

December 17, 2010

Via EDGAR

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

Attention: Tim Buchmiller, 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 December 13, 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 SEC COMMENT
AS SET FORTH IN THE STAFF'S LETTER DATED DECEMBER 13, 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 December 13, 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 have reviewed your response to prior comment 1. In your future filings, please break out the amount of the EMICP bonus and the DMICP bonus for each named executive officer. Also please indicate where actual performance fell against each of the target quarterly measurements and provide analysis as to how actual performance versus the targeted performance factored into the calculation of the EMICP bonus award for each named executive officer.**

Microchip Response:

In response to the Staff’s comment, as discussed with the Staff, the Company will include the requested disclosure in its future filings.