



FCC RF Test Report

APPLICANT : PAX Technology Limited
EQUIPMENT : UNATTENDED PAYMENT TERMINAL
BRAND NAME : PAX
MODEL NAME : IM30
FCC ID : V5PIM304GBWL
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H), 27(F), 27(N)
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : Aug. 25, 2023 ~ Aug. 30, 2023

We, Sporton International Inc. (ShenZhen), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

This product installed a RF module (Brand Name: Fibocom, Model Name: NL668-AM-00, FCC ID: ZMONL668AM00) during the test, only ERP/EIRP and RSE test items are tested in this report, all the other test results are quoted on module RF report.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG380711B	Rev. 01	Initial issue of report	Oct. 12, 2023



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)	ERP < 3 Watt		-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt		-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt		-
-	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	1
-	§2.1049	Occupied Bandwidth	-	Report Only	1
-	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2)(4) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 66) (Band 71)	< 43+10log ₁₀ (P[Watts])	PASS	1
-	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 66) (Band 71)	< 43+10log ₁₀ (P[Watts])	PASS	1
-	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	1
	§2.1055 §24.235 §27.54		Within Authorized Band		
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 12) (Band 13) (Band 17) (Band 66) (Band 71)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 15.63 dB at 1559.500 MHz

Remark 1: Test results were leveraged from module RF report which can refer to Report No.FG801914-01B.

Conformity Assessment Condition:

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Applicant

PAX Technology Limited

Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong

1.2 Manufacturer

PAX Computer Technology (Shenzhen) Co., Ltd.

401 and 402, Building 3, Shenzhen Software Park, Nanshan District, Shenzhen City, Guangdong Province, P.R.C

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	UNATTENDED PAYMENT TERMINAL
Brand Name	PAX
Model Name	IM30
FCC ID	V5PIM304GBWL
SN Code	Conducted: 1640169806 Radiation: 1640169776
HW Version	NA
SW Version	NA
EUT Stage	Production Unit

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

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
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 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 LTE Band 71: 663 MHz ~ 698 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 12 : 729 MHz ~ 746 MHz LTE Band 13 : 746 MHz ~ 756 MHz LTE Band 17 : 734 MHz ~ 746 MHz LTE Band 66 : 2110 MHz ~ 2180 MHz LTE Band 71: 617 MHz ~ 652 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 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 LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz
Antenna Type	WWAN ANT.1: Dipole Antenna WWAN ANT.2: Dipole Antenna WWAN ANT.3: Cable Antenna
Antenna Gain	<Ant.1>: LTE Band 2 : 2.01 dBi LTE Band 4 : 3.61 dBi LTE Band 5 : 1.33 dBi LTE Band 12 : 0.75 dBi LTE Band 13 : 0.70 dBi LTE Band 17 : 0.75 dBi LTE Band 66 : 3.61 dBi LTE Band 71 : 0.65 dBi <Ant.2>: LTE Band 2 : -0.30 dBi LTE Band 4 : 0.85 dBi LTE Band 5 : 0.82 dBi LTE Band 12 : 0.60 dBi LTE Band 13 : 0.50 dBi LTE Band 17 : 0.60 dBi LTE Band 66 : 0.85 dBi LTE Band 71 : 0.50 dBi <Ant.3>: LTE Band 2 : -0.77 dBi LTE Band 4 : -0.02 dBi LTE Band 5 : 0.70 dBi LTE Band 12 : -2.23 dBi LTE Band 13 : -1.21 dBi LTE Band 17 : -2.23 dBi LTE Band 66 : -0.02 dBi LTE Band 71 : -2.75 dBi
Type of Modulation	QPSK / 16QAM

Note:

1. There are three WWAN Antennas for option, Ant.1 (SWA2241), Ant.2 (SWA2241C01) and Ant.3 (YJ086S.300294.S01).
2. The maximum ERP/EIRP is calculated from max output power and max antenna gain, so only the maximum ERP/EIRP of Ant.1 for LTE Band 2/4/5/12/13/17/66/71 are shown in the report.

1.5 Modification of EUT

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



1.6 Maximum ERP/EIRP Power

LTE Band 2		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1850.7 ~ 1909.3	0.3365	-	0.2404	-
3	1851.5 ~ 1908.5	0.3311	-	0.2427	-
5	1852.5 ~ 1907.5	0.3357	-	0.2427	-
10	1855.0 ~ 1905.0	0.3334	-	0.2427	-
15	1857.5 ~ 1902.5	0.3381	-	0.2438	-
20	1860.0 ~ 1900.0	0.3396	-	0.2477	-
LTE Band 4		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1754.3	0.4645	-	0.3334	-
3	1711.5 ~ 1753.5	0.4603	-	0.3350	-
5	1712.5 ~ 1752.5	0.4592	-	0.3342	-
10	1715.0 ~ 1750.0	0.4634	-	0.3357	-
15	1717.5 ~ 1747.5	0.4624	-	0.3357	-
20	1720.0 ~ 1745.0	0.4721	-	0.3412	-
LTE Band 5		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.1466	-	0.1107	-
3	825.5 ~ 847.5	0.1486	-	0.1102	-
5	826.5 ~ 846.5	0.1496	-	0.1102	-
10	829.0 ~ 844.0	0.1514	-	0.1119	-
LTE Band 12		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	699.7 ~ 715.3	0.1387	-	0.0964	-
3	700.5 ~ 714.5	0.1393	-	0.0955	-
5	701.5 ~ 713.5	0.1393	-	0.0953	-
10	704.0 ~ 711.0	0.1409	-	0.0977	-



LTE Band 13		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	779.5 ~ 784.5	0.1256	-	0.0959	-
10	782.0	0.1340	-	0.0916	-
LTE Band 17		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	706.5 ~ 713.5	0.1393	-	0.0953	-
10	709.0 ~ 711.0	0.1409	-	0.0977	-
LTE Band 66		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1779.3	0.4645	-	0.3334	-
3	1711.5 ~ 1778.5	0.4603	-	0.3350	-
5	1712.5 ~ 1777.5	0.4592	-	0.3342	-
10	1715.0 ~ 1775.0	0.4634	-	0.3357	-
15	1717.5 ~ 1772.5	0.4624	-	0.3357	-
20	1720.0 ~ 1770.0	0.4721	-	0.3412	-
LTE Band 71		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	665.5 ~ 695.5	0.1377	-	0.0931	-
10	668.0 ~ 693.0	0.1365	-	0.0929	-
15	670.5 ~ 690.5	0.1377	-	0.0931	-
20	673.0 ~ 688.0	0.1406	-	0.0946	-

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.

1.7 Testing Location

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

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH01-SZ	CN1256	421272

1.8 Test Software

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

1.9 Applicable Standards

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

- 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H), 27(F), 27(N)
- 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

