



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

March 31, 2008

RE: FCC ID: RUNZT3_ATCB006078
Attention: Michael Royer / Jason Anderson

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 FCC ID labeling shown on the device is not the same as that provided in the label exhibit. Please note that the FCC requires that the entire FCC ID number, including the prefix FCC ID: is to be on a single line. Please note that the FCC ID number shown on the device is on two separate lines. Please correct and make sure that the FCC ID number is on a single line as is shown in the label exhibit.
2. The Internal photos do not show both sides of the device, but only show on side with the plastic battery housing attached and the same side with the plastic battery housing taken off. Please explain and please provide appropriate internal photos.
3. Please note that only modules and end products are certified. Please note that unless this is an application for a modular approval, the device must be housed in a 'box' or other end product housing. If this is a modular approval, then please provide the necessary modular approval request letter addressing all 8 modular approval criteria. If this is not a modular approval, please test the device inside a typical housing.
4. Please note that the test report does not clearly state what approved FCC test procedure was used to test the device. Please note that as this is a DSSS type device the appropriate approved test procedure would be the FCC DTS test procedure found in KDB558074. Please confirm that this test procedure was used and please make reference to this test procedure in the test report.
5. Please note that in calculating the EIRP of the device you apparently used an antenna gain of 0dBi. Please note that there is no documentation to support this gain. As the G (gain) used in the formula $(E_d)^2/30G$ is the gain of the antenna, it is necessary to show what the actual gain of the antenna is before using the formula. Please note that this also applies to the PPSD data. Please note that it cannot simply be assumed that the gain is 0dBi. Please provide the antenna gain information for the device antenna or please provide actual conducted power measurements and power spectral density measurements at the antenna terminal.
6. Please note that for radiated spurious emissions in the restricted bands, while duty cycle averaging may be allowed for pulsed devices (typically allowed for FHSS type devices), it is not allowed for non-pulsed devices. Please adequately show how this device is to be considered a pulsed device whereby the 100ms pulse duty cycle correction of 15.35 may be used. Please also note that pulse modulation involves modulating a carrier with a train of **regularly recurrent pulses**. Please note that a direct sequence spread spectrum device does not use a series of regularly recurrent pulses, but uses a pseudo random transmission scheme. If this is a pulsed transmission, please not only adequately explain how the device is a DSSS and generates regularly recurrent pulses and please show the plots over 100ms in accordance with 15.35(b)(c). Please adequately show the duty cycle calculations involved in the method. If it cannot be shown how this is a pulsed transmission (i.e. it is not a set of regularly recurrent pulses - please note that simply being direct sequence spread spectrum device tends to not mean pulsed emission), then you must use the accepted averaging methods shown in the FCC accepted test procedures found in KDB558074 using a res Bw of 1MHz and a vid bandwidth of 10Hz etc. Please provide appropriate average data in accordance with the accepted test procedures.
7. Please note that in the radiated spurious emissions tables you state that at 1 meter the limits are 83.4dBuV/m average. Please note that this is not accurate. Please note that at 4810MHz and 4880MHz (both in the restricted bands) the average limit at 3 meters is 54dBuV/m. This means that at 1 meter the restricted band limit at 4810MHz would be 64dVuV/m (i.e. 20 dB/decade or $20\log 3/1$). Please note that this also means that the device apparently fails at 4810 and

4880MHz. Please retest using the appropriate restricted band limits and the appropriate and approved averaging method per the KDB.

8. Please review your data and make sure that all data is passing and in compliance with the accepted test procedures for this type device.
9. Please provide an adequate operational description for this device.
10. Please note that further comments may arise depending on the response to the above.



Dennis Ward

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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. 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.