

Appendix IV RF Exposure evaluation

FCC ID: 2AJ30-U45D

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 5730-5844MHz, **Worst case** scenario: 5780MHz

Field strength = 69.85dBuV/m @3m(AVG)

$E = \text{EIRP} - 20 \log d + 104.8$

where

E is the electric field strength in dBuV/m

EIRP is the equivalent isotropically radiated power in dBm

d is the specified measurement distance in m

$\text{EIRP} = 69.85 - 95.2 = -25.35 \text{ dBm} = 0.00292 \text{ mW}$

So $(0.00292 \text{ mW} / 5 \text{ mm}) \times \sqrt{5.780 \text{ GHz}} = 0.00140 < 3$ for 1-g SAR

Then SAR evaluation is not required.