SGS-CSTC Standards Technical Services Ltd.

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FEDERAL COMMUNICATIONS COMMISSION
Registration number: 282399

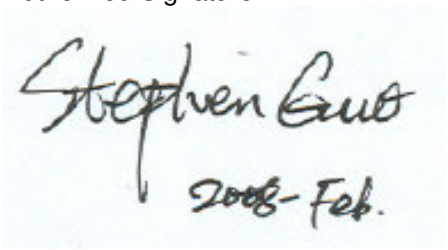
TEST REPORT

Application No. :	GLEMR080100047RF
Applicant:	THERMOR LTD
FCC ID:	VX5265NC
Fundamental Carrier Frequency :	915MHz
Equipment Under Test (EUT):	
Name:	915MHz WIRELESS TOUCH SCREEN HOME WEATHER STATION
Model No.:	265NC, 265NU, 265BC, 265BU♣
♣:	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 15.249)
Date of Receipt:	4 January 2008
Date of Test:	11 January to 20 February 2008
Date of Issue:	26 February 2008

Test Result :	**PASS ***

* In the configuration tested, the EUT detailed in this report complied with the standards specified above. Please refer to section 2 of this report for further details.

Authorized Signature:



Stephen Guo
Manager

2 Test Summary

Test	Test Requirement	Standard Paragraph	Result
Flied Strength of Fundamental	FCC PART 15 :2007	Section 15.249 (a)	PASS
Flied Strength of Unwanted Emissions	FCC PART 15 :2007	Section 15.209& Section 15.249 (d)	PASS*
Occupied Bandwidth	FCC PART 15 :2007	Section 15.249	PASS
Band Edges	FCC PART 15 :2007	Section 15.249 (d)	PASS

Remark:

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

♣:

Model: 265NC, 265NU, 265BC, 265BU
For only one model was tested, according to the confirmation from the applicant.
Since the applicant declared electrical circuit design, layout, components used and internal wiring were identical for the above items, with only difference being the model no.

*: The sample passed the test after modification, for more information please refer below information:

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4 General Information

4.1 Client Information

Applicant:	THERMOR LTD.
Address of Applicant:	16975 Leslie Street, Newmarket, Ontario, L3Y 9A1, Canada

4.2 General Description of E.U.T.

Name:	915MHz WIRELESS TOUCH SCREEN HOME WEATHER STATION
Model No.:	265NC, 265NU, 265BC, 265BU
Antenna Type	Integral
Power Supply:	Battery 3.0V
Function:	The EUT is a wireless home weather station with wind sensor, rain sensor and so on, and the transmitter would send the weather information to the receiver indoor.

4.3 Description of Support Units

The EUT has been tested independently.

4.4 Standards Applicable for Testing

The customer requested FCC tests for the EUT.

The standard used was FCC PART 15, SUBPART C: 2007 (Section 15.249);

4.5 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.

4.6 Other Information Requested by the Customer

None.

4.7 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.

- **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

5 Equipments Used during Test

	RE in Chamber/OATS					
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	N/A	N/A
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	28-01-2008	28-01-2009
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2007	04-12-2008
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	12-08-2007	12-08-2008
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	12-08-2007	12-08-2008
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	12-08-2007	12-08-2008
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2007	05-12-2008
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	28-03-2007	28-03-2008
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	28-03-2007	28-03-2008
EMC0523	Active Loop Antenna	EMCO	6502	00042963	09-08-2006	09-08-2008
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	10-08-2007	10-08-2008

	General used equipment					
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
EMC0050-EMC0053	Temperature, & Humidity	ZHENGZHOU BO YANG	WSB	N/A	05-12-2007	05-12-2008
EMC0006	DMM	Fluke	73	70681569	27-09-2007	27-09-2008
EMC0007	DMM	Fluke	73	70671122	27-09-2007	27-09-2008

