



# FCC RF Test Report

**APPLICANT** : Inseego Corp.  
**EQUIPMENT** : FX2000  
**BRAND NAME** : Inseego  
**MODEL NAME** : FX20003  
**FCC ID** : PKRISGFX20003  
**STANDARD** : 47 CFR Part 2, 27(F),27(H),27(M),27(N)  
**CLASSIFICATION** : PCS Licensed Transmitter (PCB)

The product was received on Aug. 28, 2020 and completely tested on Oct. 08, 2020. We, Sporton International (Kunshan) 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.

This product installed a RF module (Brand Name: Inseego, Model Name: MD2000) 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 (Kunshan) Inc., the test report shall not be reproduced except in full.

*Jason Jia*

Reviewed by: Jason Jia / Supervisor

*James Huang*

Approved by: James Huang / Manager



**Sporton International (Kunshan) Inc.**

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300  
People's Republic of China**



TABLE OF CONTENTS

REVISION HISTORY 3
SUMMARY OF TEST RESULT 4
1 GENERAL DESCRIPTION 5
1.1 Applicant 5
1.2 Manufacturer 5
1.3 Product Feature of Equipment Under Test 5
1.4 Product Specification of Equipment Under Test 6
1.5 Modification of EUT 6
1.6 Maximum ERP/EIRP Power 7
1.7 Testing Location 12
1.8 Test Software 12
1.9 Applicable Standards 12
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST 13
2.1 Test Mode 13
2.2 Connection Diagram of Test System 14
2.3 Support Unit used in test configuration and system 14
2.4 Frequency List of Low/Middle/High Channels 15
3 CONDUCTED TEST ITEMS 20
3.1 Conducted Output Power and ERP/EIRP 20
4 RADIATED TEST ITEMS 21
4.1 Measuring Instruments 21
4.2 Test Setup 21
4.3 Test Result of Radiated Test 21
4.4 Radiated Spurious Emission 22
5 LIST OF MEASURING EQUIPMENT 23
6 UNCERTAINTY OF EVALUATION 24
APPENDIX A. TEST RESULTS OF CONDUCTED TEST
APPENDIX B. TEST RESULTS OF RADIATED TEST
APPENDIX C. TEST SETUP PHOTOGRAPHS



### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG082812C	Rev. 01	Initial issue of report	Nov. 26, 2020



## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	Reporting Only & §27.53(m) < 2Watt	PASS	1
	§27.50(b)(9) §27.50(c)(9)	Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)	ERP < 30 Watt	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7) (Band 38) (Band 41)	-	PASS	-
-	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	1
-	§2.1049	Occupied Bandwidth	Reporting Only	PASS	1
-	§2.1051 §27.53(c)(2)(4) §27.53(g)	Conducted Band Edge Measurement (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log <sub>10</sub> (P[Watts])	PASS	1
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)		
-	§2.1051 §27.53(c)(2) §27.53(g)	Conducted Spurious Emission (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log <sub>10</sub> (P[Watts])	PASS	1
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log <sub>10</sub> (P[Watts])		
-	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	1
4.4	§2.1053 §27.53(c)(2) §27.53(f) §27.53(g)	Radiated Spurious Emission (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log <sub>10</sub> (P[Watts])	PASS	Under limit 18.08 dB at 1560.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log <sub>10</sub> (P[Watts])		

**Remark :**

- All conducted test items were leveraged from module RF report which can refer to Report No. FG090125B, and conducted test items of CA\_B38C/41C are referred to module RF report FG090125-01A.
- The maximum power of host is lower than and very close to the module, therefore, we chose higher power of the module to calculate the ERP/EIRP and show in the report.

**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

Inseego Corp.  
9710 Scranton Road, Suite 200 San Diego, CA 92121

## 1.2 Manufacturer

MeiG Smart Technology Co., Ltd  
Floor 2, Office Building No.5, Lingxia Road, Fenghuang Community, Fuyong Street, Bao 'an District, Shenzhen

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	FX2000
Brand Name	Inseego
Model Name	FX20003
FCC ID	PKRISGFX20003
EUT supports Radios application	WCDMA/LTE/5G NR/GNSS WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 WLAN 5GHz 802.11ax HE20/HE40/HE80
IMEI Code	Radiation: 990016670003415
HW Version	Rev1
SW Version	1
EUT Stage	Identical Prototype



### 1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 71: 665.5 MHz ~ 695.5MHz
<b>Rx Frequency</b>	LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 71: 619.5 MHz ~ 649.5MHz
<b>Bandwidth</b>	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 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz
<b>Antenna Gain</b>	LTE Band 7 : 4.60 dBi LTE Band 12 : 0.20 dBi LTE Band 13 : 1.30 dBi LTE Band 17 : 0.20 dBi LTE Band 38 : 4.30 dBi LTE Band 41 : 4.50 dBi LTE Band 71 : -0.30 dBi
<b>Type of Modulation</b>	QPSK / 16QAM / 64QAM / 256QAM

Remark: LTE band 41 supports HPUE.

### 1.5 Modification of EUT

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



### 1.6 Maximum ERP/EIRP Power

LTE Band 7		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	-	-	0.6902	-	-	0.5702
10	2505.0 ~ 2565.0	-	-	0.6887	-	-	0.5662
15	2507.5 ~ 2562.5	-	-	0.6982	-	-	0.5610
20	2510.0 ~ 2560.0	-	-	0.6982	-	-	0.5715
LTE Band 7		64QAM			256QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	-	-	0.4395	-	-	0.2270
10	2505.0 ~ 2565.0	-	-	0.4395	-	-	0.2286
15	2507.5 ~ 2562.5	-	-	0.4385	-	-	0.2286
20	2510.0 ~ 2560.0	-	-	0.4416	-	-	0.2371
LTE Band 12		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	699.7 ~ 715.3	-	-	0.1493	-	-	0.1271
3	700.5 ~ 714.5	-	-	0.1507	-	-	0.1271
5	701.5 ~ 713.5	-	-	0.1507	-	-	0.1265
10	704.0 ~ 711.0	-	-	0.1510	-	-	0.1268
LTE Band 12		64QAM			256QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	699.7 ~ 715.3	-	-	0.0995	-	-	0.0490
3	700.5 ~ 714.5	-	-	0.1012	-	-	0.0493
5	701.5 ~ 713.5	-	-	0.1002	-	-	0.0495
10	704.0 ~ 711.0	-	-	0.0998	-	-	0.0495
LTE Band 13		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	779.5 ~ 784.5	-	-	0.1901	-	-	0.1607
10	782.0	-	-	0.1905	-	-	0.1641



