



TEST REPORT

No.I23N00696-RF LTE

for

Realme Chongqing Mobile Telecommunications Corp., Ltd.

Mobile Phone

Model Name: RMX3710

FCC ID: 2AUYFRMX3710

with

Hardware Version: 11

Software Version: ColorOS 13.0

Issued Date: 2023-05-30

Note:

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

Test Laboratory:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I23N00696-RF LTE	Rev.0	1st edition	2023-05-30

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1. SUMMARY OF TEST REPORT

1.1. Test Items

Description	Mobile Phone
Model Name	RMX3710
Brand Name	realme
Applicant's name	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Manufacturer's Name	Realme Chongqing Mobile Telecommunications Corp., Ltd.

1.2. Test Standards

FCC Part 2/22/24/27	10-1-20 Edition
ANSI C63.26	2015
KDB971168 D01	v03r01

1.3. Test Result

All test items are passed. Please refer to "6 Summary of Test Results" for detail.

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000

1.5. Project Data

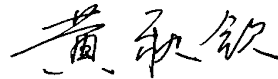
Testing Start Date: 2023-04-25

Testing End Date: 2023-05-04

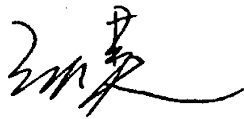
1.6. Signature



Wang Ping
(Prepared this test report)



Huang Qiuqin
(Reviewed this test report)



Zhang Hao
(Approved this test report)



2. CLIENT INFORMATION

2.1. Applicant Information

Company Name: Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address /Post: No.178 Yulong Avenue,Yufengshan,Yubei District,Chongqing,China
Contact: Yang LiangPing
Email: (86)13798864426
Telephone: ylp@realme.net
Fax: /

2.2. Manufacturer Information

Company Name: Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address /Post: No.178 Yulong Avenue,Yufengshan,Yubei District,Chongqing,China
Contact: Yang LiangPing
Email: (86)13798864426
Telephone: ylp@realme.net
Fax: /

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT

(AE)

3.1. About EUT

Description	Mobile Phone
Model Name	RMX3710
FCC ID	2AUYFRMX3710
Frequency Bands	LTE Bands 2/4/5/7/13/66/38/41(2535MHz -2655MHz)
Extreme vol. Limits	3.41V to 4.45V (nominal: 3.87V)
Condition of EUT as received	No abnormality in appearance

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

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
UT08aa	860022061579556	11	ColorOS 13.0	2023-04-20
	860022061579548			
UT01aa	860022061581214	11	ColorOS 13.0	2023-04-21
	860022061581206			

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

UT08aa is used for conduction test, UT01aa is used for radiation test.

3.3. Internal Identification of AE

AE ID*	Description
--------	-------------

AE1	Battery
AE2	Charger
AE3	USB Cable
AE4	Headset

AE1

Model	BLP875
Manufacturer	Sunwoda Electronic Co.Ltd.
Capacity	4880mAh
Nominal Voltage	3.87 V

AE2

Model	VCB3HDUH
Manufacturer	Shenzhen Huntkey Chiyuan Electric Co., LTD
Specification	American Standard Charger

AE3

Model	DL150
Manufacturer	/

AE4

Model	MH156
Manufacturer	/

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

AE: ancillary equipment.

3.4. General Description

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

4. REFERENCE DOCUMENTS

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

Reference	Title	Version
FCC Part 22	PUBLIC MOBILE SERVICES	10-1-20 Edition
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-20 Edition
FCC Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	10-1-20 Edition
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	10-1-20 Edition
ANSI C63.26	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services	2015
KDB971168 D01	Power Meas License Digital Systems	v03r01

5. LABORATORY ENVIRONMENT

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

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz>60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 4 Ω

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

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 18 GHz, 3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:		
Verdict Column	P	Pass
	F	Fail
	NA	Not applicable
	NM	Not measured

LTE Band 2

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

LTE Band 4

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

LTE band 5

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

LTE Band 7

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

LTE Band 13

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

LTE Band 38

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

LTE Band 41

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

LTE Band 66

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

7. STATEMENT

The Mobile Phone, RMX3710, manufactured by TCL Communication Ltd. is a variant of RMX3710 for testing.

According to the declaration, we tested all the case of LTE Band2/5/7/41, and reused all other data from No. I22N02450-RF LTE. For detail information please check the declaration provided by the manufacturer.

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

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

8. TEST EQUIPMENTS UTILIZED

NO.	Description	TYPE	Manufacture	Series number	CAL DUE DATE
1	Test Receiver	ESR7	R&S	101676	2023-11-23
2	BiLog Antenna	3142E	ETS-Lindgren	0224831	2024-05-27
3	Horn Antenna	3117	ETS-Lindgren	00066577	2025-04-17
4	Horn Antenna	QSH-SL-18 -26-S-20	Q-par	17013	2026-02-01
5	Antenna	BBHA 9120D	Schwarzbeck	1593	2025-10-24
6	Antenna	VUBA 9117	Schwarzbeck	207	2023-07-15
7	Antenna	QWH-SL-18 -40-K-SG	Q-par	15979	2026-01-30
8	preamplifier	83017A	Agilent	MY39501110	/
9	Signal Generator	SMB100A	R&S	179725	2023-11-23
10	Fully Anechoic Chamber	FACT3-2.0	ETS-Lindgren	1285	2023-05-29
11	Spectrum Analyzer	FSV40	R&S	101192	2024-01-11
12	Universal Radio Communication Tester	CMU200	R&S	114545	2024-01-11
13	Universal Radio Communication Tester	CMW500	R&S	152499	2023-07-14
14	Spectrum Analyzer	FSW26	R&S	102197	2023-11-24
15	Universal Radio Communication Tester	CMW500	R&S	129146	2024-04-24
16	DC Power Supply	DC Power Supply	Agilent Technologies	MY50450012	2023-11-13
17	Temperature Chamber	SH-241	ESPEC	92007516	2023-10-15

Test software

Item	Name	Vesion
Radiated	EMC32	V10.50.40

ANNEX A: MEASUREMENT RESULTS

A.1 OUTPUT POWER

Reference

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

A.1.1 Summary

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

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

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

A.1.2 Conducted

A.1.2.1 Method of Measurements

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

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

A.1.2.2 Measurement result

LTE band 2

Bandwidth	RB size/offset	Frequency(MHz)	Power(dBm)	
			QPSK	16QAM
1.4MHz	1 RB high	1909.3	22.33	21.24
		1880.0	22.36	21.55
		1850.7	22.26	21.30
	1 RB low	1909.3	22.33	21.28
		1880.0	22.39	21.54
		1850.7	22.23	21.31
	50% RB mid	1909.3	22.40	21.44
		1880.0	22.45	21.55
		1850.7	22.17	21.21
	100% RB	1909.3	21.37	20.37
		1880.0	21.46	20.47
		1850.7	21.16	20.10
3MHz	1 RB high	1908.5	22.36	21.56
		1880.0	22.51	21.46
		1851.5	22.21	21.37
	1 RB low	1908.5	22.42	21.68
		1880.0	22.51	21.40
		1851.5	22.17	21.44
	50% RB mid	1908.5	21.46	20.46
		1880.0	21.52	20.50
		1851.5	21.26	20.33
	100% RB	1908.5	21.40	20.37

Bandwidth	RB size/offset	Frequency(MHz)	Power(dBm)	
			QPSK	16QAM
5MHz		1880.0	21.48	20.40
		1851.5	21.21	20.21
		1907.5	22.35	21.63
	1 RB high	1880.0	22.47	21.51
		1852.5	22.17	21.21
		1907.5	22.41	21.66
	1 RB low	1880.0	22.41	21.45
		1852.5	22.20	21.26
		1907.5	21.50	20.59
	50% RB mid	1880.0	21.54	20.53
		1852.5	21.26	20.31
		1907.5	21.46	20.45
	100% RB	1880.0	21.51	20.56
		1852.5	21.24	20.26
		1905.0	22.39	21.62
10MHz	1 RB high	1880.0	22.56	21.49
		1855.0	22.19	21.43
		1905.0	22.40	21.68
	1 RB low	1880.0	22.44	21.36
		1855.0	22.23	21.48
		1905.0	21.49	20.57
	50% RB mid	1880.0	21.51	20.48
		1855.0	21.28	20.29
		1905.0	21.54	20.55
	100% RB	1880.0	21.54	20.53
		1855.0	21.27	20.26
		1902.5	22.30	21.62
15MHz	1 RB high	1880.0	22.47	21.36
		1857.5	22.16	21.41
		1902.5	22.38	21.71
	1 RB low	1880.0	22.37	21.30
		1857.5	22.18	21.42
		1902.5	21.48	20.51
	50% RB mid	1880.0	21.50	20.47
		1857.5	21.31	20.26
		1902.5	21.52	20.52
	100% RB	1880.0	21.50	20.52
		1857.5	21.31	20.25
		1902.5	21.52	20.52

Bandwidth	RB size/offset	Frequency(MHz)	Power(dBm)	
			QPSK	16QAM
20MHz	1 RB high	1900.0	22.23	21.45
		1880.0	22.23	21.38
		1860.0	22.17	21.22
	1 RB low	1900.0	22.31	21.50
		1880.0	22.08	21.21
		1860.0	22.06	21.14
	50% RB mid	1900.0	21.48	20.55
		1880.0	21.52	20.50
		1860.0	21.32	20.27
	100% RB	1900.0	21.47	20.47
		1880.0	21.50	20.47
		1860.0	21.23	20.23

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

LTE band 4

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
1.4MHz	1 RB high	1754.3	22.33	21.76
		1732.5	22.31	21.70
		1710.7	22.41	21.71
	1 RB low	1754.3	22.35	21.74
		1732.5	22.28	21.61
		1710.7	22.41	21.70
	50% RB mid	1754.3	22.51	21.54
		1732.5	22.49	21.58
		1710.7	22.54	21.59
	100% RB	1754.3	21.43	20.53
		1732.5	21.46	20.59
		1710.7	21.53	20.64
3MHz	1 RB high	1753.5	22.40	21.64
		1732.5	22.37	21.67
		1711.5	22.47	21.74
	1 RB low	1753.5	22.39	21.68
		1732.5	22.39	21.64
		1711.5	22.45	21.78
	50% RB mid	1753.5	21.50	20.53
		1732.5	21.50	20.50
		1711.5	21.57	20.63
	100% RB	1753.5	21.44	20.47
		1732.5	21.45	20.45
		1711.5	21.56	20.56
5MHz	1 RB high	1752.5	22.28	21.51
		1732.5	22.24	21.56
		1712.5	22.35	21.61
	1 RB low	1752.5	22.30	21.66
		1732.5	22.26	21.52
		1712.5	22.35	21.63
	50% RB mid	1752.5	21.53	20.49
		1732.5	21.53	20.54
		1712.5	21.62	20.58
	100% RB	1752.5	21.49	20.50
		1732.5	21.41	20.45
		1712.5	21.56	20.58
10MHz	1 RB high	1750.0	22.40	21.74
		1732.5	22.40	21.72
		1715.0	22.41	21.80
	1 RB low	1750.0	22.48	21.83

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
		1732.5	22.44	21.78
		1715.0	22.54	21.94
		1750.0	21.57	20.59
	50% RB mid	1732.5	21.53	20.53
		1715.0	21.59	20.59
		1750.0	21.53	20.54
	100% RB	1732.5	21.54	20.53
		1715.0	21.58	20.62
		1747.5	22.30	21.66
15MHz	1 RB high	1732.5	22.29	21.62
		1717.5	22.29	21.61
		1747.5	22.39	21.76
	1 RB low	1732.5	22.38	21.74
		1717.5	22.42	21.82
		1747.5	21.58	20.54
	50% RB mid	1732.5	21.55	20.49
		1717.5	21.59	20.59
		1747.5	21.54	20.55
	100% RB	1732.5	21.53	20.52
		1717.5	21.57	20.57
		1745.0	22.13	21.39
20MHz	1 RB high	1732.5	22.08	21.43
		1720.0	22.07	21.39
		1745.0	22.17	21.57
	1 RB low	1732.5	22.20	21.58
		1720.0	22.28	21.52
		1745.0	21.54	20.56
	50% RB mid	1732.5	21.55	20.51
		1720.0	21.60	20.60
		1745.0	21.55	20.58
	100% RB	1732.5	21.54	20.54
		1720.0	21.51	20.49
		1745.0	21.55	20.58

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

LTE band 5

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
1.4MHz	1 RB high	848.3	22.99	22.16
		836.5	23.05	22.22
		824.7	23.14	22.05
	1 RB low	848.3	22.97	22.10
		836.5	23.06	22.25
		824.7	23.14	22.07
	50% RB mid	848.3	23.17	22.22
		836.5	23.13	22.16
		824.7	23.27	22.30
	100% RB	848.3	22.06	21.17
		836.5	22.05	21.05
		824.7	22.17	21.25
3MHz	1 RB high	847.5	23.07	22.23
		836.5	23.09	22.02
		825.5	23.15	22.31
	1 RB low	847.5	23.02	22.26
		836.5	23.14	22.07
		825.5	23.15	22.37
	50% RB mid	847.5	22.11	21.16
		836.5	22.11	21.19
		825.5	22.25	21.40
	100% RB	847.5	22.05	21.08
		836.5	22.04	21.10
		825.5	22.19	21.32
5MHz	1 RB high	846.5	23.07	22.26
		836.5	23.07	22.09
		826.5	23.17	22.18
	1 RB low	846.5	23.01	22.26
		836.5	23.12	22.16
		826.5	23.15	22.18
	50% RB mid	846.5	22.14	21.34
		836.5	22.16	21.24
		826.5	22.24	21.39
	100% RB	846.5	22.10	21.19
		836.5	22.13	21.28
		826.5	22.23	21.34
10MHz	1 RB high	844.0	23.05	22.26
		836.5	23.13	22.05
		829.0	23.14	22.35
	1 RB low	844.0	23.01	22.26

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
		836.5	23.20	22.09
		829.0	23.14	22.35
		844.0	22.10	21.24
	50% RB mid	836.5	22.15	21.28
		829.0	22.20	21.31
		844.0	22.11	21.22
	100% RB	836.5	22.17	21.31
		829.0	22.21	21.34

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

LTE band 7

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
5MHz	1 RB high	2567.5	22.25	21.42
		2535.0	22.73	21.71
		2502.5	21.95	20.95
	1 RB low	2567.5	22.27	21.49
		2535.0	22.59	21.62
		2502.5	21.84	20.86
	50% RB mid	2567.5	21.41	20.48
		2535.0	21.76	20.70
		2502.5	21.03	20.04
	100% RB	2567.5	21.36	20.33
		2535.0	21.73	20.74
		2502.5	20.97	19.98
10MHz	1 RB high	2565.0	22.29	21.44
		2535.0	22.73	21.69
		2505.0	22.06	21.24
	1 RB low	2565.0	22.45	21.63
		2535.0	22.66	21.57
		2505.0	21.93	21.10
	50% RB mid	2565.0	21.41	20.44
		2535.0	21.75	20.74
		2505.0	21.10	20.06
	100% RB	2565.0	21.44	20.43
		2535.0	21.75	20.74
		2505.0	21.08	20.08
15MHz	1 RB high	2562.5	22.21	21.50
		2535.0	22.67	21.58
		2507.5	22.04	21.26
	1 RB low	2562.5	22.47	21.74
		2535.0	22.53	21.44
		2507.5	21.86	21.07
	50% RB mid	2562.5	21.56	20.52
		2535.0	21.78	20.71
		2507.5	21.19	20.11
	100% RB	2562.5	21.49	20.44
		2535.0	21.73	20.71
		2507.5	21.20	20.11
20MHz	1 RB high	2560.0	22.18	21.30

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
		2535.0	22.46	21.62
		2510.0	22.20	21.23
		2560.0	22.46	21.57
	1 RB low	2535.0	22.22	21.34
		2510.0	21.83	20.83
		2560.0	21.54	20.60
	50% RB mid	2535.0	21.71	20.73
		2510.0	21.21	20.16
		2560.0	21.45	20.42
	100% RB	2535.0	21.67	20.65
		2510.0	21.15	20.16

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

LTE band 13

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
5MHz	1 RB high	784.5	23.01	22.27
		782.0	23.15	22.41
		779.5	23.21	22.43
	1 RB low	784.5	23.22	22.42
		782.0	23.18	22.37
		779.5	23.03	22.38
	50% RB mid	784.5	22.33	21.41
		782.0	22.36	21.51
		779.5	22.30	21.43
	100% RB	784.5	22.27	21.34
		782.0	22.34	21.43
		779.5	22.22	21.31
10MHz	1 RB high	782.0	23.13	22.44
	1 RB low	782.0	23.18	22.57
	50% RB mid	782.0	22.36	21.38
	100% RB	782.0	22.35	21.41

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

LTE band 38

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
5MHz	1 RB high	2617.5	22.45	21.48
		2595.0	22.48	21.51
		2572.5	22.51	21.50
	1 RB low	2617.5	22.48	21.48
		2595.0	22.53	21.55
		2572.5	22.53	21.48
	50% RB mid	2617.5	21.64	20.59
		2595.0	21.73	20.62
		2572.5	21.70	20.66
	100% RB	2617.5	21.60	20.59
		2595.0	21.65	20.62
		2572.5	21.61	20.68
10MHz	1 RB high	2615.0	22.55	21.60
		2595.0	22.62	21.64
		2575.0	22.66	21.71
	1 RB low	2615.0	22.59	21.64
		2595.0	22.64	21.69
		2575.0	22.66	21.68
	50% RB mid	2615.0	21.60	20.65
		2595.0	21.63	20.67
		2575.0	21.64	20.61
	100% RB	2615.0	21.55	20.55
		2595.0	21.53	20.62
		2575.0	21.60	20.62
15MHz	1 RB high	2612.5	22.44	21.46
		2595.0	22.49	21.48
		2577.5	22.52	21.54
	1 RB low	2612.5	22.51	21.45
		2595.0	22.52	21.53
		2577.5	22.55	21.59
	50% RB mid	2612.5	21.59	20.55
		2595.0	21.66	20.54
		2577.5	21.66	20.59
	100% RB	2612.5	21.52	20.55
		2595.0	21.59	20.51
		2577.5	21.57	20.52

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
20MHz	1 RB high	2610.0	22.27	21.31
		2595.0	22.33	21.27
		2580.0	22.36	21.36
	1 RB low	2610.0	22.30	21.33
		2595.0	22.36	21.41
		2580.0	22.36	21.40
	50% RB mid	2610.0	21.49	20.54
		2595.0	21.54	20.52
		2580.0	21.52	20.54
	100% RB	2610.0	21.45	20.52
		2595.0	21.50	20.55
		2580.0	21.59	20.57

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

LTE band 41

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
5MHz	1 RB high	2537.5	22.11	21.36
		2595.0	21.98	21.01
		2652.5	22.53	21.55
	1 RB low	2537.5	22.15	21.40
		2595.0	21.97	20.97
		2652.5	22.49	21.50
	50% RB mid	2537.5	21.21	20.30
		2595.0	21.06	20.00
		2652.5	21.59	20.65
	100% RB	2537.5	21.22	20.18
		2595.0	21.04	20.04
		2652.5	21.60	20.64
10MHz	1 RB high	2540.0	22.24	21.34
		2595.0	22.13	21.04
		2650.0	22.64	21.87
	1 RB low	2540.0	22.36	21.45
		2595.0	22.08	20.99
		2650.0	22.56	21.78
	50% RB mid	2540.0	21.30	20.29
		2595.0	21.09	20.06
		2650.0	21.66	20.69
	100% RB	2540.0	21.34	20.34
		2595.0	21.06	20.04
		2650.0	21.63	20.66
15MHz	1 RB high	2542.5	22.13	21.36
		2595.0	22.01	20.96
		2647.5	22.60	21.78
	1 RB low	2542.5	22.40	21.58
		2595.0	21.96	20.91
		2647.5	22.51	21.73
	50% RB mid	2542.5	21.40	20.38
		2595.0	21.12	20.05
		2647.5	21.73	20.68

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
	100% RB	2542.5	21.38	20.37
		2595.0	21.11	20.03
		2647.5	21.69	20.59
20MHz	1 RB high	2545.0	22.10	21.31
		2595.0	21.85	20.87
		2645.0	22.44	21.53
	1 RB low	2545.0	22.30	21.51
		2595.0	21.80	20.77
		2645.0	22.33	21.48
	50% RB mid	2545.0	21.34	20.45
		2595.0	21.04	20.06
		2645.0	21.71	20.67
	100% RB	2545.0	21.34	20.31
		2595.0	21.07	20.07
		2645.0	21.61	20.63

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

LTE band 66

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
1.4MHz	1 RB high	1779.3	22.65	21.95
		1745.0	22.62	22.03
		1710.7	22.74	22.03
	1 RB low	1779.3	22.64	21.96
		1745.0	22.62	21.99
		1710.7	22.75	22.01
	50% RB mid	1779.3	22.84	21.77
		1745.0	22.81	21.85
		1710.7	22.90	21.89
	100% RB	1779.3	21.76	20.82
		1745.0	21.74	20.88
		1710.7	21.86	20.92
3MHz	1 RB high	1778.5	22.67	21.93
		1745.0	22.68	21.98
		1711.5	22.77	22.08
	1 RB low	1778.5	22.69	21.93
		1745.0	22.70	21.99
		1711.5	22.80	22.06
	50% RB mid	1778.5	21.79	20.85
		1745.0	21.77	20.84
		1711.5	21.91	20.97
	100% RB	1778.5	21.75	20.80
		1745.0	21.76	20.77
		1711.5	21.85	20.89
5MHz	1 RB high	1777.5	22.56	21.87
		1745.0	22.53	21.88
		1712.5	22.66	21.96
	1 RB low	1777.5	22.59	21.87
		1745.0	22.61	21.89
		1712.5	22.68	21.99
	50% RB mid	1777.5	21.81	20.79
		1745.0	21.78	20.83
		1712.5	21.84	20.91
	100% RB	1777.5	21.78	20.75
		1745.0	21.79	20.77
		1712.5	21.84	20.86
10MHz	1 RB high	1775.0	22.66	21.96

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)	
			QPSK	16QAM
		1745.0	22.68	22.04
		1715.0	22.73	22.08
		1775.0	22.68	22.03
	1 RB low	1745.0	22.78	22.04
		1715.0	22.82	22.12
		1775.0	21.81	20.80
	50% RB mid	1745.0	21.80	20.78
		1715.0	21.87	20.88
		1775.0	21.79	20.76
	100% RB	1745.0	21.84	20.82
		1715.0	21.88	20.93
		1772.5	22.54	21.95
	1 RB high	1745.0	22.53	21.93
		1717.5	22.58	21.90
15MHz	1 RB low	1772.5	22.63	22.06
		1745.0	22.66	22.01
		1717.5	22.71	22.02
	50% RB mid	1772.5	21.82	20.77
		1745.0	21.83	20.77
		1717.5	21.86	20.80
	100% RB	1772.5	21.78	20.77
		1745.0	21.80	20.86
		1717.5	21.83	20.81
20MHz	1 RB high	1770.0	22.31	21.67
		1745.0	22.35	21.62
		1720.0	22.32	21.66
	1 RB low	1770.0	22.47	21.78
		1745.0	22.43	21.66
		1720.0	22.47	21.86
	50% RB mid	1770.0	21.82	20.79
		1745.0	21.84	20.82
		1720.0	21.85	20.85
	100% RB	1770.0	21.76	20.73
		1745.0	21.79	20.80
		1720.0	21.74	20.73

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

A.1.3 Radiated

A.1.3.1 Description

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

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

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

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

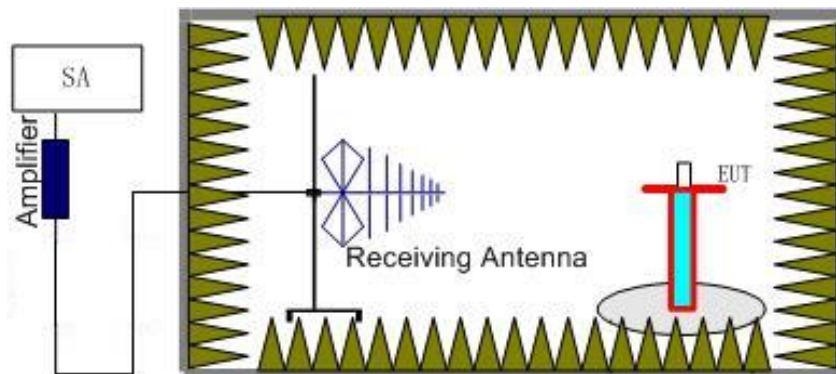
Rule Part 27.50(c) specifies "Portable stations (hand-held de-vices) are limited to 3 watts ERP".

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

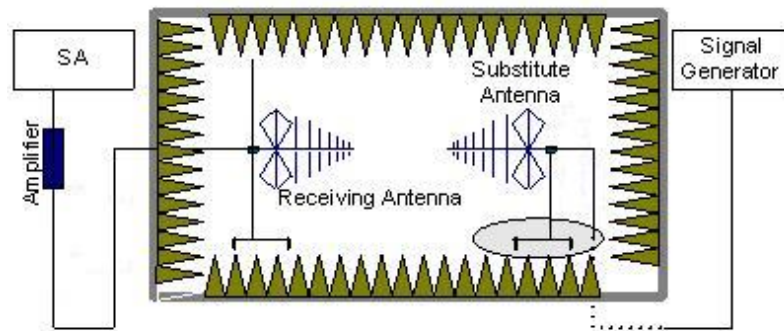
Rule Part 22.913(a) specifies "The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts."

A.1.3.2 Method of Measurement

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



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



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

4. An amplifier should be connected to the Signal Source output port. And the cable should be connected between the amplifier and the substitution antenna.

The cable loss (P_{cl}), the substitution Antenna Gain(dBi) (G_a) and the amplifier Gain (P_{Ag}) should be recorded after test.

The measurement results are obtained as described below:

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

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

A.1.3.3 Measurement result

Upper antenna

LTE Band 2- EIRP Part 24. 232(c)

Limits: $\leq 33\text{dBm}$ (2W)

LTE Band 2_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-16.98	-29.30	8.10	20.42	33.00	H
1880.00	-16.67	-29.40	8.10	20.83	33.00	H
1909.30	-17.10	-29.30	8.10	20.30	33.00	H

LTE Band 2_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-17.02	-29.30	8.10	20.38	33.00	H
1880.00	-16.71	-29.40	8.10	20.79	33.00	H
1908.50	-17.13	-29.30	8.10	20.27	33.00	H

LTE Band 2_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-17.05	-29.30	8.10	20.35	33.00	H
1880.00	-16.77	-29.40	8.10	20.73	33.00	H
1907.50	-17.19	-29.30	8.10	20.21	33.00	H

LTE Band 2_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-17.06	-29.30	8.10	20.34	33.00	H
1880.00	-16.82	-29.40	8.10	20.68	33.00	H
1905.00	-16.77	-29.30	8.10	20.63	33.00	H

LTE Band 2_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-17.10	-29.30	8.10	20.30	33.00	H
1880.00	-16.86	-29.40	8.10	20.64	33.00	H
1902.50	-16.99	-29.30	8.10	20.41	33.00	H

LTE Band 2_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-17.14	-29.30	8.10	20.26	33.00	H
1880.00	-16.90	-29.40	8.10	20.60	33.00	H
1900.00	-17.02	-29.30	8.10	20.38	33.00	H

LTE Band 2_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-18.02	-29.30	8.10	19.38	33.00	H
1880.00	-17.72	-29.40	8.10	19.78	33.00	H
1909.30	-18.11	-29.30	8.10	19.29	33.00	H

LTE Band 2_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-18.06	-29.30	8.10	19.34	33.00	H
1880.00	-17.78	-29.40	8.10	19.72	33.00	H
1908.50	-18.16	-29.30	8.10	19.24	33.00	H

LTE Band 2_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-18.09	-29.30	8.10	19.31	33.00	H
1880.00	-17.81	-29.40	8.10	19.69	33.00	H
1907.50	-18.21	-29.30	8.10	19.19	33.00	H

LTE Band 2_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-18.13	-29.30	8.10	19.27	33.00	H
1880.00	-17.85	-29.40	8.10	19.65	33.00	H
1905.00	-17.96	-29.30	8.10	19.44	33.00	H

LTE Band 2_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-18.20	-29.30	8.10	19.20	33.00	H
1880.00	-17.90	-29.40	8.10	19.60	33.00	H
1902.50	-17.92	-29.30	8.10	19.48	33.00	H

LTE Band 2_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-17.87	-29.30	8.10	19.53	33.00	H
1880.00	-17.95	-29.40	8.10	19.55	33.00	H
1900.00	-17.98	-29.30	8.10	19.42	33.00	H

LTE Band 4- EIRP Part 27.50(d)(4)

Limits: $\leq 30\text{dBm}$ (1W)

LTE Band 4_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-17.58	-29.60	8.10	20.12	30.00	H
1732.50	-18.45	-29.60	8.10	19.25	30.00	H
1754.30	-17.95	-29.50	8.10	19.65	30.00	H

LTE Band 4_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-17.61	-29.60	8.10	20.09	30.00	H
1732.50	-18.50	-29.60	8.10	19.20	30.00	H
1753.50	-17.94	-29.50	8.10	19.66	30.00	H

LTE Band 4_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-17.65	-29.60	8.10	20.05	30.00	H
1732.50	-18.52	-29.60	8.10	19.18	30.00	H
1752.50	-17.98	-29.50	8.10	19.62	30.00	H

LTE Band 4_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-17.68	-29.60	8.10	20.02	30.00	H
1732.50	-18.54	-29.60	8.10	19.16	30.00	H
1750.00	-18.01	-29.50	8.10	19.59	30.00	H

LTE Band 4_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-17.70	-29.60	8.10	20.00	30.00	H
1732.50	-17.58	-29.60	8.10	20.12	30.00	H
1747.50	-15.05	-29.50	8.10	22.55	30.00	H

LTE Band 4_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-17.73	-29.60	8.10	19.97	30.00	H
1732.50	-17.60	-29.60	8.10	20.10	30.00	H
1745.00	-18.07	-29.50	8.10	19.53	30.00	H

LTE Band 4_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-18.59	-29.60	8.10	19.11	30.00	H
1732.50	-18.48	-29.60	8.10	19.22	30.00	H
1754.30	-17.97	-29.50	8.10	19.63	30.00	H

LTE Band 4_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-18.64	-29.60	8.10	19.06	30.00	H
1732.50	-18.51	-29.60	8.10	19.19	30.00	H
1753.50	-18.01	-29.50	8.10	19.59	30.00	H

LTE Band 4_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-18.68	-29.60	8.10	19.02	30.00	H
1732.50	-18.54	-29.60	8.10	19.16	30.00	H
1752.50	-18.05	-29.50	8.10	19.55	30.00	H

LTE Band 4_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-18.71	-29.60	8.10	18.99	30.00	H
1732.50	-18.59	-29.60	8.10	19.11	30.00	H
1750.00	-18.08	-29.50	8.10	19.52	30.00	H

LTE Band 4_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-18.74	-29.60	8.10	18.96	30.00	H
1732.50	-18.65	-29.60	8.10	19.05	30.00	H
1747.50	-18.11	-29.50	8.10	19.49	30.00	H

LTE Band 4_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-18.78	-29.60	8.10	18.92	30.00	H
1732.50	-18.68	-29.60	8.10	19.02	30.00	H
1745.00	-18.14	-29.50	8.10	19.46	30.00	H

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

LTE Band 5_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.70	-11.60	-33.60	-0.79	2.15	19.06	38.45	V
836.50	-11.93	-33.50	-0.74	2.15	18.68	38.45	V
848.30	-11.42	-33.50	-0.73	2.15	19.20	38.45	V

LTE Band 5_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
825.50	-11.64	-33.60	-0.84	2.15	18.97	38.45	V
836.50	-11.07	-33.50	-0.74	2.15	19.54	38.45	V
847.50	-11.52	-33.50	-0.73	2.15	19.10	38.45	V

LTE Band 5_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
826.50	-11.67	-33.60	-0.84	2.15	18.94	38.45	V
836.50	-11.14	-33.50	-0.74	2.15	19.47	38.45	V
846.50	-11.63	-33.50	-0.73	2.15	18.99	38.45	V

LTE Band 5_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
829.00	-11.71	-33.60	-0.84	2.15	18.90	38.45	V
836.50	-11.20	-33.50	-0.74	2.15	19.41	38.45	V
844.00	-11.65	-33.50	-0.78	2.15	18.92	38.45	V

LTE Band 5_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.70	-12.45	-33.60	-0.79	2.15	18.21	38.45	V
836.50	-12.05	-33.50	-0.74	2.15	18.56	38.45	V
848.30	-11.73	-33.50	-0.73	2.15	18.89	38.45	V

LTE Band 5_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
825.50	-12.47	-33.60	-0.84	2.15	18.14	38.45	V
836.50	-12.11	-33.50	-0.74	2.15	18.50	38.45	V
847.50	-11.78	-33.50	-0.73	2.15	18.84	38.45	V

LTE Band 5_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
826.50	-12.51	-33.60	-0.84	2.15	18.10	38.45	V
836.50	-12.19	-33.50	-0.74	2.15	18.42	38.45	V
846.50	-11.82	-33.50	-0.73	2.15	18.80	38.45	V

LTE Band 5_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
829.00	-12.58	-33.60	-0.84	2.15	18.03	38.45	V
836.50	-12.24	-33.50	-0.74	2.15	18.37	38.45	V
844.00	-11.82	-33.50	-0.78	2.15	18.75	38.45	V

LTE Band 7- EIRP Part 27.50(h)(2)
Limits: ≤33 dBm (2W)

LTE Band 7_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2502.50	-18.94	-28.70	10.70	20.46	33.00	H
2535.00	-18.73	-28.60	10.70	20.57	33.00	H
2567.50	-18.79	-28.60	10.70	20.51	33.00	H

LTE Band 7_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2505.00	-18.98	-28.70	10.70	20.42	33.00	H
2535.00	-18.76	-28.60	10.70	20.54	33.00	H
2565.00	-18.82	-28.60	10.70	20.48	33.00	H

LTE Band 7_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2507.50	-19.01	-28.70	10.70	20.39	33.00	H
2535.00	-18.81	-28.60	10.70	20.49	33.00	H
2562.50	-18.87	-28.60	10.70	20.43	33.00	H

LTE Band 7_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2510.00	-19.04	-28.70	10.70	20.36	33.00	H
2535.00	-18.84	-28.60	10.70	20.46	33.00	H
2560.00	-18.90	-28.60	10.70	20.40	33.00	H

LTE Band 7_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2502.50	-19.90	-28.70	10.70	19.50	33.00	H
2535.00	-19.76	-28.60	10.70	19.54	33.00	H
2567.50	-19.91	-28.60	10.70	19.39	33.00	H

LTE Band 7_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2505.00	-19.95	-28.70	10.70	19.45	33.00	H
2535.00	-19.78	-28.60	10.70	19.52	33.00	H
2565.00	-19.94	-28.60	10.70	19.36	33.00	H

LTE Band 7_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2507.50	-19.97	-28.70	10.70	19.43	33.00	H
2535.00	-19.82	-28.60	10.70	19.48	33.00	H
2562.50	-19.95	-28.60	10.70	19.35	33.00	H

LTE Band 7_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2510.00	-20.00	-28.70	10.70	19.40	33.00	H
2535.00	-19.84	-28.60	10.70	19.46	33.00	H
2560.00	-19.97	-28.60	10.70	19.33	33.00	H

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

LTE Band 13_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
779.50	-12.21	-34.00	-0.08	2.15	19.56	34.77	V
782.00	-12.49	-34.00	-0.13	2.15	19.23	34.77	V
784.50	-12.72	-34.00	-0.13	2.15	19.00	34.77	V

LTE Band 13_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
782.00	-12.38	-34.00	-0.13	2.15	19.34	34.77	V

LTE Band 13_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
779.50	-13.27	-34.00	-0.08	2.15	18.50	34.77	V
782.00	-13.48	-34.00	-0.13	2.15	18.24	34.77	V
784.50	-13.60	-34.00	-0.13	2.15	18.12	34.77	V

LTE Band 13_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
782.00	-13.41	-34.00	-0.13	2.15	18.31	34.77	V

LTE Band 38 - EIRP Part 27.50(h)(2)
Limits: ≤33dBm (2W)

LTE Band 38_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2572.50	-18.44	-28.60	10.70	20.86	33.00	H
2595.00	-18.43	-28.60	10.70	20.88	33.00	H
2617.50	-18.70	-28.60	10.70	20.60	33.00	H

LTE Band 38_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2575.00	-18.48	-28.60	10.70	20.82	33.00	H
2595.00	-18.45	-28.60	10.70	20.85	33.00	H
2615.00	-18.73	-28.60	10.70	20.57	33.00	H

LTE Band 38_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2577.50	-18.50	-28.60	10.70	20.80	33.00	H
2595.00	-18.48	-28.60	10.70	20.82	33.00	H
2612.50	-18.77	-28.60	10.70	20.53	33.00	H

LTE Band 38_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2580.00	-18.54	-28.60	10.70	20.76	33.00	H
2595.00	-18.52	-28.60	10.70	20.78	33.00	H
2610.00	-18.80	-28.60	10.70	20.50	33.00	H

LTE Band 38_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2572.50	-19.46	-28.60	10.70	19.84	33.00	H
2595.00	-19.43	-28.60	10.70	19.87	33.00	H
2617.50	-19.74	-28.60	10.70	19.56	33.00	H

LTE Band 38_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2575.00	-19.51	-28.60	10.70	19.79	33.00	H
2595.00	-19.47	-28.60	10.70	19.83	33.00	H
2615.00	-19.78	-28.60	10.70	19.52	33.00	H

LTE Band 38_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2577.50	-19.54	-28.60	10.70	19.76	33.00	H
2595.00	-19.51	-28.60	10.70	19.79	33.00	H
2612.50	-19.82	-28.60	10.70	19.48	33.00	H

LTE Band 38_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2580.00	-19.58	-28.60	10.70	19.72	33.00	H
2595.00	-19.53	-28.60	10.70	19.77	33.00	H
2610.00	-19.85	-28.60	10.70	19.45	33.00	H

LTE Band 41- EIRP Part 27.50(d)(2)
Limits: ≤33dBm (2W)

LTE Band 41_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2537.50	-18.86	-28.70	10.70	20.54	33.00	H
2595.00	-18.84	-28.60	10.70	20.46	33.00	H
2652.50	-18.87	-28.60	10.70	20.43	33.00	H

LTE Band 41_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2540.00	-18.89	-28.70	10.70	20.51	33.00	H
2595.00	-18.86	-28.60	10.70	20.44	33.00	H
2650.00	-18.94	-28.60	10.70	20.36	33.00	H

LTE Band 41_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2542.50	-18.92	-28.70	10.70	20.48	33.00	H
2595.00	-18.88	-28.60	10.70	20.42	33.00	H
2647.50	-18.96	-28.60	10.70	20.34	33.00	H

LTE Band 41_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2545.00	-18.97	-28.70	10.70	20.43	33.00	H
2595.00	-18.91	-28.60	10.70	20.39	33.00	H
2645.00	-19.01	-28.60	10.70	20.29	33.00	H

LTE Band 41_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2537.50	-19.78	-28.70	10.70	19.62	33.00	H
2595.00	-19.77	-28.60	10.70	19.53	33.00	H
2652.50	-19.91	-28.60	10.70	19.39	33.00	H

LTE Band 41_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2540.00	-19.85	-28.70	10.70	19.55	33.00	H
2595.00	-19.83	-28.60	10.70	19.47	33.00	H
2650.00	-19.97	-28.60	10.70	19.33	33.00	H

LTE Band 41_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2542.50	-19.89	-28.70	10.70	19.51	33.00	H
2595.00	-19.87	-28.60	10.70	19.43	33.00	H
2647.50	-20.04	-28.60	10.70	19.26	33.00	H

LTE Band 41_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2545.00	-19.92	-28.70	10.70	19.48	33.00	H
2595.00	-19.91	-28.60	10.70	19.39	33.00	H
2645.00	-20.07	-28.60	10.70	19.23	33.00	H

LTE Band 66- EIRP Part 27.50(d)(4)

Limits: ≤30dBm (1W)

LTE Band 66_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-17.32	-29.60	8.10	20.38	30.00	H
1745.00	-17.24	-29.50	8.10	20.36	30.00	H
1779.30	-17.48	-29.50	8.10	20.12	30.00	H

LTE Band 66_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-17.35	-29.60	8.10	20.35	30.00	H
1745.00	-17.28	-29.50	8.10	20.32	30.00	H
1778.50	-17.51	-29.50	8.10	20.09	30.00	H

LTE Band 66_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-17.37	-29.60	8.10	20.33	30.00	H
1745.00	-17.31	-29.50	8.10	20.29	30.00	H
1777.50	-17.55	-29.50	8.10	20.05	30.00	H

LTE Band 66_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-17.39	-29.60	8.10	20.31	30.00	H
1745.00	-17.35	-29.50	8.10	20.25	30.00	H
1775.00	-17.58	-29.50	8.10	20.02	30.00	H

LTE Band 66_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-17.42	-29.60	8.10	20.28	30.00	H
1745.00	-17.37	-29.50	8.10	20.23	30.00	H
1772.53	-17.61	-29.50	8.10	19.99	30.00	H

LTE Band 66_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-17.45	-29.60	8.10	20.25	30.00	H
1745.00	-17.41	-29.50	8.10	20.19	30.00	H
1770.00	-17.64	-29.50	8.10	19.96	30.00	H

LTE Band 66_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-18.36	-29.60	8.10	19.34	30.00	H
1745.00	-18.27	-29.50	8.10	19.33	30.00	H
1779.30	-18.11	-29.50	8.10	19.49	30.00	H

LTE Band 66_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-18.39	-29.60	8.10	19.31	30.00	H
1745.00	-18.31	-29.50	8.10	19.29	30.00	H
1778.50	-18.13	-29.50	8.10	19.47	30.00	H

LTE Band 66_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-18.43	-29.60	8.10	19.27	30.00	H
1745.00	-18.35	-29.50	8.10	19.25	30.00	H
1777.50	-18.06	-29.50	8.10	19.54	30.00	H

LTE Band 66_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-18.46	-29.60	8.10	19.24	30.00	H
1745.00	-18.37	-29.50	8.10	19.23	30.00	H
1775.00	-17.59	-29.50	8.10	20.01	30.00	H

LTE Band 66_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-18.51	-29.60	8.10	19.19	30.00	H
1745.00	-18.38	-29.50	8.10	19.22	30.00	H
1772.53	-17.62	-29.50	8.10	19.98	30.00	H

LTE Band 66_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-18.54	-29.60	8.10	19.16	30.00	H
1745.00	-18.43	-29.50	8.10	19.17	30.00	H
1770.00	-17.65	-29.50	8.10	19.95	30.00	H

Lower antenna

LTE Band 2- EIRP Part 24. 232(c)

Limits: ≤33dBm (2W)

LTE Band 2_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-16.72	-29.30	8.10	20.68	33.00	H
1880.00	-16.79	-29.40	8.10	20.71	33.00	H
1909.30	-16.98	-29.30	8.10	20.42	33.00	H

LTE Band 2_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-16.75	-29.30	8.10	20.65	33.00	H
1880.00	-16.83	-29.40	8.10	20.67	33.00	H
1908.50	-17.01	-29.30	8.10	20.39	33.00	H

