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

OMB APPROVAL 3235-0287 OMB Number: Estimated average burden hours per response... 0.5

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

(Print or Type Responses)

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 * BOND ROBERT T | | | | 2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC] | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner | | | | | | | |
|--|---|--|---|--|-------|----------|-------------------|--|--|------------------------------------|--|--|--|---|---|--|--|-------------------------|
| (Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES | | | | 3. Date of Earliest Transaction (Month/Day/Year) 08/02/2005 | | | | | | | | | title below) | | er (specify be | low) | | |
| (Street) | | | | 4. If Amendment, Date Original Filed(Month/Day/Year) | | | | | | | | 6. Individual or Joint/Group Filing(Check Applicable Line) X Form filed by One Reporting Person | | | | | | |
| SAN JOS | E, CA 951 | 30 | | | | | | | | | | | | | Person Reporting Person | | | |
| (City | ") | (State) | (Zip) | | | 1 | Table | I - Non-De | riva | ative Securities | s Acqui | red, I | Disposed | of, or Benef | icially Own | ed | | |
| (Instr. 3) Date | | | 2. Transaction Date (Month/Day/Year | 2A. Deem Execution any (Month/D | | Date, if | Cod (Ins | tr. 8) | 4. Securities Acq (A) or Disposed (Instr. 3, 4 and 5) | | Of (D) Owned For Transaction (Instr. 3 and | | ed Follows action(s) | | | Ownership Form: Direct (D) or Indirect (I) | | Beneficial Ownership |
| Common Stock | | | | | | | С | Code V | Ar | nount (D) | Price | 2,000 | | | | (Instr. 4) D | | |
| | | eparate line for each | | | | | | Perso in this displa | ns s fo ays | who respond | d to the equired | coll to ro MB c | ection o espond o | unless the | | | C 147 | 4 (9-02) |
| | | | 1 able 11 - | | | | | | | ed of, or Benet vertible securi | | Jwne | a | | | | | |
| 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. Transac Code | ction | 5. Num | tive ies ed | 6. Date Exercisable and Expiration Date (Month/Day/Year) 7. To Sec | | 7. Title of Und Securi | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | | Derivative Security | 9. Number of Derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Owner Form of Derivation Securi Direct or Indi | rship of ative ty: (D) arect | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | Code | V | (A) | (D) | Date Exercisable | e | Expiration Date | Title | | Amount or Number of Shares | | | | | |
| Non- Qualified Stock Option (right to buy) | \$ 51.35 | 08/02/2005 | | A | | 2,500 | | 08/02/20 | 05 | 08/02/2015 | Comi | | 2,500 | \$ 0 | 2,500 | D | | |
| Non- Qualified Stock Option (right to buy) | \$ 37.05 | | | | | | | 11/08/20 | 02 | 11/08/2012 | Comi | non ck | 10,000 | | 10,000 | D | | |
| Non- Qualified Stock Option (right to buy) | \$ 40.24 | | | | | | | 05/11/20 | 05 | 05/11/2015 | Comi | | 2,500 | | 2,500 | D | | |
| Non- Qualified Stock Option (right to buy) | \$ 40.68 | | | | | | | 10/18/20 | 04 | 10/18/2014 | Comi | | 2,500 | | 2,500 | D | | |

| Non- Qualified Stock Option (right to buy) | \$ 44.76 | | | | 01/25/2005 | 01/25/2015 | Common Stock | 2,500 | 2,500 | D | |
|---|----------|--|--|--|------------|------------|-----------------|--------|--------|---|--|
| Non- Qualified Stock Option (right to buy) | \$ 47.23 | | | | 11/09/2001 | 11/09/2011 | Common Stock | 10,000 | 10,000 | D | |
| Non- Qualified Stock Option (right to buy) | \$ 52.75 | | | | 08/15/2000 | 08/15/2010 | Common Stock | 20,000 | 20,000 | D | |
| Non- Qualified Stock Option (right to buy) | \$ 59.44 | | | | 11/05/2003 | 11/05/2013 | Common Stock | 10,000 | 10,000 | D | |

Reporting Owners

| | Relationships | | | | | | | |
|---|---------------|--------------|---------|-------|--|--|--|--|
| Reporting Owner Name / Address | Director | 10% Owner | Officer | Other | | | | |
| BOND ROBERT T C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130 | X | | | | | | | |

Signatures

| By: Stuart J. Nichols For: Robert T. Bond | 08/03/2005 | | |
|---|------------|--|--|
| **Signature of Reporting Person | Date | | |

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).

Note: File three copies of this Form, one of which must be manually signed. If space 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.