

FCC Test Report

APPLICANT : NEC Corp. of America
EQUIPMENT : GSM / WCDMA Mobile Phone
BRAND NAME : NEC CASIO Mobile Communications, Ltd.
MODEL NAME : KMP7R4H1-1A
FCC ID : A98-FWP7935
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Sep. 05, 2012 and completely tested on Oct. 30, 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



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FCC ID : A98-FWP7935

Page Number : 1 of 24

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REVISION HISTORY

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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 9.50 dB at 1.814 MHz
3.2	15.109	7.2.3.2	Radiated Emission	< 15.109 limits < RSS-Gen table 1 limits	PASS	Under limit 6.61 dB at 479.900 MHz

1. General Description

1.1. Applicant

NEC Corp. of America

Mobile Communications Division, 6535 N. State Highway 161, Irving Texas 75039, United States

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 / WCDMA Mobile Phone
Brand Name	NEC CASIO Mobile Communications, Ltd.
Model Name	KMP7R4H1-1A
Sample 1	EUT with black color
Sample 2	EUT with white color
Sample 3	EUT with brown color
FCC ID	A98-FWP7935
EUT supports Radios application	GSM/GPRS/WCDMA/HSPA WLAN 11bgn / Bluetooth / NFC
HW Version	8007MB-004
SW Version	AN0020220r
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 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 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz NFC : 13.56 MHz
Antenna Type	WWAN : Monopole Antenna WLAN : Chip Antenna Bluetooth : Chip Antenna NFC : Loop antenna
Type of Modulation	GSM: GMSK GPRS: GMSK WCDMA: QPSK (Uplink) HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink) 802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth 4.0 - LE : GFSK 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	03CH06-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.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m
4.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
5.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
6.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
7.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	N/A
8.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
9.	LCD Monitor	Dell	U2410	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
10.	LCD Monitor	Lenovo	6135-AB1	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
11.	Earphone	NTT	Stereo	FCC DoC	N/A	N/A
12.	USB Cable	N/A	N/A	N/A	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 2.5GHz 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:

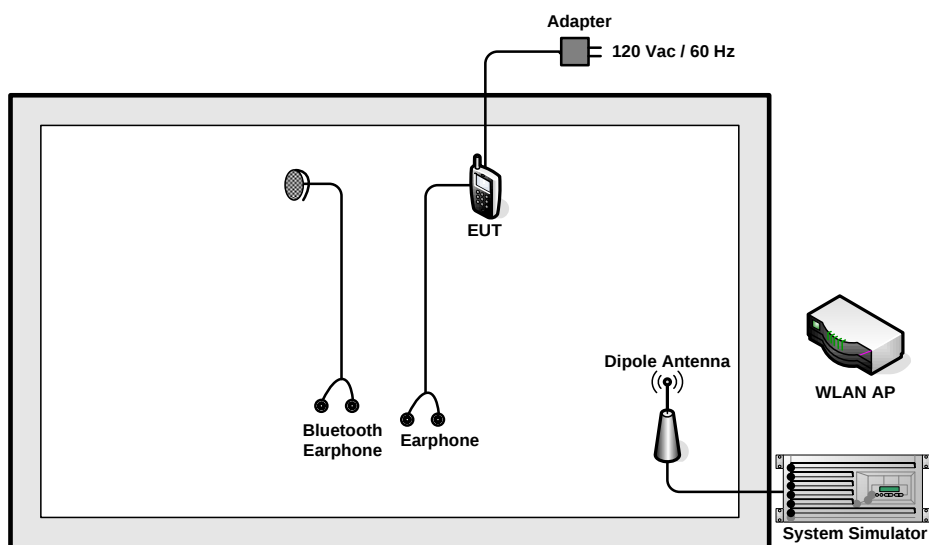
- EMI AC: AC conducted emissions
- EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz
- EMI RE < 1G: EUT radiated emissions < 1GHz

