

# **FCC EMI TEST REPORT**

**REPORT NO. : FC473142-07**  
**MODEL NO. : BCM94371ZAE**  
**RECEIVED DATE : Jul. 31, 2014**  
**FINAL TESTED DATE : Jan. 07, 2016**  
**ISSUED DATE : Jan. 12, 2016**

**TEST STANDARD : 47 CFR FCC Rules and Regulations Part 15**  
**Subpart B, Class B Digital Device**  
**Canada Standard ICES-003, Issue 5, Class B**

**Filing Type : Certification**  
**FCC ID : QDS-BRCM1090**

**APPLICANT : Broadcom Corporation**  
**ADDRESS : 190 Mathilda Place Sunnyvale CA 94086 U.S.A.**

**Manufacturer : Broadcom Corporation**  
**ADDRESS : 190 Mathilda Place Sunnyvale CA 94086 U.S.A.**

**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.**

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.
- This test report is only applicable to U.S.A. / Canada.



## Table of Contents

<b>VERIFICATION OF COMPLIANCE .....</b>	<b>1</b>
<b>1. Summary of Test Results .....</b>	<b>2</b>
<b>2. General Description of Equipment under Test.....</b>	<b>3</b>
<b>3. Test Configuration of Equipment under Test .....</b>	<b>4</b>
<b>4. General Information of Test.....</b>	<b>8</b>
<b>5. Test of Conducted Emission .....</b>	<b>9</b>
<b>6. Test of Radiated Emission.....</b>	<b>13</b>
<b>7. List of Measuring Equipment Used .....</b>	<b>21</b>
<b>8. Uncertainty of Test Site .....</b>	<b>23</b>
<b>Appendix A. TEST PHOTOS .....</b>	<b>A1 ~ A7</b>

## History of This Test Report

REPORT NO.	VERSION	ISSUED DATE	Description
FC473142-07	Rev. 01	Jan. 12, 2016	Initial issue of report

## **VERIFICATION OF COMPLIANCE**

**EQUIPMENT NAME : Broadcom 802.11a/b/g/n/ac WLAN + Bluetooth  
PCI-E/SDIO NGFF 2230 Card**

**BRAND NAME : Broadcom**

**MODEL NO. : BCM94371ZAE**

**APPLICANT : Broadcom Corporation**

**ADDRESS : 190 Mathilda Place Sunnyvale CA 94086 U.S.A.**

**FINAL TESTED DATE : Jan. 07, 2016**

**TEST STANDARD : 47 CFR FCC Rules and Regulations Part 15  
Subpart B, Class B Digital Device  
Canada Standard ICES-003, Issue 5, Class B**

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

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 – 2014**.

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.

EMISSION			
Test Standard	Test Type	Result	Remarks
47 CFR FCC Rules and Regulations Part 15 Subpart B, Class B Digital Device and Canada Standard ICES-003, Issue 5, Class B	AC Power Port Conducted emission test 150 kHz – 30 MHz	PASS	Meet minimum passing margin is -12.12dB at 0.1924MHz.
	Radiated emission test 30 MHz – 1,000 MHz @ 3 m 1,000 MHz – 18,000 MHz @ 3 m 18,000 MHz – 30,000 MHz @ 1 m	PASS	Meet minimum passing margin is -3.04dB at 596.48MHz.

## 2. General Description of Equipment under Test

Product Detail	
Equipment Name	Broadcom 802.11a/b/g/n/ac WLAN + Bluetooth PCI-E/SDIO NGFF 2230 Card
Model No.	BCM94371ZAE
Brand Name	Broadcom
Power Supply	From host system

### 2.1. Feature of Equipment under Test

1. The EUT supports 2.4GHz/5GHz wireless function.
2. The EUT has three part numbers which are identical to each other in all aspects except for the following table:

EUT	Model No.	Part No.	Description
EUT 1	BCM94371ZAE	BCM94371Z	M.2 E Key connector which support PCIe/USB interface.
EUT 2		BCM94371Z	M.2 E Key connector which support SDIO/UART/Pcie/USB interface.
EUT 3		BCM94371ZAE	M.2 A key + E Key connector which support PCIe/USB interface.

From the above models, EUT 1 and EUT 2 were selected as representative model for the test and its data was recorded in this report.

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

### 2.2. Modification of EUT

Please refer to the Photographs of EUT.

### 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	EUT 1 + 2.4GHz WLAN function + Bluetooth function
2	EUT 1 + 5GHz WLAN function + Bluetooth function
3	EUT 2 + 2.4GHz WLAN function
4	EUT 2 + 5GHz WLAN function
5	EUT 2 + Bluetooth function
Mode 5 is the worst case, so it was selected to record in this test report.	

Radiated Emissions	
Test Mode	Description
1	Place EUT 1 in X axis + 2.4GHz WLAN function + Bluetooth function
2	Place EUT 1 in Y axis + 2.4GHz WLAN function + Bluetooth function
3	Place EUT 1 in Z axis + 2.4GHz WLAN function + Bluetooth function
4	Place EUT 1 in X axis + 5GHz WLAN function + Bluetooth function
5	Place EUT 1 in Y axis + 5GHz WLAN function + Bluetooth function
6	Place EUT 1 in Z axis + 5GHz WLAN function + Bluetooth function
7	Place EUT 2 in X axis + 2.4GHz WLAN function
8	Place EUT 2 in Y axis + 2.4GHz WLAN function
9	Place EUT 2 in Z axis + 2.4GHz WLAN function
10	Place EUT 2 in X axis + 5GHz WLAN function
11	Place EUT 2 in Y axis + 5GHz WLAN function
12	Place EUT 2 in Z axis + 5GHz WLAN function
Mode 9 has been evaluated to be the worst case among Mode 7~9, thus measurement for Mode 13 will follow this same test mode.	
13	Place EUT 2 in Z axis + Bluetooth function
<p>For Radiated Emission test below 1GHz:  Mode 9 generated the worst test result, so it was recorded in this report.  For Radiated Emission test above 1GHz:  Mode 9 generated the worst test result for Radiated emission below 1GHz test, thus the measurement for Radiated emission above 1GHz test will follow this same test configuration.</p>	

