



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2141-1
FCC ID : IHDT56ZP1
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(M), 27(H), 27(F)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S) : Jul. 09, 2021 ~ Jul. 13, 2021

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

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager



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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG151701-02B	Rev. 01	Initial issue of report	Jul. 16, 2021



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.2	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17)	ERP < 3 Watt	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7)	EIRP < 2Watt	PASS	-
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(f) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 7) (Band 12) (Band 13) (Band17) (Band 66)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 12.22 dB at 7578.270 MHz

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



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	XT2141-1
FCC ID	IHDT56ZP1
EUT supports Radios application	GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ac/ax VHT20/HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/n HT20/HT40 WLAN 6GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC and GNSS
IMEI Code	Conducted: 351758640006316 Radiation: 351758640006985
HW Version	DVT2
SW Version	RRM31.Q3
EUT Stage	Identical Prototype



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 17 : 704 MHz ~ 716 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz
Rx Frequency	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 13 : 746 MHz ~ 756 MHz LTE Band 17 : 734 MHz ~ 746 MHz LTE Band 66 : 2110 MHz~ 2200 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	Main Antenna ANT 0: LTE Band 2 : 22.66 dBm LTE Band 4 : 22.39 dBm LTE Band 7 : 23.04 dBm LTE Band 66 : 22.42 dBm Main Antenna ANT 1: LTE Band 5 : 22.57 dBm LTE Band 12 : 22.66 dBm LTE Band 13 : 22.54 dBm LTE Band 17 : 22.61 dBm
Antenna Gain	Main Antenna ANT 0: LTE Band 2 : 0.65 dBi LTE Band 4 : -0.89 dBi LTE Band 7 : -2.76 dBi LTE Band 66 : 1.23 dBi Main Antenna ANT 1: LTE Band 5 : -2.12 dBi LTE Band 12 : -2.65 dBi LTE Band 13 : -1.87 dBi LTE Band 17 : -2.65 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

Note: The ERP/EIRP is calculated from Output power and antenna gain, so the maximum ERP/EIRP is shown in the report.



1.5 Specification of Accessory

Specification of Accessory				
AC Adapter 1	Brand Name	Motorola (Salom)	Model Name	MC-301
AC Adapter 2	Brand Name	Motorola (Acbel)	Model Name	MC-301
Battery	Brand Name	Motorola (ATL)	Model Name	MB50
USB Cable 1	Brand Name	Motorola (Luxshare)	Model Name	SC18D13217
USB Cable 2	Brand Name	Motorola (Saibao)	Model Name	SC18D13215
USB Cable 3	Brand Name	Motorola (Cabletech)	Model Name	SC18D13216

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: XT2141-1, FCC ID: IHDT56ZP1) is electrically identical to the reference device (Model: XT2141-2, FCC ID: IHDT56ZP2) 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., please refer to the XT2141-1_Operational Description of Product Equality Declaration.

The re-used RF data includes the following bands provided in Appendix D (Sporton RF Report No. FG151701-01B&FG151701-01C for the reference device Model: XT2141-2, FCC ID: IHDT56ZP2).

1.7.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
PCE	IHDT56ZP2	Part 22H.24E.27L.27H.27F.27N (Report No. FG151701-01B)	All sections applicable for LTE Band 2/4/5/12/13/17/66 except Power, ERP/EIRP and RSE
PCE	IHDT56ZP2	Part 27M (Report No. FG151701-01C)	All sections applicable for LTE Band 7 except Power, EIRP and RSE



1.7.4 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 the following test items, the test result were consistent with FCC ID: IHDT56ZP2.

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.

Test Item	Mode	IHDT56ZP2 Worst Result	IHDT56ZP1 Worst Result	Difference (dB)
Average Conducted Power (dBm)	LTE Band 2	21.67	22.66	0.99
	LTE Band 4	22.69	22.39	-0.30
	LTE Band 5	22.56	22.57	0.01
	LTE Band 7	23.03	23.04	0.01
	LTE Band 12	22.55	22.66	0.11
	LTE Band 13	22.34	22.54	0.2
	LTE Band 17	22.54	22.61	0.07
	LTE Band 66	22.71	22.42	-0.29



1.8 Maximum ERP/EIRP

LTE Band 2		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1850.7 ~ 1909.3	0.2046	0.1879
3	1851.5 ~ 1908.5	0.2028	0.1726
5	1852.5 ~ 1907.5	0.2028	0.1758
10	1855.0 ~ 1905.0	0.2032	0.1770
15	1857.5 ~ 1902.5	0.1986	0.1702
20	1860.0 ~ 1900.0	0.2143	0.1858

LTE Band 4		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1710.7 ~ 1754.3	0.2193	0.2104
3	1711.5 ~ 1753.5	0.2218	0.2259
5	1712.5 ~ 1752.5	0.2234	0.2234
10	1715.0 ~ 1750.0	0.2218	0.2208
15	1717.5 ~ 1747.5	0.2244	0.2080
20	1720.0 ~ 1745.0	0.2317	0.2148

LTE Band 5		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	824.7 ~ 848.3	0.0641	0.0565
3	825.5 ~ 847.5	0.0652	0.0570
5	826.5 ~ 846.5	0.0675	0.0582
10	829.0 ~ 844.0	0.0676	0.0583



LTE Band 7		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	0.1064	0.1023
10	2505.0 ~ 2565.0	0.1062	0.0977
15	2507.5 ~ 2562.5	0.1038	0.0887
20	2510.0 ~ 2560.0	0.1067	0.0891

LTE Band 12		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	699.7 ~ 715.3	0.0578	0.0512
3	700.5 ~ 714.5	0.0581	0.0514
5	701.5 ~ 713.5	0.0578	0.0531
10	704.0 ~ 711.0	0.0611	0.0519

LTE Band 13		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
5	779.5 ~ 784.5	0.0708	0.0708
10	782.0	0.0711	0.0681

LTE Band 17		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
5	706.5 ~ 713.5	0.0578	0.0531
10	709.0 ~ 711.0	0.0611	0.0519



LTE Band 66		QPSK	16QAM/64QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1710.7 ~ 1779.3	0.2193	0.2104
3	1711.5 ~ 1778.5	0.2218	0.2259
5	1712.5 ~ 1777.5	0.2234	0.2234
10	1715.0 ~ 1775.0	0.2218	0.2208
15	1717.5 ~ 1772.5	0.2244	0.2080
20	1720.0 ~ 1770.0	0.2317	0.2148

Note:

1. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.
2. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17.
3. All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.

1.9 Testing Location

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

Test Firm	Sporton International (Shenzhen) Inc.		
Test Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH02-SZ/03CH03-SZ	CN1256	421272

1.10 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a
2.	03CH01-SZ	AUDIX	E3	6.2009-8-24



1.11 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), 27(M), 27(H), 27(F)
- ♦ 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

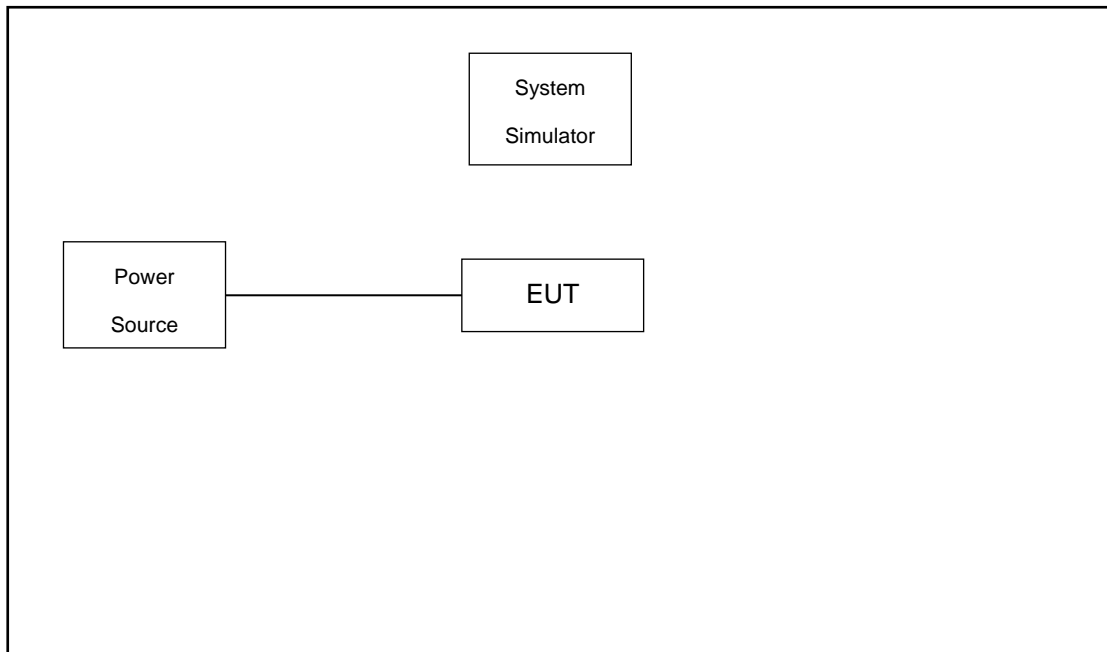
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
E.R.P / E.I.R.P	2	v	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v	v			v	v	v
	13	-	-	v	v	-	-	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v			v	v
Radiated Spurious Emission	2	Worst Case													v	
	5	Worst Case													v	
	7	Worst Case													v	
	12	Worst Case													v	
	13	Worst Case													v	
	66	Worst Case													v	
Note	<ol style="list-style-type: none"> The mark "v" means that this configuration is chosen for testing The mark "-" means that this bandwidth is not supported. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 															

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m



2.4 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3



LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

LTE Band 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711
5	Channel	23035	23095	23155
	Frequency	701.5	707.5	713.5
3	Channel	23025	23095	23165
	Frequency	700.5	707.5	714.5
1.4	Channel	23017	23095	23173
	Frequency	699.7	707.5	715.3



LTE Band 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23230	-
	Frequency	-	782	-
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5

LTE Band 17 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23780	23790	23800
	Frequency	709	710	711
5	Channel	23755	23790	23825
	Frequency	706.5	710	713.5

LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	132072	132322	132572
	Frequency	1720	1745	1770
15	Channel	132047	132322	132597
	Frequency	1717.5	1745	1772.5
10	Channel	132022	132322	132622
	Frequency	1715	1745	1775
5	Channel	131997	132322	132647
	Frequency	1712.5	1745	1777.5
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5
1.4	Channel	131979	132322	132665
	Frequency	1710.7	1745	1779.3



3 Conducted Test Items

3.1 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 Measurement and ERP/EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output 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 LTE Band 5.

