



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT1944-3, XT1944-4  
**FCC ID** : IHDT56XF4  
**STANDARD** : FCC 47 CFR Part 2, 22(H), 24(E), 27(L)  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Dec. 20, 2017 and testing was completed on Dec. 29, 2017. We, Sporton International (Kunshan) Inc., 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 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.**  
No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335  
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)(2)	Effective Radiated Power	< 7 Watts	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power	< 2 Watts	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power	< 1 Watts	PASS	-
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	Under limit 21.54 dB at 1674.000 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	XT1944-3, XT1944-4
FCC ID	IHDT56XF4
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/ HSPA+(16QAM uplink is not supported)/LTE/ WLAN 2.4GHz 802.11b/g/n HT20/ Bluetooth v3.0 + EDR/ Bluetooth v 4.0 LE/ Bluetooth v4.1 LE/ Bluetooth v4.2 LE/
IMEI Code	Radiation: 354123090006794/354123090006802
HW Version	DVT1B
SW Version	nora_row_n-userdebug 8.0.0 OPP27.60 222 intcfg,test-keys
EUT Stage	Identical Prototype

**Remark:**

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are two types of EUT, the only difference between two samples is SIM slot: sample 1(Model: XT1944-4) is dual SIM slot, sample 2(Model: XT1944-3) is single SIM slot. Based on the similarity between two samples, we only choose sample 1 to perform RF test.



### 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 Band IV: 1712.4 MHz ~ 1752.6 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 Band IV: 2112.4 MHz ~ 2152.6 MHz
<b>Maximum Output Power to Antenna</b>	<b>GSM/GPRS/EDGE:</b> 850: 32.80 dBm 1900: 30.03 dBm <b>WCDMA:</b> Band V: 23.22 dBm Band II: 23.20 dBm Band IV: 22.99 dBm
<b>Antenna Type</b>	LDS Antenna
<b>Antenna Gain</b>	Cellular Band: -3.05 dBi PCS Band: -1.25 dBi AWS Band: -2.35 dBi
<b>Type of Modulation</b>	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA: BPSK (Uplink) HSDPA/DC-HSDPA : QPSK (Uplink) HSUPA: QPSK (Uplink) DC-HSDPA : 64QAM HSPA+ : 16QAM (uplink is not supported)



### 1.5 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	Brand Name	Motorola (Acbel)	Model Name	SPN5945A C-P35
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 1(EU)	Brand Name	Motorola (Acbel)	Model Name	SPN5944A C-P36
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 1(UK)	Brand Name	Motorola (Acbel)	Model Name	SPN5940A C-P37
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 1(IN)	Brand Name	Motorola (Acbel)	Model Name	SA18C19493 C-P49
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 1(AU)	Brand Name	Motorola (Acbel)	Model Name	SPN5953A C-P48
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 1(AR)	Brand Name	Motorola (Acbel)	Model Name	SPN5942A C-P47
	Power Rating	I/P: 100-240 Vac, 500mA, O/P: 5.2Vdc,2000mA		
AC Adapter 2(US)	Brand Name	Motorola (Salom)	Model Name	SSW-2919UMTJ C-P35 SPN5945A
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 2(EU)	Brand Name	Motorola (Salom)	Model Name	SSW-2919EU C-P36 SPN5944A
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 2(UK)	Brand Name	Motorola (Salom)	Model Name	SSW-2919UK C-P37 SPN5940A
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 2(AU)	Brand Name	Motorola (Salom)	Model Name	SSW-2919AU C-P48 SPN5953A
	Power Rating	I/P: 100-240 Vac, 300mA, O/P: 5.2Vdc,2000mA		
AC Adapter 2(AR)	Brand Name	Motorola (Salom)	Model Name	SSW-2919AR C-P47 SPN5955A
	Power Rating	I/P: 100-240 Vac, 500mA, O/P: 5.2Vdc,2000mA		
Battery	Brand Name	Lenovo (SCUD)	Model Name	BL270
	Power Rating	3.85/4.4Vdc,4000mAh	Type	Li-ion



