

RF exposure evaluation

According to 447498 D01 General RF Exposure Guidance v05r02 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

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:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[\sqrt{f(\text{GHz})} \right] \leq 3.0$$
for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ 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

Worse case for BT as below:

[2441MHz: 6.06dBm (4.04 mW) output power]

$(4.04 \text{ mW} / 3\text{mm}) \cdot [\sqrt{2.441(\text{GHz})}] = 1.26 < 3.0$ for 1-g SAR

Worse case for WIFI as below:

[2437MHz: 5.43dBm (3.49 mW) output power]

$(3.49 \text{ mW} / 5\text{mm}) \cdot [\sqrt{2.437(\text{GHz})}] = 1.10 < 3.0$ for 1-g SAR