

RF EXPOSURE EVALUATION

EUT Specification

EUT	Retro BT Speaker				
Model Number	MO51-RS-TA((RS-MO51-YW, RS-MO51-RD)				
FCC ID	2AWENMO51RS				
Antenna gain (Max)	0dBi				
Operation Frequency	2402-2480MHz				
Input Rating	DC 5.0V				
Classification Per	§15.247(i), §2.1093				
Stipulated Test Standard					
Kind of Device: Bluetooth Ver.5.0					
Modulation	DSS:GFSK, π/4-DQPSK,8DPSK				
Max. output power	DSS: -0.94 dBm(0.000805W)				

Test Requirement:

According to §15.247(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.

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

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] $\cdot [\sqrt{f_{\text{(GHz)}}}] \le 3.0 \text{ for } 1\text{-g SAR} \text{ and } \le 7.5 \text{ for } 10\text{-g extremity SAR},^{24} \text{ where}$

- f_(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation²⁵
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is ≤ 5 mm, a distance of 5 mm according to 5) in section 4.1 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 quality for TCB approval.

One antenna is available for the EUT. The minimum separation distance is 5mm.

DSS:

Transmit Frequency (MHz)	Mode	Measure d Power (dBm)	Tune upPower (dBm)	Max tune up power(dBm)	Calculation Result	1-g SAR
2.402	GFSK	-3.33	-4±1	-3	0.1546168	3
2.441	GFSK	-2.72	-3±1	-2	0.1237841	3
2.480	GFSK	-2.26	-3±1	-2	0.1247946	3
2.402	П/4-DQ PSK	-2.38	-3±1	-2	0.1546168	3
2.441	П/4-DQ PSK	-1.83	-2±1	-1	0.1238095	3
2.480	П/4-DQ PSK	-1.34	-2±1	-1	0.1247946	3
2.402	8DPSK	-2.15	-3±1	-2	0.1546168	3
2.441	8DPSK	-1.2	-2±1	-1	0.1238095	3
2.480	8DPSK	-0.52	-0±1	0	0.1247946	3

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

Signature:

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