

# 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

(Print or Type Responses)

1. Name and Address of Reporting Person * YARBRO STAN			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) Group VP, Field Operations		
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 10/26/2004					
C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES								
(Street)			4. If Amendment, Date Original Filed(Month/Day/Year)			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		
SAN JOSE, CA 95130								
(City)	(State)	(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			
Common Stock	10/26/2004		M		499	A	\$ 34.67	1,131	D	
Common Stock	10/26/2004		S		499	D	\$ 43.79	632	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)				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)	\$ 26.25	10/26/2004		M			2,042	11/10/2005	11/10/2010	Common Stock	2,042	\$ 43.80	1,896	D	
Non-Qualified Stock Option (right to buy)	\$ 29.31	10/26/2004		M			4,926	10/02/2002	10/02/2011	Common Stock	4,926	\$ 43.81	9,324	D	
Non-Qualified Stock Option (right to buy)	\$ 29.31	10/26/2004		M			324	10/02/2002	10/02/2011	Common Stock	324	\$ 43.80	9,000	D	

Non-Qualified Stock Option (right to buy)	\$ 32.75	10/26/2004		M		600	04/04/2002	04/04/2011	Common Stock	600	\$ 43.78	4,067	D
Non-Qualified Stock Option (right to buy)	\$ 32.75	10/26/2004		M		68	04/04/2002	04/04/2011	Common Stock	68	\$ 43.79	3,999	D
Non-Qualified Stock Option (right to buy)	\$ 32.75	10/26/2004		M		600	04/04/2002	04/04/2011	Common Stock	600	\$ 43.80	3,399	D
Non-Qualified Stock Option (right to buy)	\$ 32.75	10/26/2004		M		774	04/04/2002	04/04/2011	Common Stock	774	\$ 43.81	2,625	D
Non-Qualified Stock Option (right to buy)	\$ 33.75	10/26/2004		M		334	10/27/2000	10/27/2009	Common Stock	334	\$ 43.80	0	D
Non-Qualified Stock Option (right to buy)	\$ 34.67	10/26/2004		M		398	11/08/2003	01/28/2013	Common Stock	398	\$ 43.76	19,602	D
Non-Qualified Stock Option (right to buy)	\$ 34.67	10/26/2004		M		2,867	11/08/2003	01/28/2013	Common Stock	2,867	\$ 43.77	16,735	D
Non-Qualified Stock Option (right to buy)	\$ 34.67	10/26/2004		M		3,902	11/08/2003	01/28/2013	Common Stock	3,902	\$ 43.78	12,833	D
Non-Qualified Stock Option (right to buy)	\$ 34.67	10/26/2004		M		499	11/08/2003	01/28/2013	Common Stock	499	\$ 43.79	12,334	D
Non-Qualified Stock Option (right to buy)	\$ 37.05	10/26/2004		M		300	11/08/2003	11/08/2012	Common Stock	300	\$ 43.77	9,700	D
Non-Qualified Stock Option (right to buy)	\$ 37.05	10/26/2004		M		2,233	11/08/2003	11/08/2012	Common Stock	2,233	\$ 43.79	7,467	D

Non-Qualified Stock Option (right to buy)	\$ 37.05	10/26/2004				M				700	11/08/2003	11/08/2012	Common Stock	700	\$ 43.80	6,767	D
Non-Qualified Stock Option (right to buy)	\$ 37.05	10/26/2004				M				600	11/08/2003	11/08/2012	Common Stock	600	\$ 43.81	6,167	D
Non-Qualified Stock Option (right to buy)	\$ 44.6875										08/13/2000	08/13/2010	Common Stock	3,243		3,243	D
Non-Qualified Stock Option (right to buy)	\$ 51.229										11/08/2003	07/30/2013	Common Stock	3,833		3,833	D

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
YARBRO STAN C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130			Group VP, Field Operations	

## Signatures

By: Stuart J. Nichols For: Stan K. Yarbro		10/26/2004
<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).

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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