



# TEST REPORT

**No. B20N00421-RF-LTE**

for

**i.safe MOBILE GmbH**

**LTE SMARTPHONE**

**Model Name: M53A01**

**FCC ID: 2AACZ-M53A01**

with

**Hardware Version: V1.00**

**Software Version: IS530\_EEA\_1.0.0.0\_1\_20200331**

**Issued Date: 2020-06-30**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
B20N00421-RF-LTE	Rev.0	1st edition	2020-06-30



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## **1. SUMMARY OF TEST REPORT**

### **1.1. Test Items**

Description	LTE SMARTPHONE
Model Name	M53A01
Applicant's name	i.safe MOBILE GmbH
Manufacturer's Name	i.safe MOBILE GmbH

### **1.2. Test Standards**

FCC Part	10-1-18 Edition
2/22/24/27/90/95/97/101	
ANSI C63.26	2015
KDB971168 D01	v03r01

### **1.3. Test Result**

All test items are pass. Please refer to "6. SUMMARY OF TEST RESULTS" for detail.

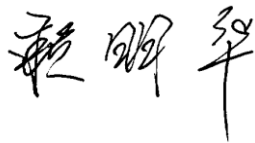
### **1.4. Testing Location**

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518026

### **1.5. Project Data**

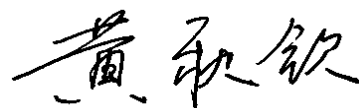
Testing Start Date:	2020-03-09
Testing End Date:	2020-06-30

### **1.6. Signature**



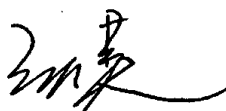
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Lai Minghua  
(Prepared this test report)



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Huang Qiuqin  
(Reviewed this test report)



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Zhang Hao  
(Approved this test report)



## **2. CLIENT INFORMATION**

### **2.1. Applicant Information**

Company Name: i.safe MOBILE GmbH  
Address /Post: i\_Park Tauberfranken 10 97922 Lauda-Koenigshofen Germany  
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### **2.2. Manufacturer Information**

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Contact Email: dirk.amann@isafe-mobile.com  
Telephone: +491703719004  
Fax: /



### **3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT**

#### **(AE)**

##### **3.1. About EUT**

Description	LTE SMARTPHONE
Model Name	M53A01
FCC ID	2AACZ-M53A01
Frequency Bands	LTE Bands 2, 4, 5, 7, 12, 13, 14, 17, 25, 26, 30, 38, 41, 66, CA_5B, CA_41C
Antenna	Integrated
Extreme vol. Limits	3.5VDC to 4.35VDC (nominal: 3.8VDC)
Extreme temp. Tolerance	-10°C to +50°C
Condition of EUT as received	No abnormality in appearance

##### **3.2. Internal Identification of EUT used during the test**

<b>EUT ID*</b>	<b>IMEI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Sample Arrival Date</b>
UT03aa	358121101505545	V1.00	IS530_EEA_1.0.0.0.0_1_2020 0331	2020-03-09
UT08aa	358121101506782	V1.00	IS530_EEA_1.0.0.0.0_1_2020 0331	2020-03-09

\*EUT ID: is used to identify the test sample in the lab internally.

##### **3.3. Internal Identification of AE used during the test**

AE ID*	Description
AE1	Battery
AE1	
Model	MBP53A01
Manufacturer	FPR Connectivity Technology Inc.
Capacitance	3600mAh
Nominal Voltage	3.8V

\*AE ID: is used to identify the test sample in the lab internally.

##### **3.4. General Description**

The Equipment Under Test (EUT) is a model LTE SMARTPHONE with integrated antenna. It consists of normal options: lithium battery, charger. Manual and specifications of the EUT were provided to fulfil the test. Samples undergoing test were selected by the Client.



#### 4. REFERENCE DOCUMENTS

The following documents listed in this section are referred for testing.

<b>Reference</b>	<b>Title</b>	<b>Version</b>
FCC Part 22	PUBLIC MOBILE SERVICES	10-1-18 Edition
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-18 Edition
FCC Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	10-1-18 Edition
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	10-1-18 Edition
FCC Part 90	PRIVATE LAND MOBILE RADIO SERVICES	10-1-18 Edition
FCC Part 95	PERSONAL RADIO SERVICES	10-1-18 Edition
FCC Part 97	AMATEUR RADIO SERVICE	10-1-18 Edition
FCC Part 101	FIXED MICROWAVE SERVICES	10-1-18 Edition
ANSI C63.26	American National Standard of Procedures for Compliance Testing of Licensed Transmitters Used in Licensed Radio Service	2015
KDB971168 D01	Power Meas License Digital Systems	v03r01

## 5. LABORATORY ENVIRONMENT

**Shielded room** did not exceed following limits along the RF testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz>60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	>2 MΩΩ
Ground system resistance	< 4 ΩΩ

**Fully-anechoic chamber** did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩΩ
Ground system resistance	< 4 ΩΩ
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 18 GHz, 3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz



## 6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:		
Verdict Column	P	Pass
	F	Fail
	NA	Not applicable
	NM	Not measured
Location Column	A/B/C/D	The test is performed in test location A, B, C or D which are described in section 1.4 of this report

### LTE Band 2

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/24.232	A.1	P
2	Field Strength of Spurious Radiation	2.1053/24.238	A.2	P
3	Frequency Stability	2.1055/24.235	A.3	P
4	Occupied Bandwidth	2.1049/24.238	A.4	P
5	Emission Bandwidth	2.1049/24.238	A.5	P
6	Band Edge Compliance	2.1051/24.238	A.6	P
7	Conducted Spurious Emission	2.1051/24.238	A.7	P
8	Peak-to-Average Power Ratio	24.232/ KDB971168 D01	A.8	P

### LTE Band 4

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(d)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(h)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(g)	A.4	P
5	Emission Bandwidth	2.1049/27.53(g)	A.5	P
6	Band Edge Compliance	2.1051/27.53(h)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(h)	A.7	P
8	Peak-to-Average Power Ratio	27.50(d)/ KDB971168 D01	A.8	P

**LTE Band 5**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/22.913	A.1	P
2	Field Strength of Spurious Radiation	2.1053/22.917	A.2	P
3	Frequency Stability	2.1055/22.355	A.3	P
4	Occupied Bandwidth	2.1049/22.917	A.4	P
5	Emission Bandwidth	2.1049/22.917	A.5	P
6	Band Edge Compliance	2.1051/22.917	A.6	P
7	Conducted Spurious Emission	2.1051/22.917	A.7	P
8	Peak-to-Average Power Ratio	KDB971168 D01	A.8	P

**LTE Band 7**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(h)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(m)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(m)	A.4	P
5	Emission Bandwidth	2.1049/27.53(m)	A.5	P
6	Band Edge Compliance	2.1051/27.53(m)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(m)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band 12**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(c)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(g)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(g)	A.4	P
5	Emission Bandwidth	2.1049/27.53(g)	A.5	P
6	Band Edge Compliance	2.1051/27.53(g)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(g)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band 13**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(b)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(c)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(c)	A.4	P
5	Emission Bandwidth	2.1049/27.53(c)	A.5	P
6	Band Edge Compliance	2.1051/27.53(c)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(c)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band 14**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/90.541	A.1	P
2	Field Strength of Spurious Radiation	2.1053/90.543	A.2	P
3	Frequency Stability	2.1055/90.539	A.3	P
4	Occupied Bandwidth	2.1049/90.535	A.4	P
5	Emission Bandwidth	2.1049/90.535	A.5	P
6	Band Edge Compliance	2.1051/90.535	A.6	P
7	Conducted Spurious Emission	2.1051/90.535	A.7	P
8	Peak-to-Average Power Ratio	KDB971168 D01	A.8	P

**LTE Band 17**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(c)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(g)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(g)	A.4	P
5	Emission Bandwidth	2.1049/27.53(g)	A.5	P
6	Band Edge Compliance	2.1051/27.53(g)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(g)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band 25**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/24.232	A.1	P
2	Field Strength of Spurious Radiation	2.1053/24.238	A.2	P
3	Frequency Stability	2.1055/24.235	A.3	P
4	Occupied Bandwidth	2.1049/24.238	A.4	P
5	Emission Bandwidth	2.1049/24.238	A.5	P
6	Band Edge Compliance	2.1051/24.238	A.6	P
7	Conducted Spurious Emission	2.1051/24.238	A.7	P
8	Peak-to-Average Power Ratio	24.232/ KDB971168 D01	A.8	P

**LTE Band 26(814MHz-824MHz)**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/90.635	A.1	P
2	Field Strength of Spurious Radiation	2.1053/90.691	A.2	P
3	Frequency Stability	2.1055/90.213	A.3	P
4	Occupied Bandwidth	2.1049/90.1215	A.4	P
5	Emission Bandwidth	2.1049/90.1215	A.5	P
6	Band Edge Compliance	2.1051/90.691	A.6	P
7	Conducted Spurious Emission	2.1051/90.691	A.7	P
8	Peak-to-Average Power Ratio	KDB971168 D01	A.8	P

**LTE band 26(824MHz-849MHz)**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/22.913	A.1	P
2	Field Strength of Spurious Radiation	2.1053/22.917	A.2	P
3	Frequency Stability	2.1055/22.355	A.3	P
4	Occupied Bandwidth	2.1049/22.917	A.4	P
5	Emission Bandwidth	2.1049/22.917	A.5	P
6	Band Edge Compliance	2.1051/22.917	A.6	P
7	Conducted Spurious Emission	2.1051/22.917	A.7	P
8	Peak-to-Average Power Ratio	KDB971168 D01	A.8	P

**LTE Band 30**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(a)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(a)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(a)	A.4	P
5	Emission Bandwidth	2.1049/27.53(a)	A.5	P
6	Band Edge Compliance	2.1051/27.53(a)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(a)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band 38**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(h)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(m)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(m)	A.4	P
5	Emission Bandwidth	2.1049/27.53(m)	A.5	P
6	Band Edge Compliance	2.1051/27.53(m)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(m)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band 41**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(h)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(m)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(m)	A.4	P
5	Emission Bandwidth	2.1049/27.53(m)	A.5	P
6	Band Edge Compliance	2.1051/27.53(m)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(m)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band 66**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(d)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(h)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(h)	A.4	P
5	Emission Bandwidth	2.1049/27.53(h)	A.5	P
6	Band Edge Compliance	2.1051/27.53(h)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(h)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P

**LTE Band CA\_5B**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/22.913	A.1	P
2	Field Strength of Spurious Radiation	2.1053/22.917	A.2	P
3	Frequency Stability	2.1055/22.355	A.3	P
4	Occupied Bandwidth	2.1049/22.917	A.4	P
5	Emission Bandwidth	2.1049/22.917	A.5	P
6	Band Edge Compliance	2.1051/22.917	A.6	P
7	Conducted Spurious Emission	2.1051/22.917	A.7	P
8	Peak-to-Average Power Ratio	KDB971168 D01	A.8	P

**LTE Band CA\_41C**

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	2.1046/27.50(h)	A.1	P
2	Field Strength of Spurious Radiation	2.1053/27.53(m)	A.2	P
3	Frequency Stability	2.1055/27.54	A.3	P
4	Occupied Bandwidth	2.1049/27.53(m)	A.4	P
5	Emission Bandwidth	2.1049/27.53(m)	A.5	P
6	Band Edge Compliance	2.1051/27.53(m)	A.6	P
7	Conducted Spurious Emission	2.1051/27.53(m)	A.7	P
8	Peak-to-Average Power Ratio	27.50(a)/ KDB971168 D01	A.8	P



## **7. STATEMENT**

Since the information of samples in this report is provided by the client, the laboratory is not responsible for the authenticity of sample information.

This report takes measured values as criterion of test conclusion. The test conclusion meets the limit requirements.

