TEST REPORT

No. I20Z62070-WMD03

for

TCL Communication Ltd.

GSM/UMTS/LTE mobile phone

Model Name: T773O

FCC ID: 2ACCJN045

with

Hardware Version: 03

Software Version: v3.0.9D1Y

Issued Date: 2021-02-22

Note:

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The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

CTTL, Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I20Z62070-WMD03	Rev.0	1st edition	2021-02-22

Note: the latest revision of the test report supersedes all previous version.

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0 and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (CN0066). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Location 1: CTTL (huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191

Location 2: CTTL(Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District, Beijing, P. R. China 100191

Location 3: CTTL (BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology Development Area, Beijing, P. R. China 100176

1.3. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.4. Project Data

Testing Start Date: 2020-11-24

Testing End Date: 2021-02-22

1.5. Signature

Dong Yuan

(Prepared this test report)

Zhou Yu

(Reviewed this test report)

Zhao Hui Lin

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	TCL Communication Ltd.
Address /Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact:	Gong Zhizhou
Email:	zhizhou.gong@tcl.com
Telephone:	0086-755-36611722
Fax:	0086-755-36612000-81722

2.2. Manufacturer Information

Company Name:	TCL Communication Ltd.
Address /Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact:	Gong Zhizhou
Email:	zhizhou.gong@tcl.com
Telephone:	0086-755-36611722
Fax:	0086-755-36612000-81722

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	GSM/UMTS/LTE mobile phone
Model Name	T773O
FCC ID	2ACCJN045
Antenna	Embedded
Output power	22.15dBm maximum EIRP measured for LTE band 7
Extreme vol. Limits	3.6VDC to 4.4VDC (nominal: 3.85VDC)
Extreme temp. Tolerance	0°C to +40°C

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL.

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Date of receipt
UT49a	015888000200312	03	v3.0.9D1Y	2020-11-23
UT26a	015888000200320	03	v3.0.9D1Y	2020-11-23
UT100a	015888000201914	03	v3.0.9D1Y	2021-01-26

*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
AE2	Battery

AE1

Model	TLp048A1
Manufacturer	BYD（for IEEE1725）
Capacitance	4360mAh
Nominal voltage	3.85V

AE2

Model	TLp048A7
Manufacturer	VEKEN
Capacitance	4360mAh
Nominal voltage	3.85V

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

4. Reference Documents

4.1. Documents supplied by applicant

EUT parameters, referring to Annex A for detailed information, is supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

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

Reference	Title	Version
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-19 Edition
FCC Part 22	PUBLIC MOBILE SERVICES	10-1-19 Edition
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	10-1-19 Edition
FCC Part 90	PRIVATE LAND MOBILE RADIO SERVICES	10-1-19 Edition
ANSI/TIA-603-E	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards	2016
ANSI C63.26	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services	2015
KDB 971168 D01	MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS	v03r01

5. Laboratory Environment

Control room / conducted chamber did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ˚C, Max. = 35 ˚C
Relative humidity	Min. =20 %, Max. = 80 %
Shielding effectiveness	> 110 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 0.5 Ω

Fully-anechoic chamber 2 (8.6 meters×6.1 meters×3.85 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ˚C, Max. = 30 ˚C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 1 Ω
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz

Semi-anechoic chamber 2 / Fully-anechoic chamber 3 (10 meters×6.7 meters×6.15 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ˚C, Max. = 30 ˚C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 100 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 0.5 Ω
Normalised site attenuation (NSA)	<±3.5 dB, 3 m distance
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz

6. Summary Of Test Result

LTE Band 7

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50	P
2	Emission Limit	2.1051/27.53	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	27.53	P
6	Band Edge Compliance	27.53	P
7	Conducted Spurious Emission	27.53	P
8	Peak-to-Average Power Ratio	27.50	P

LTE Band 12

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50	P
2	Emission Limit	2.1051/27.53	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	27.53	P
6	Band Edge Compliance	27.53	P
7	Conducted Spurious Emission	27.53	P
8	Peak-to-Average Power Ratio	27.50	P

LTE Band 13

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50	P
2	Emission Limit	2.1051/27.53	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	27.53	P
6	Band Edge Compliance	27.53	P
7	Conducted Spurious Emission	27.53	P
8	Peak-to-Average Power Ratio	27.50	P

LTE Band 25

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	24.232	P
2	Emission Limit	2.1051/24.238	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	24.238	P
6	Band Edge Compliance	24.238	P
7	Conducted Spurious Emission	24.238	P
8	Peak-to-Average Power Ratio	24.232	P

LTE Band 26(814MHz~824MHz)

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	90.635	P
2	Emission Limit	2.1051/90.691	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	2.1049	P
6	Band Edge Compliance	90.691	P
7	Conducted Spurious Emission	90.691	P

LTE Band 26(824MHz~849MHz)

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	22.913	P
2	Emission Limit	2.1051/22.917	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	22.917	P
6	Band Edge Compliance	22.917	P
7	Conducted Spurious Emission	22.917	P

LTE Band 41

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50	P
2	Emission Limit	2.1051/27.53	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	27.53	P
6	Band Edge Compliance	27.53	P
7	Conducted Spurious Emission	27.53	P
8	Peak-to-Average Power Ratio	27.50	P

LTE Band 66

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50	P
2	Emission Limit	2.1051/27.53	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	27.53	P
6	Band Edge Compliance	27.53	P
7	Conducted Spurious Emission	27.53	P
8	Peak-to-Average Power Ratio	27.50	P

LTE Band 71

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50	P
2	Emission Limit	2.1051/27.53	P
3	Frequency Stability	2.1055	P
4	Occupied Bandwidth	2.1049	P
5	Emission Bandwidth	27.53	P
6	Band Edge Compliance	27.53	P
7	Conducted Spurious Emission	27.53	P
8	Peak-to-Average Power Ratio	27.50	P

Terms used in Verdict column

P	Pass. The EUT complies with the essential requirements in the standard.
NP	Not Performed. The test was not performed by CTTL.
NA	Not Applicable.The test was not applicable.
BR	Re-use test data from basic model report.
F	Fail. The EUT does not comply with the essential requirements in the standard.

LTE Band 25, Band 66, Band 26, Band 12 and Band 41 overlaps the entire frequency range of LTE Band 2, Band 4, Band 5, Band 17 and Band 38. Therefore, test data provided in this report covers Band 2, Band 4, Band 5, Band 17, Band 38 as well as Band 25, Band 66, Band 26, Band 12, Band 41.
LTE Band 41 is tested by power class 3.

Explanation of worst-case configuration
The worst-case scenario for all measurements is based on the conducted output power measurement investigation results. Output power was measured on QPSK,16QAM and 64QAM modulations. It was found that QPSK was the worst case. All testing was performed using QPSK modulations to represent the worst case unless otherwise stated. The test results shown in the following sections represent the worst case emission.

7. Test Equipment Utilized

Description	Type	Series Number	Manufacture	Cal Due Date	Calibration Interval
Wideband Radio Communication Tester	CMW500	159082	R&S	2021-12-17	1 year
Spectrum Analyzer	FSU	200030	R&S	2021-06-01	1 year
Radio Communication Analyzer	MT8821C	6201763159	Anritsu	2021-08-12	1 year
Climate Chamber	SH-242	93008556	ESPEC	2023-12-23	3 years
EMI Antenna	VULB9163	9163-301	Schwarzbeck	2021-08-04	1 year
EMI Antenna(*)	3117	00119021	ETS-Lindgren	2021-02-06	1 year
EMI Antenna	3117	00058889	ETS-Lindgren	2021-09-22	1 year
EMI Antenna	3117	00119024	ETS-Lindgren	2021-05-08	1 year
EMI Antenna	9117	167	Schwarzbeck	2021-08-19	1 year
Signal Generator	N5183A	MY49060052	Agilent	2021-07-01	1 year
Test Receiver	E4440A	MY48250642	Agilent	2021-03-12	1 year
Universal Radio Communication Tester	CMW500	143008	R&S	2022-01-01	1 year
Power Amplifier	5S1G4	0341863	AR	/	/

Note:

(*):The equipment was before Cal Due Date when used.

Annex A: Measurement Results

A.1 Output Power

A.1.1 Summary

During the process of testing, the EUT was controlled via communication tester to ensure max power transmission and proper modulation.

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 7

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2567.5	23.37	22.53	21.90
		2535.0	23.63	22.78	22.03
		2502.5	23.65	23.24	22.40
	1 RB low	2567.5	23.32	22.52	21.81
		2535.0	23.60	22.73	22.16
		2502.5	23.57	23.14	22.21
	50% RB mid	2567.5	22.39	21.60	20.90
		2535.0	22.56	21.80	21.04
		2502.5	22.65	21.92	21.36
	100% RB	2567.5	22.38	21.47	20.83
		2535.0	22.55	21.74	20.95
		2502.5	22.66	21.80	21.32
10MHz	1 RB high	2565.0	23.30	22.45	21.95
		2535.0	23.53	22.57	22.14
		2505.0	23.60	23.08	22.44
	1 RB low	2565.0	23.23	22.45	21.90
		2535.0	23.45	22.51	22.14
		2505.0	23.60	22.97	22.38
	50% RB mid	2565.0	22.38	21.60	20.78
		2535.0	22.61	21.76	20.99
		2505.0	22.70	21.83	21.31
	100% RB	2565.0	22.34	21.54	20.85

		2535.0	22.58	21.69	20.96
		2505.0	22.53	21.74	21.36
15MHz	1 RB high	2562.5	23.36	22.82	21.85
		2535.0	23.59	23.07	21.93
		2507.5	23.58	22.61	22.44
	1 RB low	2562.5	23.41	22.89	21.90
		2535.0	23.51	22.99	22.17
		2507.5	23.57	22.55	22.44
	50% RB mid	2562.5	22.38	21.59	20.90
		2535.0	22.57	21.66	21.07
		2507.5	22.55	21.68	21.36
	100% RB	2562.5	22.44	21.58	20.93
		2535.0	22.57	21.69	20.96
		2507.5	22.54	21.68	21.30
20MHz	1 RB high	2560.0	23.46	22.80	21.87
		2535.0	23.58	22.97	21.98
		2510.0	23.54	22.98	22.28
	1 RB low	2560.0	23.45	22.88	21.91
		2535.0	23.59	22.99	22.23
		2510.0	23.47	22.95	22.40
	50% RB mid	2560.0	22.59	21.80	20.86
		2535.0	22.75	21.85	21.00
		2510.0	22.66	21.81	21.40
	100% RB	2560.0	22.59	21.74	20.80
		2535.0	22.74	21.85	20.99
		2510.0	22.57	21.74	21.22

LTE band 12

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	715.3	23.16	22.19	21.57
		707.5	23.22	22.26	21.57
		699.7	23.13	22.46	21.53
	1 RB low	715.3	23.18	22.22	21.59
		707.5	23.21	22.28	21.63
		699.7	23.15	22.49	21.58
	50% RB mid	715.3	23.23	22.43	21.68
		707.5	23.20	22.30	21.58
		699.7	23.20	22.36	21.59
	100% RB	715.3	22.22	21.42	20.50
		707.5	22.14	21.35	20.46
		699.7	22.13	21.06	20.42
3MHz	1 RB high	714.5	23.14	22.60	21.67
		707.5	23.17	22.22	21.62
		700.5	23.17	22.06	21.57
	1 RB low	714.5	23.22	22.63	21.70
		707.5	23.18	22.23	21.75
		700.5	23.20	22.08	21.67
	50% RB mid	714.5	22.22	21.44	20.67
		707.5	22.25	21.33	20.64
		700.5	22.23	21.37	20.60
	100% RB	714.5	22.22	21.35	20.60
		707.5	22.19	21.22	20.63
		700.5	22.15	21.25	20.49
5MHz	1 RB high	713.5	23.21	22.71	21.61
		707.5	23.20	22.31	21.59
		701.5	23.33	22.39	21.69
	1 RB low	713.5	23.14	22.69	21.65
		707.5	23.23	22.30	21.67
		701.5	23.26	22.35	21.71
	50% RB mid	713.5	22.29	21.51	20.70
		707.5	22.25	21.38	20.67
		701.5	22.19	21.35	20.57
	100% RB	713.5	22.15	21.31	20.51
		707.5	22.19	21.23	20.56
		701.5	22.23	21.34	20.58
10MHz	1 RB high	711.0	23.24	22.06	21.45
		707.5	23.14	22.47	21.48
		704.0	23.14	22.16	21.51
	1 RB low	711.0	23.14	22.11	21.74

		707.5	23.11	22.42	21.59
		704.0	23.08	22.12	21.57
	50% RB mid	711.0	22.16	21.26	20.65
		707.5	22.20	21.31	20.55
		704.0	22.24	21.35	20.63
	100% RB	711.0	22.11	21.19	20.78
		707.5	22.16	21.21	20.54
		704.0	22.17	21.30	20.58

LTE band 13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	23.16	22.22	21.85
		782.0	23.23	22.42	22.02
		779.5	23.33	22.80	22.10
	1 RB low	784.5	23.29	22.39	22.21
		782.0	23.26	22.49	22.04
		779.5	23.46	22.87	22.18
	50% RB mid	784.5	22.31	21.41	21.00
		782.0	22.39	21.48	21.05
		779.5	22.37	21.56	21.04
	100% RB	784.5	22.28	21.32	20.96
		782.0	22.31	21.38	20.95
		779.5	22.31	21.45	20.93
10MHz	1 RB high	782.0	23.26	22.05	22.22
	1 RB low	782.0	23.33	22.28	22.23
	50% RB mid	782.0	22.34	21.42	21.41
	100% RB	782.0	22.31	21.38	21.36

LTE band 25

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1914.3	23.09	22.49	21.34
		1882.5	23.07	22.23	21.26
		1850.7	23.21	22.40	21.27
	1 RB low	1914.3	23.11	22.43	21.31
		1882.5	23.08	22.23	21.37
		1850.7	23.22	22.35	21.32
	50% RB mid	1914.3	23.18	22.50	21.34
		1882.5	23.19	22.45	21.33
		1850.7	23.27	22.44	21.41
	100% RB	1914.3	22.07	21.08	20.14
		1882.5	22.07	21.37	20.18
		1850.7	22.15	21.36	20.22
3MHz	1 RB high	1913.5	23.07	22.21	21.25
		1882.5	23.19	22.15	21.44
		1851.5	23.22	22.44	21.39
	1 RB low	1913.5	23.11	22.31	21.38
		1882.5	23.19	22.17	21.41
		1851.5	23.22	22.49	21.40
	50% RB mid	1913.5	22.16	21.35	20.27
		1882.5	22.24	21.49	20.36
		1851.5	22.25	21.46	20.37
	100% RB	1913.5	22.18	21.25	20.22
		1882.5	22.23	21.37	20.20
		1851.5	22.20	21.39	20.17
5MHz	1 RB high	1912.5	23.15	22.30	21.35
		1882.5	23.29	22.45	21.46
		1852.5	23.18	22.49	21.41
	1 RB low	1912.5	23.20	22.33	21.31
		1882.5	23.31	22.49	21.42
		1852.5	23.22	22.41	21.33
	50% RB mid	1912.5	22.19	21.39	20.31
		1882.5	22.27	21.44	20.37
		1852.5	22.28	21.42	20.32
	100% RB	1912.5	22.18	21.26	20.24
		1882.5	22.26	21.38	20.31
		1852.5	22.29	21.41	20.21
10MHz	1 RB high	1910.0	23.17	22.46	21.38
		1882.5	23.24	22.43	21.47
		1855.0	23.28	22.29	21.48
	1 RB low	1910.0	23.19	22.48	21.39

		1882.5	23.30	22.46	21.46
		1855.0	23.32	22.30	21.46
	50% RB mid	1910.0	22.21	21.34	20.24
		1882.5	22.29	21.50	20.38
		1855.0	22.29	21.41	20.29
	100% RB	1910.0	22.23	21.30	20.23
		1882.5	22.26	21.42	20.35
		1855.0	22.25	21.35	20.33
15MHz	1 RB high	1907.5	23.13	22.45	21.37
		1882.5	23.12	22.13	21.45
		1857.5	23.26	22.46	21.43
	1 RB low	1907.5	23.17	22.47	21.43
		1882.5	23.23	22.21	21.45
		1857.5	23.21	22.43	21.45
	50% RB mid	1907.5	22.19	21.27	20.34
		1882.5	22.25	21.35	20.42
		1857.5	22.23	21.38	20.37
	100% RB	1907.5	22.15	21.27	20.24
		1882.5	22.22	21.36	20.31
		1857.5	22.26	21.42	20.38
20MHz	1 RB high	1905.0	23.06	22.48	21.37
		1882.5	23.20	22.46	21.38
		1860.0	23.33	22.47	21.37
	1 RB low	1905.0	23.06	22.48	21.45
		1882.5	23.19	22.47	21.48
		1860.0	23.11	22.46	21.43
	50% RB mid	1905.0	22.15	21.27	20.39
		1882.5	22.21	21.43	20.43
		1860.0	22.32	21.44	20.43
	100% RB	1905.0	22.14	21.26	20.28
		1882.5	22.18	21.34	20.36
		1860.0	22.26	21.35	20.42

