FCC RADIO TEST REPORT

FCC ID	:	**PY7-50252O**
Equipment	:	**GSM/WCDMA/LTE Phone with BT, DTS/UNII a/b/g/n/ac, GPS and NFC**
Brand Name	:	**Sony**
Applicant	:	**Sony Mobile Communications Inc. 4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan**
Manufacturer	:	**Sony Mobile Communications Inc. 4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan**
Standard	:	**47 CFR Part 2, 22(H), 24(E), 27(L)**

The product was received on Jun. 10, 2019 and testing was started from Jul. 03, 2019 and completed on Aug. 06, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this spot check data report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Jones Tsai

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FG971021-01A	01	Initial issue of report	Aug. 12, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(2)	Effective Radiated Power		
	§24.232 (c)	Equivalent Isotropic Radiated Power		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power		
-	§24.232 (d)	Peak-to-Average Ratio	Not Required	-
-	§2.1049 §22.917 (b) §24.238 (b) §27.53 (g)	Occupied Bandwidth	Not Required	-
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g)	Band Edge Measurement	Not Required	-
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g)	Conducted Emission	Not Required	-
-	§2.1055 §22.355	Frequency Stability Temperature & Voltage	Not Required	-
	§2.1055 §24.235 §27.54			-
4.4	§2.1053 §22.917 (a) §24.238 (a) §27.53 (h)	Field Strength of Spurious Radiation	Pass	Under limit 37.18 dB at 7410.000 MHz

Remark:

1. Not required means after assessing, test items are not necessary to carry out.
2. This is a spot check data report and data performed in appendix of this report are chosen from the worst case of the original FCC ID report. All the test cases were performed on original report which can be referred to Sporton Report Number FG940901-03A.

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Yimin Ho

1 General Description

1.1 Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, DTS/UNII a/b/g/n/ac, NFC, and GNSS.

Standards-related Product Specification	
Antenna Type	Loop Antenna

EUT Information List			
HW Version	SW Version	IMEI	Performed Test Item
A	3.122	004402459556654	Conducted Measurement
		004402459554220	Radiated Spurious Emission ERP/EIRP Test

Accessory List	
AC Adapter	Model Name : UCH32
	S/N: 6218W30200140
Earphone	Model Name.: MH750
	S/N : N/A
USB Cable	Model Name.: UCB24
	S/N : N/A
2 in 1 USB Audio Cable	Model Name.: EC270
	S/N : N/A

Note:

1. Above EUT list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test, and the serial number of each type of accessories is listed in each section of this report. .
3. For other wireless features of this EUT, test report will be issued separately.

1.2 Modification of EUT

No modifications are made to the EUT during all test items.

1.3 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

FCC Rule	Frequency Range (MHz)	System	Type of Modulation	Maximum ERP/EIRP (W)	Frequency Tolerance (ppm)	Emission Designator
Part 22	824.2 ~848.8	GSM850 GPRS class 8	GMSK	0.5272	-	-
Part 22	824.2 ~848.8	GSM850 EDGE class 8	8PSK	0.1445	-	-
Part 22	826.4 ~846.6	WCDMA Band V RMC 12.2Kbps	BPSK	0.0649	-	-
Part 24	1850.2 ~1909.8	GSM1900 GPRS class 8	GMSK	0.2582	-	-
Part 24	1850.2 ~1909.8	GSM1900 EDGE class 8	8PSK	0.2377	-	-
Part 24	1852.4 ~ 1907.6	WCDMA Band II RMC 12.2Kbps	BPSK	0.0385	-	-
Part 27	1712.4 ~ 1752.6	WCDMA Band IV RMC 12.2Kbps	BPSK	0.0466	-	-

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	TH03-HY
Test Engineer	Benjamin Lin
Temperature	21~24 ℃
Relative Humidity	51~55 %

Note: The test site complies with ANSI C63.4 2014 requirement.

