

# **FCC EMI TEST REPORT**

**REPORT NO. : FV592221**  
**MODEL NO. : SBR-AC1200P**  
**RECEIVED DATE : Sep. 24, 2015**  
**FINAL TESTED DATE : Oct. 12, 2015**  
**ISSUED DATE : Nov. 20, 2015**  
  
**TEST STANDARD : 47 CFR 15.113**  
**FCC 04-245**  
**ICES-006**  
  
**Filing Type : Verification**  
  
**APPLICANT : ARRIS Group, Inc.**  
**ADDRESS : 3871 Lakefield Drive, Suite 300, Suwanee, Georgia**  
**30024, United States**  
  
**Manufacturer : Sercomm Corporation**  
**ADDRESS : 8F, No. 3-1, YuanQu St., (NanKang Software Park)**  
**Taipei, Taiwan 115 R.O.C.**  
  
**ISSUED BY : SPORTON International Inc.**  
**LAB ADDRESS : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,**  
**Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.**

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## History of This Test Report

REPORT NO.	VERSION	ISSUED DATE	Description
FV592221	Rev. 01	Nov. 20, 2015	Initial issue of report

## VERIFICATION OF COMPLIANCE

**EQUIPMENT NAME : AC1200 Wi-Fi Router with RipCurrent™ Technology**

**BRAND NAME : ARRIS**

**MODEL NO. : SBR-AC1200P**

**APPLICANT : ARRIS Group, Inc.**

**ADDRESS : 3871 Lakefield Drive, Suite 300, Suwanee, Georgia  
30024, United States**

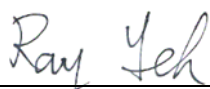
**FINAL TESTED DATE : Oct. 12, 2015**

**TEST STANDARD : 47 CFR 15.113  
FCC 04-245  
ICES-006**

### I **HEREBY** DECLARE THAT:

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 – 2014 and CFR FCC Part15 Subpart B**.

The above equipment has been tested by **SPORTON International Inc. LAB.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMI characteristics under the conditions specified in this report.



**Ray Yeh**

**SPORTON INTERNATIONAL INC.**

## 1. Summary of Test Results

After estimating all the combination of every test mode, the result shown as below is the worst case.

The EUT has been tested according to the following specifications.

Applicable Standard: CFR FCC Part15 Subpart B and ICES-006				
FCC Test Standard	IC Test Standard	Test Type	Result	Remarks
15.107(c)(2)	5.2.2	AC Power Port Conducted emission test 0.535 MHz to 1.705 MHz	PASS	Meet minimum passing margin is -5.92dB at 1.6981MHz.
15.107(c)(3) 15.109(e) 15.113(e)	5.3	Radiated emission test 9 kHz to 1,000 MHz	PASS	Meet the requirements.

## 2. General Description of Equipment under Test

Product Detail	
Equipment Name	AC1200 Wi-Fi Router with RipCurrent™ Technology
Model No.	SBR-AC1200P
Brand Name	ARRIS
Power Supply	Internal Power Supply

### 2.1. Feature of Equipment under Test

1. The EUT supports 2.4GHz / 5GHz wireless function.
2. Accessories:

Description	
Power cable	1.5m, non-shielded, w/o core
RJ-45 cable	1m, non-shielded, w/o core

3. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

### 3. Test Configuration of Equipment under Test

#### 3.1. Test Mode

Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Conducted Emissions	
Test Mode	Description
1	Normal Link

Radiated Emissions	
Test Mode	Description
1	Normal Link

### 3.2. 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.

#### AC Power Port Conducted emission test:

Support Unit	Brand	Model	FCC ID
NB*5	DELL	E6430	DoC
Earphone	e-Power	S90W	N/A
Mouse	Logitech	M-U0026	DoC
iPod	Apple	A1136	DoC
PLC (Device)	MARVELL	RD-GEDW720-LX3142-US	N/A

#### Radiated emission test:

Support Unit	Brand	Model	FCC ID
NB*5	DELL	E6430	DoC
Earphone	e-Power	S90W	N/A
iPod	Apple	A1136	DoC
Mouse	HP	FM100	DoC
PLC (Device)	MARVELL	RD-GEDW720-LX3142-US	N/A



### **3.3. EUT Operation Condition**

#### **AC Power Port Conducted emission test:**

An executive program, EMCTEST.EXE under WIN7, which generates a complete line of continuously repeating “ H “ pattern was used as the test software.

The program was executed as follows:

- a. Turn on the power of all equipment.
- b. The NB sends “ H “ messages to the panel, and the panel displays “ H “ patterns on the screen.
- c. Repeat the step b.

At the same time, the following programs were executed:

The local notebook executed “WINTHRAX.EXE” to read and write data from EUT.

The local notebook executed “ping.exe” to link with the EUT to maintain the connection by LAN.

The remote notebook executed “ping.exe” to link with the EUT to maintain the connection by WAN and WLAN.

The remote notebook executed “LAN TEST” to link with the EUT to traffic packet data generated software and keep maximum traffic load by LAN.

The EUT and the device were connected through power network.

#### **Radiated emission test:**

An executive program, EMCTEST.EXE under WIN7, which generates a complete line of continuously repeating “ H “ pattern was used as the test software.

The program was executed as follows:

- a. Turn on the power of all equipment.
- b. The NB sends “ H “ messages to the panel, and the panel displays “ H “ patterns on the screen.
- c. Repeat the step b.

At the same time, the following programs were executed:

The local notebook executed “WINTHRAX.EXE” to read and write data from EUT.

The local notebook executed “ping.exe” to link with the EUT to maintain the connection by LAN.

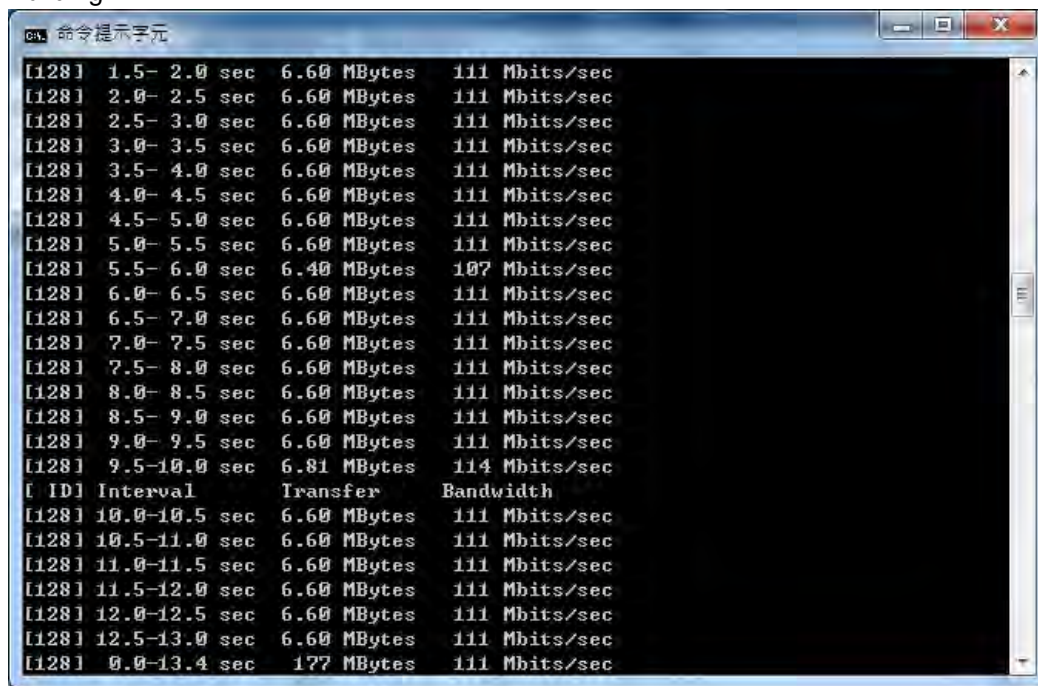
The remote notebook executed “ping.exe” to link with the EUT to maintain the connection by WAN and WLAN.

The remote notebook executed “iperf” to link with the EUT to traffic packet data generated software and keep maximum traffic load by LAN.

The EUT and the device were connected through power network.

