

FCC Test Report

APPLICANT : Sony Mobile Communications AB
EQUIPMENT : Smart phone
BRAND NAME : Sony
MODEL NAME : PM-0510-BV
MARKETING NAME : C1505
FCC ID : PY7PM-0510
STANDARD : FCC 47 CFR Part 15:2012 Subpart B
IC ICES-003 ISSUE 5
CLASSIFICATION : Verification

The product was received on Nov. 12, 2012 and completely tested on Dec. 05, 2012. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown the compliance with the applicable technical standards. The test results also comply with Industrial Canada Interference-Causing Equipment Standard ICES-003 with no deviation from the 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.

Reviewed 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.



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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	RESULT (PASS/FAIL)	Remark
3.1	15.107	7.2.4	AC Conducted Emission	< 15.107 limits < RSS-Gen table 2 limits	PASS	Under limit 13.60 dB at 3.358 MHz
3.2	15.109	7.2.3.2	Radiated Emission	< 15.109 limits or < RSS-Gen table 1 limits (Section 6)	PASS	Under limit 8.71 dB at 30.000 MHz

1. General Description

1.1. Applicant

Sony Mobile Communications AB
Nya Vattentorget, 22188 Lund, Sweden

1.2. Manufacturer

Arima Communications Corp.
6F, No. 866, Jhongjheng Rd., Jhonghe City, Taipei County 23586, Taiwan

1.3. Feature of Equipment Under Test

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

General Information of Equipment Under Test	
Equipment	Smart phone
Brand Name	Sony
Model Name	PM-0510-BV
Marketing Name	C1505
FCC ID	PY7PM-0510
GSM Operating Band(s)	GSM 850/900/1800/1900MHz
WCDMA Operating Band(s)	FDD Band I / VIII
WCDMA Rel. Version	Rel. 6
GPRS / EGPRS Multi Slot Class	GPRS Class 12 , EGPRS Class 12
Wi-Fi Specification	802.11b/g/n (HT20)
Bluetooth Version	V2.1 + EDR / V3.0
Power Supply	Battery/AC adapter/Car Charger

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 Serial Number	IMEI : 00440214-626523-8 S/N : WUJ012DJ82
H/W :	AP
S/W :	11.3.A.0.8
EUT Stage	Production Unit

Accessory List	
AC Adapter	Model No. : EP800
	Type No. : CAA-00002016-BV B
Battery	Model No. : BA700
	Type No. : CBA-0002025
Earphone	Model No. : MH410c
	Type No. : AG-1100
USB Cable	Model No. : EC450
	Part No. : 1242-6715.2
Car Charger	Model No. : AN400
	Type No. : CAA-0003013

Note:

1. 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.
2. No modifications are made to the EUT during all test items.
3. For other wireless features of this EUT, test report will be issued separately.

1.5. Testing Facility

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.		FCC/IC Registration No.
	CO05-HY	03CH06-HY	722060/4086B-1

1.6. Applied 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 C63.4-2003
- 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, receivers contained within a transceiver shall be authorized under the verification procedure per the Section 15.101 (b).
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.

Receivers operating above 960 MHz or below 30 MHz, except for radar detectors and CB receivers, are exempt from complying with the technical provisions of this part but are subject to § 15.5.

2. Test Configuration of Equipment Under Test

2.1. Descriptions of Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 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.

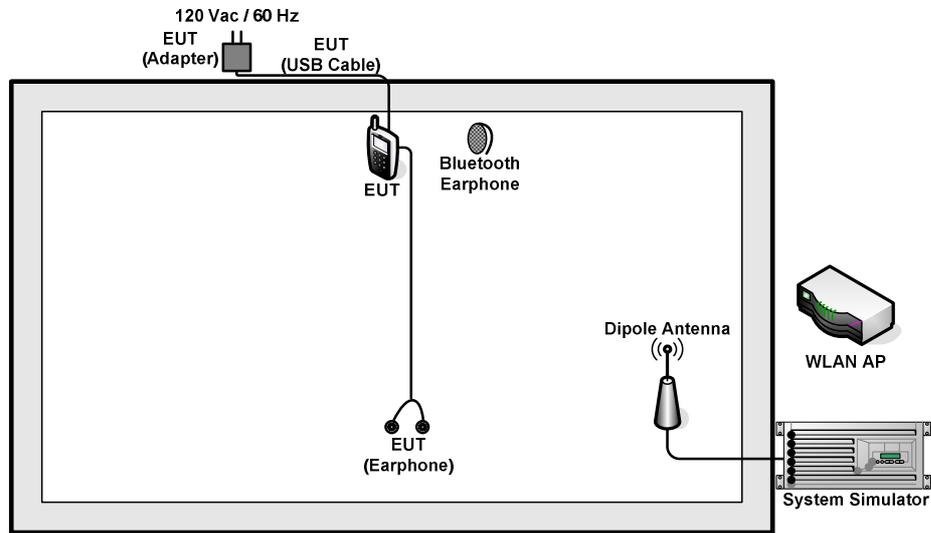
Item	EUT Configuration	Test Condition	
		EMI AC	EMI RE
1.	AC Charger with USB Cable + PHF (Earphone) + Battery	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.	Vehicle Charger with USB cable + PHF(Earphone) + Battery	N/A	<input checked="" type="checkbox"/>

Abbreviations:

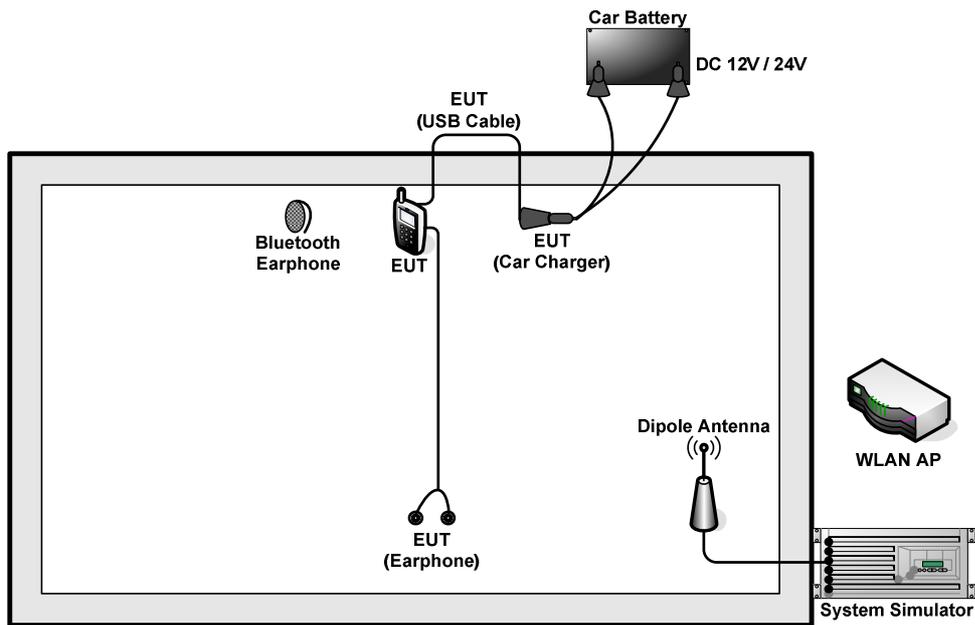
- EMI AC: AC conducted emissions
- EMI RE: EUT radiated emissions

Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter) <Fig. 1>
	1	Mode 2: GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter) <Fig. 1>
Radiated Emissions	1	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter) <Fig. 1>
	1	Mode 2: GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter) <Fig. 1>
	2	Mode 3: GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Car Charger 12V) <Fig. 2>
	2	Mode 4: GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Car Charger 24V) <Fig. 2>
Remark: . AC Power line Conducted Emission is not applied for DC charger mode.		

