

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

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES
EXCHANGE ACT OF 1934

For the quarterly period ended: December 31, 1996

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES
EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 0-9992

KLA INSTRUMENTS CORPORATION
(Exact name of registrant as specified in its charter)

DELAWARE
(STATE OR OTHER JURISDICTION OF
INCORPORATION OR ORGANIZATION)

04-2564110
(I.R.S. EMPLOYER
IDENTIFICATION NO.)

160 Rio Robles
San Jose, California
95134
(Address of principal executive offices)
(Zip Code)

(408) 468-4200
(Registrant's telephone number, including area code)

=====
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 Act of 1934 during
the preceding 12 months (or for such shorter period that the registrant was
required to file such reports), and (2) has been subject to such filing
requirements for the past 90 days.

Yes X No

As of January 31, 1997 there were 51,517,703 shares of the registrant's
Common Stock, \$0.001 par value, outstanding.

KLA INSTRUMENTS CORPORATION
FORM 10-Q
FOR THE QUARTER ENDED DECEMBER 31, 1996

INDEX

<TABLE>
<CAPTION>

<S> <C>
PART I FINANCIAL INFORMATION

Item 1 Financial Statements

Condensed Consolidated Statements of Operations for the Three and Six Month Periods Ended December 31, 1995 and December 31, 1996 (unaudited).....	3
Condensed Consolidated Balance Sheets at June 30 and December 31, 1996 (unaudited).....	4
Condensed Consolidated Statements of Cash Flows for the Six Months Ended December 31, 1995 and 1996 (unaudited).....	5
Notes to Unaudited Condensed Consolidated Financial Statements.....	6

Page
Number
<C>

Item 2 Management's Discussion and Analysis of Financial Condition
and Results of Operations.....8

PART II OTHER INFORMATION

Item 1 Legal Proceedings.....12
 Item 2 Changes in Securities.....12
 Item 3 Defaults Upon Senior Securities.....12
 Item 4 Submission of Matters to a Vote of Security Holders.....12
 Item 5 Other Events.....12
 Item 6 Exhibits and Reports on Form 8-K.....13

</TABLE>

PART I FINANCIAL INFORMATION

ITEM 1 FINANCIAL STATEMENTS

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

<TABLE>
<CAPTION>

(In thousands except per share amounts)	Three Months Ended December 31,		Six Months Ended December 31,	
	1996	1995	1996	1995
<S>	<C>	<C>	<C>	<C>
Net sales	\$ 151,671	\$ 165,750	\$ 315,825	\$ 314,826
Costs and expenses:				
Cost of sales	75,034	75,352	149,186	142,024
Engineering, research and development	18,671	18,036	40,166	33,657
Selling, general and administrative	29,190	29,447	64,746	57,302
	122,895	122,835	254,098	232,983
Income from operations	28,776	42,915	61,727	81,843
Interest income and other, net	4,192	3,908	7,724	8,095
Interest expense	(649)	(206)	(803)	(624)
Income before income taxes	32,319	46,617	68,648	89,314
Provision for income taxes	10,988	16,782	23,340	32,153
Net income	\$ 21,331	\$ 29,835	\$ 45,308	\$ 57,161
Net income per share	\$ 0.40	\$ 0.57	\$ 0.86	\$ 1.09
Shares used in computing net income per share	53,084	52,386	52,605	52,397

See accompanying notes to unaudited condensed consolidated financial statements.

CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

<TABLE>
<CAPTION>

(In thousands except per share amounts)	December 31, 1996	June 30, 1996
<S>	<C>	<C>
ASSETS		
Current assets		
Cash and cash equivalents	\$ 161,181	\$ 109,404
Short-term investments	24,784	14,279

Accounts receivable, net of allowances of \$3,103 and \$3,121	122,353	203,470
Inventories	126,349	132,377
Deferred income taxes	26,767	27,246
Other current assets	16,045	6,783
	-----	-----
Total current assets	477,479	493,559
Land, property and equipment, net	74,647	71,825
Marketable securities	193,968	137,728
Other assets	12,665	9,660
	-----	-----
Total assets	\$ 758,759	\$ 712,772
	=====	=====
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Notes payable	\$ 2,902	\$ 3,111
Accounts payable	20,413	27,330
Income taxes payable	30,958	34,595
Other current liabilities	109,087	104,167
	-----	-----
Total current liabilities	163,360	169,203
	-----	-----
Deferred income taxes	6,316	6,320
	-----	-----
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 1,000 shares authorized, none issued and outstanding	--	--
Common stock, \$0.001 par value, 75,000 shares authorized, 51,431 and 51,030 shares issued and outstanding	51	51
Capital in excess of par value	283,646	277,892
Retained earnings	305,085	259,777
Treasury stock	(581)	(581)
Net unrealized gain/(loss) on investments	810	(131)
Cumulative translation adjustment	72	241
	-----	-----
Total stockholders' equity	589,083	537,249
	-----	-----
Total liabilities and stockholders' equity	\$ 758,759	\$ 712,772
	=====	=====

