



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT1920-16  
**FCC ID** : IHDT56XH1  
**STANDARD** : FCC 47 CFR Part 2, 22(H), 24(E)  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Apr. 12, 2018 and completely tested on May 22, 2018. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown 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 (Kunshan) Inc., the test report shall not be reproduced except in full.



Approved by: James Huang / Manager

**Sporton International (Kunshan) Inc.**

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China**



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### 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)(5)	Effective Radiated Power	< 7 Watts	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
4.4	§2.1053 §22.917(a) §24.238(a)	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	Under limit 33.27 dB at 1672.000 MHz



# 1. General Description

## 1.1. Applicant

Motorola Mobility LLC  
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.2. Manufacturer

Motorola Mobility LLC  
222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT1920-16
FCC ID	IHDT56XH1
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4G 802.11b/g/n HT20 Bluetooth v3.0+EDR/ Bluetooth v4.0 LE/ Bluetooth v4.1 LE/ Bluetooth v4.2 LE
IMEI Code	Conducted: 355531090021051/355531090021069 Radiation: 355531090019295/355531090019303
HW Version	DVT2
SW Version	OPG28.25
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



### 1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	<b>GSM/GPRS/EDGE:</b> 850: 824.2 MHz ~ 848.8 MHz 1900: 1850.2 MHz ~ 1909.8MHz <b>WCDMA:</b> Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz
<b>Rx Frequency</b>	<b>GSM/GPRS/EDGE:</b> 850: 869.2 MHz ~ 893.8 MHz 1900: 1930.2 MHz ~ 1989.8 MHz <b>WCDMA:</b> Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz
<b>Maximum Output Power to Antenna</b>	<b>GSM/GPRS/EDGE:</b> 850: 33.51 dBm 1900: 29.91 dBm <b>WCDMA:</b> Band V: 23.46 dBm Band II: 23.44 dBm
<b>Antenna Type</b>	PIFA Antenna
<b>Antenna Gain</b>	Cellular Band: -5.40 dBi PCS Band: -2.70 dBi
<b>Type of Modulation</b>	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA : BPSK (Uplink) HSDPA/DC-HSDPA : QPSK (Uplink) HSUPA : QPSK (Uplink) HSPA+ : 16QAM (16QAM uplink is not supported) DC-HSDPA : 64QAM

### 1.5. Modification of EUT

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

### 1.6. Specification of Accessory

Specification of Accessory				
AC Adapter 1(EU)	Brand Name	Motorola (Acbel)	Model Name	C-P57 SPN5948A
	Power Rating	I/P: 100 - 240 Vac, 0.13A,50/60HZ O/P: 5Vdc 1000mA		
AC Adapter 1(UK)	Brand Name	Motorola (Acbel)	Model Name	C-P58 SPN5950A
	Power Rating	I/P: 100 - 240 Vac, 0.13A,50/60HZ O/P: 5Vdc 1000mA		
AC Adapter 2(EU)	Brand Name	Motorola (Chenyang)	Model Name	C-P57 SPN5985A
	Power Rating	I/P: 100 - 240 Vac, 0.13A,50/60HZ O/P: 5Vdc 1000mA		
AC Adapter 2(UK)	Brand Name	Motorola (Chenyang)	Model Name	C-P58 SPN5981A
	Power Rating	I/P: 100 - 240 Vac, 0.13A,50/60HZ O/P: 5Vdc 1000mA		
Battery	Brand Name	Motorola (Amperex)	Model Name	JE30
	Power Rating	3.8Vdc,2000/2120mAh		
Earphone 1	Brand Name	Motorola(JuWei)	Model Name	711411000731
	Signal Line Type	1.1 meter, non-shielded cable, without ferrite core		
Earphone 2	Brand Name	Motorola(New Leader)	Model Name	711411000711
	Signal Line Type	1.1 meter, non-shielded cable, without ferrite core		
USB Cable	Brand Name	Motorola (Saibao)	Model Name	711310002261
	Signal Line Type	1.0 meter, non-shielded cable, without ferrite core		



### 1.7.Re-use of Measured Data

#### 1.7.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT1920-16, FCC ID: IHDT56XH1) is electrically identical to the reference device (Model: XT1920-18, XT1920-19, FCC ID: IHDT56XH2) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

#### 1.7.2 Difference Section

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., some difference of population/depopulation to enable support of different cellular bands, please refer to the Product Equality Declaration.

