KLA TENCOR CORP Form 10-K August 06, 2010 Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the Fiscal Year Ended June 30, 2010

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 No. 000-09992

Edgar Filing: KLA TENCOR CORP - Form 10-K

KLA-TENCOR CORPORATION

(Exact Name of Registrant as Specified in its Charter)

Delaware (State or Other Jurisdiction of

Incorporation or Organization)

04-2564110 (I.R.S. Employer

Identification Number) 95035

(Zip Code)

One Technology Drive, Milpitas, California (Address of Principal Executive Offices) Registrant s Telephone Number, Including Area Code: (408) 875-3000

Securities Registered Pursuant to Section 12(b) of the Act:

Title of Each Class Common Stock, \$0.001 par value per share **Common Stock Purchase Rights**

Name of Each Exchange on Which Registered The NASDAQ Stock Market LLC The NASDAQ Stock Market LLC

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 x 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 x

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 x No⁻

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

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

Edgar Filing: KLA TENCOR CORP - Form 10-K

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

 Large accelerated filer x
 Accelerated filer "

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

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

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, 2009, was \$6.2 billion. Shares of common stock held by each officer and director and by each person or group who owns 10% or more of the outstanding common stock have been excluded in that such persons or groups may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The registrant had 167,831,465 shares of common stock outstanding as of July 22, 2010.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the 2010 Annual Meeting of Stockholders to be held on November 3, 2010 (Proxy Statement), and to be filed pursuant to Regulation 14A within 120 days after the registrant s fiscal year ended June 30, 2010, are incorporated by reference into Part III of this report.

INDEX

Special Note	Regarding	Forward-Looking	<u>Statements</u>

PART I

Item 1.	Business	1
Item 1A.	Risk Factors	15
Item 1B.	Unresolved Staff Comments	28
Item 2.	Properties	28
Item 3.	Legal Proceedings	29
Item 4.	(Removed and Reserved)	30
	PART II	

Item 5.	Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	
Item 6.	Selected Financial Data	33
Item 7.	Management s Discussion and Analysis of Financial Condition and Results of Operations	34
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	
Item 8.	Financial Statements and Supplementary Data	57
	Consolidated Balance Sheets as of June 30, 2010 and June 30, 2009	58
	Consolidated Statements of Operations for each of the three years in the period ended June 30, 2010	59
	Consolidated Statements of Stockholders Equity for each of the three years in the period ended June 30, 2010	60
	Consolidated Statements of Cash Flows for each of the three years in the period ended June 30, 2010	61
	Notes to Consolidated Financial Statements	62
	Report of Independent Registered Public Accounting Firm	109
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	110
Item 9A.	Controls and Procedures	110
Item 9B.	Other Information	111
	PART III	

Item 10.	Directors, Executive Officers and Corporate Governance	112
Item 11.	Executive Compensation	112
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	112
Item 13.	6. Certain Relationships and Related Transactions, and Director Independence	
Item 14.	Principal Accounting Fees and Services	112
	PART IV	

Item 15.	Exhibits, Financial Statement Schedule	113
	Signatures	118
	Schedule II Valuation and Qualifying Accounts	119
	Exhibit Index	120

i

ii

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. continue, anticipates, relies, believes, estimates, predicts, intends, potential, 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, among others, forecasts of the future results of our operations; the percentage of spending that our customers allocate to process control; orders for our products and capital equipment generally; sales of semiconductors; the allocation of capital spending by our customers; 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; the future impact or outcome of litigation or government investigations or audits; our future product offerings and product features; the success and market acceptance of new products; timing of shipment of backlog; the future of our product shipments and our product and service revenues; our future gross margins; our future research and development expenses and selling, general and administrative expenses; the future cost savings to be realized from our recent cost reduction efforts; 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 research and development; attraction and retention of employees; 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; our future income tax rate; dividends; 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 and cash generated from operations to meet our operating and working capital requirements; and the adoption of new accounting pronouncements.