	Conducted Emission					
No:	**Test Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
EMC0306	Shielding Room	Zhong Yu	8 x 3 x 3.8 m^3	N/A	N/A	N/A
EMC0102	LISN	Schaffner Chase	MNZ050D/1	1421	14-12-2007	14-12-2008
EMC0118	Two-line v-netwok	Rohde & Schwarz	ENV216	100359	16-08--2007	16-08--2008
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	14-12-2007	14-12-2008
EMC0107	Coaxial Cable	SGS	2m	N/A	24-11-2007	26-11-2008
EMC0106	Voltage Probe	SGS	N/A	N/A	N/A	N/A

6 Test Results

6.1 E.U.T. Operation

Input voltage:	DC 3.0V
Type of antenna:	Integral
Temperature:	20.0 -25.0 °C
Humidity:	38-48 % RH
Atmospheric Pressure:	992 -1016 mbar
EUT Operation:	Test the transmitter 915MHz carrier.

6.2 Test Procedure & Measurement Data

6.2.1 Test in transmitting mode

Test Requirement: FCC Part15 C Section 15.249(a) & (d)

Test Method: Based on FCC Part15 C Section 15.249 & ANSI C63.4: 2003

Test Date: 20 February 2008

Measurement Distance: 3m (Compact Semi-Anechoic Chamber).

Frequency range 30 MHz – 25GHz for transmitting mode.

Test instrumentation resolution bandwidth
120 kHz (30 MHz - 1000 MHz), 1 MHz (1000 M – 25GHz).

Operation: Receive antenna scan height 1 - 4 m, polarization Vertical/ Horizontal, a turntable rotate through 360^0 in the horizontal plane and it is used to support the test sample at 0.8m above the ground plane.

Requirements:

FCC Part 15.249(a)

Fundamental Frequency (MHz)	Field Strength of Fundamental (dBμV/m @ 3m)	Field Strength of Harmonics (dBμV/m @ 3m)
902 to 928	94.0	54.0

FCC Part 15.249(d)

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Remark:

The fundamental frequency of the EUT is 915MHz.

The limit for average field strength dBμV/m for the fundamental frequency = 94.0 dBμV/m.

The limit for peak field strength dBμV/m for the fundamental frequency = 114.0 dBμV/m.

No fundamental is allowed in the restricted bands.

The limit for average field strength dBμV/m for the harmonics = 54.0 dBμV/m.

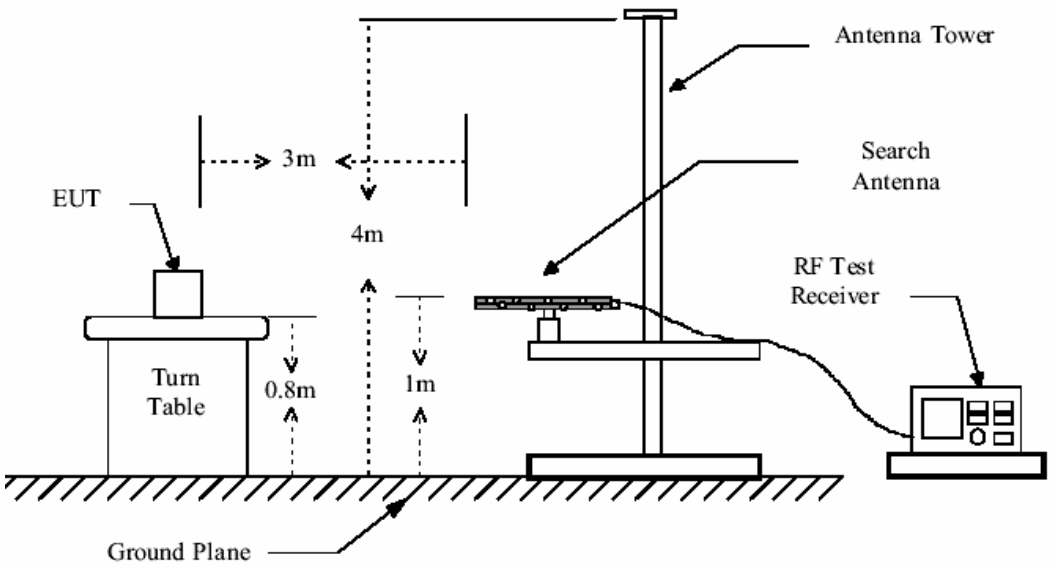
The limit for peak field strength dBμV/m for the harmonics = 74.0 dBμV/m.

