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

December 26, 2003

RE: FCC ID: RLN895663_ATCB001010
Attention: Mike Royer
I have a few comments on this Application.

1. Please note that RNL is the grantee code not the equipment code. Please put the correct equipment code on the 731 form under item 4a. FHSS devices are DSS and DSSS devices are DTS.
2. Please note that you have 15.249 and 15.247 listed as the rule part under which this device is certified. Also please note that your report states, "The EUT transmits at the frequency of 902-928 MHz and is designed for compliance with 47 CFR 15.247 of the FCC rules." 15.247 FHSS devices cannot operate on a fixed frequency. Please also note that if this device is truly compliant to 15.249 there is no need to test to 15.247. If this device is certified under 15.247 it must be a FHSS device and the hopping MUST be enabled. Please note that only 15.249 will allow a fixed frequency for this device. Also, you have not tested the device in accordance with 15.247 – consequently it cannot be certified to this rule part. Please remove 15.247 from the 731 and report and please indicate the proper rule part for this device (i.e. 15.249 ONLY – also, as this is a 15.249 device, there is no rf exposure considerations).
3. Please note that it appears that you have only tested the fundamental and the harmonics. Please note that all spurious emissions are to be to insure that the device does not exceed the restricted band limits. Any and all emissions that are not the fundamental or the harmonics of the fundamental must meet the 50dB down limit or the limits of 15.209. Please also note that your statement about there being no emissions within 20 dB of the limit appears to be speaking of the limits for the harmonics, not the limits of 15.209 or the -50dB down from the fundamental limit for all non harmonic emissions in 15.249. Please verify that all emissions from 30MHz to 9 GHz were investigated (i.e. please verify that the comment concerning no emissions within 20dB includes all spurious emissions limits of 15.209 and/or the -50dBl limit and not just the limits on harmonics of the fundamental).
4. Please note that, while not specifically mentioning occupied BW measurements, 15.249 does not specifically exempt devices from occupied bandwidth measurements as you state in 2.3 of the report either. This OBW measurement (plot) is useful in showing compliance at the band edges. Please also note that the band edges and all non-harmonics of the fundamental in the 902 to 928MHz range must be 50dB below the level of the fundamental (in this case 49.6dBuV/m) or they must meet the limits of 15.209 – whichever is lesser attenuation. While you show compliance to the harmonics of the fundamental, you do not show by plot or data that the band edges or the non-harmonic emissions are in compliance. Please verify that the device meets the -50dB or 15.209 limits at the band edges as well as at frequencies between 30MHz to 9GHz.
5. Please remove the battery from the device and show the circuitry underneath.
6. Please note that while the data on the fundamental field strength measurements appear compliant, you have not compared them to the 15.249 limit. Please provide this comparison showing the 15.249 margins. (see page 13 of the pdf report)

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.