

Appendix IV RF Exposure evaluation

FCC ID: 2ANIFTY03K

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.

For Worst case Mode: 433.92MHz

Field strength = 68.50 dBuV/m @ 3m

Ant gain 0 dBi; so Ant numeric gain = 1

So $P_t = \{ [10^{(68.50/20)} / 10^6 \times 3]^2 / 30 \times 1 \} \times 1000 \text{ mW} = 0.0021 \text{ mW}$

So $(0.0021 \text{ mW} / 5 \text{ mm}) \times \sqrt{0.43392 \text{ GHz}} = 0.0003 < 3$ for 1-g SAR

Then SAR evaluation is not required.