



FCC RF Test Report

APPLICANT : Sony Mobile Communications Inc.
EQUIPMENT : GSM/WCDMA/LTE Phone+Bluetooth,
DTS/UNII a/b/g/n/ac and NFC
BRAND NAME : Sony
FCC ID : PY7-78553D
STANDARD : FCC 47 CFR Part 2, 22(H), 24(E)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

This is a variant report which is only valid together with the original test report. The product was received on Jun. 27, 2017 and testing was completed on Oct. 31, 2017. 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-603-E-2016 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.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.

SPORTON INTERNATIONAL INC.

TEL : 886-3-327-3456

FAX : 886-3-328-4978

FCC ID : PY7-78553D

Page Number : 1 of 17

Report Issued Date : Nov. 06, 2017

Report Version : Rev. 01

Report Template No.: BU5-FG22/24/27 Version 2.0



TABLE OF CONTENTS

REVISION HISTORY.....	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Applicant.....	5
1.2 Manufacturer	5
1.3 Product Feature of Equipment Under Test	5
1.4 Modification of EUT	5
1.5 Maximum ERP/EIRP Power.....	6
1.6 Testing Location	7
1.7 Applicable Standards	7
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	8
2.1 Test Mode.....	8
2.2 Connection Diagram of Test System	9
2.3 Support Unit used in test configuration	9
2.4 Frequency List of Low/Middle/High Channels.....	10
3 CONDUCTED TEST RESULT.....	11
3.1 Measuring Instruments.....	11
3.2 Test Setup	11
3.3 Test Result of Conducted Test.....	11
3.4 Conducted Output Power and ERP/EIRP	12
4 RADIATED TEST ITEMS	13
4.1 Measuring Instruments.....	13
4.2 Test Setup	13
4.3 Test Result of Radiated Test.....	13
4.4 Field Strength of Spurious Radiation Measurement	14
5 LIST OF MEASURING EQUIPMENT	15
6 UNCERTAINTY OF EVALUATION	17
APPENDIX A. TEST RESULTS OF CONDUCTED TEST	
APPENDIX B. TEST RESULTS OF ERP/EIRP AND RADIATED TEST	
APPENDIX C. ORIGINAL REPORT	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG762711-01A	Rev. 01	Initial issue of report	Nov. 06, 2017



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(2)	Effective Radiated Power	< 7 Watts		
	§24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts		
4.4	§2.1053 §22.917(a) §24.238(a)	Field Strength of Spurious Radiation	$< 43 + 10 \log_{10}(P[\text{Watts}])$	PASS	Under limit 31.02 dB at 2512.000 MHz

1 General Description

1.1 Applicant

Sony Mobile Communications Inc.

4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan

1.2 Manufacturer

Sony Mobile Communications Inc.

4-12-3 Higashi-Shinagawa, Shinagawa-ku, Tokyo, 140-0002, Japan

1.3 Product Feature of Equipment Under Test

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

Standards-related Product Specification	
Antenna Type	PIFA Antenna

Remark: This is a variant report. All the test cases were performed on original report which can be referred to Sporton Report Number FG762713-01A.

EUT Information List			
HW Version	SW Version	S/N	Performed Test Item
A	2.27	CQ3000017K	Conducted Measurement ERP/EIRP Test Radiated Spurious Emission

Accessory List	
AC Adapter	Model No. : UCH12
	S/N : VB17W34100199
Earphone 1	Model No. : MH410c
	S/N : N/A
USB Cable	Model No. : UCB20
	S/N : N/A

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.