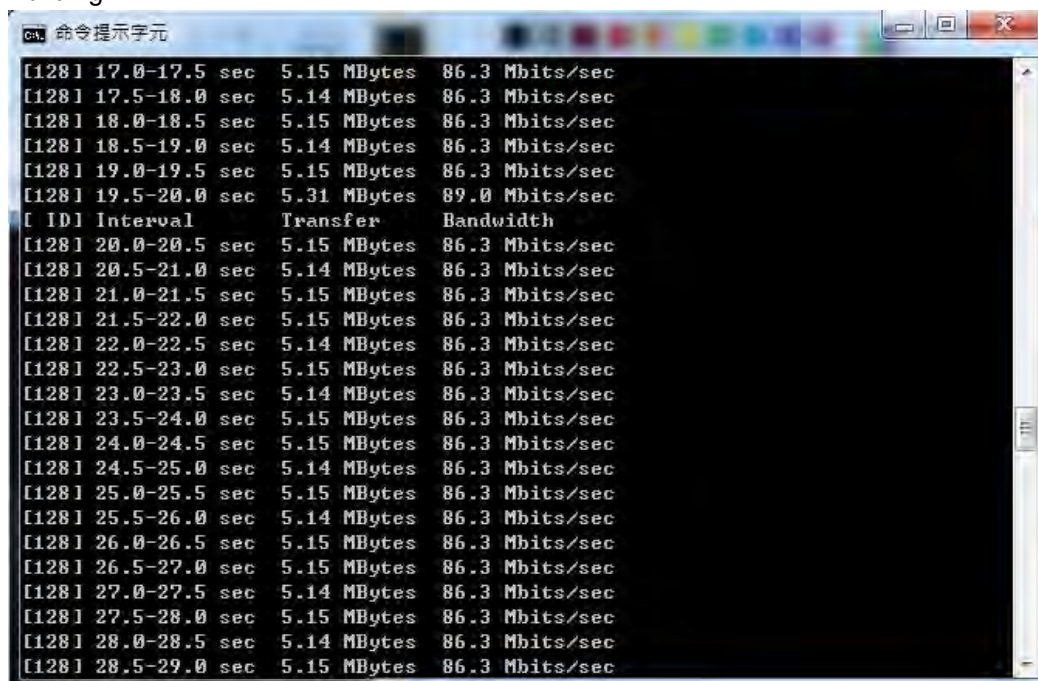
## Traffic for Radiated Emissions only

## Building 1



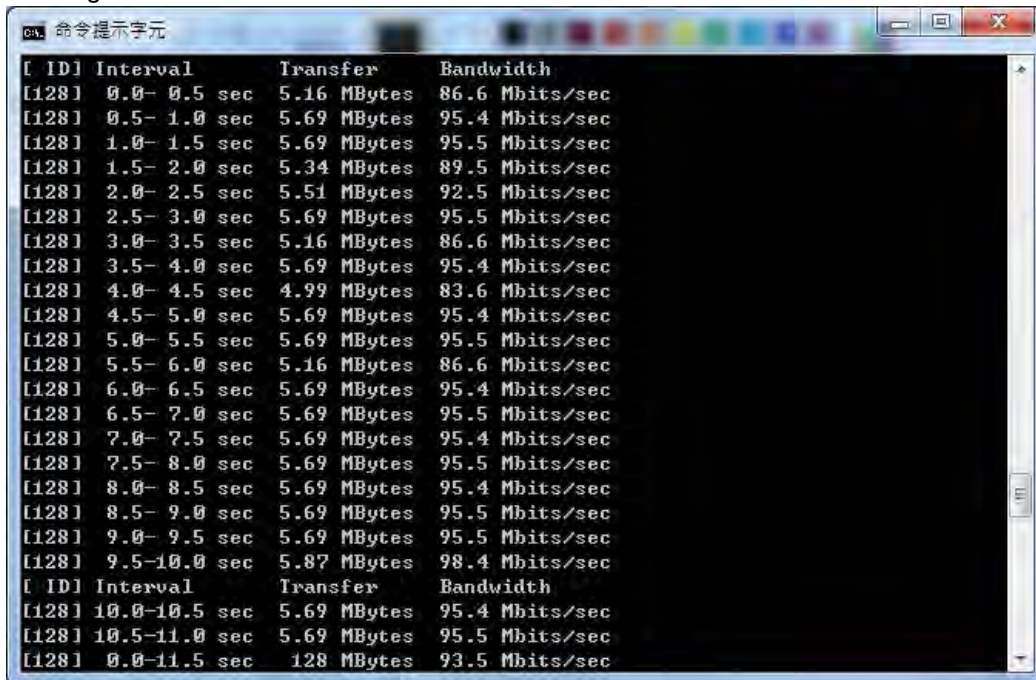
Interval	Transfer	Bandwidth
[128] 1.5- 2.0 sec	6.60 MBytes	111 Mbits/sec
[128] 2.0- 2.5 sec	6.60 MBytes	111 Mbits/sec
[128] 2.5- 3.0 sec	6.60 MBytes	111 Mbits/sec
[128] 3.0- 3.5 sec	6.60 MBytes	111 Mbits/sec
[128] 3.5- 4.0 sec	6.60 MBytes	111 Mbits/sec
[128] 4.0- 4.5 sec	6.60 MBytes	111 Mbits/sec
[128] 4.5- 5.0 sec	6.60 MBytes	111 Mbits/sec
[128] 5.0- 5.5 sec	6.60 MBytes	111 Mbits/sec
[128] 5.5- 6.0 sec	6.40 MBytes	107 Mbits/sec
[128] 6.0- 6.5 sec	6.60 MBytes	111 Mbits/sec
[128] 6.5- 7.0 sec	6.60 MBytes	111 Mbits/sec
[128] 7.0- 7.5 sec	6.60 MBytes	111 Mbits/sec
[128] 7.5- 8.0 sec	6.60 MBytes	111 Mbits/sec
[128] 8.0- 8.5 sec	6.60 MBytes	111 Mbits/sec
[128] 8.5- 9.0 sec	6.60 MBytes	111 Mbits/sec
[128] 9.0- 9.5 sec	6.60 MBytes	111 Mbits/sec
[128] 9.5-10.0 sec	6.81 MBytes	114 Mbits/sec
[ ID] Interval Transfer Bandwidth		
[128] 10.0-10.5 sec	6.60 MBytes	111 Mbits/sec
[128] 10.5-11.0 sec	6.60 MBytes	111 Mbits/sec
[128] 11.0-11.5 sec	6.60 MBytes	111 Mbits/sec
[128] 11.5-12.0 sec	6.60 MBytes	111 Mbits/sec
[128] 12.0-12.5 sec	6.60 MBytes	111 Mbits/sec
[128] 12.5-13.0 sec	6.60 MBytes	111 Mbits/sec
[128] 0.0-13.4 sec	177 MBytes	111 Mbits/sec

## Building 2



Interval	Transfer	Bandwidth
[128] 17.0-17.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 17.5-18.0 sec	5.14 MBytes	86.3 Mbits/sec
[128] 18.0-18.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 18.5-19.0 sec	5.14 MBytes	86.3 Mbits/sec
[128] 19.0-19.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 19.5-20.0 sec	5.31 MBytes	89.0 Mbits/sec
[ ID] Interval Transfer Bandwidth		
[128] 20.0-20.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 20.5-21.0 sec	5.14 MBytes	86.3 Mbits/sec
[128] 21.0-21.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 21.5-22.0 sec	5.15 MBytes	86.3 Mbits/sec
[128] 22.0-22.5 sec	5.14 MBytes	86.3 Mbits/sec
[128] 22.5-23.0 sec	5.15 MBytes	86.3 Mbits/sec
[128] 23.0-23.5 sec	5.14 MBytes	86.3 Mbits/sec
[128] 23.5-24.0 sec	5.15 MBytes	86.3 Mbits/sec
[128] 24.0-24.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 24.5-25.0 sec	5.14 MBytes	86.3 Mbits/sec
[128] 25.0-25.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 25.5-26.0 sec	5.14 MBytes	86.3 Mbits/sec
[128] 26.0-26.5 sec	5.15 MBytes	86.3 Mbits/sec
[128] 26.5-27.0 sec	5.15 MBytes	86.3 Mbits/sec
[128] 27.0-27.5 sec	5.14 MBytes	86.3 Mbits/sec
[128] 27.5-28.0 sec	5.15 MBytes	86.3 Mbits/sec
[128] 28.0-28.5 sec	5.14 MBytes	86.3 Mbits/sec
[128] 28.5-29.0 sec	5.15 MBytes	86.3 Mbits/sec

