



FCC PART 15.247

TEST REPORT

For

PRO-X Co., Ltd

Unit 9, Building 6, No.289 West Third Ring Road,
Zhengzhou, Henan

FCC ID: 2ABGKRECONX5RX

Report Type: Original Report	Product Type: WIRELESS TRANSMISSION SYSTEM
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Report Number:	RSC140102002
Report Date:	2014-06-18
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *PRO-X Co., Ltd* 's product, model number: *Recon X5-RX (FCC ID: 2ABGKRECONX5RX)* or ("EUT") in this report is a *WIRELESS TRANSMISSION SYSTEM*, which was measured approximately: 100mm (L) x 180mm (W) x 32mm (H). Rated input voltage: DC 12 V.
This equipment will be restricted to indoor operation only.
The operating frequencies are 5725~5850MHz.

AC Adapter:

Manufacturer: LITE-ON POWER TECHNOLOGY (DONGGUAN) CO., LTD

Model: PA-1041-71

Input: 100-240V~, 50/60Hz 1.2A

Output: 12V, 3.33A

**All measurement and test data in this report was gathered from final production sample, serial number: 140102002(Assigned by BACL, Chengdu). It may have deviation from any other sample.
The EUT supplied by the applicant was received on 2014-01-02, and EUT complied with test requirement.*

Objective

This report is prepared on behalf of *PRO-X Co., Ltd* 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 the compliance of the EUT with FCC Part 15-Subpart C, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

FCC Part 15.407 submission with FCC ID: 2ABGKRECONX5RX

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, 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 and Bay Area Compliance Laboratories Corp. (Chengdu). 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 ± 3.17 dB, the uncertainty of any radiation on emissions measurement is:

30M~200MHz: ± 4.7 dB;

200M~1GHz: ± 6.0 dB;

1G-6GHz: ± 5.13 dB;

6G~25GHz: ± 5.47 dB;

And the uncertainty will not be taken into consideration for all test data recorded in the report.

Test Facility

The test site used by BACL to collect test data is located in the 5040, HuiLongWan Plaza, No. 1, ShaWan Road, JinNiu District, ChengDu, China

Test site at BACL 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 July 31, 2009. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 560332. 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

The EUT was configured for testing in an engineering mode which was provided by the manufacturer.

The operating frequency range is 5725~5850 MHz.

The frequencies are 5745 MHz, 5785 MHz, 5755 MHz, 5795 MHz for 5725~5850 MHz band, which was provided by the manufacturer.

EUT Exercise Software

None

Equipment Modifications

No modification was made to the EUT tested.

Equipment under Test (EUT) General Description

Applicant	Description	Model Number	Serial Number
PRO-X Co., Ltd	WIRELESS TRANSMISSION SYSTEM	Recon X5-RX	140102002