## 8. TEST EQUIPMENTS UTILIZED

NO.	Description	Type	Manufacture	Series Number	Cal Due Date
1	Test Receiver	ESR7	R&S	101676	2020-11-27
2	BiLog Antenna	3142E	ETS-lindgren	00224831	2021-05-17
3	Horn Antenna	3117	ETS-lindgren	00066577	2022-04-02
4	Horn Antenna	QSH-SL-18 -26-S-20	Q-par	17013	2023-01-06
5	Antenna	BBHA 9120D	Schwarzbeck	1593	2022-12-05
6	Antenna	VUBA 9117	Schwarzbeck	207	2020-07-16
7	Antenna	QWH-SL-18 -40-K-SG	Q-par	15979	2023-01-06
8	preamplifier	83017A	Agilent	MY39501110	/
9	Signal Generator	SMB100A	R&S	179725	2020-11-27
10	Fully Anechoic Chamber	FACT3-2.0	ETS-Lindgren	1285	2021-07-19
11	Spectrum Analyzer	FSV40	R&S	101192	2021-01-14
12	Universal Radio Communication Tester	CMW500	152499	R&S	2020-07-17
13	Universal Radio Communication Tester	CMW500	R&S	129146	2021-04-24
14	Spectrum Analyzer	FSU	R&S	101506	2020-12-13
15	Temperature Chamber	SH-241	ESPECs	92007516	2020-10-15
16	DC Power Supply	U3606A	Agilent Technologies	MY50450012	2020-11-13

### Test software

Item	Name	Vesion
Radiated	EMC32	Version 10.01.00



## ANNEX A: MEASUREMENT RESULTS

### A.1 OUTPUT POWER

#### Reference

FCC: CFR Part 2.1046, 22.913, 24.232, 27.50, 90.541, 90.635.

#### A.1.1 Summary

During the process of testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication tester (CMW500) to ensure max power transmission and proper modulation.

This result contains peak output power and ERP/EIRP measurements for the EUT.

In all cases, output power is within the specified limits.

#### A.1.2 Conducted

##### A.1.2.1 Method of Measurements

The EUT was set up for the max output power with pseudo random data modulation.

These measurements were done at 3 frequencies (bottom, middle and top of operational frequency range) for each bandwidth.

##### A.1.2.2 Measurement result

#### LTE band 2

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1909.3	22.99	22.60	21.58
		1880.0	23.26	22.73	21.71
		1850.7	23.02	22.80	21.77
	1 RB low	1909.3	23.00	22.61	21.58
		1880.0	23.26	22.68	21.72
		1850.7	23.06	22.81	21.77
	50% RB mid	1909.3	23.21	22.46	21.44
		1880.0	23.12	22.55	21.52
		1850.7	23.32	22.62	21.62
	100% RB	1909.3	22.48	21.56	20.55
		1880.0	22.28	21.60	20.61
		1850.7	22.19	21.68	20.67
3MHz	1 RB high	1908.5	23.36	22.72	21.74
		1880.0	23.43	22.76	21.79
		1851.5	23.48	22.80	21.78
	1 RB low	1908.5	23.39	22.67	21.69
		1880.0	23.41	22.81	21.82
		1851.5	23.49	22.82	21.86
	50% RB mid	1908.5	22.48	21.64	20.65
		1880.0	22.49	21.68	20.72
		1851.5	22.55	21.74	20.76

	100% RB	1908.5	22.46	21.58	20.60
		1880.0	22.47	21.63	20.64
		1851.5	22.56	21.69	20.69
5MHz	1 RB high	1907.5	23.37	22.66	21.65
		1880.0	23.42	22.76	21.73
		1852.5	23.40	22.77	21.81
	1 RB low	1907.5	23.44	22.78	21.82
		1880.0	23.43	22.82	21.78
		1852.5	23.51	22.88	21.84
	50% RB mid	1907.5	22.47	21.58	20.57
		1880.0	22.53	21.64	20.60
		1852.5	22.59	21.71	20.71
	100% RB	1907.5	22.53	21.61	20.62
		1880.0	22.47	21.58	20.56
		1852.5	22.44	21.56	20.57
10MHz	1 RB high	1905.0	23.38	22.63	21.66
		1880.0	23.40	22.80	21.84
		1855.0	23.28	22.73	21.69
	1 RB low	1905.0	23.47	22.80	21.80
		1880.0	23.45	22.85	21.84
		1855.0	23.54	22.88	21.84
	50% RB mid	1905.0	22.54	21.62	20.61
		1880.0	22.49	21.62	20.65
		1855.0	22.50	21.60	20.57
	100% RB	1905.0	22.50	21.64	20.60
		1880.0	22.48	21.60	20.62
		1855.0	22.47	21.60	20.65
15MHz	1 RB high	1902.5	23.33	22.62	21.60
		1880.0	23.39	22.75	21.77
		1857.5	23.43	22.86	21.88
	1 RB low	1902.5	23.44	22.72	21.68
		1880.0	23.47	22.94	21.90
		1857.5	23.61	22.96	21.96
	50% RB mid	1902.5	22.51	21.62	20.67
		1880.0	22.50	21.67	20.68
		1857.5	22.45	21.60	20.60
	100% RB	1902.5	22.49	21.59	20.62
		1880.0	22.45	21.58	20.60
		1857.5	22.40	21.56	20.57



20MHz	1 RB high	1900.0	23.29	22.60	21.55
		1880.0	23.32	22.60	21.64
		1860.0	23.38	22.63	21.66
	1 RB low	1900.0	23.38	22.71	21.66
		1880.0	23.53	22.91	21.90
		1860.0	23.55	22.94	21.98
	50% RB mid	1900.0	22.47	21.60	20.56
		1880.0	22.48	21.62	20.62
		1860.0	22.42	21.56	20.52
	100% RB	1900.0	22.44	21.54	20.52
		1880.0	22.46	21.57	20.58
		1860.0	22.38	21.51	20.49

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 4**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1754.3	23.09	22.34	21.39
		1732.5	23.08	22.42	21.43
		1710.7	23.17	22.30	21.30
	1 RB low	1754.3	23.13	22.34	21.37
		1732.5	23.10	22.45	21.43
		1710.7	23.17	22.31	21.34
	50% RB mid	1754.3	23.23	22.22	21.25
		1732.5	23.20	22.27	21.32
		1710.7	23.27	22.21	21.24
	100% RB	1754.3	22.20	21.34	20.38
		1732.5	22.16	21.36	20.35
		1710.7	22.21	21.33	20.31
3MHz	1 RB high	1753.5	23.17	22.39	21.38
		1732.5	23.13	22.45	21.40
		1711.5	23.11	22.25	21.25
	1 RB low	1753.5	23.18	22.40	21.43
		1732.5	23.17	22.46	21.51
		1711.5	23.21	22.39	21.38
	50% RB mid	1753.5	22.25	21.38	20.35
		1732.5	22.25	21.39	20.36
		1711.5	22.16	21.27	20.30
	100% RB	1753.5	22.26	21.35	20.31
		1732.5	22.21	21.35	20.33
		1711.5	22.20	21.26	20.22
5MHz	1 RB high	1752.5	23.15	22.40	21.39
		1732.5	23.11	22.45	21.50
		1712.5	23.08	22.24	21.29
	1 RB low	1752.5	23.18	22.43	21.44
		1732.5	23.17	22.45	21.41
		1712.5	23.21	22.39	21.42
	50% RB mid	1752.5	22.26	21.32	20.36
		1732.5	22.26	21.38	20.38
		1712.5	22.19	21.30	20.29
	100% RB	1752.5	22.27	21.29	20.32
		1732.5	22.21	21.32	20.32
		1712.5	22.19	21.23	20.19
10MHz	1 RB high	1750.0	23.12	22.41	21.42

		1732.5	23.13	22.47	21.47
		1715.0	23.01	22.21	21.24
	1 RB low	1750.0	23.23	22.42	21.40
		1732.5	23.19	22.52	21.51
		1715.0	23.29	22.39	21.42
	50% RB mid	1750.0	22.28	21.36	20.38
		1732.5	22.27	21.36	20.40
		1715.0	22.25	21.28	20.25
	100% RB	1750.0	22.23	21.34	20.37
		1732.5	22.22	21.34	20.30
		1715.0	22.21	21.26	20.27
	15MHz	1 RB high	1747.5	23.08	22.34
1732.5			23.09	22.40	21.39
1717.5			23.09	22.38	21.43
1 RB low		1747.5	23.19	22.46	21.50
		1732.5	23.17	22.49	21.49
		1717.5	23.24	22.40	21.39
50% RB mid		1747.5	22.27	21.34	20.35
		1732.5	22.26	21.41	20.45
		1717.5	22.23	21.29	20.25
100% RB		1747.5	22.25	21.31	20.27
		1732.5	22.20	21.34	20.33
		1717.5	22.19	21.27	20.22
20MHz	1 RB high	1745.0	23.08	22.25	21.22
		1732.5	23.08	22.34	21.35
		1720.0	23.09	22.39	21.39
	1 RB low	1745.0	23.18	22.50	21.46
		1732.5	23.16	22.41	21.37
		1720.0	23.20	22.40	21.36
	50% RB mid	1745.0	22.26	21.37	20.36
		1732.5	22.26	21.39	20.37
		1720.0	22.26	21.37	20.41
	100% RB	1745.0	22.21	21.27	20.28
		1732.5	22.21	21.32	20.32
		1720.0	22.22	21.31	20.31

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 5**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	22.99	22.38	21.25
		836.5	23.26	22.23	21.11
		824.7	23.02	22.11	21.21
	1 RB low	848.3	23.00	22.48	21.20
		836.5	23.26	22.28	21.40
		824.7	23.06	22.19	21.35
	50% RB mid	848.3	23.21	22.17	21.09
		836.5	23.12	22.49	21.34
		824.7	23.32	22.35	21.23
	100% RB	848.3	22.48	21.05	20.04
		836.5	22.28	21.29	20.19
		824.7	22.19	21.26	20.50
3MHz	1 RB high	847.5	23.12	22.13	21.27
		836.5	23.07	22.35	21.26
		825.5	23.02	22.54	21.20
	1 RB low	847.5	23.09	22.03	21.37
		836.5	23.28	22.16	21.37
		825.5	23.08	22.44	21.24
	50% RB mid	847.5	22.03	22.24	20.17
		836.5	22.09	22.13	20.23
		825.5	21.99	22.05	20.05
	100% RB	847.5	21.98	21.08	20.07
		836.5	22.06	21.15	20.17
		825.5	22.09	21.19	20.14
5MHz	1 RB high	846.5	22.95	22.27	21.30
		836.5	23.00	22.37	21.32
		826.5	22.91	22.21	21.18
	1 RB low	846.5	22.99	22.30	21.35
		836.5	22.95	22.35	21.36
		826.5	22.95	22.18	21.16
	50% RB mid	846.5	22.05	21.14	20.13
		836.5	22.14	21.19	20.17
		826.5	22.13	21.19	20.22
	100% RB	846.5	21.99	21.10	20.14
		836.5	22.09	21.13	20.14
		826.5	22.09	21.14	20.16
10MHz	1 RB high	844.0	23.07	22.30	21.34



		836.5	23.03	22.38	21.41
		829.0	22.99	22.29	21.32
	1 RB low	844.0	23.13	22.37	21.36
		836.5	23.00	22.31	21.28
		829.0	22.96	22.23	21.27
	50% RB mid	844.0	22.17	21.16	20.17
		836.5	22.12	21.18	20.19
		829.0	22.12	21.18	20.15
	100% RB	844.0	22.11	21.12	20.13
		836.5	22.09	21.16	20.17
		829.0	22.09	21.17	20.15

Note: Expanded measurement uncertainty is  $U = 0.49\text{dB}$ ,  $k = 1.96$

**LTE band 7**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2567.5	22.58	22.02	20.69
		2535.0	22.30	21.73	20.58
		2502.5	22.29	22.03	20.49
	1 RB low	2567.5	22.37	21.86	20.66
		2535.0	22.61	22.08	20.66
		2502.5	22.31	21.95	20.72
	50% RB mid	2567.5	21.58	20.80	19.53
		2535.0	21.63	20.68	19.84
		2502.5	21.59	20.76	19.49
	100% RB	2567.5	21.68	20.83	19.70
		2535.0	21.78	20.77	19.70
		2502.5	21.40	20.74	19.62
10MHz	1 RB high	2565.0	22.57	21.99	20.62
		2535.0	22.37	21.74	20.66
		2505.0	22.42	21.87	20.61
	1 RB low	2565.0	22.39	21.90	20.67
		2535.0	22.51	21.98	20.71
		2505.0	22.37	22.00	20.55
	50% RB mid	2565.0	21.57	20.79	19.56
		2535.0	21.62	20.76	19.75
		2505.0	21.63	20.76	19.44
	100% RB	2565.0	21.72	20.77	19.68
		2535.0	21.64	20.90	19.73
		2505.0	21.53	20.68	19.55
15MHz	1 RB high	2562.5	22.62	21.95	20.71
		2535.0	22.24	21.78	20.61
		2507.5	22.39	21.92	20.49
	1 RB low	2562.5	22.33	22.01	20.76
		2535.0	22.55	22.02	20.69
		2507.5	22.35	21.99	20.70
	50% RB mid	2562.5	21.72	20.82	19.55
		2535.0	21.64	20.70	19.69
		2507.5	21.66	20.58	19.43
	100% RB	2562.5	21.62	20.76	19.76
		2535.0	21.66	20.77	19.68
		2507.5	21.37	20.71	19.48





