

RF Exposure evaluation

According to KDB 447498 D01 General RF Exposure Guidance v05
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:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]}{\leq 3.0}$$

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 is as below:

For right antenna,

The minimum distance from antenna to human body (hand) is 35mm.

$(38.11 \text{ mW} / 35\text{mm}) \cdot [\sqrt{2.475 \text{ (GHz)}}] = 1.71 < 3.0$ for 1-g SAR

For left antenna,

The minimum distance from antenna to human body (hand) is 90mm.

$(38.19 \text{ mW} / 90\text{mm}) \cdot [\sqrt{2.475 \text{ (GHz)}}] = 0.68 < 3.0$ for 1-g SAR

Then SAR evaluation is not required



