

FCC TEST REPORT

Under

FCC 15 Subpart B

For

ALITY LIMITED

weeboard

FCC ID : V8ZAL-WB08

Model No. : AL-WB08

Prepared for : ALITY LIMITED
12/F, First Commercial Building, 33-35 Leighton Road,
Causeway Bay, Hong Kong

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Report No. : A001P110122002E-1

Date of Test : March 2-9, 2011

Date of Rep. : March 9, 2011

TABLE OF CONTENTS

Description	Page
Test Report Declaration	
1. GENERAL INFORMATION	4
1.1. Description of Device (EUT)	4
1.2. Test Facility	5
1.3. Uncertainty	5
2. POWER LINE CONDUCTED EMISSION TEST	6
2.1. Test Equipment	6
2.2. Block Diagram of Test Setup	6
2.3. Power Line Conducted Emission Limit	6
2.4. EUT Configuration on Test	6
2.5. Operating Condition of EUT	7
2.6. Test Procedure	7
2.7. Power Line Conducted Emission Test Results	7
3. RADIATED EMISSION TEST	8
3.1. Test Equipment	8
3.2. Block Diagram of Test Setup	8
3.3. Radiation Limit	9
3.4. EUT Configuration on Test	9
3.5. Operating Condition of the EUT	9
3.6. Test Procedure	10
3.7. Radiated Emission Test Result	10
4. TEST SETUP PHOTOGRAPH	11
4.1. Photo of Power Line Conducted Emission Test	11
4.2. Photo of Radiated Emission Test	11

APPENDIX I ----- Power Line Conducted Emission Test Data

APPENDIX II ----- Radiated Emission Test Data

TEST REPORT DECLARATION

Applicant : ALITY LIMITED
Manufacturer : SEATUNE ELECTRONICS CO., LTD
EUT Description : weeboard


(A) Model No. : AL-WB08
(B) Serial No. : E2011030901C
(C) Power Supply : AC 120V/50Hz


Test Procedure Used:
FCC Rules and Regulations Part 15 Subpart B 2007.

The device described above has been tested by **Shenzhen AOV Testing Technology Co., Ltd** to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits both conducted and radiated emissions. The test results are contained in this test report and **Shenzhen AOV Testing Technology Co., Ltd** is assumed of full responsibility for the accuracy and completeness of these tests. Also, this report shows that the EUT (Equipment Under Test) is complies with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of **Shenzhen AOV Testing Technology Co., Ltd**.

Date of Test: March 2-9, 2011

Prepared by: 
Project Engineer

Approved & Authorized Signer: 
Project Manager

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : weeboard

Model Number : AL-WB08

Applicant : ALITY LIMITED
Address : NO. 12, Pingdong 3rd Road, Nanping Industry Community,
Zhuhai, Guangdong China

Manufacturer : SEATUNE ELECTRONICS CO., LTD
Address : NO. 27, SHUIKOU AVENUE, SHUIKOU TOWN,
HUIZHOU CITY, GUANGDONG, CHINA

Date of Test : March 2-9, 2011

1.2. Test Facility

Test Firm : Bontek Compliance Testing Laboratory Ltd.
Certificated by FCC, Registration No.: 338263
Address : FL.1, Building H-3, Hua Qiao Cheng East Industrial Area
Qiaocheng East Road, Nanshan, Shenzhen, P.R.China
Tel : 86-755-86337020
Fax : 86-755-86337028

1.3. Uncertainty

Conducted Emission Uncertainty = $\pm 2.23\text{dB}$

Radiated Emission Uncertainty = $\pm 4.26\text{dB}$

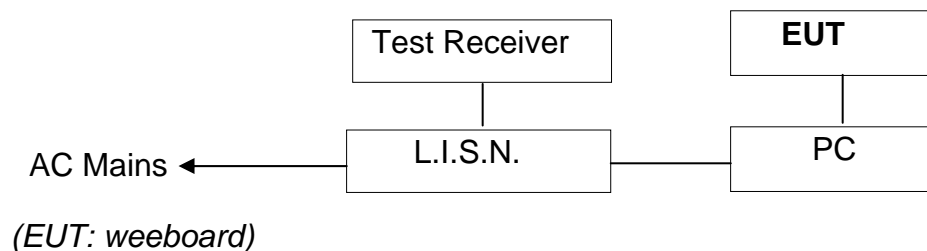
2. POWER LINE CONDUCTED EMISSION TEST

2.1. Test Equipment

The following test equipments are used during the power line conducted emission test:

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal date
1.	Spectrum Analyzer	ADVANTEST	R3261C	51720141	2010-11-22
2.	EMI Test Receiver	R&S	ESCI	837010/012	2010-11-22
3.	RF Selector	TOYO	NS4000	9507001	2010-11-22
4.	AM/FM Stereo Signal Generator	Panasonic	VP-8122A	4D0461C125	2010-11-22
5.	pc	IBM	T40	EIF46DEC1	N/A

2.2. Block Diagram of Test Setup



2.3. Power Line Conducted Emission Limit

Frequency MHz	Limits (dB μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes:

1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

2.4. EUT Configuration on Test

The following equipments are installed on conducted emission Test to meet the Commission requirement and operating regulations in a manner that tends to maximize its emission characteristics in a normal application.

2.4.1.1. weeboard (EUT)

Model Number : RL-0503C
 Serial Number : E2011030901C
 Manufacturer : ALITY LIMITED

2.5. Operating Condition of EUT

Setup the EUT and simulator as shown on Section 2.2.

Turn on the power of all equipment.

Let the EUT work in test mode (On) and measure it.

2.6. Test Procedure

The EUT is put on the table that is 0.8m high above the ground and at least away from other Metallic surface 0.4m. The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohms coupling impedance for the testing equipment; and the peripheral equipment powers form other L.I.S.N. Please refer to the block diagram of the test setup and photographs. Both sides of AC line (Line & Neutral) are checked for maximum conducted interference. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables must be changed according to FCC part 15 B.

The bandwidth of the field strength meter (R&S Test Receiver ESCI) is set at 120 KHz.

The frequency range from 150KHz to 30MHz is checked. The details of test modes are listed as follows, and the test data has been listed in APPENDIX I.

2.7. Power Line Conducted Emission Test Results

PASS.

The frequency range 150KHz to 30MHz is investigated.

Detailed information, please see the appendix (I) file.

3. RADIATED EMISSION TEST

3.1. Test Equipment

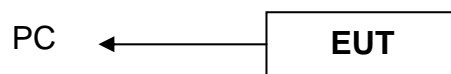
The following test equipments are used during the radiated emission test:

For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal date
1.	EMI Test Receiver	R&S	ESPI	RL-0503C786/013	2010-11-22
2.	Amplifier	HP	8447D	1937A02492	2010-11-22
3.	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9163	9163-324	2010-11-22
4.	pc	IBM	T40	EIF46DEC1	N/A