LTE band 26(814MHz~824MHz)

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	823.3	23.30	22.42	21.68
		819.0	23.24	22.31	21.62
		814.7	23.21	22.26	21.59
	1 RB low	823.3	23.31	22.40	21.71
		819.0	23.23	22.33	21.64
		814.7	23.24	22.28	21.61
	50% RB mid	823.3	23.37	22.65	21.67
		819.0	23.28	22.58	21.62
		814.7	23.34	22.58	21.63
	100% RB	823.3	22.32	21.57	20.58
		819.0	22.23	21.48	20.48
		814.7	22.28	21.51	20.51
3MHz	1 RB high	822.5	23.36	22.47	21.77
		819.0	23.28	22.36	21.68
		815.5	23.31	22.39	21.69
	1 RB low	822.5	23.28	22.38	21.71
		819.0	23.29	22.37	21.67
		815.5	23.39	22.45	21.71
	50% RB mid	822.5	22.43	21.59	20.71
		819.0	22.34	21.51	20.66
		815.5	22.40	21.50	20.71
	100% RB	822.5	22.41	21.50	20.68
		819.0	22.32	21.41	20.59
		815.5	22.32	21.40	20.61
5MHz	1 RB high	821.5	23.36	22.52	21.75
		819.0	23.27	22.42	21.66
		816.5	23.31	22.43	21.67
	1 RB low	821.5	23.28	22.43	21.71
		819.0	23.31	22.43	21.71
		816.5	23.37	22.45	21.73
	50% RB mid	821.5	22.38	21.52	20.69
		819.0	22.36	21.55	20.68
		816.5	22.41	21.53	20.67
	100% RB	821.5	22.46	21.47	20.71
		819.0	22.39	21.39	20.58
		816.5	22.36	21.44	20.63
10MHz	1 RB high	819.0	23.41	22.47	21.75
	1 RB low	819.0	23.38	22.39	21.72
	50% RB mid	819.0	22.37	21.58	20.65
	100% RB	819.0	22.44	21.59	20.71

LTE band 26(824MHz~849MHz)

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	23.21	22.26	21.63
		836.5	23.19	22.31	21.64
		824.7	23.21	22.33	21.72
	1 RB low	848.3	23.18	22.26	21.69
		836.5	23.19	22.27	21.68
		824.7	23.23	22.35	21.72
	50% RB mid	848.3	23.30	22.55	21.64
		836.5	23.26	22.57	21.63
		824.7	23.34	22.62	21.71
	100% RB	848.3	22.22	21.46	20.51
		836.5	22.19	21.49	20.52
		824.7	22.26	21.56	20.58
3MHz	1 RB high	847.5	23.31	22.34	21.72
		836.5	23.27	22.38	21.75
		825.5	23.37	22.42	21.75
	1 RB low	847.5	23.35	22.38	21.73
		836.5	23.30	22.39	21.77
		825.5	23.34	22.50	21.83
	50% RB mid	847.5	22.36	21.48	20.64
		836.5	22.32	21.48	20.69
		825.5	22.38	21.52	20.74
	100% RB	847.5	22.37	21.36	20.63
		836.5	22.33	21.36	20.64
		825.5	22.39	21.43	20.67
5MHz	1 RB high	846.5	23.29	22.41	21.71
		836.5	23.37	22.53	21.85
		826.5	23.31	22.44	21.74
	1 RB low	846.5	23.33	22.47	21.78
		836.5	23.33	22.45	21.79
		826.5	23.35	22.49	21.83
	50% RB mid	846.5	22.40	21.51	20.71
		836.5	22.41	21.52	20.71
		826.5	22.44	21.56	20.79
	100% RB	846.5	22.35	21.37	20.64
		836.5	22.35	21.42	20.66
		826.5	22.40	21.46	20.71
10MHz	1 RB high	844.0	23.33	22.36	21.72
		836.5	23.36	22.43	21.82
		829.0	23.28	22.39	20.71
	1 RB low	844.0	23.40	22.46	21.88

		836.5	23.33	22.39	21.81
		829.0	23.38	22.41	21.87
	50% RB mid	844.0	22.42	21.58	20.69
		836.5	22.37	21.59	20.69
		829.0	22.43	21.62	20.73
	100% RB	844.0	22.40	21.50	20.69
		836.5	22.36	21.47	20.67
		829.0	22.43	21.51	20.72
15MHz	1 RB high	841.5	23.32	22.74	21.68
		836.5	23.34	22.78	21.74
		831.5	23.25	22.75	21.74
	1 RB low	841.5	23.35	22.83	21.85
		836.5	23.37	22.81	21.82
		831.5	23.42	22.88	21.87
	50% RB mid	841.5	22.34	21.40	20.66
		836.5	22.38	21.44	20.66
		831.5	22.36	21.45	20.68
	100% RB	841.5	22.33	21.41	20.57
		836.5	22.31	21.40	20.61
		831.5	22.38	21.45	20.62

LTE band 41

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2652.5	23.32	22.34	22.02
		2614.5	23.33	22.39	22.32
		2575.5	23.61	22.81	22.36
		2537.5	23.72	22.76	22.40
	1 RB low	2652.5	23.25	22.31	22.00
		2614.5	23.35	22.40	22.37
		2575.5	23.63	22.83	22.42
		2537.5	23.69	22.69	22.42
	50% RB mid	2652.5	22.46	21.58	21.15
		2614.5	22.41	21.52	21.50
		2575.5	22.69	21.86	21.41
		2537.5	22.80	21.94	21.56
	100% RB	2652.5	22.40	21.55	21.18
		2614.5	22.48	21.62	21.50
		2575.5	22.68	21.77	21.44
		2537.5	22.75	21.87	21.53
10MHz	1 RB high	2650.0	23.36	22.38	22.07
		2613.0	23.41	22.47	22.35
		2577.0	23.68	22.84	22.39
		2540.0	23.77	22.87	22.35
	1 RB low	2650.0	23.33	22.37	22.15
		2613.0	23.39	22.45	22.46
		2577.0	23.63	22.86	22.40
		2540.0	23.72	22.73	22.42
	50% RB mid	2650.0	22.52	21.62	21.27
		2613.0	22.49	21.55	21.56
		2577.0	22.67	21.80	21.52
		2540.0	22.80	21.91	21.56
	100% RB	2650.0	22.46	21.61	21.19
		2613.0	22.46	21.59	21.48
		2577.0	22.68	21.84	21.39
		2540.0	22.82	21.92	21.45
15MHz	1 RB high	2647.5	23.40	22.49	22.09
		2612.5	23.40	22.54	22.42
		2577.5	23.69	22.66	22.48
		2542.5	23.80	22.93	22.41
	1 RB low	2647.5	23.36	22.43	22.21

		2612.5	23.45	22.52	22.52
		2577.5	23.71	22.72	22.45
		2542.5	23.66	22.80	22.54
	50% RB mid	2647.5	22.53	21.62	21.24
		2612.5	22.50	21.59	21.54
		2577.5	22.65	21.73	21.50
		2542.5	22.84	21.88	21.50
	100% RB	2647.5	22.48	21.60	21.23
		2612.5	22.44	21.54	21.49
		2577.5	22.68	21.74	21.43
		2542.5	22.80	21.90	21.46
20MHz	1 RB high	2645	23.39	22.29	22.07
		2611	23.42	22.59	22.36
		2578	23.53	22.54	22.44
		2545	23.77	22.73	22.35
	1 RB low	2645	23.40	22.32	22.32
		2611	23.49	22.57	22.54
		2578	23.68	22.65	22.47
		2545	23.69	22.61	22.47
	50% RB mid	2645	22.48	21.58	21.23
		2611	22.47	21.60	21.53
		2578	22.67	21.77	21.46
		2545	22.87	21.95	21.49
	100% RB	2645	22.48	21.57	21.23
		2611	22.49	21.54	21.50
		2578	22.67	21.74	21.47
		2545	22.83	21.94	21.50

LTE band 66

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1779.3	23.37	22.37	21.68
		1745.0	23.33	22.42	21.70
		1710.7	23.37	22.62	21.55
	1 RB low	1779.3	23.43	22.32	21.68
		1745.0	23.31	22.43	21.73
		1710.7	23.41	22.64	21.60
	50% RB mid	1779.3	23.39	22.66	21.68
		1745.0	23.31	22.51	21.74
		1710.7	23.35	22.61	21.67
	100% RB	1779.3	22.27	21.55	20.55
		1745.0	22.22	21.53	20.60
		1710.7	22.21	21.20	20.45
3MHz	1 RB high	1778.5	23.30	22.14	21.70
		1745.0	23.34	22.65	21.62
		1711.5	23.21	22.23	21.62
	1 RB low	1778.5	23.22	22.16	21.51
		1745.0	23.28	22.63	21.68
		1711.5	23.35	22.27	21.49
	50% RB mid	1778.5	22.39	21.59	20.65
		1745.0	22.37	21.56	20.74
		1711.5	22.37	21.48	20.62
	100% RB	1778.5	22.36	21.48	20.55
		1745.0	22.28	21.46	20.63
		1711.5	22.35	21.30	20.56
5MHz	1 RB high	1777.5	23.23	22.79	21.52
		1745.0	23.25	22.38	21.60
		1712.5	23.25	22.36	21.86
	1 RB low	1777.5	23.21	22.74	21.59
		1745.0	23.24	22.33	21.59
		1712.5	23.26	22.36	21.88
	50% RB mid	1777.5	22.39	21.65	20.62
		1745.0	22.43	21.55	20.74
		1712.5	22.34	21.51	20.66
	100% RB	1777.5	22.31	21.51	20.51
		1745.0	22.29	21.40	20.55
		1712.5	22.26	21.40	20.77
10MHz	1 RB high	1775.0	23.35	22.38	21.77
		1745.0	23.35	22.27	21.74
		1715.0	23.34	22.24	21.71
	1 RB low	1775.0	23.31	22.40	21.76

		1745.0	23.29	22.32	21.75
		1715.0	23.30	22.23	21.68
	50% RB mid	1775.0	22.30	21.53	20.51
		1745.0	22.36	21.46	20.65
		1715.0	22.28	21.44	20.52
	100% RB	1775.0	22.33	21.50	20.59
		1745.0	22.30	21.46	20.59
		1715.0	22.29	21.38	20.53
15MHz	1 RB high	1772.5	23.41	22.80	21.67
		1745.0	23.31	22.29	21.72
		1717.5	23.39	22.83	21.85
	1 RB low	1772.5	23.37	22.84	21.78
		1745.0	23.32	22.30	21.80
		1717.5	23.33	22.71	21.81
	50% RB mid	1772.5	22.37	21.45	20.69
		1745.0	22.36	21.48	20.72
		1717.5	22.37	21.51	20.65
	100% RB	1772.5	22.24	21.37	20.50
		1745.0	22.28	21.36	20.53
		1717.5	22.29	21.41	20.60
20MHz	1 RB high	1770.0	23.27	22.83	21.68
		1745.0	23.30	22.70	21.75
		1720.0	23.17	22.73	21.71
	1 RB low	1770.0	23.19	22.78	21.74
		1745.0	23.27	22.76	21.88
		1720.0	22.95	22.32	21.69
	50% RB mid	1770.0	22.24	21.33	20.56
		1745.0	22.23	21.33	20.60
		1720.0	21.95	21.05	20.61
	100% RB	1770.0	22.12	21.25	20.48
		1745.0	22.22	21.30	20.65
		1720.0	22.03	21.16	20.48

LTE band 71

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	695.5	23.12	22.76	21.60
		680.5	23.15	22.42	22.05
		665.5	23.31	22.45	22.00
	1 RB low	695.5	23.17	22.74	22.01
		680.5	23.33	22.42	22.07
		665.5	23.34	22.45	22.08
	50% RB mid	695.5	22.23	21.47	20.78
		680.5	22.33	21.49	21.00
		665.5	22.31	21.49	21.03
	100% RB	695.5	22.18	21.35	20.74
		680.5	22.26	21.36	20.92
		665.5	22.30	21.42	20.94
10MHz	1 RB high	693.0	23.31	22.23	21.86
		680.5	23.26	22.21	21.95
		668.0	23.11	22.61	22.07
	1 RB low	693.0	23.22	22.29	21.91
		680.5	23.30	22.27	22.15
		668.0	23.23	22.61	22.13
	50% RB mid	693.0	22.28	21.49	20.73
		680.5	22.34	21.43	20.96
		668.0	22.31	21.46	20.99
	100% RB	693.0	22.31	21.44	20.73
		680.5	22.28	21.36	20.89
		668.0	22.27	21.37	20.99
15MHz	1 RB high	690.5	23.15	22.10	21.69
		680.5	23.23	22.68	21.91
		670.5	23.30	22.69	22.11
	1 RB low	690.5	23.27	22.25	22.15
		680.5	23.36	22.75	22.19
		670.5	23.27	22.64	22.21
	50% RB mid	690.5	22.26	21.37	20.86
		680.5	22.33	21.43	20.97
		670.5	22.36	21.43	21.09
	100% RB	690.5	22.23	21.36	20.84
		680.5	22.30	21.39	20.90
		670.5	22.33	21.44	21.03
20MHz	1 RB high	688.0	23.65	23.13	21.85
		680.5	23.64	23.04	21.90
		673.0	23.64	23.05	21.97
	1 RB low	688.0	23.67	23.16	22.16

		680.5	23.62	23.09	22.23
		673.0	23.73	23.12	22.17
	50% RB mid	688.0	22.63	21.72	20.90
		680.5	22.64	21.72	20.95
		673.0	22.71	21.80	21.05
	100% RB	688.0	22.65	21.73	20.85
		680.5	22.60	21.68	20.92
		673.0	22.67	21.79	20.97

A.1.3 Radiated

A.1.3.1 Description

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

FDD Band 7/41: 27.50(h)(2) specifies " *Mobile and other user stations.* Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power".

FDD Band 12/71: 27.50(c)(10) specifies " Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP ".

FDD Band 13: 27.50(c)(10) specifies " Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP ".

FDD Band 2/25: 24.232(c) specifies " Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications ".

FDD Band 4: 27.50(d)(4) specifies " Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. "

FDD Band 5: 22.913(a) specifies " The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts. "

LTE Band 26(814MHz~824MHz): Part 90.635(b) specifies "The maximum output power of the transmitter for mobile stations is 100 watts".

LTE Band 26(824MHz~849MHz): Part 22.913(a) specifies "The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts".

FDD Band 66: Part 27.50(d)(4) specifies "Fixed, mobile, and portable (handheld) stations operating in the 1710–1755 MHz band and mobile and portable stations operating in the 1695–1710 MHz and 1755–1780 MHz bands are limited to 1 watt EIRP".

FDD Band 71: 27.50(c)(10) specifies " Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP ".

A.1.3.2 Method of Measurement

NASI C63.26 chapter 5.2.5.5: when working in decibels (i.e., logarithmic scale), the ERP and EIRP represent the sum of the transmit antenna gain (in dBd or dBi, respectively) and the conducted RF output power (expressed in dB relative to watts or milliwatts).

