Lab Code: 200707-0

FCC PART 15 CLASS B

TEST REPORT

For

COLORFUL TOY INTERNATIONAL LIMITED

RM.67, 1/F., TOWER 2, SOUTH SEAS CENTRE, 75 MODY RD.,
T .S.T. EAST, KLN., HONG KONG

FCC ID: OL8SF49HY12R

Report Type:	**Product Type:**
Original Report	R/C VEHICLE

Test Engineer:	Tiger Ye
Report Number:	RSZ120629817-00
Report Date:	2012-07-20
Reviewed By:	Alvin Huang RF Leader
Test Laboratory:	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 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *COLORFUL TOY INTERNATIONAL LIMITED*'s product, model number: *952 (FCC ID: OL8SF49HY12R)* or the "EUT" in this report was a *R/C VEHICLE*, which was measured approximately: 20.5 cm (L) x 8.0 cm (W) x 5.0 cm (H), rated input voltage: DC 6V battery. The EUT operating frequency is 49.86 MHz.

Note: The series products, model 952, 953, 954, 955, 956, 920, 921, 922 and 923 are electrically identical, they are just different in model number and appearance of color, the model 952 was selected for fully testing, which was explained in the attached declaration letter.

** All measurement and test data in this report was gathered from production sample serial number: 1206291 (Assigned by BACL, Shenzhen). The EUT was received on 2012-06-29.*

Objective

This test report is prepared on behalf of *COLORFUL TOY INTERNATIONAL LIMITED* in accordance with Part 2-Subpart J, Part 15-Subparts A and B of the Federal Communication Commissions rules.

The objective of the manufacturer is to determine the compliance of the EUT with FCC Part 15 B.

Related Submittal(s)/Grant(s)

Part 15.235 DSC transmitter submissions with FCC ID: OL8SF49HY12T

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on 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 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

Description of Test Configuration

The system was configured for testing in a manufacturer testing fashion.

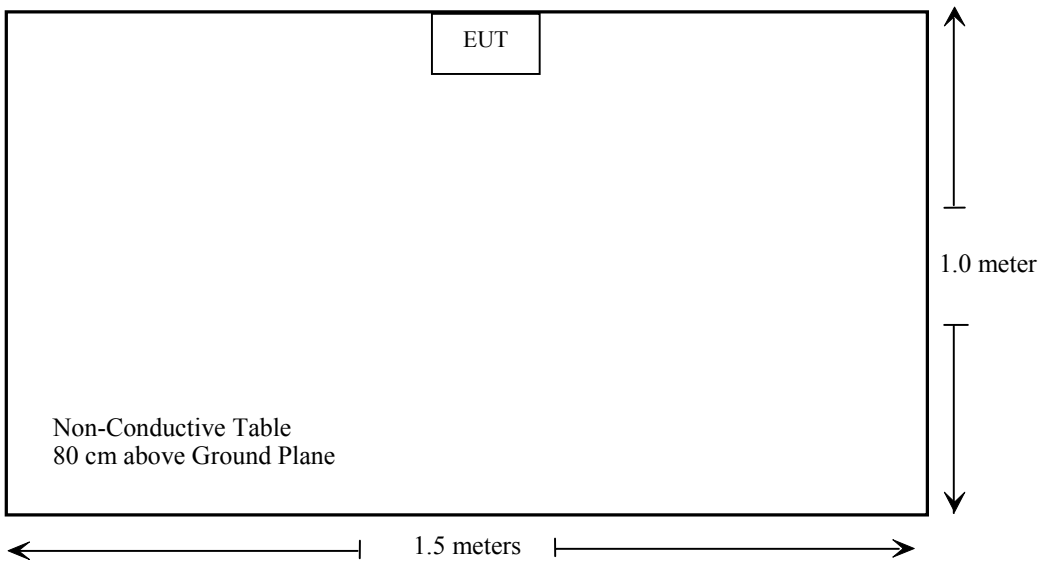
EUT Exercise Software

No exercise software was used.

Equipment Modifications

No modification was made to the EUT tested.

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	AC Line Conducted Emissions	N/A
§15.109	Radiated Spurious Emissions	Compliance

Note: the EUT was powered by battery.

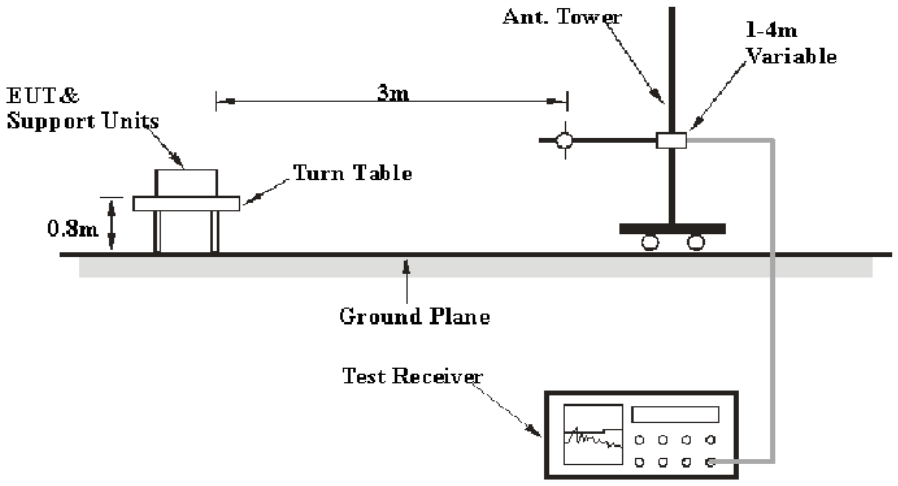
FCC §15.109 - RADIATED SPURIOUS EMISSIONS

