

# RF Exposure Evaluation

## FCC ID: ZQ5-6182-2BG CX

### 1. Client Information

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

### 2. General Description of EUT

<b>EUT Name</b>	:	2.4GRemote control helicopter
<b>Models No.</b>	:	6182-2BG CX, 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
<b>Model Different</b>	:	All these models are identical in the same PCB layout and electrical circuit, the only difference is that appearance.
<b>Product Description</b>	Operation Frequency:	2.4G: 2458MHz~2478MHz
	Number of Channel:	18 channels
	RF Output Power:	GFSK: -0.686dBm
	Antenna Gain:	0dBi PCB Antenna
<b>Power Rating</b>	:	DC 4.5V by AAA battery
<b>Software Version</b>	:	V1.0
<b>Hardware Version</b>	:	V1.0
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual

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

*TB-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  $\leq 5$  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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