The re-used RF data includes the following bands provided in Appendix D (Sporton RF Report No. FG841203A for the reference device Model: XT1920-18, XT1920-19, FCC ID: IHDT56XH2):

#### 1.7.3 Spot Check Verification Data Section

In order to confirm hardware similarity of the subject device with the reference device, spot check measurements were performed on the subject device for Conducted Power based on the judgement of applicant, the test result were consistent with FCC ID: IHDT56XH2, all the conducted test items from the original model are representative for the variant model (Except Power/ERP/EIRP are re-tested).

Test Item	Mode	IHDT56XH2 Worst Result	IHDT56XH1 Worst Result	Difference (dB)
Average Conducted Power (dBm)	GSM850	32.86	33.51	0.65
	EDGE850	26.33	26.65	0.32
	WCDMA Band 850	23.65	23.46	0.19
	GSM 1900	29.85	29.91	0.06
	EDGE 1900	26.31	25.92	0.39
	WCDMA Band 1900	23.68	23.44	0.24

#### 1.7.4 Reference detail Section

Equipment Class	Reference FCC ID	Folder Test/RF Exposure	Report Title/Section
PCE (2G/3G)	IHDT56XH2	Part22H.24E.27L (FG841203A)	All conducted sections applicable except Power/ERP/EIRP





### 1.8. Maximum ERP/EIRP Power

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP (W)
Part 22H	GSM850 GSM	GMSK	0.3945
Part 22H	GSM850 EDGE class 8	8PSK	0.0813
Part 22H	WCDMA Band V RMC 12.2Kbps	BPSK	0.0390
Part 24E	GSM1900 GSM	GMSK	0.5260
Part 24E	GSM1900 EDGE class 8	8PSK	0.2099
Part 24E	WCDMA Band II RMC 12.2Kbps	BPSK	0.1186



### 1.9. Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

<b>Test Site</b>	Sporton International (Kunshan) Inc.		
<b>Test Site Location</b>	No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China TEL : +86-512-57900158 FAX : +86-512-57900958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		<b>FCC Test Firm Registration No.</b>
	TH01-KS	03CH03-KS	630927

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

### 1.10. 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 C63.26-2015
- 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.

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:

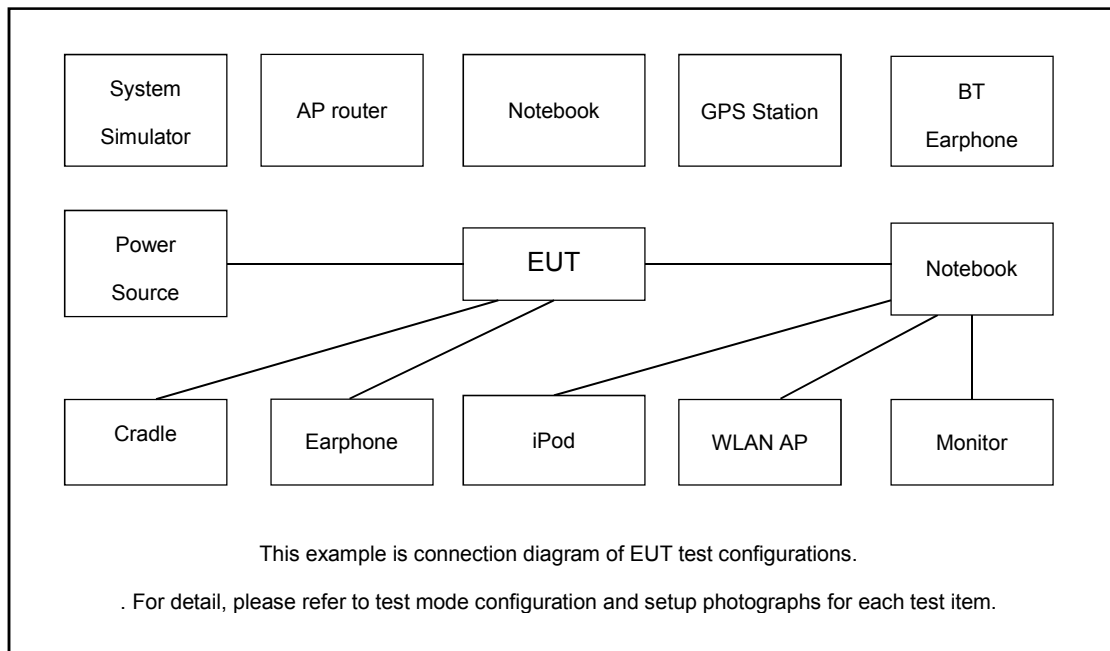
1. 30 MHz to 10th harmonic for GSM850 and WCDMA Band V.
2. 30 MHz to 10th harmonic for GSM1900 and WCDMA Band II.

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	Conducted TCs
GSM 850	<ul style="list-style-type: none"> <li>■ GSM Link</li> <li>■ EDGE class 8 Link</li> </ul>	<ul style="list-style-type: none"> <li>■ GSM Link</li> <li>■ EDGE class 8 Link</li> </ul>
GSM 1900	<ul style="list-style-type: none"> <li>■ GSM Link</li> <li>■ EDGE class 8 Link</li> </ul>	<ul style="list-style-type: none"> <li>■ GSM Link</li> <li>■ EDGE class 8 Link</li> </ul>
WCDMA Band V	<ul style="list-style-type: none"> <li>■ RMC 12.2Kbps Link</li> </ul>	<ul style="list-style-type: none"> <li>■ RMC 12.2Kbps Link</li> </ul>
WCDMA Band II	<ul style="list-style-type: none"> <li>■ RMC 12.2Kbps Link</li> </ul>	<ul style="list-style-type: none"> <li>■ RMC 12.2Kbps Link</li> </ul>

## 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



## 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.

#### 3.2. 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 testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

