

FCC CERTIFICATION
On Behalf of
Interactive Toy Concepts Limited

2.4G Helicopter
Model No.: 50800RX

FCC ID: RSD-50800RX

Prepared for : Interactive Toy Concepts Limited
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Report Number : ATE20122926
Date of Test : December 27, 2012-January 5, 2013
Date of Report : January 5, 2013

TABLE OF CONTENTS

Description Page

Test Report Certification

- 1. GENERAL INFORMATION4**
 - 1.1. Description of Device (EUT).....4
 - 1.2. Description of Test Facility4
 - 1.3. Measurement Uncertainty.....5
- 2. MEASURING DEVICE AND TEST EQUIPMENT6**
- 3. SUMMARY OF TEST RESULTS.....7**
- 4. FUNDAMENTAL AND HARMONICS RADIATED EMISSION FOR SECTION 15.249(A) 8**
 - 4.1. Block Diagram of Test Setup.....8
 - 4.2. The Emission Limit9
 - 4.3. Configuration of EUT on Measurement9
 - 4.4. Operating Condition of EUT9
 - 4.5. Test Procedure10
 - 4.6. The Field Strength of Radiation Emission Measurement Results11
- 5. SPURIOUS RADIATED EMISSION FOR SECTION 15.249(D)14**
 - 5.1. Block Diagram of Test Setup.....14
 - 5.2. The Emission Limit For Section 15.249(d)14
 - 5.3. EUT Configuration on Measurement15
 - 5.4. Operating Condition of EUT15
 - 5.5. Test Procedure16
 - 5.6. The Emission Measurement Result17
- 6. BAND EDGES20**
 - 6.1. The Requirement20
 - 6.2. EUT Configuration on Measurement20
 - 6.3. Operating Condition of EUT20
 - 6.4. Test Procedure20
 - 6.5. The Measurement Result21
- 7. AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A) ..23**
 - 7.1. Block Diagram of Test Setup.....23
 - 7.2. The Emission Limit23
 - 7.3. Configuration of EUT on Measurement24
 - 7.4. Operating Condition of EUT24
 - 7.5. Test Procedure24
 - 7.6. Power Line Conducted Emission Measurement Results25
- 8. ANTENNA REQUIREMENT.....26**
 - 8.1. The Requirement26
 - 8.2. Antenna Construction26

APPENDIX I (TEST CURVES) (30 pages)

Test Report Certification

Applicant : Interactive Toy Concepts Limited
Manufacturer : Interactive Toy Concepts Limited
EUT Description : 2.4G Helicopter
(A) MODEL NO.: 50800RX
(B) POWER SUPPLY: DC 7.4V (Li-polymer battery) & DC 9V
(Power by Adapter)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.249
ANSI C63.4: 2009

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.249 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : December 27, 2012-January 5, 2013

Prepared by :

Apple Lv

(Engineer)

Approved & Authorized Signer :

Heinrich

(Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	2.4G Helicopter
Model Number	:	50800RX
Power Supply	:	DC 7.4V (Li-polymer battery) & DC 9V (Power by Adapter)
Adapter	:	Model number: TL02-090120U Input: AC 100-240V; 50/60Hz Output: DC 9V/1200mA Output line: Non-shielded, Non-detachable, 1.0m
Operate Frequency	:	2414.000-2473.000MHz
Applicant	:	Interactive Toy Concepts Limited
Address	:	Unit 709, 7/F., Tower 2, Cheung Sha Wan Plaza, No.833 Cheung Sha Wan Rd., Kowloon, Hong Kong
Manufacturer	:	Interactive Toy Concepts Limited
Address	:	Unit 709, 7/F., Tower 2, Cheung Sha Wan Plaza, No.833 Cheung Sha Wan Rd., Kowloon, Hong Kong
Date of sample received	:	December 27, 2012
Date of Test	:	December 27, 2012-January 5, 2013

1.2. Description of Test Facility

EMC Lab	:	Accredited by TUV Rheinland Shenzhen
		Listed by FCC The Registration Number is 752051
		Listed by Industry Canada The Registration Number is 5077A-2
		Accredited by China National Accreditation Committee for Laboratories The Certificate Registration Number is L3193
Name of Firm	:	ACCURATE TECHNOLOGY CO. LTD
Site Location	:	F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China

1.3.Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2
(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2
(Above 1GHz)

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 8, 2012	Jan. 7, 2013
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 8, 2012	Jan. 7, 2013
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 8, 2012	Jan. 7, 2013
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 8, 2012	Jan. 7, 2013
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 8, 2012	Jan. 7, 2013
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 8, 2012	Jan. 7, 2013
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 8, 2012	Jan. 7, 2013
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 8, 2012	Jan. 7, 2013
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 8, 2012	Jan. 7, 2013
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 8, 2012	Jan. 7, 2013

3. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Conducted Emission	Compliant
Section 15.249(a)	Fundamental and Harmonics Radiated Emission	Compliant
Section 15.249(d)	Spurious Radiated Emission	Compliant
Section 15.249(d)	Band Edge	Compliant
Section 15.203	Antenna Requirement	Compliant

Remark: “N/A” means “Not applicable”.

4. FUNDAMENTAL AND HARMONICS RADIATED EMISSION FOR SECTION 15.249(A)

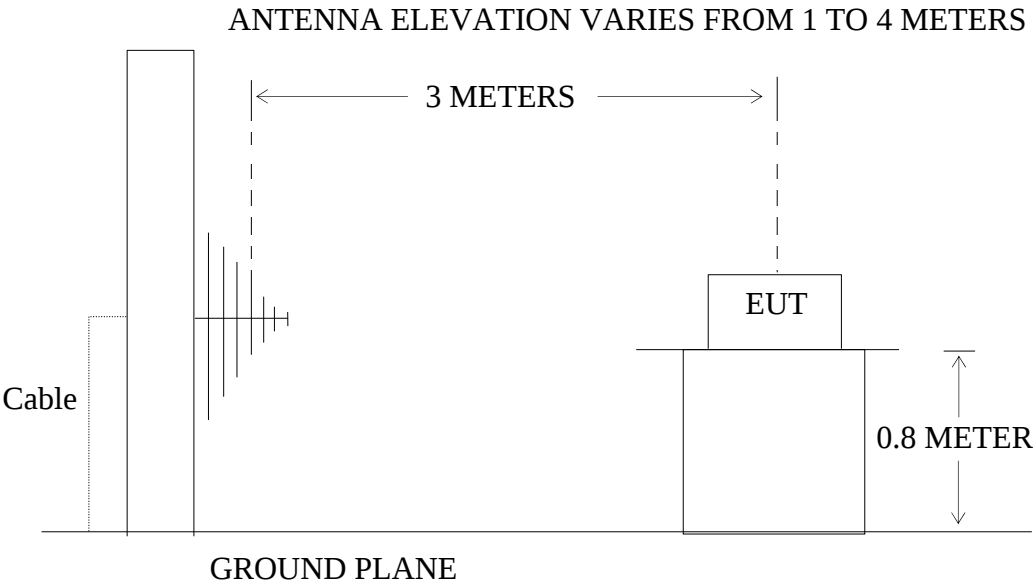
4.1. Block Diagram of Test Setup

4.1.1. Block diagram of connection between the EUT and simulators



(EUT: 2.4G Helicopter)

4.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: 2.4G Helicopter)

4.2.The Emission Limit

4.2.1.For intentional radiators, According to section 15.249(a), Operation within the frequency band of 2.4 to 2.4835GHz, The fundamental field strength shall not exceed 94 dB μ V/m and the harmonics shall not exceed 54 dB μ V/m.

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of harmonics (microvolts/meter)
902-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

4.2.2.According to section 15.249(e), as shown in section 15.35(b), the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

4.3.Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1. 2.4G Helicopter (EUT)

Model Number : 50800RX
 Serial Number : N/A
 Manufacturer : Interactive Toy Concepts Limited

4.4.Operating Condition of EUT

4.4.1.Setup the EUT and simulator as shown as Section 4.1.

4.4.2.Turn on the power of all equipment.

4.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2414.000 - 2473.000 MHz. We are select 2414.000MHz, 2447.000MHz, 2473.000MHz TX frequency to transmit.

4.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 120kHz in 30-1000MHz. and set at 1MHz in above 1000MHz.

The frequency range from 30MHz to 25000MHz is checked.

4.6.The Field Strength of Radiation Emission Measurement Results

PASS.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2414.000MHz	Test Engineer:	Pei

Fundamental Radiated Emissions

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2414.000	64.57	99.55	-7.42	87.15	92.13	94.00	114.00	-6.85	-21.87	Vertical
2414.000	98.84	103.17	-7.42	91.42	95.75	94.00	114.00	-2.58	-18.25	Horizontal

Harmonics Radiated Emissions

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4828.000	41.57	46.38	-0.17	41.40	46.21	54.00	74.00	-12.60	-7.79	Vertical
4828.000	42.16	47.27	-0.17	41.99	47.07	54.00	74.00	-12.01	-6.93	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$

3. The spectral diagrams in appendix I display the measurement of peak values.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2447.000MHz	Test Engineer:	Pei

Fundamental Radiated Emissions

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2447.000	97.84	103.33	-7.34	90.50	95.99	94.00	114.00	-3.50	-18.01	Vertical
2447.000	95.66	101.64	-7.34	88.32	94.30	94.00	114.00	-5.68	-19.70	Horizontal

Harmonics Radiated Emissions

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4894.000	43.84	49.47	0.20	44.04	49.67	54.00	74.00	-9.96	-24.33	Vertical
4894.000	42.84	48.88	0.20	43.04	49.08	54.00	74.00	-10.96	-24.92	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$

3. The spectral diagrams in appendix I display the measurement of peak values.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2473.000MHz	Test Engineer:	Pei

Fundamental Radiated Emissions

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2473.000	97.54	102.12	-7.36	90.18	94.76	94.00	114.00	-3.82	-19.24	Vertical
2473.000	96.44	102.34	-7.36	89.08	94.98	94.00	114.00	-4.92	-19.02	Horizontal

Harmonics Radiated Emissions

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4946.000	44.96	48.67	0.46	45.42	49.13	54.00	74.00	-8.58	-24.87	Vertical
4946.000	43.68	48.67	0.46	44.14	49.13	54.00	74.00	-9.86	-24.87	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

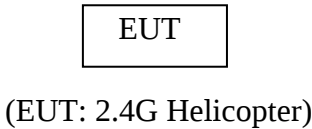
$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$

3. The spectral diagrams in appendix I display the measurement of peak values.

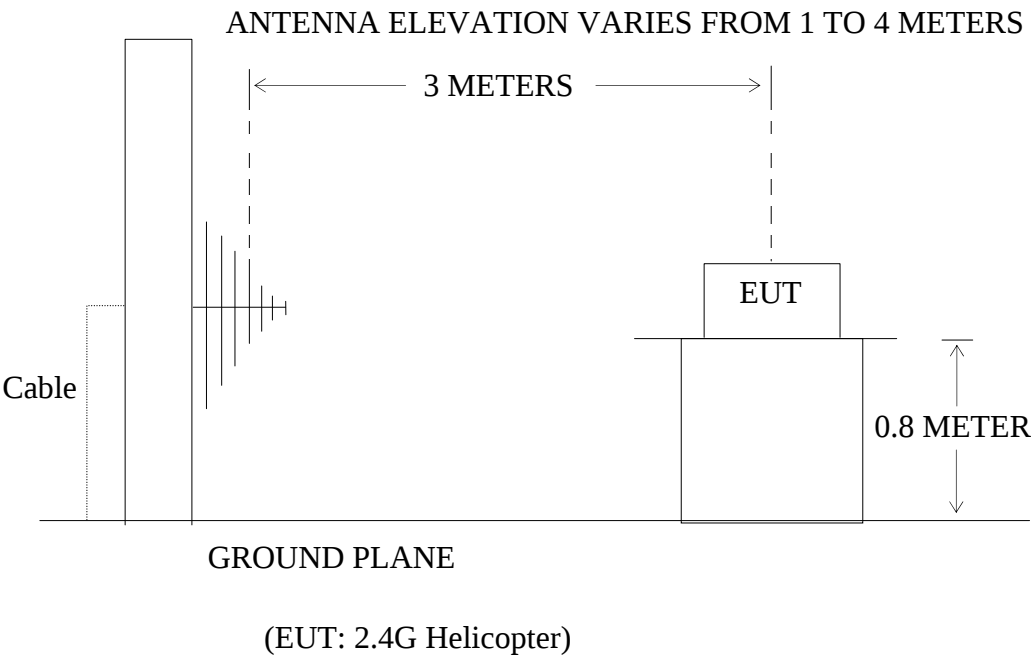
5. SPURIOUS RADIATED EMISSION FOR SECTION 15.249(D)

5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators



5.1.2. Semi-Anechoic Chamber Test Setup Diagram



5.2. The Emission Limit For Section 15.249(d)

5.2.1. Emission radiated outside of the specified frequency bands, except for harmonics, shall be comply with the general radiated emission limits in Section 15.209.

