
**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): May 9, 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 *see* 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))
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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On May 9, 2007, the Board of Directors (the "Board") of KLA-Tencor Corporation ("KLA-Tencor") appointed Kevin J. Kennedy to serve as a director of KLA-Tencor. Mr. Kennedy has been Chief Executive Officer of JDS Uniphase Corporation since September 2003 and a member of its board of directors since November 2001. He served as Chief Operating Officer of Openwave Systems, Inc. from 2002 to 2003 and prior to that, spent seven years at Cisco Systems, Inc., most recently as a Senior Vice President in Cisco's Software Technologies Division. Mr. Kennedy also worked at Bell Laboratories, a subsidiary of AT&T Inc., for 17 years in a series of management and technical positions. An acknowledged expert in data and computational science, as well as technology management, during his career Kennedy has been an adjunct professor at Rutgers University and served as a congressional fellow to the U.S. House of Representatives Committee on Science, Space and Technology.

On May 9, 2007, the Board appointed John Trevor Dickson to serve as a director of KLA-Tencor. Mr. Dickson was Chief Executive Officer of Agere Systems Inc. from 2000 to 2005 and was Chief Executive Officer and Corporate Executive Vice President of AT&T/Lucent Technologies' Microelectronics and Communications Technologies Group from 1993 to 2000. Earlier, he worked for Plessey Semiconductor, Ltd., Texas Instruments Incorporated, International Computers, Ltd., LSI Logic Corp. and Shographics, Inc. in a variety of management positions. Mr. Dickson received his Bachelor of Science in Electronics Engineering, and a Diploma, Business Studies, from the University of Sheffield. He currently sits on the board of directors of Frontier Silicon, Ltd. (private), Mettler-Toledo International, Inc., and National Semiconductor Corp.

Messrs. Kennedy and Dickson are compensated for their services as directors consistent with that of KLA-Tencor's other non-employee directors. All compensation for the initial year that Messrs. Kennedy and Dickson are directors shall be prorated, as appropriate, to reflect the portion of the year elapsed since the date of the last annual stockholders meeting.

Messrs. Kennedy and Dickson shall receive equity compensation pursuant to KLA-Tencor's 1998 Outside Director Plan and 2004 Equity Incentive Plan, both of which were approved by stockholders. Messrs. Kennedy and Dickson will each automatically be granted a series of non-statutory stock options each year to purchase 5,000 shares of Common Stock in the aggregate (the "Annual Option Grant"). Each Annual Option Grant will be provided through an automatic 1,250-share option grant each quarter, approximately two business days following the Company's earnings release for the prior fiscal quarter. The term of each option granted under the 1998 Director Plan may not exceed 10 years. The 1998 Director Plan provides that the exercise price shall be equal to the fair market value of the Common Stock on the date of grant of the option. Options granted under the 1998 Director Plan are fully vested and immediately exercisable upon grant.

At each annual stockholders meeting, Messrs. Kennedy and Dickson will be awarded restricted stock units covering shares of KLA-Tencor's Common Stock with an aggregate fair market value of \$50,000 based on the market price of KLA-Tencor's Common Stock at the time of the award. As Messrs. Kennedy and Dickson did not join the Board on the date of an annual stockholders meeting, their first restricted stock unit awards were granted on May 9, 2007, the first regular Board meeting they attended, and were prorated, as noted above, to take into account the period of time that has lapsed since the date of the last annual stockholders meeting.

Messrs. Kennedy and Dickson, for their services as directors, shall each also receive an annual fee of \$40,000, paid quarterly, and meeting fees of \$2,500 for each Board meeting attended in person and \$1,250 for each Board meeting attended by telephone conference call. Messrs. Kennedy and Dickson shall also be reimbursed for their reasonable expenses incurred in attending Board meetings.

A copy of the press release announcing the appointment of Mr. Kennedy and Mr. Dickson is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

The following exhibit is filed herewith:

Exhibit Number	Description
99.1	Press Release issued by KLA-Tencor Corporation dated May 9, 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.

KLA-TENCOR CORPORATION

Date: May 9, 2007

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

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press Release issued by KLA-Tencor Corporation dated May 9, 2007.

KLA-Tencor Elects Kevin Kennedy, John Dickson to its Board of Directors

SAN JOSE, Calif., May 9, 2007 – KLA-Tencor Corp. (NASDAQ: KLAC) today announced the election of Kevin J. Kennedy and John T. Dickson to its Board of Directors.

Mr. Kennedy, 51, is Chief Executive Officer and a member of the board of directors of JDS Uniphase Corporation. Mr. Dickson, 61, is the former Chief Executive Officer of Agere Systems Inc.

Edward W. (Ned) Barnholt, Chairman of the Board of KLA-Tencor, said, “We welcome Kevin and John to our Board. Both of these seasoned executives bring extensive experience in electronics and semiconductors. Their valuable perspectives will help us target and manage a variety of strategic opportunities going forward.”

Mr. Kennedy has been Chief Executive Officer of JDS Uniphase Corporation since September 2003 and a member of its board of directors since November 2001. He served as Chief Operating Officer of Openwave Systems, Inc. from 2002 to 2003 and prior to that, spent seven years at Cisco Systems, Inc., most recently as a senior vice president in Cisco’s Software Technologies Division. Mr. Kennedy also worked at the Bell Laboratories, a subsidiary of AT&T Inc. (“AT&T”), for 17 years in a series of management and technical positions. An acknowledged expert in data and computational science as well as technology management, during his career Mr. Kennedy has been an adjunct professor at Rutgers University and served as a congressional fellow to the U.S. House of Representatives Committee on Science, Space and Technology.

Mr. Dickson was Chief Executive Officer of Agere Systems Inc., from 2000 to 2005 and was Chief Executive Officer and Corporate Executive Vice President of AT&T/Lucent Technologies’ Microelectronics and Communications Technologies Group from 1993 to 2000. Earlier, he worked for Plessey Semiconductor, Ltd., Texas Instruments Incorporated, International Computers, Ltd., LSI Logic Corp. and Shographics, Inc. in a variety of management positions, up to and including Chief Executive Officer. Mr. Dickson received his Bachelor of Science in Electronics Engineering and his Diploma, Business Studies, from the University of Sheffield. He currently sits on the board of directors of Frontier Silicon, Ltd. (private), Mettler-Toledo International Inc., and National Semiconductor Corp.

Messrs. Kennedy and Dickson join Robert M. Calderoni as the newest members of KLA-Tencor’s Board of Directors; Mr. Calderoni was elected at the KLA-Tencor’s Annual Meeting of Stockholders held on March 29, 2007.

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, California, 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>.

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