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 30, 2022

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 000-09992

KLA CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**04-2564110**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

One Technology Drive,	**Milpitas,**	**California**	**95035**
(Address of Principal Executive Offices)			**(Zip Code)**

Registrant's Telephone Number, Including Area Code: (408) 875-3000
Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, $0.001 par value per share	KLAC	The Nasdaq Stock Market, LLC The NASDAQ Global Select Market

Securities Registered Pursuant to Section 12(g) of the Act:
None
(Title of Class)

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

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

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

Indicate by check mark whether the registrant has submitted electronically 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 the definitions 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. ☒

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant based upon the closing price of the registrant's stock, as of December 31, 2021, was approximately $64.80 billion.

The registrant had 141,803,776 shares of common stock outstanding as of July 18, 2022.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2022 Annual Meeting of Stockholders ("Proxy Statement") to be filed pursuant to Regulation 14A within 120 days after the registrant's fiscal year ended June 30, 2022, are incorporated by reference into Part III of this report.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than statements of historical fact may be forward-looking statements. You can identify these and other forward-looking statements by the use of words such as “may,” “will,” “could,” “would,” “should,” “expects,” “plans,” “anticipates,” “relies,” “believes,” “estimates,” “predicts,” “intends,” “potential,” “continues,” “thinks,” “seeks,” or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements. Such forward-looking statements include those regarding, among others: the future impacts of the COVID-19 pandemic; forecasts of the future results of our operations, including profitability; orders for our products and capital equipment generally; sales of semiconductors; the investments by our customers in advanced technologies and new materials; growth of revenue in the semiconductor industry, the semiconductor capital equipment industry and our business; technological trends in the semiconductor industry; future developments or trends in the global capital and financial markets; our future product offerings and product features; the success and market acceptance of new products; timing of shipment of order backlog; our future product shipments and product and service revenues; our future gross margins; our future research and development (“R&D”) expenses and selling, general and administrative (“SG&A”) expenses; international sales and operations; our ability to maintain or improve our existing competitive position; success of our product offerings; creation and funding of programs for R&D; results of our investment in leading edge technologies; the effects of hedging transactions; the effect of the sale of trade receivables and promissory notes from customers; the effect of future compliance with laws and regulations; our future effective income tax rate; our recognition of tax benefits; the effects of any audits or litigation; future payments of dividends to our stockholders; the completion of any acquisitions of third parties, or the technology or assets thereof; benefits received from any acquisitions and development of acquired technologies; sufficiency of our existing cash balance, investments, cash generated from operations and the unfunded portion of our Revolving Credit Facility (as defined below) to meet our operating and working capital requirements, including debt service and payment thereof; future dividends, and stock repurchases; our compliance with the financial covenants under the Credit Agreement (as defined below) for our Revolving Credit Facility; the adoption of new accounting pronouncements; our repayment of our outstanding indebtedness; and our environmental, social and governance (“ESG”) related targets, goals and commitments.

Our actual results may differ significantly from those projected in the forward-looking statements in this report. Factors that might cause or contribute to such differences include, but are not limited to:

- *The impact of the COVID-19 pandemic on the global economy and on our business, financial condition and results of operations, including the supply chain constraints we are experiencing as a result of the pandemic;*
- *Economic, political and social conditions in the countries in which we, our customers and our suppliers operate, including rising inflation and interest rates, Russia's invasion of Ukraine and global trade policies;*
- *Disruption to our manufacturing facilities or other operations, or the operations of our customers, due to natural catastrophic events, health epidemics or terrorism;*
- *Ongoing changes in the technology industry, and the semiconductor industry in particular, including future growth rates, pricing trends in end-markets, or changes in customer capital spending patterns;*
- *Our ability to timely develop new technologies and products that successfully anticipate or address changes in the semiconductor industry;*
- *Our ability to maintain our technology advantage and protect our proprietary rights;*
- *Our ability to compete with new products introduced by our competitors;*
- *Our ability to attract, onboard and retain key personnel;*
- *Cybersecurity threats, cyber incidents affecting our and our customers, suppliers and other service providers' systems and networks and our and their ability to access critical information systems for daily business operations;*
- *Liability to our customers under indemnification provisions if our products fail to operate properly or contain defects or our customers are sued by third parties due to our products;*
- *Exposure to a highly concentrated customer base;*
- *Availability and cost of the wide range of materials used in the production of our products;*
- *Our ability to operate our business in accordance with our business plan;*
- *Legal, regulatory and tax environments in which we perform our operations and conduct our business and our ability to comply with relevant laws and regulations;*
- *Increasing attention to ESG matters and the resulting costs, risks and impact on our business;*
- *Our ability to pay interest and repay the principal of our current indebtedness is dependent upon our ability to manage our business operations, our credit rating and the ongoing interest rate environment, among other factors;*

- *Instability in the global credit and financial markets;*
- *Our exposure to currency exchange rate fluctuations, or declining economic conditions in those countries where we conduct our business;*
- *Changes in our effective tax rate resulting from changes in the tax rates imposed by jurisdictions where our profits are determined to be earned and taxed, expiration of tax holidays in certain jurisdictions, resolution of issues arising from tax audits with various authorities or changes in tax laws or the interpretation of such tax laws;*
- *Our ability to identify suitable acquisition targets and successfully integrate and manage acquired businesses; and*
- *Unexpected delays, difficulties and expenses in executing against our environmental, climate, diversity and inclusion or other ESG targets, goals and commitments outlined in this report.*

This report contains ESG-related statements based on hypothetical scenarios and assumptions as well as estimates that are subject to a high level of uncertainty, and these statements should not necessarily be viewed as being representative of current or actual risk or performance, or forecasts of expected risk or performance. In addition, historical, current, and forward-looking environmental and social-related statements may be based on standards for measuring progress that are still developing, and internal controls and processes that continue to evolve. Forward-looking and other statements in this report may also address our corporate responsibility and sustainability progress, plans, and goals, and the inclusion of such statements is not an indication that these contents are necessarily material for the purposes of complying with or reporting pursuant to the U.S. federal securities laws and regulations, even if we use the word "material" or "materiality" in this report.

For a more detailed discussion of these and other risk factors, that might cause or contribute to differences from the forward looking statements in this report, see Item 1A, "Risk Factors" in this Annual Report on Form 10-K, as well as in Item 1, "Business" and Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this report. You should carefully review these risks and also review the risks described in other documents we file from time to time with the Securities and Exchange Commission ("SEC"), including the Quarterly Reports on Form 10-Q that we will file in the fiscal year ending June 30, 2023. You are cautioned not to place undue reliance on these forward-looking statements, and we expressly assume no obligation and do not intend to update the forward-looking statements in this report after the date hereof.

PART I

ITEM 1. BUSINESS

Certain industry and technical terms used in this section are defined in the subsection entitled "Glossary" found at the end of this Item 1.

The Company

KLA Corporation and its majority-owned subsidiaries ("KLA" or the "Company" and also referred to as "we," "our," "us," or similar references) is a supplier of industry-leading equipment and services that enables innovation throughout the electronics industry. We provide advanced process control and process-enabling solutions for manufacturing wafers, reticles, chemicals/materials, integrated circuits ("IC" or "chip"), packaged ICs, printed circuit boards ("PCB"), and flat panel displays ("FPD"), as well as comprehensive support and services across our installed base. Our suite of advanced products, coupled with our unique yield management software and services, allow us to deliver the solutions our customers need to achieve their productivity goals, including improving yields and reducing waste, by significantly reducing their risks and costs and improving their overall profitability and return on investment.

KLA was formed as KLA-Tencor in April 1997 through the merger of KLA Instruments Corporation and Tencor Instruments, two long-time leaders in the semiconductor capital equipment industry that began operations in 1975 and 1976, respectively. On February 20, 2019, KLA completed the acquisition of Orbotech, Ltd. ("Orbotech"), a global supplier of yield-enhancing and process-enabling solutions for the manufacture of electronics products, in order to target growth opportunities in new and expanding end markets. We are organized into four reportable segments: Semiconductor Process Control; Specialty Semiconductor Process; PCB, Display and Component Inspection; and Other.

Within the Semiconductor Process Control segment, our comprehensive portfolio of inspection, metrology and software products, and related services, help IC, wafer, reticle and chemical/materials manufacturers achieve target yields throughout the entire fabrication process, from R&D to final volume production. These products and services are designed to provide comprehensive solutions to help customers accelerate development and production ramp cycles, achieve higher and more stable product yields and improve their overall profitability.

Within the Specialty Semiconductor Process segment, which includes the SPTS business, KLA develops and sells advanced vacuum deposition and etching process tools, which are used by a broad range of specialty semiconductor customers, including manufacturers of microelectromechanical systems ("MEMS"), radio frequency ("RF") communication semiconductors, and power semiconductors for automotive and industrial applications.

Within the PCB, Display and Component Inspection segment, which includes the PCB, FPD, Frontline and ICOS businesses, KLA enables electronic device manufacturers to inspect, test and measure PCBs, FPDs and packaged ICs to verify their quality, pattern the desired electronic circuitry on the relevant substrate and perform three-dimensional shaping of metalized circuits on multiple surfaces.

Additional information about KLA is available at www.kla.com. The Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available free of charge on the website as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Information contained on KLA's website is not part of this Annual Report on Form 10-K or KLA's other filings with the SEC. Additionally, these filings may be obtained through the SEC's website (www.sec.gov), which contains reports, proxy and information statements, and other information regarding issuers that file electronically.

Investors and others should note that KLA announces material financial information to investors using an investor relations website (ir.kla.com), which includes KLA's SEC filings, press releases, public earnings calls and conference webcasts. The investor relations website is used to communicate with the public about the Company, products, services and other matters.

Industry

KLA's core focus is enabling technological advances as well as improving manufacturing yields in the semiconductor industry. The semiconductor fabrication process begins with a bare silicon wafer - a round disk that is typically 200 millimeters or 300 millimeters in diameter, about as thick as a credit card and gray in color. The process of manufacturing wafers is highly sophisticated and involves the creation of large ingots of silicon by pulling them out of a vat of molten silicon. The ingots are then sliced into wafers. Prime silicon wafers are then polished to a mirror finish. Other, more specialized wafers, such as epitaxial silicon ("epi"), silicon on insulator ("SOI"), gallium nitride ("GaN") and silicon carbide ("SiC") are also common in the semiconductor industry.

The manufacturing cycle of an IC is grouped into three phases: design, fabrication and testing. IC design involves the architectural layout of the circuit, as well as design verification and reticle generation. The fabrication of a semiconductor chip (or “semiconductor”) is accomplished by depositing a series of film layers that act as conductors, semiconductors or insulators on bare wafers. The deposition of these film layers is interspersed with numerous other process steps that create circuit patterns, remove portions of the film layers, and perform other functions such as heat treatment, measurement and inspection. Most advanced chip designs require hundreds of individual steps, many of which are performed multiple times. The majority of chips consist of two main structures: the lower structure, typically consisting of transistors or capacitors which perform the “smart” functions; and the upper “interconnect” structure, typically consisting of circuitry which connects the components in the lower structure. When the layers on the wafer have been fabricated, each chip on the wafer is tested for functionality. The wafer is then cut into individual chips, and the chips that pass functional testing are packaged. Final testing is performed on all packaged chips. Packaged chips are then mounted onto PCBs for connection to the rest of the electronic system. Additionally, FPDs are manufactured using processes similar to ICs (e.g., film deposition, photolithography, etching) except using glass as the starting substrate.

Our business depends upon the capital expenditures of semiconductor, semiconductor-related and electronic device manufacturers, which in turn is driven by the current and anticipated market demand for ICs, products utilizing ICs and other electronic components. We do not consider our business to be seasonal in nature, but it has historically been cyclical with respect to the capital equipment procurement practices of semiconductor, semiconductor-related and electronic device manufacturers, and it is impacted by the investment patterns of such manufacturers in different global markets. Downturns in the semiconductor or other industries in which we operate, or slowdowns in the worldwide economy as well as customer consolidation, could have a material adverse effect on our future business and financial results.

Companies that anticipate future market demands by developing and advancing new technologies and manufacturing processes are better positioned to lead in the semiconductor market. Accelerating the yield ramp and maximizing production yields of high-performance devices are key goals of modern semiconductor manufacturing. Ramping to high-volume production ahead of competitors can dramatically increase the revenue an IC manufacturer realizes for a given product. Leading semiconductor manufacturers are investing in simultaneous production integration of multiple new process technologies, some requiring new substrate and film materials, new geometries, new transistor architectures, new power distribution schemes, advanced multi-patterning optical and extreme ultraviolet (“EUV”) lithography, and advanced packaging techniques. While many of these technologies have been adopted at the development and pilot production stages of semiconductor manufacturing, significant challenges and risks associated with each technology have affected the adoption of these technologies into high-volume production. For example, as design rules decrease, yields become more sensitive to the size and density of defects. Device performance characteristics (namely speed, capacity or power management) also become more sensitive to parameters such as linewidth and film thickness variation. New process materials require extensive characterization before they can be used in the manufacturing process. Moving several of these advanced technologies into production at once only adds to the risks that chipmakers face. The continuing evolution of semiconductors to smaller geometries and more complex multi-level circuitry has significantly increased the performance and cost requirements of the capital equipment used to manufacture these devices. Construction of an advanced IC fabrication facility today can cost well above $10 billion, substantially more than previous-generation facilities. In addition, chipmakers are demanding increased productivity and higher returns from their manufacturing equipment and are also seeking ways to extend the performance of their existing equipment.

The semiconductor capital equipment industry is currently experiencing multiple growth drivers bolstered by demand for semiconductors from leading edge foundry and logic manufacturers to support computational power and connectivity for markets such as artificial intelligence (“AI”) and 5G wireless technology. Growth of virtual engagement and the pace of digitization have been driven by COVID-19 related travel restrictions and quarantines, work from home requirements, and advances in healthcare and industrial applications. These factors together with the increasing adoption of electric vehicles and intelligence in automobiles are powering leading-edge design node technology investments and capacity expansions. Intertwined in these areas, spurred by the requirements of big data, is the growth in demand for memory chips. Regionalization of semiconductors has become a trend as access to semiconductors is viewed from the lens of national security. China continues to emerge as a major region for the manufacturing of logic and memory chips, adding to its role as the world’s largest consumer of ICs. Government initiatives are propelling China to expand its domestic manufacturing capacity. Although China is currently seen as an important long-term growth region for the semiconductor capital equipment sector, the U.S. Department of Commerce (“Commerce”) has added certain China-based entities to the U.S. Entity List, restricting our ability to provide products and services to such entities without a license. In addition, Commerce has imposed export licensing requirements on China-based customers engaged in military end uses, as well as requiring our customers to obtain an export license when they use certain semiconductor capital equipment based on U.S. technology to manufacture products connected to Huawei or its affiliates. While these new rules have not significantly impacted our operations to date, such actions by the U.S. government or another country could impact our ability to provide our products and services to existing and potential customers and adversely affect our business.

Research and Development

The market for semiconductor and electronics industries is characterized by rapid technological development and product innovation. These technical innovations are inherently complex and require long development cycles and appropriate professional staffing. We make significant investments in product R&D for the timely development of new products and enhancements necessary to maintain our competitive position. Accordingly, we devote a significant portion of our human and financial resources to R&D programs and seek to maintain close relationships with customers to remain responsive to their needs.

Our key R&D activities during the fiscal year ended June 30, 2022 involved the development of process control and process-enabling solutions for a broad range of industries including semiconductors, PCBs and displays. For information regarding our R&D expenses during the last three fiscal years, see Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in this Annual Report on Form 10-K.

The strength of our competitive positions in many of our existing markets is largely due to our leading technology, which is the result of our continuing significant investments in product R&D. Even during down cycles in the semiconductor industry, we have remained committed to significant engineering efforts toward both product improvement and new product development in order to enhance our competitive position.

Customers

We count among our largest customers the leading semiconductor, semiconductor-related and electronic device manufacturers in Asia, the U.S. and Europe. Our future performance will depend, in part, on our ability to continue to compete successfully in Asia, one of the largest markets for our equipment. Our ability to compete in this area is dependent upon the continuation of favorable trading relationships between countries in the region and the U.S,, and our continuing ability to maintain satisfactory relationships with leading semiconductor companies in the region.

For the fiscal years ended June 30, 2022, 2021 and 2020, the following customers each accounted for more than 10% of total revenues, primarily in the Semiconductor Process Control segment:

Year Ended June 30,		
2022	2021	2020
Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited
Samsung Electronics Co., Ltd.	Samsung Electronics Co., Ltd.	Samsung Electronics Co., Ltd.

Sales, Service and Marketing

Our sales, service and marketing efforts are aimed at building deep long-term relationships with our customers. We focus on providing comprehensive resources for the full breadth of process control, process-enabling and yield management solutions for manufacturing and testing wafers and reticles, ICs, packaging, light-emitting diodes (“LED”), power devices, compound semiconductor devices, MEMS, data storage, PCBs and flat and flexible panel displays, as well as general materials research. Our revenues are derived primarily from product sales and related service contracts, mostly through our direct sales force.

We believe that the size and location of our field sales, service and applications engineering, and marketing organizations represent a competitive advantage in our served markets. We have direct sales forces in Asia, the U.S. and Europe. We maintain an export compliance program that is designed to meet the requirements of Commerce and the U.S. Department of State.

In addition to sales and service offices in the U.S., we conduct sales, marketing and services out of subsidiaries or branches in many countries, some of the largest include China, Germany, Israel, Japan, Korea, Singapore, Taiwan and the United Kingdom. We believe that sales outside the U.S. will continue to be a significant percentage of our total revenues. International revenues accounted for approximately 90%, 89%, and 89% of our total revenues in the fiscal years ended June 30, 2022, 2021 and 2020, respectively. Additional information regarding our revenues from foreign operations for our last three fiscal years can be found in Note 19 “Segment Reporting and Geographic Information” to our Consolidated Financial Statements.

International sales and operations may be adversely affected by the imposition of governmental controls, restrictions on export technology, political instability, trade restrictions, changes in tariffs and the difficulties associated with staffing and managing international operations. In addition, international sales may be adversely affected by the economic conditions in each country and by fluctuations in currency exchange rates, and such fluctuations may negatively impact our ability to compete on price with local providers or the value of revenues we generate from our international business. Although we attempt to manage some of the currency risk inherent in non-U.S. dollar product sales through hedging activities, there can be no assurance that such efforts will be adequate. These factors, as well as any of the other risk factors related to our international business and operations that are described in Item 1A "Risk Factors," could have a material adverse effect on our future business and financial results.

Products

KLA develops industry-leading equipment and services that enable innovation throughout the electronics industry. We provide advanced process control and process-enabling solutions for manufacturing wafers, reticles, ICs, packaging, PCBs, and flat and flexible panel displays.

The Semiconductor Process Control segment offers a comprehensive portfolio of inspection, metrology and software products and related services, which support the semiconductor ecosystem from R&D to final volume production. For IC manufacturing, our systems support production of all chip types including advanced logic, DRAM, 3D NAND, power devices, MEMS, legacy design node chips and more. Our substrate manufacturing systems support the production of a broad range of wafer types and sizes including silicon, prime silicon SOI, sapphire, glass, wide bandgap substrates (e.g., SiC, GaN) and more. Our reticle systems support quality control during manufacturing of optical and EUV reticle types. We also produce products that support chemical/materials quality control, and process tool development and qualification. Our products and services for IC, wafer, reticle, original equipment manufacturer ("OEM") and chemical/materials manufacturing are designed to provide comprehensive solutions that help our customers accelerate development and production ramp cycles, achieve higher and more stable product yields and improve their overall profitability. The Semiconductor Process Control segment offers a variety of solutions and products, including:

Segment	Technologies	Products
Semiconductor Process Control		
	IC Manufacturing: Wafer Inspection and Review Inspection and review tools are used to identify, locate, characterize, review, and analyze defects on various surfaces of patterned and unpatterned wafers.	39xx Series, 29xx Series, C20x Series, eSL10™, Voyager® Series, 8 Series, Puma™ Series, CIRCL™, Surfscan® Series, eDR7xxx™ Series, Kronos™ Series.
	IC Manufacturing: Wafer Metrology Metrology tools are used to measure pattern dimensions, film thicknesses, layer-to-layer alignment, pattern placement, surface topography and electro-optical properties for wafers.	Archer™ Series, ATL™ Series, SpectraShape™ Series, SpectraFilm™ Series, Aleris® Series, PWG™ Series, Therma-Probe® Series, OmniMap® RS-xxx Series, MicroSense® product family, CAPRES product family.
	Wafer and Substrate: Defect Inspection and Metrology Defect inspection and metrology systems are used to help substrate manufacturers manage quality throughout the wafer fabrication process by assessing wafer geometry and surface quality, and detecting defects.	Surfscan® Series, WaferSight™ Series, Candela® Series, MicroSense® product family.
	Reticle Defect Inspection and Metrology Reticle inspection and metrology systems help blank, reticle and IC manufacturers identify defects and pattern placement errors.	Teron™ SL6xx Series, Teron™ 6xx Series, TeraScan™ 5xx Series, X5.x™ Series, FlashScan® Series, LMS IPRO Series.
	Chemical/Materials: Quality Analysis Chemical process control equipment qualifies incoming supplies, manages tool inputs, adjusts chamber/bath conditions and monitors process waste.	ECI Technology product family.

	IC and OEM Manufacturing: In Situ Process Management and Wafer Handling Diagnostics Wired and wireless sensor wafers and reticles provide comprehensive data used to visualize, diagnose and control process conditions in the equipment used to manufacture chips and reticles. Additional wafer diagnostic solutions help troubleshoot and monitor materials handling to help detect and predict mechanical behaviors that may cause wafer damage.	SensArray® product family, InnerSense product family.
	Software Products Data analysis systems centralize and analyze the data produced by inspection, metrology and process systems for IC, reticle and wafer manufacturing. These systems provide run-time process control, defect excursion identification, process corrections and defect classification to accelerate yield learning rates and reduce production risk. Patterning simulation systems use advanced models to explore critical-feature designs and manufacturability of lithography and patterning technologies.	Klarity® product family, 5D Analyzer®, OVALis, Anchor product family, RDC, FabVision® Series, ProDATA™, PROLITH™, I-PAT®
	Refurbished and Remanufactured Products Inspection and metrology systems support manufacture of larger design node chips.	KLA Pro products.

A range of industries, including general scientific and materials research and optoelectronics, require measurements of surface topography and film thickness to either control their processes or research new material characteristics. These general purpose and lab applications tools are offered under our KLA Instruments™ brand.

Segment	Technologies	Products
Semiconductor Process Control		
	General Purpose/Lab Application Specialty Semiconductor Manufacturing, Benchtop Metrology, Surface Characterization and Electrical Property Measurement.	Candela® Series, HRP® -260, ZetaScan 800 Series, Zeta™ Series, Tencor™ P Series, Nano Indenter® Series, Alpha-Step® Series, Filmetrics® Series, iMicro, iNano®, Profilm3D® Series, T150 UTM, NanoFlip, InSEM® HT.

The Specialty Semiconductor Process segment develops and sells advanced vacuum deposition and etching process tools, which are used by a broad range of specialty semiconductor customers, including manufacturers of MEMS, RF communication chips and power semiconductors for automotive and industrial applications. The PCB, Display and Component Inspection segment enables electronic device manufacturers to inspect, test and measure PCBs, FPDs and packaged ICs to verify their quality, pattern the desired electronic circuitry on the relevant substrate and perform three-dimensional shaping of metalized circuits on multiple surfaces. The Specialty Semiconductor Process and PCB, Display and Component Inspection segments offer a variety of solutions and products, including:

Segment	Technologies	Products
Specialty Semiconductor Process		
	Specialty Semiconductor Manufacturing Etch, plasma dicing, deposition and other wafer processing technologies and solutions for the semiconductor and microelectronics industry.	SPTS Omega® Series, SPTS Sigma® Series, SPTS Delta™ Series, SPTS Primaxx® Series, SPTS Xactix® Series, SPTS Mosaic™ Series, SPTS MVD Series.
PCB, Display and Component Inspection		
	PCB Direct imaging, inspection, optical shaping, additive printing, and computer-aided manufacturing and engineering solutions for the PCB market.	Orbotech Nuvogo™ Series, Orbotech Paragon™ Series, Orbotech Diamond™ Series, Orbotech Infinitum™ Series, Orbotech Ultra Dimension™ Series, Orbotech Ultra Fusion™/ Fusion™ Series, Orbotech Discovery™ II Series, Orbotech Precise™ Series, Orbotech Ultra PerFix™/ PerFix™ Series, Orbotech Neos™ Series, Orbotech Sprint™ Series, Orbotech Emerald™ Series, Orbotech Apeiron™ Series, Frontline product family.
	Display Inspection and electrical testing systems to identify and classify defects, as well as systems to repair defects for the display market.	Orbotech Quantum™ Series, Orbotech Flare™ Series, Orbotech Array Checker™ Series, Orbotech Ignite™ Series, Orbotech Array Saver, Orbotech Prism™ Series, Orbotech OASIS.
	Component Inspection and metrology systems for quality control and yield improvement in advanced and traditional semiconductor packaging markets.	ICOS™ F16x, ICOS™ Tx Series, Zeta™-5xx/6xx.

Services

Our service programs enable our customers in all business sectors to maintain the high performance and productivity of our products through a flexible array of service options. Whether a manufacturing site is producing wafers, reticles, ICs, display or PCB products, our highly trained service teams collaborate with customers to determine the best products and services to meet technology and business requirements.

Backlog

Our backlog, which represents our performance obligation to deliver products and services, totaled $13.11 billion and $4.69 billion as of June 30, 2022 and 2021, respectively, and primarily consists of sales orders where written customer requests have been received. We expect to recognize approximately 40% to 50% of these performance obligations as revenue beyond the next 12 months, but this estimate is subject to constant change depending on the following: supply chain constraints; customer slot change requests as well as pushouts and cancellations, usually with limited or no penalties; and potential elevated demand levels, which could require even longer lead times. The growth that we have experienced over the past few years has resulted in higher levels of backlog. The supply chain disruptions caused by the ongoing pandemic as well as favorable market trends have led to customers agreeing to purchase equipment from us with lead times that are longer than our historical experience. As the lead times for delivery of our equipment get longer, the risk increases that customers may choose to change their equipment orders due to the evolution of the customer's technological, production or market needs. This could result in order modifications, rescheduling or even cancellations that may not be communicated to us in a timely manner, causing backlog to remain elevated until agreed with the customer. Customer communication delays for orders already placed could affect our ability to respond quickly in weakening demand environments, which could harm our results of operations.

Because customers can potentially change delivery schedules or delay or cancel orders, and because some orders are received and shipped within the same quarter, our shipment backlog at any particular date is not necessarily indicative of business volumes or actual sales for any succeeding periods. The historical cyclicality of the semiconductor industry combined with the lead times from our suppliers sometimes result in timing disparities between, on the one hand, our ability to manufacture, deliver and install products and, on the other, the requirements of our customers. In our efforts to balance the requirements of our customers with the availability of resources, management of our operating model and other factors, we often must exercise discretion and judgment as to the timing and prioritization of manufacturing, deliveries and installations of products, which may impact the timing of revenue recognition with respect to such products.

Manufacturing, Raw Materials and Supplies

We perform system design, assembly and testing in-house and utilize an outsourcing strategy for the manufacture of components and major subassemblies. Our in-house manufacturing activities consist primarily of assembling and testing components and subassemblies that are acquired through third-party vendors and integrating those subassemblies into our finished products. Our principal manufacturing activities take place in the U.S., Singapore, Israel, Germany, United Kingdom, Italy and China. Our supply chain strategy adheres to ethical labor practices, responsible minerals sourcing, and Responsible Business Alliance and SEMI guidelines.

Some critical parts, components and subassemblies (collectively, "parts") that we use are designed by us and manufactured by suppliers in accordance with our specifications, while other parts are standard commercial products. We use numerous vendors to supply parts and raw materials for the manufacture and support of our products. Although we make reasonable efforts to ensure that these parts and raw materials are available from multiple suppliers, this is not always possible, and certain parts and raw materials included in our systems may be obtained only from a single supplier or a limited group of suppliers. Through our business interruption planning, we endeavor to minimize the risk of production interruption by, among other things, monitoring the financial condition of suppliers of key parts and raw materials, providing financial support and incentives to encourage vendors to increase capacity when required, identifying (but not necessarily qualifying) possible alternative suppliers of such parts and materials, and ensuring adequate inventories of key parts and raw materials are available to maintain manufacturing schedules.

Although we seek to reduce our dependence on sole and limited source suppliers, in some cases the partial or complete loss of certain of these sources, or disruptions within our suppliers' often complex supply chains, could disrupt scheduled deliveries to customers, damage customer relationships and have a material adverse effect on our results of operations.

Competition

The worldwide market for technologically advanced process control, process-enabling and yield management solutions used by semiconductor and electronics manufacturers is highly competitive, with important competitive factors including system performance, ease of use, reliability, technical service and support, and overall cost of ownership. However, we believe that, while the competitive factors listed are important, the customers' overriding requirement is for systems that easily and effectively incorporate automated capabilities into their existing development and manufacturing processes to enhance productivity, improve yields and reduce waste. To remain competitive, we use significant financial resources to offer a broad range of products, to maintain customer service and support centers worldwide, and to invest in product R&D. In each of our product markets, we have many competitors, including companies such as Applied Materials, Inc., ASML Holding N.V., Hitachi High-Technologies Corporation, Onto Innovation, Inc. and Lasertec, Inc., some of which may have greater financial, research, engineering, manufacturing and marketing resources than we have. We expect our competitors to continue to improve the design and performance of their current products and to introduce new products with improved price and performance characteristics. We may also face future competition from new market entrants overseas or domestically. We maintain our market position by building long-term relationships with our customers to meet their dynamic needs as well as anticipating future market demands and enabling our customers to accelerate adoption and production of new technologies, as discussed further in the "Industry" section of this Item 1. Management believes that we are well positioned in the market with our industry-leading portfolio of products and services. However, any loss of competitive position could negatively impact our prices, customer orders, revenue, gross margin and market share. Should this occur, it could negatively impact our operating results and financial condition.

Acquisitions

We continuously evaluate strategic acquisitions and alliances to expand our technologies, product offerings and distribution capabilities. Acquisitions involve numerous risks, including management issues and costs in connection with integration of the operations, technologies and products of the acquired companies, and the potential loss of key employees of the acquired companies. The inability to manage these risks effectively could negatively impact our operating results and financial condition.

Patents and Other Proprietary Rights

We protect our proprietary technology through reliance on a variety of intellectual property laws, including patent, copyright and trade secret. We have filed and obtained a number of patents in the U.S. and abroad and intend to continue pursuing the legal protection of our technology through intellectual property laws. In addition, from time to time we acquire license rights under U.S. and foreign patents and other proprietary rights of third parties, and we attempt to protect our trade secrets and other proprietary information through confidentiality and other agreements with our customers, suppliers, employees and consultants and through other security measures.

Although we consider patents and other intellectual property significant to our business, no single patent, copyright or trade secret is essential to us as a whole or to any of our business segments.

No assurance can be given that patents will be issued on any of our applications, that license assignments will be made as anticipated, or that our patents, licenses or other proprietary rights will be sufficiently broad to protect our technology. No assurance can be given that any patents issued to or licensed by us will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide us with a competitive advantage. In addition, there can be no assurance that we will be able to protect our technology or that competitors will not be able to independently develop similar or functionally competitive technology.

Government Regulations

We are subject to a variety of federal, state and local governmental laws and regulations worldwide, including laws and regulations related to anti-corruption, antitrust, data privacy, employment, environmental, foreign exchange controls, health and safety, immigration, import/export, intellectual property and tax. Compliance with these laws and regulations did not have in fiscal 2022, and is not expected to have in fiscal 2023, a material effect on our capital expenditures, financial condition, results of operations or competitive position.

However, any failure to comply with laws and regulations may subject us to a range of consequences including fines, suspension of certain of our business activities, limitations on our ability to sell our products, obligations to remediate in the case of environmental contamination, and criminal and civil liabilities or other sanctions. Changes in environmental laws and regulations could require us to invest in potentially costly pollution control equipment, alter our manufacturing processes or use substitute materials. Our failure to comply with laws and regulations could subject us to future liabilities.

Environmental, Social and Governance Initiatives

KLA strives to proactively manage and address the ESG topics most important to our stakeholders. We have integrated ESG considerations into many of our business practices and policies, and work together with our customers, peers, partners and suppliers to promote improvement in human rights, labor, environment, health and safety, anti-corruption, ethics and management system standards within our operations and our supply chain. Our ESG initiatives are another way in which KLA seeks to deliver long-term value for our stockholders and they exemplify our core values. For more on our core values, refer to the “Human Capital Management” section of this Item 1.

We have an ESG Steering Committee composed of global leaders within the organization that implements and executes our ESG strategy under the oversight of the KLA executive team and the Board of Directors. Training and awareness are central to the success of the strategy, and, as part of its responsibilities, the steering committee evaluates our policies and practices including our Code of Business Conduct to promote an effective outcome and adherence by our employees. Our ESG strategy is organized into four pillars based on the areas where we believe we have the greatest opportunities to make positive impacts:

Advancing Innovation: As a technological innovator, we seek to deliver solutions for our customers to increase production yields, reduce waste, and meet their own profitability and sustainability goals. Refer to “Research and Development” and “Patents and Other Proprietary Rights” of this Item 1 for more information on our efforts for advancing innovation. In addition to legal protections, we also work to protect our operations through a significant focus on cybersecurity. In addition to 24/7 monitoring through our KLA Security Operations Center, we engage in other initiatives such as cybersecurity assessments, employee training on cybersecurity issues and compliance monitoring. Our cybersecurity efforts are spearheaded by our Chief Information Security Officer, and cybersecurity updates are provided to the Audit Committee quarterly, or more frequently as needed.

Advancing Stewardship: We work across our global footprint to shape a more sustainable future. Our company-wide Environmental Management Policy establishes a commitment to complying with all applicable environmental laws and standards across company locations globally. KLA is committed to protecting and respecting our environment and energy resources for future generations throughout our manufacturing operations. As part of our efforts in striving to be better, we’ve established goals around climate and energy, waste and water management. For example, we have set a goal to use 100% renewable electricity across our global operations by 2030.

Advancing Opportunity: It is our goal to work together to harness the untapped human potential of a more just and inclusive world. Refer to the “Human Capital Management” and “Manufacturing, Raw Materials and Supply” sections of this Item 1 for information on our diversity and inclusion, human rights, health and safety initiatives.

Advancing Leadership: We aim to empower today’s leaders as well as tomorrow’s leaders by infusing our values in everything we do. Refer to the “Human Capital Management” and “Government Regulations” sections of this Item 1 for examples of our employee-centric culture and our commitment to operating our business responsibly in compliance with regulations and best practices worldwide.

For more information on ESG, see KLA’s 2019-2020 Global Impact Report on our website; however, this citation is provided solely for informational purposes and the content of KLA's Global Impact Report is expressly not incorporated by reference into this filing. We include details in our Global Impact Report that are not included in this Form 10-K because we seek to be responsive to various areas of interest of our stakeholders; however, such information generally does not have a material effect on our capital expenditures, financial condition, results of operations or competitive position. In addition, no assurance can be given that our ESG initiatives will have the intended results or be able to be completed as currently envisioned, whether due to cost, feasibility or other constraints.

Human Capital Management

At KLA, our people drive our success, and we celebrate the diversity of backgrounds and experiences that all employees bring to the table. We recognize that our competitive advantage is our people and the technology they develop. As talent and retention continue to be a challenging issue for many companies, we strive to work proactively to address these concerns. We believe it is critical to attract, motivate and retain a dedicated, talented, and innovative team of employees who exhibit our core values. We also aim to support employees' personal and professional growth. Our talent development programs focus on developing the whole person through comprehensive training offerings, employee engagement programs and health & wellness activities. We embrace our responsibility to lead through exceptional training programs and professional development and through enabling our employees to be safe, secure, healthy and feel included and empowered to bring their full self to work.

Our Core Values

At KLA, our core values – demonstrating perseverance; striving to be better; being honest, forthright, and consistent; building high-performing teams; and being indispensable to our customers – serve as a foundation for our relationships with employees, customers, suppliers, and other stakeholders and reflect a commitment to ethical business practices and corporate citizenship in the places where we do business.

Our Workforce

As of June 30, 2022, we had approximately 14,000 regular full-time employees and approximately 280 part-time and temporary employees in facilities located in 19 countries. Approximately 30% of our regular full-time employees are located in the U.S., 22% in Europe and Middle Eastern countries and 48% in Asia Pacific and Japan, with approximately 20% engaged in manufacturing, 26% in R&D, 31% in customer service, 4% in sales and marketing, and 19% in other roles. Except for our employees in Belgium (where a trade union delegation has been recognized) and our employees in the German operations of our MIE business unit (who are represented by employee works council), none of our employees are represented by a labor union. We have not experienced work stoppages and believe that our employee relations are good.

In fiscal year 2022, our overall turnover rate was 7.4%.

Compensation and Benefits

At KLA, our talent is the heartbeat of our organization. We value our employees as individuals and aim to recognize and support their needs so they can bring their best selves to work every day. We engage with our employees about what they need to be successful in and out of the workplace. We seek to achieve our objective of attracting, retaining, and motivating our workforce by linking a significant portion of compensation to Company and business unit performance. We seek competitiveness and fairness in total compensation with reference to peer comparisons and internal equity. In the first half of fiscal 2022 we performed a mid-year salary review and made adjustments to improve our competitiveness in the market. We enable employees to share in the success of the Company through various programs including an Employee Stock Purchase Plan ("ESPP"), equity compensation including restricted stock units ("RSU"), profit sharing and bonus plans.

In addition to providing our employees with competitive compensation packages, we have built out a robust suite of benefits to help foster the well-being of all employees. Our benefits are designed to meet the needs of employees and their families, including paid time off, parental leave, bereavement leave, health insurance coverage, flexible work arrangements, contributions to retirement savings and access to employee assistance and work-life programs.

We offer programs to employees to help improve their health and wellness habits. KLA's virtual and in-person wellness course offerings span both physical and mental health. We offer in-person and virtual workout classes as well as seminars on mindfulness, meditation and other wellness topics. We hold online fitness classes that include body-tune up, yoga and other well-being classes like maintaining life balance, nutrition, importance of sleep, hydration and relaxation. Throughout our sites, we host a series of events and challenges, both virtually and in person, to encourage our employees to stay active. Our wellness program helps employees manage and improve their health and build healthy lifestyle habits in engaging ways.

We expanded hybrid work options and telecommuting. As the COVID-19 pandemic persisted through fiscal 2021 and into fiscal 2022, many working parents faced challenges balancing working from home and caring for their families' needs. At KLA, we recognized those challenges and expanded our benefits to include remote learning and childcare leave for employees in the U.S. and some of our other locations. We offered parenting webinars through our Connecting Employees website for parents to learn more about adolescent mental health. Some sessions have included helping teens through COVID-19, talking to children about racism, and supporting children with anxiety. We also offer courses on financial literacy and planning to help our employees prepare for their financial futures.

Inclusion and Diversity

The journey to becoming a truly inclusive and diverse global organization takes time, and we are deeply committed to this path. At KLA, Inclusion & Diversity (“I&D”) is a shared aspiration, commitment and responsibility, as well as a direct expression of our core values. We celebrate the diversity of our employees, customers and partners, and we are committed to fostering a culture of conscious inclusion.

Throughout fiscal 2022, we continued to strengthen our engagement on I&D. We are an equal opportunity/affirmative action employer and have increased our efforts to recruit, develop and retain a more diverse workforce with a focus on those historically underrepresented in the technology field, including women, Black and Hispanic/Latinx candidates.

Over the last fiscal year, we increased our I&D efforts in several ways. We continue to provide digital versions of our Values in Action training modules with a continued focus on I&D. New managers can hone their skills on unconscious bias, non-discrimination, and anti-harassment, and are introduced to a model of conscious inclusion that emphasizes key leadership qualities.

We also expanded our Employee Resource Groups (“ERG”) to engage employees in service of our I&D goals. In addition to the ERG called WISE (Women in STEM, Empowered), an employee-led group that includes people of all genders who have joined to support the professional growth of women at KLA and foster an inclusive environment, Konexión, our Hispanic/Latinx ERG where employees can interact and innovate through cultural sharing and understanding of the Latinx community, and MOSAIC, which comprises a diverse group of employees at KLA’s second North American headquarters in Ann Arbor, Michigan working together to build a culture of inclusion across all dimensions, all of which were launched in 2020, KLA also launched BELIEVE (Black Employees Leading in Inclusion, Excellence, Values and Education) in fiscal 2022. This ERG supports the recruitment and advancement of Black talent, while also promoting cultural awareness, understanding and allyship of the Black community. Our newest ERG is PRISM, where Pride, Respect, Inclusion and Solidarity Meet. PRISM's mission is to amplify KLA's commitment to equality and inclusion by encouraging a safe and open working environment for LGBTQ+ employees and allies.

As of June 30, 2022, our global workforce was 80% male, 18% female and 2% gender undisclosed, and 8% of our workforce in the U.S. was composed of Black or African American, and/or Hispanic/Latinx employees.

Learning and Development

We offer our employees opportunities to advance their careers at KLA. We emphasize stretch assignments, on-the job development, as well as classroom and online training. Our employees have access to a wide range of programs, workshops, classes and resources to help them excel in their careers and share what they know with others. Our performance management process includes performance feedback against goals, a review of key competencies that are needed to be successful at KLA and career development discussions.

We emphasize frequent 1-on-1 meetings between managers and employees and regular coaching and feedback sessions. Through coaching and mentorship programs, our employees are inspired to push the boundaries of their comfort zones and seek creative solutions.

If our employees pursue external learning opportunities and education, we support that too, through tuition reimbursement. Through our partnerships with San Jose State University and the University of Michigan, employees can pursue advanced degrees in engineering that are customized for KLA, and the skills and competencies required to support our customers. We also offer a competitive student loan reimbursement program in the U.S.

We have a robust succession planning process especially targeted at director level positions and above. Our Enterprise Leadership Program, a comprehensive, two-year management training program that we offer, helps to prepare KLA employees to fill future leadership roles. In fiscal year 2022, several of our managers and leaders went through the program. Additionally, our Values in Action training which was also targeted at the director level and above provided further guidance on our values, business ethics and about inclusion and diversity.

Most of our employees are also required to take annual training courses and regular certifications related to their work, including those pertaining to the environment, data privacy and workplace health and safety.

Employee Engagement

We conduct regular employee surveys to check in with our global workforce and obtain input on several topics. The feedback we receive from these surveys helps us assess employee sentiment, identify areas of improvement, and guides our decision-making as it relates to people management. In addition, our executives conduct regular weekly and quarterly webcasts. These global webcasts enable all employees to engage with senior leaders and ask questions in an open Q&A session.

As we began to emerge from the global pandemic in fiscal 2022 in parts of the world, many employees sought connection as never before. Through our annual Employee Engagement Surveys, which had an 85% response rate in fiscal year 2022, we identified the top priorities in a post-pandemic world. We created action plans to act on these priorities and engaged our workforce in identifying potential solutions to address these top concerns. Even though our survey rated our level of engagement as being “good,” we realize that we have several opportunities for improvement and will continue to involve our employees in seeking ways we can get even better.

Employee Health and Safety and Pandemic Response

The health and safety of our employees is paramount to our success. We are committed to providing a safe and healthy workplace for all employees. We accomplish this through strict compliance with applicable laws and regulations regarding workplace safety, including recognition and control of workplace hazards, tracking injury and illness rates, utilizing a global travel health program and maintaining detailed emergency and disaster recovery plans.

KLA’s top priority during the COVID-19 pandemic has been and continues to be protecting the health and safety of our employees and their families, our customers, and our community. The continuing demands of COVID-19 required that we build upon our global approach to employee health and safety (“EHS”) with strong collaboration across the regions. This has resulted in the adoption of best practices for each of our sites, improving business resiliency and EHS worldwide. In addition, our flexible work options have enabled employees to remain safely at home during quarantines to support their families and prevent cross-contamination in the workplace. Through this period we continued the implementation of an infectious disease playbook, work from home programs, health check protocols, screenings for all employees working on-site, new process workflows at physical sites to ensure reduced contact for employees working on-site, contact tracing processes and protocols, quarantining and testing protocols for exposure and positive tests, on-site vaccination clinics, travel guidelines and protocols to ensure employees who must travel for work can do so safely and phased return-to-work plans and approval processes to enable non-manufacturing employees to return-to-work when permitted by local government regulations.

Our goal is always zero accidents across our facilities, and to achieve that, we proactively conduct risk assessments and audits to constantly improve our efforts. We implemented a global standard for our incidents to ensure consistency across our regions, and continually outperform industry averages for injury rates. We are committed to reducing safety risks across business units and at corporate sites worldwide. We revised our approach to risk assessments to “risk rank” our own operations. We are utilizing this system not only to measure our own performance, but also to help improve the performance in our supply chain and with our customers. Our excellent safety record is a tribute to our employees' efforts, the breadth and depth of our training programs, and our dedication to safety policy management. All new hires are required to complete a health and safety training program. In addition, our service technicians are required to achieve and maintain role-specific safety training certifications.

We made a commitment to globalize our ISO 45001 (Occupational Health & Safety Management Systems) certification and expand our ISO 14001 (Environmental Management Systems) certification beyond our larger sites. The goal is to execute these plans through calendar year 2024.

Glossary

This section provides definitions for certain industry and technical terms commonly used in our business, that are used elsewhere in this Annual Report on Form 10-K:

compound semiconductor	A semiconductor formed from chemical elements in two or more different groups in the periodic table (ex. III-V). The composition of these materials influences their properties, resulting in different performance than silicon when used in electronics. Primary examples include SiC, GaN, gallium arsenide (GaAs), and indium phosphide (InP).
design rules	Rules that set forth the allowable dimensions of particular features used in the design and layout of ICs.
die	A single semiconductor chip on a wafer.
epitaxial silicon ("epi")	A substrate technology based on growing a crystalline silicon layer on top of a silicon wafer. The added layer, where the structure and orientation are matched to those of the silicon wafer, includes dopants (impurities) to imbue the substrate with special electronic properties.
etching	A process step in which layers of material are removed from a semiconductor wafer in a specific pattern.
excursion	For a manufacturing step or process, a deviation from normal operating conditions that can lead to decreased performance or yield of the final product.
fab	The main manufacturing facility for processing semiconductor wafers.
flat panel display ("FPD")	A display appliance that uses a thin panel design. Also includes flexible displays.
geometry	The surface shape of an object, such as the 3D shape of a semiconductor device structure or the shape of base or patterned wafers
in situ	Of processing steps or tests, done without moving the wafer. Latin for "in original position."
ingot	A piece of pure metal intended to be processed. In semiconductors, a silicon ingot is typically created in such a way that slicing cross-sections creates bare wafers.
interconnect	A highly conductive material, usually copper or aluminum, which carries electrical signals to different parts of a die.
internet of things ("IoT")	A network of devices with the ability to transfer data without human interaction.
light emitting diode ("LED")	A semiconductor device that releases electromagnetic radiation (light) when current flows through it. The bandgap of the semiconductor material determines the wavelength (color) of the light emitted.
lithography	A process in which a masked pattern is projected onto a photosensitive coating that covers a substrate.
metrology	The science of measurement to determine dimensions, quantity or capacity. In the semiconductor industry, typical measurements include critical dimension, overlay and film thickness.
microelectromechanical systems ("MEMS")	Micron-sized mechanical devices powered by electricity, created using processes similar to those used to manufacture IC devices.
micron	A metric unit of linear measure that equals 1/1,000,000 meter (10^{-6}m), or 10,000 angstroms (the diameter of a human hair is approximately 75 microns).

patterned	For semiconductor manufacturing and industries using similar processing technologies, substrates that have electronic circuits (transistors, interconnects, etc.) fabricated on the surface.
photovoltaic	The property of semiconductor devices to create electric current through exposure to sunlight.
printed circuit board ("PCB")	A board used to mechanically support and electrically connect various electrical and mechanical components.
process control	The ability to maintain specifications of products and equipment during manufacturing operations.
reticle	A very flat glass plate that contains the patterns to be reproduced on a wafer.
silicon on insulator ("SOI")	A substrate technology comprised of a thin top silicon layer separated from the silicon substrate by a thin insulating layer of glass or silicon dioxide, used to improve performance and reduce the power consumption of IC circuits.
substrate	A wafer or other material on which layers of various materials are added during the process of manufacturing semiconductor devices (circuits), FPDs or PCBs.
unpatterned	For semiconductor manufacturing and industries using similar processing technologies, substrates that do not have electronic circuits (transistors, interconnects, etc.) fabricated on the surface. These can include bare silicon wafers, other bare substrates or substrates on which blanket films have been deposited.
yield management	The ability of a semiconductor manufacturer to oversee, manage and control its manufacturing processes so as to maximize the percentage of manufactured wafers or die that conform to pre-determined specifications.

The definitions above are from internal sources, as well as online semiconductor dictionaries such ashttps://www.semiconductors.org/semiconductors-101/frequently asked questions/. Such citation is for informational purposes only and the content referenced is not otherwise incorporated by reference herein.

ITEM 1A. RISK FACTORS

A description of factors that could materially affect our business, financial condition or operating results is provided below.

Risk Factors Summary

The following summarizes the most material risks that make an investment in our securities risky or speculative. If any of the following risks occur or persist, our business, financial condition and results of operations could be materially harmed and the price of our common stock could significantly decline.

COVID-19 Pandemic Risks

- Shortages or disruption in the supply chain could affect our ability to timely process components for our products;
- Travel bans, lockdowns, or quarantine requirements could delay our ability to install or service our products;
- Governmental orders or employee exposure could cause manufacturing stoppages for us or our customers or suppliers;
- Continued volatility and uncertainty in customer demand for our products, delivery pushouts or cancellations of orders by our customers;
- Increased costs or inability to acquire components necessary for the manufacture of our products;
- Absence of liquidity at customers and suppliers; and
- Loss of efficiencies and increased cybersecurity risks due to remote working requirements for our employees.

Commercial, Operational, Financial and Regulatory Risks

- Risks related to our international operations, such as tariffs or similar trade impairments, and longer payment cycles or collection difficulties associated with international sales;
- Our vulnerability to a weakening in the condition of the financial markets and the global economy;
- Intellectual property disputes can be expensive and could result in an inability to sell our products in certain jurisdictions;
- Laws, rules, regulations or other orders that may limit our ability to sell our products or provide service on products previously sold to certain customers;
- Increasing attention to ESG matters, including any targets or other ESG initiatives, could result in additional costs or risks or adversely impact our business;
- We may be unable to attract, onboard and retain key personnel;
- Reliance on third-party service providers could result in disruptions if such third parties cannot perform services for us in a timely manner;
- Cybersecurity incidents could result in the loss of valuable information or assets or subject us to costly disruption, remediation, regulatory investigations, litigation and reputational damage;
- We may face disruptions if we cannot access critical information in a timely manner due to system failures;
- We may not find suitable acquisition candidates or fail to successfully integrate our acquisitions;
- Natural disasters, such as earthquakes, health epidemics, acts of terrorism or war or other catastrophic events, and the lack of insurance thereof, could significantly disrupt our operations for lengthy periods of time;
- We are exposed to fluctuations in foreign currency exchange rates, interest rates and the market values of our portfolio investments;
- We are subject to tax and regulatory compliance audits;
- Economic, political or other conditions in the jurisdictions where we earn profits can impact the tax laws and taxes we pay in those jurisdictions, subsequently impacting our effective tax rate, cash flows and results of operations;
- Increased compliance costs with federal securities laws, rules, and regulations, as well as NASDAQ requirements; and
- Changes in accounting pronouncements and laws could have unforeseen effects.

Industry Risks

- We may not be able to keep pace with trends and technological changes in the industries in which we operate;
- We have a highly concentrated customer base; and
- Prevailing local and global economic conditions may negatively affect the purchasing decisions of our customers.

Business Model and Capital Structure Risks

- We may not be able to maintain our technology advantage or protect our proprietary rights;
- We may not be able to compete with new products introduced by our competitors;
- We may not receive components necessary to build our products in a timely manner;
- We may fail to operate our business in a manner consistent with our business plan;
- We may fail to comply with the covenants in our Revolving Credit Facility and Senior Notes (as defined below), which could impair our ability to borrow needed funds, or require us to repay debt sooner than we planned;
- We may not have sufficient financial resources to repay our indebtedness when it becomes due and our leveraged capital structure may divert resources from operations and other corporate uses;
- We may not be able to declare cash dividends at all or in any particular amounts;
- Risks related to our commercial terms and conditions, including our indemnification of third parties, as well as the performance of our products;
- Our government funding for R&D is subject to termination, audit and any further penalties;
- We may incur significant restructuring charges or other asset impairment charges or inventory write-offs; and
- We are subject to risks related to receivables factoring arrangements, and compliance risk of certain settlement agreements with the government.

For a more complete discussion of the material risks facing our business, see below.

Risks Related to the COVID-19 Pandemic

The current COVID-19 pandemic and the potential aftereffects from it could materially harm our business, financial condition and results of operations

The COVID-19 pandemic has caused substantial global disruptions, including in the jurisdictions where we conduct business and may cause additional disruptions in the future, which are impossible to predict. Local, regional and national authorities in numerous jurisdictions have implemented a variety of measures designed to slow the spread of the virus, including social distancing guidelines, quarantines, banning of non-essential travel and requiring the cessation of non-essential activities on the premises of businesses. In 2022, the Chinese government implemented lockdowns in two of its larger economic hubs, Shenzhen and Shanghai. Lockdowns in major economic hubs such as Shenzhen and Shanghai have led to additional supply chain challenges and could cause delays in the delivery of goods in or around impacted areas, which could both harm our ability to obtain components for our products in a timely manner, delay the delivery of our products in and around those areas, delay installation of our products in those areas or affect customer acceptance processes due to resource mobility restrictions. Any delays in delivering or installing our products could adversely impact the timing of our revenue recognition. While all of our global manufacturing sites are currently operational, any local pandemic outbreaks or the advent of new variants could require us to temporarily curtail production levels or temporarily cease operations based on government mandates.

Despite the wide availability of COVID-19 vaccines in the U.S. and in other parts of the world, we are unable to predict how effective they will continue to be in preventing the spread of COVID-19 (including its variant strains). In addition, although there has been improvement in the global economy since the severe effects of the COVID-19 pandemic at its onset, many macroeconomic variables remain dynamic and we continue to experience constraints in our supply chain as discussed below.

Some of the risks associated with the pandemic or a worsening of the pandemic in the future include:

- Cancellation or reduction of routes available from common carriers, which may cause delays in our ability to deliver or service our products or receive components from suppliers necessary to manufacture or service our products;
- Shortages or disruption in the supply chain could affect our ability to procure components for our products on a timely basis or at all, or could require us to commit to increased purchases and provide longer lead times to secure critical components, which could increase inventory obsolescence risk (refer to the Executive Summary in Part II, Item 7 “Management's Discussion and Analysis of Financial Condition and Results of Operations” for additional information on supply constraints related to the COVID-19 pandemic);
- Travel bans, lockdowns or the requirement to quarantine for a lengthy period after entering a jurisdiction, which may delay our ability to install the products we sell or service those products following installation;
- Governmental orders or employee exposure requiring us, our customers or our suppliers to discontinue manufacturing products at our or their respective facilities for a period of time;

- Continued volatility and uncertainty in customer demand for our products, delivery pushouts or cancellation of orders by our customers caused by a global recession resulting from the pandemic and the measures implemented by authorities to slow the spread of COVID-19;
- Increased costs or inability to acquire components necessary for the manufacture of our products due to reduced availability or rising inflation;
- Absence of liquidity at customers and suppliers caused by disruptions from the pandemic, which may hamper the ability of customers to pay for the products they purchase on time or at all, or hamper the ability of our suppliers to continue to supply components to us in a timely manner or at all; and
- Loss of efficiencies due to remote working requirements for our employees.

If any of the foregoing risks occur or intensify during this pandemic, our business, financial condition and results of operations could be materially adversely affected.

Commercial, Operational, Financial and Regulatory Risks

A majority of our annual revenues are derived from outside the US, and we maintain significant operations outside the US. We are exposed to numerous risks as a result of the international nature of our business and operations.

A majority of our annual revenues are derived from outside the U.S., and we maintain significant operations outside the U.S. We expect that these conditions will continue in the foreseeable future. Managing global operations and sites located throughout the world presents a number of challenges, including but not limited to:

- Global trade issues and changes in and uncertainties with respect to trade policies, including the ability to obtain required import and export licenses, trade sanctions, tariffs and international trade disputes;
- Political and social attitudes, laws, rules, regulations and policies within countries that favor domestic companies over non-domestic companies, including customer- or government-supported efforts to promote the development and growth of local competitors;
- Ineffective or inadequate legal protection of intellectual property rights in certain countries;
- Managing cultural diversity and organizational alignment;
- Exposure to the unique characteristics of each region in the global market, which can cause capital equipment investment patterns to vary significantly from period to period;
- Periodic local or international economic downturns;
- Potential adverse tax consequences, including withholding tax rules that may limit the repatriation of our earnings, and higher effective income tax rates in foreign countries where we do business;
- Compliance with customs regulations in the countries in which we do business;
- Existing and potentially new tariffs or other trade restrictions and barriers (including those applied to our products, spare parts and services, or to parts and supplies that we purchase);
- Political instability, natural disasters, legal or regulatory changes, acts of war such as Russia’s invasion of Ukraine or terrorism in regions where we, our customers or our suppliers have operations or where we or they do business;
- Rising inflation and fluctuations in interest and currency exchange rates may adversely impact our ability to compete on price with local providers or the value of revenues we generate from our international business. Although we attempt to manage some of our near-term currency risks through the use of hedging instruments, there can be no assurance that such efforts will be adequate;
- Our ability to receive prepayments for certain of our products and services sold in certain jurisdictions. These prepayments increase our cash flows for the quarter in which they are received. If our practice of requiring prepayments in those jurisdictions changes or deteriorates, our cash flows would be harmed;
- Longer payment cycles and difficulties in collecting accounts receivable outside of the U.S.;
- Difficulties in managing foreign distributors (including monitoring and ensuring our distributors’ compliance with applicable laws); and
- Inadequate protection or enforcement of our intellectual property and other legal rights in foreign jurisdictions.

In addition, government controls, either by the U.S. or other countries, that restrict our business overseas or restrict our ability to import or export our products and services or increase the cost of our operations through the imposition of broad sanctions, trade restrictions, tariffs, new controls, outright bans, or otherwise, could harm our business. For example, Commerce has added numerous China-based entities to the U.S. Entity List, including Fujian Jinhua Integrated Circuit Company, Ltd., Huawei and Semiconductor Manufacturing International Corporation, restricting our ability to provide products and services to such entities without an export license. Even if we apply for licenses to sell our products or provide services to companies on Commerce's U.S. Entity List, there can be no assurance that licenses will be granted. In addition, Commerce has imposed export licensing requirements on China-based customers engaged in military end uses or where Commerce has determined there is a risk of diversion to a military end use, as well as requiring our customers to obtain an export license when they use certain semiconductor capital equipment based on U.S. technology to manufacture products connected to Huawei or its affiliates. To date, these rules have not significantly impacted our operations, but we are continually monitoring their impact. If additional companies are added to Commerce's U.S. Entity List, or other licensing requirements or restrictions are imposed, thereby limiting our ability to sell our products or services to other customers in China, our business could be significantly harmed. Similar actions by the U.S. government or another country could impact our ability to provide our products and services to existing and potential customers.

Any of the factors above could have a significant negative impact on our business and results of operations.

We are exposed to risks associated with a weakening in the condition of the financial markets and the global economy.

Demand for our products is ultimately driven by the global demand for electronic devices by consumers and businesses. Economic uncertainty frequently leads to reduced consumer and business spending, and can cause our customers to decrease, cancel or delay their equipment and service orders. The tightening of credit markets, rising interest rates and concerns regarding the availability of credit can make it more difficult for our customers to raise capital, whether debt or equity, to finance their purchases of capital equipment, including the products we sell. Reduced demand, combined with delays in our customers' ability to obtain financing (or the unavailability of such financing), has at times in the past adversely affected our product and service sales and revenues and therefore has harmed our business and operating results, and our operating results and financial condition may again be adversely impacted if economic conditions decline from their current levels.

In addition, a decline in the condition of the global financial markets could adversely impact the market values or liquidity of our investments. Our investment portfolio includes corporate and government securities, money market funds and other types of debt and equity investments. Although we believe our portfolio continues to be comprised of sound investments due to the quality and (where applicable) credit ratings of such investments, a decline in the capital and financial markets or rising interest rates would adversely impact the market value of our investments and their liquidity. If the market value of such investments were to decline, or if we were to have to sell some of our investments under illiquid market conditions, we may be required to recognize an impairment charge on such investments or a loss on such sales, either of which could have an adverse effect on our financial condition and operating results.

If we are unable to timely and appropriately adapt to changes resulting from difficult macroeconomic conditions, our business, financial condition or results of operations may be materially and adversely affected.

We might be involved in claims or disputes related to intellectual property or other confidential information that may be costly to resolve, prevent us from selling or using the challenged technology and seriously harm our operating results and financial condition.

As is typical in the industries in which we serve, from time to time we have received communications from other parties asserting the existence of patent rights, copyrights, trademark rights or other intellectual property rights which they believe cover certain of our products, processes, technologies or information. In addition, we occasionally receive notification from customers who believe that we owe them indemnification or other obligations related to intellectual property claims made against such customers by third parties. With respect to intellectual property infringement disputes, our customary practice is to evaluate such infringement assertions and to consider whether to seek licenses where appropriate. However, there can be no assurance that licenses can be obtained or, if obtained, will be on acceptable terms or that costly litigation or other administrative proceedings will not occur. The inability to obtain necessary licenses or other rights on reasonable terms could seriously harm our results of operations and financial condition. Furthermore, we may potentially be subject to claims by customers, suppliers or other business partners, or by governmental law enforcement agencies, related to our receipt, distribution and/or use of third-party intellectual property or confidential information. Legal proceedings and claims, regardless of their merit, and associated internal investigations with respect to intellectual property or confidential information disputes are often expensive to prosecute, defend or conduct; may divert management's attention and other Company resources; and/or may result in restrictions on our ability to sell our products, settlements on significantly adverse terms or adverse judgments for damages, injunctive relief, penalties and fines, any of which could have a significant negative effect on our business, results of operations and financial condition. There can be no assurance regarding the outcome of future legal proceedings, claims or investigations. The instigation of legal proceedings or claims, our inability to favorably resolve or settle such proceedings or claims, or the determination of any adverse findings against us or any of our employees in connection with such proceedings or claims could materially and adversely affect our business, financial condition and results of operations, as well as our business reputation.

We are exposed to various risks related to the legal, regulatory and tax environments in which we perform our operations and conduct our business.

We are subject to various risks related to compliance with laws, rules and regulations enacted by legislative bodies and/or regulatory agencies in the countries in which we operate and with which we must comply, including environmental, safety, antitrust, anti-corruption/anti-bribery, unclaimed property, economic sanctions and export control regulations. We have policies and procedures designed to promote compliance with applicable law, but there can be no assurance our policies and procedures will prove completely effective in ensuring compliance by all our personnel, business partners and representatives, for whose misconduct we may under some circumstances be legally responsible. Our failure or inability to comply with existing or future laws, rules or regulations in the countries in which we operate could result in government investigations and/or enforcement actions, which could result in significant financial cost (including investigation expenses, defense costs, assessments and criminal or civil penalties), reputational harm and other consequences that may adversely affect our operating results, financial condition and ability to conduct our business. For instance, in response to Russia's invasion of Ukraine, the U.S., European Union and other countries have imposed sanctions against Russia, Belarus and certain other regions, entities and individuals, and may impose additional sanctions, export controls or other measures. The imposition of sanctions, export controls and other measures could adversely impact our business including preventing us from performing existing contracts, recognizing revenue, pursuing new business opportunities or receiving payment for products already supplied or services already performed with customers.

Additionally, we are subject to various domestic and international environmental laws and regulations, including those that control and restrict the use, transportation, emission, discharge, storage, and disposal of certain chemicals, gases and other substances. Any failure to comply with applicable environmental laws, regulations or requirements may subject us to a range of consequences, including fines, suspension of certain of our business activities, limitations on our ability to sell our products, obligations to remediate environmental contamination, and criminal and civil liabilities or other sanctions. Some of these laws impose strict liability for certain releases, which may require us to incur costs regardless of fault or the legality of actions at the time of release. In addition, changes in environmental laws and regulations (including any relating to climate change and greenhouse gas ("GHG") emissions) could require us, or others in our value chain, to install additional equipment, alter operations to incorporate new technologies or processes, or revise process inputs, among other things, which may cause us to incur significant costs or otherwise adversely impact our business performance. Various agencies and governmental bodies have expressed particular interest in promulgating rules relating to climate change. For example, in March 2022, the SEC published a proposed rule that would require companies to provide significantly expanded climate-related disclosures in their Form 10-K, which may require us to incur significant additional costs to comply and impose increased oversight obligations on our management and Board of Directors. We also face increasing complexity in our manufacturing, product design and procurement operations as we adjust to new and prospective requirements relating to the composition of our products, including restrictions on lead and other substances and requirements to track the sources, production methods, or provenance of certain metals and other materials. The cost of complying, or of failing to comply, with these and other regulatory requirements or contractual obligations could adversely affect our operating results, financial condition and ability to conduct our business.

From time to time, we may receive inquiries, subpoenas, investigative demands or audit notices from governmental or regulatory bodies, or we may make voluntary disclosures, related to legal, regulatory or tax compliance matters, and these matters may result in significant financial cost (including investigation expenses, defense costs, assessments and criminal or civil penalties), reputational harm and other consequences that could materially and adversely affect our operating results and financial condition. In addition, we may be subject to new or amended laws, including laws that conflict with other applicable laws, which may impose compliance challenges and create the risk of non-compliance.

In addition, we may from time to time be involved in legal proceedings or claims regarding employment, immigration, contracts, product performance, product liability, antitrust, environmental regulations, securities, unfair competition and other matters. These legal proceedings and claims, regardless of their merit, may be time-consuming and expensive to prosecute or defend, divert management's attention and resources, and/or inhibit our ability to sell our products. There can be no assurance regarding the outcome of current or future legal proceedings or claims, which could adversely affect our operating results, financial condition and ability to operate our business.

Increasing attention to ESG matters, including any targets or other ESG initiatives, could result in additional costs or risks or adversely impact our business.

Certain investors, capital providers, shareholder advocacy groups, other market participants, customers and other stakeholder groups have focused increasingly on companies' ESG initiatives, including those regarding climate change, human rights and I&D, among others. This may result in increased costs, changes in demand for certain types of products, enhanced compliance or disclosure obligations and costs, or other adverse impacts on our business, financial condition or results of operations.

From time to time, we create and publish voluntary disclosures regarding ESG matters. Identification, assessment, and disclosure of such matters is complex. Many of the statements in such voluntary disclosures are based on our expectations and assumptions, which may require substantial discretion and forecasts about costs and future circumstances. Additionally, expectations regarding companies' management of ESG matters continues to evolve rapidly, in many instances due to factors that are out of our control. In addition, organizations that provide information to investors on corporate governance and related matters have developed rating processes on evaluating companies on their approach to ESG matters. Such ratings are used by some investors to inform their investment and voting decisions. Unfavorable ESG ratings could lead to increased negative investor sentiment toward us, our customers, or our industry, which could negatively impact our share price as well as our access to and cost of capital. To the extent ESG matters negatively impact our reputation, it may also impede our ability to compete as effectively to recruit or retain employees, which may adversely affect our operations.

Although we may participate in various voluntary frameworks and certification programs, or establish voluntary ESG initiatives, to improve the ESG profile of our operations and product offerings, we cannot guarantee that such efforts will have the intended results. For example, in December 2021, we announced a goal to use 100% renewable electricity across our global operations by 2030. Our estimates concerning the timing and cost of implementing this and other goals are subject to risks and uncertainties, some of which are outside of our control. Any failure, or perceived failure, to successfully achieve our voluntary goals, or the manner in which we achieve some or any portion of our goals, could adversely impact our reputation or, to the extent related to sustainability-linked capital sources, financial condition and results of operations. Our ESG efforts may also include the adoption, or expansion, of certain ESG practices or policies, which may require us to expend additional resources to implement or to forego certain business opportunities to the extent others in our value chain do not meet pertinent requirements of such policies. By contrast, any failure, or perceived failure, to conform to such policies could have an adverse impact on our reputation and business activities. Our performance may be subject to greater scrutiny as a result of our announcement of any goals or policies and the publication of our performance against the same. Moreover, despite the voluntary nature of such efforts, we may receive pressure from external sources, such as lenders, investors or other groups, to adopt more aggressive climate or other ESG-related initiatives; however, we may not agree that such initiatives will be appropriate for our business, and we may not be able to implement such initiatives because of potential costs or technical or operational obstacles. In addition, we note that certain ESG matters are becoming less "voluntary" as regulators, including the SEC, begin proposing and adopting regulations regarding ESG matters, including, but not limited to climate change-related matters. To the extent we are subject to increased regulatory requirements, we could become subject to increased compliance-related costs and risks, including potential enforcement and litigation. Such ESG matters may also impact our suppliers and customers, which may compound or cause new impacts on our business, financial condition or results of operations.

We depend on key personnel to manage our business effectively, and if we are unable to attract, retain and motivate our key employees, our sales and product development could be harmed.

Our employees are vital to our success, and our key management, engineering and other employees are difficult to replace. We generally do not have employment contracts with our key employees. Further, we do not maintain key person life insurance on any of our employees. The expansion of high technology companies worldwide and the elevated demand for talent from the growth in the demand for semiconductors following the onset of the COVID-19 pandemic has increased demand and competition for qualified personnel. Competition for engineering and other technical personnel in many areas of the world in which we operate is especially intense due to the proliferation of technology companies worldwide. In addition, current or future immigration laws, policies or regulations may limit our ability to attract, hire and retain qualified personnel. If we are unable to attract, onboard and retain key personnel, or if we are not able to attract, assimilate, onboard and retain additional highly qualified employees to meet our current and future needs, our business and operations could be harmed.

We outsource a number of services to third-party service providers, which decreases our control over the performance of these functions. Disruptions or delays at our third-party service providers could adversely impact our operations.

We outsource a number of services, including our transportation, information systems management and logistics management of spare parts and certain accounting and procurement functions, to domestic and overseas third-party service providers. While outsourcing arrangements may lower our cost of operations, they also reduce our direct control over the services rendered. It is uncertain what effect such diminished control will have on the quality or quantity of products delivered or services rendered, on our ability to quickly respond to changing market conditions, or on our ability to ensure compliance with all applicable domestic and foreign laws and regulations. In addition, many of these outsourced service providers, including certain hosted software applications that we use for confidential data storage, employ cloud computing technology for such storage. These providers' cloud computing systems may be susceptible to "cyber incidents," such as intentional cyber-attacks aimed at theft of sensitive data or inadvertent cyber-security compromises, which are outside of our control. If we do not effectively develop and manage our outsourcing strategies, if required export and other governmental approvals are not timely obtained, if our third-party service providers pass on the cost of inflation to us or do not perform as anticipated, or do not adequately protect our data from cyber-related security breaches, or if there are delays or difficulties in enhancing business processes, we may experience operational difficulties (such as limitations on our ability to ship products), increased costs, manufacturing or service interruptions or delays, loss of intellectual property rights or other sensitive data, quality and compliance issues, and challenges in managing our product inventory or recording and reporting financial and management information, any of which could materially and adversely affect our business, financial condition and results of operations.

We depend on secure information technology for our business and are exposed to risks related to cybersecurity threats and cyber incidents affecting our, our customers', suppliers' and other service providers' systems and networks.

In the conduct of our business, we collect, use, transmit and store data on information systems and networks, including systems and networks owned and maintained by KLA and/or by third-party providers. This data includes confidential information, transactional information and intellectual property belonging to us, our customers and our business partners, as well as personally identifiable information of individuals. Despite network security and other measures, our, our customers', suppliers' and other third-party providers' information systems and networks are susceptible to computer viruses, ransomware, cyber-related security breaches and similar disruptions from unauthorized intrusions, tampering, misuse, or criminal acts made directly against, or through our third-party providers in the supply chain, and against, our systems and networks, including phishing, or other events or developments that we may be unable to anticipate or fail to mitigate, including but not limited to vulnerabilities or misconfigurations in information systems, networks, software or hardware. We have experienced cyber-related attacks in the past, and are likely to experience cyber-related attacks in the future. Our security measures may also be breached due to employee errors, malfeasance, or otherwise. Third parties may also attempt to influence employees, users, suppliers or customers to disclose sensitive information in order to gain access to our, our customers' or business partners' data. Because the techniques used to obtain unauthorized access to the information systems change frequently, may not be recognized until launched against a target and are increasingly designed to circumvent controls, avoid detection and remove or obfuscate forensic artifacts, we may be unable to anticipate these techniques, implement adequate preventative measures, or adequately identify, investigate and recover from cybersecurity incidents.

Any cybersecurity incident or occurrence could impact our business directly, or indirectly by impacting third parties in the supply chain, in many potential ways: disruptions to operations; misappropriation, corruption or theft of confidential information, including intellectual property and other critical data, of KLA, our customers or other business partners; misappropriation of funds and Company assets; reduced value of our investments in research, development and engineering; litigation with, or payment of damages to, third parties; reputational damage; costs to comply with regulatory inquiries or actions; data privacy issues; costs to rebuild our information systems and networks; and increased cybersecurity protection and remediation costs. Cybersecurity incidents affecting our customers could result in substantial delays in our ability to ship to those customers or install our products, which could result in delays in revenue recognition or the cancellation of orders, and cybersecurity incidents affecting our suppliers could result in substantial delays in our ability to obtain necessary components for our products from those suppliers, which could hamper our ability to ship our products to our customers, harming our results of operations.

We carry insurance that provides limited protection against the potential losses arising from a cybersecurity incident but it will not likely cover all such losses, and the losses it does not cover may be significant.

We rely upon certain critical information systems for our daily business operations. Our inability to use or access our information systems at critical points in time could unfavorably impact our business operations.

Our global operations are dependent upon certain information systems, including telecommunications, the internet, our corporate intranet, network communications, email and various computer hardware and software applications. System failures or malfunctions, such as difficulties with our customer relationship management system, could disrupt our operations and our ability to timely and accurately process and report key components of our financial results. Our enterprise resource planning ("ERP") system is integral to our ability to accurately and efficiently maintain our books and records, record transactions, provide critical information to our management, and prepare our financial statements. Any disruptions or difficulties that may occur in connection with our ERP system or other systems (whether in connection with the regular operation, periodic enhancements, modifications or upgrades of such systems or the integration of our acquired businesses into such systems, or due to cybersecurity events such as ransomware attacks) could adversely affect our ability to complete important business processes, such as the evaluation of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002. Any of these events could have an adverse effect on our business, operating results and financial condition.

Acquisitions are an important element of our strategy but, because of the uncertainties involved, we may not find suitable acquisition candidates and we may not be able to successfully integrate and manage acquired businesses. We are also exposed to risks in connection with strategic alliances into which we may enter.

In addition to our efforts to develop new technologies from internal sources, part of our growth strategy is to pursue acquisitions and acquire new technologies from external sources. As part of this effort, in February 2019, we announced that we had consummated our acquisition of Orbotech. We may also enter into definitive agreements for and consummate acquisitions of, or significant investments in, businesses with complementary products, services and/or technologies. There can be no assurance that we will find suitable acquisition candidates, that we can close such acquisitions or that acquisitions we complete will be successful. In addition, we may use equity to finance future acquisitions, which would increase our number of shares outstanding and be dilutive to current stockholders.

If we are unable to successfully integrate and manage acquired businesses, if the costs associated with integrating the acquired business exceeds our expectations, or if acquired businesses perform poorly, then our business and financial results may suffer. It is possible that the businesses we have acquired, as well as businesses we may acquire in the future, may perform worse than expected or prove to be more difficult to integrate and manage than anticipated. In addition, we may face other risks associated with acquisition transactions that may lead to a material adverse effect on our business and financial results, including:

- We may have to devote unanticipated financial and management resources to acquired businesses;
- The combination of businesses may result in the loss of key personnel or an interruption of, or loss of momentum in, the activities of our Company and/or the acquired business;
- We may not be able to realize expected operating efficiencies or product integration benefits from our acquisitions;
- We may experience challenges in entering into new market segments for which we have not previously manufactured and sold products;
- We may face difficulties in coordinating geographically separated organizations, systems and facilities;
- The customers, distributors, suppliers, employees and others with whom the companies we acquire have business dealings may have a potentially adverse reaction to the acquisition;
- We may have difficulty implementing a cohesive framework of controls, procedures and policies appropriate for a larger, U.S.-based public company at companies that prior to acquisition may not have as robust controls, procedures and policies, particularly, with respect to the effectiveness of cyber and information security practices and incident response plans, compliance with data privacy and protection and other laws and regulations, and compliance with U.S.-based economic policies and sanctions which may not have previously been applicable to the acquired company’s operations;
- We may have to write off goodwill or other intangible assets; and
- We may incur unforeseen obligations or liabilities in connection with acquisitions including but not limited to cybersecurity risks associated with integrating our networks or systems with those of acquired entities.

At times, we may also enter into strategic alliances with customers, suppliers or other business partners with respect to development of technology and intellectual property. These alliances typically require significant investments of capital and exchange of proprietary, highly sensitive information. The success of these alliances depends on various factors over which we may have limited or no control and requires ongoing and effective cooperation with our strategic partners. Mergers and acquisitions and strategic alliances are inherently subject to significant risks, and the inability to effectively manage these risks could materially and adversely affect our business, financial condition and operating results.

Disruption of our manufacturing facilities or other operations or those of our suppliers, or in the operations of our customers, due to earthquake, flood, other natural catastrophic events, health epidemics or terrorism could result in cancellation of orders, delays in deliveries or other business activities, or loss of customers and could seriously harm our business.

We have significant manufacturing operations in the U.S., Singapore, Israel, Germany, United Kingdom, Italy and China. In addition, our business is international in nature, with our sales, service and administrative personnel and our customers and suppliers located in numerous countries throughout the world. Operations at our manufacturing facilities and our assembly subcontractors and those of our suppliers, as well as our other operations and those of our customers, are subject to disruption for a variety of reasons, including work stoppages, acts of war such as Russia’s invasion of Ukraine, terrorism, health epidemics and pandemics, fire, earthquake, volcanic eruptions, energy shortages or power blackouts, flooding or other natural disasters; and certain of these events may become more frequent or intense as a result of climate change. Such disruption could cause delays in, among other things, shipments of products to our customers, our ability to perform services requested by our customers, the ability of our suppliers to supply us components for our products in a timely manner, or the timely installation and acceptance of our products at customer sites. We cannot provide any assurance that alternate means of conducting our operations (whether through alternate production capacity or service providers or otherwise) would be available if a major disruption were to occur or that, if such alternate means were available, they could be obtained on favorable terms.

In addition, as part of our cost-cutting actions, we have consolidated several operating facilities. Our California operations are now primarily centralized in our Milpitas facility. The consolidation of our California operations into a single campus could further concentrate the risks related to any of the disruptive events described above, such as acts of war or terrorism, earthquakes, fires or other natural disasters, if any such event were to impact our Milpitas facility.

We are predominantly uninsured for losses and interruptions caused by terrorist acts and acts of war. If international political instability continues or increases, our business and results of operations could be harmed.

The threat of terrorism targeted at, or acts of war in, the regions of the world in which we do business increases the uncertainty in our markets. Any act of terrorism or war that affects the economy or the industries we serve could adversely affect our business. Increased international political instability in various parts of the world, disruption in air transportation and further enhanced security measures as a result of terrorist attacks may hinder our ability to do business and may increase our costs of operations. We maintain significant operations in Israel. Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors, and a state of hostility varying in degree and intensity has led to security and economic challenges for Israel. In addition, some of our employees in Israel are obligated to perform annual reserve duty in the Israel Defense Forces, and may be called to active military duty in emergency circumstances. We cannot assess the impact that emergency conditions in Israel in the future may have on our business, operations, financial condition or results of operations, but it could be material. Instability in any region could directly impact our ability to operate our business (or our customers' ability to operate their businesses), cause us to incur increased costs in transportation, make such transportation unreliable, increase our insurance costs, and cause international currency markets to fluctuate. Instability in the region could also have the same effects on our suppliers and their ability to timely deliver their products. If international political instability continues or increases in any region in which we do business, our business and results of operations could be harmed. We are predominantly uninsured for losses and interruptions caused by terrorist acts and acts of war.

We self-insure certain risks including earthquake risk. If one or more of the uninsured events occurs, we could suffer major financial loss.

We purchase insurance to help mitigate the economic impact of certain insurable risks; however, certain risks are uninsurable, are insurable only at significant cost or cannot be mitigated with insurance. Accordingly, we may experience a loss that is not covered by insurance, either because we do not carry applicable insurance or because the loss exceeds the applicable policy amount or is less than the deductible amount of the applicable policy. For example, we do not currently hold earthquake insurance. An earthquake could significantly disrupt our manufacturing operations, a significant portion of which are conducted in California, an area highly susceptible to earthquakes. It could also significantly delay our research and engineering efforts on new products, much of which is also conducted in California. We take steps to minimize the damage that would be caused by an earthquake, but there is no certainty that our efforts will prove successful in the event of an earthquake. We self-insure earthquake risks because we believe this is a prudent financial decision based on our cash reserves and the high cost and limited coverage available in the earthquake insurance market. Certain other risks are also self-insured either based on a similar cost-benefit analysis, or based on the unavailability of insurance. If one or more of the uninsured events occurs, we could suffer major financial loss.

We are exposed to foreign currency exchange rate fluctuations. Although we hedge certain currency risks, we may still be adversely affected by changes in foreign currency exchange rates or declining economic conditions in these countries.

We have some exposure to fluctuations in foreign currency exchange rates, primarily the Japanese Yen, the euro, the pound sterling and the Israeli new shekel. We have international subsidiaries that operate and sell our products globally. In addition, an increasing proportion of our manufacturing activities are conducted outside of the U.S., and many of the costs associated with such activities are denominated in foreign currencies. We routinely hedge our exposures to certain foreign currencies with certain financial institutions in an effort to minimize the impact of certain currency exchange rate fluctuations, but these hedges may be inadequate to protect us from currency exchange rate fluctuations. To the extent that these hedges are inadequate, or if there are significant currency exchange rate fluctuations in currencies for which we do not have hedges in place, our reported financial results or the way we conduct our business could be adversely affected. Furthermore, if a financial counterparty to our hedges experiences financial difficulties or is otherwise unable to honor the terms of the foreign currency hedge, we may experience material financial losses.

We are exposed to fluctuations in interest rates and the market values of our portfolio investments, and an impairment of our investments could harm our earnings. In addition, we and our stockholders are exposed to risks related to the volatility of the market for our common stock.

Our investment portfolio primarily consists of both corporate and government debt securities that are susceptible to changes in market interest rates and bond yields. As market interest rates and bond yields increase, those securities with a lower yield-at-cost show a mark-to-market unrealized loss. An impairment of the fair market value of our investments, even if unrealized, must be reflected in our financial statements for the applicable period and may, therefore, have a material adverse effect on our results of operations for that period.

In addition, the market price for our common stock is volatile and has fluctuated significantly during recent years. The trading price of our common stock could continue to be highly volatile and fluctuate widely in response to various factors, including without limitation conditions in the semiconductor industry and other industries in which we operate, fluctuations in the global economy or capital markets, our operating results or other performance metrics, or adverse consequences experienced by us as a result of any of the risks described elsewhere in this Item 1A. Volatility in the market price of our common stock could cause an investor in our common stock to experience a loss on the value of their investment in us and could also adversely impact our ability to raise capital through the sale of our common stock or to use our common stock as consideration to acquire other companies.

We are exposed to risks in connection with tax and regulatory compliance audits in various jurisdictions.

We are subject to tax and regulatory compliance audits (such as related to customs or product safety requirements) in various jurisdictions, and such jurisdictions may assess additional income or other taxes, penalties, fines or other prohibitions against us. Although we believe our tax estimates are reasonable and that our products and practices comply with applicable regulations, the final determination of any such audit and any related litigation could be materially different from our historical income tax provisions and accruals related to income taxes and other contingencies. The results of an audit or litigation could have a material adverse effect on our operating results or cash flows in the period or periods for which that determination is made.

A change in our effective tax rate can have a significant adverse impact on our business.

We earn profits in, and are therefore potentially subject to taxes in, the U.S. and numerous foreign jurisdictions, including Singapore and Israel, the countries in which we earn the majority of our non-U.S. profits. Due to economic, political or other conditions, tax rates in those jurisdictions may be subject to significant change. A number of factors may adversely impact our future effective tax rates, such as the jurisdictions in which our profits are determined to be earned and taxed; changes in the tax rates imposed by those jurisdictions; expiration of tax holidays in certain jurisdictions that are not renewed; the resolution of issues arising from tax audits with various tax authorities; changes in the valuation of our deferred tax assets and liabilities; adjustments to estimated taxes upon finalization of various tax returns; increases in expenses not deductible for tax purposes, including write-offs of acquired in-process research and development ("IPR&D") and impairment of goodwill in connection with acquisitions; changes in available tax credits; changes in stock-based compensation expense; changes in tax laws or the interpretation of such tax laws; changes in generally accepted accounting principles; and the repatriation of earnings from outside the U.S. for which we have not previously provided for U.S. taxes. A change in our effective tax rate can materially and adversely impact our results from operations.

In addition, recent changes to U.S. tax laws will significantly impact how U.S. multinational corporations are taxed on foreign earnings. We have completed our accounting for the tax effects of the Tax Cuts and Jobs Act (the "Tax Act"), which was enacted into law on December 22, 2017. However, the recent U.S. tax law changes are subject to future guidance from U.S. federal and state governments, such as the Treasury Department and/or the Internal Revenue Service. Any future guidance can change our tax liability. A significant portion of the income taxes due to the enactment of the Tax Act is payable by us over a period of eight years. As a result, our cash flows from operating activities will be adversely impacted until the tax liability is paid in full. Numerous countries are evaluating their existing tax laws due in part, to recommendations made by the Organization for Economic Co-operation and Development's Base Erosion and Profit Shifting project.

Compliance with federal securities laws, rules and regulations, as well as NASDAQ requirements, has become increasingly complex, and the significant attention and expense we must devote to those areas may have an adverse impact on our business.

Federal securities laws, rules and regulations, as well as NASDAQ rules and regulations, require companies to maintain extensive corporate governance measures, impose comprehensive reporting and disclosure requirements, set strict independence and financial expertise standards for audit and other committee members and impose civil and criminal penalties for companies and their chief executive officers, chief financial officers and directors for securities law violations. These laws, rules and regulations have increased, and in the future are expected to continue to increase, the scope, complexity and cost of our corporate governance, reporting and disclosure practices, which could harm our results of operations and divert management's attention from business operations.

A change in accounting standards or practices or a change in existing taxation rules or practices (or changes in interpretations of such standards, practices or rules) can have a significant effect on our reported results and may even affect reporting of transactions completed before the change is effective.

New accounting standards and taxation rules and varying interpretations of accounting pronouncements and taxation rules have occurred and will continue to occur in the future. Changes to (or revised interpretations or applications of) existing accounting standards or tax rules or the questioning of current or past practices may adversely affect our reported financial results or the way we conduct our business. Adoption of new standards may require changes to our processes, accounting systems, and internal controls. Difficulties encountered during adoption could result in internal control deficiencies or delay the reporting of our financial results.

Risks Associated with Our Industry

Ongoing changes in the technology industry, as well as the semiconductor industry in particular, could expose our business to significant risks.

The industries we serve, including the semiconductor, FPD and PCB industries, are constantly developing and changing over time. Many of the risks associated with operating in these industries are comparable to the risks faced by all technology companies, such as the uncertainty of future growth rates in the industries that we serve, pricing trends in the end-markets for consumer electronics and other products (which place a growing emphasis on our customers' cost of ownership), rising inflation in the supply chain and interest rates, changes in our customers' capital spending patterns and, in general, an environment of constant change and development, including decreasing product and component dimensions, use of new materials, and increasingly complex device structures, applications and process steps. If we fail to appropriately adjust our cost structure and operations to adapt to any of these trends, or, with respect to technological advances, if we do not timely develop new technologies and products that successfully anticipate and address these changes, we could experience a material adverse effect on our business, financial condition and operating results.

In addition, we face a number of risks specific to ongoing changes in the semiconductor industry, as a significant majority of our sales are our process control and yield management products sold to semiconductor manufacturers. The trends our management monitors in operating our business include the following:

- The potential for reversal of the long-term historical trend of declining cost per transistor with each new generation of technological advancement within the semiconductor industry, and the adverse impact that such reversal may have upon our business;
- The increasing cost of building and operating fabrication facilities and the impact of such increases on our customers' capital equipment investment decisions;
- Differing market growth rates and capital requirements for different applications, such as memory and foundry/logic;
- Lower level of process control adoption by our memory customers compared to our foundry/logic customers;
- Our customers' reuse of existing and installed products, which may decrease their need to purchase new products or solutions at more advanced technology nodes;
- The emergence of disruptive technologies that change the prevailing semiconductor manufacturing processes (or the economics associated with semiconductor manufacturing) and, as a result, also impact the inspection and metrology requirements associated with such processes;
- The higher design costs for the most advanced ICs, which could economically constrain leading-edge manufacturing technology customers to focus their resources on only the large, technologically advanced products and applications;
- The possible introduction of integrated products by our larger competitors that offer inspection and metrology functionality in addition to managing other semiconductor manufacturing processes;
- Changes in semiconductor manufacturing processes that are extremely costly for our customers to implement and, accordingly, our customers could reduce their available budgets for process control equipment by reducing inspection and metrology sampling rates for certain technologies;
- The bifurcation of the semiconductor manufacturing industry into (a) leading edge manufacturers driving continued R&D into next-generation products and technologies and (b) other manufacturers that are content with existing (including previous generation) products and technologies;
- The ever escalating cost of next-generation product development, which may result in joint development programs between us and our customers or government entities to help fund such programs that could restrict our control and ownership of and profitability from the products and technologies developed through those programs; and

- The entry by some semiconductor manufacturers into collaboration or sharing arrangements for capacity, cost or risk with other manufacturers, as well as increased outsourcing of their manufacturing activities, and greater focus only on specific markets or applications, whether in response to adverse market conditions or other market pressures.

Any of the changes described above may negatively affect our customers' rate of investment in the capital equipment that we produce, which could result in downward pressure on our prices, customer orders, revenues and gross margins. If we do not successfully manage the risks resulting from any of these or other potential changes in our industries, our business, financial condition and operating results could be adversely impacted.

We are exposed to risks associated with a highly concentrated customer base.

