CENTRE OF TESTING SERVICE INTERNATIONAL

OPERATE ACCORDING TO ISO/IEC 17025

FCC ID TEST REPORT

TEST REPORT NUMBER : CGZ3100318-00835-O

CENTRE OF TESTING SERVICE CO., LTD.
Building F, Dachuang industrial park, No.379, Zhongshan Dadao,
Guangzhou, China.

TEST REPORT For FCC ID

47 CFR PART 15 OCT, 2009

Report Reference No.	CGZ3100318-00835-O
Date of issue	25 October 2010
**Testing Laboratory Name ..... **	**CENTRE OF TESTING SERVICE CO., LTD**
Address	Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China.
Testing location/ procedure	Full application of Harmonised standards ■
	Partial application of Harmonised standards □
	Other standard testing method □
**Applicant's name ..... **	Jupiter Creations
Address	275 W.96th St.Suite 9-0,New York,USA
**Test specification ..... **	
Standard	**47 CFR PART 15 OCT, 2009**
Test Report Form No.	CTSEMC-1.0
TRF Originator	CENTRE OF TESTING SERVICE CO., LTD
Master TRF	Dated 2009-01

**Test item description..... **	Spinforce RC Cars
Trade Mark.....	Spinforce
Manufacturer.....	Jupiter Creations
Model/Type reference.....	90001(27.140MHz)
Ratings.....	DC 1.5Vx2(TX), DC 1.5V x2 (27.140MHz)
Operating Frequency.....	27.140MHz/ MSK
Result	**Positive**

Compiled by:	**Supervised by:**	**Approved by:**
Violet Lee / File administrators	Raymond Dai / Technique principal	Kevin Liang / Manager

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FCC ID -- T E S T R E P O R T

Test Report No. : CGZ3100318-00835-O	25 October.2010 Date of issue

Type / Model.....	90001(27.140MHz)
EUT.....	Spinforce RC Cars
Applicant……	Jupiter Creations
Address.....	275 W.96th St.Suite 9-0,New York,USA
Telephone.....	+1-(917)493-9393
Fax.....	/
Contact.....	Michael D Katina
Manufacturer……	Jupiter Creations
Address.....	275 W.96th St.Suite 9-0,New York,USA
Telephone.....	+1-(917)493-9393
Fax.....	/
Contact.....	Michael D Katina
Test report holder……	Jupiter Creations
Address.....	275 W.96th St.Suite 9-0,New York,USA
Telephone.....	+1-(917)493-9393
Fax.....	/
Contact.....	Michael D Katina

Test Result according to the standards on page 3: **Positive**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. TEST STANDARDS

The tests were performed according to following standards:

■ **47 CFR PART 15 OCT, 2009**
■ **ANSI C63.4-2009**

2. SUMMARY

2.1 GENERAL REMARKS

Date of receipt of test sample	18 March 2010
Testing commenced on	18 March 2010
Testing concluded on	25 October 2010

2.2 FINAL ASSESSMENT

The FCC requirements pertaining to the technical standards and tested operation modes are

■ - fulfilled.

□ - **not** fulfilled.

The equipment under test

■ - fulfils the FCC requirements cited on page 3.

□ - **does not** fulfil the FCC requirements cited on page 3.

3. EQUIPMENT UNDER TEST

3.1 Power supply system utilised

Power supply voltage : ■ DC 1.5Vx2(TX), DC 1.5Vx2

3.2 Short description of the Equipment under Test (EUT)

Number of tested samples: **1**
Serial number: Prototype

3.3 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:

□ - Standby
■ - Test program (customer specific)

Operation mode 1: TX

Note: X position of EUT is the worst case, so only these test results be recorded in the test report.

