

TCB Questions.

Applicant answers.

Question 1:

Please confirm that the device was operating at maximum power during the RF tests.

The operation description document states that the device is capable of transmitting up to 4 dBm (2.5 mW) but the RF report shows a maximum of 0.77 mW (-1.1 dBm).

For the top channel, you measured a peak power of 0.57 mW and an average power of 0.58 mW.

Although only a small amount, the Peak Power appears to be lower than the average power.

Answer 1:

We confirm that the device was operating on maximum power, with new batteries installed. The manufacturer's rating is based on the technical data provided by the chip and antenna manufacturers. The actual power achieved is consistent with expectations of a small device using a chip antenna in close proximity to the case and other components.

During testing, no observable difference was found between peak and average power for this device. The peak and average measurements were made using different test methods and different test equipment, at different times.

Question 2:

The spurious emissions plots at 18 GHz (pages 24 and 31) and 24 GHz (pages 26 and 32) show the noise floor close to the limit of 54 dBuV/m. The plot used a peak detector and when peak measurements comply with the average limit, it may not be necessary to demonstrate additional average measurements. However, the peak noise appears close to the average limit and the average limit is not shown on the plot.

Answer 2:

The EUT was not a continuous transmitter and therefore an average plot would not be directly measurable. Average results (duty cycle corrected on page 33 of test report) are estimated at 16.7 dB lower than peak and therefore a long way down from the average limit.