



DIVISION OF
CORPORATION FINANCE

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

February 25, 2011

Mr. Robert G. Gargus
Chief Financial Officer
Applied Micro Circuits Corporation
215 Moffett Park Drive
Sunnyvale, CA 94089

**Re: Applied Micro Circuits Corporation
Form 10-K for the fiscal year ended March 31, 2010
Filed May 12, 2010
File No. 000-23193**

Dear Mr. Gargus:

We have reviewed your filing 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.

Form 10-K for the fiscal year ended March 31, 2010

Item 7. Management's Discussion and Analysis of Financial Condition..., page 34

Critical Accounting Policies, page 39

Inventory Valuation

1. We see your disclosure that estimates of inventory impairment could vary based on your future demand forecast – either decreasing or increasing your current inventory valuation. Please tell us and in future filings please clarify how your practices consider the guidance from SAB Topic 5-BB. Under the cited guidance, inventory impairment charges establish a new cost basis for inventory that may not be subsequently marked-up based on changes in circumstances.

Revenue Recognition

2. Please tell us, with a view toward disclosure in future filings, how you account for shipments to distributors with rights of return. For instance, clarify whether you relieve inventory and record a receivable, including a description of the underlying basis for your practices. Please also briefly describe the nature and extent of return privileges granted.

Results of Operations, page 42

Restructuring Charges, 44

3. We see that you have implemented restructuring plans in both 2010 and 2009. In future filings please quantify and describe the expected cost savings from restructuring plans. Also, clarify whether savings were ultimately achieved as expected. Please refer to “4. Disclosures” of SAB Topic 5-P.

Item 8. Financial Statements

Note 10. Contingencies, page F-35

4. We refer to your disclosure of the JNI litigation. If material, in future filings, please describe the impact of the settlement on your financial statements.
5. With respect to the environmental matters, please disclose an estimate of the range of loss or state that such estimate cannot be made. Refer to FASB ASC 450-20-50-4. Please also tell us how your disclosures consider the guidance from SAB Topic 5-Y.

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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 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 Leigh Ann Schultz at 202-551-3628 or Gary Todd at 202-551-3605 if you have questions regarding comments on the financial statements and related matters. You may also contact me at 202-551-3676.

Sincerely,

for

Brian Cascio
Accounting Branch Chief