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3.4 EUT configuration

3.4.1. Description of configuration (EUT)

Description	:	Spinforce RC Cars
Model Number	:	90001(27.140MHz)
Operation frequency	:	27.140MHz
Radio Technology	:	MSK
Modulation Technology	:	MSK modulation
Antenna	:	Integral antenna, met requirement of FCC 15.203
Antenna Assembly Gain	:	2dBi (maximum)

3.4.2. Tested Supporting System Details

N/A

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4. TEST ENVIRONMENT

4.1 Address of the test laboratory

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel：+86-20-85543113 (32 lines) Fax：+86-20-38780406

4.2 Test facility

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

CNAS-Lab Code: L3394

CENTRE OF TESTING SERVICE CO., LTD has been assessed and proved to be in compliance with CNAS-CL01: 2006 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

IC-Registration No.: 8374

The 3m Alternate Test Site of CENTRE OF TESTING SERVICE CO., LTD has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 8374 on June 24, 2009 .

FCC-Registration No.: 971995

CENTRE OF TESTING SERVICE CO., LTD, EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration No.791995, July 21, 2009.

4.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35 ° C
Humidity:	25~75 %
Atmospheric pressure:	86~106 kPa

4.4 Definitions of symbols used in this test report

■ - The black square indicates that the listed condition, standard or equipment is applicable for this report.

□ - The empty square indicates that the listed condition, standard or equipment is **not** applicable for this report.

4.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the CTS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

4.6 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	±1.22dB	(1)
Power disturbance	30MHz~300MHz	±1.38dB	(1)
Radiation emission (3m)	30MHz~300MHz	±3.14dB	(1)
	300MHz~1000MHz	±3.18dB	(1)

(1).This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

5.Summary of standards and results

5.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	**Standard**	**Results**
Conducted Emission Test	FCC Part 15 C: 15.227 ANSI C63.4-2009	N/A
Radiated Emission Test	FCC Part 15 C: 15.227 ANSI C63.4-2009	PASSED
Bandwidth Edge Compliance Test	FCC Part 15 C: 15.227 ANSI C63.4-2009	PASSED
N/A is an abbreviation for Not Applicable.		

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6. Power Line Conducted Emission Test

According to Paragraph (f) of FCC Part 15 section 15.227, Tests to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines.

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7. Radiated disturbance (electric field)

7.1. Test Equipment

Radiated disturbance (electric field)					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100868	2009/12
2	Biconical Antenna	ROHDE & SCHWARZ	HK116	100221	2009/12
3	Log per Antenna	ROHDE & SCHWARZ	HL223	100226	2009/12
4	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2009/12
5	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2009/12

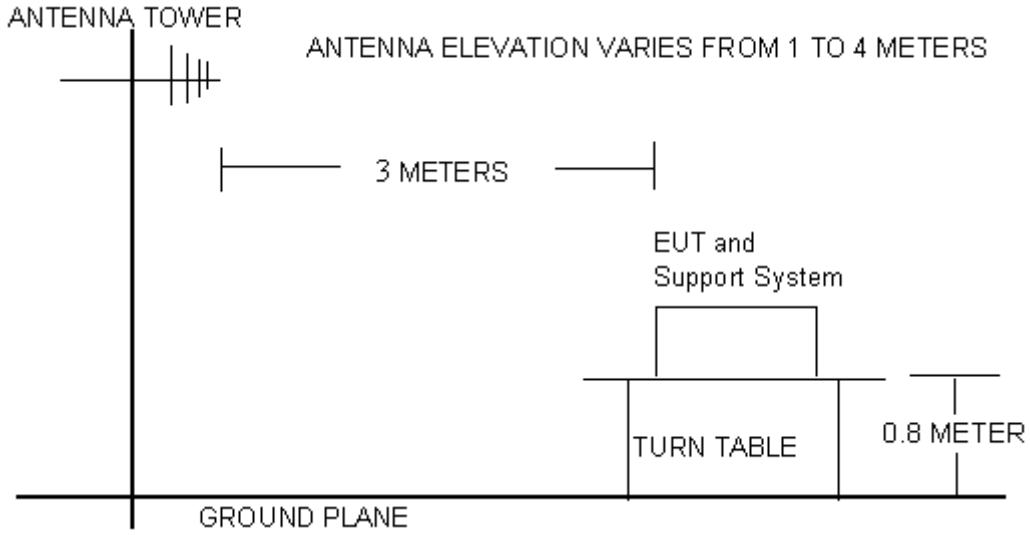
7.2. Block Diagram of Test Setup

7.2.1 Block Diagram of connection between EUT and simulators

EUT

(EUT: Spinforce RC Cars)

