



# FCC RF Test Report

APPLICANT : Motorola Mobility LLC  
EQUIPMENT : Mobile Cellular Phone  
BRAND NAME : Motorola  
MODEL NAME : XT2615-1, XT2615-2, XT2615-3, XT2615V  
FCC ID : IHDT56AT9  
STANDARD : 47 CFR Part 22(H), 24(E), 27(L)  
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)  
TEST DATE(S) : Jun. 24, 2025 ~ Jun. 25, 2025

We, Sporton International Inc. (Shenzhen), 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 Inc. (Shenzhen), the test report shall not be reproduced except in full.



Approved by: Fly Liang

**Sporton International Inc. (ShenZhen)**

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People's Republic of China



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### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	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);	Field Strength of Spurious Radiation	< 43+10log10(P[Watts])	PASS	Under limit 42.07 dB at 7520.00 MHz

**Note:** This is a variant report, the change note could be referred to the XT2615-1, XT2615-2, XT2615-3, XT2615V\_ Operational Description of Product Equality Declaration which is exhibit separately. According to the change, only the worse cases of Conducted power/ERP/EIRP & RSE(GSM/WCDMA) were verified from original report FG482618A.

<b>Conformity Assessment Condition:</b>
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"
<b>Disclaimer:</b>
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



# 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	XT2615-1, XT2615-2, XT2615-3, XT2615V
FCC ID	IHDT56AT9
IMEI Code	Conducted/Radiation: 350173620028077/350173620028085
HW Version	DVT2
SW Version	WWN36.6
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 four models, the four models are for different markets and no other difference.

## 1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	<b>GSM/GPRS/EDGE:</b> 850: 824 MHz ~ 849 MHz 1900: 1850MHz ~ 1910MHz <b>WCDMA:</b> Band V: 824 MHz ~ 849 MHz Band II: 1850 MHz ~ 1910 MHz Band IV: 1710 MHz ~ 1755 MHz
<b>Rx Frequency</b>	<b>GSM/GPRS/EDGE:</b> 850: 869 MHz ~ 894 MHz 1900: 1930 MHz ~ 1990 MHz <b>WCDMA:</b> Band V: 869 MHz ~ 894 MHz Band II: 1930 MHz ~ 1990 MHz



	Band IV: 2110 MHz ~ 2155 MHz
<b>Maximum Output Power to Antenna</b>	<b>GSM/GPRS/EDGE:</b> 850: 32.10 dBm 1900: 29.59 dBm <b>WCDMA:</b> Band V: 23.10 dBm Band II: 23.35 dBm Band IV: 23.30 dBm
<b>Antenna Type</b>	PIFA Antenna
<b>Antenna Gain</b>	Cellular Band: -3.8 dBi PCS Band: -2.7 dBi AWS Band: -2.5 dBi
<b>Type of Modulation</b>	GSM: GMSK GPRS: GMSK EDGE: GMSK / 8PSK WCDMA : BPSK HSPA : QPSK HSPA+ : 16QAM DC-HSDPA : 64QAM

### 1.5 Modification of EUT

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

### 1.6 Maximum ERP/EIRP Power

FCC Rule	Frequency Band	Frequency Range (MHz)	Type of Modulation	Maximum ERP/EIRP (W)
Part 22	GSM850 (GSM)	824.2 ~ 848.8	GMSK	0.4121
Part 22	WCDMA Band V	826.4 ~ 846.6	BPSK	0.0519
Part 24	GSM1900 (GSM)	1850.2 ~ 1909.8	GMSK	0.4887
Part 24	WCDMA Band II	1852.4 ~ 1907.6	BPSK	0.1161
Part 27	WCDMA Band IV	1712.4 ~ 1752.6	BPSK	0.1202



### 1.7 Testing Location

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

<b>Test Firm</b>	Sporton International Inc. (ShenZhen)		
<b>Test Site Location</b>	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH02-SZ TH01-SZ	CN1256	421272

### 1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

### 1.9 Applicable Standards

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

- 47 CFR Part 22(H), 24(E), 27(L)
- 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.