Support Equipment List and Details

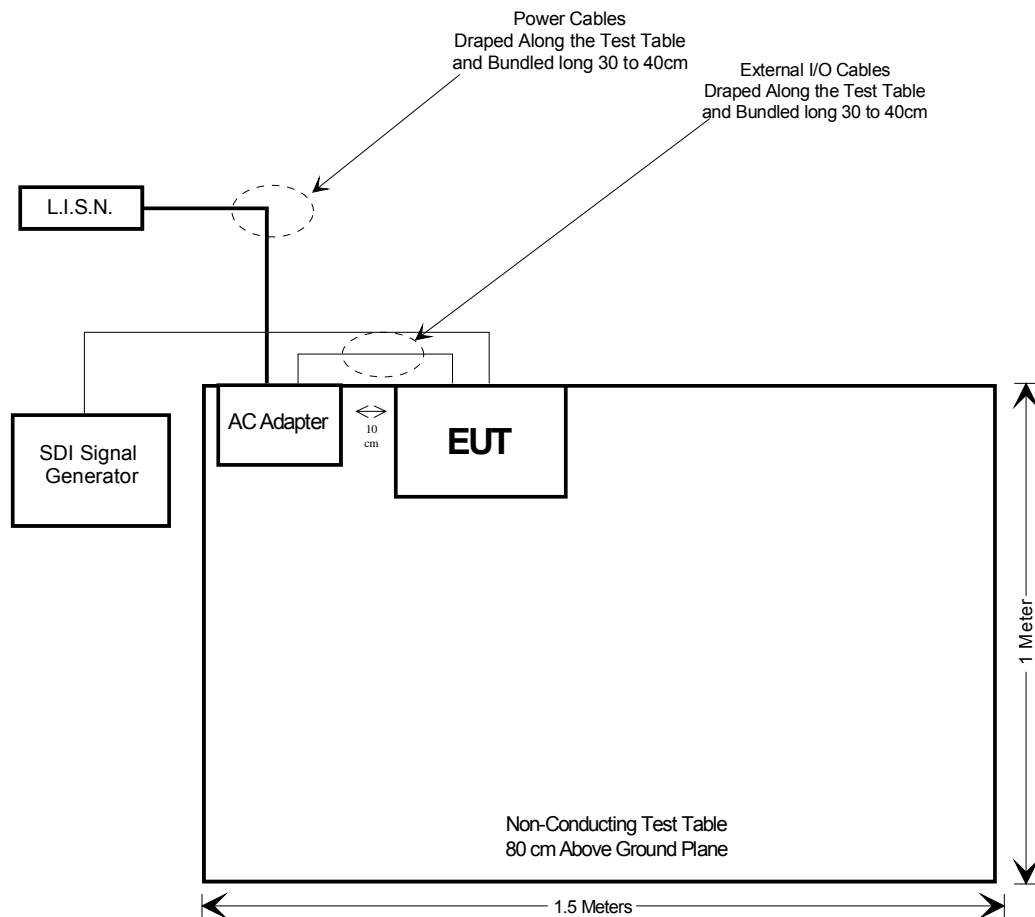
Manufacturer	Description	Model	Serial Number
None	SDI Signal Generator	None	None
PRO-X Co., Ltd	Wireless Transmission System	Recon X5-TX	140102001

External I/O Cable

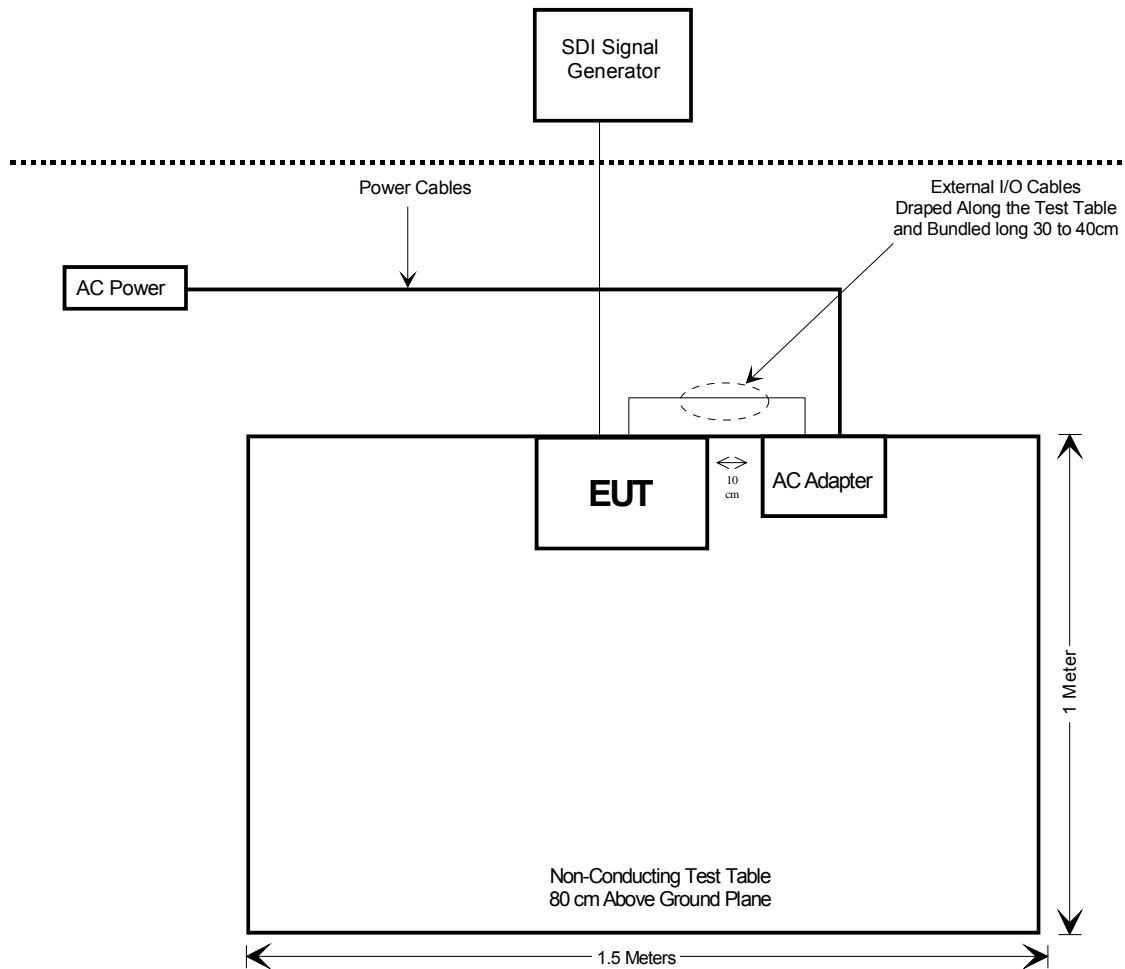
Cable Description	Length (m)	From	To
Unshielding Power Cable	1.8	EUT	AC Adapter
Shielding BNC Cable	10	EUT	SDI Signal Generator