20MHz	1 RB high	2560.0	22.62	22.06	20.74
		2535.0	22.38	21.84	20.78
		2510.0	22.48	22.05	20.69
	1 RB low	2560.0	22.52	22.02	20.82
		2535.0	22.67	22.12	20.78
		2510.0	22.38	22.10	20.74
	50% RB mid	2560.0	21.75	20.85	19.67
		2535.0	21.81	20.86	19.86
		2510.0	21.66	20.77	19.58
	100% RB	2560.0	21.73	20.84	19.78
		2535.0	21.84	20.92	19.77
		2510.0	21.55	20.79	19.66

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 12**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	715.3	23.05	22.12	21.47
		707.5	23.22	22.38	21.33
		699.7	23.26	22.67	21.30
	1 RB low	715.3	23.13	22.10	21.44
		707.5	23.22	22.18	21.33
		699.7	23.05	22.63	21.30
	50% RB mid	715.3	23.27	22.36	21.54
		707.5	23.23	22.41	21.35
		699.7	23.17	22.27	21.39
	100% RB	715.3	22.20	21.41	20.22
		707.5	22.25	21.47	20.28
		699.7	22.12	21.39	20.47
3MHz	1 RB high	714.5	23.21	22.17	21.49
		707.5	23.16	22.31	21.47
		700.5	23.12	22.65	21.21
	1 RB low	714.5	23.05	22.20	21.35
		707.5	23.27	22.18	21.41
		700.5	23.19	22.65	21.26
	50% RB mid	714.5	22.20	21.36	20.43
		707.5	22.23	21.43	20.42
		700.5	22.16	21.41	20.27
	100% RB	714.5	22.27	21.42	20.38
		707.5	22.30	21.34	20.39
		700.5	22.22	21.40	20.33
5MHz	1 RB high	713.5	23.24	22.14	21.43
		707.5	23.09	22.23	21.31
		701.5	23.10	22.47	21.32
	1 RB low	713.5	23.06	22.07	21.43
		707.5	23.09	22.28	21.47
		701.5	23.03	22.51	21.34
	50% RB mid	713.5	22.17	21.43	20.54
		707.5	22.25	21.36	20.38
		701.5	22.29	21.26	20.41
	100% RB	713.5	22.28	21.39	20.31
		707.5	22.24	21.39	20.36
		701.5	22.18	21.35	20.39
10MHz	1 RB high	711.0	23.25	22.28	21.58



		707.5	23.24	22.33	21.48
		704.0	23.27	22.67	21.40
	1 RB low	711.0	23.14	22.20	21.47
		707.5	23.28	22.36	21.48
		704.0	23.23	22.66	21.38
	50% RB mid	711.0	22.33	21.54	20.56
		707.5	22.25	21.44	20.44
		704.0	22.33	21.43	20.42
	100% RB	711.0	22.37	21.44	20.42
		707.5	22.35	21.48	20.46
		704.0	22.26	21.51	20.48

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 13**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	22.58	22.02	20.69
		782.0	22.30	21.73	20.58
		779.5	22.29	22.03	20.49
	1 RB low	784.5	22.37	21.86	20.66
		782.0	22.61	22.08	20.66
		779.5	22.31	21.95	20.72
	50% RB mid	784.5	21.58	20.80	19.53
		782.0	21.63	20.68	19.84
		779.5	21.59	20.76	19.49
	100% RB	784.5	21.68	20.83	19.70
		782.0	21.78	20.77	19.70
		779.5	21.40	20.74	19.62
10MHz	1 RB high	782.0	22.37	21.74	20.66
	1 RB low	782.0	22.51	21.98	20.71
	50% RB mid	782.0	21.62	20.76	19.75
	100% RB	782.0	21.64	20.90	19.73

 Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 14**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	795.5	23.03	22.37	21.37
		793.0	22.91	22.27	21.27
		790.5	22.93	22.35	21.39
	1 RB low	795.5	23.03	22.39	21.39
		793.0	22.96	22.36	21.38
		790.5	22.99	22.37	21.39
	50% RB mid	795.5	22.10	21.13	20.15
		793.0	22.10	21.22	20.26
		790.5	22.13	21.22	20.27
	100% RB	795.5	22.03	21.15	20.13
		793.0	22.07	21.20	20.19
		790.5	22.09	21.19	20.23
10MHz	1 RB high	793.0	22.99	22.36	21.32
	1 RB low	793.0	22.97	22.39	21.34
	50% RB mid	793.0	22.07	21.21	20.22
	100% RB	793.0	22.07	21.16	20.13

 Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 17**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	713.5	23.02	22.32	21.45
		710.0	22.98	22.25	21.33
		706.5	22.90	22.11	21.25
	1 RB low	713.5	22.94	22.15	21.28
		710.0	22.95	22.24	21.38
		706.5	22.88	22.17	21.31
	50% RB mid	713.5	21.99	21.01	20.18
		710.0	22.04	21.08	20.25
		706.5	22.09	21.17	20.33
	100% RB	713.5	22.01	20.98	20.02
		710.0	22.04	21.09	20.08
		706.5	22.06	21.11	20.19
10MHz	1 RB high	711.0	23.06	22.29	21.38
		710.0	23.00	22.20	21.36
		709.0	22.99	22.31	21.48
	1 RB low	711.0	22.84	22.11	21.29
		710.0	22.97	22.22	21.36
		709.0	22.89	22.21	21.34
	50% RB mid	711.0	22.05	21.10	20.15
		710.0	22.08	21.12	20.19
		709.0	22.09	21.15	20.26
	100% RB	711.0	22.02	21.06	20.11
		710.0	22.02	21.11	20.23
		709.0	22.06	21.10	20.22

 Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 25**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1914.3	22.35	21.80	20.45
		1882.5	22.49	21.76	20.83
		1850.7	22.49	20.97	20.97
	1 RB low	1914.3	22.02	21.65	20.15
		1882.5	22.42	21.69	20.73
		1850.7	22.44	21.69	20.76
	50% RB mid	1914.3	22.19	21.30	20.31
		1882.5	22.70	21.80	20.99
		1850.7	22.83	21.86	20.99
	100% RB	1914.3	21.08	20.33	19.28
		1882.5	21.57	20.76	19.70
		1850.7	21.24	20.90	19.85
3MHz	1 RB high	1913.5	22.23	21.67	20.27
		1882.5	22.46	21.77	20.84
		1851.5	22.49	20.98	20.87
	1 RB low	1913.5	21.97	21.67	20.28
		1882.5	22.34	21.76	20.71
		1851.5	22.44	21.83	20.81
	50% RB mid	1913.5	21.30	20.46	19.43
		1882.5	21.69	20.92	19.96
		1851.5	21.77	20.88	19.83
	100% RB	1913.5	21.03	20.21	19.33
		1882.5	21.62	20.70	19.69
		1851.5	21.28	20.90	19.74
5MHz	1 RB high	1912.5	22.16	21.72	20.43
		1882.5	22.60	21.81	20.94
		1852.5	22.34	20.97	20.83
	1 RB low	1912.5	22.03	21.60	20.24
		1882.5	22.32	21.68	20.69
		1852.5	22.45	21.76	20.91
	50% RB mid	1912.5	21.22	20.44	19.36
		1882.5	21.81	20.87	19.98
		1852.5	21.74	20.92	19.83
	100% RB	1912.5	21.11	20.20	19.32
		1882.5	21.63	20.64	19.78
		1852.5	21.28	20.76	19.83
10MHz	1 RB high	1910.0	22.28	21.66	20.43

		1882.5	22.52	21.72	20.94	
		1855.0	22.43	20.94	20.87	
		1 RB low	1910.0	21.87	21.78	20.27
			1882.5	22.42	21.68	20.68
			1855.0	22.46	21.77	20.74
		50% RB mid	1910.0	21.22	20.32	19.33
	1882.5		21.61	20.79	19.81	
	1855.0		21.88	20.81	19.81	
	100% RB	1910.0	21.19	20.46	19.19	
		1882.5	21.67	20.80	19.67	
		1855.0	21.20	20.96	19.77	
	15MHz	1 RB high	1907.5	22.31	21.71	20.45
1882.5			22.51	21.76	20.92	
1857.5			22.43	20.91	20.87	
1 RB low		1907.5	21.86	21.70	20.18	
		1882.5	22.26	21.76	20.76	
		1857.5	22.55	21.70	20.76	
50% RB mid		1907.5	21.34	20.48	19.47	
		1882.5	21.68	20.82	19.92	
		1857.5	21.80	20.87	19.87	
100% RB		1907.5	21.08	20.30	19.28	
		1882.5	21.72	20.72	19.77	
		1857.5	21.33	20.81	19.85	
20MHz	1 RB high	1905.0	22.35	21.86	20.46	
		1882.5	22.66	21.84	20.97	
		1860.0	22.50	21.10	21.01	
	1 RB low	1905.0	22.04	21.80	20.35	
		1882.5	22.43	21.85	20.77	
		1860.0	22.61	21.86	20.93	
	50% RB mid	1905.0	21.36	20.49	19.48	
		1882.5	21.81	20.98	19.99	
		1860.0	21.91	21.00	19.99	
	100% RB	1905.0	21.19	20.35	19.35	
		1882.5	21.72	20.84	19.84	
		1860.0	21.38	20.92	19.87	

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$



## LTE band 26(814MHz-824MHz)

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	823.3	22.56	21.62	21.08
		819.0	22.63	21.70	21.11
		814.7	22.64	21.75	21.14
	1 RB low	823.3	22.68	21.73	21.12
		819.0	22.62	21.70	21.10
		814.7	22.56	21.61	21.05
	50% RB mid	823.3	22.75	21.98	21.24
		819.0	22.70	21.97	21.22
		814.7	22.64	21.91	21.18
	100% RB	823.3	21.69	20.66	20.16
		819.0	21.65	20.61	20.11
		814.7	21.66	20.66	20.14
3MHz	1 RB high	822.5	22.65	21.70	21.08
		819.0	22.68	21.82	21.11
		815.5	22.69	21.80	20.98
	1 RB low	822.5	22.67	21.73	20.96
		819.0	22.71	21.87	21.11
		815.5	22.64	21.72	21.04
	50% RB mid	822.5	21.79	20.90	20.24
		819.0	21.74	20.85	20.16
		815.5	21.77	20.90	20.11
	100% RB	822.5	21.74	20.84	20.08
		819.0	21.71	20.82	20.18
		815.5	21.76	20.84	20.12
5MHz	1 RB high	821.5	22.68	21.98	21.28
		819.0	22.71	22.02	21.32
		816.5	22.67	21.84	21.11
	1 RB low	821.5	22.67	22.05	21.22
		819.0	22.74	22.06	21.31
		816.5	22.61	21.76	21.01
	50% RB mid	821.5	21.82	21.04	20.06
		819.0	21.75	20.98	20.11
		816.5	21.77	20.95	20.08
	100% RB	821.5	21.81	20.91	20.03
		819.0	21.78	20.85	20.01
		816.5	21.76	20.84	20.02
10MHz	1 RB high	819.0	22.73	21.92	21.08



