

## FCC PART 15.247

## TEST REPORT

For

**Gajah International (HK) Co., Ltd**

18/F, Bel Trade Commercial Building, 1-3, Burrows Street, Wan chai, Hong Kong

**FCC ID: UFKMD800500**

<b>Report Type:</b> Class II Permissive Change	<b>Product Type:</b> 7" MID
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<b>Report Number:</b> RSZ130520002-00C	
<b>Report Date:</b> 2013-07-18	
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**Note:** This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

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## GENERAL INFORMATION

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### Product Description for Equipment under Test (EUT)

The *Gajah International (HK) Co., Ltd*'s product, model number: *MD7011 (FCC ID: UFKMD800500)* or the "EUT" in this report was a 7" *MID*, which was measured approximately: 192.3 mm (L) x 123 mm (W) x 11.1mm (H), rated with input voltage: DC 3.7V rechargeable Li-ion battery or DC 5.0V charging from adapter.

Adapter Information:

Model: PSEA050150U USB2

Input: 100-240V~50/60Hz, 0.25A

Output: DC 5.0V, 1.5A

*\*All measurement and test data in this report was gathered from production sample serial number: 1305099 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2013-05-20.*

### Objective

This report is prepared on behalf of *Gajah International (HK) Co., Ltd* in accordance with Part 2-Subpart J, Part 15-Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

This is a class II permissive change basing on the original report RSZ130520001-00C with FCC ID: UFKMD800500, the changes between the original device and the current one as below:

- 1) Changing the product name: the original one is 8" *MID*, the current one is 7" *MID*
- 2) Changing the model name: the original one is MD8005, the current one is MD7011
- 3) Changing the screen size: the original size is 8 inches, the current size is 7 inches
- 4) Changing the material and color of the casing

For the changes above, we just performed the items "AC Line Conducted Emissions" and "Radiated Emissions", and the other test items can be referred to original report RSZ130520001-00C with FCC ID: UFKMD800500 granted on 2013-07-16.

### Related Submittal(s)/Grant(s)

FCC Part 15B JBP and Part 15.247 DSS submissions with FCC ID: UFKMD800500

**Test Methodology**

All measurements contained in this report were conducted with ANSI C63.4-2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

The uncertainty of any RF tests which use conducted method measurement is  $\pm 0.96$  dB, the uncertainty of any radiation on emissions measurement is  $\pm 4.0$  dB

**Test Facility**

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3<sup>rd</sup> Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

## SYSTEM TEST CONFIGURATION

### Description of Test Configuration

For 802.11b, 802.11g, and 802.11n-HT20 mode, 11 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

For 802.11b, 802.11g, 802.11n-HT20 mode, EUT was tested with Channel 1, 6 and 11.

For 802.11n-HT40 mode, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2422	6	2447
2	2427	7	2452
3	2432	/	/
4	2437	/	/
5	2442	/	/

EUT was tested with Channel 1, 4 and 7.

### EUT Exercise Software

RF test tool built-in the EUT.

### Equipment Modifications

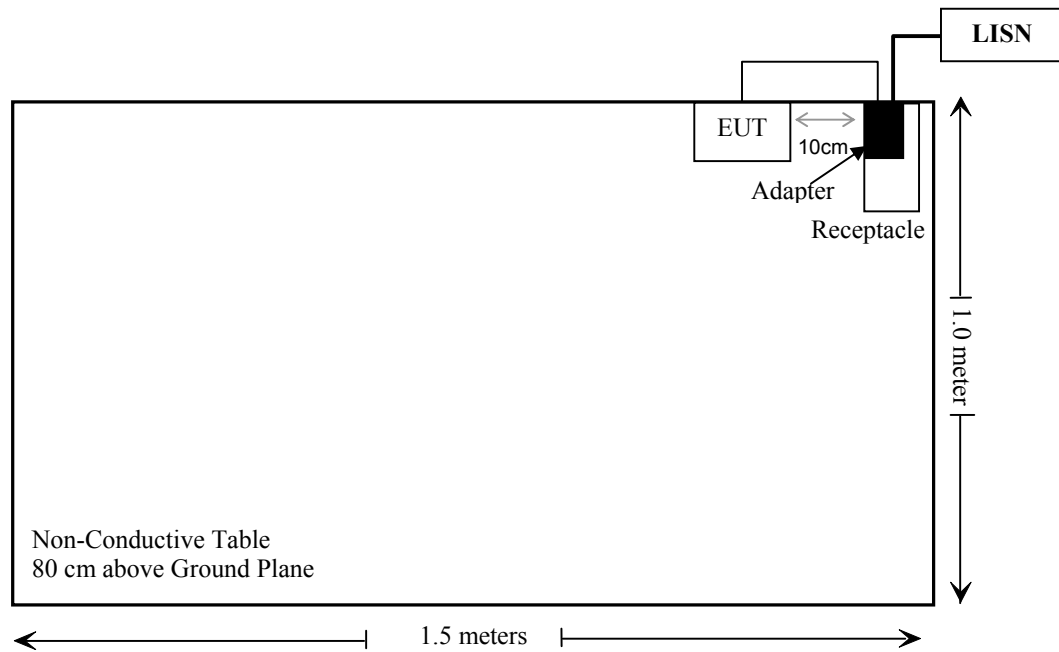
No modification was made to the EUT tested.

