



FCC RF Test Report

APPLICANT : Sony Mobile Communications Inc.
EQUIPMENT : Smart phone
BRAND NAME : SONY
MODEL NAME : E2124
TYPE NAME : PM-0634-BV
FCC ID : PY7-PM0634
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

This is a partial report which is included the RF Conducted Power and Field Strength of Spurious Radiation Measurement test items. The product was received on Oct. 21, 2014 and testing was completed on Nov. 04, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / 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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Report Version : Rev. 01
Report Template No.: BU5-FG22/24 Version 1.1



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG4O2138	Rev. 01	Initial issue of report	Dec. 24, 2014



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	N/A	PASS	-
3.2	§2.1053 §22.917(a) §24.238(a)	Field Strength of Spurious Radiation	$< 43 + 10\log_{10}(P[\text{Watts}])$	PASS	Under limit 16.92 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, Zhongjheng Rd., Zhonghe Dist., New Taipei City 23586, Taiwan

1.3 Product Feature of Equipment Under Test

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

Product Feature	
Equipment	Smart phone
Brand Name	SONY
Type Name	PM-0634-BV
FCC ID	PY7-PM0634
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 / V
WCDMA Rel. Version	Rel. 7
Wi-Fi Specification	802.11b/g/n (HT20/HT40)
Bluetooth Version	v3.0 + EDR / v4.0 - LE
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 : 32.80 dBm GSM1900 : 29.83 dBm WCDMA Band V : 23.77 dBm WCDMA Band II : 23.97 dBm
Antenna Type / Gain	GSM850: IFA Antenna / -0.50 dBi GSM1900: IFA Antenna / 0.40 dBi WCDMA Band V: IFA Antenna / -0.50 dBi WCDMA Band II: IFA Antenna / 0.40 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
IMEI 1: 004402147873453	A	24.0.B.0.16	FV4A12d57093	RF Conducted Measurement Radiated Spurious Emission
IMEI 1: 004402147873453				
IMEI 2: 004402147873461				

Accessory List	
AC Adapter	Model No. : EP800
	Type No. : AC-0030-US
	S/N : 3113W46622717
Battery	Model No. : Charles
Earphone	Model No. : MH410c
	Type No. : AG-1103
	S/N : 1411204600BC914
USB Cable 1	Model No. : EC 450
	Type No. : AI-0700
	S/N : 1412D1122420A

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 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 Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH02-HY	03CH07-HY



1.7 Applicable Standards

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

- ♦ FCC 47 CFR Part 2, 22(H), 24(E)
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

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.



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.
2. 30 MHz to 19000 MHz for WCDMA Band II.

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

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

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

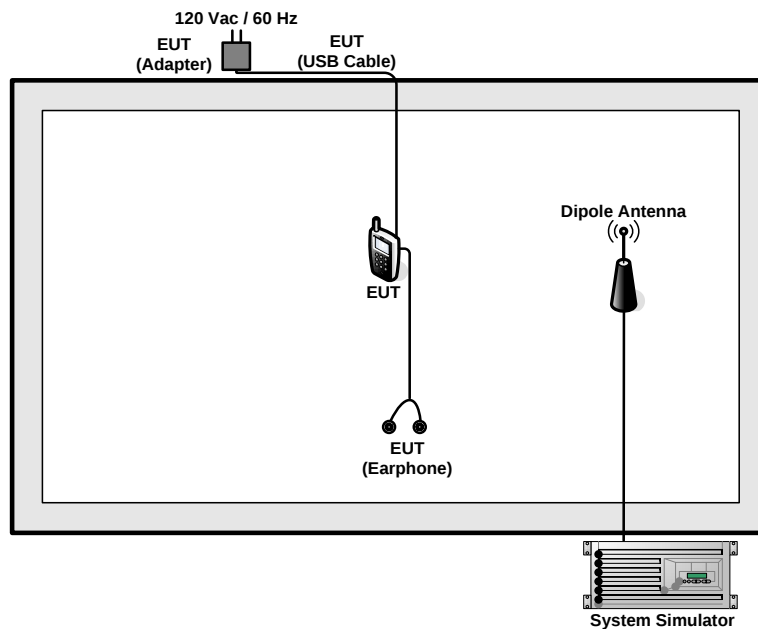
GPRS multi-slot class 8 mode for GMSK modulation and RMC 12.2Kbps mode for WCDMA band II.