1.4 Modification of EUT

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



1.5 Maximum ERP/EIRP Power

FCC Rule	Frequency Range (MHz)	System	Type of Modulation	Maximum ERP/EIRP (W)
Part 22	824.2 ~848.8	GSM850 GPRS class 8	GMSK	0.7586
Part 22	824.2 ~848.8	GSM850 EDGE class 8	8PSK	0.1614
Part 22	826.4 ~846.6	WCDMA Band V RMC 12.2Kbps	BPSK	0.0966
Part 24	1850.2 ~1909.8	GSM1900 GPRS class 8	GMSK	1.1194
Part 24	1850.2 ~1909.8	GSM1900 EDGE class 8	8PSK	0.3972
Part 24	1852.4 ~ 1907.6	WCDMA Band II RMC 12.2Kbps	BPSK	0.2630

1.6 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and TW0007 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.
	TH03-HY

Test Site	SPORTON INTERNATIONAL INC.
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.
	03CH11-HY

1.7 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-603-E-2016
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03
- ♦ 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 v03 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:

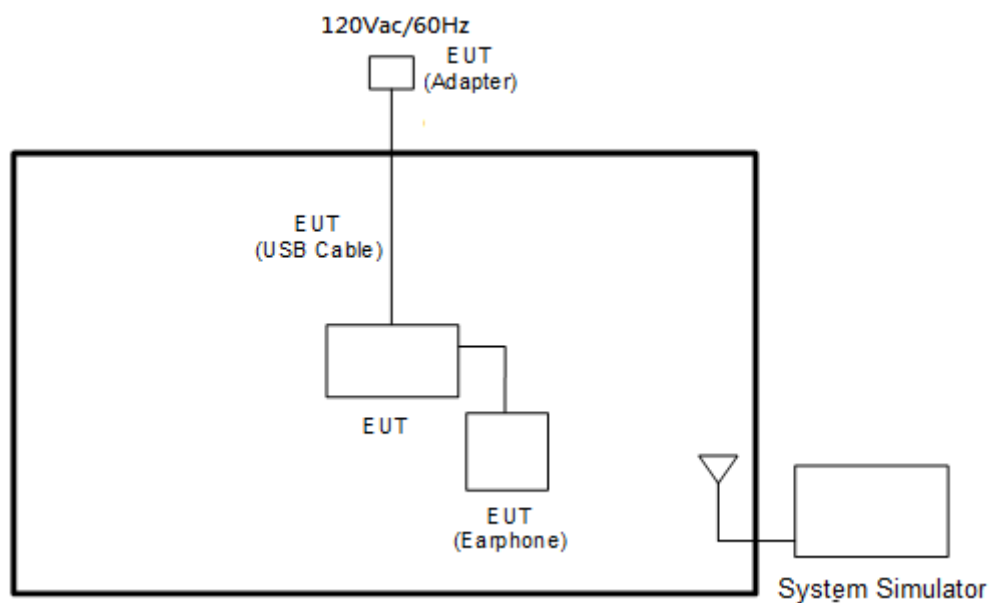
1. 30 MHz to 9000 MHz for GSM850 and WCDMA Band V
2. 30 MHz to 19100 MHz for GSM1900 and WCDMA Band II.

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

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.	Base Station	R&S	CMU 200	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

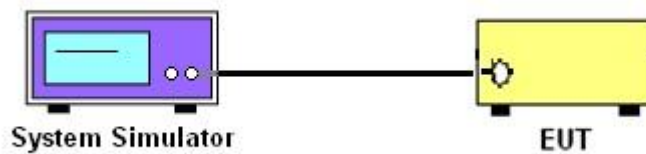
3 Conducted Test Result

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.



3.4 Conducted Output Power and ERP/EIRP

3.4.1 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.

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

3.4.2 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.

