



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

July 16, 2003

RE: FCC ID: CB2BLUECON\_ATCB000595  
Attention: Val Liepa

I have a few comments on this Application.

1. Please note that the statement ("the radiated emissions are subject to emissions in restricted bands only (15.205)") is incorrect. While 15.247 intentional radiators are not subject to the general 15.209 limits, they are subject to a radiated spurious emissions requirement of at least 20dB below the fundamental frequency requirement as well as the restricted band emissions requirements (above and below 1GHz). Please clarify your statement so that the test report shows understanding of this requirement.
2. Please note that your report states that the open site facility of the University is listed with the FCC, yet your report states that you did full radiated compliance in an anechoic chamber. While preliminary radiated testing to find the worse case setup may be used, the actual site used to perform final emissions testing (at least in the frequency range below 1GHz) must be the site listed. Please show how your device radiated emissions testing was performed on the required FCC listed site. Alternately, please provide evidence that the anechoic chamber is listed with the FCC as an acceptable site.
3. FYI – no action needed. Please note that the conducted testing performed on the device is under the old rules. The new conducted emissions range is from 150 KHz to 30 MHz. By testing to the old rules the device must either be retested prior to the deadline specified in 15.37 (transition rule) or must stop being sold as specified in the transition rule. The grant note for devices tested to the old rule part will be 05 indicating it is subject to the transition limitations.
4. FYI – no action needed. Please note that Bluetooth devices have at least three modes of operation (DH1, DH3 and DH5). The two 'worse' case conditions can usually be found in the transmit (data mode) and the inquiry mode. These are the two modes that will always be functioning during normal operation. Please also note that the hopping channel requirements apply to not only the transmit mode but also to the inquiry mode. Even Bluetooth protocol would indicate mandatory compliance; evidence of compliance to the hopping channels should also be done for the inquiry mode.
5. The FCC requires that a separate MPE report be uploaded and provided to them. Please provide a separate MPE document.
6. In the radiated emissions table 5.1 you show peak readings above the average limit. While these peak readings are compliant to the 20dB over the average limit (74dBuV/m) requirement, they fail the actual average limit of 54dBuV/m. Please note that assumptions about Bluetooth device operations such as made in 6.5 of your report cannot be made for the purpose of showing compliance. Actual average measurements MUST be used to show compliance. Please provide average measurements showing compliance to the 54dB limits.
7. Please note that while it appears that the white blank spot on the device is where the label may go, this cannot be assumed. Please specify where on the device the label is to be located.
8. The report indicates a modified device for making conducted antenna measurements. The internal photos show a device with an SMA connector. The schematics state an inverted F antenna connection is used. Please explain the difference in documentation on the rf connector used in this device. Please show how the antenna restrictions of part 15 are met.
9. FYI – no action needed at this time. Please note that the FCC may request that the shield covering the digital circuitry portion of the PCB be removed to show the circuitry underneath.

*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.