

According to KDB 447498 D01 General RF Exposure Guidance v06, section 4.3.1

At 100 MHz to 6 GHz and for test separation distances ≤ 50 mm, the SAR test exclusion threshold is determined according to the following

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

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation³¹
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

1. SAR test exclusion threshold

Frequency: 2 480 MHz (min. separation distances = 5 mm)

$$\text{SAR test exclusion thresholds (5 mm)} = 3 \times 5 / (\sqrt{2.480}) = 9.525 \text{ mW}$$

Max. Tune-up Tolerance (mW)	SAR Test Exclusion Thresholds (5mm) (mW)
2.0	9.525

$$\text{Calculation value : } 2 \text{ (mW)} / 5 \text{ (mm)} \times \sqrt{2.480} = 0.63$$

So, Calculation value ≤ 3.0

Remark:

-Max. conducted power is 1.9 (mW), so 2 (mW) was calculated.

-When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2. Conclusion : No SAR is required.