Block Diagram of Test Setup

For Conducted Emissions:



For Spurious Emissions:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247(i), §2.1091	Maximum Permissible exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207 (a)	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:

Compliance *: Please refer to certified Wi-Fi module with FCC ID: QDS-BRCM1041.

FCC §15.247 (i) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247(i) and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	-	-	f/1500	30
1500–100,000	-	-	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = PG/4\pi R^2$$

Where:

S = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Mode	Frequency (MHz)	Antenna Gain		Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
5G-802.11n HT20	5725-5850	0	1.00	25.50	354.81	20	0.071	1.0
5G-802.11n HT40	5725-5850	0	1.00	24.70	295.12	20	0.059	1.0

Result: The device meet FCC MPE at 20 cm distance.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to FCC §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Antenna Connector Construction

The EUT has two external antennas, which was used a unique type of connector to attach to the EUT, and complied with 15.203, the maximum gain is 0 dBi, 5725-5850MHz band, please refer to the external photos.

Result: Compliance.

FCC §15.207 (a) –CONDUCTED EMISSIONS

Applicable Standard

FCC§15.207

Measurement Uncertainty

Compliance or non- compliance with a disturbance limit shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cispr} of Table 1, then:

–compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
 –non - compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cispr} of Table 1, then:

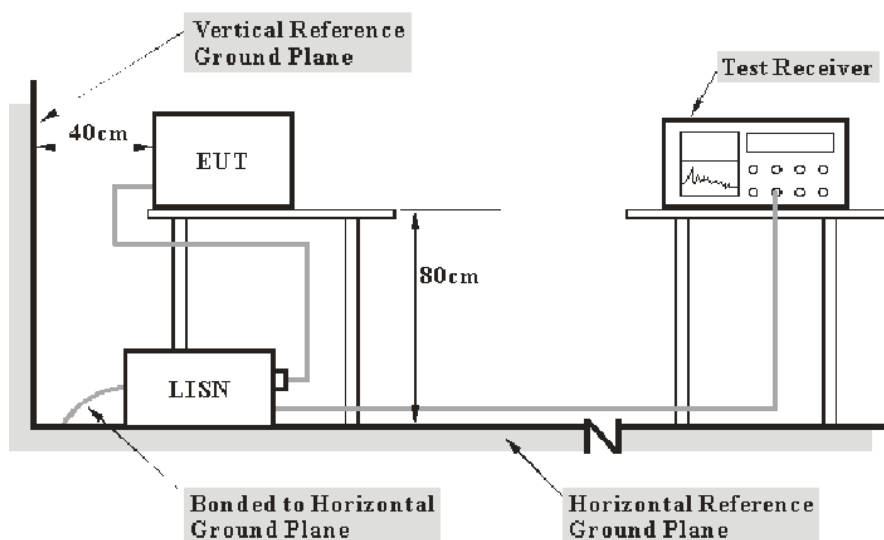
–compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit;
 –non - compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit.

