

FORM 5

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

| OMB APPROVAL | |
|--|-----------|
| OMB Number: | 3235-0362 |
| Estimated average burden hours per response... | 1.0 |

- Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).
- Form 3 Holdings Reported
- Form 4 Transactions Reported

ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person* FORTINO DENNIS J | | | 2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [klac] | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director _____ 10% Owner _____ <input checked="" type="checkbox"/> Officer (give title below) _____ Other (specify below) _____ Executive Vice President | | | |
|---|---|---|---|--|------------|---|---|---|--|
| (Last) (First) (Middle) | | | 3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) 06/30/2003 | | | | | | |
| C/O KLA-TENCOR CORP., 160 RIO ROBLES | | | | | | | | | |
| (Street) | | | 4. If Amendment, Date Original Filed(Month/Day/Year) | | | 6. Individual or Joint/Group Reporting (check applicable line) <input checked="" type="checkbox"/> Form Filed by One Reporting Person <input type="checkbox"/> Form Filed by More than One Reporting Person | | | |
| SAN JOSE, CA 95134 | | | | | | | | | |
| (City) (State) (Zip) | | | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | |
| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | Amount | (A) or (D) | Price | | | |
| Common Stock | | | | | | | 5,247 (1) | D | |

Reminder: Report on a separate line for each class of securities beneficially **Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.** SEC 2270 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of Derivative Securities Beneficially Owned at End of Issuer's Fiscal Year (Instr. 4) | 10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---|--|---|---|-----------------------------------|--|---|------------|--|-----------------|---|--|---|---|
| | | | | | | (A) | (D) | Date Exercisable | Expiration Date | | | | |
| Non-Qualified Stock Option | \$ 10.63 | | | | | | 08/31/1999 | 08/31/2008 | Common Stock | 4,667 | 4,667 | D | |
| Non-Qualified Stock Option | \$ 26.25 | | | | | | 11/10/2001 | 11/10/2010 | Common Stock | 15,750 | 15,750 | D | |
| Non-Qualified Stock Option | \$ 29.31 | | | | | | 10/02/2002 | 10/02/2011 | Common Stock | 45,000 | 45,000 | D | |
| Non-Qualified Stock Option | \$ 32.75 | | | | | | 04/04/2002 | 04/04/2011 | Common Stock | 22,500 | 22,500 | D | |
| Non-Qualified Stock Option | \$ 33.75 | | | | | | 10/27/2000 | 10/27/2009 | Common Stock | 60,000 | 60,000 | D | |

| | | | | | | | | | | | | | |
|----------------------------|------------|--|--|--|--|------------|------------|--------------|--------|--|--------|---|--|
| Non-Qualified Stock Option | \$ 34.67 | | | | | 11/08/2003 | 01/28/2013 | Common Stock | 25,000 | | 25,000 | D | |
| Non-Qualified Stock Option | \$ 37.05 | | | | | 11/08/2003 | 11/08/2012 | Common Stock | 12,500 | | 12,500 | D | |
| Non-Qualified Stock Option | \$ 40.14 | | | | | 05/22/2004 | 05/22/2013 | Common Stock | 1,000 | | 1,000 | D | |
| Non-Qualified Stock Option | \$ 44.6875 | | | | | 08/13/2000 | 08/13/2010 | Common Stock | 5,370 | | 5,370 | D | |
| Non-Qualified Stock Option | \$ 44.6875 | | | | | 08/13/2001 | 08/13/2010 | Common Stock | 39,630 | | 39,630 | D | |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|--------------------------|-------|
| | Director | 10% Owner | Officer | Other |
| FORTINO DENNIS J C/O KLA-TENCOR CORP. 160 RIO ROBLES SAN JOSE, CA 95134 | | | Executive Vice President | |

Signatures

| | |
|--|---------------------|
| Dennis J. Fortino | 08/08/2003 |
| <small>Signature of Reporting Person</small> | <small>Date</small> |

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Securities adjusted for Non-Reportable Transaction (534 ESPP shares acquired)

Remarks:

Form 5 filed to voluntarily report all holdings

Note: File three copies of this Form, one of which must be manually signed. If space provided is insufficient, see Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.