

November 30, 2010

Via EDGAR

Securities and Exchange Commission
Division of Corporate Finance
100 F Street, N.E.
Washington, DC 20549

Attention: Allicia Lam, Division of Corporate Finance

Re: Microchip Technology Incorporated
Form 10-K for fiscal year ended March 31, 2010
Commission File No. 0-21184

Ladies and Gentlemen:

On behalf of Microchip Technology Incorporated (the “Company”), we have attached the Company’s response to the additional comment of the Staff (the “Staff”) of the Securities and Exchange Commission set forth in the Staff’s letter dated November 18, 2010 relating to the Company’s Form 10-K for the fiscal year ended March 31, 2010.

If you should have any questions regarding the Company’s response, please do not hesitate to contact the undersigned at (512) 338-5400.

Very truly yours,

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

/s/ J. Robert Suffoletta

J. Robert Suffoletta, Esq.

Enclosure

MICROCHIP TECHNOLOGY INCORPORATED
MEMORANDUM OF RESPONSE TO SECURITIES AND EXCHANGE COMMISSION COMMENT
AS SET FORTH IN THE STAFF'S LETTER DATED NOVEMBER 18, 2010

This memorandum sets forth the response of Microchip Technology Incorporated (“we” or the “Company”) to the comment of the Staff (the “Staff”) of the Securities and Exchange Commission (the “Commission”) as set forth in the Staff’s letter dated November 18, 2010 relating to the Company’s Form 10-K for fiscal year ended March 31, 2010.

This Memorandum is being filed via EDGAR. For convenience, the Company has incorporated the Staff’s comment in bold typeface before its response.

Item 11. Executive Compensation, page 43

1. **We note your response to prior comment 1 that your compensation discussion and analysis in your future filings “will be sufficiently clear so that investors can see how the amounts of the incentive cash bonuses awarded to each named executive officer were determined as described in the Company’s response provided to the Staff by letter dated September 20, 2010 (emphasis added).” Since you have not described for us in your prior responses how the incentive cash bonus for each named executive officer was determined under the EMICP or the DMICP, please provide us with a response that makes it clear how those bonuses were determined.**

Microchip Response:

In response to the Staff’s comment, the Company is providing the following explanation of how the bonus amounts were determined under the EMICP and the DMICP.

The total amount payable to each executive under the EMICP and the DMICP is based on a percentage of his or her base salary at the time each quarterly payment is made. The participation percentage for each executive is determined at the beginning of the fiscal year based on the executive’s base salary at that time and typically stays at the same level for each quarter of the fiscal year. However, the Compensation Committee may change the participation level of an executive each quarter to reflect changes in the performance or responsibilities of the executive or other factors. For fiscal 2010, the specific total bonus percentages under both the EMICP and DMICP for each of our named executive officers was as follows: 200% of salary for Mr. Sanghi; 55% of salary for Mr. Moorthy; 46% of salary for Mr. Little; 40% of salary for Mr. Dreihobl; and 30% of salary for Mr. Bjornholt. Of such total bonus percentage amounts, 80% is based upon whether the EMICP performance metrics are met, and 20% is awarded under the DMICP. The actual awards under the EMICP are based on our actual quarterly financial performance compared to the performance metrics and the actual awards under the DMICP are determined in the discretion of our Compensation Committee and can be significantly higher or lower than the 20% target.

The performance metrics under the EMICP are determined by the Compensation Committee at the beginning of each quarter so that such compensation may qualify as performance based compensation within the meaning of Rule 162(m) under the Internal Revenue Code. However, except for the earnings per share metric which changes each quarter, each of the performance metrics is typically the same for each quarter of the fiscal year (or longer). The following table lists the performance metrics which were used for the second, third and fourth quarters of fiscal 2010. Due to adverse economic conditions, no metrics were set for the EMICP for the first quarter of fiscal 2010 and no payments were made under such plan for that quarter.

Performance Metric Description	Target Quarterly Measurement	Target % of Bonus
Total sequential revenue growth	4.0%	10.0%
16-bit sequential revenue growth	30.0%	5.0%
Analog sequential revenue growth	6.0%	5.0%
Gross margin percentage (non-GAAP)	59.0%	15.0%
Operating expenses as a percentage of sales (non-GAAP)	25.5%	15.0%
Operating income as a percentage of sales (non-GAAP)	33.0%	15.0%
Earnings per share (quarterly)	(1)	15.0%
DMICP	Discretionary	20.0%

(1) The EMICP quarterly non-GAAP earnings per share (EPS) targets for fiscal 2010 were \$0.20, \$0.28, and \$0.33 for the second through fourth quarters, respectively. There was no EPS target set or payments made for the first quarter of fiscal 2010.

As indicated in the above table, 10.0% of the quarterly EMICP payment is based on Microchip achieving total sequential revenue growth of 4.0%. Accordingly, if Microchip's total sequential revenue growth for a quarter is 4.0%, then each executive would be paid the corresponding 10.0% of his or her EMICP target bonus amount for the quarter. If Microchip's total sequential revenue growth for a quarter was 3.0%, then each executive would be paid a corresponding 7.5% of his or her target bonus amount for the quarter (i.e., $\frac{3}{4}$ of the 10.0%) and if Microchip's total sequential revenue growth for a quarter was 5.0%, then each executive would be paid a corresponding 12.5% of his or her target bonus amount for the quarter (i.e., $\frac{5}{4}$ of the 10.0%). This methodology is applied each quarter to each of the performance metrics listed in the above table. After applying each of the performance metrics described above to our quarterly results for fiscal 2010, the total cash bonus payments under the EMICP and the DMICP for our named executive officers, other than our CEO, ranged from \$66,810 to \$196,504. In fiscal 2010, Mr. Sanghi earned an aggregate EMICP bonus of \$1,071,388, and an aggregate DMICP bonus of \$289,928. The differences in the levels of compensation under these programs for the various executive officers are based upon their relative contribution, performance, experience, and responsibility level within the organization.

Microchip also has a Management Incentive Compensation Plan or MCIP. All of our management personnel other than executive officers participate in the MCIP. Executive officers participate in the EMICP and not the MCIP. The MCIP has substantially the same performance criteria and payment structure as the EMICP.