Based on CISPR 16-4-2: 2011, measurement uncertainty of conducted disturbance at mains port using AMN at Bay Area Compliance Laboratories Corp. (Chengdu) is 3.17 dB (150 kHz to 30 MHz).

Table 1 – Values of U_{cispr}

Measurement	U_{cispr}
Conducted disturbance at mains port using AMN (150 kHz to 30 MHz)	3.4 dB

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 was according to ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The power cables and external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

DC 12 V was used by EUT through AC adapter.

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 outlet of the first LISN and the other support equipments were connected to the outlet of the second 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.

Corrected Amplitude & Margin Calculation

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$

Herein,

V_C : corrected voltage amplitude

V_R : reading voltage amplitude

A_C : attenuation caused by cable loss

VDF : voltage division factor of AMN or ISN

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

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

Test Equipment List and Details

Manufacturer	Description	Model Number	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100028	2013-08-22	2014-08-21
Rohde & Schwarz	L.I.S.N.	ENV216	3560.6550.06	2013-07-31	2014-07-30
Rohde & Schwarz	L.I.S.N.	ENV216	3560.6550.12	2014-02-08	2015-02-07

* **Statement of Traceability:** BACL (Chengdu) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207, with the worst margin reading of:

9.44 dB at 0.395 MHz in the **Neutral** conducted mode

Test Data

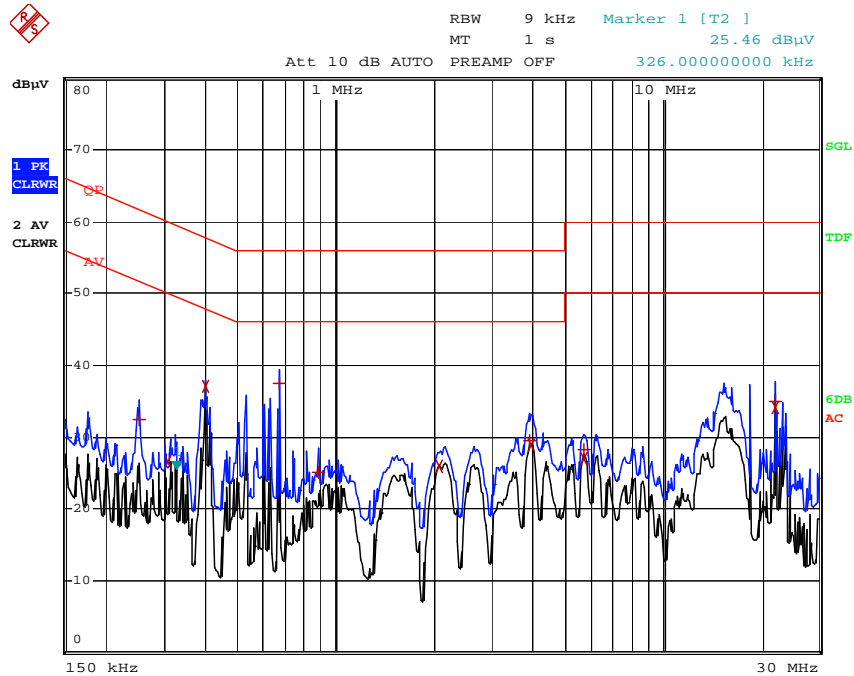
Environmental Conditions

Temperature:	28 °C
Relative Humidity:	54 %
ATM Pressure:	100.8 kPa

The testing was performed by Toby Ren on 2014-06-16.

