

Standalone SAR test exclusion considerations

RF feature	Mode	Transmitting Frequency(MHz)	Test separation distance (mm)	ANT Gain (dBi)	Max. power with tune-up tolerance (dBm) ^{Note1}	Max. power with tune-up tolerance (mW)	Power thresholds	SAR test exclusion thresholds
BLE	GFSK (1 Mbps)	2402.0 ~ 2480.0	5.0	2.77	-12.50	0.0562	0.02	3.00
Zigbee	O-QPSK (250 kbps)	2480.0 ~ 2480.0	5.0	1.48	-12.50	0.0562	0.02	3.00

Note1. Please refer to the operation description for Max Tune-up power.

KDB 447498 D01 clause 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separation distances ≤ 50 mm

$$\left[\left(\text{max. power of channel, including tune-up tolerance, mW} \right) / \left(\text{min. test separation distance, mm} \right) \right] \cdot \left[\sqrt{f(\text{GHz})} \right] \leq 3.0 \text{ for 1g SAR and } \leq 7.5 \text{ for 10g extremity SAR}$$

Sample Calculation

$$= \left[\left(0.0562\text{mW} / 5\text{mm} \right) \right] \times \left[\sqrt{2.48\text{GHz}} \right] = 0.02$$

Note. The calculation result was rounded to two decimal place for comparison.

Conclusion : SAR evaluation for general population exposure conditions by measurement or numerical simulation is not required