Earphone 1	Brand Name	Motorola(NEW Leaders)	Model Name	NLD-EM300V-01SF
	Signal Line Type	1.2 meter, non-shielded cable, without ferrite core		
Earphone 2	Brand Name	Motorola(Cosonic)	Model Name	SH38C16617
	Signal Line Type	1.1 meter, non-shielded cable, without ferrite core		
USB Cable	Brand Name	Motorola (Saibao)	Model Name	SLQ-A081A
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		

## 1.6 Modification of EUT

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





## 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: XT1944-3, XT1944-4, FCC ID: IHDT56XF4) is electrically identical to the reference device (Model: XT1922-5, XT1922-4, FCC ID: IHDT56XB5) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 178919 D01.

### 1.7.2 Difference Section

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., some difference of population/depoulation 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 A (Sporton RF Report No. FG7D0507A for the reference device Model: XT1922-5, XT1922-4, FCC ID: IHDT56XB5):

### 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 Band-edge and Conducted spurious emission, the test result were consistent with FCC ID: IHDT56XB5 and radiated spurious emission, ERP/EIRP to re-test.

Assertions concerning the similarity of these devices are based on representations by the applicant. The applicant accepts full responsibility for the validity of the similarity claim, and for the determination that verification test data are sufficient to support it.

### 1.7.4 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
PCE (2G/3G)	IHDT56XB5	Part22H.24E.27L (FG7D0507A)	All conducted sections applicable
PCE (LTE)	IHDT56XB5	Part22H.24E.27L.27M (FG7D0507B)	All conducted sections applicable



### 1.8 Maximum ERP/EIRP Power

FCC Rule	System	Type of Modulation	Maximum ERP/EIRP(W)
Part 22H	GSM850 GSM	GMSK	0.5754
Part 22H	GSM850 EDGE class 8	8PSK	0.1384
Part 22H	WCDMA Band V RMC 12.2Kbps	BPSK	0.0634
Part 24E	GSM1900 GSM	GMSK	0.7551
Part 24E	GSM1900 EDGE class 8	8PSK	0.2858
Part 24E	WCDMA Band II RMC 12.2Kbps	BPSK	0.1567
Part 27L	WCDMA Band IV RMC 12.2Kbps	BPSK	0.1159



### 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>
	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), 27(L)
- ♦ ANSI/TIA-603-E
- ♦ 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:

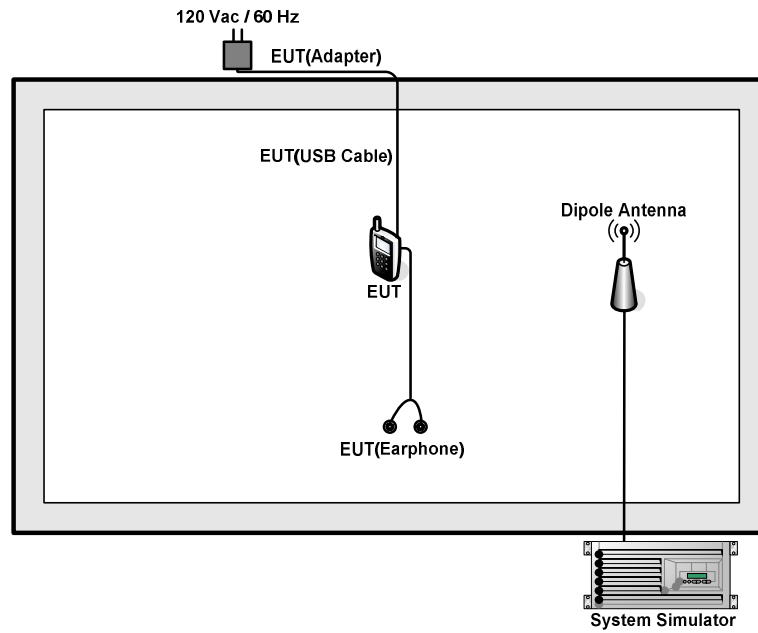
1. 30 MHz to 10th harmonic for GSM850 and WCDMA Band V.
2. 30 MHz to 10th harmonic for WCDMA Band IV.
3. 30 MHz to 10th harmonic for GSM1900 and WCDMA Band II.

