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FEDERAL COMMUNICATIONS COMMISSION

Registration number: 282399

Report No.: GLEMR070200326RFI

Page: 1 of 9

FCC ID: U2SSDZ8863993

TEST REPORT

Application No. : GLEMR070200326RF
Applicant: SHAN TOU CITY CHENG HAI DISTRICT SAN DA ZHU WRAPPER
CO., LTD
FCC ID: U2SSDZ8863993

**Fundamental
Frequency :** 27.145MHz

Equipment Under Test (EUT):

Name: R/C PLANE SERIES
Model No.: 886-3, 886, 3993, 886-8, 886-8A, 3993-43A, 3993-58, 3993-43B,
3993-39A, 3993-8♣

♣

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 : 2006
Section 15.227

Date of Receipt: 07 February 2007

Date of Test: 09 to 15 February 2007

Date of Issue: 16 February 2007

Test Result :	PASS *
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* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Jerry Chen
Manager

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. 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.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All test results in this report can be traceable to National or International Standards.

2 Test Summary

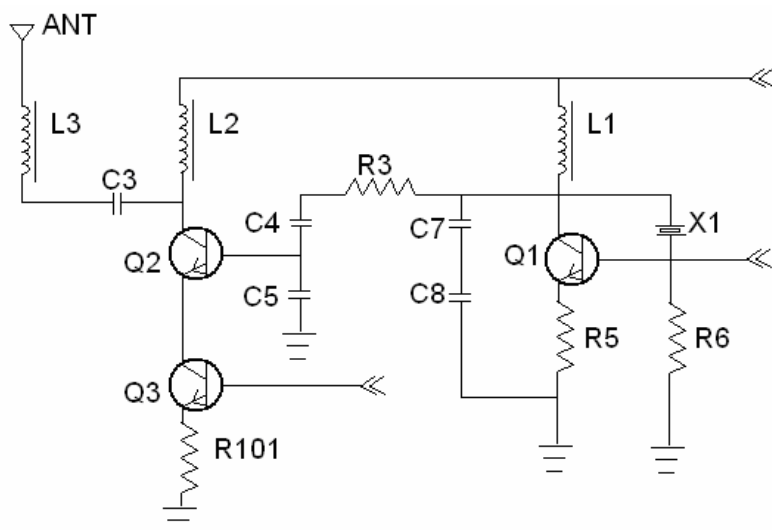
Test	Test Requirement	Standard Paragraph	Result
Radiated Emission (30MHz to 1000MHz)	FCC PART 15 :2006	Section 15.227	PASS ①
Occupied Bandwidth	FCC PART 15 :2006	Section 15.215	PASS

Remark:

①The EUT passed Radiated Emission test after the modification as shown as the below:

1. Added Resistor R₁₀₁ :75ohm
2. Changed C₄ to 0.1uF.
3. Changed C₅ to 1nF.

Please refer the section 6 of this report and circuit diagram for the detail.



♣ Model No.:886-3, 886, 3993, 886-8, 886-8A, 3993-43A, 3993-58, 3993-43B, 3993-39A, 3993-8

Only the item 886-3 was tested, According to the confirmation from the applicant (manufacturer) , since the electrical circuit design, layout, components used and internal wiring were identical for the above items, with only difference being the item no..



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4 General Information

4.1 Client Information

Applicant Name: SHAN TOU CITY CHENG HAI DISTRICT SAN DA ZHU WRAPPER CO., LTD

Applicant Address: North of the Lian Yang Bridge, Lian Xia Town, Cheng Hai District, Shan Tou City, Guang Dong, P.R.China

4.2 Details of E.U.T.

Name: R/C PLANE SERIES

Model No.: 886-3,886, 3993, 886-8, 886-8A, 3993-43A, 3993-58, 3993-43B, 3993-39A, 3993-8

Power Supply: 9V DC (6 x 'AA' Size Batteries)

Power Cord: N/A-

4.3 Description of Support Units

The EUT was tested as an independent unit: a 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 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

4.5 Other Information Requested by the Customer

None.



4.6 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: 200611-0.

- **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.

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

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

- **CNAS L0167**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 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's accreditation, SGS-CSTC is an authorized test laboratory for the DoC process.

- **Industry Canada (IC)**

The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620B-1.

Date of Registration: Jan 15, 2007. Valid until Jan 15, 2009

- **VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460 and C-2584 respectively.