### External I/O Cable

Cable Description	Length (m)	From Port	To
Unshielded detachable DC Cable	1.2	Adapter	LISN
Unshielded detachable DC Cable	0.6	Adapter	EUT

## Block Diagram of Test Setup

For conducted emission:



**SUMMARY OF TEST RESULTS**

FCC Rules	Description of Test	Result
§15.247 (i), §1.1307 (b) (1)& §2.1093	RF Exposure	Compliance*
§15.203	Antenna Requirement	Compliance*
§15.207 (a)	AC Line Conducted Emissions	Compliance
§15.247(d)	Spurious Emissions at Antenna Port	Compliance*
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliance*
§15.247(b)(3)	Maximum Peak Output Power	Compliance*
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance*
§15.247(e)	Power Spectral Density	Compliance*

Note:\*Please refer to original FCC ID report.

## FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

### Applicable Standard

FCC§15.207

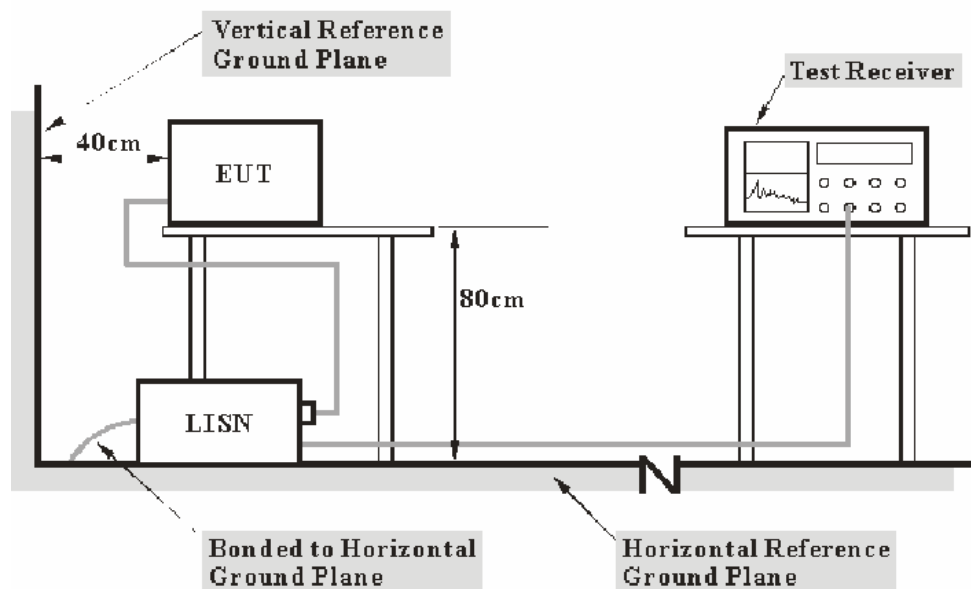
### Measurement Uncertainty

Input quantities to be considered for conducted disturbance measurements may be receiver reading, attenuation of the connection between AMN/ISN and receiver, AMN/ISN voltage division factor, AMN/ISN VDF frequency interpolation and receiver related input quantities, etc.

Based on CISPR 16-4-2:2011, the expanded combined standard uncertainty of conducted disturbance test at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown as below. And the uncertainty will not be taken into consideration for the test data recorded in the report

Port	Measurement uncertainty
AC Mains	3.26 dB (k=2, 95% level of confidence)
CAT 3	3.70 dB (k=2, 95% level of confidence)
CAT 5	3.86 dB (k=2, 95% level of confidence)
CAT 6	4.64 dB (k=2, 95% level of confidence)

### EUT Setup



- Note: 1. Support units were connected to second LISN.  
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.



The setup of EUT is according with per ANSI C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter was connected to a 120 VAC/60 Hz power source.

### EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

### Test Procedure

During the conducted emission test, the adapter was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

### Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2013-05-09	2014-05-09
Rohde & Schwarz	LISN	ESH2-Z5	892107/021	2012-08-22	2013-08-21
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2012-08-09	2013-08-09
BACL	CE Test software	BACL-CE	V1.0	-	-

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

## Test Results Summary

According to the recorded data in following table, with the worst margin reading of:

**10.1 dB at 0.745778 MHz** in the **Neutral** conducted mode

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m + U_{(Lm)} \leq L_{lim} + U_{cispr}$$

In BACL,  $U_{(Lm)}$  is less than  $U_{cispr}$ , if  $L_m$  is less than  $L_{lim}$ , it implies that the EUT complies with the limit.

