FCC TEST REPORT

FCC ID NO. : QE845071RX49

Applicant : **Interactive Toy Concepts (HK) Ltd.**
7/F.,Eu Yan San Tower,11-15 Chatham Road South, TST, Kowloon, Hong Kong

Equipment Under Test (EUT) :

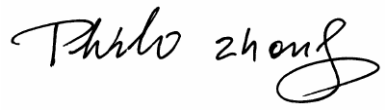
Product Name : R/C Helicopter

Model No. : 45071

Standards : FCC Part 15 SUBPART B

Date of Test : August 23, 2007

Test Engineer : **Tiger Su**

Reviewed By : 

PERPARED BY:
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2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 1GHz)	FCC PART 15, SUBPART B: 2003	ANSI C63.4: 2003	Class B	PASS
Conducted Emission (150KHz to 30MHz)	FCC PART 15, SUBPART B: 2003	ANSI C63.4: 2003	Class B	N/A

3 Contents

4 General Information

4.1 Client Information

Applicant:	**Interactive Toy Concepts (HK) Ltd.**
Address of Applicant:	7/F.,Eu Yan San Tower,11-15 Chatham Road South, TST, Kowloon, Hong Kong
Manufacturer:	Interactive Toy Concepts (HK) Ltd.
Address of Manufacturer:	7/F.,Eu Yan San Tower,11-15 Chatham Road South, TST, Kowloon, Hong Kong

4.2 General Description of E.U.T.

Product Name:	R/C Helicopter
Model No.:	45071

4.3 Details of E.U.T.

Power Supply:	RX: 3.7 VDC Battery

4.4 Description of Support Units

Compliance test was performed test in ON mode .

The customer requested FCC tests for a R/C Helicopter.

The standard used was FCC Part 15.107 & Part15.109, SUBPART B, CLASS B (2003)

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC – Registration No.: 759397**

  Solid Industrial (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 759397, December 28, 2006.

4.6 Test Location

All Emissions testswere performed at:-

Solid Industrial (Shenzhen) Co., Ltd. at 333 Bulong Highway Buji Longgang, Shenzhen, Guangdong, China

5 Equipment Used during Test

Equipment	Brand Name	Model	Cal. Int Months	Last Cal. Date
3m Anechoic chamber				
EMC Analyzer	Agilent	E7402A	12	2007-08
EMI Test Receiver	R&S	ESS	12	2007-08
Pre Amplifier	Anritsu	MH648A	12	2007-08
Bilog Antenna	SCHAFFNER	CBL6111C	12	2007-08
Loop Antenna	R&S	6108	12	2007-08
AM/FM Stereo Signal Generator	Panasonic	VP-8122A	12	2007-08
Signal Generator	R&S	SMG	12	2007-08
RF Selector	TOYO	NS4901A	-	-
Turn Disc	HD	DS4150S	-	-
Antenna Mast	HD	MA2400	-	-
EMI Shielded Room				
Spectrum analyzer	ADVANTEST	R3261C	12	2007-08
EMI Test Receiver	R&S	ESS	12	2007-08
Pre Amplifier	Anritsu	MH648A	12	2007-08
LISN	Kyoritsu	KNW-403D	12	2007-08
Absorbing Clamp	R&S	MDS-21	12	2007-08
Distortion Meter	MEGURO	MAK-6578A	12	2007-08
AM/FM Stereo Signal Generator	Panasonic	VP-8122A	12	2007-08
Oscilloscope	LEADER	LS1020	12	2007-08
Function Generator	National	VP-7422A	12	2007-08
Signal Generator	R&S	SMG	12	2007-08
RF Selector	TOYO	NS4000	-	-
Remote Controller	TOYO	MAC	-	-

5.1 Conduction Emissions, 0.15MHz to 30MHz

Test Requirement:	FCC Part 15.107
Test Method:	ANSI C63.4: 2003
Test Date:	August 23, 2007
Frequency Range:	150kHz to 30MHz
Class/Severity:	B
Limit:	66-56 dBμV/m between 0.15MHz & 0.5MHz
	56 dBμV/m between 0.5MHz & 5MHz
	60 dBμV/m between 5MHz & 30MHz
Detector:	Peak for pre-scan (9kHz Resolution Bandwidth)
	Quasi-Peak & Average if maximised peak within 6dB of Average Limit

5.1.1 E.U.T. Operation

Operating Environment:

Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1012 mbar

EUT Operation :

Compliance test was performed test in ON mode.

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.1.2 Measurement Data

Owing to the DC operation of EUT, this test is not performed.

