %
Industrial Tech	20.2	25.2	41.1
Net revenue	100.0	100.0	100.0
Cost of sales	75.3	63.0	50.3
Amortization of acquired developed intangibles	6.2	4.8	3.7
Gross profit	18.5	32.2	46.0
Operating expenses:			
Research and development	22.2	17.4	12.9
Selling, general and administrative	22.9	19.7	15.5
Restructuring and related charges	5.3	1.6	(0.1)
Total operating expenses	50.4	38.7	28.3
Income (loss) from operations	(31.9)	(6.5)	17.7
Interest expense	(2.5)	(2.0)	(4.7)
Other income, net	4.6	2.8	0.7
Income (loss) before income taxes	(29.8)	(5.7)	13.7
Income tax provision	10.4	1.7	2.1
Net income (loss)	(40.2)%	(7.4)%	11.6 %

Financial Data for Fiscal 2024, 2023, and 2022

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

	2024	2023	Change	Percentage Change	2023	2022	Change	Percentage Change
Segment net revenue:								
Cloud & Networking	$ 1,084.9	$ 1,322.5	$ (237.6)	(18.0)%	$ 1,322.5	$ 1,008.7	$ 313.8	31.1 %
Industrial Tech	274.3	444.5	(170.2)	(38.3)	444.5	703.9	(259.4)	(36.9)
Net revenue	$ 1,359.2	$ 1,767.0	$ (407.8)	(23.1)%	$ 1,767.0	$ 1,712.6	$ 54.4	3.2 %
Gross profit	$ 251.5	$ 569.0	$ (317.5)	(55.8)%	$ 569.0	$ 788.6	$ (219.6)	(27.8)%
Gross margin	18.5 %	32.2 %			32.2 %	46.0 %		
Research and development	$ 302.2	$ 307.8	$ (5.6)	(1.8)%	$ 307.8	$ 220.7	$ 87.1	39.5 %
Percentage of net revenue	22.2 %	17.4 %			17.4 %	12.9 %		
Selling, general and administrative	$ 310.7	$ 348.8	$ (38.1)	(10.9)%	$ 348.8	$ 265.7	$ 83.1	31.3 %
Percentage of net revenue	22.9 %	19.7 %			19.7 %	15.5 %		
Restructuring and related charges	$ 72.6	$ 28.1	$ 44.5	158.4 %	$ 28.1	$ (1.1)	$ 29.2	n/a
Percentage of net revenue	5.3 %	1.6 %			1.6 %	(0.1)%		

Net Revenue

Net revenue decreased by $407.8 million, or 23.1%, during fiscal 2024 as compared to fiscal 2023, due to a $237.6 million decrease in Cloud & Networking revenue and a $170.2 million decrease in Industrial Tech revenue.

The decrease in Cloud & Networking net revenue is primarily due to reduction in shipment primarily driven by U.S. export restrictions and reduction in demand associated with a build-up of inventory and resulting inventory management actions by our customers, offset by $199.5 million of revenue generated by Cloud Light. The decrease in Industrial Tech net revenue is primarily due to higher market competition, which reflects share normalization in the market, as well as reduction in demand associated with a build-up of inventory and resulting inventory management actions by our customers.

Net revenue increased by $54.4 million, or 3.2%, during fiscal 2023 as compared to fiscal 2022 due to a $313.8 million increase in Cloud & Networking revenue offset by a $259.4 million decrease in Industrial Tech revenue.

Cloud & Networking increased by $313.8 million during fiscal 2023 primarily due to $340.4 million of revenue attributable to the NeoPhotonics acquisition. Additionally, the supply chain shortage in fiscal 2022 was partially relieved, allowing us to meet more customer demand during fiscal 2023. The increase was offset by a $67.8 million decrease in revenue due to reduction in demand associated with inventory management and build-up at our customers and slowing of cloud data center customer capital spending. Industrial Tech decreased by $259.4 million primarily due to a $274.9 million decrease in imaging and sensing revenue driven by higher market competition and share normalization in the market, offset by a $15.1 million increase in industrial lasers revenue primarily due to a return in customer demand for our ultrafast and kilowatt class fiber lasers following a recovery in industrial production earlier in fiscal 2023 .

During our fiscal 2024, 2023 and 2022, net revenue generated from a single customer which represented 10% or greater of total net revenue is summarized as follows:

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Google	18.9 %	*	*
Apple	*	12.1 %	28.7 %
Ciena	11.4 %	15.3 %	12.6 %
Nokia	*	10.5 %	*
*Represents less than 10% of total net revenue			

Revenue by Region

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 to. 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 29, 2024		July 1, 2023		July 2, 2022	
Net revenue:						
Americas:						
United States	$ 356.1	26.2 %	$ 241.3	13.7 %	$ 173.9	10.2 %
Mexico	91.7	6.7	180.0	10.2	160.9	9.4
Other Americas	3.4	0.3	9.3	0.5	12.1	0.7
Total Americas	$ 451.2	33.2 %	$ 430.6	24.4 %	$ 346.9	20.3 %
Asia-Pacific:						
Thailand	$ 183.8	13.5 %	$ 269.0	15.2 %	$ 102.3	5.9 %
Hong Kong	261.9	19.3	246.7	14.0	458.2	26.7
South Korea	75.2	5.5	170.2	9.6	265.2	15.5
Japan	84.6	6.2	179.5	10.2	181.2	10.6
Other Asia-Pacific	174.3	12.9	276.3	15.6	242.4	14.2
Total Asia-Pacific	$ 779.8	57.4 %	$ 1,141.7	64.6 %	$ 1,249.3	72.9 %
EMEA	$ 128.2	9.4 %	$ 194.7	11.0 %	$ 116.4	6.8 %
Total net revenue	$ 1,359.2	100.0%	$ 1,767.0	100.0%	$ 1,712.6	100.0%

During fiscal 2024, 2023 and 2022, net revenue from customers outside the United States, based on customer shipping location, represented 73.8%, 86.3% and 89.8% of net revenue, respectively.

Our net revenue is primarily denominated in U.S. dollars, including our net revenue from customers outside the United States as presented above. We expect revenue from customers outside of the United States to continue to be an important part of our overall net revenue and a focus for net revenue growth opportunities. However, regulatory and enforcement actions by the United States and other governmental agencies, as well as changes in tax and trade policies and tariffs, have impacted and may continue to adversely impact net revenue from customers outside the United States.

Gross Margin

Gross margin in fiscal 2024 decreased to 18.5% from 32.2% in fiscal 2023. The decrease was primarily due to lower revenue, which negatively impacted gross margin by 12.9%, as well as a less profitable mix of products as a result of the acquisition of Cloud Light, which negatively impacted gross margin by 1.1%. Gross margin in fiscal 2024 was also negatively impacted by 1.4% due to higher excess capacity as a result of our manufacturing synergy plans in connection with the NeoPhotonics integration, transferring product lines out of China due to U.S. export restrictions, and a drop in demand due to customers actively working to reduce their elevated inventory levels. Additionally, in fiscal 2024 we recorded $13.3 million of higher inventory excess and obsolescence charges primarily due to U.S. export restrictions whereby we are no longer able to sell certain products to one of our customers, and customer demand changes as a result of product transitions. Furthermore, in fiscal 2024, we recorded $12.4 million of higher integration related costs. The decrease in gross margin was partially offset by $27.6 million of lower incremental costs of sales related to components acquired from various brokers at a premium to satisfy customer demand due to supply chain constraints and $9.5 million of lower amortization of acquired inventory.

Gross margin in fiscal 2023 decreased to 32.2% from 46.0% in fiscal 2022. The decrease was primarily due to a less profitable mix of products, including lower sales of sales of imaging and sensing products, which negatively impacted gross margin by 4.5%, as well as higher sales of lower margin telecom products due to the NeoPhotonics acquisition, which negatively impacted gross margin by 1.3%. Additionally, gross margin was negatively impacted by factory underutilization by 1.5% as a result of a drop in demand as customers actively work to reduce their elevated inventory levels. The lower gross margin was also driven by an aggregate of $21.5 million higher amortization of intangible assets due to the acquisition of NeoPhotonics and IPG telecom transmission product lines, $18.5 million higher incremental cost of sales related to components acquired from various brokers at a premium to satisfy customer demand due to supply chain constraints, $17.8 million of amortization of acquired inventory step-up, and $17.4 million of higher inventory excess and obsolete charges primarily due to company-wide integration efforts as a result of the NeoPhotonics acquisition and transitions to the next generation of products.

The markets in which we sell products are 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 have variant buying patterns. We expect these factors to result in variability of our gross margin, and our gross margins may be subject to increasing downward pressure due to these factors.

Segment Profit

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Cloud & Networking	$ 124.5	$ 313.2	$ 266.9
Industrial Tech	25.1	152.7	373.5

Cloud & Networking segment profit decreased by $188.7 million, or 60.2%, during fiscal 2024 as compared to fiscal 2023 primarily due to lower segment revenue and lower sales from telecom products, which negatively impacted segment profit by $215.4 million, offset by $23.2 million of segment profit from Cloud Light. Industrial Tech segment profit decreased by $127.6 million or 83.6%, during fiscal 2024 as compared to fiscal 2023 primarily due to lower segment revenue and a less profitable mix of products, including lower sales of higher margin imaging and sensing products due to increasing competition and share normalization, which negatively impacted segment profit by $76.3 million.

Cloud & Networking segment profit increased by $46.3 million, or 17.3%, during fiscal 2023 as compared to fiscal 2022 primarily due to higher sales from telecom products, which favorably impacted segment profit by $122.1 million, offset by lower sales from datacom products which negatively impacted segment profit by $75.8 million. Industrial Tech segment profit decreased by $220.8 million, or 59.1%, during fiscal 2023 as compared to fiscal 2022 primarily due to lower segment revenue and a less profitable mix of products, including lower sales of higher margin imaging and sensing products due to increasing competition and share normalization, which negatively impacted segment profit by $215.3 million.

Research and Development (“R&D”)

R&D expense decreased by $5.6 million, or 1.8%, in fiscal 2024 as compared to fiscal 2023. The decrease in R&D expense is primarily due to a charge of $12.9 million recorded during fiscal 2023 related to a write-off of in-process research and development intangible assets acquired from NeoPhotonics for projects that we subsequently decided not to pursue, offset by $8.6 million of higher spending primarily as a result of our acquisition of Cloud Light during fiscal 2024.

R&D expense increased by $87.1 million, or 39.5%, in fiscal 2023 as compared to fiscal 2022. The increase in R&D expense is attributable to an increase in payroll and employee compensation related expenses due to additional headcount from the acquisition of NeoPhotonics and IPG telecom transmission product lines. In addition, we recognized a charge of $12.9 million during fiscal 2023 related to a write-off of in-process research and development intangible assets acquired from NeoPhotonics for projects that we subsequently decided not to pursue.

We believe that continuing our investments in R&D is critical to attaining our strategic objectives. Despite signs of a weaker macroeconomic environment, we plan to continue to invest in R&D and new products that we believe will further differentiate us in the marketplace.

Selling, General and Administrative (“SG&A”)

SG&A expense decreased by $38.1 million, or 10.9%, during fiscal 2024 as compared to fiscal 2023. The decrease in SG&A expense in fiscal 2024 was primarily driven by the overall reduction in payroll and employee compensation related expenses as a result of recent restructuring actions, $15.2 million of lower outside consultant costs as a result of business and system integrations efforts, $17.9 million of lower stock-based compensation primarily due to $11.9 million expense recognized in fiscal 2023 related to the accelerated awards as part of NeoPhotonics acquisition, and $7.8 million of expense with respect to the settlement of certain non-ordinary course litigation matters in fiscal 2023, offset by $21.9 million of incremental amortization of intangible assets associated with the Cloud Light acquisition.

SG&A expense increased by $83.1 million, or 31.3%, in fiscal 2023 as compared to fiscal 2022. The increase in SG&A expense was primarily driven by an increase in payroll and employee compensation related expenses due to additional headcount from the NeoPhotonics acquisition and higher stock-based compensation. The increase was also attributable to incremental facility costs and $20.7 million of incremental amortization of intangibles due to the acquisition of NeoPhotonics and IPG telecom transmission product lines. Additionally, in connection with the NeoPhotonics acquisition, certain equity awards for NeoPhotonics employees were accelerated. We recognized $11.9 million of stock-based compensation associated with the acceleration during the first quarter of fiscal year 2023. We also recognized $11.5 million of acquisition related costs, primarily professional service fees and retention expenses related to the acquisitions of NeoPhotonics and IPG telecom transmission product lines. Furthermore, we recognized $7.8 million of expense with respect to the pending settlement of certain non-ordinary course litigation matters. For a description of our material pending legal proceedings, refer to “Note 16.

Commitments and Contingencies” to the consolidated financial statements.

From time-to-time, we incur expenses that are not part of our ordinary operations, such as mergers and acquisition-related and litigation expenses, which generally increase our SG&A expenses and potentially impact our profitability expectations in any particular period.

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. We also took certain actions in connection with the integration of NeoPhotonics.

During fiscal 2024, we recorded restructuring and related charges of $72.6 million. We discontinued our in-house development of coherent DSPs and RFICs. As a result, we recorded $35.8 million of restructuring and related charges during the fiscal fourth quarter of 2024, which includes $29.1 million write-off of in-process research and development (“IPR&D) assets, as well as $6.7 million of contract exit costs and asset write-off. The remaining $36.8 million of restructuring and related charges are primarily due to company-wide cost reduction initiatives, as well as our integration efforts to consolidate our manufacturing sites. We have shut down our factories in China which were acquired as part of the NeoPhotonics acquisition and are ramping up production of most of the related products at our Thailand facility. We are also executing our plans to optimize our wafer fabrication facilities in Japan.

During fiscal 2023, we recorded restructuring and related charges of $28.1 million, which were primarily attributable to company-wide integration efforts as a result of the NeoPhotonics acquisition, our cost reduction initiatives, as well as severance and employee-related benefits associated with NeoPhotonics’ executive severance and retention agreements. These agreements provided for payments and benefits upon an involuntary termination of employment under certain circumstances.

During fiscal 2022, we recorded a net reversal to our restructuring and related charges of $1.1 million, which was attributable to lower than anticipated employee severance charges primarily as a result of retaining and re-assigning certain employees.

Refer to “Note 12. Restructuring and Related Charges” to the consolidated financial statements.

Interest Expense

Our interest expense is as follows for the years presented (*in millions*):

	Years Ended		
	June 29, 2024	**July 1, 2023**	**July 2, 2022**
Interest expense	$ 33.8	$ 35.5	$ 80.2

Interest expense is driven by the amortization of the debt discount and issuance costs of our convertible notes.

Interest expense in fiscal 2024 decreased by $1.7 million, or 4.8%, from fiscal 2023, primarily due to the repayment of our 2024 Notes (as defined below) in March 2024 upon maturity, partially offset by incremental interest expense from our 2029 Notes (as defined below) issued in June 2023.

Interest expense in fiscal 2023 decreased by $44.7 million, or 55.7%, from fiscal 2022, primarily due to the adoption of ASU 2020-06 in our first quarter of fiscal 2023, which requires us to record each of our 2026 Notes and 2028 Notes as a single liability, measured at amortized cost, eliminating the interest expense associated with the debt discount.

Other Income, Net

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

	Years Ended		
	June 29, 2024	**July 1, 2023**	**July 2, 2022**
Foreign exchange gains, net	$ 0.8	$ 7.0	$ 6.1
Interest and investment income	61.3	40.8	6.1
Other income (expense), net	—	1.0	(0.2)
Other income, net	$ 62.1	$ 48.8	$ 12.0

Other income, net in fiscal 2024 increased by $13.3 million from fiscal 2023 primarily due to $20.5 million of increase in interest and investment income driven by an increase in interest rates on our fixed income securities, offset by $6.2 million of lower foreign exchange gains, reflecting a more stable U.S. dollar. In fiscal 2023 the U.S. dollar strengthened significantly against several currencies including the Japanese Yen.

Other income, net in fiscal 2023 increased by $36.8 million from fiscal 2022 primarily due to $34.7 million of increase in interest and investment income driven by an increase in interest rates on our fixed income securities and $0.9 million of increase in net foreign exchange gain as a result of the strengthening of the U.S. dollar relative to most foreign currencies. Additionally, concurrent with the issuance of the 2029 Notes, we used $132.8 million of the net proceeds to repurchase $125.0 million aggregate principal amount of the 2024 Notes. We recognized a gain of $1.0 million related to the repurchase, which was recorded under other income, net in fiscal 2023.

Provision for Income Taxes

	Years Ended		
(in millions)	**June 29, 2024**	**July 1, 2023**	**July 2, 2022**
Income tax provision	$ 140.8	$ 29.2	$ 36.2

Our provision for income taxes for fiscal 2024 differs from the 21% U.S. statutory rate primarily due to the income tax expense from current valuation allowance change as it is not more-likely-than-not that certain deferred tax assets will be realizable in the future, earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate and non-deductible stock-based compensation. Additionally, our provision for income taxes includes changes in unrecognized tax benefits offset by income tax benefits from tax rate changes.

Our provision for income taxes for fiscal 2023 differs from the 21% U.S. statutory rate primarily due to the income tax expense from foreign income inclusions in the U.S., earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate and non-deductible stock-based compensation. Additionally, our provision for income taxes includes income tax benefits from various tax credits and change in valuation allowance as it is more-likely-than-not that certain deferred tax assets will be realizable in the future. During fiscal 2023, we also effectuated certain tax planning actions which reduced the amount of Base Erosion Anti-Abuse Tax (BEAT) for fiscal 2022.

Our provision for income taxes for fiscal 2022 differs from the 21% U.S. statutory rate primarily due to the income tax benefit from earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate, offset by the tax expense from foreign income inclusions in the U.S. Additionally, our provision for income taxes includes income tax benefits from various tax credits, offset by an income tax expense from non-deductible stock-based compensation and change in valuation allowance as it is not more-likely-than-not that certain deferred tax assets will be realizable in the future.

Our provision for incomes taxes may be impacted by changes in the geographic mix of earnings, acquisitions, changes in the realizability of deferred tax assets, changes in our uncertain tax positions, the results of income tax audits, settlements with tax authorities, the expiration of statutes of limitations, the implementation of tax planning strategies, tax rulings, court decisions, and changes in tax laws and regulations. It is also possible that significant negative or positive evidence may become available that causes us to change our conclusion regarding whether a valuation allowance is needed on certain of our deferred tax assets, which would affect our income tax provision in the period of such change.

We also evaluate changes to regulations and requirements in the international jurisdictions where we conduct our business. For additional information, refer to Part II Item 1A “Risk Factors”.

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 29, 2024, the defined benefit plans in Switzerland were partially funded, while defined benefit plans in Japan and Thailand were unfunded. As of June 29, 2024, our projected benefit obligations, net, in Japan, Switzerland, and Thailand were $3.6 million, $2.4 million and $3.6 million, respectively. They were recorded in our consolidated balance sheets as accrued payroll and related expenses for the current portion while other non-current liabilities for the non-current portion, 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 100 basis point decrease or increase in the discount rate would cause a corresponding increase or decrease of $4.0 million or $3.1 million, respectively, in the PBO based upon data as of June 29, 2024.

We expect to contribute $1.6 million to our defined benefit pension plans in fiscal 2025.

Financial Condition

Liquidity and Capital Resources

As of June 29, 2024 and July 1, 2023, our cash and cash equivalents were $436.7 million and $859.0 million, respectively. As of June 29, 2024 and July 1, 2023, our short-term investments of $450.3 million and $1,154.6 million, respectively, were all held in the United States. Cash equivalents and short-term investments are primarily comprised of money market funds, treasuries, agencies, high quality investment grade fixed income securities, certificates of deposit, and commercial paper. 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 held by the non-U.S. entities as of June 29, 2024 and July 1, 2023 was $306.9 million and $298.4 million, respectively, which was primarily held by entities incorporated in the United Kingdom, the British Virgin Islands, Japan, Hong Kong, China, Switzerland, the Cayman Islands, Thailand and Brazil. Although cash currently held in the United States, as well as 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, strategic transactions and partnerships, and future acquisitions.

Our intent is to indefinitely reinvest funds held outside the United States and, except for the funds held in the Cayman Islands, the British Virgin Islands, and Hong Kong, as well as certain subsidiaries in China and Japan, 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 not significant 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 in the past. Additionally, if conditions warrant, we may seek to obtain additional financing through debt or equity sources. To the extent we issue additional shares, it may create dilution to our existing stockholders. However, any such financing may not be available on terms favorable to us or may not be available at all.

Beginning in fiscal 2023, the Tax Cuts and Jobs Act of 2017 requires taxpayers to capitalize research and development expenditures and amortize domestic expenditures over five years and foreign expenditures over fifteen years. This will delay deductibility of these expenses and potentially increase the amount of cash taxes we pay in the next several years.

Indebtedness

As of June 29, 2024, the net carrying amount of our 2029 Notes (as defined below) of $599.4 million, which have an aggregate principal balance of $603.7 million maturing in 2029, is presented in non-current liabilities in our condensed consolidated balance sheets. If the closing price of our stock exceeds $90.40 (130% of the conversion price of $69.54) for 20 of the last 30 trading days of any future quarter, the 2029 Notes would become convertible at the option of the holders during the subsequent fiscal quarter and the debt component would be reclassified to current liabilities.

As of June 29, 2024, the net carrying amount of our 2028 Notes (as defined below) of $856.6 million, which have an aggregate principal balance of $861.0 million maturing in 2028, is presented in non-current liabilities in our condensed consolidated balance sheets. If the closing price of our stock exceeds $170.34 (130% of the conversion price of $131.03) for 20 of the last 30 trading days of any future fiscal quarter, our 2028 Notes would become convertible at the option of the holders during the subsequent fiscal quarter and the debt component would be reclassified to current liabilities.

As of June 29, 2024, the net carrying amount of our 2026 Notes (as defined below) of $1,047.2 million, which have an aggregate principal balance of $1,050.0 maturing in 2026, is presented in non-current liabilities in our condensed consolidated balance sheets. If the closing price of our stock exceeds $129.08 (130% of the conversion price of $99.29) for 20 of the last 30 trading days of any future fiscal quarter, our 2026 Notes would become convertible at the option of the holders during the subsequent fiscal quarter and the debt component would be reclassified to current liabilities.

On March 15, 2024, our 0.25% Convertible Senior Notes due 2024 (the "2024 Notes") reached maturity. We fully repaid the remaining principal amount of $323.1 million at the maturity date.

Refer to "Note 10. Debt" to the consolidated financial statements for more information.

Share Repurchases

Repurchase Made in Connection with Convertible Note Offering

In fiscal 2023, concurrent with the issuance of the 2029 Notes, we repurchased 2.3 million shares of our common stock in privately negotiated transactions at an average price of $53.49 per share for an aggregate purchase price of $125.0 million. We recorded the aggregate purchase price as a reduction of retained earnings within our consolidated balance sheet. These shares were retired immediately.

In fiscal 2022, concurrent with the issuance of the 2028 Notes, we repurchased 2.0 million shares of our common stock in privately negotiated transactions at an average price of $99.0 per share for an aggregate purchase price of approximately $200.0 million. We recorded the aggregate purchase price as a reduction of retained earnings within our consolidated balance sheet and retired these shares immediately.

Share Buyback Program

We have a share buyback program that authorizes us to utilize up to an aggregate amount of $1.2 billion to purchase shares of our common stock through May 2025. During fiscal 2024, we did not repurchase any of our common stock. During fiscal 2023, we repurchased 0.7 million shares of our common stock as part of the share buyback program at an average price of $65.03 per share for an aggregate purchase price of $40.5 million. During fiscal 2022, we repurchased 4.0 million shares of our common stock as part of the share buyback program at an average price of $87.21 per share for an aggregate purchase price of $348.9 million.