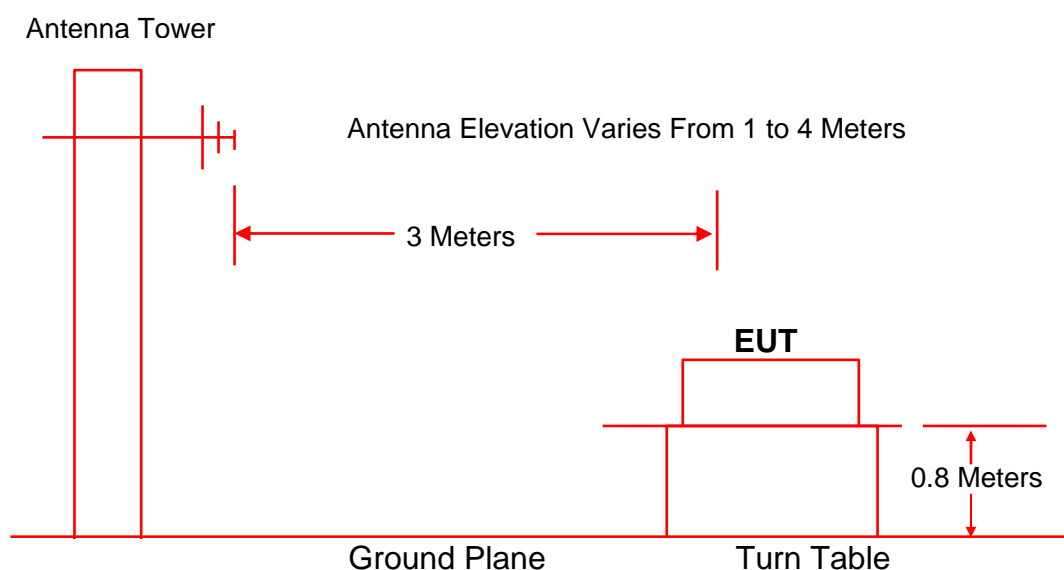
3.2. Block Diagram of Test Setup

3.2.1. For Block Diagram of Test Setup



(EUT: weebord)

3.2.2. Anechoic Chamber Setup Diagram



3.3. Radiation Limit

Frequency MHz	Distance (Meter/s)	Field Strengths Limits dB(μ V)/m
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

Remark: (1) Emission level (dB (μ V)/m) = 20 log Emission level (μ V/m)

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance refers to the distance in meters between the measuring instrument, antenna and the closed point of any part of the device or system.

3.4. EUT Configuration on Test

The following equipments are installed on RF LINE VOLTAGE Test to meet the Commission requirement and operating regulations in a manner that tends to maximize its emission characteristics in a normal application.

3.5. Operating Condition of the EUT

3.5.1. Setup the EUT and simulator as shown on Section 3.2.

3.5.2. Turn on the power of all equipment.

3.5.3. Let the EUT work in test mode (On) and measure it.

3.6. Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to ANSI / IEEE Standard 187-1990 on radiated emission test.

The bandwidth setting on the field strength meter (R & S Test Receiver ESPI) is set at 120 KHz.

The frequency range from 30MHz to 1000MHz is checked. The test data are listed in the Section 3.7 and the scanning waveform are attached within Appendix II.

3.7. Radiated Emission Test Result

PASS.

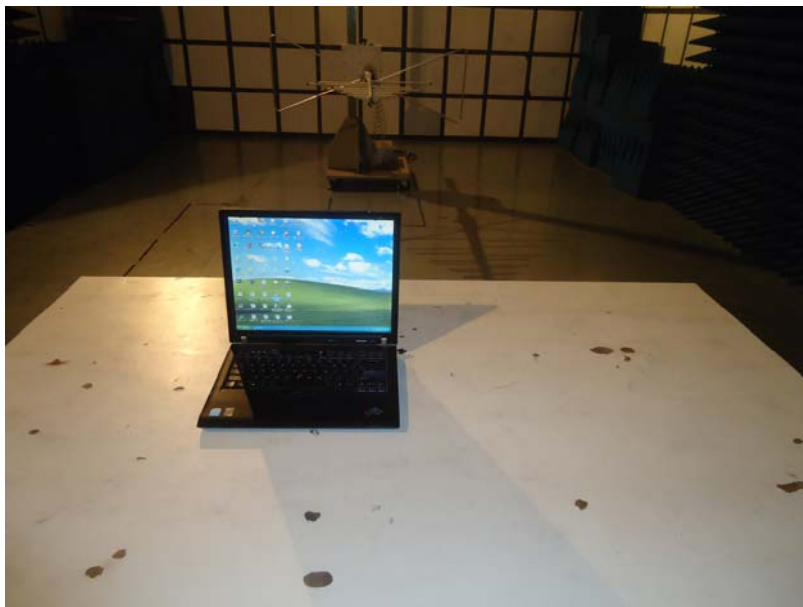
Detailed information, please see the appendix (II) file.

