



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

Mail Stop 6010

February 19, 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 dated January 28, 2008
File No. 000-50534

Dear Mr. Lazar:

We have reviewed your response dated February 6, 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 filed January 28, 2008

Exhibit 99.1 Press Release

1. We see that you expect to report a \$2.3 million impairment of your long-term marketable securities during the three months ended 12/31/2007 related to your investment in AA and AAA rated auction rate securities. Please tell us and provide the following additional disclosures in your upcoming Form 10-K related to your auction rate securities and the other than temporary impairment to be recorded:
 - Tell us how your broker determined the fair value of the auction rate securities, including assumptions being used, and how the broker considered underlying collateral and cash flows. This disclosure should be included in the critical accounting policy section of future filings.
 - Tell us and disclose the specific characteristics of your auction rate securities, including amount, issuers of, and types of auction rate securities you currently hold.
 - Please consider the disclosure requirements in SFAS 115, FSP 115/124-1, and SAB Topic 5M.
 - Please disclose your exposure to Auction Rate Securities and the associated risks with these securities in Item 7A. Quantitative and Qualitative Disclosures About Market Risk.
 - Please also note that if you plan to refer to the valuation of the auction rate securities by your broker in your Form 10-K, you should name the expert in the filing. In addition, please note that if you intend to incorporate your Form 10-K by reference into any registration statement, you will be required to include the consent of the broker as an exhibit to the registration statement.

Mr. Jack R. Lazar
Atheros Communications, Inc.
February 19, 2008
Page 3

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 me at (202) 551-3664 if you have questions. In this regard, please do not hesitate to contact Brian Cascio, Accounting Branch Chief at (202) 551-3676 with any other questions.

Sincerely,

Kristin Lochhead
Reviewing Accountant