



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

April 9, 2006

RE: FCC ID: RFKCB AHPNEX_ATCB003332

Attention: Leon Paul Kass

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 the 731 states this is a single channel amplifier. However, it also give a frequency range covering many channels. The test report also covers all channels in the 806-821MHz and 851-866MHz part 90 range. The antenna input also appears not to control the input signal to restrict use on only one channel. In other words, the device appears to amplify any number of signals present at the input antenna. Please explain.
2. Please note that as this is a Booster/Amplifier, power listed on the grant would be conducted power. The power listed on the 731 appears to be the ERP power using the 12dBi antenna. Please provide a 731 form using conducted power at the antenna terminal.
3. Please note that as this is a Booster/amplifier, power measurements must include both the input and output levels. Please provide information (i.e. plots) of the input signals for the power measurements performed.
4. Please note that the input to the amplifier during power tests must also show that the minimum input level specified by the manufacturer yields the stated output and that the maximum input specified by the manufacturer does not overdrive the amplifier. Please show these conditions.
5. Please note that ERP for part 90 devices is not a calculated value. ERP is required to be a measured value using the antenna substitution method. While the ERP for this device is not needed as mentioned in item 2 above, when reporting ERP you must use the accepted test procedures as specified in TIA603. Please correct the report to provide ERP as correctly measured using the antenna substitution method stated.
6. Please note that the intermodulation test data shows three signals at or around 13-17dBm and corresponding intermod products just under the limit of -13dBm. The power out of the device is listed as 25dBm (page 13 of the report). However, the test signal used for the intermod test shows a power level that is a full 10 dB lower than that shown for the amplifier. As the intermod products are fairly close to the limit as shown in the test data, please explain and verify that this test was done with the amplifier output at its highest and with the amplifier 'working' hardest. Otherwise, please retest with the amplifier input and out put adjusted for a maximum power available from the device.
7. Please note that while the explanation of ERP spurious emissions helps, the actual test data appears not to give sufficient data to determine how the procedure fits with the reported measured data. For example, the table only states "dBm read" (see pages 93-98 of the report). However, no information is given in the report to explain what this term means or how it was derived. Please provide an explanation of how this term is derived. Please provide a sample calculation to support proper antenna substitution methods (i.e. sig gen reading + ant – cable).
8. Please note that the MPE report states that the manual has a minimum 4meter separation distance requirement. Please note that section 3 and 5 of the manual only states a minimum of 50cm.. Please that that while the device is safe at 30cm per the rf exposure ixnhibit, documentation needs to be consistent. Please correct either the manual or the report and MPE exhibit to show the same information.

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. 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.