

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, 1997

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. 0-9992

KLA-TENCOR CORPORATION  
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

<TABLE>

<S>	DELAWARE (STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	<C>	04-2564110 (I.R.S. EMPLOYER IDENTIFICATION NO.)
	160 RIO ROBLES SAN JOSE, CALIFORNIA (ADDRESS OF PRINCIPAL EXECUTIVE OFFICES)		95134 (ZIP CODE)

</TABLE>

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: (408) 875-4200

SECURITIES REGISTERED PURSUANT TO SECTION 12(B) OF THE ACT:

<TABLE>

<CAPTION>	TITLE OF EACH CLASS	NAME OF EACH EXCHANGE ON WHICH REGISTERED
<S>	NONE	<C> NONE

</TABLE>

SECURITIES REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT:

COMMON STOCK, \$0.001 PAR VALUE  
COMMON STOCK PURCHASE RIGHTS  
(TITLE OF CLASS)

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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.

The aggregate market value of the voting stock held by non-affiliates of the registrant based upon the closing price of the registrant's stock, as of August 31, 1997, was \$5,095,010,757. Shares of common stock held by each officer and director and by each person or group who owns 5% 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 84,318,173 shares of Common Stock outstanding as of August 31, 1997.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Annual Report to Stockholders for the fiscal year ended June 30, 1997 ("1997 Annual Report to Stockholders" ) are incorporated by reference into Parts I, II and IV of this Report. Portions of the Proxy Statement for the Annual Meeting of Stockholders ("Proxy Statement" ) to be held on November 18, 1997, and to be filed pursuant to Regulation 14A within 120 days after registrant's fiscal year ended June 30, 1997, are incorporated by reference into Part III of this Report.

=====

PART I

ITEM 1. DESCRIPTION OF BUSINESS

THE COMPANY

Merger. Effective April 30, 1997, Tencor Instruments ("Tencor") merged into a wholly-owned subsidiary of KLA Instruments Corporation ("KLA"). Following the Merger, KLA changed its name to KLA-Tencor Corporation (the "Company"). In the Merger, shares and options for Tencor common stock were exchanged on a one-for-one basis for the common stock of KLA. The transaction was accounted for as a pooling of interests for financial reporting purposes and structured to qualify as a tax-free reorganization. The stockholders of each of KLA and Tencor approved the transaction and the transaction was effective April 30, 1997.

The Merger brought together two companies with largely complementary product lines which provide customers with yield management solutions and process monitoring products throughout the semiconductor manufacturing process. As the complexity of the sub-micron semiconductor manufacturing process increases, the need for more, and more effective, process monitors also increases. Quickly attaining and then maintaining high yields is one of the most important determinants of profitability in the semiconductor industry. The importance of high yields from the manufacturing process has grown dramatically as wafer sizes increase and process geometries decrease. Total yield management solutions have taken on a significance which has not been experienced in the past. The Company, as a result of the Merger, is in a unique position to be the single source for total yield management solutions with a portfolio of applications-focused technologies and dedicated yield consulting expertise.

General. The Company was incorporated in Delaware in July 1975. Its headquarters are located at 160 Rio Robles, San Jose, California, 95134, telephone (408) 875-4200.

The Company is the leader in the design, manufacture, marketing and service of yield management and process monitoring systems for the semiconductor industry. The Company uses its technical expertise and understanding of customer needs to supply unique yield management solutions and one of the broadest lines of wafer inspection, thin film measurement, metrology and reticle inspection systems available in the semiconductor industry. The Company's systems are used to analyze product and process quality at critical steps in the manufacturing process for integrated circuits and to provide feedback to our customers in order that fabrication problems can be identified, addressed and contained. This understanding of defect sources and how to contain them enables semiconductor manufacturers to increase yields.

Semiconductor fabrication facilities are increasingly expensive to build and equip. Yield management and process monitoring systems, which typically represent a small percentage of the total investment required to build and equip a fabrication facility, enable integrated circuit manufacturers to leverage these expensive facilities and improve their returns on investment.

The Company's principal market is the semiconductor industry, marketing and selling products worldwide to virtually all of the major semiconductor manufacturers. The Company's revenues are derived primarily from product sales, principally through its direct sales force, and to a lesser extent, through distributors. The Company's technological strength has enabled it to develop and introduce major new product families in each of its business units during the last year.

YIELD MANAGEMENT SOLUTIONS

Maximizing yields, or the number of good die per wafer, is a key goal of modern semiconductor manufacturing. Higher yields increase the revenue a manufacturer can obtain for each semiconductor wafer processed. As geometry linewidths decrease, yields become more sensitive to the size and density of defects. Semiconductor manufacturers use yield management and process monitoring systems to improve yields by identifying defects, by analyzing them to determine process problems, and, after corrective action has been taken, by monitoring subsequent results to ensure that the problem has been contained. Monitoring and analysis often takes place at various points in the fabrication process as wafers move through a production cycle consisting of hundreds of separate process steps.

The following are some of the methods used to manage yield, all of which require the capture and analysis of data gathered through many measurements:

- Engineering analysis is performed off the manufacturing line to identify and analyze defect sources. Engineering analysis equipment operates with very high sensitivity to enable comprehensive analysis of wafers. Because they operate off-line, engineering analysis systems do not require high speeds of operation.
- In-line monitoring is used to review the status of circuits during production steps. Information generated is used to determine whether the fabrication process steps are within required tolerances and to make any necessary process adjustments in real-time before wafer lots move to subsequent process stations. Because the information is needed quickly to be of greatest value, in-line monitoring requires both high throughput and high sensitivity.
- Pass/fail tests are used at several steps in the manufacturing process to evaluate products. For example, a pass/fail test is used to determine whether reticles used in photolithography are defect-free; electrical pass/fail testing is performed at the end of the manufacturing process to determine whether products meet performance specifications.

The most significant opportunities for yield improvement generally occur when production is started at new factories and when new products are first built. Equipment that helps a manufacturer quickly increase new product yields enables the manufacturer to offer these new products in volume at a time when they are likely to generate the greatest profits.

#### WAFER INSPECTION SYSTEMS

The Company created the market for automated inspection of semiconductor wafers over 12 years ago. The wafer inspection group product offerings include unpatterned wafer inspection and patterned wafer inspection tools which are used to find, count and characterize particles and pattern defects on wafers both in engineering applications and in-line at various stages during the semiconductor and wafer manufacturing processes. Semiconductor manufacturers use wafer inspection systems to monitor their manufacturing processes and to refine those processes to increase the yield of acceptable integrated circuits. Accordingly, semiconductor manufacturers base their purchase of wafer inspection systems on a variety of criteria, including sensitivity, throughput, total cost of ownership, ease of use, degree of automation, system repeatability and correlation and its ability to be integrated into overall yield management systems. The Company offers two primary product families in the wafer inspection area.

In 1992, the Company introduced the 2130 inspection required for microprocessors and other logic devices as well as both the logic and repeating array portions of memory devices. The 2130 was subsequently upgraded with each new model having greater sensitivity and greater maximum speed compared to its predecessor. The 2135 was introduced in 1996 with twice the throughput and higher sensitivity compared to its predecessor. In 1997, the Company introduced the 2138, a new patterned wafer inspection system specifically designed to address chemical mechanical planarization (CMP) and other demanding inspection applications. The 2138 is based on the 2135 inspection platform and combines an ultra- broadband illumination source and significantly improved bright field optics with Segmented Auto Thresholding. This combination significantly increases defect sensitivity and capture, while reducing or eliminating false defect counts in semiconductor processes. The 2138 extends the Company's full line of intelligent in-line monitoring solutions.

The Company's Surfscan(R) family of laser-scanning products are widely used for wafer qualification, process monitoring and equipment monitoring. They provide the high sensitivity, fast throughput and low cost of ownership required in a production environment and are used in virtually all semiconductor manufacturing processes. Surfscans are key components of the defect reduction strategies of many leading semiconductor manufacturers. The systems use a standardized file format that allow defect location data to be easily transferred to off-line review stations for defect classification. The latest patterned Surfscan, the Surfscan AIT, is the cost/performance leader for in-line monitoring of deposited films and CMP layers.

The Surfscan AIT and the 2138 are part of the Company's Intelligent Line Monitoring solution, which includes the full line of patterned wafer inspection systems, as well as the IMPACT/Online, ADC, CRS/Offline ADC and Quest defect data analysis systems. This integrated yield management approach provides semiconductor device manufacturers with a comprehensive tool set which enables the acceleration of time-to-yield enhancements and yield goals.

The SP1 is the Company's first system to address the unique unpatterned inspection requirements of 300mm wafers. It performs rapid, highly sensitive inspection of unpatterned 300mm wafers, providing capabilities critical to wafer

and equipment manufacturers who are developing products for emerging 0.25 micron process technologies and below. It combines a stationary illumination beam, uniform axi-symmetric collection optics and an optional bright field channel with a rotating wafer scheme and allows detection of surface defects and contaminants at speeds of 100 wafers per hour on 300mm wafers, and 150 wafers per hour on 200mm wafers. The Surfscan 6420 detects submicron defects on metal films and rough surfaces but still provides sensitivity down to 0.1 micron on polished silicon. It is effective for detecting defects on non-uniform films, a critical requirement for CMP applications.

As feature sizes of semiconductor circuits continue to decrease for leading edge semiconductor products, the Company believes that conventional optical technologies ultimately will begin to reach physical limits imposed by the wavelength of light and fail to provide the necessary inspection resolution. Working closely with those customers with the most advanced inspection requirements, the Company has developed the SemSPEC, the industry's only fully automatic electron beam inspection system. This system, comprised of the industry's fastest scanning electron-optical column and a high speed image computer, are used for wafer and x-ray mask inspection. The development of these systems was funded in part by customer-sponsored research and development programs. The Company expects the market for these inspection systems to emerge slowly.

The Company offers analysis systems comprised of database management hardware and software to translate raw inspection data into patterns which reveal process problems. The Company's software productivity and analysis systems collect, store and analyze data collected by test equipment manufactured by both the Company and others to provide semiconductor manufacturers with an integrated yield management application. The software systems identify data sources, show defect trends and help semiconductor manufacturers develop long-term yield improvement strategies. In 1997, the Company introduced IMPACT, its automated defect classification (ADC) tool, which will enable semiconductor manufacturers to match automated defect classification schemes both within and between fabrication facilities to accelerate the ramp to higher process yields. With ADC matching, semiconductor manufacturers can develop a defect classification recipe on one system and then export it to any other system or fabrication facility running identical processes. The Company has an OEM agreement with Uniphase Corporation to sell Uniphase Corporation's confocal review station (CRS) ADC. The CRS interfaces with the Company's inspection systems to collect, store and analyze defect data generated by the Surfscan systems.

The PRISM group, formed in April 1994 to address the market for software products that can be utilized in semiconductor fabrication applications for yield management and productivity improvement, has developed and is marketing two software product lines - Discovery and CIMA. Discovery is an enterprise-wide yield management system that collects, stores and correlates yield information from multiple data sources in a fabrication facility. This product was the result of a cooperative development project with Motorola. CIMA is a test floor automation product that collects test data from, and automates the operation of, the wafer floor.

#### OPTICAL METROLOGY

Lithography for sub-micron semiconductor fabrication requires increasingly stringent overlay and critical dimension tolerances. In particular, decreasing linewidths, larger die sizes, and additional layers have made overlay mis-registration errors a crucial cause of yield loss. To address these challenges, the Company offers the 5000 series metrology systems: the 5100 for overlay, and the 5105 for both overlay and critical dimension measurement. In 1996, the Company introduced the 5200 overlay system, which has performance and usability enhancements compared to the 5100.

The Company, utilizing its expertise in digital image processing, has developed sophisticated measurement algorithms that are more tolerant of process variations. Using coherence probe microscopy, the system scans the image-forming coherence region through the wafer plane, only gathering information from in-focus surfaces. As a result, measurements are more tolerant of process and substrate reflectivity variations than those from ordinary optical systems. The precision measurements from the 5000 series identify the magnitude and direction of overlay mis-registration errors arising from the stepping process and from optical distortion inherent in the stepper lens. Based upon these measurements,

3

users can fine-tune the stepper program to compensate for these errors, and improve process yield.

#### E-BEAM METROLOGY

The Company broadened its portfolio of metrology products in December 1994 with the acquisition of Metrologix, Inc., a manufacturer of advanced electron beam measurement equipment. With this acquisition, the Company's E-Beam metrology business gained an established position in the Critical Dimension

Scanning Electron Microscope (CD-SEM) inspection market, a market which the Company believes is larger than the optical overlay market, and one which it believes will grow as semiconductor manufacturers continue to produce more complex semiconductor devices.

The Company's first generation E-Beam metrology system features high throughput and automated setup. One major U.S. memory manufacturer and two major U.S. microprocessor manufacturers have purchased multiple systems for use in both production and research and development. The Company has made substantial investments in engineering and manufacturing to bring to market the next-generation tool, the 8100-R CD-SEM. Production shipments of this product began in June 1996.

#### FILM MEASUREMENT

The Company's film measurement division produces both film thickness and resistivity measurement tools. The film thickness products are used to measure a variety of optical properties of thin films, while the resistivity products measure the resistivity of the various layers used to make integrated circuits. These products are used to control a wide range of wafer fabrication steps, where within-wafer and wafer-to-wafer uniformity of the process is of paramount importance to semiconductor manufacturers achieving high yields at the lowest possible cost.

The Company has been a leader in the thin film market since entering it over 12 years ago. In 1995, the Company introduced the UV-1250SE, which brought a powerful new technology, spectroscopic ellipsometry, to production. Continuing innovations resulted in the UV-1280SE with one of the most robust measurement capabilities in the industry. Thin film systems are used throughout the manufacturing facility which creates significant challenges in measurement flexibility, recipe management and factory floor computer automation. The Company's UV product line, which has an installed base of over 500 systems has addressed these requirements by delivering powerful measurement engines in reliable, easy to use system designs. The systems also incorporate software which enables extensive use of host computer operation to control the equipment, analyze the data and feedback to the process equipment, all steps which are critical for effective process control and maintaining high yields.

The Company's resistivity products have lead their markets since the Company first entered this market in 1983. The high end product, the RS75te, is used today in diffusion, implant and metal deposition for equipment monitoring and control.

