

FCC PART 15.249

TEST REPORT

For

SHENZHEN CHUANGXINKE ELECTRONIC LIMITED

6F, Fengtian Bldg, Donghuan 1st RD South, Longhua District, Shenzhen, China

FCC ID: 2AD67BOS350V1

Report Type: Original Report		Product Type: 5.8G Wireless Transmitter	
Test Engineer:	Allen Qiao	<i>Allen Qiao</i>	
Report Number:	RDG150126009-00A		
Report Date:	2015-03-17		
Reviewed By:	Sula Huang RF Leader	<i>Sula Huang</i>	
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Dongguan) No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China Tel: +86-769-86858888 Fax: +86-769-86858891 www.baclcorp.com.cn		

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan). This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

TABLE OF CONTENTS

GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
OBJECTIVE	4
RELATED SUBMITTAL(S)/GRANT(S).....	4
TEST METHODOLOGY	4
TEST FACILITY	4
SYSTEM TEST CONFIGURATION.....	5
JUSTIFICATION	5
EUT EXERCISE SOFTWARE	5
LOCAL SUPPORT EQUIPMENT LIST AND DETAILS	5
SUPPORT CABLE LIST AND DETAILS	5
BLOCK DIAGRAM OF TEST SETUP	6
SUMMARY OF TEST RESULTS	7
FCC§15.203 - ANTENNA REQUIREMENT.....	8
APPLICABLE STANDARD	8
ANTENNA CONNECTOR CONSTRUCTION	8
FCC §15.207 (A) – AC LINE CONDUCTED EMISSIONS	9
APPLICABLE STANDARD	9
MEASUREMENT UNCERTAINTY.....	9
EUT SETUP.....	9
EMI TEST RECEIVER SETUP.....	10
TEST PROCEDURE	10
CORRECTED AMPLITUDE & MARGIN CALCULATION	10
TEST EQUIPMENT LIST AND DETAILS.....	11
TEST RESULTS SUMMARY	11
TEST DATA	11
FCC§15.205, §15.209&§15.249- RADIATED EMISSIONS	14
APPLICABLE STANDARD	14
MEASUREMENT UNCERTAINTY.....	14
EUT SETUP	15
TEST EQUIPMENT SETUP	16
TEST PROCEDURE	16
CORRECTED AMPLITUDE & MARGIN CALCULATION	16
TEST EQUIPMENT LIST AND DETAILS.....	17
TEST RESULTS SUMMARY	17
TEST DATA	17
FCC §15.215(C) – 20 DB BANDWIDTH TESTING.....	19
APPLICABLE STANDARD	19
TEST PROCEDURE	19
TEST EQUIPMENT LIST AND DETAILS.....	19
TEST DATA	19
FCC§15.249(D) - OUT OF BAND EMISSION (50 DB ATTENUATION)	22
APPLICABLE STANDARD	22

TEST PROCEDURE22

TEST EQUIPMENT LIST AND DETAILS.....22

TEST DATA22

FINAL

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *SHENZHEN CHUANGXINKE ELECTRONIC LIMITED*'s product, model number: *BOS350 (FCC ID: 2AD67BOS350V1)* (the "EUT") in this report was a *5.8G Wireless Transmitter*, was measured approximately: 3.9 cm (L) x 2.3 cm (W) x 1.1 cm (H), rated input voltage: DC7-19V.

** All measurement and test data in this report was gathered from production sample serial number: 150126009 (Assigned by BACL.Dongguan). The EUT was received on 2015-01-27.*

Objective

This type approval report is prepared on behalf of *SHENZHEN CHUANGXINKE ELECTRONIC LIMITED* in accordance with Part 2-Subpart J, and Part 15-Subparts A, B and C of the Federal Communications Commission's 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 15.249 rules.

Related Submittal(s)/Grant(s)

N/A.

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 radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Dongguan).

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) has been fully described in reports submitted to the Federal Communications 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 February 06, 2015. 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.: 273710. 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

Justification

The system was configured for testing in engineering mode, 18 channels were provided by the manufacturer and switch channel by key.

CH FR	1	2	3	4	5	6	7	8
A		5842.5	5822.8	5802.8	5783.4	5763.2	5743.6	
B		5750.5	5769.5	5788.2	5807.2	5825.5	5844.8	
F	5738.5	5758.4	5778.2	5797.8	5817.8	5837.5		

EUT was tested with Channel 5738.5MHz, 5788.2MHz and 5844.8MHz.

EUT Exercise Software

No software was used during the test.