### 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.

**For Conducted Emissions Test:**

Support Unit	Brand	Model	FCC ID
NB	DELL	E6430	DoC
Fixture*2	Broadcom	BCM9MC2EC_1	N/A
Mouse	Logitech	M-U0026	N/A
Earphone	SHYARO CHI	MIC-04	N/A
NB	DELL	E4300	N/A
Broadcom 802.11a/b/g/n/ac WLAN + Bluetooth PCI-E NGFF 2230 Card (Device)	Broadcom	BCM94371ZAE	QDS-BRCM1090

**For Radiated Emissions Test:**

Support Unit	Brand	Model	FCC ID
NB	DELL	E4300	DoC
Wireless ac AP	Netgear	R6300V2	PY313200227
Fixture	Broadcom	BCM9MC2EC_1	N/A
Mouse	Logitech	M-U0026	DoC
Earphone	SHYARO CHI	MIC-04	N/A
Adapter	Moso	MSA-C2000IC5	N/A

### 3.3. EUT Operation Condition

**For Conducted Emissions Test:**

During the test, the remote notebook executed "Bluetool" under Linux to link with the EUT to maintain the connection by Bluetooth.

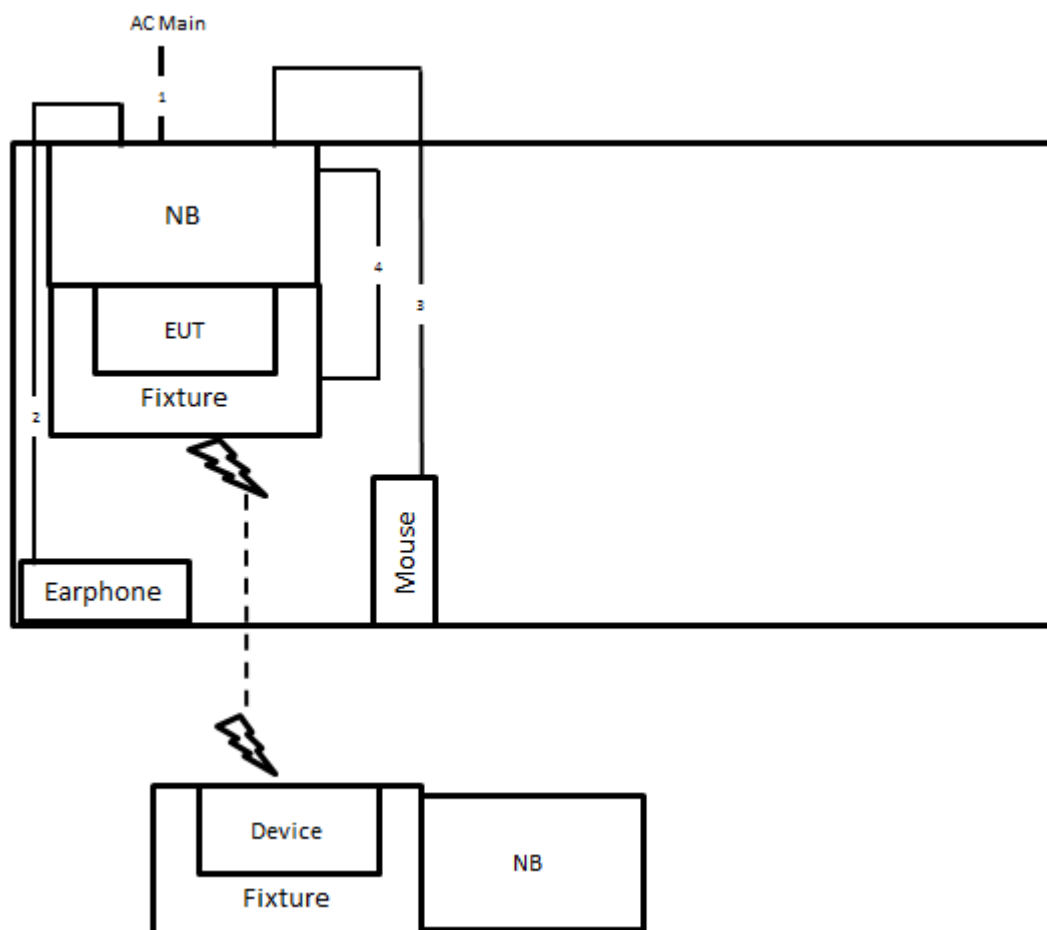
**For Radiated Emissions Test:**

During the test, the remote notebook executed "Terminal" under Linux link with the AP via EUT to maintain the connection by WLAN.



