



FCC/IC RF Test Report

APPLICANT : Sony Mobile Communications Inc.
EQUIPMENT : Smart phone
BRAND NAME : SONY
TYPE NAME : PM-0865-BV
FCC ID : PY7-PM0865
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)
IC RSS-132 issue 3 and RSS-133 issue 6
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

This is a partial report which is included the RF Conducted Power and Radiated Test Items. The product was received on Dec. 31, 2014 and testing was completed on Feb. 09, 2015. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-C-2004 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.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG4D3146A	Rev. 01	Initial issue of report	Mar. 31, 2015



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	§2.1046	RSS-132 (5.4) RSS-133 (6.4)	Conducted Output Power	Reporting Only	PASS	-
3.2	§22.913(a)(2)	RSS-132(5.4) SRSP-503(5.1.3)	Effective Radiated Power	< 7 Watts	PASS	-
	§24.232(c)	RSS-133 (6.4) SRSP-510(5.1.2)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
3.3	§2.1053 §22.917(a) §24.238(a)	RSS-132 (5.5) RSS-133 (6.5)	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	Under limit 8.95 dB at 3819.000 MHz

1 General Description

1.1 Applicant

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

1.2 Manufacturer

Arima Communications 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/LTE / Wi-Fi 2.4 802.11b/g/n / 5GHz 802.11a/n, Bluetooth with FM Receiver, GPS, and NFC features, and below is details of information.

Product Feature	
Equipment	Smart phone
Brand Name	SONY
Type Name	PM-0865-BV
FCC ID	PY7-PM0865
GSM Operating Band(s)	GSM 850/900/1800/1900MHz
GPRS / EGPRS Multi Slot Class	GPRS Class 12, EGPRS Class 12
WCDMA Operating Band(s)	FDD Band I / II / IV / V / VIII
WCDMA Rel. Version	Rel. 8
LTE Operating Band(s)	FDD Band II / IV / V / VII / XII / XIII / XVII
LTE Rel. Version	Rel. 8
Wi-Fi Specification	802.11a/b/g/n (HT20/HT40)
Bluetooth Version	v3.0+EDR / v4.0-LE
NFC Specification	ISO14443A / ISO14443B / Felica
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 Product Specification subjective to this standard

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
Rx Frequency	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
Maximum Output Power to Antenna	GSM850 : 32.54 dBm GSM1900 : 29.54 dBm WCDMA Band V : 23.98 dBm WCDMA Band II : 22.49 dBm
Antenna Type / Gain	GSM850: Coupling type (LDS) Antenna / -6.60 dBi GSM1900: Coupling type (LDS) Antenna / -4.60 dBi WCDMA Band V: Coupling type (LDS) Antenna / -6.60 dBi WCDMA Band II: Coupling type (LDS) Antenna / -4.60 dBi
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: QPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink)

EUT Information List				
IMEI	HW Version	SW Version	S/N	Performed Test Item
IMEI1: 004402453913885 IMEI2: 004402453913893	A	27.1.B.1.15	RX4C20D14223	Conducted Measurement Radiated Spurious Emission ERP /EIRP Test

Accessory List	
AC Adapter	Model No. : EP800
	Type No. : AC-0030-US
	S/N : 3113W46622783
Battery	Model No. : Ram
Earphone	Model No. : MH410c
	Type No. : AG-1103
	S/N : 1411204C00BC7D0
USB Cable	Model No. : EC450
	Type No. : AI-0700
	S/N : 143912D8330504A

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.
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 Maximum ERP/EIRP Power

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP (W)
Part 22	GSM850 GPRS class 8	GMSK	0.753
Part 22	GSM850 EDGE class 8	8PSK	0.317
Part 22	WCDMA Band V RMC 12.2Kbps	QPSK	0.063
Part 24	GSM1900 GPRS class 8	GMSK	0.533
Part 24	GSM1900 EDGE class 8	8PSK	0.222
Part 24	WCDMA Band II RMC 12.2Kbps	QPSK	0.134

1.7 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. 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 District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH02-HY	

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Kwei-Shan District, Tao Yuan City, Taiwan (R.O.C.) TEL: +886-3-327-0855	
Test Site No.	Sporton Site No.	IC Registration No.
	03CH11-HY	4086H-2

1.8 Applicable Standards

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

- ♦ 47 CFR Part 2, 22(H), 24(E)
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02
- ♦ IC RSS-132 Issue 3
- ♦ IC RSS-133 Issue 6
- ♦ IC RSS-Gen Issue 4
- ♦ NOTICE 2012-DRS0126

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. Per the section 2.2.3 of Notice of 2012-DRS0126, " Receivers Excluded from Industry Canada Requirements", only radiocommunication receivers operating in stand-alone mode within the band 30-960 MHz and scanner receivers are subject to Industry Canada requirements.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V.
2. 30 MHz to 19000 MHz for GSM1900 and WCDMA Band II.

