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FEDERAL COMMUNICATIONS COMMISSION
Registration number: 556682

TEST REPORT

Application No. : SZEMO080502188TX
Applicant : SHAN TOU XINHAI PLASTIC CO., LTD
FCC ID : V3M01049M
Fundamental Frequency : 49.860MHz
Equipment under Test (EUT):

EUT Name : R/C HELICOPTER
Item No. : MAW010B/ 010B1/ 010B2/ 010D♣
♣ 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
Section 15.235
Date of Receipt : 26 May 2008
Date of Test : 26 May to 13 June 2008
Date of Issue : 13 June 2008

Test Result :	**PASS ***

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

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.
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	Stanadard Paragraph	Result
Radiated Emission (30MHz to 1000MHz)	FCC PART 15 :2007	Section 15.235 15.209	PASS
Occupied Bandwidth	FCC PART 15 :2007	Section 15.235	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:

Item No.: MAW010B/ 010B1/ 010B2/ 010D

Only the Item in the picture 5.3 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above items.

3 Contents

4 General Information

4.1 Client Information

Applicant: SHAN TOU XINHAI PLASTIC CO., LTD

Address of Applicant: 5/ F ANHUA BUILDING No. 64 HENGSHAN RD. SHANTOU CHINA

4.2 Details of E.U.T.

Power Supply: 12 V DC (8* 1.5V “AA” Size Batteries) for Tx

4.3 Description of Support Units

The EUT was tested as an independent unit: a 49MHz 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.

5 Test Results

5.1 Test Instruments

R&TTE RE in Chamber						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**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	01-06-2008	31-05-2009
5	Coaxial cable	SGS	N/A	SEL0027	01-06-2008	31-05-2009
6	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0014	12-08-2007	11-08-2008
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	27-06-2007	26-06-2008
8	Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	15-06-2007	28-06-2008

5.2 E.U.T. Operation

Input voltage: 12 V DC (8* 1.5V “AA” Size Batteries) for the transmitter.

Operating Environment:

Temperature: 23.0 °C

Humidity: 52 % RH

Atmospheric Pressure: 1015 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 15.235&15.209

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 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: RBW=120kHz

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 varied from 1m to 4m to find out the highest 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.

The following measurements were performed on the modified modified EUT on 08 June 2008:
Test the EUT in transmitting mode.

Intentional emission

Test Frequency (MHz)	Peak (dBμV/m)		Limits (dBμV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
49.860	64.83	43.88	100.0	35.17	56.12

Test Frequency (MHz)	Average (dBμV/m)		Limits (dBμV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
49.860	60.26	40.45	80.0	19.74	39.55

Other emissions

Vertical

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)
97.900	1.18	9.02	27.89	39.00	21.31	43.50	-22.19
148.340	1.32	8.86	27.47	41.66	24.37	43.50	-19.13
198.780	1.40	10.19	27.16	37.64	22.07	43.50	-21.43
249.220	1.67	12.27	26.92	42.04	29.06	46.00	-16.94
297.720	1.89	13.81	26.73	47.14	36.11	46.00	-9.89
348.160	2.05	15.37	27.07	45.12	35.47	46.00	-10.53

Horizontal

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)
148.340	1.32	8.86	27.47	33.14	15.85	43.50	-27.65
249.220	1.67	12.27	26.92	32.97	19.99	46.00	-26.01
297.720	1.89	13.81	26.73	42.87	31.84	46.00	-14.16
347.190	2.05	15.34	27.07	45.20	35.52	46.00	-10.48
397.630	2.20	16.27	27.39	41.74	32.82	46.00	-13.18
447.100	2.40	16.84	27.56	36.22	27.90	46.00	-18.10

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 imit 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 15.235 requirements.

5.3.2 Occupied Bandwidth

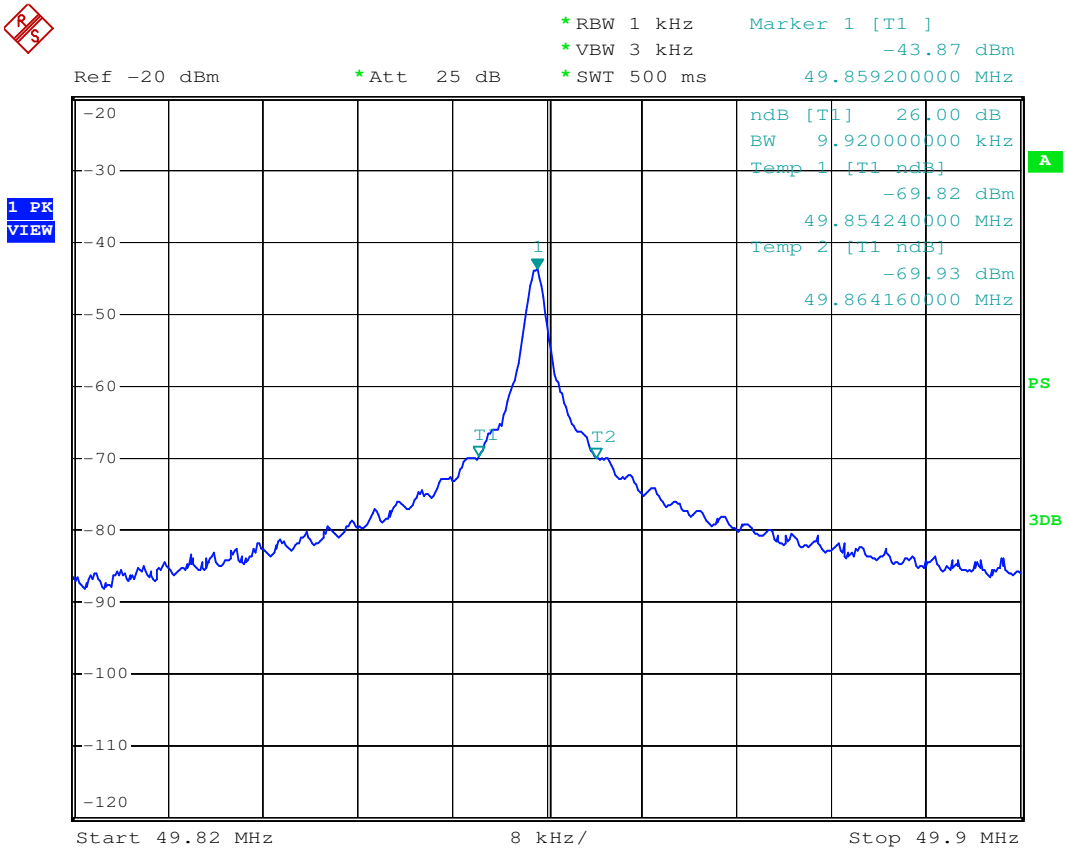
Test Requirement: FCC Part15 C Section 15.235

Test Method: ANSI C63.4

Requirements: Operation within the band 49.82-49.90 MHz
(a) Emissions from the intentional radiator shall be confined within a band 200 kHz wide centered on the operating frequency. The 200 kHz band shall lie wholly within the frequency range of 88-108 MHz.

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 8KHz per division.

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



Date: 28.MAY.2008 13:59:05

The results: The unit does meet the FCC Part 15 C Section 15.235 requirements.