### 1.10 Specification of Accessory

Accessories Information				
AC Adapter 1	Brand Name	Motorola(AOHAI)	Model Name	MC-201L
AC Adapter 2	Brand Name	Motorola(Salcomp)	Model Name	MC-201L
USB Cable 1	Brand Name	Motorola(WASHIN)	Model Name	HX-TL-04
USB Cable 2	Brand Name	Motorola(SAIBAO)	Model Name	STN-A131A
USB Cable 3	Brand Name	Motorola(WASHIN)	Model Name	HX-TL-07
USB Cable 4	Brand Name	Motorola(SAIBAO)	Model Name	STN-A132A
Battery 1	Brand Name	Motorola(ATL)	Model Name	RL52
Battery 2	Brand Name	Motorola(Sunwoda)	Model Name	RL52



## 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:

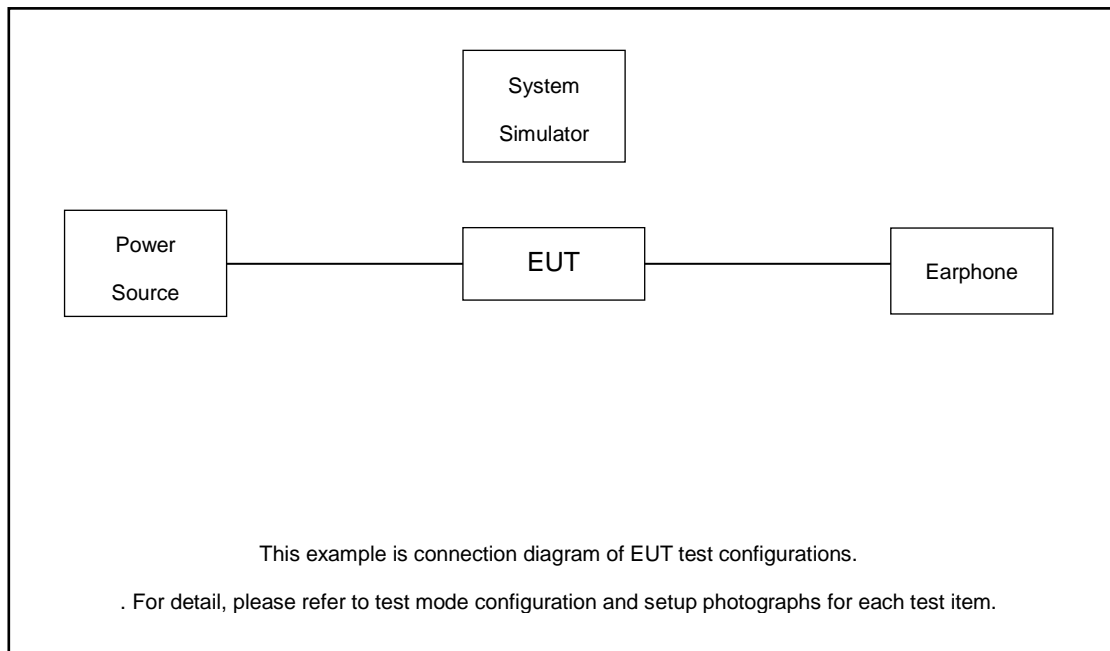
1. 30 MHz to 9000 MHz for GSM850.
2. 30 MHz to 19100 MHz for WCDMA Band II.

All modes and data rates and positions were investigated.

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

Test Modes		
Band	Radiated TCs	Conducted TCs
GSM 850	■ EDGE 1 Tx slots Link	■ GSM Link
GSM 1900	-	■ GSM Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band V	-	■ RMC 12.2Kbps Link
WCDMA Band IV	-	■ RMC 12.2Kbps Link

## 2.2 Connection Diagram of Test System



The EUT has been configuration operated in a manner tended to maximize its emission characteristics in a typical application.

