

Mail Stop 6010

September 6, 2006

Via U.S. Mail and Facsimile

Mr. C. Richard Neely Jr.
Chief Financial Officer
Monolithic Power Systems, Inc.
983 University Avenue, Building A
Los Gatos, CA 95032

**Re: Monolithic Power Systems, Inc.
Form 10-K for Fiscal Year Ended December 31, 2005
Filed March 28, 2006
Form 10-Q for Fiscal Quarter Ended June 30, 2006
Form 8-K dated August 2, 2006
File No. 000-51026**

Dear Mr. Neely:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your document in 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 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 8-K dated August 2, 2006

1. We note that you present your non-GAAP measures in the form of a non-GAAP Condensed Consolidated Statement of Operations. This format may be confusing to investors as it also reflects several non-GAAP measures, including non-GAAP revenue, non-GAAP cost of revenue, non-GAAP gross profit, non-GAAP research and development, non-GAAP selling, general and administrative, non-GAAP total operating expenses, non-GAAP income (loss) before income taxes, non-GAAP net income (loss), non-GAAP net income (loss) per share – basic and non-GAAP net income (loss) per share – diluted, which have not been described to investors. In fact, it appears that management does not use all 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 non-GAAP Condensed Consolidated Statement of Operations from all future filings and instead disclose only those non-GAAP measures 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 33 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.
2. While there is no *per se* prohibition against removing a recurring item, you must meet the burden of demonstrating the usefulness of any measure that excludes recurring items, especially if the non-GAAP financial measure is used to evaluate performance. Whether a non-GAAP financial measure that eliminates a recurring item or items from the most directly comparable GAAP financial measure is acceptable depends on all of the facts and circumstances. However, if there is a past pattern of the charges, no articulated demonstration that such charges will not continue and no other unusual reason that a company can substantiate to identify the special nature of the charge, it would be difficult for a company to meet the burden of disclosing why such a non-GAAP financial measure is useful to investors. In such circumstances, Item 10(e) of Regulation S-K would not permit the use of the non-GAAP financial measure and similar considerations may apply under Item 12 of Form 8-K.

In addition, inclusion of such a measure may be misleading absent the following disclosure, which should be specific to each measure and not a broad overall, vague disclosure:

- the manner in which management uses the non-GAAP measure to conduct or evaluate its business;
- the economic substance behind management's decision to use such a measure;
- the material limitations associated with use of the non-GAAP financial measure as compared to the use of the most directly comparable GAAP financial measure;
- the manner in which management compensates for these limitations when using the non-GAAP financial measure; and
- the substantive reasons why management believes the non-GAAP financial measure provides useful information to investors.

Refer to Question 8 of the FAQ Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003 and note our concern when preparing future filings.

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 cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. When sending supplemental information regarding this filing, please include the following ZIP+4 code in our address: 20549-6010. Please understand that we may have additional comments after reviewing your responses to our comments.

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 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.

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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) 551-3603 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Angela Crane, Accounting Branch Chief, at (202) 551-3554.

Sincerely,

Jay Webb
Reviewing Accountant