

Glasser Lance A
Form 4
August 22, 2005

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, 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 *
Glasser Lance A

(Last) (First) (Middle)

C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES

(Street)

SAN JOSE, CA 95130

(City) (State) (Zip)

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

3. Date of Earliest Transaction
(Month/Day/Year)
08/18/2005

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

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

___ Director ___ 10% Owner
 Officer (give title below) ___ Other (specify below)
Executive Vice President

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
___ Form filed by More than One Reporting Person

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)
				(A) or (D)	Price		
			Code	V	Amount		
Common Stock	08/18/2005		M		5,000	A	\$ 10.63
Common Stock	08/18/2005		S		5,000	D	\$ 49.3
Common Stock-Restricted Stock Units ⁽¹⁾							33,333

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 Security (Instr. 3 and 4)	Amount or Number of Shares	
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Non-Qualified Stock Option (right to buy)	\$ 10.63	08/18/2005		M	5,000	08/31/1999 08/31/2008	Common Stock	5,000	
Non-Qualified Stock Option (right to buy)	\$ 26.25					11/10/2001 11/10/2010	Common Stock	5,000	
Non-Qualified Stock Option (right to buy)	\$ 29.31					10/02/2002 10/02/2011	Common Stock	22,500	
Non-Qualified Stock Option (right to buy)	\$ 32.75					04/04/2002 04/04/2011	Common Stock	5,000	
Non-Qualified Stock Option (right to buy)	\$ 33.75					10/27/2000 10/27/2009	Common Stock	20,000	
Non-Qualified Stock Option (right to buy)	\$ 34.67					11/08/2003 01/28/2013	Common Stock	9,000	
Non-Qualified Stock Option (right to buy)	\$ 37.05					11/08/2003 11/08/2012	Common Stock	4,500	
Non-Qualified Stock Option (right to buy)	\$ 40.66					10/27/2004 08/02/2014	Common Stock	3,750	
Non-Qualified Stock Option (right to buy)	\$ 41.79					09/21/2005 09/21/2014	Common Stock	75,000	
Non-Qualified Stock Option	\$ 42.28					11/30/2000 11/30/2009	Common Stock	10,000	

(right to buy)						
Non-Qualified Stock Option (right to buy)	\$ 44.6875		08/13/2000	08/13/2010	Common Stock	10,0
Non-Qualified Stock Option (right to buy)	\$ 45.16		10/27/2004	04/26/2014	Common Stock	6,2
Non-Qualified Stock Option (right to buy)	\$ 51.229		11/08/2003	07/30/2013	Common Stock	4,5
Non-Qualified Stock Option (right to buy)	\$ 53.86		10/27/2004	10/27/2013	Common Stock	10,0
Non-Qualified Stock Option (right to buy)	\$ 58.1		10/27/2004	01/27/2014	Common Stock	5,0

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Glasser Lance A C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130			Executive Vice President	

Signatures

By: Stuart J. Nichols For: Lance A.
Glasser 08/22/2005

__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.

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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