Since the board of directors initially approved the share buyback program, we have repurchased 7.7 million shares in aggregate at an average price of $81.66 per share for a total purchase price of $630.4 million. We recorded the $630.4 million aggregate purchase price as a reduction of retained earnings within our condensed consolidated balance sheet. All repurchased shares were retired immediately. As of June 29, 2024, we have $569.6 million remaining under the share buyback program.

The price, timing, amount, and method of future repurchases will be determined based on the evaluation of market conditions and other factors, at prices determined to be in the best interests of the Company and our stockholders. The stock buyback program may be suspended or terminated at any time.

Contractual Obligations

The following table summarizes our contractual obligations as of June 29, 2024, and the effect such obligations are expected to have on our liquidity and cash flow (*in millions*):

	Payments due		
	Total	**Less than 1 year**	**More than 1 year**
Contractual Obligations			
Asset retirement obligations	$ 7.5	$ 0.3	$ 7.2
Operating lease liabilities, including imputed interest (1)	61.8	15.3	46.5
Pension plan contributions (2)	1.6	$ 1.6	—
Purchase obligations (3)	475.1	418.0	57.1
Convertible notes - principal (4)	2,514.7	—	2,514.7
Convertible notes - interest (4)	80.1	18.7	61.4
Total	$ 3,140.8	$ 453.9	$ 2,686.9

(1) The amounts of operating lease liabilities do not include any sublease income amounts nor do they include payments for short-term leases or variable lease payments. As of June 29, 2024, we expect to receive sublease income of approximately $0.8 million over the next year. Refer to “Note 8. Leases” to the consolidated financial statements.

In July 2024, we purchased the land and building of our wafer fabrication facility located in Sagamihara, Japan for a total transaction price of $46.5 million including related fees and refundable consumption taxes. Our lease of the building at the premises, which was originally scheduled to end in March 2033, was terminated as a result of the purchase. We derecognized the related right-of-use assets of $31.9 million and lease liability of $17.4 million at the purchase completion date. Refer to “Note 19. Subsequent Events” to the consolidated financial statements.

(2) The amount of pension plan contributions 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 15. Employee Retirement Plans” to the 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 16. Commitments and Contingencies” to the consolidated financial statements.

(4) The amounts related to convertible notes include principal and interest on our 0.50% Convertible Senior Notes due 2026 (the “2026 Notes”), principal and interest on our 0.50% Convertible Senior Notes due 2028 (the “2028 Notes”), and principal and interest on our 1.50% Convertible Senior Notes due 2029 (the “2029 Notes”). The 2026 Notes have a maturity date of December 15, 2026, the 2028 Notes have a maturity date of June 15, 2028, and the 2029 Notes have a maturity date of December 15, 2029. The principal balances of our convertible notes are reflected in the payment periods in the table above based on their respective contractual maturities assuming no conversions. On March 15, 2024, the maturity date of the 2024 Notes, we repaid the outstanding $323.1 million principal amount of the 2024 Notes in full. Refer to “Note 10. Debt” to the consolidated financial statements.

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

Unrecognized Tax Benefits

As of June 29, 2024, our other non-current liabilities also include $83.0 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.

Liquidity and Capital Resources Requirements

We believe that our cash and cash equivalents as of June 29, 2024, 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.

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 uncertainty in the banking and financial services industries;
- 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, including increases in manufacturing capacity;
- 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;
- volatility in fixed income and credit, which impact the liquidity and valuation of our investment portfolios;
- cost and availability of credit, which may impact available financing for us, our customers or others with whom we do business;
- 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;
- acquisitions or strategic transactions, in particular our recently completed acquisition of Cloud Light;
- the settlement of any conversion or redemption of our convertible notes in cash; and
- common stock repurchases under the share buyback program.

Cash Flows

Fiscal 2024

As of June 29, 2024, our consolidated balance of cash and cash equivalents decreased by $422.3 million, to $436.7 million from $859.0 million as of July 1, 2023. The decrease in cash and cash equivalents was due to cash used in financing activities of $332.7 million and cash used in investing activities of $114.3 million, partially offset by cash provided by operating activities of $24.7 million during the year ended June 29, 2024.

Cash provided by operating activities was $24.7 million during the year ended June 29, 2024, which reflects the net loss of $546.5 million and non-cash items of $432.4 million, partially offset by $138.8 million of changes in our operating assets and liabilities. Changes in operating assets and liabilities were primarily driven by a decrease in accounts payable of $89.7 million primarily due to lower inventory purchases and linearity of payments and a decrease in income tax liabilities of $77.7 million primarily due annual income tax payments in Japan, offset by a decrease in inventories of $73.8 million primarily due to reduced inventory level in our Cloud & Networking business and a decrease in accounts receivable of $72.3 million due to lower revenue.

Cash used in investing activities of $114.3 million during the year ended June 29, 2024 was primarily attributable to the acquisition of Cloud Light in the amount of $700.9 million, net of cash acquired, capital expenditures of $133.0 million and an intangible asset acquisition of $4.0 million, offset by net proceeds from short-term investments of $722.8 million and proceeds from sales of property and equipment of $0.8 million.

Cash used in financing activities of $332.7 million during the year ended June 29, 2024, was attributable to $323.1 million of repayment of the principal amount of 2024 Notes upon maturity, and tax payments related to the net share settlement of restricted stock units of $24.0 million, offset by $14.4 million of proceeds from employee stock plans.

Fiscal 2023

As of July 1, 2023, our consolidated balance of cash and cash equivalents decreased by $431.2 million, to $859.0 million from $1,290.2 million as of July 2, 2022. The decrease in cash and cash equivalents was due to cash used in investing activities of $874.0 million, partially offset by cash provided by financing activities of $263.0 million and cash provided by operating activities of $179.8 million during the year ended July 1, 2023.

Cash provided by operating activities was $179.8 million during the year ended July 1, 2023, which reflects the net loss of $131.6 million and non-cash items of $448.0 million, partially offset by $136.6 million of changes in our operating assets and liabilities. Changes in our operating assets and liabilities is mainly driven by an increase in inventories of $81.5 million primarily related to prebuild inventory and safety stock, a decrease in accounts payable of $74.0 million due to lower purchases from our contract manufacturers and linearity of payments, offset by a decrease in accounts receivable of $83.2 million primarily due to linearity of billings and timing of payments.

Cash used in investing activities of $874.0 million during the year ended July 1, 2023 was primarily attributable to the acquisition of NeoPhotonics and IPG telecom transmission product lines in the amount of $861.6 million, net of cash acquired and capital expenditures of $128.5 million, partially offset by net proceeds from short-term investments of $115.7 million.

Cash provided by financing activities of $263.0 million during the year ended July 1, 2023, was primarily a result of proceeds from the issuance of the 2029 Notes, net of issuance costs of $599.4 million, partially offset by the repurchase of shares of our common stock of $175.6 million, repurchase of our 2024 Notes of $132.8 million and tax payments related to the net share settlement of restricted stock of $37.2 million.

Fiscal 2022

As of July 2, 2022, our consolidated balance of cash and cash equivalents increased by $515.9 million, to $1,290.2 million from $774.3 million as of July 3, 2021. The increase in cash and cash equivalents was primarily due to cash provided by operating activities of $459.3 million and financing activities of $282.9 million, partially offset by cash used in investing activities of $226.3 million during the year ended July 2, 2022.

Cash provided by operating activities was $459.3 million during the year ended July 2, 2022, which reflects net income of $198.9 million and non-cash items of $351.0 million, partially offset by $90.6 million of changes in our operating assets and liabilities. Changes in our operating assets and liabilities are primarily due to an increase in inventories of $51.8 million mostly related to safety stock and components acquired from various brokers at a premium to satisfy customer demand due to supply chain constraints and an increase in accounts receivable of $49.2 million due to the timing of revenue booking and collections, offset by an increase in accounts payable of $47.0 million primarily driven by increase in inventory purchases.

Cash used in investing activities of $226.3 million during the year ended July 2, 2022 was attributable to net proceeds from short-term investments of $111.5 million, capital expenditures of $91.2 million, and a $30.0 million term loan provided to NeoPhotonics to support their on-going growth plans through the anticipated merger completion, partially offset by proceeds from the sales of property, plant and equipment of $6.4 million. The term loan to NeoPhotonics is described in “Note 4. Business Combination” to the consolidated financial statements.

Cash provided by financing activities of $282.9 million during the year ended July 2, 2022, was primarily a result of proceeds from the issuance of the 2028 Notes, net of issuance costs of $854.1 million and proceeds from employee stock plans of $13.5 million, partially offset by the repurchase of shares of our common stock of $543.9 million, tax payments related to the net share settlement of restricted stock of $39.0 million, and $1.8 million to settle conversion requests for the principal amount of the 2024 Notes.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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, we recorded foreign exchange gains of $0.8 million in fiscal 2024, foreign exchange gains of $7.0 million in fiscal 2023 and foreign exchange losses of $6.1 million in fiscal 2022 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, Euro and Brazilian Real. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. In the event our foreign currency denominated monetary assets and liabilities, sales or expenses increase, our operating results may be affected to a greater extent by fluctuations in the exchange rates of the currencies in which we do business as compared with the U.S. dollar.

Equity Price Risk

We are exposed to equity price risk related to the conversion options embedded in our 2029 Notes, 2028 Notes and 2026 Notes.

We issued the 2029 Notes in June 2023, the 2028 Notes in March 2022 and the 2026 Notes in December 2019 with an aggregate principal amount of $603.7 million, $861.0 million and $1,050.0 million, respectively. The 2029 Notes, 2028 Notes and 2026 Notes are carried at face value less issuance costs on the condensed consolidated balance sheet. The 2029 Notes, 2028 Notes and 2026 Notes bear interest at a rate of 1.50%, 0.50% and 0.50% per year, respectively. Since the convertible notes bear interest at fixed rates, we have no financial statement risk associated with changes in market interest rates. However, the potential value of the shares to be distributed to the holders of our convertible notes changes when the market price of our stock fluctuates. The 2029 Notes, 2028 Notes and 2026 Notes will mature on December 15, 2029, June 15, 2028 and December 15, 2026, respectively, unless earlier repurchased by us or converted pursuant to their terms, at a conversion price of approximately $69.54 per share for the 2029 Notes, $131.03 per share for the 2028 Notes and $99.29 per share for the 2026 Notes.

Interest Rate Fluctuation Risk

As of June 29, 2024, we had cash, cash equivalents, and short-term investments of $887.0 million. Cash equivalents and short-term investments are primarily comprised of money market funds, treasuries, agencies, high quality investment grade fixed income securities, certificates of deposit, and commercial paper. 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 29, 2024, the weighted-average life of our investment portfolio was approximately 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 29, 2024, 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 $2.4 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 $1.2 million.

Bank Liquidity Risk

As of June 29, 2024, we had approximately $196.9 million of unrestricted cash (excluding cash equivalents) 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, we have not incurred any losses to date 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. The value of our investment portfolio could also be impacted if we hold debt instruments which were issued by any institutions that fail or become illiquid. Our ability to obtain raw materials for our supply chain and collections of cash from sales may be unduly impacted if any of our vendors or customers are affected by illiquidity events.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY 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 29, 2024 and July 1, 2023, the related consolidated statements of operations, comprehensive income (loss), cash flows, and stockholders' equity for each of the three years in the period ended June 29, 2024, 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 29, 2024 and July 1, 2023, and the results of its operations and its cash flows for each of the three years in the period ended June 29, 2024, 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 29, 2024, 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 21, 2024, expressed an unqualified opinion on the Company's internal control over financial reporting.

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 Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate 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 matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Inventories, Valuation of Inventory - Refer to Notes 1 and 7 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 certain elements of 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 inputs used in management's valuation of inventory excess and obsolete write downs including estimates of expected product lifecycles, product development plans and historical usage by product.

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 the assumptions regarding expected product lifecycles, 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, macroeconomic conditions, and inquiries with business unit managers, executives, sales, and operations personnel) 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 current usage by product to estimates made in prior year.

- We considered the existence of contradictory evidence based on reading of internal communications to management and the board of directors, Company press releases, and analyst reports, as well as our observations and inquiries as to changes within the business.

Business Combination – Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

The Company completed the acquisition of Cloud Light Technology Limited (“Cloud Light”) for a total consideration of $728.5 million on November 7, 2023. The Company accounted for the transaction under the acquisition method of accounting for business combinations. Accordingly, the purchase price was allocated to the assets acquired and liabilities assumed based on their respective fair values, including intangible assets of $333.0 million. Intangible assets acquired primarily related to developed technology, in process research and development (“IPR&D”) and customer relationships. Management estimated the fair value of the intangible assets using valuation techniques which includes the use of a discounted cash flow model. The fair value determination of the intangible assets required management to make significant estimates and assumptions, including future expected revenue, expenses, capital expenditures and other costs, as well as discount rates.

We identified the fair value of acquired developed technology and customer relationships from the Cloud Light acquisition as a critical audit matter because of the significant business assumptions and estimates used in the valuation of acquired entity that possess higher degrees of complexity and sensitivity to the valuations. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our internal fair value specialists, when performing audit procedures to evaluate the reasonableness of management’s assumptions. The significant assumptions and estimates used to estimate the fair value of Cloud Light’s developed technology and customer relationships (“acquired intangible assets”) relate primarily to the forecasted revenue growth rates, the period required for customer revenues to mature (“customer ramp periods”) and the discount rates applied to these future cash flows.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the fair value of the acquired intangible assets, specifically as they relate to significant assumptions and estimates including forecasted revenue growth rates, customer ramp periods, and the discount rates, included the following, among others:

- We tested the effectiveness of internal controls over the valuation and accounting for the acquired intangible assets, including management’s controls related to the forecasted revenue growth rates, customer ramp periods, and discount rate.

- We assessed the reasonableness of management’s forecast of future revenues by comparing the projected growth rates to historical results, certain peer companies, and industry data.

- We evaluated whether the estimated future revenues were consistent with evidence obtained in other areas of the audit.

- We assessed the reasonableness of management’s customer ramp periods by comparing historical customer ramp periods to the projections used in the valuation.

- With the assistance of our fair value specialists, we evaluated the reasonableness of the discount rate including the underlying valuation methodology by:
    - Testing the market inputs and the appropriateness of their inclusion in the models used to determine the discount rate
    - Developing a range of independent estimates and comparing those to the discount rate selected by management.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
August 21, 2024

We have served as the Company's auditor since 2016.

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Net revenue	$ 1,359.2	$ 1,767.0	$ 1,712.6
Cost of sales	1,023.8	1,113.6	861.1
Amortization of acquired developed intangibles	83.9	84.4	62.9
Gross profit	251.5	569.0	788.6
Operating expenses:			
Research and development	302.2	307.8	220.7
Selling, general and administrative	310.7	348.8	265.7
Restructuring and related charges	72.6	28.1	(1.1)
Total operating expenses	685.5	684.7	485.3
Income (loss) from operations	(434.0)	(115.7)	303.3
Interest expense	(33.8)	(35.5)	(80.2)
Other income, net	62.1	48.8	12.0
Income (loss) before income taxes	(405.7)	(102.4)	235.1
Income tax provision	140.8	29.2	36.2
Net income (loss)	$ (546.5)	$ (131.6)	$ 198.9
Net income (loss) per share:			
Basic	$ (8.12)	$ (1.93)	$ 2.79
Diluted	$ (8.12)	$ (1.93)	$ 2.68
Shares used to compute net income (loss) per share:			
Basic	67.3	68.3	71.2
Diluted	67.3	68.3	74.2

See accompanying Notes to Consolidated Financial Statements.

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Net income (loss)	$ (546.5)	$ (131.6)	$ 198.9
Other comprehensive income (loss), net of tax:			
Net change in cumulative translation adjustment	(0.6)	0.7	—
Net change in unrealized gain (loss) on available-for-sale securities	4.7	4.4	(10.2)
Net change in defined benefit obligations	1.1	(1.4)	2.4
Other comprehensive income (loss), net of tax	5.2	3.7	(7.8)
Comprehensive income (loss), net of tax	$ (541.3)	$ (127.9)	$ 191.1

See accompanying Notes to Consolidated Financial Statements.

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

	June 29, 2024	July 1, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	$ 436.7	$ 859.0
Short-term investments	450.3	1,154.6
Accounts receivable, net	194.7	246.1
Inventories	398.4	408.6
Prepayments and other current assets	110.0	109.6
Total current assets	1,590.1	2,777.9
Property, plant and equipment, net	572.5	489.5
Operating lease right-of-use assets, net	72.8	77.3
Goodwill	1,055.8	695.1
Other intangible assets, net	617.5	459.2
Deferred tax asset	10.7	116.3
Other non-current assets	12.5	16.8
Total assets	$ 3,931.9	$ 4,632.1
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 126.3	$ 169.4
Accrued payroll and related expenses	36.1	39.4
Accrued expenses	52.4	51.2
Convertible notes, current	—	311.6
Operating lease liabilities, current	13.4	14.4
Other current liabilities	41.1	47.8
Total current liabilities	269.3	633.8
Convertible notes, non-current	2,503.2	2,500
Operating lease liabilities, non-current	43.0	47.7
Deferred tax liability	55.7	3.4
Other non-current liabilities	103.4	91.4
Total liabilities	2,974.6	3,276.3
Commitments and contingencies (Note 16)		
Stockholders' equity:		
Common stock, $0.001 par value, 990 authorized shares; 67.9 and 66.4 shares issued and outstanding as of June 29, 2024 and July 1, 2023, respectively	0.1	0.1
Additional paid-in capital	1,835.0	1,692.2
Accumulated deficit	(887.1)	(340.6)
Accumulated other comprehensive income	9.3	4.1
Total stockholders' equity	957.3	1,355.8
Total liabilities and stockholders' equity	$ 3,931.9	$ 4,632.1

See accompanying Notes to Consolidated Financial Statements.

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
OPERATING ACTIVITIES:			
Net income (loss)	$ (546.5)	$ (131.6)	$ 198.9
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation expense	110.6	106.6	81.6
Stock-based compensation	128.8	148.4	103.1
Amortization and write-off of acquired intangible assets	179.7	149.0	85.5
(Gain) loss on sales and dispositions of property, plant and equipment	2.6	8.6	(3.0)
Amortization of debt discount and debt issuance costs	14.6	24.3	72.4
Amortization of inventory fair value adjustment in connection with acquisition	8.3	17.8	—
Gain on repurchase of convertible notes	—	(1.0)	—
Other non-cash (income) expenses, net	(12.2)	(5.7)	11.4
Changes in operating assets and liabilities:			
Accounts receivable	72.3	83.2	(49.2)
Inventories	73.8	(81.5)	(51.8)
Operating lease right-of-use assets, net	3.4	15.5	(6.2)
Prepayments and other current and non-currents assets	30.6	(4.2)	(14.3)
Income taxes, net	77.7	(37.9)	(21.1)
Accounts payable	(89.7)	(74.0)	47.0
Accrued payroll and related expenses	(8.9)	(36.3)	0.3
Operating lease liabilities	(4.3)	(16.2)	0.6
Accrued expenses and other current and non-current liabilities	(16.1)	14.8	4.1
Net cash provided by operating activities	24.7	179.8	459.3
INVESTING ACTIVITIES:			
Payments for acquisition of property, plant and equipment	(133.0)	(128.5)	(91.2)
Acquisition of businesses, net of cash acquired	(700.9)	(861.6)	—
Payment for acquisition of intangible assets	(4.0)	—	—
Purchases of short-term investments	(278.7)	(1,030.3)	(1,085.1)
Proceeds from maturities and sales of short-term investments	1,001.5	1,146.1	973.6
Term loan funding provided to NeoPhotonics	—	—	(30.0)
Proceeds from the sales of property and equipment	0.8	0.3	6.4
Net cash used in investing activities	(114.3)	(874.0)	(226.3)
FINANCING ACTIVITIES:			
Proceeds from the issuance of 2029 Notes, net of issuance costs	—	599.4	—
Proceeds from the issuance of 2028 Notes, net of issuance costs	—	—	854.1
Payment, repurchase and conversion of 2024 Notes	(323.1)	(132.8)	(1.8)
Repayment of term loan	—	(5.9)	—
Repurchase of common stock	—	(175.6)	(543.9)
Payment of withholding taxes related to net share settlement of restricted stock units	(24.0)	(37.2)	(39.0)
Proceeds from employee stock plans	14.4	15.1	13.5
Net cash provided by (used in) financing activities	(332.7)	263.0	282.9
Increase (decrease) in cash and cash equivalents	(422.3)	(431.2)	515.9
Cash and cash equivalents at beginning of period	859.0	1,290.2	774.3
Cash and cash equivalents at end of period	$ 436.7	$ 859.0	$ 1,290.2
Supplemental disclosure of cash flow information:			
Cash paid for taxes, net	$ 61.2	$ 67.3	$ 57.0

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

Cash paid for interest		19.7		10.8		7.5
Supplemental disclosure of non-cash transactions:						
Unpaid property, plant and equipment in accounts payable and accrued expenses	$	11.8	$	9.8	$	3.4
Settlement of loan to NeoPhotonics		—		50.0		—
2029 Notes issuance costs in current liabilities		—		0.8		—
Right-of-use assets obtained in exchange for new operating lease liabilities		16.0		19.4		14.8
Unpaid intangible assets in accrued expense		1.0		—		—
Share-based purchase price consideration in connection with the Cloud Light acquisition		23.5		—		—
Repurchase of common stock pending settlement		—		—		10.1

See accompanying Notes to Consolidated Financial Statements.

LUMENTUM HOLDINGS INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in millions)

	Common Stock		Additional Paid-In Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income	Total Stockholders' Equity
	Shares	Amount				
Balance as of July 3, 2021	73.0	$ 0.1	$ 1,743.6	$ 220.9	$ 8.2	$ 1,972.8
Net income	—	—	—	198.9	—	198.9
Other comprehensive loss	—	—	—	—	(7.8)	(7.8)
Issuance of shares in connection with vesting of restricted stock units and performance stock units	1.3	—	—	—	—	—
Withholding taxes related to net share settlement of restricted stock units	(0.5)	—	(39.0)	—	—	(39.0)
Equity component of the 2028 Notes, net of tax of $48.7 million and issuance costs of $1.9 million	—	—	180.6	—	—	180.6
Adjustment to equity component of the 2024 Notes in connection with cash settlement	—	—	(0.1)	—	—	(0.1)
ESPP shares issued	0.2	—	13.6	—	—	13.6
Repurchases of common stock	(6.0)	—	—	(548.9)	—	(548.9)
Stock-based compensation	—	—	104.9	—	—	104.9
Balance as of July 2, 2022	68.0	$ 0.1	$ 2,003.6	$ (129.1)	$ 0.4	$ 1,875.0
Cumulative adjustment from adoption of ASU 2020-06	—	—	(426.5)	85.6	—	(340.9)
Net loss	—	—	—	(131.6)	—	(131.6)
Other comprehensive income	—	—	—	—	3.7	3.7
Equity component of repurchased 2024 Notes	—	—	(13.5)	—	—	(13.5)
Issuance of shares in connection with vesting of restricted stock units and performance stock units	1.6	—	—	—	—	—
Withholding taxes related to net share settlement of restricted stock units	(0.5)	—	(37.2)	—	—	(37.2)
ESPP shares issued	0.3	—	15.1	—	—	15.1
Repurchases of common stock	(3.0)	—	—	(165.5)	—	(165.5)
Stock-based compensation	—	—	150.7	—	—	150.7
Balance as of July 1, 2023	66.4	$ 0.1	$ 1,692.2	$ (340.6)	$ 4.1	$ 1,355.8
Net loss	—	—	—	(546.5)	—	(546.5)
Other comprehensive income	—	—	—	—	5.2	5.2
Issuance of shares in connection with vesting of restricted stock units and performance stock units	1.5	—	—	—	—	—
Withholding taxes related to net share settlement of restricted stock units	(0.4)	—	(24.0)	—	—	(24.0)
ESPP shares issued	0.4	—	14.4	—	—	14.4
Equity awards pursuant to merger agreement	—	—	23.5	—	—	23.5
Stock-based compensation	—	—	128.9	—	—	128.9
Balance as of June 29, 2024	67.9	$ 0.1	$ 1,835.0	$ (887.1)	$ 9.3	$ 957.3

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

Description of Business

Lumentum Holdings Inc. (“we,” “us,” “our”, “Lumentum” or the “Company”) is an industry-leading provider of optical and photonic products essential to a range of cloud, artificial intelligence and machine learning (“AI/ML”), telecomunications, consumer, and industrial end-market applications. We operate in two end-market focused reportable segments, Cloud & Networking and Industrial Tech.

