
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): 08/06/2008

KLA-TENCOR CORPORATION

(Exact name of registrant as specified in its charter)

Commission File Number: 000-09992

Delaware
(State or other jurisdiction of
incorporation)

04-2564110
(IRS Employer
Identification No.)

One Technology Drive, Milpitas, California 95035
(Address of principal executive offices, including 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:

- 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 8.01. Other Events

On August 6, 2008, KLA-Tencor Corporation (the "Company") issued a news release that the Company's Board of Directors had declared a cash dividend of \$0.15 per share on the Company's common stock. Such dividend shall be payable on September 2, 2008 to stockholders of record as of the close of business on August 18, 2008. A copy of the news release is attached hereto as Exhibit 99.1.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

The following exhibit is filed herewith:

Exhibit No.	Description
99.1	Text of news release issued by KLA-Tencor Corporation dated August 6, 2008

Signature(s)

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: August 06, 2008

By: /s/ Brian M. Martin

Brian M. Martin
Senior Vice President and General Counsel

Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
EX-99.1	Text of news release issued by KLA-Tencor Corporation dated August 6, 2008

FOR IMMEDIATE RELEASE

Investor Relations:

Ed Lockwood
Sr. Director, Investor Relations
(408) 875-9529
ed.lockwood@kla-tencor.com

Media Relations:

Meggan Powers
Sr. Director, Corporate Communications
(408) 875-8733
meggan.powers@kla-tencor.com

**KLA-TENCOR DECLARES REGULAR CASH DIVIDEND FOR
FIRST QUARTER OF FISCAL YEAR 2009**

MILPITAS, Calif.-August 6, 2008-KLA-Tencor Corporation (NASDAQ: KLAC) today announced that its Board of Directors has declared a quarterly cash dividend of \$0.15 per share on its common stock payable on September 2, 2008 to KLA-Tencor stockholders of record as of the close of business on August 18, 2008.

About KLA-Tencor: KLA-Tencor is the world's leading supplier of process control and yield management solutions for the semiconductor and related microelectronics industries. Headquartered in Milpitas, 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 at <http://www.kla-tencor.com>.

###