

Standalone SAR test exclusion considerations: BLE

Date: October 19, 2018

RF feature	Mode	Transmitting Frequency(MHz)	Test separation distance (mm) ^{Note1}	Max. power with tune-up tolerance (dBm) ^{Note2}	ANT Gain (dBi)	Max. power with tune-up tolerance (mW)	Power thresholds	SAR test exclusion thresholds
BLE	-	2402.00	5.0	-3.50	3.14	0.4467	0.14	3.00

Note1. The minimum separation distance between antenna and user is 5 mm.

Exact antenna dimensions and separation distances are shown in the "Attestation letter"

Note2. 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

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

Sample Calculation

$$= \left[\left(0.4467\text{mW} / 5\text{mm} \right) \right] \times \sqrt{2.402\text{GHz}} = 0.14$$

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

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