4. TEST SETUP PHOTOGRAPH

4.1. Photo of Power Line Conducted Emission Test



4.2. Photo of Radiated Emission Test

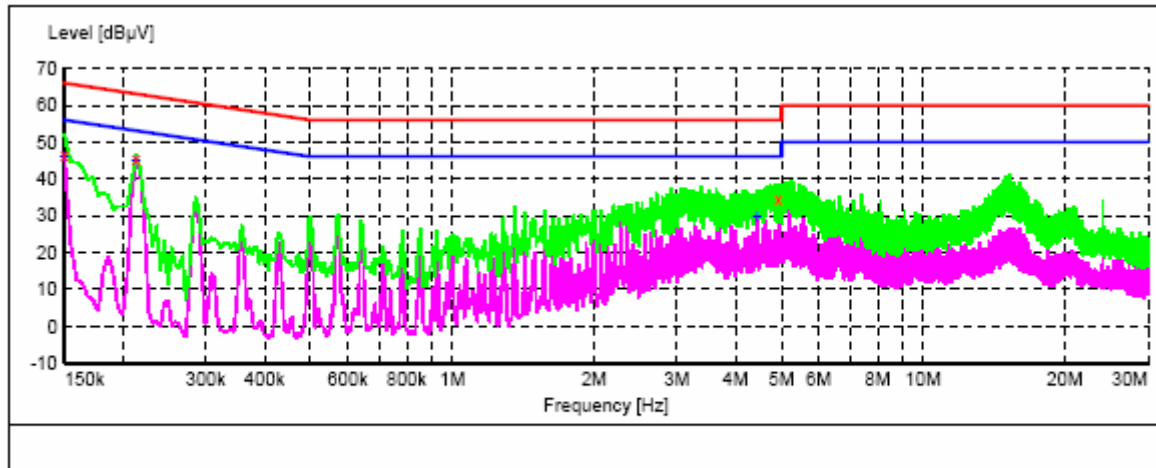


APPENDIX I

Power line conducted Emission Test Data

Power Line Conducted Emission

Engineer : Andy	
EUT : weeboard	Time : 2011/03/05
Limit : FCC Part15 B	Comment : 25°C/55%
MN: AL-WB08	Note : L
Power : AC 120V 60Hz	

**MEASUREMENT RESULT:**

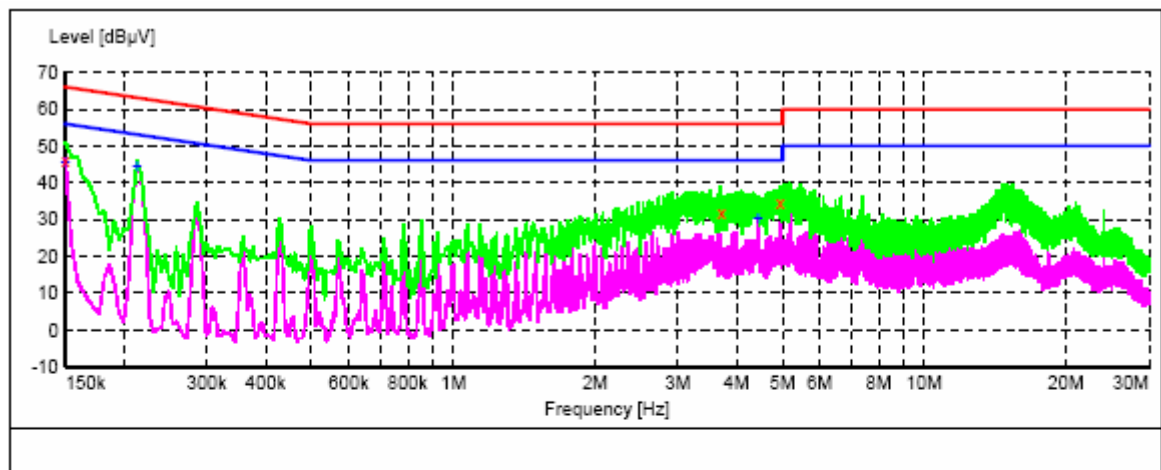
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	46.40	11.4	66	19.6	QP	L1	GND
0.213000	45.30	10.8	63	17.8	QP	L1	GND
4.924500	34.30	10.4	56	21.7	QP	L1	GND