Radiation Emission Measurement Limits According to Section 15.209

Frequency (MHz)	Limit		The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector.
	Field Strength (microvolts/meter)	Measurement Distance (meters)	
0.009 – 0.490	2400/F(kHz)	300	

0.490 – 1.705	24000/F(kHz)	30	Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.
1.705 – 30.0	30	30	
30 - 88	100	3	
88 - 216	150	3	
216 - 960	200	3	
Above 960	500	3	

5.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1. 2.4G Helicopter (EUT)

Model Number : 50800RX
 Serial Number : N/A
 Manufacturer : Interactive Toy Concepts Limited

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2414.000 - 2473.000 MHz. We are select 2414.000MHz, 2447.000MHz, 2473.000MHz TX frequency to transmit.

5.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 9kHz in below 30MHz. and set at 120kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9kHz to 25GHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

5.6.The Emission Measurement Result

PASS.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2414.000MHz	Test Engineer:	Pei

Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

30MHz-25GHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
35.5112	2.14	15.57	17.71	40.00	-22.29	Vertical
146.8392	5.43	11.50	16.93	43.50	-26.57	
358.4497	9.11	18.51	27.62	46.00	-18.38	
46.0558	2.25	14.45	16.70	40.00	-23.30	Horizontal
96.6621	1.50	14.33	15.83	43.50	-27.67	
358.4497	2.67	18.51	21.18	46.00	-24.82	

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$
3. The spectral diagrams in appendix I display the measurement of peak values.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2447.000MHz	Test Engineer:	Pei

Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

30MHz-25GH

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
39.7371	5.22	14.61	19.83	40.00	-20.17	Vertical
357.1925	7.55	18.49	26.04	46.00	-19.96	
779.2179	4.13	26.35	30.48	46.00	-15.52	
103.3353	3.13	14.21	17.34	43.50	-26.16	Horizontal
357.1925	3.18	18.49	21.67	46.00	-24.33	
628.8936	2.44	23.99	46.00	46.00	-19.57	

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$

3. The spectral diagrams in appendix I display the measurement of peak values.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2473.000MHz	Test Engineer:	Pei

Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

30MHz-25GH

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
39.8769	2.71	14.58	17.29	40.00	-22.71	Vertical
103.3353	5.36	14.21	19.57	43.50	-23.93	
358.4497	6.73	18.51	25.24	46.00	-20.76	
103.3353	2.78	14.21	16.99	43.50	-26.51	Horizontal
357.1925	3.51	18.49	22.00	46.0	-24.00	
815.6352	3.06	27.02	30.08	46.00	-15.92	

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

$$\text{Where Corrected Factor} = \text{Antenna Factor} + \text{Cable Loss} + \text{High Pass Filter Loss} - \text{Amplifier Gain}$$

3. The spectral diagrams in appendix I display the measurement of peak values.

6. BAND EDGES

6.1.The Requirement

6.1.1.Band Edge from 2400MHz to 2483.5MHz. Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

6.2.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.2.1. 2.4G Helicopter (EUT)

Model Number : 50800RX
Serial Number : N/A
Manufacturer : Interactive Toy Concepts Limited

6.3.Operating Condition of EUT

6.3.1.Setup the EUT and simulator as shown as Section 4.1.

6.3.2.Turn on the power of all equipment.

6.3.3. Let the EUT work in TX modes measure it. The transmit frequency are 2414.000-2473.000MHz MHz. We are select 2414.000MHz, 2473.000MHz TX frequency to transmit.

6.4.Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
RBW=1MHz, VBW=1MHz

6.5.The Measurement Result

Pass.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2414.000MHz	Test Engineer:	Pei

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2310.000	41.21	46.32	-7.81	33.40	38.51	54.00	74.00	-20.60	-35.49	Vertical
2350.000	43.67	48.99	-7.79	35.88	41.20	54.00	74.00	-18.12	-32.80	Vertical
2390.000	51.84	57.02	-7.53	44.31	49.49	54.00	74.00	-9.69	-24.51	Vertical
2310.000	41.02	46.66	-7.81	33.21	38.85	54.00	74.00	-20.79	-35.15	Horizontal
2350.000	44.25	49.67	-7.79	36.46	41.88	54.00	74.00	-17.54	-32.12	Horizontal
2390.000	51.41	56.61	-7.53	43.88	49.08	54.00	74.00	-10.12	-24.92	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

3. The spectral diagrams in appendix I display the measurement of peak values.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	DC 7.4V
Test Mode:	TX 2473.000MHz	Test Engineer:	Pei

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.547	46.60	51.36	-7.37	39.23	43.99	54.00	74.00	-14.77	-30.01	Vertical
2493.350	46.52	51.34	-7.39	39.13	43.95	54.00	74.00	-14.87	-30.05	Vertical
2500.000	47.73	52.69	-7.40	40.33	45.29	54.00	74.00	-13.67	-28.71	Vertical
2483.225	45.69	50.67	-7.37	38.32	43.30	54.00	74.00	-15.68	-30.70	Horizontal
2493.000	46.31	51.33	-7.39	38.92	43.94	54.00	74.00	-15.08	-30.06	Horizontal
2500.000	45.55	50.32	-7.40	38.15	42.92	54.00	74.00	-15.85	-31.08	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

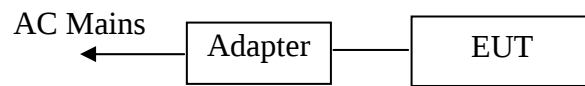
Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

3. The spectral diagrams in appendix I display the measurement of peak values.

7. AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A)

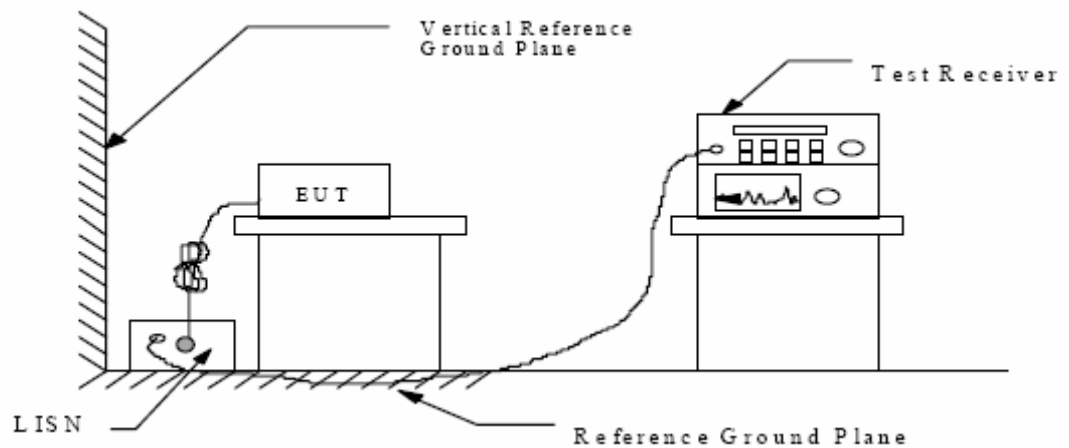
7.1. Block Diagram of Test Setup

7.1.1. Block diagram of connection between the EUT and simulators



(EUT: 2.4G Helicopter)

7.1.2. Shielding Room Test Setup Diagram



(EUT: 2.4G Helicopter)

7.2. The Emission Limit

7.2.1. Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

* Decreases with the logarithm of the frequency.

7.3.Configuration of EUT on Measurement

The following equipment are installed on the Conducted Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.3.1.2.4G Helicopter (EUT)

Model Number : 50800RX
Serial Number : N/A
Manufacturer : Interactive Toy Concepts Limited

7.4.Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in charging mode measure it.

7.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

7.6.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Date of Test:	January 4, 2013	Temperature:	25°C
EUT:	2.4G Helicopter	Humidity:	50%
Model No.:	50800RX	Power Supply:	AC 120/60Hz
Test Mode:	Charging	Test Engineer:	Pei

Frequency (MHz)	Result (dBμV)	Limit (dBμV)	Margin (dB)	Detector	Line
0.176674	28.20	65	-36.4	QP	Live
0.196781	37.70	64	-26.0	QP	
0.260222	36.80	61	-24.6	QP	
0.200748	23.90	54	-29.7	AV	
0.268666	25.60	51	-25.6	AV	
0.320256	19.60	50	-30.1	AV	
0.257124	35.70	62	-25.8	QP	Neutral
0.353867	26.30	59	-32.6	QP	
0.734698	23.10	56	-32.9	QP	
0.257124	15.60	52	-35.9	AV	

Emissions attenuated more than 20 dB below the permissible value are not reported.
The spectral diagrams are attached as below.

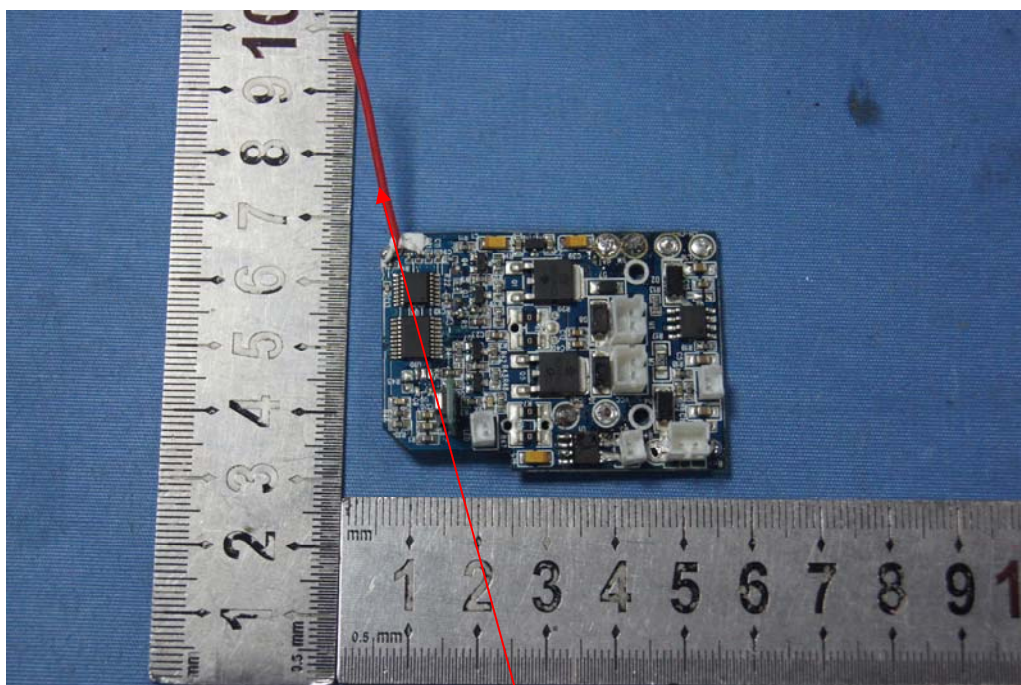
8. ANTENNA REQUIREMENT

8.1.The Requirement

8.1.1. According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2.Antenna Construction

Device is equipped with unique antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna

APPENDIX I (Test Curves)



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4257

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC7.4V

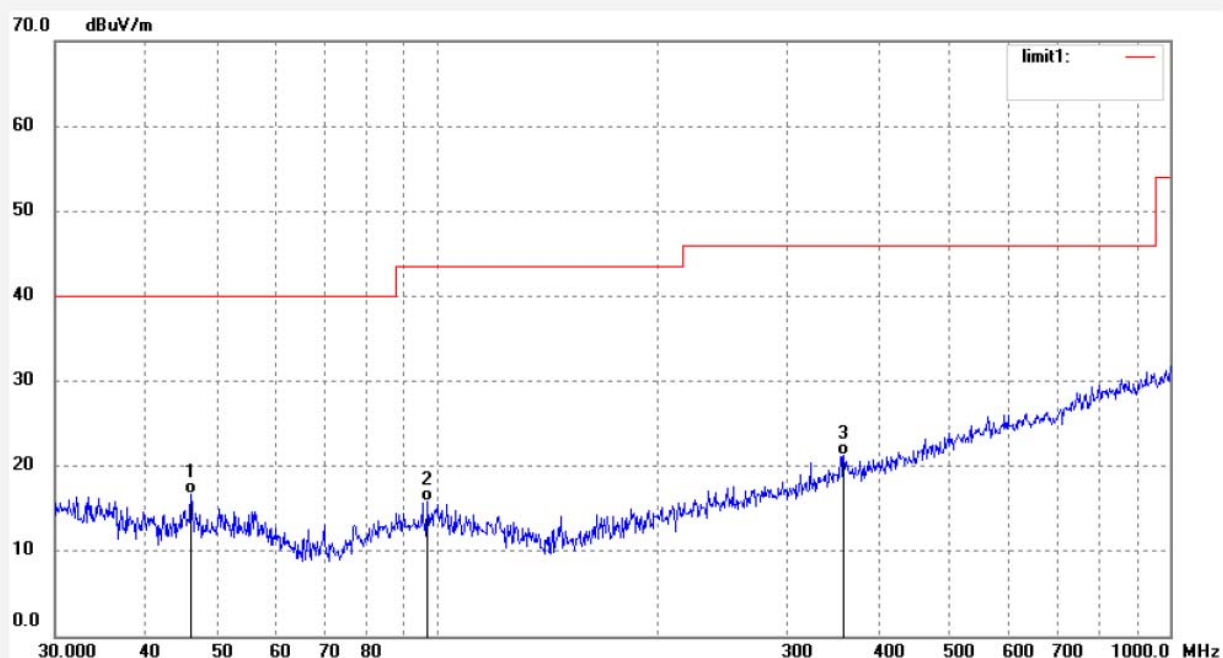
Date: 2013/01/04

Time: 10:44:34

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	46.0558	2.25	14.45	16.70	40.00	-23.30	QP			
2	96.6621	1.50	14.33	15.83	43.50	-27.67	QP			
3	358.4497	2.67	18.51	21.18	46.00	-24.82	QP			



