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 7, 2014

| KLA-TENCOR CORPORATION (Exact name of registrant as specified in its charter) | | |
|---|---|---|
| | | |
| (State or other jurisdiction of incorporation) | (Commission File Number) | (I.R.S. Employer Identification No.) |
| One Technology Drive, Milpitas, California | | 95035 |
| (Address of principal executive offices) | | (Zip Code) |
| Regi | strant's telephone number, including area code: (408) 8 | 375-3000 |
| | (Former name or former address, if changed since last report) | |
| Check the appropriate box below if the Form 8-k following provisions: | X filing is intended to simultaneously satisfy the | he filing obligation of the registrant under any of the |
| ☐ Written communications pursuant to F | Rule 425 under the Securities Act (17 CFR 230.4 | 425) |
| ☐ Soliciting material pursuant to Rule 14 | 4a-12 under the Exchange Act (17 CFR 240.14a | 1-12) |
| ☐ Pre-commencement communications p | pursuant to Rule 14d-2(b) under the Exchange A | Act (17 CFR 240.14d-2(b)) |
| ☐ Pre-commencement communications] | oursuant to Rule 13e-4(c) under the Exchange A | act (17 CFR 240.13e-4(c) |

Item 8.01 Other Events.

On July 7, 2014, the Board of Directors of KLA-Tencor Corporation (the "Company") authorized increases to the Company's program to return cash to stockholders.

As part of the program, the Board of Directors approved an increase in the level of the Company's quarterly dividend from \$0.45 to \$0.50 per share. This increase is expected to take effect beginning with the Company's quarterly dividend to be declared in August 2014.

In addition, the Board of Directors approved an increase in the company's share repurchase program for up to 13 million additional shares of the Company's common stock. This 13 million share increase in the Company's share repurchase program is in addition to the Company's prior repurchase authorizations, under which approximately 2 million shares remained available for repurchase as of June 30, 2014. The Company presently anticipates that the current share repurchase authorization will be executed over the next 12-18 months. The repurchases may occur from time to time, on the open market, with consideration given to the market price of the common shares, the nature of other investment opportunities, cash flow from operations and general economic conditions.

The Company issued a press release announcing these increases on July 8, 2014, a copy of which is attached hereto as Exhibit 99.1.

Forward Looking Statements: Statements in this Form 8-K and in the attached press release other than historical facts, such as statements regarding the Company's anticipated future financial and operating results, the expected future level of the Company's quarterly dividend, the Company's commitment to continue paying dividends at any level in the future, the Company's commitment to repurchasing its shares at any level in the future, the anticipated number of shares to be repurchased by the Company and the expected timing of such repurchases, the Company's ability to maintain its market leadership position and successfully execute its long-term strategies, and the Company's future cash flows and availability of cash for the payment of dividends and repurchase of shares, 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 future results and/or events may differ materially from those projected in such statements due to various factors, including without limitation: a change in the Company's dividend policy by the Company's Board of Directors (which has the ability in its sole discretion to increase, decrease or eliminate entirely the Company's dividend at any time); a change in the Company's share repurchase program by the Company's Board of Directors or management, including changes in the number of shares to be repurchased or the timing of such repurchases; unanticipated material payment obligations incurred by the Company that decrease the Company's willingness or ability to continue paying dividends or repurchase shares at the anticipated level and timing, or at all; the financial condition of the global capital markets and the general macroeconomic environment; the demand for semiconductors; new and enhanced product offerings by competitors; the ability of the Company's research and development teams to successfully innovate and develop technology that is responsive to customer demands; and changing customer demands or technological requirements. For other factors that may cause actual results to differ materially from those projected and anticipated in forward-looking statements in this Form 8-K and in the attached press release, please refer to the Company's Annual Report on Form 10-K for the year ended June 30, 2013, subsequently filed Quarterly Reports on Form 10-O and other filings with the Securities and Exchange Commission (including, but not limited to, the risk factors described therein). The Company assumes no obligation to, and does not currently intend to, update these forward-looking statements.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibit is filed herewith:

| Exhibit No. | Description |
|-------------|---|
| 99.1 | Text of press release issued by KLA-Tencor Corporation dated July 8, 2014 |
| | |

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.

