UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

Form 8-K

Current Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 27, 2005

KLA-Tencor Corporation

(Exact name of registrant as specified in its charter)

000-09992

(Commission File Number)

Delaware

(State or other jurisdiction of incorporation)

04-2564110

(I.R.S. Employer Identification No.)

160 Rio Robles San Jose, California 95134

(Address of principal executive offices, with zip code)

(408) 875-3000

(Registrant's telephone number, including area code)

N/A

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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Item 2.02 Results of Operations and Financial Condition

On October 27 2005, KLA-Tencor Corporation issued a press release regarding its financial results for the quarter ended September 30, 2005. A copy of the press release is furnished as Exhibit 99.1 to this Form 8-K.

The information in this Form 8-K and the exhibit attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities under that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing.

Item 9.01 Financial Statements and Exhibits.

(c) Exhibits.

Exhibit	Description
99.1	Press Release issued by KLA-Tencor Corporation dated October 27, 2005.

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 hereunto duly authorized.

KLA-TENCOR CORPORATION

Date: October 27, 2005

By: /s/ John H. Kispert John H. Kispert Executive Vice President and Chief Financial Officer

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INDEX TO EXHIBITS

 Exhibit
 Description

 99.1
 Press Release issued by KLA-Tencor Corporation dated October 27, 2005.

Exhibit 99.1

News Release

Company Contacts:

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FOR IMMEDIATE RELEASE

KLA-TENCOR REPORTS FIRST QUARTER OF 2006 EARNINGS PER SHARE OF \$0.38 (\$0.50 EXCLUDING EQUITY BASED COMPENSATION OF \$0.12) ON REVENUE OF \$484 MILLION

SAN JOSE, Calif., Oct. 27, 2005 — KLA-Tencor Corporation (NASDAQ: KLAC) today announced operating results for its first quarter of fiscal 2006, ended September 30, 2005. The company reported net income of \$77 million and earnings per diluted share of \$0.38 on revenues of \$484 million compared to net income of \$105 million or \$0.52 per diluted shares on revenue of \$492 million in the fourth quarter of fiscal 2005, and net income of \$116 million or \$0.58 per diluted shares on revenue of \$519 million in the first quarter of fiscal 2005. The results include the impact from adoption in the first quarter of fiscal 2006 of SFAS 123 (R). The company included equity based compensation expenses of \$24 million or \$0.12 per diluted share, after income tax expenses, in its costs and operating expenses during the first quarter of fiscal 2006. Excluding the \$24 million of equity based compensation, net income would have been \$101 million and earnings per diluted share would have been \$0.50 for the first quarter of fiscal 2006.

"We continue to introduce innovative yield management technologies to improve the competitiveness and production success of our customers. As a result of this suite of market-leading products, we delivered another strong quarter with increasing orders and strong earnings," explained Ken Schroeder, chief executive officer of KLA-Tencor. "Ramping yields of leading-edge processes remains a challenging task and KLA-Tencor is playing a pivotal role in the industry's efforts to expand production capacity and speed new products to market."

KLA-Tencor reported ending the quarter with approximately 9 months of product-related shipment and revenue backlog. On a geographic basis, Taiwan and Japan posted strong bookings for the quarter ended

September 30, 2005. Taiwan was 27 percent of orders, above its historical average of 20 percent; Japan was 23 percent of orders, higher than its historical average of 20 percent; U.S. was 25 percent of orders, and consistent with its historical average of 25 percent; Europe was 13 percent of orders, lower than its historical average of 15 percent; and Korea, China and Singapore combined were 12 percent of orders, below their combined historical average of 20 percent.

KLA-Tencor's financial position remained strong with cash, cash equivalents and marketable securities of \$2.2 billion and no long term debt. Inventory increased by \$38 million to \$396 million as a result of higher shipments to Japanese customers that remain in inventory until customer acceptance, and higher field inventory to support customer service requirements of new products. Accounts receivable decreased by \$26 million to \$307 million.

