



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

February 4, 2015

Via Email

Mark P. Dentinger
Chief Financial Officer
InvenSense, Inc.
1745 Technology Drive
Suite 200
San Jose, California 95110

Re: InvenSense, Inc.
Form 10-K for the Fiscal Year Ended March 30, 2014
Filed May 29, 2014
Form 10-Q for the Quarterly Period Ended September 28, 2014
Filed October 31, 2014
Form 10-Q for the Quarterly Period Ended December 28, 2014
Filed January 30, 2015
File No. 001-35269

Dear Mr. Dentinger:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended March 30, 2014

Item 8. Financial Statements

Note 7. Income Taxes, page 85

1. We note the foreign tax rate differential is significantly lower than the federal statutory rate in the income tax rate reconciliation. In light of the significantly lower impact of taxes imposed on foreign earnings to your operating results, in future filings please explain in MD&A the relationship between foreign pre-tax income and the foreign effective tax rate in greater detail. We refer you to Section III.B of SEC Release 33-8350. Please provide us with your proposed revised disclosure.

Note 8. Acquisition, page 87

2. You disclose on page 89 that you did not disclose the amounts of revenue and earnings of the Microphone Product Line from the acquisition date included in the consolidated statements of operations because the impact was not material. Given the impact of the acquisition as reflected in your pro forma information on page 90, please tell us the amounts of revenue and earnings of the Microphone Product Line from the acquisition date to March 30, 2014 and discuss your conclusions that the amounts are not material. Refer to FASB ASC 805-10-50-2(h).

Exhibits 31.1 and 31.2

3. We note that the beginning of the certifications filed as Exhibits 31.1 and 31.2 are missing the first line of text relating to the individual certifying the filing as required by Item 601(b)(31) of Regulation S-K (i.e., the declaration that the party is certifying). We also note that you have omitted the introductory language in paragraph 4 referring to internal control over financial reporting. Accordingly, please file an amendment to your Form 10-K that includes the entire filing together with the certifications of each of your current CEO and CFO in the form currently set forth in Item 601(b)(31) of Regulation S-K.

Form 10-Q for the Quarterly Period Ended September 28, 2014

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 28

4. We note statements by your management during the October 28, 2014 earnings call concerning factors contributing toward lower gross margin performance, the impact of acquisitions on your revenues and operating expenses, and future expectations regarding the customer mix issue and higher yielded manufacturing cost in future periods but note no discussion of these factors in this filing. Please refer to Regulation S-K,

Item 303(a)(3)(i) and (ii) and provide us with a description of known trends that have had or that you reasonably expect will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations. Please confirm that in future filings, including any amendments, you will disclose all known trends and uncertainties in accordance with Item 303(a)(3)(ii).

5. Further, with respect to major customers that you have identified in your MD&A, in future filings, including any amendments, highlight known events or issues that have resulted from or relate to agreements and relationships with these customers and explain the current impact to your results and, to the extent possible, a discussion of the impact on your future results.

Exhibits 31.1 and 31.2

6. Similar to the comment above, we note that the beginning of the certifications filed as Exhibits 31.1 and 31.2 in your September 28, 2014 and December 28, 2014 Forms 10-Q are missing the same first line of text relating to the individual certifying the filing. Please also file amendments to your September 28, 2014 and December 28, 2014 Forms 10-Q that include the entire filing together with the certifications of each of your current CEO and CFO in the form currently set forth in Item 601(b)(31) of Regulation S-K.

Form 10-Q for the Quarterly Period Ended December 28, 2014

Item 1. Financial Statements

Note 4. Commitments and Contingencies

Legal Proceedings, page 16

7. We note the discussions relating to the lawsuits filed in January 2015 but note that you did not provide all the disclosures required by FASB ASC 450-20-50, including management's conclusion or inability to conclude on the probability of loss and any related accrual. Please confirm that you will comply fully with the guidance in future filings. Please provide us with your proposed revised disclosure.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Mark P. Dentinger
InvenSense, Inc.
February 4, 2015
Page 4

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Andri Boerman, Staff Accountant, at (202) 551-3645, or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. You may also contact me at (202) 202-3671.

Sincerely,

/s/ Kate Tillan for

Martin James
Senior Assistant Chief Accountant