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: September 30, 2004

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-Tencor Corporation
(Exact name of registrant as specified in its charter)

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

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

(408) 875-3000
(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 ☒ No ☐

Indicate by checkmark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Yes ☒ No ☐

As of October 29, 2004 there were 195,451,743 shares of the Registrant's Common Stock, $0.001 par value, outstanding.

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS (Unaudited)

KLA-TENCOR CORPORATION
Condensed Consolidated Balance Sheets
(Unaudited)

(in thousands)	September 30, 2004	June 30, 2004
ASSETS		
Current assets:		
Cash and cash equivalents	$ 948,766	$ 802,678
Marketable securities	285,349	330,476
Accounts receivable, net	365,529	372,773
Inventories	373,484	337,414
Deferred income taxes	307,638	310,150
Other current assets	37,772	38,011
Total current assets	2,318,538	2,191,502
Land, property and equipment, net	380,239	376,052
Marketable securities	652,141	743,202
Other assets	239,089	228,423
Total assets	$ 3,590,007	$ 3,539,179
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 53,132	$ 63,991
Deferred system profit	281,455	284,813
Unearned revenue	58,971	57,318
Other current liabilities	511,571	505,507
Total current liabilities	905,129	911,629
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Common stock and capital in excess of par value	918,331	984,804
Retained earnings	1,756,992	1,640,587
Accumulated other comprehensive income	9,555	2,159
Total stockholders' equity	2,684,878	2,627,550
Total liabilities and stockholders' equity	$ 3,590,007	$ 3,539,179

See accompanying notes to condensed consolidated financial statements (unaudited).

KLA-TENCOR CORPORATION
Condensed Consolidated Statements of Operations
(Unaudited)

(in thousands, except per share data)	Three months ended September 30, 2004	2003
Revenues:		
Product	$ 442,296	$ 250,145
Service	76,477	67,825
Total revenues	518,773	317,970
Costs and operating expenses:		
Costs of revenues	215,469	155,541
Engineering, research and development	77,147	65,452
Selling, general and administrative	69,190	60,009
Total costs and operating expenses	361,806	281,002
Income from operations	156,967	36,968
Interest income and other, net	6,985	8,401
Income before income taxes	163,952	45,369
Provision for income taxes	47,547	8,532
Net income	$ 116,405	$ 36,837
Net income per share:		
Basic	$ 0.59	$ 0.19
Diluted	$ 0.58	$ 0.18
Weighted average number of shares:		
Basic	196,110	192,699
Diluted	199,969	200,334

See accompanying notes to condensed consolidated financial statements (unaudited).

KLA-TENCOR CORPORATION
Condensed Consolidated Statements of Cash Flows
(Unaudited)

(in thousands)	Three months ended September 30, 2004	Three months ended September 30, 2003
Cash flows from operating activities:		
Net income	$ 116,405	$ 36,837
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	18,590	19,944
Net loss (gain) on sale of marketable securities	536	(4,949)
Changes in assets and liabilities:		
Accounts receivable, net	7,239	14,926
Inventories	(35,455)	(15,109)
Other assets	(7,624)	(11,231)
Accounts payable	(10,861)	15,525
Deferred system profit	(3,358)	(21,579)
Other current liabilities	7,661	(4,630)
Net cash provided by operating activities	93,133	29,734
Cash flows from investing activities:		
Acquisitions	(4,050)	—
Purchase of land, property and equipment, net	(17,796)	(9,918)
Purchase of marketable securities	(450,466)	(583,628)
Proceeds from sale of marketable securities	472,235	518,497
Proceeds from maturity of marketable securities	115,572	20,859
Net cash provided by (used in) investing activities	115,495	(54,190)
Cash flows from financing activities:		
Issuance of common stock	11,973	59,895
Stock repurchases	(74,212)	(1,701)
Net cash provided by (used in) financing activities	(62,239)	58,194
Effect of exchange rate changes on cash and cash equivalents	(301)	3,548
Net increase in cash and cash equivalents	146,088	37,286
Cash and cash equivalents at beginning of period	802,678	606,903
Cash and cash equivalents at end of period	$ 948,766	$ 644,189
Supplemental cash flow disclosures:		
Income taxes paid, net	$ 36,009	$ 9,461
Interest paid	$ 269	$ 120

See accompanying notes to condensed consolidated financial statements (unaudited).

KLA-TENCOR CORPORATION
Notes to Condensed Consolidated Financial Statements
(Unaudited)

NOTE 1 – BASIS OF PRESENTATION

Basis of presentation The condensed consolidated financial statements have been prepared by KLA-Tencor Corporation ("KLA-Tencor" or the "Company") pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, the unaudited interim financial statements reflect all adjustments (consisting only of normal, recurring adjustments) necessary for a fair statement of the financial position, results of operations and cash flows for the periods indicated. These financial statements and notes, however, should be read in conjunction with Item 8, "Financial Statements and Supplementary Data" included in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2004, filed with the SEC on August 30, 2004.

The condensed consolidated financial statements include the accounts of KLA-Tencor, its wholly-owned subsidiaries and its partially owned, non-controlled, equity affiliate where KLA-Tencor is deemed to be the primary beneficiary under Financial Accounting Standards Board ("FASB") Interpretation No. 46 "Consolidation of Variable Interest Entities – an interpretation of ARB No. 51" (FIN 46(R)). All significant intercompany balances and transactions have been eliminated.

The results of operations for the three month period ended September 30, 2004 are not necessarily indicative of the results that may be expected for any other interim period or for the full fiscal year ending June 30, 2005.

Management Estimates The preparation of the condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Reclassifications Certain prior period balances have been reclassified to conform to the current financial statement presentation. These reclassifications had no impact on previously reported results of operations or stockholders' equity.

Accounting for Stock-Based Compensation Plans KLA-Tencor accounts for its employee stock option and employee stock purchase plans under the intrinsic value recognition and measurement principles of Accounting Principles Board Opinion ("APB") No. 25, "Accounting for Stock Issued to Employees," and related Interpretations, and has adopted the disclosure-only provisions of Statement of Financial Accounting Standard ("SFAS") No. 123, "Accounting for Stock-Based Compensation," as amended by SFAS No. 148, "Accounting for Stock-Based Compensation – Transition and Disclosures." No stock-based employee compensation is reflected in net income, as all options granted under those plans had an exercise price equal to the market value of the underlying common stock on the date of grant.

Pro forma information regarding net income and net income per share is required by SFAS No. 123, and has been determined as if KLA-Tencor 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 No. 123. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option valuation model and the single option approach that assumes no expected dividends with the following weighted-average assumptions:

Three months ended September 30,	**2004**	**2003**
Stock option plan:		
Expected stock price volatility	58.4%	67.0%
Risk free interest rate	2.1%-4.1%	1.2%-4.0%
Expected life of options (in years)	5.5	5.5
Stock purchase plan:		
Expected stock price volatility	41.9%	50.5%
Risk free interest rate	1.9%-2.5%	1.0%-1.5%
Expected life of options (in years)	1-2	1-2

SFAS No. 123 requires the use of option pricing models that were not developed for use in valuing employee stock options. The Black-Scholes option-pricing model was developed for use in estimating the fair value of short-lived exchange traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including the option’s expected life and the price volatility of the underlying stock. Because the Company’s employee stock options 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 the opinion of management, the existing models do not necessarily provide a reliable single measure of the fair value of employee stock options.

For purposes of pro forma disclosures required by SFAS No. 123, the estimated fair value of the options is amortized to expense over the options' vesting periods using the straight-line method. KLA-Tencor's pro-forma information is as follows:

	Three months ended September 30,			
(in thousands)	**2004**		**2003**	
Net income	$	116,405	$	36,837
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects		(20,453)		(22,567)
Pro forma Net Income	$	95,952	$	14,270
Earnings per share:				
As reported				
Basic	$	0.59	$	0.19
Diluted	$	0.58	$	0.18
Pro forma				
Basic	$	0.49	$	0.07
Diluted	$	0.48	$	0.07

Recent Accounting Pronouncements In March 2004, the FASB issued a proposed Statement, "Share-Based Payment, an amendment of SFAS Nos. 123 and 95," that addresses the accounting for share-based payment transactions in which a company receives employee services in exchange for either equity instruments of the company or liabilities that are based on the fair value of the company's equity instruments or that may be settled by the issuance of such equity instruments. The proposed statement would eliminate the ability to account for share-based compensation transactions using the intrinsic value method that the Company currently uses and generally would require that such transactions be accounted for using a "fair-value"-based method and recognized as expense in the Company's consolidated statement of operations. The recommended effective date of the proposed statement is currently for fiscal periods beginning after June 15, 2005. Should this proposed statement be finalized in its current form, it will have a significant impact on the Company's consolidated statement of operations as we will be required to expense the "fair value" of the Company's stock option grants and stock purchases under the Company's employee stock purchase plan. In addition the proposed standard may have a significant impact on the Company's consolidated cash flows from operations (no impact to the Company's total consolidated cash flows) as, under this proposed standard, the Company will be required to reclassify a portion of the Company's tax benefit on the exercise of employee stock options from cash flows from operating activities to cash flows from financing activities.