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	ERP/EIRP 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>
WCDMA Band IV	<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

### 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.

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

#### 3.4.2 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.

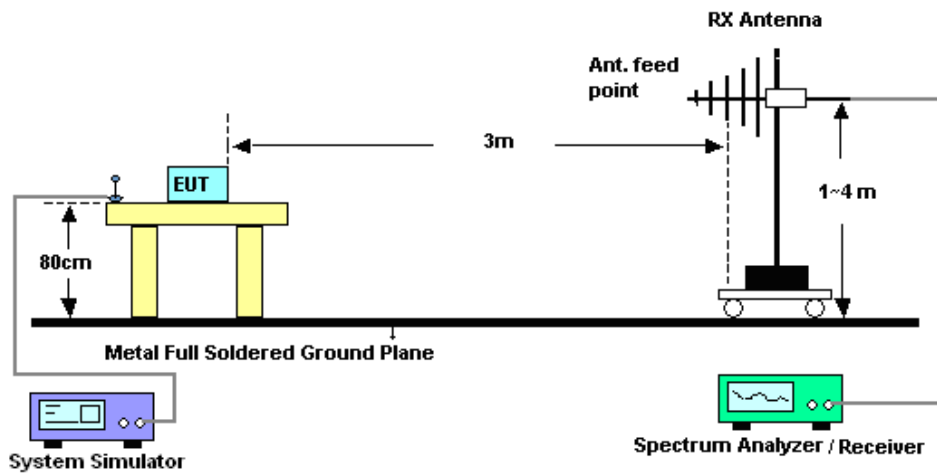
## 4 Radiated Test Items

### 4.1 Measuring Instruments

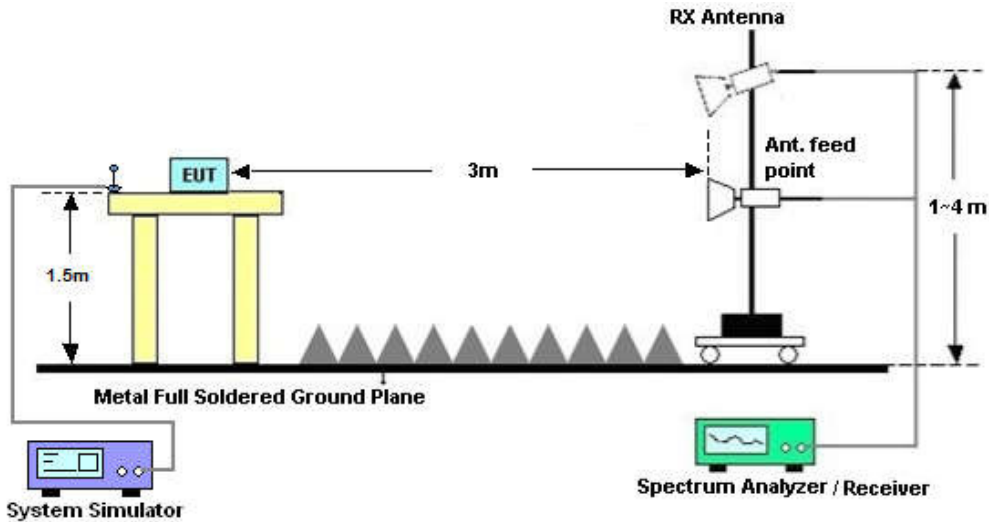
See list of measuring instruments of this test report.