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

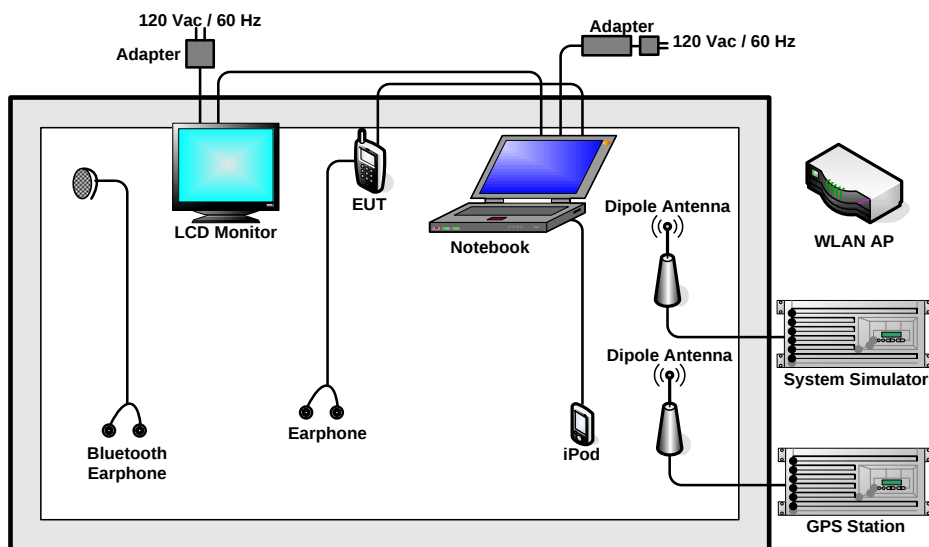
Remark: For signal above 1GHz, the worst case was test item 2.

Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + Charging Cable with Adapter for Sample 1 <Fig. 1> Mode 2: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + MPEG4 + Earphone + Battery + Charging Cable with Adapter for Sample 1 <Fig. 1> Mode 3: GSM850 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 1 <Fig. 2>
Radiated Emissions < 1GHz	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + Camera + Earphone + Battery + Charging Cable with Adapter for Sample 1 <Fig. 1> Mode 2: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + MPEG4 + Earphone + Battery + Charging Cable with Adapter for Sample 1 <Fig. 1> Mode 3: GSM850 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 1 <Fig. 2> Mode 4: GSM850 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 2 <Fig. 2> Mode 5: GSM850 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 3 <Fig. 2>
Radiated Emissions ≥ 1GHz	2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 1 <Fig. 2>
Remark: - The worst case of AC is mode 2; only the test data of this mode was reported. - The USB Link mode of AC is mode 3; the test data of this mode was reported. - The worst case of RE < 1G is mode 3; 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



<Fig. 1>



<Fig. 2>

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. Execute "GPS Test" to make the EUT receive continuous signals from GPS station.
3. Execute "Video Player" to play MPEG4 files.
4. 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.

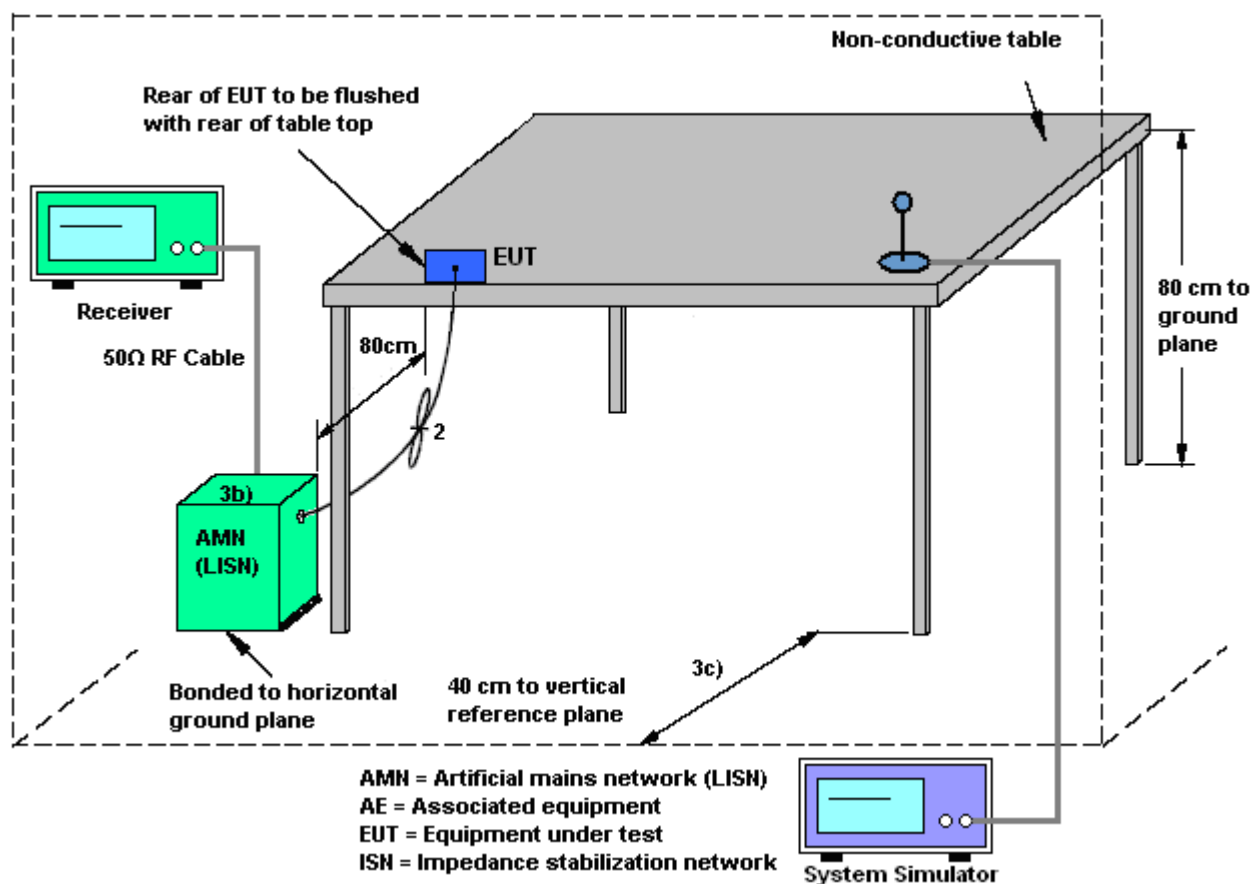
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedure

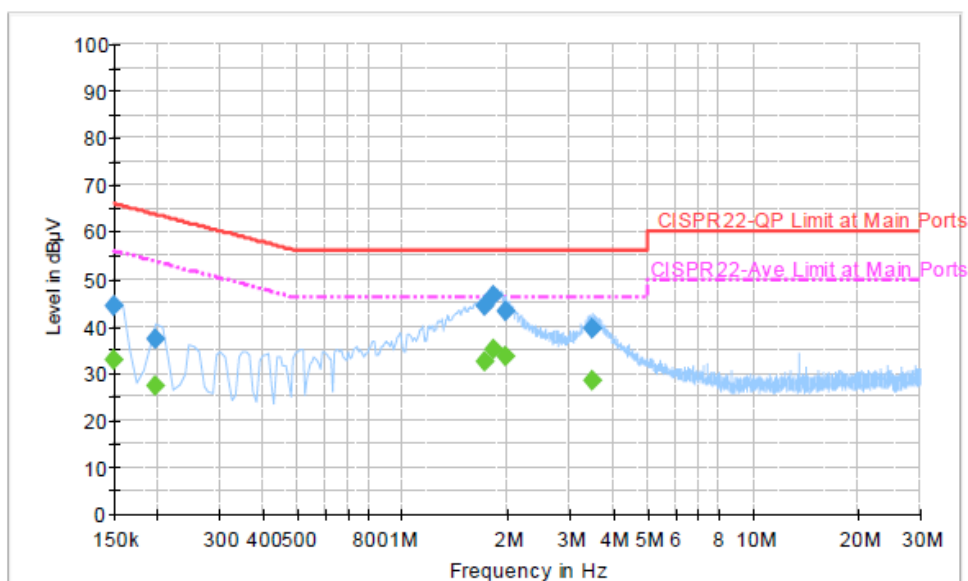
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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 2	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + MPEG4 + Earphone + Battery + Charging Cable with Adapter for Sample 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



