

FCC Test Report

APPLICANT : NEC CASIO Mobile Communications, Ltd.
EQUIPMENT : GSM/EGPRS/WCDMA/LTE Mobile Phone
BRAND NAME : NEC
MODEL NAME : NE-201A1A
MARKETING NAME : KMP7R4AE1-1AB
FCC ID : A98-RSZ3446
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Oct. 31, 2012 and completely tested on Dec. 03, 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 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.

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FCC ID : A98-RSZ3446

Page Number : 1 of 23

Report Issued Date : Dec. 25, 2012

Report Version : Rev. 01

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC2O3103	Rev. 01	Initial issue of report	Dec. 25, 2012

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.107	7.2.4	AC Conducted Emission	< 15.107 limits < RSS-Gen table 2 limits	PASS	Under limit 7.00 dB at 13.558 MHz
3.2	15.109	7.2.3.2	Radiated Emission	< 15.109 limits < RSS-Gen table 1 limits	PASS	Under limit 0.53 dB at 240.060 MHz for Quasi-Peak

1. General Description

1.1. Applicant

NEC CASIO Mobile Communications, Ltd.

31Fl., Tamagawa Renaissance City Tower N, 1753 Shimonumabe, Nakahara-ku, Kawasaki, Kanagawa
211-8666 Japan 2

1.2. Manufacturer

Arima Communications Corp.

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

1.3. Feature of Equipment Under Test

Product Feature	
Equipment	GSM/EGPRS/WCDMA/LTE Mobile Phone
Brand Name	NEC
Model Name	NE-201A1A
Marketing Name	KMP7R4AE1-1AB
FCC ID	A98-RSZ3446
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/ WLAN 11bgn / Bluetooth / NFC
HW Version	EP2
SW Version	3.0.8
EUT Stage	Identical Prototype

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

Product Specification subjective to this standard	
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Rx Frequency Range	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz LTE Band 2: 1930.7 MHz ~ 1989.3 MHz LTE Band 4: 2110.7 MHz ~ 2154.3 MHz LTE Band 5: 869.7 MHz ~ 893.3 MHz LTE Band 17: 736.5 MHz ~ 743.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz NFC : 13.56 MHz
Antenna Type	WWAN : Embedded Antenna LTE : Embedded Antenna WLAN : Chip Antenna Bluetooth : Chip Antenna NFC : Integrate Antenna GPS : Chip Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA: QPSK (Uplink) HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink) LTE: QPSK / 16QAM (Uplink) 802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth 4.0 - LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth 2.1 EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth 2.1 EDR (3Mbps) : 8-DPSK Bluetooth 3.0 EDR : GFSK, $\pi/4$ -DQPSK, 8-DPSK GPS : BPSK NFC: ASK

1.4. Test Site

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	03CH07-HY	722060/4086B-1

1.5. 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 RSS-Gen Issue 3

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

1.6. Ancillary Equipment List

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	T&E	GS-50	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
4.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
5.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
6.	Notebook	DELL	P20G	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
7.	LCD Monitor	Dell	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
8.	LCD Monitor	Lenovo	6135-AB1	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
9.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A

2. Test Configuration of Equipment Under Test

2.1. 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 EUT uses a USB interface and microprocessor operating 1500MHz which is the maximum frequency used.

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<1G	EMI RE≥1G
1.	Charging Mode (EUT with adapter)	☒	☒	Note 1
2.	Data application transferred mode (EUT with notebook)	☒	☒	☒

Abbreviations:

- EMI AC: AC conducted emissions
- EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz
- EMI RE < 1G: EUT radiated emissions < 1GHz

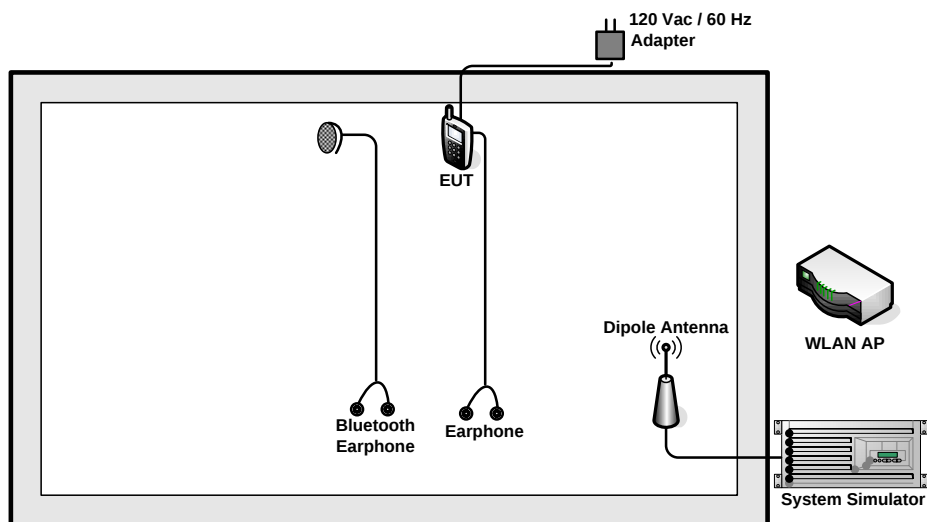
Note 1: Testing for this mode is not required or not the worst case.