	1 RB low	819.0	22.64	21.82	21.07
	50% RB mid	819.0	21.80	20.87	20.18
	100% RB	819.0	21.80	20.91	20.14

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

## LTE band 26(824MHz-849MHz)

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	22.60	21.77	20.94
		836.5	22.61	21.82	21.08
		824.7	22.55	21.67	21.01
	1 RB low	848.3	22.64	21.81	21.06
		836.5	22.66	21.81	20.99
		824.7	22.57	21.63	20.88
	50% RB mid	848.3	22.74	21.99	21.11
		836.5	22.76	21.99	21.09
		824.7	22.65	21.88	21.01
	100% RB	848.3	21.66	20.64	20.06
		836.5	21.63	20.65	20.03
		824.7	21.62	20.54	20.01
3MHz	1 RB high	847.5	22.69	21.88	21.11
		836.5	22.69	21.85	21.06
		825.5	22.74	21.79	21.03
	1 RB low	847.5	22.72	21.92	21.08
		836.5	22.69	21.94	21.11
		825.5	22.69	21.74	21.05
	50% RB mid	847.5	21.74	20.90	20.09
		836.5	21.75	20.90	20.08
		825.5	21.80	20.90	20.06
	100% RB	847.5	21.70	20.82	20.02
		836.5	21.73	20.83	20.03
		825.5	21.74	20.82	20.01
5MHz	1 RB high	846.5	22.68	21.82	21.08
		836.5	22.72	22.03	21.18
		826.5	22.67	21.83	21.12
	1 RB low	846.5	22.73	21.82	21.09
		836.5	22.75	22.08	21.26
		826.5	22.66	21.74	21.10
	50% RB mid	846.5	21.79	20.98	20.16
		836.5	21.78	20.94	20.12
		826.5	21.77	20.94	20.13
	100% RB	846.5	21.77	20.90	20.06
		836.5	21.74	20.90	20.08
		826.5	21.75	20.82	20.03
10MHz	1 RB high	844.0	22.69	21.73	21.06

		836.5	22.65	21.89	21.11
		829.0	22.62	21.73	21.05
	1 RB low	844.0	22.69	21.72	21.07
		836.5	22.65	21.89	21.10
		829.0	22.69	21.73	21.06
	50% RB mid	844.0	21.69	20.81	20.07
		836.5	21.76	20.92	20.12
		829.0	21.88	20.94	20.15
	100% RB	844.0	21.67	20.75	20.08
		836.5	21.75	20.83	20.06
		829.0	21.84	20.92	20.11
	15MHz	1 RB high	841.5	22.69	22.16
836.5			22.73	21.91	21.12
831.5			22.68	22.13	21.28
1 RB low		841.5	22.76	22.24	21.36
		836.5	22.79	22.04	21.11
		831.5	22.68	22.06	21.13
50% RB mid		841.5	21.73	20.84	20.13
		836.5	21.73	20.91	20.16
		831.5	21.78	20.91	20.18
100% RB		841.5	21.68	21.15	20.26
		836.5	21.81	20.86	20.16
		831.5	21.86	20.88	20.08

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 30**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2312.5	23.03	22.37	21.37
		2310.0	22.91	22.27	21.27
		2307.5	22.93	22.35	21.39
	1 RB low	2312.5	23.03	22.39	21.39
		2310.0	22.96	22.36	21.38
		2307.5	22.99	22.37	21.39
	50% RB mid	2312.5	22.10	21.13	20.15
		2310.0	22.10	21.22	20.26
		2307.5	22.13	21.22	20.27
	100% RB	2312.5	22.03	21.15	20.13
		2310.0	22.07	21.20	20.19
		2307.5	22.09	21.19	20.23
10MHz	1 RB high	2310.0	22.99	22.36	21.32
	1 RB low	2310.0	22.97	22.39	21.34
	50% RB mid	2310.0	22.07	21.21	20.22
	100% RB	2310.0	22.07	21.16	20.13

 Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 38**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2617.5	22.94	22.08	21.13
		2595.0	23.05	22.19	21.19
		2572.5	23.19	22.32	21.33
	1 RB low	2617.5	22.96	22.08	21.07
		2595.0	23.10	22.23	21.21
		2572.5	23.23	22.32	21.35
	50% RB mid	2617.5	21.99	21.07	20.10
		2595.0	22.14	21.20	20.23
		2572.5	22.24	21.33	20.35
	100% RB	2617.5	21.97	21.08	20.08
		2595.0	22.08	21.24	20.22
		2572.5	22.20	21.38	20.34
10MHz	1 RB high	2615.0	22.96	22.08	21.13
		2595.0	23.04	22.22	21.25
		2575.0	23.29	22.43	21.45
	1 RB low	2615.0	22.98	22.12	21.16
		2595.0	23.09	22.27	21.25
		2575.0	23.24	22.39	21.37
	50% RB mid	2615.0	22.00	21.17	20.19
		2595.0	22.12	21.23	20.26
		2575.0	22.34	21.47	20.47
	100% RB	2615.0	21.98	21.14	20.12
		2595.0	22.09	21.21	20.17
		2575.0	22.33	21.45	20.46
15MHz	1 RB high	2612.5	22.99	22.19	21.14
		2595.0	23.13	22.19	21.16
		2577.5	23.37	22.48	21.46
	1 RB low	2612.5	23.09	22.17	21.15
		2595.0	23.31	22.35	21.33
		2577.5	23.37	22.44	21.41
	50% RB mid	2612.5	22.16	21.12	20.11
		2595.0	22.23	21.19	20.17
		2577.5	22.44	21.41	20.42
	100% RB	2612.5	22.05	21.10	20.13
		2595.0	22.15	21.22	20.26
		2577.5	22.38	21.45	20.43



20MHz	1 RB high	2610.0	22.92	22.23	21.19
		2595.0	23.09	22.28	21.23
		2580.0	23.27	22.46	21.50
	1 RB low	2610.0	23.09	22.32	21.27
		2595.0	23.26	22.42	21.44
		2580.0	23.33	22.48	21.47
	50% RB mid	2610.0	22.17	21.22	20.22
		2595.0	22.21	21.29	20.26
		2580.0	22.40	21.54	20.56
	100% RB	2610.0	22.12	21.26	20.27
		2595.0	22.20	21.33	20.30
		2580.0	22.38	21.44	20.46

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 41**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2687.5	22.51	21.72	20.79
		2593.0	22.46	21.29	20.53
		2498.5	22.46	21.57	20.82
	1 RB low	2687.5	22.78	21.86	20.75
		2593.0	22.43	21.34	20.54
		2498.5	21.68	20.60	20.74
	50% RB mid	2687.5	21.83	20.83	19.78
		2593.0	21.54	20.66	19.62
		2498.5	21.54	20.82	19.79
	100% RB	2687.5	21.70	20.83	19.72
		2593.0	21.47	20.46	19.50
		2498.5	21.71	20.73	19.78
10MHz	1 RB high	2685.0	22.59	21.79	20.83
		2593.0	22.39	21.43	20.63
		2501.0	22.48	21.57	20.63
	1 RB low	2685.0	22.81	21.95	20.69
		2593.0	22.43	21.26	20.38
		2501.0	21.79	20.63	20.69
	50% RB mid	2685.0	21.76	20.86	19.81
		2593.0	21.57	20.50	19.48
		2501.0	21.74	20.65	19.67
	100% RB	2685.0	21.60	20.69	19.82
		2593.0	21.39	20.57	19.53
		2501.0	21.71	20.68	19.77
15MHz	1 RB high	2682.5	22.49	21.69	20.98
		2593.0	22.36	21.43	20.48
		2503.5	22.60	21.71	20.72
	1 RB low	2682.5	22.81	22.00	20.80
		2593.0	22.41	21.27	20.56
		2503.5	21.78	20.72	20.69
	50% RB mid	2682.5	21.71	20.93	19.93
		2593.0	21.52	20.66	19.55
		2503.5	21.59	20.71	19.69
	100% RB	2682.5	21.76	20.74	19.67
		2593.0	21.47	20.62	19.50
		2503.5	21.71	20.78	19.78





20MHz	1 RB high	2680.0	22.65	21.87	20.98
		2593.0	22.52	21.47	20.66
		2506.0	22.62	21.76	20.83
	1 RB low	2680.0	22.89	22.05	20.84
		2593.0	22.54	21.46	20.58
		2506.0	21.80	20.73	20.86
	50% RB mid	2680.0	21.86	20.79	19.94
		2593.0	21.59	20.66	19.63
		2506.0	21.74	20.81	19.82
	100% RB	2680.0	21.77	20.97	19.85
		2593.0	21.57	20.66	19.62
		2506.0	21.74	20.84	19.88

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band 66**

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1779.3	21.63	20.18	20.14
		1745.0	21.71	21.48	20.31
		1710.7	21.44	19.97	20.19
	1 RB low	1779.3	21.89	21.70	20.05
		1745.0	21.33	20.89	20.28
		1710.7	22.30	21.81	20.48
	50% RB mid	1779.3	21.88	21.18	20.13
		1745.0	22.09	21.23	20.19
		1710.7	22.18	21.25	20.30
	100% RB	1779.3	21.03	20.06	19.06
		1745.0	21.24	20.36	19.24
		1710.7	21.26	20.37	19.34
3MHz	1 RB high	1778.5	21.50	20.29	20.07
		1745.0	21.72	21.50	20.24
		1711.5	21.28	19.88	20.16
	1 RB low	1778.5	21.81	21.54	20.16
		1745.0	21.23	20.89	20.18
		1711.5	22.16	21.82	20.39
	50% RB mid	1778.5	21.02	20.18	19.16
		1745.0	21.19	20.25	19.23
		1711.5	21.06	20.31	19.15
	100% RB	1778.5	20.98	20.16	19.11
		1745.0	21.10	20.19	19.20
		1711.5	21.25	20.50	19.49
5MHz	1 RB high	1777.5	21.59	20.32	20.09
		1745.0	21.71	21.34	20.21
		1712.5	21.39	19.90	20.25
	1 RB low	1777.5	21.88	21.55	20.04
		1745.0	21.25	20.82	20.30
		1712.5	22.31	21.75	20.47
	50% RB mid	1777.5	20.91	20.18	19.05
		1745.0	21.13	20.14	19.32
		1712.5	21.23	20.34	19.25
	100% RB	1777.5	20.97	20.18	19.11
		1745.0	21.14	20.24	19.21
		1712.5	21.35	20.47	19.47
10MHz	1 RB high	1775.0	21.57	20.29	19.98

		1745.0	21.87	21.33	20.27	
		1715.0	21.35	19.88	20.17	
		1 RB low	1775.0	21.93	21.72	20.03
			1745.0	21.27	20.91	20.26
			1715.0	22.25	21.70	20.40
		50% RB mid	1775.0	20.96	20.07	19.09
	1745.0		21.10	20.27	19.26	
	1715.0		21.12	20.27	19.11	
	100% RB	1775.0	21.03	20.18	19.14	
		1745.0	21.23	20.26	19.25	
		1715.0	21.30	20.33	19.36	
	15MHz	1 RB high	1772.5	21.56	20.24	20.13
1745.0			21.87	21.38	20.28	
1717.5			21.46	20.02	20.18	
1 RB low		1772.5	21.88	21.67	20.18	
		1745.0	21.32	20.90	20.31	
		1717.5	22.24	21.68	20.49	
50% RB mid		1772.5	20.93	20.16	19.13	
		1745.0	21.18	20.31	19.31	
		1717.5	21.11	20.33	19.21	
100% RB		1772.5	20.92	20.16	19.20	
		1745.0	21.22	20.18	19.23	
		1717.5	21.22	20.32	19.45	
20MHz	1 RB high	1770.0	21.69	20.36	20.17	
		1745.0	21.89	21.51	20.34	
		1720.0	21.47	20.07	20.33	
	1 RB low	1770.0	22.00	21.72	20.23	
		1745.0	21.38	21.01	20.31	
		1720.0	22.32	21.83	20.57	
	50% RB mid	1770.0	21.05	20.22	19.18	
		1745.0	21.25	20.34	19.35	
		1720.0	21.26	20.36	19.31	
	100% RB	1770.0	21.04	20.23	19.24	
		1745.0	21.26	20.37	19.32	
		1720.0	21.41	20.52	19.49	