Our Cloud & Networking products include a comprehensive portfolio of optical and photonic components, modules, and subsystems supplied to network operator and network equipment manufacturer customers building cloud data center infrastructure, including products for artificial intelligence and machine learning (“AI/ML”) and data center interconnect (“DCI”) applications, and communications service provider networks, including products for access (local), metro (intracity), long-haul (city-to-city and worldwide), and submarine (undersea) network infrastructure. Our Cloud & Networking products also support network equipment manufacturers building enterprise network infrastructure, including storage-area networks (“SANs”), local-area networks (“LANs”) and wide-area networks (“WANs”). Demand for our Cloud & Networking products is driven by the continual growth in network capacity required for cloud computing and services, including for AI/ML, streaming video and video conferencing, wireless and mobile devices, and internet of things (“IoT”).

Our Industrial Tech products include solid-state lasers, kilowatt-class fiber lasers, ultrafast lasers, diode lasers, and gas lasers, which address applications in numerous end-markets. In the consumer end-market, our laser light sources are integrated into our customers’ 3D sensing cameras, which are used in mobile devices, payment kiosks, and other consumer electronics devices to enable applications including biometric identification, computational photography and virtual and augmented reality. In the automotive end-market, our lasers are used in our customers’ LiDAR and other optical sensor devices, which are increasingly being used in advanced driver assistance systems (“ADAS”) and in-cabin driver and occupant monitoring systems. In the industrial manufacturing end-market, our lasers are incorporated into our customers’ manufacturing machine tools used for the precision processing of materials in a range of industries including semiconductor device and microelectronics fabrication, electric vehicle and battery production, metal cutting and welding, and advanced manufacturing. Our products can also be used in the industrial end-market in imaging and sensing systems for process feedback and control, quality assurance, and waste reduction. Adoption of our products in the industrial end-market is driven by the needs of customers to advance semiconductor and microelectronics industry roadmaps, and by Industry 4.0/5.0 trends, including increasing manufacturing precision and flexibility and reducing waste and environmental impact. Demand for our products in the industrial end-market is driven by end-customer investments in manufacturing capacity. Our lasers also address certain semiconductor inspection and life-science applications.

Basis of Presentation

We have prepared the consolidated financial statements in accordance with U.S. generally accepted accounting principles (“GAAP”), which 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. These policies are inventory valuation, revenue recognition, income taxes, goodwill and business combinations.

Prior to fiscal year 2024, we operated in two reportable segments consisting of Optical Communications (“OpComms”) and Commercial Lasers (“Lasers”). During the fiscal first quarter of 2024, we changed our organizational structure to better align with trends in our markets and our customer and product mix. Our new operating segments are Cloud & Networking and Industrial Tech. The Cloud & Networking segment includes the Telecom and Datacom product lines that were previously part of the OpComms segment. The Industrial Tech segment includes the previous Lasers segment and the Industrial & Consumer product lines that were previously part of the OpComms segment. Comparative prior period segment information has been recast to conform to the new segment structure and measures. The changes in our operating segments had no impact on our previously reported consolidated results of operations, financial condition, or cash flows. Refer to “Note 17. Operating Segments and Geographic Information”.

Our business and operating results depend significantly on general market and economic conditions. The current global macroeconomic environment is volatile and continues to be adversely impacted by inflation, a dynamic supply chain and demand environment, and signs of a weaker macroeconomic environment impacting capital expenditures across our served markets. Additionally, instability in the global credit markets, capital expenditure reductions, unemployment and other labor issues, decline in stock markets, the instability in the geopolitical environment in many parts of the world, and the current global economic challenges continue to put pressure on our business and operating results.

We are also continuously monitoring both the current developments in the ongoing Russia-Ukraine war including the related export controls and resulting sanctions imposed on Russia and Belarus by the U.S. and other countries, and the Israel-Hamas war. Additional factors such as increased inflation, escalating energy costs, constrained raw material availability, and the related costs increases, could continue to impact the global economy and our business. Although the global implications of these wars are difficult to predict at this time, we do not presently foresee direct material adverse effects upon our business.

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 2024, 2023 and 2022 were 52-week years, ending on June 29, 2024, July 1, 2023 and July 2, 2022, respectively.

Principles of Consolidation

The consolidated financial statements are prepared in accordance with GAAP and includes the accounts of Lumentum Holdings Inc. and its wholly owned subsidiaries. Intercompany transactions and balances are fully eliminated in consolidation.

Business Combination

On November 7, 2023, we completed the acquisition of Cloud Light Technology Limited ("Cloud Light"). On August 3, 2022, we completed the acquisition of NeoPhotonics Corporation ("NeoPhotonics"). On August 15, 2022, we completed the acquisition of IPG Photonics' telecom transmission product lines. We have applied the acquisition method of accounting to account for these transactions in accordance with ASC Topic 805, *Business Combinations.* Our condensed consolidated financial statements include the operating results of the acquired entities from the acquisition close date. Refer to "Note 4. Business Combination".

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, 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 include inventory valuation, revenue recognition, income taxes, goodwill and business combinations. 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.*

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 June 29, 2024, our cash equivalents consist of money market funds, U.S. Agency securities and U.S. Treasury securities.

Short-Term Investments

We classify our investments in debt securities 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 income (loss). Realized gains and losses are determined based on the specific identification method, and are reflected as 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, 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 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 income 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.

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 $1,050.0 million in aggregate principal amount of 2026 Notes, $861.0 million in aggregate principal amount of 2028 Notes, and $603.7 million in aggregate principle amount of 2029 Notes (collectively, the “convertible notes”). We used the treasury stock method for all convertible notes in the diluted net income per share calculation for the year ended July 2, 2022 as we had the ability and intent to settle the face value of the convertible notes in cash. Upon adoption of ASU 2020-06 on July 3, 2022, we used the if-converted method for all convertible notes in the diluted net income per share calculation.

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 recorded 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.

Leases

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 a finance or operating lease pursuant to Topic 842.

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.

Revenue Recognition

Pursuant to Topic 606, we recognize our revenues 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 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 of goods or rendering of services, 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.

We exclude from revenue the taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, which are collected by us from a customer and deposited with the relevant government authority.

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 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 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.

Deferred revenue as of June 29, 2024 and July 1, 2023 was $0.6 million and $2.1 million, respectively, which was recorded in other current liabilities in the consolidated balance sheets. During fiscal 2024 and fiscal 2023, we recognized $2.0 million and nil of revenue that was included in deferred revenue as of July 1, 2023 and July 2, 2022, respectively.

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.

We provide reserves for the estimated costs of product warranties that we record as cost of sales 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 discrete 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. Refer to “Note 18. Revenue Recognition” for a presentation of changes in contract balances.

Disaggregation of Revenue

We disaggregate revenue by geography and by product. Refer to “Note 18. Revenue Recognition” 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 (“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 carry-back 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 10 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, including the renewal option that we are reasonably certain to exercise.

Business Combination

In accordance with the guidance for business combinations, we determine whether a transaction or 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 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 using the best information available. These assumptions are inherently uncertain and unpredictable and, as a result, actual results may differ materially from estimates. Certain 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 to 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.

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.

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 goodwill impairment on an annual basis in the fiscal 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 may reassess the value of our goodwill in the period such circumstances were identified.

If we determine that, as a result of the qualitative assessment, 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, we perform the quantitative test by estimating the fair value of our reporting units. If the carrying value of a reporting unit exceeds its fair value, we record goodwill 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 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, and order backlog. Intangible assets, with the exception of certain customer relationships, 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. Certain customer relationships 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 Company sponsors various employee retirement plans, including defined contribution, defined benefit and other post-retirement plans. Refer to “Note 15. Employee Retirement Plans” for more information.

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. 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 or 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 or losses arise as a result of differences between actual experience and assumptions or as a result of changes in actuarial assumptions. Prior service cost or credits represent 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 or 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.

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 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.

We maintain an allowance for credit losses 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 expense.

During fiscal 2024, 2023, and 2022, a few customers generated more than 10% of total net revenue. Refer to "Note 17. Operating Segments and Geographic Information" for more information.

As of June 29, 2024, our accounts receivable from a single customer, which represented 10% or greater of the total accounts receivable, was concentrated with one customer, which represented 13% of gross accounts receivable. As of July 1, 2023, our accounts receivable from a single customer, which represented 10% or greater of the total accounts receivable, was concentrated with three customers, which individually represented 14%, 12% and 12% 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

In fiscal 2019, 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 (loss) in our condensed consolidated balance sheets, until all or a part of the investment in the subsidiaries is sold or liquidated. In fiscal 2023, we acquired IPG telecom transmission product lines. The functional currency of the Brazilian entities acquired as part of this acquisition is the local currency.

Translation adjustments reported prior to fiscal 2019, 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 the date we established the U.S. dollar as the functional currency became 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 or losses are included in other income (expense), net in the consolidated statements of operations.

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.

Treasury Stock

Treasury stock is carried at cost. When we retire our treasury stock, any excess of the repurchase price paid over par value is allocated to retained earnings.

Restructuring and Related Charges

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 sub-lease 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. Restructuring and related charges may also include charges related to write-offs of long lived assets related to significant restructuring initiatives.

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 12. Restructuring and Related Charges".

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 de-recognize ARO liabilities when the related obligations are settled.

Note 2. Recently Issued Accounting Pronouncements

In March 2024, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2024-02: Codification Improvements - Amendments to Remove References to the Concepts Statements, which contains amendments to the Codification that remove references to various FASB Concepts Statements. ASU 2024-02 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. We do not expect this ASU to have a material impact on our consolidated financial statements and disclosures.

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures, which requires disaggregated information about a reporting entity's effective tax rate reconciliation as well as information on income tax paid. ASU 2023-09 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. We are currently evaluating the impact of this ASU on our income tax disclosures within the consolidated financial statements.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures, which updates reportable segment disclosure requirements primarily through enhanced disclosures about significant segment expenses. ASU 2023-07 does not change how a public entity identifies its operating segments, aggregates those operating segments, or applies quantitative thresholds to determine its reportable segments. The update is effective for fiscal years beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. The amendments should be applied retrospectively to all prior periods presented in the financial statements. We plan to adopt ASU 2023-07 in our annual financial statements of fiscal 2025 and interim financial statements of the first quarter of fiscal 2026. We are currently evaluating the impact of adopting this ASU on our consolidated financial statements and disclosures.

Note 3. Earnings Per Share

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Numerator:			
Net income (loss) - basic and diluted	$ (546.5)	$ (131.6)	$ 198.9
Denominator:			
Weighted average common shares outstanding - basic	67.3	68.3	71.2
Effect of dilutive securities from stock-based benefit plans	—	—	0.6
Shares issuable assuming conversion of the convertible notes	—	—	2.4
Weighted average common shares outstanding - diluted	67.3	68.3	74.2
Net income (loss) per share:			
Basic	$ (8.12)	$ (1.93)	$ 2.79
Diluted	$ (8.12)	$ (1.93)	$ 2.68

Shares from stock-based benefit plans and shares issuable assuming conversion of our convertible notes are anti-dilutive for the year ended June 29, 2024 and July 1, 2023, therefore excluded from the calculation of diluted net loss per share, as the Company had net loss for these periods.

Average anti-dilutive shares excluded from the calculation of diluted net loss per share for the year ended June 29, 2024 include 29.6 million shares related to the convertible notes, 4.1 million shares issuable under RSUs and PSUs, 0.2 million shares issuable under the 2015 Purchase Plan and 1.1 million shares outstanding related to stock options. Average anti-dilutive shares excluded from the calculation of diluted net loss per share for July 1, 2023 include 24.8 million shares related to the convertible notes, 3.2 million shares issuable under RSUs and PSUs and 0.2 million shares issuable under the 2015 Purchase Plan. Anti-dilutive shares excluded from the calculation of diluted net income per share for the year ended July 2, 2022 was 0.1 million. Refer to "Note 14. Equity".

As a result of our adoption of ASU 2020-06 in the first quarter of fiscal 2023, potentially dilutive common shares issuable upon conversion of our outstanding convertible notes are determined using the if-converted method. For periods prior to the adoption of ASU 2020-06, which include fiscal year 2022, our potentially dilutive common shares issuable upon conversion of our outstanding convertible notes are determined using the treasury stock method.

Note 4. Business Combination

Cloud Light Acquisition

On October 29, 2023, we entered into a definitive merger agreement (the "Merger Agreement") with Cloud Light. On November 7, 2023, we completed the acquisition of Cloud Light (the "Cloud Light Closing Date"). Cloud Light designs, markets, and manufactures advanced optical modules for data center applications. The acquisition enables us to be well-positioned to serve the growing needs of Cloud & Networking customers, particularly those customers focused on optimizing their data center infrastructure for the demands of AI/ML.

We have applied the acquisition method of accounting in accordance with ASC 805 *Business Combinations*, with respect to the fair value of purchase price consideration and the identifiable assets and liabilities of Cloud Light, which have been measured at estimated fair value as of the Cloud Light Closing date. The following tables summarize the preliminary purchase price consideration (*in millions*):

	Fair Value
Cash consideration [1]	$ 705.0
Share-based consideration [2]	23.5
Total purchase price consideration	$ 728.5

[1] Under the terms of the Merger Agreement, Cloud Light stockholders received $1.69 per share after adjusting for applicable withholding taxes, escrow fund and expense fund contributions, for each of the 409.4 million of shares outstanding at the Cloud Light Closing date. As a result, we transferred $691.7 million of cash consideration on the Cloud Light Closing date. Additionally, each of Cloud Light's outstanding options was exchanged for a combination of up-front cash consideration and newly issued options (the "replacement options"). As a result, we transferred $13.3 million of cash consideration on the Cloud Light Closing date.

[2] The replacement options have a total fair value of $38.9 million as of the Cloud Light Closing date, of which $23.5 million attributable to pre-acquisition service is recorded as part of the purchase price consideration and the remaining $15.4 million is recorded as post-acquisition stock-based compensation expense over the vesting period of three years from the Cloud Light Closing date. In general, these options expire within 10 years from the Cloud Light Closing date. Refer to "Note 14. Equity".

The cash consideration of $705.0 million, which was funded by the cash balances of Lumentum, includes $75.8 million of cash held in an escrow fund for a period of 12 months following the Cloud Light Closing date to support Cloud Light's indemnification obligations under the Merger Agreement. The consideration is subject to customary adjustment for working capital.

We also incurred a total of $9.6 million of acquisition-related costs the year ended June 29, 2024, representing professional and other direct acquisition costs, which are recorded as selling, general and administrative expense in the consolidated statement of operations when incurred.

We allocated the fair value of the purchase price consideration to the assets acquired and liabilities assumed as of the Cloud Light Closing date based on their estimated fair values. The excess of purchase price consideration over the fair value of net assets acquired is recorded as goodwill. Our preliminary allocation of the purchase price consideration to the assets acquired and liabilities assumed as of the Cloud Light Closing date is as follows (*in millions*):

	Fair Value
Total purchase price consideration	$ 728.5
Assets acquired	
Cash and cash equivalents	4.1
Short-term investments	1.0
Accounts receivable, net	20.9
Inventories	71.8
Prepayments and other current assets	14.2
Property, plant and equipment, net	62.5
Operating lease right-of-use assets, net	3.7
Other intangible assets, net [1]	333.0
Other non-current assets	0.3
Total assets	511.5
Liabilities assumed	
Accounts payable	45.7
Accrued payroll and related expenses	5.6
Accrued expenses	10.0
Operating lease liabilities, current	1.8
Other current liabilities	9.5
Operating lease liabilities, non-current	1.9
Deferred tax liability	60.1
Other non-current liabilities	9.1
Total liabilities	143.7
Goodwill	$ 360.7

[1] Other intangible assets include developed technology of $170.0 million, customer relationship of $130.0 million, in-process research and development ("IPR&D") of $16.0 million, order backlog of $14.0 million, and trade name and trademarks of $3.0 million. Refer to "Note 9. Goodwill and Other Intangible Assets".

The allocation of the purchase price to the assets acquired and liabilities assumed, including the residual amount allocated to goodwill, is based upon preliminary information and subject to change. The primary areas of the preliminary purchase price allocation that are not yet finalized relate to the working capital adjustments pursuant to the Merger Agreement, the fair value of inventories, property, plant and equipment, intangible assets, deferred tax assets and liabilities, and contingent liabilities, if any. Further adjustments may result before the end of the measurement period, which ends one year from the Cloud Light Closing date. During the measurement period, if new information is obtained about facts and circumstances that existed as of the Cloud Light Closing date that, if known, would have resulted in revised estimated values of assets acquired and liabilities assumed, we will revise the preliminary purchase price allocation. The effect of measurement period adjustments to the estimated fair values will be calculated as if the adjustments had been completed on the acquisition date. The impact of all changes that do not qualify as measurement period adjustments will be included in current period earnings.

Goodwill from the Cloud Light acquisition has been assigned to the Cloud & Networking segment. The preliminary goodwill of $360.7 million arising from the acquisition is attributed to the expected revenue growth and synergies, including future cost efficiencies and other benefits that are expected to be generated by combining Lumentum and Cloud Light. None of the goodwill is expected to be deductible for local tax purposes. Refer to "Note 9. Goodwill and Other Intangible Assets."

Cloud Light contributed $199.5 million of our consolidated net revenue for the year ended June 29, 2024. Due to the continued integration of the combined businesses, as well as our corporate structure and the allocation of selling, general and administrative costs, it is impracticable to determine Cloud Light's contribution to our earnings.

Unaudited Supplemental Pro Forma Information

The following unaudited supplemental pro forma information presents the combined results of operations for the years ended June 29, 2024 and July 1, 2023, respectively, as if the acquisition was completed on July 3, 2022, the first day of the fiscal year 2023. The unaudited supplemental pro forma financial information presented below 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. The unaudited supplemental pro forma financial information does not reflect synergies that might have been achieved, nor is it indicative of future operating results or financial position.

The unaudited pro forma financial information includes adjustments for: (i) amortization expense that would have been recognized related to the acquired intangible assets, (ii) depreciation expense that would have been recognized related to the acquired property, plant, and equipment, (iii) amortization of inventory fair value adjustment, (iv) acquisition related costs, such as third party transaction costs and restructuring costs, (v) stock-based compensation expense and (vi) the estimated income tax effect on the unaudited pro forma adjustments.

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

	Years Ended	
	June 29, 2024	July 1, 2023
Net revenue	$ 1,447.9	$ 1,961.5
Net loss	$ 531.7	$ 180.1

NeoPhotonics Acquisition

On August 3, 2022, we completed the acquisition of NeoPhotonics. The total purchase price consideration of $934.4 million was funded by the cash balances of the combined company. The addition of NeoPhotonics expanded our opportunity in some of the fastest growing markets for optical components used in cloud and telecom network infrastructure.

We have applied the acquisition method of accounting in accordance with ASC Topic 805, *Business Combinations* to account for this transaction and recorded a goodwill of $315.3 million arising from the acquisition, which has been assigned to the Cloud & Networking segment.

We recorded $28.7 million of merger-related costs, representing professional and other direct acquisition costs, of which $8.3 million was incurred in fiscal year 2022 and $20.4 million was incurred in fiscal year 2023, which was recorded as selling, general and administrative expense in the condensed consolidated statements of operations.

The following unaudited supplemental pro forma information (unaudited) presents the combined results of operations for the years ended July 1, 2023 and July 2, 2022, respectively, as if the acquisition was completed on July 4, 2021, the first day of fiscal 2022. The unaudited supplemental pro forma financial information 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. The unaudited supplemental pro forma financial information does not reflect synergies that might have been achieved, nor is it indicative of future operating results or financial position. The unaudited pro forma financial information includes adjustments for: (i) amortization expense that would have been recognized related to the acquired intangible assets, (ii) depreciation expense that would have been recognized related to the acquired property, plant, and equipment, (iii) amortization of inventory fair value adjustment, (iv) acquisition related costs, such as third party transaction costs and restructuring costs, (v) stock-based compensation expense and (vi) the estimated income tax effect on the unaudited pro forma adjustments.

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

	Years Ended	
	July 1, 2023	July 2, 2022
Net revenue	$ 1,790.9	$ 2,061.2
Net income (loss)	$ (90.1)	$ 77.2

Acquisition of IPG Photonics' Telecom Transmission Product Lines

On August 15, 2022 ("IPG Closing date"), we completed a transaction to acquire IPG Photonics' telecom transmission product lines ("IPG telecom transmission product lines") that are used to develop and market products for use in telecommunications and datacenter infrastructure, including Digital Signal Processors (DSPs), ASICs and optical transceivers with a total purchase price of $55.9 million, which was paid in cash. This acquisition enables us to expand our business in the Cloud & Networking segment.

We have applied the acquisition method of accounting in accordance with ASC Topic 805, *Business Combinations* to account for this transaction and recorded a goodwill of $10.9 million arising from the acquisition, which has been assigned to the Cloud & Networking segment. We recorded $2.0 million of merger-related costs, representing professional and other direct acquisition costs, of which $0.4 million was incurred in fiscal year 2022 and $1.6 million was incurred in fiscal year 2023, which was recorded as selling, general and administrative expense in the consolidated statements of operations.

The unaudited pro forma financial information from the acquisition of the IPG telecom transmission product lines, assuming the acquisition was completed on the first day of fiscal 2022, as well as revenue and earnings generated during fiscal 2023, were not material for disclosure purposes.

Note 5. 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*):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
June 29, 2024:				
Cash	$ 196.9	$ —	$ —	$ 196.9
Cash equivalents:				
Commercial paper	15.9	—	—	15.9
Money market funds	223.9	—	—	223.9
Total cash and cash equivalents	$ 436.7	$ —	$ —	$ 436.7
Short-term investments:				
Certificates of deposit	$ 0.8	$ —	$ —	$ 0.8
Commercial paper	12.6	—	—	12.6
Corporate debt securities	244.5	—	(0.6)	243.9
U.S. Agency securities	81.2	—	(0.3)	80.9
U.S. Treasury securities	112.6	—	(0.5)	112.1
Total short-term investments	$ 451.7	$ —	$ (1.4)	$ 450.3
July 1, 2023:				
Cash	$ 254.3	$ —	$ —	$ 254.3
Cash equivalents:				
Money market funds	276.1	—	—	276.1
U.S. Agency securities	4.0	—	—	4.0
U.S. Treasury securities	324.6	—	—	324.6
Total cash and cash equivalents	$ 859.0	$ —	$ —	$ 859.0
Short-term investments:				
Certificates of deposit	$ 16.5	$ —	$ —	$ 16.5
Commercial paper	132.9	—	(0.2)	132.7
Corporate debt securities	472.7	—	(3.9)	468.8
U.S. Agency securities	207.9	—	(1.7)	206.2
U.S. Treasury securities	332.4	—	(2.0)	330.4
Total short-term investments	$ 1,162.4	$ —	$ (7.8)	$ 1,154.6

We 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 sufficient to allow for any anticipated recovery in value. For the debt instruments we own, we also evaluate whether we have the intent to sell the security or whether it is more likely than not that we will be required to sell the security before recovery of its cost basis. We have not recorded our unrealized losses on our short-term investments into income because we do not intend to sell nor is it more likely than not that we will be required to sell these investments prior to recovery of their amortized cost basis.