LTE Band 13		64QAM			256QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	779.5 ~ 784.5	-	-	0.1282	-	-	0.0643
10	782.0	-	-	0.1282	-	-	0.0637
LTE Band 17		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	706.5 ~ 713.5	-	-	0.1507	-	-	0.1265
10	709.0 ~ 711.0	-	-	0.1510	-	-	0.1268
LTE Band 17		64QAM			256QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	706.5 ~ 713.5	-	-	0.1002	-	-	0.0495
10	709.0 ~ 711.0	-	-	0.0998	-	-	0.0495
LTE Band 38		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2572.5 ~ 2617.5	-	-	0.6310	-	-	0.5140
10	2575.0 ~ 2615.0	-	-	0.6353	-	-	0.5152
15	2577.5 ~ 2612.5	-	-	0.6368	-	-	0.5093
20	2580.0 ~ 2610.0	-	-	0.6368	-	-	0.5152
LTE Band 38		64QAM			256QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2572.5 ~ 2617.5	-	-	0.3793	-	-	0.2208
10	2575.0 ~ 2615.0	-	-	0.3811	-	-	0.2239
15	2577.5 ~ 2612.5	-	-	0.3802	-	-	0.2193
20	2580.0 ~ 2610.0	-	-	0.3819	-	-	0.2173
LTE Band 41		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	-	-	0.6310	-	-	0.5140
10	2501.0 ~ 2685.0	-	-	0.6353	-	-	0.5152
15	2503.5 ~ 2682.5	-	-	0.6368	-	-	0.5093





20	2506.0 ~ 2680.0	-	-	0.6368	-	-	0.5152
<b>LTE Band 41</b>		<b>64QAM</b>			<b>256QAM</b>		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	-	-	0.3793	-	-	0.2208
10	2501.0 ~ 2685.0	-	-	0.3811	-	-	0.2239
15	2503.5 ~ 2682.5	-	-	0.3802	-	-	0.2193
20	2506.0 ~ 2680.0	-	-	0.3819	-	-	0.2173
<b>LTE Band 41 (HPUE)</b>		<b>QPSK</b>			<b>16QAM</b>		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	-	-	1.0328	-	-	0.8590
10	2501.0 ~ 2685.0	-	-	1.0471	-	-	0.8730
15	2503.5 ~ 2682.5	-	-	1.0691	-	-	0.8851
20	2506.0 ~ 2680.0	-	-	1.0715	-	-	0.8570
<b>LTE Band 41 (HPUE)</b>		<b>64QAM</b>			<b>256QAM</b>		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	-	-	0.6607	-	-	0.3034
10	2501.0 ~ 2685.0	-	-	0.6353	-	-	0.3170
15	2503.5 ~ 2682.5	-	-	0.6607	-	-	0.3119
20	2506.0 ~ 2680.0	-	-	0.6699	-	-	0.3083
<b>LTE Band 71</b>		<b>QPSK</b>			<b>16QAM</b>		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	665.5 ~ 695.5	-	-	0.1337	-	-	0.1135
10	668.0 ~ 693.0	-	-	0.1343	-	-	0.1135
15	670.5 ~ 690.5	-	-	0.1361	-	-	0.1135
20	673.0 ~ 688.0	-	-	0.1365	-	-	0.1135
<b>LTE Band 71</b>		<b>64QAM</b>			<b>256QAM</b>		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	665.5 ~ 695.5	-	-	0.0895	-	-	0.0431
10	668.0 ~ 693.0	-	-	0.0893	-	-	0.0430



15	670.5 ~ 690.5	-	-	0.0889	-	-	0.0428
20	673.0 ~ 688.0	-	-	0.0895	-	-	0.0433

LTE Band 38 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
15MHz+15MHz	-	-	0.5445	-	-	0.4064
20MHz+20MHz	-	-	0.5821	-	-	0.4178
LTE Band 38 CA	64QAM			256QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
15MHz+15MHz	-	-	0.3258	-	-	0.1858
20MHz+20MHz	-	-	0.3420	-	-	0.1832



LTE Band 41 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	-	-	0.5420	-	-	0.3899
10MHz+20MHz	-	-	0.4966	-	-	0.3597
10MHz+15MHz	-	-	0.4932	-	-	0.3540
15MHz+15MHz	-	-	0.5445	-	-	0.4064
15MHz+20MHz	-	-	0.5610	-	-	0.4256
15MHz+10MHz	-	-	0.4966	-	-	0.3724
20MHz+5MHz	-	-	0.4989	-	-	0.3767
20MHz+10MHz	-	-	0.5070	-	-	0.3837
20MHz+15MHz	-	-	0.5741	-	-	0.4198
20MHz+20MHz	-	-	0.5821	-	-	0.4178
LTE Band 41 CA	64QAM			256QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	-	-	0.3251	-	-	0.1667
10MHz+20MHz	-	-	0.2992	-	-	0.1683
10MHz+15MHz	-	-	0.2992	-	-	0.1683
15MHz+15MHz	-	-	0.3258	-	-	0.1858
15MHz+20MHz	-	-	0.3396	-	-	0.1888
15MHz+10MHz	-	-	0.2992	-	-	0.1694
20MHz+5MHz	-	-	0.2917	-	-	0.1633
20MHz+10MHz	-	-	0.3055	-	-	0.1706
20MHz+15MHz	-	-	0.3475	-	-	0.1950
20MHz+20MHz	-	-	0.3420	-	-	0.1832

Note:

1. 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.
2. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.
3. LTE Band 41\_CA overlaps the entire frequency range of LTE Band 38\_CA. Therefore, the test results provided in this report covers Band 41\_CA as well as Band 38\_CA.



### 1.7 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

<b>Test Firm</b>	Sporton International (Kunshan) Inc.		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH04-KS	CN1257	314309

### 1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a

### 1.9 Applicable Standards

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

- 47 CFR Part 2, 27(F),27(H),27(M),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