Our customer base, particularly in the semiconductor industry, historically has been highly concentrated due to corporate consolidation, acquisitions and business closures. In this environment, orders from a relatively limited number of manufacturers have accounted for, and are expected to continue to account for, a substantial portion of our sales. This increasing concentration exposes our business, financial condition and operating results to a number of risks, including the following:

- The mix and type of customers, and sales to any single customer, may vary significantly from quarter to quarter and from year to year, which exposes our business and operating results to increased volatility tied to individual customers.
- New orders from our foundry/logic customers in the past several years have constituted a significant portion of our total orders. This concentration increases the impact that future business or technology changes within the foundry/logic industry may have on our business, financial condition and operating results.
- In a highly concentrated business environment, if a particular customer does not place an order, or if they delay or cancel orders, we may not be able to replace the business. Furthermore, because our process control and yield management products are configured to each customer's specifications, any changes, delays or cancellations of orders may result in significant, non-recoverable costs.
- As a result of this consolidation, the customers that survive the consolidation represent a greater portion of our sales and, consequently, have greater commercial negotiating leverage. Many of our large customers have more aggressive policies regarding engaging alternative, second-source suppliers for the products we offer and, in addition, may seek and, on occasion, receive pricing, payment, intellectual property-related or other commercial terms that may have an adverse impact on our business and we may not be able to pass on the cost of inflation to our customers. Any of these changes could negatively impact our prices, customer orders, revenues and gross margins.
- Certain customers have undergone significant ownership changes, created alliances with other companies, experienced management changes or have outsourced manufacturing activities, any of which may result in additional complexities in managing customer relationships and transactions. Any future change in ownership or management of our existing customers may result in similar challenges, including the possibility of the successor entity or new management deciding to select a competitor's products.
- The highly concentrated business environment also increases our exposure to risks related to the financial condition of each of our customers. For example, as a result of the challenging economic environment during fiscal year 2009, we were (and, in some cases, continue to be) exposed to additional risks related to the continued financial viability of certain of our customers. To the extent our customers experience liquidity issues in the future, we may be required to incur additional credit losses with respect to receivables owed to us by those customers. In addition, customers with liquidity issues may be forced to reduce purchases of our equipment, delay deliveries of our products, discontinue operations or may be acquired by one of our customers, and, in either case, such event would have the effect of further consolidating our customer base.
- Semiconductor manufacturers generally must commit significant resources to qualify, install and integrate process control and yield management equipment into a semiconductor production line. We believe that once a semiconductor manufacturer selects a particular supplier's process control and yield management equipment, the manufacturer generally relies upon that equipment for that specific production line application for an extended period of time. Accordingly, we expect it to be more difficult to sell our products to a given customer for that specific production line application and other similar production line applications if that customer initially selects a competitor's equipment.
- Prices differ among the products we offer for different applications due to differences in features offered or manufacturing costs. If there is a shift in demand by our customers from our higher-priced to lower-priced products, our gross margin and revenues would decrease. In addition, when products are initially introduced, they tend to have higher costs because of initial development costs and lower production volumes relative to the previous product generation, which can impact gross margin.

Any of these factors could have a material adverse effect on our business, financial condition and operating results.

We operate in industries that have historically been cyclical, including the semiconductor industry. The purchasing decisions of our customers are highly dependent on the economies of both the local markets in which they are located and the condition of the industry worldwide. If we fail to respond to industry cycles, our business, financial condition and operating results could be adversely impacted.

The timing, length and severity of the up-and-down cycles in the industries in which we serve are difficult to predict. The historically cyclical nature of the semiconductor industry in which we primarily operate is largely a function of our customers' capital spending patterns and need for expanded manufacturing capacity, which, in turn, are affected by factors such as capacity utilization, consumer demand for products, inventory levels and our customers' access to capital. Cyclicality affects our ability to accurately predict future revenue and, in some cases, future expense levels. During down cycles in our industry, the financial results of our customers may be negatively impacted, which could result not only in a decrease in, or cancellation or delay of, orders (which are generally subject to cancellation or delay by the customer with limited or no penalty) but also a weakening of their financial condition that could impair their ability to pay for our products or our ability to recognize revenue from certain customers. Our ability to recognize revenue from a particular customer may also be negatively impacted by the customer's funding status, which could be weakened not only by rising interest rates, adverse business conditions or inaccessibility to capital markets for any number of macroeconomic or company-specific reasons, but also by funding limitations imposed by the customer's unique organizational structure. Any of these factors could negatively impact our business, operating results and financial condition.

When cyclical fluctuations result in lower than expected revenue levels, operating results may be adversely affected and cost reduction measures may be necessary for us to remain competitive and financially sound. During periods of declining revenues, we must be in a position to adjust our cost and expense structure to prevailing market conditions and to continue to motivate and retain our key employees. If we fail to respond, or if our attempts to respond fail to accomplish our intended results, our business could be seriously harmed. Furthermore, any workforce reductions and cost reduction actions that we adopt in response to down cycles may result in additional restructuring charges, disruptions in our operations and loss of key personnel. In addition, during periods of rapid growth, we must be able to increase manufacturing capacity and personnel to meet customer demand. We can provide no assurance that these objectives can be met in a timely manner in response to industry cycles. Each of these factors could adversely impact our operating results and financial condition.

The growth that we have experienced over the past few years has resulted in higher levels of backlog, or remaining performance obligations ("RPO"). The supply chain disruptions caused by the ongoing pandemic as well as favorable market trends have led to customers agreeing to purchase equipment from us with lead times that are longer than our historical experience. As the lead times for delivery of our equipment get longer, the risk increases that customers may choose to change their equipment orders due to the evolution of the customer's technological, production or market needs. This could result in order modifications, rescheduling or even cancellations that may not be communicated to us in a timely manner, causing RPO to remain elevated until agreed with the customer. Customer communication delays for orders already placed could affect our ability to respond quickly in weakening demand environments, which could harm our results of operations.

Risks Related to Our Business Model and Capital Structure

If we do not develop and introduce new products and technologies in a timely manner in response to changing market conditions or customer requirements, our business could be seriously harmed.

Success in the industries in which we serve, including the semiconductor, FPD and PCB industries depends, in part, on the continual improvement of existing technologies and rapid innovation of new solutions. The primary driver of technology advancement in the semiconductor industry has been to shrink the lithography that prints the circuit design on semiconductor chips. To the extent that driver slows, semiconductor manufacturers may delay investments in equipment, investigate more complex device architectures, use new materials and develop innovative fabrication processes. These and other evolving customer plans and needs require us to respond with continued development programs and cut back or discontinue older programs, which may no longer have industry-wide support. Technical innovations are inherently complex and require long development cycles and appropriate staffing of highly qualified employees. Our competitive advantage and future business success depend on our ability to accurately predict evolving industry standards, develop and introduce new products and solutions that successfully address changing customer needs, win market acceptance of these new products and solutions, and manufacture these new products in a timely and cost-effective manner. Our failure to accurately predict evolving industry standards and develop as well as offer competitive technology solutions in a timely manner with cost-effective products could result in loss of market share, unanticipated costs and inventory obsolescence, which would adversely impact our business, operating results and financial condition.

We must continue to make significant investments in R&D in order to enhance the performance, features and functionality of our products, to keep pace with competitive products and to satisfy customer demands. Substantial R&D costs typically are incurred before we confirm the technical feasibility and commercial viability of a new product, and not all development activities result in commercially viable products. There can be no assurance that revenues from future products or product enhancements will be sufficient to recover the development costs associated with such products or enhancements. In addition, we cannot be sure that these products or enhancements will receive market acceptance or that we will be able to sell these products at prices that are favorable to us. Our business will be seriously harmed if we are unable to sell our products at favorable prices or if the market in which we operate does not accept our products.

In addition, the complexity of our products exposes us to other risks. We regularly recognize revenue from a sale upon shipment of the applicable product to the customer (even before receiving the customer's formal acceptance of that product) in certain situations, including sales of products for which installation is considered perfunctory, transactions in which the product is sold to an independent distributor and we have no installation obligations, and sales of products where we have previously delivered the same product to the same customer location and that prior delivery has been accepted. However, our products are very technologically complex and rely on the interconnection of numerous subcomponents (all of which must perform to their respective specifications), so it is conceivable that a product for which we recognize revenue upon shipment may ultimately fail to meet the overall product's required specifications. In such a situation, the customer may be entitled to certain remedies, which could materially and adversely affect our operating results for various periods and, as a result, our stock price.

We derive a substantial percentage of our revenues from sales of inspection products. As a result, any delay or reduction of sales of these products could have a material adverse effect on our business, financial condition and operating results. The continued customer demand for these products and the development, introduction and market acceptance of new products and technologies are critical to our future success.

Our success is dependent in part on our technology and other proprietary rights. If we are unable to maintain our lead or protect our proprietary technology, we may lose valuable assets.

Our success is dependent, in part, on our technology and other proprietary rights. We own various U.S. and international patents and have additional pending patent applications relating to some of our products and technologies. The process of seeking patent protection is lengthy and expensive, and we cannot be certain that pending or future applications will actually result in issued patents or that issued patents will be of sufficient scope or strength to provide meaningful protection or commercial advantage to us. Other companies and individuals, including our larger competitors, may develop technologies and obtain patents relating to our business that are similar or superior to our technology or may design around the patents we own, which may adversely affect our business. In addition, we at times engage in collaborative technology development efforts with our customers and suppliers, and these collaborations may constitute a key component of certain of our ongoing technology and product R&D projects. The termination of any such collaboration, or delays caused by disputes or other unanticipated challenges that may arise in connection with any such collaboration, could significantly impair our R&D efforts, which could have a material adverse impact on our business and operations.

We also maintain trademarks on certain of our products and services and claim copyright protection for certain proprietary software and documentation. However, we can give no assurance that our trademarks and copyrights will be upheld or successfully deter infringement by third parties.

While patent, copyright and trademark protection for our intellectual property is important, we believe our future success in highly dynamic markets is most dependent upon the technical competence and creative skills of our personnel. We attempt to protect our trade secrets and other proprietary information through confidentiality and other agreements with our customers, suppliers, employees and consultants and through other security measures. We also maintain exclusive and non-exclusive licenses with third parties for strategic technology used in certain products. However, these employees, consultants and third parties may breach these agreements, and we may not have adequate remedies for wrongdoing. We also try to control access to and distribution of our technology and proprietary information. Despite our efforts, internal or external parties may attempt to copy, disclose, obtain or misappropriate our intellectual property or technology. In addition, former employees may seek employment with our customers, suppliers or competitors and there can be no assurance that the confidential nature of our proprietary information will be maintained in the course of such future employment. In addition, the laws of certain territories in which we develop, manufacture or sell our products may not protect our intellectual property rights to the same extent as do the laws of the U.S.. In any event, the extent to which we can protect our trade secrets through the use of confidentiality agreements is limited, and our success will depend to a significant extent on our ability to innovate ahead of our competitors.

Our future performance depends, in part, upon our ability to continue to compete successfully worldwide.

Our industry includes large manufacturers with substantial resources to support customers worldwide. Some of our competitors are diversified companies with greater financial resources and more extensive research, engineering, manufacturing, marketing, and customer service and support capabilities than we possess. We face competition from companies whose strategy is to provide a broad array of products and services, some of which compete with the products and services we offer. These competitors may bundle their products in a manner that may discourage customers from purchasing our products, including pricing such competitive tools significantly below our product offerings. In addition, we face competition from smaller emerging companies whose strategy is to provide a portion of the products and services that we offer, using innovative technology to sell products into specialized markets. The strength of our competitive positions in many of our existing markets is largely due to our leading technology, which is the result of continuing significant investments in product R&D. However, we may enter new markets, whether through acquisitions or new internal product development, in which competition is based primarily on product pricing, not technological superiority. Further, some new growth markets that emerge may not require leading technologies. Loss of competitive position in any of the markets we serve, or an inability to sell our products on favorable commercial terms in new markets we may enter, could negatively affect our prices, customer orders, revenues, gross margins and market share, any of which would negatively affect our operating results and financial condition.

Our business would be harmed if we do not receive parts sufficient in number and performance to meet our production requirements and product specifications in a timely and cost-effective manner.

We use a wide range of materials in the production of our products, including custom electronic and mechanical components, and we use numerous suppliers to supply these materials. Generally, we do not have guaranteed supply arrangements with our suppliers. Because of the variability and uniqueness of customers' orders, we do not maintain an extensive inventory of materials for manufacturing. Through our business interruption planning, we seek to minimize the risk of production and service interruptions and/or shortages of key parts by, among other things, monitoring the financial stability of key suppliers, identifying (but not necessarily qualifying) possible alternative suppliers and maintaining appropriate inventories of key parts. Although we make reasonable efforts to ensure that parts are available from multiple suppliers, certain key parts are available only from a single supplier or a limited group of suppliers. Also, key parts we obtain from some of our suppliers incorporate the suppliers' proprietary intellectual property; in those cases, we are increasingly reliant on third parties for high-performance, high-technology components, which reduces the amount of control we have over the availability and protection of the technology and intellectual property that is used in our products. In addition, if certain of our key suppliers experience liquidity issues and are forced to discontinue operations, which is a heightened risk, especially during economic downturns, it could affect their ability to deliver parts and could result in delays for our products. Similarly, especially with respect to suppliers of high-technology components, our suppliers themselves have increasingly complex supply chains, and delays or disruptions at any stage of their supply chains may prevent us from obtaining parts in a timely manner and result in delays for our products, or our suppliers might pass on the cost of inflation to us while we are unable to adjust pricing with our own customers. Our operating results and business may be adversely impacted if we are unable to obtain parts to meet our production requirements and product specifications, or if we are able to do so only on unfavorable terms. Furthermore, a supplier may discontinue production of a particular part for any number of reasons, including the supplier's financial condition or business operational decisions, which would require us to purchase, in a single transaction, a large number of such discontinued parts in order to ensure that a continuous supply of such parts remains available to our customers. Such "end-of-life" parts purchases could result in significant expenditures by us in a particular period, and ultimately any unused parts may result in a significant inventory write-off, either of which could have an adverse impact on our financial condition and results of operations for the applicable periods. Refer to the Executive Summary in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information on supply constraints related to the COVID-19 pandemic.

If we fail to operate our business in accordance with our business plan, our operating results, business and stock price may be significantly and adversely impacted.

We attempt to operate our business in accordance with a business plan that is established annually, revised frequently (generally quarterly), and reviewed by management even more frequently (at least monthly). Our business plan is developed based on a number of factors, many of which require estimates and assumptions, such as our expectations of the economic environment, future business levels, our customers' willingness and ability to place orders, lead-times, and future revenue and cash flow. Our budgeted operating expenses, for example, are based in part on our future revenue expectations. However, our ability to achieve our anticipated revenue levels is a function of numerous factors, including the volatile and historically cyclical nature of our primary industry, customer order cancellations, macroeconomic changes, operational matters regarding particular agreements, our ability to manage customer deliveries, the availability of resources for the installation of our products, delays or accelerations by customers in taking deliveries and the acceptance of our products (for products where customer acceptance is required before we can recognize revenue from such sales), our ability to operate our business and sales processes effectively, and a number of the other risk factors set forth in this Item 1A.

Because our expenses are in most cases relatively fixed in the short term, any revenue shortfall below expectations could have an immediate and significant adverse effect on our operating results. Similarly, if we fail to manage our expenses effectively or otherwise fail to maintain rigorous cost controls, we could experience greater than anticipated expenses during an operating period, which would also negatively affect our results of operations. If we fail to operate our business consistent with our business plan, our operating results in any period may be significantly and adversely impacted. Such an outcome could cause customers, suppliers or investors to view us as less stable, or could cause us to fail to meet financial analysts' revenue or earnings estimates, any of which could have an adverse impact on our stock price.

In addition, our management is constantly striving to balance the requirements and demands of our customers with the availability of resources, the need to manage our operating model and other factors. In furtherance of those efforts, we often must exercise discretion and judgment as to the timing and prioritization of manufacturing, deliveries, installations and payment scheduling. Any such decisions may impact our ability to recognize revenue, including the fiscal period during which such revenue may be recognized, with respect to such products, which could have a material adverse effect on our business, results of operations or stock price.

We have a leveraged capital structure.

As of June 30, 2022, we had $6.73 billion aggregate principal amount of outstanding indebtedness, consisting of $6.45 billion aggregate principal amount of senior, unsecured long-term notes, of which $3.00 billion were issued in the fourth quarter of fiscal 2022. As of March 31, 2022, we had in place a Credit Agreement (the "Prior Credit Agreement") providing for a $1.00 billion unsecured Revolving Credit Facility (the "Prior Revolving Credit Facility") with a maturity date of November 30, 2023. In the fourth quarter of fiscal 2022, we replaced the Prior Credit Agreement and Prior Revolving Credit Facility with a renegotiated Credit Agreement (the "Credit Agreement") and a renegotiated unsecured Revolving Credit Facility (the "Revolving Credit Facility") having a maturity date of June 8, 2027 with two one-year extension options that allows us to borrow up to $1.50 billion. Subject to the terms of the Credit Agreement, the Revolving Credit Facility may be increased by an amount up to $250.0 million in the aggregate. As of June 30, 2022, we had an aggregate principal amount of $275.0 million outstanding under our Revolving Credit Facility. We may incur additional indebtedness in the future by accessing the unfunded portion of our Revolving Credit Facility and/or entering into new financing arrangements. We also announced a stock repurchase program, under which the remaining available for repurchases was $3.23 billion as of June 30, 2022. A large portion of the remaining repurchases may be financed with new indebtedness. Our ability to pay interest and repay the principal amount of our current indebtedness is dependent upon our ability to manage our business operations, our credit rating, the ongoing interest rate environment and the other risk factors discussed in this Item 1A. There can be no assurance that we will be able to manage any of these risks successfully.

In certain circumstances involving a change of control followed by a downgrade of the rating of a series of our Senior Notes (as defined below) by at least two of Moody's Investors Service ("Moody's"), S&P Global Ratings ("S&P") and Fitch Inc. ("Fitch"), unless we have exercised our right to redeem the Senior Notes of such series, we will be required to make an offer to repurchase all or, at the holder's option, any part, of each holder's Senior Notes of that series pursuant to the offer described below (the "Change of Control Offer"). In the Change of Control Offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of Senior Notes repurchased plus accrued and unpaid interest, if any, on the Senior Notes repurchased, up to, but not including, the date of repurchase. We cannot make any assurance that we will have sufficient financial resources at such time nor that we will be able to arrange financing to pay the repurchase price of that series of Senior Notes. Our ability to repurchase that series of Senior Notes in such event may be limited by law, by the relevant indenture associated with that series of Senior Notes, or by the terms of other agreements to which we may be a party at such time. If we fail to repurchase that series of Senior Notes as required by the terms of such Senior Notes, it would constitute an event of default under the relevant indenture governing that series of Senior Notes which, in turn, may also constitute an event of default under our other obligations.

Borrowings under our Revolving Credit Facility bear interest at a floating rate, and an increase in interest rates, particularly in the current environment of rising interest rates, would require us to pay additional interest on any borrowings, which may have an adverse effect on the value and liquidity of our debt and the market price of our common stock could decline. The interest rate under our Revolving Credit Facility is also subject to (i) an adjustment in conjunction with our credit rating downgrades or upgrades and (ii) an adjustment based on our performance against certain sustainability key performance indicators ("KPI") related to GHG emissions and renewable electricity usage. Additionally, under our Revolving Credit Facility, we are required to comply with affirmative and negative covenants, which include the maintenance of certain financial ratios, the details of which can be found in Note 8 "Debt" to our Consolidated Financial Statements.

If we fail to comply with these covenants, we will be in default and our borrowings may become immediately due and payable. There can be no assurance that we will have sufficient financial resources nor that we will be able to arrange financing to repay our borrowings at such time. In addition, certain of our domestic subsidiaries are required to guarantee our borrowings under our Revolving Credit Facility. In the event we default on our borrowings, these domestic subsidiaries shall be liable for our borrowings, which could disrupt our operations and result in a material adverse impact on our business, financial condition or stock price.

Our leveraged capital structure may adversely affect our financial condition, results of operations and net income per share.

Our substantial amount of indebtedness could have adverse consequences including, but not limited to:

- A negative impact on our ability to satisfy our future obligations;
- An increase in the portion of our cash flows that may have to be dedicated to interest and principal payments that may not be available for operations, working capital, capital expenditures, acquisitions, investments, dividends, stock repurchases, general corporate or other purposes;
- An impairment of our ability to obtain additional financing in the future; and
- Obligations to comply with restrictive and financial covenants as noted in the above risk factor and Note 8 “Debt” to our Consolidated Financial Statements.

Our ability to satisfy our future expenses as well as our debt obligations will depend on our future performance, which will be affected by financial, business, economic, regulatory and other factors. Furthermore, our future operations may not generate sufficient cash flows to enable us to meet our future expenses and service our debt obligations, which may impact our ability to manage our capital structure to preserve and maintain our investment grade rating. If our future operations do not generate sufficient cash flows, we may need to access the money available for borrowing under our Revolving Credit Facility or enter into new financing arrangements to obtain necessary funds. If we determine it is necessary to seek additional funding for any reason, we may not be able to obtain such funding or, if funding is available, we may not be able to obtain it on acceptable terms. Any borrowings under our Revolving Credit Facility will place further pressure on us to comply with the financial covenants. If we fail to make a payment associated with our debt obligations, we could be in default on such debt, and such a default could cause us to be in default on our other obligations.

There can be no assurance that we will continue to declare cash dividends at all or in any particular amounts.

We intend to continue to pay quarterly dividends subject to capital availability and periodic determinations by our Board of Directors that cash dividends are in the best interest of our stockholders and are in compliance with all laws and agreements applicable to the declaration and payment of cash dividends by us. However, future dividends may be affected by, among other factors: our views on potential future capital requirements for investments in acquisitions and the funding of our R&D; legal risks; stock repurchase programs; changes in federal and state income tax laws or corporate laws; changes to our business model; and our increased interest and principal payments required by our outstanding indebtedness and any additional indebtedness that we may incur in the future. Our dividend payments may change from time to time, and we cannot provide assurance that we will continue to declare dividends at all or in any particular amounts. A reduction in our dividend payments could have a negative effect on our stock price.

We are exposed to risks related to our commercial terms and conditions, including our indemnification of third parties, as well as the performance of our products.

Although our standard commercial documentation sets forth the terms and conditions that we intend to apply to commercial transactions with our business partners, counterparties to such transactions may not explicitly agree to our terms and conditions. In situations where we engage in business with a third party without an explicit master agreement regarding the applicable terms and conditions, or where the commercial documentation applicable to the transaction is subject to varying interpretations, we may have disputes with those third parties regarding the applicable terms and conditions of our business relationship with them. Such disputes could lead to a deterioration of our commercial relationship with those parties, costly and time-consuming litigation, or additional concessions or obligations being offered by us to resolve such disputes, or could impact our revenue or cost recognition. Any of these outcomes could materially and adversely affect our business, financial condition and results of operations.

In addition, in our commercial agreements, from time to time in the normal course of business, we indemnify third parties with whom we enter into contractual relationships, including customers, suppliers and lessors, with respect to certain matters. We have agreed, under certain conditions, to hold these third parties harmless against specified losses, such as those arising from a breach of representations or covenants, third-party claims that our products, when used for their intended purposes, infringe the intellectual property rights of such third parties, or other claims made against certain parties. We may be compelled to enter into or accrue for probable settlements of alleged indemnification obligations, or we may be subject to potential liability arising from our customers’ involvements in legal disputes. In addition, notwithstanding the provisions related to limitations on our liability that we seek to include in our business agreements, the counterparties to such agreements may dispute our interpretation or application of such provisions, and a court of law may not interpret or apply such provisions in our favor, any of which could result in an obligation for us to pay material damages to third parties and engage in costly legal proceedings. It is difficult to determine the maximum potential amount of liability under any indemnification obligations, whether or not asserted, due to our limited history of prior indemnification claims and the unique facts and circumstances that are likely to be involved in any particular claim. Our business, financial condition and results of operations in a reported fiscal period could be materially and adversely affected if we expend significant amounts in defending or settling any purported claims, regardless of their merit or outcomes.

We are also exposed to potential costs associated with unexpected product performance issues. Our products and production processes are extremely complex and, thus, could contain unexpected product defects, especially when products are first introduced. Unexpected product performance issues could result in significant costs being incurred by us, including increased service or warranty costs, providing product replacements for (or modifications to) defective products, litigation related to defective products, reimbursement for damages caused by our products, product recalls, or product write-offs or disposal costs. These costs could be substantial and could have an adverse impact upon our business, financial condition and operating results. In addition, our reputation with our customers could be damaged as a result of such product defects, which could reduce demand for our products and negatively impact our business.

Furthermore, we occasionally enter into volume purchase agreements with our larger customers, and these agreements may provide for certain volume purchase incentives, such as credits toward future purchases. We believe that these arrangements are beneficial to our long-term business, as they are designed to encourage our customers to purchase larger volumes of our products. However, these arrangements could require us to recognize a reduced level of revenue for the products that are initially purchased, to account for the potential future credits or other volume purchase incentives. Our volume purchase agreements require significant estimation for the amounts to be accrued depending upon the estimate of volume of future purchases. As such, we are required to update our estimates of the accruals on a periodic basis. Until the earnings process is complete, our estimates could differ in comparison to actual results. As a result, these volume purchase arrangements, while expected to be beneficial to our business over time, could materially and adversely affect our results of operations in near-term periods, including the revenue we can recognize on product sales and, therefore, our gross margins.

In addition, we may in limited circumstances enter into agreements that contain customer-specific commitments on pricing, tool reliability, spare parts stocking levels, response time and other commitments and we may be unable to adjust pricing with our customers despite rising inflation in our supply chain. Furthermore, we may give these customers limited audit or inspection rights to enable them to confirm that we are complying with these commitments. If a customer elects to exercise its audit or inspection rights, we may be required to expend significant resources to support the audit or inspection, as well as to defend or settle any dispute with a customer that could potentially arise out of such audit or inspection. To date, we have made no significant accruals in our Consolidated Financial Statements for this contingency. While we have not in the past incurred significant expenses for resolving disputes regarding these types of commitments, we cannot make any assurance that we will not incur any such liabilities in the future. Our business, financial condition and results of operations in a reported fiscal period could be materially and adversely affected if we expend significant amounts in supporting an audit or inspection, or defending or settling any purported claims, regardless of their merit or outcomes.

There are risks associated with our receipt of government funding for research and development.

We are exposed to additional risks related to our receipt of external funding for certain strategic development programs from various governments and government agencies, both domestically and internationally. Governments and government agencies typically have the right to terminate funding programs at any time in their sole discretion, or a project may be terminated by mutual agreement if the parties determine that the project’s goals or milestones are not being achieved, so there is no assurance that these sources of external funding will continue to be available to us in the future. In addition, under the terms of these government grants, the applicable granting agency typically has the right to audit the costs that we incur, directly and indirectly, in connection with such programs. Any such audit could result in modifications to, or even termination of, the applicable government funding program. For example, if an audit were to identify any costs as being improperly allocated to the applicable program, those costs would not be reimbursed, and any such costs that had already been reimbursed would have to be refunded. We do not know the outcome of any future audits. Any adverse finding resulting from any such audit could lead to penalties (financial or otherwise), termination of funding programs, suspension of payments, fines and suspension or prohibition from receiving future government funding from the applicable government or government agency, any of which could adversely impact our operating results, financial condition and ability to operate our business.

We have recorded significant restructuring, inventory write-off and asset impairment charges and may do so again in the future, which could have a material negative impact on our results of operations.

Historically, we have recorded material restructuring charges related to our prior global workforce reductions, large excess inventory write-offs, and material impairment charges related to our goodwill and purchased intangible assets. Workforce changes can also temporarily reduce workforce productivity, which could be disruptive to our business and adversely affect our results of operations. In addition, we may not achieve or sustain the expected cost savings or other benefits of our restructuring plans, or do so within the expected time frame. If we again restructure our organization and business processes, implement additional cost-reduction actions or discontinue certain business operations, we may take additional, potentially material, restructuring charges related to, among other things, employee terminations or exit costs. We may also be required to write off additional inventory if our product build plans or usage of service inventory decline. Also, as our lead times from suppliers increase (due to the increasing complexity of the parts and components they provide) and the lead times demanded by our customers decrease (due to the time pressures they face when introducing new products or technology or bringing new facilities into production), we may be compelled to increase our commitments, and, therefore, our risk exposure, to inventory purchases to meet our customers' demands in a timely manner, and that inventory may need to be written off if demand for the underlying product declines for any reason. Such additional write-offs could result in material charges.

We have recorded material charges related to the impairment of our goodwill and purchased intangible assets. Goodwill represents the excess of costs over the net fair value of net assets acquired in a business combination. Goodwill is not amortized, but is instead tested for impairment at least annually in accordance with authoritative guidance for goodwill. Purchased intangible assets with estimable useful lives are amortized over their respective estimated useful lives based on economic benefit if known or using the straight-line method, and are reviewed for impairment in accordance with authoritative guidance for long-lived assets. The valuation of goodwill and intangible assets requires assumptions and estimates of many critical factors, including, but not limited to, declines in our operating cash flows, declines in our stock price or market capitalization, declines in our market share, and declines in revenues or profits. A substantial decline in our stock price, or any other adverse change in market conditions, particularly if such change has the effect of changing one of the critical assumptions or estimates we previously used to calculate the value of our goodwill or intangible assets (and, as applicable, the amount of any previous impairment charge), could result in a change to the estimation of fair value that could result in an additional impairment charge.

Any such additional material charges, whether related to restructuring or goodwill or purchased intangible asset impairment, may have a material negative impact on our operating results and related financial statements.

We are exposed to risks related to our financial arrangements with respect to receivables factoring and banking arrangements.

We enter into factoring arrangements with financial institutions to sell certain of our trade receivables and promissory notes from customers without recourse. In addition, we maintain bank accounts with several domestic and foreign financial institutions, any of which may prove not to be financially viable. If we were to stop entering into these factoring arrangements, our operating results, financial condition and cash flows could be adversely impacted by delays or failures in collecting trade receivables. However, by entering into these arrangements, and by engaging these financial institutions for banking services, we are exposed to additional risks. If any of these financial institutions experiences financial difficulties or is otherwise unable to honor the terms of our factoring or deposit arrangements, we may experience material financial losses due to the failure of such arrangements or a lack of access to our funds, any of which could have an adverse impact upon our operating results, financial condition and cash flows.

We are subject to the risks of additional government actions in the event we were to breach the terms of any settlement arrangement into which we have entered.

In connection with the settlement of certain government actions and other legal proceedings related to our historical stock option practices, we have explicitly agreed as a condition to such settlements that we will comply with certain laws, such as the books and records provisions of the federal securities laws. If we were to violate any such law, we might not only be subject to the significant penalties applicable to such violation, but our past settlements may also be impacted by such violation, which could give rise to additional government actions or other legal proceedings. Any such additional actions or proceedings may require us to expend significant management time and incur significant accounting, legal and other expenses, and may divert attention and resources from the operation of our business. These expenditures and diversions, as well as an adverse resolution of any such action or proceeding, could have a material adverse effect on our business, financial condition and results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our headquarters are located in Milpitas, California. As of June 30, 2022, we owned or leased a total of approximately 4 million square feet of space for research, engineering, marketing, service, sales and administration worldwide primarily in U.S., Israel, Singapore, Germany, China and Taiwan. Our operating leases expire at various times through January 4, 2037, subject to renewal, with some of the leases containing renewal option clauses at the fair market value, for additional periods up to five years. Additional information regarding these leases is incorporated herein by reference to Note 9 “Leases” to our Consolidated Financial Statements. We believe our properties are adequately maintained and suitable for their intended use and that our production facilities have capacity adequate for our current needs.

Information regarding our principal properties as of June 30, 2022 is set forth below:

(Square Feet)	US	Other Countries	Total
Owned[1]	958,066	873,619	1,831,685
Leased	521,254	1,720,022	2,241,276
Total	1,479,320	2,593,641	4,072,961

(1) Includes 426,726 square feet of property owned at our location in Serangoon, Singapore, where the land on which this building resides is leased.

ITEM 3. LEGAL PROCEEDINGS

The information set forth below under Note 15 “Litigation and Other Legal Matters” to our Consolidated Financial Statements is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

Our common stock is listed and traded on the NASDAQ Global Select Market of The Nasdaq Stock Market LLC under the symbol "KLAC."

On August 4, 2022, we announced that our Board of Directors had declared a quarterly cash dividend of $1.30 per share to be paid on September 1, 2022 to stockholders of record as of the close of business on August 15, 2022.

As of July 18, 2022, there were 404 holders of record of our common stock.

Equity Repurchase Plans

The following is a summary of stock repurchases for each month during the fourth quarter of the fiscal year ended June 30, 2022.

Period	Total Number of Shares Purchased[1]	Average Price Paid per Share	Approximate Dollar Value that May Yet Be Purchased Under the Plans or Programs[1][2]
April 1, 2022 to April 30, 2022	415,736	$ 336.74	$ 558,787,517
May 1, 2022 to May 31, 2022	539,257	$ 334.90	$ 378,192,247
June 1, 2022 to June 30, 2022:			
Open market purchases	430,964	$ 337.84	
Accelerated share repurchase [3]	6,548,992	[3]	
Total	7,934,949		$ 3,232,594,651

(1) Our Board of Directors has authorized a program that permits us to repurchase our common stock, including a $6.00 billion increase approved by the Board in June 2022. As of June 30, 2022, approximately $3.23 billion remained available for repurchases under our repurchase program. All shares in the table were purchased pursuant to our publicly announced repurchase program.

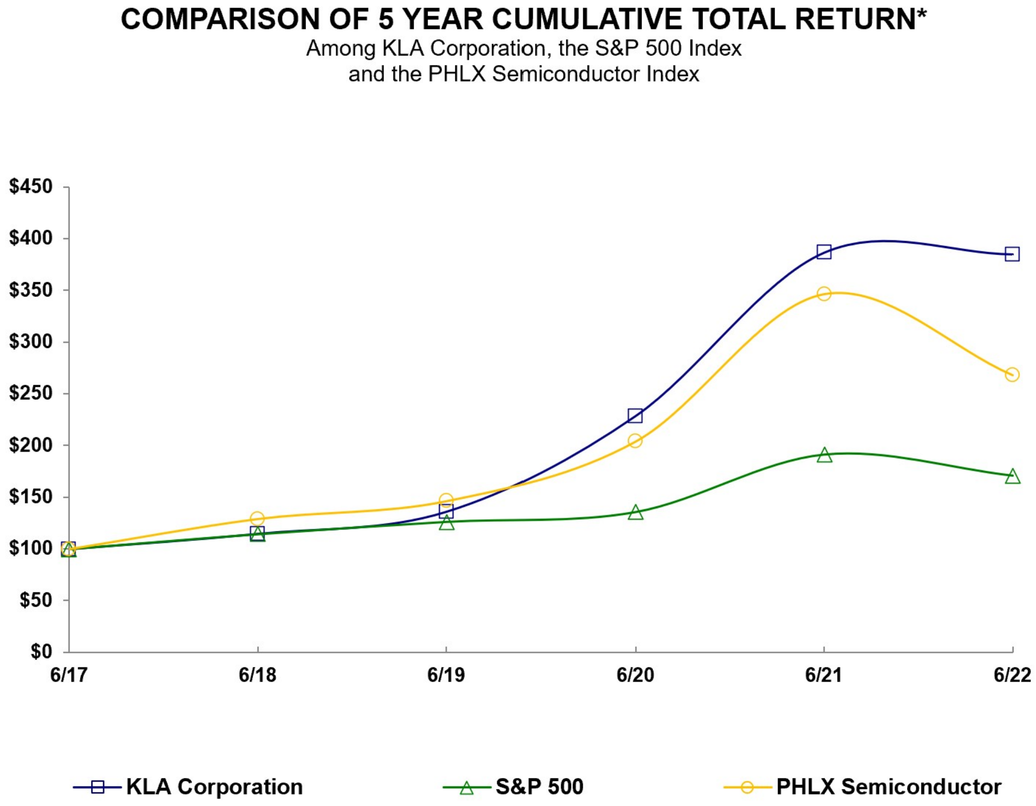
(2) Our stock repurchase program has no expiration date and may be suspended at any time. Future repurchases of our common stock under our repurchase program may be effected through various different repurchase transaction structures including isolated open market transactions, accelerated share repurchase agreements ("ASR Agreements") or systematic repurchase plans, subject to market conditions, applicable legal requirements and other factors.

(3) On June 23, 2022, the Company executed ASR Agreements with two financial institutions to repurchase shares of our common stock in exchange for an upfront payment of $3.00 billion. The Company received initial deliveries totaling approximately 6.5 million shares on June 24, 2022, which represented 70% of the prepayment amount at the then prevailing market price of the Company's shares of stock. The delivery of any remaining shares would occur at the final settlement of the transactions under the ASR Agreements, which is scheduled for the second quarter of fiscal 2023, subject to earlier termination under certain limited circumstances, as set forth in the ASR Agreements. The total number of shares received under the ASR Agreements will be based on the volume-weighted average prices of the Company's stock during the term of the ASR Agreements, less an agreed-upon discount and subject to adjustments pursuant to the terms and conditions of the ASR Agreements.

Stock Performance Graph and Cumulative Total Return

Notwithstanding any statement to the contrary in any of our previous or future filings with the SEC, the following information relating to the price performance of our common stock shall not be deemed "filed" with the Commission under the Securities Exchange Act of 1934 and shall not be incorporated by reference into any such filings.

The following graph compares the cumulative 5-year total return attained by stockholders on our common stock relative to the cumulative total returns of the S&P 500 Index and the Philadelphia Semiconductor Index ("PHLX"). The graph tracks the performance of a $100 investment in our common stock and in each of the indices (with the reinvestment of all dividends) from June 30, 2017 to June 30, 2022.



*$100 invested on 6/30/17 in stock or index, including reinvestment of dividends.
Fiscal year ending June 30.

	June 2017	June 2018	June 2019	June 2020	June 2021	June 2022
KLA Corporation	$100.00	$114.81	$136.14	$228.66	$386.46	$384.82
S&P 500	$100.00	$114.37	$126.29	$135.77	$191.15	$170.86
PHLX Semiconductor	$100.00	$129.11	$146.29	$203.84	$346.16	$267.91

Our fiscal year ends June 30. The comparisons in the graph above are based upon historical data and are not necessarily indicative of, nor intended to forecast, future stock price performance.

ITEM 6. [RESERVED]

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

The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the related notes included in Item 8 "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K. This discussion contains forward-looking statements, which involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including but not limited to those discussed in Item 1A "Risk Factors" and elsewhere in this Annual Report on Form 10-K (see "Special Note Regarding Forward-Looking Statements"). Discussions and analysis of fiscal year 2021 as compared against fiscal year 2020 have been omitted and can be found in Item 7 of our Annual Report on Form 10-K for the fiscal year ended June 30, 2021, filed with the SEC.

EXECUTIVE SUMMARY

We are a leading supplier of process control and yield management solutions and services for the semiconductor and related electronics industries. Our broad portfolio of inspection and metrology products, and related service, software and other offerings, support R&D and manufacturing of ICs, wafers and reticles. Our products, services and expertise are used by our customers to measure, detect, analyze and resolve critical and nanometric level product defects, helping them to manage manufacturing process challenges and to obtain higher finish product yields at lower cost. We also offer advanced technology solutions to address various manufacturing needs of PCBs, FPDs, Specialty Semiconductor Devices and other electronic components, including advanced packaging, LED, power devices, compound semiconductor, and data storage industries, as well as general materials research.

Our semiconductor customers generally operate in one or both of the major semiconductor device manufacturing markets: memory and foundry/logic. The pervasive and increasing needs for semiconductors in many consumer and industrial products, the rapid proliferation of new applications for more advanced semiconductor devices, and the increasing complexity associated with leading edge semiconductor manufacturing drives demand for our process control and yield management solutions. Other demand trends include the growth of end-market drivers such as AI, the deployment of 5G telecommunications technology and associated high-end mobile devices, the electrification and digitalization of the automotive industry, the revival of personal computer ("PC") demand and associated innovations to support remote work, virtual collaboration, remote learning and entertainment, and the growth of the IoT. The favorable end market dynamics are driving our customers to make increased investments in our process control and yield management solutions as part of their overall capital investment plans. These trends also drive demand for our other products such as those used in the PCB, FPD and Specialty Semiconductor manufacturing, where the increase in technology complexity is expected to continue and further accelerate as more devices become interconnected and dependent on other electronic devices. As a result of these factors, we saw a general strengthening of demand for our products throughout fiscal 2021 and fiscal 2022. While demand for our products remains strong, the recent macro-economic uncertainty and resulting impact on consumer demand is a development we are monitoring closely. Some of our customers, particularly in the PC and mobile device end markets, are experiencing market softening in the past few months, and we have seen memory pricing in those markets weaken as well. While our concerns are elevated, we continue to see strong demand from our customers. Any push out or cancellation of deliveries by our customers could cause earnings volatility, due to increases in risk of inventory related charges as well as the timing of revenue recognition.

We are organized into four reportable segments:

- Semiconductor Process Control: A comprehensive portfolio of inspection, metrology and data analytics products as well as related service offerings that help IC manufacturers achieve target yields throughout the semiconductor fabrication process, from R&D to final volume production.
- Specialty Semiconductor Process: Advanced vacuum deposition and etching process tools used by a broad range of specialty semiconductor customers.
- PCB, Display and Component Inspection: a range of inspection, testing and measurement, and direct imaging for patterning products used by manufacturers of PCBs, FPDs, advanced packaging, MEMS, and other electronic components.
- Other: products that do not fall into the three segments above.

A majority of our revenues are derived from outside the U.S., and include geographic regions such as China, Taiwan, Korea, Japan, Europe and Israel, and Rest of Asia. China is emerging as a major region for manufacturing of logic and memory chips, adding to its role as the world's largest consumer of ICs. Additionally, a significant portion of global FPD and PCB manufacturing has migrated to China. Government initiatives are propelling China to expand its domestic manufacturing capacity and attracting investment from semiconductor manufacturers from Taiwan, Korea, Japan and the U.S. Although China is currently seen as an important long-term growth region for the semiconductor and electronics capital equipment sector, Commerce has added certain China-based entities to the U.S. Entity List, restricting our ability to provide products and services to such entities without a license. In addition, Commerce has imposed new export licensing requirements on China-based customers engaged in military end uses, as well as requiring our customers to obtain an export license when they use certain semiconductor capital equipment based on U.S. technology to manufacture products connected to Huawei or its affiliates. While these new rules have not significantly impacted our operations to date, such actions by the U.S. government or another country could impact our ability to provide our products and services to existing and potential customers and adversely affect our business.

The following table sets forth some of our key consolidated financial information for each of our last three fiscal years:

(Dollar amounts in thousands, except diluted net income per share)	Year Ended June 30, 2022	2021	2020
Total revenues	$ 9,211,883	$ 6,918,734	$ 5,806,424
Costs of revenues	$ 3,592,441	$ 2,772,165	$ 2,449,561
Gross margin	61 %	60 %	58 %
Net income attributable to KLA[(1)]	$ 3,321,807	$ 2,078,292	$ 1,216,785
Diluted net income per share attributable to KLA	$ 21.92	$ 13.37	$ 7.70

(1) Our net income attributable to KLA for the year ended June 30, 2020 includes a pre-tax goodwill impairment charge of $256.6 million and a pre-tax charge of $22.5 million as a result of the extinguishment of debt. For additional details, refer to Note 7 “Goodwill and Purchased Intangible Assets” and Note 8 “Debt” to our Consolidated Financial Statements.

Impact of COVID-19

Events surrounding the ongoing COVID-19 pandemic had resulted in a reduction in economic activity across the globe in calendar year 2020 and early 2021. Vaccinations and pandemic containment measures have now created an environment that is driving economic growth, even as the pace of economic recovery remains uneven in various geographies. On one hand, the semiconductor and capital equipment industry has experienced multiple growth drivers, including acceleration of the pace of virtual engagement and digitization driven by COVID-19 related travel restrictions and quarantines. On the other hand, the resumption of growth has caused us to experience new constraints in our supply chain. Supply chain lead times are extended and shortages have sometimes required us to plan further ahead and increase our purchase commitments to secure critical components on a timely basis. We continue to monitor our supply chain and work with our suppliers to identify and mitigate potential gaps to ensure continuity of supply.

While all of our global manufacturing sites are currently operational, any local pandemic outbreaks or advent of new variants have required and could in the future require us to temporarily curtail production levels or temporarily cease operations based on government mandates or due to outbreaks affecting our manufacturing employees. We remain committed to the health and safety of our employees, contractors, suppliers, customers and communities, and are following government policies and recommendations designed to slow the spread of COVID-19.

We are working with government authorities in the jurisdictions where we operate, and continue to monitor our operations in an effort to ensure we follow government requirements, relevant regulations, industry standards, and best practices to help safeguard our team members, while safely continuing operations to the extent possible at our sites across the globe.

We may take further actions or alter our business operations that we determine are in the best interests of our employees, customers, partners, suppliers, and stakeholders, or as required by federal, state, or local authorities.

CRITICAL ACCOUNTING ESTIMATES

The preparation of our Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions in applying our accounting policies that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We base these estimates and assumptions on historical experience and evaluate them on an ongoing basis to ensure that they remain reasonable under current conditions. Actual results could differ from those estimates. We discuss the development and selection of the critical accounting estimates with the Audit Committee of our Board of Directors on a quarterly basis, and the Audit Committee has reviewed our related disclosure in this Annual Report on Form 10-K. 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:

Revenue Recognition. We primarily derive revenue from the sale of process control and process-enabling solutions for the semiconductor and related electronics industries, maintenance and support of all these products, installation and training services, and the sale of spare parts. Our portfolio includes yield enhancement and production solutions for manufacturing wafers and reticles, ICs, packaging, PCBs and FPDs, as well as comprehensive support and services across our installed base. Our solutions are generally not sold with a right of return, nor have we experienced significant returns from or refunds to our customers.