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 CISPR 16-4-2, the Treatment of Uncertainty in EMC Measurements, the estimation of the uncertainty of 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 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part 15.109 Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

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	***RB/W***	***VB/W***	***IF B/W***	***Detection***
30 MHz-1 GHz	100 kHz	300 kHz	120 kHz	Quasi-peak

Test Procedure

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

All the data was recorded in the Quasi-peak detection mode from 30 MHz to 1 GHz.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2011-11-24	2012-11-23
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2011-11-17	2012-11-16
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2011-11-28	2012-11-27
R&S	Auto test Software	Auto test Software	V6.30	N/A	N/A

*** 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.

Corrected Amplitude & Margin Calculation

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

Corrected Amplitude = Meter Reading + Antenna Factor + 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 – Corrected Amplitude

Test Results Summary

According to the data in the following table, the worst margin reading is below:

3.1 dB at **50.807500 MHz** in the **Vertical** polarization

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m \pm U_{(Lm)} \leq L_{lim} \pm U_{cispr}$$
$$or\ U_{(Lm)} \leq Margin \pm U_{cispr}$$

The measurement result of EUT is below the limit level by a margin 3.1 dB and
$U_{(Lm)}$(4dB)≤*Margin*(3.1 dB) + U_{cispr}(6.3dB),
so the EUT complies with the limit of the FCC Part 15.109 Class B.

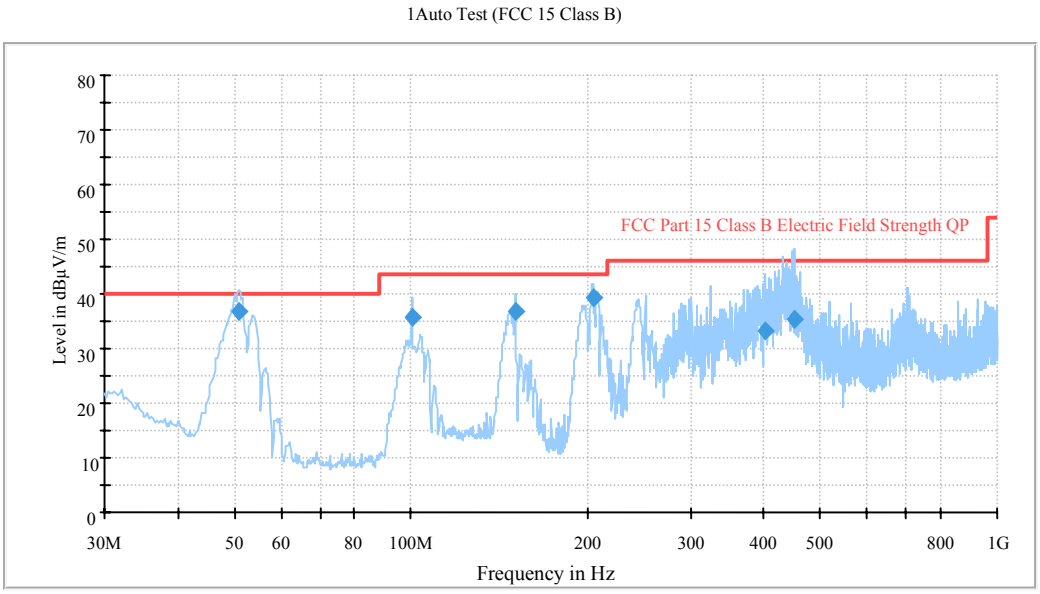
Test Data

Environmental Conditions

Temperature:	25 ℃
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

The testing was performed by Tiger Ye on 2012-07-13.

EUT Operation Mode: Running



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna		Turntable Position (degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
		Height (cm)	Polarity (H/V)				
50.807500	36.9	100.0	V	231.0	-17.5	40.0	3.1*
204.307500	40.0	197.0	H	128.0	-14.4	43.5	3.5*
150.522500	37.0	100.0	V	220.0	-17.5	43.5	6.5
100.567500	35.8	223.0	V	144.0	-1.5	43.5	7.7
451.372250	35.5	100.0	H	300.0	-9.4	46.0	10.5
400.698750	33.1	100.0	H	283.0	-10.2	46.0	12.9

*within measurement uncertainty!

Note:

1) Corrected Amplitude = Meter Reading + Correction Factor
2) Correction Factor = Antenna Factor + Cable Loss - Amplifier Gain
   The corrected factor has been input into the transducer of the test software.
3) Margin = Limit – Corrected Amplitude

DECLARATION LETTER

Product Similarity Declaration

To Whom It May Concern:

We COLORFUL TOY INTERNATIONAL LIMITED ., hereby declare that our R/C VEHICLE for Receiver and Transmitter parts ,we would like to list 9 models on reports, The models are 952、953 、954、955、956、920、921、922、923 . We COLORFUL TOY INTERNATIONAL LIMITED authorize BACL make the 952 as the primarily test model. All the models have the same PCB Schematics, and the same function, the only difference is appearance of color, And the Transmitter have the same PCB Schematics, same function, and the same appearance. It will use for different models (953 、954、955、956、920、921、922、923)!

Please contact me if you have any question.

Sincerely.

For and on behalf of
COLORFUL TOY INTERNATIONAL LIMITED
華 美 玩 具 國 際 有 限 公 司

Signature:

.....
Authorized Signature(s)

President: Jingqing Chen

COLORFUL TOY INTERNATIONAL LIMITED

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Date：18-July-2012

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