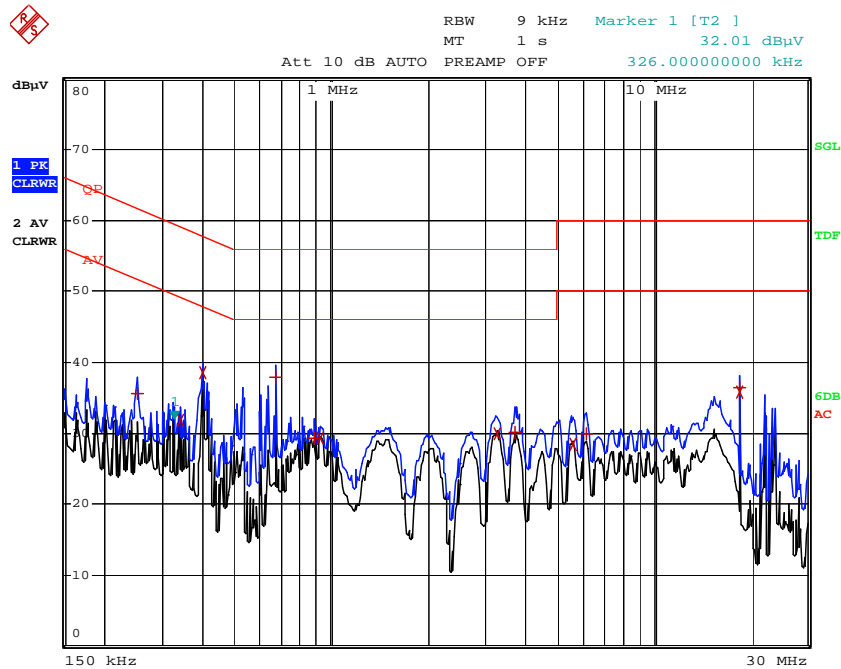
Test Mode: Transmitting

Line



Conducted Emissions					
Frequency (MHz)	Corrected Amplitude (dBμV)	Detector (QP/AV)	Phase (Line/Neutral)	Limit (dBμV)	Margin (dB)
0.260	32.39	QP	Line	61.43	29.04
0.660	37.42	QP	Line	56.00	18.58
0.881	25.13	QP	Line	56.00	30.87
3.934	29.42	QP	Line	56.00	26.58
5.738	28.17	QP	Line	60.00	31.83
22.119	34.96	QP	Line	60.00	25.04
0.310	26.45	AV	Line	49.97	23.52
0.397	37.01	AV	Line	47.92	10.91
2.078	25.90	AV	Line	46.00	20.10
3.945	28.87	AV	Line	46.00	17.13
5.739	26.95	AV	Line	50.00	23.05
22.118	34.12	AV	Line	50.00	15.88

Neutral



Conducted Emissions					
Frequency (MHz)	Corrected Amplitude (dBμV)	Detector (QP/AV)	Phase (Line/Neutral)	Limit (dBμV)	Margin (dB)
0.260	35.52	QP	Neutral	61.43	25.91
0.670	37.96	QP	Neutral	56.00	18.04
0.886	29.30	QP	Neutral	56.00	26.70
3.712	30.01	QP	Neutral	56.00	25.99
6.173	30.05	QP	Neutral	60.00	29.95
18.434	36.42	QP	Neutral	60.00	23.58
0.339	31.85	AV	Neutral	49.23	17.38
0.395	38.52	AV	Neutral	47.96	9.44
0.922	29.36	AV	Neutral	46.00	16.64
3.265	30.02	AV	Neutral	46.00	15.98
5.612	28.56	AV	Neutral	50.00	21.44
18.435	35.60	AV	Neutral	50.00	14.40

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

Applicable Standard

FCC §15.247 (d); §15.209; §15.205;

Measurement Uncertainty

Compliance or non-compliance with a disturbance limit shall be determined in the following manner:

If U_{lab} is less than or equal to U_{cispr} of Table 2, then:

–compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
–non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

If U_{lab} is greater than U_{cispr} of Table 2, then:

–compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit;
–non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit.

