UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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): July 26, 2007

KLA-TENCOR CORPORATION

(Exact name of registrant specified in its charter)

Delaware (State or other jurisdiction of incorporation) 000-09992 (Commission File Number) 04-2564110 (I.R.S. Employer Identification No.)

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

95134 (Zip Code)

Registrant's telephone, including area code: (408) 875-3000

(Former name and 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 (ee 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))

Item 2.02 Results of Operations and Financial Condition.

On July 26, 2007, KLA-Tencor Corporation (the "Company") issued a news release announcing financial results for its fiscal fourth quarter and fiscal year ended June 30, 2007. A copy of this news release is furnished as Exhibit 99.1 to this report.

Item 9.01 Financial Statements and Exhibits.

Exhibits (d)

The following exhibit is furnished herewith:

Exhibit

Description

Number 99.1 Text of press release issued by KLA-Tencor Corporation dated July 26, 2007.

SIGNATURES

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

Date: July 26, 2007

KLA-TENCOR CORPORATION

By: /s/ Jeffrey L. Hall
Name: Jeffrey L. Hall
Title: Chief Financial Officer

News Release

Company Contacts: Jeff Hall

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FOR IMMEDIATE RELEASE

KLA-TENCOR REPORTS FISCAL 2007 RESULTS Revenue of \$2.7 billion and EPS of \$2.61

SAN JOSE, Calif., July 26, 2007— KLA-Tencor Corporation (NASDAQ: KLAC) today announced operating results for its fourth quarter and fiscal year ended June 30, 2007. The Company reported GAAP net income of \$528 million and GAAP earnings per diluted share of \$2.61 on revenue of \$2.7 billion for fiscal 2007, compared to GAAP net income of \$380 million and GAAP earnings per diluted share of \$1.86 on revenue of \$2.1 billion for fiscal 2006. For the quarter ended June 30, 2007, the Company reported GAAP net income of \$147 million, and GAAP earnings per diluted share of \$0.75 on revenue of \$736 million, compared to GAAP net income of \$155 million or \$0.76 per diluted share on revenue of \$716 million in the third quarter of fiscal 2007, and GAAP net income of \$132 million or \$0.65 per diluted share on revenue of \$799 million in the fourth quarter of fiscal 2006.

Operating income for the fourth quarter of fiscal 2007 includes \$75 million in pre-tax charges, as follows:

- Acquisition-related charges of \$38 million for amortization and impairment of intangible assets, and in-process R&D related primarily to the acquisitions completed by the Company as of June 30, 2007. Acquisition-related charges for the third quarter of fiscal 2007 were \$18 million.
- Stock-based compensation related charges of \$26 million, compared to \$29 million for the third quarter of fiscal 2007 and \$38 million for the fourth quarter of fiscal 2006.
- Severance charges of \$11 million related to a worldwide reduction in force. There were no severance charges in either the third quarter of fiscal 2007 or fourth quarter of fiscal 2006

"KLA-Tencor's financial performance this quarter was again strong, reflecting our continued focus on supporting our customers with a broad portfolio of inspection and measurement technology," said Rick Wallace, CEO of KLA-Tencor. "Our product pipeline has never been stronger, with six new products launched in the June quarter. As we go forward, we are developing more innovative and cost-effective solutions to address critical yield challenges facing customers as they transition to 45nm and beyond."

KLA-Tencor ended fiscal year 2007 with approximately eight months of product-related shipment and revenue backlog.

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The geographic breakdown of system orders in the quarter was:

	Percent of Bookings	
	Current	Historical
Region	Quarter	Average
United States	22%	25%
Japan	26%	25%
Taiwan	23%	20%
Korea, China, & Singapore	22%	20%
Europe	7%	10%

KLA-Tencor's financial position remained strong with cash and investments balance at the end of fourth quarter of fiscal 2007 of \$1.7 billion. Accounts receivable increased by \$82 million compared to the prior quarter to \$582 million on strong shipments.

