



## Standalone SAR test exclusion considerations: BT

Date: March 12, 2018

RF feature	Mode	Transmitting Frequency(MHz)	Test separation distance (mm) <sup>Note1</sup>	Max. power with tune-up tolerance (dBm) <sup>Note2</sup>	ANT Gain (dBi)	Max. power with tune-up tolerance (mW)	Power thresholds	SAR test exclusion thresholds
BT	BDR	2440.00	30.0	17.00	0.52	50.1187	2.61	3.00
BT	EDR	2480.00	30.0	6.50	0.52	4.4668	0.23	3.00
BT	LE	2480.00	30.0	1.00	0.52	1.2589	0.07	3.00

Note1. The minimum separation distance between antenna and user is 30mm.

Exact antenna dimensions and separation distances are shown in the "Attestation letter" in the FCC original filing.

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  $\leq 50$  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**

$$= \left[ \left( 50.1187\text{mW} / 30\text{mm} \right) \right] \times \left[ \sqrt{2.44\text{GHz}} \right] = 2.61$$

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**