



FCC RADIO TEST REPORT

FCC ID : IHDT56XC3
Equipment : Mobile Cellular Phone
Brand Name : Motorola
Model Name : XT1921-8
Applicant : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL
60654 USA
Manufacturer : Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago IL
60654 USA
Standard : 47 CFR Part 2, 22(H), 24(E)

The product was received on Sep. 26, 2018 and testing was started from Oct. 12, 2018 and completed on Oct. 16, 2018. 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 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 variant 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.

Approved by: Joseph Lin

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
FG892624A	01	Initial issue of report	Nov. 22, 2018

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 20.62 dB at 1648.000 MHz
Remark: 1. Not required means after assessing, test items are not necessary to carry out. 2. This is a variant report. All the test cases were performed on original report which can be referred to Sporton Report Number FG7D2018-03A.				

Reviewed by: Wii Chang

Report Producer: Natasha Hsieh



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT1921-8
FCC ID	IHDT56XC3
IMEI Code	Conducted : IMEI : 359543090002839 Radiation : IMEI : 359543090003555
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/GNSS/ FM WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 Bluetooth BR/EDR/LE
HW Version	PVT
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

Accessory List	
AC Adapter 1	Brand Name : Motorola
	Model Name : SC-61
	Manufacturer : Acbel
AC Adapter 2	Brand Name : Motorola
	Model Name : SC-61
	Manufacturer : Chenyang
Battery	Brand Name : Motorola
	Model Name : GK40
	Manufacturer : Amperex
USB Cable	Brand Name : Saibao
	Model Name : SWT-A083A

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	GSM/GPRS/EDGE: 850: 824.2 MHz ~ 848.8 MHz 1900: 1850.2 MHz ~ 1909.8 MHz WCDMA: Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz CDMA2000: BC0: 824.70 MHz ~ 848.31 MHz BC1: 1851.25 MHz ~ 1908.75 MHz
Rx Frequency	GSM/GPRS/EDGE: 850: 869.2 MHz ~ 893.8 MHz 1900: 1930.2 MHz ~ 1989.8 MHz WCDMA: Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz CDMA2000: BC0: 869.70 MHz ~ 893.31 MHz BC1: 1931.25 MHz ~ 1988.75 MHz
Maximum Output Power to Antenna	GSM/GPRS/EDGE: 850: 32.95 dBm 1900: 29.98 dBm WCDMA: Band V: 23.59 dBm Band II: 23.36 dBm CDMA2000: BC0: 24.11 dBm BC1: 24.41 dBm
Antenna Type	PIFA Antenna and Coupling Type (LDS) Antenna
Antenna Gain	Cellular Band: -0.105 dBi PCS Band: 0.982 dBi
Type of Modulation	GSM: GMSK WCDMA: BPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink) CDMA2000 1xRTT: QPSK CDMA2000 1xEV-DO: QPSK/8PSK

1.3 Modification of EUT

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

1.4 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	1.1735	-	-
Part 22	824.2 ~ 848.8	GSM850 EDGE class 8	8PSK	0.2532	-	-
Part 22	826.4 ~ 846.6	WCDMA Band V RMC 12.2Kbps	BPSK	0.1360	-	-
Part 22	824.70 ~ 848.31	CDMA2000 BC0 1xRTT	QPSK	0.1533	-	-
Part 22	824.70 ~ 848.31	CDMA2000 BC0 1xEV-DO Rev. 0	QPSK	0.1526	-	-
Part 24	1850.2 ~1909.8	GSM1900 GSM	GMSK	1.2480	-	-
Part 24	1850.2 ~1909.8	GSM1900 EDGE class 8	8PSK	0.4287	-	-
Part 24	1852.4 ~ 1907.6	WCDMA Band II RMC 12.2Kbps	BPSK	0.2718	-	-
Part 24	1851.25 ~ 1908.75	CDMA2000 BC1 1xRTT	QPSK	0.3437	-	-
Part 24	1851.25 ~ 1908.75	CDMA2000 BC1 1xEV-DO Rev. 0	QPSK	0.3461	-	-

1.5 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
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. TH05-HY, 03CH07-HY

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

1.6 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),
- ♦ 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. The worst cases (Z plane) 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 and CDMA BC0.
2. 30 MHz to 19100 MHz for GSM1900 and WCDMA Band II and CDMA BC1.