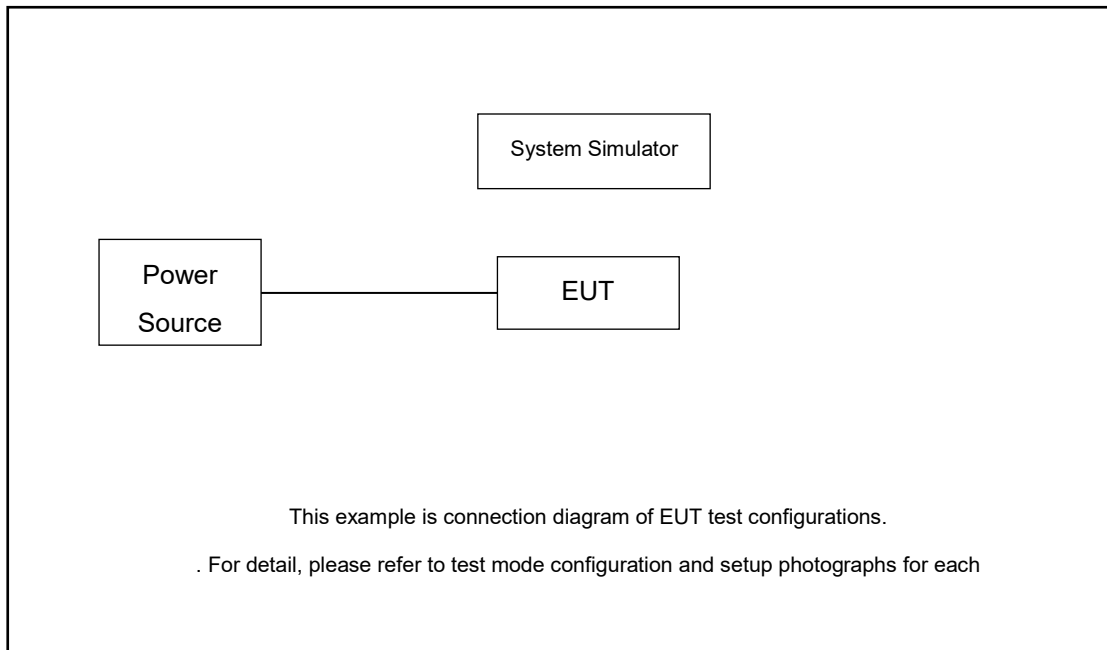
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

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	64QAM	256 QAM	1	Hal f	Ful l	L	M	H	
E.R.P / E.I.R.P	7	-	-	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	
	41	-	-	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	
Radiated Spurious Emission	7	Worst Case															v	
	12	Worst Case															v	
	13	Worst Case															v	
	41	Worst Case															v	
	71	Worst Case															v	
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> <li>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.</li> <li>LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.</li> </ol>																	

Test Items	Band	Bandwidth (MHz)										Modulation				RB #			Test Channel			
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	256 QAM	1	Half	Full	L	M	H	
E.I.R.P.	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	
Radiated Spurious Emission	41C_CA	Worst Case																		v		
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> <li>LTE Band 41_CA overlaps the entire frequency range of LTE Band 38_CA. Therefore, the test results provided in this report covers Band 41_CA as well as Band 38_CA.</li> </ol>																					

## 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.	LTE Base Station	Anritsu	MT8820C/8821	N/A	N/A	Unshielded, 1.8 m



### 2.4 Frequency List of Low/Middle/High Channels

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 38 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	37850	38000	38150
	Frequency	2580	2595	2610
15	Channel	37825	38000	38175
	Frequency	2577.5	2595	2612.5
10	Channel	37800	38000	38200
	Frequency	2575	2595	2615
5	Channel	37775	38000	38225
	Frequency	2572.5	2595	2617.5

LTE Band 41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	39750	40620	41490
	Frequency	2506	2593	2680
15	Channel	39725	40620	41515
	Frequency	2503.5	2593	2682.5
10	Channel	39700	40620	41540
	Frequency	2501	2593	2685
5	Channel	39675	40620	41565
	Frequency	2498.5	2593	2687.5





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

LTE Band 38C_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest	
20 + 20	PCC	Channel	37850	37901	37952
		Frequency	2580.0	2585.1	2590.2
	SCC	Channel	38048	38099	38150
		Frequency	2599.8	2604.9	2610.0
15+ 15	PCC	Channel	37825	37925	38025
		Frequency	2577.5	2587.5	2597.5
	SCC	Channel	37975	38075	38175
		Frequency	2592.5	2602.5	2612.5



LTE Band 41C_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	39750	40521	41292
		Frequency	2506.0	2583.1	2660.2
	SCC	Channel	39948	40719	41490
		Frequency	2525.8	2602.9	2680.0
20 + 15	PCC	Channel	39750	40546	41341
		Frequency	2506.0	2585.6	2665.1
	SCC	Channel	39921	40717	41512
		Frequency	2523.1	2602.7	2682.2
15 + 20	PCC	Channel	39728	40523	41319
		Frequency	2503.8	2593.3	2662.9
	SCC	Channel	39899	40694	41490
		Frequency	2520.9	2600.4	2680.0
20 + 10	PCC	Channel	39750	40571	41391
		Frequency	2506.0	2588.1	2670.1
	SCC	Channel	39894	40715	41535
		Frequency	2520.4	2602.5	2684.5
10 + 20	PCC	Channel	39705	40526	41346
		Frequency	2501.5	2583.6	2665.6
	SCC	Channel	39849	40670	41490
		Frequency	2515.9	2598.0	2680.0



LTE Band 41C_CA Channel and Frequency List					
20 + 5	PCC	Channel	39750	40595	41440
		Frequency	2506.0	2590.5	2675.0
	SCC	Channel	39867	40712	41557
		Frequency	2517.7	2602.2	2686.7
5 + 20	PCC	Channel	39683	40528	41373
		Frequency	2499.3	2583.8	2668.3
	SCC	Channel	39800	40645	41490
		Frequency	2511.0	2595.5	2680.0
15 + 15	PCC	Channel	39725	40545	41365
		Frequency	2503.5	2585.5	2667.5
	SCC	Channel	39875	40695	41515
		Frequency	2518.5	2600.5	2682.5
10 + 15	PCC	Channel	39703	40549	41395
		Frequency	2501.3	2585.9	2670.5
	SCC	Channel	39823	40669	41515
		Frequency	2513.3	2597.9	2682.5
15 + 10	PCC	Channel	39725	40571	41417
		Frequency	2503.5	2588.1	2672.7
	SCC	Channel	39845	40691	41537
		Frequency	2515.5	2600.1	2684.7



### 3 Conducted Test Items

#### 3.1 Conducted Output Power and ERP/EIRP

##### 3.1.1 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 transmitters must not exceed 30 Watts for LTE Band 12, Band 13 and Band 17 and Band 71.

The conducted Power of transmitters must not exceed 2 Watts for LTE Band 7 and Band 38 and Band 41.

