

December 11, 2008

RE: ADC Telecommunications Inc.

FCC ID: NOO-F0650-311

I have a few comments on this Application. Depending on your responses, kindly understand there may be additional comments.

- 1.) Your 731 application still is not properly listing the applicable transmitter frequencies. First, I am not interested in the signals which come from the 75ohm coax, or the optical fiber. I am only interested in the emissions which are radiated off the RAU antennas. FCC requires that we show all applicable emission modes and all proper emission designators. Since necessary BW is dependent upon the received signal off the coax (or fiber), we need only list the applicable Part 22/24 band, and the emission designator without the necessary bandwidth. Please complete for all applicable modes [AMPS, TDMA, GSM, GPRS, CDMA, WCDMA, EDGE, etc.]. Please be sure that the maximum measured RF power and frequency tolerance is listed for each applicable modulation. FCC requires measured power not manufacturer's specification. [Please review 6.2.1.1 in your Test Report and make changes as appropriate.] I only need the measured power which the RAU will feed to the antenna for each modulation [GSM, CDMA, etc.] and each applicable band. The signal levels fed to the 75ohm coax are irrelevant and confusing.
- 2.) All Licensed radio transmitters need a tune up specification. Products which do not have user accessible adjustments are still required per FCC rules to provide a tune up procedure to which product is manufactured. Usually this is some sort of description of how this device will be manufactured to the specific RF power shown on the Grant. Your attestation is a step in the right direction, but is not sufficient.
- 3.) I am still confused on this one issue which is correct: the power on the application is per carrier, or the composite sum across all carriers which appear within the transmitter passband? In other words, if I take a 10dBm signal which drives this device to full rated output, and then add a second 10dBm carrier, and then a third, what happens to the output power? Will it increase with the addition of each signal, or stay the same?
- 4.) What is the signal drive level used for the intermodulation test? Why did you select 10dBm? What happens if you use higher values? I am unclear as to how this level was selected.
- 5.) All Licensed transmitter work must use the substitution method of TIA/EIA 603. The reason is very simple accuracy. Consider that an OATS is permitted to have a site-to-site variance of +/-4dB. This is not that important for Part 15 work. But a change of 4dB is the same as (in linear terms) a multiplier of 2.5. Consider a 1Watt ERP radio is power 1W, or 2.5W or 0.4W? Properly performed, the substitution method can be accurate to within +/-0.5dB. This is why for higher power Licensed transmitters FCC insists on the method described in TIA/EIA 603.
- 6.) I await the corrections to the band edge test.

Willing

William H. Graff President

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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. Except as described in §0.459, correspondence and responses should be considered part of the permanent submission and may be viewed from the Internet once 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.