KLA-Tencor will discuss its fiscal 2007 fourth quarter results, along with its outlook for the first quarter of fiscal 2008, on a conference call today beginning at 2:00 p.m. Pacific Daylight Time. A web cast of the call will be available at: www.kla-tencor.com.

Forward Looking Statements: Statements in this press release other than historical facts, such as statements regarding the KLA-Tencor's future product portfolio, benefit to customers of KLA-Tencor's products and demand for KLA-Tencor's products, 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; new and enhanced product offerings by competitors; cancellation of orders by customers; and changing customer demand. For other factors that may cause actual results to differ materially from those projected and anticipated in forward-looking statements in this release, please refer to the Company's Form 10-K, Form 10-Q and other filings with the Securities and Exchange Commission (including, but not limited to, the risk factors described therein).

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., the Company has sales and service offices around the world. An S&P 500 Company, KLA-Tencor is traded on the NASDAQ Global Select 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

(In thousands)	June 30, 2007	June 30, 2006
ASSETS		
Current assets:		
Cash and investments	\$ 1,710,629	\$ 2,325,796
Accounts receivable, net	581,500	439,899
Inventories	535,370	449,156
Other current assets	425,272	328,392
Total current assets	3,252,771	3,543,243
Land, property and equipment, net	382,240	395,412
Goodwill and intangibles, net	487,288	70,341
Other assets	500,950	566,915
Total assets	\$ 4,623,249	\$ 4,575,911
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY Current liabilities:		
Accounts payable	\$ 92,165	\$ 95,192
Deferred system profit	201,747	226,142
Unearned revenue	99,254	80,543
Other current liabilities	680,041	600,604
Total current liabilities	1,073,207	1,002,481
Minority interest in subsidiary	\$ —	\$ 5,439
Stockholders' equity:		
Common stock and capital in excess of par value	967,886	1,421,373
Retained earnings	2,570,751	2,137,710
Accumulated other comprehensive income	11,405	8,908
Total stockholders' equity	3,550,042	3,567,991
Total liabilities, minority interest, and stockholders' equity	\$ 4,623,249	\$ 4,575,911

KLA-Tencor Corporation Condensed Consolidated Unaudited Statements Of Operations

		Three months ended		Twelve months ended	
(In thousands except per share data)	June 30), 2007 J	June 30, 2006	June 30, 2007	June 30, 2006
Revenues:					
Product	\$ 62	6,323	483,036	\$2,308,942	\$1,713,237
Service	11	0,065	96,000	422,287	357,390
Total revenues		6,388	579,036	2,731,229	2,070,627
Costs and operating expenses:					
Cost of revenues*	31:	5,681	284,164	1,190,323	942,091
Engineering, research and development*	12:	3,854	98,613	437,513	393,823
Selling, general and administrative*	12	1,989	121,379	513,525	424,922
Total costs and operating expenses	56	1,524	504,156	2,141,361	1,760,836
Income from operations	17-	4,864	74,880	589,868	309,791
Interest income and other, net	2	1,436	20,081	87,367	68,067
Income before income taxes and minority interest	19	6,300	94,961	677,235	377,858
Provision for income taxes*	48	8,958	(35,534)	150,509	1,507
Income before minority interest	14	7,342	130,495	526,726	376,351
Minority interest		_	1,181	1,372	4,101
Net income	\$ 14	7,342	3 131,676	\$ 528,098	\$ 380,452
Net income per share:					
Basic	\$	0.77		\$ 2.68	\$ 1.92
Diluted	\$	0.75	0.65	\$ 2.61	\$ 1.86
Weighted average number of shares:					
Basic		1,370	198,989	197,126	198,625
<u>Diluted</u>	19	7,062	202,948	202,204	204,097
* includes the following amounts related to equity awards:					
Costs of revenues		5,965	,	\$ 29,183	\$ 29,620
Engineering, research and development		- ,	11,490	\$ 42,431	\$ 49,509
Selling, general and administrative		1,982	16,355	\$ 37,164	\$ 85,613
Provision for income taxes	\$ (8	8,182)	(11,904)	\$ (33,778)	\$ (58,224)