

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

December 16, 2010

Via U.S. Mail and facsimile, 408-428-6960

Mr. David Cote Chief Executive Officer Symmetricom, Inc. 2300 Orchard Parkway San Jose, California 95131

Re: Symmetricom, Inc.

Annual Report on Form 10-K for the fiscal year ended June 27, 2010

Filed September 10, 2010, File No. 0-02287

Supplemental Response provided on December 10, 2010

Dear Mr. Cote:

We have limited our review of your filing to those issues we have addressed in our 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 amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Part III, Item 10(d)

1. We note your response to comment one in our letter dated November 29, 2010 and do not agree with your analysis. Previously, an employee had to submit anonymous and

Mr. David Cote Symmetricom, Inc. Page 2

confidential information regarding possible code of conduct violations to an internal email address at the company. You changed your policy and procedures to provide an external email address at a third party for the submission of complaints. This significant change to your whistleblower procedures appears to be more than a ministerial change. As a result of this change, an unaffiliated party will be screening and routing complaints as they are submitted, rather than an employee of the company. As a result, an Item 5.05 Form 8-K appears warranted and should be filed as soon as possible.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that they have provided all information investors require for an informed decision. 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 that they have made.

Please contact Paul Fischer, staff attorney, at (202) 551-3415 or me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spirgel Assistant Director