7.2.2 Anechoic Chamber Setup Diagram



7.3.Radiated Emission Limit Standard: FCC 15.227

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	Other:74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark: (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

7.4.Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 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 polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2009on radiated emission Test.

The frequency range from 30MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 120kHz RBW below 1GHz and a Peak and Average detector with 1MHz RBW above 1GHz,

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 300kHz VBW below 1GHz and a Peak detector with 1MHz VBW above 1GHz, A average detector with 10Hz VBW above 1GHz

Pretest x, y, z position of EUT, final, select the worst case x position test and record the test results in the report.

The test modes (TX Mode) is tested in Anechoic Chamber and all the scanning waveforms are reported on section 7.5

7.5.Radiated Emission Test Results

PASSED.

The frequency range from 30MHz to 230MHz, 230MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

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Channel: Test point: Frequency range:	27.140MHz Horizontal 30-1000MHz	Result:	■ - passed □ - not passed

EUT	Spinforce RC Cars
Operating Condition	DC 1.5Vx2(TX), DC 1.5Vx2
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	18 March~25 October 2010
Operator	**Raymond**
MODEL NO	90001(27.140MHz)

Frequency	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
[MHz]	Average	Peak	Average	Peak	Average	Peak
27.14	67.0	78.46	80.0	100.0	13.0	21.54

Frequency	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
[MHz]	Average	QP	Average	Peak	Average	QP
108.6	-	39.1	-	43.5	-	4.4
135.8	-	38.8	-	43.5	-	4.7
189.9	-	38.6	-	43.5	-	4.9
298.6	-	38.2	-	46.0	-	7.8
591.5	-	30.6	-	46.0	-	15.4
947.4	-	33.0	-	46.0	-	13.0

Note: 1. Emission level=Read level + Factor
2. Factor=Antenna factor + Cable loss

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Channel:	27.140MHz	Result:	■ - passed □ - not passed
Test point:	Vertical		
Frequency range:	30-1000MHz		

EUT	Spinforce RC Cars
Operating Condition	DC 1.5Vx2(TX), DC 1.5Vx2
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	18 March~25 October 2010
Operator	**Raymond**
MODEL NO	90001(27.140MHz)

Frequency	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
[MHz]	Average	Peak	Average	Peak	Average	Peak
27.14	68.9	78.2	80.0	100.0	11.1	21.8

Frequency	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
[MHz]	Average	QP	Average	QP	Average	QP
78.5	-	37.8	-	40.0	-	2.2
162.8	-	40.1	-	43.5	-	3.4
189.5	-	35.8	-	43.5	-	7.7
244.3	-	35.0	-	46.0	-	11.0
461.5	-	34.5	-	46.0	-	11.5
852.5	-	32.8	-	46.0	-	13.2

Note: 1. Emission level=Read level + Factor
2. Factor=Antenna factor + Cable loss

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9. Bandwidth Edge Compliance Test

9.1. Test Equipment

Bandwidth Edge Compliance test					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	10868	200912
2	Biconical Antenna	ROHDE & SCHWARZ	HK116	100221	2009/12
3	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	200912

9.2. Test Information

EUT:	Spinforce RC Cars
M/N:	90001(27.140MHz)
Power supply:	DC 1.5Vx2(TX), DC 1.5Vx2
Test Condition:	Ambient Temperature: 25°C Humidity: 56%
Test standard:	FCC PART 15C: 15.227
Test mode:	Transmitting
Test Frequency:	27.140MHz
Test Date:	18 March~25 October 2010
Test By:	**Raymond**

9.3. Test Results

PASSED.

