TEST REPORT

No. I22Z60871-WMD03

for

vivo Mobile Communication Co., Ltd.

Mobile Phone

Model Name: V2160

FCC ID: 2AUCY-V2127

with

Hardware Version: MP_0.1

Software Version: PD2197BF_EX_A_3.13.15

Issued Date: 2022-05-26

Note:

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

Test Laboratory:

CTTL, Telecommunication Technology Labs, CAICT

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

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I22Z60871-WMD03	Rev.0	1st edition	2022-05-26

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

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1. Test Laboratory

1.1. Introduction & Accreditation

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

1.2. Testing Location

Location 1: CTTL (huayuan North Road)

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

Location 2: CTTL (BDA)

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

1.3. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.4. Project Data

Testing Start Date: 2022-04-25

Testing End Date: 2022-05-18

1.5. Signature

Dong Yuan

(Prepared this test report)

Zhou Yu

(Reviewed this test report)

Zhao Hui Lin

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	vivo Mobile Communication Co., Ltd.
Address /Post:	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Contact:	xiangjianfeng
Email:	xiangjianfeng@vivo.com
Telephone:	18823710059

2.2. Manufacturer Information

Company Name:	vivo Mobile Communication Co., Ltd.
Address /Post:	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Contact:	xiangjianfeng
Email:	xiangjianfeng@vivo.com
Telephone:	18823710059

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

3.1. About EUT

Description	Mobile Phone
Model Name	V2160
FCC ID	2AUCY-V2127
Antenna	Embedded
Output power	24.18dBm maximum EIRP measured for LTE Band 41
Extreme vol. Limits	3.6VDC to 4.45VDC (nominal: 3.87VDC)
Extreme temp. Tolerance	-10°C to +55°C

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

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Date of receipt
UT02a	866590060199059/ 866590060199042	MP_0.1	PD2197BF_EX_A_3.13.15	2022-04-25

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

3.3. Internal Identification of AE used during the test

AE ID*	Description
AE1	Battery

AE1

Model	B-T6
Manufacturer	Dongguan NVT Technology Co.,Ltd
Capacitance	5000mAh

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

4. Reference Documents

4.1. Documents supplied by applicant

EUT parameters are supplied by the client or manufacturer, which are the bases of testing.

4.2. Reference Documents for testing

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

Reference	Title	Version
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-20 Edition
FCC Part 22	PUBLIC MOBILE SERVICES	10-1-20 Edition
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	10-1-20 Edition
ANSI/TIA-603-E	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards	2016
ANSI C63.26	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services	2015
KDB 971168 D01	MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS	v03r01

5. Laboratory Environment

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

Temperature	Min. = 15 ℃, Max. = 30 ℃
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 100 dB
Electrical insulation	>2 M
Ground system resistance	< 1
Normalised site attenuation (NSA)	<±3.5 dB, 3 m distance
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 MHz

6. Summary Of Test Result

LTE Band 2

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

LTE Band 5

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

LTE Band 7

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

LTE Band 12 (17)

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

LTE Band 13

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

LTE Band 41 (38)

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

LTE Band 66 (4)

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

Terms used in Verdict column

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

All the test results are based on normal power.

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

ANT13 supports Band 2, Band 4, Band 5, Band 7, Band 12, Band 13, Band 17, Band 38, Band 41, Band 66.
ANT31 supports Band 2, Band 4, Band 7, Band 38, Band 41, Band 66.
ANT41 supports Band 5, Band 12, Band 13, Band 17.
The product supports two antennas, but only one antenna is working when operating. Two antennas transmit separately.

Explanation of worst-case configuration

The worst-case scenario for all measurements is based on the conducted output power measurement investigation results. Output power is tested for each antenna. The other test cases only test the antenna with the worst value on output power, which are B2-ANT13, B5-ANT13, B7-ANT13, B12-ANT13, B13-ANT13, B41-ANT31, B66-ANT13, B7C-ANT13, B41C-ANT13. Output power was measured on QPSK,16QAM and 64QAM modulations. It was found that QPSK was the worst case. All testing was performed using QPSK modulations to represent the worst case unless otherwise stated. The test results shown in the following sections represent the worst case emission.

The Equipment Under Test (EUT) model V2160 (FCC ID: 2AUCY-V2127) is a variant product of V2127 (FCC ID: 2AUCY-V2127), according to the declaration of changes provided by the applicant and FCC KDB publication 178919 D01, spot check measurements were performed on this device, other test results are derived from test report No. I21Z62219-WMD03. Please refer Annex A for detail spot check verification data and reference data. The spot check test results are consistent with basic model.

For detail differences between two models please refer the Declaration of Changes document.

7. Test Equipment Utilized

Description	Type	Series Number	Manufacture	Cal Due Date	Calibration Interval
Wideband Radio Communication Tester	CMW500	159082	R&S	2023-01-17	25 months
Spectrum Analyzer	FSU	200030	R&S	2022-06-02	1 year
Radio Communication Analyzer	MT8821C	6201763159	Anritsu	2022-08-09	1 year
Climate Chamber	SH-242	93008556	ESPEC	2023-12-23	3 years
Test Receiver	E4440A	MY48250642	Agilent	2023-03-10	1 year
Universal Radio Communication Tester	CMW500	143008	R&S	2022-12-01	1 year
EMI Antenna	VULB9163	9163-482	Schwarzbeck	2022-11-16	1 year
Signal Generator	N5183A	MY49060052	Agilent	2022-07-11	1 year
EMI Antenna	3117	00058889	ETS-Lindgren	2022-11-07	1 year
EMI Antenna	LB-7180-NF	J203001300005	A-INFO	2023-02-23	1 year

Annex A: Measurement Results

A.1 Output Power

A.1.1 Summary

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

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

A.1.2 Conducted

A.1.2.1 Method of Measurements

The testing follows ANSI C63.26 Section 5.2

The transmitter output port was connected to the system simulator. Set EUT at maximum power through the system simulator. These measurements were done at 3 frequencies (bottom, middle and top of operational frequency range) for each bandwidth and different modulation. Measure and record the power level from the system simulator.

A.1.2.2 Measurement Result

LTE band 2-ANT13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1909.3	23.09	22.24	21.24
		1880.0	23.07	22.26	21.20
		1850.7	22.93	22.21	21.17
	1 RB low	1909.3	23.03	22.21	21.19
		1880.0	23.08	22.21	21.19
		1850.7	22.94	22.12	21.25
	50% RB mid	1909.3	23.07	21.97	21.09
		1880.0	23.07	22.02	21.06
		1850.7	22.97	21.99	21.19
	100% RB	1909.3	22.07	21.14	20.16
		1880.0	22.05	21.07	20.17
		1850.7	21.96	21.16	20.07
3MHz	1 RB high	1908.5	23.04	22.20	21.19
		1880.0	23.07	22.33	21.16
		1851.5	22.93	22.27	21.19
	1 RB low	1908.5	22.99	22.27	21.22
		1880.0	23.07	22.28	21.11
		1851.5	22.93	22.08	21.21
	50% RB mid	1908.5	22.02	21.26	20.20
		1880.0	22.02	21.05	20.18
		1851.5	21.95	21.14	20.07
	100% RB	1908.5	22.01	21.18	20.16
		1880.0	22.00	21.02	20.13
		1851.5	21.91	21.09	20.04
5MHz	1 RB high	1907.5	23.09	22.39	21.18
		1880.0	23.08	22.32	21.19
		1852.5	22.97	22.24	21.16
	1 RB low	1907.5	23.05	22.28	21.29
		1880.0	23.12	22.31	21.20
		1852.5	22.99	22.07	21.29
	50% RB mid	1907.5	22.03	21.25	20.21
		1880.0	22.04	21.01	20.20
		1852.5	21.94	21.09	20.07
	100% RB	1907.5	22.06	21.21	20.18
		1880.0	22.11	21.08	20.22
		1852.5	21.93	21.09	20.08
10MHz	1 RB high	1905.0	23.01	22.29	21.19
		1880.0	23.09	22.34	21.11
		1855.0	22.91	22.04	21.19
	1 RB low	1905.0	23.02	22.26	21.24

		1880.0	23.01	22.24	21.11
		1855.0	22.94	22.20	21.13
	50% RB mid	1905.0	22.01	21.14	20.14
		1880.0	22.04	21.03	20.20
		1855.0	21.96	21.10	20.09
	100% RB	1905.0	22.05	21.16	20.18
		1880.0	22.05	21.00	20.19
		1855.0	22.00	21.09	20.13
15MHz	1 RB high	1902.5	22.96	22.21	21.09
		1880.0	22.97	22.14	21.06
		1857.5	22.82	21.98	21.09
	1 RB low	1902.5	22.90	22.22	20.95
		1880.0	22.88	22.22	20.99
		1857.5	22.87	22.10	21.15
	50% RB mid	1902.5	21.93	21.04	20.10
		1880.0	22.01	20.99	20.18
		1857.5	21.88	21.03	20.03
	100% RB	1902.5	21.94	21.06	20.09
		1880.0	21.98	20.99	20.07
		1857.5	21.90	21.02	19.99
20MHz	1 RB high	1900.0	22.87	22.06	21.12
		1880.0	22.89	22.11	20.98
		1860.0	22.82	22.15	20.90
	1 RB low	1900.0	22.86	22.17	20.95
		1880.0	22.84	22.14	20.96
		1860.0	22.91	22.16	21.17
	50% RB mid	1900.0	21.89	20.99	19.97
		1880.0	21.98	20.99	20.08
		1860.0	21.92	21.02	20.03
	100% RB	1900.0	21.86	21.00	19.97
		1880.0	21.98	20.92	20.07
		1860.0	21.94	21.05	19.99

LTE band 2-ANT31

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1909.3	21.99	22.34	21.63
		1880.0	22.12	22.40	21.73
		1850.7	21.99	22.31	21.82
	1 RB low	1909.3	21.98	22.33	21.67
		1880.0	22.11	22.30	21.68
		1850.7	21.99	22.35	21.85
	50% RB mid	1909.3	21.97	21.96	21.55
		1880.0	22.12	22.09	21.71
		1850.7	22.00	21.98	21.79
	100% RB	1909.3	22.02	21.59	20.62
		1880.0	22.06	21.64	20.64
		1850.7	22.01	21.75	20.54
3MHz	1 RB high	1908.5	21.99	22.31	21.65
		1880.0	22.07	22.29	21.67
		1851.5	21.98	22.34	21.83
	1 RB low	1908.5	21.94	22.22	21.69
		1880.0	22.12	22.27	21.73
		1851.5	21.98	22.35	21.87
	50% RB mid	1908.5	21.96	21.70	20.60
		1880.0	22.08	21.62	20.76
		1851.5	21.97	21.75	20.67
	100% RB	1908.5	21.95	21.66	20.62
		1880.0	22.06	21.60	20.67
		1851.5	21.99	21.67	20.65
5MHz	1 RB high	1907.5	22.04	22.29	21.72
		1880.0	22.16	22.43	21.80
		1852.5	21.98	22.29	21.87
	1 RB low	1907.5	21.96	22.13	21.78
		1880.0	22.15	22.33	21.85
		1852.5	22.01	22.34	21.88
	50% RB mid	1907.5	22.04	21.63	20.68
		1880.0	22.10	21.56	20.76
		1852.5	22.00	21.63	20.68
	100% RB	1907.5	22.06	21.68	20.68
		1880.0	22.14	21.62	20.79
		1852.5	22.03	21.66	20.67
10MHz	1 RB high	1905.0	21.95	22.31	21.62
		1880.0	22.10	22.29	21.77
		1855.0	21.95	22.22	21.75
	1 RB low	1905.0	21.98	22.19	21.71

		1880.0	22.05	22.31	21.75
		1855.0	22.03	22.34	21.84
	50% RB mid	1905.0	21.99	21.66	20.64
		1880.0	22.08	21.63	20.76
		1855.0	22.03	21.70	20.66
	100% RB	1905.0	22.02	21.73	20.66
		1880.0	22.13	21.61	20.80
		1855.0	22.05	21.70	20.70
15MHz	1 RB high	1902.5	21.95	22.27	21.53
		1880.0	21.98	22.36	21.68
		1857.5	21.90	22.21	21.72
	1 RB low	1902.5	21.95	22.15	21.54
		1880.0	22.00	22.12	21.65
		1857.5	21.90	22.26	21.80
	50% RB mid	1902.5	21.93	21.63	20.57
		1880.0	22.10	21.60	20.79
		1857.5	21.98	21.66	20.64
	100% RB	1902.5	21.98	21.62	20.59
		1880.0	22.10	21.56	20.74
		1857.5	21.99	21.58	20.57
20MHz	1 RB high	1900.0	21.82	22.07	21.64
		1880.0	21.85	22.19	21.43
		1860.0	21.82	22.10	21.43
	1 RB low	1900.0	21.76	22.07	21.53
		1880.0	21.83	22.15	21.40
		1860.0	21.86	22.20	21.71
	50% RB mid	1900.0	21.86	21.52	20.49
		1880.0	22.06	21.53	20.62
		1860.0	21.96	21.55	20.54
	100% RB	1900.0	21.74	21.39	20.34
		1880.0	22.06	21.54	20.68
		1860.0	21.90	21.55	20.54

LTE band 5-ANT13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	23.15	22.31	21.50
		836.5	23.30	22.51	21.58
		824.7	23.28	22.49	21.56
	1 RB low	848.3	23.14	22.30	21.35
		836.5	23.30	22.53	21.53
		824.7	23.30	22.46	21.50
	50% RB mid	848.3	23.17	22.14	21.37
		836.5	23.31	22.33	21.46
		824.7	23.28	22.25	21.45
	100% RB	848.3	22.18	21.35	20.27
		836.5	22.32	21.52	20.39
		824.7	22.26	21.47	20.32
3MHz	1 RB high	847.5	23.14	22.37	21.44
		836.5	23.22	22.42	21.50
		825.5	23.27	22.39	21.54
	1 RB low	847.5	23.23	22.43	21.48
		836.5	23.29	22.38	21.57
		825.5	23.26	22.45	21.55
	50% RB mid	847.5	22.15	21.36	20.31
		836.5	22.24	21.47	20.38
		825.5	22.22	21.45	20.42
	100% RB	847.5	22.18	21.39	20.33
		836.5	22.22	21.41	20.32
		825.5	22.24	21.43	20.36
5MHz	1 RB high	846.5	23.18	22.35	21.48
		836.5	23.29	22.46	21.53
		826.5	23.34	22.44	21.64
	1 RB low	846.5	23.28	22.38	21.56
		836.5	23.30	22.45	21.51
		826.5	23.27	22.44	21.53
	50% RB mid	846.5	22.21	21.35	20.40
		836.5	22.26	21.37	20.39
		826.5	22.27	21.41	20.45
	100% RB	846.5	22.20	21.42	20.39
		836.5	22.22	21.37	20.33
		826.5	22.27	21.45	20.43
10MHz	1 RB high	844.0	23.26	22.41	21.46
		836.5	23.34	22.48	21.50
		829.0	23.35	22.48	21.51
	1 RB low	844.0	23.37	22.48	21.57

		836.5	23.37	22.45	21.61
		829.0	23.37	22.47	21.60
	50% RB mid	844.0	22.33	21.49	20.47
		836.5	22.30	21.47	20.48
		829.0	22.42	21.57	20.53
	100% RB	844.0	22.37	21.50	20.48
		836.5	22.34	21.44	20.45
		829.0	22.41	21.58	20.56

LTE band 5-ANT41

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	23.18	22.36	21.53
		836.5	23.28	22.51	21.56
		824.7	23.24	22.45	21.55
	1 RB low	848.3	23.22	22.40	21.52
		836.5	23.29	22.44	21.56
		824.7	23.22	22.37	21.50
	50% RB mid	848.3	23.23	22.23	21.38
		836.5	23.30	22.25	21.50
		824.7	23.22	22.24	21.42
	100% RB	848.3	22.22	21.38	20.22
		836.5	22.32	21.53	20.41
		824.7	22.21	21.42	20.35
3MHz	1 RB high	847.5	23.19	22.30	21.51
		836.5	23.22	22.47	21.54
		825.5	23.20	22.44	21.46
	1 RB low	847.5	23.23	22.52	21.61
		836.5	23.28	22.52	21.55
		825.5	23.22	22.39	21.51
	50% RB mid	847.5	22.19	21.43	20.32
		836.5	22.24	21.46	20.40
		825.5	22.20	21.43	20.39
	100% RB	847.5	22.22	21.42	20.32
		836.5	22.18	21.40	20.38
		825.5	22.20	21.41	20.36
5MHz	1 RB high	846.5	23.23	22.41	21.46
		836.5	23.31	22.56	21.55
		826.5	23.32	22.46	21.56
	1 RB low	846.5	23.30	22.41	21.62
		836.5	23.32	22.49	21.55
		826.5	23.23	22.52	21.48
	50% RB mid	846.5	22.25	21.37	20.42
		836.5	22.20	21.39	20.38
		826.5	22.23	21.37	20.38
	100% RB	846.5	22.25	21.43	20.38
		836.5	22.25	21.44	20.40
		826.5	22.18	21.40	20.33
10MHz	1 RB high	844.0	23.25	22.43	21.47
		836.5	23.24	22.38	21.46
		829.0	23.26	22.40	21.46
	1 RB low	844.0	23.26	22.46	21.52

		836.5	23.27	22.48	21.48
		829.0	23.28	22.45	21.53
	50% RB mid	844.0	22.25	21.39	20.36
		836.5	22.24	21.41	20.40
		829.0	22.31	21.47	20.46
	100% RB	844.0	22.22	21.38	20.35
		836.5	22.26	21.44	20.41
		829.0	22.28	21.43	20.40

LTE band 7-ANT13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2567.5	22.79	22.49	21.36
		2535.0	22.86	22.44	21.45
		2502.5	22.64	22.28	21.19
	1 RB low	2567.5	22.80	22.45	21.36
		2535.0	22.85	22.49	21.46
		2502.5	22.58	22.16	21.17
	50% RB mid	2567.5	22.30	21.26	20.25
		2535.0	22.30	21.27	20.29
		2502.5	22.05	20.59	20.02
	100% RB	2567.5	22.27	21.27	20.27
		2535.0	22.29	21.31	20.27
		2502.5	22.02	21.08	20.00
10MHz	1 RB high	2565.0	22.77	22.44	21.36
		2535.0	22.81	22.47	21.39
		2505.0	22.63	22.39	21.26
	1 RB low	2565.0	22.83	22.41	21.33
		2535.0	22.81	22.42	21.35
		2505.0	22.54	22.13	21.08
	50% RB mid	2565.0	22.29	21.30	20.26
		2535.0	22.31	21.32	20.30
		2505.0	22.04	21.07	20.01
	100% RB	2565.0	22.29	21.28	20.28
		2535.0	22.32	21.31	20.31
		2505.0	22.07	21.02	20.02
15MHz	1 RB high	2562.5	22.69	22.44	21.20
		2535.0	22.76	22.41	21.32
		2507.5	22.61	22.30	21.23
	1 RB low	2562.5	22.75	22.39	21.30
		2535.0	22.81	22.45	21.43
		2507.5	22.02	22.14	21.05
	50% RB mid	2562.5	22.25	21.23	20.24
		2535.0	22.31	21.30	20.32
		2507.5	22.07	21.01	20.05
	100% RB	2562.5	22.26	21.23	20.25
		2535.0	22.29	21.26	20.28
		2507.5	22.11	21.02	20.01
20MHz	1 RB high	2560.0	22.39	21.98	21.01
		2535.0	22.29	22.02	20.90
		2510.0	22.18	21.78	20.78
	1 RB low	2560.0	22.38	22.05	20.89