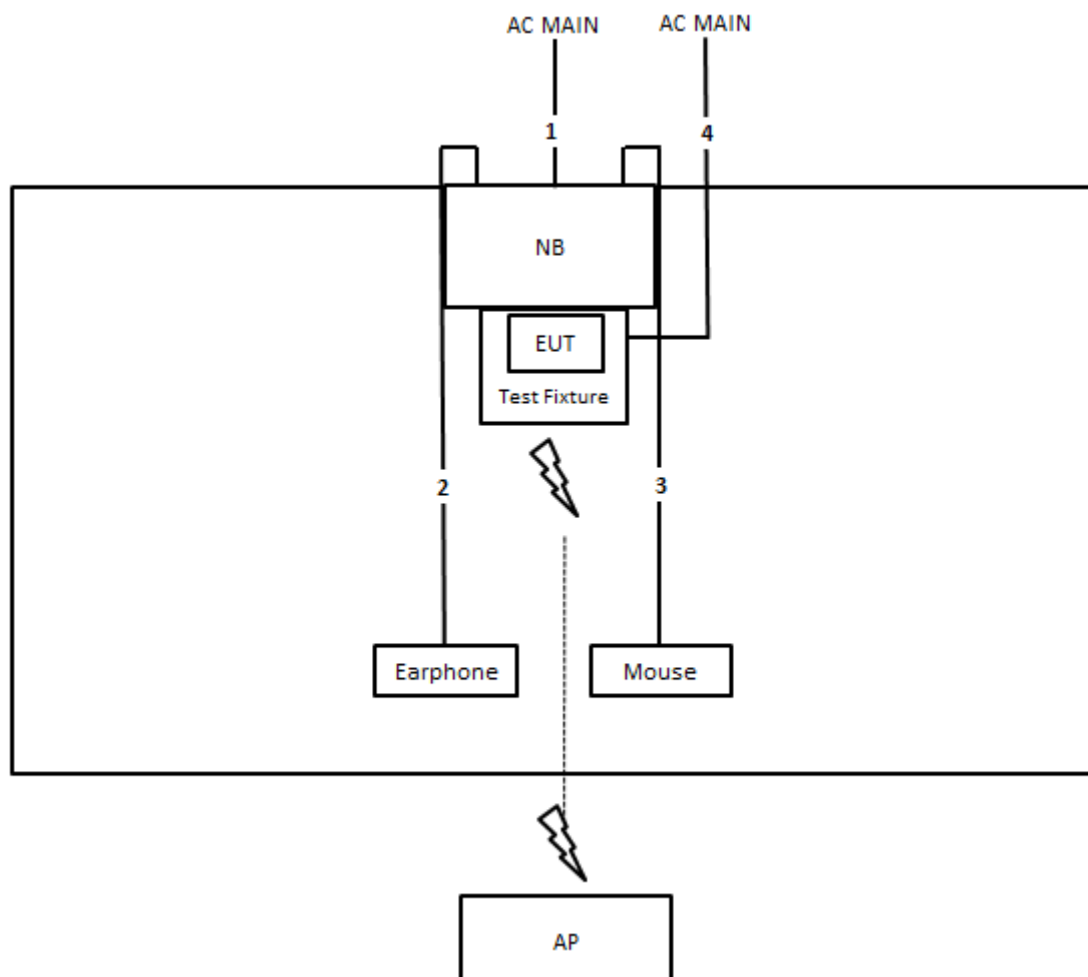
### 3.4. Connection Diagram of Test System

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



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	Audio cable	No	1.1m
3	USB cable	Yes	1.8m
4	USB cable	Yes	1.2m

## 3.4.2. Radiation Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	Audio Cable	No	1.1m
3	USB Cable	Yes	1.8m
4	Power cable	No	1.8m

## 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  
Radiation: 03CH01-CB

### 4.2. Test Voltage

Power Type	Test Voltage
AC Power Supply	120 V / 60 Hz

### 4.3. Standard for Methods of Measurement

ANSI C63.4-2014

### 4.4. Frequency Range Investigated

Test Items	Frequency Range
Conducted emission test	150 kHz to 30 MHz
Radiated emission test	30 MHz to 30,000 MHz

### 4.5. Test Distance

Test Items	Test Distance
Radiated emission test below 1 GHz (30 MHz to 1,000 MHz)	3 m
Radiated emission test above 1 GHz (1,000 MHz to 18,000 MHz)	3 m
Radiated emission test above 1 GHz (18,000 MHz to 30,000 MHz)	1 m