Test Modes	
Band	Radiated TCs
GSM 850	■ GPRS class 8 Link
	■ EDGE class 8 Link
GSM 1900	■ GPRS class 8 Link
	■ EDGE class 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link

Note: The maximum power levels are chosen to test as the worst case configuration as follows:

GPRS multi-slot class 8 mode for GMSK modulation,

EDGE multi-slot class 8 mode for 8PSK modulation,

RMC 12.2Kbps mode for WCDMA band V.

RMC 12.2Kbps mode for WCDMA band II.

Conducted Power Measurement Results:

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880.0	1909.8
GSM	32.50	32.52	32.53	29.53	29.44	29.41
GPRS class 8	32.50	32.52	32.54	29.54	29.45	29.42
GPRS class 10	30.49	30.46	30.45	26.52	26.42	26.38
GPRS class 11	29.62	29.56	29.58	25.69	25.53	25.53
GPRS class 12	28.49	28.50	28.47	24.65	24.50	24.47
EGPRS class 8	29.39	29.23	29.00	25.87	25.82	25.99
EGPRS class 10	28.43	28.24	28.06	24.92	24.90	25.18
EGPRS class 11	27.31	27.17	26.97	23.89	24.14	24.50
EGPRS class 12	26.27	26.07	25.82	22.70	22.97	23.32

Conducted Power (*Unit: dBm)						
Band	WCDMA Band V			WCDMA Band II		
Channel	4132	4182	4233	9262	9400	9538
Frequency	826.4	836.4	846.6	1852.4	1880	1907.6
RMC 12.2K	23.97	23.98	23.96	22.38	22.49	22.48
HSDPA Subtest-1	23.00	22.99	22.97	21.40	21.45	21.49
HSDPA Subtest-2	22.99	23.00	23.00	21.39	21.43	21.48
HSDPA Subtest-3	22.50	22.49	22.50	20.92	20.94	20.99
HSDPA Subtest-4	22.47	22.50	22.47	20.90	20.92	20.98
HSUPA Subtest-1	21.05	21.06	21.04	19.50	19.52	19.58
HSUPA Subtest-2	20.93	20.96	20.95	19.30	19.49	19.48
HSUPA Subtest-3	21.95	21.96	21.94	20.31	20.44	20.48
HSUPA Subtest-4	20.42	20.43	20.51	18.88	18.95	18.99
HSUPA Subtest-5	22.93	22.96	22.91	21.31	21.37	21.35

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

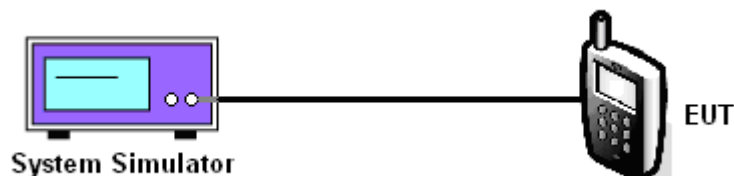
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

3.1.4 Test Setup



3.1.5 Test Result of Conducted Output Power

Cellular Band									
Modes	GSM850 (GPRS class 8)			GSM850 (EDGE class 8)			WCDMA Band V (RMC 12.2Kbps)		
Channel	128 (Low)	189 (Mid)	251 (High)	128 (Low)	189 (Mid)	251 (High)	4132 (Low)	4182 (Mid)	4233 (High)
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8	826.4	836.4	846.6
Conducted Power (dBm)	32.50	32.52	32.54	29.39	29.23	29.00	23.97	23.98	23.96

PCS Band									
Modes	GSM1900 (GPRS class 8)			GSM1900 (EDGE class 8)			WCDMA Band II (RMC 12.2Kbps)		
Channel	512 (Low)	661 (Mid)	810 (High)	512 (Low)	661 (Mid)	810 (High)	9262 (Low)	9400 (Mid)	9538 (High)
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8	1852.4	1880	1907.6
Conducted Power (dBm)	29.54	29.45	29.42	25.87	25.82	25.99	22.38	22.49	22.48

Note: maximum burst average power for GSM, and maximum average power for WCDMA.