		2535.0	22.24	21.79	20.81
		2510.0	22.10	21.78	20.67
	50% RB mid	2560.0	21.98	20.99	19.98
		2535.0	21.84	20.84	19.83
		2510.0	21.74	20.72	19.66
	100% RB	2560.0	21.96	20.97	19.94
		2535.0	21.81	20.77	19.78
		2510.0	21.66	20.66	19.65

LTE band 7-ANT31

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2567.5	21.42	21.70	21.55
		2535.0	21.14	21.36	21.35
		2502.5	21.35	21.51	21.53
	1 RB low	2567.5	21.41	21.59	21.54
		2535.0	21.17	21.35	21.31
		2502.5	21.38	21.57	21.52
	50% RB mid	2567.5	21.42	21.42	20.39
		2535.0	21.11	21.16	20.11
		2502.5	21.34	21.37	20.33
	100% RB	2567.5	21.45	21.45	20.40
		2535.0	21.09	21.13	20.12
		2502.5	21.34	21.39	20.33
10MHz	1 RB high	2565.0	21.42	21.61	21.56
		2535.0	21.15	21.43	21.22
		2505.0	21.26	21.47	21.42
	1 RB low	2565.0	21.36	21.61	21.50
		2535.0	21.10	21.25	21.21
		2505.0	21.35	21.43	21.46
	50% RB mid	2565.0	21.42	21.48	20.44
		2535.0	21.14	21.16	20.15
		2505.0	21.31	21.34	20.32
	100% RB	2565.0	21.44	21.41	20.40
		2535.0	21.18	21.18	20.13
		2505.0	21.34	21.32	20.32
15MHz	1 RB high	2562.5	21.33	21.56	21.43
		2535.0	21.04	21.33	21.21
		2507.5	21.12	21.38	21.22
	1 RB low	2562.5	21.22	21.40	21.32
		2535.0	21.09	21.31	21.21
		2507.5	21.25	21.50	21.39
	50% RB mid	2562.5	21.36	21.36	20.37
		2535.0	21.11	21.10	20.12
		2507.5	21.23	21.29	20.28
	100% RB	2562.5	21.38	21.38	20.32
		2535.0	21.15	21.14	20.10
		2507.5	21.28	21.25	20.25
20MHz	1 RB high	2560.0	21.11	21.37	21.32
		2535.0	20.88	21.11	21.00
		2510.0	20.91	21.03	21.04
	1 RB low	2560.0	21.00	21.26	21.17

		2535.0	20.90	21.12	20.99
		2510.0	21.01	21.28	21.10
	50% RB mid	2560.0	21.22	21.24	20.22
		2535.0	21.00	21.01	19.97
		2510.0	21.08	21.07	20.06
	100% RB	2560.0	21.15	21.18	20.13
		2535.0	21.02	20.98	20.00
		2510.0	21.06	21.03	20.05

LTE band 12-ANT13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	715.3	23.26	22.65	21.54
		707.5	23.17	22.54	21.55
		699.7	23.31	22.73	21.55
	1 RB low	715.3	23.23	22.49	21.55
		707.5	23.23	22.67	21.56
		699.7	23.36	22.72	21.62
	50% RB mid	715.3	23.29	22.52	21.45
		707.5	23.20	22.40	21.48
		699.7	23.37	22.56	21.54
	100% RB	715.3	22.44	21.49	20.35
		707.5	22.37	21.39	20.31
		699.7	22.52	21.54	20.46
3MHz	1 RB high	714.5	23.24	22.54	21.56
		707.5	23.15	22.46	21.43
		700.5	23.31	22.69	21.58
	1 RB low	714.5	23.18	22.54	21.47
		707.5	23.23	22.51	21.55
		700.5	23.36	22.71	21.65
	50% RB mid	714.5	22.38	21.43	20.36
		707.5	22.36	21.43	20.37
		700.5	22.45	21.49	20.47
	100% RB	714.5	22.35	21.40	20.32
		707.5	22.34	21.36	20.31
		700.5	22.43	21.49	20.42
5MHz	1 RB high	713.5	23.29	22.58	21.55
		707.5	23.20	22.50	21.44
		701.5	23.35	22.64	21.65
	1 RB low	713.5	23.27	22.61	21.54
		707.5	23.29	22.57	21.58
		701.5	23.38	22.60	21.62
	50% RB mid	713.5	22.40	21.42	20.43
		707.5	22.42	21.31	20.39
		701.5	22.47	21.43	20.46
	100% RB	713.5	22.37	21.37	20.31
		707.5	22.36	21.35	20.34
		701.5	22.47	21.45	20.47
10MHz	1 RB high	711.0	23.30	22.65	21.53
		707.5	23.22	22.59	21.47
		704.0	23.29	22.63	21.53
	1 RB low	711.0	23.35	22.71	21.63

		707.5	23.39	22.74	21.63
		704.0	23.50	22.68	21.69
	50% RB mid	711.0	22.39	21.45	20.44
		707.5	22.45	21.50	20.49
		704.0	22.55	21.54	20.53
	100% RB	711.0	22.41	21.41	20.42
		707.5	22.46	21.42	20.40
		704.0	22.49	21.50	20.46

LTE band 12-ANT41

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	715.3	23.24	22.56	21.52
		707.5	23.18	22.58	21.42
		699.7	23.34	22.66	21.66
	1 RB low	715.3	23.25	22.53	21.55
		707.5	23.23	22.52	21.57
		699.7	23.31	22.68	21.65
	50% RB mid	715.3	23.23	22.37	21.44
		707.5	23.19	22.32	21.40
		699.7	23.34	22.55	21.60
	100% RB	715.3	22.38	21.47	20.35
		707.5	22.37	21.42	20.25
		699.7	22.53	21.56	20.44
3MHz	1 RB high	714.5	23.24	22.60	21.52
		707.5	23.13	22.49	21.45
		700.5	23.29	22.67	21.52
	1 RB low	714.5	23.19	22.55	21.50
		707.5	23.24	22.54	21.47
		700.5	23.37	22.77	21.67
	50% RB mid	714.5	22.36	21.41	20.33
		707.5	22.35	21.44	20.34
		700.5	22.44	21.53	20.46
	100% RB	714.5	22.31	21.35	20.31
		707.5	22.34	21.41	20.35
		700.5	22.42	21.48	20.42
5MHz	1 RB high	713.5	23.26	22.57	21.49
		707.5	23.22	22.46	21.38
		701.5	23.36	22.66	21.52
	1 RB low	713.5	23.26	22.52	21.52
		707.5	23.28	22.55	21.57
		701.5	23.39	22.62	21.60
	50% RB mid	713.5	22.40	21.37	20.39
		707.5	22.36	21.39	20.40
		701.5	22.46	21.48	20.47
	100% RB	713.5	22.29	21.32	20.30
		707.5	22.36	21.40	20.34
		701.5	22.42	21.48	20.41
10MHz	1 RB high	711.0	23.19	22.50	21.45
		707.5	23.17	22.55	21.42
		704.0	23.21	22.52	21.41
	1 RB low	711.0	23.26	22.63	21.57

		707.5	23.30	22.70	21.51
		704.0	23.40	22.68	21.57
	50% RB mid	711.0	22.36	21.35	20.35
		707.5	22.44	21.44	20.43
		704.0	22.44	21.49	20.46
	100% RB	711.0	22.37	21.32	20.33
		707.5	22.37	21.35	20.33
		704.0	22.44	21.38	20.42

LTE band 13-ANT13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	23.50	22.59	21.77
		782.0	23.46	22.66	21.73
		779.5	23.56	22.80	21.89
	1 RB low	784.5	23.56	22.81	21.85
		782.0	23.63	22.85	21.96
		779.5	23.70	22.99	21.87
	50% RB mid	784.5	22.44	21.59	20.65
		782.0	22.49	21.61	20.63
		779.5	22.54	21.71	20.68
	100% RB	784.5	22.37	21.53	20.51
		782.0	22.40	21.63	20.59
		779.5	22.60	21.75	20.77
10MHz	1 RB high	782.0	23.53	22.60	21.75
	1 RB low	782.0	23.78	23.04	21.96
	50% RB mid	782.0	22.59	21.70	20.74
	100% RB	782.0	22.37	21.49	20.55

LTE band 13-ANT41

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	23.50	22.54	21.77
		782.0	23.44	22.70	21.73
		779.5	23.56	22.84	21.91
	1 RB low	784.5	23.57	22.82	21.87
		782.0	23.65	22.91	21.91
		779.5	23.69	22.85	21.91
	50% RB mid	784.5	22.43	21.60	20.60
		782.0	22.46	21.61	20.62
		779.5	22.54	21.71	20.71
	100% RB	784.5	22.40	21.56	20.50
		782.0	22.46	21.60	20.58
		779.5	22.58	21.77	20.79
10MHz	1 RB high	782.0	23.46	22.57	21.71
	1 RB low	782.0	23.71	22.89	21.93
	50% RB mid	782.0	22.51	21.70	20.70
	100% RB	782.0	22.39	21.54	20.55

LTE band 41-ANT13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2687.5	23.12	22.03	20.68
		2593.0	23.37	22.33	20.96
		2498.5	23.12	22.09	20.70
	1 RB low	2687.5	23.13	22.07	20.70
		2593.0	23.43	22.35	20.99
		2498.5	23.07	22.00	20.64
	50% RB mid	2687.5	22.06	20.97	20.01
		2593.0	22.28	21.19	20.26
		2498.5	21.97	20.90	19.96
	100% RB	2687.5	22.06	21.05	20.05
		2593.0	22.29	21.28	20.28
		2498.5	21.99	21.00	20.00
10MHz	1 RB high	2685.0	23.06	21.99	20.65
		2593.0	23.27	22.30	20.91
		2501.0	23.11	22.10	20.71
	1 RB low	2685.0	23.05	22.00	20.65
		2593.0	23.31	22.32	20.97
		2501.0	22.98	22.00	20.61
	50% RB mid	2685.0	21.99	21.00	20.04
		2593.0	22.19	21.24	20.26
		2501.0	21.94	21.01	20.01
	100% RB	2685.0	22.01	21.02	20.02
		2593.0	22.21	21.28	20.24
		2501.0	21.95	21.00	19.97
15MHz	1 RB high	2682.5	23.02	21.98	20.59
		2593.0	23.25	22.24	20.88
		2503.5	23.15	22.16	20.76
	1 RB low	2682.5	23.04	21.99	20.62
		2593.0	23.33	22.31	20.92
		2503.5	22.96	21.96	20.55
	50% RB mid	2682.5	21.95	20.95	19.96
		2593.0	22.21	21.20	20.18
		2503.5	22.01	20.99	19.99
	100% RB	2682.5	22.00	21.00	19.99
		2593.0	22.28	21.28	20.25
		2503.5	22.05	21.03	20.03
20MHz	1 RB high	2680.0	22.99	21.96	20.55
		2593.0	22.90	21.86	20.44
		2506.0	22.73	21.69	20.28
	1 RB low	2680.0	23.09	22.02	20.66

		2593.0	23.05	22.02	20.59
		2506.0	22.63	21.61	20.22
	50% RB mid	2680.0	22.06	21.06	20.03
		2593.0	21.96	21.00	19.93
		2506.0	21.71	20.73	19.66
	100% RB	2680.0	22.03	21.03	20.00
		2593.0	21.98	20.92	19.93
		2506.0	21.69	20.69	19.64

LTE band 41-ANT31

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2687.5	23.38	22.50	21.27
		2593.0	23.43	22.55	21.32
		2498.5	23.31	22.41	21.17
	1 RB low	2687.5	23.42	22.49	21.30
		2593.0	23.50	22.61	21.41
		2498.5	23.31	22.41	21.19
	50% RB mid	2687.5	22.32	21.33	20.42
		2593.0	22.38	21.39	20.40
		2498.5	22.22	21.21	20.24
	100% RB	2687.5	22.35	21.38	20.39
		2593.0	22.38	21.40	20.42
		2498.5	22.22	21.26	20.25
10MHz	1 RB high	2685.0	23.37	22.47	21.24
		2593.0	23.37	22.49	21.27
		2501.0	23.24	22.34	21.08
	1 RB low	2685.0	23.39	22.51	21.28
		2593.0	23.46	22.59	21.37
		2501.0	23.28	22.41	21.13
	50% RB mid	2685.0	22.35	21.39	20.42
		2593.0	22.35	21.38	20.39
		2501.0	22.19	21.22	20.22
	100% RB	2685.0	22.38	21.41	20.36
		2593.0	22.39	21.39	20.35
		2501.0	22.20	21.23	20.17
15MHz	1 RB high	2682.5	23.30	22.42	21.20
		2593.0	23.28	22.43	21.21
		2503.5	23.14	22.29	21.04
	1 RB low	2682.5	23.34	22.47	21.26
		2593.0	23.43	22.58	21.37
		2503.5	23.19	22.36	21.10
	50% RB mid	2682.5	22.32	21.30	20.31
		2593.0	22.33	21.33	20.31
		2503.5	22.18	21.18	20.17
	100% RB	2682.5	22.34	21.35	20.33
		2593.0	22.38	21.37	20.37
		2503.5	22.19	21.20	20.19
20MHz	1 RB high	2680.0	23.29	22.23	20.87
		2593.0	23.18	22.15	20.77
		2506.0	23.04	21.99	20.60
	1 RB low	2680.0	23.36	22.33	20.94

		2593.0	23.40	22.39	21.02
		2506.0	23.11	22.07	20.70
	50% RB mid	2680.0	22.35	21.38	20.32
		2593.0	22.30	21.32	20.26
		2506.0	22.10	21.12	20.05
	100% RB	2680.0	22.35	21.36	20.31
		2593.0	22.31	21.32	20.28
		2506.0	22.07	21.09	20.03

LTE band 66-ANT13

Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1779.3	22.73	21.89	21.04
		1745.0	22.66	21.95	20.96
		1710.7	22.93	22.07	21.22
	1 RB low	1779.3	22.74	21.92	21.05
		1745.0	22.69	21.88	20.99
		1710.7	22.91	22.07	21.15
	50% RB mid	1779.3	22.72	21.71	20.96
		1745.0	22.71	21.72	20.93
		1710.7	22.93	21.93	21.19
	100% RB	1779.3	21.70	20.99	19.88
		1745.0	21.69	20.87	19.79
		1710.7	21.94	21.15	20.02
3MHz	1 RB high	1778.5	22.74	21.90	21.04
		1745.0	22.64	21.91	20.97
		1711.5	22.89	22.13	21.17
	1 RB low	1778.5	22.69	21.97	21.08
		1745.0	22.70	21.84	20.98
		1711.5	22.95	22.16	21.20
	50% RB mid	1778.5	21.69	20.90	19.88
		1745.0	21.67	20.87	19.77
		1711.5	21.92	21.16	20.07
	100% RB	1778.5	21.66	20.87	19.82
		1745.0	21.67	20.83	19.75
		1711.5	21.92	21.09	20.05
5MHz	1 RB high	1777.5	22.78	21.97	21.03
		1745.0	22.66	21.81	21.00
		1712.5	22.93	22.07	21.24
	1 RB low	1777.5	22.70	21.96	20.92
		1745.0	22.73	21.95	20.96
		1712.5	22.97	22.09	21.23
	50% RB mid	1777.5	21.74	20.88	19.85
		1745.0	21.71	20.82	19.84
		1712.5	21.95	21.08	20.03
	100% RB	1777.5	21.76	20.85	19.86
		1745.0	21.64	20.84	19.82
		1712.5	21.94	21.11	20.06
10MHz	1 RB high	1775.0	22.72	21.89	20.96
		1745.0	22.65	21.79	20.86
		1715.0	22.97	22.21	21.20
	1 RB low	1775.0	22.65	21.85	20.92

		1745.0	22.76	21.93	21.01
		1715.0	22.96	22.20	21.22
	50% RB mid	1775.0	21.69	20.82	19.86
		1745.0	21.73	20.86	19.82
		1715.0	21.91	21.05	20.06
	100% RB	1775.0	21.72	20.87	19.87
		1745.0	21.71	20.83	19.88
		1715.0	21.97	21.08	20.05
15MHz	1 RB high	1772.5	22.68	21.90	20.96
		1745.0	22.54	21.87	20.87
		1717.5	22.80	22.06	21.08
	1 RB low	1772.5	22.51	21.85	20.80
		1745.0	22.73	21.97	21.01
		1717.5	22.88	22.16	21.13
	50% RB mid	1772.5	21.63	20.83	19.84
		1745.0	21.67	20.80	19.84
		1717.5	21.89	21.03	20.05
	100% RB	1772.5	21.63	20.75	19.77
		1745.0	21.69	20.80	19.77
		1717.5	21.90	21.00	20.00
20MHz	1 RB high	1770.0	22.71	21.96	20.95
		1745.0	22.76	21.86	21.05
		1720.0	22.80	21.97	21.03
	1 RB low	1770.0	22.73	21.86	21.00
		1745.0	22.75	21.99	21.06
		1720.0	21.77	20.94	19.88
	50% RB mid	1770.0	21.89	21.03	19.98
		1745.0	22.02	21.14	20.12
		1720.0	21.77	20.87	19.88
	100% RB	1770.0	21.85	20.97	19.92
		1745.0	22.00	21.14	20.10
		1720.0	22.73	21.89	21.04

