

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

April 1, 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 response dated March 18, 2011 and related 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.

Mr. Robert G. Gargus Applied Micro Circuits Corporation April 1, 2011 Page 2

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

Critical Accounting Policies, page 39

Revenue Recognition, page 41

1. We refer to your response to prior comment 2. In your revenue policy you state that the portion of revenue from shipments to distributors subject to rights of return is deferred until the agreed upon percentage of return or cancelation privileges lapse. In future filings please further clarify the accounting for these transactions. In that regard, clarify whether you relieve inventory and record a receivable. Also clarify the basis for the accounting in these instances. For instance, if true, you could clarify that title for the inventory passes at shipment and that you believe that you have a legally valid receivable, notwithstanding the fact that revenue has not been recognized.

Item 8. Financial Statements

Note 10. Contingencies, page F-35

2. We refer to your response to prior comment 5. For matters which involve a reasonably possible loss, SAB Topic 5-Y provides three alternatives which may satisfy the reporting requirements, one of which is to disclose that any reasonably possible potential loss in addition to the amount accrued is not material to the financial statements. In future filings please include a disclosure similar to your response which indicates that management believes the actual amount of costs will not be materially different from the amount accrued.

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