All modes and data rates and positions were investigated.

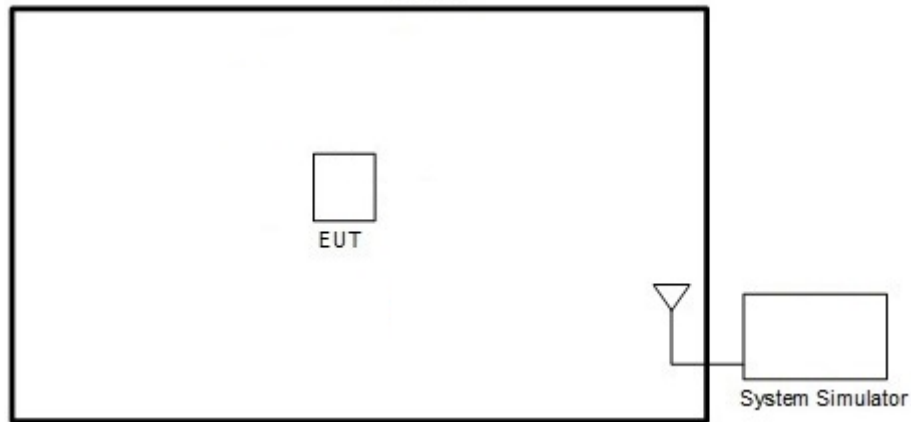
Test modes are chosen to be reported as the worst case configuration below:

Test Modes	
Band	Radiated TCs
GSM 850	■ GPRS Class 8 Link ■ EDGE Class 8 Link
GSM 1900	■ GSM Link ■ EDGE Class 8 Link
WCDMA Band V	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link
CDMA BC0	■ 1xRTT Link
CDMA BC1	■ 1xEV-DO Rev. 0 Link

Remark: All the radiated test cases were performed with Adapter 1.

2.2 Connection Diagram of Test System

<EUT Standalone>



2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	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	-	-
	Frequency	824.2	-	-
WCDMA Band V	Channel	-	4182	-
	Frequency	-	836.4	-
GSM1900	Channel	-	-	810
	Frequency	-	-	1909.8
WCDMA Band II	Channel	-	-	9538
	Frequency	-	-	1907.6
CDMA2000 BC0	Channel	-	384	-
	Frequency	-	836.52	-
CDMA2000 BC1	Channel	-	600	1175
	Frequency	-	1880.0	1908.75

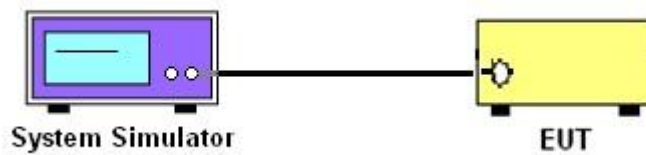
3 Conducted Test Result

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.

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.