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 2024, 2023 and 2022, 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, net are as follows for the years presented (*in millions*):

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	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Foreign exchange gains, net	$ 0.8	$ 7.0	$ 6.1
Interest and investment income	61.3	40.8	6.1
Other income (losses), net	—	1.0	(0.2)
Other income, net	$ 62.1	$ 48.8	$ 12.0

Included in the interest and investment income are $5.8 million, $6.7 million and $3.9 million of interest receivable as of June 29, 2024, July 1, 2023 and July 2, 2022, respectively, recorded as prepayments and other current assets within the consolidated balance sheets. We did not recognize an allowance for credit losses against the interest receivable in any of the periods presented as there were no such losses.

Concurrent with the issuance of the 2029 Notes in June 2023, we used $132.8 million of the net proceeds to repurchase $125.0 million aggregate principal amount of the 2024 Notes. We recognized a gain of $1.0 million, which was recorded under other income, net on our consolidated statements of operations for the year ended July 1, 2023. Refer to "Note 10. Debt".

The following table summarizes unrealized losses on our cash equivalents and short-term investments by category that have been in a continuous unrealized loss position for more than 12 months and less than 12 months, respectively, as of the periods presented *(in millions)*:

	Continuous Loss Position For More Than 12 Months		Continuous Loss Position For Less Than 12 Months		Gross Unrealized Losses
	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	
June 29, 2024:					
U.S. Agency securities	$ 62.3	$ (0.3)	$ 12.6	$ —	$ (0.3)
Commercial paper	—	—	28.6	—	—
Corporate debt securities	133.7	(0.5)	90.6	(0.2)	(0.7)
U.S. government bonds	72.3	(0.4)	39.7	(0.1)	(0.5)
Total	$ 268.3	$ (1.2)	$ 171.5	$ (0.3)	$ (1.5)
July 1, 2023:					
U.S. Agency securities	$ 39.6	$ (0.4)	$ 170.6	$ (1.3)	$ (1.7)
Certificates of deposit	—	—	7.7	—	—
Commercial paper	—	—	128.5	(0.2)	(0.2)
Corporate debt securities	93.6	(1.2)	358.9	(2.7)	(3.9)
U.S. government bonds	50.8	(0.6)	221.4	(1.4)	(2.0)
Total	$ 184.0	$ (2.2)	$ 887.1	$ (5.6)	$ (7.8)

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

	June 29, 2024		July 1, 2023	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due within 1 year	$ 405.5	$ 404.1	$ 762.9	$ 759.1
Due between 1 year to 5 years	46.2	46.2	399.5	395.5
	$ 451.7	$ 450.3	$ 1,162.4	$ 1,154.6

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 6. 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 and U.S. Treasury securities, 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 primarily classified as Level 2 assets since such funds are not directly traded in active markets. Refer to “Note 15. Employee Retirement Plans.”

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

	Level 1	Level 2	Level 3	Total
June 29, 2024 [1]				
Assets:				
Cash equivalents:				
Commercial paper	$ —	$ 15.9	$ —	$ 15.9
Money market funds	$ 223.9	$ —	$ —	$ 223.9
Short-term investments:				
Certificates of deposit	—	0.8	—	0.8
Commercial paper	—	12.6	—	12.6
Corporate debt securities	—	243.9	—	243.9
U.S. Agency securities		80.9		80.9
U.S. Treasury securities	112.1	—	—	112.1
Total assets	$ 336.0	$ 354.1	$ —	$ 690.1

[1] Excludes $196.9 million in cash held in our bank accounts as of June 29, 2024.

	Level 1	Level 2	Level 3	Total
July 1, 2023 [(1)]				
Assets:				
Cash equivalents:				
Money market funds	$ 276.1	$ —	$ —	276.1
U.S. Agency securities	—	4.0	—	4.0
U.S. Treasury securities	324.6	—	—	324.6
Short-term investments:				
Certificates of deposit	—	16.5	—	16.5
Commercial paper	—	132.7	—	132.7
Corporate debt securities	—	468.8	—	468.8
U.S. Agency securities	—	206.2	—	206.2
U.S. Treasury securities	330.4	—	—	330.4
Total assets	$ 931.1	$ 828.2	$ —	$ 1,759.3

(1) Excludes $254.3 million in cash held in our bank accounts as of July 1, 2023.

Financial Instruments Not Recorded at Fair Value on a Recurring Basis

We report our financial instruments at fair value with the exception of the convertible notes, see "Note 10. Debt". The estimated fair value of the convertible notes was determined based on the trading price of the convertible notes as of the last day of trading for the period. We consider the fair value of the convertible notes to be a Level 2 measurement as they are not actively traded in markets.

The carrying amounts and estimated fair values of our convertible notes are as follows for the periods presented (*in millions*):

	June 29, 2024		July 1, 2023	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
2029 Notes	$ 599.4	$ 588.8	$ 598.6	$ 625.2
2028 Notes	856.6	680.2	855.5	677.8
2026 Notes	1,047.2	948.3	1,045.9	933.2
2024 Notes	—	—	311.6	345.2
	$ 2,503.2	$ 2,217.3	$ 2,811.6	$ 2,581.4

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 2024, we concluded that our intangible and other long-lived assets were not impaired. We review our intangible and other long-lived assets for impairment at least annually in the fourth quarter of each fiscal year, or any indicators of impairment exist.

Note 7. Balance Sheet Details

Allowance for current expected credit losses

We did not have any allowance for credit losses other than our allowance for uncollectible accounts receivable. As of June 29, 2024 and July 1, 2023, the allowance for credit losses on our trade receivables were $0.2 million and less than $0.1 million, respectively.

Inventories

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

	June 29, 2024	July 1, 2023
Raw materials and purchased parts	$ 196.9	$ 170.5
Work in process	101.6	103.2
Finished goods	99.9	134.9
Inventories	$ 398.4	$ 408.6

In connection with the Cloud Light Acquisition, we recorded $71.8 million of inventory as of the Cloud Light Closing date. During the year ended June 29, 2024, we amortized and recognized as cost of sales in our consolidated statements of operations the entire $8.0 million of fair value step-up of inventory acquired from Cloud Light.

In connection with the NeoPhotonics acquisition, we recorded $84.3 million of inventory as of the Cloud Light Closing date. During the year ended July 1, 2023, we amortized and recognized as cost of sales in our consolidated statements of operations the entire $17.8 million of fair value step-up of inventory acquired from NeoPhotonics.

Property, plant and equipment, net

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

	June 29, 2024	July 1, 2023
Land	$ 75.2	$ 63.5
Buildings and improvement	215.1	170.3
Machinery and equipment	772.1	657.9
Computer equipment and software	44.9	41.4
Furniture and fixtures	14.3	10.2
Leasehold improvements	47.5	49.6
Construction in progress	71.1	69.2
	1,240.2	1,062.1
Less: Accumulated depreciation	(667.7)	(572.6)
Property, plant and equipment, net	$ 572.5	$ 489.5

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

In connection with the Cloud Light acquisition, we assumed $62.5 million of property, plant and equipment as of the Cloud Light Closing date.

In August 2023, we purchased land and buildings that we previously leased in the United Kingdom for a total purchase price of $23.3 million. Additionally, we capitalized $1.8 million of incremental direct costs for fees paid to third parties. We also recorded a $0.3 million reduction in the carrying value of buildings purchased related to the termination of leases for the purchased buildings. The total carrying value of assets purchased is $24.8 million at the purchase date, of which $11.8 million was allocated to the land and $13.0 million to the buildings.

During fiscal 2024, 2023 and 2022, we recorded depreciation expense of $110.6 million, $106.6 million, and $81.6 million, respectively.

Operating lease right-of-use assets, net

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

	June 29, 2024	July 1, 2023
Operating lease right-of-use assets	$ 112.3	$ 116.5
Less: accumulated amortization	(39.5)	(39.2)
Operating lease right-of-use assets, net	$ 72.8	$ 77.3

In connection with the Cloud Light acquisition, we acquired $3.7 million of right-of-use assets related to leases of real estate properties used as our manufacturing and office premises. We accounted for these leases as operating leases and have the remaining lease term ranging from 1.5 to 2.6 years at the Cloud Light Closing date.

In connection with the purchase of land and buildings in the United Kingdom in August 2023, we terminated our leases for the purchased buildings and recorded a $0.3 million of reduction in the carrying value of buildings purchased, as a result of derecognizing $4.8 million of net operating lease right-of-use asset, $2.4 million of operating lease liabilities, current, and $2.7 million of operating lease liabilities, non-current.

Other current liabilities

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

	June 29, 2024	July 1, 2023
Restructuring and related accrual (1)	$ 11.1	$ 5.0
Warranty reserve (2)	13.2	6.8
Deferred revenue and customer deposits	0.6	2.1
Income tax payable (3)	13.2	28.0
Other current liabilities	3.0	5.9
Other current liabilities	$ 41.1	$ 47.8

(1) Refer to "Note 12. Restructuring and Related Charges."

(2) Refer to "Note 16. Commitments and Contingencies."

(3) Refer to "Note 13. Income Taxes."

Other non-current liabilities

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

	June 29, 2024	July 1, 2023
Asset retirement obligation	$ 7.5	$ 8.2
Pension and related accrual (1)	7.5	9.6
Unrecognized tax benefit	83.0	64.4
Other non-current liabilities	5.4	9.2
Other non-current liabilities	$ 103.4	$ 91.4

(1) We have defined benefit pension plans in Japan, Switzerland, and Thailand. Pension and related accrual of $7.5 million as of June 29, 2024 relates to $8.6 million of non-current portion of benefit obligation, offset by $1.2 million of funding for the pension plan in Switzerland. Pension and related accrual of $9.6 million as of July 1, 2023 relates to $10.2 million of non-current portion of benefit obligation, offset by $0.6 million of funding for the pension plan in Switzerland. We typically re-evaluate the assumptions related to the fair value of our defined benefit obligations annually in the fiscal fourth quarter and make any updates as necessary. Refer to "Note 15. Employee Retirement Plans".

Note 8. 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 primarily 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.

As of June 29, 2024, we sublease a portion of our offices in the Japan, United Kingdom, the United States and Canada. These subleases will expire at various dates through fiscal year 2028. We anticipate receiving approximately $0.8 million in sublease income over the next fiscal year.

The components of lease costs, lease term, and discount rate are as follows (*in millions, except for weighted average data*):

	June 29, 2024	July 1, 2023	July 2, 2022
Operating lease cost	$ 16.8	$ 14.4	$ 13.0
Short-term and variable lease cost	4.6	2.7	2.0
Sublease income	(2.0)	(2.6)	(3.0)
Total lease cost	$ 19.4	$ 14.5	$ 12.0
Weighted average remaining lease term (*in years*):			
Operating leases	5.2	5.8	6.9
Weighted average discount rate (*in percentages*):			
Operating leases	3.5 %	3.1 %	3.0 %

As of June 29, 2024, maturities of our operating lease liabilities, which do not include short-term leases and variable lease payments, were as follows (*in millions*):

Fiscal Years	Operating Leases [(1)]
2025	$ 15.3
2026	12.9
2027	11.7
2028	8.0
2029	5.7
Thereafter	8.2
Total minimum lease payments	61.8
Less: amount representing interest	(5.4)
Present value of total lease liabilities	$ 56.4

(1) Non-cancellable sublease proceeds for fiscal 2025 of $0.8 million are not included in the table above.

In July 2024, we purchased the land and building of our wafer fabrication facility located in Sagamihara, Japan for a total transaction price of $46.5 million including related fees and refundable consumption taxes. Our lease of the building at the premises, which was originally scheduled to end in March 2033, was terminated as a result of the purchase. We derecognized the related right-of-use assets of $31.9 million and lease liability of $17.4 million at the purchase completion date. Refer to “Note 19. Subsequent Events”.

Note 9. Goodwill and Other Intangible Assets

Goodwill

In November 2023, we completed the acquisition of Cloud Light. We recognized preliminary goodwill of $360.7 million, which was allocated to the Cloud & Networking segment.

In the first quarter of fiscal 2023, we completed two acquisitions, our acquisition of NeoPhotonics and the acquisition of IPG telecom transmission product lines. We recognized goodwill of $315.3 million related to the NeoPhotonics acquisition and $10.9 million related to the acquisition of the IPG telecom transmission product lines as of July 1, 2023. We allocated the entire goodwill amount in connection with these two acquisitions to the Cloud & Networking segment.

The following table presents our goodwill balance by the reportable segments as of June 29, 2024 and July 1, 2023 (*in millions)*:

	Cloud & Networking	Industrial Tech	Total
Balance as of July 2, 2022	$ 357.7	$ 11.2	$ 368.9
Acquisition of NeoPhotonics (1)	315.3	—	315.3
Acquisition of IPG telecom transmission product lines (2)	10.9	—	10.9
Balance as of July 1, 2023	$ 683.9	$ 11.2	$ 695.1
Acquisition of Cloud Light (3)	360.7	—	360.7
Balances as of June 29, 2024	$ 1,044.6	$ 11.2	$ 1,055.8

(1) We recorded $318.3 million of goodwill as of the acquisition date, and $3.0 million of measurement period adjustments to reduce goodwill during the year ended July 1, 2023.

(2) We recorded $6.5 million of goodwill as of the acquisition date, and $4.4 million of measurement period adjustments to increase goodwill during the year ended July 1, 2023.

(3) We recorded $359.5 million of goodwill as of the acquisition date and $1.2 million of measurement period adjustments to increase goodwill during the year ended June 29, 2024.

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

Our intangible assets are amortized on a straight-line basis over the estimated useful lives, except for certain customer relationships, which are amortized using an accelerated method of amortization over the expected customer lives, more accurately reflecting the pattern of realization of economic benefits we expect to derive. Acquired developed technologies are amortized to cost of sales and research and development expenses. Acquired customer relationships are amortized to selling, general and administrative expenses in the consolidated statement of operations.

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 to an amortizable purchased intangible asset and amortized over the asset's estimated useful life.

During the annual impairment testing performed in the fourth quarter of each year presented, we concluded that our intangible and other long-lived assets were not impaired at the asset group level. We review our intangible and other long-lived assets for impairment at least annually in the fourth quarter of each fiscal year, absent any interim indicators of impairment. There were no indicators of impairment at the asset group level during the years ended June 29, 2024 and July 1, 2023.

In November 2023, we completed the acquisition of Cloud Light. The intangible assets acquired from the acquisition were as follows as of the acquisition date (*in millions, except for weighted average amortization period*):

	Fair Value at the Acquisition Date	Weighted Average Amortization Period (Years)
Acquired developed technologies	$ 170.0	7.0
Customer relationships	130.0	7.0
In-process research and development	16.0	n/a
Order backlog	14.0	1.0
Trade name and trademarks	3.0	1.2
Total intangible assets	$ 333.0	

During the year ended June 29, 2024, we reclassified $10.3 million of IPR&D intangible assets acquired from Cloud Light to acquired developed technologies for IPR&D projects that were completed during the period. We recorded $0.1 million of related amortization expense in our consolidated statements of operations during the year ended June 29, 2024.

In connection with the acquisition of NeoPhotonics and the IPG telecom transmission product lines in fiscal 2023, we recorded $452.5 million of intangible assets. Refer to “Note 4. Business Combination”. The intangible assets acquired from the acquisitions were as follows as of the acquisition date (*in millions, except for weighted average amortization period*):

	Fair value at the acquisition date			Weighted average amortization period (in years)
	NeoPhotonics	IPG telecom transmission product lines	Total acquired	
Acquired developed technologies	$ 220.0	$ 8.6	$ 228.6	5.2
Customer relationships	144.5	2.3	146.8	5.9
In-process research and development	48.0	29.1	77.1	n/a
Total intangible assets	$ 412.5	$ 40.0	$ 452.5	

During the years ended June 29, 2024 and July 1, 2023, we reclassified $1.9 million and $23.3 million, respectively, of IPR&D intangible assets acquired from NeoPhotonics to acquired developed technologies for IPR&D projects that were completed during the periods. We recorded $0.3 million and $2.6 million of related amortization expense in our consolidated statements of operations during the years ended June 29, 2024 and July 1, 2023, respectively.

During the year ended June 29, 2024, we discontinued our in-house development of coherent DSPs and RFICs. As a result, we recorded $35.8 million of restructuring and related charges during the fiscal fourth quarter of 2024, which includes $29.1 million write-off of IPR&D assets acquired as part of the acquisition of IPG telecom transmission product lines, as well as $6.7 million of contract exit costs and asset write-off. Refer to “Note 12. Restructuring and Related Charges”**.**

During the year ended July 1, 2023, we recorded a total charge of $21.3 million to write-off acquired intangible assets, which includes $12.9 million of research and development expense for IPR&D intangible assets acquired from NeoPhotonics for projects we will no longer pursue, and $6.8 million of cost of sales for developed technologies acquired from IPG and $1.6 million of selling, general and administrative expense for customer relationship acquired from IPG primarily due to product discontinuation as well as changes in customer demand.

The following tables present details of all of our intangibles, including those acquired in connection with our acquisitions in fiscal 2024 and fiscal 2023, as of the periods presented (*in millions, except for weighted average remaining amortization period*):

June 29, 2024	Gross Carrying Amounts	Accumulated Amortization	Net Carrying Amounts	Weighted average remaining amortization period (years)
Acquired developed technologies	$ 818.1	$ (473.0)	$ 345.1	4.8
Customer relationships	419.8	(169.4)	250.4	4.9
In-process research and development	15.5	—	15.5	n/a
Order backlog	14.0	(8.9)	5.1	0.4
Trade name and trademarks	3.0	(1.6)	1.4	0.6
Total intangible assets	$ 1,270.4	$ (652.9)	$ 617.5	

July 1, 2023	Gross Carrying Amounts	Accumulated Amortization	Net Carrying Amounts	Weighted average remaining amortization period (years)
Acquired developed technologies	$ 630.9	$ (385.5)	$ 245.4	4.2
Customer relationships	289.7	(116.8)	172.9	3.7
In-process research and development	40.9	—	40.9	n/a
Total intangible assets	$ 961.5	$ (502.3)	$ 459.2	

During fiscal 2024, 2023 and 2022, we recorded $150.6 million, $127.7 million and $85.5 million, respectively, of amortization related to intangibles assets.

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

	Years ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Cost of sales	$ 83.9	$ 84.4	$ 62.9
Selling, general and administrative	65.2	43.3	22.6
Research and development	1.5	—	—
Total amortization of intangibles	$ 150.6	$ 127.7	$ 85.5

Based on the carrying amount of our intangible assets as of June 29, 2024, and assuming no future impairment of the underlying assets, the estimated future amortization is as follows *(in millions):*

Fiscal Years	
2025	$ 149.4
2026	133.3
2027	121.0
2028	81.5
2029	51.8
Thereafter	65.0
Total	$ 602.0

The table above excludes in-process research and development intangible assets.

Note 10. Debt

Convertible Notes

2029 Notes

On June 16, 2023, we issued $603.7 million in aggregate principal amount of 2029 Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The 2029 Notes are governed by an indenture between the Company and U.S. Bank Trust Company National Association, (as successor in interest to U.S. Bank National Association), as a trustee (the "2029 Indenture"). The 2029 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 net proceeds from the sale of the 2029 Notes was $599.4 million, after deducting $4.3 million of net issuance costs. In addition, we incurred $0.8 million of professional fees directly related to this transaction. Concurrent with the issuance of the 2029 Notes, we used $132.8 million of the net proceeds to repurchase $125.0 million aggregate principal amount of the 2024 Notes and $125.0 million of the net proceeds to repurchase our common stock in privately negotiated transactions. We intend to use the remaining net proceeds for general corporate purposes, which may include the repayment of our indebtedness, including any of our existing convertible notes, capital expenditures, working capital and potential acquisitions.

The 2029 Notes bear interest at a rate of 1.50% per year, payable semi-annually in arrears on June 15 and December 15 of each year, beginning on December 15, 2023. The 2029 Notes will mature on December 15, 2029, unless earlier redeemed, repurchased by us, or converted pursuant to their terms.

The initial conversion rate is 14.3808 shares of common stock per $1,000 principal amount of the 2029 Notes (which is equivalent to an initial conversion price of approximately $69.54 per share). The conversion rate is subject to adjustment upon the occurrence of certain events specified in the 2029 Indenture, 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 2029 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, 2029, holders of the 2029 Notes may convert their 2029 Notes only under the following circumstances:

- during any fiscal quarter commencing after September 30, 2023 (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 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% if the applicable conversion price on each applicable trading day;
- during the five consecutive business day period after any five consecutive trading day period (the "2029 measurement period") in which the trading price per $1,000 principal amount of 2029 Notes for each trading day of the 2029 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;
- if we call any or all of the 2029 Notes for redemption, at any time prior to the close of business on the second business day immediately preceding the redemption date; or
- upon the occurrence of specified corporate events as specified in the 2029 Indenture.

On or after September 15, 2029 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2029 Notes at any time. Upon conversion, we will 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 all or any portion of the 2029 Notes, at our option (subject to the partial redemption limitation set forth in the 2029 Indenture), on or after June 22, 2026, if the last reported sale price of our 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 notice of redemption at a redemption price equal to 100% of the principal amount of the 2029 Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the 2029 Notes. If we elect to redeem fewer than all of the outstanding 2029 Notes, at least $100.0 million aggregate principal amount of the 2029 Notes must be outstanding and not subject to redemption as of the redemption notice date. Upon the occurrence of a fundamental change (as defined in the 2029 Indenture), holders may require us to repurchase all or a portion of their 2029 Notes for cash at a price equal to 100% of the principal amount of the 2029 Notes to be repurchased, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The entire 2029 Notes are recorded as convertible notes, non-current in our consolidated balance sheets as of June 29, 2024 and July 1, 2023, measured at amortized cost.

2028 Notes

In March 2022, we issued $861.0 million in aggregate principal amount of 2028 Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The 2028 Notes are governed by an indenture between the Company and U.S. Bank Trust Company National Association (as successor in interest to U.S. Bank National Association), as a trustee (the “2028 Indenture”). The 2028 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 net proceeds from the sale of the 2028 Notes was $854.8 million, after deducting $6.2 million in issuance costs. In addition, we incurred $0.7 million of professional fees directly related to this transaction. Concurrent with the issuance of the 2028 Notes, we used $200.0 million of the net proceeds to repurchase our common stock in privately negotiated transactions.

The 2028 Notes 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, 2022. The 2028 Notes will mature on June 15, 2028, unless earlier redeemed, repurchased by us, or converted pursuant to their terms.