## 5. Test of Conducted Emission

### 5.1. Limit

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

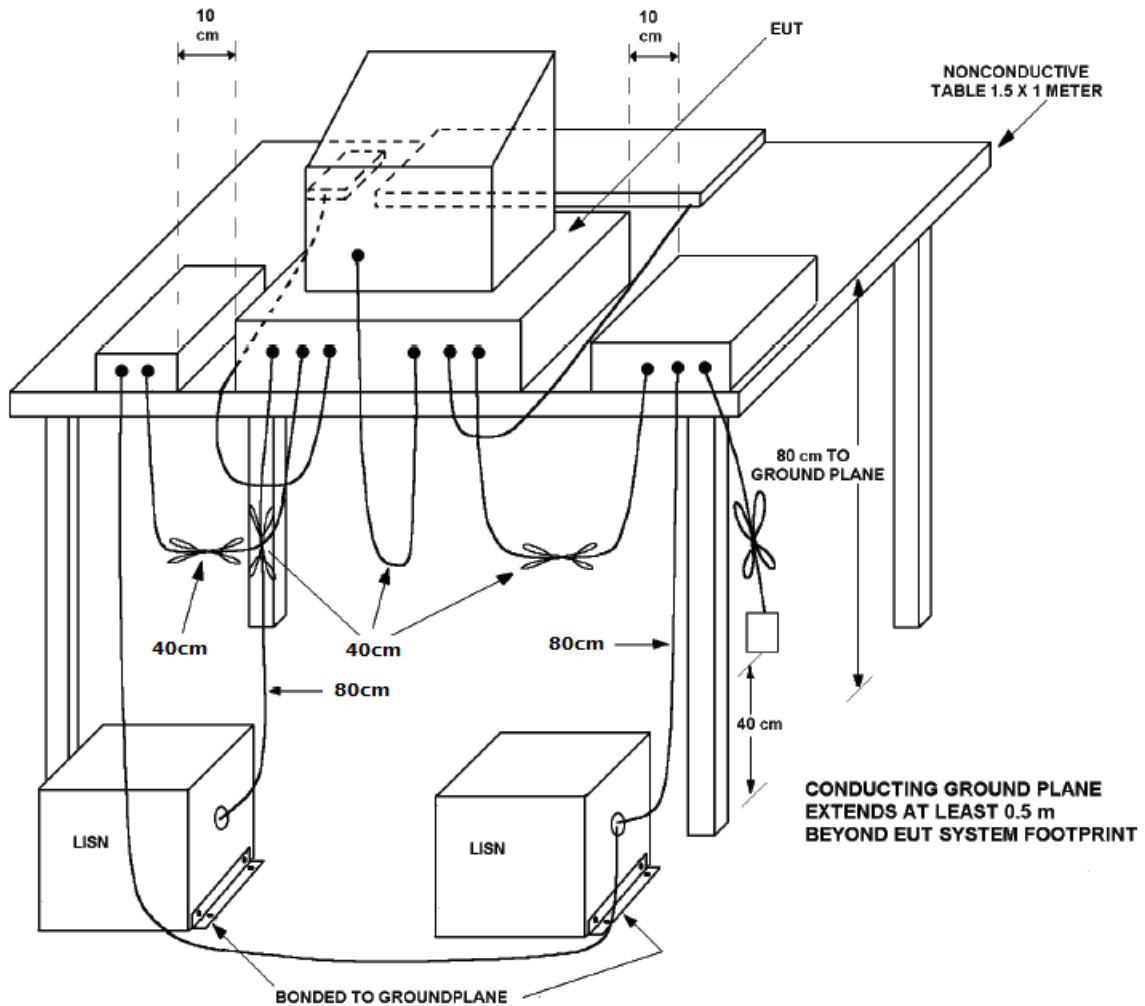
### 5.2. Description of Major Test Instruments

Test Receiver	R&S ESCS 30
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

### 5.3. Test Procedures

- 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.
- Connect EUT to the power mains through a line impedance stabilization network (LISN).
- All the support units are connect to the other LISN.
- The LISN provides 50  $\Omega$  coupling impedance for the measuring instrument.
- The FCC states that a 50  $\Omega$ , 50  $\mu$ H LISN should be used.
- Both sides of AC line were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched.
- Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

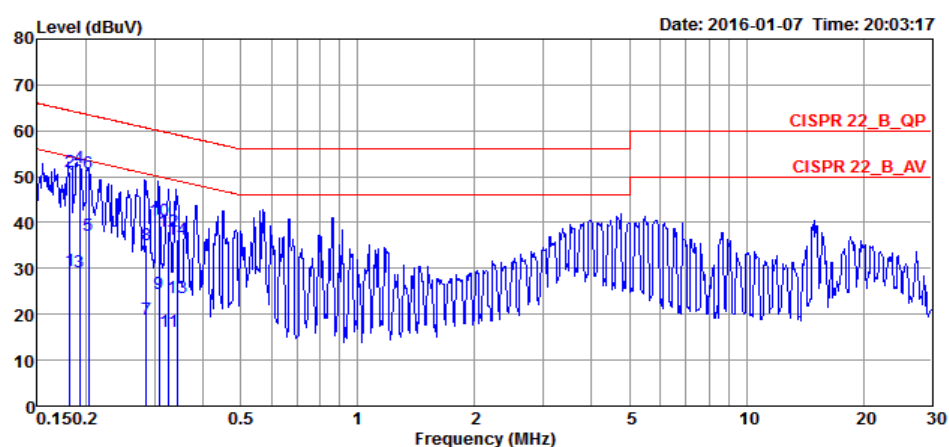
#### 5.4. Typical Test Setup Layout of Conducted Emission



## 5.5. Test Result of AC Power Ports

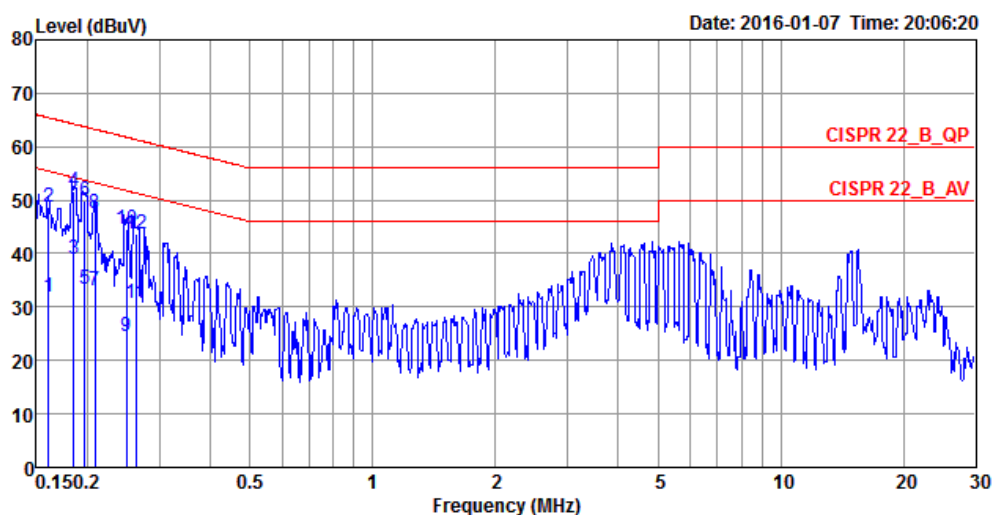
Temperature	25°C	Humidity	62%
Test Engineer	Kane Liu	Frequency Range	0.15 MHz to 30 MHz
Test Mode	Mode 5		
<div><div></div><ul style="list-style-type: none"><li>▪ Corrected Reading (dBuV) = LISN Factor + Cable Loss + Read Level = Level</li><li>▪ Margin = - Limit + (Read Level + LISN Factor + Cable Loss)</li><li>▪ All emissions not reported here are more than 10 dB below the prescribed limit.</li><li>▪ The test was passed at the minimum margin that marked by a frame in the following table</li></ul></div>			