3.2 Effective Radiated Power and Effective Isotropic Radiated Power Measurement

3.2.1 Description of the ERP/EIRP Measurement

The substitution method, in ANSI / TIA / EIA-603-C-2004, was used for ERP/EIRP measurement, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. The ERP of mobile transmitters must not exceed 7 Watts (Cellular Band) and the EIRP of mobile transmitters are limited to 2 Watts (PCS Band)

3.2.2 Measuring Instruments

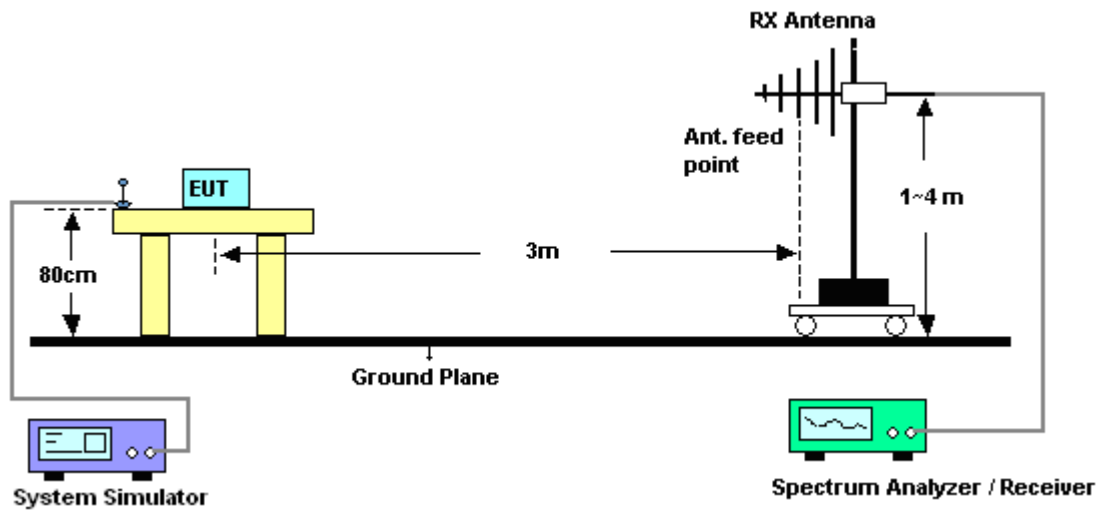
The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.2.1. (for CDMA/WCDMA), Section 5.2.2.2 (for GSM/GPRS/EDGE) and ANSI / TIA-603-C-2004 Section 2.2.17.
2. The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by dipole antenna (substitution antenna) at the same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, $EIRP = LVL + \text{Correction factor}$ and $ERP = EIRP - 2.15$.

	GSM/GPRS/EDGE	WCDMA/HSPA
SPAN	500kHz	10MHz
RBW	10kHz	100kHz
VBW	30kHz	300kHz
Detector	RMS	RMS
Trace	Average	Average
Average Type	Power	Power
Sweep Count	100	100

3.2.4 Test Setup



3.2.5 Test Result of ERP

GSM850 (GPRS class 8) Radiated Power ERP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-0.62	31.54	28.77	0.753
836.4	-1.80	32.04	28.09	0.644
848.8	-3.26	32.59	27.18	0.522
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-13.12	32.93	17.66	0.058
836.4	-13.36	32.82	17.31	0.054
848.8	-14.72	33.62	16.75	0.047

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15

GSM850 (EDGE class 8) Radiated Power ERP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-4.38	31.54	25.01	0.317
836.4	-4.99	32.04	24.90	0.309
848.8	-6.20	32.59	24.24	0.265
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
824.2	-17.47	32.93	13.31	0.021
836.4	-16.76	32.82	13.91	0.025
848.8	-17.93	33.62	13.54	0.023

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15



WCDMA Band V (RMC 12.2Kbps) Radiated Power ERP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.4	-12.42	31.44	16.87	0.049
836.4	-13.12	32.04	16.77	0.048
846.6	-12.48	32.63	18.00	0.063
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)
826.4	-24.28	32.78	6.35	0.004
836.4	-24.63	32.82	6.04	0.004
846.6	-23.76	33.4	7.49	0.006

* ERP = LVL (dBm) + Correction Factor (dB) – 2.15

3.2.6 Test Result of EIRP

GSM1900 (GPRS class 8) Radiated Power EIRP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-18.35	45.34	26.99	0.500
1880.0	-19.24	46.01	26.77	0.475
1909.8	-19.77	45.81	26.04	0.402
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-23.68	49.22	25.54	0.358
1880.0	-23.15	50.42	27.27	0.533
1909.8	-22.57	49.00	26.43	0.440

* EIRP = LVL (dBm) + Correction Factor (dB)

