



FCC/IC Test Report

APPLICANT : Sony Mobile Communications Inc.
EQUIPMENT : Smart phone
BRAND NAME : SONY
TYPE NAME : PM-0382-BV
FCC ID : PY7PM-0382
IC : 4170B-PM0382
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
ICES-003 Issue 5
CLASSIFICATION : FCC CLASS B PERSONAL
COMPUTERS AND PERIPHERALS

The product was received on Apr. 22, 2014 and testing was completed on May 15, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2009 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Louis Wu

Reviewed by: Louis Wu / Manager

Jones Tsai

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



TABLE OF CONTENTS

REVISION HISTORY.....3

SUMMARY OF TEST RESULT4

1. GENERAL DESCRIPTION.....5

 1.1. Applicant.....5

 1.2. Manufacturer5

 1.3. Product Feature of Equipment Under Test5

 1.4. Details of Tested Sample (EUT) Information6

 1.5. Modification of EUT.....6

 1.6. Test Location.....7

 1.7. Applicable Standards8

2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST.....9

 2.1. Test Mode9

 2.2. Connection Diagram of Test System 10

 2.3. Support Unit used in test configuration and system..... 10

 2.4. EUT Operation Test Setup..... 10

3. TEST RESULT..... 11

 3.1. Test of AC Conducted Emission Measurement 11

 3.2. Test of Radiated Emission Measurement 17

4. LIST OF MEASURING EQUIPMENT23

5. UNCERTAINTY OF EVALUATION.....24



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.107	ICES003 Section 6.1	AC Conducted Emission	< 15.107 limits < ICES003 6.1 limits	PASS	Under limit 8.20 dB at 0.198 MHz
3.2	15.109	ICES003 Section 6.2	Radiated Emission	< 15.109 limits < ICES003 6.2 limits	PASS	Under limit 11.91 dB at 499.500 MHz



1. General Description

1.1. Applicant

Sony Mobile Communications Inc.
Nya Vattentorget, 22188 Lund, Sweden

1.2. Manufacturer

Arima Communication Corp.
6F., No. 866, Jhongjheng Rd., Jhonghe Dist., New Taipei City 23586, Taiwan

1.3. Product Feature of Equipment Under Test

The Equipment Under Test (hereafter called: EUT) is Smart phone supporting, GSM / WCDMA, Wi-Fi 2.4GHz 802.11b/g/n, Bluetooth with FM Receiver, ANT+, GPS, and NFC features, and below is details of information.

Product Feature	
Equipment	Smart phone
Brand Name	SONY
Type Name	PM-0382-BV
FCC ID	PY7PM-0382
IC	4170B-PM0382
GSM Operating Band(s)	GSM 850/900/1800/1900MHz
GPRS / EGPRS Multi Slot Class	GPRS Class 33 , EGPRS Class 33
WCDMA Operating Band(s)	FDD Band I / II / V / VIII
WCDMA Rel. Version	Rel. 8
Wi-Fi Specification	802.11b/g/n (HT20)
Bluetooth Version	v3.0 + EDR / v4.0 - LE
NFC Specification	ISO15693 / ISO14443A / ISO14443B / Felica
ANT+	ANT+
Power Supply	Battery / AC Adapter / Car Charger
EUT Stage	Production Unit

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



1.4. Details of Tested Sample (EUT) Information

Below EUT sample and accessory are used to test.

EUT Information List				
IMEI	HW Version	SW Version	S/N	Performed Test Item
IMEI 1: 004402147601532 IMEI 2: 004402147601540	A	18.4.B.0.7	SQ4408D21715	Conducted Emission Radiated Spurious Emission

Accessory List	
Battery	Model No. : LIS1551ERPC
Earphone	Model No. : MH410c
	Type No. : AG-1100
	S/N : 13511E560075F9C (for AC power line Conducted Emission) 46844E580076508 (for Radiated Spurious Emission)
USB Cable	Model No. : EC 450
	Type No. : AI-0700
	S/N : 134921D00034040 (for AC power line Conducted Emission) 134912D80007390 (for Radiated Spurious Emission)

Note:

1. Above EUT list and accessory list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test, and the serial number of each type of accessories is listed in each section of this report.
3. For other wireless features of this EUT, test report will be issued separately.

1.5. Modification of EUT

No modifications are made to the EUT during all test items.



1.6. Test Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978		
Test Site No.	Sporton Site No.		IC Registration No.
	CO05-HY	03CH06-HY	4086B-1



1.7. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ FCC 47 CFR FCC Part 15 Subpart B
- ♦ ANSI C63.4-2009
- ♦ IC ICES-003 Issue 5

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. For FCC 15 Subpart B - Unintentional Radiators, device supporting USB interface or similar peripherals (defined as the Section 15.3 (r) Peripheral device) acting as a peripheral for personal computers shall be authorized as “The Class B personal computers and peripherals” per the Section 15.101 (a) Equipment authorization of unintentional radiators.
3. For other Unintentional Radiators features of this EUT, test reports are be issued separately.
Per the Note of the Section 15.101, when device supports features (USB, FM Radio, digital devices...etc) more than one category of authorization, type of authorization shall be appropriately chosen for FCC 15B compliance rule, and the Section 15.101 (b), only those receivers that operate (tune) within the frequency range of 30-960 MHz, CB receivers and radar detectors are subject to the authorizations shown in paragraph (a) of the Section 15.101. However, receivers indicated as being subject to Declaration of Conformity that are contained within a transceiver, the transmitter portion of which is subject to certification, shall be authorized under the verification procedure.