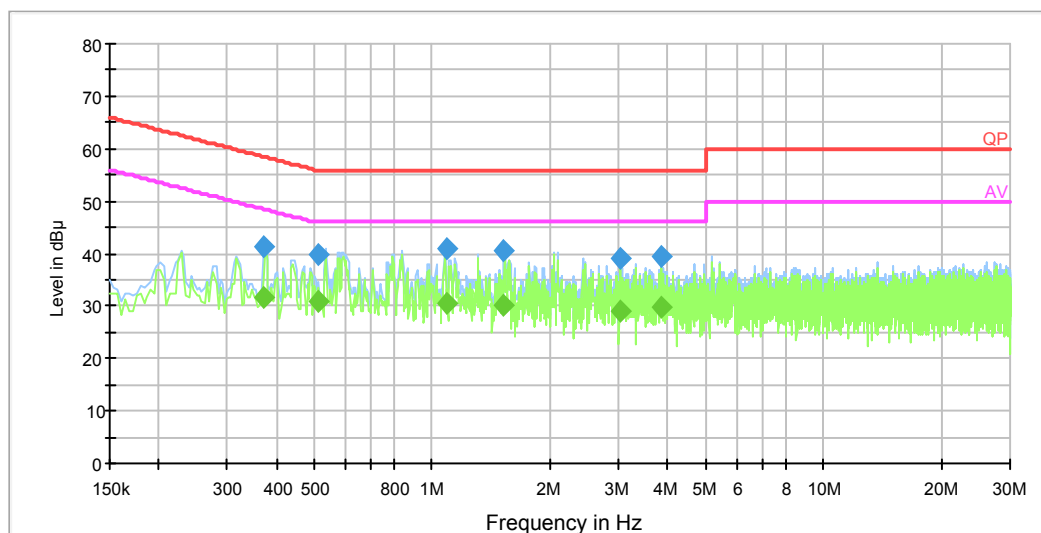
## Test Data

### Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

*The testing was performed by Charlie Chen on 2013-05-30.*

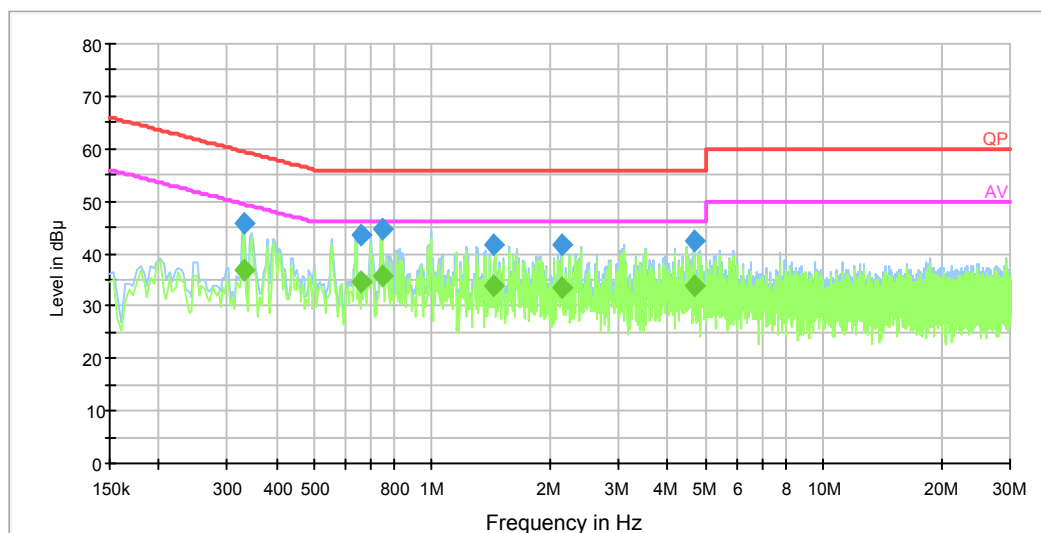
*EUT operation mode: Charging & transmitting*

**AC 120V/60 Hz, Line****EMI Auto Test L****Quasi-peak detection mode**

Frequency (MHz)	Corrected Amplitude (dBμV)	Corrected Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
1.093259	40.8	19.3	56.0	15.2	QP
1.522890	40.6	19.3	56.0	15.4	QP
0.511920	40.0	19.3	56.0	16.0	QP
3.837755	39.3	19.4	56.0	16.7	QP
3.035014	38.9	19.4	56.0	17.1	QP
0.370247	41.2	19.3	58.5	17.3	QP

**Average detection mode**

Frequency (MHz)	Corrected Amplitude (dBμV)	Corrected Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
0.511920	30.7	19.3	46.0	15.3	Ave.
1.093259	30.4	19.3	46.0	15.6	Ave.
1.522890	30.2	19.3	46.0	15.8	Ave.
3.837755	29.7	19.4	46.0	16.3	Ave.
0.370247	31.5	19.3	48.5	17.0	Ave.
3.035014	28.9	19.4	46.0	17.1	Ave.

