

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan
District Shenzhen, China 518057

Telephone: +86 (0) 755 2601 2053
Fax: +86 (0) 755 2671 0594
Email: sgs_internet_operations@sgs.com

Report No.:SZEM110900387001
Page: 1 of 9

FCC Test Report

Application No.: SZEM1109003870RF

Applicant: SMILOR INDUSTRIAL CO., LIMITED

Address of Applicant: Ximen Indsustrial Area, Chenghai, Shantou City, Guangdong, China

FCC ID: Z2P20119870403

Equipment Under Test (EUT):

EUT Name: RADIO CONTROL FLYING FISH

Model No.: SMB170 SMB170A/B/C/D/E/F 1967A/B/C/D/E/F 1968A/B/C/D/E/F
1969A/B/C/D/E/F 1970A/B/C/D/E/F 1971A/B/C/D/E/F 1972A/B/C/D/E/F
1973A/B/C/D/E/F 1974A/B/C/D/E/F 1975A/B/C/D/E/F 1976A/B/C/D/E/F
1977A/B/C/D/E/F 1978A/B/C/D/E/F 1979A/B/C/D/E/F 1980A/B/C/D/E/F
1981A/B/C/D/E/F 1982A/B/C/D/E/F 1983A/B/C/D/E/F♦

♦ 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 B : 2010

Date of Receipt: 2011-09-26

Date of Test: 2011-09-30

Date of Issue: 2011-10-12

Test Result :	PASS*
----------------------	--------------

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

Authorized Signature:



Jack Zhang
EMC 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.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only

2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 1GHz)	FCC PART 15, SUBPART B: 2010	FCC Part 15.109	Class B	PASS
Conducted Emission (150kHz to 30MHz)	FCC PART 15, SUBPART B: 2010	FCC Part 15.107	Class B	N/A

Remark:

Model No.: SMB170 SMB170A/B/C/D/E/F 1967A/B/C/D/E/F 1968A/B/C/D/E/F 1969A/B/C/D/E/F
1970A/B/C/D/E/F 1971A/B/C/D/E/F 1972A/B/C/D/E/F 1973A/B/C/D/E/F 1974A/B/C/D/E/F
1975A/B/C/D/E/F 1976A/B/C/D/E/F 1977A/B/C/D/E/F 1978A/B/C/D/E/F 1979A/B/C/D/E/F
1980A/B/C/D/E/F 1981A/B/C/D/E/F 1982A/B/C/D/E/F 1983A/B/C/D/E/F

Only the model No.SMB170 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for all above models, the only different on color of appearance, packaging and model number.

3 Contents

	Page
1 COVER PAGE	1
2 TEST SUMMARY	2
3 CONTENTS	3
4 GENERAL INFORMATION.....	4
4.1 DETAILS OF E.U.T.	4
4.2 DESCRIPTION OF SUPPORT UNITS	4
4.3 TEST LOCATION.....	4
4.4 TEST FACILITY.....	5
4.5 CLIMATIC CONDITIONS	5
4.6 DEVIATION FROM STANDARDS	5
4.7 ABNORMALITIES FROM STANDARD CONDITIONS.....	5
5 EQUIPMENTS USED DURING TEST	6
6 EMISSION TEST RESULTS.....	7
6.1 RADIATED EMISSIONS, 30MHz TO 1GHz	7
6.1.1 E.U.T. Operation.....	7
6.1.2 Measurement Data.....	7-9

4 General Information

4.1 Details of E.U.T.

Power Supply: 1.5V DC (1.5V x 1 'AAA' Size Battery)
Power Cord: - N/A-

4.2 Description of Support Units

The EUT has been tested as an independent unit.

4.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,
No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China
518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.4 Test Facility

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

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **VCCI**

The 3m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197 and C-2383 respectively.

Date of Registration: September 29, 2008. Valid until September 28, 2011.

- **FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen 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 556682, March 16, 2011

- **Industry Canada (IC)**

The 3m 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.: 4620C-1.

4.5 Climatic Conditions

Temperature:25 °C

Humidity: 50 % RH

Atmospheric Pressure:1004 mbar

4.6 Deviation from Standards

None.

4.7 Abnormalities from Standard Conditions

None.

5 Equipments Used during Test

RE in Chamber					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2012-06-10
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2012-03-11
3	EMI Test software	AUDIX	E3	SEL0050	N/A
4	Coaxial cable	SGS	N/A	SEL0028	2012-05-29
5	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2011-11-09
6	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2012-05-26
7	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2011-11-09
8	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2011-11-09
9	Band filter	Amindeon	Asi 3314	SEL0094	2012-05-26
10	Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	2011-11-09
11	EMI Test Receiver (9K-3GHz)	Rohde & Schwarz	ESCI	SEL0175	2012-05-26
12	Signal Generator	Rohde & Schwarz	SML03	SEL0068	2012-05-26

General used equipment					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)
1	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0102 to SEL0103	2011-11-04
2	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	SEL0101	2012-03-10
3	Barometer	ChangChun	DYM3	SEL0088	2012-05-18