#### SURFACE METROLOGY

Stylus profilers are used to measure the surface topography of films and etched surfaces and are used in basic research and development as well as production and quality control areas. In addition, the Company produces stress measurement systems which detect reliability related problems such as film cracking, voiding and lifting. The Company recently introduced a new high-resolution profiler (HRP) product which significantly increased the potential applications for surface profilers. The HRP-200 is the first metrology system to offer the combined monitoring capability traditionally achieved by two different instruments, an in-line profiler for measuring wide spatial problems such as dishing and erosion and the off-line atomic force microscope for the nanoscale problem of plug recess. The data storage industry is an emerging market for the Company's metrology systems. Recent achievements in utilization efficiencies in this industry have increased the need to monitor surface topography.

#### RETICLE INSPECTION SYSTEMS

RAPID, the Company's first business unit, created the market for automated inspection of reticles and photomasks

4

for the semiconductor manufacturing industry over 19 years ago and continues to have a predominant share of this market. The Company has delivered over 800 reticle and photomask inspection systems worldwide. During photolithography, a stepper projects a circuit pattern from a reticle onto a wafer. Error-free reticles are the first step in ensuring high yields in the manufacturing process because defects in reticles can translate into millions of ruined die.

The Company's 351 product incorporates a reference database generator and data preparation system which gives full die-to-database functionality to the inspection, permitting inspection against the ideal reticle pattern as specified by the user's CAD program. The Company is continuing to develop enhancements to the 351 inspection system to improve performance, serviceability and reliability. In 1995, the Company introduced a new reticle inspection product, STARlight, which uses reflected and transmitted light detection techniques simultaneously to identify reticle contaminants, including particles. STARlight permits users to identify defects which previously had not been detectable. The Company believes STARlight will be used by mask manufacturers and semiconductor manufacturers. STARlight is offered as an option on the KLA

351 inspection system and as a stand-alone unit. In 1997, the Company introduced two new reticle and photomask inspection enhancements, the Advanced Performance Algorithm (APA) and the STARlight High Resolution option. These enhancements enable highly accurate and reliable inspection of next-generation 0.25 micron reticles, including reticles with complex optical proximity correction geometries.

#### CUSTOMERS

The Company sells its systems to virtually all of the world's semiconductor manufacturers. In fiscal 1997, 1996 and 1995, no single customer accounted for more than 10% of the Company's revenues.

#### INTERNATIONAL REVENUES

The Company has wholly-owned foreign subsidiaries or foreign branches of domestic subsidiaries in Japan, Korea, Taiwan, Europe, Israel, Singapore and Malaysia for marketing, sales and service of products. In addition, the Company has manufacturing operations in Israel for its metrology products. International sales accounted for approximately 65% of the Company's revenues for each of 1997, 1996 and 1995. For information regarding the Company's revenues from foreign operations for the Company's last three fiscal years, see Note 9 of Notes to Consolidated Financial Statements incorporated herein by reference to Exhibit 13.1 hereto.

The Company believes that foreign sales will continue to be a significant percentage of revenues. The future performance of the Company will be dependent upon, in part, its ability to continue to compete successfully in Asia, one of the largest areas for the sale of yield management services in process monitoring equipment. The Company's ability to compete in this area in the future is dependent upon the continuation of favorable trading relationships between the region (especially Japan and Korea) and the United States and the continuing ability of the Company to maintain satisfactory relationships with leading semiconductor companies in the region. International sales and operations may be adversely affected by 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. The revenues from the Company's international business may be affected by fluctuations in currency exchange rates. Although the Company attempts to manage near term currency risks through "hedging," there can be no assurance that such efforts will be adequate. These factors could have a material adverse effect on the Company's future business and financial results.

#### SALES, SERVICE AND MARKETING

The Company believes that the size and location of its field sales, service and applications engineering organization represents a competitive advantage in its served markets. In the United States, Europe, Asia Pacific and Japan the Company has a direct sales force although in the past it has used a mix of direct sales and distributor/sales representative arrangements. The Company maintains an export compliance program that fully meets the requirements of the U.S. Department of Commerce and the Department of State. The Company does not consider its business to be seasonal in nature, but it is cyclical with respect to the capital equipment procurement practices of major semiconductor manufacturers and is impacted by the investment patterns of such manufacturers in different global markets.

#### 5

The Company's sales, service and applications facilities throughout the world employ over 1500 sales, service and applications engineers. The Company maintains sales and service offices throughout the United States and in Japan, Korea, Taiwan, Singapore, Europe and Israel.

#### RESEARCH AND DEVELOPMENT

The market for yield management and process monitoring systems is characterized by rapid technological development and product innovation. The Company believes that continued and timely development of new products and enhancements to existing products are necessary to maintain its competitive position. Accordingly, the Company devotes a significant portion of its personnel and financial resources to research and development programs and seeks to maintain close relationships with customers to remain responsive to their needs. In order to meet continuing developments in the semiconductor industry and to broaden the applications for its image processing technology, the Company is committed to significant engineering efforts for product improvement and new product development. New product introductions may contribute to fluctuations in operating results, since customers may defer ordering products from existing product lines. If new products have reliability or quality problems, reduced orders, higher manufacturing costs, delays in acceptance of and payment for new products and additional service and warranty expense may result. On occasion, the Company has experienced reliability and quality problems in connection with certain product introductions, resulting in some of these consequences. There

can be no assurance that the Company will successfully develop and manufacture new hardware and software products or that new hardware and software products introduced by the Company will be accepted in the marketplace. If the Company does not successfully introduce new products, its results of operations will be affected adversely.

The Company typically receives some external funding from customers, industry groups, and government sources to augment its engineering, research and development efforts. The Company reports engineering, research and development expense net of this funding. Amounts for engineering, research and development expense were 13.0%, 10.6% and 10.6% of sales in fiscal 1997, 1996 and 1995, respectively. For information regarding the Company's research and development expense during the last three fiscal years, see Management's Discussion and Analysis of Results of Operations and Financial Condition incorporated herein by reference to Exhibit 13.1 hereto.

#### MANUFACTURING

The Company's principal manufacturing activities take place in San Jose and Milpitas, California and Migdal Ha'Emek, Israel, and consist primarily of manufacturing, assembling and testing components and subassemblies which are acquired from third party vendors and then integrated into the Company's finished products. The Company employs over 1800 manufacturing and engineering personnel and also cross-trains personnel in order to respond to changes in product mix. This reallocation of personnel is in addition to new hires.

Many of the components and subassemblies are standard products, although certain items are made to Company specifications. Certain of the components and subassemblies included in the Company's systems are obtained from a single source or a limited group of suppliers. Those parts subject to single or limited source supply are routinely monitored by management and the Company endeavors to ensure that adequate supplies are available to maintain manufacturing schedules, should supply for any part be interrupted. Although the Company seeks to reduce its dependence on sole and limited source suppliers, in some cases the partial or complete loss of certain of these sources could disrupt scheduled deliveries to customers and have a material adverse effect on the Company's results of operations and damage customer relationships.

#### COMPETITION

The worldwide market for yield management and process control systems is highly competitive. In each of the markets it serves, the Company faces competition from established and potential competitors, some of which may have greater financial, engineering, manufacturing and marketing resources than the Company. The Company believes that to remain competitive it will require significant financial resources in order to offer a broad range of products, to maintain customer service and support centers worldwide, and to invest in product and process research and development. The

6

semiconductor equipment industry is becoming increasingly dominated by large manufacturers such as Applied Materials, Inc. which recently entered the wafer defect inspection market, Hitachi Electronics Engineering Co., Ltd. and Tokyo Electron Limited, who have the resources to support customers on a worldwide basis. Many of these competitors have substantially greater financial resources and more extensive engineering, manufacturing, marketing and customer service and support capabilities than the Company. The Company expects its competitors to continue to improve the design and performance of their current products and processes and to introduce new products and processes with improved price and performance characteristics. No assurance can be given that the Company will be able to continue to compete successfully against its competitors.

Significant competitive factors in the market for yield management and process control systems include system performance, ease of use, reliability, installed base and technical service and support. The Company believes that, while price and delivery are important competitive factors, the customers' overriding requirement is for systems which easily and effectively incorporate automated, highly accurate inspection capabilities into their existing manufacturing processes, thereby enhancing productivity. The Company's yield management and process control systems for the semiconductor industry are generally higher priced than those of its present competitors and are intended to compete based upon performance and technical capabilities. These systems also compete with less expensive, more labor-intensive manual inspection devices.

In addition, in configuring their fabrication plants, semiconductor manufacturers increasingly tend to select specific items of manufacturing equipment for all of the fabrication facilities used to produce each generation of integrated circuits. As a result of this process, the Company's failure to have one or more of its products selected by a semiconductor manufacturer for use in its facilities for a particular generation of integrated circuits may effectively eliminate sales of that product for all of that manufacturer's fabrication plants used for that generation of integrated circuits. The failure to have one or more of the Company's products selected by a major semiconductor manufacturer, especially one that is a significant customer of the Company, for

a particular generation of its integrated circuit products could have a significant and long-term adverse effect on the Company's results of operations. Although the Company has been relatively successful to date in these selection decisions, not all of the Company's products have been selected by each of its customers for fabrication facilities for each generation of integrated circuits. Further, there can be no assurance that the Company's products will be selected in the future, or that the Company will continue to be as successful in connection with selection processes as it has been to date.

#### PATENTS AND OTHER PROPRIETARY RIGHTS

The Company protects its proprietary technology through a variety of intellectual property laws including patent, copyright and trade secrets law; however, the Company believes that, due to the rapid pace of innovation within the yield management and process control systems industry, its protection of patent and other intellectual property rights is less important than factors such as its technological expertise, continuing development of new systems, market penetration and installed base and the ability to provide comprehensive support and service to customers. There can be no assurance that the Company will be able to protect its technology or that competitors will not be able to develop similar technology independently.

The Company currently holds 106 U.S. patents and has applied for 33 additional patents in the United States. In addition, the Company has 24 foreign patents and applied for 75 additional foreign patents. From time to time the Company acquires license rights under U.S. and foreign patents and other proprietary rights of third parties. No assurance can be given that patents will be issued on any of the Company's applications, that license assignments will be made as anticipated or that the Company's patents, licenses or other proprietary rights will be sufficiently broad to protect its technology. In addition, no assurance can be given that any patents issued to or licensed by the Company will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide a competitive advantage to the Company.

#### BACKLOG

At June 30, 1997, the Company's backlog for systems totaled \$573 million, compared to \$385 million at June 30, 1996. In general, systems ship within six months to a year after receipt of a customer's purchase order. The Company expects to fill the present backlog of orders during fiscal 1998. All orders are subject to cancellation or delay by the customer

7

with limited or no penalty. The Company's backlog is not necessarily indicative of actual sales for any succeeding period.

#### EMPLOYEES

As of June 30, 1997, the Company employed a total of approximately 3,600 persons. None of the Company's employees are represented by a labor union. The Company has experienced no work stoppages and believes that its employee relations are good.

Competition in the recruiting of personnel in the semiconductor and semiconductor equipment industry is intense. The Company believes that its future success will depend in part on its continued ability to hire and retain qualified management, marketing and technical employees.

#### ITEM 2. PROPERTIES

Certain information concerning the Company's properties at June 30, 1997 is set forth below:

Location	Type	Principal use	Footage	Ownership
San Jose, CA	Office, plant, warehouse	Corporate Headquarters, Research and Engineering, Marketing, Manufacturing, Sales and Service and Sales Administration	711,667	lease
Milpitas, CA	Office, plant, warehouse	Research and Engineering, Marketing, Manufacturing, Sales and Service and Sales Administration	563,565	lease

Austin, TX	office	Sales and Service, Training	27,424	lease
Naruse, Japan	office	Sales and Service	29,107	lease
Yokohama, Japan	office	Sales and Service	23,057	lease
Seoul, Korea	office	Sales and Service	17,558	lease
Hsinchu, Taiwan	office	Sales and Service	14,892	lease
Migdal Ha'Emek, Israel	office	Research and Engineering, Marketing, Manufacturing, Sales and Service and Sales Administration	53,800	lease

</TABLE>

8

The Company leases several other facilities under operating leases that expire at various times through June 30, 2012 with renewal options at the fair market value for additional periods up to five years. See Note 4 to Notes to Consolidated Financial Statements in Exhibit 13.1 hereto.

#### ITEM 3. LEGAL PROCEEDINGS

None.

#### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

On April 30, 1997 a Special Meeting of the Stockholders was held. At that meeting, the Company's stockholders approved the following three proposals:

1. Proposal to issue shares of the common stock to the shareholders of Tencor Instruments in accordance with a merger agreement among the Company, Tencor Instruments and a wholly-owned subsidiary of the Company:

<TABLE>

<S>		<C>
	FOR:	37,673,729
	ABSTAIN:	65,188
	AGAINST:	58,776

</TABLE>

2. Proposal to amend the Company's Certificate of Incorporation to change the name of the Company to KLA-Tencor Corporation:

<TABLE>

<S>		<C>
	FOR:	38,368,617
	ABSTAIN:	73,058
	AGAINST:	78,877

</TABLE>

3. Proposal to amend the Company's Certificate of Incorporation to increase the number of authorized shares of the Company from 175,000,000 to 250,000,000 and to eliminate the designation of a class of junior common stock:

<TABLE>

<S>		<C>
	FOR:	37,435,273
	ABSTAIN:	79,605
	AGAINST:	533,500

</TABLE>

9

#### PART II

#### ITEM 5. MARKET FOR THE REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS

The information required by this Item is incorporated herein by reference to Exhibit 13.1 hereto.