**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	32.68	32.71	32.75	29.77	29.78	29.72
GPRS class 8	32.74	32.77	32.80	29.82	29.83	29.76
GPRS class 10	29.31	29.41	29.43	26.26	26.26	26.12
GPRS class 11	27.52	27.53	27.54	24.98	24.97	24.83
GPRS class 12	27.12	27.13	27.14	24.39	24.39	24.23
EGPRS class 8	27.51	27.46	27.36	26.67	26.72	26.51
EGPRS class 10	25.98	25.95	25.87	23.82	23.75	23.49
EGPRS class 11	25.99	25.96	25.86	23.95	23.97	23.90
EGPRS class 12	25.97	25.94	25.83	22.47	22.42	22.22

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	1880.0	1907.6
RMC 12.2K	23.84	23.89	23.80	23.81	23.71	23.71
HSDPA Subtest-1	22.86	22.99	22.81	22.87	22.95	22.88
HSDPA Subtest-2	22.92	22.97	22.85	22.81	22.99	22.87
HSDPA Subtest-3	22.43	22.48	22.40	22.42	22.45	22.41
HSDPA Subtest-4	22.37	22.44	22.31	22.31	22.49	22.49
HSUPA Subtest-1	20.50	20.53	20.52	20.54	20.51	20.56
HSUPA Subtest-2	20.37	20.38	20.36	20.44	20.47	20.45
HSUPA Subtest-3	20.88	20.90	20.77	21.49	21.48	21.46
HSUPA Subtest-4	19.80	19.91	19.78	20.45	20.48	20.47
HSUPA Subtest-5	22.42	22.48	22.41	22.43	22.39	22.41

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m

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.

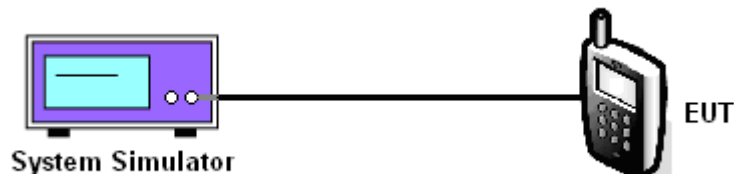
3.1.2 Measuring Instruments

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)	32.74	32.77	32.80	27.51	27.46	27.36	23.84	23.89	23.80

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)	29.82	29.83	29.76	26.67	26.72	26.51	23.81	23.71	23.71

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

3.2 Field Strength of Spurious Radiation Measurement

3.2.1 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.

3.2.2 Measuring Instruments

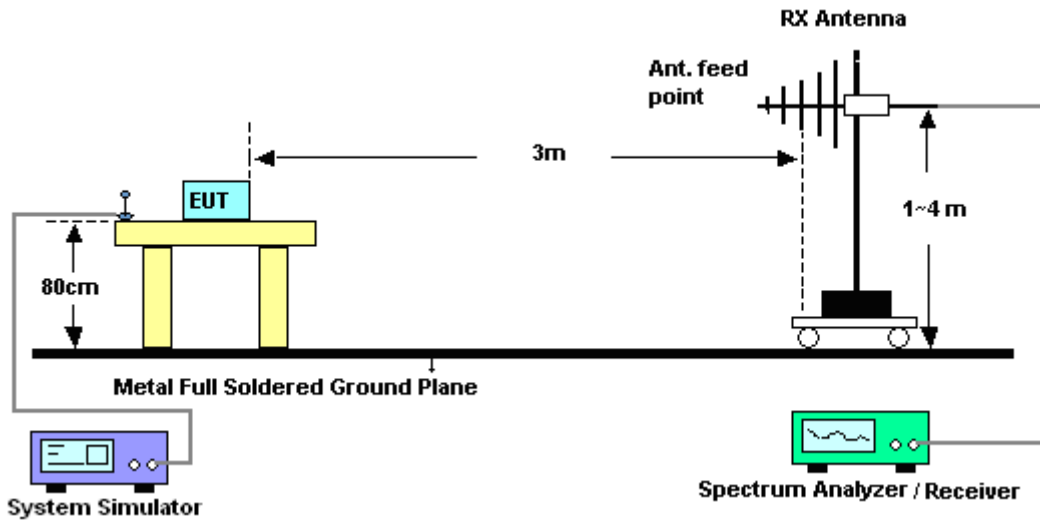
The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