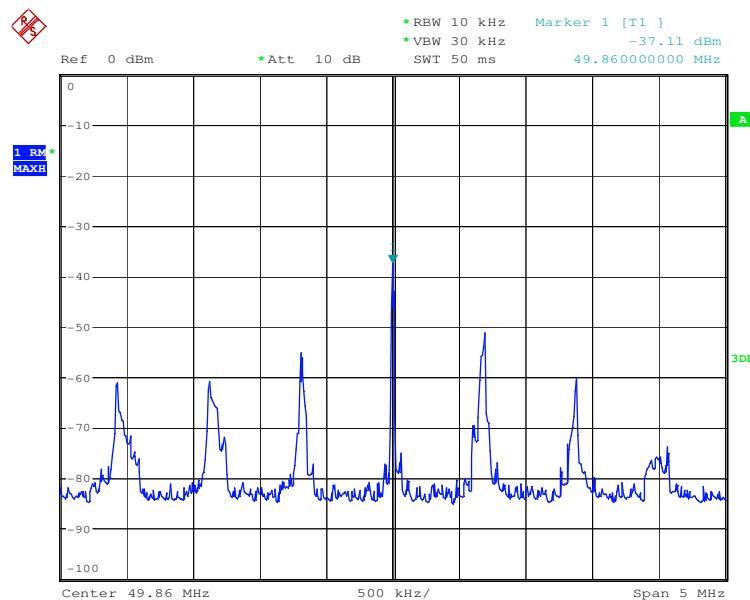
6 Emission Test Results

6.1 Radiated Emissions, 30MHz to 1GHz

Test Requirement:	FCC Part15 B
Test Method:	ANSI C63.4
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m
Class:	Class B
Limit:	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 between 960MHz & 1000MHz
Detector:	Peak for pre-scan (120kHz resolution bandwidth) Quasi-Peak if maximised peak within 6dB of limit

6.1.1 E.U.T. Operation

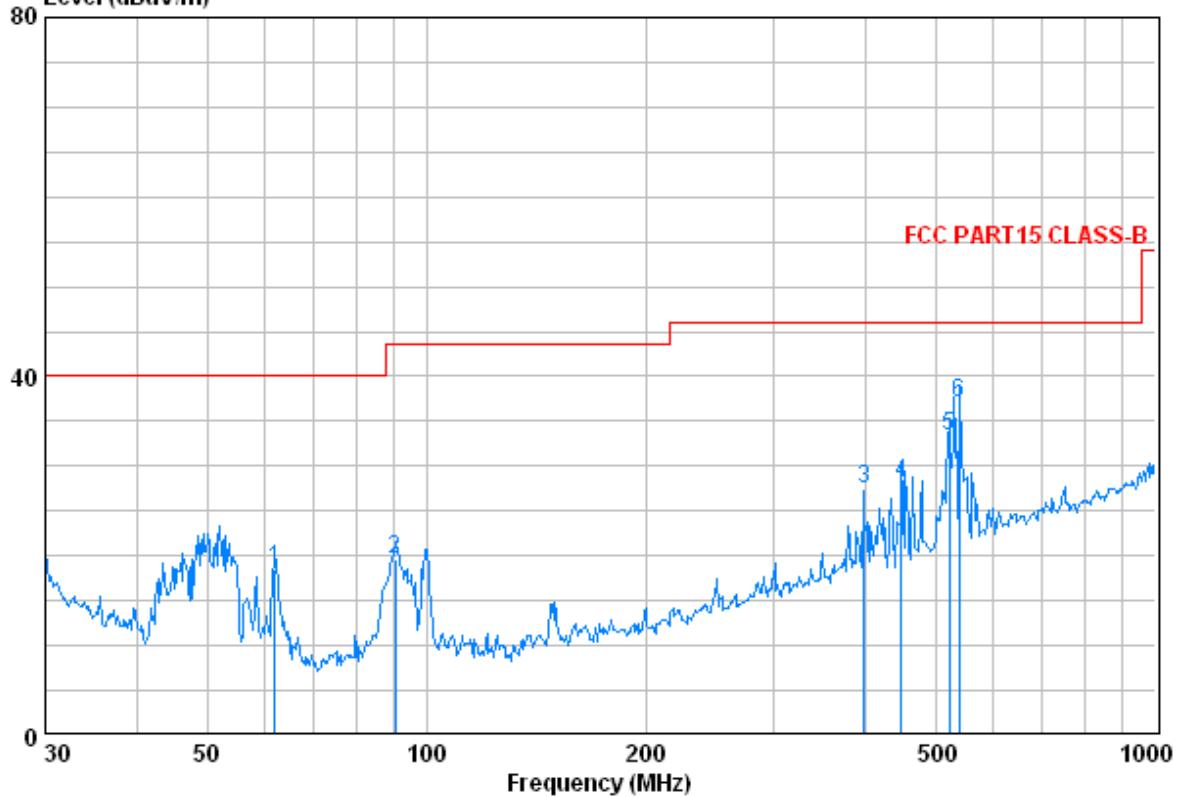
EUT Operation: When the test with a CW signal source to the EUT, keep the EUT in receiving mode.