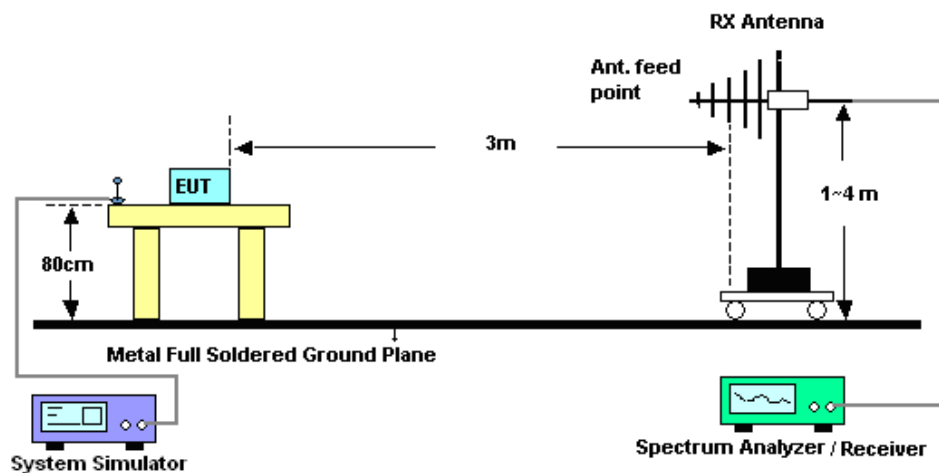
4 Radiated Test Items

4.1 Measuring Instruments

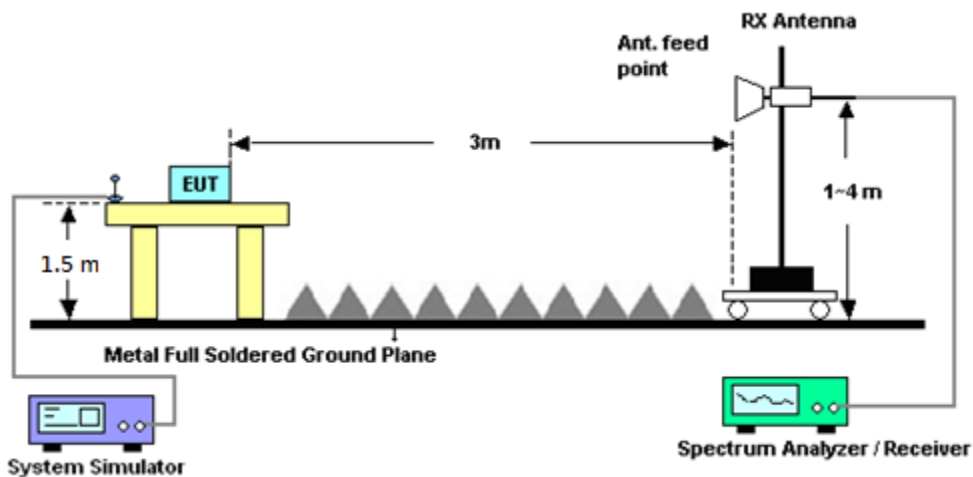
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 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

1. The testing follows FCC KDB 971168 D01 v03 Section 5.8 and ANSI / TIA-603-E-2016 Section 2.2.12.
2. 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.
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)



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. 20, 2017	Oct. 31, 2017	Mar. 19, 2018	Conducted (TH03-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL883644	Voltage:0~20V;Current:0~5A	Nov. 22, 2016	Oct. 31, 2017	Nov. 21, 2017	Conducted (TH03-HY)
Base Station (Measure)	Rohde & Schwarz	CMU200	117995	GSM / GPRS / WCDMA / CDMA	Aug. 09, 2017	Oct. 31, 2017	Aug. 08, 2018	Conducted (TH03-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY84209521	1GHz~26GHz	Dec. 02, 2016	Oct. 31, 2017	Dec. 01, 2017	Conducted (TH03-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-	35414&AT-N0602	30MHz~1GHz	Oct. 15, 2016	Oct. 11, 2017 ~ Oct. 12, 2017	Oct. 14, 2017	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1212	1GHz ~ 18GHz	Mar. 17, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Mar. 16, 2018	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Oct. 11, 2017 ~ Oct. 12, 2017	Nov. 07, 2017	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Oct. 11, 2017 ~ Oct. 12, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz,VS WR : 2.5:1 max	Jul. 18, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Jul. 17, 2018	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2016	Oct. 11, 2017 ~ Oct. 12, 2017	Nov. 09, 2017	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200485	10Hz ~ 44GHz	Oct. 17, 2016	Oct. 11, 2017 ~ Oct. 12, 2017	Oct. 16, 2017	Radiation (03CH11-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Oct. 11, 2017 ~ Oct. 12, 2017	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-450 0-B	N/A	1~4m	N/A	Oct. 11, 2017 ~ Oct. 12, 2017	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Oct. 11, 2017 ~ Oct. 12, 2017	N/A	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP140325	N/A	Nov. 14, 2016	Oct. 11, 2017 ~ Oct. 12, 2017	Nov. 13, 2017	Radiation (03CH11-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	May 22, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	May 21, 2018	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 MY28419/4MY	25GHz~40GHz	Sep. 11, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Sep. 10, 2018	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 MY28419/4MY	30MHz~1GHz	Sep. 11, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Sep. 10, 2018	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 MY28419/4MY	1GHz~25GHz	Sep. 11, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Sep. 10, 2018	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-10 80-1200-150	SN2	1.2G High Pass	Sep. 18, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Sep. 17, 2018	Radiation (03CH11-HY)
Filter	Wainwright	WLKX12-27 00-3000-180	SN3	2.7G High Pass	Sep. 18, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Sep. 17, 2018	Radiation (03CH11-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2G Low Pass	Sep. 18, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Sep. 17, 2018	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT/800/ 960-0.2/40-8	SN11	GSM850	Jul. 06, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Jul. 05, 2018	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT1850/ 1910-40/8S	SN21	1900	Jul. 06, 2017	Oct. 11, 2017 ~ Oct. 12, 2017	Jul. 05, 2018	Radiation (03CH11-HY)
Test Software	N/A	E3	6.2009-8-24	N/A	N/A	Oct. 11, 2017 ~ Oct. 12, 2017	N/A	Radiation (03CH11-HY)