LTE Band 2_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-16.77	-29.30	8.10	20.63	33.00	H
1880.00	-16.85	-29.40	8.10	20.65	33.00	H
1907.50	-17.04	-29.30	8.10	20.36	33.00	H

LTE Band 2_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-16.82	-29.30	8.10	20.58	33.00	H
1880.00	-16.88	-29.40	8.10	20.62	33.00	H
1905.00	-17.06	-29.30	8.10	20.34	33.00	H

LTE Band 2_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-16.85	-29.30	8.10	20.55	33.00	H
1880.00	-16.93	-29.40	8.10	20.57	33.00	H
1902.50	-17.10	-29.30	8.10	20.30	33.00	H

LTE Band 2_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-16.87	-29.30	8.10	20.53	33.00	H
1880.00	-16.95	-29.40	8.10	20.55	33.00	H
1900.00	-17.12	-29.30	8.10	20.28	33.00	H

LTE Band 2_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1850.70	-18.21	-29.30	8.10	19.19	33.00	H
1880.00	-17.90	-29.40	8.10	19.60	33.00	H
1909.30	-17.86	-29.30	8.10	19.54	33.00	H

LTE Band 2_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1851.50	-18.24	-29.30	8.10	19.16	33.00	H
1880.00	-17.95	-29.40	8.10	19.55	33.00	H
1908.50	-17.91	-29.30	8.10	19.49	33.00	H

LTE Band 2_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1852.50	-17.99	-29.30	8.10	19.41	33.00	H
1880.00	-17.99	-29.40	8.10	19.51	33.00	H
1907.50	-17.92	-29.30	8.10	19.48	33.00	H

LTE Band 2_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1855.00	-17.83	-29.30	8.10	19.57	33.00	H
1880.00	-18.02	-29.40	8.10	19.48	33.00	H
1905.00	-17.97	-29.30	8.10	19.43	33.00	H

LTE Band 2_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1857.50	-17.98	-29.30	8.10	19.42	33.00	H
1880.00	-18.07	-29.40	8.10	19.43	33.00	H
1902.50	-18.00	-29.30	8.10	19.40	33.00	H

LTE Band 2_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1860.00	-17.79	-29.30	8.10	19.61	33.00	H
1880.00	-18.11	-29.40	8.10	19.39	33.00	H
1900.00	-18.04	-29.30	8.10	19.36	33.00	H

LTE Band 4- EIRP Part 27.50(d)(4)

Limits: ≤30dBm (1W)

LTE Band 4_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-16.99	-29.60	8.10	20.71	30.00	H
1732.50	-16.83	-29.60	8.10	20.87	30.00	H
1754.30	-16.65	-29.50	8.10	20.95	30.00	H

LTE Band 4_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-17.02	-29.60	8.10	20.68	30.00	H
1732.50	-16.87	-29.60	8.10	20.83	30.00	H
1753.50	-16.69	-29.50	8.10	20.91	30.00	H

LTE Band 4_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-17.05	-29.60	8.10	20.65	30.00	H
1732.50	-16.92	-29.60	8.10	20.78	30.00	H
1752.50	-16.73	-29.50	8.10	20.87	30.00	H

LTE Band 4_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-17.08	-29.60	8.10	20.62	30.00	H
1732.50	-16.97	-29.60	8.10	20.73	30.00	H
1750.00	-16.78	-29.50	8.10	20.82	30.00	H

LTE Band 4_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-17.11	-29.60	8.10	20.59	30.00	H
1732.50	-17.02	-29.60	8.10	20.68	30.00	H
1747.50	-16.80	-29.50	8.10	20.80	30.00	H

LTE Band 4_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-17.14	-29.60	8.10	20.56	30.00	H
1732.50	-17.05	-29.60	8.10	20.65	30.00	H
1745.00	-16.83	-29.50	8.10	20.77	30.00	H

LTE Band 4_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-18.03	-29.60	8.10	19.67	30.00	H
1732.50	-17.87	-29.60	8.10	19.83	30.00	H
1754.30	-17.69	-29.50	8.10	19.91	30.00	H

LTE Band 4_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-18.07	-29.60	8.10	19.63	30.00	H
1732.50	-17.92	-29.60	8.10	19.78	30.00	H
1753.50	-17.71	-29.50	8.10	19.89	30.00	H

LTE Band 4_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-18.12	-29.60	8.10	19.58	30.00	H
1732.50	-17.95	-29.60	8.10	19.75	30.00	H
1752.50	-17.74	-29.50	8.10	19.86	30.00	H

LTE Band 4_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-18.16	-29.60	8.10	19.54	30.00	H
1732.50	-17.98	-29.60	8.10	19.72	30.00	H
1750.00	-17.78	-29.50	8.10	19.82	30.00	H

LTE Band 4_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-18.22	-29.60	8.10	19.48	30.00	H
1732.50	-18.02	-29.60	8.10	19.68	30.00	H
1747.50	-17.81	-29.50	8.10	19.79	30.00	H

LTE Band 4_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-18.25	-29.60	8.10	19.45	30.00	H
1732.50	-18.07	-29.60	8.10	19.63	30.00	H
1745.00	-17.85	-29.50	8.10	19.75	30.00	H

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

LTE Band 5_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.70	-11.43	-33.60	-0.79	2.15	19.23	38.45	V
836.50	-11.74	-33.50	-0.74	2.15	18.87	38.45	V
848.30	-11.26	-33.50	-0.73	2.15	19.36	38.45	V

LTE Band 5_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
825.50	-11.43	-33.60	-0.84	2.15	19.18	38.45	V
836.50	-11.79	-33.50	-0.74	2.15	18.82	38.45	V
847.50	-11.32	-33.50	-0.73	2.15	19.30	38.45	V

LTE Band 5_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
826.50	-11.46	-33.60	-0.84	2.15	19.15	38.45	V
836.50	-11.87	-33.50	-0.74	2.15	18.74	38.45	V
846.50	-12.48	-33.50	-0.73	2.15	18.14	38.45	V

LTE Band 5_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
829.00	-11.51	-33.60	-0.84	2.15	19.10	38.45	V
836.50	-11.92	-33.50	-0.74	2.15	18.69	38.45	V
844.00	-11.48	-33.50	-0.78	2.15	19.09	38.45	V

LTE Band 5_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
824.70	-12.21	-33.60	-0.79	2.15	18.45	38.45	V
836.50	-11.74	-33.50	-0.74	2.15	18.87	38.45	V
848.30	-12.46	-33.50	-0.73	2.15	18.16	38.45	V

LTE Band 5_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
825.50	-12.20	-33.60	-0.84	2.15	18.41	38.45	V
836.50	-11.81	-33.50	-0.74	2.15	18.80	38.45	V
847.50	-12.50	-33.50	-0.73	2.15	18.12	38.45	V

LTE Band 5_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
826.50	-12.24	-33.60	-0.84	2.15	18.37	38.45	V
836.50	-11.84	-33.50	-0.74	2.15	18.77	38.45	V
846.50	-12.56	-33.50	-0.73	2.15	18.06	38.45	V

LTE Band 5_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
829.00	-12.30	-33.60	-0.84	2.15	18.31	38.45	V
836.50	-11.91	-33.50	-0.74	2.15	18.70	38.45	V
844.00	-11.58	-33.50	-0.78	2.15	18.99	38.45	V

LTE Band 7- EIRP Part 27.50(h)(2)
Limits: ≤33 dBm (2W)

LTE Band 7_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2502.50	-19.23	-28.70	10.70	20.16	33.00	H
2535.00	-18.72	-28.60	10.70	20.58	33.00	H
2567.50	-18.81	-28.60	10.70	20.49	33.00	H

LTE Band 7_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2505.00	-18.47	-28.70	10.70	20.93	33.00	H
2535.00	-18.75	-28.60	10.70	20.55	33.00	H
2565.00	-18.83	-28.60	10.70	20.47	33.00	H

LTE Band 7_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2507.50	-18.59	-28.70	10.70	20.81	33.00	H
2535.00	-18.79	-28.60	10.70	20.51	33.00	H
2562.50	-18.88	-28.60	10.70	20.42	33.00	H

LTE Band 7_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2510.00	-18.74	-28.70	10.70	20.66	33.00	H
2535.00	-18.84	-28.60	10.70	20.46	33.00	H
2560.00	-18.93	-28.60	10.70	20.37	33.00	H

LTE Band 7_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2502.50	-19.47	-28.70	10.70	19.93	33.00	H
2535.00	-20.05	-28.60	10.70	19.25	33.00	H
2567.50	-19.59	-28.60	10.70	19.71	33.00	H

LTE Band 7_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2505.00	-19.53	-28.70	10.70	19.87	33.00	H
2535.00	-20.10	-28.60	10.70	19.20	33.00	H
2565.00	-19.31	-28.60	10.70	19.99	33.00	H

LTE Band 7_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2507.50	-19.56	-28.70	10.70	19.84	33.00	H
2535.00	-20.14	-28.60	10.70	19.16	33.00	H
2562.50	-19.44	-28.60	10.70	19.86	33.00	H

LTE Band 7_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2510.00	-19.62	-28.70	10.70	19.78	33.00	H
2535.00	-19.49	-28.60	10.70	19.81	33.00	H
2560.00	-19.39	-28.60	10.70	19.91	33.00	H

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

LTE Band 13_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
779.50	-12.57	-34.00	-0.08	2.15	19.20	34.77	V
782.00	-12.45	-34.00	-0.13	2.15	19.27	34.77	V
784.50	-12.48	-34.00	-0.13	2.15	19.24	34.77	V

LTE Band 13_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
782.00	-12.47	-34.00	-0.13	2.15	19.25	34.77	V

LTE Band 13_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
779.50	-13.59	-34.00	-0.08	2.15	18.18	34.77	V
782.00	-13.49	-34.00	-0.13	2.15	18.23	34.77	V
784.50	-13.53	-34.00	-0.13	2.15	18.19	34.77	V

LTE Band 13_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Polarization
782.00	-13.51	-34.00	-0.13	2.15	18.21	34.77	V

LTE Band 38 - EIRP Part 27.50(h)(2)
Limits: ≤33dBm (2W)

LTE Band 38_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2572.50	-19.04	-28.60	10.70	20.26	33.00	H
2595.00	-18.52	-28.60	10.70	20.78	33.00	H
2617.50	-18.76	-28.60	10.70	20.54	33.00	H

LTE Band 38_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2575.00	-19.06	-28.60	10.70	20.24	33.00	H
2595.00	-18.55	-28.60	10.70	20.75	33.00	H
2615.00	-18.78	-28.60	10.70	20.52	33.00	H

LTE Band 38_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2577.50	-19.12	-28.60	10.70	20.18	33.00	H
2595.00	-18.58	-28.60	10.70	20.72	33.00	H
2612.50	-18.82	-28.60	10.70	20.48	33.00	H

LTE Band 38_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2580.00	-19.14	-28.60	10.70	20.16	33.00	H
2595.00	-18.61	-28.60	10.70	20.69	33.00	H
2610.00	-18.85	-28.60	10.70	20.45	33.00	H

LTE Band 38_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2572.50	-20.07	-28.60	10.70	19.23	33.00	H
2595.00	-19.53	-28.60	10.70	19.77	33.00	H
2617.50	-19.78	-28.60	10.70	19.52	33.00	H

LTE Band 38_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2575.00	-20.11	-28.60	10.70	19.19	33.00	H
2595.00	-19.57	-28.60	10.70	19.73	33.00	H
2615.00	-19.81	-28.60	10.70	19.49	33.00	H

LTE Band 38_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2577.50	-20.15	-28.60	10.70	19.15	33.00	H
2595.00	-19.62	-28.60	10.70	19.68	33.00	H
2612.50	-19.85	-28.60	10.70	19.45	33.00	H

LTE Band 38_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2580.00	-19.68	-28.60	10.70	19.62	33.00	H
2595.00	-19.65	-28.60	10.70	19.65	33.00	H
2610.00	-19.91	-28.60	10.70	19.39	33.00	H

LTE Band 41- EIRP Part 27.50(d)(2)
Limits: ≤33dBm (2W)

LTE Band 41_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2537.50	-19.04	-28.70	10.70	20.36	33.00	H
2595.00	-18.86	-28.60	10.70	20.44	33.00	H
2652.50	-18.79	-28.60	10.70	20.51	33.00	H

LTE Band 41_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2540.00	-19.08	-28.70	10.70	20.32	33.00	H
2595.00	-18.90	-28.60	10.70	20.40	33.00	H
2650.00	-18.84	-28.60	10.70	20.46	33.00	H

LTE Band 41_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2542.50	-19.11	-28.70	10.70	20.29	33.00	H
2595.00	-18.93	-28.60	10.70	20.37	33.00	H
2647.50	-18.87	-28.60	10.70	20.43	33.00	H

LTE Band 41_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2545.00	-19.15	-28.70	10.70	20.25	33.00	H
2595.00	-18.95	-28.60	10.70	20.35	33.00	H
2645.00	-18.91	-28.60	10.70	20.39	33.00	H

LTE Band 41_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2537.50	-20.24	-28.70	10.70	19.16	33.00	H
2595.00	-20.01	-28.60	10.70	19.29	33.00	H
2652.50	-19.96	-28.60	10.70	19.34	33.00	H

LTE Band 41_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2540.00	-19.68	-28.70	10.70	19.72	33.00	H
2595.00	-20.04	-28.60	10.70	19.26	33.00	H
2650.00	-19.98	-28.60	10.70	19.32	33.00	H

LTE Band 41_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2542.50	-19.81	-28.70	10.70	19.59	33.00	H
2595.00	-20.12	-28.60	10.70	19.18	33.00	H
2647.50	-20.03	-28.60	10.70	19.27	33.00	H

LTE Band 41_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
2545.00	-19.84	-28.70	10.70	19.56	33.00	H
2595.00	-19.76	-28.60	10.70	19.54	33.00	H
2645.00	-20.09	-28.60	10.70	19.21	33.00	H

LTE Band 66- EIRP Part 27.50(d)(4)

Limits: ≤30dBm (1W)

LTE Band 66_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-16.81	-29.60	8.10	20.89	30.00	H
1745.00	-16.99	-29.50	8.10	20.61	30.00	H
1779.30	-16.88	-29.50	8.10	20.72	30.00	H

LTE Band 66_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-16.85	-29.60	8.10	20.85	30.00	H
1745.00	-17.22	-29.50	8.10	20.38	30.00	H
1778.50	-16.61	-29.50	8.10	20.99	30.00	H

LTE Band 66_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-16.88	-29.60	8.10	20.82	30.00	H
1745.00	-17.05	-29.50	8.10	20.55	30.00	H
1777.50	-16.64	-29.50	8.10	20.96	30.00	H

LTE Band 66_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-16.91	-29.60	8.10	20.79	30.00	H
1745.00	-16.68	-29.50	8.10	20.92	30.00	H
1775.00	-16.64	-29.50	8.10	20.96	30.00	H

LTE Band 66_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-16.94	-29.60	8.10	20.76	30.00	H
1745.00	-17.00	-29.50	8.10	20.60	30.00	H
1772.53	-16.67	-29.50	8.10	20.93	30.00	H

LTE Band 66_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-16.97	-29.60	8.10	20.73	30.00	H
1745.00	-16.62	-29.50	8.10	20.98	30.00	H
1770.00	-16.69	-29.50	8.10	20.91	30.00	H

LTE Band 66_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1710.70	-17.84	-29.60	8.10	19.86	30.00	H
1745.00	-17.52	-29.50	8.10	20.08	30.00	H
1779.30	-17.61	-29.50	8.10	19.99	30.00	H

LTE Band 66_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1711.50	-17.87	-29.60	8.10	19.83	30.00	H
1745.00	-17.56	-29.50	8.10	20.04	30.00	H
1778.50	-17.65	-29.50	8.10	19.95	30.00	H

LTE Band 66_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1712.50	-17.90	-29.60	8.10	19.80	30.00	H
1745.00	-17.59	-29.50	8.10	20.01	30.00	H
1777.50	-17.70	-29.50	8.10	19.90	30.00	H

LTE Band 66_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1715.00	-17.93	-29.60	8.10	19.77	30.00	H
1745.00	-17.63	-29.50	8.10	19.97	30.00	H
1775.00	-17.71	-29.50	8.10	19.89	30.00	H

LTE Band 66_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1717.50	-17.97	-29.60	8.10	19.73	30.00	H
1745.00	-17.67	-29.50	8.10	19.93	30.00	H
1772.53	-17.75	-29.50	8.10	19.85	30.00	H

LTE Band 66_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)+ P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Polarization
1720.00	-18.02	-29.60	8.10	19.68	30.00	H
1745.00	-17.69	-29.50	8.10	19.91	30.00	H
1770.00	-17.78	-29.50	8.10	19.82	30.00	H

ANALYZER SETTINGS:

RBW = VBW = 8MHz for occupied bandwidths equal to or less than 5MHz.

RBW = VBW = 20MHz for occupied bandwidths equal to or greater than 10MHz.

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.87dB(30MHz-3GHz)/3.35dB(3GHz-18GHz)/2.68dB(18GHz-40GHz), k = 2

Note: Both of Vertical and Horizontal polarizations are evaluated, but only the worst case is recorded in this report.

A.2 FIELD STRENGTH OF SPURIOUS RADIATION

Reference

FCC: CFR 2.1053, 22.917, 24.238, 27.53.

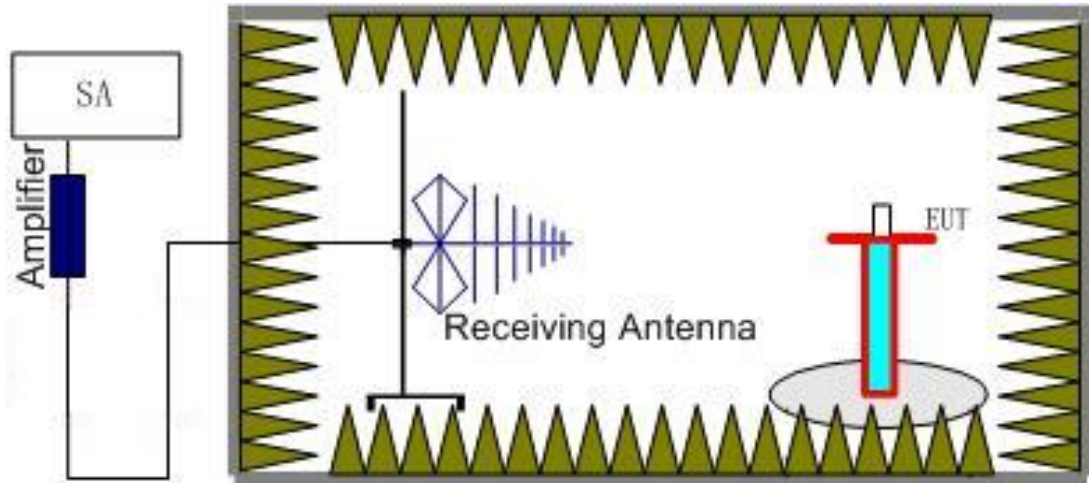
A.2.1 Measurement Method

This measurement is carried out in fully-anechoic chamber FAC-3.

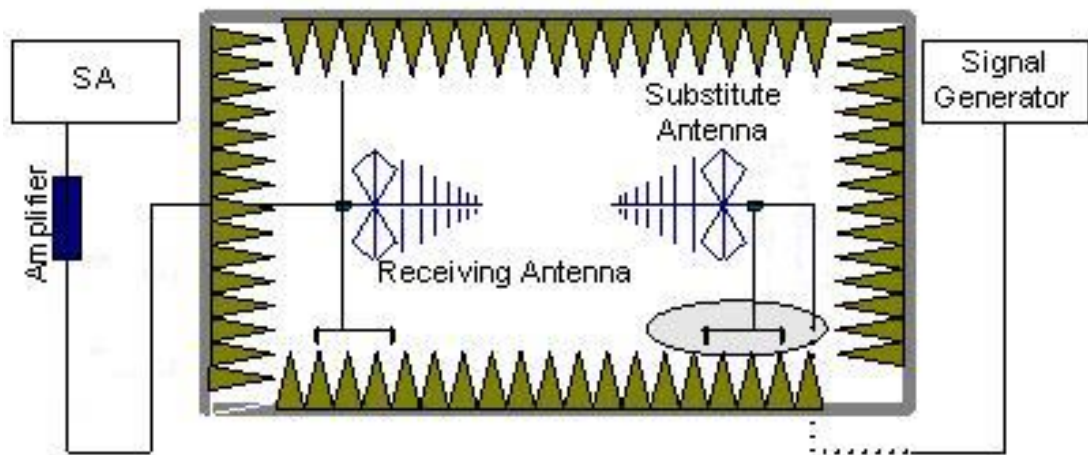
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment, which is the transmitted carrier. The resolution bandwidth is set 1MHz as outlined in Part 22.917, 24.238 and 27.53(h). The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of the all LTE Bands

The procedure of radiated spurious emissions is as follows:

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



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



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

4. The Path loss (P_{pl}) between the Signal Source with the Substitution Antenna and the Substitution Antenna Gain(dBi) (G_a) should be recorded after test.

An amplifier should be connected in for the test.

The Path loss (P_{pl}) is the summation of the cable loss and the gain of the amplifier.

The measurement results are obtained as described below:

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

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

A.2.2 Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the test LTE Bands. 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 the test LTE Bands. 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.

Only worst case result is given below.

Upper antenna
LTE Band 2, 1.4MHz, QPSK, Channel 18607

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16993.12	-45.87	2.90	16.50	-32.27	-13.00	H
17098.75	-43.91	2.90	14.50	-32.31	-13.00	H
17368.75	-43.78	3.20	14.50	-32.48	-13.00	H
17460.62	-42.14	2.90	14.50	-30.54	-13.00	H
17573.12	-39.45	3.30	12.80	-29.95	-13.00	H
17759.38	-40.55	3.60	12.80	-31.35	-13.00	H

LTE Band 2, 1.4MHz, QPSK, Channel 18900

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16959.38	-45.85	2.90	16.50	-32.25	-13.00	H
17123.75	-44.22	2.90	14.50	-32.62	-13.00	H
17356.88	-43.31	3.20	14.50	-32.01	-13.00	H
17508.12	-39.69	2.90	12.80	-29.79	-13.00	H
17585.00	-39.55	3.30	12.80	-30.05	-13.00	H
17836.25	-40.94	3.60	12.80	-31.74	-13.00	H

LTE Band 2, 1.4MHz, QPSK, Channel 19193

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16965.62	-45.32	2.90	16.50	-31.72	-13.00	H
17170.62	-42.69	2.90	14.50	-31.09	-13.00	H
17355.00	-42.58	3.20	14.50	-31.28	-13.00	H
17511.88	-40.20	2.90	12.80	-30.30	-13.00	H
17583.75	-40.21	3.30	12.80	-30.71	-13.00	H
17840.00	-40.33	3.60	12.80	-31.13	-13.00	H

LTE Band 2, 1.4MHz, 16QAM, Channel 18607

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16881.25	-45.21	2.90	16.50	-31.61	-13.00	H
16975.00	-45.72	2.90	16.50	-32.12	-13.00	H
17348.12	-43.02	3.20	14.50	-31.72	-13.00	H
17520.62	-39.96	2.90	12.80	-30.06	-13.00	H
17632.50	-39.42	3.30	12.80	-29.92	-13.00	H
17686.88	-40.23	3.30	12.80	-30.73	-13.00	H

LTE Band 2, 1.4MHz, 16QAM, Channel 18900

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16946.88	-45.12	2.90	16.50	-31.52	-13.00	H
17151.88	-44.36	2.90	14.50	-32.76	-13.00	H
17299.38	-43.49	3.20	14.50	-32.19	-13.00	H
17514.38	-40.83	2.90	12.80	-30.93	-13.00	H
17582.50	-39.32	3.30	12.80	-29.82	-13.00	H
17820.00	-39.96	3.60	12.80	-30.76	-13.00	H

LTE Band 2, 1.4MHz, 16QAM, Channel 19193

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16933.75	-45.97	2.90	16.50	-32.37	-13.00	H
17163.12	-43.54	2.90	14.50	-31.94	-13.00	H
17290.62	-42.95	3.20	14.50	-31.65	-13.00	H
17508.12	-40.90	2.90	12.80	-31.00	-13.00	H
17527.50	-41.09	2.90	12.80	-31.19	-13.00	H
17776.25	-40.78	3.60	12.80	-31.58	-13.00	H

LTE Band 4, 1.4MHz, QPSK, Channel 19957

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16950.62	-45.43	2.90	16.50	-31.83	-13.00	H
17123.75	-43.93	2.90	14.50	-32.33	-13.00	H
17237.50	-43.42	3.20	14.50	-32.12	-13.00	H
17520.62	-40.93	2.90	12.80	-31.03	-13.00	H
17531.88	-40.75	2.90	12.80	-30.85	-13.00	H
17758.12	-40.16	3.60	12.80	-30.96	-13.00	H

LTE Band 4, 1.4MHz, QPSK, Channel 20175

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16963.75	-44.70	2.90	16.50	-31.10	-13.00	H
17210.00	-43.53	2.90	14.50	-31.93	-13.00	H
17307.50	-43.43	3.20	14.50	-32.13	-13.00	H
17433.75	-41.43	2.90	14.50	-29.83	-13.00	H
17562.50	-39.75	3.30	12.80	-30.25	-13.00	H
17837.50	-40.46	3.60	12.80	-31.26	-13.00	H

LTE Band 4, 1.4MHz, QPSK, Channel 20393

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16958.12	-45.64	2.90	16.50	-32.04	-13.00	H
17212.50	-43.94	2.90	14.50	-32.34	-13.00	H
17281.25	-43.47	3.20	14.50	-32.17	-13.00	H
17500.00	-39.85	2.90	12.80	-29.95	-13.00	H
17564.38	-39.54	3.30	12.80	-30.04	-13.00	H
17836.25	-40.51	3.60	12.80	-31.31	-13.00	H

LTE Band 4, 1.4MHz, 16QAM, Channel 19957

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16956.25	-45.86	2.90	16.50	-32.26	-13.00	H
17173.12	-44.25	2.90	14.50	-32.65	-13.00	H
17292.50	-43.26	3.20	14.50	-31.96	-13.00	H
17450.00	-42.91	2.90	14.50	-31.31	-13.00	H
17575.62	-40.00	3.30	12.80	-30.50	-13.00	H
17831.25	-40.53	3.60	12.80	-31.33	-13.00	H

LTE Band 4, 1.4MHz, 16QAM, Channel 20175

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16973.12	-45.50	2.90	16.50	-31.90	-13.00	H
17168.75	-44.18	2.90	14.50	-32.58	-13.00	H
17304.38	-43.86	3.20	14.50	-32.56	-13.00	H
17460.62	-42.75	2.90	14.50	-31.15	-13.00	H
17592.50	-40.15	3.30	12.80	-30.65	-13.00	H
17831.25	-39.17	3.60	12.80	-29.97	-13.00	H

LTE Band 4, 1.4MHz, 16QAM, Channel 20393

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16949.38	-45.53	2.90	16.50	-31.93	-13.00	H
17186.25	-44.00	2.90	14.50	-32.40	-13.00	H
17296.25	-43.47	3.20	14.50	-32.17	-13.00	H
17491.88	-42.54	2.90	14.50	-30.94	-13.00	H
17595.00	-40.61	3.30	12.80	-31.11	-13.00	H
17833.12	-40.55	3.60	12.80	-31.35	-13.00	H

LTE Band 5, 1.4MHz, QPSK, Channel 20407

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
8485.50	-51.95	1.80	11.30	-44.60	-13.00	H
9098.50	-51.35	2.20	11.60	-44.10	-13.00	H
9148.50	-51.75	2.10	11.60	-44.40	-13.00	H
9217.00	-51.36	2.10	11.60	-44.01	-13.00	H
9298.25	-51.18	2.00	11.60	-43.73	-13.00	H
9425.25	-51.60	2.10	11.60	-44.25	-13.00	H

LTE Band 5, 1.4MHz, QPSK, Channel 20525

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9099.00	-52.09	2.20	11.60	-44.84	-13.00	H
9101.25	-51.27	2.20	11.60	-44.02	-13.00	H
9224.25	-51.07	2.10	11.60	-43.72	-13.00	H
9297.75	-51.17	2.00	11.60	-43.72	-13.00	H
9417.50	-52.06	2.10	11.60	-44.71	-13.00	H
9473.00	-51.36	2.10	11.60	-44.01	-13.00	V

LTE Band 5, 1.4MHz, QPSK, Channel 20643

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9098.50	-52.29	2.20	11.60	-45.04	-13.00	H
9146.50	-51.60	2.10	11.60	-44.25	-13.00	H
9222.75	-50.28	2.10	11.60	-42.93	-13.00	H
9302.00	-51.17	2.00	11.60	-43.72	-13.00	H
9426.25	-52.20	2.10	11.60	-44.85	-13.00	H
9477.50	-51.75	2.10	11.60	-44.40	-13.00	V

LTE Band 5, 1.4MHz, 16QAM, Channel 20407

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9094.25	-51.94	2.20	11.60	-44.69	-13.00	H
9099.50	-51.68	2.20	11.60	-44.43	-13.00	H
9224.75	-51.65	2.10	11.60	-44.30	-13.00	H
9303.00	-50.49	2.00	11.60	-43.04	-13.00	H
9424.25	-51.73	2.10	11.60	-44.38	-13.00	H
9475.25	-51.38	2.10	11.60	-44.03	-13.00	V

LTE Band 5, 1.4MHz, 16QAM, Channel 20525

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9094.50	-51.95	2.20	11.60	-44.70	-13.00	H
9148.00	-52.08	2.10	11.60	-44.73	-13.00	H
9225.50	-50.72	2.10	11.60	-43.37	-13.00	H
9304.75	-51.23	2.00	11.60	-43.78	-13.00	H
9475.75	-51.92	2.10	11.60	-44.57	-13.00	V
9803.00	-50.83	2.30	11.20	-44.08	-13.00	H

LTE Band 5, 1.4MHz, 16QAM, Channel 20643

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9097.00	-52.09	2.20	11.60	-44.84	-13.00	H
9099.50	-52.00	2.20	11.60	-44.75	-13.00	H
9227.00	-51.18	2.10	11.60	-43.83	-13.00	H
9304.25	-51.30	2.00	11.60	-43.85	-13.00	H
9437.75	-51.10	2.10	11.60	-43.75	-13.00	H
9475.25	-51.85	2.10	11.60	-44.50	-13.00	V

LTE Band 7, 5MHz, QPSK, Channel 20775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16980.00	-48.50	2.90	16.50	-34.90	-25.00	H
17091.00	-46.34	2.90	14.50	-34.74	-25.00	H
17218.00	-46.00	3.20	14.50	-34.70	-25.00	H
17509.00	-44.63	2.90	12.80	-34.73	-25.00	H
17567.00	-44.34	3.30	12.80	-34.84	-25.00	H
17835.00	-44.11	3.60	12.80	-34.91	-25.00	H

LTE Band 7, 5MHz, QPSK, Channel 21100

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16982.50	-47.98	2.90	16.50	-34.38	-25.00	H
17131.50	-45.55	2.90	14.50	-33.95	-25.00	H
17280.00	-46.18	3.20	14.50	-34.88	-25.00	H
17455.50	-45.64	2.90	14.50	-34.04	-25.00	H
17530.50	-43.87	2.90	12.80	-33.97	-25.00	H
17817.50	-43.56	3.60	12.80	-34.36	-25.00	H

LTE Band 7, 5MHz, QPSK, Channel 21425

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16949.00	-44.48	2.90	16.50	-30.88	-25.00	H
17206.50	-43.35	2.90	14.50	-31.75	-25.00	H
17274.00	-42.75	3.20	14.50	-31.45	-25.00	H
17521.50	-39.43	2.90	12.80	-29.53	-25.00	H
17628.00	-39.15	3.30	12.80	-29.65	-25.00	H
17835.00	-39.47	3.60	12.80	-30.27	-25.00	H

LTE Band 7, 5MHz, 16QAM, Channel 20775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16961.00	-48.03	2.90	16.50	-34.43	-25.00	H
17095.50	-46.50	2.90	14.50	-34.90	-25.00	H
17347.00	-45.39	3.20	14.50	-34.09	-25.00	H
17516.50	-44.76	2.90	12.80	-34.86	-25.00	H
17584.00	-44.18	3.30	12.80	-34.68	-25.00	H
17755.50	-43.27	3.60	12.80	-34.07	-25.00	H

LTE Band 7, 5MHz, 16QAM, Channel 21100

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16988.50	-48.45	2.90	16.50	-34.85	-25.00	H
17186.50	-45.83	2.90	14.50	-34.23	-25.00	H
17368.50	-46.19	3.20	14.50	-34.89	-25.00	H
17504.50	-44.25	2.90	12.80	-34.35	-25.00	H
17587.50	-43.82	3.30	12.80	-34.32	-25.00	H
17765.00	-43.71	3.60	12.80	-34.51	-25.00	H

LTE Band 7, 5MHz, 16QAM, Channel 21425

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16961.50	-47.84	2.90	16.50	-34.24	-25.00	H
17161.50	-46.41	2.90	14.50	-34.81	-25.00	H
17357.00	-45.90	3.20	14.50	-34.60	-25.00	H
17434.00	-46.53	2.90	14.50	-34.93	-25.00	H
17620.00	-44.34	3.30	12.80	-34.84	-25.00	H
17839.00	-43.77	3.60	12.80	-34.57	-25.00	H

LTE Band 13, 5MHz, QPSK, Channel 23205

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1566.00	-59.82	0.70	8.10	-54.57	-40.00	V
9101.00	-51.44	2.20	11.60	-44.19	-13.00	H
9307.12	-50.18	2.00	11.60	-42.73	-13.00	H
9424.50	-50.98	2.10	11.60	-43.63	-13.00	H
9732.12	-50.61	2.20	11.20	-43.76	-13.00	H
9785.62	-50.95	2.30	11.20	-44.20	-13.00	H

LTE Band 13, 5MHz, QPSK, Channel 23230

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1561.50	-59.40	0.70	8.10	-54.15	-40.00	V
8427.00	-51.72	1.80	11.30	-44.37	-13.00	H
9296.00	-50.34	2.00	11.60	-42.89	-13.00	H
9474.50	-51.08	2.10	11.60	-43.73	-13.00	V
9738.88	-50.74	2.20	11.20	-43.89	-13.00	H
9803.62	-51.05	2.30	11.20	-44.30	-13.00	H

LTE Band 13, 5MHz, QPSK, Channel 23255

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1566.50	-59.27	0.70	8.10	-54.02	-40.00	V
9098.38	-51.38	2.20	11.60	-44.13	-13.00	H
9299.00	-49.61	2.00	11.60	-42.16	-13.00	H
9476.12	-51.38	2.10	11.60	-44.03	-13.00	V
9763.75	-51.31	2.30	11.20	-44.56	-13.00	V
9794.75	-50.93	2.30	11.20	-44.18	-13.00	H

LTE Band 13, 5MHz, 16QAM, Channel 23205

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1564.50	-59.89	0.70	8.10	-54.64	-40.00	V
9093.75	-51.92	2.20	11.60	-44.67	-13.00	H
9228.88	-50.77	2.10	11.60	-43.42	-13.00	H
9425.62	-51.43	2.10	11.60	-44.08	-13.00	H
9745.00	-50.34	2.20	11.20	-43.49	-13.00	H
9801.88	-51.20	2.30	11.20	-44.45	-13.00	H

LTE Band 13, 5MHz, 16QAM, Channel 23230

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1569.50	-59.89	0.70	8.10	-54.64	-40.00	V
9097.12	-51.71	2.20	11.60	-44.46	-13.00	H
9305.00	-50.38	2.00	11.60	-42.93	-13.00	H
9472.75	-50.99	2.10	11.60	-43.64	-13.00	V
9735.62	-51.05	2.20	11.20	-44.20	-13.00	H
9792.62	-51.55	2.30	11.20	-44.80	-13.00	H

LTE Band 13, 5MHz, 16QAM, Channel 23255

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1566.50	-58.63	0.70	8.10	-53.38	-40.00	V
9108.12	-52.49	2.10	11.60	-45.14	-13.00	H
9224.38	-50.67	2.10	11.60	-43.32	-13.00	H
9472.88	-51.08	2.10	11.60	-43.73	-13.00	V
9733.00	-50.00	2.20	11.20	-43.15	-13.00	H
9875.50	-52.03	2.20	11.20	-45.18	-13.00	H

LTE Band 38, 5MHz, QPSK, Channel 37775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
5140.87	-45.53	1.30	12.50	-34.33	-25.00	H
17201.88	-46.53	2.90	14.50	-34.93	-25.00	H
17267.50	-45.37	3.20	14.50	-34.07	-25.00	H
17421.88	-45.93	2.90	14.50	-34.33	-25.00	H
17585.62	-43.56	3.30	12.80	-34.06	-25.00	H
17768.12	-44.12	3.60	12.80	-34.92	-25.00	H

LTE Band 38, 5MHz, QPSK, Channel 38000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
5185.87	-44.63	1.60	12.50	-33.73	-25.00	H
17172.50	-46.04	2.90	14.50	-34.44	-25.00	H
17276.88	-45.97	3.20	14.50	-34.67	-25.00	H
17500.62	-44.32	2.90	12.80	-34.42	-25.00	H
17578.75	-43.41	3.30	12.80	-33.91	-25.00	H
17781.88	-43.30	3.60	12.80	-34.10	-25.00	H

LTE Band 38, 5MHz, QPSK, Channel 38225

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
5230.50	-45.55	1.80	12.50	-34.85	-25.00	H
17147.50	-46.16	2.90	14.50	-34.56	-25.00	H
17332.50	-45.68	3.20	14.50	-34.38	-25.00	H
17505.62	-44.39	2.90	12.80	-34.49	-25.00	H
17627.50	-44.27	3.30	12.80	-34.77	-25.00	H
17839.38	-44.13	3.60	12.80	-34.93	-25.00	H

LTE Band 38, 5MHz, 16QAM, Channel 37775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
5140.87	-45.13	1.30	12.50	-33.93	-25.00	H
17203.12	-46.64	2.90	14.50	-35.04	-25.00	H
17276.88	-45.86	3.20	14.50	-34.56	-25.00	H
17516.25	-43.82	2.90	12.80	-33.92	-25.00	H
17628.12	-44.25	3.30	12.80	-34.75	-25.00	H
17809.38	-43.67	3.60	12.80	-34.47	-25.00	H

LTE Band 38, 5MHz, 16QAM, Channel 38000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
5185.50	-45.22	1.60	12.50	-34.32	-25.00	H
17206.25	-46.03	2.90	14.50	-34.43	-25.00	H
17288.75	-45.85	3.20	14.50	-34.55	-25.00	H
17433.75	-46.03	2.90	14.50	-34.43	-25.00	H
17621.25	-43.69	3.30	12.80	-34.19	-25.00	H
17835.00	-43.09	3.60	12.80	-33.89	-25.00	H

LTE Band 38, 5MHz, 16QAM, Channel 38225

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
5230.50	-45.46	1.80	12.50	-34.76	-25.00	H
17126.25	-46.06	2.90	14.50	-34.46	-25.00	H
17275.62	-45.78	3.20	14.50	-34.48	-25.00	H
17473.12	-45.94	2.90	14.50	-34.34	-25.00	H
17599.38	-43.95	3.30	12.80	-34.45	-25.00	H
17822.50	-43.60	3.60	12.80	-34.40	-25.00	H

LTE Band 41, 5MHz, QPSK, Channel 40065

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
17002.50	-45.60	2.90	14.50	-34.00	-25.00	H
17201.00	-46.41	2.90	14.50	-34.81	-25.00	H
17231.50	-45.87	3.20	14.50	-34.57	-25.00	H
17461.50	-46.06	2.90	14.50	-34.46	-25.00	H
17617.50	-43.54	3.30	12.80	-34.04	-25.00	H
17838.00	-43.59	3.60	12.80	-34.39	-25.00	H

LTE Band 41, 5MHz, QPSK, Channel 40640

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16946.00	-48.19	2.90	16.50	-34.59	-25.00	H
17205.50	-46.45	2.90	14.50	-34.85	-25.00	H
17301.50	-45.60	3.20	14.50	-34.30	-25.00	H
17517.50	-44.56	2.90	12.80	-34.66	-25.00	H
17599.00	-43.95	3.30	12.80	-34.45	-25.00	H
17822.50	-43.85	3.60	12.80	-34.65	-25.00	H

LTE Band 41, 5MHz, QPSK, Channel 41215

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16994.50	-47.75	2.90	16.50	-34.15	-25.00	H
17170.00	-45.80	2.90	14.50	-34.20	-25.00	H
17251.00	-45.29	3.20	14.50	-33.99	-25.00	H
17454.00	-46.43	2.90	14.50	-34.83	-25.00	H
17624.50	-43.84	3.30	12.80	-34.34	-25.00	H
17776.00	-43.68	3.60	12.80	-34.48	-25.00	H

LTE Band 41, 5MHz, 16QAM, Channel 40065

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16987.00	-47.76	2.90	16.50	-34.16	-25.00	H
17204.00	-46.42	2.90	14.50	-34.82	-25.00	H
17268.00	-46.05	3.20	14.50	-34.75	-25.00	H
17460.50	-45.76	2.90	14.50	-34.16	-25.00	H
17527.00	-44.43	2.90	12.80	-34.53	-25.00	H
17815.50	-43.48	3.60	12.80	-34.28	-25.00	H

LTE Band 41, 5MHz, 16QAM, Channel 40640

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16956.50	-48.45	2.90	16.50	-34.85	-25.00	H
17186.00	-46.51	2.90	14.50	-34.91	-25.00	H
17274.50	-45.47	3.20	14.50	-34.17	-25.00	H
17455.50	-46.12	2.90	14.50	-34.52	-25.00	H
17577.50	-44.35	3.30	12.80	-34.85	-25.00	H
17834.50	-43.70	3.60	12.80	-34.50	-25.00	H

LTE Band 41, 5MHz, 16QAM, Channel 41215

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
17003.00	-46.33	2.90	14.50	-34.73	-25.00	H
17161.00	-46.10	2.90	14.50	-34.50	-25.00	H
17355.00	-45.62	3.20	14.50	-34.32	-25.00	H
17502.50	-43.88	2.90	12.80	-33.98	-25.00	H
17579.50	-44.16	3.30	12.80	-34.66	-25.00	H
17828.50	-43.89	3.60	12.80	-34.69	-25.00	H

LTE Band 66, 1.4MHz, QPSK, Channel 131979

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16995.00	-45.89	2.90	16.50	-32.29	-13.00	H
17209.38	-44.03	2.90	14.50	-32.43	-13.00	H
17368.75	-43.49	3.20	14.50	-32.19	-13.00	H
17448.75	-42.05	2.90	14.50	-30.45	-13.00	H
17580.00	-40.52	3.30	12.80	-31.02	-13.00	H
17780.00	-40.85	3.60	12.80	-31.65	-13.00	H

LTE Band 66, 1.4MHz, QPSK, Channel 132322

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16960.62	-45.43	2.90	16.50	-31.83	-13.00	H
17211.25	-43.54	2.90	14.50	-31.94	-13.00	H
17350.62	-42.83	3.20	14.50	-31.53	-13.00	H
17450.62	-42.12	2.90	14.50	-30.52	-13.00	H
17596.25	-39.42	3.30	12.80	-29.92	-13.00	H
17773.12	-40.43	3.60	12.80	-31.23	-13.00	H