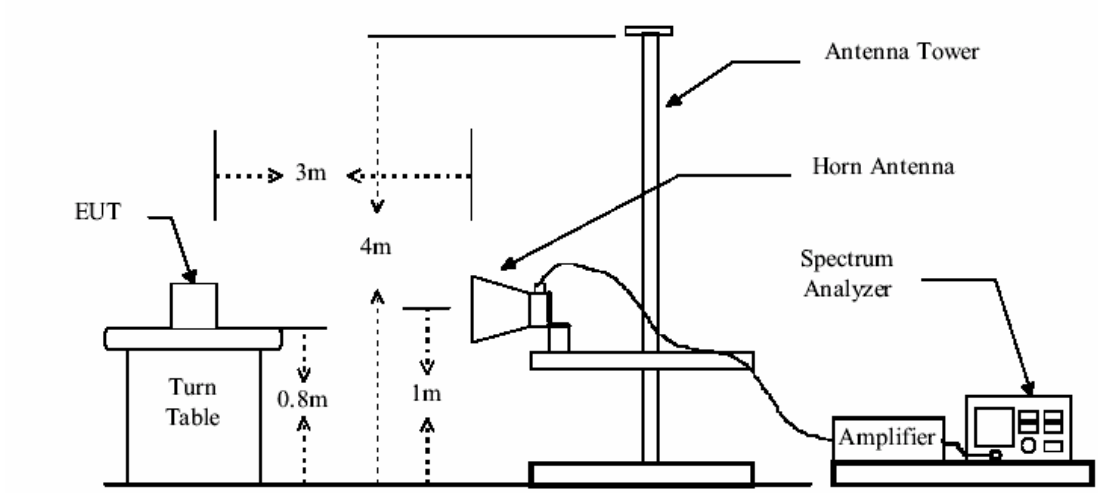
Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or 54.0 dBμV/m in 15.209. Here the limit for the other emission is 54.0 dBμV/m.

Test Procedure: The procedure used was ANSI Standard C63.4-2003. The receiver was scanned from 30MHz to 25GHz.When an emission was found, the table was roated 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 two new AA batteries. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.

Test Configuration:





The field strength is calculated by adding the Antenna Factor, Cable Factor & preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – preamplifier Factor

The following test results were performed on the EUT:

Test in transmitting status- Vertical polarization

Fundamental Carrier:

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Peak Reading Level (dBμV)	Peak Emission Level (dBμV/m)	Limit (dBμV/m)
915.000	21.55	3.90	24.93	86.2	86.7	114.0
Frequency (MHz)	**Antenna factors(dB/m)**	**Cable loss(dB)**	**Preamp factor(dB)**	**Average Reading Level (dBμV)**	**Average Emission Level (dBμV/m)**	**Limit (dBμV/m)**
915.000	21.55	3.90	24.93	84.2	84.7	94.0

Other emissions:

30MHz~1GHz Spurious Emissions ,Quasi-Peak Measurement

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)
448.070	16.40	1.58	25.46	25.7	18.2	46.0

1~25 GHz Harmonics & Spurious Emissions, Peak & Average Measurement

Peak Measurement

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)
1830.000	26.77	3.97	35.15	59.26	54.85	74.0
2745.000	29.51	4.90	34.55	60.80	60.67	74.0
3660.000	29.60	4.95	35.05	61.00	60.50	74.0

Average Measurement

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)
1830.000	26.77	3.97	35.15	41.69	37.28	54.0
2745.000	29.51	4.90	34.55	42.60	42.46	54.0
3660.000	29.60	4.95	35.05	41.00	40.50	54.0

Test in transmitting status- Horizontal polarization

Fundamental Carrier:

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Peak Reading Level (dBμV)	Peak Emission Level (dBμV/m)	Limit (dBμV/m)
915.000	21.55	3.90	24.93	84.2	84.7	114.0
Frequency (MHz)	**Antenna factors(dB/m)**	**Cable loss(dB)**	**Preamp factor(dB)**	**Average Reading Level (dBμV)**	**Average Emission Level (dBμV/m)**	**Limit (dBμV/m)**
915.000	21.55	3.90	24.93	82.2	82.7	94.0

Other emissions:

30MHz~1GHz Spurious Emissions ,Quasi-Peak Measurement

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Emission Reading (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)
448.070	16.40	1.58	25.46	25.3	17.8	46.0

1~25 GHz Harmonics & Spurious Emissions, Peak & Average Measurement

Peak Measurement

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Emission Reading (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)
1830.000	26.77	3.97	35.15	61.69	57.28	74.0
2745.000	29.51	4.90	34.55	52.60	52.46	74.0
3660.000	29.60	4.95	35.05	51.00	50.50	74.0

Average Measurement

Frequency (MHz)	Antenna factors(dB/m)	Cable loss(dB)	Preamp factor(dB)	Emission Reading (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)
1830.000	26.77	3.97	35.15	41.00	36.60	54.0
2745.000	29.51	4.90	34.55	42.30	42.16	54.0
3660.000	29.60	4.95	35.05	43.10	42.60	54.0

Remark: No other radiation has been found.

TEST RESULTS: The unit does meet the FCC requirements.

6.2.2 Occupied Bandwidth & Band Edge

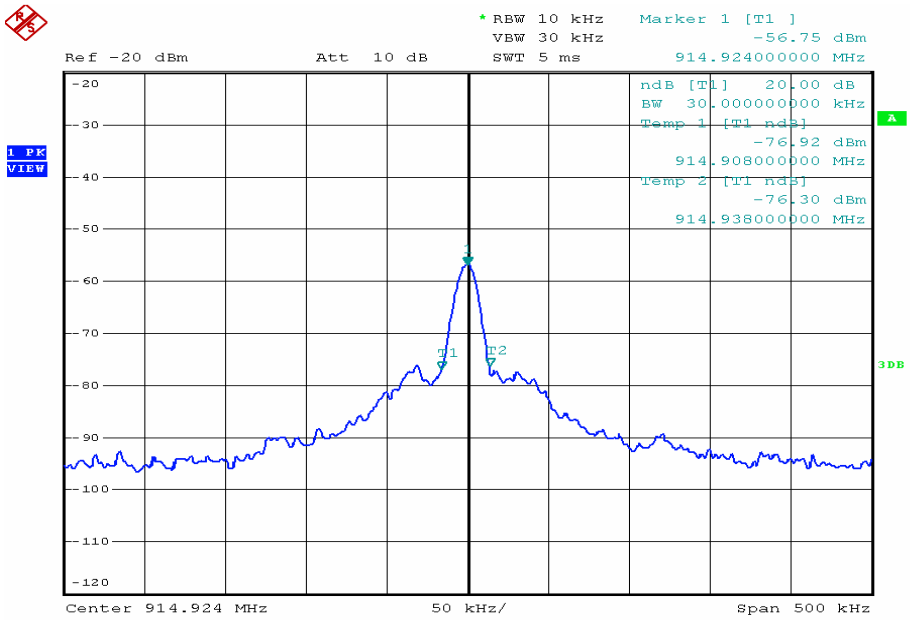
Test Requirement:	FCC Part 15 Section 15.249
Test Method:	ANSI C63.4: 2003
	Operation within the band 902 - 928MHz
Test Date:	16 January 2008
Requirements:	15.249 (d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.
Method of measurement:	A small sample of the transmitter output was fed into the Spectrum Analyzer and the attached plot was taken.