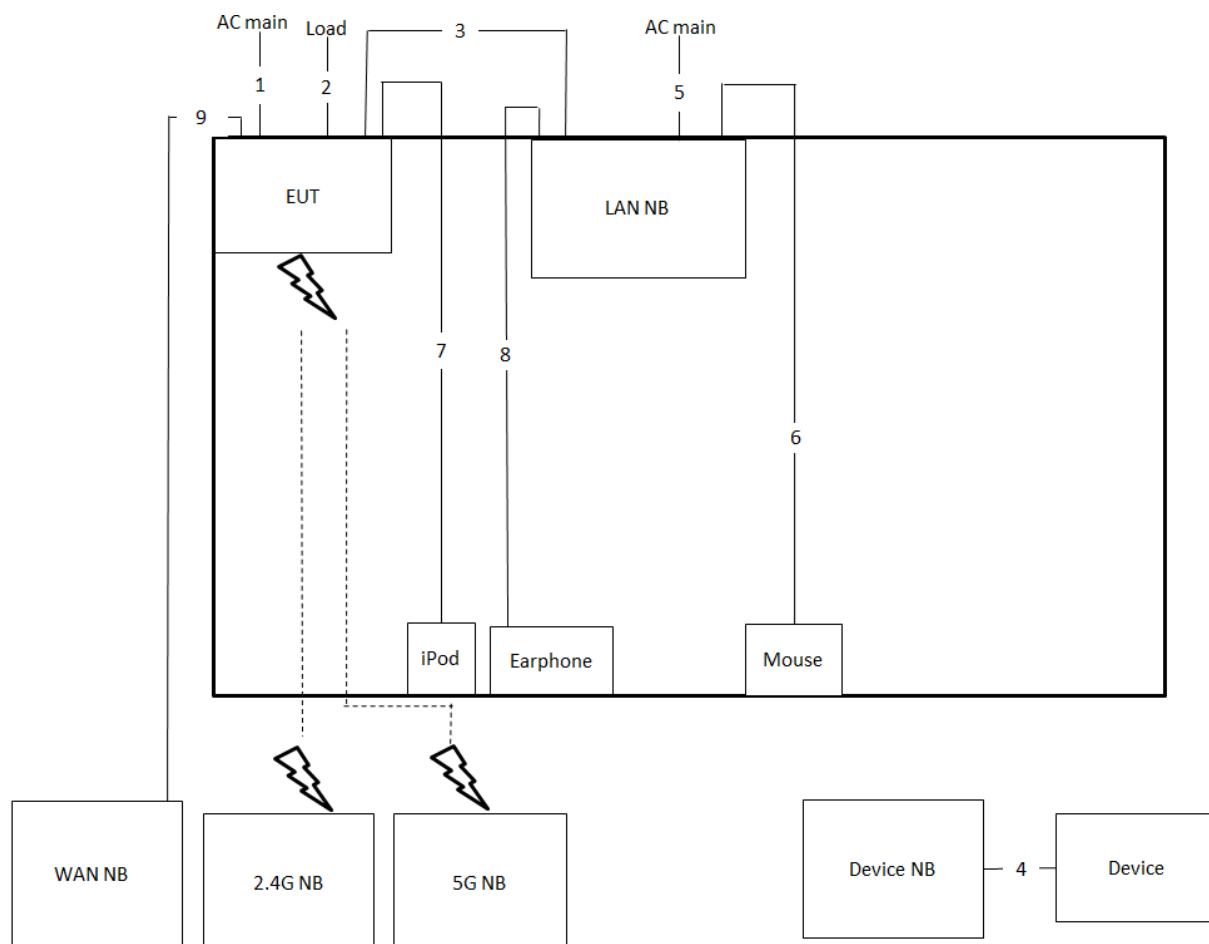
Building 3



[ ID]	Interval	Transfer	Bandwidth
[128]	0.0- 0.5 sec	5.16 MBytes	86.6 Mbits/sec
[128]	0.5- 1.0 sec	5.69 MBytes	95.4 Mbits/sec
[128]	1.0- 1.5 sec	5.69 MBytes	95.5 Mbits/sec
[128]	1.5- 2.0 sec	5.34 MBytes	89.5 Mbits/sec
[128]	2.0- 2.5 sec	5.51 MBytes	92.5 Mbits/sec
[128]	2.5- 3.0 sec	5.69 MBytes	95.5 Mbits/sec
[128]	3.0- 3.5 sec	5.16 MBytes	86.6 Mbits/sec
[128]	3.5- 4.0 sec	5.69 MBytes	95.4 Mbits/sec
[128]	4.0- 4.5 sec	4.99 MBytes	83.6 Mbits/sec
[128]	4.5- 5.0 sec	5.69 MBytes	95.4 Mbits/sec
[128]	5.0- 5.5 sec	5.69 MBytes	95.5 Mbits/sec
[128]	5.5- 6.0 sec	5.16 MBytes	86.6 Mbits/sec
[128]	6.0- 6.5 sec	5.69 MBytes	95.4 Mbits/sec
[128]	6.5- 7.0 sec	5.69 MBytes	95.5 Mbits/sec
[128]	7.0- 7.5 sec	5.69 MBytes	95.4 Mbits/sec
[128]	7.5- 8.0 sec	5.69 MBytes	95.5 Mbits/sec
[128]	8.0- 8.5 sec	5.69 MBytes	95.4 Mbits/sec
[128]	8.5- 9.0 sec	5.69 MBytes	95.5 Mbits/sec
[128]	9.0- 9.5 sec	5.69 MBytes	95.5 Mbits/sec
[128]	9.5-10.0 sec	5.87 MBytes	98.4 Mbits/sec
[ ID]	Interval	Transfer	Bandwidth
[128]	10.0-10.5 sec	5.69 MBytes	95.4 Mbits/sec
[128]	10.5-11.0 sec	5.69 MBytes	95.5 Mbits/sec
[128]	0.0-11.5 sec	128 MBytes	93.5 Mbits/sec

### 3.4. Connection Diagram of Test System

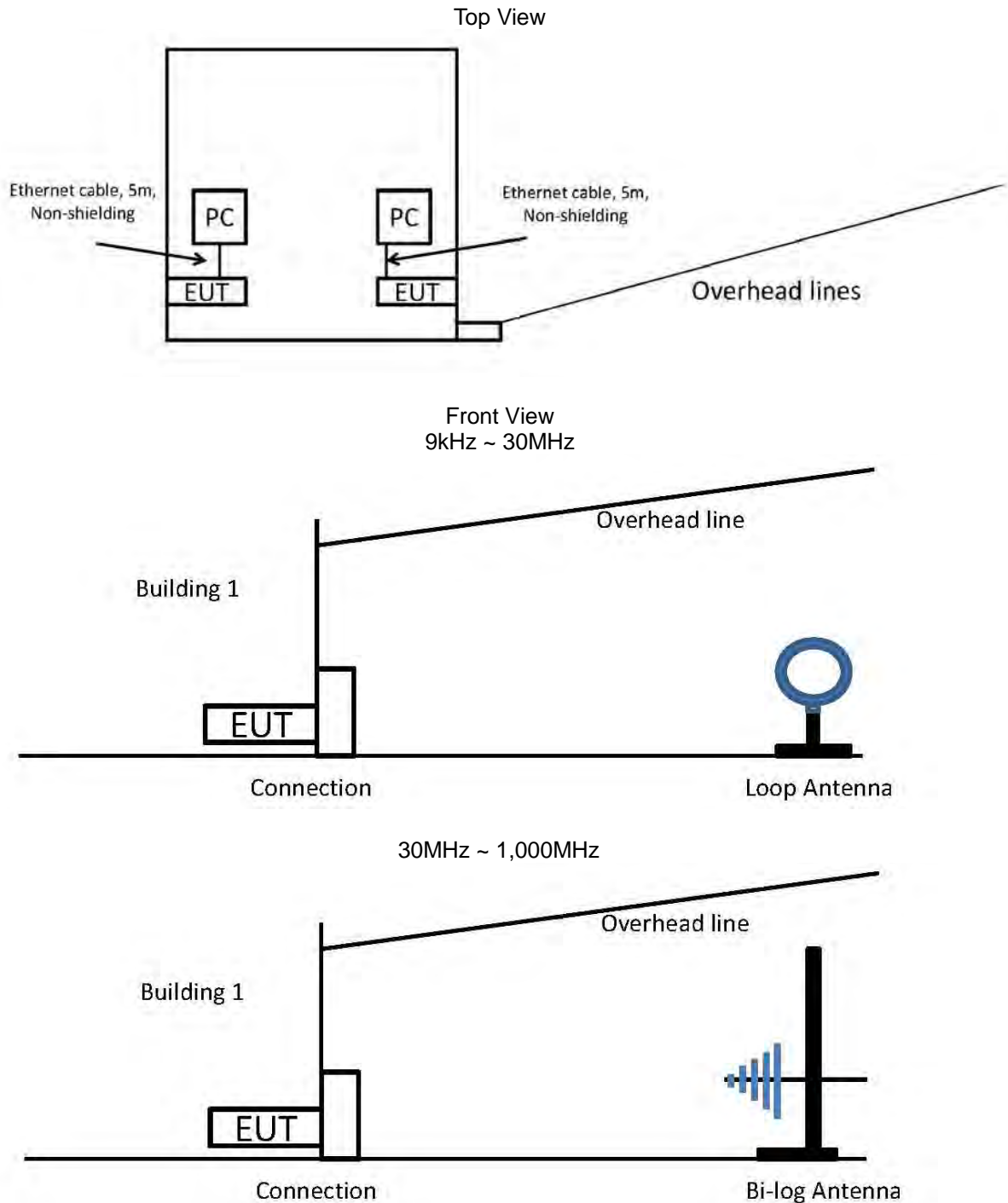
#### 3.4.1. AC Power Line Conduction Emissions Test Configuration