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

##### 3.1.2 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.

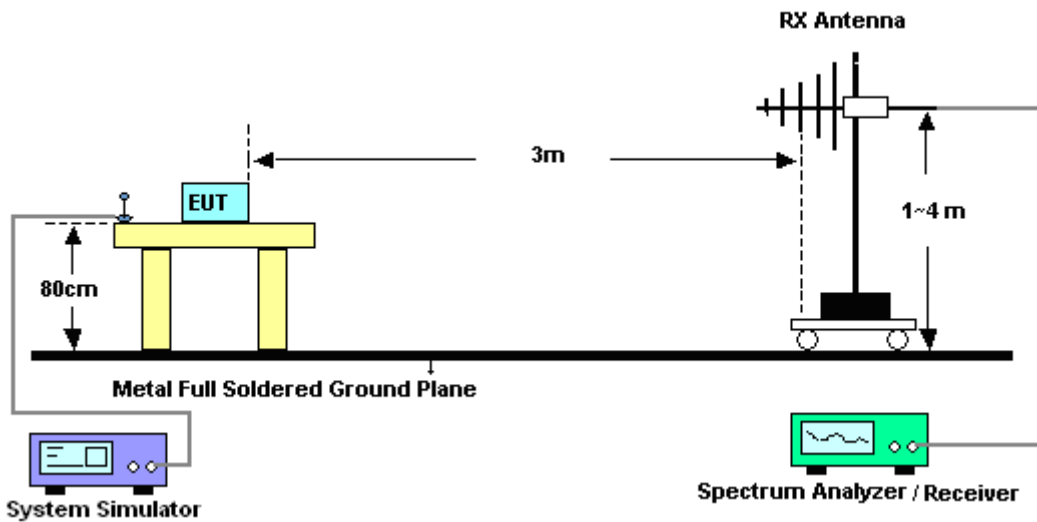
## 4 Radiated Test Items

### 4.1 Measuring Instruments

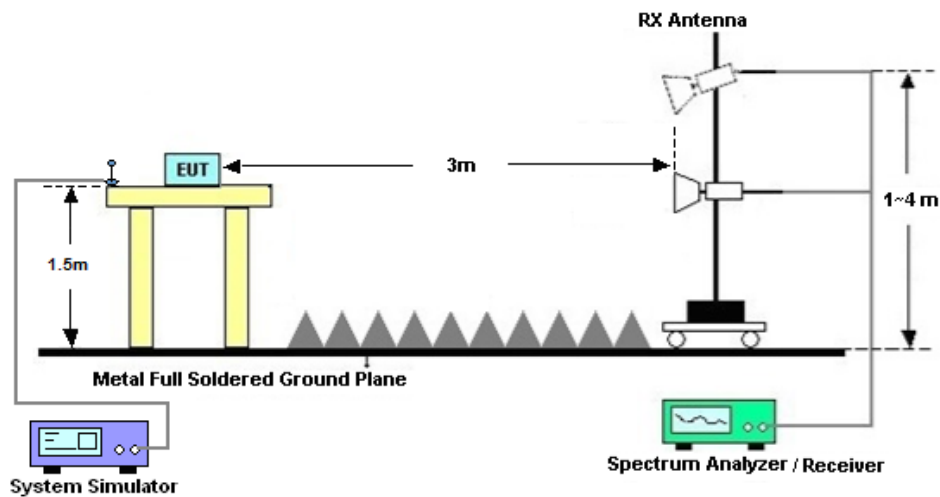
See list of measuring instruments of this test report.

### 4.2 Test Setup

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



#### 4.2.2 For radiated test above 1GHz



### 4.3 Test Result of Radiated Test

Please refer to Appendix B.



## 4.4 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.  $EIRP (dBm) = S.G. Power - Tx Cable Loss + Tx Antenna Gain$
11.  $ERP (dBm) = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.  
The limit line is derived from  $43 + 10\log(P)$ dB below the transmitter power P(Watts)  
 $= P(W) - [43 + 10\log(P)] (dB)$   
 $= [30 + 10\log(P)] (dBm) - [43 + 10\log(P)] (dB)$   
 $= -13dBm.$
13. For Band 7, 38, 41:  
The limit line is derived from  $55 + 10\log(P)$ dB below the transmitter power P(Watts)  
The Limit line lower than step 12.



## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44G,MAX 30dB	Apr. 15, 2020	Oct. 08, 2020	Apr. 14, 2021	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	Jan. 03, 2020	Oct. 08, 2020	Jan. 02, 2021	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1356	1GHz~18GHz	Apr. 20, 2020	Oct. 08, 2020	Apr. 19, 2021	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Nov. 10, 2019	Oct. 08, 2020	Nov. 09, 2020	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 03, 2020	Oct. 08, 2020	Jan. 02, 2021	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 08, 2020	Oct. 08, 2020	Jan. 07, 2021	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	2025788	1Ghz-18Ghz	Jan. 03, 2020	Oct. 08, 2020	Jan. 02, 2021	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 15, 2019	Oct. 08, 2020	Oct. 14, 2020	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Oct. 08, 2020	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Oct. 08, 2020	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Oct. 08, 2020	NCR	Radiation (03CH04-KS)

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.

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB
---	-------

### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB
---	-------





## Appendix A. Test Results of Conducted Test

### ERP/EIRP

LTE Band 7 (GT - LC = 4.60 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	23.51	23.77	23.79
Conducted Power (Watts)	0.2244	0.2382	0.2393
EIRP(dBm)	28.11	28.37	28.39
EIRP(Watts)	0.6471	0.6871	0.6902

LTE Band 7 (GT - LC = 4.60 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	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	23.53	23.77	23.78	23.54	23.84	23.76	23.58	23.84	23.79
Conducted Power (Watts)	0.2254	0.2382	0.2388	0.2259	0.2421	0.2377	0.2280	0.2421	0.2393
EIRP(dBm)	28.13	28.37	28.38	28.14	28.44	28.36	28.18	28.44	28.39
EIRP(Watts)	0.6501	0.6871	0.6887	0.6516	0.6982	0.6855	0.6577	0.6982	0.6902



LTE Band 7 (GT - LC = 4.60 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	22.73	22.91
Conducted Power (Watts)	0.1875	0.1954	0.1977
EIRP(dBm)	27.33	27.51	27.56
EIRP(Watts)	0.5408	0.5636	0.5702

LTE Band 7 (GT - LC = 4.60 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)	22.53	22.88	22.93	22.64	22.89	22.88	22.74	22.93
Conducted Power (Watts)	0.1791	0.1941	0.1963	0.1837	0.1945	0.1941	0.1879	0.1963	0.1982
EIRP(dBm)	27.13	27.48	27.53	27.24	27.49	27.48	27.34	27.53	27.57
EIRP(Watts)	0.5164	0.5598	0.5662	0.5297	0.5610	0.5598	0.5420	0.5662	0.5715



LTE Band 7 (GT - LC = 4.60 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	21.62	21.78
Conducted Power (Watts)	0.1452	0.1507	0.1524
EIRP(dBm)	26.22	26.38	26.43
EIRP(Watts)	0.4188	0.4345	0.4395

LTE Band 7 (GT - LC = 4.60 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)	21.58	21.83	21.80	21.63	21.82	21.82	21.63	21.85
Conducted Power (Watts)	0.1439	0.1524	0.1514	0.1455	0.1521	0.1521	0.1455	0.1531	0.1524
EIRP(dBm)	26.18	26.43	26.40	26.23	26.42	26.42	26.23	26.45	26.43
EIRP(Watts)	0.4150	0.4395	0.4365	0.4198	0.4385	0.4385	0.4198	0.4416	0.4395