**AC 120V/60 Hz, Neutral****EMI Auto Test N****Quasi-peak detection mode**

Frequency (MHz)	Corrected Amplitude (dBμV)	Corrected Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
0.745778	44.6	19.4	56.0	11.4	QP
0.657148	43.5	19.4	56.0	12.5	QP
4.656792	42.4	19.4	56.0	13.6	QP
0.329786	45.8	19.4	59.5	13.7	QP
1.430481	41.6	19.4	56.0	14.4	QP
2.139887	41.6	19.4	56.0	14.4	QP

**Average detection mode**

Frequency (MHz)	Corrected Amplitude (dBμV)	Corrected Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/QP/Ave.)
0.745778	35.9	19.4	46.0	10.1	Ave.
0.657148	34.5	19.4	46.0	11.5	Ave.
4.656792	33.9	19.4	46.0	12.1	Ave.
1.430481	33.8	19.4	46.0	12.2	Ave.
2.139887	33.5	19.4	46.0	12.5	Ave.
0.329786	36.8	19.4	49.5	12.7	Ave.

**FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS****Applicable Standard**

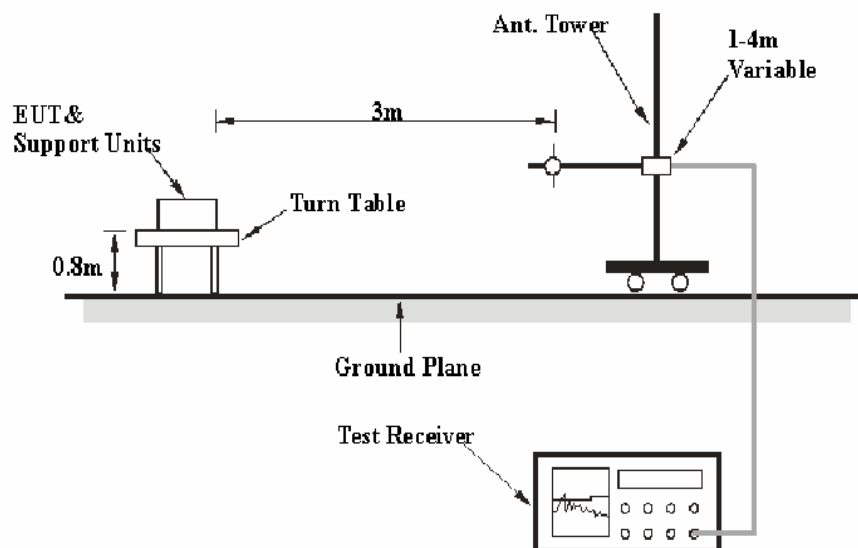
FCC §15.247 (d); §15.209; §15.205;

**Measurement Uncertainty**

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of radiation emissions at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown in below table. And the uncertainty will not be taken into consideration for the test data recorded in the report

Frequency	Polarity	Measurement uncertainty
30MHz~200MHz	Horizontal	4.62 dB (k=2, 95% level of confidence)
	Vertical	4.54 dB (k=2, 95% level of confidence)
200MHz~1GHz	Horizontal	4.84 dB (k=2, 95% level of confidence)
	Vertical	5.91 dB (k=2, 95% level of confidence)
1 GHz~6 GHz	Horizontal/Vertical	4.68 dB (k=2, 95% level of confidence)
Above 6 GHz	Horizontal/Vertical	4.92 dB (k=2, 95% level of confidence)

**EUT Setup**

The radiated emission tests were performed in the 3 meters test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209, and FCC 15.247 limits.

### EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	Ave.

### Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

### Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

**Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2012-11-24	2013-11-23
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2013-05-09	2014-05-09
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2011-11-28	2014-11-27
SUPER ULTRA	Amplifier	ZVA-213+	N/A	2012-11-24	2013-11-23
Sunol Sciences	Horn Antenna	DRH-118	A052304	2011-12-01	2014-11-30
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23
the electro-Mechanics Co.	Horn Antenna	3116	9510-2270	2010-10-14	2013-10-13

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

**Test Results Summary**

According to the recorded data in following table, with the worst margin reading of:

**7.90 dB at 2483.5 MHz** in the **Vertical** polarization for 802.11n-HT20 Mode

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m + U_{(L_m)} \leq L_{lim} + U_{cispr}$$

In BACL,  $U_{(L_m)}$  is less than  $U_{cispr}$ , if  $L_m$  is less than  $L_{lim}$ , it implies that the EUT complies with the limit.