We account for a contract with a customer when there is approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable. Our revenues are measured based on consideration stipulated in the arrangement with each customer, net of any sales incentives and amounts collected on behalf of third parties, such as sales taxes. The revenues are recognized as separate performance obligations that are satisfied by transferring control of the product or service to the customer. Our arrangements with our customers include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. A product or service is considered distinct if it is separately identifiable from other deliverables in the arrangement and if a customer can benefit from it on its own or with other resources that are readily available to the customer. The transaction consideration, including any sales incentives, is allocated between separate performance obligations of an arrangement based on the stand-alone selling price ("SSP") for each distinct product or service. Management considers a variety of factors to determine the SSP, such as historical stand-alone sales of products and services, discounting strategies and other observable data. From time to time, our contracts are modified to account for additional, or to change existing, performance obligations. Our contract modifications are generally accounted for prospectively.

Product Revenue

We recognize revenue from product sales at a point in time when we have satisfied our performance obligation by transferring control of the product to the customer. We use judgment to evaluate whether control has transferred by considering several indicators, including whether:

- We have a present right to payment;
- The customer has legal title;
- The customer has physical possession;
- The customer has significant risk and rewards of ownership; and
- The customer has accepted the product, or whether customer acceptance is considered a formality based on history of acceptance of similar products (for example, when the customer has previously accepted the same tool, with the same specifications, and when we can objectively demonstrate that the tool meets all of the required acceptance criteria, and when the installation of the system is deemed perfunctory).

Not all of the indicators need to be met for us to conclude that control has transferred to the customer. In circumstances in which revenue is recognized prior to the product acceptance, the fair value of revenue associated with our performance obligations to install the product is deferred and recognized as revenue at a point in time, once installation is complete.

We enter into volume purchase agreements with some of our customers. We adjust the transaction consideration for estimated credits earned by our customers for such incentives. These credits are estimated based upon the forecasted and actual product sales for any given period and agreed-upon incentive rate. The estimate is updated at each reporting period.

We offer perpetual and term licenses for software products. The primary difference between perpetual and term licenses is the duration over which the customer can benefit from the use of the software, while the functionality and the features of the software are the same. Software is generally bundled with post-contract customer support ("PCS"), which includes unspecified software updates that are made available throughout the entire term of the arrangement. Revenue from software licenses is recognized at a point in time, when the software is made available to the customer. Revenue from PCS is deferred at contract inception and recognized ratably over the service period, or as services are performed.

Services Revenue

The majority of product sales include a standard six to 12-month warranty that is not separately paid for by the customers. The customers may also purchase extended warranties for periods beyond the initial year as part of the initial product sale. We have concluded that the standard 12-month warranty as well as any extended warranty periods included in the initial product sales are separate performance obligations for most of our products. The estimated fair value of warranty services is deferred and recognized ratably as revenue over the warranty period, as the customer simultaneously receives and consumes the benefits of warranty services provided by us.

Additionally, we offer product maintenance and support services, which the customer may purchase separately from the standard and extended warranty offered as part of the initial product sale. Revenue from separately negotiated maintenance and support service contracts is also recognized over time based on the terms of the applicable service period. Revenue from services performed in the absence of a maintenance contract, including training revenue, is recognized when the related services are performed. We also sell spare parts, revenue from which is recognized when control over the spare parts is transferred to the customer.

Significant Judgments

Our contracts with our customers often include promises to transfer multiple products and services. Each product and service is generally capable of being distinct within the context of the contract and represents a separate performance obligation. Determining the SSP for each distinct performance obligation and allocation of consideration from an arrangement to the individual performance obligations and the appropriate timing of revenue recognition are significant judgments with respect to these arrangements. We typically estimate the SSP of products and services based on observable transactions when the products and services are sold on a stand-alone basis and those prices fall within a reasonable range. We typically have more than one SSP for individual products and services due to the stratification of these products by customers and circumstances. In these instances, we use information such as the size of the customer, geographic region, as well as customization of the products in determining the SSP. In instances where the SSP is not directly observable, we determine the SSP using information that includes market conditions, entity-specific factors, including discounting strategies, information about the customer or class of customer that is reasonably available and other observable inputs. While changes in the allocation of SSP between performance obligations will not affect the amount of total revenue recognized for a particular contract, any material changes could impact the timing of revenue recognition, which could have a material effect on our financial position and results of operations.

Although the products are generally not sold with a right of return, we may provide other credits or sales incentives, which are accounted for either as variable consideration or material right, depending on the specific terms and conditions of the arrangement. These credits and incentives are estimated at contract inception and updated at the end of each reporting period if and when additional information becomes available.

As outlined above, we use judgments to evaluate whether or not the customer has obtained control of the product and consider several indicators in evaluating whether or not control has transferred to the customer. Not all of the indicators need to be met for us to conclude that control has transferred to the customer.

Contract Assets/Liabilities

The timing of revenue recognition, billings and cash collections may result in accounts receivable, contract assets, and contract liabilities (deferred revenue) on our Consolidated Balance Sheets. A receivable is recorded in the period we deliver products or provide services when we have an unconditional right to payment. Contract assets primarily relate to the value of products and services transferred to the customer for which the right to payment is not just dependent on the passage of time. Contract assets are transferred to accounts receivable when rights to payment become unconditional.

A contract liability is recognized when we receive payment or have an unconditional right to payment in advance of the satisfaction of performance. The contract liabilities represent (1) deferred product revenue related to the value of products that have been shipped and billed to customers and for which control has not been transferred to the customers, and (2) deferred service revenue, which is recorded when we receive consideration, or such consideration is unconditionally due, from a customer prior to transferring services to the customer under the terms of a contract. Deferred service revenue typically results from warranty services, and maintenance and other service contracts.

Contract assets and liabilities related to rights and obligations in a contract are recorded net in the Consolidated Balance Sheets.

Business Combinations. Accounting for business combinations requires management to make significant estimates and assumptions to determine the fair values of assets acquired and liabilities assumed at the acquisition date. Although we believe the assumptions and estimates we have made in the past have been reasonable and appropriate, they are based, in part, on historical experience and information obtained from management of the acquired companies, and are inherently uncertain. Critical estimates in valuing certain acquired intangible assets include, but are not limited to, future expected cash flows including revenue growth rate assumptions from product sales, customer contracts and acquired technologies, expected costs to develop IPR&D into commercially viable products, estimated cash flows from the projects when completed, including assumptions associated with the technology migration curve, estimated royalty rates used in valuing technology related intangible assets, and discount rates. The discount rates used to discount expected future cash flows to present value are typically derived from a weighted-average cost of capital (“WACC”) analysis and adjusted to reflect inherent risks. Unanticipated events and circumstances may occur that could affect either the accuracy or validity of such assumptions, estimates or actual results.

We allocate the fair value of the purchase price of our acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired, including IPR&D, based on their estimated fair values at acquisition date. The excess of the fair value of the purchase price over the fair values of these net tangible and intangible assets acquired is recorded as goodwill. Management's estimates of fair value are based upon assumptions believed to be reasonable, but our estimates and assumptions are inherently uncertain and subject to refinement. As a result, during the measurement period, which will not exceed one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. After the conclusion of the measurement period or final determination of the fair value of the purchase price of our acquisitions, whichever comes first, any subsequent adjustments are recorded to our Consolidated Statements of Operations.

The fair value of IPR&D is initially capitalized as an intangible asset with an indefinite life and assessed for impairment thereafter whenever events or changes in circumstances indicate that the carrying value of the IPR&D assets may not be recoverable. Impairment of IPR&D is recorded to R&D expenses. When an IPR&D project is completed, the IPR&D is reclassified as an amortizable purchased intangible asset and amortized to costs of revenues over the asset's estimated useful life.

Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred.

Inventories. Inventories are stated at the lower of cost (on a first-in, first-out basis) or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Demonstration units are stated at their manufacturing cost and written down to their net realizable value. We review and set standard costs semi-annually at current manufacturing costs in order to approximate actual costs. Our manufacturing overhead standards for product costs are calculated assuming full absorption of forecasted spending over projected volumes, adjusted for excess capacity. Abnormal inventory costs such as costs of idle facilities, excess freight and handling costs, and spoilage are recognized as current period charges. We write down product inventory based on forecasted demand and technological obsolescence and service spare parts inventory based on forecasted usage. These factors are impacted by market and economic conditions, technology changes, new product introductions and changes in strategic direction and require estimates that may include uncertain elements. Actual demand may differ from forecasted demand, and such differences may have a material effect on recorded inventory values.

Allowance for Credit Losses. A majority of our accounts receivable are derived from sales to large multinational semiconductor and electronics manufacturers throughout the world. We maintain an allowance for credit losses for expected uncollectible accounts receivable and assess collectability by reviewing accounts receivable on a collective basis where similar risk characteristics exist and on an individual basis when we identify specific customers with known disputes or collectability issues. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and reasonable and supportable forecasts. The allowance for credit losses is reviewed on a quarterly basis to assess the adequacy of the allowance. However, volatility in market conditions and evolving credit trends are difficult to predict and may cause variability that may have a material impact on our allowance for credit losses in future periods.

Accounting for Stock-Based Compensation Plans. Compensation expense for RSUs with performance metrics is calculated based upon expected achievement of the metrics specified in the grant, or when a grant contains a market condition, the grant date fair value using a Monte Carlo simulation. The Monte Carlo simulation fair value model requires the use of highly subjective and complex assumptions, including the award's expected life, the price volatility of the underlying stock, as well as the potential outcomes of the market condition on the grant date of each award.

Contingencies and Litigation. We are subject to the possibility of losses from various contingencies. Considerable judgment is necessary to estimate the probability and amount of any loss from such contingencies. An accrual is made when it is probable that a liability has been incurred or an asset has been impaired and the amount of loss can be reasonably estimated. We accrue a liability and recognize as expense the estimated costs incurred to defend or settle asserted and unasserted claims existing as of the balance sheet date. See Note 16 "Commitments and Contingencies" and Note 15 "Litigation and Other Legal Matters" to our Consolidated Financial Statements for additional details.

Goodwill and Purchased Intangible Assets - Impairment Assessments. We review goodwill for impairment annually during our third fiscal quarter or whenever events or changes in circumstances indicate the carrying value may not be fully recoverable. Pursuant to the authoritative guidance, we make certain judgments and assumptions to determine our reporting units and allocate shared assets and liabilities to those reporting units, which determines the carrying values for each reporting unit. When assessing goodwill for impairment, an initial assessment of qualitative factors determines whether the existence of events and circumstances indicates it is more likely than not that the fair value of a reporting unit is less than its carrying value. Judgments related to qualitative factors include macroeconomic conditions, industry and market considerations, cost factors, overall financial performance, relevant entity-specific events, a sustained decrease in share price and other events affecting the reporting units. If we determine it is more likely than not that the fair value of a reporting unit is less than its carrying value, a quantitative test is then performed by estimating the fair value of the reporting unit and comparing it to its carrying value including goodwill. If the former is lower, goodwill is written down by the excess amount, limited to the amount of goodwill allocated to that reporting unit. See Note 7 “Goodwill and Purchased Intangible Assets” to our Consolidated Financial Statements for additional information.

We determine the fair value of a reporting unit using the market approach when deemed appropriate and the necessary information is available, or the income approach which uses discounted cash flow (“DCF”) analysis, or a combination of both. If multiple valuation methodologies are used, the results are weighted. Determining fair value requires the exercise of significant judgment, including judgments about appropriate discount rates, revenue growth rates and the amount and timing of expected future cash flows. Discount rates are based on a WACC, which represents the average rate a business must pay its providers of debt and equity, plus a risk premium. The WACC used to test goodwill is derived from a group of comparable companies. The cash flows employed in the DCF analysis are derived from internal forecasts and external market forecasts. The market approach estimates the fair value of the reporting unit by utilizing the market comparable method which is based on revenue and earnings multiples from comparable companies.

We review purchased finite-lived intangible assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of the assets are shorter than initially expected. We determine whether finite-lived intangible assets are recoverable based on the forecasted undiscounted 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. If the undiscounted cash flows used in the recoverability test are less than the long-lived assets’ carrying value, we recognize an impairment loss for the amount that the carrying value exceeds the fair value.

We review indefinite-lived intangible assets for impairment whenever events or changes in business circumstances indicate that the carrying value of the assets may not be fully recoverable. The authoritative accounting guidance allows a qualitative approach for testing indefinite-lived intangible assets for impairment, similar to the impairment testing guidance for goodwill. It allows the option to first assess qualitative factors (events and circumstances) that could have affected the significant inputs used in determining the fair value of the indefinite-lived intangible asset. The qualitative factors assist in determining whether it is more-likely-than-not that the indefinite-lived intangible asset is impaired. An organization may choose to bypass the qualitative assessment for any indefinite-lived intangible asset in any period and proceed directly to calculating its fair value. Our indefinite-lived intangible assets are IPR&D intangible assets.

Any impairment charges could have a material adverse effect on our operating results and net asset value in the quarter in which we recognize the impairment charge. See Note 7 “Goodwill and Purchased Intangible Assets” to our Consolidated Financial Statements for additional information.

Income Taxes. We account for income taxes in accordance with the authoritative guidance, which requires income tax effects for changes in tax laws to be recognized in the period in which the law is enacted.

Deferred tax assets and liabilities are recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. The guidance also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that a portion of the deferred tax asset will not be realized. We have determined that a valuation allowance is necessary against a portion of the deferred tax assets, but we anticipate that our future taxable income will be sufficient to recover the remainder of our deferred tax assets. However, should there be a change in our ability to recover our deferred tax assets that are not subject to a valuation allowance, we could be required to record an additional valuation allowance against such deferred tax assets. This would result in an increase to our tax provision in the period in which we determine that the recovery is not probable.

On a quarterly basis, we provide for income taxes based upon an estimated annual effective income tax rate. The effective tax rate is highly dependent upon the geographic composition of worldwide earnings, tax regulations governing each region, availability of tax credits and the effectiveness of our tax planning strategies. We carefully monitor the changes in many factors and adjust our effective income tax rate on a timely basis. If actual results differ from these estimates, this could have a material effect on our financial condition and results of operations.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. In accordance with the authoritative guidance on accounting for uncertainty in income taxes, we recognize liabilities for uncertain tax positions based on the two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained in audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activities. Any change in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision.

We record income taxes on the undistributed earnings of foreign subsidiaries unless the subsidiaries' earnings are considered indefinitely reinvested outside the U.S. Our effective tax rate would be adversely affected if we change our intent or if such undistributed earnings are needed for U.S. operations because we would be required to provide or pay income taxes on some or all of these undistributed earnings.

Global Intangible Low-Taxed Income. The Tax Act includes provisions for Global Intangible Low-Taxed Income ("GILTI") wherein U.S. taxes on foreign income are imposed in excess of a deemed return on tangible assets of foreign corporations. This income is effectively taxed at a 10.5% tax rate in general. We elect to account for GILTI as a component of current period tax expense and not recognize deferred tax assets and liabilities for the basis differences expected to reverse as a result of GILTI provisions.

Recent Accounting Pronouncements

For a description of recent accounting pronouncements, including those recently adopted and the expected dates of adoption as well as estimated effects, if any, on our Consolidated Financial Statements of those not yet adopted, see Note 1 "Description of Business and Summary of Significant Accounting Policies" to our Consolidated Financial Statements.

RESULTS OF OPERATIONS

Revenues and Gross Margin

	Year Ended June 30,						
(Dollar amounts in thousands)	2022	2021	2020	FY22 vs. FY21		FY21 vs. FY20	
Revenues:							
Product	$ 7,301,428	$ 5,240,316	$ 4,328,725	$ 2,061,112	39 %	$ 911,591	21 %
Service	1,910,455	1,678,418	1,477,699	232,037	14 %	200,719	14 %
Total revenues	$ 9,211,883	$ 6,918,734	$ 5,806,424	$ 2,293,149	33 %	$ 1,112,310	19 %
Costs of revenues	$ 3,592,441	$ 2,772,165	$ 2,449,561	$ 820,276	30 %	$ 322,604	13 %
Gross margin	61%	60%	58%	1%		2%	

Product revenues

Our business is affected by the concentration of our customer base and our customers' capital equipment procurement schedules as a result of their investment plans. Our product revenues in any particular period are significantly impacted by the amount of new orders that we receive during that period and, depending upon the duration of manufacturing and installation cycles, in the preceding period. Revenue is also impacted by average customer pricing, customer revenue deferrals associated with volume purchase agreements and the effect of fluctuations in foreign currency exchange rates.

The increase in product revenues by 39% in the fiscal year ended June 30, 2022 compared to the prior fiscal year is primarily attributable to strong demand for many of our products, especially our inspection, metrology and specialty semiconductor process portfolios as customers prioritize technology development investments and also expand their capacity to meet resilient semiconductor end customer demand.

Service revenues

Service revenues are generated from product maintenance and support services, as well as billable time and material service calls made to our customers. The amount of our service revenues is typically a function of the number of systems installed at our customers' sites and the utilization of those systems, but it is also impacted by other factors, such as our rate of service contract renewals, the types of systems being serviced and fluctuations in foreign currency exchange rates.

The increase in service revenues by 14% in the fiscal year ended June 30, 2022 compared to the prior year is primarily attributable to an increase in our installed base.

Revenues by segment[(1)]

(Dollar amounts in thousands)	Year Ended June 30, 2022	2021	2020	FY22 vs. FY21		FY21 vs. FY20	
Revenues:							
Semiconductor Process Control	$ 7,924,822	$ 5,734,825	$ 4,745,446	$ 2,189,997	38 %	$ 989,379	21 %
Specialty Semiconductor Process	456,579	369,216	329,700	87,363	24 %	39,516	12 %
PCB, Display and Component Inspection	832,176	812,620	727,451	19,556	2 %	85,169	12 %
Other	—	739	3,614	(739)	(100)%	(2,875)	(80)%
Total revenues	$ 9,213,577	$ 6,917,400	$ 5,806,211	$ 2,296,177	33 %	$ 1,111,189	19 %

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(1) Segment revenues exclude corporate allocations and the effects of changes in foreign currency exchange rates. For additional details, refer to Note 19 “Segment Reporting and Geographic Information” to our Consolidated Financial Statements.

Revenue from our Semiconductor Process Control segment increased by 38% in the fiscal year ended June 30, 2022 compared to the prior year primarily due to a strong demand for many of our products, especially from our inspection and metrology portfolios. The increase in revenues from our Specialty Semiconductor Process segment, which comprises etching and deposition solutions for advanced packaging and specialty semiconductor markets, is primarily driven by advances in the IC packaging technology roadmap and growth in demand for automotive power, RF filters and MEMS devices. The revenue from our PCB, Display and Component Inspection segment was relatively flat in fiscal 2022 as compared to fiscal 2021.

Revenues - Top Customers

The following customers each accounted for more than 10% of our total revenues primarily in our Semiconductor Process Control segment for the indicated periods:

Year Ended June 30, 2022	2021	2020
Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited
Samsung Electronics Co., Ltd.	Samsung Electronics Co., Ltd.	Samsung Electronics Co., Ltd.

Revenues by region

Revenues by region for the periods indicated were as follows:

(Dollar amounts in thousands)	Year Ended June 30, 2022		2021		2020	
China	$ 2,660,438	29 %	$ 1,831,446	26 %	$ 1,495,977	26 %
Taiwan	2,528,482	27 %	1,690,558	25 %	1,598,201	27 %
Korea	1,430,495	16 %	1,343,473	19 %	911,848	16 %
North America	928,043	10 %	765,974	11 %	651,328	11 %
Japan	724,773	8 %	639,381	9 %	660,772	11 %
Europe and Israel	636,664	7 %	396,422	6 %	322,085	6 %
Rest of Asia	302,988	3 %	251,480	4 %	166,213	3 %
Total	$ 9,211,883	100 %	$ 6,918,734	100 %	$ 5,806,424	100 %

A significant portion of our revenues continues to be generated in Asia, where a substantial portion of the world’s semiconductor manufacturing capacity is located, and we expect that trend to continue.

Gross margin

Our gross margin fluctuates with revenue levels and product mix and is affected by variations in costs related to manufacturing and servicing our products, including our ability to scale our operations efficiently and effectively in response to prevailing business conditions.

The following table summarizes the major factors that contributed to the changes in gross margin:

	Gross Margin	
Fiscal Year Ended June 30, 2020	**57.9**	**%**
Revenue volume of products and services	1.3	%
Mix of products and services sold	1.2	%
Other service and manufacturing costs	(0.5)	%
Fiscal Year Ended June 30, 2021	**59.9**	**%**
Revenue volume of products and services	2.3	%
Mix of products and services sold	0.4	%
Manufacturing labor, overhead and efficiencies	(0.1)	%
Other service and manufacturing costs	(1.5)	%
Fiscal Year Ended June 30, 2022	**61.0**	**%**

Changes in gross margin, which are driven by the revenue volume of products and services, reflect our ability to leverage existing infrastructure to generate higher revenues. Changes in gross margin from the mix of products and services sold reflect the impact of changes within the composition of product and service offerings, and amortization of inventory fair value adjustments from business combinations. Changes in gross margin from manufacturing labor, overhead and efficiencies reflect our ability to manage costs and drive productivity as we scale our manufacturing activity to respond to customer requirements, and amortization of intangible assets. Changes in gross margin from other service and manufacturing costs include the impact of customer support costs, including the efficiencies with which we deliver services to our customers, and the effectiveness with which we manage our production plans and inventory risk.

The increase in our gross margin from 59.9% to 61.0% during the fiscal year ended June 30, 2022 is primarily attributable to a higher revenue volume of products and services sold and a more profitable mix of products and services sold, partially offset by an increase in service and manufacturing costs.

Segment gross profit(1)

(Dollar amounts in thousands)	Year Ended June 30, 2022	2021	2020	FY22 vs. FY21		FY21 vs. FY20	
Segment gross profit:							
Semiconductor Process Control	$ 5,167,679	$ 3,705,222	$ 3,028,167	$ 1,462,457	39 %	$ 677,055	22 %
Specialty Semiconductor Process	242,520	206,706	183,641	35,814	17 %	23,065	13 %
PCB, Display and Component Inspection	378,964	390,571	315,723	(11,607)	(3)%	74,848	24 %
Other	—	(68)	(63)	68	100 %	(5)	(8)%
	$ 5,789,163	$ 4,302,431	$ 3,527,468	$ 1,486,732	35 %	$ 774,963	22 %

(1) Segment gross profit is calculated as segment revenues less segment costs of revenues and excludes corporate allocations, the effects of changes in foreign currency exchange rates, amortization of intangible assets, inventory fair value adjustments, and acquisition-related costs. For additional details, refer to Note 19 “Segment Reporting and Geographic Information” to our Consolidated Financial Statements.

The primary factors impacting the performance of our segment gross profits for fiscal year 2022 compared to fiscal year 2021 are summarized as follows:

- Semiconductor Process Control segment gross profit increased due to a more profitable mix of products and services sold, partially offset by an increase in service and manufacturing costs.
- The segment gross profits of the Specialty Semiconductor Process segment increased primarily due to a more favorable mix of products and services sold as well as a higher revenue volume.

- The segment gross profits of the PCB, Display and Component Inspection and Other segments decreased primarily due to a less favorable mix of products and services sold as well as an increase in other service and manufacturing costs.

Research and Development

(Dollar amounts in thousands)	Year Ended June 30, 2022	2021	2020	FY22 vs. FY21		FY21 vs. FY20	
R&D expenses	$ 1,105,254	$ 928,487	$ 863,864	$ 176,767	19 %	$ 64,623	7 %
R&D expenses as a percentage of total revenues	12 %	13 %	15 %	(1)%		(2)%	

R&D expenses may fluctuate with product development phases and project timing as well as our R&D efforts. As technological innovation is essential to our success, we may incur significant costs associated with R&D projects, including compensation for engineering talent, engineering material costs and other expenses.

R&D expenses during the fiscal year ended June 30, 2022 increased compared to the fiscal year ended June 30, 2021, primarily due to an increase in employee-related expenses of $149.4 million as a result of additional engineering headcount, higher employee benefit costs and higher variable compensation, higher consulting costs of $9.5 million and an IPR&D write-off of $6.0 million.

Our future operating results will depend significantly on our ability to produce products and provide services that have a competitive advantage in our marketplace. To do this, we believe that we must continue to make substantial and focused investments in our R&D. We remain committed to product development in new and emerging technologies.

Selling, General and Administrative

(Dollar amounts in thousands)	Year Ended June 30, 2022	2021	2020	FY22 vs. FY21		FY21 vs. FY20	
SG&A expenses	$ 860,007	$ 729,602	$ 734,149	$ 130,405	18 %	$ (4,547)	(1)%
SG&A expenses as a percentage of total revenues	9 %	11 %	13 %	(2)%		(2)%	

SG&A expenses during the fiscal year ended June 30, 2022 increased compared to the fiscal year ended June 30, 2021, primarily due to increases in the following: employee-related expenses of $55.7 million as the result of additional headcount, higher employee benefit costs and variable compensation; depreciation expense of $24.2 million; consulting costs of $15.7 million; facility and office expenses of $11.2 million; travel expenses of $6.4 million; and external sales commissions and trade shows of $6.1 million.

Goodwill Impairment

We performed our annual impairment assessment of goodwill as of February 28, 2022 and concluded that goodwill was not impaired.

For the fiscal year ended June 30, 2020, as a result of our annual goodwill impairment testing for all reporting units, we recorded $144.2 million and $112.5 million in impairment charges in the Specialty Semiconductor Process and PCB and Display reporting units, respectively, in the three months ended March 31, 2020.

Restructuring Charges

Over the last few years, management approved plans to streamline our organization and business processes, which included reductions of workforce.

Restructuring charges were $1.0 million for the year ended June 30, 2022. Restructuring charges were $12.4 million for the year ended June 30, 2021 and included $3.9 million of non-cash charges for accelerated depreciation related to certain right-of-use (“ROU”) assets and fixed assets to be abandoned. Restructuring charges were $7.7 million for the year ended June 30, 2020.

For additional information refer to Note 20 “Restructuring Charges” to our Consolidated Financial Statements.

Interest Expense and Other Expense (Income), Net

(Dollar amounts in thousands)	Year Ended June 30, 2022	2021	2020	FY22 vs. FY21		FY21 vs. FY20	
Interest expense	$ 160,339	$ 157,328	$ 160,274	$ 3,011	2 %	$ (2,946)	(2)%
Other expense (income), net	$ 4,605	$ (29,302)	$ 2,678	33,907	116 %	$ (31,980)	(1,194)%
Interest expense as a percentage of total revenues	2 %	2 %	3 %				
Other expense (income), net as a percentage of total revenues	— %	— %	— %				

The increase in interest expense during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021 was primarily due to higher interest expense on our Revolving Credit Facility, which is described further in the "Liquidity and Capital Resources" section below.

Other expense (income), net is comprised primarily of fair value adjustments and realized gains or losses on sales of marketable and non-marketable securities, gains or losses from revaluations of certain foreign currency denominated assets and liabilities as well as foreign currency contracts, interest-related accruals (such as interest and penalty accruals related to our tax obligations) and interest income earned on our invested cash, cash equivalents and marketable securities.

The increase in other expense (income), net during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021 was primarily due to a fair value loss of $18.9 million from an equity security in the current fiscal year following initial fair value gains of $26.7 million when it became marketable in the prior fiscal year, as well as a $4.4 million gain recorded in the prior fiscal year due to the sale of our interest in PixCell Medical Technologies Ltd. These were partially offset by a gain from the sale of an investment of $27.7 million in fiscal year 2022.

Loss on Extinguishment of Debt

For the fiscal year ended June 30, 2020, loss on extinguishment of debt reflected a pre-tax net loss of $22.5 million associated with the redemption of our $500.0 million of Senior Notes due 2021, including associated redemption premiums, accrued interest and other fees and expenses.

Provision for Income Taxes

The following table provides details of income taxes:

(Dollar amounts in thousands)	Year Ended June 30, 2022	2021	2020
Income before income taxes	$ 3,489,237	$ 2,360,454	$ 1,316,711
Provision for income taxes	$ 167,177	$ 283,101	$ 101,686
Effective tax rate	4.8 %	12.0 %	7.7 %

Tax expense was lower as a percentage of income before taxes during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021 primarily due to the impact of the following items:

- Tax expense decreased by $392.7 million relating to a non-recurring tax benefit resulting from the intra-entity transfers of certain intellectual property rights during the fiscal year ended June 30, 2022;
- Tax expense decreased by $29.3 million relating to the impact of an increase in the proportion of KLA's earnings generated in jurisdictions with tax rates lower than the U.S. statutory rate during the fiscal year ended June 30, 2022; partially offset by
- Tax expense increased by $93.4 million relating to an increase in our unrecognized tax benefit during the fiscal year ended June 30, 2022; and
- Tax expense increased by $21.2 million relating to a non-deductible decrease in the assets held within our Executive Deferred Savings Plan ("EDSP") during the fiscal year ended June 30, 2022.

Our future effective income tax rate depends on various factors, such as tax legislation, the geographic composition of our pre-tax income, the amount of our pre-tax income as business activities fluctuate, non-deductible expenses incurred in connection with acquisitions, R&D credits as a percentage of aggregate pre-tax income, non-taxable or non-deductible increases or decreases in the assets held within our EDSP, the tax effects of employee stock activity and the effectiveness of our tax planning strategies.

For discussions on tax examinations, assessments and certain related proceedings, see Note 14 “Income Taxes” to our Consolidated Financial Statements.

Liquidity and Capital Resources

	As of June 30,		
(Dollar amounts in thousands)	2022	2021	2020
Cash and cash equivalents	$ 1,584,908	$ 1,434,610	$ 1,234,409
Marketable securities	1,123,100	1,059,912	746,063
Total cash, cash equivalents and marketable securities	$ 2,708,008	$ 2,494,522	$ 1,980,472
Percentage of total assets	21 %	24 %	21 %

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Cash flows:			
Net cash provided by operating activities	$ 3,312,702	$ 2,185,026	$ 1,778,850
Net cash used in investing activities	(876,458)	(500,404)	(258,874)
Net cash used in financing activities	(2,257,005)	(1,497,881)	(1,299,635)
Effect of exchange rate changes on cash and cash equivalents	(28,941)	13,460	(1,926)
Net increase in cash and cash equivalents	$ 150,298	$ 200,201	$ 218,415

Cash, Cash Equivalents and Marketable Securities:

As of June 30, 2022, our cash, cash equivalents and marketable securities totaled $2.71 billion, which represents an increase of $213.5 million from June 30, 2021. The increase is mainly due to net cash provided by operating activities of $3.31 billion and net proceeds from issuance of debt, including net draws on our Prior Revolving Credit Facility and our Revolving Credit Facility, of $3.22 billion, partially offset by stock repurchases of $3.97 billion, cash paid for purchase of forward contract for accelerated share repurchases of $900.0 million, cash used for payments of dividends and dividend equivalents of $638.5 million, cash paid for business acquisitions of $479.1 million, capital expenditures of $307.3 million and net cash usage of $118.5 million related to the purchases, sales and maturities of available-for-sale and trading securities.

As of June 30, 2022, $1.29 billion of our $2.71 billion of cash, cash equivalents, and marketable securities were held by our foreign subsidiaries and branch offices. We currently intend to indefinitely reinvest $77.1 million of the cash, cash equivalents and marketable securities held by our foreign subsidiaries for which we assert that earnings are permanently reinvested. If, however, a portion of these funds were to be repatriated to the U.S., we would be required to accrue and pay state and foreign taxes of approximately 1%-22% of the funds repatriated. The amount of taxes due will depend on the amount and manner of the repatriation, as well as the location from which the funds are repatriated. We have accrued state and foreign tax on the remaining cash of $1.21 billion of the $1.29 billion held by our foreign subsidiaries and branch offices. As such, these funds can be returned to the U.S. without accruing any additional U.S. tax expense.

Cash Dividends:

The total amounts of regular quarterly cash dividends and dividends equivalents paid during the fiscal years ended June 30, 2022, 2021 and 2020 were $638.5 million, $559.4 million and $522.4 million, respectively. The increase in the amount of regular quarterly cash dividends and dividends equivalents paid during the fiscal year ended June 30, 2022 as compared to fiscal 2021 reflected the increase in the level of our regular quarterly cash dividend from $0.90 to $1.05 per share that was instituted during the three months ended September 30, 2021. The amounts of accrued dividend equivalents payable for regular quarterly cash dividends on unvested RSUs with dividend equivalent rights were $11.2 million and $10.3 million as of June 30, 2022 and 2021, respectively. The settlement of the accrued dividend equivalents will occur upon vesting of the underlying unvested RSUs as described in Note 10 “Equity, Long-term Incentive Compensation Plans and Non-Controlling Interest” to our Consolidated Financial Statements.

On August 4, 2022, we announced that our Board of Directors had declared a quarterly cash dividend of $1.30 per share. Refer to Note 21 “Subsequent Events” to our Consolidated Financial Statements for additional information regarding the declaration of our quarterly cash dividend announced subsequent to June 30, 2022.

Stock Repurchases:

The shares repurchased under our stock repurchase program have reduced our basic and diluted weighted-average shares outstanding for the fiscal years ended June 30, 2022 and 2021. Our stock repurchase program is intended, in part, to mitigate the potential dilutive impact related to our equity incentive plans and shares issued in connection with our ESPP as well as to return excess cash to our stockholders. As of March 31, 2022 an aggregate of $0.70 billion was available for repurchase under our stock repurchase program. In June 2022, the Board of Directors authorized an additional $6.00 billion for share repurchases. On June 23, 2022, the Company executed ASR Agreements with two financial institutions to repurchase shares of our common stock in exchange for an upfront payment of $3.00 billion. The Company received initial deliveries totaling approximately 6.5 million shares on June 24, 2022, which represented 70% of the prepayment amount at the then prevailing market price of the Company's shares of stock. The initial shares delivered were retired immediately upon settlement and treated as repurchases of the Company's common stock for purposes of earnings per share calculations. The value of the shares yet to be delivered to the Company for the remainder of the upfront payment of approximately $0.90 billion was recorded as an unsettled forward contract, classified within stockholders' equity. The delivery of any remaining shares would occur at the final settlement of the transactions under the ASR Agreements, which is scheduled for the second quarter of fiscal 2023, subject to earlier termination under certain limited circumstances, as set forth in the ASR Agreements. The total number of shares received under the ASR Agreements will be based on the volume-weighted average prices of the Company's stock during the term of the ASR Agreements, less an agreed-upon discount and subject to adjustments pursuant to the terms and conditions of the ASR Agreements.

Cash Flows Provided by Operating Activities:

We have historically financed our liquidity requirements through cash generated from operations. Net cash provided by operating activities during the fiscal year ended June 30, 2022 increased by $1.13 billion compared to the fiscal year ended June 30, 2021, from $2.19 billion to $3.31 billion, primarily as a result of the following factors:

- An increase in collections of approximately $2.6 billion mainly driven by higher shipments during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021; and
- An increase in gains from currency and interest rate derivatives used for risk management purposes of approximately $99 million during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021; partially offset by the following items:
- An increase in accounts payable payments of approximately $1.1 billion during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021;
- An increase in employee-related payments of approximately $292 million during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021; and
- An increase in income tax payments of approximately $128 million during the fiscal year ended June 30, 2022 compared to the fiscal year ended June 30, 2021.

Cash Flows Used in Investing Activities

Net cash used in investing activities during the fiscal year ended June 30, 2022 was $876.5 million compared to $500.4 million during the fiscal year ended June 30, 2021. This increase in cash used was mainly due to an increase in cash paid for business acquisitions of $479.1 million and an increase in cash paid to purchase fixed assets of $75.7 million, partially offset by a decrease in net purchases of available for sale and trading securities of $169.6 million.

Cash Flows Used in Financing Activities:

Net cash used in financing activities during the fiscal year ended June 30, 2022 was $2.26 billion compared to $1.50 billion during the fiscal year ended June 30, 2021. This increase was mainly due to an increase in cash used for stock repurchases of $3.03 billion, cash paid for purchase of forward contract for accelerated share repurchases of $900.0 million and an increase cash paid for dividends and dividend equivalents of $79.2 million, partially offset by an increase in net debt proceeds of $3.25 billion.

Senior Notes:

In June 2022, we issued $3.00 billion ("2022 Senior Notes") aggregate principal amount of senior unsecured notes as follows: $1.00 billion of 4.650% senior, unsecured notes due July 15, 2032; $1.20 billion of 4.950% senior, unsecured notes due July 15, 2052; and $800.0 million of 5.250% senior, unsecured notes due July 15, 2062. A portion of the net proceeds of the 2022 Senior Notes are intended to be used to purchase up to a maximum aggregate principal amount of $500.0 million of our 2014 Senior Notes due 2024; refer to Note 21 "Subsequent Events" to our Consolidated Financial Statements for more information on the purchase of a portion of our Senior Notes due 2024. The remainder of the net proceeds were used for share repurchases and for general corporate purposes.

In February 2020, March 2019 and November 2014, we issued $750.0 million, $1.20 billion and $2.50 billion, respectively (the “2020 Senior Notes,” “2019 Senior Notes” and “2014 Senior Notes,” respectively, and collectively with the 2022 Senior Notes, the “Senior Notes”), aggregate principal amount of senior, unsecured notes. In February 2020, October 2019 and November 2017, we repaid $500.0 million, $250.0 million and $250.0 million of the Senior Notes, respectively.

In February 2020, S&P upgraded its credit rating of the Company to “BBB+” and revised its outlook to stable, which permanently eliminated interest rate adjustments and the interest rate on the 2014 Senior Notes became fixed. The interest rates for each series of the 2020 Senior Notes and 2019 Senior Notes are not subject to credit-rating-based rate adjustments.

Since fiscal 2015, we have entered into four sets of forward contracts to lock the benchmark interest rate on portions of our Senior Notes prior to issuance (“Rate Lock Agreements”). Upon issuance of the associated debt, the Rate Lock Agreements were settled and their fair values were recorded within accumulated other comprehensive income (loss). The resulting gains and losses from these transactions are amortized to interest expense over the lives of the associated debt. For additional details on the forward contracts, refer to Note 17 “Derivative Instruments and Hedging Activities” to our Consolidated Financial Statements.

The original discounts on the 2022 Senior Notes, the 2020 Senior Notes, the 2019 Senior Notes and the 2014 Senior Notes amounted to $12.8 million, $0.3 million, $6.7 million and $4.0 million, respectively, and are being amortized over the life of the debt. Interest is payable as follows: semi-annually on January 15 and July 15 of each year for the 2022 Senior Notes; semi-annually on March 1 and September 1 of each year for the 2020 Senior Notes; semi-annually on March 15 and September 15 of each year for the 2019 Senior Notes; and semi-annually on May 1 and November 1 of each year for the 2014 Senior Notes. The relevant indentures for the Senior Notes (collectively, the “Indenture”) include covenants that limit our ability to grant liens on our facilities and enter into sale and leaseback transactions.

In certain circumstances involving a change of control followed by a downgrade of the rating of a series of Senior Notes by at least two of Moody’s, S&P and Fitch, unless we have exercised our rights to redeem the Senior Notes of such series, we will be required to make an offer to repurchase all or, at the holder’s option, any part, of each holder’s Senior Notes of that series pursuant to the Change of Control Offer. In the Change of Control Offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of Senior Notes repurchased plus accrued and unpaid interest, if any, on the Senior Notes repurchased, up to, but not including, the date of repurchase.

As of June 30, 2022, we were in compliance with all of our covenants under the Indenture associated with the Senior Notes.

Revolving Credit Facility:

As of March 31, 2022, we had in place the Prior Credit Agreement providing for a $1.00 billion five-year unsecured Prior Revolving Credit Facility with a maturity date of November 30, 2023. In the fourth quarter of fiscal 2022, we replaced the Prior Credit Agreement and Prior Revolving Credit Facility with the Credit Agreement and the Revolving Credit Facility having a maturity of June 8, 2027 that allows us to borrow up to $1.50 billion. Subject to the terms of the Credit Agreement, the Revolving Credit Facility may be increased by an amount up to $250.0 million in the aggregate. As of June 30, 2021, we had no aggregate principal amount of borrowings under the Prior Revolving Credit Facility. During the fiscal year ended June 30, 2022, we borrowed $600.0 million from the Prior Revolving Credit Facility and made principal payments of $600.0 million. As of June 30, 2022, we had an aggregate principal amount of $275.0 million outstanding under the Revolving Credit Facility, which was borrowed in the fourth quarter of fiscal 2022.

We may borrow, repay and reborrow funds under the Revolving Credit Facility until the maturity date, at which time we may exercise two one-year extension options with the consent of the lenders. We may prepay outstanding borrowings under the Revolving Credit Facility at any time without a prepayment penalty.

Borrowings under the Revolving Credit Facility can be made as Term Secured Overnight Financing ("SOFR") Loans or Alternate Base Rate ("ABR") Loans, at the Company's option. In the event that Term SOFR is unavailable, any Term SOFR elections will be converted to Daily Simple SOFR, as long as it is available. Each Term SOFR Loan will bear interest at a rate per annum equal to the applicable Adjusted Term SOFR rate, which is equal to the applicable Term SOFR rate plus 10 bps that shall not be less than zero, plus a spread ranging from 75 bps to 125 bps, as determined by the Company's credit ratings at the time. Each ABR Loan will bear interest at a rate per annum equal to the ABR plus a spread ranging from 0 bps to 25 bps, as determined by the Company's credit ratings at the time. We are also obligated to pay an annual commitment fee on the daily undrawn balance of the Revolving Credit Facility, which ranges from 4.5 bps to 12.5 bps, subject to an adjustment in conjunction with changes to our credit rating. The applicable interest rates and commitment fees are also subject to adjustment based on the Company's performance against certain environmental sustainability KPI related to GHG emissions and renewable electricity usage. As of June 30, 2022, the all-in interest rate of the $275.0 million outstanding Term SOFR loans reflected the applicable adjusted Term SOFR plus a spread of 100 bps and the applicable commitment fee on the daily undrawn balance of the Revolving Credit Facility was 9 bps.

The Prior Revolving Credit Facility required us to maintain an interest expense coverage ratio as described in the Prior Credit Agreement, on a quarterly basis, covering the trailing four consecutive fiscal quarters of no less than 3.50 to 1.00. The Revolving Credit Facility removed that requirement. The maximum leverage ratio as described in the Credit Agreement, on a quarterly basis, is 3.50 to 1.00, covering the trailing four consecutive fiscal quarters for each fiscal quarter, which can be increased to 4.00 to 1.00 for a period of time in connection with a material acquisition or a series of material acquisitions. As of June 30, 2022, our maximum allowed leverage ratio was 3.50 to 1.00.

We were in compliance with all covenants under the Credit Agreement as of June 30, 2022 (the leverage ratio was 1.61 to 1.00). Considering our current liquidity position, short-term financial forecasts and ability to prepay the Revolving Credit Facility, if necessary, we expect to continue to be in compliance with our financial covenants at the end of our fiscal year ending June 30, 2023.

Factoring Arrangements

We have agreements with financial institutions to sell certain of our trade receivables and promissory notes from customers without recourse. In addition, we periodically sell certain letters of credit ("LC"), without recourse, received from customers as payment for goods and services.

The following table shows total receivables sold under factoring agreements and proceeds from sales of LC for the indicated periods:

	Year Ended June 30,		
(In thousands)	**2022**	**2021**	**2020**
Receivables sold under factoring agreements	$ 250,983	$ 305,565	$ 293,006
Proceeds from sales of LC	$ 151,924	$ 133,679	$ 59,036

Factoring and LC fees for the sale of certain trade receivables were recorded in other expense (income), net and were not material for the periods presented.

We maintain guarantee arrangements available through various financial institutions for up to $92.1 million, of which $59.6 million had been issued as of June 30, 2022, primarily to fund guarantees to customs authorities for value-added tax and other operating requirements of our subsidiaries in Europe, Israel, and Asia.

Material Cash Requirements

The following is a schedule summarizing our future material cash requirements as of June 30, 2022:

(In thousands)	Total	Short-Term	Long-term
Debt obligations[1]	$ 6,450,000	$ —	$ 6,450,000
Interest payments associated with all debt obligations[2]	5,755,757	234,968	5,520,789
Purchase commitments[3]	3,751,523	3,284,455	467,068
Income taxes payable[4]	223,186	—	223,186
Operating leases[5]	120,704	34,305	86,399
Cash long-term incentive program[6]	198,806	81,411	117,395
Pension obligations[7]	49,675	3,994	45,681
EDSP[8]	225,867	—	225,867
Transition tax payable[9]	221,856	26,143	195,713
Liability for employee rights upon retirement[10]	49,240	—	49,240
Other[11]	11,197	5,687	5,510
Total material cash requirements	$ 17,057,811	$ 3,670,963	$ 13,386,848

(1) Represents $6.45 billion aggregate principal amount of Senior Notes due from fiscal year 2025 to fiscal year 2063.

(2) The interest payments associated with the Senior Notes payable included in the table above are based on the principal amount multiplied by the applicable interest rate for each series of Senior Notes. As of June 30, 2022, the interest payment under the Revolving Credit Facility for the undrawn balance is payable at 9 bps as a commitment fee based on the daily undrawn balance, and we utilized the existing rate for the projected interest payments included in the table above. Our future interest payments for the Revolving Credit Facility are subject to change due to any upgrades or downgrades to our then effective credit rating as well as the Company's performance against certain environmental sustainability KPIs related to GHG emissions and renewable electricity usage.

(3) Represents an estimate of significant commitments to purchase inventory from our suppliers as well as an estimate of significant purchase commitments associated with goods, services and other assets in the ordinary course of business. Our obligation under these purchase commitments is generally restricted to a forecasted time-horizon as mutually agreed upon between the parties. This forecasted time-horizon can vary among different suppliers. Actual expenditures will vary based upon the volume of the transactions and length of contractual service provided. In addition, the amounts paid under these arrangements may be less in the event the arrangements are renegotiated or canceled. Certain agreements provide for potential cancellation penalties.

