

Maximum Permissible Exposure

RF Exposure Limit

According to KDB 447498D01 v06:

The 1g and 10g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

- $f(\text{GHz})$ 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

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Device category	: Portable device
Transmitting mode	: Single transmitting
Max. transmitting frequency	: 2 480 MHz
Min. test separation distance	: 5 mm
Max. Antenna Gain	: Left: -4.12 dBi Right: -3.46 dBi
Max. time average power	: 7 dBm
Max. power with turn-up tolerance	: 8 dBm 6.40 mW

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For this device:

$$7 \text{ mW}[\text{maximum average output power}] / 5 \text{ mm}[\text{minimum separation distance}] \times \sqrt{2.48 \text{ GHz}} = 2.20$$

Note. The calculation result was rounded to one decimal place for comparison.

Test Result :

This is less than 3.0 for 1-g SAR.

SAR evaluation for general population exposure conditions by measurement or numerical simulation is not required.