Remark: For signal above 1GHz, the worst case was test item 4.

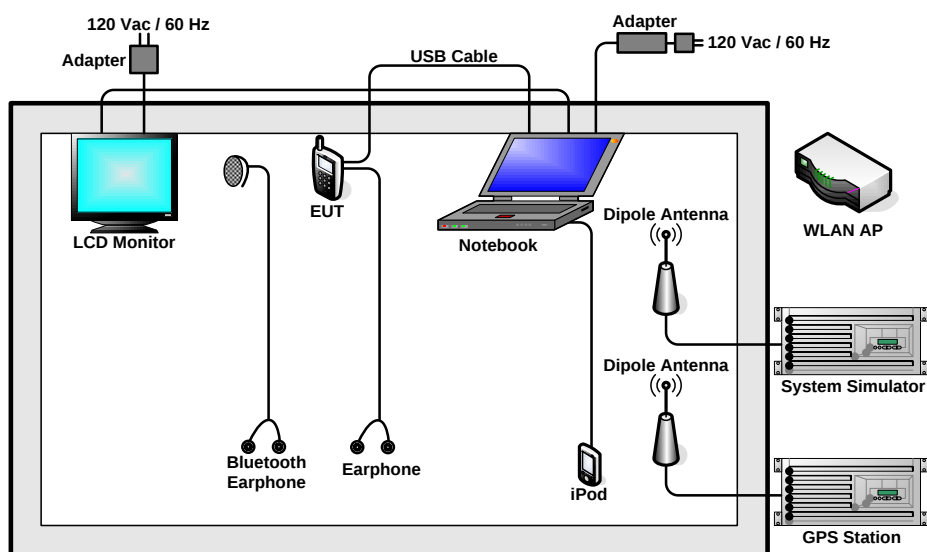
Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter) Mode 2: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + MPEG4 + Earphone + Battery + USB Cable (Charging from Adapter) Mode 3: GSM1900 Idle + Bluetooth Idle + WLAN Idle + RFID On + Earphone + Battery + USB Cable (Charging from Adapter) Mode 4: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook)
Radiated Emissions < 1GHz	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + USB Cable (Charging from Adapter) Mode 2: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + MPEG4 + Earphone + Battery + USB Cable (Charging from Adapter) Mode 3: GSM1900 Idle + Bluetooth Idle + WLAN Idle + RFID On + Earphone + Battery + USB Cable (Charging from Adapter) Mode 4: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook)
Radiated Emissions ≥ 1GHz	2	Mode 1: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook)
Remark: - The worst case of AC is mode 3; only the test data of this mode was reported. - The USB Link mode of AC Conducted Emission is mode 4; the test data of this mode was reported. - The worst case of RE < 1G is mode 4; only the test data of this mode was reported. - Link with Notebook means data application transferred mode between EUT and Notebook.		

2.2. Connection Diagram of Test System

<EUT with Adapter Mode>



<EUT with USB Cable (Link with Notebook) Mode>



2.3. Test Software

The EUT was in GSM or WCDMA idle mode during the testing. The EUT was synchronized to the BCCH, and was 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. Execute the program, "winthrax" under WIN7 installed in notebook for files transfer with EUT via USB cable.
2. Data application is transferred between Notebook and EUT via USB cable.
3. Execute "GPS Test" to make the EUT receive continuous signals from GPS station.
4. Execute "Video Player" to play MPEG4 files.
5. Turn on camera to capture images.
6. Turn on RFID function.

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.

