Lab Code: 200707-0

FCC PART 15.227

MEASUREMENT AND TEST REPORT

For

Meisida Electronic Toys Co., Ltd.

Anping Industry Park (Anhai), Jinjiang, Quanzhou, Fujian, China

FCC ID: PV5MSD30091989

Report Type:	Product Name:
Original Report	GIANT WHEELS

Test Engineer:	Gardon Zhang
Report Number:	RSZ111027003-00
Report Date:	2011-11-09
Reviewed By:	Alvin Huang EMC Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008

TABLE OF CONTENTS

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Meisida Electronic Toys Co., Ltd.'s* product, model number: *MSD3009 (FCC ID:PV5MSD30091989)* or the "EUT" as referred to in this report is *GIANT WHEELS*, which was measured approximately: 12.5 cm (L) x 12.5 cm (W) x 6.0 cm (H), rated input voltage: DC 9 V battery.

All measurement and test data in this report was gathered from production sample serial number: 1110096 (Assigned by BACL, Shenzhen). The EUT was received on 2011-10-27.

Objective

This report is prepared on behalf of *Meisida Electronic Toys Co., 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 the compliance of EUT with FCC rules, section15.203, 15.205, 15.209 and 15.227.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, 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 Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

The uncertainty of any RF tests which use conducted method measurement is ±0.96 dB, the uncertainty of any radiation on emissions measurement is ±4.0 dB

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect radiated and conducted emission measurement data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories 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 December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

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 Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 guide accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).

The current scope of accreditations can be found at http://ts.nist.gov/Standards/scopes/2007070.htm

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical mode.

EUT Exercise Software

No exercise software.

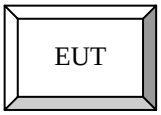
Special Accessories

No special accessory.

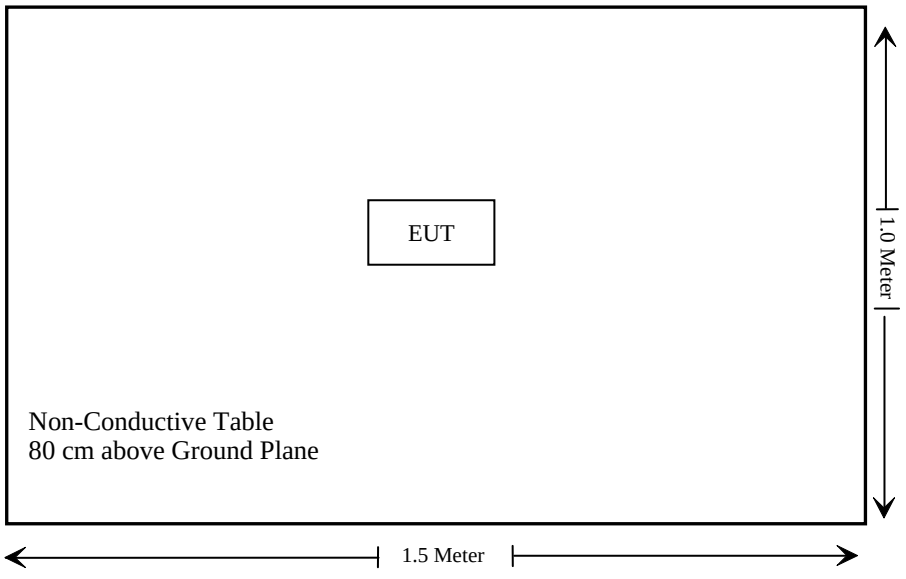
Equipment Modifications

No modification was made to the EUT tested.

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna requirement	Compliance
§15.207	Conducted Emissions	Not Applicable*
§15.205, §15.209, §15.227(a), §15.227(b)	Field Strength and Restricted Band Emissions	Compliance
§15.215(c)	20dB Bandwidth	Compliance

Note: Not Applicable* - EUT is battery operation only.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a permanently attached antenna, fulfill the requirement of this section, and please refer to the EUT photos.

Result: Compliant.

FCC §15.205, §15.209 & §15.227 – FIELD STRENGTH OF EMISSIONS

Standard Applicable

According to FCC §15.227 (a), the field strength if any emission within this band shall not exceed 10,000 microvolts/meter at 3 meters.

