

Standalone SAR test exclusion considerations

RF feature	Worst Case 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(AP6212A)	1 Mbps	2 480.00	5.0	1.99	4.50	2.818 4	0.89	3.00
BLE(nRF52832)	1, 2 Mbps	2 480.00	5.0	1.99	-16.00	0.025 1	0.01	3.00
WLAN 2.4GHz	802.11g	2 462.00	5.0	1.99	7.50	5.623 4	1.76	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

$$= \left[\left(2.8184\text{mW} / 5\text{mm} \right) \right] \times \left[\sqrt{2.48\text{GHz}} \right] = 0.89$$

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