



American Telecommunications Certification Body Inc.
6731 Whittier Ave, McLean, VA 22101

September 14, 2003

RE: Netgear Incorporated

FCC ID: PY3-ANT24BX

After a review of the submitted information, I have a few comments on the above referenced Application.

- 1) The last note on the MPE exhibit regarding point to point applications should include both the 12 and 18 dBi gain antenna. Reference only to the 18 dBi gain antenna is not correct. Note that the 12 dBi gain has not be reduced in a 1 to 1 ratio as is implied by the current exhibit.
- 2) Please explain why the ANT2405 5 dBi Ceiling antenna requires the use of a 1.5 meter cable, when the device contains a Reverse SMA connector.
- 3) Your response mentioned an adjustment to the firmware of the device was performed for the high gain antennas. It is not clear if this adjustment is required only for the high gain antennas or if this change that is implemented for all units. Additionally, it is not clear if this change affects the output power of the device, etc. Please provide further information.
- 4) The measurement of the output of the booster was 27.1 dBm. However the operational description mentions a maximum output of 27.5. Given that the power limit for the 18 dBi gain antenna is 26.0 dBm, and using the 27.1 dBm is at the limit, any higher power out of the booster will exceed the limits. What assurance can Netgear provide that all booster units will actually be output 27.1 dBm and lower? It seems that this may not be the highest expected power given the rating is higher than measured.
- 5) Please include the antenna specification information for the panel antennas referenced in your latest reply (antenna specs Part 3 (Panel Antennas).pdf). This was not provided in the last set of uploads.
- 6) The amplifier appears to contain some sort of AGC circuit. Note that AGC amplifiers must be investigated for maximum and minimum gain conditions. It appears that only the minimum gain condition only has been investigated. Please provide test data that shows that the system still meets with the AGC amplifier under a maximum gain condition (i.e. testing of worse case results with added attenuation or cable length before the amplifier to create minimum expected input condition. Note: Do not do this by directly adjusting the main TX output power).
- 7) Run 11 for the high channel 18 dBi gain antenna contains lower than expected emissions at the 2nd harmonic, given comparisons to the 9 dBi gain dipole and other 18 dBi gain runs at the lower and middle channels. Please explain.
- 8) The bandedge calculations for the 5 dBi gain antenna do use the worse case results for the channel 11 calculations based upon pages 121 and 130. Please correct.

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Examining Engineer

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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. 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 sender.