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Site: 2# Chamber

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Fax:+86-0755-26503396

Job No.: Bob #4258

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

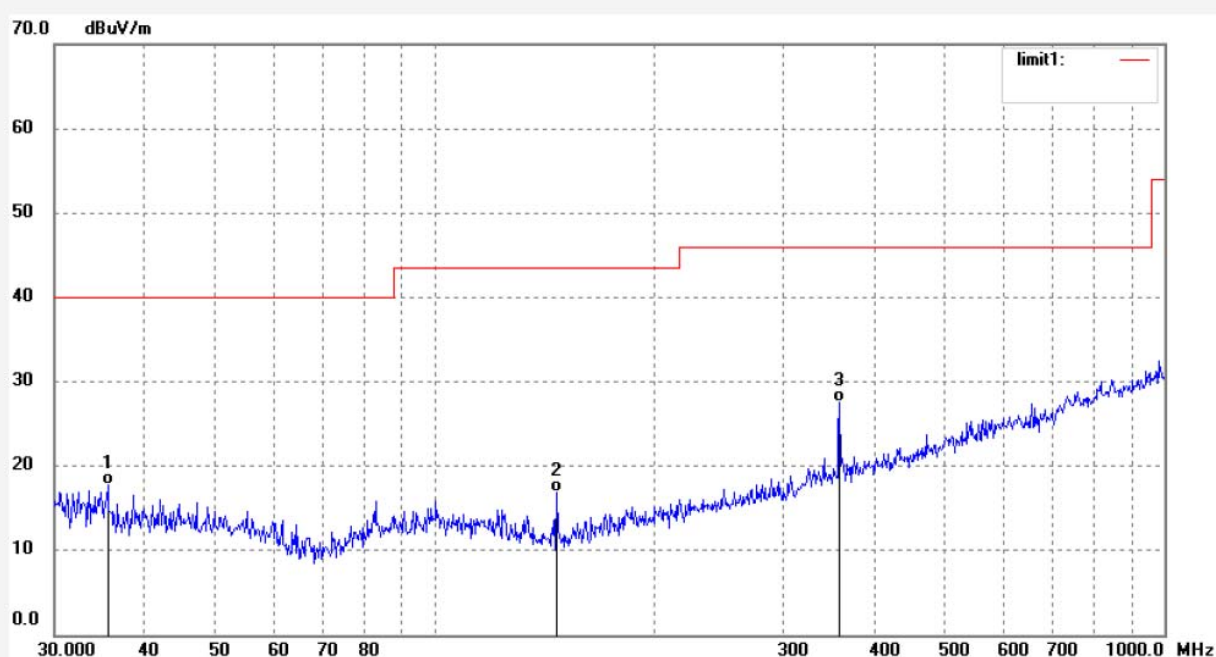
Date: 2013/01/04

Time: 10:46:28

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.5112	2.14	15.57	17.71	40.00	-22.29	QP			
2	146.8392	5.43	11.50	16.93	43.50	-26.57	QP			
3	358.4497	9.11	18.51	27.62	46.00	-18.38	QP			


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Job No.: Bob #4235

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

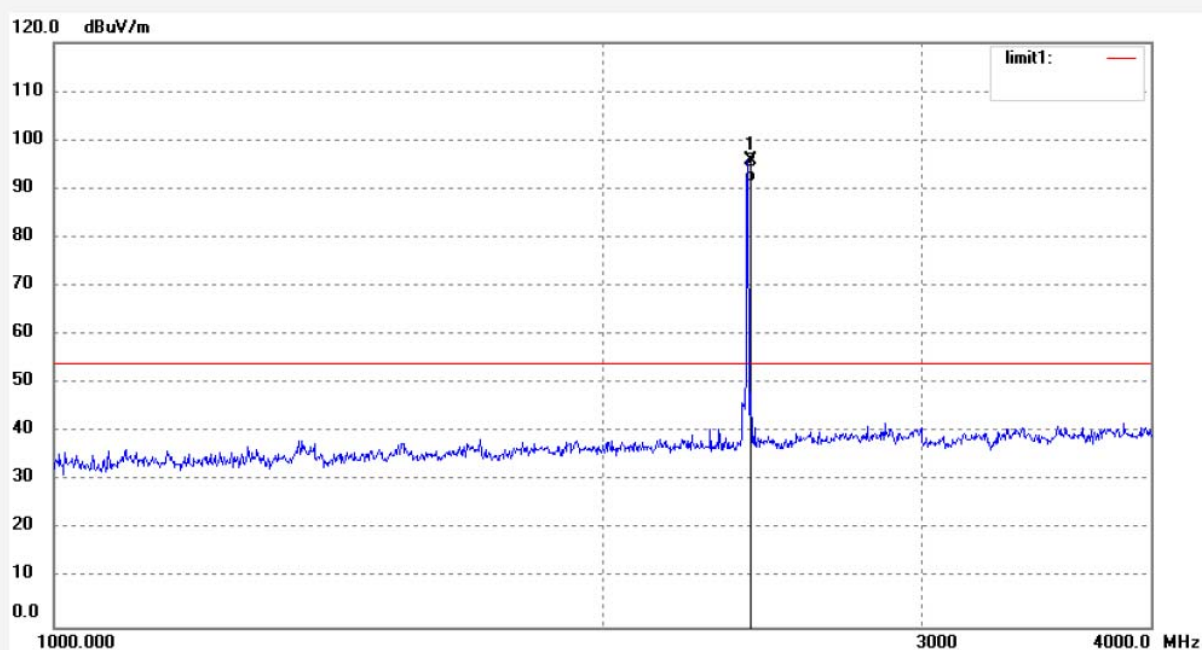
Date: 13/01/04/

Time: 9/13/10

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2414.000	103.17	-7.42	95.75	114.00	-18.25	peak			
2	2414.000	98.84	-7.42	91.42	94.00	-2.85	AVG			


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Job No.: Bob #4236

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

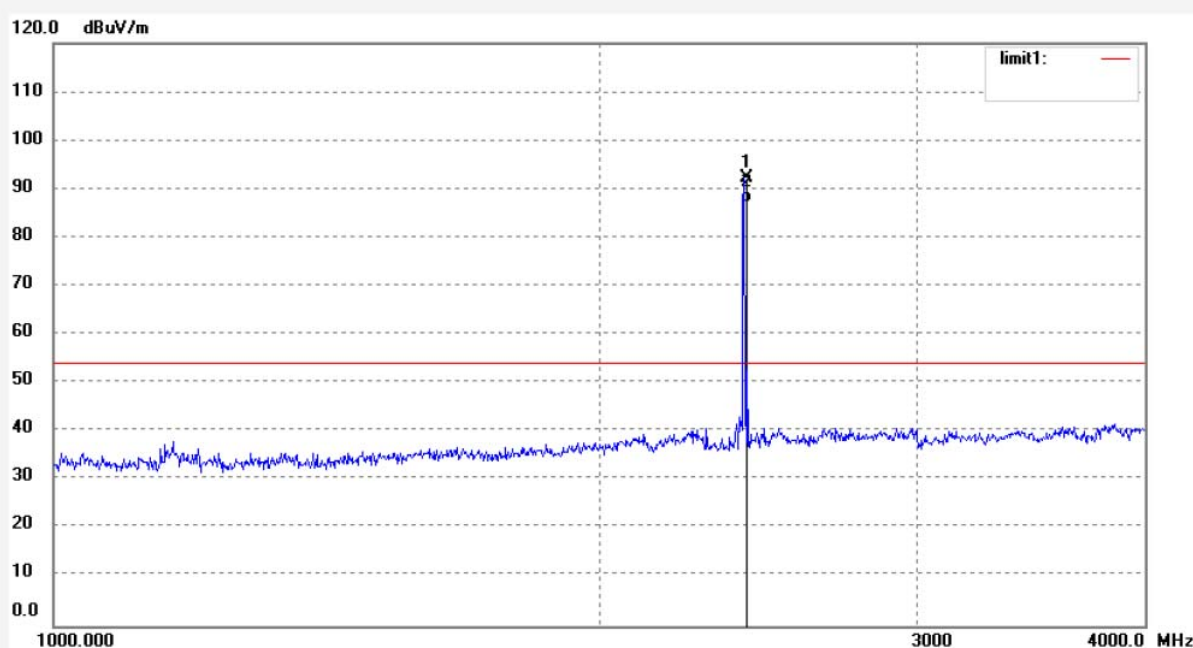
Date: 13/01/04/

Time: 9/16/30

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2414.000	99.55	-7.42	92.13	114.00	-21.87	peak			
2	2414.000	94.57	-7.42	87.15	94.00	-6.85	AVG			


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Job No.: Bob #4239

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

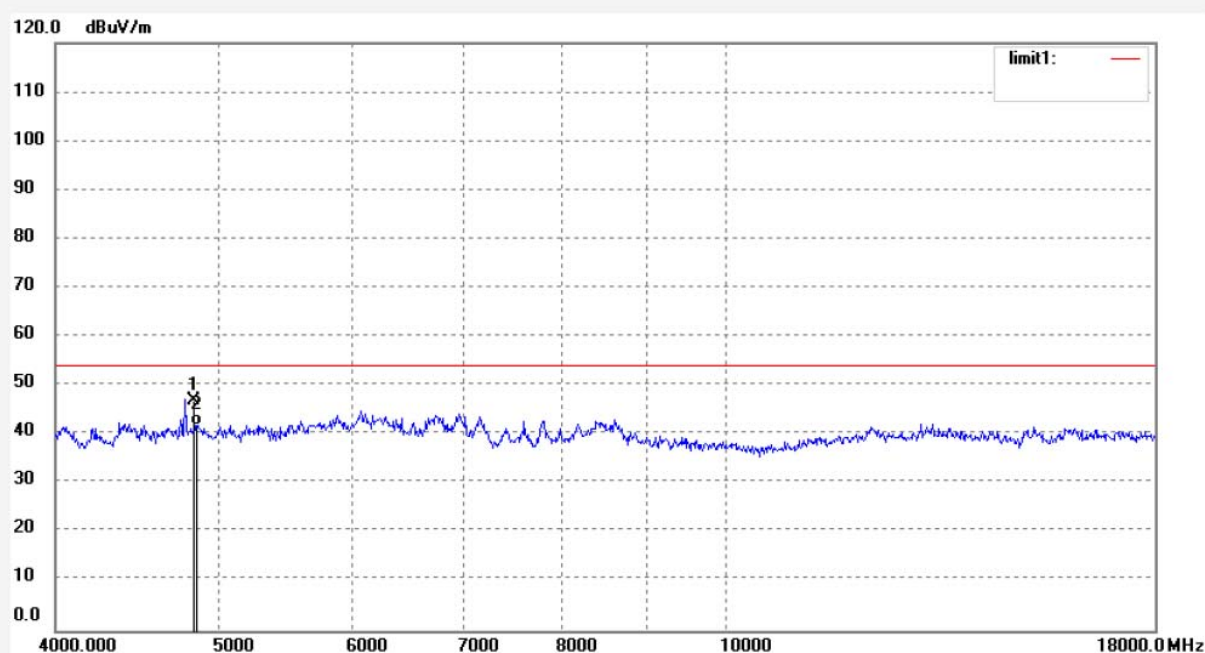
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Time: 9/25/48

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4828.000	47.24	-0.17	47.07	74.00	-26.93	peak			
2	4828.000	42.16	-0.17	41.99	54.00	-12.01	AVG			



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Job No.: Bob #4240

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

Date: 13/01/04/

Time: 9/27/20

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4828.000	46.38	-0.17	46.21	74.00	-27.79	peak			
2	4828.000	41.57	-0.17	41.40	54.00	-12.60	AVG			



