

# 國際電器認證中心有限公司 International Electrical Certification Centre Ltd. 提供電器產品測試國際認證及諮詢服務 Technical Services in Electrical Product Testing, International Certification & Information



FCC ID: L9G43910T

**Exhibit 1 - Test Report** 



# F C C TEST REPORT

REPORT NO.: 18060/8/400F



## **FCC – Test Report**

No. 18060/8/400F

Date: 1999-02-02

Page 2 of 11

## FCC listed testlab acc. to Section 2.948 of the FCC - Rules

## in compliance with the requirements of ANSI C63.4 - 1992

Product

R/C Toy Transmitter -- 49 MHz

Transmitter

Model

43910T

Additional Model: 43920T

**Applicant** 

ARTIN INDUSTRIAL CO LTD

Manufacturer:

ARTIN INDUSTRIAL CO LTD



## FCC - Test Report

No. 18060/8/400F

Date: 1999-02-02

Page 3 of 11

#### **TABLE OF CONTENTS**

<ol> <li>Cover sheet</li> </ol>	1		Cover	sheet
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- 2. Introduction
- 3. Table of Contents
- 4. Laboratory Report
- 5. Summary of Testresults
- 6. Test Equipment List
- 7. Radiated Emission Testprocedure
- 8. Interference Radiation (Datasheet)
- 9. Notes for Radiation Measurement (acc. to ANSI C63.4 1992)
- 10. Measurement of Emissions within Band Edges (Datasheet)
- 11. Notes for Measurement of Emissions within Band Edges



## FCC - Test Report

No. 18060/8/400F

Date: 1999-02-02

Page 4 of 11

## LABORATORY - REPORT

APPLICANT:

ARTIN INDUSTRIAL CO LTD

ADDRESS:

2/F, Lee Sum Factory Building

21-25 Sze Mei Street

San Po Kong, Kowloon

HONG KONG

DATE OF SAMPLE RECEIVED: 1998-11-26

DATE OF TESTING:

1999-02-01

#### **DESCRIPTION OF SAMPLE:**

Product:

R/C Toy Transmitter - 49 MHz Transmitter

Manufacturer:

ARTIN INDUSTRIAL CO LTD

Model number:

43910T

Additional Model number: 43920T Rating:

DC 9V ('6F22' Size Battery x 1)

Country of Origin:

P.R. CHINA

**INVESTIGATIONS** 

Measurements to the relevant clauses of F.C.C. Rules and Regulations

**REQUESTED:** 

Part 15 Subpart C - Intentional Radiators

**RESULTS:** 

See the attached test sheets

CONCLUSIONS

From the measurement data obtained, the tested sample was considered to have COMPLIED with the requirements for the relevant clauses of

Federal Communications Commission Rules as specified above.



Remark: Purpose of those tests in this report is to provide the applicant with the necessary test data of their device for the submission to FCC with application for Equipment Authorization under the FCC Equipment Authorization Program. The tests themselves are not Approval Tests



## FCC - Test Report

No. 18060/8/400F

Date: 1999-02-02

Page 5 of 11

## **Summary of Test Results**

#### **Interference Radiation:**

Test resuit:

O.K.

Test data:

See attached data sheet

#### Interference Voltage:

Test result:

N.A.

Test data:

N.A.

#### Measurement of Emissions within Band Edges

Test result:

O.K.

Test data:

See attached data sheet



## **FCC – Test Report**

No. 18060/8/400F

Date: 1999-02-02

Page 6 of 11

## TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial Number	Remark
Test Receiver	Rohde & Schwarz	ESH 3	863497/015	10KHz – 30MHz
Test Receiver	Rohde & Schwarz	ESVP	860688/022	25MHz – 1,300 MHz
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127		2 x 10A, 50Ω, 50μH 10KHz-30MHz
Antenna System	Schwarzbeck	BBA 9106 / UHALP 9107		30MHz – 1000MHz
Antenna Mast System	Schwarzbeck	AM9104		Max. 4 meters height
Spectrum Analyzer with Q. Peak	Tektronix	2712	B023006	9KHz – 1.8GHz
Interface for Spectrum 2712	Tektronix	TD3F14A		
Test Receiver	Rohde & Schwarz	ESH 3	892580/006	10KHz – 30MHz
Test Receiver	Rohde & Schwarz	ESVP	863512/012	25MHz – 1,300 MHz
Impulse Limiter	Rohde & Schwarz	ESH-3-Z2		
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127		2 x 10A, 50Ω, 50μH 10KHz-30MHz
Antenna System	Schwarzbeck	BBA 9106 / UHALP 9107		30MHz – 1000MHz
Signal Generator	Rohde & Schwarz	SWS 2	879113/42	100KHz – 1040 MHz
Digital Multimeter	Tektronix	DM2510G	DM- 2510GTW1055 5	10KHz – 30MHz
Turntable with Controller	Drehtisch	DT312		ф120 cm



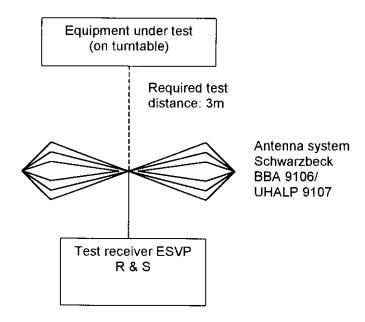
## **FCC – Test Report**

No. 18060/8/400F

Date: 1999-02-02

Page 7 of 11

### **Radiated Emission Test Procedure**





## Interference Radiation

Measurement of Radiated Emissions (30MHz-1000MHz)

International Electrical Certification Centre Ltd.

Acc: FCC Part 15 Subpart C

IECC Ref: 18060/8/400F

Model: 43910T

Applicant: ARTIN INDUSTRIAL CO LTD

Ser.Nr.: 1

Set under test: R/C Toy Transmitter

Connected sets:

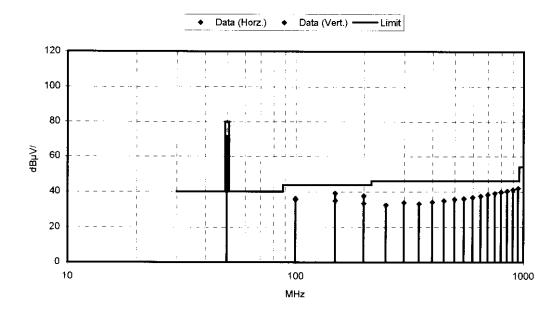
Operating mode: Power "On"

**Test Equipment** 

Receiver: ESVP Rohde & Schwarz Antenna: Schwarzbeck BBA 9106

and UHALP 9107

	Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Antenna Factor (dB)	Horiz. Test Result (µV/m)	Vert. Test Result (μV/m)	Limit (µV/m)	
Peak	49.86	54.5	63.7	7.0	1195	7017 3445	100,000	100
Av.	49.86	53	62	7.0	1005	<del></del>	10000	80
Harm. 2	99.72	27.5	27	8.5	63	60		ſŤ
Harm. 3	149.58	26	22	13.0	89	56	150	ĺ
Harm. 4	199.44	22.5	18.5	15.1	76	48	150	1
Harm. 5	249.3	< 16	< 16	16.7	< 43	< 43	200	1
Harm. 6	299.16	< 16	< 16	18.0	< 50	< 50	200	1
Harm. 7	349.02	< 16	< 16	17.4	< 47	< 47	200	1
Harm. 8	398.88	< 16	< 16	18.3	< 52	< 52	200	1
Harm. 9	448.74	< 16	< 16	19.0	< 56	< 56	200	1
Harm. 10	498.6	< 16	< 16	19.7	< 61	< 61	200	1
Harm. 11	548.46	< 16	< 16	20.2	< 64	< 64	200	1
Harm. 12	598.32	< 16	< 16	20.9	< 70	< 70	200	
Harm. 13	648.18	< 16	< 16	21.6	< 76	< 76	200	
Harm. 14	698.04	< 16	< 16	22.4	< 83	< 83	200	
Harm. 15	747.9	< 16	< 16	23.0	< 90	< 90	200	
Harm. 16	797.76	< 16	< 16	23.7	< 96	< 96	200	
Harm. 17	847.62	< 16	< 16	24.3	< 104	< 104	200	
Harm. 18	897 48	< 16	< 16	25.0	< 112	< 112	200	
Harm, 19	947.34	< 16	< 16	25.7	< 122	< 122	200	



Date: \_\_\_\_\_\_\_ 1 FEB 1999

■ O.K.