2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2009 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

The following tables are showing the test modes as the worst cases and recorded in this report.

Item	EUT Configuration	Test Condition	
		EMI AC	EMI RE
1.	Data Link with Notebook	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

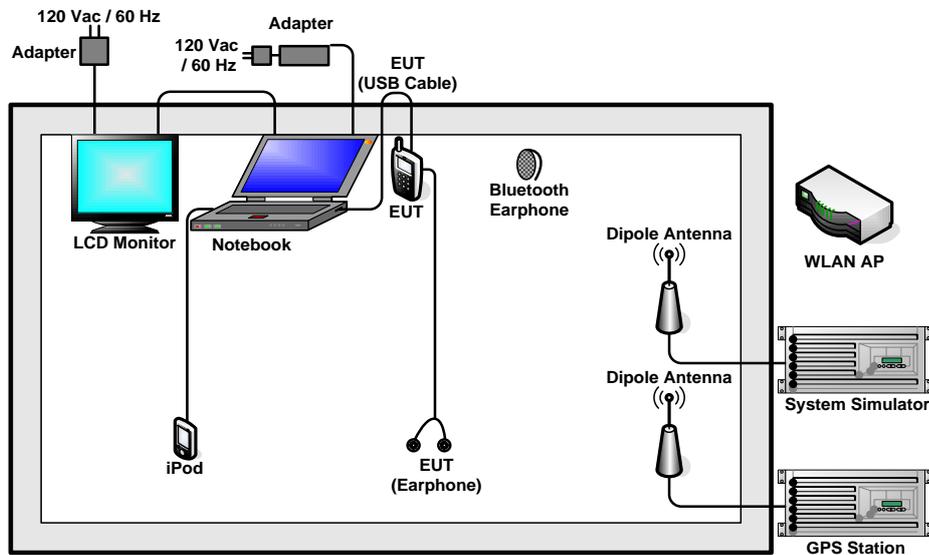
The data application (each file size is greater than 30Mbytes) is continuously transferred between the EUT and Notebook connected via USB cable, while GSM, WLAN, and Bluetooth and GPS idle.

For SIM verification, SIM1 is tested based on the worst case for conducted emission and SIM2 is tested based on the worst case for radiated emission, only the two modes are reported.

Abbreviations:

- EMI AC: AC conducted emissions
- EMI RE: EUT radiated emissions.

2.2. Connection Diagram of Test System



2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
4.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
5.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
6.	Bluetooth Earphone	Sony	SBH20	PY7-RD0010	Unshielded, 0.75m	N/A
7.	LCD Monitor	DELL	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
8.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.4. EUT Operation Test Setup

The data application (each file size is greater than 30Mbytes) is continuously transferred between the EUT and Notebook connected via USB cable, while GSM and Bluetooth, WLAN and GPS idle.



3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (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 the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

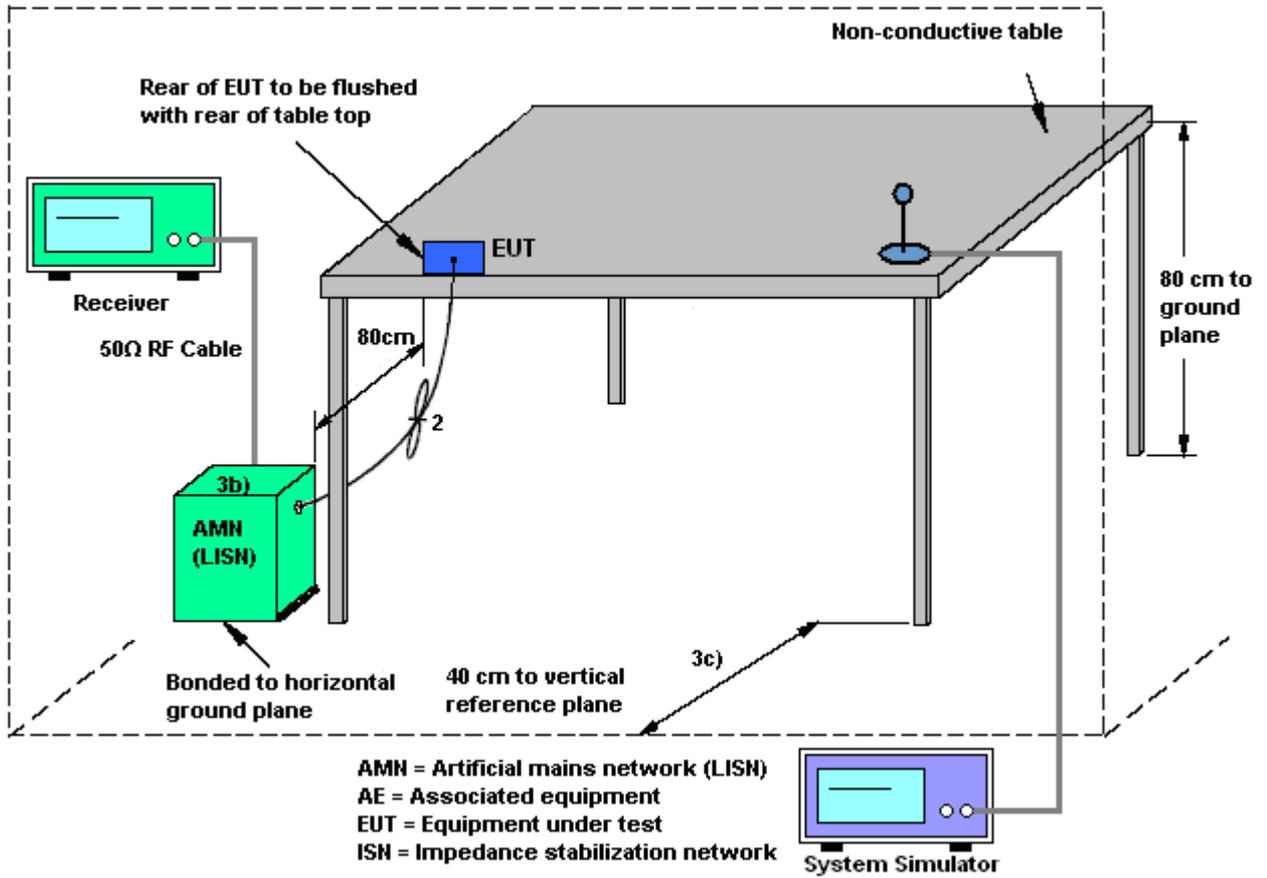
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

