

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	OTR metal portable FM radio & Bluetooth speaker
Model Name	MW-2AI
Series Model	MW-2ACI, MW-2CI, MW-2DI, MW-2A, MW-2C, MW-2, MW-2I
FCC ID	2ALXL-2AI

2. EVALUATION METHOD

According to 447498 D01 General RF Exposure Guidance v06

The 1-g 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.

3. CALCULATION

BR&EDR:

$P_t = -1.986\text{dBm} = 0.63\text{mW}$

The value of the Maximum output power P_t is referred to the test report of the CFR47 §15.247.

The result for RF exposure evaluation $\text{SAR} = (0.63\text{mW} / 5\text{mm}) \cdot [\sqrt{2.402\text{GHz}}] = 0.20 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

BLE GFSK 1Mbps:

$P_t = -2.54\text{dBm} = 0.56\text{mW}$

The value of the Maximum output power P_t is referred to the test report of the CFR47 §15.247.

The result for RF exposure evaluation $\text{SAR} = (0.56\text{mW} / 5\text{mm}) \cdot [\sqrt{2.402\text{GHz}}] = 0.17 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

4. CONCLUSION

The SAR evaluation is not required.