



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 6010

December 3, 2007

VIA U.S. MAIL AND FACSIMILE (602.244.4830)

Mr. Donald Colvin
Executive Vice President and Chief Financial Officer
On Semiconductor Corporation
5005 E. McDowell Road
Phoenix, Arizona 85008

Re: On Semiconductor Corporation
Form 10-K for the fiscal year ended December 31, 2006
Filed February 23, 2007
File No. 000-30419

Dear Mr. Colvin:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise future filings 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 filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on 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, 2006

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 41

Liquidity and Capital Resources, page 54

1. You present adjusted EBITDA on page 57. This measure may be prohibited by Item 10(e) of Regulation S-K if it excludes charges that will require cash settlement from a non-GAAP liquidity measure. It appears that you may present this measure because it is contained in your senior bank facilities. We refer you to Question 10 of the FAQ Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003 available on our website at <http://www.sec.gov/divisions/corpfin/faqs/nongaapfaq.htm>. If management believes that the credit agreement is a material agreement, that the covenant is a material term of the credit agreement and that information about the covenant is material to an investor's understanding of the company's financial condition and/or liquidity, please tell us that and in future filings disclose the materiality of the credit agreement and the covenant. Discussion of the non-GAAP financial measure for other purposes may not be permitted unless otherwise allowable under Item 10(e) of Regulation S-K.

Financial Statements, page 86

Note 3. Significant Accounting Policies, page 93

Revenue Recognition, page 95

2. We note that you recognize revenue on "sales to original equipment manufacturers and electronic manufacturing service providers when title passes to the end customer net of provisions for related sales returns and allowances." Please address the following:
 - Please disclose in future filings when revenue is recognized and when title passes to the end customer;
 - Please tell us and disclose in future filings the nature of your sales returns and allowances and describe the accounting treatment for each; and
 - Include a discussion of each contingency such as rights of return, conditions of acceptance, warranties, price protection, and 'customer incentives.' We note the reference to customer incentives in your disclosure of *Use of Estimates* on page 93.

See Section II.F.3 of *Current Accounting and Disclosure Issues in the Division of Corporation Finance* dated November 30, 2006, available on our website at <http://www.sec.gov/divisions/corpfin/cfacctdisclosureissues.pdf>.

3. With regards to products sold to distributors, please tell us and revise future filings to disclose why you defer the related margin until the product has been sold to the end user. Please include a discussion of any incentives offered to distributors or buyback obligations as part of your response.
4. We noted that you also earn revenues from manufacturing services. Please tell us and disclose in future filings, if material, your revenue recognition policies related to the service revenue. Please tell us the impact of EITF 00-21, if any, as part of your response.

Note 8. Long-Term Debt, page 107

5. With reference to the 1.875% convertible senior subordinated notes and 2.625% convertible senior subordinated notes please tell us about your analysis of the features of these notes under SFAS 133 and EITF 00-19. Include a discussion of the term that allows the holder to convert the notes upon a fundamental transaction and receive additional shares of common stock. Tell us and disclose in future filings all of the significant terms of the notes, including the special conversion terms for fundamental transactions.

Exhibits 31.1 and 31.2

6. We note that in the certifications required by Exchange Act Rule 13a-14(a) you have added the word 'annual' in paragraphs 2, 3 and 4, added 'we' in paragraph 4, and changed the word 'information' to 'data' in paragraph 5(a). In future filings, please revise so that the wording in the certifications is consistent with the wording required by Item 601(b)(31) of Regulation S-K.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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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 me at (202) 551-3604 if you have any questions regarding these comments and related matters. You may also contact Angela Crane; Branch Chief, at (202) 551-3554 with any other questions.

Sincerely,

Kate Tillan
Assistant Chief Accountant