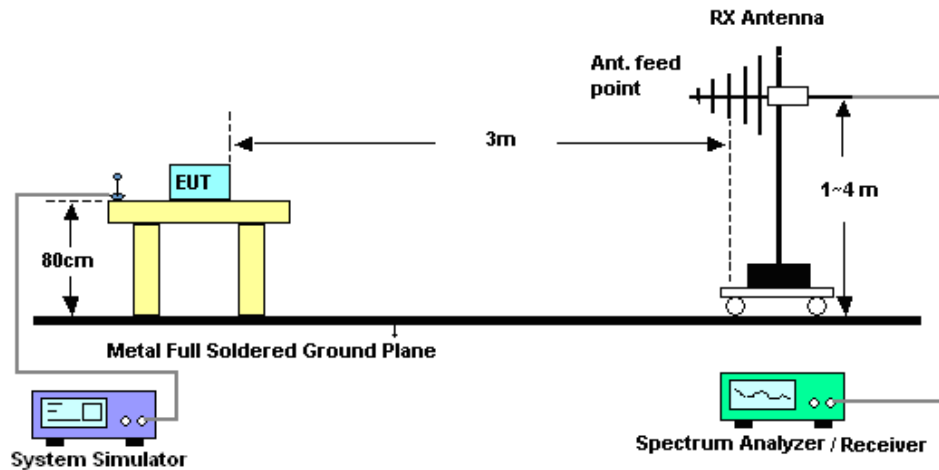
4 Radiated Test Items

4.1 Measuring Instruments

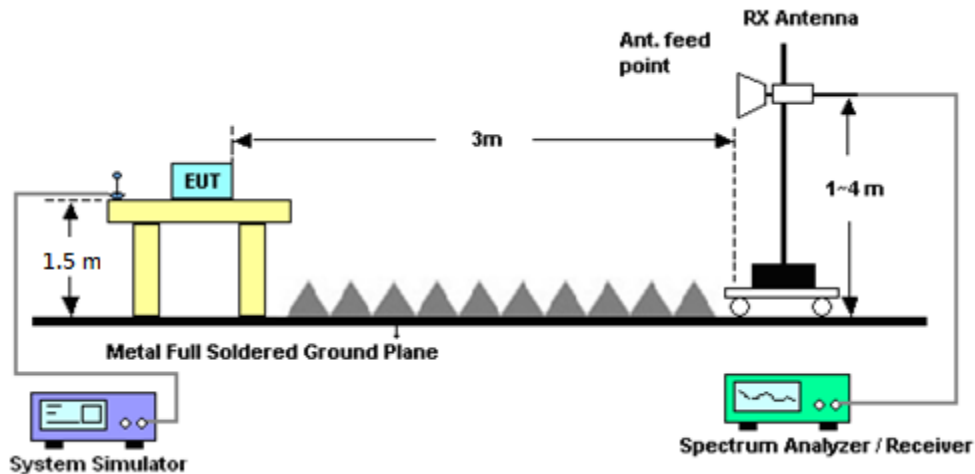
See list of measuring instruments of this test report.