</TABLE>

See accompanying notes to unaudited condensed consolidated financial statements.

4

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

<TABLE>
<CAPTION>

(In thousands)	Six Months Ended December 31,	
	1996	1995
	-----	-----
<S>	<C>	<C>
Cash flows from operating activities:		
Net income	\$ 45,308	\$ 57,161
Adjustments required to reconcile net income to cash provided by operations:		
Depreciation and amortization	11,160	6,460
Deferred income taxes	475	--
Changes in assets and liabilities:		
Accounts receivable	81,117	(59,757)
Inventories	6,028	(33,880)
Other assets	(12,267)	499
Accounts payable	(6,917)	11,800
Income taxes payable	(3,637)	2,988
Other current liabilities	4,920	24,481

Cash provided by operating activities	126,187	9,752
Cash flows from investing activities:		
Capital expenditures	(13,982)	(13,221)
Purchases of short and long-term available for sale securities	(200,129)	(248,555)
Sales and maturities of short and long-term available for sale securities	134,325	237,996
Cash used for investing activities	(79,786)	(23,780)
Cash flows from financing activities:		
Short-term borrowings, net	(209)	(3,562)
Payment of current portion of long-term debt	--	(20,000)
Sales of common stock/tax benefit of options exercised	5,754	4,493
Cash provided by/(used for) financing activities	5,545	(19,069)
Effect of exchange rate changes	(169)	(719)
Increase/(decrease) in cash and cash equivalents	51,777	(33,816)
Cash and cash equivalents at beginning of period	109,404	92,059
Cash and cash equivalents at end of period	\$ 161,181	\$ 58,243
CASH PAID DURING THE PERIOD FOR:		
INTEREST	\$ 133	\$ 595
INCOME TAXES	25,997	29,603

</TABLE>

See accompanying notes to unaudited condensed consolidated financial statements.

5

KLA INSTRUMENTS CORPORATION
NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Note 1 In the opinion of the Company's management, the unaudited consolidated condensed financial statements include all adjustments (consisting only of adjustments that are of a normal recurring nature) necessary for a fair statement of results. The results for the quarter ended December 31, 1996, are not necessarily indicative of results to be expected for the entire year. This financial information should be read in conjunction with the Company's Annual Report on Form 10-K (including items incorporated by reference therein) for the year ended June 30, 1996.

Note 2 Details of certain balance sheet components (in thousands, unaudited):

<TABLE>

<CAPTION>

	June 30, 1996	December 31, 1996
<S>	<C>	<C>
Inventories:		
Systems raw materials	\$ 33,521	\$ 22,668
Customer service spares	13,614	18,874
Work-in-process	47,012	59,118
Demonstration equipment	38,230	25,689
	\$ 132,377	\$ 126,349

</TABLE>

Note 3 In April 1996, the Company adopted a plan to repurchase, at its discretion, up to \$20 million of KLA common stock on the open market, through October 1997. The repurchase plan was terminated in December 1996. The Company repurchased approximately 81,000 shares of its common stock during the six months ended December 31, 1996, at a cost of approximately \$1.9 million. These shares were purchased in order to fund the Company's Excess Profit Stock Plan, and were placed in a trust account for the benefit of the employees participating in the Excess Profit Stock Plan.

Note 4 In August 1996, the Compensation Committee of the Board of Directors authorized the Company to re-price stock options issued subsequent to July 1994 through August 1996 which had exercise prices well above the recent trading prices of the Company's common stock. This re-pricing was done in the form of an Exchange Program, whereby eligible optionees may cancel their current options in exchange for new options with exercise prices at the fair market value on the date of grant.