6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.37
---	------

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.67
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.03
---	------



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	33.40	33.41	33.39	30.06	30.02	30.21
GPRS class 8	33.43	33.45	33.40	30.08	30.03	30.29
GPRS class 10	30.50	30.20	30.13	27.50	27.09	27.45
GPRS class 11	28.39	28.44	28.46	25.50	25.42	25.47
GPRS class 12	27.26	27.25	27.21	24.48	24.23	24.50
EGPRS class 8	26.73	26.49	26.47	25.69	25.50	25.79
EGPRS class 10	26.33	26.10	25.96	25.18	24.85	25.19
EGPRS class 11	26.13	25.90	25.77	24.96	24.64	25.03
EGPRS class 12	25.76	25.55	25.45	24.86	24.43	24.81

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	24.50	24.43	24.47	23.99	23.81	24.00
HSDPA Subtest-1	23.42	23.32	23.39	22.95	22.85	22.94
HSDPA Subtest-2	23.47	23.42	23.46	22.96	22.97	22.97
HSDPA Subtest-3	22.92	22.85	22.89	22.44	22.38	22.46
HSDPA Subtest-4	22.91	22.85	22.90	22.46	22.37	22.45
HSUPA Subtest-1	23.39	23.35	23.39	22.93	22.84	22.92
HSUPA Subtest-2	21.45	21.40	21.43	20.92	20.88	20.93
HSUPA Subtest-3	22.42	22.38	22.42	21.93	21.89	21.93
HSUPA Subtest-4	21.42	21.41	21.39	20.92	20.94	20.94
HSUPA Subtest-5	23.42	23.35	23.37	22.96	22.84	22.93