LTE Band 7 (GT - LC = 4.60 dB) 256QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	18.96	18.80
Conducted Power (Watts)	0.0787	0.0759	0.0767
EIRP(dBm)	23.56	23.40	23.45
EIRP(Watts)	0.2270	0.2188	0.2213

LTE Band 7 (GT - LC = 4.60 dB) 256QAM									
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)	18.65	18.99	18.81	18.33	18.99	18.77	19.15	18.84
Conducted Power (Watts)	0.0733	0.0793	0.0760	0.0681	0.0793	0.0753	0.0822	0.0766	0.0766
EIRP(dBm)	23.25	23.59	23.41	22.93	23.59	23.37	23.75	23.44	23.44
EIRP(Watts)	0.2113	0.2286	0.2193	0.1963	0.2286	0.2173	0.2371	0.2208	0.2208



LTE Band 12 (GT - LC = 0.20 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)	23.22	23.46	23.69	23.31	23.58	23.73	23.28	23.55	23.73
Conducted Power (Watts)	0.2099	0.2218	0.2339	0.2143	0.2280	0.2360	0.2128	0.2265	0.2360
ERP(dBm)	21.27	21.51	21.74	21.36	21.63	21.78	21.33	21.60	21.78
ERP(Watts)	0.1340	0.1416	0.1493	0.1368	0.1455	0.1507	0.1358	0.1445	0.1507

LTE Band 12 (GT - LC = 0.20 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	23.42	23.54	23.74
Conducted Power (Watts)	0.2198	0.2259	0.2366
ERP(dBm)	21.47	21.59	21.79
ERP(Watts)	0.1403	0.1442	0.1510



LTE Band 12 (GT - LC = 0.20 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)	22.49	22.86	22.99	22.61	22.84	22.99	22.55	22.79	22.97
Conducted Power (Watts)	0.1774	0.1932	0.1991	0.1824	0.1923	0.1991	0.1799	0.1901	0.1982
ERP(dBm)	20.54	20.91	21.04	20.66	20.89	21.04	20.60	20.84	21.02
ERP(Watts)	0.1132	0.1233	0.1271	0.1164	0.1227	0.1271	0.1148	0.1213	0.1265

LTE Band 12 (GT - LC = 0.20 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.61	22.82	22.98
Conducted Power (Watts)	0.1824	0.1914	0.1986
ERP(dBm)	20.66	20.87	21.03
ERP(Watts)	0.1164	0.1222	0.1268



LTE Band 12 (GT - LC = 0.20 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)	21.45	21.74	21.93	21.54	21.85	22.00	21.48	21.84	21.96
Conducted Power (Watts)	0.1396	0.1493	0.1560	0.1426	0.1531	0.1585	0.1406	0.1528	0.1570
ERP(dBm)	19.50	19.79	19.98	19.59	19.90	20.05	19.53	19.89	20.01
ERP(Watts)	0.0891	0.0953	0.0995	0.0910	0.0977	0.1012	0.0897	0.0975	0.1002

LTE Band 12 (GT - LC = 0.20 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	21.73	21.94	21.89
Conducted Power (Watts)	0.1489	0.1563	0.1545
ERP(dBm)	19.78	19.99	19.94
ERP(Watts)	0.0951	0.0998	0.0986



LTE Band 12 (GT - LC = 0.20 dB) 256QAM									
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)	18.63	18.81	18.85	18.78	18.79	18.88	18.81	18.87	18.90
Conducted Power (Watts)	0.0729	0.0760	0.0767	0.0755	0.0757	0.0773	0.0760	0.0771	0.0776
ERP(dBm)	16.68	16.86	16.90	16.83	16.84	16.93	16.86	16.92	16.95
ERP(Watts)	0.0466	0.0485	0.0490	0.0482	0.0483	0.0493	0.0485	0.0492	0.0495

LTE Band 12 (GT - LC = 0.20 dB) 256QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	18.79	18.80	18.90
Conducted Power (Watts)	0.0757	0.0759	0.0776
ERP(dBm)	16.84	16.85	16.95
ERP(Watts)	0.0483	0.0484	0.0495





LTE Band 13 (GT - LC = 1.30 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)	23.54	23.64	23.63		23.65	-
Conducted Power (Watts)	0.2259	0.2312	0.2307		0.2317	-
ERP(dBm)	22.69	22.79	22.78		22.80	-
ERP(Watts)	0.1858	0.1901	0.1897		0.1905	-

LTE Band 13 (GT - LC = 1.30 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)	22.88	22.88	22.91		23.00	-
Conducted Power (Watts)	0.1941	0.1941	0.1954		0.1995	-
ERP(dBm)	22.03	22.03	22.06		22.15	-
ERP(Watts)	0.1596	0.1596	0.1607		0.1641	-



LTE Band 13 (GT - LC = 1.30 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)	21.87	21.81	21.93		21.93	-
Conducted Power (Watts)	0.1538	0.1517	0.1560		0.1560	-
ERP(dBm)	21.02	20.96	21.08		21.08	-
ERP(Watts)	0.1265	0.1247	0.1282		0.1282	-

LTE Band 13 (GT - LC = 1.30 dB) 256QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	18.76	18.80	18.93		18.89	-
Conducted Power (Watts)	0.0752	0.0759	0.0782		0.0774	-
ERP(dBm)	17.91	17.95	18.08		18.04	-
ERP(Watts)	0.0618	0.0624	0.0643		0.0637	-



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	22.94	23.50	23.32	22.89	23.53	23.34	22.88	23.54	23.36
Conducted Power (Watts)	0.1968	0.2239	0.2148	0.1945	0.2254	0.2158	0.1941	0.2259	0.2168
EIRP(dBm)	27.44	28.00	27.82	27.39	28.03	27.84	27.38	28.04	27.86
EIRP(Watts)	0.5546	0.6310	0.6053	0.5483	0.6353	0.6081	0.5470	0.6368	0.6109

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	22.98	23.54	23.37
Conducted Power (Watts)	0.1986	0.2259	0.2173
EIRP(dBm)	27.48	28.04	27.87
EIRP(Watts)	0.5598	0.6368	0.6124



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	22.02	22.61	22.28	22.10	22.62	22.28	22.08	22.57	22.26
Conducted Power (Watts)	0.1592	0.1824	0.1690	0.1622	0.1828	0.1690	0.1614	0.1807	0.1683
EIRP(dBm)	26.52	27.11	26.78	26.60	27.12	26.78	26.58	27.07	26.76
EIRP(Watts)	0.4487	0.5140	0.4764	0.4571	0.5152	0.4764	0.4550	0.5093	0.4742

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	22.11	22.62	22.35
Conducted Power (Watts)	0.1626	0.1828	0.1718
EIRP(dBm)	26.61	27.12	26.85
EIRP(Watts)	0.4581	0.5152	0.4842



