

FCC CERTIFICATION  
On Behalf of  
Interactive Toy Concepts Limited

2.4G Flier  
Model No.: 22033RX

FCC ID: RSD-22033RX

Prepared for : Interactive Toy Concepts Limited  
Address : Unit 709, 7/F., Tower 2, Cheung Sha Wan Plaza, No.833  
Cheung Sha Wan Rd., Kowloon, Hong Kong

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Report Number : ATE20130949  
Date of Test : May 20-25, 2013  
Date of Report : May 25, 2013

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APPENDIX I ( TEST CURVES) (30 pages)

## Test Report Certification

### 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 Section15.249 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 :

Bob Wang

(Engineer)

Approved & Authorized Signer :

George

(Manager)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT : 2.4G Flier  
 Model Number : 22033RX  
 Power Supply : 3.7V DC (Power by Li-Ion battery ) and AC120V/60Hz  
 (Power by USB Port)  
 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 : May 13, 2012  
 Date of Test : May 20-25, 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 date	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 12, 2013	Jan. 11, 2014
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 12, 2013	Jan. 11, 2014
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 12, 2013	Jan. 11, 2014
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 12, 2013	Jan. 11, 2014
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Feb. 06, 2013	Feb. 05, 2014
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Feb. 06, 2013	Feb. 05, 2014
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Feb. 06, 2013	Feb. 05, 2014
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Feb. 06, 2013	Feb. 05, 2014
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 12, 2013	Jan. 11, 2014
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 12, 2013	Jan. 11, 2014

### 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
Section 15.207	AC Power Line Conducted Emission Test	Compliant

Remark: “N/A” means “Not applicable”.

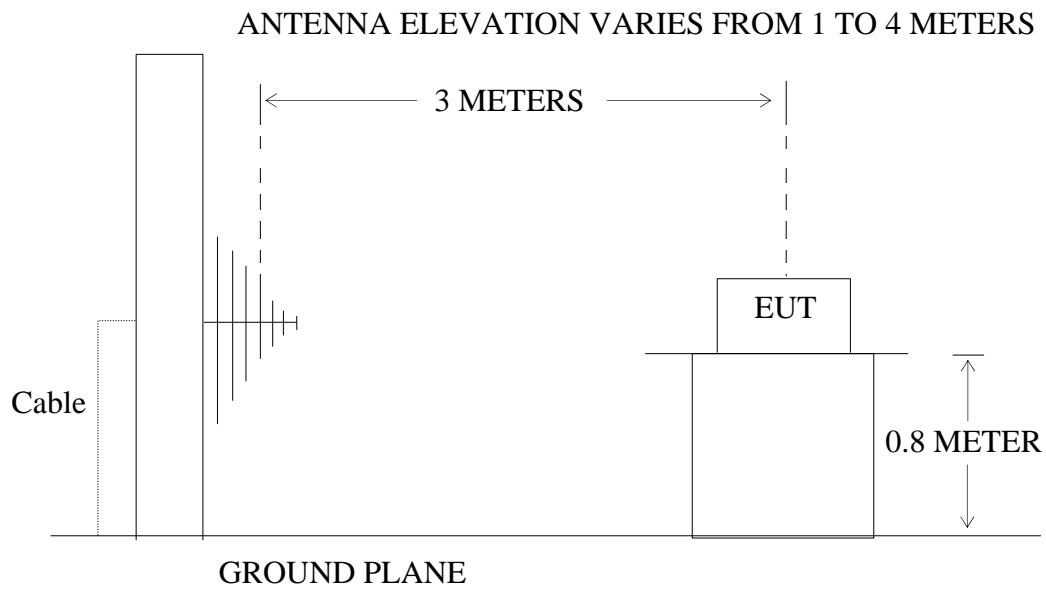
## 4. FUNDAMENTAL AND HARMONICS RADIATED EMISSION FOR SECTION 15.249(A)

### 4.1. Block Diagram of Test Setup

#### 4.1.1. Block diagram of connection between the EUT and simulators



#### 4.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: 2.4G Flier)

## 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 $\mu$ V/m and the harmonics shall not exceed 54 dB $\mu$ 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 Flier (EUT)

Model Number : 22033RX  
 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 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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2414.000MHz	Test Engineer:	Pei

### Fundamental Radiated Emissions

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB)	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2414.000	98.32	103.55	-7.42	90.90	96.13	94.00	114.00	-3.10	-17.87	Vertical
2414.000	97.62	102.67	-7.42	90.20	95.25	94.00	114.00	-3.80	-18.75	Horizontal

### Harmonics Radiated Emissions

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB)	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		Corr.	AV	PEAK	AV	PEAK	AV	
4828.000	47.69	50.42	-0.17	47.52	50.25	54.00	74.00	-6.48	-23.75	Vertical
4828.000	43.33	47.43	-0.17	43.16	47.26	54.00	74.00	-10.84	-26.74	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:

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

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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2447.000MHz	Test Engineer:	Pei

### Fundamental Radiated Emissions

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB) Corr.	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2447.000	97.30	102.42	-7.34	89.96	95.08	94.00	114.00	-4.04	-18.92	Vertical
2447.000	98.62	103.78	-7.34	91.28	96.44	94.00	114.00	-2.72	-17.56	Horizontal

### Harmonics Radiated Emissions

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB) Corr.	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4894.000	48.81	50.20	0.20	49.01	50.40	54.00	74.00	-4.99	-23.60	Vertical
4894.000	43.33	48.20	0.20	43.53	48.40	54.00	74.00	-10.47	-25.60	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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2473.000MHz	Test Engineer:	Pei

### Fundamental Radiated Emissions

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB) Corr.	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2473.000	98.01	10.60	-7.36	90.65	96.24	94.00	114.00	-3.35	-17.76	Vertical
2473.000	96.37	102.64	-7.36	89.01	95.28	94.00	114.00	-4.99	-18.72	Horizontal

### Harmonics Radiated Emissions

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB) Corr.	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4946.000	47.35	50.57	0.46	47.81	51.03	54.00	74.00	-6.19	-22.97	Vertical
4946.000	48.21	50.45	0.46	48.67	50.91	54.00	74.00	-5.33	-23.09	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.

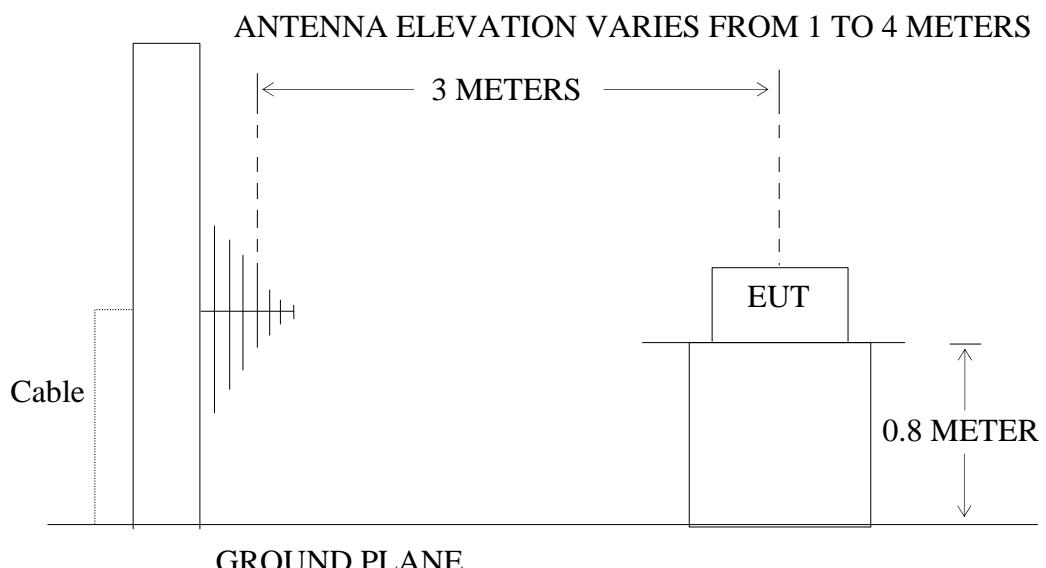
## 5. SPURIOUS RADIATED EMISSION FOR SECTION 15.249(D)

### 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



(EUT: 2.4G Flier)

### 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		
	Field Strength (microvolts/meter)	Measurement Distance (meters)	The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector.
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 Flier (EUT)

Model Number : 22033RX  
 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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2414.000MHz	Test Engineer:	Pei

Below 30MHz

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

30MHz-25GHz

Frequency (MHz)	Reading (dB $\mu$ V/m)	Factor(dB) Corr.	Result	Limit	Margin	Polarization
			QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	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:

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

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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2447.000MHz	Test Engineer:	Pei

Below 30MHz

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

30MHz-25GH

Frequency (MHz)	Reading (dB $\mu$ V/m)	Factor(dB) Corr.	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2473.000MHz	Test Engineer:	Pei

Below 30MHz

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

30MHz-25GH

Frequency (MHz)	Reading (dB $\mu$ V/m)	Factor(dB) Corr.	Result (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	Vertical
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	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.

## 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 Flier (EUT)

Model Number	:	22033RX
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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2414.000MHz	Test Engineer:	Pei

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB) Corr.	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2310.000	43.21	48.59	-7.81	35.40	40.78	54.00	74.00	-18.60	-33.22	Vertical
2350.000	42.65	48.86	-7.79	34.86	41.07	54.00	74.00	-19.14	-32.92	Vertical
2390.000	45.58	50.38	-7.53	38.05	42.85	54.00	74.00	-15.95	-31.15	Vertical
2310.000	41.57	46.78	-7.81	33.76	38.97	54.00	74.00	-20.24	-35.03	Horizontal
2350.000	42.36	47.34	-7.79	34.57	39.55	54.00	74.00	-19.43	-34.45	Horizontal
2390.000	43.68	48.64	-7.53	36.15	41.11	54.00	74.00	-17.85	-32.89	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:

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

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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	DC 3.7V
Test Mode:	TX 2473.000MHz	Test Engineer:	Pei

Frequency (MHz)	Reading(dB $\mu$ V/m)		Factor(dB) Corr.	Result(dB $\mu$ V/m)		Limit(dB $\mu$ V/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.500	47.65	52.38	-7.37	40.28	45.01	54.00	74.00	-13.72	-28.99	Vertical
2493.000	44.16	49.77	-7.39	36.77	42.38	54.00	74.00	-17.23	-31.62	Vertical
2500.000	44.79	49.24	-7.40	37.39	41.84	54.00	74.00	-16.61	-32.16	Vertical
2483.500	47.62	51.38	-7.37	40.25	44.01	54.00	74.00	-13.75	-29.99	Horizontal
2493.000	44.69	49.16	-7.39	37.30	41.77	54.00	74.00	-16.70	-32.23	Horizontal
2500.000	42.24	47.35	-7.40	34.84	39.95	54.00	74.00	-19.16	-34.05	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

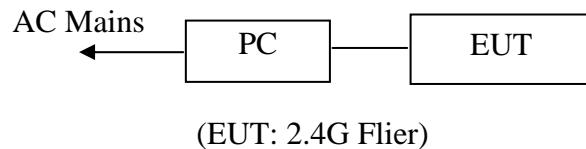
Where Corrected Factor = Antenna Factor + Cable Loss + High Pass Filter Loss – Amplifier Gain

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

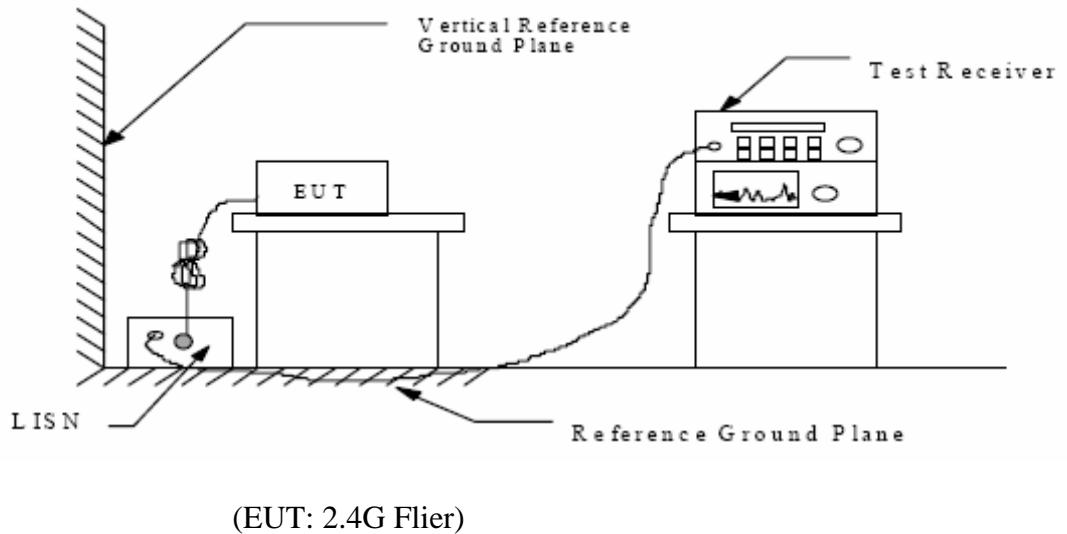
## 7. AC POWER LINE CONDUCTED EMISSION FOR FCC PART 15 SECTION 15.207(A)

### 7.1. Block Diagram of Test Setup

#### 7.1.1. Block diagram of connection between the EUT and simulators



#### 7.1.2. Shielding Room Test Setup Diagram



(EUT: 2.4G Flier)

### 7.2. The Emission Limit

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

Frequency (MHz)	Limit dB( $\mu$ V)	
	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 Flier (EUT)

Model Number : 22033RX  
 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:	May 24, 2013	Temperature:	25°C
EUT:	2.4G Flier	Humidity:	50%
Model No.:	22033RX	Power Supply:	AC 120/60Hz
Test Mode:	Charging	Test Engineer:	Pei

Frequency (MHz)	Result (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Detector	Line
0.182408	47.40	64	-17.0	QP	Neutral
0.451436	42.10	57	-14.7	QP	
18.638731	34.80	60	-25.2	QP	
0.453242	32.80	47	-14.0	AV	
1.007099	30.00	46	-16.0	AV	
19.397844	28.40	50	-21.6	AV	
0.188327	48.40	64	-15.7	QP	Live
0.410192	40.80	58	-16.8	QP	
18.938744	34.80	60	-25.2	QP	
0.410192	30.50	48	-17.1	AV	
4..72.0838	26.50	46	-19.5	AV	
18.713286	27.60	50	-22.4	AV	

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

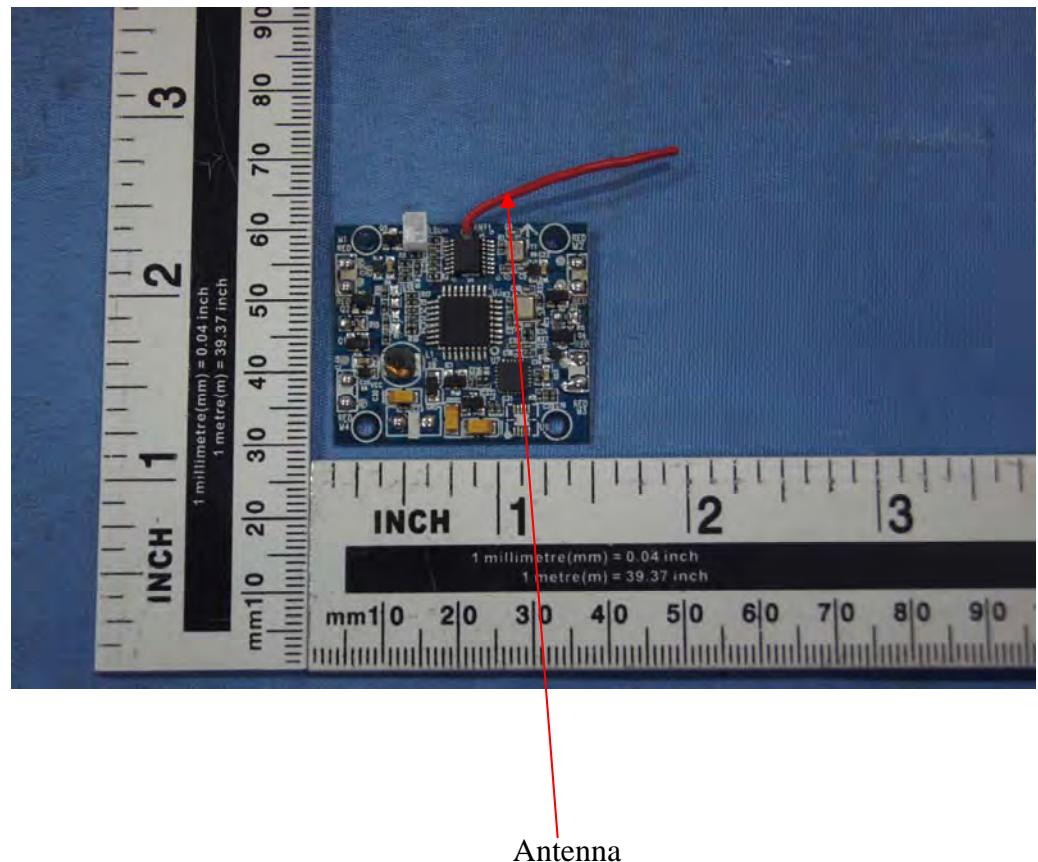
## 8. ANTENNA REQUIREMENT

### 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.



## APPENDIX I (Test Curves)


**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 #5549

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 13/05/24/

Temp. ( C) / Hum. (%) 25 C / 55 %

Time: 10/40/42

EUT: 2.4G Flier

Engineer Signature: Bob

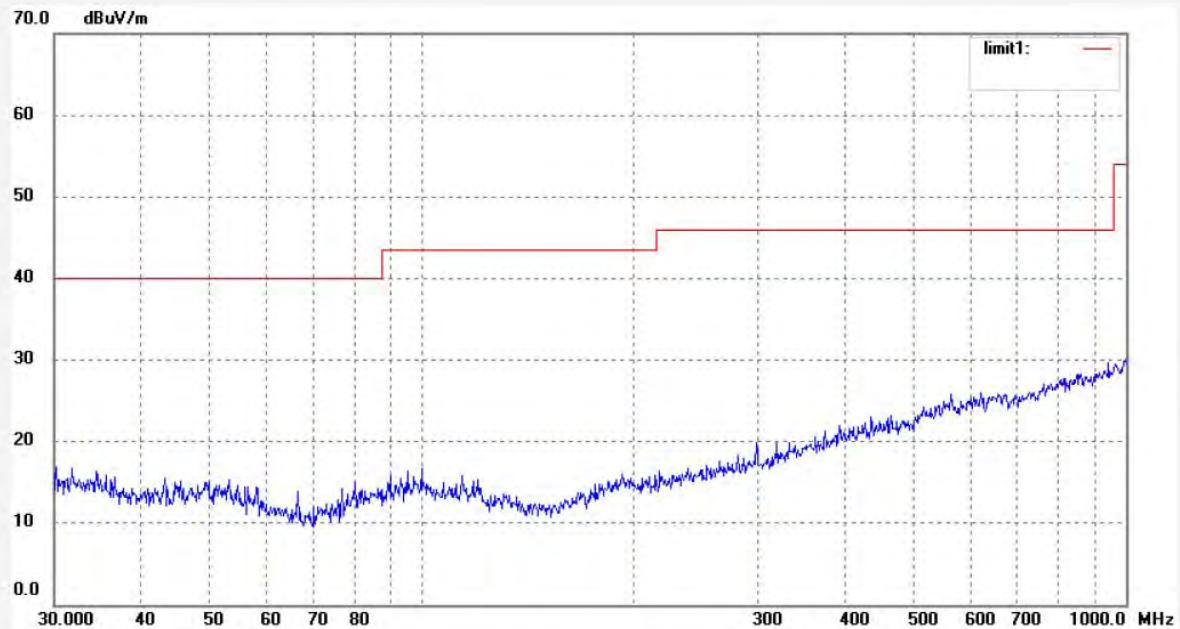
Mode: TX 2414MHz

Distance: 3m

Model: 22033RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Note: Report NO.:ATE20130949



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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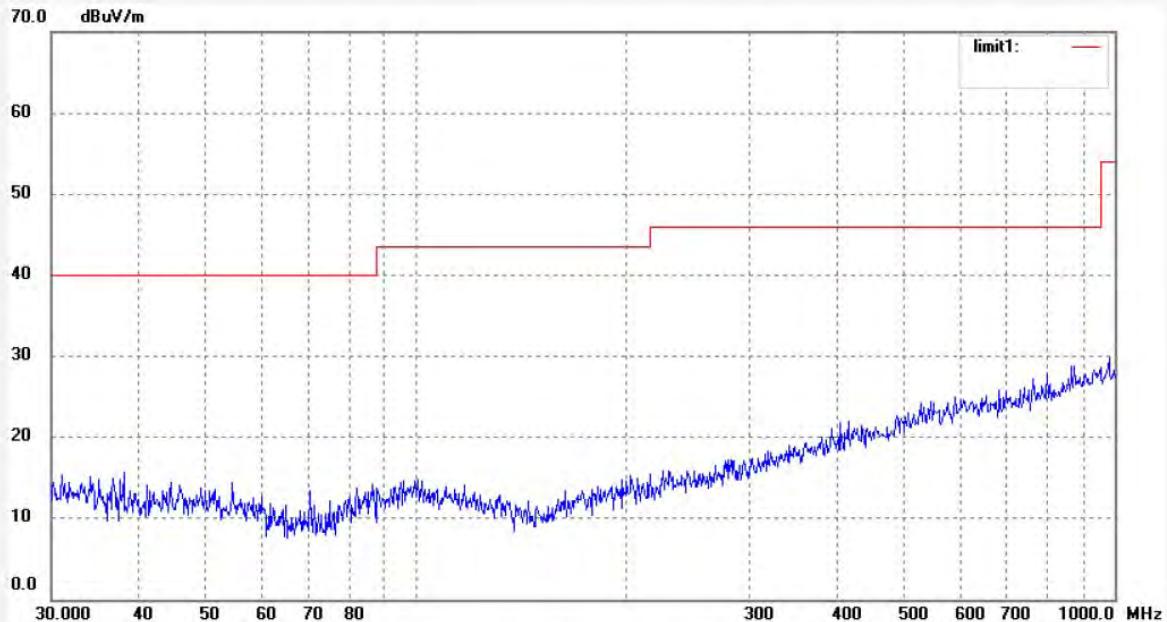
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.:	Bob #5550	Polarization:	Vertical
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp. ( C )/Hum.(%)	25 C / 55 %	Time:	10/42/13
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2414MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		

Note: Report NO.:ATE20130949



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


**ACCURATE TECHNOLOGY CO., LTD.**

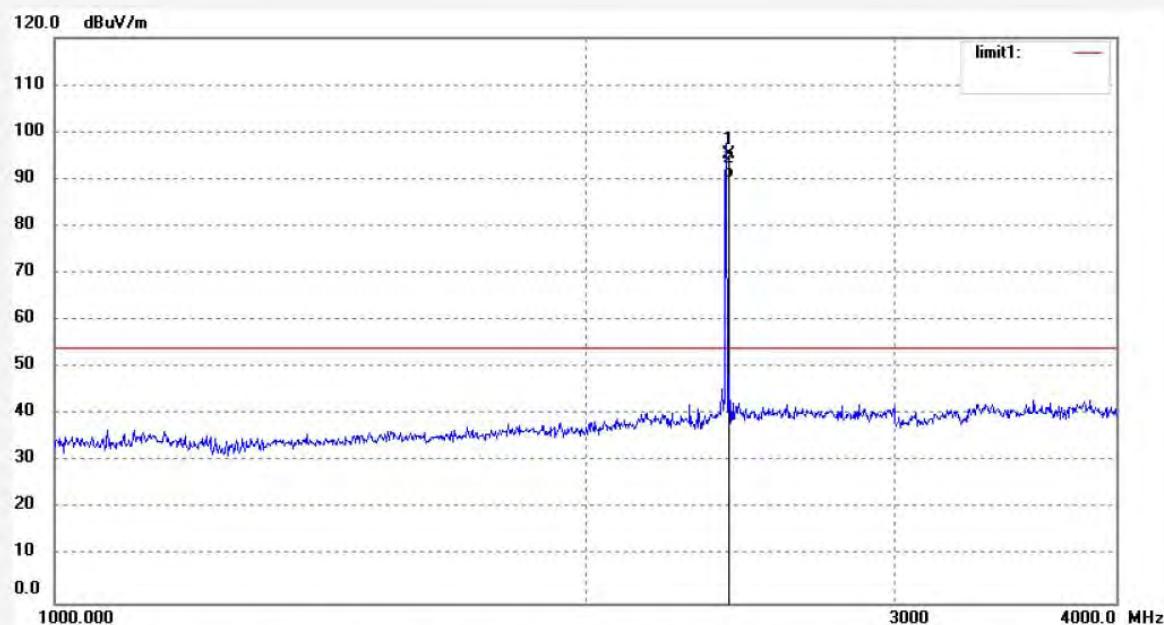
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.:	Bob #5517	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp. ( C)/Hum.(%)	26 C / 55 %	Time:	9/00/11
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2414MHz	Distance:	3m
Model:	22033RX	Manufacturer: Interactive Toy Concepts(HK)Ltd.	
Note: Report NO.:ATE20130949			



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	102.67	-7.42	95.25	114.00	-18.75	peak			
2	2414.000	97.62	-7.42	90.20	94.00	-3.80	AVG			

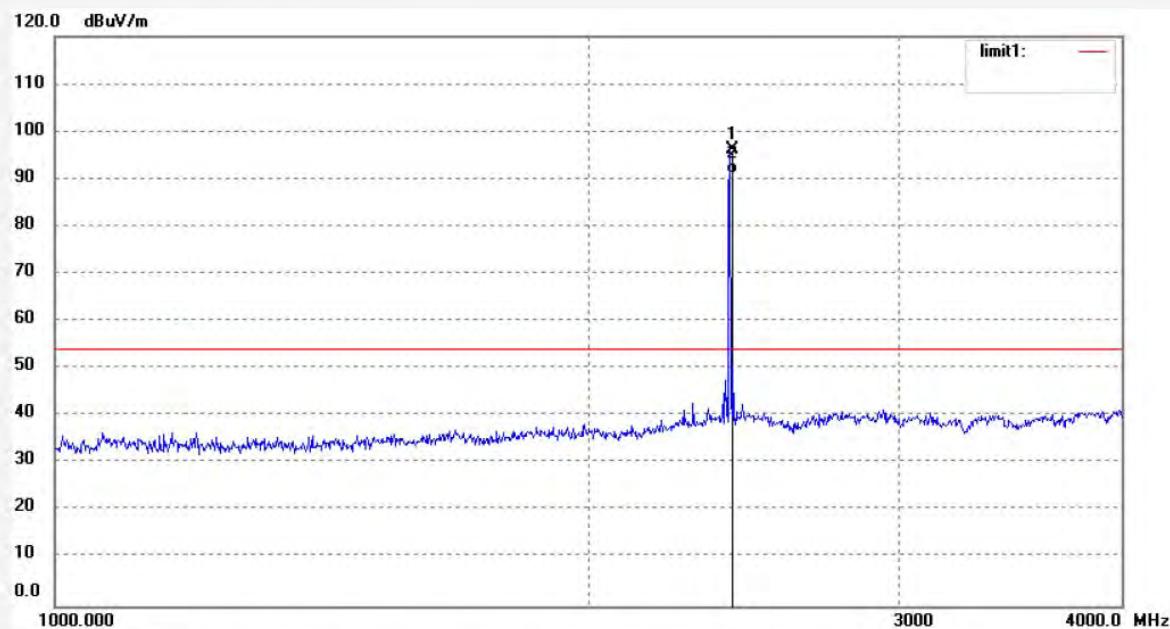

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 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: Bob #5518	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 13/05/24/
Temp. ( C)/Hum.(%) 26 C / 55 %	Time: 9/03/31
EUT: 2.4G Flier	Engineer Signature: Bob
Mode: TX 2414MHz	Distance: 3m
Model: 22033RX	
Manufacturer: Interactive Toy Concepts(HK)Ltd.	

Note: Report NO.:ATE20130949



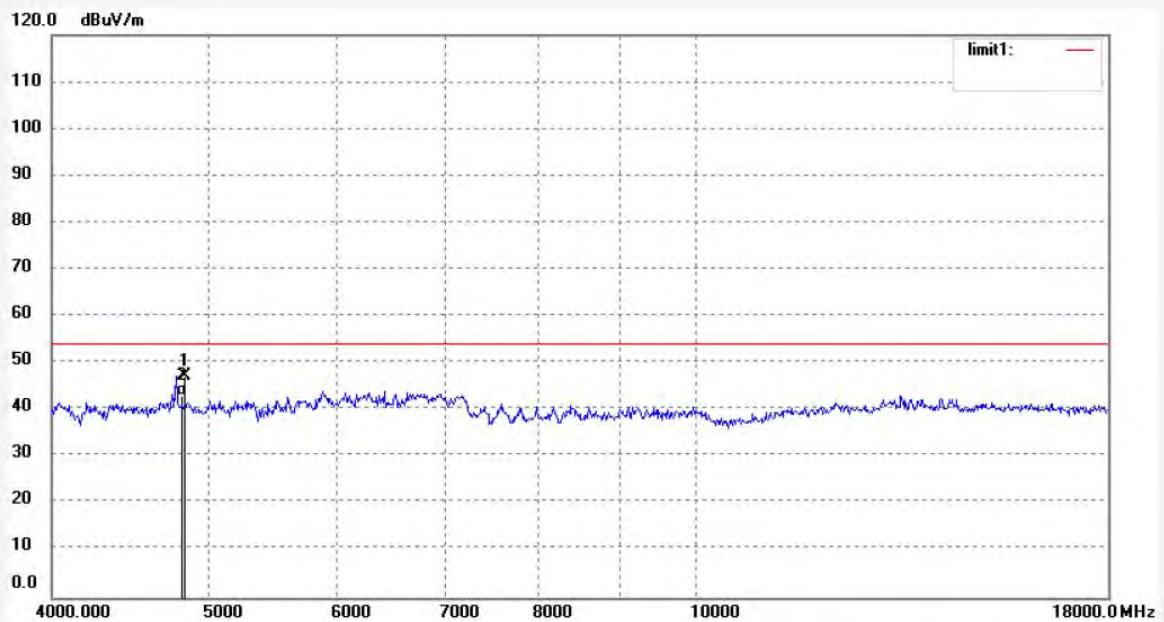
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2414.000	103.55	-7.42	96.13	114.00	-17.87	peak			
2	2414.000	98.32	-7.42	90.90	94.00	-3.10	AVG			


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

Job No.:	Bob #5521	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp. ( C)/Hum.(%)	26 C / 55 %	Time:	9/12/41
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2414MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		
Note:	Report NO.:ATE20130949		



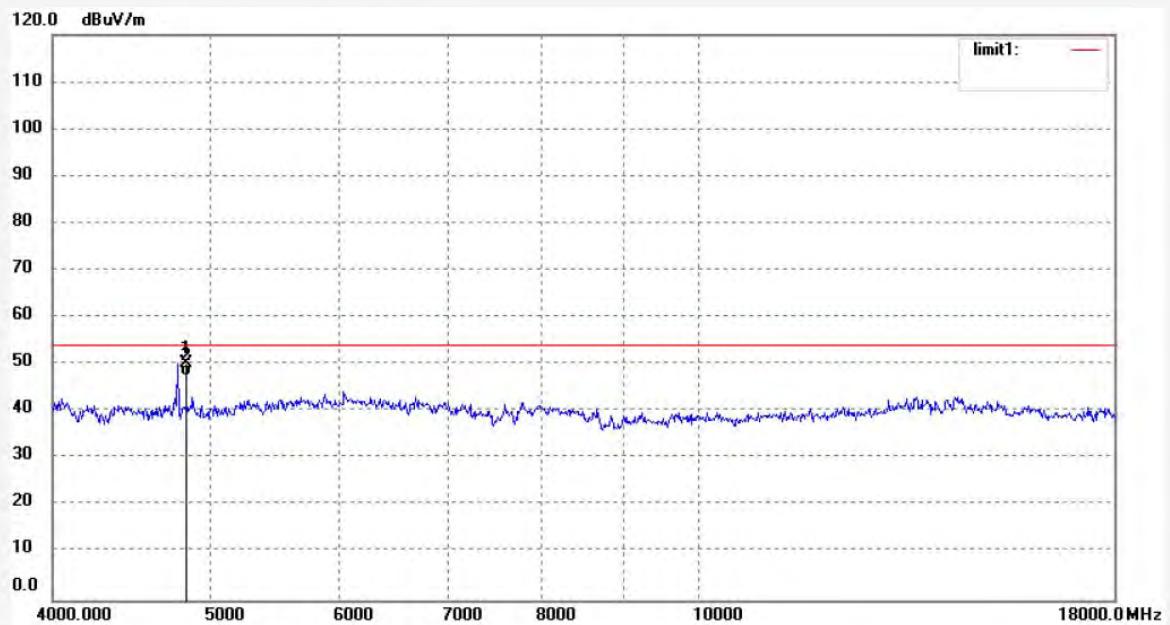
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4828.000	47.43	-0.17	47.26	74.00	-26.74	peak			
2	4828.000	43.33	-0.17	43.16	54.00	-10.84	AVG			


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 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.:	Bob #5522	Polarization:	Vertical
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp. ( C)/Hum.(%)	26 C / 55 %	Time:	9/14/15
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2414MHz	Distance:	3m
Model:	22033RX		
Manufacturer: Interactive Toy Concepts(HK)Ltd.			
Note: Report NO.:ATE20130949			



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	50.42	-0.17	50.25	74.00	-23.75	peak			
2	4828.000	47.69	-0.17	47.52	54.00	-6.48	AVG			


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Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #5630

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 2013/05/24

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

Time: 13:19:34

EUT: 2.4G Flier

Engineer Signature: Bob

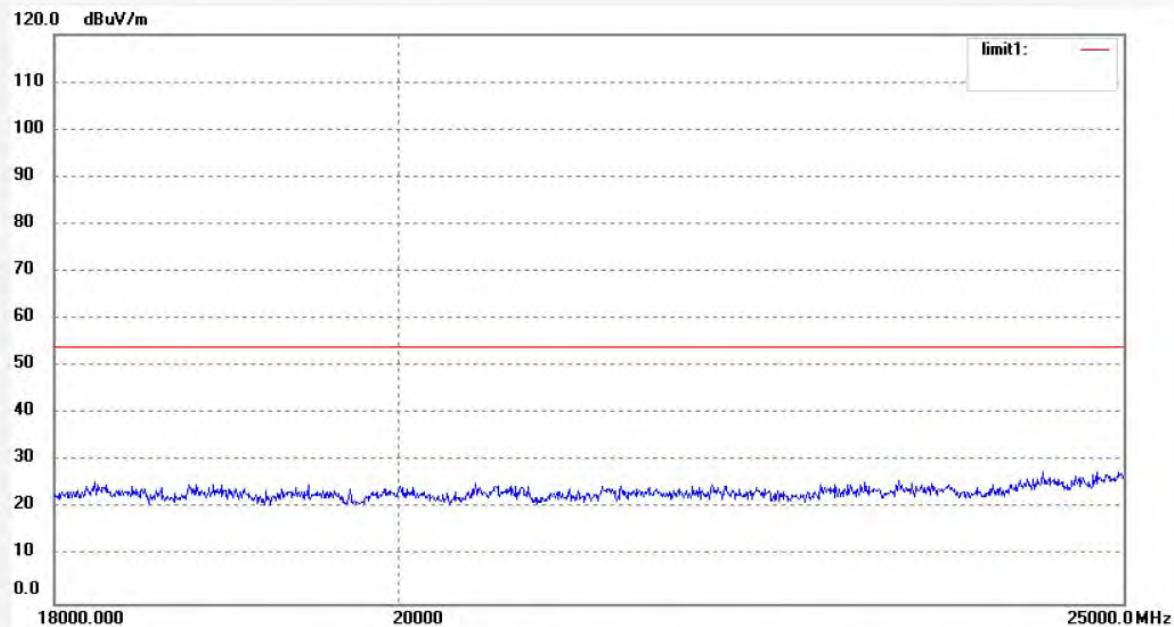
Mode: TX 2414MHz

Distance: 3m

Model: 22033RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Note: Report NO.:ATE20130949



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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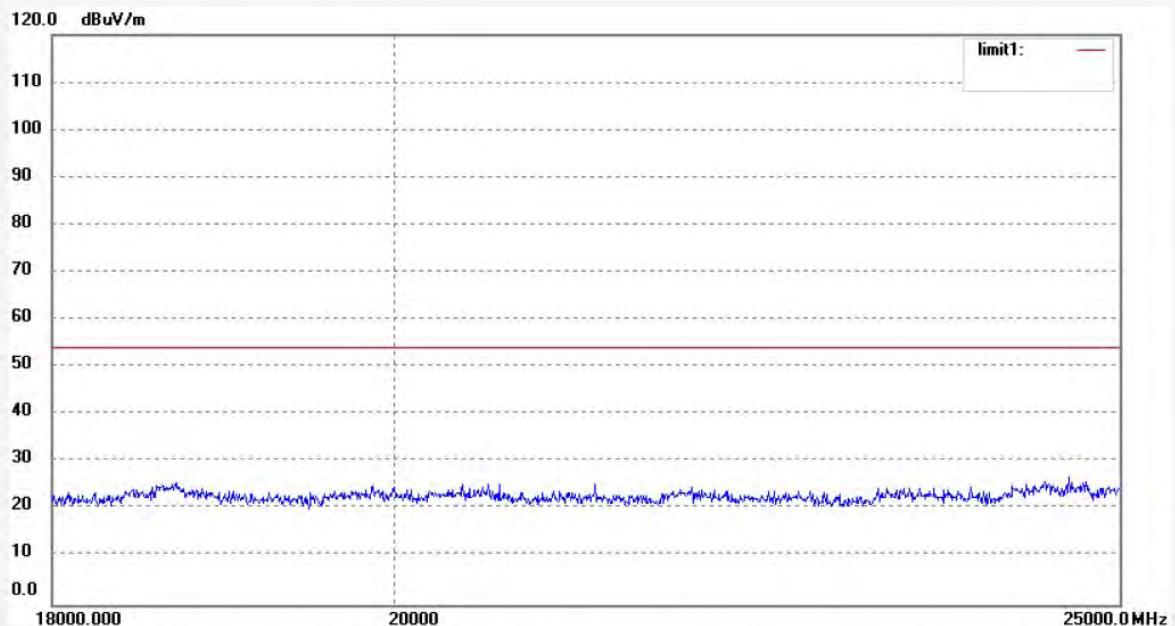
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.:	Bob #5631	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	2013/05/24
Temp. (C)/Hum.(%)	26 C / 55 %	Time:	13:22:41
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2414MHz	Distance:	3m
Model:	22033RX	Manufacturer: Interactive Toy Concepts(HK)Ltd.	

Note: Report NO.:ATE20130949



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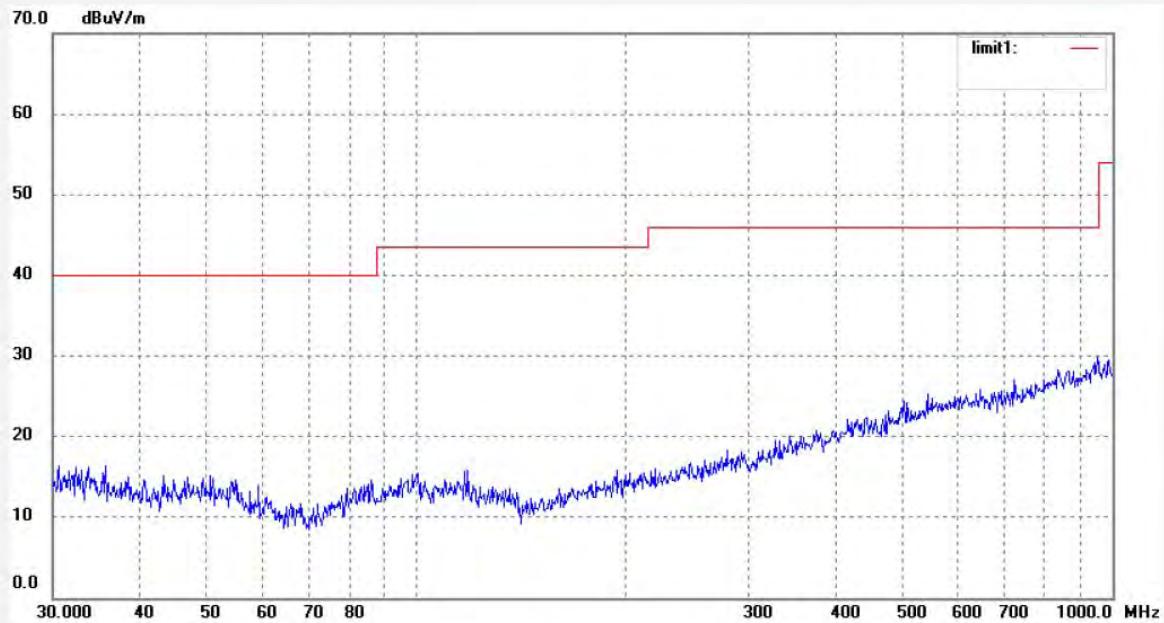
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 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.:	Bob #5551	Polarization:	Vertical
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp.( C)/Hum.(%)	25 C / 55 %	Time:	10/45/12
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2447MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		
Note:	Report NO.:ATE20130949		



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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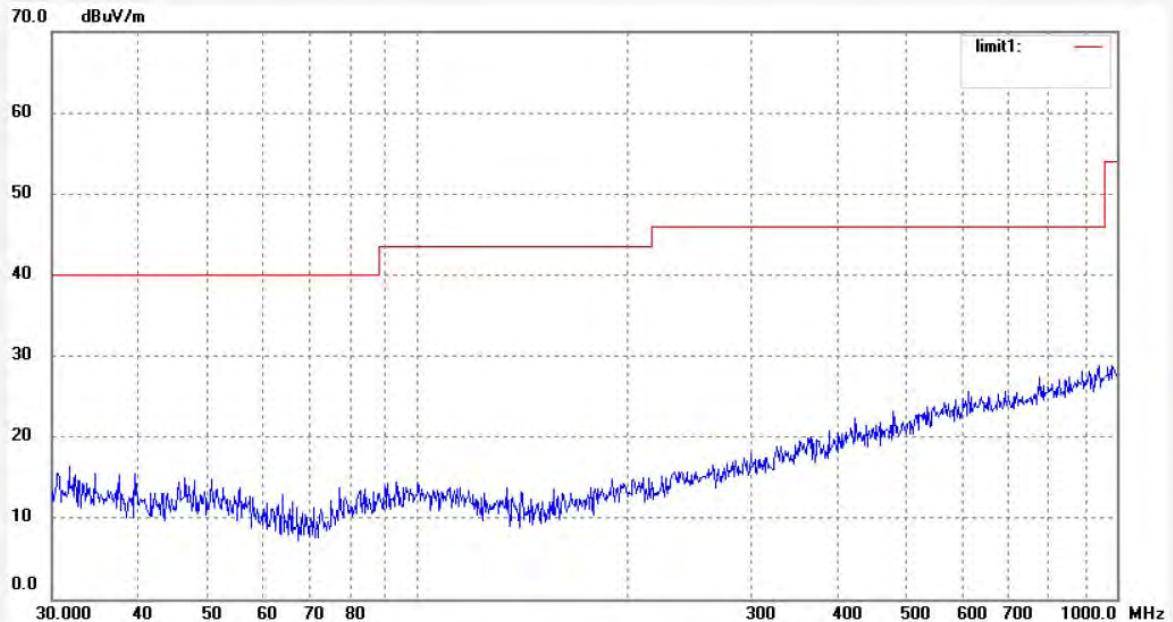
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.:	Bob #5552	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp. ( C)/Hum.(%)	25 C / 55 %	Time:	10/48/10
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2447MHz	Distance:	3m
Model:	22033RX		
Manufacturer: Interactive Toy Concepts(HK)Ltd.			

Note: Report NO.:ATE20130949



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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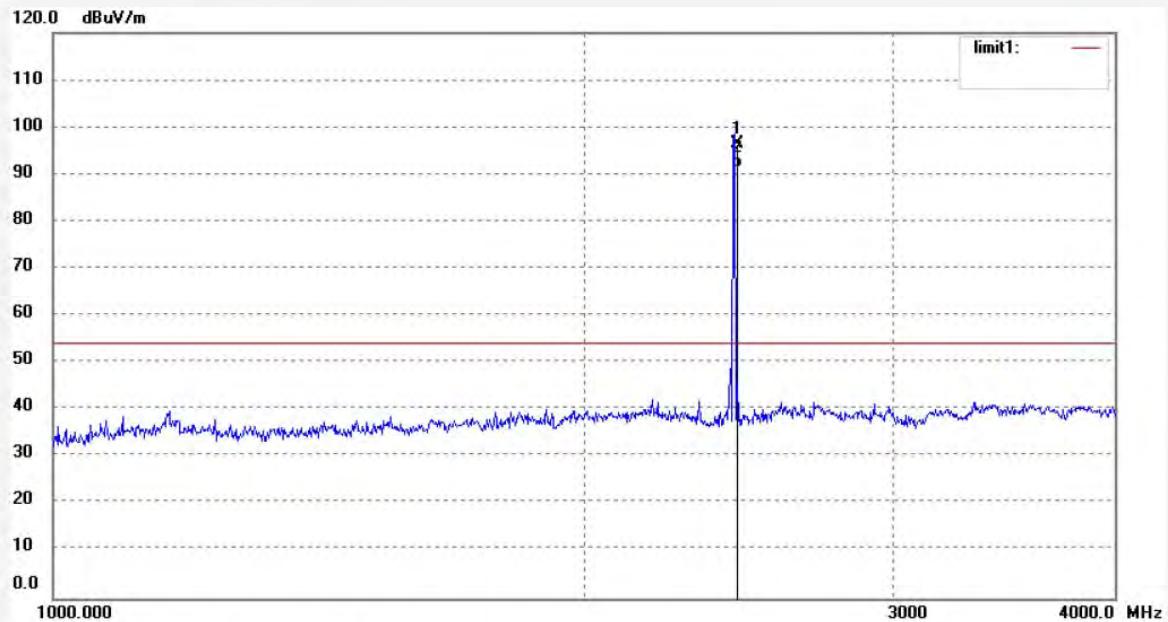

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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.:	Bob #5525	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp.( C)/Hum.(%)	26 C / 55 %	Time:	9/23/47
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2447MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		

Note: Report NO.:ATE20130949



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	103.78	-7.34	96.44	114.00	-17.56	peak			
2	2447.000	98.62	-7.34	91.28	94.00	-2.72	AVG			


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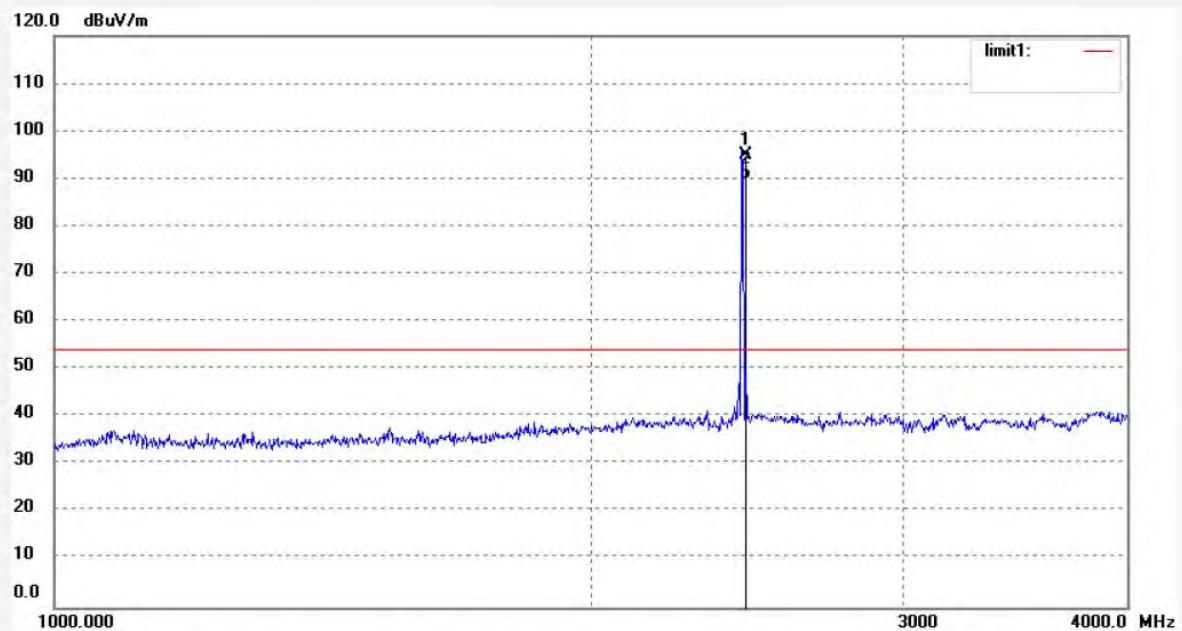
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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Bob #5526  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp.( C)/Hum.(%) 26 C / 55 %  
 EUT: 2.4G Flier  
 Mode: TX 2447MHz  
 Model: 22033RX  
 Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical  
 Power Source: DC 3.7V  
 Date: 13/05/24/  
 Time: 9/26/37  
 Engineer Signature: Bob  
 Distance: 3m

Note: Report NO.:ATE20130949



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	102.42	-7.34	95.08	114.00	-18.92	peak			
2	2447.000	97.30	-7.34	89.96	94.00	-4.04	AVG			


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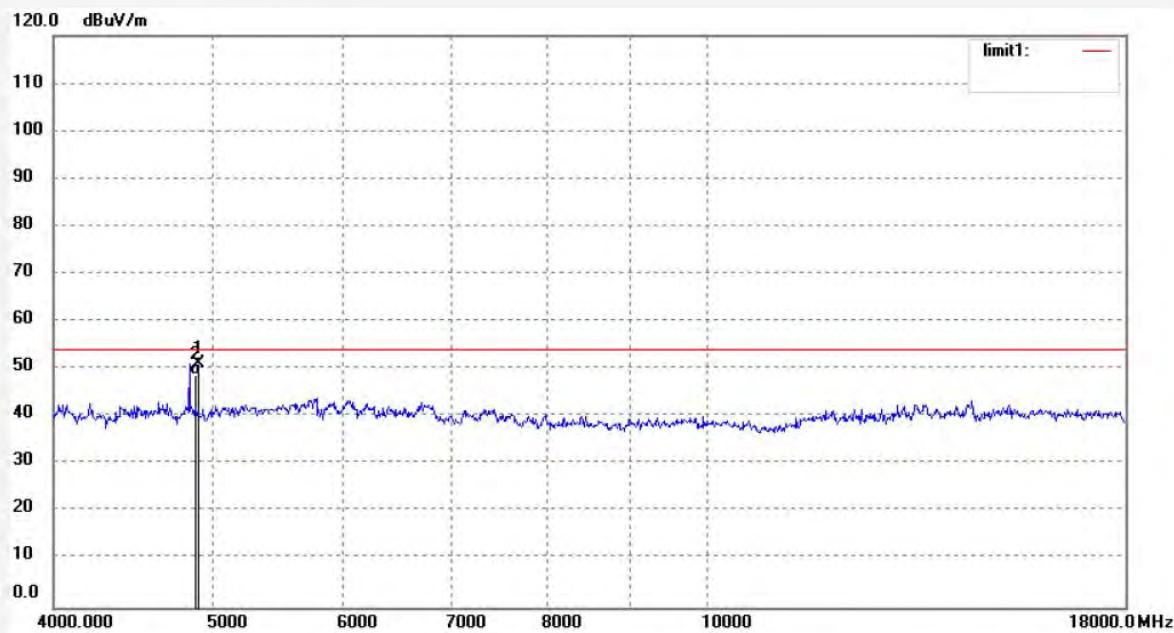
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Bob #5523  
 Standard: FCC Class B 3M Radiated  
 Test item: Radiation Test  
 Temp. ( C)/Hum.(%) 26 C / 55 %  
 EUT: 2.4G Flier  
 Mode: TX 2447MHz  
 Model: 22033RX  
 Manufacturer: Interactive Toy Concepts(HK)Ltd.

Polarization: Vertical  
 Power Source: DC 3.7V  
 Date: 13/05/24/  
 Time: 9/16/11  
 Engineer Signature: Bob  
 Distance: 3m

Note: Report NO.:ATE20130949



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	51.07	0.20	51.27	74.00	-22.73	peak			
2	4894.000	48.60	0.20	48.80	54.00	-5.20	AVG			


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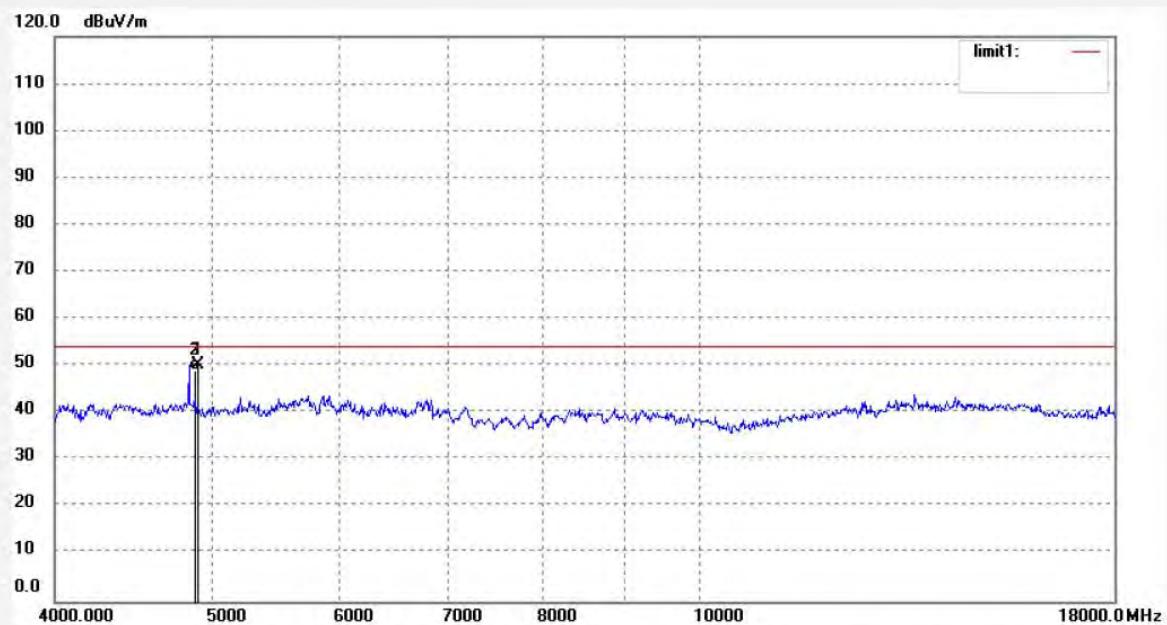
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.:	Bob #5524	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp. ( C )/Hum.(%)	26 C / 55 %	Time:	9/19/01
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2447MHz	Distance:	3m
Model:	22033RX	Manufacturer: Interactive Toy Concepts(HK)Ltd.	
Note: Report NO.:ATE20130949			



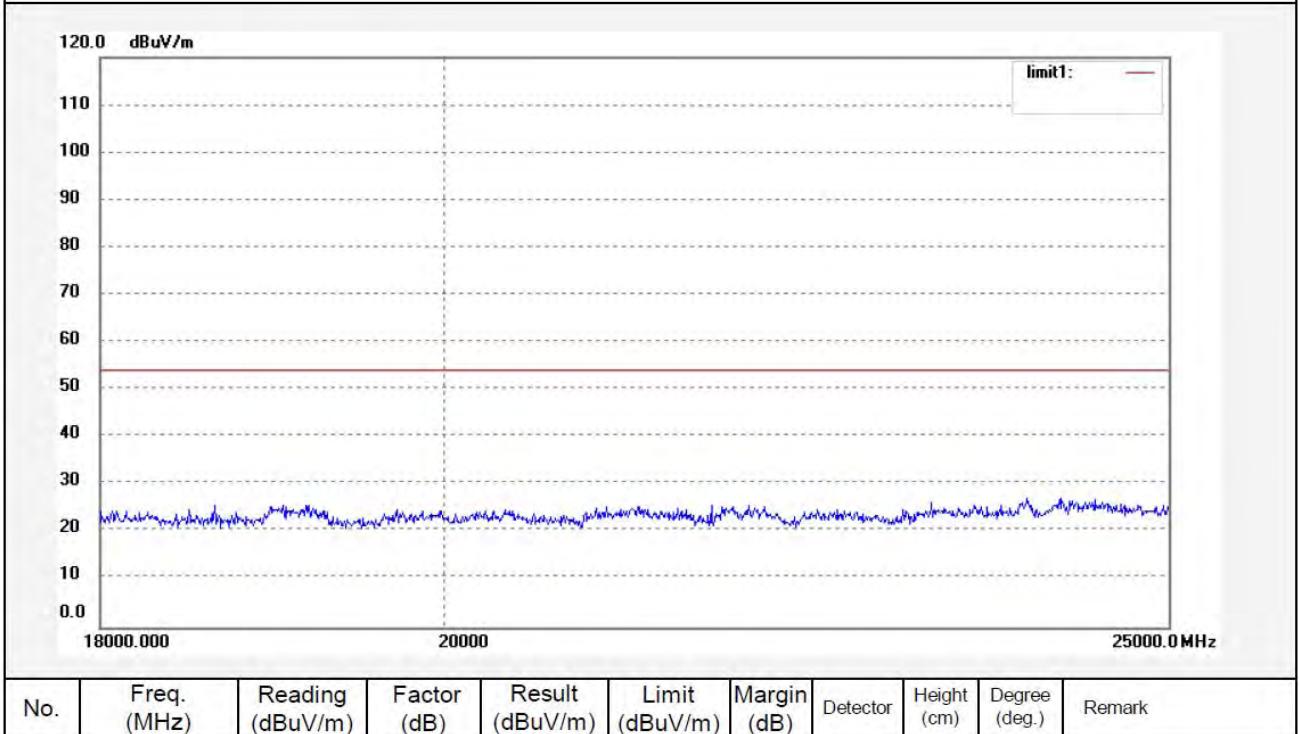
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4894.000	50.20	0.20	50.40	74.00	-23.60	peak			
2	4894.000	48.81	0.20	49.01	54.00	-4.99	AVG			


**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 #5632	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	2013/05/24
Temp. (C)/Hum. (%)	26 C / 55 %	Time:	13:25:44
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2447MHz	Distance:	3m
Model:	22033RX		
Manufacturer: Interactive Toy Concepts(HK)Ltd.			
Note: Report NO.:ATE20130949			




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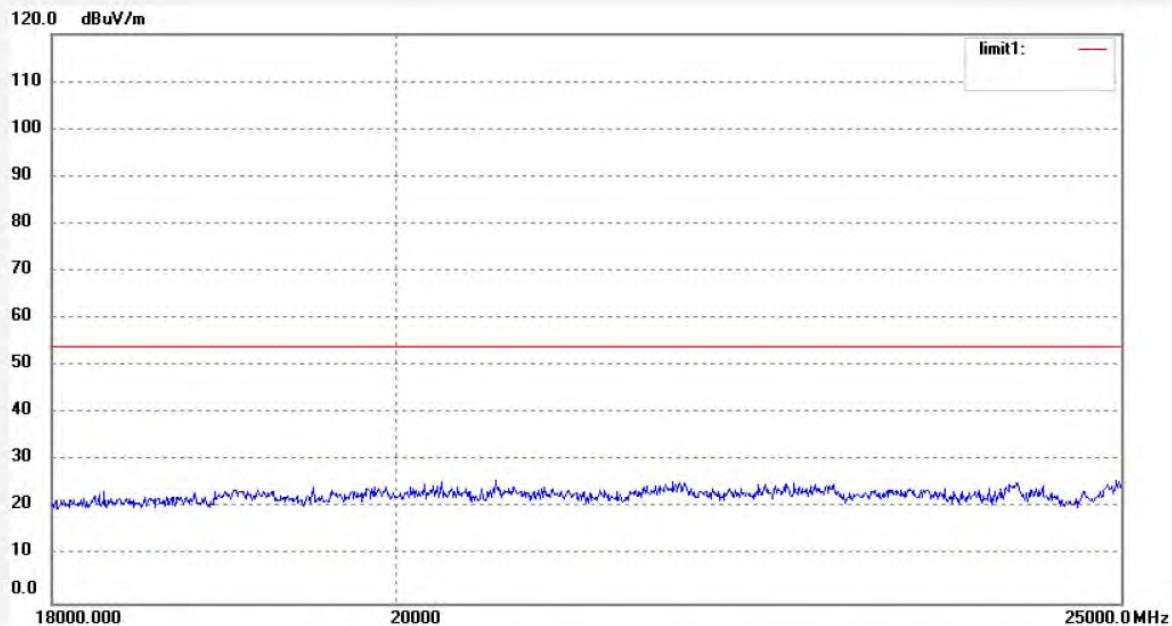
 F1,Bldg,A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.:	Bob #5633	Polarization:	Vertical
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	2013/05/24
Temp. ( C)/Hum.(%)	26 C / 55 %	Time:	13:28:42
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2447MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		
Note:	Report NO.:ATE20130949		



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

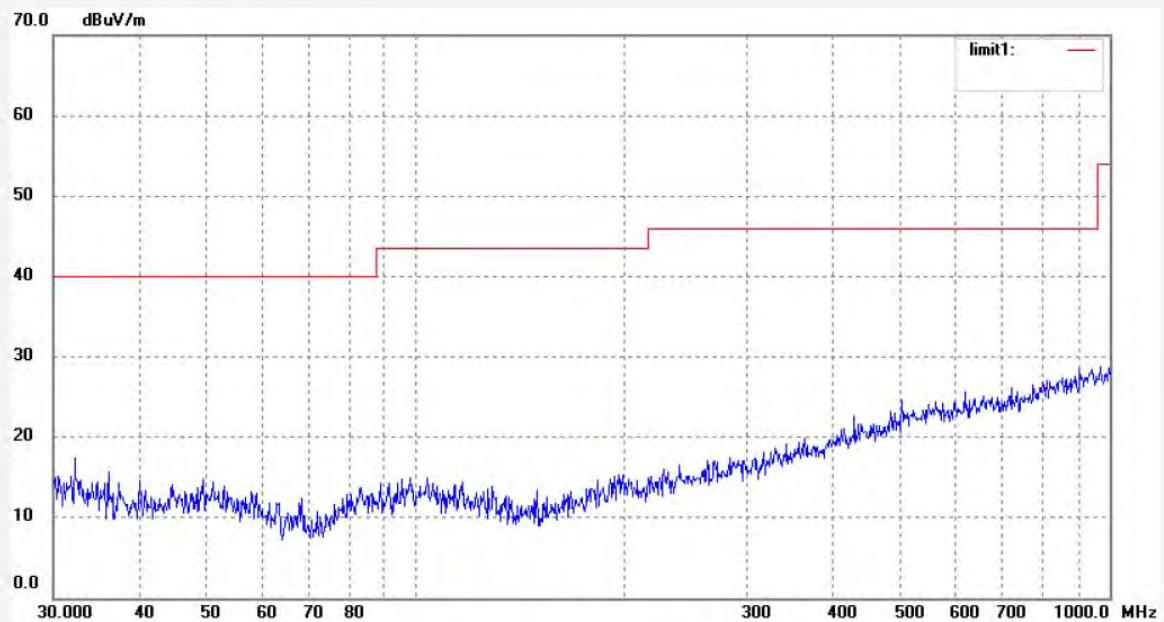

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 F1,Bldg.A,Changyuan New Material Port Keyuan Rd,  
 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.:	Bob #5553	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp. ( C)/Hum.(%)	25 C / 55 %	Time:	10/50/26
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2473MHz	Distance:	3m
Model:	22033RX		
Manufacturer: Interactive Toy Concepts(HK)Ltd.			

Note: Report NO.:ATE20130949



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 #5554

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 13/05/24/

Temp. ( C)/Hum.(%) 25 C / 55 %

Time: 10/52/01

EUT: 2.4G Flier

Engineer Signature: Bob

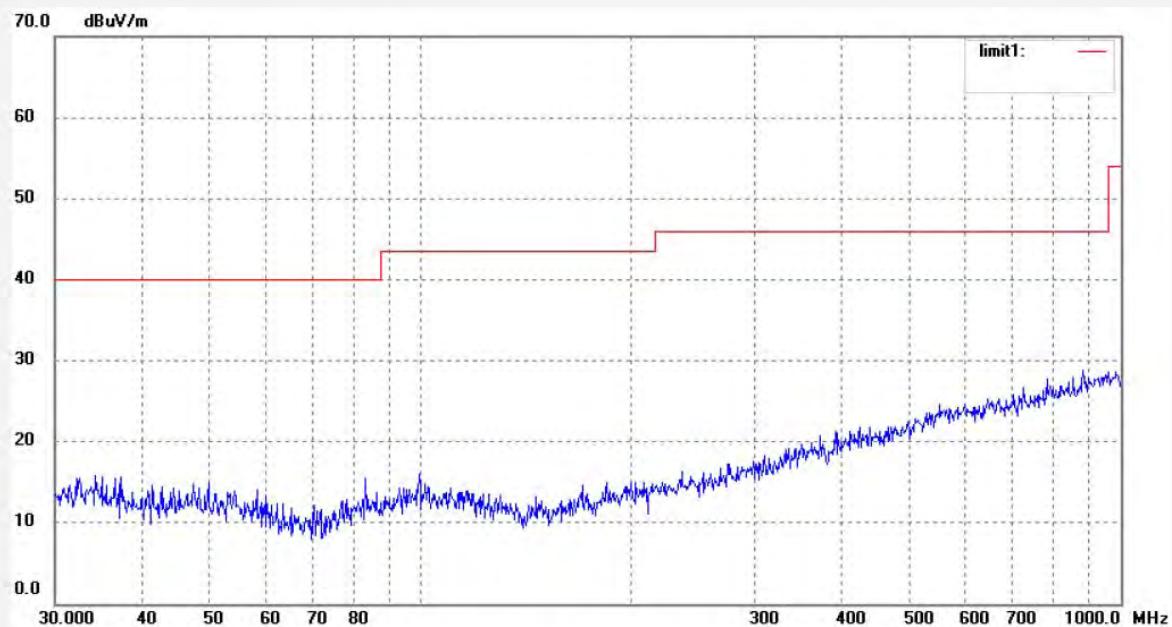
Mode: TX 2473MHz

Distance: 3m

Model: 22033RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Note: Report NO.:ATE20130949



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

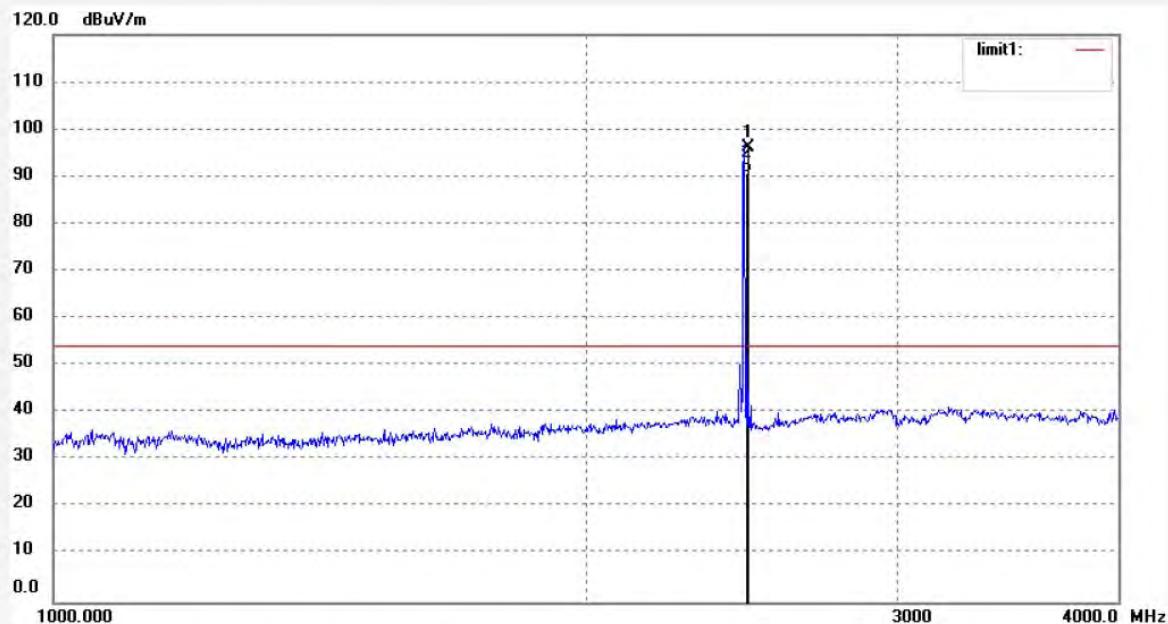
Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: Bob #5527	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 13/05/24/
Temp.( C)/Hum.(%) 26 C / 55 %	Time: 9/29/05
EUT: 2.4G Flier	Engineer Signature: Bob
Mode: TX 2473MHz	Distance: 3m
Model: 22033RX	
Manufacturer: Interactive Toy Concepts(HK)Ltd.	

Note: Report NO.:ATE20130949



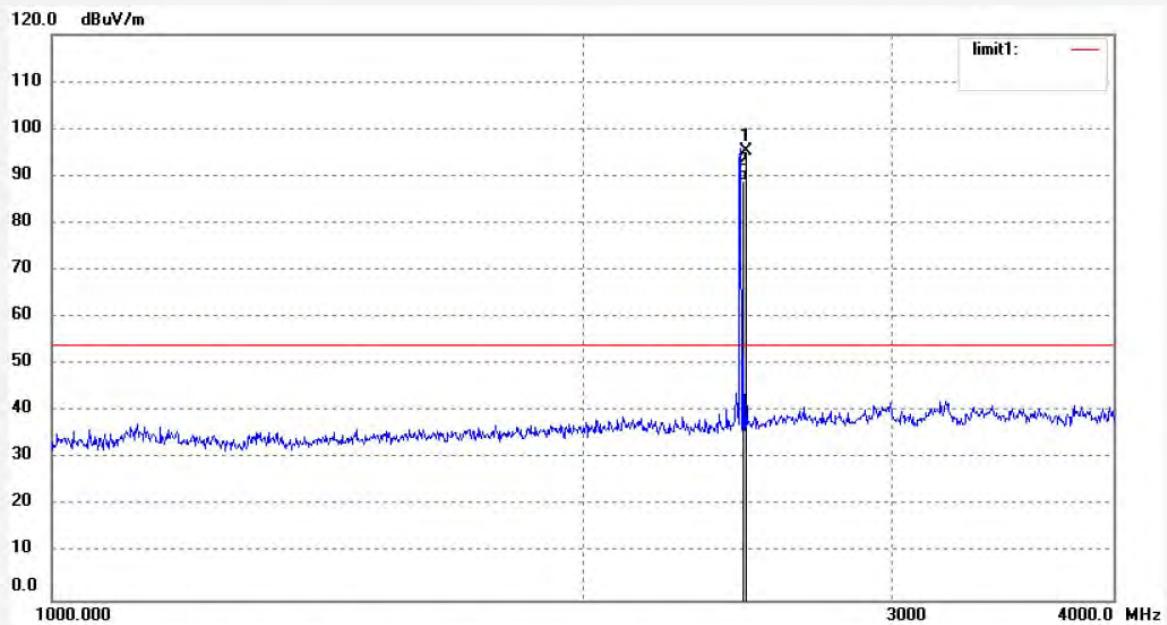
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2473.000	103.60	-7.36	96.24	114.00	-17.76	peak			
2	2473.000	98.01	-7.36	90.65	94.00	-3.35	AVG			


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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 #5528	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp.( C)/Hum.(%)	26 C / 55 %	Time:	9/32/11
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2473MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		
Note:	Report NO.:ATE20130949		



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	102.64	-7.36	95.28	114.00	-18.72	peak			
2	2473.000	96.37	-7.36	89.01	94.00	-4.99	AVG			


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

Job No.: Bob #5531

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 13/05/24/

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

Time: 9/41/11

EUT: 2.4G Flier

Engineer Signature: Bob

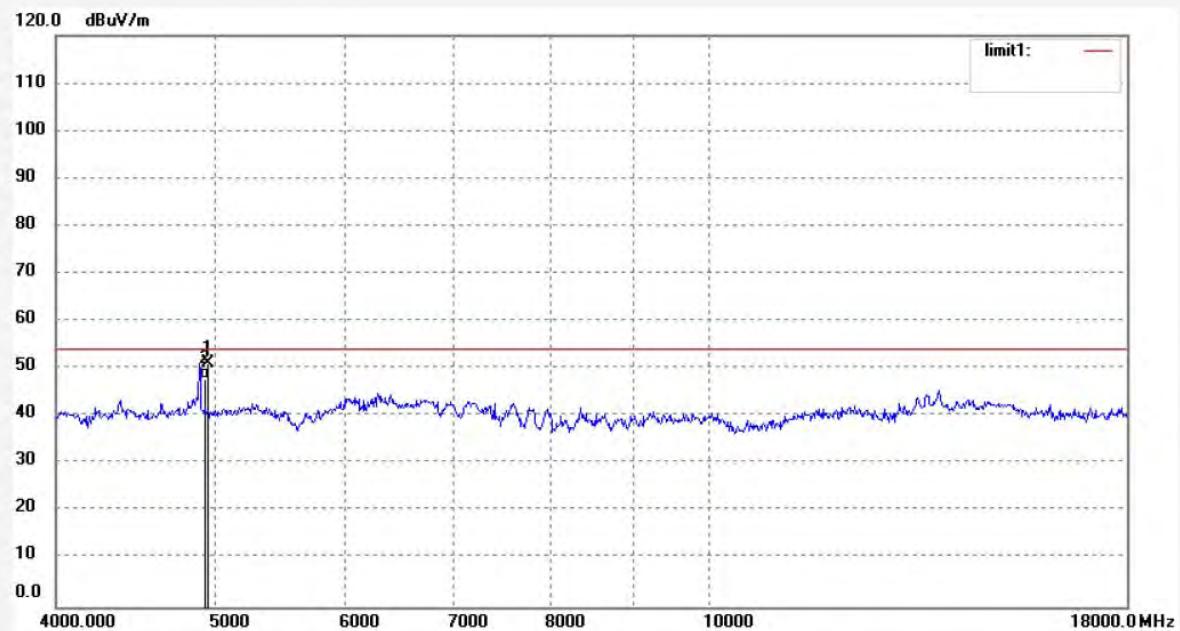
Mode: TX 2473MHz

Distance: 3m

Model: 22033RX

Manufacturer: Interactive Toy Concepts(HK)Ltd.

Note: Report NO.:ATE20130949



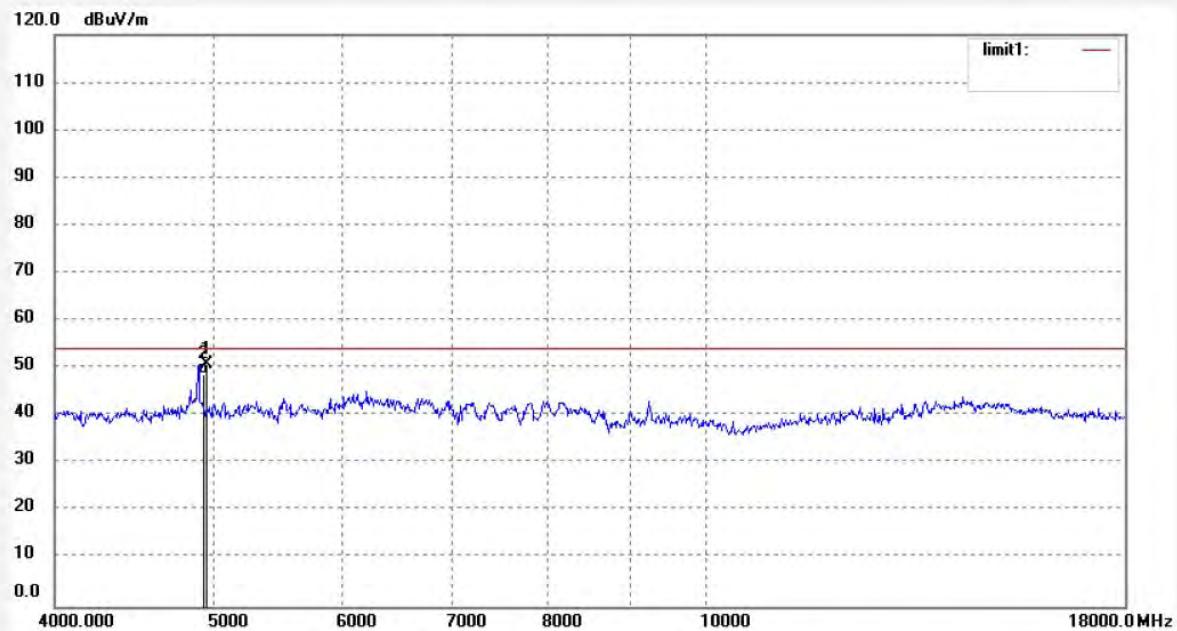
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	4946.000	50.57	0.46	51.03	74.00	-22.97	peak			
2	4946.000	47.35	0.46	47.81	54.00	-6.19	AVG			


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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 #5532	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp.( C)/Hum.(%)	26 C / 55 %	Time:	9/44/37
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2473MHz	Distance:	3m
Model:	22033RX	Manufacturer: Interactive Toy Concepts(HK)Ltd.	
Note: Report NO.:ATE20130949			



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	50.45	0.46	50.91	74.00	-23.09	peak			
2	4946.000	48.21	0.46	48.67	54.00	-5.33	AVG			