#### ITEM 6. SELECTED FINANCIAL DATA

##### FIVE YEAR FINANCIAL HIGHLIGHTS

In thousands, except per share data

<TABLE>  
<CAPTION>

Year ended June 30,	1993	1994	1995	1996	1997
<S>	<C>	<C>	<C>	<C>	<C>
Revenues	\$ 261,105	\$ 376,454	\$ 695,950	\$1,094,492	\$1,031,824
Net income	\$ 11,507	\$ 40,443	\$ 104,811(1)	\$ 196,634	\$ 105,396(2)
Net income per share	\$ 0.19	\$ 0.59	\$ 1.34(1)	\$ 2.34	\$ 1.24(2)
Weighted average number of common shares	60,841	69,076	78,427	84,195	85,203
As of June 30,					
Cash, cash equivalents and marketable securities	\$ 70,044	\$ 174,305	\$ 385,040	\$ 468,475	\$ 687,249
Working capital	\$ 133,084	\$ 277,791	\$ 452,350	\$ 591,397	\$ 535,256
Total assets	\$ 260,485	\$ 430,453	\$ 850,406	\$1,157,919	\$1,343,307
Stockholders equity	\$ 165,379	\$ 307,334	\$ 652,222	\$ 870,999	\$1,014,613

</TABLE>

(1) Includes a net charge of \$16.2 million, or \$0.33 per share, for write-off of acquired in-process technology. Net income and net income per share would have been \$121 million and \$1.54, respectively, excluding this charge.

(2) Includes merger, restructuring and other costs of \$60.6 million. Net income and net income per share would have been \$151.3 million and \$1.78, respectively, excluding these costs.

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

Management's Discussion and Analysis of Results of Operations and Financial Condition is incorporated herein by reference to Exhibit 13.1 hereto.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information required by this item is incorporated herein by reference to Exhibit 13.1 hereto.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The consolidated financial statements are incorporated herein by reference to Exhibit 13.1 hereto.

ITEM 9. DISAGREEMENTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not Applicable.

10  
PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Set forth below are the names of the present directors and executive officers of the Company, their ages and positions held with the Company. Additional information required by Item 405 of Regulation S-K of the Securities Act of 1933, as amended, is incorporated herein by reference to the Company's Proxy Statement.

<TABLE>  
<CAPTION>

Name	Age	Position
<S>	<C>	<C>
Kenneth Levy	55	Chairman of the Board of Directors
Jon D. Tompkins	57	Chief Executive Officer and Director
Kenneth L. Schroeder	51	President, Chief Operating Officer and Director
Robert J. Boehlke	56	Executive Vice President, Chief Financial Officer and Assistant Secretary
Frederick A. Ball	35	Vice President Finance and Accounting
Lisa C. Berry	39	Vice President, General Counsel and Assistant Secretary
Gary E. Dickerson	40	Executive Vice President Yield Management Group
Samuel A. Harrell	57	Senior Vice President, Strategic Business Development
Neil Richardson	42	Executive Vice President Metrology Group
Magnus O. W. Ryde	42	Vice President Worldwide Field Operations
Arthur P. Schnitzer	54	Executive Vice President Human Resources
Graham J. Siddall	51	Executive Vice President Wafer Group
James W. Bagley	58	Director
Edward W. Barnholt	54	Director

Leo J. Chamberlain	67	Director
Richard J. Elkus, Jr.	62	Director
Dean O. Morton	65	Director
Yoshio Nishi	57	Director
Samuel Rubinovitz	67	Director
Dag Tellefsen	55	Director
Lida Urbanek	54	Director

</TABLE>

Kenneth Levy is a co-founder of the Company and is Chairman of the Board. From 1975 until April 30, 1997 he was Chairman of the Board and Chief Executive Officer. He currently serves on the boards of directors of Ultratech Stepper, Inc., Network Peripherals, Inc., Integrated Process Equipment Corporation and Trikon Technologies, Inc.

Jon D. Tompkins has been Chief Executive Officer of the Company since April 30, 1997. From April 1991 until April 30, 1997 he was president and chief executive officer of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry. He was a director of Tencor Instruments from 1991 until 1997 and was appointed chairman of the board of directors of Tencor Instruments in November 1993. He currently serves on the board of directors of Varian Corporation as well as SEMI/SEMATECH, a private research and development consortium of U.S. semiconductor equipment and materials companies.

Kenneth L. Schroeder has been President, Chief Operating Officer and Director of the Company since November 1991. He currently serves on the board of directors of GaSonic International.

Robert J. Boehlke has been Vice President and Chief Financial Officer of the Company since July 1990. In April 1997 he was promoted to Executive Vice President. He currently serves on the board of directors of LTX Corporation.

Frederick A. Ball became Vice President Finance and Accounting of the Company on April 30, 1997. He joined Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry, as corporate controller in March 1995 and was promoted to corporate vice president and appointed corporate secretary in January of 1996. Prior to Tencor Instruments, Mr. Ball was with Price Waterhouse LLP for ten years.

11

Lisa C. Berry joined the Company in September 1996 as Vice President and General Counsel. Ms. Berry joined the Company from LSI Logic Corporation, a manufacturer of application specific integrated circuits, where she held the positions of associate general counsel from October 1994 until September 1996 and assistant general counsel from August 1991 until October 1994.

Gary E. Dickerson joined the Company in January 1986 and has held a series of positions. In July 1990 he was promoted to Director of Marketing and Vice President of Marketing in July 1992. In July 1993, he was promoted to Vice President and Director of the Wafer Inspection Group. In January 1996, he was promoted to Group Vice President. In 1997, Mr. Dickerson became Executive Vice President of the newly formed Yield Management Solutions Group.

Dr. Samuel A. Harrell joined the Company in September 1995 as Senior Vice President of Strategic Business Development. Dr. Harrell is responsible for strategic corporate development. Dr. Harrell served from October 1992 to December 1995 as the senior vice president and chief strategy officer of SEMATECH. From August 1987 to September 1992 he served as president of SEMI/SEMATECH.

Dr. Neil Richardson joined the Company in June 1993 as Vice President and General Manager of the Metrology Division. He became Executive Vice President of the Metrology Group (of the combined operations of the Company and Tencor Instruments as a result of the Merger) in 1997. He served as vice president and general manager of the Diagnostic Systems Group of Schlumberger Technologies from September 1985 to November 1991, and was the corporate technology adviser for Schlumberger Ltd., a manufacturer of electronic test equipment, from November 1991 to May 1993.

Magnus O.W. Ryde joined the Company in June 1980 and has held a series of positions. In 1991, Mr. Ryde became Vice President of Operations for the Company's ATS division. He was promoted to Vice President and General Manager of the Customer Support division in July 1992. In July 1995, he became Vice President for the United States and European Sales Organizations. In July 1997 he was promoted to Vice President of Worldwide Field Operations.

Arthur P. Schnitzer joined the Company in July 1978 and has held a series of positions. In 1989 he was promoted to Vice President and General Manager of the Wisard division. In July 1993, he became Group Vice President responsible for RAPID, SEMSPEC, PRISM and manufacturing for WISARD and RAPID. In June 1997 he became Executive Vice President, Human Resources.

Dr. Graham J. Siddall was appointed Executive Vice President of the

Wafer Group (of the combined operations of the Company and Tencor as a result of the Merger) in April 1997. In December 1995, he was appointed executive vice president and chief operating officer of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry. Previously Dr. Siddall served as senior vice president for the Tencor Instruments Wafer Inspection Division from November 1994 to December 1995 and has been a vice president since joining Tencor Instruments in 1988.

James W. Bagley has been a Director of the Company since April 30, 1997. He was a director of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry, from June 1993 until April 30, 1997. He has been chief executive officer and a director of Lam Research Corporation, a manufacturer of semiconductor processing equipment, since August 1997. From May 1996 until August 1997 he was chairman of the board and chief executive officer of OnTrak Systems, Inc. until its merger with Lam Research Corporation in August 1997. From December 1987 until December 1993 Mr. Bagley was president and chief operating officer for Applied Materials, Inc., a manufacturer of wafer fabrication systems to the semiconductor industry. From January 1994 until October 1995 he was vice chairman and chief operating officer of Applied Materials, Inc., and vice chairman from November 1995 until May 1996. Mr. Bagley currently serves on the boards of directors of Teradyne, Inc., Kulicke & Soffa Industries, Inc., Micron Technology, Inc. and Semi/SEMATECH.

Edward W. Barnholt has been a Director of the Company since 1995. Mr. Barnholt joined Hewlett-Packard Company, a manufacturer of electronic and computer equipment in December 1966. From 1988 to 1990 he was general manager of the Electronics Instruments Group of the Hewlett Packard Company. In July 1988, he was elected vice president and in November 1993 was elected senior vice president. Mr. Barnholt is currently executive vice president and general manager of the Test and Measurement Organization of the Hewlett Packard Company.

Leo J. Chamberlain has been a Director of the Company since 1982. He is a private investor. Mr. Chamberlain currently serves on the board of directors of Octel Communications Corporation.

Richard J. Elkus, Jr. has been a Director of the Company since April 30, 1997. He was executive vice president and vice chairman of the board of directors of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry, from February 1994 until April 30, 1997. Previously, he was with Prometrix Corporation from September 1983 until February 1994 where he held the positions of chairman and chief executive

12

officer until its merger with Tencor Instruments in February 1994. He currently serves on the boards of directors of Voyan Technology and Lam Research Corporation.

Dean O. Morton has been a Director of the Company since April 30, 1997. From June 1993 until April 30, 1997 he was director of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the semiconductor industry. In October 1992 Mr. Morton retired as executive vice president and chief operating officer and as a director of the Hewlett Packard Company, a manufacturer of electronic and computer equipment, where he held various positions from 1960 until his retirement. Mr. Morton currently serves as chairman of the board of Centigram Communications Corporation and as a director of ALZA Corporation, The Clorox Company, BEA Systems Inc. and Raychem Corporation. Mr. Morton is also a trustee of the Metropolitan Series Fund and State Street Research Funds Group and Portfolio, Inc.

Yoshio Nishi has been a Director since 1989. Since May 1995 he has been director of research and development and senior vice president of the Semiconductor Group of Texas Instruments Incorporated, a manufacturer of integrated circuits and electronic equipment. From January 1986 to April 1995 he was director of Silicon Process Laboratory for Hewlett-Packard Laboratories, a semiconductor technology research facility affiliated with the Hewlett-Packard Company.

Samuel Rubinovitz has been a Director since 1990. He previously served as a Director of the Company from October 1979 to January 1989. From April 1989 to January 1994 he was executive vice president of EG&G, Inc., a diversified manufacturer of scientific instruments and electronic, optical and mechanical equipment. He currently serves on the boards of directors of Richardson Electronics, Inc., LTX Corporation and Kronos, Inc.

Dag Tellefsen has been a Director of the Company since 1978. He is the general partner of the Investment Manager of Glenwood Ventures I and II, venture capital funds. He currently serves on the boards of directors of Iwerks Entertainment Corporation, Aptix and Metorex International.

Lida Urbanek has been a Director of the Company since April 30, 1997. She is a private investor. She was a director of Tencor Instruments, a manufacturer of wafer inspection, film measurement and metrology systems for the

semiconductor industry, from August 1991 until April 30, 1997.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference to "EXECUTIVE COMPENSATION" in the Company's Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this Item is incorporated by reference to "SECURITY OWNERSHIP -- Principal Stockholders and Security Ownership of Management" in the Company's Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information regarding "Certain Relationships and Related Transactions" as it appears in the Proxy Statement is incorporated herein by reference.

13  
PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENTS, SCHEDULES, AND REPORT ON FORM 8-K

(a) FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES.

1. FINANCIAL STATEMENTS.

Consolidated Balance Sheets - As of June 30, 1997 and 1996

Consolidated Statements of Operations - For the Three Years Ended June 30, 1997

Consolidated Statement of Stockholders' Equity - For the Three Years Ended June 30, 1997

Consolidated Statements of Cash Flows - For the Three Years Ended June 30, 1997

Notes to Consolidated Financial Statements

Report of Independent Accountants

2. FINANCIAL STATEMENT SCHEDULES.

All 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.

<TABLE>

<CAPTION>

Exhibit No. Description

- - - - -

<S>	<C>
3.1	Certificate of Incorporation as amended(1)
3.2	Bylaws, as amended(1)
4.1	Amended and Restated Rights Agreement dated as of August 26, 1995, between the Company and First National Bank of Boston, as Rights Agent. The Rights Agreement includes as Exhibit A, the form of Right Certificate and as Exhibit B, the summary of transactions of Rights.(2)
10.1	Form of Retention and Non-Competition Agreement(3)
10.2	Form of KLA-Tencor Corporation Corporate Officers Retention Plan(3)
10.3	Form of Indemnification Agreement
10.4	1990 Outside Directors Stock Option Plan(4)
10.5	Second Amended and Restated 1981 Employee Stock Purchase Plan, as amended on November 18, 1996(5)
10.6	1982 Stock Option Plan, as amended on November 18, 1996(6)
10.7	Tencor Instruments Second Amended and Restated 1984 Stock Option Plan (7)

- 10.8 Tencor Instruments Amended and Restated 1993 Equity Incentive Plan (7)
- 10.9 Tencor Instruments 1993 Nonemployee Directors Stock Option Plan(7)
- 10.10 1983 Employee Incentive Stock Option Plan of Prometrix Corporation (7)
- 10.11 1993 Employee Incentive Stock Option Plan of Prometrix Corporation (7)
- 10.12 Lease Agreement, Ground Lease Agreement and Purchase Agreement dated June 5, 1995, between BNP Leasing Corporation and the Company(8)
- 10.13 Lease Agreement and Purchase Agreement dated August 10, 1995, between BNP Leasing Corporation and the Company(8)
- 10.14 Phase IIA and Phase IIB Leases for Milpitas Facilities dated December 29, 1995(9)
- 13.1 1997 Annual Report to Stockholders (deemed to be filed except to the extent that the information is specifically incorporated by reference)
- 21.1 List of Subsidiaries of KLA-Tencor Corporation

</TABLE>

14

<TABLE>

<S> <C>  
23.1 Consent of Independent Accountants

27.1 Financial Data Schedule

</TABLE>

- (1) Previously filed, with the same exhibit number, to the Registrant's Form 10-Q for the quarter ended March 31, 1997
- (2) Previously filed as exhibit 1 to the Registrant's report on Form 8-A/A Amendment No. 1 to the Registration Statement on Form 8-A (filed September 24, 1996, SEC File No. 0-9992)
- (3) Previously filed, with the same exhibit number, to the Registrant's Registration Statement on Form S-4 (filed March 11, 1997, SEC File No. 333-23075)
- (4) Previously filed as exhibit 4.6 to the Registrant's Annual Report on Form 10-K for the year ended June 30, 1997
- (5) Previously filed as exhibit 10.75 to the Registrant's Registration Statement on Form S-8 (filed March 7, 1997, SEC File No. 333-22939)
- (6) Previously filed as exhibit 10.74 to the Registrant's Registration Statement on Form S-8 (filed March 7, 1997, SEC File No. 333-22941)
- (7) Previously filed as exhibits 10.1, 10.2, 10.3, 10.6 and 10.7, respectively, to the Registrant's Registration Statement on Form S-8 (filed May 8, 1997, SEC File No. 333-26681)
- (8) Previously filed, with the same exhibit number, to the Registrant's Form 10-Q for the quarter ended December 31, 1995
- (9) Previously filed as exhibit 10.27 to Tencor Instruments Annual Report on Form 10-K for the fiscal year ended December 31, 1995

(b) REPORT ON FORM 8-K.

The Company filed a Current Report on Form 8-K on April 15, 1997 which incorporated the Company's earnings release for the third quarter of fiscal 1997 ended March 31, 1997. The Company amended that Form 8-K by filing an Amendment to Current Report on Form 8-K setting forth financial statements reflecting 30 days of combined earnings of the Company and Tencor Instruments to reflect the Merger using the pooling of interests method of accounting.

15  
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 on September 25, 1997.

KLA-Tencor Corporation

By: /s/ Kenneth Levy

-----  
Kenneth Levy, Chairman of the Board

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.

<TABLE>

<CAPTION>

Signature -----	Title -----	Date ----
<S> /s/ Kenneth Levy ----- Kenneth Levy	<C> Chairman of the Board and Director	<C> September 25, 1997
/s/ Jon D. Tompkins ----- Jon D. Tompkins	Chief Executive Officer and Director (Principal Executive Officer)	September 25, 1997
/s/ Kenneth L. Schroeder ----- Kenneth L. Schroeder	President, Chief Operating Officer and Director	September 25, 1997
/s/ Robert J. Boehlke ----- Robert J. Boehlke	Executive Vice President and Chief Financial Officer (Principal Accounting Officer)	September 25, 1997
/s/ James W. Bagley ----- James W. Bagley	Director	September 25, 1997
/s/ Edward W. Barnholt ----- Edward W. Barnholt	Director	September 25, 1997
/s/ Leo J. Chamberlain ----- Leo J. Chamberlain	Director	September 25, 1997
/s/ Richard J. Elkus, Jr. ----- Richard J. Elkus, Jr.	Director	September 25, 1997
/s/ Dean O. Morton ----- Dean O. Morton	Director	September 25, 1997
/s/ Yoshio Nishi ----- Yoshio Nishi	Director	September 25, 1997
/s/ Samuel Rubinovitz ----- Samuel Rubinovitz	Director	September 25, 1997
/s/ Dag Tellefsen ----- Dag Tellefsen	Director	September 25, 1997
/s/ Lida Urbanek ----- Lida Urbanek	Director	September 25, 1997

</TABLE>

<TABLE>

<CAPTION>

Exhibit No. Description  
-----

<S> <C>  
3.1 Certificate of Incorporation as amended(1)  
3.2 Bylaws, as amended(1)  
4.1 Amended and Restated Rights Agreement dated as of August 26, 1995, between the Company and First National Bank of Boston, as Rights Agent. The Rights Agreement includes as Exhibit A, the form of Right Certificate and as Exhibit B, the summary of transactions of Rights.(2)  
10.1 Form of Retention and Non-Competition Agreement(3)  
10.2 Form of KLA-Tencor Corporation Corporate Officers Retention Plan(3)  
10.3 Form of Indemnification Agreement  
10.4 1990 Outside Directors Stock Option Plan(4)  
10.5 Second Amended and Restated 1981 Employee Stock Purchase Plan, as amended on November 18, 1996(5)  
10.6 1982 Stock Option Plan, as amended on November 18, 1996(6)  
10.7 Tencor Instruments Second Amended and Restated 1984 Stock Option Plan (7)  
10.8 Tencor Instruments Amended and Restated 1993 Equity Incentive Plan (7)  
10.9 Tencor Instruments 1993 Nonemployee Directors Stock Option Plan(7)  
10.10 1983 Employee Incentive Stock Option Plan of Prometrix Corporation (7)  
10.11 1993 Employee Incentive Stock Option Plan of Prometrix Corporation (7)  
10.12 Lease Agreement, Ground Lease Agreement and Purchase Agreement dated June 5, 1995, between BNP Leasing Corporation and the Company(8)  
10.13 Lease Agreement and Purchase Agreement dated August 10, 1995, between BNP Leasing Corporation and the Company(8)  
10.14 Phase IIA and Phase IIB Leases for Milpitas Facilities dated December 29, 1995(9)  
13.1 1997 Annual Report to Stockholders (deemed to be filed except to the extent that the information is specifically incorporated by reference)

21.1 List of Subsidiaries of KLA-Tencor Corporation  
</TABLE>

<TABLE>

<S> <C>  
23.1 Consent of Independent Accountants

27.1 Financial Data Schedule  
</TABLE>

- (1) Previously filed, with the same exhibit number, to the Registrant's Form 10-Q for the quarter ended March 31, 1997
- (2) Previously filed as exhibit 1 to the Registrant's report on Form 8-A/A Amendment No. 1 to the Registration Statement on Form 8-A (filed September 24, 1996, SEC File No. 0-9992)
- (3) Previously filed, with the same exhibit number, to the Registrant's Registration Statement on Form S-4 (filed March 11, 1997, SEC File No. 333-23075)
- (4) Previously filed as exhibit 4.6 to the Registrant's Annual Report on Form 10-K for the year ended June 30, 1997
- (5) Previously filed as exhibit 10.75 to the Registrant's Registration Statement on Form S-8 (filed March 7, 1997, SEC File No. 333-22939)
- (6) Previously filed as exhibit 10.74 to the Registrant's Registration Statement on Form S-8 (filed March 7, 1997, SEC File No. 333-22941)
- (7) Previously filed as exhibits 10.1, 10.2, 10.3, 10.6 and 10.7,

respectively, to the Registrant's Registration Statement on Form S-8  
(filed May 8, 1997, SEC File No. 333-26681)

- (8) Previously filed, with the same exhibit number, to the  
Registrant's Form 10-Q for the quarter ended December 31, 1995
- (9) Previously filed as exhibit 10.27 to Tencor Instruments  
Annual Report on Form 10-K for the fiscal year ended December  
31, 1995

## INDEMNIFICATION AGREEMENT

This Indemnification Agreement (the "Agreement") is entered into as of the \_\_\_\_\_, 199\_ by and between KLA-Tencor Corporation, a Delaware corporation (the "Company") and \_\_\_\_\_ ("Indemnitee").

## RECITALS

A. The Company and Indemnitee recognize the continued difficulty in obtaining liability insurance for its directors, officers, employees, agents and fiduciaries, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance.

B. The Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers, employees, agents and fiduciaries to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited.

C. Indemnitee does not regard the current protection available as adequate under the present circumstances, and Indemnitee and other directors, officers, employees, agents and fiduciaries of the Company may not be willing to continue to serve in such capacities without additional protection.

D. The Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company and, in part, in order to induce Indemnitee to continue to provide services to the Company, wishes to provide for the indemnification and advancing of expenses to Indemnitee to the maximum extent permitted by law.

E. In view of the considerations set forth above, the Company desires that Indemnitee be indemnified by the Company as set forth herein.

NOW, THEREFORE, the Company and Indemnitee hereby agree as follows:

1. Indemnification.

(a) Indemnification of Expenses. The Company shall indemnify Indemnitee to the fullest extent permitted by law if Indemnitee was or is or becomes a party to or witness or other participant in, or is threatened to be made a party to or witness or other participant in, any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that Indemnitee in good faith believes might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal,

1

administrative, investigative or other (hereinafter a "Claim") by reason of (or arising in part out of) any event or occurrence related to the fact that Indemnitee is or was a director, officer, employee, agent or fiduciary of the Company, or any subsidiary of the Company, or is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in such capacity (hereinafter an "Indemnifiable Event") against any and all expenses (including attorneys' fees and all other costs, expenses and obligations incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, be a witness in or participate in, any such action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) of such Claim and any federal, state, local or foreign taxes imposed on Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement (collectively, hereinafter "Expenses"), including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses. Such payment of Expenses shall be made by the Company as soon as practicable but in any event no later than five days after written demand by Indemnitee therefor is presented to the Company.

(b) Reviewing Party. Notwithstanding the foregoing, (i) the obligations of the Company under Section 1(a) shall be subject to the condition that the Reviewing Party (as described in Section 10(e) hereof) shall not have determined (in a written opinion, in any case in which the Independent Legal Counsel referred to in Section 1(c) hereof is involved) that Indemnitee would not be permitted to be indemnified under applicable law, and (ii) the obligation of the Company to make an advance payment of Expenses to Indemnitee pursuant to Section 2(a) (an "Expense Advance") shall be subject to the condition that, if, when and to the extent that the Reviewing Party determines that Indemnitee would not be permitted to be so indemnified under applicable law, the Company shall be

entitled to be reimbursed by Indemnitee (who hereby agrees to reimburse the Company) for all such amounts theretofore paid; provided, however, that if Indemnitee has commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that Indemnitee should be indemnified under applicable law, any determination made by the Reviewing Party that Indemnitee would not be permitted to be indemnified under applicable law shall not be binding and Indemnitee shall not be required to reimburse the Company for any Expense Advance until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). Indemnitee's obligation to reimburse the Company for any Expense Advance shall be unsecured and no interest shall be charged thereon. If there has not been a Change in Control (as defined in Section 10(c) hereof), the Reviewing Party shall be selected by the Board of Directors, and if there has been such a Change in Control (other than a Change in Control which has been approved by a majority of the Company's Board of Directors who were directors immediately prior to such Change in Control), the Reviewing Party shall be the Independent Legal Counsel referred to in Section 1(c) hereof. If there has been no determination by the Reviewing Party or if

2

the Reviewing Party determines that Indemnitee substantively would not be permitted to be indemnified in whole or in part under applicable law, Indemnitee shall have the right to commence litigation seeking an initial determination by the court or challenging any such determination by the Reviewing Party or any aspect thereof, including the legal or factual bases therefor, and the Company hereby consents to service of process and to appear in any such proceeding. Any determination by the Reviewing Party otherwise shall be conclusive and binding on the Company and Indemnitee.

(c) Change in Control. The Company agrees that if there is a Change in Control of the Company (other than a Change in Control which has been approved by a majority of the Company's Board of Directors who were directors immediately prior to such Change in Control) then, with respect to all matters thereafter arising concerning the rights of Indemnitee to payments of Expenses and Expense Advances under this Agreement or any other agreement or under the Company's Certificate of Incorporation or Bylaws as now or hereafter in effect, Independent Legal Counsel (as defined in Section 10(d) hereof) shall be selected by Indemnitee and approved by the Company (which approval shall not be unreasonably withheld). Such counsel, among other things, shall render its written opinion to the Company and Indemnitee as to whether and to what extent Indemnitee would be permitted to be indemnified under applicable law and the Company agrees to abide by such opinion. The Company agrees to pay the reasonable fees of the Independent Legal Counsel referred to above and to fully indemnify such counsel against any and all expenses (including attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(d) Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 9 hereof, to the extent that Indemnitee has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in defense of any action, suit, proceeding, inquiry or investigation referred to in Section 1(a) hereof or in the defense of any claim, issue or matter therein, Indemnitee shall be indemnified against all Expenses incurred by Indemnitee in connection therewith.

## 2. Expenses; Indemnification Procedure.

(a) Advancement of Expenses. The Company shall advance all Expenses incurred by Indemnitee. The advances to be made hereunder shall be paid by the Company to Indemnitee as soon as practicable but in any event no later than five days after written demand by Indemnitee therefor to the Company.

(b) Notice/Cooperation by Indemnitee. Indemnitee shall, as a condition precedent to Indemnitee's right to be indemnified under this Agreement, give the Company notice in writing as soon as practicable of any Claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the Chief Executive Officer of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate

3

in writing to Indemnitee). In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(c) No Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of nolo contendere, or its equivalent, shall not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or

that a court has determined that indemnification is not permitted by applicable law. In addition, neither the failure of the Reviewing Party to have made a determination as to whether Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by the Reviewing Party that Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by Indemnitee to secure a judicial determination that Indemnitee should be indemnified under applicable law, shall be a defense to Indemnitee's claim or create a presumption that Indemnitee has not met any particular standard of conduct or did not have any particular belief. In connection with any determination by the Reviewing Party or otherwise as to whether Indemnitee is entitled to be indemnified hereunder, the burden of proof shall be on the Company to establish that Indemnitee is not so entitled.

(d) Notice to Insurers. If, at the time of the receipt by the Company of a notice of a Claim pursuant to Section 2(b) hereof, the Company has liability insurance in effect which may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such action, suit, proceeding, inquiry or investigation in accordance with the terms of such policies.

(e) Selection of Counsel. In the event the Company shall be obligated hereunder to pay the Expenses of any Claim, the Company, if appropriate, shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee, upon the delivery to Indemnitee of written notice of its election so to do. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same Claim; provided that, (i) Indemnitee shall have the right to employ Indemnitee's counsel in any such Claim at Indemnitee's expense and (ii) if (A) the employment of counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense, or (C) the Company shall not continue to retain such counsel to defend such Claim, then the fees and expenses of Indemnitee's counsel shall be at the expense of the Company.

### 3. Additional Indemnification Rights; Nonexclusivity.

4

(a) Scope. The Company hereby agrees to indemnify Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change after the date of this Agreement in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify a member of its Board of Directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its Board of Directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 8(a) hereof.

(b) Nonexclusivity. The indemnification provided by this Agreement shall be in addition to any rights to which Indemnitee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any agreement, any vote of Shareholders or disinterested directors, the General Corporation Law of the State of Delaware, or otherwise. The indemnification provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified capacity even though Indemnitee may have ceased to serve in such capacity.

4. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment in connection with any Claim made against Indemnitee to the extent Indemnitee has otherwise actually received payment (under any insurance policy, Certificate of Incorporation, Bylaw or otherwise) of the amounts otherwise indemnifiable hereunder.

5. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for all of the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such Expenses to which Indemnitee is entitled.

6. Mutual Acknowledgment. Both the Company and Indemnitee acknowledge that in certain instances, Federal law or applicable public policy may prohibit the Company from indemnifying its directors, officers, employees, agents or

fiduciaries under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

7. Liability Insurance. To the extent the Company maintains liability insurance applicable to directors, officers, employees, agents or fiduciaries, Indemnitee shall be covered by such policies in such a manner as to provide Indemnitee the same rights and

5

benefits as are accorded to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or of the Company's key employees, agents or fiduciaries, if Indemnitee is not an officer or director but is a key employee, agent or fiduciary.

8. Exceptions. Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) Excluded Action or Omissions. To indemnify Indemnitee for acts, omissions or transactions from which Indemnitee may not be relieved of liability under applicable law;

(b) Claims Initiated by Indemnitee. To indemnify or advance expenses to Indemnitee with respect to Claims initiated or brought voluntarily by Indemnitee and not by way of defense, except (i) with respect to actions or proceedings brought to establish or enforce a right to indemnification under this Agreement or any other agreement or insurance policy or under the Company's Certificate of Incorporation or Bylaws now or hereafter in effect relating to Claims for Indemnifiable Events, (ii) in specific cases if the Board of Directors has approved the initiation or bringing of such Claim, or (iii) as otherwise required under Section 145 of the Delaware General Corporation Law, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, advance expense payment or insurance recovery, as the case may be;

(c) Lack of Good Faith. To indemnify Indemnitee for any expenses incurred by Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such proceeding was not made in good faith or was frivolous; or

(d) Claims Under Section 16(b). To indemnify Indemnitee for expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

9. Period of Limitations. No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company against Indemnitee, Indemnitee's estate, spouse, heirs, executors or personal or legal representatives after the expiration of two years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such two-year period; provided, however, that if any shorter period of limitations is otherwise applicable to any such cause of action, such shorter period shall govern.

6

10. Construction of Certain Phrases.

(a) For purposes of this Agreement, references to the "Company" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) For purposes of this Agreement, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall

include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

(c) For purposes of this Agreement a "Change in Control" shall be deemed to have occurred if (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended), other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company or a corporation owned directly or indirectly by the Shareholders of the Company in substantially the same proportions as their ownership of stock of the Company, (A) who is or becomes the beneficial owner, directly or indirectly, of securities of the Company representing 10% or more of the combined voting power of the Company's then outstanding Voting Securities, increases his beneficial ownership of such securities by 5% or more over the percentage so owned by such person, or (B) becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than 20% of the total voting power represented by the Company's then outstanding Voting Securities, (ii) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company and any new director whose election by the Board of Directors or nomination for election by the Company's Shareholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, or (iii) the Shareholders of the Company approve

7

a merger or consolidation of the Company with any other corporation other than a merger or consolidation which would result in the Voting Securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into Voting Securities of the surviving entity) at least 80% of the total voting power represented by the Voting Securities of the Company or such surviving entity outstanding immediately after such merger or consolidation, or the Shareholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of (in one transaction or a series of transactions) all or substantially all of the Company's assets.

(d) For purposes of this Agreement, "Independent Legal Counsel" shall mean an attorney or firm of attorneys, selected in accordance with the provisions of Section 1(c) hereof, who shall not have otherwise performed services for the Company or Indemnitee within the last three years (other than with respect to matters concerning the rights of Indemnitee under this Agreement, or of other indemnitees under similar indemnity agreements).

(e) For purposes of this Agreement, a "Reviewing Party" shall mean any appropriate person or body consisting of a member or members of the Company's Board of Directors or any other person or body appointed by the Board of Directors who is not a party to the particular Claim for which Indemnitee is seeking indemnification, or Independent Legal Counsel.

(f) For purposes of this Agreement, "Voting Securities" shall mean any securities of the Company that vote generally in the election of directors.

11. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original.

12. Binding Effect; Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors, assigns, including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business and/or assets of the Company, spouses, heirs, and personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. This Agreement shall continue in effect regardless of whether Indemnitee continues to serve as a director, officer, employee, agent or fiduciary of the Company or of any other enterprise at the Company's request.

13. Attorneys' Fees. In the event that any action is instituted by Indemnitee under this Agreement or under any liability insurance policies maintained by the Company

to enforce or interpret any of the terms hereof or thereof, Indemnitee shall be entitled to be paid all Expenses incurred by Indemnitee with respect to such action, regardless of whether Indemnitee is ultimately successful in such action, and shall be entitled to the advancement of Expenses with respect to such action, unless, as a part of such action, a court of competent jurisdiction over such action determines that each of the material assertions made by Indemnitee as a basis for such action was not made in good faith or was frivolous. In the event of an action instituted by or in the name of the Company under this Agreement to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all Expenses incurred by Indemnitee in defense of such action (including costs and expenses incurred with respect to Indemnitee's counterclaims and cross-claims made in such action), and shall be entitled to the advancement of Expenses with respect to such action, unless, as a part of such action, a court having jurisdiction over such action determines that each of Indemnitee's material defenses to such action was made in bad faith or was frivolous.

14. Notice. All notices and other communications required or permitted hereunder shall be in writing, shall be effective when given, and shall in any event be deemed to be given (a) five (5) days after deposit with the U.S. Postal Service or other applicable postal service, if delivered by first class mail, postage prepaid, (b) upon delivery, if delivered by hand, (c) one business day after the business day of deposit with Federal Express or similar overnight courier, freight prepaid, or (d) one day after the business day of delivery by facsimile transmission, if delivered by facsimile transmission with copy by first class mail, postage prepaid, and shall be addressed if to the Indemnitee, at the Indemnitee's address as set forth beneath his signature to this Agreement and if to the Company at the address of its principal corporate offices (attention: General Counsel) or at such other address as such party may designate by ten days' advance written notice to the other party hereto.

15. Consent to Jurisdiction. The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement shall be commenced, prosecuted and continued only in the Court of Chancery of the State of Delaware in and for New Castle County, which shall be the exclusive and only proper forum for adjudicating such a claim.

16. Severability. The provisions of this Agreement shall be severable in the event that any of the provisions hereof (including any provision within a single section, paragraph or sentence) are held by a court of competent jurisdiction to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Furthermore, to the fullest extent possible, the provisions of this Agreement (including, without limitations, each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

17. Choice of Law. This Agreement shall be governed by and its provisions construed and enforced in accordance with the laws of the State of Delaware, as applied to contracts between Delaware residents, entered into and to be performed entirely within the State of Delaware, without regard to the conflict of laws principles thereof.

18. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

19. Amendment and Termination. No amendment, modification, termination or cancellation of this Agreement shall be effective unless it is in writing signed by both the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

20. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto.

21. No Construction as Employment Agreement. Nothing contained in this Agreement shall be construed as giving Indemnitee any right to be retained in the employ of the Company or any of its subsidiaries.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the

date first above written.

KLA-TENCOR CORPORATION

INDEMNITEE

BY: \_\_\_\_\_

By: \_\_\_\_\_

NAME: \_\_\_\_\_

Name: \_\_\_\_\_

TITLE: \_\_\_\_\_

## Management's Discussion and Analysis of Financial Condition and Results of Operations

### MERGER

On April 30, 1997, Tencor merged into a wholly-owned subsidiary of KLA using the pooling-of-interests method of accounting. Each outstanding share of Tencor was exchanged for one share of KLA and KLA changed its name to KLA-Tencor Corporation (the Company). All financial data of the Company included herein reflects the combination of the historical financial information of both KLA and Tencor.

### RESULTS OF OPERATIONS

As the Company began fiscal year 1997, semiconductor manufacturers were reassessing their spending plans because of the sharp drop in prices for memory devices. This change in market conditions caught them by surprise and resulted in the postponement of many new memory fabrication facilities. Even though prices for logic and microprocessors were not as affected, these manufacturers postponed many expansion projects while they assessed the market. By the December quarter, it became more clear that the memory price drop was not an overall demand problem but a memory oversupply issue. New order levels reflected these conditions and were quite low in the September quarter but began to recover by December. Thus, many logic and microprocessor customers cautiously began to resume their planned expansions. During the March and June quarters these expansion plans accelerated and new orders for the Company reached record levels by June. The market for logic, microprocessor, and foundry fabs continues to be healthy while memory fab construction remains limited primarily to pilot plants for next generation memories. The Company responded quickly to these market changes and reduced spending and reduced shipment levels. Shipments bottomed in December and grew gradually as the new order rate recovered.

The Company's operating results benefited from the demand for process control equipment from previously constructed fabs which have not yet been outfitted with a full complement of process monitoring equipment. Thus the Company's results of operations were not affected as severely as many other semiconductor equipment companies and this demand from older facilities has helped the Company to recover faster.

### REVENUES AND GROSS MARGINS

Aggregate revenues reflected the trends described above. Particular strength came from several new product divisions which are either inventing new markets or gaining share with new technologies in established markets. New markets were addressed by the SEMSpec division, which markets a \$7 million defect inspection tool using a scanning electron beam, and by the Yield Management Group's new Automatic Defect Classification product. Both these divisions experienced significant new revenues during the year. Additionally, share of market increases resulted in higher revenues for the CD SEM Metrology division (model 8100).

Gross margins decreased to 54.3% in 1997 from 57.1% in 1996. The decrease during the period was due primarily to increased warranty and installation costs related to new product introductions and to an increase in infrastructure costs for the Company's Customer Service Group. Gross margin increased slightly to 57.1% in 1996 from 57.0% in 1995 on higher system product margins offset by lower service margins. The Company anticipates that gross margin will increase modestly in 1998.

### RESEARCH AND DEVELOPMENT

Research and development (R&D) expenses were \$134 million, \$116 million and \$74 million, or 13.0%, 10.6% and 10.6% of revenues in 1997, 1996 and 1995, respectively. The Company has identified a large number of process monitoring and yield management opportunities and has initiated new development programs in these new market segments. As a result, the Company's spending on development programs in 1997 rose as a percent of revenues and the Company expects R&D spending to increase in absolute dollars in 1998.

### SELLING, GENERAL AND ADMINISTRATIVE

Selling, general and administrative (SG&A) expenses were \$219 million, \$213 million and \$141 million, or 21.3%, 19.4% and 20.2% of revenues, in 1997, 1996 and 1995, respectively.

The increase in absolute dollars in 1997 compared to 1996 can be attributed in part to increases in expenses resulting from the significant efforts involved with enhancements to the Company's information systems infrastructure. In 1996, compared to 1995, SG&A expenses increased in relation

to the increased revenues. The Company anticipates that SG&A expenses will increase in absolute dollars in 1998.

### MERGER AND RESTRUCTURING COSTS

The Company recorded charges totaling \$60.6 million for merger, restructuring and other non-recurring events which occurred during the year ended June 30, 1997. During the quarter ended June 30, 1997, the Company recorded a pre-tax

charge of \$52.1 million for merger, restructuring and other costs. This charge included direct merger costs of \$19.4 million for professional fees and other transaction costs associated with the merger, \$4.2 million for severance related costs, \$13.5 million for non-cash write-offs of certain property, equipment and other assets, \$2.6 million for the elimination and/or relocation of duplicate sales and service facilities worldwide and \$6.3 million of merger related consulting services and other costs providing no expected future benefit to the Company. Approximately \$22 million of the original charge remained in accrued liabilities as of June 30, 1997 and is expected to be utilized within the next twelve months. In addition, the Company incurred a pre-tax charge of \$6.1 million as a result of the write-off of a bad debt for shipments made to a Thailand company in fiscal 1997.

During the quarter ended September 30, 1996, the Company recorded a charge for Tencor restructuring costs of \$8.5 million. This charge consisted of \$2.0 million of employee severance and related costs and \$6.5 million of lease exit costs associated with the abandonment of certain of Tencor's leased facilities.

#### OTHER INCOME, NET

Other income, net consisted primarily of interest income on investments less interest expense on bank borrowings. Also included were foreign currency gains and losses, and certain royalties.

#### PROVISION FOR INCOME TAXES

The provision for income taxes on the Company's pretax income was 39.4%, 37.4% and 37.2% in 1997, 1996 and 1995, respectively. The Company's effective tax rate increased from 1996 to 1997 primarily as a result of certain merger related costs that were not tax deductible.

#### OTHER ACQUISITION COSTS

In 1995, the Company acquired Metrologix Inc., a manufacturer of advanced electron beam measurement equipment. A significant portion of the acquisition cost was allocated to acquired in-process technology which was written-off at the time of the acquisition, because substantial research and development investment was necessary to complete the new product development then underway. This resulted in a pre-tax charge of \$25 million.

#### LIQUIDITY AND CAPITAL RESOURCES

The Company has financed its growth primarily through cash flow from operations. Cash flow from operations was \$236 million in 1997 due to net income (which includes non-cash charges for depreciation), and to declines in accounts receivable and inventory balances year over year. The decrease in accounts receivable during fiscal 1997 is due primarily to improved collections and as a result of a factoring agreement to sell certain trade receivables.

Capital expenditures for each of the fiscal years 1997 and 1996 were approximately \$60 million, consisting primarily of computers, manufacturing equipment and cleanrooms. The Company expects capital expenditures in 1998 to be at levels approximating those of 1997.

At June 30, 1997, the Company's principal sources of liquidity consisted of \$349 million in cash, cash equivalents and short-term investments, and \$338 million in marketable securities classified as long-term. The Company believes that the existing

cash balances and short-term investments, along with cash generated from operations, will be sufficient to meet the Company's working capital requirements through 1998.

#### OTHER FACTORS AFFECTING COMPANY RESULTS

The Company will continue to invest during fiscal 1998 in expanding its sales and service operations worldwide. The achievement of continued sales and earnings growth will depend, in part, on the success of the merger between KLA and Tencor. There can be no assurance that products, technologies, distribution channels and key personnel will be effectively assimilated into the Company's business, or that such integration may will not adversely affect the Company's business, financial condition or results of operations.

