### FORM 4

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

OMB APPROVAL
OMB Number: 3235-0287
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—<br>KISPERT JOHN H         |                |  |  | 2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC] |          |                              |        |   |  | (Check all applicable) Director10% Owner                            |  |                            |  |   |   |  |  |       |           |
|--|----------------|--|--|--|----------|------------------------------|--------|---|--|---|--|----------------------------|--|---|---|--|--|-------|-----------|
| (Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES |                |  |  | 3. Date of Earliest Transaction (Month/Day/Year) 02/17/2006        |          |                              |        |   |  |   | X Officer (give title below) Other (specify below) President & COO |                            |  |   |   |  |  |       |           |
|  |                | (Street)   |  | 4. If Am   | endı     | nent, Da                     | te Ori | ginal l   | Filed(Mor  | nth/Day/  | Year)  |                            | _X_ Fo:  | rm filed by C   | ne Reporting P  | Filing(Check<br>erson<br>eporting Person | Applicable Lir   | ie)   |           |
| SAN JOS<br>(City   |                | (State)  | (Zip)  |  |          |                              |        |   |  |   |  |                            |  |   |   |  | _  |       |           |
|  |                | (State)  |  | la. B  |          |                              |        |   |  |   |  |                            |  |   |   | icially Owne                             |  | 7 N   |           |
| (Instr. 3) Date  |                | 2. Transaction Date (Month/Day/Year                | 2A. Deemed<br>Execution Date, i<br>any<br>(Month/Day/Yea |  | Date, if | Code<br>(Instr               |        | (A  | 4. Securities Acqui (A) or Disposed of (Instr. 3, 4 and 5) |   | (D) Own<br>Tran  |                            | 5. Amount of Securities Beneficially<br>Owned Following Reported<br>Transaction(s)<br>(Instr. 3 and 4) |   | -   | 6. Ownership Form: Direct (D)            | Bene   |       |           |
|  |                |  |  |  |          | Code                         |        | V A   | moun   | (A) or (D)  | Price  |                            |  |   |   | or Indirect (I) (Instr. 4)               | (Insti   | r. 4) |           |
| Common Stock-Restricted Stock Units (1)                            |                |  | 02/17/2006   |  |          | A                            |        | 5   | 0,000  |   | \$ 0<br>(2)  | 98,333                     |  | D   |   |  |  |       |           |
| Common   | Stock          |  |  |  |          |                              |        |   |  |   |  |                            | 6,66   | 7   |   |  | I  | by T  | Trust     |
| Reminder: F  | Report on a se | eparate line for each                              |  | - Deriva   | tive     | Securiti                     | es Acc | F<br>i<br>a<br>quire                                      | Persons<br>in this fo<br>a currer<br>d, Dispo              | orm antly va  | re not re<br>alid OMB<br>, or Benefi                               | quired<br>contr<br>icially | d to re  | spond u<br>mber.  |   | on containe<br>form displa               |  | 1474  | (9-02)    |
| 1 Title of   | 2.             | 3. Transaction                                     | 3A. Deemed   | (e.g., pt  | uts,     | 5. Num                       |        |   |  |   | ole securit  |                            | le and   | Amount  | 8 Price of  | 9. Number                                | of 10.   | 1     | 1. Nature |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)                | Conversion     | rsion Date<br>rcise (Month/Day/Year)<br>of<br>tive | Execution Date, if                                       | Transaction of Deri<br>Code Securit                                |          | ivative ties (M. posed 3, 4, |        | Date Exercisable and<br>xpiration Date<br>Aonth/Day/Year) |  | 7. Title and Amo<br>of Underlying<br>Securities<br>(Instr. 3 and 4) |  | ng                         |  | Derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s | Owners<br>Form of<br>Derivat<br>Securit<br>Direct of<br>or India<br>(s) (I) | ship of B ive (I                         | f Indirect<br>f Indirect<br>geneficial<br>Ownership<br>Instr. 4) |       |           |
|  |                |  |  | Code   | V        | (A)                          | (D)    | Date<br>Exer  | e<br>rcisable  | Exp<br>Dat  | piration<br>e  | Title                      |  | Amount<br>or<br>Number<br>of<br>Shares  |   | (Instr. 4)                               | (Instr. 4  | 1)    |           |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)          | \$ 52.53       | 02/17/2006   |  | A  |          | 25,000                       | 0      | 02/   | 17/200   | 7 02/   | 17/2013  |                            | nmon<br>ock  | 25,000  | \$ 0  | 25,000                                   | D  |       |           |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)          | \$ 26.25       |  |  |  |          |                              |        | 11/   | 10/200   | 1 11/   | 10/2010  |                            | nmon<br>ock  | 1,000   |   | 1,000                                    | D  |       |           |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)          | \$ 29.31       |  |  |  |          |                              |        | 10/0  | 02/2002  | 2 10/   | 02/2011  |                            | nmon<br>ock  | 14,000  |   | 14,000                                   | D  |       |           |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy)          | \$ 32.75       |  |  |  |          |                              |        | 04/0  | 04/2002  | 2 04/   | /04/2011   |                            | nmon<br>ock  | 2,667   |   | 2,667                                    | D  |       |           |

| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 34.67      |  |  | 11/08/2003 | 01/28/2013 | Common<br>Stock | 11,250 | 11,250 | D |  |
|---|---------------|--|--|------------|------------|-----------------|--------|--------|---|--|
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 37.05      |  |  | 11/08/2003 | 11/08/2012 | Common<br>Stock | 5,625  | 5,625  | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 40.66      |  |  | 10/27/2004 | 08/02/2014 | Common<br>Stock | 11,250 | 11,250 | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 41.79      |  |  | 09/21/2005 | 09/21/2014 | Common<br>Stock | 75,000 | 75,000 | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$<br>44.6875 |  |  | 08/13/2001 | 08/13/2010 | Common<br>Stock | 8,658  | 8,658  | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 45.16      |  |  | 10/27/2004 | 04/26/2014 | Common<br>Stock | 18,750 | 18,750 | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 47.95      |  |  | 09/26/2006 | 09/26/2012 | Common<br>Stock | 75,000 | 75,000 | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 51.229     |  |  | 11/08/2003 | 07/30/2013 | Common<br>Stock | 12,500 | 12,500 | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 53.86      |  |  | 10/27/2004 | 10/27/2013 | Common<br>Stock | 30,000 | 30,000 | D |  |
| Non-<br>Qualified<br>Stock<br>Option<br>(right to<br>buy) | \$ 58.10      |  |  | 10/27/2004 | 01/27/2014 | Common<br>Stock | 15,000 | 15,000 | D |  |

# **Reporting Owners**

|                                | Relationships |              |         |       |  |  |  |
|--------------------------------|---------------|--------------|---------|-------|--|--|--|
| Reporting Owner Name / Address | Director      | 10%<br>Owner | Officer | Other |  |  |  |
| . 9                            |               |              |         |       |  |  |  |

| KISPERT JOHN H             |  |                  |  |
|----------------------------|--|------------------|--|
| C/O KLA-TENCOR CORPORATION |  | President & COO  |  |
| 160 RIO ROBLES             |  | 1 resident & COO |  |
| SAN JOSE, CA 95130         |  |                  |  |

### **Signatures**

| By: Stuart J. Nichols For: John Kispert | 02/21/2006 |
|---|------------|
| **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).
- (1) Each restricted stock unit represents a contingent right to receive one share of KLAC common stock.
- (2) The restricted stock units vest in two equal installments. The first half vests four years from grant date. The second half vests one year

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.