



DIVISION OF
CORPORATION FINANCE

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

March 15, 2012

Via E-mail

Mr. John W. Hohener
Chief Financial Officer
Microsemi Corporation
One Enterprise
Aliso Viejo, California 92656

**RE: Microsemi Corporation
Form 10-K for the fiscal year ended October 2, 2011
Filed November 23, 2011
Response dated March 7, 2012
File No. 000-08866**

Dear Mr. Hohener:

We have reviewed your response letter dated March 7, 2012 and filings 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

10/2/2011 Form 10-K

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 32

Results of Operations, page 40

1. Refer to our prior comment 1. We believe Item 303 of Regulation S-K requires you to fully explain your results of operations. The contribution of recent

acquisitions to total revenues should be quantified *to the extent possible*, and any increase or decrease in the underlying revenues of the pre-existing business should then be addressed. We noted your response to our prior comment indicated:

- “Due to this commingling of activities, we do not practically measure the impact of any particular acquisition” and
- “*Should we be able to* practically quantify the impact of an acquisition on our results of operation or when known trends or uncertainties, including those affecting price or volume, have or might reasonably be expected to have a favorable or unfavorable impact on our revenue or operating results, we will disclose and discuss them”.

Please further explain to us why you are unable to quantify the impact of acquisitions on your results of operations and changes therein during the periods presented. In this regard, we noted you were able to present the supplemental pro forma impact of acquisitions on your fiscal 2010 and 2011 income statement in Note 2 of this Form 10-K and we also noted the pro forma impacts of your acquisitions were material. Finally, in light of the significant acquisitions reflected in your financial statements, tell us your consideration as to whether the discussion of the results of operations and financial condition set forth in the audited financial statements included in the filing should be *supplemented* in your future filings by a discussion based upon pro forma financial information.

You may contact Dennis Hult, Staff Accountant, at (202) 551-3618 or Jay Webb, Reviewing Accountant, at (202) 551-3603 if you have questions regarding comments on the financial statements and related matters. Please contact Allicia Lam at (202) 551-3316 or Geoffrey Kruczek at (202) 551-3641 if you have questions on any other comments. You may also contact me at (202) 551-3212.

Sincerely,

/s/ Jay Webb “for”

Jeffrey Jaramillo
Accounting Branch Chief