Line



	Freq	Level	Over	Limit	Read	LISN	Cable		
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Pol/Phase	Remark
			dB	dBuV	dBuV	dB	dB		
1	0.1815	29.48	-24.94	54.42	19.53	9.93	0.02	LINE	Average
2	0.1815	50.94	-13.48	64.42	40.99	9.93	0.02	LINE	QP
3	0.1924	29.14	-24.79	53.93	19.19	9.93	0.02	LINE	Average
4	0.1924	51.81	-12.12	63.93	41.86	9.93	0.02	LINE	QP
5	0.2029	37.31	-16.18	53.49	27.36	9.93	0.02	LINE	Average
6	0.2029	50.65	-12.84	63.49	40.70	9.93	0.02	LINE	QP
7	0.2863	18.97	-31.66	50.63	9.00	9.93	0.04	LINE	Average
8	0.2863	35.00	-25.63	60.63	25.03	9.93	0.04	LINE	QP
9	0.3083	24.54	-25.48	50.02	14.57	9.93	0.04	LINE	Average
10	0.3083	40.39	-19.63	60.02	30.42	9.93	0.04	LINE	QP
11	0.3268	16.17	-33.36	49.53	6.20	9.93	0.04	LINE	Average
12	0.3268	38.13	-21.40	59.53	28.16	9.93	0.04	LINE	QP
13	0.3428	23.59	-25.54	49.13	13.62	9.93	0.04	LINE	Average
14	0.3428	36.30	-22.83	59.13	26.33	9.93	0.04	LINE	QP

## Neutral



	Freq	Level	r	Limit	Read	LISN	Cable		
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1607	31.76	-23.67	55.43	21.96	9.78	0.02	NEUTRAL	Average
2	0.1607	48.74	-16.69	65.43	38.94	9.78	0.02	NEUTRAL	QP
3	0.1854	38.93	-15.31	54.24	29.12	9.79	0.02	NEUTRAL	Average
4	0.1854	51.52	-12.72	64.24	41.71	9.79	0.02	NEUTRAL	QP
5	0.1965	33.34	-20.42	53.76	23.53	9.79	0.02	NEUTRAL	Average
6	0.1965	49.79	-13.97	63.76	39.98	9.79	0.02	NEUTRAL	QP
7	0.2083	33.19	-20.08	53.27	23.38	9.79	0.02	NEUTRAL	Average
8	0.2083	47.39	-15.88	63.27	37.58	9.79	0.02	NEUTRAL	QP
9	0.2495	24.40	-27.38	51.78	14.58	9.79	0.03	NEUTRAL	Average
10	0.2495	44.48	-17.30	61.78	34.66	9.79	0.03	NEUTRAL	QP
11	0.2630	30.57	-20.77	51.34	20.75	9.79	0.03	NEUTRAL	Average
12	0.2630	43.56	-17.78	61.34	33.74	9.79	0.03	NEUTRAL	QP

## 6. Test of Radiated Emission

### 6.1. Limit

Radiated Emission below 1 GHz test at 3 m:

Frequency (MHz)	QP (dBuV/m)
30~88	40
88~216	43.5
216~960	46
Above 960	54

Radiated Emission 1~18 GHz test at 3 m:

Frequency (MHz)	PK (dBuV/m)	AV (dBuV/m)
1,000 to 18,000	74	54

Radiated Emission 18~30 GHz test at 1 m:

Frequency (MHz)	PK (dBuV/m)	AV (dBuV/m)
18,000 to 30,000	83.54	63.54

### 6.2. Description of Major Test Instruments

#### 6.2.1. 30 MHz ~ 1,000 MHz

Receiver Parameter	Setting
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

#### 6.2.2. Above 1 GHz

Spectrum Parameter	Setting
Start Frequency	1000 MHz
Stop Frequency	5th harmonic of highest frequency
RBW / VBW	1 MHz / 3MHz for Peak ; 1 MHz / 1Hz for Average

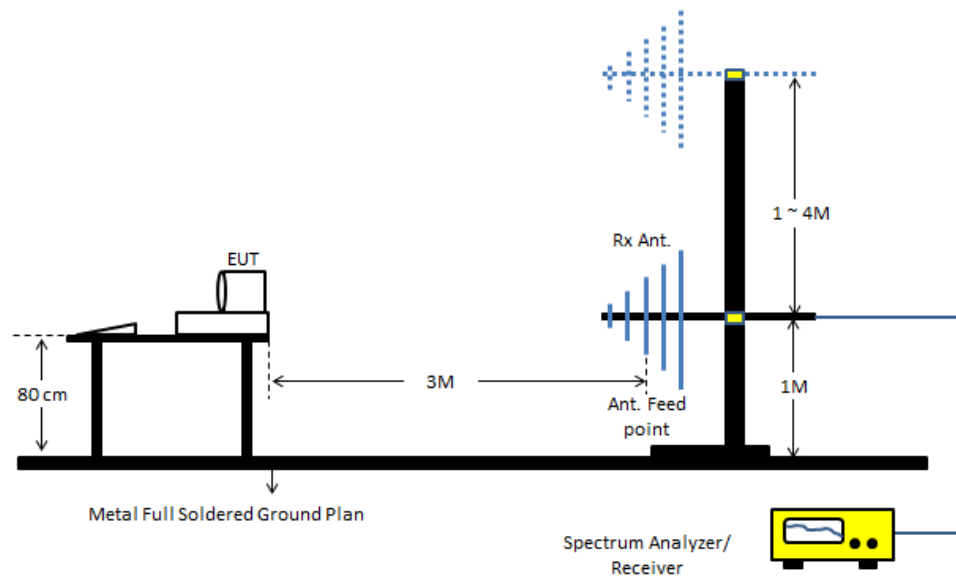


**6.3. Test Procedures**

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3m (below 1GHz) / 3m (1GHz-18GHz) / 1m (18GHz-30GHz) meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

