

FCC ID: 2BCIBZN-S06
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

	Channel Freq. (GHz)	Max Conducted power (dBm)	Conducted 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
BLE	2.402	1.69	1.48	2±1	3.00	2.00	<5	0.61994	3.00	YES
	2.44					2.00	<5	0.62482	3.00	YES
	2.48					2.00	<5	0.62992	3.00	YES

NFC

According to the calculation formula of power:

Below 30MHz: $\text{dBm} = \text{dBuV/m} - 95.2 + 6$

Modulation	Channel Freq.	Output Power (dBuV/m)	Output Power (dBm)
ASK	13.56	41.39	-47.81

	Channel Freq. (GHz)	Max Conducted power (dBm)	Conducted 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
NFC	0.01356	-47.81	0.000017	-47±1	-46.00	0.000025	<5	0.00000058	3.00	YES

Simultaneous transmitting evaluation:

BLE and NFC

Evaluation mode	Result calculation	Total Result calculation	Limit	Result
BLE	0.62992	$0.62992/3 + 0.00000058/3 = 0.21$	1	Pass
NFC	0.00000058			

Conclusion:

For the max result:

Max simultaneous transmission $0.21 \leq \text{FCC Limit } 1.0$,

Maximum transmission for a single function $0.62992 \leq \text{FCC Limit } 3.0$ for 1g SAR

Therefore, SAR test is not required.