RF Exposure Evaluation

FCC ID: 2AZWI-3495LEQI

1. Client Information

Applicant	:	Shenzhen Leqi Network Technology Co., LTD
Address	:	Room 101, Building 9 & Room 401, Building 12, Yazhou Industrial Park, Bantian, Longgang, Shenzhen, Guangdong, 518000, China.
Manufacturer	:	Shenzhen Leqi Network Technology Co., LTD
Address	:	Room 101, Building 9 & Room 401, Building 12, Yazhou Industrial Park, Bantian, Longgang, Shenzhen, Guangdong, 518000, China.

2. General Description of EUT

EUT Name	:	Wireless Lavalier Microphone	
Model(s)	:	Wave W1-C, Wave W1, Wave W1-L	
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is different customers, different model name.	
Product Description	:	Operation Frequency:	Bluetooth 4.0(BLE): 2402MHz~2480MHz
		Number of Channel:	Bluetooth 4.0(BLE): 40 channels
		Antenna Gain:	1.4dBi FPC Antenna
		Modulation Type:	GFSK
		Bit Rate of Transmitter:	1/2Mbps
Power Rating	:	Input: DC 5V/1A DC 3.7V by 730mAh Rechargeable Li-ion battery DC 3.7V by 130mAh Rechargeable Li-ion battery	
Software Version	:	V1.1	
Hardware Version	:	V1.0	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.			

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

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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≤5 mm are determined by:

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

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

2. Calculation:

Test separation: 5mm						
BLE Mode (1Mbps)						
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
2.402	1.137	1±1	2	1.585	0.491	**3.0**
2.440	1.299	1±1	2	1.585	0.495	**3.0**
2.480	1.432	1±1	2	1.585	0.499	**3.0**
BLE Mode (2Mbps)						
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
2.402	1.223	1±1	2	1.585	0.491	**3.0**
2.440	1.275	1±1	2	1.585	0.495	**3.0**
2.480	1.371	1±1	2	1.585	0.499	**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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