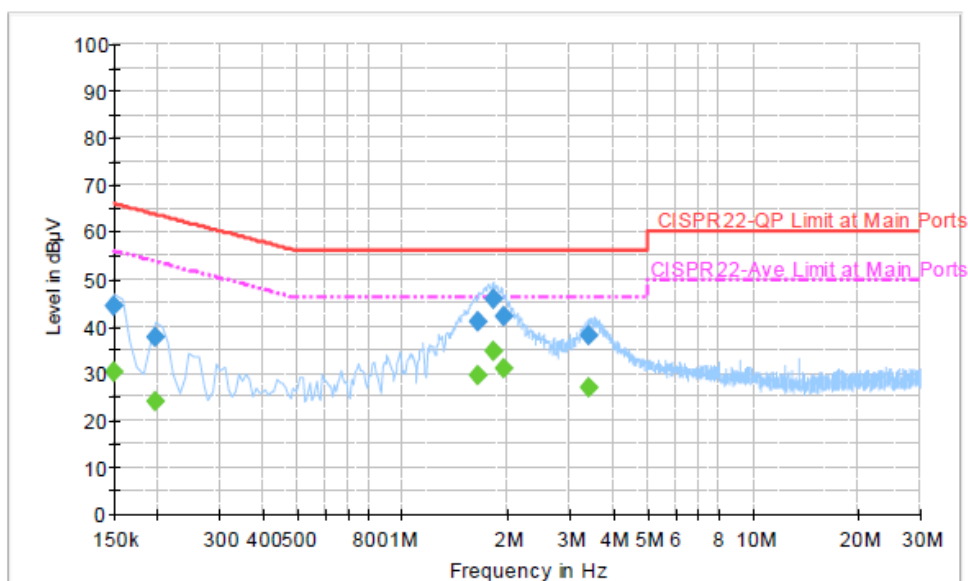
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	44.3	Off	L1	19.4	21.7	66.0
0.198000	37.4	Off	L1	19.3	26.3	63.7
1.710000	44.2	Off	L1	19.5	11.8	56.0
1.814000	46.5	Off	L1	19.5	9.5	56.0
1.966000	43.2	Off	L1	19.5	12.8	56.0
3.470000	39.5	Off	L1	19.6	16.5	56.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	32.9	Off	L1	19.4	23.1	56.0
0.198000	27.5	Off	L1	19.3	26.2	53.7
1.710000	32.4	Off	L1	19.5	13.6	46.0
1.814000	35.1	Off	L1	19.5	10.9	46.0
1.966000	33.5	Off	L1	19.5	12.5	46.0
3.470000	28.5	Off	L1	19.6	17.5	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 :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + MPEG4 + Earphone + Battery + Charging Cable with Adapter for Sample 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

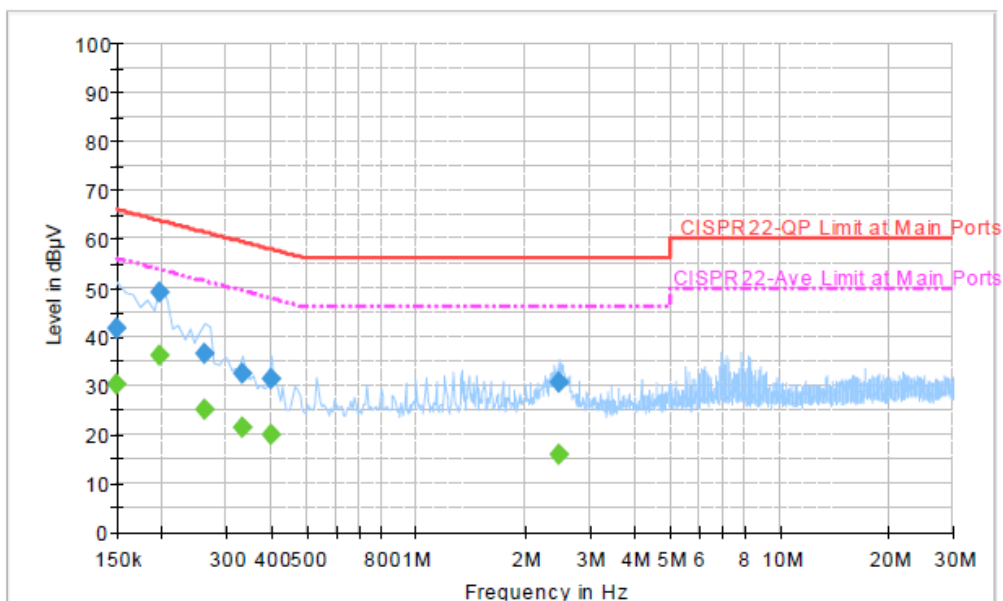

Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	44.4	Off	N	19.4	21.6	66.0
0.198000	37.5	Off	N	19.3	26.2	63.7
1.646000	41.1	Off	N	19.5	14.9	56.0
1.814000	45.9	Off	N	19.5	10.1	56.0
1.958000	42.2	Off	N	19.5	13.8	56.0
3.422000	38.0	Off	N	19.6	18.0	56.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	30.3	Off	N	19.4	25.7	56.0
0.198000	24.0	Off	N	19.3	29.7	53.7
1.646000	29.5	Off	N	19.5	16.5	46.0
1.814000	34.7	Off	N	19.5	11.3	46.0
1.958000	31.0	Off	N	19.5	15.0	46.0
3.422000	26.9	Off	N	19.6	19.1	46.0

Test Mode :	Mode 3	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 + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 1.		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		

