SGS-CSTC Standards Technical Services Ltd.

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FEDERAL COMMUNICATIONS COMMISSION
Registration number: 282399

FCC TEST REPORT

Application No. :	04.04.0610E (SGS SZ NO.: SZTYR040301450/TS)
Applicant:	LITTLE DOLPHIN TOY INDUSTRY LTD.
FCC ID:	RJTDSM3542TX49
Fundamental Carrier	**Frequency** : 49.860 MHz
Equipment Under Test (EUT):	
Name:	TOY-RC STUNT CAR
Model:	DSM 3542
Standards:	FCC PART 15, SUBPART C : 2002
Date of Receipt:	29 March 2004
Date of Test:	30 March to 21 April 2004
Date of Issue:	23 April 2004

Test Result :	**PASS ***

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Kent Hsu
Laboratory Manager
SGS-CSTC Co.,Ltd.

2 Contents

3 General Information

3.1 Client Information

Applicant Name:	LITTLE DOLPHIN TOY INDUSTRY LTD.
Applicant Address:	ZHENXING ROAD INDUSTRY AREA, CHENGHAI, GUANGDONG, CHINA.

3.2 Details of E.U.T.

Product Name:	TOY-RC STUNT CAR (Transmitter Part)
Model:	DSM 3542
Power Supply:	9V DC (1 x “6F22” Size Battery) for the transmitter;
Power Cord:	None

3.3 Description of Support Units

The EUT was tested as an independent unit: a 49.86 MHz radio transmitter.

3.4 Test Location

All tests were performed at:-

SGS-CSTC Standards Technical Services Ltd., Guangzhou Safety & EMC Laboratory, 1/F, Building No. 1, Agriculture Machinery Materials Company Warehouse Ltd., Wushan Road Shipai, Tianhe District, Guangzhou, China. P.C. 510630.

Tel: +86 20 3848 1001

Fax: +86 20 3848 1006

3.5 Other Information Requested by the Customer

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3.6 Test Facility

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

- **NVLAP – Lab Code: 200611-0**

  SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 2000611-0. Effective through December 31, 2003.

- **ACA**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

- **VCCI**

  The 3m Semi-anechoic chamber and Shielded Room (11.5m x 4m x 4m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-1599 and C-1706 respectively.

  Date of Registration: February 28, 2003. Valid until May 30, 2005

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FINKO**

  Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAL – LAB Code: L0141**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of Testing Laboratories.

- **FCC – Registration No.: 282399**

  SGS-CSTC Standards Technical Services 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 282399, May 31, 2002. With the above and NVLAP, SGS-CSTC is an authorized test laboratory for the DoC process.

4 Test Results

4.1 Test Instruments

Test Equipment	Manufacturer	Model	Asset No.	Cal. Due Date
3m Semi- Anechoic Chamber	Frankonia	3m method	EMC0501	15-02-2005
EMI Test Receiver	Rohde & Schwarz	ESCS30	EMC0506	15-02-2005
Bilog Type Antenna	Schaffner Chase	CBL6143	EMC0519	17-01-2005
Coaxial cable	SGS-CSTC	10m	EMC0514	04-11-2004
Temperature, Humidity & Barometer	Oregon Scientific	BA-888	EMC0003	24-07-2004

4.2 E.U.T. Operation

Input voltage: 9V DC (1 x "6F22" Size Battery) for the transmitter;

Operating Environment:

Temperature: 23.0 °C
Humidity: 60 % RH
Atmospheric Pressure: 1010 mbar

EUT Operation: Test the EUT in transmitting mode.

4.3 Test Procedure & Measurement Data

4.3.1 Radiated Emissions

Test Requirement: FCC Part15 C Section 15.235
Test Method: ANSI 63.4
Test Date: 21 April 2004 (Final test)
Measurement Distance: 3m (Semi-Anechoic Chamber)
Requirements: Carrier frequency will not exceed 80dBuV/m AT 3m.
Out of band emissions shall not exceed:
40.0 dBμV/m between 30MHz & 88MHz
43.5 dBμV/m between 88MHz & 216MHz
46.0 dBμV/m between 216MHz & 960MHz
54.0 dBμV/m above 960MHz
Detector: Peak Scan (120kHz resolution bandwidth)

Test Procedure: The procedure uesd was ANSI Standard C63.4-2001. The receive was scanned from 30MHz to 1000MHz.When an emission was found,the table was roated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes.The worst case emissions were reported.