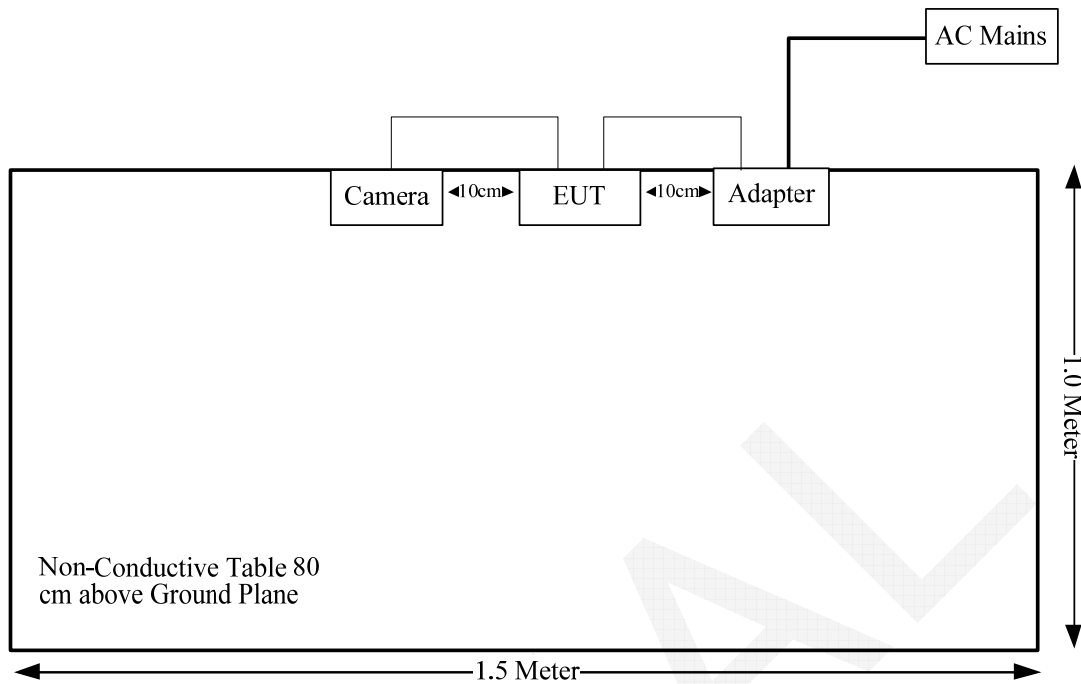
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
HONOR	Adapter	ADS-40FSG-12 12030GPCU	N/A
N/A	Camera	N/A	N/A

Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Signal Cable	No	No	0.28	EUT	Camera
Adapter Cable	No	No	1.00	EUT	Adapter

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207(a)	Conduction Emissions	Compliance
15.205, §15.209, §15.249	Radiated Emissions	Compliance
§15.215 (c)	20 dB Bandwidth	Compliance
§15.249(d)	Outside of Band Emission (50dB attenuation)	Compliance

FCC§15.203 - ANTENNA REQUIREMENT

Applicable Standard

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used.

Antenna Connector Construction

The EUT used one external omni antenna with RP-SMA female 50 ohm connector arrangement and the antenna gain is 3dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliant.

FCC §15.207 (a) – AC LINE 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:

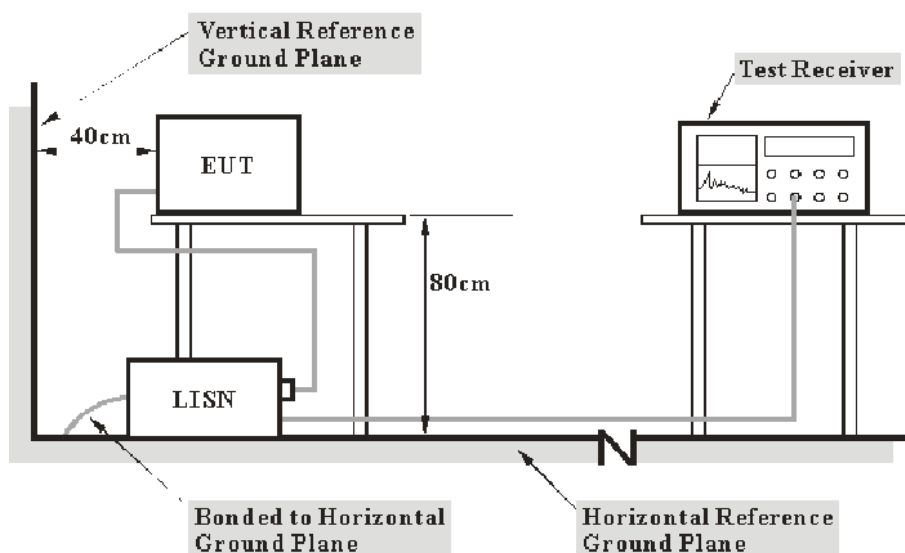
- compliance is deemed to occur if no measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level, increased by $(U_{lab} - U_{cispr})$, exceeds the disturbance limit.