GSM1900 (EDGE class 8) Radiated Power EIRP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-21.89	45.34	23.45	0.221
1880.0	-24.50	46.01	21.51	0.142
1909.8	-23.64	45.81	22.17	0.165
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1850.2	-25.75	49.22	23.47	0.222
1880.0	-27.61	50.42	22.81	0.191
1909.8	-27.35	49.00	21.65	0.146

* EIRP = LVL (dBm) + Correction Factor (dB)



WCDMA Band II (RMC 12.2Kbps) Radiated Power EIRP				
Horizontal Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.4	-24.10	45.37	21.27	0.134
1880.0	-25.81	46.01	20.20	0.105
1907.6	-26.08	45.87	19.79	0.095
Vertical Polarization				
Frequency (MHz)	LVL (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)
1852.4	-29.24	49.23	19.99	0.100
1880.0	-31.40	50.42	19.02	0.080
1907.6	-30.85	49.04	18.19	0.066

* EIRP = LVL (dBm) + Correction Factor (dB)

3.3 Field Strength of Spurious Radiation Measurement

3.3.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.3.2 Measuring Instruments

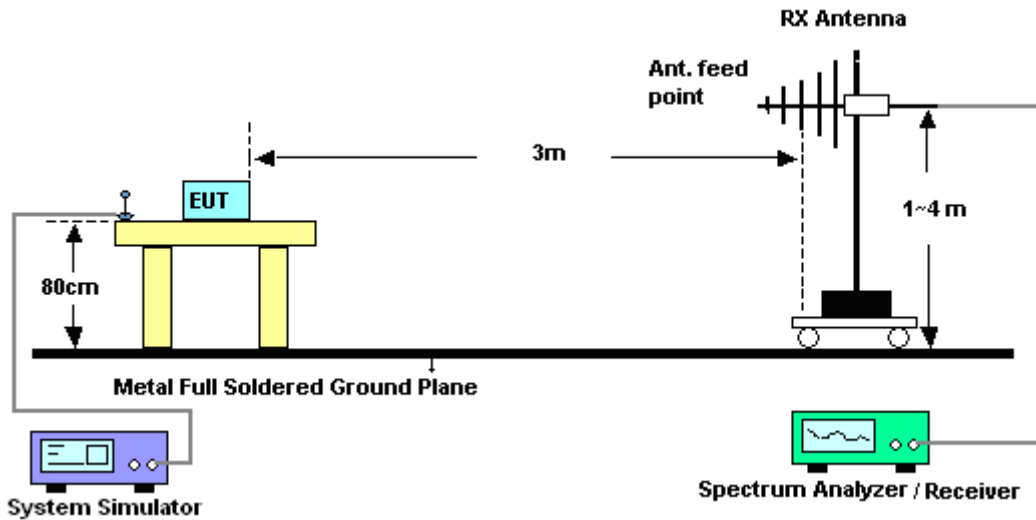
The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

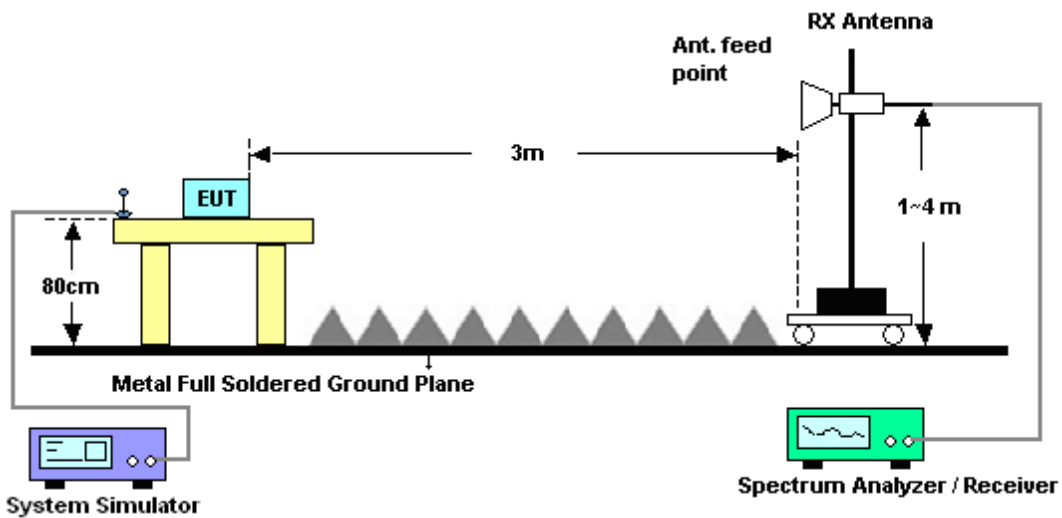
1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-C-2004 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
12. $ERP \text{ (dBm)} = EIRP - 2.15$
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$