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Bandwidth	RB size/offset	Frequency (MHz)	Power (dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1779.3	20.65	21.00	20.76
		1745.0	20.67	20.92	20.85
		1710.7	20.77	21.06	20.89
	1 RB low	1779.3	20.63	20.90	20.90
		1745.0	20.68	20.92	20.92
		1710.7	20.77	21.05	20.93
	50% RB mid	1779.3	20.70	20.70	20.77
		1745.0	20.71	20.74	20.80
		1710.7	20.79	20.76	20.92
	100% RB	1779.3	20.65	20.75	20.67
		1745.0	20.75	20.79	20.72
		1710.7	20.79	20.88	20.77
3MHz	1 RB high	1778.5	20.65	20.91	20.83
		1745.0	20.69	20.93	20.87
		1711.5	20.72	20.95	20.94
	1 RB low	1778.5	20.61	20.92	20.80
		1745.0	20.72	20.95	20.87
		1711.5	20.76	21.07	20.94
	50% RB mid	1778.5	20.65	20.72	20.66
		1745.0	20.66	20.74	20.71
		1711.5	20.78	20.85	20.85
	100% RB	1778.5	20.62	20.67	20.67
		1745.0	20.67	20.70	20.70
		1711.5	20.80	20.82	20.77
5MHz	1 RB high	1777.5	20.73	20.91	20.85
		1745.0	20.72	20.87	20.80
		1712.5	20.82	21.10	20.93
	1 RB low	1777.5	20.64	20.98	20.83
		1745.0	20.76	20.89	20.84
		1712.5	20.79	20.95	20.98
	50% RB mid	1777.5	20.66	20.66	20.71
		1745.0	20.72	20.75	20.79
		1712.5	20.83	20.82	20.80
	100% RB	1777.5	20.69	20.68	20.69
		1745.0	20.69	20.75	20.73
		1712.5	20.84	20.83	20.84
10MHz	1 RB high	1775.0	20.67	21.00	20.76
		1745.0	20.67	20.91	20.75
		1715.0	20.85	21.10	21.02
	1 RB low	1775.0	20.60	20.95	20.80

		1745.0	20.76	21.05	20.96
		1715.0	20.79	21.00	20.87
	50% RB mid	1775.0	20.71	20.68	20.65
		1745.0	20.74	20.81	20.79
		1715.0	20.82	20.85	20.80
	100% RB	1775.0	20.74	20.69	20.70
		1745.0	20.74	20.75	20.76
		1715.0	20.91	20.88	20.84
15MHz	1 RB high	1772.5	20.62	20.94	20.75
		1745.0	20.60	20.90	20.71
		1717.5	20.69	21.12	20.96
	1 RB low	1772.5	20.53	20.90	20.70
		1745.0	20.72	20.94	20.96
		1717.5	20.74	20.97	20.90
	50% RB mid	1772.5	20.65	20.67	20.67
		1745.0	20.72	20.77	20.77
		1717.5	20.80	20.82	20.82
	100% RB	1772.5	20.63	20.65	20.65
		1745.0	20.73	20.72	20.74
		1717.5	20.81	20.82	20.79
20MHz	1 RB high	1770.0	20.56	20.85	20.76
		1745.0	20.60	20.72	20.69
		1720.0	20.57	20.92	20.71
	1 RB low	1770.0	20.56	20.84	20.77
		1745.0	20.54	20.80	20.70
		1720.0	20.72	20.98	20.89
	50% RB mid	1770.0	20.71	20.64	20.63
		1745.0	20.71	20.69	20.73
		1720.0	20.86	20.78	20.81
	100% RB	1770.0	20.70	20.70	20.70
		1745.0	20.64	20.59	20.62
		1720.0	20.83	20.85	20.86

LTE CA Band 7C-ANT13

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)
				Size	Offset	Size	Offset	
10MHz/20 MHz	2525.6	2540	QPSK	1	49	1	0	22.45
				50	0	100	0	20.75
			16QAM	1	49	1	0	21.14
				50	0	100	0	19.67
			64QAM	1	49	1	0	18.94
				50	0	100	0	19.70
15MHz/10 MHz	2530.1	2542.1	QPSK	1	74	1	0	22.77
				75	0	50	0	20.83
			16QAM	1	74	1	0	21.61
				75	0	50	0	19.83
			64QAM	1	74	1	0	19.53
				75	0	50	0	19.84
15MHz/15 MHz	2527.5	2542.5	QPSK	1	74	1	0	22.88
				75	0	75	0	20.85
			16QAM	1	74	1	0	21.86
				75	0	75	0	19.82
			64QAM	1	74	1	0	19.60
				75	0	75	0	19.82
15MHz/20 MHz	2525.3	2542.4	QPSK	1	74	1	0	22.70
				75	0	100	0	20.71
			16QAM	1	74	1	0	21.51
				75	0	100	0	19.70
			64QAM	1	74	1	0	19.53
				75	0	100	0	19.75
20MHz/10 MHz	2530.1	2544.5	QPSK	1	99	1	0	22.95
				100	0	50	0	20.81
			16QAM	1	99	1	0	21.76
				100	0	50	0	19.83
			64QAM	1	99	1	0	19.87
				100	0	50	0	19.82
20MHz/15 MHz	2527.6	2544.7	QPSK	1	99	1	0	22.84
				100	0	75	0	20.75
			16QAM	1	99	1	0	21.70
				100	0	75	0	19.82
			64QAM	1	99	1	0	19.89
				100	0	75	0	19.75
20MHz/20 MHz	2525.1	2544.9	QPSK	1	99	1	0	22.71
				100	0	100	0	20.72
			16QAM	1	99	1	0	21.53

				100	0	100	0	19.73
			64QAM	1	99	1	0	19.69
				100	0	100	0	19.69

LTE CA Band 7C-ANT31

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)
				Size	Offset	Size	Offset	
10MHz/20 MHz	2525.6	2540	QPSK	1	49	1	0	22.70
				50	0	100	0	20.84
			16QAM	1	49	1	0	21.74
				50	0	100	0	19.84
			64QAM	1	49	1	0	19.50
				50	0	100	0	19.84
15MHz/10 MHz	2530.1	2542.1	QPSK	1	74	1	0	22.77
				75	0	50	0	20.85
			16QAM	1	74	1	0	21.76
				75	0	50	0	19.80
			64QAM	1	74	1	0	19.52
				75	0	50	0	19.87
15MHz/15 MHz	2527.5	2542.5	QPSK	1	74	1	0	22.93
				75	0	75	0	20.86
			16QAM	1	74	1	0	21.90
				75	0	75	0	19.86
			64QAM	1	74	1	0	19.65
				75	0	75	0	19.86
15MHz/20 MHz	2525.3	2542.4	QPSK	1	74	1	0	22.85
				75	0	100	0	20.80
			16QAM	1	74	1	0	21.80
				75	0	100	0	19.77
			64QAM	1	74	1	0	19.58
				75	0	100	0	19.81
20MHz/10 MHz	2530.1	2544.5	QPSK	1	99	1	0	22.73
				100	0	50	0	20.79
			16QAM	1	99	1	0	21.46
				100	0	50	0	19.74
			64QAM	1	99	1	0	19.67
				100	0	50	0	19.74
20MHz/15 MHz	2527.6	2544.7	QPSK	1	99	1	0	22.89
				100	0	75	0	20.79
			16QAM	1	99	1	0	21.63
				100	0	75	0	19.74
			64QAM	1	99	1	0	19.81
				100	0	75	0	19.74
20MHz/20 MHz	2525.1	2544.9	QPSK	1	99	1	0	22.84
				100	0	100	0	20.74
			16QAM	1	99	1	0	21.58

				100	0	100	0	19.70
			64QAM	1	99	1	0	19.78
				100	0	100	0	19.77

LTE CA Band 41C-ANT13

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)
				Size	Offset	Size	Offset	
5MHz/ 20MHz	2583.8	2595.5	QPSK	1	24	1	0	22.84
				25	0	100	0	21.26
			16QAM	1	24	1	0	21.88
				25	0	100	0	20.27
			64QAM	1	24	1	0	19.71
				25	0	100	0	20.24
10MHz/ 15MHz	2585.9	2597.9	QPSK	1	49	1	0	23.24
				50	0	75	0	21.39
			16QAM	1	49	1	0	22.23
				50	0	75	0	20.39
			64QAM	1	49	1	0	19.94
				50	0	75	0	20.37
10MHz/ 20MHz	2583.6	2598.0	QPSK	1	49	1	0	23.08
				50	0	100	0	21.27
			16QAM	1	49	1	0	22.03
				50	0	100	0	20.26
			64QAM	1	49	1	0	19.77
				50	0	100	0	20.26
15MHz/ 10MHz	2588.1	2600.1	QPSK	1	74	1	0	23.47
				75	0	50	0	21.34
			16QAM	1	74	1	0	22.33
				75	0	50	0	20.40
			64QAM	1	74	1	0	20.13
				75	0	50	0	20.43
15MHz/ 15MHz	2585.5	2600.5	QPSK	1	74	1	0	23.43
				75	0	75	0	21.37
			16QAM	1	74	1	0	22.39
				75	0	75	0	20.37
			64QAM	1	74	1	0	20.19
				75	0	75	0	20.37
15MHz/ 20MHz	2583.3	2600.4	QPSK	1	74	1	0	23.26
				75	0	100	0	21.23
			16QAM	1	74	1	0	22.23
				75	0	100	0	20.28
			64QAM	1	74	1	0	20.00
				75	0	100	0	20.27
20MHz/ 5MHz	2590.5	2602.2	QPSK	1	99	1	0	23.43
				100	0	25	0	21.38
			16QAM	1	99	1	0	22.14
				100	0	25	0	20.43

			64QAM	1	99	1	0	20.33
				100	0	25	0	20.35
20MHz/ 10MHz	2588.1	2602.5	QPSK	1	99	1	0	23.41
				100	0	50	0	21.35
			16QAM	1	99	1	0	22.21
				100	0	50	0	20.35
			64QAM	1	99	1	0	20.38
				100	0	50	0	20.31
20MHz/ 15MHz	2585.6	2602.7	QPSK	1	99	1	0	23.42
				100	0	75	0	21.35
			16QAM	1	99	1	0	22.34
				100	0	75	0	20.33
			64QAM	1	99	1	0	20.43
				100	0	75	0	20.26
20MHz/ 20MHz	2583.1	2602.9	QPSK	1	99	1	0	23.26
				100	0	100	0	21.21
			16QAM	1	99	1	0	22.13
				100	0	100	0	20.25
			64QAM	1	99	1	0	20.29
				100	0	100	0	20.19

LTE CA Band 41C-ANT31

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)
				Size	Offset	Size	Offset	
5MHz/ 20MHz	2583.8	2595.5	QPSK	1	24	1	0	22.96
				25	0	100	0	21.22
			16QAM	1	24	1	0	21.98
				25	0	100	0	20.22
			64QAM	1	24	1	0	19.84
				25	0	100	0	20.21
10MHz/ 15MHz	2585.9	2597.9	QPSK	1	49	1	0	23.13
				50	0	75	0	21.25
			16QAM	1	49	1	0	22.10
				50	0	75	0	20.21
			64QAM	1	49	1	0	19.83
				50	0	75	0	20.21
10MHz/ 20MHz	2583.6	2598.0	QPSK	1	49	1	0	23.01
				50	0	100	0	21.19
			16QAM	1	49	1	0	21.98
				50	0	100	0	20.19
			64QAM	1	49	1	0	19.76
				50	0	100	0	20.18
15MHz/ 10MHz	2588.1	2600.1	QPSK	1	74	1	0	23.12
				75	0	50	0	21.21
			16QAM	1	74	1	0	22.07
				75	0	50	0	20.20
			64QAM	1	74	1	0	19.83
				75	0	50	0	20.22
15MHz/ 15MHz	2585.5	2600.5	QPSK	1	74	1	0	23.26
				75	0	75	0	21.23
			16QAM	1	74	1	0	22.19
				75	0	75	0	20.20
			64QAM	1	74	1	0	19.96
				75	0	75	0	20.22
15MHz/ 20MHz	2583.3	2600.4	QPSK	1	74	1	0	23.17
				75	0	100	0	21.20
			16QAM	1	74	1	0	22.08
				75	0	100	0	20.18
			64QAM	1	74	1	0	19.85
				75	0	100	0	20.19
20MHz/ 5MHz	2590.5	2602.2	QPSK	1	99	1	0	22.96
				100	0	25	0	21.17
			16QAM	1	99	1	0	21.80
				100	0	25	0	20.17

			64QAM	1	99	1	0	19.97
				100	0	25	0	20.12
20MHz/ 10MHz	2588.1	2602.5	QPSK	1	99	1	0	23.00
				100	0	50	0	21.15
			16QAM	1	99	1	0	21.86
				100	0	50	0	20.12
			64QAM	1	99	1	0	20.03
				100	0	50	0	20.10
20MHz/ 15MHz	2585.6	2602.7	QPSK	1	99	1	0	23.14
				100	0	75	0	21.19
			16QAM	1	99	1	0	21.97
				100	0	75	0	20.15
			64QAM	1	99	1	0	20.16
				100	0	75	0	20.15
20MHz/ 20MHz	2583.1	2602.9	QPSK	1	99	1	0	23.07
				100	0	100	0	21.15
			16QAM	1	99	1	0	21.90
				100	0	100	0	20.12
			64QAM	1	99	1	0	20.08
				100	0	100	0	20.11

A.1.3 Radiated

A.1.3.1 Description

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

LTE Band 5: Rule Part 22.913(a) specifies "Mobile stations are limited to 2.0 watts EIRP.".

LTE Band 2: 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."

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

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

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

LTE Band 13: 27.50(b)(10) specifies " Portable stations (hand-held devices) transmitting in the 746–757 MHz, 776–788 MHz, and 805–806 MHz bands are limited to 3 watts ERP."

A.1.3.2 Method of Measurement

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

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

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

Where

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

A.1.3.3 Measurement result

LTE band 2-ANT13-EIRP

Limits: ≤33dBm (2W)

Max EIRP: 21.29dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -1.83dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	1909.3	23.09	22.24	21.24	21.26	20.41	19.41
		1880	23.07	22.26	21.20	21.24	20.43	19.37
		1850.7	22.93	22.21	21.17	21.10	20.38	19.34
	1 RB low	1909.3	23.03	22.21	21.19	21.20	20.38	19.36
		1880	23.08	22.21	21.19	21.25	20.38	19.36
		1850.7	22.94	22.12	21.25	21.11	20.29	19.42
	50% RB mid	1909.3	23.07	21.97	21.09	21.24	20.14	19.26
		1880	23.07	22.02	21.06	21.24	20.19	19.23
		1850.7	22.97	21.99	21.19	21.14	20.16	19.36
	100% RB	1909.3	22.07	21.14	20.16	20.24	19.31	18.33
		1880	22.05	21.07	20.17	20.22	19.24	18.34
		1850.7	21.96	21.16	20.07	20.13	19.33	18.24
3MHz	1 RB high	1908.5	23.04	22.20	21.19	21.21	20.37	19.36
		1880	23.07	22.33	21.16	21.24	20.50	19.33
		1851.5	22.93	22.27	21.19	21.10	20.44	19.36
	1 RB low	1908.5	22.99	22.27	21.22	21.16	20.44	19.39
		1880	23.07	22.28	21.11	21.24	20.45	19.28
		1851.5	22.93	22.08	21.21	21.10	20.25	19.38
	50% RB mid	1908.5	22.02	21.26	20.20	20.19	19.43	18.37
		1880	22.02	21.05	20.18	20.19	19.22	18.35
		1851.5	21.95	21.14	20.07	20.12	19.31	18.24
	100% RB	1908.5	22.01	21.18	20.16	20.18	19.35	18.33
		1880	22.00	21.02	20.13	20.17	19.19	18.30
		1851.5	21.91	21.09	20.04	20.08	19.26	18.21
5MHz	1 RB high	1907.5	23.09	22.39	21.18	21.26	20.56	19.35
		1880	23.08	22.32	21.19	21.25	20.49	19.36
		1852.5	22.97	22.24	21.16	21.14	20.41	19.33
	1 RB low	1907.5	23.05	22.28	21.29	21.22	20.45	19.46
		1880	23.12	22.31	21.20	21.29	20.48	19.37
		1852.5	22.99	22.07	21.29	21.16	20.24	19.46
	50% RB mid	1907.5	22.03	21.25	20.21	20.20	19.42	18.38
		1880	22.04	21.01	20.20	20.21	19.18	18.37
		1852.5	21.94	21.09	20.07	20.11	19.26	18.24
	100% RB	1907.5	22.06	21.21	20.18	20.23	19.38	18.35
		1880	22.11	21.08	20.22	20.28	19.25	18.39

		1852.5	21.93	21.09	20.08	20.10	19.26	18.25
10MHz	1 RB high	1905	23.01	22.29	21.19	21.18	20.46	19.36
		1880	23.09	22.34	21.11	21.26	20.51	19.28
		1855	22.91	22.04	21.19	21.08	20.21	19.36
	1 RB low	1905	23.02	22.26	21.24	21.19	20.43	19.41
		1880	23.01	22.24	21.11	21.18	20.41	19.28
		1855	22.94	22.20	21.13	21.11	20.37	19.30
	50% RB mid	1905	22.01	21.14	20.14	20.18	19.31	18.31
		1880	22.04	21.03	20.20	20.21	19.20	18.37
		1855	21.96	21.10	20.09	20.13	19.27	18.26
	100% RB	1905	22.05	21.16	20.18	20.22	19.33	18.35
		1880	22.05	21.00	20.19	20.22	19.17	18.36
		1855	22.00	21.09	20.13	20.17	19.26	18.30
15MHz	1 RB high	1902.5	22.96	22.21	21.09	21.13	20.38	19.26
		1880	22.97	22.14	21.06	21.14	20.31	19.23
		1857.5	22.82	21.98	21.09	20.99	20.15	19.26
	1 RB low	1902.5	22.90	22.22	20.95	21.07	20.39	19.12
		1880	22.88	22.22	20.99	21.05	20.39	19.16
		1857.5	22.87	22.10	21.15	21.04	20.27	19.32
	50% RB mid	1902.5	21.93	21.04	20.10	20.10	19.21	18.27
		1880	22.01	20.99	20.18	20.18	19.16	18.35
		1857.5	21.88	21.03	20.03	20.05	19.20	18.20
	100% RB	1902.5	21.94	21.06	20.09	20.11	19.23	18.26
		1880	21.98	20.99	20.07	20.15	19.16	18.24
		1857.5	21.90	21.02	19.99	20.07	19.19	18.16
20MHz	1 RB high	1900	22.87	22.06	21.12	21.04	20.23	19.29
		1880	22.89	22.11	20.98	21.06	20.28	19.15
		1860	22.82	22.15	20.90	20.99	20.32	19.07
	1 RB low	1900	22.86	22.17	20.95	21.03	20.34	19.12
		1880	22.84	22.14	20.96	21.01	20.31	19.13
		1860	22.91	22.16	21.17	21.08	20.33	19.34
	50% RB mid	1900	21.89	20.99	19.97	20.06	19.16	18.14
		1880	21.98	20.99	20.08	20.15	19.16	18.25
		1860	21.92	21.02	20.03	20.09	19.19	18.20
	100% RB	1900	21.86	21.00	19.97	20.03	19.17	18.14
		1880	21.98	20.92	20.07	20.15	19.09	18.24
		1860	21.94	21.05	19.99	20.11	19.22	18.16

