

Appendix IV RF Exposure evaluation

FCC ID: 2BL8X-CT02-DE1

According to 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
$$f(\text{GHz}) \text{ is the RF channel transmit frequency in GHz}$$

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison.

BLE:

Worse case output power is as below: [2402MHz: 0.32dBm]

Maximum output power is 0.32dBm (1.08 mW).

$(1.08 \text{ mW} / 5\text{mm}) \cdot [\sqrt{2.402(\text{GHz})}] = 0.33 < 3.0$ for 1-g SAR

Then SAR evaluation is not required.