

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Mesh Network Communication Intercom System
Model Name	MS8
Series Model	MS2, MS4, MS6, MS10, MS20, MS30, MS40
FCC ID	2A9G2-MS8

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

BT:

$P_t=6.970\text{dBm}=4.98\text{mW}$

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 $\text{SAR}=(4.98\text{mW}/5\text{mm}) \cdot [\sqrt{2.402\text{GHz}}]=1.54<3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Microphones:

$P_t=4.825\text{dBm}=3.037\text{mW}$

The result for RF exposure evaluation $\text{SAR}=(3.037\text{mW}/5\text{mm}) \cdot [\sqrt{0.471(\text{GHz})}]=0.417<3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

4. CONCLUSION

The SAR evaluation is not required.