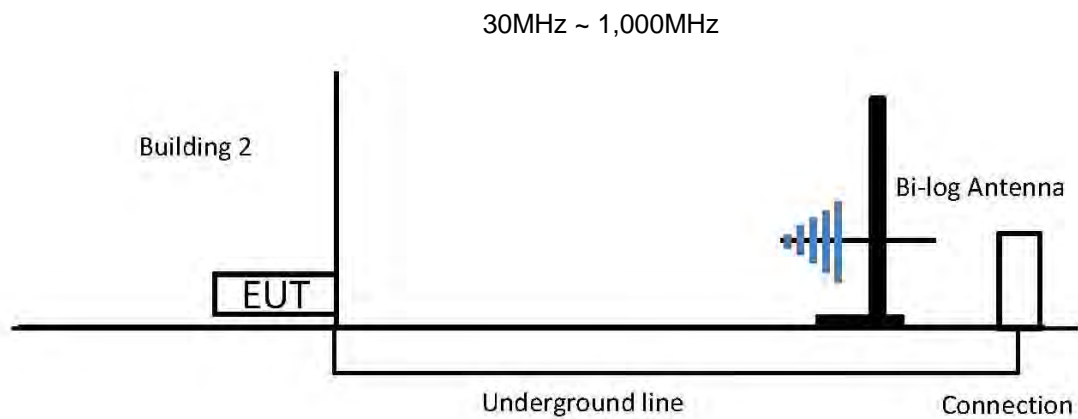
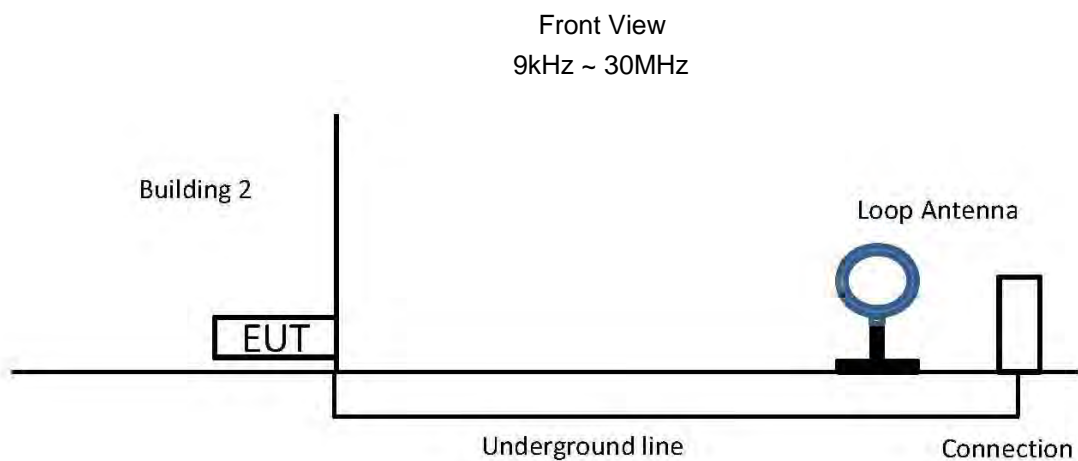
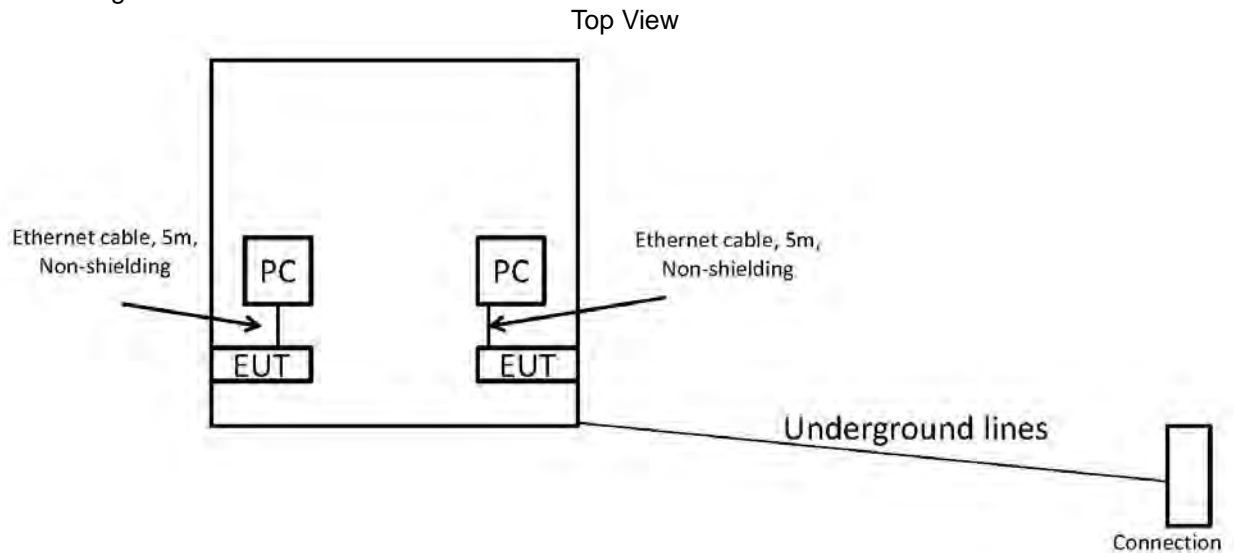
Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable*3	No	1.5m
3	RJ-45 cable	No	1m
4	Power cable	No	2.6m
5	USB cable	Yes	1.8m
6	USB cable	Yes	1.5m
7	Audio cable	No	1.4m
8	RJ-45 cable	No	10m

## 3.4.2. Radiated Emissions Test Configuration

For overhead lines installations



For underground lines installations



## **4. General Information of Test**

### **4.1. Test Facility**

Test Site Location : No.8, Lane 724, Bo-ai St., Jhubei City,  
Hsinchu County 302, Taiwan, R.O.C.

TEL : 886-3-656-9065

FAX : 886-3-656-9085

Test Site No. : Conduction: CO01-CB

Buildings With Overhead Lines: Test site No. 1

Buildings with Underground Lines: Test site No. 2

Buildings With Overhead Lines: Test site No. 3

### **4.2. Test Voltage**

<b>Power Type</b>	<b>Test Voltage</b>
AC Power Supply	120 V / 60 Hz

### **4.3. Standard for Methods of Measurement**

ANSI C63.4-2014

### **4.4. Frequency Range Investigated**

<b>Test Items</b>	<b>Frequency Range</b>
Conducted emission test	0.535 MHz to 1.705 MHz
Radiated emission test	9 kHz to 1,000 MHz

## 5. Test of Conducted Emission

### 5.1. Limit

For a Low-power Radio-frequency Device which is designed to be connected to the 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 below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

The limits shown above shall not apply to carrier current systems operating as unintentional radiators on frequencies below 30 MHz. In lieu thereof, these carriercurrent systems shall be subject to the following standards:

- (1) For carrier current systems containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a AM broadcast receiver: no limit on conducted emissions.
- (2) For all other carrier current systems: 1000 uV within the frequency band 535-1705 kHz, as measured using a 50  $\mu$ H/50 ohms LISN

Frequency (MHz)	Limit (uV)	Limit (dBuV)
0.535 ~ 1.705	1000	60

### 5.2. Description of Major Test Instruments

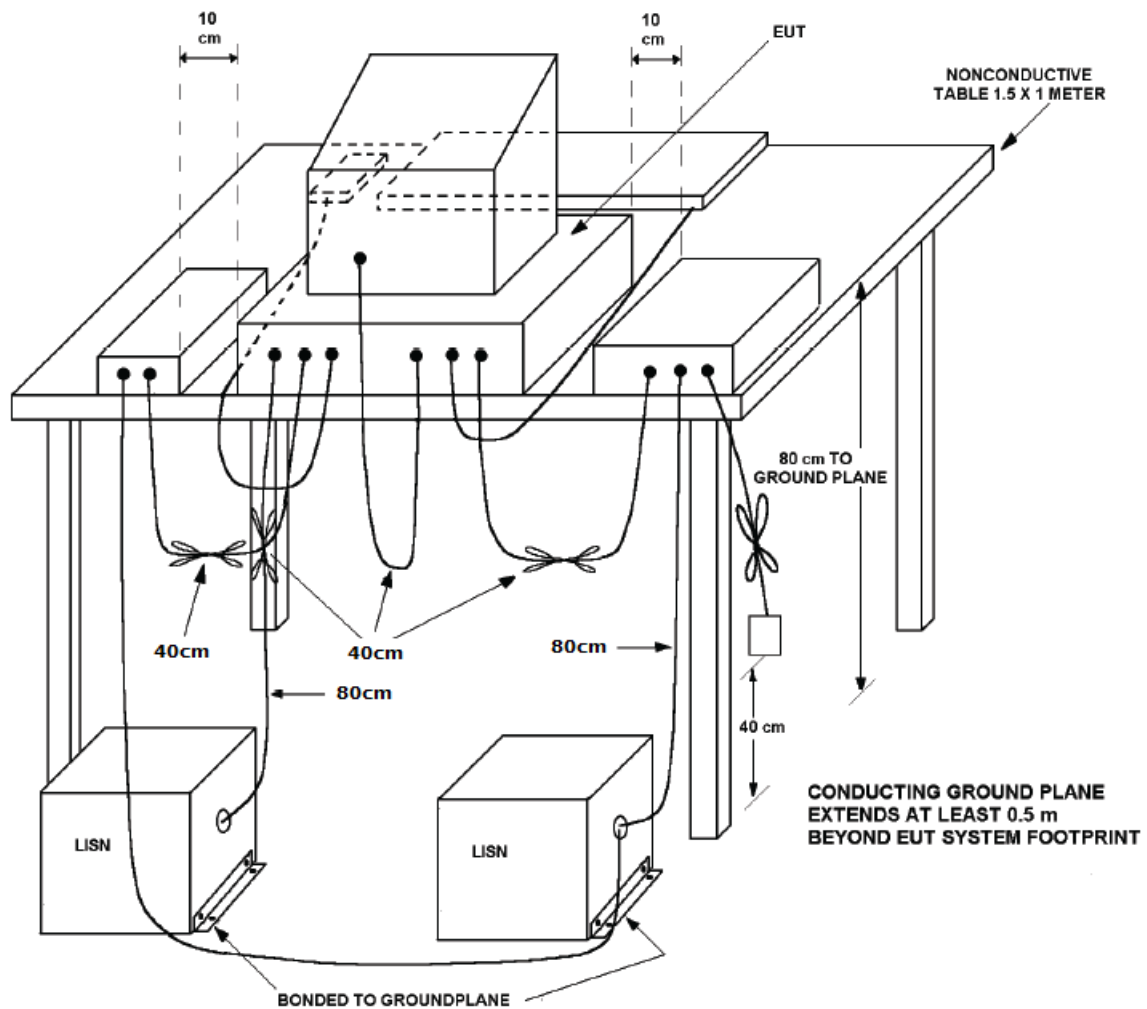
Receiver Parameters	Setting
Start Frequency	0.535 MHz
Stop Frequency	1.705 MHz
RBW	200 Hz for 9 kHz ~ 150 kHz / 9 kHz for 150 kHz ~ 30 MHz