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, those discussed in Item IA, 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, including the Quarterly Reports on Form 10-Q that we will file in the fiscal year ending June 30, 2011. You are cautioned not to place undue reliance on these forward-looking statements, and we expressly assume no obligation to update the forward-looking statements in this report after the date hereof.

ii

PART I

ITEM 1. BUSINESS The Company

KLA-Tencor Corporation (KLA-Tencor or the Company and also referred to as we or our) is a leading supplier of process control and yield management solutions for the semiconductor and related nanoelectronics industries. Our products are also used in a number of other industries, including the high brightness light emitting diode (HBLED), data storage and photovoltaic industries, as well as general materials research.

Within our primary area of focus, our comprehensive portfolio of products, services, software and expertise helps integrated circuit (IC or chip) manufacturers manage yield throughout the entire semiconductor fabrication process from research and development to final volume production. These products and solutions are designed to help customers accelerate their development and production ramp cycles, to achieve higher and more stable semiconductor die yields, and to improve overall profitability.

KLA-Tencor s products and services are used by the vast majority of wafer, IC, reticle and disk manufacturers in the world. These customers turn to us for inline wafer and IC defect monitoring, review and classification; reticle defect inspection and metrology; packaging and interconnect inspection; critical dimension (CD) metrology; pattern overlay metrology; film thickness, surface topography and composition measurements; measurement of in-chamber process conditions, wafer shape and stress metrology; computational lithography tools; and overall yield and fab-wide data management and analysis systems. Our advanced products, coupled with our unique yield management services, allow us to deliver the solutions our customers need to accelerate their yield learning rates and significantly reduce their risks and costs.

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

KLA-Tencor Corporation was formed in April 1997 through the merger of KLA Instruments Corporation and Tencor Instruments, two long-time leaders in the semiconductor equipment industry that had originally begun operations in 1975 and 1976, respectively.

Additional information about KLA-Tencor is available on our Web site at www.kla-tencor.com. We make available free of charge on our Web site our Annual Report on Form 10-K, our 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, as soon as reasonably practicable after we electronically file them with or furnish them to the Securities and Exchange Commission (SEC). Information contained on our Web site is not part of this Annual Report on Form 10-K or our other filings with the SEC. Additionally, these filings may be obtained through the SEC s Web site (www.sec.gov), which contains reports, proxy and information statements, and other information regarding issuers that file electronically. Documents that are not available through the SEC s Web site may also be obtained by mailing a request to the U.S. Securities and Exchange Commission, Office of FOIA/PA Operations, 100 F Street N.E., Washington, DC 20549-2736, by submitting an online request form at the SEC s Web site or by sending a fax to the SEC at 1-202-772-9337.

Industry

General Background

The semiconductor industry is KLA-Tencor s core focus. The semiconductor fabrication process begins with a bare silicon wafer a round disk that is six, eight or twelve inches in diameter, about as thick as a credit card and gray in color. The process of manufacturing wafers is itself highly sophisticated, involving the creation of large ingots of silicon by pulling them out of a vat of molten silicon. The ingots are then sliced into wafers and polished to a mirror finish.

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 chip 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. Most chips consist of two main structures: the lower structure, typically consisting of transistors or capacitors which perform the smart functions of the layers on the wafer have been fabricated, each chip on the wafer is tested for functionality. The wafer is then cut into individual devices, and those chips that passed functional testing are packaged. Final testing is performed on all packaged chips.

Current Trends

Companies that anticipate future market demands by developing and refining 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. During past industry cycles, semiconductor manufacturers generally contended with a few key new technologies or market trends, such as a specific design rule shrink. In today s market, driven by consumer demand for low-cost electronic goods from smart phones and MP3 players to laptops and portable devices, the leading semiconductor manufacturers are investing in bringing a multitude of new process technologies into production at the same time, some requiring new substrate and film materials, new geometries and advanced lithography techniques.

While many of these technologies have been adopted at the development and pilot production stages of chip manufacturing, significant challenges and risks associated with each technology have affected their adoption into full-volume production. For example, as design rules decrease, yields become more sensitive to the size and density of defects, while device performance characteristics (namely speed, capacity or power management) become more sensitive to such parameters as linewidth and film thickness variation. New process materials, such as high-k dielectrics, silicon-on-insulator (SOI) wafers and immersion lithography-capable photoresists, 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 semiconductor devices 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 wafer fabrication facility today can cost over \$5 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.

