

# 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 * BINGHAM H RAYMOND	2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below)
(Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, 160 RIO ROBLES	3. Date of Earliest Transaction (Month/Day/Year) 05/04/2007	
(Street) SAN JOSE, CA 95130	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
(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	05/01/2007		S		275	D	\$ 55.56	112	D	
Common Stock	05/01/2007		M		1,010	A	\$ 44.76	1,122	D	
Common Stock	05/01/2007		S		1,010	D	\$ 55.55	112	D	
Common Stock	05/01/2007		M		643	A	\$ 44.76	755	D	
Common Stock	05/01/2007		S		643	D	\$ 55.54	112	D	
Common Stock	05/01/2007		M		276	A	\$ 44.76	388	D	
Common Stock	05/01/2007		S		276	D	\$ 55.53	112	D	
Common Stock	05/01/2007		M		597	A	\$ 44.76	709	D	
Common Stock	05/01/2007		S		597	D	\$ 55.52	112	D	
Common Stock	05/01/2007		M		750	A	\$ 44.76	862	D	
Common Stock	05/01/2007		S		750	D	\$ 55.51	112	D	
Common Stock	05/01/2007		M		168	A	\$ 41.45	280	D	
Common Stock	05/01/2007		M		1,082	A	\$ 41.45	1,362	D	
Common Stock	05/01/2007		S		1,082	D	\$ 55.50	280	D	
Common Stock	05/01/2007		M		20	A	\$ 40.24	300	D	
Common Stock	05/01/2007		S		20	D	\$ 55.50	280	D	
Common Stock	05/01/2007		M		1,745	A	\$ 40.24	2,025	D	
Common Stock	05/01/2007		S		1,745	D	\$ 55.49	280	D	
Common Stock	05/01/2007		M		735	A	\$ 40.24	1,015	D	
Common Stock	05/01/2007		S		735	D	\$ 55.48	280	D	
Common Stock	05/01/2007		S		112	D	\$ 55.59	168	D	
Common Stock	05/01/2007		S		168	D	\$ 55.51	0	D	
Common Stock-Restricted Stock Units <a href="#">(1)</a>								1,935	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 (right to buy)	\$ 40.24	05/01/2007		M			20	05/11/2005	05/11/2015	Common Stock	20	\$ 55.55	2,480	D			
Non-Qualified Stock Option (right to buy)	\$ 40.24	05/01/2007		M			1,745	05/11/2005	05/11/2015	Common Stock	1,745	\$ 55.49	735	D			
Non-Qualified Stock Option (right to buy)	\$ 40.24	05/01/2007		M			735	05/11/2005	05/11/2015	Common Stock	735	\$ 55.48	0	D			
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M			92	10/18/2004	10/18/2014	Common Stock	92	\$ 55.81	2,408	D			
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M			92	10/18/2004	10/18/2014	Common Stock	92	\$ 55.80	2,316	D			
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M			92	10/18/2004	10/18/2014	Common Stock	92	\$ 55.79	2,224	D			
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M			184	10/18/2004	10/18/2014	Common Stock	184	\$ 55.77	2,040	D			
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M			312	10/18/2004	10/18/2014	Common Stock	312	\$ 55.76	1,728	D			
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M			514	10/18/2004	10/18/2014	Common Stock	514	\$ 55.75	1,214	D			

Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M		459	10/18/2004	10/18/2014	Common Stock	459	\$ 55.74	755	D	
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M		92	10/18/2004	10/18/2014	Common Stock	92	\$ 55.66	663	D	
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M		275	10/18/2004	10/18/2014	Common Stock	275	\$ 55.65	388	D	
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M		184	10/18/2004	10/18/2014	Common Stock	184	\$ 55.64	204	D	
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M		92	10/18/2004	10/18/2014	Common Stock	92	\$ 55.62	112	D	
Non-Qualified Stock Option (right to buy)	\$ 40.68	05/01/2007		M		112	10/18/2004	10/18/2014	Common Stock	112	\$ 55.59	0	D	
Non-Qualified Stock Option (right to buy)	\$ 41.45	05/01/2007		M		168	08/01/2006	08/01/2013	Common Stock	168	\$ 55.51	1,082	D	
Non-Qualified Stock Option (right to buy)	\$ 41.45	05/01/2007		M		1,082	08/01/2006	08/01/2013	Common Stock	1,082	\$ 55.50	0	D	
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		898	01/25/2005	01/25/2015	Common Stock	898	\$ 55.59	4,102	D	
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		367	01/25/2005	01/25/2015	Common Stock	367	\$ 55.58	3,735	D	
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		184	01/25/2005	01/25/2015	Common Stock	184	\$ 55.57	3,551	D	

Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M			275	01/25/2005	01/25/2015	Common Stock	275	\$ 55.56	3,276	D
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		1,010	01/25/2005	01/25/2015	Common Stock	1,010	\$ 55.55	2,266	D	
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		643	01/25/2005	01/25/2015	Common Stock	643	\$ 55.54	1,623	D	
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		276	01/25/2005	01/25/2015	Common Stock	276	\$ 55.53	1,347	D	
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		597	01/25/2005	01/25/2015	Common Stock	597	\$ 55.52	750	D	
Non-Qualified Stock Option (right to buy)	\$ 44.76	05/01/2007		M		750	01/25/2005	01/25/2015	Common Stock	750	\$ 55.51	0	D	
Non-Qualified Stock Option (right to buy)	\$ 47.23						11/09/2001	11/09/2011	Common Stock	10,000		10,000	D	
Non-Qualified Stock Option (right to buy)	\$ 47.86						05/02/2006	05/02/2013	Common Stock	1,250		1,250	D	
Non-Qualified Stock Option (right to buy)	\$ 49.99						11/04/2005	11/04/2012	Common Stock	3,750		3,750	D	
Non-Qualified Stock Option (right to buy)	\$ 50.39						02/14/2007	02/14/2014	Common Stock	2,500		2,500	D	

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other

BINGHAM H RAYMOND C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130	X			
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## Signatures

By: John Kispert For: Raymond H. Bingham		05/04/2007
<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.

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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