

7.7 RF Exposure Considerations (KDB 447498 D01)

The 1 g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by;

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

- $f_{\text{(GHz)}}$ is the RF channel transmit frequency in GHz.
- Power and distance are rounded to the nearest mW and mm before calculation.
- The result is rounded to one decimal place for comparison.
- When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied.

Band	Freq. (MHz)	Max. Power		Distance (mm)	Threshold	Test Exclusion
		(dBm)	(mW)			
Bluetooth LE	2480	-5.0	0.3	< 5	0.1	YES

The minimum user separation distance was assumed to be 0 mm for the purpose of the SAR exclusion calculations.

Conclusion:

The device for BLE qualifies for the Standalone SAR test exclusion because the computed value is < 3.