(4) Represents the estimated income tax payable obligation related to uncertain tax positions as well as related accrued interest. We are unable to make a reasonably reliable estimate of the timing of payments in individual years due to uncertainties in the timing of tax audit outcomes.

(5) Operating lease obligations represent the undiscounted lease payments under non-cancelable leases, but exclude non-lease components.

(6) As part of our employee compensation program, we issue cash-based long-term incentive ("Cash LTI") awards to many of our employees. Cash LTI awards issued to employees under the Cash Long-Term Incentive Plan ("Cash LTI Plan") generally vest in three or four equal installments. The amounts in the table above are those committed under the Cash LTI Plan; the expected total payment after estimated forfeitures is approximately $166 million. For additional details, refer to Note 10 "Equity, Long-term Incentive Compensation Plans and Non-Controlling Interest" to our Consolidated Financial Statements.

(7) Represents an estimate of expected benefit payments up to fiscal year 2032 that was actuarially determined and excludes the minimum cash required to contribute to our defined benefit pension plans. As of June 30, 2022, our defined benefit pension plans do not have material required minimum cash contribution obligations.

(8) Represents the amount committed under our non-qualified executive deferred compensation plan. We are unable to make a reasonably reliable estimate of the timing of payments in individual years due to the uncertainties in the timing around participant's separation and any potential changes that participants may decide to make to the previous distribution elections.

(9) Represents the transition tax liability associated with our deemed repatriation of accumulated foreign earnings resulting from the enactment of the Tax Act into law on December 22, 2017.

(10) Represents severance payments due upon dismissal of an employee or upon termination of employment in certain other circumstances as required under Israeli law.

(11) Represents amounts committed for accrued dividends payable for quarterly cash dividends for unvested RSUs granted with dividend equivalent rights. For additional details, refer to Note 10 "Equity, Long-term Incentive Compensation Plans and Non-Controlling Interest" to our Consolidated Financial Statements.

Working Capital:

Working capital was $4.30 billion as of June 30, 2022, which represents an increase of $704.8 million compared to our working capital as of June 30, 2021. As of June 30, 2022, our principal sources of liquidity consisted of $2.71 billion of cash, cash equivalents and marketable securities. Our liquidity may be affected by many factors, some of which are based on the normal ongoing operations of the business, spending for business acquisitions, and other factors such as uncertainty in the global and regional economies and the semiconductor, semiconductor-related and electronic device industries. Although cash requirements will fluctuate based on the timing and extent of these factors, we believe that cash generated from operations, together with the liquidity provided by existing cash and cash equivalents balances and our $1.50 billion Revolving Credit Facility, will be sufficient to satisfy our liquidity requirements associated with working capital needs, capital expenditures, cash dividends, stock repurchases and other contractual obligations, including repayment of outstanding debt, for at least the next 12 months.

Our credit ratings as of June 30, 2022 are summarized below:

Rating Agency	Rating
Fitch	A-
Moody’s	A2
S&P	A-

In June 2022, S&P upgraded our senior unsecured credit rating from BBB+ to A-. In March 2022, Fitch upgraded our senior unsecured credit rating from BBB+ to A-. In June 2021, Moody's upgraded our senior unsecured credit rating from Baa1 to A2. Factors that can affect our credit ratings include changes in our operating performance, the economic environment, conditions in the semiconductor and semiconductor capital equipment industries, our financial position, material acquisitions and changes in our business strategy.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to financial market risks, including changes in interest rates, foreign currency exchange rates and marketable equity security prices. To mitigate these risks, we utilize derivative financial instruments, such as foreign currency hedges. All of the potential changes noted below are based on sensitivity analyses performed on our financial position as of June 30, 2022. Actual results may differ materially.

As of June 30, 2022, we had an investment portfolio of fixed income securities of $1.01 billion. These securities, as with all fixed income instruments, are subject to interest rate risk and will decline in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 100 bps from levels as of June 30, 2022, the fair value of the portfolio would have declined by $9.4 million.

The fair market value of long-term fixed interest rate notes is subject to interest rate risk. The fair market value of fixed interest rate notes will increase as market interest rates fall and decrease as market interest rates rise. As of June 30, 2022, the fair value and the book value of our Senior Notes due in various fiscal years ranging from 2025 to 2063 were $6.39 billion and $6.45 billion, respectively. Since February 2020, the interest rates on our Senior Notes have not been subject to credit-rating based rate adjustments.

In the fourth quarter of fiscal 2022, we replaced the Prior Credit Agreement and Prior Revolving Credit Facility with a renegotiated Credit Agreement and renegotiated unsecured Revolving Credit Facility. Subject to the terms of Credit Agreement, the Revolving Credit Facility allows us to borrow up to $1.50 billion, has a maturity date of June 8, 2027 with two one-year extension options, and may be increased by an amount up to $250.0 million in the aggregate. As of June 30, 2022, we had an aggregate principal amount of $275.0 million outstanding under the Revolving Credit Facility. Each Term SOFR Loan will bear interest at a rate per annum equal to the applicable Adjusted Term SOFR rate, which is equal to the applicable Term SOFR rate plus 10 bps that shall not be less than zero, plus a spread ranging from 75 bps to 125 bps, as determined by the Company's credit ratings at the time. The fair value of the borrowings under the Revolving Credit Facility is subject to interest rate and credit risk due to the timing of the rate resets and changes in the market's assessment of risk of default, respectively. Pursuant to the terms of the Credit Agreement, we are also obligated to pay an annual commitment fee on the daily undrawn balance of the Revolving Credit Facility at a rate that ranges from 4.5 bps to 12.5 bps, depending upon the Company's then prevailing credit rating. As of June 30, 2022 the annual commitment fee was 9 bps. At June 30, 2022, if our credit ratings were downgraded to be below investment grade, the maximum potential increase to our annual commitment fee for the Revolving Credit Facility, using the highest range of the ranges discussed above, is estimated to be approximately $1 million.

Our equity investment in a publicly traded company is subject to market price risk, which we typically do not attempt to reduce or eliminate through hedging activities. As of June 30, 2022, the fair value of our investment in the marketable equity security, which began publicly trading on the Tokyo Stock Exchange on April 5, 2021, was $11.0 million. Assuming a decline of 50% in market prices, the aggregate value of our investment in the marketable equity security could decrease by approximately $6 million, based on the value as of June 30, 2022.

See Note 5 “Marketable Securities” to our Consolidated Financial Statements in Part II, Item 8; “Liquidity and Capital Resources” in Management’s Discussion and Analysis of Financial Condition and Results of Operations in Part II, Item 7; and Risk Factors in Part I, Item 1A of this Annual Report on Form 10-K for a description of recent market events that may affect the value of the investments in our portfolio that we held as of June 30, 2022.

As of June 30, 2022, we had net forward and option contracts to purchase $58.2 million in foreign currency in order to hedge certain currency exposures (see Note 17 “Derivative Instruments and Hedging Activities” to our Consolidated Financial Statements for additional details). If we had entered into these contracts on June 30, 2022, the U.S. dollar equivalent would have been $64.2 million. A 10% adverse move in all currency exchange rates affecting the contracts would decrease the fair value of the contracts by $94.2 million. However, if this occurred, the fair value of the underlying exposures hedged by the contracts would increase by a similar amount. Accordingly, we believe that, as a result of the hedging of certain of our foreign currency exposure, changes in most relevant foreign currency exchange rates should have no material impact on our results of operations or cash flows.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

KLA CORPORATION

Consolidated Balance Sheets

(In thousands, except par value)	As of June 30, 2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,584,908	$ 1,434,610
Marketable securities	1,123,100	1,059,912
Accounts receivable, net	1,811,877	1,305,479
Inventories	2,146,889	1,575,380
Other current assets	502,137	320,867
Total current assets	7,168,911	5,696,248
Land, property and equipment, net	849,929	663,027
Goodwill	2,320,049	2,011,172
Deferred income taxes	579,173	270,461
Purchased intangible assets, net	1,194,414	1,185,311
Other non-current assets	484,612	444,905
Total assets	$ 12,597,088	$ 10,271,124
LIABILITIES, NON-CONTROLLING INTEREST AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 443,338	$ 342,083
Deferred system revenue	500,969	295,192
Deferred service revenue	381,737	284,936
Short-term debt	—	20,000
Other current liabilities	1,545,039	1,161,016
Total current liabilities	2,871,083	2,103,227
Long-term debt	6,660,718	3,422,767
Deferred tax liabilities	658,937	650,623
Deferred service revenue	124,618	87,575
Other non-current liabilities	882,642	631,290
Total liabilities	11,197,998	6,895,482
Commitments and contingencies (Notes 9, 15 and 16)		
Stockholders' equity:		
Preferred stock, $0.001 par value, 1,000 shares authorized, none outstanding	—	—
Common stock, $0.001 par value, 500,000 shares authorized, 279,210 and 278,435 shares issued, 141,804 and 152,776 shares outstanding, as of June 30, 2022 and June 30, 2021, respectively	142	153
Capital in excess of par value	1,061,798	2,175,835
Retained earnings	366,882	1,277,123
Accumulated other comprehensive loss	(27,471)	(75,557)
Total KLA stockholders' equity	1,401,351	3,377,554
Non-controlling interest in consolidated subsidiaries	(2,261)	(1,912)
Total stockholders' equity	1,399,090	3,375,642
Total liabilities and stockholders' equity	$ 12,597,088	$ 10,271,124

See accompanying notes to Consolidated Financial Statements.

KLA CORPORATION

Consolidated Statements of Operations

(In thousands, except per share amounts)	Year Ended June 30, 2022	2021	2020
Revenues:			
Product	$ 7,301,428	$ 5,240,316	$ 4,328,725
Service	1,910,455	1,678,418	1,477,699
Total revenues	9,211,883	6,918,734	5,806,424
Costs and expenses:			
Costs of revenues	3,592,441	2,772,165	2,449,561
Research and development	1,105,254	928,487	863,864
Selling, general and administrative	860,007	729,602	734,149
Goodwill impairment	—	—	256,649
Interest expense	160,339	157,328	160,274
Loss on extinguishment of debt	—	—	22,538
Other expense (income), net	4,605	(29,302)	2,678
Income before income taxes	3,489,237	2,360,454	1,316,711
Provision for income taxes	167,177	283,101	101,686
Net income	3,322,060	2,077,353	1,215,025
Less: Net income (loss) attributable to non-controlling interest	253	(939)	(1,760)
Net income attributable to KLA	$ 3,321,807	$ 2,078,292	$ 1,216,785
Net income per share attributable to KLA			
Basic	$ 22.07	$ 13.49	$ 7.76
Diluted	$ 21.92	$ 13.37	$ 7.70
Weighted-average number of shares:			
Basic	150,494	154,086	156,797
Diluted	151,555	155,437	158,005

See accompanying notes to Consolidated Financial Statements.

KLA CORPORATION

Consolidated Statements of Comprehensive Income

(In thousands)	Year Ended June 30, 2022	2021	2020
Net income	$ 3,322,060	$ 2,077,353	$ 1,215,025
Other comprehensive income (loss):			
Currency translation adjustments:			
Cumulative currency translation adjustments	(15,915)	12,236	(26)
Income tax (provision) benefit	4,592	(842)	110
Net change related to currency translation adjustments	(11,323)	11,394	84
Cash flow hedges:			
Net unrealized gains (losses) arising during the period	104,952	3,782	(16,739)
Reclassification adjustments for net (gains) losses included in net income	(5,919)	181	(2,072)
Income tax (provision) benefit	(22,105)	(805)	4,286
Net change related to cash flow hedges	76,928	3,158	(14,525)
Net change related to unrecognized losses and transition obligations in connection with defined benefit plans	(1,438)	(7,247)	2,397
Available-for-sale securities:			
Net unrealized gains (losses) arising during the period	(20,792)	(3,678)	6,029
Reclassification adjustments for net (gains) losses included in net income	306	(253)	(297)
Income tax (provision) benefit	4,405	843	(433)
Net change related to available-for-sale securities	(16,081)	(3,088)	5,299
Other comprehensive income (loss)	48,086	4,217	(6,745)
Less: Comprehensive income (loss) attributable to non-controlling interest	253	(939)	(1,760)
Total comprehensive income attributable to KLA	$ 3,369,893	$ 2,082,509	$ 1,210,040

See accompanying notes to Consolidated Financial Statements.

KLA CORPORATION

Consolidated Statements of Stockholders' Equity

(In thousands, except per share amounts)	Common Stock and Capital in Excess of Par Value: Shares	Common Stock and Capital in Excess of Par Value: Amount	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total KLA Stockholders' Equity	Non-Controlling Interest	Total Stockholders' Equity
Balances as of June 30, 2019	159,475	$ 2,017,312	$ 714,825	$ (73,029)	$ 2,659,108	$ 18,585	$ 2,677,693
Net income attributable to KLA	—	—	1,216,785	—	1,216,785	—	1,216,785
Net loss attributable to non-controlling interest	—	—	—	—	—	(1,760)	(1,760)
Other comprehensive loss	—	—	—	(6,745)	(6,745)	—	(6,745)
Net issuance under employee stock plans	1,313	29,374	—	—	29,374		29,374
Repurchase of common stock	(5,327)	(67,799)	(753,284)	—	(821,083)	—	(821,083)
Cash dividends ($3.30 per share) and dividend equivalents declared	—	—	(523,396)	—	(523,396)	—	(523,396)
Dividend to non-controlling interest	—	—	—	—	—	(1,239)	(1,239)
Stock-based compensation expense	—	111,381	—	—	111,381	—	111,381
Balances as of June 30, 2020	155,461	2,090,268	654,930	(79,774)	2,665,424	15,586	2,681,010
Adoption of ASC 326	—	—	(5,530)	—	(5,530)	—	(5,530)
Net income attributable to KLA	—	—	2,078,292	—	2,078,292	—	2,078,292
Net loss attributable to non-controlling interest	—	—	—		—	(939)	(939)
Other comprehensive income	—	—	—	4,217	4,217	—	4,217
Net issuance under employee stock plans	973	29,736	—	—	29,736	—	29,736
Repurchase of common stock	(3,658)	(55,414)	(889,193)	—	(944,607)	—	(944,607)
Cash dividends ($3.60 per share) and dividend equivalents declared	—	—	(561,376)	—	(561,376)	—	(561,376)
Stock-based compensation expense	—	111,398	—	—	111,398	438	111,836
Net issuance on exercise of option by non-controlling interest	—	—	—	—	—	127	127
Disposal of non-controlling interest	—	—	—	—	—	(17,124)	(17,124)
Balances as of June 30, 2021	152,776	2,175,988	1,277,123	(75,557)	3,377,554	(1,912)	3,375,642
Net income attributable to KLA	—	—	3,321,807	—	3,321,807	—	3,321,807
Net income attributable to non-controlling interest	—	—	—	—	—	253	253
Other comprehensive income	—	—	—	48,086	48,086	—	48,086
Net issuance under employee stock plans	796	28,644	—	—	28,644	—	28,644
Repurchase of common stock	(11,768)	(1,269,610)	(3,592,657)	—	(4,862,267)	—	(4,862,267)
Cash dividends ($4.20 per share) and dividend equivalents declared	—	—	(639,391)	—	(639,391)	—	(639,391)
Dividend to non-controlling interest	—		—	—	—	(602)	(602)
Stock-based compensation expense	—	126,918	—	—	126,918		126,918
Balances as of June 30, 2022	141,804	$ 1,061,940	$ 366,882	$ (27,471)	$ 1,401,351	$ (2,261)	$ 1,399,090

See accompanying notes to Consolidated Financial Statements.

KLA CORPORATION
Consolidated Statements of Cash Flows

(In thousands)	Year Ended June 30, 2022	2021	2020
Cash flows from operating activities:			
Net income	$ 3,322,060	$ 2,077,353	$ 1,215,025
Adjustments to reconcile net income to net cash provided by operating activities:			
Goodwill impairment	—	—	256,649
Depreciation and amortization	363,344	333,335	348,049
Loss on extinguishment of debt	—	—	22,538
Unrealized foreign exchange (gain) loss and other	46,531	(19,441)	13,860
Asset impairment charges	5,962	842	13,341
Stock-based compensation expense	126,918	111,836	111,381
Deferred income taxes	(329,501)	(44,445)	(93,110)
Gain on sale of business	—	(4,422)	—
Gain on fair value adjustment of marketable equity securities	—	(26,719)	—
Settlement of treasury lock agreement	82,799	—	(21,518)
Changes in assets and liabilities, net of assets acquired and liabilities assumed in business acquisitions:			
Accounts receivable	(510,326)	(203,155)	(118,362)
Inventories	(567,003)	(270,100)	(74,817)
Other assets	(217,070)	(96,218)	(11,147)
Accounts payable	101,632	79,366	61,144
Deferred system revenue	213,368	(44,674)	57,687
Deferred service revenue	129,718	45,845	22,779
Other liabilities	544,270	245,623	(24,649)
Net cash provided by operating activities	3,312,702	2,185,026	1,778,850
Cash flows from investing activities:			
Proceeds from sale of assets	27,658	1,855	—
Proceeds from sale of business	—	16,833	—
Business acquisitions, net of cash acquired	(479,113)	—	(90,143)
Capital expenditures	(307,320)	(231,628)	(152,675)
Purchases of available-for-sale securities	(987,660)	(1,018,744)	(798,493)
Proceeds from sale of available-for-sale securities	113,538	145,533	148,969
Proceeds from maturity of available-for-sale securities	760,548	581,679	626,943
Purchases of trading securities	(121,254)	(107,867)	(110,241)
Proceeds from sale of trading securities	116,350	111,321	115,680
Proceeds from other investments	795	614	1,086
Net cash used in investing activities	(876,458)	(500,404)	(258,874)
Cash flows from financing activities:			
Proceeds from issuance of debt, net of issuance costs	2,967,409	40,343	741,832
Proceeds from revolving credit facility, net of costs	875,000	—	450,000
Repayment of debt	(620,000)	(70,000)	(1,171,033)
Common stock repurchases	(3,967,806)	(938,607)	(829,084)
Forward contract for accelerated share repurchases	(900,000)	—	—
Payment of dividends to stockholders	(638,528)	(559,353)	(522,421)
Payment of dividends to subsidiary’s non-controlling interest holders	(602)	—	(1,239)
Issuance of common stock	113,014	86,098	75,634
Tax withholding payments related to vested and released restricted stock units	(84,371)	(56,362)	(46,260)
Contingent consideration payable and other, net	(1,121)	—	2,936
Net cash used in financing activities	(2,257,005)	(1,497,881)	(1,299,635)
Effect of exchange rate changes on cash and cash equivalents	(28,941)	13,460	(1,926)
Net increase in cash and cash equivalents	150,298	200,201	218,415
Cash and cash equivalents at beginning of period	1,434,610	1,234,409	1,015,994
Cash and cash equivalents at end of period	$ 1,584,908	$ 1,434,610	$ 1,234,409
Supplemental cash flow disclosures:			
Income taxes paid, net	$ 464,526	$ 326,002	$ 204,685
Interest paid	$ 154,673	$ 154,196	$ 152,651
Non-cash activities:			
Contingent consideration payable - financing activities	$ 16,281	$ (7,448)	$ 5,326
Dividends payable - financing activities	$ 7,028	$ 6,285	$ 5,978
Unsettled common stock repurchase - financing activities	$ —	$ 6,000	$ —
Accrued purchase of land, property and equipment - investing activities	$ 19,595	$ 30,615	$ 15,843

See accompanying notes to Consolidated Financial Statements.

KLA CORPORATION

Notes to Consolidated Financial Statements

NOTE 1— DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of Business and Principles of Consolidation. KLA Corporation and its majority-owned subsidiaries ("KLA" or the "Company" and also referred to as "we," "our," "us," or similar references) is a supplier of process equipment, process control equipment, and data analytics products for a broad range of industries, including semiconductors, printed circuit boards ("PCB") and displays. We provide advanced process control and process-enabling solutions for manufacturing and testing wafers and reticles, integrated circuits ("IC"), packaging, light-emitting diodes, power devices, compound semiconductor devices, microelectromechanical systems ("MEMS"), data storage, PCBs and flat and flexible panel displays, as well as general materials research. We also provide comprehensive support and services across our installed base. Our extensive portfolio of inspection, metrology and data analytics products, and related services, helps IC manufacturers achieve target yield throughout the entire semiconductor fabrication process, from research and development ("R&D") to final volume production. We develop and sell advanced vacuum deposition and etching process tools, which are used by a broad range of specialty semiconductor customers. We enable electronic device manufacturers to inspect, test and measure PCBs and flat panel displays ("FPD") and ICs to verify their quality, deposit a pattern of desired electronic circuitry on the relevant substrate and perform three-dimensional shaping of metalized circuits on multiple surfaces. Our advanced products, coupled with our unique yield management software and services, allow us to deliver the solutions our semiconductor, PCB and display customers need to achieve their productivity goals by significantly reducing their risks and costs and improving their overall profitability and return on investment. Headquartered in Milpitas, California, we have subsidiaries both in the U.S. and in key markets throughout the world.

The Consolidated Financial Statements include the accounts of KLA and its majority-owned subsidiaries. All significant intercompany balances and transactions have been eliminated.

Comparability. Effective on the first day of fiscal 2022, we adopted an Accounting Standards Update ("ASU") to simplify the accounting for income taxes in Accounting Standards Codification ("ASC") 740, Income Taxes ("ASC 740"), on a prospective basis. We also adopted an ASU to simplify the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity, on a modified retrospective basis. The adoption of these updates had no material impact on our Consolidated Financial Statements.

Effective on the first day of fiscal 2021, we adopted ASC 326, Measurement of Credit Losses on Financial Instruments ("ASC 326"). Prior periods were not retrospectively recast and, accordingly, the Consolidated Balance Sheet as of June 30, 2020 and the Consolidated Statement of Operations for the year ended June 30, 2020 were prepared using accounting standards that were different than those in effect as of and for the years ended June 30, 2022 and 2021.

Certain reclassifications have been made to the prior year's Consolidated Financial Statements to conform to the current year presentation. The reclassifications did not have material effects on the prior year's Consolidated Balance Sheets, Statements of Operations, Comprehensive Income and Cash Flows.

Management Estimates. The preparation of the Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions in applying our accounting policies that affect the reported amounts of assets and liabilities (and related disclosure of contingent assets and liabilities) at the date of the Consolidated Financial Statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Cash Equivalents and Marketable Securities. All highly liquid debt instruments with original or remaining maturities of less than three months at the date of purchase are cash equivalents. Marketable securities are generally classified as available-for-sale for use in current operations, if required, and are reported at fair value, with unrealized gains and non-credit related unrealized losses, net of tax, presented as a separate component of stockholders' equity under the caption "Accumulated other comprehensive income (loss)." All realized gains and losses are recorded in earnings in the period of occurrence. The specific identification method is used to determine the realized gains and losses on investments.

We regularly review the available-for-sale debt securities in an unrealized loss position and evaluate the current expected credit loss by considering available information relevant to the collectability of the security, such as historical experience, market data, issuer-specific factors including credit ratings, default and loss rates of the underlying collateral and structure and credit enhancements, current economic conditions and reasonable and supportable forecasts. There were no credit losses on available-for-sale debt securities recognized in the years ended June 30, 2022, 2021 and 2020.

If we do not expect to recover the entire amortized cost of the security, the amount representing credit losses, defined as the difference between the present value of the cash flows expected to be collected and the amortized cost basis of the debt security, is recorded as an allowance for credit losses with an offsetting entry to net income, and the amount that is not credit-related is recognized in other comprehensive income (loss) (“OCI”). If 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 entire amortized cost basis, we first write off any previously recognized allowance for credit losses with an offsetting entry to the security’s amortized cost basis. If the allowance has been fully written off and fair value is less than amortized cost basis, we write down the amortized cost basis of the security to its fair value with an offsetting entry to net income.

Investments in Equity Securities. We hold equity securities in publicly and privately held companies for the promotion of business and strategic objectives. Equity securities in publicly held companies, or marketable equity securities, are measured and recorded at fair value on a recurring basis. Equity securities in privately held companies, or non-marketable equity securities, are accounted for at cost, less impairment, plus or minus observable price changes in orderly transactions for identical or similar securities of the same issuer. Non-marketable equity securities are subject to a periodic impairment review; however, since there are no open-market valuations, the impairment analysis requires significant judgment. This analysis includes assessment of the investee’s financial condition, the business outlook for its products and technology, its projected results and cash flow, financing transactions subsequent to the acquisition of the investment, the likelihood of obtaining subsequent rounds of financing and the impact of any relevant contractual equity preferences held by us or the others. Non-marketable equity securities are included in “Other non-current assets” on the balance sheet. Realized and unrealized gains and losses resulting from changes in fair value or the sale of our marketable and non-marketable equity securities are recorded in “Other expense (income), net.”

Variable Interest Entities. We use a qualitative approach in assessing the consolidation requirement for variable interest entities. The approach focuses on identifying which enterprise has the power to direct the activities that most significantly impact the variable interest entity’s economic performance and which enterprise has the obligation to absorb losses or the right to receive benefits from the variable interest entity. In the event we are the primary beneficiary of a variable interest entity, the assets, liabilities, and results of operations of the variable interest entity will be included in our Consolidated Financial Statements. We have concluded that none of our equity investments require consolidation based on our most recent qualitative assessment.

Inventories. Inventories are stated at the lower of cost (on a first-in, first-out basis) or net realizable value. Net realizable value is calculated as the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. Demonstration units are stated at their manufacturing cost and written down to their net realizable value. We review and set standard costs semi-annually at current manufacturing costs in order to approximate actual costs. Our manufacturing overhead standards for product costs are calculated assuming full absorption of forecasted spending over projected volumes, adjusted for excess capacity. Abnormal inventory costs such as costs of idle facilities, excess freight and handling costs, and spoilage are recognized as current period charges. We write down product inventory based on forecasted demand and technological obsolescence and service spare parts inventory based on forecasted usage. These factors are impacted by market and economic conditions, technology changes, new product introductions and changes in strategic direction, and require estimates that may include uncertain elements. Actual demand may differ from forecasted demand, and such differences may have a material effect on recorded inventory values.

Allowance for Credit Losses. A majority of our accounts receivable are derived from sales to large multinational semiconductor and electronics manufacturers throughout the world. We maintain an allowance for credit losses for expected uncollectible accounts receivable, which is recorded as an offset to accounts receivable and changes in such are classified as selling, general and administrative (“SG&A”) expense in the Consolidated Statements of Income. We assess collectability by reviewing accounts receivable on a collective basis where similar risk characteristics exist and on an individual basis when we identify specific customers with known disputes or collectability issues. The estimate of expected credit losses considers historical credit loss information that is adjusted for current conditions and reasonable and supportable forecasts. The allowance for credit losses is reviewed on a quarterly basis to assess the adequacy of the allowance. Our assessment considered the impact of COVID-19 and estimates of expected credit and collectability trends. The credit losses recognized on accounts receivable were not significant as of June 30, 2022 and 2021. Volatility in market conditions and evolving credit trends are difficult to predict and may cause variability that may have a material impact on our allowance for credit losses in future periods.

Property and Equipment. Property and equipment are recorded at cost, net of accumulated depreciation. Depreciation of property and equipment is based on the straight-line method over the estimated useful lives of the assets. The following table sets forth the estimated useful life for various asset categories:

Asset Category	Range of Useful Lives
Buildings	30 to 50 years
Leasehold improvements	Shorter of 15 years or lease term
Machinery and equipment	2 to 10 years
Office furniture and fixtures	7 years

Construction-in-process assets are not depreciated until the assets are placed in service.Depreciation expense for the fiscal years ended June 30, 2022, 2021 and 2020 was $122.2 million, $111.1 million and $101.4 million, respectively.

Leases. Under ASC 842 Leases, a contract is or contains a lease when we have the right to control the use of an identified asset for a period of time. We determine if an arrangement is a lease at inception of the contract, which is the date on which the terms of the contract are agreed to, and the agreement creates enforceable rights and obligations. The commencement date of the lease is the date that the lessor makes an underlying asset available for our use. On the commencement date, leases are evaluated for classification and assets and liabilities are recognized based on the present value of lease payments over the lease term.

The lease term used to calculate the lease liability includes options to extend or terminate the lease when it is reasonably certain that the option will be exercised. The right of use (“ROU”) asset is initially measured as the amount of lease liability, adjusted for any initial lease costs, prepaid lease payments and any lease incentives. Variable lease payments, consisting primarily of reimbursement of costs incurred by lessors for common area maintenance, real estate taxes and insurance, are not included in the lease liability and are recognized as they are incurred.

As most of our leases do not provide an implicit rate, we use our incremental borrowing rate at lease commencement to measure ROU assets and lease liabilities. The incremental borrowing rate used by us is based on baseline rates and adjusted by the credit spreads commensurate with our secured borrowing rate, over a similar term. We used the incremental borrowing rate on June 30, 2019 for all leases that commenced on or prior to that date. Operating lease expense is generally recognized on a straight-line basis over the lease term.

We have elected the practical expedient to account for the lease and non-lease components as a single lease component for the majority of our asset classes. For leases with a term of one year or less, we have elected not to record the ROU asset or liability.

Goodwill, Purchased Intangible Assets and Impairment Assessment. Purchased intangible assets that are not considered to have an indefinite useful life are amortized over their estimated useful lives, which generally range from six months to nine years. The carrying values of our intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value may not be fully recoverable. Recoverability of finite-lived intangible assets is measured by comparing the carrying value of the asset to the future undiscounted cash flows the asset is expected to generate. Recoverability of indefinite-lived intangible assets is measured by comparing the carrying value of the asset to its fair value. If the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value.

Goodwill represents the excess of the purchase price in a business combination over the fair value of the net tangible and intangible assets acquired. We assess goodwill for impairment annually during our third fiscal quarter or whenever events or changes in circumstances indicate the carrying value may not be fully recoverable. We have the option to perform a qualitative assessment prior to necessitating a quantitative impairment test. The former is performed when the fair value of a reporting unit historically has significantly exceeded the carrying value of its net assets and, based on current operations, is expected to continue to do so. In the qualitative assessment, if we determine that it is more likely than not that the fair value of a reporting unit is less than the carrying value, a quantitative test is then performed, which involves comparing the estimated fair value of a reporting unit to its carrying value including goodwill. We determine the fair value of a reporting unit using the income approach which uses discounted cash flow analysis, the market approach when deemed appropriate and the necessary information is available, or a combination of both. If the fair value of a reporting unit is less than its carrying value, a goodwill impairment charge is recorded for the difference. See Note 7 “Goodwill and Purchased Intangible Assets” for additional information. Any further impairment charges could have a material adverse effect on our operating results and net asset value in the quarter and fiscal year in which we recognize the impairment charge.

Impairment of Long-Lived Assets. We evaluate the carrying value of our long-lived assets whenever events or changes in business circumstances indicate that the carrying value of the asset may be impaired. An impairment loss is recognized when estimated future cash flows expected to result from the use of the asset, including disposition, are less than the carrying value of the asset. Such an impairment charge would be measured as the excess of the carrying value of the asset over its fair value.

Concentration of Credit Risk. Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash equivalents, short-term marketable securities, trade accounts receivable and derivative financial instruments used in hedging activities. We invest in a variety of financial instruments, such as, but not limited to, certificates of deposit, corporate debt and municipal securities, U.S. Treasury and Government agency securities, and equity securities and, by policy, we limit the amount of credit exposure with any one financial institution or commercial issuer. We have not experienced any material credit losses on our investments.

A majority of our accounts receivable are derived from sales to large multinational semiconductor and electronics manufacturers located throughout the world, with a majority located in Asia. In recent years, our customer base has become increasingly concentrated due to corporate consolidations, acquisitions and business closures, and to the extent that these customers experience liquidity issues in the future, we may be required to reserve for potential credit losses with respect to trade receivables. We perform ongoing credit evaluations of our customers' financial condition and generally require little to no collateral to secure accounts receivable. We maintain an allowance for potential credit losses based upon expected collectability risk of all accounts receivable. In addition, we may utilize letters of credit ("LC"), credit insurance or non-recourse factoring to mitigate credit risk when considered appropriate.

We are exposed to credit loss in the event of non-performance by counterparties on the foreign exchange contracts that we use in hedging activities and in certain factoring transactions. These counterparties are large international financial institutions, and to date no such counterparty has failed to meet its financial obligations to us under such contracts.

The following customers each accounted for more than 10% of total revenues, primarily in the Semiconductor Process Control segment, for the indicated periods:

Year Ended June 30,		
2022	**2021**	**2020**
Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited
Samsung Electronics Co., Ltd.	Samsung Electronics Co., Ltd.	Samsung Electronics Co., Ltd.

The following customers each accounted for more than 10% of net accounts receivable as of the dates indicated below:

As of June 30,	
2022	**2021**
Taiwan Semiconductor Manufacturing Company Limited	Taiwan Semiconductor Manufacturing Company Limited

Foreign Currency. The functional currencies of our foreign subsidiaries are primarily the local currencies, except as described below. Accordingly, all assets and liabilities of these foreign operations are translated to U.S. dollars at current period end exchange rates, and revenues and expenses are translated to U.S. dollars using average exchange rates in effect during the period. The gains and losses from foreign currency translation of these subsidiaries' financial statements are recorded directly into a separate component of stockholders' equity under the caption "Accumulated other comprehensive income (loss)."

Our manufacturing subsidiaries in Singapore, Israel, Germany, and the United Kingdom use the U.S. dollar as their functional currency. Accordingly, monetary assets and liabilities in non-functional currency of these subsidiaries are remeasured using exchange rates in effect at the end of the period. Revenues and costs in local currency are remeasured using average exchange rates for the period, except for costs related to those balance sheet items that are remeasured using historical exchange rates. The resulting remeasurement gains and losses are included in the Consolidated Statements of Operations as incurred.

Derivative Financial Instruments. We use financial instruments, such as foreign exchange contracts including forward and options transactions, to hedge a portion of, but not all, existing and forecasted foreign currency denominated transactions. The purpose of our foreign exchange hedging program is to manage the effect of exchange rate fluctuations on certain foreign currency denominated revenues, costs and eventual cash flows. The effect of exchange rate changes on foreign exchange contracts is expected to offset the effect of exchange rate changes on the underlying hedged items. We also use rate lock agreements to hedge the risk associated with the variability of cash flows due to changes in the benchmark interest rate of the intended debt financing. We believe these financial instruments do not subject us to speculative risk that would otherwise result from changes in currency exchange rates or interest rates. All of our derivative financial instruments are recorded at fair value based upon quoted market prices for comparable instruments adjusted for risk of counterparty non-performance.

For derivative instruments designated and qualifying as cash flow hedges of forecasted foreign currency denominated transactions or debt financing expected to occur within 12 to 18 months, the effective portion of the gains or losses is reported in accumulated other comprehensive income (loss) ("AOCI") and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. We elected to include time value for the assessment of effectiveness on all forward transactions designated as cash flow hedges. The change in fair value of the derivative is recorded in AOCI until the hedged transaction is recognized in earnings. The assessment of effectiveness of options contracts designated as cash flow hedges excludes time value. The initial value of the component excluded from the assessment of effectiveness is recognized in earnings over the life of the derivative contract. Any differences between change in the fair value of the excluded components and the amounts recognized in earnings are recorded in AOCI. For foreign exchange contracts that are designated and qualify as a net investment hedge in a foreign operation and that meet the effectiveness requirements, the net gains or losses attributable to changes in spot exchange rates are recorded in cumulative translation within AOCI. The remainder of the change in value of such instruments is recorded in earnings using the mark-to-market approach. Recognition in earnings of amounts previously recorded in cumulative translation is limited to circumstances such as complete or substantially complete liquidation of the net investment in the hedged foreign operations. For foreign exchange contracts that are not designated as hedges, gains and losses are recognized in other expense (income), net. We use foreign exchange contracts to hedge certain foreign currency denominated assets or liabilities. The gains and losses on these derivative instruments are largely offset by the changes in the fair value of the assets or liabilities being hedged.

Revenue Recognition. We primarily derive revenue from the sale of process control and process-enabling solutions for the semiconductor and related electronics industries, maintenance and support of all these products, installation and training services and the sale of spare parts. Our portfolio includes yield enhancement and production solutions for manufacturing wafers and reticles, ICs, packaging, PCBs and FPDs, as well as comprehensive support and services across our installed base.

Our solutions are generally not sold with a right of return, nor have we experienced significant returns from or refunds to our customers.

We account for a contract with a customer when there is approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable.

Our revenues are measured based on consideration stipulated in the arrangement with each customer, net of any sales incentives and amounts collected on behalf of third parties, such as sales taxes. The revenues are recognized as separate performance obligations that are satisfied by transferring control of the product or service to the customer.

Our arrangements with our customers include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. A product or service is considered distinct if it is separately identifiable from other deliverables in the arrangement and if a customer can benefit from it on its own or with other resources that are readily available to the customer.

The transaction consideration, including any sales incentives, is allocated between separate performance obligations of an arrangement based on the stand-alone selling price ("SSP") for each distinct product or service. Management considers a variety of factors to determine the SSP, such as historical stand-alone sales of products and services, discounting strategies and other observable data.

From time to time, our contracts are modified to account for additional, or to change existing, performance obligations. Our contract modifications are generally accounted for prospectively.

Product Revenue

We recognize revenue from product sales at a point in time when we have satisfied our performance obligation by transferring control of the product to the customer. We use judgment to evaluate whether control has transferred by considering several indicators, including whether:

- We have a present right to payment;
- The customer has legal title;
- The customer has physical possession;
- The customer has significant risk and rewards of ownership; and
- The customer has accepted the product, or whether customer acceptance is considered a formality based on history of acceptance of similar products (for example, when the customer has previously accepted the same tool, with the same

specifications, and when we can objectively demonstrate that the tool meets all of the required acceptance criteria, and when the installation of the system is deemed perfunctory).

Not all of the indicators need to be met for us to conclude that control has transferred to the customer. In circumstances in which revenue is recognized prior to the product acceptance, the fair value of revenue associated with our performance obligations to install the product is deferred and recognized as revenue at a point in time, once installation is complete.

We enter into volume purchase agreements with some of our customers. We adjust the transaction consideration for estimated credits earned by our customers for such incentives. These credits are estimated based upon the forecasted and actual product sales for any given period and agreed incentive rate. The estimate is updated at each reporting period.

We offer perpetual and term licenses for software products. The primary difference between perpetual and term licenses is the duration over which the customer can benefit from the use of the software, while the functionality and the features of the software are the same. Software is generally bundled with post-contract customer support ("PCS"), which includes unspecified software updates that are made available throughout the entire term of the arrangement. Revenue from software licenses is recognized at a point in time, when the software is made available to the customer. Revenue from PCS is deferred at contract inception and recognized ratably over the service period, or as services are performed.

Services Revenue

The majority of product sales include a standard six to 12-month warranty that is not separately paid for by the customers. The customers may also purchase an extended warranty for periods beyond the initial year as part of the initial product sale. We have concluded that the standard 12-month warranty as well as any extended warranty periods included in the initial product sales are separate performance obligations for most of our products. The estimated fair value of warranty services is deferred and recognized ratably as revenue over the warranty period, as the customer simultaneously receives and consumes the benefits of warranty services provided by us.

Additionally, we offer product maintenance and support services, which the customer may purchase separately from the standard and extended warranty offered as part of the initial product sale. Revenue from separately negotiated maintenance and support service contracts is also recognized over time based on the terms of the applicable service period. Revenue from services performed in the absence of a maintenance contract, including training revenue, is recognized when the related services are performed. We also sell spare parts, revenue from which is recognized when control over the spare parts is transferred to the customer.

Significant Judgments

Our contracts with our customers often include promises to transfer multiple products and services. Each product and service is generally capable of being distinct within the context of the contract and represents a separate performance obligation. Determining the SSP for each distinct performance obligation and allocation of consideration from an arrangement to the individual performance obligations and the appropriate timing of revenue recognition are significant judgments with respect to these arrangements. We typically estimate the SSP of products and services based on observable transactions when the products and services are sold on a stand-alone basis and those prices fall within a reasonable range. We typically have more than one SSP for individual products and services due to the stratification of these products by customers and circumstances. In these instances, we use information such as the size of the customer, geographic region, as well as customization of the products in determining the SSP. In instances where the SSP is not directly observable, we determine the SSP using information that includes market conditions, entity-specific factors, including discounting strategies, information about the customer or class of customer that is reasonably available and other observable inputs. While changes in the allocation of SSP between performance obligations will not affect the amount of total revenue recognized for a particular contract, any material changes could impact the timing of revenue recognition, which could have a material effect on our financial position and results of operations.

Although the products are generally not sold with a right of return, we may provide other credits or sales incentives, which are accounted for either as variable consideration or material right, depending on the specific terms and conditions of the arrangement. These credits and incentives are estimated at contract inception and updated at the end of each reporting period if and when additional information becomes available.

As outlined above, we use judgments to evaluate whether or not the customer has obtained control of the product and consider several indicators in evaluating whether or not control has transferred to the customer. Not all of the indicators need to be met for us to conclude that control has transferred to the customer.

Contract Assets/Liabilities

The timing of revenue recognition, billings and cash collections may result in accounts receivable, contract assets, and contract liabilities (deferred revenue) on our Consolidated Balance Sheets. A receivable is recorded in the period we deliver products or provide services when we have an unconditional right to payment. Contract assets primarily relate to the value of products and services transferred to the customer for which the right to payment is not just dependent on the passage of time. Contract assets are transferred to accounts receivable when rights to payment become unconditional.

A contract liability is recognized when we receive payment or have an unconditional right to payment in advance of the satisfaction of performance. The contract liabilities represent (1) deferred product revenue related to the value of products that have been shipped and billed to customers and for which control has not been transferred to the customers, and (2) deferred service revenue, which is recorded when we receive consideration, or such consideration is unconditionally due, from a customer prior to transferring services to the customer under the terms of a contract. Deferred service revenue typically results from warranty services, and maintenance and other service contracts.

Contract assets and liabilities related to rights and obligations in a contract are recorded net in the Consolidated Balance Sheets.

Research and Development Costs. R&D costs are expensed as incurred.

Shipping and Handling Costs. Shipping and handling costs are included as a component of cost of sales.

Accounting for Stock-Based Compensation Plans. We account for stock-based awards granted to employees for services based on the fair value of those awards. The fair value of stock-based awards is measured at the grant date and is recognized as expense over the employee's requisite service period. The fair value for restricted stock units ("RSU") granted without "dividend equivalent" rights is determined using the closing price of our common stock on the grant date, adjusted to exclude the present value of dividends which are not accrued on the RSUs. The fair value for RSUs granted with "dividend equivalent" rights is determined using the closing price of our common stock on the grant date. The award holder is not entitled to receive payments under dividend equivalent rights unless the associated RSU award vests (i.e., the award holder is entitled to receive credits, payable in cash or shares of common stock, equal to the cash dividends that would have been received on the shares of our common stock underlying the RSUs had the shares been issued and outstanding on the dividend record date, but such dividend equivalents are only paid subject to the recipient satisfying the vesting requirements of the underlying award). Compensation expense for RSUs with performance metrics is calculated based upon expected achievement of the metrics specified in the grant, or when a grant contains a market condition, the grant date fair value using a Monte Carlo simulation. The Monte Carlo simulation incorporates estimates of the potential outcomes of the market condition on the grant date fair value of each award. Additionally, we estimate forfeitures based on historical experience and revise those estimates in subsequent periods if actual forfeitures differ from the estimated amounts. The fair value is determined using a Black-Scholes valuation model for purchase rights under our Employee Stock Purchase Plan ("ESPP"). The Black-Scholes option-pricing model requires the input of assumptions, including the option's expected term and the expected price volatility of the underlying stock. The expected stock price volatility assumption is based on the market-based historical implied volatility from traded options of our common stock.

Accounting for Cash-Based Long-Term Incentive Compensation. Cash-based long-term incentive ("Cash LTI") awards issued to employees under our Cash Long-Term Incentive Plan ("Cash LTI Plan") vest in three or four equal installments, with one-third or one-fourth of the aggregate amount of the Cash LTI award vesting on each yearly anniversary of the grant date over a three- or four-year period. In order to receive payments under a Cash LTI award, participants must remain employed by us as of the applicable award vesting date. Compensation expense related to the Cash LTI awards is recognized over the vesting term and adjusted for the impact of estimated forfeitures.

Accounting for Non-qualified Deferred Compensation Plan. We have a non-qualified deferred compensation plan (known as the "Executive Deferred Savings Plan" ("EDSP")) under which certain executives and non-employee directors may defer a portion of their compensation. Participants are credited with returns based on their allocation of their account balances among measurement funds. We control the investment of these funds, and the participants remain general creditors of ours. We invest these funds in certain mutual funds and such investments are classified as trading securities in the Consolidated Balance Sheets. Investments in trading securities are measured at fair value in the statement of financial position. Unrealized holding gains and losses for trading securities are included in earnings. Distributions from the EDSP commence following a participant's retirement or termination of employment or on a specified date allowed per the EDSP provisions, except in cases where such distributions are required to be delayed in order to avoid a prohibited distribution under Internal Revenue Code Section 409A. Participants can generally elect for the distributions to be paid in a lump sum or quarterly cash payments over a scheduled period for up to 15 years and are allowed to make subsequent changes to their existing elections as permissible under the EDSP provisions. The liability associated with the EDSP is included as a component of other current liabilities in the

Consolidated Balance Sheets. Changes in the EDSP liability are recorded in SG&A expense in the Consolidated Statements of Operations. The net (benefit) expense associated with changes in the liability included in SG&A expense was $(44.2) million, $56.5 million and $13.3 million for the fiscal years ended June 30, 2022, 2021 and 2020, respectively. We also have a deferred compensation asset that corresponds to the liability under the EDSP and it is included as a component of other non-current assets in the Consolidated Balance Sheets. Changes in the EDSP assets are recorded as gains (losses), net in SG&A expense in the Consolidated Statements of Operations. The amount of net (losses) gains included in SG&A expense were $(44.3) million, $56.8 million and $13.9 million for the fiscal years ended June 30, 2022, 2021 and 2020, respectively.