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 GPRS class 8 (GT - LC = -2.5 dB)	33.43	2.2029	28.78	0.7551
Middle		33.45	2.2131	28.80	0.7586
Highest		33.40	2.1878	28.75	0.7499
Lowest	GSM850 EDGE class 8 (GT - LC = -2.5 dB)	26.73	0.4710	22.08	0.1614
Middle		26.49	0.4457	21.84	0.1528
Highest		26.47	0.4436	21.82	0.1521
Lowest	WCDMA Band V RMC 12.2Kbps (GT - LC = -2.5 dB)	24.50	0.2818	19.85	0.0966
Middle		24.43	0.2773	19.78	0.0951
Highest		24.47	0.2799	19.82	0.0959
Limit	ERP < 7W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900 GPRS class 8 (GT - LC = 0.2 dB)	30.08	1.0186	30.28	1.0666
Middle		30.03	1.0069	30.23	1.0544
Highest		30.29	1.0691	30.49	1.1194
Lowest	GSM1900 EDGE class 8 (GT - LC = 0.2 dB)	25.69	0.3707	25.89	0.3882
Middle		25.50	0.3548	25.70	0.3715
Highest		25.79	0.3793	25.99	0.3972
Lowest	WCDMA Band II RMC 12.2Kbps (GT - LC = 0.2 dB)	23.99	0.2506	24.19	0.2624
Middle		23.81	0.2404	24.01	0.2518
Highest		24.00	0.2512	24.20	0.2630
Limit	EIRP < 2W	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)
Middle	1672	-47.39	-13	-34.39	-57.48	-54.39	0.53	9.68	H
	2512	-50.35	-13	-37.35	-63.77	-58.35	0.66	10.81	H
	3344	-58.53	-13	-45.53	-74.73	-67.75	0.76	12.13	H
									H
									H
									H
									H
	1672	-47.40	-13	-34.40	-57.09	-54.4	0.53	9.68	V
	2512	-44.02	-13	-31.02	-57.85	-52.02	0.66	10.81	V
	3344	-58.46	-13	-45.46	-74.47	-67.68	0.76	12.13	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)
Lowest	1648	-54.37	-13	-41.37	-64.28	-61.32	0.53	9.63	H
	2472	-59.40	-13	-46.40	-72.84	-67.38	0.65	10.78	H
	3296	-58.54	-13	-45.54	-74.68	-67.62	0.76	11.99	H
									H
									H
									H
									H
	1648	-54.67	-13	-41.67	-64.29	-61.62	0.53	9.63	V
	2472	-44.33	-13	-31.33	-58.26	-52.31	0.65	10.78	V
	3296	-58.62	-13	-45.62	-74.73	-67.7	0.76	11.99	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	-61.20	-13	-48.20	-71.16	-68.17	0.53	9.64	H
	2480	-60.21	-13	-47.21	-73.65	-68.19	0.65	10.78	H
	3304	-58.55	-13	-45.55	-74.68	-67.65	0.76	12.01	H
									H
									H
									H
									H
	1656	-61.76	-13	-48.76	-71.43	-68.73	0.53	9.64	V
	2480	-59.59	-13	-46.59	-73.52	-67.57	0.65	10.78	V
	3304	-58.61	-13	-45.61	-74.71	-67.71	0.76	12.01	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)
Highest	3822	-46.02	-13	-33.02	-63.21	-57.8	0.69	12.47	H
	5730	-45.73	-13	-32.73	-66.96	-57.8	0.99	13.06	H
	7640	-51.19	-13	-38.19	-76.11	-60.8	1.18	10.79	H
									H
									H
									H
									H
	3822	-38.62	-13	-25.62	-57.03	-50.4	0.69	12.47	V
	5730	-45.13	-13	-32.13	-66.4	-57.2	0.99	13.06	V
	7638	-51.40	-13	-38.40	-75.85	-61	1.18	10.79	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)
Highest	3822	-51.02	-13	-38.02	-68.12	-62.8	0.69	12.47	H
	5730	-51.63	-13	-38.63	-73.19	-63.7	0.99	13.06	H
	7640	-51.49	-13	-38.49	-76	-61.1	1.18	10.79	H
									H
									H
									H
									H
	3822	-48.12	-13	-35.12	-66.35	-59.9	0.69	12.47	V
	5730	-50.13	-13	-37.13	-71.58	-62.2	0.99	13.06	V
	7638	-51.70	-13	-38.70	-76.25	-61.3	1.18	10.79	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)
Highest	3815	-58.11	-13	-45.11	-75	-69.9	0.68	12.47	H
	5723	-54.53	-13	-41.53	-75.8	-66.6	0.99	13.07	H
	7630	-50.72	-13	-37.72	-75.86	-60.3	1.18	10.76	H
									H
									H
									H
									H
	3815	-57.01	-13	-44.01	-75.15	-68.8	0.68	12.47	V
	5723	-53.13	-13	-40.13	-74.9	-65.2	0.99	13.07	V
	7630	-50.82	-13	-37.82	-75.34	-60.4	1.18	10.76	V
									V
									V
									V
									V

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



Appendix C. Original Report

Please refer to Sporton report number FG762713-01A