# FORM 4

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

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

#### 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 Ty	pe Response	s)		_											
1. Name and Address of Reporting Person * Bell Bobby R				2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]					5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner						
(Last) (First) (Middle) C/O KLA-TENCOR CORPORATION, ONE TECHNOLOGY DRIVE			3. Date of Earliest Transaction (Month/Day/Year) 08/07/2015					X Officer (give title below) Other (specify below)  Executive Vice President							
(Street) MILPITAS, CA 95035			4. If Amendment, Date Original Filed(Month/Day/Year)					6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting PersonForm filed by More than One Reporting Person					ne)		
(City)		(State)	(Zip)	Т	able I - No	n-De	rivative S	ecurit	ties Acau	ired Disne	osed of or l	Reneficially	Owned		
1.Title of Security			2. Transaction	2A. Deemed	3. Transac	action 4. Securities Acquired				5. Amount of Securities			6.		Nature
(Instr. 3)			Date (Month/Day/Year)	Execution Date, if any (Month/Day/Year)	(Instr. 8)		(A) or Disposed of (D) (Instr. 3, 4 and 5)			Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)			Ownership Form: Direct (D)	Bei	of Indirect Beneficial Ownership
					Code	V	Amount	(A) or (D)	Price				or Indirect (I) (Instr. 4)	(Ins	str. 4)
Common	n Stock		08/07/2015		S <sup>(1)</sup>		399	D	\$ 51.695 (2)	5 25,677.917			D		
Common	Common Stock 08/		08/07/2015		S <sup>(1)</sup>		1,124	D	\$ 51.93 (3)	24,553.917			D		
Common	n Stock		08/07/2015		S <sup>(1)</sup>		7,534	D	\$ 51.862 (4)	17,019.	917		D		
Common	n Stock		08/07/2015		S <sup>(1)</sup>		897	D	\$ 51.852 (5)	16,122.	917		D		
Common	n Stock		08/07/2015		S <sup>(1)</sup>		410	D	\$ 51.879 (6)	15,712.	917		D		
Common Stock		08/07/2015		M		3,663	A	\$ 0 (7)	19,375.917			D			
Common Stock		08/07/2015		F		1,912 (8)	D	\$ 52.35	17,463.917			D			
Common Stock - Restricted Stock Units (9)									60,836	(10)		D			
Reminder: 1	Report on a s	separate line f	or each class of secu	rities beneficially o		Pers	sons who	o resp	form are	e not requ		formation spond unle trol numbe	ess	C 147	4 (9-02)
				Derivative Securi (e.g., puts, calls, w						lly Owned					
	1. Title of Derivative Conversion Of Executity Or Exercise (Month/Day/Year) A. Deemed Execution Day  3A. Deemed Execution Day  3B. Transaction Of Execution Day  3A. Deemed Execution Day  3B. Deemed Ex		4. Transaction Code Year) (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisab and Expiration Da (Month/Day/Year		rcisable 7. Trion Date Amount Und Secu		itle and ount of lerlying urities tr. 3 and	unt of rlying rities . 3 and Derivative Security (Instr. 5)		Owner Form of Deriva Securit Direct or Indi	ship of tive cy: (D) rect	11. Nature of Indirec Beneficia Ownershi (Instr. 4)	
1. Title of Derivative Security	2. Conversion or Exercise Price of Derivative	3. Transactic	Table II -  on 3A. Deemed Execution Da (Year) any	Derivative Securi (e.g., puts, calls, w 4. ate, if Transaction Code	ties Acquire/arrants, op  5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3,	Personal the stions of the sti	sons who tained in form dis visposed of s, convert Date Exerc Expiratio	o responsible services of this plays  f, or I ible services on Date	Beneficial ecurities) 7. T Ame Und Securities	e not requestly valid and ount of lerlying urities	8. Price of Derivative Security	spond unle	of 10. Owner Form c Deriva Securit Direct or Indi (s) (I)	sl of ti (I	hip ive v:

	Code V (A) (D)	Date Expiration Date Title	Amount or Number of Shares		
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## **Reporting Owners**

	Relationships							
Reporting Owner Name / Address	Director	10% Owner	Officer	Other				
Bell Bobby R C/O KLA-TENCOR CORPORATION ONE TECHNOLOGY DRIVE MILPITAS, CA 95035			Executive Vice President					

### **Signatures**

Brian M. Martin as Attorney-In-Fact for Bobby R. Bell	08/11/2015
**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) This sale is effected pursuant to the terms of a Rule 10b5-1 trading plan adopted by the Reporting Person on June 5, 2015.
- This transaction was executed in multiple trades at prices ranging from \$51.68 to \$51.71. The price reported above reflects the weighted-average sales price. The Reporting (2) Person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer, full information regarding the number of shares and prices at which the transaction was effected.
- This transaction was executed in multiple trades at prices ranging from \$51.85 to \$52.00. The price reported above reflects the weighted-average sales price. The Reporting

  (3) Person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer, full information regarding the number of shares and prices at which the transaction was effected.
- This transaction was executed in multiple trades at prices ranging from \$51.76 to \$51.98. The price reported above reflects the weighted-average sales price. The Reporting (4) Person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer, full information regarding the number of shares and prices at which the transaction was effected.
- This transaction was executed in multiple trades at prices ranging from \$51.77 to \$51.94. The price reported above reflects the weighted-average sales price. The Reporting (5) Person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer, full information regarding the number of shares and prices at which the transaction was effected.
- This transaction was executed in multiple trades at prices ranging from \$51.74 to \$52.02. The price reported above reflects the weighted-average sales price. The Reporting (6) Person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer, full information regarding the number of shares and prices at which the transaction was effected.
- (7) On August 7, 2014, the Reporting Person received a grant of restricted stock units ("RSUs") covering 14,650 shares of KLA-Tencor common stock. On August 7, 2015, the Reporting Person vested in twenty-five percent (25%) of such RSUs.
- Pursuant to such terms of the August 7, 2014 RSU grant, 1,912 shares of KLA-Tencor common stock were automatically withheld at vesting to cover required tax

  (8) withholding. The fair market value of KLA-Tencor common stock used for purposes of calculating the number of shares to be withheld was the closing price of KLA-Tencor common stock as reported on the NASDAQ Stock Market on such vesting date.
- (9) Each RSU represents a contingent right to receive one share of KLA-Tencor common stock.
- (10) Does not include performance-based RSUs, if any, held by the Reporting Person for which an assessment has not yet been made regarding the achievement of the applicable performance goals. Any such holdings will be reported on a Form 4 within two business days of the date such assessment is made.

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

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.