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH13-HY
Test Engineer	Ryan Lin, JC Linag, and Wilson Wu
Temperature	21.5~23.5 ℃
Relative Humidity	46.5~49.5 %

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW0007

1.5 Applicable Standards

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

- ANSI C63.26-2015
- ANSI / TIA-603-E
- 47 CFR Part 2, 22(H), 24(E), 27(L)
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

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 v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z, and Accessory. The worst cases (Z plane for Adapter) were recorded in this report.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V
2. 30 MHz to 18000 MHz for WCDMA Band IV.
3. 30 MHz to 19100 MHz for GSM1900 and WCDMA Band II

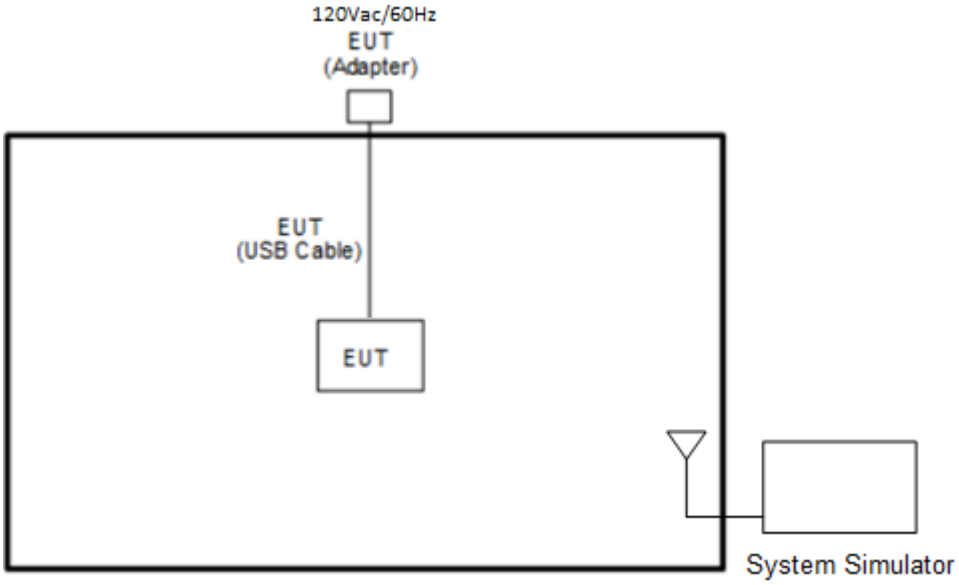
All modes and data rates and positions were investigated.

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

Test Modes	
Band	**Radiated TCs**
GSM 850	■ GPRS Class 8 Link ■ 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
WCDMA Band IV	■ RMC 12.2Kbps Link

2.2 Connection Diagram of Test System

<EUT with Adapter>



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	CMU200	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

Frequency List				
Band	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
GSM850	Channel	128	189	251
	Frequency	824.2	836.4	848.8
WCDMA Band V	Channel	4132	4182	4233
	Frequency	826.4	836.4	846.6
GSM1900	Channel	512	661	810
	Frequency	1850.2	1880.0	1909.8
WCDMA Band II	Channel	9262	9400	9538
	Frequency	1852.4	1880.0	1907.6
WCDMA Band IV	Channel	1312	1413	1513
	Frequency	1712.4	1732.6	1752.6

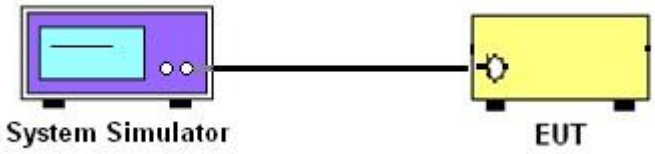
3 Conducted Test Result

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

3.2 Conducted Output Power and ERP/EIRP

3.2.1 Description of the Conducted Output Power and ERP/EIRP

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.

The ERP of mobile transmitters must not exceed 7 Watts for GSM850 and WCDMA Band V.

The EIRP of mobile transmitters must not exceed 2 Watts for GSM1900 and WCDMA Band II.

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.2.2 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.

