# 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

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) 08/05/2014							y/Year)	X Officer (give title below) Other (specify below)  Executive Vice President					
(Street) MILPITAS, CA 95035			4. If Amendment, Date Original Filed(Month/Day/Year)							h/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					
')	(State)	(Zip)	Table I - Non-Derivative Securities Ac						es Acqı	uired, Disposed of, or Beneficially Owned						
(Instr. 3)		2. Transaction Date (Month/Day/Year)	any			Code (Instr. 8)		ction	(A) or Disposed of (D) (Instr. 3, 4 and 5)		d of	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)			Form: Direct (D)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
						C	ode	V	Amou	or	Price				(I) (Instr. 4)	
Stock		08/05/2014					A		8,250	) A	<u>(1)</u>	34,455			D	
Common Stock		08/05/2014					F		4,305 (2)	D	\$ 71.6	30,150	50		D	
Common Stock		08/05/2014					A		8,250	) A	<u>(3)</u>	38,400			D	
Common Stock		08/05/2014					F		4,305 (4)	D	\$ 71.6	34,095			D	
Stock - R	estricted											62,750	(6)		D	
Report on a s	separate line for							Perse conta the fe	ons wh ained i orm di	no responding this formal in this fo	orm ar a curre	e not requently valid	uired to res OMB con	spond unle	ess	1474 (9-02)
	1	(6	e.g., puts		s, wa	rran		ions,	conver	tible sec	urities	)		ı		
Derivative Conversion Date		Execution Dat any	Co	de	of Derivativ Securities Acquired (A) or		rative rities ired rosed ) . 3,	and Expiration Date (Month/Day/Year)			Am Und Sec	ount of derlying urities tr. 3 and  Derivativ Security (Instr. 5)	Derivative Security (Instr. 5)	Derivative Securities Beneficially Owned Following Reported	Owners Form o Derivat Security Direct ( or Indir	ive Ownersh (Instr. 4) D) ect
			C	ode	V	(A)				Expirati Date	Tit	or				
	and Address of by R  A-TENCO DLOGY D  AS, CA 95  Conversion or Exercise Price of Derivative	and Address of Reporting Perby R  (First) A-TENCOR CORPOR DLOGY DRIVE (Street)  AS, CA 95035 (State)  Gecurity  Stock  St	and Address of Reporting Person—by R  (First) (Middle) A-TENCOR CORPORATION, ONE DLOGY DRIVE (Street)  AS, CA 95035 (State) (Zip)  Gecurity 2. Transaction Date (Month/Day/Year)  Stock 08/05/2014  A Stock O8/05/2014  A Stock O8/05/2014	and Address of Reporting Person* by R  (First) (Middle) A-TENCOR CORPORATION, ONE DLOGY DRIVE  (Street) 4. If An  AS, CA 95035 (State) (Zip)  (Security 2. Transaction Date (Month/Day/Year) a Stock 08/05/2014 a Stock 08/05/2014 b Stock 08/05/2014 c Stock 08/05/	and Address of Reporting Person by R  Diagram (First) (Middle) (Mi	and Address of Reporting Person* by R  Comparison (First) (Middle) A-TENCOR CORPORATION, ONE DLOGY DRIVE  (Street) 4. If Amendment,  AS, CA 95035  Courity 2. Transaction Date (Month/Day/Year)  A Stock 08/05/2014  A Stock 08/05	and Address of Reporting Person* by R  Composition (First) (Middle) A-TENCOR CORPORATION, ONE DLOGY DRIVE  (Street)  AS, CA 95035  (State)  Composition (Month/Day/Year)  Composition (Mon	Address of Reporting Person by R    Code   C	2. Issuer Name and Ticker or Trably R  2. Issuer Name and Ticker or Trably R  3. Date of Earliest Transaction (Mo 08/05/2014  4. If Amendment, Date Original File As, CA 95035  3. Date of Earliest Transaction (Mo 08/05/2014  4. If Amendment, Date Original File As, CA 95035  3. Transaction Date (Month/Day/Year)  4. If Amendment, Date Original File As, CA 95035  6. Code V  1. Stock 08/05/2014  2. Transaction Date (Instr. 8)  Code V  Table II - Derivative Securities Acquired, Discovery Code (Instr. 8)  Personal Conversion of Date (E.g., puts, calls, warrants, options, of Derivative Securities Acquired, Discovery Code (Instr. 8)  2. Code V  Table II - Derivative Securities Acquired, Discovery Code (Instr. 8)  2. Code V  Table II - Derivative Securities Acquired, Discovery Code (Instr. 8)  2. Code V  Table II - Derivative Securities Acquired, Discovery Code (Instr. 8)  2. Code V  Table II - Derivative Securities Acquired, Discovery Code (Instr. 