FORM 4

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

OMB APPROVAL
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7. Title and Amount 8. Price of 9. Number of 10.

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

1. Title of 2.

3A. Deemed

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 [*] SCHROEDER KENNETH L	2. Issuer Name an KLA TENCOR			ing Symbo	1	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner				
(Last) (First) (Middle) C/O KLA-TENCOR CORP., 160 RIO ROBLES	Transaction	(Mon	th/Day/Ye	ar)		X_ Officer (give title below) Other (specify below) Chief Executive Officer				
(Street) SAN JOSE, CA 95134	4. If Amendment, I	Oate Origina	l File	d(Month/Day	/Year)	6. Individual or Joint/Group Filing(Check Applicable Line) X_ Form filed by One Reporting Person Form filed by More than One Reporting Person				
(City) (State) (Zip)		Table I -	Non-	Derivativ	e Secur	ities Acqui	nired, Disposed of, or Beneficially Owned			
1.Title of Security (Instr. 3) 2. Transaction Date (Month/Day/Yea	Execution Date, if any (Instr. 8) (Instr. 8) (Instr. 8)		or Dispos	curities Acquired (A) sposed of (D) 3, 4 and 5) (A) or unt (D) Price		5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	Beneficial Ownership		
Common Stock 08/15/2003		M		25,000	A	\$ 10.81	0 (1)	D		
Common Stock 08/15/2003		S		25,000	D	\$ 52.0009	211,230	D		
Reminder: Report on a separate line for each class of securities	beneficially owned di	rectly or inc	Pers	sons who	are not	t required	collection of information contain to respond unless the form displa ol number.		1474 (9-02)	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned

(e.g., puts, calls, warrants, options, convertible securities)

ned 4. 5. Number 6. Date Exercisable and 7. Title and Ar

Security (Instr. 3)	Conversion Date	(Month/Day/Year)	Execution Date, if any (Month/Day/Year)	Code		of Derivative		(Month/Day/Year)		Securities		Derivative Security (Instr. 5)	Derivative Securities Beneficially Owned Following Reported Transaction(s)	Ownership Form of Derivative Security: Direct (D) or Indirect (I)	Beneficial
				Code	v	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	(Instr. 4)	(Instr. 4)	(Instr. 4)	
Non- Qualified Stock Option	\$ 10.63							08/31/1999	08/31/2008	Common Stock	204,272		204,272	D	
Non- Qualified Stock Option	\$ 10.81	08/15/2003		M		25,000		10/07/1997	10/08/2006	Common Stock	25,000	\$ 52.0009	25,000	D	
Non- Qualified Stock Option	\$ 16.97							10/23/1999	10/23/2008	Common Stock	220,728		220,728	D	
Non- Qualified Stock Option	\$ 26.25							11/10/2001	11/10/2010	Common Stock	37,900		37,900	D	
Non- Qualified Stock Option	\$ 29.31							10/02/2002	10/02/2011	Common Stock	341,100		341,100	D	
Non- Qualified Stock Option	\$ 32.75							04/04/2002	04/04/2011	Common Stock	37,900		37,900	D	

Non- Qualified Stock Option	\$ 33.75			10/27/2000	10/27/2009	Common Stock	150,000	150,000	D	
Non- Qualified Stock Option	\$ 34.67			11/08/2003	01/28/2013	Common Stock	62,900	62,900	D	
Non- Qualified Stock Option	\$ 37.05			11/08/2003	11/08/2012	Common Stock	31,450	31,450	D	
Non- Qualified Stock Option	\$ 44.6875			08/13/2000	08/13/2010	Common Stock	75,800	75,800	D	
Non- Qualified Stock Option	\$ 51.229			11/08/2003	07/30/2013	Common Stock	31,450	31,450	D	

Reporting Owners

D 41 0 N /	Relationships							
Reporting Owner Name / Address	Director	10% Owner	Officer	Other				
SCHROEDER KENNETH L C/O KLA-TENCOR CORP. 160 RIO ROBLES SAN JOSE, CA 95134	X		Chief Executive Officer					

Signatures

Kenneth L. Schroeder	08/18/2003
**Signature of Reporting Person	Date

Explanation of Responses:

- \star 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) Amount of Table I securities beneficially owned following all reported transactions is equal to 211,230. This total is indicated on the last on which a transaction is reported for Table I.

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

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