LTE Band 66, 1.4MHz, QPSK, Channel 132665

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16941.25	-45.76	2.90	16.50	-32.16	-13.00	H
17126.25	-43.83	2.90	14.50	-32.23	-13.00	H
17223.75	-43.73	3.20	14.50	-32.43	-13.00	H
17516.88	-40.45	2.90	12.80	-30.55	-13.00	H
17616.25	-39.76	3.30	12.80	-30.26	-13.00	H
17834.38	-40.62	3.60	12.80	-31.42	-13.00	H

LTE Band 66, 1.4MHz, 16QAM, Channel 131979

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16960.00	-45.43	2.90	16.50	-31.83	-13.00	H
17118.75	-44.19	2.90	14.50	-32.59	-13.00	H
17295.62	-43.40	3.20	14.50	-32.10	-13.00	H
17448.75	-42.57	2.90	14.50	-30.97	-13.00	H
17586.88	-39.23	3.30	12.80	-29.73	-13.00	H
17821.25	-40.57	3.60	12.80	-31.37	-13.00	H

LTE Band 66, 1.4MHz, 16QAM, Channel 132322

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16984.38	-47.93	2.90	16.50	-34.33	-13.00	H
17140.62	-46.48	2.90	14.50	-34.88	-13.00	H
17300.62	-45.39	3.20	14.50	-34.09	-13.00	H
17515.62	-44.64	2.90	12.80	-34.74	-13.00	H
17600.00	-44.29	3.30	12.80	-34.79	-13.00	H
17833.75	-43.83	3.60	12.80	-34.63	-13.00	H

LTE Band 66, 1.4MHz, 16QAM, Channel 132665

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16945.00	-45.91	2.90	16.50	-32.31	-13.00	H
17111.25	-43.85	2.90	14.50	-32.25	-13.00	H
17356.25	-43.53	3.20	14.50	-32.23	-13.00	H
17470.00	-42.22	2.90	14.50	-30.62	-13.00	H
17598.75	-40.21	3.30	12.80	-30.71	-13.00	H
17839.38	-40.70	3.60	12.80	-31.50	-13.00	H

Lower antenna
LTE Band 2, 1.4MHz, QPSK, Channel 18607

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16941.25	-44.91	2.90	16.50	-31.31	-13.00	H
17184.38	-44.39	2.90	14.50	-32.79	-13.00	H
17354.38	-43.16	3.20	14.50	-31.86	-13.00	H
17463.12	-42.51	2.90	14.50	-30.91	-13.00	H
17593.12	-39.60	3.30	12.80	-30.10	-13.00	H
17776.25	-40.29	3.60	12.80	-31.09	-13.00	H

LTE Band 2, 1.4MHz, QPSK, Channel 18900

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16981.25	-45.84	2.90	16.50	-32.24	-13.00	H
17130.00	-43.98	2.90	14.50	-32.38	-13.00	H
17361.25	-43.43	3.20	14.50	-32.13	-13.00	H
17468.12	-41.77	2.90	14.50	-30.17	-13.00	H
17573.75	-39.61	3.30	12.80	-30.11	-13.00	H
17839.38	-40.17	3.60	12.80	-30.97	-13.00	H

LTE Band 2, 1.4MHz, QPSK, Channel 19193

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16896.88	-45.73	2.90	16.50	-32.13	-13.00	H
16933.12	-45.35	2.90	16.50	-31.75	-13.00	H
17173.75	-43.12	2.90	14.50	-31.52	-13.00	H
17504.38	-40.49	2.90	12.80	-30.59	-13.00	H
17616.88	-39.78	3.30	12.80	-30.28	-13.00	H
17771.25	-40.35	3.60	12.80	-31.15	-13.00	H

LTE Band 2, 1.4MHz, 16QAM, Channel 18607

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16995.00	-45.55	2.90	16.50	-31.95	-13.00	H
17167.50	-44.29	2.90	14.50	-32.69	-13.00	H
17216.25	-43.81	3.20	14.50	-32.51	-13.00	H
17456.25	-41.56	2.90	14.50	-29.96	-13.00	H
17640.62	-40.21	3.30	12.80	-30.71	-13.00	H
17819.38	-39.90	3.60	12.80	-30.70	-13.00	H

LTE Band 2, 1.4MHz, 16QAM, Channel 18900

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16976.25	-44.27	2.90	16.50	-30.67	-13.00	H
17120.62	-42.84	2.90	14.50	-31.24	-13.00	H
17296.25	-41.42	3.20	14.50	-30.12	-13.00	H
17419.38	-41.28	2.90	14.50	-29.68	-13.00	H
17611.25	-38.46	3.30	12.80	-28.96	-13.00	H
17830.62	-38.93	3.60	12.80	-29.73	-13.00	H

LTE Band 2, 1.4MHz, 16QAM, Channel 19193

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
17005.00	-44.25	2.90	14.50	-32.65	-13.00	H
17165.62	-44.46	2.90	14.50	-32.86	-13.00	H
17347.50	-43.48	3.20	14.50	-32.18	-13.00	H
17455.00	-42.83	2.90	14.50	-31.23	-13.00	H
17615.00	-40.62	3.30	12.80	-31.12	-13.00	H
17701.88	-40.46	3.30	12.80	-30.96	-13.00	H

LTE Band 4, 1.4MHz, QPSK, Channel 19957

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16955.00	-45.50	2.90	16.50	-31.90	-13.00	H
17195.62	-43.98	2.90	14.50	-32.38	-13.00	H
17305.62	-43.70	3.20	14.50	-32.40	-13.00	H
17516.88	-39.50	2.90	12.80	-29.60	-13.00	H
17609.38	-40.23	3.30	12.80	-30.73	-13.00	H
17836.88	-40.17	3.60	12.80	-30.97	-13.00	H

LTE Band 4, 1.4MHz, QPSK, Channel 20175

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16991.25	-45.29	2.90	16.50	-31.69	-13.00	H
17072.50	-43.83	2.90	14.50	-32.23	-13.00	H
17369.38	-42.13	3.20	14.50	-30.83	-13.00	H
17445.00	-42.27	2.90	14.50	-30.67	-13.00	H
17571.88	-39.84	3.30	12.80	-30.34	-13.00	H
17789.38	-40.81	3.60	12.80	-31.61	-13.00	H

LTE Band 4, 1.4MHz, QPSK, Channel 20393

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16934.38	-45.81	2.90	16.50	-32.21	-13.00	H
17192.50	-43.84	2.90	14.50	-32.24	-13.00	H
17293.12	-43.54	3.20	14.50	-32.24	-13.00	H
17396.88	-42.35	2.90	14.50	-30.75	-13.00	H
17625.00	-39.93	3.30	12.80	-30.43	-13.00	H
17826.88	-40.43	3.60	12.80	-31.23	-13.00	H

LTE Band 4, 1.4MHz, 16QAM, Channel 19957

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16963.12	-45.78	2.90	16.50	-32.18	-13.00	H
17196.25	-43.75	2.90	14.50	-32.15	-13.00	H
17353.75	-43.51	3.20	14.50	-32.21	-13.00	H
17413.12	-42.03	2.90	14.50	-30.43	-13.00	H
17586.25	-40.45	3.30	12.80	-30.95	-13.00	H
17788.75	-40.92	3.60	12.80	-31.72	-13.00	H

LTE Band 4, 1.4MHz, 16QAM, Channel 20175

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16929.38	-45.01	2.90	16.50	-31.41	-13.00	H
17193.12	-44.08	2.90	14.50	-32.48	-13.00	H
17344.38	-42.70	3.20	14.50	-31.40	-13.00	H
17446.25	-41.91	2.90	14.50	-30.31	-13.00	H
17595.00	-40.31	3.30	12.80	-30.81	-13.00	H
17783.75	-39.26	3.60	12.80	-30.06	-13.00	H

LTE Band 4, 1.4MHz, 16QAM, Channel 20393

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16977.50	-45.18	2.90	16.50	-31.58	-13.00	H
17186.25	-43.92	2.90	14.50	-32.32	-13.00	H
17368.75	-42.67	3.20	14.50	-31.37	-13.00	H
17467.50	-42.06	2.90	14.50	-30.46	-13.00	H
17576.25	-39.96	3.30	12.80	-30.46	-13.00	H
17838.75	-40.67	3.60	12.80	-31.47	-13.00	H

LTE Band 5, 1.4MHz, QPSK, Channel 20407

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9099.25	-51.73	2.20	11.60	-44.48	-13.00	H
9108.75	-51.83	2.10	11.60	-44.48	-13.00	H
9219.75	-50.87	2.10	11.60	-43.52	-13.00	H
9300.00	-49.85	2.00	11.60	-42.40	-13.00	H
9426.50	-51.53	2.10	11.60	-44.18	-13.00	H
9473.25	-50.90	2.10	11.60	-43.55	-13.00	V

LTE Band 5, 1.4MHz, QPSK, Channel 20525

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9098.00	-52.02	2.20	11.60	-44.77	-13.00	H
9099.75	-50.70	2.20	11.60	-43.45	-13.00	H
9215.50	-50.99	2.10	11.60	-43.64	-13.00	H
9300.25	-50.60	2.00	11.60	-43.15	-13.00	H
9475.75	-51.64	2.10	11.60	-44.29	-13.00	V
9719.50	-51.19	2.20	11.20	-44.34	-13.00	H

LTE Band 5, 1.4MHz, QPSK, Channel 20643

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9153.50	-51.71	2.10	11.60	-44.36	-13.00	H
9226.75	-51.39	2.10	11.60	-44.04	-13.00	H
9295.25	-50.98	2.00	11.60	-43.53	-13.00	H
9434.00	-51.87	2.10	11.60	-44.52	-13.00	H
9477.75	-51.05	2.10	11.60	-43.70	-13.00	V
9714.75	-51.55	2.20	11.20	-44.70	-13.00	H

LTE Band 5, 1.4MHz, 16QAM, Channel 20407

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9099.00	-51.54	2.20	11.60	-44.29	-13.00	H
9100.50	-51.56	2.20	11.60	-44.31	-13.00	H
9226.75	-50.37	2.10	11.60	-43.02	-13.00	H
9298.25	-50.46	2.00	11.60	-43.01	-13.00	H
9424.75	-51.67	2.10	11.60	-44.32	-13.00	H
9475.00	-51.30	2.10	11.60	-43.95	-13.00	V

LTE Band 5, 1.4MHz, 16QAM, Channel 20525

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
9103.75	-52.28	2.20	11.60	-45.03	-13.00	H
9225.00	-51.39	2.10	11.60	-44.04	-13.00	H
9304.00	-50.44	2.00	11.60	-42.99	-13.00	H
9383.25	-52.38	2.10	11.60	-45.03	-13.00	V
9475.25	-51.12	2.10	11.60	-43.77	-13.00	V
9724.75	-51.36	2.20	11.20	-44.51	-13.00	H

LTE Band 5, 1.4MHz, 16QAM, Channel 20643

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
7314.00	-52.42	1.90	12.00	-44.47	-13.00	H
9092.50	-52.09	2.20	11.60	-44.84	-13.00	H
9103.25	-51.57	2.20	11.60	-44.32	-13.00	H
9221.25	-50.82	2.10	11.60	-43.47	-13.00	H
9301.00	-50.53	2.00	11.60	-43.08	-13.00	H
9425.50	-52.16	2.10	11.60	-44.81	-13.00	H

LTE Band 7, 5MHz, QPSK, Channel 20775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16978.00	-48.61	2.90	16.50	-35.01	-25.00	H
17095.50	-45.95	2.90	14.50	-34.35	-25.00	H
17298.00	-45.74	3.20	14.50	-34.44	-25.00	H
17417.50	-46.21	2.90	14.50	-34.61	-25.00	H
17623.50	-43.63	3.30	12.80	-34.13	-25.00	H
17821.50	-43.16	3.60	12.80	-33.96	-25.00	H

LTE Band 7, 5MHz, QPSK, Channel 21100

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16991.00	-48.56	2.90	16.50	-34.96	-25.00	H
17086.50	-46.54	2.90	14.50	-34.94	-25.00	H
17361.00	-45.77	3.20	14.50	-34.47	-25.00	H
17525.00	-44.31	2.90	12.80	-34.41	-25.00	H
17583.00	-43.87	3.30	12.80	-34.37	-25.00	H
17830.00	-43.94	3.60	12.80	-34.74	-25.00	H

LTE Band 7, 5MHz, QPSK, Channel 21425

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16932.00	-47.73	2.90	16.50	-34.13	-25.00	H
17099.00	-46.26	2.90	14.50	-34.66	-25.00	H
17236.00	-45.58	3.20	14.50	-34.28	-25.00	H
17501.00	-44.78	2.90	12.80	-34.88	-25.00	H
17604.00	-43.61	3.30	12.80	-34.11	-25.00	H
17830.50	-43.44	3.60	12.80	-34.24	-25.00	H

LTE Band 7, 5MHz, 16QAM, Channel 20775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16963.00	-48.49	2.90	16.50	-34.89	-25.00	H
17196.00	-45.65	2.90	14.50	-34.05	-25.00	H
17286.50	-45.81	3.20	14.50	-34.51	-25.00	H
17453.50	-46.29	2.90	14.50	-34.69	-25.00	H
17633.50	-43.47	3.30	12.80	-33.97	-25.00	H
17828.50	-44.05	3.60	12.80	-34.85	-25.00	H

LTE Band 7, 5MHz, 16QAM, Channel 21100

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16988.50	-48.43	2.90	16.50	-34.83	-25.00	H
17134.50	-46.46	2.90	14.50	-34.86	-25.00	H
17285.00	-46.23	3.20	14.50	-34.93	-25.00	H
17457.00	-46.39	2.90	14.50	-34.79	-25.00	H
17616.50	-44.15	3.30	12.80	-34.65	-25.00	H
17835.50	-43.59	3.60	12.80	-34.39	-25.00	H

LTE Band 7, 5MHz, 16QAM, Channel 21425

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16953.50	-48.47	2.90	16.50	-34.87	-25.00	H
17158.50	-46.34	2.90	14.50	-34.74	-25.00	H
17345.00	-45.42	3.20	14.50	-34.12	-25.00	H
17434.50	-46.53	2.90	14.50	-34.93	-25.00	H
17588.50	-43.88	3.30	12.80	-34.38	-25.00	H
17837.00	-43.46	3.60	12.80	-34.26	-25.00	H

LTE Band 13, 5MHz, QPSK, Channel 23205

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1566.00	-59.77	0.70	8.10	-54.52	-40.00	V
9101.25	-52.05	2.20	11.60	-44.80	-13.00	H
9221.38	-50.66	2.10	11.60	-43.31	-13.00	H
9473.25	-51.02	2.10	11.60	-43.67	-13.00	V
9719.88	-51.39	2.20	11.20	-44.54	-13.00	H
9787.12	-51.54	2.30	11.20	-44.79	-13.00	H

LTE Band 13, 5MHz, QPSK, Channel 23230

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1568.50	-59.94	0.70	8.10	-54.69	-40.00	V
9101.88	-51.96	2.20	11.60	-44.71	-13.00	H
9302.38	-51.11	2.00	11.60	-43.66	-13.00	H
9475.75	-50.64	2.10	11.60	-43.29	-13.00	V
9731.38	-51.61	2.20	11.20	-44.76	-13.00	H
9797.12	-51.61	2.30	11.20	-44.86	-13.00	H

LTE Band 13, 5MHz, QPSK, Channel 23255

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1571.50	-59.74	0.70	8.10	-54.49	-40.00	V
9101.88	-51.77	2.20	11.60	-44.52	-13.00	H
9301.38	-50.68	2.00	11.60	-43.23	-13.00	H
9477.12	-50.85	2.10	11.60	-43.50	-13.00	V
9726.25	-51.53	2.20	11.20	-44.68	-13.00	H
9793.75	-51.17	2.30	11.20	-44.42	-13.00	H

LTE Band 13, 5MHz, 16QAM, Channel 23205

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1569.00	-58.95	0.70	8.10	-53.70	-40.00	V
9091.38	-51.49	2.20	11.60	-44.24	-13.00	H
9302.12	-50.55	2.00	11.60	-43.10	-13.00	H
9475.38	-51.34	2.10	11.60	-43.99	-13.00	V
9755.25	-51.42	2.20	11.20	-44.57	-13.00	H
9806.50	-51.47	2.30	11.20	-44.72	-13.00	H

LTE Band 13, 5MHz, 16QAM, Channel 23230

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1562.00	-59.95	0.70	8.10	-54.70	-40.00	V
9098.88	-51.77	2.20	11.60	-44.52	-13.00	H
9300.75	-50.53	2.00	11.60	-43.08	-13.00	H
9475.75	-51.21	2.10	11.60	-43.86	-13.00	V
9727.25	-51.52	2.20	11.20	-44.67	-13.00	H
9801.88	-51.07	2.30	11.20	-44.32	-13.00	H

LTE Band 13, 5MHz, 16QAM, Channel 23255

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak ERP(dBm)	Limit (dBm)	Polarization
1575.50	-59.80	0.70	8.10	-54.55	-40.00	V
7202.62	-52.96	1.80	12.00	-44.91	-13.00	H
9097.12	-51.84	2.20	11.60	-44.59	-13.00	H
9221.50	-50.75	2.10	11.60	-43.40	-13.00	H
9473.25	-51.61	2.10	11.60	-44.26	-13.00	V
9746.88	-51.56	2.20	11.20	-44.71	-13.00	H

LTE Band 38, 5MHz, QPSK, Channel 37775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16980.00	-48.38	2.90	16.50	-34.78	-25.00	H
17212.50	-46.25	2.90	14.50	-34.65	-25.00	H
17262.50	-46.10	3.20	14.50	-34.80	-25.00	H
17451.88	-46.10	2.90	14.50	-34.50	-25.00	H
17597.50	-44.32	3.30	12.80	-34.82	-25.00	H
17836.25	-43.28	3.60	12.80	-34.08	-25.00	H

LTE Band 38, 5MHz, QPSK, Channel 38000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16935.62	-48.81	2.90	16.50	-35.21	-25.00	H
17126.88	-46.45	2.90	14.50	-34.85	-25.00	H
17350.62	-45.37	3.20	14.50	-34.07	-25.00	H
17515.00	-44.66	2.90	12.80	-34.76	-25.00	H
17591.25	-43.89	3.30	12.80	-34.39	-25.00	H
17812.50	-43.49	3.60	12.80	-34.29	-25.00	H

LTE Band 38, 5MHz, QPSK, Channel 38225

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16969.38	-48.92	2.90	16.50	-35.32	-25.00	H
17100.62	-46.27	2.90	14.50	-34.67	-25.00	H
17299.38	-45.41	3.20	14.50	-34.11	-25.00	H
17521.88	-44.04	2.90	12.80	-34.14	-25.00	H
17568.75	-43.89	3.30	12.80	-34.39	-25.00	H
17828.12	-43.64	3.60	12.80	-34.44	-25.00	H

LTE Band 38, 5MHz, 16QAM, Channel 37775

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16979.38	-48.82	2.90	16.50	-35.22	-25.00	H
17118.12	-45.62	2.90	14.50	-34.02	-25.00	H
17233.12	-378.28	3.20	14.50	-366.98	-25.00	H
17454.38	-46.24	2.90	14.50	-34.64	-25.00	H
17580.00	-44.24	3.30	12.80	-34.74	-25.00	H
17831.88	-43.96	3.60	12.80	-34.76	-25.00	H

LTE Band 38, 5MHz, 16QAM, Channel 38000

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16950.62	-48.82	2.90	16.50	-35.22	-25.00	H
17171.25	-46.12	2.90	14.50	-34.52	-25.00	H
17310.62	-45.41	3.20	14.50	-34.11	-25.00	H
17458.12	-46.16	2.90	14.50	-34.56	-25.00	H
17525.62	-44.65	2.90	12.80	-34.75	-25.00	H
17816.88	-43.40	3.60	12.80	-34.20	-25.00	H

LTE Band 38, 5MHz, 16QAM, Channel 38225

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16942.50	-48.60	2.90	16.50	-35.00	-25.00	H
17187.50	-46.44	2.90	14.50	-34.84	-25.00	H
17324.38	-45.69	3.20	14.50	-34.39	-25.00	H
17495.62	-46.25	2.90	14.50	-34.65	-25.00	H
17569.38	-44.38	3.30	12.80	-34.88	-25.00	H
17786.88	-43.73	3.60	12.80	-34.53	-25.00	H

LTE Band 41, 5MHz, QPSK, Channel 40065

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16939.50	-47.92	2.90	16.50	-34.32	-25.00	H
17106.00	-45.90	2.90	14.50	-34.30	-25.00	H
17300.00	-46.34	3.20	14.50	-35.04	-25.00	H
17499.00	-46.20	2.90	14.50	-34.60	-25.00	H
17540.50	-43.89	2.90	12.80	-33.99	-25.00	H
17824.50	-43.24	3.60	12.80	-34.04	-25.00	H

LTE Band 41, 5MHz, QPSK, Channel 40640

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16918.00	-48.23	2.90	16.50	-34.63	-25.00	H
17181.50	-46.27	2.90	14.50	-34.67	-25.00	H
17261.00	-45.49	3.20	14.50	-34.19	-25.00	H
17460.00	-46.03	2.90	14.50	-34.43	-25.00	H
17615.00	-44.18	3.30	12.80	-34.68	-25.00	H
17840.00	-43.55	3.60	12.80	-34.35	-25.00	H

LTE Band 41, 5MHz, QPSK, Channel 41215

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16947.00	-47.99	2.90	16.50	-34.39	-25.00	H
17187.00	-46.18	2.90	14.50	-34.58	-25.00	H
17365.50	-46.09	3.20	14.50	-34.79	-25.00	H
17509.00	-44.22	2.90	12.80	-34.32	-25.00	H
17527.50	-44.03	2.90	12.80	-34.13	-25.00	H
17815.00	-43.67	3.60	12.80	-34.47	-25.00	H

LTE Band 41, 5MHz, 16QAM, Channel 40065

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
17004.50	-45.67	2.90	14.50	-34.07	-25.00	H
17119.00	-46.46	2.90	14.50	-34.86	-25.00	H
17368.50	-45.55	3.20	14.50	-34.25	-25.00	H
17446.50	-46.39	2.90	14.50	-34.79	-25.00	H
17592.00	-43.60	3.30	12.80	-34.10	-25.00	H
17775.00	-44.12	3.60	12.80	-34.92	-25.00	H

LTE Band 41, 5MHz, 16QAM, Channel 40640

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16986.00	-48.22	2.90	16.50	-34.62	-25.00	H
17200.50	-46.42	2.90	14.50	-34.82	-25.00	H
17318.00	-45.69	3.20	14.50	-34.39	-25.00	H
17446.00	-45.47	2.90	14.50	-33.87	-25.00	H
17526.50	-43.90	2.90	12.80	-34.00	-25.00	H
17768.00	-43.89	3.60	12.80	-34.69	-25.00	H

LTE Band 41, 5MHz, 16QAM, Channel 41215

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16951.00	-47.66	2.90	16.50	-34.06	-25.00	H
17114.50	-45.84	2.90	14.50	-34.24	-25.00	H
17274.50	-45.68	3.20	14.50	-34.38	-25.00	H
17486.00	-45.79	2.90	14.50	-34.19	-25.00	H
17617.50	-44.07	3.30	12.80	-34.57	-25.00	H
17798.00	-43.76	3.60	12.80	-34.56	-25.00	H

LTE Band 66, 1.4MHz, QPSK, Channel 131979

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16956.88	-44.95	2.90	16.50	-31.35	-13.00	H
17119.38	-43.98	2.90	14.50	-32.38	-13.00	H
17289.38	-43.43	3.20	14.50	-32.13	-13.00	H
17511.88	-40.12	2.90	12.80	-30.22	-13.00	H
17626.88	-39.46	3.30	12.80	-29.96	-13.00	H
17838.75	-40.67	3.60	12.80	-31.47	-13.00	H

LTE Band 66, 1.4MHz, QPSK, Channel 132322

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16950.62	-45.76	2.90	16.50	-32.16	-13.00	H
17170.62	-44.16	2.90	14.50	-32.56	-13.00	H
17292.50	-43.66	3.20	14.50	-32.36	-13.00	H
17416.25	-42.53	2.90	14.50	-30.93	-13.00	H
17603.75	-40.16	3.30	12.80	-30.66	-13.00	H
17823.75	-39.96	3.60	12.80	-30.76	-13.00	H

LTE Band 66, 1.4MHz, QPSK, Channel 132665

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
17003.12	-43.64	2.90	14.50	-32.04	-13.00	H
17201.88	-43.19	2.90	14.50	-31.59	-13.00	H
17235.00	-43.56	3.20	14.50	-32.26	-13.00	H
17505.62	-40.21	2.90	12.80	-30.31	-13.00	H
17527.50	-39.24	2.90	12.80	-29.34	-13.00	H
17806.25	-40.17	3.60	12.80	-30.97	-13.00	H

LTE Band 66, 1.4MHz, 16QAM, Channel 131979

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16984.38	-45.88	2.90	16.50	-32.28	-13.00	H
17215.00	-44.19	2.90	14.50	-32.59	-13.00	H
17365.00	-43.70	3.20	14.50	-32.40	-13.00	H
17457.50	-42.23	2.90	14.50	-30.63	-13.00	H
17588.12	-39.57	3.30	12.80	-30.07	-13.00	H
17836.88	-40.09	3.60	12.80	-30.89	-13.00	H

LTE Band 66, 1.4MHz, 16QAM, Channel 132322

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16991.25	-45.43	2.90	16.50	-31.83	-13.00	H
17208.12	-44.23	2.90	14.50	-32.63	-13.00	H
17245.00	-43.91	3.20	14.50	-32.61	-13.00	H
17463.12	-42.26	2.90	14.50	-30.66	-13.00	H
17628.12	-40.26	3.30	12.80	-30.76	-13.00	H
17836.88	-40.66	3.60	12.80	-31.46	-13.00	H

LTE Band 66, 1.4MHz, 16QAM, Channel 132665

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Polarization
16943.75	-45.55	2.90	16.50	-31.95	-13.00	H
17111.25	-44.26	2.90	14.50	-32.66	-13.00	H
17363.75	-41.97	3.20	14.50	-30.67	-13.00	H
17420.00	-42.30	2.90	14.50	-30.70	-13.00	H
17608.12	-39.99	3.30	12.80	-30.49	-13.00	H
17837.50	-40.33	3.60	12.80	-31.13	-13.00	H

Note: The maximum value of expanded measurement uncertainty for this test item is U = 2.87dB(30MHz-3GHz)/3.35dB(3GHz-18GHz)/2.68dB(18GHz-40GHz), k = 2

A.3 FREQUENCY STABILITY

Reference

FCC: CFR Part 2.1055, 22.355, 24.235, 27.54.

A.3.1 Method of Measurement

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 R&S CMW500.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30°C.
3. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on mid channel of all bands, 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°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Remeasure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments remeasuring 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°C.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the centre 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°C increments from -30°C to +50°C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5°C 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 2, 20MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	1850.790	1909.210		
50				-0.67	0.0004
40				-1.00	0.0005
30				-2.76	0.0015
10				-3.00	0.0016
0				-1.43	0.0008
-10				-0.50	0.0003
-20				-2.20	0.0012
-30				-1.57	0.0008

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	1850.790	1909.210	-1.40	0.0007
4.45				-1.27	0.0007

Expanded measurement uncertainty is 10 Hz, $k = 2$

LTE Band 4, 20MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
50	3.87	1710.790	1754.210		
40				-1.06	0.0006
30				-0.89	0.0005
20				-0.84	0.0005
10				-2.81	0.0016
0				-4.08	0.0024
-10				-4.37	0.0025
-20				-1.04	0.0006
-30				-2.32	0.0013

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	1710.790	1754.210	-1.51	0.0009
4.45				-1.62	0.0009

panded measurement uncertainty is 10Hz, $k = 2$

LTE Band 5, 10MHz bandwidth (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
50	3.87	824.350	848.610		
40				-0.53	0.0006
30				0.14	0.0002
20				0.10	0.0001
10				1.09	0.0013
0				-0.07	0.0001
-10				0.23	0.0003
-20				-0.19	0.0002
-30				2.63	0.0031

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	824.350	848.610	0.72	0.0009
4.45				1.53	0.0018

Expanded measurement uncertainty is 10 Hz, $k = 2$
LTE Band 7, 20MHz bandwidth (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2500.500	2569.500		
50				0.90	0.0004
40				-0.59	0.0002
30				-1.82	0.0007
10				-0.19	0.0001
0				0.79	0.0003
-10				-1.90	0.0008
-20				0.74	0.0003
-30				-0.59	0.0002

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	2500.500	2569.500	-1.92	0.0008
4.45				-1.67	0.0007

Expanded measurement uncertainty is 10 Hz, $k = 2$

LTE Band 13, 10MHz bandwidth (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	777.455	786.535		
50				-1.74	0.0022
40				-3.83	0.0049
30				-2.06	0.0026
10				-2.03	0.0026
0				-2.14	0.0027
-10				-6.49	0.0083
-20				-3.74	0.0048
-30				-5.63	0.0072

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	777.455	786.535	-4.67	0.0060
4.45				-5.41	0.0069

Expanded measurement uncertainty is 10Hz, k = 2

LTE Band 38, 20MHz bandwidth (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2570.620	2619.360		
50				-5.40	0.0021
40				-4.85	0.0019
30				-1.78	0.0007
10				0.81	0.0003
0				-6.39	0.0025
-10				-3.77	0.0015
-20				-3.70	0.0014
-30				-2.82	0.0011

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	2570.620	2619.360	-1.78	0.0007
4.45				-4.03	0.0016

Expanded measurement uncertainty is 10 Hz, k = 2

LTE Band 41, 20MHz bandwidth (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2535.560	2654.380		
50				-1.40	0.0005
40				-0.13	0.0000
30				0.06	0.0000
10				-0.37	0.0001
0				-1.29	0.0005
-10				-0.26	0.0001
-20				-1.50	0.0006
-30				-1.16	0.0004

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	2535.560	2654.380	-0.57	0.0002
4.45				-0.89	0.0003

Expanded measurement uncertainty is 10Hz, k = 2

LTE Band 66, 20MHz bandwidth (worst case of all bandwidths)
Frequency Error vs Temperature

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	1710.750	1779.220		
50				0.85	0.0005
40				-3.41	0.0020
30				-0.99	0.0006
10				-1.80	0.0010
0				-3.80	0.0022
-10				0.23	0.0001
-20				-0.49	0.0003
-30				-1.60	0.0009

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.41	20	1710.750	1779.220	-0.88	0.0005
4.45				-2.02	0.0012

Expanded measurement uncertainty is 10Hz, k = 2

A.4 OCCUPIED BANDWIDTH

Reference

FCC: CFR Part 2.1049, 22.917, 24.238, 27.53.

A.4.1 Occupied Bandwidth Results

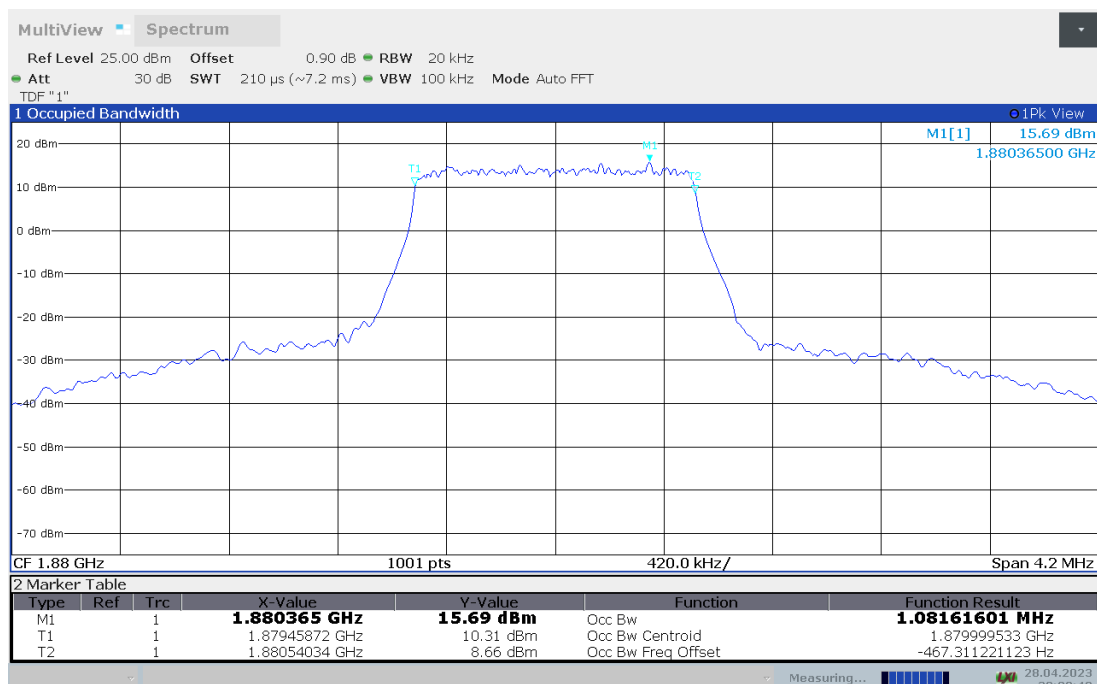
Occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies of the US Cellular/PCS frequency bands. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.

- 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 (i.e., two to five times the OBW).
- The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
- Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least $10\log(\text{OBW} / \text{RBW})$ below the reference level.
- Set the detection mode to peak, and the trace mode to max hold.
- Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

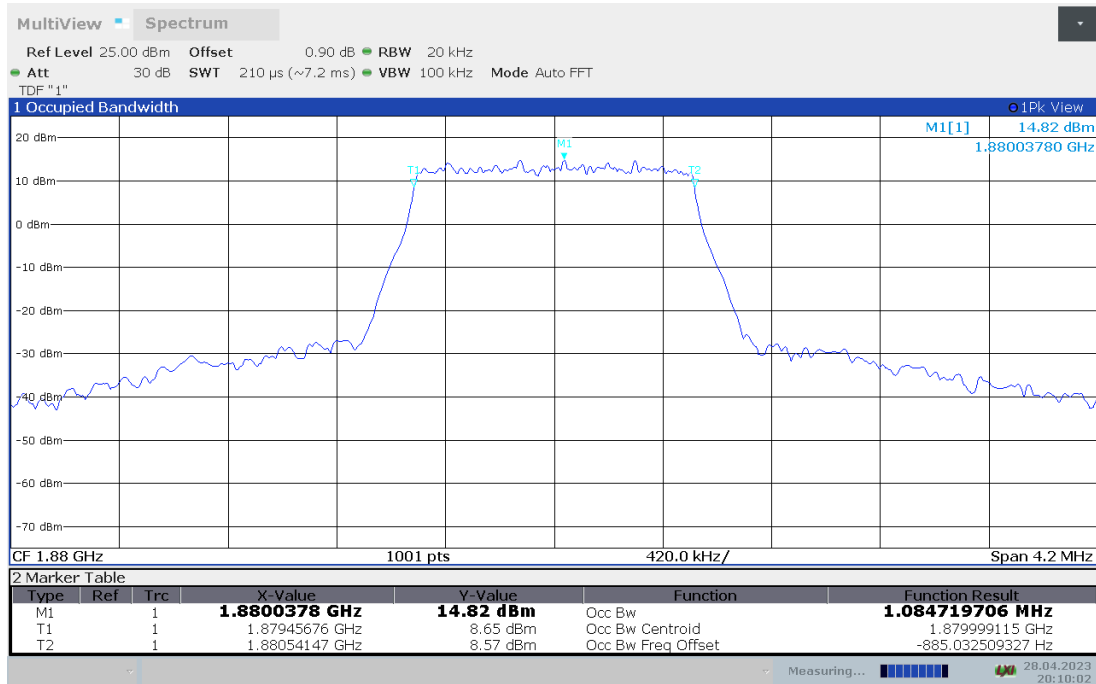
LTE band 2,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	1.082	1.085

LTE band 2 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



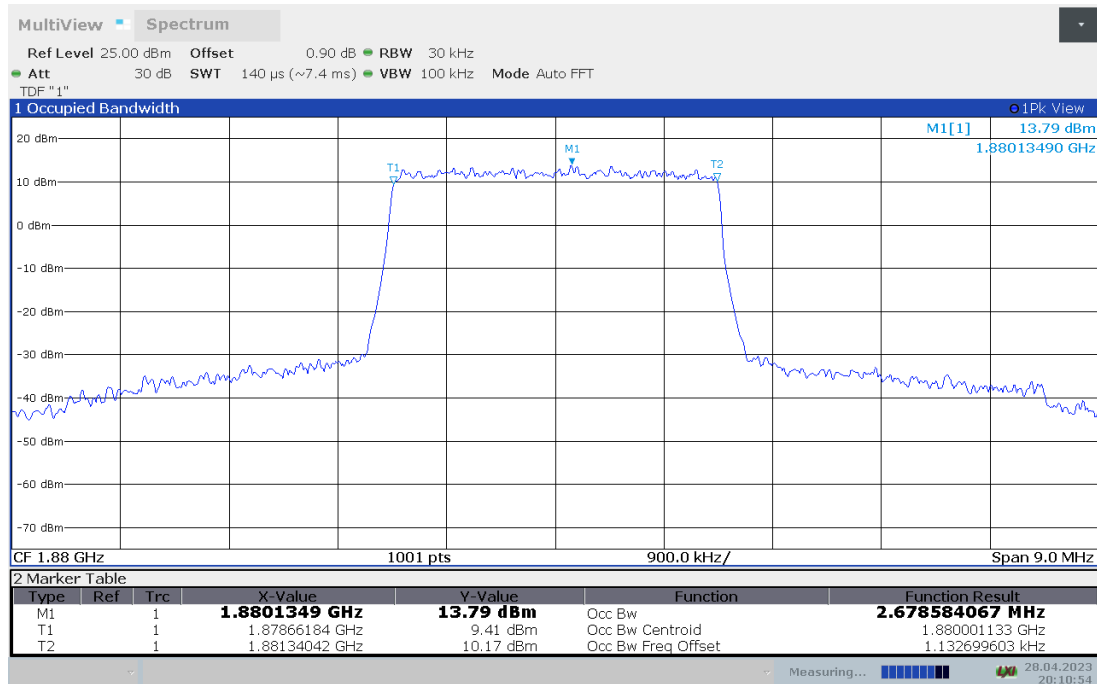
LTE band 2 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



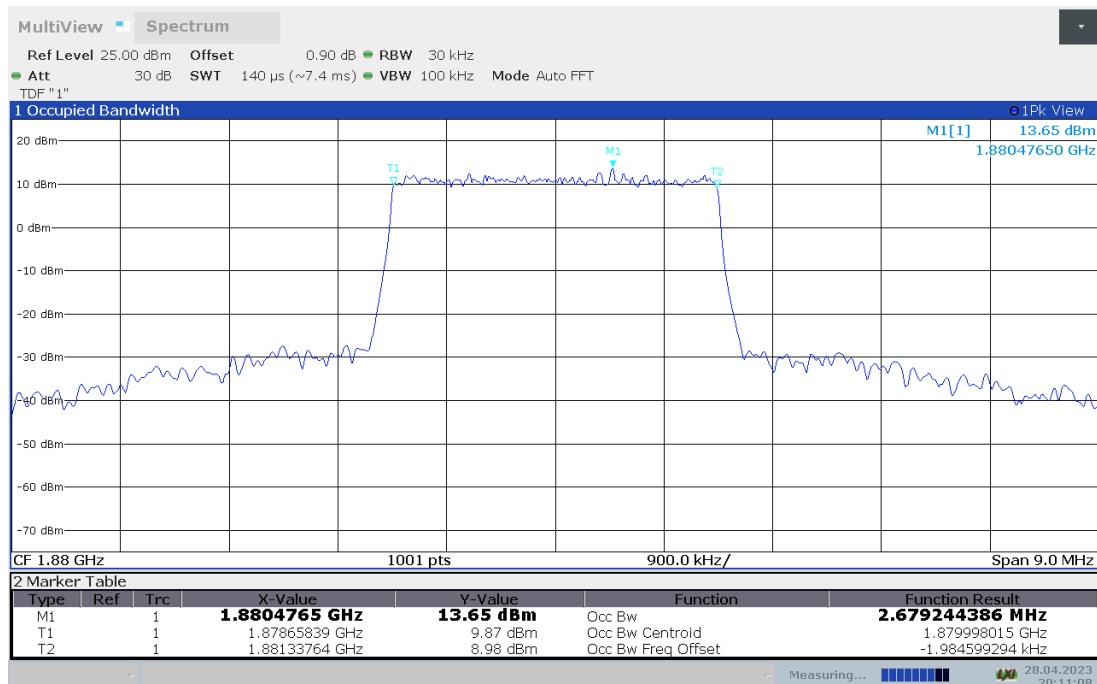
LTE band 2,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	2.679	2.679

LTE band 2 , 3MHz Bandwidth,MID,QPSK (99% BW)



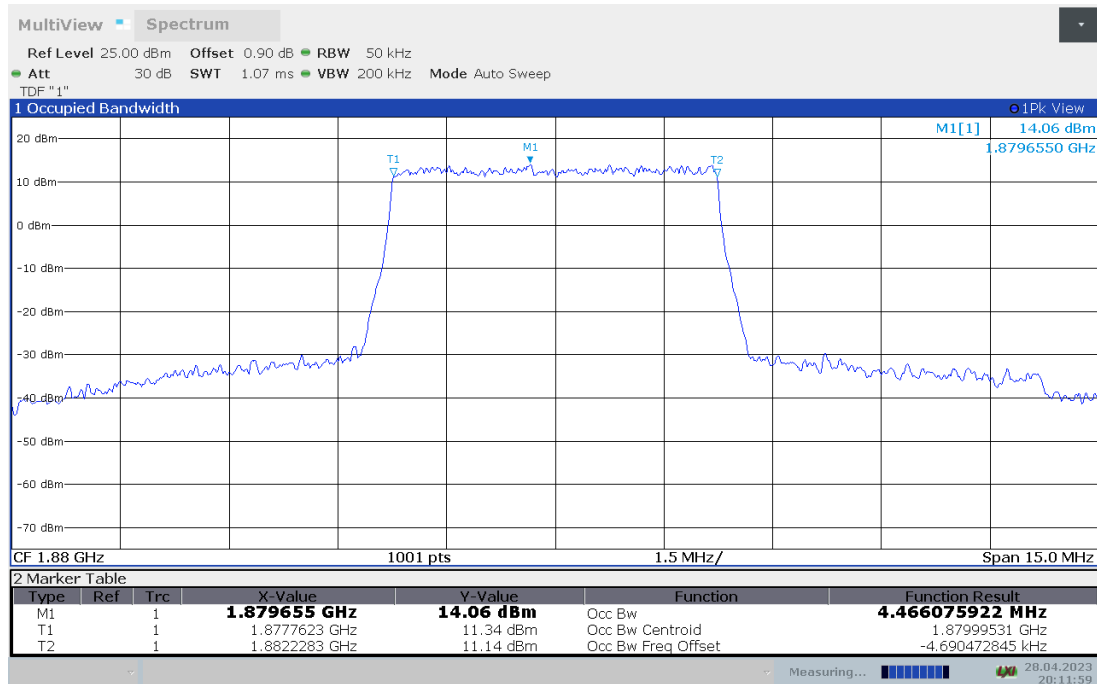
LTE band 2 , 3MHz Bandwidth,MID,16QAM (99% BW)