By developing new process control and yield management tools that help chipmakers accelerate the adoption of these new technologies into volume production, we enable our customers to better leverage these increasingly expensive facilities and significantly improve their return on investment (ROI). Once customers production lines are operating at high volume, our tools help ensure that yields are stable and process excursions are identified for quick resolution. In addition, the move to each new generation s smaller design rules, coupled with new materials and device innovation, has increased in-process variability, which requires an increase in inspection and metrology sampling.

KLA-Tencor systems not only analyze defectivity and metrology issues at critical points in the wafer, reticle and IC manufacturing processes, but also provide information to our customers so that they can identify and address the underlying process problems. The ability to locate the source of defects and resolve the underlying

2

process issues enables our customers to improve control over their manufacturing processes. This helps them increase their yield of high-performance parts and deliver their products to market ahead of their competitors thus maximizing their profit. With our broad portfolio of application-focused technologies and our dedicated yield technology expertise, we are in position to be a key supplier of comprehensive yield management solutions for customers next-generation products, including those required for the 32nm chip generation and beyond.

Products

KLA-Tencor is engaged primarily in the design, manufacture and marketing of process control and yield management solutions for the semiconductor and related nanoelectronics industries.

KLA-Tencor s offerings can be broadly categorized into the following groups: Chip Manufacturing, Wafer Manufacturing, Reticle Manufacturing, Complementary Metal-Oxide-Semiconductor (CMOS) Image Sensors Manufacturing, Data Storage Media/Head Manufacturing, Solar Manufacturing, HBLED Manufacturing and Other Technologies, Microelectromechanical Systems (MEMS) Manufacturing, and General Purpose/Lab Applications. We also provide refurbished KLA-Tencor Certified tools for our customers manufacturing larger design-rule devices, as well as comprehensive service and support for our products.

Chip Manufacturing

KLA-Tencor s comprehensive portfolio of defect inspection, review, metrology, in-situ process monitoring and lithography modeling tools help chip manufacturers manage yield throughout the entire fabrication process from research and development to final volume production. These products and solutions are designed to help fabs accelerate their development and production ramp cycles, to achieve higher and more stable semiconductor die yields, and to improve overall profitability.

Front-End Defect Inspection

KLA-Tencor s front-end defect inspection tools cover a broad range of yield applications within the IC manufacturing environment, including research and development, incoming wafer qualification, reticle qualification, and tool, process and line monitoring. Patterned and unpatterned wafer inspectors find particles, pattern defects and electrical issues on the front surface, back surface and edge of the wafer, allowing engineers to detect and monitor critical yield excursions. Fabs rely on our high sensitivity reticle inspection systems to identify defects in reticles at an early stage, to prevent reticle defects from printing on production wafers. The defect data generated by our inspectors is compiled and reduced to relevant root-cause and yield-analysis information with our suite of data management tools. By implementing our front-end defect inspection and analysis systems, chipmakers are able to take quick corrective action, resulting in faster yield improvement and better time to market.

In fiscal year 2010, we launched two families of front-end defect inspection products that help accelerate yield for 32nm design node devices. Our 2830 Series broadband wafer inspection platform uses a high-power plasma light source to illuminate defect types whose size or location previously made them very difficult to consistently detect. In addition, the Puma 9500 Series narrowband wafer inspection platform incorporates new optics and image acquisition technology that improve the tool s resolution and speed compared to its predecessor.