2.2. Connection Diagram of EUT Test Configurations



<Fig. 1>



<Fig. 2>

2.3. Supported 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.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
3.	Bluetooth Earphone	Sony Ericsson	MW600	PY70DA2029	N/A	N/A
4.	Car Battery	YUASA	46B24R(S)	N/A	N/A	N/A

2.4. Description of EUT Operation Test Setup

The EUT was in GSM idle mode during the testing. The EUT was synchronized to the system simulator, and is in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Bluetooth earphone or WLAN AP, and the following programs installed in the EUT were programmed during the test.

1. Turn on MP3 to play music.
2. Turn on camera to capture images.

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.

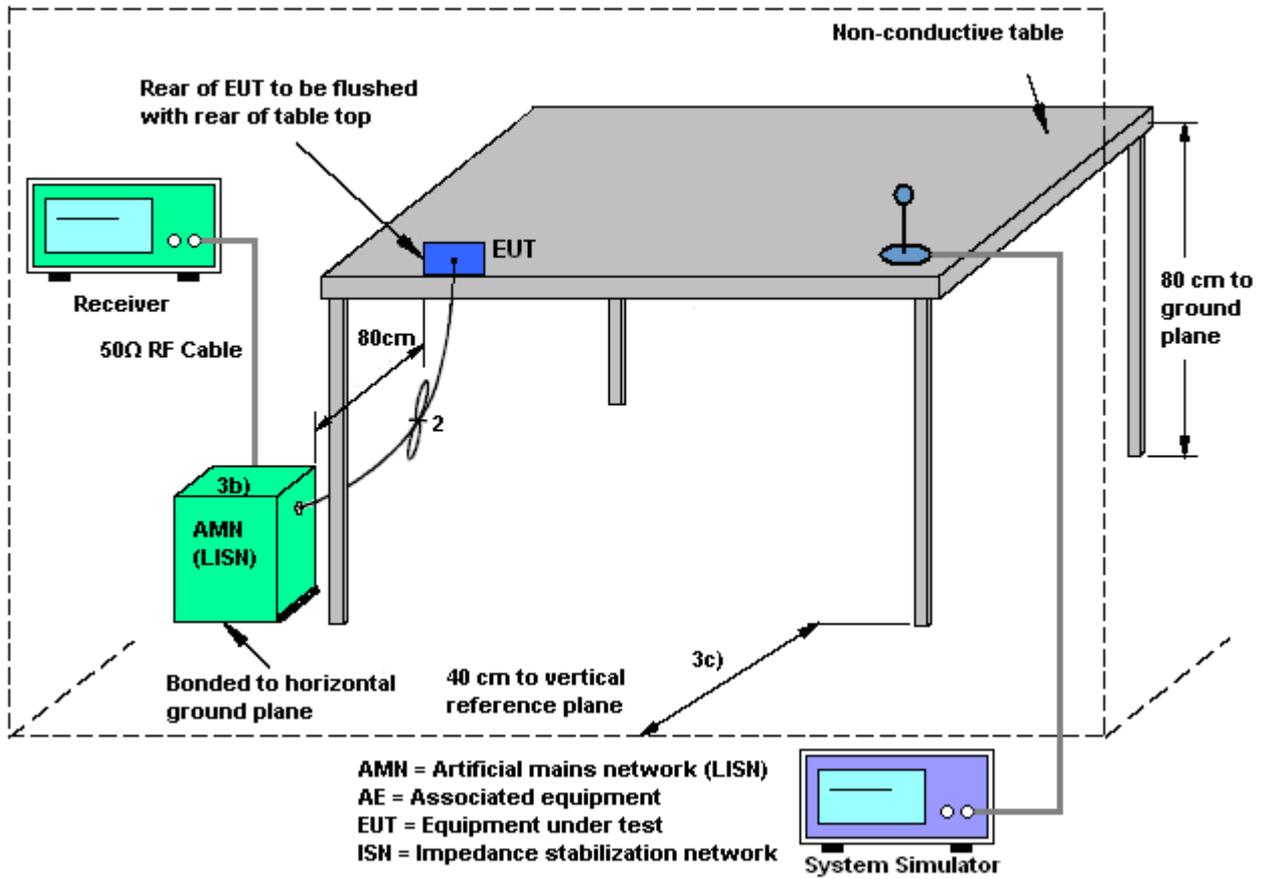
3.1.2. Measuring Instruments

The section 4.0 of List of Measuring Equipment of this test report is used for test.

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. 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

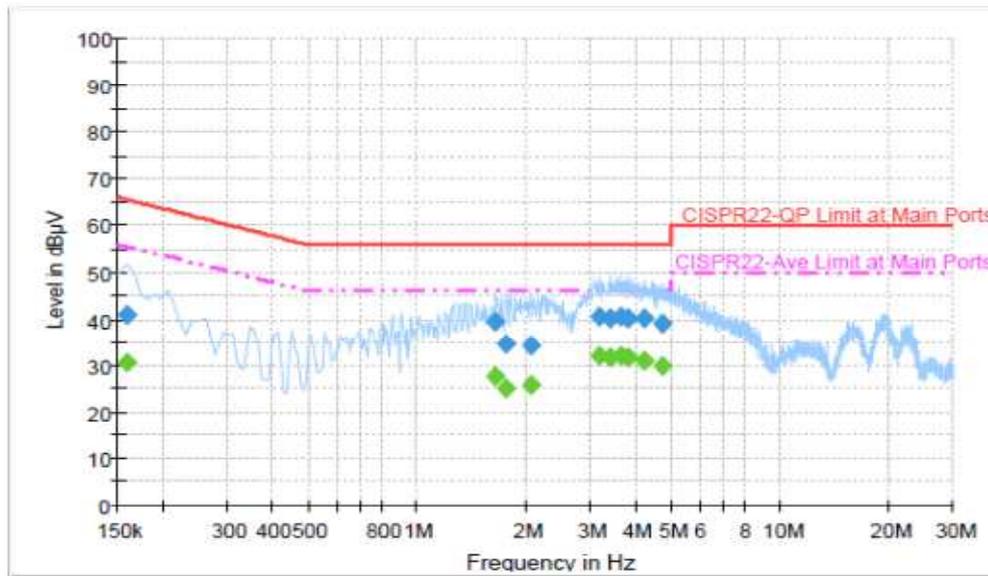


3.1.5. Accessory List of Test

Accessory List	
AC Adapter	Model No. : EP800, Supplier : Sony Ericsson (Salcomp)
	Type No. : CAA-00002016-BV B, S/N: 1110w26101468
Battery	Model No. : BA700, Supplier : Sony Ericsson
	Type No. : CBA-0002025, S/N: 001028PTPCLH
Earphone	Model No. : MH410c, Supplier : Sony Ericsson
	Type No. : AG-1100, S/N : 12351A130000424
USB Cable	Model No. : EC450, Supplier : Sony Ericsson
	Part No. : 1242-6715.2, S/N: 111912DF0258734

3.1.6. 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 :	GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