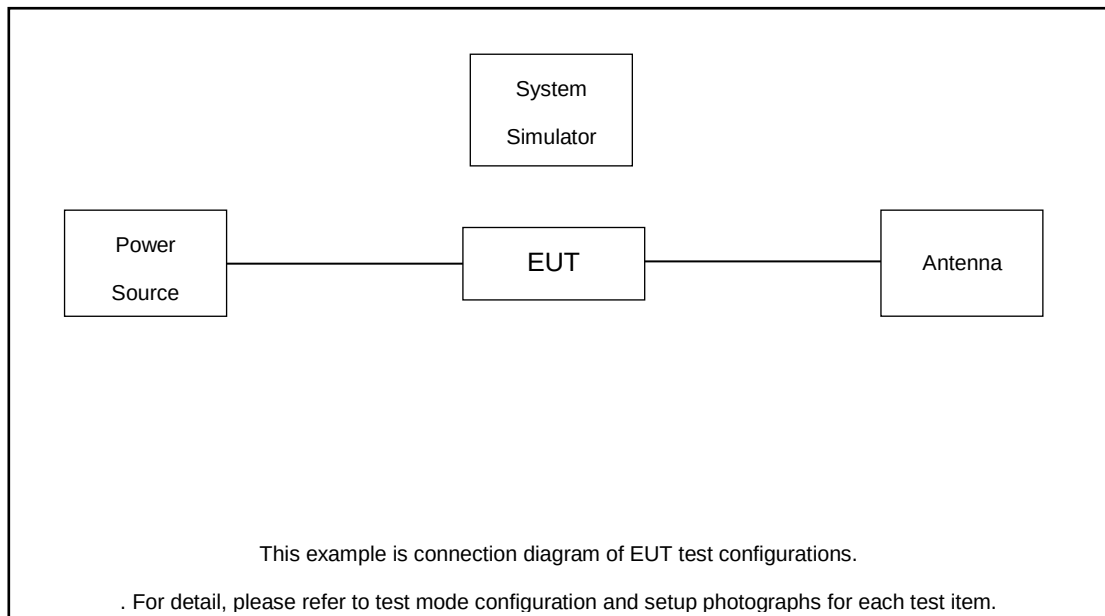
2.1 Test Mode

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	-	1	Half	Full	L	M	H
Max. Output Power	2	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
	5	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
	13	-	-	v	v	-	-	v	v	-	v	v	v	v	v	v
	17	-	-	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
	71	-	-	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
	5	v	v	v	v	-	-	v	v	-	v			v	v	v
	12	v	v	v	v	-	-	v	v	-	v			v	v	v
	13	-	-	v	v	-	-	v	v	-	v			v	v	v
	66	v	v	v	v	v	v	v	v	-	v			v	v	v
	71	-	-	v	v	v	v	v	v	-	v			v	v	v
Radiated Spurious Emission	2	Worst Case												v	v	v
	5	Worst Case												v	v	v
	12	Worst Case												v	v	v
	13	Worst Case												v	v	v
	66	Worst Case												v	v	v
	71	Worst Case												v	v	v
Note	1. The mark “v ” means that this configuration is chosen for testing 2. The mark “-” means that this bandwidth is not supported. 3. 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.	DC Power Supply	Topward	3303DR	N/A	N/A	Unshielded,1.8m
2.	Base Station	Anritsu	MT8820C	Fcc DoC	N/A	Shielded, 1.5m
3.	Antenna	N/A	N/A	N/A	N/A	N/A



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 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

LTE Band 71 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	133222	133322	133372
	Frequency	673.0	680.5	688.0
15	Channel	133197	133297	133397
	Frequency	670.5	680.5	690.5
10	Channel	133172	133272	133422
	Frequency	668.0	678.0	693.0
5	Channel	133147	133247	133447
	Frequency	665.5	675.5	695.5

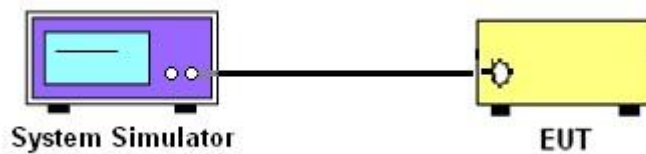
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power 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 and Band 71.

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

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

3.4.2 Test Procedures

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

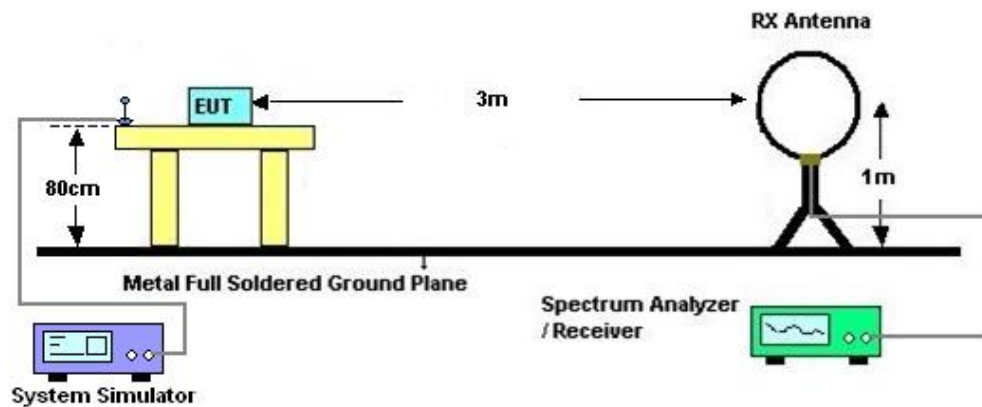
4 Radiated Test Items

4.1 Measuring Instruments

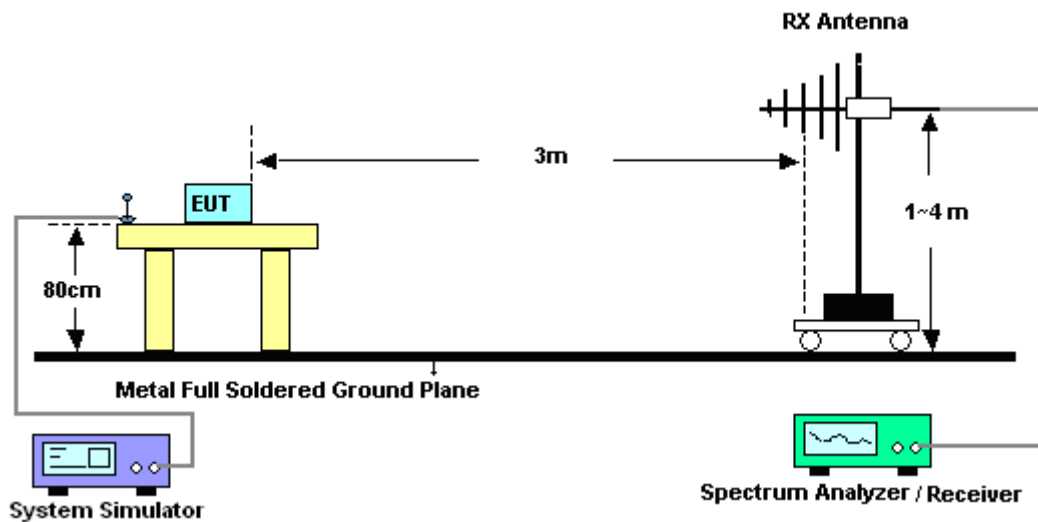
See list of measuring instruments of this test report.

4.2 Test Setup

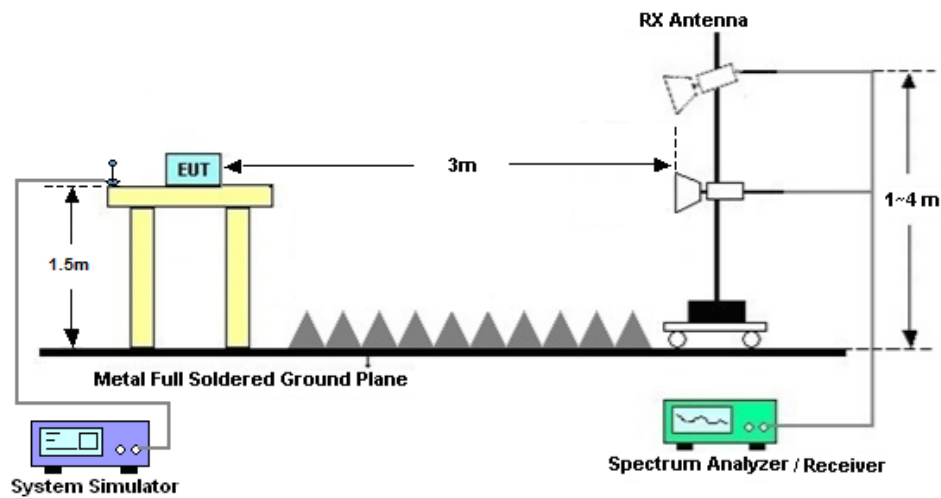
4.2.1 For radiated test below 30MHz



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.