LTE band 2-ANT31-EIRP

Limits: ≤33dBm (2W)

Max EIRP: 21.79dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -0.64dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	1909.3	21.99	22.34	21.63	21.35	21.70	20.99
		1880	22.12	22.40	21.73	21.48	21.76	21.09
		1850.7	21.99	22.31	21.82	21.35	21.67	21.18
	1 RB low	1909.3	21.98	22.33	21.67	21.34	21.69	21.03
		1880	22.11	22.30	21.68	21.47	21.66	21.04
		1850.7	21.99	22.35	21.85	21.35	21.71	21.21
	50% RB mid	1909.3	21.97	21.96	21.55	21.33	21.32	20.91
		1880	22.12	22.09	21.71	21.48	21.45	21.07
		1850.7	22.00	21.98	21.79	21.36	21.34	21.15
	100% RB	1909.3	22.02	21.59	20.62	21.38	20.95	19.98
		1880	22.06	21.64	20.64	21.42	21.00	20.00
		1850.7	22.01	21.75	20.54	21.37	21.11	19.90
3MHz	1 RB high	1908.5	21.99	22.31	21.65	21.35	21.67	21.01
		1880	22.07	22.29	21.67	21.43	21.65	21.03
		1851.5	21.98	22.34	21.83	21.34	21.70	21.19
	1 RB low	1908.5	21.94	22.22	21.69	21.30	21.58	21.05
		1880	22.12	22.27	21.73	21.48	21.63	21.09
		1851.5	21.98	22.35	21.87	21.34	21.71	21.23
	50% RB mid	1908.5	21.96	21.70	20.60	21.32	21.06	19.96
		1880	22.08	21.62	20.76	21.44	20.98	20.12
		1851.5	21.97	21.75	20.67	21.33	21.11	20.03
	100% RB	1908.5	21.95	21.66	20.62	21.31	21.02	19.98
		1880	22.06	21.60	20.67	21.42	20.96	20.03
		1851.5	21.99	21.67	20.65	21.35	21.03	20.01
5MHz	1 RB high	1907.5	22.04	22.29	21.72	21.40	21.65	21.08
		1880	22.16	22.43	21.80	21.52	21.79	21.16
		1852.5	21.98	22.29	21.87	21.34	21.65	21.23
	1 RB low	1907.5	21.96	22.13	21.78	21.32	21.49	21.14
		1880	22.15	22.33	21.85	21.51	21.69	21.21
		1852.5	22.01	22.34	21.88	21.37	21.70	21.24
	50% RB mid	1907.5	22.04	21.63	20.68	21.40	20.99	20.04
		1880	22.10	21.56	20.76	21.46	20.92	20.12
		1852.5	22.00	21.63	20.68	21.36	20.99	20.04
	100% RB	1907.5	22.06	21.68	20.68	21.42	21.04	20.04
		1880	22.14	21.62	20.79	21.50	20.98	20.15
		1852.5	22.03	21.66	20.67	21.39	21.02	20.03

10MHz	1 RB high	1905	21.95	22.31	21.62	21.31	21.67	20.98
		1880	22.10	22.29	21.77	21.46	21.65	21.13
		1855	21.95	22.22	21.75	21.31	21.58	21.11
	1 RB low	1905	21.98	22.19	21.71	21.34	21.55	21.07
		1880	22.05	22.31	21.75	21.41	21.67	21.11
		1855	22.03	22.34	21.84	21.39	21.70	21.20
	50% RB mid	1905	21.99	21.66	20.64	21.35	21.02	20.00
		1880	22.08	21.63	20.76	21.44	20.99	20.12
		1855	22.03	21.70	20.66	21.39	21.06	20.02
	100% RB	1905	22.02	21.73	20.66	21.38	21.09	20.02
		1880	22.13	21.61	20.80	21.49	20.97	20.16
		1855	22.05	21.70	20.70	21.41	21.06	20.06
15MHz	1 RB high	1902.5	21.95	22.27	21.53	21.31	21.63	20.89
		1880	21.98	22.36	21.68	21.34	21.72	21.04
		1857.5	21.90	22.21	21.72	21.26	21.57	21.08
	1 RB low	1902.5	21.95	22.15	21.54	21.31	21.51	20.90
		1880	22.00	22.12	21.65	21.36	21.48	21.01
		1857.5	21.90	22.26	21.80	21.26	21.62	21.16
	50% RB mid	1902.5	21.93	21.63	20.57	21.29	20.99	19.93
		1880	22.10	21.60	20.79	21.46	20.96	20.15
		1857.5	21.98	21.66	20.64	21.34	21.02	20.00
	100% RB	1902.5	21.98	21.62	20.59	21.34	20.98	19.95
		1880	22.10	21.56	20.74	21.46	20.92	20.10
		1857.5	21.99	21.58	20.57	21.35	20.94	19.93
20MHz	1 RB high	1900	21.82	22.07	21.64	21.18	21.43	21.00
		1880	21.85	22.19	21.43	21.21	21.55	20.79
		1860	21.82	22.10	21.43	21.18	21.46	20.79
	1 RB low	1900	21.76	22.07	21.53	21.12	21.43	20.89
		1880	21.83	22.15	21.40	21.19	21.51	20.76
		1860	21.86	22.20	21.71	21.22	21.56	21.07
	50% RB mid	1900	21.86	21.52	20.49	21.22	20.88	19.85
		1880	22.06	21.53	20.62	21.42	20.89	19.98
		1860	21.96	21.55	20.54	21.32	20.91	19.90
	100% RB	1900	21.74	21.39	20.34	21.10	20.75	19.70
		1880	22.06	21.54	20.68	21.42	20.90	20.04
		1860	21.90	21.55	20.54	21.26	20.91	19.90

LTE band 5-ANT13-ERP

Limits: ≤38.45dBm (7W)

Max ERP: 17.15dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -4.49dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	23.15	22.31	21.50	16.51	15.67	14.86
		836.5	23.30	22.51	21.58	16.66	15.87	17.09
		824.7	23.28	22.49	21.56	16.64	15.85	17.07
	1 RB low	848.3	23.14	22.30	21.35	16.50	15.66	16.86
		836.5	23.30	22.53	21.53	16.66	15.89	17.04
		824.7	23.30	22.46	21.50	16.66	15.82	17.01
	50% RB mid	848.3	23.17	22.14	21.37	16.53	15.50	16.88
		836.5	23.31	22.33	21.46	16.67	15.69	16.97
		824.7	23.28	22.25	21.45	16.64	15.61	16.96
	100% RB	848.3	22.18	21.35	20.27	15.54	14.71	15.78
		836.5	22.32	21.52	20.39	15.68	14.88	15.90
		824.7	22.26	21.47	20.32	15.62	14.83	15.83
3MHz	1 RB high	847.5	23.14	22.37	21.44	16.50	15.73	16.95
		836.5	23.22	22.42	21.50	16.58	15.78	17.01
		825.5	23.27	22.39	21.54	16.63	15.75	17.05
	1 RB low	847.5	23.23	22.43	21.48	16.59	15.79	16.99
		836.5	23.29	22.38	21.57	16.65	15.74	17.08
		825.5	23.26	22.45	21.55	16.62	15.81	17.06
	50% RB mid	847.5	22.15	21.36	20.31	15.51	14.72	15.82
		836.5	22.24	21.47	20.38	15.60	14.83	15.89
		825.5	22.22	21.45	20.42	15.58	14.81	15.93
	100% RB	847.5	22.18	21.39	20.33	15.54	14.75	15.84
		836.5	22.22	21.41	20.32	15.58	14.77	15.83
		825.5	22.24	21.43	20.36	15.60	14.79	15.87
5MHz	1 RB high	846.5	23.18	22.35	21.48	16.54	15.71	16.99
		836.5	23.29	22.46	21.53	16.65	15.82	17.04
		826.5	23.34	22.44	21.64	16.70	15.80	17.15
	1 RB low	846.5	23.28	22.38	21.56	16.64	15.74	17.07
		836.5	23.30	22.45	21.51	16.66	15.81	17.02
		826.5	23.27	22.44	21.53	16.63	15.80	17.04
	50% RB mid	846.5	22.21	21.35	20.40	15.57	14.71	15.91
		836.5	22.26	21.37	20.39	15.62	14.73	15.90
		826.5	22.27	21.41	20.45	15.63	14.77	15.96
	100% RB	846.5	22.20	21.42	20.39	15.56	14.78	15.90
		836.5	22.22	21.37	20.33	15.58	14.73	15.84
		826.5	22.27	21.45	20.43	15.63	14.81	15.94

10MHz	1 RB high	844	23.26	22.41	21.46	16.62	15.77	16.97
		836.5	23.34	22.48	21.50	16.70	15.84	17.01
		829	23.35	22.48	21.51	16.71	15.84	17.02
	1 RB low	844	23.37	22.48	21.57	16.73	15.84	17.08
		836.5	23.37	22.45	21.61	16.73	15.81	17.12
		829	23.37	22.47	21.60	16.73	15.83	17.11
	50% RB mid	844	22.33	21.49	20.47	15.69	14.85	15.98
		836.5	22.30	21.47	20.48	15.66	14.83	15.99
		829	22.42	21.57	20.53	15.78	14.93	16.04
	100% RB	844	22.37	21.50	20.48	15.73	14.86	15.99
		836.5	22.34	21.44	20.45	15.70	14.80	15.96
		829	22.41	21.58	20.56	15.77	14.94	16.07

LTE band 5-ANT41-ERP

Limits: ≤38.45dBm (7W)

Max ERP: 16.70dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -4.92dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	23.18	22.36	21.53	16.11	15.29	14.46
		836.5	23.28	22.51	21.56	16.21	15.44	16.64
		824.7	23.24	22.45	21.55	16.17	15.38	16.63
	1 RB low	848.3	23.22	22.40	21.52	16.15	15.33	16.60
		836.5	23.29	22.44	21.56	16.22	15.37	16.64
		824.7	23.22	22.37	21.50	16.15	15.30	16.58
	50% RB mid	848.3	23.23	22.23	21.38	16.16	15.16	16.46
		836.5	23.30	22.25	21.50	16.23	15.18	16.58
		824.7	23.22	22.24	21.42	16.15	15.17	16.50
	100% RB	848.3	22.22	21.38	20.22	15.15	14.31	15.30
		836.5	22.32	21.53	20.41	15.25	14.46	15.49
		824.7	22.21	21.42	20.35	15.14	14.35	15.43
3MHz	1 RB high	847.5	23.19	22.30	21.51	16.12	15.23	16.59
		836.5	23.22	22.47	21.54	16.15	15.40	16.62
		825.5	23.20	22.44	21.46	16.13	15.37	16.54
	1 RB low	847.5	23.23	22.52	21.61	16.16	15.45	16.69
		836.5	23.28	22.52	21.55	16.21	15.45	16.63
		825.5	23.22	22.39	21.51	16.15	15.32	16.59
	50% RB mid	847.5	22.19	21.43	20.32	15.12	14.36	15.40
		836.5	22.24	21.46	20.40	15.17	14.39	15.48
		825.5	22.20	21.43	20.39	15.13	14.36	15.47
	100% RB	847.5	22.22	21.42	20.32	15.15	14.35	15.40
		836.5	22.18	21.40	20.38	15.11	14.33	15.46
		825.5	22.20	21.41	20.36	15.13	14.34	15.44
5MHz	1 RB high	846.5	23.23	22.41	21.46	16.16	15.34	16.54
		836.5	23.31	22.56	21.55	16.24	15.49	16.63
		826.5	23.32	22.46	21.56	16.25	15.39	16.64
	1 RB low	846.5	23.30	22.41	21.62	16.23	15.34	16.70
		836.5	23.32	22.49	21.55	16.25	15.42	16.63
		826.5	23.23	22.52	21.48	16.16	15.45	16.56
	50% RB mid	846.5	22.25	21.37	20.42	15.18	14.30	15.50
		836.5	22.20	21.39	20.38	15.13	14.32	15.46
		826.5	22.23	21.37	20.38	15.16	14.30	15.46
	100% RB	846.5	22.25	21.43	20.38	15.18	14.36	15.46
		836.5	22.25	21.44	20.40	15.18	14.37	15.48
		826.5	22.18	21.40	20.33	15.11	14.33	15.41

10MHz	1 RB high	844	23.25	22.43	21.47	16.18	15.36	16.55
		836.5	23.24	22.38	21.46	16.17	15.31	16.54
		829	23.26	22.40	21.46	16.19	15.33	16.54
	1 RB low	844	23.26	22.46	21.52	16.19	15.39	16.60
		836.5	23.27	22.48	21.48	16.20	15.41	16.56
		829	23.28	22.45	21.53	16.21	15.38	16.61
	50% RB mid	844	22.25	21.39	20.36	15.18	14.32	15.44
		836.5	22.24	21.41	20.40	15.17	14.34	15.48
		829	22.31	21.47	20.46	15.24	14.40	15.54
	100% RB	844	22.22	21.38	20.35	15.15	14.31	15.43
		836.5	22.26	21.44	20.41	15.19	14.37	15.49
		829	22.28	21.43	20.40	15.21	14.36	15.48

LTE band 7-ANT13-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 21.95dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -0.91dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	2567.5	22.79	22.49	21.36	21.88	21.58	20.45
		2535	22.86	22.44	21.45	21.95	21.53	20.54
		2502.5	22.64	22.28	21.19	21.73	21.37	20.28
	1 RB low	2567.5	22.80	22.45	21.36	21.89	21.54	20.45
		2535	22.85	22.49	21.46	21.94	21.58	20.55
		2502.5	22.58	22.16	21.17	21.67	21.25	20.26
	50% RB mid	2567.5	22.30	21.26	20.25	21.39	20.35	19.34
		2535	22.30	21.27	20.29	21.39	20.36	19.38
		2502.5	22.05	20.59	20.02	21.14	19.68	19.11
	100% RB	2567.5	22.27	21.27	20.27	21.36	20.36	19.36
		2535	22.29	21.31	20.27	21.38	20.40	19.36
		2502.5	22.02	21.08	20.00	21.11	20.17	19.09
3MHz	1 RB high	2565	22.77	22.44	21.36	21.86	21.53	20.45
		2535	22.81	22.47	21.39	21.90	21.56	20.48
		2505	22.63	22.39	21.26	21.72	21.48	20.35
	1 RB low	2565	22.83	22.41	21.33	21.92	21.50	20.42
		2535	22.81	22.42	21.35	21.90	21.51	20.44
		2505	22.54	22.13	21.08	21.63	21.22	20.17
	50% RB mid	2565	22.29	21.30	20.26	21.38	20.39	19.35
		2535	22.31	21.32	20.30	21.40	20.41	19.39
		2505	22.04	21.07	20.01	21.13	20.16	19.10
	100% RB	2565	22.29	21.28	20.28	21.38	20.37	19.37
		2535	22.32	21.31	20.31	21.41	20.40	19.40
		2505	22.07	21.02	20.02	21.16	20.11	19.11
5MHz	1 RB high	2562.5	22.69	22.44	21.20	21.78	21.53	20.29
		2535	22.76	22.41	21.32	21.85	21.50	20.41
		2507.5	22.61	22.30	21.23	21.70	21.39	20.32
	1 RB low	2562.5	22.75	22.39	21.30	21.84	21.48	20.39
		2535	22.81	22.45	21.43	21.90	21.54	20.52
		2507.5	22.02	22.14	21.05	21.11	21.23	20.14
	50% RB mid	2562.5	22.25	21.23	20.24	21.34	20.32	19.33
		2535	22.31	21.30	20.32	21.40	20.39	19.41
		2507.5	22.07	21.01	20.05	21.16	20.10	19.14
	100% RB	2562.5	22.26	21.23	20.25	21.35	20.32	19.34
		2535	22.29	21.26	20.28	21.38	20.35	19.37
		2507.5	22.11	21.02	20.01	21.20	20.11	19.10

10MHz	1 RB high	2560	22.39	21.98	21.01	21.48	21.07	20.10
		2535	22.29	22.02	20.90	21.38	21.11	19.99
		2510	22.18	21.78	20.78	21.27	20.87	19.87
	1 RB low	2560	22.38	22.05	20.89	21.47	21.14	19.98
		2535	22.24	21.79	20.81	21.33	20.88	19.90
		2510	22.10	21.78	20.67	21.19	20.87	19.76
	50% RB mid	2560	21.98	20.99	19.98	21.07	20.08	19.07
		2535	21.84	20.84	19.83	20.93	19.93	18.92
		2510	21.74	20.72	19.66	20.83	19.81	18.75
	100% RB	2560	21.96	20.97	19.94	21.05	20.06	19.03
		2535	21.81	20.77	19.78	20.90	19.86	18.87
		2510	21.66	20.66	19.65	20.75	19.75	18.74

LTE band 7-ANT31-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 22.38dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = 0.68dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	2567.5	21.42	21.70	21.55	22.10	22.38	22.23
		2535	21.14	21.36	21.35	21.82	22.04	22.03
		2502.5	21.35	21.51	21.53	22.03	22.19	22.21
	1 RB low	2567.5	21.41	21.59	21.54	22.09	22.27	22.22
		2535	21.17	21.35	21.31	21.85	22.03	21.99
		2502.5	21.38	21.57	21.52	22.06	22.25	22.20
	50% RB mid	2567.5	21.42	21.42	20.39	22.10	22.10	21.07
		2535	21.11	21.16	20.11	21.79	21.84	20.79
		2502.5	21.34	21.37	20.33	22.02	22.05	21.01
	100% RB	2567.5	21.45	21.45	20.40	22.13	22.13	21.08
		2535	21.09	21.13	20.12	21.77	21.81	20.80
		2502.5	21.34	21.39	20.33	22.02	22.07	21.01
3MHz	1 RB high	2565	21.42	21.61	21.56	22.10	22.29	22.24
		2535	21.15	21.43	21.22	21.83	22.11	21.90
		2505	21.26	21.47	21.42	21.94	22.15	22.10
	1 RB low	2565	21.36	21.61	21.50	22.04	22.29	22.18
		2535	21.10	21.25	21.21	21.78	21.93	21.89
		2505	21.35	21.43	21.46	22.03	22.11	22.14
	50% RB mid	2565	21.42	21.48	20.44	22.10	22.16	21.12
		2535	21.14	21.16	20.15	21.82	21.84	20.83
		2505	21.31	21.34	20.32	21.99	22.02	21.00
	100% RB	2565	21.44	21.41	20.40	22.12	22.09	21.08
		2535	21.18	21.18	20.13	21.86	21.86	20.81
		2505	21.34	21.32	20.32	22.02	22.00	21.00
5MHz	1 RB high	2562.5	21.33	21.56	21.43	22.01	22.24	22.11
		2535	21.04	21.33	21.21	21.72	22.01	21.89
		2507.5	21.12	21.38	21.22	21.80	22.06	21.90
	1 RB low	2562.5	21.22	21.40	21.32	21.90	22.08	22.00
		2535	21.09	21.31	21.21	21.77	21.99	21.89
		2507.5	21.25	21.50	21.39	21.93	22.18	22.07
	50% RB mid	2562.5	21.36	21.36	20.37	22.04	22.04	21.05
		2535	21.11	21.10	20.12	21.79	21.78	20.80
		2507.5	21.23	21.29	20.28	21.91	21.97	20.96
	100% RB	2562.5	21.38	21.38	20.32	22.06	22.06	21.00
		2535	21.15	21.14	20.10	21.83	21.82	20.78
		2507.5	21.28	21.25	20.25	21.96	21.93	20.93

