



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

February 5, 2004

RE: FCC ID: RCUIBANEX-807_ATCB001087

Attention: Leon Paul Kass

I have a few comments on this Application.

1. Please note that the 731 states part 24 as one of the licensed rule parts under which this device is to operate. Please note that the frequency bands listed and tested do not fit into either the narrow band or the wide band PCS frequencies. Please remove part 24 from this application. Alternately, please explain how this amplifier fits into Part 24.
2. Please indicate the appropriate equipment code for the device on the 731 form (item 4a on the 731). Amplifiers would be AMP.
3. Please note that except in extenuating circumstances internal photos are not allowed to be held confidential. Please remove the internal photos from the confidentiality request.
4. Please note that the request for confidentiality is not the proper place for the technical specifications of a device. Please remove the technical specs shown on the request for confidentiality and restrict the request for confidentiality to listing those items that are to be confidential.
5. Please note that a report must provide evidence of compliance to ALL rule parts to which certification is requested. Your report only addresses part 90 and only 806 to 830MHz. Please provide evidence of compliance to all rule parts and all frequency ranges for which certification is requested. Please remember that a report must address all aspects of the rule parts that are applicable. Alternately, please remove rule parts, frequency ranges that have not been shown compliant from the application.
6. Please note that the report classifies this as an amplifier for F3E modulation. Please also note that TDMA/GSM modulation types were used. GSM is a digital wideband modulation which may exceed the modulation limitations in some of the rule parts for which certification is requested.. Please note that the device must show compliance all modulation types for all of the rule parts for which certification is requested. While it may be assumed that compliance with TDMA and GSM modulations would also show compliance with narrower emissions, the FCC has stated that all modulation types are to be tested. Please correct the report as necessary, testing the device using all appropriate modulation types.
7. Please note that amplifiers must faithfully reproduce the input signal. This can only be determined by comparison of input and out put signals. Please provide both input and output wave forms. Input wave forms should be set to the maximum input level for the amplifier.
8. Please provide the factory tune up procedure for this device. As this is an amplifier, and there are no frequency determining components, this may be a simple statement to the affect that there is no tuning procedure. However, if there are adjustments for 'fine tuning' band pass filters, this would need to be explained.
9. Please provide intermodulation test data. This may be done using two or three CW input signals.
10. Please note that actual ERP/EIRP measurements must be made. Please note that it is unclear from your report if you used the antenna substitution method specified in TIA 603. Your reference to 2.2.1.1 is for conducted carrier output power, not radiated spurious emissions as stated in the report. The limits listed in the report are also 54. However, you have not specified 54 what? It is assumed this is 54dBuV. This, however, would not be correct as the limit for ERP/EIRP measurements of spurious emissions of licensed devices is -13dBm (94dBuV). The report data indicates that only field strength emissions levels were measured. Please explain, and or retest using the proper antenna substitution method specified in 2.2.12 of the latest edition of TIA 603.
11. Please provide an MPE report showing compliance to the rf exposure rules.
12. Please note that the report on page 31 states that this device is used in the part 22E paging bands. Please note that while the frequency bands requested may lie in the 22F and 22G rule parts, this

- device frequency range is not in the allocated part 22E frequency bands. Please explain and/or please test to the correct frequency bands for device operation as stated in the application.
13. Please note that your report references 90.219g. Please note that there is no such section in 90.219. Please use current CFR rule parts when referencing CFR 47. Please provide a report specifically referencing all appropriate rules parts for which this application applies.
 14. Please note that while the measured conducted power is the power that will be listed on the grant, 90.219 restrict amplifiers and signal boosters to a maximum ERP. Please note that while you have provided conducted antenna terminal measurements, you have not provided ERP measurement data showing compliance to the ERP limit. Please show evidence of compliance to the ERP limit for this device. Please note that this ERP measurement is to be done using the same gain antenna for which MPE compliance is reported (see item 11).
 15. Please note that the theory of operation states that this device operates in the 824-849 MHz, 1850-1920 MHz, 869-894 MHz and 1930-1990 MHz range. Please note that the test report states the device operates only in the 806 - 830MHz range. Please also note that the 731 and advertising literature states the device operates in the 806 - 825 MHz and the 851 - 870 MHz range, while the theory of operation states the device operates in the 806-821 MHz and the 851-866 MHz range. Please provide documentation and test reports that are consistent and that report the actual frequency range for which certification is being requested. Please correct all documentation to state the same frequency ranges.



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.