

DiMarco Bret  
 Form 4  
 December 17, 2010

**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 \*  
 DiMarco Bret

(Last) (First) (Middle)

PO BOX 54980

(Street)

SANTA CLARA, CA 95056-0980

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
 COHERENT INC [COHR]

3. Date of Earliest Transaction (Month/Day/Year)  
 12/15/2010

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director  10% Owner  
 Officer (give title below)  Other (specify below)  
 Exec VP & General Counsel

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)
			Code	V	Amount or Price		
Common Stock	12/15/2010		M		3,511 A \$ 26.16	8,903	D
Common Stock	12/15/2010		S		3,511 D \$ 45.0015	5,392	D
					(1)		(2)

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

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**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)		
				Code	V (A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Non Qualified Stock Option (right to buy)	\$ 26.16	12/15/2010		M	3,511		11/20/2010	11/20/2016	Common Stock	3,511

## Reporting Owners

Reporting Owner Name / Address	Relationships
	Director   10% Owner   Officer   Other
DiMarco Bret PO BOX 54980 SANTA CLARA, CA 95056-0980	Exec VP & General Counsel

## Signatures

Bret DiMarco                      12/17/2010  
 \*\*Signature of                      Date  
 Reporting Person

## 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) Sold Pursuant to a Rule 10b5-1 sales plan adopted on May 28, 2010.
  - (2) Represents the weighted average sales price for the shares. The range of prices for such sales was \$45.00 to \$45.01.

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.