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12, Band 13 and Band 17.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and LTE Band 7.

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66.

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 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.

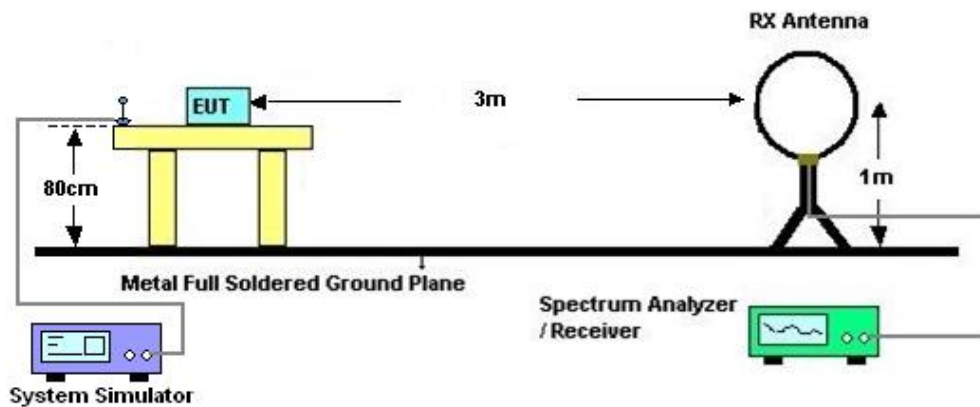
4 Radiated Test Items

4.1 Measuring Instruments

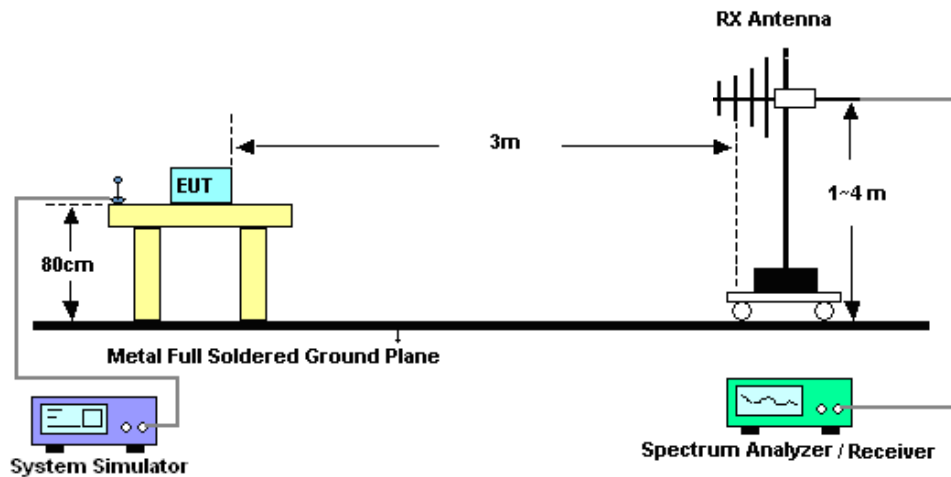
See list of measuring instruments of this test report.

4.2 Test Setup

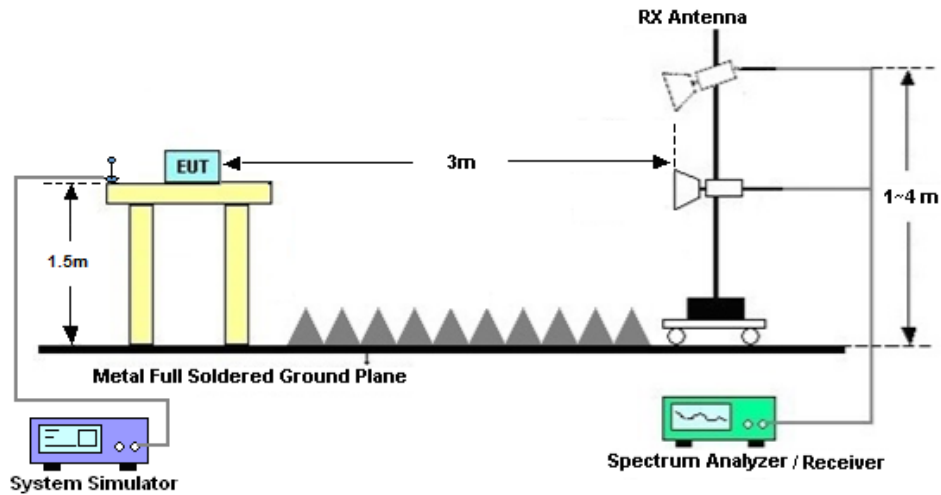
4.2.1 For radiated test below 30MHz



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 B.



4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. 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.

For LTE Band 13:

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

For Band 7:

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 $55 + 10 \log (P)$ 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 turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna 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 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
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.
The limit line is derived from $43 + 10\log(P)\text{dB}$ below the transmitter power $P(\text{Watts})$
 $= P(\text{W}) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$
13. For Band 7:
The limit line is derived from $55 + 10\log(P)\text{dB}$ below the transmitter power $P(\text{Watts})$



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. 21, 2020	Jul. 09, 2021~ Jul. 12, 2021	Jul. 20, 2021	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jul. 15, 2020	Jul. 09, 2021~ Jul. 12, 2021	Jul. 14, 2021	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 25, 2020	Jul. 09, 2021~ Jul. 12, 2021	Jul. 24, 2021	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 21, 2020	Jul. 09, 2021~ Jul. 12, 2021	Jul. 20, 2021	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 23, 2021	Jul. 09, 2021~ Jul. 12, 2021	Apr. 22, 2022	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 16, 2020	Jul. 09, 2021~ Jul. 12, 2021	Oct. 15, 2021	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 16, 2020	Jul. 09, 2021~ Jul. 12, 2021	Oct. 15, 2021	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Jul. 09, 2021~ Jul. 12, 2021	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jul. 09, 2021~ Jul. 12, 2021	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jul. 09, 2021~ Jul. 12, 2021	NCR	Radiation (03CH02-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 07, 2021	Jul. 13, 2021	Apr. 06, 2022	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Jul. 13, 2021	Jun. 21, 2022	Radiation (03CH03-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 07, 2021	Jul. 13, 2021	Apr. 06, 2022	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Jun. 22, 2020	Jul. 13, 2021	Jun. 21, 2022	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 25, 2021	Jul. 13, 2021	Apr. 24, 2022	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 16, 2020	Jul. 13, 2021	Oct. 15, 2021	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 21, 2020	Jul. 13, 2021	Jul. 20, 2021	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 11, 2021	Jul. 13, 2021	Apr. 10, 2022	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 30, 2020	Jul. 13, 2021	Dec. 29, 2021	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Jul. 13, 2021	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jul. 13, 2021	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jul. 13, 2021	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required



6 Uncertainty of Evaluation

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.

<03CH02-SZ>:

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47dB
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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))	3.31dB
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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))	3.72dB
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<03CH03-SZ>:

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.0dB
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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))	3.6dB
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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))	3.8dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	22.66	22.54	22.60
20	QPSK	1	49	22.60	22.53	22.58
20	QPSK	1	99	22.47	22.41	22.43
20	QPSK	50	0	21.69	21.67	21.68
20	QPSK	50	24	21.66	21.62	21.66
20	QPSK	50	50	21.63	21.60	21.61
20	QPSK	100	0	21.66	21.62	21.64
20	16QAM	1	0	22.04	21.85	21.93
20	16QAM	1	49	21.83	21.81	21.95
20	16QAM	1	99	21.70	21.80	21.73
20	16QAM	50	0	20.68	20.57	20.68
20	16QAM	50	24	20.66	20.56	20.66
20	16QAM	50	50	20.54	20.58	20.64
20	16QAM	100	0	20.67	20.62	20.67
20	64QAM	1	0	20.82	20.63	20.79
20	64QAM	1	49	20.72	20.72	20.81
20	64QAM	1	99	20.66	20.61	20.63
20	64QAM	50	0	19.71	19.61	19.71
20	64QAM	50	24	19.68	19.63	19.69
20	64QAM	50	50	19.58	19.63	19.70
20	64QAM	100	0	19.67	19.62	19.68
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.10	22.16	22.33
15	QPSK	1	37	22.02	22.20	22.29
15	QPSK	1	74	22.06	22.10	22.14
15	QPSK	36	0	21.18	21.20	21.41
15	QPSK	36	20	21.15	21.29	21.38
15	QPSK	36	39	21.09	21.26	21.38
15	QPSK	75	0	21.15	21.25	21.35
15	16QAM	1	0	21.59	21.40	21.57
15	16QAM	1	37	21.35	21.38	21.66
15	16QAM	1	74	21.28	21.51	21.47
15	16QAM	36	0	20.17	20.18	20.37
15	16QAM	36	20	20.19	20.29	20.36
15	16QAM	36	39	20.10	20.23	20.36
15	16QAM	75	0	20.17	20.24	20.34
15	64QAM	1	0	20.32	20.23	20.42



