

RF Exposure evaluation

FCC ID: SMQSA-20

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 \leq 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

For Bluetooth BR/EDR

pt=5.06dBm=3.21mW at 2402MHz

So $(3.21\text{mW}/5\text{mm}) \cdot \sqrt{2.402\text{GHz}} = 0.99 < 3$

For BLE

pt=-0.54dBm=0.88mW at 2402MHz

So $(0.88\text{mW}/5\text{mm}) \cdot \sqrt{2.402\text{GHz}} = 0.27 < 3$

Then SAR evaluation is not required