6.1.2 Measurement Data

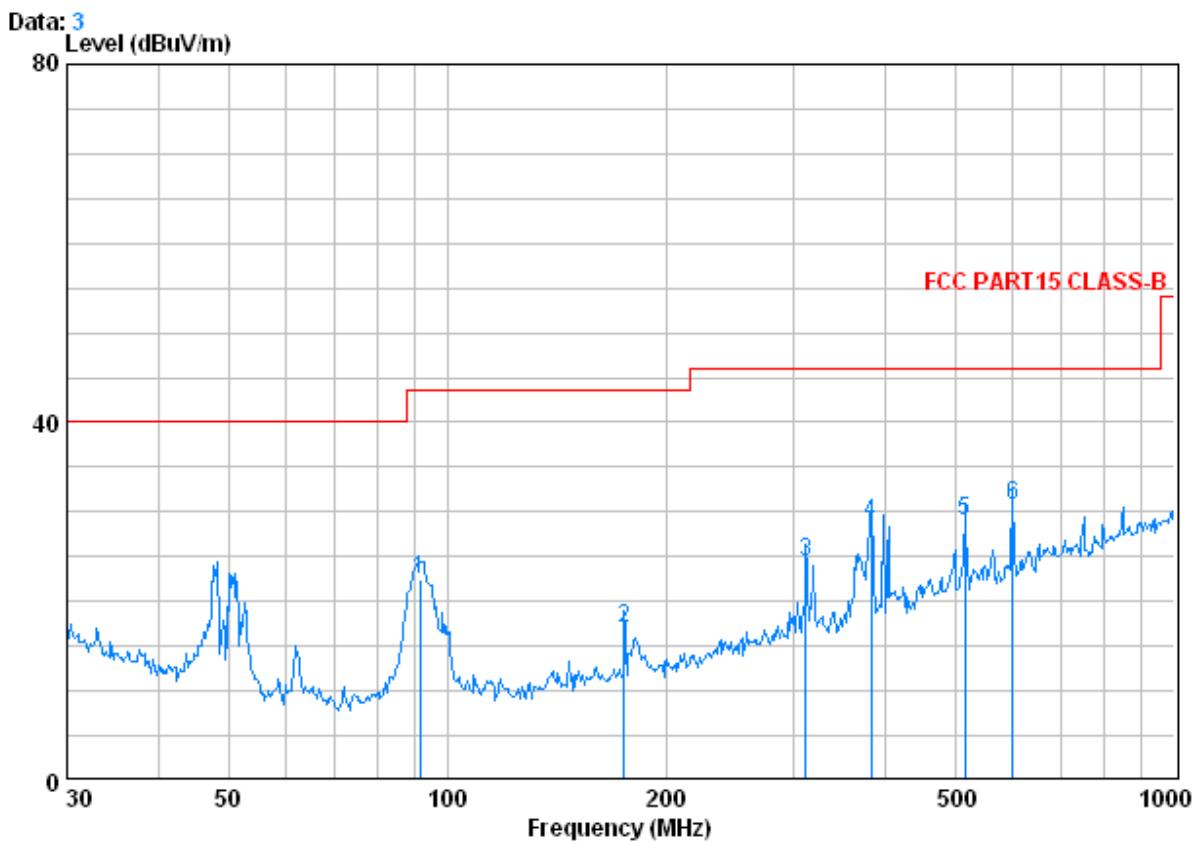
An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.

Vertical:

Data: 4
Level (dBuV/m)


Freq	Cable		Antenna	Preamp	Read	Limit	Line	Over
	Loss	Factor	Factor	Level	Level			
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	61.995	0.80	7.14	27.26	37.89	18.56	40.00	-21.44
2	90.537	1.11	8.73	27.21	36.96	19.58	43.50	-23.92
3	399.030	2.20	16.28	27.13	36.18	27.53	46.00	-18.47
4	447.982	2.40	16.84	27.44	36.27	28.08	46.00	-17.92
5 0	520.888	2.62	18.39	27.66	39.89	33.24	46.00	-12.76
6 0	537.589	2.64	18.72	27.63	43.34	37.06	46.00	-8.94

Horizontal:



Freq	Cable	Antenna	Preamp	Read	Limit	Over		
	Loss	Factor	Factor	Level	Level	Line	Limit	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	91.816	1.12	8.78	27.21	39.81	22.50	43.50	-21.00
2	175.037	1.36	9.71	26.79	32.65	16.93	43.50	-26.57
3	311.087	1.94	14.29	26.48	34.74	24.48	46.00	-21.52
4	382.588	2.15	16.10	27.01	37.54	28.78	46.00	-17.22
5	515.437	2.62	18.23	27.67	35.72	28.90	46.00	-17.10
6 0	599.321	2.70	19.74	27.54	35.89	30.79	46.00	-15.21