15	64QAM	1	37	20.17	20.35	20.49
15	64QAM	1	74	20.08	20.21	20.36
15	64QAM	36	0	19.21	19.25	19.42
15	64QAM	36	20	19.19	19.26	19.42
15	64QAM	36	39	19.14	19.26	19.39
15	64QAM	75	0	19.15	19.26	19.37
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.23	22.22	22.43
10	QPSK	1	25	22.07	22.22	22.34
10	QPSK	1	49	22.06	22.21	22.20
10	QPSK	25	0	21.28	21.32	21.54
10	QPSK	25	12	21.24	21.27	21.48
10	QPSK	25	25	21.16	21.30	21.48
10	QPSK	50	0	21.22	21.32	21.48
10	16QAM	1	0	21.55	21.60	21.83
10	16QAM	1	25	21.45	21.59	21.74
10	16QAM	1	49	21.41	21.49	21.55
10	16QAM	25	0	20.35	20.30	20.53
10	16QAM	25	12	20.28	20.28	20.53
10	16QAM	25	25	20.15	20.27	20.52
10	16QAM	50	0	20.25	20.35	20.47
10	64QAM	1	0	20.54	20.37	20.57
10	64QAM	1	25	20.31	20.41	20.53
10	64QAM	1	49	20.28	20.46	20.56
10	64QAM	25	0	19.38	19.35	19.54
10	64QAM	25	12	19.30	19.30	19.55
10	64QAM	25	25	19.18	19.38	19.50
10	64QAM	50	0	19.31	19.37	19.52
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.26	22.31	22.42
5	QPSK	1	12	22.15	22.20	22.33
5	QPSK	1	24	22.08	22.19	22.25
5	QPSK	12	0	21.31	21.27	21.55
5	QPSK	12	7	21.22	21.30	21.49
5	QPSK	12	13	21.13	21.25	21.38
5	QPSK	25	0	21.22	21.31	21.46
5	16QAM	1	0	21.55	21.54	21.80
5	16QAM	1	12	21.43	21.58	21.74
5	16QAM	1	24	21.35	21.53	21.68
5	16QAM	12	0	20.35	20.29	20.56
5	16QAM	12	7	20.30	20.35	20.54
5	16QAM	12	13	20.16	20.28	20.43
5	16QAM	25	0	20.26	20.31	20.50
5	64QAM	1	0	20.44	20.41	20.69
5	64QAM	1	12	20.25	20.39	20.60
5	64QAM	1	24	20.34	20.34	20.55
5	64QAM	12	0	19.39	19.35	19.60
5	64QAM	12	7	19.33	19.41	19.55



5	64QAM	12	13	19.21	19.33	19.46
5	64QAM	25	0	19.28	19.35	19.49
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.30	22.31	22.42
3	QPSK	1	8	22.22	22.24	22.37
3	QPSK	1	14	22.12	22.14	22.21
3	QPSK	8	0	21.33	21.26	21.49
3	QPSK	8	4	21.26	21.34	21.53
3	QPSK	8	7	21.15	21.26	21.38
3	QPSK	15	0	21.22	21.32	21.49
3	16QAM	1	0	21.55	21.62	21.70
3	16QAM	1	8	21.68	21.71	21.72
3	16QAM	1	14	21.35	21.46	21.51
3	16QAM	8	0	20.34	20.29	20.63
3	16QAM	8	4	20.30	20.39	20.54
3	16QAM	8	7	20.17	20.34	20.43
3	16QAM	15	0	20.22	20.33	20.51
3	64QAM	1	0	20.56	20.39	20.71
3	64QAM	1	8	20.44	20.53	20.70
3	64QAM	1	14	20.38	20.40	20.47
3	64QAM	8	0	19.40	19.38	19.57
3	64QAM	8	4	19.36	19.45	19.52
3	64QAM	8	7	19.23	19.32	19.53
3	64QAM	15	0	19.34	19.37	19.60
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.27	22.22	22.28
1.4	QPSK	1	3	22.46	22.38	22.33
1.4	QPSK	1	5	22.30	22.27	22.12
1.4	QPSK	3	0	22.37	22.18	22.23
1.4	QPSK	3	1	22.41	22.27	22.25
1.4	QPSK	3	3	22.40	22.13	22.23
1.4	QPSK	6	0	21.48	21.35	21.32
1.4	16QAM	1	0	21.31	21.98	21.92
1.4	16QAM	1	3	21.28	22.09	21.71
1.4	16QAM	1	5	21.46	21.71	21.80
1.4	16QAM	3	0	21.44	21.38	21.49
1.4	16QAM	3	1	21.58	21.53	21.11
1.4	16QAM	3	3	21.19	21.39	21.39
1.4	16QAM	6	0	20.61	20.25	20.41
1.4	64QAM	1	0	20.58	20.42	20.27
1.4	64QAM	1	3	20.82	20.36	20.24
1.4	64QAM	1	5	20.52	20.25	20.60
1.4	64QAM	3	0	20.73	20.45	20.51
1.4	64QAM	3	1	20.98	20.37	20.62
1.4	64QAM	3	3	20.43	20.76	20.31
1.4	64QAM	6	0	19.24	19.46	19.22



LTE Band 4:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	22.36	22.39	22.37
20	QPSK	1	49	22.22	22.34	22.23
20	QPSK	1	99	22.17	22.20	22.19
20	QPSK	50	0	21.34	21.46	21.40
20	QPSK	50	24	21.40	21.42	21.36
20	QPSK	50	50	21.24	21.27	21.22
20	QPSK	100	0	21.32	21.38	21.36
20	16QAM	1	0	21.70	21.72	21.70
20	16QAM	1	49	21.62	21.63	21.55
20	16QAM	1	99	21.55	21.47	21.44
20	16QAM	50	0	20.37	20.41	20.43
20	16QAM	50	24	20.42	20.39	20.40
20	16QAM	50	50	20.35	20.29	20.29
20	16QAM	100	0	20.39	20.35	20.36
20	64QAM	1	0	20.56	20.56	20.58
20	64QAM	1	49	20.45	20.54	20.47
20	64QAM	1	99	20.40	20.34	20.31
20	64QAM	50	0	19.37	19.45	19.46
20	64QAM	50	24	19.44	19.42	19.42
20	64QAM	50	50	19.37	19.29	19.27
20	64QAM	100	0	19.41	19.38	19.37
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	22.08	22.31	22.17
15	QPSK	1	37	22.28	22.17	22.08
15	QPSK	1	74	22.04	22.15	22.09
15	QPSK	36	0	21.04	21.22	21.17
15	QPSK	36	20	21.22	21.24	21.20
15	QPSK	36	39	21.16	21.16	21.10
15	QPSK	75	0	21.14	21.19	21.15
15	16QAM	1	0	21.44	21.37	21.42
15	16QAM	1	37	21.65	21.39	21.36
15	16QAM	1	74	21.66	21.15	21.61
15	16QAM	36	0	20.09	20.26	20.33
15	16QAM	36	20	20.21	20.25	20.25
15	16QAM	36	39	20.14	20.23	20.14
15	16QAM	75	0	20.19	20.25	20.19
15	64QAM	1	0	20.25	20.37	20.33
15	64QAM	1	37	20.19	20.59	20.27
15	64QAM	1	74	20.47	20.50	20.23
15	64QAM	36	0	19.18	19.34	19.31
15	64QAM	36	20	19.28	19.29	19.35
15	64QAM	36	39	19.26	19.23	19.21
15	64QAM	75	0	19.19	19.19	19.19



Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	22.13	22.34	22.09
10	QPSK	1	25	22.06	22.29	22.19
10	QPSK	1	49	22.13	22.25	22.24
10	QPSK	25	0	21.37	21.29	21.41
10	QPSK	25	12	21.26	21.35	21.34
10	QPSK	25	25	21.26	21.34	21.29
10	QPSK	50	0	21.32	21.39	21.28
10	16QAM	1	0	21.80	21.35	21.59
10	16QAM	1	25	21.79	21.27	21.51
10	16QAM	1	49	21.40	21.24	21.73
10	16QAM	25	0	20.28	20.32	20.25
10	16QAM	25	12	20.34	20.36	20.29
10	16QAM	25	25	20.32	20.39	20.27
10	16QAM	50	0	20.47	20.31	20.31
10	64QAM	1	0	20.60	20.63	20.33
10	64QAM	1	25	20.44	20.42	20.08
10	64QAM	1	49	20.45	20.30	20.12
10	64QAM	25	0	19.34	19.51	19.35
10	64QAM	25	12	19.34	19.45	19.38
10	64QAM	25	25	19.32	19.47	19.30
10	64QAM	50	0	19.41	19.25	19.29
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	22.33	22.38	22.21
5	QPSK	1	12	22.07	22.25	22.17
5	QPSK	1	24	22.13	22.13	22.17
5	QPSK	12	0	21.31	21.27	21.33
5	QPSK	12	7	21.23	21.27	21.20
5	QPSK	12	13	21.32	21.36	21.29
5	QPSK	25	0	21.29	21.29	21.31
5	16QAM	1	0	21.42	21.89	21.25
5	16QAM	1	12	21.12	21.85	21.28
5	16QAM	1	24	21.85	21.77	21.32
5	16QAM	12	0	20.42	20.36	20.40
5	16QAM	12	7	20.34	20.19	20.23
5	16QAM	12	13	20.35	20.28	20.22
5	16QAM	25	0	20.34	20.29	20.25
5	64QAM	1	0	20.64	20.52	20.43
5	64QAM	1	12	20.61	20.47	20.16
5	64QAM	1	24	20.58	20.36	20.19
5	64QAM	12	0	19.38	19.36	19.36
5	64QAM	12	7	19.38	19.41	19.50
5	64QAM	12	13	19.38	19.39	19.34
5	64QAM	25	0	19.27	19.43	19.33
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	22.31	22.23	22.10
3	QPSK	1	8	22.30	22.29	22.37



