

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 ≤ 50 mm, the SAR test exclusion threshold is determined according to the following;

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

1. SAR test exclusion threshold

Frequency : 2402 MHz (min. separation distances = 5 mm)

SAR test exclusion thresholds(5 mm) = $\left[\frac{(2.51 / 5) * \sqrt{2.402}}{1} \right] = 0.784 < 3.0$.

Mode	Frequency (MHz)	Tune up output Power (dBm)	Measured max output Power (dBm)	Separation Distance (mm)	≤ 3.0
Bluetooth	2402	2 \pm 2	3.15	5	0.78
Bluetooth	2440	2 \pm 2	3.01	5	0.78
Bluetooth	2480	2 \pm 2	2.81	5	0.79

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

Maximum tuned up power = (2 dBm \pm 2 dBm) = 4 dBm = 2.51 mW

Measured max output power = 3.15 dBm

2. Conclusion : Bluetooth SAR was not required