Based on CISPR 16-4-2-2011, measurement uncertainty of radiated emission at a distance of 3m at Bay Area Compliance Laboratories Corp. (Chengdu) is:

30M~200MHz: ± 4.7 dB ;

200M~1GHz: ± 6.0 dB ;

1G-6GHz: ± 5.13 dB;

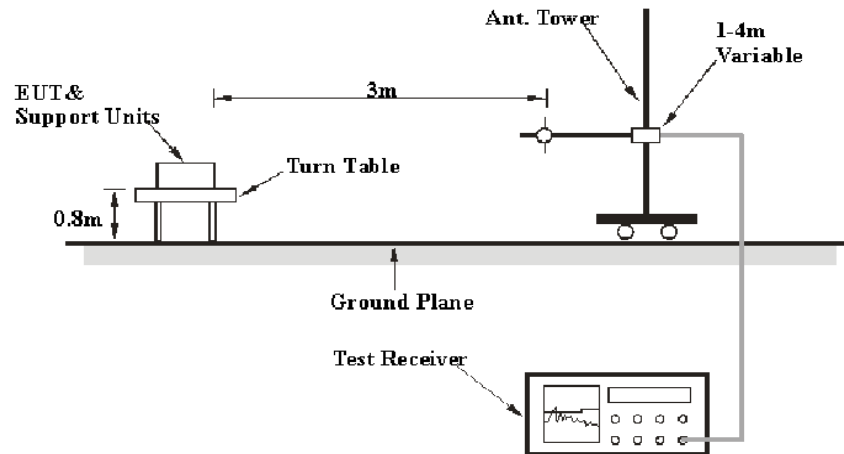
6G~25GHz: ± 5.47 dB;

Table 2 – Values of U_{cispr}

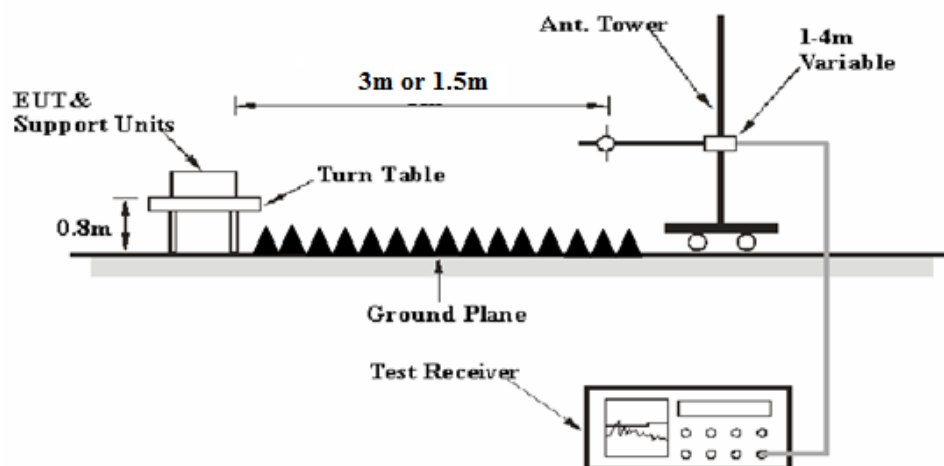
Measurement	U_{cispr}
Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz)	6.3 dB 5.2 dB
Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)	5.5 dB
Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)	

EUT Setup

Below 1 GHz:



Above 1 GHz:



The radiated emission tests were performed in the 3 meters Semi-Anechoic Chamber, using the setup in accordance with the ANSI C63.4-2003. The specification used was the FCC 15.209 and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

DC 12 V was used by EUT through AC adapter.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 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
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	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.

According to ANSI C63.4-2003, the above 1GHz test result shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m or 1.5m.

