

Mail Stop 6010

October 3, 2006

Via Facsimile and U.S. Mail

Mr. Alan F. Krock
Chief Financial Officer
PMC-Sierra, Inc.
Mission Towers One
3975 Freedom Circle
Santa Clara, CA 95054-1203

**Re: PMC-Sierra, Inc.
Form 10-K for the year ended December 31, 2005
Filed March 9, 2006
Form 10-Q for the quarter ended July 2, 2006
File No. 0-19084**

Dear Mr. Krock:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. 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 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 year ended December 31, 2005

Management's Discussion and Analysis of Financial Condition and Results of Operation, page 33

1. We note that on August 14, 2006 you filed an Item 4.02 Form 8-K disclosing that you had concluded on August 11, 2006 that your prior financial statements and all financial press releases and similar communications issued by the company with respect to such income statements and balance sheets for the 1999-2005 fiscal years and subsequent interim period should no longer be relied upon. We also note that you filed the amendments to your 2005 Form 10-K and Form 10-Q for the period ended April 2, 2006 as well as your Form 10-Q for the period ended July 2, 2006, on August 16, 2006.
 - As it appears that the company and its auditors would reasonably require more than 2 days to prepare, review and audit the revised financial statements included in the amended documents, please tell us how you complied with the requirements of General Instruction B.1 of Form 8-K in timely filing the Item 4.02 Form 8-K.
 - Please discuss the facts and circumstances resulting in a two-day period between the board of director's conclusion that the financial statements should not be relied upon and your filing of the restated financial statements in the amended documents.
2. Tell us your reasons for concluding that amendments to all Forms 10-K and Forms 10-Q relating to the periods impacted by the restatement were not required.

Note 1. Summary of Significant Accounting Policies, page 57

Basis of Presentation, page 57

3. We note your statement that for financial reporting purposes and "ease of presentation", December 31 has been utilized as the fiscal year end of all financial statement captions. Revise all future filings to include financial statements that correctly present the actual dates on which your fiscal periods end. Similarly, include audit reports that opine on financial statements as of and for the periods ended on the actual dates on which your fiscal years ended.

Note 9. Long-term debt, page 71

4. We note disclosure relating to the 2.25% senior convertible notes you issued in October 2005 and that you may incur liquidated damages or penalties pursuant to a registration rights agreement. Please refer to the guidance provided in the Division of Corporation

Finance's Current Accounting and Disclosure Issues Outline at <http://www.sec.gov/divisions/corpfin/acctdis120105.pdf>. and address the following:

- Please provide us with a clear description of all the material terms of the convertible term notes, including but not limited to, the conditions under which you or the holder may convert into common shares, the conversion rate and all conditions that may result in adjustments to that rate, as well as any conditions under which you or the holder may accelerate payment of the notes. Likewise, please clearly describe the material terms of the registration rights agreements, including the conditions under which you would be required to pay liquidated damages.
- Tell us how you have considered the guidance provided in EITF 05-4 *The Effect of a Liquidated Damages Clause on a Freestanding Financial Instrument Subject to Issue No. 00-19* in concluding how to account for these instruments. While we note that the EITF has not reached a consensus on this issue and has deferred deliberation until the FASB addresses certain questions which could impact a conclusion on this issue, please tell us how you considered the guidance in EITF 05-4 and the different views on this issue as outlined in Issue Summary No. 1 to EITF 05-4 in analyzing the registration rights agreement and in considering whether you are required to bifurcate the conversion option from the debt host.
- Tell us how you have applied the guidance in EITF 05-02, EITF 00-19 and SFAS 133 in evaluating whether the various features of your 2.25% senior convertible notes, including for example, the conversion feature, the redemption feature, etc., are embedded derivatives that you should separate from the debt host, record as liabilities and account for at fair value under SFAS 133. Please provide us with your analysis of each of these features under paragraphs 12-32 of EITF 00-19. As an initial step, please address whether the notes would meet the definition of conventional convertible debt in paragraph 4 of EITF Issues 00-19 and 05-2.

Form 10-Q for the period ended July 2, 2006

Note 3 . Business Combinations, page 10

5. We note that you expensed in-process research and development (IPR&D) of \$14.8 million as a result of your acquisition of Storage IC Business in the quarter ended April 2, 2006 and \$20.5 million relating to your acquisition of Passave in the quarter ended July 2, 2006. In future filings, beginning with your next Form 10-Q, please revise the notes to the financial statements to provide the following:
 - Disclose the appraisal method used to value IPR&D costs acquired;
 - Discuss all significant assumptions made and estimates used in determining the assigned values to each significant IPR&D project such as the risk adjusted discount

rate applied to the project's cash flows and period in which material net cash inflows from significant projects are expected to commence;

- Describe each significant IPR&D project acquired;
- Present in tabular format the fair value assigned to each project acquired and projected costs to complete by project;
- For each project, disclose in MD&A the status of the development, stage of completion at acquisition date, the nature and timing of the remaining efforts for completion, anticipated completion date, the date you will begin benefiting from the projects, the risks and uncertainties associated with completing development within a reasonable period of time and the risks involved if the IPR&D projects are not completed on a timely basis; and
- In subsequent filings, revise MD&A to provide a detailed discussion of the status of your efforts for completion of the R&D projects and the impact from any delays. Also, provide an explanation of material variations between projected results and actual results and how failure to achieve projected results impacted (or will impact) expected return on investment, future results and financial condition.

* * * *

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 with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and 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 and 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.

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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 David Burton, Staff Accountant, at (202) 551-3626 or me at (202) 551-3671 if you have questions regarding these comments.

Sincerely,

Martin F. James
Senior Assistant Chief Accountant