



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

February 27, 2017

Behrooz Abdi
Chief Executive Officer
InvenSense, Inc.
1745 Technology Drive, Suite 200
San Jose, California 95110

**Re: InvenSense, Inc.
Preliminary Proxy Statement on Schedule 14A
Filed February 3, 2017
File No. 001-35269**

Dear Mr. Abdi:

We have limited our review of your filing to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments by amending your filing and providing the requested information. 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.

Background of the Merger, page 30

1. We note that Company O made a higher bid for cash. Please revise your disclosure to discuss the nature of Company O's business that contributed to the risks relating to closing a transaction with Company O for the reasons described in the last paragraph on page 52. If the nature of Company O's business that you intend to disclose is not sufficient to inform your shareholders why the board rejected that bid due to financing concerns, please tell us what consideration you have given to also disclosing the identity of Company O.

Reasons for the Merger, page 53

2. Please tell us the status of your relationship with your largest customer and whether the merger agreement or other events have impacted that relationship. Also tell us who will be required to pay the merger termination fee in the event your relationship with your

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largest customer is materially impacted by the merger agreement or other events. Include related disclosure in your filing as appropriate.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Heather Percival at (202) 551-3498 or Tim Buchmiller, Senior Attorney, at (202) 551-3635 with any questions.

Sincerely,

/s/ Tim Buchmiller for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Allison Leopold Tilley, Esq.
Pillsbury Winthrop Shaw Pittman LLP