

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* DICKERSON GARY E <small>(Last) (First) (Middle)</small> C/O KLA-TENCOR CORP., 160 RIO ROBLES <small>(Street)</small> SAN JOSE, CA 95134 <small>(City) (State) (Zip)</small>	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) President and COO
3. Date of Earliest Transaction (Month/Day/Year) 08/18/2003		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
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	08/18/2003		M		7,500	A	\$ 10.63	0 (U)	D	
Common Stock	08/18/2003		S		7,500	D	\$ 54.2781	0 (U)	D	
Common Stock	08/18/2003		M		9,622	A	\$ 16.97	0 (U)	D	
Common Stock	08/18/2003		S		9,622	D	\$ 54.2551	0 (U)	D	
Common Stock	08/18/2003		M		2,264	A	\$ 16.97	0 (U)	D	
Common Stock	08/18/2003		S		2,264	D	\$ 54.2638	0 (U)	D	
Common Stock	08/18/2003		M		12,393	A	\$ 16.97	0 (U)	D	
Common Stock	08/18/2003		S		12,393	D	\$ 54.2926	0 (U)	D	
Common Stock	08/18/2003		M		8,221	A	\$ 10.63	0 (U)	D	
Common Stock	08/18/2003		S		8,221	D	\$ 54.2553	5,949	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	Title	Amount or Number of Shares				
Non-Qualified Stock Option	\$ 10.63	08/18/2003		M		7,500		08/31/1999	08/31/2008	Common Stock	7,500	\$ 54.2781	0	D	
Non-Qualified Stock Option	\$ 10.63	08/18/2003		M		8,221		08/31/1999	08/31/2008	Common Stock	8,221	\$ 54.2553	0	D	
Non-Qualified Stock Option	\$ 16.97	08/18/2003		M		9,622		10/23/1999	10/23/2008	Common Stock	9,622	\$ 54.2551	0	D	

Non-Qualified Stock Option	\$ 16.97	08/18/2003		M		2,264	10/23/1999	10/23/2008	Common Stock	2,264	\$ 54.2638	0	D
Non-Qualified Stock Option	\$ 16.97	08/18/2003		M		12,393	10/23/1999	10/23/2008	Common Stock	12,393	\$ 54.2926	22,365	D
Non-Qualified Stock Option	\$ 26.25						11/10/2001	11/10/2010	Common Stock	32,500		32,500	D
Non-Qualified Stock Option	\$ 29.31						10/02/2002	10/02/2011	Common Stock	105,000		105,000	D
Non-Qualified Stock Option	\$ 32.75						04/04/2002	04/04/2011	Common Stock	32,500		32,500	D
Non-Qualified Stock Option	\$ 33.75						10/27/2000	10/27/2009	Common Stock	100,000		100,000	D
Non-Qualified Stock Option	\$ 34.67						11/08/2003	01/28/2013	Common Stock	50,000		50,000	D
Non-Qualified Stock Option	\$ 37.05						11/08/2003	11/08/2012	Common Stock	25,000		25,000	D
Non-Qualified Stock Option	\$ 40.14						05/22/2004	05/22/2013	Common Stock	1,000		1,000	D
Non-Qualified Stock Option	\$ 44.6875						08/13/2000	08/11/2010	Common Stock	23,415		23,415	D
Non-Qualified Stock Option	\$ 44.6875						08/13/2001	08/13/2010	Common Stock	41,585		41,585	D
Non-Qualified Stock Option	\$ 51.229						11/08/2003	07/30/2013	Common Stock	25,000		25,000	D

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
DICKERSON GARY E C/O KLA-TENCOR CORP. 160 RIO ROBLES SAN JOSE, CA 95134			President and COO	

Signatures

Gary E. Dickerson	08/18/2003
<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) Non-Derivative securities beneficially owned are indicated on final transaction line for Table I.

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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