

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 : 2 475 MHz (min. separation distances = 5 mm)

SAR test exclusion thresholds(5 mm) = $\left[\frac{0.32}{5} \times \sqrt{2.405} \right] = 0.0992 \leq 3.0$.

Mode	Frequency (MHz)	Tune up output Power (dBm)	Measured max output Power (dBm)	Separation Distance (mm)	≤ 3.0
DSSS	2 405	-7.0 ± 2	-5.56	5	0.0993
DSSS	2 440	-7.0 ± 2	-6.18	5	0.1000
DSSS	2 475	-7.0 ± 2	-6.51	5	0.1007

$[\text{Tune up power, dBm}] = [\text{Target power, dBm} \pm \text{tune up tolerance, dBm}]$
Maximum tuned up power = $(-7.0 \text{ dBm} \pm 2 \text{ dBm}) = -5.0 \text{ dBm} = 0.32 \text{ mW}$
Measured max output power = -5.56 dBm

2. Conclusion : SRD (DSSS) SAR was not required

Note : This EUT of RFID does not exceed for Appendix C of KDB 447498.