



DIVISION OF
CORPORATION FINANCE

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

June 29, 2010

Via U.S. Mail and Fax (949) 756-2602

Mr. John W. Hohener
Vice President, Chief Financial Officer
Microsemi Corporation
2381 Morse Avenue
Irvine, California 92614

**Re: Microsemi Corporation
Form 10-K for the Fiscal Year Ended September 27, 2009
Filed November 24, 2009
File No. 000-08866**

Dear Mr. Hohener:

We have reviewed your response dated May 20, 2010 and have the following 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 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 September 27, 2009
Item 11. Executive Compensation, page 97

1. Your response to prior comment 1 does not address our concerns. As previously requested, please confirm that you will clearly state, in future filings, that your decisions are based on the subjective determination of the committee and that your disclosure will not imply that objective factors, such as financial performance, are used.
2. We note your response to our prior comment 2 and cannot concur with your response that your agreement with Mr. Peterson was not compensatory. Please amend your Form 10-K for fiscal year ended September 27, 2009 to fully describe all aspects of the board of directors' January 2009 assessment of financial penalties against Mr. Peterson including a revised Compensation Discussion and Analysis.

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3. We note your response to our prior comment 4. In your revised Form 10-K please expand your disclosure to describe the extension of the vesting dates of Mr. Peterson's unvested restricted common stock awards before and after the modification.

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.

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 Julie Sherman at (202) 551-3640 or Jay Webb at (202) 551-3603 if you have any questions regarding comments on the financial statements and related matters. Please contact Allicia Lam at (202) 551-3316 or me at (202) 551-3637 if you have questions on any other comments.

Sincerely,

Jay Mumford
Senior Attorney