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. $\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$
11. $\text{ERP (dBm)} = \text{EIRP} - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
System Simulator	R&S	CMW500	132727	2G/3G/4G	Dec. 27, 2022	Aug. 30, 2023	Dec. 26, 2023	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 26, 2022	Aug. 25, 2023	Dec. 25, 2023	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2023	Aug. 25, 2023	Jul. 27, 2024	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz~2GHz	Sep. 28, 2022	Aug. 25, 2023	Sep. 27, 2023	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 08, 2023	Aug. 25, 2023	Jul. 07, 2024	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz~40GHz	Apr. 08, 2023	Aug. 25, 2023	Apr. 07, 2024	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 04, 2023	Aug. 25, 2023	Apr. 03, 2024	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 19, 2022	Aug. 25, 2023	Oct. 18, 2023	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 19, 2022	Aug. 25, 2023	Oct. 18, 2023	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	Aug. 25, 2023	Jul. 06, 2024	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	61601000198 5	N/A	Nov. 10, 2022	Aug. 25, 2023	Nov. 09, 2023	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Aug. 25, 2023	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Aug. 25, 2023	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

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

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±1.34 dB

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.48dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.53dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.02dB
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----- THE END -----



Appendix A. Test Results of Conducted Test

Test Engineer :	Zouzhen Hua	Temperature :	24~26°C
		Relative Humidity :	50~53%

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	23.07	23.06	23.19
20	QPSK	1	49	23.27	23.30	23.22
20	QPSK	1	99	22.98	23.01	22.95
20	QPSK	50	0	21.96	21.81	21.72
20	QPSK	50	24	21.80	21.82	21.71
20	QPSK	50	50	21.72	21.72	21.61
20	QPSK	100	0	21.95	21.85	21.73
20	16QAM	1	0	21.91	21.88	21.76
20	16QAM	1	49	21.82	21.85	21.77
20	16QAM	1	99	21.55	21.93	21.83
20	16QAM	50	0	21.13	20.92	20.81
20	16QAM	50	24	20.86	21.06	20.95
20	16QAM	50	50	20.99	20.76	20.71
20	16QAM	100	0	20.92	20.92	20.85
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	23.00	22.95	23.11
15	QPSK	1	37	23.23	23.28	23.14
15	QPSK	1	74	22.89	22.86	22.82
15	QPSK	36	0	21.82	21.68	21.67
15	QPSK	36	20	21.64	21.66	21.63
15	QPSK	36	39	21.56	21.56	21.51
15	QPSK	75	0	21.89	21.79	21.64
15	16QAM	1	0	21.86	21.73	21.67
15	16QAM	1	37	21.73	21.70	21.63
15	16QAM	1	74	21.40	21.86	21.78
15	16QAM	36	0	20.97	20.83	20.65
15	16QAM	36	20	20.70	21.01	20.85
15	16QAM	36	39	20.83	20.62	20.58
15	16QAM	75	0	20.85	20.83	20.79
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.97	22.96	23.05
10	QPSK	1	25	23.20	23.22	23.16
10	QPSK	1	49	22.86	22.92	22.86



10	QPSK	25	0	21.85	21.75	21.66
10	QPSK	25	12	21.74	21.71	21.62
10	QPSK	25	25	21.67	21.64	21.46
10	QPSK	50	0	21.89	21.77	21.58
10	16QAM	1	0	21.84	21.75	21.64
10	16QAM	1	25	21.70	21.79	21.69
10	16QAM	1	49	21.48	21.83	21.68
10	16QAM	25	0	21.02	20.82	20.66
10	16QAM	25	12	20.73	20.98	20.79
10	16QAM	25	25	20.83	20.68	20.56
10	16QAM	50	0	20.76	20.85	20.70
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.96	22.98	23.10
5	QPSK	1	12	23.25	23.19	23.11
5	QPSK	1	24	22.89	22.93	22.86
5	QPSK	12	0	21.86	21.69	21.58
5	QPSK	12	7	21.67	21.72	21.57
5	QPSK	12	13	21.61	21.66	21.51
5	QPSK	25	0	21.87	21.78	21.58
5	16QAM	1	0	21.78	21.75	21.61
5	16QAM	1	12	21.75	21.75	21.72
5	16QAM	1	24	21.39	21.84	21.72
5	16QAM	12	0	21.01	20.83	20.66
5	16QAM	12	7	20.81	20.93	20.90
5	16QAM	12	13	20.92	20.66	20.56
5	16QAM	25	0	20.79	20.79	20.74
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.95	22.95	23.08
3	QPSK	1	8	23.15	23.19	23.13
3	QPSK	1	14	22.89	22.93	22.88
3	QPSK	8	0	21.82	21.74	21.66
3	QPSK	8	4	21.67	21.67	21.59
3	QPSK	8	7	21.65	21.61	21.46
3	QPSK	15	0	21.84	21.72	21.62
3	16QAM	1	0	21.78	21.82	21.61
3	16QAM	1	8	21.77	21.73	21.68
3	16QAM	1	14	21.46	21.84	21.68
3	16QAM	8	0	21.06	20.82	20.71
3	16QAM	8	4	20.77	20.99	20.81
3	16QAM	8	7	20.87	20.64	20.60
3	16QAM	15	0	20.78	20.80	20.77
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.92	22.92	23.07
1.4	QPSK	1	3	23.18	23.26	23.07
1.4	QPSK	1	5	22.90	22.89	22.90
1.4	QPSK	3	0	22.86	22.87	22.91
1.4	QPSK	3	1	23.05	23.17	23.01



1.4	QPSK	3	3	22.81	22.78	22.79
1.4	QPSK	6	0	21.90	21.79	21.62
1.4	16QAM	1	0	21.80	21.80	21.65
1.4	16QAM	1	3	21.66	21.77	21.67
1.4	16QAM	1	5	21.78	21.63	21.50
1.4	16QAM	3	0	21.74	21.64	21.49
1.4	16QAM	3	1	21.71	21.67	21.51
1.4	16QAM	3	3	21.56	21.71	21.53
1.4	16QAM	6	0	20.76	20.83	20.78

**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	22.78	22.82	22.84
20	QPSK	1	49	22.88	22.99	22.92
20	QPSK	1	99	22.49	22.49	22.53
20	QPSK	50	0	21.78	21.74	21.78
20	QPSK	50	24	21.67	21.69	21.73
20	QPSK	50	50	21.45	21.40	21.49
20	QPSK	100	0	21.60	21.56	21.66
20	16QAM	1	0	21.45	21.48	21.40
20	16QAM	1	49	21.64	21.69	21.63
20	16QAM	1	99	21.24	21.26	21.25
20	16QAM	50	0	20.59	20.64	20.62
20	16QAM	50	24	20.74	20.69	20.71
20	16QAM	50	50	20.43	20.50	20.44
20	16QAM	100	0	20.67	20.66	20.63
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	22.66	22.75	22.77
15	QPSK	1	37	22.77	22.83	22.87
15	QPSK	1	74	22.44	22.40	22.46
15	QPSK	36	0	21.69	21.68	21.73
15	QPSK	36	20	21.56	21.59	21.59
15	QPSK	36	39	21.31	21.32	21.40
15	QPSK	75	0	21.50	21.50	21.58
15	16QAM	1	0	21.36	21.37	21.29
15	16QAM	1	37	21.50	21.61	21.55
15	16QAM	1	74	21.15	21.14	21.20
15	16QAM	36	0	20.46	20.49	20.55
15	16QAM	36	20	20.69	20.59	20.62
15	16QAM	36	39	20.30	20.43	20.29
15	16QAM	75	0	20.57	20.59	20.47
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	22.64	22.74	22.69
10	QPSK	1	25	22.81	22.86	22.80
10	QPSK	1	49	22.37	22.38	22.37
10	QPSK	25	0	21.63	21.66	21.63
10	QPSK	25	12	21.54	21.59	21.63
10	QPSK	25	25	21.30	21.28	21.42
10	QPSK	50	0	21.48	21.44	21.57
10	16QAM	1	0	21.34	21.42	21.26
10	16QAM	1	25	21.53	21.59	21.52
10	16QAM	1	49	21.10	21.21	21.13
10	16QAM	25	0	20.50	20.51	20.49
10	16QAM	25	12	20.62	20.60	20.57



