

# 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 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person* <b>Hall Jeffrey</b>		2. Issuer Name and Ticker or Trading Symbol <b>KLA TENCOR CORP [KLAC]</b>		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) ____ Director ____ 10% Owner <input checked="" type="checkbox"/> Officer (give title below) _____ Other (specify below) <b>VP, Corporate Finance</b>	
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) <b>05/16/2005</b>		
C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES					
(Street)			4. If Amendment, Date Original Filed(Month/Day/Year)		
SAN JOSE, CA 95130					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
(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	(A) or (D)	Price			
Common Stock-Restricted Stock Units (1)	05/16/2005		A		10,000	A	\$ 0 (2)	10,000	D	
Common Stock								1,367	D	

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					
Non-Qualified Stock Option (right to buy)	\$ 29.31							10/02/2002	10/02/2011	Common Stock	19,500	19,500	D	
Non-Qualified Stock Option (right to buy)	\$ 34.67							11/08/2003	01/28/2013	Common Stock	5,500	5,500	D	
Non-Qualified Stock Option (right to buy)	\$ 37.05							11/08/2003	11/08/2012	Common Stock	3,250	3,250	D	

Non-Qualified Stock Option (right to buy)	\$ 40.66							10/27/2004	08/02/2014	Common Stock	1,950		1,950	D
Non-Qualified Stock Option (right to buy)	\$ 41.79							09/21/2005	09/21/2014	Common Stock	20,000		20,000	D
Non-Qualified Stock Option (right to buy)	\$ 45.16							10/26/2004	04/26/2014	Common Stock	3,250		3,250	D
Non-Qualified Stock Option (right to buy)	\$ 46.67							11/10/2001	07/10/2011	Common Stock	35,811		35,811	D
Non-Qualified Stock Option (right to buy)	\$ 51.229							11/08/2003	07/30/2013	Common Stock	3,250		3,250	D
Non-Qualified Stock Option (right to buy)	\$ 53.86							10/27/2004	10/27/2013	Common Stock	5,200		5,200	D
Non-Qualified Stock Option (right to buy)	\$ 58.10							10/27/2004	01/27/2014	Common Stock	2,600		2,600	D

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Hall Jeffrey C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130			VP, Corporate Finance	

## Signatures

By: Stuart J. Nichols For: Jeffrey Hall		05/17/2005
<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).

(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 thereafter.

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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