Test result:

Operator: (c



## FCC - Test Report

No. 18060/8/400F

Date: 1999-02-02

Page 9 of 11

## **Notes for Radiation Measurement**

#### 1. Measurement facility:

Measurement facility located at Fanling (Hong Kong), placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules.

#### 2. Distance between the EUT and measuring antenna:

3 meters.

#### 3. Measuring instrumentations:

Rohde & Schwarz ESVP Test Receiver (20 - 1300 MHz) with a CISPR weighting QP detector, 6 dB bandwidth set at 120 KHz.

#### 4. Measuring antenna:

Broad-band antenna for the frequency range 30 - 300 MHz and frequency range 300 - 1000 MHz, connected with 10 meters coaxial cable. Cable loss of the coaxial cable included in the Antenna Factor for measurement data. The antennas are capable of measuring both horizontal and vertical polarizations.

#### 5. Frequency range scanned:

The frequency range 30 - 5000 MHz has been scanned. Readings of the highest emissions relating to the limit were reported as above.

#### 6. Arrangement of EUT:

During the test, the sample was operated at rated supply voltage and arranged for maximum emissions.

#### 7. Measuring Procedure:

In accordance with the relevant sections of the American National Standards Institute (ANSI) C63.4-1992 'Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9KHz to 40GHz'.



#### Measurement of Emissions within band edges

Test Equipment

Tektronix 2712

Spectrum Analyzer:

International Electrical Certification Centre Ltd.

Acc: FCC Part 15 Subpart C

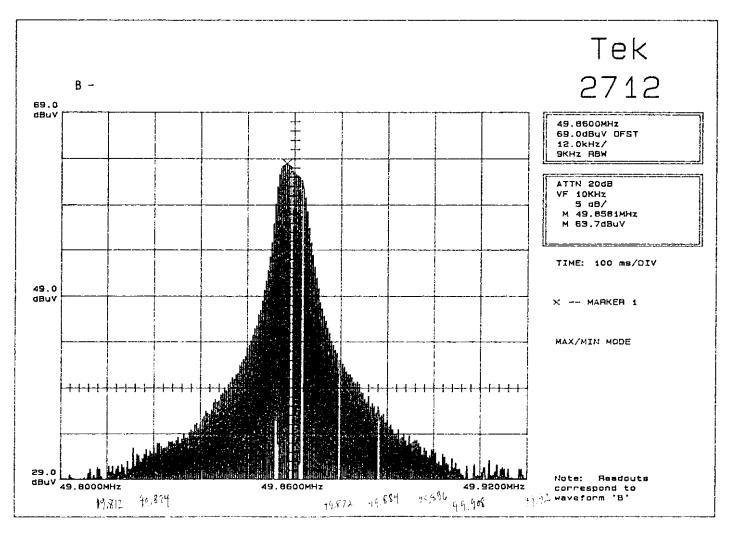
IECC Ref: 18060/8/400F

Model: 43910T
Applicant: ARTIN INDUSTRIAL CO LTD

Ser.Nr.: 1

Set under test: R/C Toy Transmitter

Connected sets: Operating mode: Power "On"



12 km3



0 1 5EB 1999 Date:



## FCC - Test Report

No. 18060/8/400F

Date: 1999-02-02

Page 11 of 11

## Notes for Measurement of Emissions within Band Edges

#### 1. Measurement facility:

Measurement facility located at Fanling (Hong Kong) placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules.

#### 2. Measuring instrumentations:

Spectrum Analyzer: Tektronix 2712

#### 3. Frequency range scanned:

The frequency range acc. to FCC rules and regulations part 15 subpart C - Intentional Radiators.

#### 4. Arrangement of EUT:

During the test, the sample was operated.

#### 5. Measuring Procedure:

In accordance with the relevant sections of American National Standards Institute (ANSI) C63.4 - 1992 'Methods of Measurement od Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz'.