

RF EXPOSURE EVALUATION

Product Name	:	Bluetooth Speaker
Model Name	:	MB200R
FCC ID	:	2ACF2MB200R
Bluetooth Version	:	BT4.2+EDR
Operating frequency	:	2402-2480MHz
Antenna Type	:	Internal PCB Antenna
Antenna Gain	:	-0.58dBi
Power supply	:	DC 7.4V, 6600mAh Battery For Adapter: Model: WT1203000G Input: AC 100-240V, 50/60Hz, 1.6A Output: DC 12V, 3.0A
Hardware Version	:	V1.0
Software Version	:	V1.0
Device category	:	Portable (<20cm separation)

Standard Requirement

According to § 15.247(i) and § 1.1307b(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 levels in excess of the Commission's guidelines. See KDB 447498 D01 General RF Exposure Guidance v05, section 4. 3. 1.

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

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

- $f(\text{GHz})$ 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.

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100MHz and 6GHz. When the minimum test separation distance is < 5 mm, a distance of 5mm is applied to determine SAR test exclusion. Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

One antenna is available for the EUT (BT product). The minimum separation distance is 5mm.

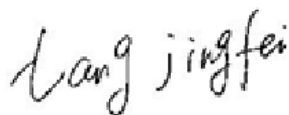
BT:

Channel Frequency (MHz)	Measurement Peak Output Power(dBm)		
	GFSK	$\pi/4$ -DQPSK	8DPSK
2402	-2.339	-5.692	-5.160
2441	-3.608	-5.469	-5.012
2480	-2.658	-5.387	-5.103

Channel Frequency (MHz)	Tune up tolerance(dBm)	Max tune up conducted power(dBm)	Output Peak power (mW)	Calculation Result	Limits
2402	-2 $\pm$ 1	-1	0.79	0.24622	3
2441	-3 $\pm$ 1	-2	0.63	0.19716	3
2480	-2 $\pm$ 1	-1	0.79	0.25018	3
2402	-5 $\pm$ 1	-4	0.40	0.12340	3
2441	-5 $\pm$ 1	-4	0.40	0.12440	3
2480	-5 $\pm$ 1	-4	0.40	0.12539	3
2402	-5 $\pm$ 1	-4	0.40	0.12340	3
2441	-5 $\pm$ 1	-4	0.40	0.12440	3
2480	-5 $\pm$ 1	-4	0.40	0.12539	3

According to KDB 447498, no stand-alone required for BT antenna, and no simultaneous SAR measurement is required.

Signature



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