Based on CISPR 16-4-2-2011, measurement uncertainty of conducted disturbance at mains port using AMN at Bay Area Compliance Laboratories Corp. (Dongguan) is 3.46 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 is according with per ANSI C63.4-2003 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 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:

$$V_C = V_R + A_C + VDF$$

$$C_f = A_C + VDF$$

Herein,

V_C (cord. Reading): corrected voltage amplitude

V_R : reading voltage amplitude

A_C : attenuation caused by cable loss

VDF: voltage division factor of AMN

C_f : Correction Factor

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	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCS 30	830245/006	2014-10-16	2015-10-16
R&S	L.I.S.N	ESH3-Z5	843331/015	N/A	N/A
R&S	Two-line V-network	ENV 216	3560.6550.12	2014-12-11	2015-12-11
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Dongguan) 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:

13.0 dB at 0.409372 MHz in the **Line** conducted mode

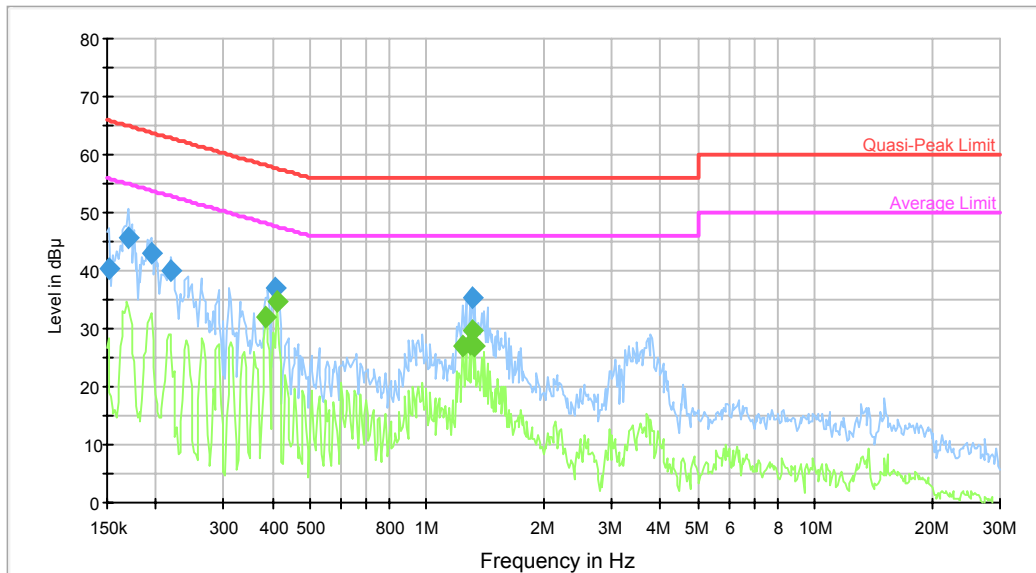
Test Data**Environmental Conditions**

Temperature:	24.5 °C
Relative Humidity:	68 %
ATM Pressure:	100.7 kPa

The testing was performed by Dean Liu on 205-03-17.

