

FCC ID: 2A9XB-BLT5

Portable device

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to KDB447498 D01 General RF Exposure Guidance V06

The 1-g SAR 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:

- $f(\text{GHz})$ 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 to determine SAR test exclusion.

BLE

Modulation	Channel Freq. (GHz)	Conduct ed power (dBm)	Conducte d power (mW)	Tune-up power (dBm)	Max tune-up power (dBm)	Max tune-up power (mW)	Distance (mm)	Result calculation	SAR Exclusion threshold	SAR test exclusion
GFSK(1M bps)	2.402	2.36	1.72	2±1	3.00	2.00	<5	0.61847	3.00	YES

SRD-490M

According to the calculation formula of power:

Below 1GHz: $\text{dBm} = \text{dBuV/m} - 95.2 - 4.7$

Modulation	Channel Freq. (MHz)	Output Power (dBuV/m)	Output Power (dBm)
ASK	490	73.50	-26.4

Modulation	Channel Freq. (GHz)	Conduct ed power (dBm)	Conducte d power (mW)	Tune-up power (dBm)	Max tune-up power (dBm)	Max tune-up power (mW)	Distance (mm)	Result calculation	SAR Exclusion threshold	SAR test exclusion
ASK	0.49000	-26.4	0.00	-26±1	-25.00	0.003162	<5	0.000443	3.00	YES

For the Max simultaneous transmission

Evaluation mode	Result calculation	Total Result calculation	SAR Exclusion threshold	Result
BLE	0.61847	0.618913	3.0	Pass
SRD-490M	0.000443			

Conclusion:

1. [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] * [$\sqrt{f(\text{GHz})}$] < 3.0.
2. SAR Test Exclusion Thresholds is 3.0 for separation distance 5mm. Therefore, SAR test is not required.