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:

$$\text{ERP or EIRP} = P_{Mea} + G_T$$

Where

ERP or EIRP	effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as P_{Mea} , e.g., dBm or dBW)
P_{Mea}	measured transmitter output power or PSD, in dBm or dBW
G_T	gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

A.1.3.3 Measurement result

LTE Band 7-EIRP

Limits: ≤33 dBm (2W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
5MHz	1 RB high	2567.5	23.37	22.53	21.9	-1.5	21.87	21.03	20.40
		2535	23.63	22.78	22.03	-1.5	22.13	21.28	20.53
		2502.5	23.65	23.24	22.4	-1.5	22.15	21.74	20.90
	1 RB low	2567.5	23.32	22.52	21.81	-1.5	21.82	21.02	20.31
		2535	23.6	22.73	22.16	-1.5	22.10	21.23	20.66
		2502.5	23.57	23.14	22.21	-1.5	22.07	21.64	20.71
	50% RB mid	2567.5	22.39	21.6	20.9	-1.5	20.89	20.10	19.40
		2535	22.56	21.8	21.04	-1.5	21.06	20.30	19.54
		2502.5	22.65	21.92	21.36	-1.5	21.15	20.42	19.86
	100% RB	2567.5	22.38	21.47	20.83	-1.5	20.88	19.97	19.33
		2535	22.55	21.74	20.95	-1.5	21.05	20.24	19.45
		2502.5	22.66	21.8	21.32	-1.5	21.16	20.30	19.82
10MHz	1 RB high	2565	23.3	22.45	21.95	-1.5	21.80	20.95	20.45
		2535	23.53	22.57	22.14	-1.5	22.03	21.07	20.64
		2505	23.6	23.08	22.44	-1.5	22.10	21.58	20.94
	1 RB low	2565	23.23	22.45	21.9	-1.5	21.73	20.95	20.40
		2535	23.45	22.51	22.14	-1.5	21.95	21.01	20.64
		2505	23.6	22.97	22.38	-1.5	22.10	21.47	20.88
	50% RB mid	2565	22.38	21.6	20.78	-1.5	20.88	20.10	19.28
		2535	22.61	21.76	20.99	-1.5	21.11	20.26	19.49
		2505	22.7	21.83	21.31	-1.5	21.20	20.33	19.81
	100% RB	2565	22.34	21.54	20.85	-1.5	20.84	20.04	19.35
		2535	22.58	21.69	20.96	-1.5	21.08	20.19	19.46
		2505	22.53	21.74	21.36	-1.5	21.03	20.24	19.86
15MHz	1 RB high	2562.5	23.36	22.82	21.85	-1.5	21.86	21.32	20.35
		2535	23.59	23.07	21.93	-1.5	22.09	21.57	20.43
		2507.5	23.58	22.61	22.44	-1.5	22.08	21.11	20.94
	1 RB low	2562.5	23.41	22.89	21.9	-1.5	21.91	21.39	20.40
		2535	23.51	22.99	22.17	-1.5	22.01	21.49	20.67
		2507.5	23.57	22.55	22.44	-1.5	22.07	21.05	20.94
	50% RB mid	2562.5	22.38	21.59	20.9	-1.5	20.88	20.09	19.40
		2535	22.57	21.66	21.07	-1.5	21.07	20.16	19.57
		2507.5	22.55	21.68	21.36	-1.5	21.05	20.18	19.86
	100% RB	2562.5	22.44	21.58	20.93	-1.5	20.94	20.08	19.43
		2535	22.57	21.69	20.96	-1.5	21.07	20.19	19.46

		2507.5	22.54	21.68	21.3	-1.5	21.04	20.18	19.80
20MHz	1 RB high	2560	23.46	22.8	21.87	-1.5	21.96	21.30	20.37
		2535	23.58	22.97	21.98	-1.5	22.08	21.47	20.48
		2510	23.54	22.98	22.28	-1.5	22.04	21.48	20.78
	1 RB low	2560	23.45	22.88	21.91	-1.5	21.95	21.38	20.41
		2535	23.59	22.99	22.23	-1.5	22.09	21.49	20.73
		2510	23.47	22.95	22.4	-1.5	21.97	21.45	20.90
	50% RB mid	2560	22.59	21.8	20.86	-1.5	21.09	20.30	19.36
		2535	22.75	21.85	21	-1.5	21.25	20.35	19.50
		2510	22.66	21.81	21.4	-1.5	21.16	20.31	19.90
	100% RB	2560	22.59	21.74	20.8	-1.5	21.09	20.24	19.30
		2535	22.74	21.85	20.99	-1.5	21.24	20.35	19.49
		2510	22.57	21.74	21.22	-1.5	21.07	20.24	19.72

LTE Band 12 -ERP

Limits: ≤34.77dBm (3W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
1.4 MHz	1 RB high	715.3	23.16	22.19	21.57	-4.1	16.91	15.94	15.32
		707.5	23.22	22.26	21.57	-4.1	16.97	16.01	15.32
		699.7	23.13	22.46	21.53	-4.1	16.88	16.21	15.28
	1 RB low	715.3	23.18	22.22	21.59	-4.1	16.93	15.97	15.34
		707.5	23.21	22.28	21.63	-4.1	16.96	16.03	15.38
		699.7	23.15	22.49	21.58	-4.1	16.90	16.24	15.33
	50% RB mid	715.3	23.23	22.43	21.68	-4.1	16.98	16.18	15.43
		707.5	23.2	22.3	21.58	-4.1	16.95	16.05	15.33
		699.7	23.2	22.36	21.59	-4.1	16.95	16.11	15.34
	100% RB	715.3	22.22	21.42	20.5	-4.1	15.97	15.17	14.25
		707.5	22.14	21.35	20.46	-4.1	15.89	15.10	14.21
		699.7	22.13	21.06	20.42	-4.1	15.88	14.81	14.17
3MHz	1 RB high	714.5	23.14	22.6	21.67	-4.1	16.89	16.35	15.42
		707.5	23.17	22.22	21.62	-4.1	16.92	15.97	15.37
		700.5	23.17	22.06	21.57	-4.1	16.92	15.81	15.32
	1 RB low	714.5	23.22	22.63	21.7	-4.1	16.97	16.38	15.45
		707.5	23.18	22.23	21.75	-4.1	16.93	15.98	15.50
		700.5	23.2	22.08	21.67	-4.1	16.95	15.83	15.42
	50% RB mid	714.5	22.22	21.44	20.67	-4.1	15.97	15.19	14.42
		707.5	22.25	21.33	20.64	-4.1	16.00	15.08	14.39
		700.5	22.23	21.37	20.6	-4.1	15.98	15.12	14.35
	100% RB	714.5	22.22	21.35	20.6	-4.1	15.97	15.10	14.35
		707.5	22.19	21.22	20.63	-4.1	15.94	14.97	14.38
		700.5	22.15	21.25	20.49	-4.1	15.90	15.00	14.24
5MHz	1 RB high	713.5	23.21	22.71	21.61	-4.1	16.96	16.46	15.36
		707.5	23.2	22.31	21.59	-4.1	16.95	16.06	15.34
		701.5	23.33	22.39	21.69	-4.1	17.08	16.14	15.44
	1 RB low	713.5	23.14	22.69	21.65	-4.1	16.89	16.44	15.40
		707.5	23.23	22.3	21.67	-4.1	16.98	16.05	15.42
		701.5	23.26	22.35	21.71	-4.1	17.01	16.10	15.46
	50% RB mid	713.5	22.29	21.51	20.7	-4.1	16.04	15.26	14.45
		707.5	22.25	21.38	20.67	-4.1	16.00	15.13	14.42
		701.5	22.19	21.35	20.57	-4.1	15.94	15.10	14.32
	100% RB	713.5	22.15	21.31	20.51	-4.1	15.90	15.06	14.26
		707.5	22.19	21.23	20.56	-4.1	15.94	14.98	14.31

		701.5	22.23	21.34	20.58	-4.1	15.98	15.09	14.33
10MHz	1 RB high	711	23.24	22.06	21.45	-4.1	16.99	15.81	15.20
		707.5	23.14	22.47	21.48	-4.1	16.89	16.22	15.23
		704	23.14	22.16	21.51	-4.1	16.89	15.91	15.26
	1 RB low	711	23.14	22.11	21.74	-4.1	16.89	15.86	15.49
		707.5	23.11	22.42	21.59	-4.1	16.86	16.17	15.34
		704	23.08	22.12	21.57	-4.1	16.83	15.87	15.32
	50% RB mid	711	22.16	21.26	20.65	-4.1	15.91	15.01	14.40
		707.5	22.2	21.31	20.55	-4.1	15.95	15.06	14.30
		704	22.24	21.35	20.63	-4.1	15.99	15.10	14.38
	100% RB	711	22.11	21.19	20.78	-4.1	15.86	14.94	14.53
		707.5	22.16	21.21	20.54	-4.1	15.91	14.96	14.29
		704	22.17	21.3	20.58	-4.1	15.92	15.05	14.33

LTE Band 13-ERP

Limits: ≤34.77 dBm (3W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	23.16	22.22	21.85	-4.1	16.91	15.97	15.60
		782	23.23	22.42	22.02	-4.1	16.98	16.17	15.77
		779.5	23.33	22.8	22.1	-4.1	17.08	16.55	15.85
	1 RB low	784.5	23.29	22.39	22.21	-4.1	17.04	16.14	15.96
		782	23.26	22.49	22.04	-4.1	17.01	16.24	15.79
		779.5	23.46	22.87	22.18	-4.1	17.21	16.62	15.93
	50% RB mid	784.5	22.31	21.41	21	-4.1	16.06	15.16	14.75
		782	22.39	21.48	21.05	-4.1	16.14	15.23	14.80
		779.5	22.37	21.56	21.04	-4.1	16.12	15.31	14.79
	100% RB	784.5	22.28	21.32	20.96	-4.1	16.03	15.07	14.71
		782	22.31	21.38	20.95	-4.1	16.06	15.13	14.70
		779.5	22.31	21.45	20.93	-4.1	16.06	15.20	14.68
10MHz	1 RB high	782	23.26	22.05	22.22	-4.1	17.01	15.80	15.97
	1 RB low	782	23.33	22.28	22.23	-4.1	17.08	16.03	15.98
	50% RB mid	782	22.34	21.42	21.41	-4.1	16.09	15.17	15.16
	100% RB	782	22.31	21.38	21.36	-4.1	16.06	15.13	15.11

LTE Band 25-EIRP

Limits: ≤33dBm (2W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
1.4 MHz	1 RB high	1914.3	23.09	22.49	21.34	-1.4	21.69	21.09	19.94
		1882.5	23.07	22.23	21.26	-1.4	21.67	20.83	19.86
		1850.7	23.21	22.4	21.27	-1.4	21.81	21.00	19.87
	1 RB low	1914.3	23.11	22.43	21.31	-1.4	21.71	21.03	19.91
		1882.5	23.08	22.23	21.37	-1.4	21.68	20.83	19.97
		1850.7	23.22	22.35	21.32	-1.4	21.82	20.95	19.92
	50% RB mid	1914.3	23.18	22.5	21.34	-1.4	21.78	21.10	19.94
		1882.5	23.19	22.45	21.33	-1.4	21.79	21.05	19.93
		1850.7	23.27	22.44	21.41	-1.4	21.87	21.04	20.01
	100% RB	1914.3	22.07	21.08	20.14	-1.4	20.67	19.68	18.74
		1882.5	22.07	21.37	20.18	-1.4	20.67	19.97	18.78
		1850.7	22.15	21.36	20.22	-1.4	20.75	19.96	18.82
3MHz	1 RB high	1913.5	23.07	22.21	21.25	-1.4	21.67	20.81	19.85
		1882.5	23.19	22.15	21.44	-1.4	21.79	20.75	20.04
		1851.5	23.22	22.44	21.39	-1.4	21.82	21.04	19.99
	1 RB low	1913.5	23.11	22.31	21.38	-1.4	21.71	20.91	19.98
		1882.5	23.19	22.17	21.41	-1.4	21.79	20.77	20.01
		1851.5	23.22	22.49	21.4	-1.4	21.82	21.09	20.00
	50% RB mid	1913.5	22.16	21.35	20.27	-1.4	20.76	19.95	18.87
		1882.5	22.24	21.49	20.36	-1.4	20.84	20.09	18.96
		1851.5	22.25	21.46	20.37	-1.4	20.85	20.06	18.97
	100% RB	1913.5	22.18	21.25	20.22	-1.4	20.78	19.85	18.82
		1882.5	22.23	21.37	20.2	-1.4	20.83	19.97	18.80
		1851.5	22.2	21.39	20.17	-1.4	20.80	19.99	18.77
5MHz	1 RB high	1912.5	23.15	22.3	21.35	-1.4	21.75	20.90	19.95
		1882.5	23.29	22.45	21.46	-1.4	21.89	21.05	20.06
		1852.5	23.18	22.49	21.41	-1.4	21.78	21.09	20.01
	1 RB low	1912.5	23.2	22.33	21.31	-1.4	21.80	20.93	19.91
		1882.5	23.31	22.49	21.42	-1.4	21.91	21.09	20.02
		1852.5	23.22	22.41	21.33	-1.4	21.82	21.01	19.93
	50% RB mid	1912.5	22.19	21.39	20.31	-1.4	20.79	19.99	18.91
		1882.5	22.27	21.44	20.37	-1.4	20.87	20.04	18.97
		1852.5	22.28	21.42	20.32	-1.4	20.88	20.02	18.92
	100% RB	1912.5	22.18	21.26	20.24	-1.4	20.78	19.86	18.84
		1882.5	22.26	21.38	20.31	-1.4	20.86	19.98	18.91

		1852.5	22.29	21.41	20.21	-1.4	20.89	20.01	18.81
10M Hz	1 RB high	1910	23.17	22.46	21.38	-1.4	21.77	21.06	19.98
		1882.5	23.24	22.43	21.47	-1.4	21.84	21.03	20.07
		1855	23.28	22.29	21.48	-1.4	21.88	20.89	20.08
	1 RB low	1910	23.19	22.48	21.39	-1.4	21.79	21.08	19.99
		1882.5	23.3	22.46	21.46	-1.4	21.90	21.06	20.06
		1855	23.32	22.3	21.46	-1.4	21.92	20.90	20.06
	50% RB mid	1910	22.21	21.34	20.24	-1.4	20.81	19.94	18.84
		1882.5	22.29	21.5	20.38	-1.4	20.89	20.10	18.98
		1855	22.29	21.41	20.29	-1.4	20.89	20.01	18.89
	100% RB	1910	22.23	21.3	20.23	-1.4	20.83	19.90	18.83
		1882.5	22.26	21.42	20.35	-1.4	20.86	20.02	18.95
		1855	22.25	21.35	20.33	-1.4	20.85	19.95	18.93
15M Hz	1 RB high	1907.5	23.13	22.45	21.37	-1.4	21.73	21.05	19.97
		1882.5	23.12	22.13	21.45	-1.4	21.72	20.73	20.05
		1857.5	23.26	22.46	21.43	-1.4	21.86	21.06	20.03
	1 RB low	1907.5	23.17	22.47	21.43	-1.4	21.77	21.07	20.03
		1882.5	23.23	22.21	21.45	-1.4	21.83	20.81	20.05
		1857.5	23.21	22.43	21.45	-1.4	21.81	21.03	20.05
	50% RB mid	1907.5	22.19	21.27	20.34	-1.4	20.79	19.87	18.94
		1882.5	22.25	21.35	20.42	-1.4	20.85	19.95	19.02
		1857.5	22.23	21.38	20.37	-1.4	20.83	19.98	18.97
	100% RB	1907.5	22.15	21.27	20.24	-1.4	20.75	19.87	18.84
		1882.5	22.22	21.36	20.31	-1.4	20.82	19.96	18.91
		1857.5	22.26	21.42	20.38	-1.4	20.86	20.02	18.98
20M Hz	1 RB high	1905	23.06	22.48	21.37	-1.4	21.66	21.08	19.97
		1882.5	23.2	22.46	21.38	-1.4	21.80	21.06	19.98
		1860	23.33	22.47	21.37	-1.4	21.93	21.07	19.97
	1 RB low	1905	23.06	22.48	21.45	-1.4	21.66	21.08	20.05
		1882.5	23.19	22.47	21.48	-1.4	21.79	21.07	20.08
		1860	23.11	22.46	21.43	-1.4	21.71	21.06	20.03
	50% RB mid	1905	22.15	21.27	20.39	-1.4	20.75	19.87	18.99
		1882.5	22.21	21.43	20.43	-1.4	20.81	20.03	19.03
		1860	22.32	21.44	20.43	-1.4	20.92	20.04	19.03
	100% RB	1905	22.14	21.26	20.28	-1.4	20.74	19.86	18.88
		1882.5	22.18	21.34	20.36	-1.4	20.78	19.94	18.96
		1860	22.26	21.35	20.42	-1.4	20.86	19.95	19.02