3	QPSK	1	14	22.34	22.28	22.15
3	QPSK	8	0	21.35	21.27	21.28
3	QPSK	8	4	21.38	21.42	21.39
3	QPSK	8	7	21.36	21.42	21.23
3	QPSK	15	0	21.34	21.26	21.37
3	16QAM	1	0	21.30	21.88	21.52
3	16QAM	1	8	21.52	21.24	21.54
3	16QAM	1	14	21.61	21.91	21.79
3	16QAM	8	0	20.38	20.43	20.28
3	16QAM	8	4	20.41	20.44	20.18
3	16QAM	8	7	20.36	20.40	20.19
3	16QAM	15	0	20.39	20.43	20.39
3	64QAM	1	0	20.00	20.56	20.41
3	64QAM	1	8	20.80	20.29	20.45
3	64QAM	1	14	20.40	20.50	20.11
3	64QAM	8	0	19.43	19.27	19.38
3	64QAM	8	4	19.64	19.38	19.39
3	64QAM	8	7	19.45	19.58	19.32
3	64QAM	15	0	19.20	19.33	19.24
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.17	22.21	22.05
1.4	QPSK	1	3	22.38	22.34	22.21
1.4	QPSK	1	5	22.13	22.32	22.09
1.4	QPSK	3	0	22.21	22.29	22.14
1.4	QPSK	3	1	22.31	22.28	22.19
1.4	QPSK	3	3	22.16	22.29	22.10
1.4	QPSK	6	0	21.19	21.27	21.18
1.4	16QAM	1	0	21.45	21.78	21.72
1.4	16QAM	1	3	21.36	21.84	21.57
1.4	16QAM	1	5	21.74	21.81	21.67
1.4	16QAM	3	0	21.18	21.39	21.27
1.4	16QAM	3	1	21.23	21.43	21.46
1.4	16QAM	3	3	21.33	21.41	21.22
1.4	16QAM	6	0	20.31	20.44	20.26
1.4	64QAM	1	0	20.81	20.33	20.15
1.4	64QAM	1	3	20.38	20.20	20.33
1.4	64QAM	1	5	20.08	20.63	20.01
1.4	64QAM	3	0	20.26	20.53	20.32
1.4	64QAM	3	1	20.55	20.58	20.16
1.4	64QAM	3	3	20.47	20.62	20.27
1.4	64QAM	6	0	19.17	19.33	19.20



LTE Band 5:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	22.50	22.45	22.57
10	QPSK	1	25	22.45	22.43	22.56
10	QPSK	1	49	22.51	22.50	22.53
10	QPSK	25	0	21.64	21.62	21.73
10	QPSK	25	12	21.62	21.61	21.65
10	QPSK	25	25	21.60	21.59	21.70
10	QPSK	50	0	21.64	21.62	21.66
10	16QAM	1	0	21.78	21.86	21.91
10	16QAM	1	25	21.80	21.81	21.92
10	16QAM	1	49	21.83	21.90	21.93
10	16QAM	25	0	20.54	20.54	20.65
10	16QAM	25	12	20.65	20.63	20.67
10	16QAM	25	25	20.58	20.63	20.69
10	16QAM	50	0	20.62	20.62	20.62
10	64QAM	1	0	20.70	20.67	20.69
10	64QAM	1	25	20.63	20.67	20.76
10	64QAM	1	49	20.72	20.75	20.80
10	64QAM	25	0	19.57	19.57	19.68
10	64QAM	25	12	19.65	19.67	19.69
10	64QAM	25	25	19.63	19.63	19.75
10	64QAM	50	0	19.63	19.67	19.70
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.46	22.56	22.33
5	QPSK	1	12	22.30	22.11	22.37
5	QPSK	1	24	22.32	22.20	22.35
5	QPSK	12	0	21.32	21.33	21.40
5	QPSK	12	7	21.42	21.31	21.41
5	QPSK	12	13	21.34	21.29	21.40
5	QPSK	25	0	21.39	21.36	21.46
5	16QAM	1	0	21.64	21.92	21.71
5	16QAM	1	12	21.49	21.33	21.35
5	16QAM	1	24	21.62	21.53	21.05
5	16QAM	12	0	20.45	20.27	20.45
5	16QAM	12	7	20.44	20.37	20.48
5	16QAM	12	13	20.44	20.45	20.44
5	16QAM	25	0	20.26	20.40	20.40
5	64QAM	1	0	20.76	20.69	20.62
5	64QAM	1	12	20.77	20.57	20.78
5	64QAM	1	24	20.79	20.50	20.71
5	64QAM	12	0	19.52	19.25	19.29
5	64QAM	12	7	19.32	19.33	19.31
5	64QAM	12	13	19.38	19.38	19.49
5	64QAM	25	0	19.43	19.40	19.50



Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.26	22.17	22.31
3	QPSK	1	8	22.39	22.20	22.26
3	QPSK	1	14	22.11	22.26	22.41
3	QPSK	8	0	21.44	21.27	21.33
3	QPSK	8	4	21.45	21.24	21.48
3	QPSK	8	7	21.30	21.35	21.42
3	QPSK	15	0	21.43	21.24	21.32
3	16QAM	1	0	21.55	21.24	21.30
3	16QAM	1	8	21.42	21.31	21.61
3	16QAM	1	14	21.21	21.52	21.83
3	16QAM	8	0	20.31	20.21	20.48
3	16QAM	8	4	20.48	20.49	20.50
3	16QAM	8	7	20.44	20.44	20.46
3	16QAM	15	0	20.57	20.26	20.44
3	64QAM	1	0	20.88	20.70	20.56
3	64QAM	1	8	20.63	20.84	20.61
3	64QAM	1	14	20.59	20.12	20.25
3	64QAM	8	0	19.47	19.23	19.52
3	64QAM	8	4	19.37	19.28	19.26
3	64QAM	8	7	19.33	19.54	19.38
3	64QAM	15	0	19.54	19.41	19.34
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.17	22.21	22.16
1.4	QPSK	1	3	22.30	22.20	22.32
1.4	QPSK	1	5	22.20	22.12	22.21
1.4	QPSK	3	0	22.27	22.21	22.24
1.4	QPSK	3	1	22.31	22.28	22.34
1.4	QPSK	3	3	22.20	22.20	22.29
1.4	QPSK	6	0	21.23	21.23	21.34
1.4	16QAM	1	0	21.77	21.53	21.57
1.4	16QAM	1	3	21.79	21.55	21.78
1.4	16QAM	1	5	21.58	21.46	21.68
1.4	16QAM	3	0	21.28	21.21	21.35
1.4	16QAM	3	1	21.60	21.43	21.57
1.4	16QAM	3	3	21.41	21.20	21.61
1.4	16QAM	6	0	20.41	20.26	20.42
1.4	64QAM	1	0	20.54	20.40	20.38
1.4	64QAM	1	3	20.46	20.56	20.49
1.4	64QAM	1	5	20.12	20.62	20.58
1.4	64QAM	3	0	20.39	20.18	20.38
1.4	64QAM	3	1	20.54	20.24	20.44
1.4	64QAM	3	3	20.52	20.50	20.48
1.4	64QAM	6	0	19.40	19.15	19.38



LTE Band 7:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	22.80	22.69	22.75
20	QPSK	1	49	22.81	22.71	22.87
20	QPSK	1	99	22.89	22.75	23.04
20	QPSK	50	0	22.02	21.89	21.93
20	QPSK	50	24	22.03	21.91	22.00
20	QPSK	50	50	22.04	21.92	22.07
20	QPSK	100	0	22.03	21.90	22.05
20	16QAM	1	0	22.14	22.05	22.07
20	16QAM	1	49	22.19	22.05	22.17
20	16QAM	1	99	22.14	22.13	22.26
20	16QAM	50	0	21.05	20.91	20.92
20	16QAM	50	24	21.05	20.94	20.99
20	16QAM	50	50	20.94	20.93	21.08
20	16QAM	100	0	21.03	20.90	20.97
20	64QAM	1	0	21.01	20.93	20.88
20	64QAM	1	49	21.11	20.91	21.12
20	64QAM	1	99	20.95	21.05	21.20
20	64QAM	50	0	20.04	19.91	19.96
20	64QAM	50	24	20.07	19.95	20.03
20	64QAM	50	50	19.95	19.97	20.12
20	64QAM	100	0	20.05	19.96	19.98
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.66	22.43	22.57
15	QPSK	1	37	22.59	22.58	22.81
15	QPSK	1	74	22.81	22.48	22.92
15	QPSK	36	0	21.80	21.71	21.88
15	QPSK	36	20	21.81	21.81	21.93
15	QPSK	36	39	21.80	21.83	21.99
15	QPSK	75	0	21.83	21.72	21.87
15	16QAM	1	0	22.02	21.76	21.72
15	16QAM	1	37	22.24	21.81	21.72
15	16QAM	1	74	21.94	21.52	21.83
15	16QAM	36	0	20.84	20.76	20.69
15	16QAM	36	20	20.76	20.80	20.97
15	16QAM	36	39	20.70	20.71	20.99
15	16QAM	75	0	20.73	20.74	20.83
15	64QAM	1	0	20.79	20.72	20.86
15	64QAM	1	37	20.60	20.85	21.06
15	64QAM	1	74	21.06	21.05	21.20
15	64QAM	36	0	19.88	19.75	19.84
15	64QAM	36	20	19.90	19.85	20.03
15	64QAM	36	39	19.86	19.84	19.90
15	64QAM	75	0	19.85	19.75	19.81



Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.73	22.72	23.01
10	QPSK	1	25	22.86	22.69	23.02
10	QPSK	1	49	22.86	22.94	23.00
10	QPSK	25	0	22.10	21.86	22.00
10	QPSK	25	12	22.01	21.91	22.06
10	QPSK	25	25	22.02	21.89	22.11
10	QPSK	50	0	21.94	21.93	21.97
10	16QAM	1	0	22.22	22.11	22.44
10	16QAM	1	25	22.12	22.03	22.66
10	16QAM	1	49	22.18	22.06	22.64
10	16QAM	25	0	21.07	20.95	20.94
10	16QAM	25	12	21.10	20.96	21.07
10	16QAM	25	25	21.01	20.91	21.12
10	16QAM	50	0	20.95	20.81	21.08
10	64QAM	1	0	21.01	21.18	21.20
10	64QAM	1	25	20.96	21.13	21.31
10	64QAM	1	49	20.94	20.90	21.29
10	64QAM	25	0	20.13	19.91	20.07
10	64QAM	25	12	20.08	19.88	20.05
10	64QAM	25	25	20.05	19.82	20.13
10	64QAM	50	0	20.02	19.86	20.01
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	23.03	22.87	22.98
5	QPSK	1	12	22.92	22.75	22.84
5	QPSK	1	24	22.98	22.83	23.02
5	QPSK	12	0	21.88	21.84	21.96
5	QPSK	12	7	22.09	21.89	22.09
5	QPSK	12	13	22.09	21.96	22.11
5	QPSK	25	0	21.97	21.88	22.04
5	16QAM	1	0	22.43	22.26	22.54
5	16QAM	1	12	22.24	22.48	22.86
5	16QAM	1	24	22.28	22.47	22.54
5	16QAM	12	0	20.85	20.81	21.11
5	16QAM	12	7	21.08	20.95	21.09
5	16QAM	12	13	21.04	21.05	21.26
5	16QAM	25	0	20.96	20.82	21.09
5	64QAM	1	0	21.23	21.10	21.28
5	64QAM	1	12	21.29	21.01	21.29
5	64QAM	1	24	21.06	21.09	21.31
5	64QAM	12	0	19.89	19.89	20.05
5	64QAM	12	7	20.06	19.94	20.26
5	64QAM	12	13	20.08	20.01	20.05
5	64QAM	25	0	19.94	19.89	20.03



