

THERMA WAVE INC  
Form 4  
May 25, 2007

**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, 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 Person \*  
**KLA TENCOR CORP**

2. Issuer Name and Ticker or Trading Symbol  
**THERMA WAVE INC [TWAV]**

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)  
**160 RIO ROBLES**  
  
(Street)

3. Date of Earliest Transaction  
(Month/Day/Year)  
**05/18/2007**

\_\_\_\_ Director  10% Owner  
\_\_\_\_ Officer (give title below) \_\_\_\_ Other (specify below)

**SAN JOSE, CA 95134**

(City) (State) (Zip)

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

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

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
Common Stock	05/18/2007		P	32,830,254 (1)	\$ 1.65 32,830,254	I	See Footnote (2)
Common Stock	05/24/2007		P	7,470,614 (3)	\$ 1.65 40,300,868	I	See Footnote (2)
Common Stock	05/24/2007		P	3,725,943	\$ 1.65 0 (4)	I	See Footnote (2)

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.**

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(9-02)

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

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction (Instr. 3 and 4)
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## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
KLA TENCOR CORP 160 RIO ROBLES SAN JOSE, CA 95134		X		

## Signatures

/s/ Brian M. Martin, Senior Vice President and General Counsel

05/25/2007

\_\_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).
- (1) Represents shares acquired by Fenway Acquisition Corporation, a wholly-owned subsidiary of KLA-Tencor Corporation, on May 18, 2007.
- (2) The shares are directly beneficially owned by Fenway Acquisition Corporation.
- (3) Represents shares acquired by Fenway Acquisition Corporation through May 24, 2007.
- (4) Therma-Wave, Inc.'s outstanding shares were canceled in a merger with Fenway Acquisition Corporation, effective May 24, 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.