

No.198 Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China 510663 Telephone: +86 (0) 20 8215 5555 Fax: +86 (0) 20 8207 5059 Email: sqs_internet_operations@sqs.com

FEDERAL COMMUNICATIONS COMMISSION

Registration number: 556682

Report No.: SZEMO080602436TX

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FCC ID: UKK13502745657

TEST REPORT

SZEMO080602436TX

Application No.:

Applicant:

SHANTOU CITY CHENGHAI AEAR SONGY ANG PLASTIC TOYS

CO., LTD

FCC ID: UKK13502745657

Fundamental Frequency: 27.145MHz

Equipment Under Test (EUT):

Name: R/C CAR

Item No.: Please refer to section 2 of this report which indicates which item was

actually tested and which were electrically identical.

Standards: FCC PART 15, SUBPART C : 2007

Date of Receipt: 04 June 2008

Date of Test: 04 to 19 June 2008

Date of Issue: 20 June 2008

Zangus Caris

Test Result : PASS *

Authorized Signature:

Robinson Lo Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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



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2 Test Summary

Test	Test Requirement	Stanadard Paragraph	Result
Radiated Emission (30MHz to 1000MHz)	FCC PART 15 :2007	Section 15.227	PASS
Occupied Bandwidth	FCC PART 15 :2007	Section 15.215	PASS

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radiated Frequency.

Remark: New batteries were installed in the EUT during all tests.

Item No.: SY.6803-14HH SY.6803-15HH SY.6803-14S SY.6803-15S SY.6803-62 SY.6803-62H SY.6803-63 SY.6803-63H SY.6803-64H SY.6803-64 SY.6803-14 SY.6803-15 SY.6803-61H SY.6803-34T SY.6803-35T SY.6803-33T SY.6803-36T SY.6803-33 SY.6803-34 SY.6803-35 SY.6803-36 SY.6803-33A SY.6803-34A SY.6803-35A SY.6803-36A SY.6803-61 SY.6803-9HH SY.6803-12HH SY.6803-6HH SY.6803-8HH SY.6803-7HH SY.6803-59H SY.6803-6S SY.6803-7S SY.6803-8S SY.6803-9S SY.6803-12s sy.6803-59 sy.6803-65 SY.6803-65H SY.6803-66 SY.6803-66H SY.6803-67 SY.6803-67H SY.6803-68 SY.6803-68H SY.6803-55T SY.6803-54T SY.6803-32T SY.6803-31T SY.6803-30T SY.6803-50T SY.6803-58T SY.6803-51T SY.6803-57T SY.6803-53T SY.6803-52T SY.6803-56T SY.6803-51A SY.6803-52A SY.6803-53A SY.6803-54A SY.6803-55A SY.6803-56A SY.6803-57A SY.6803-58A SY.6803-30A SY.6803-31A SY.6803-32A SY.6803-50A SY.6803-50 SY.6803-51 SY.6803-52 SY.6803-53 SY.6803-54 SY.6803-55 SY.6803-56 SY.6803-57 SY.6803-30 SY.6803-31 SY.6803-32 SY.6803-58 SY.6803-22S SY.6803-20 SY.6803-20A SY.6803-21 SY.6803-21A SY.6803-21H SY.6803-22A SY.6803-22 SY.6803-22H SY.6803-21S SY.6803-23 SY.6803-18 SY.6803-23B SY.6803-24 SY.6803-37TT SY.6803-40TT SY.6803-38TT SY.6803-39TT SY.6803-23A SY.6803-37 SY.6803-38 SY.6803-39 SY.6803-40 SY.6803-37A SY.6803-38A SY.6803-39A SY.6803-40A SY.6803-46H SY.6803-41H SY.6803-44H SY.6803-47H SY.6803-49H SY.6803-16H SY.6803-43H SY.6803-42H SY.6803-48H SY.6803-29H SY.6803-17H SY.6803-45H SY.6803-16S SY.6803-17S SY.6803-29S SY.6803-41 SY.6803-42 SY.6803-43 SY.6803-44 SY.6803-45 SY.6803-46 SY.6803-47 SY.6803-48 SY.6803-49 SY.6803-16HH SY.6803-17HH SY.6803-29HH SY.6803-41HH SY.6803-42HH SY.6803-43HH SY.6803-44HH SY.6803-45HH SY.6803-46HH SY.6803-47HH SY.6803-48HH SY.6803-49HH SY.6803-28TT SY.6803-13TT SY.6803-11TT SY.6803-60T SY.6803-27TT SY.6803-25TT SY.6803-26TT SY.6803-25 SY.6803-26 SY.6803-27 SY.6803-28 SY.6803-11 SY.6803-13 SY.6803-25A SY.6803-26A SY.6803-27A SY.6803-28A SY.6803-11A SY.6803-13A SY.6803-60 SY.6803-25P SY.6803-26P SY.6803-27P SY.6803-28P SY.6803-60A SY.6803-25S SY.6803-26S SY.6803-27S SY.6803-28S