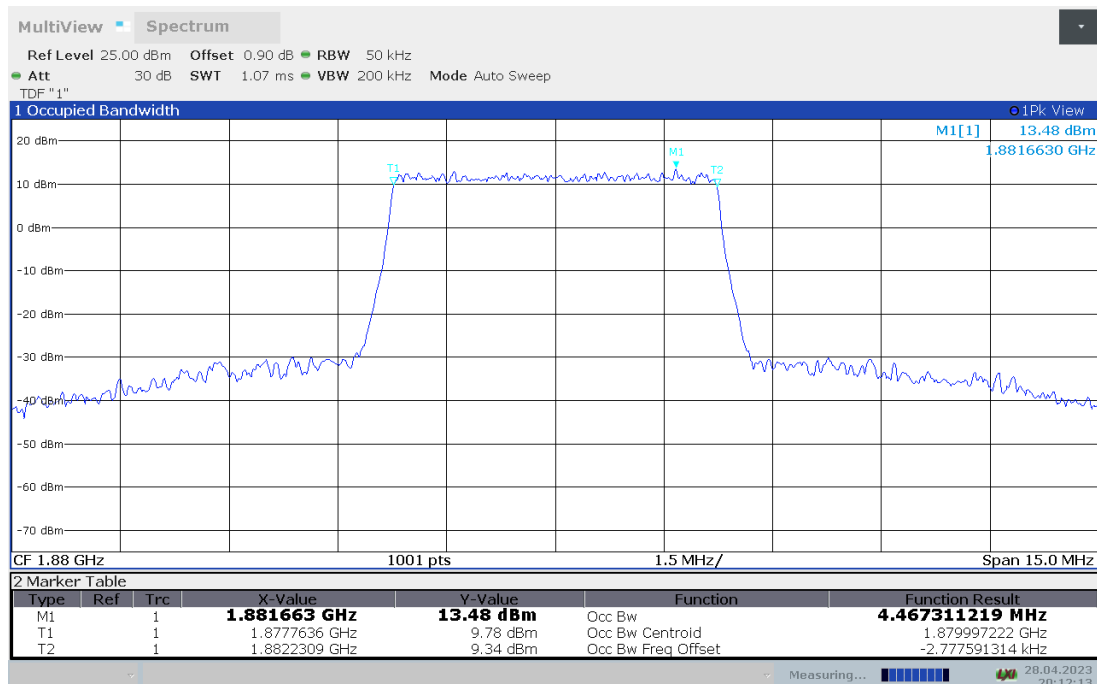
LTE band 2,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	4.466	4.467

LTE band 2 , 5MHz Bandwidth,MID,QPSK (99% BW)



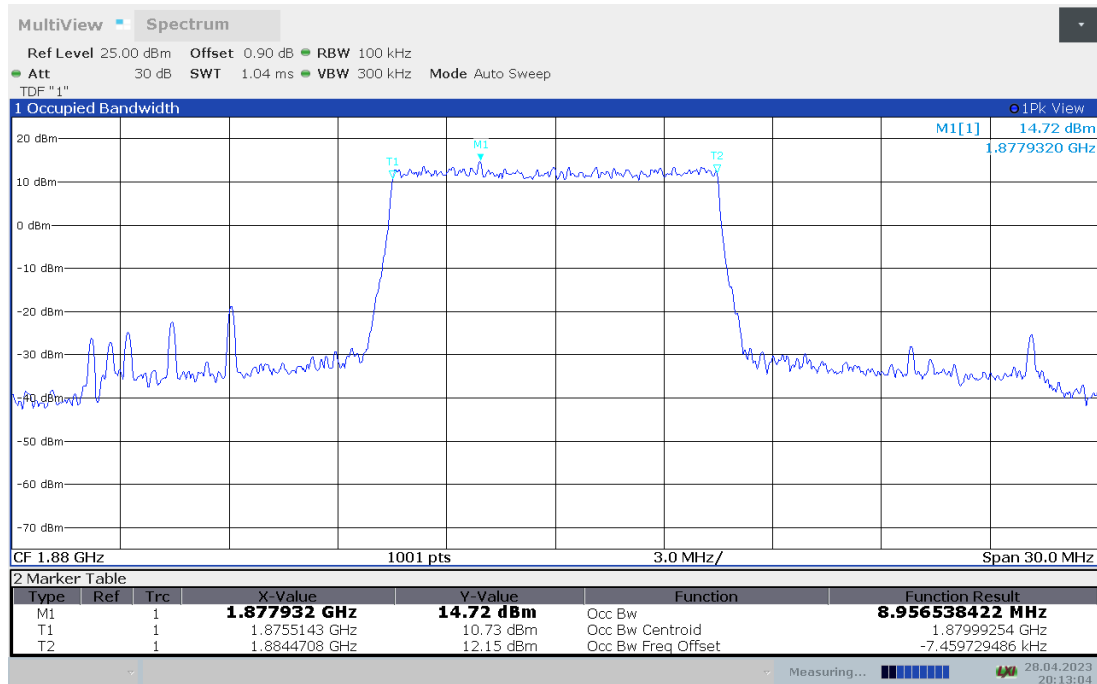
LTE band 2 , 5MHz Bandwidth,MID,16QAM (99% BW)



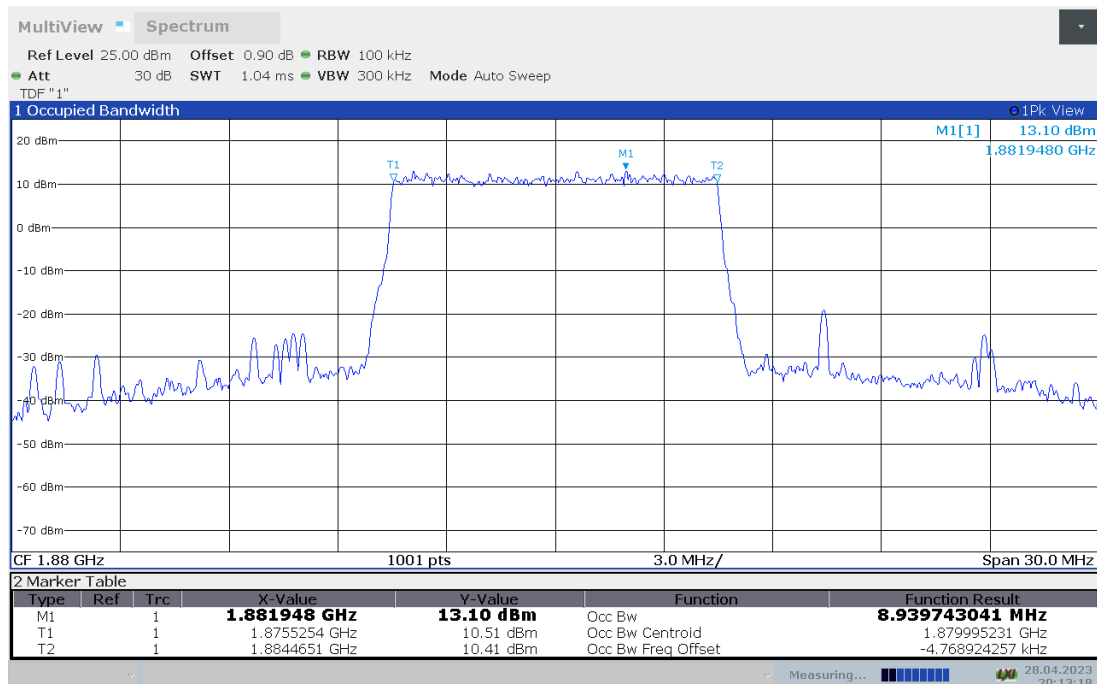
LTE band 2, 10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	8.957	8.940

LTE band 2 , 10MHz Bandwidth,MID,QPSK (99% BW)



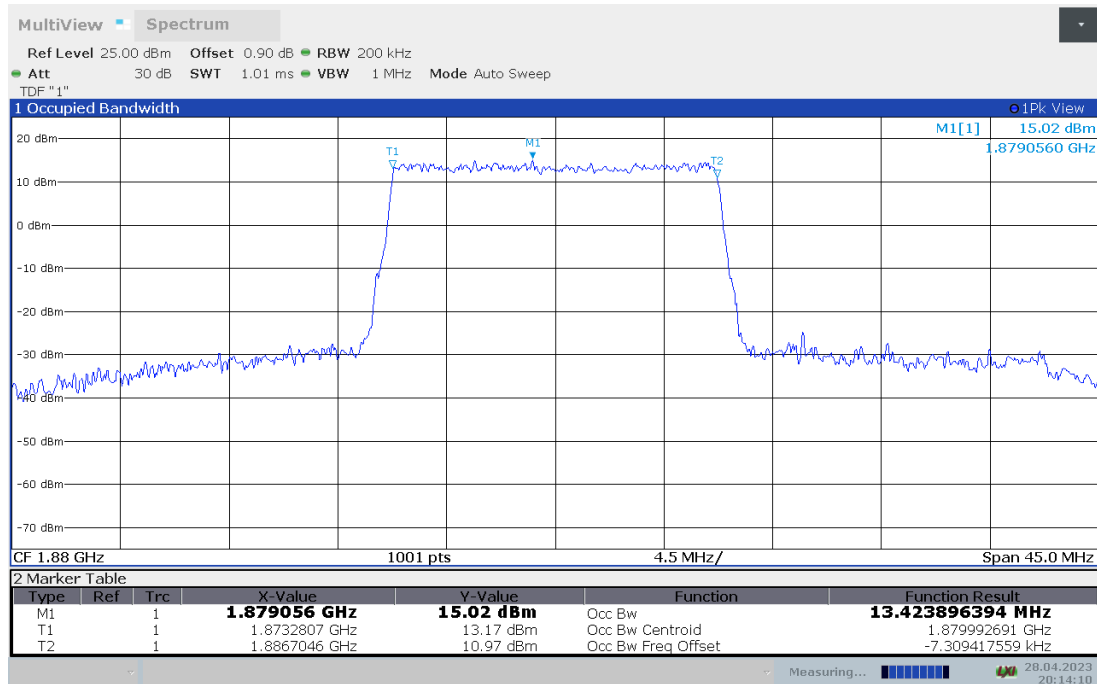
LTE band 2 , 10MHz Bandwidth,MID,16QAM (99% BW)



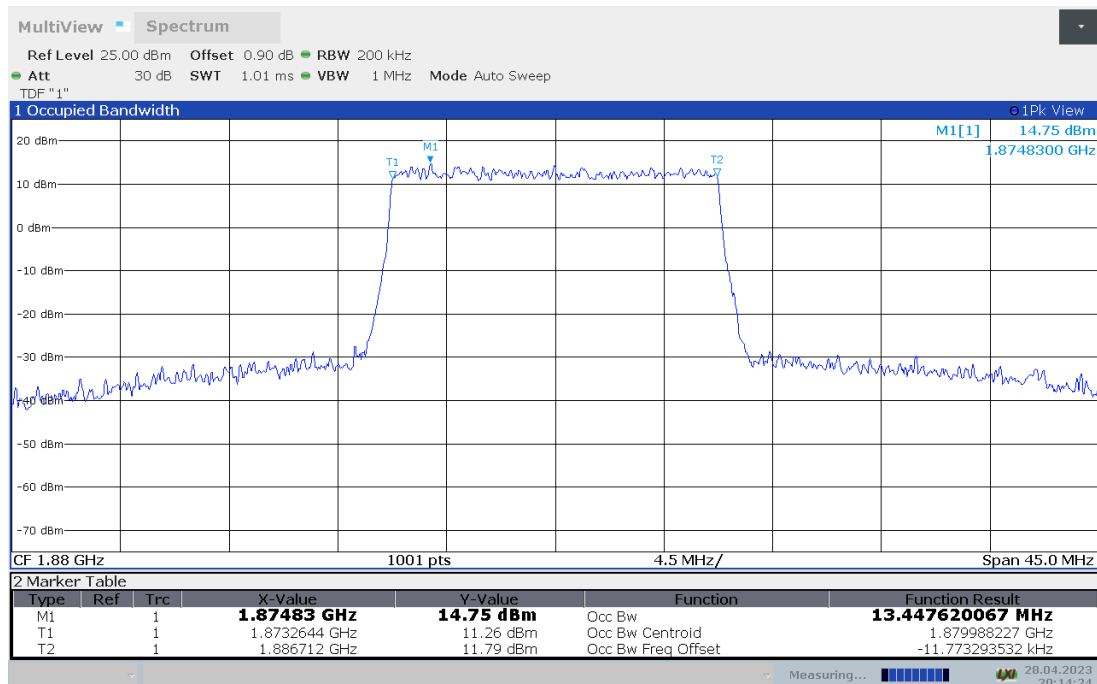
LTE band 2, 15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	13.424	13.448

LTE band 2 , 15MHz Bandwidth,MID,QPSK (99% BW)



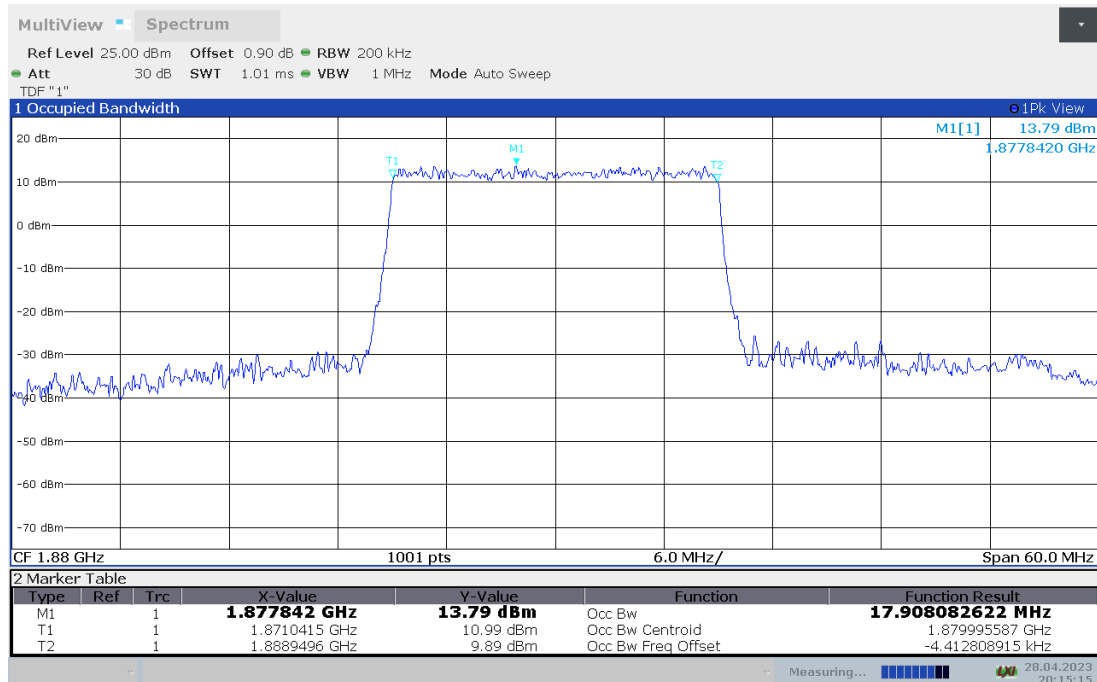
LTE band 2 , 15MHz Bandwidth,MID,16QAM (99% BW)



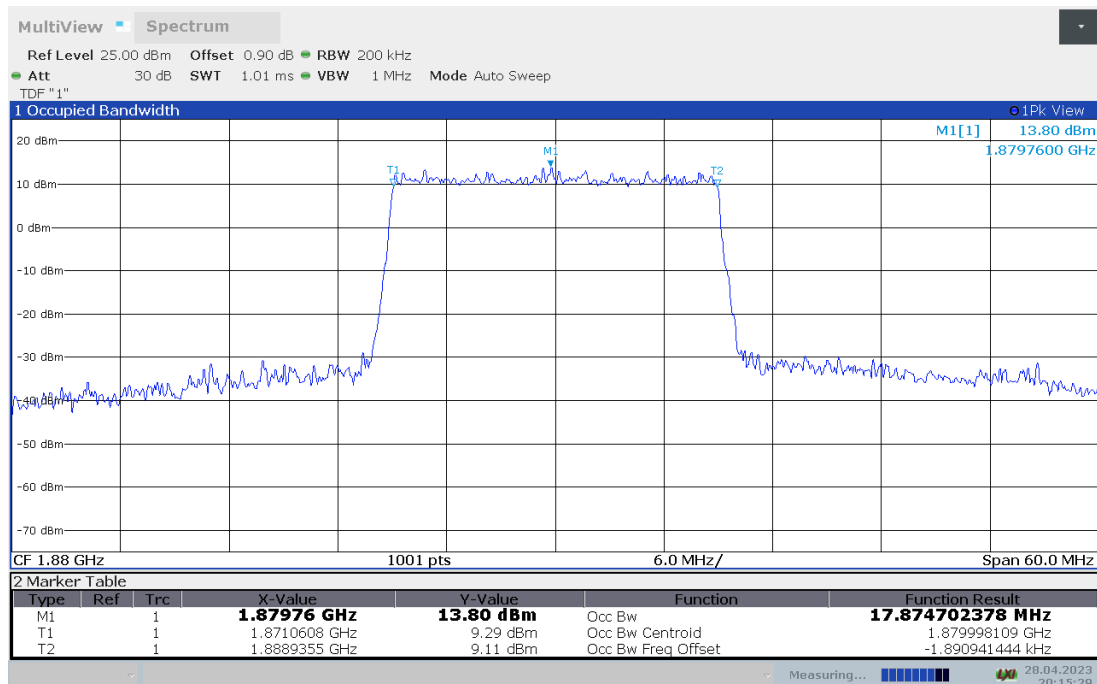
LTE band 2,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
1880	17.908	17.875

LTE band 2 , 20MHz Bandwidth,MID,QPSK (99% BW)



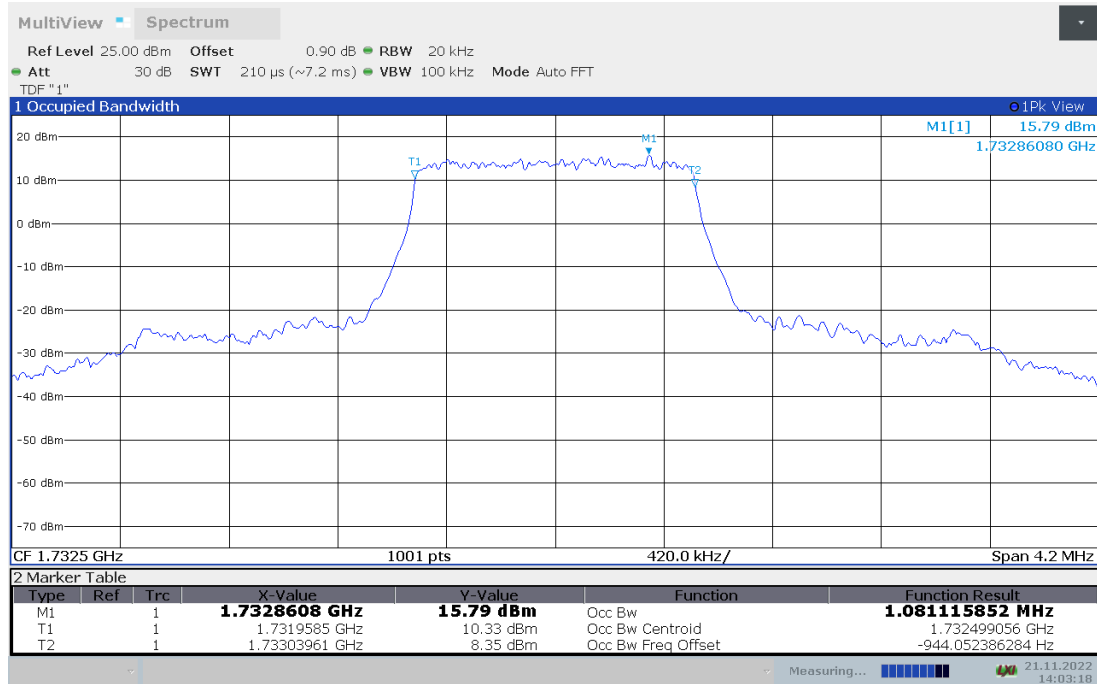
LTE band 2 , 20MHz Bandwidth,MID,16QAM (99% BW)



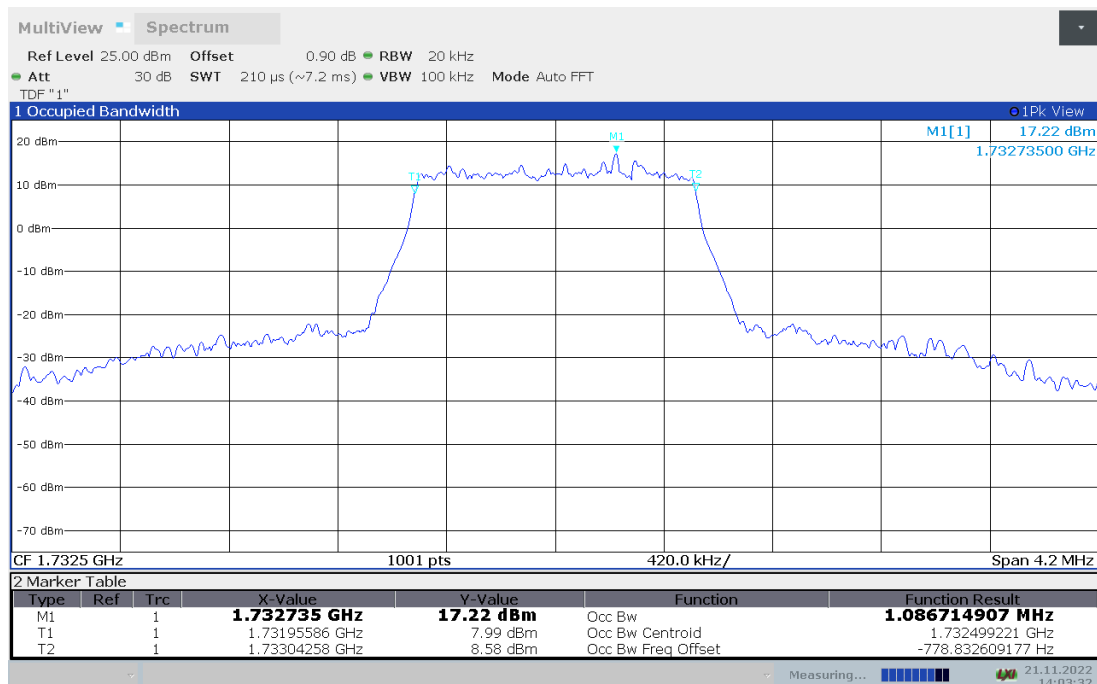
LTE band 4,1.4MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1732.5	1.081	1.087

LTE band 4 , 1.4MHz Bandwidth,QPSK (99% BW)



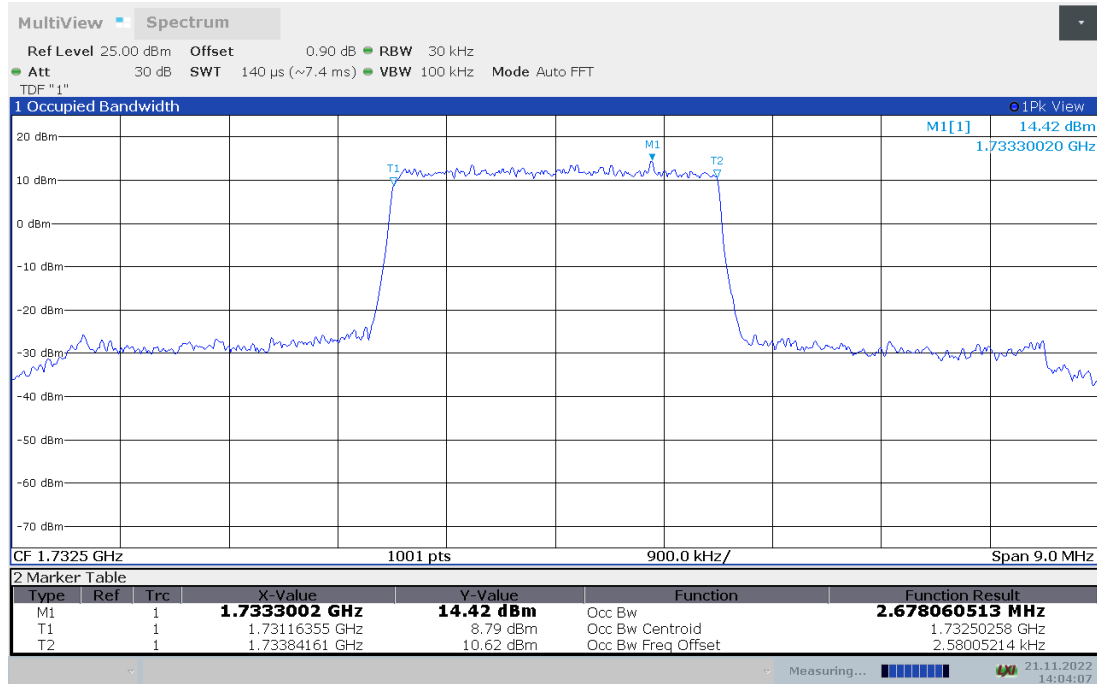
LTE band 4 , 1.4MHz Bandwidth,16QAM (99% BW)



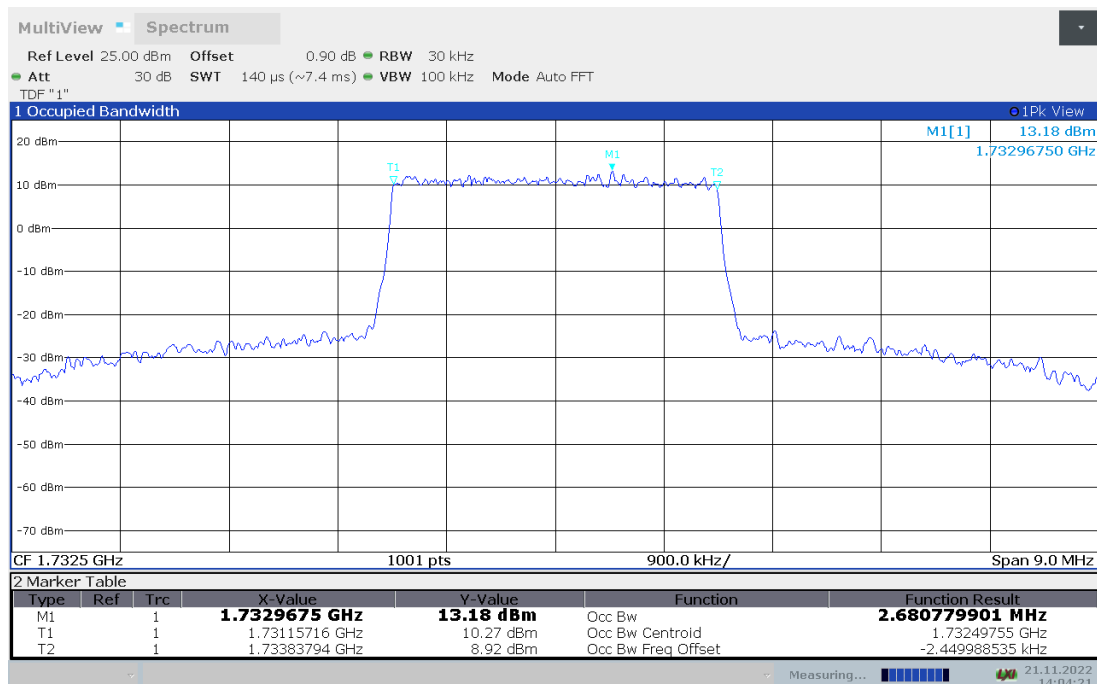
LTE band 4,3MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1732.5	2.678	2.681

LTE band 4 , 3MHz Bandwidth,QPSK (99% BW)



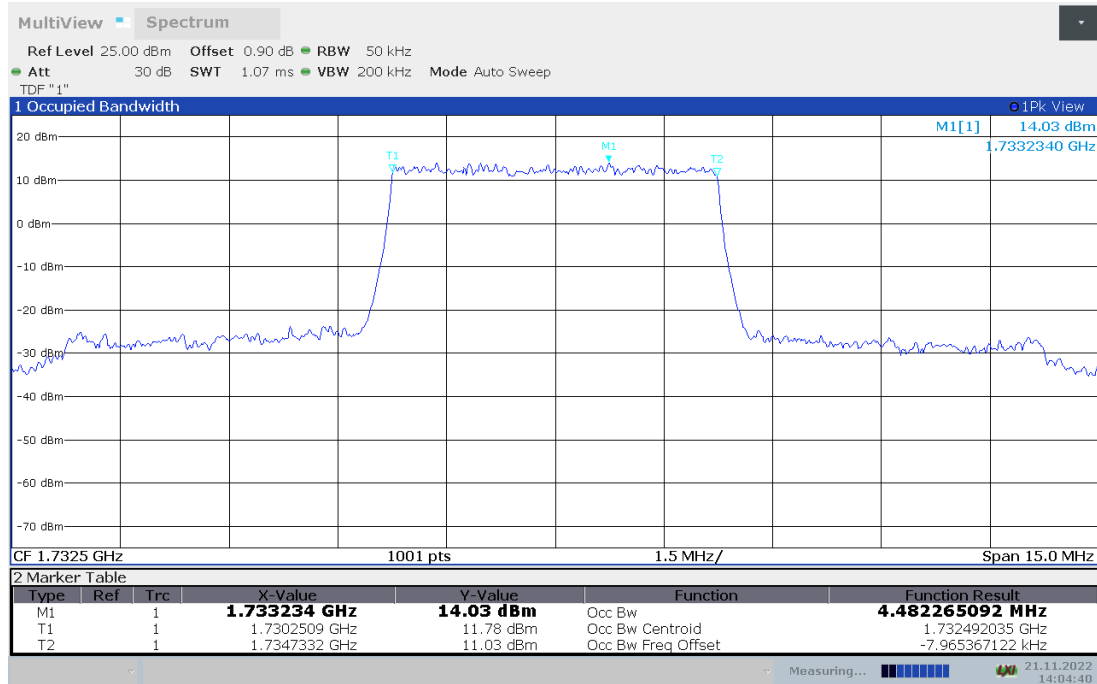
LTE band 4 , 3MHz Bandwidth,16QAM (99% BW)



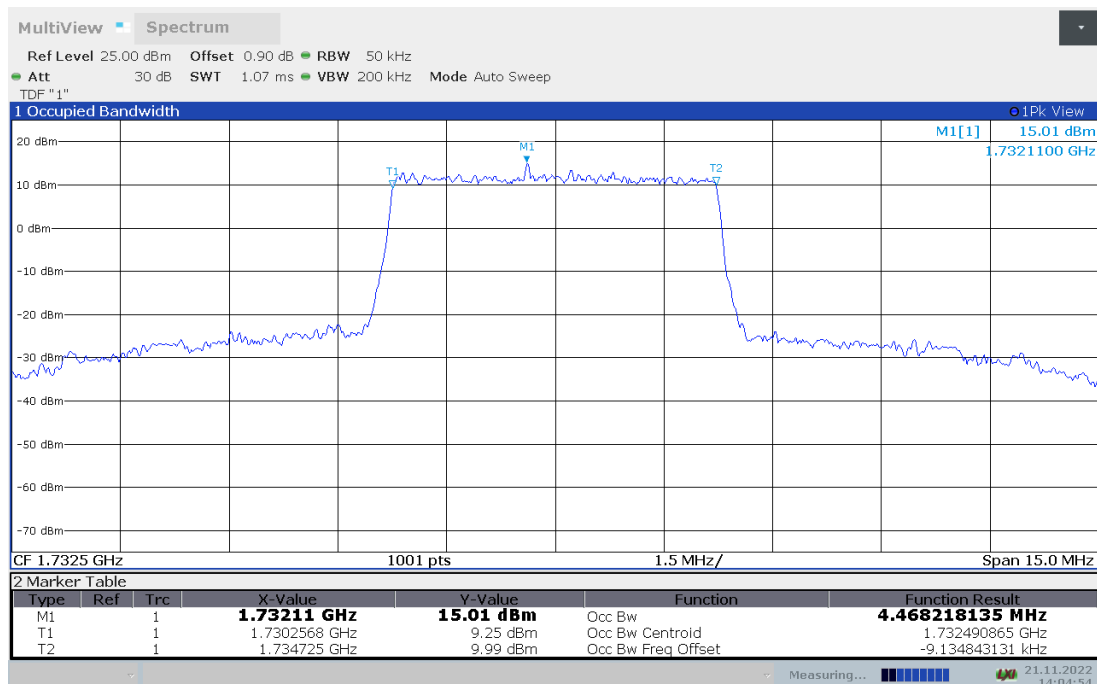
LTE band 4,5MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1732.5	4.482	4.468

LTE band 4 , 5MHz Bandwidth,QPSK (99% BW)



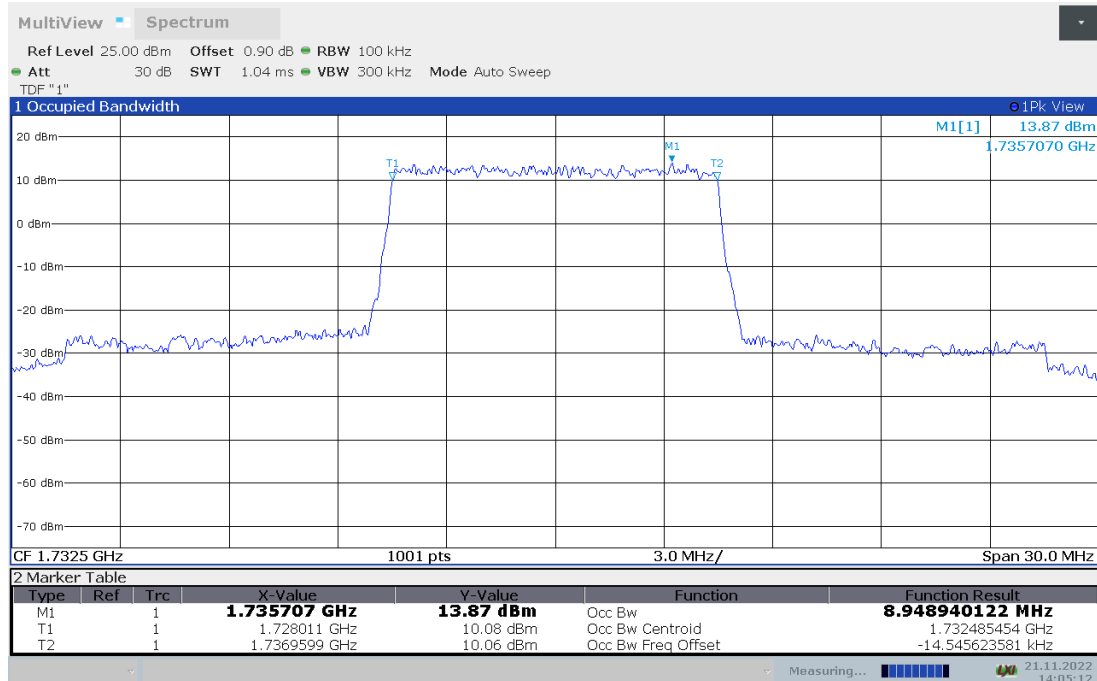
LTE band 4 , 5MHz Bandwidth,16QAM (99% BW)



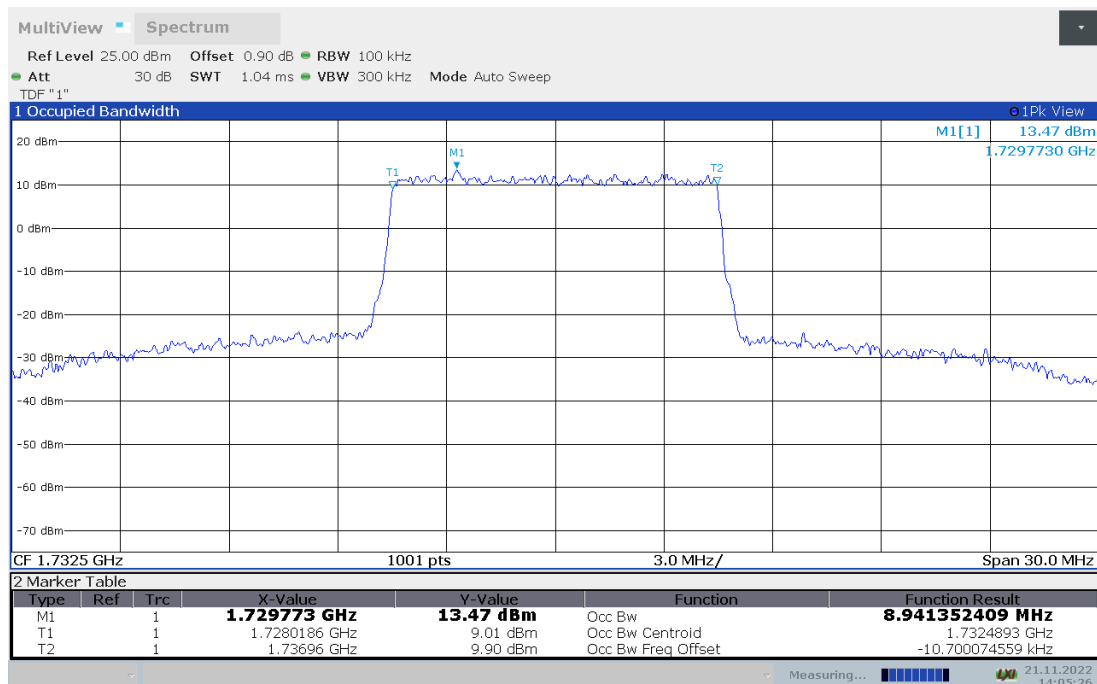
LTE band 4,10MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1732.5	8.949	8.941

LTE band 4 , 10MHz Bandwidth,QPSK (99% BW)



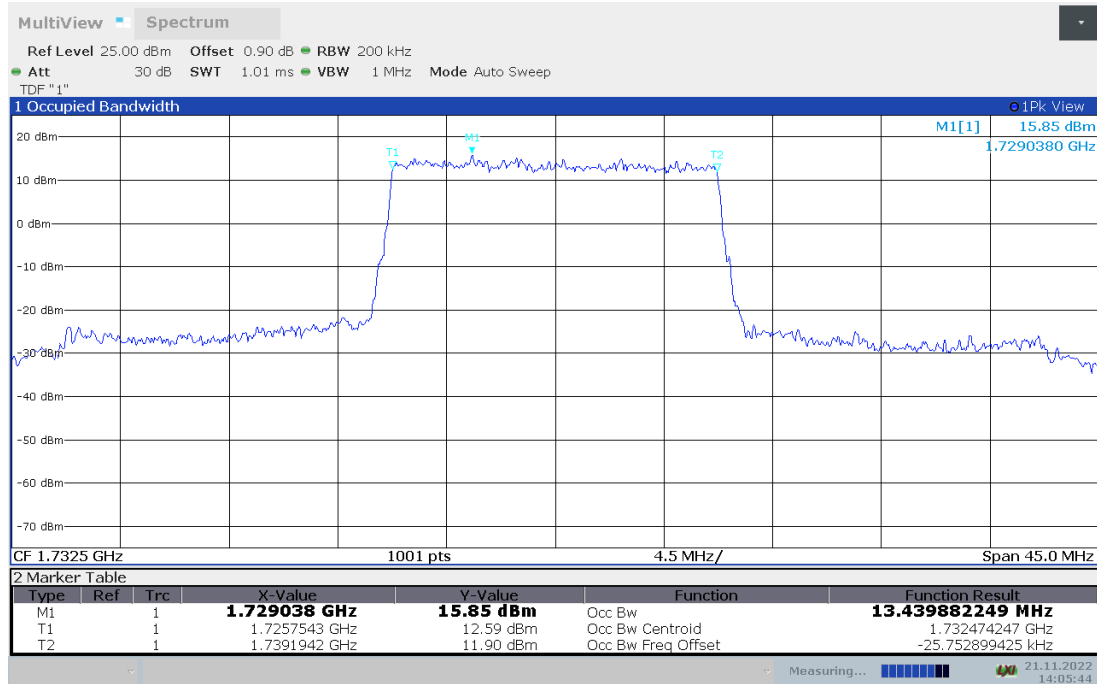
LTE band 4 , 10MHz Bandwidth,16QAM (99% BW)



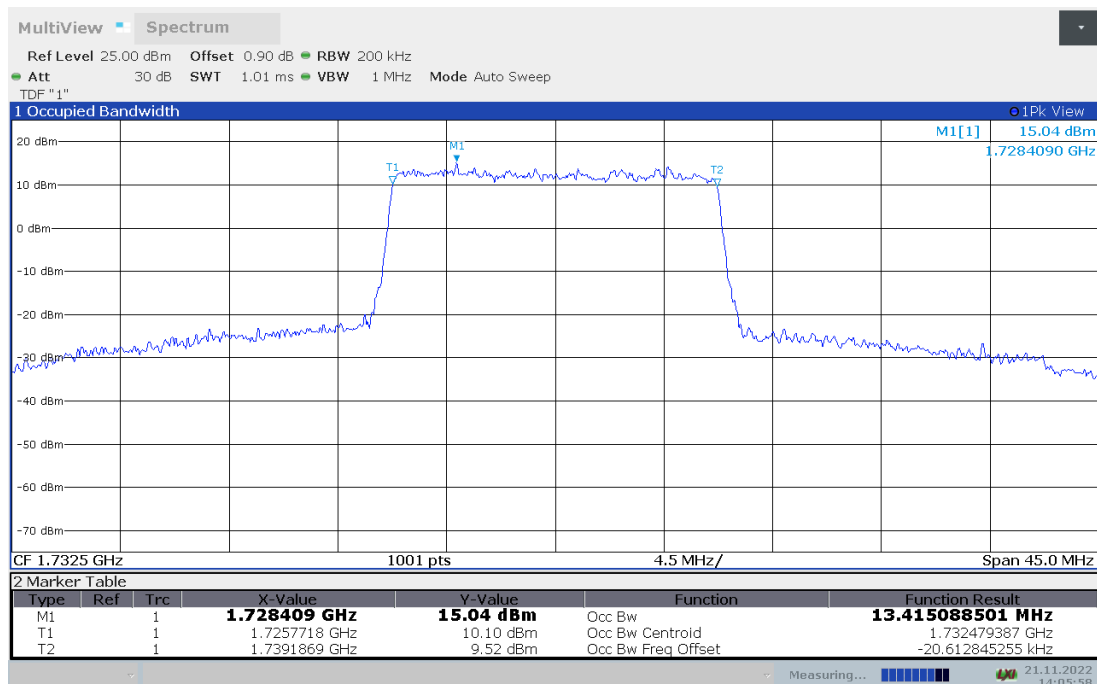
LTE band 4,15MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1732.5	13.440	13.415

LTE band 4 , 15MHz Bandwidth,QPSK (99% BW)



