



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

December 30, 2008

Via U.S. Mail and Facsimile to (602) 244-6071

Donald Colvin
Chief Financial Officer
ON Semiconductor Corporation
5005 E. McDowell Road
Phoenix, AZ 85008

**Re: ON Semiconductor Corporation
Form 10-K for the Fiscal-Year ended December 31, 2007
Filed February 12, 2008
Form 10-Q for the Fiscal-Quarter ended September 26, 2008
File No. 000-30419**

Dear Mr. Colvin:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal-Year ended December 31, 2007

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 40

Results of Operations, page 44

Revenues, page 45

1. We note that your discussion of the significant changes in revenues and gross profit does not *quantify* the specific reasons for material changes in the line items in the financial statements. In future filings, each significant factor that contributed to the changes, including offsetting factors, should be separately quantified. Trends and uncertainties that may have a material impact upon revenues or operating results should also be discussed. In addition, in future filings separately describe and quantify the effects of changes in prices *and volume* of your product offerings on your operating results.

Liquidity and Capital Resources, page 51

Commercial Commitments, Contractual Obligations, Off-Balance Sheet Arrangements and Indemnities, page 52

2. Revise future filings to disclose your off-balance sheet arrangements in a separately captioned subsection of MD&A as required by Item 303(a)(4) of Regulation S-K. Also revise future filings to provide the disclosures as required by paragraphs (a)(4)(i) of this Item, to the extent necessary to understand your off-balance sheet arrangements and their effect on financial condition, changes in financial condition and results of operations. Provide proposed revised disclosure for our review in your response.
3. Please tell us why the commercial commitments on your balance sheet appear to have subsequently moved off your balance sheet in later filings. We note from page 52 that your commercial commitments are reflected on your balance sheet. However, on page 48 of your Form 10-Q for the period ended March 28, 2008 and on page 58 of your Form 10-Q for the period ended June 27, 2008 indicates that your commercial commitments represent your off-balance sheet arrangements. Further, it appears from your disclosure on page 62 of your Form 10-Q for the period ended September 26, 2008 that your commercial commitments were returned your balance sheet. If the nature of these obligations changes from period to period, then provide disclosure in future filings regarding the reasons and business purposes for those changes.

Critical Accounting Policies and Estimates, page 67

4. We note your critical accounting policy regarding revenue recognition. However, the disclosure merely repeats the policies from your significant accounting policies footnote without elaboration. Please expand in future filings to describe the specific factors that in your view make it critical. Discuss the nature of estimates and uncertainties about those estimates inherent to your revenue recognition policy, including how you make those estimates. Discuss how different assumptions, methods or conditions might effect your financial statements.

Item 13 Certain Relationships and Related Transactions, and Director Independence, page 73

Polices and Procedures, page 55

5. We note your disclosure in the second paragraph on page 55 of your proxy statement. In future filings please provide all information requested by Item 404(b)(1) of Regulation S-K. For example, it does not appear that your current disclosure identifies with specificity the types of transactions that are covered by such policies and procedures nor the standards to be applied pursuant to such policies and procedures.

Related Party Transactions, page 55

6. We note your disclosure on page 2 of your proxy describes “two separate supply and purchase transactions” with a company affiliated with two of your directors, and an “intellectual property license agreement” with a company whose CEO is one of your directors. Please provide us your analysis as to why disclosure of these transactions is not required in your related party transactions section by Item 404(a) of Regulation S-K or disclose in future filings the details of those transactions in this section including the dollar value as required by Item 404(a)(4). Further, in future filings please file these agreements as exhibits as required by Item 601(b)(10)(ii)(A).
7. Please tell us why you are not able to determine whether there is an affiliate relationship between Future Electronics, Inc. and Alonim Investments, Inc. as described in the fourth paragraph on page 55 of your proxy.

Item 9A. Controls and Procedures, page 71

Management’s Report on Internal Control Over Financial Reporting, page 71

8. We note management’s conclusion on the effectiveness of internal control over financial reporting on page 30. In future filings, consistent with the guidance in Item 308T of Regulation S-K and to eliminate investor confusion, please include management’s conclusion on the effectiveness of internal control over financial reporting as part of the section entitled “Management’s Report on Internal Control Over Financial Reporting.”

Form 10-Q for the Fiscal-Quarter ended September 26, 2008

Exhibit 31

9. We note that that the certification filed as required by Exchange Act Rule 13a-14(a) labels the report as a “quarterly report” in paragraphs 2, 3 and 4. Please revise future filings so as to not include a reference to the “quarterly” report in the certification and file a certification in exact form as set out in Item 601(b)(31) of Regulation S-K.

Form 8-K filed October 30, 2008

10. We note that you present your non-GAAP measures in the form of an Analysis of GAAP versus non-GAAP Disclosure statement. This format may be confusing to investors as it reflects several non-GAAP measures, including (and not necessarily limited to) non-GAAP cost of revenue, non-GAAP gross profit, non-GAAP gross profit percentage, non-GAAP research and development, non-GAAP selling and marketing, non-GAAP general and administrative, non-GAAP amortization of acquisition related intangible assets, non-GAAP restructuring, asset impairments and other, net, non-GAAP total operating expenses, non-GAAP operating income, non-GAAP income before income taxes and minority interests, non-GAAP income tax benefit (provision), non-GAAP income per basic share and non-GAAP income per diluted share which have not been described to investors. In fact, it appears that management does not use these non-GAAP measures but they are shown here as a result of the presentation format. Please note that Instruction 2 to Item 2.02 of Form 8-K requires that when furnishing information under this item you must provide all the disclosures required by paragraph (e)(1)(i) of Item 10 of Regulation S-K, including a reconciliation to the directly comparable GAAP measure for **each** non-GAAP measure presented and explain why you believe the measures provide useful information to investors.
- To eliminate investor confusion, please remove the Analysis of GAAP versus non-GAAP Disclosure statement from all future filings and instead disclose only those non-GAAP measures specifically used by management that you wish to highlight for investors, with the appropriate reconciliations.
 - Please note that in the event that your Form 8-K is incorporated by reference into a 1933 Act registration statement, we may have additional questions relating to the appropriateness of this information being included in a document filed with, and not just furnished to, the Commission. At that time, we may request an amendment to the Form 8-K.

As appropriate, please respond to this comment within 10 business days or tell us when you will provide us with a response. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your response to our comment.

Donald Colvin
ON Semiconductor Corporation
December 30, 2008
Page 5

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, please provide, in writing, a 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Kevin Kuhar, Staff Accountant, at (202) 551-3662 or me at (202) 551-3554 if you have questions regarding comments on the financial statements and related matters. Please contact Geoff Kruczek at (202) 551-3641 or Jay Mumford at (202) 551-3637 if you have questions on other comments. In this regard, do not hesitate to contact me or Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any questions.

Sincerely,

Angela Crane
Branch Chief