10MHz	1 RB high	2560	21.11	21.37	21.32	21.79	22.05	22.00
		2535	20.88	21.11	21.00	21.56	21.79	21.68
		2510	20.91	21.03	21.04	21.59	21.71	21.72
	1 RB low	2560	21.00	21.26	21.17	21.68	21.94	21.85
		2535	20.90	21.12	20.99	21.58	21.80	21.67
		2510	21.01	21.28	21.10	21.69	21.96	21.78
	50% RB mid	2560	21.22	21.24	20.22	21.90	21.92	20.90
		2535	21.00	21.01	19.97	21.68	21.69	20.65
		2510	21.08	21.07	20.06	21.76	21.75	20.74
	100% RB	2560	21.15	21.18	20.13	21.83	21.86	20.81
		2535	21.02	20.98	20.00	21.70	21.66	20.68
		2510	21.06	21.03	20.05	20.15	20.12	19.14

LTE band 12-ANT13-ERP

Limits: ≤34.77dBm (3W)

Max ERP: 15.14dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -6.21dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	715.3	23.26	22.65	21.54	14.90	14.29	13.18
		707.5	23.17	22.54	21.55	14.81	14.18	13.19
		699.7	23.31	22.73	21.55	14.95	14.37	13.19
	1 RB low	715.3	23.23	22.49	21.55	14.87	14.13	13.19
		707.5	23.23	22.67	21.56	14.87	14.31	13.20
		699.7	23.36	22.72	21.62	15.00	14.36	13.26
	50% RB mid	715.3	23.29	22.52	21.45	14.93	14.16	13.09
		707.5	23.20	22.40	21.48	14.84	14.04	13.12
		699.7	23.37	22.56	21.54	15.01	14.20	13.18
	100% RB	715.3	22.44	21.49	20.35	14.08	13.13	11.99
		707.5	22.37	21.39	20.31	14.01	13.03	11.95
		699.7	22.52	21.54	20.46	14.16	13.18	12.10
3MHz	1 RB high	714.5	23.24	22.54	21.56	14.88	14.18	13.20
		707.5	23.15	22.46	21.43	14.79	14.10	13.07
		700.5	23.31	22.69	21.58	14.95	14.33	13.22
	1 RB low	714.5	23.18	22.54	21.47	14.82	14.18	13.11
		707.5	23.23	22.51	21.55	14.87	14.15	13.19
		700.5	23.36	22.71	21.65	15.00	14.35	13.29
	50% RB mid	714.5	22.38	21.43	20.36	14.02	13.07	12.00
		707.5	22.36	21.43	20.37	14.00	13.07	12.01
		700.5	22.45	21.49	20.47	14.09	13.13	12.11
	100% RB	714.5	22.35	21.40	20.32	13.99	13.04	11.96
		707.5	22.34	21.36	20.31	13.98	13.00	11.95
		700.5	22.43	21.49	20.42	14.07	13.13	12.06
5MHz	1 RB high	713.5	23.29	22.58	21.55	14.93	14.22	13.19
		707.5	23.20	22.50	21.44	14.84	14.14	13.08
		701.5	23.35	22.64	21.65	14.99	14.28	13.29
	1 RB low	713.5	23.27	22.61	21.54	14.91	14.25	13.18
		707.5	23.29	22.57	21.58	14.93	14.21	13.22
		701.5	23.38	22.60	21.62	15.02	14.24	13.26
	50% RB mid	713.5	22.40	21.42	20.43	14.04	13.06	12.07
		707.5	22.42	21.31	20.39	14.06	12.95	12.03
		701.5	22.47	21.43	20.46	14.11	13.07	12.10
	100% RB	713.5	22.37	21.37	20.31	14.01	13.01	11.95
		707.5	22.36	21.35	20.34	14.00	12.99	11.98
		701.5	22.47	21.45	20.47	14.11	13.09	12.11

10MHz	1 RB high	711	23.30	22.65	21.53	14.94	14.29	13.17
		707.5	23.22	22.59	21.47	14.86	14.23	13.11
		704	23.29	22.63	21.53	14.93	14.27	13.17
	1 RB low	711	23.35	22.71	21.63	14.99	14.35	13.27
		707.5	23.39	22.74	21.63	15.03	14.38	13.27
		704	23.50	22.68	21.69	15.14	14.32	13.33
	50% RB mid	711	22.39	21.45	20.44	14.03	13.09	12.08
		707.5	22.45	21.50	20.49	14.09	13.14	12.13
		704	22.55	21.54	20.53	14.19	13.18	12.17
	100% RB	711	22.41	21.41	20.42	14.05	13.05	12.06
		707.5	22.46	21.42	20.40	14.10	13.06	12.04
		704	22.49	21.50	20.46	14.13	13.14	12.10

LTE band 12-ANT41-ERP

Limits: ≤34.77dBm (3W)

Max ERP: 18.63dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -2.62dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	715.3	23.24	22.56	21.52	18.47	17.79	16.75
		707.5	23.18	22.58	21.42	18.41	17.81	16.65
		699.7	23.34	22.66	21.66	18.57	17.89	16.89
	1 RB low	715.3	23.25	22.53	21.55	18.48	17.76	16.78
		707.5	23.23	22.52	21.57	18.46	17.75	16.80
		699.7	23.31	22.68	21.65	18.54	17.91	16.88
	50% RB mid	715.3	23.23	22.37	21.44	18.46	17.60	16.67
		707.5	23.19	22.32	21.40	18.42	17.55	16.63
		699.7	23.34	22.55	21.60	18.57	17.78	16.83
	100% RB	715.3	22.38	21.47	20.35	17.61	16.70	15.58
		707.5	22.37	21.42	20.25	17.60	16.65	15.48
		699.7	22.53	21.56	20.44	17.76	16.79	15.67
3MHz	1 RB high	714.5	23.24	22.60	21.52	18.47	17.83	16.75
		707.5	23.13	22.49	21.45	18.36	17.72	16.68
		700.5	23.29	22.67	21.52	18.52	17.90	16.75
	1 RB low	714.5	23.19	22.55	21.50	18.42	17.78	16.73
		707.5	23.24	22.54	21.47	18.47	17.77	16.70
		700.5	23.37	22.77	21.67	18.60	18.00	16.90
	50% RB mid	714.5	22.36	21.41	20.33	17.59	16.64	15.56
		707.5	22.35	21.44	20.34	17.58	16.67	15.57
		700.5	22.44	21.53	20.46	17.67	16.76	15.69
	100% RB	714.5	22.31	21.35	20.31	17.54	16.58	15.54
		707.5	22.34	21.41	20.35	17.57	16.64	15.58
		700.5	22.42	21.48	20.42	17.65	16.71	15.65
5MHz	1 RB high	713.5	23.26	22.57	21.49	18.49	17.80	16.72
		707.5	23.22	22.46	21.38	18.45	17.69	16.61
		701.5	23.36	22.66	21.52	18.59	17.89	16.75
	1 RB low	713.5	23.26	22.52	21.52	18.49	17.75	16.75
		707.5	23.28	22.55	21.57	18.51	17.78	16.80
		701.5	23.39	22.62	21.60	18.62	17.85	16.83
	50% RB mid	713.5	22.40	21.37	20.39	17.63	16.60	15.62
		707.5	22.36	21.39	20.40	17.59	16.62	15.63
		701.5	22.46	21.48	20.47	17.69	16.71	15.70
	100% RB	713.5	22.29	21.32	20.30	17.52	16.55	15.53
		707.5	22.36	21.40	20.34	17.59	16.63	15.57
		701.5	22.42	21.48	20.41	17.65	16.71	15.64

10MHz	1 RB high	711	23.19	22.50	21.45	18.42	17.73	16.68
		707.5	23.17	22.55	21.42	18.40	17.78	16.65
		704	23.21	22.52	21.41	18.44	17.75	16.64
	1 RB low	711	23.26	22.63	21.57	18.49	17.86	16.80
		707.5	23.30	22.70	21.51	18.53	17.93	16.74
		704	23.40	22.68	21.57	18.63	17.91	16.80
	50% RB mid	711	22.36	21.35	20.35	17.59	16.58	15.58
		707.5	22.44	21.44	20.43	17.67	16.67	15.66
		704	22.44	21.49	20.46	17.67	16.72	15.69
	100% RB	711	22.37	21.32	20.33	17.60	16.55	15.56
		707.5	22.37	21.35	20.33	17.60	16.58	15.56
		704	22.44	21.38	20.42	17.67	16.61	15.65

LTE band 13-ANT13-ERP

Limits: ≤34.77 dBm (3W)

Max ERP: 19.13dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -2.5dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	23.50	22.59	21.77	18.85	17.94	17.12
		782	23.46	22.66	21.73	18.81	18.01	17.08
		779.5	23.56	22.80	21.89	18.91	18.15	17.24
	1 RB low	784.5	23.56	22.81	21.85	18.91	18.16	17.20
		782	23.63	22.85	21.96	18.98	18.20	17.31
		779.5	23.70	22.99	21.87	19.05	18.34	17.22
	50% RB mid	784.5	22.44	21.59	20.65	17.79	16.94	16.00
		782	22.49	21.61	20.63	17.84	16.96	15.98
		779.5	22.54	21.71	20.68	17.89	17.06	16.03
	100% RB	784.5	22.37	21.53	20.51	17.72	16.88	15.86
		782	22.40	21.63	20.59	17.75	16.98	15.94
		779.5	22.60	21.75	20.77	17.95	17.10	16.12
10MHz	1 RB high	782	23.53	22.60	21.75	18.88	17.95	17.10
	1 RB low	782	23.78	23.04	21.96	19.13	18.39	17.31
	50% RB mid	782	22.59	21.70	20.74	17.94	17.05	16.09
	100% RB	782	22.37	21.49	20.55	17.72	16.84	15.90

LTE band 13-ANT41-ERP

Limits: ≤34.77 dBm (3W)

Max ERP: 19.06dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -2.5dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	23.50	22.54	21.77	18.85	17.89	17.12
		782	23.44	22.70	21.73	18.79	18.05	17.08
		779.5	23.56	22.84	21.91	18.91	18.19	17.26
	1 RB low	784.5	23.57	22.82	21.87	18.92	18.17	17.22
		782	23.65	22.91	21.91	19.00	18.26	17.26
		779.5	23.69	22.85	21.91	19.04	18.20	17.26
	50% RB mid	784.5	22.43	21.60	20.60	17.78	16.95	15.95
		782	22.46	21.61	20.62	17.81	16.96	15.97
		779.5	22.54	21.71	20.71	17.89	17.06	16.06
	100% RB	784.5	22.40	21.56	20.50	17.75	16.91	15.85
		782	22.46	21.60	20.58	17.81	16.95	15.93
		779.5	22.58	21.77	20.79	17.93	17.12	16.14
10MHz	1 RB high	782	23.46	22.57	21.71	18.81	17.92	17.06
	1 RB low	782	23.71	22.89	21.93	19.06	18.24	17.28
	50% RB mid	782	22.51	21.70	20.70	17.86	17.05	16.05
	100% RB	782	22.39	21.54	20.55	17.74	16.89	15.90

LTE band 41-ANT13-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 23.58dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = 0.15dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5MHz	1 RB high	2687.5	23.12	22.03	20.68	23.27	22.18	20.83
		2593	23.37	22.33	20.96	23.52	22.48	21.11
		2498.5	23.12	22.09	20.7	23.27	22.24	20.85
	1 RB low	2687.5	23.13	22.07	20.7	23.28	22.22	20.85
		2593	23.43	22.35	20.99	23.58	22.50	21.14
		2498.5	23.07	22	20.64	23.22	22.15	20.79
	50% RB mid	2687.5	22.06	20.97	20.01	22.21	21.12	20.16
		2593	22.28	21.19	20.26	22.43	21.34	20.41
		2498.5	21.97	20.9	19.96	22.12	21.05	20.11
	100% RB	2687.5	22.06	21.05	20.05	22.21	21.20	20.20
		2593	22.29	21.28	20.28	22.44	21.43	20.43
		2498.5	21.99	21	20	22.14	21.15	20.15
10MHz	1 RB high	2685	23.06	21.99	20.65	23.21	22.14	20.80
		2593	23.27	22.3	20.91	23.42	22.45	21.06
		2501	23.11	22.1	20.71	23.26	22.25	20.86
	1 RB low	2685	23.05	22	20.65	23.20	22.15	20.80
		2593	23.31	22.32	20.97	23.46	22.47	21.12
		2501	22.98	22	20.61	23.13	22.15	20.76
	50% RB mid	2685	21.99	21	20.04	22.14	21.15	20.19
		2593	22.19	21.24	20.26	22.34	21.39	20.41
		2501	21.94	21.01	20.01	22.09	21.16	20.16
	100% RB	2685	22.01	21.02	20.02	22.16	21.17	20.17
		2593	22.21	21.28	20.24	22.36	21.43	20.39
		2501	21.95	21	19.97	22.10	21.15	20.12
15MHz	1 RB high	2682.5	23.02	21.98	20.59	23.17	22.13	20.74
		2593	23.25	22.24	20.88	23.40	22.39	21.03
		2503.5	23.15	22.16	20.76	23.30	22.31	20.91
	1 RB low	2682.5	23.04	21.99	20.62	23.19	22.14	20.77
		2593	23.33	22.31	20.92	23.48	22.46	21.07
		2503.5	22.96	21.96	20.55	23.11	22.11	20.70
	50% RB mid	2682.5	21.95	20.95	19.96	22.10	21.10	20.11
		2593	22.21	21.2	20.18	22.36	21.35	20.33
		2503.5	22.01	20.99	19.99	22.16	21.14	20.14
	100% RB	2682.5	22	21	19.99	22.15	21.15	20.14
		2593	22.28	21.28	20.25	22.43	21.43	20.40
		2503.5	22.05	21.03	20.03	22.20	21.18	20.18

20MHz	1 RB high	2680	22.99	21.96	20.55	23.14	22.11	20.70
		2593	22.9	21.86	20.44	23.05	22.01	20.59
		2506	22.73	21.69	20.28	22.88	21.84	20.43
	1 RB low	2680	23.09	22.02	20.66	23.24	22.17	20.81
		2593	23.05	22.02	20.59	23.20	22.17	20.74
		2506	22.63	21.61	20.22	22.78	21.76	20.37
	50% RB mid	2680	22.06	21.06	20.03	22.21	21.21	20.18
		2593	21.96	21	19.93	22.11	21.15	20.08
		2506	21.71	20.73	19.66	21.86	20.88	19.81
	100% RB	2680	22.03	21.03	20	22.18	21.18	20.15
		2593	21.98	20.92	19.93	22.13	21.07	20.08
		2506	21.69	20.69	19.64	21.84	20.84	19.79

LTE band 41-ANT31-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 24.18dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = 0.68dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5MHz	1 RB high	2687.5	23.38	22.50	21.27	24.06	23.18	21.95
		2593	23.43	22.55	21.32	24.11	23.23	22.00
		2498.5	23.31	22.41	21.17	23.99	23.09	21.85
	1 RB low	2687.5	23.42	22.49	21.30	24.10	23.17	21.98
		2593	23.50	22.61	21.41	24.18	23.29	22.09
		2498.5	23.31	22.41	21.19	23.99	23.09	21.87
	50% RB mid	2687.5	22.32	21.33	20.42	23.00	22.01	21.10
		2593	22.38	21.39	20.40	23.06	22.07	21.08
		2498.5	22.22	21.21	20.24	22.90	21.89	20.92
	100% RB	2687.5	22.35	21.38	20.39	23.03	22.06	21.07
		2593	22.38	21.40	20.42	23.06	22.08	21.10
		2498.5	22.22	21.26	20.25	22.90	21.94	20.93
10MHz	1 RB high	2685	23.37	22.47	21.24	24.05	23.15	21.92
		2593	23.37	22.49	21.27	24.05	23.17	21.95
		2501	23.24	22.34	21.08	23.92	23.02	21.76
	1 RB low	2685	23.39	22.51	21.28	24.07	23.19	21.96
		2593	23.46	22.59	21.37	24.14	23.27	22.05
		2501	23.28	22.41	21.13	23.96	23.09	21.81
	50% RB mid	2685	22.35	21.39	20.42	23.03	22.07	21.10
		2593	22.35	21.38	20.39	23.03	22.06	21.07
		2501	22.19	21.22	20.22	22.87	21.90	20.90
	100% RB	2685	22.38	21.41	20.36	23.06	22.09	21.04
		2593	22.39	21.39	20.35	23.07	22.07	21.03
		2501	22.20	21.23	20.17	22.88	21.91	20.85
15MHz	1 RB high	2682.5	23.30	22.42	21.20	23.98	23.10	21.88
		2593	23.28	22.43	21.21	23.96	23.11	21.89
		2503.5	23.14	22.29	21.04	23.82	22.97	21.72
	1 RB low	2682.5	23.34	22.47	21.26	24.02	23.15	21.94
		2593	23.43	22.58	21.37	24.11	23.26	22.05
		2503.5	23.19	22.36	21.10	23.87	23.04	21.78
	50% RB mid	2682.5	22.32	21.30	20.31	23.00	21.98	20.99
		2593	22.33	21.33	20.31	23.01	22.01	20.99
		2503.5	22.18	21.18	20.17	22.86	21.86	20.85
	100% RB	2682.5	22.34	21.35	20.33	23.02	22.03	21.01
		2593	22.38	21.37	20.37	23.06	22.05	21.05
		2503.5	22.19	21.20	20.19	22.87	21.88	20.87

20MHz	1 RB high	2680	23.29	22.23	20.87	23.97	22.91	21.55
		2593	23.18	22.15	20.77	23.86	22.83	21.45
		2506	23.04	21.99	20.60	23.72	22.67	21.28
	1 RB low	2680	23.36	22.33	20.94	24.04	23.01	21.62
		2593	23.40	22.39	21.02	24.08	23.07	21.70
		2506	23.11	22.07	20.70	23.79	22.75	21.38
	50% RB mid	2680	22.35	21.38	20.32	23.03	22.06	21.00
		2593	22.30	21.32	20.26	22.98	22.00	20.94
		2506	22.10	21.12	20.05	22.78	21.80	20.73
	100% RB	2680	22.35	21.36	20.31	23.03	22.04	20.99
		2593	22.31	21.32	20.28	22.99	22.00	20.96
		2506	22.07	21.09	20.03	22.75	21.77	20.71

