

FCC ID:2BCM2-Z01

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:1M

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	2.402	-1.324	0.74	-1±1	0.00	1.00	<5	0.30997	3.00	YES
	2.44	-0.919	0.81	0±1	1.00	1.26	<5	0.39330	3.00	YES
	2.480	-0.838	0.82	0±1	1.00	1.26	<5	0.39651	3.00	YES

BLE:2M

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	2.402	-1.146	0.77	-1±1	0.00	1.00	<5	0.30997	3.00	YES
	2.44	-0.734	0.84	0±1	1.00	1.26	<5	0.39330	3.00	YES
	2.480	-0.607	0.87	0±1	1.00	1.26	<5	0.39651	3.00	YES

NFC:

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	0.01356	2.76	1.89	2±1	3.00	2.00	<5	0.04647	3.00	YES

Note:dbm=dbuv/m-95.2-2.15=101.11-95.2-2.15=3.76dBm(ERP), so the conduct peak power=3.76-1=2.76dBm

Conclusion:

BT+NFC supported simultaneous transmission:

BLE+NFC: $\Sigma \text{MPE Ratio} = 0.39651/3 + 0.04647/3 = 0.14766 \leq \text{FCC Limit } 3.0$ for 1g SAR.