In March 2004, the Emerging Issues Task Force ("EITF") reached a consensus on recognition and measurement guidance previously discussed under EITF 03-1. The consensus clarifies the meaning of other-than-temporary impairment and its application to investments in debt and equity securities, in particular investments within the scope of SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," and investments accounted for under the cost method. In September 2004, the Financial Accounting Standards Board approved the issuance of a FASB Staff Position to delay the requirement to record impairment losses under EITF 03-1. The approved delay applies to all securities within the scope of EITF 03-1 and is expected to end when new guidance is issued and comes into effect. KLA-Tencor does not believe that this consensus will have a material impact on its consolidated results of operations.

NOTE 2 – BALANCE SHEET COMPONENTS

(in thousands)	September 30, 2004	June 30, 2004
Cash equivalents and marketable securities		
U.S. Treasuries	$ 81,233	$ 113,575
Mortgage-backed securities	100,720	15,148
Municipal bonds	1,411,197	1,400,884
Corporate equity securities	1,105	1,105
Money market bank deposits and other	185,698	212,307
	$ 1,779,953	$ 1,743,019
Less: Cash equivalents	842,463	669,341
Short-term marketable securities	285,349	330,476
Long-term marketable securities	$ 652,141	$ 743,202
Accounts receivable, net		
Accounts receivable, gross	$ 377,853	$ 385,171
Allowance for doubtful accounts	(12,324)	(12,398)
	$ 365,529	$ 372,773
Inventories		
Customer service parts	$ 108,876	$ 104,445
Raw materials	73,588	68,994
Work-in-process	97,543	85,461
Demonstration equipment	66,701	58,912
Finished goods	26,776	19,602
	$ 373,484	337,414
Property and equipment		
Land	$ 84,070	$ 84,053
Buildings and improvements	149,813	149,813
Machinery and equipment	258,789	254,753
Office furniture and fixtures	41,285	41,251
Leasehold improvements	136,726	135,622
Construction in process	19,122	14,672
	689,805	680,164
Less: accumulated depreciation	(309,566)	(304,112)
	$ 380,239	$ 376,052

(in thousands)	September 30, 2004	June 30, 2004
Other assets		
Goodwill & other intangibles, net	$ 23,755	$ 20,621
Other long-term investments	117,904	110,287
Deferred tax assets – long-term	88,523	88,593
Other	8,907	8,922
	$ 239,089	$ 228,423
Other current liabilities		
Warranty and retrofit	$ 53,212	$ 44,497
Compensation and benefits	214,769	224,191
Income taxes payable	167,003	146,632
Restructuring accrual	670	821
Other accrued expenses	75,917	89,366
	$ 511,571	$ 505,507

NOTE 3 – GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill

The carrying value of goodwill was $21.1 million and $17.6 million as of September 30, 2004 and June 30, 2004, respectively, and was allocated to KLA-Tencor's reporting units pursuant to SFAS No. 142. In accordance with SFAS No. 142, KLA-Tencor evaluated during the three months ended December 31 2003, the goodwill by reporting unit for impairment and concluded there was no impairment of goodwill. There have been no significant events or circumstances affecting the valuation of goodwill subsequent to our impairment test performed in the second quarter of fiscal year 2004.

Other Intangible Assets

The components of other intangible assets as of September 30, 2004 (in thousands) were as follows:

	Gross Carrying Amount	Accumulated Amortization	Net Amount
Existing technology	$ 1,852	$ 1,105	$ 747
Patents	4,761	3,092	1,669
Trademark	625	444	181
Total	$ 7,238	$ 4,641	$ 2,597

The components of other intangible assets as of June 30, 2004 (in thousands) were as follows:

	Gross Carrying Amount	Accumulated Amortization	Net Amount
Existing technology	$ 1,852	$ 992	$ 860
Patents	4,761	2,823	1,938
Trademark	625	417	208
Total	$ 7,238	$ 4,232	$ 3,006

For each of the three month periods ended September 30, 2004 and 2003, amortization expense for other intangible assets was $409,000. Based on intangible assets recorded at September 30, 2004, and assuming no subsequent additions to, or impairment of the underlying assets, the remaining estimated amortization expense is expected to be as follows (in thousands):

Fiscal year ending June 30:	Amount
2005 (remaining 9 months)	$ 1,229
2006	889
2007	62
2008	58
2009 and thereafter	359
Total	$ 2,597

NOTE 4 – NONRECURRING RESTRUCTURING AND OTHER COSTS

There were no restructuring actions during fiscal year 2004 or the first three months of fiscal year 2005. The Company's restructuring activities are disclosed in Note 3 of Notes to Consolidated Financial Statements included in Item 8 of the Company's Annual Report on Form 10-K for the year ended June 30, 2004. As of June 30, 2004, the remaining accrual balance was $821,000. During the quarter ended September 30, 2004, the Company made lease payments of $151,000 related to the exited facilities. As of September 30, 2004, the remaining accrual balance of $670,000 is related to lease payments on facilities exited prior to fiscal year 2004 and is expected to be paid by the end of fiscal year 2006. This remaining accrual is included in the condensed consolidated balance sheets under the caption of other current liabilities.

NOTE 5 – EARNINGS PER SHARE

Basic earnings per share ("EPS") is calculated by dividing net income available to common stockholders by the weighted average number of common shares outstanding during the period. Diluted earnings per share is calculated by using the weighted average number of common shares outstanding during the period and gives effect to all dilutive potential common shares outstanding during the period. The reconciling difference between the computation of basic and diluted earnings per share for all periods presented is the inclusion of the dilutive effect of stock options issued to employees under employee stock option plans.

During the three months ended September 30, 2004, options to purchase approximately 10,636,000 shares at per share prices ranging from $39.34 to $68.00, were not included in the computation of diluted EPS because the exercise price was greater than the average market price of common shares as the effect would be anti-dilutive. During the three months ended September 30, 2003, options to purchase approximately 231,000 shares, at per share prices ranging from $56.31 to $68.00, were not included in the computation of diluted EPS because the exercise price was greater than the average market price of common shares as the effect would be anti-dilutive.

NOTE 6 – STOCK REPURCHASE PROGRAM

The Company adopted a plan to repurchase shares of its Common Stock in the open market for the purpose of partially offsetting dilution created by employee stock options and stock purchase plans. During the three months ended September 30, 2004 and 2003, the Company repurchased 2,038,000 and 32,000 shares of its Common Stock at a cost of approximately $78.4 million and $1.7 million, respectively of which $74.2 million and $1.7 million was settled for cash during such period, respectively. As of September 30, 2004, the unsettled amount of $4.2 million is included in the condensed consolidated balance sheet under the caption of other current liabilities.

NOTE 7 – COMPREHENSIVE INCOME

The components of comprehensive income, net of tax, are as follows:

(in thousands)	Three months ended September 30, 2004	Three months ended September 30, 2003
Net income	$ 116,405	$ 36,837
Other comprehensive income (loss):		
Currency translation adjustments	(668)	5,081
Gain (loss) on cash flow hedging instruments, net	4,200	(4,692)
Unrealized gains (losses) on investments, net of taxes of $2,440 in 2004 and $(1,453) in 2003	3,864	(2,302)
Other comprehensive gain (loss)	7,396	(1,913)
Total comprehensive income	$ 123,801	$ 34,924

NOTE 8 – EMPLOYEE BENEFIT PLANS

KLA-Tencor sponsors various retirement and pension plans, including defined contribution and defined benefit plans which cover most employees worldwide. Several of KLA-Tencor's foreign subsidiaries have retirement plans for full time employees, some of which are defined benefit plans. There are no defined benefit plans in the United States.

Net periodic pension cost, determined in accordance with SFAS No. 87, for KLA-Tencor's defined benefit retirement plans for the three months ended September 30, 2004 and 2003 include the following components:

	Three months ended September 30,	
(in thousands)	2004	2003
Service Cost	$ 577	$ 542
Interest Cost	93	84
Expected Return on Assets	(35)	(33)
Amortization of Net Transitional Obligation	62	62
Amortization of Net Gain	17	24
Net periodic pension cost	$ 714	$ 679

KLA-Tencor contributed $148,000 and $118,000 to its defined benefit pension plans for the three months ended September 30, 2004 and 2003, respectively, and expects to contribute $529,000 during the remainder of fiscal year 2005.