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 5.8 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. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11. $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
13. The limit line is derived from $43 + 10\log(P)$ 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
Base Station	Anritsu	MT8820C	6201341951	GSM / GPRS / WCDMA / LTE	Mar. 21, 2018	Oct. 12, 2018	Mar. 20, 2020	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890089	1V~20V 0.5A~5A	Jan. 12, 2018	Oct. 12, 2018	Jan. 11, 2019	Conducted (TH05-HY)
Coupler	Warison	1-18GHz 20dB 25WSMA Directional Coupler	#B	1G~18GHz	Dec. 04, 2017	Oct. 12, 2018	Dec. 03, 2018	Conducted (TH05-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	35419&03	30MHz to 1GHz	Dec. 18, 2017	Oct. 13, 2018~ Oct. 16, 2018	Dec. 17, 2018	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00211469	1GHz ~ 18GHz	Aug. 06, 2018	Oct. 13, 2018~ Oct. 16, 2018	Aug. 05, 2019	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00066583	1GHz ~ 18GHz	Aug. 06, 2018	Oct. 13, 2018~ Oct. 16, 2018	Aug. 05, 2019	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Nov. 10, 2017	Oct. 13, 2018~ Oct. 16, 2018	Nov. 09, 2018	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz ~ 18GHz	Apr. 25, 2018	Oct. 13, 2018~ Oct. 16, 2018	Apr. 24, 2019	Radiation (03CH07-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Oct. 13, 2018~ Oct. 16, 2018	Jul. 15, 2019	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1GHz	May 21, 2018	Oct. 13, 2018~ Oct. 16, 2018	May 20, 2019	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Apr. 17, 2018	Oct. 13, 2018~ Oct. 16, 2018	Apr. 16, 2019	Radiation (03CH07-HY)
EMI Test Receiver	Agilent	N9038A (MXE)	MY53290053	20Hz to 26.5GHz	Jan. 16, 2018	Oct. 13, 2018~ Oct. 16, 2018	Jan. 15, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/4, MY28655/4	9KHz~30MHz	Jan. 02, 2018	Oct. 13, 2018~ Oct. 16, 2018	Jan. 01, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	30MHz~1GHz	Feb. 27, 2018	Oct. 13, 2018~ Oct. 16, 2018	Feb. 26, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	1GHz~18GHz	Feb. 27, 2018	Oct. 13, 2018~ Oct. 16, 2018	Feb. 26, 2019	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2	18GHz~40GHz	Feb. 27, 2018	Oct. 13, 2018~ Oct. 16, 2018	Feb. 26, 2019	Radiation (03CH07-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Controller	ChainTek	Chaintek 3000	N/A	Control Turn table	N/A	Oct. 13, 2018~ Oct. 16, 2018	N/A	Radiation (03CH07-HY)
Controller	Max-Full	MF7802	MF780208 368	Control Ant Mast	N/A	Oct. 13, 2018~ Oct. 16, 2018	N/A	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Oct. 13, 2018~ Oct. 16, 2018	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Oct. 13, 2018~ Oct. 16, 2018	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170 251	18GHz- 40GHz	Nov. 10, 2017	Oct. 13, 2018~ Oct. 16, 2018	Nov. 09, 2018	Radiation (03CH07-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	May. 22, 2018	Oct. 13, 2018~ Oct. 16, 2018	May. 21, 2019	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-24	805040046 56H	N/A	N/A	Oct. 13, 2018~ Oct. 16, 2018	N/A	Radiation (03CH07-HY)
Filter	Microwave	H1G013G1	SN477215	1.0G High Pass	Dec. 07, 2017	Oct. 13, 2018~ Oct. 16, 2018	Dec. 06, 2018	Radiation (03CH07-HY)
Filter	Microwave	H3G018G1	SN477220	3.0G High Pass	Nov. 21, 2017	Oct. 13, 2018~ Oct. 16, 2018	Nov. 20, 2018	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCT800/96 0-0.2/40-8SS K	SN22	GSM850	Nov. 03, 2017	Oct. 13, 2018~ Oct. 16, 2018	Nov. 02, 2018	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCT1747.5- 0.4/40-8SS	SN2	DCS 1800	Aug. 22, 2018	Oct. 13, 2018~ Oct. 16, 2018	Aug. 21, 2019	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCT2500/2 570-10/40-10 SSK	SN1 R	LTE Band7	Aug. 22, 2018	Oct. 13, 2018~ Oct. 16, 2018	Aug. 21, 2019	Radiation (03CH07-HY)
Notch Filter	Wainwright	WRCT698/79 8-10/40 8SSK	SN1	AWS Band	Nov. 08, 2017	Oct. 13, 2018~ Oct. 16, 2018	Nov. 07, 2018	Radiation (03CH07-HY)

6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.05
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.44
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.95
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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	1909.8
GSM	32.73	32.78	32.85	29.78	29.98	29.65
GPRS class 8	32.77	32.87	32.95	29.93	29.88	29.84
GPRS class 10	29.41	29.11	29.09	27.08	26.71	26.76
GPRS class 11	27.45	27.02	27.06	24.87	24.85	24.50
GPRS class 12	26.42	26.44	26.55	23.28	23.29	23.32
EGPRS class 8	26.11	26.22	26.29	25.34	25.14	24.96
EGPRS class 10	26.01	26.06	26.19	25.13	24.42	24.20
EGPRS class 11	24.72	24.67	24.81	23.72	22.70	22.53
EGPRS class 12	23.30	23.30	23.39	22.14	21.02	21.04

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	23.59	23.55	23.58	23.36	23.28	23.34
HSDPA Subtest-1	22.53	22.49	22.56	22.29	22.25	22.28
HSDPA Subtest-2	22.59	22.55	22.59	22.36	22.12	22.20
HSDPA Subtest-3	22.00	21.94	22.10	21.87	21.71	21.70
HSDPA Subtest-4	22.04	22.02	21.97	21.87	21.71	21.75
HSUPA Subtest-1	21.54	21.65	21.58	22.22	22.06	22.14
HSUPA Subtest-2	20.12	20.12	20.27	20.26	20.22	20.06
HSUPA Subtest-3	21.58	21.53	21.56	21.42	21.42	21.33
HSUPA Subtest-4	20.53	20.63	20.55	20.47	20.35	20.11
HSUPA Subtest-5	22.58	22.52	22.54	22.59	22.37	22.40



