

Silicon Laboratories Inc. 400 West Cesar Chavez Austin, TX 78701

November 18, 2010

Via EDGAR

Jay Mumford, Senior Attorney Joseph McCann, Staff Attorney Division of Corporation Finance Securities and Exchange Commission Mail Stop 3030 100 F Street, N.E. Washington, DC 20549-3030

Re: Silicon Laboratories Inc.

Form 10-K for the Year Ended January 2, 2010

Filed February 10, 2010 SEC File No. 000-29823

Dear Gentlemen:

This letter provides the response of Silicon Laboratories Inc. (the "*Company*") to the comments in your letter dated November 4, 2010. For your convenience, we have restated your comments in full in italics and have included our response below your comments.

## Executive Compensation, page 51

- 1. We continue to evaluate your response to prior comment 1. With a view towards disclosure, please expand your response to tell us:
  - · how you calculated Adjusted Operating Income;
  - what were the actual MBO's for each of your executive officers other than your CEO and CFO and how would disclosure of such information cause competitive harm;
  - how you calculated the amounts of additional special bonus payments awarded in December 2009;
  - how you calculated the threshold amounts disclosed in your Grants of Plan Based Awards tables; and
  - how your guidance to investors about your financial outlook compared to the compensation targets you provided in your prior response. If such targets were substantially similar, please tell us why disclosure of the targets is likely to cause substantial competitive harm. If, however, the amounts were not substantially similar, please tell us why you believe you need not disclose the extent to which you are paying officers for performance that is not similar to the projections you are providing investors.
  - · Adjusted Operating Income for fiscal 2009 was \$111,306,000 and represents GAAP operating income of \$66,511,000 plus \$43,974,000 of stock compensation expense plus \$821,000 of termination costs and impairments. We reported all such amounts in our press release included with our Form 8-K filed on February 3, 2010.
  - MBO's for our Vice President of Worldwide Sales included the following categories: minimizing expenses, revenue forecast accuracy, business expansion, product line specific goals, channel goals and organizational development. MBO's for our Senior Vice President of Worldwide Operations included the following categories: new product introductions, supply continuity, on-time delivery, inventory turns, production cycle time reduction and organizational development. MBO's for our Vice President of Finance included the following categories: days sales outstanding, inventory turns, avoiding material weaknesses and significant deficiencies, operating cash flow, annual operating plan preparation, organizational development, career development, operating income optimization, and systems implementation. In our next proxy statement, we will provide this additional detail regarding the MBO's.
  - The special bonus payments were awarded in December 2009 in order to reduce the equity awards that were otherwise expected to be granted in February 2010. Given our strong performance in 2009, the expected equity grants in February 2010 would have resulted in additional equity dilution and the Compensation Committee elected to pay the special cash bonus payments and reduce the expected equity grants by an amount equal to 1.2 multiplied by the amount of such cash bonus payments. The allocation of such special cash bonus payments among executive officers was approximately proportional to their relative equity awards expected to be granted in February 2010.
  - The threshold amount disclosed in our Grants of Plan Based Awards table represents the lowest bonus amount that the executive officer would receive (unless the executive officer were to receive no bonus at all).
  - Our compensation targets were tied to our annual operating plan that we established at the beginning of 2009. We did not provide full year guidance to investors. Instead, we provided revenue and earnings per share guidance to investors on a quarterly basis only for the next quarter. Such quarterly guidance to the investors reflected changed circumstances as the year progressed, but our compensation targets were fixed as of the beginning of the year.

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The Company acknowledges that:

- · the Company is responsible for the adequacy and accuracy of the disclosure in its 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.

If you have any further questions, please contact me at (512) 464-9295.

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Very truly yours,

/s/ Néstor F. Ho

Néstor F. Ho General Counsel and Corporate Secretary

cc: Philip Russell, DLA Piper LLP (US)