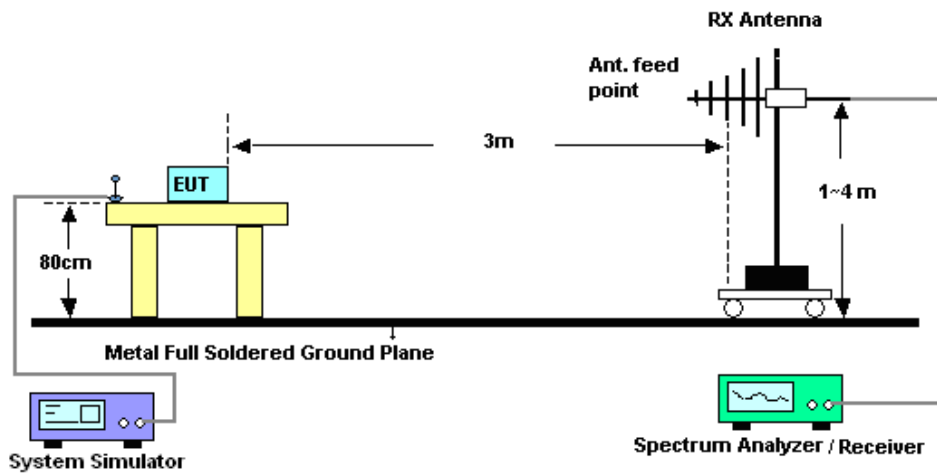
## 4. Radiated Test Items

### 4.1. Measuring Instruments

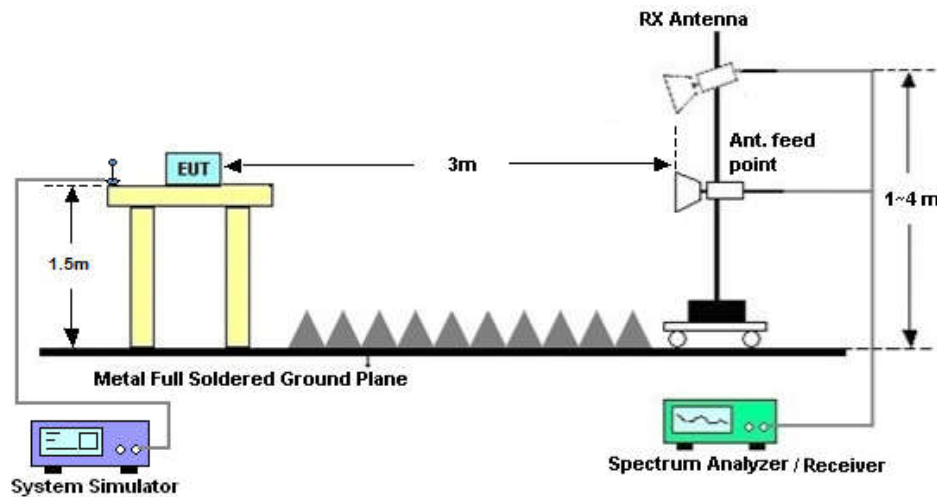
See list of measuring instruments of this test report.

### 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 ANSI C63.26 Section 5.5
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
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44GHz	Apr. 17, 2018	May 21, 2018~ May 22, 2018	Apr. 16, 2019	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	47610	30MHz-1GHz	Sep. 12, 2017	May 21, 2018~ May 22, 2018	Sep. 11, 2018	Radiation (03CH03-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 21, 2018	May 21, 2018~ May 22, 2018	Jan. 20, 2019	Radiation (03CH03-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 07, 2018	May 21, 2018~ May 22, 2018	Feb. 06, 2019	Radiation (03CH03-KS)
Amplifier	com-power	PA-103A	161069	1MHz ~1000MHz /	Apr. 17, 2018	May 21, 2018~ May 22, 2018	Apr. 16, 2019	Radiation (03CH03-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18~40GHz	Oct. 12, 2017	May 21, 2018~ May 22, 2018	Oct. 11, 2018	Radiation (03CH03-KS)
high gain Amplifier	MITEQ	AMF-7D-0010 1800-30-10P	2025788	1Ghz-18Ghz	Apr. 17, 2018	May 21, 2018~ May 22, 2018	Apr. 16, 2019	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Oct. 12, 2017	May 21, 2018~ May 22, 2018	Oct. 11, 2018	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	May 21, 2018~ May 22, 2018	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	May 21, 2018~ May 22, 2018	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	May 21, 2018~ May 22, 2018	NCR	Radiation (03CH03-KS)

NCR: No Calibration Required



## 6. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.3dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.8 dB
-------------------------------------------------------------------------	--------

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.0 dB
-------------------------------------------------------------------------	--------



## 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	1880.0	1909.8
GSM	33.17	33.51	33.37	29.75	29.81	29.91
GPRS class 8	33.25	33.50	33.43	29.87	29.82	29.90
GPRS class 10	31.89	31.98	31.83	28.50	28.48	28.39
GPRS class 11	30.37	30.49	30.32	27.15	27.50	27.34
GPRS class 12	28.92	28.96	28.86	26.32	26.21	26.13
EGPRS class 8	26.47	26.65	26.61	25.92	25.86	25.88
EGPRS class 10	25.23	25.45	25.46	24.99	24.98	24.97
EGPRS class 11	24.16	24.23	24.22	22.42	22.34	22.32
EGPRS class 12	22.95	22.97	22.94	21.90	21.80	21.78

