



DIVISION OF
CORPORATION FINANCE

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

July 30, 2012

Via Email

Mr. Steve Sanghi
Chief Executive Officer
Microchip Technology Incorporated
2355 W. Chandler Blvd.
Chandler, AZ 85224

**Re: Microchip Technology Incorporated
Form 10-K for the Fiscal Year Ended March 31, 2012
Filed May 30, 2012
File No. 000-21184**

Dear Mr. Sanghi:

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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended March 31, 2012

Our Products, page 4

1. We note your discussion of product types. In your future filings, please state for each of the last three fiscal years the amount or percentage of total revenue contributed by any class of similar products or services which accounted for 10 percent or more of consolidated revenue in the last three fiscal years. See Item 101(c)(1)(i) of Regulation S-K. We note for example, your discussion of 8-bit and 16-bit “product lines” in your Q4 2012 earnings conference call. Additionally, we note your discussion in the 10-K of the 8-bit, 16-bit and 32-bit microcontroller markets. In future filings, please clarify if your microcontroller products are sold predominantly into any one of these markets.

Sales and Distribution, page 8

2. We note your statement that your largest distributor accounted for approximately 10% of your net sales in each of fiscal 2012 and 2011. If sales to this distributor by one or more segments were made in an aggregate amount equal to 10 percent or more of your consolidated revenues, please tell us the name of this distributor and confirm, that in future filings, you will disclose the name of this distributor. Please see Item 101(c)(1)(vi) of Regulation S-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 28

3. We note your discussion of the relative strengths of the 8-bit, 16-bit and 32-bit microcontroller markets on page 4 and your discussion in your Q4 earnings conference call of your positions in these markets. To the extent material, in future filings, please discuss how the known trends in those markets have affected your results of operations. For example, in future filings, please address the growth of complex embedded control applications and its effect on your business, noting your positions in the 16-bit and 32-bit microcontroller markets. Please also, in future filings, address any risks that may result if you do not increase market share in the 16-bit and 32-bit microcontroller markets.

-Critical Accounting Policies and Estimates, page 30

-Inventories, page 32

4. We note your disclosures herein and on page F-9 related to your valuation of inventory. Please revise your future filings to discuss in more detail how you develop certain of your assumptions such as "estimates of demand over a 12-month period" for purposes of your inventory valuation analysis. Your revised disclosures should also indicate how you arrived at your estimates for projected usage and the historical variability of such estimates. Please provide us with a sample of your proposed disclosure.

-Results of Continuing Operations, page 34

5. We note your disclosures on pages 37 and F-2 related to your inventory and that your inventory levels have increased by approximately 20 % from March 31, 2011 to March 31, 2012. We further note from page 9 that your back-log has decreased by approximately 40% from April 30, 2011 to April 30, 2012. We finally note on page 12 that during the 3rd quarter of fiscal 2012 you reduced wafer starts to control inventory balances in response to a slowdown in global economic conditions. Please explain to us in more detail how you have evaluated inventory for recoverability as of March 31, 2012. Explain why you believe the full amount of inventory recorded at your 2011 and 2012 fiscal year end balance sheet dates is recoverable.

-Liquidity and Capital Resources, page 40

6. We note your disclosures on page F-24 that you consider \$1.9 billion of undistributed earnings of your subsidiaries outside the United States to be permanently reinvested. To the extent such amounts could be considered material to an understanding of your liquidity and capital resources, please revise your future filings to disclose the amounts of the cash and cash equivalent amounts held by your foreign subsidiaries that would not be available for use in the United States. Please further provide a discussion of any known trends, demands or uncertainties as a result of this policy that are reasonably likely to have a material effect on the business as a whole or that may be relevant to your financial flexibility. Refer to Item 303(a)(1) and (2) of Regulation S-K, SEC Release 34-48960, and Financial Reporting Codification Section 501.03.a.
7. We note your disclosures on page F-9 related to how you assess your accounts receivables for impairment and your concentration of sales to customers in European countries disclosed on page F-32. Please explain to us in more detail how your receivable impairment assessments were impacted by the European sovereign debt crisis and economic conditions as well as your concentration of sales in these foreign countries.

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.

Mr. Steve Sanghi
Microchip Technology Incorporated
July 30, 2012
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You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or Jay Webb, Reviewing Accountant, at (202) 551-3603 if you have any questions regarding comments on the financial statements and related matters. Please contact Allicia Lam, Staff Attorney, at (202) 551- 3316, or Tim Buchmiller, Reviewing Attorney, at (202) 551- 3635 if you have questions on any other comments. In this regard, do not hesitate to contact me at (202) 551-3643.

Sincerely,

/s/ Kevin L. Vaughn

Kevin L. Vaughn
Accounting Branch Chief