As a participant in the semiconductor industry, the Company operates in a technologically advanced, highly competitive environment. In addition, the Company depends in large part on the capital expenditures of semiconductor manufacturers worldwide, which in turn depend on the current and anticipated market demand for integrated circuits and products utilizing integrated circuits. The semiconductor industry has historically been highly cyclical and has experienced periodic downturns, which have had an adverse effect on the level of capital expenditures. While the Company cannot predict what effect these various factors will have on operating results, the effect of these and other factors could significantly affect the Company's future operating results and stock market value.

The Company, from time to time, has experienced, and expects to continue to experience, significant fluctuations in its results of operations, particularly on a quarterly basis. The Company's expense levels are based, in part, on expectations of future revenues. If revenue levels in a particular period do not meet expectations, operating results will be adversely affected. A variety of

factors have an influence on the Company's operating results in a particular period. These factors primarily include economic conditions in the semiconductor industry, the timing of the receipt of orders from major customers, customer cancellations or delays of shipments, the Company's ability to design, introduce and manufacture new products on a cost effective and timely basis, specific feature requests by customers, production delays or manufacturing inefficiencies.

#### EFFECTS OF RECENT ACCOUNTING PRONOUNCEMENTS

In February 1997, The Financial Accounting Standards Board issued Statement No. 128, "Earnings per Share," which is required to be adopted in the Company's fiscal quarter ending December 31, 1997. See Note 2 of Notes to Consolidated Financial Statements for the effect of Statement No. 128.

#### MARKET RISK DISCLOSURE

At the end of fiscal 1997, the Company had an investment portfolio of fixed income securities, excluding those classified as cash and cash equivalents, of \$408 million (see Note 6 of Notes to Consolidated Financial Statements). These securities, like all fixed income instruments, are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10% from levels as of June 30, 1997, the fair value of the portfolio would decline by approximately \$5.5 million. However, the Company has the ability to hold its fixed income investments until maturity, and therefore the Company would not expect to recognize such an adverse impact in income or cash flows.

Other than statements of historical fact, statements made in this Annual Report include forward looking statements, such as statements with respect to the Company's future financial performance, operating results, plans and objectives. Actual results may differ materially from those currently anticipated depending on a variety of risk factors some of which are set forth in "Other Factors Affecting Company Results" above.

#### KLA-Tencor CONSOLIDATED BALANCE SHEETS

<TABLE>  
<CAPTION>

	June 30,	
	1996	1997
	-----	-----
In thousands, except per share data		
<S>	<C>	<C>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 201,704	\$ 279,225
Short-term investments	108,291	69,606
Accounts receivable, net	310,077	269,291
Inventories	197,803	174,634
Deferred income taxes	41,081	54,799
Other current assets	10,753	12,452
Total current assets	869,709	860,007
Land, property and equipment, net	104,837	117,595
Marketable securities	158,480	338,418
Other assets	24,893	27,287
Total assets	\$ 1,157,919	\$ 1,343,307

#### LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities:		
Notes payable	\$ 35,825	\$ 25,113
Accounts payable	44,818	41,155
Other current liabilities	197,669	258,483
Total current liabilities	278,312	324,751
Deferred income taxes and other	8,608	3,943
Commitments and contingencies (Note 4)		
Stockholders' equity:		
Common stock, \$0.001 par value, 250,000 authorized, 81,746 and 83,759 shares issued and outstanding	82	84
Capital in excess of par value	426,348	458,224
Retained earnings	437,310	542,706
Net unrealized gain on investments	9,203	17,591

Cumulative translation adjustment	(1,944)	(3,992)
Total stockholders' equity	870,999	1,014,613
Total liabilities and stockholders' equity	\$ 1,157,919	\$ 1,343,307

</TABLE>

See accompanying notes to consolidated financial statements.

KLA-Tencor CONSOLIDATED STATEMENTS OF INCOME

Year ended June 30,	1995	1996	1997
	-----	-----	-----
In thousands, except per share data			
<S>	<C>	<C>	<C>
Revenues	\$ 695,950	\$1,094,492	\$1,031,824
Costs and operating expenses:			
Cost of goods sold	299,571	469,681	471,910
Engineering, research and development	73,945	115,920	134,105
Selling, general and administrative	140,585	212,625	219,425
Merger/restructuring and other charges	25,240	--	60,552
Total costs and operating expenses	539,341	798,226	885,992
Income from operations	156,609	296,266	145,832
Interest income and other, net	10,417	17,834	28,147
Income before income taxes	167,026	314,100	173,979
Provision for income taxes	62,215	117,466	68,583
Net income	\$ 104,811	\$ 196,634	\$ 105,396
Net income per share	\$ 1.34	\$ 2.34	\$ 1.24
Weighted average common shares and equivalents	78,427	84,195	85,203

</TABLE>

See accompanying notes to consolidated financial statements.

KLA-Tencor CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Cumulative Unrealized Translation Adjustment Totals	Common Stock and			Net	
	Capital in Excess of Par Value	Earnings		Retained	
	Shares	Amount	Earnings	Gain	
	-----	-----	-----	----	-----
In thousands					
<S>	<C>	<C>	<C>	<C>	<C>
<C>					
Balances at June 30, 1994	69,178	\$ 170,645	\$ 135,865	\$ --	\$ 823
\$ 307,333					
Net issuance under employee stock plans	2,846	14,490	--	--	--
14,490					
Equity offering, net of offering costs	7,796	195,019	--	--	--
195,019					
Release of escrowed shares	572	3,396	--	--	--
3,396					
Tax benefits of stock option transactions	--	23,260	--	--	--
23,260					
Cumulative translation adjustment	--	--	--	--	--
2,672					
Unrealized gain on investments, net	--	--	--	1,241	--
1,241					
Net income	--	--	104,811	--	--
104,811					
Balances at June 30, 1995	80,392	406,810	240,676	1,241	
3,495					
652,222					

15,298	Net issuance under employee stock plans	1,604	15,298	--	--	--
(5,456)	Repurchase of common stock	(250)	(5,456)	--	--	--
9,778	Tax benefits of stock option transactions	--	9,778	--	--	--
(5,439)	Cumulative translation adjustment (5,439)	--	--	--	--	--
7,962	Unrealized gain on investments, net	--	--	--	7,962	--
196,634	Net income	--	--	196,634	--	--
Balances at June 30, 1996 (1,944)	870,999	81,746	426,430	437,310	9,203	
22,235	Net issuance under employee stock plans	2,013	22,235	--	--	--
9,643	Tax benefits of stock option transactions	--	9,643	--	--	--
(2,048)	Cumulative translation adjustment (2,048)	--	--	--	--	--
8,388	Unrealized gain on investments, net	--	--	--	8,388	--
105,396	Net income	--	--	105,396	--	--
Balances at June 30, 1997 (3,992)	\$ 1,014,613	83,759	\$ 458,308	\$ 542,706	\$ 17,591	\$

See accompanying notes to consolidated financial statements.

#### KLA-TENCOR CONSOLIDATED STATEMENTS OF CASH FLOWS

<TABLE>  
<CAPTION>

	Year ended June 30,		
	1995	1996	1997
	-----	-----	-----
In thousands			
<S>	<C>	<C>	<C>
Cash flows from operating activities:			
Net income	\$ 104,811	\$ 196,634	\$ 105,396
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	15,014	24,967	52,340
Write-off of acquired in-process technology	16,154	--	--
Deferred income taxes	(14,140)	(19,611)	(19,226)
Changes in assets and liabilities:			
Accounts receivable, net	(110,691)	(96,586)	34,859
Inventories	(37,311)	(86,538)	21,307
Other assets	(18,696)	3,815	(11,817)
Accounts payable	10,318	15,921	(3,580)
Accrued compensation	6,055	9,669	11,669
Other accrued expenses	31,878	47,669	30,084
Income taxes payable	14,196	15,329	15,300
Net cash provided by operating activities	17,588	111,269	236,332
Cash flows from investing activities:			
Purchase of property and equipment	(29,970)	(64,589)	(56,793)
Purchases of available for sale securities	(429,519)	(509,262)	(997,283)
Proceeds from available for sale securities	211,326	484,060	870,391
Long-term equity investment	(14,182)	--	--
Net cash used in investing activities	(262,345)	(89,791)	(183,685)
Cash flows from financing activities:			
Issuance of common stock, net	41,146	25,076	31,878
Proceeds from equity offerings, net	195,019	--	--
Stock repurchases	--	(5,456)	--
Payments under debt obligations	(1,921)	(39,277)	(42,490)
Borrowings under debt obligations	2,978	45,177	35,738
Net cash provided by financing activities	237,222	25,520	25,126
Effect of exchange rate changes on cash and cash equivalents	(1,163)	2,586	(252)
Net increase in cash and cash equivalents	(8,698)	49,584	77,521
Cash and cash equivalents at beginning of period	160,818	152,120	201,704
Cash and cash equivalents at end of period	\$ 152,120	\$ 201,704	\$ 279,225
Supplemental cash flow disclosures:			
Income taxes paid	\$ 53,592	\$ 108,196	\$ 68,430
Interest paid	\$ 2,594	\$ 2,103	\$ 1,551

</TABLE>

See accompanying notes to consolidated financial statements.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### NOTE 1 - BUSINESS COMBINATION AND BASIS OF PRESENTATION

Effective April 30, 1997 following the approval by stockholders, Tencor Instruments (Tencor) merged into a wholly-owned subsidiary of KLA Instruments (KLA) using the pooling-of-interests method of accounting. Each outstanding share of Tencor common stock was exchanged for one share of KLA common stock and the Company changed its name to KLA-Tencor Corporation (the Company). A total of 31.9 million shares of common stock were issued. All financial data of the Company included herein reflects the combination of the historical financial information of both KLA and Tencor. The Consolidated Financial Statements and other financial information presented as of June 30, 1996 and 1997 and for the three years then ended, reflects the combination of KLA's and Tencor's operations for those periods.

The following table shows revenues and net income of the separate companies through the periods preceding the business combination:

<TABLE>  
<CAPTION>

	Year ended June 30,		
	1995	1996	1997
	-----	-----	-----
In thousands			
<S>	<C>	<C>	<C>
Revenues:			
KLA	\$ 442,416	\$ 694,867	\$ 473,586
Tencor	253,534	399,625	282,055
KLA-Tencor	--	--	276,183
Combined	\$ 695,950	\$1,094,492	\$1,031,824
Net income:			
KLA	\$ 58,618	\$ 120,884	\$ 69,012
Tencor	46,193	75,750	35,782
KLA-Tencor	--	--	602
Combined	\$ 104,811	\$ 196,634	\$ 105,396

</TABLE>

### NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Principles of Consolidation

The consolidated financial statements include the financial statements of the Company and its wholly-owned subsidiaries. All significant intercompany transactions and accounts have been eliminated. The Company has several foreign subsidiaries. The functional currencies of the Company's significant foreign subsidiaries are the local currencies. Accordingly, all assets and liabilities of the foreign operations are translated to U.S. dollars at current exchange rates, and revenues and expenses are translated to U.S. dollars using weighted 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 "cumulative translation adjustment." Foreign currency transaction gains and losses have not been significant.

#### Management Estimates

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

#### Cash Equivalents and Investments

Cash equivalents consist of highly liquid investments that are valued at amortized cost, which approximates market value, and have original maturity dates of three months or less from the date of acquisition. Investments in debt and equity securities are classified as "available-for-sale" and have maturities greater than three months from the date of acquisition. The Company has classified all securities as available-for-sale, as the sale of such securities may be required prior to maturity to implement management strategies. Investments classified as available-for-sale are reported at fair value with unrealized gains or losses excluded from earnings and reported as a separate component of stockholders' equity, net of applicable taxes, until realized.

#### Revenue Recognition

The Company recognizes revenue when the product has been shipped and collection of the resulting receivable is probable. A provision for the estimated costs of fulfilling warranty and installation obligations is recorded at the time the related revenue is recognized. Service and maintenance contract revenues are deferred and recognized ratably over the period of the related contract.

#### Inventories

Inventories are stated at the lower of cost (on a first-in, first-out basis) or market. Demonstration units are stated at their manufacturing costs and reserves are recorded to state the demonstration units at their net realizable value.

#### Property and Equipment

Property and equipment are recorded at cost. Depreciation of property and equipment is based on the straight-line method over the estimated useful lives of the assets, which are 30 years for buildings, ten years for building improvements, five to seven years for furniture and fixtures, and three to five years for machinery and equipment. The life of the lease or the useful life, whichever is shorter, is used for the amortization of leasehold improvements.

#### Concentration of Credit Risk

Financial instruments which potentially subject the Company to credit risk consist principally of investments, accounts receivable and financial instruments used in hedging activities.

Investments are maintained with high quality institutions, the composition and maturities of which are regularly monitored by management. Generally, these securities are highly liquid and may be redeemed upon demand and, therefore, bear minimal risk. The Company, by policy, limits the amount of credit exposure to any one financial institution or commercial issuer. The Company has not experienced any material losses on its investments.

A majority of the Company's trade receivables are derived from sales to large multinational semiconductor manufacturers. Concentration of credit risk with respect to trade receivables is considered to be limited due to its customer base and the diversity of its geographic sales areas. The Company performs ongoing credit evaluations of its customers' financial condition. The Company maintains a provision for potential credit losses based upon expected collectibility of all accounts receivable. The write-off of uncollectible amounts other than the receivable from a Thailand company (see Note 5) has been insignificant.

The Company is exposed to credit loss in the event of nonperformance by counterparties on the foreign exchange contracts used in hedging activities. The Company does not anticipate nonperformance by these counterparties.

#### Foreign Currency

The Company does not use derivative financial instruments for speculative or trading purposes. The Company enters into foreign currency forward exchange contracts to hedge against future movements in foreign exchange rates that affect certain foreign currency denominated sales and purchase transactions. The Company attempts to match the forward contracts with the underlying items being hedged in terms of currency, amount and maturity. Because the impact of movements in currency exchange rates on forward contracts offsets the related impact on the exposures hedged, these financial instruments do not subject the Company to speculative risk that would otherwise result from changes in currency exchange rates. Realized gains and losses on forward exchange contracts are included in other income, net, which offset foreign exchange gains or losses from revaluation of foreign currency-denominated receivable and payable balances. The cash flows related to gains and losses on these contracts are classified in the same category as the hedged transactions in the Consolidated Statements of Cash Flows.

