

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	UHF Wireless Microphone System
Model Name	UwMic9 TX9
FCC ID	2ARN3-UWMIC9TX9

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

Wireless microphones:

Group A

$$P_t = 2.663 \text{ dBm} = 1.846 \text{ mW}$$

The result for RF exposure evaluation $\text{SAR} = (1.846 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{0.55351}(\text{GHz})] = 0.273 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Group B

$$P_t = 2.534 \text{ dBm} = 1.792 \text{ mW}$$

The result for RF exposure evaluation $\text{SAR} = (1.792 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{0.57578}(\text{GHz})] = 0.272 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

4. CONCLUSION

The SAR evaluation is not required.