

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 : 2462 MHz (min. separation distances = 5 mm)

SAR test exclusion thresholds(5 mm) = $\left[\frac{7.39}{5} \times \sqrt{2.412} \right] = 2.295 \leq 3$

Mode	Frequency (MHz)	Tune up output Power (dBm)	Measured max output power (dBm)	Separation Distance (mm)	≤ 3.0
802.11n	2412	8.80	8.69	5	2.30
802.11n	2436	8.80	7.93	5	1.93
802.11n	2462	8.80	6.81	5	1.49

$[\text{Tune up power, dBm}] = [\text{Target power, dBm} \pm \text{tune-up tolerance, dBm}]$

Maximum tuned up power = $(8.80 \text{ dBm} \pm 1 \text{ dBm}) = 9.8 \text{ dBm} = 9.5 \text{ mW}$

Measured max output power = 8.69 dBm

2. Conclusion : WL SAR was not required