NOTE 9 – COMMITMENTS AND CONTINGENCIES

Factoring

KLA-Tencor has agreements with three banking institutions to sell certain of its trade receivables and promissory notes from Japanese customers without recourse. During the three months ended September 30, 2004 and 2003, approximately $21.6 million and $17.9 million of receivables were sold under these arrangements, respectively. As of September 30, 2004 and June 30, 2004, approximately $43.7 million and $51.1 million of the sold receivables were outstanding, respectively, and were not included in the consolidated net accounts receivable balance as the criteria for sale treatment established by SFAS No. 140 "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liability" have been met. Under SFAS No. 140, after a transfer of financial assets, an entity derecognizes financial assets when control has been surrendered, and derecognizes liabilities when extinguished. The total amount available under the facility is the Japanese yen equivalent of $135.3 million based upon exchange rates as of September 30, 2004. KLA-Tencor does not believe it is at risk for any material losses as a result of these agreements. In addition, from time to time KLA-Tencor will discount without recourse Letters of Credit ("LCs") received from customers in payment of goods. During the three months ended September 30, 2004 and 2003, several LCs were sold with proceeds totaling $10.0 million and $12.0 million. Discounting fees were less than $100,000 for the three months ended September 30, 2004 and 2003 and were recorded in interest and other income, net.

Facilities

KLA-Tencor leases certain of its facilities under operating leases, which qualify for operating lease accounting treatment under SFAS No. 13, “Accounting for Leases,” and, as such, these facilities are not included on the Company’s condensed consolidated balance sheet.

The following is a schedule of operating leases payments as of September 30, 2004 (in thousands):

Fiscal year ending June 30,	Amount
2005 (remaining 9 months)	$ 6,665
2006	5,710
2007	2,622
2008	2,048
2009	1,879
Thereafter	3,703
Total minimum lease payments	$ 22,627

Purchase Commitments

KLA-Tencor maintains certain open inventory purchase commitments with its suppliers to ensure a smooth and continuous supply chain for key components. KLA-Tencor’s liability in these purchase commitments is generally restricted to a forecasted time-horizon as mutually agreed upon between the parties. This forecast time-horizon can vary among different suppliers. The Company’s open inventory purchase commitments were approximately $159.0 million as of September 30, 2004.

Guarantees

KLA-Tencor provides standard warranty coverage on its systems for twelve months, providing labor and parts necessary to repair the systems during the warranty period. KLA-Tencor accounts for the estimated warranty cost as a charge to cost of revenues when revenue is recognized. The estimated warranty cost is based on historical product performance and field expenses. Utilizing actual service records, KLA-Tencor calculates the average service hours and parts expense per system and applies the actual labor and overhead rates to determine the estimated warranty charge. KLA-Tencor updates these estimated charges every quarter. The actual product performance and/or field expense profiles may differ, and in those cases KLA-Tencor adjusts warranty accruals accordingly.

The following table provides the changes in the product warranty accrual, as required by FIN 45 for the three months ended September 30, 2004 and 2003:

	Three months ended September 30,	
(in thousands)	2004	2003
Beginning balance	$ 38,865	$ 33,226
Accruals for warranties issued during the period	13,169	7,726
Changes in liability related to pre-existing warranties	1,053	(2,659)
Settlements made during the period	(5,266)	(8,001)
Ending balance	$ 47,821	$ 30,292

In connection with certain business combinations and purchased technology transactions, KLA-Tencor was subject to certain contingent consideration arrangements at June 30, 2004. These arrangements are based upon sales volume or the occurrence of other events subsequent to the acquisition and lapse in fiscal year 2005. The payment of the contingency would result in an increase to goodwill or operating expenses. Amounts paid under these arrangements have not been and are not expected to have a material effect on KLA-Tencor's financial condition or results of operations and could be $1.1 million.

Subject to certain limitations, KLA-Tencor indemnifies its current and former officers and directors for certain events or occurrences. Although the maximum potential amount of future payments KLA-Tencor could be required to make under these agreements is theoretically unlimited, based on prior experience, we believe the fair value of this liability is de minimis and no liability has been recorded.

Legal Matters

KLA-Tencor is named from time to time as a party to lawsuits in the normal course of its business. Litigation, in general, and intellectual property and securities litigation in particular, can be expensive and disruptive to normal business operations. Moreover, the results of complex legal proceedings are difficult to predict.

On October 11, 2000, ADE Corporation ("ADE"), a competitor, filed a patent infringement lawsuit against KLA-Tencor in the U.S. District Court in Delaware. ADE claimed damages and sought an injunction under U.S. Patent No. 6,118,525 ("'525 patent"). KLA-Tencor filed a counterclaim in the same court alleging that ADE has infringed four of KLA-Tencor's patents. KLA-Tencor is seeking damages and a permanent injunction against ADE. In addition, KLA-Tencor is seeking a declaration from the District Court that the '525 patent is invalid. On October 22, 2001, KLA-Tencor filed a separate action for declaratory judgment against ADE in the Northern District of California requesting a declaration that U.S. Patent No. 6,292,259 ("'259 patent") is invalid and not infringed. That action was consolidated with the prior action in the Delaware proceeding and ADE amended its complaint in that proceeding to allege that KLA-Tencor is infringing the '259 patent. On August 8, 2002, the magistrate presiding over the action in the U.S. District Court in Delaware issued a recommendation that the court enter summary judgment in KLA-Tencor's favor on the issue of non-infringement under ADE's '525 patent. On the same day, the magistrate issued recommendations that the court enter summary judgment in favor of ADE on the issue of non-infringement of two of KLA-Tencor's patents. The district court judge subsequently substantially adopted the recommendations of the magistrate regarding claims construction. The district court judge has ruled in KLA-Tencor's favor and granted summary judgment of non-infringement regarding both the '525 and '259 patents. KLA-Tencor has voluntarily withdrawn one of its patents from this suit, and KLA-Tencor continued to pursue its claim that ADE infringes KLA-Tencor's US Patent No. 6,215,551 ("'551 patent"). KLA-Tencor's case against ADE's alleged infringement of KLA-Tencor's patent went to trial on January 27, 2004 and on February 4, 2004, the court entered judgment in favor of ADE, ruling that the '551 patent is invalid. KLA-Tencor has filed post-trial motions and is evaluating appeals, if needed.

NOTE 10 – DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

KLA-Tencor's foreign subsidiaries operate and sell KLA-Tencor's products in various global markets. As a result, KLA-Tencor is exposed to changes in foreign currency exchange rates. KLA-Tencor utilizes foreign currency forward exchange contracts to hedge against certain future movements in foreign exchange rates that affect certain foreign currency denominated sales and purchase transactions. KLA-Tencor does not use derivative financial instruments for speculative or trading purposes. At September 30, 2004, KLA-Tencor had foreign exchange forward contracts maturing throughout fiscal 2005 to sell and purchase $309.0 million and $161.1 million, respectively, in foreign currency, primarily Japanese Yen. At June 30, 2004, KLA-Tencor had foreign exchange forward contracts maturing throughout fiscal year 2005 to sell $334.1 million and purchase $227.2 million, in foreign currency, primarily Japanese yen.

NOTE 11 – SEGMENT REPORTING AND GEOGRAPHIC INFORMATION

KLA-Tencor operates in one segment in accordance with the provisions of SFAS No. 131, “Disclosures about Segments of an Enterprise and Related Information.” Operating segments are defined as components of an enterprise about which separate financial information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. KLA-Tencor’s chief operating decision maker is the Chief Executive Officer.

KLA-Tencor is engaged primarily in designing, manufacturing, and marketing yield management and process monitoring systems for the semiconductor industry. All operating units have been aggregated due to their inter-dependencies, commonality of long-term economic characteristics, products and services, the production processes, class of customer and distribution processes. Since KLA-Tencor operates in one segment, all financial segment information required by SFAS No. 131 can be found in the condensed consolidated financial statements.

KLA-Tencor’s significant operations outside the United States include a manufacturing facility in Israel and sales, marketing and service offices in Western Europe, Japan, and the Asia Pacific region. For geographical revenue reporting, revenues are attributed to the geographic location in which the customer is located. Long-lived assets consist primarily of net property and equipment and are attributed to the geographic region in which they are located. The following is a summary of operations by entities located within the indicated geographic regions for three months ended September 30, 2004 and 2003.

	Three months ended September 30,	
(in thousands)	**2004**	**2003**
Revenue:		
United States	$ 127,884	$ 61,914
Europe & Israel	58,210	58,825
Japan	76,600	67,157
Taiwan	119,474	31,733
Korea	25,907	63,223
Asia Pacific	110,698	35,118
Total	$ 518,773	$ 317,970

(in thousands)	September 30, 2004	June 30, 2004
Long-lived assets:		
United States	$ 370,861	$ 367,547
Europe & Israel	6,257	6,263
Japan	4,289	4,280
Taiwan	2,286	2,348
Asia Pacific	5,453	4,536
Total	$ 389,146	$ 384,974

The following is a summary of revenues by major products for three months ended September 30, 2004 and 2003 (as a percentage of total revenue).

