

KLA TENCOR CORP  
 Form 3  
 May 11, 2007

**FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

OMB APPROVAL

OMB Number: 3235-0104  
 Expires: January 31, 2005  
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**INITIAL STATEMENT OF 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 * KENNEDY KEVIN (Last) (First) (Middle)  C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES (Street)  SAN JOSE, CA 95130 (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 05/09/2007	3. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]	4. Relationship of Reporting Person(s) to Issuer  (Check all applicable)  <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input type="checkbox"/> Officer <input type="checkbox"/> Other (give title below)    (specify below)	5. If Amendment, Date Original Filed(Month/Day/Year)	6. Individual or Joint/Group Filing(Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person
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**Table I - Non-Derivative Securities Beneficially Owned**

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

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**Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)  Date Exercisable    Expiration Date	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)  Title    Amount or Number of	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
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Shares or Indirect  
(I)  
(Instr. 5)

## Reporting Owners

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

## Signatures

/s/ Brian Martin as Attorney-in-fact For Kevin J. Kennedy	05/11/2007
<small>**Signature of Reporting Person</small>	<small>Date</small>

## Explanation of Responses:

### No securities are beneficially owned

- \* If the form is filed by more than one reporting person, *see* Instruction 5(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).

X

### Remarks:

(1) Brian Martin is signing this Form 3 as attorney-in-fact for the Reporting Person pursuant to 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.