### 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 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)  
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$   
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$   
 $= -13\text{dBm}.$



## 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. 18, 2017	Dec. 28, 2017~ Dec. 29, 2017	Apr. 17, 2018	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	35406	25MHz~2GHz	Apr. 22, 2017	Dec. 28, 2017~ Dec. 29, 2017	Apr. 21, 2018	Radiation (03CH03-KS)
Horn Antenna	Schwarzbeck	BBHA9120 D	9120D-1356	1GHz~18GHz	Apr. 22, 2017	Dec. 28, 2017~ Dec. 29, 2017	Apr. 21, 2018	Radiation (03CH03-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 15, 2017	Dec. 28, 2017~ Dec. 29, 2017	Feb. 14, 2018	Radiation (03CH03-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1000MHz / 32 dB	Apr. 18, 2017	Dec. 28, 2017~ Dec. 29, 2017	Apr. 17, 2018	Radiation (03CH03-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30- 40D	2025788	1GHz~18GHz	Apr. 18, 2017	Dec. 28, 2017~ Dec. 29, 2017	Apr. 17, 2018	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Oct. 12, 2017	Dec. 28, 2017~ Dec. 29, 2017	Oct. 11, 2018	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Dec. 28, 2017~ Dec. 29, 2017	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 28, 2017~ Dec. 29, 2017	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 28, 2017~ Dec. 29, 2017	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% ( $U = 2Uc(y)$ )	2.8dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.3dB
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## 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	32.80	32.78	32.67	29.79	29.91	30.03
GPRS class 8	32.78	32.77	32.65	29.78	29.90	30.02
GPRS class 10	29.31	29.37	29.21	27.14	27.21	27.33
GPRS class 11	27.31	27.32	27.40	25.04	25.03	25.27
GPRS class 12	25.96	25.92	25.78	23.77	23.68	23.95
EGPRS class 8	26.61	26.51	26.37	25.81	25.81	25.79
EGPRS class 10	26.47	26.37	26.26	25.68	25.75	25.74
EGPRS class 11	25.10	24.91	24.76	24.64	24.69	24.69
EGPRS class 12	23.57	23.42	23.16	23.33	23.37	23.34

Conducted Power (*Unit: dBm)									
Band	WCDMA Band V			WCDMA Band II			WCDMA Band IV		
Channel	4132	4182	4233	9262	9400	9538	1312	1413	1513
Frequency	826.4	836.4	846.6	1852.4	1880	1907.6	1712.4	1732.6	1752.6
AMR 12.2Kbps	23.10	23.20	23.02	23.04	23.14	23.18	22.97	22.98	22.93
RMC 12.2Kbps	23.11	23.22	23.04	23.06	23.15	23.20	22.98	22.99	22.95
HSDPA Subtest-1	21.71	21.76	21.62	21.71	21.83	21.92	21.75	21.76	21.71
HSDPA Subtest-2	21.81	21.91	21.73	21.73	21.90	21.92	21.81	21.79	21.77
HSDPA Subtest-3	21.29	21.40	21.23	21.23	21.40	21.43	21.31	21.23	21.27
HSDPA Subtest-4	21.28	21.40	21.12	21.23	21.40	21.43	21.31	21.21	21.27
DC-HSDPA Subtest-1	21.67	21.71	21.59	21.69	21.78	21.81	21.69	21.65	21.59
DC-HSDPA Subtest-2	21.66	21.76	21.58	21.65	21.70	21.85	21.67	21.70	21.58
DC-HSDPA Subtest-3	21.61	21.36	21.52	21.66	21.65	21.69	21.39	21.59	21.63
DC-HSDPA Subtest-4	21.29	21.35	21.59	21.64	21.59	21.84	21.64	21.64	21.64
HSUPA Subtest-1	21.78	21.40	21.50	21.33	21.29	21.50	21.27	21.36	21.64
HSUPA Subtest-2	20.33	20.76	20.28	20.82	20.68	20.80	20.80	20.79	20.60
HSUPA Subtest-3	20.54	20.87	20.48	20.83	20.38	20.63	20.46	20.44	20.39
HSUPA Subtest-4	20.62	20.74	20.47	20.81	20.98	20.93	20.80	20.79	20.61
HSUPA Subtest-5	21.70	21.80	21.60	21.70	21.90	22.00	21.70	21.80	21.80