This certificate is valid until September 14, 2009



5 Test Results

5.1 Test Instruments

RE in Chamber/OATS						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0525	Impact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	06-03-2006	06-03-2007
EMC0525	Compact chamber	ZhongYu	N/A	N/A	20-12-2005	20-12-2006
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	05-12-2005	05-12-2006
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2005	04-12-2006
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	16-01-2006	16-01-2007
EMC0518	Horn Antenna	Rohde & Schwarz	HF906	100096	10-05-2005	09-05-2006
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2005	05-12-2006
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A0625 2	06-03-2006	06-03-2007
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A0164 9	06-03-2006	06-03-2007
EMC0523	Active Loop Antenna	EMCO	6502	00042963	14-01-2006	14-01-2007
EMC0529	10m Open Site	ZhongYu	N/A	N/A	26-12-2005	26-12-2006



5.2 E.U.T. Operation

Input voltage:	9V DC (6 x 'AA Size Batteries)
Operating Environment:	
Temperature:	25.0 °C
Humidity:	50 % RH
Atmospheric Pressure:	1013 mbar
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 section 8 & 13
Test Date:	09 February 2007(Initial Test) 15 February 2007(Final Test)
Measurement Distance:	3m (Semi-Anechoic Chamber and OATS)
Requirements:	Carrier frequency will not exceed 80dBuV/m at 3m. Out of band emissions shall not exceed: 40.0 dB μ V/m between 30MHz & 88MHz 43.5 dB μ V/m between 88MHz & 216MHz 46.0 dB μ V/m between 216MHz & 960MHz 54.0 dB μ V/m above 960MHz
Detector:	Peak Scan (120kHz resolution bandwidth)



Test Procedure: The procedure used was ANSI Standard C63.4-2003. The receive was scanned from 30MHz to 1000MHz. When an emission was found, the table was rotated 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.

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Active loop antenna and Bilog antenna with 2 orthogonal polarities

The following measurements were performed on the EUT on 15 February 2007:

Test the EUT in transmitting mode.

Intentional emission

Test Frequency (MHz)	Peak (dB μ V/m)		Limits (dB μ V/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
27.145	74.4	53.0	100.0	25.6	47.0

Test Frequency (MHz)	Average (dB μ V/m)		Limits (dB μ V/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
27.145	72.4	50.7	80.0	7.6	29.3

Other emissions

Test Frequency (MHz)	Quasi-Peak (dB μ V/m)		Limits (dB μ V/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
54.290	34.0	10.3	40.0	6.0	29.7
81.435	11.4	8.9	40.0	28.6	31.1
108.590	12.9	11.8	43.5	30.6	31.7
138.500	14.4	11.1	43.5	29.1	32.4
165.345	11.1	9.5	43.5	32.4	34.0
192.625	13.0	8.9	43.5	30.5	34.6
217.160	11.8	9.5	46.0	34.2	36.5
244.305	11.8	11.2	46.0	34.2	34.8
271.450	13.5	11.4	46.0	32.5	34.6

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.

5.3.2 Occupied Bandwidth

Test Requirement: FCC Part 15 C Section 15.215 (C)

Test Method: ANSI C63.4 section 13 & FCC Part 2.1049

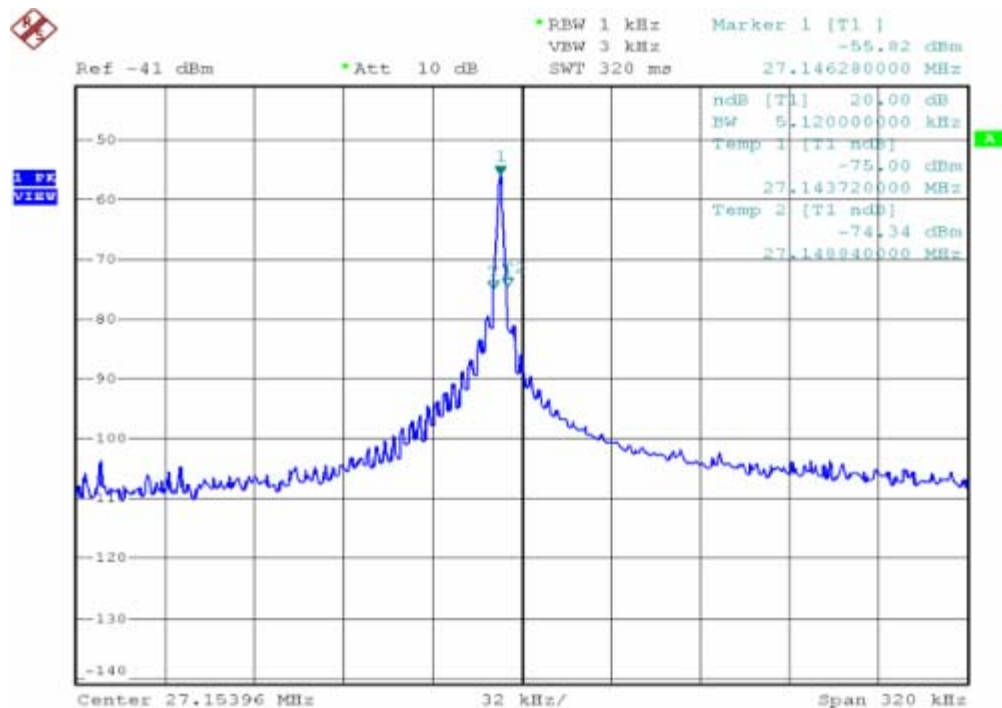
Operation within the band 26.960 – 27.280 MHz

Test Date: 15 February 2007

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 to 5KHz per division.

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



Date: 15.FEB.2007 08:42:59

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