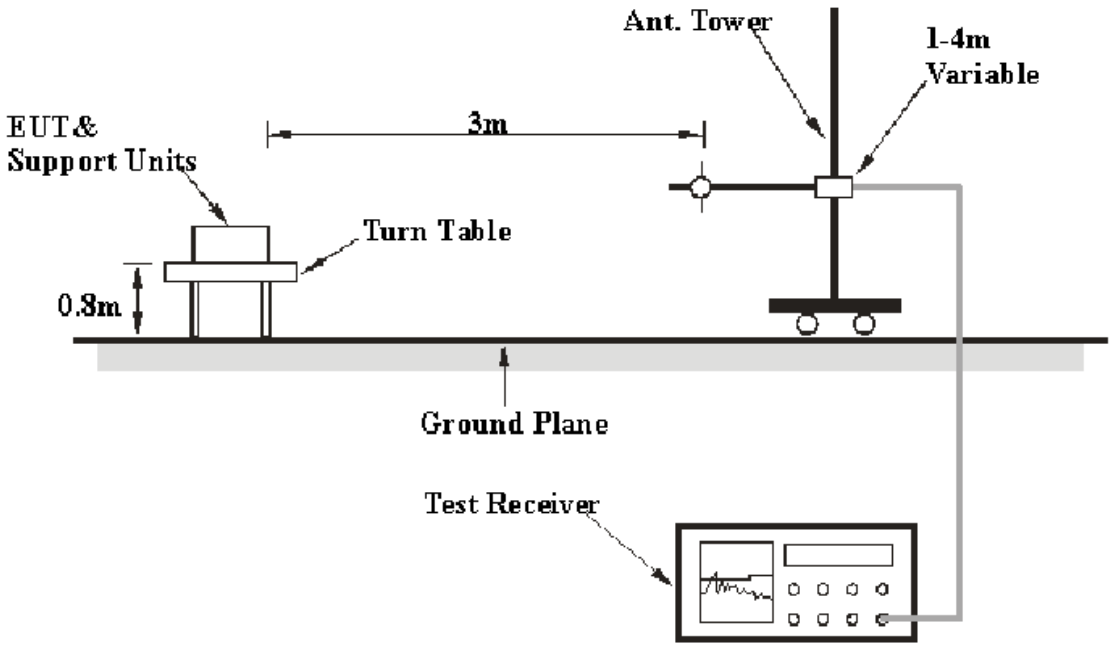
(b) The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in §15.209.

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 Laboratories Corp. (Shenzhen) is ±4.0 dB.(k=2, 95% level of confidence)

EUT Setup



The radiated emission tests were performed in the chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part 15 Subpart C, section 15.227 limits.

EMI Test Receiver Setup

According to FCC Rules, FCC§15.33, the EUT emissions were investigated from 9 kHz to 1000 MHz.

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

Frequency	***RB/W***	***VB/W***	***IF B/W***
9 kHz-30 MHz	10 kHz	30 kHz	9 kHz
30 MHz-1 GHz	100 kHz	300 kHz	120 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2010-11-15	2011-11-15
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2010-11-11	2011-11-10
Sunol Sciences	Bilog Antenna	JB1	A040904-2	2011-04-12	2012-04-11
EM Test	Loop Antenna	MS100	303298	2011-03-07	2012-03-07
ETS	Passive Loop Antenna	6512	00029604	2011-03-04	2012-03-04

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed per the NVLAP requirements, traceable to NIST.

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:

Cord. Amplitude. = 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 -7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Limit –Cord. Amplitude.

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.227, with the worst margin reading of:

3.7 dB at **54.298000 MHz** in the **Vertical** polarization.

Test Data

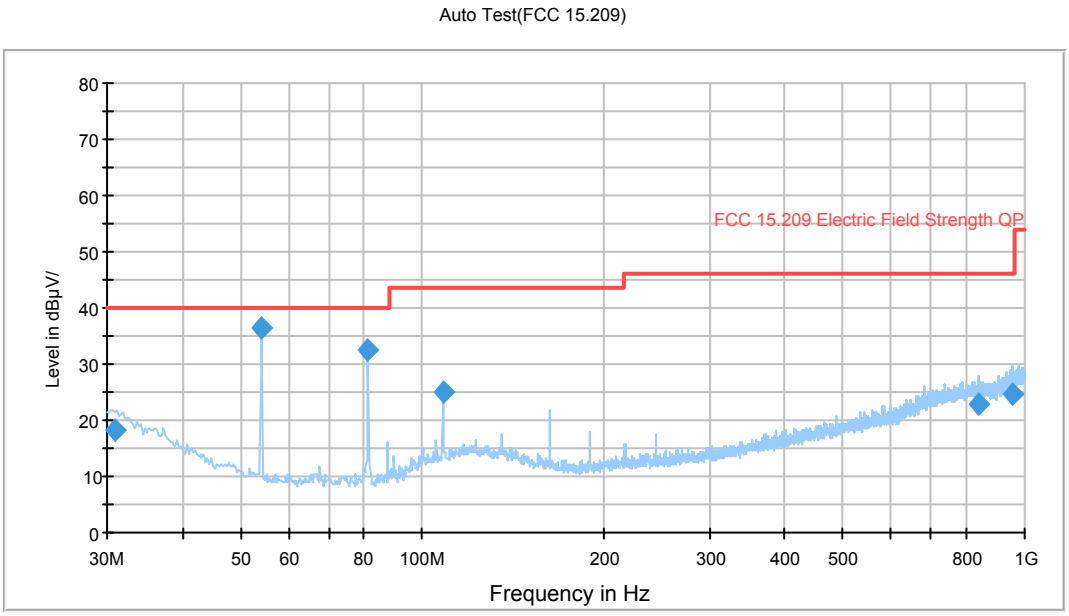
Environmental Conditions

Temperature:	25° C
Relative Humidity:	56%
ATM Pressure:	101.0kPa

Testing was performed by Gardon Zhang on 2011-11-05.