Only the item SY.6803-14HH was tested, since the electrical circuit design, layout, component used and internal wiring were identical for the above items, with only difference being the outer decoration.



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4 General Information

4.1 Client Information

Applicant: SHANTOU CITY CHENGHAI AEAR SONGY ANG PLASTIC TOYS

CO., LTD.

Address of Applicant: HUAINAN ROAD LIANXIA TOWN CHENGHAI, AREA, SHANTOU

CITY GUANGDONG CHINA

4.2 Details of E.U.T.

Power Supply: 9.0V DC (1 * 9.0V '6F22' Size Battery) for Tx;

Power Cord: N/A-

4.3 Description of Support Units

The EUT was tested as an independent unit: 27MHz radio transmitter.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, No.198 Kezhu Road, Science Town Economic & Technology Development District Guangzhou, China 510663

Tel: +86 20 8215 5555 Fax: +86 20 8207 5059

4.5 Other Information Requested by the Customer

None.



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5 Test Results

5.1 Test Instruments

F	R&TTE RE in Chamber									
Item	n Test Equipment Manufacturer		Model No. Inver		Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)				
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	16-06-2007	15-06-2009				
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	12-12-2007	11-12-2008				
3	EMI Test software	AUDIX	E3	SEL0050	N/A	N/A				
4	Coaxial cable	SGS	N/A	SEL0028	18-06-2008	17-06-2009				
5	Coaxial cable	SGS	N/A	SEL0027	18-06-2008	17-06-2009				
6	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0014	12-08-2008	11-08-2009				
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	18-06-2008	17-06-2009				
8	Active Loop Antenna Beijing Daze		ZN30900A	SEL0097	15-06-2008	14-06-2009				

5.2 E.U.T. Operation

Operating Environment:

Temperature: 26.0 °C
Humidity: 51% RH
Atmospheric Pressure: 1004mbar

EUT Operation: Test the EUT in transmitting mode.

5.3 Test Procedure & Measurement Data

5.3.1 Radiated Emissions

Test Requirement: FCC Part15 C Section 15.227

Test Method: ANSI C63.4

Measurement Distance: 3m (Semi-Anechoic Chamber)

Requirements: Carrier frequency will not exceed 80dBuV/m AT 3m.

Out of band emissions shall not exceed: $40.0~dB\mu V/m$ between 30MHz & 88MHz $43.5~dB\mu V/m$ between 88MHz & 216MHz $46.0~dB\mu V/m$ between 216MHz & 960MHz

54.0 dBµV/m above 960MHz

Detector: Peak Scan (9kHz resolution bandwidth for 9kHz to 30MHz;

120kHz resolution bandwidth for 30MHz to 1000MHz)



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Test Procedure:

- 1. The EUT is placed on a turntable, which is 0.8m above ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level
- 3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.
- 7 The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

27.145MHz Mode.

Test Procedure: For testing performed with the loop antenna, testing was performed in accordance to ANSI C63.4 section 8.2.1. The The center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specied distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

Horizontal.