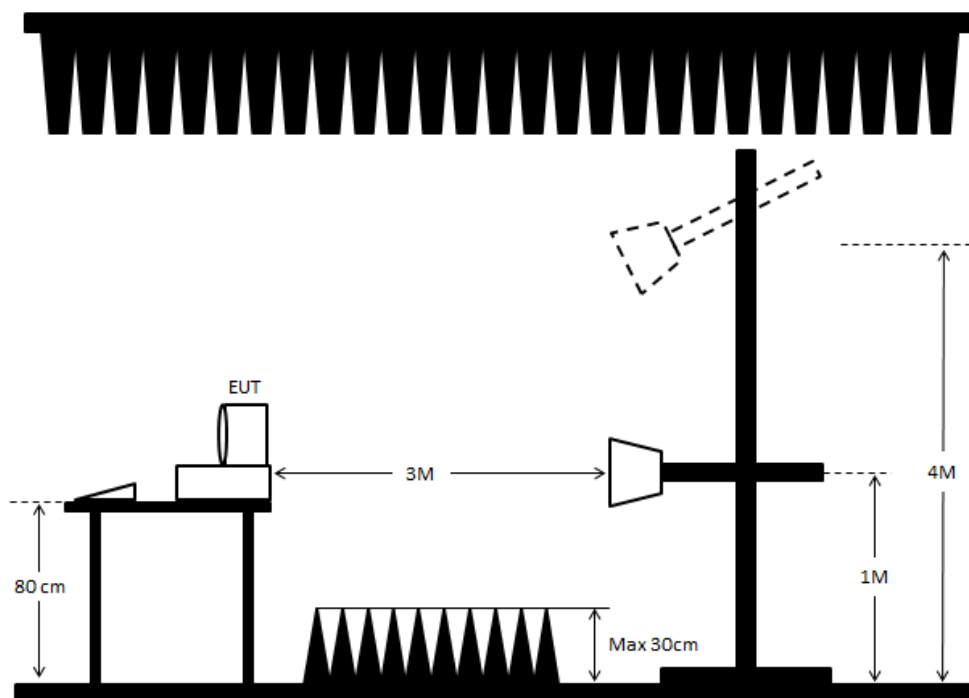
#### 6.4. Typical Test Setup Layout of Radiated Emission

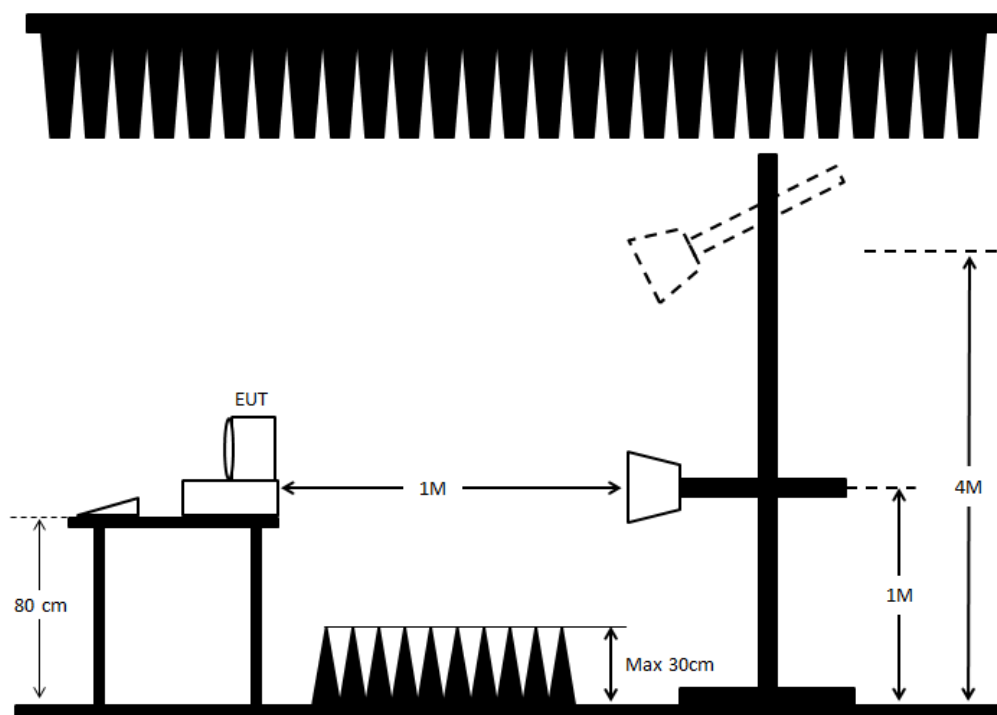
<Below 1 GHz>:



<Above 1 GHz>:

1,000~18,000 MHz

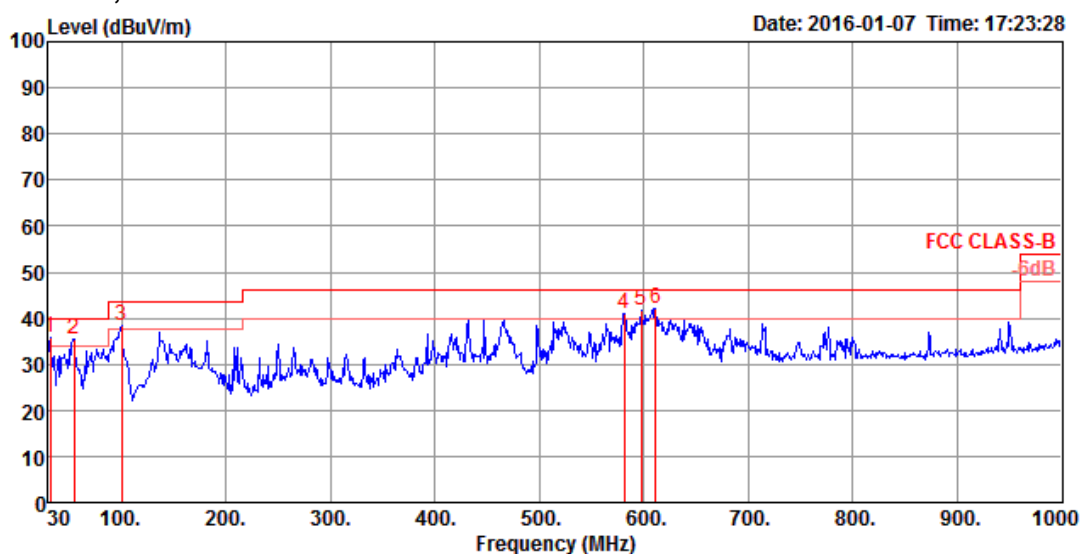


**18,000~30,000 MHz**

## 6.5. Test Result of Radiated Emission below 1 GHz

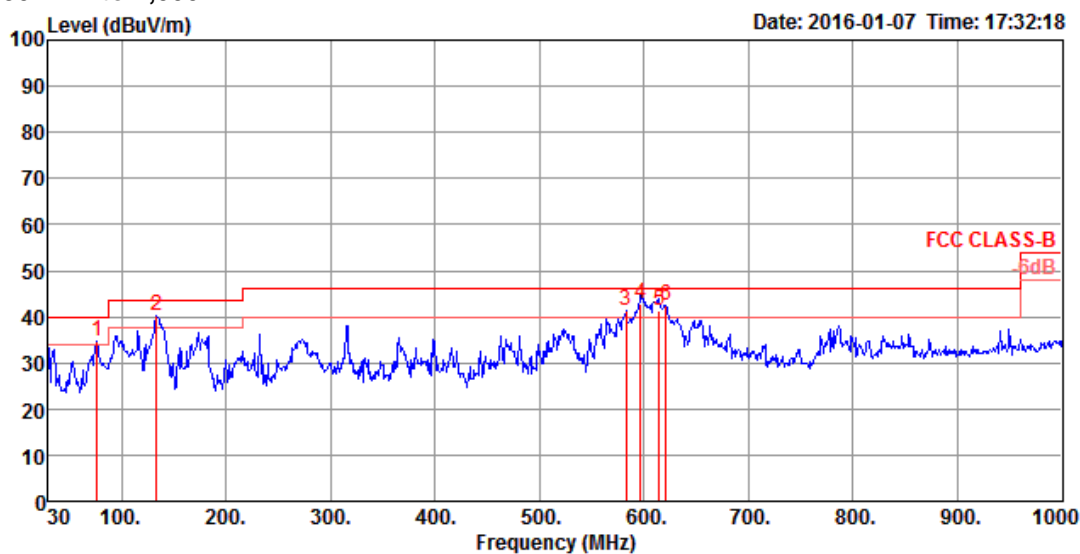
Temperature	24°C	Humidity	52%
Test Engineer	Luke Hsieh / Stim Song	Frequency Range	30 MHz to 1,000 MHz
Test Mode	Mode 9		
<div>▪ Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level</div> <div>▪ Margin = - Limit + (Read Level + Antenna Factor + Cable Loss - Preamp Factor)</div> <div>▪ The test was passed at the minimum margin that marked by the frame in the following test record</div>			

## Vertical 30 MHz to 1,000 MHz



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	31.94	35.78	40.00	-4.22	43.02	0.50	24.66	32.40	100	266	Peak	VERTICAL
2	54.25	35.49	40.00	-4.51	52.89	0.64	14.37	32.41	100	234	Peak	VERTICAL
3	99.84	38.33	43.50	-5.17	52.26	0.86	17.60	32.39	100	3	Peak	VERTICAL
4	580.96	41.07	46.00	-4.93	46.21	2.09	25.17	32.40	125	291	Peak	VERTICAL
5	597.45	41.60	46.00	-4.40	46.51	2.12	25.38	32.41	100	164	Peak	VERTICAL
6	611.03	42.18	46.00	-3.82	46.86	2.14	25.58	32.40	100	164	Peak	VERTICAL

