

RF Exposure Evaluation

FCC ID: 2AZWI-3290LEQI

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

2. General Description of EUT

EUT Name	:	RM75 RGBWW Video Light
Model(s)	:	RM75, RM75 Lite, RM75 Pro, RM75 Max, RM75 Plus, RM75 Kit I, RM75 Kit II, RM75 Kit III
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.
Product Description	Operation Frequency:	Bluetooth 5.0(BLE): 2402MHz~2480MHz
	Number of Channel:	Bluetooth 5.0(BLE): 40 channels
	RF Output Power:	2.31 dBm (Max)
	Antenna Gain:	2.3 dBi PCB Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	1Mbps&2Mbps
Power Rating	:	Input: DC 5V2A, 9V2A DC 3.7V by 4000mAh Rechargeable Li-ion Battery
Software Version	:	V1
Hardware Version	:	V1
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.

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:

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f(\text{GHz})}] \leq 7.5.0$ 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	1.17	1±1	2	1.585	0.491	3.0
2.440	1.67	1±1	2	1.585	0.495	3.0
2.480	2.22	2±1	3	1.995	0.628	3.0

Test separation: 5mm						
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	1.15	1±1	2	1.585	0.491	3.0
2.440	1.67	1±1	2	1.585	0.495	3.0
2.480	2.31	2±1	3	1.995	0.628	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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