

THERMA WAVE INC

Form 4

May 25, 2007

FORM 4
UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

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

OMB APPROVAL

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(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 ____X____ 10% Owner
____ Officer (give title below) ____ Other (specify below)

SAN JOSE, CA 95134

4. If Amendment, Date Original
Filed(Month/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

(City) (State) (Zip)

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)	A \$ 1.65 32,830,254	I	See Footnote (2)
Common Stock	05/24/2007		P	7,470,614 (3)	A \$ 1.65 40,300,868	I	See Footnote (2)
Common Stock	05/24/2007		P	3,725,943	A \$ 1.65 0 (4)	I	See Footnote (2)

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

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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 Transaction (Instr. 10)
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares

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.

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