Income Taxes. We account for income taxes in accordance with the authoritative guidance, which requires income tax effects for changes in tax laws to be recognized in the period in which the law is enacted.

Deferred tax assets and liabilities are recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. The guidance also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that a portion of the deferred tax asset will not be realized. We have determined that a valuation allowance is necessary against a portion of the deferred tax assets, but we anticipate that our future taxable income will be sufficient to recover the remainder of our deferred tax assets. However, should there be a change in our ability to recover our deferred tax assets that are not subject to a valuation allowance, we could be required to record an additional valuation allowance against such deferred tax assets. This would result in an increase to our tax provision in the period in which we determine that the recovery is not probable.

On a quarterly basis, we provide for income taxes based upon an estimated annual effective income tax rate. The effective tax rate is highly dependent upon the geographic composition of worldwide earnings, tax regulations governing each region, availability of tax credits and the effectiveness of our tax planning strategies. We carefully monitor the changes in many factors and adjust our effective income tax rate on a timely basis. If actual results differ from these estimates, this could have a material effect on our financial condition and results of operations.

The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. In accordance with the authoritative guidance on accounting for uncertainty in income taxes, we recognize liabilities for uncertain tax positions based on the two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained in audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. We reevaluate these uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activities. Any change in these factors could result in the recognition of a tax benefit or an additional charge to the tax provision.

We record income taxes on the undistributed earnings of foreign subsidiaries unless the subsidiaries' earnings are considered indefinitely reinvested outside the U.S. Our effective tax rate would be adversely affected if we change our intent or if such undistributed earnings are needed for U.S. operations because we would be required to provide or pay income taxes on some or all of these undistributed earnings.

Global Intangible Low-Taxed Income. The Tax Cut and Jobs Act includes provisions for Global Intangible Low-Taxed Income ("GILTI") wherein U.S. taxes on foreign income are imposed in excess of a deemed return on tangible assets of foreign corporations. We elect to account for GILTI as a component of current period tax expense and not recognize deferred tax assets and liabilities for the basis differences expected to reverse as a result of GILTI provisions.

Business Combinations. We allocate the fair value of the purchase price of our acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired, including in-process research and development ("IPR&D"), based on their estimated fair values at acquisition date. The excess of the fair value of the purchase price over the fair values of these net tangible and intangible assets acquired is recorded as goodwill. Management's estimates of fair value are based upon assumptions believed to be reasonable, but our estimates and assumptions are inherently uncertain and subject to refinement. As a result, during the measurement period, which will not exceed one year from the acquisition date, we record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. After the conclusion of the measurement period or final determination of the fair value of the purchase price of our acquisitions, whichever comes first, any subsequent adjustments are recorded to our Consolidated Statements of Operations.

The fair value of IPR&D is initially capitalized as an intangible asset with an indefinite life and assessed for impairment thereafter whenever events or changes in circumstances indicate that the carrying value of the IPR&D assets may not be recoverable. Impairment of IPR&D is recorded to R&D expenses. When an IPR&D project is completed, the IPR&D is reclassified as an amortizable purchased intangible asset and amortized to costs of revenues over the asset's estimated useful life.

Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred.

Net Income Per Share. Basic net income per share is calculated by dividing net income available to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted net income per share is calculated by using the weighted-average number of common shares outstanding during the period increased to include the number of additional shares of common stock that would have been outstanding if the dilutive potential shares of common stock had been issued. The dilutive effect of RSUs and options is reflected in diluted net income per share by application of the treasury stock method. The dilutive securities are excluded from the computation of diluted net loss per share when a net loss is recorded for the period as their effect would be anti-dilutive.

Contingencies and Litigation. We are subject to the possibility of losses from various contingencies. Considerable judgment is necessary to estimate the probability and amount of any loss from such contingencies. An accrual is made when it is probable that a liability has been incurred or an asset has been impaired and the amount of loss can be reasonably estimated. We accrue a liability and recognize as expense the estimated costs to defend or settle asserted and unasserted claims existing as of the balance sheet date. See Note 16 “Commitments and Contingencies” and Note 15 “Litigation and Other Legal Matters” for additional details.

Recent Accounting Pronouncements

Recently Adopted

In December 2019, the Financial Accounting Standards Board (“FASB”) issued an ASU to simplify the accounting for income taxes in ASC 740. This amendment removes certain exceptions and improves consistent application of accounting principles for certain areas in ASC 740. We adopted this update beginning in the first quarter of our fiscal year ending June 30, 2022 on a prospective basis and the adoption had no material impact on our Consolidated Financial Statements.

In August 2020, the FASB issued an ASU to simplify the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity’s own equity. The standard eliminates the beneficial conversion feature and cash conversion models, resulting in more convertible instruments being accounted for as a single unit, and modifies the guidance on the computation of earnings per share for convertible instruments and contracts on an entity’s own equity. We adopted this update beginning in the first quarter of our fiscal year ending June 30, 2022 on a modified retrospective basis and the adoption had no material impact on our Consolidated Financial Statements.

On July 1, 2020 we adopted ASC 326, which was issued by the FASB in June 2016 as ASU No. 2016-13 Financial Instruments – Credit LossesThe ASU replaced previous incurred loss impairment guidance and established a single expected credit losses allowance framework for financial assets carried at amortized cost. It also eliminated the concept of other-than-temporary impairment and requires credit losses related to certain available-for-sale debt securities to be recorded through an allowance for credit losses. We adopted ASC 326 using the modified retrospective method, which requires a cumulative-effect adjustment to the opening balance of retained earnings to be recognized on the date of adoption and, accordingly, recorded a net decrease of $5.5 million to retained earnings as of July 1, 2020. Please see the “Allowance for Credit Losses” accounting policy above.

In August 2018, the FASB issued an ASU that modifies the existing accounting standards for fair value measurement disclosure. This update eliminates the disclosure of the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, and the policy for the timing of transfers between levels. We adopted this update beginning in the first quarter of our fiscal year ending June 30, 2021 on a retrospective basis and the adoption had no material impact on our Consolidated Financial Statements.

In August 2018, the FASB issued an ASU to amend the disclosure requirements related to defined benefit pension and other post-retirement plans. Some of the changes include adding a disclosure requirement for significant gains and losses related to changes in the benefit obligation for the period and removing the amounts in AOCI expected to be recognized as components of net periodic benefit cost over the next fiscal year. We adopted this update beginning in the first quarter of the fiscal year ending June 30, 2021 on a retrospective basis and the adoption had no material impact on our Consolidated Financial Statements.

In August 2018, the FASB issued an ASU to align the requirements for capitalizing implementation costs incurred in a cloud computing arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. The guidance clarifies which costs should be capitalized including the cost to acquire the license and the related implementation costs. We adopted this update beginning in the first quarter of our fiscal year ending June 30, 2021 on a prospective basis and the adoption had no material impact on our Consolidated Financial Statements.

Updates Not Yet Effective

In October 2021, FASB issued authoritative guidance that requires companies to apply revenue guidance to recognize and measure contract assets and contract liabilities from contracts with customers acquired in a business combination at carrying value. Under the current business combination guidance, such assets and liabilities are recognized by the acquirer at fair value on the acquisition date. This update is effective for us in the first quarter of our fiscal year ending June 30, 2024 and should be applied on a prospective basis. Early adoption is permitted. We are currently evaluating the impact of this guidance on our Consolidated Financial Statements.

NOTE 2 — REVENUE

Contract Balances

The following table represents the opening and closing balances of accounts receivable, contract assets and contract liabilities for the indicated periods.

(In thousands, except for percentages)	As of June 30, 2022	As of June 30, 2021	As of June 30, 2020	Change in Fiscal 2022		Change in Fiscal 2021	
Accounts receivable, net	$ 1,811,877	$ 1,305,479	$ 1,107,413	$ 506,398	39 %	$ 198,066	18 %
Contract assets	$ 114,747	$ 91,052	$ 99,876	$ 23,695	26 %	$ (8,824)	(9) %
Contract liabilities	$ 1,007,324	$ 667,703	$ 666,055	$ 339,621	51 %	$ 1,648	— %

Our payment terms and conditions vary by contract type, although terms generally include a requirement of payment of70% to 90% of total contract consideration within 30 to 60 days of shipment, with the remainder payable within 30 days of acceptance.

The change in contract assets during the fiscal year ended June 30, 2022 was mainly due to $96.2 million of revenue recognized for which the payment is subject to conditions other than the passage of time, partially offset by $72.6 million of contract assets reclassified to net accounts receivable as our right to consideration for these contract assets became unconditional. Contract assets are included in other current assets on our Consolidated Balance Sheets.

The change in contract liabilities during the fiscal year ended June 30, 2022 was mainly due to the value of products and services billed to customers for which control of the products and services has not transferred to the customers, partially offset by the recognition in revenue of $555.4 million that was included in contract liabilities as of June 30, 2021. The change in contract liabilities during the fiscal year ended June 30, 2021 was mainly due to the value of products and services billed to customers for which control of the products and services has not transferred to the customers, partially offset by the recognition in revenue of $526.1 million that was included in contract liabilities as of June 30, 2020. Contract liabilities are included in current and non-current liabilities on our Consolidated Balance Sheet.

Remaining Performance Obligations

As of June 30, 2022, we had $13.11 billion of remaining performance obligations, which represents our obligation to deliver products and services, and primarily consists of sales orders where written customer requests have been received. This amount excludes contract liabilities of $1.01 billion as disclosed above. We expect to recognize approximately 40% to 50% of these performance obligations as revenue beyond the next 12 months, but this estimate is subject to constant change depending upon supply chain constraints, customer slot change requests and potential elevated demand levels, which could require even longer lead times.

Practical expedients

We apply the following practical expedients in accordance with ASC 606, Revenue from Contracts with Customers:

- We account for shipping and handling costs as activities to fulfill the promise to transfer goods, instead of a promised service to our customer.
- We have elected to not adjust the promised amount of consideration for the effects of a significant financing component as we expect, at contract inception, that the period between when we transfer a promised good or service to a customer and when the customer pays for that good or service will generally be one year or less.
- We have elected to expense costs to obtain a contract as incurred because the expected amortization period is one year or less.

Refer to Note 19 “Segment Reporting and Geographic Information” for information related to revenue by geographic region as well as significant product and service offerings.

NOTE 3 — FAIR VALUE MEASUREMENTS

Our financial assets and liabilities are measured and recorded at fair value, except for our debt and certain equity investments in privately held companies. Equity investments without a readily available fair value are accounted for using the measurement alternative. The measurement alternative is calculated as cost minus impairment, if any, plus or minus changes resulting from observable price changes. See Note 8 “Debt” for disclosure of the fair value of our Senior Notes.

Our non-financial assets, such as goodwill, intangible assets, and land, property and equipment, are assessed for impairment when an event or circumstance indicates that an other-than-temporary decline in value may have occurred.

Fair Value of Financial Instruments. We have evaluated the estimated fair value of financial instruments using available market information and valuations as provided by third-party sources. The use of different market assumptions and/or estimation methodologies could have a significant effect on the estimated fair value amounts. The fair value of our cash equivalents, accounts receivable, accounts payable and other current assets and liabilities approximate their carrying amounts due to the relatively short maturity of these items.

Fair Value Hierarchy. The authoritative guidance for fair value measurements establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

Level 1	Valuations based on quoted prices in active markets for identical assets or liabilities that the entity has the ability to access.
Level 2	Valuations based on quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable data for substantially the full term of the assets or liabilities.
Level 3	Valuations based on inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

A financial instrument’s level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Besides the transfer listed in the table below, there were no other transfers between Level 1, Level 2 and Level 3 fair value measurements during the year ended June 30, 2022.

The types of instruments valued based on quoted market prices in active markets included money market funds, certain U.S. Treasury securities and U.S. Government agency securities. Such instruments are generally classified within Level 1 of the fair value hierarchy.

The types of instruments valued based on other observable inputs included corporate debt securities, sovereign securities, municipal securities, certain U.S. Treasury securities, and marketable equity securities subject to security specific restrictions. The market inputs used to value these instruments generally consist of market yields, reported trades and broker/dealer quotes. Such instruments are generally classified within Level 2 of the fair value hierarchy.

The principal market in which we execute our foreign currency contracts is the institutional market in an over-the-counter environment with a relatively high level of price transparency. The market participants generally are large financial institutions. Our foreign currency contracts’ valuation inputs are based on quoted prices and quoted pricing intervals from public data sources and do not involve management judgment. These contracts are typically classified within Level 2 of the fair value hierarchy.

The fair values of deferred payments and contingent consideration payable, the majority of which were recorded in connection with business combinations, were classified as Level 3 and estimated using significant inputs that were not observable in the market. See Note 6 “Business Combinations and Dispositions” for additional information.

Financial assets (excluding cash held in operating accounts and time deposits) and liabilities measured at fair value on a recurring basis as of the date indicated below were presented on our Consolidated Balance Sheets as follows:

As of June 30, 2022 (In thousands)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Little or No Market Activity Inputs (Level 3)
Assets				
Cash equivalents:				
Corporate debt securities	$ 922	$ —	$ 922	$ —
Money market funds and other	948,027	948,027	—	—
U.S. Treasury securities	22,485	—	22,485	—
Marketable securities:				
Corporate debt securities	472,047	—	472,047	—
Municipal securities	60,724	—	60,724	—
Sovereign securities	5,990	—	5,990	—
U.S. Government agency securities	91,116	91,116	—	—
U.S. Treasury securities	348,026	344,559	3,467	—
Equity securities(1)	11,035	11,035	—	—
Total cash equivalents and marketable securities(2)	1,960,372	1,394,737	565,635	—
Other current assets:				
Derivative assets	40,311	—	40,311	—
Other non-current assets:				
EDSP	224,188	176,928	47,260	—
Total financial assets(2)	$ 2,224,871	$ 1,571,665	$ 653,206	$ —
Liabilities				
Derivative liabilities	$ (34,315)	$ —	$ (34,315)	$ —
Deferred payments	(2,350)	—	—	(2,350)
Contingent consideration payable	(23,674)	—	—	(23,674)
Total financial liabilities	$ (60,339)	$ —	$ (34,315)	$ (26,024)

(1) Transfer from Level 2 to Level 1 as the security specific restriction expired during the first quarter of the fiscal year ending June 30, 2022.

(2) Excludes cash of $472.8 million held in operating accounts and time deposits of $274.9 million (of which $140.7 million were cash equivalents) as of June 30, 2022.

Financial assets (excluding cash held in operating accounts and time deposits) and liabilities measured at fair value on a recurring basis as of the date indicated below were presented on our Consolidated Balance Sheets as follows:

As of June 30, 2021 (In thousands)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Little or No Market Activity Inputs (Level 3)
Assets				
Cash equivalents:				
Money market funds and other	$ 691,375	$ 691,375	$ —	$ —
Marketable securities:				
Corporate debt securities	468,746	—	468,746	—
Municipal securities	70,228	—	70,228	—
Sovereign securities	3,052	—	3,052	—
U.S. Government agency securities	145,921	145,921	—	—
U.S. Treasury securities	233,064	205,055	28,009	—
Equity securities	29,930	—	29,930	—
Total cash equivalents and marketable securities(1)	1,642,316	1,042,351	599,965	—
Other current assets:				
Derivative assets	8,252	—	8,252	—
Other non-current assets:				
EDSP	266,199	200,925	65,274	—
Total financial assets(1)	$ 1,916,767	$ 1,243,276	$ 673,491	$ —
Liabilities				
Derivative liabilities	$ (2,807)	$ —	$ (2,807)	$ —
Deferred payments	(4,550)	—	—	(4,550)
Contingent consideration payable	(8,514)	—	—	(8,514)
Total financial liabilities	$ (15,871)	$ —	$ (2,807)	$ (13,064)

(1) Excludes cash of $641.6 million held in operating accounts and time deposits of $210.6 million (of which $101.7 million were cash equivalents) as of June 30, 2021.

NOTE 4 — FINANCIAL STATEMENT COMPONENTS

Consolidated Balance Sheets

(In thousands)	As of June 30, 2022	As of June 30, 2021
Accounts receivable, net:		
Accounts receivable, gross	$ 1,832,508	$ 1,323,515
Allowance for credit losses	(20,631)	(18,036)
	$ 1,811,877	$ 1,305,479
Inventories:		
Customer service parts	$ 402,121	$ 349,743
Raw materials	1,042,916	595,151
Work-in-process	451,782	453,432
Finished goods	250,070	177,054
	$ 2,146,889	$ 1,575,380
Other current assets:		
Deferred costs of revenue	$ 124,487	$ 59,953
Contract assets	114,747	91,052
Prepaid expenses	108,942	76,649
Prepaid income and other taxes	89,713	68,847
Other current assets	64,248	24,366
	$ 502,137	$ 320,867
Land, property and equipment, net:		
Land	$ 67,846	$ 67,862
Buildings and leasehold improvements	712,751	458,605
Machinery and equipment	819,191	743,710
Office furniture and fixtures	44,957	32,856
Construction-in-process	110,079	182,320
	1,754,824	1,485,353
Less: accumulated depreciation	(904,895)	(822,326)
	$ 849,929	$ 663,027
Other non-current assets:		
EDSP	$ 224,188	$ 266,199
Operating lease ROU assets	126,444	102,883
Other non-current assets	133,980	75,823
	$ 484,612	$ 444,905
Other current liabilities:		
Customer credits and advances	$ 515,118	$ 250,784
Compensation and benefits	351,924	305,445
Other accrued expenses	253,265	180,982
EDSP	225,867	268,028
Income taxes payable	126,964	87,320
Interest payable	39,683	36,135
Operating lease liabilities	32,218	32,322
	$ 1,545,039	$ 1,161,016

Other non-current liabilities:		
Income taxes payable	$ 367,052	$ 333,866
Customer credits and advances	204,914	—
Operating lease liabilities	81,369	70,739
Pension liabilities	78,525	87,602
Other non-current liabilities	150,782	139,083
	$ 882,642	$ 631,290

Accumulated Other Comprehensive Income (Loss)

The components of AOCI as of the dates indicated below were as follows:

(In thousands)	Currency Translation Adjustments	Unrealized Gains (Losses) on Available-for-Sale Securities	Unrealized Gains (Losses) on Derivatives	Unrealized Gains (Losses) on Defined Benefit Plans	Total
Balance as of June 30, 2022	$ (43,886)	$ (15,486)	$ 56,836	$ (24,935)	$ (27,471)
Balance as of June 30, 2021	$ (32,563)	$ 595	$ (20,092)	$ (23,497)	$ (75,557)

The effects on net income of amounts reclassified from AOCI to the Consolidated Statements of Operations for the indicated periods were as follows (in thousands):

AOCI Components	Location in the Consolidated Statements of Operations	Year Ended June 30, 2022	2021	2020
Unrealized gains (losses) on cash flow hedges from foreign exchange and interest rate contracts	Revenues	$ 10,688	$ 384	$ 4,086
	Costs of revenues and operating expenses	(3,762)	551	(1,377)
	Interest expense	(1,007)	(1,116)	(637)
	Net gains (losses) reclassified from AOCI	$ 5,919	$ (181)	$ 2,072
Unrealized gains (losses) on available-for-sale securities	Other expense (income), net	$ (306)	$ 253	$ 297

The amounts reclassified out of AOCI related to our defined benefit pension plans, which were recognized as a component of net periodic cost for the fiscal years ended June 30, 2022, 2021 and 2020 were $1.4 million, $1.2 million and $1.2 million, respectively. For additional details, refer to Note 13 "Employee Benefit Plans."

Consolidated Statements of Operations

The following table shows other expense (income), net for the indicated periods:

(In thousands)	Year Ended June 30, 2022	2021	2020
Other expense (income), net:			
Interest income	$ (8,695)	$ (8,929)	$ (21,646)
Foreign exchange losses, net	3,925	5,005	4,236
Net realized losses (gains) on sale of investments	306	(253)	(297)
Other	9,069	(25,125)	20,385
	$ 4,605	$ (29,302)	$ 2,678

NOTE 5 — MARKETABLE SECURITIES

The amortized cost and fair value of marketable securities as of the dates indicated below were as follows:

As of June 30, 2022 (In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate debt securities	$ 481,881	$ 3	$ (8,915)	$ 472,969
Money market funds and other	948,027	—	—	948,027
Municipal securities	61,973	—	(1,249)	60,724
Sovereign securities	6,041	2	(53)	5,990
U.S. Government agency securities	92,273	26	(1,183)	91,116
U.S. Treasury securities	378,871	18	(8,378)	370,511
Equity securities(1)	3,211	7,824	—	11,035
Subtotal	1,972,277	7,873	(19,778)	1,960,372
Add: Time deposits(2)	274,873	—	—	274,873
Less: Cash equivalents	1,112,146	—	(1)	1,112,145
Marketable securities	$ 1,135,004	$ 7,873	$ (19,777)	$ 1,123,100

As of June 30, 2021 (In thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate debt securities	$ 468,192	$ 689	$ (135)	$ 468,746
Money market funds and other	691,375	—	—	691,375
Municipal securities	70,155	106	(33)	70,228
Sovereign securities	3,045	7	—	3,052
U.S. Government agency securities	145,810	160	(49)	145,921
U.S. Treasury securities	233,052	129	(117)	233,064
Equity securities(1)	3,211	26,719	—	29,930
Subtotal	1,614,840	27,810	(334)	1,642,316
Add: Time deposits(2)	210,636	—	—	210,636
Less: Cash equivalents	793,040	—	—	793,040
Marketable securities	$ 1,032,436	$ 27,810	$ (334)	$ 1,059,912

(1) Unrealized gains on equity securities included in our portfolio consist of the initial fair value adjustment recorded upon a security becoming marketable.

(2) Time deposits excluded from fair value measurements.

Our investment portfolio includes both corporate and government securities that have a maximum maturity ofthree years. The longer the duration of these securities, the more susceptible they are to changes in market interest rates and bond yields. As yields increase, those securities with a lower yield-at-cost show a mark-to-market unrealized loss. Most of our unrealized losses are due to changes in market interest rates, and bond yields. We believe that we have the ability to realize the full value of all of these investments upon maturity. As of June 30, 2022, we had 547 investments in an unrealized loss position. Our investments that were in a continuous loss position of 12 months or more, as well as the unrealized losses on those investments, were immaterial.

The following table summarizes the fair value and gross unrealized losses of our investments that were in an unrealized loss position as of the dates indicated below:

As of June 30, 2022 (In thousands)	Fair Value	Gross Unrealized Losses
Corporate debt securities	$ 458,699	$ (8,915)
Municipal securities	58,722	(1,249)
Sovereign securities	2,963	(53)
U.S. Government agency securities	60,285	(1,183)
U.S. Treasury securities	336,819	(8,378)
Total	$ 917,488	$ (19,778)

As of June 30, 2021 (In thousands)	Fair Value	Gross Unrealized Losses
Corporate debt securities	$ 161,012	$ (135)
Municipal securities	21,605	(33)
U.S. Government agency securities	38,904	(49)
U.S. Treasury securities	117,761	(117)
Total	$ 339,282	$ (334)

The contractual maturities of securities classified as available-for-sale, regardless of their classification on our Consolidated Balance Sheets, as of the date indicated below were as follows:

As of June 30, 2022 (In thousands)	Amortized Cost	Fair Value
Due within one year	$ 571,149	$ 573,696
Due after one year through three years	563,855	549,404
	$ 1,135,004	$ 1,123,100

Actual maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties. Realized gains and losses on available for sale securities were immaterial for the fiscal years ended June 30, 2022, 2021 and 2020.

NOTE 6 - BUSINESS COMBINATIONS AND DISPOSITIONS

Fiscal 2022 Acquisitions

On May 1, 2022, we acquired the outstanding shares of a privately held company for total purchase consideration of $8.6 million, paid in cash. We allocated the purchase price to the tangible and identified intangible assets acquired and liabilities assumed based on their preliminary estimated fair values, and residual goodwill was allocated to the Wafer Inspection and Patterning reporting unit. The goodwill recognized was not deductible for tax purposes.

On February 28, 2022, we completed the acquisition of 100% of the outstanding shares of ECI Technology, Inc. ("ECI"), a privately held company, for aggregate purchase consideration of $431.5 million, paid in cash. ECI is a provider of chemical management systems for semiconductor, photovoltaic and PCB industries. KLA acquired ECI to extend and enhance our portfolio of products and services.

The aggregate purchase consideration has been preliminarily allocated as follows (in thousands):

Total purchase consideration	$	443,176
Less: cash acquired		(11,652)
Total purchase consideration, net of cash acquired	$	431,524
Allocation		
Accounts receivable		15,044
Inventory		13,552
Goodwill		271,783
Intangible assets		208,400
Other assets		5,188
Accrued officers' bonus		(23,889)
Other liabilities		(12,759)
Deferred tax liabilities		(45,795)
	$	431,524

The purchase price was allocated to tangible and identified intangible assets acquired and liabilities assumed based on their preliminary estimated fair values, which were determined using generally accepted valuation techniques based on estimates and assumptions made by management at the time of the acquisition. These estimates and assumptions are subject to change during the measurement period, which is not expected to exceed one year. Any adjustments to our preliminary purchase price allocation identified during the measurement period will be recognized in the period in which the adjustments are determined.

The $271.8 million of goodwill was assigned to the Wafer Inspection and Patterning reporting unit, and the amount recognized was not deductible for tax purposes. The goodwill was primarily attributable to the assembled workforce of the acquired company and planned growth in new markets.

The estimated fair value and weighted-average useful life of the acquired intangible assets are as follows:

(In thousands)		Fair Value	Weighted-Average Useful Lives
Existing technology(1)	$	117,900	8
Customer relationships(2)		52,400	7
Order backlog(3)		35,000	1.5
Trade name/trademark(4)		3,100	3
Total identified intangible assets	$	208,400	

(1) Existing technology was identified from the products of ECI and its fair value was determined using the Relief-from-Royalty method under the income approach, which estimates the cost savings generated by a company related to the ownership of an asset for which it would otherwise have had to pay royalties or license fees on revenues earned through the use of the asset. The discount rate used was determined at the time of measurement based on an analysis of the implied internal rate of return of the transaction, weighted-average cost of capital and weighted-average return on assets. The economic useful life was determined based on the technology cycle related to each developed technology, as well as the cash flows over the forecast period.

(2) Customer relationships represent the fair value of the existing relationships with ECI's customers and its fair value was determined using the Multi-Period Excess Earning Method which involves isolating the net earnings attributable to the asset being measured based on present value of the incremental after-tax cash flows (excess earnings) attributable solely to the intangible asset over its remaining useful life. The economic useful life was determined based on historical customer turnover rates.

(3) Order backlog primarily relates to the dollar value of purchase arrangements with customers, effective as of a given point in time, that are based on mutually agreed terms which, in some cases, may still be subject to completion of written documentation and may be changed or cancelled by the customer, often without penalty. ECI's backlog consists of these arrangements with assigned shipment dates expected, in most cases, within 12 months. The fair value was determined

using the Multi-Period Excess Earning Method. The economic useful life is based on the time to fulfill the outstanding order backlog obligation.

(4) Trade name / trademark primarily relates to ECI's name. The fair value was determined by applying the Relief-from-Royalty Method under the income approach. The economic useful life was determined based on the expected life of the trade names, trademarks and domain names.

We believe the amounts of purchased intangible assets recorded above represent the fair values and approximate the amounts a market participant would pay for these intangible assets as of the acquisition date.

On July 1, 2021, we acquired Anchor Semiconductor Inc., a privately held company, primarily to expand our products and services offerings, for a total purchase consideration of $81.7 million, including post-closing working capital adjustments, as well as the fair value of the promise to pay an additional consideration up to $35.0 million contingent on the achievement of certain revenue milestones. As of June 30, 2022, the estimated fair value of the additional consideration was $13.5 million, which was classified as a current liability on the Consolidated Balance Sheet. The total purchase consideration was allocated as follows: $31.7 million to identifiable intangible assets, $26.4 million to net tangible assets, $8.0 million to deferred tax liabilities, and $31.5 million to goodwill. The goodwill was assigned to the Wafer Inspection and Patterning reporting unit, and the amount recognized was not deductible for tax purposes.

We have included the financial results of the fiscal 2022 acquisitions in our Consolidated Financial Statements from their respective acquisition dates, and these results were not material to our Consolidated Financial Statements.

As of June 30, 2022, we have $23.7 million of contingent consideration recorded for the Anchor acquisition and other acquisitions from the fiscal year ended June 30, 2019, of which $17.2 million is classified as a current liability and $6.5 million as a non-current liability on the Consolidated Balance Sheet.

Fiscal 2020 Acquisitions

On April 24, 2020, we acquired a product line from a public company for total purchase consideration of $11.4 million, of which $2.2 million was allocated to goodwill. Goodwill recognized was assigned to the Wafer Inspection and Patterning reporting unit, and was deductible for income tax purposes.

On August 22, 2019, we acquired the outstanding shares of Qoniac GmbH, a privately held company, primarily to expand our products and services offerings, for a total purchase consideration of $94.0 million inclusive of measurement period adjustments of $0.2 million as well as the fair value of the promise to pay an additional consideration up to $60.0 million contingent on the achievement of certain revenue milestones. As of June 30, 2022, the estimated fair value of the additional consideration was zero. The $54.2 million of goodwill was assigned to the Wafer Inspection and Patterning reporting unit and was not deductible for income tax purposes.

We have included the financial results of the fiscal 2020 acquisitions in our Consolidated Financial Statements from their respective acquisition dates, and these results were not material to our Consolidated Financial Statements.

Acquisition-related Costs

Our acquisition-related costs are primarily included within SG&A expenses in our Consolidated Statements of Operations. We incurred insignificant acquisition-related costs for the fiscal 2022 and fiscal 2020 acquisitions.

Assets Held for Sale

In the third quarter of fiscal 2022, management committed to a plan to sell Orbograph Ltd. ("Orbograph"), a non-core business engaged in the development and marketing of character recognition solutions to banks, financial and other payment processing institutions and healthcare providers, of which we own approximately 94% as of June 30, 2022. We determined that all of the criteria for held-for-sale accounting were met and, consequently, we designated the net assets and liabilities of Orbograph, which is in our PCB, Display and Component Inspection segment, as held for sale. We expect to complete the sale in the next 12 months. In addition, based on available information, we determined that the carrying value of net assets held for sale did not exceed fair value less costs to sell; therefore, no impairment was recorded in the three months ended June 30, 2022.

As of June 30, 2022 the balances of Orbograph's net assets held for sale were as follows (in thousands):

Cash	$	2,651
Trade and other receivables, net		14,748
Fixed assets		1,652
Intangible assets		18,588
Goodwill		42,622
Other long-term assets		1,404
Trade and other payables		(5,448)
Other liabilities		(7,338)
Minority interest		(39)
	$	68,840

NOTE 7 — GOODWILL AND PURCHASED INTANGIBLE ASSETS

Goodwill

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in business combinations. We have four reportable segments and six operating segments. The operating segments are determined to be the same as reporting units.

The following table presents goodwill carrying value and the movements by reporting unit during the fiscal years ended June 30, 2022 and 2021(1):

(In thousands)	Wafer Inspection and Patterning	Global Service and Support ("GSS")	Specialty Semiconductor Process	PCB and Display	Component Inspection	Total
Balance as of June 30, 2020	$ 416,840	$ 25,908	$ 681,858	$ 907,221	$ 13,575	$ 2,045,402
Goodwill disposal from sale of business(2)	—	—	—	(34,250)	—	(34,250)
Foreign currency adjustment	20	—	—	—	—	20
Balance as of June 30, 2021	416,860	25,908	681,858	872,971	13,575	2,011,172
Acquired goodwill	308,952	—	—	—	—	308,952
Foreign currency adjustment	(75)	—	—	—	—	(75)
Balance as of June 30, 2022	$ 725,737	$ 25,908	$ 681,858	$ 872,971	$ 13,575	$ 2,320,049

(1) No goodwill was assigned to the Other reporting unit, and accordingly is not disclosed in the table above.

(2) Refer to the Non-controlling Interest section of Note 10 "Equity, Long-term Incentive Compensation Plans and Non-Controlling Interest" for more information on the sale of PixCell Medical Technologies Ltd. ("PixCell").

Goodwill is not subject to amortization but is tested for impairment annually during the third fiscal quarter, as well as whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

We performed the required annual goodwill impairment tests as of February 28, 2022 and 2021, and concluded that goodwill was not impaired. As a result of our qualitative assessments, we determined that it was not necessary to perform the quantitative assessments at those times. The required annual goodwill impairment tests for our fiscal year ended June 30, 2020 were performed as of February 28, 2020. We completed qualitative assessments for all reporting units and concluded that goodwill was not impaired for the Wafer Inspection and Patterning, Global Service and Support, and Component Inspection reporting units. However, due to the downward revision of the financial outlook for the Specialty Semiconductor Process and PCB and Display reporting units as well as the impact of the elevated risk and macroeconomic slowdown driven by the COVID-19 pandemic, we performed a quantitative goodwill impairment assessment for these two reporting units. As a result of the assessment, we recorded $144.2 million and $112.5 million in impairment charges in the Specialty Semiconductor Process and PCB and Display reporting units, respectively, during the quarter ended March 31, 2020.

Goodwill as of June 30, 2022, 2021 and 2020 is net of accumulated impairment losses of $534.2 million, of which $277.6 million was included in the Wafer Inspection and Patterning reporting unit, $144.2 million was included in the Specialty Semiconductor Process reporting unit, and $112.5 million was included in the PCB and Display reporting unit.

There have been no significant events or circumstances affecting the valuation of goodwill subsequent to the assessment performed in the third quarter of the fiscal year ended June 30, 2022. The next annual assessment of goodwill by reporting unit is scheduled to be performed in the third quarter of the fiscal year ending June 30, 2023.

Purchased Intangible Assets

The components of purchased intangible assets as of the dates indicated below were as follows:

(In thousands)		As of June 30, 2022			As of June 30, 2021		
Category	Range of Useful Lives (in years)	Gross Carrying Amount	Accumulated Amortization and Impairment	Net Amount	Gross Carrying Amount	Accumulated Amortization and Impairment	Net Amount
Existing technology	4-8	$ 1,523,691	$ 668,175	$ 855,516	$ 1,382,612	$ 499,219	$ 883,393
Customer relationships	4-9	366,567	167,819	198,748	305,817	131,386	174,431
Trade name/trademark	4-7	121,083	68,194	52,889	117,383	53,493	63,890
Order backlog and other	<1-9	87,836	58,970	28,866	50,403	49,962	441
Intangible assets subject to amortization		2,099,177	963,158	1,136,019	1,856,215	734,060	1,122,155
IPR&D		64,457	6,062	58,395	63,256	100	63,156
Total		$ 2,163,634	$ 969,220	$ 1,194,414	$ 1,919,471	$ 734,160	$ 1,185,311

Purchased intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be fully recoverable. Impairment indicators primarily include the declines in our operating cash flows from the use of these assets. If impairment indicators are present, we are required to perform a recoverability test by comparing the sum of the estimated undiscounted future cash flows attributable to these long-lived assets to their carrying value.

As of June 30, 2022 and 2021, there wereno impairment indicators for purchased intangible assets.

Amortization expense for purchased intangible assets for the periods indicated below was as follows:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Amortization expense - Cost of revenues	$ 168,957	$ 156,596	$ 145,823
Amortization expense - SG&A	60,017	49,531	74,532
Amortization expense - R&D	124	125	224
Total	$ 229,098	$ 206,252	$ 220,579

Based on the purchased intangible assets' gross carrying value recorded as of June 30, 2022, the remaining estimated annual amortization expense is expected to be as follows:

Fiscal Year Ending June 30:	Amortization (In thousands)
2023	$ 260,161
2024	237,723
2025	221,421
2026	205,407
2027	127,861
Thereafter	83,446
Total	$ 1,136,019

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NOTE 8 — DEBT

The following table summarizes our debt as of June 30, 2022 and June 30, 2021:

	As of June 30, 2022		As of June 30, 2021	
	Amount (In thousands)	**Effective Interest Rate**	**Amount (In thousands)**	**Effective Interest Rate**
Fixed-rate 4.650% Senior Notes due on November 1, 2024	$ 1,250,000	4.682 %	$ 1,250,000	4.682 %
Fixed-rate 5.650% Senior Notes due on November 1, 2034	250,000	5.670 %	250,000	5.670 %
Fixed-rate 4.100% Senior Notes due on March 15, 2029	800,000	4.159 %	800,000	4.159 %
Fixed-rate 5.000% Senior Notes due on March 15, 2049	400,000	5.047 %	400,000	5.047 %
Fixed-rate 3.300% Senior Notes due on March 1, 2050	750,000	3.302 %	750,000	3.302 %
Fixed-rate 4.650% Senior Notes due on July 15, 2032	1,000,000	4.657 %	—	— %
Fixed-rate 4.950% Senior Notes due on July 15, 2052	1,200,000	5.009 %	—	— %
Fixed-rate 5.250% Senior Notes due on July 15, 2062	800,000	5.259 %	—	— %
Revolving Credit Facility	275,000	2.258 %	—	— %
Fixed-rate 3.590% Note Payable due on February 20, 2022	—	— %	20,000	2.300 %
Total	6,725,000		3,470,000	
Unamortized discount/premium, net	(19,304)		(7,168)	
Unamortized debt issuance costs	(44,978)		(20,065)	
Total	$ 6,660,718		$ 3,442,767	
Reported as:				
Short-term debt	—		20,000	
Long-term debt	6,660,718		3,422,767	
Total	$ 6,660,718		$ 3,442,767	

Senior Notes and Debt Redemption:

In June 2022, we issued $3.00 billion aggregate principal amount of senior, unsecured notes (the “2022 Senior Notes”) as follows: $1.00 billion of 4.650% senior, unsecured notes due July 15, 2032; $1.20 billion of 4.950% senior, unsecured notes due July 15, 2052; and $800.0 million of 5.250% senior, unsecured notes due July 15, 2062. A portion of the net proceeds of the 2022 Senior Notes are intended to be used to purchase up to a maximum aggregate principal amount of $500.0 million of our 2014 Senior Notes due 2024; refer to Note 21 “Subsequent Events” to our Consolidated Financial Statements for more information on the purchase of a portion of our 2014 Senior Notes due 2024. The remainder of the net proceeds were used for share repurchases and for general corporate purposes.

In February 2020, we issued $750.0 million aggregate principal amount of senior, unsecured notes (the “2020 Senior Notes”) and used the proceeds to redeem $500.0 million of our Senior Notes due 2021, including associated redemption premiums, accrued interest and other fees and expenses, to repay borrowings of $200.0 million under the prior Revolving Credit Facility (the “Prior Revolving Credit Facility”), and for other general corporate purposes. The redemption resulted in a pre-tax net loss on extinguishment of debt of $22.5 million for the fiscal year ended June 30, 2020.

In March 2019 and November 2014, we issued $1.20 billion and $2.50 billion, respectively (the “2019 Senior Notes” and “2014 Senior Notes,” respectively, and, together with the 2020 Senior Notes and the 2022 Senior Notes, the “Senior Notes”), aggregate principal amount of senior, unsecured notes. In each of November 2017 and October 2019, we repaid $250.0 million of Senior Notes.

In February 2020, S&P Global Ratings (“S&P”) upgraded its credit rating of the Company to “BBB+” and revised its outlook to stable, which permanently eliminated interest rate adjustments and the interest rate on the 2014 Senior Notes became fixed. The interest rates for each series of the 2022 Senior Notes, 2020 Senior Notes and 2019 Senior Notes are not subject to credit ratings-based rate adjustments.

Since fiscal 2015, we have entered into four sets of forward contracts to lock the benchmark interest rate on portions of our Senior Notes prior to issuance ("Rate Lock Agreements"). Upon issuance of the associated debt, the Rate Lock Agreements were settled and their fair values were recorded within AOCI. The resulting gains and losses from these transactions are amortized to interest expense over the lives of the associated debt. For additional details on the forward contracts, refer to Note 17 "Derivative Instruments and Hedging Activities."

The original discounts on the 2022 Senior Notes, 2020 Senior Notes, the 2019 Senior Notes and the 2014 Senior Notes amounted to $12.8 million, $0.3 million, $6.7 million and $4.0 million, respectively and are being amortized over the life of the debt. Interest is payable as follows: semi-annually on January 15 and July 15 of each year for the 2022 Senior Notes; semi-annually on March 1 and September 1 of each year for the 2020 Senior Notes; semi-annually on March 15 and September 15 of each year for the 2019 Senior Notes; and semi-annually on May 1 and November 1 of each year for the 2014 Senior Notes. The relevant indentures for the Senior Notes (collectively, the "Indenture") include covenants that limit our ability to grant liens on our facilities and enter into sale and leaseback transactions.

In certain circumstances involving a change of control followed by a downgrade of the rating of a series of Senior Notes by at least two of Moody's Investors Service, S&P and Fitch Inc., unless we have exercised our rights to redeem the Senior Notes of such series, we will be required to make an offer to repurchase all or, at the holder's option, any part, of each holder's Senior Notes of that series pursuant to the offer described below (the "Change of Control Offer"). In the Change of Control Offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of Senior Notes repurchased plus accrued and unpaid interest, if any, on the Senior Notes repurchased, up to, but not including, the date of repurchase.

The fair value of the Senior Notes as of June 30, 2022 and 2021 was $6.39 billion and $3.98 billion, respectively. While the Senior Notes are recorded at cost, the fair value of the long-term debt was determined based on quoted prices in markets that are not active; accordingly, the long-term debt is categorized as Level 2 for purposes of the fair value measurement hierarchy.

As of June 30, 2022, we were in compliance with all of our covenants under the Indenture associated with the Senior Notes.

Revolving Credit Facility:

As of March 31, 2022, we had in place a Credit Agreement (the "Prior Credit Agreement") providing for a $1.00 billion five-year unsecured Prior Revolving Credit Facility with a maturity date of November 30, 2023. In the fourth quarter of fiscal 2022, we replaced the Prior Credit Agreement and Prior Revolving Credit Facility with a renegotiated Credit Facility (the "Credit Agreement") and renegotiated unsecured Revolving Credit Facility (the "Revolving Credit Facility") having a maturity date of June 8, 2027 that allows us to borrow up to $1.50 billion. Subject to the terms of the Credit Agreement, the Revolving Credit Facility may be increased by an amount up to $250.0 million in the aggregate. As of June 30, 2021, we had no aggregate principal amount of borrowings under the Prior Revolving Credit Facility. During the fiscal year ended June 30, 2022, the Company borrowed $600.0 million under the Prior Revolving Credit Facility and made principal payments of $600.0 million. As of June 30, 2022, we had an aggregate principal amount of $275.0 million outstanding under the Revolving Credit Facility, which was borrowed in the fourth quarter of fiscal 2022.

We may borrow, repay and reborrow funds under the Revolving Credit Facility until the maturity date, at which time may exercise two one-year extension options with the consent of the lenders. We may prepay outstanding borrowings under the Revolving Credit Facility at any time without a prepayment penalty.

Borrowings under the Revolving Credit Facility can be made as Term Secured Overnight Financing ("SOFR") Loans or Alternate Base Rate ("ABR") Loans, at the Company's option. In the event that Term SOFR is unavailable, any Term SOFR elections will be converted to Daily Simple SOFR, as long as it is available. Each Term SOFR Loan will bear interest at a rate per annum equal to the applicable Adjusted Term SOFR rate, which is equal to the applicable Term SOFR rate plus 10 bps that shall not be less than zero, plus a spread ranging from 75 bps to 125 bps, as determined by the Company's credit ratings at the time. Each ABR Loan will bear interest at a rate per annum equal to the ABR plus a spread ranging from 0 bps to 25 bps, as determined by the Company's credit ratings at the time. We are also obligated to pay an annual commitment fee on the daily undrawn balance of the Revolving Credit Facility, which ranges from 4.5 bps to 12.5 bps, subject to an adjustment in conjunction with changes to our credit rating. The applicable interest rates and commitment fees are also subject to adjustment based on the Company's performance against certain environmental sustainability key performance indicators related to greenhouse gas emissions and renewable electricity usage. As of June 30, 2022, the all-in interest rate of the $275.0 million outstanding Term SOFR loans reflected the applicable Adjusted Term SOFR plus a spread of 100 bps and the applicable commitment fee on the daily undrawn balance of the Revolving Credit Facility was 9 bps.

The Prior Revolving Credit Facility required us to maintain an interest expense coverage ratio as described in the Prior Credit Agreement, on a quarterly basis, covering the trailing four consecutive fiscal quarters, of no less than 3.50 to 1.00. The Revolving Credit Facility removed that requirement. The maximum leverage ratio as described in the Credit Agreement, on a quarterly basis, is 3.50 to 1.00, covering the trailing four consecutive fiscal quarters for each fiscal quarter, which may be increased to 4.00 to 1.00 for a period of time in connection with a material acquisition or a series of material acquisitions. As of June 30, 2022, our maximum allowed leverage ratio was 3.50 to 1.00.

We were in compliance with all covenants under the Credit Agreement as of June 30, 2022.

Notes Payable:

In December 2020 we sold promissory notes to a financial institution, borrowing an aggregate of $40.0 million ("Notes Payable"). Of the aggregate amount borrowed, $20.0 million matured and was paid on February 20, 2021 and the balance of $20.0 million matured and was paid on February 22, 2022. The premium of $0.3 million from the sale of the Notes Payable was amortized over the life of the debt. The net proceeds from the sale of the Notes Payable were used for general corporate purposes.