At June 30, 1997, the Company had forward exchange contracts maturing throughout fiscal 1998 and early fiscal 1999 to sell and purchase approximately \$225.3 million and \$9.6 million, respectively, in foreign currency, primarily Japanese yen. At June 30, 1996, the Company had forward contracts maturing throughout fiscal 1997 to sell and purchase approximately \$161.6 million and \$5.3 million, respectively, in foreign currency, primarily Japanese yen. Of these forward exchange contracts, approximately \$83.0 million and \$1.0 million of contracts hedge foreign currency assets and liabilities, respectively, carried on the balance sheet as of June 30, 1997, and consequently the financial statements reflect the fair market value of the contracts and their underlying transactions. Approximately \$142.3 million and \$8.6 million of the contracts hedge firm commitments for future sales and purchases, respectively, denominated in foreign currency. The fair market value of these contracts on June 30, 1997, based upon prevailing market rates on that date, was approximately \$142.5 million and \$8.3 million, respectively. As of June 30, 1997, and based on prevailing market rates on that date, the unrealized loss on each set of contracts was approximately \$0.3 million.

#### Fair Value of Disclosures of Financial Instruments

The Company has evaluated the estimated fair value of financial instruments

using available market information and valuation methodologies. The amounts reported as cash and cash equivalents, investments and bank borrowings reasonably estimate their fair value.

#### Net Income Per Share

Net income per share is computed using the weighted average number of common and common equivalent shares (weighted average shares) outstanding during the period, which includes net shares issuable upon the exercise of stock options, when dilutive.

In February 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 128, "Earnings per Share." The Statement redefines earnings per share under generally accepted accounting principles, and is effective for the Company's quarter ending December 31, 1997. Under the new standard, primary earnings per share is replaced by basic earnings per share and fully diluted earnings per share is replaced by diluted earnings per share. If the Company had adopted this Statement for the year ended June 30, 1997, the Company's earnings per share for the years ended June 30, 1997, 1996 and 1995 would have been as follows:

<TABLE>  
<CAPTION>

	1995 -----	1996 -----	1997 -----
<S>	<C>	<C>	<C>
Earnings per share:			
Basic	\$ 1.40	\$ 2.42	\$ 1.29
Diluted	\$ 1.34	\$ 2.34	\$ 1.24

</TABLE>

#### Reclassifications

Certain amounts in fiscal years prior to 1997 have been reclassified to conform to the 1997 financial statement presentation.

#### Stock-Based Compensation Plans

The Company accounts for its stock option plans and employee stock purchase plan in accordance with provisions of the Accounting Principles Board's Opinion No. 25 (APB 25), "Accounting for Stock Issued to Employees." The Company's policy is to grant options at the fair market value on the date of grant. Accordingly no compensation expense has been recorded. In 1995, the Financial Accounting Standards Board released SFAS 123, "Accounting for Stock-Based Compensation." SFAS 123 provides an alternative to APB 25 requiring additional disclosure effective for fiscal years beginning after December 15, 1995. The Company continues to account for its employee stock plans in accordance with APB 25 and provides the additional disclosure required by SFAS 123. Accordingly, SFAS 123 did not have any impact on the Company's financial position or results of operations. See Note 8 of Notes to Consolidated Financial Statements.

#### Recent Accounting Pronouncements

In June 1997, the Financial Accounting Standards Board issued Statement No. 130, "Reporting Comprehensive Income." This Statement establishes standards for reporting and display of comprehensive income and its components (revenues, expenses, gains, and losses) in a full set of general-purpose financial statements. Such items may include foreign currency translation adjustments, unrealized gains/losses from investing and hedging activities, and other transactions. This Statement requires that all items that are required to be recognized under accounting standards as components of comprehensive income be reported in a financial statement that is displayed with the same prominence as other financial statements. This Statement is required to be adopted in the Company's fiscal year ending June 30, 1999.

In June 1997, the Financial Accounting Standards Board issued Statement No. 131, "Disclosures about Segments of an Enterprise and Related Information." This Statement establishes standards for the way that public business enterprises report information about operating segments in annual financial statements and requires that those enterprises report selected information about operating segments in interim financial reports issued to stockholders. It also establishes standards for related disclosures about products and services, geographic areas, and major customers. This Statement is required to be adopted in the Company's fiscal year ending June 30, 1999.

#### NOTE 3 - BALANCE SHEET COMPONENTS

<TABLE>  
<CAPTION>

	June 30,	
	1996 -----	1997 -----
<S>	<C>	<C>
In thousands		

Inventories:		
Customer service parts	\$ 26,078	\$ 31,387
Raw materials	54,602	36,829
Work-in-process	64,532	71,998
Demonstration equipment	47,349	20,580
Finished goods	5,242	13,840
	\$197,803	\$174,634

</TABLE>

<TABLE>		
<S>	<C>	<C>
Property and equipment:		
Land	\$ 10,502	\$ 10,502
Buildings and improvements	30,353	11,053
Machinery and equipment	99,307	129,869
Office furniture and fixtures	15,622	17,849
Leasehold improvements	21,301	38,805
	177,085	208,078
Less: accumulated depreciation and amortization	(72,248)	(90,483)
	\$ 104,837	\$ 117,595

Other current liabilities:		
Warranty, installation and retrofit	\$ 44,021	\$ 50,569
Compensation and benefits	65,286	76,955
Income taxes payable	45,288	62,784
Other accrued expenses	43,074	68,175
	\$ 197,669	\$ 258,483

</TABLE>

#### NOTE 4 - COMMITMENTS AND CONTINGENCIES

The Company has an agreement with a bank to sell, with recourse, certain of its trade receivables. The total amount of the facility is the yen equivalent of approximately \$106 million based upon exchange rates as of June 30, 1997. The Company has accounted for the sale of certain of these receivables as an off-balance sheet financing arrangement. During fiscal 1997, a total of the yen equivalent of approximately \$138 million of receivables were sold under this arrangement. As of June 30, 1997, the yen equivalent of \$50 million remains uncollected. The Company does not believe it is materially at risk for any losses as a result of this agreement.

The Company has entered into various operating leases for land, office and manufacturing facilities constructed for its use in Milpitas and San Jose, California. Monthly rent payments under these leases vary based upon the London Interbank Offering Rate (LIBOR). Under certain of these leases the Company's obligation has been collateralized at the Company's option in order to reduce the monthly payments. The leases for the Milpitas and San Jose facilities provide the Company with the option at the end of each lease of either acquiring the properties at their original cost or arranging for the properties to be acquired. If the Company does not purchase the properties at the end of the leases, the Company will be contingently liable to the lessor for residual value guarantees aggregating \$103 million. In addition, under the terms of the leases, the Company must maintain compliance with certain financial covenants. As of June 30, 1997, the Company was in compliance with all of its covenants. Management believes that the contingent liability relating to the residual value guarantees does not currently have a material adverse effect on the Company's financial position or results of operations.

The Company leases several other facilities under operating leases that expire at various times through fiscal 2012, with renewal options at the fair market value for additional periods up to five years. The Company also leases equipment and other facilities under operating leases.

Total rent expense under all operating leases was \$14.9 million, \$10.3 million and \$6.4 million for the years ended June 30, 1997, 1996 and 1995, respectively.

Future minimum lease commitments under these operating leases at June 30, 1997 (which include estimated lease payments for the Company's Milpitas and San Jose, California facilities using a LIBOR of approximately 6%

and total construction costs of \$126 million), are \$68 million, representing \$13.7 million, \$12.7 million, \$11.2 million, \$9.3 million, \$6.6 million and \$13.5 million in fiscal 1998 through 2002 and thereafter, respectively.

NOTE 5 - MERGER, RESTRUCTURING AND OTHER CHARGES

The Company recorded charges totaling \$60.6 million for merger, restructuring and other non-recurring events that occurred during the year ended June 30, 1997.

During the quarter ended June 30, 1997, the Company recorded a pre-tax charge of \$52.1 million for merger, restructuring and other costs. This charge consisted of merger and restructuring costs of \$46.0 million as a result of the business combination of KLA and Tencor, which was effective on April 30, 1997. This charge included direct merger costs of \$19.4 million, which consisted of professional fees and other transaction costs associated with the merger, \$4.2 million for severance related costs, \$13.5 million for non-cash write-offs of certain redundant property, equipment and other assets, \$2.6 million for the elimination and/or relocation of duplicate sales and service facilities worldwide and \$6.3 million of other costs, primarily fees for merger-related consulting services providing no expected future benefit to the Company. In addition, the Company incurred a pre-tax charge of \$6.1 million as a result of the write-off of a bad debt for shipments made to a Thailand company in fiscal 1997. Of the \$52.1 million total merger, restructuring and other costs recorded during the quarter ended June 30, 1997, approximately \$30 million was used as of June 30, 1997, with the remaining balance of \$22 million expected to be utilized during the next twelve months.

During the quarter ended September 30, 1996, the Company recorded a charge for restructuring costs of \$8.5 million. This charge consisted of \$2.0 million in employee severance and related costs and \$6.5 million in lease exit costs associated with the abandonment of certain of the Company's leased facilities. During the quarter ended March 31, 1997, the Company completed occupation of its new facility in Milpitas, California. Of the \$8.5 million total restructuring costs, approximately \$2.1 million remained as of June 30, 1997, and is expected to be utilized during the next three months.

NOTE 6 - INVESTMENTS

The amortized cost and estimated fair value of securities available for sale as of June 30, 1996 and 1997, are as follows (in thousands):

<TABLE>  
<CAPTION>

	Gross Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
	-----	-----	-----	-----
June 30, 1996				
<S>	<C>	<C>	<C>	<C>
U.S. Treasuries	\$ 36,375	\$ 97	\$ 319	\$ 36,153
Municipal bonds	184,081	549	318	184,312
Corporate debt securities	32,654	50	320	32,384
Other	190,299	17,302	547	207,054
	443,409	17,998	1,504	459,903
Less:				
Cash equivalents	(194,373)	(50)	(1,291)	(193,132)
Short-term investments	(108,435)	(56)	(200)	(108,291)
Long-term investments	\$ 140,601	\$ 17,892	\$ 13	\$ 158,480
June 30, 1997				
U.S. Treasuries	\$ 70,777	\$ 236	\$ 373	\$ 70,640
Municipal bonds	273,391	1,010	494	273,907
Corporate debt securities	26,120	63	228	25,955
Other	245,178	28,111	26	273,263
	615,466	29,420	1,121	643,765
Less:				
Cash equivalents	(235,622)	(135)	(16)	(235,741)
Short-term investments	(42,159)	(28,517)	(1,070)	(69,606)
Long-term investments	\$ 337,685	\$ 768	\$ 35	\$ 338,418

</TABLE>

The contractual maturities of securities classified as available for sale as of June 30, 1997, regardless of the consolidated balance sheet classification, are as follows (in thousands):

<TABLE>  
<CAPTION>

Estimated  
Fair Value

<S>	<C>
Due within one year	\$264,342
Due after one year through five years	191,237
Due after five years	188,186
	\$643,765

</TABLE>

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. The realized gains and losses for the years ended June 30, 1997 and 1996, were not material to the Company's financial position or results of operations.

NOTE 7 - INCOME TAXES

<TABLE>			
<CAPTION>			
Year ended June 30,	1995	1996	1997
	-----	-----	-----
In thousands			
<S>	<C>	<C>	<C>
The components of income before income taxes are as follows:			
Domestic income before			
income taxes	\$144,117	\$290,199	\$152,778
Foreign income before			
income taxes	22,909	23,901	21,201
	\$167,026	\$314,100	\$173,979

</TABLE>

The provision (benefit) for income taxes is comprised of the following:

<TABLE>			
<S>	<C>	<C>	<C>
Current:			
Federal	\$ 63,250	\$ 109,420	\$ 66,439
State	10,258	18,193	10,603
Foreign	6,788	9,557	8,808
	80,296	137,170	85,850
Deferred:			
Federal	(17,291)	(19,162)	(15,238)
State	(1,791)	(1,787)	(1,766)
Foreign	1,001	1,245	(263)
	(18,081)	(19,704)	(17,267)
Provision for income taxes	\$ 62,215	\$ 117,466	\$ 68,583

</TABLE>

Actual current tax liabilities are lower than reflected above for 1995, 1996 and 1997 by \$23.3, \$9.8 and \$9.6 million, respectively, due to the stock option deduction benefits recorded as credits to capital in excess of par value.

The significant components of deferred income tax assets (liabilities) are as follows:

<TABLE>		
<S>	<C>	<C>
Deferred tax assets:		
Federal and state loss and		
credit carryforwards	\$ 3,034	\$ 2,820
State tax	1,765	597
Nondeductible reserves and other	51,579	73,767
	56,378	77,184
Deferred tax liabilities:		
Depreciation	(1,870)	(4,105)
Unremitted earnings of foreign		
subsidiaries	(10,634)	(11,239)
Unrealized (gain) loss on investments	83	(11,036)
Other	(2,097)	(2,713)
	(14,518)	(29,093)
Valuation allowance	(4,576)	(4,576)
Net deferred tax assets	\$ 37,284	\$ 43,515

</TABLE>

The reconciliation of the United States federal statutory income tax rate to the

Company's effective income tax rate is as follows:

	1995	1996	1997
	----	----	----
<S>	<C>	<C>	<C>
Federal statutory rate	35.0%	35.0%	35.0%
State income taxes, net of federal benefit	3.6	3.5	3.3
Effect of foreign operations taxed at various rates	0.9	0.4	0.7
Benefit from foreign sales corporation	(2.8)	(2.9)	(3.3)
Realized deferred tax assets previously reserved	(1.4)	(0.4)	--
Merger related costs	0.4	--	4.5
Other	1.5	1.7	(0.8)
	37.2%	37.3%	39.4%

Undistributed earnings of certain of the Company's foreign subsidiaries, for which no U.S. federal income taxes have been provided, aggregated approximately \$11.2 million at June 30, 1997. The amount of the unrecognized deferred tax expense related to the investments in foreign subsidiaries is estimated at approximately \$4.0 million at June 30, 1997.