Note 5 The Company's effective tax rate was 34% for the six months ended December 31, 1996. The Company's effective tax rate was 36% for the year ended June 30, 1996. This rate decrease is due primarily to the reinstatement of the federal research and development tax credit. The difference between the statutory tax rate and the Company's effective tax rate is primarily due to research and development tax credits, benefits associated with the Company's foreign sales corporation, benefits from tax exempt interest, and state taxes.

Note 6 Net income per share is computed using the weighted average number of common and common equivalent shares outstanding during the respective periods, including the assumed net shares issuable upon exercise of stock options.

6

Note 7 Engineering, research and development expenditures were net of external funding of \$2.6 million and \$7.7 million for the three and six month periods ended December 31, 1996, respectively.

Note 8 On January 14, 1997, the Company announced the signing of a definitive Agreement and Plan of Reorganization (the "Merger Agreement") with Tencor Instruments. Under the terms of the Merger Agreement, shares and options for the Company's common stock will be exchanged on a one-for-one basis for shares and options for the common stock of Tencor Instruments. The transaction is to be accounted for as a pooling of interests and is structured to qualify as a tax-free reorganization. The transaction is conditioned upon obtaining approval of both companies' shareholders, regulatory clearance and other customary closing conditions.

7

ITEM 2 MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion and analysis may contain forward-looking statements that reflect the Company's current judgment regarding the matters addressed by such statements. Because such statements apply to future events, they are subject to risks and uncertainties that could cause actual results to differ substantially. Important factors that could cause actual results to differ are described in the following discussion and are particularly noted under "Risk Factors" on page 9.

RESULTS OF OPERATIONS

Net Sales Net sales decreased 8.5% and increased 0.3%, respectively, for the three and six month periods ended December 31, 1996 as compared to the same periods of the prior fiscal year. Unit sales in the WISARD business unit declined in both periods, reflecting the industry's continued capital spending weakness. Many of the leading manufacturers have placed new fab construction on hold while they evaluate the marketplace and assess the future supply/demand relationship for various semiconductor devices. Net sales increases were recorded in the RAPID business unit for both periods, primarily as a result of increased unit volumes. The Company attributes the increases primarily to the ongoing industry-wide retooling for advanced reticle manufacturing, as well as continuing industry movement towards smaller line widths.

Gross Margin Gross margins were 50.5% and 52.8% of net sales, respectively, for the three and six month periods ended December 31, 1996 as compared to 54.5% and 54.9% of net sales for the same periods of the prior fiscal year. Gross margins

decreased primarily because of the changing product mix occurring as WISARD sales decreased as a percentage of total Company revenues. Additionally, WISARD gross margins decreased as a result of unit volume inefficiencies and new product startup costs. These effects were partially offset by the rising gross margins in other business units, most notably RAPID and E-Beam Metrology. Although gross margins for the RAPID business unit have increased as a result of higher unit volume efficiencies and lower installation and warranty costs, these margins are still below the Company average.

Engineering, Research and Development Engineering, research and development expenses were 12.3% and 12.7% of net sales, respectively, for the three and six month periods ended December 31, 1996 compared to 10.9% and 10.7% of net sales for the same periods in the prior fiscal year. These expenditures were net of external funding of \$2.6 million and \$7.7 million for the three and six month periods ended December 31, 1996, respectively. Net engineering expenditures rose \$0.6 million and \$6.5 million, respectively, during the three and six month periods ended December 31, 1996, compared to the same periods in the prior fiscal year. The Company is concentrating on broad opportunities in yield management, including the networking of all measurement tools in a fab, the development of new measurement tools, and the related software for using those tools.

Selling, General and Administrative Selling, general and administrative ("SG&A") expenses were 19.2% and 20.5% of net sales, respectively, for the three and six month periods ended December 31, 1996 compared to 17.8% and 18.2% of net sales for the same periods of the prior fiscal year. SG&A expenses reflected the continued investment in Customer Group sales and applications resources.

Operating costs also included sales representative commissions of approximately \$4 million and \$9 million, respectively, for the three and six month periods ended December 31, 1996, which related to orders previously taken by the Company's former representative in Japan but which

8

shipped during the respective periods. These commissions will phase out substantially during the next two quarters.

Interest Income, Expense and Other Interest income, expense and other, net, decreased \$0.2 million and \$0.5 million, respectively, for the three and six month periods ended December 31, 1996 as compared to the same periods of the prior fiscal year. These decreases are due primarily to lower yields on the Company's investment portfolio partially offset by higher average cash balances.