	Three months ended September 30,	
	2004	2003
Revenue:		
Defect Inspection	65%	62%
Metrology	17%	14%
Service	14%	21%
Software and other	4%	3%
Total	100%	100%

For the three months ended September 30, 2004, one customer accounted for 11% of revenue. For the three months ended September 30, 2003, two customers accounted for 20% and 10% of revenue, respectively. As at September 30, 2004 one customer accounted for 13% of net accounts receivable. As at June 30, 2004, one customer accounted for 10% of net accounts receivable.

NOTE 12 – SUBSEQUENT EVENTS

In October 2004, KLA-Tencor acquired the remaining equity outstanding of its variable interest entity consolidated after the adoption of FIN 46(R). Subsequently, KLA-Tencor transferred the assets of the entity to a limited liability corporation in which a third party acquired a minority interest. In addition, in October 2004, KLA-Tencor signed a definitive agreement to acquire Candela Instruments, a leading supplier of laser-based surface inspection systems optimized for the data storage industry. Both acquisitions will be accounted for as business combination in accordance with SFAS No. 141, "Business Combinations". The results of operations of the entities acquired are not expected to be material in relation to KLA-Tencor's results of operations.

On October 18, 2004, the Company's shareholders approved the 2004 Equity Incentive Plan (the "Omnibus Plan") which provides for the grant of options to purchase shares of the Company's Common Stock, stock appreciation rights, restricted stock, performance shares, performance units and deferred stock units to employees, consultants and members of the Board of Directors. This new Plan replaces future grants under the 1982 Stock Option Plan and 2000 Nonstatutory Stock Option Plan and supplements the 1998 Outside Director Option Plan.

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

FORWARD-LOOKING STATEMENTS

This report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements included in or incorporated by reference in this Quarterly Report on Form 10-Q, other than statements of historical fact, are forward-looking statements. These statements are generally accompanied by words such as "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "rely," "believe," "estimate," "predict," "intend," "potential," "continue," "forecast" or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements. Such forward-looking statements include, among others, those statements regarding forecasts of the future results of our operations; orders for our products and capital equipment generally; sales of semiconductors; the allocation of capital spending by our customers; growth in the semiconductor industry and the semiconductor capital equipment industry and business; technological trends in the semiconductor industry; our future product offerings and product features, as well as the success and market acceptance of new products; timing of shipment of backlog; recognition of deferred revenue; the growth in spending for process controls; the future of our product shipments and our product and service revenues; the future of our gross margins; the future of our selling, general and administrative expenses; anticipated revenue from various domestic and international regions; international sales and operations; maintenance of our competitive advantage; success of our product offerings; creation and funding of programs for research and development; attraction and retention of employees; management of risks involved in acquisitions of third parties, or the technology or assets thereof; benefits received from any acquisitions and development of acquired technologies; the outcome of any litigation to which we are a party; results of our investment in leading edge technologies; our future income tax rate; the effects of hedging transactions; outcome of any ongoing, tax, governmental, other audits; sufficiency of our existing cash balance, investments and cash generated from operations to meet our operating and working capital requirements; and the adoption of new accounting pronouncements.

Our actual results may differ significantly from those projected in the forward-looking statements in this report. Factors that might cause or contribute to such differences include, but are not limited to, those discussed in this section and those set forth in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 1, "Business" in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2004, filed with the Securities and Exchange Commission ("SEC") on August 30, 2004. You should carefully review these risks and also review the risks described in other documents we file from time to time with the SEC. You are cautioned not to place undue reliance on these forward-looking statements. We expressly disclaim any obligation to update or alter our forward-looking statements, whether, as a result of new information, future events or otherwise.

CRITICAL ACCOUNTING ESTIMATES

The preparation of our condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We based these estimates and assumptions on historical experience and evaluate them on an on-going basis to help ensure they remain reasonable under current conditions. Actual results could differ from those estimates. We discuss the development and selection of the critical accounting estimates with the Audit Committee of our Board of Directors on a quarterly basis, and the audit committee has reviewed our critical accounting estimates as described in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2004. For the three months ended September 30, 2004, there were no changes to these critical accounting estimates.

EXECUTIVE SUMMARY

KLA-Tencor Corporation is the world's leading supplier of process control and yield management solutions for the semiconductor and related microelectronics industries. Our comprehensive portfolio of products, software, analysis, services and expertise is designed to help integrated circuit manufacturers manage yield throughout the entire wafer fabrication process – from research and development to final mass production yield analysis.

New system and service orders in the quarter ended September 30, 2004 were 56% higher than the same quarter last year. The growth in orders is being driven by our customers' needs to expand both 200-mm and 300-mm capacity, advance existing capacity to next-generation processes, increase the efficiency of existing production lines and overcome yield and reliability problems in next-generation pilot lines.

For the quarter ended September 30, 2004 our total revenues increased approximately 63% over the same quarter last year. Product revenue increased by 77% while service revenue increased by 13% over the same quarter last year. The increase in our revenues is primarily driven by increased customer demand for our products.

Gross margin percentage for the quarter ended September 30, 2004 improved by 7 points compared to the same quarter in the prior year. The main reason for the increase was the lower cost of building, installing and maintaining our products, combined with an increase in our revenues.

For the quarter ended September 30, 2004, engineering, research and development ("R&D") expenses were 18% higher compared to the same quarter last year due to higher project material and labor costs as we focus on the development of new products and enhancements to existing products. Selling, general and administrative expenses increased 15% in the quarter ended September 30, 2004 compared to the same quarter last year on account of increasing application support of 300-mm ramps in Asia.

During the three months ended September 30, 2004, we generated $93.1 million in cash flow from operations. Cash, cash equivalents and marketable securities totaled $1.9 billion as of September 30, 2004.

We intend the discussion of our financial condition and results of operations that follows to provide information that will assist in understanding our financial statements, the changes in certain key items in those financial statements from period to period, and the primary factors that accounted for those changes, as well as how certain accounting principles, policies and estimates affect our financial statements.

Outlook

The semiconductor industry is expected to experience a 30% revenue growth rate in calendar year 2004 and slow to single-digit growth in calendar year 2005. According to current industry forecasts, semiconductor capital equipment sales are projected to grow at approximately 60% in calendar year 2004. New system and service orders, which are new orders net of cancellations, declined sequentially by approximately $78 million or 13% in the three months ended September 30, 2004, compared to the previous quarter due to the timing of certain orders combined with near-term weakness in demand for semiconductor capital equipment. In the near term, the level of new system orders will depend significantly on the timing of system orders for major new 300-mm fabs.

Over the long-term we expect process control to continue to represent a higher percentage of our customers' capital spending. We believe this increase in process control spending will be driven by the demand for more precise diagnostics capabilities to address multiple new defects as a result of further shrinking of device feature sizes, the transition to copper and other new materials, and the transition to new 300- millimeter fabs.

New system and service orders by region were as follows (in millions):

	Fiscal Quarter 2005	Fiscal Quarter 2004			
	First	Fourth	Third	Second	First
United States	$ 107	$ 158	$ 192	$ 129	$ 71
Europe	79	81	70	75	21
Japan	123	138	92	128	80
Taiwan	90	167	97	89	96
Asia Pacific	130	63	148	87	72
Total orders	$ 529	$ 607	$ 599	$ 508	$ 340

KLA-Tencor's backlog for unshipped system orders as of September 30, 2004, was approximately $880 million, a majority of which we expect to ship over the next six to nine months. In addition, we have $539 million of SAB 104 deferred revenue that is related to products that have been delivered but are awaiting written acceptance from the customer.

RESULTS OF OPERATIONS

Revenues and Gross Margin

Product revenue increased $192 million, or 77% to $442 million for the three months ended September 30, 2004, from $250 million for the three months ended September 30, 2003. Product revenue increases were primarily the result of increased capital spending by customers, which we believe was a result of the semiconductor industry upturn experienced in fiscal year 2004.

Service revenue is generated from maintenance service contracts, as well as time and material billable service calls made to our customers after the expiration of the warranty period. Service revenue increased $8 million, or 13% to $76 million for the three months ended September 30, 2004, from $68 million for the three months ended September 30, 2003. Service revenue increased as our installed base of equipment at customers' sites continued to grow. The amount of service revenue generated is generally proportional to the number of post-warranty systems installed at our customers' sites and the degree of utilization of those systems.

Total revenue recognized under conditions where we deviate from the need for a written acceptance by the customer were approximately 6.5% and 2.8% of total revenue for the three months ended September 30, 2004 and 2003, respectively. The increase in revenue exceptions resulted from an increase in multiple shipments of tools that have already met the required acceptance criteria, to customers who are looking to expand capacity.

International revenue decreased to 75% of revenue, in the three months ended September 30, 2004 from 81% in the same period of the prior fiscal. Revenues in the US, Japan, Taiwan and Asia Pacific were higher in the three months ended September 30, 2004 compared to the same period in the prior year, while revenues in Europe and Korea were lower in the three months ended September 30, 2004 compared the same period in the prior year. For the three months ended September 30, 2004, one customer accounted for 11% of revenue. For the three months ended September 30, 2003, two customers accounted for 20% and 10% of revenue, respectively.

