

October 20, 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 October 15, 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

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**MICROCHIP TECHNOLOGY INCORPORATED**  
**MEMORANDUM OF RESPONSE TO SECURITIES AND EXCHANGE COMMISSION COMMENT**  
**AS SET FORTH IN THE STAFF'S LETTER DATED OCTOBER 15, 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 October 15, 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 2. Please confirm to us that your compensation discussion and analysis in 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.**

**Microchip Response:**

In response to the Staff’s comment, the Company confirms that its compensation discussion and analysis in 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.

**Microchip Technology Incorporated**

By: /s/ Eric Bjornholt  
Eric Bjornholt  
Chief Financial Officer