**5.3. Test Procedures**

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connect to the other LISN.
- d. The LISN provides 50  $\Omega$  coupling impedance for the measuring instrument.
- e. The FCC states that a 50  $\Omega$ , 50  $\mu$ H LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 0.535 MHz to 1.705 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

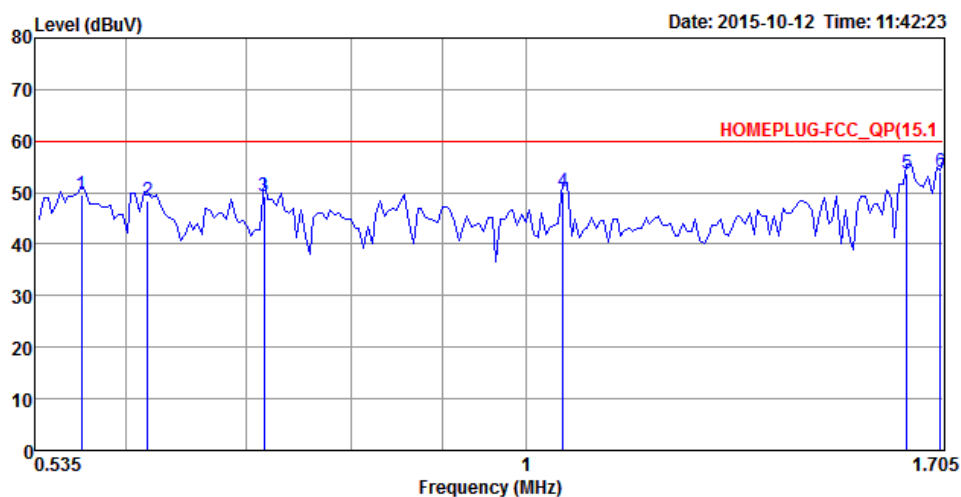
#### 5.4. Typical Test Setup Layout of Conducted Emission



## 5.5. Test Result of AC Power Ports

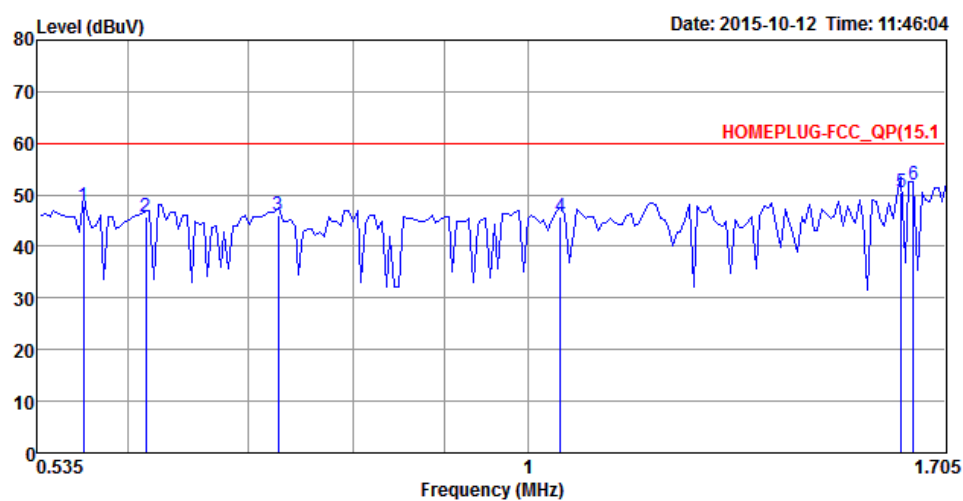
Temperature	23°C	Humidity	60%
Test Engineer	Kane Liu	Frequency Range	0.535 MHz to 1.705 MHz
Test Mode	Mode 1		

Line



	Freq	Level	Over	Limit	Read	LISN	Cable		
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.5671	49.56	-10.44	60.00	39.58	9.94	0.04	LINE	QP
2	0.6173	48.48	-11.52	60.00	38.50	9.94	0.04	LINE	QP
3	0.7160	49.27	-10.73	60.00	39.28	9.95	0.04	LINE	QP
4	1.0485	50.09	-9.91	60.00	40.08	9.96	0.05	LINE	QP
5	1.6276	53.76	-6.24	60.00	43.72	9.98	0.06	LINE	QP
6	1.6981	54.08	-5.92	60.00	44.04	9.98	0.06	LINE	QP

## Neutral



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.5671	47.90	-12.10	60.00	38.06	9.80	0.04	NEUTRAL	QP
2	0.6140	45.78	-14.22	60.00	35.94	9.80	0.04	NEUTRAL	QP
3	0.7274	46.14	-13.86	60.00	36.30	9.80	0.04	NEUTRAL	QP
4	1.0430	45.82	-14.18	60.00	35.96	9.81	0.05	NEUTRAL	QP
5	1.6105	50.61	-9.39	60.00	40.72	9.83	0.06	NEUTRAL	QP
6	1.6363	52.05	-7.95	60.00	42.16	9.83	0.06	NEUTRAL	QP

## 6. Test of Radiated Emission

### 6.1. Limit

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

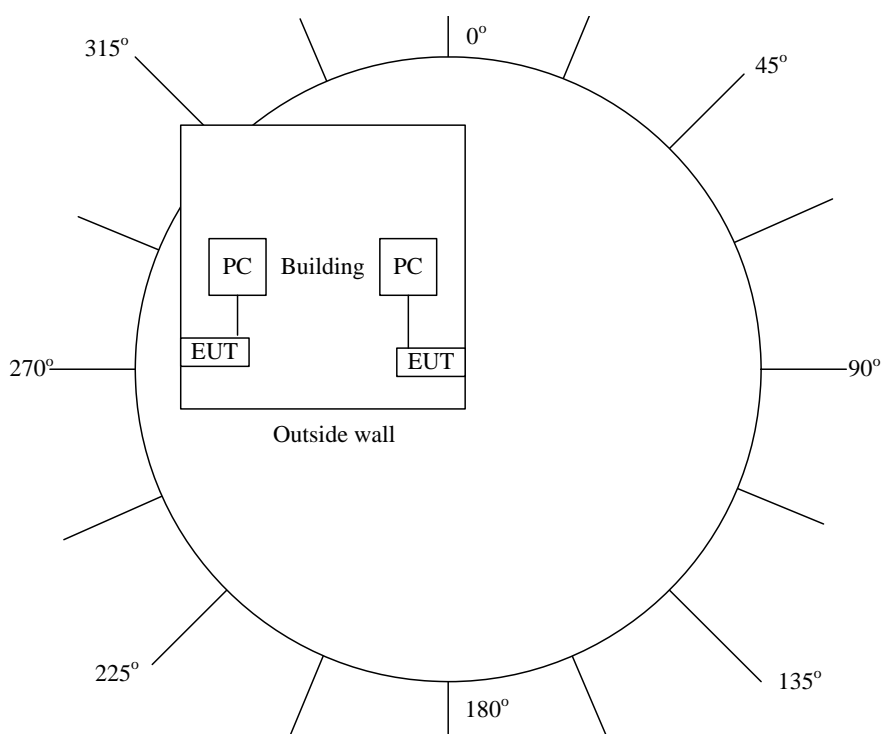
### 6.2. Description of Major Test Instruments

Receiver Parameter	Setting
Center Frequency	Fundamental Frequency
RBW	200 Hz for 9 kHz ~150 kHz / 9 kHz for 150 kHz ~ 30MHz 120 kHz for 30 MHz to 1,000 MHz
Detector	Quasi-Peak

**6.3. Test Procedures**

- a. Configure the EUT to normal operation mode. EUT installed in a building on an outside wall on the ground floor or first floor. Testing shall be performed on three typical installations.
- b. Power on the EUT and all the supporting units.
- c. Measurements shall be made at positions around the building perimeter where the maximum emissions occur. ANSI C63.4-2014, specifies a minimum of 16 radial angles surrounding the EUT (building perimeter).
- d. For frequencies below 30 MHz, an active or passive magnetic loop is used. The magnetic loop antenna should be at 1 meter height and the emission maximized over 180 degrees. When using active magnetic loops, care should be taken to prevent ambient signals from overloading the spectrum analyzer.
- e. For frequencies above 30 MHz, a bicon antenna is used. The signal shall be maximized from 1 to 4 meter antenna height for both horizontal and vertical polarizations in accordance to ANSI C63.4-2014 procedures.