Gross margin as a percentage of revenue was 58% for the three months ended September 30, 2004, compared to 51% for the same period in the prior fiscal year. Approximately 2 points of the improvement can be attributed to streamlining of product manufacturing operations and, approximately 5 points of the improvement can be attributed to improvements in installation, customer service and support programs. While we expect gross margins to improve from increase in sales volumes, introduction of new models and streamlining of manufacturing customer support costs, gross margins might be adversely impacted if build plans or revenues are reduced as a consequence of either industry slowdown, order cancellations or pushouts by our customers.

Engineering, Research and Development

Net R&D expenses were $77 million for the three months ended September 30, 2004, compared to $65 million for the same period in the prior fiscal year. As a percentage of revenue, R&D expenses were 15% for the three months ended September 30, 2004, compared to 21% for the same period in the prior fiscal year. The gross dollars for R&D investment increased by $13.4 million for the quarter ended September 30, 2004 but were partially offset by $1.4 million of external funding received for certain strategic development programs conducted with several of our customers and from government grants. The increase in gross R&D expenses was primarily due to an increase in project material and labor costs as we focus on the development of new products and enhancements to existing products. The reduction in R&D expenses as a percentage of revenue was driven by our continued focus on cost reduction initiatives and by the increase in revenues. We expect our net R&D expenses to increase in absolute dollars as we accelerate our investments in critical programs focusing on new technologies and enhancements to existing products and consolidation of the results of operations of a development stage semiconductor company as required by generally accepted accounting principles, and consolidate the results of operations of the entities acquired subsequent to quarter-end.

As previously disclosed, on October 23, 2003, we received notice from the National Institute of Standards and Technology (“NIST”) disallowing approximately $5 million of funding received under an Advanced Technology Cooperative Agreement. NIST completed its audit during the quarter, and the matter was settled for $696,000.

Our future operating results will depend significantly on our ability to produce products and provide services that have a competitive advantage in our marketplace. To do this, we believe that we must continue to make substantial investments in our research and development efforts. We remain committed to product development in new and emerging technologies as we address the further shrinking of device feature sizes, the transition to copper and other new materials, and the transition to new 300-millimeter fabs. Our investments in new technology and existing product enhancements are intended to enable our customers to achieve a higher return on their capital investments and higher productivity through cost-effective, leading edge technology solutions.

Selling, General and Administrative

Selling, general and administrative expenses were $69 million for the three months ended September 30, 2004, compared to $60 million for the same period in the prior fiscal year. As a percentage of revenue, selling, general and administrative expenses were 13% for the three months ended September 30, 2004, compared to 19% for the same period in the prior fiscal year. Selling, general and administrative expenses increased by $9 million for the quarter ended September 30, 2004 compared to the same period in the prior year mainly from increasing application support of 300-mm ramps in Asia. The reduction in selling, general and administrative expenses as a percentage of revenue was driven by our continued focus on cost reduction initiatives and by the increase in revenues. We expect our selling, general and administrative expenses to increase in absolute dollars as we build up our organization to meet increased customer demands.

Restructuring and Other Costs

There were no restructuring actions during fiscal year 2004 or the first three months of fiscal year 2005. Our restructuring activities are more fully disclosed in Note 3 of Notes to Consolidated Financial Statements included in Item 8 of our Annual Report on Form 10-K for the year ended June 30, 2004. The annual estimated cost savings from the restructuring actions incurred prior to fiscal year 2004 was $9 million, of which $7 million related to workforce reductions and $2 million related to consolidation of facilities and was not expected to have a material effect on our cost of goods sold or operating expenses. There were no material variances between the actual and anticipated costs of restructuring. As of June 30, 2004, the remaining accrual balance was $821,000. During the quarter ended September 30, 2004, we made lease payments of $151,000 related to the exited facilities. As of September 30, 2004, the remaining accrual balance of $670,000 is related to lease payments on facilities exited prior to fiscal year 2004 and is expected to be paid by the end of fiscal year 2006.

Interest Income and Other, Net

Interest income and other, net, was $7 million and $8 million for the three months ended September 30, 2004 and 2003, respectively. Interest income and other, net is comprised primarily of interest income earned on the investment and cash portfolio, realized gains or losses on sales of marketable securities, as well as income recognized upon settlement of certain foreign currency contracts. The decrease in interest income and other, net for the three months ended September 30, 2004 as compared to the three months ended September 30, 2003 was primarily due to a decrease in gains realized on sales of marketable securities.

Provision for Income Taxes

Our effective tax rate for the three months ended September 30, 2004 was 29%. This was higher than the effective tax rate of 19% realized in the same period of our fiscal year ended September 30, 2003. The overall increase in our effective tax rate was primarily the result of a one time 3% rate benefit in the prior period, an increase in pre-tax income realized during this period and the lack of an effective tax rate benefit for the federal R&D tax credit. The lack of an effective rate benefit for the federal R&D credit reflects the laws in place during the quarter. Subsequent to the close of the quarter, the federal R&D tax credit was retroactively reinstated, and our go-forward effective tax rate will reflect a full year benefit for this credit. We currently estimate that the reinstatement of the R&D credit will reduce our effective tax rate by approximately 2% to 27% for the twelve months ending June 30, 2005.

Stock Option and Incentive Plans

Our stock option program is a broad-based, long-term retention program that is intended to attract and retain qualified management and technical employees ("knowledge employees"), and align stockholder and employee interests. Under our stock option plans, options generally have a vesting period of five years, are exercisable for a period not to exceed ten years from the date of issuance and are granted at prices not less than the fair market value of our common stock at the grant date. This program consists of three plans: one under which non-employee directors may be granted options to purchase shares of our stock, another in which officers, key employees, consultants and all other employees may be granted options to purchase shares of our stock and a third in which consultants and all employees other than directors and officers may be granted options to purchase shares of our stock. Substantially all of our employees that meet established performance goals and that qualify as knowledge employees participate in one of our stock option plans.

Options granted from fiscal year 2003 through September 30, 2004 are summarized as follows (in thousands):

	Three months ended September 30	Fiscal year ended June 30,	
	2004	2004	2003
Weighted average number of shares outstanding	196,110	194,976	189,817
Total options granted during the period	8,050 (1)	6,298	4,922
Less options forfeited	(413)	(978)	(2,416)
Net options granted	7,637	5,320	2,506
Net grants during the period as a percentage of weighted average shares outstanding	3.9%	2.7%	1.3%

(1) Employees received options totalling 2,007,283 shares of common stock as an advance on their fiscal year 2006 focal option grants in the first fiscal quarter of 2005. The grant was equivalent to 50% of the employee's fiscal year 2005 stock option grant. These advanced grant options vest on a six year schedule with 20% vesting after year two and the remaining option shares vesting 1/48th per month for the remainder of the vesting term.

The following table summarizes KLA-Tencor's stock option plans as of September 30, 2004:

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column 1)
Equity compensation plans approved by stockholders[1]	27,985,795	$ 34.00	12,592,213
Equity compensation Plans not approved by stockholders[2]	8,817,076	38.03	3,025,199
Total	36,802,871	$ 36.24	15,617,412

[1] On October 18, 2004, the Company's shareholders approved the 2004 Equity Incentive Plan (the "Omnibus Plan") which provides for the grant of options to purchase shares of the Company's Common Stock, stock appreciation rights, restricted stock, performance shares, performance units and deferred stock units to our employees, consultants and members of our Board of Directors. This new Plan replaces future grants under the 1982 Stock Option Plan and 2000 Nonstatutory Stock Option Plan and supplements the 1998 Outside Director Option Plan.

[2] Officers and directors are not eligible to receive options granted under the plan.

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

	Available For Grant	Options Outstanding	Weighted-Average Price
Balances at June 30, 2002	6,144,818	30,089,707	$ 28.60
Additional shares reserved	13,280,928	—	—
Options granted	(4,922,001)	4,922,001	35.26
Options canceled/expired	2,415,973	(2,415,973)	35.16
Options exercised	—	(2,861,777)	20.94
Balances at June 30, 2003	16,919,718	29,733,958	$ 29.94
Additional shares reserved	5,751,033	—	—
Options granted	(6,298,343)	6,298,343	52.09
Options canceled/expired	978,478	(978,478)	38.66
Options exercised	—	(5,357,878)	25.74
Balances at June 30, 2004	17,350,886	29,695,945	$ 35.11
Additional shares reserved	5,903,603	—	—
Options granted	(8,049,716)	8,049,716	39.75
Options canceled/expired	412,639	(412,639)	41.06
Options exercised	—	(530,151)	22.44
Balances at September 30, 2004	15,617,412	36,802,871	$ 36.24

LIQUIDITY AND CAPITAL RESOURCES

Cash, cash equivalents and short-term marketable securities balances during the three months ended September 30, 2004 increased to $1.2 billion from $1.1 billion at June 30, 2004. In addition marketable securities classified as long-term at September 30, 2004 decreased to $652 million from $743 million at June 30, 2004. We have historically financed our operations through cash generated from operations. Net cash provided by operating activities for the three months ended September 30, 2004 was $93 million, compared to $30 million of net cash from operating activities for the same period of the prior fiscal year. Net cash provided by operating activities during the three months ended September 30, 2004 consisted primarily of $116 million provided by net income, adjusted for $19 million of non-cash depreciation and amortization, and offset by an increase in inventory balances by $35 million and a decrease in accounts payable balances by $11 million.