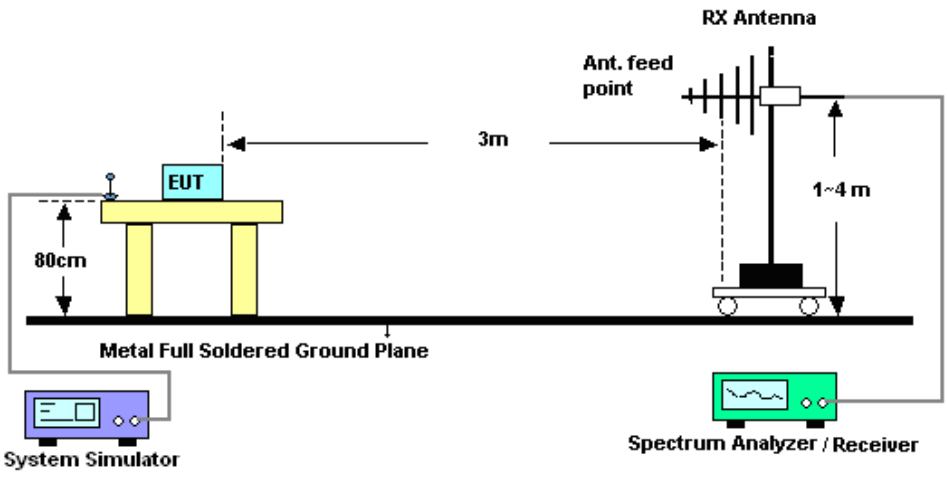
4 Radiated Test Items

4.1 Measuring Instruments

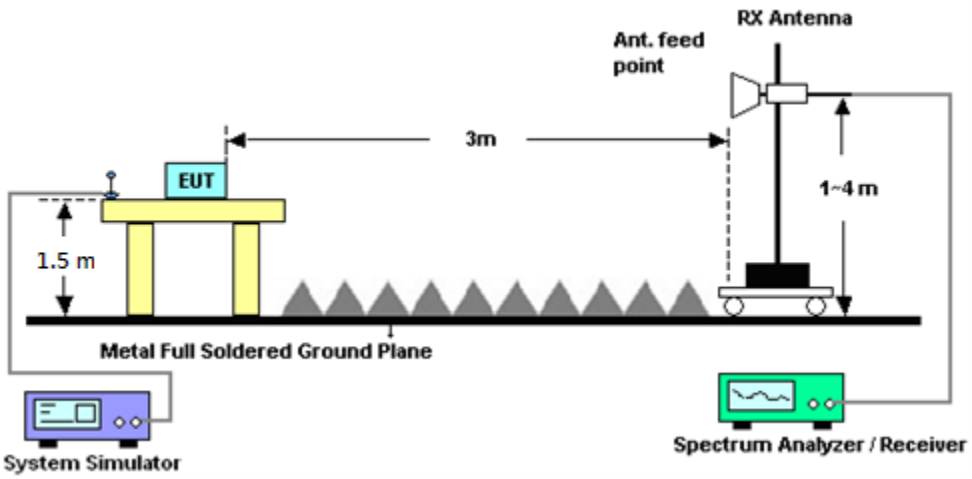
See list of measuring instruments of this test report.

4.2 Test Setup

For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Field Strength of Spurious Radiation Measurement

4.4.1 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.