1. 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.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

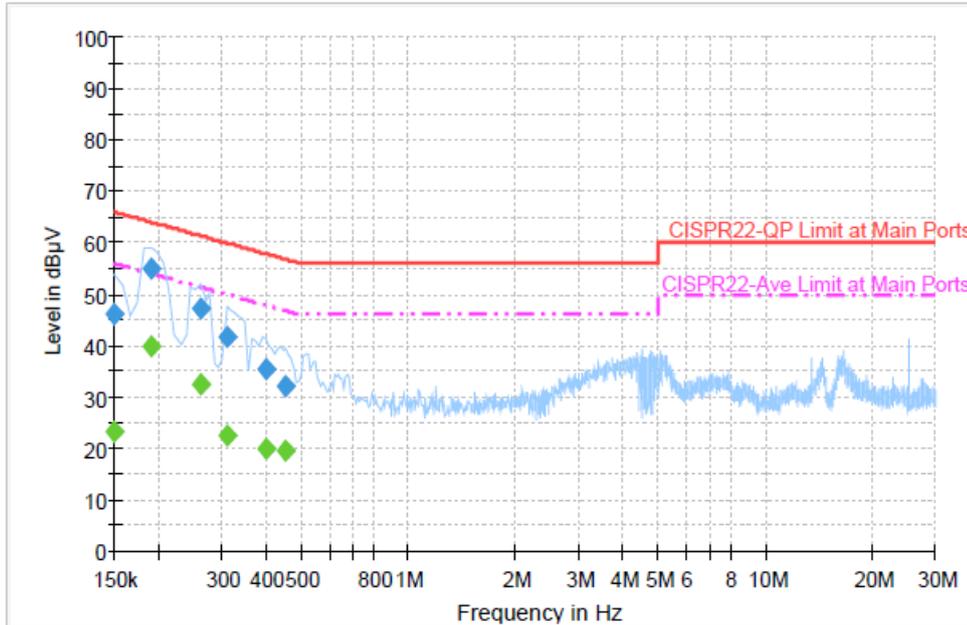
3.1.4 Test Setup





3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 1		



Final Result : Quasi-Peak

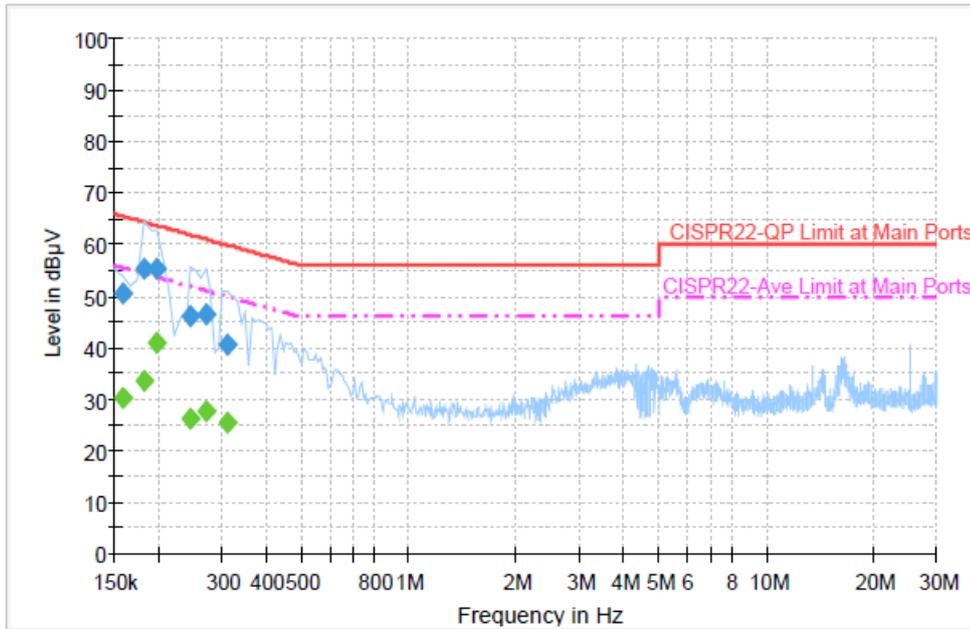
Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	46.1	Off	L1	19.4	19.9	66.0
0.190000	54.9	Off	L1	19.4	9.1	64.0
0.262000	47.3	Off	L1	19.3	14.1	61.4
0.310000	41.8	Off	L1	19.3	18.2	60.0
0.398000	35.4	Off	L1	19.3	22.5	57.9
0.454000	32.2	Off	L1	19.3	24.6	56.8

