

PATEL KIRAN M  
Form 4  
February 19, 2010

**FORM 4** UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

OMB APPROVAL

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

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
PATEL KIRAN M

2. Issuer Name and Ticker or Trading Symbol  
KLA TENCOR CORP [KLAC]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)  
02/18/2010

Director  10% Owner  
 Officer (give title below)  Other (specify below)

C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)

Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

MILPITAS, CA 95035

(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 Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------|
|                                       |                                      |                                                    | Code                           | V                                                                 | Amount                                                                                        | (D)                                                      | Price                                                 |
| Common Stock                          | 02/18/2010                           |                                                    | S                              |                                                                   | 5,000                                                                                         | D                                                        | \$ 29.882                                             |
|                                       |                                      |                                                    |                                |                                                                   |                                                                                               |                                                          | (1)                                                   |
| Common Stock - Restricted Stock Units |                                      |                                                    |                                |                                                                   |                                                                                               |                                                          | 3,148                                                 |
|                                       |                                      |                                                    |                                |                                                                   |                                                                                               |                                                          | D                                                     |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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 1474  
(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 Owned Following Reporting Transaction (Instr. 6) |
|--------------------------------------------|--------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------|
|--------------------------------------------|--------------------------------------------------------|--------------------------------------|----------------------------------------------------|--------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------|

## Reporting Owners

| Reporting Owner Name / Address                                                            | Relationships |           |         |       |
|-------------------------------------------------------------------------------------------|---------------|-----------|---------|-------|
|                                                                                           | Director      | 10% Owner | Officer | Other |
| PATEL KIRAN M<br>C/O KLA-TENCOR CORPORATION<br>ONE TECHNOLOGY DRIVE<br>MILPITAS, CA 95035 |               | X         |         |       |

## Signatures

Brian M. Martin as Attorney-in-Fact for Kiran M. Patel  
Date: 02/19/2010

\_\_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).

- This transaction was executed in multiple trades at prices ranging from \$29.88 to \$29.89. The price reported above reflects the weighted average purchase price. The Reporting Person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- (1) average purchase price. The Reporting Person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
  - (2) Each restricted stock unit represents a contingent right to receive one share of KLA-Tencor common stock.

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

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