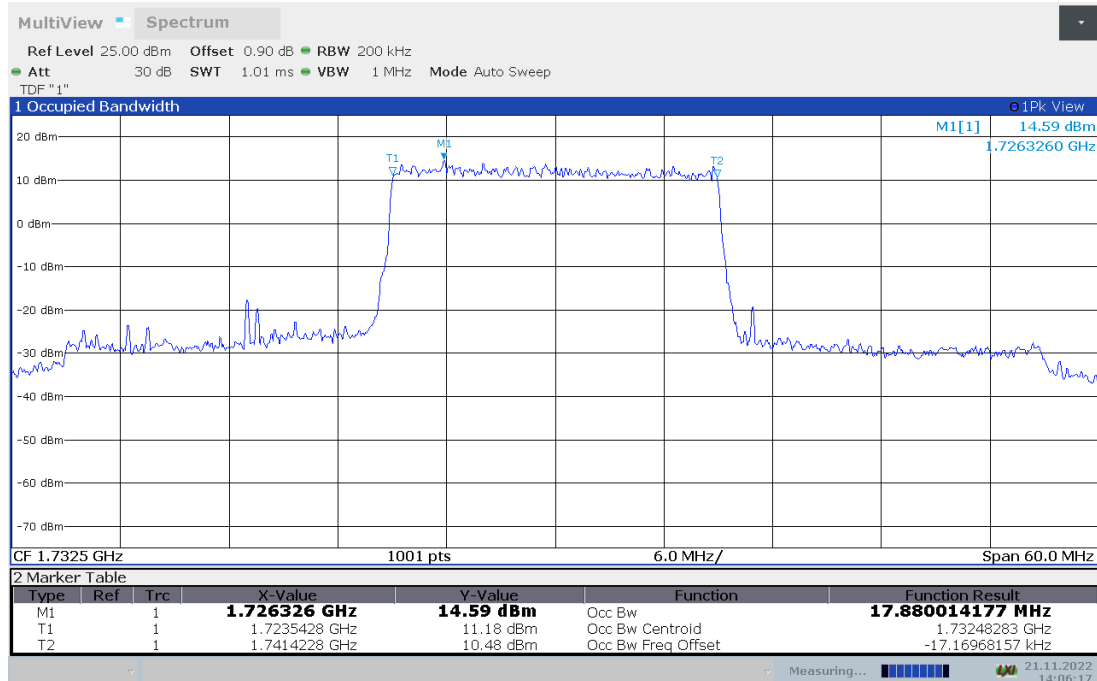
LTE band 4 , 15MHz Bandwidth,16QAM (99% BW)



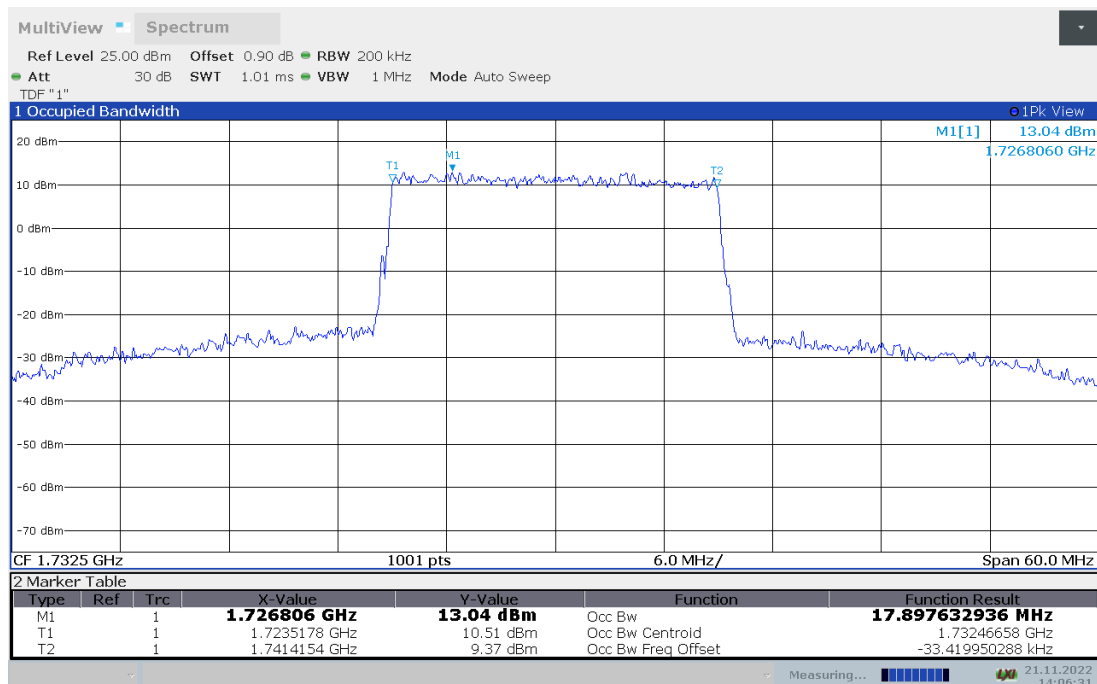
LTE band 4,20MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1732.5	17.880	17.898

LTE band 4 , 20MHz Bandwidth,QPSK (99% BW)



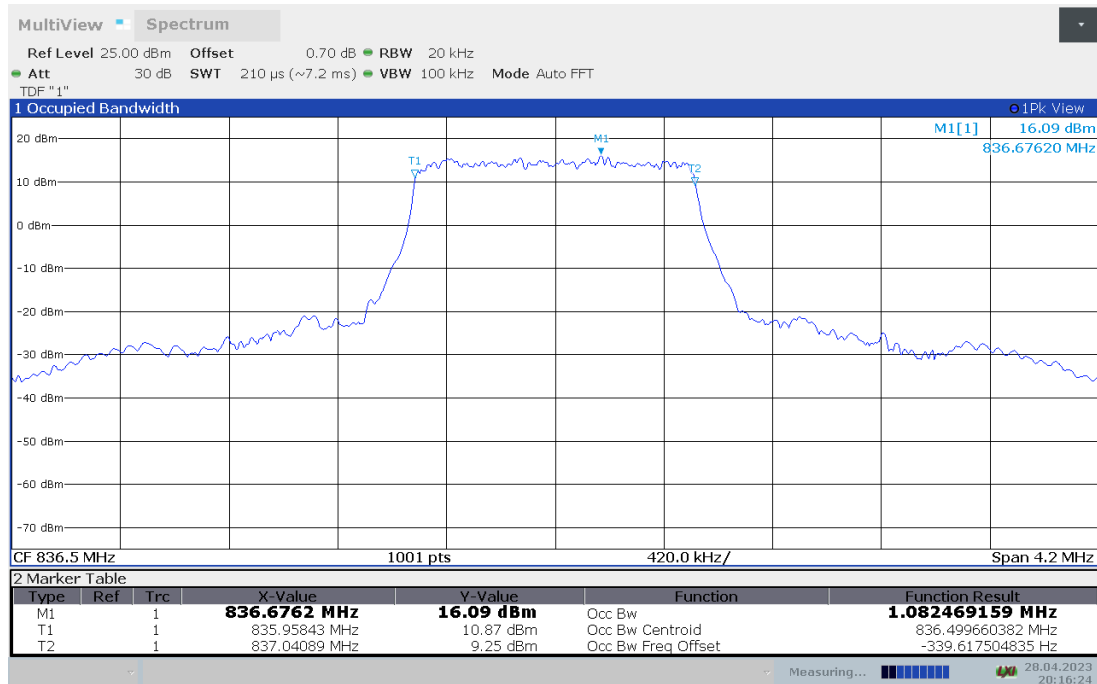
LTE band 4 , 20MHz Bandwidth,16QAM (99% BW)



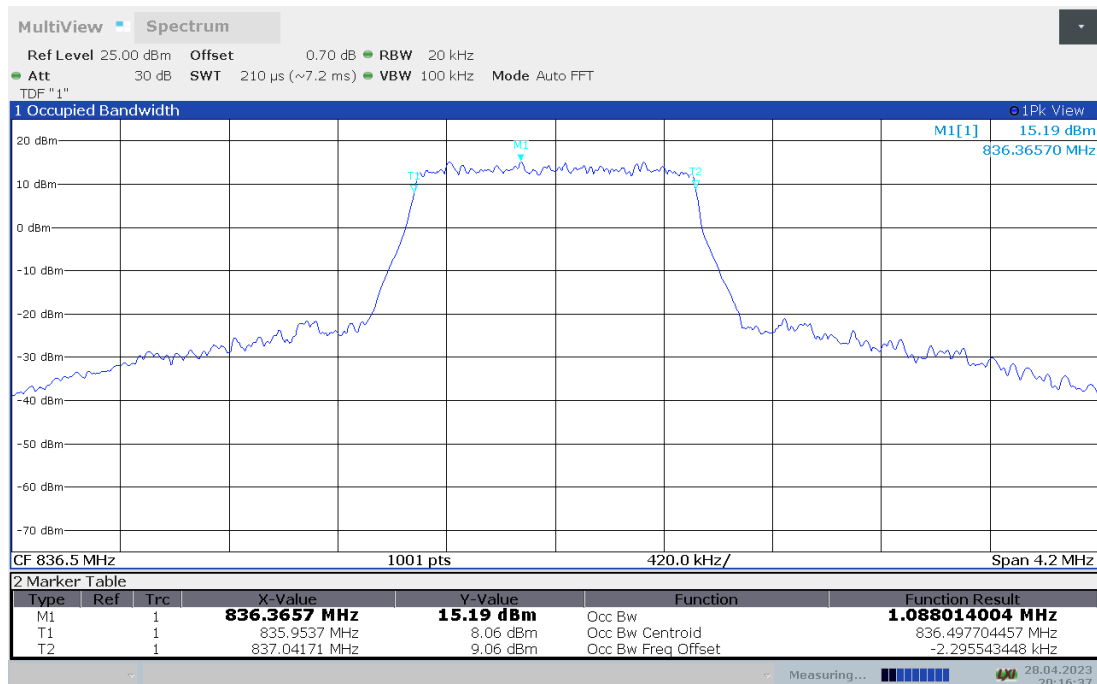
LTE band 5,1.4MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	1.082	1.088

LTE band 5 , 1.4MHz Bandwidth,MID,QPSK (99% BW)



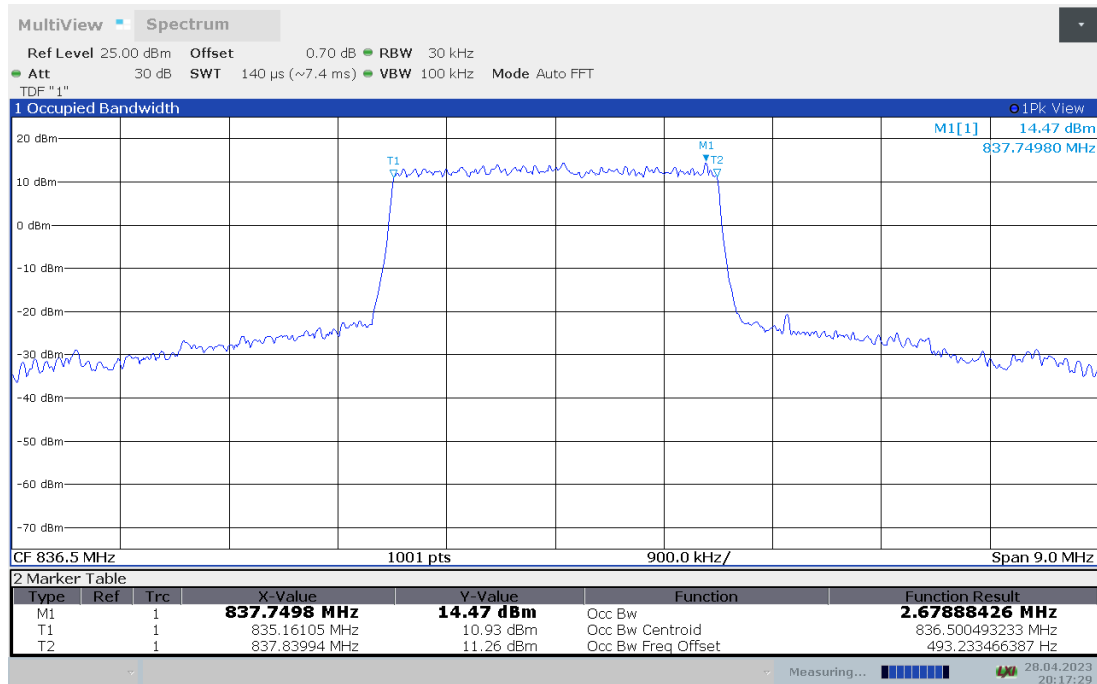
LTE band 5 , 1.4MHz Bandwidth,MID,16QAM (99% BW)



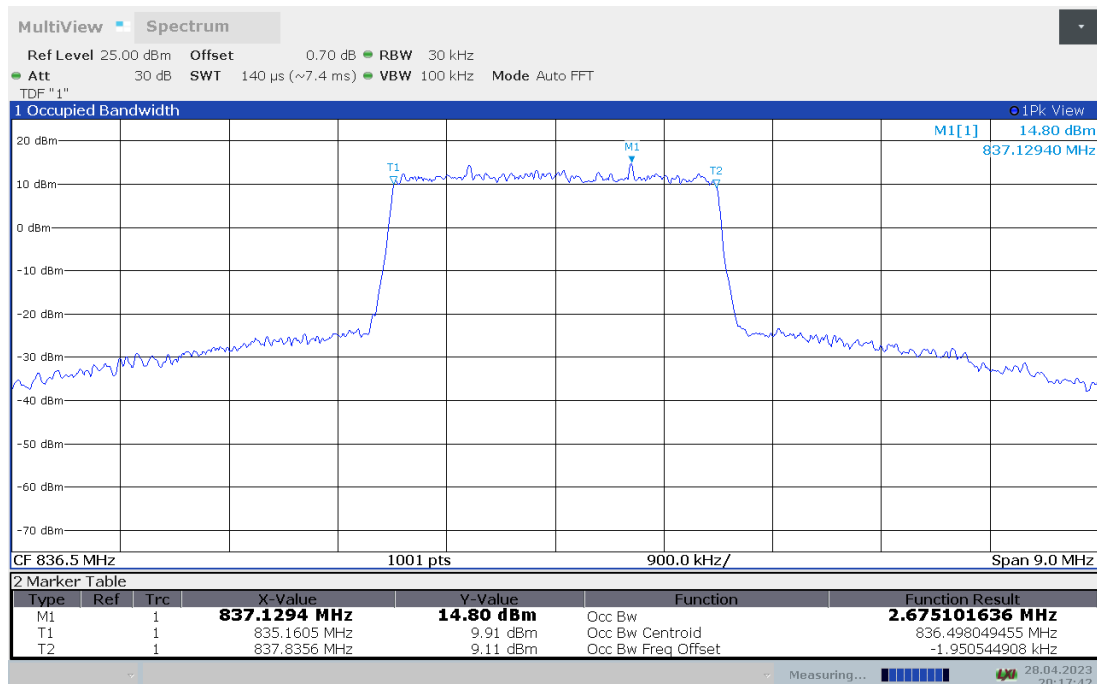
LTE band 5,3MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	2.679	2.675

LTE band 5 , 3MHz Bandwidth,MID,QPSK (99% BW)



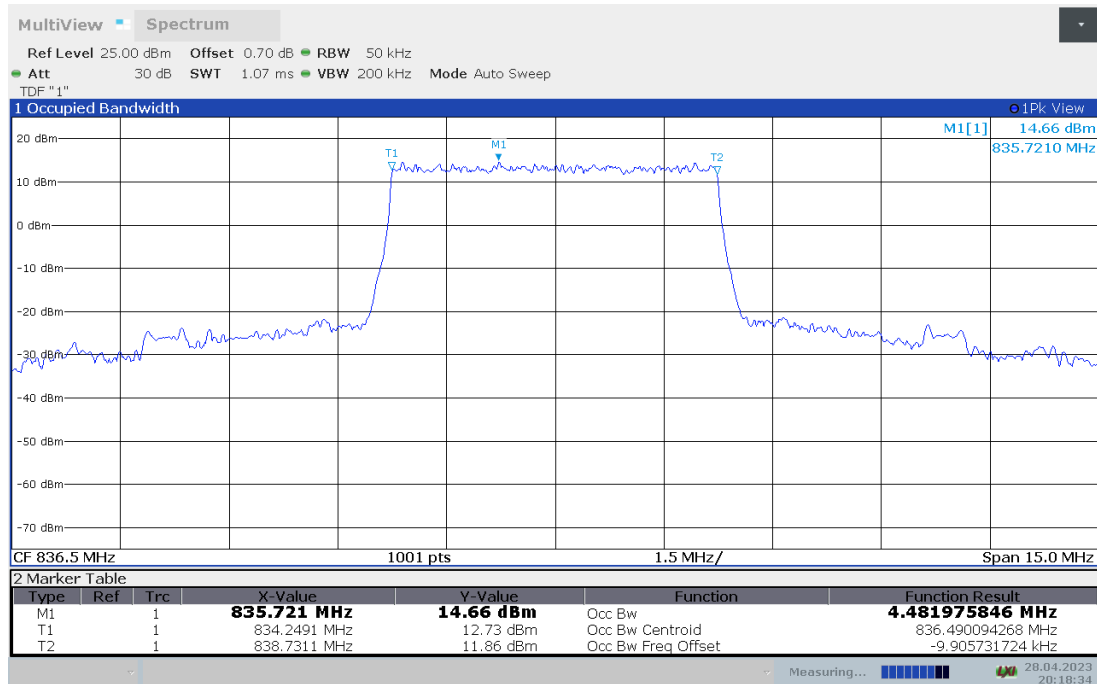
LTE band 5 , 3MHz Bandwidth,MID,16QAM (99% BW)



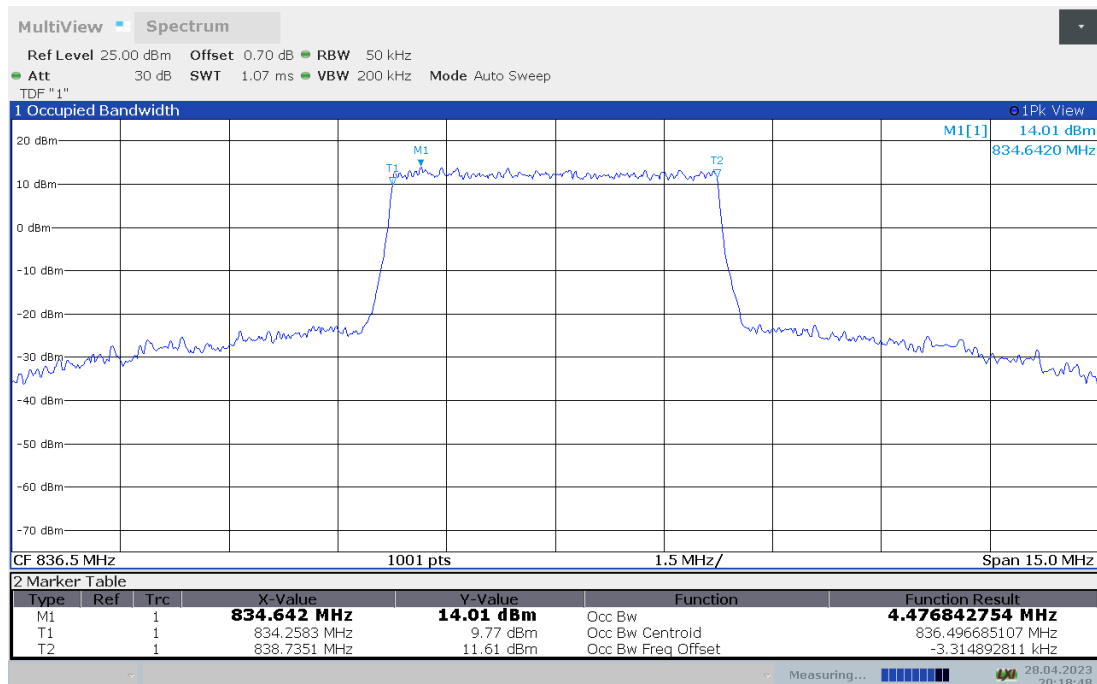
LTE band 5,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	4.482	4.477

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



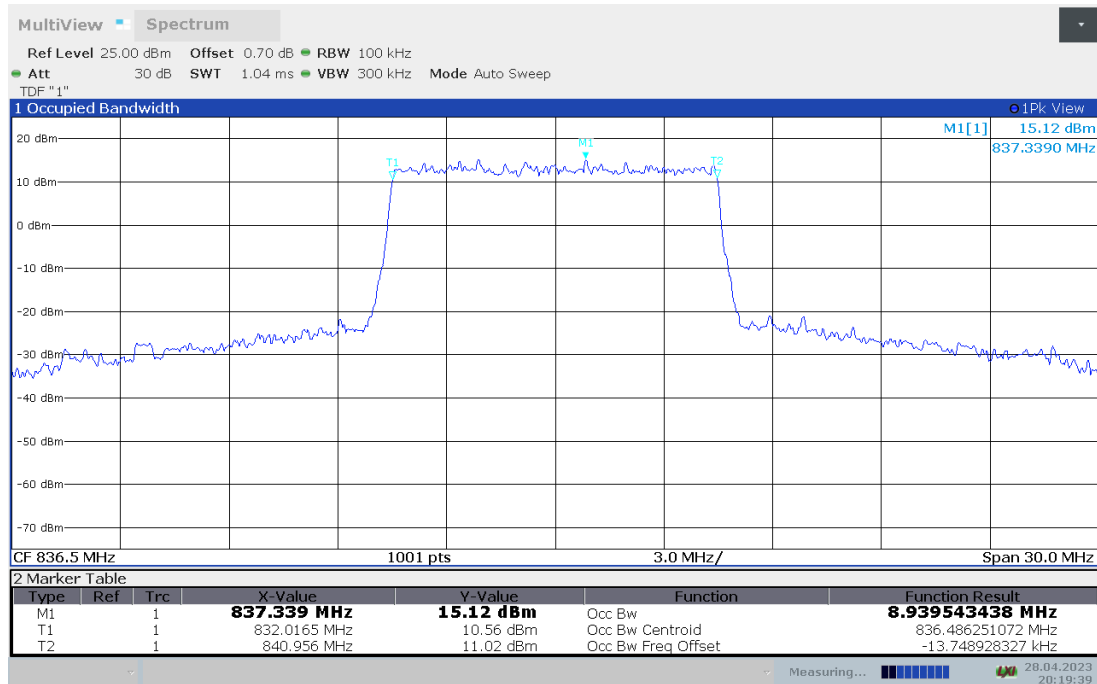
LTE band 5 , 5MHz Bandwidth,MID,16QAM (99% BW)



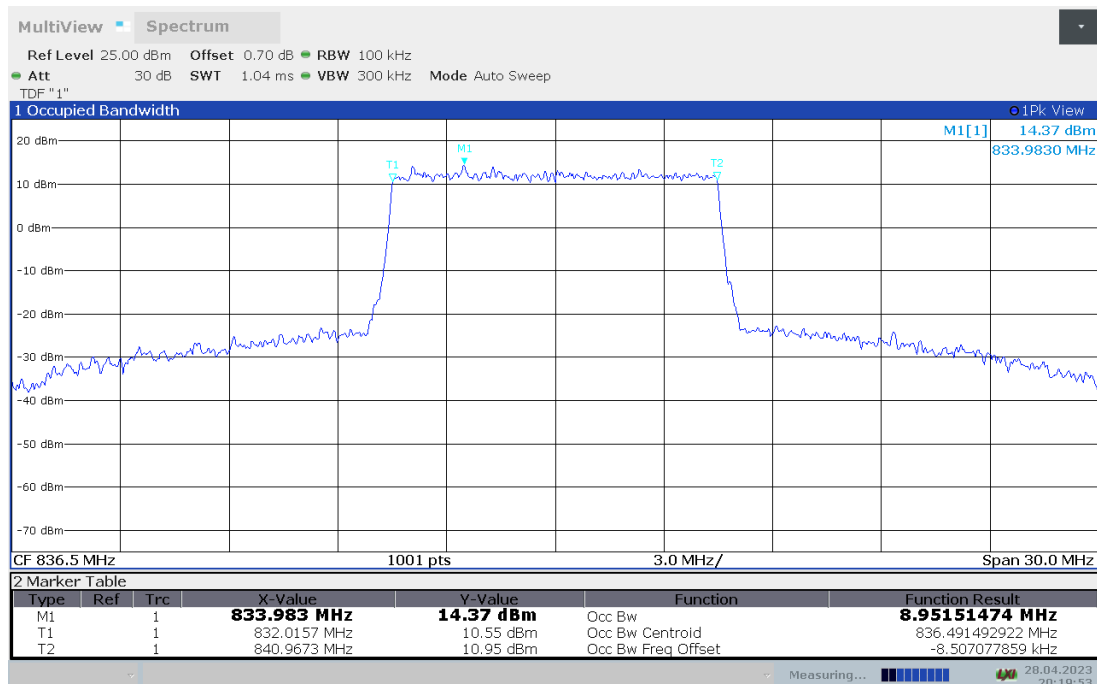
LTE band 5,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
836.5	8.940	8.952

LTE band 5 , 10MHz Bandwidth,MID,QPSK (99% BW)



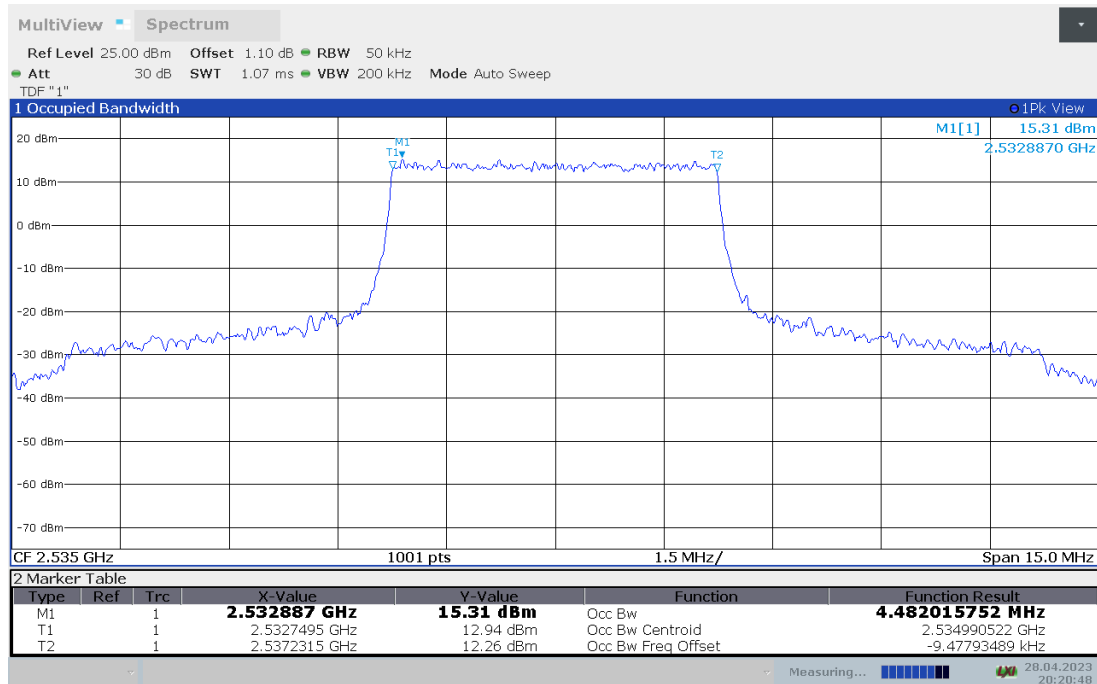
LTE band 5 , 10MHz Bandwidth,MID,16QAM (99% BW)



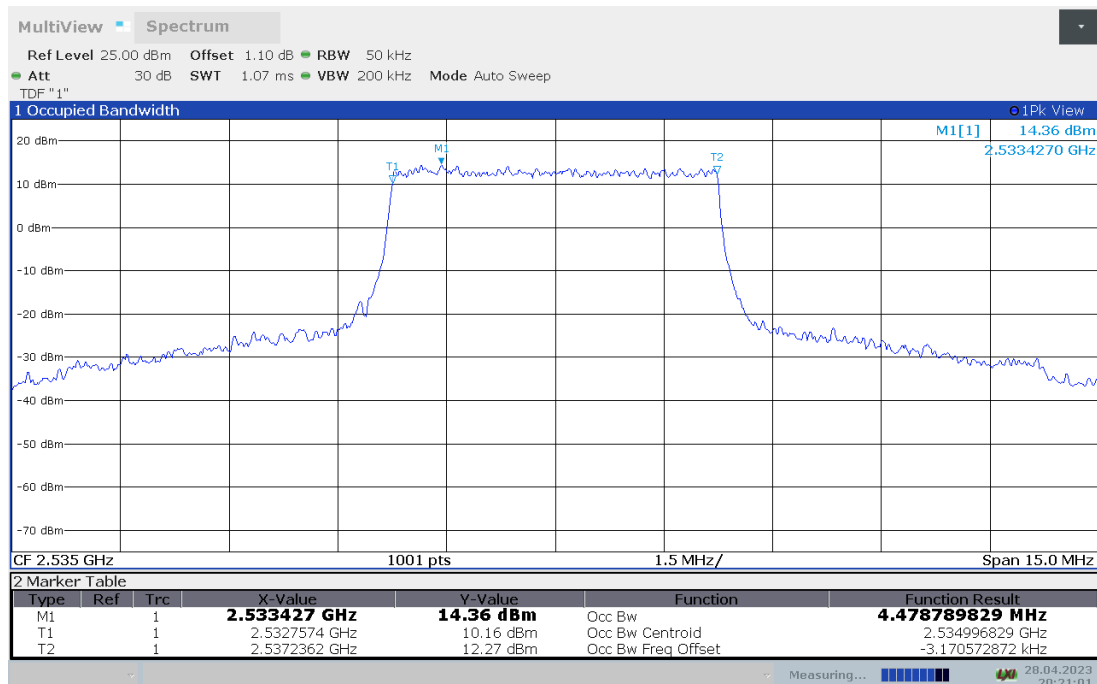
LTE band 7,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	4.482	4.479

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



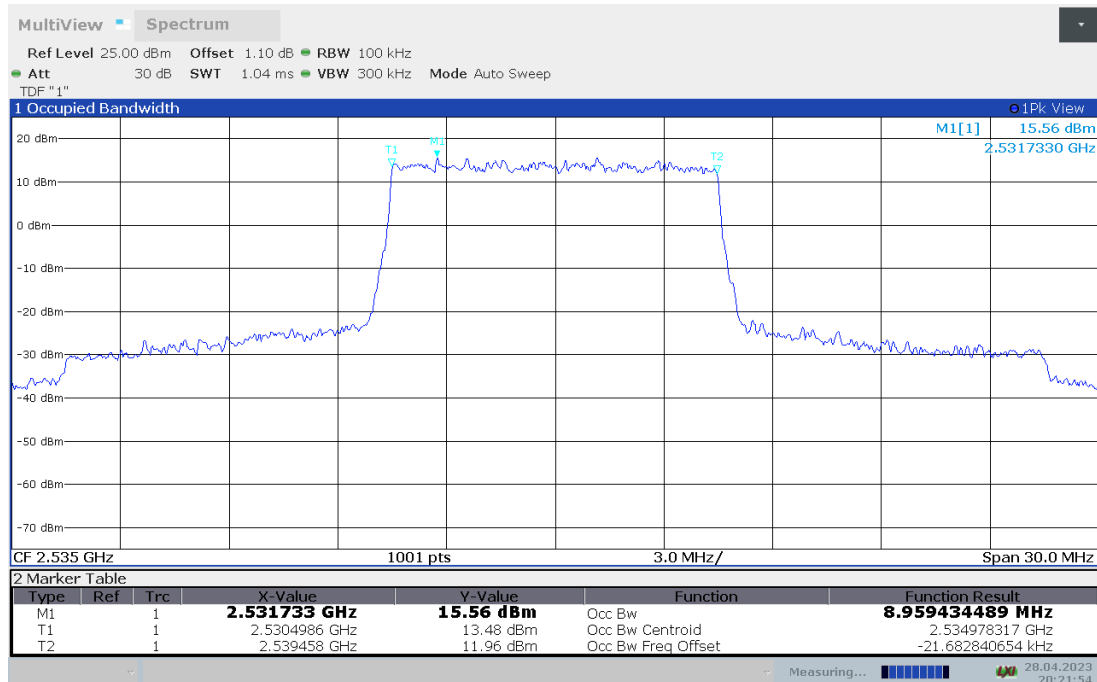
LTE band 7 , 5MHz Bandwidth,MID,16QAM (99% BW)



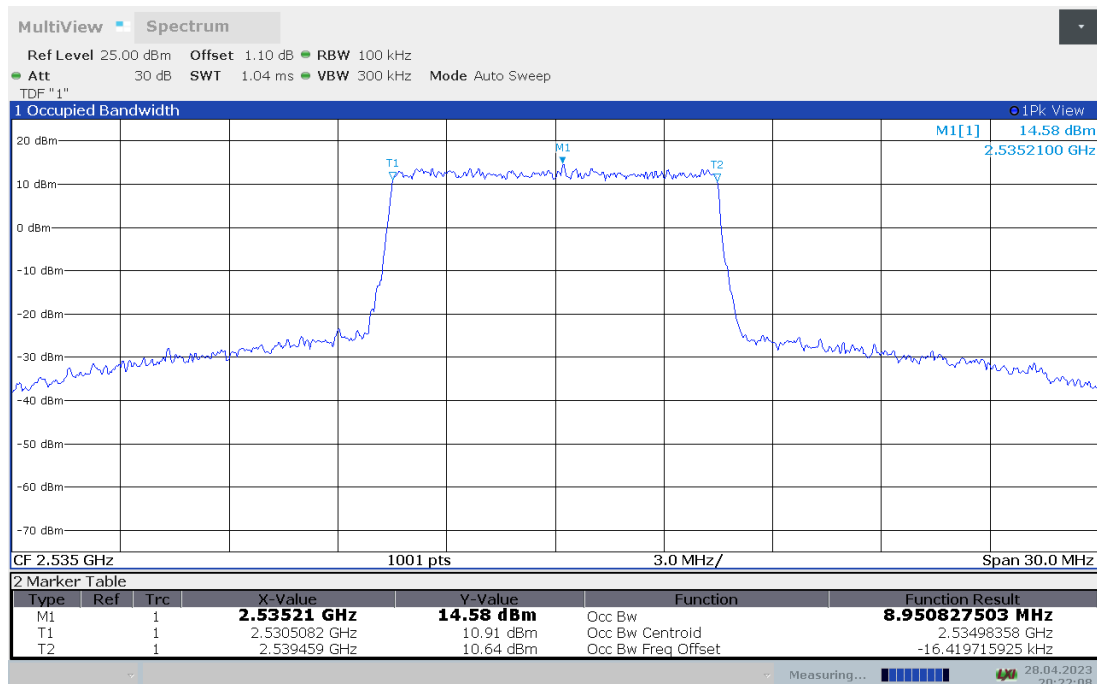
LTE band 7,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	8.959	8.951

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



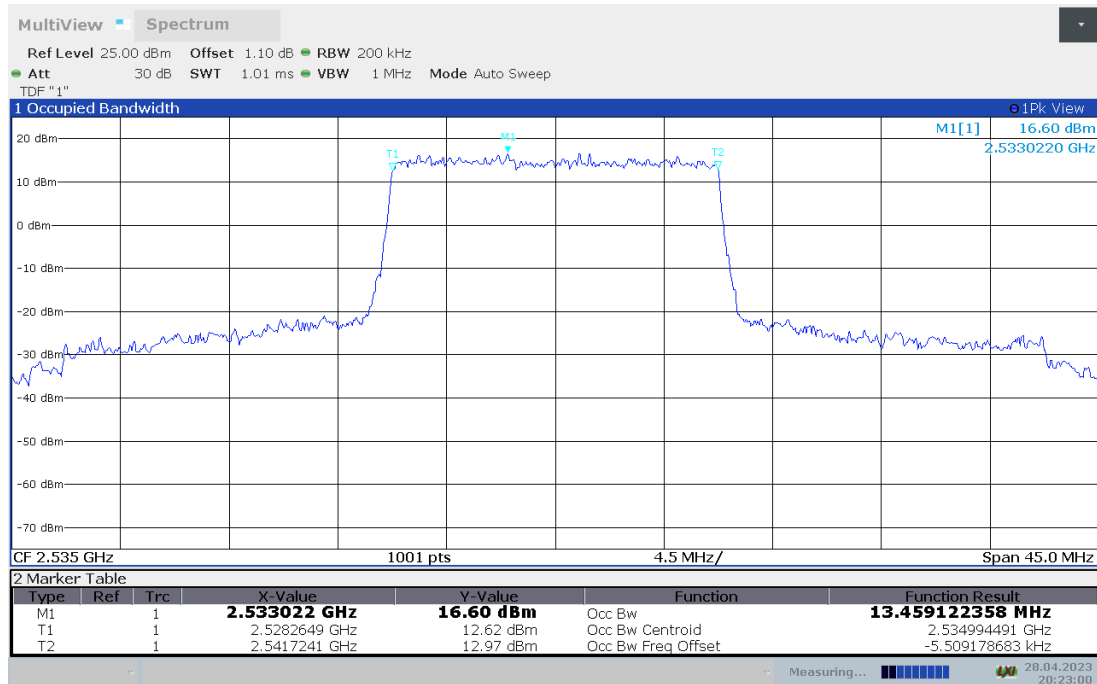
LTE band 7 , 10MHz Bandwidth,MID,16QAM (99% BW)



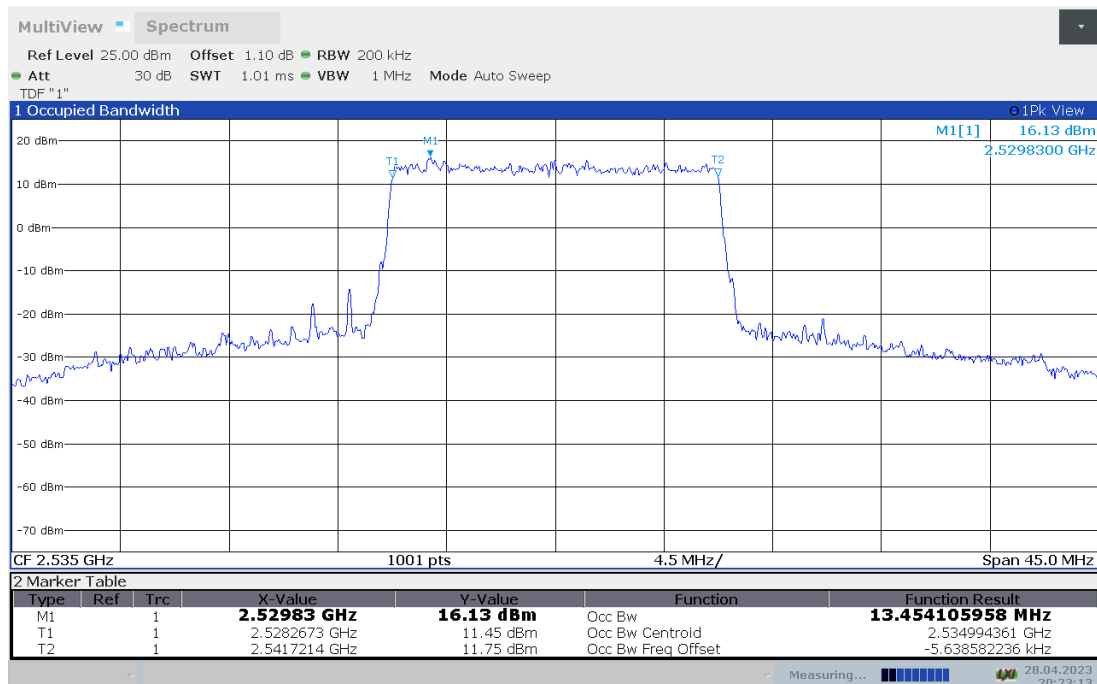
LTE band 7,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	13.459	13.454

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



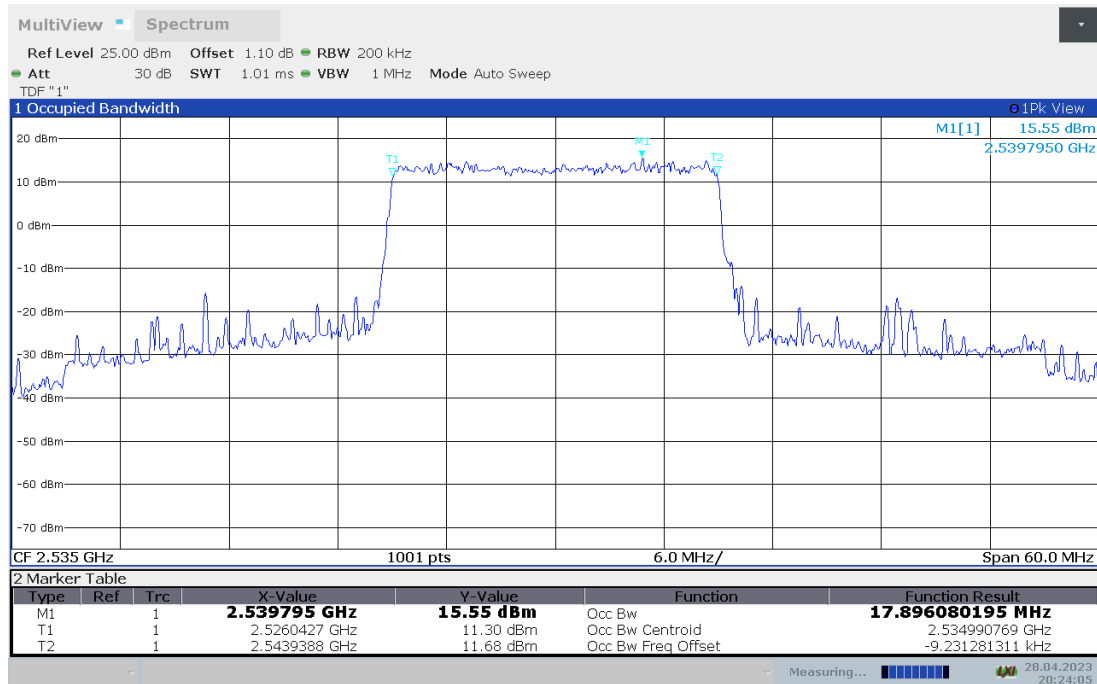
LTE band 7 , 15MHz Bandwidth,MID,16QAM (99% BW)



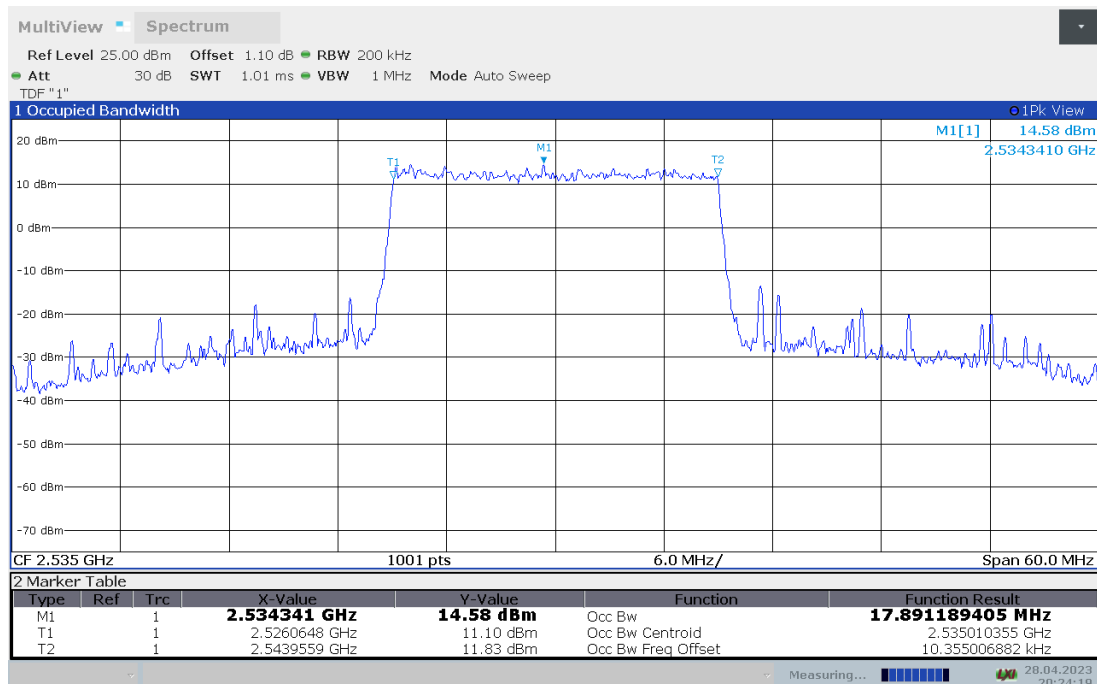
LTE band 7,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2535	17.896	17.891