## 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.	System Simulator	Agilent	E5515C	N/A	N/A	Unshielded, 1.8 m
3.	Earphone	N/A	N/A	N/A	N/A	N/A



## 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

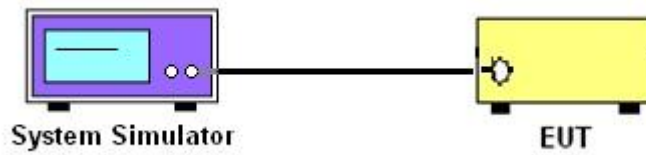
### 3 Conducted Test Result

#### 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.

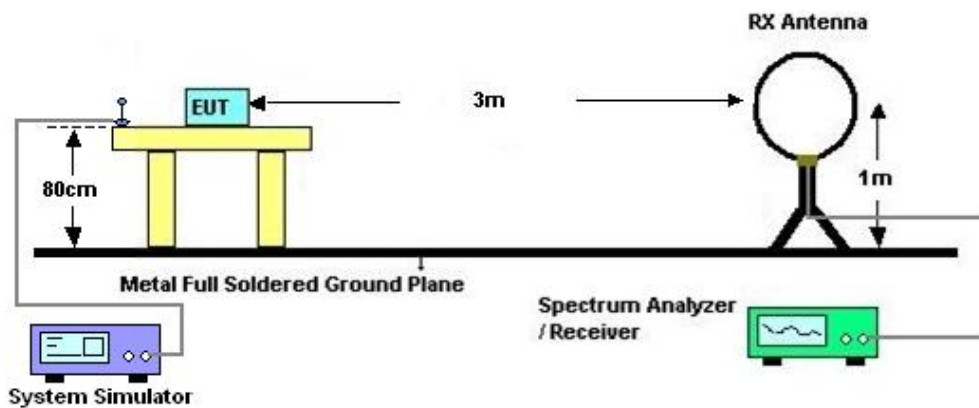
## 4 Radiated Test Items

### 4.1 Measuring Instruments

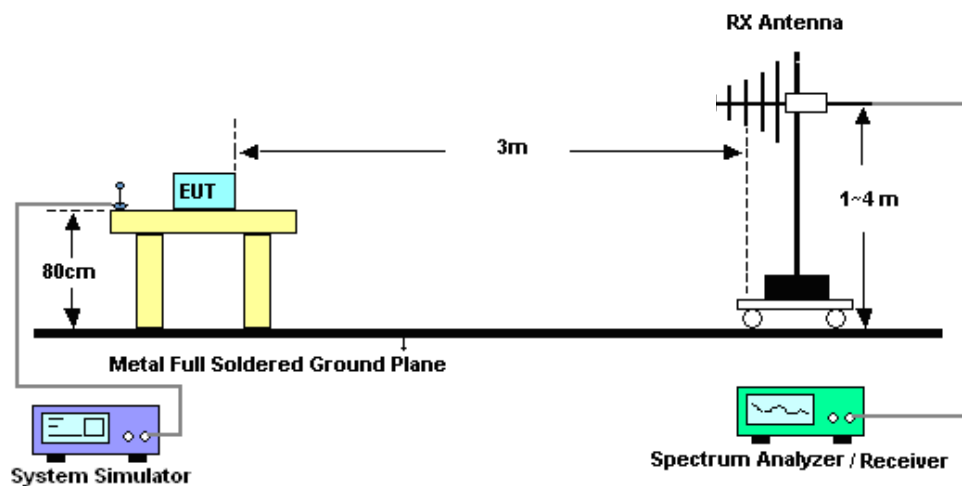
See list of measuring instruments of this test report.