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	20.78	21.29	21.04	20.80	21.31	21.06	20.75	21.30	21.02
Conducted Power (Watts)	0.1197	0.1346	0.1271	0.1202	0.1352	0.1276	0.1189	0.1349	0.1265
EIRP(dBm)	25.28	25.79	25.54	25.30	25.81	25.56	25.25	25.80	25.52
EIRP(Watts)	0.3373	0.3793	0.3581	0.3388	0.3811	0.3597	0.3350	0.3802	0.3565

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 64QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	20.81	21.32	21.06
Conducted Power (Watts)	0.1205	0.1355	0.1276
EIRP(dBm)	25.31	25.82	25.56
EIRP(Watts)	0.3396	0.3819	0.3597



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 256QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	18.94	18.33	18.72	18.97	18.29	19.00	18.77	18.23	18.91
Conducted Power (Watts)	0.0783	0.0681	0.0745	0.0789	0.0675	0.0794	0.0753	0.0665	0.0778
EIRP(dBm)	23.44	22.83	23.22	23.47	22.79	23.50	23.27	22.73	23.41
EIRP(Watts)	0.2208	0.1919	0.2099	0.2223	0.1901	0.2239	0.2123	0.1875	0.2193

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 256QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	18.71	18.40	18.87
Conducted Power (Watts)	0.0743	0.0692	0.0771
EIRP(dBm)	23.21	22.90	23.37
EIRP(Watts)	0.2094	0.1950	0.2173



LTE Band 41(HPUE) ( $G_T - L_C = 4.50$ dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	24.83	25.06	25.64	24.97	25.13	25.70	25.10	24.97	25.79
Conducted Power (Watts)	0.3041	0.3206	0.3664	0.3141	0.3258	0.3715	0.3236	0.3141	0.3793
EIRP(dBm)	29.33	29.56	30.14	29.47	29.63	30.20	29.60	29.47	30.29
EIRP(Watts)	0.8570	0.9036	1.0328	0.8851	0.9183	1.0471	0.9120	0.8851	1.0691

LTE Band 41(HPUE) ( $G_T - L_C = 4.50$ dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	25.19	25.20	25.80
Conducted Power (Watts)	0.3304	0.3311	0.3802
EIRP(dBm)	29.69	29.70	30.30
EIRP(Watts)	0.9311	0.9333	1.0715



LTE Band 41(HPUE) (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	24.55	24.22	24.84	24.44	24.12	24.91	24.47	24.70	24.97
Conducted Power (Watts)	0.2851	0.2642	0.3048	0.2780	0.2582	0.3097	0.2799	0.2951	0.3141
EIRP(dBm)	29.05	28.72	29.34	28.94	28.62	29.41	28.97	29.20	29.47
EIRP(Watts)	0.8035	0.7447	0.8590	0.7834	0.7278	0.8730	0.7889	0.8318	0.8851

LTE Band 41(HPUE) (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	24.65	24.33	24.83
Conducted Power (Watts)	0.2917	0.2710	0.3041
EIRP(dBm)	29.15	28.83	29.33
EIRP(Watts)	0.8222	0.7638	0.8570





LTE Band 41(HPUE) (G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	22.24	22.22	23.70	22.31	22.20	23.53	22.45	22.10	23.70
Conducted Power (Watts)	0.1675	0.1667	0.2344	0.1702	0.1660	0.2254	0.1758	0.1622	0.2344
EIRP(dBm)	26.74	26.72	28.20	26.81	26.70	28.03	26.95	26.60	28.20
EIRP(Watts)	0.4721	0.4699	0.6607	0.4797	0.4677	0.6353	0.4955	0.4571	0.6607

LTE Band 41(HPUE) G <sub>T</sub> - L <sub>C</sub> = 4.50 dB) 64QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	22.35	22.40	23.76
Conducted Power (Watts)	0.1718	0.1738	0.2377
EIRP(dBm)	26.85	26.90	28.26
EIRP(Watts)	0.4842	0.4898	0.6699



LTE Band 41(HPUE) ( $G_T - L_C = 4.50$ dB) 256QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	19.96	19.78	20.32	19.73	19.74	20.51	20.00	19.68	20.44
Conducted Power (Watts)	0.0991	0.0951	0.1076	0.0940	0.0942	0.1125	0.1000	0.0929	0.1107
EIRP(dBm)	24.46	24.28	24.82	24.23	24.24	25.01	24.50	24.18	24.94
EIRP(Watts)	0.2793	0.2679	0.3034	0.2649	0.2655	0.3170	0.2818	0.2618	0.3119

LTE Band 41(HPUE) ( $G_T - L_C = 4.50$ dB) 256QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	19.82	19.93	20.39
Conducted Power (Watts)	0.0959	0.0984	0.1094
EIRP(dBm)	24.32	24.43	24.89
EIRP(Watts)	0.2704	0.2773	0.3083



LTE Band 71 (GT - LC = -0.30 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)	23.71	23.70	23.69	23.73	23.57	23.68	23.79	23.61	23.69
Conducted Power (Watts)	0.2350	0.2344	0.2339	0.2360	0.2275	0.2333	0.2393	0.2296	0.2339
ERP(dBm)	21.26	21.25	21.24	21.28	21.12	21.23	21.34	21.16	21.24
ERP(Watts)	0.1337	0.1334	0.1330	0.1343	0.1294	0.1327	0.1361	0.1306	0.1330

LTE Band 71 (GT - LC = -0.30 dB) QPSK			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency	673	680.5	688
(MHz)			
Conducted Power (dBm)	23.80	23.65	23.68
Conducted Power (Watts)	0.2399	0.2317	0.2333
ERP(dBm)	21.35	21.20	21.23
ERP(Watts)	0.1365	0.1318	0.1327



LTE Band 71 (GT - LC = -0.30 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)	22.96	23.00	22.95	23.00	22.93	23.00	22.98	23.00	22.98
Conducted Power (Watts)	0.1977	0.1995	0.1972	0.1995	0.1963	0.1995	0.1986	0.1995	0.1986
ERP(dBm)	20.51	20.55	20.50	20.55	20.48	20.55	20.53	20.55	20.53
ERP(Watts)	0.1125	0.1135	0.1122	0.1135	0.1117	0.1135	0.1130	0.1135	0.1130

LTE Band 71 (GT - LC = -0.30 dB) 16QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency	673	680.5	688
(MHz)			
Conducted Power (dBm)	23.00	22.95	22.97
Conducted Power (Watts)	0.1995	0.1972	0.1982
ERP(dBm)	20.55	20.50	20.52
ERP(Watts)	0.1135	0.1122	0.1127



LTE Band 71 (GT - LC = -0.30 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	21.71	21.97	21.90	21.96	21.80	21.88	21.94	21.90	21.92
Conducted Power (Watts)	0.1483	0.1574	0.1549	0.1570	0.1514	0.1542	0.1563	0.1549	0.1556
ERP(dBm)	19.26	19.52	19.45	19.51	19.35	19.43	19.49	19.45	19.47
ERP(Watts)	0.0843	0.0895	0.0881	0.0893	0.0861	0.0877	0.0889	0.0881	0.0885