LTE band 66-ANT13-EIRP

Limits: ≤30dBm (1W)

Max EIRP: 20.47dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T =-2.5dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	1779.3	22.73	21.89	21.04	20.23	19.39	18.54
		1745	22.66	21.95	20.96	20.16	19.45	18.46
		1710.7	22.93	22.07	21.22	20.43	19.57	18.72
	1 RB low	1779.3	22.74	21.92	21.05	20.24	19.42	18.55
		1745	22.69	21.88	20.99	20.19	19.38	18.49
		1710.7	22.91	22.07	21.15	20.41	19.57	18.65
	50% RB mid	1779.3	22.72	21.71	20.96	20.22	19.21	18.46
		1745	22.71	21.72	20.93	20.21	19.22	18.43
		1710.7	22.93	21.93	21.19	20.43	19.43	18.69
	100% RB	1779.3	21.70	20.99	19.88	19.20	18.49	17.38
		1745	21.69	20.87	19.79	19.19	18.37	17.29
		1710.7	21.94	21.15	20.02	19.44	18.65	17.52
3MHz	1 RB high	1778.5	22.74	21.90	21.04	20.24	19.40	18.54
		1745	22.64	21.91	20.97	20.14	19.41	18.47
		1711.5	22.89	22.13	21.17	20.39	19.63	18.67
	1 RB low	1778.5	22.69	21.97	21.08	20.19	19.47	18.58
		1745	22.70	21.84	20.98	20.20	19.34	18.48
		1711.5	22.95	22.16	21.20	20.45	19.66	18.70
	50% RB mid	1778.5	21.69	20.90	19.88	19.19	18.40	17.38
		1745	21.67	20.87	19.77	19.17	18.37	17.27
		1711.5	21.92	21.16	20.07	19.42	18.66	17.57
	100% RB	1778.5	21.66	20.87	19.82	19.16	18.37	17.32
		1745	21.67	20.83	19.75	19.17	18.33	17.25
		1711.5	21.92	21.09	20.05	19.42	18.59	17.55
5MHz	1 RB high	1777.5	22.78	21.97	21.03	20.28	19.47	18.53
		1745	22.66	21.81	21.00	20.16	19.31	18.50
		1712.5	22.93	22.07	21.24	20.43	19.57	18.74
	1 RB low	1777.5	22.70	21.96	20.92	20.20	19.46	18.42
		1745	22.73	21.95	20.96	20.23	19.45	18.46
		1712.5	22.97	22.09	21.23	20.47	19.59	18.73
	50% RB mid	1777.5	21.74	20.88	19.85	19.24	18.38	17.35
		1745	21.71	20.82	19.84	19.21	18.32	17.34
		1712.5	21.95	21.08	20.03	19.45	18.58	17.53
	100% RB	1777.5	21.76	20.85	19.86	19.26	18.35	17.36
		1745	21.64	20.84	19.82	19.14	18.34	17.32
		1712.5	21.94	21.11	20.06	19.44	18.61	17.56

10MHz	1 RB high	1775	22.72	21.89	20.96	20.22	19.39	18.46
		1745	22.65	21.79	20.86	20.15	19.29	18.36
		1715	22.97	22.21	21.20	20.47	19.71	18.70
	1 RB low	1775	22.65	21.85	20.92	20.15	19.35	18.42
		1745	22.76	21.93	21.01	20.26	19.43	18.51
		1715	22.96	22.20	21.22	20.46	19.70	18.72
	50% RB mid	1775	21.69	20.82	19.86	19.19	18.32	17.36
		1745	21.73	20.86	19.82	19.23	18.36	17.32
		1715	21.91	21.05	20.06	19.41	18.55	17.56
	100% RB	1775	21.72	20.87	19.87	19.22	18.37	17.37
		1745	21.71	20.83	19.88	19.21	18.33	17.38
		1715	21.97	21.08	20.05	19.47	18.58	17.55
15MHz	1 RB high	1772.5	22.68	21.90	20.96	20.18	19.40	18.46
		1745	22.54	21.87	20.87	20.04	19.37	18.37
		1717.5	22.80	22.06	21.08	20.30	19.56	18.58
	1 RB low	1772.5	22.51	21.85	20.80	20.01	19.35	18.30
		1745	22.73	21.97	21.01	20.23	19.47	18.51
		1717.5	22.88	22.16	21.13	20.38	19.66	18.63
	50% RB mid	1772.5	21.63	20.83	19.84	19.13	18.33	17.34
		1745	21.67	20.80	19.84	19.17	18.30	17.34
		1717.5	21.89	21.03	20.05	19.39	18.53	17.55
	100% RB	1772.5	21.63	20.75	19.77	19.13	18.25	17.27
		1745	21.69	20.80	19.77	19.19	18.30	17.27
		1717.5	21.90	21.00	20.00	19.40	18.50	17.50
20MHz	1 RB high	1770	22.71	21.96	20.95	20.21	19.46	18.45
		1745	22.76	21.86	21.05	20.26	19.36	18.55
		1720	22.80	21.97	21.03	20.30	19.47	18.53
	1 RB low	1770	22.73	21.86	21.00	20.23	19.36	18.50
		1745	22.75	21.99	21.06	20.25	19.49	18.56
		1720	21.77	20.94	19.88	19.27	18.44	17.38
	50% RB mid	1770	21.89	21.03	19.98	19.39	18.53	17.48
		1745	22.02	21.14	20.12	19.52	18.64	17.62
		1720	21.77	20.87	19.88	19.27	18.37	17.38
	100% RB	1770	21.85	20.97	19.92	19.35	18.47	17.42
		1745	22.00	21.14	20.10	19.50	18.64	17.60
		1720	22.73	21.89	21.04	20.23	19.39	18.54

LTE band 66-ANT31-EIRP

Limits: ≤30dBm (1W)

Max EIRP: 18.62dBm

Bandwidth	RB size/offset	Frequency (MHz)	Conducted Power (dBm)			Radiated Power (dBm) G_T = -2.5dBi		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4MHz	1 RB high	1779.3	20.65	21.00	20.76	18.15	18.50	18.26
		1745	20.67	20.92	20.85	18.17	18.42	18.35
		1710.7	20.77	21.06	20.89	18.27	18.56	18.39
	1 RB low	1779.3	20.63	20.90	20.90	18.13	18.40	18.40
		1745	20.68	20.92	20.92	18.18	18.42	18.42
		1710.7	20.77	21.05	20.93	18.27	18.55	18.43
	50% RB mid	1779.3	20.70	20.70	20.77	18.20	18.20	18.27
		1745	20.71	20.74	20.80	18.21	18.24	18.30
		1710.7	20.79	20.76	20.92	18.29	18.26	18.42
	100% RB	1779.3	20.65	20.75	20.67	18.15	18.25	18.17
		1745	20.75	20.79	20.72	18.25	18.29	18.22
		1710.7	20.79	20.88	20.77	18.29	18.38	18.27
3MHz	1 RB high	1778.5	20.65	20.91	20.83	18.15	18.41	18.33
		1745	20.69	20.93	20.87	18.19	18.43	18.37
		1711.5	20.72	20.95	20.94	18.22	18.45	18.44
	1 RB low	1778.5	20.61	20.92	20.80	18.11	18.42	18.30
		1745	20.72	20.95	20.87	18.22	18.45	18.37
		1711.5	20.76	21.07	20.94	18.26	18.57	18.44
	50% RB mid	1778.5	20.65	20.72	20.66	18.15	18.22	18.16
		1745	20.66	20.74	20.71	18.16	18.24	18.21
		1711.5	20.78	20.85	20.85	18.28	18.35	18.35
	100% RB	1778.5	20.62	20.67	20.67	18.12	18.17	18.17
		1745	20.67	20.70	20.70	18.17	18.20	18.20
		1711.5	20.80	20.82	20.77	18.30	18.32	18.27
5MHz	1 RB high	1777.5	20.73	20.91	20.85	18.23	18.41	18.35
		1745	20.72	20.87	20.80	18.22	18.37	18.30
		1712.5	20.82	21.10	20.93	18.32	18.60	18.43
	1 RB low	1777.5	20.64	20.98	20.83	18.14	18.48	18.33
		1745	20.76	20.89	20.84	18.26	18.39	18.34
		1712.5	20.79	20.95	20.98	18.29	18.45	18.48
	50% RB mid	1777.5	20.66	20.66	20.71	18.16	18.16	18.21
		1745	20.72	20.75	20.79	18.22	18.25	18.29
		1712.5	20.83	20.82	20.80	18.33	18.32	18.30
	100% RB	1777.5	20.69	20.68	20.69	18.19	18.18	18.19
		1745	20.69	20.75	20.73	18.19	18.25	18.23
		1712.5	20.84	20.83	20.84	18.34	18.33	18.34

10MHz	1 RB high	1775	20.67	21.00	20.76	18.17	18.50	18.26
		1745	20.67	20.91	20.75	18.17	18.41	18.25
		1715	20.85	21.10	21.02	18.35	18.60	18.52
	1 RB low	1775	20.60	20.95	20.80	18.10	18.45	18.30
		1745	20.76	21.05	20.96	18.26	18.55	18.46
		1715	20.79	21.00	20.87	18.29	18.50	18.37
	50% RB mid	1775	20.71	20.68	20.65	18.21	18.18	18.15
		1745	20.74	20.81	20.79	18.24	18.31	18.29
		1715	20.82	20.85	20.80	18.32	18.35	18.30
	100% RB	1775	20.74	20.69	20.70	18.24	18.19	18.20
		1745	20.74	20.75	20.76	18.24	18.25	18.26
		1715	20.91	20.88	20.84	18.41	18.38	18.34
15MHz	1 RB high	1772.5	20.62	20.94	20.75	18.12	18.44	18.25
		1745	20.60	20.90	20.71	18.10	18.40	18.21
		1717.5	20.69	21.12	20.96	18.19	18.62	18.46
	1 RB low	1772.5	20.53	20.90	20.70	18.03	18.40	18.20
		1745	20.72	20.94	20.96	18.22	18.44	18.46
		1717.5	20.74	20.97	20.90	18.24	18.47	18.40
	50% RB mid	1772.5	20.65	20.67	20.67	18.15	18.17	18.17
		1745	20.72	20.77	20.77	18.22	18.27	18.27
		1717.5	20.80	20.82	20.82	18.30	18.32	18.32
	100% RB	1772.5	20.63	20.65	20.65	18.13	18.15	18.15
		1745	20.73	20.72	20.74	18.23	18.22	18.24
		1717.5	20.81	20.82	20.79	18.31	18.32	18.29
20MHz	1 RB high	1770	20.56	20.85	20.76	18.06	18.35	18.26
		1745	20.60	20.72	20.69	18.10	18.22	18.19
		1720	20.57	20.92	20.71	18.07	18.42	18.21
	1 RB low	1770	20.56	20.84	20.77	18.06	18.34	18.27
		1745	20.54	20.80	20.70	18.04	18.30	18.20
		1720	20.72	20.98	20.89	18.22	18.48	18.39
	50% RB mid	1770	20.71	20.64	20.63	18.21	18.14	18.13
		1745	20.71	20.69	20.73	18.21	18.19	18.23
		1720	20.86	20.78	20.81	18.36	18.28	18.31
	100% RB	1770	20.70	20.70	20.70	18.20	18.20	18.20
		1745	20.64	20.59	20.62	18.14	18.09	18.12
		1720	20.83	20.85	20.86	18.33	18.35	18.36

LTE CA Band 7C-ANT13-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 22.04dBm

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)	Radiated Power(dBm) G_T = -0.91dBi
				Size	Offset	Size	Offset		
10MHz/20MHz	2525.6	2540	QPSK	1	49	1	0	22.45	21.54
				50	0	100	0	20.75	19.84
			16QAM	1	49	1	0	21.14	20.23
				50	0	100	0	19.67	18.76
			64QAM	1	49	1	0	18.94	18.03
				50	0	100	0	19.70	18.79
15MHz/10MHz	2530.1	2542.1	QPSK	1	74	1	0	22.77	21.86
				75	0	50	0	20.83	19.92
			16QAM	1	74	1	0	21.61	20.7
				75	0	50	0	19.83	18.92
			64QAM	1	74	1	0	19.53	18.62
				75	0	50	0	19.84	18.93
15MHz/15MHz	2527.5	2542.5	QPSK	1	74	1	0	22.88	21.97
				75	0	75	0	20.85	19.94
			16QAM	1	74	1	0	21.86	20.95
				75	0	75	0	19.82	18.91
			64QAM	1	74	1	0	19.60	18.69
				75	0	75	0	19.82	18.91
15MHz/20MHz	2525.3	2542.4	QPSK	1	74	1	0	22.70	21.79
				75	0	100	0	20.71	19.8
			16QAM	1	74	1	0	21.51	20.6
				75	0	100	0	19.70	18.79
			64QAM	1	74	1	0	19.53	18.62
				75	0	100	0	19.75	18.84
20MHz/10MHz	2530.1	2544.5	QPSK	1	99	1	0	22.95	22.04
				100	0	50	0	20.81	19.9
			16QAM	1	99	1	0	21.76	20.85
				100	0	50	0	19.83	18.92
			64QAM	1	99	1	0	19.87	18.96
				100	0	50	0	19.82	18.91
20MHz/15MHz	2527.6	2544.7	QPSK	1	99	1	0	22.84	21.93
				100	0	75	0	20.75	19.84
			16QAM	1	99	1	0	21.70	20.79
				100	0	75	0	19.82	18.91

			64QAM	1	99	1	0	19.89	18.98
				100	0	75	0	19.75	18.84
20MHz/20MHz	2525.1	2544.9	QPSK	1	99	1	0	22.71	21.8
				100	0	100	0	20.72	19.81
			16QAM	1	99	1	0	21.53	20.62
				100	0	100	0	19.73	18.82
			64QAM	1	99	1	0	19.69	18.78
				100	0	100	0	19.69	18.78

LTE CA Band 7C-ANT31-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 23.61dBm

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)	Radiated Power(dBm) G_T = 0.68dBi
				Size	Offset	Size	Offset		
10MHz/20MHz	2525.6	2540	QPSK	1	49	1	0	22.70	23.38
				50	0	100	0	20.84	21.52
			16QAM	1	49	1	0	21.74	22.42
				50	0	100	0	19.84	20.52
			64QAM	1	49	1	0	19.50	20.18
				50	0	100	0	19.84	20.52
15MHz/10MHz	2530.1	2542.1	QPSK	1	74	1	0	22.77	23.45
				75	0	50	0	20.85	21.53
			16QAM	1	74	1	0	21.76	22.44
				75	0	50	0	19.80	20.48
			64QAM	1	74	1	0	19.52	20.2
				75	0	50	0	19.87	20.55
15MHz/15MHz	2527.5	2542.5	QPSK	1	74	1	0	22.93	23.61
				75	0	75	0	20.86	21.54
			16QAM	1	74	1	0	21.90	22.58
				75	0	75	0	19.86	20.54
			64QAM	1	74	1	0	19.65	20.33
				75	0	75	0	19.86	20.54
15MHz/20MHz	2525.3	2542.4	QPSK	1	74	1	0	22.85	23.53
				75	0	100	0	20.80	21.48
			16QAM	1	74	1	0	21.80	22.48
				75	0	100	0	19.77	20.45
			64QAM	1	74	1	0	19.58	20.26
				75	0	100	0	19.81	20.49
20MHz/10MHz	2530.1	2544.5	QPSK	1	99	1	0	22.73	23.41
				100	0	50	0	20.79	21.47
			16QAM	1	99	1	0	21.46	22.14
				100	0	50	0	19.74	20.42
			64QAM	1	99	1	0	19.67	20.35
				100	0	50	0	19.74	20.42
20MHz/15MHz	2527.6	2544.7	QPSK	1	99	1	0	22.89	23.57
				100	0	75	0	20.79	21.47
			16QAM	1	99	1	0	21.63	22.31
				100	0	75	0	19.74	20.42

			64QAM	1	99	1	0	19.81	20.49
				100	0	75	0	19.74	20.42
20MHz/20MHz	2525.1	2544.9	QPSK	1	99	1	0	22.84	23.52
				100	0	100	0	20.74	21.42
			16QAM	1	99	1	0	21.58	22.26
				100	0	100	0	19.70	20.38
			64QAM	1	99	1	0	19.78	20.46
				100	0	100	0	19.77	18.86

LTE CA Band 41C-ANT13-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 23.62dBm

Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)	Radiated Power(dBm) G_T = 0.15dBi
				Size	Offset	Size	Offset		
5MHz/ 20MHz	2583.8	2595.5	QPSK	1	24	1	0	22.84	22.99
				25	0	100	0	21.26	21.41
			16QAM	1	24	1	0	21.88	22.03
				25	0	100	0	20.27	20.42
			64QAM	1	24	1	0	19.71	19.86
				25	0	100	0	20.24	20.39
10MHz/ 15MHz	2585.9	2597.9	QPSK	1	49	1	0	23.24	23.39
				50	0	75	0	21.39	21.54
			16QAM	1	49	1	0	22.23	22.38
				50	0	75	0	20.39	20.54
			64QAM	1	49	1	0	19.94	20.09
				50	0	75	0	20.37	20.52
10MHz/ 20MHz	2583.6	2598	QPSK	1	49	1	0	23.08	23.23
				50	0	100	0	21.27	21.42
			16QAM	1	49	1	0	22.03	22.18
				50	0	100	0	20.26	20.41
			64QAM	1	49	1	0	19.77	19.92
				50	0	100	0	20.26	20.41
15MHz/ 10MHz	2588.1	2600.1	QPSK	1	74	1	0	23.47	23.62
				75	0	50	0	21.34	21.49
			16QAM	1	74	1	0	22.33	22.48
				75	0	50	0	20.4	20.55
			64QAM	1	74	1	0	20.13	20.28
				75	0	50	0	20.43	20.58
15MHz/ 15MHz	2585.5	2600.5	QPSK	1	74	1	0	23.43	23.58
				75	0	75	0	21.37	21.52
			16QAM	1	74	1	0	22.39	22.54
				75	0	75	0	20.37	20.52
			64QAM	1	74	1	0	20.19	20.34
				75	0	75	0	20.37	20.52
15MHz/ 20MHz	2583.3	2600.4	QPSK	1	74	1	0	23.26	23.41
				75	0	100	0	21.23	21.38
			16QAM	1	74	1	0	22.23	22.38
				75	0	100	0	20.28	20.43