Net cash provided by investing activities during the three months ended September 30, 2004 was $115 million, compared to $54 million used in investing activities for the same period of the prior fiscal year. Net cash provided by investing activities consisted primarily of proceeds from the sale of marketable securities of $472 million, proceeds from the maturity of marketable securities of $116 million offset by purchases of marketable securities of $450 million and net purchases of property, plant and equipment of $18 million. Net cash used in financing activities during the three months ended September 30, 2004 was $62 million as compared to net cash provided by financing activities of $58 million for the same period of the prior fiscal year. Net cash used in financing activities primarily consisted of stock repurchases of $74 million offset by proceeds from the issuance of common stock of $12 million.

In October 2004, we acquired the remaining equity outstanding of a variable interest entity. Subsequently, we transferred the assets of the entity to a limited liability corporation in which a third party acquired a minority interest. In addition, in October 2004, we signed a definitive agreement to acquire Candela Instruments, a leading supplier of laser-based surface inspection systems optimized for the data storage industry.

The following is a schedule summarizing our significant operating lease commitments as of September 30, 2004 (in millions):

	Payments Due by Fiscal Year						
	Total	2005[1]	2006	2007	2008	2009	Thereafter
Operating leases	$ 22.6	$ 6.7	$ 5.7	$ 2.6	$ 2.0	$ 1.9	$ 3.7

[1] Remaining 9 months

Days sales outstanding was 64 days and 65 days for the quarters ended September 30, 2004 and 2003, respectively. We have agreements with three banking institutions to sell certain of our trade receivables and promissory notes from Japanese customers without recourse. During the three months ended September 30, 2004, approximately $22 million of receivables were sold under these arrangements. As of September 30, 2004, approximately $44 million was outstanding. The total amount available under the facility is the Japanese yen equivalent of $135 million based upon exchange rates as of September 30, 2004. We do not believe we are at risk for any material losses as a result of this agreement. In addition, from time to time we will discount without recourse Letters of Credit ("LCs") received from customers in payment of goods. During the three months ended September 30, 2004 several LCs were sold with proceeds totaling $10 million. Discounting fees were less than $100,000 for the three months ended September 30, 2004 and were recorded in interest and other income net.

We maintain certain open inventory purchase commitments with our suppliers to ensure a smooth and continuous supply chain for key components. Our liability in these purchase commitments is generally restricted to a forecasted time-horizon as mutually agreed upon between the parties. This forecast time-horizon can vary among different suppliers. We estimate our open inventory purchase commitment as of September 30, 2004 to be approximately $159 million.

Working capital increased to $1.4 billion as of September 30, 2004, compared to $1.3 billion at June 30, 2004. Our liquidity is affected by many factors, some of which are based on the normal ongoing operations of the business, and others of which relate to the uncertainties of global economies and the semiconductor and the semiconductor equipment industries. Although cash requirements will fluctuate based on the timing and extent of these factors, we believe that cash generated from operations, together with the liquidity provided by existing cash balances, will be sufficient to satisfy our liquidity requirements for the next twelve months.

FACTORS AFFECTING RESULTS, INCLUDING RISKS AND UNCERTAINTIES

Fluctuations in Operating Results and Stock Price

Our operating results have varied widely in the past, and our future operating results will continue to be subject to quarterly variations based upon numerous factors, including those listed in this section and throughout this Quarterly Report on Form 10-Q. In addition, future operating results may not follow any past trends. We believe the factors that could make our results fluctuate and difficult to predict include:

- the cyclical nature of the semiconductor industry;
- global economic uncertainty;
- changing international economic conditions;
- competitive pressure;
- our ability to develop and implement new technologies and introduce new products;
- our customers' acceptance and adoption of our new products and technologies;
- our ability to maintain supply of key components;
- our ability to manage our manufacturing requirements;
- our ability to protect our intellectual property;
- our ability to attract, retain, and replace key employees;
- our ability to manage risks associated with acquisitions;
- litigation;
- our ability to comply with internal controls evaluations and attestation requirements;
- our ability to successfully implement new systems;
- worldwide political instability;
- earthquake and other uninsured risks; and
- future changes in accounting and tax standards or practices.

Operating results also could be affected by sudden changes in customer requirements, currency exchange rate fluctuations and other economic conditions affecting customer demand and the cost of operations in one or more of the global markets in which we do business. As a result of these or other factors, we could fail to achieve our expectations as to future revenue, gross profit and income from operations. Our failure to meet the performance expectations set and published by external sources could result in a sudden and significant drop in the price of our stock, particularly on a short-term basis, and could negatively affect the value of any investment in our stock.

Semiconductor Equipment Industry Volatility

The semiconductor equipment industry is highly cyclical. The purchasing decisions of our customers are highly dependent on the economies of both the local markets in which they are located and the semiconductor industry worldwide. The timing, length and severity of the up-and-down cycles in the semiconductor equipment industry are difficult to predict. This cyclical nature of the industry in which we operate affects our ability to accurately predict future revenue and, thus, future expense levels. When cyclical fluctuations result in lower than expected revenue levels, operating results may be adversely affected and cost reduction measures may be necessary in order for us to remain competitive and financially sound. During a down cycle, we must be in a position to adjust our cost and expense structure to prevailing market conditions and to continue to motivate and retain our key employees. In addition, during periods of rapid growth, we must be able to increase manufacturing capacity and personnel to meet customer demand. We can provide no assurance that these objectives can be met in a timely manner in response to industry cycles. If we fail to respond to industry cycles, our business could be seriously harmed.

Global Economic Uncertainty

Our business is ultimately driven by the global demand for electronic devices by consumers and businesses. The picture of end-user demand has been mixed over the last few months and visibility has been reduced as a result of high oil prices, the continued threat of terrorist activities and political instability in certain regions of the world. A protracted global economic slowdown may adversely affect our business and results of operation.

International Trade, Operations and Economic Conditions

We serve an increasingly global market. A majority of our annual revenue is derived from outside the United States, and we expect that international revenue will continue to represent a substantial percentage of our revenue. Our international revenue and operations are affected by economic conditions specific to each country and region. Because of our significant dependence on international revenue, a decline in the economies of any of the countries or regions in which we do business could negatively affect our operating results.

Managing global operations and sites located throughout the world presents challenges associated with, among other things, cultural diversity and organizational alignment. Moreover, each region in the global semiconductor equipment market exhibits unique characteristics that can cause capital equipment investment patterns to vary significantly from period to period. Periodic local or international economic downturns, trade balance issues, political instability or terrorism in regions where we have operations and fluctuations in interest and currency exchange rates could negatively affect our business and results of operations. Although we attempt to manage near-term currency risks through the use of hedging instruments, there can be no assurance that such efforts will be adequate.

Competition

Our industry includes large manufacturers with substantial resources to support customers worldwide. Our future performance depends, in part, upon our ability to continue to compete successfully worldwide. Some of our competitors are diversified companies with greater financial resources and more extensive research, engineering, manufacturing, marketing and customer service and support capabilities than we can provide. We face competition from companies whose strategy is to provide a broad array of products and services, some of which compete with the products and service that we offer. These competitors may bundle their products in a manner that may discourage customers from purchasing our products. In addition, we face competition from smaller emerging semiconductor equipment companies whose strategy is to provide a portion of the products and services, which we offer, using innovative technology to sell products into specialized markets. Loss of competitive position could negatively affect our prices, customer orders, revenue, gross margins, and market share, any of which would negatively affect our operating results and financial condition. Our failure to compete successfully with these other companies would seriously harm our business.

Technological Change and Customer Requirements

Success in the semiconductor equipment industry depends, in part, on continual improvement of existing technologies and rapid innovation of new solutions. For example, the semiconductor industry continues to shrink the size of semiconductor devices, transition to copper and other new materials, and transition to new 300-millimeter fabs. While we expect these trends will increase our customers' reliance on our diagnostic products, we cannot ensure that they will directly improve our business. These and other evolving customer needs require us to respond with continued development programs and to cut back or discontinue older programs, which may no longer have industry-wide support. Technical innovations are inherently complex and require long development cycles and appropriate staff of highly qualified employees. Our competitive advantage and future business success depend on our ability to accurately predict evolving industry standards, to develop and introduce new products which successfully address changing customer needs, to win market acceptance of these new products and to manufacture these new products in a timely and cost-effective manner. If we do not develop and introduce new products and technologies in a timely manner in response to changing market conditions or customer requirements, our business could be seriously harmed.

