

ATCB
RE: CB2UCONN

The following is in response to your request for further information regarding the submission/certification of FCC ID: CB2UCONN.

1) The RF exposure calculations provided show an antenna gain of 1 dBi, while section 6.7 of the test report state an antenna gain 0 dBi. Please correct the exhibits to be consistent.

[This has been corrected. Please see updated Test Report.](#)

2) The RF exposure calculations should be shown for the highest output power. Please correct this exhibit for the output power of 4.7 dBm (2.95 mW).

[This has been corrected. Please see updated RF Exposure exhibit.](#)

3) Please note that the Duty Cycle presented in the report was based on your measurements. However Bluetooth has different packet lengths that may be used in modes with longer packets. The theory of operation for Bluetooth states that their may be 1, 3, or 5 slots used per transmit depending on the mode of operation. For a DH1 packet the TX is on 0.625 us per 49 mS per channel, while for a DH5 packet the TX is on $0.625 * 5$ per 247 ms per channel. These duty cycles equal the following: $20 \log (.625/49) = 37.9 \text{ dB}$ or $20 \log (3.125/100) = -30 \text{ dB}$. All are greater than the 20 dB difference between the peak and average limits. However, since average measurements where not made and you are relying on this justification, it is recommended that reference to this fact that all types of transmissions in Bluetooth yield a correction factor $> 20 \text{ dB}$.

[A reference to the statement included in the attestations portion of the filing has been included in the revised test report.](#)

4) Your response stated that for antenna conducted measurements was included in the new revision of the report for a low, middle, and high channel. However, section 6.9 of the Test report states that the hopping was enabled and data was provided for all channels.

[This has been corrected. Please see updated Test Report.](#)