Provision for Income Taxes The Company's effective tax rate was 34% for the six months ended December 31, 1996. The Company's effective tax rate was 36% for the year ended June 30, 1996. This rate decrease is due primarily to the reinstatement of the federal research and development tax credit. The difference between the statutory tax rate and the Company's effective tax rate is primarily due to research and development tax credits, benefits associated with the Company's foreign sales corporation, benefits from tax exempt interest, and state taxes.

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

Liquidity and Capital Resources Cash, cash equivalents, short-term investments and marketable securities balances increased \$119 million to \$380 million at December 31, 1996. Cash generated by operations for the six month period ended December 31, 1996, was \$126.2 million, derived primarily from net income and reductions in accounts receivable. The Company's capital expenditures were primarily in facilities improvements, new computers to accommodate general business needs, manufacturing tooling to improve production efficiencies, and engineering computers and equipment to support the Company's expanding research and development efforts. The Company's capital expenditures are generally consistent with prior levels of expenditures. The Company believes that its current level of liquid assets, credit, facilities and expected cash generated from operations are sufficient to fund growth through the next fiscal year.

RISK FACTORS

Fluctuations in Quarterly Operating Results The Company's quarterly operating results have fluctuated in the past and may fluctuate in the future. The Company's operating results are dependent on many factors, including the economic conditions in the semiconductor industry, the size and timing of the receipt of orders from customers, customer cancellations or delays of shipments, the Company's ability to develop, introduce, and market new and enhanced products on a timely basis, the introduction of new products by its competitors,

changes in average selling prices and product mix, and exchange rate fluctuations, among others. The Company's expense levels will be based, in part, on expectations of future revenues. If revenue levels in a particular quarter do not meet expectations, operating results could be adversely affected. The Company's results of operations for a particular quarter could be adversely affected if anticipated shipments are delayed or canceled by one or more customers or if shipments are delayed due to manufacturing difficulties. The slowdown in the semiconductor industry and in the construction of new wafer fabrication facilities has resulted in the Company experiencing a reduction in new orders as well as rescheduled and canceled orders. There can be no assurance that this slowdown will not continue. There can be no assurance that these and other factors will not materially adversely affect the Company's business and financial results.

9

Current Slowdown and Volatility in the Semiconductor Equipment Industry The Company's business depends and will depend in the future upon the capital equipment expenditures of semiconductor manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits and products utilizing integrated circuits. In addition, the Company's business depends upon the new construction of semiconductor fabrication facilities and, as to existing fabrication facilities, enhancements to improve yields. The semiconductor industry has been cyclical in nature and historically has experienced periodic downturns. The semiconductor industry is presently experiencing a slowdown in terms of product demand and volatility in terms of product pricing. This slowdown and volatility has caused the semiconductor industry to reduce purchases of semiconductor manufacturing equipment and construction of new fabrication facilities. These conditions have adversely affected the Company and may continue to adversely affect, aggregate bookings, revenues and operating results, and no assurance can be given that the Company's bookings, revenues and operating results will not be adversely affected by future downturns in the semiconductor industry. Even during periods of reduced revenues, in order to remain competitive, the Company will be required to continue to invest in research and development and to maintain extensive ongoing worldwide customer service and support capability which could adversely affect its financial results.

Dependence on New Products and Processes; Rapid Technological Change Rapid technological changes in semiconductor manufacturing processes subject the semiconductor manufacturing equipment industry to increased pressure to maintain technological parity with deep submicron process technology. The Company believes that its future success will depend in part upon its ability to develop, manufacture and successfully introduce new products with improved capabilities and to continue to enhance existing products. Due to the risks inherent in transitioning to new products, the Company will be required to accurately forecast demand for new products while managing the transition from older products. 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. In the past, the Company has experienced some delays as well as reliability and quality problems in connection with product introductions, resulting in some of these consequences. There can be no assurance that the Company will successfully develop and manufacture new products, or that new products introduced by the Company will be accepted in the marketplace. If the Company does not successfully introduce new products, the Company's results of operations will be materially adversely affected.

In addition, the Company expects to continue to make significant investments in research and development. There can be no assurance that future technologies, processes or product developments will not render the Company's current product offerings obsolete or that the Company will be able to develop and introduce new products or enhancements to its existing products which satisfy customer needs in a timely manner or achieve market acceptance. The failure to do so could adversely affect the Company's business.

