

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) = $[(2.0 / 5) * \sqrt{2.480}] = 0.63 < 3.0$.

Mode	Frequency (MHz)	Tune up output Power (dBm)	Measured max output Power (dBm)	Separation Distance (mm)	≤ 3.0
Bluetooth	2402	-1±2	-1.3	5	-0.40
Bluetooth	2440	2±2	1.15	5	0.36
Bluetooth	2480	2±2	2.08	5	0.66

[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 = 2.08 dBm

2. Conclusion : Bluetooth SAR was not required

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-0.40296
0.359271
0.655117