KLA-TENCOR CORPORATION

Date: July 8, 2014 By: /s/ BRIAN M. MARTIN

Name: Brian M. Martin

Title: Executive Vice President and General Counsel

EXHIBIT INDEX

Exhibit No. Description

99.1 Text of press release issued by KLA-Tencor Corporation dated July 8, 2014

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 INCREASES QUARTERLY DIVIDEND LEVEL TO \$0.50 PER SHARE AND ANNOUNCES \$1 BILLION SHARE REPURCHASE AUTHORIZATION

MILPITAS, Calif., July 8, 2014-KLA-Tencor Corporation (NASDAQ: KLAC) today announced that its Board of Directors has authorized significant increases to the company's program to return cash to stockholders.

As part of the program, the Board has approved an increase in the level of the company's quarterly dividend from \$0.45 to \$0.50 per share. This increase is expected to take effect beginning with KLA-Tencor's quarterly dividend to be declared in August 2014. This represents an 11 percent increase compared to the prior quarterly dividend and is the sixth dividend increase since KLA-Tencor first instituted its dividend in April 2005.

Additionally, the Board has approved an increase in the company's share repurchase program for up to 13 million additional shares of the company's common stock. This is in addition to the company's prior repurchase authorizations, under which approximately 2 million shares remained available for repurchase as of June 30, 2014. The company's share repurchase program, including the additional share authorization announced today, is now valued at over \$1 billion based upon the closing price of the company's common stock as of July 7, 2014. The company presently anticipates that the current share repurchase authorization will be executed over the next 12-18 months. The repurchases may occur from time to time, on the open market, with consideration given to the market price of the common shares, the nature of other investment opportunities, cash flow from operations and general economic conditions.

"KLA-Tencor's sustained market leadership and strong cash flow provide the resources to return significant cash to our stockholders through our dividend and share repurchase activities," said Rick Wallace, president and chief executive officer of KLA-Tencor. "KLA-Tencor has returned over \$2.2 billion to stockholders over the past five fiscal years, and these latest increases in the level of the dividend and the share repurchase authorization reflect management's ongoing commitment to our stockholders as we execute our long-term growth strategies."

This announcement and other news regarding KLA-Tencor will be discussed later today (July 8, 2014) at the company's annual SEMICON West analyst briefing at the W San Francisco Hotel, with a live webcast beginning at 12:30 p.m. Pacific Daylight Time. The live webcast can be accessed through the Investor Relations page of the KLA-Tencor website at http://ir.kla-tencor.com/, and a replay of the webcast will remain available on KLA-Tencor's Investor Relations web page for 90 days following the webcast.

About KLA-Tencor:

KLA-Tencor Corporation, a leading provider of process control and yield management solutions, partners with customers around the world to develop state-of-the-art inspection and metrology technologies. These technologies serve the semiconductor, LED and other related nanoelectronics industries. With a portfolio of industry standard products and a team of world-class engineers and scientists, the company has created superior solutions for its customers for more than 35 years. Headquartered in Milpitas, Calif., KLA-Tencor has dedicated customer operations and service centers around the world. Additional information may be found at www.kla-tencor.com. (KLAC-F)

Forward Looking Statements:

Statements in this press release other than historical facts, such as statements regarding KLA-Tencor's anticipated future financial and operating results, the expected future level of KLA-Tencor's quarterly dividend, the company's commitment to continue paying dividends at any level in the future, the company's commitment to repurchasing its shares at any level in the future, the anticipated number of shares to be repurchased by KLA-Tencor and the expected timing of such repurchases, KLA-Tencor's ability to maintain its market leadership position and successfully execute its long-term strategies, and the company's future cash flows and availability of cash for the payment of dividends and repurchase of shares, 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 future results and/or events may differ materially from those projected in such statements due to various factors, including without limitation: a change in KLA-Tencor's dividend policy by the company's board of directors (which has the ability in its sole discretion to increase, decrease or eliminate entirely the company's dividend at any time); a change in KLA-Tencor's share repurchase program by the company's board of directors or management, including changes in the number of shares to be repurchased or the timing of such repurchases; unanticipated material payment obligations incurred by KLA-Tencor that decrease the company's willingness or ability to continue paying dividends or repurchase shares at the anticipated level and timing, or at all; the financial condition of the global capital markets and the general macroeconomic environment; the demand for semiconductors; new and enhanced product offerings by competitors; the ability of KLA-Tencor's research and development teams to successfully innovate and develop technology that is responsive to customer demands; and changing customer demands or technological requirements. 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 KLA-Tencor's Annual Report on Form 10-K for the year ended June 30, 2013, subsequently filed Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission (including, but not limited to, the risk factors described therein). KLA-Tencor assumes no obligation to, and does not currently intend to, update these forward-looking statements.