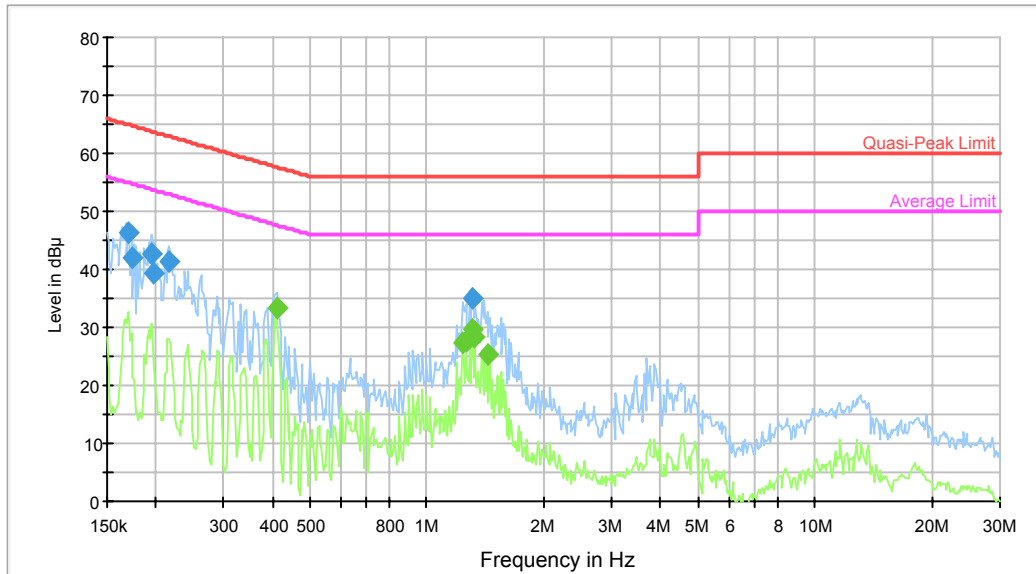
Test Mode: Transmitting

AC120 V, 60 Hz, Line:



Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.151200	40.4	9.000	L1	10.1	25.5	65.9	Compliance
0.170396	45.8	9.000	L1	10.3	19.1	64.9	Compliance
0.195114	43.2	9.000	L1	10.7	20.7	63.8	Compliance
0.219886	40.1	9.000	L1	10.7	22.7	62.8	Compliance
0.406123	36.9	9.000	L1	10.6	20.8	57.7	Compliance
1.310256	35.2	9.000	L1	10.4	20.8	56.0	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.384091	31.9	9.000	L1	10.6	16.3	48.2	Compliance
0.409372	34.7	9.000	L1	10.5	13.0	47.7	Compliance
1.239175	27.0	9.000	L1	10.4	19.0	46.0	Compliance
1.289541	27.3	9.000	L1	10.4	18.7	46.0	Compliance
1.310256	29.7	9.000	L1	10.4	16.3	46.0	Compliance
1.331304	26.8	9.000	L1	10.4	19.2	46.0	Compliance

AC120 V, 60 Hz, Neutral:

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.170396	46.4	9.000	N	10.6	18.6	64.9	Compliance
0.173134	42.0	9.000	N	10.7	22.9	64.8	Compliance
0.195114	42.6	9.000	N	11.2	21.2	63.8	Compliance
0.198249	39.2	9.000	N	11.3	24.5	63.7	Compliance
0.216409	41.2	9.000	N	11.3	21.8	63.0	Compliance
1.310256	35.1	9.000	N	10.5	20.9	56.0	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)	Comment
0.409372	33.4	9.000	N	10.7	14.3	47.7	Compliance
1.239175	27.2	9.000	N	10.5	18.8	46.0	Compliance
1.259081	27.8	9.000	N	10.5	18.2	46.0	Compliance
1.310256	29.7	9.000	N	10.5	16.3	46.0	Compliance
1.331304	28.2	9.000	N	10.5	17.8	46.0	Compliance
1.430284	25.4	9.000	N	10.5	20.6	46.0	Compliance

FCC§15.205, §15.209&§15.249- RADIATED EMISSIONS

Applicable Standard

As per FCC§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:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

(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 §15.209, whichever is the lesser attenuation.

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_{cisp} 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_{cisp} of Table 1, then:

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

30M~200MHz: 5.0 dB

200M~1GHz: 6.2 dB

1G~6GHz: 4.45 dB

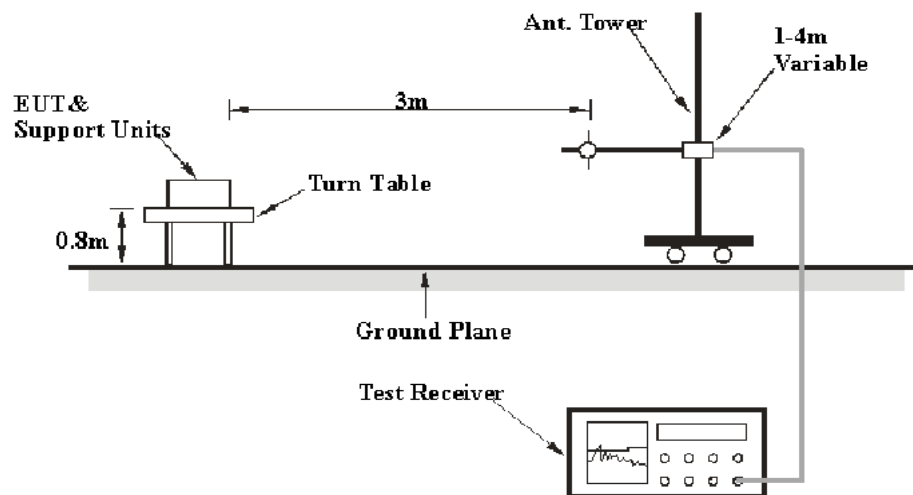
6G~18GHz: 5.23 dB

Table 1 – Values of U_{cispr}

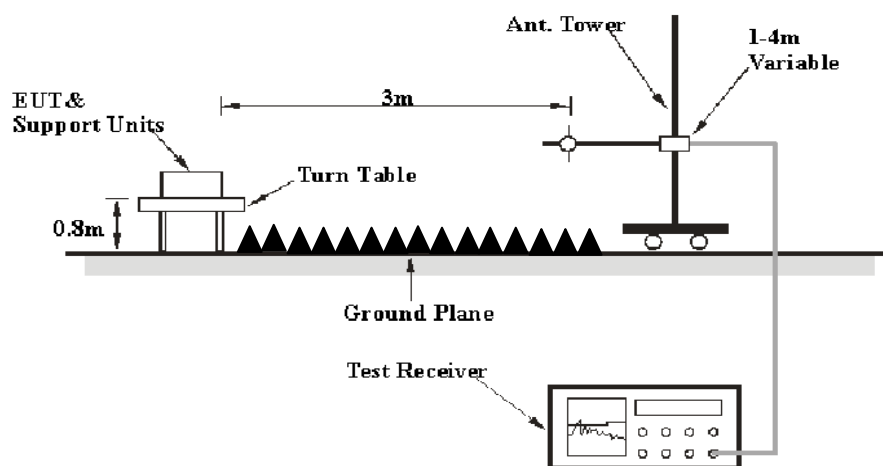
Measurement	U_{cispr}
Radiated disturbance (electric field strength at an OATS or in a SAC) (30 MHz to 1000 MHz)	6.3 dB
Radiated disturbance (electric field strength in a FAR) (1 GHz to 6 GHz)	5.2 dB
Radiated disturbance (electric field strength in a FAR) (6 GHz to 18 GHz)	5.5 dB

EUT Setup

Below 1 GHz:



Above 1 GHz:



The radiated emission and out of band emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209/15.205 and FCC 15.249 limits.

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

Test Equipment 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	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.

All data was recorded in the Quasi-peak detection mode from 30MHz to 1GHz, Peak and average detection mode 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
R&S	EMI Test Receiver	ESCI	100224	2014-05-09	2015-05-09
Sunol Sciences	Antenna	JB3	A060611-3	2014-07-28	2017-07-27
HP	Amplifier	8447E	2434A02181	2014-09-01	2015-09-01
R&S	Spectrum Analyzer	FSEM	DE31388	2014-05-09	2015-05-09
ETS-Lindgren	Horn Antenna	3115	000 527 35	2012-09-06	2015-09-06
Mini-Circuit	Amplifier	ZVA-213-S+	054201245	2015-02-19	2016-02-19
R&S	Spectrum Analyzer	FSP 38	100478	2014-05-09	2015-05-09
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-01 1304	2014-06-16	2017-06-15
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2014-06-16	2017-06-15
Quinstar	Amplifier	QLW-18405536-JO	15964001001	2014-09-06	2015-09-06

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

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209 & 15.205 & 15.249, with the worst margin reading of:

1.94 dB at 11689.6 MHz in the Vertical polarization

Test Data**Environmental Conditions**

Temperature:	21.1 °C
Relative Humidity:	73 %
ATM Pressure:	101.3 kPa

The testing was performed by Allen Qiao on 2015-03-09.