LTE Band 26(814MHz~824MHz)-ERP

Limits: ≤50dBm (100W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
1.4 MHz	1 RB high	823.3	23.3	22.42	21.68	-4.5	16.65	15.77	15.03
		819	23.24	22.31	21.62	-4.5	16.59	15.66	14.97
		814.7	23.21	22.26	21.59	-4.5	16.56	15.61	14.94
	1 RB low	823.3	23.31	22.4	21.71	-4.5	16.66	15.75	15.06
		819	23.23	22.33	21.64	-4.5	16.58	15.68	14.99
		814.7	23.24	22.28	21.61	-4.5	16.59	15.63	14.96
	50% RB mid	823.3	23.37	22.65	21.67	-4.5	16.72	16.00	15.02
		819	23.28	22.58	21.62	-4.5	16.63	15.93	14.97
		814.7	23.34	22.58	21.63	-4.5	16.69	15.93	14.98
	100% RB	823.3	22.32	21.57	20.58	-4.5	15.67	14.92	13.93
		819	22.23	21.48	20.48	-4.5	15.58	14.83	13.83
		814.7	22.28	21.51	20.51	-4.5	15.63	14.86	13.86
3MHz	1 RB high	822.5	23.36	22.47	21.77	-4.5	16.71	15.82	15.12
		819	23.28	22.36	21.68	-4.5	16.63	15.71	15.03
		815.5	23.31	22.39	21.69	-4.5	16.66	15.74	15.04
	1 RB low	822.5	23.28	22.38	21.71	-4.5	16.63	15.73	15.06
		819	23.29	22.37	21.67	-4.5	16.64	15.72	15.02
		815.5	23.39	22.45	21.71	-4.5	16.74	15.80	15.06
	50% RB mid	822.5	22.43	21.59	20.71	-4.5	15.78	14.94	14.06
		819	22.34	21.51	20.66	-4.5	15.69	14.86	14.01
		815.5	22.4	21.5	20.71	-4.5	15.75	14.85	14.06
	100% RB	822.5	22.41	21.5	20.68	-4.5	15.76	14.85	14.03
		819	22.32	21.41	20.59	-4.5	15.67	14.76	13.94
		815.5	22.32	21.4	20.61	-4.5	15.67	14.75	13.96
5MHz	1 RB high	821.5	23.36	22.52	21.75	-4.5	16.71	15.87	15.10
		819	23.27	22.42	21.66	-4.5	16.62	15.77	15.01
		816.5	23.31	22.43	21.67	-4.5	16.66	15.78	15.02
	1 RB low	821.5	23.28	22.43	21.71	-4.5	16.63	15.78	15.06
		819	23.31	22.43	21.71	-4.5	16.66	15.78	15.06
		816.5	23.37	22.45	21.73	-4.5	16.72	15.80	15.08
	50% RB mid	821.5	22.38	21.52	20.69	-4.5	15.73	14.87	14.04
		819	22.36	21.55	20.68	-4.5	15.71	14.90	14.03
		816.5	22.41	21.53	20.67	-4.5	15.76	14.88	14.02
	100% RB	821.5	22.46	21.47	20.71	-4.5	15.81	14.82	14.06
		819	22.39	21.39	20.58	-4.5	15.74	14.74	13.93

		816.5	22.36	21.44	20.63	-4.5	15.71	14.79	13.98
10MHz	1 RB high	819	23.41	22.47	21.75	-4.5	16.76	15.82	15.10
	1 RB low	819	23.38	22.39	21.72	-4.5	16.73	15.74	15.07
	50% RB mid	819	22.37	21.58	20.65	-4.5	15.72	14.93	14.00
	100% RB	819	22.44	21.59	20.71	-4.5	15.79	14.94	14.06

LTE Band 26(824MHz~849MHz)-ERP

Limits: ≤38.45dBm (7W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
1.4 MHz	1 RB high	848.3	23.21	22.26	21.63	-4.5	16.56	15.61	14.98
		836.5	23.19	22.31	21.64	-4.5	16.54	15.66	14.99
		824.7	23.21	22.33	21.72	-4.5	16.56	15.68	15.07
	1 RB low	848.3	23.18	22.26	21.69	-4.5	16.53	15.61	15.04
		836.5	23.19	22.27	21.68	-4.5	16.54	15.62	15.03
		824.7	23.23	22.35	21.72	-4.5	16.58	15.70	15.07
	50% RB mid	848.3	23.3	22.55	21.64	-4.5	16.65	15.90	14.99
		836.5	23.26	22.57	21.63	-4.5	16.61	15.92	14.98
		824.7	23.34	22.62	21.71	-4.5	16.69	15.97	15.06
	100% RB	848.3	22.22	21.46	20.51	-4.5	15.57	14.81	13.86
		836.5	22.19	21.49	20.52	-4.5	15.54	14.84	13.87
		824.7	22.26	21.56	20.58	-4.5	15.61	14.91	13.93
3MHz	1 RB high	847.5	23.31	22.34	21.72	-4.5	16.66	15.69	15.07
		836.5	23.27	22.38	21.75	-4.5	16.62	15.73	15.10
		825.5	23.37	22.42	21.75	-4.5	16.72	15.77	15.10
	1 RB low	847.5	23.35	22.38	21.73	-4.5	16.70	15.73	15.08
		836.5	23.3	22.39	21.77	-4.5	16.65	15.74	15.12
		825.5	23.34	22.5	21.83	-4.5	16.69	15.85	15.18
	50% RB mid	847.5	22.36	21.48	20.64	-4.5	15.71	14.83	13.99
		836.5	22.32	21.48	20.69	-4.5	15.67	14.83	14.04
		825.5	22.38	21.52	20.74	-4.5	15.73	14.87	14.09
	100% RB	847.5	22.37	21.36	20.63	-4.5	15.72	14.71	13.98
		836.5	22.33	21.36	20.64	-4.5	15.68	14.71	13.99
		825.5	22.39	21.43	20.67	-4.5	15.74	14.78	14.02
5MHz	1 RB high	846.5	23.29	22.41	21.71	-4.5	16.64	15.76	15.06
		836.5	23.37	22.53	21.85	-4.5	16.72	15.88	15.20
		826.5	23.31	22.44	21.74	-4.5	16.66	15.79	15.09
	1 RB low	846.5	23.33	22.47	21.78	-4.5	16.68	15.82	15.13
		836.5	23.33	22.45	21.79	-4.5	16.68	15.80	15.14
		826.5	23.35	22.49	21.83	-4.5	16.70	15.84	15.18
	50% RB mid	846.5	22.4	21.51	20.71	-4.5	15.75	14.86	14.06
		836.5	22.41	21.52	20.71	-4.5	15.76	14.87	14.06
		826.5	22.44	21.56	20.79	-4.5	15.79	14.91	14.14
	100% RB	846.5	22.35	21.37	20.64	-4.5	15.70	14.72	13.99
		836.5	22.35	21.42	20.66	-4.5	15.70	14.77	14.01
		826.5	22.4	21.46	20.71	-4.5	15.75	14.81	14.06

10M Hz	1 RB high	844	23.33	22.36	21.72	-4.5	16.68	15.71	15.07
		836.5	23.36	22.43	21.82	-4.5	16.71	15.78	15.17
		829	23.28	22.39	20.71	-4.5	16.63	15.74	14.06
	1 RB low	844	23.4	22.46	21.88	-4.5	16.75	15.81	15.23
		836.5	23.33	22.39	21.81	-4.5	16.68	15.74	15.16
		829	23.38	22.41	21.87	-4.5	16.73	15.76	15.22
	50% RB mid	844	22.42	21.58	20.69	-4.5	15.77	14.93	14.04
		836.5	22.37	21.59	20.69	-4.5	15.72	14.94	14.04
		829	22.43	21.62	20.73	-4.5	15.78	14.97	14.08
	100% RB	844	22.4	21.5	20.69	-4.5	15.75	14.85	14.04
		836.5	22.36	21.47	20.67	-4.5	15.71	14.82	14.02
		829	22.43	21.51	20.72	-4.5	15.78	14.86	14.07
15M Hz	1 RB high	841.5	23.32	22.74	21.68	-4.5	16.67	16.09	15.03
		836.5	23.34	22.78	21.74	-4.5	16.69	16.13	15.09
		831.5	23.25	22.75	21.74	-4.5	16.60	16.10	15.09
	1 RB low	841.5	23.35	22.83	21.85	-4.5	16.70	16.18	15.20
		836.5	23.37	22.81	21.82	-4.5	16.72	16.16	15.17
		831.5	23.42	22.88	21.87	-4.5	16.77	16.23	15.22
	50% RB mid	841.5	22.34	21.4	20.66	-4.5	15.69	14.75	14.01
		836.5	22.38	21.44	20.66	-4.5	15.73	14.79	14.01
		831.5	22.36	21.45	20.68	-4.5	15.71	14.80	14.03
	100% RB	841.5	22.33	21.41	20.57	-4.5	15.68	14.76	13.92
		836.5	22.31	21.4	20.61	-4.5	15.66	14.75	13.96
		831.5	22.38	21.45	20.62	-4.5	15.73	14.80	13.97

LTE Band 41-EIRP

Limits: ≤33dBm (2W)

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
5MHz	1 RB high	2652.5	23.32	22.34	22.02	-2.4	20.92	19.94	19.62
		2614.5	23.33	22.39	22.32	-2.4	20.93	19.99	19.92
		2575.5	23.61	22.81	22.36	-2.4	21.21	20.41	19.96
		2537.5	23.72	22.76	22.4	-2.4	21.32	20.36	20.00
	1 RB low	2652.5	23.25	22.31	22	-2.4	20.85	19.91	19.60
		2614.5	23.35	22.4	22.37	-2.4	20.95	20.00	19.97
		2575.5	23.63	22.83	22.42	-2.4	21.23	20.43	20.02
		2537.5	23.69	22.69	22.42	-2.4	21.29	20.29	20.02
	50% RB mid	2652.5	22.46	21.58	21.15	-2.4	20.06	19.18	18.75
		2614.5	22.41	21.52	21.5	-2.4	20.01	19.12	19.10
		2575.5	22.69	21.86	21.41	-2.4	20.29	19.46	19.01
		2537.5	22.8	21.94	21.56	-2.4	20.40	19.54	19.16
	100% RB	2652.5	22.4	21.55	21.18	-2.4	20.00	19.15	18.78
		2614.5	22.48	21.62	21.5	-2.4	20.08	19.22	19.10
		2575.5	22.68	21.77	21.44	-2.4	20.28	19.37	19.04
		2537.5	22.75	21.87	21.53	-2.4	20.35	19.47	19.13
10MHz	1 RB high	2650	23.36	22.38	22.07	-2.4	20.96	19.98	19.67
		2613	23.41	22.47	22.35	-2.4	21.01	20.07	19.95
		2577	23.68	22.84	22.39	-2.4	21.28	20.44	19.99
		2540	23.77	22.87	22.35	-2.4	21.37	20.47	19.95
	1 RB low	2650	23.33	22.37	22.15	-2.4	20.93	19.97	19.75
		2613	23.39	22.45	22.46	-2.4	20.99	20.05	20.06
		2577	23.63	22.86	22.4	-2.4	21.23	20.46	20.00
		2540	23.72	22.73	22.42	-2.4	21.32	20.33	20.02
	50% RB mid	2650	22.52	21.62	21.27	-2.4	20.12	19.22	18.87
		2613	22.49	21.55	21.56	-2.4	20.09	19.15	19.16
		2577	22.67	21.8	21.52	-2.4	20.27	19.40	19.12
		2540	22.8	21.91	21.56	-2.4	20.40	19.51	19.16
	100% RB	2650	22.46	21.61	21.19	-2.4	20.06	19.21	18.79
		2613	22.46	21.59	21.48	-2.4	20.06	19.19	19.08
		2577	22.68	21.84	21.39	-2.4	20.28	19.44	18.99
		2540	22.82	21.92	21.45	-2.4	20.42	19.52	19.05
15MHz	1 RB high	2647.5	23.4	22.49	22.09	-2.4	21.00	20.09	19.69
		2612.5	23.4	22.54	22.42	-2.4	21.00	20.14	20.02
		2577.5	23.69	22.66	22.48	-2.4	21.29	20.26	20.08
		2542.5	23.8	22.93	22.41	-2.4	21.40	20.53	20.01

	1 RB low	2647.5	23.36	22.43	22.21	-2.4	20.96	20.03	19.81
		2612.5	23.45	22.52	22.52	-2.4	21.05	20.12	20.12
		2577.5	23.71	22.72	22.45	-2.4	21.31	20.32	20.05
		2542.5	23.66	22.8	22.54	-2.4	21.26	20.40	20.14
	50% RB mid	2647.5	22.53	21.62	21.24	-2.4	20.13	19.22	18.84
		2612.5	22.5	21.59	21.54	-2.4	20.10	19.19	19.14
		2577.5	22.65	21.73	21.5	-2.4	20.25	19.33	19.10
		2542.5	22.84	21.88	21.5	-2.4	20.44	19.48	19.10
	100% RB	2647.5	22.48	21.6	21.23	-2.4	20.08	19.20	18.83
		2612.5	22.44	21.54	21.49	-2.4	20.04	19.14	19.09
		2577.5	22.68	21.74	21.43	-2.4	20.28	19.34	19.03
		2542.5	22.8	21.9	21.46	-2.4	20.40	19.50	19.06
20MHz	1 RB high	2645	23.39	22.29	22.07	-2.4	20.99	19.89	19.67
		2611	23.42	22.59	22.36	-2.4	21.02	20.19	19.96
		2578	23.53	22.54	22.44	-2.4	21.13	20.14	20.04
		2545	23.77	22.73	22.35	-2.4	21.37	20.33	19.95
	1 RB low	2645	23.4	22.32	22.32	-2.4	21.00	19.92	19.92
		2611	23.49	22.57	22.54	-2.4	21.09	20.17	20.14
		2578	23.68	22.65	22.47	-2.4	21.28	20.25	20.07
		2545	23.69	22.61	22.47	-2.4	21.29	20.21	20.07
	50% RB mid	2645	22.48	21.58	21.23	-2.4	20.08	19.18	18.83
		2611	22.47	21.6	21.53	-2.4	20.07	19.20	19.13
		2578	22.67	21.77	21.46	-2.4	20.27	19.37	19.06
		2545	22.87	21.95	21.49	-2.4	20.47	19.55	19.09
	100% RB	2645	22.48	21.57	21.23	-2.4	20.08	19.17	18.83
		2611	22.49	21.54	21.5	-2.4	20.09	19.14	19.10
		2578	22.67	21.74	21.47	-2.4	20.27	19.34	19.07
		2545	22.83	21.94	21.5	-2.4	20.43	19.54	19.10

LTE Band 66-EIRP

Limits: ≤30dBm (1W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
1.4 MHz	1 RB high	1779.3	23.37	22.37	21.68	-4.5	18.87	17.87	17.18
		1745	23.33	22.42	21.7	-4.5	18.83	17.92	17.20
		1710.7	23.37	22.62	21.55	-4.5	18.87	18.12	17.05
	1 RB low	1779.3	23.43	22.32	21.68	-4.5	18.93	17.82	17.18
		1745	23.31	22.43	21.73	-4.5	18.81	17.93	17.23
		1710.7	23.41	22.64	21.6	-4.5	18.91	18.14	17.10
	50% RB mid	1779.3	23.39	22.66	21.68	-4.5	18.89	18.16	17.18
		1745	23.31	22.51	21.74	-4.5	18.81	18.01	17.24
		1710.7	23.35	22.61	21.67	-4.5	18.85	18.11	17.17
	100% RB	1779.3	22.27	21.55	20.55	-4.5	17.77	17.05	16.05
		1745	22.22	21.53	20.6	-4.5	17.72	17.03	16.10
		1710.7	22.21	21.2	20.45	-4.5	17.71	16.70	15.95
3MHz	1 RB high	1778.5	23.3	22.14	21.7	-4.5	18.80	17.64	17.20
		1745	23.34	22.65	21.62	-4.5	18.84	18.15	17.12
		1711.5	23.21	22.23	21.62	-4.5	18.71	17.73	17.12
	1 RB low	1778.5	23.22	22.16	21.51	-4.5	18.72	17.66	17.01
		1745	23.28	22.63	21.68	-4.5	18.78	18.13	17.18
		1711.5	23.35	22.27	21.49	-4.5	18.85	17.77	16.99
	50% RB mid	1778.5	22.39	21.59	20.65	-4.5	17.89	17.09	16.15
		1745	22.37	21.56	20.74	-4.5	17.87	17.06	16.24
		1711.5	22.37	21.48	20.62	-4.5	17.87	16.98	16.12
	100% RB	1778.5	22.36	21.48	20.55	-4.5	17.86	16.98	16.05
		1745	22.28	21.46	20.63	-4.5	17.78	16.96	16.13
		1711.5	22.35	21.3	20.56	-4.5	17.85	16.80	16.06
5MHz	1 RB high	1777.5	23.23	22.79	21.52	-4.5	18.73	18.29	17.02
		1745	23.25	22.38	21.6	-4.5	18.75	17.88	17.10
		1712.5	23.25	22.36	21.86	-4.5	18.75	17.86	17.36
	1 RB low	1777.5	23.21	22.74	21.59	-4.5	18.71	18.24	17.09
		1745	23.24	22.33	21.59	-4.5	18.74	17.83	17.09
		1712.5	23.26	22.36	21.88	-4.5	18.76	17.86	17.38
	50% RB mid	1777.5	22.39	21.65	20.62	-4.5	17.89	17.15	16.12
		1745	22.43	21.55	20.74	-4.5	17.93	17.05	16.24
		1712.5	22.34	21.51	20.66	-4.5	17.84	17.01	16.16
	100% RB	1777.5	22.31	21.51	20.51	-4.5	17.81	17.01	16.01
		1745	22.29	21.4	20.55	-4.5	17.79	16.90	16.05

