

# FORM 4

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

OMB APPROVAL	
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**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

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)

1. Name and Address of Reporting Person* KISPERT JOHN H			2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]			5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) Chief Operating Officer		
(Last) 160 RIO ROBLES	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 12/22/2006			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		
(Street) SAN JOSE, CA 95130	(City)	(State)	4. If Amendment, Date Original Filed (Month/Day/Year)					
(Zip)	<b>Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned</b>							

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	(A) or (D)	Price			

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

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**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 Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Non-Qualified Stock Option (right to buy)	\$ 44.6875	12/22/2006		D	(1)		8,658	(2)	08/13/2010	Common Stock	8,658	(1)	0	D	
Non-Qualified Stock Option (right to buy)	\$ 68.81	12/22/2006		A	(1)		8,658	(2)	08/13/2010	Common Stock	8,658	(1)	8,658	D	
Non-Qualified Stock Option (right to buy)	\$ 26.25	12/22/2006		D	(1)		1,000	(2)	11/10/2010	Common Stock	1,000	(1)	0	D	
Non-Qualified Stock Option (right to buy)	\$ 32.88	12/22/2006		A	(1)		1,000	(2)	11/10/2010	Common Stock	1,000	(1)	1,000	D	
Non-Qualified Stock Option (right to buy)	\$ 32.75	12/22/2006		D	(1)		2,667	(2)	10/02/2011	Common Stock	2,667	(1)	0	D	

Non-Qualified Stock Option (right to buy)	\$ 50.82	12/22/2006		A <sup>(1)</sup>		2,667		(2)	10/02/2011	Common Stock	2,667	(1)	2,667	D
Non-Qualified Stock Option (right to buy)	\$ 29.31	12/22/2006		D <sup>(1)</sup>		14,000		(2)	04/04/2011	Common Stock	14,000	(1)	0	D
Non-Qualified Stock Option (right to buy)	\$ 45.25	12/22/2006		A <sup>(1)</sup>		14,000		(2)	04/04/2011	Common Stock	14,000	(1)	14,000	D

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
KISPERT JOHN H 160 RIO ROBLES SAN JOSE, CA 95130			Chief Operating Officer	

## Signatures

/s/ Jeff Hall, Attorney in fact for John Kispert		12/29/2006
<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).

- The reported transactions are exempt under SEC Rule 16-b-3, and the related disposition and acquisition transactions for each option involved an amendment to a portion of that option
- (1) increasing the exercise price per share of such portion to comply with the requirements of Section 409A of the Internal Revenue Code. Such amendment is deemed the cancellation of the portion of the lower-priced option and the grant a replacement option at the higher exercise price per share.
- (2) The option is currently exercisable for vested shares.

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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