



RF Exposure Evaluation

FCC ID: 2A54D-PT23

1. Client Information

Applicant	:	SHENZHEN RDING TECH CO., LIMITED
Address	:	4/F, Building C (South), Zhongliantongtai industrial area, No.271 Liangbai road, Liangantian, Pinghu town, Longgang district Shenzhen, Shenzhen city, China
Manufacturer	:	SHENZHEN RDING TECH CO., LIMITED
Address	:	4/F, Building C (South), Zhongliantongtai industrial area, No.271 Liangbai road, Liangantian, Pinghu town, Longgang district Shenzhen, Shenzhen city, China

2. General Description of EUT

EUT Name	:	Multimedia remote control	
Model(s) No.	:	PT23, PT23-Pro, PT23-Plus, PT23-Max, PT23A, PT23B, PT23C, PT23D, PT23E, PT23F	
Model Difference	:	All these models are identical in the same PCB, layout and electric al circuit, the only difference is Appearance and Model name.	
Product Description	Operation Frequency:	Bluetooth 5.3(BLE): 2402MHz~2480MHz	
	Number of Channel:	Bluetooth 5.3(BLE):40 channels	
	Antenna Gain:	1.9dBi PCB Antenna	
	Modulation Type:	Bluetooth LE:1Mbps	
	Bit Rate of Transmitter:	1Mbps	
Power Supply	:	Input: DC 5V DC 3.7V by 230mAh Rechargeable Li-ion battery	
Software Version	:	PT23_V1.0	
Hardware Version	:	PT23_P3	
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							
Bluetooth LE 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	-0.7	-1±1	0	1.000	0.310	3.0	
2.440	-0.67	-1±1	0	1.000	0.312	3.0	
2.480	-0.43	0±1	1	1.259	0.397	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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