

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

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**SCHEDULE 13G**  
(Rule 13d-102)

**INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT  
TO RULES 13d-1 (b), (c) and (d) AND AMENDMENTS THERETO  
FILED PURSUANT TO RULE 13d-2\***

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**InvenSense, Inc.**  
(Name of Issuer)

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**Common Stock, par value \$0.001**  
(Title of Class of Securities)

**46123D205**  
(CUSIP Number)

**December 31, 2011**  
(Date of Event Which Requires Filing of this Statement)

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- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934, as amended (the "Act"), or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act.

1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON	QUALCOMM Incorporated	I.D. No. 95-3685934
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>		
3	SEC USE ONLY		
4	CITIZENSHIP OR PLACE OF ORGANIZATION	Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH BENEFICIALLY OWNED BY EACH	5	SOLE VOTING POWER	4,533,105
	6	SHARED VOTING POWER	0
	7	SOLE DISPOSITIVE POWER	4,533,105
	8	SHARED DISPOSITIVE POWER	0
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	4,533,105	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	<input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)	5.71% <sup>1</sup>	
12	TYPE OF REPORTING PERSON	CO	

<sup>1</sup> This percentage is calculated based upon 79,322,687 shares of the Issuer's common stock outstanding as reported on the Issuer's Form 424B4, filed with the Securities and Exchange Commission on November 16, 2011.

**Item 1.**

- (a) Name of Issuer  
**The name of the issuer is InvenSense, Inc. (the “Issuer”).**
- (b) Address of the Issuer’s Principal Executive Offices  
**1197 Borregas Avenue  
Sunnyvale, CA 94089**

**Item 2.**

- (a) Name of Person Filing  
**QUALCOMM Incorporated**
- (b) Address of Principal Business Office or, if none, Residence  
**5775 Morehouse Dr., San Diego, California 92121**
- (c) Citizenship  
**QUALCOMM Incorporated is a Delaware corporation**
- (d) Title of Class of Securities  
**Common Stock, par value \$0.001**
- (e) CUSIP Number  
**46123D205**

**Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 420.13d-2(b) or (c), check whether the person filing is a:**

**Not Applicable**

- (a)  Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e)  An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G)
- (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  Group, in accordance with § 240.13d-1(b)(1)(ii)(J).

**Item 4. Ownership**

- (a) Amount beneficially owned: **4,533,105**
- (b) Percent of class: **5.71%**

- (c) Number of shares as to which the person has:
- (i) Sole power to vote or to direct the vote: **4,533,105**
  - (ii) Shared power to vote or to direct the vote: **0**
  - (iii) Sole power to dispose or to direct the disposition of: **4,533,105**
  - (iv) Shared power to dispose or to direct the disposition of: **0**

<sup>1</sup> This percentage is calculated based upon 79,322,687 shares of the Issuer's common stock outstanding as reported on the Issuer's Form 424B4, filed with the Securities and Exchange Commission on November 16, 2011.

**Item 5. Ownership of Five Percent or Less of a Class.**

If this Schedule is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

**Not Applicable.**

**Item 6. Ownership of More than Five Percent on Behalf of Another Person.**

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than five percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

**Not Applicable.**

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person.**

If a parent holding company or control person has filed this schedule, pursuant to Rule 13d-1(b)(1)(ii)(G), so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company or control person has filed this Schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identification of the relevant subsidiary.

**Not Applicable.**

**Item 8. Identification and Classification of Members of the Group.**

If a group has filed this Schedule pursuant to Rule 13d-1(b)(1)(ii)(J), so indicate under item 3(j) and attach an exhibit stating the identity and Item 3 classification of each member of the group. If a group has filed this Schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identity of each member of the group.

**Not Applicable.**

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**Item 9. Notice of Dissolution of Group.**

Notice of dissolution of a group may be furnished as an exhibit stating the date of the dissolution and that all further filings with respect to transactions in the security reported on will be filed, if required, by members of the group, in their individual capacity. See Item 5.

**Not Applicable.**

**Item 10. Certification.**

**Not Applicable.**

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**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 14, 2012

/s/ Richard F. Grannis  
Richard F. Grannis,  
Senior Vice President and Treasurer