			64QAM	1	74	1	0	20	20.15
				75	0	100	0	20.27	20.42
20MHz/ 5MHz	2590.5	2602.2	QPSK	1	99	1	0	23.43	23.58
				100	0	25	0	21.38	21.53
			16QAM	1	99	1	0	22.14	22.29
				100	0	25	0	20.43	20.58
			64QAM	1	99	1	0	20.33	20.48
				100	0	25	0	20.35	20.5
20MHz/ 10MHz	2588.1	2602.5	QPSK	1	99	1	0	23.41	23.56
				100	0	50	0	21.35	21.5
			16QAM	1	99	1	0	22.21	22.36
				100	0	50	0	20.35	20.5
			64QAM	1	99	1	0	20.38	20.53
				100	0	50	0	20.31	20.46
20MHz/ 15MHz	2585.6	2602.7	QPSK	1	99	1	0	23.42	23.57
				100	0	75	0	21.35	21.5
			16QAM	1	99	1	0	22.34	22.49
				100	0	75	0	20.33	20.48
			64QAM	1	99	1	0	20.43	20.58
				100	0	75	0	20.26	20.41
20MHz/ 20MHz	2583.1	2602.9	QPSK	1	99	1	0	23.26	23.41
				100	0	100	0	21.21	21.36
			16QAM	1	99	1	0	22.13	22.28
				100	0	100	0	20.25	20.4
			64QAM	1	99	1	0	20.29	20.44
				100	0	100	0	20.19	20.34

LTE CA Band 41C-ANT31-EIRP

Limits: ≤33 dBm (2W)

Max EIRP: 23.94dBm

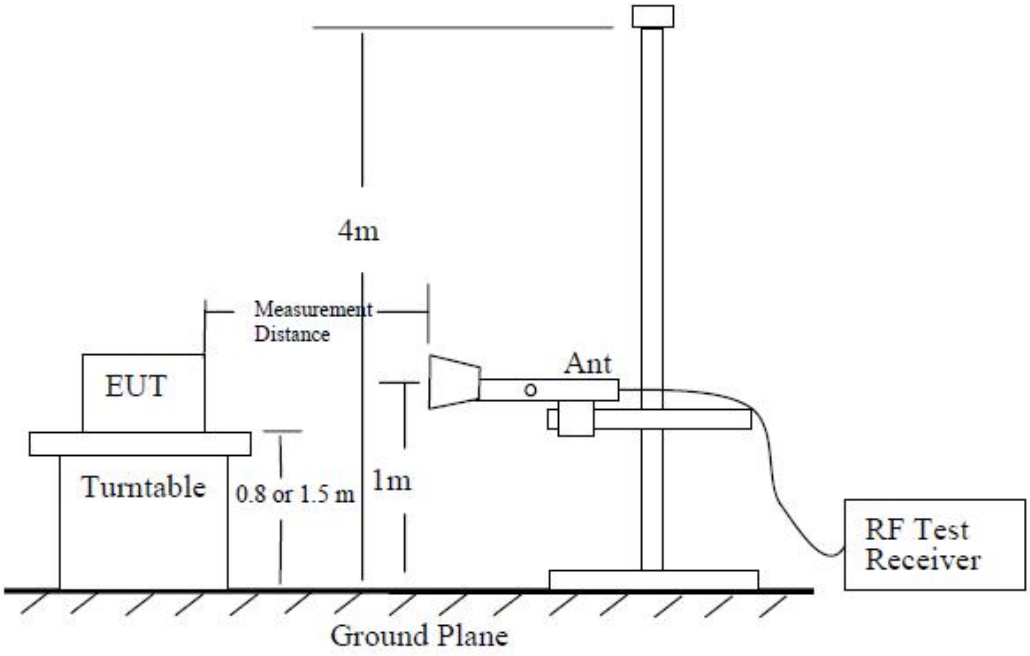
Bandwidth	Frequency (MHz)	Frequency (MHz)	Modulation	PCC RB		SCC RB		Conducted Power(dBm)	Radiated Power(dBm) G_T = 0.68dBi
				Size	Offset	Size	Offset		
5MHz/ 20MHz	2583.8	2595.5	QPSK	1	24	1	0	22.96	23.64
				25	0	100	0	21.22	21.9
			16QAM	1	24	1	0	21.98	22.66
				25	0	100	0	20.22	20.9
			64QAM	1	24	1	0	19.84	20.52
				25	0	100	0	20.21	20.89
10MHz/ 15MHz	2585.9	2597.9	QPSK	1	49	1	0	23.13	23.81
				50	0	75	0	21.25	21.93
			16QAM	1	49	1	0	22.10	22.78
				50	0	75	0	20.21	20.89
			64QAM	1	49	1	0	19.83	20.51
				50	0	75	0	20.21	20.89
10MHz/ 20MHz	2583.6	2598	QPSK	1	49	1	0	23.01	23.69
				50	0	100	0	21.19	21.87
			16QAM	1	49	1	0	21.98	22.66
				50	0	100	0	20.19	20.87
			64QAM	1	49	1	0	19.76	20.44
				50	0	100	0	20.18	20.86
15MHz/ 10MHz	2588.1	2600.1	QPSK	1	74	1	0	23.12	23.8
				75	0	50	0	21.21	21.89
			16QAM	1	74	1	0	22.07	22.75
				75	0	50	0	20.20	20.88
			64QAM	1	74	1	0	19.83	20.51
				75	0	50	0	20.22	20.9
15MHz/ 15MHz	2585.5	2600.5	QPSK	1	74	1	0	23.26	23.94
				75	0	75	0	21.23	21.91
			16QAM	1	74	1	0	22.19	22.87
				75	0	75	0	20.20	20.88
			64QAM	1	74	1	0	19.96	20.64
				75	0	75	0	20.22	20.9
15MHz/ 20MHz	2583.3	2600.4	QPSK	1	74	1	0	23.17	23.85
				75	0	100	0	21.20	21.88
			16QAM	1	74	1	0	22.08	22.76
				75	0	100	0	20.18	20.86

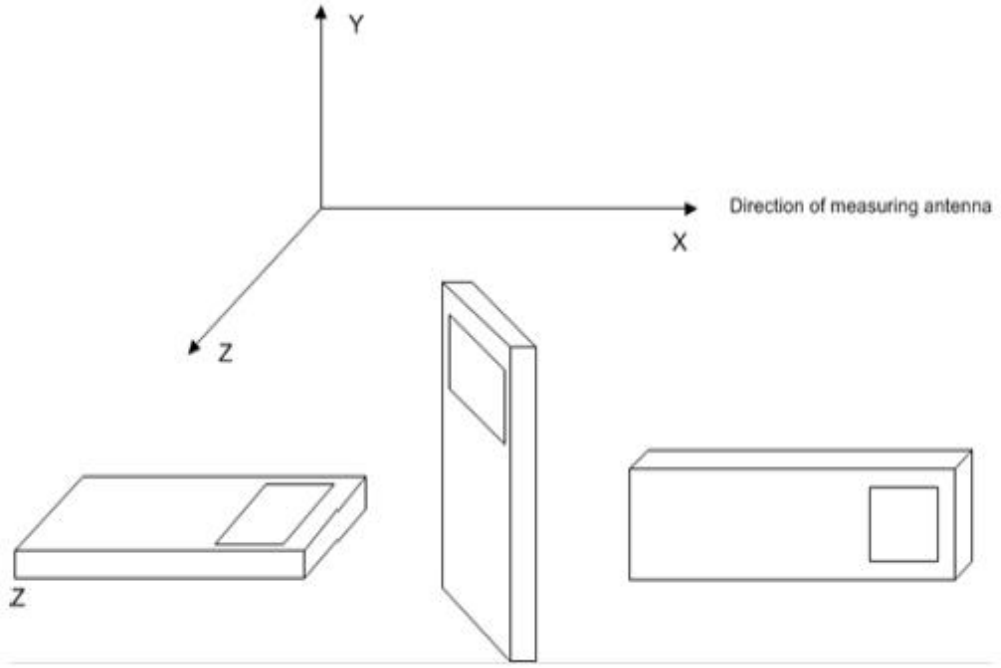
			64QAM	1	74	1	0	19.85	20.53
				75	0	100	0	20.19	20.87
20MHz/ 5MHz	2590.5	2602.2	QPSK	1	99	1	0	22.96	23.64
				100	0	25	0	21.17	21.85
			16QAM	1	99	1	0	21.80	22.48
				100	0	25	0	20.17	20.85
			64QAM	1	99	1	0	19.97	20.65
				100	0	25	0	20.12	20.8
20MHz/ 10MHz	2588.1	2602.5	QPSK	1	99	1	0	23.00	23.68
				100	0	50	0	21.15	21.83
			16QAM	1	99	1	0	21.86	22.54
				100	0	50	0	20.12	20.8
			64QAM	1	99	1	0	20.03	20.71
				100	0	50	0	20.10	20.78
20MHz/ 15MHz	2585.6	2602.7	QPSK	1	99	1	0	23.14	23.82
				100	0	75	0	21.19	21.87
			16QAM	1	99	1	0	21.97	22.65
				100	0	75	0	20.15	20.83
			64QAM	1	99	1	0	20.16	20.84
				100	0	75	0	20.15	20.83
20MHz/ 20MHz	2583.1	2602.9	QPSK	1	99	1	0	23.07	23.75
				100	0	100	0	21.15	21.83
			16QAM	1	99	1	0	21.90	22.58
				100	0	100	0	20.12	20.8
			64QAM	1	99	1	0	20.08	20.76
				100	0	100	0	20.11	20.79

A.2 Emission Limit

The measurements procedures in C63.26 are used.
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment, which is the transmitted carrier. The resolution bandwidth is set 1MHz. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of the each LTE Band.

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





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

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

For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80 cm above the reference ground plane. Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement antenna shall be varied from 1 m to 4 m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level (i.e., field strength or received power). When orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25 cm.

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

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

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

A.2.2 Measurement Limit

FDD Band 2: 24.238 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

FDD Band 5: 22.917 pecify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

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

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

FDD Band 13: 27.53(f) specifies " For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation. ".

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

A.2.3 Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the 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 each LTE Band into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable

of operating and it is the manufacturer's responsibility to verify this. The range of evaluated frequency is from 30MHz to 26GHz.

Measurement Results:

Spot Check Measurement Results:

LTE Band 41, 5MHz, QPSK, Channel 39675

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
4999.02	-55.16	-6.60	9.90	-51.86	-25.00	26.86	V
7497.01	-53.82	-8.39	12.20	-50.01	-25.00	25.01	V
9996.01	-53.36	-9.18	12.90	-49.64	-25.00	24.64	H
12495.01	-49.15	-10.19	13.20	-46.14	-25.00	21.14	V
14990.00	-44.03	-11.21	14.01	-41.23	-25.00	16.23	H
17487.00	-40.27	-12.69	14.87	-38.09	-25.00	13.09	H

LTE Band 41, 5MHz, QPSK, Channel 40620

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5187.02	-51.34	-6.94	10.16	-48.12	-25.00	23.12	H
7769.01	-54.76	-8.33	12.42	-50.67	-25.00	25.67	V
10372.01	-48.82	-9.76	13.05	-45.53	-25.00	20.53	V
12986.01	-47.38	-10.47	13.49	-44.36	-25.00	19.36	H
15537.00	-43.16	-11.52	13.70	-40.98	-25.00	15.98	H
16869.00	-39.72	-12.03	13.75	-38.00	-25.00	13.00	V

LTE Band 41, 5MHz, QPSK, Channel 41565

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5376.02	-50.16	-6.88	10.43	-46.61	-25.00	21.61	H
8044.01	-53.24	-8.32	12.64	-48.92	-25.00	23.92	V
10758.01	-49.67	-9.45	13.15	-45.97	-25.00	20.97	V
13437.01	-44.06	-10.60	14.11	-40.55	-25.00	15.55	H
16103.00	-41.81	-11.85	13.68	-39.98	-25.00	14.98	H
17450.00	-38.77	-12.61	14.79	-36.59	-25.00	11.59	V

Reference Measurement Results from basic model:

LTE Band 2, 1.4MHz, QPSK, Channel 18607

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3750.02	-58.84	-6.29	8.55	-56.58	-13.00	43.58	H
5566.02	-58.63	-7.20	10.59	-55.24	-13.00	42.24	H
7435.01	-53.15	-8.21	12.12	-49.24	-13.00	36.24	H
9235.01	-52.75	-9.01	13.24	-48.52	-13.00	35.52	V
11081.01	-49.93	-9.87	13.18	-46.62	-13.00	33.62	H
13001.01	-46.29	-10.47	13.50	-43.26	-13.00	30.26	H

LTE Band 2, 1.4MHz, QPSK, Channel 18900

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3750.02	-59.95	-6.29	8.55	-57.69	-13.00	44.69	H
5653.02	-58.43	-7.27	10.57	-55.13	-13.00	42.13	V
7511.01	-54.45	-8.35	12.21	-50.59	-13.00	37.59	V
9420.01	-52.88	-9.14	13.35	-48.67	-13.00	35.67	V
11230.01	-50.29	-9.58	13.15	-46.72	-13.00	33.72	H
13124.01	-43.62	-10.83	13.67	-40.78	-13.00	27.78	H

LTE Band 2, 1.4MHz, QPSK, Channel 19193

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3868.02	-60.33	-6.09	8.72	-57.70	-13.00	44.70	V
5688.02	-57.54	-7.29	10.56	-54.27	-13.00	41.27	V
7591.01	-54.73	-8.01	12.27	-50.47	-13.00	37.47	H
9557.01	-52.06	-9.34	13.34	-48.06	-13.00	35.06	V
11489.01	-50.02	-9.84	13.10	-46.76	-13.00	33.76	V
13387.01	-43.72	-10.57	14.04	-40.25	-13.00	27.25	H

LTE Band 5, 1.4MHz, QPSK, Channel 20407

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1638.01	-55.24	-3.56	5.25	2.15	-55.70	-13.00	42.70	V
2463.00	-39.34	-4.59	5.99	2.15	-40.09	-13.00	27.09	V
3310.02	-60.27	-5.29	7.74	2.15	-59.97	-13.00	46.97	V
4129.02	-57.39	-6.05	9.03	2.15	-56.56	-13.00	43.56	H
4954.01	-57.53	-6.68	9.85	2.15	-56.51	-13.00	43.51	H
5763.01	-56.25	-7.24	10.55	2.15	-55.09	-13.00	42.09	V

LTE Band 5, 1.4MHz, QPSK, Channel 20525

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1687.01	-55.01	-3.59	5.16	2.15	-55.59	-13.00	42.59	H
2517.00	-48.13	-4.64	6.13	2.15	-48.79	-13.00	35.79	V
3347.02	-60.59	-5.32	7.83	2.15	-60.23	-13.00	47.23	H
4171.02	-57.72	-6.14	9.07	2.15	-56.94	-13.00	43.94	H
5014.01	-56.76	-6.58	9.92	2.15	-55.57	-13.00	42.57	V
5857.01	-57.11	-7.26	10.53	2.15	-55.99	-13.00	42.99	V

LTE Band 5, 1.4MHz, QPSK, Channel 20643

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1696.01	-55.07	-3.60	5.15	2.15	-55.67	-13.00	42.67	H
2556.00	-44.52	-4.67	6.20	2.15	-45.14	-13.00	32.14	H
3407.02	-58.83	-5.37	7.98	2.15	-58.37	-13.00	45.37	H
4256.02	-57.96	-6.23	9.16	2.15	-57.18	-13.00	44.18	V
5099.01	-56.61	-6.77	10.04	2.15	-55.49	-13.00	42.49	V
5927.01	-56.41	-7.47	10.51	2.15	-55.52	-13.00	42.52	H

LTE Band 7, 5 MHz, QPSK, Channel 20775

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5007.02	-56.67	6.59	9.91	-53.35	-25.00	28.35	V
7492.01	-54.77	8.37	12.19	-50.95	-25.00	25.95	H
10021.01	-53.11	9.24	12.91	-49.44	-25.00	24.44	V
12515.01	-49.32	10.22	13.21	-46.33	-25.00	21.33	H
15017.00	-43.53	11.24	13.99	-40.78	-25.00	15.78	V
17510.00	-38.45	12.76	14.91	-36.30	-25.00	11.30	V

LTE Band 7, 5 MHz, QPSK, Channel 21100

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5070.02	-56.01	6.69	10.00	-52.70	-25.00	27.70	H
7590.01	-54.68	8.02	12.27	-50.43	-25.00	25.43	H
10144.01	-53.36	9.39	12.96	-49.79	-25.00	24.79	H
12681.01	-48.79	10.33	13.31	-45.81	-25.00	20.81	H
15194.00	-44.06	11.40	13.88	-41.58	-25.00	16.58	V
17734.00	-39.32	12.37	15.23	-36.46	-25.00	11.46	V

LTE Band 7, 5 MHz, QPSK, Channel 21425

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5136.02	-55.62	6.86	10.09	-52.39	-25.00	27.39	H
7709.01	-54.55	8.41	12.37	-50.59	-25.00	25.59	H
10252.01	-52.32	9.48	13.00	-48.80	-25.00	23.80	V
12825.01	-49.13	10.70	13.40	-46.43	-25.00	21.43	V
15395.00	-42.88	11.39	13.76	-40.51	-25.00	15.51	V
17983.00	-38.86	12.90	15.58	-36.18	-25.00	11.18	V

LTE Band 12, 1.4MHz, QPSK, Channel 23017

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1405.01	-55.62	-3.24	5.01	2.15	-56.00	-13.00	43.00	H
2099.00	-48.88	-4.19	4.90	2.15	-50.32	-13.00	37.32	H
2804.00	-46.25	-4.92	6.65	2.15	-46.67	-13.00	33.67	V
3507.02	-59.32	-5.53	8.21	2.15	-58.79	-13.00	45.79	V
4185.02	-57.08	-6.17	9.09	2.15	-56.31	-13.00	43.31	H
4897.01	-56.91	-6.73	9.80	2.15	-55.99	-13.00	42.99	H

LTE Band 12, 1.4MHz, QPSK, Channel 23095

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1410.01	-55.61	-3.25	5.03	2.15	-55.98	-13.00	42.98	H
2117.00	-50.05	-4.21	4.95	2.15	-51.46	-13.00	38.46	V
2834.00	-46.63	-4.95	6.70	2.15	-47.03	-13.00	34.03	V
3532.02	-58.76	-5.64	8.24	2.15	-58.31	-13.00	45.31	V
4233.02	-58.17	-6.26	9.13	2.15	-57.45	-13.00	44.45	V
4966.01	-56.86	-6.66	9.87	2.15	-55.80	-13.00	42.80	V