The initial conversion rate is 7.6319 shares of common stock per $1,000 principal amount of the 2028 Notes (which is equivalent to an initial conversion price of approximately $131.03 per share). The conversion rate is subject to adjustment upon the occurrence of certain events specified in the 2028 Indenture, 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 2028 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 March 15, 2028, holders of the 2028 Notes may convert their 2028 Notes only under the following circumstances:

- during any fiscal quarter (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 the 30 consecutive trading days ending on the last trading day of the immediately preceding fiscal quarter is greater than or equal to 130% if the applicable conversion price, or $170.34 on each applicable trading day;
- during the five consecutive business day period after any five consecutive trading day period (the “2028 measurement period”) in which the trading price per $1,000 principal amount of the 2028 Notes for each trading day of the 2028 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;
- if we call any or all of the 2028 Notes for redemption, at any time prior to the close of business on the second business day immediately preceding the redemption date; or
- upon the occurrence of specified corporate events as specified in the 2028 Indenture.

On or after March 15, 2028 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their 2028 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 all or any portion of the 2028 Notes, at our option (subject to the partial redemption limitation set forth in the 2028 Indenture), on or after June 20, 2025, 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 notice of redemption at a redemption price equal to 100% of the principal amount of the 2028 Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. No sinking fund is provided for the 2028 Notes. If we elect to redeem fewer than all of the outstanding 2028 Notes, at least $100.0 million aggregate principal amount of the 2028 Notes must be outstanding and not subject to redemption as of the redemption notice date. Upon the occurrence of a fundamental change (as defined in the 2028 Indenture), holders may require us to repurchase all or a portion of their 2028 Notes for cash at a price equal to 100% of the principal amount of the 2028 Notes to be repurchased, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

We initially bifurcated the principal amount of the 2028 Notes into liability and equity components. The liability component of the 2028 Notes was initially valued at $629.8 million based on the contractual cash flow discounted at an appropriate comparable market on the non-convertible debt borrowing rate at the date of issuance, which was 5.7%, with the equity component representing the residual amount of the proceeds of $231.2 million, which was recorded as a debt discount. Upon adoption of ASU 2020-06 in the first quarter of fiscal 2023, our 2028 Notes were accounted for as a single liability measured at amortized cost. The entire 2028 Notes are recorded as convertible notes, non-current in our consolidated balance sheets as of June 29, 2024 and July 1, 2023, measured at amortized cost.

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. The 2026 Notes are governed by an indenture between the Company and U.S. Bank Trust Company National Association (as successor in interest to U.S. Bank National Association), as trustee (the “2026 Indenture”). We used approximately $196.0 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 $200.0 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, the incurrence of senior debt or other indebtedness, or the issuance or repurchase of securities by us.

The 2026 Notes 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 events specified in the 2026 Indenture, 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 set forth in the 2026 Indenture or 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 (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 2026 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 the 2026 Indenture.

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, 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.

We initially 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. Upon adoption of ASU 2020-06 in the first quarter of fiscal 2023, our 2026 Notes were accounted for as a single liability measured at amortized cost. The entire 2026 Notes are recorded as convertible notes, non-current in our consolidated balance sheets as of June 29, 2024 and July 1, 2023, measured at amortized cost.

2024 Notes

In March 2017, we issued $450.0 million in aggregate principal amount of the 2024 Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. The 2024 Notes were governed by an indenture between the Company, and U.S. Bank Trust Company National Association (as successor in interest to U.S. Bank National Association), as trustee (the “2024 Indenture”). The 2024 Notes were unsecured and did 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 bore interest at a rate of 0.25% per year. Interest on the 2024 Notes was payable semi-annually in arrears on March 15 and September 15 of each year, beginning on September 15, 2017. The 2024 Notes matured on March 15, 2024.

The initial conversion rate of the 2024 Notes was 16.4965 shares of common stock per $1,000 principal amount of 2024 Notes, which was equivalent to an initial conversion price of approximately $60.62 per share. The conversion rate was subject to adjustment upon the occurrence of certain specified events, but was not subject to adjustment for accrued and unpaid interest. In addition, upon the occurrence of a make-whole fundamental change (as defined in the 2024 Indenture) or our issuance of a notice of redemption, we were required to, in certain circumstances, increase the conversion rate by a number of additional shares for a holder that elected to convert the 2024 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 December 15, 2023, each holder of the 2024 Notes was able to convert their 2024 Notes 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 2024 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 as specified in the 2024 Indenture.

On or after December 15, 2023 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders could 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 were required to, in certain circumstances, increase the conversion rate by a number of additional shares set forth in the 2024 Indenture for a holder that elected to convert 2024 Notes in connection with such make-whole fundamental change.

We could not redeem the 2024 Notes prior to their maturity date and no sinking fund was provided for the 2024 Notes. Upon the occurrence of a fundamental change, holders could 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 make-whole feature, and concluded that they were 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 was 5.4% per year.

During fiscal 2017, we satisfied the TMA settlement condition. As such, the value of the conversion option was no longer 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 was treated as an original issue discount for purposes of accounting for the debt component of the 2024 Notes. The debt component accreted up to the principal amount over the expected term of the debt. The adoption of ASU 2020-06 did not change the presentation of the 2024 Notes, as the conversion feature associated with the 2024 Notes continues to be classified within stockholders' equity.

Concurrent with the issuance of the 2029 Notes, we used $132.8 million of the net proceeds to repurchase $125.0 million aggregate principal amount of the 2024 Notes, which we accounted for as an extinguishment of liability. $13.5 million of the $132.8 million repurchase price was allocated to the conversion feature of the repurchased 2024 Notes, representing the fair value of the conversion feature at the date of the repurchase, and was recognized as a reduction of the stockholders' equity. Refer to consolidated statements of stockholders' equity. We recognized an extinguishment gain of $1.0 million related to the repurchase, which was recorded under other income, net on our consolidated statements of operations for the year ended July 1, 2023. Additionally, since issuing the 2024 Notes, we have converted a total of approximately $1.9 million of principal amount of the 2024 Notes, with less than $0.1 million of principal amount converted during the twelve months ended June 29, 2024.

On March 15, 2024, the 2024 Notes maturity date, we fully repaid the remaining principal amount of $323.1 million. The conversion feature previously classified within stockholder's equity was fully amortized as of the maturity date.

Convertible Notes - Additional Disclosures

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

June 29, 2024	**2026 Notes [(1)]**	**2028 Notes [(2)]**	**2029 Notes [(3)]**	**Total**
Principal	$ 1,050.0	$ 861.0	$ 603.7	$ 2,514.7
Unamortized debt discount and debt issuance costs	(2.8)	(4.4)	(4.3)	(11.5)
Net carrying amount of the liability component	$ 1,047.2	$ 856.6	$ 599.4	$ 2,503.2

July 1, 2023	**2024 Notes**	**2026 Notes [(1)]**	**2028 Notes [(2)]**	**2029 Notes [(3)]**	**Total**
Principal	$ 323.1	$ 1,050.0	$ 861.0	$ 603.7	$ 2,837.8
Unamortized debt discount and debt issuance costs	(11.5)	(4.1)	(5.5)	(5.1)	(26.2)
Net carrying amount of the liability component	$ 311.6	$ 1,045.9	$ 855.5	$ 598.6	$ 2,811.6

(1) If the closing price of our stock exceeds $129.08 (or 130% of the conversion price of $99.29 for 20 of the last 30 trading days of any future quarter, the 2026 Notes would also become convertible at the option of the holders during the subsequent fiscal quarter and the debt would be reclassified to current liabilities in our consolidated balance sheets.

(2) If the closing price of our stock exceeds $170.34 (or 130% of the conversion price of $131.03) for 20 of the last 30 trading days of any future quarter, the 2028 Notes would become convertible at the option of the holders during the subsequent fiscal quarter and the debt would be reclassified to current liabilities in our consolidated balance sheets.

(3) If the closing price of our stock exceeds $90.40 (or 130% of the conversion price of $69.54) for 20 of the last 30 trading days of any future quarter, the 2029 Notes would become convertible at the option of the holders during the subsequent fiscal quarter and the debt would be reclassified to current liabilities in our consolidated balance sheets.

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

	June 29, 2024	**July 1, 2023**	**July 2, 2022**
Contractual interest expense	$ 19.2	$ 11.2	$ 7.8
Amortization of the debt discount and debt issuance costs	14.6	24.3	72.4
Total interest expense	$ 33.8	$ 35.5	$ 80.2

The future interest and principal payments related to our convertible notes are as follows as of June 29, 2024 *(in millions)*:

Fiscal Years	**2026 Notes**	**2028 Notes**	**2029 Notes**	**Total**
2025	$ 5.3	$ 4.3	$ 9.1	$ 18.7
2026	5.3	4.3	9.1	18.7
2027	1,052.5	4.3	9.1	1,065.9
2028	—	865.3	9.1	874.4
2029	—	—	617.1	617.1
Total payments	$ 1,063.1	$ 878.2	$ 653.5	$ 2,594.8

The principal balances of our convertible notes are reflected in the payment periods in the table above based on their respective contractual maturities.

Mitsubishi Bank Loans

In connection with our acquisition of NeoPhotonics, we assumed several loan agreements with MUFG Bank, Ltd. (the "Mitsubishi Bank Loans") for an aggregate fair value of approximately $5.9 million, which was fully paid in fiscal 2023.

Note 11. Accumulated Other Comprehensive Income

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

The changes in accumulated other comprehensive income (loss), net of tax, were as follows for the periods as presented (*in millions*):

	Foreign currency translation adjustments, net of tax (1)	Defined benefit obligations, net of tax (2)	Unrealized gain (loss) on available-for-sale securities, net of tax (3)	Total
Ending balance as of July 3, 2021	$ 9.7	$ (1.4)	$ (0.1)	$ 8.2
Other comprehensive income (loss)	—	2.4	(10.2)	(7.8)
Ending balance as of July 2, 2022	$ 9.7	$ 1.0	$ (10.3)	$ 0.4
Other comprehensive income (loss)	0.7	(1.4)	4.4	3.7
Ending balance as of July 1, 2023	$ 10.4	$ (0.4)	$ (5.9)	$ 4.1
Other comprehensive income (loss)	(0.6)	1.1	4.7	5.2
Ending balance as of June 29, 2024	$ 9.8	$ 0.7	$ (1.2)	$ 9.3

(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. In fiscal 2023, we acquired IPG telecom transmission product lines. The functional currency of the Brazilian entities acquired as part of this acquisition is the local currency.

(2) We evaluate the assumptions over the fair value of our defined benefit obligations annually and make changes as necessary. During fiscal 2024, 2023 and 2022, our income (loss) on defined benefit obligations is presented net of tax of $0.4 million, nil, and $1.5 million, respectively.

(3) In fiscal 2024, 2023 and 2022, our unrealized gain (loss) on available-for-sale securities is presented net of tax of $1.7 million, $0.8 million and $2.8 million, respectively.

Note 12. Restructuring and Related Charges

We have initiated various strategic restructuring actions primarily 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 acquisitions.

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Balance as of beginning of period	$ 5.0	$ —	$ 5.7
Charges (reversals), net	72.6	28.1	(1.1)
Payments	(66.5)	(23.1)	(4.6)
Balance as of end of period	$ 11.1	$ 5.0	$ —

During the year ended June 29, 2024, we recorded restructuring and related charges of $72.6 million. We discontinued our in-house development of coherent DSPs and RFICs. As a result, we recorded $35.8 million of restructuring and related charges during the fiscal fourth quarter of 2024, which includes $29.1 million write-off of IPR&D assets, as well as $6.7 million of contract exit costs and asset write-offs. The remaining $36.8 million of restructuring and related charges are primarily due to company-wide cost reduction initiatives, as well as our integration efforts to consolidate our manufacturing sites. We have shut down our factories in China which were acquired as part of the NeoPhotonics acquisition and are ramping up production of most of the related products at our Thailand facility. We are also executing our plans to consolidate our wafer fabrication facilities in Japan.

During the year ended July 1, 2023, we recorded restructuring and related charges of $28.1 million in our consolidated statements of operations, which was primarily attributable to company-wide integration efforts as a result of the NeoPhotonics acquisition, our cost reduction initiatives, as well as severance and employee-related benefits associated with NeoPhotonics' executive severance and retention agreements. These agreements provide for payments and benefits upon an involuntary termination of employment under certain circumstances.

During the year ended July 2, 2022, we recorded a net reversal to our restructuring and related charges of $1.1 million in our consolidated statements of operations, which was primarily attributable to lower than anticipated employee severance charges due to retaining and re-assigning certain employees.

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

Note 13. Income Taxes

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Domestic	$ (219.6)	$ (44.3)	$ 77.5
Foreign	(186.1)	(58.1)	157.6
Income before income taxes	$ (405.7)	$ (102.4)	$ 235.1

Our income tax provision consisted of the following (*in millions*):

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Federal:			
Current	$ (10.6)	$ 12.9	$ 13.7
Deferred	124.0	(22.5)	1.0
	113.4	(9.6)	14.7
State:			
Current	1.3	0.9	(0.1)
Deferred	(8.0)	(0.5)	0.3
	(6.7)	0.4	0.2
Foreign:			
Current	52.1	55.3	46.8
Deferred	(18.0)	(16.9)	(25.5)
	34.1	38.4	21.3
Total income tax provision	$ 140.8	$ 29.2	$ 36.2

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 29, 2024	July 1, 2023	July 2, 2022
Income tax provision computed at federal statutory rate	$ (85.2)	$ (21.5)	$ 49.4
Foreign rate differential	58.9	33.6	(50.4)
Change in valuation allowance	150.1	(4.8)	10.5
Tax credits	(1.8)	(46.5)	(23.1)
Stock-based compensation	17.8	19.1	9.6
Permanent items	(3.2)	2.9	0.6
Transaction costs	1.3	2.4	—
Subpart F and GILTI	0.2	44.2	28.2
Unrecognized tax benefits	11.7	8.6	4.1
Change in Tax Rates	(9.9)	—	(1.2)
BEAT	—	(8.0)	8.0
Other	0.9	(0.8)	0.5
Total income tax provision	$ 140.8	$ 29.2	$ 36.2
Effective tax rate	(34.71)%	(28.52)%	15.40 %

Our provision for income taxes for fiscal 2024 differs from the 21% U.S. statutory rate primarily due to the income tax expense associated with the recognition of a valuation allowance on our U.S. federal and state deferred tax assets, earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate and non-deductible stock-based compensation. Additionally, our provision for income taxes includes changes in unrecognized tax benefits, partially offset by the income tax benefit from a change in the applicable statutory income tax rate in certain jurisdictions.

Our provision for income taxes for fiscal 2023 differs from the 21% U.S. statutory rate primarily due to the income tax expense from foreign income inclusions in the U.S., earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate and non-deductible stock-based compensation. Additionally, our provision for income taxes includes income tax benefits from various tax credits and change in valuation allowance as it is more-likely-than-not that certain deferred tax assets will be realizable in the future. During fiscal 2023, we also effectuated certain tax planning actions which reduced the amount of BEAT for fiscal 2022.

Our provision for income taxes for fiscal 2022 differs from the 21% U.S. statutory rate primarily due to the income tax benefit from earnings of our foreign subsidiaries being taxed at rates that differ from the U.S. statutory rate, offset by the tax expense from foreign income inclusions in U.S. Additionally, our provision for income taxes includes income tax benefits from various tax credits offset by an income tax expense from non-deductible stock-based compensation as well as change in valuation allowance as it is not more-likely-than-not that certain deferred tax assets will be realizable in the future.

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

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

	Years Ended	
	June 29, 2024	July 1, 2023
Gross deferred tax assets:		
Intangibles	$ 27.0	$ 11.5
Tax credit carryforwards	109.3	84.3
Net operating loss carryforwards	226.0	218.6
Inventories	11.1	7.9
Accruals and reserves	14.1	11.5
Fixed assets	26.2	18.4
Capital loss carryforwards	11.2	13.9
Capitalized and unclaimed R&D expenditure	77.0	67.2
Stock-based compensation	5.9	8.3
Lease liabilities	13.4	13.8
Other	1.0	2.6
Gross deferred tax assets	522.2	458.0
Valuation allowance	(490.4)	(303.4)
Deferred tax assets	31.8	154.6
Gross deferred tax liabilities:		
Intangible amortization	(59.1)	(21.1)
Convertible notes	(0.1)	(3.4)
Right-of-use assets	(15.0)	(16.1)
Inventories	(2.2)	
Other	(0.4)	(1.4)
Deferred tax liabilities	(76.8)	(42.0)
Total net deferred tax assets	$ (45.0)	$ 112.6

We regularly assess our ability to realize our deferred tax assets on a quarterly basis and will establish a valuation allowance if it is more-likely-than-not that some portion of the deferred tax assets will not 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 tax planning strategies. In fiscal 2024, after considering both positive and negative evidence, we determined that there is sufficient objectively verifiable negative evidence to conclude that it is not more-likely-than-not that our U.S. federal and states deferred tax assets are realizable in the future. As a result, we established a valuation allowance against such deferred tax assets resulting in an income tax expense of $150.1 million. We continue to maintain our valuation allowance on Canada and UK deferred tax assets, and a partial valuation allowance on our Slovenia deferred tax asset. The total valuation allowance against our deferred tax assets increased by $187.0 million in fiscal 2024. We will continue to assess the need for a valuation allowance against our remaining deferred tax assets and may increase or decrease our valuation allowance materially in the future. Based on the information currently available, we do not believe that a significant portion of our valuation allowance for the U.S., California, Canada, and UK 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 of June 29, 2024, the Company had federal and foreign net operating loss carryforwards of $336.4 million and $614.4 million, respectively. These carryforwards will begin to expire in the fiscal year ending 2025. 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 $35.2 million, $84.9 million, and $36.9 million, respectively. The federal credits will begin to expire in the fiscal year ending 2025 and California credits can be carried forward indefinitely. The foreign tax credits will begin to expire in the fiscal year ending 2025. The Company's U.S. federal and state net operating loss and credit carryforwards are subject to annual limitations due to ownership change provisions of Section 382 of the Internal Revenue Code and similar state provisions.

We have certain tax incentives with respect to our operations in China. These tax incentives require compliance with certain conditions and expire at various dates through calendar year 2025. The impact of these tax incentives was an increase in net income of approximately $3.1 million, or $0.05 per share in fiscal 2024, $0.6 million, or $0.01 per share in fiscal 2023, and $0.3 million or $0.00 per share in fiscal year 2022. The Company has also obtained a tax holiday related to certain business activities in Thailand, but to date, has not met the requirements to obtain the benefits of the tax holiday. Accordingly, the earned income is subject to regular Thailand statutory rates.

Current U.S. tax law 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 in our foreign subsidiaries. As a result, U.S. income and foreign withholding taxes associated with the repatriation of $40.8 million of earnings from our foreign subsidiaries, other than the Cayman Islands, Japan, and Hong Kong subsidiaries, have not been provided for. We estimate that an additional $3.0 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 July 1, 2023 and June 29, 2024 are as follows *(in millions)*:

Balance as of July 3, 2021	$	62.1
Increases based on tax positions related to prior year		5.2
Decreases based on tax positions related to prior year		(2.1)
Decreases related to Statute of Limitations		(9.8)
Additions based on tax positions related to current year		6.5
Decreases related to audit settlements		(0.2)
Balance as of July 2, 2022	$	61.7
Increases based on tax positions related to prior year		2.8
Decreases based on tax positions related to prior year		(5.5)
Decreases related to Statute of Limitations		(0.1)
Additions based on tax positions related to current year		7.7
Increases due to acquisition		47.3
Balance as of July 1, 2023	$	113.9
Increases based on tax positions related to prior year		19.6
Decreases based on tax positions related to prior year		(9.4)
Decreases related to Statute of Limitations		(24.8)
Additions based on tax positions related to current year		7.3
Increases due to acquisition		9.1
Balance as of June 29, 2024	$	115.7

As of June 29, 2024, we had $83.0 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 $3.7 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 29, 2024 and July 1, 2023 were $21.0 million and $15.2 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 29, 2024, our fiscal 2012 to 2023 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.

Note 14. Equity

Description of Lumentum Stock-Based Benefit Plans

Equity Incentive Plan

On November 17, 2023, our stockholders approved amendments to the Amended and Restated 2015 Equity Incentive Plan (the “2015 Plan”) to increase the number of shares of common stock reserved for issuance by an additional 3.0 million shares.

As of June 29, 2024, we had 4.7 million shares subject to stock options, restricted stock units, restricted stock awards, and performance stock units issued and outstanding under 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 within four years. The fair value of these grants is based on the closing market price of our common stock on the date of grant. 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 have a vesting period of three years. As of June 29, 2024, 4.3 million shares of common stock under the 2015 Plan were available for grant.

On November 28, 2023 we adopted and assumed the Cloud Light Share Option Scheme (the “Cloud Light Scheme”) in connection with the Cloud Light acquisition and we have reserved a total of 1.5 million shares of common stock for issuance thereunder, of which stock options covering 1.1 million shares were granted at the Cloud Light Closing date.

Stock Options

In connection with the acquisition of Cloud Light, each of Cloud Light’s outstanding options was exchanged for a combination of cash and options to acquire Lumentum common stock having equivalent value (the “replacement options”) using an exchange ratio of 0.04375 according to the terms in the Merger Agreement. At the Cloud Light Closing date, the replacement options covered 1.1 million shares with a weighted average grant date fair value of $34.63. These replacement options have a total fair value of $38.9 million as of the Closing date, of which $23.5 million attributable to pre-acquisition service was recorded as part of the purchase price consideration and the remaining $15.4 million is recorded as post-acquisition stock-based compensation expense over the vesting period of three years from the Cloud Light Closing date. Refer to “Note 4. Business Combination.”

We estimate the fair value of the replacement options on the date of grant using the Black-Scholes option-pricing model. The assumptions used to estimate the fair value of the replacement options are as follows:

	At the Acquisition Date
Expected terms (years)	3.0
Expected volatility	45.0 %
Risk-free interest rate	5.0 %
Dividend yield	— %

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 within four years. For annual refresh grants, RSUs generally vest ratably on an annual, or combination of annual and quarterly, basis over three years.

During fiscal 2024, our board of directors approved grants of 2.0 million shares which primarily vest over three years.

In connection with the NeoPhotonics acquisition, we issued awards to certain NeoPhotonics employees, consisting of restricted stock units in exchange for their NeoPhotonics equity awards. The terms of these replacement awards are substantially similar to the original NeoPhotonics equity awards. The replacement awards consisted of 0.4 million restricted stock units with a grant date fair value of $93.4 per share, which represents our closing stock price on August 3, 2022, the acquisition closing date. The total fair value of these replacement awards is $40.2 million, $3.5 million of which is attributable to employee services rendered through the acquisition closing date and was recognized as a component of the purchase consideration. The remaining $36.7 million of the replacement awards is recorded as stock-based compensation over the remaining vesting period.

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 within three years.

During fiscal 2024, our board of directors approved a grant of 0.3 million PSUs with an aggregate grant date fair value of $16.1 million to executive and non-executive employees as part of our revised Annual Incentive Plan. These PSUs are subject to performance targets and service conditions, with a vesting period of one year. The board of directors also approved a grant of 0.4 million PSUs with an aggregate grant date fair value of $20.8 million to certain executive officers and senior management. These PSUs will vest subject to the achievement of revenue targets and certain non-financial performance measurements, as well as service conditions, over three years.

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 6-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, as amended. 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, 0.7 million shares remained available for issuance as of June 29, 2024.

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		
	June 29, 2024	**July 1, 2023**	**July 2, 2022**
Cost of sales	$ 31.7	$ 30.1	$ 20.8
Research and development	38.1	41.4	22.1
Selling, general and administrative	59.0	76.9	60.2
Total stock-based compensation	$ 128.8	$ 148.4	$ 103.1

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Stock-based compensation for fiscal 2024, 2023 and 2022 includes $6.6 million, $16.0 million and $16.8 million, respectively, of expenses related to PSUs. The amount of stock-based compensation expense recognized in any one period related to PSUs can vary based on the achievement or anticipated achievement of the performance conditions. If the performance conditions are not met or not expected to be met, no compensation expense would be recognized on the underlying PSUs, and any previously recognized compensation expense related to those PSUs would be reversed.