		1712.5	22.26	21.4	20.77	-4.5	17.76	16.90	16.27
10M Hz	1 RB high	1775	23.35	22.38	21.77	-4.5	18.85	17.88	17.27
		1745	23.35	22.27	21.74	-4.5	18.85	17.77	17.24
		1715	23.34	22.24	21.71	-4.5	18.84	17.74	17.21
	1 RB low	1775	23.31	22.4	21.76	-4.5	18.81	17.90	17.26
		1745	23.29	22.32	21.75	-4.5	18.79	17.82	17.25
		1715	23.3	22.23	21.68	-4.5	18.80	17.73	17.18
	50% RB mid	1775	22.3	21.53	20.51	-4.5	17.80	17.03	16.01
		1745	22.36	21.46	20.65	-4.5	17.86	16.96	16.15
		1715	22.28	21.44	20.52	-4.5	17.78	16.94	16.02
	100% RB	1775	22.33	21.5	20.59	-4.5	17.83	17.00	16.09
		1745	22.3	21.46	20.59	-4.5	17.80	16.96	16.09
		1715	22.29	21.38	20.53	-4.5	17.79	16.88	16.03
15M Hz	1 RB high	1772.5	23.41	22.8	21.67	-4.5	18.91	18.30	17.17
		1745	23.31	22.29	21.72	-4.5	18.81	17.79	17.22
		1717.5	23.39	22.83	21.85	-4.5	18.89	18.33	17.35
	1 RB low	1772.5	23.37	22.84	21.78	-4.5	18.87	18.34	17.28
		1745	23.32	22.3	21.8	-4.5	18.82	17.80	17.30
		1717.5	23.33	22.71	21.81	-4.5	18.83	18.21	17.31
	50% RB mid	1772.5	22.37	21.45	20.69	-4.5	17.87	16.95	16.19
		1745	22.36	21.48	20.72	-4.5	17.86	16.98	16.22
		1717.5	22.37	21.51	20.65	-4.5	17.87	17.01	16.15
	100% RB	1772.5	22.24	21.37	20.5	-4.5	17.74	16.87	16.00
		1745	22.28	21.36	20.53	-4.5	17.78	16.86	16.03
		1717.5	22.29	21.41	20.6	-4.5	17.79	16.91	16.10
20M Hz	1 RB high	1770	23.27	22.83	21.68	-4.5	18.77	18.33	17.18
		1745	23.3	22.7	21.75	-4.5	18.80	18.20	17.25
		1720	23.17	22.73	21.71	-4.5	18.67	18.23	17.21
	1 RB low	1770	23.19	22.78	21.74	-4.5	18.69	18.28	17.24
		1745	23.27	22.76	21.88	-4.5	18.77	18.26	17.38
		1720	22.95	22.32	21.69	-4.5	18.45	17.82	17.19
	50% RB mid	1770	22.24	21.33	20.56	-4.5	17.74	16.83	16.06
		1745	22.23	21.33	20.6	-4.5	17.73	16.83	16.10
		1720	21.95	21.05	20.61	-4.5	17.45	16.55	16.11
	100% RB	1770	22.12	21.25	20.48	-4.5	17.62	16.75	15.98
		1745	22.22	21.3	20.65	-4.5	17.72	16.80	16.15
		1720	22.03	21.16	20.48	-4.5	17.53	16.66	15.98

LTE Band 71-ERP

Limits: ≤34.77 dBm (3W)

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			G_T (dBi)	Radiated Power (dBm)		
			QPSK	16QAM	64QAM		QPSK	16QAM	64QAM
5MHz	1 RB high	695.5	23.12	22.76	21.6	-4.5	16.47	16.11	14.95
		680.5	23.15	22.42	22.05	-4.5	16.50	15.77	15.40
		665.5	23.31	22.45	22	-4.5	16.66	15.80	15.35
	1 RB low	695.5	23.17	22.74	22.01	-4.5	16.52	16.09	15.36
		680.5	23.33	22.42	22.07	-4.5	16.68	15.77	15.42
		665.5	23.34	22.45	22.08	-4.5	16.69	15.80	15.43
	50% RB mid	695.5	22.23	21.47	20.78	-4.5	15.58	14.82	14.13
		680.5	22.33	21.49	21	-4.5	15.68	14.84	14.35
		665.5	22.31	21.49	21.03	-4.5	15.66	14.84	14.38
	100% RB	695.5	22.18	21.35	20.74	-4.5	15.53	14.70	14.09
		680.5	22.26	21.36	20.92	-4.5	15.61	14.71	14.27
		665.5	22.3	21.42	20.94	-4.5	15.65	14.77	14.29
10MHz	1 RB high	693.0	23.31	22.23	21.86	-4.5	16.66	15.58	15.21
		680.5	23.26	22.21	21.95	-4.5	16.61	15.56	15.30
		668.0	23.11	22.61	22.07	-4.5	16.46	15.96	15.42
	1 RB low	693.0	23.22	22.29	21.91	-4.5	16.57	15.64	15.26
		680.5	23.3	22.27	22.15	-4.5	16.65	15.62	15.50
		668.0	23.23	22.61	22.13	-4.5	16.58	15.96	15.48
	50% RB mid	693.0	22.28	21.49	20.73	-4.5	15.63	14.84	14.08
		680.5	22.34	21.43	20.96	-4.5	15.69	14.78	14.31
		668.0	22.31	21.46	20.99	-4.5	15.66	14.81	14.34
	100% RB	693.0	22.31	21.44	20.73	-4.5	15.66	14.79	14.08
		680.5	22.28	21.36	20.89	-4.5	15.63	14.71	14.24
		668.0	22.27	21.37	20.99	-4.5	15.62	14.72	14.34
15MHz	1 RB high	690.5	23.15	22.1	21.69	-4.5	16.50	15.45	15.04
		680.5	23.23	22.68	21.91	-4.5	16.58	16.03	15.26
		670.5	23.3	22.69	22.11	-4.5	16.65	16.04	15.46
	1 RB low	690.5	23.27	22.25	22.15	-4.5	16.62	15.60	15.50
		680.5	23.36	22.75	22.19	-4.5	16.71	16.10	15.54
		670.5	23.27	22.64	22.21	-4.5	16.62	15.99	15.56
	50% RB mid	690.5	22.26	21.37	20.86	-4.5	15.61	14.72	14.21
		680.5	22.33	21.43	20.97	-4.5	15.68	14.78	14.32
		670.5	22.36	21.43	21.09	-4.5	15.71	14.78	14.44
	100% RB	690.5	22.23	21.36	20.84	-4.5	15.58	14.71	14.19
		680.5	22.3	21.39	20.9	-4.5	15.65	14.74	14.25

		670.5	22.33	21.44	21.03	-4.5	15.68	14.79	14.38
20MHz	1 RB high	688.0	23.65	23.13	21.85	-4.5	17.00	16.48	15.20
		680.5	23.64	23.04	21.9	-4.5	16.99	16.39	15.25
		673.0	23.64	23.05	21.97	-4.5	16.99	16.40	15.32
	1 RB low	688.0	23.67	23.16	22.16	-4.5	17.02	16.51	15.51
		680.5	23.62	23.09	22.23	-4.5	16.97	16.44	15.58
		673.0	23.73	23.12	22.17	-4.5	17.08	16.47	15.52
	50% RB mid	688.0	22.63	21.72	20.9	-4.5	15.98	15.07	14.25
		680.5	22.64	21.72	20.95	-4.5	15.99	15.07	14.30
		673.0	22.71	21.8	21.05	-4.5	16.06	15.15	14.40
	100% RB	688.0	22.65	21.73	20.85	-4.5	16.00	15.08	14.20
		680.5	22.6	21.68	20.92	-4.5	15.95	15.03	14.27
		673.0	22.67	21.79	20.97	-4.5	16.02	15.14	14.32

Sample:

688.0MHz

ERP $=P_{Mea}+ G_T$

16.00dBm=22.65dBm+(-4.5dBi)-2.15

A.2 Emission Limit

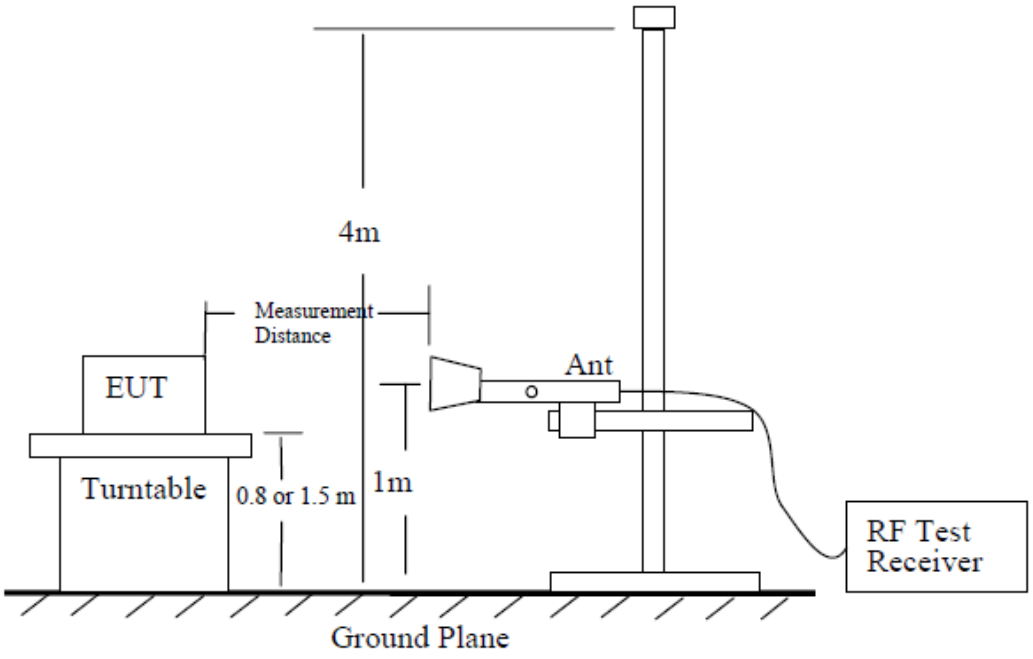
A.2.1 Measurement Method

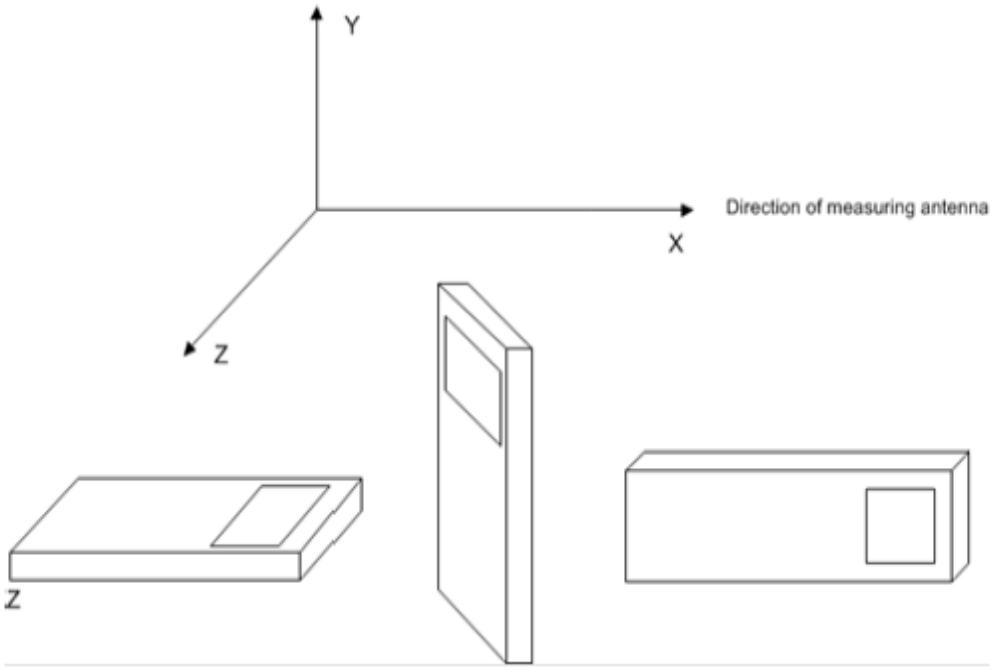
The measurements procedures in C63.26 are used. This measurement is carried out in fully anechoic chamber FAC-3.

The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment, which is the transmitted carrier. The resolution bandwidth is set 1MHz. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of each LTE Band.

The procedure of radiated spurious emissions is as follows:

Using the test configuration as follow, measure the radiated emissions directly from the EUT and convert the measured field strength or received power to ERP or EIRP, as required, for comparison to the applicable limits.





The emission characteristics of the EUT can be identified from the pre-scan measurement information.

Exploratory radiated measurements (pre-scans) may be performed to determine the general EUT radiated emissions characteristics and, when necessary, the EUT-to-measurement antenna orientation that produces the maximum emission amplitude. Pre-scans shall only be used to determine the emission frequencies (i.e., not amplitude levels). The information garnered from a pre-scan can then be used to perform final compliance measurements using either the substitution or direct field strength method.

For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80 cm above the reference ground plane. Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement 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 (i.e., field strength or received power). When orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25 cm.

The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector.

For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table or support at a nominal height of 1.5 m above the ground plane. When maximizing the emissions from the EUT for measurement, the EUT and its transmitting antenna(s) shall be rotated through 360°. For each mode of operation to be tested, the frequency spectrum (based on findings from exploratory measurements) shall be monitored.

Final measurements shall be performed for the worst case combination(s) of variable technical parameters that result in the maximum measured emission amplitude, record the frequency and amplitude of the highest fundamental emission (if applicable), and the frequency and amplitude data for the six highest-amplitude spurious emissions.

A.2.2 Measurement Limit

FDD Band 7/41: 27.53(m) (4) specifies " For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. ".

FDD Band 4: 27.53(h)specifies " *AWS emission limits*—(1) *General protection levels.* Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$ (P) dB. ".

FDD Band 12/71: 27.53(g) specifies " For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed ".

FDD Band 13: 27.53(f) specifies " 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 离散 emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation. ".

FDD Band 2/25: 24.238 (a) specifies " *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.".

LTE Band 26(814MHz~824MHz): Part 90.691 states that out-of-band emission requirement shall apply only to the ‘‘outer’’ channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:For any frequency removed from the EA licensee’s frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116Log_{10}(f/6.1) decibels or 50 + 10 Log_{10}(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee’s frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log_{10}(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and

where f is greater than 37.5 kHz.

LTE Band 5/26(824MHz~849MHz): Part 22.917 (a) specifies " *Out of band emissions.* The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB ".

FDD Band 66: 27.53(h) specifies " *AWS emission limits*—(1) *General protection levels.* Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$ (P) dB.".

A.2.3 Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of each LTE Band. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of each LTE Band into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this. The range of evaluated frequency is from 30MHz to 26GHz.