The testing data was attached in the next pages.

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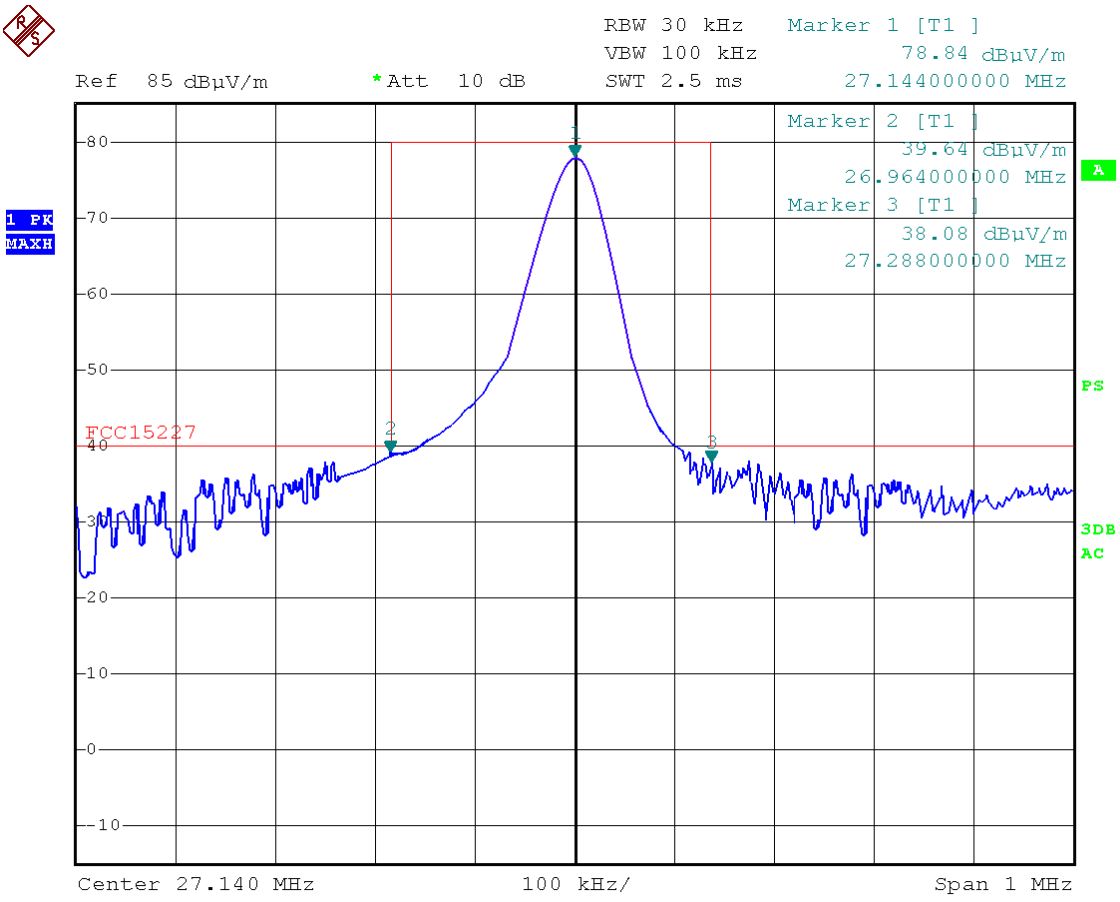
Channel: Test point: Frequency range:	27.140MHz Vertical 30-1000MHz	Result:	■ - passed ☐ - not passed

EUT	Spinforce RC Cars
Operating Condition	DC 1.5Vx2(TX), DC 1.5Vx2
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	18 March~25 October 2010
Operator	Raymond
MODEL NO	90001(27.140MHz)



