

RF Exposure Evaluation

FCC ID: ZQ5-6182-2BGCX

1. Client Information

Applicant	:	CHUANGXIANG TOYS FACTORY
Address	:	Middle piece of Laimei Road, Chenghai District, Shantou City, China
Manufacturer	:	CHUANGXIANG TOYS FACTORY
Address	:	Middle piece of Laimei Road, Chenghai District, Shantou City, China

2. General Description of EUT

EUT Name	:	2.4G Remote control helicopter	
Models No.	:	6182-2BGCX, CX001, SQN001, CX002, CX003, CX005, CX006, CX007, CX008, CX009, CX010, CX011, CX012, CX013, CX015, CX016, CX017, CX018, CX019, CX020, CX028, CX058, CX068, CX088, CX098, CX128, CX021, CX022, CX023, CX025, CX026, CX027, CX029, CX030, CX031, CX032, CX033, CX035, CX036, CX037, CX038, CX039, CX050, CX051, CX052, CX053, CX055, CX056, CX057, CX059, CX060, CX061, CX062, CX063, CX065, CX066, CX067, CX069, 6182-2BGC, S211, S202, S208, SQN-019, 400307, 400308, 400309, 8851E, 8852E, 8853E, 8855E, 23940, NH90136, 400307, 400308, 400309	
Model Different	:	All these models are identical in the same PCB layout and electrical circuit, the only difference is that appearance.	
Product Description	Operation Frequency:	2.4G: 2458MHz~2478MHz	
	Number of Channel:	18 channels	
	RF Output Power:	GFSK: -0.686dBm	
	Antenna Gain:	0dBi PCB Antenna	
Power Rating	:	DC 4.5V by AAA battery	
Software Version	:	V1.0	
Hardware Version	:	V1.0	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

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

TD-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 ≤ 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 Mode (GFSK)							
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	
2.458	-1.126	-1±1	0	1.000	0.314	3.0	
2.468	-0.731	-0±1	-1	0.794	0.250	3.0	
2.478	-0.686	-0±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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