FCC 47 CFR PART 15 SUBPART C

Report No.: C130315Z08-RP1

for

Wireless weather station Model: WH25B Brand: N/A

Test Report Number: C130315Z08-RP1

Issued for:

Fine Offset Electronics Co., Ltd.

4/F., Block B3 Eastern Industrial Park Overseas Town, Nanshan,
Shenzhen China

Issued by:

COMPLIANCE CERTIFICATION SERVICES (SHENZHEN) INC. No.10-1, Mingkeda Logistics Park, No.18, Huanguan South Rd., Guan Lan Town, Baoan District, Shenzhen, China

TEL: 86-755-28055000 FAX: 86-755-28055221 Issued Date: April 22, 2013



Note: This report shall not be reproduced except in full, without the written approval of Compliance Certification Services Inc. This document may be altered or revised by Compliance Certification Services Inc. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, A2LA, NVLAP, NIST or any government agencies. The test result of this report relate only to the tested sample identified in this report.

Revision History

Report No.: C130315Z08-RP1

	Issue		Effect	
Rev.	No.	Revisions	Page	Revised By
00	C130315Z08-RP1	Initial Issue	ALL	Nancy Fu

FCC ID: WA5WH25B Page 2 / 22

TABLE OF CONTENTS

Report No.: C130315Z08-RP1

1	TEST CERTIFICATION	4
	EUT DESCRIPTION	. 5
	TEST METHODOLOGY	
•	3.1. DESCRIPTION OF TEST MODES	
4	TEST METHODOLOGY	
	4.1. EUT EXERCISE	
	4.2. FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS	7
5	INSTRUMENT CALIBRATION	. 8
6	SETUP OF EQUIPMENT UNDER TEST	. 8
	6.1. DESCRIPTION OF SUPPORT UNITS	8
	6.2. CONFIGURATION OF SYSTEM UNDER TEST	_
7	FACILITIES AND ACCREDITATIONS	
	7.1. FACILITIES	
	7.2. ACCREDITATIONS	
	7.3. MEASUREMENT UNCERTAINTY	_
8		10
	8.1. BAND EDGES MEASUREMENT	
		13
	Q 2 QDI IDIOLIQ EMIQQIONQ MEAQLIDEMENT	16

1 TEST CERTIFICATION

Product	Wireless weather station
Model	WH25B
Brand	N/A
Tested	March 15~ April 22, 2013
Applicant	Fine Offset Electronics Co., Ltd. 4/F., Block B3 Eastern Industrial Park Overseas Town, Nanshan, Shenzhen China
Manufacturer	Fine Offset Electronics Co., Ltd. 4/F., Block B3 Eastern Industrial Park Overseas Town, Nanshan, Shenzhen China

Report No.: C130315Z08-RP1

APPLICABLE STANDARDS			
STANDARD	TEST RESULT		
FCC 47 CFR Part 15 Subpart C	No non-compliance noted		
DEVIATION FROM APPLICABLE STANDARD			
Non	e		

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.249.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

V

Tom Gan

Supervisor of EMC Dept.

Compliance Certification Service Inc.

Reviewed by:

Ruby Zhang

Supervisor of Report Dept.

Compliance Certification Service Inc.



2 EUT DESCRIPTION

Product	Wireless weather station
Model Number	WH25B
Brand Name	N/A
Model Discrepancy	N/A
Identify Number	C130315Z08-RP1
EUT Power Rating	DC3V supplied by the battery
Frequency Range	915.0 MHz
Transmit Power	peak: 101.55 dBuV/m (Max.) AVG: 90.45dBuV/m (Max.)
Modulation Technique	FSK
Number of Channels	1 Channel
Antenna Specification	Linear antenna with 2.15 dBi gain (Max)
Temperature Range	-40°C ~ +60°C

Report No.: C130315Z08-RP1

Note: 1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.

^{2.} This submittal(s) (test report) is intended for <u>FCC ID: WA5WH25B</u> filling to comply with Section 15.207, 15.209 and 15.249 of the FCC Part 15, Subpart C Rules.