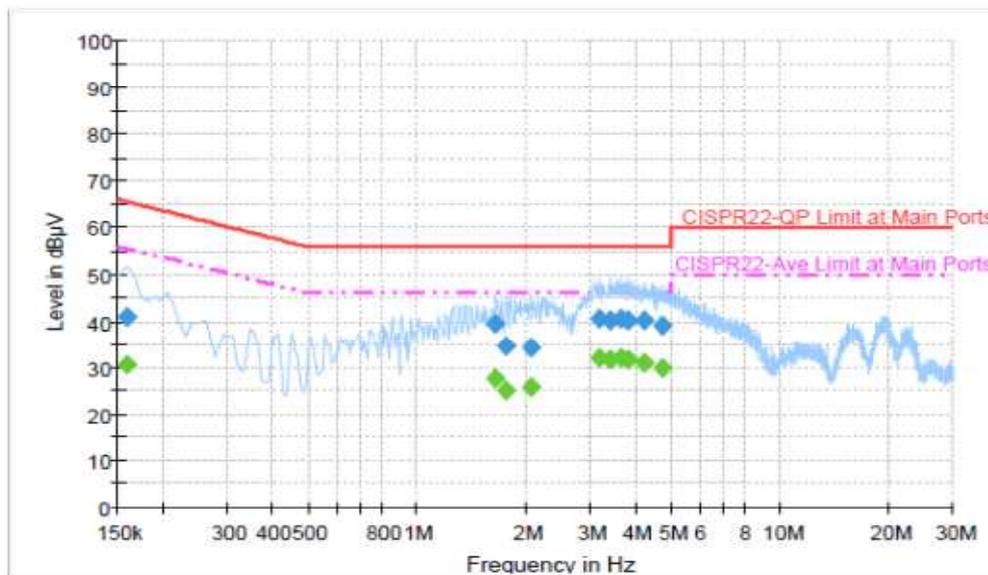


Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	40.9	Off	L1	19.4	24.7	65.6
1.646000	39.3	Off	L1	19.5	16.7	56.0
1.766000	34.7	Off	L1	19.5	21.3	56.0
2.070000	34.4	Off	L1	19.6	21.6	56.0
3.182000	40.5	Off	L1	19.6	15.5	56.0
3.414000	40.3	Off	L1	19.6	15.7	56.0
3.638000	40.6	Off	L1	19.6	15.4	56.0
3.822000	40.3	Off	L1	19.6	15.7	56.0
4.246000	40.3	Off	L1	19.6	15.7	56.0
4.710000	39.0	Off	L1	19.6	17.0	56.0



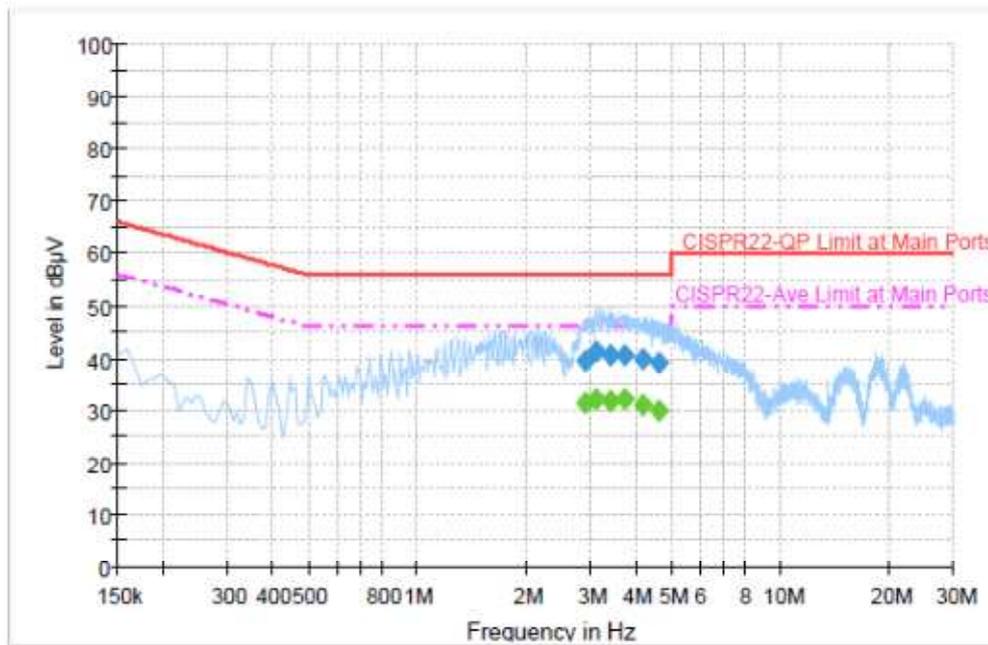
Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	30.5	Off	L1	19.4	25.1	55.6
1.646000	27.7	Off	L1	19.5	18.3	46.0
1.766000	25.1	Off	L1	19.5	20.9	46.0
2.070000	25.8	Off	L1	19.6	20.2	46.0
3.182000	32.3	Off	L1	19.6	13.7	46.0
3.414000	31.8	Off	L1	19.6	14.2	46.0
3.638000	32.1	Off	L1	19.6	13.9	46.0
3.822000	31.6	Off	L1	19.6	14.4	46.0
4.246000	31.1	Off	L1	19.6	14.9	46.0
4.710000	30.0	Off	L1	19.6	16.0	46.0

Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



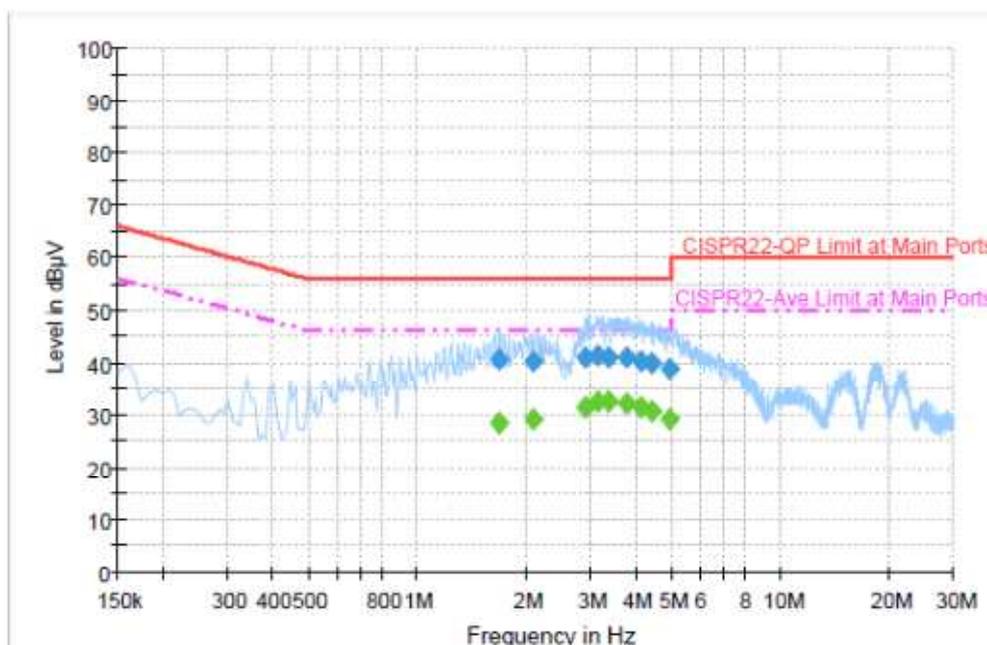
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.902000	39.4	Off	N	19.7	16.6	56.0
3.094000	41.3	Off	N	19.6	14.7	56.0
3.398000	40.4	Off	N	19.6	15.6	56.0
3.726000	40.7	Off	N	19.7	15.3	56.0
4.198000	39.8	Off	N	19.7	16.2	56.0
4.630000	39.2	Off	N	19.7	16.8	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.902000	31.4	Off	N	19.7	14.6	46.0
3.094000	32.1	Off	N	19.6	13.9	46.0
3.398000	31.9	Off	N	19.6	14.1	46.0
3.726000	32.0	Off	N	19.7	14.0	46.0
4.198000	31.1	Off	N	19.7	14.9	46.0
4.630000	29.9	Off	N	19.7	16.1	46.0

Test Mode :	Mode 2	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

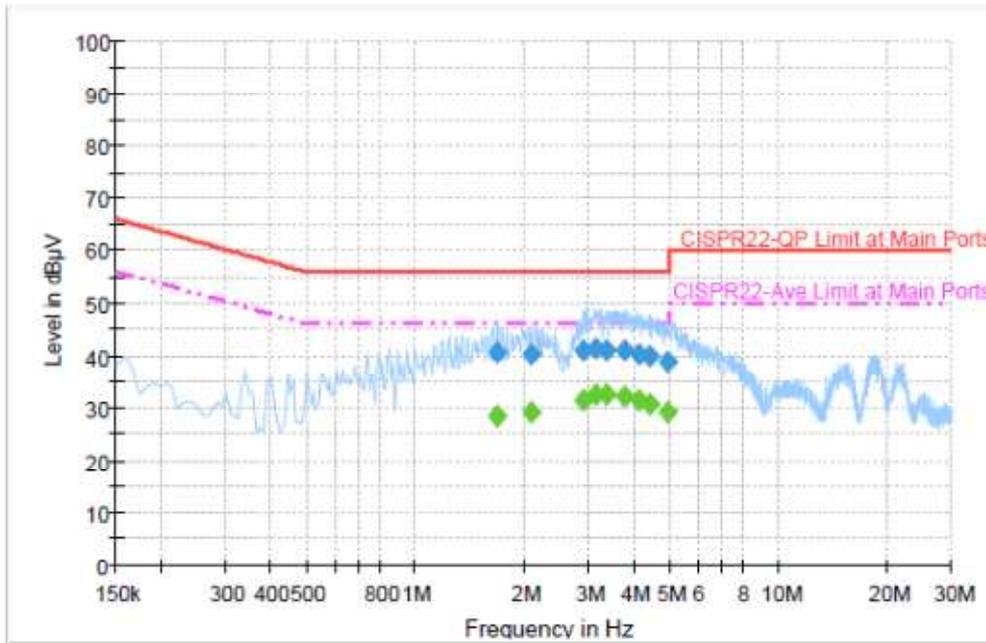


Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.686000	40.7	Off	L1	19.5	15.3	56.0
2.086000	40.0	Off	L1	19.6	16.0	56.0
2.918000	40.9	Off	L1	19.6	15.1	56.0
3.142000	41.3	Off	L1	19.6	14.7	56.0
3.358000	40.8	Off	L1	19.6	15.2	56.0
3.766000	41.0	Off	L1	19.6	15.0	56.0
4.126000	40.3	Off	L1	19.6	15.7	56.0
4.430000	39.8	Off	L1	19.7	16.2	56.0
4.934000	38.7	Off	L1	19.6	17.3	56.0



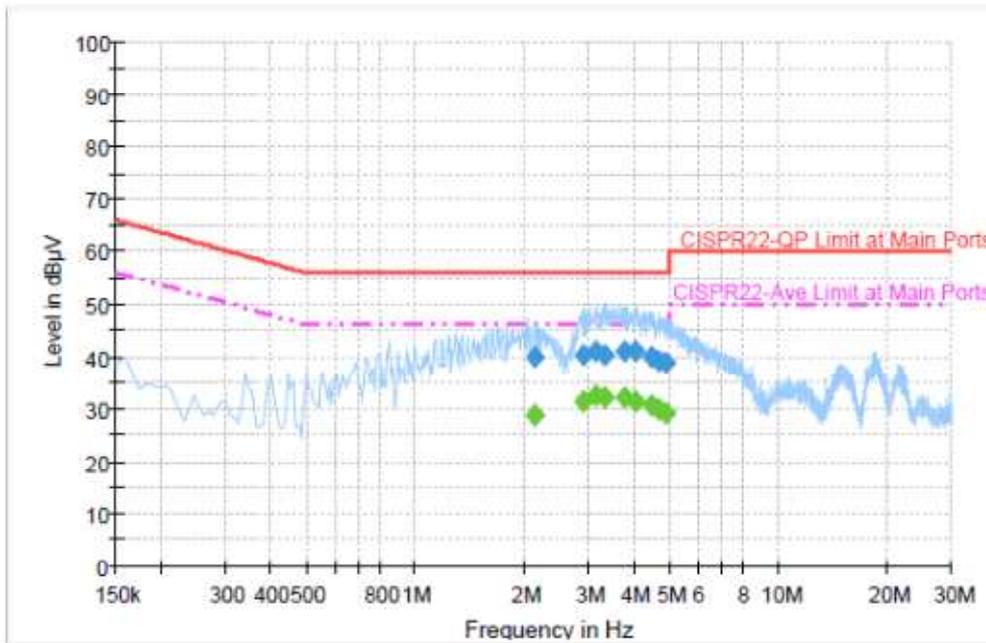
Test Mode :	Mode 2	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.686000	28.3	Off	L1	19.5	17.7	46.0
2.086000	29.1	Off	L1	19.6	16.9	46.0
2.918000	31.5	Off	L1	19.6	14.5	46.0
3.142000	32.3	Off	L1	19.6	13.7	46.0
3.358000	32.4	Off	L1	19.6	13.6	46.0
3.766000	32.0	Off	L1	19.6	14.0	46.0
4.126000	31.2	Off	L1	19.6	14.8	46.0
4.430000	30.6	Off	L1	19.7	15.4	46.0
4.934000	29.3	Off	L1	19.6	16.7	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 :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

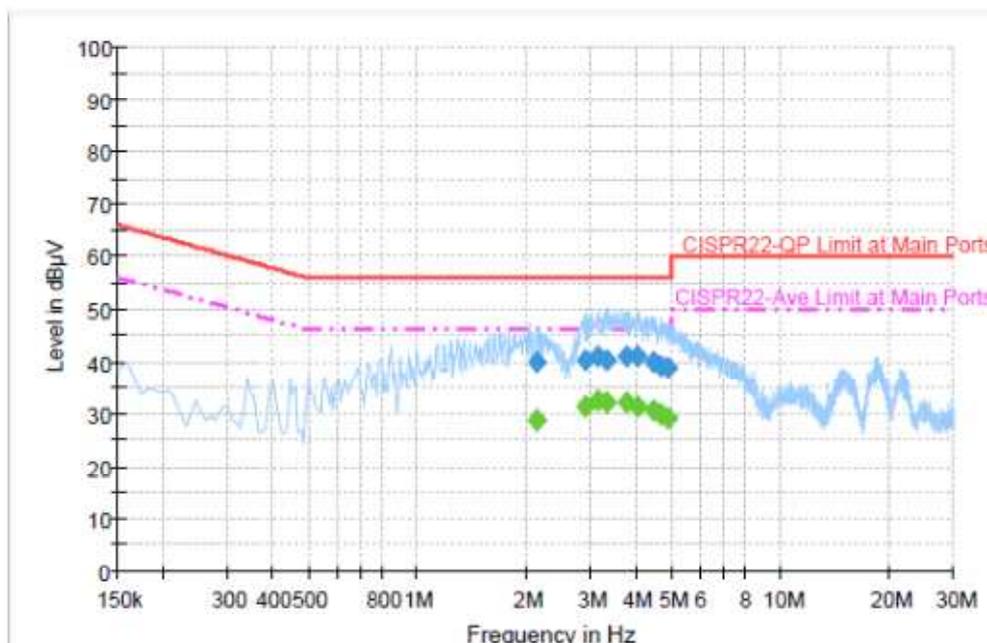


Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.142000	39.8	Off	N	19.6	16.2	56.0
2.886000	40.3	Off	N	19.6	15.7	56.0
3.150000	40.9	Off	N	19.6	15.1	56.0
3.342000	40.2	Off	N	19.6	15.8	56.0
3.782000	40.8	Off	N	19.6	15.2	56.0
4.054000	40.9	Off	N	19.6	15.1	56.0
4.454000	39.9	Off	N	19.7	16.1	56.0
4.702000	39.0	Off	N	19.7	17.0	56.0
4.910000	38.7	Off	N	19.7	17.3	56.0



Test Mode :	Mode 2	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.142000	28.7	Off	N	19.6	17.3	46.0
2.886000	31.5	Off	N	19.6	14.5	46.0
3.150000	32.3	Off	N	19.6	13.7	46.0
3.342000	32.0	Off	N	19.6	14.0	46.0
3.782000	32.0	Off	N	19.6	14.0	46.0
4.054000	31.4	Off	N	19.6	14.6	46.0
4.454000	30.5	Off	N	19.7	15.5	46.0
4.702000	29.8	Off	N	19.7	16.2	46.0
4.910000	29.3	Off	N	19.7	16.7	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

