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

OMB APPR	OVAL	
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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

(Street) 95134 (State)	(Middle)	2A. Deemed Execution Da	COR rliest	CORP Transacti	[KL on (M	AC] onth/Day	y/Year)	ar)	6. Indi	irector fficer (give tit S	(Che	Chief Admin	able) 10% Owner Other (specify t	pelow)			
(Street)	(Zip) 2. Transaction Date	08/08/2007 4. If Amendm 2A. Deemed Execution Da	nent, I	Date Orig				ar)	6. Indi	S vidual or Jo	VP,C	Chief Admin	Officer				
95134	2. Transaction Date	2A. Deemed Execution Da			inal F	iled(Mont	h/Day/Ye	ar)			oint/C	Group Filing	Check Applica	ale Line)			
	2. Transaction Date	Execution Da	Tal	ble I - No				4. If Amendment, Date Original Filed(Month/Day/Year)					6. Individual or Joint/Group Filing(Check Applicable Line) Form filed by One Reporting Person Form filed by More than One Reporting Person				
	Date	Execution Da			n-De	rivative	Securit	ies A	cquired, D	isposed of,	or E	Beneficially	Owned				
		Execution Date, if		(Instr. 8)		tion 4. Securities Acquire (A) or Disposed of (Instr. 3, 4 and 5)		D) Beneficially Owned Followin Reported Transaction(s)		ollowing	Form:	Beneficial					
		(Month/Day/	y ear)	Code	V	Amou	nt (A		rice (Instr.	Instr. 3 and 4)			\ /	Ownership (Instr. 4)			
(restricted	08/08/2007	08/08/2007	1	A		25,00 (1)	0 A	\$	0 62,60	0			D				
									3,271	<u>(2)</u>			D				
на верагане пис те		Derivative Sec	uritie	es Acqui	Pers con the	sons whatained if form dis	no responding this splays	form a cu senefi	are not r rrently va	equired to llid OMB	res	spond unle	ss	1474 (9-02)			
3 Transaction		1			_					Q Drice	a of	0 Number	of 10	11. Natur			
Derivative Conversion Date Execution D Security or Exercise (Month/Day/Year) any		te, if Transact Code	ion N	Number a		and Expiration Date (Month/Day/Year)		1 5	Amount of Underlying Securities Instr. 3 and	Deriva Securi (Instr.	Derivative Security (Instr. 5)	Derivative Securities Beneficially Owned Following Reported	Ownership Form of Derivative Security: Direct (D) or Indirect	hip of Indirect Beneficial Ownersh (Instr. 4)			
		Code	V	(A) (D)	Exe		Expira Date	tion ,	or Num of	per							
i v	on Date (Month/Day/	3. Transaction Date Execution Date (Month/Day/Year) (Month/Day/Year)	de.g., puts, call: 3. Transaction Date (Month/Day/Year) (Month/Day/Year) (Month/Day/Year) (e.g., puts, call: Execution Date, if any (Month/Day/Year) (Month/Day/Year)	(e.g., puts, calls, ward) 3. Transaction Date (Month/Day/Year) (Month/Day/Year) (Month/Day/Year) (Month/Day/Year) (Month/Day/Year)	(e.g., puts, calls, warrants, or Date (Month/Day/Year) (Month/Day/Year) (Month/Day/Year) (e.g., puts, calls, warrants, or S. Transaction Code (Instr. 8) (Month/Day/Year) (Month/Day/Year) (Instr. 8) (A) or Disposed of (D) (Instr. 3, 4, and 5)	Table II - Derivative Securities Acquired, Derivative Securities Acquired, Derivative Securities Acquired, Date See (Month/Day/Year) Table II - Derivative Securities Acquired, Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) Date Execution Date, if any (Month/Day/Year) Date Execution Date, if any (Month/Day/Year) Date Execution Date, if and Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) Date Execution Date, if and Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	Table II - Derivative Securities Acquired, Disposed (e.g., puts, calls, warrants, options, conversed (Month/Day/Year) 3. 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Reporting Owners

		Relationships		
Reporting Owner Name / Address	Director	10% Owner	Officer	Other
Titinger Jorge C/O KLA-TENCOR CORPORATION 160 RIO ROBLES SAN JOSE, CA 95134			SVP,Chief Admin Officer	

Signatures

/s/ Jorge Titinger	08/10/2007
**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).
 - On September 19, 2006, the Reporting Person was granted a restricted stock unit covering up to 25,000 shares of the Issuer's Common Stock which are subject to both performance-vesting and service-vesting requirements. Following the completion of the Issuer's audited financial statements for the 2007 fiscal year, the Issuer's Board of
- (1) Directors determined on August 8, 2007 the level at which the performance goals were attained, and based on that assessment, determined that the number of shares subject to the restricted stock units is 25,000. The Reporting Person will vest in 50% of the restricted stock units upon his completion of two years of service with the Issuer measured from September 19, 2006 and will vest in the remaining 50% upon his completion of an additional two years of service thereafter. The shares of common stock will be issued as the restricted stock units vest.
- (2) Includes 337 shares acquired under the Employee Stock Purchase Plan ("ESPP") on February 1, 2007 and 334 shares acquired under the ESPP on June 29, 2007.

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.