8)  2. Disposed of (D) (Instr. 3)  3. Transaction Code (Instr. 8)  Disposed of (D) (Instr. 3, 4, and 5)  Date Exercise	2. Issuer Name and Ticker or Trading Sy KLA TENCOR CORP [KLAC]     3. Date of Earliest Transaction (Month/Day/Pear)     4. If Amendment, Date Original Filed(Month/Day/Pear)     5. Street	Address of Reporting Person* by R    Code   Code	ACTENCOR CORPORATION, ONE DLOGY DRIVE  (Street)  2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP [KLAC]  3. Date of Earliest Transaction (Month/Day/Year)  08/05/2014  3. Table 1 - Non-Derivative Securities Acquired (A) or Disposed of (a) Price of Exercises (Month/Day/Year)  1. Stock  08/05/2014  2. Transaction Date (Month/Day/Year)  2. Transaction Date (Month/Day/Year) (Month/Day/Year)  2. Transaction Date (Month/Day/Year) (Month/Day/Year)  3. Transaction (Code (Instr. 8) (Instr. 8) (Instr. 3, 4 and 5)  4. Stock  08/05/2014  4. Stock 08/05/2014  5. Transaction Date  Table II - Derivative Securities Acquired (A) or Disposed of (Instr. 8)  1. Stock 0. Stock - Restricted Date  Table II - Derivative Securities Acquired (A) or Disposed of (Instr. 8)  2. Transaction Date  Table II - Derivative Securities Acquired (A) or Disposed of (Instr. 8)  2. Transaction Date  Table II - Derivative Securities Acquired (A) or Disposed of (Instr. 8)  2. Transaction Date  Table II - Derivative Securities Acquired (A) or Disposed of (Disposed o	Address of Reporting Person by R      Security	Address of Reporting Person by R  (Viery) (Middle) A-TENCOR CORPORATION, ONE  (Stare) (John Middle) A-TENCOR CORPORATION, ONE  (Stare) (John Middle) AS, CA 95035  (Stane) (John Middle) AS, CA 95035  (Month/Day/Year) (Month/Day/Year) AS, CA 95035  (Stane) (John Middle) AS, CA 95035  (Stane) (John Middle) AS, CA 95035  (Month/Day/Year) (John Middle) AS, CA 95035  (John Middle) AS, CA 95035  (Month/Day/Year) (John Middle) AS, CA 95035  (John Middle) AS, CA 950	Address of Reporting Person.  2. Issuer Name and Ticker or Trading Symbol KLAC TENCOR CORP (KLAC)  (Check all appli)  A-TENCOR CORPORATION, ONE  (Sincer)  (Sincer)  (Sincer)  (Sincer)  (Month) Day/Year)  (Sincer)  (Month) Day/Year)  (Month) Day/Year)  (Sincer)  (Month) Day/Year)  (Month) Day/Year)	Address of Reporting Persons*  2. Issuer Name and Ticker or Trading Symbol KLA TENCOR CORP (KLA.C]  (Trans) (Middle) A-TENCOR CORP (KLA.C]  (Street)  4. If Amendment, Date Original Filed(Month/Day/Year)  (Street)  (Another Day/Year)  (Month/Day/Year)  (Month/Day/Yea

## **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	08/06/2014
**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).
- On August 5, 2010, the Reporting Person received a grant of performance-based restricted stock units ("RSUs") that, following the completion of fiscal year 2012, was (1) determined by the Compensation Committee of KLA-Tencor's Board of Directors to cover, based on KLA-Tencor's financial performance during fiscal years 2011 and 2012, 16,500 shares of KLA-Tencor common stock. On August 5, 2014, the Reporting Person vested in fifty percent (50%) of such performance-based RSUs.
- Pursuant to the terms of the August 5, 2010 performance-based RSU grant described in note (1) above, 4,305 shares of KLA-Tencor common stock were automatically
- (2) withheld at vesting to cover required tax 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.
- (3) On August 5, 2010, the Reporting Person received a grant of RSUs covering 16,500 shares of KLA-Tencor common stock. On August 5, 2014, the Reporting Person vested in fifty percent (50%) of such RSUs.
- Pursuant to the terms of the August 5, 2010 RSU grant described in note (3) above, 4,305 shares of KLA-Tencor common stock were automatically withheld at vesting to (4) cover required tax 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.
- (5) Each RSU represents a contingent right to receive one share of KLA-Tencor common stock.
- 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 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.