Test Frequency	Peak (dBmV/m)	Limits	Margin (dB)	
(MHz)	X	(dBmV/m)	X	
27.145	58.7	100.0	41.3	

Test Frequency	Aerage (dBmV/m)	Limits	Margin (dB)	
(MHz)	X	(dBmV/m)	Χ	
27.145	56.1	80.0	23.9	

Vertical.

Test Frequency	Peak (dBmV/m)	Limits	Margin (dB)	
(MHz)	X	(dBmV/m)	X	
27.145	52.9	100.0	47.1	

Test Frequency	Peak (dBmV/m)	Limits	Margin (dB)	
(MHz)	X	(dBmV/m)	X	
27.145	48.9	80.0	31.1	

Y: EUT as per photograph in section 5.3.3 of this report.

X: As Y, but rotate EUT by 90° clockwise.

Z: As X, but rotate EUT by 90° vertically.



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Other emissions

Test the EUT in transmitting mode.

Horizontal.

i ionzoniai.							
Frequency	Cable	Antenna	Preamp	Read	Level	Limit	0ver
	Loss	Factor	Factor	Level		Line	Limit
(MHz)	(dB)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
54.250	0.80	7.92	28.08	31.01	11.65	40	-28.35
78.625	1.06	7.61	28.00	30.37	11.04	40	-28.96
140.050	1.30	8.10	27.52	26.81	8.69	43.5	-34.81
187.825	1.38	10.06	27.22	25.77	9.99	43.5	-33.51
241.450	1.63	12.04	26.95	25.27	11.99	46	-34.01

Vertical.

v ertical.	1			1	ı	1	1
Eroguenov	Cable	Antenna	Preamp	Read	Level	Limit	0ver
Frequency	Loss	Factor	Factor	Level		Line	Limit
(MHz)	(dB)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)
54.250	0.80	7.64	28.08	49.48	29.84	40	-10.16
78.625	1.06	7.61	28.00	46.62	27.29	40	-12.71
105.925	1.22	8.81	27.82	34.39	16.60	43.5	-26.90
160.525	1.34	9.59	27.38	29.38	12.93	43.5	-30.57
188.800	1.38	10.07	27.21	28.27	12.51	43.5	-30.99
242.425	1.64	12.07	26.95	32.74	19.50	46	-26.50

Remark:

According to 15.35 (b) When average radiated emission measurements are specified in the regulations, including emission measurements below 1000 MHz, there is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules, e.g., see Section 15.255.

Test Results: The unit does meet the FCC Part 15 C Section 15.227 requirements.



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5.3.2 Occupied Bandwidth

Test Requirement: FCC Part 15 C Section 15.215 (C) and Section 15.227.

Test Method: ANSI C63.4

Operation within the band 26.960 - 27.280 MHz.

Modulation Signal AM

26.960-27.280MHz Mode.

Requirements: Intentional radiators operating under the alternative provisions

to the general emission limits, as contained in §§ 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 is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the 20 dB bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of

out-of-band operation.

Method of measurement: The useful radiated emission from the EUT was detected by

the spectrum analyser with peak detector. The vertical Scale

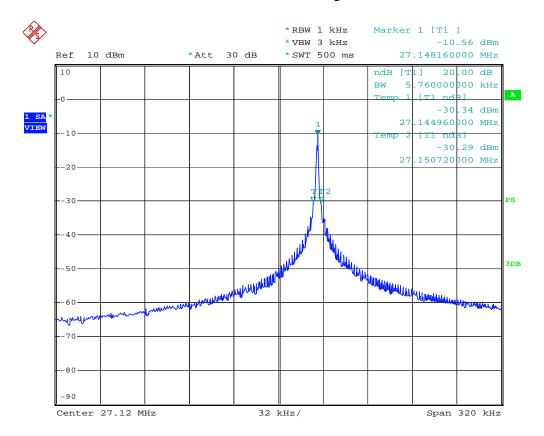
is set to 10dB per division. The horizontal scale is set

to32KHz per division. The EUT tested under modulation signal.



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Date: 6.JUN.2008 09:42:08

The results: The unit does meet the FCC Part 15 C Section 15.215 requirements