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): November 19, 2014

KLA-TENCOR CORPORATION

(Exact name of registrant as specified in its charter) 04-2564110 Delaware 000-09992 (I.R.S. Employer Identification No.) (State or other jurisdiction of incorporation) (Commission File Number) One Technology Drive, Milpitas, California 95035 (Address of principal executive offices) (Zip Code) Registrant's telephone number, including area code: (408) 875-3000 (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 7.01 Regulation FD Disclosure.

On November 19, 2014, KLA-Tencor Corporation (the "Company") issued a press release announcing, among other things, a revised outlook for the second quarter of fiscal year 2015. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in Item 7.01 of this Current Report on 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 8.01 Other Events.

The Company's Board of Directors has declared a special cash dividend of \$16.50 per share on its common stock payable on December 9, 2014 to the Company's stockholders of record as of the close of business on December 1, 2014.

The Company will redeem \$750.0 million outstanding principal amount of the Company's 6.900% Senior Notes due 2018 on December 19, 2014 ("Redemption Date"). The redemption price will be equal to the greater of (1) 100% of the principal amount of the notes to be redeemed or (2) the sum of the present values of the remaining scheduled payments of principal and interest on the notes to be redeemed (exclusive of interest accrued to the Redemption Date), discounted to the Redemption Date on a semi-annual basis, at a rate equal to the sum of the treasury rate plus 50 basis points, plus the accrued and unpaid interest to, but not including, the Redemption Date.

In connection with the special cash dividend, the Company's Board of Directors and the Compensation Committee (the "Compensation Committee") of the Board of Directors have approved a proportionate and equitable adjustment to outstanding equity awards (restricted stock units and stock options), as required under the 2004 Equity Incentive Plan (the "Plan"). Outstanding restricted stock units under the Plan will receive an amount equivalent to the special cash dividend upon the vesting of those awards, subject to other provisions of the Plan. Outstanding stock options under the Plan will be adjusted under a formula determined by the Compensation Committee and intended to comply with the provisions of the Plan and other applicable regulations.

Forward-Looking Statements: Statements in this Current Report on Form 8-K other than historical facts, such as statements regarding the payment of the special cash dividend; the completion of the planned redemption of \$750.0 million outstanding principal amount of the Company's 6.900% Senior Notes due 2018; the expected characterization of the special cash dividend between dividend and return of capital; and the revised outlook by the Company for the second quarter of fiscal year 2015, 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; the financial condition of the global capital markets and the general macroeconomic environment; new and enhanced product and technology offerings by competitors; cancellation of orders by customers; the ability of the Company's research and development teams to successfully innovate and develop technologies and products that are responsive to customer demands; the Company's ability to successfully manage its costs; market acceptance of the company's existing and newly issued products; and changing customer demands. 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 Annual Report on Form 10-K for the year ended June 30, 2014, 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). 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

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The following exhibit is furnished herewith:

Exhibit No. Description

Text of press release issued by KLA-Tencor Corporation dated November 19, 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: November 19, 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 November 19, 2014

FOR IMMEDIATE RELEASE

Investor Relations:

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KLA-Tencor Declares Special Cash Dividend, Announces Planned Redemption of Senior Notes due 2018, and Updates Outlook for Second Quarter of Fiscal Year 2015 Resulting from Previously Announced Leveraged Recapitalization Transaction

MILPITAS, Calif., Nov. 19, 2014 /PRNewswire/ -- KLA-Tencor Corporation (NASDAQ: KLAC) announced that its Board of Directors has declared a special cash dividend of \$16.50 per share on its common stock payable on December 9, 2014 to KLA-Tencor stockholders of record as of the close of business on December 1, 2014. KLA-Tencor's Board of Directors has also authorized the redemption of \$750.0 million outstanding principal amount of KLA-Tencor's 6.900% Senior Notes due 2018.

"We are pleased with the successful completion of the financing of our leveraged recapitalization transaction, and the declaration of our special cash dividend of \$16.50 per share," said Rick Wallace, President and Chief Executive Officer of KLA-Tencor. "This is a major step forward for the Company in executing our capital allocation strategies in support of our strategic objectives, and fueling strong stockholder returns."

The company also revised its outlook for the second quarter of fiscal year 2015 following the closing of its previously announced registered offering of approximately \$2.5 billion aggregate principal amount of its Senior Notes under an effective Registration Statement (including a prospectus supplement and accompanying base prospectus) on file with the Securities and Exchange Commission. The revised outlook for the second quarter of fiscal year 2015 also reflects the impact of the planned redemption of \$750.0 million outstanding principal amount of KLA-Tencor's 6.900% Senior Notes due 2018 (including the payment of associated redemption premiums, accrued interest and related fees and expenses), borrowings of \$750.0 million under term loans provided under a credit agreement and a \$500.0 million unfunded revolving credit facility.

