



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

Mail Stop 6010

January 25, 2008

VIA U.S. MAIL and FACSIMILE (408) 738-2849

Mr. Jack R. Lazar
Vice President and Chief Financial Officer
5480 Great America Parkway
Santa Clara, CA 95054

RE: Atheros Communications, Inc.
Form 10-K for the fiscal year ended December 31, 2006
Filed March 1, 2007
Form 8-K/A dated December 18, 2006
File No. 000-50534

Dear Mr. Lazar:

We have reviewed your response dated January 17, 2008 and related filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may 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 8-K/A dated December 18, 2006 (filed March 5, 2007)

Exhibit 99.1 Financial Statements of Attansic Technology Corporation as of and for the nine months ended September 30, 2006 and as of and for the year ended December 31, 2005

1. We note your response to prior comment 5 in our letter dated December 28, 2007 where you have concluded that you have substantially complied with the requirements of Rule 3-05 of Regulation S-X. Please note that in spite of your conclusions, the Form 8-K/A dated December 18, 2006 remains deficient. In addition, we note that a number of rule and form eligibility standards under the Securities Act and the Exchange Act - such as, for example, Regulation S, Rule 144, Form S-3, and Form S-8 - require, among other things, that issuers wishing to avail themselves of that rule or form be subject to the Exchange Act reporting requirements and have filed all material required to be filed pursuant to Exchange Act Section 13 or 15(d) for a specified period of time. Atheros Communications' only means of satisfying that current reporting requirement is to file all required materials during the period specified by a particular rule or form. Please confirm to us your understanding of the above.

For specific consideration of your eligibility to rely on specific rules or forms going forward, please contact the Division's Office of Chief Counsel.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your responses to our comment and provides any requested information. 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 Jong Hwang at (202) 551-3327 or Kristin Lochhead at (202) 551-3664 if you have questions. In this regard, please do not hesitate to contact me at (202) 551-3676 with any other questions.

Sincerely,

Brian Cascio
Accounting Branch Chief