10	16QAM	25	25	20.28	20.40	20.38
10	16QAM	50	0	20.54	20.52	20.47
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	22.69	22.77	22.76
5	QPSK	1	12	22.82	22.87	22.79
5	QPSK	1	24	22.38	22.43	22.48
5	QPSK	12	0	21.67	21.63	21.63
5	QPSK	12	7	21.53	21.56	21.65
5	QPSK	12	13	21.37	21.27	21.37
5	QPSK	25	0	21.45	21.40	21.56
5	16QAM	1	0	21.30	21.36	21.32
5	16QAM	1	12	21.57	21.60	21.54
5	16QAM	1	24	21.14	21.12	21.10
5	16QAM	12	0	20.52	20.49	20.47
5	16QAM	12	7	20.60	20.63	20.65
5	16QAM	12	13	20.29	20.43	20.30
5	16QAM	25	0	20.62	20.61	20.55
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	22.63	22.66	22.69
3	QPSK	1	8	22.76	22.86	22.85
3	QPSK	1	14	22.37	22.39	22.37
3	QPSK	8	0	21.69	21.62	21.68
3	QPSK	8	4	21.61	21.60	21.59
3	QPSK	8	7	21.35	21.26	21.44
3	QPSK	15	0	21.51	21.47	21.54
3	16QAM	1	0	21.29	21.33	21.31
3	16QAM	1	8	21.51	21.58	21.50
3	16QAM	1	14	21.13	21.20	21.16
3	16QAM	8	0	20.45	20.55	20.57
3	16QAM	8	4	20.61	20.61	20.60
3	16QAM	8	7	20.37	20.43	20.37
3	16QAM	15	0	20.58	20.57	20.56
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.62	22.71	22.73
1.4	QPSK	1	3	22.77	22.84	22.83
1.4	QPSK	1	5	22.41	22.39	22.45
1.4	QPSK	3	0	22.56	22.66	22.64
1.4	QPSK	3	1	22.62	22.75	22.76
1.4	QPSK	3	3	22.35	22.28	22.34
1.4	QPSK	6	0	21.49	21.47	21.60
1.4	16QAM	1	0	21.39	21.41	21.25
1.4	16QAM	1	3	21.56	21.59	21.50
1.4	16QAM	1	5	21.15	21.10	21.12
1.4	16QAM	3	0	21.31	21.33	21.20
1.4	16QAM	3	1	21.40	21.44	21.36
1.4	16QAM	3	3	21.26	21.36	21.22
1.4	16QAM	6	0	20.53	20.59	20.48



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	22.27	22.56	22.47
10	QPSK	1	25	22.31	22.60	22.41
10	QPSK	1	49	22.17	22.62	22.36
10	QPSK	25	0	21.31	21.21	21.17
10	QPSK	25	12	21.26	21.28	21.27
10	QPSK	25	25	21.12	21.22	21.37
10	QPSK	50	0	21.21	21.27	21.36
10	16QAM	1	0	21.05	21.28	21.27
10	16QAM	1	25	21.24	21.31	21.16
10	16QAM	1	49	21.10	21.12	21.22
10	16QAM	25	0	20.46	20.51	20.35
10	16QAM	25	12	20.20	20.27	20.17
10	16QAM	25	25	20.13	20.16	20.14
10	16QAM	50	0	20.17	20.19	20.15
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.12	22.43	22.38
5	QPSK	1	12	22.26	22.57	22.25
5	QPSK	1	24	22.12	22.35	22.25
5	QPSK	12	0	21.20	21.05	21.08
5	QPSK	12	7	21.12	21.19	21.12
5	QPSK	12	13	21.00	21.11	21.31
5	QPSK	25	0	21.07	21.16	21.20
5	16QAM	1	0	21.09	21.15	21.12
5	16QAM	1	12	21.17	21.24	21.08
5	16QAM	1	24	21.03	21.00	21.07
5	16QAM	12	0	20.37	20.46	20.19
5	16QAM	12	7	20.15	20.18	20.05
5	16QAM	12	13	20.06	20.11	20.04
5	16QAM	25	0	20.10	20.08	20.07
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.11	22.47	22.39
3	QPSK	1	8	22.19	22.54	22.25
3	QPSK	1	14	22.07	22.32	22.30
3	QPSK	8	0	21.26	21.07	21.11
3	QPSK	8	4	21.19	21.16	21.17
3	QPSK	8	7	21.02	21.11	21.30
3	QPSK	15	0	21.10	21.20	21.23
3	16QAM	1	0	21.08	21.22	21.12
3	16QAM	1	8	21.09	21.24	21.11
3	16QAM	1	14	21.07	21.03	21.09
3	16QAM	8	0	20.41	20.36	20.29



3	16QAM	8	4	20.14	20.17	20.12
3	16QAM	8	7	20.04	20.07	20.05
3	16QAM	15	0	20.09	20.08	20.09
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.19	22.48	22.34
1.4	QPSK	1	3	22.22	22.46	22.33
1.4	QPSK	1	5	22.05	22.41	22.30
1.4	QPSK	3	0	22.10	22.35	22.27
1.4	QPSK	3	1	22.12	22.37	22.18
1.4	QPSK	3	3	22.18	22.34	22.16
1.4	QPSK	6	0	21.14	21.19	21.27
1.4	16QAM	1	0	21.12	21.14	21.17
1.4	16QAM	1	3	21.16	21.26	21.04
1.4	16QAM	1	5	21.05	21.04	21.09
1.4	16QAM	3	0	21.03	21.14	21.06
1.4	16QAM	3	1	21.03	21.09	21.03
1.4	16QAM	3	3	21.05	21.02	21.03
1.4	16QAM	6	0	20.02	20.11	20.08



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	22.49	22.53	22.51
10	QPSK	1	25	22.86	22.89	22.78
10	QPSK	1	49	22.50	22.50	22.47
10	QPSK	25	0	21.32	21.31	21.30
10	QPSK	25	12	21.54	21.56	21.54
10	QPSK	25	25	21.52	21.47	21.52
10	QPSK	50	0	21.39	21.45	21.45
10	16QAM	1	0	21.24	21.15	21.16
10	16QAM	1	25	21.30	21.26	21.24
10	16QAM	1	49	21.12	21.17	21.07
10	16QAM	25	0	20.50	20.50	20.56
10	16QAM	25	12	20.46	20.49	20.48
10	16QAM	25	25	20.38	20.37	20.42
10	16QAM	50	0	20.57	20.58	20.55
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.40	22.47	22.46
5	QPSK	1	12	22.80	22.84	22.67
5	QPSK	1	24	22.43	22.41	22.41
5	QPSK	12	0	21.19	21.24	21.21
5	QPSK	12	7	21.46	21.45	21.40
5	QPSK	12	13	21.39	21.39	21.39
5	QPSK	25	0	21.32	21.34	21.40
5	16QAM	1	0	21.09	21.08	21.07
5	16QAM	1	12	21.18	21.11	21.19
5	16QAM	1	24	21.07	21.15	21.06
5	16QAM	12	0	20.43	20.41	20.40
5	16QAM	12	7	20.35	20.35	20.41
5	16QAM	12	13	20.27	20.29	20.30
5	16QAM	25	0	20.45	20.50	20.46
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.37	22.45	22.37
3	QPSK	1	8	22.73	22.84	22.65
3	QPSK	1	14	22.41	22.43	22.35
3	QPSK	8	0	21.23	21.16	21.16
3	QPSK	8	4	21.46	21.46	21.48
3	QPSK	8	7	21.46	21.31	21.37
3	QPSK	15	0	21.30	21.35	21.32
3	16QAM	1	0	21.15	21.09	21.03
3	16QAM	1	8	21.20	21.16	21.11
3	16QAM	1	14	21.11	21.13	21.08
3	16QAM	8	0	20.40	20.40	20.41
3	16QAM	8	4	20.32	20.37	20.36



3	16QAM	8	7	20.31	20.24	20.36
3	16QAM	15	0	20.51	20.45	20.46
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.39	22.45	22.35
1.4	QPSK	1	3	22.73	22.82	22.66
1.4	QPSK	1	5	22.35	22.45	22.32
1.4	QPSK	3	0	22.29	22.39	22.28
1.4	QPSK	3	1	22.59	22.72	22.58
1.4	QPSK	3	3	22.27	22.32	22.17
1.4	QPSK	6	0	21.32	21.33	21.35
1.4	16QAM	1	0	21.13	21.02	21.01
1.4	16QAM	1	3	21.14	21.19	21.13
1.4	16QAM	1	5	21.24	21.20	21.21
1.4	16QAM	3	0	21.08	21.02	21.05
1.4	16QAM	3	1	21.08	21.10	21.08
1.4	16QAM	3	3	21.09	21.11	21.07
1.4	16QAM	6	0	20.49	20.45	20.39