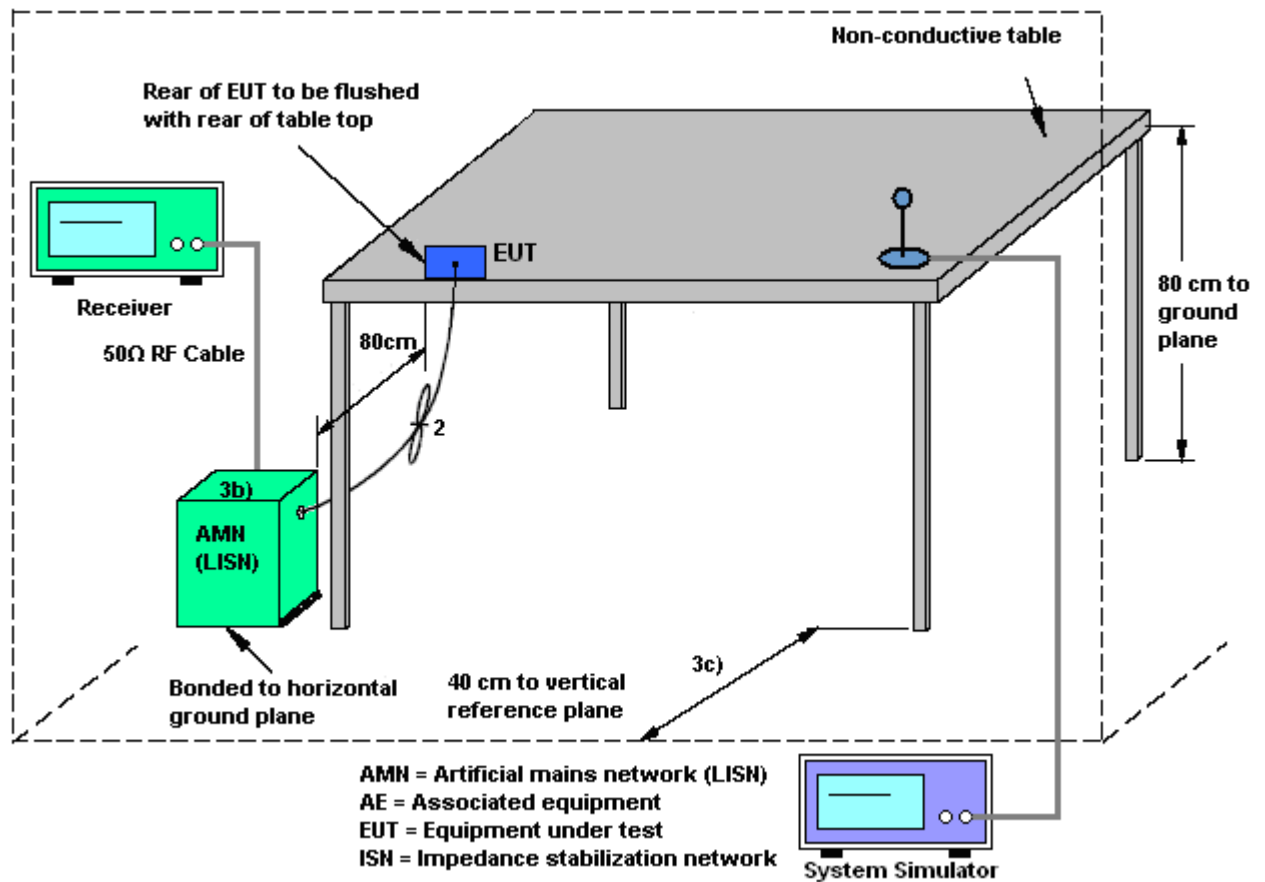
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedure

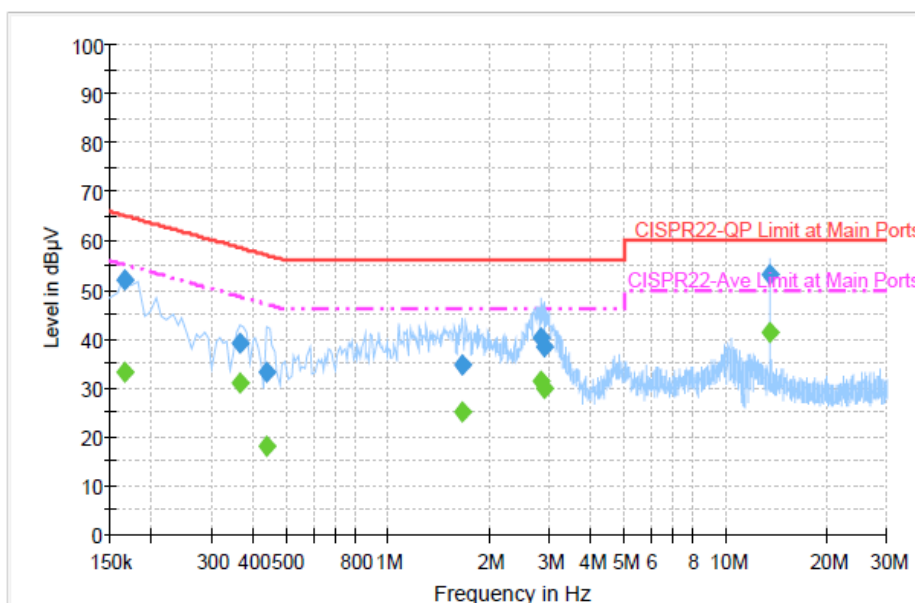
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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 3	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	50~52%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + RFID On + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