NOTE 9 — LEASES

We have operating leases for facilities, vehicles and other equipment. Our facility leases are primarily used for administrative functions, R&D, manufacturing, and storage and distribution. Our finance leases are not material.

Our existing leases do not contain significant restrictive provisions or residual value guarantees; however, certain leases contain provisions for the payment of maintenance, real estate taxes, or insurance costs by us. Our leases have remaining lease terms ranging from less than one year to 15 years, including periods covered by options to extend the lease when it is reasonably certain that the option will be exercised.

Lease expense was $36.6 million, $38.9 million and $35.1 million for the fiscal years ended June 30, 2022, 2021 and 2020, respectively. Expense related to short-term leases, which are not recorded on the Consolidated Balance Sheets, was not material for the fiscal years ended June 30, 2022 and 2021. As of June 30, 2022 and 2021, the weighted-average remaining lease term was 4.8 years and 4.6 years, respectively and the weighted-average discount rate was 2.18% and 1.64%, respectively.

Supplemental cash flow information related to leases was as follows:

	Year Ended June 30,	
(In thousands)	**2022**	**2021**
Operating cash outflows from operating leases	$ 37,994	$ 38,118
ROU assets obtained in exchange for new operating lease liabilities	$ 55,886	$ 39,292

Maturities of lease liabilities as of June 30, 2022 were as follows:

Fiscal Year Ending June 30:	**Amount (In thousands)**
2023	$ 34,305
2024	25,281
2025	19,348
2026	15,436
2027	11,484
2028 and thereafter	14,850
Total lease payments	120,704
Less imputed interest	(7,117)
Total	$ 113,587

As of June 30, 2022, we did not have any material leases that had not yet commenced.

NOTE 10 — EQUITY, LONG-TERM INCENTIVE COMPENSATION PLANS AND NON-CONTROLLING INTEREST

Equity Incentive Program

As of June 30, 2022, we were able to issue new equity incentive awards, such as RSUs and stock options, to our employees, consultants and members of our Board of Directors under our 2004 Equity Incentive Plan (the "2004 Plan") with 9.2 million shares available for issuance.

Any 2004 Plan awards of RSUs, performance shares, performance units or deferred stock units are counted against the total number of shares issuable under the 2004 Plan share reserve as two shares for every one share subject thereto.

In addition, the plan administrator has the ability to grant "dividend equivalent" rights in connection with awards of RSUs, performance shares, performance units and deferred stock units before they are fully vested. The plan administrator, at its discretion, may grant a right to receive dividends on the aforementioned awards which may be settled in cash or our stock subject to meeting the vesting requirement of the underlying awards.

Assumed Equity Plans

As of the Orbotech Ltd. ("Orbotech") Acquisition on February 20, 2019 ("Acquisition Date"), we assumed outstanding equity incentive awards under Orbotech equity incentive plans (the "Assumed Equity Plans"). The awards under the Assumed Equity Plans, previously issued in the form of stock options and RSUs, were generally settled as follows:

a) Each award of Orbotech's stock options and RSUs that was outstanding and vested immediately prior to the Acquisition Date (collectively, the "Vested Equity Awards") was canceled and terminated and converted into the right to receive the purchase consideration in respect of such Vested Equity Awards as of the Acquisition Date, and in the case of stock options, less the exercise price.
b) Each award of Orbotech's stock options and RSUs that was outstanding and unvested immediately prior to the Acquisition Date was assumed by us (each, an "Assumed Option" and "Assumed RSU," and collectively the "Assumed Equity Awards") and converted to stock options and RSUs exercisable for the number of shares of our common stock based on the exchange ratio defined in the acquisition agreement. The Assumed Equity Awards generally retain all of the rights, terms and conditions of the respective plans under which they were originally granted, including the same service-based vesting schedule, applicable thereto.

As of the Acquisition Date, the estimated fair value of the Assumed Equity Awards was $55.0 million, of which $13.3 million was recognized as goodwill and the balance of $41.7 million is being recognized as stock-based compensation ("SBC") expense over the remaining service period of the Assumed Equity Awards. The fair value of the Assumed Equity Awards for services rendered through the Acquisition Date was recognized as a component of the merger consideration, with the remaining fair value related to the post-combination services being recorded as SBC over the remaining vesting period.

A total of 14,558 and 518,971 shares of our common stock underlie the Assumed Options and RSUs and had an estimated weighted-average fair value at the Acquisition Date of $53.3 and $104.5 per share, respectively. All Assumed Options were fully exercised as of June 30, 2020. As of June 30, 2022, there were 20,799 shares of our common stock underlying the outstanding Assumed RSUs under the Assumed Equity Plans.

Equity Incentive Plans - General Information

The following table summarizes the combined activity under our equity incentive plans:

(In thousands)	Available For Grant[(1)(3)(5)]
Balances as of June 30, 2019	11,613
RSUs granted[(2)]	(1,174)
RSUs granted adjustment[(4)]	103
RSUs canceled	218
Balances as of June 30, 2020	10,760
RSUs granted[(2)]	(761)
RSUs granted adjustment[(4)]	102
RSUs canceled	152
Balances as of June 30, 2021	10,253
RSUs granted[(2)]	(1,152)
RSUs granted adjustment[(4)]	39
RSUs canceled	102
Balances as of June 30, 2022	9,242

(1) The number of RSUs reflects the application of the award multiplier of 2.0x as described above.

(2) Includes RSUs granted to senior management with performance-based vesting criteria (in addition to service-based vesting criteria for any of such RSUs that are deemed to have been earned) ("performance-based RSU"). As of June 30, 2022, it had not yet been determined the extent to which (if at all) the performance-based vesting criteria had been satisfied. Therefore, this line item includes all such performance-based RSUs granted during the fiscal year, reported at the maximum possible number of shares that may ultimately be issuable if all applicable performance-based criteria are achieved at their maximum levels and all applicable service-based criteria are fully satisfied (0.2 million shares, 0.2 million shares and 0.4 million shares for the fiscal years ended June 30, 2022, 2021 and 2020, respectively, reflecting the application of the 2.0x multiplier described above).

(3) Includes RSUs granted to executive management during the fiscal year ended June 30, 2019 with both a market condition and a service condition ("market-based RSU"). Under the award agreements, the vesting of the market-based RSUs is contingent on achieving total stockholder return (including stock price appreciation and cash dividends) objectives on a per share basis of equal to or greater than 150%, 175% and 200% multiplied by the measurement price of $116.39 during the five-year period ending March 20, 2024. The awards are split into three tranches and, to the extent that total stockholder return targets have been met, one-third of the maximum number of shares available under these awards will vest on each of the third, fourth, and fifth anniversaries of the grant date. As of June 30, 2022, the market conditions were met, resulting in all three tranches being eligible to vest, subject to the service condition.

(4) Represents the portion of RSUs granted with performance-based vesting criteria and reported at the actual number of shares issued upon achievement of the performance vesting criteria during the fiscal years ended June 30, 2022, 2021, and 2020.

(5) No additional stock options, RSUs or other awards will be granted under the Assumed Equity Plans.

The fair value of stock-based awards is measured at the grant date and is recognized as an expense over the employee's requisite service period. For RSUs granted without "dividend equivalent" rights, fair value is calculated using the closing price of our common stock on the grant date, adjusted to exclude the present value of dividends which are not accrued on those RSUs. The fair value for RSUs granted with "dividend equivalent" rights is determined using the closing price of our common stock on the grant date. The fair value for market-based RSUs is estimated on the grant date using a Monte Carlo simulation model with the following assumptions: expected volatilities ranging from 27.8% to 28.1%, based on a combination of implied volatility from traded options on our common stock and the historical volatility of our common stock; dividend yield ranging from 2.4% to 2.5%, based on our current expectations for our anticipated dividend policy; risk-free interest rate ranging from 2.3% to 2.4%, based on the implied yield available on U.S. Treasury zero-coupon issues with terms equal to the contractual terms of each tranche; and an expected term which takes into consideration the vesting term and the contractual term of the market-based award. The awards are amortized over service periods of three, four, and five years, which is the longer of the explicit service period or the period in which the market target is expected to be met. The fair value for purchase rights under our ESPP is determined using a Black-Scholes model.

The following table shows SBC expense for the indicated periods:

(In thousands)	Year Ended June 30, 2022	2021	2020
SBC expense by:			
Costs of revenues	$ 21,108	$ 17,355	$ 14,680
R&D	27,618	23,337	23,530
SG&A	78,192	71,144	73,171
Total SBC expense	$ 126,918	$ 111,836	$ 111,381

SBC capitalized as inventory as of June 30, 2022 and 2021 was $8.6 million and $8.0 million, respectively.

Restricted Stock Units

The following table shows the activity and weighted-average grant date fair value for RSUs during the fiscal year ended June 30, 2022:

	Shares (In thousands) [(1)]	Weighted-Average Grant Date Fair Value
Outstanding RSUs as of June 30, 2021[(2)]	1,710	$ 133.76
Granted[(2)]	576	$ 353.27
Granted adjustments[(3)]	(19)	$ 118.47
Vested and released	(377)	$ 121.36
Withheld for taxes	(240)	$ 121.36
Forfeited	(57)	$ 164.11
Outstanding RSUs as of June 30, 2022[(2)]	1,593	$ 218.03

(1) Share numbers reflect actual shares subject to awarded RSUs. Under the terms of the 2004 Plan, the number of shares subject to each award reflected in this number is multiplied by 2.0x to calculate the impact of the award on the share reserve under the 2004 Plan.

(2) Includes performance-based RSUs. As of June 30, 2022, it had not yet been determined the extent to which (if at all) the performance-based criteria had been satisfied. Therefore, this line item includes all such RSUs, reported at the maximum possible number of shares (i.e., 0.1 million shares for the fiscal year ended June 30, 2022) that may ultimately be issuable if all applicable performance-based criteria are achieved at their maximum.

(3) Represents the portion of RSUs granted with performance-based vesting criteria and reported at the actual number of shares issued upon achievement of the performance vesting criteria during the fiscal year ended June 30, 2022.

The RSUs granted by us generally vest (a) with respect to awards with only service-based vesting criteria, over periods ranging from two to four years and (b) with respect to awards with both performance-based and service-based vesting criteria, in two equal installments on the third and fourth anniversaries of the grant date, and (c) with respect to awards with both market-based and service-based vesting criteria, in three equal installments on the third, fourth and fifth anniversaries of the grant date, in each case subject to the recipient remaining employed by us as of the applicable vesting date. The RSUs granted to the independent members of the Board of Directors vest annually.

The following table shows the weighted-average grant date fair value per unit for the RSUs granted, vested, and tax benefits realized by us in connection with vested and released RSUs for the indicated periods:

(In thousands, except for weighted-average grant date fair value)	Year Ended June 30, 2022	2021	2020
Weighted-average grant date fair value per unit	$ 353.27	$ 222.86	$ 146.94
Grant date fair value of vested RSUs	$ 74,794	$ 80,887	$ 91,812
Tax benefits realized by us in connection with vested and released RSUs	$ 23,634	$ 26,416	$ 21,960

As of June 30, 2022, the unrecognized SBC expense balance related to RSUs was $249.0 million, excluding the impact of estimated forfeitures, and will be recognized over a weighted-average remaining contractual term and an estimated weighted-average amortization period of 1.4 years. The intrinsic value of outstanding RSUs as of June 30, 2022 was $508.4 million.

Cash LTI Compensation

As part of our employee compensation program, we issue Cash LTI awards to many of our employees. Executives and non-employee members of the Board of Directors do not participate in the Cash LTI Plan. During the fiscal years ended June 30, 2022 and 2021, we approved Cash LTI awards of $60.9 million and $136.5 million, respectively. Cash LTI awards issued to employees under the Cash LTI Plan will vest in three or four equal installments, with one-third or one-fourth of the aggregate amount of the Cash LTI award vesting on each anniversary of the grant date over a three or four-year period. In order to receive payments under a Cash LTI award, participants must remain employed by us as of the applicable award vesting date. During the fiscal years ended June 30, 2022, 2021 and 2020, we recognized $85.3 million, $75.8 million and $64.0 million, respectively, in compensation expense under the Cash LTI Plan. As of June 30, 2022, the unrecognized compensation balance (excluding the impact of estimated forfeitures) related to the Cash LTI Plan was $176.7 million.

Employee Stock Purchase Plan

Our ESPP provides that eligible employees may contribute up to 15% of their eligible earnings toward the semi-annual purchase of our common stock. The ESPP is qualified under Section 423 of the Internal Revenue Code. The employee's purchase price is derived from a formula based on the closing price of the common stock on the first day of the offering period versus the closing price on the date of purchase (or, if not a trading day, on the immediately preceding trading day).

The offering period (or length of the look-back period) under the ESPP has a duration of six months, and the purchase price with respect to each offering period beginning on or after such date is, until otherwise amended, equal to 85% of the lesser of (i) the fair market value of our common stock at the commencement of the applicable six-month offering period or (ii) the fair market value of our common stock on the purchase date. We estimate the fair value of purchase rights under the ESPP using a Black-Scholes model.

The fair value of each purchase right under the ESPP was estimated on the date of grant using the Black-Scholes model and the straight-line attribution approach with the following weighted-average assumptions:

	Year Ended June 30, 2022	2021	2020
Stock purchase plan:			
Expected stock price volatility	38.2 %	47.0 %	34.3 %
Risk-free interest rate	0.1 %	0.4 %	2.1 %
Dividend yield	1.2 %	1.6 %	2.2 %
Expected life (in years)	0.50	0.50	0.50

The following table shows total cash received from employees for the issuance of shares under the ESPP, the number of shares purchased by employees through the ESPP, the tax benefits realized by us in connection with the disqualifying dispositions of shares purchased under the ESPP and the weighted-average fair value per share for the indicated periods:

(In thousands, except for weighted-average fair value per share)	Year Ended June 30, 2022	2021	2020
Total cash received from employees for the issuance of shares under the ESPP	$ 113,015	$ 86,098	$ 74,849
Number of shares purchased by employees through the ESPP	419	431	561
Tax benefits realized by us in connection with the disqualifying dispositions of shares purchased under the ESPP	$ 1,853	$ 1,972	$ 3,237
Weighted-average fair value per share based on Black-Scholes model	$ 94.35	$ 59.84	$ 36.61

The ESPP shares are replenished annually on the first day of each fiscal year by virtue of an evergreen provision. The provision allows for share replenishment equal to the lesser of 2.0 million shares or the number of shares which we estimate will be required to be issued under the ESPP during the forthcoming fiscal year. As of June 30, 2022, a total of 2.2 million shares were reserved and available for issuance under the ESPP.

Quarterly cash dividends

On June 1, 2022, we paid a quarterly cash dividend of $1.05 per share on the outstanding shares of our common stock to stockholders of record as of the close of business on May 16, 2022. The total amount of regular quarterly cash dividends and dividend equivalents paid during the fiscal years ended June 30, 2022 and 2021 was $638.5 million and $559.4 million, respectively. The amount of accrued dividend equivalents payable related to unvested RSUs with dividend equivalent rights was $1.2 million and $10.3 million as of June 30, 2022 and 2021, respectively. These amounts will be paid upon vesting of the underlying RSUs. Refer to Note 21 "Subsequent Events" to the Consolidated Financial Statements for additional information regarding the declaration of our quarterly cash dividend announced subsequent to June 30, 2022.

Non-controlling Interests

We have consolidated the results of Orbograph, in which we own approximately 94% of the outstanding equity interest. Orbograph is engaged in the development and marketing of character recognition solutions to banks, financial and other payment processing institutions and healthcare providers. For information regarding our plan to sell Orbograph, refer to Note 6 "Business Combinations and Dispositions."

During the fourth quarter of fiscal 2020, we entered into an Asset Purchase Agreement to sell certain core assets of Orbotech LT Solar, LLC ("OLTS"), which was engaged in the research, development and marketing of products for the deposition of thin film coating of various materials on crystalline silicon photovoltaic wafers for solar energy panels through plasma-enhanced chemical vapor deposition. The sale was completed in the first quarter of fiscal 2021 and the proceeds were not material. We consolidate the results of OLTS, which is considered a non-strategic business, of which we own 97% of the outstanding equity interest as of June 30, 2022.

In December 2020, we entered into a Share Purchase Agreement to sell our entire interest in PixCell, an Israeli company that is engaged in the development, marketing and sales of diagnostic equipment for point-of-care hematology applications, to a South Korean company. The sale was completed in February 2021 for total consideration of $20.2 million. We recognized a $4.4 million gain from the sale, which was recorded as part of other expense (income), net. Prior to the sale, we owned approximately 52% of PixCell's outstanding equity interests.

NOTE 11 — STOCK REPURCHASE PROGRAM

Our Board of Directors has authorized a program that permits us to repurchase our common stock, including increases in the authorized repurchase amount of $2.00 billion in the first quarter of fiscal 2022 and $6.00 billion in the fourth quarter of fiscal 2022. The stock repurchase program has no expiration date and may be suspended at any time. The intent of the program is, in part, to mitigate the potential dilutive impact related to our equity incentive plans and shares issued in connection with our ESPP as well as to return excess cash to our stockholders. Any and all share repurchase transactions are subject to market conditions and applicable legal requirements.

On June 23, 2022, the Company executed accelerated share repurchase agreements ("ASR Agreements") with two financial institutions to repurchase shares of our common stock in exchange for an upfront payment of $3.00 billion. The Company received initial deliveries totaling approximately 6.5 million shares in the fourth quarter of fiscal 2022, which represented 70% of the prepayment amount at the then prevailing market price of the Company's shares of stock. The initial shares delivered were retired immediately upon settlement and treated as repurchases of the Company's common stock for purposes of earnings per share calculations. The value of the shares yet to be delivered to the Company for the remainder of the upfront payment of $0.90 billion was recorded as an unsettled forward contract, classified within stockholders' equity. The delivery of any remaining shares would occur at the final settlement of the transactions under the ASR Agreements, which is scheduled for the second quarter of fiscal 2023, subject to earlier termination under certain limited circumstances, as set forth in the ASR Agreements. The total number of shares received under the ASR Agreements will be based on the volume-weighted average prices of the Company's stock during the term of the ASR Agreements, less an agreed-upon discount and subject to adjustments pursuant to the terms and conditions of the ASR Agreements.

Under the authoritative guidance, share repurchases are recognized as a reduction to retained earnings to the extent available, with any excess recognized as a reduction of capital in excess of par value.

As of June 30, 2022, an aggregate of approximately $3.23 billion was available for repurchase under our stock repurchase program.

Share repurchase transactions for the indicated periods (based on the trade date of the applicable repurchase), excluding the $0.90 billion portion of the ASR upfront payment that was recorded as an unsettled forward contract in fiscal 2022, were as follows:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Number of shares of common stock repurchased	11,768	3,658	5,327
Total cost of repurchases	$ 3,962,267	$ 944,607	$ 821,083

NOTE 12 — NET INCOME PER SHARE

Basic net income per share is calculated by dividing net income available to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted net income per share is calculated by using the weighted-average number of common shares outstanding during the period, increased to include the number of additional shares of common stock that would have been outstanding if the shares of common stock underlying our outstanding dilutive RSUs had been issued. The dilutive effect of outstanding RSUs is reflected in diluted net income per share by application of the treasury stock method. In addition, the shares delivered under the ASR Agreements discussed in Note 11 "Stock Repurchase Program" resulted in a reduction of outstanding shares used to determine our weighted-average common shares outstanding for purposes of calculating basic and diluted earnings per share.

The following table sets forth the computation of basic and diluted net income per share attributable to KLA:

	Year Ended June 30,		
(In thousands, except per share amounts)	2022	2021	2020
Numerator:			
Net income attributable to KLA	$ 3,321,807	$ 2,078,292	$ 1,216,785
Denominator:			
Weighted-average shares-basic, excluding unvested RSUs	150,494	154,086	156,797
Effect of dilutive RSUs and options	1,061	1,351	1,208
Weighted-average shares-diluted	151,555	155,437	158,005
Basic net income per share attributable to KLA	$ 22.07	$ 13.49	$ 7.76
Diluted net income per share attributable to KLA	$ 21.92	$ 13.37	$ 7.70
Anti-dilutive securities excluded from the computation of diluted net income per share	7	11	22

NOTE 13 — EMPLOYEE BENEFIT PLANS

We have a profit sharing program for eligible employees, which distributes a percentage of our pre-tax profits on a quarterly basis. In addition, we have an employee savings plan that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Since January 1, 2019, the employer match is the greater of 50% of the first $8,000 of an eligible employee's contributions or 50% of the first 5% of eligible compensation contributed plus 25% of the next 5% of compensation contributed.

The total expenses under the profit sharing and 401(k) programs aggregated $33.3 million, $27.0 million, and $24.6

million in the fiscal years ended June 30, 2022, 2021 and 2020, respectively. We have no defined benefit plans in the U.S. In addition to the profit sharing plan and the U.S. 401(k), several of our foreign subsidiaries have retirement plans for their full-time employees, several of which are defined benefit plans. Consistent with the requirements of local law, our deposited funds for certain of these plans are held with insurance companies, with third-party trustees or in government-managed accounts. The assumptions used in calculating the obligation for the foreign plans depend on the local economic environment.

We apply authoritative guidance that requires an employer to recognize the funded status of each of our defined benefit pension and post-retirement benefit plans as a net asset or liability on its balance sheets. Additionally, the authoritative guidance requires an employer to measure the funded status of each of its plans as of the date of its year-end statement of financial position. The benefit obligations and related assets under our plans have been measured as of June 30, 2022 and 2021.

Summary data relating to our foreign defined benefit pension plans, including key weighted-average assumptions used, is provided in the following tables:

	Year Ended June 30,	
(In thousands)	**2022**	**2021**
Change in projected benefit obligation:		
Projected benefit obligation as of the beginning of the fiscal year	$ 134,305	$ 119,870
Service cost	5,054	4,649
Interest cost	1,003	1,187
Contributions by plan participants	78	72
Actuarial loss	3,029	7,912
Benefit payments	(2,164)	(2,629)
Plan amendment impact	670	—
Settlements impact	(1,010)	—
Foreign currency exchange rate changes and others, net	(16,380)	3,244
Projected benefit obligation as of the end of the fiscal year	$ 124,585	$ 134,305

	Year Ended June 30,	
(In thousands)	**2022**	**2021**
Change in fair value of plan assets:		
Fair value of plan assets as of the beginning of the fiscal year	$ 44,726	$ 37,928
Actual return on plan assets	(1,087)	1,074
Employer contributions	6,955	6,103
Benefit and expense payments	(2,160)	(2,626)
Settlements impact	(1,010)	—
Foreign currency exchange rate changes and others, net	(3,831)	2,247
Fair value of plan assets as of the end of the fiscal year	$ 43,593	$ 44,726

	As of June 30,	
(In thousands)	**2022**	**2021**
Underfunded status	$ 80,992	$ 89,579

	As of June 30,	
(In thousands)	**2022**	**2021**
Plans with accumulated benefit obligations in excess of plan assets:		
Accumulated benefit obligation	$ 77,697	$ 81,924
Projected benefit obligation	$ 124,585	$ 134,305
Plan assets at fair value	$ 43,593	$ 44,726

	Year Ended June 30,		
	2022	2021	2020
Weighted-average assumptions[(1)]:			
Discount rate	0.9% - 3.0%	0.5% - 1.7%	0.6% - 1.7%
Expected rate of return on assets	0.9% - 3.0%	0.6% - 2.9%	0.8% - 2.9%
Rate of compensation increases	2.3% - 5.0%	2.3% - 5.0%	1.8% - 4.5%

(1) Represents the weighted-average assumptions used to determine the benefit obligation.

The assumptions for expected rate of return on assets were developed by considering the historical returns and expectations of future returns relevant to the country in which each plan is in effect and the investments applicable to the corresponding plan. The discount rate for each plan was derived by reference to appropriate benchmark yields on high quality corporate bonds, allowing for the approximate duration of both plan obligations and the relevant benchmark index.

The following table presents losses recognized in AOCI before tax related to our foreign defined benefit pension plans:

	As of June 30,	
(In thousands)	2022	2021
Unrecognized prior service cost	$ 12,414	$ —
Unrealized net loss	19,400	30,375
Amount of losses recognized	$ 31,814	$ 30,375

The components of our net periodic cost relating to our foreign subsidiaries' defined benefit pension plans are as follows:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Components of net periodic pension cost:			
Service cost[(1)]	$ 5,054	$ 4,649	$ 4,823
Interest cost	1,003	1,187	1,086
Return on plan assets	(528)	(549)	(475)
Amortization of prior service cost	671	—	3
Amortization of net loss	1,406	1,071	1,214
Loss due to settlement/curtailment	38	130	—
Foreign currency exchange rate changes	(19)	—	—
Net periodic pension cost	$ 7,625	$ 6,488	$ 6,651

(1) Service cost is reported in cost of revenues, R&D and SG&A expenses. All other components of net periodic pension cost are reported in other expense (income), net in the Consolidated Statements of Operations.

Fair Value of Plan Assets

Fair value is 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. The three levels of inputs used to measure fair value of plan assets are described in Note 3 "Fair Value Measurements."

The foreign plans' investments are managed by third-party trustees consistent with the regulations or market practice of the country where the assets are invested. We are not actively involved in the investment strategy, nor do we have control over the target allocation of these investments. These investments made up 100% of total foreign plan assets in the fiscal years ended June 30, 2022 and 2021.

The expected aggregate employer contribution for the foreign plans during the fiscal year ending June 30, 2023 is $7.8 million.

The total benefits to be paid from the foreign pension plans are not expected to exceed $6.6 million in any year through the fiscal year ending June 30, 2032.

Foreign plan assets measured at fair value on a recurring basis consisted of the following investment categories as of June 30, 2022 and 2021, respectively:

As of June 30, 2022 (In thousands)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Cash and cash equivalents	$ 27,543	$ 27,543	$ —
Bonds, equity securities and other investments	16,050	—	16,050
Total assets measured at fair value	$ 43,593	$ 27,543	$ 16,050

As of June 30, 2021 (In thousands)	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Cash and cash equivalents	$ 25,458	$ 25,458	$ —
Bonds, equity securities and other investments	19,268	—	19,268
Total assets measured at fair value	$ 44,726	$ 25,458	$ 19,268

Concentration of Risk

We manage a variety of risks, including market, credit and liquidity risks, across our plan assets through our investment managers. We define a concentration of risk as an undiversified exposure to one of the above-mentioned risks that increases the exposure of the loss of plan assets unnecessarily. We monitor exposure to such risks in the foreign plans by monitoring the magnitude of the risk in each plan and diversifying our exposure to such risks across a variety of instruments, markets and counterparties. As of June 30, 2022, we did not have concentrations of plan asset investment risk in any single entity, manager, counterparty, sector, industry or country.

NOTE 14 — INCOME TAXES

The components of income before income taxes were as follows:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Domestic income before income taxes	$ 1,909,699	$ 1,251,820	$ 752,844
Foreign income before income taxes	1,579,538	1,108,634	563,867
Total income before income taxes	$ 3,489,237	$ 2,360,454	$ 1,316,711

The provision for income taxes was comprised of the following:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Current:			
Federal	$ 341,614	$ 201,413	$ 108,136
State	14,149	6,164	518
Foreign	165,194	121,146	86,374
	520,957	328,723	195,028
Deferred:			
Federal	11,564	(31,989)	(26,743)
State	(311)	(1,155)	(1,174)
Foreign	(365,033)	(12,478)	(65,425)
	(353,780)	(45,622)	(93,342)
Provision for income taxes	$ 167,177	$ 283,101	$ 101,686

The significant components of deferred income tax assets and liabilities were as follows:

(In thousands)	As of June 30, 2022		As of June 30, 2021	
Deferred tax assets:				
Tax credits and net operating losses	$	268,416	$	237,480
Inventory reserves		86,059		81,224
Employee benefits accrual		78,021		82,055
Non-deductible reserves		53,426		36,267
Unearned revenue		11,843		15,712
SBC		9,864		7,284
Depreciation and amortization		1,760		—
Unrealized loss on investments		—		5,384
Other		56,911		54,615
Gross deferred tax assets		566,300		520,021
Valuation allowance		(244,429)		(204,433)
Net deferred tax assets	$	321,871	$	315,588
Deferred tax liabilities:				
Unremitted earnings of foreign subsidiaries not indefinitely reinvested	$	(358,374)	$	(278,014)
Deferred profit		(30,268)		(10,044)
Unrealized gain on investments		(12,993)		—
Depreciation and amortization		—		(407,692)
Total deferred tax liabilities		(401,635)		(695,750)
Total net deferred tax liabilities	$	(79,764)	$	(380,162)

As of June 30, 2022, we, excluding Orbotech, had U.S. federal, state and foreign net operating loss ("NOL") carry-forwards of approximately $11 million, $12 million and $14 million, respectively. Orbotech had U.S. federal, state, and foreign NOLs of approximately $24 million, $13 million and $219 million, respectively. Orbotech also had capital loss carry-forwards of approximately $35 million as of June 30, 2022. The U.S. federal NOL carry-forwards will expire at various dates beginning in 2023 through 2033. The utilization of NOLs created by acquired companies is subject to annual limitations under Section 382 of the Internal Revenue Code. However, it is not expected that such annual limitation will significantly impair the realization of these NOLs. The state NOLs began to expire in 2022. Foreign NOLs and capital loss carry-forwards will be carried forward indefinitely. State credits of $301.0 million for us, including Orbotech, will also be carried forward indefinitely.

The net deferred tax asset valuation allowance was $244.4 million and $204.4 million as of June 30, 2022 and June 30, 2021, respectively. The change was primarily due to an increase in the valuation allowance related to U.S. federal and state credit carry-forwards generated in the fiscal year ended June 30, 2022. The valuation allowance is based on our assessment that it is more likely than not that certain deferred tax assets will not be realized in the foreseeable future. Of the valuation allowance as of June 30, 2022, $231.2 million was related to federal and state credit carry-forwards. The remainder of the valuation allowance was related to state and foreign NOL carry-forwards.

As of June 30, 2022, we intend to indefinitely reinvest $185.9 million of cumulative undistributed earnings held by certain non-U.S. subsidiaries. If these undistributed earnings were repatriated to the U.S., the potential deferred tax liability associated with the undistributed earnings would be approximately $39 million.

We benefit from tax holidays in Singapore where we manufacture certain of our products. These tax holidays are on approved investments and are scheduled to expire in six to nine years. We are in compliance with all the terms and conditions of the tax holidays as of June 30, 2022. The net impact of these tax holidays was to decrease our tax expense by approximately $544 million, $12 million and $33 million in the fiscal years ended June 30, 2022, 2021 and 2020, respectively. The benefits of the tax holidays on diluted net income per share were $3.83, $0.08 and $0.21 for the fiscal years ended June 30, 2022, 2021 and 2020, respectively. The benefits during the fiscal year ended June 30, 2022 include a one-time deferred tax benefit of approximately $398 million due to a tax basis step-up from a restructuring.

The reconciliation of the U.S. federal statutory income tax rate to our effective income tax rate was as follows:

	Year ended June 30,					
	2022		2021		2020	
Federal statutory rate	21.0	%	21.0	%	21.0	%
GILTI	2.0	%	2.6	%	3.0	%
Net change in tax reserves	2.0	%	(1.1)	%	1.5	%
State income taxes, net of federal benefit	0.3	%	0.2	%	0.2	%
Tax rate change on deferred tax liability on purchased intangibles	—	%	1.7	%	—	%
Non-deductible impairment of goodwill	—	%	—	%	4.1	%
Effect of SBC	(0.2)	%	(0.3)	%	(0.3)	%
R&D tax credit	(1.1)	%	(1.1)	%	(1.8)	%
Foreign derived intangible income	(4.0)	%	(4.3)	%	(5.0)	%
Effect of foreign operations taxed at various rates	(4.2)	%	(6.6)	%	(12.1)	%
Restructuring	(11.2)	%	—	%	(2.6)	%
Other	0.2	%	(0.1)	%	(0.3)	%
Effective income tax rate	4.8	%	12.0	%	7.7	%

A reconciliation of gross unrecognized tax benefits was as follows:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Unrecognized tax benefits at the beginning of the year	$ 149,642	$ 172,443	$ 146,426
Increases for tax positions taken in current year	49,311	31,113	34,278
Increases for tax positions taken in prior years	20,917	6,557	6,826
Decreases for settlements with taxing authorities	—	(28,651)	—
Decreases for tax positions taken in prior years	(267)	(19,360)	(518)
Decreases for lapsing of statutes of limitations	(1,676)	(12,460)	(14,569)
Unrecognized tax benefits at the end of the year	$ 217,927	$ 149,642	$ 172,443

The amounts of unrecognized tax benefits that would impact the effective tax rate were $205.0 million, $137.8 million and $161.5 million as of June 30, 2022, 2021 and 2020, respectively. The amounts of interest and penalties recognized during the years ended June 30, 2022, 2021 and 2020 were expenses of $11.5 million, $2.8 million and $4.6 million, respectively. Our policy is to include interest and penalties related to unrecognized tax benefits within other expense (income), net. The amounts of interest and penalties accrued as of June 30, 2022 and 2021 were approximately $52 million and $42 million, respectively.

In the normal course of business, we are subject to examination by tax authorities throughout the world. We are subject to U.S. federal income tax examinations for all years beginning from the fiscal year ended June 30, 2018 and are under U.S. federal income tax examination for the fiscal years ended June 30, 2018, 2019 and 2020. We are subject to state income tax examinations for all years beginning from the fiscal year ended June 30, 2018. We are also subject to examinations in other major foreign jurisdictions, including Singapore and Israel, for all years beginning from the calendar year ended December 31, 2012. We are under audit in Germany related to Orbotech for the years ended December 31, 2013 to December 31, 2015.

In May 2017, Orbotech received an assessment from the Israel Tax Authority ("ITA") with respect to its fiscal years 2012 through 2014 (the "Assessment"), for an aggregate amount of tax, after offsetting all NOLs available through the end of 2014, of approximately NIS 229 million (equivalent to approximately $66 million which includes related interest and linkage differentials to the Israeli consumer price index as of the date of the issuance of the Tax Decrees, as defined below).

On August 31, 2018, Orbotech filed an objection in respect of the Assessment (the "Objection"). The ITA completed the second stage of the audit, in which the claims Orbotech raised in the Objection were examined by different personnel at the ITA. In addition, the ITA examined additional items during this second stage of the audit. As Orbotech and the ITA did not reach an agreement during the second stage, the ITA issued Tax Decrees to Orbotech on August 28, 2019 ("Tax Decrees") for an aggregate amount of tax, after offsetting all NOLs available through the end of 2014, of approximately NIS 257 million (equivalent to approximately $73 million which includes related interest and linkage differentials to the Israeli consumer price index as of the date of the issuance of the Tax Decrees). These Tax Decrees replaced the Assessment. We believe that our recorded unrecognized tax benefits are sufficient to cover the resolution of these Tax Decrees.

Orbotech filed a notice of appeal with respect to the above Tax Decrees with the District Court of Tel Aviv on September 26, 2019. On February 27, 2020 the ITA filed its arguments in support of the Tax Decrees. Orbotech filed the grounds of appeal with respect to the above Tax Decrees on July 30, 2020. We are currently in the pre-trial hearing stage of the process. The ITA and Orbotech are continuing discussions in an effort to resolve this matter in a mutually agreeable manner.

In connection with the above, there was an ongoing criminal investigation in Israel against Orbotech, certain of its employees and a tax consultant. On April 11, 2018, Orbotech received a “suspect notification letter” (dated March 28, 2018) from the Tel Aviv District Attorney’s Office (Fiscal and Financial). In the letter, it was noted that the investigation file was transferred from the Assessment Investigation Officer to the District Attorney’s Office. The letter further stated that the District Attorney’s Office had not yet made a decision regarding submission of an indictment against Orbotech; and that if after studying the case, a decision is made to consider prosecuting Orbotech, Orbotech will receive an additional letter, and within 30 days, Orbotech may present its arguments to the District Attorney’s Office as to why it should not be indicted. On October 27, 2019, we received a request for additional information from the District Attorney’s Office. On March 23, 2022, Orbotech received a letter from the Assessment Investigation Officer that the investigation was closed due to lack of evidence. In addition, the Orbotech employees and its tax consultant also received letters in March 2022 noting the investigation against them had been closed.

In December 2020, Orbotech received an assessment from the ITA with respect to its fiscal years 2015 through 2018 (the “Second Assessment”), for an aggregate amount of tax, after offsetting all NOLs available through the end of 2018, of approximately NIS 227 million (equivalent to approximately $68 million which includes related interest and linkage differentials to the Israeli consumer price index as of the date of the issuance of the Second Assessment). We filed an objection to the Second Assessment with the ITA in March 2021. The objection moved the 2015-2018 audit to the second stage, in which the ITA reviews the objections. The ITA has completed the second stage review for 2015 and 2016 of the Second Assessment and issued Tax Decrees to Orbotech on March 3, 2022 for 2015-2016 in the amount of approximately NIS 63 million (equivalent to approximately $19 million which includes related interest and linkage differentials to the Israeli consumer price index as of the date of the issuance of the Tax Decrees). These Tax Decrees replaced the Second Assessment for 2015 and 2016. The second stage review for 2017 and 2018 has not been completed. The Second Assessment for 2017 and 2018 remains at approximately NIS 114 million (equivalent to approximately $34 million which includes related interest and linkage differentials to the Israeli consumer price index as of the date of the issuance of the Second Assessment). We believe that our recorded unrecognized tax benefits are sufficient to cover the resolution of the Second Assessment.

We believe that we may recognize up to $1.3 million of our existing unrecognized tax benefits within the next 12 months as a result of the lapse of statutes of limitations. It is possible that certain income tax examinations may be concluded in the next 12 months. Given the uncertainty around the timing of the resolution of these ongoing examinations, we are unable to estimate the full range of possible adjustments to our unrecognized tax benefits within the next 12 months.

NOTE 15 — LITIGATION AND OTHER LEGAL MATTERS

We are named from time to time as a party to lawsuits and other types of legal proceedings and claims in the normal course of our business. Actions filed against us include commercial, intellectual property, customer, and labor and employment related claims, including complaints of alleged wrongful termination and potential class action lawsuits regarding alleged violations of federal and state wage and hour and other laws. In general, legal proceedings and claims, regardless of their merit, and associated internal investigations (especially those relating to intellectual property or confidential information disputes) are often expensive to prosecute, defend or conduct and may divert management’s attention and other company resources. Moreover, the results of legal proceedings are difficult to predict, and the costs incurred in litigation can be substantial, regardless of outcome. We believe the amounts provided in our Consolidated Financial Statements are adequate in light of the probable and estimated liabilities. However, because such matters are subject to many uncertainties and the ultimate outcomes are not predictable, there can be no assurances that the actual amounts required to satisfy alleged liabilities from the matters described above will not exceed the amounts reflected in our Consolidated Financial Statements or will not have a material adverse effect on our results of operations, financial condition or cash flows.

NOTE 16 — COMMITMENTS AND CONTINGENCIES

Factoring. We have agreements (referred to as “factoring agreements”) with financial institutions to sell certain of our trade receivables and promissory notes from customers without recourse. We do not believe we are at risk for any material losses as a result of these agreements. In addition, we periodically sell certain LC, without recourse, received from customers in payment for goods and services.

The following table shows total receivables sold under factoring agreements and proceeds from sales of LC for the indicated periods:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Receivables sold under factoring agreements	$ 250,983	$ 305,565	$ 293,006
Proceeds from sales of LC	$ 151,924	$ 133,679	$ 59,036

Factoring and LC fees for the sale of certain trade receivables were recorded in other expense (income), net and were not material for the periods presented.

Purchase Commitments. We maintain commitments to purchase inventory from our suppliers as well as goods, services, and other assets in the ordinary course of business. Our liability under these purchase commitments is generally restricted to a forecasted time-horizon as mutually agreed between the parties. This forecasted time-horizon can vary among different suppliers. Our estimate of our significant purchase commitments primarily for material, services, supplies and asset purchases is $3.75 billion as of June 30, 2022, a majority of which will be due within the next 12 months. Actual expenditures will vary based upon the volume of the transactions and length of contractual service provided. In addition, the amounts paid under these arrangements may be less in the event that the arrangements are renegotiated or canceled. Certain agreements provide for potential cancellation penalties.

Cash LTI Plan. As of June 30, 2022, we have committed $198.8 million for future payment obligations under our Cash LTI Plan. The calculation of compensation expense related to the Cash LTI Plan includes estimated forfeiture rate assumptions. Cash LTI awards issued to employees under the Cash LTI Plan vest in three or four equal installments, with one-third or one-fourth of the aggregate amount of the Cash LTI award vesting on each anniversary of the grant date over a three or four-year period. In order to receive payments under a Cash LTI award, participants must be employed by us as of the applicable award vesting date.

Guarantees and Contingencies. We maintain guarantee arrangements available through various financial institutions for up to $92.1 million, of which $59.6 million had been issued as of June 30, 2022, primarily to fund guarantees to customs authorities for value-added tax and other operating requirements of our consolidated subsidiaries in Europe, Israel and Asia.

Indemnification Obligations. Subject to certain limitations, we are obligated to indemnify our current and former directors, officers and employees with respect to certain litigation matters and investigations that arise in connection with their service to us. These obligations arise under the terms of our certificate of incorporation, its bylaws, applicable contracts, and Delaware and California law. The obligation to indemnify generally means that we are required to pay or reimburse the individuals' reasonable legal expenses and possibly damages and other liabilities incurred by several of our current and former directors, officers and employees in connection with these matters. For example, we have paid or reimbursed legal expenses incurred in connection with the investigation of our historical stock option practices and the related litigation and government inquiries. Although the maximum potential amount of future payments we could be required to make under the indemnification obligations generally described in this paragraph is theoretically unlimited, we believe the fair value of this liability, to the extent estimable, is appropriately considered within the reserve we have established for currently pending legal proceedings.

We are a party to a variety of agreements pursuant to which we may be obligated to indemnify the other party with respect to certain matters. Typically, these obligations arise in connection with contracts and license agreements or the sale of assets, under which we customarily agree to hold the other party harmless against losses arising therefrom, or provide customers with other remedies to protect against, bodily injury or damage to personal property caused by our products, non-compliance with our product performance specifications, infringement by our products of third-party intellectual property rights and a breach of warranties, representations and covenants related to matters such as title to assets sold, validity of certain intellectual property rights, non-infringement of third-party rights, and certain income tax-related matters. In each of these circumstances, payment by us is typically subject to the other party making a claim to and cooperating with us pursuant to the procedures specified in the particular contract. This usually allows us to challenge the other party's claims or, in case of breach of intellectual property representations or covenants, to control the defense or settlement of any third-party claims brought against the other party. Further, our obligations under these agreements may be limited in terms of amounts, activity (typically at our option to replace or correct the products or terminate the agreement with a refund to the other party), and duration. In some instances, we may have recourse against third parties and/or insurance covering certain payments made by us.

In addition, we may in limited circumstances enter into agreements that contain customer-specific commitments on pricing, tool reliability, spare parts stocking levels, response time and other commitments. Furthermore, we may give these customers limited audit or inspection rights to enable them to confirm that we are complying with these commitments. If a customer elects to exercise its audit or inspection rights, we may be required to expend significant resources to support the audit or inspection, as well as to defend or settle any dispute with a customer that could potentially arise out of such audit or inspection. To date, we have made no significant accruals in our Consolidated Financial Statements for this contingency. While we have not in the past incurred significant expenses for resolving disputes regarding these types of commitments, we cannot make any assurance that it will not incur any such liabilities in the future.

It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of our obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under these agreements have not had a material effect on our business, financial condition, results of operations or cash flows.

NOTE 17 — DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

The authoritative guidance requires companies to recognize all derivative instruments, including foreign exchange contracts and rate lock agreements (collectively “derivatives”) as either assets or liabilities at fair value on the Consolidated Balance Sheets. In accordance with the accounting guidance, we designate foreign currency forward transactions and options contracts and interest rate forward transactions as cash flow hedges. In accordance with the accounting guidance, we also designate certain foreign currency exchange contracts as net investment hedge transactions intended to mitigate the variability of the value of certain investments in foreign subsidiaries.

Our foreign subsidiaries operate and sell our products in various global markets. As a result, we are exposed to risks relating to changes in foreign currency exchange rates. We utilize foreign exchange contracts to hedge against future movements in foreign currency exchange rates that affect certain existing and forecasted foreign currency denominated sales and purchase transactions, such as the Japanese yen, the euro, the pound sterling and the Israeli new shekel. We routinely hedge our exposures to certain foreign currencies with various financial institutions in an effort to minimize the impact of certain currency exchange rate fluctuations. These foreign exchange contracts, designated as cash flow hedges, generally have maturities of less than 18 months. Cash flow hedges are evaluated for effectiveness monthly, based on changes in total fair value of the derivatives. If a financial counterparty to any of our hedging arrangements experiences financial difficulties or is otherwise unable to honor the terms of the foreign currency hedge, we may experience material losses.

Since fiscal 2015, we have entered into four sets of Rate Lock Agreements to hedge the benchmark interest rate on portions of our Senior Notes prior to issuance. Upon issuance of the associated debt, the Rate Lock Agreements were settled and their fair values were recorded within AOCI. The resulting gains and losses from these transactions are amortized to interest expense over the lives of the associated debt. We recognized a net expense of $1.0 million, $1.1 million and $0.6 million for the fiscal years ended June 30, 2022, 2021 and 2020, respectively, for the amortization of the net of the four sets of Rate Lock Agreements that had been recognized in AOCI, which increased the interest expense on a net basis. As of June 30, 2022, the aggregate unamortized portion of the fair value of the Rate Lock Agreements was a $54.8 million net gain.

