

RF Exposure Evaluation

FCC ID: 2AXGU-LAKM

1. Client Information

Applicant	:	Shenzhen Chiheng Industrial Co., Ltd
Address	:	2 / F, 4-2 Shajing Road, dawangshan community, Shajing street, Bao'an District, Shenzhen, China
Manufacturer	:	Shenzhen Chiheng Industrial Co., Ltd
Address	:	2 / F, 4-2 Shajing Road, dawangshan community, Shajing street, Bao'an District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Remote Shutter
Model(s) No.	:	lakm-001, lakm-002, lakm-003
Model Different	:	All these models are in the same PCB, layout and electrical circuit, the only difference is appearance.
Product Description	Operation Frequency:	Bluetooth 4.0(BLE): 2402MHz~2480MHz
	Number of Channel:	Bluetooth 4.0(BLE): 40 channels
	RF Output Power:	-1.591 dBm (Max)
	Antenna Gain:	0.55 dBi PCB Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	1Mbps
Power Rating	:	DC 3.0V by button cell
Software Version	:	N/A
Hardware Version	:	N/A
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:

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

2. Calculation:

Test separation: 5mm							
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	-1.924	-2±1	-1	0.794	0.246	3.0	
2.442	-1.591	-2±1	-1	0.794	0.247	3.0	
2.480	-2.149	-2±1	-1	0.794	0.250	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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