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

Key Suppliers

We use a wide range of materials in the production of our products, including custom electronic and mechanical components, and we use numerous suppliers to supply these materials. We generally do not have guaranteed supply arrangements with our suppliers. Because of the variability and uniqueness of customers' orders, we do not maintain an extensive inventory of materials for manufacturing. We seek to minimize the risk of production and service interruptions and/or shortages of key parts by selecting and qualifying alternative suppliers for key parts, monitoring the financial stability of key suppliers and maintaining appropriate inventories of key parts. Although we make reasonable efforts to ensure that parts are available from multiple suppliers, key parts may be available only from a single supplier or a limited group of suppliers. Our business would be harmed if we do not receive sufficient parts to meet our production requirements in a timely and cost-effective manner.

Manufacturing Disruption

Most of our manufacturing facilities are located in the United States, with a small operation located in Israel. Operations at our manufacturing facilities and our assembly subcontractors are subject to disruption for a variety of reasons, including work stoppages, acts of war, terrorism, fire, earthquake, energy shortages, flooding or other natural disasters. Such disruption could cause delays in shipments of products to our customers. We cannot ensure that alternate production capacity would be available if a major disruption were to occur or that, if it were available, it could be obtained on favorable terms. Such disruption could result in cancellation of orders or loss of customers and could seriously harm our business. We currently are in the initial stages of design and implementation of a new integrated financial and supply chain management system. Disruptions or delays in making changes to our integrated financial and supply chain management system could adversely impact our operations and our ability to forecast sales demand, ship products, manage our product inventory and record and report financial and management information on a timely and accurate basis.

Intellectual Property Obsolescence and Infringement

Our success is dependent in part on our technology and other proprietary rights. We own various United States and international patents and have additional pending patent applications relating to some of our products and technologies. The process of seeking patent protection is lengthy and expensive, and we cannot be certain that pending or future applications will actually result in issued patents or that issued patents will be of sufficient scope or strength to provide meaningful protection or commercial advantage to us. Other companies and individuals, including our larger competitors, may develop technologies and obtain patents relating to our technology that are similar or superior to our technology or may design around the patents we own, adversely affecting our business.

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

While patent, copyright and trademark protection for our intellectual property is important, we believe our future success in highly dynamic markets is most dependent upon the technical competence and creative skills of our personnel. We attempt to protect our trade secrets and other proprietary information through confidentiality and other agreements with our customers, suppliers, employees and consultants and through other security measures. We also maintain exclusive and non-exclusive licenses with third parties for strategic technology used in certain products. However, these employees, consultants and third parties may breach these agreements and we may not have adequate remedies for wrongdoing. In addition, the laws of certain territories in which we develop, manufacture or sell our products may not protect our intellectual property rights to the same extent as do the laws of the United States.

As is typical in the semiconductor equipment industry, from time to time we have received communications from other parties asserting the existence of patent rights, copyrights, trademark rights or other intellectual property rights which they believe cover certain of our products, processes, technologies or information. Our customary practice is to evaluate such assertions and to consider whether to seek licenses where appropriate. However, we cannot ensure that licenses can be obtained or, if obtained, will be on acceptable terms or that costly litigation or other administrative proceedings will not occur. The inability to obtain necessary licenses or other rights on reasonable terms, or instigation of litigation or other administrative proceedings could seriously harm our operating results and financial condition.

Key Employees

Our employees are vital to our success, and our key management, engineering and other employees are difficult to replace. We generally do not have employment contracts with our key employees. Further, we do not maintain key person life insurance on any of our employees. The expansion of high technology companies worldwide has increased demand and competition for qualified personnel. If we are unable to retain key personnel, or if we are not able to attract, assimilate or retain additional highly qualified employees to meet our needs in the future, our business and operations could be harmed.

Acquisitions

In addition to our efforts to develop new technologies from internal sources, we also seek to acquire new technologies from external sources. As part of this effort, we may make acquisitions of, or significant investments in, businesses with complementary products, services and/or technologies. Acquisitions involve numerous risks, including management issues and costs in connection with the integration of the operations and personnel, technologies and products of the acquired companies, the possible write-downs of impaired assets, and the potential loss of key employees of the acquired companies. The inability to manage these risks effectively could seriously harm our business.

Litigation

From time to time we are involved in litigation of various types, including litigation alleging infringement of intellectual property rights and other claims. Litigation tends to be expensive and requires significant management time and attention and could have a negative effect on our results of operations or business if we lose or have to settle a case on significantly adverse terms.

Compliance with Internal Controls Evaluations and Attestation Requirements

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we will be required, beginning in fiscal 2005, to perform an evaluation of our internal controls over financial reporting and have our auditor publicly attest to such evaluation. We have prepared an internal plan of action for compliance, which includes a timeline and scheduled activities, although as of the date of this filing we have not yet prepared the evaluation. Compliance with these requirements is expected to be expensive and time-consuming. If we fail to timely complete this evaluation, or if our registered independent public accounting firm cannot timely attest to our evaluation, we could be subject to regulatory scrutiny and a loss of public confidence in our internal controls. In addition, any failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our operating results or cause us to fail to meet our reporting obligations.

Implementation of New Systems

We are in the process of implementing a new enterprise resource planning (“ERP”) system to replace our current ERP system. We may not be successful in implementing the new system, and transitioning data and other aspects of the process could be expensive, time consuming, disruptive and resource intensive. Any disruptions that may occur in the implementation of this new system or any future systems could adversely affect our ability to report in an accurate and timely manner the results of our consolidated operations, our financial position and cash flows; as well as affect our ability to complete the evaluation of our internal controls and attestation activities pursuant to Section 404 of the Sarbanes-Oxley Act of 2002. Disruptions to these systems could also adversely impact our ability to fulfill orders and interrupt other operational processes and could adversely affect our financial results.

Terrorism and Political Instability

The threat of terrorism targeted at the regions of the world in which we do business, including the United States, increases the uncertainty in our markets and may delay any recovery in the general economy. Any delay in the recovery of the economy and the semiconductor industry could adversely affect our business. Increased international political instability, as demonstrated by the September 2001 terrorist attacks, disruption in air transportation and further enhanced security measures as a result of the terrorist attacks, and the continuing instability in the Middle East, may hinder our ability to do business and may increase our costs of operations. Such continuing instability could cause us to incur increased costs in transportation, make such transportation unreliable, increase our insurance costs, and cause international currency markets to fluctuate. This same instability could have the same effects on our suppliers and their ability to timely deliver their products. If this international political instability continues or increases, our business and results of operations could be harmed.

Earthquake and Other Uninsured Risks

We purchase insurance to help mitigate the economic impact of certain insurable risks, however, certain other risks that are uninsurable or are insurable only at significant costs are not mitigated via insurance. An earthquake could significantly disrupt our manufacturing operations, most of which are conducted in California. It could also significantly delay our research and engineering effort on new products, most of which is also conducted in California. We take steps to minimize the damage that would be caused by an earthquake, but there is no certainty that our efforts will prove successful in the event of an earthquake. We self insure earthquake risks because we believe this is the prudent financial decision based on our large cash reserves and the high cost and limited coverage available in the earthquake insurance market. Certain other risks are also self insured either based on a similar cost benefit analysis, or based on the unavailability of insurance. If one or more of the uninsured events occurs, we could suffer major financial loss.

Future Changes in Accounting and Taxation Standards or Practices

A change in accounting standards or practices or a change in existing taxation rules or practices can have a significant effect on our reported results and may even affect our reporting of transactions completed before the change is effective. New accounting pronouncements and taxation rules and varying interpretations of accounting pronouncements and taxation practice have occurred and may occur in the future. Changes to existing rules or the questioning of current practices may adversely affect our reported financial results or the way we conduct our business.

For example, any changes requiring that we record compensation expense in the statement of operations for employee stock options using the “fair value” method or changes in existing taxation rules related to stock options could have a significant negative effect on our reported results. Several agencies and entities are considering, and the Financial Accounting Standards Board (“FASB”) has announced, proposals to change generally accepted accounting principles in the United States that, if implemented, would require us to record charges to earnings for employee stock option grants. This pending requirement would negatively impact our earnings.