LTE Band 12:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	22.66	22.52	22.50
10	QPSK	1	25	22.52	22.51	22.41
10	QPSK	1	49	22.50	22.46	22.35
10	QPSK	25	0	21.71	21.63	21.63
10	QPSK	25	12	21.70	21.61	21.60
10	QPSK	25	25	21.68	21.62	21.54
10	QPSK	50	0	21.68	21.60	21.52
10	16QAM	1	0	21.95	21.93	21.93
10	16QAM	1	25	21.88	21.89	21.83
10	16QAM	1	49	21.91	21.85	21.78
10	16QAM	25	0	20.61	20.64	20.57
10	16QAM	25	12	20.74	20.64	20.63
10	16QAM	25	25	20.68	20.64	20.56
10	16QAM	50	0	20.69	20.60	20.50
10	64QAM	1	0	20.80	20.78	20.76
10	64QAM	1	25	20.74	20.77	20.65
10	64QAM	1	49	20.82	20.74	20.67
10	64QAM	25	0	19.67	19.65	19.57
10	64QAM	25	12	19.72	19.67	19.64
10	64QAM	25	25	19.70	19.66	19.58
10	64QAM	50	0	19.70	19.61	19.53
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.39	22.30	22.31
5	QPSK	1	12	22.25	22.28	22.24
5	QPSK	1	24	22.29	22.42	22.32
5	QPSK	12	0	21.35	21.34	21.33
5	QPSK	12	7	21.39	21.28	21.39
5	QPSK	12	13	21.44	21.43	21.40
5	QPSK	25	0	21.39	21.37	21.33
5	16QAM	1	0	21.62	21.69	21.86
5	16QAM	1	12	22.05	21.20	21.42
5	16QAM	1	24	21.84	21.65	21.80
5	16QAM	12	0	20.37	20.18	20.39
5	16QAM	12	7	20.40	20.24	20.12
5	16QAM	12	13	20.34	20.44	20.35
5	16QAM	25	0	20.37	20.27	20.28
5	64QAM	1	0	20.47	20.66	20.40
5	64QAM	1	12	20.49	20.88	20.65
5	64QAM	1	24	20.32	20.63	20.62
5	64QAM	12	0	19.47	19.39	19.48
5	64QAM	12	7	19.31	19.36	19.50
5	64QAM	12	13	19.42	19.34	19.35
5	64QAM	25	0	19.32	19.38	19.43



Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.44	22.35	22.20
3	QPSK	1	8	22.28	22.35	22.26
3	QPSK	1	14	22.28	22.17	22.34
3	QPSK	8	0	21.47	21.40	21.32
3	QPSK	8	4	21.69	21.32	21.38
3	QPSK	8	7	21.36	21.42	21.29
3	QPSK	15	0	21.38	21.26	21.32
3	16QAM	1	0	21.34	21.57	21.70
3	16QAM	1	8	21.50	21.91	21.88
3	16QAM	1	14	21.30	21.72	21.70
3	16QAM	8	0	20.45	20.41	20.35
3	16QAM	8	4	20.58	20.45	20.34
3	16QAM	8	7	20.48	20.47	20.31
3	16QAM	15	0	20.34	20.11	20.15
3	64QAM	1	0	20.72	20.35	20.53
3	64QAM	1	8	20.82	20.36	20.19
3	64QAM	1	14	20.84	20.53	20.17
3	64QAM	8	0	19.38	19.41	19.38
3	64QAM	8	4	19.30	19.45	19.44
3	64QAM	8	7	19.34	19.39	19.47
3	64QAM	15	0	19.47	19.47	19.40
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.28	22.42	22.23
1.4	QPSK	1	3	22.38	22.40	22.27
1.4	QPSK	1	5	22.11	22.25	22.15
1.4	QPSK	3	0	22.31	22.33	22.12
1.4	QPSK	3	1	22.32	22.24	22.21
1.4	QPSK	3	3	22.31	22.29	22.16
1.4	QPSK	6	0	21.37	21.32	21.28
1.4	16QAM	1	0	21.27	21.52	21.30
1.4	16QAM	1	3	21.27	21.83	21.14
1.4	16QAM	1	5	21.29	21.89	21.51
1.4	16QAM	3	0	21.40	21.34	21.46
1.4	16QAM	3	1	21.69	21.51	21.19
1.4	16QAM	3	3	21.40	21.51	21.34
1.4	16QAM	6	0	20.35	20.35	20.10
1.4	64QAM	1	0	20.56	20.52	20.98
1.4	64QAM	1	3	20.42	20.41	20.63
1.4	64QAM	1	5	20.47	20.42	20.53
1.4	64QAM	3	0	20.57	20.39	20.38
1.4	64QAM	3	1	20.76	20.47	20.46
1.4	64QAM	3	3	20.47	20.58	20.35
1.4	64QAM	6	0	19.23	19.44	19.24



LTE Band 13:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23230		
Frequency (MHz)				782		
10	QPSK	1	0		22.54	
10	QPSK	1	25		22.53	
10	QPSK	1	49		22.46	
10	QPSK	25	0		22.08	
10	QPSK	25	12		22.02	
10	QPSK	25	25		22.00	
10	QPSK	50	0		22.23	
10	16QAM	1	0		22.27	
10	16QAM	1	25		22.24	
10	16QAM	1	49		22.35	
10	16QAM	25	0		20.96	
10	16QAM	25	12		20.97	
10	16QAM	25	25		21.05	
10	16QAM	50	0		21.01	
10	64QAM	1	0		20.90	
10	64QAM	1	25		21.05	
10	64QAM	1	49		21.50	
10	64QAM	25	0		19.97	
10	64QAM	25	12		20.10	
10	64QAM	25	25		20.19	
10	64QAM	50	0		19.89	
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	22.43	22.52	22.40
5	QPSK	1	12	22.41	22.47	22.36
5	QPSK	1	24	22.37	22.50	22.49
5	QPSK	12	0	22.05	21.99	22.03
5	QPSK	12	7	22.11	21.90	22.11
5	QPSK	12	13	21.89	22.06	22.11
5	QPSK	25	0	22.12	22.01	22.21
5	16QAM	1	0	22.22	22.35	22.36
5	16QAM	1	12	22.11	22.52	22.47
5	16QAM	1	24	22.04	22.20	22.39
5	16QAM	12	0	21.08	21.00	21.02
5	16QAM	12	7	21.12	20.82	21.18
5	16QAM	12	13	20.82	21.22	21.10
5	16QAM	25	0	20.95	20.91	21.02
5	64QAM	1	0	21.16	21.25	20.98
5	64QAM	1	12	21.22	21.34	21.45
5	64QAM	1	24	21.42	21.45	21.44
5	64QAM	12	0	19.93	20.10	20.14
5	64QAM	12	7	19.99	20.23	20.35
5	64QAM	12	13	19.99	20.19	20.06
5	64QAM	25	0	20.10	20.11	20.07



LTE Band 17:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	22.59	22.46	22.61
10	QPSK	1	25	22.52	22.49	22.58
10	QPSK	1	49	22.50	22.36	22.54
10	QPSK	25	0	21.73	21.65	21.75
10	QPSK	25	12	21.72	21.63	21.73
10	QPSK	25	25	21.56	21.57	21.60
10	QPSK	50	0	21.59	21.46	21.63
10	16QAM	1	0	22.06	21.84	21.98
10	16QAM	1	25	22.10	21.73	21.82
10	16QAM	1	49	22.02	21.41	21.80
10	16QAM	25	0	21.09	21.18	21.29
10	16QAM	25	12	21.21	21.20	21.40
10	16QAM	25	25	21.10	21.12	20.96
10	16QAM	50	0	21.14	21.19	21.20
10	64QAM	1	0	21.27	21.41	20.95
10	64QAM	1	25	21.26	21.60	21.29
10	64QAM	1	49	21.10	20.97	21.11
10	64QAM	25	0	20.19	20.10	20.28
10	64QAM	25	12	20.41	20.16	20.25
10	64QAM	25	25	20.24	20.06	20.11
10	64QAM	50	0	20.19	20.13	20.00
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.56	22.53	22.55
5	QPSK	1	12	22.55	22.56	22.33
5	QPSK	1	24	22.60	22.39	22.34
5	QPSK	12	0	21.63	21.66	21.60
5	QPSK	12	7	21.68	21.57	21.53
5	QPSK	12	13	21.58	21.58	21.46
5	QPSK	25	0	21.70	21.61	21.48
5	16QAM	1	0	21.98	22.02	21.96
5	16QAM	1	12	21.61	21.75	22.03
5	16QAM	1	24	21.69	21.56	21.80
5	16QAM	12	0	21.14	21.14	21.30
5	16QAM	12	7	21.25	21.06	21.14
5	16QAM	12	13	21.23	21.09	20.86
5	16QAM	25	0	21.24	21.09	21.04
5	64QAM	1	0	21.58	21.58	21.09
5	64QAM	1	12	21.57	21.49	21.16
5	64QAM	1	24	21.51	21.28	21.10
5	64QAM	12	0	20.41	20.25	20.16
5	64QAM	12	7	20.38	20.17	20.17
5	64QAM	12	13	20.28	20.17	20.02
5	64QAM	25	0	20.19	20.05	20.12



