

Mike Kuo

From: David Garcia
Sent: Friday, March 31, 2006 3:26 PM
To: Mike Kuo; Claire Hoque
Cc: Thu Chan; Michael Heckrotte
Subject: RE: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BCB-00071 , Assessment NO.: AN06T5614, Notice#1

[See my responses below in blue. //dg](#)

-----Original Message-----

From: Mike Kuo
Sent: Thursday, March 30, 2006 6:16 PM
To: Claire Hoque
Cc: Thu Chan; Michael Heckrotte; David Garcia
Subject: FW: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BCB-00071 , Assessment NO.: AN06T5614, Notice#1

-----Original Message-----

From: Mike Kuo
Sent: Thursday, March 30, 2006 6:15 PM
To: Mike Kuo
Subject: ATHEROS COMMUNICATIONS, INC., FCC ID: PPD-AR5BCB-00071 , Assessment NO.: AN06T5614, Notice#1

Question #1 : Based upon theory of operation, this device is capable of various modulation (BPSK, QPSK, 16-QAM, 64-QAM), data rate (1 Mbps - 300 Mbps), Spatial Stream (1 or 2) . Section 5.5 of EMC test report indicated that during preliminary investigation, various data rate in each mode has been investigated with peak output power and average output power. How about various modulation and spatial stream ? Have PSD test been performed during the preliminary investigation ? [Preliminary testing was done on the various modulations and spatial streams. The report has been updated to show this.](#)

Question #2: Section 5.5 of test report indicated the worse mode of operation based upon preliminary test result, please clearly indicate the type of modulation, data rate, spatial stream and channel bandwidth for each mode. Please submit revised test report.

[The report has been updated to show worst case modulation, data rate, spatial stream and channel bandwidth for each mode.](#)

Question #3: Section 7.1.3, please list the formula used to calculate the total output power .

[The formula has been added to the test report.](#)

Question #4: PSD measurement: The method used for PSD measurement does not comply with DTS measurement procedure published on May 09, 2005. Please redo the PSD measurement . The requirement for PSD measurement is stated below: Since output power is measured with output power option 2, then you have to measure PSD with PSD option 2.

Section 15.247(d) ; V Power spectral density (PSD).

The same method of determining the conducted output power shall be used to determine the power spectral density. If a peak output power is measured, then a peak power spectral density measurement is required. If an average output power is measured, then an average power spectral density measurement should be used. Use PSD Option 1 if Power output Option 1 was used. Use PSD Option 2 if power output Option 2 was used.

[PSD was retested using option 2 and the data inserted into the test report.](#)

Question #5: Section 7.2.2 radiated spurious emission tests: what was the test conditions ? Single chain or dual chain transmitting ?

[The radiated spurious was tested in dual chain test condition during testing. This statement was added to the test report.](#)

4/3/2006

Question #6: SAR : In the SAR test report included EUT photos with titled alternate housing. Please explain the purpose for this photo and how the alternate housing is different than the EUT tested during the final compliance tests. Please provide internal photos of this alternate housing and provide information on the size and the type of material of this alternate housing.

SAR and EMC tests were performed again on the alternate housing. SAR and EMC test reports have been revised and submitted.

Best Regards

Mike Kuo

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal and forfeiture of the filing fee. Also, please note that partial responses increase processing time and should not be submitted. Any questions about the content of this correspondence should be directed to the e-mail address listed below the name of the sender.