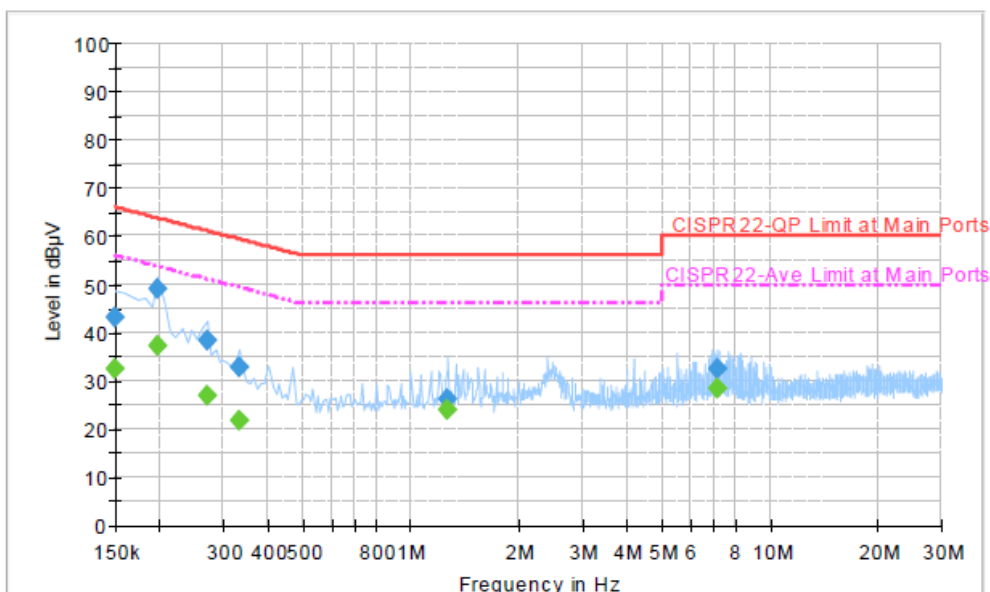

Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	41.7	Off	L1	19.4	24.3	66.0
0.198000	48.9	Off	L1	19.3	14.8	63.7
0.262000	36.7	Off	L1	19.4	24.7	61.4
0.334000	32.6	Off	L1	19.4	26.8	59.4
0.398000	31.3	Off	L1	19.5	26.6	57.9
2.478000	30.5	Off	L1	19.6	25.5	56.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	30.1	Off	L1	19.4	25.9	56.0
0.198000	36.2	Off	L1	19.3	17.5	53.7
0.262000	25.3	Off	L1	19.4	26.1	51.4
0.334000	21.5	Off	L1	19.4	27.9	49.4
0.398000	20.0	Off	L1	19.5	27.9	47.9
2.478000	16.0	Off	L1	19.6	30.0	46.0

Test Mode :	Mode 3	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 + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 1.		
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)
0.150000	43.3	Off	N	19.4	22.7	66.0
0.198000	48.9	Off	N	19.3	14.8	63.7
0.270000	38.3	Off	N	19.4	22.8	61.1
0.334000	32.9	Off	N	19.4	26.5	59.4
1.270000	26.2	Off	N	19.5	29.8	56.0
7.118000	32.4	Off	N	19.6	27.6	60.0

Final Result : Average

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	32.3	Off	N	19.4	23.7	56.0
0.198000	37.3	Off	N	19.3	16.4	53.7
0.270000	26.9	Off	N	19.4	24.2	51.1
0.334000	21.8	Off	N	19.4	27.6	49.4
1.270000	24.0	Off	N	19.5	22.0	46.0
7.118000	28.4	Off	N	19.6	21.6	50.0

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

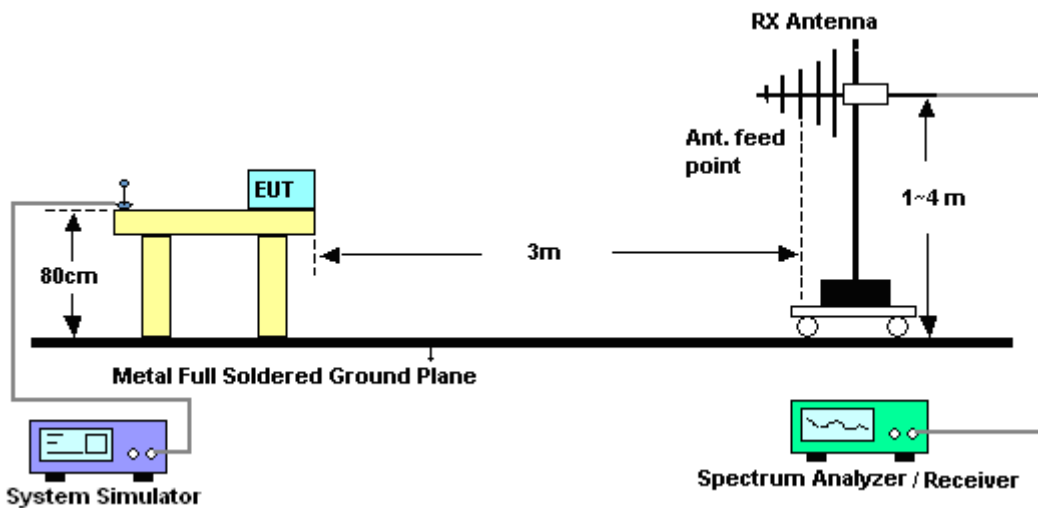
See list of measuring instruments of this test report.

