

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

<b>OMB APPROVAL</b>	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

<b>1. Name and Address of Reporting Person*</b> <u>FRODSHAM JAMES</u> <hr/> (Last) (First) (Middle) <u>C/O CIENA CORPORATION</u> <u>1201 WINTERSON ROAD</u> <hr/> (Street) <u>LINTHICUM, MD 21090</u> <hr/> (City) (State) (Zip)	<b>2. Issuer Name and Ticker or Trading Symbol</b> <u>CIENA CORP [ CIEN ]</u> <hr/> <b>3. Date of Earliest Transaction (Month/Day/Year)</b> <u>06/22/2010</u> <hr/> <b>4. If Amendment, Date of Original Filed (Month/Day/Year)</b>	<b>5. Relationship of Reporting Person(s) to Issuer</b> (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>SR. VP, Chief Strategy Officer</u> <hr/> <b>6. Individual or Joint/Group Filing (Check Applicable Line)</b> <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person
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**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)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	06/22/2010		s		3,928 <sup>(1)</sup>	D	\$14.3806	151,300	D	
Common Stock	06/22/2010		s		1,650 <sup>(2)</sup>	D	\$14.3806	149,650	D	
Common Stock	06/22/2010		s		1,414 <sup>(3)</sup>	D	\$14.3806	148,236	D	
Common Stock	06/22/2010		s		269 <sup>(4)</sup>	D	\$14.3806	147,967 <sup>(5)</sup>	D	

**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 Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date					

**Explanation of Responses:**

- Shares reported represent an amount sold to cover the tax liabilities of the reporting person pursuant to a 10b5-1 sales instruction related to a restricted stock unit (RSU) award agreement dated 12/16/2008. Acquisition of the RSU was previously reported in Table I of reporting person's Form 3 on 12/17/2009.
- Shares reported reflect the amount sold to cover the tax liabilities of the reporting person pursuant to a 10b5-1 sale instruction related to a Performance-Accelerated Restricted Stock Unit (PARSU) award agreement dated December 18, 2007. Acquisition of the PARSU was previously reported in Table I of reporting person's Form 3 on December 17, 2009.
- Shares reported represent an amount sold to cover the tax liabilities of the reporting person pursuant to a 10b5-1 sales instruction related to a restricted stock unit (RSU) award agreement dated 12/16/2009. Acquisition of the RSU was previously reported in Table I of reporting person's Form 4 on 12/18/2009.
- Shares reported represent an amount sold to cover the tax liabilities of the reporting person pursuant to a 10b5-1 sales instruction related to a restricted stock unit (RSU) award agreement dated 12/18/2007. RSU was previously reported in Table I of reporting person's Form 3 on 12/17/09.
- Shares reported include unvested Restricted Stock Units (RSUs).

By: Erik Lichter For: James A Frodsham 06/24/2010

\*\* Signature of Reporting Person Date

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

\* 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).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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 Number.