3 TEST METHODOLOGY

3.1. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Report No.: C130315Z08-RP1

The following test mode(s) were scanned during the preliminary test below 1G:

Test Item	Test mode	Worse mode
Conducted Emission	Not applicable, since the EUT supplied by the battery.	
Radiated Emission	Mode 1: TX	

Above 1G, Channel 1 (915.0MHz) was chosen for the final testing.

4 TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4:2003 and FCC CFR 47 15.207, 15.209 and 15.249.

Report No.: C130315Z08-RP1

4.1. EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209,15.249 under the FCC Rules Part 15 Subpart C.

4.2. FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

bennitied in any of the frequency bands listed below.				
MHz	MHz MHz		GHz	
0.090 - 0.110 10.495 - 0.505 2.1735 - 2.1905 4.125 - 4.128 4.17725 - 4.17775 4.20725 - 4.20775 6.215 - 6.218 6.26775 - 6.26825 6.31175 - 6.31225 8.291 - 8.294 8.362 - 8.366 8.37625 - 8.38675 8.41425 - 8.41475 12.29 - 12.293	16.42 - 16.423 16.69475 - 16.69525 16.80425 - 16.80475 25.5 - 25.67 37.5 - 38.25 73 - 74.6 74.8 - 75.2 108 - 121.94 123 - 138 149.9 - 150.05 156.52475 - 156.52525 156.7 - 156.9 162.0125 - 167.17	MHz 399.9 - 410 608 - 614 960 - 1240 1300 - 1427 1435 - 1626.5 1645.5 - 1646.5 1660 - 1710 1718.8 - 1722.2 2200 - 2300 2310 - 2390 2483.5 - 2500 2655 - 2900 3260 - 3267 3332 - 3339	4.5 - 5.15 5.35 - 5.46 7.25 - 7.75 8.025 - 8.5 9.0 - 9.2 9.3 - 9.5 10.6 - 12.7 13.25 - 13.4 14.47 - 14.5 15.35 - 16.2 17.7 - 21.4 22.01 - 23.12 23.6 - 24.0 31.2 - 31.8	
12.51975 - 12.52025 12.57675 - 12.57725 13.36 - 13.41	167.72 - 173.2 240 - 285 322 - 335.4	3345.8 - 3358 3600 - 4400	36.43 - 36.5 (²)	

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

FCC ID:WA5WH25B Page 7 / 22

² Above 38.6

5 INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

Report No.: C130315Z08-RP1

6 SETUP OF EQUIPMENT UNDER TEST

6.1. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Model No.	Serial No.	FCC ID	Brand	Data Cable	Power Cord
1	N/A						

Note:

1) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

6.2. CONFIGURATION OF SYSTEM UNDER TEST

See test photographs attached in Appendix II for the actual connections between EUT and support equipment.

7 FACILITIES AND ACCREDITATIONS

7.1. FACILITIES

All measurement facilities used to collect the measurement data are located at No.10-1, Mingkeda Logistics Park, No.18, Huanguan South Rd., Guan Lan Town, Baoan District, Shenzhen, China

Report No.: C130315Z08-RP1

The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

7.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

USA A2LA China CNAS

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

USA FCC

Japan VCCI (C-3478, R-3135, T-652, G-624)

Canada INDUSTRY CANADA

Taiwan BSMI Norway Nemko

Copies of granted accreditation certificates are available for downloading from our web site, http://www.ccsrf.com

7.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty	
Conducted emissions	9kHz~30MHz	+/- 3.18dB	
	30MHz ~ 200MHz	+/- 3.79dB	
Radiated emissions	200MHz ~1000MHz	+/- 3.62dB	
	Above 1000MHz	+/- 5.04dB	

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

The measured result is above (below) the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to state compliance based on the 95% level of confidence. However, the result indicates that compliance (non-compliance) is more probable than non-compliance) with the specification limit.