The products that we launched during fiscal year 2010 further strengthened our broad range of offerings that support the front-end defect inspection market. In the field of patterned wafer inspection, for example, we offer our 2367, 2810 Series, 2820 Series and 2830 Series systems (for broadband optical defect inspection); our Puma 9100 Series and 9500 Series systems (for narrowband optical defect inspection); and our eS35 system (for e-beam defect inspection). In the field of unpatterned wafer and surface inspection, our primary offering is our Surfscan[®] SP Series (a series of wafer defect inspection systems for process tool qualification and monitoring using blanket films and bare wafers), to which our SURFmonitorTM module



may be added to enable capture of low-contrast defects. For reticle inspection, we offer our TeraFabTM products, which are photomask inspection systems that allow IC fabs to qualify incoming reticles and inspect production reticles for contaminants. In addition, we offer a number of other products for the front-end defect inspection market, as reflected in the product table at the conclusion of this Products section.

Back-End Defect Inspection

KLA-Tencor offers a series of standalone inspection systems for various applications in the field of semiconductor packaging (i.e., at the back-end of the semiconductor manufacturing process). Our Component Inspector (CI) products inspect various semiconductor components that are handled in a tray, such as microprocessors or memory chips. Component inspection capability includes 3D coplanarity inspection, measurement of the evenness of the contacts, and 2D surface inspection. Our Wafer Inspector (WI) products inspect either undiced wafers or diced wafers mounted on film frame carriers. They inspect the surface quality of the wafers, the quality of the wafer cutting or wafer bumps.

Defect Review

KLA-Tencor s defect review systems capture high resolution images of the defects detected by inspection tools. These images enable defect classification, helping chipmakers to identify and resolve yield issues. Our complete line of defect review and classification tools spans optical and electron-beam technologies, from bench-top research systems to production-worthy tools having full factory automation. KLA-Tencor s suite of defect review and classification tools and data management systems form a broad solution for finding, identifying and tracking yield-critical defects and process issues.

In July 2009 we introduced the eDRTM-5210, an e-beam review and classification system that features second-generation electromagnetic-field immersion technology, engineered to deliver very high quality images and, consequently, accurate defect classification results.

Metrology

KLA-Tencor s array of metrology solutions addresses integrated circuit, substrate, photovoltaic solar cell and medical device manufacturing, as well as scientific research and other applications. Precise metrology and control of pattern dimensions, film thicknesses, layer-to-layer alignment, pattern placement, surface topography and electro-optical properties are growing in importance in many industries as critical dimensions narrow, film thicknesses shrink to countable numbers of atomic layers and devices become more complex. In June 2010, we announced the Archer[®] 300 LCM overlay metrology system. With smaller device CDs and the advent of innovative patterning technologies, tolerances for proper alignment of successive patterned layers have become more stringent. The new overlay metrology system has increased precision and introduces the capability for overlay control at the sub-die level in order to meet industry requirements.

In-Situ Process Monitoring

KLA-Tencor s SensArray SensorWafers series provides a unique way, not available from conventional equipment monitors, to capture the effect of the process environment on production wafers. Measurements, such as temperature and radio frequency voltage, are used by both chipmakers and process equipment manufacturers to visualize, diagnose and control their processes and process tools. SensArray products are used in many semiconductor and flat panel display fabrication processes, including lithography, etch and deposition.

Lithography Modeling

KLA-Tencor s PROLITH product line provides researchers at advanced IC manufacturers, lithography hardware suppliers, track companies and material providers with virtual lithography software to explore critical-feature designs, manufacturability and process-limited yield of proposed lithographic technologies without the time and expense of printing hundreds of test wafers using experimental materials and prototype process equipment.

In February 2010, we launched PROLITH X3.1, which enables researchers at leading-edge chipmakers, consortia and equipment makers to quickly and cost-effectively troubleshoot challenging issues in EUV and double patterning lithography (DPL) processes.

Wafer Manufacturing

KLA-Tencor s wafer manufacturing tools include inspection, metrology and data management systems. Specialized inspection tools assess surface quality and detect, count and bin defects during the wafer manufacturing process and as a critical part of outgoing inspection. Wafer geometry tools ensure the wafer is extremely flat and uniform in thickness, with precisely controlled surface topography. Specifications for wafer defectivity, geometry and surface quality are tightening as the dimensions of transistors become so small that the properties of the substrate can substantially affect transistor performance.

