

**Helen Zhao**

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**Subject:** FW: Re : RE: Netgear, Inc., FCC ID: PY306100029, Assessment NO.: AN06T5595, Notice#1

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

**From:** amanda.wu [mailto:amanda.wu@tw.ccsemc.com]**On Behalf Of** application

**Sent:** Thursday, March 30, 2006 6:08 AM

**To:** Helen Zhao

**Cc:** Application (E-mail)

**Subject:** Re : RE: Netgear, Inc., FCC ID: PY306100029, Assessment NO.: AN06T5595, Notice#1

Dear Helen,

Please refer to below for our reply.

Best Regards,

Amanda

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

Sent: Thursday, March 23, 2006 6:35 PM

Subject: Netgear, Inc., FCC ID: PY306100029, Assessment NO.: AN06T5595,  
Notice#1

Question #1: Please describe how EMC report and test data accounts for all modulations (DBPSK, DQPSK, CCK, BPSK, QPSK, 16QAM, 64QAM, MIMO) as indicated in Operational Description. Please identify the modulation used for all available data rates and data modes (e.g. MIMO, MIMO plus ACE, SIMO, SIMO plus ACE), because power may change among these rates and modes.

Ans.: The worst case we investigated are added in test report [page 7](#). Besides, please also refer to attached file for appendix 3 for the test modes we verified.

Question # 2 : The EMC report lists 2412MHz as low channel, 2462MHz as high channel for SIMO ACE mode, which is incorrect (the test plots are correct, though). Please update the test report.

Ans.: Revised and please refer to [page 14, 28, 42, 73](#) of [report](#) for details.

Question # 3 : The EMC report shows LISN used for power line conducted emission test was past due when the test was done. Please explain.

Ans.: It's typo and please refer to [page 8](#) of [report](#) for details.

Question # 4 : If both modes are possible (e.g. transmissions at 2.4GHz with signal or dual signals), both modes have to be tested. Please clarify whether these modes were investigated for all tests: line conducted, conducted spurious, radiated emissions in restricted band, etc.

Ans.: This device is capable to communicate with other non-MIMO devices, however, after investigated the output power for both modes of single and dual chains, and found that the output power for single and dual chains are almost the same. Therefore, we then chose dual chains as the worst mode for line conducted, conducted spurious, radiated emissions in restricted band, etc.

Question # 5 : SAR report was submitted along with the filing. Please explain in which condition, the device will be operating in portable configurations. Please justify how five test modes were selected, especially why 23.5mm separation distance were used

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for model 4 & 5 testing. The base can be removed, right?

Ans. SAR test was conducted is based on customer's (Netgear) request. And according to customer's information, all configurations which would touch human body directly shall be investigated and that's why 5 modes were reported. Besides, based on customer's statement, the base could not be removed when the device being used.

Question # 6 : SAR Test report shows 802.11g MIMO mode left tough was test with Chain 1 power setting = 14.66dBm, which is much lower than 15.25dBm in EMC test, please explain.

Ans.: It's typo and please refer to [page 4, 9](#) revised SAR test report for details.

Question # 7 : SAR test plots system performance check on 3/7/06 shows conversion factor 6.14, 6.14, 6.14, which does not agree with e-probe calibration report. Please correct and resubmit the test plot.

Ans.: It's revised on [page 1](#) and please refer to attached file for SAR report and plot.

Question # 8 : Please indicate whether the signals have fixed phase relationship (i.e. same signal) or if beam-forming is used. Please verify that the current system does not use any beam-forming enhancements. If beam-forming is used, the antenna gain in dBi must include an additional array gain of  $10 \log(N)$ , where N is the number of the antennas. If the phase relationship between the signal is independently varying, an additional array gain is not necessary.

Ans.: By double checking with customer, this device doesn't use any beam-forming enhancements.

Question # 9 : Please provide any appropriate description of diversity and coding mechanism (e.g. spatial multiplexing or time-space code multiplexing) which may have impacted on the selection of test sequence and procedures.

Ans.: Please refer to attached theory of operation-1 for details. Please help to keep confidential.

Best Regards,  
Helen Zhao

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.