FCC ID:WA5WH25B Page 9 / 22

8 FCC PART 15.249 REQUIREMENTS

8.1. BAND EDGES MEASUREMENT

LIMIT

1. In the above emission table, the tighter limit applies at the band edges.

Frequency (Hz)	Field Strength (µV/m at 3-meter)	Field Strength (dBµV/m at 3-meter)	
30-88	100	40	
88-216	150	43.5	
216-960	200	46	
Above 960	500	54	

Report No.: C130315Z08-RP1

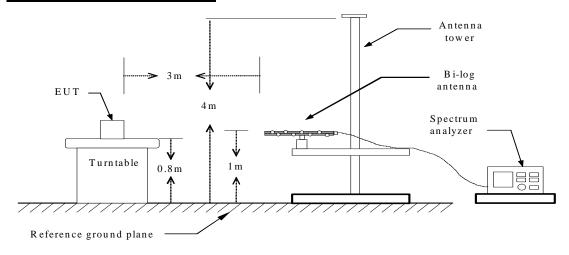
- 2. As shown in Section 15.35(b), for frequencies above 1000 MHz, the above field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.
- 3. As shown in Section 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.

MEASUREMENT EQUIPMENT USED

Radiated Emission Test Site 966(2)					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	03/09/2013	03/08/2014
ESCI EMI TEST RECEIVER.ESCI	ROHDE&SCHWA RZ	ESCI	100783	03/09/2013	03/08/2014
Amplifier	MITEQ	AM-1604-3000	1123808	03/18/2013	03/18/2014
High Noise Amplifier	Agilent	8449B	3008A01838	03/18/2013	03/18/2014
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	06/21/2012	06/21/2013
Bilog Antenna	SCHAFFNER	CBL6143	5082	03/02/2013	03/01/2014
Horn Antenna	SCHWARZBECK	BBHA9120	D286	03/02/2013	03/01/2014
Loop Antenna	A、R、A	PLA-1030/B	1029	03/23/2013	03/23/2014
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R
Controller	СТ	N/A	N/A	N.C.R	N.C.R
Temp. / Humidity Meter	Anymetre	JR913	N/A	03/04/2013	03/03/2014
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
966(2)	中宇电子	N/A	N/A	03/10/2013	03/09/2014
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

Remark: Each piece of equipment is scheduled for calibration once a year.

TEST CONFIGURATION



Report No.: C130315Z08-RP1

TEST PROCEDURE

- 1. The EUT is placed on a turntable, which is 0.8m above the 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 emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=100kHz / VBW=300kHz / Sweep=AUTO
- Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

TEST RESULTS

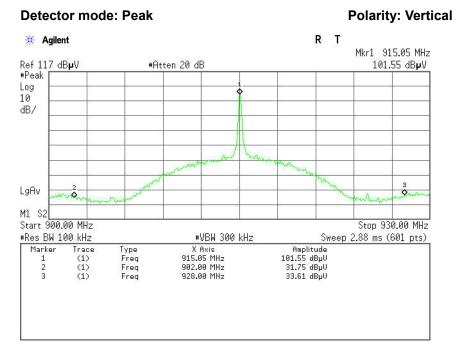
Refer to attach spectrum analyzer data chart.

FCC ID: WA5WH25B Page 11 / 22

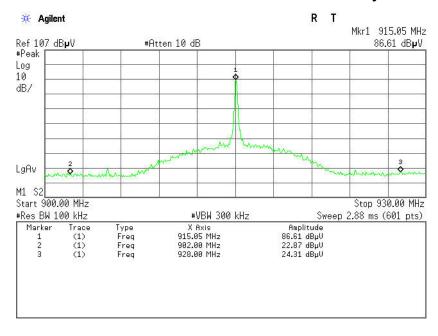
Report No.: C130315Z08-RP1

Test Data

Band Edges (TX / CH 1 915.0MHz)



Detector mode: Peak Polarity: Horizontal



8.2. POWER LINE CONDUCTED EMISSIONS MEASUREMENT

8.2.1. LIMITS OF CONDUCTED EMISSIONS MEASUREMENT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Report No.: C130315Z08-RP1

Frequency Range		nits μV)
(MHz)	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

NOTE:

- (1) The lower limit shall apply at the transition frequencies.
- (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
- (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

