

SAR test exclusion

According to KDB 447498 D01 General RF Exposure Guidance v05, section 4.3.1

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

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

1. SAR test exclusion threshold

Frequency : 2480 MHz (min. separation distances = 5 mm)

SAR test exclusion thresholds(5 mm) = $[(0.158 / 5) * \sqrt{2.402}] = 0.05 < 3.0$.

| Mode | Frequency (MHz) | Tune up output Power (dBm) | Measured max output Power (dBm) | Separation Distance (mm) | ≤ 3.0 |
|-----------|-----------------|----------------------------|---------------------------------|--------------------------|------------|
| Bluetooth | 2402 | -9±1 | -8.95 | 5 | 0.05 |
| Bluetooth | 2440 | -10±2 | -9.82 | 5 | 0.04 |
| Bluetooth | 2480 | -10±2 | -9.84 | 5 | 0.04 |

[Tune up power, dBm] = [Target power, dBm \pm tune-up tolerance, dBm]

Maximum tuned up power = (-10 dBm \pm 2 dBm) = -8 dBm = 0.158 mW

Measured max output power = -8.95 dBm

2. Conclusion : Bluetooth SAR was not required

0

0.048975
0.040613
0.040945