Distance extrapolation factor = $20 \log (3\text{m}/1.5\text{m})$ dB

Extrapolation result (dB μ V/m) = Corrected Amplitude (dB μ V/m) -6dB

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:

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

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 Number	Serial Number	Calibration Date	Calibration Due Date
Agilent	Amplifier	8447D	2944A10442	2013-07-23	2014-07-22
Rohde & Schwarz	EMI Test Receiver	ESCI	100028	2013-08-22	2014-08-21
Sunol Sciences	Broadband Antenna	JB3	A101808	2014-04-10	2015-04-09
Rohde & Schwarz	Spectrum Analyzer	FSL18	100180	2013-07-31	2014-07-30
Rohde & Schwarz	Spectrum Analyzer	FSEM30	100018	2013-07-31	2014-07-30
Rohde&Schwarz	Spectrum Analyzer	FSP38	100478	2013-06-16	2014-06-15
EM TEST	Horn Antenna	3115	003-6076	2014-04-09	2015-04-08
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-01 1304	2013-06-16	2014-06-15
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2013-06-16	2014-06-15
HP	Amplifier	8449B	3008A00277	2013-07-31	2014-07-30
EMCT	Semi-Anechoic Chamber	966	N/A	2013-03-13	2016-03-12

* **Statement of Traceability:** BACL (Chengdu) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Section 15.205, 15.209 and 15.247, with the worst margin reading of:

0.97 dB at 5723 MHz in the **Vertical** polarization mode

Test Data

Environmental Conditions

Temperature:	26 °C & 24 °C
Relative Humidity:	53 % & 55 %
ATM Pressure:	101.2 kPa & 100.9 kPa

The testing was performed by Toby Ren on 2014-06-12 & 2014-06-13.

Test Mode: Transmitting (above 1G test performed at 1.5m distance)

5725-5850 MHz: (802.11n HT20 Mode)

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)						
Low Channel: 5745 MHz										
5745	38.59	AV	H	32.59	8.43	0.00	79.61	73.61	N/A	N/A
5745	55.6	PK	H	32.59	8.43	0.00	96.62	90.62	N/A	N/A
5745	58.59	AV	V	32.59	8.43	0.00	99.61	93.61	N/A	N/A
5745	71.03	PK	V	32.59	8.43	0.00	112.05	106.05	N/A	N/A
11490	36.25	PK	V	37.99	14.68	23.82	65.10	59.10	74.00	14.90
11490	24.14	AV	V	37.99	14.68	23.82	52.99	46.99	54.00	7.01
17235	25.98	PK	V	42.98	17.95	22.41	64.49	58.49	74.00	15.51
17235	14.02	AV	V	42.98	17.95	22.41	52.53	46.53	54.00	7.47
5723	34.02	PK	V	32.57	8.36	0.00	74.95	68.95	74.00	5.05
5723	18.1	AV	V	32.57	8.36	0.00	59.03	53.03	54.00	*0.97
1554.09	50.69	PK	V	24.19	4.51	25.68	53.71	47.71	74.00	26.29
1554.21	39.56	AV	V	24.19	4.51	25.68	42.58	36.58	54.00	17.42
30.51	44.02	QP	V	22.42	0.33	28.14	38.63	38.63	40.00	*1.37
816.79	48.26	QP	H	22.04	1.58	28.46	43.41	43.41	46.00	*2.59
High Channel: 5785 MHz										
5785	38.26	AV	H	32.64	8.53	0.00	79.43	73.43	N/A	N/A
5785	55.25	PK	H	32.64	8.53	0.00	96.42	90.42	N/A	N/A
5785	56.24	AV	V	32.64	8.53	0.00	97.41	91.41	N/A	N/A
5785	71.14	PK	V	32.64	8.53	0.00	112.31	106.31	N/A	N/A
11570	35.65	PK	V	38.03	14.62	23.80	64.50	58.50	74.00	15.50
11570	21.3	AV	V	38.03	14.62	23.80	50.15	44.15	54.00	9.85
17355	26.47	PK	V	43.53	17.74	22.42	65.32	59.32	74.00	14.68
17355	14.02	AV	V	43.53	17.74	22.42	52.87	46.87	54.00	7.13
5850	25.03	PK	V	32.69	8.64	0.00	66.36	60.36	74.00	13.65
5850	17.5	AV	V	32.69	8.64	0.00	58.83	52.83	54.00	*1.18
1554.22	47.59	PK	V	24.19	4.51	25.68	50.61	44.61	74.00	29.39
1554.29	35.69	AV	V	24.19	4.51	25.68	38.71	32.71	54.00	21.29
30.26	43.98	QP	V	22.56	0.32	28.14	38.72	38.72	40.00	*1.28
816.79	48.14	QP	H	22.04	1.58	28.46	43.29	43.29	46.00	*2.71