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 29, 2024	July 1, 2023	July 2, 2022
Income tax benefit associated with stock-based compensation	$ 7.5	$ 10.4	$ 12.5

Approximately $14.4 million and $14.2 million of stock-based compensation was capitalized to inventory as of June 29, 2024 and July 1, 2023, respectively.

As of June 29, 2024, $118.8 million of stock-based compensation cost related to RSU awards granted to our employees remains to be amortized. This expense is expected to be recognized over an estimated amortization period of 1.8 years.

Stock Award Activity

The following table summarizes our awards activity in fiscal 2024, 2023 and 2022 *(in millions, except per share amounts)*:

	Stock Options		Restricted Stock Units		Performance Stock Units	
	Number of Shares	Weighted-Average Exercise Price per Share	Number of Shares	Weighted-Average Grant Date Fair Value per Share	Number of Shares	Weighted-Average Grant Date Fair Value per Share
Balance as of July 3, 2021	—	$ —	1.8	$ 76.0	0.3	$ 75.7
Granted	—	—	1.5	87.8	0.2	85.7
Vested/Exercised	—	—	(1.1)	73.4	(0.2)	76.1
Canceled	—	—	(0.2)	79.9	—	58.7
Balance as of July 2, 2022	—	$ —	2.0	$ 85.9	0.3	$ 81.9
Replacement Awards Issued	—	—	0.4	93.4	—	n/a
Granted	—		1.8	85.1	0.6	87.9
Vested/Exercised	—	—	(1.3)	85.8	(0.2)	73.2
Canceled	—	—	(0.3)	87.7	(0.1)	89.2
Balance as of July 1, 2023	—	$ —	2.6	$ 85.0	0.6	$ 89.1
Replacement options in connection with Cloud Light acquisition	1.1	$ 34.6	—	—	—	—
Granted	—	—	2.0	52.2	0.7	52.8
Vested/Exercised [1]	—	8.2	(1.3)	85.7	(0.1)	87.7
Canceled	—	—	(0.6)	68.7	(0.3)	78.7
Balance as of June 29, 2024	1.1	$ 34.6	2.7	$ 62.5	0.9	$ 65.5

(1) Vested/exercised number of shares related to stock options is less than 0.1 million.

A summary of awards available for grant for fiscal 2024, 2023 and 2022 is as follows *(in millions)*:

	Awards Available for Grant
Balance as of July 3, 2021	2.3
Authorized	3.0
Granted	(1.7)
Canceled	0.2
Balance as of July 2, 2022	3.8
Assumed in connection with NeoPhotonics acquisition	0.4
Replacement Awards	(0.4)
Authorized	0.9
Granted	(2.4)
Canceled	0.4
Balance as of July 1, 2023	2.7
Authorized in connection with Cloud Light acquisition	1.5
Replacement options in connection with Cloud Light acquisition	(1.1)
Authorized	3.0
Granted	(2.7)
Canceled	0.9
Balance as of June 29, 2024	4.3

Employee Stock Purchase Plan Activity

The 2015 Purchase Plan expense for fiscal 2024, 2023 and 2022 was $4.7 million, $5.0 million, and $4.6 million, respectively. The expense related to the 2015 Purchase Plan is recorded on a straight-line basis over the relevant subscription period. There were 0.4 million, 0.3 million, and 0.2 million shares issued to employees through the 2015 Purchase Plan during fiscal 2024, 2023 and 2022, respectively.

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 29, 2024	July 1, 2023
Expected term (years)	0.5	0.5
Expected volatility	51.9 %	39.7 %
Risk-free interest rate	5.28 %	4.85 %
Dividend yield	— %	— %

Repurchase and Retirement of Common Stock

Repurchase Made in Connection with Convertible Note Offering

In fiscal 2023, concurrent with the issuance of the 2029 Notes, we repurchased 2.3 million shares of our common stock in privately negotiated transactions at an average price of $53.49 per share for an aggregate purchase price of $125.0 million. We recorded the aggregate purchase price as a reduction of retained earnings within our consolidated balance sheet. These shares were retired immediately.

In fiscal 2022, concurrent with the issuance of the 2028 Notes, we repurchased 2.0 million shares of our common stock in privately negotiated transactions at an average price of $99.0 per share for an aggregate purchase price of approximately $200.0 million. We recorded the aggregate purchase price as a reduction of retained earnings within our consolidated balance sheet and retired these shares immediately.

Share Buyback Program

On May 7, 2021, our board of directors approved the 2021 share buyback program, which authorizes us to use up to $700.0 million to purchase our own shares of common stock. On March 3, 2022, our board of directors approved an increase in our share buyback program, which authorizes us to use up to an aggregate amount of $1.0 billion (an increase from $700.0 million) to purchase our own shares of common stock through May 2024. On April 5, 2023, our board of directors approved a further increase in our share buyback program to authorize us to use up to an aggregate amount of $1.2 billion (an increase from $1.0 billion) to purchase our own shares of common stock through May 2025.

During fiscal 2024, we did not repurchase any shares of our common stock as part of the share buyback program. During fiscal 2023, we repurchased 0.7 million shares of our common stock as part of the share buyback program at an average price of $65.03 per share for an aggregate purchase price of $40.5 million. Since the approval of the share buyback program by the board of directors, we have repurchased 7.7 million shares in aggregate at an average price of $81.66 per share for a total purchase price of $630.4 million. We recorded the $630.4 million of aggregate purchase price as a reduction of retained earnings within our consolidated balance sheets and immediately retired all repurchased shares. As of June 29, 2024, we have $569.6 million remaining under the share buyback program.

The price, timing, amount, and method of future repurchases will be determined based on the evaluation of market conditions and other factors, at prices determined to be in the best interests of the Company and our stockholders. The stock buyback program may be suspended or terminated at any time.

Note 15. 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 the Employee Retirement Income Security Act of 1974 (“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 $23,000 (or $30,500 for employees over 50 years of age) in calendar year 2024 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 2024, 2023 and 2022, our contribution expense to the 401(k) Plan was $3.8 million, $3.8 million, and $3.7 million, respectively.

We also have defined contribution plans in most of the other countries in which we operate, 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 $7.4 million, $8.1 million, and $7.7 million for fiscal 2024, 2023 and 2022, 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 using actuarial valuations provided by third-party actuaries. As of June 29, 2024, our projected benefit obligations, net, in Japan, Switzerland and Thailand were $3.6 million, $2.4 million and $3.6 million, respectively. They were recorded in our consolidated balance sheets as accrued payroll and related expenses for the short-term portion while other non-current liabilities for the long-term portion, and represent the total projected benefit obligation (“PBO”) less the fair value of plan assets.

As of June 29, 2024, the defined benefit plans in Switzerland were partially funded, while the defined benefit plans in Japan and Thailand were unfunded.

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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):*

	June 29, 2024	July 1, 2023
Change in projected benefit obligation:		
Benefit obligation at beginning of year	$ 24.8	$ 17.5
Assumed pension liability in Japan in connection with NeoPhotonics acquisition	—	2.2
Service cost	1.9	1.7
Interest cost	0.4	0.3
Plan participants' contributions	1.1	0.8
Actuarial losses [1]	0.4	0.6
Net benefits payment	(3.3)	1.0
Plan amendments	(0.1)	(0.1)
Foreign exchange impact	(0.7)	0.8
Benefit obligation at end of year	$ 24.5	$ 24.8
Change in plan assets:		
Fair value of plan assets at beginning of year	$ 13.4	$ 9.8
Actual return on plan assets	0.8	(0.5)
Employer contribution	3.1	1.5
Plan participants' contribution	1.1	0.8
Net benefits payment	(3.3)	1.0
Foreign exchange impact	(0.2)	0.8
Fair value of plan assets at end of year	$ 14.9	$ 13.4
Funded status [2]	$ (9.6)	$ (11.4)
Changes in benefit obligations and plan assets recognized in other comprehensive income:		
Prior service cost	$ —	$ —
Amortization of accumulated net actuarial loss	—	—
Settlement loss	(0.1)	—
Net actuarial loss (gain)	(0.1)	1.4
	$ (0.2)	$ 1.4
Accumulated benefit obligation	$ 19.6	$ 20.0

(1) Actuarial losses are primarily driven by changes in discount rates.

(2) The current portion of the projected benefit obligation is $1.0 million and $1.2 million, respectively, as of June 29, 2024 and July 1, 2023, which was recorded under accrued payroll and related expenses in the consolidated balance sheets. The non-current portion of the projected benefit obligation is $8.6 million and $10.2 million, respectively, as of June 29, 2024 and July 1, 2023, which was recorded under other non-current liabilities in the consolidated balance sheets. Refer to "Note 7. Balance Sheet Details."

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Service cost	$ 1.9	$ 1.7	$ 1.8
Interest cost	0.4	0.3	0.1
Amortization of prior service cost	(0.1)	(0.1)	(0.1)
Expected return on plan assets	(0.4)	(0.3)	(0.2)
Amortization of net loss	—	—	0.2
Settlement losses	0.1	—	—
Net periodic pension cost	$ 1.9	$ 1.6	$ 1.8

Assumptions

Underlying both the calculation of the projected benefit obligation 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:

	Years Ended	
	June 29, 2024	July 1, 2023
Assumptions used to determine net periodic cost:		
Discount rate	2.0 %	2.3 %
Expected long-term return on plan assets	3.0 %	2.5 %
Salary increase rate	3.8 %	4.1 %
Assumptions used to determine benefit obligation at end of year:		
Discount rate	1.8 %	1.8 %
Salary increase rate	2.9 %	3.0 %

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 29, 2024 and July 1, 2023 *(in millions, except percentage data*):

	Target allocation	Total	Percentage of plan asset	Fair value measurement as of June 29, 2024	
				Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)
Assets:					
Global equity	33 %	$ 5.1	32 %	$ —	$ 5.1
Fixed income	30 %	4.2	30 %	—	4.2
Alternative investment	13 %	1.9	13 %	—	1.9
Cash	1 %	0.1	1 %	0.1	—
Other assets	23 %	3.6	24 %	—	3.6
Total Assets	100 %	$ 14.9	100 %	$ 0.1	$ 14.8

	Target allocation	Total	Percentage of plan asset	Fair value measurement as of July 1, 2023	
				Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)
Assets:					
Global equity	33 %	$ 4.4	32 %	$ —	$ 4.4
Fixed income	32 %	4.0	30 %	—	4.0
Alternative investment	12 %	1.7	13 %	—	1.7
Cash	1 %	0.1	1 %	0.1	—
Other assets	22 %	3.2	24 %	—	3.2
Total Assets	100 %	$ 13.4	100 %	$ 0.1	$ 13.3

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; alternative investment consists of several funds that invest primarily in hedge funds, infrastructure funds and private equity and debt; and other assets consist of several funds that invest primarily in real estate funds.

Future Benefit Payments

We estimate our expected benefit payments to participants in the defined benefit pension plans 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 (*in millions*):

Fiscal Years	Total
2025	$ 1.8
2026	1.3
2027	1.3
2028	1.7
2029	1.4
Next five years	11.4
Total expected benefit payments	$ 18.9

We expect to contribute $1.6 million to our defined benefit pension plans in fiscal 2025.

Note 16. Commitments and Contingencies

Purchase Obligations

Purchase obligations of $475.1 million as of June 29, 2024 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 these 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 29, 2024	July 1, 2023
Balance as of beginning of period	$ 6.8	$ 10.0
Warranties assumed in NeoPhotonics acquisition	—	0.7
Warranties assumed in Cloud Light acquisition	8.2	—
Provision for warranty	6.0	7.1
Utilization of reserve	(7.8)	(11.0)
Balance as of end of period	$ 13.2	$ 6.8

Environmental Liabilities

Our research and development, 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 and 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. In addition, we are subject to various legal matters, investigations, subpoenas, inquiries, audits, claims, and disputes, including with regulatory bodies and governmental agencies. 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. During the year ended July 1, 2023, we recorded $7.8 million with respect to the pending settlement of certain non-ordinary course litigation matters under accrued expenses in our consolidated balance sheet, which has not been settled as of June 29, 2024.

Oclaro Merger Litigation

In connection with our acquisition of Oclaro in 2018, seven lawsuits were filed by purported stockholders of Oclaro challenging the proposed merger (the "Merger"). All but one was voluntarily dismissed after the Oclaro Merger closed. The remaining lawsuit, SaiSravan B. Karri v. Oclaro, Inc., et al., No. 3:18-cv-03435-JD (the "Karri Lawsuit"), was filed in the United States District Court for the Northern District of California and is styled as a class action.

The Karri Lawsuit alleges, 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 Karri Lawsuit 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 plaintiff in the Karri Lawsuit seeks, among other things, damages to be awarded to the plaintiff and any class, if a class is certified, and litigation costs, including attorneys' fees.

After the plaintiff in the Karri Lawsuit was appointed as lead plaintiff and his counsel as lead counsel, the plaintiff filed a first amended complaint on April 15, 2019. The first amended complaint, also named Lumentum as a defendant but Lumentum has since been dismissed from the action. On October 8, 2020, the court granted in part and denied in part the defendant's motion to dismiss the first amended complaint. On December 1, 2020, defendants answered the first amended complaint. On September 17, 2021, lead plaintiff filed a second amended complaint. Defendants moved to stay discovery in light of the second amended complaint. On January 11, 2022, the Court struck the second amended complaint as untimely, terminated defendants' motions to dismiss as moot, and lifted the stay. The case proceeded through fact and expert discovery.

On August 16, 2022, the lead plaintiff moved for class certification and to be appointed class representative. Defendants opposed the motion. The action subsequently was stayed while the parties participated in a mediation. On January 18, 2023, the lead plaintiff filed a Notice of Settlement informing the court of an agreement in principle between the parties for a class-wide settlement of the Karri Lawsuit. On January 24, 2023, in light of the potential settlement, the court vacated all pretrial and trial dates and ordered the lead plaintiff to file a motion for preliminary approval of the settlement by March 17, 2023. The lead plaintiff filed his motion for preliminary approval of the settlement on March 16, 2023, and defendants filed a statement of non-opposition on March 30, 2023. On April 20, 2023, the court held a hearing on lead plaintiff's motion for preliminary approval of the settlement. The court declined to grant lead plaintiff's motion for preliminary approval and ordered lead plaintiff to file a revised motion by May 22, 2023. Lead plaintiff filed his Revised Motion for Preliminary Approval of Settlement (the "Amended Motion") on May 22, 2023, defendants filed a response in support of the Amended Motion on June 5, 2023, and the lead plaintiff submitted his reply in further support of the Amended Motion on June 12, 2023. The hearing on the Amended Motion took place on August 17, 2023 and the court preliminarily approved the settlement and scheduled the fairness hearing for February 22, 2023. On November 2, 2023, lead plaintiff filed a Motion for an Award of Attorneys' Fees and Expenses and Award to Class Representative Pursuant to 15 U.S.C. §78u-4(a)(4) (the "Fee Motion") and on November 16, 2023, Defendants filed a response to the Fee Motion. On January 11, 2024, lead plaintiff filed a Motion for Final Approval of Class Action Settlement, for Certification of the Settlement Class and for Approval of the Plan of Allocation, and supporting papers. On January 25, 2024, lead plaintiff filed a Reply in Support of Motions for Final Approval of Class Action Settlement and an Award of Attorneys' Fees and Expenses. On July 12, 2024, the court entered an order approving the settlement in all respects and dismissing the action with prejudice. On July 26, 2024, the court entered an order awarding attorneys' fees and expenses and service award to Karri as class representative. Pursuant to the order, the court awarded Karri attorneys' fees in the amount of $5.1 million and expenses in the amount of $0.4 million, all to be paid from the settlement fund, subject to certain conditions.

We recorded the court approved settlement amount of $15.3 million as accrued expenses in our condensed consolidated balance sheet as of June 29, 2024, of which $7.5 million represents the amount to be reimbursed by insurance and was recorded as prepayments and other current assets.

NeoPhotonics Acquisition Litigation

In connection with our acquisition of NeoPhotonics Corporation ("NeoPhotonics") announced in November 2021, ten lawsuits (the "NeoPhotonics Lawsuits") were filed by purported stockholders of NeoPhotonics challenging the acquisition. All of the NeoPhotonics Lawsuits have been dismissed.

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 29, 2024, 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 when 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.

Note 17. Operating Segments and Geographic Information

Prior to fiscal year 2024, we operated in two reportable segments consisting of Optical Communications (“OpComms”) and Commercial Lasers (“Lasers”). During the fiscal first quarter of 2024, our chief operating decision maker (“CODM”) implemented changes in how he organizes the business, allocates resources, and assesses performance. We changed our organizational structure to better align with trends in our markets and our customer and product mix. Our new operating segments are Cloud & Networking and Industrial Tech. The Cloud & Networking segment includes the Telecom & Datacom product lines that were previously part of the OpComms segment. The Industrial Tech segment includes previous Lasers segment and the Industrial & Consumer product lines that were previously part of the OpComms segment. The two operating segments were primarily determined based on how the CODM views and evaluates our operations. The CODM regularly reviews operating results to make decisions about resources to be allocated to the segments and to assess their performance.

In conjunction with this change, our CODM now evaluates each segment’s performance and allocates resources based on segment revenue and segment profit, instead of gross profit, as our CODM believes segment profit is a more comprehensive profitability measure for each operating segment. Segment profit includes operating expenses directly managed by operating segments, including research and development, and direct sales and marketing expenses. Segment profit does not include stock-based compensation, acquisition or integration related costs, amortization and impairment of acquisition-related intangible assets, restructuring and related charges, and certain other charges. Additionally, we do not allocate corporate marketing and strategic marketing expenses and general and administrative expenses, as these expenses are not directly attributable to our operating segments.

Comparative prior period segment information has been recast to conform to the new segment structure and segment profitability measure. The change in our operating segments had no impact on our previously reported consolidated results of operations, financial condition, or cash flows.

We do not track all of our property, plant and equipment by operating segments. The geographic identification of these assets is set forth below.

Cloud & Networking

Our Cloud & Networking products include comprehensive portfolio of optical and photonic components, modules, and subsystems supplied to network operator and network equipment manufacturer customers building cloud data center infrastructure, including products for AI/ML and DCI applications, and communications service provider networks, including products for access (local), metro (intracity), long-haul (city-to-city and worldwide) and submarine (undersea) network infrastructure. Our Cloud & Networking products also support network equipment manufacturers building enterprise network infrastructure, including SANs, LANs, and WANs. These products enable the transmission and transport of data, video, and audio over high-capacity fiber-optic cables. We maintain leading positions in these fast-growing cloud & networking markets through our extensive product portfolio, including high-speed transceivers, reconfigurable optical add/drop multiplexers (“ROADMs”), coherent dense wavelength division multiplexing (“DWDM”) pluggable transceivers, and tunable small form-factor pluggable transceivers. We also sell laser chips for use in manufacturing of high-speed optical transceivers for use primarily inside data centers. Demand for our Cloud & Networking products is driven by the continual growth in network capacity required for cloud computing and services, including for AI/ML, streaming video and video conferencing, wireless and mobile services, and IoT.

Industrial Tech

Our Industrial Tech products include solid-state lasers, kilowatt-class fiber lasers, ultrafast lasers, diode lasers, and gas lasers, which address applications in numerous end-markets. In the consumer end-market, our laser light sources are integrated into our customers’ 3D sensing cameras, which are used in mobile devices, payment kiosks, and other consumer electronics devices to enable applications including biometric identification, computational photography and virtual and augmented reality. In the automotive end-market, our lasers are used in our customers’ LiDAR and other optical sensor devices, which are increasingly being used in advanced driver assistance systems (“ADAS”) and in-cabin driver and occupant monitoring systems. In the industrial manufacturing end-market, our lasers are incorporated into our customers’ manufacturing machine tools used for the precision processing of materials in a range of industries including semiconductor device and microelectronics fabrication, electric vehicle and battery production, metal cutting and welding, and advanced manufacturing. Our products can also be used in the industrial end-market in imaging and sensing systems for process feedback and control, quality assurance, and waste reduction. Adoption of our products in the industrial end-market is driven by the needs of customers to advance semiconductor and microelectronics industry roadmaps, and by Industry 4.0/5.0 trends, including increasing manufacturing precision and flexibility and reducing waste and environmental impact. Demand for our products in the industrial end-market is driven by end-customer investments in manufacturing capacity. Our lasers also address certain semiconductor inspection and life-science applications.

Reportable Segments

The two operating segments, Cloud & Networking and Industrial Tech, also represent our two reportable segments. Our CODM allocates resources and evaluates segment performance based on segment revenue and segment profit. The following table summarizes segment profit and a reconciliation to the consolidated income (loss) before income taxes for the periods presented (*in millions*). Comparative prior period segment information has been recast to conform to the new segment structure.

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

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Net revenue:			
Cloud & Networking	$ 1,084.9	$ 1,322.5	$ 1,008.7
Industrial Tech	274.3	444.5	703.9
Net revenue	$ 1,359.2	$ 1,767.0	$ 1,712.6
Segment profit:			
Cloud & Networking	$ 124.5	$ 313.2	$ 266.9
Industrial Tech	25.1	152.7	373.5
Total segment profit	149.6	465.9	640.4
Unallocated corporate items:			
Selling, general and administrative [1]	(111.8)	(126.7)	(113.4)
Stock-based compensation	(128.8)	(136.5)	(103.1)
Stock-based compensation - acquisition related	—	(11.9)	—
Amortization of acquired intangibles	(150.6)	(127.7)	(85.5)
Amortization of acquired inventory fair value adjustments	(8.3)	(17.8)	—
Acquisition related costs	(13.3)	(11.5)	—
Integration related costs	(37.1)	(28.6)	—
Restructuring and related charges	(72.6)	(28.1)	1.1
Abnormal excess capacity [2]	(20.7)	—	—
Litigation matters	—	(7.8)	—
Intangible asset write-off	—	(21.3)	—
Other charges, net [3]	(40.4)	(63.7)	(36.2)
Interest expense	(33.8)	(35.5)	(80.2)
Other income, net [4]	62.1	48.8	12.0
Consolidated Income (loss) before income taxes	$ (405.7)	$ (102.4)	$ 235.1

[1] We do not allocate selling, general and administrative expenses that are not directly attributable to our operating segments.

[2] Abnormal excess capacity for the twelve months ended June 29, 2024 represents excess capacity attributable to a near-term reduction in our manufacturing production, primarily driven by our non-recurring inventory reduction effort following the disruptions in the supply chain due to the COVID-19 pandemic and factory consolidation efforts.

[3] Other charges, net for the year ended June 29, 2024 primarily relate to $11.2 million of net excess and obsolete inventory, $12.4 million of non-recurring legal and tax related fees, $4.9 million of incremental costs of sales related to components previously acquired from various brokers to satisfy customer demand and $3.4 million of one-time charge as a result of contract termination with one of our vendors due to a change in our manufacturing strategy, offset by various miscellaneous gains. The excess and obsolete inventory charges relate to charges that are not attributable to our operating segments due to their unusual nature, primarily those charges driven by U.S. trade restrictions whereby we are no longer able to sell certain products to one of our customers.

Other charges, net for the year ended July 1, 2023 primarily relate to $32.5 million of incremental costs of sales related to components previously acquired from various brokers to satisfy customer demand, $12.5 million of non-recurring legal and professional fees, $5.4 million of excess and obsolete inventory charges primarily driven by synergies as a result of the NeoPhotonics integration and $2.7 million of excess and obsolete inventory charges driven by U.S. trade restrictions and the related decline in demand from Huawei.