### 4.2 Test Setup

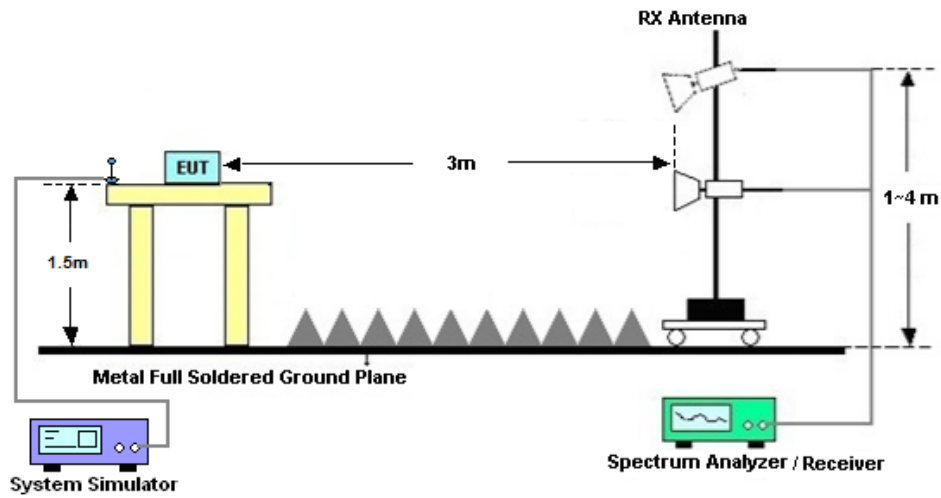
#### 4.2.1 For radiated test below 30MHz



#### 4.2.2 For radiated test from 30MHz to 1GHz



### 4.2.3 For radiated test above 1GHz



### 4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix A.



## 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	MY55150213	10Hz~44GHz	Jul. 04, 2024	Jun. 24, 2025	Jul. 03, 2025	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Jun. 24, 2025	Oct. 23, 2025	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 28, 2024	Jun. 24, 2025	Dec. 27, 2025	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 05, 2024	Jun. 24, 2025	Jul. 04, 2025	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 04, 2024	Jun. 24, 2025	Jul. 03, 2025	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 03, 2025	Jun. 24, 2025	Apr. 02, 2027	Radiation (03CH02-SZ)
LF Amplifier	EM Electronics	EM330	060788	20MHz-3GHz	Dec. 25, 2024	Jun. 24, 2025	Dec. 24, 2025	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 14, 2024	Jun. 24, 2025	Oct. 13, 2025	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010003043	N/A	Oct. 18, 2024	Jun. 24, 2025	Oct. 17, 2025	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jun. 24, 2025	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jun. 24, 2025	NCR	Radiation (03CH02-SZ)
Radio communication analyzer	Anritsu	MT8820C	6201563777	2G/3G/4G	Jul. 05, 2024	Jun. 25, 2025	Jul. 04, 2025	Conducted (TH01-SZ)

NCR: No Calibration Required



## 6 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

### Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±1.34 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47 dB
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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))	3.31 dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.72 dB
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----- THE END -----



## Appendix A. Test Results of Conducted Test

Test Engineer :	Nina Cheng	Temperature :	24~26°C
		Relative Humidity :	50~53%

### Conducted Output Power(Average power) and ERP/EIRP

#### GSM850

GSM850	Burst Average Power (dBm)			ERP(W)		
	TX Channel	128	189	251		
Frequency (MHz)	824.2	836.4	848.8	L	M	H
GSM 1 Tx slot	32.10	-	-	0.4121	-	-

#### GSM1900

GSM1900	Burst Average Power (dBm)			EIRP(W)		
	TX Channel	512	661	810		
Frequency (MHz)	1850.2	1880	1909.8	L	M	H
GSM 1 Tx slot	-	-	29.59	-	-	0.4887

#### WCDMA Band V

Band	WCDMA V			ERP(W)		
	TX Channel	4132	4182	4233		
Rx Channel	4357	4407	4458			
Frequency (MHz)	826.4	836.4	846.6	L	M	H
3GPP Rel 99 RMC 12.2Kbps	-	23.10	-	-	0.0519	-

#### WCDMA Band II

Band	WCDMA II			EIRP(W)		
	TX Channel	9262	9400	9538		
Rx Channel	9662	9800	9938			
Frequency (MHz)	1852.4	1880	1907.6	L	M	H
3GPP Rel 99 RMC 12.2Kbps	-	23.35	-	-	0.1161	-