4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a rotatable wooden table 0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz above the ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. 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.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
13. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 06, 2019	Jul. 03, 2019	Mar. 05, 2020	Conducted (TH03-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	Voltage:0~20V;Current:0~5A	Oct. 08, 2018	Jul. 03, 2019	Oct. 07, 2019	Conducted (TH03-HY)
Base Station (Measure)	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Aug. 10, 2018	Jul. 03, 2019	Aug. 09, 2019	Conducted (TH03-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 22, 2018	Aug. 01, 2019~ Aug. 06, 2019	Nov. 21, 2019	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N1D01N-06	40103&07	30MHz to 1GHz	Apr. 30, 2019	Aug. 01, 2019~ Aug. 06, 2019	Apr. 29, 2020	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz ~ 18GHz	May 14, 2019	Aug. 01, 2019~ Aug. 06, 2019	May 13, 2020	Radiation (03CH13-HY)
Horn Antenna	ESCO	3117	00143261	1GHz ~ 18GHz	Jan. 07, 2019	Aug. 01, 2019~ Aug. 06, 2019	Jan. 06, 2020	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 05, 2018	Aug. 01, 2019~ Aug. 06, 2019	Dec. 04, 2019	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz- 40GHz	Nov. 20, 2018	Aug. 01, 2019~ Aug. 06, 2019	Nov. 19, 2019	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 18, 2018	Aug. 01, 2019~ Aug. 06, 2019	Dec. 17, 2019	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 06, 2018	Aug. 01, 2019~ Aug. 06, 2019	Dec. 05, 2019	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Mar. 15, 2019	Aug. 01, 2019~ Aug. 06, 2019	Mar. 14, 2020	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 19, 2019	Aug. 01, 2019~ Aug. 06, 2019	Mar. 18, 2020	Radiation (03CH13-HY)
Hygrometer	TECPEL	DTM-303A	TP157075	N/A	May 18, 2019	Aug. 01, 2019~ Aug. 06, 2019	May 17, 2020	Radiation (03CH13-HY)
Notch Filter	Wainwright	WTRCT5-824-849-20-70-60SSK	SN1	824-849	Mar. 21, 2019	Aug. 01, 2019~ Aug. 06, 2019	Mar. 20, 2020	Radiation (03CH13-HY)
Notch Filter	Wainwright	WRCT2500/2570-10/40-10SSK	SN1 R	LTE Band 7	Aug. 23, 2018	Aug. 01, 2019~ Aug. 06, 2019	Aug. 22, 2019	Radiation (03CH13-HY)
Filter	Wainwright	WLJ4-1000-1530-6000-40ST	SN3	1.53 GHz Lowpass	Mar. 20, 2019	Aug. 01, 2019~ Aug. 06, 2019	Mar. 19, 2020	Radiation (03CH13-HY)
Filter	Microwave	H1G013G1	SN477215	1.0G High Pass	Nov. 02, 2018	Aug. 01, 2019~ Aug. 06, 2019	Nov. 01, 2019	Radiation (03CH13-HY)
Filter	Microwave	H3G018G1	SN477220	3.0G High Pass	Nov. 02, 2018	Aug. 01, 2019~ Aug. 06, 2019	Nov. 01, 2019	Radiation (03CH13-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SF102/2*11 SK252	MY4278/2	9kHz~40GHz	May 16, 2019	Aug. 01, 2019~ Aug. 06, 2019	May 15, 2020	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M-18G	Feb. 13, 2019	Aug. 01, 2019~ Aug. 06, 2019	Feb. 12, 2020	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30M~40GHz	Mar. 13, 2019	Aug. 01, 2019~ Aug. 06, 2019	Mar. 12, 2020	Radiation (03CH13-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Aug. 01, 2019~ Aug. 06, 2019	N/A	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500 -B	N/A	1m~4m	N/A	Aug. 01, 2019~ Aug. 06, 2019	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Aug. 01, 2019~ Aug. 06, 2019	N/A	Radiation (03CH13-HY)
Signal Generator	Anritsu	MG3694C	163401	0.1Hz~40GHz	Jan. 21, 2019	Aug. 01, 2019~ Aug. 06, 2019	Jan. 20, 2020	Radiation (03CH13-HY)
Software	Audix	E3 6.2009-8-24c	RK-001124	N/A	N/A	Aug. 01, 2019~ Aug. 06, 2019	N/A	Radiation (03CH13-HY)

6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.07

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.48

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.92

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

Conducted Power (*Unit: dBm)						
Band	GSM850			GSM1900		
Channel	128	189	251	512	661	810
Frequency	824.2	836.4	848.8	1850.2	1880	1909.8
GSM	32.50	32.38	32.41	25.65	25.97	26.36
GPRS class 8	32.87	32.41	32.76	25.69	26.31	26.42
GPRS class 10	30.67	30.26	30.48	23.90	24.18	24.33
GPRS class 11	28.47	28.24	28.28	21.51	21.61	21.94
GPRS class 12	27.89	27.13	27.18	20.47	20.61	20.58
EGPRS class 8	27.25	27.20	27.14	25.41	25.97	26.06
EGPRS class 10	25.41	25.19	25.49	23.97	24.05	24.04
EGPRS class 11	23.45	23.29	23.32	22.07	21.94	22.17
EGPRS class 12	22.16	22.11	21.74	20.73	20.74	20.63

