

1. Reference

According to 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

Where:

f (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

2. Result

1) Standalone SAR

According to the output power measurement, and the tune-up statement by manufacturer, the calculated value can be obtained.

Test Frequency (MHz)	Minimum Separation Distance (mm)	Max. Output Power (dBm)	Output Power with tune up (dBm)	Output Power (mW)	calculated value	exclusion thresholds
2480.00	5.0	4.243	5	3.162	1	3

2) Simultaneous SAR

The device uses two CSRA64210 Bluetooth chips with the as power tune-up tolerance, which can transmission simultaneously.

According to $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})/x}] \text{ W/kg}$, for test separation distances ≤ 50 mm;

where $x = 7.5$ for 1-g SAR and $x = 18.75$ for 10-g SAR.

The calculated SAR value can be obtained.

Communication system	Frequency (MHz)	Maximum Power (including tune-up tolerance) (dBm)	Output Power (mW)	Separation Distance (mm)	Estimated SAR1-g (W/kg)
Bluetooth*	2480	5	3.162	5	0.133

Simultaneous SAR = $0.133 + 0.133 = 0.266 \text{ W/kg} < 1.6 \text{ W/kg}$

3) Conclusion: No SAR is required.