Key products in the wafer manufacturing field include our Surfscan SP series systems, which offer defect and surface quality inspection for polished wafers, epi wafers and engineered substrates, as well as SURFmonitor, an optional module for Surfscan SP2 and Surfscan SP2^{XP} systems that performs both surface and defect inspection (by monitoring process drift and capturing low-contrast defects) as well as wafer geometry and nanotopography metrology (by indicating sub-Angstrom surface topography variation on bare substrates). Other products that we offer for the wafer manufacturing market are highlighted in the product table at the conclusion of this Products section.

Reticle Manufacturing

Error-free reticles, or masks, are the first step in achieving high semiconductor device yields, since reticle defects can be replicated on production wafers. KLA-Tencor offers high sensitivity reticle inspection and metrology systems for mask shops, designed to help them manufacture reticles that are free of any relevant defects and meet mask metrology requirements. The reticle inspection systems use optical imaging and multiple inspection modes to find numerous types of reticle defects prior to printing on the wafer. The metrology systems enable quality reticle manufacturing by providing outstanding precision for reticle pattern placement and accurate measurement of reticles critical dimensions.

In September 2009, we launched a new reticle inspection platform for mask shop applications, the TeronTM 600 Series. Addressing a major transition in mask design below the 32nm node, our Teron 600 Series introduces programmable scanner-illumination capability and improved sensitivity and computational lithography power over its predecessor. These advances are necessary to enable development and manufacturing of the innovative reticles used at sub-32nm nodes.

The new Teron 600 Series adds to our existing reticle inspection portfolio, which includes our TeraScanTM XR system (for mask shop production of reticles for the 32nm node and above) and our TeraFab products.

CMOS Image Sensors Manufacturing

Image sensors are devices that convert light into electrical signal, for use primarily in cameras. As yield-limiting defects can occur at any step in the assembly process, inspecting the filter or micro-lens layers can help reduce materials waste and cycle time.

In October 2009, we launched the 8900 defect inspection system, a new tool for the CMOS Image Sensor market. The 8900 is designed to enable capture of a wide variety of defect types, with adjustable sensitivity and throughput settings for cost-effective defect management from initial product development through volume production of color filter arrays.

Data Storage Media/Head Manufacturing

Growth in data storage is being driven by a wave of innovative consumer electronics with small form factors and immense storage capacities, as well as an increasing need for high-volume storage options to back up new methods of remote computing and networking (such as cloud computing). Our process control and yield management solutions are designed to enable customers to rapidly understand and resolve complex manufacturing problems, which can help improve time to market and product yields. In the front-end and back-end of thin-film head wafer manufacturing, we offer the same process control equipment that we serve to the semiconductor industry. In addition, we offer an extensive range of test equipment and surface profilers with particular strength in photolithography and magnetics control. In substrate and media manufacturing, we offer metrology and defect inspection solutions with KLA-Tencor s optical surface analyzers and magneto-optical mappers.

Solar Manufacturing

Photovoltaic or solar cells are used to produce electrical power from light. The continuing growth of the solar industry is closely related to the production cost of solar cells, as economic viability increases with lowering prices. To address our customers needs in this important industry, KLA-Tencor offers both surface profilers and solar wafer and cell inspection modules which are integrated in different stages of the solar wafer and cell production lines to increase yield and lower production costs.

KLA-Tencor s ICOS PVI inspection modules are designed for high speed, automated, optical in-line inspection of both the front and backside of monocrystalline and polycrystalline solar wafers and cells, as well as optical classification of solar cells at the final stage of the production flow. The P- 6^{TM} surface profiling system provides stylus profiling and analysis of surface topography for issues such as roughness, film stress and curvature for solar cell samples up to 150mm.

HBLED Manufacturing and Other Technologies

HBLEDs are becoming more commonly used in solid-state lighting, television and notebook backlighting, and automotive applications. As HBLED device makers target aggressive cost and performance targets, they place significant emphasis on improved process control and yield during the manufacturing process.