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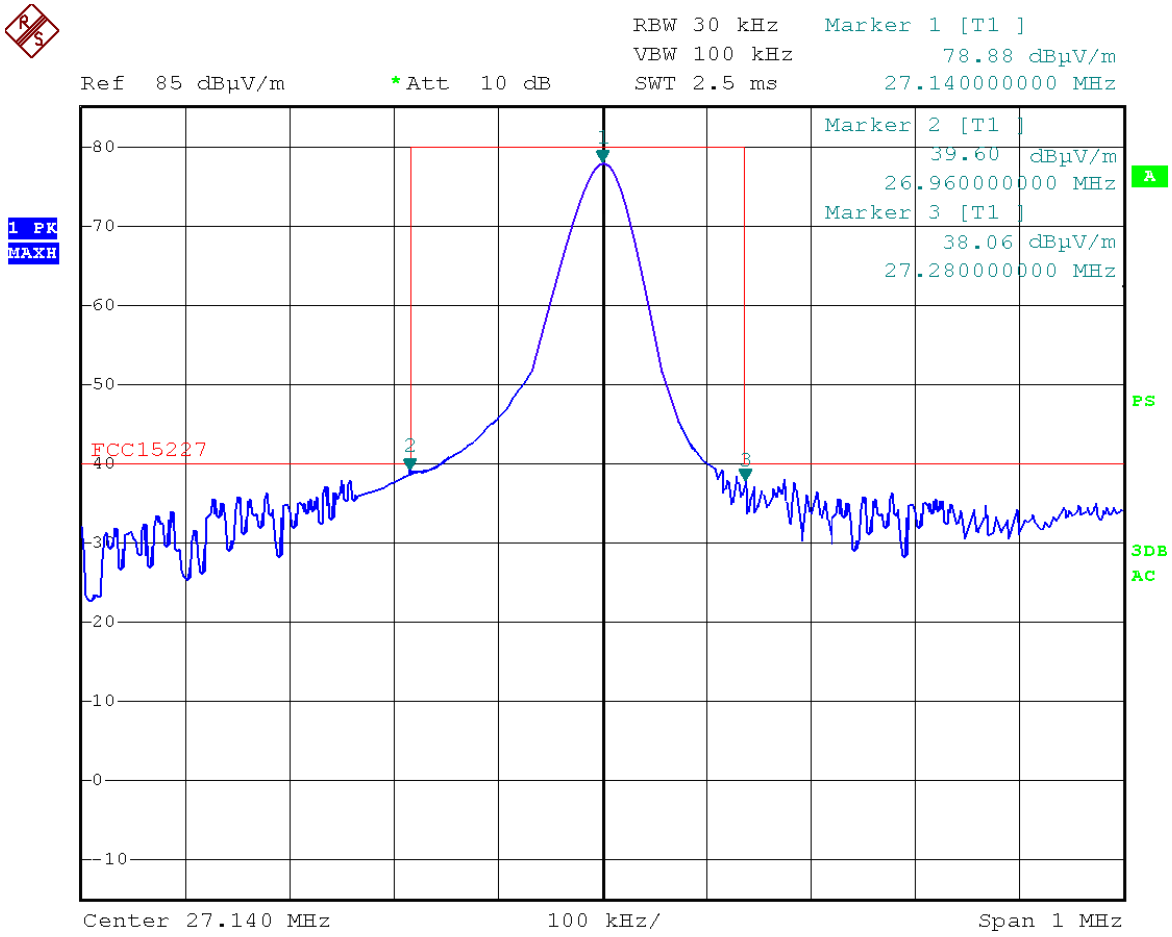
Channel:	27.140MHz	Result:	■ - passed ☐ - not passed
Test point:	Horizontal		
Frequency range:	30-1000MHz		



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10.Deviation to test specifications

[NONE]

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