

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

November 24, 2008

RE: FCC ID: V4B-SVW819_ATCB006978 Attention:

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

- Please note that the manual states "Use of cellular booster/amplifiers with exterior antennas of higher gain than 6dBi gain is in violation of FCC regulations for which the offender will be fully liable, and void your warranty." However, I do not see in the FCC regulations where antenna gain is limited to 6dBi. It is generally rf exposure considerations the limit higher gains. The statement is misleading and should rather inform the user that the 6dBi is for rf safety reasons, not FCC regulations. Alternately, please show me where in Part 22 and 24 where antenna gain is limited to 6dBi.
- 2. Please note that 24.232 states that "Mobile/portable stations are limited to 2 watts EIRP peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications." Please note that as this is a mobile user station the maximum allowed eirp is 2W. The conducted measured output power on page 14 of report 1 says the output at the antenna terminal is 30.76dBm. Please note that with the 6dBi antenna stated to be used this puts eirp at about 36.76dBm which is 4.7+watts. Page 18 of the report shows the maximum conducted power using a power meter to be 33dBm (39dBm or 7.9W with 6dBi antenna) for part 22. Please remember that while power on a grant for an amplifier may be conducted, the limits in the rules are eirp for part 24 and erp for part 22 for cell devices. Max part 24 eirp is 2W and max Part 22 erp is 7W. This device is not certifiable as presented for either part 22 or part 24. Please correct and retest to show that the device complies with 24.232 power limitations for mobile devices.
- 3. Please note that amplifiers are to 'faithfully' reproduce the input at the output. Please note that some of the input/output comparison plots show significant distortion of the input signal (see pages 61 through 71 and 91 through 101 of report 1). Please explain.
- 4. Please note that the radiated spurious emissions tables only show the final results and do not include the substitution antenna gain nor the cable loss factors. Please also note that 2.1033 states that the report is to provide a sample calculation of the formula used to determine end results. Please provide the formula used to meet er/eirp end values and please provide the substitution antenna gain factors in the tables.
- 5. In regard to item 2, once the device has been made compliant to the rules for erp/eirp powers, please provide measured erp/eirp values of the fundamental frequencies used to substantiate meeting these err/eirp limits.

Dennis Ward

Dennis Ward mailto:dward@AmericanTCB.com

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. Except as described in §0.459, correspondence and responses 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

• Page 2

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.