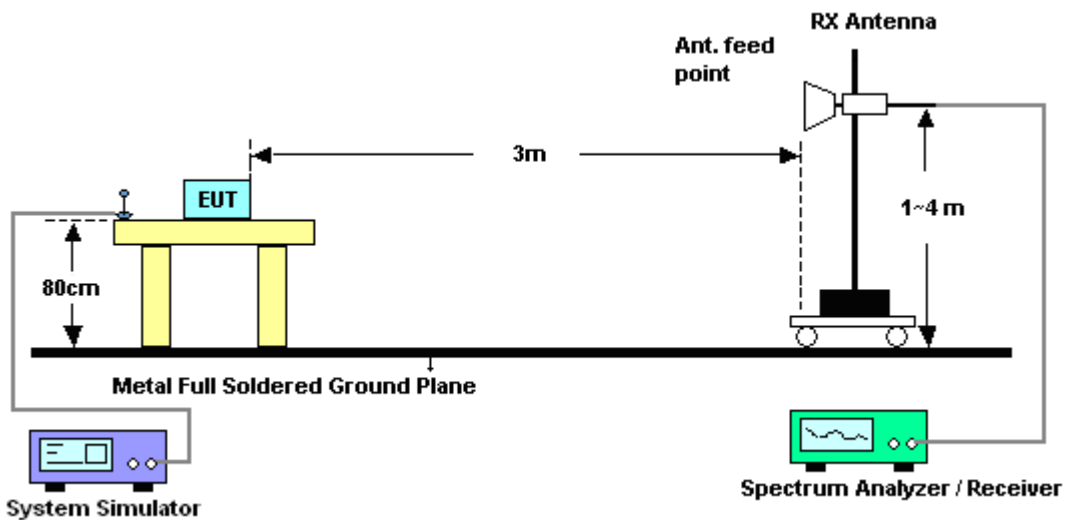
1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-C-2004 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 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)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$

3.2.4 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.2.5 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 :	Ken Wu					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	-43.14	-13	-30.14	-55.12	-44.9	0.98	4.89	H	Pass
2472	-40.52	-13	-27.52	-56.37	-42.4	1.28	5.32	H	Pass
3296	-45.79	-13	-32.79	-62.67	-49.2	1.54	7.10	H	Pass

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	Ken Wu	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		
(MHz)	(dBm)	(dBm)	(dB)	(dBm)	(dBm)	(dB)	(dBi)	(H/V)	
1648	-37.84	-13	-24.84	-51.58	-39.6	0.98	4.89	V	Pass
2472	-42.32	-13	-29.32	-58.65	-44.2	1.28	5.32	V	Pass
3296	-37.69	-13	-24.69	-55.91	-41.1	1.54	7.10	V	Pass



<Middle Channel>

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	Ken Wu	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	-41.22	-13	-28.22	-52.63	-42.9	0.99	4.82	H	Pass
2512	-41.13	-13	-28.13	-57.41	-43.1	1.29	5.41	H	Pass
3344	-44.79	-13	-31.79	-61.57	-48.4	1.56	7.31	H	Pass

Band :	GSM850					Temperature :	23~24°C		
Test Mode :	GPRS class 8 Link (GMSK)					Relative Humidity :	46~48%		
Test Engineer :	Ken Wu					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	-34.82	-13	-21.82	-49	-36.5	0.99	4.82	V	Pass
2512	-42.83	-13	-29.83	-59.42	-44.8	1.29	5.41	V	Pass
3344	-36.39	-13	-23.39	-54.65	-40	1.56	7.31	V	Pass

**<High Channel>**

Band :	GSM850	Temperature :	23~24°C						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	Ken Wu	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	-38.90	-13	-25.90	-50.67	-40.5	1.00	4.75	H	Pass
2544	-42.62	-13	-29.62	-58.6	-44.6	1.30	5.44	H	Pass
3392	-45.00	-13	-32.00	-61.79	-48.8	1.57	7.52	H	Pass

Band :	GSM850	Temperature :	23~24℃						
Test Mode :	GPRS class 8 Link (GMSK)	Relative Humidity :	46~48%						
Test Engineer :	Ken Wu	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)	
1696	-31.30	-13	-18.30	-45.72	-32.9	1.00	4.75	V	Pass
2544	-41.22	-13	-28.22	-58.04	-43.2	1.30	5.44	V	Pass
3393	-35.99	-13	-22.99	-54.27	-39.8	1.57	7.53	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 :	Ken Wu					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)	
3700	-35.93	-13	-22.93	-53.66	-42.5	1.67	8.24	H	Pass
5562	-39.84	-13	-26.84	-63.07	-46.9	2.66	9.72	H	Pass
7410	-37.54	-13	-24.54	-67.6	-46.7	2.46	11.62	H	Pass

Band :	WCDMA Band II					Temperature :	23~24℃		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Ken Wu					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)	
3700	-40.93	-13	-27.93	-59.35	-47.5	1.67	8.24	V	Pass
5562	-39.74	-13	-26.74	-62.71	-46.8	2.66	9.72	V	Pass
7410	-37.14	-13	-24.14	-66.78	-46.3	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 :	Ken Wu					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)	
3756	-35.18	-13	-22.18	-53.15	-41.8	1.68	8.31	H	Pass
5640	-39.55	-13	-26.55	-63.15	-46.6	2.71	9.76	H	Pass
7520	-37.21	-13	-24.21	-67.62	-46.6	2.42	11.81	H	Pass