**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		22.37	
10	QPSK	1	25		22.51	
10	QPSK	1	49		22.72	
10	QPSK	25	0		21.23	
10	QPSK	25	12		21.26	
10	QPSK	25	25		21.15	
10	QPSK	50	0		21.17	
10	16QAM	1	0		21.04	
10	16QAM	1	25		21.07	
10	16QAM	1	49		21.04	
10	16QAM	25	0		20.16	
10	16QAM	25	12		20.24	
10	16QAM	25	25		20.27	
10	16QAM	50	0		20.29	
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	22.21	22.21	22.26
5	QPSK	1	12	22.44	22.37	22.43
5	QPSK	1	24	22.09	22.15	22.15
5	QPSK	12	0	21.17	21.11	21.09
5	QPSK	12	7	21.20	21.19	21.17
5	QPSK	12	13	21.02	21.06	21.08
5	QPSK	25	0	21.02	21.12	21.07
5	16QAM	1	0	21.18	21.27	21.21
5	16QAM	1	12	21.12	21.20	21.22
5	16QAM	1	24	21.18	21.08	21.11
5	16QAM	12	0	20.05	20.11	20.07
5	16QAM	12	7	20.13	20.12	20.11
5	16QAM	12	13	20.17	20.12	20.21
5	16QAM	25	0	20.23	20.22	20.17

**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	22.39	22.35	22.31
10	QPSK	1	25	22.56	22.57	22.47
10	QPSK	1	49	22.25	22.28	22.18
10	QPSK	25	0	21.61	21.60	21.61
10	QPSK	25	12	21.49	21.47	21.55
10	QPSK	25	25	21.39	21.41	21.42
10	QPSK	50	0	21.53	21.52	21.53
10	16QAM	1	0	21.30	21.21	21.22
10	16QAM	1	25	21.40	21.40	21.38
10	16QAM	1	49	21.17	21.16	21.14
10	16QAM	25	0	20.50	20.57	20.53
10	16QAM	25	12	20.53	20.50	20.49
10	16QAM	25	25	20.47	20.44	20.49
10	16QAM	50	0	20.44	20.51	20.50
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.31	22.32	22.36
5	QPSK	1	12	22.51	22.55	22.49
5	QPSK	1	24	22.19	22.28	22.23
5	QPSK	12	0	21.60	21.69	21.65
5	QPSK	12	7	21.48	21.49	21.56
5	QPSK	12	13	21.39	21.46	21.40
5	QPSK	25	0	21.58	21.54	21.54
5	16QAM	1	0	21.20	21.28	21.21
5	16QAM	1	12	21.35	21.33	21.33
5	16QAM	1	24	21.04	21.04	21.02
5	16QAM	12	0	20.50	20.53	20.53
5	16QAM	12	7	20.51	20.51	20.46
5	16QAM	12	13	20.49	20.40	20.47
5	16QAM	25	0	20.45	20.46	20.53



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	23.05	23.07	23.12
20	QPSK	1	49	23.04	23.07	23.13
20	QPSK	1	99	22.78	22.82	22.87
20	QPSK	50	0	22.19	22.22	22.21
20	QPSK	50	24	22.06	22.12	22.07
20	QPSK	50	50	22.18	22.21	22.13
20	QPSK	100	0	21.89	21.97	21.86
20	16QAM	1	0	21.67	21.72	21.70
20	16QAM	1	49	21.61	21.65	21.67
20	16QAM	1	99	21.49	21.56	21.46
20	16QAM	50	0	20.99	20.97	20.93
20	16QAM	50	24	20.67	20.71	20.69
20	16QAM	50	50	20.56	20.52	20.56
20	16QAM	100	0	20.74	20.76	20.75
Channel				132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5
15	QPSK	1	0	22.97	22.96	23.03
15	QPSK	1	37	22.92	22.94	23.04
15	QPSK	1	74	22.65	22.67	22.75
15	QPSK	36	0	22.07	22.16	22.05
15	QPSK	36	20	22.00	22.06	22.02
15	QPSK	36	39	22.04	22.06	22.02
15	QPSK	75	0	21.83	21.84	21.76
15	16QAM	1	0	21.58	21.57	21.65
15	16QAM	1	37	21.55	21.49	21.56
15	16QAM	1	74	21.40	21.45	21.30
15	16QAM	36	0	20.93	20.86	20.77
15	16QAM	36	20	20.52	20.55	20.55
15	16QAM	36	39	20.45	20.45	20.42
15	16QAM	75	0	20.62	20.65	20.64
Channel				132022	132322	132622
Frequency (MHz)				1715	1745	1775
10	QPSK	1	0	22.91	22.97	23.00
10	QPSK	1	25	22.90	23.02	23.05
10	QPSK	1	49	22.71	22.69	22.79
10	QPSK	25	0	22.14	22.14	22.05
10	QPSK	25	12	21.92	22.04	21.97
10	QPSK	25	25	22.08	22.09	22.05
10	QPSK	50	0	21.82	21.90	21.79
10	16QAM	1	0	21.61	21.61	21.65
10	16QAM	1	25	21.48	21.51	21.58
10	16QAM	1	49	21.40	21.43	21.38
10	16QAM	25	0	20.90	20.91	20.78
10	16QAM	25	12	20.58	20.61	20.58



10	16QAM	25	25	20.43	20.46	20.41
10	16QAM	50	0	20.63	20.66	20.65
Channel				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	22.98	23.00	23.01
5	QPSK	1	12	22.96	22.95	23.00
5	QPSK	1	24	22.72	22.77	22.78
5	QPSK	12	0	22.09	22.17	22.09
5	QPSK	12	7	21.95	21.96	21.93
5	QPSK	12	13	22.05	22.13	22.05
5	QPSK	25	0	21.80	21.86	21.73
5	16QAM	1	0	21.60	21.63	21.55
5	16QAM	1	12	21.46	21.50	21.57
5	16QAM	1	24	21.36	21.42	21.34
5	16QAM	12	0	20.87	20.83	20.81
5	16QAM	12	7	20.58	20.56	20.59
5	16QAM	12	13	20.45	20.40	20.43
5	16QAM	25	0	20.60	20.70	20.64
Channel				131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5
3	QPSK	1	0	22.94	23.00	22.99
3	QPSK	1	8	22.99	22.92	23.02
3	QPSK	1	14	22.62	22.68	22.71
3	QPSK	8	0	22.07	22.08	22.08
3	QPSK	8	4	21.97	22.00	22.00
3	QPSK	8	7	22.11	22.07	22.03
3	QPSK	15	0	21.78	21.90	21.72
3	16QAM	1	0	21.57	21.64	21.64
3	16QAM	1	8	21.51	21.58	21.54
3	16QAM	1	14	21.39	21.42	21.31
3	16QAM	8	0	20.85	20.91	20.86
3	16QAM	8	4	20.56	20.55	20.61
3	16QAM	8	7	20.51	20.37	20.48
3	16QAM	15	0	20.61	20.64	20.69
Channel				131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3
1.4	QPSK	1	0	22.97	22.93	22.99
1.4	QPSK	1	3	22.90	22.91	23.06
1.4	QPSK	1	5	22.67	22.70	22.81
1.4	QPSK	3	0	22.03	22.07	22.16
1.4	QPSK	3	1	22.00	22.06	22.07
1.4	QPSK	3	3	22.08	22.12	22.01
1.4	QPSK	6	0	21.80	21.86	21.70
1.4	16QAM	1	0	21.62	21.62	21.62
1.4	16QAM	1	3	21.52	21.58	21.51
1.4	16QAM	1	5	21.36	21.45	21.32
1.4	16QAM	3	0	21.49	21.48	21.53
1.4	16QAM	3	1	21.47	21.48	21.38
1.4	16QAM	3	3	21.24	21.39	21.17
1.4	16QAM	6	0	20.62	20.70	20.68