#### 6.4. Typical Test Setup Layout of Radiated Emission



## 6.5. Test Result of Radiated Emission

Temperature	26°C	Humidity	60%
Test Engineer	Ryo Fan	Test Mode	Mode 1
Test Date	Oct. 11, 2015	Configuration	Building 1

## Measured at 0° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.42	-43.12	69.54	-
10.42	27.45	-42.09	69.54	-
24.24	28.42	-41.12	69.54	-
37.45	29.42	-10.58	40.00	Horizontal
48.42	27.42	-12.58	40.00	-
77.45	26.72	-13.28	40.00	-
108.89	34.42	-9.08	43.50	Vertical
301.6	25.12	-20.88	46.00	Horizontal
749.6	25.85	-20.15	46.00	Horizontal

## Measured at 22.5° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.45	-44.09	69.54	-
10.42	26.42	-43.12	69.54	-
24.24	27.42	-42.12	69.54	-
37.45	29.42	-10.58	40.00	-
48.42	27.15	-12.85	40.00	Vertical
77.45	28.04	-11.96	40.00	Horizontal
108.89	31.42	-12.08	43.50	Vertical
301.6	27.72	-18.28	46.00	-
749.6	28.42	-17.58	46.00	-

## Measured at 45° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.75	-43.79	69.54	-
10.42	29.98	-39.56	69.54	-
24.24	27.45	-42.09	69.54	-
37.45	28.54	-11.46	40.00	Vertical
48.42	24.75	-15.25	40.00	-
77.45	26.72	-13.28	40.00	-
108.89	30.42	-13.08	43.50	-
301.6	31.42	-14.58	46.00	Vertical
749.6	27.85	-18.15	46.00	Horizontal



## Measured at 67.5° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.12	-43.42	69.54	-
10.42	29.42	-40.12	69.54	Horizontal
24.24	27.42	-42.12	69.54	-
37.45	28.42	-11.58	40.00	Vertical
48.42	26.65	-13.35	40.00	-
77.45	27.42	-12.58	40.00	Vertical
108.89	29.85	-13.65	43.50	-
301.6	30.17	-15.83	46.00	-
749.6	32.24	-13.76	46.00	-

## Measured at 90° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.42	-44.12	69.54	-
10.42	31.72	-37.82	69.54	Horizontal
24.24	23.42	-46.12	69.54	-
37.45	26.21	-13.79	40.00	-
48.42	26.41	-13.59	40.00	-
77.45	24.14	-15.86	40.00	-
108.89	28.24	-15.26	43.50	Vertical
301.6	29.12	-16.88	46.00	-
749.6	31.24	-14.76	46.00	Horizontal

## Measured at 112.5° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.72	-42.82	69.54	-
10.42	34.62	-34.92	69.54	Horizontal
24.24	27.18	-42.36	69.54	-
37.45	26.43	-13.57	40.00	-
48.42	25.12	-14.88	40.00	-
77.45	26.42	-13.58	40.00	-
108.89	29.42	-14.08	43.50	Vertical
301.6	30.12	-15.88	46.00	-
749.6	31.42	-14.58	46.00	Vertical

## Measured at 135° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.14	-44.40	69.54	-
10.42	34.25	-35.29	69.54	-
24.24	28.24	-41.30	69.54	Vertical
37.45	25.12	-14.88	40.00	Vertical
48.42	27.85	-12.15	40.00	-
77.45	29.85	-10.15	40.00	-
108.89	30.24	-13.26	43.50	-
301.6	32.41	-13.59	46.00	-
749.6	35.14	-10.86	46.00	Horizontal

## Measured at 157.5° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	24.54	-45.00	69.54	-
10.42	30.42	-39.12	69.54	Vertical
24.24	25.75	-43.79	69.54	-
37.45	25.57	-14.43	40.00	-
48.42	24.42	-15.58	40.00	-
77.45	25.45	-14.55	40.00	-
108.89	31.58	-11.92	43.50	-
301.6	33.76	-12.24	46.00	Horizontal
749.6	34.95	-11.05	46.00	Horizontal

## Measured at 180° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.42	-43.12	69.54	-
10.42	31.42	-38.12	69.54	-
24.24	28.53	-41.01	69.54	Vertical
37.45	26.53	-13.47	40.00	Horizontal
48.42	27.42	-12.58	40.00	-
77.45	25.12	-14.88	40.00	-
108.89	28.42	-15.08	43.50	-
301.6	32.41	-13.59	46.00	-
749.6	34.45	-11.55	46.00	Horizontal

## Measured at 202.5° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	29.42	-40.12	69.54	-
10.42	35.42	-34.12	69.54	-
24.24	29.42	-40.12	69.54	Vertical
37.45	27.11	-12.89	40.00	-
48.42	27.57	-12.43	40.00	-
77.45	29.12	-10.88	40.00	Horizontal
108.89	30.75	-12.75	43.50	-
301.6	31.21	-14.79	46.00	Horizontal
749.6	33.85	-12.15	46.00	-

## Measured at 225° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	27.85	-41.69	69.54	-
10.42	35.45	-34.09	69.54	-
24.24	36.53	-33.01	69.54	-
37.45	37.80	-2.20	40.00	Horizontal
48.42	37.14	-2.86	40.00	-
77.45	39.42	-0.58	40.00	Vertical
108.89	31.42	-12.08	43.50	Vertical
301.6	31.42	-14.58	46.00	-
749.6	34.21	-11.79	46.00	-

## Measured at 247.5° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.12	-43.42	69.54	-
10.42	35.42	-34.12	69.54	-
24.24	29.42	-40.12	69.54	-
37.45	28.42	-11.58	40.00	Horizontal
48.42	29.42	-10.58	40.00	-
77.45	28.10	-11.90	40.00	Horizontal
108.89	30.42	-13.08	43.50	Vertical
301.6	33.18	-12.82	46.00	-
749.6	33.24	-12.76	46.00	-

## Measured at 270° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.45	-44.09	69.54	-
10.42	28.57	-40.97	69.54	-
24.24	25.45	-44.09	69.54	-
37.45	28.18	-11.82	40.00	Horizontal
48.42	27.44	-12.56	40.00	-
77.45	28.32	-11.68	40.00	-
108.89	30.86	-12.64	43.50	-
301.6	35.17	-10.83	46.00	Vertical
749.6	34.08	-11.92	46.00	Vertical

## Measured at 292.5° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.74	-43.80	69.54	-
10.42	32.45	-37.09	69.54	-
24.24	23.45	-46.09	69.54	-
37.45	28.54	-11.46	40.00	Horizontal
48.42	35.45	-4.55	40.00	-
77.45	23.24	-16.76	40.00	-
108.89	31.62	-11.88	43.50	-
301.6	33.75	-12.25	46.00	Vertical
749.6	32.5	-13.50	46.00	Vertical

## Measured at 315° position (Building 1)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.27	-43.27	69.54	-
10.42	35.45	-34.09	69.54	-
24.24	26.50	-43.04	69.54	Horizontal
37.45	27.75	-12.25	40.00	Horizontal
48.42	26.42	-13.58	40.00	-
77.45	24.54	-15.46	40.00	-
108.89	30.42	-13.08	43.50	Vertical
301.6	32.42	-13.58	46.00	-
749.6	29.42	-16.58	46.00	-

**Measured at 337.5° position (Building 1)**

<b>Freq. (MHz)</b>	<b>Level (dBuV/m)</b>	<b>Over Limit (dB)</b>	<b>Limit Line (dBuV/m) at 3m</b>	<b>Polarization</b>
2.42	26.75	-42.79	69.54	-
10.42	38.12	-31.42	69.54	-
24.24	27.60	-41.94	69.54	Horizontal
37.45	28.57	-11.43	40.00	Horizontal
48.42	26.10	-13.90	40.00	-
77.45	26.45	-13.55	40.00	-
108.89	31.49	-12.01	43.50	-
301.6	31.24	-14.76	46.00	Vertical
749.6	31.24	-14.76	46.00	-

**Note:**

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Distance extrapolation factor below 30MHz = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

The other emission levels were very low against the limit so it didn't record in the test report.