LTE Band 7, 5 MHz, QPSK, Channel 20775

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5009.02	-56.16	-6.59	9.91	-52.84	-25.00	27.84	V
7496.01	-54.31	-8.38	12.20	-50.49	-25.00	25.49	V
10022.01	-52.70	-9.24	12.91	-49.03	-25.00	24.03	V
12526.01	-49.05	-10.25	13.22	-46.08	-25.00	21.08	V
14995.00	-46.09	-11.21	14.00	-43.30	-25.00	18.30	H
17510.00	-43.74	-12.76	14.91	-41.59	-25.00	16.59	H

LTE Band 7, 5 MHz, QPSK, Channel 21100

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5074.02	-54.25	-6.70	10.00	-50.95	-25.00	25.95	V
7611.01	-53.58	-8.02	12.29	-49.31	-25.00	24.31	V
10144.01	-52.31	-9.39	12.96	-48.74	-25.00	23.74	H
12668.01	-48.52	-10.35	13.30	-45.57	-25.00	20.57	H
15229.00	-45.84	-11.36	13.86	-43.34	-25.00	18.34	V
17740.00	-44.20	-12.40	15.24	-41.36	-25.00	16.36	V

LTE Band 7, 5 MHz, QPSK, Channel 21425

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5140.02	-50.94	-6.87	10.10	-47.71	-25.00	22.71	V
7707.01	-50.01	-8.42	12.37	-46.06	-25.00	21.06	H
10279.01	-50.56	-9.57	13.01	-47.12	-25.00	22.12	V
12843.01	-47.87	-10.66	13.41	-45.12	-25.00	20.12	V
15414.00	-44.54	-11.41	13.75	-42.20	-25.00	17.20	H
17990.00	-43.97	-12.90	15.59	-41.28	-25.00	16.28	H

LTE Band 12, 1.4MHz, QPSK, Channel 23017

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1394.01	-59.86	-3.23	4.95	2.15	-60.29	-13.00	47.29	V
2099.00	-54.30	-4.19	4.90	2.15	-55.74	-13.00	42.74	H
2799.00	-50.53	-4.91	6.64	2.15	-50.95	-13.00	37.95	H
3490.02	-54.50	-5.50	8.18	2.15	-53.97	-13.00	40.97	H
4194.02	-54.29	-6.19	9.09	2.15	-53.54	-13.00	40.54	V
4884.01	-54.25	-6.72	9.78	2.15	-53.34	-13.00	40.34	V

LTE Band 12, 1.4MHz, QPSK, Channel 23095

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1420.01	-59.60	-3.26	5.08	2.15	-59.93	-13.00	46.93	H
2117.00	-52.73	-4.21	4.95	2.15	-54.14	-13.00	41.14	H
2831.00	-51.18	-4.95	6.70	2.15	-51.58	-13.00	38.58	H
3523.02	-54.60	-5.56	8.23	2.15	-54.08	-13.00	41.08	H
4240.02	-54.68	-6.25	9.14	2.15	-53.94	-13.00	40.94	H
4957.01	-54.39	-6.68	9.86	2.15	-53.36	-13.00	40.36	H

LTE Band 12, 1.4MHz, QPSK, Channel 23173

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1424.01	-59.58	-3.27	5.10	2.15	-59.90	-13.00	46.90	H
2137.00	-54.75	-4.23	5.01	2.15	-56.12	-13.00	43.12	H
2861.00	-50.74	-4.96	6.75	2.15	-51.10	-13.00	38.10	H
3567.02	-53.62	-6.00	8.29	2.15	-53.48	-13.00	40.48	H
4299.02	-53.99	-6.19	9.20	2.15	-53.13	-13.00	40.13	V
5019.01	-53.91	-6.57	9.93	2.15	-52.70	-13.00	39.70	V

LTE Band 13, 5MHz, QPSK, Channel 23205

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1559.01	-56.16	-3.47	5.39	2.15	-56.39	-13.00	43.39	H
2339.00	-50.49	-4.44	5.62	2.15	-51.46	-13.00	38.46	H
3115.02	-52.48	-5.37	7.28	2.15	-52.72	-13.00	39.72	V
3895.02	-53.42	-6.11	8.75	2.15	-52.93	-13.00	39.93	V
4665.02	-53.72	-6.48	9.57	2.15	-52.78	-13.00	39.78	V
5453.01	-53.98	-6.88	10.53	2.15	-52.48	-13.00	39.48	V

LTE Band 13, 5MHz, QPSK, Channel 23230

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1565.01	-56.83	-3.48	5.38	2.15	-57.08	-13.00	44.08	H
2347.00	-50.00	-4.45	5.64	2.15	-50.96	-13.00	37.96	H
3134.02	-53.21	-5.39	7.32	2.15	-53.43	-13.00	40.43	V
3901.02	-54.37	-6.11	8.76	2.15	-53.87	-13.00	40.87	V
4693.02	-53.77	-6.50	9.59	2.15	-52.83	-13.00	39.83	V
5475.01	-54.34	-6.97	10.57	2.15	-52.89	-13.00	39.89	H

LTE Band 13, 5MHz, QPSK, Channel 23255

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1570.01	-54.69	-3.48	5.37	2.15	-54.95	-13.00	41.95	H
2354.00	-51.09	-4.46	5.66	2.15	-52.04	-13.00	39.04	H
3139.02	-52.44	-5.38	7.33	2.15	-52.64	-13.00	39.64	H
3912.02	-53.85	-6.12	8.78	2.15	-53.34	-13.00	40.34	V
4707.02	-54.08	-6.51	9.61	2.15	-53.13	-13.00	40.13	V
5481.01	-54.41	-6.99	10.57	2.15	-52.98	-13.00	39.98	V

LTE Band 25, 1.4MHz, QPSK, Channel 26047

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
7795.01	-53.72	-8.29	12.44	-49.57	-13.00	36.57	V
9659.01	-51.80	-8.96	13.24	-47.52	-13.00	34.52	V
11627.01	-49.87	-9.75	13.07	-46.55	-13.00	33.55	V
13072.01	-47.03	-10.80	13.60	-44.23	-13.00	31.23	V
15110.00	-44.82	-11.36	13.93	-42.25	-13.00	29.25	H
16855.00	-41.84	-12.05	13.74	-40.15	-13.00	27.15	H

LTE Band 25, 1.4MHz, QPSK, Channel 26365

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
7565.01	-53.80	-8.12	12.25	-49.67	-13.00	36.67	H
9385.01	-53.48	-9.05	13.33	-49.20	-13.00	36.20	V
11280.01	-50.65	-9.88	13.14	-47.39	-13.00	34.39	V
13156.01	-47.88	-10.69	13.72	-44.85	-13.00	31.85	V
15025.00	-46.33	-11.25	13.98	-43.60	-13.00	30.60	H
16944.00	-42.55	-12.16	13.78	-40.93	-13.00	27.93	V

LTE Band 25, 1.4MHz, QPSK, Channel 26683

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
7627.01	-54.58	-8.10	12.30	-50.38	-13.00	37.38	V
9538.01	-52.38	-9.40	13.36	-48.42	-13.00	35.42	V
11498.01	-50.81	-9.82	13.10	-47.53	-13.00	34.53	V
13372.01	-47.93	-10.57	14.02	-44.48	-13.00	31.48	V
15315.00	-44.48	-11.30	13.81	-41.97	-13.00	28.97	H
17180.00	-42.60	-12.41	14.20	-40.81	-13.00	27.81	H

LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26697

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
2441.00	-49.04	-4.56	5.92	2.15	-49.83	-13.00	36.83	H
6534.01	-52.70	-7.54	11.04	2.15	-51.35	-13.00	38.35	V
7329.01	-52.62	-8.10	11.99	2.15	-50.88	-13.00	37.88	V
8127.01	-51.77	-8.37	12.70	2.15	-49.59	-13.00	36.59	V
8945.00	-51.40	-9.01	13.09	2.15	-49.47	-13.00	36.47	V
9776.00	-51.05	-8.98	13.12	2.15	-49.06	-13.00	36.06	H

LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26740

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1638.01	-58.89	-3.56	5.25	2.15	-59.35	-13.00	46.35	H
2457.00	-52.23	-4.58	5.97	2.15	-52.99	-13.00	39.99	H
3282.02	-54.54	-5.28	7.68	2.15	-54.29	-13.00	41.29	V
4083.02	-54.70	-6.04	8.98	2.15	-53.91	-13.00	40.91	V
4920.01	-53.82	-6.73	9.82	2.15	-52.88	-13.00	39.88	V
5729.01	-52.23	-7.29	10.55	2.15	-51.12	-13.00	38.12	V

LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26783

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5902.01	-51.90	-7.40	10.52	2.15	-50.93	-13.00	37.93	H
6587.01	-51.46	-7.75	11.10	2.15	-50.26	-13.00	37.26	V
7600.01	-50.71	-7.97	12.28	2.15	-48.55	-13.00	35.55	V
8102.01	-51.56	-8.32	12.68	2.15	-49.35	-13.00	36.35	V
8973.00	-50.56	-9.10	13.09	2.15	-48.72	-13.00	35.72	H
9880.00	-50.13	-9.08	13.02	2.15	-48.34	-13.00	35.34	V

LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 26797

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1650.01	-58.72	-3.57	5.23	2.15	-59.21	-13.00	46.21	V
2474.00	-51.37	-4.60	6.02	2.15	-52.10	-13.00	39.10	H
3306.02	-55.34	-5.29	7.73	2.15	-55.05	-13.00	42.05	V
4116.02	-54.84	-6.04	9.02	2.15	-54.01	-13.00	41.01	V
4966.01	-52.97	-6.66	9.87	2.15	-51.91	-13.00	38.91	V
5777.01	-53.75	-7.22	10.54	2.15	-52.58	-13.00	39.58	V

LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 26915

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1673.01	-58.93	-3.58	5.19	2.15	-59.47	-13.00	46.47	H
2510.00	-50.99	-4.63	6.12	2.15	-51.65	-13.00	38.65	V
3350.02	-53.52	-5.32	7.84	2.15	-53.15	-13.00	40.15	H
4192.02	-54.58	-6.19	9.09	2.15	-53.83	-13.00	40.83	V
5011.01	-54.21	-6.58	9.92	2.15	-53.02	-13.00	40.02	V
5860.01	-52.43	-7.27	10.53	2.15	-51.32	-13.00	38.32	V

LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 27033

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1697.01	-57.96	-3.60	5.15	2.15	-58.56	-13.00	45.56	H
2545.00	-50.06	-4.66	6.18	2.15	-50.69	-13.00	37.69	V
3403.02	-55.14	-5.36	7.97	2.15	-54.68	-13.00	41.68	V
4240.02	-54.70	-6.25	9.14	2.15	-53.96	-13.00	40.96	H
5080.01	-54.56	-6.72	10.01	2.15	-53.42	-13.00	40.42	V
5935.01	-53.27	-7.47	10.51	2.15	-52.38	-13.00	39.38	H

LTE Band 41, 5MHz, QPSK, Channel 39675

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5079.02	-49.77	-6.71	10.01	-46.47	-25.00	21.47	V
7583.01	-53.63	-8.04	12.27	-49.40	-25.00	24.40	V
10180.01	-52.23	-9.33	12.97	-48.59	-25.00	23.59	V
12706.01	-48.61	-10.33	13.32	-45.62	-25.00	20.62	H
15252.00	-44.41	-11.34	13.85	-41.90	-25.00	16.90	H
17777.00	-44.23	-12.61	15.29	-41.55	-25.00	16.55	V

LTE Band 41, 5MHz, QPSK, Channel 40620

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5191.02	-45.97	-6.95	10.17	-42.75	-25.00	17.75	V
7785.01	-50.16	-8.31	12.43	-46.04	-25.00	21.04	H
10383.01	-50.72	-9.77	13.05	-47.44	-25.00	22.44	H
12980.01	-49.09	-10.47	13.49	-46.07	-25.00	21.07	H
15539.00	-44.01	-11.51	13.70	-41.82	-25.00	16.82	V
16857.00	-41.62	-12.05	13.74	-39.93	-25.00	14.93	H

LTE Band 41, 5MHz, QPSK, Channel 41565

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5307.02	-47.81	-6.99	10.33	-44.47	-25.00	19.47	V
7964.01	-52.10	-8.36	12.57	-47.89	-25.00	22.89	H
10623.01	-48.03	-9.29	13.12	-44.20	-25.00	19.20	H
13299.01	-48.34	-10.58	13.92	-45.00	-25.00	20.00	V
15935.00	-43.20	-11.69	13.70	-41.19	-25.00	16.19	V
17268.00	-43.51	-12.36	14.39	-41.48	-25.00	16.48	V

LTE Band 66, 1.4MHz QPSK, Channel 131979

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3422.02	-66.24	-5.38	8.01	-63.61	-13.00	50.61	V
5138.02	-63.74	-6.86	10.09	-60.51	-13.00	47.51	H
6847.01	-60.75	-7.83	11.42	-57.16	-13.00	44.16	H
8556.01	-65.14	-8.57	13.01	-60.70	-13.00	47.70	V
10261.01	-62.65	-9.51	13.00	-59.16	-13.00	46.16	V
11966.01	-60.53	-10.21	13.01	-57.73	-13.00	44.73	V

LTE Band 66, 1.4MHz, QPSK, Channel 132322

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.02	-66.25	-5.50	8.18	-63.57	-13.00	50.57	V
5239.02	-65.96	-7.00	10.23	-62.73	-13.00	49.73	H
6984.01	-60.38	-8.17	11.58	-56.97	-13.00	43.97	H
8752.01	-64.71	-8.52	13.05	-60.18	-13.00	47.18	V
10504.01	-61.55	-9.64	13.10	-58.09	-13.00	45.09	V
12210.01	-59.82	-10.05	13.08	-56.79	-13.00	43.79	V

LTE Band 66, 1.4MHz, QPSK, Channel 132665

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3559.02	-65.52	-5.92	8.28	-63.16	-13.00	50.16	V
5344.02	-63.81	-6.95	10.38	-60.38	-13.00	47.38	H
7121.01	-60.26	-8.16	11.75	-56.67	-13.00	43.67	V
8950.01	-64.51	-9.02	13.09	-60.44	-13.00	47.44	V
10704.01	-62.37	-9.31	13.14	-58.54	-13.00	45.54	V
12503.01	-60.18	-10.18	13.20	-57.16	-13.00	44.16	V

LTE Band 71, 5MHz, QPSK, Channel 133147

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1331.01	-58.29	-3.15	4.62	2.15	-58.97	-13.00	45.97	V
1997.01	-52.32	-4.04	4.61	2.15	-53.90	-13.00	40.90	H
2669.00	-51.64	-4.76	6.40	2.15	-52.15	-13.00	39.15	V
3347.02	-53.73	-5.32	7.83	2.15	-53.37	-13.00	40.37	V
4001.02	-54.04	-6.07	8.90	2.15	-53.36	-13.00	40.36	H
4656.02	-52.88	-6.47	9.56	2.15	-51.94	-13.00	38.94	V

LTE Band 71, 5MHz, QPSK, Channel 133297

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1356.01	-58.87	-3.18	4.75	2.15	-59.45	-13.00	46.45	H
2042.00	-52.20	-4.14	4.73	2.15	-53.76	-13.00	40.76	H
2724.00	-51.77	-4.81	6.50	2.15	-52.23	-13.00	39.23	V
3410.02	-55.37	-5.37	7.98	2.15	-54.91	-13.00	41.91	V
4093.02	-54.27	-6.04	8.99	2.15	-53.47	-13.00	40.47	H
4751.01	-53.25	-6.57	9.65	2.15	-52.32	-13.00	39.32	H

LTE Band 71, 5MHz, QPSK, Channel 133447

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1361.01	-59.58	-3.19	4.78	2.15	-60.14	-13.00	47.14	H
2087.00	-52.95	-4.18	4.86	2.15	-54.42	-13.00	41.42	H
2805.00	-52.10	-4.92	6.65	2.15	-52.52	-13.00	39.52	H
3488.02	-54.63	-5.50	8.17	2.15	-54.11	-13.00	41.11	H
4194.02	-53.97	-6.19	9.09	2.15	-53.22	-13.00	40.22	V
4863.01	-53.90	-6.72	9.76	2.15	-53.01	-13.00	40.01	V

Sample：1361.01MHz

Power (EIRP) = P_{Mea} + P_{pl} + G_a

Power (-60.14dBm) = P_{Mea} (-59.58dBm)+ P_{pl} (-3.19dB)+ G_a(4.78dBi) -2.15

Note: Expanded measurement uncertainty is U = 5.16 dB, k = 2.

A.3 Frequency Stability

A.3.1 Method of Measurement

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. Two reference points are established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as F_L and F_H respectively.

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of CMW500.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30℃.
3. With the EUT, powered via nominal voltage, connected to the CMW500, and in a simulated call on middle channel for each LTE band, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10℃ increments from -30℃ to +50℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50℃.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the center channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 ℃increments from -30℃ to +50℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5℃ during the measurement procedure.

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of the lower, higher and nominal voltage. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress.