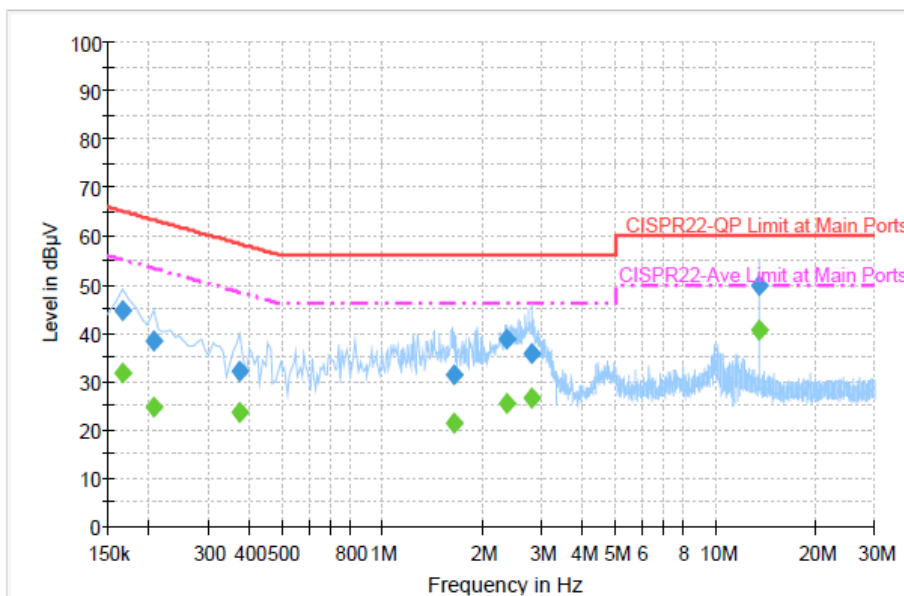
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	52.2	Off	L1	19.3	13.0	65.2
0.366000	39.0	Off	L1	19.3	19.6	58.6
0.438000	33.2	Off	L1	19.4	23.9	57.1
1.662000	34.8	Off	L1	19.5	21.2	56.0
2.830000	40.4	Off	L1	19.6	15.6	56.0
2.918000	38.4	Off	L1	19.7	17.6	56.0
13.558000	53.0	Off	L1	19.9	7.0	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	33.2	Off	L1	19.3	22.0	55.2
0.366000	30.8	Off	L1	19.3	17.8	48.6
0.438000	18.1	Off	L1	19.4	29.0	47.1
1.662000	25.1	Off	L1	19.5	20.9	46.0
2.830000	31.4	Off	L1	19.6	14.6	46.0
2.918000	30.0	Off	L1	19.7	16.0	46.0
13.558000	41.4	Off	L1	19.9	8.6	50.0

Test Mode :	Mode 3	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	50~52%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM1900 Idle + Bluetooth Idle + WLAN Idle + RFID On + Earphone + Battery + USB Cable (Charging from Adapter)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

