



RF Exposure evaluation

FCC ID: 2AZL5-VDM70PU

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: [2480MHz: 1.00dBm]

Maximum output power is 1.00dBm (1.26 mW).

$(1.26 \text{ mW} / 5\text{mm}) \cdot [\sqrt{2.480(\text{GHz})}] = 0.40 < 3.0 \text{ for 1-g SAR.}$

2.4G WIFI:

Worse case output power is as below: [2437MHz: 8.92dBm]

Maximum output power is 8.92dBm (7.80 mW).

$(7.80 \text{ mW} / 5\text{mm}) \cdot [\sqrt{2.437(\text{GHz})}] = 2.43 < 3.0 \text{ for 1-g SAR.}$

BLE + 2.4G WIFI: $0.40 + 2.43 = 2.83 < 3.0$ for 1-g SAR.

Then SAR evaluation is not required.