**Test Data****Environmental Conditions**

<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	55 %
<b>ATM Pressure:</b>	101.0 kPa

*The testing was performed by Charlie Chen on 2013-05-29.*

*EUT operation mode: Transmitting*

**30 MHz-25 GHz:****802.11b Mode:**

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
Low Channel (2412 MHz)									
166.8	41.26	QP	153	1.5	V	-15.40	25.86	43.5	17.64
2412.0	95.79	PK	225	1.3	H	6.13	101.92	/	/
2412.0	90.12	Ave.	225	1.3	H	6.13	96.25	/	/
2412.0	97.95	PK	116	1.2	V	6.13	104.08	/	/
2412.0	92.46	Ave.	116	1.2	V	6.13	98.59	/	/
9648.0	21.11	Ave.	20	1.2	V	19.29	40.40	54	13.60
7236.0	21.65	Ave.	322	1.3	V	16.62	38.27	54	15.73
4824.0	24.56	Ave.	231	1.2	H	12.40	36.96	54	17.04
9648.0	33.75	PK	20	1.2	V	19.29	53.04	74	20.96
4824.0	40.45	PK	231	1.2	H	12.40	52.85	74	21.15
7236.0	35.19	PK	322	1.3	V	16.62	51.81	74	22.19
2365.5	23.70	Ave.	15	1.3	V	5.48	29.18	54	24.82
2485.3	21.91	Ave.	163	1.2	V	7.21	29.12	54	24.88
2338.7	21.77	Ave.	53	1.1	V	5.48	27.25	54	26.75
2485.3	35.73	PK	163	1.2	V	7.21	42.94	74	31.06
2365.5	36.85	PK	15	1.3	V	5.48	42.33	74	31.67
2338.7	35.18	PK	53	1.1	V	5.48	40.66	74	33.34
Middle Channel (2437 MHz)									
166.8	41.12	QP	12	1.2	V	-15.4	25.72	43.5	17.78
2437.0	95.49	PK	323	1.1	H	7.21	102.70	/	/
2437.0	89.38	Ave.	323	1.1	H	7.21	96.59	/	/
2437.0	96.88	PK	115	1.2	V	7.21	104.09	/	/
2437.0	91.11	Ave.	115	1.2	V	7.21	98.32	/	/
9748.0	19.51	Ave.	128	1.2	V	19.40	38.91	54	15.09
9748.0	38.52	PK	128	1.2	V	19.40	57.92	74	16.08
7311.0	21.42	Ave.	26	1.1	V	16.49	37.91	54	16.09
4874.0	23.95	Ave.	252	1.3	V	12.46	36.41	54	17.59
4874.0	41.63	PK	252	1.3	V	12.46	54.09	74	19.91
7311.0	36.97	PK	26	1.1	V	16.49	53.46	74	20.54
2488.9	23.31	Ave.	110	1.3	H	7.21	30.52	54	23.48
2386.5	21.89	Ave.	91	1.2	V	6.13	28.02	54	25.98
2368.0	21.61	Ave.	38	1.1	V	5.48	27.09	54	26.91
2386.5	38.55	PK	91	1.2	V	6.13	44.68	74	29.32
2488.9	35.95	PK	110	1.3	H	7.21	43.16	74	30.84
2368.0	36.86	PK	38	1.1	V	5.48	42.34	74	31.66



Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
High Channel (2462 MHz)									
166.8	41.03	QP	121	1.2	V	-15.4	25.63	43.5	17.87
2462.0	94.95	PK	259	1.3	H	7.21	102.16	/	/
2462.0	89.11	Ave.	259	1.3	H	7.21	96.32	/	/
2462.0	95.48	PK	13	1.1	V	7.21	102.69	/	/
2462.0	90.16	Ave.	13	1.1	V	7.21	97.37	/	/
9848.0	19.71	Ave.	166	1.1	H	19.39	39.10	54	14.90
7386.0	20.61	Ave.	300	1.2	V	15.91	36.52	54	17.48
4924.0	21.69	Ave.	233	1.2	V	12.50	34.19	54	19.81
9848.0	33.12	PK	166	1.1	H	19.39	52.51	74	21.49
7386.0	35.65	PK	300	1.2	V	15.91	51.56	74	22.44
4924.0	38.42	PK	233	1.2	V	12.50	50.92	74	23.08
2491.2	23.48	Ave.	315	1.3	H	7.21	30.69	54	23.31
2488.6	22.42	Ave.	105	1.1	H	7.21	29.63	54	24.37
2368.1	24.11	Ave.	76	1.2	V	5.48	29.59	54	24.41
2488.6	36.84	PK	105	1.1	H	7.21	44.05	74	29.95
2491.2	35.99	PK	315	1.3	H	7.21	43.20	74	30.80
2368.1	35.60	PK	76	1.2	V	5.48	41.08	74	32.92

