



## STC Test Report

Date : 2009-10-27

Page 1 of 21

No. : MH183412

**Applicant (C00699):**

Shenzhen Shen's Tongchuang Aeronautic Model Co., Ltd  
The opposition of Xinjiang Community Education Base,  
Guangming New District, Shenzhen, China

**Manufacturer:**

Shenzhen Shen's Tongchuang Aeronautic Model Co., Ltd  
The opposition of Xinjiang Community Education Base,  
Guangming New District, Shenzhen, China

**Description of Samples:**

Product: Transmitter  
Brand Name: N/A  
Model Number: TX-010A  
FCC ID: XUN002425

**Date Samples Received:** 2009-09-14

**Date Tested:** 2009-09-29

**Investigation Requested:**

Perform ElectroMagnetic Interference measurement in  
accordance with FCC 47CFR [Codes of Federal Regulations]  
Part 15: 2008 and ANSI C63.4:2003 for FCC Certification.

**Conclusions:**

The submitted product COMPLIED with the requirements of  
Federal Communications Commission [FCC] Rules and  
Regulations Part 15. The tests were performed in accordance  
with the standards described above and on Section 2.2 in this  
Test Report.

**Remarks:**

----

Dr. LEE Kam Chuen  
Authorized Signatory  
ElectroMagnetic Compatibility Department  
For and on behalf of  
The Hong Kong Standards and Testing Centre Ltd.

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)



## **STC Test Report**

Date : 2009-10-27

Page 2 of 21

No. : MH183412

### **CONTENT:**

Cover	Page 1 of 21
Content	Page 2-3 of 21
<b><u>1.0 General Details</u></b>	
1.1 Test Laboratory	Page 4 of 21
1.2 Applicant Details	Page 4 of 21
Applicant	
Manufacturer	
1.3 Equipment Under Test [EUT]	Page 5 of 21
Description of EUT operation	
1.4 Date of Order	Page 5 of 21
1.5 Submitted Sample	Page 5 of 21
1.6 Test Duration	Page 5 of 21
1.7 Country of Origin	Page 5 of 21
<b><u>2.0 Technical Details</u></b>	
2.1 Investigations Requested	Page 6 of 21
2.2 Test Standards and Results Summary	Page 6 of 21
<b><u>3.0 Test Results</u></b>	
3.1 Radiated Emission	Page 7-16 of 21

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 3 of 21

No. : MH183412

### **Appendix A**

List of Measurement Equipment

Page 17 of 21

### **Appendix B**

Duty Cycle Correction During 100 msec

Page 18-19 of 21

### **Appendix C**

Photographs

Page 20-21 of 21

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 4 of 21

No. : MH183412

### **1.0 General Details**

#### **1.1 Test Laboratory**

The Hong Kong Standards and Testing Centre Ltd.  
EMC Laboratory  
10 Dai Wang Street, Taipo Industrial Estate  
New Territories, Hong Kong

#### **1.2 Applicant Details**

##### **Applicant**

Shenzhen Shen's Tongchuang Aeronautic Model Co., Ltd  
The opposition of Xinjiang Community Education Base, Guangming New District, Shenzhen,  
China

##### **Manufacturer**

Shenzhen Shen's Tongchuang Aeronautic Model Co., Ltd  
The opposition of Xinjiang Community Education Base, Guangming New District, Shenzhen,  
China

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 5 of 21

No. : MH183412

### **1.3 Equipment Under Test [EUT]**

#### **Description of Sample**

Product:	Transmitter
Manufacturer:	Shenzhen Shen's Tongchuang Aeronautic Model Co., Ltd
Brand Name:	N/A
Model Number:	TX-010A
Input Voltage:	6Vd.c. ("AA" size battery×4)

#### **1.3.1 Description of EUT Operation**

The Equipment Under Test (EUT) is a Shenzhen Shen's Tongchuang Aeronautic Model Co., Ltd, Transmitter. The EUT was set to fixed frequency test mode by application

### **1.4 Date of Order**

2009-09-14

### **1.5 Submitted Sample(s):**

1 Sample

### **1.6 Test Duration**

2009-09-29

### **1.7 Country of Origin**

China

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 6 of 21

No. : MH183412

### **2.0 Technical Details**

#### **2.1 Investigations Requested**

Perform Electromagnetic Interference measurements in accordance with FCC 47CFR [Codes of Federal Regulations] Part 15: 2008 Regulations and ANSI C63.4:2003 for FCC Certification.