8.2.2. TEST INSTRUMENTS

	Conducted Emission Test Site												
Name of Equipment	ne of Equipment Manufacturer		Serial Number	Last Calibration	Due Calibration								
ESCI EMI TEST RECEIVER.ESCI	ROHDE&SCHWARZ	ESCI	100783	03/09/2013	03/08/2014								
LISN(EUT)	ROHDE&SCHWARZ	ENV216	101543	09/20/2012	09/20/2013								
LISN	EMCO	3825/2	8901-1459	03/09/2013	03/08/2014								
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	03/04/2013	03/03/2014								
Test S/W	FARAD	EZ-EMC/ CCS-3A1-CE											

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. N.C.R = No Calibration Request.

FCC ID:WA5WH25B Page 13 / 22



8.2.3. TEST PROCEDURES (please refer to measurement standard)

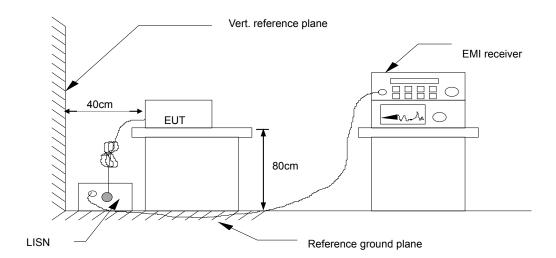
• The EUT and Support equipment, if needed, was placed on a non-conducted table, which is 0.8m above the ground plane and 0.4m away from the conducted wall.

Report No.: C130315Z08-RP1

- The test equipment EUT installed received AC main power, through a Line Impedance Stabilization Network (LISN), which supplied power source and was grounded to the ground plane. All support equipment power received from a second LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The frequency range from 150 kHz to 30 MHz was searched. The test data of the worst-case condition(s) was recorded. Emission levels under limit 20dB were not recorded.

FCC ID: WA5WH25B Page 14 / 22

8.2.4. TEST SETUP



Report No.: C130315Z08-RP1

For the actual test configuration, please refer to the related item - Photographs of the Test Configuration.

8.2.5. DATA SAMPLE

Frequency (MHz)		Average Reading (dBuV)		QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Margin	Remark (Pass/Fail)
X.XXXX	34.99	19.33	10.15	45.14	29.48	65.99	56.00	-20.85	-26.52	Pass

Factor = Insertion loss of LISN + Cable Loss

Result = Quasi-peak Reading/ Average Reading + Factor

Limit = Limit stated in standard

Margin = Result (dBuV) – Limit (dBuV)

8.2.6. TEST RESULTS

Not applicable, since the EUT supplied by the battery.

FCC ID:WA5WH25B Page 15 / 22

8.3. SPURIOUS EMISSIONS MEASUREMENT

8.3.1. LIMITS OF RADIATED EMISSIONS MEASUREMENT

1. In the section 15.249(a):

Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Report No.: C130315Z08-RP1

Fundamental	Field Strength of Fundamental	Field Strength of Harmonics
Frequency	Field Strength (mV/m)	(µV/m)
902-928 MHz	50	500
2400 - 2483.5 MHz	50	500
5725 - 5875 MHz	50	500
24.0 - 24.25 GHz	250	2500

2. Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

3. In the above emission table, the tighter limit applies at the band edges.

Frequency (Hz)	Field Strength	Field Strength
	(µV/m at 3-meter)	(dBµV/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

