

# RF Exposure Evaluation

## FCC ID: 2AYLE-KS-WM1B

### 1. Client Information

Applicant	:	Shenzhen Oneking Technologies co., Ltd.
Address	:	F5, Bldg7, YuSheng Industrial Park, Gushu Xixiang 107 National Road Baoan, Shenzhen, China
Manufacturer	:	Shenzhen Oneking Technologies co., Ltd.
Address	:	F5, Bldg7, YuSheng Industrial Park, Gushu Xixiang 107 National Road Baoan, Shenzhen, China

### 2. General Description of EUT

EUT Name	:	Wireless Expansion Microphone
Model(s) No.	:	KS-WM1B, KS-WM1S
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is appearance color.
Sample ID	:	20210310-21-01 & 20210310-21-02
Product Description	Operation Frequency:	2404MHz~2476MHz
	Number of Channel:	19 channels
	Max. Output Power:	8.343dBm
	Antenna Gain:	3.3dBi PCB Antenna
	Modulation Type:	8FSK
	Bit Rate of Transmitter:	5Mbps
Power Rating	:	DC 5V from adapter: Input: 100-240V~50/60Hz 0.3A Output: DC 5V2A Or DC 3.7V by 800mAh Li-ion Battery
Software Version	:	Wireless_Speaker_Down_2021_01_14
Hardware Version	:	PinBan_Mic-Wireless-Speaker_V2.5
Remark	:	The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.

**Note:** More test information about the EUT please refer the RF Test Report.

TB-RF-074-1.0

## SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

- (1) Clause 4.3: General SAR test reduction and exclusion guidance

- Sub clause 4.31: Standalone SAR test exclusion considerations

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance  $\leq 5$  mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR}$$
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0 \text{ for 10-g SAR}$$

### 2. Calculation:

Test separation: 5mm						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.404	6.323	6 $\pm$ 1	7	5.012	1.554	3.0
2.440	4.450	4 $\pm$ 1	5	3.162	0.988	3.0
2.476	8.343	8 $\pm$ 1	9	7.943	2.502	3.0

### Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

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