



DIVISION OF
CORPORATION FINANCE

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

August 5, 2010

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 completed our review of your filings and do not have any further comments at this time. Please contact Allicia Lam at (202) 551-3316 with any questions.

Sincerely,

Jeffrey Jaramillo
Branch Chief

CC (by facsimile): Loren Weber – O'Melveny & Myers LLP