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



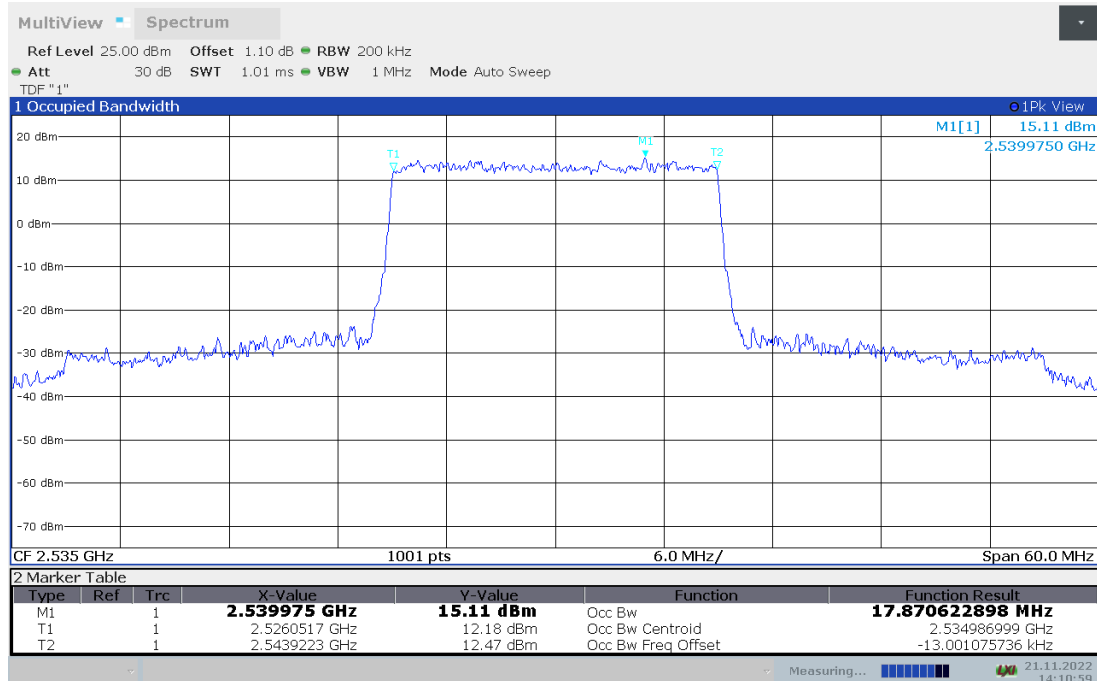
LTE band 7 , 20MHz Bandwidth,MID,16QAM (99% BW)



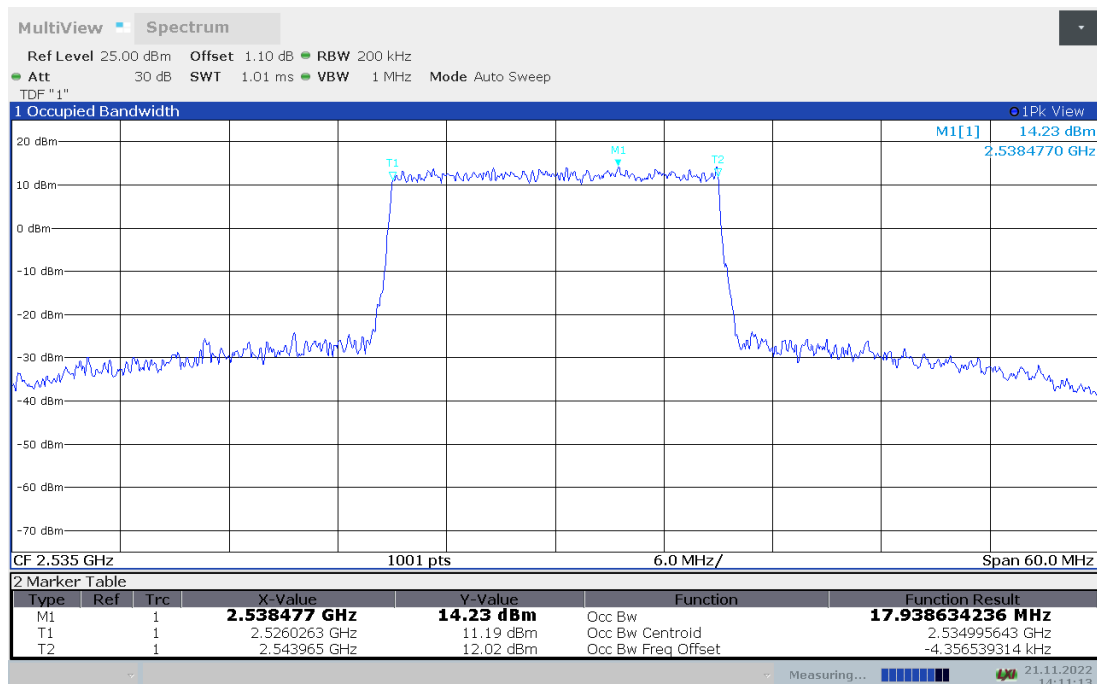
LTE band 7,20MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
2535	17.871	17.939

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



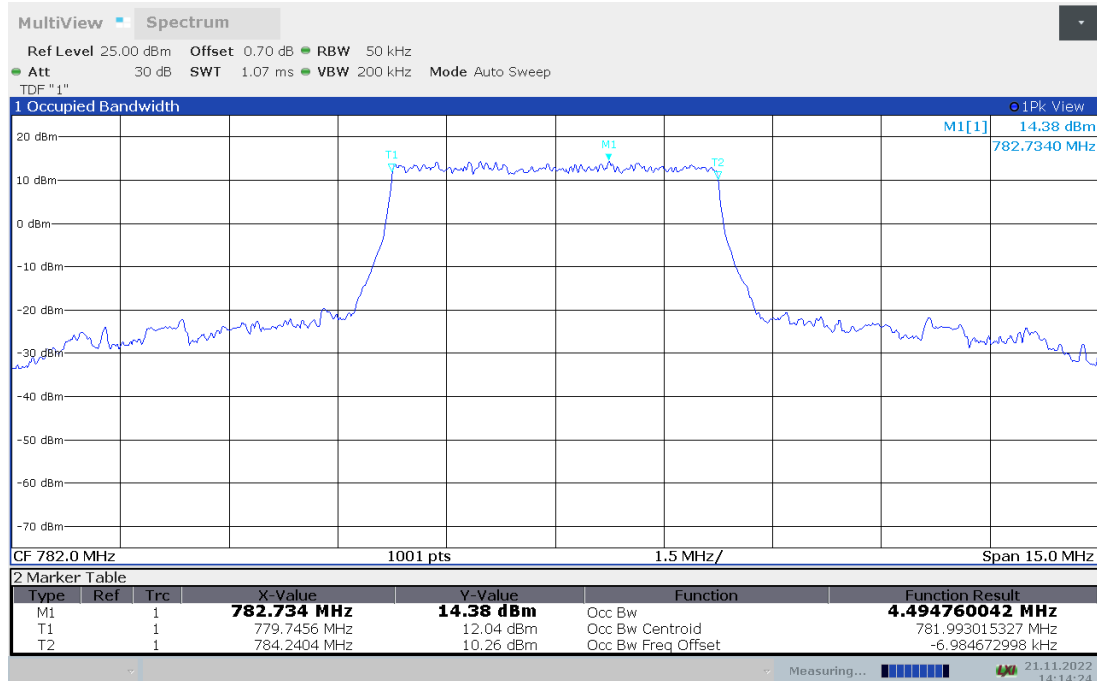
LTE band 7 , 20MHz Bandwidth,16QAM (99% BW)



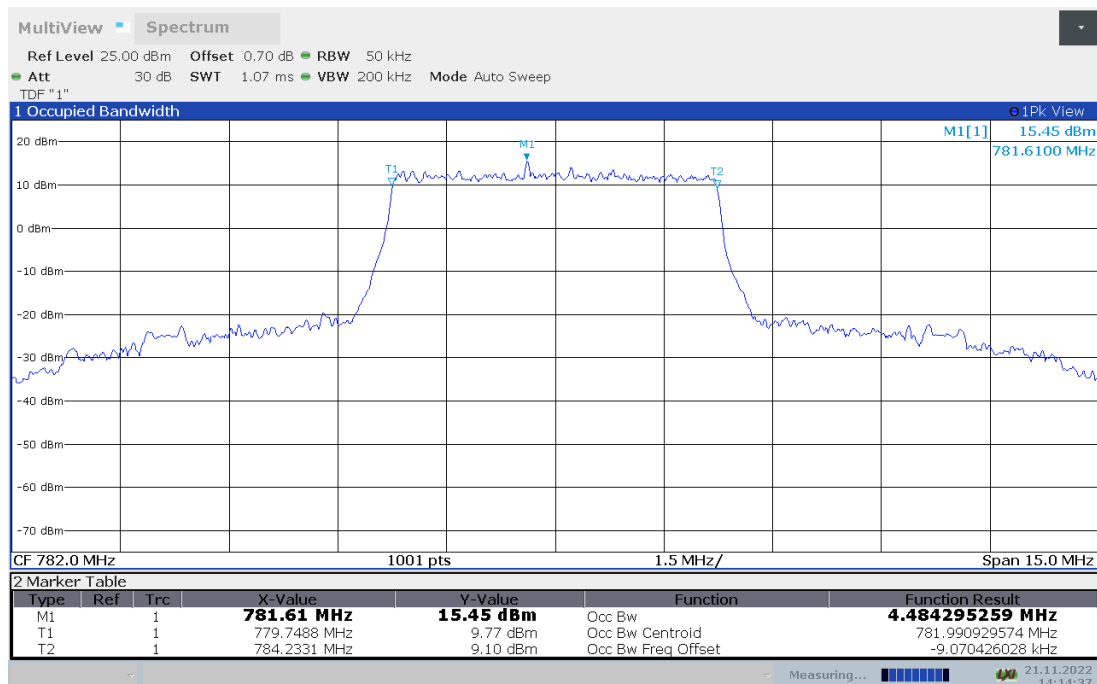
LTE band 13,5MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
782	4.495	4.484

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



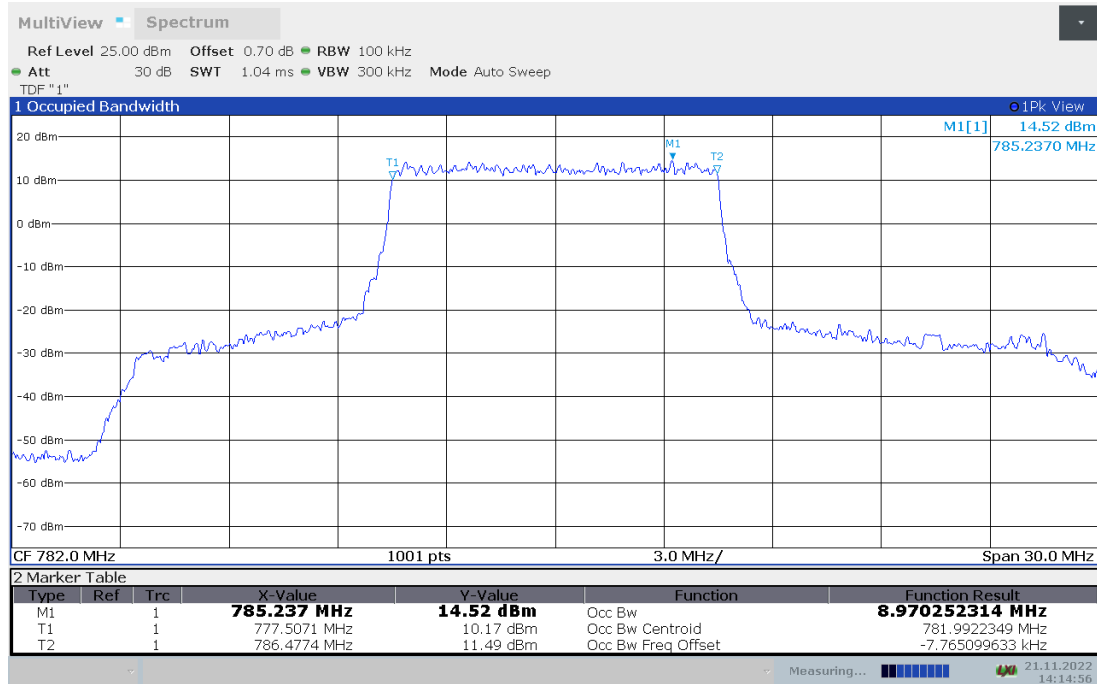
LTE band 13 , 5MHz Bandwidth,16QAM (99% BW)



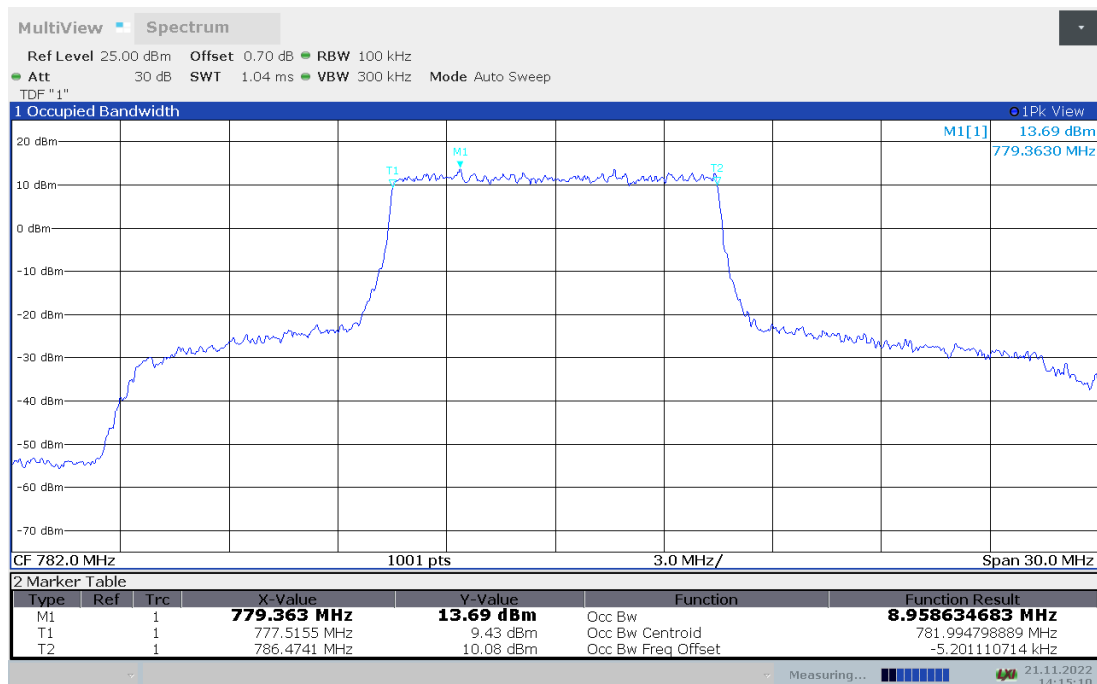
LTE band 13,10MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
782	8.970	8.959

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



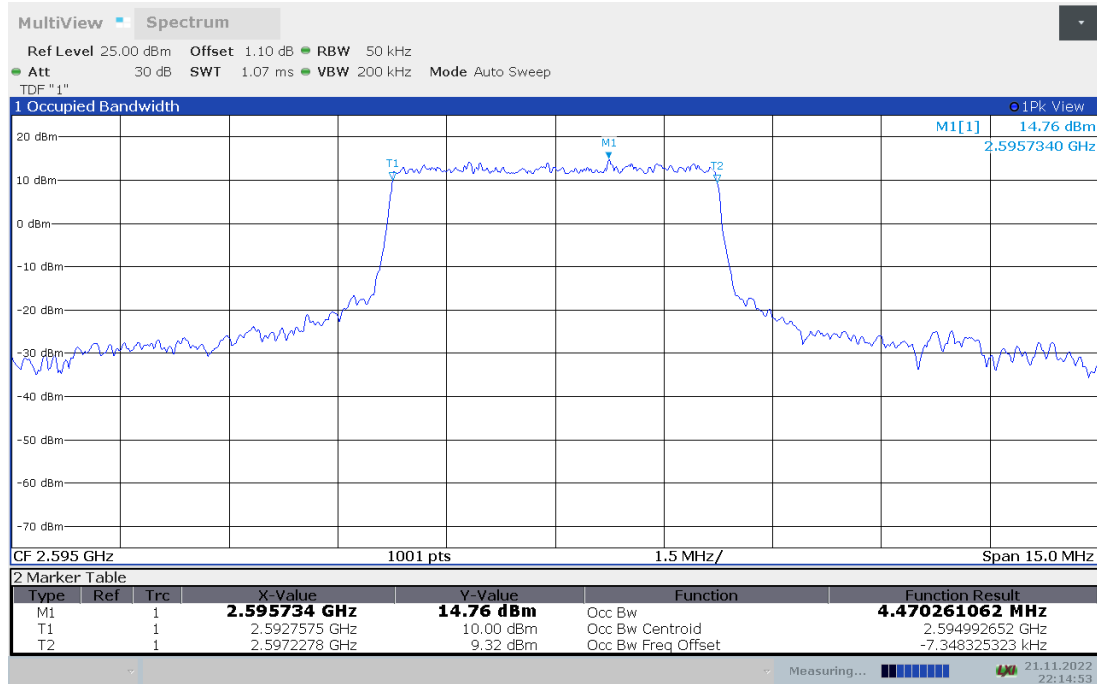
LTE band 13 , 10MHz Bandwidth,16QAM (99% BW)



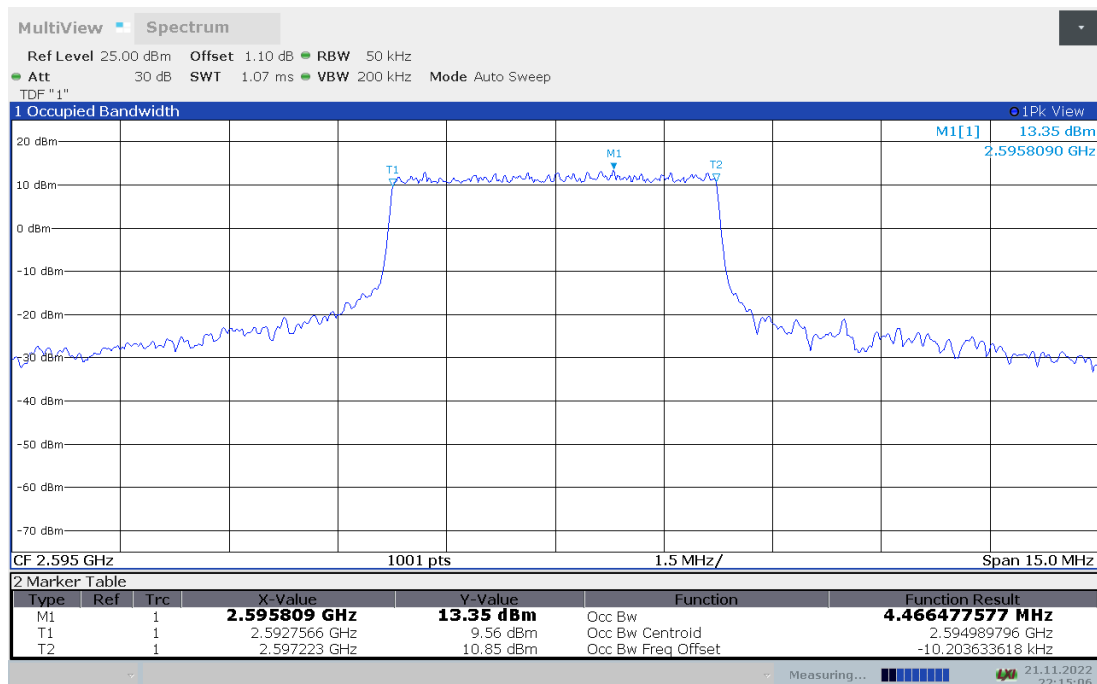
LTE band 38,5MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
2595	4.470	4.466

LTE band 38 , 5MHz Bandwidth,QPSK (99% BW)



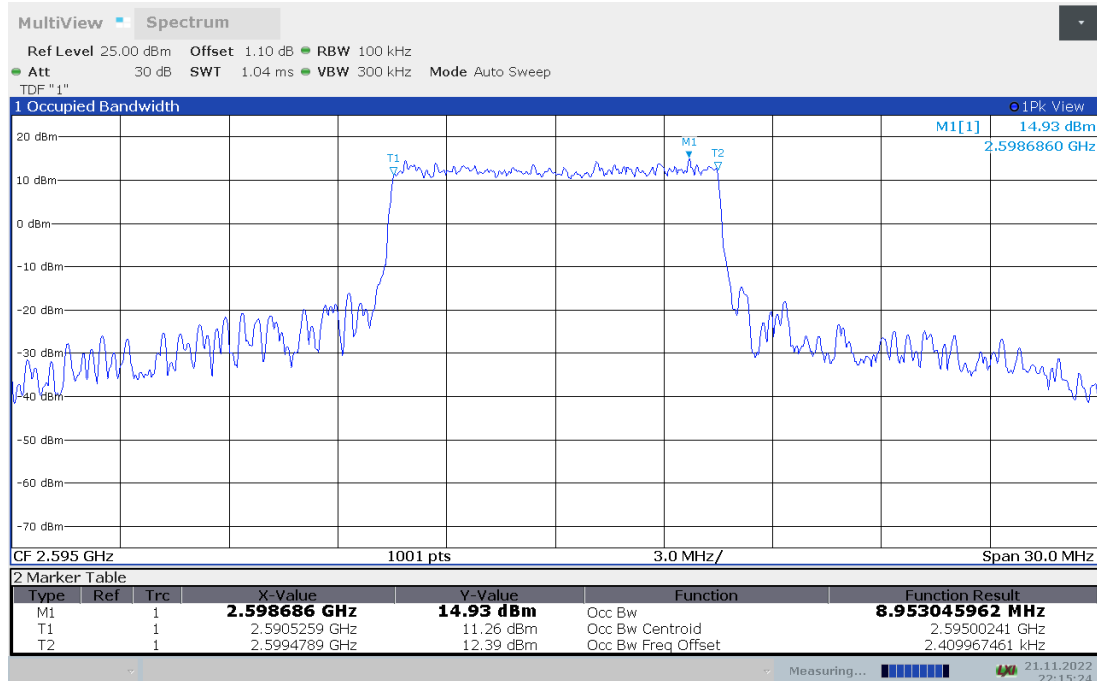
LTE band 38 , 5MHz Bandwidth,16QAM (99% BW)



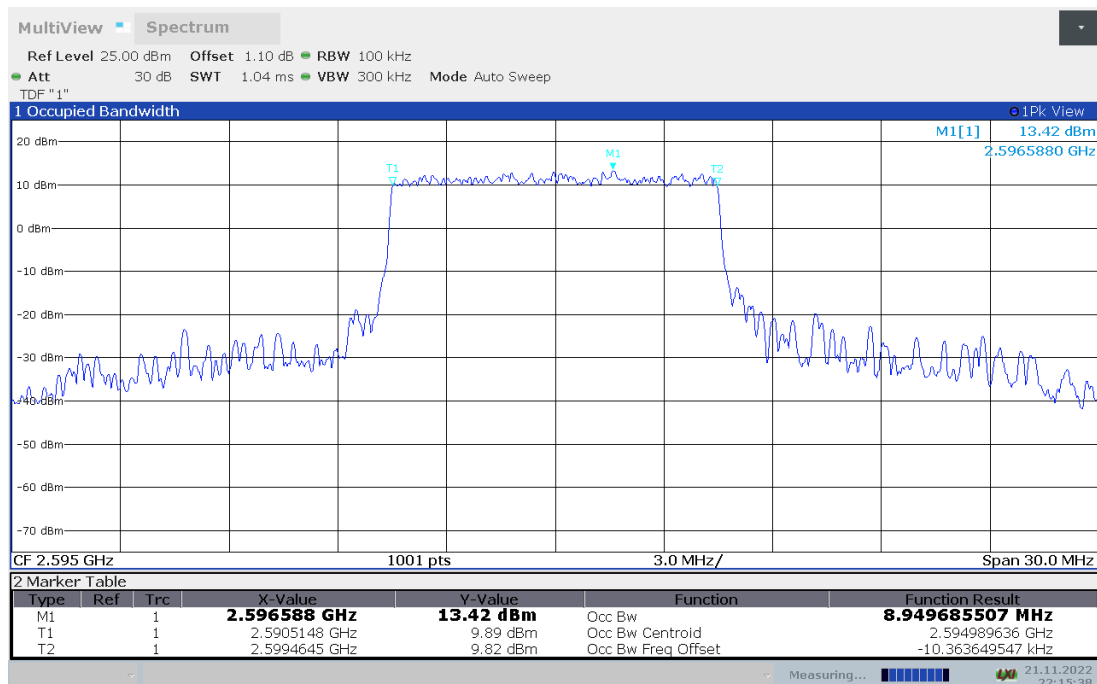
LTE band 38,10MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
2595	8.953	8.950

LTE band 38 , 10MHz Bandwidth,QPSK (99% BW)



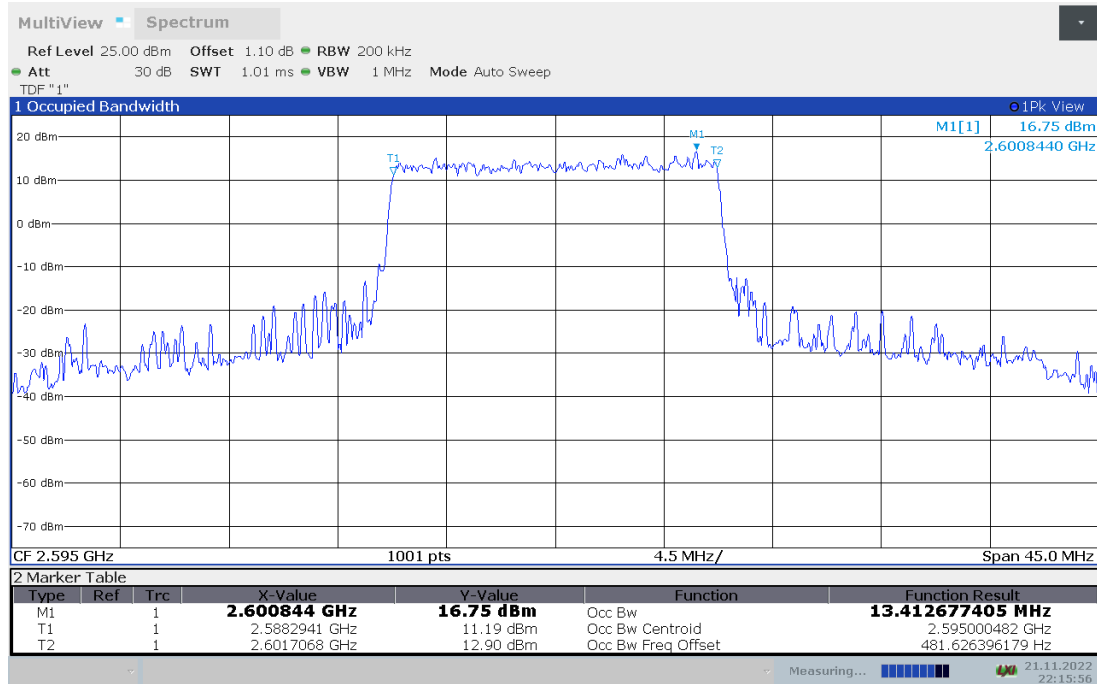
LTE band 38 , 10MHz Bandwidth,16QAM (99% BW)



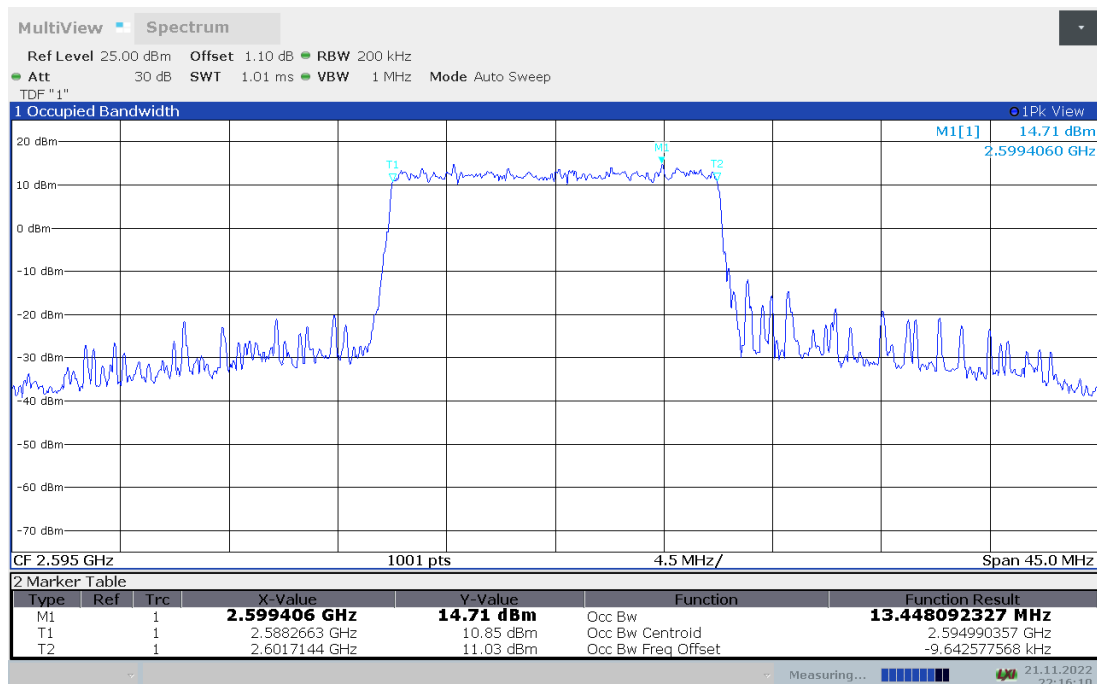
LTE band 38,15MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
2595	13.413	13.448

LTE band 38 , 15MHz Bandwidth,QPSK (99% BW)



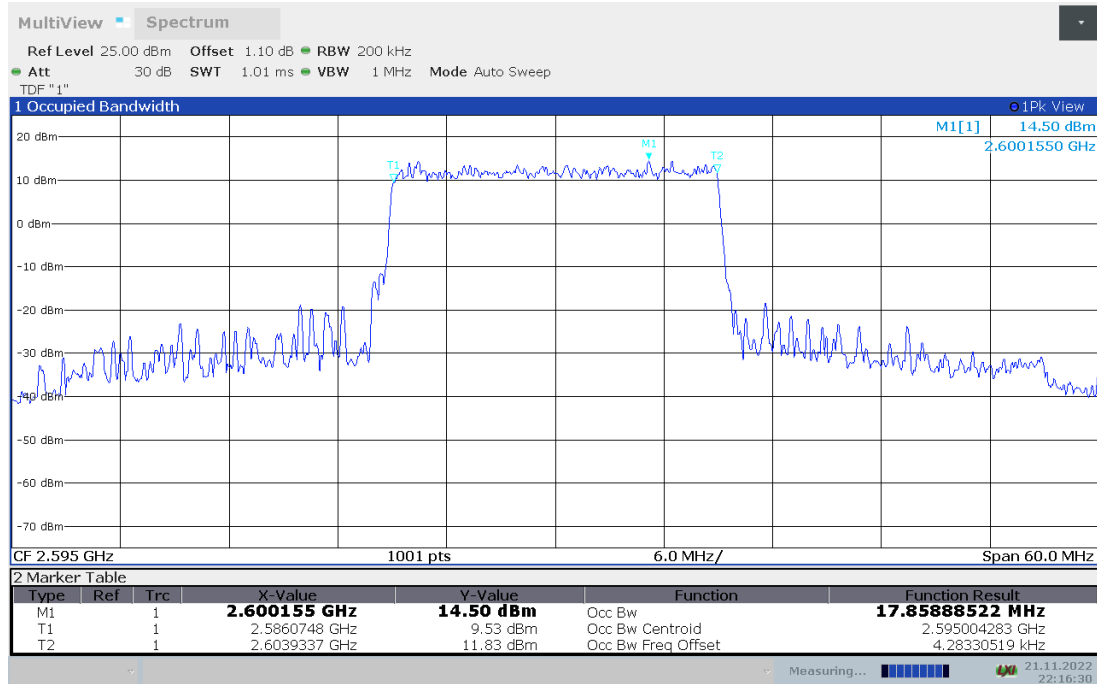
LTE band 38 , 15MHz Bandwidth,16QAM (99% BW)



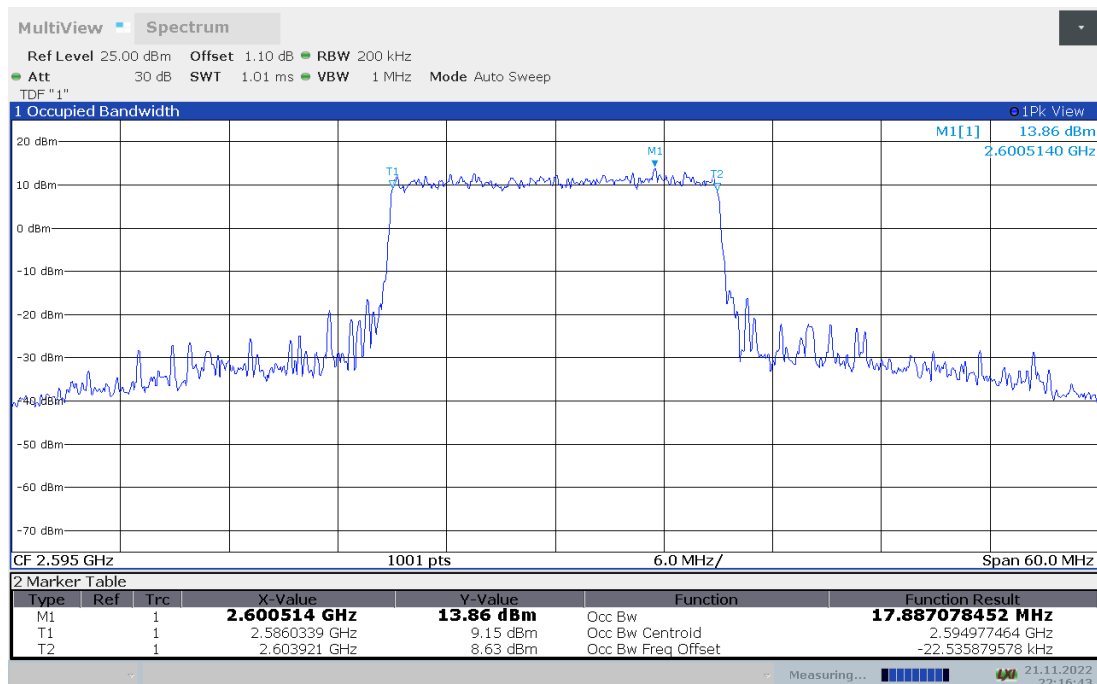
LTE band 38,20MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
2595	17.859	17.887

LTE band 38 , 20MHz Bandwidth,QPSK (99% BW)



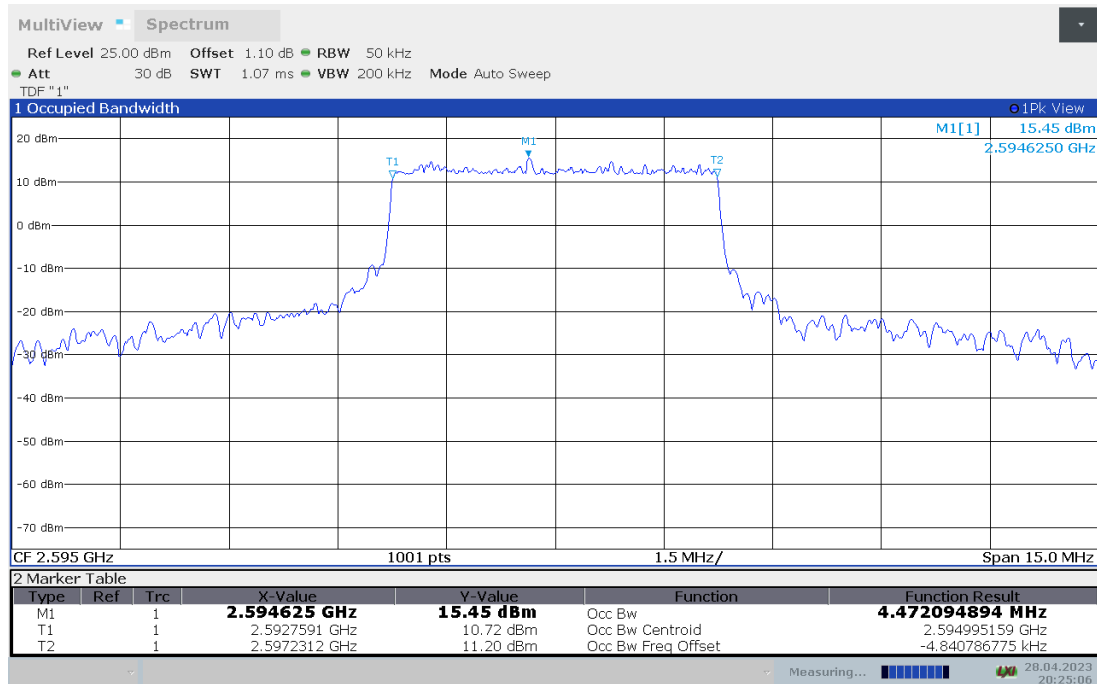
LTE band 38 , 20MHz Bandwidth,16QAM (99% BW)



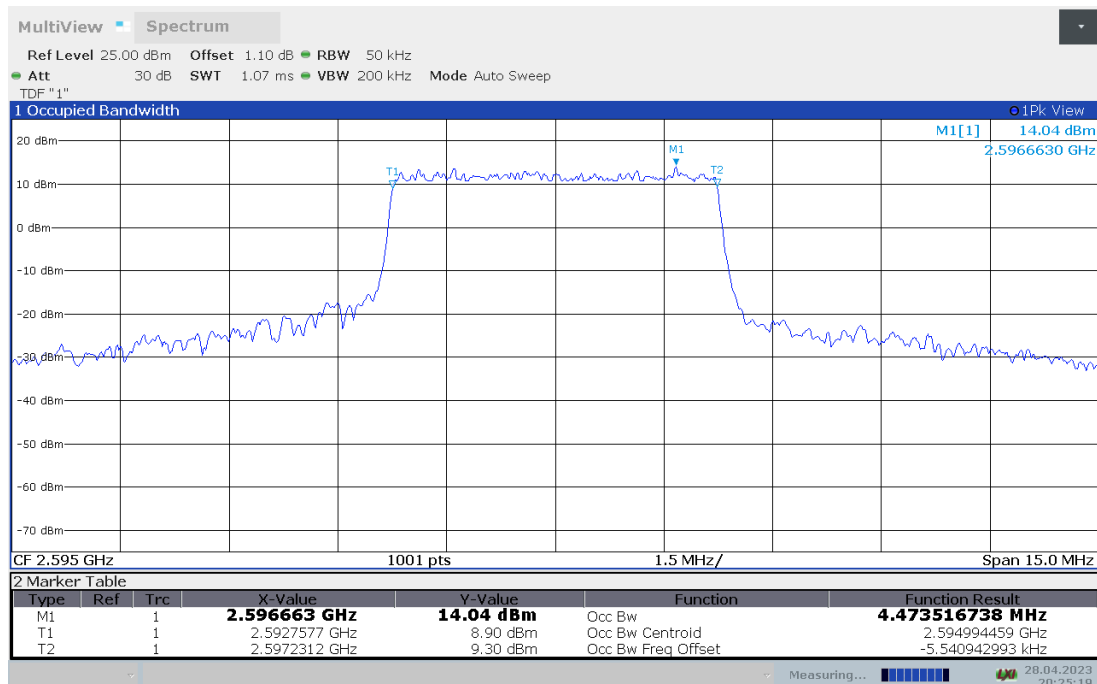
LTE band 41,5MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2595	4.472	4.474

LTE band 41 , 5MHz Bandwidth,MID,QPSK (99% BW)



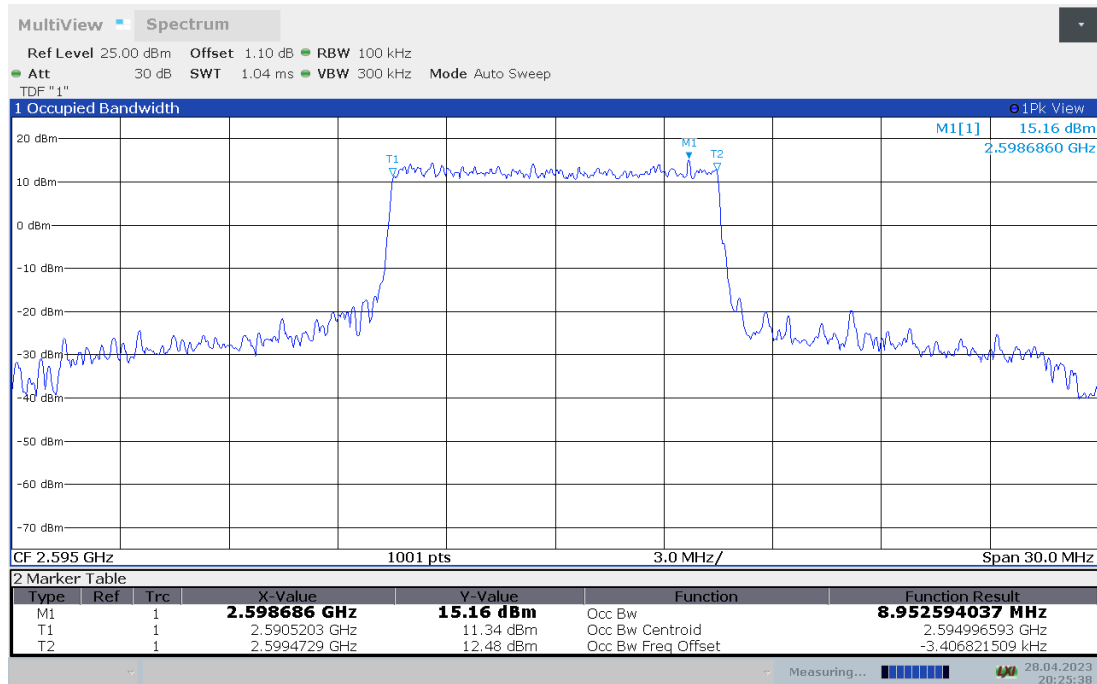
LTE band 41 , 5MHz Bandwidth,MID,16QAM (99% BW)