Forward Looking Statements: Statements in this press release regarding the benefit to customers of KLA-Tencor's products and our future financial performance are forward-looking statements, and are subject to the Safe Harbor provisions created by the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current information and expectations, and involve a number of risks and uncertainties. Actual results may differ materially from those projected in such statements due to various factors, including but not limited to: the demand for semiconductors and new and enhanced product offerings by competitors, cancellation of orders by customers and changing customer demands. For other factors that may cause actual results to differ materially from those projected, please refer to the company's Form 10-K, Forms 10-Q and other filings with the Securities and Exchange Commission. Actual results could differ materially from those anticipated in forward-looking statements in this release as a result of certain factors, including those set forth in the risk factors described in the company's SEC filings.

For comparison purposes, the company makes reference to certain net income and earnings per share results that were consistent with GAAP when presented in prior quarters, but are now inconsistent with GAAP due to changes in accounting standards. These results were reached by excluding non-cash, equity-based compensation expenses. We reference those results to allow a better comparison of results in the current period to those in prior periods. Our reference to these results from prior periods should be considered in addition to results that are prepared under current accounting standards but should not be considered a substitute for results that are presented as consistent with GAAP.

About KLA-Tencor: KLA-Tencor is the world leader in yield management and process control solutions for semiconductor manufacturing and related industries. Headquartered in San Jose, Calif., with operations around the world, KLA-Tencor ranked #6 on S&P's 2002 index of the top 500 companies in the U.S. KLA-Tencor is traded on the Nasdaq National Market under the symbol KLAC. Additional information about the company is available on the Internet at http://www.kla-tencor.com.

KLA-Tencor Corporation CONDENSED CONSOLIDATED UNAUDITED BALANCE SHEETS

	September 30, 2005	June 30, 2005
(In thousands)		
ASSETS		
Cash, short-term investments and marketable securities	\$ 2,182,746	\$2,195,186
Accounts receivable, net	307,194	333,218
Inventories	396,006	358,339
Land, property and equipment, net	382,713	385,222
Other assets	761,939	714,407
Total assets	\$ 4,030,598	\$3,986,372

LIABILITIES AND STOCKHOLDERS' EQUITY

bilities:		
s payable \$	58,001 \$	67,717
l system profit 1	80,347	209,899
d revenue	75,003	80,122
urrent liabilities 5	543,039	574,124
current liabilities 8	356,390	931,862
terest in subsidiary	10,086	9,253
rs' equity:		
n stock and capital in excess of par value 1,0)15,660	943,322
d earnings 2,1	36,607 2	2,083,638
lated other comprehensive income	11,855	18,297
stockholders' equity 3,1	64,122 3	3,045,257
liabilities and stockholders' equity \$ 4,0	30,598 \$3	3,986,372
liabilities and stockholders' equity \$ 4,)	30,598 \$3

KLA-Tencor Corporation CONDENSED CONSOLIDATED UNAUDITED STATEMENTS OF OPERATIONS

		Three months ended September 30,	
	2005	2004	
(In thousands, except per share data)			
Revenues:	¢ 200.050	¢ 442.200	
Product	\$ 399,950	\$ 442,296	
Service	83,910	76,477	
Total revenues	483,860	518,773	
Costs and operating expenses:			
Costs of revenues*	214,220	215,469	
Engineering, research and development*	96,751	77,147	
Selling, general and administrative*	92,051	69,190	
Total costs and operating expenses	403,022	361,806	
Income from operations	80,838	156,967	
Interest income and other, net	14,776	6,985	
Income before income taxes and minority interest	95,614	163,952	
Provision for income taxes*	19,681	47,547	
Income before minority interest	75,933	116,405	
Minority interest	745		
Net income	<u>\$ 76,678</u>	\$ 116,405	
Net income per share:			
Basic	\$ 0.39	\$ 0.59	
Diluted	\$ 0.38	\$ 0.58	
Weighted average number of shares:			
Basic	197,408	196,110	
Diluted	202,715	199,969	

*includes the following amounts related to equity awards (in thousands)

		Three months ended September 30,	
	2005	2004	
Costs of revenues	\$ 6,811	\$ —	
Engineering, research and development	11,010	_	
Selling, general and administrative	17,007	_	
Provision for income taxes	(10,656)	_	
Total	\$ 24,172	\$	