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	23.3	Off	L1	19.4	32.7	56.0
0.190000	39.7	Off	L1	19.4	14.3	54.0
0.262000	32.5	Off	L1	19.3	18.9	51.4
0.310000	22.5	Off	L1	19.3	27.5	50.0
0.398000	19.8	Off	L1	19.3	28.1	47.9
0.454000	19.4	Off	L1	19.3	27.4	46.8



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 1		



Final Result : Quasi-Peak

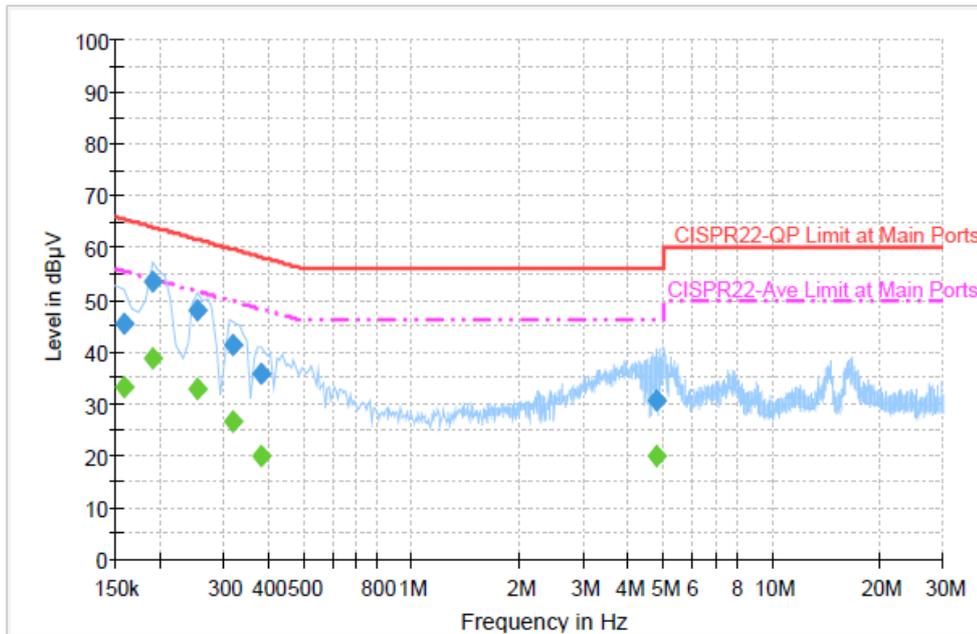
Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	50.5	Off	N	19.3	15.1	65.6
0.182000	55.5	Off	N	19.3	8.9	64.4
0.198000	55.5	Off	N	19.3	8.2	63.7
0.246000	46.2	Off	N	19.4	15.7	61.9
0.270000	46.5	Off	N	19.3	14.6	61.1
0.310000	40.7	Off	N	19.3	19.3	60.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	30.1	Off	N	19.3	25.5	55.6
0.182000	33.4	Off	N	19.3	21.0	54.4
0.198000	40.8	Off	N	19.3	12.9	53.7
0.246000	26.2	Off	N	19.4	25.7	51.9
0.270000	27.6	Off	N	19.3	23.5	51.1
0.310000	25.6	Off	N	19.3	24.4	50.0



Test Mode :	Mode 2	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 2		



Final Result : Quasi-Peak

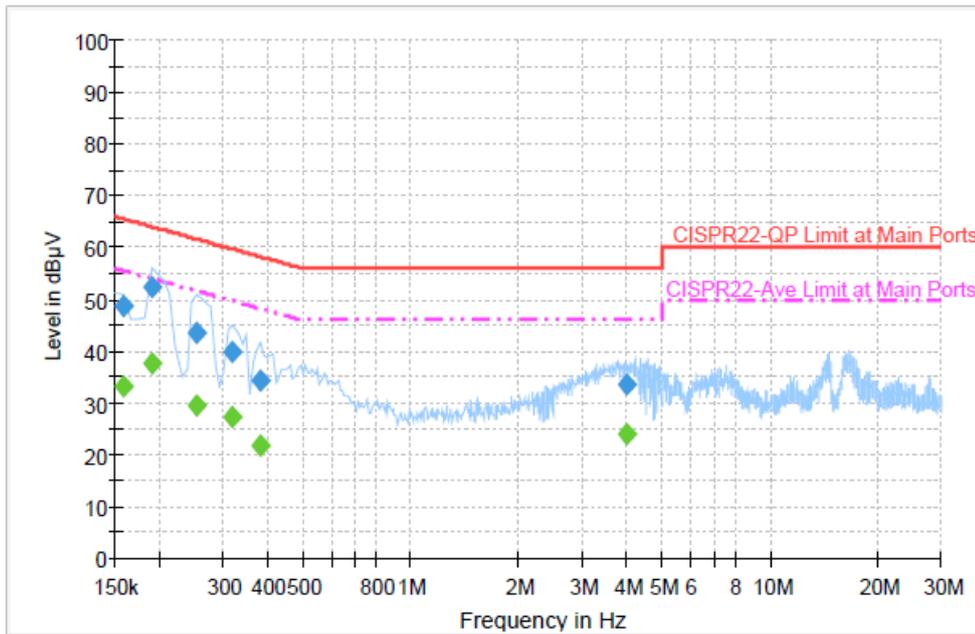
Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	45.5	Off	L1	19.3	20.1	65.6
0.190000	53.5	Off	L1	19.4	10.5	64.0
0.254000	47.9	Off	L1	19.4	13.7	61.6
0.318000	41.1	Off	L1	19.4	18.7	59.8
0.382000	35.8	Off	L1	19.3	22.4	58.2
4.806000	30.6	Off	L1	19.6	25.4	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	33.3	Off	L1	19.3	22.3	55.6
0.190000	38.8	Off	L1	19.4	15.2	54.0
0.254000	32.7	Off	L1	19.4	18.9	51.6
0.318000	26.5	Off	L1	19.4	23.3	49.8
0.382000	20.1	Off	L1	19.3	28.1	48.2
4.806000	19.9	Off	L1	19.6	26.1	46.0



