



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

May 16, 2012

Via E-mail

Mr. Geoffrey G. Ribar
Senior Vice President and Chief Financial Officer
Cadence Design Systems, Inc.
2655 Seely Avenue, Building 5
San Jose, California 95134

**Re: Cadence Design Systems, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2011
Filed February 24, 2012
File No. 001-10606**

Dear Mr. Ribar:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2011

Item 1. Business

Backlog, page 6

1. You disclose that total backlog was approximately \$1.7 billion at December 31, 2011, and consists of revenue to be recognized in fiscal periods after December 31, 2011. Tell us whether this entire amount is expected to be filled within fiscal 2012. If backlog includes amounts that are not be reasonably expected to be filled within the next fiscal year, please tell us what consideration you gave to disclosing this amount in accordance with Item 101(c)(1)(viii) of Regulation S-K.

Item 1A. Risk Factors

“We depend on a sole supplier for certain hardware components...,” page 18

2. You disclose that you source certain components for your hardware products from a sole supplier, but it is unclear from this disclosure the extent of your dependence on this sole supplier or the specific type of components it provides. Please tell us what consideration you gave to describing more specifically the components obtained from this sole supplier and to indicating, in quantitative terms if possible, the extent of your dependence on the components and supplier. In addition, we note that you do not appear to have filed as an exhibit to your Form 10-K any supply agreements. Please provide us with your analysis as to how you concluded you are not substantially dependent upon your agreement, if any, with the supplier discussed in this risk factor. See Item 601(b)(10)(ii)(B) of Regulation S-K.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations

Revenue, page 34

3. We note in your discussion of revenue beginning on page 36 that you refer to various factors that have impacted revenue without quantifying the impact of each factor. For example, the company experienced a 36% increase in product sales in 2011, and your disclosure indicates that these increases were as a result of several factors, including the Denali acquisition, none of which have been quantified. Tell us how what consideration you gave to quantifying the contribution each factor had on the increase in both product and service revenues. Refer to Section to III.D of SEC Release 33-6835 for guidance.

Item 11. Executive Compensation (Incorporated by reference from the Definitive Proxy Statement on Schedule 14A filed March 20, 2012)

Compensation Discussion and Analysis

Elements of Executive Compensation

Long-Term Equity Incentive Compensation, page 39

4. You disclose that the compensation committee determined to award Mr. Tan options potentially exercisable into 800,000 shares of common stock with a grant date fair value of \$3,102,000 on February 8, 2011. We are unable to locate, however, a discussion of the specific factors that were considered in making this award or a description of the reasons why the Committee believed the award was appropriate and fit reasonably within your

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overall compensation objectives. We note in this regard the general discussion in the first paragraph of this section regarding guiding principles for awarding long-term equity awards, as well as the discussion in the second paragraph of how the committee considers peer group compensation in making individual equity grants, but it remains unclear how the specific award amount in this instance was determined. In future filings to the extent applicable, please ensure that you explain in reasonable detail any material changes to the compensation awarded to your named executive officers.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

You may contact Megan Akst, Staff Accountant, at (202) 551-3407 or Christine Davis, Assistant Chief Accountant, at (202) 551-3408 if you have questions regarding comments on the financial statements and related matters. If you have any other questions, please contact Katherine Wray, Staff Attorney, at (202) 551-3483 or Barbara Jacobs, Assistant Director, at (202) 551-3735. If you require further assistance, do not hesitate to contact me at (202) 551-3499.

Sincerely,

/s/ Kathleen Collins

Kathleen Collins
Accounting Branch Chief

cc: James J. Cowie
Sr. Vice President & General Counsel