Test Mode: Transmitting

1) Spurious Emission:



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
54.298000	36.3	102.0	V	310.0	-17.9	40.0	3.7*
81.429500	32.4	101.0	V	275.0	-18.0	40.0	7.6
108.573250	25.2	102.0	V	281.0	-13.6	43.5	18.3
952.152000	24.8	256.0	H	301.0	0.6	46.0	21.2
30.916250	18.3	347.0	V	7.0	-6.0	40.0	21.7
837.059500	22.9	306.0	V	0.0	-1.3	46.0	23.1

*Within measurement uncertainty!

2) Field Strength of Radiated Emissions

Indicated		Table Angle Deg.	Detector	Antenna Height (m)	Correction Factor			Cord. Amp. (dBμV/m)	Part 15.227 & 15.209		
Freq. (MHz)	Reading (dBμV)				Ant Factor (dB/m)	Cable Loss (dB)	Amp. Gain (dB)		Limit (dBμV/m)	Margin (dB)	Remarks
27.145	79.93	349	Ave.	1.0	19.7	0.30	25.86	74.07	80	5.93	Fund.
27.145	85.69	349	PK	1.0	19.7	0.30	25.86	79.83	100	20.17	Fund.

3) Out of Band Emission:

Indicated		Table Angle Degree	Antenna Height (m)	Detector	Correction Factor			Cord. Amp. (dBμV/m)	Part 15.227 &15.209	
Freq. (MHz)	S.A. Reading (dBμV)				Ant. Factor (dB/m)	Cable Loss (dB)	Amp. Gain (dB)		Limit (dBμV/m)	Margin (dB)
Out of Left Side Band										
25.570	38.18	78	1.0	QP	20.40	0.29	58.86	33.01	49.5	16.49
Out of Right Side Band										
37.581	36.78	85	1.0	QP	18.90	0.31	25.88	30.11	40.0	9.89

FCC §15.215(c) – 20 dB EMISSION BANDWIDTH

Applicable Standard

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in FCC §15.217 through §15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.

3. Measure the frequency difference of two frequencies that indicated 20dB bandwidth.

4. Repeat above procedures until all frequencies measured were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2010-11-11	2011-11-10
EM Test	Loop Antenna	MS100	303298	2011-03-07	2012-03-07

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

Test Data

Environmental Conditions

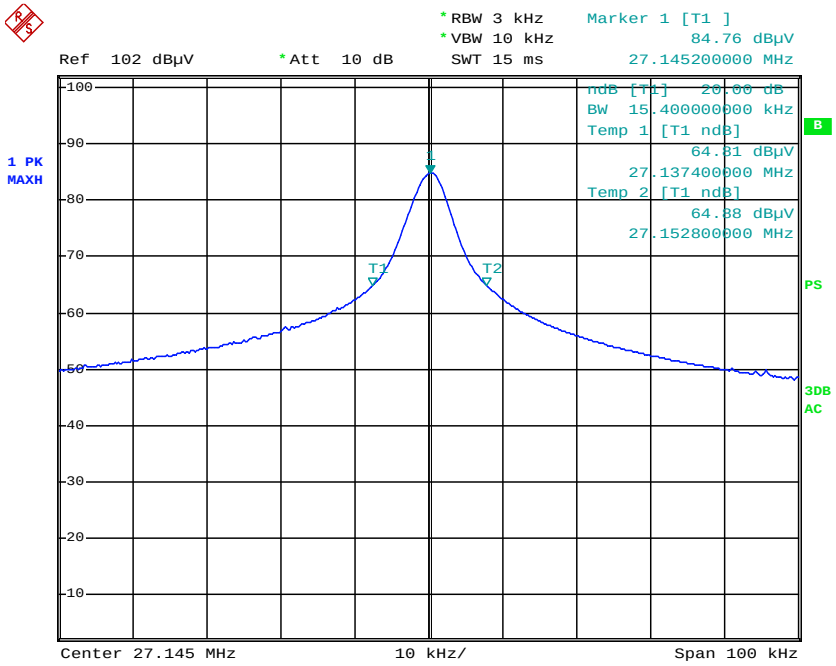
Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.2 kPa

**The testing was performed by Gardon Zhang on 2011-11-08.*

Test Mode: Transmitting

Please refer to the below plot

Emission Bandwidth



EUT

Date: 8.NOV.2011 09:47:21

******* END OF REPORT *******