

RE: FCC ID: CB2BLUECON_ATCB000595

The following is in response to the comments on the above 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.

It is evident from the test report that this requirement was understood. However, we have removed “only” from this statement in the test report per your request.

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.

The DUT is used exclusively in a transportation vehicle, and pursuant to section 15.103 of the FCC rules all digital emissions from the device are exempt. All emissions from this device resulting from the RF section fall well above 1 GHz - this was verified in pre-testing. If emissions resulting from the RF section had been detected below 1 GHz, then testing (below 1 GHz) would be done on the FCC listed OATS pursuant to the FCC guidelines.

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.

These tables are in the process of being updated. Note that no conducted testing need be performed on the device in question.

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.

Our apologies, one has been uploaded.

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.

Section 6.5 of the test report has been updated to include a sample measurement, demonstrating the peak to average ratio for the device in question is much greater than 20 dB. Pursuant to 15.35, peak measurements are then used to demonstrate compliance.

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.

An updated ID Label & Location Exhibit has been uploaded.

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 the difference in documentation on the RF connector used in this device. Please show how the antenna restrictions of part 15 are met.

The two internal photos showing the SMA connector are simply demonstrating how the modified device was constructed. Other photos in the exhibit show the non-modified device with the inverted F antenna. A new Internal Photos exhibit has been uploaded with the word "Modified" added to the photos in question.

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.