

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

March 12, 2003

RE: FCC ID: LUBBTM-1 Attention: Bob Cole

I have a few comments on this Application.

- 1. Please note that for this type device, the photos cannot be held confidential. Please provide a revised confidentiality letter without the EUT photos mentioned as confidential. xxx
- 2. Please note that your statement (Users are not permitted to make changes or modify the system in any way) does not meet the requirements of the non-modification statement required by the FCC. The FCC has specifically stated that the warning must caution the user that "changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment." Your statement does not inform the user that such modification could void the use of the device. Please correct the manual and provide the information specifically required by the FCC in this matter. xxx
- 3. Please provide a separate Block Diagram exhibit. xxx
- 4. Please remove the material covering the circuitry on page 2 of the internal photos and provide photos of the circuitry or chip underneath. xxx
- 5. Please note that the statement on page 4 of the manual ("To comply with FCC and Industry Canada exposure requirements, this device is approved for operations in a user's hand when there is a distance of 20 cm or more between the device antenna and the user's body.") is misleading. The 20cm is the distance at which a device can be considered mobile rather than portable. The use in the hand specifically says the device is in deed portable. Also please note that the parts list specifically states that the antenna is part of the device, and used in the hand, it is not possible to keep 8 inches (20cm) separation. Please correct the statement to show the proper use of the item and proper rf exposure concerns. xxx
- 6. The item you have provided as a schematic appears to be more of a Block diagram. Please provide the actual schematics for the device. xxx
- 7. Please note that your references to sections in 15.247 on page 5 of your report are incorrect. Please note that major changes have occurred in 15.247. Please revise your report to correctly identify the section used in the various tests. For example 15.247(a)(1)(ii) is the section for 5GHz SS devices now. Please use the most current 15.247 rules. xxx
- 8. Please note that you have improperly measured output power in hopping mode. (see pages 9, 10 and 11 of the report). Power must be done with the hopping stopped and the res and vid BW set according to the FCC guidelines to achieve a proper reading (refer to DA000705). Consequently, it is highly unlikely that the actual power out of this device is -27dBm. Please retest your power out for this device with the hopping stopped and the proper FCC recommended Res and Vid bandwidths. Alternately, please use a power meter with the proper head to measure power out. xxx
- Please note that FHSS devices do not required PPSD. You have incorrectly used the DSSS test method for a FHSS system on page 12. This information is not needed, please remove it from your report. xxx
- 10. Please note that you have incorrectly measured the 20dB bandwidth in the hopping mode. Band width measurements are done with the hopping stopped. Please retest the 20dB band widths using the proper FCC guidelines in DA000705. xxx
- 11. Please note that the FCC accepted test measurement procedure for FHSS devices says that you are to test the band edges with the hopping stopped as well as in hopping mode. Please provide plots of the band edges with the hopping stopped as specified in the accepted FCC test method for FHSS devices. xxx
- 12. I am still missing several exhibits so the review cannot be completed until I receive them. xxx

• Page 2

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.