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Job No.: Bob #4309

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

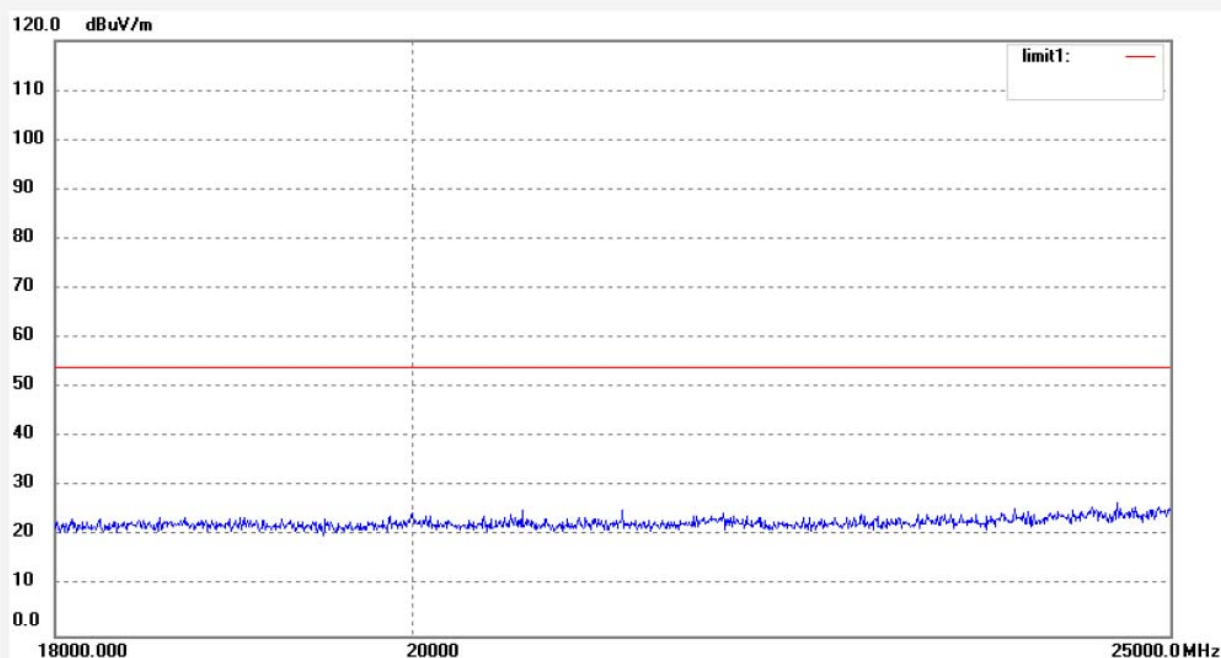
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Time: 11:43:49

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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Job No.: Bob #4308

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

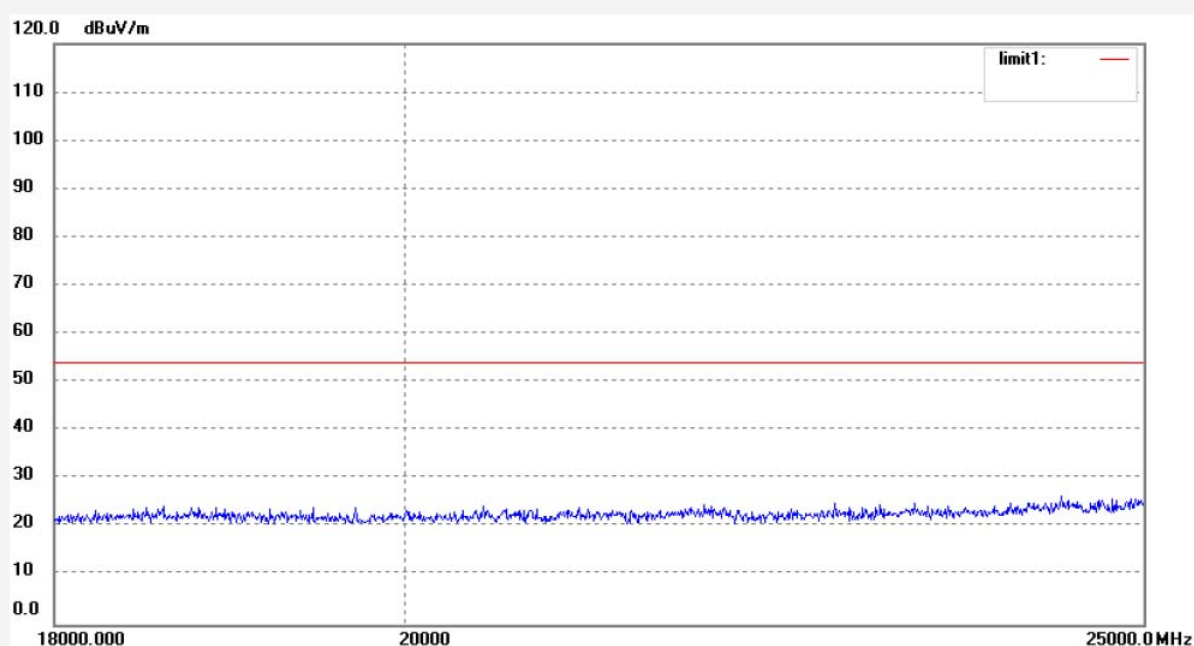
Date: 2013/01/04

Time: 11:40:31

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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Job No.: Bob #4260

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

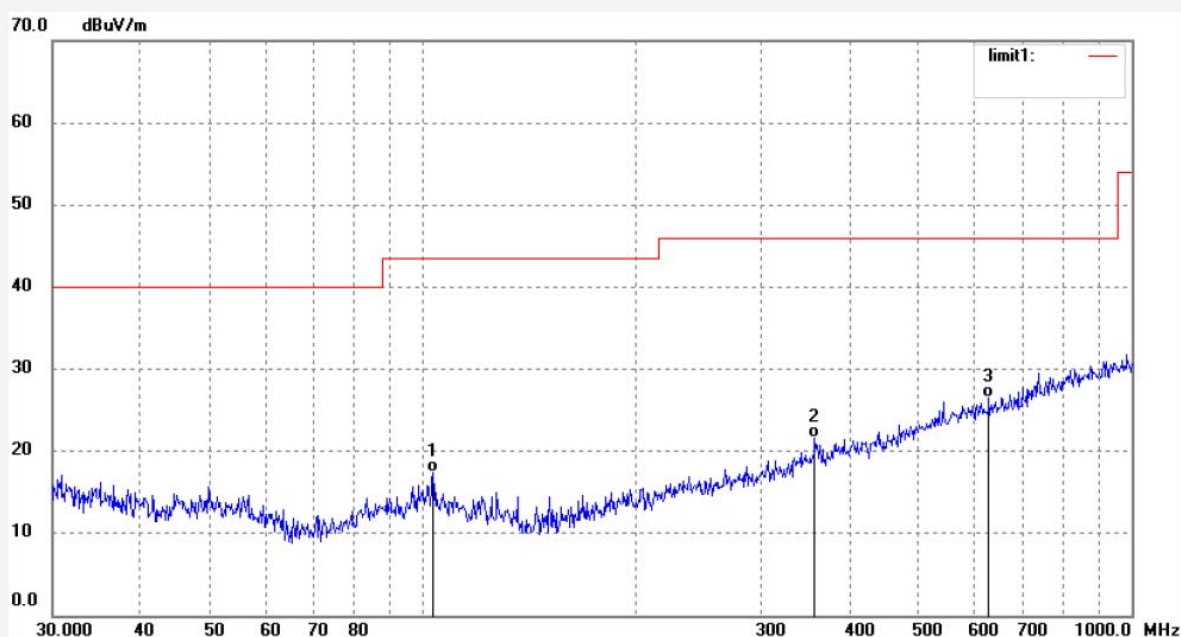
Date: 2013/01/04

Time: 10:49:09

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	103.3353	3.13	14.21	17.34	43.50	-26.16	QP			
2	357.1925	3.18	18.49	21.67	46.00	-24.33	QP			
3	628.8936	2.44	23.99	26.43	46.00	-19.57	QP			



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Job No.: Bob #4259

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

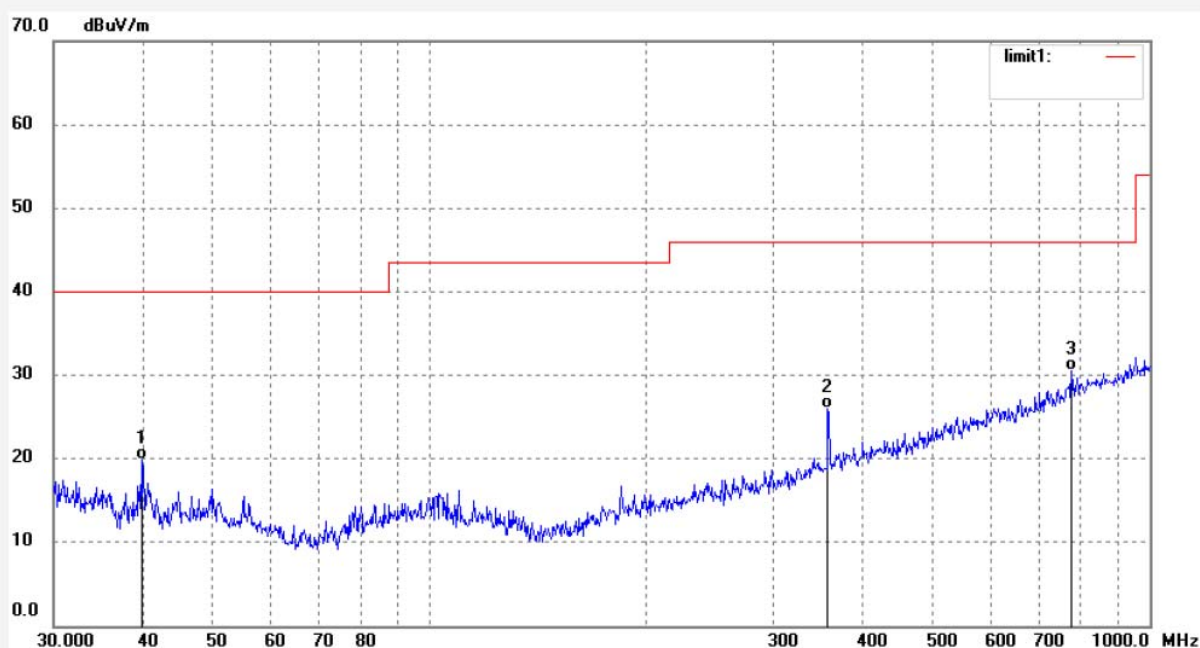
Date: 2013/01/04

Time: 10:47:36

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	39.7371	5.22	14.61	19.83	40.00	-20.17	QP			
2	357.1925	7.55	18.49	26.04	46.00	-19.96	QP			
3	779.2179	4.13	26.35	30.48	46.00	-15.52	QP			



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Job No.: Bob #4243

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

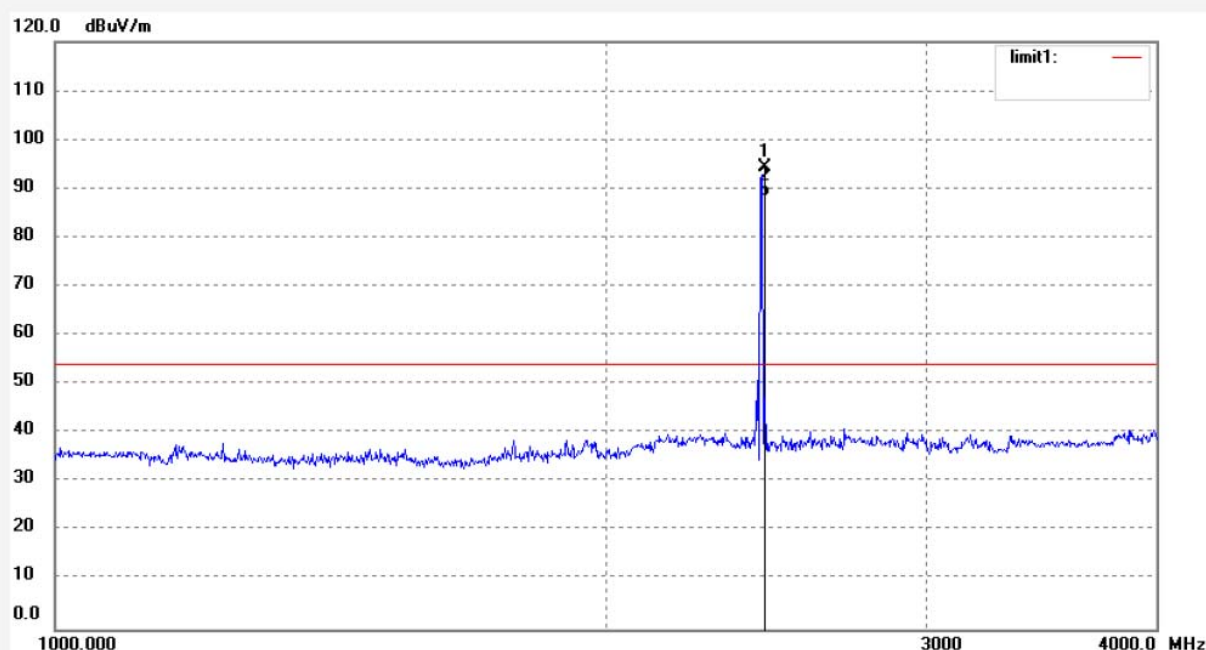
Date: 13/01/04/

Time: 9/35/46

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2447.000	101.64	-7.34	94.30	114.00	-19.70	peak			
2	2447.000	95.66	-7.34	88.32	94.00	-5.68	AVG			