The following measurements were performed on the EUT on 21 April 2004:
Test the EUT in transmitting mode.
Intentional emission

Test Frequency (MHz)	Peak (dBuV/m)		Limits (dBμV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
49.860	72.0	57.1	100.0	8.0	22.9

Test Frequency (MHz)	Average (dBuV/m)		Limits (dBμV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
49.860	64.9	48.8	80.0	15.1	31.2

Other emissions

Test Frequency (MHz)		Quasi-Peak (dBuV/m)		Limits (dBuV/m)	Margin (dB)	
		Vertical	Horizontal		Vertical	Horizontal
2nd	99.720	38.2	38.2	43.5	6.2	5.3
3rd	149.580	36.3	36.3	43.5	12.2	7.2
4th	199.440	18.6	18.6	43.5	24.9	24.9
5th	249.300	23.2	23.2	46.0	4.2	22.8
6th	299.160	21.3	21.3	46.0	4.8	24.7
7th	349.020	25.3	25.3	46.0	16.7	20.7
8th	398.880	24.2	24.2	46.0	21.8	21.8
9th	448.740	23.3	23.3	46.0	22.7	22.7
10th	498.600	23.1	23.1	46.0	24.7	22.9

Test Results: The unit does meet the FCC Part 15 C requirements.

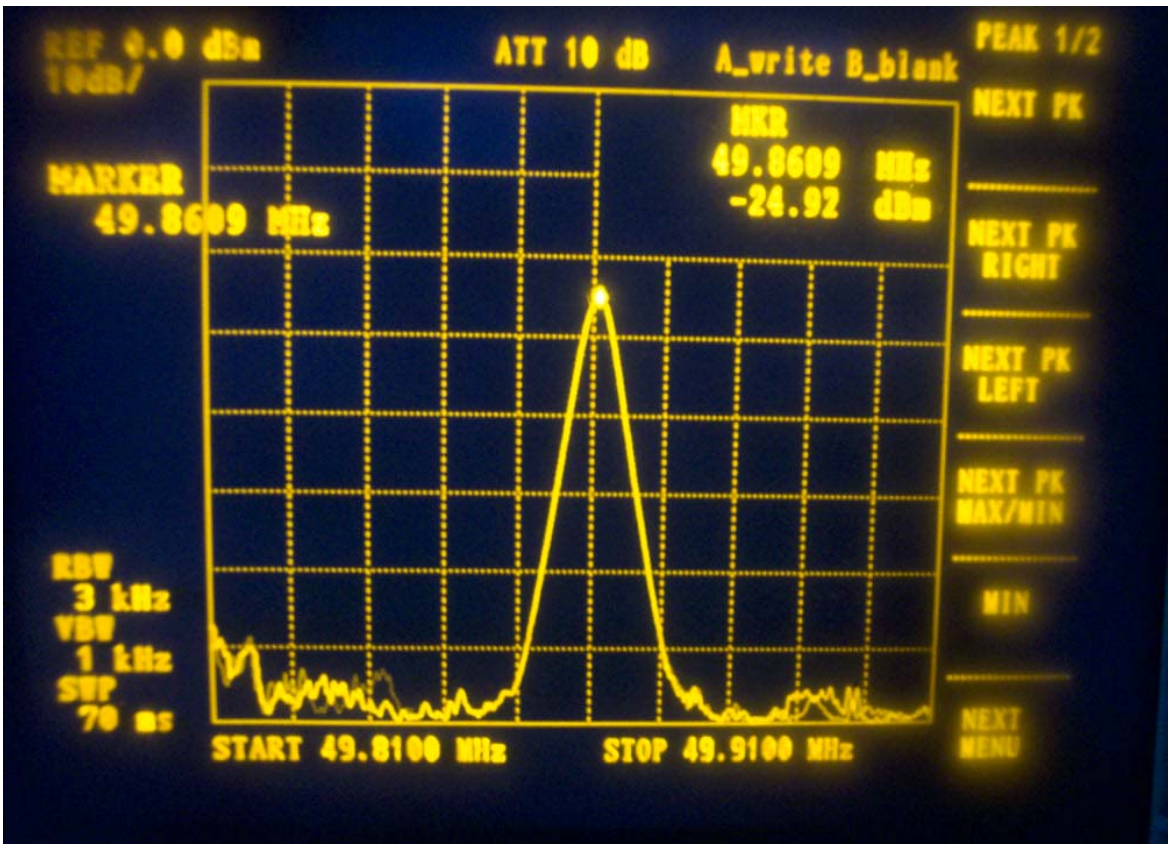
4.3.2 Occupied Bandwidth

Test Requirement:	FCC Part15 C Section 15.235
Test Method:	ANSI 63.4
	Operation within the band 49.82 – 49.90 MHz
Test Date:	21 April 2004

Requirements: The field strength of any emissions appearing between the band edges and up to 10 kHz above and below the band edges shall be attenuated at least 26 dB below the level of the unmodulated carrier or to the general limits in Section 15.209, whichever permits the higher emission levels. The field strength of any emissions removed by more than 10 kHz from the band edges shall not exceed the general radiated emission limits in Section 15.209

Method of measurement: The useful radiated emission from the EUT was detected by the spectrum analyer with peak detector. The vertical Scale is set to –10dB per division. The horizontal scale is set to 5KHz per division.

The graph as below, represents the emissions take for this device.



The results: The unit does meet the FCC Part 15 C requirements.