#### **2.2 Test Standards and Results Summary Tables**

<b>EMISSION Results Summary</b>					
Test Condition	Test Requirement	Test Method	Class / Severity		Test Result
			Pass	Fail	N/A
Field Strength of Fundamental & Harmonics Emissions	FCC 47CFR 15.249	ANSI C63.4:2003	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiated Emissions	FCC 47CFR 15.209	ANSI C63.4:2003	N/A	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Note: N/A - Not Applicable

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 7 of 21

No. : MH183412

### **3.0 Test Results**

#### **3.1 Emission**

##### **3.1.1 Radiated Emissions**

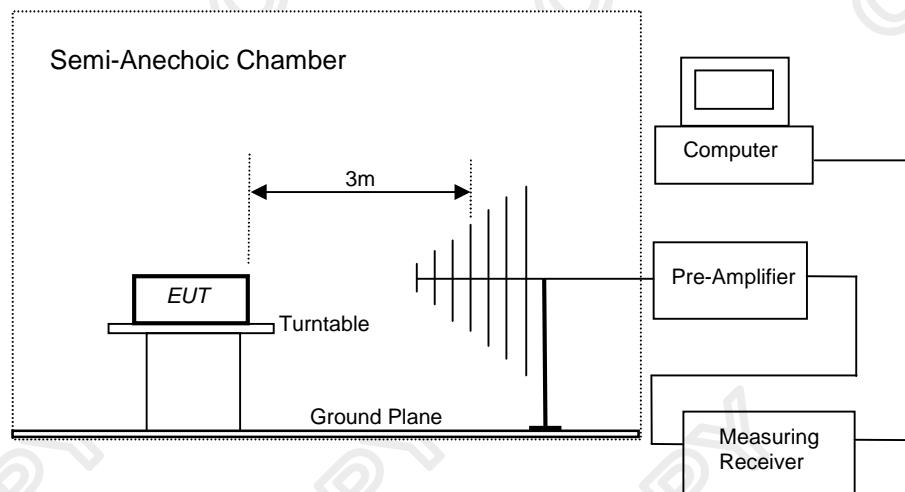
Test Requirement: FCC 47CFR 15.249  
Test Method: ANSI C63.4:2003  
Test Date: 2009-09-29  
Mode of Operation: Communication mode

#### **Test Method:**

The sample was placed 0.8m above the ground plane of semi-anechoic Chamber\*. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

\* Semi-anechoic chamber located on the G/F of The Hong Kong Standards and Testing Centre Ltd. with a metal ground plane filed with the FCC pursuant to section 2.948 of the FCC rules, with Registration Number: 607756.

#### **Test Setup:**



**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)



## STC Test Report

Date : 2009-10-27

Page 8 of 21

No. : MH183412

### Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.249]:

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [microvolts/meter]	Field Strength of Harmonics Emission [microvolts/meter]
902-928	50,000 [Average]	500 [Average]
2400-2483.5	50,000 [Average]	500 [Average]

Results of Communication mode (Lowest Frequency): Pass

Field Strength of Fundamental Emissions Peak Value						
Frequency MHz	Measured Level @ 3m dB $\mu$ V/m	Correction Factor dB $\mu$ V/m	Field Strength dB $\mu$ V/m	Field Strength $\mu$ V/m	Limit @ 3m $\mu$ V/m	E-Field Polarity
2410.0	57.6	34.9	92.5	42,169.7	500,000	Vertical
*	4820.0				500	Vertical
	7230.0				500	Vertical
	9640.0				500	Vertical
*	12050.0				500	Vertical
	14460.0				500	Vertical
	16870.0				500	Vertical
*	19280.0				500	Vertical
	21690.0				500	Vertical
	24100.0				500	Vertical

**No Emission Detected**

Field Strength of Fundamental Emissions Average Value						
Frequency MHz	Measured Level @ 3m dB $\mu$ V/m	Correction Factor dB $\mu$ V/m	Field Strength dB $\mu$ V/m	Field Strength $\mu$ V/m	Limit @ 3m $\mu$ V/m	E-Field Polarity
+	2410.0	37.6	34.9	72.5	4,217.0	50,000

Remarks:

No additional spurious emissions found between lowest internal used/generated frequency and 30 MHz

\*: Denotes restricted band of operation.

Measurements were made using a peak detector. Any emission less than 1000 MHz and falling within the restricted bands of FCC Rules Part 15 Section 15.205 and the limits of FCC Rules Part 15 Section 15.209 were applied.