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Fax:+86-0755-26503396

Job No.: Bob #4244

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

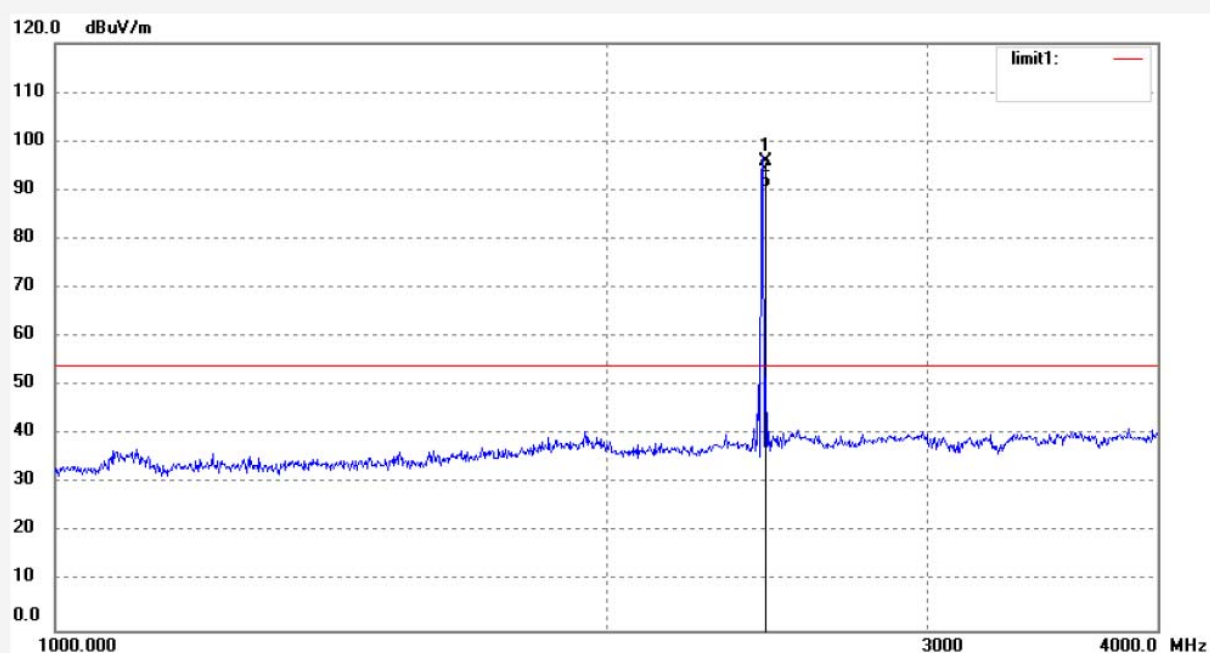
Date: 13/01/04/

Time: 9/38/30

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2447.000	103.33	-7.34	95.99	114.00	-18.01	peak			
2	2447.000	97.84	-7.34	90.50	94.00	-3.50	AVG			


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Site: 2# Chamber

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Fax:+86-0755-26503396

Job No.: Bob #4242

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

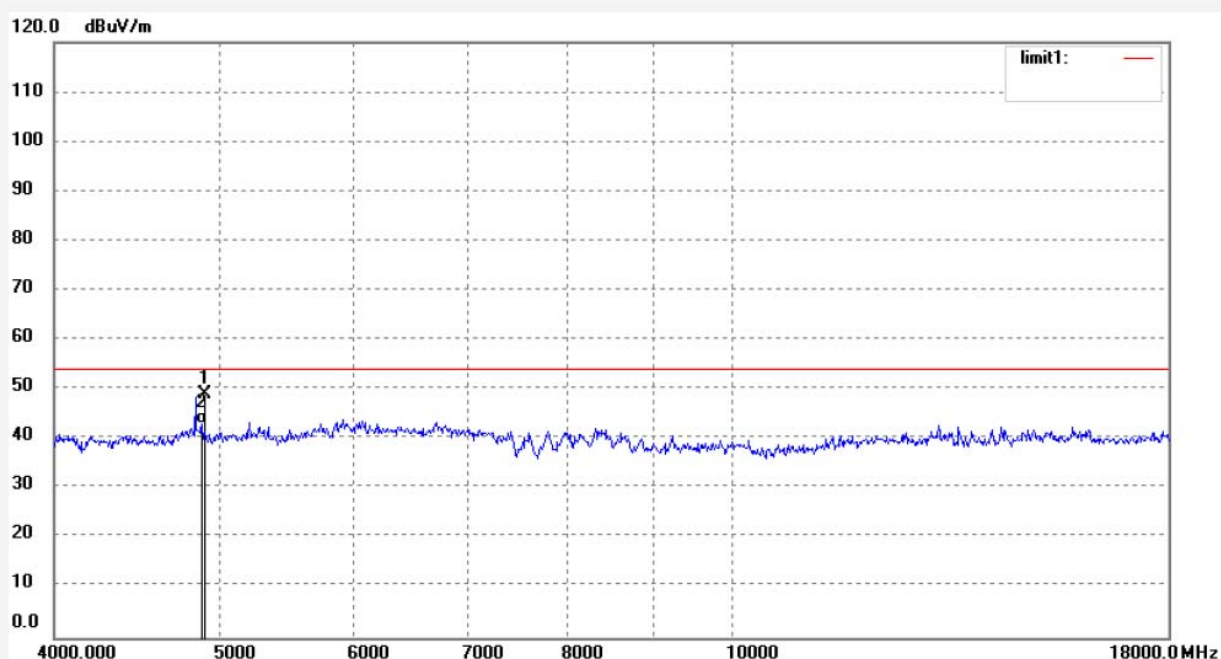
Date: 13/01/04/

Time: 9/33/07

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4894.000	48.88	0.20	49.08	74.00	-24.92	peak			
2	4894.000	42.84	0.20	43.04	54.00	-10.96	AVG			



ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4241

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

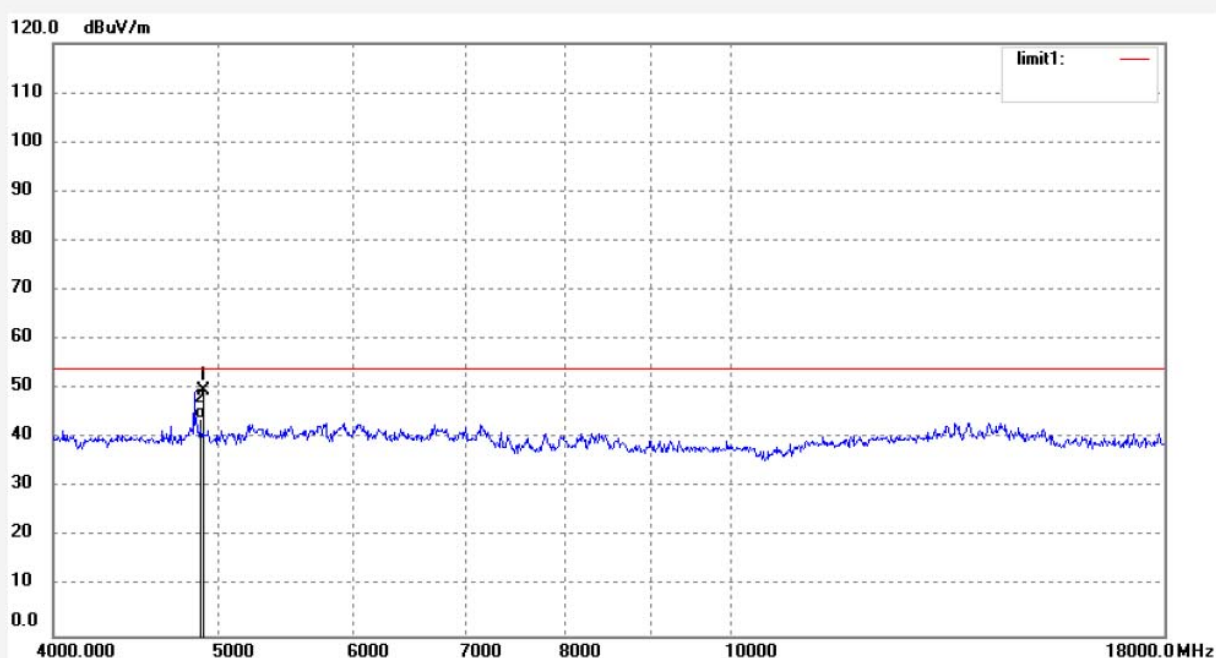
Date: 13/01/04/

Time: 9/31/01

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4894.000	49.47	0.20	49.67	74.00	-24.33	peak			
2	4894.000	43.84	0.20	44.04	54.00	-9.96	AVG			


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 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4310

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

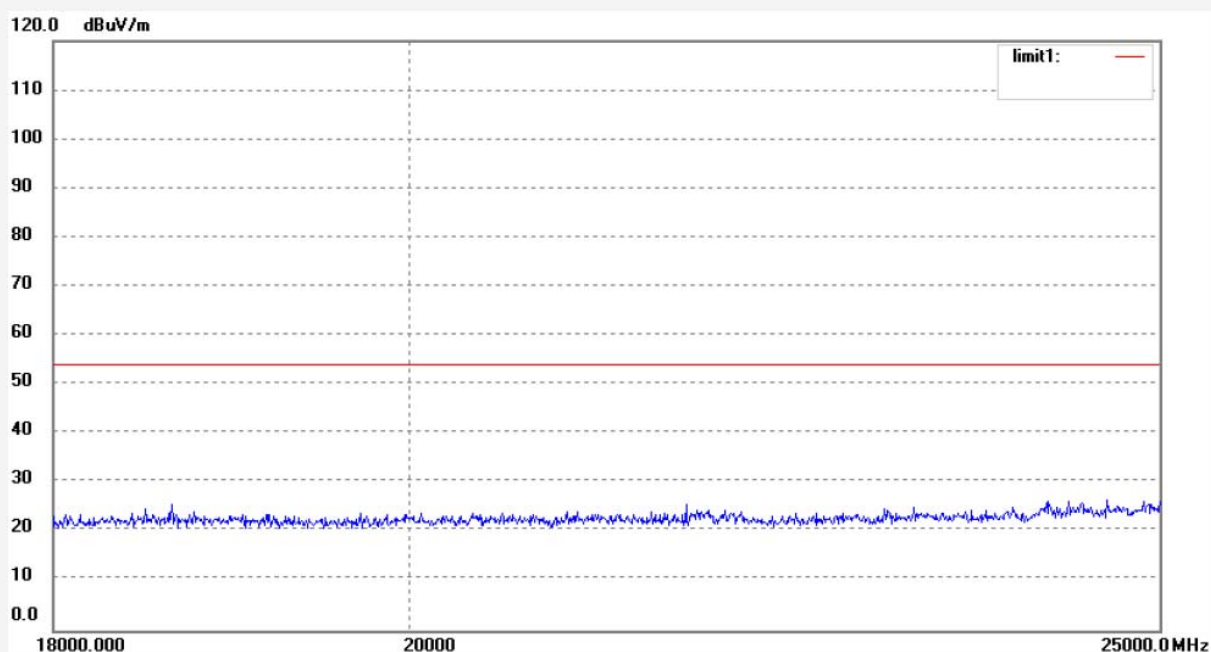
Date: 2013/01/04

Time: 11:47:45

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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ACCURATE TECHNOLOGY CO., LTD.

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 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4311

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2447MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