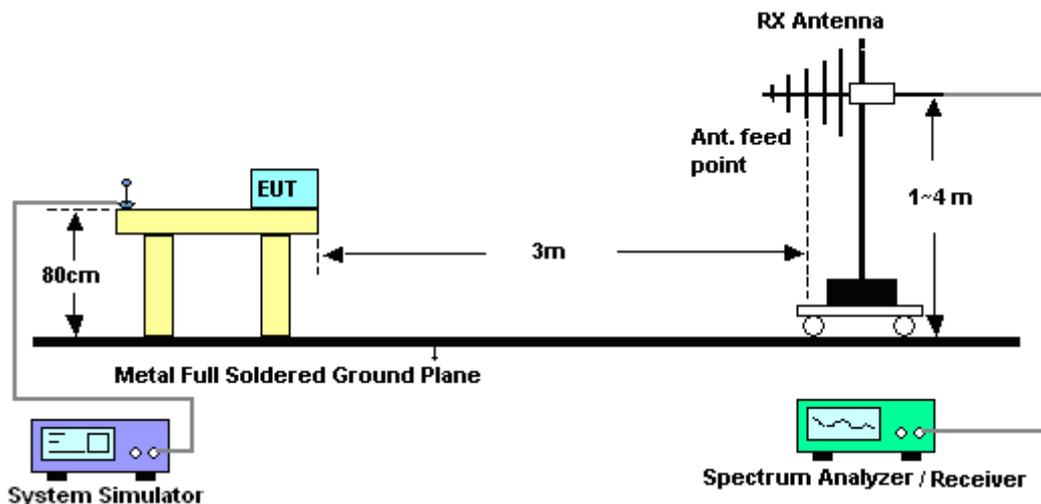
The section 4.0 of List of Measuring Equipment of this test report is used for test.

3.2.3. Test Procedures

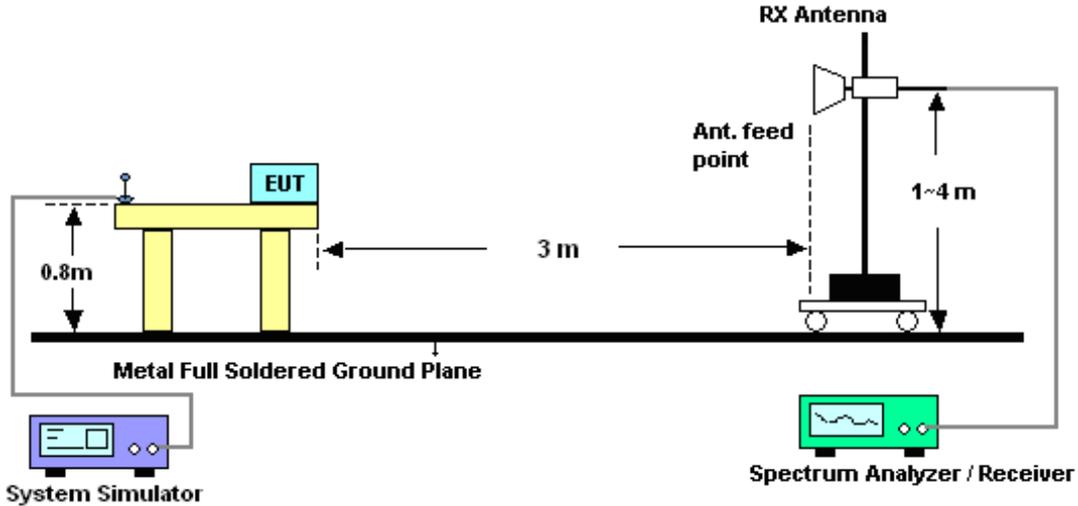
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one meter and 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, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported
8. Emission level (dBuV/m) = 20 log Emission level (uV/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



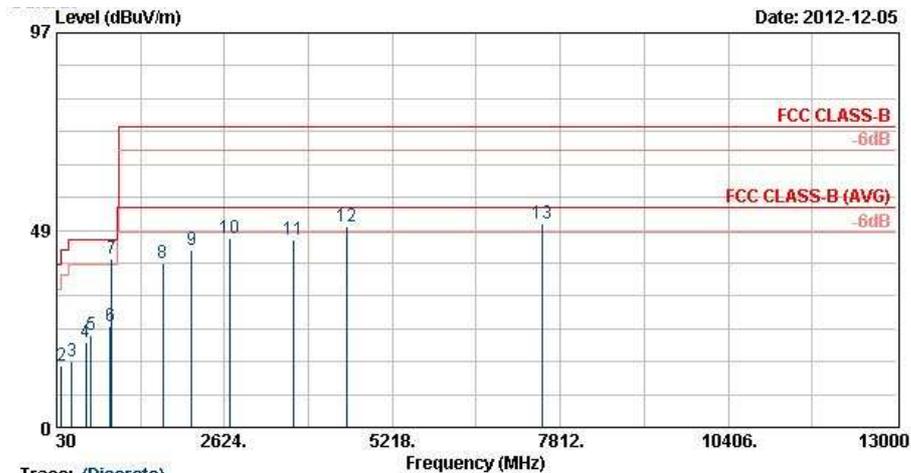
3.2.5. Accessory List of Test

Accessory List	
AC Adapter	Model No. : EP800, Supplier : Sony Ericsson (Salcomp)
	Type No. : CAA-00002016-BV B, S/N: 1110w26101468
Battery	Model No. : BA700, Supplier : Sony Ericsson
	Type No. : CBA-0002025, S/N: 000178PTPCLH
Earphone	Model No. : MH410c, Supplier : Sony Ericsson
	Type No. : AG-1100, S/N : 12351A130000464
USB Cable	Model No. : EC450, Supplier : Sony Ericsson
	Part No. : 1242-6715.2, S/N: 111912DF0258734
Car Charger	Model No. : AN400, Supplier : Sony Ericsson
	Type No. : CAA-0003013, S/N:1143140E006378A



3.2.6. Test Result of Radiated Emission

Test Mode :	Mode 1	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	#7 is system simulator signal which can be ignored.		

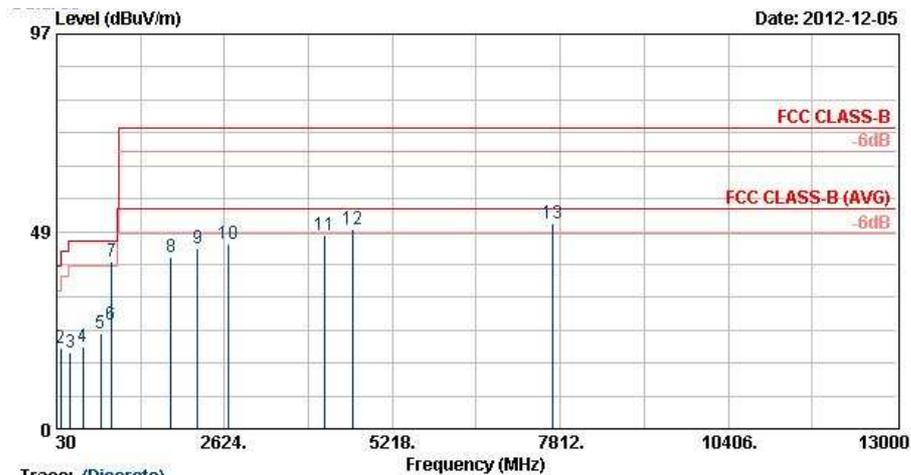


Site : 03CH06-HY
 Condition : FCC CLASS-B HF-ANT 120801 HORIZONTAL

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.89	18.85	-21.15	40.00	32.19	17.54	0.66	31.53	---	---	Peak
2	104.79	15.07	-28.43	43.50	33.73	11.70	1.13	31.49	---	---	Peak
3	266.79	16.20	-29.80	46.00	32.39	13.14	1.80	31.14	---	---	Peak
4	476.40	20.83	-25.17	46.00	32.09	17.32	2.31	30.89	---	---	Peak
5	561.80	22.87	-23.13	46.00	32.59	18.98	2.59	31.30	---	---	Peak
6	855.80	25.01	-20.99	46.00	32.19	20.31	3.25	30.73	100	214	Peak
7 @	881.40	41.50			48.89	20.50	3.32	31.21	---	---	Peak
8	1674.00	40.44	-33.56	74.00	59.99	29.27	5.12	53.94	---	---	Peak
9	2114.00	43.75	-30.25	74.00	59.72	31.97	6.04	53.98	---	---	Peak
10	2698.00	46.55	-27.45	74.00	60.73	32.74	7.02	53.94	---	---	Peak
11	3694.00	46.30	-27.70	74.00	58.96	33.37	8.37	54.40	---	---	Peak
12	4514.00	49.33	-24.67	74.00	59.31	34.99	10.06	55.03	---	---	Peak
13	7544.00	50.23	-23.77	74.00	59.12	36.10	10.89	55.88	100	168	Peak



Test Mode :	Mode 1	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Vertical
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	#7 is system simulator signal which can be ignored.		