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	23.69	23.77	23.76	18.03	18.11	18.15
HSDPA Subtest-1	22.75	22.75	22.81	17.00	17.15	17.08
HSDPA Subtest-2	22.69	22.78	22.68	16.99	17.04	17.07
HSDPA Subtest-3	22.25	22.26	22.15	16.51	16.56	16.64
HSDPA Subtest-4	22.24	22.22	22.25	16.59	16.59	16.59
HSUPA Subtest-1	22.69	22.72	22.68	16.99	17.04	17.12
HSUPA Subtest-2	20.70	20.70	20.73	15.00	15.11	15.06
HSUPA Subtest-3	21.69	21.68	21.67	15.96	16.11	16.08
HSUPA Subtest-4	20.69	20.23	20.70	15.06	15.10	15.10
HSUPA Subtest-5	22.78	22.78	22.65	16.92	17.13	17.18

Conducted Power (*Unit: dBm)			
Band	WCDMA Band IV		
Channel	1312	1413	1513
Frequency	1712.4	1732.6	1752.6
RMC 12.2K	17.82	18.18	17.86
HSDPA Subtest-1	16.84	17.01	16.94
HSDPA Subtest-2	16.88	16.90	16.91
HSDPA Subtest-3	16.39	16.42	16.34
HSDPA Subtest-4	16.28	16.41	16.39
HSUPA Subtest-1	16.85	16.94	16.89
HSUPA Subtest-2	14.87	14.91	14.83
HSUPA Subtest-3	15.76	15.95	15.86
HSUPA Subtest-4	14.86	14.89	14.92
HSUPA Subtest-5	16.88	17.00	16.89

Appendix B. Test Results of ERP/EIRP and Radiated Test

ERP/EIRP

Channel	Mode	Conducted		ERP	
		Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	GSM850	32.87	1.9364	27.22	0.5272
Middle	GPRS class 8	32.41	1.7418	26.76	0.4742
Highest	(GT - LC = -3.5 dB)	32.76	1.8880	27.11	0.5140
Lowest	GSM850	27.25	0.5309	21.60	0.1445
Middle	EDGE class 8	27.20	0.5248	21.55	0.1429
Highest	(GT - LC = -3.5 dB)	27.14	0.5176	21.49	0.1409
Lowest	WCDMA Band V	23.69	0.2339	18.04	0.0637
Middle	RMC 12.2Kbps	23.77	0.2382	18.12	0.0649
Highest	(GT - LC = -3.5 dB)	23.76	0.2377	18.11	0.0647
Limit	ERP < 7W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900	25.69	0.3707	23.39	0.2183
Middle	GPRS class 8	26.31	0.4276	24.01	0.2518
Highest	(GT - LC = -2.3 dB)	26.42	0.4385	24.12	0.2582
Lowest	GSM1900	25.41	0.3475	23.11	0.2046
Middle	EDGE class 8	25.97	0.3954	23.67	0.2328
Highest	(GT - LC = -2.3 dB)	26.06	0.4036	23.76	0.2377
Lowest	WCDMA Band II	18.03	0.0635	15.73	0.0374
Middle	RMC 12.2Kbps	18.11	0.0647	15.81	0.0381
Highest	(GT - LC = -2.3 dB)	18.15	0.0653	15.85	0.0385
Limit	EIRP < 2W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	WCDMA Band IV	17.82	0.0605	16.32	0.0429
Middle	RMC 12.2Kbps	18.18	0.0658	16.68	0.0466
Highest	(GT - LC = -1.5 dB)	17.86	0.0611	16.36	0.0433
Limit	EIRP < 1W	Result		PASS	