*Within measurement uncertainty!

5725-5850 MHz: (802.11n HT40 Mode)

Frequency	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Extrapolation result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
(MHz)	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB)						
Low Channel: 5755 MHz										
5755	37.58	AV	H	32.61	8.45	0.00	78.64	72.64	N/A	N/A
5755	56.98	PK	H	32.61	8.45	0.00	98.04	92.04	N/A	N/A
5755	59.58	AV	V	32.61	8.45	0.00	100.64	94.64	N/A	N/A
5755	69.96	PK	V	32.61	8.45	0.00	111.02	105.02	N/A	N/A
11510	34.25	PK	V	38.00	14.66	23.82	63.10	57.10	74.00	16.90
11510	22.15	AV	V	38.00	14.66	23.82	51.00	45.00	54.00	9.00
17623	26.98	PK	V	44.59	17.28	22.44	66.41	60.41	74.00	13.59
17623	14.02	AV	V	44.59	17.28	22.44	53.45	47.45	54.00	6.55
5723	33.95	PK	V	32.57	8.36	0.00	74.88	68.88	74.00	*5.12
5723	17.8	AV	V	32.57	8.36	0.00	58.73	52.73	54.00	*1.27
1554.23	49.58	PK	V	24.19	4.51	25.68	52.60	46.60	74.00	27.40
1554.06	38.58	AV	V	24.19	4.51	25.68	41.60	35.60	54.00	18.40
30.51	44.14	QP	V	22.42	0.33	28.14	38.75	38.75	40.00	*1.25
816.45	48.15	QP	H	22.03	1.58	28.46	43.29	43.29	46.00	*2.71
High Channel: 5795 MHz										
5795	38.14	AV	H	32.65	8.56	0.00	79.35	73.35	N/A	N/A
5795	54.14	PK	H	32.65	8.56	0.00	95.35	89.35	N/A	N/A
5795	55.69	AV	V	32.65	8.56	0.00	96.90	90.90	N/A	N/A
5795	70.01	PK	V	32.65	8.56	0.00	111.22	105.22	N/A	N/A
11590	32.56	PK	V	38.04	14.61	23.80	61.41	55.41	74.00	18.59
11590	20.25	AV	V	38.04	14.61	23.80	49.10	43.10	54.00	10.90
17385	23.65	PK	V	43.67	17.69	22.42	62.59	56.59	74.00	17.41
17385	14.25	AV	V	43.67	17.69	22.42	53.19	47.19	54.00	6.81
5850	25.47	PK	V	32.69	8.64	0.00	66.80	60.80	74.00	13.21
5850	17.7	AV	V	32.69	8.64	0.00	59.03	53.03	54.00	*0.98
1554.36	51.26	PK	V	24.19	4.51	25.68	54.28	48.28	74.00	25.72
1554.14	40.16	AV	V	24.19	4.51	25.68	43.18	37.18	54.00	16.82
30.15	44	QP	V	22.62	0.32	28.14	38.80	38.80	40.00	*1.20
816.79	49.02	QP	H	22.04	1.58	28.46	44.17	44.17	46.00	*1.83

*Within measurement uncertainty!

***** **END OF REPORT** *****