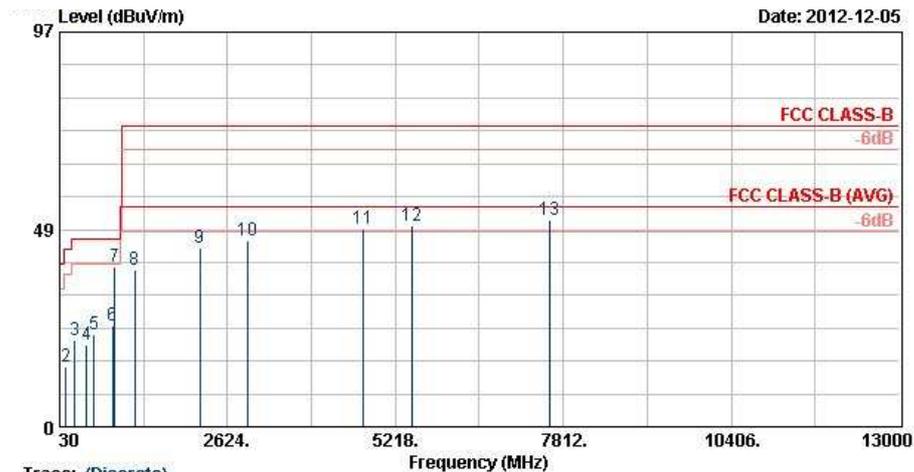


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B HF-ANT 120801 VERTICAL

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	31.29	-8.71	40.00	43.30	18.90	0.64	31.55	100	107	Peak
2	96.69	19.96	-23.54	43.50	40.09	10.28	1.09	31.49	---	---	Peak
3	245.73	18.85	-27.16	46.00	36.33	11.90	1.71	31.10	---	---	Peak
4	435.80	20.35	-25.65	46.00	32.70	16.50	2.28	31.13	---	---	Peak
5	712.30	23.32	-22.68	46.00	32.97	19.12	2.93	31.70	---	---	Peak
6	873.30	25.43	-20.57	46.00	32.83	20.36	3.29	31.05	---	---	Peak
7 @	881.40	40.98			48.37	20.50	3.32	31.21	---	---	Peak
8	1794.00	42.10	-31.90	74.00	60.46	30.20	5.40	53.96	---	---	Peak
9	2204.00	44.42	-29.58	74.00	60.11	32.09	6.18	53.96	---	---	Peak
10	2688.00	45.46	-28.54	74.00	59.70	32.72	6.97	53.94	---	---	Peak
11	4168.00	47.77	-26.23	74.00	59.20	34.20	9.31	54.93	---	---	Peak
12	4604.00	49.16	-24.84	74.00	59.29	34.96	10.09	55.19	---	---	Peak
13	7698.00	50.39	-23.61	74.00	59.19	36.10	10.92	55.82	100	162	Peak



Test Mode :	Mode 2	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	#7 is system simulator signal which can be ignored.		

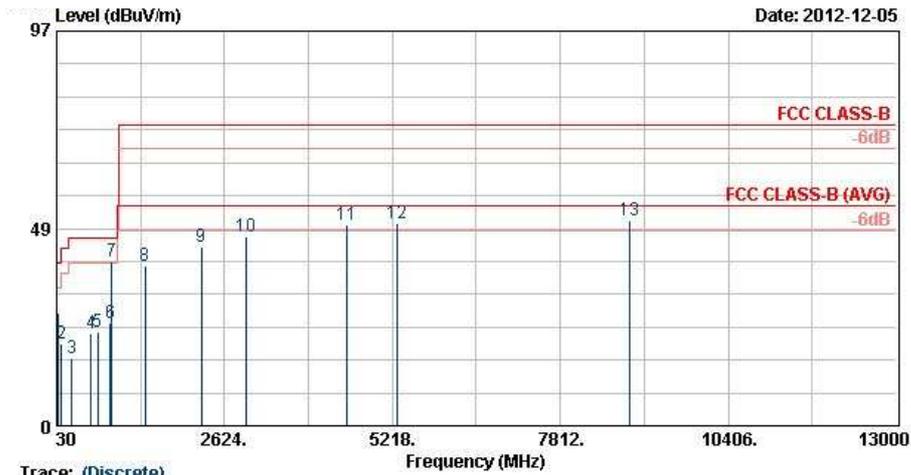


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B HF-ANT_120801 HORIZONTAL

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	cm	deg	
1	30.00	19.46	-20.54	40.00	31.47	18.90	0.64	31.55	187 Peak
2	128.28	14.76	-28.74	43.50	32.77	12.02	1.26	31.29	--- Peak
3	264.63	21.19	-24.81	46.00	37.23	13.30	1.80	31.14	--- Peak
4	449.80	20.12	-25.88	46.00	32.10	16.80	2.31	31.09	--- Peak
5	556.90	22.71	-23.29	46.00	32.31	19.03	2.57	31.20	--- Peak
6	847.40	24.88	-21.12	46.00	32.17	20.20	3.22	30.71	--- Peak
7	881.40	39.38			46.77	20.50	3.32	31.21	--- Peak
8	1188.00	38.50	-35.50	74.00	60.58	27.80	4.14	54.02	--- Peak
9	2194.00	43.95	-30.05	74.00	59.67	32.07	6.18	53.96	--- Peak
10	2928.00	45.84	-28.16	74.00	59.38	33.00	7.45	53.98	--- Peak
11	4724.00	48.51	-25.49	74.00	58.87	34.91	10.13	55.40	--- Peak
12	5484.00	49.28	-24.72	74.00	59.74	35.09	10.93	56.48	--- Peak
13	7608.00	50.69	-23.31	74.00	59.54	36.10	10.90	55.85	100 142 Peak



Test Mode :	Mode 2	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Vertical
Function Type :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	#7 is system simulator signal which can be ignored.		

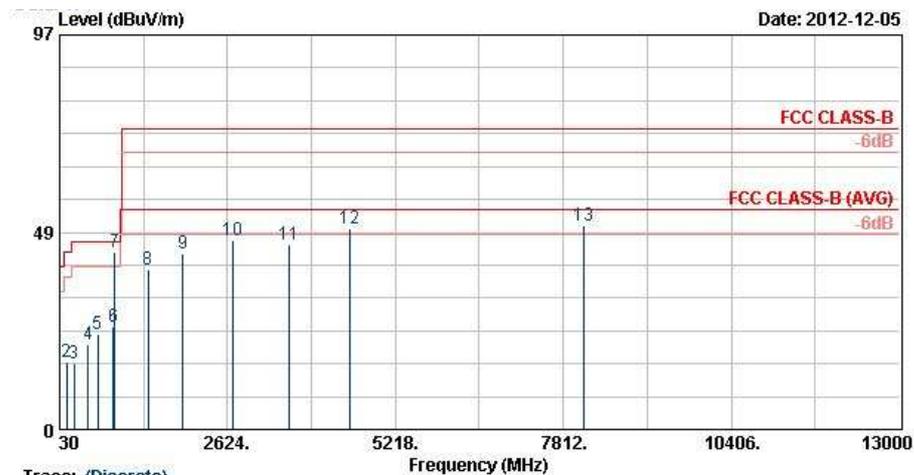


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B HF-ANT_120801 VERTICAL

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	41.88	27.86	-12.14	40.00	46.41	12.20	0.75	31.50	100	103 Peak
2	100.74	20.15	-23.35	43.50	39.59	11.14	1.11	31.69	---	---
3	260.04	16.71	-29.29	46.00	32.35	13.70	1.79	31.13	---	---
4	556.90	22.78	-23.22	46.00	32.38	19.03	2.57	31.20	---	---
5	665.40	23.06	-22.94	46.00	32.41	19.15	2.83	31.32	---	---
6	859.30	25.06	-20.94	46.00	32.23	20.38	3.26	30.80	---	---
7 @	881.40	40.50			47.89	20.50	3.32	31.21	---	---
8	1394.00	39.30	-34.70	74.00	60.94	27.80	4.50	53.94	---	---
9	2268.00	44.17	-29.83	74.00	59.65	32.19	6.28	53.94	---	---
10	2968.00	46.42	-27.58	74.00	59.81	33.06	7.54	53.99	---	---
11	4514.00	49.33	-24.67	74.00	59.31	34.99	10.06	55.03	---	---
12	5298.00	49.79	-24.21	74.00	60.42	34.98	10.65	56.26	---	---
13	8888.00	50.66	-23.34	74.00	59.66	36.51	10.47	55.97	100	247 Peak



Test Mode :	Mode 3	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Car Charger 12V)		
Remark :	#7 is system simulator signal which can be ignored.		