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
AMR 12.2K	23.42	23.36	23.40	23.30	23.41	23.39
RMC 12.2K	23.46	23.39	23.45	23.32	23.44	23.42
HSDPA Subtest-1	22.51	22.43	22.51	22.38	22.43	22.49
HSDPA Subtest-2	22.43	22.35	22.51	22.32	22.37	22.48
HSDPA Subtest-3	21.83	21.85	21.98	21.81	21.81	21.90
HSDPA Subtest-4	21.78	21.89	21.94	21.83	21.89	21.84
DC-HSDPA Subtest-1	22.42	22.40	22.44	22.31	22.37	22.46
DC-HSDPA Subtest-2	22.41	22.37	22.47	22.25	22.36	22.37
DC-HSDPA Subtest-3	21.77	21.83	21.89	21.76	21.85	21.90
DC-HSDPA Subtest-4	21.75	21.80	21.89	21.72	21.85	21.90
HSUPA Subtest-1	22.08	22.27	22.36	22.25	22.43	22.15
HSUPA Subtest-2	20.86	20.92	20.93	20.91	21.00	20.99
HSUPA Subtest-3	21.00	21.23	21.22	21.29	21.49	21.16
HSUPA Subtest-4	20.82	20.90	20.92	20.82	20.93	20.86
HSUPA Subtest-5	22.40	22.46	22.49	22.31	22.42	22.38



**ERP/EIRP**

<b>GSM850 (G<sub>T</sub> - L<sub>C</sub>= -5.40 dBi)</b>			
<b>Channel</b>	<b>128</b>	<b>189</b>	<b>251</b>
	<b>(Low)</b>	<b>(Mid)</b>	<b>(High)</b>
<b>Frequency</b>	<b>824.2</b>	<b>836.4</b>	<b>848.8</b>
<b>(MHz)</b>			
<b>Conducted Power (dBm)</b>	33.17	33.51	33.37
<b>Conducted Power (Watts)</b>	2.0749	2.2439	2.1727
<b>ERP(dBm)</b>	25.62	25.96	25.82
<b>ERP(Watts)</b>	0.3648	0.3945	0.3819

<b>EDGE850 (G<sub>T</sub> - L<sub>C</sub>= -5.40 dBi)</b>			
<b>Channel</b>	<b>128</b>	<b>189</b>	<b>251</b>
	<b>(Low)</b>	<b>(Mid)</b>	<b>(High)</b>
<b>Frequency</b>	<b>824.2</b>	<b>836.4</b>	<b>848.8</b>
<b>(MHz)</b>			
<b>Conducted Power (dBm)</b>	26.47	26.65	26.61
<b>Conducted Power (Watts)</b>	0.4436	0.4624	0.4581
<b>ERP(dBm)</b>	18.92	19.10	19.06
<b>ERP(Watts)</b>	0.0780	0.0813	0.0805



GSM1900 ( $G_T - L_C = -2.70$ dBi)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency	1850.2	1880	1909.8
(MHz)			
Conducted Power (dBm)	29.75	29.81	29.91
Conducted Power (Watts)	0.9441	0.9572	0.9795
EIRP(dBm)	27.05	27.11	27.21
EIRP(Watts)	0.5070	0.5140	0.5260

EDGE1900 ( $G_T - L_C = -2.70$ dBi)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency	1850.2	1880	1909.8
(MHz)			
Conducted Power (dBm)	25.92	25.86	25.88
Conducted Power (Watts)	0.3908	0.3855	0.3873
EIRP(dBm)	23.22	23.16	23.18
EIRP(Watts)	0.2099	0.2070	0.2080



WCDMA Band V (G <sub>T</sub> - L <sub>C</sub> = -5.40 dBi)			
Channel	4132	4182	4233
	(Low)	(Mid)	(High)
Frequency	826.4	836.4	846.6
(MHz)			
Conducted Power (dBm)	23.46	23.39	23.45
Conducted Power (Watts)	0.2218	0.2183	0.2213
ERP(dBm)	15.91	15.84	15.90
ERP(Watts)	0.0390	0.0384	0.0389