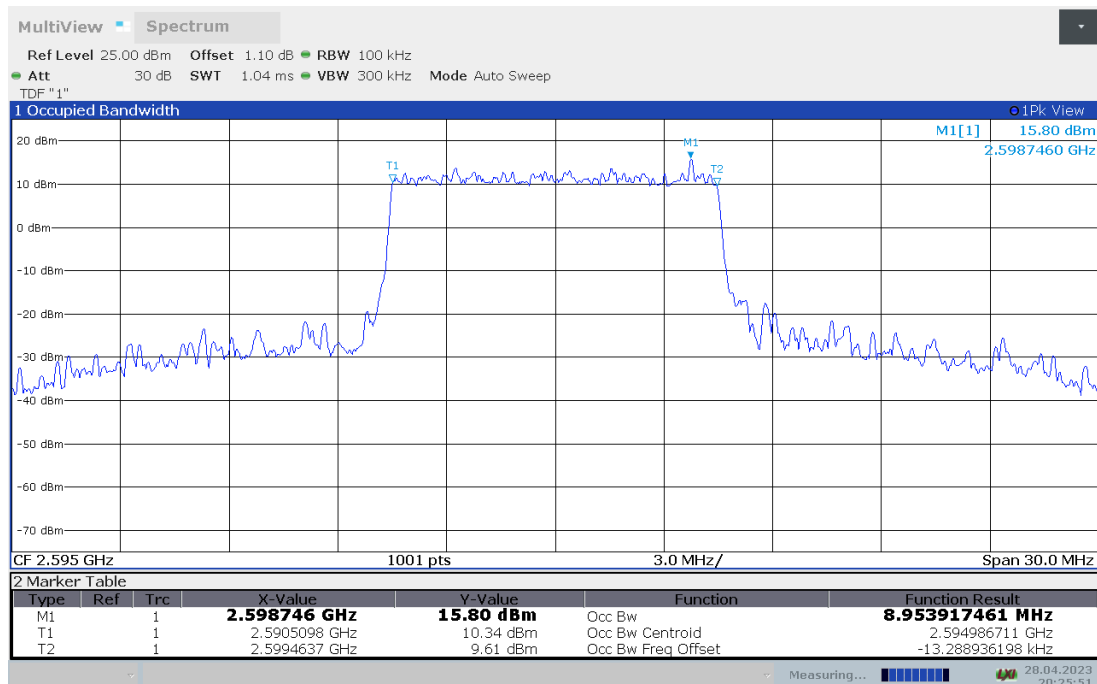
LTE band 41,10MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2595	8.953	8.954

LTE band 41 , 10MHz Bandwidth,MID,QPSK (99% BW)



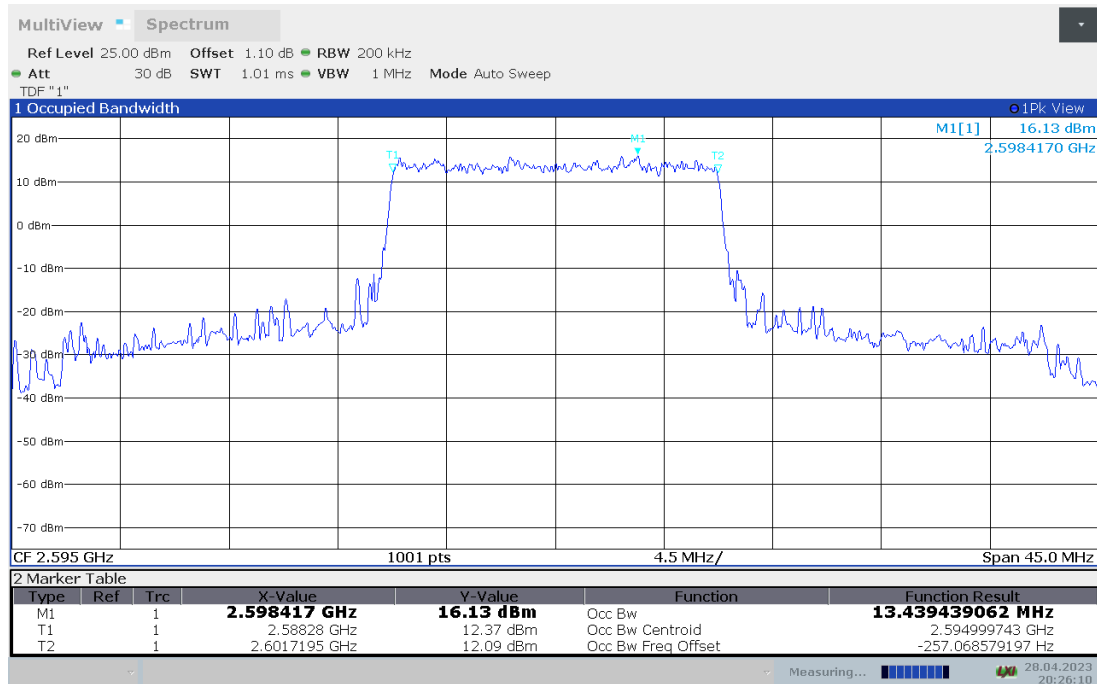
LTE band 41 , 10MHz Bandwidth,MID,16QAM (99% BW)



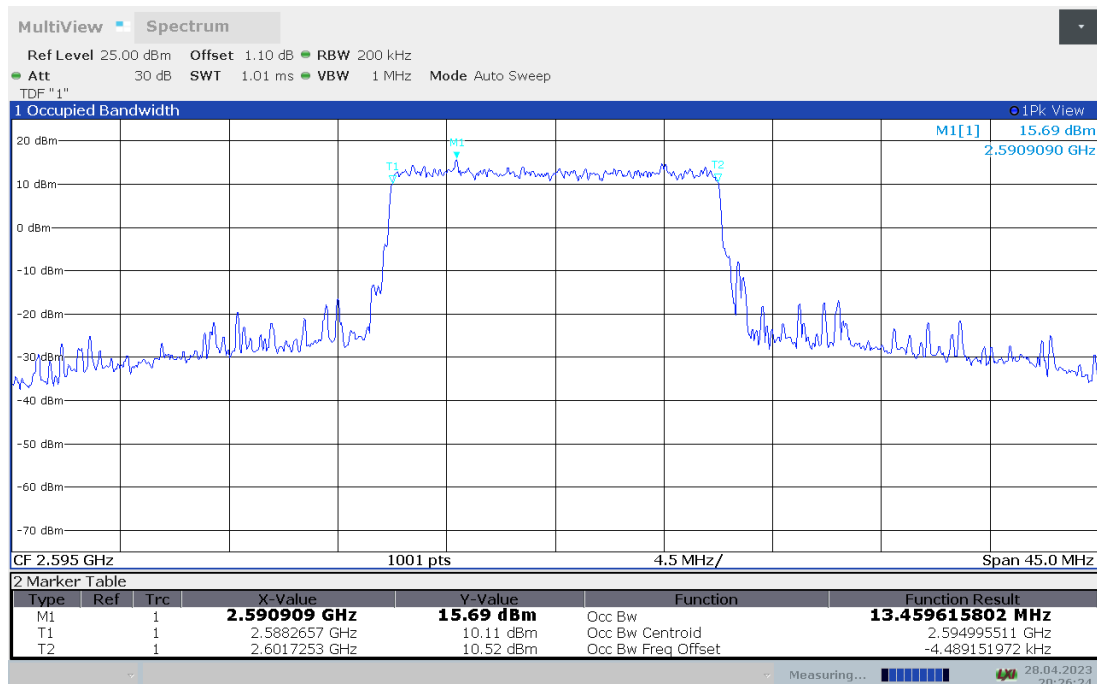
LTE band 41,15MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2595	13.439	13.460

LTE band 41 , 15MHz Bandwidth,MID,QPSK (99% BW)



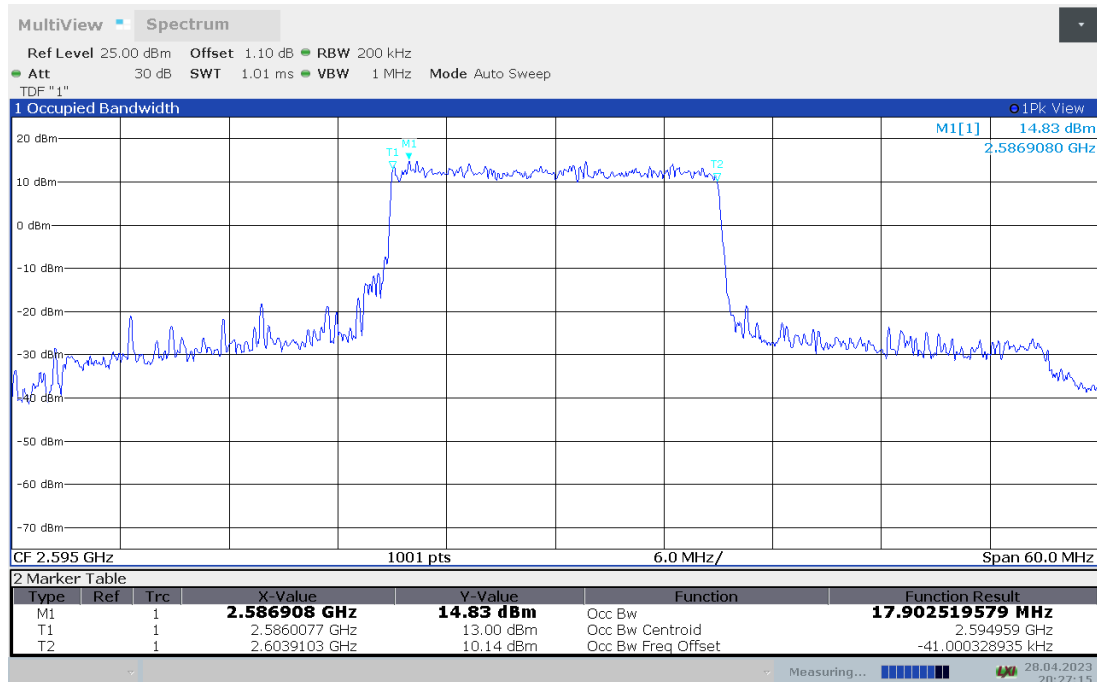
LTE band 41 , 15MHz Bandwidth,MID,16QAM (99% BW)



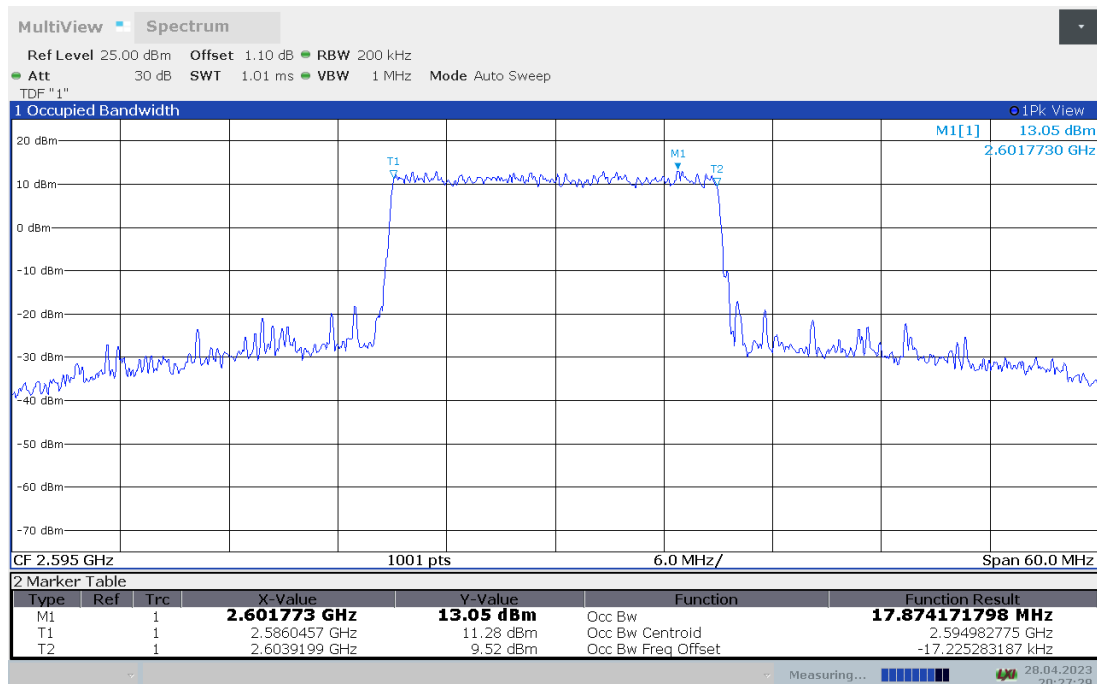
LTE band 41,20MHz(99%)

Frequency (MHz)	Occupied Bandwidth (99%)(MHz)	
	QPSK	16QAM
2595	17.903	17.874

LTE band 41 , 20MHz Bandwidth,MID,QPSK (99% BW)



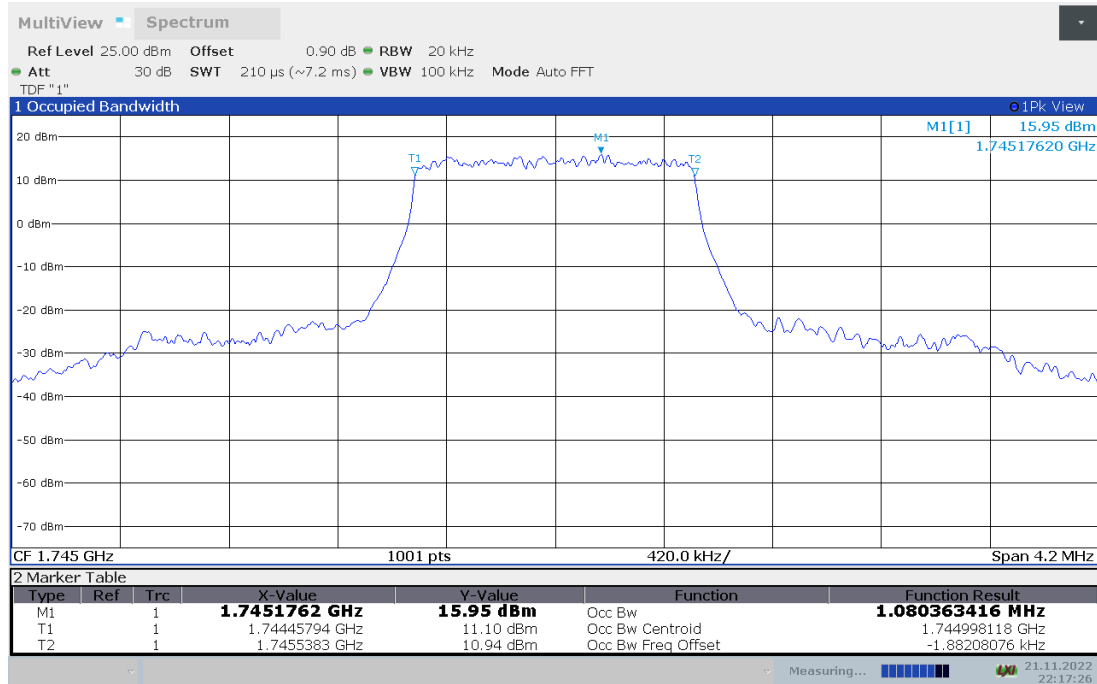
LTE band 41 , 20MHz Bandwidth,MID,16QAM (99% BW)



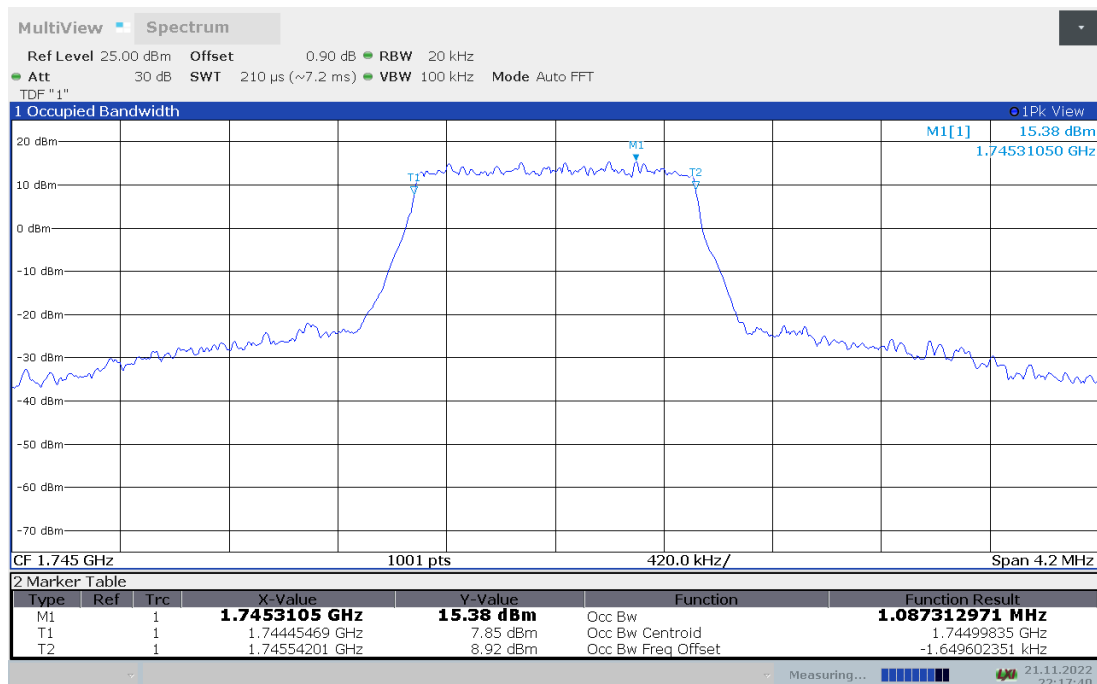
LTE band 66,1.4MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1745	1.080	1.087

LTE band 66 , 1.4MHz Bandwidth,QPSK (99% BW)



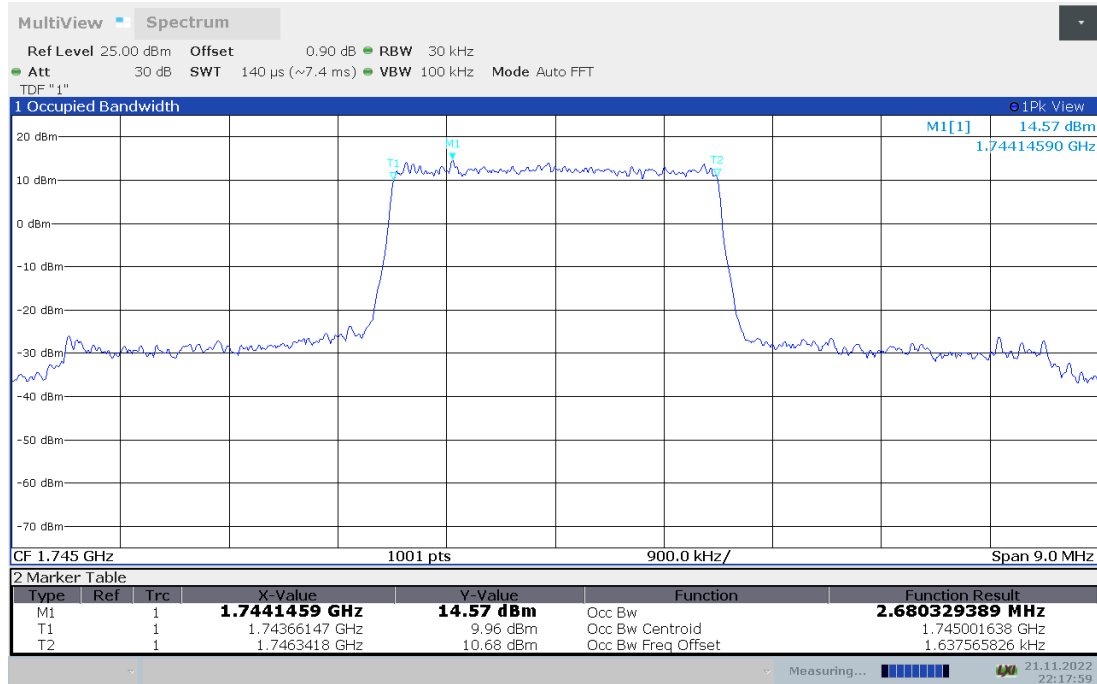
LTE band 66 , 1.4MHz Bandwidth,16QAM (99% BW)



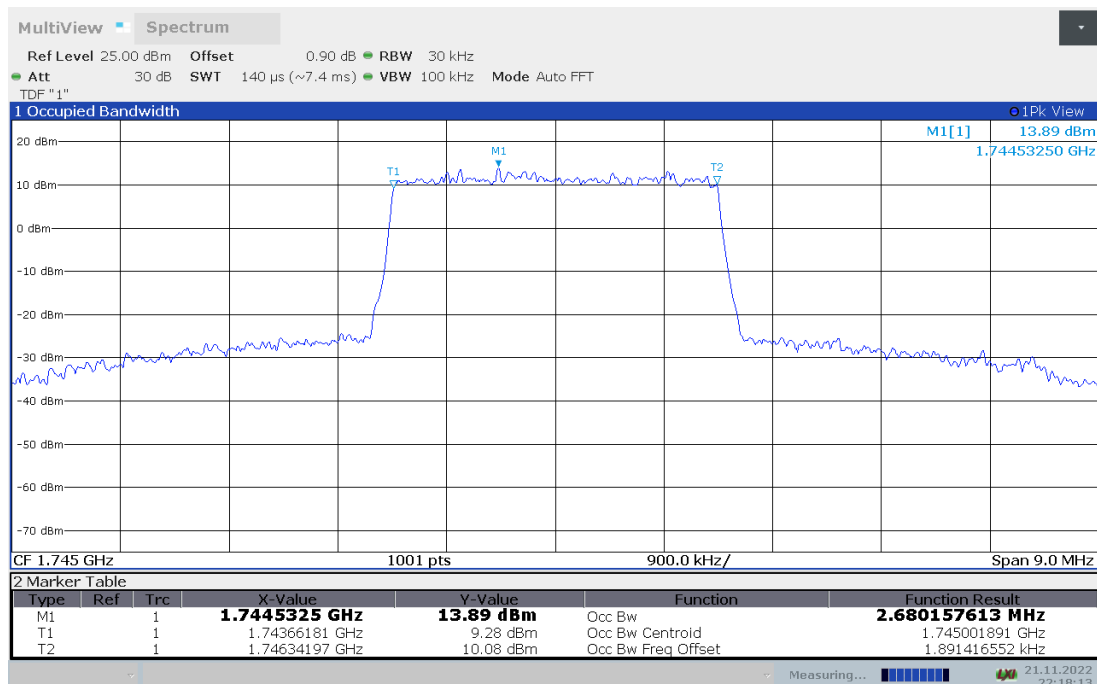
LTE band 66,3MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1745	2.680	2.680

LTE band 66 , 3MHz Bandwidth,QPSK (99% BW)



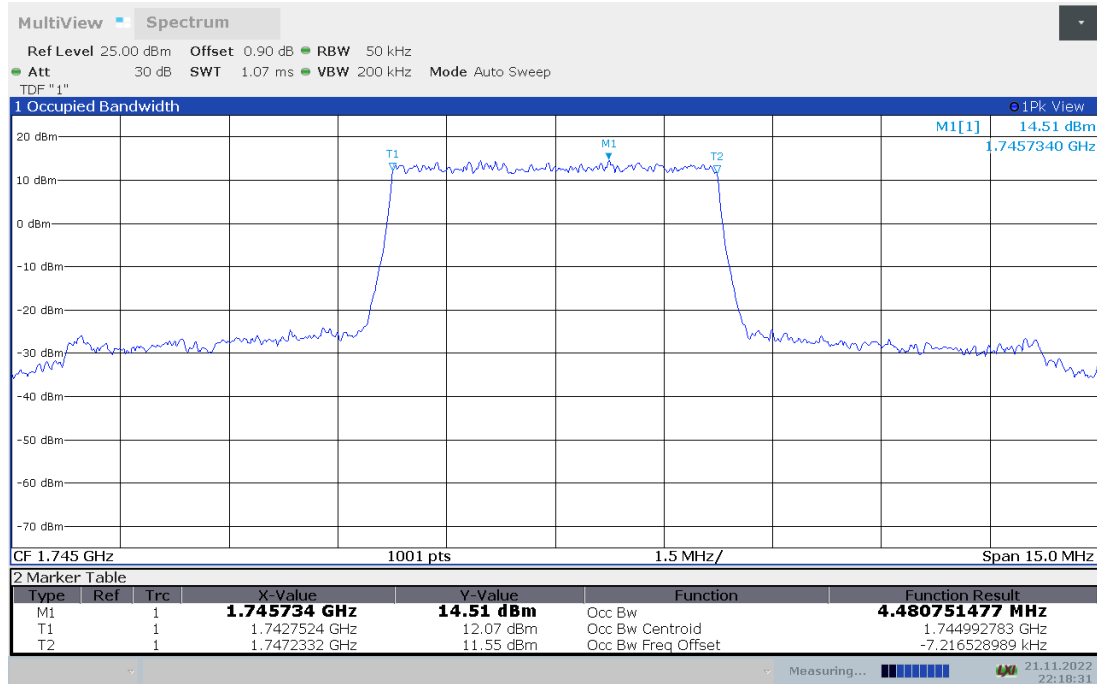
LTE band 66 , 3MHz Bandwidth,16QAM (99% BW)



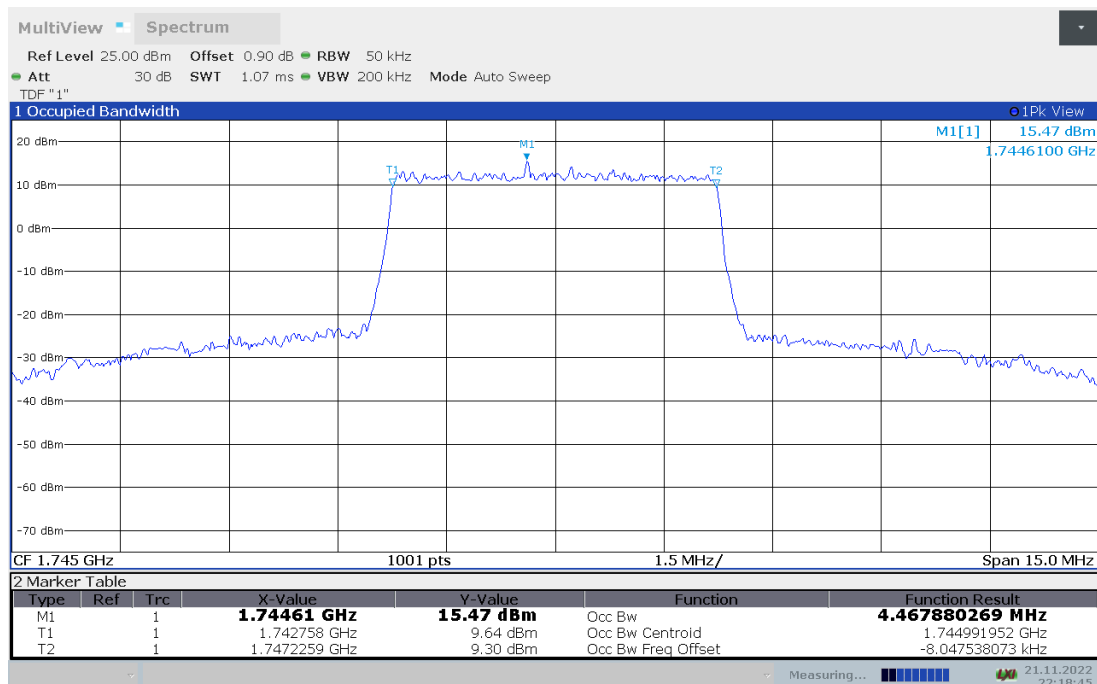
LTE band 66,5MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1745	4.481	4.468

LTE band 66 , 5MHz Bandwidth,QPSK (99% BW)



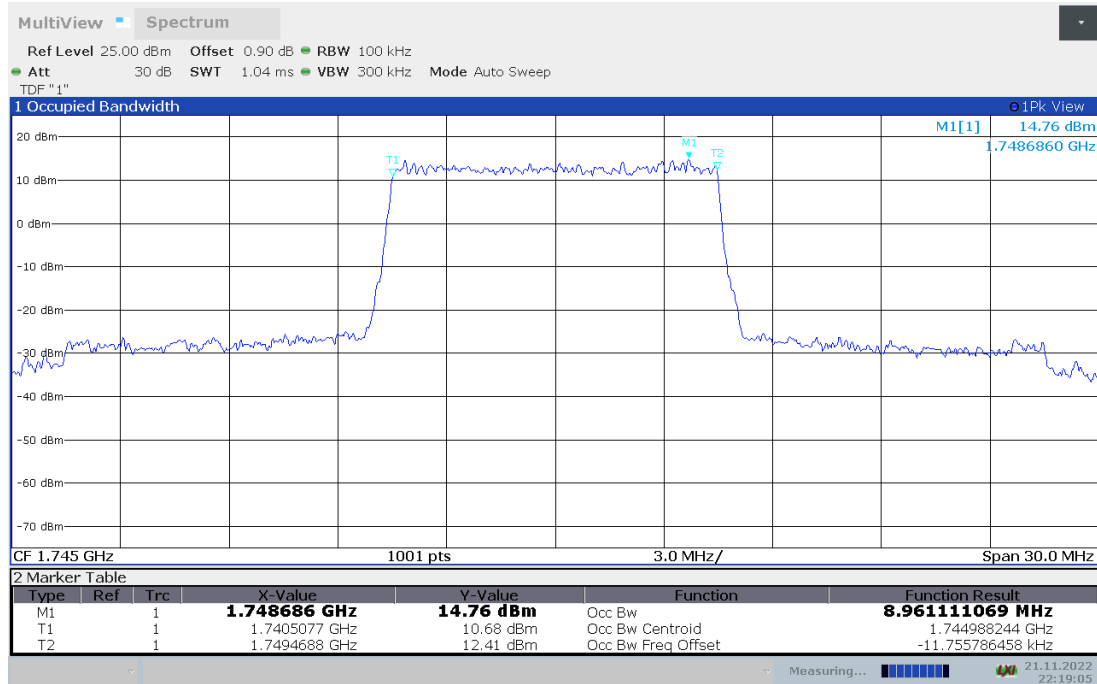
LTE band 66 , 5MHz Bandwidth,16QAM (99% BW)



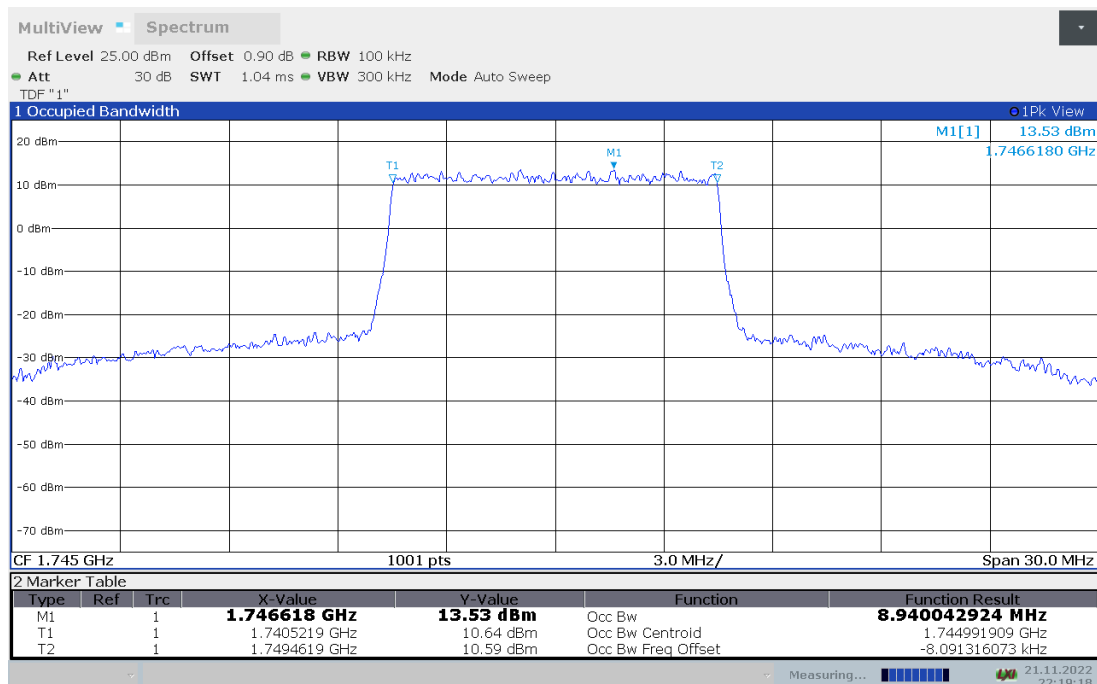
LTE band 66,10MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1745	8.961	8.940

LTE band 66 , 10MHz Bandwidth,QPSK (99% BW)



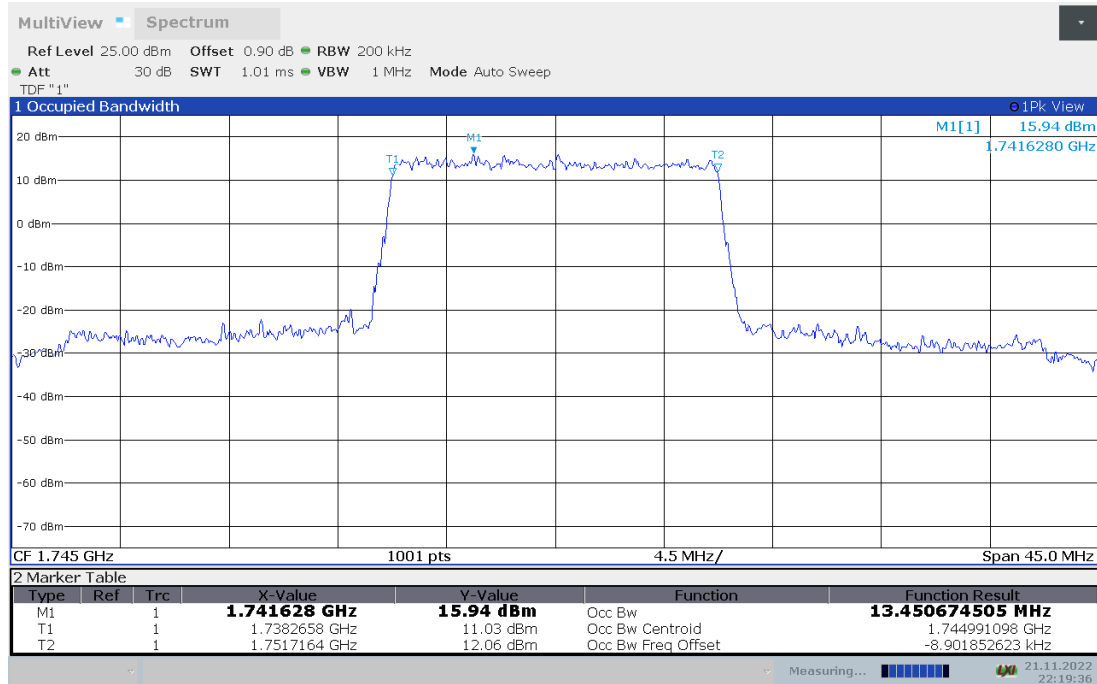
LTE band 66 , 10MHz Bandwidth,16QAM (99% BW)



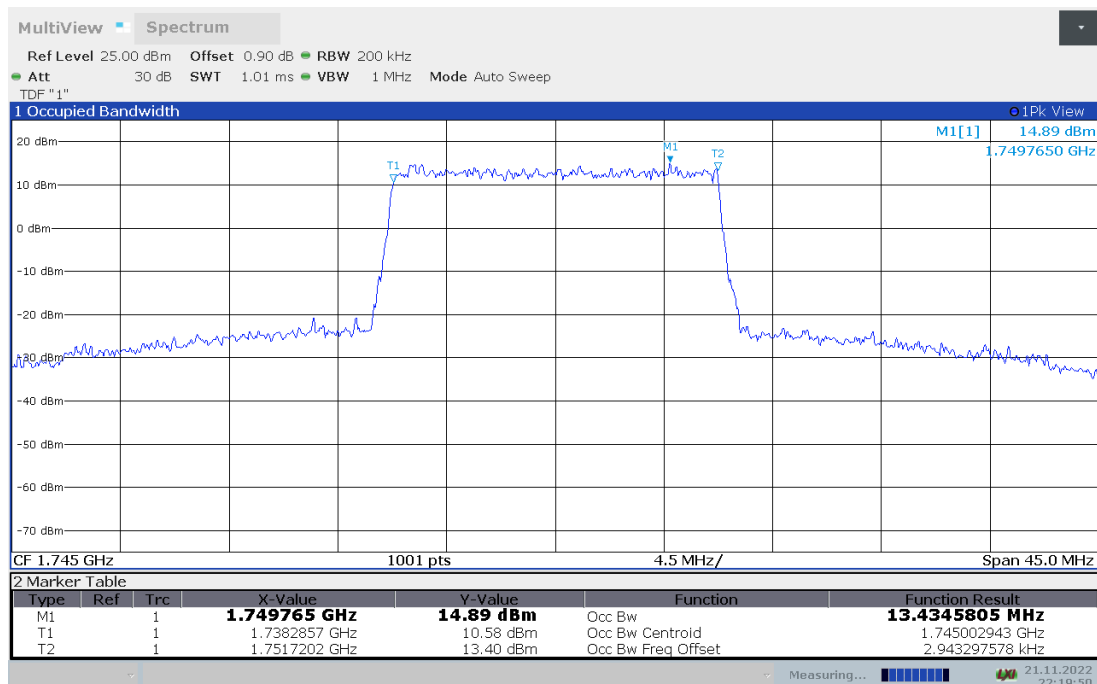
LTE band 66,15MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1745	13.451	13.435

LTE band 66 , 15MHz Bandwidth,QPSK (99% BW)



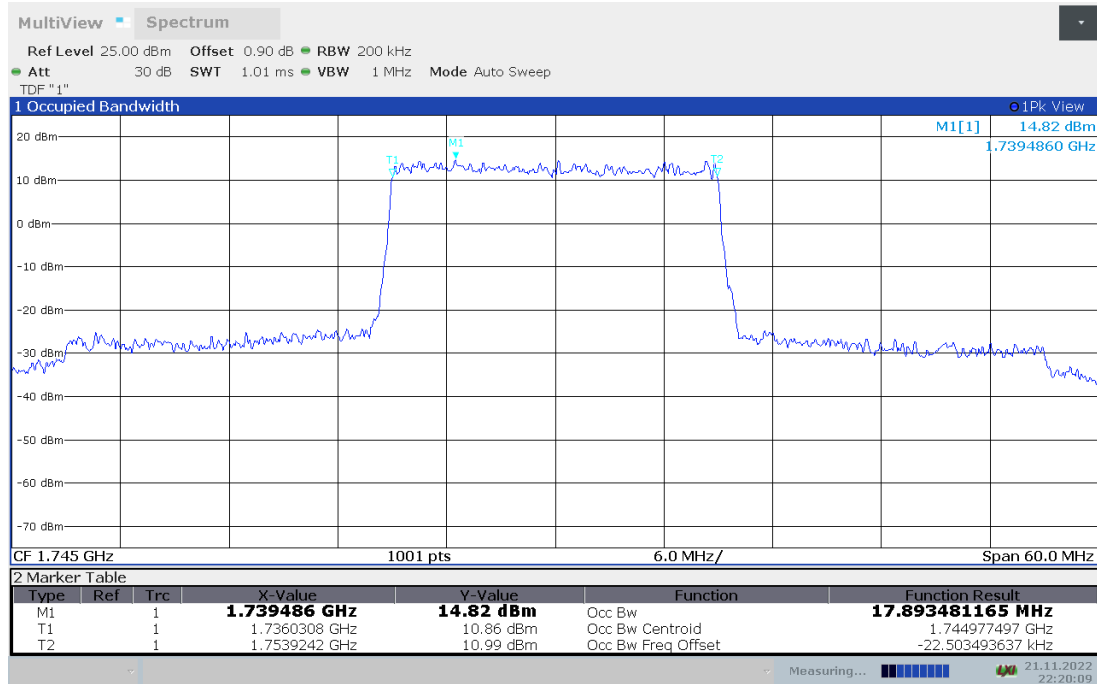
LTE band 66 , 15MHz Bandwidth,16QAM (99% BW)



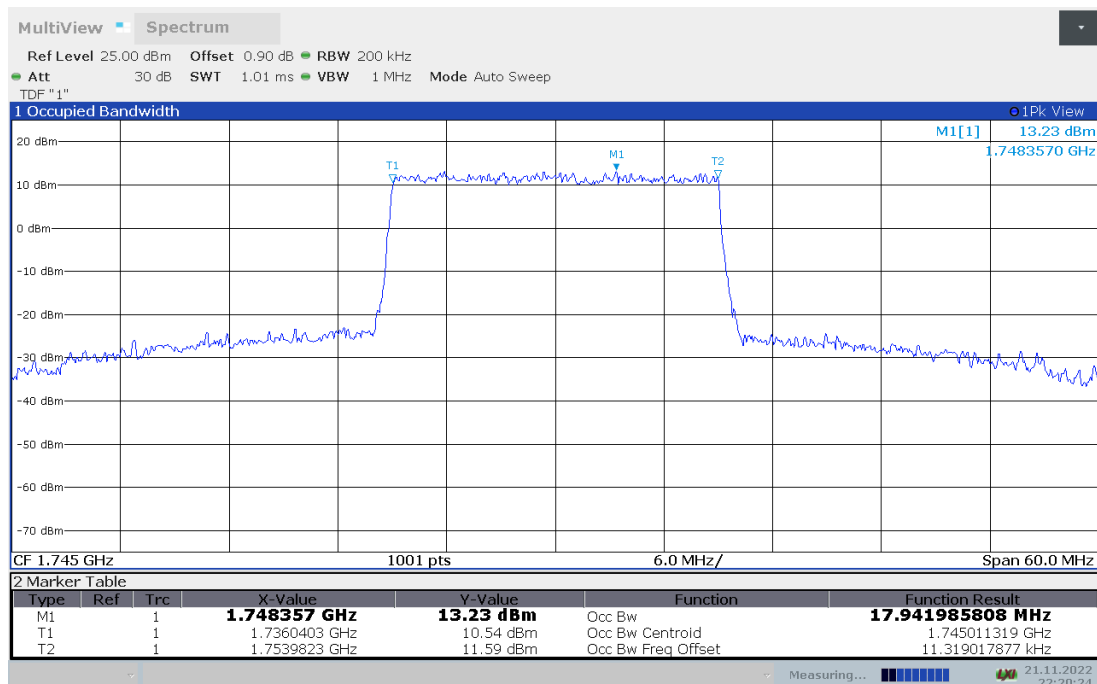
LTE band 66,20MHz(99% BW)

Frequency (MHz)	Occupied Bandwidth (99% BW)(MHz)	
	QPSK	16QAM
1745	17.893	17.942

LTE band 66 , 20MHz Bandwidth,QPSK (99% BW)



LTE band 66 , 20MHz Bandwidth,16QAM (99% BW)



Note: Expanded measurement uncertainty is $U = 3428$ Hz, $k = 2$

A.5 EMISSION BANDWIDTH

Reference

FCC: CFR Part 2.1049, 22.917, 24.238, 27.53.