LTE Band 66:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				132072	132322	132572
Frequency (MHz)				1720	1745	1770
20	QPSK	1	0	22.22	22.42	22.21
20	QPSK	1	49	22.10	22.13	22.02
20	QPSK	1	99	22.04	22.08	22.02
20	QPSK	50	0	21.73	21.75	21.59
20	QPSK	50	24	21.62	21.66	21.54
20	QPSK	50	50	21.57	21.63	21.55
20	QPSK	100	0	21.72	21.74	21.54
20	16QAM	1	0	22.00	22.09	21.92
20	16QAM	1	49	21.99	21.95	21.86
20	16QAM	1	99	21.87	21.80	21.69
20	16QAM	50	0	20.68	20.72	20.62
20	16QAM	50	24	20.77	20.65	20.56
20	16QAM	50	50	20.71	20.65	20.56
20	16QAM	100	0	20.72	20.64	20.55
20	64QAM	1	0	20.80	20.90	20.80
20	64QAM	1	49	20.88	20.91	20.74
20	64QAM	1	99	20.71	20.67	20.60
20	64QAM	50	0	19.71	19.73	19.61
20	64QAM	50	24	19.77	19.71	19.59
20	64QAM	50	50	19.73	19.66	19.59
20	64QAM	100	0	19.76	19.66	19.58
Channel				132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5
15	QPSK	1	0	22.07	22.18	22.20
15	QPSK	1	37	22.02	22.14	22.28
15	QPSK	1	74	22.08	22.10	22.17
15	QPSK	36	0	21.73	21.75	21.58
15	QPSK	36	20	21.75	21.72	21.65
15	QPSK	36	39	21.70	21.72	21.69
15	QPSK	75	0	21.72	21.59	21.69
15	16QAM	1	0	21.78	21.93	21.95
15	16QAM	1	37	21.91	21.91	21.77
15	16QAM	1	74	21.86	21.52	21.65
15	16QAM	36	0	20.74	20.74	20.69
15	16QAM	36	20	20.84	20.82	20.75
15	16QAM	36	39	20.82	20.77	20.67
15	16QAM	75	0	20.80	20.75	20.68
15	64QAM	1	0	20.97	20.92	21.04
15	64QAM	1	37	20.99	20.63	20.96
15	64QAM	1	74	20.95	20.55	20.66
15	64QAM	36	0	19.71	19.84	19.67
15	64QAM	36	20	19.87	19.73	19.65
15	64QAM	36	39	19.81	19.72	19.69
15	64QAM	75	0	19.78	19.68	19.73



Channel				132022	132322	132622
Frequency (MHz)				1715	1745	1775
10	QPSK	1	0	22.22	22.20	22.23
10	QPSK	1	25	22.21	22.21	22.09
10	QPSK	1	49	22.03	22.07	22.01
10	QPSK	25	0	21.86	21.78	21.75
10	QPSK	25	12	21.84	21.75	21.69
10	QPSK	25	25	21.84	21.72	21.62
10	QPSK	50	0	21.82	21.81	21.59
10	16QAM	1	0	22.21	21.79	21.64
10	16QAM	1	25	21.70	21.69	21.62
10	16QAM	1	49	21.75	21.64	21.59
10	16QAM	25	0	20.85	20.80	20.56
10	16QAM	25	12	20.91	20.67	20.76
10	16QAM	25	25	20.79	20.75	20.66
10	16QAM	50	0	20.81	20.73	20.72
10	64QAM	1	0	21.12	21.00	20.84
10	64QAM	1	25	21.04	20.47	20.92
10	64QAM	1	49	20.93	20.49	20.87
10	64QAM	25	0	19.87	19.86	19.80
10	64QAM	25	12	19.88	19.84	19.76
10	64QAM	25	25	19.80	19.81	19.68
10	64QAM	50	0	19.89	19.83	19.71
Channel				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	22.19	22.26	22.22
5	QPSK	1	12	22.10	22.13	22.12
5	QPSK	1	24	22.25	22.21	22.07
5	QPSK	12	0	21.80	21.80	21.64
5	QPSK	12	7	21.77	21.74	21.74
5	QPSK	12	13	21.81	21.79	21.67
5	QPSK	25	0	21.75	21.71	21.70
5	16QAM	1	0	22.00	22.11	22.05
5	16QAM	1	12	22.07	22.26	21.96
5	16QAM	1	24	21.80	21.75	21.98
5	16QAM	12	0	20.90	20.88	20.68
5	16QAM	12	7	20.86	21.35	20.79
5	16QAM	12	13	20.80	20.85	20.75
5	16QAM	25	0	20.74	20.83	20.71
5	64QAM	1	0	20.67	20.89	21.14
5	64QAM	1	12	20.94	21.07	20.84
5	64QAM	1	24	20.92	21.06	20.88
5	64QAM	12	0	19.84	19.76	19.77
5	64QAM	12	7	19.83	19.70	19.74
5	64QAM	12	13	19.74	19.69	19.69
5	64QAM	25	0	19.83	19.79	19.88
Channel				131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5
3	QPSK	1	0	22.18	22.22	22.15
3	QPSK	1	8	22.20	22.23	22.06



3	QPSK	1	14	22.04	22.13	22.03
3	QPSK	8	0	21.69	21.72	21.62
3	QPSK	8	4	21.74	21.64	21.72
3	QPSK	8	7	21.86	21.79	21.61
3	QPSK	15	0	21.83	21.61	21.55
3	16QAM	1	0	22.10	22.20	21.77
3	16QAM	1	8	22.24	22.31	22.14
3	16QAM	1	14	22.29	22.27	22.09
3	16QAM	8	0	20.79	20.67	20.57
3	16QAM	8	4	20.86	20.74	20.75
3	16QAM	8	7	20.75	20.86	20.71
3	16QAM	15	0	20.76	21.01	20.78
3	64QAM	1	0	21.24	20.81	20.93
3	64QAM	1	8	21.04	20.84	21.05
3	64QAM	1	14	20.91	21.01	21.13
3	64QAM	8	0	19.83	19.52	19.69
3	64QAM	8	4	20.06	19.81	19.60
3	64QAM	8	7	19.83	19.91	19.74
3	64QAM	15	0	19.80	19.77	19.78
Channel				131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3
1.4	QPSK	1	0	22.01	22.05	22.01
1.4	QPSK	1	3	22.03	22.11	22.07
1.4	QPSK	1	5	22.03	22.04	22.03
1.4	QPSK	3	0	22.14	22.15	22.03
1.4	QPSK	3	1	22.05	22.15	22.14
1.4	QPSK	3	3	22.12	22.18	22.07
1.4	QPSK	6	0	21.62	21.67	21.57
1.4	16QAM	1	0	21.86	21.93	21.90
1.4	16QAM	1	3	21.85	22.00	21.85
1.4	16QAM	1	5	21.79	21.90	21.79
1.4	16QAM	3	0	21.67	21.78	21.54
1.4	16QAM	3	1	21.81	21.49	21.70
1.4	16QAM	3	3	21.67	21.63	21.92
1.4	16QAM	6	0	20.72	20.78	20.76
1.4	64QAM	1	0	20.75	20.81	20.75
1.4	64QAM	1	3	20.76	20.81	20.75
1.4	64QAM	1	5	20.83	20.75	20.68
1.4	64QAM	3	0	20.85	20.94	20.39
1.4	64QAM	3	1	20.85	20.66	20.73
1.4	64QAM	3	3	20.90	20.44	20.41
1.4	64QAM	6	0	19.56	19.72	19.58



ERP/EIRP

LTE Band 2 (GT - LC = 0.65 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
(MHz)									
Conducted Power (dBm)	22.46	22.38	22.33	22.30	22.31	22.42	22.26	22.31	22.42
Conducted Power (Watts)	0.1762	0.1730	0.1710	0.1698	0.1702	0.1746	0.1683	0.1702	0.1746
EIRP(dBm)	23.11	23.03	22.98	22.95	22.96	23.07	22.91	22.96	23.07
EIRP(Watts)	0.2046	0.2009	0.1986	0.1972	0.1977	0.2028	0.1954	0.1977	0.2028

LTE Band 2 (GT - LC = 0.65 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
(MHz)									
Conducted Power (dBm)	22.23	22.22	22.43	22.10	22.16	22.33	22.66	22.54	22.60
Conducted Power (Watts)	0.1671	0.1667	0.1750	0.1622	0.1644	0.1710	0.1845	0.1795	0.1820
EIRP(dBm)	22.88	22.87	23.08	22.75	22.81	22.98	23.31	23.19	23.25
EIRP(Watts)	0.1941	0.1936	0.2032	0.1884	0.1910	0.1986	0.2143	0.2084	0.2113



LTE Band 2 (GT - LC = 0.65 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	21.28	22.09	21.71	21.68	21.71	21.72	21.55	21.54	21.80
Conducted Power (Watts)	0.1343	0.1618	0.1483	0.1472	0.1483	0.1486	0.1429	0.1426	0.1514
EIRP(dBm)	21.93	22.74	22.36	22.33	22.36	22.37	22.20	22.19	22.45
EIRP(Watts)	0.1560	0.1879	0.1722	0.1710	0.1722	0.1726	0.1660	0.1656	0.1758

LTE Band 2 (GT - LC = 0.65 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	21.55	21.60	21.83	21.35	21.38	21.66	22.04	21.85	21.93
Conducted Power (Watts)	0.1429	0.1445	0.1524	0.1365	0.1374	0.1466	0.1600	0.1531	0.1560
EIRP(dBm)	22.20	22.25	22.48	22.00	22.03	22.31	22.69	22.50	22.58
EIRP(Watts)	0.1660	0.1679	0.1770	0.1585	0.1596	0.1702	0.1858	0.1778	0.1811



LTE Band 2 (GT - LC = 0.65 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	20.98	20.37	20.62	20.56	20.39	20.71	20.44	20.41	20.69
Conducted Power (Watts)	0.1253	0.1089	0.1153	0.1138	0.1094	0.1178	0.1107	0.1099	0.1172
EIRP(dBm)	21.63	21.02	21.27	21.21	21.04	21.36	21.09	21.06	21.34
EIRP(Watts)	0.1455	0.1265	0.1340	0.1321	0.1271	0.1368	0.1285	0.1276	0.1361