Conducted Power (*Unit: dBm)						
Band	CDMA 2000 BC0			CDMA 2000 BC1		
Channel	1013	384	777	25	600	1175
Frequency	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1 SO55	24.05	24.08	24.04	24.36	24.33	24.38
1xRTT RC3 SO55	24.00	24.11	24.06	24.38	24.34	24.39
1xRTT RC3 SO32 (+ F-SCH)	24.05	24.08	24.06	24.31	24.30	24.33
1xRTT RC3 SO32 (+SCH)	24.08	24.10	24.10	24.30	24.28	24.31
1xEVDO RTAP 153.6Kbps	24.01	24.07	24.06	24.37	24.35	24.41
1xEVDO RETAP 4096Bits	24.09	24.08	24.05	24.32	24.29	24.33



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	32.77	1.8923	30.52	1.1259
Middle	GPRS class 8	32.87	1.9364	30.62	1.1521
Highest	GT - LC = -0.105 dB	32.95	1.9724	30.70	1.1735
Lowest	GSM850	26.11	0.4083	23.86	0.2429
Middle	EDGE class 8	26.22	0.4188	23.97	0.2492
Highest	GT - LC = -0.105 dB	26.29	0.4256	24.04	0.2532
Lowest	WCDMA Band V	23.59	0.2286	21.34	0.1360
Middle	RMC 12.2Kbps	23.55	0.2265	21.30	0.1347
Highest	GT - LC = -0.105 dB	23.58	0.2280	21.33	0.1357
Lowest	CDMA BC0	24.00	0.2512	21.75	0.1495
Middle	1xRTT	24.11	0.2576	21.86	0.1533
Highest	GT - LC = -0.105 dB	24.06	0.2547	21.81	0.1515
Lowest	CDMA BC0	24.09	0.2564	21.84	0.1526
Middle	1xEV-DO	24.08	0.2559	21.83	0.1522
Highest	GT - LC = -0.105 dB	24.05	0.2541	21.80	0.1512
Limit	ERP < 7W	Result		PASS	

Channel	Mode	Conducted		EIRP	
		Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	GSM1900	29.78	0.9506	30.76	1.1918
Middle	GSM	29.98	0.9954	30.96	1.2480
Highest	GT - LC = 0.982 dB	29.65	0.9226	30.63	1.1566
Lowest	GSM1900	25.34	0.3420	26.32	0.4287
Middle	EDGE class 8	25.14	0.3266	26.12	0.4094
Highest	GT - LC = 0.982 dB	24.96	0.3133	25.94	0.3928
Lowest	WCDMA Band II	23.36	0.2168	24.34	0.2718
Middle	RMC 12.2Kbps	23.28	0.2128	24.26	0.2668
Highest	GT - LC = 0.982 dB	23.34	0.2158	24.32	0.2705
Lowest	CDMA BC1	24.36	0.2729	25.34	0.3421
Middle	1xRTT	24.33	0.2710	25.31	0.3398
Highest	GT - LC = 0.982 dB	24.38	0.2742	25.36	0.3437
Lowest	CDMA BC1	24.37	0.2735	25.35	0.3429
Middle	1xEV-DO	24.35	0.2723	25.33	0.3414
Highest	GT - LC = 0.982 dB	24.41	0.2761	25.39	0.3461
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)
Lowest	1648	-50.41	-13	-37.41	-62.74	-52.17	0.98	4.89	H
	2472	-54.36	-13	-41.36	-71.89	-56.24	1.28	5.32	H
	3296	-58.02	-13	-45.02	-77.62	-61.43	1.54	7.10	H
									H
									H
									H
									H
	1648	-33.62	-13	-20.62	-46.42	-35.38	0.98	4.89	V
	2472	-52.59	-13	-39.59	-70.56	-54.47	1.28	5.32	V
	3296	-57.55	-13	-44.55	-77.48	-60.96	1.54	7.10	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)
Middle	1672	-52.02	-13	-39.02	-64.64	-53.7	0.99	4.82	H
	2512	-49.88	-13	-36.88	-67.5	-51.85	1.29	5.41	H
	3344	-58.23	-13	-45.23	-78.09	-61.84	1.56	7.31	H
									H
									H
									H
									H
	1672	-55.75	-13	-42.75	-68.83	-57.43	0.99	4.82	V
	2512	-48.26	-13	-35.26	-66.34	-50.23	1.29	5.41	V
	3344	-57.66	-13	-44.66	-77.73	-61.27	1.56	7.31	V
									V
									V
									V
									V