Test Mode :	Mode 2	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 2		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	48.8	Off	N	19.3	16.8	65.6
0.190000	52.4	Off	N	19.4	11.6	64.0
0.254000	43.6	Off	N	19.4	18.0	61.6
0.318000	39.7	Off	N	19.4	20.1	59.8
0.382000	34.2	Off	N	19.3	24.0	58.2
3.998000	33.8	Off	N	19.6	22.2	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	33.3	Off	N	19.3	22.3	55.6
0.190000	37.5	Off	N	19.4	16.5	54.0
0.254000	29.4	Off	N	19.4	22.2	51.6
0.318000	27.1	Off	N	19.4	22.7	49.8
0.382000	21.6	Off	N	19.3	26.6	48.2
3.998000	24.1	Off	N	19.6	21.9	46.0



3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

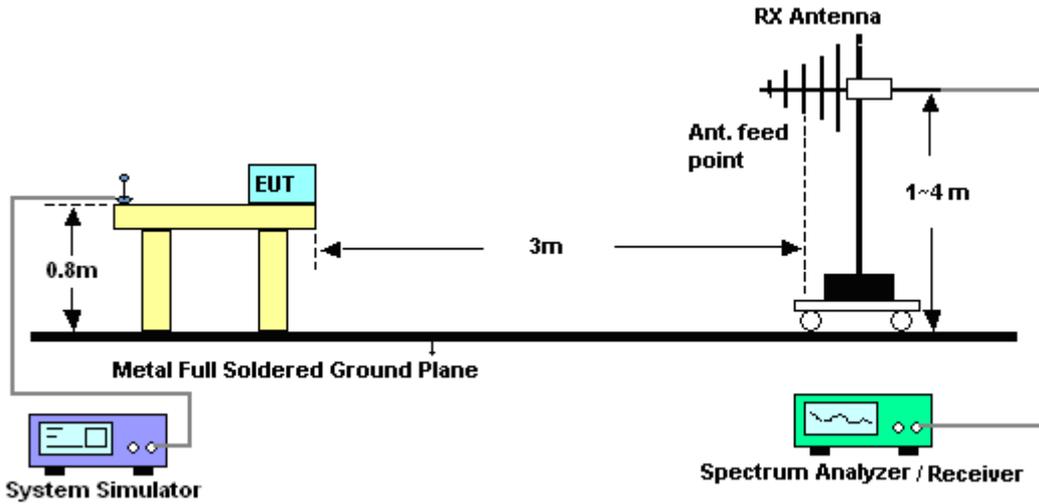
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

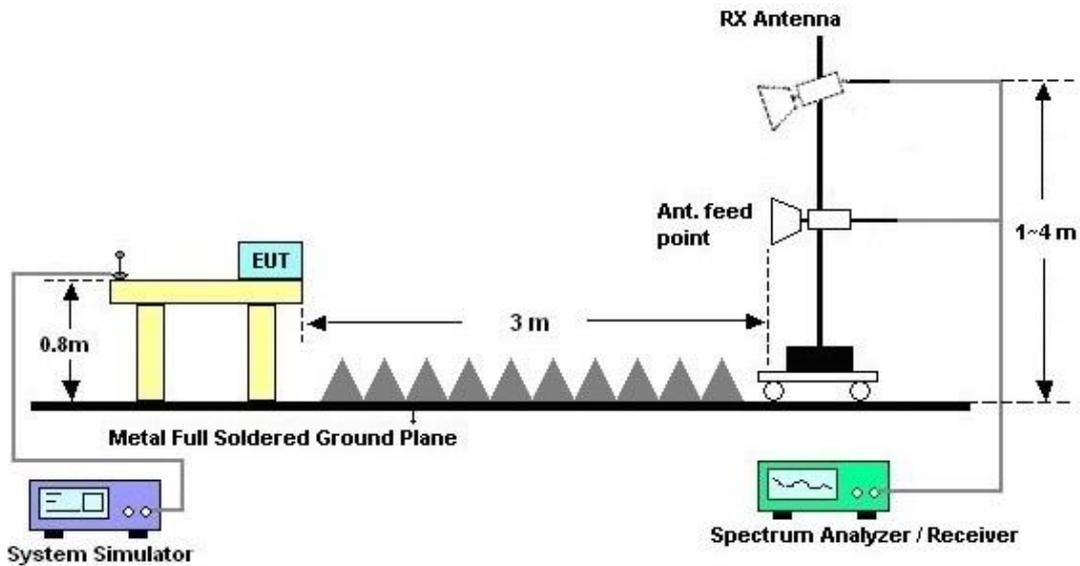
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. 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 turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dBµV/m) = 20 log Emission level (µV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