LTE Band 71:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				133222	133297	133372
Frequency (MHz)				673	680.5	688
20	QPSK	1	0	22.69	22.94	22.90
20	QPSK	1	49	22.87	22.98	22.94
20	QPSK	1	99	22.59	22.92	22.66
20	QPSK	50	0	21.89	22.28	21.91
20	QPSK	50	24	21.94	22.25	21.93
20	QPSK	50	50	21.86	21.94	21.82
20	QPSK	100	0	21.99	22.19	21.90
20	16QAM	1	0	21.15	21.19	21.17
20	16QAM	1	49	21.16	21.26	21.18
20	16QAM	1	99	21.11	21.23	21.20
20	16QAM	50	0	20.92	21.05	20.97
20	16QAM	50	24	20.60	20.76	20.75
20	16QAM	50	50	20.84	20.95	20.86
20	16QAM	100	0	20.73	20.85	20.75
Channel				133197	133297	133397
Frequency (MHz)				670.5	680.5	690.5
15	QPSK	1	0	22.62	22.85	22.80
15	QPSK	1	37	22.78	22.89	22.83
15	QPSK	1	74	22.45	22.83	22.54
15	QPSK	36	0	21.79	22.18	21.77
15	QPSK	36	20	21.82	22.19	21.85
15	QPSK	36	39	21.72	21.81	21.76
15	QPSK	75	0	21.94	22.13	21.85
15	16QAM	1	0	21.00	21.03	21.08
15	16QAM	1	37	21.11	21.19	21.03
15	16QAM	1	74	21.08	21.10	21.04
15	16QAM	36	0	20.86	20.90	20.91
15	16QAM	36	20	20.54	20.70	20.63
15	16QAM	36	39	20.76	20.81	20.75
15	16QAM	75	0	20.66	20.72	20.70
Channel				133172	133297	133422
Frequency (MHz)				668	680.5	693
10	QPSK	1	0	22.57	22.78	22.75
10	QPSK	1	25	22.75	22.83	22.80
10	QPSK	1	49	22.52	22.85	22.61
10	QPSK	25	0	21.77	22.21	21.75
10	QPSK	25	12	21.88	22.18	21.85
10	QPSK	25	25	21.70	21.79	21.70
10	QPSK	50	0	21.83	22.03	21.79
10	16QAM	1	0	21.04	21.12	21.12
10	16QAM	1	25	21.03	21.13	21.06
10	16QAM	1	49	21.06	21.18	21.12
10	16QAM	25	0	20.83	20.96	20.82
10	16QAM	25	12	20.54	20.70	20.63



10	16QAM	25	25	20.75	20.79	20.81
10	16QAM	50	0	20.61	20.71	20.60
Channel				133147	133297	133447
Frequency (MHz)				665.5	680.5	695.5
5	QPSK	1	0	22.60	22.82	22.75
5	QPSK	1	12	22.81	22.89	22.82
5	QPSK	1	24	22.44	22.86	22.56
5	QPSK	12	0	21.77	22.12	21.76
5	QPSK	12	7	21.88	22.10	21.85
5	QPSK	12	13	21.77	21.86	21.70
5	QPSK	25	0	21.85	22.05	21.79
5	16QAM	1	0	21.10	21.12	21.10
5	16QAM	1	12	21.06	21.19	21.06
5	16QAM	1	24	21.00	21.17	21.10
5	16QAM	12	0	20.77	20.98	20.92
5	16QAM	12	7	20.48	20.69	20.67
5	16QAM	12	13	20.69	20.90	20.79
5	16QAM	25	0	20.57	20.70	20.66

**ERP/EIRP**

LTE Band 2 (GT - LC = 2.01 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)	23.18	23.26	23.07	23.15	23.19	23.13	23.25	23.19	23.11
Conducted Power (Watts)	0.2080	0.2118	0.2028	0.2065	0.2084	0.2056	0.2113	0.2084	0.2046
EIRP(dBm)	25.19	25.27	25.08	25.16	25.20	25.14	25.26	25.20	25.12
EIRP(Watts)	0.3304	0.3365	0.3221	0.3281	0.3311	0.3266	0.3357	0.3311	0.3251

LTE Band 2 (GT - LC = 2.01 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)	23.20	23.22	23.16	23.23	23.28	23.14	23.27	23.30	23.22
Conducted Power (Watts)	0.2089	0.2099	0.2070	0.2104	0.2128	0.2061	0.2123	0.2138	0.2099
EIRP(dBm)	25.21	25.23	25.17	25.24	25.29	25.15	25.28	25.31	25.23
EIRP(Watts)	0.3319	0.3334	0.3289	0.3342	0.3381	0.3273	0.3373	0.3396	0.3334



LTE Band 2 (GT - LC = 2.01 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	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
(MHz)									
Conducted Power (dBm)	21.80	21.80	21.65	21.46	21.84	21.68	21.39	21.84	21.72
Conducted Power (Watts)	0.1514	0.1514	0.1462	0.1400	0.1528	0.1472	0.1377	0.1528	0.1486
EIRP(dBm)	23.81	23.81	23.66	23.47	23.85	23.69	23.40	23.85	23.73
EIRP(Watts)	0.2404	0.2404	0.2323	0.2223	0.2427	0.2339	0.2188	0.2427	0.2360

LTE Band 2 (GT - LC = 2.01 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	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
(MHz)									
Conducted Power (dBm)	21.84	21.75	21.64	21.86	21.73	21.67	21.55	21.93	21.83
Conducted Power (Watts)	0.1528	0.1496	0.1459	0.1535	0.1489	0.1469	0.1429	0.1560	0.1524
EIRP(dBm)	23.85	23.76	23.65	23.87	23.74	23.68	23.56	23.94	23.84
EIRP(Watts)	0.2427	0.2377	0.2317	0.2438	0.2366	0.2333	0.2270	0.2477	0.2421

LTE Band 5 (GT - LC = 1.33 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	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	22.19	22.48	22.34	22.19	22.54	22.25	22.26	22.57	22.25
Conducted Power (Watts)	0.1656	0.1770	0.1714	0.1656	0.1795	0.1679	0.1683	0.1807	0.1679
ERP(dBm)	21.37	21.66	21.52	21.37	21.72	21.43	21.44	21.75	21.43
ERP(Watts)	0.1371	0.1466	0.1419	0.1371	0.1486	0.1390	0.1393	0.1496	0.1390

LTE Band 5 (GT - LC = 1.33 dB) QPSK			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency	829	836.5	844
(MHz)			
Conducted Power (dBm)	22.17	22.62	22.36
Conducted Power (Watts)	0.1648	0.1828	0.1722
ERP(dBm)	21.35	21.80	21.54
ERP(Watts)	0.1365	0.1514	0.1426

LTE Band 5 (GT - LC = 1.33 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	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	21.16	21.26	21.04	21.09	21.24	21.11	21.17	21.24	21.08
Conducted Power (Watts)	0.1306	0.1337	0.1271	0.1285	0.1330	0.1291	0.1309	0.1330	0.1282
ERP(dBm)	20.34	20.44	20.22	20.27	20.42	20.29	20.35	20.42	20.26
ERP(Watts)	0.1081	0.1107	0.1052	0.1064	0.1102	0.1069	0.1084	0.1102	0.1062

LTE Band 5 (GT - LC = 1.33 dB) 16QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency	829	836.5	844
(MHz)			
Conducted Power (dBm)	21.24	21.31	21.16
Conducted Power (Watts)	0.1330	0.1352	0.1306
ERP(dBm)	20.42	20.49	20.34
ERP(Watts)	0.1102	0.1119	0.1081

LTE Band 12 (GT - LC = 0.75 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	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
(MHz)									
Conducted Power (dBm)	22.73	22.82	22.66	22.73	22.84	22.65	22.80	22.84	22.67
Conducted Power (Watts)	0.1875	0.1914	0.1845	0.1875	0.1923	0.1841	0.1905	0.1923	0.1849
ERP(dBm)	21.33	21.42	21.26	21.33	21.44	21.25	21.40	21.44	21.27
ERP(Watts)	0.1358	0.1387	0.1337	0.1358	0.1393	0.1334	0.1380	0.1393	0.1340

LTE Band 12 (GT - LC = 0.75 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency	704	707.5	711
(MHz)			
Conducted Power (dBm)	22.86	22.89	22.78
Conducted Power (Watts)	0.1932	0.1945	0.1897
ERP(dBm)	21.46	21.49	21.38
ERP(Watts)	0.1400	0.1409	0.1374



LTE Band 12 (GT - LC = 0.75 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	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
(MHz)									
Conducted Power (dBm)	21.24	21.20	21.21	21.20	21.16	21.11	21.18	21.11	21.19
Conducted Power (Watts)	0.1330	0.1318	0.1321	0.1318	0.1306	0.1291	0.1312	0.1291	0.1315
ERP(dBm)	19.84	19.80	19.81	19.80	19.76	19.71	19.78	19.71	19.79
ERP(Watts)	0.0964	0.0955	0.0957	0.0955	0.0946	0.0935	0.0951	0.0935	0.0953