+: Adjusted by Duty Cycle = -23dB

Duty Cycle Correction = -20dB, if the calculation duty cycle correction >-20dB

Calculated measurement uncertainty : 30MHz to 1GHz 5.2dB  
1GHz to 18GHz 5.1dB

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)



## STC Test Report

Date : 2009-10-27

Page 9 of 21

No. : MH183412

### Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.249]:

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [microvolts/meter]	Field Strength of Harmonics Emission [microvolts/meter]
902-928	50,000 [Average]	500 [Average]
2400-2483.5	50,000 [Average]	500 [Average]

### Results of Communication mode (Middle Frequency): Pass

Field Strength of Fundamental Emissions Peak Value						
Frequency MHz	Measured Level @3m dB $\mu$ V/m	Correction Factor dB $\mu$ V/m	Field Strength dB $\mu$ V/m	Field Strength $\mu$ V/m	Limit @3m $\mu$ V/m	E-Field Polarity
2440.0	58.9	34.9	93.8	48,977.9	500,000	Vertical
*	4880.0				500	Vertical
	7320.0				500	Vertical
	9760.0				500	Vertical
*	12200.0				500	Vertical
	14640.0				500	Vertical
	17080.0				500	Vertical
*	19520.0				500	Vertical
	21960.0				500	Vertical
	24400.0				500	Vertical

Field Strength of Fundamental Emissions Average Value						
Frequency MHz	Measured Level @3m dB $\mu$ V/m	Correction Factor dB $\mu$ V/m	Field Strength dB $\mu$ V/m	Field Strength $\mu$ V/m	Limit @3m $\mu$ V/m	E-Field Polarity
+	2440.0	38.9	34.9	73.8	4,897.8	50,000

#### Remarks:

No additional spurious emissions found between lowest internal used/generated frequency and 30 MHz

\*: Denotes restricted band of operation.

Measurements were made using a peak detector. Any emission less than 1000 MHz and falling within the restricted bands of FCC Rules Part 15 Section 15.205 and the limits of FCC Rules Part 15 Section 15.209 were applied.

+: Adjusted by Duty Cycle = -23dB  
Duty Cycle Correction = -20dB, if the calculation duty cycle correction >-20dB

Calculated measurement uncertainty : 30MHz to 1GHz 5.2dB  
1GHz to 18GHz 5.1dB

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)



## STC Test Report

Date : 2009-10-27

Page 10 of 21

No. : MH183412

### Limits for Field Strength of Fundamental & Harmonics Emissions [FCC 47CFR 15.249]:

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [microvolts/meter]	Field Strength of Harmonics Emission [microvolts/meter]
902-928	50,000 [Average]	500 [Average]
2400-2483.5	50,000 [Average]	500 [Average]

Results of Tx on mode (Highest Frequency): Pass

Field Strength of Fundamental Emissions Peak Value						
Frequency MHz	Measured Level @3m dB $\mu$ V/m	Correction Factor dB $\mu$ V/m	Field Strength dB $\mu$ V/m	Field Strength $\mu$ V/m	Limit @3m $\mu$ V/m	E-Field Polarity
2470.0	55.8	35.0	90.8	34,673.7	500,000	Vertical
*	4804.4				500	Vertical
	7410.0				500	Vertical
	9880.0				500	Vertical
*	12350.0				500	Vertical
	14820.0				500	Vertical
	17290.0				500	Vertical
*	19760.0				500	Vertical
	22230.0				500	Vertical
	24700.0				500	Vertical

Field Strength of Fundamental Emissions Average Value						
Frequency MHz	Measured Level @3m dB $\mu$ V/m	Correction Factor dB $\mu$ V/m	Field Strength dB $\mu$ V/m	Field Strength $\mu$ V/m	Limit @3m $\mu$ V/m	E-Field Polarity
+	2470.0	35.8	35.0	70.8	3,467.4	50,000

#### Remarks:

No additional spurious emissions found between lowest internal used/generated frequency and 30 MHz

\*: Denotes restricted band of operation.

Measurements were made using a peak detector. Any emission less than 1000 MHz and falling within the restricted bands of FCC Rules Part 15 Section 15.205 and the limits of FCC Rules Part 15 Section 15.209 were applied.