MEASUREMENT RESULT:

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	46.40	11.4	56	9.6	AV	L1	GND
0.213000	45.50	10.8	53	7.6	AV	L1	GND
4.434000	30.40	10.3	46	15.6	AV	L1	GND

Power Line Conducted Emission

Engineer : Andy	
EUT : weeboard	Time : 2011/03/05
Limit : FCC Part15 B	Comment : 25°C/55 %
MN: AL-WB08	Note : N
Power : AC 120V 60Hz	



MEASUREMENT RESULT:

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	46.10	11.4	66	19.9	QP	N	GND
3.705000	32.10	10.3	56	23.9	QP	N	GND
4.938000	34.80	10.4	56	21.2	QP	N	GND

MEASUREMENT RESULT:

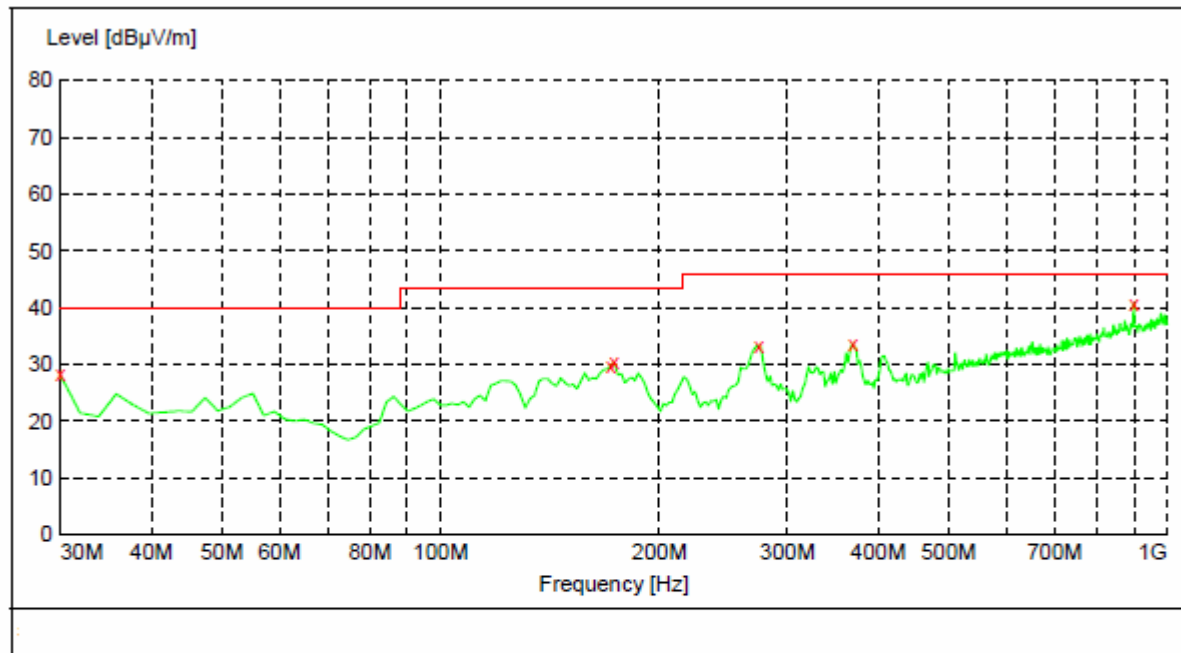
Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.150000	46.20	11.4	56	9.8	AV	N	GND
0.213000	45.10	10.8	53	8.0	AV	N	GND
4.434000	30.90	10.3	46	15.1	AV	N	GND