Other charges, net for the year ended July 2, 2022 primarily relate to $14.0 million of incremental costs of sales related to components previously acquired from various brokers to satisfy customer demand, $8.4 million of transaction costs related to the acquisition of NeoPhotonics and $9.4 million of professional service fees related to optimizing our international legal structure, offset by a $5.9 million gain from selling equipment that was no longer needed after we transferred certain product lines to new production facilities in fiscal 2021.

(4) Other income, net for the year ended June 29, 2024 includes interest and investment income of $61.3 million, and foreign exchange gains, net of $0.8 million.

Other income, net for the year ended July 1, 2023 includes interest and investment income of $40.8 million, foreign exchange gains, net of $7.0 million and other income, net of $1.0 million.

Other income, net for the year ended July 2, 2022 includes interest and investment income of $6.1 million, foreign exchange gains, net of $6.1 million, offset by other expense, net of $0.2 million.

Concentrations

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 to. 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 29, 2024		July 1, 2023		July 2, 2022	
	Amount	% to Total	Amount	% to Total	Amount	% to Total
Net revenue:						
Americas:						
United States	$ 356.1	26.2 %	$ 241.3	13.7 %	$ 173.9	10.2 %
Mexico	91.7	6.7	180.0	10.2	160.9	9.4
Other Americas	3.4	0.3	9.3	0.5	12.1	0.7
Total Americas	$ 451.2	33.2 %	$ 430.6	24.4 %	$ 346.9	20.3 %
Asia-Pacific:						
Thailand	$ 183.8	13.5 %	$ 269.0	15.2 %	$ 102.3	5.9 %
Hong Kong	261.9	19.3	246.7	14.0	458.2	26.7
South Korea	75.2	5.5	170.2	9.6	265.2	15.5
Japan	84.6	6.2	179.5	10.2	181.2	10.6
Other Asia-Pacific	174.3	12.9	276.3	15.6	242.4	14.2
Total Asia-Pacific	$ 779.8	57.4 %	$ 1,141.7	64.6 %	$ 1,249.3	72.9 %
EMEA	$ 128.2	9.4 %	$ 194.7	11.0 %	$ 116.4	6.8 %
Total net revenue	$ 1,359.2	100.0 %	$ 1,767.0	100.0 %	$ 1,712.6	100.0 %

During the years ended June 29, 2024, July 1, 2023, and July 2, 2022, net revenue generated from a single customer which represented 10% or greater of total net revenue is summarized as follows:

	Years Ended		
	June 29, 2024	July 1, 2023	July 2, 2022
Customer A	18.9 %	*	*
Customer B	*	12.1 %	28.7 %
Customer C	11.4 %	15.3 %	12.6 %
Customer D	*	10.5 %	*
*Represents less than 10% of total net revenue			

The following table sets forth accounts receivable from a single customer that represented 10% or greater of the total accounts receivable for the periods presented:

	June 29, 2024	July 1, 2023
Customer 1	12.9 %	*
Customer 2	*	14.3 %
Customer 3	*	11.9 %
Customer 4	*	11.9 %
*Represents less than 10% of total accounts receivable		

Long-lived assets, namely 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)*:

	June 29, 2024	July 1, 2023
Property, plant and equipment, net		
United States	$ 131.0	$ 134.7
Thailand	141.0	132.0
Japan	75.7	93.0
United Kingdom	83.8	38.2
China	85.7	42.1
Other countries	55.3	49.5
Total property, plant and equipment, net	$ 572.5	$ 489.5

We purchase a portion of our inventory from contract manufacturers and vendors located primarily in Thailand, Taiwan and Malaysia. The following table sets forth inventory purchase from a single contract manufacturer that represented 10% or greater of our total net inventory purchases for the periods presented:

	June 29, 2024	July 1, 2023
Contract Manufacturer A	30.3 %	42.5%

Note 18. Revenue Recognition

Disaggregation of Revenue

We disaggregate revenue by segment 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 millions, except percentage data*):

	Years Ended					
	June 29, 2024		July 1, 2023		July 2, 2022	
	Amount	% to Total	Amount	% to Total	Amount	% to Total
Cloud & Networking	$ 1,084.9	79.8 %	$ 1,322.5	74.8 %	$ 1,008.7	58.9 %
Industrial Tech	274.3	20.2 %	444.5	25.2 %	703.9	41.1 %
Net revenue	$ 1,359.2	100.0 %	$ 1,767.0	100.0 %	$ 1,712.6	100.0 %

Contract Balances

The following table reflects the changes in contract balances for the periods presented (*in millions, except percentages*):

Contract balances	Balance sheet location	June 29, 2024	July 1, 2023	Change	Percentage Change
Accounts receivable, net	Accounts receivable, net	$ 194.7	$ 246.1	$ (51.4)	(20.9)%
Deferred revenue and customer deposits	Other current liabilities	$ 0.6	$ 2.1	$ (1.5)	(71.4)%

Note 19. Subsequent Events

In July 2024, we purchased the land and building of our wafer fabrication facility located in Sagamihara, Japan for a total transaction price of $46.5 million including related fees and refundable consumption taxes. Our lease of the building at the premises, which was originally scheduled to end in March 2033, was terminated as a result of the purchase. We derecognized the related right-of-use assets of $31.9 million and lease liability of $17.4 million at the purchase completion date. In connection with the transaction, we entered into a secured mortgage loan agreement with Sumitomo Mitsui Banking Corporation (“SMBC”) that provided us with a term loan in an aggregate principal amount of 6.4 billion Japanese yen (“JPY”), which is approximately $43.5 million based on the exchange rate on August 9 2024, the loan effective date. The loan requires monthly payment of principal totaling approximately 3.2 billion JPY and interest based on a fixed annual interest rate of 1.04%, with the remaining principle of approximately 3.2 billion JPY due on the loan maturity date of July 31, 2029.

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 29, 2024. 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 29, 2024, 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 29, 2024 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. GAAP.

On November 7, 2023, we completed the acquisition of Cloud Light Technology Limited (“Cloud Light”). We excluded Cloud Light from our assessment of internal control over financial reporting as of June 29, 2024. Total assets and revenues of Cloud Light that were excluded from our assessment of internal control over financial reporting constitute approximately 21% and 15% of the consolidated total assets and revenues, respectively, as of and for the year ended June 29, 2024. We are in the process of integrating the acquired business into our existing operations and evaluating the internal controls over financial reporting of the acquired business. We believe that we have taken necessary steps to monitor and maintain appropriate internal control over financial reporting during this integration.

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 29, 2024.

(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.

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 29, 2024, 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 29, 2024, 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 29, 2024, of the Company and our report dated August 21, 2024, expressed an unqualified opinion on those financial statements.

As described in Management's Report on Internal Control Over Financial Reporting, management excluded from its assessment the internal control over financial reporting at Cloud Light Technology Limited, which was acquired on November 7, 2023, and whose financial statements constitute approximately 21% and 15% of consolidated total assets and revenues, respectively, as of and for the year ended June 29, 2024. Accordingly, our audit did not include the internal control over financial reporting of Cloud Light Technology Limited.

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 21, 2024

ITEM 9B. OTHER INFORMATION

Securities Trading Plans of Directors and Executive Officers

During our last fiscal quarter, no director or officer, as defined in Rule 16a-1(f), adopted or terminated a “Rule 10b5-1 trading arrangement” or a “non-Rule 10b5-1 trading arrangement,” each as defined in Regulation S-K Item 408.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

The SEC allows us to include information required in this Annual 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 2024 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 Annual Report, and certain information to be contained therein is incorporated in this Annual Report by reference.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

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

ITEM 11. EXECUTIVE COMPENSATION

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

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

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

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

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

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

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

PART IV

ITEM 15. EXHIBIT AND, FINANCIAL STATEMENT SCHEDULES

1. Financial Statements

The financial statements filed as part of this Annual Report are listed in the section titled "Financial Statements and Supplementary Data" under Part II, Item 8 of this Annual Report.

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

	(in millions)			
	Balance at beginning of period	**Increase (decrease) in Consolidated Statements of Operations**	**Write-offs and other adjustments**	**Balance at end of period**
Allowance for credit losses:				
Fiscal year ended June 29, 2024	$ —	$ 0.2	$ —	$ 0.2
Fiscal year ended July 1, 2023	$ —	$ —	$ —	$ —
Fiscal year ended July 2, 2022	$ 0.4	$ (0.1)	$ (0.3)	$ —

	(in millions)			
	Balance at beginning of period	**Additions charged to costs/expenses [1]**	**Deductions credited to costs/expenses [2]**	**Balance at end of period**
Deferred tax valuation allowance:				
Fiscal year ended June 29, 2024	$ 303.4	$ 205.4	$ (18.4)	$ 490.4
Fiscal year ended July 1, 2023	$ 263.1	$ 42.7	$ (2.4)	$ 303.4
Fiscal year ended July 2, 2022	$ 269.5	$ 5.7	$ (12.1)	$ 263.1

(1) 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.

(2) Net 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.

3. Exhibits

The following exhibits are filed herewith or are incorporated by reference to exhibits previously filed with the Securities and Exchange Commission.

Exhibit No.	Exhibit Description	Incorporated by Reference Form	Exhibit	Filing Date	Filed Herewith
2.1	Contribution Agreement	8-K	2.1	8/6/2015	
2.2	Separation and Distribution Agreement	8-K	2.2	8/6/2015	
2.3	Agreement and Plan of Merger, dated as of October 29, 2023, by and among Lumentum Holdings Inc., Cloud Light, and Crius Merger Sub, Inc.	8-K	2.1	10/30/2023	
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	Description of Capital Stock	10-K	4.4	8/27/2019	
4.2	Indenture, dated December 12, 2019, between Lumentum Holdings Inc. and U.S. Bank National Association.	8-K	4.1	12/12/2019	
4.3	Form of 0.50% Convertible Senior Note due 2026 (included in Exhibit 4.2).	8-K	4.2	12/12/2019	
4.4	Indenture dated March 8, 2022, between Lumentum Holdings Inc. and U.S. Bank Trust Company, National Association	8-K	4.1	3/8/2022	
4.5	Form of 0.50% Convertible Senior Note due 2028 (included in Exhibit 4.4)	8-K	4.2	3/8/2022	
4.6	Indenture, dated June 16, 2023, between Lumentum Holdings Inc. and U.S. Bank Trust Company, National Association.	8-K	4.1	6/16/2023	
4.7	Form of 1.50% Convertible Senior Note due 2029 (included in Exhibit 4.6).	8-K	4.2	6/16/2023	
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 and Restated September 15, 2023	8-K	10.1	11/21/2023	
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	
10.7*	Amended and Restated Change in Control and Severance Benefits Plan, effective August 22, 2023	10-Q	10.1	11/8/2023	
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	
10.11*	Global Performance Unit Award Agreement	10-Q	10.1	5/9/2023	
10.12*	Global Restricted Stock Unit Award Agreement	10-Q	10.2	5/9/2023	
19.1	Lumentum Holdings Inc. Insider Trading Policy				X
21.1	Subsidiaries of Lumentum Holdings Inc.				X
23.1	Consent of Independent Registered Public Accounting Firm (Deloitte & Touche LLP)				X

31.1	Certification of the Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X
31.2	Certification of the Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X
32.1†	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X
32.2†	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X
101	The following financial information from Lumentum Holdings Inc.'s Annual Report on Form 10-K for the fiscal year ended June 29, 2024 formatted in Inline XBRL (eXtensible Business Reporting Language): (i) Consolidated Statements of Operations for the fiscal years ended June 29, 2024, July 1, 2023 and July 2, 2022; (ii) Consolidated Statements of Comprehensive Income for the fiscal years ended June 29, 2024, July 1, 2023 and July 2, 2022; (iii) Consolidated Balance Sheets as of June 29, 2024 and July 1, 2023; (iv) Consolidated Statements of Cash Flows for the fiscal years ended June 29, 2024, July 1, 2023 and July 2, 2022 ; (v) Consolidated Statements of Stockholders' Equity for the fiscal years ended June 29, 2024, July 1, 2023 and July 2, 2022; and (vi) Notes to the Consolidated Financial Statements	X
104	The cover page from Lumentum Holdings Inc.'s Annual Report on Form 10-K for the fiscal year ended June 29, 2024, formatted in Inline XBRL (included as Exhibit 101).	X

* Indicates management contract or compensatory plan or arrangement.

† 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.

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 21, 2024 LUMENTUM HOLDINGS INC.

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 Jae Kim, 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.

Signature	Title	Date
/s/ ALAN LOWE Alan Lowe	President, Chief Executive Officer and Director (principal executive officer)	August 21, 2024
/s/ WAJID ALI Wajid Ali	Executive Vice President, Chief Financial Officer (principal financial officer)	August 21, 2024
/s/ MATTHEW SEPE Matthew Sepe	Chief Accounting Officer (principal accounting officer)	August 21, 2024
/s/ HAROLD COVERT Harold Covert	Director	August 21, 2024
/s/ JULIE JOHNSON Julie Johnson	Director	August 21, 2024
/s/ PENELOPE HERSCHER Penelope Herscher	Director	August 21, 2024
/s/ BRIAN LILLIE Brian Lillie	Director	August 21, 2024
/s/ IAN SMALL Ian Small	Director	August 21, 2024
/s/ JANET WONG Janet Wong	Director	August 21, 2024
/s/ ISAAC HARRIS Isaac Harris	Director	August 21, 2024
/s/ PAMELA FLETCHER Pamela Fletcher	Director	August 21, 2024

Lumentum Holdings Inc.
Insider Trading Policy

Lumentum Holdings Inc. (together with any subsidiaries, collectively the "***Company***") has adopted this Insider Trading Policy (the "***Policy***") to help you comply with the federal and state securities laws and regulations that govern trading in securities and to help the Company minimize its own legal and reputational risk.

It is your responsibility to understand and follow this Policy. Insider trading is illegal and a violation of this Policy. In addition to your own liability for insider trading, the Company, as well as individual directors, officers and other supervisory personnel, could face liability. Even the appearance of insider trading can lead to government investigations or lawsuits that are time-consuming, expensive and can lead to criminal and civil liability, including damages and fines, imprisonment and bars on serving as an officer or director of a public company, not to mention irreparable damage to your and the Company's reputation.

For purposes of this Policy, the Company's General Counsel serves as the Compliance Officer. The Compliance Officer may designate others, from time to time, to assist with the execution of his or her duties under this Policy.

I. Trading in Company Securities While in Possession of Material Nonpublic Information is Prohibited

The purchase or sale of securities by any person who possesses material nonpublic information is a violation of federal and state securities laws. Furthermore, it is important that the *appearance*, as well as the fact, of trading on the basis of material nonpublic information be avoided. Therefore, it is the Company's policy that any person subject to this Policy who possesses material nonpublic information pertaining to the Company may not trade in the Company's securities, advise anyone else to do so (or express a recommendation or opinion about the Company's securities, including posting online regarding the Company's securities), or communicate the information to anyone else except as necessary to perform your job duties.

In addition, material nonpublic information about another company such as a customer, supplier or competitor, that you learn through your service with the Company is subject to these same restrictions around disclosure and trading and you cannot use that information to trade securities. Any such action will be deemed a violation of this Policy.

II. No Disclosure of Confidential Information

You may not at any time disclose material nonpublic information about the Company or about another company that you obtained in connection with your service with the Company to friends, family members or any other person or entity that the Company has not authorized to know such information. In addition, you must handle the confidential information of others in accordance with any related nondisclosure agreements and other obligations that the Company has with them and limit your use of the confidential information to the purpose for which it was disclosed.

The Company is required under the federal securities laws to avoid the selective disclosure of material nonpublic information. The Company has established procedures for releasing material information in a manner that is designed to achieve broad dissemination of the information immediately upon its release. Employees may not, therefore, disclose material information to anyone outside the Company, including family members and friends, other than in accordance with those established procedures.
Any inquiries from outsiders regarding material nonpublic information about the Company should be forwarded to the Compliance Officer.

III. All Employees, Officers, Directors and their Family Members and Affiliates Are Subject to this Policy

This Policy applies to all directors, officers, employees and consultants of the Company and its subsidiaries. For the purposes of this Policy, officers, outside directors and consultants are included within the term "***employee***." This Policy also applies to any other persons whom the Company's insider trading Compliance Officer may designate because they have access to material nonpublic information concerning the Company, as well as any person who receives material nonpublic information from any Company insider. This Policy applies to family members who reside with employees, officers and directors (including a spouse, a child, a child away at college, stepchildren, grandchildren, parents, stepparents, grandparents, siblings and in-laws), anyone else who lives in such persons' household and any family members who do not live in their household but whose transactions in the Company's securities are directed by employees, officers and directors or are subject to the control or influence by such persons, such as parents or children who consult with such persons before they trade in the Company's securities (collectively referred to as "***Family Members***"). You are responsible for the transactions of these other persons and therefore should make them aware of the need to confer with you before they trade in the Company's securities, and you should treat all such transactions for purposes of this Policy and applicable securities laws as if the transactions were for your own account. This Policy does not, however, apply to personal securities transactions of Family Members where the purchase or sale decision is made by a third party not controlled by, influenced by or related to you or your Family Members. This Policy also applies to any entities (such as trusts, limited partnerships and corporations) over which employees, officers and directors have or share voting or investment control (collectively referred to as "***Controlled Entities***"), and transactions by Controlled Entities should also be treated for purposes of this Policy and applicable securities laws as if they were for your own account.

IV. Executive Officers, Directors and Certain Named Employees Are Subject to Additional Restrictions

Section 16 Insiders. The Company has designated certain persons who are subject to the reporting provisions and trading restrictions of Section 16 of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***"), and the underlying rules and regulations promulgated by the SEC. Each such person is referred to herein as a "Section 16 Insider." The Company will maintain a list of Section 16 Insiders and amend such list from time to time as necessary to reflect the addition and the resignation or departure of Section 16 Insiders.

Access Persons. The Company has also identified other employees who, by virtue of their position, have regular access to material nonpublic financial information concerning the Company, particularly nonpublic information concerning quarterly operating results, or who perform an operational role, such as head of a division or business unit, that is material to the Company as a whole and often involves access to material nonpublic information about the Company ("***Access Persons***"). The Company maintains the list of Access Persons and may amend such list from time to time as necessary to reflect the addition and the resignation or departure of Access Persons. All Access Persons are notified that they are considered Access Persons.

Additional Restrictions. Because Section 16 Insiders and Access Persons are more likely than other employees to possess material nonpublic information about the Company, Section 16 Insiders and Access Persons are subject to the additional restrictions set forth in **APPENDIX I** hereto. For purposes of this Policy, Section 16 Insiders and Access Persons are each referred to as "Insiders."

V. Applicability of This Policy to Transactions in Company Securities

This Policy applies to all transactions in the Company's securities, including common stock, options to purchase common stock or other equity awards and any other securities the Company may issue from time to time, such as preferred stock, convertible notes, warrants and convertible debentures, as well as derivative securities relating to the Company's stock, whether or not issued by the Company, such as exchange-traded options or swaps. For purposes of this Policy, the term "***trade***" includes any transaction in the Company's securities, including gifts, loans, hedges, pledges and any other transfer, purchase or disposition or any other arrangement that generates gains or losses based on changes in the prices of such securities. This Policy also applies to any offer to engage in the foregoing transactions.

VI. Definition of "Material Nonpublic Information"

A. **"Material"**. Information is "material" with respect to a company if a reasonable investor would consider it important in making a decision to buy, sell or retain securities of such company, or if the disclosure of the information would be expected to significantly alter the total mix of the information in the marketplace about the company. In simple terms, material information is any type of information which could reasonably be expected to affect the market price of the Company's securities. Both positive and negative information may be material. While it is not possible to identify all information that would be deemed material, the following types of information ordinarily would be considered material:

- Financial performance, especially quarterly and year-end operating results, and significant changes in financial performance or liquidity, including earnings guidance.
- Company projections and strategic plans.
- Potential mergers or acquisitions, the purchase or sale of Company assets, joint ventures or major partnering agreements.
- New major contracts, orders, suppliers, customers or financing sources or the loss thereof.
- Significant new products, technologies or marketing plans.
- The loss or acquisition of a significant customer or supplier.
- Significant changes or developments in supplies or inventory, including significant vendor problems, product defects, recalls or product returns.

- Significant capital investment plans or changes in such plans.
- Significant pricing changes on key products/services.
- Stock splits, public or private securities/debt offerings, or changes in Company dividend policies or amounts.
- Significant personnel changes, particularly in senior management, or changes in membership of the Board of Directors.
- Actual or threatened major litigation, or the resolution of such litigation.
- Major financings or borrowings.
- A change in auditors or notification that the auditors reports may no longer be relied upon.
- Significant data breaches or other cybersecurity events.
- Any substantial change in industry circumstances or competitive conditions that could significantly affect the Company's earnings.

B. "**Nonpublic**". Material information is "nonpublic" if it has not been widely disseminated to the general public; for example, through a report filed with the SEC or through a press release disseminated on a major newswire, and the public has had a chance to absorb and evaluate it.

C. **Consult the Compliance Officer When in Doubt**. Any employees who are unsure whether the information that they possess is material or nonpublic must consult the Compliance Officer for guidance before trading in any Company securities.

VII. Trading Restrictions

Subject to the exceptions set forth below, this Policy restricts trading during certain periods and by certain people as follows:

A. **Quarterly Blackout Periods**. Except as specifically permitted by this Policy, all Section 16 Insiders and Access Persons must refrain from conducting transactions involving the Company's securities during quarterly blackout periods. Individuals subject to quarterly blackout periods will be informed by the Compliance Officer that they are subject to such blackout periods. To the extent applicable to you, quarterly blackout periods also cover your immediate family members, persons with whom you share a household, persons who are your economic dependents and any entity whose transactions in securities you influence, direct or control. Even if you are not specifically identified as being subject to quarterly blackout periods, you should exercise caution when engaging in transactions during quarterly blackout periods because of the heightened risk of insider trading exposure.

Quarterly blackout periods will start at the end of the last trading day of the second month of each fiscal quarter and will end at the close of the second full trading day following the Company's earnings release.

The prohibition against trading during the blackout period also means that brokers cannot fulfill open orders on your behalf or on behalf of your immediate family members, persons with whom you share a household, persons who are your economic dependents or any entity whose transactions in securities you influence, direct or control, during the blackout period, including "limit orders" to buy or sell stock at a specific price or better and "stop orders" to buy or sell stock once the price of the stock reaches a specified price. If you are subject to blackout periods or pre-clearance requirements, you should so inform any broker with whom such an open order is placed at the time placed.

B. **Special Blackout Periods**. The Company always retains the right to impose additional or longer trading blackout periods at any time on any or all of its directors, officers, employees, consultants, contractors and advisors. The Compliance Officer will notify you if you are subject to a special blackout period by providing to you a notice in writing or via email. If you are notified that you are subject to a special blackout period, you may not engage in any transaction involving Company's securities until the special blackout period has ended other than the transactions that are covered by the exceptions below. You also may not disclose to anyone else that the Company has imposed a special blackout period. To the extent applicable to you, special blackout periods also cover your immediate family members, persons with whom you share a household, persons who are your economic dependents and any entity whose transactions in securities you influence, direct or control.

VIII. Certain Types of Transactions Are Prohibited or Strongly Discouraged

A. **Short Sales**. Short sales of the Company's securities evidence an expectation on the part of the seller that the securities will decline in value, and therefore signal to the market that the seller has no confidence in the Company or its short-term prospects. In addition, short sales may reduce the seller's incentive to improve the Company's performance. For these reasons, short sales of the Company's securities are **prohibited** by this Policy. In addition, Section 16(c) of the Exchange Act expressly prohibits executive officers and directors from engaging in short sales.