5.2 Radiated Emissions, 30MHz to 1GHz

Test Requirement:	FCC Part 15.109
Test Method:	ANSI C63.4: 2003
Test Date:	August 23, 2007
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Class:	Class B
Limit:	40.0 dBµV/m between 30MHz & 88MHz
	43.5 dBµV/m between 88MHz & 216MHz
	46.0 dBµV/m between 216MHz & 960MHz
	54.0 dBµV/m zbove 960MHz
Detector:	Peak for pre-scan (120kHz resolution bandwidth)
	Quasi-Peak if maximised peak within 6dB of limit

5.2.1 E.U.T. Operation

Operating Environment:

Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1012 mbar

EUT Operation :

Compliance test was performed test in ON mode.

5.2.2 EUT Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4: 2003, The specification used in this report was the FCC Part 15.109 Class B limits.

5.2.3 Spectrum Analyzer Setup

According to FCC Part 15.109 Class B Rules, the system was tested to 1000 MHz.

Start Frequency.....30 MHz
Stop Frequency .....1000 MHz
Sweep Speed Auto
IF Bandwidth .....1 MHz
Video Bandwidth.....1 MHz
Quasi-Peak Adapter Bandwidth .....120 kHz
Quasi-Peak Adapter Mode.....Normal
Resolution Bandwidth 1MHz

5.2.4 Test procedure

For the radiated emissions test, since the EUT does have not a power source, there was no connection to AC outlets.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT is compliant with all installation combinations.

All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dBμV of specification limits), and are distinguished with a "**Qp**" in the data table.
The EUT was under normal mode during the final qualification test and the configuration was used to represent the worst case results.
ANSI STANDARD C63.4-2003 12.1.1.1 SUPERREGENERATIVE RECEIVER: A signal Generator was set to the unit under test operating frequency. An un- Modulated continuous wave (CW) signal was radiated at the super-regenerative receiver operating frequency to cohere the characteristic broadband emissions from the receiver.

5.2.5 Summary of Test Results

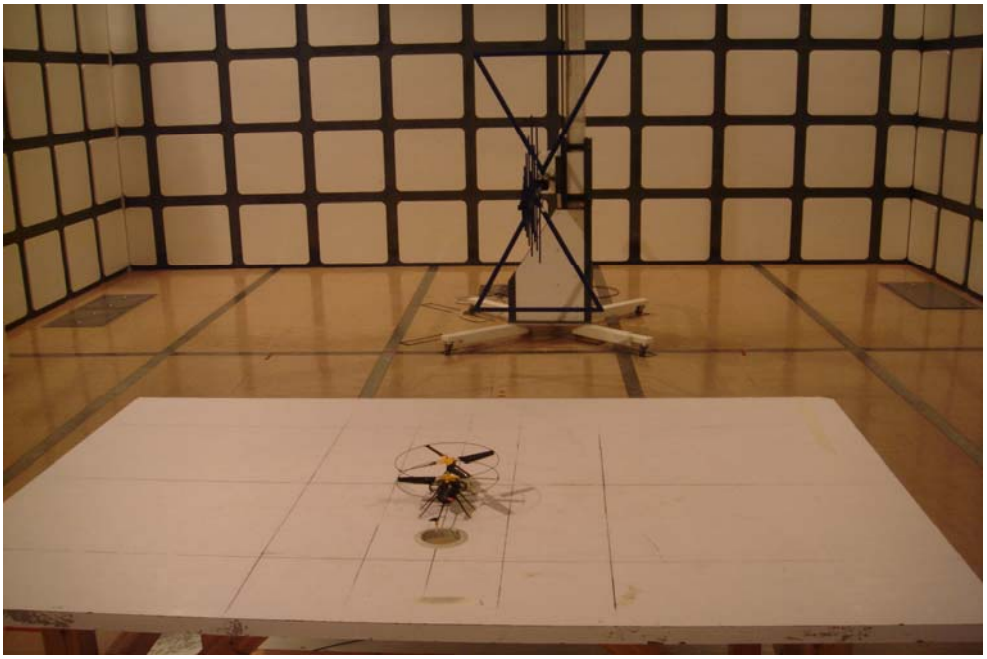
According to the data in section 5.2.6, the EUT complied with the FCC Part 15.109 Class B standards.
The test results: PASS.