Test Mode: Transmitting

Frequency (MHz)	Receiver		Rx Antenna		Cable loss (dB)	Amplifier Gain (dB)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector (PK/QP/AV)	Polar (H/V)	Factor (dB(1/m))					
Low Channel: 5738.5 MHz									
5738.5	59.91	PK	H	32.15	5.55	0.00	97.61	114.00	16.39
5738.5	45.35	AV	H	32.15	5.55	0.00	83.05	94.00	10.95
5738.5	60.58	PK	V	32.15	5.55	0.00	98.28	114.00	15.72
5738.5	46.54	AV	V	32.15	5.55	0.00	84.24	94.00	9.76
5725	25.94	PK	V	32.15	5.60	0.00	63.69	74.00	10.31
5725	14.05	AV	V	32.15	5.60	0.00	51.80	54.00	2.20*
11477	41.35	PK	V	37.88	8.92	26.15	62.00	74.00	12.00
11477	27.97	AV	V	37.88	8.92	26.15	48.62	54.00	5.38
17215.5	30.62	PK	V	40.79	13.80	25.63	59.58	74.00	14.42
17215.5	17.67	AV	V	40.79	13.80	25.63	46.63	54.00	7.37
2696	33.55	PK	V	26.41	4.53	27.49	37.00	74.00	37.00
2696	21.50	AV	V	26.41	4.53	27.49	24.95	54.00	29.05
3131	34.79	PK	V	27.62	6.93	27.43	41.91	74.00	32.09
3131	23.18	AV	V	27.62	6.93	27.43	30.30	54.00	23.70
80.44	30.25	QP	V	8.01	1.12	21.41	17.97	40.00	22.03
Middle Channel: 5788.2 MHz									
5788.2	59.64	PK	H	32.16	5.46	0.00	97.26	114.00	16.74
5788.2	45.25	AV	H	32.16	5.46	0.00	82.87	94.00	11.13
5788.2	61.26	PK	V	32.16	5.46	0.00	98.88	114.00	15.12
5788.2	47.71	AV	V	32.16	5.46	0.00	85.33	94.00	8.67
11576.4	42.12	PK	V	37.90	8.92	26.07	62.87	74.00	11.13
11576.4	27.24	AV	V	37.90	8.92	26.07	47.99	54.00	6.01
17364.6	30.46	PK	V	41.69	12.94	25.63	59.46	74.00	14.54
17364.6	17.50	AV	V	41.69	12.94	25.63	46.50	54.00	7.50
2696	33.42	PK	V	26.41	4.53	27.49	36.87	74.00	37.13
2696	21.34	AV	V	26.41	4.53	27.49	24.79	54.00	29.21
3131	34.63	PK	V	27.62	6.93	27.43	41.75	74.00	32.25
3131	23.02	AV	V	27.62	6.93	27.43	30.14	54.00	23.86
3512	32.46	PK	V	28.83	4.52	27.24	38.57	74.00	35.43
3512	19.25	AV	V	28.83	4.52	27.24	25.36	54.00	28.64
80.44	30.68	QP	V	8.01	1.12	21.41	18.40	40.00	21.60
High Channel: 5844.8 MHz									
5844.8	59.24	PK	H	32.17	5.99	0.00	97.40	114.00	16.60
5844.8	45.17	AV	H	32.17	5.99	0.00	83.33	94.00	10.67
5844.8	60.28	PK	V	32.17	5.99	0.00	98.44	114.00	15.56
5844.8	46.78	AV	V	32.17	5.99	0.00	84.94	94.00	9.06
5875	27.77	PK	V	32.18	5.97	0.00	65.92	74.00	8.08
5875	13.67	AV	V	32.18	5.97	0.00	51.82	54.00	2.18 *
11689.6	43.95	PK	V	37.90	8.88	25.51	65.22	74.00	8.78
11689.6	30.79	AV	V	37.90	8.88	25.51	52.06	54.00	1.94 *
17534.4	30.27	PK	V	42.50	12.19	25.20	59.76	74.00	14.24
17534.4	17.36	AV	V	42.50	12.19	25.20	46.85	54.00	7.15
2696	33.26	PK	V	26.41	4.53	27.49	36.71	74.00	37.29
2696	21.17	AV	V	26.41	4.53	27.49	24.62	54.00	29.38
3131	34.51	PK	V	27.62	6.93	27.43	41.63	74.00	32.37
3131	22.87	AV	V	27.62	6.93	27.43	29.99	54.00	24.01
80.44	31.06	QP	V	8.01	1.12	21.41	18.78	40.00	21.22

*Within measurement uncertainty!

FCC §15.215(c) – 20 dB BANDWIDTH TESTING**Applicable Standard**

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT on the test table without connection to measurement instrument. Turn on the EUT. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2014-05-09	2015-05-09

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

Test Data**Environmental Conditions**

Temperature:	22.8 °C
Relative Humidity:	65 %
ATM Pressure:	100.8 kPa

* The testing was performed by Allen Qiao on 2015-03-10.