**ERP/EIRP**

GSM850 (G <sub>T</sub> - L <sub>C</sub> = -3.05 dBi)			
Channel	128	189	251
	(Low)	(Mid)	(High)
Frequency	824.2	836.4	848.8
(MHz)			
Conducted Power (dBm)	32.80	32.78	32.67
Conducted Power (Watts)	1.9055	1.8967	1.8493
ERP(dBm)	27.60	27.58	27.47
ERP(Watts)	0.5754	0.5728	0.5585

EDGE850 (G <sub>T</sub> - L <sub>C</sub> =-3.05dBi)			
Channel	128	189	251
	(Low)	(Mid)	(High)
Frequency	824.2	836.4	848.8
(MHz)			
Conducted Power (dBm)	26.61	26.51	26.37
Conducted Power (Watts)	0.4581	0.4477	0.4335
ERP(dBm)	21.41	21.31	21.17
ERP(Watts)	0.1384	0.1352	0.1309



GSM1900 (G <sub>T</sub> - L <sub>C</sub> = -1.25dBi)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency	1850.2	1880	1909.8
(MHz)			
Conducted Power (dBm)	29.79	29.91	30.03
Conducted Power (Watts)	0.9528	0.9795	1.0069
EIRP(dBm)	28.54	28.66	28.78
EIRP(Watts)	0.7145	0.7345	0.7551

EDGE1900 (G <sub>T</sub> - L <sub>C</sub> = -1.25dBi)			
Channel	512	661	810
	(Low)	(Mid)	(High)
Frequency	1850.2	1880	1909.8
(MHz)			
Conducted Power (dBm)	25.81	25.81	25.79
Conducted Power (Watts)	0.3811	0.3811	0.3793
EIRP(dBm)	24.56	24.56	24.54
EIRP(Watts)	0.2858	0.2858	0.2844



WCDMA Band V ( $G_T - L_C = -3.05\text{dBi}$ )			
Channel	4132	4182	4233
	(Low)	(Mid)	(High)
Frequency	826.4	836.4	846.6
(MHz)			
Conducted Power (dBm)	23.11	23.22	23.04
Conducted Power (Watts)	0.2046	0.2099	0.2014
ERP(dBm)	17.91	18.02	17.84
ERP(Watts)	0.0618	0.0634	0.0608

WCDMA Band II ( $G_T - L_C = -1.25\text{dBi}$ )			
Channel	9262	9400	9538
	(Low)	(Mid)	(High)
Frequency	1852.4	1880	1907.6
(MHz)			
Conducted Power (dBm)	23.06	23.15	23.20
Conducted Power (Watts)	0.2023	0.2065	0.2089
EIRP(dBm)	21.81	21.90	21.95
EIRP(Watts)	0.1517	0.1549	0.1567

WCDMA Band IV ( $G_T - L_C = -2.35\text{dBi}$ )			
Channel	1312	1413	1513
	(Low)	(Mid)	(High)
Frequency	1712.4	1732.6	1752.6
(MHz)			
Conducted Power (dBm)	22.98	22.99	22.95
Conducted Power (Watts)	0.1986	0.1991	0.1972
EIRP(dBm)	20.63	20.64	20.60
EIRP(Watts)	0.1156	0.1159	0.1148