**802.11g Mode:**

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
Low Channel (2412 MHz)									
166.8	41.35	QP	214	1.3	V	-15.4	25.95	43.5	17.55
2412.0	88.15	PK	133	1.4	H	6.13	94.28	/	/
2412.0	75.75	Ave.	133	1.4	H	6.13	81.88	/	/
2412.0	90.16	PK	111	1.3	V	6.13	96.29	/	/
2412.0	76.33	Ave.	111	1.3	V	6.13	82.46	/	/
9648.0	22.61	Ave.	79	1.3	V	19.29	41.90	54	12.10
7236.0	20.11	Ave.	136	1.1	V	16.62	36.73	54	17.27
4824.0	21.71	Ave.	178	1.2	V	12.40	34.11	54	19.89
7236.0	35.89	PK	136	1.1	V	16.62	52.51	74	21.49
9648.0	32.88	PK	79	1.3	V	19.29	52.17	74	21.83
4824.0	38.63	PK	178	1.2	V	12.40	51.03	74	22.97
2353.7	23.87	Ave.	29	1.4	V	5.48	29.35	54	24.65
2485.5	21.85	Ave.	103	1.2	H	7.21	29.06	54	24.94
2344.0	22.38	Ave.	23	1.5	H	5.48	27.86	54	26.14
2344.0	38.49	PK	23	1.5	H	5.48	43.97	74	30.03
2485.5	35.22	PK	103	1.2	H	7.21	42.43	74	31.57
2353.7	36.76	PK	29	1.4	V	5.48	42.24	74	31.76
Middle Channel (2437 MHz)									
166.8	41.33	QP	85	1.4	V	-15.4	25.93	43.5	17.57
2437.0	88.15	PK	36	1.2	H	7.21	95.36	/	/
2437.0	75.32	Ave.	36	1.2	H	7.21	82.53	/	/
2437.0	89.89	PK	102	1.3	V	7.21	97.10	/	/
2437.0	76.28	Ave.	102	1.3	V	7.21	83.49	/	/
7311.0	21.95	Ave.	199	1.2	V	16.49	38.44	54	15.56
9748.0	18.33	Ave.	79	1.3	V	19.40	37.73	54	16.27
4874.0	21.91	Ave.	151	1.4	H	12.46	34.37	54	19.63
9748.0	33.68	PK	79	1.3	V	19.40	53.08	74	20.92
7311.0	36.15	PK	199	1.2	V	16.49	52.64	74	21.36
2364.6	22.66	Ave.	76	1.1	V	5.48	28.14	54	25.86
4874.0	35.43	PK	151	1.4	H	12.46	47.89	74	26.11
2318.8	21.60	Ave.	211	1.2	H	5.48	27.08	54	26.92
2383.5	20.91	Ave.	26	1.1	V	6.13	27.04	54	26.96
2383.5	36.78	PK	26	1.1	V	6.13	42.91	74	31.09
2364.6	36.71	PK	76	1.1	V	5.48	42.19	74	31.81
2318.8	35.75	PK	211	1.2	H	5.48	41.23	74	32.77

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
High Channel (2462 MHz)									
166.8	41.74	QP	51	1.2	V	-15.4	26.34	43.5	17.16
2462.0	87.81	PK	108	1.2	H	7.21	95.02	/	/
2462.0	75.19	Ave.	108	1.2	H	7.21	82.40	/	/
2462.0	89.35	PK	83	1.1	V	7.21	96.56	/	/
2462.0	76.12	Ave.	83	1.1	V	7.21	83.33	/	/
9848.0	18.15	Ave.	58	1.6	V	19.39	37.54	54	16.46
7386.0	21.37	Ave.	217	1.7	V	15.91	37.28	54	16.72
4924.0	21.15	Ave.	103	1.6	H	12.50	33.65	54	20.35
9848.0	32.82	PK	58	1.6	V	19.39	52.21	74	21.79
7386.0	34.53	PK	217	1.7	V	15.91	50.44	74	23.56
2485.2	21.18	Ave.	115	1.4	H	7.21	28.39	54	25.61
2493.6	20.92	Ave.	39	1.3	V	7.21	28.13	54	25.87
4924.0	35.48	PK	103	1.6	H	12.50	47.98	74	26.02
2333.1	21.22	Ave.	53	1.0	V	5.48	26.70	54	27.30
2485.2	35.91	PK	115	1.4	H	7.21	43.12	74	30.88
2493.6	34.82	PK	39	1.3	V	7.21	42.03	74	31.97
2333.1	36.18	PK	53	1.0	V	5.48	41.66	74	32.34