3.2.3. Test Procedures

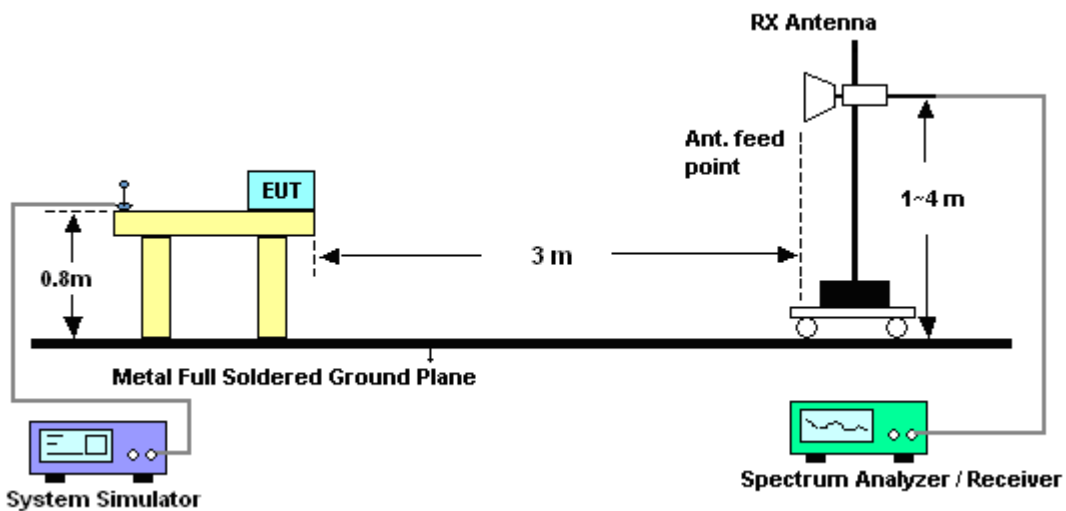
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna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