LTE Band 2 (GT - LC = 0.65 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	20.54	20.37	20.57	20.17	20.35	20.49	20.82	20.63	20.79
Conducted Power (Watts)	0.1132	0.1089	0.1140	0.1040	0.1084	0.1119	0.1208	0.1156	0.1199
EIRP(dBm)	21.19	21.02	21.22	20.82	21.00	21.14	21.47	21.28	21.44
EIRP(Watts)	0.1315	0.1265	0.1324	0.1208	0.1259	0.1300	0.1403	0.1343	0.1393



LTE Band 5 (GT - LC = -2.12 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.31	22.28	22.34	22.11	22.26	22.41	22.46	22.56	22.33
Conducted Power (Watts)	0.1702	0.1690	0.1714	0.1626	0.1683	0.1742	0.1762	0.1803	0.1710
ERP(dBm)	18.04	18.01	18.07	17.84	17.99	18.14	18.19	18.29	18.06
ERP(Watts)	0.0637	0.0632	0.0641	0.0608	0.0630	0.0652	0.0659	0.0675	0.0640

LTE Band 5 (GT - LC = -2.12 dB) QPSK			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	22.50	22.45	22.57
Conducted Power (Watts)	0.1778	0.1758	0.1807
ERP(dBm)	18.23	18.18	18.30
ERP(Watts)	0.0665	0.0658	0.0676



LTE Band 5 (GT - LC = -2.12 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.79	21.55	21.78	21.21	21.52	21.83	21.64	21.92	21.71
Conducted Power (Watts)	0.1510	0.1429	0.1507	0.1321	0.1419	0.1524	0.1459	0.1556	0.1483
ERP(dBm)	17.52	17.28	17.51	16.94	17.25	17.56	17.37	17.65	17.44
ERP(Watts)	0.0565	0.0535	0.0564	0.0494	0.0531	0.0570	0.0546	0.0582	0.0555

LTE Band 5 (GT - LC = -2.12 dB) 16QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	21.83	21.90	21.93
Conducted Power (Watts)	0.1524	0.1549	0.1560
ERP(dBm)	17.56	17.63	17.66
ERP(Watts)	0.0570	0.0579	0.0583



LTE Band 5 (GT - LC = -2.12 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	20.12	20.62	20.58	20.88	20.70	20.56	20.79	20.50	20.71
Conducted Power (Watts)	0.1028	0.1153	0.1143	0.1225	0.1175	0.1138	0.1199	0.1122	0.1178
ERP(dBm)	15.85	16.35	16.31	16.61	16.43	16.29	16.52	16.23	16.44
ERP(Watts)	0.0385	0.0432	0.0428	0.0458	0.0440	0.0426	0.0449	0.0420	0.0441

LTE Band 5 (GT - LC = -2.12 dB) 64QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	20.72	20.75	20.80
Conducted Power (Watts)	0.1180	0.1189	0.1202
ERP(dBm)	16.45	16.48	16.53
ERP(Watts)	0.0442	0.0445	0.0450



LTE Band 7 (GT - LC = -2.76 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	23.03	22.87
Conducted Power (Watts)	0.2009	0.1936	0.1986
EIRP(dBm)	20.27	20.11	20.22
EIRP(Watts)	0.1064	0.1026	0.1052

LTE Band 7 (GT - LC = -2.76 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	22.86	22.69	23.02	22.81	22.48	22.92	22.89	22.75
Conducted Power (Watts)	0.1932	0.1858	0.2004	0.1910	0.1770	0.1959	0.1945	0.1884	0.2014
EIRP(dBm)	20.10	19.93	20.26	20.05	19.72	20.16	20.13	19.99	20.28
EIRP(Watts)	0.1023	0.0984	0.1062	0.1012	0.0938	0.1038	0.1030	0.0998	0.1067



LTE Band 7 (GT - LC = -2.76 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	22.24	22.48
Conducted Power (Watts)	0.1675	0.1770	0.1932
EIRP(dBm)	19.48	19.72	20.10
EIRP(Watts)	0.0887	0.0938	0.1023

LTE Band 7 (GT - LC = -2.76 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	22.12	22.03	22.66	22.24	21.81	21.72	22.14	22.13
Conducted Power (Watts)	0.1629	0.1596	0.1845	0.1675	0.1517	0.1486	0.1637	0.1633	0.1683
EIRP(dBm)	19.36	19.27	19.90	19.48	19.05	18.96	19.38	19.37	19.50
EIRP(Watts)	0.0863	0.0845	0.0977	0.0887	0.0804	0.0787	0.0867	0.0865	0.0891



LTE Band 7 (GT - LC = -2.76 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	21.06	21.09
Conducted Power (Watts)	0.1276	0.1285	0.1352
EIRP(dBm)	18.30	18.33	18.55
EIRP(Watts)	0.0676	0.0681	0.0716

LTE Band 7 (GT - LC = -2.76 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	20.96	21.13	21.31	21.06	21.05	21.20	20.95	21.05
Conducted Power (Watts)	0.1247	0.1297	0.1352	0.1276	0.1274	0.1318	0.1245	0.1274	0.1318
EIRP(dBm)	18.20	18.37	18.55	18.30	18.29	18.44	18.19	18.29	18.44
EIRP(Watts)	0.0661	0.0687	0.0716	0.0676	0.0675	0.0698	0.0659	0.0675	0.0698



LTE Band 12 (GT - LC = -2.65 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.28	22.42	22.23	22.44	22.35	22.20	22.29	22.42	22.32
Conducted Power (Watts)	0.1690	0.1746	0.1671	0.1754	0.1718	0.1660	0.1694	0.1746	0.1706
ERP(dBm)	17.48	17.62	17.43	17.64	17.55	17.40	17.49	17.62	17.52
ERP(Watts)	0.0560	0.0578	0.0553	0.0581	0.0569	0.0550	0.0561	0.0578	0.0565

LTE Band 12 (GT - LC = -2.65 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.66	22.52	22.50
Conducted Power (Watts)	0.1845	0.1786	0.1778
ERP(dBm)	17.86	17.72	17.70
ERP(Watts)	0.0611	0.0592	0.0589



LTE Band 12 (GT - LC = -2.65 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	21.29	21.89	21.51	21.50	21.91	21.88	22.05	21.20	21.42
Conducted Power (Watts)	0.1346	0.1545	0.1416	0.1413	0.1552	0.1542	0.1603	0.1318	0.1387
ERP(dBm)	16.49	17.09	16.71	16.70	17.11	17.08	17.25	16.40	16.62
ERP(Watts)	0.0446	0.0512	0.0469	0.0468	0.0514	0.0511	0.0531	0.0437	0.0459

LTE Band 12 (GT - LC = -2.65 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	21.95	21.93	21.93
Conducted Power (Watts)	0.1567	0.1560	0.1560
ERP(dBm)	17.15	17.13	17.13
ERP(Watts)	0.0519	0.0516	0.0516



LTE Band 12 (GT - LC = -2.65 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	20.56	20.52	20.98	20.84	20.53	20.17	20.49	20.88	20.65
Conducted Power (Watts)	0.1138	0.1127	0.1253	0.1213	0.1130	0.1040	0.1119	0.1225	0.1161
ERP(dBm)	15.76	15.72	16.18	16.04	15.73	15.37	15.69	16.08	15.85
ERP(Watts)	0.0377	0.0373	0.0415	0.0402	0.0374	0.0344	0.0371	0.0406	0.0385

LTE Band 12 (GT - LC = -2.65 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	20.82	20.74	20.67
Conducted Power (Watts)	0.1208	0.1186	0.1167
ERP(dBm)	16.02	15.94	15.87
ERP(Watts)	0.0400	0.0393	0.0386



LTE Band 13 (GT - LC = -1.87 dB) QPSK						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	22.43	22.52	22.40		22.54	-
Conducted Power (Watts)	0.1750	0.1786	0.1738		0.1795	-
ERP(dBm)	18.41	18.50	18.38		18.52	-
ERP(Watts)	0.0693	0.0708	0.0689		0.0711	-

LTE Band 13 (GT - LC = -1.87 dB) 16QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	22.11	22.52	22.47		22.35	-
Conducted Power (Watts)	0.1626	0.1786	0.1766		0.1718	-
ERP(dBm)	18.09	18.50	18.45		18.33	-
ERP(Watts)	0.0644	0.0708	0.0700		0.0681	-

LTE Band 13 (GT - LC = -1.87 dB) 64QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	21.22	21.34	21.45		21.50	-
Conducted Power (Watts)	0.1324	0.1361	0.1396		0.1413	-
ERP(dBm)	17.20	17.32	17.43		17.48	-
ERP(Watts)	0.0525	0.0540	0.0553		0.0560	-



LTE Band 66 (GT - LC = 1.23 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	22.12	22.18	22.07	22.20	22.23	22.06	22.19	22.26	22.22
Conducted Power (Watts)	0.1629	0.1652	0.1611	0.1660	0.1671	0.1607	0.1656	0.1683	0.1667
EIRP(dBm)	23.35	23.41	23.30	23.43	23.46	23.29	23.42	23.49	23.45
EIRP(Watts)	0.2163	0.2193	0.2138	0.2203	0.2218	0.2133	0.2198	0.2234	0.2213

LTE Band 66 (GT - LC = 1.23 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	22.22	22.20	22.23	22.02	22.14	22.28	22.22	22.42	22.21
Conducted Power (Watts)	0.1667	0.1660	0.1671	0.1592	0.1637	0.1690	0.1667	0.1746	0.1663
EIRP(dBm)	23.45	23.43	23.46	23.25	23.37	23.51	23.45	23.65	23.44
EIRP(Watts)	0.2213	0.2203	0.2218	0.2113	0.2173	0.2244	0.2213	0.2317	0.2208