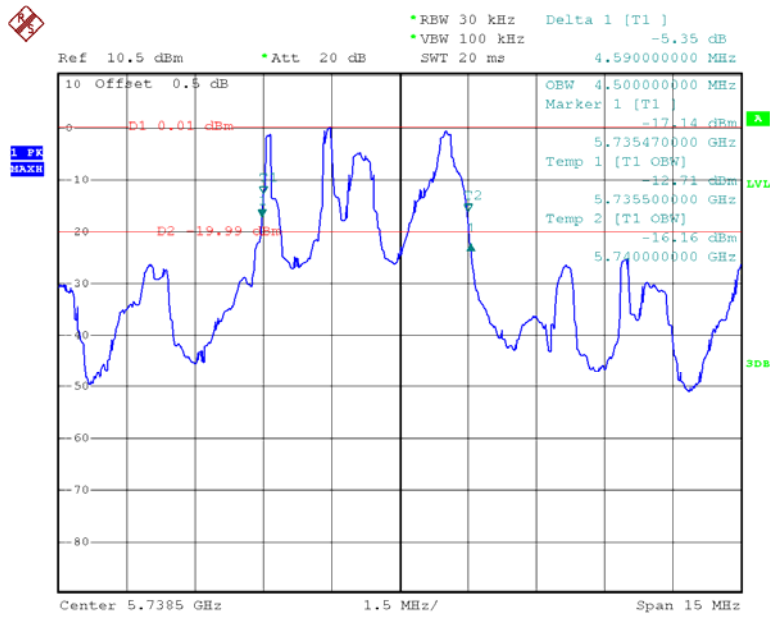
Test Result: Compliant.

Please refer to following tables and plots

Test Mode: Transmitting

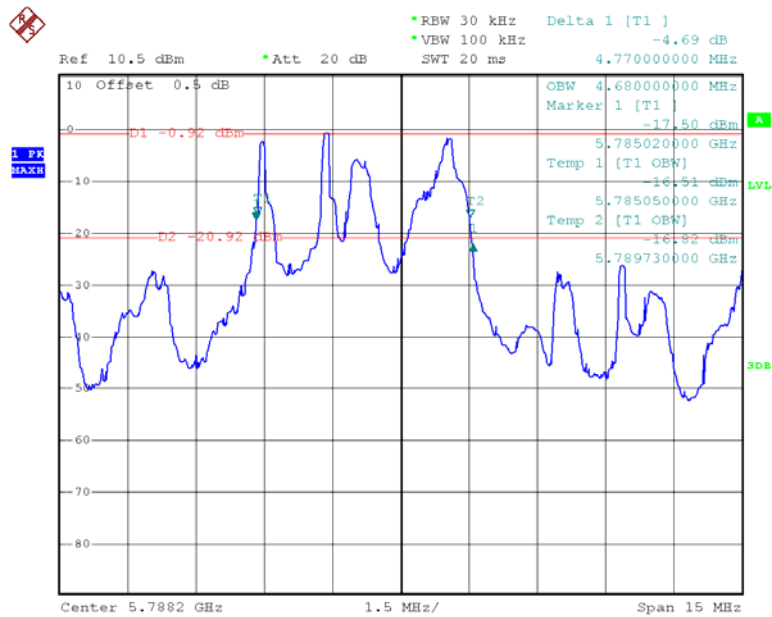
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
Low	5738.5	4.59
Middle	5788.2	4.77
High	5844.8	4.74

Low Channel



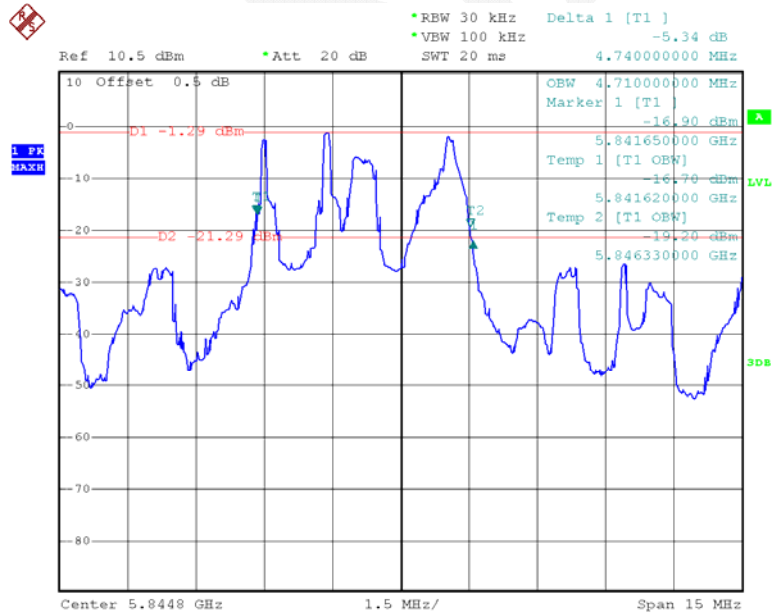
Date: 10.MAR.2015 11:40:22

Middle Channel



Date: 10.MAR.2015 11:41:15

High Channel



Date: 10.MAR.2015 11:42:02

FCC§15.249(d) - OUT OF BAND EMISSION (50 dB ATTENUATION)