LTE Band 71 (GT - LC = -0.30 dB) 64QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	21.97	21.86	21.90
Conducted Power (Watts)	0.1574	0.1535	0.1549
ERP(dBm)	19.52	19.41	19.45
ERP(Watts)	0.0895	0.0873	0.0881



LTE Band 71 (GT - LC = -0.30 dB) 256QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	18.79	18.74	18.65	18.78	18.72	18.63	18.68	18.72	18.76
Conducted Power (Watts)	0.0757	0.0748	0.0733	0.0755	0.0745	0.0729	0.0738	0.0745	0.0752
ERP(dBm)	16.34	16.29	16.20	16.33	16.27	16.18	16.23	16.27	16.31
ERP(Watts)	0.0431	0.0426	0.0417	0.0430	0.0424	0.0415	0.0420	0.0424	0.0428

LTE Band 71 (GT - LC = -0.30 dB) 256QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	18.81	18.75	18.73
Conducted Power (Watts)	0.0760	0.0750	0.0746
ERP(dBm)	16.36	16.30	16.28
ERP(Watts)	0.0433	0.0427	0.0425



**CA EIRP**

LTE Band 41 CA (GT - LC = 4.50 dB) QPSK									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.49	22.29	22.86	22.51	22.46	22.84	22.18	21.71	22.48
Conducted Power (Watts)	0.1774	0.1694	0.1932	0.1782	0.1762	0.1923	0.1652	0.1483	0.1770
EIRP(dBm)	26.99	26.79	27.36	27.01	26.96	27.34	26.68	26.21	26.98
EIRP(Watts)	0.5000	0.4775	0.5445	0.5023	0.4966	0.5420	0.4656	0.4178	0.4989

LTE Band 41 CA (GT - LC = 4.50 dB) QPSK									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.02	21.97	22.46	22.65	22.11	22.55	22.72	22.66	22.99
Conducted Power (Watts)	0.1592	0.1574	0.1762	0.1841	0.1626	0.1799	0.1871	0.1845	0.1991
EIRP(dBm)	26.52	26.47	26.96	27.15	26.61	27.05	27.22	27.16	27.49
EIRP(Watts)	0.4487	0.4436	0.4966	0.5188	0.4581	0.5070	0.5272	0.5200	0.5610



LTE Band 41 CA (GT - LC = 4.50 dB) QPSK						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.79	22.48	23.09	22.28	22.4	23.15
Conducted Power (Watts)	0.1901	0.1770	0.2037	0.1690	0.1738	0.2065
EIRP(dBm)	27.29	26.98	27.59	26.78	26.90	27.65
EIRP(Watts)	0.5358	0.4989	0.5741	0.4764	0.4898	0.5821

LTE Band 41 CA (GT - LC = 4.50 dB) QPSK						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.87	21.87	22.46	22.02	21.96	22.43
Conducted Power (Watts)	0.1538	0.1538	0.1762	0.1592	0.1570	0.1750
EIRP(dBm)	26.37	26.37	26.96	26.52	26.46	26.93
EIRP(Watts)	0.4335	0.4335	0.4966	0.4487	0.4426	0.4932





LTE Band 41 CA (GT - LC = 4.50 dB) 16QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.10	21.23	21.59	21.05	21.14	21.41	20.95	20.48	21.26
Conducted Power (Watts)	0.1288	0.1327	0.1442	0.1274	0.1300	0.1384	0.1245	0.1117	0.1337
EIRP(dBm)	25.60	25.73	26.09	25.55	25.64	25.91	25.45	24.98	25.76
EIRP(Watts)	0.3631	0.3741	0.4064	0.3589	0.3664	0.3899	0.3508	0.3148	0.3767

LTE Band 41 CA (GT - LC = 4.80 dB) 16QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.83	20.63	21.06	21.34	20.67	21.16	21.41	21.41	21.79
Conducted Power (Watts)	0.1211	0.1156	0.1276	0.1361	0.1167	0.1306	0.1384	0.1384	0.1510
EIRP(dBm)	25.33	25.13	25.56	25.84	25.17	25.66	25.91	25.91	26.29
EIRP(Watts)	0.3412	0.3258	0.3597	0.3837	0.3289	0.3681	0.3899	0.3899	0.4256



LTE Band 41 CA (GT - LC = 4.50 dB) 16QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.45	21.49	21.73	20.99	21.47	21.71
Conducted Power (Watts)	0.1396	0.1409	0.1489	0.1256	0.1403	0.1483
EIRP(dBm)	25.95	25.99	26.23	25.49	25.97	26.21
EIRP(Watts)	0.3936	0.3972	0.4198	0.3540	0.3954	0.4178

LTE Band 41 CA (GT - LC = 4.50 dB) 16QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.70	20.49	21.21	20.76	20.52	20.99
Conducted Power (Watts)	0.1175	0.1119	0.1321	0.1191	0.1127	0.1256
EIRP(dBm)	25.20	24.99	25.71	25.26	25.02	25.49
EIRP(Watts)	0.3311	0.3155	0.3724	0.3357	0.3177	0.3540



LTE Band 41 CA (GT - LC = 4.50 dB) 64QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.11	20.25	20.63	20.23	20.19	20.62	19.85	19.72	20.15
Conducted Power (Watts)	0.1026	0.1059	0.1156	0.1054	0.1045	0.1153	0.0966	0.0938	0.1035
EIRP(dBm)	24.61	24.75	25.13	24.73	24.69	25.12	24.35	24.22	24.65
EIRP(Watts)	0.2891	0.2985	0.3258	0.2972	0.2944	0.3251	0.2723	0.2642	0.2917

LTE Band 41 CA (GT - LC = 4.50 dB) 64QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.73	19.71	20.26	20.30	19.78	20.35	20.50	20.61	20.81
Conducted Power (Watts)	0.0940	0.0935	0.1062	0.1072	0.0951	0.1084	0.1122	0.1151	0.1205
EIRP(dBm)	24.23	24.21	24.76	24.80	24.28	24.85	25.00	25.11	25.31
EIRP(Watts)	0.2649	0.2636	0.2992	0.3020	0.2679	0.3055	0.3162	0.3243	0.3396



LTE Band 41 CA (GT - LC = 4.50 dB) 64QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.46	19.99	20.91	19.95	20.45	20.84
Conducted Power (Watts)	0.1112	0.0998	0.1233	0.0989	0.1109	0.1213
EIRP(dBm)	24.96	24.49	25.41	24.45	24.95	25.34
EIRP(Watts)	0.3133	0.2812	0.3475	0.2786	0.3126	0.3420

