

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

August 9, 2013

Via EDGAR

Mr. Kevin L. Vaughn, Accounting Branch Chief Messrs. Joseph McCann and Geoff Kruczek 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 Fiscal Year Ended December 29, 2012 and Filed February 1, 2013 Response Letter Dated July 26, 2013 SEC File No. 0-29823

Dear Gentlemen:

This letter provides the response of Silicon Laboratories Inc. (the "*Company*") to the comments in your letter dated August 2, 2013. For your convenience, we have restated your comments in full in italics and have included our response below your comments.

Results of Operations, page 32

1. Please revise your responses to prior comments 1 and 2 and your future filings, as applicable, to quantify the amounts attributable to each factor underlying the material changes you have identified.

In response to this comment, the Company has revised its responses to prior comments 1 and 2 and will provide additional disclosure in future filings, as applicable, to quantify the amounts attributable to each factor underlying the material changes the Company has identified.

Revised response to prior comment 1:

In response to this comment, the Company will provide additional disclosure in future filings regarding the reasons underlying material changes to financial statement line items discussed, including any material offsetting factors. The Company respectfully advises the Staff that (beyond the reasons previously provided in the Company's 2012 Form 10-K), additional reasons underlying the growth of the Company's revenues in fiscal 2012 were:

- Increased revenues of \$61.4 million for our broad-based integrated circuits ("ICs") due primarily to (a) increased unit volumes of our microcontroller ICs, and (b) the introduction of our touch controller ICs. The increased unit volumes of our microcontroller ICs resulted from higher market demand as customers continued to adopt these ICs over ICs from competitors as well as increased IC revenues resulting from the acquisition of Ember in July 2012.
- Increased revenues of \$16.5 million for our broadcast ICs due primarily to increased unit volumes of our video ICs, which resulted from higher
 market demand as customers continued to adopt these ICs over ICs from competitors. The increase in broadcast revenues was offset in part by a
 decline in revenues for our audio ICs, resulting primarily from decreased unit volumes. The decrease in unit volumes was due to a decline in our
 market share for audio ICs, primarily due to increased competition.

Revised response to prior comment 2:

In response to this comment, the Company will provide additional disclosure in future filings regarding the reasons for changes in gross margin, to the extent material. The Company respectfully advises the Staff that (beyond the reasons previously provided in the Company's 2012 Form 10-K), additional reasons for changes in gross margin in fiscal 2012 were:

- The dollar amount of gross margin increased \$51.3 million due primarily to higher market demand for our video and microcontroller ICs as well as the introduction of our touch controller ICs (as noted above).
- Gross margin as a percentage of revenue decreased 0.5 percent due primarily to the increased sales of video ICs, which had a lower gross margin percentage than the Company average.

2. Please reconcile the portion of your response to prior comment 2 regarding Regulation S-K Item 101(c)(1)(i) with your disclosure on page 24 of your most recent Form 10-Q that: (i) you "develop highly differentiated solutions that address multiple markets"; and (ii) "We group our products into the following categories," which are Broad-based, Broadcast and Access.

The portion of the Company's prior response to comment 2 regarding disclosure of the three-year revenue information required by Regulation S-K Item 101(c)(1)(i) was, "The Company believes that all of its products constitute a single similar class of products, namely analog-intensive, mixed-signal ICs. Accordingly, the Company believes that it has complied with the reporting provisions of Regulation S-K, Item 101(c)(1)(i)." The following reconciles this portion of the Company's prior response to the disclosures in the Company's most recent Form 10-Q:

- The Company's disclosure that it "develop(s) highly differentiated solutions that address multiple markets" was a reference to how the Company's IC solutions are differentiated from its competitors' IC solutions. It is not a reference to how the Company's IC solutions are differentiated from each other. Differentiation in this context relates to the Company's products relative to competing products in terms of performance, size, cost, features, ease of use and compatibility among other customer specific requirements. Thus, the Company believes that this disclosure does not conflict with its prior response to comment 2 regarding the reporting provisions of Regulation S-K, Item 101(c)(1)(i).
- The Company's disclosure that "We group our products into the following categories," which are broad-based, broadcast and access, was a reference to the markets and applications in which the Company's ICs may be used. These product groupings do not reflect different classes of products. Thus, the Company believes that this disclosure does not conflict with its prior response to comment 2 regarding the reporting provisions of Regulation S-K, Item 101(c)(1)(i).

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While the Company believes that it has complied with the reporting provisions of Regulation S-K, Item 101(c)(1)(i), in response to your comments the Company intends to expand its disclosures in future filings to provide revenue by the broad-based, broadcast and access product categories.

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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 our General Counsel, Néstor F. Ho, at (512) 464-9295.

Very truly yours,

/s/ John C. Hollister

John C. Hollister Chief Financial Officer

cc: Philip Russell, DLA Piper LLP (US)