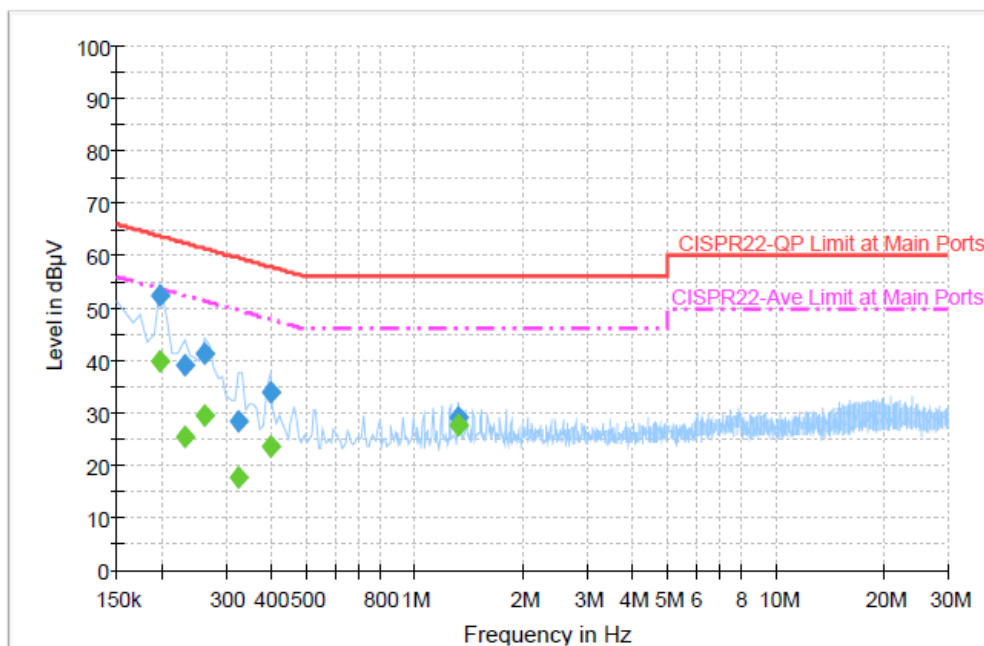

Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	44.6	Off	N	19.3	20.6	65.2
0.206000	38.4	Off	N	19.4	25.0	63.4
0.374000	32.3	Off	N	19.4	26.1	58.4
1.646000	31.3	Off	N	19.5	24.7	56.0
2.374000	38.6	Off	N	19.6	17.4	56.0
2.806000	35.8	Off	N	19.7	20.2	56.0
13.558000	49.7	Off	N	19.9	10.3	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.166000	31.9	Off	N	19.3	23.3	55.2
0.206000	24.5	Off	N	19.4	28.9	53.4
0.374000	23.8	Off	N	19.4	24.6	48.4
1.646000	21.3	Off	N	19.5	24.7	46.0
2.374000	25.6	Off	N	19.6	20.4	46.0
2.806000	26.5	Off	N	19.7	19.5	46.0
13.558000	40.6	Off	N	19.9	9.4	50.0

Test Mode :	Mode 4	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	50~52%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook)		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

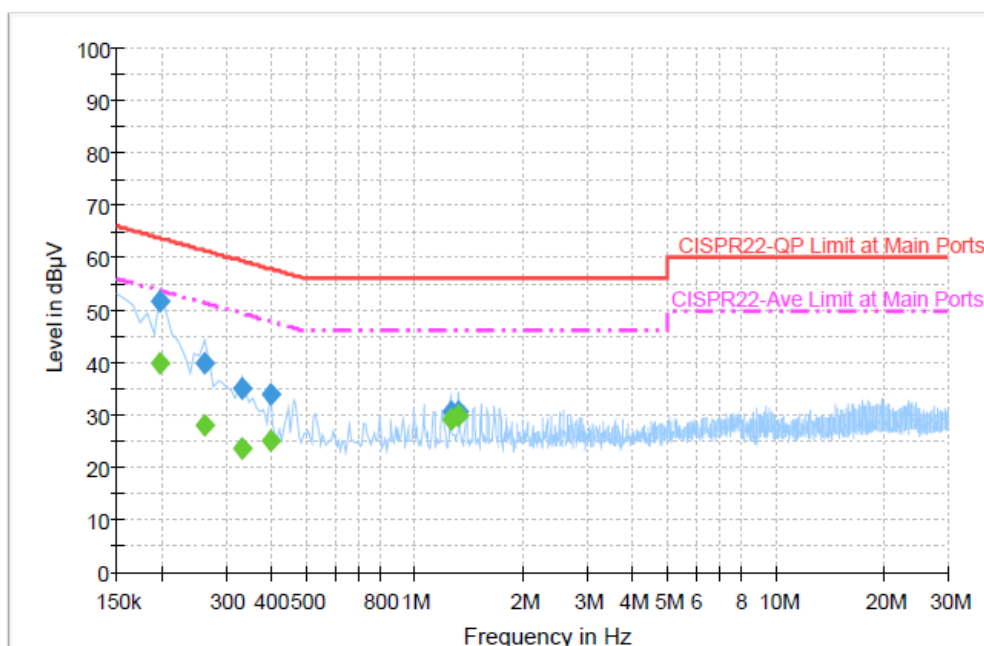

Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.198000	52.3	Off	L1	19.3	11.4	63.7
0.230000	39.1	Off	L1	19.4	23.3	62.4
0.262000	41.5	Off	L1	19.4	19.9	61.4
0.326000	28.5	Off	L1	19.4	31.1	59.6
0.398000	34.1	Off	L1	19.5	23.8	57.9
1.326000	29.0	Off	L1	19.5	27.0	56.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.198000	39.7	Off	L1	19.3	14.0	53.7
0.230000	25.3	Off	L1	19.4	27.1	52.4
0.262000	29.4	Off	L1	19.4	22.0	51.4
0.326000	17.5	Off	L1	19.4	32.1	49.6
0.398000	23.7	Off	L1	19.5	24.2	47.9
1.326000	27.6	Off	L1	19.5	18.4	46.0

Test Mode :	Mode 4	Temperature :	20~22°C
Test Engineer :	Slash Huang	Relative Humidity :	50~52%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook)		
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)
0.198000	51.8	Off	N	19.3	11.9	63.7
0.262000	39.7	Off	N	19.4	21.7	61.4
0.334000	35.1	Off	N	19.4	24.3	59.4
0.398000	34.0	Off	N	19.5	23.9	57.9
1.262000	30.5	Off	N	19.5	25.5	56.0
1.326000	30.7	Off	N	19.5	25.3	56.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.198000	39.7	Off	N	19.3	14.0	53.7
0.262000	27.9	Off	N	19.4	23.5	51.4
0.334000	23.5	Off	N	19.4	25.9	49.4
0.398000	25.2	Off	N	19.5	22.7	47.9
1.262000	29.3	Off	N	19.5	16.7	46.0
1.326000	29.9	Off	N	19.5	16.1	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