FCC ID:WA5WH25B Page 16 / 22



8.3.2. TEST INSTRUMENTS

	Radiated Emission Test Site 966(2)											
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration							
PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	03/09/2013	03/08/2014							
ESCI EMI TEST RECEIVER.ESCI	ROHDE&SCHWA RZ	ESCI	100783	03/09/2013	03/08/2014							
Amplifier	MITEQ	AM-1604-3000	1123808	03/18/2013	03/18/2014							
High Noise Amplifier	Agilent	8449B	3008A01838	03/18/2013	03/18/2014							
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	06/21/2012	06/21/2013							
Bilog Antenna	SCHAFFNER	CBL6143	5082	03/02/2013	03/01/2014							
Horn Antenna	SCHWARZBECK	BBHA9120	D286	03/02/2013	03/01/2014							
Loop Antenna	A、R、A	PLA-1030/B	1029	03/23/2013	03/23/2014							
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R							
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R							
Controller	СТ	N/A	N/A	N.C.R	N.C.R							
Temp. / Humidity Meter	Anymetre	JR913	N/A	03/04/2013	03/03/2014							
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R							
966(2)	中宇电子	N/A	N/A	03/10/2013	03/09/2014							
Test S/W	FARAD		LZ-RF /	CCS-SZ-3A2								

Report No.: C130315Z08-RP1

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. N.C.R = No Calibration Required.

8.3.3 TEST PROCEDURE (please refer to measurement standard)

- 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.
- 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.
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Set the spectrum analyzer in the following setting as: Below 1GHz:

RBW=100kHz / VBW=300kHz / Sweep=AUTO

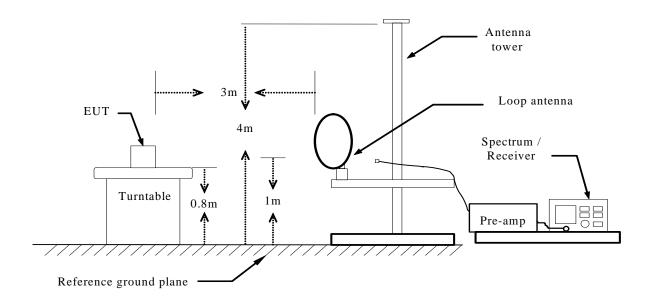
Above 1GHz:

- (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
- (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
- 7. Repeat above procedures until the measurements for all frequencies are complete.

FCC ID:WA5WH25B Page 17 / 22

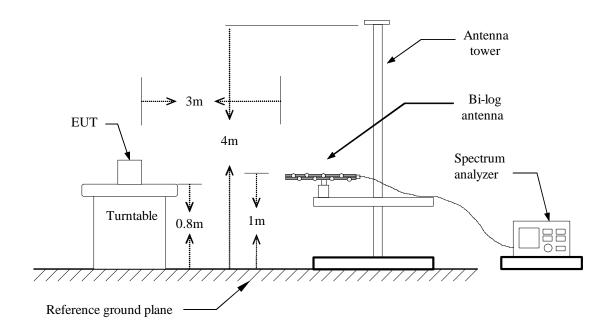
8.3.2.1. TEST SETUP

Below 30 MHz

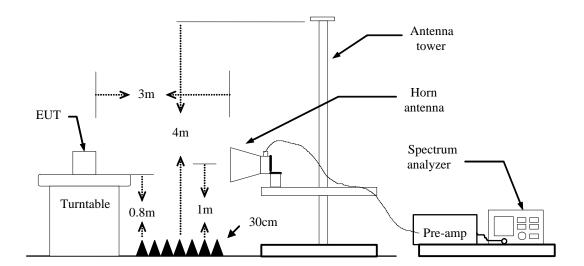


Report No.: C130315Z08-RP1

Below 1 GHz



Above 1 GHz



Report No.: C130315Z08-RP1

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

FCC ID: WA5WH25B Page 19 / 22



8.3.2.2. DATA SAMPLE

Below 1 GHz

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
XXX.XXXX	53.41	-18.63	34.78	43.50	-8.72	V	QP

Report No.: C130315Z08-RP1

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV) = Uncorrected Analyzer / Receiver reading Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

Q.P. = Quasi-peak Reading

Above 1 GHz

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
XXXX.XXXX	62.09	-11.42	50.67	74.00	-23.33	V	Peak
XXXX.XXXX	49.78	-11.42	38.36	54.00	-15.64	V	AVG

Frequency (MHz) = Emission frequency in MHz

Reading (dBuV) = Uncorrected Analyzer / Receiver reading Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)

Limit (dBuV/m) = Limit stated in standard

Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)

Peak = Peak Reading AVG = Average Reading

FCC ID:WA5WH25B Page 20 / 22



8.3.2.3. TEST RESULTS

Below 1 GHz

Operation Mode: TX / CH 1 (915.0MHz) Test Date: April 19, 2013

Temperature:24°CTested by:Leevin LiHumidity:52 % RHPolarity:Ver. / Hor.

