

# American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

July 22, 2004

RE: FCC ID: BV8MTT-A025\_ATCB001513

Attention: Rick McMurray / Kathy Grzovic

I have a few comments on this Application. Please note that further comments may arise in response to answers provided to the questions below.

1. Please note that a PC2 cannot be done until the original grant corrections have been made by either the FCC or the TCB responsible for the original filing.

Response: The original grant has been corrected by the TCB, and is submitted with this response.

2. Please note that your MPE calculations state that a 20cm separation is all that is needed. Please note that this is not the case. Please note that in the last set of calculations you state that the conducted power is 0.28W or 24.5dBm. Please note that you then use the lower power rating of 0.043W in the calculation. You have also used an incorrect limit in the fact that you have used the controlled environment limit. Please note that Part 15 devices by definition are always general population limits. Even those units that are professionally installed must meet the general population limits. As such the limit is 1(mW/cm^2) not 5(mW/cm^2). Please note that the actual minimum safe separation distance for this device calculated using the correct limit and higher power level reduced by 4.3dB. this comes from the 1dB/3dB over the 36dB max limit used by a max 6dB antenna. (24.5 + 24.5 = 49; 49-36 = 13 and 13/3 = 4.333) Then 24.5 – 4.3 gives the 20.2dBm max allowed conducted power into the 24.5dBi antenna. This then plugged into the max power for the 24.5dBi antenna in the MPE report to reflect actual expected MPE values using the highest conducted power levels allowed for point to point systems in the 2.4GHz range and referenced to the general population limits as required for part 15 devices.

Response: Please note that the higher power setting (24.5 dBm / 0.28 W) can only be used with the lower gain antennas (antennas under 21.3 dBi gain). This fact was stated via an attestation letter in the original filing. This letter is submitted with this response as well. As this is a professionally installed device, the installation manual has instructions to the installer about the required power reduction for the high gain antennas.

The worst case MPE is with the highest gain antenna (24.5 dBi) at the reduced power setting (0.043 W). The minimum separation distance is 32 cm. It is noted that Part 15 devices must use the general population limits and MPE has been corrected to reflect this.

3. Please note that the manual states 20cm minimum separation distance is required. Please note that this does not agree with actual MPE calculations with the device operating at the max allowed conducted power and max antenna gain of 24.5dBi. Please correct the manual to state the correct separation distances for this device. As this is only a PC2 adding additional antenna types, please correct the manual to be in line with actual and existing parameters.

Response: Please see the revised manual uploaded with this response.

**American Telecommunications Certification Body Inc.**

6731 Whittier Ave, McLean, VA 22101

Dennis Ward

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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.