Special Cash Dividend of \$16.50 per Share

The special cash dividend was approved by KLA-Tencor's Board of Directors on November 19, 2014 and will be payable on December 9, 2014 to stockholders of record at the close of business on December 1, 2014. Of the \$16.50 per share distribution, KLA-Tencor currently expects between \$11.50 to \$12.50 per share to be characterized as a dividend, and the remaining amount of the distribution to be characterized as a return of capital. The ultimate tax characterization of the distribution will be reported to stockholders on a Form 1099-DIV shortly after the end of the calendar year. Stockholders should consult their tax advisors regarding the tax effects of the special cash dividend to them.

Redemption of \$750.0 million Principal Amount of KLA-Tencor's 6.900% Senior Notes due 2018

KLA-Tencor's 6.900% Senior Notes due 2018 on December 19, 2014 ("Redemption Date"). The redemption price will be equal to the greater of (1) 100% of the principal amount of the notes to be redeemed or (2) the sum of the present values of the remaining scheduled payments of principal and interest on the notes to be redeemed (exclusive of interest accrued to the Redemption Date), discounted to the Redemption Date on a semi-annual basis, at a rate equal to the sum of the treasury rate plus 50 basis points, plus the accrued and unpaid interest to, but not including, the Redemption Date.

Revised Outlook for the Second Quarter of Fiscal Year 2015

For the second quarter of fiscal year 2015 ending December 31, 2014, GAAP diluted earnings is expected to be in the range of \$(0.19) to \$0.05 per share. Other income and expense for the second quarter of 2015 (including incremental interest expense from the issuance of new borrowings described above) is expected to be a net expense of approximately \$30 million. Additionally the estimated loss on extinguishment of \$750.0 million outstanding principal amount of KLA-Tencor's 6.900% Senior Notes due 2018 is expected to be approximately \$131 million.

Non-GAAP diluted earnings is expected to be in the range of \$0.37 to \$0.61 per share. In addition to the regular non-GAAP adjustments related to the effects of amortization of acquired intangible assets and restructuring, severance and other related charges, which have an impact of approximately \$0.02 per share each, the revised guidance excludes approximately \$0.80 per share related to the estimated loss on extinguishment of \$750.0 million outstanding principal amount of KLA-Tencor's 6.900% Senior Notes due 2018, and approximately \$0.01 per share for third-party expenses related to the leveraged recapitalization, partially offset by an approximately \$(0.29) per share benefit related to the income tax effects of all of the revised items noted above.

Adjustment to Certain Outstanding Equity Awards

In connection with the special cash dividend, the Board of Directors and the Compensation Committee of the Board of Directors have approved a proportionate and equitable adjustment to outstanding equity awards (restricted stock units and stock options), as required under the 2004 Equity Incentive Plan, subject to the vesting requirements of the underlying awards.

Forward-Looking Statements:

Statements in this press release other than historical facts, such as statements regarding the payment of the special cash dividend; the completion of \$750.0 million outstanding principal amount of KLA-Tencor's 6.900% Senior Notes due 2018; the expected characterization of the special cash dividend between dividend and return of capital; and the revised outlook by KLA-Tencor for the second quarter of fiscal year 2015, 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; the financial condition of the global capital markets and the general macroeconomic environment; new and enhanced product and technology offerings by competitors; cancellation of orders by customers; the ability of KLA-Tencor's research and development teams to successfully innovate and develop technologies and products that are responsive to customer demands; KLA-Tencor's ability to successfully manage its costs; market acceptance of the company's existing and newly issued products; and changing customer demands. 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, 2014, 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.

About KLA-Tencor

KLA-Tencor Corporation (NASDAQ: KLAC), 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, California, KLA-Tencor has dedicated customer operations and service centers around the world. Additional information may be found at www.kla-tencor.com. (KLAC-F)

Use of Non-GAAP Financial Information

The non-GAAP and supplemental information provided in this press release is a supplement to, and not a substitute for, KLA-Tencor's financial results presented in accordance with United States GAAP. To supplement KLA-Tencor's condensed consolidated financial statements presented in accordance with GAAP, the company provides certain non-GAAP financial information, which is adjusted from results based on GAAP to exclude certain costs and expenses, as well as other supplemental information. The non-GAAP and supplemental information is provided to enhance the user's overall understanding of KLA-Tencor's operating performance and its prospects in the future. Specifically, KLA-Tencor believes that the non-GAAP information provides useful measures to both management and investors regarding financial and business trends relating to KLA-Tencor's financial performance by excluding certain costs and expenses that the company believes are not indicative of its core operating results. The non-GAAP information is among the budgeting and planning tools that management uses for future forecasting. However, because there are no standardized or generally accepted definitions for most non-GAAP financial metrics, definitions of non-GAAP financial metrics (for example, determining which costs and expenses to exclude when calculating such a metric) are inherently subject to significant discretion. As a result, non-GAAP financial metrics may be defined very differently from company to company, or even from period to period within the same company, which can potentially limit the usefulness of such information to an investor. The presentation of non-GAAP and supplemental information is not meant to be considered in isolation or as a substitute for results prepared and presented in accordance with United States GAAP.