APPENDIX II

Radiated Emission Test Data

Radiated Emission

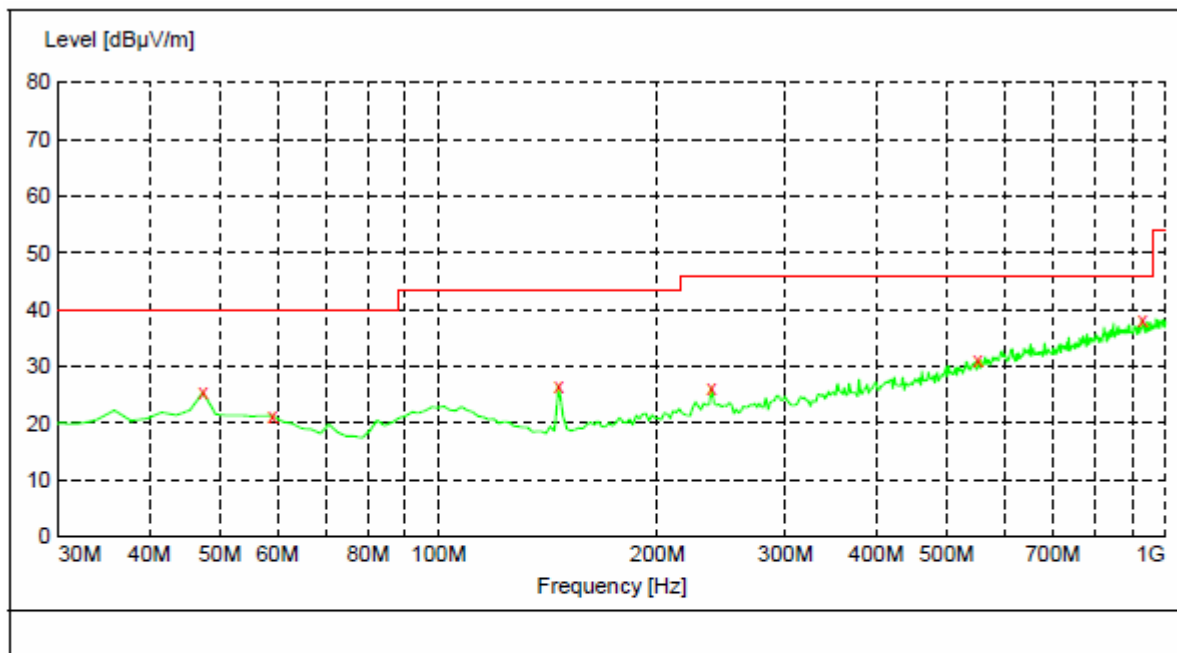
Engineer : Andy	
EUT : weeboard	Time : 2011/03/05
Limit : FCC Part15 B	Comment : 25°C/55%
MN: AL-WB08	Note : Hor
Power : AC120V/50Hz	

**MEASUREMENT RESULT:**

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	28.20	14.3	40.0	11.8	---	100.0	0.00	HORIZONTAL
171.620000	29.70	14.4	43.5	13.8	---	100.0	0.00	HORIZONTAL
173.560000	30.30	14.5	43.5	13.2	---	100.0	0.00	HORIZONTAL
274.440000	33.40	17.9	46.0	12.6	---	100.0	0.00	HORIZONTAL
369.500000	33.80	20.8	46.0	12.2	---	100.0	0.00	HORIZONTAL
899.120000	40.80	31.2	46.0	5.2	---	100.0	0.00	HORIZONTAL

Radiated Emission

Engineer : Andy	
EUT : weeboard	Time : 2011/03/05
Limit : FCC Part15 B	Comment : 25°C/55%
MN: AL-WB08	Note : Ver
Power : AC120V/50Hz	

**MEASUREMENT RESULT:**

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
47.460000	25.50	15.8	40.0	14.5	---	100.0	0.00	VERTICAL
59.100000	21.30	14.6	40.0	18.7	---	100.0	0.00	VERTICAL
146.400000	26.70	13.2	43.5	16.8	---	100.0	0.00	VERTICAL
237.580000	26.30	17.0	46.0	19.7	---	100.0	0.00	VERTICAL
551.860000	31.10	25.2	46.0	14.9	---	100.0	0.00	VERTICAL
930.160000	38.20	31.6	46.0	7.8	---	100.0	0.00	VERTICAL