In December 2009, we launched the ICOS WI-2250 wafer inspector, which allows defect inspection of patterned whole and diced wafers up to 200mm, with macro inspection sensitivity in the pre- and post-dice inspection (i.e., front- and back-end) of HBLED and MEMS products.

In addition, Candela[®] technology is used by industry leaders in HBLED, single-crystalline thin film, silicon carbide and semiconductor industries to monitor production lines, identify mission critical defects of interest, and create process-specific recipes to detect and classify killer defects (including pits, cracks and stains from epi and substrate processes that impact yield and field reliability) while ignoring nuisance defects. Our Candela Optical Surface Analyzer inspection technology is being used by leaders in the HBLED manufacturing industry to optimize epi productivity through improved process control.

MEMS Manufacturing

The increasing demand for MEMS technology is coming from diverse industries such as automotive, space and consumer electronics. MEMS have the potential to revolutionize nearly every product category by bringing

together silicon-based microelectronics with micromachining technology, making possible the realization of complete systems-on-a-chip. KLA-Tencor offers the tools and techniques, first developed for the integrated circuit industry, for this emerging market.

General Purpose/Lab Applications

A range of industries, including general scientific and materials research and optoelectronics require measurements of surface topography to either control their processes or research new material characteristics. Typical measurement parameters that our tools address include flatness, roughness, curvature, peak-to-valley, asperity, waviness, texture, volume, sphericity, slope, density, stress, bearing ratio and distance (mainly in the micron to nanometer range).

K-T CertifiedTM

K-T Certified is our certified refurbished tools program that delivers fully refurbished and tested tools to our customers with guaranteed performance. In addition to high-quality pre-owned 300mm and <200mm tools for the integrated circuit, reticle, substrate, MEMS and data storage markets, K-T Certified also offers system software and hardware performance upgrades to extend the capabilities of existing equipment. When a customer needs to move to the next manufacturing node, K-T Certified can help maximize existing assets through its repurchase, trade-in and redeployment services.

K-T ServicesTM

Our K-T Services program enables our customers in all business sectors to maintain the high performance and productivity of our products through a flexible portfolio of services. Whether a manufacturing site is producing integrated circuits, wafers or reticles, K-T Services delivers yield management expertise spanning advanced technology nodes, including collaboration with customers to determine the best products and services to meet technology requirements and optimize cost of ownership. Our comprehensive services include: proactive management of tools to identify and improve performance; expertise in optics, image processing and motion control with worldwide service engineers, 24/7 technical support teams and knowledge management systems; and an extensive parts network to ensure worldwide availability of parts.

7

Product Table

The following table presents a representative list of the products that we offered during the course of the fiscal year ended June 30, 2010:

MARKETS	APPLICATIONS	PRODUCTS
Chip Manufacturing	5 1111 4	
	Patterned Wafer	2367, 2810 Series, 2820 Series,
		2830 Series
		Puma TM 9100 and 9500 Series
		eS35
	Macro and Edge	VisEdge®
Front-End Defect Inspection		
		LDS
		8900
	Unpatterned Wafer/Surface	Surfscan [®] SP1 and SP2 Series
		SURFmonitor TM
	Reticle	TeraFab TM
	Data Management	Klarity [®] product family
Back-End Defect Inspection	Component Inspection	ICOS [®] CI product family
Back End Derect inspection	Wafer Inspection	ICOS [®] WI product family
Defect Review	e-beam	eDR TM -5210 Series
	Optical	INM, INS & IRIS product families
	Overlay	Archer [®]
	Optical CD	SpectraCD TM
	Film Thickness/Index	Aleris TM
	Wafan Caanatan and Tana anaka	SpectraFx TM
	Wafer Geometry and Topography	WaferSight TM
Metrology		
		SURFmonitor TM
	Ion Implant and Anneal	Therma-Probe [®] HRP [®] -350
	Surface Metrology	HRP [®] -350
		D Somion meduat family
	Desistivity	P-Series product family
	Resistivity Data Management	RS product family K-T Analyzer®
	Lithography	K-1 Analyzer [®] SensArray [®] product family
In-Situ Process Monitoring	Plasma Etch	SensArray [®] product family
in onu i roccos monitornig	Implant and Wet	SensArray [®] PlasmaSuite
Lithography Modeling	imprente una mot	PROLITH TM and related product families
6 T , T ,		