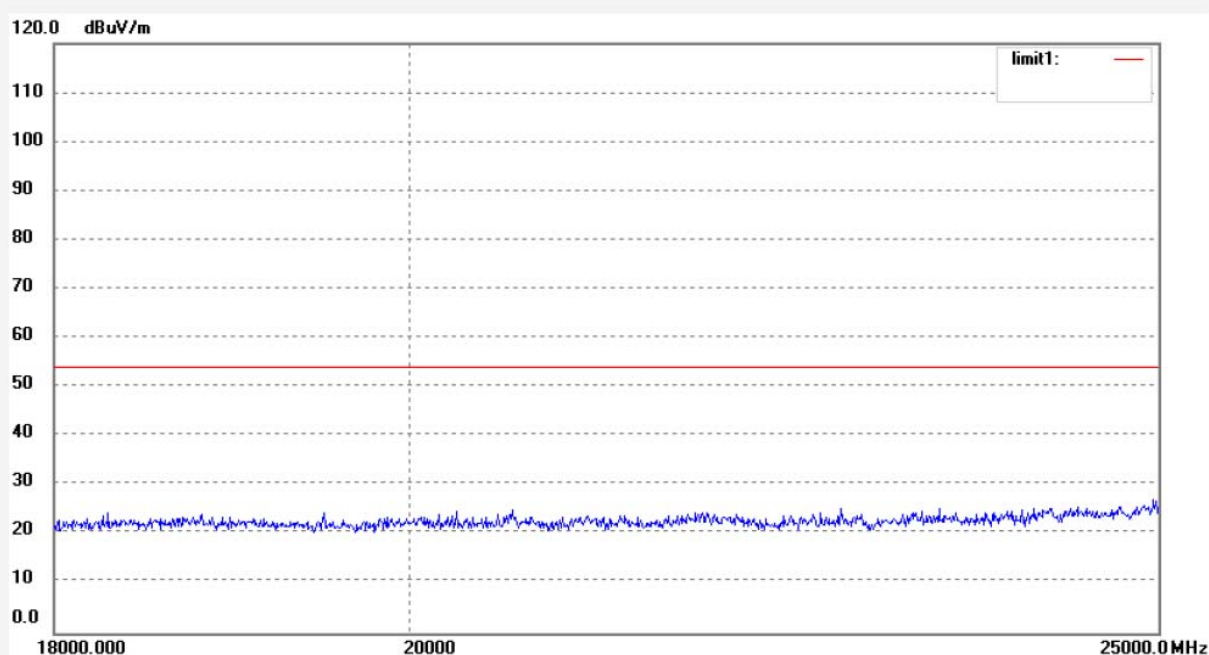
Date: 2013/01/04

Time: 11:49:02

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4261

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

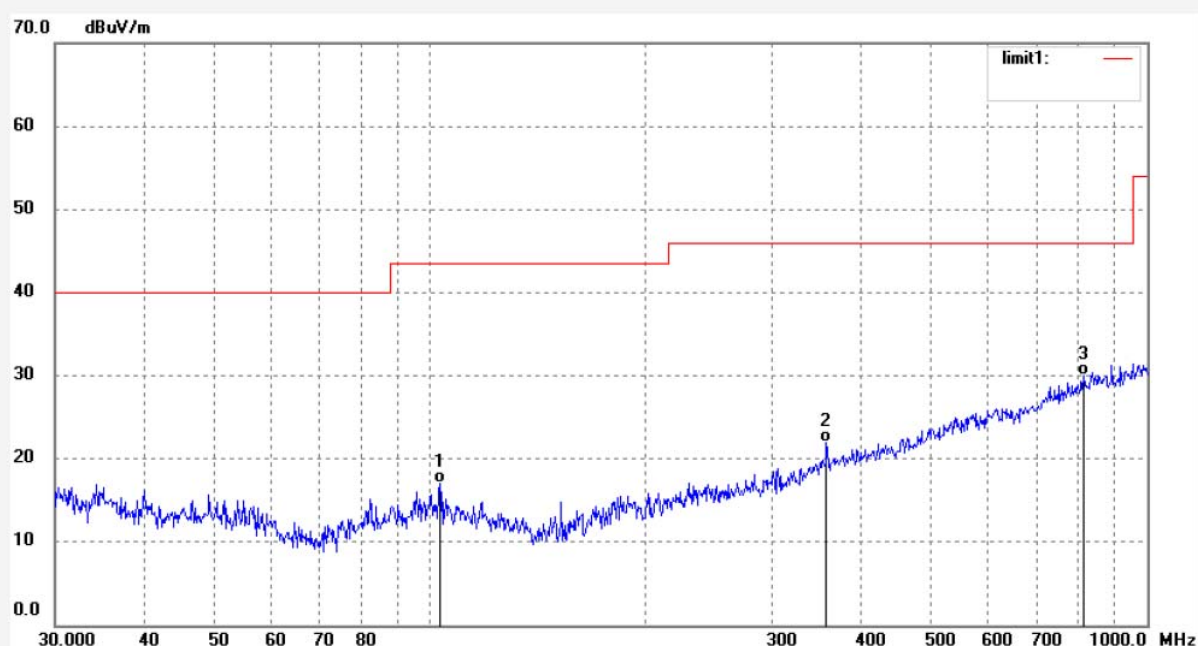
Date: 2013/01/04

Time: 10:50:22

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	103.3353	2.78	14.21	16.99	43.50	-26.51	QP			
2	357.1925	3.51	18.49	22.00	46.00	-24.00	QP			
3	815.6352	3.06	27.02	30.08	46.00	-15.92	QP			



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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: Bob #4262

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

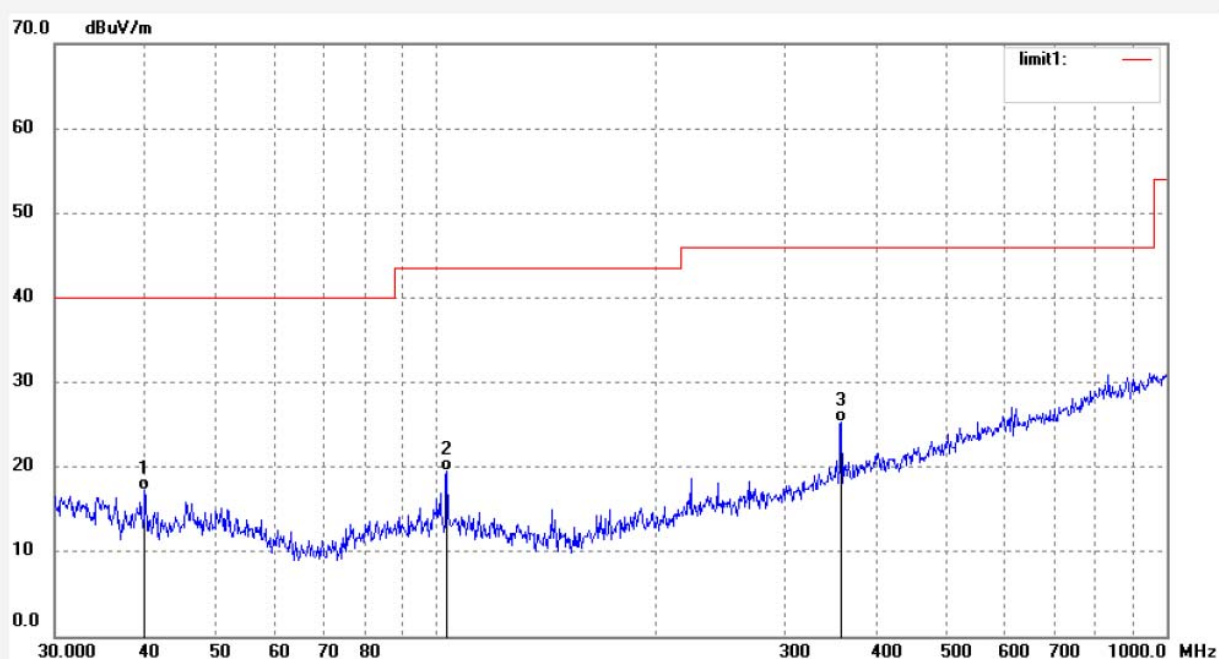
Date: 2013/01/04

Time: 10:51:41

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	39.8769	2.71	14.58	17.29	40.00	-22.71	QP			
2	103.3353	5.36	14.21	19.57	43.50	-23.93	QP			
3	358.4497	6.73	18.51	25.24	46.00	-20.76	QP			



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4246

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

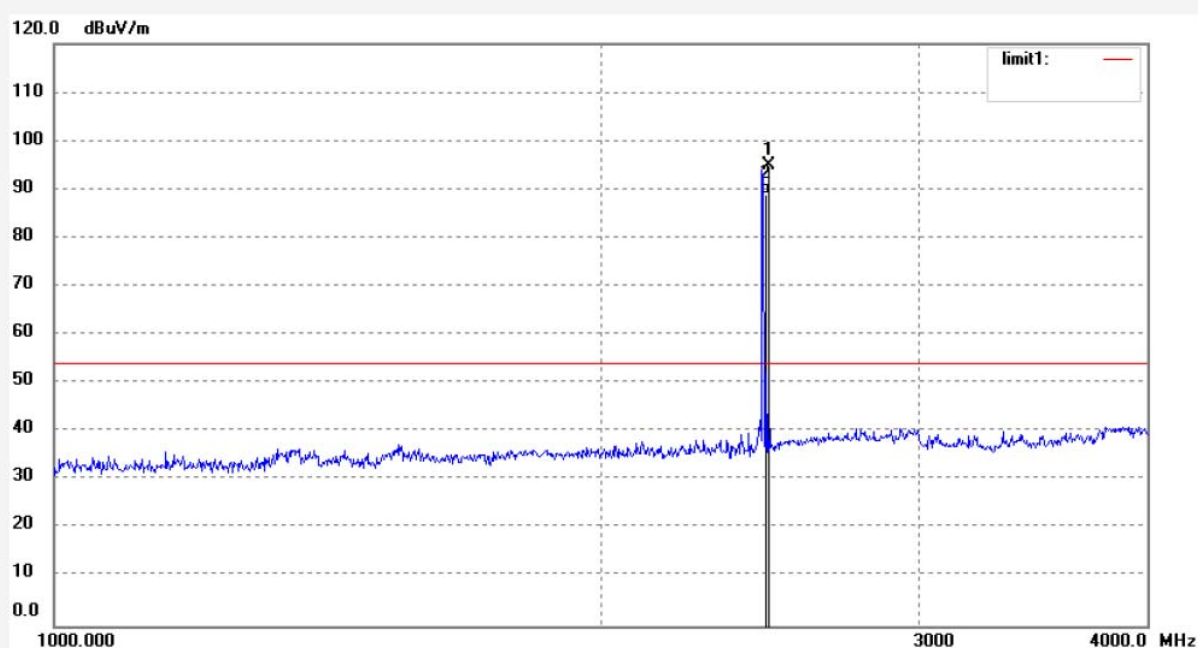
Date: 13/01/04/

Time: 9/44/13

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2473.000	102.34	-7.36	94.98	114.00	-19.02	peak			
2	2473.000	96.44	-7.36	89.08	94.00	-4.92	AVG			


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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4245

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

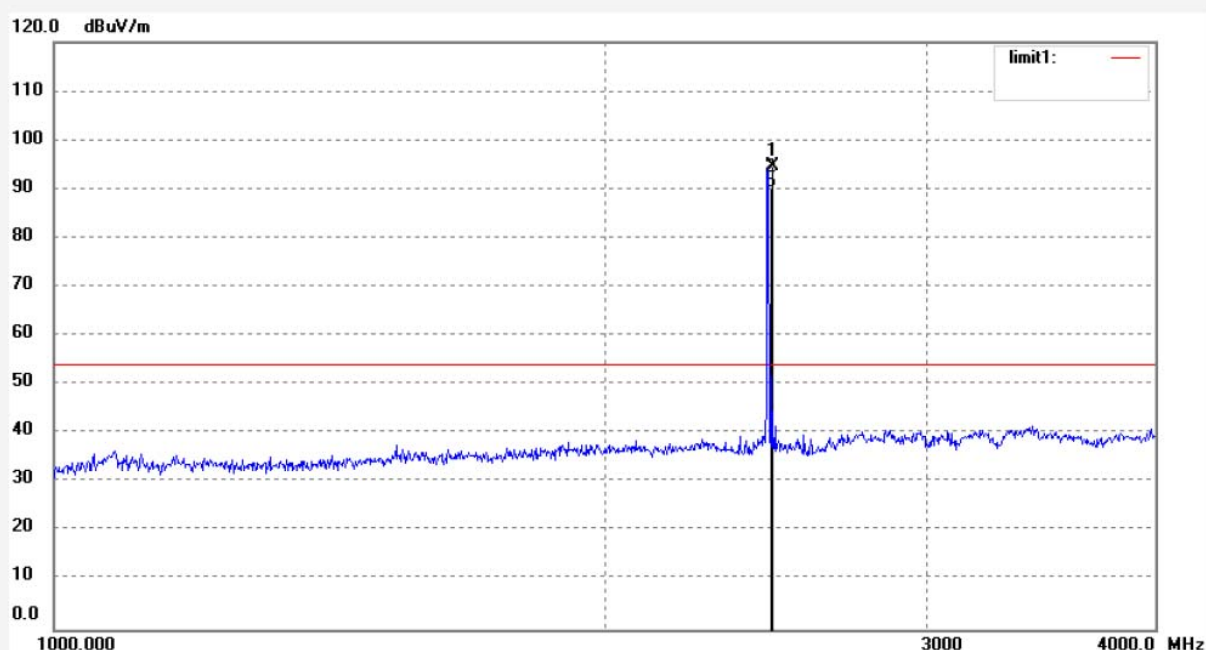
Date: 13/01/04/

Time: 9/42/05

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2473.000	102.12	-7.36	94.76	114.00	-19.24	peak			
2	2473.000	97.54	-7.36	90.18	94.00	-3.82	AVG			



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Site: 2# Chamber

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Fax:+86-0755-26503396

Job No.: Bob #4250

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

Date: 13/01/04/

Time: 9/58/30

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4946.000	48.67	0.46	49.13	74.00	-24.87	peak			
2	4946.000	43.68	0.46	44.14	54.00	-9.86	AVG			



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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4249