Fundamental

Frequency (MHz)	Reading	Correction Factor	Result	Limit	Margin (dB)	Antenna Pole	Remark
	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)		(V/H)	
915.0000	105.30	-3.75	101.55	114.00	-12.45	V	peak
915.0000	94.20	-3.75	90.45	94.00	-3.55	V	AVG
915.0000	90.36	-3.75	86.61	114.00	-27.39	Н	peak
915.0000	79.26	-3.75	75.51	94.00	-18.49	Н	AVG

Report No.: C130315Z08-RP1

Frequency (MHz)	Reading (dBµV)	Correction Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
251.4833	44.46	-17.78	26.68	46.00	-19.32	V	QP
592.6000	42.55	-12.70	29.85	46.00	-16.15	V	QP
718.7000	43.78	-10.87	32.91	46.00	-13.09	V	QP
935.3333	52.48	-8.42	44.06	46.00	-1.94	V	QP
954.7333	51.57	-8.20	43.37	46.00	-2.63	V	QP
964.4333	49.88	-8.31	41.57	54.00	-12.43	V	QP
248.2500	43.29	-17.60	25.69	46.00	-20.31	Н	QP
353.3333	43.79	-16.71	27.08	46.00	-18.92	Н	QP
445.4833	43.29	-15.22	28.07	46.00	-17.93	Н	QP
503.6833	44.20	-14.26	29.94	46.00	-16.06	Н	QP
670.2000	42.45	-11.08	31.37	46.00	-14.63	Н	QP
702.5333	43.18	-10.53	32.65	46.00	-13.35	Н	QP

^{**}Note: No emission found between lowest internal used/generated frequency to 30 MHz.

REMARKS:

- 1. Radiated emissions measured in frequency range from 9kHz to 1GHz were made with an instrument using peak/quasi-peak detector mode.
- 2. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit or as required by the applicant.
- 3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 4. Margin (dB) = Remark result (dBuV/m) Quasi-peak limit (dBuV/m)

FCC ID:WA5WH25B Page 21 / 22



Above 1 GHz

Operation Mode: TX / CH 1 (915.0MHz) Test Date: April 19, 2013

Report No.: C130315Z08-RP1

Temperature:24°CTested by:Leevin LiHumidity:52% RHPolarity:Ver. / Hor.

Frequency (MHz)	Reading (dBµV)	Correction Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1825.0000	71.02	-9.67	61.35	74.00	-12.65	V	peak
1825.0000	59.92	-9.67	50.25	54.00	-3.75	V	AVG
2740.0000	65.21	-5.28	59.93	74.00	-14.07	V	peak
2740.0000	54.11	-5.28	48.83	54.00	-5.17	V	AVG
3805.0000	46.14	-2.49	43.65	74.00	-30.35	V	peak
4555.0000	46.00	-0.54	45.46	74.00	-28.54	V	peak
4975.0000	45.24	1.21	46.45	74.00	-27.55	V	peak
5365.0000	45.67	1.53	47.20	74.00	-26.80	V	peak
1825.0000	69.94	-9.67	60.27	74.00	-13.73	Н	peak
1825.0000	58.84	-9.67	49.17	54.00	-4.83	Н	AVG
2740.0000	56.43	-5.28	51.15	74.00	-22.85	Н	peak
4150.0000	45.95	-1.82	44.13	74.00	-29.87	Н	peak
4810.0000	45.29	0.46	45.75	74.00	-28.25	Н	peak
6145.0000	44.13	3.52	47.65	74.00	-26.35	Н	peak
6940.0000	44.29	6.04	50.33	74.00	-23.67	Н	peak

REMARKS:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
- 3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
- 4. Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 6. Margin (dB) = Remark result (dBuV/m) Average limit (dBuV/m).