

Mail Stop 6010

December 22, 2005

Mr. Necip Sayiner
Chief Executive Officer and President
Silicon Laboratories, Inc.
4635 Boston Lane
Austin, TX 78735

Re: Silicon Laboratories, Inc.
Form 10-K for the Fiscal Year Ended January 1, 2005
Form 10-K/A for the Fiscal Year Ended January 1, 2005
Forms 10-Q for the Fiscal Quarters April 2, 2005, July 2, 2005 and
October 1, 2005
File No. 000-29823

Dear Mr. Sayiner:

We have reviewed your filing and have the following comments. We have limited our review to matters related to the issues raised in our comments. Where indicated, we think you should revise your 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 10-K for the Fiscal Year Ended January 1, 2005

Consolidated Financial Statements

Consolidated Statements of Income, page F-4

1. We note that you have presented your stock-based compensation as a separate line item in your consolidated statements of operations. Please revise future filings to present the amounts of stock-based compensation within the appropriate functional categories, i.e., cost of revenues, research and development and SG&A, based on the classification of the related cash compensation paid to the employees receiving stock-based compensation. We refer you to SAB Topic 11.F.

Form 10-Q for the Fiscal Quarter Ended October 1, 2005

Note 5. Acquisitions, page 11

2. We note that you acquired research and development valued at \$13.7

million as a result of your acquisition of Silicon MAGIKE, and you expensed this amount as in-process research and development expenses (IPR&D) in your consolidated statement of operations for the quarter ended October 1, 2005. In future filings, beginning with your 2005 Form 10-K, please provide the following disclosures in the notes to your financial statements:

- * 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; and
- * 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 and 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.

Additionally, in your MD&A in subsequent filings, provide a detailed discussion of the status of your efforts for completion of the R&D project(s) 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.

3. We note that you allocated a total of \$1,143,000 of the Silicon MAGIKE purchase price to "employees with skills, knowledge and relationships" and "assembled workforce" and that you are amortizing these intangible assets over five years. These categories of intangible assets do not appear to qualify for recognition apart from goodwill as specified in paragraph 39 of SFAS 141. Specifically, these assets do not appear to arise from contractual or legal rights nor do they appear to be separable. Please revise your accounting in future filings as appropriate, or tell us why you believe your accounting is appropriate.

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 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.

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 Tom Dyer, Staff Accountant, at (202) 551-3641 or me at (202) 551-3643 if you have questions. In this regard, do not hesitate to call Michele Gohlke, Branch Chief, at (202) 551-3327.

Sincerely,

Kevin Vaughn
Reviewing Accountant

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Mr. Necip Sayiner
Silicon Laboratories, Inc.
December 22, 2005
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