



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

September 30, 2015

Ford Tamer, Ph.D.
Chief Executive Officer
Inphi Corporation
2953 Bunker Hill Lane, Suite 300
Santa Clara, California 95054

Re: Inphi Corporation
Form 10-K for the fiscal year ended December 31, 2014
Filed March 10, 2015
File No. 001-34942

Dear Dr. Tamer:

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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Customers, page 5

1. You state on page 5 that Samsung, including its subcontractors, accounted for 18% of your sales in 2014. We are aware of publicly available information indicating that Samsung operates in Sudan and may operate in Syria. Sudan and Syria are designated as state sponsors of terrorism by the State Department and are subject to U.S. economic sanctions and export controls. Please describe to us the nature and extent of your past, current and anticipated contacts with Sudan and Syria, if any, whether through customers, distributors, joint venture partners or other direct or indirect arrangements. You should describe any products, technology or services you have provided to Sudan or Syria, directly or indirectly, and any agreements, arrangements or other contacts you have had with the governments of those countries or entities they control.
2. Please discuss the materiality of any contacts with Sudan and Syria you describe in response to the comment above, and whether the contacts constitute a material investment risk for your security holders. You should address materiality in quantitative

terms, including the approximate dollar amounts of any revenues, assets and liabilities associated with Sudan and Syria for the last three fiscal years and the subsequent interim period. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company's reputation and share value. Various state and municipal governments, universities and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.-designated state sponsors of terrorism. You should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have operations associated with Sudan and Syria.

Item 11. Executive Compensation, page 79

3. Please revise future filings to clarify, whether and, if so, how the registrant has considered the results of the most recent shareholder advisory vote on executive compensation required by Section 14A of the Exchange Act or Rule 14a-20 in determining compensation policies and decisions and, if so, how that consideration has affected the registrant's executive compensation decisions and policies. We note, in this regard, the disclosure on page 19 of your definitive proxy statement that in 2014 you received slightly more than fifty percent of the votes cast in favor of such proposal and that the compensation committee was "mindful of the level of support that our stockholders expressed for our executive compensation program and decisions." This statement, in addition to the disclosure in the paragraph that follows, does not appear to adequately address the requirements of Item 402(b)(1)(vii) of Regulation S-K. While such disclosures indicate that the registrant does, in fact, consider the results of the Say-on-Pay vote, it is unclear how it considered those results and how such consideration affected its executive compensation decisions and policies.

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.

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You may contact Li Xiao, staff accountant, at (202) 551-4391 or Brian Cascio, Accounting Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Tim Buchmiller at (202) 551-3635 or Geoff Kruczek, Senior Attorney, at (202) 551-3641 with any other questions.

Sincerely,

/s/ Geoff Kruczek for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery