FCC PART 15 B
EMI MEASUREMENT AND TEST REPORT

For

Planet Toys (HK) Ltd

1107 Chinachem Golden Plaza, 77 Mody RD, TsimShaTsui East, Kowloon, Hong Kong

FCC ID: SZ23525R49

October 10, 2005

This Report Concerns:	**Equipment Type:**
☒ Original Report	Receiver, Toy Remote Control

Test Engineer:	Hansen Hu
Report No.:	RSZ05093002
Test Date:	September 30, 2005
Reviewed By:	Chris Zeng
Prepared By:	Bay Area Compliance Lab Corp. (ShenZhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone, ShenZhen, Guangdong 518038, P.R.China Tel: 86-755-33320018 Fax: 86-755-33320008

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The Planet Toys (HK) Ltd 's product, model number: 3525 or the "EUT" as referred to in this report is a receiver of Toy Remote Control, the product name is 1:32 scale RC. The EUT is measured approximately 15.5cm L x 6.5cm W x 5.3cm H, rated input voltage: DC 4.5 V battery.

** The test data gathered are from production sample, serial number: 0509043, provided by the manufacturer, we receive the EUT on 2005-9-30.*

Objective

This Type approval report is prepared on behalf of *Planet Toys (HK) Ltd* in accordance with Part 2, Subpart J, and Part 15, Subparts A, B and C of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC rules, section 15.109 rules.

Related Submittal(s)/Grant(s)

No Related Submittals.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Lab Corp. (ShenZhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Lab Corp. (ShenZhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone, ShenZhen, Guangdong 518038, P.R.China.

Test site at Bay Area Compliance Lab Corp. (ShenZhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 04, 2004. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Lab Corp. (ShenZhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0). The current scope of accreditations can be found at http://ts.nist.gov/ts/htdocs/210/214/scopes/2007070.htm.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

EUT Exercise Software

N/A.

Special Accessories

N/A.

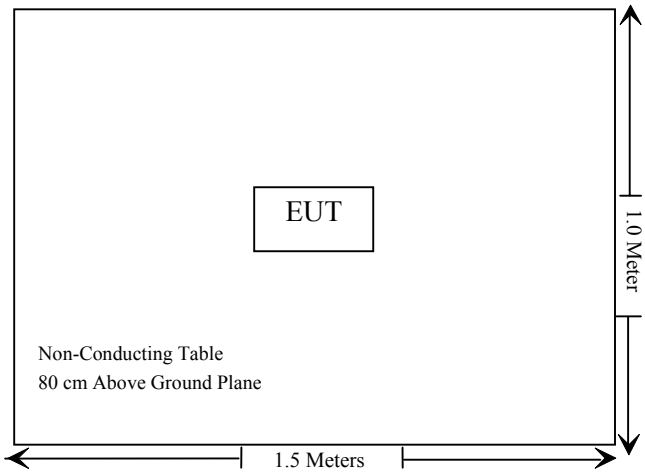
Equipment Modifications

Bay Area Compliance Lab Corp. (ShenZhen) has not done any modification on the EUT.

Configuration of Test Setup

EUT

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.109(a)	Radiated Emission	Compliant

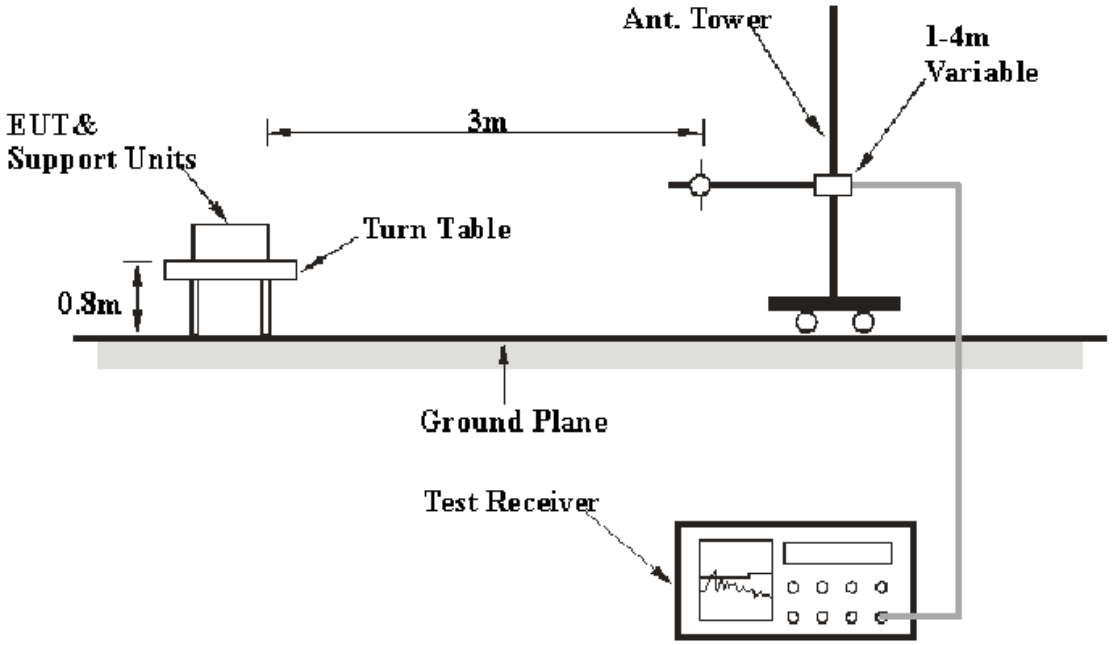
§15.109(a) - RADIATED EMISSION

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Lab Corp. (ShenZhen) is ±4.0 dB.

EUT Setup



The radiated emission tests were performed in the chamber A test site, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC 15.109 limits.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 1000 MHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	*R B/W*	*Video B/W*	*IF B/W*
30 – 1000 MHz	100 kHz	300 kHz	120 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17
HP	Amplifier	HP8447D	2944A09795	2005-8-17	2006-8-17
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2005-4-28	2006-4-28

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the Quasi-peak detection mode.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corr. Ampl. = Meter Reading + Antenna Loss + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – Limit

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.109, with the worst margin reading of:

-7.1 dB at **900.14 MHz** in the **Horizontal** polarization.

Test Data

Environmental Conditions

Temperature:	26 °C
Relative Humidity:	55 %
ATM Pressure:	1002mbar

The testing was performed by Hansen Hu on 2005-9-30.

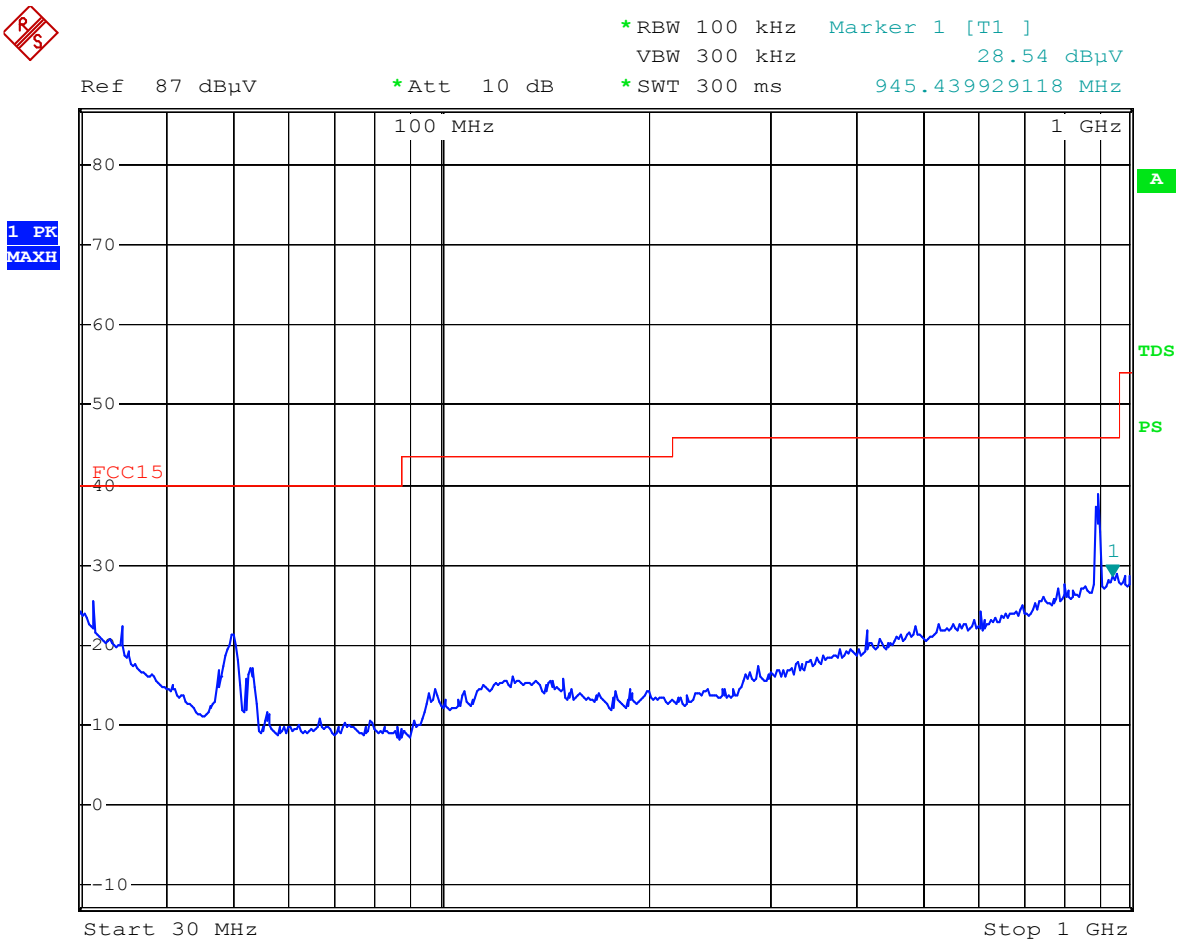
Test Mode: Receiving

Frequency	Meter Reading	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifer Gain	Corr. Ampl.	FCC PART 15.109		
MHz	dBuV/m	Degree	Meter	H / V	dB	dB	dB	dBuV/m	Limit dBuV/m	Margin dB	Remark
900.14	40.4	90	1.2	H	22.9	3.5	27.9	38.9	46.0	-7.1	PK
30.42	36.6	180	1.2	V	24.1	0.6	28.8	32.5	40.0	-7.5	PK
49.70	48.0	60	1.0	V	10.8	0.6	28.8	30.6	40.0	-9.4	PK
31.07	34.2	90	1.0	V	24.1	0.6	28.8	30.1	40.0	-9.9	PK
31.28	29.7	45	1.2	H	24.1	0.6	28.8	25.6	40.0	-14.5	PK
900.14	32.5	45	1.2	V	22.9	3.5	27.9	31.0	46.0	-15.1	PK
52.94	44.3	60	1.2	V	8.5	0.7	28.7	24.8	40.0	-15.2	PK
34.51	26.3	45	1.0	H	24.1	0.6	28.8	22.2	40.0	-17.8	PK
49.71	38.6	60	1.2	H	10.8	0.6	28.8	21.1	40.0	-18.9	PK
416.17	31.6	45	1.2	H	16.5	2.1	28.3	21.9	46.0	-24.1	PK
98.83	37.2	60	1.0	V	8.2	0.9	28.6	17.8	43.5	-25.7	PK
129.92	28.9	270	1.0	H	14.4	1.1	28.5	15.9	43.5	-27.6	PK

Plot(s) of Test Data

Plot(s) of Test Data is presented hereinafter as reference.

Horizontal:



planet 1:32 scale RC receiving FCC horizontal

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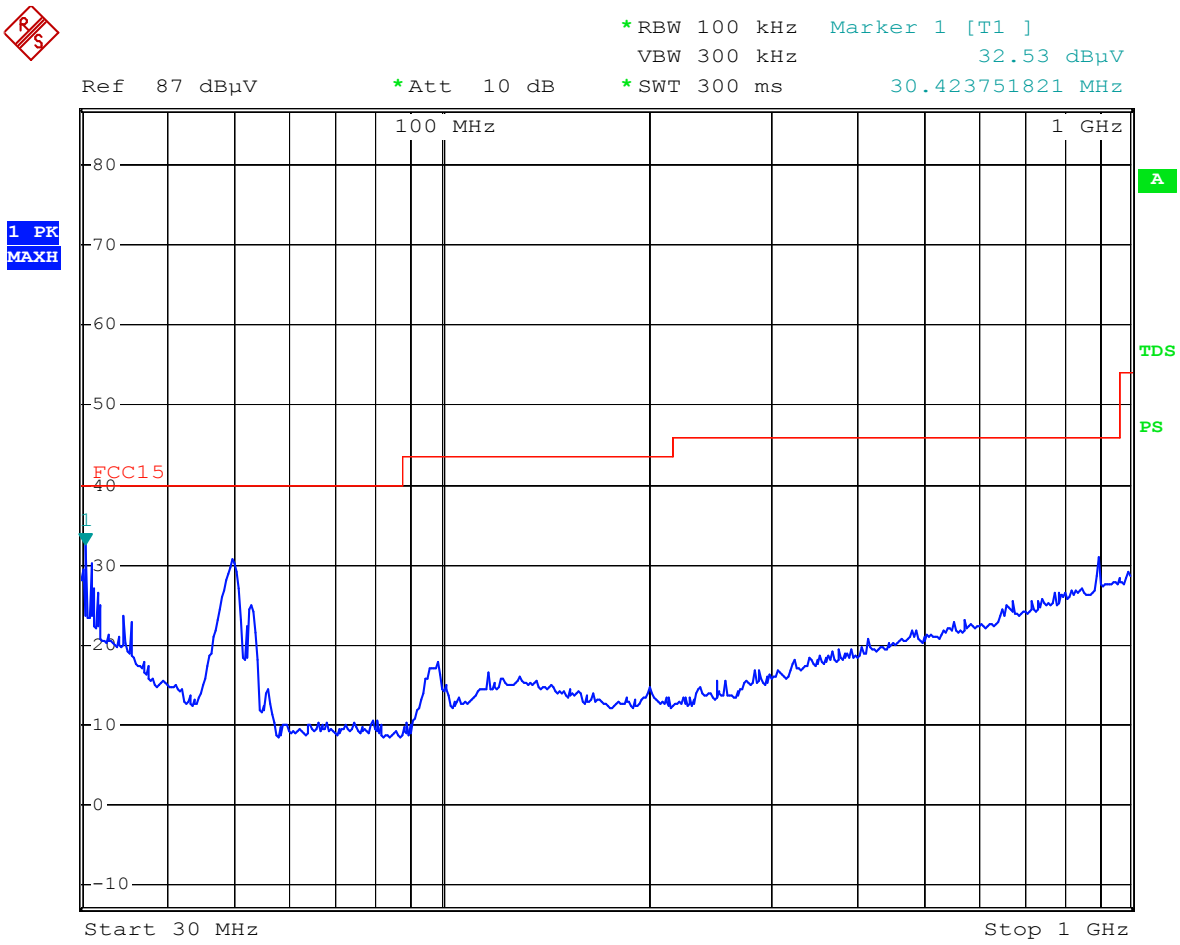
Vertical:



planet 1:32 scale RC receiving FCC vertical

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