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

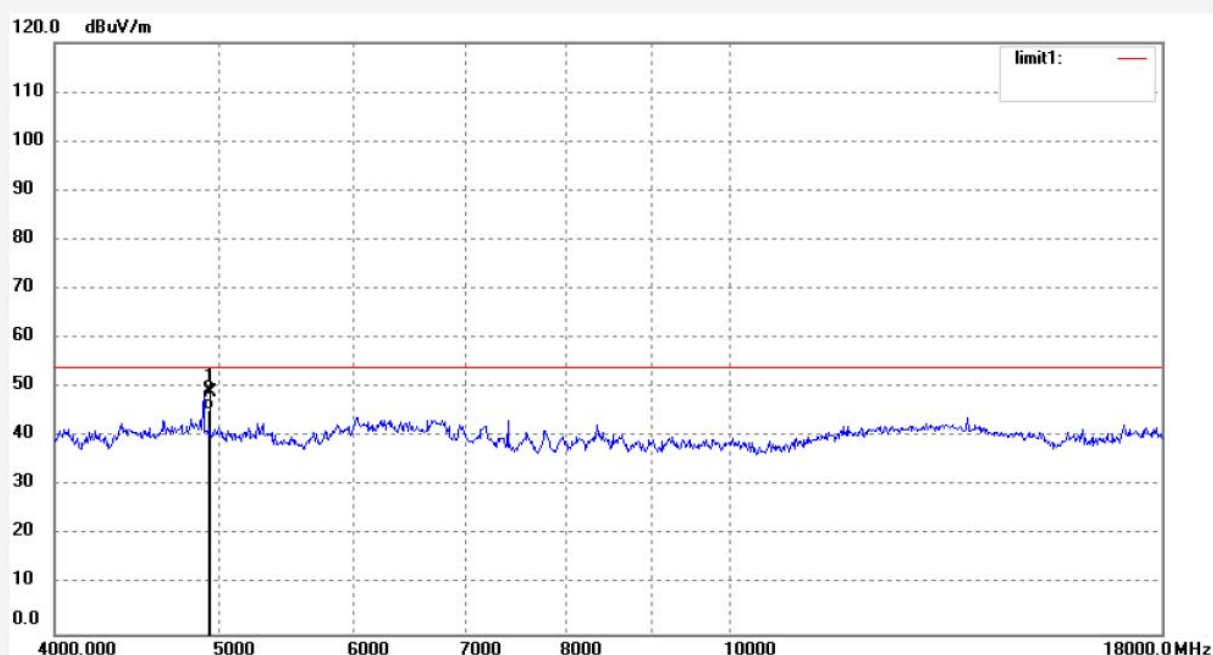
Date: 13/01/04/

Time: 9/56/13

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4946.000	48.67	0.46	49.13	74.00	-24.87	peak			
2	4946.000	44.96	0.46	45.42	54.00	-8.58	AVG			



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Site: 2# Chamber

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Fax:+86-0755-26503396

Job No.: Bob #4313

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

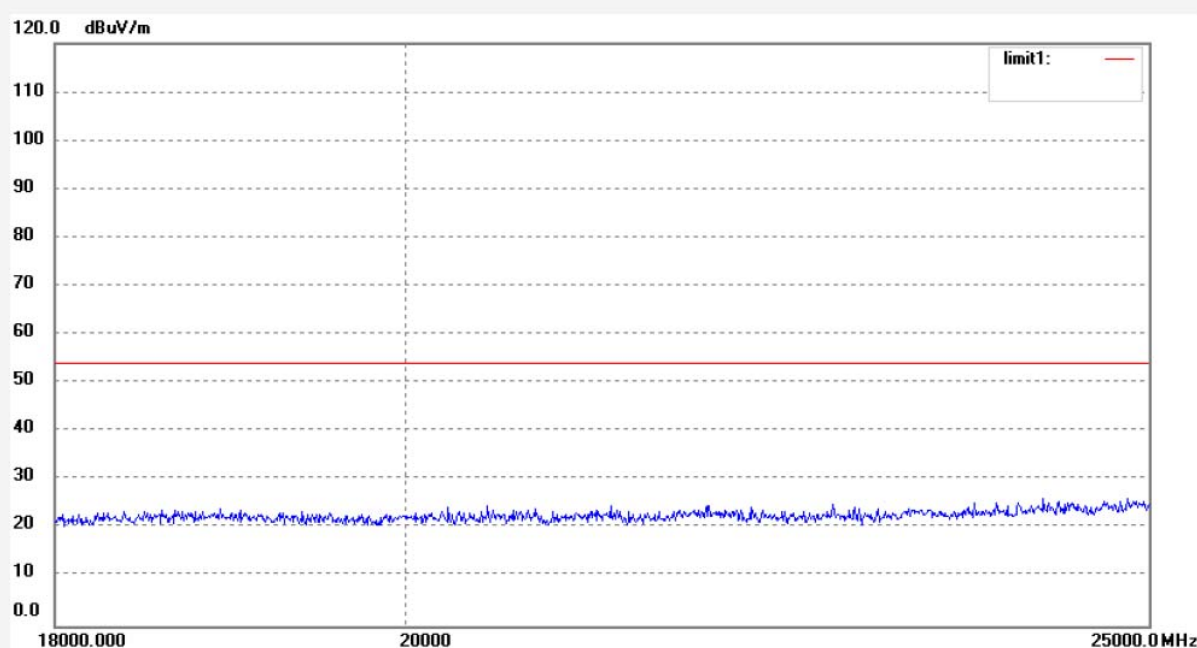
Date: 2013/01/04

Time: 11:53:27

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4312

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

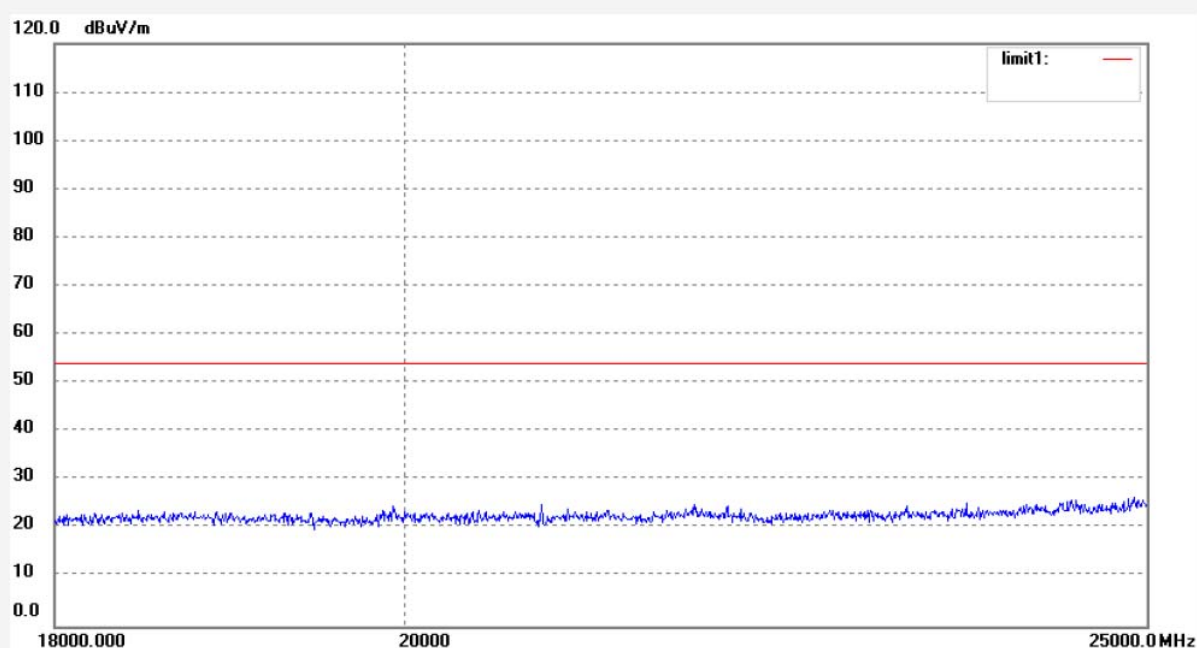
Date: 2013/01/04

Time: 11:51:11

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
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ACCURATE TECHNOLOGY CO., LTD.

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4238

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

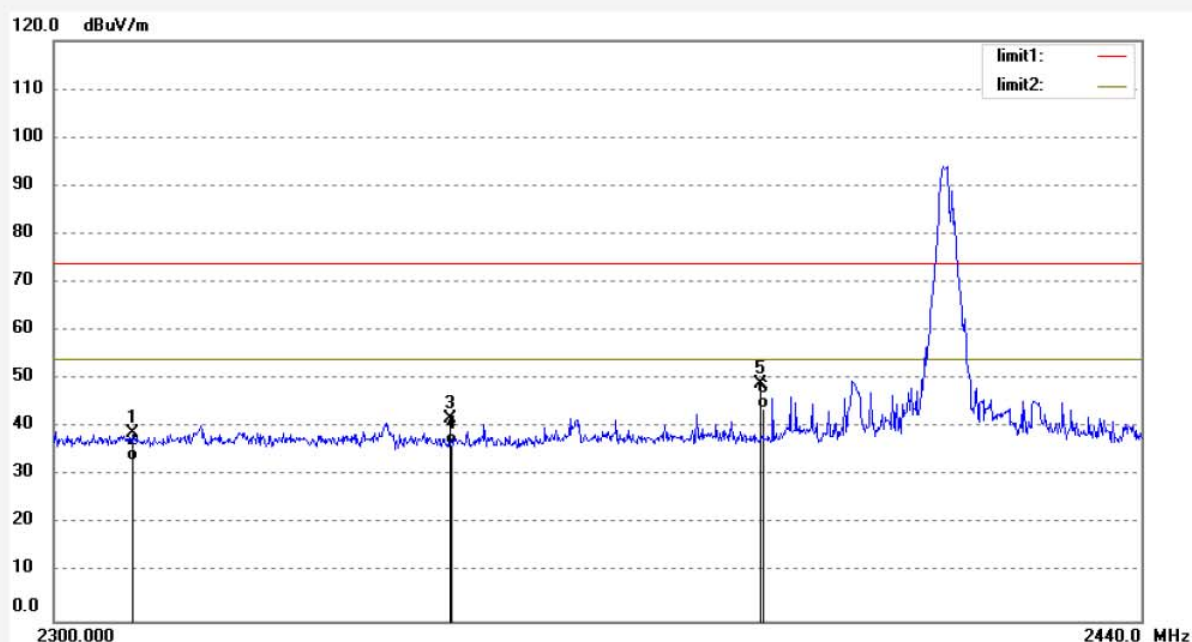
Date: 13/01/04/

Time: 9/23/05

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	46.66	-7.81	38.85	74.00	-35.15	peak			
2	2310.000	41.02	-7.81	33.21	54.00	-20.79	AVG			
3	2350.000	49.67	-7.79	41.88	74.00	-32.12	peak			
4	2350.000	44.25	-7.79	36.46	54.00	-17.54	AVG			
5	2390.000	56.61	-7.53	49.08	74.00	-24.92	peak			
6	2390.000	51.41	-7.53	43.88	54.00	-10.12	AVG			


ACCURATE TECHNOLOGY CO., LTD.

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4237

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2414MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

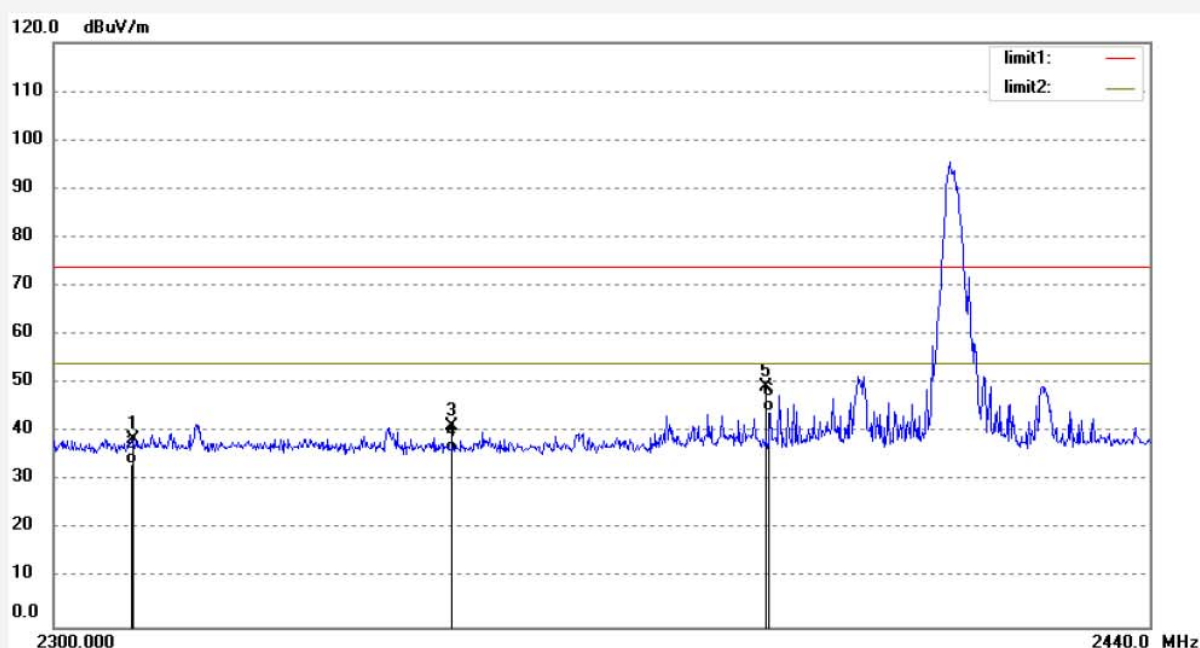
Date: 13/01/04/

Time: 9/19/17

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	46.32	-7.81	38.51	74.00	-35.49	peak			
2	2310.000	41.21	-7.81	33.40	54.00	-20.60	AVG			
3	2350.000	48.99	-7.79	41.20	74.00	-32.80	peak			
4	2350.000	43.67	-7.79	35.88	54.00	-18.12	AVG			
5	2390.000	57.02	-7.53	49.49	74.00	-24.51	peak			
6	2390.000	51.84	-7.53	44.31	54.00	-9.69	AVG			


ACCURATE TECHNOLOGY CO., LTD.