Temperature	27°C	Humidity	62%
Test Engineer	Ryo Fan	Test Mode	Mode 1
Test Date	Oct. 11, 2015	Configuration	Building 2

## Measured at 0° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.42	-43.12	69.54	Horizontal
15.75	32.21	-37.33	69.54	-
20.42	27.24	-42.30	69.54	-
35.42	28.42	-11.58	40.00	Vertical
49.22	26.42	-13.58	40.00	-
69.42	24.42	-15.58	40.00	-
108.74	31.42	-12.08	43.50	Horizontal
300.45	30.42	-15.58	46.00	-
749.85	31.45	-14.55	46.00	-

## Measured at 22.5° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.45	-44.09	69.54	-
15.75	34.21	-35.33	69.54	Horizontal
20.42	26.42	-43.12	69.54	-
35.42	24.12	-15.88	40.00	-
49.22	26.12	-13.88	40.00	-
69.42	24.72	-15.28	40.00	-
108.74	30.12	-13.38	43.50	Vertical
300.45	31.12	-14.88	46.00	-
749.85	32.42	-13.58	46.00	Vertical

## Measured at 45° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	24.45	-45.09	69.54	-
15.75	35.24	-34.30	69.54	-
20.42	29.42	-40.12	69.54	Vertical
35.42	27.42	-12.58	40.00	Horizontal
49.22	26.42	-13.58	40.00	Vertical
69.42	27.85	-12.15	40.00	-
108.74	32.42	-11.08	43.50	-
300.45	31.57	-14.43	46.00	-
749.85	31.54	-14.46	46.00	-

## Measured at 67.5° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.29	-43.25	69.54	-
15.75	34.76	-34.78	69.54	-
20.42	28.16	-41.38	69.54	Horizontal
35.42	27.51	-12.49	40.00	Horizontal
49.22	26.70	-13.30	40.00	-
69.42	28.08	-11.92	40.00	Vertical
108.74	31.28	-12.22	43.50	-
300.45	32.26	-13.74	46.00	-
749.85	34.79	-11.21	46.00	-

## Measured at 90° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	24.45	-45.09	69.54	-
15.75	37.45	-32.09	69.54	-
20.42	27.45	-42.09	69.54	Vertical
35.42	29.57	-10.43	40.00	Horizontal
49.22	28.75	-11.25	40.00	-
69.42	34.12	-5.88	40.00	-
108.74	33.08	-10.42	43.50	-
300.45	33.75	-12.25	46.00	Horizontal
749.85	32.45	-13.55	46.00	-

## Measured at 112.5° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.47	-44.07	69.54	-
15.75	37.42	-32.12	69.54	-
20.42	25.45	-44.09	69.54	-
35.42	27.24	-12.76	40.00	-
49.22	26.57	-13.43	40.00	-
69.42	24.45	-15.55	40.00	Vertical
108.74	30.54	-12.96	43.50	Vertical
300.45	33.42	-12.58	46.00	Horizontal
749.85	30.45	-15.55	46.00	-

## Measured at 135° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.91	-42.63	69.54	-
15.75	30.44	-39.10	69.54	Vertical
20.42	27.51	-42.03	69.54	-
35.42	24.06	-15.94	40.00	-
49.22	26.48	-13.52	40.00	-
69.42	28.13	-11.87	40.00	-
108.74	33.28	-10.22	43.50	Vertical
300.45	31.96	-14.04	46.00	-
749.85	34.04	-11.96	46.00	Horizontal

## Measured at 157.5° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.04	-43.50	69.54	-
15.75	37.86	-31.68	69.54	Horizontal
20.42	27.69	-41.85	69.54	-
35.42	28.06	-11.94	40.00	-
49.22	27.04	-12.96	40.00	-
69.42	27.45	-12.55	40.00	-
108.74	31.82	-11.68	43.50	Vertical
300.45	34.91	-11.09	46.00	Horizontal
749.85	31.58	-14.42	46.00	-

## Measured at 180° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	26.14	-43.40	69.54	-
15.75	38.69	-30.85	69.54	-
20.42	27.18	-42.36	69.54	Horizontal
35.42	28.28	-11.72	40.00	Horizontal
49.22	26.34	-13.66	40.00	Vertical
69.42	26.43	-13.57	40.00	-
108.74	31.65	-11.85	43.50	-
300.45	32.42	-13.58	46.00	-
749.85	32.69	-13.31	46.00	-



## Measured at 202.5° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.45	-44.09	69.54	-
15.75	34.12	-35.42	69.54	-
20.42	27.45	-42.09	69.54	Horizontal
35.42	27.45	-12.55	40.00	Vertical
49.22	26.45	-13.55	40.00	-
69.42	25.38	-14.62	40.00	-
108.74	30.45	-13.05	43.50	Horizontal
300.45	32.75	-13.25	46.00	-
749.85	31.54	-14.46	46.00	-

## Measured at 225° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.75	-43.79	69.54	-
15.75	34.90	-34.64	69.54	-
20.42	27.70	-41.84	69.54	Vertical
35.42	28.75	-11.25	40.00	-
49.22	27.75	-12.25	40.00	-
69.42	25.75	-14.25	40.00	-
108.74	32.25	-11.25	43.50	Vertical
300.45	30.45	-15.55	46.00	-
749.85	34.85	-11.15	46.00	Horizontal

## Measured at 247.5° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.45	-44.09	69.54	-
15.75	37.42	-32.12	69.54	-
20.42	27.12	-42.42	69.54	-
35.42	27.75	-12.25	40.00	Horizontal
49.22	25.45	-14.55	40.00	-
69.42	27.12	-12.88	40.00	-
108.74	30.85	-12.65	43.50	Vertical
300.45	31.57	-14.43	46.00	-
749.85	33.57	-12.43	46.00	Horizontal

## Measured at 270° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	27.45	-42.09	69.54	-
15.75	34.42	-35.12	69.54	-
20.42	26.42	-43.12	69.54	-
35.42	26.30	-13.70	40.00	-
49.22	27.10	-12.90	40.00	Vertical
69.42	27.12	-12.88	40.00	Horizontal
108.74	30.42	-13.08	43.50	Vertical
300.45	33.12	-12.88	46.00	-
749.85	34.47	-11.53	46.00	-

## Measured at 292.5° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	25.74	-43.80	69.54	-
15.75	35.42	-34.12	69.54	-
20.42	28.75	-40.79	69.54	-
35.42	27.58	-12.42	40.00	-
49.22	28.57	-11.43	40.00	-
69.42	26.85	-13.15	40.00	Horizontal
108.74	31.57	-11.93	43.50	Vertical
300.45	34.19	-11.81	46.00	Vertical
749.85	32.75	-13.25	46.00	-

## Measured at 315° position (Building 2)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	33.42	-36.12	69.54	-
15.75	36.45	-33.09	69.54	-
20.42	26.42	-43.12	69.54	-
35.42	27.48	-12.52	40.00	-
49.22	30.42	-9.58	40.00	-
69.42	25.97	-14.03	40.00	-
108.74	30.45	-13.05	43.50	Vertical
300.45	30.85	-15.15	46.00	Horizontal
749.85	33.45	-12.55	46.00	Horizontal

**Measured at 337.5° position (Building 2)**

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
2.42	28.12	-41.42	69.54	-
15.75	39.42	-30.12	69.54	-
20.42	26.42	-43.12	69.54	-
35.42	29.88	-10.12	40.00	Horizontal
49.22	27.54	-12.46	40.00	-
69.42	28.21	-11.79	40.00	Horizontal
108.74	30.75	-12.75	43.50	-
300.45	33.85	-12.15	46.00	-
749.85	33.14	-12.86	46.00	Vertical

**Note:**

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Distance extrapolation factor below 30MHz = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

The other emission levels were very low against the limit so it didn't record in the test report.

Temperature	26°C	Humidity	64%
Test Engineer	Ryo Fan	Test Mode	Mode 1
Test Date	Oct. 11, 2015	Configuration	Building 3

## Measured at 0° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	26.50	-43.04	69.54	-
12.42	35.42	-34.12	69.54	Horizontal
41.12	27.16	-12.84	40.00	-
36.12	26.42	-13.58	40.00	-
50.85	27.42	-12.58	40.00	-
68.32	25.42	-14.58	40.00	-
107.35	33.42	-10.08	43.50	-
301.85	32.42	-13.58	46.00	Vertical
750.1	31.75	-14.25	46.00	Horizontal

## Measured at 22.5° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	28.45	-41.09	69.54	-
12.42	36.45	-33.09	69.54	-
41.12	25.74	-14.26	40.00	Horizontal
36.12	25.75	-14.25	40.00	Vertical
50.85	26.75	-13.25	40.00	Vertical
68.32	25.42	-14.58	40.00	-
107.35	32.75	-10.75	43.50	-
301.85	33.75	-12.25	46.00	-
750.1	31.45	-14.55	46.00	-

## Measured at 45° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	27.42	-42.12	69.54	-
12.42	35.12	-34.42	69.54	-
41.12	28.24	-11.76	40.00	-
36.12	29.42	-10.58	40.00	Horizontal
50.85	28.42	-11.58	40.00	Vertical
68.32	26.42	-13.58	40.00	Vertical
107.35	30.42	-13.08	43.50	-
301.85	32.77	-13.23	46.00	-
750.1	30.75	-15.25	46.00	-

## Measured at 67.5° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	25.42	-44.12	69.54	-
12.42	32.45	-37.09	69.54	-
41.12	28.42	-11.58	40.00	-
36.12	29.42	-10.58	40.00	Horizontal
50.85	28.35	-11.65	40.00	Vertical
68.32	26.42	-13.58	40.00	-
107.35	30.75	-12.75	43.50	-
301.85	32.57	-13.43	46.00	-
750.1	34.54	-11.46	46.00	Horizontal

## Measured at 90° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	26.77	-42.77	69.54	-
12.42	34.75	-34.79	69.54	-
41.12	26.75	-13.25	40.00	-
36.12	26.90	-13.10	40.00	Horizontal
50.85	29.45	-10.55	40.00	Horizontal
68.32	25.75	-14.25	40.00	Vertical
107.35	32.85	-10.65	43.50	-
301.85	32.57	-13.43	46.00	-
750.1	31.75	-14.25	46.00	-

## Measured at 112.5° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	24.85	-44.69	69.54	-
12.42	35.80	-33.74	69.54	-
41.12	27.64	-12.36	40.00	Vertical
36.12	27.42	-12.58	40.00	Horizontal
50.85	25.78	-14.22	40.00	Vertical
68.32	27.12	-12.88	40.00	-
107.35	31.42	-12.08	43.50	-
301.85	31.97	-14.03	46.00	-
750.1	32.28	-13.72	46.00	-