5.2.6 Radiatied Emissions Test Data

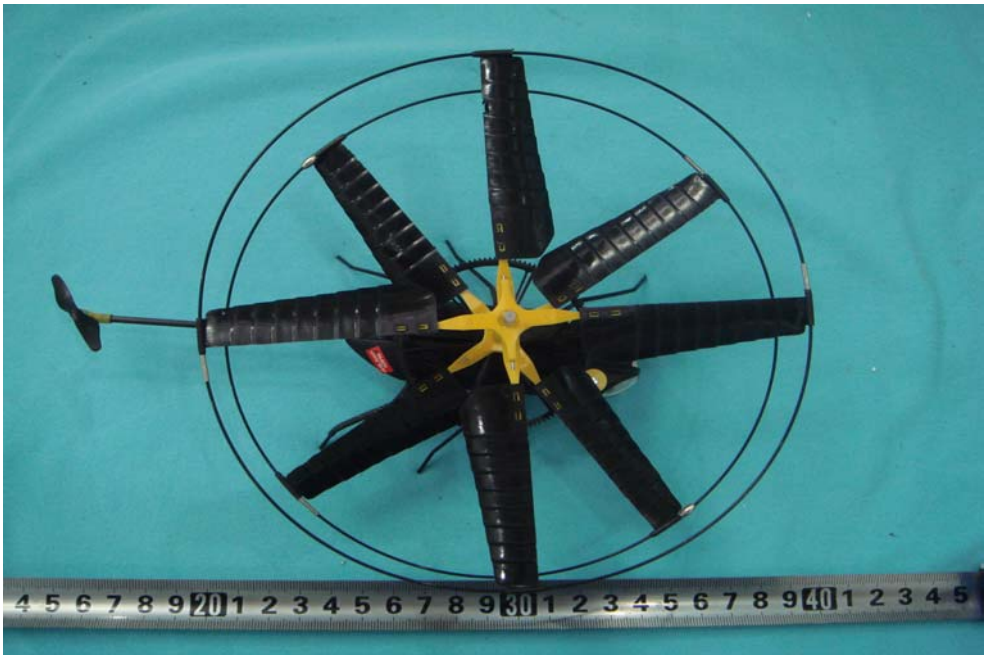
Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)	FCC 15 Subpart B Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Turntable Angle (°)
51.8	Horizontal	23.9	40.0	16.1	1.2	150
83.3	Horizontal	23.0	40.0	17.0	1.5	60
418.8	Horizontal	28.5	46.0	17.5	1.8	200
34.8	Vertical	26.1	40.0	13.9	1.5	60
68.8	Vertical	26.8	40.0	13.2	1.5	90
418.0	Vertical	31.9	46.0	14.1	1.5	120