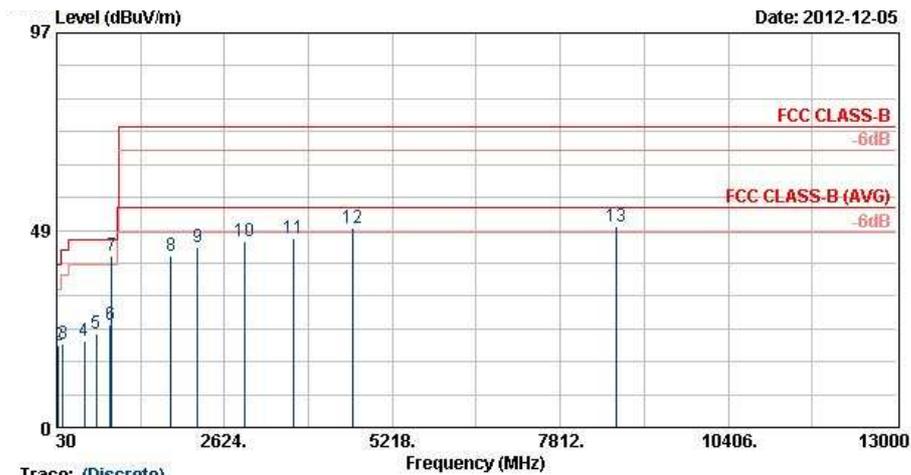


Trace: (Discrete)
 Site : 03CH06-HV
 Condition : FCC CLASS-B HF-ANT_120801 HORIZONTAL

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB		dBuV	dB/m	dB	dB	cm	deg	
1	30.00	18.35	-21.65	40.00	30.36	18.90	0.64	31.55	---	---	Peak
2	137.73	16.71	-26.79	43.50	35.60	11.10	1.30	31.29	---	---	Peak
3	258.69	16.12	-29.88	46.00	31.89	13.57	1.78	31.13	---	---	Peak
4	472.90	20.99	-25.01	46.00	32.35	17.26	2.31	30.93	---	---	Peak
5	616.40	23.44	-22.56	46.00	33.32	19.04	2.78	31.70	---	---	Peak
6	854.40	25.07	-20.93	46.00	32.25	20.29	3.24	30.72	100	222	Peak
7 @	881.40	43.78			51.17	20.50	3.32	31.21	---	---	Peak
8	1394.00	39.30	-34.70	74.00	60.93	27.80	4.50	53.94	---	---	Peak
9	1934.00	43.38	-30.62	74.00	60.36	31.27	5.73	53.99	---	---	Peak
10	2698.00	46.55	-27.45	74.00	60.73	32.74	7.02	53.94	---	---	Peak
11	3568.00	45.55	-28.45	74.00	58.41	33.20	8.16	54.21	---	---	Peak
12	4514.00	49.33	-24.67	74.00	59.31	34.99	10.06	55.03	---	---	Peak
13	8134.00	50.07	-23.93	74.00	58.86	36.13	10.92	55.84	100	222	Peak



Test Mode :	Mode 3	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Vertical
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Car Charger 12V)		
Remark :	#7 is system simulator signal which can be ignored.		

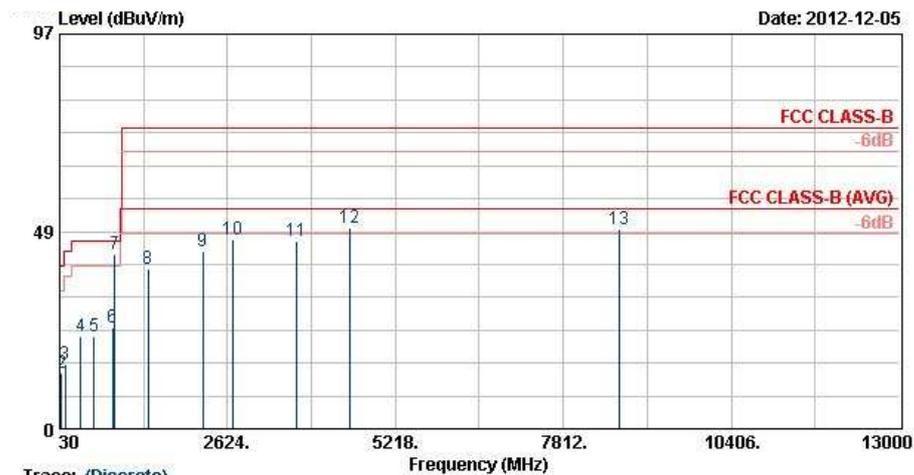


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B HF-ANT_120801 VERTICAL

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	30.00	30.84	-9.16	40.00	42.85	18.90	0.64	31.55	100	87 Peak
2	59.43	20.13	-19.87	40.00	44.73	6.04	0.86	31.51	---	Peak
3	129.63	20.73	-22.77	43.50	38.85	11.90	1.27	31.29	---	Peak
4	458.90	21.38	-24.62	46.00	33.12	16.98	2.33	31.05	---	Peak
5	637.40	23.19	-22.81	46.00	32.48	19.20	2.79	31.28	---	Peak
6	861.40	25.15	-20.85	46.00	32.34	20.39	3.26	30.84	---	Peak
7 @	881.40	42.18			49.57	20.50	3.32	31.21	---	Peak
8	1794.00	42.10	-31.90	74.00	60.46	30.20	5.40	53.96	---	Peak
9	2204.00	44.42	-29.58	74.00	60.11	32.09	6.18	53.96	---	Peak
10	2934.00	45.94	-28.06	74.00	59.41	33.02	7.49	53.99	---	Peak
11	3688.00	46.34	-27.66	74.00	59.00	33.37	8.37	54.40	---	Peak
12	4604.00	49.16	-24.84	74.00	59.29	34.96	10.09	55.19	---	Peak
13	8684.00	49.23	-24.77	74.00	58.37	36.35	10.60	56.09	100	328 Peak



Test Mode :	Mode 4	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Car Charger 24V)		
Remark :	#7 is system simulator signal which can be ignored.		