## Measured at 135° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	26.41	-43.13	69.54	-
12.42	37.09	-32.45	69.54	-
41.12	27.08	-12.92	40.00	-
36.12	28.33	-11.67	40.00	Vertical
50.85	27.31	-12.69	40.00	-
68.32	26.51	-13.49	40.00	-
107.35	30.85	-12.65	43.50	Vertical
301.85	32.68	-13.32	46.00	-
750.1	34.16	-11.84	46.00	Horizontal

## Measured at 157.5° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	28.92	-40.62	69.54	-
12.42	36.83	-32.71	69.54	-
41.12	27.22	-12.78	40.00	-
36.12	27.35	-12.65	40.00	Horizontal
50.85	26.70	-13.30	40.00	-
68.32	26.45	-13.55	40.00	-
107.35	32.71	-10.79	43.50	Vertical
301.85	33.84	-12.16	46.00	Horizontal
750.1	32.61	-13.39	46.00	-

## Measured at 180° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	25.89	-43.65	69.54	-
12.42	34.05	-35.49	69.54	-
41.12	26.38	-13.62	40.00	-
36.12	27.11	-12.89	40.00	-
50.85	26.53	-13.47	40.00	-
68.32	28.70	-11.30	40.00	Horizontal
107.35	31.40	-12.10	43.50	Vertical
301.85	33.81	-12.19	46.00	Horizontal
750.1	31.06	-14.94	46.00	-

## Measured at 202.5° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	26.40	-43.14	69.54	-
12.42	30.12	-39.42	69.54	-
41.12	26.42	-13.58	40.00	-
36.12	29.24	-10.76	40.00	Vertical
50.85	26.42	-13.58	40.00	Horizontal
68.32	25.24	-14.76	40.00	Horizontal
107.35	31.11	-12.39	43.50	-
301.85	30.24	-15.76	46.00	-
750.1	33.12	-12.88	46.00	-

## Measured at 225° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	25.75	-43.79	69.54	Horizontal
12.42	35.45	-34.10	69.54	-
41.12	28.75	-11.25	40.00	-
36.12	26.89	-13.11	40.00	Vertical
50.85	25.88	-14.12	40.00	-
68.32	25.34	-14.66	40.00	-
107.35	31.52	-11.98	43.50	Vertical
301.85	31.72	-14.28	46.00	-
750.1	33.12	-12.88	46.00	-

## Measured at 247.5° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	25.12	-44.42	69.54	-
12.42	35.42	-34.12	69.54	-
41.12	26.24	-13.76	40.00	Horizontal
36.12	26.21	-13.79	40.00	Vertical
50.85	26.42	-13.58	40.00	Horizontal
68.32	27.12	-12.88	40.00	-
107.35	30.42	-13.08	43.50	-
301.85	31.24	-14.76	46.00	-
750.1	32.71	-13.29	46.00	-

## Measured at 270° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	26.42	-43.12	69.54	-
12.42	36.80	-32.74	69.54	-
41.12	25.42	-14.58	40.00	-
36.12	29.42	-10.58	40.00	Vertical
50.85	27.42	-12.58	40.00	-
68.32	28.35	-11.65	40.00	-
107.35	33.42	-10.08	43.50	Vertical
301.85	31.42	-14.58	46.00	-
750.1	34.54	-11.46	46.00	Horizontal

## Measured at 292.5° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	25.87	-43.67	69.54	-
12.42	37.45	-32.09	69.54	-
41.12	27.75	-12.25	40.00	-
36.12	28.64	-11.36	40.00	Vertical
50.85	27.54	-12.46	40.00	-
68.32	26.45	-13.55	40.00	-
107.35	31.54	-11.96	43.50	-
301.85	31.45	-14.55	46.00	Vertical
750.1	32.45	-13.55	46.00	Horizontal

## Measured at 315° position (Building 3)

Freq. (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m) at 3m	Polarization
1.31	26.40	-43.14	69.54	-
12.42	28.42	-41.12	69.54	-
41.12	29.24	-10.76	40.00	Horizontal
36.12	28.12	-11.88	40.00	-
50.85	25.42	-14.58	40.00	-
68.32	26.24	-13.76	40.00	-
107.35	30.42	-13.08	43.50	-
301.85	32.42	-13.58	46.00	Vertical
750.1	33.42	-12.58	46.00	Horizontal



**Measured at 337.5° position (Building 3)**

<b>Freq. (MHz)</b>	<b>Level (dBuV/m)</b>	<b>Over Limit (dB)</b>	<b>Limit Line (dBuV/m) at 3m</b>	<b>Polarization</b>
1.31	25.41	-44.13	69.54	-
12.42	38.42	-31.12	69.54	-
41.12	25.75	-14.25	40.00	-
36.12	37.45	-2.55	40.00	-
50.85	25.75	-14.25	40.00	-
68.32	27.56	-12.44	40.00	-
107.35	32.75	-10.75	43.50	Vertical
301.85	31.74	-14.26	46.00	Horizontal
750.1	33.79	-12.21	46.00	Horizontal

**Note:**

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Distance extrapolation factor below 30MHz = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

The other emission levels were very low against the limit so it didn't record in the test report.

## 7. List of Measuring Equipment Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Test Receiver	R&S	ESCS 30	100355	9kHz ~ 2.75GHz	Apr. 22, 2015	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 02, 2014	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 02, 2014	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	Dec. 03, 2014	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
Pre-Amplifier	Agilent	8447D	2944A10783	9kHz ~ 1.3GHz	Mar. 23, 2015	Radiation (10CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 12, 2015*	Radiation (10CH01-CB)
Biconical Antenna	Schwarzbeck	VHBB 9124	324	30MHz ~ 200MHz	Mar. 30, 2015	Radiation (10CH01-CB)
EMI Test Receiver	Rohde&Schwarz	ESCI	100186	9kHz ~ 3GHz	Jul. 14, 2015	Radiation (10CH01-CB)
Spectrum Analyzer	Rohde&Schwarz	FSV30	101026	9kHz ~ 30GHz	Dec. 01, 2014	Radiation (10CH01-CB)

※ Calibration Interval of instruments listed above is one year.

※ \* Calibration Interval of instruments listed above is two year.

※ N.C.R. means Non-Calibration required.

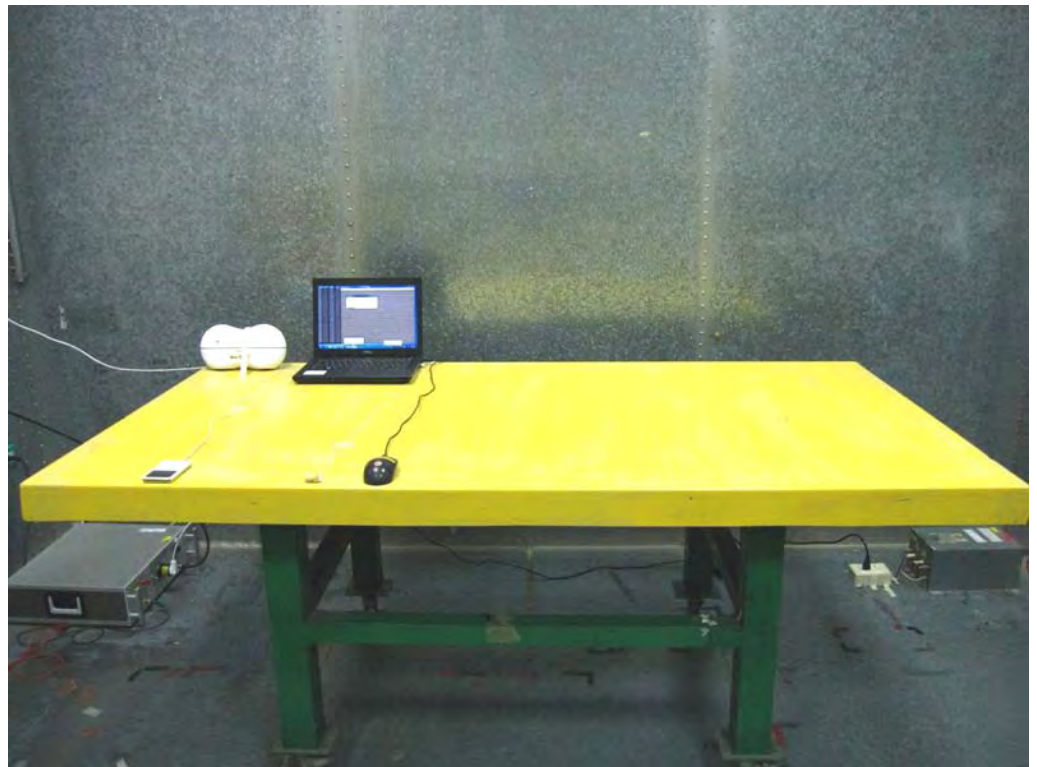
**8. Uncertainty of Test Site**

Test Items	Uncertainty	Remark
Conducted Emissions	3.2 dB	Confidence levels of 95%

## Appendix A. Test Photos

## 1. Photographs of Conducted Emissions Test Configuration

**FRONT VIEW**



**REAR VIEW**



## 2. Photographs of Radiated Emissions Test Configuration

**Building 1**



**Building 2**





**Building 3**