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$



LTE band CA-5B

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)
				Size	Offset	Size	Offset	
5MHz/10M Hz	836.8	844.0	QPSK	1	24	1	0	22.86
				25	0	100	0	20.04
			16QAM	1	24	1	0	21.97
				25	0	100	0	20.11
			64QAM	1	24	1	0	21.32
				25	0	100	0	19.30
	831.8	839.0	QPSK	1	24	1	0	22.51
				25	0	100	0	20.74
			16QAM	1	24	1	0	22.37
				25	0	100	0	19.53
			64QAM	1	24	1	0	21.12
				25	0	100	0	19.71
	826.8	834.0	QPSK	1	24	1	0	22.44
				25	0	100	0	20.32
			16QAM	1	24	1	0	21.01
				25	0	100	0	20.43
			64QAM	1	24	1	0	21.02
				25	0	100	0	19.21
10MHz/5M Hz	839.0	846.2	QPSK	1	99	1	0	23.03
				100	0	25	0	20.96
			16QAM	1	99	1	0	22.02
				100	0	25	0	20.00
			64QAM	1	99	1	0	21.11
				100	0	25	0	19.10
	834.0	841.2	QPSK	1	99	1	0	22.99
				100	0	25	0	20.91
			16QAM	1	99	1	0	22.39
				100	0	25	0	20.09
			64QAM	1	99	1	0	21.33
				100	0	25	0	19.31
	829.0	836.2	QPSK	1	99	1	0	22.88
				100	0	25	0	20.96
			16QAM	1	99	1	0	21.67
				100	0	25	0	20.09
			64QAM	1	99	1	0	20.94
				100	0	25	0	19.11
10MHz/10 MHz	834.1	844.0	QPSK	1	49	1	0	22.89
				50	0	75	0	20.97



			16QAM	1	49	1	0	21.69
				50	0	75	0	20.12
			64QAM	1	49	1	0	21.51
				50	0	75	0	19.12
	831.6	841.5	QPSK	1	49	1	0	22.79
				50	0	75	0	20.86
			16QAM	1	49	1	0	21.86
				50	0	75	0	20.21
	64QAM	1	49	1	0	21.32		
		50	0	75	0	19.01		
	829.0	838.9	QPSK	1	49	1	0	22.95
				50	0	75	0	20.92
16QAM			1	49	1	0	22.29	
			50	0	75	0	20.13	
64QAM			1	49	1	0	20.96	
			50	0	75	0	19.13	

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

**LTE band CA-41C**

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)
				Size	Offset	Size	Offset	
5MHz/20M Hz	2668.3	2680.0	QPSK	1	24	1	0	21.21
				25	0	100	0	20.13
			16QAM	1	24	1	0	20.74
				25	0	100	0	19.67
			64QAM	1	24	1	0	20.32
				25	0	100	0	19.26
	2583.8	2595.5	QPSK	1	24	1	0	20.99
				25	0	100	0	20.12
			16QAM	1	24	1	0	20.43
				25	0	100	0	19.32
			64QAM	1	24	1	0	19.98
				25	0	100	0	19.12
2499.3	2511.0	QPSK	1	24	1	0	20.96	
			25	0	100	0	20.35	
		16QAM	1	24	1	0	20.11	
			25	0	100	0	18.93	
		64QAM	1	24	1	0	20.12	
			25	0	100	0	19.03	
20MHz/5M Hz	2675.0	2686.7	QPSK	1	99	1	0	20.98
				100	0	25	0	20.14
			16QAM	1	99	1	0	19.97
				100	0	25	0	19.17
			64QAM	1	99	1	0	19.86
				100	0	25	0	19.12
	2590.5	2602.2	QPSK	1	99	1	0	21.43
				100	0	25	0	20.31
			16QAM	1	99	1	0	20.58
				100	0	25	0	19.73
			64QAM	1	99	1	0	19.81
				100	0	25	0	19.26
2506.0	2517.7	QPSK	1	99	1	0	21.52	
			100	0	25	0	20.12	
		16QAM	1	99	1	0	19.87	
			100	0	25	0	19.12	
		64QAM	1	99	1	0	19.74	
			100	0	25	0	19.05	
10MHz/15	2670.5	2682.5	QPSK	1	49	1	0	21.32



MHz				50	0	75	0	20.10	
			16QAM	1	49	1	0	20.54	
				50	0	75	0	19.50	
			64QAM	1	49	1	0	20.03	
				50	0	75	0	19.12	
			2585.9	2597.9	QPSK	1	49	1	0
	50	0				75	0	20.12	
	16QAM	1			49	1	0	20.16	
		50			0	75	0	19.18	
	64QAM	1			49	1	0	19.84	
		50			0	75	0	19.13	
	2501.3	2513.3	QPSK	1	49	1	0	20.89	
50				0	75	0	20.10		
16QAM			1	49	1	0	19.87		
			50	0	75	0	19.12		
64QAM			1	49	1	0	19.73		
			50	0	75	0	18.99		
15MHz/10 MHz	2672.7	2684.7	QPSK	1	74	1	0	21.12	
				75	0	50	0	20.03	
			16QAM	1	74	1	0	19.94	
				75	0	50	0	19.01	
			64QAM	1	74	1	0	19.66	
				75	0	50	0	19.05	
	2588.1	2600.1	QPSK	1	74	1	0	21.31	
				75	0	50	0	20.40	
			16QAM	1	74	1	0	20.32	
				75	0	50	0	19.68	
			64QAM	1	74	1	0	19.53	
				75	0	50	0	19.13	
	2503.5	2515.5	QPSK	1	74	1	0	21.05	
				75	0	50	0	20.17	
			16QAM	1	74	1	0	20.35	
				75	0	50	0	19.60	
			64QAM	1	74	1	0	20.18	
				75	0	50	0	19.32	
	10MHz/20 MHz	2665.6	2680.0	QPSK	1	49	1	0	21.18
					50	0	100	0	20.28
				16QAM	1	49	1	0	20.38
					50	0	100	0	19.56
				64QAM	1	49	1	0	20.53
					50	0	100	0	19.12

	2583.6	2598.0	QPSK	1	49	1	0	20.97	
				50	0	100	0	19.99	
			16QAM	1	49	1	0	20.13	
				50	0	100	0	19.23	
			64QAM	1	49	1	0	19.75	
				50	0	100	0	19.06	
	2501.5	2515.9	QPSK	1	49	1	0	20.94	
				50	0	100	0	19.99	
			16QAM	1	49	1	0	20.12	
				50	0	100	0	19.45	
			64QAM	1	49	1	0	19.98	
				50	0	100	0	19.11	
20MHz/10 MHz	2670.1	2684.5	QPSK	1	99	1	0	21.12	
				100	0	50	0	20.51	
			16QAM	1	99	1	0	20.23	
				100	0	50	0	19.14	
			64QAM	1	99	1	0	19.86	
				100	0	50	0	18.91	
	2588.1	2602.5	QPSK	1	99	1	0	21.16	
				100	0	50	0	20.35	
			16QAM	1	99	1	0	20.62	
				100	0	50	0	19.32	
			64QAM	1	99	1	0	19.90	
				100	0	50	0	19.12	
	2506.0	2520.4	QPSK	1	99	1	0	21.33	
				100	0	50	0	20.12	
			16QAM	1	99	1	0	20.16	
				100	0	50	0	19.21	
			64QAM	1	99	1	0	19.64	
				100	0	50	0	18.99	
	15MHz/15 MHz	2667.5	2682.5	QPSK	1	74	1	0	21.29
					75	0	75	0	20.36
				16QAM	1	74	1	0	20.23
					75	0	75	0	19.37
				64QAM	1	74	1	0	19.90
					75	0	75	0	19.06
2585.5		2600.5	QPSK	1	74	1	0	21.32	
				75	0	75	0	20.24	
			16QAM	1	74	1	0	20.12	
				75	0	75	0	19.23	
			64QAM	1	74	1	0	19.96	
				75	0	75	0	19.96	





	2503.5	2518.5	QPSK	75	0	75	0	19.11			
				1	74	1	0	21.12			
			16QAM	75	0	75	0	20.26			
				1	74	1	0	20.12			
			64QAM	75	0	75	0	19.34			
				1	74	1	0	20.23			
15MHz/20 MHz	2662.9	2680.0	QPSK	75	0	75	0	19.18			
				1	74	1	0	21.31			
			16QAM	75	0	100	0	20.23			
				1	74	1	0	20.67			
			64QAM	75	0	100	0	19.23			
				1	74	1	0	20.01			
	2583.3	2600.4	QPSK	75	0	100	0	19.16			
				1	74	1	0	21.03			
			16QAM	75	0	100	0	20.26			
				1	74	1	0	20.48			
			64QAM	75	0	100	0	19.43			
				1	74	1	0	19.98			
	2503.8	2520.9	QPSK	75	0	100	0	19.12			
				1	74	1	0	20.99			
			16QAM	75	0	100	0	20.16			
				1	74	1	0	20.11			
			64QAM	75	0	100	0	19.41			
				1	74	1	0	19.89			
	20MHz/15 MHz	2665.1	2682.2	QPSK	75	0	100	0	19.02		
					1	99	1	0	23.68		
				16QAM	100	0	75	0	23.73		
					1	99	1	0	22.73		
				64QAM	100	0	75	0	22.52		
					1	99	1	0	20.66		
2585.6		2602.7	QPSK	100	0	75	0	20.12			
				1	99	1	0	23.58			
			16QAM	100	0	75	0	23.63			
				1	99	1	0	22.64			
			64QAM	100	0	75	0	22.63			
				1	99	1	0	20.72			
2506.0		2523.1	QPSK	100	0	75	0	20.52			
				1	99	1	0	23.31			
			16QAM	100	0	75	0	23.13			
				1	99	1	0	22.15			
							100	0	75	0	22.42
							1	99	1	0	

20MHz/20 MHz			64QAM	1	99	1	0	20.36
				100	0	75	0	20.21
	2660.2	2680.0	QPSK	1	99	1	0	21.12
				100	0	100	0	20.12
			16QAM	1	99	1	0	20.23
				100	0	100	0	19.23
			64QAM	1	99	1	0	19.95
				100	0	100	0	19.03
	2583.1	2602.9	QPSK	1	99	1	0	20.94
				100	0	100	0	20.08
			16QAM	1	99	1	0	19.91
				100	0	100	0	19.15
			64QAM	1	99	1	0	19.95
				100	0	100	0	18.99
	2506.0	2525.8	QPSK	1	99	1	0	21.12
				100	0	100	0	20.32
			16QAM	1	99	1	0	20.12
				100	0	100	0	19.29
			64QAM	1	99	1	0	19.86
				100	0	100	0	18.91

Note: Expanded measurement uncertainty is  $U = 0.49$  dB,  $k = 1.96$

### A.1.3 Radiated

#### A.1.3.1 Description

This is the test for the maximum radiated power from the EUT.

Rule Part 24.232(b) specifies, "Mobile/portable stations are limited to 2 watts e.i.r.p. Peak power" and 24.232(c) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage."

Rule Part 27.50(d) specifies "Fixed, mobile, and portable (handheld) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP".

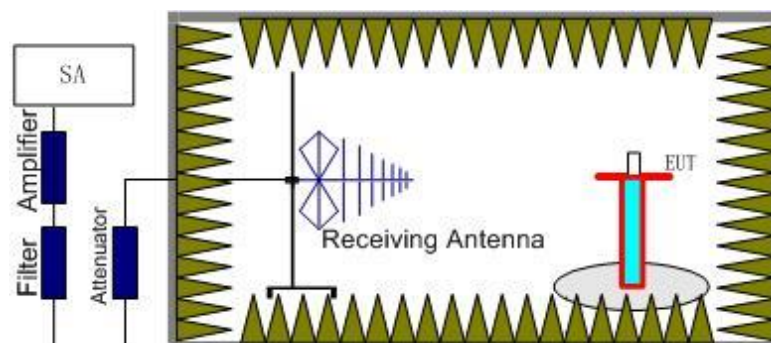
Rule Part 27.50(h)(2) specifies "Mobile stations are limited to 2.0 watts EIRP".

Rule Part 27.50(c) specifies "Portable stations (hand-held de-vices) are limited to 3 watts ERP".