Applicable Standard

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 §15.209, whichever is the lesser attenuation

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2014-05-09	2015-05-09

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

Test Data

Environmental Conditions

Temperature:	22.8 °C
Relative Humidity:	65 %
ATM Pressure:	100.8 kPa

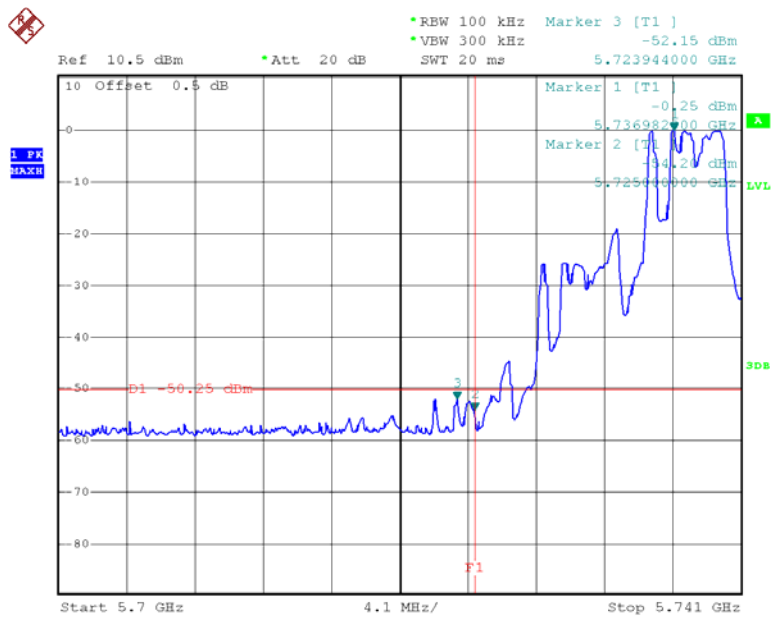
* The testing was performed by Allen Qiao on 2015-03-10.

Test Result: Compliant.

Please refer to the following table and plots:

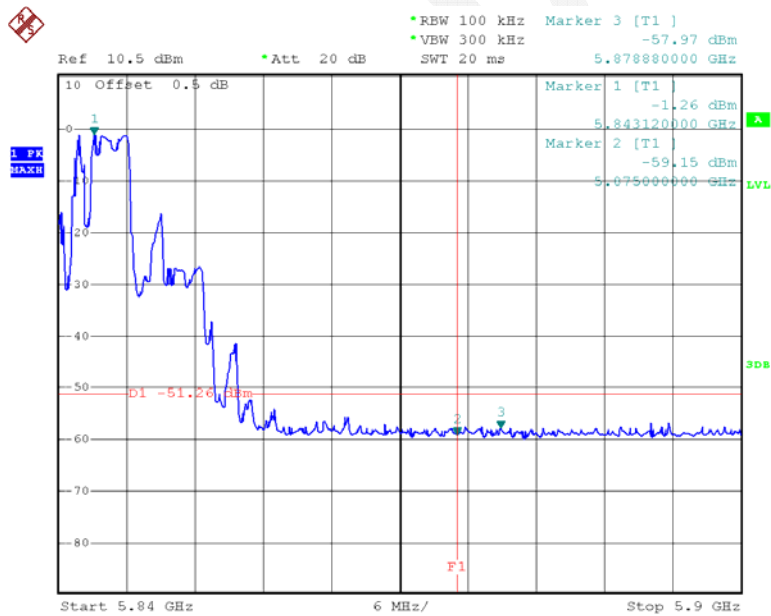
Band Edge	Delta Peak to Band Emission (dBc)	Delta Limit (dBc)
Left	-51.90	50
Right	-56.71	50

Band Edge, Left Side



Date: 10.MAR.2015 11:35:07

Band Edge, Right Side



Date: 10.MAR.2015 11:43:35

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