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

**CDMA2000 (BC0 1xRTT)**

CDMA2000 BC0									
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	-54.05	-13	-41.05	-66.78	-55.73	0.99	4.82	H
	2512	-49.95	-13	-36.95	-67.61	-51.92	1.29	5.41	H
	3344	-58.93	-13	-45.93	-78.78	-62.54	1.56	7.31	H
									H
									H
									H
									H
	1672	-53.64	-13	-40.64	-66.68	-55.32	0.99	4.82	V
	2512	-48.22	-13	-35.22	-66.27	-50.19	1.29	5.41	V
	3344	-58.63	-13	-45.63	-78.71	-62.24	1.56	7.31	V
									V
									V
									V
									V

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

**CDMA2000 (BC0 1xEVDO)**

CDMA2000 BC0									
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	-53.88	-13	-40.88	-66.45	-55.56	0.99	4.82	H
	2512	-47.91	-13	-34.91	-65.5	-49.88	1.29	5.41	H
	3344	-58.28	-13	-45.28	-78.07	-61.89	1.56	7.31	H
									H
									H
									H
									H
	1672	-54.55	-13	-41.55	-67.64	-56.23	0.99	4.82	V
	2512	-45.35	-13	-32.35	-63.4	-47.32	1.29	5.41	V
	3344	-58.26	-13	-45.26	-78.31	-61.87	1.56	7.31	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	-56.28	-13	-43.28	-77.13	-62.96	1.71	8.39	H
	5730	-46.24	-13	-33.24	-71.95	-53.27	2.76	9.79	H
	7639	-49.86	-13	-36.86	-77.5	-59.36	2.38	11.88	H
									H
									H
									H
									H
	3822	-54.34	-13	-41.34	-75.26	-61.02	1.71	8.39	V
	5730	-46.60	-13	-33.60	-72.3	-53.63	2.76	9.79	V
	7639	-49.33	-13	-36.33	-77.24	-58.83	2.38	11.88	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	3816	-57.41	-13	-44.41	-78.26	-64.09	1.70	8.38	H
	5730	-52.27	-13	-39.27	-77.98	-59.3	2.76	9.79	H
	7638	-48.57	-13	-35.57	-76.16	-58.07	2.38	11.88	H
									H
									H
									H
									H
	3816	-57.20	-13	-44.20	-78.12	-63.88	1.70	8.38	V
	5730	-52.28	-13	-39.28	-77.98	-59.31	2.76	9.79	V
	7638	-48.34	-13	-35.34	-76.19	-57.84	2.38	11.88	V
									V
									V
									V
									V

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

**CDMA2000 (BC1 1xRTT)**

CDMA2000 BC1									
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	3816	-57.86	-13	-44.86	-78.65	-64.54	1.70	8.38	H
	5724	-51.57	-13	-38.57	-77.32	-58.61	2.75	9.79	H
	7632	-46.29	-13	-33.29	-73.88	-55.78	2.39	11.88	H
									H
									H
									H
									H
	3816	-57.64	-13	-44.64	-78.53	-64.32	1.70	8.38	V
	5724	-52.04	-13	-39.04	-77.77	-59.08	2.75	9.79	V
	7632	-46.95	-13	-33.95	-74.76	-56.44	2.39	11.88	V
									V
									V
									V
									V

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

**CDMA2000 (BC1 1xEVDO)**

CDMA2000 BC1									
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	3762	-57.74	-13	-44.74	-78.55	-64.37	1.69	8.31	H
	5640	-48.83	-13	-35.83	-74.38	-55.88	2.71	9.76	H
	7518	-47.97	-13	-34.97	-75.17	-57.36	2.42	11.81	H
									H
									H
									H
									H
	3762	-57.74	-13	-44.74	-78.54	-64.37	1.69	8.31	V
	5640	-48.44	-13	-35.44	-73.93	-55.49	2.71	9.76	V
	7518	-46.72	-13	-33.72	-74.29	-56.11	2.42	11.81	V
									V
									V
									V
									V

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