3.3.4 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.3.5 Test Result of Field Strength of Spurious Radiated

<Low Channel>

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-45.76	-13	-32.76	-49.95	-47.52	0.98	4.89	H	Pass
2472	-51.00	-13	-38.00	-59.56	-52.88	1.28	5.32	H	Pass
3296	-53.91	-13	-40.91	-66.04	-57.32	1.54	7.10	H	Pass
4120	-54.99	-13	-41.99	-62.31	-59.63	1.83	8.62	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-50.71	-13	-37.71	-54.11	-52.47	0.98	4.89	V	Pass
2472	-51.47	-13	-38.47	-61.81	-53.35	1.28	5.32	V	Pass
3296	-59.36	-13	-46.36	-70.14	-62.77	1.54	7.10	V	Pass
4120	-52.85	-13	-39.85	-68.01	-57.49	1.83	8.62	V	Pass

**<Middle Channel>**

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-47.68	-13	-34.68	-51.94	-49.36	0.99	4.82	H	Pass
2512	-48.01	-13	-35.01	-57.33	-49.98	1.29	5.41	H	Pass
3344	-55.02	-13	-42.02	-67.05	-58.63	1.56	7.31	H	Pass
4184	-47.87	-13	-34.87	-63.21	-52.49	1.87	8.64	H	Pass
5016	-52.43	-13	-39.43	-70.47	-57.63	2.35	9.70	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-50.95	-13	-37.95	-53.15	-52.63	0.99	4.82	V	Pass
2512	-47.35	-13	-34.35	-57.32	-49.32	1.29	5.41	V	Pass
3344	-61.97	-13	-48.97	-72.94	-65.58	1.56	7.31	V	Pass
4184	-52.34	-13	-39.34	-67.79	-56.96	1.87	8.64	V	Pass
5016	-57.14	-13	-44.14	-74.11	-62.34	2.35	9.70	V	Pass

**<High Channel>**

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1696	-47.45	-13	-34.45	-51.64	-49.05	1.00	4.75	H	Pass
2544	-44.34	-13	-31.34	-53.85	-46.32	1.30	5.44	H	Pass
3392	-55.41	-13	-42.41	-67.38	-59.21	1.57	7.52	H	Pass
4248	-47.74	-13	-34.74	-63.01	-52.34	1.90	8.65	H	Pass

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
1696	-49.67	-13	-36.67	-53.57	-51.27	1.00	4.75	V	Pass
2544	-50.43	-13	-37.43	-60.83	-52.41	1.30	5.44	V	Pass
3392	-60.62	-13	-47.62	-72.21	-64.42	1.57	7.52	V	Pass
4248	-53.43	-13	-40.43	-68.74	-58.03	1.90	8.65	V	Pass

**<Low Channel>**

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-55.53	-13	-42.53	-60.14	-57.29	0.98	4.89	H	Pass
2472	-55.15	-13	-42.15	-64.43	-57.03	1.28	5.32	H	Pass
3296	-63.08	-13	-50.08	-75.18	-66.49	1.54	7.10	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	EDGE class 8 Link (8PSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1648	-58.33	-13	-45.33	-61.35	-60.09	0.98	4.89	V	Pass
2472	-60.73	-13	-47.73	-71.04	-62.61	1.28	5.32	V	Pass
3296	-62.48	-13	-49.48	-73.5	-65.89	1.54	7.10	V	Pass

**<Middle Channel>**

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-56.30	-13	-43.30	-60.57	-57.98	0.99	4.82	H	Pass
2509	-56.73	-13	-43.73	-66.09	-58.69	1.29	5.41	H	Pass
3345	-62.68	-13	-49.68	-74.81	-66.29	1.56	7.32	H	Pass

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)	(dB)	(dBi)		
1672	-57.01	-13	-44.01	-59.7	-58.69	0.99	4.82	V	Pass
2509	-60.67	-13	-47.67	-70.65	-62.63	1.29	5.41	V	Pass
3345	-61.88	-13	-48.88	-73.16	-65.49	1.56	7.32	V	Pass

**<High Channel>**

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1697	-57.31	-13	-44.31	-61.36	-58.91	1.00	4.75	H	Pass
2546	-51.23	-13	-38.23	-60.75	-53.21	1.31	5.44	H	Pass
3395	-62.67	-13	-49.67	-74.99	-66.49	1.57	7.54	H	Pass