Highly Competitive Industry The semiconductor equipment industry is highly competitive. The Company has experienced and expects to continue to face substantial competition throughout the world. 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 Company believes that the semiconductor equipment industry is becoming increasingly dominated by large manufacturers such as Applied Materials, Inc., which recently entered the yield management 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. In addition, there are smaller emerging semiconductor equipment companies which provide

innovative technology. 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 compete successfully worldwide.

Importance of International Sales International sales accounted for 65%, 69% and 68% of the Company's net sales for fiscal years 1994, 1995 and 1996, respectively. The Company expects that international sales will continue to represent a significant percentage of its net sales. The future performance of the Company will be dependent, in part, upon its ability to continue to compete successfully in Asia, one of the largest areas for the sale of yield management and 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 net sales and income 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.

RECENT DEVELOPMENTS

On January 14, 1997, the Company announced the signing of a definitive Agreement and Plan of Reorganization (the "Merger Agreement") with Tencor Instruments. Under the terms of the Merger Agreement, shares and options for the Company's common stock will be exchanged on a one-for-one basis for shares and options for the common stock of Tencor Instruments. The transaction is to be accounted for as a pooling of interests and is structured to qualify as a tax-free reorganization. The transaction is conditioned upon obtaining approval of both companies' shareholders, regulatory clearance and other customary closing conditions.

PART II OTHER INFORMATION

ITEM 1 LEGAL PROCEEDINGS
None.

ITEM 2 CHANGES IN SECURITIES
Not Applicable.

ITEM 3 DEFAULTS UPON SENIOR SECURITIES
Not Applicable.

ITEM 4 SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

The Annual Meeting of Stockholders of KLA Instruments Corporation was held on November 18, 1996 at the Company's corporate headquarters in San Jose, California. Of the 51,062,224 shares outstanding as of the record date, 46,439,642 shares (90.9%) were present or represented by proxy at the meeting.

- The table below presents the results of the election of the Company's board of directors.

<TABLE>
<CAPTION>

	Votes For	Votes Withheld
	-----	-----
<S>	<C>	<C>
Samuel Rubinovitz	45,971,086	474,309
Kenneth Levy	46,008,305	437,090

</TABLE>

- The stockholders approved amendments to the Company's 1982 Stock Option Plan (the "Option Plan") to (a) increase the number of shares

reserved for issuance under the Option Plan by 1,600,000 shares, and (b) provide for automatic increases (i) each subsequent year by an amount equal to three percent of the outstanding shares and (ii) by an amount equal to the number of shares repurchased at any time for issuance under the Option Plan, and (c) to extend the term of the Option Plan to July 29, 2006. This proposal was approved by the stockholders and received 21,231,159 votes for, 18,012,212 votes against, with 131,618 votes abstaining, and 7,070,406 broker non-votes.

3. The stockholders approved an amendment to the 1981 Employee Stock Purchase Plan to increase the number of shares reserved thereunder by 800,000 shares. This proposal was approved by the stockholders and received 38,207,365 votes for, 1,062,224 votes against, with 109,400 votes abstaining, and 7,066,406 broker non-votes.

4. The stockholders ratified the appointment of Price Waterhouse LLP as the Company's independent accountants for the fiscal year ended June 30, 1997. This proposal received 46,305,643 votes for, 46,851 votes against, with 92,901 votes abstaining.

ITEM 5 OTHER EVENTS
Not Applicable.

12

ITEM 6 EXHIBITS AND REPORTS ON FORM 8-K

(a) Exhibits

2.1 Agreement and Plan of Reorganization dated January 14, 1997 by and among the Company, Tencor Instruments, a California corporation ("Tencor") and Tiger Acquisition Corp., a California corporation and wholly-owned subsidiary of the Company (incorporated herein by reference to the exhibits to Current Report on Form 8-K filed with the SEC on January 22, 1997).

11.1 Calculations of Earnings Per Share

27.1 Financial Data Schedule

99.1 Stock Option Agreement dated January 14, 1997 by and between Tencor and the Company (incorporated herein by reference to the exhibits to Current Report on Form 8-K filed with the SEC on January 22, 1997).

99.2 Stock Option Agreement dated January 14, 1997 by and between the Company and Tencor (incorporated herein by reference to the exhibits to Current Report on Form 8-K filed with the SEC on January 22, 1997).