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4247

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Horizontal

Power Source: DC 7.4V

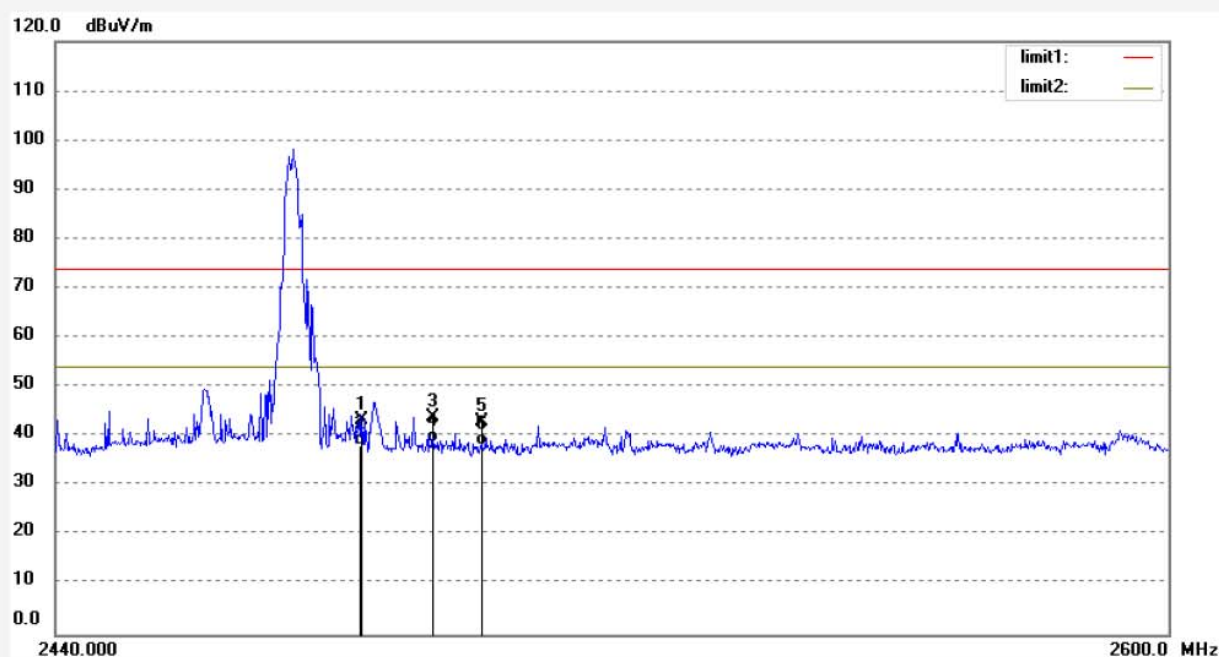
Date: 13/01/04/

Time: 9/47/34

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.225	50.67	-7.37	43.30	74.00	-30.70	peak			
2	2483.225	45.69	-7.37	38.32	54.00	-15.68	AVG			
3	2493.000	51.33	-7.39	43.94	74.00	-30.06	peak			
4	2493.000	46.31	-7.39	38.92	54.00	-15.08	AVG			
5	2500.000	50.32	-7.40	42.92	74.00	-31.08	peak			
6	2500.000	45.55	-7.40	38.15	54.00	-15.85	AVG			


ACCURATE TECHNOLOGY CO., LTD.

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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #4248

Standard: FCC PK

Test item: Radiation Test

Temp.(C)/Hum.(%) 26 C / 55 %

EUT: 2.4G Helicopter

Mode: TX 2473MHz

Model: 50800RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical

Power Source: DC 7.4V

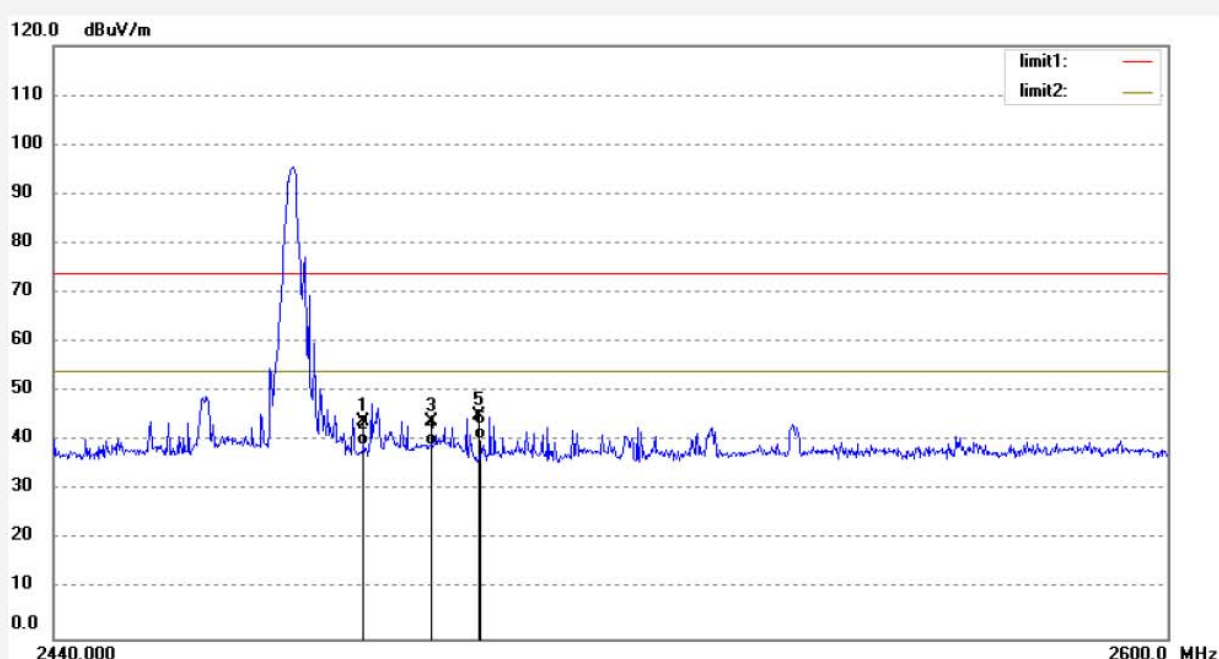
Date: 13/01/04/

Time: 9/51/31

Engineer Signature: Bob

Distance: 3m

Note: Report NO.:ATE20122926



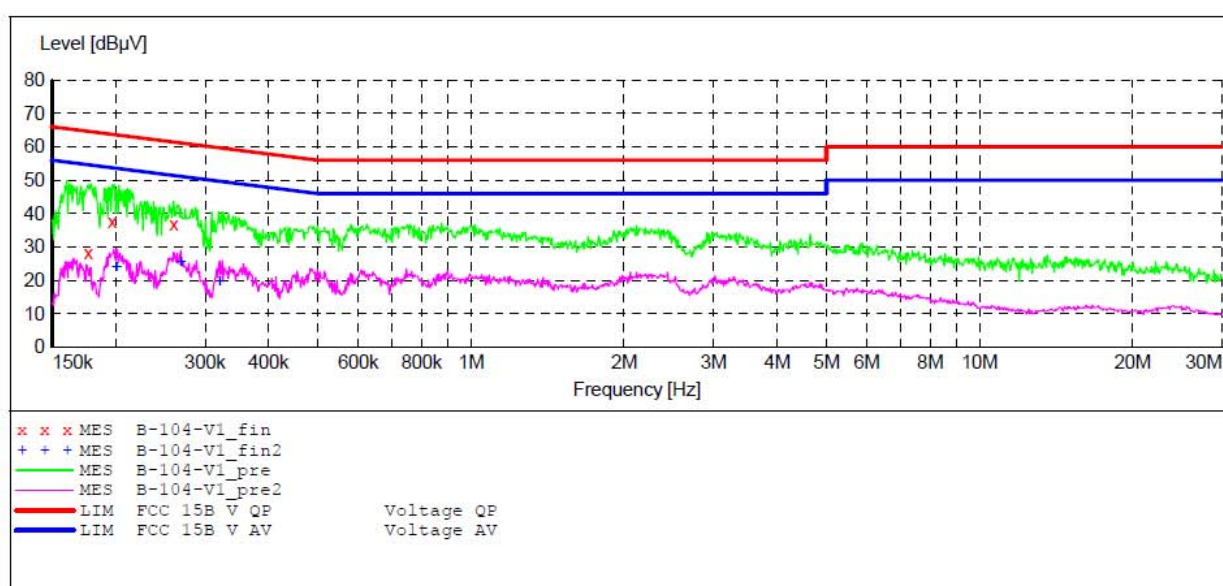
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.547	51.36	-7.37	43.99	74.00	-30.01	peak			
2	2483.547	46.60	-7.37	39.23	54.00	-14.77	AVG			
3	2493.350	51.34	-7.39	43.95	74.00	-30.05	peak			
4	2493.350	46.52	-7.39	39.13	54.00	-14.87	AVG			
5	2500.000	52.69	-7.40	45.29	74.00	-28.71	peak			
6	2500.000	47.73	-7.40	40.33	54.00	-13.67	AVG			

ACCURATE TECHNOLOGY CO., LTD**CONDUCTED EMISSION STANDARD FCC PART 15 B**

EUT: 2.4G Helicopter M/N:RX50800
 Manufacturer: Interactive Toy Concepts (HK) Ltd.
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Bob
 Test Specification: L 120V/60Hz
 Comment: Report No.: ATE20122926
 Start of Test: 1/4/2013 / 4:22:28PM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average

**MEASUREMENT RESULT: "B-104-V1_fin"**

1/4/2013 4:27PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.176674	28.20	11.2	65	36.4	QP	L1	GND
0.196781	37.70	11.2	64	26.0	QP	L1	GND
0.260222	36.80	11.2	61	24.6	QP	L1	GND

MEASUREMENT RESULT: "B-104-V1_fin2"

1/4/2013 4:27PM

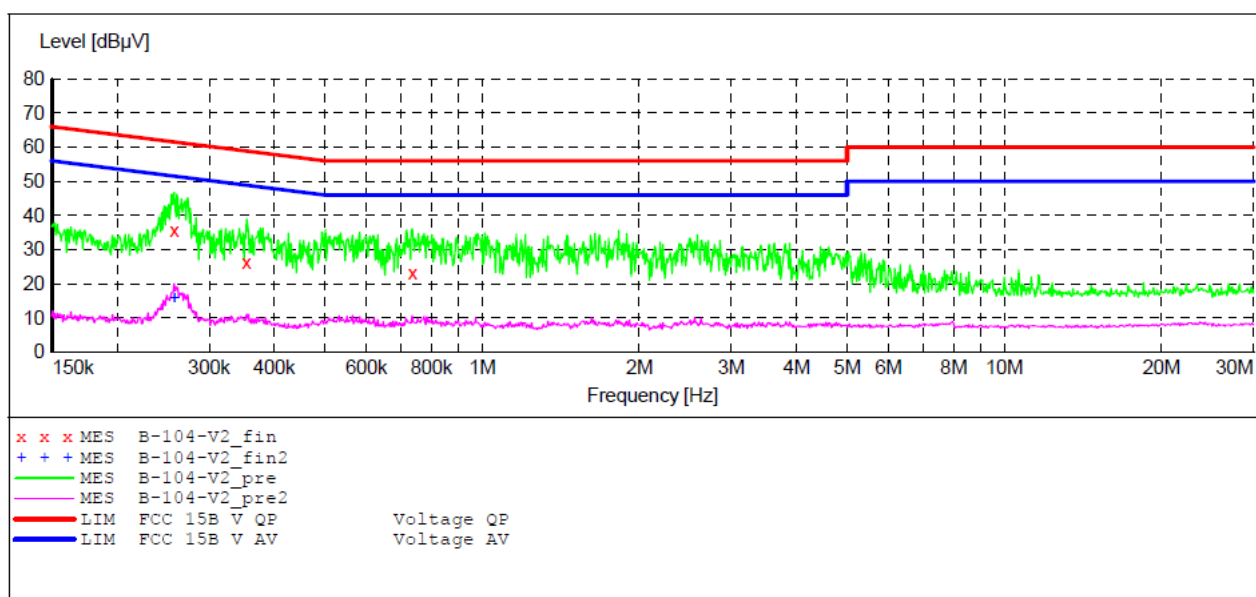
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.200748	23.90	11.2	54	29.7	AV	L1	GND
0.268666	25.60	11.2	51	25.6	AV	L1	GND
0.320256	19.60	11.2	50	30.1	AV	L1	GND

ACCURATE TECHNOLOGY CO., LTD**CONDUCTED EMISSION STANDARD FCC PART 15 B**

EUT: 2.4G Helicopter M/N:RX50800
 Manufacturer: Interactive Toy Concepts (HK) Ltd.
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Bob
 Test Specification: N 120V/60Hz
 Comment: Report No.:ATE20122926
 Start of Test: 1/4/2013 / 4:33:31PM

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average

**MEASUREMENT RESULT: "B-104-V2_fin"**

1/4/2013 4:34PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.257124	35.70	11.2	62	25.8	QP	N	GND
0.353867	26.30	11.2	59	32.6	QP	N	GND
0.734698	23.10	11.3	56	32.9	QP	N	GND

MEASUREMENT RESULT: "B-104-V2_fin2"

1/4/2013 4:34PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.257124	15.60	11.2	52	35.9	AV	N	GND