

Part 24

1. Please note that you have provided 2 EMC report (Exhibit06.pdf and Exhibit6C.pdf). Please clearly identify which report is to be used. It is assumed that Exhibit06.pdf is the correct report as it is more complete. Please verify.

[A revised test report has been uploaded.](#)

2. Please note that in your documentation list you specify ANSI C63.4 as a test method. Please note that where applicable for part 24 the accepted FCC test method is derived from TIA 603. Please provide evidence that this method was used.

[The TIA/EIA-603-A has been added as reference. The radiated tests were retested according to that standard.](#)

3. In your report for EIRP of the transmitter you state that the receive antenna was placed at the same height as the transmitter. Please note that this does not necessarily account for a maximum power measurement even in an anechoic chamber. Please note that in EIRP measurements of the EUT the antenna needs to be raised and lowered sufficiently to make sure that the maximum reading is obtained. It cannot be assumed that the maximum occurs at the same height as the EUT. Please retest your device showing how a maximum measurement value was obtained.

[This has been retested using antenna height scan as per EIA/TIA-603-A. See revised test report.](#)

4. In section 9.4 of the report you have a column that states "Level [dBm]". However you have not clearly identified this field. Is this the margin compared to the -13dBm limit? While this appears to be the delta from the peak of the plotted signal and while the device is compliant at the band edges, it is not clear what this column is representing. Please clarify.

[That column showed erroneously the delta to the peak of the signal. The plots are still correct. The table has been corrected in the revised report.](#)

5. FYI – no action needed. Please note that recent FCC decisions have stated that only the upper and lower band edge needs to show compliance. The FCC has retracted their previous requirements of showing all block edges.

[Noted.](#)

6. Please note that as with EIRP power measurements mentioned in item 1, you have not raised and lowered the receive antenna to obtain the maximum emissions. Please note that it is not possible to predetermine a specific antenna height as the worse case emissions. Please follow the recommended TIA603 test procedures in measuring and reporting EIRP radiated spurious emissions. Please provide data showing that the receive antenna has been raised and lowered in the required manner.

[This has been retested using antenna height scan as per EIA/TIA-603-A. See revised test report.](#)

7. As required, please provide the calibration dates of the test equipment.

[All test equipment are calibrated once a year except antennas, which are calibrated every second year. Uncalibrated equipment are not used for measurements. A note of this has been added to the revised test report.](#)

8. Please note that you have provided 2 EMC report (Exhibit06.pdf and Exhibit6C.pdf). Please clearly identify which report is to be used.

[See question 1.](#)

Bluetooth Part 15

9. Please note that your limit table in section 15.4 is incorrect. The limit in the restricted bands above 1GHz is an average limit with requirements of also meeting a 20dB above average in peak mode. Please correct the limits listed in the table.

[This has been corrected in the revised test report.](#)

10. Please note that the restricted band emissions limits above 1GHz are average limits. Please also note that in addition to the average limit of 54dBuV/m the device must also meet the peak limit of 20dB above the average limit or 74dBuV/m. Please note that while the device appears to meet the peak 74dBuV/m it does not appear to have been tested to meet the average limit of 54dBuV/m. Please note that a number of readings on pages 37 to 38 of the BT report fail average limits and thus the device is not compliant. Please retest the device to show compliance to both the restricted band average limits of 54dBuV/m and the 20dB over average limit of 74dBuV/m.

[This has been retested, see revised test report.](#)

11. Please note that there is no indication in the Bluetooth report that the receive antenna was raised and lowered between 1 to 4 meters during testing of radiated spurious emissions. Please provide evidence that this has been done. Alternately, please retest the EUT using the proper antenna height requirements.

[This has been retested, see revised test report.](#)

12. Please provide information on the transducer factors used in calculating the radiated spurious emissions data (i.e. cable, preamp if used, antenna factors)

[Description of the calculations have been added in the revised test report. The factors are still combined into one number, as the system does not allow separating them.](#)

13. As required by ANSI C63.4, please provide evidence that test equipment meets the calibration cycle requirements.

[See question 7.](#)

14. In the photos for AC conducted, there appears to be 'spikes' protruding from the conducted emissions table. Please verify that these are not conductive and do not affect the emissions of the device.

[Wrong photograph was attached by accident, the correct photograph has been uploaded.](#)

SAR

15. Please note that the maximum power drift listed on page 4 of the SAR report show a greater than 5% drift. As stated in 1528 drifts are not to be greater than 5% and if they do exceed 5% then a justification for this excessive drift should be provided. Please explain this greater than 5% drift.

[Temperature of RF power amplifier changes during 20 to 30 min SAR scan and that leads to drift in output power. Cellular phones are not precision RF power sources and +/-10% is more appropriate drift window for our products than +/-5%. +/-10% power drift is included in the measurement uncertainty calculation in section 6 of the SAR report.](#)