For derivatives that are designated and qualify as cash flow hedges, the effective portion of the gains or losses is reported in AOCI and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. For derivative contracts executed after adopting the new accounting guidance in fiscal 2019, the election to include time value for the assessment of effectiveness is made on all forward contracts designated as cash flow hedges. The change in fair value of the derivative is recorded in AOCI until the hedged item is recognized in earnings. The assessment of effectiveness of options contracts designated as cash flow hedges exclude time value. The initial value of the component excluded from the assessment of effectiveness is recognized in earnings over the life of the derivative contract. Any difference between change in the fair value of the excluded components and the amounts recognized in earnings are recorded in AOCI.

For derivatives that are designated and qualify as a net investment hedge in a foreign operation and that meet the effectiveness requirements, the net gains or losses attributable to changes in spot exchange rates are recorded in cumulative translation within AOCI. The remainder of the change in value of such instruments is recorded in earnings using the mark-to-market approach. Recognition in earnings of amounts previously recorded in cumulative translation is limited to circumstances such as complete or substantially complete liquidation or sale of the net investment in the hedged foreign operations.

For derivatives that are not designated as hedges, gains and losses are recognized in other expense (income), net. We use foreign exchange contracts to hedge certain foreign currency denominated assets or liabilities. The gains and losses on these derivative instruments are largely offset by the changes in the fair value of the assets or liabilities being hedged.

Derivatives in Hedging Relationships: Foreign Exchange Contracts and Rate Lock Agreements

The gains (losses) on derivatives in cash flow and net investment hedging relationships recognized in OCI for the indicated periods were as follows:

(In thousands)	Year Ended June 30, 2022	2021	2020
Derivatives Designated as Cash Flow Hedging Instruments:			
Rate lock agreements:			
Amounts included in the assessment of effectiveness	$ 82,969	$ —	$ —
Foreign exchange contracts:			
Amounts included in the assessment of effectiveness	$ 21,940	$ 3,897	$ (16,649)
Amounts excluded from the assessment of effectiveness	$ 43	$ (115)	$ (90)
Derivatives Designated as Net Investment Hedging Instruments:			
Foreign exchange contracts(1)	$ 3,815	$ (191)	$ —

(1) No amounts were reclassified from AOCI into earnings related to the sale of a subsidiary.

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The locations and amounts of designated and non-designated derivatives' gains and losses reported in the Consolidated Statements of Operations for the indicated periods were as follows:

(In thousands)	Revenues	Costs of Revenues and Operating Expense	Interest Expense	Other Expense (Income), Net
For the year ended June 30, 2020				
Total amounts presented in the Consolidated Statements of Operations in which the effects of cash flow hedges are recorded	$ 5,806,424	$ 4,304,223	$ 160,274	$ 2,678
Gains (Losses) on Derivatives Designated as Hedging Instruments:				
Rate lock agreements:				
Amount of gains (losses) reclassified from AOCI to earnings	$ —	$ —	$ (637)	$ —
Foreign exchange contracts:				
Amount of gains (losses) reclassified from AOCI to earnings	$ 4,473	$ (1,377)	$ —	$ —
Amount excluded from the assessment of effectiveness recognized in earnings	$ (387)	$ —	$ —	$ —
Gains (Losses) on Derivatives Not Designated as Hedging Instruments:				
Amount of gains (losses) recognized in earnings	$ —	$ —	$ —	$ 1,990
For the year ended June 30, 2021				
Total amounts presented in the Consolidated Statements of Operations in which the effects of cash flow hedges are recorded	$ 6,918,734	$ 4,430,254	$ 157,328	$ (29,302)
Gains (Losses) on Derivatives Designated as Hedging Instruments:				
Rate lock agreements:				
Amount of gains (losses) reclassified from AOCI to earnings	$ —	$ —	$ (1,116)	$ —
Foreign exchange contracts:				
Amount of gains (losses) reclassified from AOCI to earnings	$ 920	$ 551	$ —	$ —
Amount excluded from the assessment of effectiveness recognized in earnings	$ (536)	$ —	$ —	$ 1,216
Gains (Losses) on Derivatives Not Designated as Hedging Instruments:				
Amount of gains (losses) recognized in earnings	$ —	$ —	$ —	$ 670
For the year ended June 30, 2022				
Total amounts presented in the Consolidated Statements of Operations in which the effects of cash flow hedges are recorded	$ 9,211,883	$ 5,557,702	$ 160,339	$ 4,605
Gains (Losses) on Derivatives Designated as Hedging Instruments:				
Rate lock agreements:				
Amount of gains (losses) reclassified from AOCI to earnings	$ —	$ —	$ (1,007)	$ —
Foreign exchange contracts:				
Amount of gains (losses) reclassified from AOCI to earnings	$ 11,219	$ (3,762)	$ —	$ —
Amount excluded from the assessment of effectiveness recognized in earnings	$ (531)	$ —	$ —	$ 2,333
Gains (Losses) on Derivatives Not Designated as Hedging Instruments:				
Amount of gains (losses) recognized in earnings	$ —	$ —	$ —	$ (10,665)

The U.S. dollar equivalent of all outstanding notional amounts of foreign currency hedge contracts, with maximum remaining maturities of approximately11 months as of June 30, 2022 and 10 months as of June 30, 2021, were as follows:

(In thousands)	As of June 30, 2022	As of June 30, 2021
Cash flow hedge contracts - foreign currency		
Purchase	$ 124,641	$ 12,550
Sell	$ 176,259	$ 134,845
Net Investment hedge contracts - foreign currency		
Sell	$ 66,436	$ 66,848
Other foreign currency hedge contracts		
Purchase	$ 565,586	$ 264,292
Sell	$ 389,368	$ 278,635

The locations and fair value of our derivatives reported in our Consolidated Balance Sheets as of the dates indicated below were as follows:

	Asset Derivatives			Liability Derivatives		
		As of June 30, 2022	As of June 30, 2021		As of June 30, 2022	As of June 30, 2021
(In thousands)	Balance Sheet Location	Fair Value		Balance Sheet Location	Fair Value	
Derivatives designated as hedging instruments						
Foreign exchange contracts	Other current assets	20,595	3,940	Other current liabilities	8,406	272
Total derivatives designated as hedging instruments		20,595	3,940		8,406	272
Derivatives not designated as hedging instruments						
Foreign exchange contracts	Other current assets	19,716	4,312	Other current liabilities	25,909	2,535
Total derivatives not designated as hedging instruments		19,716	4,312		25,909	2,535
Total derivatives		$ 40,311	$ 8,252		$ 34,315	$ 2,807

The changes in AOCI, before taxes, related to derivatives for the indicated periods were as follows:

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Beginning balance	$ (25,830)	$ (29,602)	$ (10,791)
Amount reclassified to earnings as net (gains) losses	(5,919)	181	(2,072)
Net change in unrealized gains (losses)	108,767	3,591	(16,739)
Ending balance	$ 77,018	$ (25,830)	$ (29,602)

Offsetting of Derivative Assets and Liabilities

We present derivatives at gross fair values in the Consolidated Balance Sheets. We have entered into arrangements with each of our counterparties, which reduce credit risk by permitting net settlement of transactions with the same counterparty under certain conditions. The information related to the offsetting arrangements for the periods indicated was as follows:

As of June 30, 2022				Gross Amounts of Derivatives Not Offset in the Consolidated Balance Sheets		
(In thousands)	Gross Amounts of Derivatives	Gross Amounts of Derivatives Offset in the Consolidated Balance Sheets	Net Amount of Derivatives Presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral Received	Net Amount
Derivatives - assets	$ 40,311	$ —	$ 40,311	$ (12,291)	$ —	$ 28,020
Derivatives - liabilities	$ (34,315)	$ —	$ (34,315)	$ 12,291	$ —	$ (22,024)

As of June 30, 2021				Gross Amounts of Derivatives Not Offset in the Consolidated Balance Sheets		
(In thousands)	Gross Amounts of Derivatives	Gross Amounts of Derivatives Offset in the Consolidated Balance Sheets	Net Amount of Derivatives Presented in the Consolidated Balance Sheets	Financial Instruments	Cash Collateral Received	Net Amount
Derivatives - assets	$ 8,252	$ —	$ 8,252	$ (2,492)	$ —	$ 5,760
Derivatives - liabilities	$ (2,807)	$ —	$ (2,807)	$ 2,492	$ —	$ (315)

NOTE 18 — RELATED PARTY TRANSACTIONS

During the fiscal years ended June 30, 2022, 2021 and 2020, we purchased from, or sold to, several entities, where one or more of our executive officers or members of our Board of Directors, or their immediate family members were, during the periods presented, an executive officer or a board member of a subsidiary, including Ansys, Inc., Citrix Systems, Inc., HP Inc. and Keysight Technologies, Inc. Proofpoint, Inc. was a related party only during the fiscal years ended June 30, 2021 and 2020. Anaplan, Inc.was a related party only during fiscal year ended June 30, 2020. The following table provides the transactions with these parties for the indicated periods (for the portion of such period that they were considered related):

	Year Ended June 30,		
(In thousands)	2022	2021	2020
Total revenues	$ 2,334	$ 1,276	$ 4,237
Total purchases	$ 1,082	$ 1,347	$ 2,414

Our receivable balance was $1.1 million and $1.1 million and payable balances were immaterial from these parties as of June 30, 2022 and 2021, respectively.

NOTE 19 — SEGMENT REPORTING AND GEOGRAPHIC INFORMATION

ASC 280, Segment Reporting, establishes standards for reporting information about operating segments. Operating segments are defined as components of an enterprise about which separate financial information is evaluated regularly by the chief operating decision maker (“CODM”) in deciding how to allocate resources and in assessing performance. Our CODM is our Chief Executive Officer.

We have four reportable segments: Semiconductor Process Control; Specialty Semiconductor Process; PCB, Display and Component Inspection; and Other. The reportable segments are determined based on several factors including, but not limited to, customer base, homogeneity of products, technology, delivery channels and similar economic characteristics.

Semiconductor Process Control

The Semiconductor Process Control segment offers a comprehensive portfolio of inspection, metrology and data analytics products, and related services, which helps IC manufacturers achieve target yield throughout the entire semiconductor fabrication process, from R&D to final volume production. Our differentiated products and services are designed to provide comprehensive solutions that help our customers accelerate development and production ramp cycles, achieve higher and more stable semiconductor die yields and improve their overall profitability. This reportable segment is comprised of two operating segments, Wafer Inspection and Patterning and GSS.

Specialty Semiconductor Process

The Specialty Semiconductor Manufacturing segment develops and sells advanced vacuum deposition and etching process tools, which are used by a broad range of specialty semiconductor customers, including manufacturers of MEMS, radio frequency communication chips, and power semiconductors for automotive and industrial applications. This reportable segment is comprised of one operating segment.

PCB, Display and Component Inspection

The PCB, Display and Component Inspection segment enables electronic device manufacturers to inspect, test and measure PCBs, FPDs and ICs to verify their quality, pattern the desired electronic circuitry on the relevant substrate and perform three-dimensional shaping of metalized circuits on multiple surfaces. This segment also engages in the development and marketing of character recognition solutions to banks, financial and other payment processing institutions and healthcare providers. This reportable segment is comprised of two operating segments, PCB and Display and Component Inspection.

Other

The Other segment is comprised of one operating segment. During the fourth quarter of fiscal 2020, we entered into an Asset Purchase Agreement to sell certain core assets of our non-strategic solar energy business, OLTS, which accounted for the majority of our Other reportable segment. The sale was completed in the first quarter of fiscal 2021 with an insignificant amount of proceeds. This business was engaged in the research, development and marketing of products for the deposition of thin film coating of various materials on crystalline silicon photovoltaic wafers for solar energy panels.

The CODM assesses the performance of each operating segment and allocates resources to those segments based on total revenue and segment gross profit and does not evaluate the segments using discrete asset information. Segment gross profit excludes corporate allocations and effects of changes in foreign currency exchange rates, amortization of intangible assets, amortization of inventory fair value adjustments, and transaction costs associated with our acquisitions related to costs of revenues.

The following is a summary of results for each of our four reportable segments for the indicated periods:

	Year Ended June 30,		
(In thousands)	**2022**	**2021**	**2020**
Semiconductor Process Control:			
Revenues	$ 7,924,822	$ 5,734,825	$ 4,745,446
Segment gross profit	$ 5,167,679	$ 3,705,222	$ 3,028,167
Specialty Semiconductor Process:			
Revenues	$ 456,579	$ 369,216	$ 329,700
Segment gross profit	$ 242,520	$ 206,706	$ 183,641
PCB, Display and Component Inspection:			
Revenues	$ 832,176	$ 812,620	$ 727,451
Segment gross profit	$ 378,964	$ 390,571	$ 315,723
Other:			
Revenues	$ —	$ 739	$ 3,614
Segment gross profit	$ —	$ (68)	$ (63)
Totals:			
Revenues for reportable segments	$ 9,213,577	$ 6,917,400	$ 5,806,211
Segment gross profit	$ 5,789,163	$ 4,302,431	$ 3,527,468

The following table reconciles total reportable segment revenue to total revenue for the indicated periods:

	Year Ended June 30,		
(In thousands)	**2022**	**2021**	**2020**
Total revenues for reportable segments	$ 9,213,577	$ 6,917,400	$ 5,806,211
Corporate allocations and effects of foreign exchange rates	(1,694)	1,334	213
Total revenues	$ 9,211,883	$ 6,918,734	$ 5,806,424

The following table reconciles total segment gross profit to total income before income taxes for the indicated periods:

(In thousands)	Year Ended June 30, 2022	2021	2020
Total segment gross profit	$ 5,789,163	$ 4,302,431	$ 3,527,468
Acquisition-related charges, corporate allocations and effects of foreign exchange rates[(1)]	169,721	155,862	170,605
R&D	1,105,254	928,487	863,864
SG&A	860,007	729,602	734,149
Goodwill impairment	—	—	256,649
Interest expense	160,339	157,328	160,274
Loss on extinguishment of debt	—	—	22,538
Other expense (income), net	4,605	(29,302)	2,678
Income before income taxes	$ 3,489,237	$ 2,360,454	$ 1,316,711

(1) Acquisition-related charges primarily include amortization of intangible assets, amortization of inventory fair value adjustments, and other acquisition-related costs classified or presented as part of costs of revenues.

Our significant operations outside the U.S. include manufacturing facilities in China, Germany, Israel and Singapore and sales, marketing and service offices in Japan, the rest of the Asia Pacific region and Europe. For geographical revenue reporting, revenues are attributed to the geographic location in which the customer is located. Long-lived assets consist of land, property and equipment, net, and are attributed to the geographic region in which they are located.

The following is a summary of revenues by geographic region, based on ship-to location, for the indicated periods:

(Dollar amounts in thousands)	Year Ended June 30, 2022		2021		2020	
Revenues:						
China	$ 2,660,438	29 %	$ 1,831,446	26 %	$ 1,495,977	26 %
Taiwan	2,528,482	27 %	1,690,558	25 %	1,598,201	27 %
Korea	1,430,495	16 %	1,343,473	19 %	911,848	16 %
North America	928,043	10 %	765,974	11 %	651,328	11 %
Japan	724,773	8 %	639,381	9 %	660,772	11 %
Europe and Israel	636,664	7 %	396,422	6 %	322,085	6 %
Rest of Asia	302,988	3 %	251,480	4 %	166,213	3 %
Total	$ 9,211,883	100 %	$ 6,918,734	100 %	$ 5,806,424	100 %

The following is a summary of revenues by major products for the indicated periods:

(Dollar amounts in thousands)	Year ended June 30, 2022		2021		2020	
Revenues:						
Wafer Inspection	$ 4,014,726	44 %	$ 2,661,167	39 %	$ 2,080,484	36 %
Patterning	2,050,025	22 %	1,505,990	22 %	1,278,382	22 %
Specialty Semiconductor Process	414,811	4 %	304,627	4 %	269,667	5 %
PCB, Display and Component Inspection	562,464	6 %	562,104	8 %	497,026	9 %
Services	1,910,455	21 %	1,678,418	24 %	1,477,699	25 %
Other	259,402	3 %	206,428	3 %	203,166	3 %
Total	$ 9,211,883	100 %	$ 6,918,734	100 %	$ 5,806,424	100 %

Wafer Inspection and Patterning products are offered in the Semiconductor Process Control segment. Services are offered in multiple segments. Other includes primarily refurbished systems, remanufactured legacy systems, and enhancements and upgrades for previous-generation products that are part of the Semiconductor Process Control segment.

In the fiscal year ended June 30, 2022, two customers accounted for approximately 20% and 12% of total revenues. In the fiscal year ended June 30, 2021, two customers accounted for approximately 17% and 15% of total revenues. In the fiscal year ended June 30, 2020, two customers accounted for approximately 20% and 14% of total revenues.

Land, property and equipment, net by geographic region as of the dates indicated below were as follows:

	As of June 30,	
(In thousands)	2022	2021
Land, property and equipment, net:		
U.S.	$ 547,454	$ 447,359
Singapore	146,057	76,882
Israel	72,791	57,403
Europe	55,370	56,895
Rest of Asia	28,257	24,488
Total	$ 849,929	$ 663,027

NOTE 20 — RESTRUCTURING CHARGES

Over the last few years, management approved plans to streamline our organization and business processes, which included reductions of workforce.

Restructuring charges were $1.0 million for fiscal year ended June 30, 2022. Restructuring charges were $12.4 million for the year ended, June 30, 2021 and included $3.9 million of non-cash charges for accelerated depreciation related to certain ROU assets and fixed assets to be abandoned. Restructuring charges were $7.7 million for the year ended June 30, 2020. The amounts of restructuring charges accrued were $2.1 million and $3.3 million as of June 30, 2022 and 2021, respectively.

NOTE 21 — SUBSEQUENT EVENTS

On August 4, 2022, we announced that our Board of Directors had declared a quarterly cash dividend of $1.30 per share to be paid on September 1, 2022 to stockholders of record as of the close of business on August 15, 2022.

On July 7, 2022 we borrowed $300.0 million from the Revolving Credit Facility, of which $75.0 million was repaid on July 29, 2022.

On July 7, 2022, the Company completed a tender offer for the purchase of $500.0 million of our $1.25 billion outstanding 4.650% 2014 Senior Notes due in 2024 and recognized a loss of approximately $13 million as a result of this early extinguishment.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and
Stockholders of KLA Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of KLA Corporation and its subsidiaries (the "Company") as of June 30, 2022 and 2021, and the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended June 30, 2022, including the related notes and financial statement schedule listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of June 30, 2022, 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of June 30, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended June 30, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of June 30, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for current expected credit losses in 2021.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

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

Critical Audit Matters

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

Uncertain Tax Position Related to the Ongoing Israeli Tax Authority Matter

As described in Notes 1 and 14 to the consolidated financial statements, the Company has recorded liabilities for uncertain tax positions of $217.9 million as of June 30, 2022, which includes a liability for an uncertain tax position arising from a tax assessment and subsequent Tax Decrees received from the Israel Tax Authority ("ITA"). The calculation of the Company's tax liability associated with the ongoing ITA matter involves dealing with uncertainties in the application of complex tax regulations. Management recognizes liabilities for uncertain tax positions based on the two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained in audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. Management re-evaluates uncertain tax positions on a quarterly basis. This evaluation is based on factors including, but not limited to changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity.

The principal considerations for our determination that performing procedures relating to the uncertain tax position related to the ongoing ITA matter is a critical audit matter are (i) the significant judgment by management when determining the uncertain tax position and the application of complex tax regulations; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's timely identification and accurate measurement of the uncertain tax position; and (iii) the evaluation of audit evidence available to support the tax liability for the uncertain tax position is complex and resulted in significant auditor judgment as the nature of the evidence is often highly subjective.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the identification and recognition of the liability for the uncertain tax position, controls addressing completeness of the uncertain tax position, and controls over measurement of the liability. These procedures also included, among others (i) testing the information used in the calculation of the liability for the uncertain tax position related to the ongoing ITA matter, including evaluating international filing positions, the related final tax returns, and communications between the Company and the tax authorities; (ii) testing the calculation of the liability, including management's assessment of the technical merits of tax position related to the ITA matter and estimates of the amount of tax benefit expected to be sustained for the matter; and (iii) testing the completeness of management's assessment of both the identification of the uncertain tax position and possible outcomes of each uncertain tax position.

/s/ PricewaterhouseCoopers LLP

San Jose, California

August 5, 2022

We have served as the Company's auditor since 1977.

SCHEDULE II

Valuation and Qualifying Accounts

(In thousands)	Balance at Beginning of Period	Charged to Expense	Deductions/ Adjustments	Balance at End of Period
Fiscal Year Ended June 30, 2020:				
Allowance for Credit Losses	$ 12,001	$ (189)	$ 10	$ 11,822
Allowance for Deferred Tax Assets	$ 166,571	$ —	$ 15,275	$ 181,846
Fiscal Year Ended June 30, 2021:				
Allowance for Credit Losses	$ 11,822	$ 2,246	$ 3,968	$ 18,036
Allowance for Deferred Tax Assets	$ 181,846	$ 2,650	$ 19,937	$ 204,433
Fiscal Year Ended June 30, 2022:				
Allowance for Credit Losses	$ 18,036	$ 5,710	$ (3,115)	$ 20,631
Allowance for Deferred Tax Assets	$ 204,433	$ 8,096	$ 31,900	$ 244,429

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) (“Disclosure Controls”) as of the end of the period covered by this Annual Report on Form 10-K (this “Report”) required by Exchange Act Rules 13a-15(b) or 15d-15(b). The evaluation of our disclosure controls and procedures was conducted under the supervision and with the participation of our management, including our Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”). Based on this evaluation, the CEO and CFO have concluded that as of June 30, 2022, the end of the period covered by this Report, our Disclosure Controls were effective at a reasonable assurance level.

Attached as exhibits to this Report are certifications of the CEO and CFO, which are required in accordance with Rule 13a-14 of the Exchange Act. This Controls and Procedures section includes the information concerning the controls evaluation referred to in the certifications, and it should be read in conjunction with the certifications for a more complete understanding of the topics presented.

Definition of Disclosure Controls

Disclosure Controls are controls and procedures designed to reasonably assure that information required to be disclosed in our reports filed or submitted under the Exchange Act, such as this Report, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms. Disclosure Controls are also designed to reasonably assure that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate to allow timely decisions regarding required disclosure. Our Disclosure Controls include components of our internal control over financial reporting, which consists of control processes designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles in the United States. To the extent that components of our internal control over financial reporting are included within our Disclosure Controls, they are included in the scope of our annual controls evaluation.

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 Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our CEO and CFO, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in the framework in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of June 30, 2022.

The effectiveness of our internal control over financial reporting as of June 30, 2022 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears in Item 8, "Financial Statements and Supplementary Data" in this Annual Report on Form 10-K.

Limitations on the Effectiveness of Controls

Our management, including our CEO and CFO, does not expect that our Disclosure Controls or internal control over financial reporting will prevent all error 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. Further, 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. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving our stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the fourth quarter of the fiscal year ended June 30, 2022 that have materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

For the information required by this Item, see "Information About the Board of Directors and its Committees," "Information About Executive Officers," "Our Corporate Governance Practices - Standards of Business Conduct; Whistleblower Hotline and Website," "Report of the Audit Committee," and, if applicable, "Security Ownership of Certain Beneficial Owners and Management - Delinquent Section 16(a) Reports," in the Proxy Statement, which is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

For the information required by this Item, see "Executive Compensation and Other Matters," "Information About the Board of Directors and Its Committees - Director Compensation," "Our Corporate Governance Practices - Compensation and Talent Committee Interlocks and Insider Participation," "Compensation and Talent Committee Report," and "Information About the Board of Directors and Its Committees - Compensation and Talent Committee - Risk Considerations in Our Compensation Programs" in the Proxy Statement, which is incorporated herein by reference.

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

For the information required by this Item, see "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" in the Proxy Statement, which is incorporated herein by reference.

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

For the information required by this Item, see “Certain Relationships and Related Transactions” and “Information About the Board of Directors and Its Committees - The Board of Directors” in the Proxy Statement, which is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

For the information required by this Item, see “Proposal Two: Ratification of Appointment of PricewaterhouseCoopers LLP as Our Independent Registered Public Accounting Firm for the Fiscal Year Ending June 30, 2023” in the Proxy Statement, which is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this Annual Report on Form 10-K:

1. Financial Statements:

The following financial statements and schedules of the Registrant are contained in Item 8, “Financial Statements and Supplementary Data” of this Annual Report on Form 10-K:

2. Financial Statement Schedule:

The following financial statement schedule of the Registrant is filed as part of this Annual Report on Form 10-K and should be read in conjunction with the financial statements:

All other schedules are omitted because they are either not applicable or the required information is shown in the Consolidated Financial Statements or notes thereto.

3. Exhibits

The information required by this item is set forth below.

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit Number	Filing Date
3.1	Restated Certificate of Incorporation	10-K	No. 000-09992	3.1	August 16, 2019
3.2	Amended and Restated Bylaws	8-K	No. 000-09992	3.1	May 7, 2021
4.1	Indenture dated November 6, 2014 between KLA-Tencor Corporation and Wells Fargo Bank, National Association, as trustee	8-K	No. 000-09992	4.1	November 7, 2014
4.2	Form of Officer's Certificate setting forth the terms of the Notes (with form of Notes attached)	8-K	No. 000-09992	4.2	November 7, 2014
4.3	Indenture, dated as of June 23, 2022 between KLA Corporation and U.S. Bank Trust Company, National Association, as trustee	8-K	No. 000-09992	4.1	June 24, 2022
4.4	Form of Officer's Certificate setting forth the terms of the 4.650% Senior Notes due 2032, 4.950% Senior Notes due 2052, and 5.250% Senior Notes due 2062 (with form of Notes attached)	8-K	No. 000-09992	4.2	June 24, 2022
4.5	Form of Officer's Certificate setting forth the terms of the 4.100% Senior Notes due 2029 and 5.000% Senior Notes due 2049 (with form of Notes attached)	8-K	No. 000-09992	4.2	March 20, 2019
4.6	Form of Officer's Certificate setting forth the terms of the 3.300% Senior Notes due 2050 (with form of Notes attached)	8-K	No. 000-09992	4.2	March 3, 2020
4.7	Description of the Registrant's securities registered under Section 12 of the Securities Act of 1934	10-Q	No. 000-09992	4.1	October 30, 2020
10.1	2004 Equity Incentive Plan (as amended and restated (as of November 7, 2018))*	S-8	No. 228283	10.1	November 8, 2018
10.2	Form of Restricted Stock Unit Award Notification (Performance-Vesting)*	10-K	No. 000-09992	10.2	August 6, 2021
10.3	Form of Restricted Stock Unit Award Notification (Service-Vesting)*	10-K	No. 000-09992	10.3	August 6, 2021
10.4	Form of Accelerated Stock Repurchases Agreement	8-K	No. 000-09992	10.1	June 24, 2022
10.5	Executive Deferred Savings Plan (as amended and restated effective July 31, 2019)*	10-K	No. 000-09992	10.9	August 16, 2019
10.6	Credit Agreement, dated as of June 8, 2022, by and among KLA Corporation, the several banks and other financial institutions party thereto as lenders, and JPMorgan Chase Bank, N.A., as administrative agent	8-K	No. 000-09992	10.1	June 8, 2022
10.7	Amended and Restated Executive Severance Plan*	8-K	No. 000-09992	10.1	October 20, 2016
10.8	Amended and Restated 2010 Executive Severance Plan*	10-Q	No. 000-09992	10.45	October 22, 2015
10.9	Calendar Year 2022 Executive Incentive Plan*+	10-Q	No. 000-09992	10.1	April 29, 2022
10.10	Amendment No. 1 dated as of July 25, 2022, by and among the registrant, the subsidiary guarantors party thereto, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent ^				
21.1	List of Subsidiaries				

Exhibit Number	Exhibit Description	Incorporated by Reference Form	File No.	Exhibit Number	Filing Date
23.1	Consent of Independent Registered Public Accounting Firm				
31.1	Certification of Chief Executive Officer under Rule 13a-14(a)/15d - 14(a) of the Securities Exchange Act of 1934				
31.2	Certification of Chief Financial Officer under Rule 13a-14(a)/15d - 14(a) of the Securities Exchange Act of 1934				
32	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350^				
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				
101.SCH	XBRL Taxonomy Extension Schema Document				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				
104	Cover Page Interactive Data File (the cover page XBRL tags are embedded within the Inline XBRL document).				

* Denotes a management contract, plan or arrangement.

\+ Certain portions of this document that constitute confidential information have been redacted in accordance with Regulation S-K, Item 601(b)(10).

^ Furnished herewith

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 report to be signed on its behalf by the undersigned, thereunto duly authorized.

KLA Corporation

August 4, 2022 By: /S/ RICHARD P. WALLACE

(Date)

Richard P. Wallace
President and Chief Executive Officer

Each person whose signature appears below constitutes and appoints Richard P. Wallace and Bren D. Higgins, and each or any of them, his or her true and lawful attorney-in-fact and agent, each acting alone, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments or supplements (including post-effective amendments) to this Report, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ RICHARD P. WALLACE **Richard P. Wallace**	President, Chief Executive Officer and Director (principal executive officer)	August 4, 2022
/s/ BREN D. HIGGINS **Bren D. Higgins**	Executive Vice President and Chief Financial Officer (principal financial officer)	August 2, 2022
/s/ VIRENDRA A. KIRLOSKAR **Virendra A. Kirloskar**	Senior Vice President and Chief Accounting Officer (principal accounting officer)	August 3, 2022
/s/ EDWARD W. BARNHOLT **Edward W. Barnholt**	Chairman of the Board and Director	August 2, 2022
/s/ ROBERT M. CALDERONI **Robert M. Calderoni**	Director	August 2, 2022
/s/ JENEANNE HANLEY **Jeneanne Hanley**	Director	August 4, 2022
/s/ EMIKO HIGASHI **Emiko Higashi**	Director	August 2, 2022
/s/ KEVIN J. KENNEDY **Kevin J. Kennedy**	Director	August 2, 2022
/s/ GARY B. MOORE **Gary B. Moore**	Director	August 2, 2022
/s/ MARIE MYERS **Marie Myers**	Director	August 2, 2022
/s/ KIRAN M. PATEL **Kiran M. Patel**	Director	August 2, 2022
/s/ VICTOR PENG **Victor Peng**	Director	August 2, 2022

/s/ ROBERT A. RANGO **Robert A. Rango**	Director	August 2, 2022

Exhibit 10.10

AMENDMENT NO. 1 dated as of July 25, 2022 (this "Agreement"), among KLA CORPORATION, the SUBSIDIARY GUARANTORS party hereto, the LENDERS party hereto and JPMORGAN CHASE BANK, N.A., as Administrative Agent.

Reference is made to the Credit Agreement dated as of June 8, 2022 (the "Credit Agreement"), among KLA Corporation, a Delaware corporation (the "Company"), the lenders party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent. Capitalized terms used but not defined herein have the meanings assigned to them in the Credit Agreement.

WHEREAS, pursuant to the Credit Agreement, the Lenders have agreed to extend and have extended credit to the Company pursuant to the terms and subject to the conditions set forth therein.

WHEREAS, the Company has requested that the Renewable Electricity Percentage Target and the Renewable Electricity Percentage Threshold set forth in the Sustainability Table for each calendar year be increased to the corresponding Renewable Electricity Percentage Target and the corresponding Renewable Electricity Percentage Threshold identified in Schedule 1.01 hereto.

WHEREAS, each of the Required Lenders is willing to consent to the foregoing request on the terms and subject to the conditions set forth herein.

NOW THEREFORE, in consideration of the mutual agreements herein contained and other good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, and subject to the conditions set forth herein, the parties hereto hereby agree as follows:

SECTION 1. Amendment. Effective as of the First Amendment Effective Date (as defined below), Schedule 1.01 to the Credit Agreement is hereby amended and restated in its entirety to be in the form of Schedule 1.01 hereto.

SECTION 2. Representations and Warranties. The Company represents and warrants to the other parties hereto that:

(a) This Agreement has been duly authorized by all necessary corporate or other organizational action and, if required, stockholder or other equityholder action, of the Company and each Subsidiary Guarantor. This Agreement has been duly executed and delivered by the Company and each Subsidiary Guarantor and constitutes a legal, valid and binding obligation of the Company and each Subsidiary Guarantor, enforceable against it in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

(b) As of the First Amendment Effective Date and after giving effect to the transactions contemplated hereby:

(i) the representations and warranties of each Loan Party set forth in the Loan Documents are true and correct (A) in the case of the representations and warranties qualified as to materiality, in all respects and (B) otherwise, in all material respects, in each case on and as of the First Amendment Effective Date, except in the case of any such representation and warranty that expressly relates to a prior date, in which case such representation and warranty is so true and correct on and as of such prior date; and

(ii) no Default or Event of Default has occurred and is continuing.

SECTION 3. Conditions to Effectiveness. This Agreement shall become effective on the date (the "First Amendment Effective Date") on which the Administrative Agent shall have executed a counterpart of this Agreement and shall have received from the Company, each Subsidiary Guarantor and Lenders that represent the Required Lenders either a counterpart of this Agreement signed on behalf of such party or evidence satisfactory to the Administrative Agent (which may include any Electronic Signatures transmitted by fax, emailed .pdf or any other electronic means that reproduces an image of an actual executed signature page) that such party has signed a counterpart of this Agreement.

The Administrative Agent shall promptly notify the Company and each Lender of the First Amendment Effective Date, and such notice shall be conclusive and binding.

SECTION 4. Reaffirmation of Guarantee. Each Loan Party hereby unconditionally and irrevocably ratifies and reaffirms its obligations under the Guarantee Agreement and confirms that the Guarantee Agreement and, in the case of each Subsidiary Guarantor, its Guarantee of the Obligations thereunder (including its Guarantee of any Obligations arising as a result of this Agreement), continues to have full force and effect at law, notwithstanding this Agreement.

SECTION 5. Effect of this Agreement. (a) Except as expressly set forth herein, this Agreement shall not by implication or otherwise limit, impair, constitute a waiver of, or otherwise affect the rights and remedies of the Administrative Agent or the Lenders under the Credit Agreement or any other Loan Document, and shall not alter, modify, amend or in any way affect any of the terms, conditions, obligations, covenants or agreements contained in the Credit Agreement or any other Loan Document, all of which are ratified and affirmed in all respects and shall continue in full force and effect. Nothing herein shall be deemed to entitle the Company to any other consent to, or any other waiver, amendment, modification or other change of, any of the terms, conditions, obligations, covenants or agreements contained in the Credit Agreement or any other Loan Document in similar or different circumstances.

(b) On and after the First Amendment Effective Date, each reference in the Credit Agreement to "this Agreement", "herein", "hereunder", "hereto", "hereof" and words of similar import shall, unless the context otherwise requires, refer to the Credit Agreement as amended hereby, and each reference to the Credit Agreement in any other Loan Document shall be deemed to be a reference to the Credit Agreement as amended hereby. This Agreement shall constitute a "Loan Document" for all purposes of the Credit Agreement and the other Loan Documents.

SECTION 6. Applicable Law. This Agreement shall be governed by, and construed in accordance with, the law of the State of New York.

SECTION 7. Counterparts; Effectiveness. This Agreement may be executed in counterparts (and by different parties hereto on different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. The words "execution", “signed”, “signature”, “delivery” and words of like import in or relating to this Agreement and/or any document to be signed in connection with this Agreement and the transactions contemplated hereby shall be deemed to include Electronic Signatures and deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be.

SECTION 8. Incorporation by Reference. The provisions of Sections 9.07, 9.09(b), 9.09(c), 9.09(d), 9.10 and 9.11 of the Credit Agreement are hereby incorporated by reference as if set forth in full herein, mutatis mutandis.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized
KLA CORPORATION,

by:

/s/ Bren Higgins

Name: Bren D. Higgins

Title: Executive Vice President
and Chief Financial Officer

officers as of the day and year first written above.

KLA-TENCOR ASIA-PAC DISTRIBUTION CORPORATION, as Subsidiary Guarantor

by:

/s/ Bren Higgins

Name: Bren D. Higgins

Title: Secretary

KLA-TENCOR INTERNATIONAL CORPORATION, as Subsidiary Guarantor

by:

/s/ Bren Higgins

Name: Bren D. Higgins

Title: Secretary

JPMORGAN CHASE BANK, N.A., Individually and as Administrative Agent,

by:

/s/ Zachary Quan

Name: Zachary Quan

Title: Vice President

Name of Institution: Bank of America, N.A.

by:

/s/ Puneet Lakhotia

Name: Puneet Lakhotia

Title: Director

Name of Institution: CITIBANK, N.A

by:

/s/ Matthew Sutton
Name: Matthew Sutton
Title: Vice President

.

Name of Institution: WELLS FARGO BANK, NATIONAL ASSOCIATION

by:

/s/ Derek Jensen
Name: Derek Jensen
Title: Vice President

by:

/s/ Carlos Cruz
Name: Carlos Cruz
Title: Director

Name of Institution: TRUIST BANK

DBS BANK LTD.

by:

/s/ Josephine Lim
Name: Josephine Lim
Title: Senior Vice President

Name of Institution:
Industrial and Commercial Bank of China Limited, New York Branch

by:

/s/ Yu Wang

Exhibit 10.10

Name: Yu Wang
Title: Director

by:

/s/ Yuanyuan Peng
Name: Yuanyuan Peng
Title: Executive Director

Name of Institution: THE BANK OF NOVA SCOTIA

by:

/s/ Khrystyna Manko
Name: Khrystyna Manko
Title: Director

Name of Institution: U.S. BANK NATIONAL ASSOCIATION

by:

/s/ Matt S. Scullin
Name: Matt S. Scullin
Title: Senior Vice President

Name of Institution: Bank of China, Los Angeles Branch

by:

/s/ Yong Ou
Name: Yong Ou
Title: SVP & Branch Manager

by:

/s/ Jeffrey Leets
Name: Jeffrey Leets
Title: Vice President

Name of Institution: The Northern Trust Company

For any Lender requiring a second signature block:

by:

Name:
Title:

SCHEDULE 1.01

SUSTAINABILITY TABLE

KPI Metric	Annual Sustainability Targets				
	CY2022	CY2023	CY2024	CY2025	CY2026
GHG Emissions Target (Mt CO2e)	47,900	43,600	42,200	40,300	37,100
Renewable Electricity Percentage Target (%)	56%	64%	68%	72%	77%

KPI Metric	Annual Sustainability Thresholds				
	CY2022	CY2023	CY2024	CY2025	CY2026
GHG Emissions Threshold (Mt CO2e)	50,800	46,200	44,700	42,700	39,400
Renewable Electricity Percentage Threshold (%)	52%	60%	64%	68%	73%

Exhibit 21.1

KLA Corporation
List of Subsidiaries as of June 30, 2022

Name	**State or Other Jurisdiction of Incorporation / Organization**
DOMESTIC SUBSIDIARIES	
Anchor Semiconductor, Inc.	California
International Sales & Business, Inc.	California
KLA-Tencor China Corporation	California
KLA-Tencor International Corporation	California
VLSI Standards, Inc.	California
Belize Holdings, LLC	Delaware
ECI Technology, Inc.	New Jersey
ECI Technology International, Inc.	Delaware
KLA-Tencor Asia-Pac Distribution Corporation	Delaware
KT Venture Group, LLC	Delaware
KT Venture Group II, LLC	Delaware
KT Venture Management, LLC	California
Dino Acquisition Technology LLC	Delaware
Zeta Instruments, Inc.	Delaware
KT Recreation Association, LLC	Delaware
Whiskey Holding Sub, LLC	Delaware
Microsense, LLC	Delaware
Nanomechanics Inc.	Tennessee
Filmetrics, Inc.	California
Orbotech, Inc.	Delaware
Photon Dynamics, Inc.	California
Photon Dynamics Solar Corporation	Delaware
Orbotech LT Solar, LLC	Delaware
KLA Aleris Holding, LLC	Delaware
KLA FinCo LLC	Delaware
KLA Singapore LLC	Delaware
INTERNATIONAL SUBSIDIARIES	
Anchor (Shanghai) Semiconductor Inc.	Shanghai
ICOS Vision Systems Corporation BVBA	Belgium
ICOS Vision Systems NV	Belgium
Lee Ta Technologies (BVI), Inc.	British Virgin Islands
KLA-Tencor Corporation (Cayman) Limited, I	Cayman Islands
KLA-Tencor Corporation (Cayman) Limited, III	Cayman Islands
KLA-Tencor Corporation (Cayman) Limited, IV	Cayman Islands
ICOS Vision Systems (Shenzhen) Co. Ltd.	China
KLA-Tencor International Trading (Shanghai) Co., Ltd.	China
KLA-Tencor Semiconductor Equipment Technology (Shanghai) Co., Ltd.	China
KLA-Tencor France SARL	France
KLA-Tencor GmbH	Germany
KLA-Tencor MIE GmbH	Germany
KLA-Tencor MIE Holdings GmbH & Co. KG	Germany
KLA-Tencor MIE Holdings Verwaltungs GmbH	Germany

Name	State or Other Jurisdiction of Incorporation / Organization
ICOS Vision Systems Ltd.	Hong Kong
KLA-Tencor Software India Private Limited	India
KLA-Tencor Ireland Ltd.	Ireland
Optical Metrology Patents Limited	Ireland
KLA-Tencor Corporation (Israel)	Israel
KLA-Tencor Corporation Holding (1987) Ltd.	Israel
KLA-Tencor Corporation (1992) Ltd.	Israel
KLA-Tencor Integrated Metrology (Israel) (2002) Ltd.	Israel
KLA-Tencor Italy S.R.L.	Italy
KLA-Tencor Japan, Ltd.	Japan
KLA-Tencor Korea, Inc.	Korea
KLA-Tencor MIE Holdings S.à r.l.	Luxembourg
KLA-Tencor (Malaysia) Sdn Bhd	Malaysia
KLA-Tencor (Singapore) Pte. Ltd.	Singapore
KLA-Tencor Singapore Holding Co. Pte. Ltd.	Singapore
KLA-Tencor Singapore Holding Co. Pte II Ltd.	Singapore
KLA-Tencor (Thailand) Limited	Thailand
KLA-Tencor Limited	United Kingdom
Lakers Holding Company APS	Denmark
Capres A/S	Denmark
ECI Japan KK	Japan
Hefei Shen’An Semiconductor Technology Co.	China
InnerSense	Israel
Orbotech Ltd	Israel
Orbograph Ltd.	Israel
Frontline P.C.B. Solutions Ltd.	Israel
Laser Imaging Systems GmbH	Germany
New System SRL	Italy
Orbotech Deutschland GmbH	Germany
Orbotech S.A.	Belgium
Orbotech Pacific Ltd.	Hong Kong
Orbotech Electronics (Shenzhen) Co., Ltd	China
Orbotech Electronics (Suzhou) Co Ltd	China
Orbotech Trading (Shanghai) Co., Ltd	China
Orbotech Japan Ltd	Japan
Orbotech Asia Ltd	Hong Kong
Orbotech Singapore Corporation Pte Ltd	Singapore
Orbotech Korea Ltd	Korea
Orbotech Logistics Ltd	Hong Kong
Ofek Technologies	Israel
SPTS Technologies Limited	UK
SPTS Technologies Ltd	Taiwan
SPTS Technologies (Shanghai) Co. Ltd.	China
SPTS Technologies UK Limited	UK
SPTS Technologies Overseas Holdings Ltd.	UK
Orbotech Technology Ventures Ltd.	Israel

Name	State or Other Jurisdiction of Incorporation / Organization
Orbotech Technology Ventures LP	Israel
Orbotech Holding GmbH	Germany
Orbotech B.V.	Netherlands
Orbotech Caribbean Ltd.	British Virgin Islands
Qoniac GmbH	Germany
Qoniac Korea Ltd.	Korea

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-265497) and Form S-8 (No. 033-88662, No. 333-03003, No. 333-22939, No. 333-22941, No. 333-26681, No. 333-32537, No. 333-45271, No. 333-60887, No. 333-60883, No. 333-68415, No. 333-68423, No. 333-85123, No. 333-85121, No. 333-49828, No. 333-60864, No. 333-75944, No. 333-100166, No. 333-113358, No. 333-120218, No. 333-121637, No. 333-129868, No. 333-140743, No. 333-144003, No. 333-147434, No. 333-147437, No. 333-152864, No. 333-159017, No. 333-162887, No. 333-168618, No. 333-192167, No. 333-198006, No. 333-219734, No. 333-228283, No. 333-230112, No. 333-233362, No. 333-242393, No. 333-265500) of KLA Corporation of our report dated August 5, 2022 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
San Jose, California
August 5, 2022

Exhibit 31.1

Certification of Chief Executive Officer
Pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) As Adopted
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Richard P. Wallace, certify that:

1. I have reviewed this Annual Report on Form 10-K of KLA Corporation;
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.

August 4, 2022
(Date)

/s/ Richard P. Wallace

Richard P. Wallace
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Certification of Chief Financial Officer
Pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) As Adopted
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Bren D. Higgins, certify that:

1. I have reviewed this Annual Report on Form 10-K of KLA Corporation;
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.

August 2, 2022
(Date)

/s/ BREN D. HIGGINS

Bren D. Higgins
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Exhibit 32

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Richard P. Wallace, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of KLA Corporation on Form 10-K for the fiscal year ended June 30, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of KLA Corporation.

August 4, 2022	By:	/s/ RICHARD P. WALLACE
(Date)	**Name:**	**Richard P. Wallace**
	Title:	**President and Chief Executive Officer**

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Bren D. Higgins, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of KLA Corporation on Form 10-K for the fiscal year ended June 30, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of KLA Corporation.

August 2, 2022	By:	/s/ BREN D. HIGGINS
(Date)	**Name:**	**Bren D. Higgins**
	Title:	**Executive Vice President and Chief Financial Officer**