**802.11n-HT20 Mode:**

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
Low Channel (2412 MHz)									
166.8	39.85	QP	130	1.2	V	-15.4	24.45	43.5	19.05
2412.0	85.41	PK	311	1.3	H	6.13	91.54	/	/
2412.0	68.20	Ave.	311	1.3	H	6.13	74.33	/	/
2412.0	86.78	PK	115	1.2	V	6.13	92.91	/	/
2412.0	69.98	Ave.	115	1.2	V	6.13	76.11	/	/
2389.0	56.70	PK	189	1.4	V	6.13	62.83	74	11.17
2389.0	32.78	Ave.	189	1.4	V	6.13	38.91	54	15.09
9648.0	18.48	Ave.	149	1.2	V	19.28	37.76	54	16.24
7236.0	20.15	Ave.	120	1.5	V	16.62	36.77	54	17.23
4824.0	22.46	Ave.	158	1.2	V	12.40	34.86	54	19.14
4824.0	41.33	PK	158	1.2	V	12.40	53.73	74	20.27
2492.6	23.82	Ave.	82	1.3	H	7.21	31.03	54	22.97
2492.6	43.65	PK	82	1.3	H	7.21	50.86	74	23.14
9648.0	31.50	PK	149	1.2	V	19.28	50.78	74	23.22
7236.0	31.58	PK	120	1.5	V	16.62	48.20	74	25.80
2316.8	17.88	Ave.	267	1.3	H	5.48	23.36	54	30.64
2316.8	31.41	PK	267	1.3	H	5.48	36.89	74	37.11
Middle Channel (2437 MHz)									
166.8	39.99	QP	103	1.4	V	-15.4	24.59	43.5	18.91
2437.0	85.15	PK	125	1.2	H	7.21	92.36	/	/
2437.0	68.23	Ave.	125	1.2	H	7.21	75.44	/	/
2437.0	87.23	PK	312	1.3	V	7.21	94.44	/	/
2437.0	70.12	Ave.	312	1.3	V	7.21	77.33	/	/
9748.0	19.01	Ave.	16	1.2	H	19.40	38.41	54	15.59
7311.0	17.95	Ave.	152	1.2	V	16.49	34.44	54	19.56
4874.0	39.81	PK	136	1.4	V	12.46	52.27	74	21.73
4874.0	19.50	Ave.	136	1.4	V	12.46	31.96	54	22.04
9748.0	32.49	PK	16	1.2	H	19.40	51.89	74	22.11
2491.5	22.73	Ave.	215	1.3	H	7.21	29.94	54	24.06
2383.1	22.55	Ave.	118	1.2	V	6.13	28.68	54	25.32
7311.0	31.65	PK	152	1.2	V	16.49	48.14	74	25.86
2331.9	19.61	Ave.	333	1.4	V	5.48	25.09	54	28.91
2491.5	35.86	PK	215	1.3	H	7.21	43.07	74	30.93
2383.1	32.85	PK	118	1.2	V	6.13	38.98	74	35.02
2331.9	32.63	PK	333	1.4	V	5.48	38.11	74	35.89

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
High Channel (2462 MHz)									
166.8	39.73	QP	211	1.5	V	-15.4	24.33	43.5	19.17
2462.0	84.92	PK	38	1.2	H	7.21	92.13	/	/
2462.0	68.15	Ave.	38	1.2	H	7.21	75.36	/	/
2462.0	85.66	PK	16	1.3	V	7.21	92.87	/	/
2462.0	69.63	Ave.	16	1.3	V	7.21	76.84	/	/
2483.5	58.89	PK	115	1.4	V	7.21	66.10	74	7.90
2488.1	53.10	PK	33	1.3	H	7.21	60.31	74	13.69
2483.5	32.72	Ave.	115	1.4	V	7.21	39.93	54	14.07
9848.0	19.68	Ave.	12	1.3	V	19.39	39.07	54	14.93
2488.1	29.92	Ave.	33	1.3	H	7.21	37.13	54	16.87
7386.0	19.25	Ave.	223	1.4	V	15.91	35.16	54	18.84
4924.0	22.38	Ave.	105	1.2	V	12.50	34.88	54	19.12
4924.0	40.75	PK	105	1.2	V	12.50	53.25	74	20.75
9848.0	32.63	PK	12	1.3	V	19.39	52.02	74	21.98
2343.2	23.61	Ave.	158	1.1	H	5.48	29.09	54	24.91
7386.0	31.53	PK	223	1.4	V	15.91	47.44	74	26.56
2343.2	32.84	PK	158	1.1	H	5.48	38.32	74	35.68

