Tsai Bin-Ming Ben Form 4 February 15, 2007

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB APPROVAL

OMB 3235-0287 Number:

Expires:

January 31, 2005

Estimated average burden hours per

0.5

response...

if no longer subject to Section 16. Form 4 or Form 5 obligations

may continue.

See Instruction

Check this box

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(b).

1. Name and Address of Reporting Person * Tsai Bin-Ming Ben

(Middle)

2. Issuer Name and Ticker or Trading Symbol

KLA TENCOR CORP [KLAC]

5. Relationship of Reporting Person(s) to Issuer

(Last) (First)

3. Date of Earliest Transaction

Director 10% Owner

(Check all applicable)

C/O KLA-TENCOR CORPORATION, 160 RIO **ROBLES**

X_ Officer (give title Other (specify **Executive Vice President**

4. If Amendment, Date Original

(Month/Day/Year)

02/13/2007

6. Individual or Joint/Group Filing(Check

Filed(Month/Day/Year)

Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting

Person

below)

SAN JOSE, CA 95130

(City) (State) (Zip) 2. Transaction Date 2A. Deemed 1. Title of Security

(Month/Day/Year)

(Street)

4. Securities Acquired 5. Amount of Execution Date, if Transaction(A) or Disposed of Code (D) (Month/Day/Year) (Instr. 3, 4 and 5) (Instr. 8)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

Securities Beneficially Owned Following Reported

6. 7. Nature Ownership of Indirect Form: Beneficial Direct (D) Ownership or Indirect (Instr. 4)

Transaction(s)

(Instr. 4) (Instr. 3 and 4)

or (D) Price Code V Amount

(A)

Common

Common Stock

(Instr. 3)

Stock-Restricted 02/13/2007 Stock Units (1)

A 50,000 A

(2)

50,000 D

2,915

D

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

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

SEC 1474 (9-02)

Edgar Filing: Tsai Bin-Ming Ben - Form 4

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

1. Title of Derivative	2. Conversion	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if	4. Transacti	5. orNumber	6. Date Exerc Expiration D		7. Title		8. Price of Derivative	9. Nu Deriv
Security (Instr. 3)	or Exercise Price of Derivative Security	(Month/Day/Tear)	any (Month/Day/Year)	Code (Instr. 8)	of	(Month/Day/		Underly Securiti (Instr. 3	ying ies	Security (Instr. 5)	Secur Bene Owne Follo Repo Trans (Instr
				Code V	(A) (D)	Date Exercisable	Expiration Date	Title N	Amount or Number of Shares		

Reporting Owners

Reporting Owner Name / Address	Relationships					
·	Director	10% Owner	Officer	Other		
Tsai Bin-Ming Ben C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95130			Executive Vice President			

Signatures

Bin-Ming B Tsai	02/15/2007	
**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).
- Each restricted stock unit represents a contingent right to receive one share of KLAC common stock.
- The restricted stock units vest in two equal installments. The first half vests two years from grant date. The second half vests after four years from grant date.

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.

Reporting Owners 2