A.5.1 Measurement Procedure

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

- 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 (i.e., two to five times the OBW).
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
- c) Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least $10\log(\text{OBW} / \text{RBW})$ below the reference level.
- d) Set the detection mode to peak, and the trace mode to max hold.
- e) Use the 26dB bandwidth function of the spectrum analyzer and report the measured bandwidth.

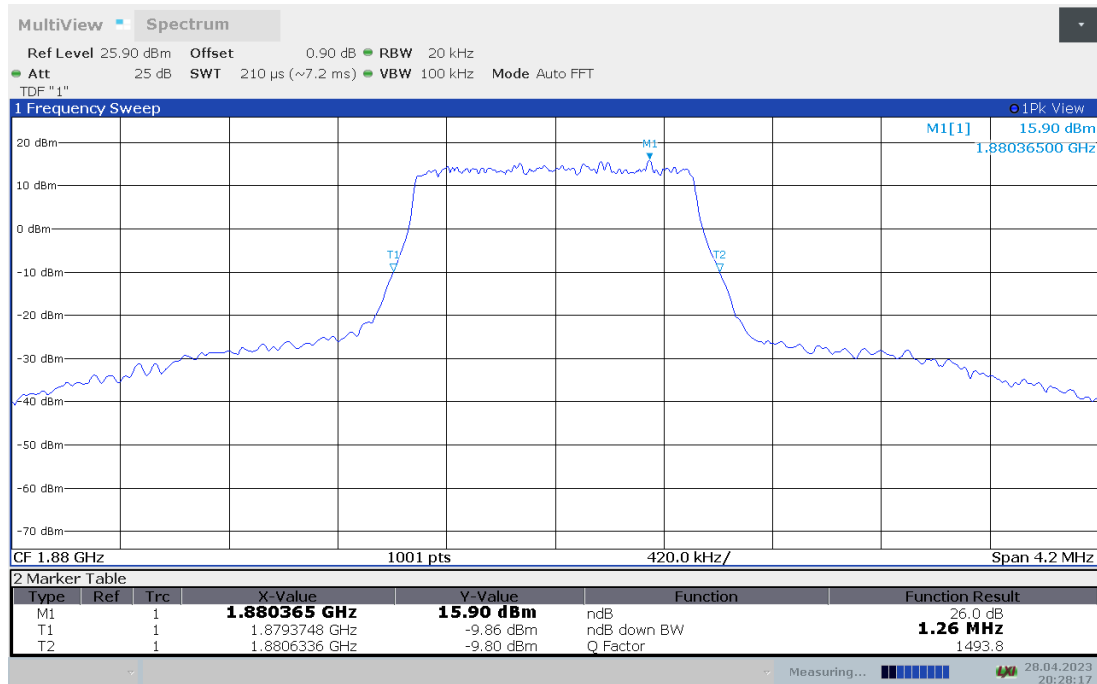
A.5.2 Emission Bandwidth Results

Similar to conducted emissions; Emission bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.

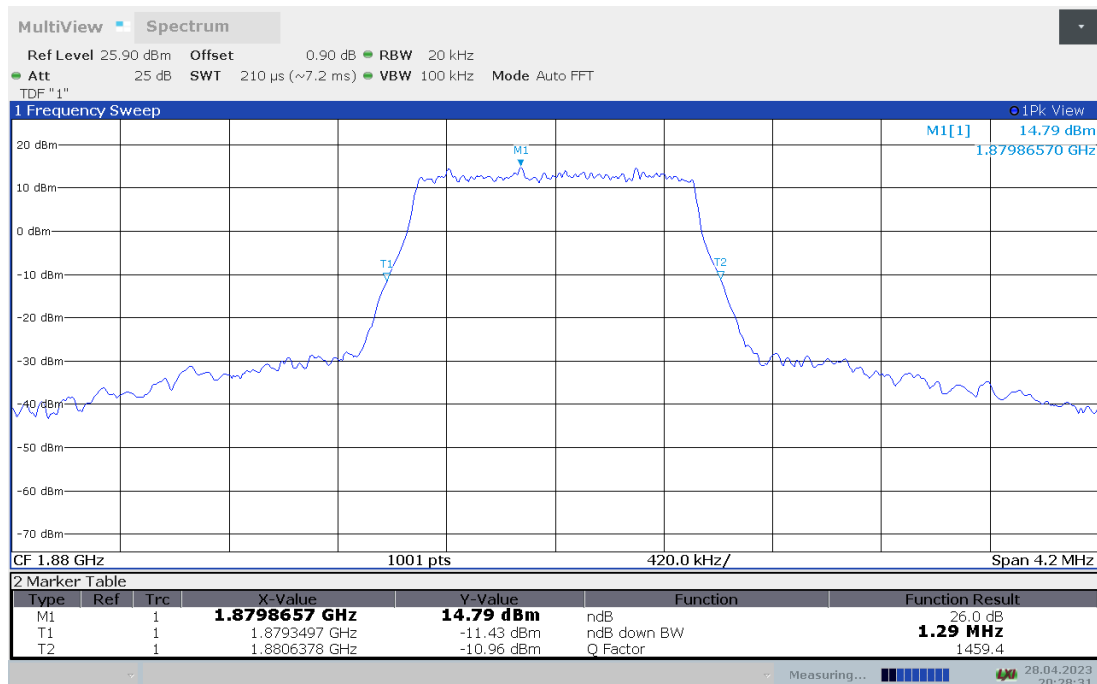
LTE band 2,1.4MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	1.259	1.288

LTE band 2 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)



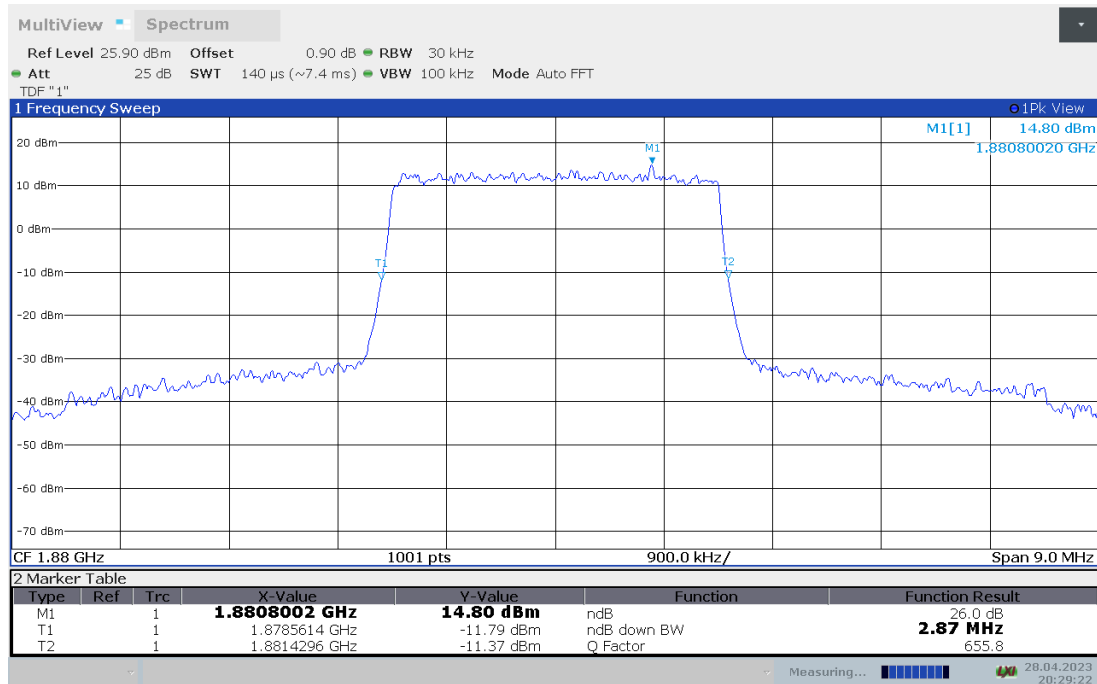
LTE band 2 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)



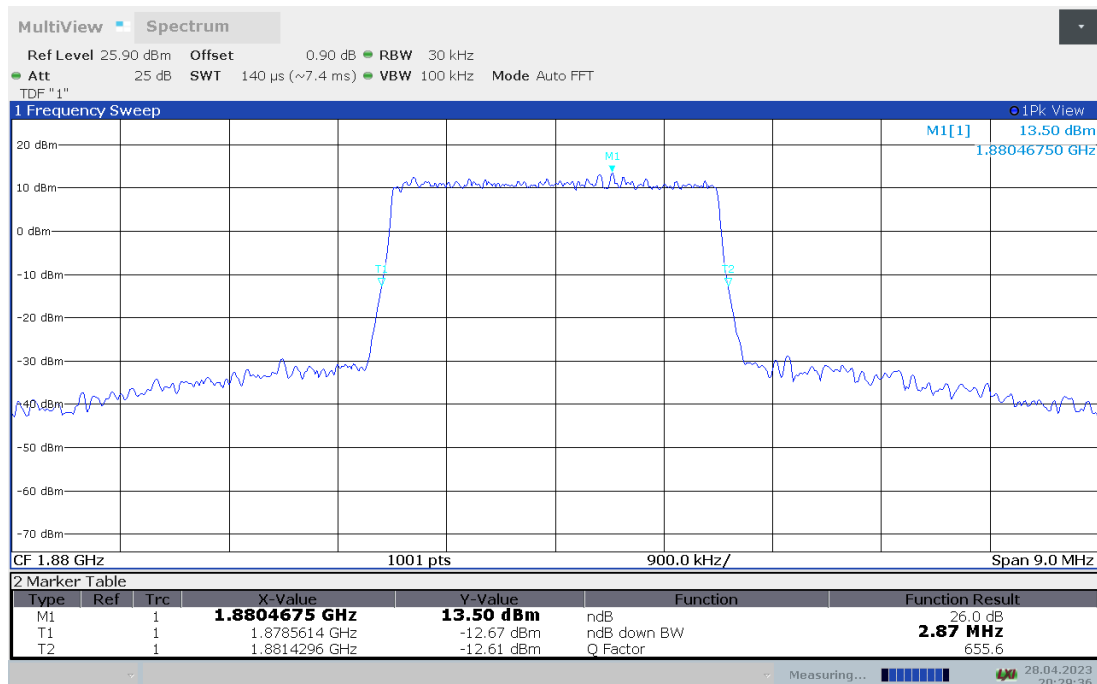
LTE band 2,3MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	2.868	2.868

LTE band 2 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)



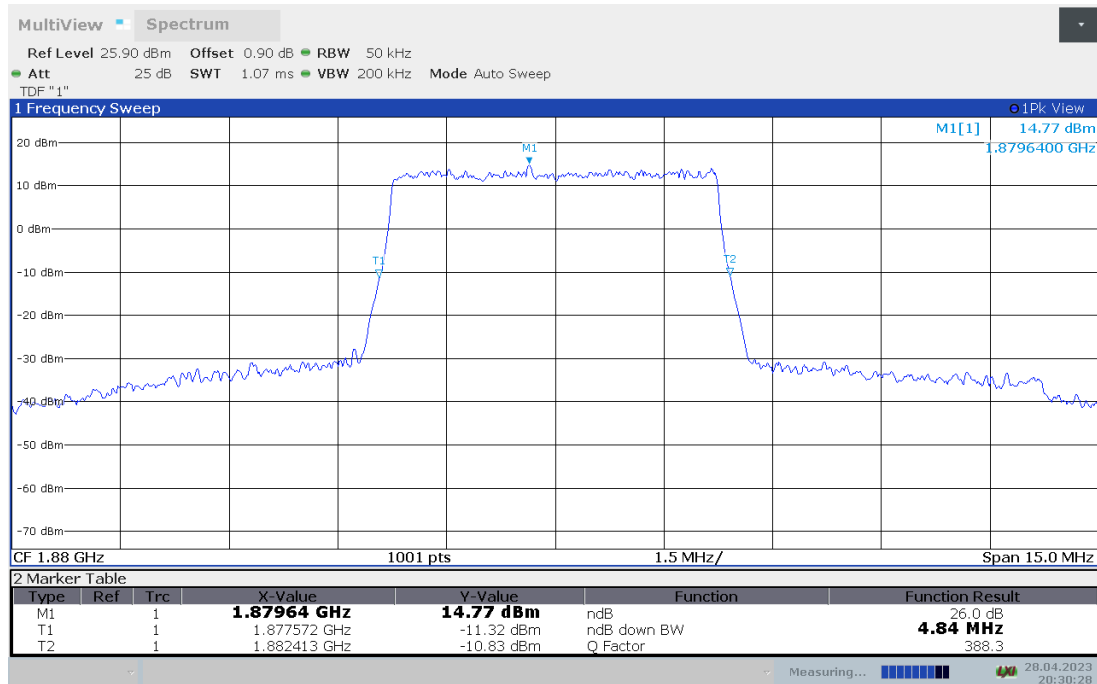
LTE band 2 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)



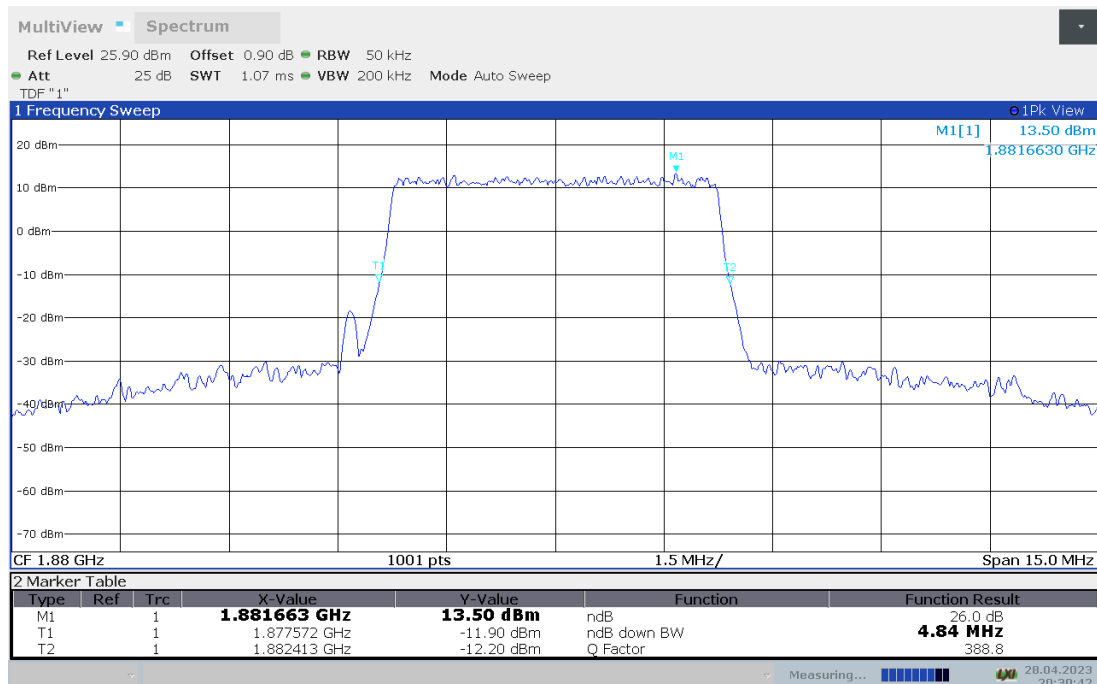
LTE band 2,5MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	4.840	4.840

LTE band 2 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)



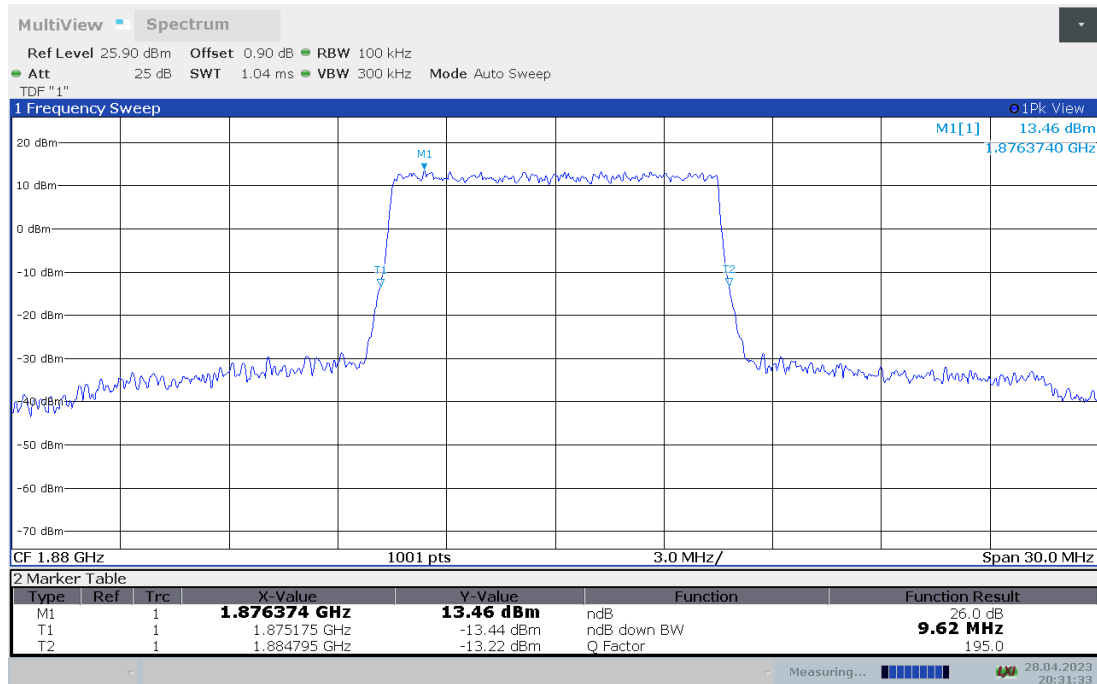
LTE band 2 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)



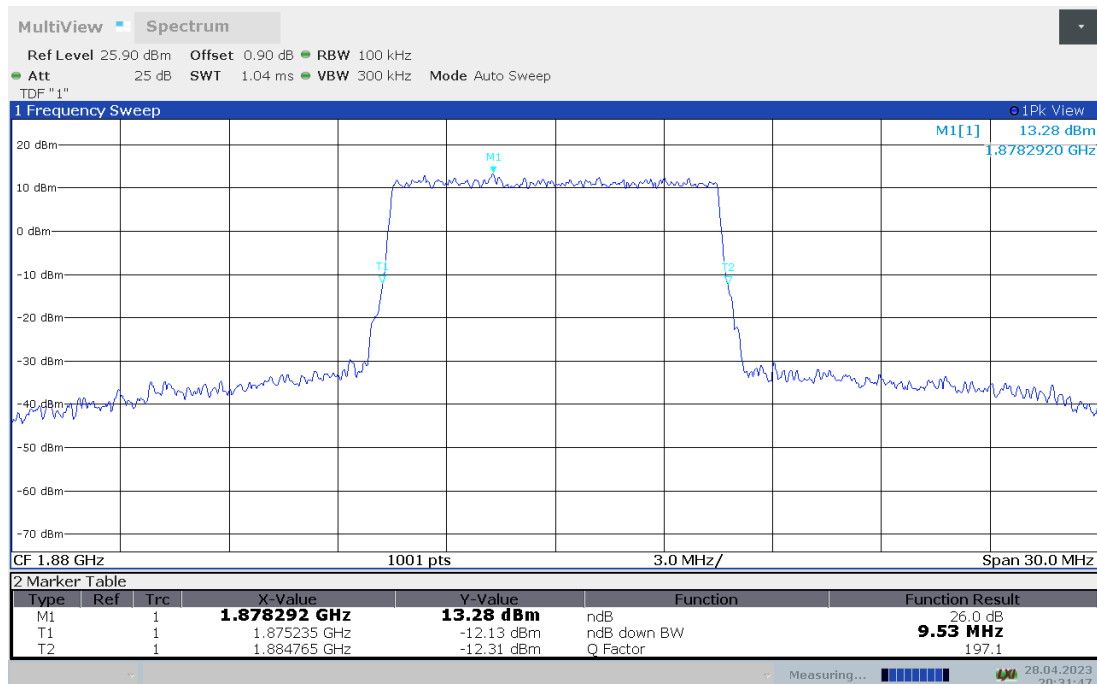
LTE band 2,10MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	9.620	9.530

LTE band 2 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)



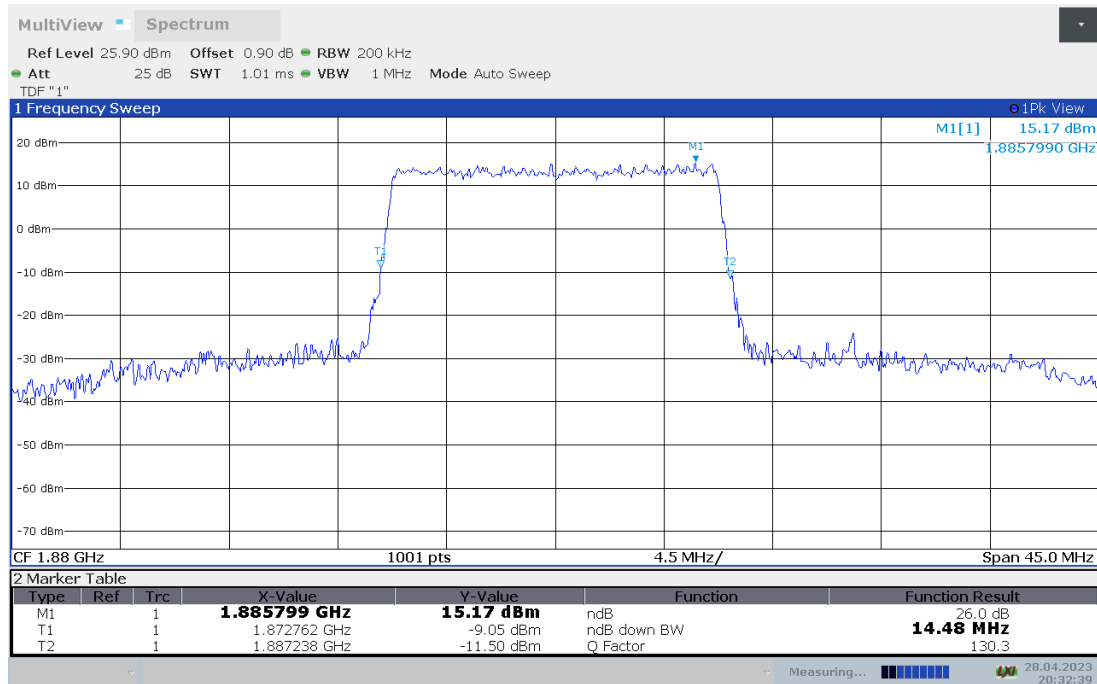
LTE band 2 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)



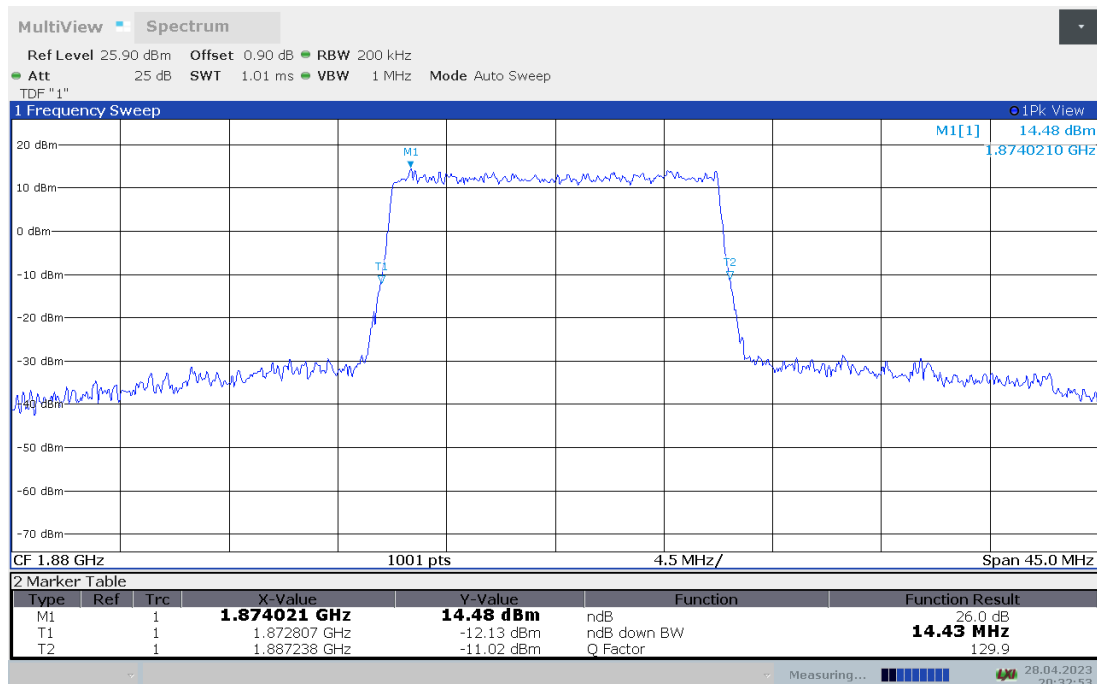
LTE band 2,15MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	14.476	14.431

LTE band 2 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)



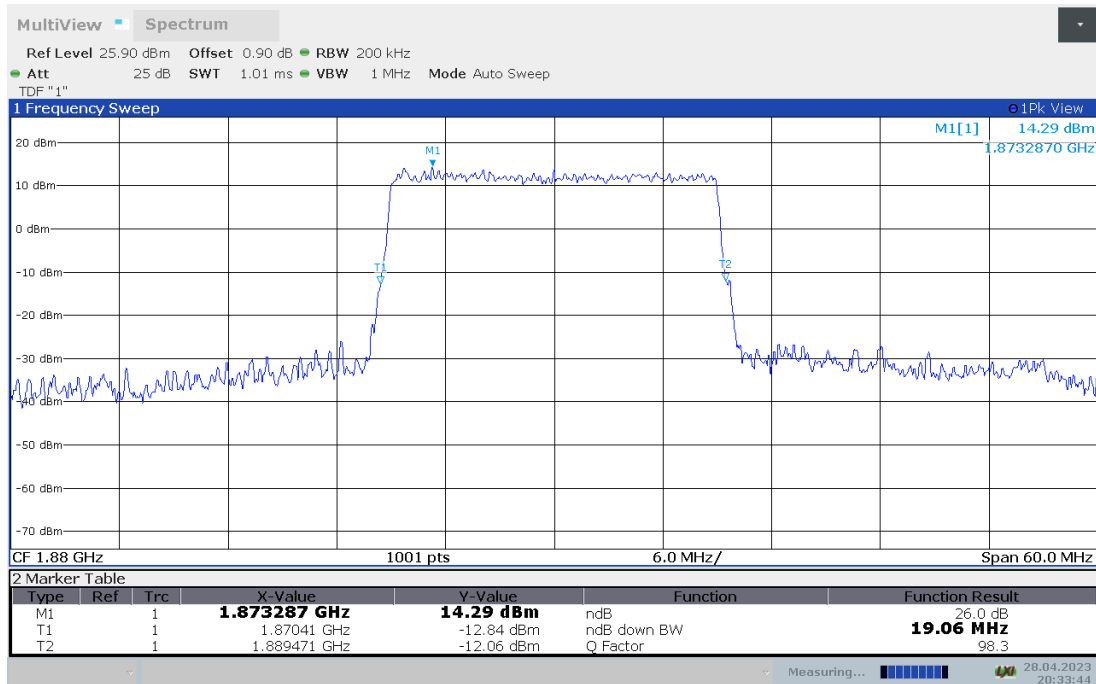
LTE band 2 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)



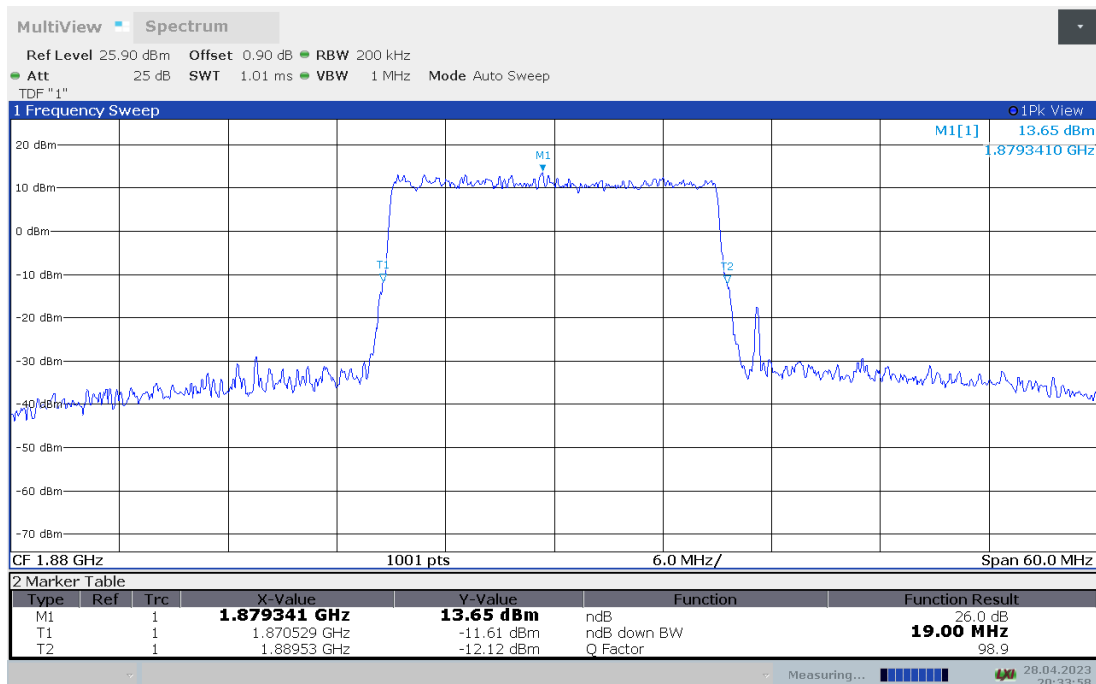
LTE band 2,20MHz(-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(MHz)	
	QPSK	16QAM
1880	19.061	19.001

LTE band 2 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)



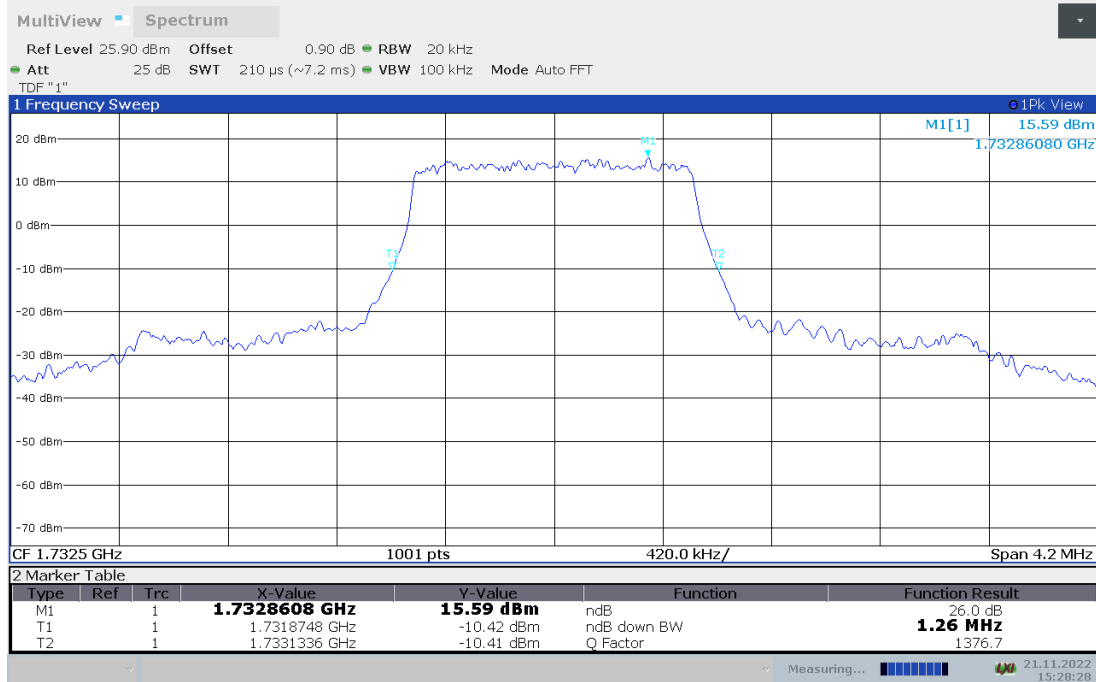
LTE band 2 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)



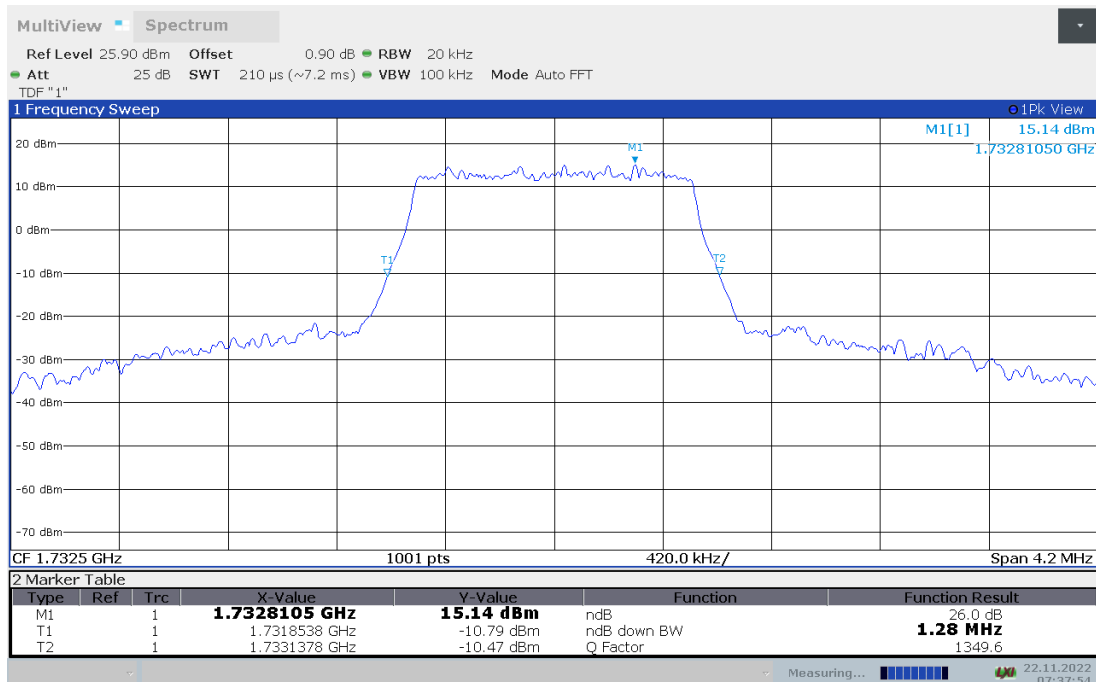
LTE band 4,1.4MHz(-26dBc BW)

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1732.5	1.259	1.284

LTE band 4 , 1.4MHz Bandwidth,QPSK (-26dBc BW)



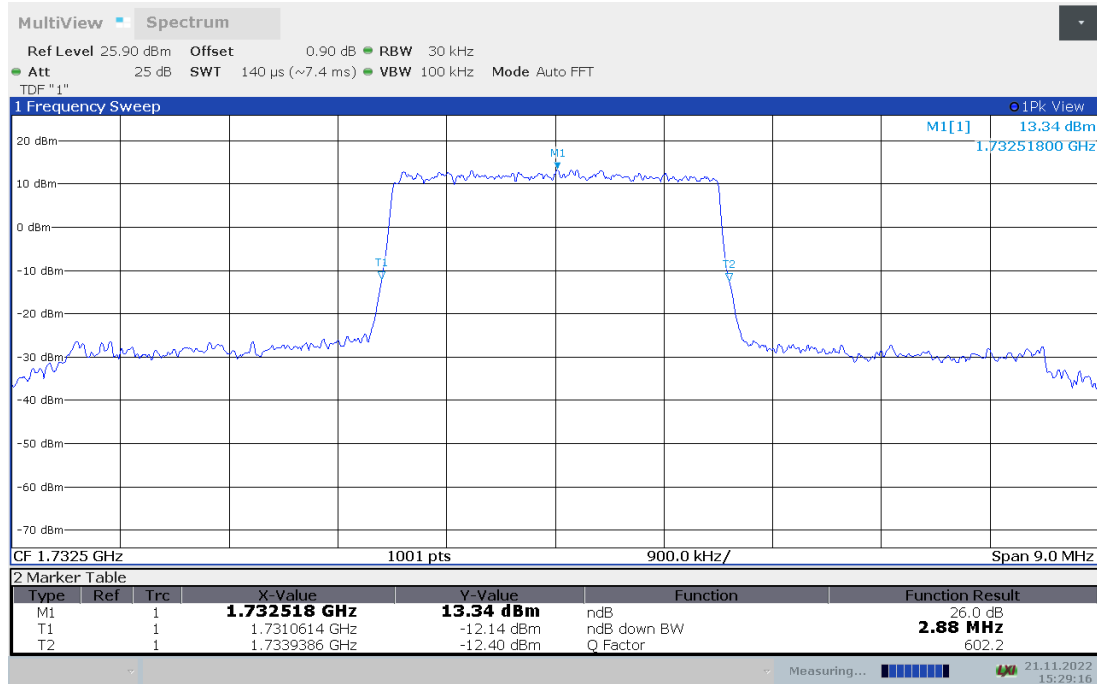
LTE band 4 , 1.4MHz Bandwidth,16QAM (-26dBc BW)



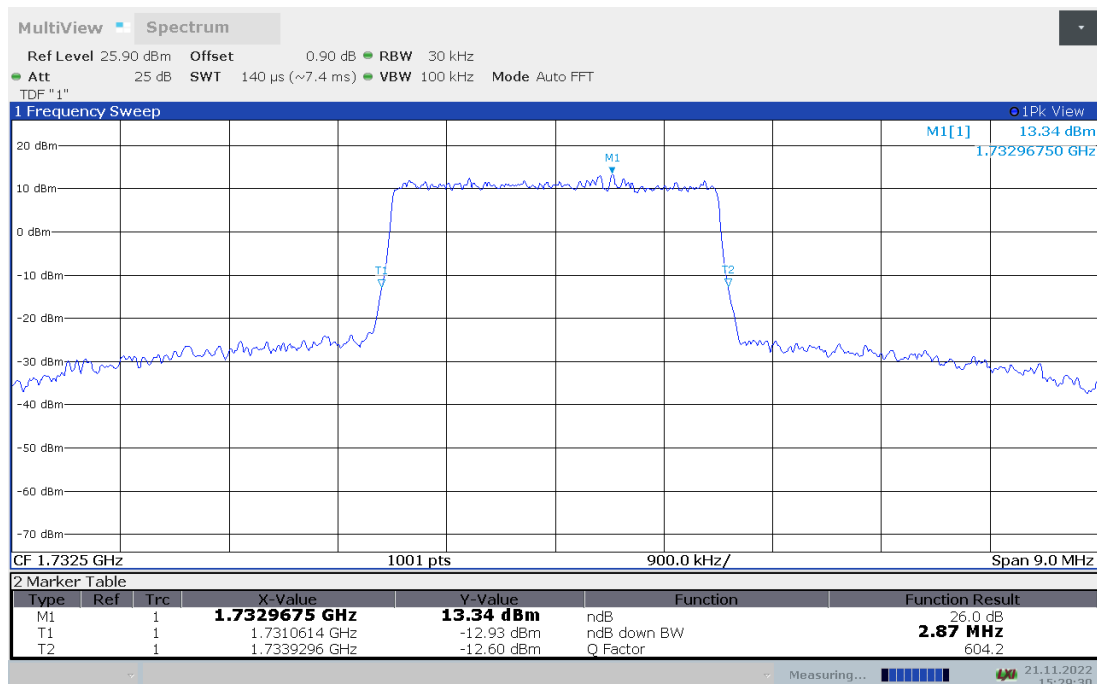
LTE band 4,3MHz(-26dBc BW)

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1732.5	2.877	2.868

LTE band 4 , 3MHz Bandwidth,QPSK (-26dBc BW)



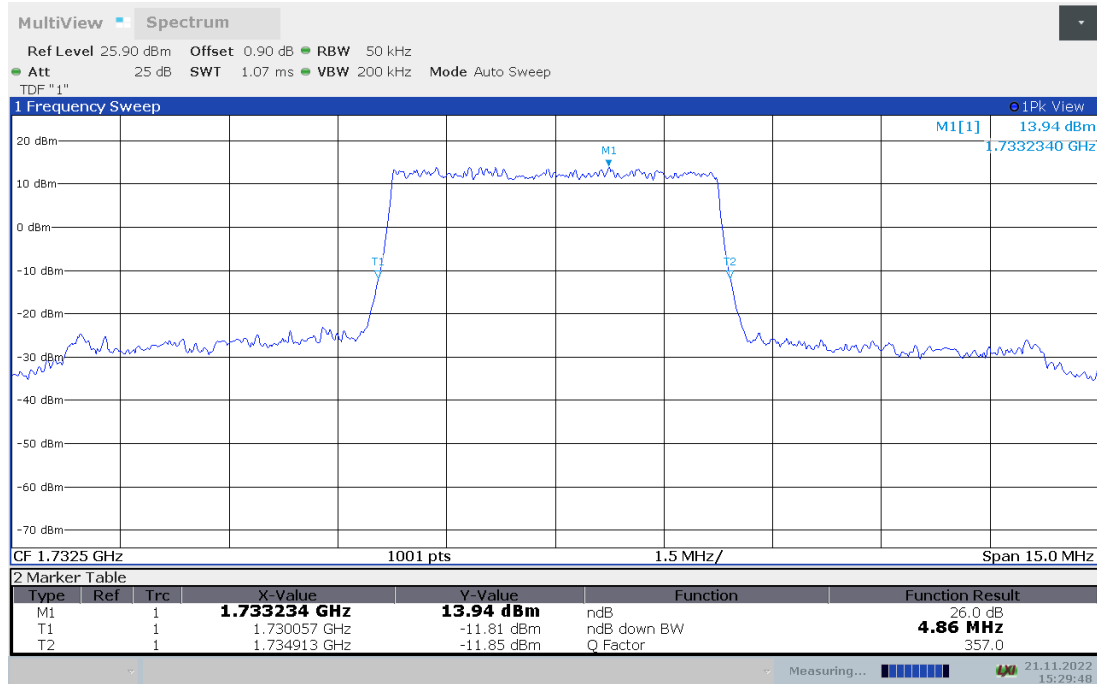
LTE band 4 , 3MHz Bandwidth,16QAM (-26dBc BW)



LTE band 4,5MHz(-26dBc BW)

Frequency(MHz)	Emission Bandwidth (-26dBc BW)(MHz)	
	QPSK	16QAM
1732.5	4.855	4.795

LTE band 4 , 5MHz Bandwidth,QPSK (-26dBc BW)



LTE band 4 , 5MHz Bandwidth,16QAM (-26dBc BW)