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
(dB)			(dB)	(dBm)	(dBm)	(dB)	(dBi)		
1697	-60.29	-13	-47.29	-63.66	-61.89	1.00	4.75	V	Pass
2546	-57.96	-13	-44.96	-67.28	-62.09	1.31	5.44	V	Pass
3395	-61.41	-13	-48.41	-73.03	-67.38	1.57	7.54	V	Pass

**<Low Channel>**

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-37.01	-13	-24.01	-50.19	-43.58	1.67	8.24	H	Pass
5548	-45.24	-13	-32.24	-64.37	-52.31	2.65	9.72	H	Pass
7403	-42.71	-13	-29.71	-67.36	-51.86	2.46	11.61	H	Pass
9251	-47.03	-13	-34.03	-74.92	-57.09	2.54	12.60	H	Pass

Band :	GSM1900				Temperature :	23~24°C			
Test Mode :	GPRS class 8 Link (GMSK)				Relative Humidity :	46~48%			
Test Engineer :	James Chiu and Derreck Chen				Polarization :	Vertical			
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3700	-56.95	-13	-43.95	-40.77	-63.52	1.67	8.24	V	Pass
5548	-42.60	-13	-29.60	-60.34	-49.67	2.65	9.72	V	Pass
7403	-42.94	-13	-29.94	-66.27	-52.09	2.46	11.61	V	Pass
9251	-50.07	-13	-37.07	-75.99	-60.13	2.54	12.60	V	Pass



<Middle Channel>

Band :	GSM1900					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3763	-32.06	-13	-19.06	-46.48	-38.69	1.69	8.32	H	Pass
5639	-41.14	-13	-28.14	-60.17	-48.19	2.71	9.76	H	Pass
7522	-39.98	-13	-26.98	-64.84	-49.37	2.42	11.81	H	Pass
9398	-44.40	-13	-31.40	-73.27	-54.37	2.57	12.54	H	Pass

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3763	-53.64	-13	-40.64	-37.52	-60.27	1.69	8.32	V	Pass
5639	-39.34	-13	-26.34	-57.12	-46.39	2.71	9.76	V	Pass
7522	-43.05	-13	-30.05	-66.68	-52.44	2.42	11.81	V	Pass
9398	-49.89	-13	-36.89	-74.94	-59.86	2.57	12.54	V	Pass

**<High Channel>**

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3819	-32.56	-13	-19.56	-47.06	-39.24	1.70	8.38	H	Pass
5730	-40.00	-13	-27.00	-59.53	-47.03	2.76	9.79	H	Pass
7641	-42.82	-13	-29.82	-66.73	-52.32	2.38	11.88	H	Pass
9552	-43.99	-13	-30.99	-72.94	-53.86	2.60	12.47	H	Pass

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
3819	-21.95	-13	-8.95	-35.79	-28.63	1.70	8.38	V	Pass
5730	-37.49	-13	-24.49	-55.44	-44.52	2.76	9.79	V	Pass
7641	-44.82	-13	-31.82	-68.36	-54.32	2.38	11.88	V	Pass
9552	-49.80	-13	-36.80	-75.5	-59.67	2.60	12.47	V	Pass

**<Low Channel>**

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)	(dB)	(dBi)		
3700	-45.82	-13	-32.82	-59.95	-52.39	1.67	8.24	H	Pass
5548	-54.51	-13	-41.51	-73.73	-61.58	2.65	9.72	H	Pass
7403	-52.33	-13	-39.33	-76.89	-61.48	2.46	11.61	H	Pass

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	loss	Gain	(H/V)	
3700	-36.52	-13	-23.52	-50.56	-43.09	1.67	8.24	V	Pass
5548	-54.24	-13	-41.24	-71.99	-61.31	2.65	9.72	V	Pass
7403	-52.97	-13	-39.97	-76.66	-62.12	2.46	11.61	V	Pass

**<Middle Channel>**

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3763	-42.64	-13	-29.64	-56.97	-49.27	1.69	8.32	H	Pass
5639	-51.38	-13	-38.38	-70.46	-58.43	2.71	9.76	H	Pass
7522	-51.03	-13	-38.03	-75.72	-60.42	2.42	11.81	H	Pass

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
(dB)	(dB)	(dB)	(dB)	(dBm)	(dBm)	(dB)	(dBi)		
3763	-32.06	-13	-19.06	-46.01	-38.69	1.69	8.32	V	Pass
5639	-54.03	-13	-41.03	-71.57	-61.08	2.71	9.76	V	Pass
7522	-52.43	-13	-39.43	-75.87	-61.82	2.42	11.81	V	Pass