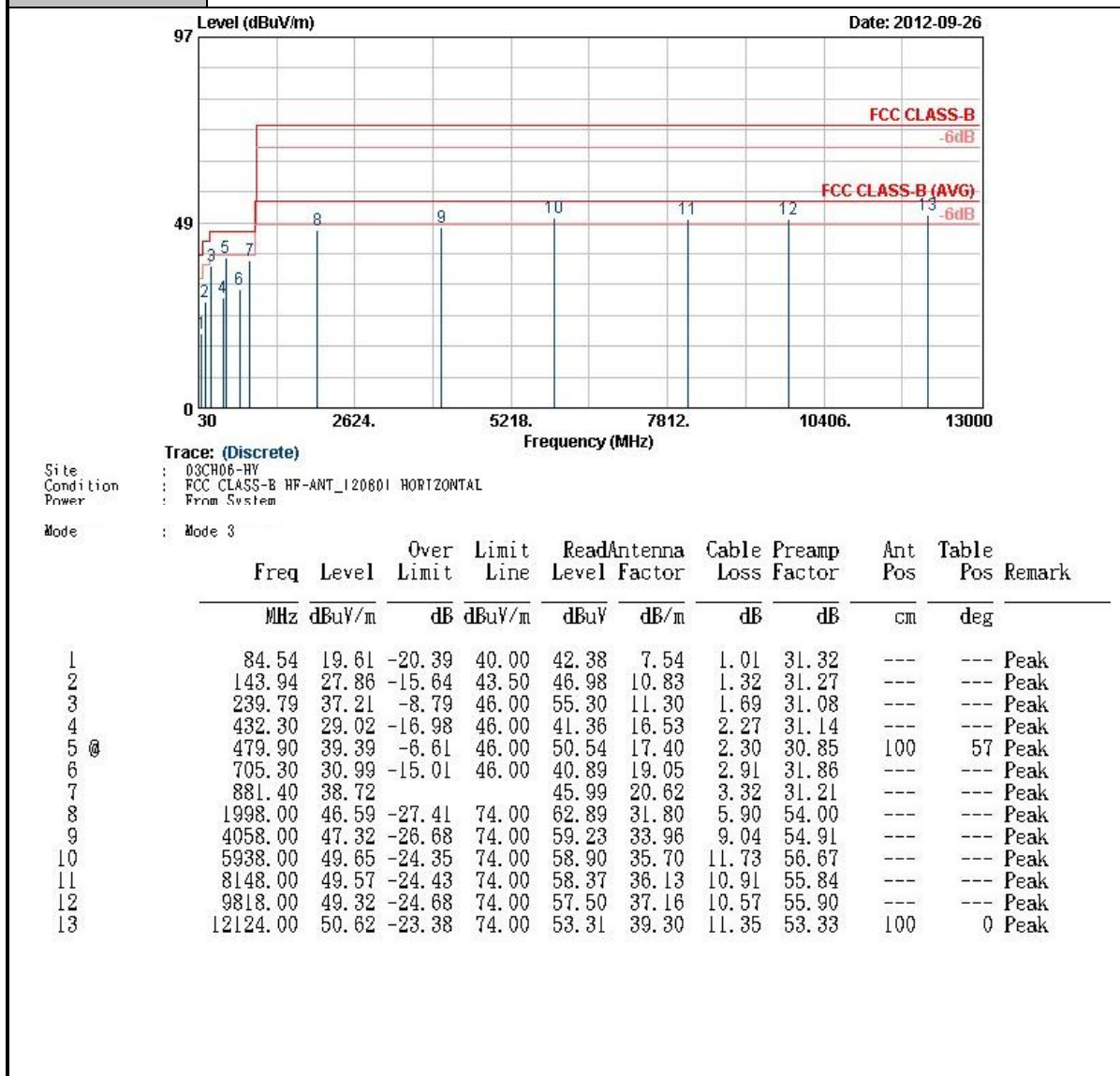


For radiated emissions above 1GHz

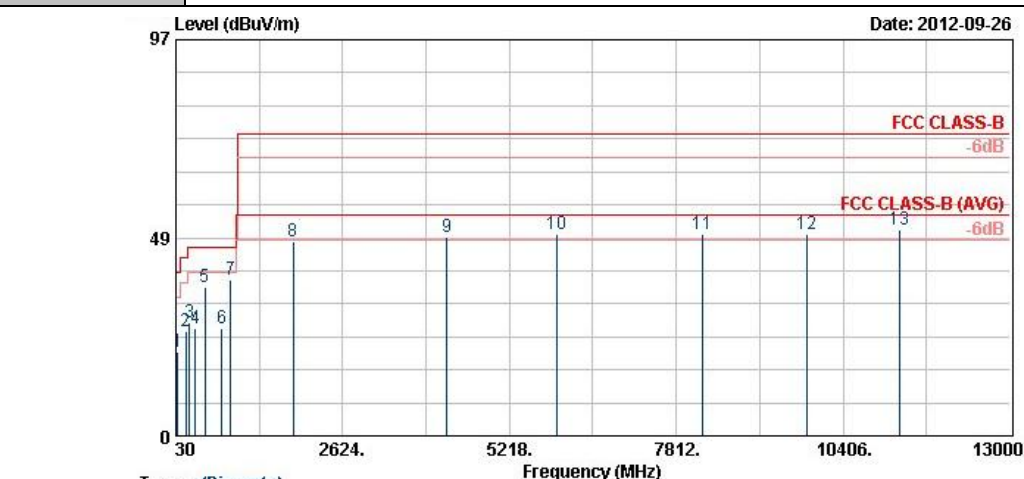


3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 3	Temperature :	23~24°C
Test Engineer :	Hayden Wu	Relative Humidity :	45~46%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 1		
Remark :	#7 is system simulator signal which can be ignored.		



Test Mode :	Mode 3	Temperature :	23~24°C
Test Engineer :	Hayden Wu	Relative Humidity :	45~46%
Test Distance :	3m	Polarization :	Vertical
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + GPS Rx + Earphone + Battery + USB Cable (Data Link with Notebook) for Sample 1		
Remark :	#7 is system simulator signal which can be ignored.		