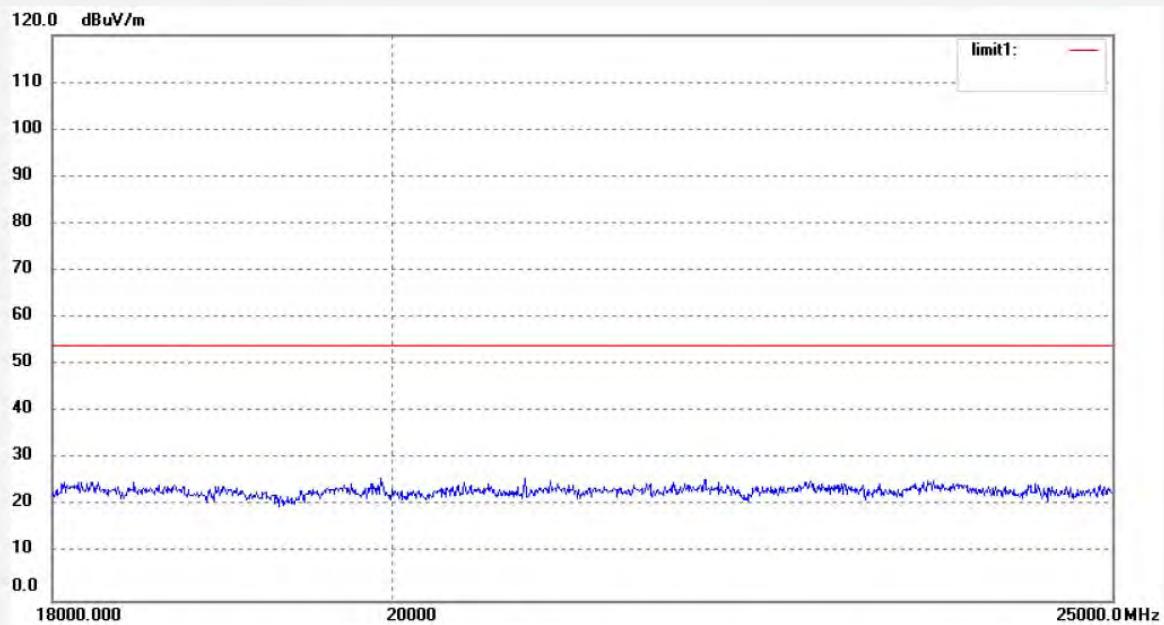

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 Site: 2# Chamber  
 Tel:+86-0755-26503290  
 Fax:+86-0755-26503396

Job No.: Bob #5634	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 2013/05/24
Temp.( C)/Hum.(%) 26 C / 55 %	Time: 13:32:17
EUT: 2.4G Flier	Engineer Signature: Bob
Mode: TX 2473MHz	Distance: 3m
Model: 22033RX	
Manufacturer: Interactive Toy Concepts(HK)Ltd.	

Note: Report NO.:ATE20130949



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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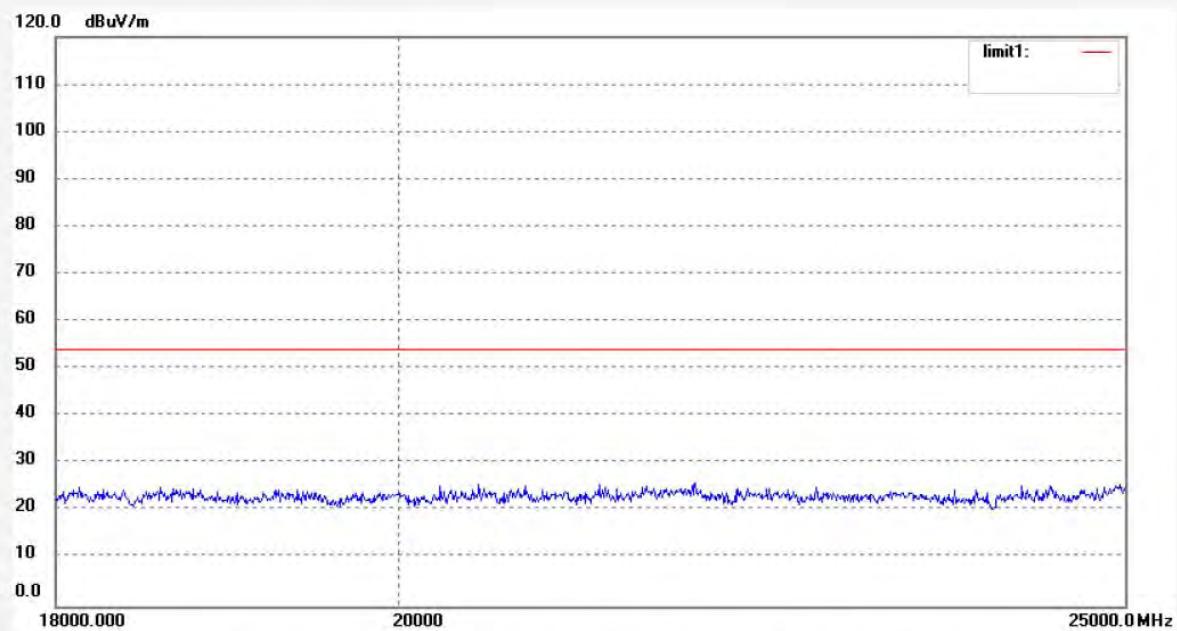

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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.:	Bob #5635	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	2013/05/24
Temp.( C)/Hum.(%)	26 C / 55 %	Time:	13:35:21
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2473MHz	Distance:	3m
Model:	22033RX	Manufacturer: Interactive Toy Concepts(HK)Ltd.	

Note: Report NO.:ATE20130949



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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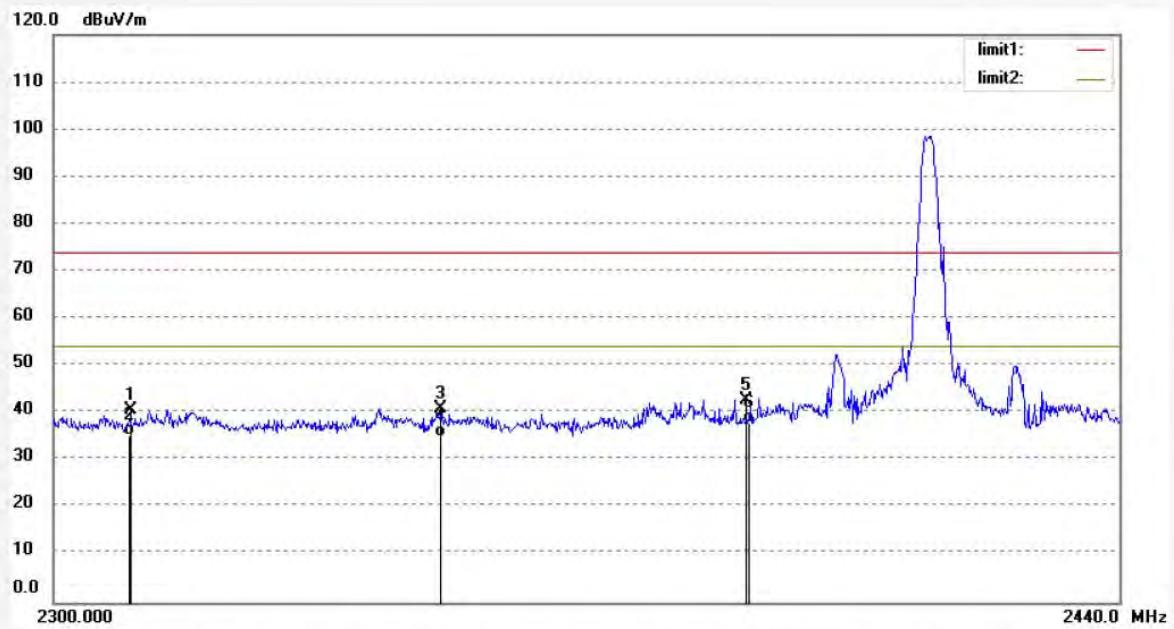

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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Bob #5519	Polarization: Vertical
Standard: RSS-210 Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 13/05/24/
Temp.( C)/Hum.(%) 26 C / 55 %	Time: 9/06/47
EUT: 2.4G Flier	Engineer Signature: Bob
Mode: TX 2414MHz	Distance: 3m
Model: 22033RX	
Manufacturer: Interactive Toy Concepts(HK)Ltd.	

Note: Report NO.:ATE20130949



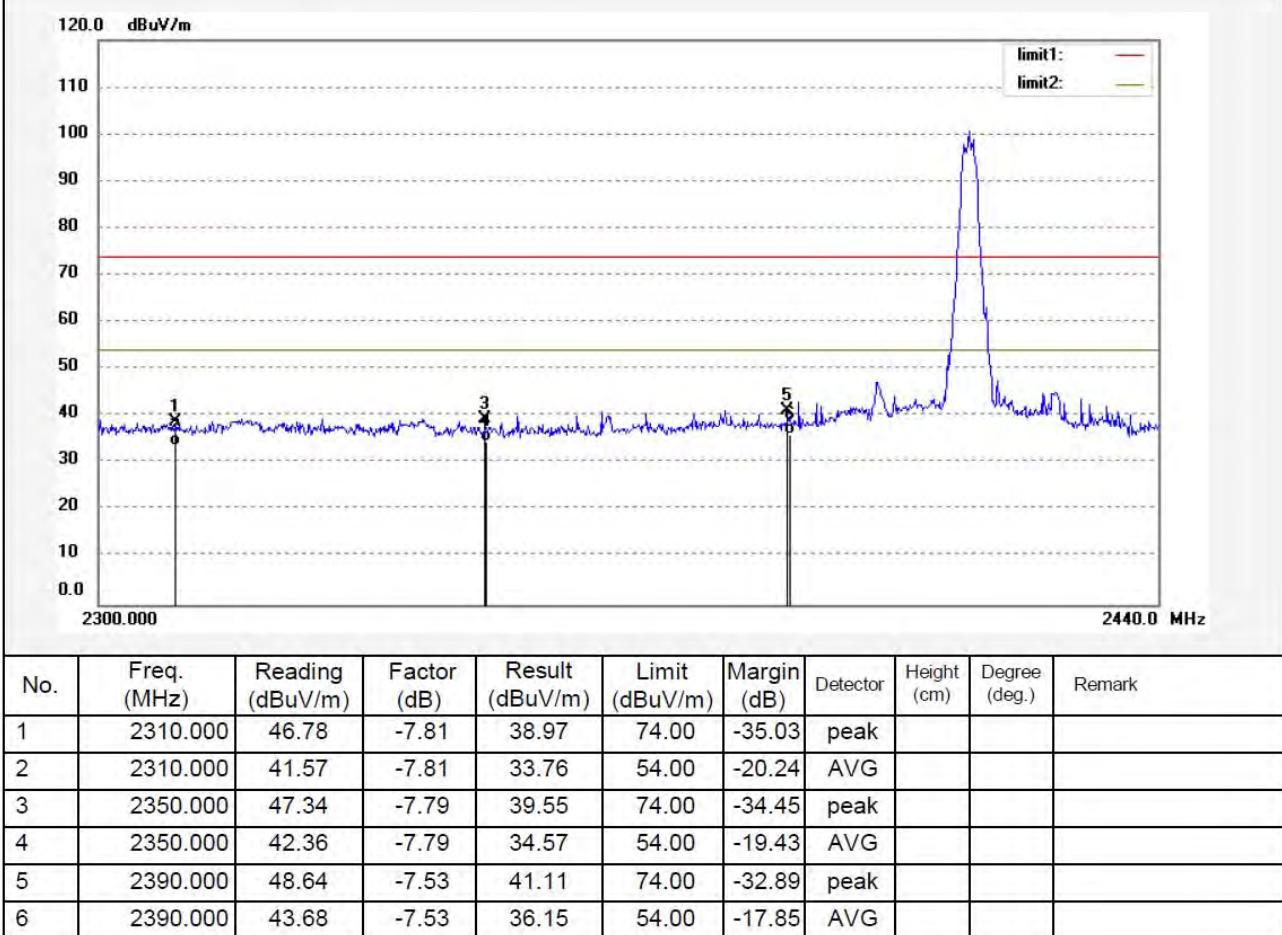
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	48.59	-7.81	40.78	74.00	-33.22	peak			
2	2310.000	43.21	-7.81	35.40	54.00	-18.60	AVG			
3	2350.000	48.86	-7.79	41.07	74.00	-32.93	peak			
4	2350.000	42.65	-7.79	34.86	54.00	-19.14	AVG			
5	2390.000	50.38	-7.53	42.85	74.00	-31.15	peak			
6	2390.000	45.58	-7.53	38.05	54.00	-15.95	AVG			


**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 #5520	Polarization:	Horizontal
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp.( C)/Hum.(%)	26 C / 55 %	Time:	9/09/24
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2414MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		
Note:	Report NO.:ATE20130949		