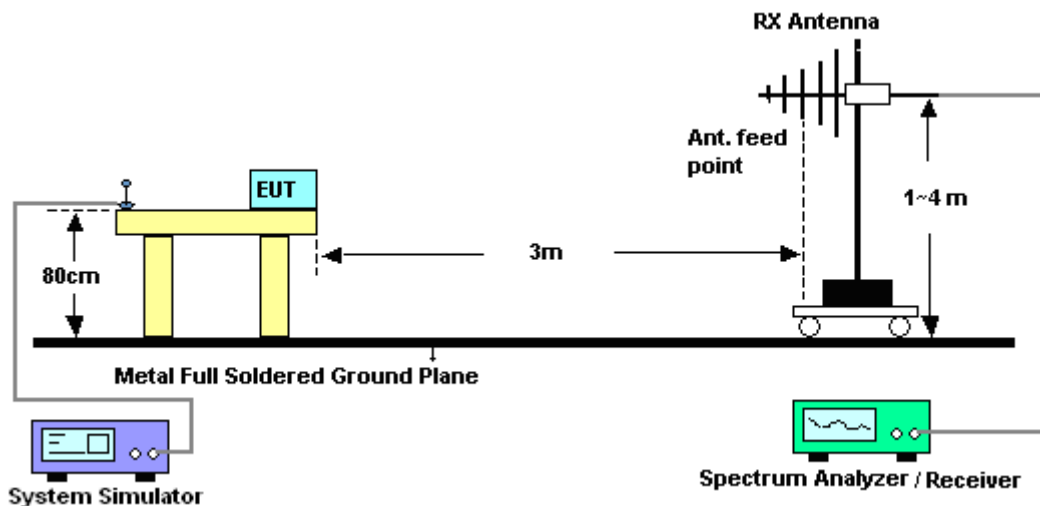
See list of measuring instruments of this test report.

3.2.3. Test Procedures

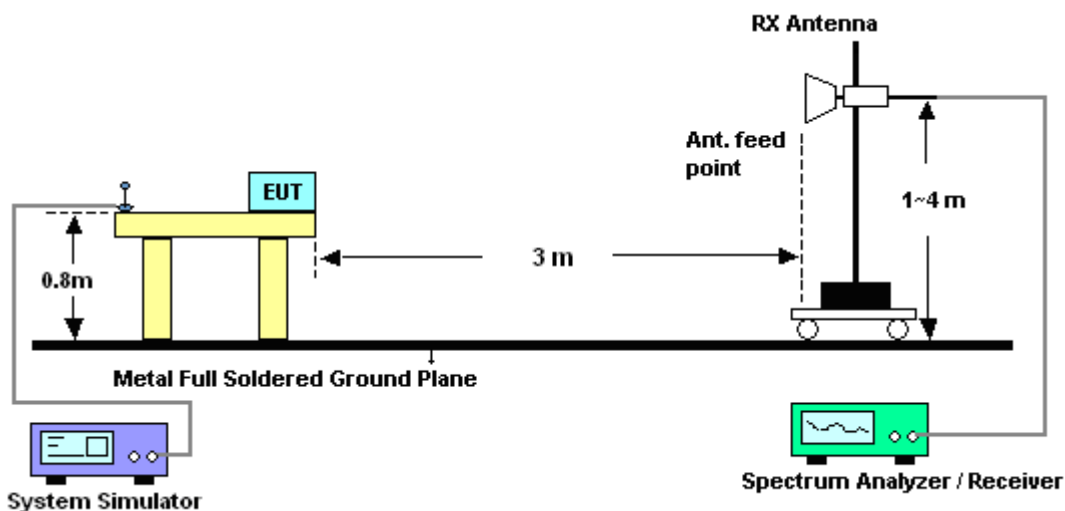
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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 (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