+: Adjusted by Duty Cycle = -23dB  
Duty Cycle Correction = -20dB, if the calculation duty cycle correction >-20dB

Calculated measurement uncertainty : 30MHz to 1GHz 5.2dB  
1GHz to 18GHz 5.1dB

#### The Hong Kong Standards and Testing Centre Ltd.

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)



## STC Test Report

Date : 2009-10-27

Page 11 of 21

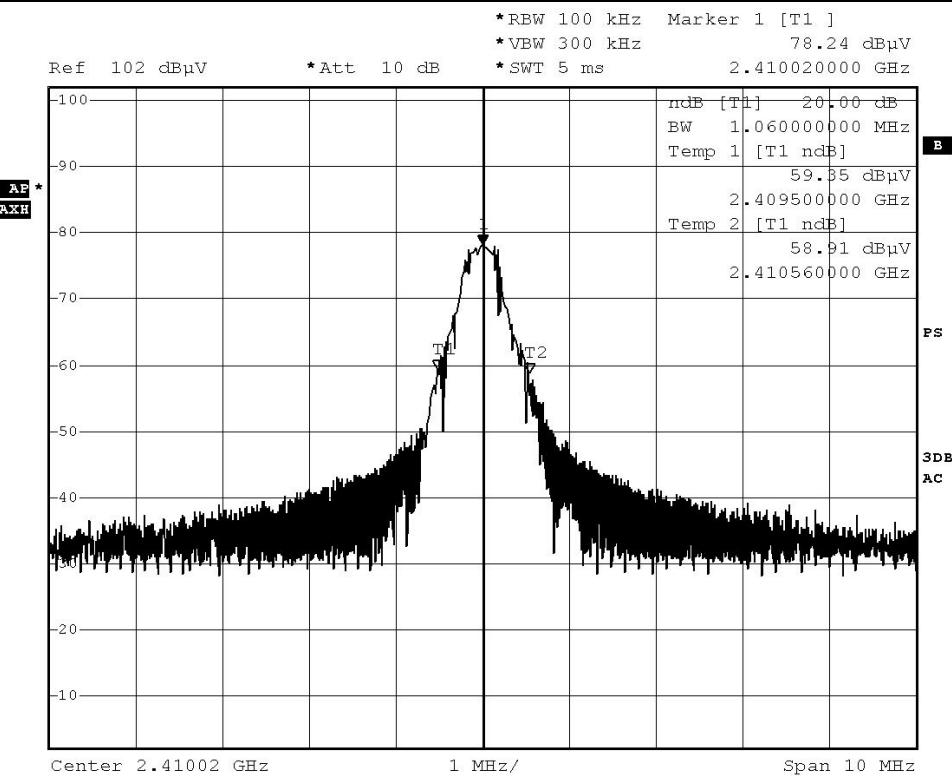
No. : MH183412

### Limits for 20dB Bandwidth of Fundamental Emission:

Frequency Range [MHz]	20dB Bandwidth [MHz]
2410	1.06

### Lowest Frequency

#### 20dB Bandwidth of Fundamental Emission



**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## STC Test Report

Date : 2009-10-27

Page 12 of 21

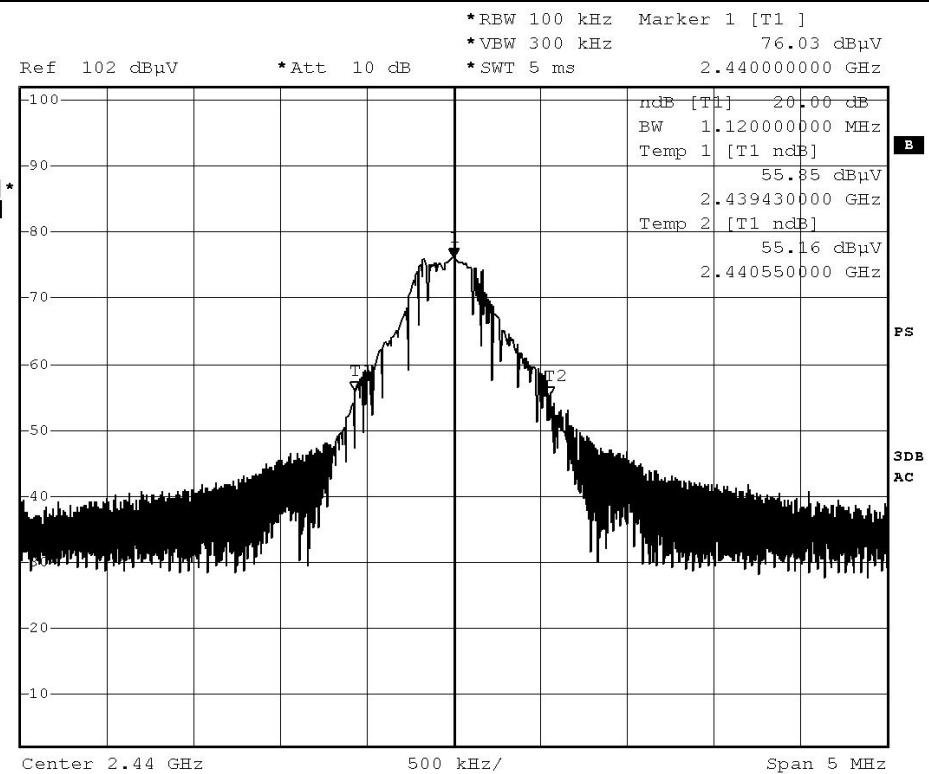
No. : MH183412

### Limits for 20dB Bandwidth of Fundamental Emission:

Frequency Range [MHz]	20dB Bandwidth [MHz]
2440	1.12

### Middle Frequency

#### 20dB Bandwidth of Fundamental Emission



**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## STC Test Report

Date : 2009-10-27

Page 13 of 21

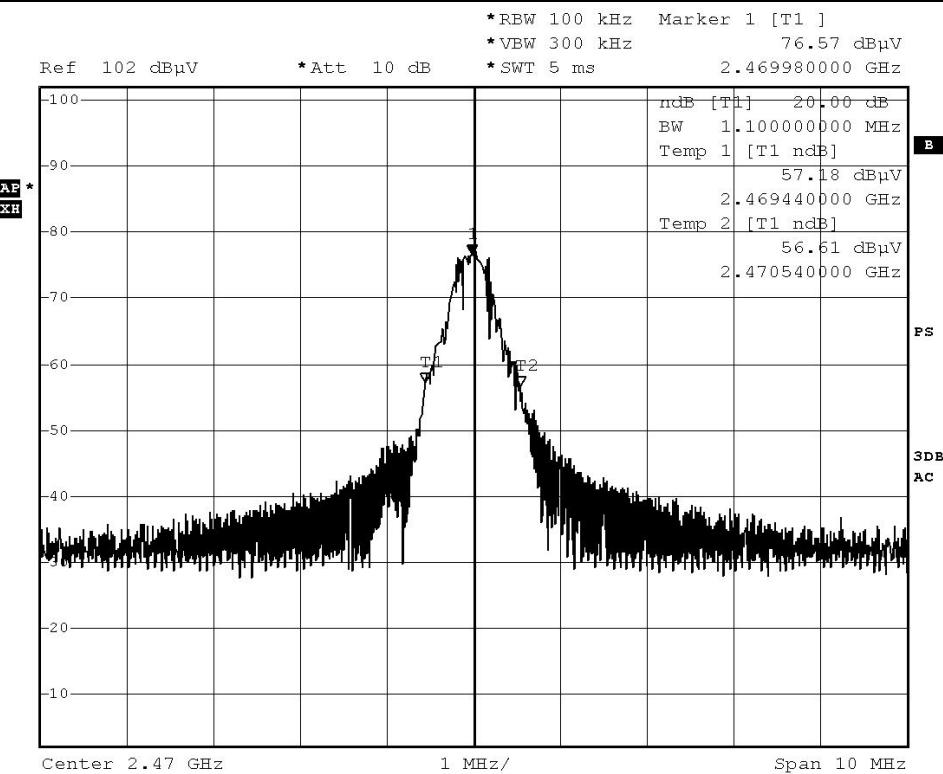
No. : MH183412

### Limits for 20dB Bandwidth of Fundamental Emission:

Frequency Range [MHz]	20dB Bandwidth [MHz]
2470	1.10

### Highest Frequency

#### 20dB Bandwidth of Fundamental Emission



**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 14 of 21

No. : MH183412

### **Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:**

Frequency Range [MHz]	Quasi-Peak Limits [ $\mu$ V/m]
30-88	100
88-216	150
216-960	200
Above 960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

### **Results of Communication Mode(Lowest frequency): PASS**

Radiated Emissions Quasi-Peak					
Emission Frequency MHz	E-Field Polarity	Level @3m dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Level @3m $\mu$ V/m	Limit @3m $\mu$ V/m
144.0	Vertical	35.2	43.5	57.5	150
176.0	Vertical	37.2	43.5	72.4	150
192.0	Horizontal	32.3	43.5	41.2	150

Remarks:

No additional spurious emissions found between lowest internal used/generated frequency and 30 MHz

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz 5.2dB  
1GHz to 18GHz 5.1dB

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 15 of 21

No. : MH183412

### **Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:**

Frequency Range [MHz]	Quasi-Peak Limits [ $\mu$ V/m]
30-88	100
88-216	150
216-960	200
Above 960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