A.3.2 Measurement results

LTE Band 7, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	2500.897	2569.135	1.32	0.0005
50				22.99	0.0091
40				25.43	0.0100
30				24.25	0.0096
10				24.82	0.0098
0				0.29	0.0001
-10				1.06	0.0004
-20				24.75	0.0098
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2500.897	2569.135	1.59	0.0006
4.4				0.29	0.0001

LTE Band 12, 10MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	699.481	715.519	0.67	0.0009
50				-0.30	0.0004
40				-0.51	0.0007
30				2.43	0.0034
10				1.27	0.0018
0				-1.52	0.0021
-10				1.43	0.0020
-20				-0.44	0.0006
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	699.481	715.519	-0.33	0.0005
4.4				0.50	0.0007

LTE Band 13, 10MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	777.369	786.599	3.19	0.0041
50				0.40	0.0005
40				1.22	0.0016
30				3.35	0.0043
10				-1.19	0.0015
0				0.96	0.0012
-10				5.12	0.0065
-20				-1.10	0.0014
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	777.369	786.599	-0.70	0.0009
4.4				1.95	0.0025

LTE Band 25, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	1850.833	1914.199	1.70	0.0009
50				0.31	0.0002
40				1.16	0.0006
30				2.36	0.0013
10				2.56	0.0014
0				-1.27	0.0007
-10				0.03	0.0000
-20				1.76	0.0009
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1850.833	1914.199	2.03	0.0011
4.4				-0.14	0.0001

LTE Band 26(814MHz~824MHz), 10MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	814.385	823.620	-2.82	0.0034
50				-0.82	0.0010
40				-2.93	0.0036
30				-1.50	0.0018
10				-1.83	0.0022
0				-0.82	0.0010
-10				1.37	0.0017
-20				-1.92	0.0023
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	814.385	823.620	-0.04	0.0000
4.4				-0.06	0.0001

LTE Band 26(824MHz~849MHz), 15MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	824.553	848.471	1.24	0.0015
50				1.49	0.0018
40				1.29	0.0015
30				1.96	0.0023
10				2.49	0.0030
0				1.49	0.0018
-10				3.99	0.0048
-20				2.19	0.0026
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	824.553	848.471	1.76	0.0021
4.4				1.02	0.0012

LTE Band 41, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	2335.359	2654.658		
50				-25.22	0.0097
40				-23.46	0.0090
30				-22.72	0.0088
10				-3.36	0.0013
0				-7.88	0.0030
-10				1.82	0.0007
-20				1.29	0.0005
-30				2.40	0.0009

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2335.359	2654.658	-3.66	0.0014
4.4				0.82	0.0003

LTE Band 66, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	1710.801	1779.199		
50				3.49	0.0020
40				24.42	0.0140
30				23.33	0.0134
10				22.63	0.0130
0				7.32	0.0042
-10				4.95	0.0028
-20				6.94	0.0040
-30				6.78	0.0039

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1710.801	1779.199	3.30	0.0019
4.4				2.57	0.0015

LTE Band 71, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.85	663.994	697.006	-0.69	0.0010
50				-0.60	0.0009
40				-1.04	0.0015
30				-1.26	0.0019
10				-0.79	0.0012
0				-0.33	0.0005
-10				0.34	0.0005
-20				-1.44	0.0021
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	663.994	697.006	0.10	0.0001
4.4				-1.40	0.0021

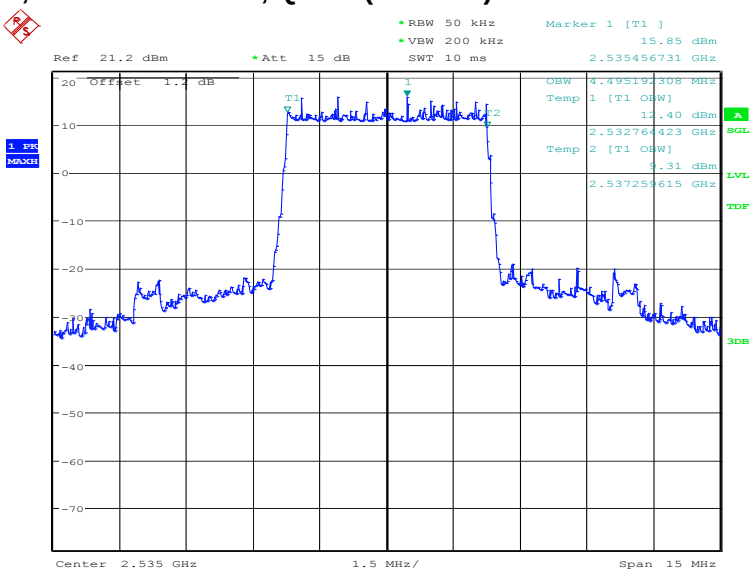
A.4 Occupied Bandwidth

Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the mid frequencies frequency. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.
The measurement method is from ANSI C63.26:
a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
d) Set the detection mode to peak, and the trace mode to max-hold.

LTE band 7, 5MHz (99%)

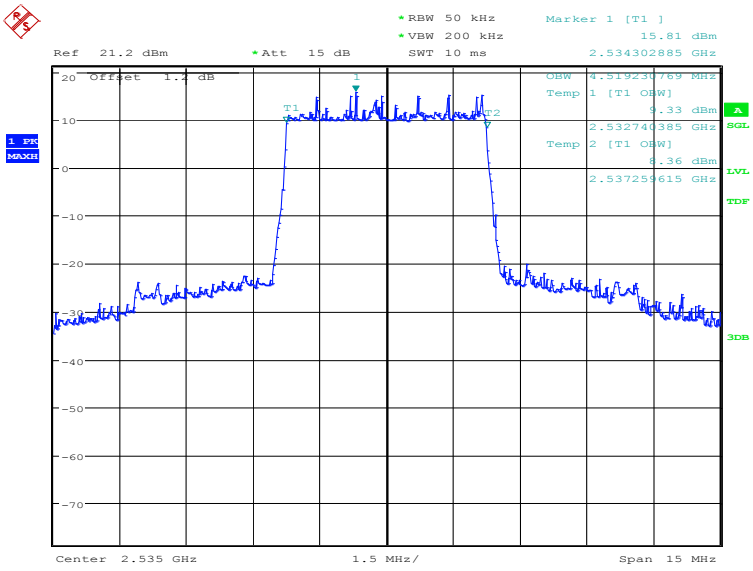
Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
2535.0	QPSK	16QAM
	4495.19	4519.23

LTE band 7, 5MHz Bandwidth, QPSK (99% BW)



Date: 25.NOV.2020 08:15:55

LTE band 7, 5MHz Bandwidth, 16QAM (99% BW)



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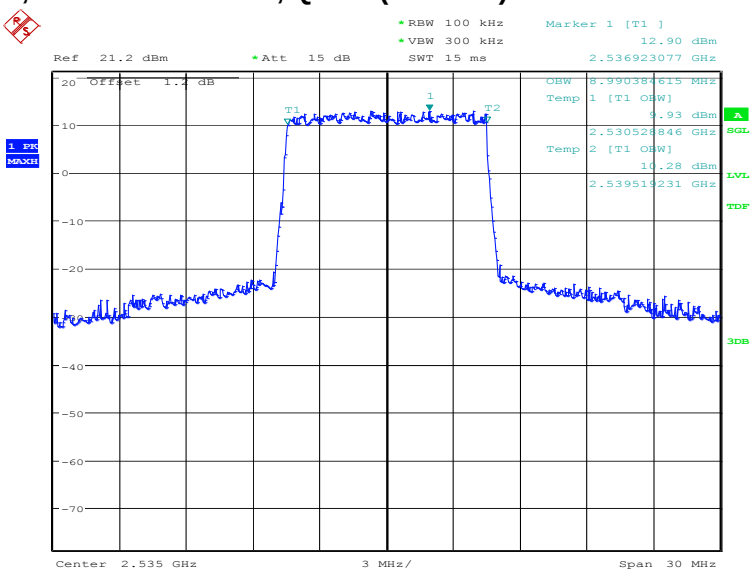
LTE band 7, 10MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
2535.0	QPSK	16QAM
	8990.38	8990.38

LTE band 7, 10MHz Bandwidth, QPSK (99% BW)



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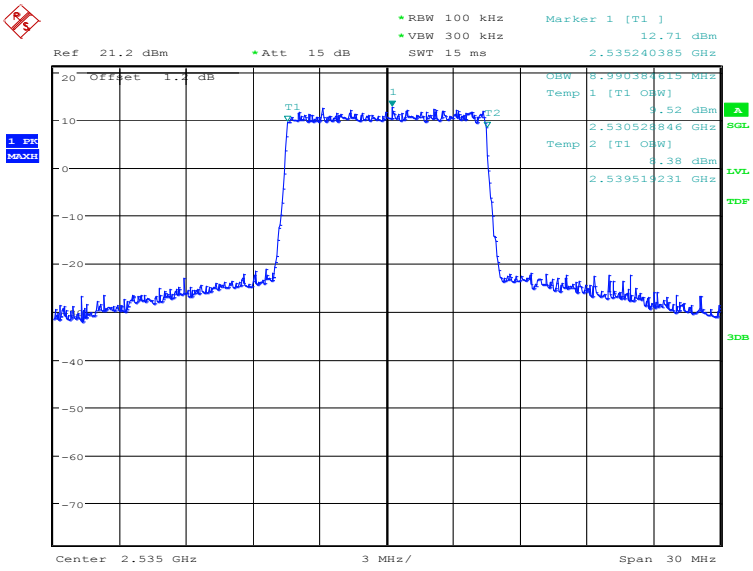
LTE band 7, 10MHz Bandwidth, 16QAM (99% BW)



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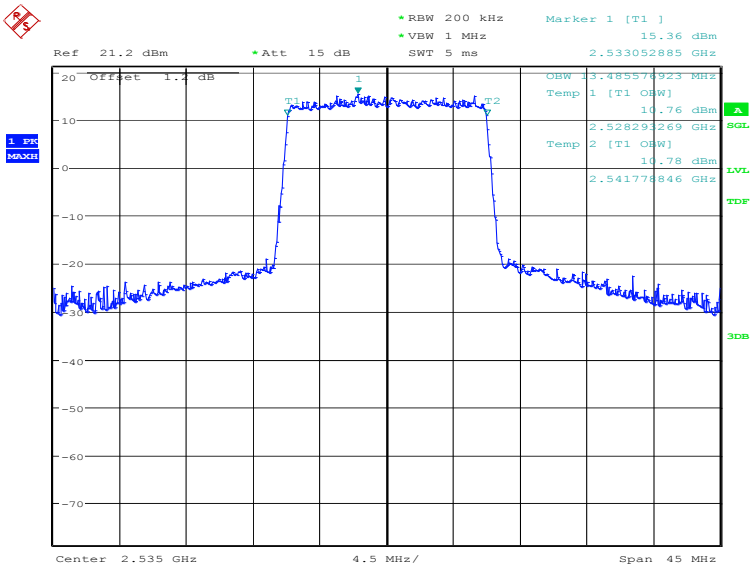
LTE band 7, 15MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
2535.0	QPSK	16QAM
	13485.58	13485.58

LTE band 7, 15MHz Bandwidth, QPSK (99% BW)



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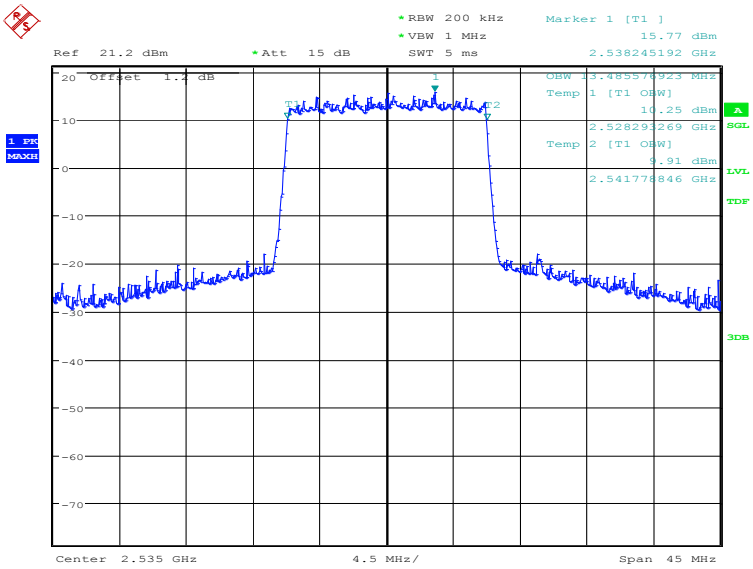
LTE band 7, 15MHz Bandwidth, 16QAM (99% BW)

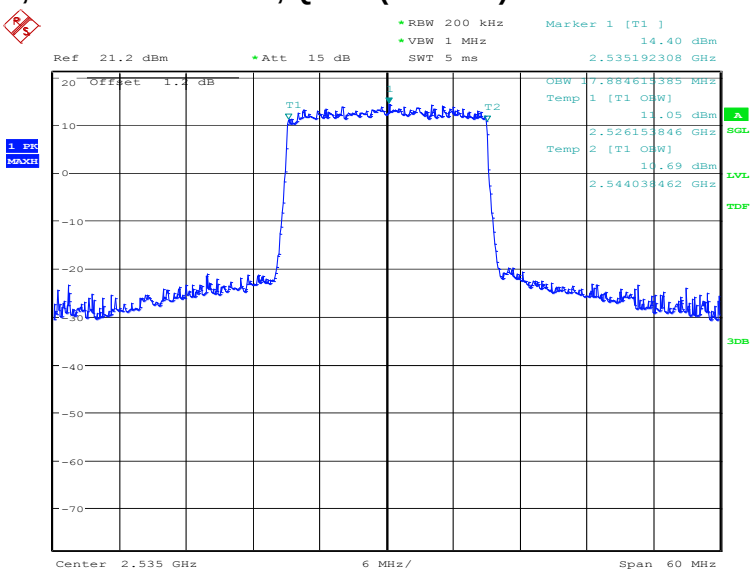


Date: 25.NOV.2020 08:19:11

LTE band 7, 20MHz (99%)

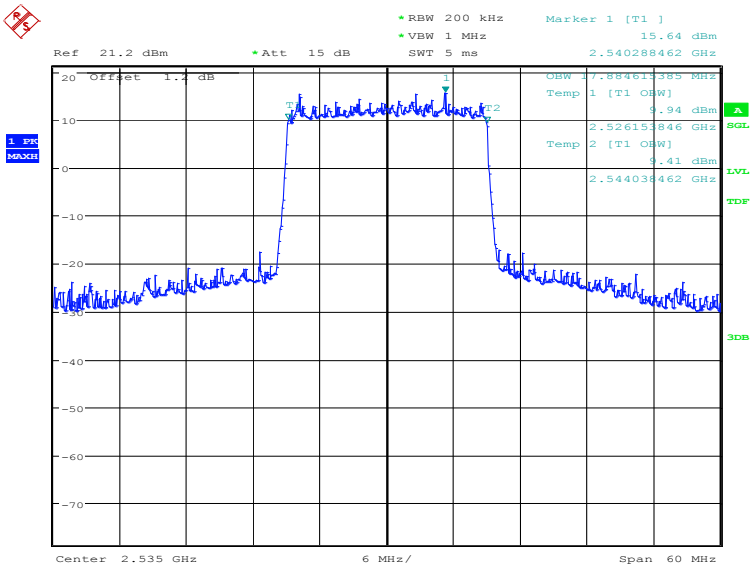
Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
2535.0	QPSK	16QAM
	17884.62	17884.62

LTE band 7, 20MHz Bandwidth, QPSK (99% BW)



Date: 25.NOV.2020 08:19:52

LTE band 7, 20MHz Bandwidth, 16QAM (99% BW)

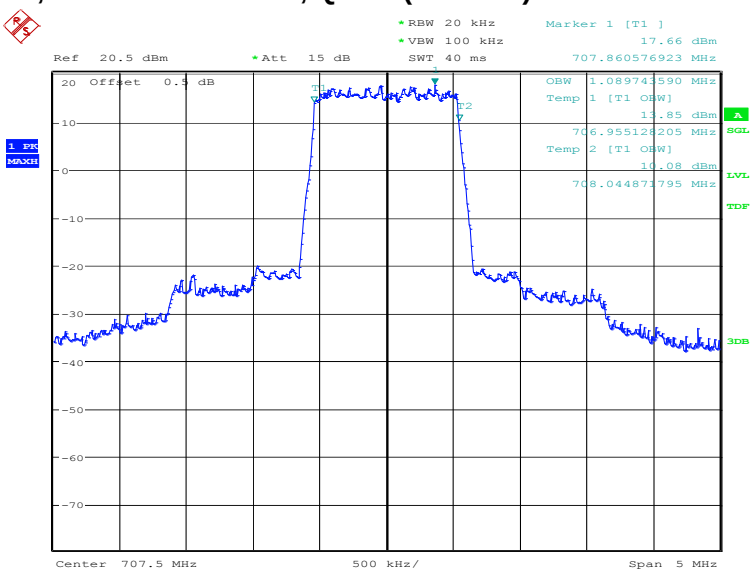


Date: 25.NOV.2020 08:20:30

LTE band 12, 1.4MHz (99%)

