

Mail Stop 6010

May 19, 2006

Via U.S. Mail and Facsimile to (650) 961-1092

Donald Witmer
Chief Financial Officer
Netlogic Microsystems, Inc.
1875 Charleston Road
Mountain View, CA 94043

**Re: Netlogic Microsystems, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2005
Filed February 28, 2006
Form 10-Q for the Quarter Ended May 31, 2006
Form 8-K filed April 26, 2006
File No. 000-50838**

Dear Mr. Witmer:

We have reviewed your response dated April 25, 2006 and filings and have the following comments. In our comments, we ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended December 31, 2005

Item 8. Financial Statements and Supplementary Data, page 51

Note 1 – The Company and Summary of Significant Accounting Policies, page 58

1. Please refer to prior comment 4. On page 20 you disclose the following:

“As a result of acquiring Cypress Semiconductor’s Network Search Engine Products on February 15, 2006, we began selling some of the acquired products through a distributor previously used by Cypress. The distributor has sole authority to accept returns from end customers in the ordinary course of business. Because we recognize revenue when the distributor sells product to end customers, returns from end customers to our distributor reduce our reported sales. We have no direct control over our distributor’s policies or practices on accepting customer returns and may have no forewarning of significant customer returns. Consequently, large returns could have an unexpected material adverse impact on our sales.” [emphasis added]

- Please reconcile your response with the disclosure on page 20. Please be sure that your response and disclosure in future filings are consistent and include all of the significant terms of the arrangement.
 - Considering the above disclosure, please tell us the point at which your obligation to accept returns from the Cypress distributor has “substantially expired.” Refer to paragraph 6 of SFAS 48. Include a discussion of the factors that cause you to believe that the appropriate point to recognize revenue is upon sale to the end customer. Discuss how you account for the return obligations related to the Cypress distributor given your disclosure on page 20 that the distributor has “sole authority” to accept returns from end customers. Cite the accounting literature upon which you relied and how you applied that literature to your facts and circumstances. Please specifically address paragraphs 6(f) and 8 of SFAS 48 and Question 1 of SAB Topic 13.A.4 (b).
2. Please refer to prior comment 5. On page 13 you disclose that your “international stocking representatives may also act as a sales representative and receive commissions on sales of [y]our products.” You state that sales through international stocking sales representatives (“ISSR”) accounted for 13%, 12% and 22% of total revenue in 2005, 2004, and 2003. On page 39 you state that you recognize revenue at the time of shipment to your ISSRs. Please tell us more about the nature of your relationship with ISSRs which results in them acting as sales representatives and receiving commissions on sales of your products. Tell

us the significant terms of your agreements with the ISSRs. Discuss how you determine whether the ISSR may be acting as a sales representative and receive a commission as discussed on page 13. Tell us in detail why you record revenue at the time of shipment to your sales representative in these cases.

Form 10-Q for the Fiscal Quarter Ended May 31, 2006

Financial Statements, page 3

Note 3. Business Combinations, page 8

3. Please tell us your consideration of paragraphs 37(e) and 39 and Appendix A14 of SFAS 141 in determining that acquired intangible assets consisted solely of developed technology and backlog. In this regard we note that one of the reasons cited for the excess of the purchase price over the fair value of the net tangible assets acquired was an expanded customer base.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 18

4. We note that you allocated \$10.7 million of the purchase price to in-process research and development expense. Due to the significance of this amount, please provide the following disclosures in MD&A in future filings separately by major IPR&D project:
 - The nature of the major projects acquired, a summary of values assigned to each major project, and the projected costs to complete each major project.
 - The status of the development and complexity or uniqueness of the work completed at the acquisition date, including the stage of completion at the acquisition date.
 - The nature of the remaining efforts for completion and the date you expect to begin to benefit from the IPR&D.

Please note that in future filings you should disclose in MD&A the status of your efforts for the completion of the R&D projects and the impact from any delays. Additionally, you should explain any material variations between projected results and actual results and how failure to achieve projected results impacted (or will impact) your expected return on investment, future results and financial condition.

Form 8-K filed April 26, 2006

5. Please refer to prior comment 8. We note your continued presentation of “pro forma net income (loss)” in your reconciliation of GAAP net income (loss) to the non-GAAP net income (loss). As noted previously, the pro forma terminology has very specific meaning in accounting literature, as indicated by Article 11 of Regulation S-X. In future filings please do not use titles or descriptions for your non-GAAP financial measures that are the same as, or confusingly similar to, titles or descriptions used for GAAP financial measures.
6. We note that you refer to the amortization of intangibles as a “one-time” expense associated with the cost of the acquisition and as “non-recurring.” You state this as the basis for excluding this expense in your non-GAAP presentation. Since this amount appears to be an expense that will recur for at least the amortization period of the acquired intangible (five years), it does not appear appropriate to refer to the item as non-recurring or to remove the expense on that basis in your calculation of non-GAAP income or loss. Please revise future filings to comply. See Question 9 of FAQ Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures, June 13, 2003.
7. You include a reconciliation of non-GAAP net income (loss) per share. The calculation of this amount includes both a numerator (non-GAAP net income (loss)) and a denominator (non-GAAP diluted weighted average shares). When you present a ratio where a non-GAAP financial measure is the numerator and/or the denominator in the calculation of that ratio, you must provide a reconciliation with regard to each non-GAAP financial measure used in the calculation. That is, you must provide a separate reconciliation for the numerator and the denominator. See footnote 27 of Regulation G. Please comply in future filings.
8. With respect to your use of a per share measure that is not calculated using a share figure that is presented on a diluted basis in accordance with GAAP, you should consider whether this presentation complies with the requirement of Regulation G that a registrant, or a person acting on its behalf, shall not make public a non-GAAP financial measure that, taken together with the information accompanying that measure, contains an untrue statement of a material fact or omits to state a material fact necessary in order to make the presentation of the non-GAAP financial measure, in light of the circumstances under which it is presented, not misleading. See footnote 49 of Regulation G. In addition, your current disclosure does not appear to sufficiently explain the reasons why you believe this presentation provides useful information to investors.

Donald Witmer
Netlogic Microsystems, Inc.
May 19, 2006
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As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Kevin Kuhar, Staff Accountant, at (202) 551-3662 or me at (202) 551-3604 if you have questions regarding these comments on the financial statements and related matters. In this regard, do not hesitate to contact Angela Crane, Branch Chief, at (202) 551-3554.

Sincerely,

Kate Tillan
Assistant Chief Accountant