Effects of Recent Accounting Pronouncements

In March 2004, the FASB issued a proposed Statement, “Share-Based Payment, an amendment of FASB Statements Nos. 123 and 95,” that addresses the accounting for share-based payment transactions in which a company receives employee services in exchange for either equity instruments of the company or liabilities that are based on the fair value of the company’s equity instruments or that may be settled by the issuance of such equity instruments. The proposed statement would eliminate the ability to account for share-based compensation transactions using the intrinsic method that we currently use and generally would require that such transactions be accounted for using a fair-value-based method and recognized as expense in our consolidated statement of operations. The recommended effective date of the proposed standard is currently for fiscal years beginning after June 15, 2005. Should this proposed statement be finalized in its current form, it will have a significant impact on our consolidated statement of operations as we will be required to expense the fair value of our stock option grants and stock purchases under our employee stock purchase plan. In addition the proposed standard may have a significant impact on our consolidated cash flows from operations (no impact to total consolidated cash flows) as, under this proposed standard, we will be required to reclassify a portion of the tax benefit on the exercise of employee stock options from cash flows from operating activities to cash flows from financing activities.

In March 2004, the Emerging Issues Task Force reached a consensus on recognition and measurement guidance previously discussed under EITF 03-1. The consensus clarifies the meaning of other-than-temporary impairment and its application to investments in debt and equity securities, in particular investments within the scope of SFAS No. 115, “Accounting for Certain Investments in Debt and Equity Securities,” and investments accounted for under the cost method. In September 2004, the Financial Accounting Standards Board approved the issuance of a FASB Staff Position to delay the requirement to record impairment losses under EITF 03-1. The approved delay applies to all securities within the scope of EITF 03-1 and is expected to end when new guidance is issued and comes into effect. We do not believe that this consensus will have a material impact on its consolidated results of operations.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to financial market risks, including changes in interest rates, foreign currency exchange rates and marketable equity security prices. To mitigate these risks, we utilize derivative financial instruments. We do not use derivative financial instruments for speculative or trading purposes. All of the potential changes noted below are based on sensitivity analyses performed on our financial position at September 30, 2004. Actual results may differ materially.

As of September 30, 2004, we had an investment portfolio of fixed income securities of $936 million, excluding those classified as cash and cash equivalents. These securities, as with 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 September 30, 2004, the fair value of the portfolio would have declined by $2.4 million.

As of September 30, 2004, we had net forward contracts to sell $148 million in foreign currency in order to hedge currency exposures (see Note 10 of the Notes to the Condensed Consolidated Financial Statements under “Derivative Instruments”). If we had entered into these contracts on September 30, 2004, the U.S. dollar equivalent would be $145 million. A 10% adverse move in all currency exchange rates affecting the contracts would decrease the fair value of the contracts by $40 million. However, if this occurred, the fair value of the underlying exposures hedged by the contracts would increase by a similar amount. Accordingly, we believe that the hedging of our foreign currency exposure should have no material impact on net income or cash flows.

Item 4. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures

Our management evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms.

Changes in internal controls over financial reporting

There was no change in our internal controls over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1.   LEGAL PROCEEDINGS

We are named from time to time as a party to lawsuits in the normal course of our business. Litigation, in general, and intellectual property and securities litigation in particular, can be expensive and disruptive to normal business operations. Moreover, the results of complex legal proceedings are difficult to predict. We believe that we have a defense for the case set forth below and are vigorously contesting this matter.

Legal Matters

ADE Corporation

On October 11, 2000, ADE Corporation (“ADE”), a competitor, filed a patent infringement lawsuit against us in the U.S. District Court in Delaware. ADE claimed damages and sought an injunction under U.S. Patent No. 6,118,525 (“‘525 patent”). We filed a counterclaim in the same court alleging that ADE has infringed four of our patents. We are seeking damages and a permanent injunction against ADE. In addition, we are seeking a declaration from the District Court that the ‘525 patent is invalid. On October 22, 2001, we filed a separate action for declaratory judgment against ADE in the Northern District of California requesting a declaration that U.S. Patent No. 6,292,259 (“‘259 patent”) is invalid and not infringed. That action was consolidated with the prior action in the Delaware proceeding and ADE amended its complaint in that proceeding to allege that we are infringing the ‘259 patent. On August 8, 2002, the magistrate presiding over the action issued a recommendation that the court enter summary judgment in our favor on the issue of non-infringement under ADE’s ‘525 patent. On the same day, the magistrate issued recommendations that the court enter summary judgment in favor of ADE on the issue of non-infringement of two of our patents. The district court judge subsequently substantially adopted the recommendations of the magistrate regarding claims construction. The district court judge has ruled in our favor and granted summary judgment of non-infringement regarding both the ‘525 and ‘259 patents. We have voluntarily withdrawn one of our patents from this suit, and we continued to pursue our claim that ADE infringes our US Patent No. 6,215,551(“‘551 patent”). Our case against ADE’s alleged infringement of our patent went to trial on January 27, 2004 and on February 4, 2004, the court entered judgment in favor of ADE, ruling that the ‘551 patent is invalid. We have filed post-trial motions and are evaluating appeals, if needed.

Although we cannot predict the outcome of this claim, we do not believe that this legal matter will have a material adverse effect on us. Were an unfavorable ruling to occur, there exists the possibility of a material impact on our operating results for the period in which the ruling occurred and in future periods.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Following is a summary of stock repurchases for the quarter ended September 30, 2004. (1)

Period	Total Number of Shares (or Units) Purchased(2)	Average Price Paid per Share (or Unit)	Maximum Number of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
July 1, 2004 to July 31, 2004	292,500	$ 39.83	3,003,000
August 1, 2004 to August 31, 2004	965,000	$ 37.54	2,038,000
September 1, 2004 to September 30, 2004	780,000	$ 39.19	1,258,000
Total	2,037,500	$ 38.50	

(1) In July 1997, the Board of Directors authorized KLA-Tencor to systematically repurchase shares of its common stock in the open market. This plan was entered in order to reduce the dilution from KLA-Tencor's employee benefit and incentive plans such as the stock option and employee stock purchase plans. Since the inception of the repurchase program in 1997 through September 30, 2004 the Board of Directors had authorized KLA-Tencor to repurchase a total of 17.8 million shares, including 5 million shares authorized in October 2002. All such shares remain as treasury shares.

(2) All shares were purchased pursuant to the publicly announced plan.

ITEM 6. EXHIBITS

10.10 2004 Equity Incentive Plan*(1)

31.1 Certification of Chief Executive Officer under Rule 13a-14(a) of the Securities Exchange Act of 1934.

31.2 Certification of Chief Financial Officer under Rule 13a-14(a) of the Securities Exchange Act of 1934.

32.1 Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350.

* Denotes a management contract, plan or arrangement

(1) Incorporated by reference to Appendix A of the Company's Proxy Statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934 on September 9, 2004 (SEC File No.000-09992).

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-TENCOR CORPORATION
(Registrant)

November 3, 2004	/s/ KENNETH L. SCHROEDER
(Date)	**Kenneth L. Schroeder** **President and Chief Executive Officer** **(Principal Executive Officer)**
November 3, 2004	/s/ JOHN H. KISPERT
(Date)	**John H. Kispert** **Executive Vice President** **and Chief Financial Officer** **(Principal Accounting Officer)**

EXHIBIT INDEX

Exhibit Number	Exhibit Name
10.10	2004 Equity Incentive Plan*[(1)]
31.1	Certification of Chief Executive Officer under Rule 13a-14(a) of the Securities Exchange Act of 1934.
31.2	Certification of Chief Financial Officer under Rule 13a-14(a) of the Securities Exchange Act of 1934
32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350.

* Denotes a management contract, plan or arrangement

(1) Incorporated by reference to Appendix A of the Company's Proxy Statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934 on September 9, 2004 (SEC File No.000-09992).

Exhibit 31.1

Certification of Chief Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Kenneth L. Schroeder certify that:

1. I have reviewed this quarterly report on Form 10-Q of KLA-Tencor Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over the financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

November 3, 2004	/s/ KENNETH L. SCHROEDER
(Date)	**Kenneth L. Schroeder** **President and** **Chief Executive Officer** **(Principal Executive Officer)**

Exhibit 31.2

Certification of Chief Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, John H. Kispert certify that:

1. I have reviewed this quarterly report on Form 10-Q of KLA-Tencor Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over the financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

November 3, 2004	/s/ JOHN H. KISPERT
(Date)	**John H. Kispert** **Executive Vice President** **and Chief Financial Officer** **(Principal Accounting Officer)**

Exhibit 32

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Kenneth L. Schroeder, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of KLA-Tencor Corporation on Form 10-Q for the fiscal quarter ended September 30, 2004 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of KLA-Tencor Corporation.

November 3, 2004	By:	/s/ KENNETH L. SCHROEDER
Dated	Name:	**Kenneth L. Schroeder**
	Title:	**President and Chief Executive Officer**

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, John H. Kispert, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of KLA-Tencor Corporation on Form 10-Q for the fiscal quarter ended September 30, 2004 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of KLA-Tencor Corporation.

November 3, 2004	By:	/s/ JOHN H. KISPERT
Dated	Name:	**John H. Kispert**
	Title:	**Executive Vice President and Chief Financial Officer**