



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

November 5, 2009

Dr. Craig H. Barratt
President and Chief Executive Officer
Atheros Communications, Inc.
5480 Great America Parkway
Santa Clara, CA 95054

Re: Atheros Communications, Inc.
Amendment No. 1 to Registration Statement on Form S-4
Filed November 4, 2009
File No. 333-162321

Dear Mr. Barratt:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document 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.

Material Federal Income Tax Consequences of the Merger, page 46

1. We note your response to prior comment 2. Due to the complex legal nature of tax consequences, it is not appropriate that the disclosure in this section appear to be that of the registrant. Given that the registrant is relying upon tax counsel for the disclosure in this section of the proxy statement/prospectus, this section should clearly indicate that the discussion in this section represents the opinion of tax counsel and such counsel should be identified. In addition, since counsel is providing a "short-form" opinion where the disclosure in the proxy statement/prospectus is the opinion, and the opinion filed as Exhibit 8.1 merely

confirms that the opinion set forth in the proxy statement/prospectus is the opinion of counsel, the first sentence of this section should not indicate that the discussion contained in this section is a "summary" of the material U.S. federal income tax consequences of the Merger since this is, in effect, the tax opinion, and not a summary thereof. Please revise. Please note in this regard that tax counsel should consent in its opinion to also being named in this section of the proxy statement/prospectus.

2. We note your response to prior comment 4. It remains unclear how retaining the assumption that "the Merger qualifies as a reorganization under Section 368(a) of the Code" is appropriate as you state in your response and does not assume away the ultimate tax consequences at issue. In addition, given your disclosure in the new section entitled "Potential Adjustment of Merger Consideration" which indicates that "if for any reason the Merger does not qualify as a reorganization under Section 368(a) of the Code, or if the Intellon board of directors does not receive a satisfactory written tax opinion of tax counsel to the effect that, for U.S. federal income tax purposes, the Merger will constitute a reorganization under Section 368(a) of the Code, Intellon shall recirculate a proxy statement and resolicit the vote of Intellon stockholders" it is also unclear why this assumption is necessary. As requested by our prior comment 4, please revise your disclosure in this section so that it does not assume away the ultimate tax consequences at issue.

Exhibit 5.1

3. Please have your counsel confirm to us that their reference to the General Corporation Law of the State of Delaware includes the statutory provisions and also all applicable provisions of the Delaware Constitution and the reported judicial cases interpreting those laws as currently in effect.

Exhibit 8.1

4. In light of the penultimate sentence in the fifth paragraph of the tax opinion, please file an opinion of counsel that is dated as of the date you intend your registration statement to be declared effective.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment 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 they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

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Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3635 if you have any questions.

Sincerely,

Tim Buchmiller
Senior Attorney

cc (via fax): Allison Leopold Tilley, Esq.
Davina K. Kaile, Esq.
Pillsbury Winthrop Shaw Pittman LLP