The IRS is currently auditing the Company's federal income tax returns for fiscal 1985 to 1992 and 1995 to 1996. The Company received a notice of proposed tax deficiency for the years 1985 through 1992 and filed a tax protest letter with the IRS on June 10, 1996 in response to that IRS notice. Final proposed adjustments have not been received for these years. Management believes sufficient taxes have been provided in prior years and that the ultimate outcome of the IRS audits will not have a material adverse impact on the Company's financial position or results of operations.

#### NOTE 8 - STOCKHOLDERS' EQUITY AND EMPLOYEE BENEFITS

In March 1989, the Company implemented a plan to protect stockholders' rights in the event of a proposed takeover of the Company. The plan provides that if any person or group acquires 15% or more of the Company's Common Stock, each right not owned by such person or group will entitle its holder to purchase, at the then-current exercise price, shares of the Company's Common Stock which have a value of twice that exercise price. The rights are redeemable by the Company and expire in April 2006.

Stock Option and Incentive Plans. The Company has various stock option and management incentive plans for selected employees, officers, directors, and consultants. The plans provide for grants in the form of stock options, stock appreciation rights, stock purchase rights, and performance shares. As of June 30, 1997, only stock options have been granted under the plans.

In calendar 1996, the Company offered employees the right to reprice certain stock options issued to employees during the period from August 1994 through August 1996. The repricing was done in the form of an exchange, whereby eligible optionees could cancel their current options in exchange for new options with exercise prices at the fair market value on the date of grant.

The activity under the option plans, combined, was as follows:

	Available For Grant	Weighted- Options Outstanding	Average Exercise Price
	-----	-----	-----
<S>	<C>	<C>	<C>
Balances at June 30, 1994	2,062,457	6,985,033	\$ 4.57
Additional shares reserved	4,000,000	--	--
Options granted	(3,753,693)	3,753,693	19.68
Options canceled	429,850	(477,628)	8.24
Options exercised	--	(2,523,668)	3.72
Balances at June 30, 1995	2,738,614	7,737,430	11.82
Additional shares reserved	3,700,000	--	--
Options granted	(3,283,370)	3,283,370	30.62
Options canceled	1,240,116	(1,253,098)	32.03
Options exercised	--	(906,797)	5.40

Balances at June 30, 1996	4,395,360	8,860,905	16.70
Additional shares reserved	1,600,000	--	--
Options granted	(4,479,879)	4,479,879	30.15
Options canceled	610,357	(1,992,129)	31.22
Options exercised	--	(1,087,689)	8.20
Balances at June 30, 1997	2,125,838	10,260,966	\$ 20.65

The options outstanding and exercisable at June 30, 1997 have been segregated into ranges for additional disclosure as follows:

<TABLE>  
<CAPTION>

Range of Exercise Prices at 06/30/97	Options Outstanding		Options Vested and Exercisable		
	Number Outstanding Contractual Life	Weighted-Average Remaining Exercise Price	Weighted - Average at 06/30/97	Number Vested and Exercisable Exercise	Weighted-Average Price
<S>	<C>	<C>	<C>		
\$1.45 - \$ 3.75	1,415,825	3.98	\$ 3.46	1,295,526	\$ 3.51
\$4.13 - \$ 9.63	742,599	5.99	\$ 6.08	661,801	\$ 6.07
\$10.13 - \$17.63	1,511,118	8.25	\$16.01	1,476,570	\$ 16.07
\$17.75 - \$21.63	3,581,439	8.17	\$19.58	943,459	\$ 18.98
\$21.88 - \$30.06	1,038,634	8.78	\$23.52	156,484	\$ 24.78
\$33.81 - \$46.56	1,971,351	9.71	\$42.49	59,123	\$ 39.24
\$1.45 - \$46.56	10,260,966	7.80	\$20.65	4,592,963	\$ 12.28

The weighted average fair value of options granted in 1997 and 1996 as defined by SFAS 123 is \$14.61 and \$14.56, respectively.

Employee Stock Purchase Plan The Company's employee stock purchase plan provides that eligible employees may contribute up to 10% of their earnings toward the purchase of the Company's Common Stock twice a year. The employee's purchase price is derived from a formula based on the fair market value of the Common Stock. No compensation expense is recorded in connection with the plan. In 1997, 1996 and 1995, 925,311, 697,203 and 322,332 shares, respectively, had been purchased by employees. At June 30, 1997, 1,001,044 shares were reserved and available for issuance under this plan.

Pro Forma Net Income and Earnings Per Share. Pro forma information regarding net income and net income per share is required by SFAS 123, and has been determined as if the Company had accounted for its employee stock purchase plan and employee stock options granted subsequent to June 30, 1995, under the fair value method of SFAS 123. The fair value of each option grant is estimated on the date of grant using the Black-Scholes model with the following weighted average assumptions:

<TABLE>  
<CAPTION>

	1996	1997
<S>	<C>	<C>
Stock option plan:		
Expected stock price volatility	50.0%	50.0%
Risk free interest rate	6.4%	6.2%
Expected life of options (years)	5.4	5.4
Stock purchase plan:		
Expected stock price volatility	50.0%	50.0%
Risk free interest rate	5.7%	5.6%
Expected life of options (years)	1-2	1-2

</TABLE>

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because the options granted pursuant to the Company's employee stock option and purchase plan have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of such Company options.

For purposes of pro forma disclosures required by SFAS 123, the estimated fair value of the options is amortized to expense over the options' vesting periods. The Company's pro forma information for the years ended June 30, 1996 and 1997 follows (in thousands except for earnings per share information):



	expenses	(44,340)	(24,952)	(65,834)
Income from operations		\$ 156,609	\$ 296,266	\$ 145,832
Identifiable assets:				
	United States	\$ 250,026	\$ 423,560	\$ 822,067
	Western Europe	43,007	51,045	49,417
	Japan	113,565	124,839	100,311
	Asia Pacific	46,377	81,724	22,680
	General corporate assets	397,431	476,751	348,832
	Total assets	\$ 850,406	\$ 1,157,919	\$ 1,343,307

</TABLE>

Intercompany sales among the Company's geographic areas are recorded on the basis of intercompany prices established by the Company. At June 30, 1997, 1996 and 1995, total foreign liabilities (excluding intercompany balances) were \$85 million, \$76 million and \$54 million, respectively. For fiscal years 1997, 1996 and 1995, foreign capital expenditures and depreciation expense were \$4 million, \$7 million and \$3 million and \$2 million, \$1 million and \$1, respectively.

#### NOTE 10 - CERTAIN TRANSACTIONS

Uniphase In November 1995, the Company entered into agreements with Uniphase Corporation (Uniphase) to license certain technology, provide partial funding for research and development and purchase 665,568 shares of Uniphase's common stock (adjusted to reflect a two-for-one stock split in June 1996). Under these agreements, the Company became the exclusive OEM reseller of Uniphase's laser imaging defect review station and automatic defect classification (ADC) software. The Company recorded the license as acquired product technology and is amortizing the cost over its estimated useful life of three years. The research and development funding is charged to research and development expense over the term of the funding agreement. The Company has recorded the purchase of Uniphase common stock as a short-term marketable equity investment at its fair value at the time of the purchase. Included under the caption "Accumulated unrealized gain on investments, net" is \$17.7 million related to the increase in fair market value of the Company's investment in Uniphase common stock as of June 30, 1997.

#### Metrologix

In December 1994, the Company acquired Metrologix Inc., a manufacturer of advanced electron beam measurement equipment. The acquisition was accounted for as a purchase. A significant portion of the acquisition cost was allocated to acquired in-process technology that was written off at the time of the acquisition, because further substantial research and development investment was necessary to complete the new product development then underway. This resulted in a pre-tax charge of \$25.2 million.

#### NOTE 11 - QUARTERLY CONSOLIDATED RESULTS OF OPERATIONS (UNAUDITED)

<TABLE>

<CAPTION>

	Sept. 30	Dec. 31	March 31	June 30
	-----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>
In thousands, except per share amounts				
1997:				
Revenues	\$261,140	\$242,155	\$252,346	\$276,183
Gross profit	145,776	127,281	135,241	151,616
Income from operations	46,165(1)	47,750	49,000	2,917(2)
Net income	33,580(1)	34,219	36,995	602(2)
Net income per share	\$ 0.40(1)	\$ 0.40	\$ 0.43	\$ 0.01(2)
1996:				
Revenues	\$237,079	\$261,672	\$293,777	\$301,964
Gross profit	137,906	150,784	167,715	168,406
Income from operations	68,078	72,765	79,051	76,372
Net income	45,500	48,614	52,068	50,452
Net income per share	\$ 0.54	\$ 0.58	\$ 0.62	\$ 0.61

</TABLE>

(1) Includes restructuring costs of \$8.5 million. Net income and net income per share would have been \$39.0 million and \$0.46, respectively, excluding these costs.

(2) Includes merger, restructuring and other costs of \$52.1 million. Net income and net income per share would have been \$42 million and \$0.48,

respectively, excluding these costs.

QUARTERLY COMMON STOCK MARKET PRICE:

<TABLE>  
<CAPTION>  
1997 Quarter ended

	Sept. 30	Dec. 31	March 31	June 30
	-----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>
High	24 3/4	40 3/4	49 3/4	53 1/8
Low	14 3/4	17 5/8	25 1/2	35 1/2

</TABLE>

<TABLE>  
<CAPTION>  
1996 Quarter ended

	Sept. 30	Dec. 31	March 31	June 30
	-----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>
High	47 1/8	46 3/4	35 1/4	31 1/4
Low	38 1/2	24 3/4	16 1/2	17 1/4

</TABLE>

The preceding table sets forth the high and low closing prices as reported on the Nasdaq National Market System during the last two years. As of September 2, 1997, there were approximately 1,833 stockholders of record of the Company's Common Stock. The price for the Company's Common Stock as of the close of business on September 2, 1997 was \$71.38 per share. The Company has never paid cash dividends to its stockholders. The Company does not plan to pay cash dividends in the foreseeable future.

REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and Stockholders of KLA-Tencor Corporation

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, of stockholders' equity and of cash flows present fairly, in all material respects, the financial position of KLA-Tencor Corporation and its subsidiaries at June 30, 1997 and 1996, and the results of their operations and their cash flows for each of the three years in the period ended June 30, 1997, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

PRICE WATERHOUSE LLP  
San Jose, California  
July 28, 1997

## UNITED STATES SUBSIDIARIES

<TABLE>	<CAPTION>	Name	State or Other Jurisdiction of Incorporation
<S>	<C>	-----	-----
		Tencor Instruments	California
		International Sales & Business, Inc.	California
		KLA-Tencor Building Corporation	California
		KLA-Tencor Disc Corporation	California
		KLA-Tencor International Corporation	California
		KLA-Tencor Instruments Klinnik Corporation	California
		KLA-Tencor Management Corporation	California
		KLA-Tencor (Thailand Branch) Corporation	California
		VLSI Standards, Inc.	California

## INTERNATIONAL SUBSIDIARIES

KLA-Tencor (Cayman) Limited I	Cayman Islands
KLA-Tencor (Cayman) Limited II	Cayman Islands
KLA-Tencor (Cayman) Limited III	Cayman Islands
KLA-Tencor (Israel) Corporation	Israel
KLA-Tencor Holding Corporation 1987 Limited	Israel
KLA-Tencor Corporation 1992 Limited	Israel
KLA-Tencor Italy S.R.L.	Italy
KLA-Tencor Japan, Ltd.	Japan
KLA Instruments Sales Corporation	U.S. Virgin Islands
Tencor Foreign Sales Corporation	U.S. Virgin Islands
KLA-Tencor GmbH	Germany
Tencor Instruments GmbH	Germany

<TABLE>	<CAPTION>	Name	State or Other Jurisdiction of Incorporation
<S>	<C>	-----	-----
		KLA-Tencor France SARL	France
		KLA Instruments France S.A.	France
		KLA-Tencor Korea, Inc.	Korea
		KLA-Tencor Limited	United Kingdom
		KLA-Tencor (Malaysia) Sdn Bhd	Malaysia
		KLA-Tencor (Singapore) PTE, Ltd.	Singapore
		Tencor Instruments (Service) Limited	United Kingdom
		VLSI Standards, KK	Japan

EXHIBIT 23.1

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 33-15784, No. 2-71584, No. 2-75314, No. 33-26002, No. 33-42973, No. 33-42982, No. 33-42975, No. 33-55362, No. 33-88662, No. 333-03003, No. 333-22939, No. 333-22941, No. 333-26681 and No. 333-32537) of KLA-Tencor Corporation of our report dated July 28, 1997 appearing on page 30 of the Annual Report to Stockholders, which is incorporated in this Annual Report on Form 10-K.

PRICE WATERHOUSE LLP

San Jose, California  
September 26, 1997

<TABLE> <S> <C>

<ARTICLE> 5

<S>	<C>
<PERIOD-TYPE>	YEAR
<FISCAL-YEAR-END>	JUN-30-1997
<PERIOD-START>	JUL-01-1996
<PERIOD-END>	JUN-30-1997
<CASH>	348,831
<SECURITIES>	338,418
<RECEIVABLES>	269,291
<ALLOWANCES>	0
<INVENTORY>	174,634
<CURRENT-ASSETS>	860,007
<PP&E>	208,078
<DEPRECIATION>	90,483
<TOTAL-ASSETS>	1,343,307
<CURRENT-LIABILITIES>	324,751
<BONDS>	0
<PREFERRED-MANDATORY>	0
<PREFERRED>	0
<COMMON>	458,308
<OTHER-SE>	556,305
<TOTAL-LIABILITY-AND-EQUITY>	1,343,307
<SALES>	1,031,824
<TOTAL-REVENUES>	1,031,824
<CGS>	471,910
<TOTAL-COSTS>	471,910
<OTHER-EXPENSES>	414,082
<LOSS-PROVISION>	0
<INTEREST-EXPENSE>	1,959
<INCOME-PRETAX>	173,979
<INCOME-TAX>	68,583
<INCOME-CONTINUING>	105,396
<DISCONTINUED>	0
<EXTRAORDINARY>	0
<CHANGES>	0
<NET-INCOME>	105,396
<EPS-PRIMARY>	1.24
<EPS-DILUTED>	1.24

</TABLE>