APPLICATIONS	PRODUCTS
Wafer Manufacturing	
	Surfscan [®] SP1 and SP2 Series
Surface and Defect Inspection	SURFmonitor TM
	VisEdge [®]
	WaferSight TM
Wafer Geometry and Nanotopography Metrology	
	SURFmonitor TM
Data Management	FabVision TM
Reticle Manufacturing	
	TeraScan TM XR
Defect Inspection	
	Teron TM Series
Pattern Placement Metrology	LMS IPRO4
CMOS Image Sensors Manufacturing	
Defect Inspection	8900
Data Storage Media/Head Manufacturing	
	Aleris TM
	HRP [®] -250
Wafer and Slider Test	PROLITH TM product family
	RS product family
	SpectraCD TM 200
Media Test	Candela [®] product family
Defect Review	INM product family
Solar Manufacturing	
Surface Metrology	P-Series product family
Optical Inspection	PVI-6
HBLED Manufacturing	
Wafer Inspection	ICOS [®] WI product family
Defect Inspection	Candela [®] product family
Surface Metrology	P-Series product family
MEMS Manufacturing	
Stylus ProfilingSurface Metrology	P-Series product family
Sealing Inspection	IRIS
Defect Review	INM & IRIS product families
General Purpose, Labs	
	P-Series product family
Stylus ProfilingSurface Metrology	
	Alpha-Step [®] product family
Optical Profiling	MicroXAM-100
Process Chamber Conditions	SensArray [®] product family

Customers

To support our growing global customer base, we maintain a significant presence throughout Asia, the United States and Europe, staffed with local sales and applications engineers, customer and field service engineers and yield management consultants. We count among our largest customers the leading semiconductor manufacturers in each of these regions. For the fiscal year ended June 30, 2010, two customers, Taiwan Semiconductor Manufacturing Company Limited and Intel Corporation, each accounted for more than 10% of our total revenues. For the fiscal year ended June 30, 2009, two customers, Intel Corporation and Samsung Electronics Co., Ltd., each accounted for more than 10% of our total revenues.

Our business depends upon the capital expenditures of semiconductor manufacturers, which in turn is driven by the current and anticipated market demand for ICs and products utilizing ICs. We do not consider our business to be seasonal in nature, but it is cyclical with respect to the capital equipment procurement practices of semiconductor manufacturers, and it is impacted by the investment patterns of such manufacturers in different global markets. Downturns in the semiconductor industry or slowdowns in the worldwide economy could have a material adverse effect on our future business and financial results.

Sales, Service and Marketing

Our sales, service and marketing efforts are aimed at building long-term relationships with our customers. We focus on providing a single and comprehensive resource for the full breadth of process control and yield management products and services. Customers benefit from the simplified planning and coordination, as well as the increased equipment compatibility, that are realized as a result of dealing with a single supplier. Our revenues are derived primarily from product sales, 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 United States and Europe. We maintain an export compliance program that is designed to meet the requirements of the United States Departments of Commerce and State.

As of June 30, 2010, we employed approximately 2,030 sales and related personnel, service engineers and applications engineers. In addition to sales and service offices in the United States, we conduct sales, marketing and services out of wholly-owned subsidiaries or branches in other countries, including Belgium, China, France, Germany, Hong Kong, India, Israel, Italy, Japan, Singapore, South Korea, Taiwan and the United Kingdom. International revenues accounted for approximately 81%, 76% and 79% of our total revenues in the fiscal years ended June 30, 2010, 2009 and 2008, respectively. Additional information regarding our revenues from foreign operations for our last three fiscal years can be found in Note 17, Segment Reporting and Geographic Information to the Consolidated Financial Statements.

We believe that sales outside the United States will continue to be a significant percentage of our total revenues. 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 United States, and our continuing ability to maintain satisfactory relationships with leading semiconductor companies in the region.

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 internationa