LTE Band 66 (GT - LC = 1.23 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	21.85	22.00	21.85	22.24	22.31	22.14	22.07	22.26	21.96
Conducted Power (Watts)	0.1531	0.1585	0.1531	0.1675	0.1702	0.1637	0.1611	0.1683	0.1570
EIRP(dBm)	23.08	23.23	23.08	23.47	23.54	23.37	23.30	23.49	23.19
EIRP(Watts)	0.2032	0.2104	0.2032	0.2223	0.2259	0.2173	0.2138	0.2234	0.2084

LTE Band 66 (GT - LC = 1.23 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	22.21	21.79	21.64	21.78	21.93	21.95	22.00	22.09	21.92
Conducted Power (Watts)	0.1663	0.1510	0.1459	0.1507	0.1560	0.1567	0.1585	0.1618	0.1556
EIRP(dBm)	23.44	23.02	22.87	23.01	23.16	23.18	23.23	23.32	23.15
EIRP(Watts)	0.2208	0.2004	0.1936	0.2000	0.2070	0.2080	0.2104	0.2148	0.2065



LTE Band 66 (GT - LC = 1.23 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	20.85	20.94	20.39	21.24	20.81	20.93	20.67	20.89	21.14
Conducted Power (Watts)	0.1216	0.1242	0.1094	0.1330	0.1205	0.1239	0.1167	0.1227	0.1300
EIRP(dBm)	22.08	22.17	21.62	22.47	22.04	22.16	21.90	22.12	22.37
EIRP(Watts)	0.1614	0.1648	0.1452	0.1766	0.1600	0.1644	0.1549	0.1629	0.1726

LTE Band 66 (GT - LC = 1.23 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	21.12	21.00	20.84	20.97	20.92	21.04	20.88	20.91	20.74
Conducted Power (Watts)	0.1294	0.1259	0.1213	0.1250	0.1236	0.1271	0.1225	0.1233	0.1186
EIRP(dBm)	22.35	22.23	22.07	22.20	22.15	22.27	22.11	22.14	21.97
EIRP(Watts)	0.1718	0.1671	0.1611	0.1660	0.1641	0.1687	0.1626	0.1637	0.1574



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Main Antenna:

LTE Band 2 / 20MHz / QPSK									
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	3742.18	-57.32	-13	-44.32	-75.94	-64.07	5.85	12.60	H
	5613.27	-56.49	-13	-43.49	-79.33	-62.29	7.30	13.10	H
	7484.36	-53.57	-13	-40.57	-80.18	-56.72	8.35	11.50	H
	3742.18	-58.49	-13	-45.49	-76.73	-65.24	5.85	12.60	V
	5613.27	-56.81	-13	-43.81	-79.13	-62.61	7.30	13.10	V
	7484.36	-53.23	-13	-40.23	-80.23	-56.38	8.35	11.50	V

LTE Band 5 / 10MHz / QPSK									
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	1664.18	-64.01	-13	-51.01	-72.68	-67.26	4.00	9.40	H
	2496.27	-55.21	-13	-42.21	-68.06	-58.78	4.88	10.60	H
	3328.36	-62.57	-13	-49.57	-77.12	-67.50	5.52	12.60	H
	1664.18	-64.39	-13	-51.39	-72.66	-67.64	4.00	9.40	V
	2496.27	-56.43	-13	-43.43	-69.24	-60.00	4.88	10.60	V
	3328.36	-62.54	-13	-49.54	-76.85	-67.47	5.52	12.60	V

LTE Band 7 / 20MHz / QPSK									
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	5052.18	-53.90	-25	-28.90	-73.74	-59.46	7.14	12.70	H
	7578.27	-37.22	-25	-12.22	-61.75	-40.52	8.30	11.60	H
	10104.36	-49.75	-25	-24.75	-79.68	-51.27	10.48	12.00	H
	5052.18	-53.19	-25	-28.19	-73.15	-58.75	7.14	12.70	V
	7578.27	-37.37	-25	-12.37	-61.86	-40.67	8.30	11.60	V
	10104.36	-50.88	-25	-25.88	-79.41	-52.40	10.48	12.00	V



LTE Band 12 / 10MHz / QPSK									
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	1406	-64.21	-13	-51.21	-72.17	-67.46	4.00	9.40	H
	2109	-64.92	-13	-51.92	-74.58	-68.49	4.88	10.60	H
	2812	-62.28	-13	-49.28	-74.14	-67.21	5.52	12.60	H
	1406	-64.16	-13	-51.16	-72.20	-67.41	4.00	9.40	V
	2109	-64.73	-13	-51.73	-74.76	-68.30	4.88	10.60	V
	2812	-62.18	-13	-49.18	-74.28	-67.11	5.52	12.60	V

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

LTE Band 13 / 5MHz / QPSK									
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	1559.5	-63.59	-42.15	-21.44	-72.31	-66.84	4.00	9.40	H
	2339.25	-50.12	-13	-37.12	-63.41	-53.69	4.88	10.60	H
	3119	-61.32	-13	-48.32	-76.73	-66.25	5.52	12.60	H
	1559.5	-63.90	-42.15	-21.75	-72.70	-67.15	4.00	9.40	V
	2339.25	-49.56	-13	-36.56	-62.85	-53.13	4.88	10.60	V
	3119	-61.46	-13	-48.46	-76.91	-66.39	5.52	12.60	V

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

LTE Band 13 / 10MHz / QPSK									
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	1555	-63.67	-13	-50.67	-74.02	-66.92	4.00	9.40	H
	2332.5	-41.52	-13	-28.52	-54.92	-45.09	4.88	10.60	H
	3110	-59.57	-13	-46.57	-76.18	-64.50	5.52	12.60	H
	1555	-63.81	-13	-50.81	-73.93	-67.06	4.00	9.40	V
	2332.5	-56.55	-13	-43.55	-69.98	-60.12	4.88	10.60	V
	3110	-59.91	-13	-46.91	-76.33	-64.84	5.52	12.60	V

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



LTE Band 66 / 20MHz / QPSK									
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	3510	-61.78	-13	-48.78	-77.60	-68.63	5.65	12.50	H
	5265	-60.50	-13	-47.50	-79.71	-66.17	7.13	12.80	H
	7020	-54.61	-13	-41.61	-78.91	-58.01	8.40	11.80	H
	3510	-61.78	-13	-48.78	-77.54	-68.63	5.65	12.50	V
	5265	-60.27	-13	-47.27	-79.59	-65.94	7.13	12.80	V
	7020	-54.51	-13	-41.51	-79.26	-57.91	8.40	11.80	V

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

ASDIV Antenna:

LTE Band 2 / 20MHz / QPSK									
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	3742.18	-60.08	-13	-47.08	-76.77	-66.83	5.85	12.60	H
	5613.27	-58.34	-13	-45.34	-78.05	-64.14	7.30	13.10	H
	7484.36	-53.15	-13	-40.15	-77.89	-56.30	8.35	11.50	H
	3742.18	-60.18	-13	-47.18	-76.79	-66.93	5.85	12.60	V
	5613.27	-58.42	-13	-45.42	-78.32	-64.22	7.30	13.10	V
	7484.36	-54.51	-13	-41.51	-79.24	-57.66	8.35	11.50	V

LTE Band 5 / 10MHz / QPSK									
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	1664.18	-64.11	-13	-51.11	-72.78	-67.36	4.00	9.40	H
	2496.27	-55.27	-13	-42.27	-68.12	-58.84	4.88	10.60	H
	3328.36	-62.49	-13	-49.49	-77.04	-67.42	5.52	12.60	H
	1664.18	-64.12	-13	-51.12	-72.39	-67.37	4.00	9.40	V
	2496.27	-56.54	-13	-43.54	-69.35	-60.11	4.88	10.60	V
	3328.36	-62.67	-13	-49.67	-76.98	-67.60	5.52	12.60	V



LTE Band 12 / 10MHz / QPSK									
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	1406	-64.51	-13	-51.51	-72.47	-67.76	4.00	9.40	H
	2109	-64.32	-13	-51.32	-73.98	-67.89	4.88	10.60	H
	2812	-61.98	-13	-48.98	-73.84	-66.91	5.52	12.60	H
	1406	-64.56	-13	-51.56	-72.60	-67.81	4.00	9.40	V
	2109	-64.33	-13	-51.33	-74.36	-67.90	4.88	10.60	V
	2812	-61.52	-13	-48.52	-73.62	-66.45	5.52	12.60	V

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

LTE Band 13 / 5MHz / QPSK									
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	1559.5	-64.05	-42.15	-21.90	-72.77	-67.30	4.00	9.40	H
	2339.25	-49.98	-13	-36.98	-63.27	-53.55	4.88	10.60	H
	3119	-60.78	-13	-47.78	-76.19	-65.71	5.52	12.60	H
	1559.5	-63.70	-42.15	-21.55	-72.50	-66.95	4.00	9.40	V
	2339.25	-49.04	-13	-36.04	-62.33	-52.61	4.88	10.60	V
	3119	-60.71	-13	-47.71	-76.16	-65.64	5.52	12.60	V

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

LTE Band 13 / 10MHz / QPSK									
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	1555	-59.16	-13	-46.16	-67.88	-62.41	4.00	9.40	H
	2332.5	-39.82	-13	-26.82	-53.15	-43.39	4.88	10.60	H
	3110	-60.99	-13	-47.99	-76.30	-65.92	5.52	12.60	H
	1555	-59.26	-13	-46.26	-68.06	-62.51	4.00	9.40	V
	2332.5	-40.58	-13	-27.58	-53.91	-44.15	4.88	10.60	V
	3110	-60.88	-13	-47.88	-76.25	-65.81	5.52	12.60	V

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



LTE Band 66 / 20MHz / QPSK									
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	3510	-61.58	-13	-48.58	-77.40	-68.43	5.65	12.50	H
	5265	-60.23	-13	-47.23	-79.44	-65.90	7.13	12.80	H
	7020	-55.02	-13	-42.02	-79.32	-58.42	8.40	11.80	H
	3510	-61.57	-13	-48.57	-77.33	-68.42	5.65	12.50	V
	5265	-60.01	-13	-47.01	-79.33	-65.68	7.13	12.80	V
	7020	-54.28	-13	-41.28	-79.03	-57.68	8.40	11.80	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 FG151701-01B & FG151701-01C which are issued separately.