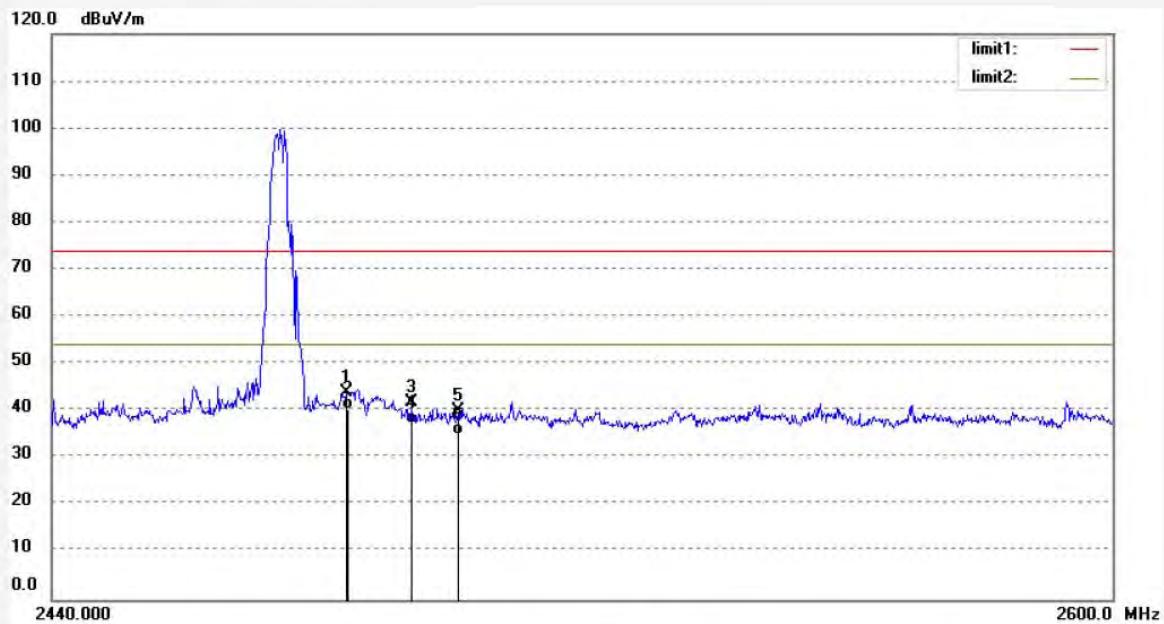



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 Science & Industry Park,Nanshan Shenzhen,P.R.China

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

Job No.: Bob #5529	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: DC 3.7V
Test item: Radiation Test	Date: 13/05/24/
Temp.( C)/Hum.(%) 26 C / 55 %	Time: 9/35/38
EUT: 2.4G Flier	Engineer Signature: Bob
Mode: TX 2473MHz	Distance: 3m
Model: 22033RX	
Manufacturer: Interactive Toy Concepts(HK)Ltd.	
Note: Report NO.:ATE20130949	



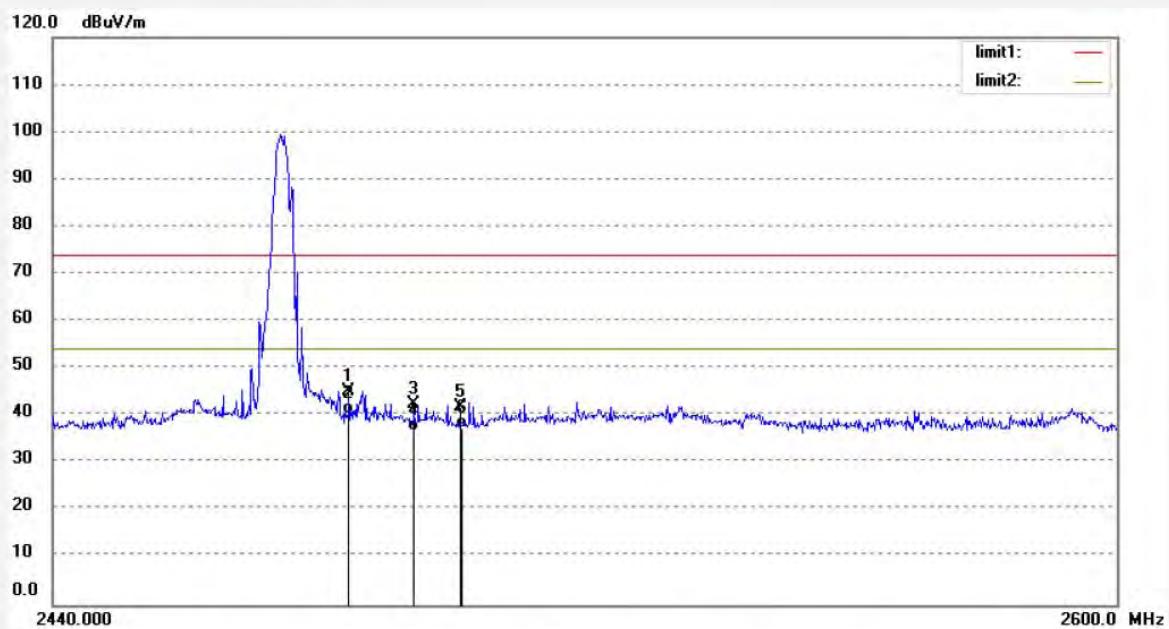
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	51.38	-7.37	44.01	74.00	-29.99	peak			
2	2483.500	47.62	-7.37	40.25	54.00	-13.75	AVG			
3	2493.000	49.16	-7.39	41.77	74.00	-32.23	peak			
4	2493.000	44.69	-7.39	37.30	54.00	-16.70	AVG			
5	2500.000	47.35	-7.40	39.95	74.00	-34.05	peak			
6	2500.000	42.24	-7.40	34.84	54.00	-19.16	AVG			


**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 #5530	Polarization:	Vertical
Standard:	FCC Class B 3M Radiated	Power Source:	DC 3.7V
Test item:	Radiation Test	Date:	13/05/24/
Temp.( C)/Hum.(%)	26 C / 55 %	Time:	9/38/32
EUT:	2.4G Flier	Engineer Signature:	Bob
Mode:	TX 2473MHz	Distance:	3m
Model:	22033RX		
Manufacturer:	Interactive Toy Concepts(HK)Ltd.		
Note:	Report NO.:ATE20130949		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	52.38	-7.37	45.01	74.00	-28.99	peak			
2	2483.500	47.65	-7.37	40.28	54.00	-13.72	AVG			
3	2493.000	49.77	-7.39	42.38	74.00	-31.62	peak			
4	2493.000	44.16	-7.39	36.77	54.00	-17.23	AVG			
5	2500.000	49.24	-7.40	41.84	74.00	-32.16	peak			
6	2500.000	44.79	-7.40	37.39	54.00	-16.61	AVG			

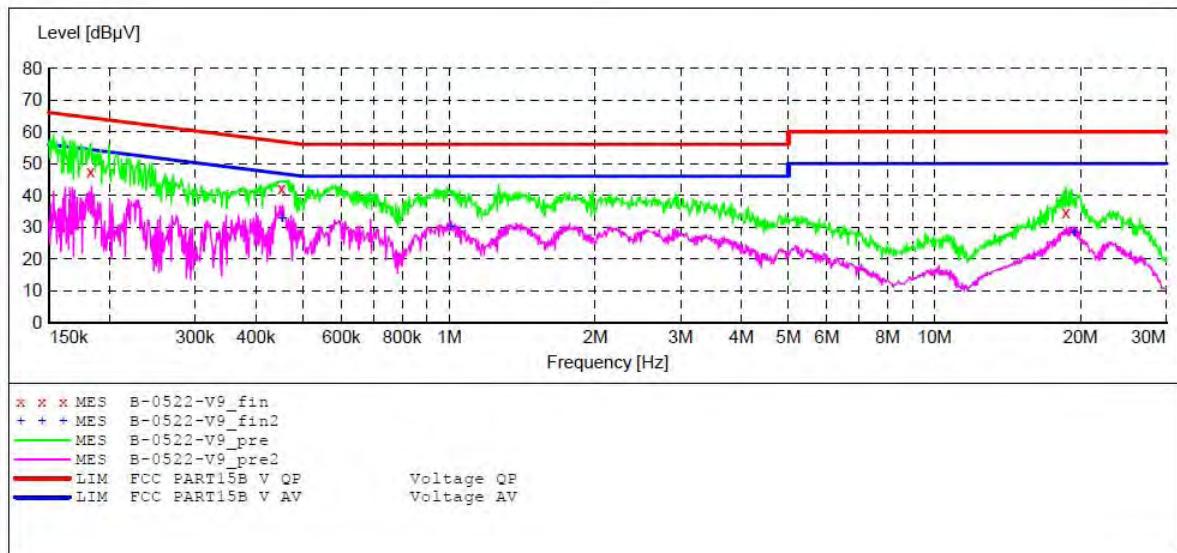
ACCURATE TECHNOLOGY CO., LTD

**CONDUCTED EMISSION STANDARD FCC PART15B**

EUT: 2.4G Flier M/N:22033RX  
 Manufacturer: Interactive Toy Concepts (HK) Ltd.  
 Operating Condition: Charging  
 Test Site: 1#Shielding Room  
 Operator: Bob  
 Test Specification: N 120V/60Hz  
 Comment: Mains port  
 Start of Test: 5/24/2013 / 4:15:46PM

**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. NSLK8126 2008  
 150.0 kHz 30.0 MHz 4.5 kHz QuasiPeak 1.0 s 9 kHz Average



**MEASUREMENT RESULT: "B-0522-V9\_fin"**

5/24/2013 4:17PM

Frequency MHz	Level dB $\mu$ V	Transd dB	Limit dB $\mu$ V	Margin dB	Detector	Line	PE
0.182408	47.40	11.7	64	17.0	QP	N	GND
0.451436	42.10	12.5	57	14.7	QP	N	GND
18.638731	34.80	12.1	60	25.2	QP	N	GND

**MEASUREMENT RESULT: "B-0522-V9\_fin2"**

5/24/2013 4:17PM

Frequency MHz	Level dB $\mu$ V	Transd dB	Limit dB $\mu$ V	Margin dB	Detector	Line	PE
0.453242	32.80	12.5	47	14.0	AV	N	GND
1.007099	30.00	12.5	46	16.0	AV	N	GND
19.397844	28.40	12.1	50	21.6	AV	N	GND

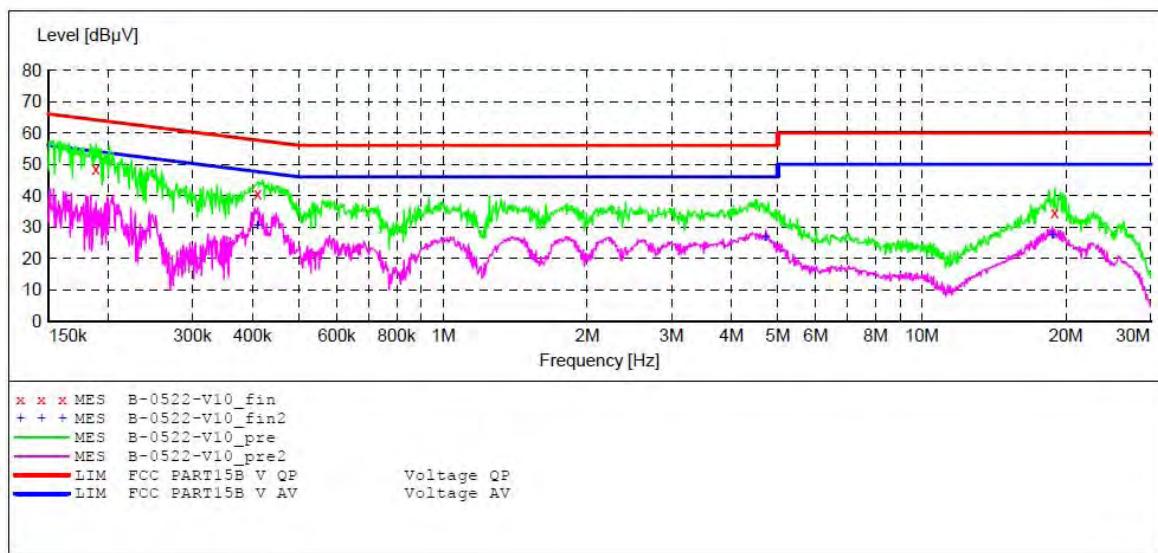
## ACCURATE TECHNOLOGY CO., LTD

## CONDUCTED EMISSION STANDARD FCC PART15B

EUT: 2.4G Flier M/N:22033RX  
 Manufacturer: Interactive Toy Concepts (HK) Ltd.  
 Operating Condition: Charging  
 Test Site: 1#Shielding Room  
 Operator: Bob  
 Test Specification: L 120V/60Hz  
 Comment: Mains port  
 Start of Test: 5/24/2013 / 4:18:41PM

## 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 4.5 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average



## MEASUREMENT RESULT: "B-0522-V10\_fin"

5/24/2013 4:20PM

Frequency MHz	Level dB $\mu$ V	Transd dB	Limit dB $\mu$ V	Margin dB	Detector	Line	PE
0.188327	48.40	11.7	64	15.7	QP	L1	GND
0.410192	40.80	12.4	58	16.8	QP	L1	GND
18.938744	34.80	12.1	60	25.2	QP	L1	GND

## MEASUREMENT RESULT: "B-0522-V10\_fin2"

5/24/2013 4:20PM

Frequency MHz	Level dB $\mu$ V	Transd dB	Limit dB $\mu$ V	Margin dB	Detector	Line	PE
0.410192	30.50	12.4	48	17.1	AV	L1	GND
4.720838	26.50	12.3	46	19.5	AV	L1	GND
18.713286	27.60	12.1	50	22.4	AV	L1	GND