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

GSM 850 (GSM)									
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	-38.34	-13	-25.34	-45.01	-40.25	1.14	5.20	H
	2510	-47.88	-13	-34.88	-58.99	-50.51	1.12	5.90	H
	3345	-60.64	-13	-47.64	-70.61	-63.85	1.34	6.70	H
	1674	-34.54	-13	-21.54	-41.56	-36.45	1.14	5.20	V
	2510	-43.26	-13	-30.26	-54.39	-45.89	1.12	5.90	V
	3345	-61.37	-13	-48.37	-71.50	-64.58	1.34	6.70	V

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

EDGE 850 (GSM)									
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	1674	-44.73	-13	-31.73	-50.93	-46.64	1.14	5.20	H
	2510	-53.01	-13	-40.01	-64.12	-55.64	1.12	5.90	H
	3345	-59.74	-13	-46.74	-69.71	-62.95	1.34	6.70	H
	1674	-43.32	-13	-30.32	-49.88	-45.23	1.14	5.20	V
	2510	-54.42	-13	-41.42	-64.08	-57.05	1.12	5.90	V
	3345	-61.75	-13	-48.75	-71.88	-64.96	1.34	6.70	V

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





GSM 1900 (GSM)									
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)
Middle	3759	-51.29	-13	-38.29	-65.53	-53.00	5.08	6.80	H
	5640	-54.85	-13	-41.85	-71.65	-56.52	8.03	9.70	H
	7521	-51.22	-13	-38.22	-72.52	-53.60	9.43	11.81	H
	3759	-53.54	-13	-40.54	-65.97	-55.25	5.08	6.80	V
	5640	-55.86	-13	-42.86	-72.95	-57.53	8.03	9.70	V
	7521	-51.61	-13	-38.61	-72.75	-53.99	9.43	11.81	V

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

EDGE1900 (GSM)									
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)
Middle	3759	-55.71	-13	-42.71	-69.95	-57.42	5.08	6.80	H
	5640	-56.87	-13	-43.87	-73.67	-58.54	8.03	9.70	H
	7521	-51.35	-13	-38.35	-72.65	-53.73	9.43	11.81	H
	3759	-59.25	-13	-46.25	-71.68	-60.96	5.08	6.80	V
	5640	-55.64	-13	-42.64	-72.73	-57.31	8.03	9.70	V
	7521	-52.11	-13	-39.11	-73.25	-54.49	9.43	11.81	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3759	-57.19	-13	-44.19	-71.43	-58.90	5.08	6.80	H
	5640	-56.12	-13	-43.12	-72.92	-57.79	8.03	9.70	H
	7521	-51.48	-13	-38.48	-72.78	-53.86	9.43	11.81	H
	3759	-59.58	-13	-46.58	-72.01	-61.29	5.08	6.80	V
	5640	-56.25	-13	-43.25	-73.34	-57.92	8.03	9.70	V
	7521	-51.96	-13	-38.96	-73.1	-54.34	9.43	11.81	V

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

WCDMA Band IV(RMC 12.2Kbps)									
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)
Middle	3465	-59.20	-13	-46.20	-71.23	-63.17	4.87	8.84	H
	5199	-56.75	-13	-43.75	-72.57	-58.19	7.70	9.14	H
	6930	-51.59	-13	-38.59	-72.64	-53.27	8.98	10.66	H
	3465	-56.05	-13	-43.05	-70.76	-60.02	4.87	8.84	V
	5199	-57.30	-13	-44.30	-73.32	-58.74	7.70	9.14	V
	6930	-52.12	-13	-39.12	-72.92	-53.80	8.98	10.66	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1670	-54.34	-13	-41.34	-59.43	-56.25	1.14	5.20	H
	2506	-46.94	-13	-33.94	-58.01	-49.57	1.12	5.90	H
	3345	-61.77	-13	-48.77	-71.74	-64.98	1.34	6.70	H
	1676	-50.98	-13	-37.98	-56.32	-52.89	1.14	5.20	V
	2510	-59.65	-13	-46.65	-69.31	-62.28	1.12	5.90	V
	3345	-61.67	-13	-48.67	-71.80	-64.88	1.34	6.70	V

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