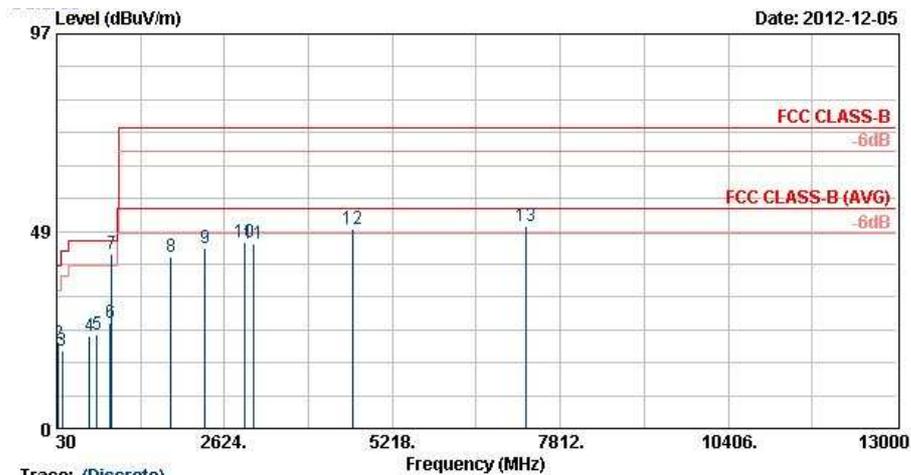


Trace: (Discrete)
 Site : 03CH06-HV
 Condition : FCC CLASS-B HF-ANT_120801 HORIZONTAL

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	19.02	-20.98	40.00	31.03	18.90	0.64	31.55	---	---	Peak
2	60.24	13.81	-26.19	40.00	38.55	5.90	0.87	31.51	---	---	Peak
3	120.99	16.03	-27.47	43.50	33.73	12.36	1.23	31.29	---	---	Peak
4	358.80	22.54	-23.46	46.00	36.82	14.66	2.10	31.03	---	---	Peak
5	558.30	22.82	-23.18	46.00	32.46	19.01	2.58	31.22	---	---	Peak
6	852.30	25.04	-20.96	46.00	32.23	20.25	3.24	30.68	100	107	Peak
7 !	881.40	42.99			50.38	20.50	3.32	31.21	---	---	Peak
8	1394.00	39.30	-34.70	74.00	60.93	27.80	4.50	53.94	---	---	Peak
9	2244.00	43.71	-30.29	74.00	59.28	32.14	6.25	53.95	---	---	Peak
10	2698.00	46.55	-27.45	74.00	60.73	32.74	7.02	53.94	---	---	Peak
11	3694.00	46.30	-27.70	74.00	58.96	33.37	8.37	54.40	---	---	Peak
12	4514.00	49.33	-24.67	74.00	59.31	34.99	10.06	55.03	---	---	Peak
13	8668.00	48.88	-25.12	74.00	58.05	36.33	10.60	56.10	100	137	Peak



Test Mode :	Mode 4	Temperature :	23~25°C
Test Engineer :	Timberland Lin	Relative Humidity :	50~51%
Test Distance :	3m	Polarization :	Vertical
Function Type :	GSM 850 Idle + Bluetooth Idle + WLAN Idle + MP3 + Earphone + Battery + USB Cable (Charging from Car Charger 24V)		
Remark :	#7 is system simulator signal which can be ignored.		



	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable Preamp	Ant	Table	Remark		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	21.70	-18.30	40.00	33.71	18.90	0.64	31.55	100	117	Peak
2	59.43	20.78	-19.22	40.00	45.39	6.04	0.86	31.51	---	---	Peak
3	120.99	19.11	-24.39	43.50	36.81	12.36	1.23	31.29	---	---	Peak
4	544.30	22.76	-23.24	46.00	32.45	18.92	2.53	31.14	---	---	Peak
5	649.30	23.20	-22.80	46.00	32.23	19.20	2.80	31.03	---	---	Peak
6	864.90	25.91	-20.09	46.00	33.18	20.35	3.27	30.89	---	---	Peak
7 @	881.40	43.04			50.43	20.50	3.32	31.21	---	---	Peak
8	1794.00	42.10	-31.90	74.00	60.46	30.20	5.40	53.96	---	---	Peak
9	2318.00	44.41	-29.59	74.00	59.74	32.26	6.35	53.93	---	---	Peak
10	2934.00	45.94	-28.06	74.00	59.41	33.02	7.49	53.99	---	---	Peak
11	3064.00	45.55	-28.45	74.00	58.81	33.10	7.65	54.01	---	---	Peak
12	4604.00	49.16	-24.84	74.00	59.29	34.96	10.09	55.19	---	---	Peak
13	7288.00	49.67	-24.33	74.00	58.90	36.14	10.94	56.31	100	175	Peak



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI TEST RECEIVER	R&S	ESCI 7	100724	9kHz ~ 7GHz	Sep. 03, 2012	Dec. 04, 2012	Sep. 02, 2013	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9KHz ~ 30MHz	Dec. 09, 2011	Dec. 04, 2012	Dec. 08, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9KHz ~ 30MHz	Dec. 06, 2011	Dec. 04, 2012	Dec. 05, 2012	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Dec. 04, 2012	N/A	Conduction (CO05-HY)
Thermometer	Testo	608-H1	34913912	N/A	Dec. 13, 2011	Dec. 04, 2012	Dec. 12, 2012	Conduction (CO05-HY)
Test Software	N/A	EMC32	8.40.0	N/A	N/A	Dec. 04, 2012	N/A	Conduction (CO05-HY)
LF Cable	Shuner	RG-402	N/A	N/A	Nov. 04, 2012	Dec. 04, 2012	Nov. 03, 2013	Conduction (CO05-HY)
System Simulator	R&S	CMU200	117995	N/A	Jul. 28, 2011	Dec. 06, 2012	Jul. 27, 2013	Conduction (CO05-HY)
Spectrum Analyzer	R&S	FSP30	101352	9KHz~30GHz	Nov. 07, 2012	Dec. 05, 2012	Nov. 06, 2013	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9KHz ~ 26.5GHz	Nov. 26, 2012	Dec. 05, 2012	Nov. 25, 2013	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20MHz ~ 1000MHz	May 04, 2012	Dec. 05, 2012	May. 03, 2013	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz ~ 2GHz	Oct. 06, 2012	Dec. 05, 2012	Oct. 05, 2013	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Aug. 01, 2012	Dec. 05, 2012	Jul. 31, 2013	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz ~ 40GHz	Sep. 28, 2012	Dec. 05, 2012	Sep. 27, 2013	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1GHz ~ 26.5GHz	Apr. 13, 2012	Dec. 05, 2012	Apr. 12, 2013	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9KHz ~ 1GHz	Apr. 11, 2012	Dec. 05, 2012	Apr. 10, 2013	Radiation (03CH06-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 21, 2012	Dec. 05, 2012	Jul. 20, 2013	Radiation (03CH06-HY)
Pre Amplifier	MITEQ	AMF-7D-00101800-30-10P	159087	1GHz~18GHz	Feb. 27, 2012	Dec. 05, 2012	Feb. 26, 2013	Radiation (03CH06-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Filter	WAINWRIGHT	WLKS1500-8SS	SN2	1.5G LPF	Dec.29 , 2011	Dec. 05, 2012	Dec. 28, 2012	Radiation (03CH06-HY)
Filter	WAINWRIGHT	WRCGV2400/2483-2390/2493-35/10SS	N/A	2.4G Notch Filter	Dec.30 , 2011	Dec. 05, 2012	Dec. 29, 2012	Radiation (03CH06-HY)
Filter	Microwave	H01G13G1	SN360979	1G HPF	Dec. 27, 2011	Dec. 05, 2012	Dec. 26, 2012	Radiation (03CH06-HY)
Thermometer	Wisewind	410	BU5004	N/A	Nov.22 , 2012	Dec. 05, 2012	Nov. 21, 2013	Radiation (03CH06-HY)
Test Software	Audix	E3	Version 6.2009-8-24	N/A	N/A	Dec. 05, 2012	N/A	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	Dec. 05, 2012	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1 m ~ 4 m	N/A	Dec. 05, 2012	N/A	Radiation (03CH06-HY)
RF Cable	Huber+Suhner	RG 142	NA	30M~1G	Nov. 29 , 2012	Dec. 05, 2012	Nov. 28 , 2013	Radiation (03CH06-HY)
RF Cable	Huber+Suhner	SF104	NA	1G~26.5G	Nov. 29 , 2012	Dec. 05, 2012	Nov. 28 , 2013	Radiation (03CH06-HY)
System Simulator	R&S	CMU200	117995	N/A	Jul. 28, 2011	Dec. 05, 2012	Jul. 27, 2013	Radiation (03CH06-HY)

Note: Test equipment calibration is traceable to the procedure of 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% ($U = 2Uc(y)$)	2.54
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.72
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