### **Results of Communication Mode(Middle frequency): PASS**

Radiated Emissions Quasi-Peak					
Emission Frequency MHz	E-Field Polarity	Level @3m dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Level @3m $\mu$ V/m	Limit @3m $\mu$ V/m
144.0	Vertical	35.2	43.5	57.5	150
176.0	Vertical	37.2	43.5	72.4	150
192.0	Horizontal	32.3	43.5	41.2	150

Remarks:

No additional spurious emissions found between lowest internal used/generated frequency and 30 MHz

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz 5.2dB  
1GHz to 18GHz 5.1dB

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

Date : 2009-10-27

Page 16 of 21

No. : MH183412

### **Limits for Radiated Emissions [FCC 47 CFR 15.209 Class B]:**

Frequency Range [MHz]	Quasi-Peak Limits [ $\mu$ V/m]
30-88	100
88-216	150
216-960	200
Above 960	500

The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector and above 1000MHz are based on measurements employing an average detector.

### **Results of Communication Mode(Highest frequency): PASS**

Radiated Emissions Quasi-Peak					
Emission Frequency MHz	E-Field Polarity	Level @3m dB $\mu$ V/m	Limit @3m dB $\mu$ V/m	Level @3m $\mu$ V/m	Limit @3m $\mu$ V/m
144.0	Vertical	35.2	43.5	57.5	150
176.0	Vertical	37.2	43.5	72.4	150
192.0	Horizontal	32.3	43.5	41.2	150

Remarks:

No additional spurious emissions found between lowest internal used/generated frequency and 30 MHz

Correction Factor included Antenna Factor and Cable Attenuation.

Calculated measurement uncertainty : 30MHz to 1GHz 5.2dB  
1GHz to 18GHz 5.1dB

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## STC Test Report

Date : 2009-10-27

Page 17 of 21

No. : MH183412

### Appendix A

#### List of Measurement Equipment

##### Radiated Emission

EQP NO.	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	LAST CAL	DUE CAL
EM062	HORN ANTENNA	EMCO	3117	0075933	2008/11/06	2010/11/06
EM215	MULTIDEVICE CONTROLER	EMCO	2090	00024676	N/A	N/A
EM216	MINI MAST SYSTEM	EMCO	2075	00026842	N/A	N/A
EM217	ELECTRIC POWERED TURNTABLE	EMCO	2088	00029144	N/A	N/A
EM218	ANECHOIC CHAMBER	ETS-Linggren	FACT-3	--	2008/12/01	2011/12/01
EM174	BICONILOG ANTENNA	EMCO	3142B	00029071	2008/01/24	2010/01/24
EM229	EMI TEST RECEIVER	R&S	ESIB40	100248	2009/0927	2010/09/27
EM022	LOOP ANTENNA	EMCO	6502	1189-2424	2009/07/26	2011/07/26

Remarks:-

CM      Corrective Maintenance

N/A      Not Applicable or Not Available

TBD      To Be Determined

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## STC Test Report

Date : 2009-10-27

Page 18 of 21

No. : MH183412

### Appendix B

#### Duty Cycle Correction During 100msec

Each sample unit sends a different series of characters, but each pulse period (100msec) never exceeds a series of 40 sole (0.18msec) pulses. Assuming any combination of short and long pulses may be obtained due to encoding the worst case transmit duty cycle would be considered  $40 \times 0.18 \text{ msec} / 100 \text{ msec} = 7.2\%$  duty cycle. Figure A through B show the characteristics of the pulse train for one of these functions.

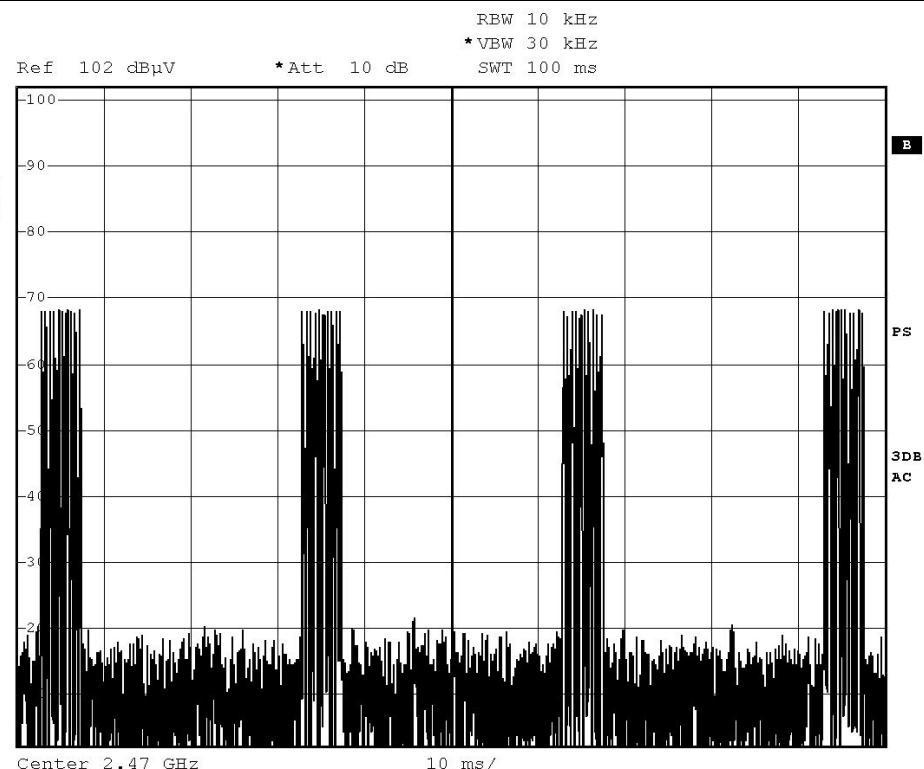
Remarks:

Duty Cycle Correction =  $20 \log (0.072) = -23 \text{ dB}$

Duty Cycle Correction =  $-20 \text{ dB}$ , if the calculation duty cycle correction  $> -20 \text{ dB}$

The following figures [Figure A to Figure B] showed the characteristics of the pulse train for one of these functions.

Figure A [Pulse Train]



**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



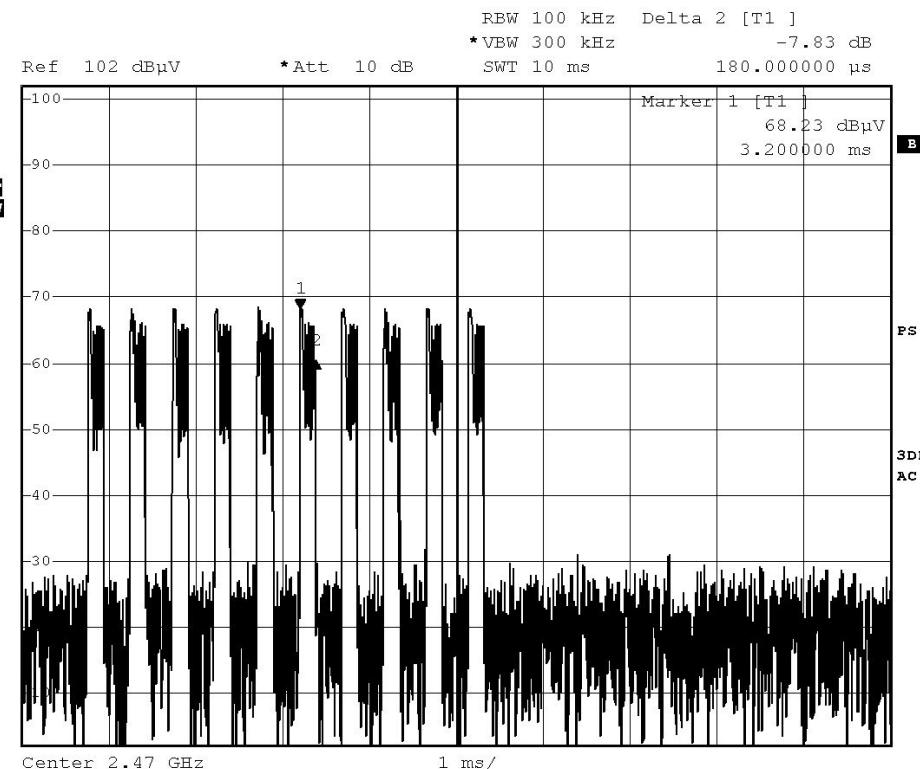
## STC Test Report

Date : 2009-10-27

Page 19 of 21

No. : MH183412

Figure B [Sole Pulse]