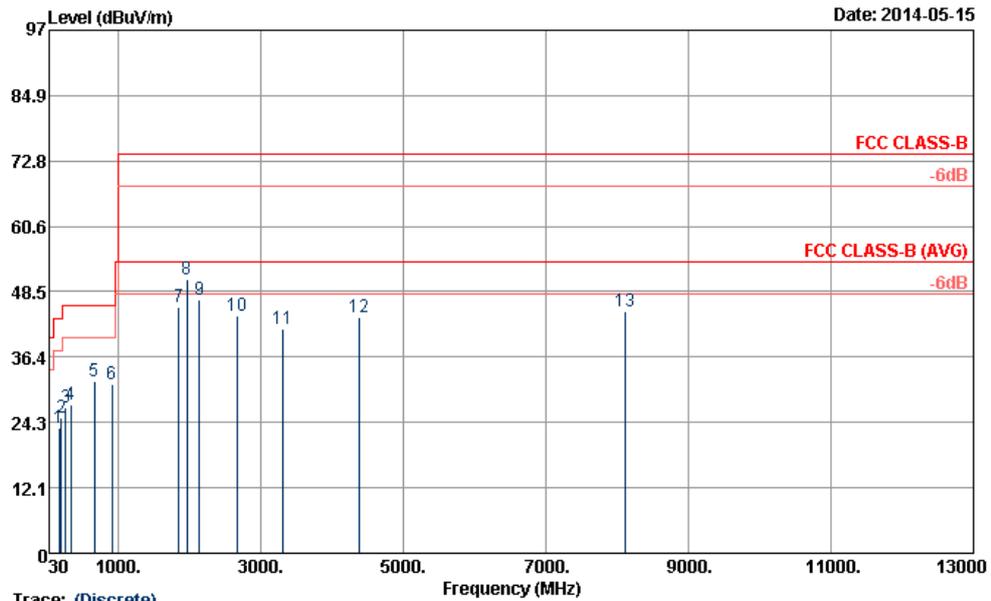
For radiated emissions above 1GHz





3.2.6. Test Result of Radiated Emission

Test Mode :	Mode 1	Temperature :	22~24°C
Test Engineer :	Marlboro Hsu	Relative Humidity :	47~49%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 1		
Remark :	#8 is system simulator signal which can be ignored.		



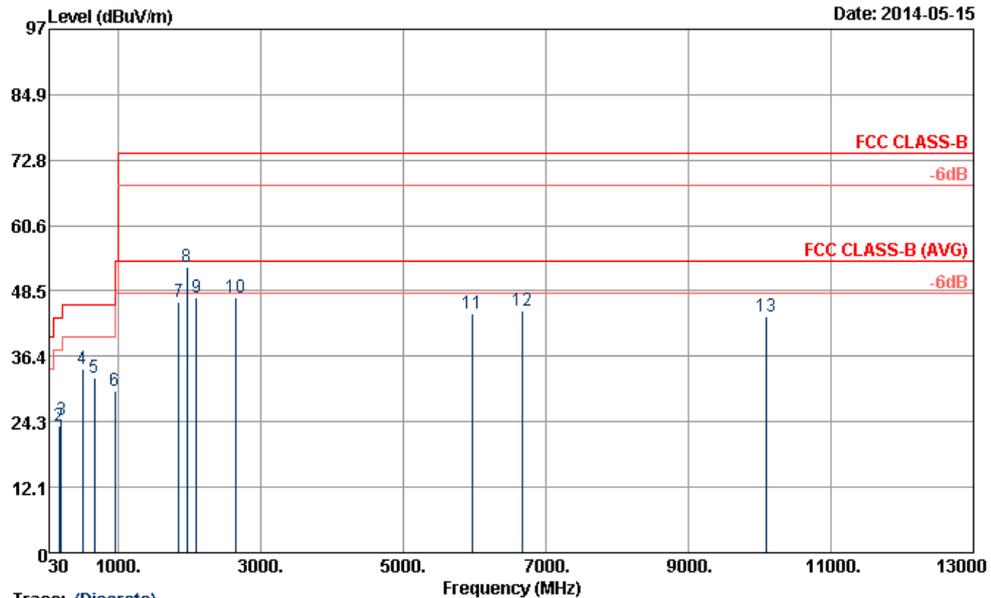
Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_583_130802 HORIZONTAL
 Project : 442202
 Power : From System
 Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	166.35	23.18	-20.32	43.50	43.49	9.86	1.58	31.75	---	Peak
2	204.96	25.06	-18.44	43.50	46.11	9.15	1.55	31.75	---	Peak
3	266.25	27.03	-18.97	46.00	43.69	13.27	1.80	31.73	---	Peak
4	329.40	27.67	-18.33	46.00	43.74	13.70	1.98	31.75	---	Peak
5	665.40	31.89	-14.11	46.00	41.64	19.45	2.83	32.03	100	96 Peak
6	909.00	31.39	-14.61	46.00	38.46	21.01	3.37	31.45	---	Peak
7	1852.00	45.73	-28.27	74.00	70.17	30.46	5.57	60.47	---	Peak
8	1960.00	50.70			74.18	31.22	5.79	60.49	---	Peak
9	2142.00	47.04	-26.96	74.00	69.72	31.71	6.11	60.50	100	95 Peak
10	2662.00	44.09	-29.91	74.00	65.61	32.23	6.92	60.67	---	Peak
11	3310.00	41.61	-32.39	74.00	62.24	32.76	7.86	61.25	---	Peak
12	4374.00	43.73	-30.27	74.00	61.29	34.28	9.79	61.63	---	Peak
13	8116.00	44.88	-29.12	74.00	58.00	35.60	10.93	59.65	---	Peak



Test Mode :	Mode 1	Temperature :	22~24°C
Test Engineer :	Marlboro Hsu	Relative Humidity :	47~49%
Test Distance :	3m	Polarization :	Vertical
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 1		
Remark :	#8 is system simulator signal which can be ignored.		