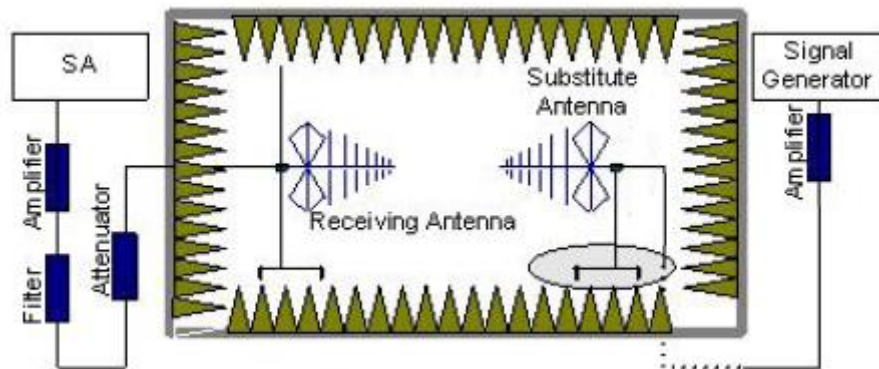
Rule Part 27.50(a)(3) specifies "For mobile and portable stations transmitting in the 2305–2315 MHz band or the 2350–2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth." Rule Part 90.635(b) specifies "The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw)."

#### A.1.3.2 Method of Measurement

1. For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, EUT was placed on a 80 cm high non-conductive stand at a 3 meter test distance from the receive antenna. For radiated measurements performed at frequencies above 1 GHz, EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. Receiving antenna was placed on the antenna mast 3 meters from the EUT. For emission measurements. The receiving antenna shall be varied from 1 m to 4 m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, a substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power ( $P_{Mea}$ ) is applied to the input of the substitution antenna and adjusts the level of the signal generator output until the value of the receiver reaches the previously recorded ( $P_r$ ). The power of signal source ( $P_{Mea}$ ) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

4. An amplifier should be connected to the Signal Source output port. And the cable should be connected between the amplifier and the substitution antenna. The cable loss ( $P_{cl}$ ), the substitution Antenna Gain(dBi) ( $G_a$ ) and the amplifier Gain ( $P_{Ag}$ ) should be recorded after test.

The measurement results are obtained as described below:

$$\text{Power (EIRP)} = P_{Mea} - P_{Ag} - P_{cl} + G_a$$

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (unit dBi) and known input power.
6. ERP can be calculated from EIRP by subtracting the gain of the dipole,  $ERP = EIRP - 2.15\text{dB}$ .

**A.1.3.3 Measurement result**
**LTE Band 2- EIRP 24. 232(b)**

Limits: ≤33dBm (2W)

**LTE Band 2\_1.4MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-18.08	-29.30	9.80	21.02	33.00	H
1880.00	-17.41	-29.40	9.80	21.79	33.00	H
1909.30	-17.74	-29.30	9.80	21.36	33.00	H

**LTE Band 2\_3MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-16.26	-29.30	9.80	22.84	33.00	H
1880.00	-16.32	-29.40	9.80	22.88	33.00	H
1908.50	-16.10	-29.30	9.80	23.00	33.00	H

**LTE Band 2\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-16.10	-29.30	9.80	23.00	33.00	H
1880.00	-16.49	-29.40	9.80	22.71	33.00	H
1907.50	-16.31	-29.30	9.80	22.79	33.00	H

**LTE Band 2\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-16.33	-29.30	9.80	22.77	33.00	H
1880.00	-16.21	-29.40	9.80	22.99	33.00	H
1905.00	-16.47	-29.30	9.80	22.63	33.00	H

**LTE Band 2\_15MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-16.16	-29.30	9.80	22.94	33.00	H
1880.00	-16.40	-29.40	9.80	22.80	33.00	H
<b>1902.50</b>	<b>-15.75</b>	<b>-29.30</b>	<b>9.80</b>	<b>23.35</b>	<b>33.00</b>	<b>H</b>

**LTE Band 2\_20 MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-16.09	-29.30	9.80	23.01	33.00	H
1880.00	-16.67	-29.40	9.80	22.53	33.00	H
1900.00	-16.31	-29.30	9.80	22.79	33.00	H

**LTE Band 2\_1.4MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-18.72	-29.30	9.80	20.38	33.00	H
1880.00	-17.05	-29.40	9.80	22.15	33.00	H
1909.30	-17.77	-29.30	9.80	21.33	33.00	H

**LTE Band 2\_3MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-16.26	-29.30	9.80	22.84	33.00	H
1880.00	-16.19	-29.40	9.80	23.01	33.00	H
1908.50	-16.83	-29.30	9.80	22.27	33.00	H

**LTE Band 2\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-16.26	-29.30	9.80	22.84	33.00	H
1880.00	-16.40	-29.40	9.80	22.80	33.00	H
1907.50	-16.06	-29.30	9.80	23.04	33.00	H

**LTE Band 2\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-16.07	-29.30	9.80	23.03	33.00	H
1880.00	-16.19	-29.40	9.80	23.01	33.00	H
1905.00	-16.39	-29.30	9.80	22.71	33.00	H

**LTE Band 2\_15MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-16.32	-29.30	9.80	22.78	33.00	H
1880.00	-16.14	-29.40	9.80	23.06	33.00	H
1902.50	-16.32	-29.30	9.80	22.78	33.00	H

**LTE Band 2\_20 MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-16.32	-29.30	9.80	22.78	33.00	H
1880.00	-16.41	-29.40	9.80	22.79	33.00	H
1900.00	-16.11	-29.30	9.80	22.99	33.00	H

**LTE Band 2\_1.4MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-19.11	-29.30	9.80	19.99	33.00	H
1880.00	-18.19	-29.40	9.80	21.01	33.00	H
1909.30	-18.49	-29.30	9.80	20.61	33.00	H

**LTE Band 2\_3MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-16.13	-29.30	9.80	22.97	33.00	H
1880.00	-16.30	-29.40	9.80	22.90	33.00	H
1908.50	-16.11	-29.30	9.80	22.99	33.00	H

**LTE Band 2\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-16.41	-29.30	9.80	22.69	33.00	H
1880.00	-16.37	-29.40	9.80	22.83	33.00	H
1907.50	-16.60	-29.30	9.80	22.50	33.00	H

**LTE Band 2\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-16.59	-29.30	9.80	22.51	33.00	H
1880.00	-16.21	-29.40	9.80	22.99	33.00	H
1905.00	-16.34	-29.30	9.80	22.76	33.00	H

**LTE Band 2\_15MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-16.20	-29.30	9.80	22.90	33.00	H
1880.00	-16.27	-29.40	9.80	22.93	33.00	H
1902.50	-16.31	-29.30	9.80	22.79	33.00	H

**LTE Band 2\_20 MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-16.31	-29.30	9.80	22.79	33.00	H
1880.00	-16.20	-29.40	9.80	23.00	33.00	H
1900.00	-16.57	-29.30	9.80	22.53	33.00	H

Peak EIRP (dBm)=P<sub>Mea</sub>(-15.75dBm)-(P<sub>cl</sub>+P<sub>Ag</sub>)(-29.30dB)+G<sub>a</sub>(9.80dB)=23.35dBm

**LTE Band 4- EIRP 27.50(d)**
**Limits:** ≤30dBm (1W)

**LTE Band 4\_1.4MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-15.27	-29.60	8.10	22.43	30.00	H
1732.50	-14.88	-29.60	8.10	22.82	30.00	H
1754.30	-14.81	-29.50	8.10	22.79	30.00	H

**LTE Band 4\_3MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-15.02	-29.60	8.10	22.68	30.00	H
1732.50	-14.55	-29.60	8.10	23.15	30.00	H
1753.50	-14.89	-29.50	8.10	22.71	30.00	H

**LTE Band 4\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-14.86	-29.60	8.10	22.84	30.00	H
1732.50	-14.91	-29.60	8.10	22.79	30.00	H
1752.50	-15.09	-29.50	8.10	22.51	30.00	H

**LTE Band 4\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-15.16	-29.60	8.10	22.54	30.00	H
1732.50	-14.80	-29.60	8.10	22.90	30.00	H
1750.00	-14.81	-29.50	8.10	22.79	30.00	H

**LTE Band 4\_15MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-14.80	-29.60	8.10	22.90	30.00	H
1732.50	-14.90	-29.60	8.10	22.80	30.00	H
1747.50	-14.61	-29.50	8.10	22.99	30.00	H

**LTE Band 4\_20MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-14.91	-29.60	8.10	22.79	30.00	H
1732.50	-15.36	-29.60	8.10	22.34	30.00	H
1745.00	-15.07	-29.50	8.10	22.53	30.00	H



**LTE Band 4\_1.4MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-14.90	-29.60	8.10	22.80	30.00	H
1732.50	-14.91	-29.60	8.10	22.79	30.00	H
1754.30	-14.60	-29.50	8.10	23.00	30.00	H

**LTE Band 4\_3MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-14.92	-29.60	8.10	22.78	30.00	H
1732.50	-14.70	-29.60	8.10	23.00	30.00	H
1753.50	-14.81	-29.50	8.10	22.79	30.00	H

**LTE Band 4\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-14.82	-29.60	8.10	22.88	30.00	H
1732.50	-14.60	-29.60	8.10	23.10	30.00	H
1752.50	-14.60	-29.50	8.10	23.00	30.00	H

**LTE Band 4\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-14.70	-29.60	8.10	23.00	30.00	H
1732.50	-14.99	-29.60	8.10	22.71	30.00	H
1750.00	-14.81	-29.50	8.10	22.79	30.00	H

**LTE Band 4\_15MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-14.91	-29.60	8.10	22.79	30.00	H
1732.50	-14.87	-29.60	8.10	22.83	30.00	H
1747.50	-14.81	-29.50	8.10	22.79	30.00	H

**LTE Band 4\_20MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-15.19	-29.60	8.10	22.51	30.00	H
<b>1732.50</b>	<b>-12.69</b>	<b>-29.60</b>	<b>8.10</b>	<b>25.01</b>	<b>30.00</b>	<b>H</b>
1745.00	-14.59	-29.50	8.10	23.01	30.00	H

**LTE Band 4\_1.4MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-14.80	-29.60	8.10	22.90	30.00	H
1732.50	-14.80	-29.60	8.10	22.90	30.00	H
1754.30	-14.86	-29.50	8.10	22.74	30.00	H

**LTE Band 4\_3MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-15.24	-29.60	8.10	22.46	30.00	H
1732.50	-14.70	-29.60	8.10	23.00	30.00	H
1753.50	-14.59	-29.50	8.10	23.01	30.00	H

**LTE Band 4\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-14.89	-29.60	8.10	22.81	30.00	H
1732.50	-14.88	-29.60	8.10	22.82	30.00	H
1752.50	-14.76	-29.50	8.10	22.84	30.00	H

**LTE Band 4\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-15.09	-29.60	8.10	22.61	30.00	H
1732.50	-14.69	-29.60	8.10	23.01	30.00	H
1750.00	-14.65	-29.50	8.10	22.95	30.00	H

**LTE Band 4\_15MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-15.05	-29.60	8.10	22.65	30.00	H
1732.50	-14.70	-29.60	8.10	23.00	30.00	H
1747.50	-14.70	-29.50	8.10	22.90	30.00	H

**LTE Band 4\_20MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-15.83	-29.60	8.10	21.87	30.00	H
1732.50	-14.75	-29.60	8.10	22.95	30.00	H
1745.00	-15.16	-29.50	8.10	22.44	30.00	H

Peak EIRP (dBm)=P<sub>Mea</sub>(-12.69dBm)-(P<sub>cl</sub>+P<sub>Ag</sub>)(-29.60dB)+G<sub>a</sub>(8.10dB) =25.01dBm

**LTE Band 5- ERP 22.913(a)**
**Limits:** ≤38.45dBm (7W)

**LTE Band 5\_1.4MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.70	-11.75	-33.60	-0.30	2.15	19.40	38.45	H
836.50	-11.34	-33.50	-0.30	2.15	19.71	38.45	H
<b>848.30</b>	<b>-10.98</b>	<b>-33.50</b>	<b>-0.30</b>	<b>2.15</b>	<b>20.07</b>	<b>38.45</b>	<b>H</b>

**LTE Band 5\_3MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
825.50	-14.36	-33.60	-0.30	2.15	16.79	38.45	H
836.50	-13.54	-33.50	-0.30	2.15	17.51	38.45	H
847.50	-13.60	-33.50	-0.30	2.15	17.45	38.45	H