Occupied Bandwidth:

Test result:

Test Channel	Bandwidth
915MHz	30kHz

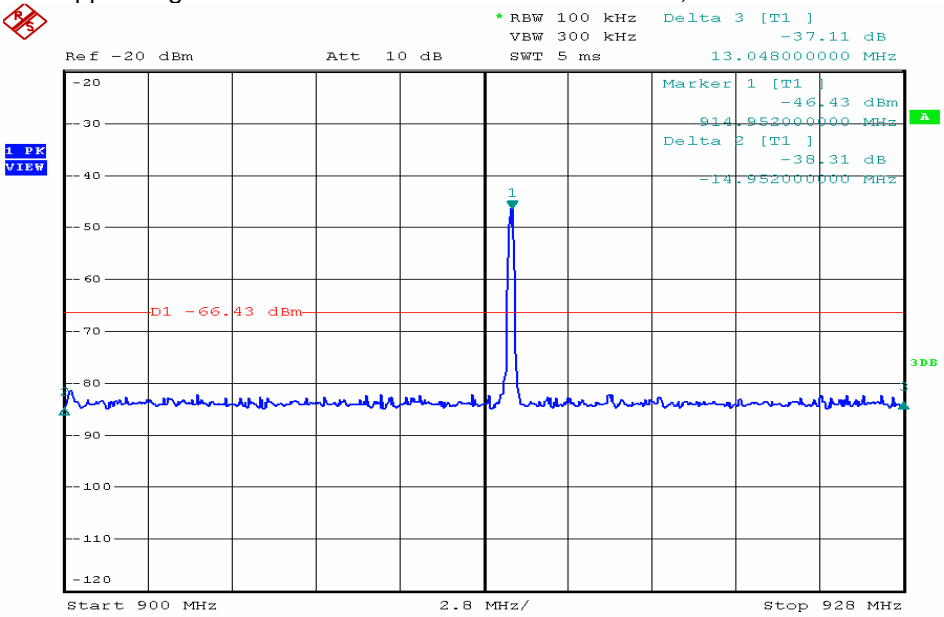
Refer plots:



Band edge:

The Lower Edge 902MHz: the value is attenuated 37.1dB, level less than the limit;

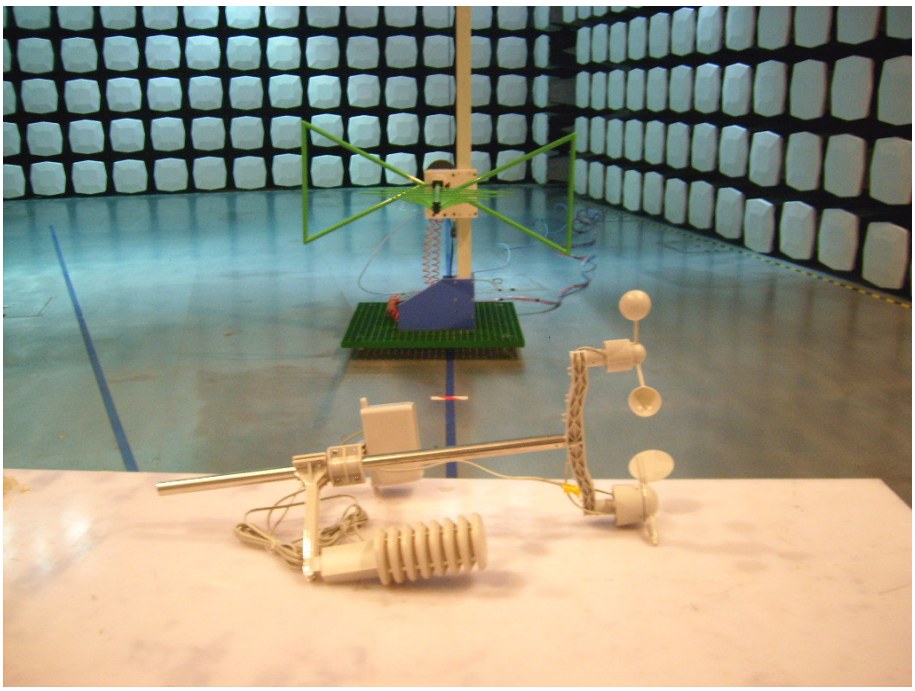
The Upper Edge 928MHz: the value is attenuated 38.3dB, level less than the limit



TEST RESULTS: The unit does meet the FCC requirements.

7 Photographs

7.1 Radiated Spurious Emission Test Setup



7.2 EUT Constructional Details