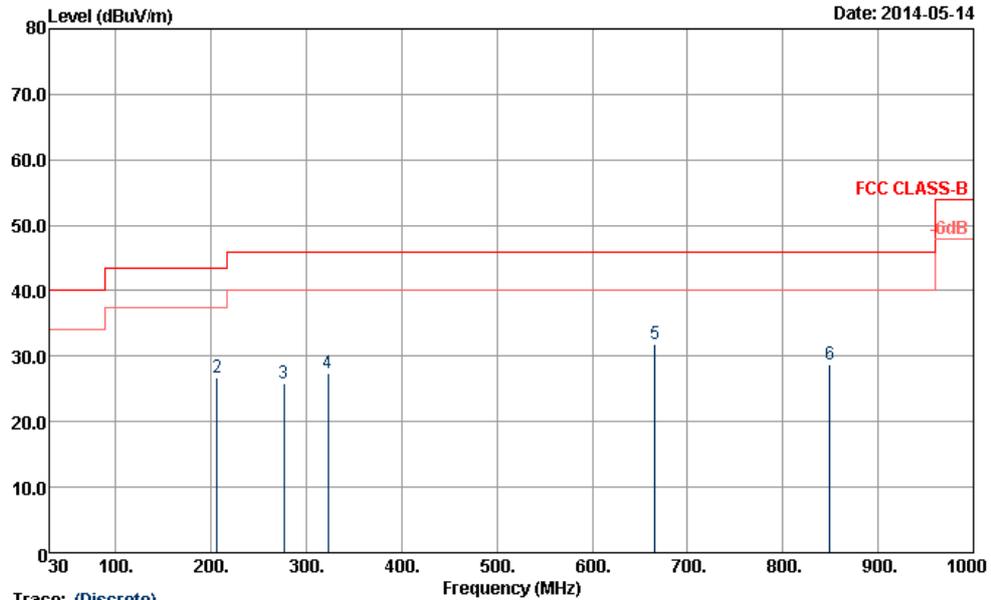
Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_583_130802 VERTICAL
 Project : 442202
 Power : From System
 Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm deg
1	30.00	26.31	-13.69	40.00	38.97	18.50	0.64	31.80	--- --- Peak
2	171.75	23.58	-19.92	43.50	44.01	9.72	1.60	31.75	--- --- Peak
3	202.26	24.52	-18.98	43.50	45.55	9.17	1.55	31.75	--- --- Peak
4	499.50	34.09	-11.91	46.00	45.75	17.79	2.48	31.93	100 39 Peak
5	665.40	32.41	-13.59	46.00	42.16	19.45	2.83	32.03	--- --- Peak
6	949.60	29.97	-16.03	46.00	36.39	21.30	3.35	31.07	--- --- Peak
7	1850.00	46.55	-27.45	74.00	71.05	30.46	5.51	60.47	--- --- Peak
8	1960.00	52.83			76.31	31.22	5.79	60.49	--- --- Peak
9	2098.00	47.37	-26.63	74.00	70.15	31.68	6.04	60.50	100 32 Peak
10	2656.00	47.36	-26.64	74.00	68.88	32.21	6.92	60.65	--- --- Peak
11	5974.00	44.23	-29.77	74.00	57.35	35.28	11.77	60.17	--- --- Peak
12	6672.00	44.74	-29.26	74.00	58.00	35.73	11.48	60.47	--- --- Peak
13	10084.00	43.80	-30.20	74.00	57.42	36.88	10.58	61.08	--- --- Peak



Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Marlboro Hsu	Relative Humidity :	47~49%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 2		

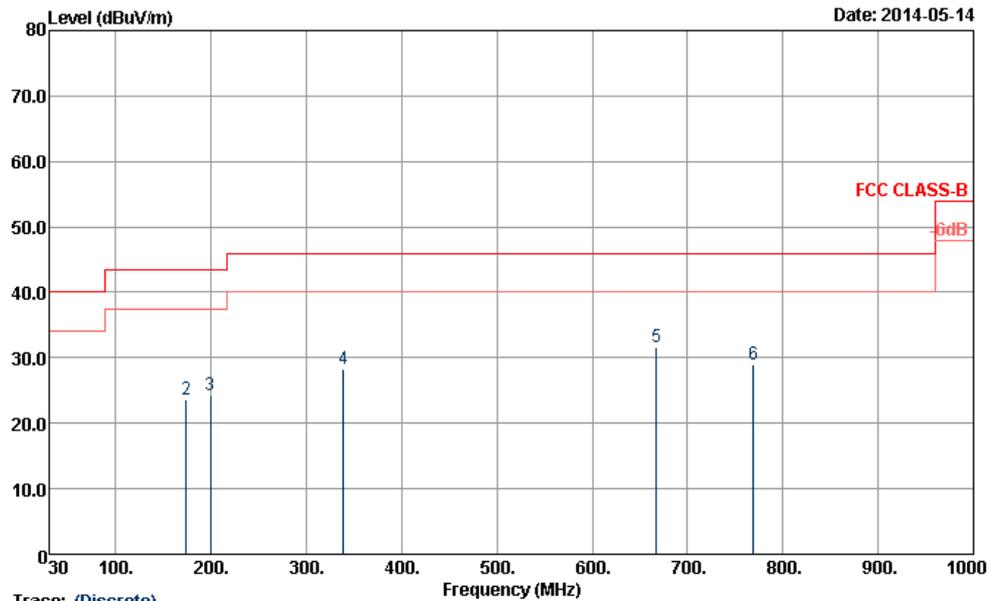


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m BILOG_131010 HORIZONTAL
 Project : 442202
 Power : From System
 Mode : Mode 2