**LTE Band 5\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
826.50	-13.77	-33.60	-0.30	2.15	17.38	38.45	H
836.50	-13.51	-33.50	-0.30	2.15	17.54	38.45	H
846.50	-13.50	-33.50	-0.30	2.15	17.55	38.45	H

**LTE Band 5\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
829.00	-13.67	-33.60	-0.30	2.15	17.48	38.45	H
836.50	-13.67	-33.50	-0.30	2.15	17.38	38.45	H
844.00	-13.42	-33.50	-0.30	2.15	17.63	38.45	H

**LTE Band 5\_1.4MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.70	-12.01	-33.60	-0.30	2.15	19.14	38.45	H
836.50	-11.51	-33.50	-0.30	2.15	19.54	38.45	H
848.30	-11.19	-33.50	-0.30	2.15	19.86	38.45	H

**LTE Band 5\_3MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
825.50	-14.14	-33.60	-0.30	2.15	17.01	38.45	H
836.50	-13.26	-33.50	-0.30	2.15	17.79	38.45	H
847.50	-13.80	-33.50	-0.30	2.15	17.25	38.45	H

**LTE Band 5\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
826.50	-13.86	-33.60	-0.30	2.15	17.29	38.45	H
836.50	-13.36	-33.50	-0.30	2.15	17.69	38.45	H
846.50	-13.96	-33.50	-0.30	2.15	17.09	38.45	H

**LTE Band 5\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
829.00	-13.92	-33.60	-0.30	2.15	17.23	38.45	H
836.50	-13.21	-33.50	-0.30	2.15	17.84	38.45	H
844.00	-13.71	-33.50	-0.30	2.15	17.34	38.45	H

**LTE Band 5\_1.4MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.70	-12.77	-33.60	-0.30	2.15	18.38	38.45	H
836.50	-12.60	-33.50	-0.30	2.15	18.45	38.45	H
848.30	-12.19	-33.50	-0.30	2.15	18.86	38.45	H

**LTE Band 5\_3MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
825.50	-14.52	-33.60	-0.30	2.15	16.63	38.45	H
836.50	-14.29	-33.50	-0.30	2.15	16.76	38.45	H
847.50	-15.04	-33.50	-0.30	2.15	16.01	38.45	H

**LTE Band 5\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
826.50	-14.20	-33.60	-0.30	2.15	16.95	38.45	H
836.50	-14.13	-33.50	-0.30	2.15	16.92	38.45	H
846.50	-14.78	-33.50	-0.30	2.15	16.27	38.45	H

**LTE Band 5\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
829.00	-14.40	-33.60	-0.30	2.15	16.75	38.45	H
836.50	-14.57	-33.50	-0.30	2.15	16.48	38.45	H
844.00	-14.99	-33.50	-0.30	2.15	16.06	38.45	H

Peak ERP (dBm)=P<sub>Mea</sub>(-10.98dBm)-(P<sub>ci</sub>+P<sub>Ag</sub>)(-33.50dB)+G<sub>a</sub>(-0.30dB) -2.15dB =20.07dBm

**LTE Band 7- EIRP 27.50(h)(2)****Limits:** ≤33 dBm (2W)**LTE Band 7\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2502.50	-18.90	-28.70	10.70	20.50	33.00	V
2535.00	-17.05	-28.60	10.70	22.25	33.00	V
2567.50	-18.65	-28.60	10.70	20.65	33.00	V

**LTE Band 7\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2505.00	-18.64	-28.70	10.70	20.76	33.00	H
2535.00	-16.72	-28.60	10.70	22.58	33.00	H
2565.00	-18.40	-28.60	10.70	20.90	33.00	H

**LTE Band 7\_15MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dB)	EIRP(dBm)	Limit(dBm)	Polarization
2507.50	-17.73	-28.70	10.70	21.67	33.00	H
2535.00	-16.51	-28.60	10.70	22.79	33.00	H
2562.50	-16.89	-28.60	10.70	22.41	33.00	H

**LTE Band 7\_20MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2510.00	-18.58	-28.70	10.70	20.82	33.00	H
<b>2535.00</b>	<b>-16.30</b>	<b>-28.60</b>	<b>10.70</b>	<b>23.00</b>	<b>33.00</b>	<b>H</b>
2560.00	-17.55	-28.60	10.70	21.75	33.00	H

**LTE Band 7\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2502.50	-18.65	-28.70	10.70	20.75	33.00	H
2535.00	-16.79	-28.60	10.70	22.51	33.00	H
2567.50	-16.51	-28.60	10.70	22.79	33.00	H

**LTE Band 7\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2505.00	-18.67	-28.70	10.70	20.73	33.00	H
2535.00	-16.62	-28.60	10.70	22.68	33.00	H
2565.00	-17.44	-28.60	10.70	21.86	33.00	H

**LTE Band 7\_15MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2507.50	-17.59	-28.70	10.70	21.81	33.00	H
2535.00	-16.52	-28.60	10.70	22.78	33.00	H
2562.50	-16.88	-28.60	10.70	22.42	33.00	H

**LTE Band 7\_20MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2510.00	-18.16	-28.70	10.70	21.24	33.00	H
2535.00	-16.51	-28.60	10.70	22.79	33.00	H
2560.00	-17.18	-28.60	10.70	22.12	33.00	H

**LTE Band 7\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2502.50	-18.64	-28.70	10.70	20.76	33.00	H
2535.00	-17.01	-28.60	10.70	22.29	33.00	H
2567.50	-18.92	-28.60	10.70	20.38	33.00	H

**LTE Band 7\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2505.00	-19.42	-28.70	10.70	19.98	33.00	H
2535.00	-16.96	-28.60	10.70	22.34	33.00	H
2565.00	-18.51	-28.60	10.70	20.79	33.00	H

**LTE Band 7\_15MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2507.50	-18.61	-28.70	10.70	20.79	33.00	H
2535.00	-16.58	-28.60	10.70	22.72	33.00	H
2562.50	-17.67	-28.60	10.70	21.63	33.00	H

**LTE Band 7\_20MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	G <sub>a</sub> Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2510.00	-19.43	-28.70	10.70	19.97	33.00	H
2535.00	-17.03	-28.60	10.70	22.27	33.00	H
2560.00	-18.20	-28.60	10.70	21.10	33.00	H

Peak EIRP (dBm)=P<sub>Mea</sub>(-16.30dBm)-(P<sub>ci</sub>+P<sub>Ag</sub>)(-28.60dB)+G<sub>a</sub>(10.70dB) =23.00dBm



**LTE Band 12 - ERP 27.50(c)(10)**
**Limits:**  $\leq 34.77\text{dBm}$  (3W)

**LTE Band 12\_1.4MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
699.70	-15.70	-34.80	-0.80	2.15	16.15	34.77	H
707.50	-15.18	-34.70	-0.80	2.15	16.57	34.77	H
715.30	-14.75	-34.70	-0.80	2.15	17.00	34.77	H

**LTE Band 12\_3MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
700.50	-18.56	-34.80	-0.80	2.15	13.29	34.77	H
707.50	-17.76	-34.70	-0.80	2.15	13.99	34.77	H
714.50	-17.21	-34.70	-0.80	2.15	14.54	34.77	H

**LTE Band 12\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
701.50	-18.53	-34.80	-0.80	2.15	13.32	34.77	H
707.50	-17.65	-34.70	-0.80	2.15	14.10	34.77	H
713.50	-17.34	-34.70	-0.80	2.15	14.41	34.77	H

**LTE Band 12\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
704.00	-18.89	-34.80	-0.80	2.15	12.96	34.77	H
707.50	-18.30	-34.70	-0.80	2.15	13.45	34.77	H
711.00	-17.68	-34.70	-0.80	2.15	14.07	34.77	H

**LTE Band 12\_1.4MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
699.70	-15.76	-34.80	-0.80	2.15	16.09	34.77	H
707.50	-14.77	-34.70	-0.80	2.15	16.98	34.77	H
<b>715.30</b>	<b>-14.55</b>	<b>-34.70</b>	<b>-0.80</b>	<b>2.15</b>	<b>17.20</b>	<b>34.77</b>	<b>H</b>

**LTE Band 12\_3MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
700.50	-18.57	-34.80	-0.80	2.15	13.28	34.77	H
707.50	-17.26	-34.70	-0.80	2.15	14.49	34.77	H
714.50	-16.94	-34.70	-0.80	2.15	14.81	34.77	H

**LTE Band 12\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
701.50	-18.36	-34.80	-0.80	2.15	13.49	34.77	H
707.50	-17.46	-34.70	-0.80	2.15	14.29	34.77	H
713.50	-17.20	-34.70	-0.80	2.15	14.55	34.77	H

**LTE Band 12\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
704.00	-18.64	-34.80	-0.80	2.15	13.21	34.77	H
707.50	-17.77	-34.70	-0.80	2.15	13.98	34.77	H
711.00	-17.04	-34.70	-0.80	2.15	14.71	34.77	H

**LTE Band 12\_1.4MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
699.70	-16.39	-34.80	-0.80	2.15	15.46	34.77	V
707.50	-15.67	-34.70	-0.80	2.15	16.08	34.77	V
715.30	-15.60	-34.70	-0.80	2.15	16.15	34.77	V

**LTE Band 12\_3MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
700.50	-19.41	-34.80	-0.80	2.15	12.44	34.77	V
707.50	-18.28	-34.70	-0.80	2.15	13.47	34.77	V
714.50	-18.02	-34.70	-0.80	2.15	13.73	34.77	V

**LTE Band 12\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
701.50	-19.40	-34.80	-0.80	2.15	12.45	34.77	V
707.50	-18.22	-34.70	-0.80	2.15	13.53	34.77	V
713.50	-18.24	-34.70	-0.80	2.15	13.51	34.77	V

**LTE Band 12\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
704.00	-19.36	-34.80	-0.80	2.15	12.49	34.77	V
707.50	-19.17	-34.70	-0.80	2.15	12.58	34.77	V
711.00	-18.63	-34.70	-0.80	2.15	13.12	34.77	V

Peak ERP (dBm)=P<sub>Mea</sub>(-14.55Bm)-(P<sub>cl</sub>+P<sub>Ag</sub>)(-34.70dB)+G<sub>a</sub>(-0.80dB) -2.15dB =17.20dBm

**LTE Band 13- ERP 27.50(b)(10)**
**Limits:** ≤34.77dBm (3W)

**LTE Band 13\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
779.50	-11.10	-34.00	-0.30	2.15	20.45	34.77	V
782.00	-10.81	-34.00	-0.30	2.15	20.74	34.77	V
784.50	-11.11	-34.00	-0.30	2.15	20.44	34.77	V

**LTE Band 13\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
782.00	-11.52	-34.00	-0.30	2.15	20.03	34.77	V

**LTE Band 13\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
779.50	-11.07	-34.00	-0.30	2.15	20.48	34.77	V
<b>782.00</b>	<b>-10.63</b>	<b>-34.00</b>	<b>-0.30</b>	<b>2.15</b>	<b>20.92</b>	<b>34.77</b>	<b>V</b>
784.50	-11.46	-34.00	-0.30	2.15	20.09	34.77	V

**LTE Band 13\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
782.00	-11.61	-34.00	-0.30	2.15	19.94	34.77	V

**LTE Band 13\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
779.50	-12.04	-34.00	-0.30	2.15	19.51	34.77	V
782.00	-11.64	-34.00	-0.30	2.15	19.91	34.77	V
784.50	-12.28	-34.00	-0.30	2.15	19.27	34.77	V

**LTE Band 13\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
782.00	-12.45	-34.00	-0.30	2.15	19.10	34.77	V

 Peak ERP (dBm)=P<sub>Mea</sub>(-10.63dBm)-(P<sub>cl</sub>+P<sub>Ag</sub>)(-34.00dB)+G<sub>a</sub>(-0.30dB) -2.15dB =20.92dBm

**LTE Band 14- ERP 90.541(a)(6)**
**Limits:** ≤34.77dBm (3W)

**LTE Band 14\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
790.50	-12.88	-34.00	-0.30	2.15	18.67	34.77	H
793.00	-12.64	-33.90	-0.30	2.15	18.81	34.77	H
795.50	-12.51	-33.90	-0.30	2.15	18.94	34.77	H