#### WCDMA Band IV

Band	WCDMA IV			EIRP(W)		
	TX Channel	1312	1413	1513		
Rx Channel	1537	1638	1738			
Frequency (MHz)	1712.4	1732.6	1752.6	L	M	H
3GPP Rel 99 RMC 12.2Kbps	-	23.30	-	-	0.1202	-



# Appendix B. Test Results of Radiated Test

## Radiated Spurious Emission

Test Engineer :	LiangPing Zhou	Temperature :	22~25°C
		Relative Humidity :	48~52%

GSM850 (EDGE 1 Tx slots) / Ant.0									
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	1648.4	-65.32	-13	-52.32	-74.83	-68.55	3.98	9.36	H
	2472.6	-57.07	-13	-44.07	-70.97	-60.62	4.85	10.55	H
	3296.8	-61.13	-13	-48.13	-77.19	-66.06	5.50	12.58	H
	1648.4	-65.84	-13	-52.84	-75.09	-69.07	3.98	9.36	V
	2472.6	-59.20	-13	-46.20	-73.07	-62.75	4.85	10.55	V
	3296.8	-61.97	-13	-48.97	-77.84	-66.90	5.50	12.58	V
Middle	1672.8	-65.20	-13	-52.20	-74.77	-68.45	4.00	9.40	H
	2509.2	-58.17	-13	-45.17	-71.96	-61.74	4.88	10.60	H
	3345.6	-61.86	-13	-48.86	-77.47	-66.79	5.52	12.60	H
	1672.8	-65.50	-13	-52.50	-74.52	-68.75	4.00	9.40	V
	2509.2	-56.10	-13	-43.10	-69.85	-59.67	4.88	10.60	V
	3345.6	-62.12	-13	-49.12	-77.46	-67.05	5.52	12.60	V
Highest	1697.6	-64.74	-13	-51.74	-74.39	-67.91	4.10	9.42	H
	2546.4	-59.31	-13	-46.31	-73.22	-62.89	4.90	10.63	H
	3395.2	-61.74	-13	-48.74	-77.77	-66.66	5.55	12.62	H
	1697.6	-66.01	-13	-53.01	-75.14	-69.18	4.10	9.42	V
	2546.4	-56.41	-13	-43.41	-70.26	-59.99	4.90	10.63	V
	3395.2	-61.58	-13	-48.58	-77.73	-66.50	5.55	12.62	V

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



WCDMA Band II (RMC 12.2Kbps) / Ant.0									
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	3704.8	-61.66	-13	-48.66	-79.68	-68.42	5.82	12.58	H
	5557.2	-59.97	-13	-46.97	-81.89	-65.69	7.28	13.00	H
	7409.6	-55.27	-13	-42.27	-81.41	-58.43	8.32	11.48	H
	3704.8	-61.95	-13	-48.95	-79.87	-68.71	5.82	12.58	V
	5557.2	-59.46	-13	-46.46	-81.56	-65.18	7.28	13.00	V
	7409.6	-55.24	-13	-42.24	-81.4	-58.40	8.32	11.48	V
Middle	3760	-61.17	-13	-48.17	-79.29	-67.92	5.85	12.60	H
	5640	-58.26	-13	-45.26	-81.12	-64.06	7.30	13.10	H
	7520	-55.07	-13	-42.07	-80.89	-58.22	8.35	11.50	H
	3760	-61.54	-13	-48.54	-79.59	-68.29	5.85	12.60	V
	5640	-59.12	-13	-46.12	-81.23	-64.92	7.30	13.10	V
	7520	-55.14	-13	-42.14	-80.94	-58.29	8.35	11.50	V
Highest	3815.2	-60.86	-13	-47.86	-79.12	-67.60	5.88	12.62	H
	5722.8	-58.32	-13	-45.32	-81.26	-64.13	7.32	13.13	H
	7630.4	-55.50	-13	-42.50	-81.25	-58.66	8.38	11.54	H
	3815.2	-61.64	-13	-48.64	-79.89	-68.38	5.88	12.62	V
	5722.8	-58.84	-13	-45.84	-81.6	-64.65	7.32	13.13	V
	7630.4	-55.43	-13	-42.43	-81.1	-58.59	8.38	11.54	V

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