

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 21, 2004

KLA-Tencor Corporation

(Exact name of registrant as specified in its charter)

000-09992

(Commission File Number)

Delaware

04-2564110

(State or other jurisdiction
of incorporation)

(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)

Item 2.02 Results of Operations and Financial Condition

On October 21, 2004, KLA-Tencor Corporation issued a press release regarding its financial results for the quarter ended September 30, 2004. 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
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99.1	Press Release issued by KLA-Tencor Corporation dated October 21, 2004.

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 21, 2004

By: /s/ John H. Kispert

John H. Kispert
Executive Vice President
and Chief Financial Officer

INDEX TO EXHIBITS

Exhibit	Description
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99.1	Press Release issued by KLA-Tencor Corporation dated October 21, 2004.

KLA-Tencor Reports Earnings of \$116 Million on Revenue of
\$519 Million for First Quarter of Fiscal Year 2005

SAN JOSE, Calif.--(BUSINESS WIRE)--Oct. 21, 2004--KLA-Tencor Corporation (Nasdaq:KLAC) today announced operating results for its first quarter of fiscal 2005, ended September 30, 2004. Net income and earnings per diluted share rose to \$116 million and \$0.58 on revenues of \$519 million, as the company reported sequential and year-over-year improvements in operating results. Revenues rose 15 percent from \$450 million in the prior quarter and 63 percent from \$318 million compared to the same period last year. Net income was also significantly higher, increasing from \$96 million or \$0.48 per diluted share in the prior quarter and \$37 million or \$0.18 per diluted share in the first quarter of fiscal 2004.

"Our strong financial results reflect leading chipmakers' strategic investments in process control technology to help them stay on Moore's law and reduce the time and costs associated with producing next-generation chips," explained Ken Schroeder, President and Chief Executive Officer of KLA-Tencor. "Our customers know that process control technology is instrumental to increasing their competitiveness and production success. Going forward we remain focused on investing in the solutions our customers will need to accelerate their development and production ramps at future nodes, while also optimizing the performance of their existing tools and technologies."

KLA-Tencor reported that it ended the quarter with approximately six months of backlog at current shipping levels. Geographically, the strongest order activity originated from Japan, which was above its historical share. Korea, China, and Singapore were also above historical levels while order levels for the United States, Europe and Taiwan were below their historical averages during the quarter.

Rising revenues and improved cost-structure resulted in record level gross margin, pretax, and operating margin percentages in the current quarter. Operating expenses increased from \$141 million in the prior quarter to \$146 million in the current quarter.

Cash, cash equivalents, and marketable securities increased by \$10 million to \$1.89 billion and the company repurchased \$74 million of its shares during the quarter. Accounts receivable decreased by \$7 million to \$366 million on strong collections, while inventory increased by \$36 million to \$373 million on new product introductions and higher planned production levels.

Forward Looking Statements: Statements in this press release regarding the company's positioning for future industry growth, impact of process control technology, investment decisions by the Company and the benefits derived from future investments by the Company, current order backlog, rising demand for semiconductor process control equipment and cost-saving measures 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: delays or cancellations of orders by customers; shipments or acceptances; inability by the company to meet its production and/or product development schedules; the demand for semiconductors; and new and enhanced product offerings by competitors. For other factors that may cause actual results to differ 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.

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, 2004	June 30, 2004
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(In thousands)

ASSETS

Cash, short-term investments and marketable securities	\$1,886,256	\$1,876,356
Accounts receivable, net	365,529	372,773
Inventories	373,484	337,414
Land, property and equipment, net	380,239	376,052
Other assets	584,499	576,584
	-----	-----
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
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Total current liabilities	905,129	911,629
	-----	-----
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
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Total stockholders' equity	2,684,878	2,627,550
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Total liabilities and stockholders' equity	\$3,590,007	\$3,539,179
	=====	=====

KLA-Tencor Corporation
CONDENSED CONSOLIDATED UNAUDITED STATEMENTS OF OPERATIONS

	Three months ended	
	September 30,	
	2004	2003

(In thousands, except per share data)		
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
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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		
Basic net income per share	\$ 0.59	\$ 0.19
	=====	=====
Diluted		
Diluted net income per share	\$ 0.58	\$ 0.18
	=====	=====

Weighted average number of shares;		
Basic	196,110	192,699
	=====	=====
Diluted	199,969	200,334
	=====	=====

CONTACT: John Kispert, 408-875-6224 (Chief Financial Officer)
john.kispert@kla-tencor.com
Cary Halsted, 408-875-4094 (Investment Community)
cary.halsted@kla-tencor.com
Uma Subramaniam, 408-875-5473 (Media)
uma.subramaniam@kla-tencor.com