## Horizontal 30 MHz to 1,000 MHz

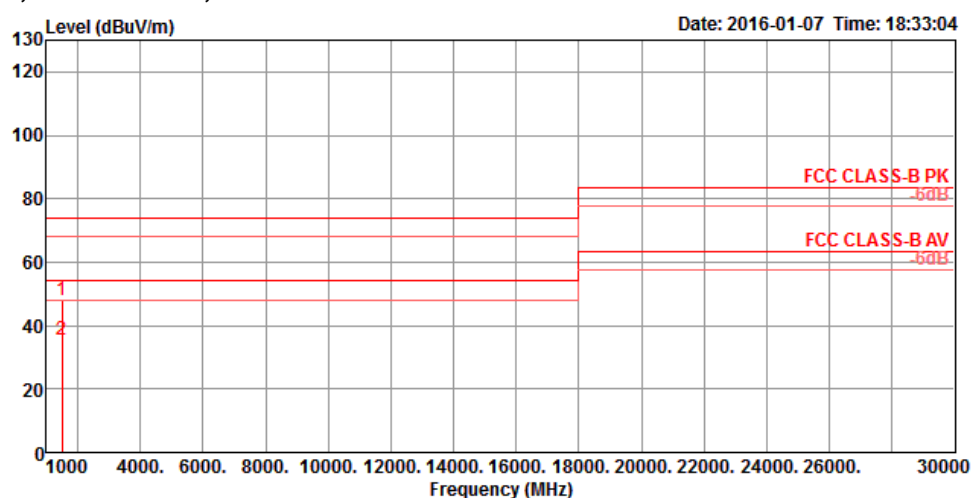


	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	76.56	34.65	40.00	-5.35	52.93	0.76	13.36	32.40	125	169 Peak	HORIZONTAL
2	133.79	40.16	43.50	-3.34	52.96	0.99	18.57	32.36	125	292 Peak	HORIZONTAL
3	582.90	41.20	46.00	-4.80	46.31	2.09	25.20	32.40	100	304 Peak	HORIZONTAL
4	596.48	42.96	46.00	-3.04	47.87	2.12	25.38	32.41	114	174 QP	HORIZONTAL
5	614.91	41.24	46.00	-4.76	45.89	2.14	25.61	32.40	123	166 QP	HORIZONTAL
6	620.73	42.39	46.00	-3.61	46.94	2.15	25.70	32.40	100	319 Peak	HORIZONTAL

## 6.6. Test Result of Radiated Emission above 1 GHz

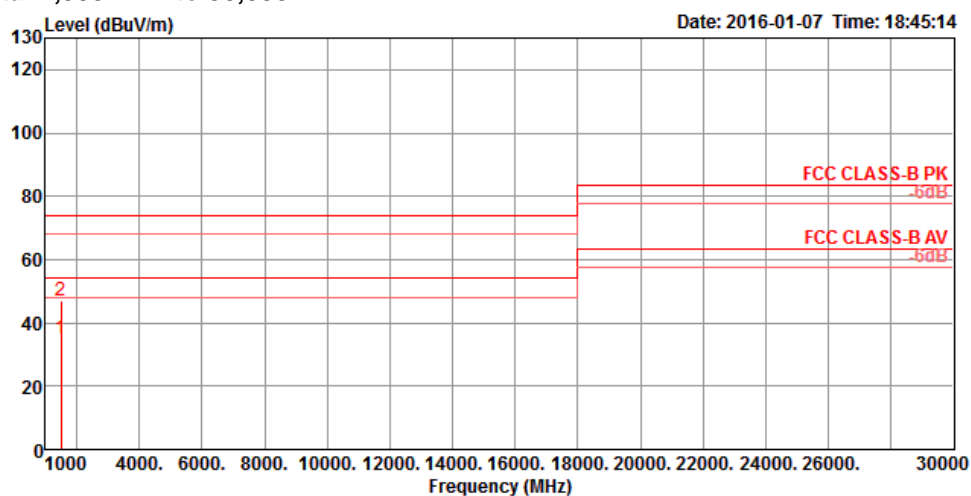
Temperature	24°C	Humidity	52%
Test Engineer	Luke Hsieh / Stim Song	Frequency Range	1,000 MHz to 30,000 MHz
Test Mode	Mode 9		
<div>▪ Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level</div> <div>▪ Margin = - Limit + (Read Level + Antenna Factor + Cable Loss - Preamp Factor)</div> <div>▪ The test was passed at the minimum margin that marked by the frame in the following test record</div>			

## Vertical 1,000 MHz to 30,000 MHz



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	1495.34	47.89	74.00	-26.11	54.26	3.94	25.39	35.70	124	221	Peak	VERTICAL
2	1495.78	35.51	54.00	-18.49	41.88	3.94	25.39	35.70	124	221	Average	VERTICAL

## Horizontal 1,000 MHz to 30,000 MHz



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	1495.56	34.90	54.00	-19.10	41.27	3.94	25.39	35.70	122	214 Average	HORIZONTAL
2	1497.07	47.03	74.00	-26.97	53.39	3.94	25.40	35.70	122	214 Peak	HORIZONTAL

## 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. 23, 2014	Conduction (CO01-CB)
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	Nov. 23, 2013	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 08, 2015	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Nov. 11, 2013	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 23, 2015	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	Dec. 04, 2013	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	May 25, 2015	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112D	37880	20MHz ~ 2GHz	Sep. 03, 2015	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Oct. 22, 2015	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA917025 2	15GHz ~ 40GHz	Jul. 21, 2015	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Feb. 24, 2015	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 12, 2015	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Feb.10, 2015	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Oct. 27, 2015	Radiation (03CH01-CB)
EMI Receiver	Agilent	N9038A	MY52260123	9kHz ~ 8.4GHz	Jan. 21, 2015	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz ~ 1 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-17	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-1	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)



**FCC EMI TEST REPORT****Report No.: FC473142-07**

RF Cable-high	Woken	High Cable-40G-2	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-I0-7	N/A	N/A	Radiation (03CH01-CB)

※ Calibration Interval of instruments listed above is one 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%
Radiated Emissions below 1GHz	3.6 dB	Confidence levels of 95%
Radiated Emissions 1GHz ~ 18GHz	3.7 dB	Confidence levels of 95%
Radiated Emissions 18GHz ~ 40GHz	3.5 dB	Confidence levels of 95%