UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the

Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 18, 2006

ATHEROS COMMUNICATIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction 0-50534 (Commission File Number) 77-0485570 (IRS Employer

of incorporation)

Identification No.)

5480 Great America Parkway, Santa Clara, California 95054

 $(Address\ of\ principal\ executive\ offices)\ (Zip\ Code)$

Registrant s telephone number, including area code: (408) 773-5200

Not Applicable

(Former name or former address, if changed since last report)

1

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- " Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- " Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- " Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.01. Completion of Acquisition or Disposition of Assets.

On December 18, 2006, Atheros Communications, Inc., a Delaware corporation (Atheros), completed the first closing of the acquisition of Attansic Technology Corporation, a privately held Taiwan-based fabless integrated circuit design company (Attansic). Under the terms of the Share Purchase Agreement, dated October 23, 2006, as amended, by and among Atheros, Attansic, Asuspower Investment Ltd. and Atheros Networks Ltd., in exchange for all of the outstanding capital stock of Attansic, Atheros has agreed to pay a total of up to \$46.5 million in cash, and to issue an aggregate of 1,111,753 shares of Atheros common stock (Common Stock). Approximately 12% of the cash payment is to be held in escrow, of which 60% will be held until December 18, 2007, an additional 20% will be held until June 18, 2008, and the remaining 20% will be held until December 18, 2008, subject to any claims made against the escrow by Atheros.

At the first closing on December 18, 2006, Atheros paid \$37.4 million in cash and issued all of the 1,111,753 shares of Common Stock, in exchange for approximately 88% of Attansic s capital stock. Atheros expects to purchase the remaining 12% of Attansic s capital stock for approximately \$8.7 million in cash in January 2007. The shares of Atheros Common Stock were issued pursuant to an exemption from registration under the Securities Act of 1933 (the 1933 Act).

The foregoing description of the Agreement is qualified in its entirety by the full text of the Agreement, a copy of which is attached hereto as an exhibit and which is incorporated herein by reference.

On December 18, 2006, Atheros issued a press release announcing the consummation of the acquisition contemplated by Agreement. A copy of the release is filed herewith as Exhibit 99.1.

Item 3.02. Unregistered Sales of Equity Securities.

Under the terms of the Agreement described in Item 2.01 above, Atheros issued an aggregate of 1,111,753 shares of Common Stock to the security holders of Attansic. These shares were issued pursuant to an exemption from registration under the 1933 Act, pursuant to Regulation S promulgated under the 1933 Act.

Item 9.01. Financial Statements and Exhibits.

(a) Financial statements of businesses acquired.

The financial statements required to be filed in connection with the acquisition described in Item 2.01 above are not included herein. Atheros will file the required financial statements prior to March 5, 2007.

(d) Exhibit Description

2.1 Share Purchase Agreement, dated October 23, 2006, among Atheros International Ltd., Attansic Technology Corporation, Asuspower Investment Ltd. and the Registrant.

The following exhibits and schedules to the Share Purchase Agreement have been omitted. Atheros will furnish copies of the omitted exhibit and schedules to the Commission upon request.

Exhibit A	Form of Restricted Stock Award Agreement
Exhibit B	Form of Escrow and Paying Agent Agreement
Exhibit C	Form of Shareholder Certificate
Exhibit D	Form of Offer Letters
Exhibit E	Proprietary Information and Inventions Agreement

- 2.2 Amendment No. 1, dated December 18, 2006, to Share Purchase Agreement, among Atheros Networks Ltd., Atheros International Ltd., Attansic Technology Corporation, Asuspower Investment Ltd. and the Registrant.
- 99.1 Press release dated December 18, 2006.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: December 22, 2006

ATHEROS COMMUNICATIONS, INC.

By: /s/ Jack R. Lazar Name: Jack R. Lazar

Title: Vice President and Chief Financial

Officer

EXHIBIT INDEX

Exhibit No. Description

2.1 Share Purchase Agreement, dated October 23, 2006, among Atheros International Ltd., Attansic Technology Corporation, Asuspower Investment Ltd. and the Registrant.

The following exhibits and schedules to the Share Purchase Agreement have been omitted. Atheros will furnish copies of the omitted exhibit and schedules to the Commission upon request.

Exhibit A	Form of Restricted Stock Award Agreement
Exhibit B	Form of Escrow and Paying Agent Agreement
Exhibit C	Form of Shareholder Certificate
Exhibit D	Form of Offer Letters
Exhibit E	Proprietary Information and Inventions Agreement

- 2.2 Amendment No. 1, dated December 18, 2006, to Share Purchase Agreement, among Atheros Networks Ltd., Atheros International Ltd., Attansic Technology Corporation, Asuspower Investment Ltd. and the Registrant.
- 99.1 Press released dated December 18, 2006.