LTE Band 12 (GT - LC = 0.75 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency	704	707.5	711
(MHz)			
Conducted Power (dBm)	21.30	21.26	21.24
Conducted Power (Watts)	0.1349	0.1337	0.1330
ERP(dBm)	19.90	19.86	19.84
ERP(Watts)	0.0977	0.0968	0.0964



LTE Band 13 (GT - LC = 0.70 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)	22.44	22.37	22.43	-	22.72	-
Conducted Power (Watts)	0.1754	0.1726	0.1750	-	0.1871	-
ERP(dBm)	20.99	20.92	20.98	-	21.27	-
ERP(Watts)	0.1256	0.1236	0.1253	-	0.1340	-

LTE Band 13 (GT - LC = 0.70 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)	21.18	21.27	21.21	-	21.07	-
Conducted Power (Watts)	0.1312	0.1340	0.1321	-	0.1279	-
ERP(dBm)	19.73	19.82	19.76	-	19.62	-
ERP(Watts)	0.0940	0.0959	0.0946	-	0.0916	-

LTE Band 66 (GT - LC = 3.61 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	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	22.90	22.91	23.06	22.99	22.92	23.02	22.98	23.00	23.01
Conducted Power (Watts)	0.1950	0.1954	0.2023	0.1991	0.1959	0.2004	0.1986	0.1995	0.2000
EIRP(dBm)	26.51	26.52	26.67	26.60	26.53	26.63	26.59	26.61	26.62
EIRP(Watts)	0.4477	0.4487	0.4645	0.4571	0.4498	0.4603	0.4560	0.4581	0.4592

LTE Band 66 (GT - LC = 3.61 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	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	22.90	23.02	23.05	22.92	22.94	23.04	23.04	23.07	23.13
Conducted Power (Watts)	0.1950	0.2004	0.2018	0.1959	0.1968	0.2014	0.2014	0.2028	0.2056
EIRP(dBm)	26.51	26.63	26.66	26.53	26.55	26.65	26.65	26.68	26.74
EIRP(Watts)	0.4477	0.4603	0.4634	0.4498	0.4519	0.4624	0.4624	0.4656	0.4721

LTE Band 66 (GT - LC = 3.61 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	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	21.62	21.62	21.62	21.57	21.64	21.64	21.60	21.63	21.55
Conducted Power (Watts)	0.1452	0.1452	0.1452	0.1435	0.1459	0.1459	0.1445	0.1455	0.1429
EIRP(dBm)	25.23	25.23	25.23	25.18	25.25	25.25	25.21	25.24	25.16
EIRP(Watts)	0.3334	0.3334	0.3334	0.3296	0.3350	0.3350	0.3319	0.3342	0.3281

LTE Band 66 (GT - LC = 3.61 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	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	21.61	21.61	21.65	21.58	21.57	21.65	21.67	21.72	21.70
Conducted Power (Watts)	0.1449	0.1449	0.1462	0.1439	0.1435	0.1462	0.1469	0.1486	0.1479
EIRP(dBm)	25.22	25.22	25.26	25.19	25.18	25.26	25.28	25.33	25.31
EIRP(Watts)	0.3327	0.3327	0.3357	0.3304	0.3296	0.3357	0.3373	0.3412	0.3396



LTE Band 71 (GT - LC = 0.65 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
(MHz)									
Conducted Power (dBm)	22.81	22.89	22.82	22.52	22.85	22.61	22.78	22.89	22.83
Conducted Power (Watts)	0.1910	0.1945	0.1914	0.1786	0.1928	0.1824	0.1897	0.1945	0.1919
ERP(dBm)	21.31	21.39	21.32	21.02	21.35	21.11	21.28	21.39	21.33
ERP(Watts)	0.1352	0.1377	0.1355	0.1265	0.1365	0.1291	0.1343	0.1377	0.1358

LTE Band 71 (GT - LC = 0.65 dB) QPSK			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency	673	680.5	688
(MHz)			
Conducted Power (dBm)	22.87	22.98	22.94
Conducted Power (Watts)	0.1936	0.1986	0.1968
ERP(dBm)	21.37	21.48	21.44
ERP(Watts)	0.1371	0.1406	0.1393

LTE Band 71 (GT - LC = 0.65 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
(MHz)									
Conducted Power (dBm)	21.06	21.19	21.06	21.06	21.18	21.12	21.11	21.19	21.03
Conducted Power (Watts)	0.1276	0.1315	0.1276	0.1276	0.1312	0.1294	0.1291	0.1315	0.1268
ERP(dBm)	19.56	19.69	19.56	19.56	19.68	19.62	19.61	19.69	19.53
ERP(Watts)	0.0904	0.0931	0.0904	0.0904	0.0929	0.0916	0.0914	0.0931	0.0897

LTE Band 71 (GT - LC = 0.65 dB) 16QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency	673	680.5	688
(MHz)			
Conducted Power (dBm)	21.16	21.26	21.18
Conducted Power (Watts)	0.1306	0.1337	0.1312
ERP(dBm)	19.66	19.76	19.68
ERP(Watts)	0.0925	0.0946	0.0929



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Shiwei Wen	Temperature :	22~25°C
		Relative Humidity :	48~52%

RSE Pre-scanned harmonic for the WWAN ANT1/ANT2/ANT3, we choose the worst antenna mode to perform final test and record in the report.

LTE Band 2 / 20MHz / QPSK / Ant.2									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702.18	-53.63	-13	-40.63	-76.81	-60.39	5.82	12.58	H
	5553.27	-47.55	-13	-34.55	-72.30	-53.27	7.28	13.00	H
	7404.36	-53.46	-13	-40.46	-80.84	-56.62	8.32	11.48	H
	3702.18	-53.91	-13	-40.91	-78.78	-60.67	5.82	12.58	V
	5553.27	-42.05	-13	-29.05	-67.23	-47.77	7.28	13.00	V
	7404.36	-53.52	-13	-40.52	-80.87	-56.68	8.32	11.48	V
Middle	3742.18	-53.06	-13	-40.06	-76.10	-59.81	5.85	12.60	H
	5613.27	-47.80	-13	-34.80	-72.38	-53.60	7.30	13.10	H
	7484.36	-54.20	-13	-41.20	-81.28	-57.35	8.35	11.50	H
	3742.18	-52.94	-13	-39.94	-77.99	-59.69	5.85	12.60	V
	5613.27	-41.38	-13	-28.38	-66.81	-47.18	7.30	13.10	V
	7484.36	-54.16	-13	-41.16	-81.22	-57.31	8.35	11.50	V
Highest	3782.18	-52.58	-13	-39.58	-75.94	-59.32	5.88	12.62	H
	5673.27	-46.08	-13	-33.08	-70.66	-51.89	7.32	13.13	H
	7564.36	-51.83	-13	-38.83	-78.59	-54.99	8.38	11.54	H
	3782.18	-53.08	-13	-40.08	-77.93	-59.82	5.88	12.62	V
	5673.27	-39.51	-13	-26.51	-64.38	-45.32	7.32	13.13	V
	7564.36	-52.82	-13	-39.82	-79.57	-55.98	8.38	11.54	V

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



LTE Band 5 / 10MHz / QPSK / Ant.2									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1649.18	-52.78	-13	-39.78	-64.87	-56.01	3.98	9.36	H
	2473.77	-58.30	-13	-45.30	-77.55	-61.85	4.85	10.55	H
	3298.36	-57.06	-13	-44.06	-78.11	-61.99	5.50	12.58	H
	1649.18	-51.16	-13	-38.16	-63.89	-54.39	3.98	9.36	V
	2473.77	-57.88	-13	-44.88	-77.45	-61.43	4.85	10.55	V
	3298.36	-56.23	-13	-43.23	-78.17	-61.16	5.50	12.58	V
Middle	1664.18	-51.95	-13	-38.95	-64.15	-55.20	4.00	9.40	H
	2496.27	-58.28	-13	-45.28	-77.65	-61.85	4.88	10.60	H
	3328.36	-57.05	-13	-44.05	-78.30	-61.98	5.52	12.60	H
	1664.18	-50.84	-13	-37.84	-63.71	-54.09	4.00	9.40	V
	2496.27	-57.51	-13	-44.51	-77.14	-61.08	4.88	10.60	V
	3328.36	-56.71	-13	-43.71	-78.46	-61.64	5.52	12.60	V
Highest	1679.18	-51.45	-13	-38.45	-63.75	-54.62	4.10	9.42	H
	2518.77	-57.68	-13	-44.68	-77.17	-61.26	4.90	10.63	H
	3358.36	-57.50	-13	-44.50	-78.42	-62.42	5.55	12.62	H
	1679.18	-50.57	-13	-37.57	-63.58	-53.74	4.10	9.42	V
	2518.77	-57.34	-13	-44.34	-77.04	-60.92	4.90	10.63	V
	3358.36	-57.05	-13	-44.05	-78.62	-61.97	5.55	12.62	V