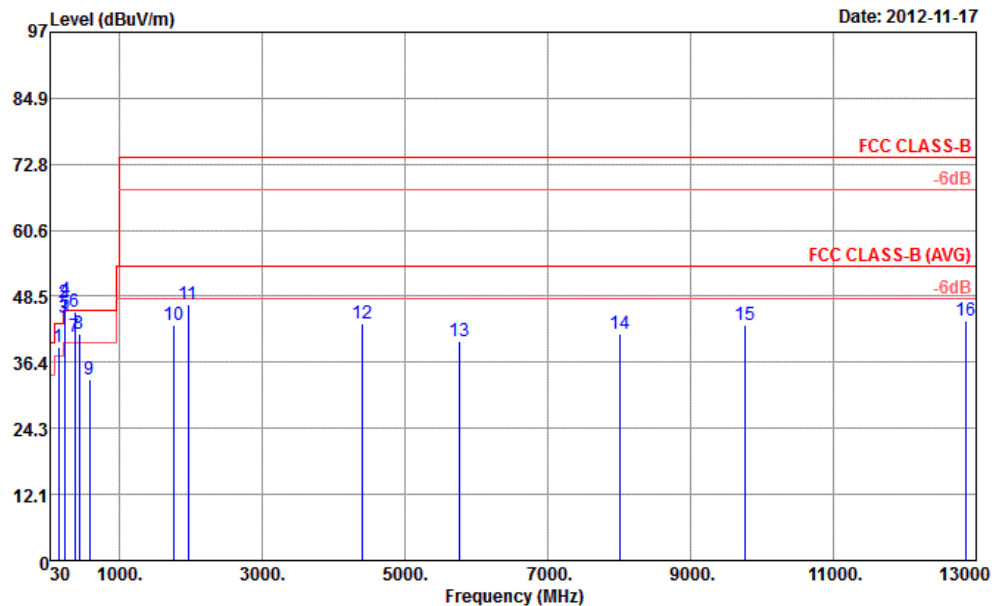


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 4	Temperature :	23~24°C
Test Engineer :	Gavin Wu	Relative Humidity :	42~43%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook)		
Remark :	#11 is system simulator signal which can be ignored.		



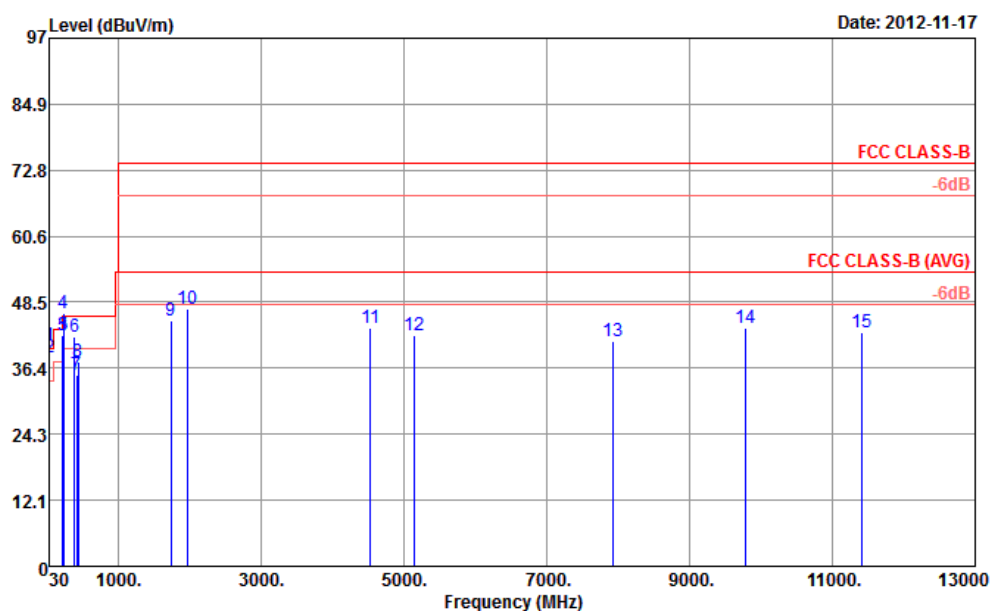
Site : 03CH07-HY
Condition : FCC CLASS-B 3m HF-ANT_120823 HORIZONTAL
Power : 120Vac/60Hz

Mode : Mode 4

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor			
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	150.15	39.14	-4.36	43.50	58.12	11.20	1.21	31.39	---	Peak
2	226.83	47.36	1.36	46.00	66.13	10.98	1.46	31.21	165	154 Peak
3	226.83	44.48	-1.52	46.00	63.25	10.98	1.46	31.21	165	154 QP
4	240.06	47.93	1.93	46.00	65.67	11.93	1.53	31.20	156	124 Peak
5	240.06	45.47	-0.53	46.00	63.21	11.93	1.53	31.20	156	124 QP
6	377.70	45.79	-0.21	46.00	59.61	15.40	2.09	31.31	117	212 Peak
7	377.70	41.14	-4.86	46.00	54.96	15.40	2.09	31.31	117	212 QP
8	435.10	41.52	-4.48	46.00	53.67	16.75	2.26	31.16	---	Peak
9	585.60	33.32	-12.68	46.00	41.86	19.55	2.65	30.74	---	Peak
10	1752.00	43.10	-30.90	74.00	64.90	29.75	5.02	56.57	---	Peak
11	1960.00	47.06			66.85	31.47	5.35	56.61	---	Peak
12	4392.00	43.58	-30.42	74.00	58.15	33.86	9.03	57.46	---	Peak
13	5770.00	40.39	-33.61	74.00	53.05	35.37	9.90	57.93	---	Peak
14	8016.00	41.72	-32.28	74.00	53.11	35.80	10.82	58.01	---	Peak
15	9758.00	43.33	-30.67	74.00	52.98	36.66	11.93	58.24	---	Peak
16	12852.00	44.09	-29.91	74.00	49.65	39.20	13.88	58.64	100	0 Peak



