Mike Kuo

From: daphne.liang [daphne.liang@tw.ccsemc.com]
Sent: Wednesday, September 20, 2006 1:40 AM
To: Mike Kuo
Cc: application; Chris Harvey; Chris Harvey; lucy.tsai
Subject: Re:Alpha Networks Inc., FCC ID: RRK2005110016-1, Assessment NO.: AN06T6057--Updated(950920)
Attachments: WMP-N06_User Guide(950916).pdf; WMP-N06_Report (RP1-1)950916.pdf; WMP-N06_User Guide (950920).pdf; WMP-N06_Report (FCC Part 15 Subpart C-1)950920.pdf

daphne.liang
梁玉如
2006/09/16 10:21 AM

收件人： "Mike Kuo" <mike.kuo@ccsemc.com>
副本抄送： "application" <application@tw.ccsemc.com>, "Chris Harvey" <charvey@ieee.org>, "Chris Harvey" <charvey-tcb@ccsemc.com>, lucy.tsai/ccsemc@ccsemc
主旨： Re:Alpha Networks Inc., FCC ID: RRK2005110016-1, Assessment NO.: AN06T6057--Updated(950916)連結

Dear Mike:

Thank you for your e-mail,please see the belowing reply and find the updated files(950916).
If still have any problems,please let me know,thank you so much!

BEST REGARDS

Daphne Liang / 梁鈺如 9/16/2006
Certification Team Leader / Certification Dept.
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Compliance Certification Services Inc.
Rm.258, Bldg.17, No.195, Sec.4, Chung
Hsing Rd.,Chutung,Hsinchu,Taiwan,R.O.C.
Tel: 886-3-5910068 EXT: 502
Fax: 886-3-5825720
E-mail: daphne.liang@tw.ccsemc.com
URL: http://www.ccsemc.com.tw

"Mike Kuo" <mike.kuo@ccsemc.com>
2006/09/01 06:43 AM

收件人： "daphne.liang" <daphne.liang@tw.ccsemc.com>, "application" <application@tw.ccsemc.com>
副本抄送： "Chris Harvey" <charvey@ieee.org>, "Chris Harvey" <charvey-tcb@ccsemc.com>
主旨： Alpha Networks Inc., FCC ID: RRK2005110016-1, Assessment NO.: AN06T6057

Hi Daphne :

Please address the following questions:

1. Even though in you replies to Chris question indicated CDD mode is disabled for 802..11 b and g mode. However, in the theory of operation, it clearly stated this b/g/n MIMO 3x3 can support CDD mode. Please modify the theory of operation based

upon your reply. (Mike Kuo: Based upon my understanding of Atheros MIMO design, only in the power save mode can transmit in single transmitting chain.)

Ans:The CDD enables in 11b/g/n mix mode .

2. I do not understand why the RF conducted tests were based upon antenna gain. Will different output power setting require based upon the antenna gain to achieve product compliance ? If yes, then in the user manual, they should state the target output power based upon the antenna gain. Please explain the rational based.

Ans:Please find the updated user manual(950916).

3. During legacy 802.11 b and 802.11 b measurement, which antenna chain was measured and activated ? (chain 0 , chain 1 or chain 2 ?) Test report does not provide such info.

Ans: Please find the test report of page 10 & Page 11 which showed the following statement:

For Dipole 2dBi Antenna (1):

(1) **TX Mode:**

- ⇨ **Tx Antenna: ANT_A, [TX99]**
- ⇨ **Tx Data Rate:11Mbps long** (IEEE 802.11b mode ,chain 0 only TX)
  6Mbps (IEEE 802.11g mode ,chain 0 only TX)
  6.5Mbps (IEEE 802.11n HT20 mode ,chain 0/1/2 TX)
  13.5Mbps (IEEE 802.11n HT40 mode, chain 0/1/2 TX)

For Dipole 3dBi Antenna (2):

(1) **TX Mode:**

- ⇨ **Tx Antenna: ANT_A, [TX99]**
- ⇨ **Tx Data Rate:11Mbps long** (IEEE 802.11b mode ,chain 0 only TX)
  6Mbps (IEEE 802.11g mode ,chain 0 only TX)
  6.5Mbps (IEEE 802.11n HT20 mode ,chain 0/1/2 TX)
  13.5Mbps (IEEE 802.11n HT40 mode, chain 0/1/2 TX)

Please also find the updated test report(950916).

4. During Radiated H20/H40 tests, will three antennas be activated during the radiated emission tests ? No information in the test report.

Ans: Please find the test report(950916) of page 4 & 10 & Page 11 which showed the antenna informations.

5. Based upon TCB/FCC training on May 2005, FCC wants RF conducted spurious emission and PSD tests to be measured with individual TX chain AND with combiner. In the test report, there is no combiner test data. Please provide test data with combiner.

Ans: We have add these test data,please find the updated test report(950916).

6. If this b/g/n 3x3 transmitter can support CDD mode, then during the non-MIMO mode, the total direction antenna gain equals to 2 dBi antenna = 2+(10log 3)= 2+3 = 5 dBi < 6dBi . There is no power reduction. For 3 dBi antenna = 3 + (10log 3)=3+4=7 > 6dBi

(1 dB power reduction).

Ans: We have redo some tests,please find the updated test report(950916).

Best Regards

Mike Kuo
Compliance Certification Services
561F Monterey Road
Morgan Hill CA 95037
Tel: (408)463-0885 x: 105
Fax: (408)463-0888

e-mail:mike.kuo@ccsemc.com
http://www.ccsemc.com