Bell Bobby R Form 3 August 09, 2010

FORM 3

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

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting 2. Date of Event Requiring 3. Issuer Name and Ticker or Trading Symbol Person * Statement KLA TENCOR CORP [KLAC] Bell Bobby R (Month/Day/Year) 08/05/2010 (Last) (First) (Middle) 4. Relationship of Reporting 5. If Amendment, Date Original Person(s) to Issuer Filed(Month/Day/Year) C/O KLA-TENCOR (Check all applicable) CORPORATION, Â ONE **TECHNOLOGY DRIVE** 10% Owner Director _X__ Officer (Street) Other 6. Individual or Joint/Group (give title below) (specify below) Filing(Check Applicable Line) **Executive Vice President** _X_ Form filed by One Reporting Person MILPITAS, CAÂ 95035 Form filed by More than One Reporting Person (City) (State) (Zip) Table I - Non-Derivative Securities Beneficially Owned

			• • • • • • • • • • • • • • • • • • •
1.Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	27,812	D	Â
Common Stock - Restricted Stock Units	129,733	D	Â

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security	2. Date Exercisable and	3. Title and Amount of	4.	5.	6. Nature of
(Instr. 4)	Expiration Date	Securities Underlying	Conversion	Ownership	Indirect Beneficial
	(Month/Day/Year)	Derivative Security	or Exercise	Form of	Ownership

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			(Instr. 4)			Derivative	(Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares	Derivative Security	Security: Direct (D) or Indirect (I) (Instr. 5)	
Non-Qualified Stock Option (Right to Buy)	07/10/2001(1)	07/10/2011	Common Stock	5,000	\$ 46.67	D	Â
Non-Qualified Stock Option (Right to Buy)	07/10/2001(1)	07/10/2011	Common Stock	1,740	\$ 46.67	D	Â
Non-Qualified Stock Option (Right to Buy)	08/13/2001(1)	07/10/2011	Common Stock	8,260	\$ 46.67	D	Â
Non-Qualified Stock Option (Right to Buy)	11/10/2001(1)	07/10/2011	Common Stock	4,083	\$ 46.67	D	Â
Non-Qualified Stock Option (Right to Buy)	02/19/2002(1)	07/10/2011	Common Stock	4,791	\$ 46.67	D	Â
Non-Qualified Stock Option (Right to Buy)	04/04/2002(1)	07/10/2011	Common Stock	3,666	\$ 46.67	D	Â
Non-Qualified Stock Option (Right to Buy)	11/08/2003(1)	11/08/2012	Common Stock	1,354	\$ 37.05	D	Â
Non-Qualified Stock Option (Right to Buy)	11/08/2003(1)	01/28/2013	Common Stock	542 (2)	\$ 34.67	D	Â
Non-Qualified Stock Option (Right to Buy)	11/08/2003(1)	07/30/2013	Common Stock	3,250	\$ 51.229	D	Â
Non-Qualified Stock Option (Right to Buy)	10/27/2004(1)	10/27/2013	Common Stock	6,200	\$ 53.86	D	Â
Non-Qualified Stock Option (Right to Buy)	10/27/2004(1)	01/27/2014	Common Stock	3,100	\$ 58.1	D	Â
Non-Qualified Stock Option (Right to Buy)	10/27/2004(1)	04/26/2014	Common Stock	3,875	\$ 45.16	D	Â
Non-Qualified Stock Option (Right to Buy)	10/27/2004(1)	08/02/2014	Common Stock	2,325	\$ 40.66	D	Â
Non-Qualified Stock Option (Right to Buy)	01/04/2005(1)	07/10/2011	Common Stock	1,334	\$ 53.35	D	Â
Non-Qualified Stock Option (Right to Buy)	01/08/2005(1)	11/08/2012	Common Stock	1,896	\$ 37.43	D	Â
Non-Qualified Stock Option (Right to Buy)	01/10/2005(1)	07/10/2011	Common Stock	917	\$ 53.35	D	Â
Non-Qualified Stock Option (Right to Buy)	01/19/2005(1)	07/10/2011	Common Stock	209	\$ 53.35	D	Â
Non-Qualified Stock Option (Right to Buy)	09/16/2005(1)	09/16/2014	Common Stock	20,500	\$ 39.89	D	Â

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Deletionship

Date

Non-Qualified Stock Option (Right to Buy)	09/02/2006(1)	10/02/2011	Common Stock	600	\$ 45.25	D	Â
Non-Qualified Stock Option (Right to Buy)	09/16/2006(3)	09/16/2014	Common Stock	10,250	\$ 39.89	D	Â
Non-Qualified Stock Option (Right to Buy)	09/26/2006(3)	09/26/2012	Common Stock	17,000	\$ 47.95	D	Â

Reporting Owners

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

Signatures

Brian M. Martin as Attorney-In-Fact for Bobby
R. Bell
08/09/2010

**Signature of Reporting Person

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 5(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 option is fully-vested and exercisable.
- (2) An option to purchase 6,500 shares was originally granted. As of the date hereof, 5,958 shares have been exercised.
- (3) Twenty percent (20%) of the shares subject to this option became exercisable on this date, and the remaining shares became (or will become) exercisable in equal monthly installments over the subsequent 48 months.

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