**802.11n-HT40 Mode:**

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
Low Channel (2422 MHz)									
166.8	39.15	QP	236	1.2	V	-15.4	23.75	43.5	19.75
2422.0	83.56	PK	26	1.3	H	6.13	89.69	/	/
2422.0	65.35	Ave.	26	1.3	H	6.13	71.48	/	/
2422.0	85.63	PK	78	1.2	V	6.13	91.76	/	/
2422.0	66.15	Ave.	78	1.2	V	6.13	72.28	/	/
9688.0	18.01	Ave.	51	1.3	V	19.29	37.30	54	16.70
7266.0	20.13	Ave.	200	1.3	H	16.62	36.75	54	17.25
4844.0	20.81	Ave.	215	1.2	V	12.40	33.21	54	20.79
7266.0	34.70	PK	200	1.3	H	16.62	51.32	74	22.68
9688.0	31.48	PK	51	1.3	V	19.29	50.77	74	23.23
2382.2	23.23	Ave.	29	1.2	H	6.13	29.36	54	24.64
4844.0	35.62	PK	215	1.2	V	12.40	48.02	74	25.98
2485.3	20.71	Ave.	306	1.3	V	7.21	27.92	54	26.08
2335.8	22.12	Ave.	178	1.4	V	5.48	27.60	54	26.40
2485.3	35.84	PK	306	1.3	V	7.21	43.05	74	30.95
2382.2	36.22	PK	29	1.2	H	6.13	42.35	74	31.65
2335.8	35.71	PK	178	1.4	V	5.48	41.19	74	32.81
Middle Channel (2437 MHz)									
166.8	38.66	QP	188	1.5	V	-15.4	23.26	43.5	20.24
2437.0	84.23	PK	35	1.3	H	7.21	91.44	/	/
2437.0	65.85	Ave.	35	1.3	H	7.21	73.06	/	/
2437.0	85.15	PK	76	1.2	V	7.21	92.36	/	/
2437.0	68.35	Ave.	76	1.2	V	7.21	75.56	/	/
9748.0	18.95	Ave.	38	1.3	V	19.40	38.35	54	15.65
7311.0	20.63	Ave.	79	1.2	H	16.49	37.12	54	16.88
4874.0	23.12	Ave.	123	1.2	V	12.46	35.58	54	18.42
9748.0	32.19	PK	38	1.3	V	19.40	51.59	74	22.41
7311.0	33.85	PK	79	1.2	H	16.49	50.34	74	23.66
4874.0	36.71	PK	123	1.2	V	12.46	49.17	74	24.83
2382.6	22.81	Ave.	115	1.2	H	6.13	28.94	54	25.06
2486.5	21.65	Ave.	66	1.4	V	7.21	28.86	54	25.14
2339.1	21.45	Ave.	284	1.3	V	5.48	26.93	54	27.07
2486.5	36.85	PK	66	1.4	V	7.21	44.06	74	29.94
2339.1	36.65	PK	284	1.3	V	5.48	42.13	74	31.87
2382.6	35.65	PK	115	1.2	H	6.13	41.78	74	32.22

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
High Channel (2452 MHz)									
166.8	39.12	QP	12	1.5	V	-15.4	23.72	43.5	19.78
2452.0	83.65	PK	36	1.2	H	7.21	90.86	/	/
2452.0	65.22	Ave.	36	1.2	H	7.21	72.43	/	/
2452.0	85.90	PK	182	1.2	V	7.21	93.11	/	/
2452.0	66.42	Ave.	182	1.2	V	7.21	73.63	/	/
9808.0	19.53	Ave.	15	1.2	V	19.29	38.82	54	15.18
7356.0	21.87	Ave.	17	1.4	V	16.49	38.36	54	15.64
4904.0	24.69	Ave.	98	1.1	H	12.46	37.15	54	16.85
9808.0	32.66	PK	15	1.2	V	19.29	51.95	74	22.05
7356.0	33.15	PK	17	1.4	V	16.49	49.64	74	24.36
2359.8	23.42	Ave.	78	1.4	H	5.48	28.90	54	25.10
2480.2	21.15	Ave.	145	1.2	V	7.21	28.36	54	25.64
4904.0	35.76	PK	98	1.1	H	12.46	48.22	74	25.78
2335.3	22.15	Ave.	311	1.3	V	5.48	27.63	54	26.37
2480.2	35.85	PK	145	1.2	V	7.21	43.06	74	30.94
2335.3	35.88	PK	311	1.3	V	5.48	41.36	74	32.64
2359.8	34.63	PK	78	1.4	H	5.48	40.11	74	33.89