	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/m	dB	dB	cm	deg
1	53.49	20.67	-19.33	40.00	43.96	7.50	0.82	31.61	---	Peak
2	187.68	25.63	-17.87	43.50	46.48	8.90	1.47	31.22	---	Peak
3	240.33	27.85	-18.15	46.00	45.83	11.40	1.69	31.08	---	Peak
4	336.40	26.22	-19.78	46.00	41.35	13.83	2.00	30.96	---	Peak
5	479.90	36.38	-9.62	46.00	47.53	17.40	2.30	30.85	100	307 Peak
6	747.30	26.43	-19.57	46.00	34.48	19.80	3.04	30.89	---	Peak
7	881.40	38.23			45.49	20.62	3.32	31.19	---	Peak
8	1854.00	47.59	-26.41	74.00	65.40	30.60	5.57	53.97	---	Peak
9	4248.00	48.56	-25.44	74.00	59.64	34.40	9.47	54.95	---	Peak
10	5944.00	49.54	-24.46	74.00	58.77	35.73	11.73	56.68	---	Peak
11	8218.00	49.41	-24.59	74.00	58.33	36.14	10.86	55.92	---	Peak
12	9848.00	49.44	-24.56	74.00	57.58	37.18	10.57	55.89	---	Peak
13	11284.00	50.59	-23.41	74.00	55.59	38.23	10.92	54.15	100	0 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	Sep. 27, 2012 ~ Oct. 29, 2012	Sep. 02, 2013	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9KHz ~ 30MHz	Dec. 09, 2011	Sep. 27, 2012 ~ Oct. 29, 2012	Dec. 08, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9KHz ~ 30MHz	Dec. 06, 2011	Sep. 27, 2012 ~ Oct. 29, 2012	Dec. 05, 2012	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Sep. 27, 2012 ~ Oct. 29, 2012	N/A	Conduction (CO05-HY)
GPS Station	T&E	GS-50	N/A	N/A	N/A	Sep. 27, 2012 ~ Oct. 29, 2012	N/A	Conduction (CO05-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9KHz ~ 26.5GHz	Nov. 23, 2011	Sep. 26, 2012 ~ Oct. 30, 2012	Nov. 22, 2012	Radiation (03CH06-HY)
Spectrum Analyzer	R&S	FSP30	101352	9KHz-30GHz	Nov. 03, 2011	Sep. 26, 2012 ~ Oct. 30, 2012	Nov. 02, 2012	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20MHz ~ 1000MHz	May 04, 2012	Sep. 26, 2012 ~ Oct. 30, 2012	May. 03, 2013	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz ~ 2GHz	Oct. 22, 2011	Sep. 26, 2012 ~ Oct. 06, 2012	Oct. 21, 2012	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz ~ 2GHz	Oct. 06, 2012	Oct. 06, 2012 ~ Oct. 30, 2012	Oct. 05, 2013	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Aug. 01, 2012	Sep. 26, 2012 ~ Oct. 30, 2012	Jul. 31, 2013	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	15GHz ~ 40GHz	Oct. 20, 2011	Sep. 26, 2012 ~ Sep. 28, 2012	Oct. 19, 2012	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	15GHz ~ 40GHz	Sep. 28, 2012	Sep. 28, 2012 ~ Oct. 30, 2012	Sep. 27, 2013	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A01917	1GHz ~ 26.5GHz	Apr. 13, 2012	Sep. 26, 2012 ~ Oct. 30, 2012	Apr. 12, 2013	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9KHz ~ 1GHz	Apr. 11, 2012	Sep. 26, 2012 ~ Oct. 30, 2012	Apr. 10, 2013	Radiation (03CH06-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 21, 2012	Sep. 26, 2012 ~ Oct. 30, 2012	Jul. 20, 2013	Radiation (03CH06-HY)
Pre Amplifier	MITEQ	AMF-7D-0010 1800-30-10P	159087	1GHz~18GHz	Feb. 27, 2012	Sep. 26, 2012 ~ Oct. 30, 2012	Feb. 26, 2013	Radiation (03CH06-HY)
GPS Station	Pendulum	GSG-54	N/A	N/A	N/A	Sep. 26, 2012 ~ Oct. 30, 2012	N/A	Radiation (03CH06-HY)
System Simulator	R&S	CMU200	117995	N/A	Jul. 28, 2011	Sep. 26, 2012 ~ Oct. 30, 2012	Jul. 27, 2013	-

5. Uncertainty of Evaluation

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

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.54
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.72
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Appendix A. Photographs of EUT

Please refer to Sporton report number EP282414-02 as below.