Band :	WCDMA Band II					Temperature :	23~24℃		
Test Mode :	RMC 12.2Kbps Link (QPSK)					Relative Humidity :	46~48%		
Test Engineer :	Ken Wu					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)	
3756	-40.28	-13	-27.28	-59.71	-46.9	1.68	8.31	V	Pass
5639	-39.05	-13	-26.05	-62.5	-46.1	2.71	9.76	V	Pass
7520	-38.41	-13	-25.41	-67.74	-47.8	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 :	Ken Wu					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)	
3819	-29.92	-13	-16.92	-48.25	-36.6	1.70	8.38	H	Pass
5723	-38.46	-13	-25.46	-62.51	-45.5	2.75	9.79	H	Pass
7630	-38.21	-13	-25.21	-66.96	-47.7	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 :	Ken Wu					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)	
3819	-37.82	-13	-24.82	-57.03	-44.5	1.70	8.38	V	Pass
5723	-36.76	-13	-23.76	-60.29	-43.8	2.75	9.79	V	Pass
7630	-38.61	-13	-25.61	-67.06	-48.1	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	Nov. 12, 2014	Jul. 28, 2015	Conducted (TH02-HY)
Hygrometer	Testo	608-H1	34897199	N/A	May. 06, 2014	Nov. 12, 2014	May. 05, 2015	Conducted (TH02-HY)
RF cable	WOKEN	S05	S05-130708-038	N/A	Jan. 22, 2014	Nov. 12, 2014	Jan. 21, 2015	Conducted (TH02-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV30	101749	10Hz ~ 30GHz	Feb. 10, 2014	Nov. 03, 2014 ~ Nov. 04, 2014	Feb. 09, 2015	Radiation (03CH07-HY)
Bilog Antenna	Schaffner	CBL6111C	2726	30MHz ~ 1GHz	Sep. 27, 2014	Nov. 03, 2014 ~ Nov. 04, 2014	Sep. 26, 2015	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	75962	1GHz~18GHz	Aug. 19, 2014	Nov. 03, 2014 ~ Nov. 04, 2014	Aug. 18, 2015	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Oct. 02, 2014	Nov. 03, 2014 ~ Nov. 04, 2014	Oct. 01, 2015	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10 MHz ~ 1000MHz	Mar. 17, 2014	Nov. 03, 2014 ~ Nov. 04, 2014	Mar. 16, 2015	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1 GHz~26.5 GHz	Nov. 29, 2013	Nov. 03, 2014 ~ Nov. 04, 2014	Nov. 28, 2014	Radiation (03CH07-HY)
Turn Table	ChainTek	ChainTek 3000	N/A	0 ~ 360 degree	N/A	Nov. 03, 2014 ~ Nov. 04, 2014	N/A	Radiation (03CH07-HY)
Antenna Mast	ChainTek	M-400-0	114/8000604/L	N/A	N/A	Nov. 03, 2014 ~ Nov. 04, 2014	N/A	Radiation (03CH07-HY)
Hygrometer	Testo	608-H1	34897197	N/A	May 06, 2014	Nov. 03, 2014 ~ Nov. 04, 2014	May 05, 2015	Radiation (03CH07-HY)
HF RF Cable	HUBER SUHNER	SUCOFLEX 104	38411/6	1GHz ~ 18GHz	Nov. 28, 2013	Nov. 03, 2014 ~ Nov. 04, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
LF RF Cable	Warison+HUBER SUHNER	WCBA-WC04NM.NM2	N/A	30MHz ~ 1GHz	Nov. 28, 2013	Nov. 03, 2014 ~ Nov. 04, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Test Software	Audix	E3	Version 6.2009-08-24	N/A	N/A	Nov. 03, 2014 ~ Nov. 04, 2014	N/A	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCG 824/849/814	SN35	GSM850 / WCDMA 850	Nov. 28, 2013	Nov. 03, 2014 ~ Nov. 04, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCT1850/1910-40/8S	SN21	1900 (L/M/H channel)	Oct. 01, 2014	Nov. 03, 2014 ~ Nov. 04, 2014	Sep. 30, 2015	Radiation (03CH07-HY)
Filter	Microwave Circuits	H1G013G1	SN477215	1GHz HPF	Nov. 28, 2013	Nov. 03, 2014 ~ Nov. 04, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Filter	Wainwright Instruments	WLKS1200-8SS	SN3	1.2GHz LPF	Nov. 28, 2013	Nov. 03, 2014 ~ Nov. 04, 2014	Nov. 27, 2014	Radiation (03CH07-HY)
Filter	Microwave Circuits	H3G018G1	SN477220	3GHz HPF	Nov. 28, 2013	Nov. 03, 2014 ~ Nov. 04, 2014	Nov. 27, 2014	Radiation (03CH07-HY)

Note: Test equipment calibration is traceable to the procedure of ISO17025.



5 Uncertainty of Evaluation

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

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