**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## STC Test Report

Date : 2009-10-27

Page 20 of 21

No. : MH183412

### Appendix C

#### Photographs of EUT

Front View of the product



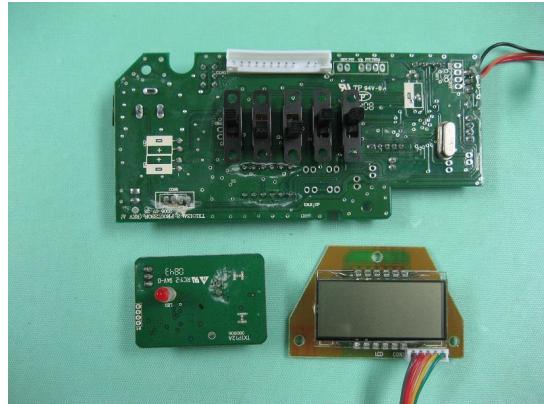
Rear View of the product



Inner Circuit Top View



Inner Circuit Bottom View



**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage



## **STC Test Report**

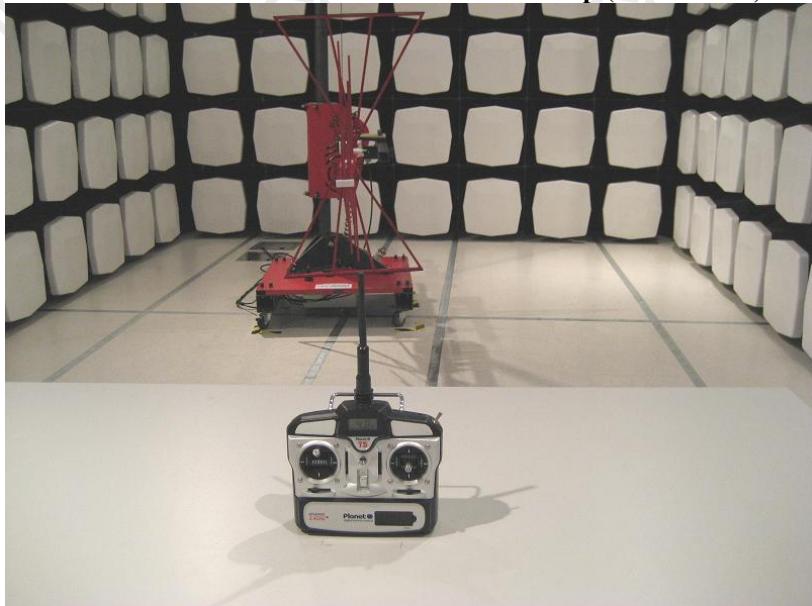
Date : 2009-10-27

Page 21 of 21

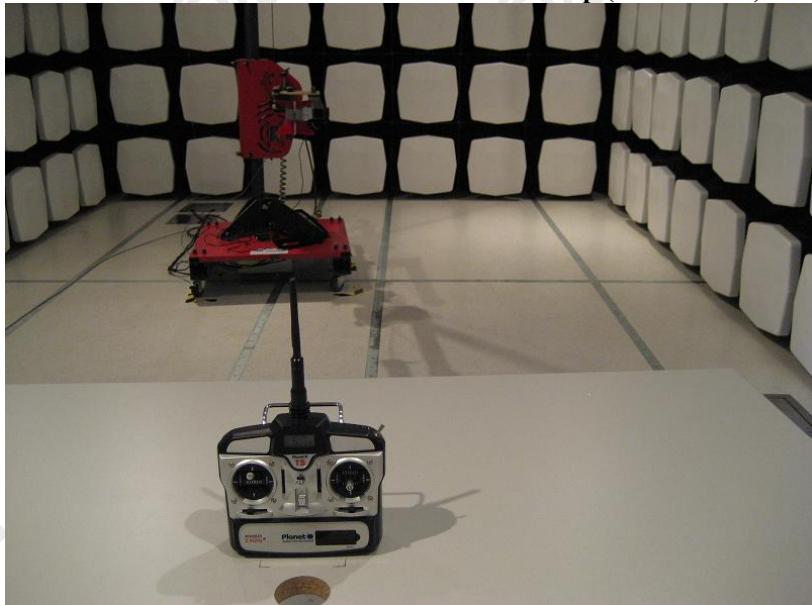
No. : MH183412

### **Photographs of EUT**

**Measurement of Radiated Emission Test Set Up (below 1GHz)**



**Measurement of Radiated Emission Test Set Up (above 1GHz)**



**\*\*\*\*\* End of Test Report \*\*\*\*\***

**The Hong Kong Standards and Testing Centre Ltd.**

10 Dai Wang Street, Taipo Industrial Estate, N.T., Hong Kong

Tel: (852) 2666 1888 Fax: (852) 2664 4353 Homepage: [www.hkstc.org](http://www.hkstc.org) E-mail: [hkstc@hkstc.org](mailto:hkstc@hkstc.org)

This report shall not be reproduced unless with prior written approval from The Hong Kong Standards and Testing Centre Ltd.  
For Conditions of Issuance of this test report, please refer to the overleaf or Homepage