Test Mode :	Mode 4	Temperature :	23~24°C
Test Engineer :	Gavin Wu	Relative Humidity :	42~43%
Test Distance :	3m	Polarization :	Vertical
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook)		
Remark :	#10 is system simulator signal which can be ignored.		



Site : 03CH07-HY
Condition : FCC CLASS-B 3m HF-ANT_120823 VERTICAL
Power : 120Vac/60Hz

Mode : Mode 4

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	cm	deg
1 *	37.83	40.44	0.44	40.00	57.01	14.66	0.60	31.83	100	99 Peak
2 !	37.83	38.29	-1.71	40.00	54.86	14.66	0.60	31.83	100	99 QP
3 !	221.97	42.45	-3.55	46.00	61.59	10.65	1.43	31.22	---	---
4 *	227.10	46.41	0.41	46.00	65.18	10.98	1.46	31.21	129	127 Peak
5 !	227.10	42.48	-3.52	46.00	61.25	10.98	1.46	31.21	129	127 QP
6 !	384.00	42.21	-3.79	46.00	55.86	15.58	2.11	31.34	---	---
7	419.00	35.01	-10.99	46.00	47.66	16.40	2.21	31.26	---	---
8	435.10	37.55	-8.45	46.00	49.70	16.75	2.26	31.16	---	---
9	1732.00	45.07	-28.93	74.00	67.05	29.61	4.98	56.57	100	0 Peak
10	1960.00	47.27			67.06	31.47	5.35	56.61	---	---
11	4532.00	43.84	-30.16	74.00	58.14	34.09	9.04	57.43	---	---
12	5150.00	42.31	-31.69	74.00	56.16	34.29	9.41	57.55	---	---
13	7918.00	41.38	-32.62	74.00	52.97	35.75	10.69	58.03	---	---
14	9792.00	43.76	-30.24	74.00	53.37	36.71	11.92	58.24	---	---
15	11418.00	43.03	-30.97	74.00	50.09	38.32	13.16	58.54	---	---

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	Nov. 19, 2012 ~ Dec. 03, 2012	Sep. 02, 2013	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9KHz ~ 30MHz	Dec. 09, 2011	Nov. 19, 2012 ~ Dec. 03, 2012	Dec. 08, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9KHz ~ 30MHz	Dec. 06, 2011	Nov. 19, 2012 ~ Dec. 03, 2012	Dec. 05, 2012	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Nov. 19, 2012 ~ Dec. 03, 2012	N/A	Conduction (CO05-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Oct. 06, 2012	Nov. 17, 2012	Oct. 05, 2013	Radiation (03CH07-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9KHz ~ 30GHz	Dec. 06, 2011	Nov. 17, 2012	Dec. 05, 2012	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 22, 2012	Nov. 17, 2012	Aug. 21, 2013	Radiation (03CH07-HY)
Pre Amplifier	Agilent	8449B	3008A02362	1GHz ~ 26.5GHz	Dec. 05, 2011	Nov. 17, 2012	Dec. 04, 2012	Radiation (03CH07-HY)
Pre Amplifier	MITEQ	AMF-7D-0010 1800-30-10P	159088	1GHz ~ 18GHz	Mar. 10, 2012	Nov. 17, 2012	Mar. 09, 2013	Radiation (03CH07-HY)
Pre Amplifier	COM-POWER	PA-103A	161241	10-1000MHz.32 dB.GAIN	Feb. 27, 2012	Nov. 17, 2012	Feb. 26, 2013	Radiation (03CH07-HY)
EMI Test Receiver	Rohde & Schwarz	ESCI 7	100724	9kHz~7GHz	Sep. 03, 2012	Nov. 17, 2012	Sep. 02, 2013	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	15GHz ~ 40GHz	Sep. 28, 2012	Nov. 17, 2012	Sep. 27, 2013	Radiation (03CH07-HY)
System Simulator	R&S	CMU200	117995	N/A	Jul. 28, 2011	Nov. 17, 2012 ~ Dec. 03, 2012	Jul. 27, 2013	-
GPS Station	T&E	GS-50	N/A	N/A	N/A	Nov. 17, 2012 ~ Dec. 03, 2012	N/A	-

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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Appendix A. Photographs of EUT

Please refer to Sporton report number EP2O3103 as below.