5.3 Photographs - Test Setup

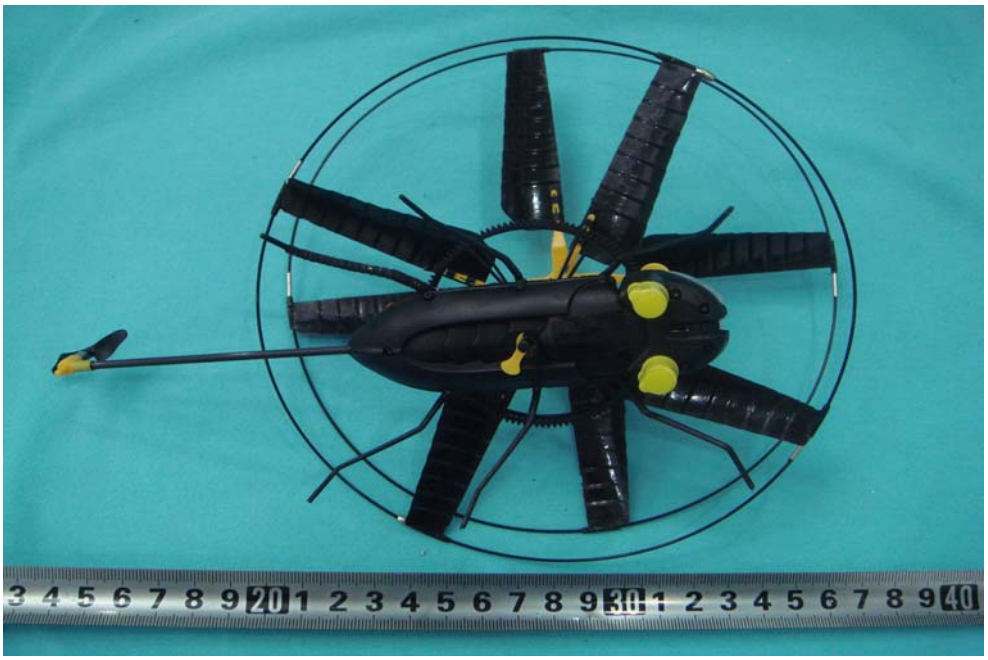
5.3.1 Radiated Emissions Test Setup



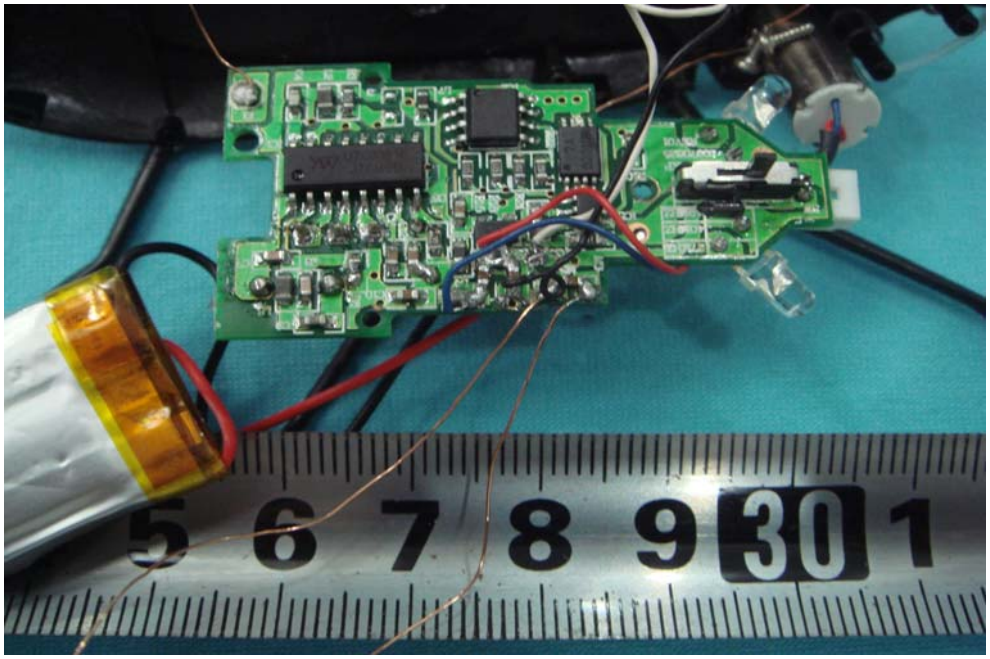
5.3.2 EUT - Front View



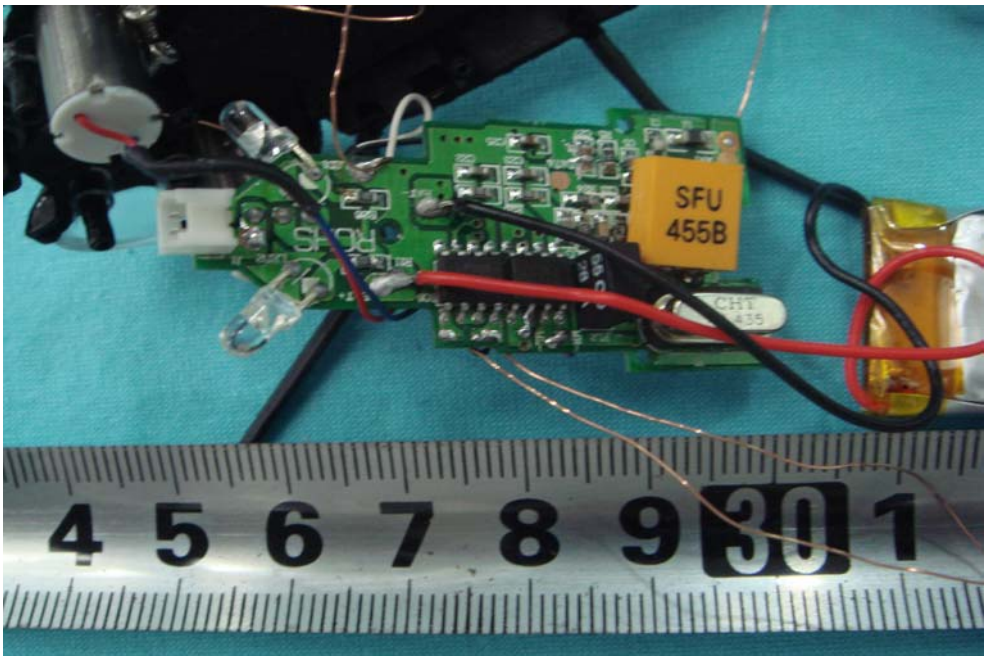
5.3.3 EUT - Back View



5.3.4 PCB - Front View



5.3.5 PCB - Back View



6 FCC ID Label

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)this device may not cause harmful interference,and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Label must not be a stick-on paper. The Label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Proposed Label Location on EUT

EUT Top View/ proposed FCC Mark Location