	Freq	Level	Over	Limit	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m		dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	30.00	23.06	-16.94	40.00	35.72	18.50	0.64	31.80	---	---	Peak
2	206.04	26.66	-16.84	43.50	47.70	9.15	1.56	31.75	---	---	Peak
3	276.24	25.85	-20.15	46.00	42.88	12.87	1.83	31.73	---	---	Peak
4	322.40	27.46	-18.54	46.00	43.54	13.70	1.96	31.74	---	---	Peak
5	665.40	31.93	-14.07	46.00	41.68	19.45	2.83	32.03	100	116	Peak
6	849.50	28.74	-17.26	46.00	36.45	20.80	3.23	31.74	---	---	Peak



Test Mode :	Mode 2	Temperature :	22~24°C
Test Engineer :	Marlboro Hsu	Relative Humidity :	47~49%
Test Distance :	3m	Polarization :	Vertical
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) + SIM 2		



Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m BILOG_131010 VERTICAL
 Project : 442202
 Power : From System
 Mode : Mode 2

	Freq	Level	Over	Limit	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBUV/m		Line	Line	Level	Loss	Loss	cm	deg	
			Limit	dBUV/m	dB	dBuV	dB	dB			
1	30.00	25.04	-14.96	40.00	37.70	18.50	0.64	31.80	---	---	Peak
2	173.64	23.63	-19.87	43.50	44.18	9.64	1.56	31.75	---	---	Peak
3	199.56	24.30	-19.20	43.50	45.31	9.20	1.54	31.75	---	---	Peak
4	338.50	28.27	-17.73	46.00	44.07	13.95	2.01	31.76	---	---	Peak
5	667.50	31.62	-14.38	46.00	41.35	19.47	2.83	32.03	100	304	Peak
6	769.00	28.95	-17.05	46.00	37.76	20.11	3.05	31.97	---	---	Peak



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Nov. 15, 2013	May 10, 2014	Nov. 14, 2014	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 12, 2013	May 10, 2014	Dec. 11, 2014	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 04, 2013	May 10, 2014	Dec. 03, 2014	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	May 10, 2014	N/A	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Apr. 23, 2014,	May 10, 2014	Apr. 22, 2015	Conduction (CO05-HY)
Test Software	N/A	EMC32	8.40.0	N/A	N/A	May 10, 2014	N/A	Conduction (CO05-HY)
LF Cable	Shuner	RG-402	N/A	N/A	Oct. 17, 2013	May 10, 2014	Oct. 16, 2014	Conduction (CO05-HY)
Spectrum Analyzer	R&S	FSP30	101067	9kHz ~ 30GHz	Nov. 20, 2013	May 14, 2014~ May 15, 2014	Nov. 19, 2014	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9kHz ~ 26.5GHz	Dec. 02, 2013	May 14, 2014~ May 15, 2014	Dec. 01, 2014	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/0003	20MHz ~ 1000MHz	May 06, 2014	May 14, 2014~ May 15, 2014	May 05, 2015	Radiation (03CH06-HY)
Filter	Microwave	H1G013G1	SN477217	1GHz HPF	Nov. 28, 2013	May 14, 2014~ May 15, 2014	Nov. 27, 2014	Radiation (03CH06-HY)
Bilog Antenna	Schaffner	CBL6112B	2885	30MHz ~ 2GHz	Oct. 10, 2013	May 14, 2014~ May 15, 2014	Oct. 09, 2014	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Aug. 02, 2013	May 14, 2014~ May 15, 2014	Aug. 01, 2014	Radiation (03CH06-HY)
Amplifier	SONOMA	310N	186713	9kHz ~ 1GHz	Apr. 16, 2014	May 14, 2014~ May 15, 2014	Apr. 15, 2015	Radiation (03CH06-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 18, 2013	May 14, 2014~ May 15, 2014	Jul. 17, 2014	Radiation (03CH06-HY)
RF Cable	Huber+Suhner	RG 142	NA	30MHz ~1GHz	Nov. 28, 2013	May 14, 2014~ May 15, 2014	Nov. 27, 2014	Radiation (03CH06-HY)
RF Cable	Huber+Suhner	SF104	NA	1GHz ~26.5GHz	Nov. 28, 2013	May 14, 2014~ May 15, 2014	Nov. 27, 2014	Radiation (03CH06-HY)
Hygrometer	WISEWIND	0410	BU5004	N/A	May 06 2014	May 14, 2014~ May 15, 2014	May 05, 2015	Radiation (03CH06-HY)
Test Software	Audix	E3	Version 6.2009-8-24	N/A	N/A	May 14, 2014~ May 15, 2014	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	May 14, 2014~ May 15, 2014	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF78020821 2	1 m ~ 4 m	N/A	May 14, 2014~ May 15, 2014	N/A	Radiation (03CH06-HY)

Note: The test equipment calibration is traceable to the ISO17025



5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.26
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.50
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