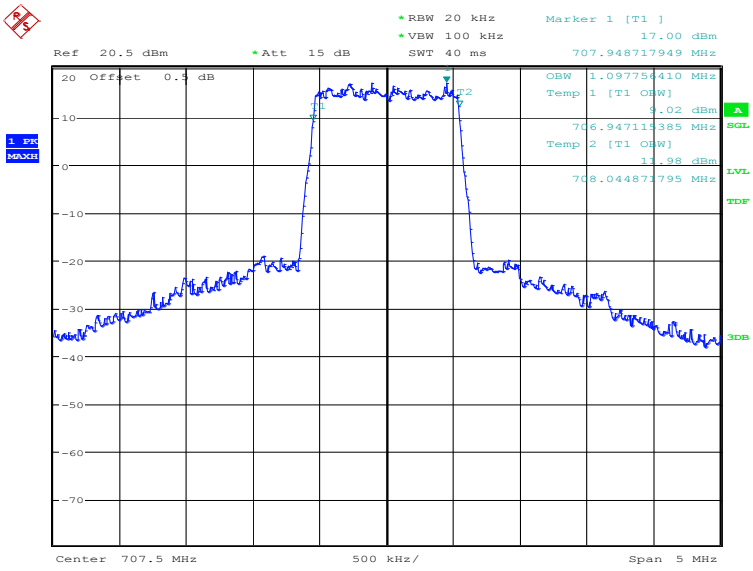
Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
707.5	QPSK	16QAM
	1089.74	1097.76

LTE band 12, 1.4MHz Bandwidth, QPSK (99% BW)



Date: 24.NOV.2020 17:45:28

LTE band 12, 1.4MHz Bandwidth, 16QAM (99% BW)

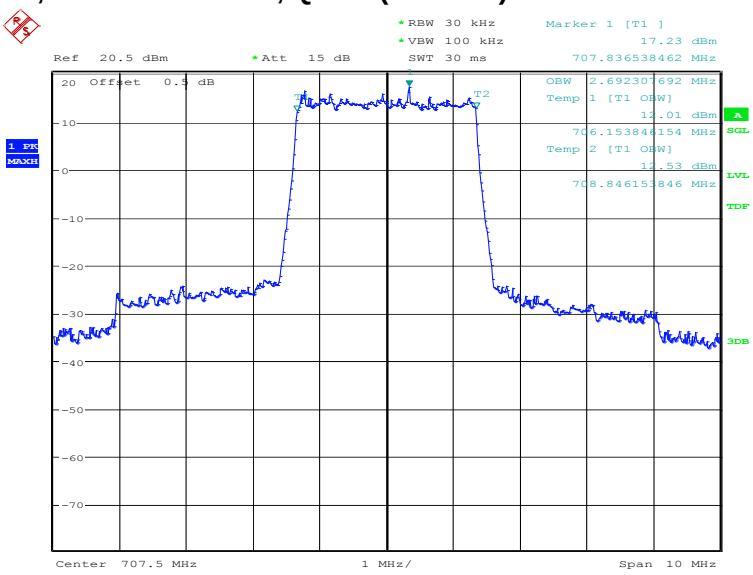


Date: 24.NOV.2020 17:46:07

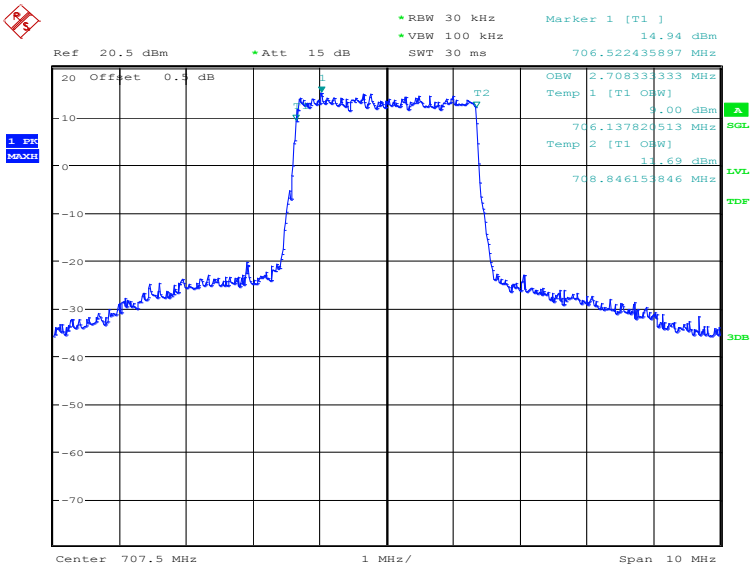
LTE band 12, 3MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
707.5	QPSK	16QAM
	2692.31	2708.33

LTE band 12, 3MHz Bandwidth, QPSK (99% BW)



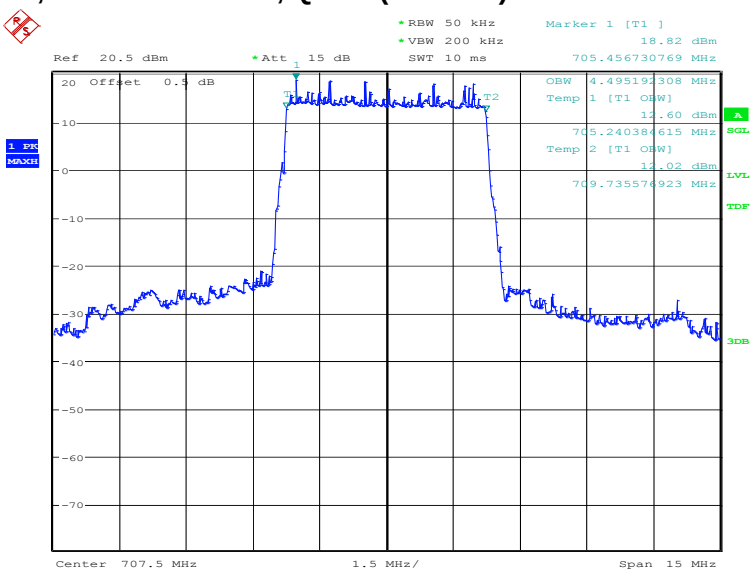
LTE band 12, 3MHz Bandwidth, 16QAM (99% BW)



LTE band 12, 5MHz (99%)

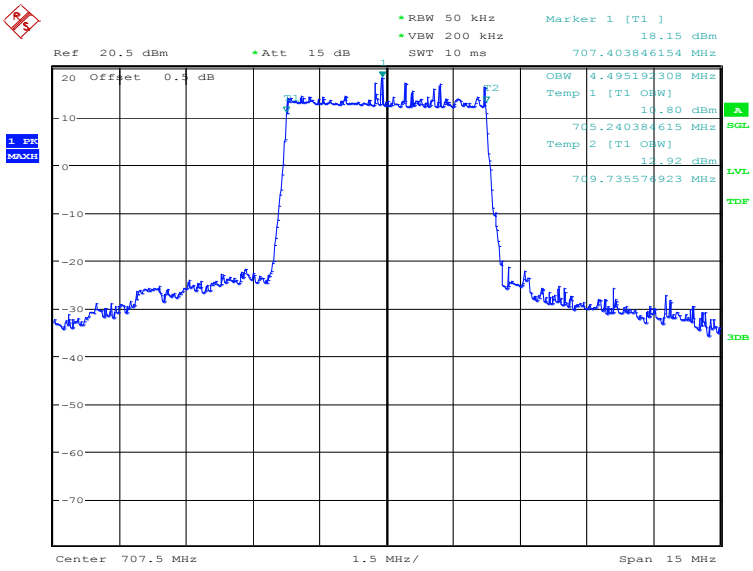
Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
707.5	QPSK	16QAM
	4495.19	4495.19

LTE band 12, 5MHz Bandwidth, QPSK (99% BW)



Date: 24.NOV.2020 17:48:06

LTE band 12, 5MHz Bandwidth, 16QAM (99% BW)

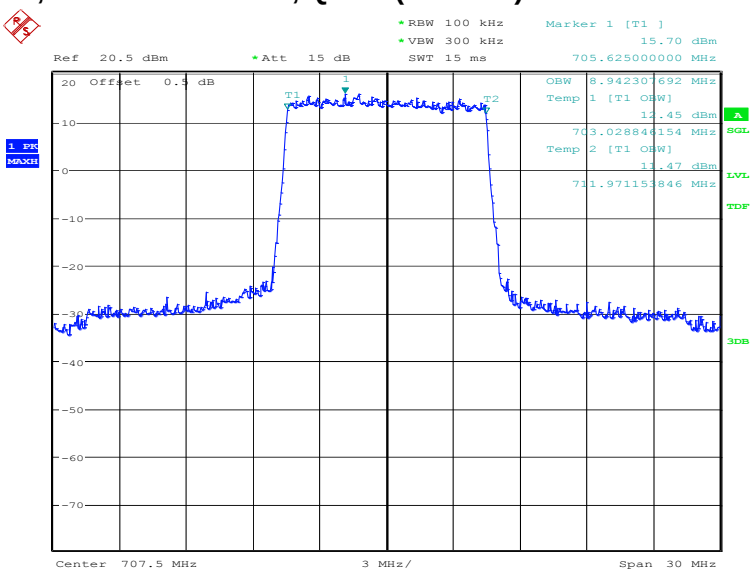


Date: 24.NOV.2020 17:48:45

LTE band 12, 10MHz (99%)

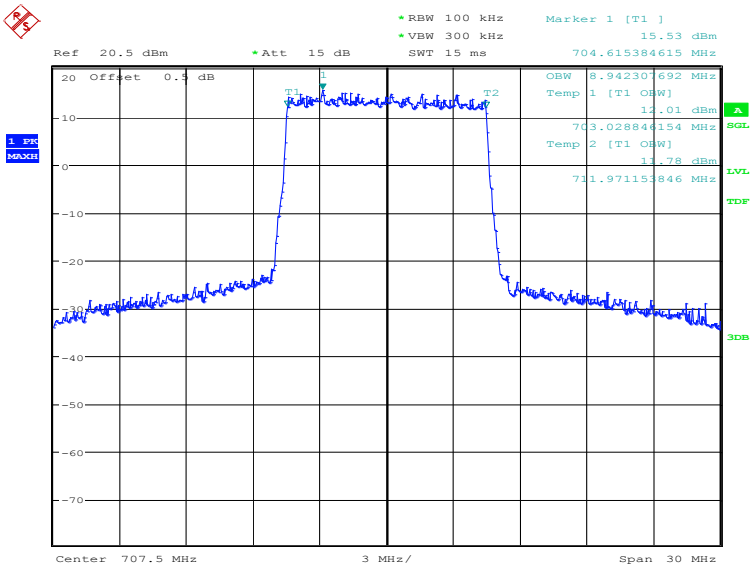
Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
707.5	QPSK	16QAM
	8942.31	8942.31

LTE band 12, 10MHz Bandwidth, QPSK (99% BW)



Date: 24.NOV.2020 17:49:26

LTE band 12, 10MHz Bandwidth, 16QAM (99% BW)

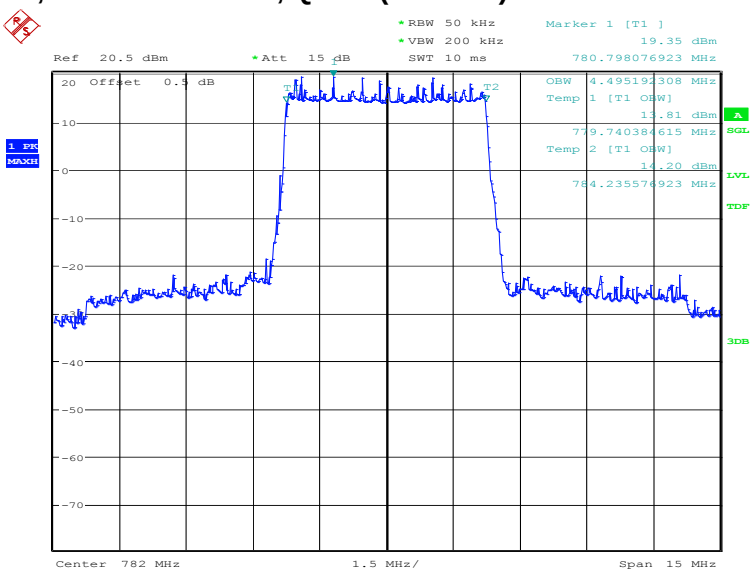


Date: 24.NOV.2020 17:50:04

LTE band 13, 5MHz (99%)

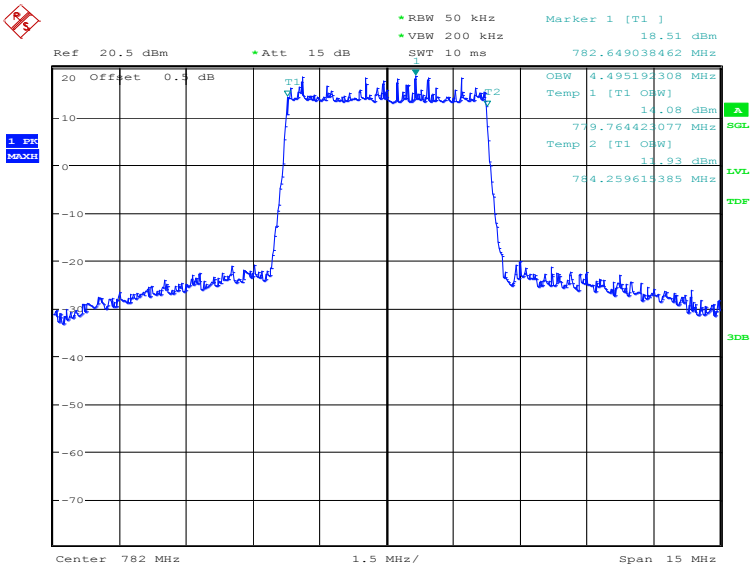
Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
782.0	QPSK	16QAM
	4495.19	4495.19

LTE band 13, 5MHz Bandwidth, QPSK (99% BW)



Date: 24.NOV.2020 17:50:47

LTE band 13, 5MHz Bandwidth,16QAM (99% BW)

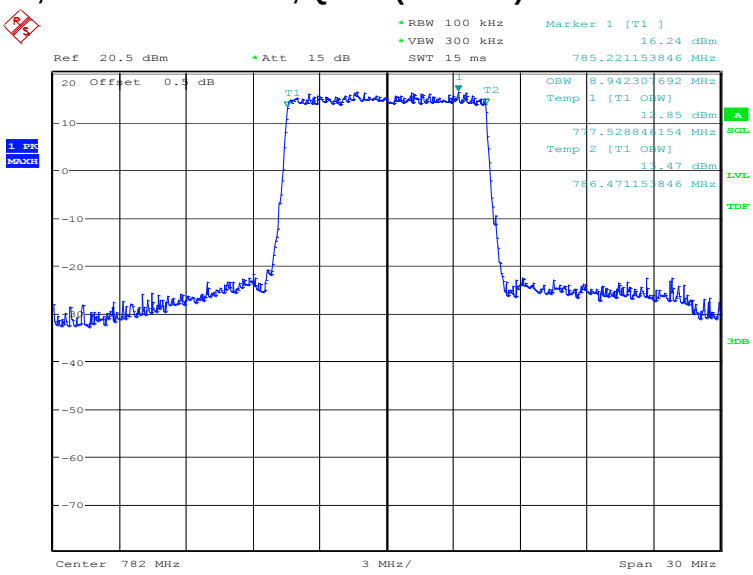


Date: 24.NOV.2020 17:51:25

LTE band 13, 10MHz (99%)

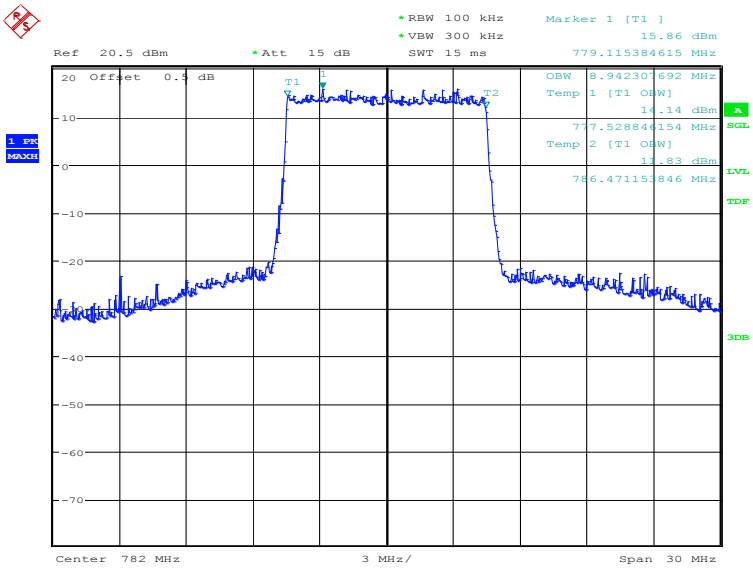
Frequency(MHz)	Occupied Bandwidth (99%) (kHz)	
782.0	QPSK	16QAM
	8942.31	8942.31

LTE band 13, 10MHz Bandwidth, QPSK (99% BW)



Date: 24.NOV.2020 17:52:06

LTE band 13, 10MHz Bandwidth,16QAM (99% BW)



Date: 24.NOV.2020 17:52:44