**LTE Band 14\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
793.00	-12.73	-33.90	-0.30	2.15	18.72	34.77	H

**LTE Band 14\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
790.50	-12.79	-34.00	-0.30	2.15	18.76	34.77	H
793.00	-12.72	-33.90	-0.30	2.15	18.73	34.77	H
<b>795.50</b>	<b>-12.63</b>	<b>-33.90</b>	<b>-0.30</b>	<b>2.15</b>	<b>18.82</b>	<b>34.77</b>	<b>H</b>

**LTE Band 14\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
793.00	-12.80	-33.90	-0.30	2.15	18.65	34.77	H

**LTE Band 14\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
790.50	-13.71	-34.00	-0.30	2.15	17.84	34.77	H
793.00	-13.64	-33.90	-0.30	2.15	17.81	34.77	H
795.50	-13.41	-33.90	-0.30	2.15	18.04	34.77	H

**LTE Band 14\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
793.00	-13.72	-33.90	-0.30	2.15	17.73	34.77	H

 Peak ERP (dBm)=P<sub>Mea</sub>(-12.63dBm)-(P<sub>cl</sub>+P<sub>Ag</sub>)(-33.90dB)+G<sub>a</sub>(-0.30)-2.15dB =18.82dBm

**LTE Band 17 - ERP 27.50(c)(10)**
**Limits:** ≤34.77dBm (3W)

**LTE Band 17\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
<b>706.50</b>	<b>-14.43</b>	<b>-34.70</b>	<b>-0.80</b>	<b>2.15</b>	<b>17.32</b>	<b>34.77</b>	<b>H</b>
710.00	-15.34	-34.70	-0.80	2.15	16.41	34.77	H
713.50	-15.11	-34.70	-0.80	2.15	16.64	34.77	H

**LTE Band 17\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
709.00	-15.66	-34.70	-0.80	2.15	16.09	34.77	H
710.00	-15.38	-34.70	-0.80	2.15	16.37	34.77	H
711.00	-15.41	-34.70	-0.80	2.15	16.34	34.77	H

**LTE Band 17\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
706.50	-15.36	-34.70	-0.80	2.15	16.39	34.77	V
710.00	-15.25	-34.70	-0.80	2.15	16.50	34.77	V
713.50	-15.19	-34.70	-0.80	2.15	16.56	34.77	V

**LTE Band 17\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
709.00	-15.07	-34.70	-0.80	2.15	16.68	34.77	V
710.00	-14.88	-34.70	-0.80	2.15	16.87	34.77	V
711.00	-15.06	-34.70	-0.80	2.15	16.69	34.77	V

**LTE Band 17\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
706.50	-16.49	-34.70	-0.80	2.15	15.26	34.77	V
710.00	-15.89	-34.70	-0.80	2.15	15.86	34.77	V
713.50	-16.02	-34.70	-0.80	2.15	15.73	34.77	V

**LTE Band 17\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
709.00	-16.15	-34.70	-0.80	2.15	15.60	34.77	V
710.00	-16.35	-34.70	-0.80	2.15	15.40	34.77	V
711.00	-16.11	-34.70	-0.80	2.15	15.64	34.77	V

Peak ERP (dBm)=P<sub>Mea</sub>(-14.43dBm)-(P<sub>cl</sub>+P<sub>Ag</sub>)(-34.70dB)+G<sub>a</sub>(-0.80dB) -2.15dB =17.32dBm



**LTE Band 25- EIRP 24. 232(c)**

**Limits:** ≤33dBm (2W)

**LTE Band 25\_1.4MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-17.69	-29.30	9.80	21.41	33.00	H
1882.50	-16.61	-29.40	9.80	22.59	33.00	H
1914.30	-18.26	-29.30	9.80	20.84	33.00	H

**LTE Band 25\_3MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-17.49	-29.30	9.80	21.61	33.00	H
1882.50	-16.16	-29.40	9.80	23.04	33.00	H
1913.50	-17.28	-29.30	9.80	21.82	33.00	H

**LTE Band 25\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-17.61	-29.30	9.80	21.49	33.00	H
1882.50	-16.37	-29.40	9.80	22.83	33.00	H
1912.50	-17.73	-29.30	9.80	21.37	33.00	H

**LTE Band 25\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-17.33	-29.30	9.80	21.77	33.00	H
1882.00	-16.18	-29.40	9.80	23.02	33.00	H
1910.00	-17.51	-29.30	9.80	21.59	33.00	H

**LTE Band 25\_15MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-17.26	-29.30	9.80	21.84	33.00	H
<b>1882.50</b>	<b>-16.02</b>	<b>-29.40</b>	<b>9.80</b>	<b>23.18</b>	<b>33.00</b>	<b>H</b>
1907.50	-17.13	-29.30	9.80	21.97	33.00	H

**LTE Band 25\_20 MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-17.19	-29.30	9.80	21.91	33.00	H
1882.50	-16.21	-29.40	9.80	22.99	33.00	H
1905.00	-16.64	-29.30	9.80	22.46	33.00	H



**LTE Band 25\_1.4MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-17.82	-29.30	9.80	21.28	33.00	H
1882.50	-16.22	-29.40	9.80	22.98	33.00	H
1914.30	-18.36	-29.30	9.80	20.74	33.00	H

**LTE Band 25\_3MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-17.16	-29.30	9.80	21.94	33.00	H
1882.50	-16.22	-29.40	9.80	22.98	33.00	H
1913.50	-17.89	-29.30	9.80	21.21	33.00	H

**LTE Band 25\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-17.48	-29.30	9.80	21.62	33.00	H
1882.50	-16.32	-29.40	9.80	22.88	33.00	H
1912.50	-17.12	-29.30	9.80	21.98	33.00	H

**LTE Band 25\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-17.05	-29.30	9.80	22.05	33.00	H
1882.00	-16.66	-29.40	9.80	22.54	33.00	H
1910.00	-17.08	-29.30	9.80	22.02	33.00	H

**LTE Band 25\_15MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-17.20	-29.30	9.80	21.90	33.00	H
1882.50	-16.19	-29.40	9.80	23.01	33.00	H
1907.50	-16.61	-29.30	9.80	22.49	33.00	H

**LTE Band 25\_20 MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-17.25	-29.30	9.80	21.85	33.00	H
1882.50	-16.32	-29.40	9.80	22.88	33.00	H
1905.00	-16.51	-29.30	9.80	22.59	33.00	H

**LTE Band 25\_1.4MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-18.65	-29.30	9.80	20.45	33.00	H
1882.50	-16.94	-29.40	9.80	22.26	33.00	H
1914.30	-19.22	-29.30	9.80	19.88	33.00	H

**LTE Band 25\_3MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-18.16	-29.30	9.80	20.94	33.00	H
1882.50	-16.53	-29.40	9.80	22.67	33.00	H
1913.50	-18.72	-29.30	9.80	20.38	33.00	H

**LTE Band 25\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-18.38	-29.30	9.80	20.72	33.00	H
1882.50	-16.54	-29.40	9.80	22.66	33.00	H
1912.50	-18.31	-29.30	9.80	20.79	33.00	H

**LTE Band 25\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-18.07	-29.30	9.80	21.03	33.00	H
1882.00	-16.50	-29.40	9.80	22.70	33.00	H
1910.00	-18.50	-29.30	9.80	20.60	33.00	H

**LTE Band 25\_15MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-18.07	-29.30	9.80	21.03	33.00	H
1882.50	-16.79	-29.40	9.80	22.41	33.00	H
1907.50	-17.75	-29.30	9.80	21.35	33.00	H

**LTE Band 25\_20 MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-18.15	-29.30	9.80	20.95	33.00	H
1882.50	-16.91	-29.40	9.80	22.29	33.00	H
1905.00	-17.06	-29.30	9.80	22.04	33.00	H

Peak EIRP (dBm)=P<sub>Mea</sub>(-16.02dBm)-(P<sub>ci</sub>+P<sub>Ag</sub>)(-29.40dB)+G<sub>a</sub>(9.80dB)=23.18dBm

**LTE band 26(814MHz-824MHz)- ERP 90.635(b)**
**Limits:** ≤50.00dBm (100W)

**LTE band 26(814MHz-824MHz)\_1.4MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
814.70	-11.88	-33.70	-0.30	2.15	19.37	50.00	H
819.00	-11.65	-33.60	-0.30	2.15	19.50	50.00	H
823.30	-11.36	-33.60	-0.30	2.15	19.79	50.00	H

**LTE band 26(814MHz-824MHz)\_3MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
815.50	-11.29	-33.70	-0.30	2.15	19.96	50.00	H
819.00	-11.43	-33.60	-0.30	2.15	19.72	50.00	H
822.50	-11.06	-33.60	-0.30	2.15	20.09	50.00	H

**LTE band 26(814MHz-824MHz)\_5MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
816.50	-11.28	-33.70	-0.30	2.15	19.97	50.00	H
819.00	-11.34	-33.60	-0.30	2.15	19.81	50.00	H
<b>821.50</b>	<b>-11.02</b>	<b>-33.60</b>	<b>-0.30</b>	<b>2.15</b>	<b>20.13</b>	<b>50.00</b>	<b>H</b>

**LTE band 26(814MHz-824MHz)\_10MHz\_QPSK**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>ci</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
819.00	-11.19	-33.60	-0.30	2.15	19.96	50.00	H
819.00	-11.18	-33.60	-0.30	2.15	19.97	50.00	H
819.00	-11.20	-33.60	-0.30	2.15	19.95	50.00	H

**LTE band 26(814MHz-824MHz)\_1.4MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
814.70	-11.82	-33.70	-0.30	2.15	19.43	50.00	H
819.00	-11.59	-33.60	-0.30	2.15	19.56	50.00	H
823.30	-11.56	-33.60	-0.30	2.15	19.59	50.00	H

**LTE band 26(814MHz-824MHz)\_3MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
815.50	-11.24	-33.70	-0.30	2.15	20.01	50.00	H
819.00	-11.24	-33.60	-0.30	2.15	19.91	50.00	H
822.50	-11.10	-33.60	-0.30	2.15	20.05	50.00	H

**LTE band 26(814MHz-824MHz)\_5MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
816.50	-11.25	-33.70	-0.30	2.15	20.00	50.00	H
819.00	-11.27	-33.60	-0.30	2.15	19.88	50.00	H
821.50	-11.25	-33.60	-0.30	2.15	19.90	50.00	H

**LTE band 26(814MHz-824MHz)\_10MHz\_16QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
819.00	-11.19	-33.60	-0.30	2.15	19.96	50.00	H
819.00	-11.14	-33.60	-0.30	2.15	20.01	50.00	H
819.00	-11.26	-33.60	-0.30	2.15	19.89	50.00	H

**LTE band 26(814MHz-824MHz)\_1.4MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
814.70	-12.91	-33.70	-0.30	2.15	18.34	50.00	H
819.00	-12.60	-33.60	-0.30	2.15	18.55	50.00	H
823.30	-12.57	-33.60	-0.30	2.15	18.58	50.00	H

**LTE band 26(814MHz-824MHz)\_3MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
815.50	-12.25	-33.70	-0.30	2.15	19.00	50.00	H
819.00	-12.26	-33.60	-0.30	2.15	18.89	50.00	H
822.50	-12.21	-33.60	-0.30	2.15	18.94	50.00	H

**LTE band 26(814MHz-824MHz)\_5MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
816.50	-12.24	-33.70	-0.30	2.15	19.01	50.00	H
819.00	-12.32	-33.60	-0.30	2.15	18.83	50.00	H
821.50	-12.24	-33.60	-0.30	2.15	18.91	50.00	H

**LTE band 26(814MHz-824MHz)\_10MHz\_64QAM**

Frequency(MHz)	P <sub>Mea</sub> (dBm)	P <sub>cl</sub> (dB)+ P <sub>Ag</sub> (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
819.00	-12.27	-33.60	-0.30	2.15	18.88	50.00	H
819.00	-12.31	-33.60	-0.30	2.15	18.84	50.00	H
819.00	-12.23	-33.60	-0.30	2.15	18.92	50.00	H

Peak ERP (dBm)=P<sub>Mea</sub>(-11.02dBm)-(P<sub>cl</sub>+P<sub>Ag</sub>)(-33.60dB)+G<sub>a</sub>(-0.30dB) -2.15 =20.13dBm