Radiated Spurious Emission

GPRS 850

GPRS 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	1696	-54.87	-13	-41.87	-65.67	-60.42	1.24	8.94	H
	2544	-61.31	-13	-48.31	-75.82	-68.25	1.44	10.54	H
	3392	-60.58	-13	-47.58	-76.03	-68.72	1.78	12.08	H
									H
									H
									H
									H
	1696	-55.36	-13	-42.36	-66.07	-60.91	1.24	8.94	V
	2544	-61.13	-13	-48.13	-75.86	-68.07	1.44	10.54	V
	3392	-60.06	-13	-47.06	-76.16	-68.20	1.78	12.08	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EDGE 850

EDGE 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	1696	-61.33	-13	-48.33	-72.13	-66.88	1.24	8.94	H
	2546	-60.49	-13	-47.49	-75	-67.43	1.44	10.54	H
	3392	-60.04	-13	-47.04	-75.49	-68.18	1.78	12.08	H
									H
									H
									H
									H
	1696	-59.00	-13	-46.00	-69.71	-64.55	1.24	8.94	V
	2546	-60.32	-13	-47.32	-75.04	-67.26	1.44	10.54	V
	3392	-59.46	-13	-46.46	-75.56	-67.60	1.78	12.08	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA 850

WCDMA 850									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1656	-64.25	-13	-51.25	-74.98	-69.66	1.23	8.79	H
	2479	-61.19	-13	-48.19	-75.7	-68.09	1.44	10.48	H
	3305	-60.22	-13	-47.22	-76.21	-68.17	1.71	11.82	H
									H
									H
									H
									H
	1656	-64.57	-13	-51.57	-75.17	-69.98	1.23	8.79	V
	2479	-60.47	-13	-47.47	-75.25	-67.37	1.44	10.48	V
	3305	-59.63	-13	-46.63	-76.04	-67.58	1.71	11.82	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

GPRS 1900

GPRS 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-58.66	-13	-45.66	-76.75	-68.97	1.97	12.28	H
	5550	-56.29	-13	-43.29	-48.84	-66.42	2.14	12.27	H
	7400	-50.48	-13	-37.48	-54.53	-58.48	2.18	10.18	H
									H
									H
									H
									H
	3700	-57.90	-13	-44.90	-76.51	-68.21	1.97	12.28	V
	5550	-55.96	-13	-42.96	-77.38	-66.09	2.14	12.27	V
	7400	-50.75	-13	-37.75	-76.31	-58.75	2.18	10.18	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EDGE 1900

EDGE 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-58.34	-13	-45.34	-76.43	-68.65	1.97	12.28	H
	5550	-56.15	-13	-43.15	-76.95	-66.28	2.14	12.27	H
	7400	-50.68	-13	-37.68	-76.28	-58.68	2.18	10.18	H
									H
									H
									H
									H
	3700	-58.41	-13	-45.41	-77.02	-68.72	1.97	12.28	V
	5550	-55.95	-13	-42.95	-77.37	-66.08	2.14	12.27	V
	7400	-50.65	-13	-37.65	-76.22	-58.65	2.18	10.18	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA 1900

WCDMA 1900									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3707	-58.45	-13	-45.45	-76.55	-68.75	1.98	12.28	H
	5557	-56.08	-13	-43.08	-76.87	-66.22	2.14	12.28	H
	7410	-50.18	-13	-37.18	-75.76	-58.17	2.17	10.16	H
									H
									H
									H
									H
	3707	-58.15	-13	-45.15	-76.78	-68.45	1.98	12.28	V
	5557	-55.02	-13	-42.02	-76.43	-65.16	2.14	12.28	V
	7410	-50.53	-13	-37.53	-76.07	-58.52	2.17	10.16	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

WCDMA 1700

WCDMA 1700									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	3505	-59.01	-13	-46.01	-76.23	-69.53	1.87	12.40	H
	5257	-56.93	-13	-43.93	-77.69	-66.83	2.25	12.15	H
	7010	-52.16	-13	-39.16	-76.32	-60.63	2.41	10.88	H
									H
									H
									H
									H
	3505	-58.87	-13	-45.87	-76.54	-69.39	1.87	12.40	V
	5257	-56.41	-13	-43.41	-77.7	-66.31	2.25	12.15	V
	7010	-51.69	-13	-38.69	-76.51	-60.16	2.41	10.88	V
									V
									V
									V
									V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.