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



LTE Band 12 / 10MHz / QPSK / Ant.2									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1399	-64.02	-13	-51.02	-75.29	-67.25	3.98	9.36	H
	2098.5	-59.16	-13	-46.16	-77.31	-62.71	4.85	10.55	H
	2798	-57.96	-13	-44.96	-77.34	-62.89	5.50	12.58	H
	1399	-62.88	-13	-49.88	-75.18	-66.11	3.98	9.36	V
	2098.5	-58.99	-13	-45.99	-76.93	-62.54	4.85	10.55	V
	2798	-57.54	-13	-44.54	-77.68	-62.47	5.50	12.58	V
Middle	1406	-63.89	-13	-50.89	-75.15	-67.14	4.00	9.40	H
	2109	-58.58	-13	-45.58	-76.73	-62.15	4.88	10.60	H
	2812	-58.05	-13	-45.05	-77.49	-62.98	5.52	12.60	H
	1406	-62.93	-13	-49.93	-75.25	-66.18	4.00	9.40	V
	2109	-58.97	-13	-45.97	-76.91	-62.54	4.88	10.60	V
	2812	-57.30	-13	-44.30	-77.55	-62.23	5.52	12.60	V
Highest	1413	-63.58	-13	-50.58	-74.84	-66.75	4.10	9.42	H
	2119.5	-58.81	-13	-45.81	-77.04	-62.39	4.90	10.63	H
	2826	-58.14	-13	-45.14	-77.57	-63.06	5.55	12.62	H
	1413	-62.88	-13	-49.88	-75.20	-66.05	4.10	9.42	V
	2119.5	-59.17	-13	-46.17	-77.17	-62.75	4.90	10.63	V
	2826	-57.32	-13	-44.32	-77.56	-62.24	5.55	12.62	V

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



LTE Band 13 / 5MHz / QPSK / Ant.1									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1554.5	-58.66	-13	-45.66	-70.44	-61.89	3.98	9.36	H
	2331.75	-58.58	-13	-45.58	-77.20	-62.13	4.85	10.55	H
	3109	-57.19	-13	-44.19	-77.47	-62.12	5.50	12.58	H
	1554.5	-59.82	-13	-46.82	-72.22	-63.05	3.98	9.36	V
	2331.75	-58.39	-13	-45.39	-77.29	-61.94	4.85	10.55	V
	3109	-55.84	-13	-42.84	-77.85	-60.77	5.50	12.58	V
Middle	1559.5	-57.78	-42.15	-15.63	-69.56	-61.03	4.00	9.40	H
	2339.25	-58.87	-13	-45.87	-77.48	-62.44	4.88	10.60	H
	3119	-57.45	-13	-44.45	-77.77	-62.38	5.52	12.60	H
	1559.5	-61.36	-42.15	-19.21	-73.76	-64.61	4.00	9.40	V
	2339.25	-58.51	-13	-45.51	-77.49	-62.08	4.88	10.60	V
	3119	-55.56	-13	-42.56	-77.68	-60.49	5.52	12.60	V
Highest	1564.5	-58.78	-42.15	-16.63	-70.56	-61.95	4.10	9.42	H
	2346.75	-59.09	-13	-46.09	-77.70	-62.67	4.90	10.63	H
	3129	-57.73	-13	-44.73	-78.05	-62.65	5.55	12.62	H
	1564.5	-61.54	-42.15	-19.39	-73.94	-64.71	4.10	9.42	V
	2346.75	-58.71	-13	-45.71	-77.69	-62.29	4.90	10.63	V
	3129	-55.93	-13	-42.93	-78.05	-60.85	5.55	12.62	V

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

LTE Band 13 / 10MHz / QPSK / Ant.1									
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	1559.5	-63.93	-42.15	-21.78	-75.71	-67.18	4.00	9.40	H
	2339.25	-58.75	-13	-45.75	-77.36	-62.32	4.88	10.60	H
	3119	-57.28	-13	-44.28	-77.60	-62.21	5.52	12.60	H
	1559.5	-63.10	-42.15	-20.95	-75.50	-66.35	4.00	9.40	V
	2339.25	-58.23	-13	-45.23	-77.21	-61.80	4.88	10.60	V
	3119	-55.55	-13	-42.55	-77.67	-60.48	5.52	12.60	V

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



LTE Band 66 / 20MHz / QPSK / Ant.2									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3422	-50.47	-13	-37.47	-71.34	-57.35	5.60	12.48	H
	5133	-51.59	-13	-38.59	-76.05	-57.27	7.10	12.78	H
	6844	-55.88	-13	-42.88	-81.94	-59.27	8.38	11.77	H
	3422	-46.69	-13	-33.69	-68.76	-53.57	5.60	12.48	V
	5133	-45.57	-13	-32.57	-70.77	-51.25	7.10	12.78	V
	6844	-53.91	-13	-40.91	-81.8	-57.30	8.38	11.77	V
Middle	3472	-47.83	-13	-34.83	-70.08	-54.68	5.65	12.50	H
	5208	-44.31	-13	-31.31	-69.22	-49.98	7.13	12.80	H
	6944	-53.60	-13	-40.60	-79.93	-57.00	8.40	11.80	H
	3472	-39.90	-13	-26.90	-61.95	-46.75	5.65	12.50	V
	5208	-38.82	-13	-25.82	-63.9	-44.49	7.13	12.80	V
	6944	-54.41	-13	-41.41	-81.47	-57.81	8.40	11.80	V
Highest	3522	-50.79	-13	-37.79	-73.41	-57.63	5.68	12.52	H
	5283	-47.55	-13	-34.55	-72.60	-53.22	7.15	12.82	H
	7044	-54.41	-13	-41.41	-81.06	-57.84	8.42	11.85	H
	3522	-41.81	-13	-28.81	-64.83	-48.65	5.68	12.52	V
	5283	-40.48	-13	-27.48	-65.32	-46.15	7.15	12.82	V
	7044	-54.05	-13	-41.05	-81.37	-57.48	8.42	11.85	V

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



LTE Band 71 / 20MHz / QPSK / Ant.2									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1328	-63.74	-13	-50.74	-74.76	-66.97	3.98	9.36	H
	1992	-59.07	-13	-46.07	-76.45	-62.62	4.85	10.55	H
	2656	-57.73	-13	-44.73	-77.43	-62.66	5.50	12.58	H
	1328	-62.51	-13	-49.51	-74.46	-65.74	3.98	9.36	V
	1992	-59.14	-13	-46.14	-76.47	-62.69	4.85	10.55	V
	2656	-57.22	-13	-44.22	-77.30	-62.15	5.50	12.58	V
Middle	1343	-64.01	-13	-51.01	-75.02	-67.26	4.00	9.40	H
	2014.5	-59.00	-13	-46.00	-76.71	-62.57	4.88	10.60	H
	2686	-57.72	-13	-44.72	-77.35	-62.65	5.52	12.60	H
	1343	-62.44	-13	-49.44	-74.40	-65.69	4.00	9.40	V
	2014.5	-58.94	-13	-45.94	-76.54	-62.51	4.88	10.60	V
	2686	-57.10	-13	-44.10	-77.19	-62.03	5.52	12.60	V
Highest	1358	-64.11	-13	-51.11	-75.21	-67.28	4.10	9.42	H
	2037	-58.92	-13	-45.92	-76.72	-62.50	4.90	10.63	H
	2716	-57.93	-13	-44.93	-77.49	-62.85	5.55	12.62	H
	1358	-63.21	-13	-50.21	-75.29	-66.38	4.10	9.42	V
	2037	-59.15	-13	-46.15	-76.82	-62.73	4.90	10.63	V
	2716	-57.32	-13	-44.32	-77.43	-62.24	5.55	12.62	V

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