LTE Band 41 CA (GT - LC = 4.50 dB) 64QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.80	19.55	20.26	19.64	19.69	20.26
Conducted Power (Watts)	0.0955	0.0902	0.1062	0.0920	0.0931	0.1062
EIRP(dBm)	24.30	24.05	24.76	24.14	24.19	24.76
EIRP(Watts)	0.2692	0.2541	0.2992	0.2594	0.2624	0.2992



LTE Band 41 CA (GT - LC = 4.50 dB) 256QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	17.67	17.81	18.19	17.72	17.66	18	17.25	17.05	17.63
Conducted Power (Watts)	0.0585	0.0604	0.0659	0.0592	0.0583	0.0631	0.0531	0.0507	0.0579
EIRP(dBm)	22.17	22.31	22.69	22.22	22.16	18.00	21.75	21.55	22.13
EIRP(Watts)	0.1648	0.1702	0.1858	0.1667	0.1644	0.0631	0.1496	0.1429	0.1633

LTE Band 41 CA (GT - LC = 4.50 dB) 256QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	17.22	17.25	17.76	17.82	17.27	17.78	17.95	17.87	18.26
Conducted Power (Watts)	0.0527	0.0531	0.0597	0.0605	0.0533	0.0600	0.0624	0.0612	0.0670
EIRP(dBm)	21.72	21.75	22.26	22.32	21.77	22.28	22.45	22.37	22.76
EIRP(Watts)	0.1486	0.1496	0.1683	0.1706	0.1503	0.1690	0.1758	0.1726	0.1888



LTE Band 41 CA (GT - LC = 4.50 dB) 256QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	17.97	17.97	18.4	17.46	17.94	18.13
Conducted Power (Watts)	0.0627	0.0627	0.0692	0.0557	0.0622	0.0650
EIRP(dBm)	22.47	22.47	22.90	21.96	22.44	22.63
EIRP(Watts)	0.1766	0.1766	0.1950	0.1570	0.1754	0.1832

LTE Band 41 CA (GT - LC = 4.50 dB) 256QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	17.28	17.07	17.79	17.23	17.25	17.76
Conducted Power (Watts)	0.0535	0.0509	0.0601	0.0528	0.0531	0.0597
EIRP(dBm)	21.78	21.57	22.29	21.73	21.75	22.26
EIRP(Watts)	0.1507	0.1435	0.1694	0.1489	0.1496	0.1683



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

LTE Band 7 / 20MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5052	-58.75	-25	-33.75	-68.96	3.03	13.24	H
	7580	-58.51	-25	-33.51	-67.96	3.56	13.01	H
	10100	-58.21	-25	-33.21	-67.73	3.92	13.44	H
	5052	-58.87	-25	-33.87	-69.08	3.03	13.24	V
	7580	-57.32	-25	-32.32	-66.77	3.56	13.01	V
	10100	-57.74	-25	-32.74	-67.26	3.92	13.44	V

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

LTE Band 12 / 10MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1406	-58.45	-13	-45.45	-65.42	1.58	10.70	H
	2109.27	-57.10	-13	-44.10	-65.35	2.102	12.50	H
	2812	-59.32	-13	-46.32	-68.21	2.856	13.90	H
	3516	-59.21	-13	-46.21	-67.67	2.689	13.30	H
	1406.18	-53.72	-13	-40.72	-60.69	1.58	10.70	V
	2110	-48.55	-13	-35.55	-56.80	2.10	12.50	V
	2812	-59.21	-13	-46.21	-68.10	2.86	13.90	V
	3516	-58.80	-13	-45.80	-67.26	2.69	13.30	V

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

LTE Band 13 / 5MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1560	-60.23	-42.15	-18.08	-62.86	1.09	5.87	H
	2340	-60.94	-13	-47.94	-63.34	1.37	5.92	H
	3120	-59.34	-13	-46.34	-63.23	1.64	7.68	H
	1560	-62.59	-42.15	-20.44	-65.22	1.09	5.87	V
	2340	-59.62	-13	-46.62	-62.02	1.37	5.92	V
	3120	-59.36	-13	-46.36	-63.25	1.64	7.68	V

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



LTE Band 13 / 10MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1556	-61.50	-13	-48.50	-64.13	1.09	5.87	H
	2332	-61.03	-13	-48.03	-63.43	1.37	5.92	H
	3108	-59.65	-13	-46.65	-63.54	1.64	7.68	H
	1556	-63.31	-13	-50.31	-65.94	1.09	5.87	V
	2332	-59.69	-13	-46.69	-62.09	1.37	5.92	V
	3108	-59.16	-13	-46.16	-63.05	1.64	7.68	V

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

LTE Band 71 / 20MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1348	-67.13	-13	-54.13	-68.88	1.02	4.92	H
	2022	-62.10	-13	-49.10	-64.07	1.27	5.39	H
	2696	-63.40	-13	-50.40	-66.33	1.49	6.57	H
	3372	-61.93	-13	-48.93	-65.33	1.73	7.28	H
	1348	-66.83	-13	-53.83	-68.58	1.02	4.92	V
	2022	-53.55	-13	-40.55	-55.52	1.27	5.39	V
	2696	-63.16	-13	-50.16	-66.09	1.49	6.57	V
	3372	-62.29	-13	-49.29	-65.69	1.73	7.28	V

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

LTE Band 41(HPUe) / 20MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5004	-51.62	-25	-26.62	-61.83	3.03	13.24	H
	7504	-53.14	-25	-28.14	-62.59	3.56	13.01	H
	10000	-57.21	-25	-32.21	-66.73	3.92	13.44	V
Middle	5168	-59.15	-25	-34.15	-69.36	3.03	13.24	H
	7752	-55.51	-25	-30.51	-64.96	3.56	13.01	V
	10340	-56.61	-25	-31.61	-66.13	3.92	13.44	V

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





LTE Band CA41 / 20+20MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5032	-62.48	-25	-37.48	-72.69	3.03	13.24	H
	7544	-59.60	-25	-34.60	-69.05	3.56	13.01	H
	10060	-58.32	-25	-33.32	-67.84	3.92	13.44	H
	5032	-57.43	-25	-32.43	-67.64	3.03	13.24	V
	7544	-56.41	-25	-31.41	-65.86	3.56	13.01	V
	10060	-58.36	-25	-33.36	-67.88	3.92	13.44	V
Middle	5184	-61.95	-25	-36.95	-72.16	3.03	13.24	H
	7776	-59.44	-25	-34.44	-68.89	3.56	13.01	H
	10370	-55.66	-25	-30.66	-65.18	3.92	13.44	H
	5184	-59.67	-25	-34.67	-69.88	3.03	13.24	V
	7776	-58.40	-25	-33.40	-67.85	3.56	13.01	V
	10370	-55.69	-25	-30.69	-65.21	3.92	13.44	V

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