B. **Publicly Traded Options**. A transaction in options is, in effect, a bet on the short-term movement of the Company's stock and therefore may create the appearance that the director or employee is trading based on inside information. Transactions in options also may focus the director's or employee's attention on short-term performance at the expense of the Company's long-term objectives.
Accordingly, transactions in puts, calls or other derivative securities involving the Company's stock, on an exchange or in any other organized market, are **prohibited** by this Policy. (Option positions arising from certain types of hedging transactions are governed by the section below captioned "***Hedging Transactions***.")

C. **Hedging Transactions**. Certain forms of hedging or monetization transactions, such as zero-cost collars and forward sale contracts, allow an employee to lock in much of the value of his or her stock holdings, often in exchange for all or part of the potential for upside appreciation in the stock. These transactions allow the employee to continue to own the covered securities, but without the full risks and rewards of ownership. When that occurs, the employee may no longer have the same objectives as the Company's other shareholders. Therefore, such transactions involving the Company's securities are **prohibited** by this Policy.

D. **Margin Accounts and Pledges**. Securities held in a margin account as collateral for a margin loan may be sold by the broker without the customer's consent if the customer fails to meet a margin call. Similarly, securities pledged (or hypothecated) as collateral for a loan may be sold in foreclosure if the borrower defaults on the loan. Because a margin sale or foreclosure sale may occur at a time when the pledgor is aware of material nonpublic information or otherwise is not permitted to trade in Company securities, directors, officers and other employees are **prohibited** from holding Company securities in a margin account or pledging Company securities as collateral for a loan.

E. **Standing and Limit Orders**. Standing and limit orders create heightened risks for insider trading violations because there is no control over the timing of the purchases or sales and, as a result, the broker may execute the transaction when you are aware of material nonpublic information. For this reason, the Company discourages the use of standing or limit orders of Company securities. If you determine that you must use a standing or limit order, it should be of limited duration and should otherwise comply with the restrictions set forth in this Policy.

IX. Certain Types of Transactions Are Permitted or Not Subject to This Policy

There are no unconditional "safe harbors" for trades made at particular times, and all persons subject to this Policy should exercise good judgment at all times. Even when a quarterly blackout period is not in effect, you may be prohibited from engaging in transactions involving the Company's securities because you possess material nonpublic information, are subject to a special blackout period or are otherwise restricted under this Policy.

The following are certain limited exceptions to the quarterly and special blackout period restrictions and pre-clearance requirements imposed by the Company under this Policy:

A. stock option exercises where the purchase price of such stock options is paid in cash and there is no other associated market activity;

B. purchases pursuant to the employee stock purchase plan; however, this exception does not apply to subsequent sales of the shares;

C. receipt and vesting of stock options, restricted stock units, restricted stock or other equity compensation awards from the Company;

D. net share withholding with respect to equity awards where shares are withheld by the Company in order to satisfy tax withholding requirements, (*x*) as required by either the Company's board of directors (or a committee thereof) or the award agreement governing such equity award or (*y*) as you elect, if permitted by the Company, so long as the election is irrevocable and made in writing at a time when a trading blackout is not in place and you are not in possession of material nonpublic information;

E. sell to cover transactions where shares are sold on your behalf upon vesting of equity awards and sold in order to satisfy tax withholding requirements, (*x*) as required by either the Company's board of directors (or a committee thereof) or the award agreement governing such equity award or (*y*) as you elect, if permitted by the Company, so long as the election is irrevocable and made in writing at a time when a trading blackout is not in place and you are not in possession of material nonpublic information; however, this exception does not apply to any other market sale for the purposes of paying required withholding;

F. transactions made pursuant to a valid 10b5-1 trading plan approved by the Company;

G. transfers by will or the laws of descent or distribution and, provided that prior written notice is provided to the Compliance Officer, distributions or transfers (such as certain tax planning or estate planning transfers) that effect only a change in the form of beneficial interest without changing your pecuniary interest in the Company's securities; and

H. changes in the number of the Company's securities you hold due to a stock split or a stock dividend that applies equally to all securities of a class, or similar transactions.

X. Violations of Insider Trading Laws or This Policy Can Result in Severe Consequences

A. **Civil and Criminal Penalties**. The consequences of prohibited insider trading or tipping can be severe. Persons violating insider trading or tipping rules may be required to disgorge the profit made or the loss avoided by the trading, pay civil penalties of up to three times the profit made or loss avoided, face private action for damages, as well as being subject to criminal penalties, including up to 20 years in prison and fines of up to $5 million. The Company and/or the supervisors of the person violating the rules may also be required to pay major civil or criminal penalties.

B. **Company Discipline**. Violation of this Policy or federal or state insider trading laws by any director, officer or employee may subject the director to removal proceedings and the officer or employee to disciplinary action by the Company, including termination for cause. The Company may also take such action as may be advisable to prevent or mitigate the risk of insider trading, including breaking or reversing trades, at the sole cost of the director, officer or employee.

C. **Reporting Violations**. Any person who violates this Policy or any federal or state laws governing insider trading, or knows of any such violation by any other person, must report the violation immediately to the Compliance Officer or the Audit Committee of the Company's Board of Directors Upon learning of any such violation, the Compliance Officer or Audit Committee, in consultation with the Company's legal counsel, will determine whether the Company should release any material nonpublic information or whether the Company should report the violation to the SEC or other appropriate governmental authority.

D. **Protected Activity Not Prohibited**. Nothing in this Policy, or any related guidelines or other documents or information provided in connection with this Policy, shall in any way limit or prohibit you from engaging in any of the protected activities set forth in the Company's Whistleblower Policy, as amended from time to time.

XI. Every Individual Is Responsible

Every employee has an individual responsibility to comply with this Policy against illegal insider trading. An employee may, from time to time, have to forego a proposed transaction in the Company's securities even if he or she planned to make the transaction before learning of the material nonpublic information and even though the employee believes that he or she may suffer an economic loss or forego anticipated profit by waiting.

XII. This Policy Continues to Apply Following Termination of Employment

This Policy continues to apply to transactions in the Company's securities even after termination of employment. If an employee is in possession of material nonpublic information when his or her employment terminates, he or she may not trade in the Company's securities until that information has become public or is no longer material. In the event you terminate your relationship with the Company while you are subject to a blackout period, you will remain subject to the blackout period for its duration.

XIII. This Policy Is Subject to Revision

The Company may change the terms of this Policy from time to time to respond to developments in law and practice. The Company will take steps to inform all affected persons of any material change to this Policy.

XIV. All Employees Must Acknowledge Their Agreement to Comply with This Policy

This Policy will be made available on the Company's intranet and delivered to all employees upon its adoption or material revision, and to all new other employees at the start of their employment or relationship with the Company. Upon first receiving a copy of the Policy or any revised versions, each employee must execute an acknowledgment that he or she has received a copy and agrees to comply with the Policy's terms. This acknowledgment and agreement will constitute consent for the Company to impose sanctions for violation of this Policy and to issue any necessary stop-transfer orders to the Company's transfer agent to enforce compliance with this Policy.

XV. Amendments

We are committed to continuously reviewing and updating our policies and procedures. The Company therefore reserves the right to amend, alter or terminate this policy at any time and for any reason, subject to applicable law. A current copy of the Company's policies regarding insider trading may be obtained by contacting the Compliance Officer.

* * *

Nothing in this Insider Trading Policy creates or implies an employment contract or term of employment. Employment at the Company is employment at-will. Employment at-will may be terminated with or without cause and with or without notice at any time by the employee or the Company. Nothing in this Insider Trading Policy shall limit the right to terminate employment at-will. No employee of the Company has any authority to enter into any agreement for employment for a specified period of time or to make any agreement or representation contrary to the Company's policy of employment at-will. Only the Chief Executive Officer of the Company has the authority to make any such agreement, which must be in writing.

The policies in this Insider Trading Policy do not constitute a complete list of Company policies or a complete list of the types of conduct that can result in discipline, up to and including discharge.

APPENDIX I

Special Restrictions on Transactions in Company Securities by Executive Officers, Directors and Access Persons

I. Overview

To minimize the risk of apparent or actual violations of the rules governing insider trading, we have adopted these special restrictions relating to transactions in Company securities by Insiders. As with the other provisions of the Company's Insider Trading Policy, Insiders are responsible for ensuring compliance with this Appendix I, including restrictions on all trading during certain periods, by family members and members of their households and by entities over which they exercise voting or investment control. Insiders should provide each of these persons or entities with a copy of the Insider Trading Policy and this Appendix.

II. Pre-Clearance of Trades

As part of the Company's Insider Trading Policy, ***all trades (as defined in the Insider Trading Policy) in the Company's securities by Insiders, other than transactions that are not subject to the Insider Trading Policy or transactions pursuant to a Rule 10b5-1 trading plan approved in accordance with this Appendix, must be pre- cleared by the Compliance Officer.*** The intent of this requirement is to prevent inadvertent violations of the Insider Trading Policy, avoid trades involving the appearance of improper insider trading, facilitate timely Form 4 reporting and avoid transactions that are subject to disgorgement under Section 16(b) of the Exchange Act.

Requests for pre-clearance must be submitted to the Compliance Officer in writing at least two (2) business days in advance of each proposed transaction. If the Insider submits the request by email and does not receive a response from the Compliance Officer within twenty-four (24) hours, the Insider will be responsible for following up to ensure that the message was received. Pre-clearance of a trade, however, is not a defense to a claim of insider trading and does not excuse an Insider from otherwise complying with insider trading laws or the Insider Trading Policy.

A request for pre-clearance should provide the following information:

- The nature of the proposed transaction and the expected date of the transaction.
- The number of shares involved.
- If the transaction involves a stock option exercise, the specific option to be exercised and the manner of exercise (e.g., "***same-day sale***" or "***cashless exercise***").
- Contact information for the broker who will execute the transaction.

Once the proposed transaction is pre-cleared, the Insider may proceed with it on the approved terms, provided that he or she complies with all other securities law requirements, such as Rule 144 and prohibitions regarding trading on the basis of inside information, and with any special trading blackout imposed by the Company prior to the completion of the trade. If the Insider is a Section 16 Insider, the Insider and his or her broker will be responsible for immediately reporting the results of the transaction as further described below.

In addition, pre-clearance is required for the establishment of a Rule 10b5-1 trading plan. However, pre-clearance will not be required for individual transactions effected pursuant to a pre-cleared Rule

10b5-1 trading plan that was approved by the Compliance Officer. Of course, transactions effected by a Section 16 Insider under a Rule 10b5-1 trading plan must be reported immediately to the Company since they will be reportable on Form 4 within two (2) business days following the execution of the trade.

Notwithstanding the foregoing, any transactions by the Compliance Officer shall be subject to pre- clearance by the Chief Financial Officer or, in the event of his or her unavailability, the Chief Executive Officer.

III. Designated Brokers

Each market transaction in the Company's stock by a Section 16 Insider, or any person whose trades must be reported by that Insider on Form 4 (such as a member of the Insider's immediate family who lives in the Insider's household), must be executed by a broker designated by the Company unless the Insider has received authorization from the Compliance Officer to use a different broker.

IV. Reporting of Transactions

To facilitate timely reporting under Section 16 of the Exchange Act of Insider transactions in Company stock, Section 16 Insiders are required to (a) report the details of each transaction immediately after it is executed and (b) arrange with persons whose trades must be reported by the Section 16 Insider under Section 16 (such as immediate family members living in the Insider's household) to immediately report directly to the Company and to the Insider the details of any transactions they have in the Company's stock.

Transaction details to be reported include:

- Transaction date (trade date).
- Number of shares involved.
- Price per share at which the transaction was executed (before addition or deduction of brokerage commissions and other transaction fees).
- If the transaction was a stock option exercise, the specific option exercised.
- Contact information for the broker who executed the transaction.

The transaction details must be reported to the Compliance Officer, with copies to the Company personnel who will assist the Section 16 Insider in preparing his or her Form 4.

Notwithstanding the foregoing, the obligation to file Section 16 reports, and to otherwise comply with Section 16, is personal. The Company is not responsible for the failure to comply with Section 16 requirements.

V. Persons Subject to Section 16

Most transfers of Company securities by directors, executive officers and greater-than-10% stockholders are subject to Section 16 of the Exchange Act. An executive officer is generally defined as the president, principal financial officer, principal accounting officer or controller, any vice president in charge of a principal business unit, division or function or any other officer or person who performs a policy making function. In general, the Board of Directors or its designated committee will determine individuals deemed to be executive officers subject to Section 16.

VI. Form 4 Reporting

Under Section 16, most transactions in Company securities by Section 16 Insiders are subject to reporting on Form 4 within two (2) business days following the transaction date (which in the case of an open market trade is the date when the broker places the buy or sell order, not the date when the trade is settled). To facilitate timely reporting, all transactions that are subject to Section 16 must be reported to the Company ***on the same day as the trade date***, or, with respect to transactions effected pursuant to a Rule 10b5-1 trading plan, on the day the Insider is advised of the terms of the transaction.

VII. Insider Employees

The Company will keep a list of individuals deemed to be "Insiders" for purposes of this **Appendix I**. Insiders shall include Section 16 Insiders and such other persons as the Compliance Officer deems to be Insiders ("***Insider Employees***"). Generally, an Insider Employee shall be any person who by virtue of his or her position is regularly in possession of material nonpublic information, particularly nonpublic information concerning quarterly operating results, or who performs an operational role, such as head of a division or business unit, that is material to the Company as a whole.

VIII. Requirements for 10b5-1 Trading Plans

For transactions under a trading plan to be exempt from the prohibitions in the Company's Insider Trading Policy with respect to transactions made while aware of material nonpublic information and the pre-clearance procedures and blackout periods established under the Insider Trading Policy, the trading plan must comply with the affirmative defense set forth in Exchange Act Rule 10b5-1 and must meet the following requirements:

1. The trading plan must be in writing and signed by the person adopting the trading plan.
2. The trading plan must be adopted at a time when:
   a. the person adopting the trading plan is not aware of any material nonpublic information; and
   b. there is no quarterly, special or other trading blackout in effect with respect to the person adopting the plan.
3. The trading plan must be entered in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b5-1, and the person adopting the trading plan must act in good faith with respect to the trading plan.
4. The trading plan must include representations that, on the date of adoption of the trading plan, the person adopting the trading plan:
   a. is not aware of material nonpublic information about the securities or the Company; and
   b. is adopting the trading plan in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b5-1.

5. The person adopting the trading plan may not have entered into or altered a corresponding or hedging transaction or position with respect to the securities subject to the trading plan and must agree not to enter into any such transaction while the trading plan is in effect.
6. The first trade under the trading plan may not occur until the expiration of a cooling-off period consisting of the later of (a) 90 calendar days after the adoption of the trading plan and (b) two business days after the filing by the Company of its financial results in a Form 10-Q or Form 10-K for the completed fiscal quarter in which the trading plan was adopted (but, in any event, this required cooling-off period is subject to a maximum of 120 days after adoption of the trading plan).
7. The trading plan must have a minimum term of one year (starting from date of adoption of the trading plan).
8. All transactions during the term of the trading plan (except for the limited exceptions identified in Section IX of the Insider Trading Policy and *bona fide* gifts) must be conducted through the trading plan. In addition, the person adopting the trading plan may not have an outstanding (and may not subsequently enter into any additional) trading plan except as permitted by Rule 10b5-1. For example, as contemplated by Rule 10b5-1, a person may adopt a new trading plan before the scheduled termination date of an existing trading plan, so long as the first scheduled trade under the new trading plan does not occur prior to the last scheduled trade(s) of the existing trading plan and otherwise complies with these guidelines. Termination of the existing trading plan prior to its scheduled termination date may impact the timing of the first trade or the availability of the affirmative defense for the new trading plan; therefore, persons adopting a new trading plan are advised to exercise caution and consult with the Compliance Officer prior to the early termination of an existing trading plan.
9. Any modification or change to the amount, price or timing of transactions under the trading plan is deemed the termination of the trading plan, and the adoption of a new trading plan (***"Modification"***). Therefore, a Modification is subject to the same conditions as a new trading plan as set forth in Items 1 through 8 herein.
10. Within the one year preceding the adoption or a Modification of a trading plan, a person may not have otherwise adopted or done a Modification to a plan more than once.
11. A person may adopt a trading plan designed to cover a single trade only once in any consecutive 12-month period except as permitted by Rule 10b5-1.
12. If the person that adopted the trading plan terminates the plan prior to its stated duration, he or she may not trade in the Company's securities until after the expiration of 30 calendar days following termination, and then only in accordance with the Insider Trading Policy.
13. The Company must be promptly notified of any Modification or termination of the trading plan, including any suspension of trading under the trading plan.
14. The Company must have authority to require the suspension or cancellation of the trading plan at any time.
15. If the trading plan grants discretion to a stockbroker or other person with respect to the execution of trades under the trading plan:
    a. trades made under the trading plan must be executed by someone other than the stockbroker or other person that executes trades in other securities for the person adopting the trading plan;
    b. the person adopting the trading plan may not confer with the person administering the trading plan regarding the Company or its securities; and

   c. the person administering the trading plan must provide prompt notice to the Company of the execution of a transaction pursuant to the plan.

16. All transactions under the trading plan must be in accordance with applicable law.
17. The trading plan (including any Modification) must meet such other requirements as the Compliance Officer may determine. The Company reserves the right to withhold approval of any Plan that the 10b5-1 Committee determines, in its sole discretion:
    a. fails to comply with applicable legal requirements;
    b. exposes the Company or the Insider to liability under any other applicable state or federal rule, regulation or law;
    c. creates any appearance of impropriety;
    d. fails to meet guidelines for such plans established by the Company from time to time; or
    e. otherwise fails to satisfy review by the Compliance Officer for any reason.
18. Any trading plans adopted or modified prior to February 27, 2023 (the ***"Effective Date"***) are permitted to continue in place until all trades are executed thereunder or they expire by their terms (***"Grandfathered Plans"***). If the person undertakes a Modification of a Grandfathered Plan on or after the Effective Date, then the Modification must meet all of the requirements set forth herein.

Lumentum Holdings Inc.

Re: Insider Trading Policy Ladies and Gentlemen:

Enclosed is a copy of the Insider Trading Policy of Lumentum Holdings Inc. (the "***Company***") as currently in effect. **Please read it very carefully.** As it indicates, the consequences of insider trading can be drastic to both you and the Company.

To show that you have read the policy and agree to be bound by it, please sign and return the attached copy of this letter to Judy Hamel, General Counsel, the Company's Compliance Officer, as soon as possible.

Very truly yours,

____

By:
Its:

Certification

The undersigned certifies that the undersigned has read, understands and agrees to comply with the Insider Trading Policy of Lumentum Holdings Inc. (the "***Company***"). The undersigned agrees that the undersigned will be subject to sanctions, including, as to employees of the Company, termination of employment, that may be imposed by the Company, in its discretion, for violation of the Company's policy, and that the Company may give stop-transfer and other instructions to the Company's transfer agent against the transfer of Company securities by the undersigned in a transaction that the Company considers to be in contravention of its policy.

Employee or Insider:

____

Signature

____

Printed Name

____

Date

Revision History

Rev	Origination Date	Change Order	Change Description	Originator(s)
000	2023-02-23	ECO-110713	Initial Release	Judy Hamel
001	2023-11-15	ECO-116633	Typo corrections	Neha Sareen

This document is controlled in the Lumentum PLM database. Verify correct version before use. When any part of this document requires amendment, the document shall be reissued in its entirety; requests for change shall be addressed to Product Lifecycle & Configuration Management.

Exhibit 21.1

LIST OF SUBSIDIARIES
LUMENTUM HOLDINGS INC.
AS OF JUNE 29, 2024

Name of Entity	State or Other Jurisdiction of Incorporation or Organization
DOMESTIC	
LumentumRadiant GmbH - U.S. Branch	California
Lumentum Inc.	Delaware
Lumentum Designs LLC	Delaware
Lumentum Operations LLC	Delaware
Lumentum Italy Inc.	Delaware
Lumentum Fiber Optics, Inc.	Delaware
Lumentum Optics Inc.	Delaware
Lumentum Systems LP	Delaware
NeoPhotonics Corporation	Delaware
Cloud Light Technology U.S.A Inc.	California
INTERNATIONAL	
Bookham International Ltd.	Cayman Islands
Bookham Nominees Ltd.	United Kingdom
LumentumEdge GmbH	Switzerland
LumentumRadiant GmbH	Switzerland
Lumentum Asia Limited	Hong Kong
Lumentum (BVI) Ltd	British Virgin Islands
Lumentum Canada ULC	Canada
Lumentum Cayman Limited	Cayman Islands
Lumentum Communication Technology (Shenzhen) Co., Ltd.	China
Lumentum Communication Technology (Shenzhen) Co., Ltd. Wuhan Branch	China
Lumentum d.o.o. Optična vlakna	Slovenia
Lumentum HoldCo Limited	Hong Kong
Lumentum HoldCo Limited, Philippine Branch	Philippines
Lumentum HoldCo Limited - Taiwan Branch	Taiwan
Lumentum International (Thailand) Co., Ltd.	Thailand
Lumentum International Tech Co.	Cayman Islands
Lumentum Israel Ltd	Israel
Lumentum Italy Inc. - Branch	Italy
Lumentum Japan Inc.	Japan
Lumentum G.K.	Japan
Lumentum Netherlands B.V.	Netherlands
Lumentum Netherlands B.V. - France Branch	France
Lumentum Netherlands B.V. - Germany Branch	Germany
Lumentum Ottawa ULC	Canada
Lumentum SK Limited	South Korea
Lumentum Switzerland AG	Switzerland
Lumentum Taiwan Co., Ltd.	Taiwan

Lumentum Technologies ULC	Canada
Lumentum Technology UK Limited	United Kingdom
Oclaro Germany GmbH	Germany
Oclaro Innovations LLP	United Kingdom
Oclaro Malaysia Sdn Bhd	Malaysia
Oclaro Technology (Shenzhen) Co. Ltd.	China
Novel Centennial Limited	BVI
NeoPhotonics SemiConductor G.K.	Japan
NeoPhotonics Corporation (R&D Center – Canada branch)	Canada
NeoPhotonics (China) Co., Ltd.	China
NeoPhotonics Corporation Limited	Hong Kong
NeoPhotonics Dongguan Co. Ltd.	China
IDEA – SISTEMAS ELETRONICOS S.A.	Brazil
PI-TECNOLOGIA LTDA	Brazil
BRPHOTONICS PRODUTOS OPTOELETRONICOS LTDA	Brazil
LumentumEdge GmbH (Italy branch)	Italy
Cloud Light Optoelectronics Limited	British Virgin Islands
Cloud Light Technology Philippines Inc.	Philippines
Cloud Light Technology Pte Limited	Singapore
Cloud Light Technology Limited	Hong Kong
Dongguan Cloud Light Technology Limited	China
Taiwan Cloud Light Technology Limited	Taiwan

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-276989, 333-275830, 333-266543, 333-264779, 333-228905, 333-215937, and 333-205918 on Form S-8 of our reports dated August 21, 2024, 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 29, 2024.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
August 21, 2024

Exhibit 31.1

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 21, 2024

/s/ ALAN LOWE

Alan Lowe
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

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 21, 2024

/s/ WAJID ALI

Wajid Ali
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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 29, 2024 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 21, 2024

/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.

Exhibit 32.2

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 29, 2024 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 21, 2024

/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.