WCDMA Band II (G <sub>T</sub> - L <sub>C</sub> = -2.70 dBi)			
Channel	9262	9400	9538
	(Low)	(Mid)	(High)
Frequency	1852.4	1880	1907.6
(MHz)			
Conducted Power (dBm)	23.32	23.44	23.42
Conducted Power (Watts)	0.2148	0.2208	0.2198
EIRP(dBm)	20.62	20.74	20.72
EIRP(Watts)	0.1153	0.1186	0.1180



## Appendix B. Test Results of Conducted Test

### Radiated Spurious Emission

GSM850 (GSM)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-46.58	-13	-33.58	-48.49	1.14	5.20	H
	2510	-56.97	-13	-43.97	-59.60	1.12	5.90	H
	3345	-59.09	-13	-46.09	-62.30	1.34	6.70	H
	1672	-46.27	-13	-33.27	-48.18	1.14	5.20	V
	2510	-55.17	-13	-42.17	-57.80	1.12	5.90	V
	3345	-59.07	-13	-46.07	-62.28	1.34	6.70	V

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

GSM850 (EDGE class 8)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-59.36	-13	-46.36	-61.27	1.14	5.20	H
	2510	-60.00	-13	-47.00	-62.63	1.12	5.90	H
	3345	-58.88	-13	-45.88	-62.09	1.34	6.70	H
	1672	-54.79	-13	-41.79	-56.70	1.14	5.20	V
	2510	-59.36	-13	-46.36	-61.99	1.12	5.90	V
	3345	-59.15	-13	-46.15	-62.36	1.34	6.70	V

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





GSM1900 (GSM)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-58.56	-13	-45.56	-60.28	5.08	6.80	H
	5640	-55.55	-13	-42.55	-57.22	8.03	9.70	H
	7521	-50.76	-13	-37.76	-53.14	9.43	11.81	H
	3759	-58.03	-13	-45.03	-59.75	5.08	6.80	V
	5640	-55.61	-13	-42.61	-57.28	8.03	9.70	V
	7521	-50.67	-13	-37.67	-53.05	9.43	11.81	V

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

GSM1900 (EDGE class 8)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-58.72	-13	-45.72	-60.44	5.08	6.80	H
	5640	-55.62	-13	-42.62	-57.29	8.03	9.70	H
	7521	-50.68	-13	-37.68	-53.06	9.43	11.81	H
	3759	-58.15	-13	-45.15	-59.87	5.08	6.80	V
	5640	-55.63	-13	-42.63	-57.30	8.03	9.70	V
	7521	-50.44	-13	-37.44	-52.82	9.43	11.81	V

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



WCDMA Band V(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-64.28	-13	-51.28	-66.19	1.14	5.20	H
	2510	-60.02	-13	-47.02	-62.65	1.12	5.90	H
	3345	-59.14	-13	-46.14	-62.35	1.34	6.70	H
	1672	-63.24	-13	-50.24	-65.15	1.14	5.20	V
	2510	-59.57	-13	-46.57	-62.20	1.12	5.90	V
	3345	-58.94	-13	-45.94	-62.15	1.34	6.70	V

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

WCDMA Band II(RMC 12.2Kbps)								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-58.67	-13	-45.67	-60.39	5.08	6.80	H
	5640	-55.33	-13	-42.33	-57.00	8.03	9.70	H
	7521	-50.73	-13	-37.73	-53.11	9.43	11.81	H
	3759	-57.98	-13	-44.98	-59.70	5.08	6.80	V
	5640	-54.42	-13	-41.42	-56.09	8.03	9.70	V
	7521	-50.64	-13	-37.64	-53.02	9.43	11.81	V

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



## **Appendix D. Reference Report**

Please refer to Sporton report number FG841203A which is issued separately.