

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Microphone
Model Name	MRB-Tek TX, MRB-Tek Kit2, MRB-Tek Kit1, LINGO-TX, BY-U5-TX, LINGO, LINGO-DUO, BY-U5 K2, BY-U5 K1
FCC ID	2ARN3-052101TX

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

$P_t = -0.383\text{dBm} = 0.92\text{mW}$

The result for RF exposure evaluation $\text{SAR} = (0.92\text{mW} / 5\text{mm}) \cdot [\sqrt{0.55671(\text{GHz})}] = 0.14 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Group B

$P_t = -1.036\text{dBm} = 0.79\text{mW}$

The result for RF exposure evaluation $\text{SAR} = (0.79\text{mW} / 5\text{mm}) \cdot [\sqrt{0.57639(\text{GHz})}] = 0.12 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

4. CONCLUSION

The SAR evaluation is not required.