**<High Channel>**

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3819	-38.35	-13	-25.35	-52.85	-45.03	1.70	8.38	H	Pass
5730	-53.60	-13	-40.60	-72.77	-60.63	2.76	9.79	H	Pass
7641	-50.91	-13	-37.91	-75.31	-60.41	2.38	11.88	H	Pass

Band :	GSM1900	Temperature :	23~24°C						
Test Mode :	EDGE class 8 Link (8PSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3819	-29.41	-13	-16.41	-43.19	-36.09	1.70	8.38	V	Pass
5730	-49.26	-13	-36.26	-67.37	-56.29	2.76	9.79	V	Pass
7641	-51.97	-13	-38.97	-75.5	-61.47	2.38	11.88	V	Pass

**<Low Channel>**

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1649	-57.57	-13	-44.57	-61.83	-59.32	0.98	4.88	H	Pass
2474	-63.07	-13	-50.07	-72.1	-64.96	1.28	5.32	H	Pass
3298	-62.93	-13	-49.93	-74.88	-66.35	1.54	7.11	H	Pass

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1649	-61.54	-13	-48.54	-64.38	-63.29	0.98	4.88	V	Pass
2474	-64.50	-13	-51.50	-74.67	-66.39	1.28	5.32	V	Pass
3298	-64.56	-13	-51.56	-75.46	-67.98	1.54	7.11	V	Pass

**<Middle Channel>**

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Horizontal		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-58.64	-13	-45.64	-63.16	-60.32	0.99	4.82	H	Pass
2512	-60.89	-13	-47.89	-70.48	-62.86	1.29	5.41	H	Pass
3344	-59.97	-13	-46.97	-71.72	-63.58	1.56	7.31	H	Pass

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
1672	-62.91	-13	-49.91	-65.59	-64.59	0.99	4.82	V	Pass
2512	-62.86	-13	-49.86	-73.04	-64.83	1.29	5.41	V	Pass
3344	-64.28	-13	-51.28	-75.22	-67.89	1.56	7.31	V	Pass

**<High Channel>**

Band :	WCDMA Band V				Temperature :	23~24°C			
Test Mode :	RMC 12.2Kbps Link (QPSK)				Relative Humidity :	46~48%			
Test Engineer :	James Chiu and Derreck Chen				Polarization :	Horizontal			
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
1688	-61.00	-13	-48.00	-65.11	-62.63	1.00	4.77	H	Pass
2544	-62.76	-13	-49.76	-72.43	-64.74	1.30	5.44	H	Pass
3384	-61.52	-13	-48.52	-73.74	-65.29	1.57	7.49	H	Pass

Band :	WCDMA Band V					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	ERP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
1688	-62.66	-13	-49.66	-65.12	-64.29	1.00	4.77	V	Pass
2544	-63.84	-13	-50.84	-73.79	-65.82	1.30	5.44	V	Pass
3384	-63.82	-13	-50.82	-75.56	-67.59	1.57	7.49	V	Pass

**<Low Channel>**

Band :	WCDMA Band II				Temperature :	23~24°C			
Test Mode :	RMC 12.2Kbps Link (QPSK)				Relative Humidity :	46~48%			
Test Engineer :	James Chiu and Derreck Chen				Polarization :	Horizontal			
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit (dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3707	-53.38	-13	-40.38	-67.42	-59.96	1.67	8.25	H	Pass
5555	-54.02	-13	-41.02	-73.28	-61.09	2.66	9.72	H	Pass
7409	-52.66	-13	-39.66	-77.33	-61.82	2.46	11.62	H	Pass

Band :	WCDMA Band II					Temperature :	23~24°C		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	James Chiu and Derreck Chen					Polarization :	Vertical		
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over Limit	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	(dB)	Reading (dBm)	Power (dBm)	loss (dB)	Gain (dBi)	(H/V)	
3707	-54.89	-13	-41.89	-59.21	-61.47	1.67	8.25	V	Pass
5555	-46.02	-13	-33.02	-63.64	-53.09	2.66	9.72	V	Pass
7409	-52.83	-13	-39.83	-76.17	-61.99	2.46	11.62	V	Pass

**<Middle Channel>**

Band :	WCDMA Band II	Temperature :	23~24°C						
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
3763	-55.68	-13	-42.68	-70.03	-62.31	1.69	8.32	H	Pass
5639	-54.37	-13	-41.37	-74.22	-61.42	2.71	9.76	H	Pass
7520	-53.20	-13	-40.20	-77.47	-62.59	2.42	11.81	H	Pass