(b) Reports on Form 8-K

Current Report on Form 8-K filed January 22, 1997

The Company filed a Form 8-K on January 22, 1997 announcing the signing on January 14, 1997 of an Agreement and Plan of Reorganization with Tencor Instruments. In connection with the merger, holders of outstanding Tencor common stock will receive, in exchange for each share of Tencor common stock held by them, one share of the Company's common stock. The merger is intended to be a tax-free reorganization under Section 368(a) of the Internal Revenue Code of 1986, as amended, and is intended to be treated as a pooling of interests for financial reporting purposes in accordance with generally accepted accounting principles. The transaction is conditioned on obtaining the approval of both companies' shareholders, regulatory clearance and other customary closing conditions.

13

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

KLA INSTRUMENTS CORPORATION

(Registrant)

February 11, 1997

/s/ ROBERT J. BOEHLKE

Date

Robert J. Boehlke
Vice President Finance and Administration,
and Chief Financial Officer

EXHIBIT INDEX

Exhibit Number	Description
2.1	Agreement and Plan of Reorganization dated January 14, 1997 by and among the Company, Tencor Instruments, a California corporation ("Tencor") and Tiger Acquisition Corp., a California corporation and wholly-owned subsidiary of the Company (incorporated herein by reference to the exhibits to Current Report on Form 8-K filed with the SEC on January 22, 1997).
11.1	Calculations of Earnings Per Share
27.1	Financial Data Schedule
99.1	Stock Option Agreement dated January 14, 1997 by and between Tencor and the Company (incorporated herein by reference to the exhibits to Current Report on Form 8-K filed with the SEC on January 22, 1997).
99.2	Stock Option Agreement dated January 14, 1997 by and between the Company and Tencor (incorporated herein by reference to the exhibits to Current Report on Form 8-K filed with the SEC on January 22, 1997).

EXHIBIT 11.1

KLA INSTRUMENTS CORPORATION
 CALCULATION OF EARNINGS PER SHARE
 (UNAUDITED)

<TABLE>
 <CAPTION>

(In thousands except per share amounts)	Three Months Ended		Six Months Ended	
	December 31, 1996	December 31, 1995	December 31, 1996	December 31, 1995
<S>	<C>	<C>	<C>	<C>
Primary earnings per share				
Net income	\$21,331 =====	\$29,835 =====	\$45,308 =====	\$57,161 =====
Average common and common equivalent shares:				
Average common shares outstanding	51,307	50,363	51,244	50,512
Dilutive options	1,777	2,023	1,361	1,885
	----- 53,084 =====	----- 52,386 =====	----- 52,605 =====	----- 52,397 =====
Net income per share	\$ 0.40 =====	\$ 0.57 =====	\$ 0.86 =====	\$ 1.09 =====

</TABLE>

<TABLE> <S> <C>

<ARTICLE> 5

<LEGEND>

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED FINANCIAL STATEMENT OF OPERATIONS, THE CONSOLIDATED BALANCE SHEET AND THE ACCOMPANYING NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS, AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

</LEGEND>

<MULTIPLIER> 1,000

<S>	<C>
<PERIOD-TYPE>	6-MOS
<FISCAL-YEAR-END>	JUN-30-1997
<PERIOD-START>	JUL-01-1996
<PERIOD-END>	DEC-31-1996
<CASH>	161,181
<SECURITIES>	218,752
<RECEIVABLES>	125,456
<ALLOWANCES>	3,103
<INVENTORY>	126,349
<CURRENT-ASSETS>	477,479
<PP&E>	133,459
<DEPRECIATION>	58,812
<TOTAL-ASSETS>	758,759
<CURRENT-LIABILITIES>	163,360
<BONDS>	0
<PREFERRED-MANDATORY>	0
<PREFERRED>	0
<COMMON>	51
<OTHER-SE>	589,032
<TOTAL-LIABILITY-AND-EQUITY>	758,759
<SALES>	315,825
<TOTAL-REVENUES>	315,825
<CGS>	149,186
<TOTAL-COSTS>	149,186
<OTHER-EXPENSES>	104,912
<LOSS-PROVISION>	0
<INTEREST-EXPENSE>	803
<INCOME-PRETAX>	68,648
<INCOME-TAX>	23,340
<INCOME-CONTINUING>	45,308
<DISCONTINUED>	0
<EXTRAORDINARY>	0
<CHANGES>	0
<NET-INCOME>	45,308
<EPS-PRIMARY>	0.86
<EPS-DILUTED>	0.86

</TABLE>