Band :	WCDMA Band II	Temperature :	23~24°C						
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain	(H/V)	
(dB)	(dBm)	(dB)	(dBm)	(dBm)	(dBm)	(dB)	(dBi)		
3763	-47.66	-13	-34.66	-61.91	-54.29	1.69	8.32	V	Pass
5639	-48.53	-13	-35.53	-66.26	-55.58	2.71	9.76	V	Pass
7520	-53.92	-13	-40.92	-77.34	-63.31	2.42	11.81	V	Pass

**<High Channel>**

Band :	WCDMA Band II	Temperature :	23~24°C						
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Horizontal						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
			Limit	Reading	Power	loss	Gain		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
3819	-59.95	-13	-46.95	-74.55	-66.63	1.70	8.38	H	Pass
5723	-56.55	-13	-43.55	-75.87	-63.59	2.75	9.79	H	Pass
7630	-52.98	-13	-39.98	-77.47	-62.47	2.39	11.88	H	Pass

Band :	WCDMA Band II	Temperature :	23~24°C						
Test Mode :	RMC 12.2Kbps Link (QPSK)	Relative Humidity :	46~48%						
Test Engineer :	James Chiu and Derreck Chen	Polarization :	Vertical						
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.								
Frequency	EIRP	Limit	Over	SPA	S.G.	TX Cable	TX Antenna	Polarization	Result
(MHz)	(dBm)	(dBm)	Limit	Reading	Power	loss	Gain		
		(dB)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
3819	-50.31	-13	-37.31	-64.01	-56.99	1.70	8.38	V	Pass
5723	-48.59	-13	-35.59	-66.58	-55.63	2.75	9.79	V	Pass
7630	-54.40	-13	-41.40	-77.9	-63.89	2.39	11.88	V	Pass



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
System Simulator	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Jul. 29, 2014	Feb. 05, 2015	Jul. 28, 2015	Conducted (TH02-HY)
Hygrometer	Testo	608-H1	34893241	N/A	May. 06, 2014	Feb. 05, 2015	May. 05, 2015	Conducted (TH02-HY)
RF cable	WOKEN	S05	S05-130708-2 2	N/A	Jan. 21, 2015	Feb. 05, 2015	Jan. 20, 2016	Conducted (TH02-HY)
EMI Test Receiver	Keysight	N9038A	MY54130085	20Hz ~ 26.5GHz	Nov. 05, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 04, 2015	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Sep. 24, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Sep. 23, 2015	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D	35414	30MHz~1GHz	Oct. 24, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Oct. 23, 2015	Radiation (03CH11-HY)
Double Ridged Guide Horn	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 03, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Oct. 02, 2015	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917058	18GHz- 40GHz	Nov. 03, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 02, 2015	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 20, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 19, 2015	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	0.1MHz~1000MHz	Nov. 24, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 23, 2015	Radiation (03CH11-HY)
Preamplifier	MITEQ	JS44-18004 000-33-8P	1840917	18GHz ~ 40GHz	Jun. 09, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Jun. 08, 2015	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	1m-4m	N/A	Jan. 28, 2015 ~ Feb. 09, 2015	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0-360 degree	N/A	Jan. 28, 2015 ~ Feb. 09, 2015	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-450 0-B	N/A	1~4m	N/A	Jan. 28, 2015 ~ Feb. 09, 2015	N/A	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP140325	N/A	Nov. 19, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 18, 2015	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY44614PE	25GHz~40GHz	Nov. 06, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 05, 2015	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY44614PE	30MHz~1GHz	Nov. 06, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 05, 2015	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY44614PE	1GHz~25GHz	Nov. 06, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Nov. 05, 2015	Radiation (03CH11-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Notch Filter	EWT	EWT-14-0039	D1	GSM 850	Oct. 01, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Sep. 30, 2015	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT1850/1910-40/8S	SN21	1900	Oct. 01, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Sep. 30, 2015	Radiation (03CH11-HY)
Filter	Microwave	H3G018G1	SN477215	1.0G High Pass	Oct. 01, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Sep. 30, 2015	Radiation (03CH11-HY)
Filter	Wainwright	WLKS1200-8SS	SN3	1.2G Low Pass	Oct. 01, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Sep. 30, 2015	Radiation (03CH11-HY)
Filter	Microwave	H3G018G1	SN279268	3.0G High Pass	Oct. 01, 2014	Jan. 28, 2015 ~ Feb. 09, 2015	Sep. 30, 2015	Radiation (03CH11-HY)
Test Software	Audix	E3	Version 6.2009-08-24	N/A	N/A	Jan. 24, 2015~ Jan. 26, 2015	N/A	Radiation (03CH07-HY)



5 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.90
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