LTE Band 12, 1.4MHz, QPSK, Channel 23173

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1418.01	-56.68	-3.26	5.07	2.15	-57.02	-13.00	44.02	H
2158.00	-49.88	-4.26	5.07	2.15	-51.22	-13.00	38.22	V
2873.00	-46.24	-4.97	6.77	2.15	-46.59	-13.00	33.59	H
3573.02	-57.91	-6.06	8.30	2.15	-57.82	-13.00	44.82	H
4297.02	-58.43	-6.20	9.20	2.15	-57.58	-13.00	44.58	H
4997.01	-57.21	-6.61	9.90	2.15	-56.07	-13.00	43.07	V

LTE Band 13, 5MHz, QPSK, Channel 23205

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1561.21	-67.34	3.47	5.39	0.00	-67.57	-40.00	27.57	H
2336.91	-49.17	4.44	5.61	2.15	-50.15	-13.00	37.15	H
3113.52	-58.41	5.36	7.27	2.15	-58.65	-13.00	45.65	H
3900.52	-59.02	6.11	8.76	2.15	-58.52	-13.00	45.52	H
4677.52	-58.12	6.49	9.58	2.15	-57.18	-13.00	44.18	H
5458.01	-57.14	6.90	10.54	2.15	-55.65	-13.00	42.65	V

LTE Band 13, 5MHz, QPSK, Channel 23230

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1563.18	-67.28	3.48	5.39	0.00	-67.52	-40.00	27.52	H
2350.87	-48.58	4.46	5.65	2.15	-49.54	-13.00	36.54	H
3123.52	-59.17	5.40	7.30	2.15	-59.42	-13.00	46.42	H
3909.02	-58.72	6.11	8.77	2.15	-58.21	-13.00	45.21	H
4690.52	-58.27	6.50	9.59	2.15	-57.33	-13.00	44.33	H
5469.01	-57.43	6.94	10.56	2.15	-55.96	-13.00	42.96	H

LTE Band 13, 5MHz, QPSK, Channel 23255

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Correction (dB)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1566.32	-67.24	3.48	5.38	0.00	-67.49	-40.00	27.49	H
2363.82	-48.67	4.47	5.69	2.15	-49.60	-13.00	36.60	H
3130.02	-57.47	5.40	7.31	2.15	-57.71	-13.00	44.71	H
3920.02	-58.76	6.12	8.79	2.15	-58.24	-13.00	45.24	H
4715.02	-57.54	6.52	9.62	2.15	-56.59	-13.00	43.59	H
5484.51	-57.33	7.00	10.58	2.15	-55.90	-13.00	42.90	H

LTE Band 41, 5MHz, QPSK, Channel 39675

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
4998.02	-55.06	-6.61	9.90	-51.77	-25.00	26.77	H
7497.01	-51.25	-8.39	12.20	-47.44	-25.00	22.44	H
9994.01	-53.08	-9.18	12.91	-49.35	-25.00	24.35	H
12492.01	-49.61	-10.19	13.20	-46.60	-25.00	21.60	H
14986.00	-43.24	-11.21	14.01	-40.44	-25.00	15.44	V
17488.00	-38.03	-12.70	14.87	-35.86	-25.00	10.86	V

LTE Band 41, 5MHz, QPSK, Channel 40620

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5191.02	-54.35	-6.95	10.17	-51.13	-25.00	26.13	H
7785.01	-51.73	-8.31	12.43	-47.61	-25.00	22.61	V
10387.01	-52.27	-9.78	13.05	-49.00	-25.00	24.00	V
12975.01	-47.60	-10.48	13.49	-44.59	-25.00	19.59	H
15553.00	-43.01	-11.51	13.70	-40.82	-25.00	15.82	V
16839.00	-40.30	-12.07	13.74	-38.63	-25.00	13.63	V

LTE Band 41, 5MHz, QPSK, Channel 41565

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5376.02	-54.18	-6.88	10.43	-50.63	-25.00	25.63	H
8069.01	-51.90	-8.32	12.66	-47.56	-25.00	22.56	H
10763.01	-50.83	-9.46	13.15	-47.14	-25.00	22.14	V
13425.01	-44.38	-10.59	14.10	-40.87	-25.00	15.87	V
16124.00	-41.95	-11.82	13.68	-40.09	-25.00	15.09	H
17452.00	-37.71	-12.62	14.79	-35.54	-25.00	10.54	V

LTE Band 66, 1.4MHz, QPSK, Channel 131979

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3468.02	-71.94	-5.46	8.12	-69.28	-13.00	56.28	V
5149.02	-68.99	-6.88	10.11	-65.76	-13.00	52.76	H
6887.01	-64.96	-7.77	11.46	-61.27	-13.00	48.27	H
8607.01	-64.83	-8.48	13.02	-60.29	-13.00	47.29	H
10319.01	-62.79	-9.67	13.03	-59.43	-13.00	46.43	V
11955.01	-59.75	-10.26	13.01	-57.00	-13.00	44.00	H

LTE Band 66, 1.4MHz, QPSK, Channel 132322

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.02	-71.60	-5.50	8.18	-68.92	-13.00	55.92	V
5201.02	-69.51	-6.96	10.18	-66.29	-13.00	53.29	V
7004.01	-65.61	-8.29	11.60	-62.30	-13.00	49.30	V
8751.01	-64.67	-8.51	13.05	-60.13	-13.00	47.13	V
10499.01	-62.57	-9.65	13.10	-59.12	-13.00	46.12	V
12176.01	-60.09	-10.13	13.07	-57.15	-13.00	44.15	H

LTE Band 66, 1.4MHz, QPSK, Channel 132665

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3598.02	-69.76	-6.32	8.34	-67.74	-13.00	54.74	H
5343.02	-69.54	-6.95	10.38	-66.11	-13.00	53.11	V
7168.01	-65.61	-8.18	11.80	-61.99	-13.00	48.99	V
8850.01	-64.38	-8.75	13.07	-60.06	-13.00	47.06	H
10721.01	-61.92	-9.36	13.14	-58.14	-13.00	45.14	H
12504.01	-59.27	-10.18	13.20	-56.25	-13.00	43.25	H

LTE CA Band 7C, 15MHz+10MHz, QPSK, Channel 20825+20945

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5020.02	-54.71	-6.57	9.93	-51.35	-25.00	26.35	V
7542.01	-54.33	-8.22	12.23	-50.32	-25.00	25.32	H
10040.01	-53.20	-9.29	12.92	-49.57	-25.00	24.57	V
12550.01	-48.31	-10.32	13.23	-45.40	-25.00	20.40	H
15035.00	-43.06	-11.26	13.98	-40.34	-25.00	15.34	V
17538.00	-38.51	-12.87	14.95	-36.43	-25.00	11.43	V

LTE CA Band 7C, 15MHz+10MHz, QPSK, Channel 21051+21171

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5021.02	-58.97	-6.57	9.93	-55.61	-25.00	30.61	H
7524.01	-54.69	-8.29	12.22	-50.76	-25.00	25.76	H
11303.01	-49.69	-10.00	13.14	-46.55	-25.00	21.55	V
13781.01	-43.86	-10.60	14.37	-40.09	-25.00	15.09	V
16308.00	-41.29	-11.83	13.64	-39.48	-25.00	14.48	H
17547.00	-39.14	-12.90	14.97	-37.07	-25.00	12.07	V

LTE CA Band 7C, 15MHz+10MHz, QPSK, Channel 21277+21397

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5104.02	-55.54	-6.78	10.05	-52.27	-25.00	27.27	V
7647.01	-55.12	-8.19	12.32	-50.99	-25.00	25.99	H
10230.01	-52.72	-9.40	12.99	-49.13	-25.00	24.13	H
12754.01	-48.36	-10.55	13.35	-45.56	-25.00	20.56	H
15326.00	-43.10	-11.31	13.80	-40.61	-25.00	15.61	V
17880.00	-39.38	-12.85	15.43	-36.80	-25.00	11.80	V

LTE CA Band 7C, 15MHz+15MHz, QPSK, Channel 20825+20975

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5037.02	-58.80	-6.59	9.95	-55.44	-25.00	30.44	H
7548.01	-54.44	-8.19	12.24	-50.39	-25.00	25.39	H
10088.01	-52.83	-9.43	12.94	-49.32	-25.00	24.32	H
12617.01	-48.53	-10.44	13.27	-45.70	-25.00	20.70	H
15137.00	-43.15	-11.37	13.92	-40.60	-25.00	15.60	V
17655.00	-39.44	-12.60	15.12	-36.92	-25.00	11.92	V

LTE CA Band 7C, 15MHz+15MHz, QPSK, Channel 21025+21175

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5060.02	-56.05	-6.66	9.98	-52.73	-25.00	27.73	V
7574.01	-54.66	-8.08	12.26	-50.48	-25.00	25.48	H
10110.01	-52.31	-9.45	12.94	-48.82	-25.00	23.82	H
12647.01	-48.65	-10.39	13.29	-45.75	-25.00	20.75	H
15152.00	-43.10	-11.38	13.91	-40.57	-25.00	15.57	V
17673.00	-39.64	-12.43	15.14	-36.93	-25.00	11.93	V

LTE CA Band 7C, 15MHz+15MHz, QPSK, Channel 21225+21375

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5101.02	-53.99	-6.78	10.04	-50.73	-25.00	25.73	V
7635.01	-54.67	-8.13	12.31	-50.49	-25.00	25.49	V
10190.01	-52.84	-9.32	12.98	-49.18	-25.00	24.18	H
12727.01	-48.73	-10.42	13.34	-45.81	-25.00	20.81	H
15299.00	-43.46	-11.28	13.82	-40.92	-25.00	15.92	V
17821.00	-39.52	-12.76	15.35	-36.93	-25.00	11.93	V

LTE CA Band 7C, 15MHz+10MHz, QPSK, Channel 20825+20945

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5020.02	-54.71	-6.57	9.93	-51.35	-25.00	26.35	V
7542.01	-54.33	-8.22	12.23	-50.32	-25.00	25.32	H
10040.01	-53.20	-9.29	12.92	-49.57	-25.00	24.57	V
12550.01	-48.31	-10.32	13.23	-45.40	-25.00	20.40	H
15035.00	-43.06	-11.26	13.98	-40.34	-25.00	15.34	V
17538.00	-38.51	-12.87	14.95	-36.43	-25.00	11.43	V

LTE CA Band 7C, 15MHz+10MHz, QPSK, Channel 21051+21171

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5070.02	-57.24	-6.69	10.00	-53.93	-25.00	28.93	V
7596.01	-54.88	-7.99	12.28	-50.59	-25.00	25.59	V
10126.01	-52.52	-9.42	12.95	-48.99	-25.00	23.99	V
12647.01	-48.56	-10.39	13.29	-45.66	-25.00	20.66	V
15185.00	-42.60	-11.39	13.89	-40.10	-25.00	15.10	V
17676.00	-40.10	-12.41	15.15	-37.36	-25.00	12.36	V

LTE CA Band 7C, 15MHz+10MHz, QPSK, Channel 21277+21397

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5104.02	-55.54	-6.78	10.05	-52.27	-25.00	27.27	V
7647.01	-55.12	-8.19	12.32	-50.99	-25.00	25.99	H
10230.01	-52.72	-9.40	12.99	-49.13	-25.00	24.13	H
12754.01	-48.36	-10.55	13.35	-45.56	-25.00	20.56	H
15326.00	-43.10	-11.31	13.80	-40.61	-25.00	15.61	V
17880.00	-39.38	-12.85	15.43	-36.80	-25.00	11.80	V

LTE CA Band 41C, QPSK, Channel 39703+39823

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5003.02	-54.74	-6.60	9.90	-51.44	-25.00	26.44	H
7528.01	-54.50	-8.28	12.22	-50.56	-25.00	25.56	H
10002.01	-53.60	-9.19	12.90	-49.89	-25.00	24.89	H
12525.01	-49.47	-10.25	13.22	-46.50	-25.00	21.50	H
15002.00	-42.77	-11.22	14.00	-39.99	-25.00	14.99	V
17492.00	-38.69	-12.71	14.88	-36.52	-25.00	11.52	V

LTE CA Band 41C, QPSK, Channel 40549+40669

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5172.02	-57.20	-6.92	10.14	-53.98	-25.00	28.98	H
7739.01	-55.04	-8.37	12.39	-51.02	-25.00	26.02	H
10315.01	-51.86	-9.67	13.03	-48.50	-25.00	23.50	H
12945.01	-47.62	-10.49	13.47	-44.64	-25.00	19.64	V
15515.00	-43.51	-11.53	13.70	-41.34	-25.00	16.34	V
16822.00	-40.50	-12.09	13.73	-38.86	-25.00	13.86	V

LTE CA Band 41C, QPSK, Channel 41395+41515

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5397.02	-59.42	-6.83	10.46	-55.79	-25.00	30.79	H
8079.01	-55.52	-8.32	12.66	-51.18	-25.00	26.18	V
10795.01	-50.80	-9.54	13.16	-47.18	-25.00	22.18	V
13475.01	-44.83	-10.63	14.17	-41.29	-25.00	16.29	H
16225.00	-42.24	-11.76	13.65	-40.35	-25.00	15.35	H
17531.00	-38.26	-12.84	14.94	-36.16	-25.00	11.16	V

LTE CA Band 41C, QPSK, Channel 39725+39875

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5007.02	-54.19	-6.59	9.91	-50.87	-25.00	25.87	V
7514.01	-53.82	-8.34	12.21	-49.95	-25.00	24.95	H
10034.01	-53.37	-9.28	12.91	-49.74	-25.00	24.74	V
12523.01	-48.96	-10.24	13.21	-45.99	-25.00	20.99	V
15028.00	-43.13	-11.25	13.98	-40.40	-25.00	15.40	V
17505.00	-38.81	-12.74	14.91	-36.64	-25.00	11.64	V

LTE CA Band 41C, QPSK, Channel 40545+40695

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5172.02	-56.07	-6.92	10.14	-52.85	-25.00	27.85	V
7787.01	-55.25	-8.31	12.43	-51.13	-25.00	26.13	V
10319.01	-52.42	-9.67	13.03	-49.06	-25.00	24.06	V
12945.01	-48.29	-10.49	13.47	-45.31	-25.00	20.31	V
15497.00	-43.23	-11.53	13.70	-41.06	-25.00	16.06	H
16822.00	-40.17	-12.09	13.73	-38.53	-25.00	13.53	V

LTE CA Band 41C, QPSK, Channel 41365+41515

Frequency (MHz)	P_{Mea} (dBm)	Path Loss(dB)	Antenna Gain(dBi)	Peak ERP (dBm)	Limit (dBm)	Margin (dB)	Polarization
5336.02	-57.32	-6.96	10.37	-53.91	-25.00	28.91	V
8029.01	-55.34	-8.32	12.62	-51.04	-25.00	26.04	H
10690.01	-51.59	-9.30	13.14	-47.75	-25.00	22.75	H
13313.01	-45.50	-10.58	13.94	-42.14	-25.00	17.14	V
16000.00	-42.40	-11.82	13.70	-40.52	-25.00	15.52	H
17361.00	-37.92	-12.45	14.59	-35.78	-25.00	10.78	V

Sample：5336.02 MHz

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

Power (-44.45dBm) = P_{Mea} (-57.32dBm)+ P_{pl} (-6.96dB)+ Ga(10.37dBi)

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

Note: The measurement results showed here are worst cases

A.3 Frequency Stability

A.3.1 Method of Measurement

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

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

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

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

A.3.2 Measurement results

LTE Band 2, 20MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	1850.833	1909.199	3.89	0.0021
50				4.95	0.0026
40				3.72	0.0020
30				3.06	0.0016
10				4.13	0.0022
0				4.73	0.0025
-10				3.86	0.0021
-20				3.08	0.0016
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1850.833	1909.199	0.59	0.0003
4.45				0.29	0.0002

LTE Band 5, 10MHz bandwidth QPSK (worst case of all bandwidths)

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	824.417	848.583	0.43	0.0005
50				2.29	0.0027
40				-0.83	0.0010
30				-0.34	0.0004
10				-2.57	0.0031
0				-3.19	0.0038
-10				-0.50	0.0006
-20				0.82	0.0010
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	824.417	848.583	-0.36	0.0004
4.45				-0.39	0.0005

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

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2500.929	2569.135		
50				-0.73	0.0003
40				-13.02	0.0051
30				-16.49	0.0065
10				-14.08	0.0056
0				-14.86	0.0059
-10				-13.66	0.0054
-20				-1.27	0.0005
-30				0.04	0.0000

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2500.929	2569.135	-1.22	0.0005
4.45				-13.78	0.0054

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

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	699.481	715.519		
50				1.52	0.0021
40				-1.29	0.0018
30				-0.46	0.0007
10				-3.15	0.0045
0				-8.90	0.0126
-10				-1.85	0.0026
-20				-1.67	0.0024
-30				-8.17	0.0115

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	699.481	715.519	-0.29	0.0004
4.45				-2.13	0.0030

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

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	777.465	786.519	-0.37	0.0005
50				7.98	0.0102
40				-2.85	0.0036
30				-0.89	0.0011
10				-1.23	0.0016
0				-0.34	0.0004
-10				-1.95	0.0025
-20				6.39	0.0082
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	777.465	786.519	-2.68	0.0034
4.45				-0.96	0.0012

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

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2496.481	2689.487	-17.37	0.0067
50				-2.09	0.0008
40				-14.23	0.0055
30				0.66	0.0003
10				-15.45	0.0060
0				-2.23	0.0009
-10				-14.28	0.0055
-20				0.11	0.0000
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2496.481	2689.487	-14.42	0.0056
4.45				-13.42	0.0052

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

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	1710.833	1779.199	3.59	0.0021
50				0.84	0.0005
40				1.30	0.0007
30				1.36	0.0008
10				1.53	0.0009
0				2.02	0.0012
-10				-0.16	0.0001
-20				2.86	0.0016
-30					

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	F_L(MHz)	F_H(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	1710.833	1779.199	-1.83	0.0010
4.45				-0.07	0.0000

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

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2500.640	2569.380		
50				5.47	0.0022
40				4.05	0.0016
30				4.48	0.0018
10				4.58	0.0018
0				1.12	0.0004
-10				2.38	0.0009
-20				-0.74	0.0003
-30				-0.11	0.0000

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2500.640	2569.380	3.28	0.0013
4.45				4.01	0.0016

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

Frequency Error vs Temperature

Temperature(℃)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	3.87	2496.880	2689.100		
50				1.82	0.0007
40				2.30	0.0009
30				1.60	0.0006
10				1.30	0.0005
0				1.29	0.0005
-10				0.64	0.0002
-20				0.96	0.0004
-30				0.84	0.0003

Frequency Error vs Voltage

Voltage(V)	Temperature(℃)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
3.6	20	2496.880	2689.100	1.20	0.0005
4.45				2.05	0.0008

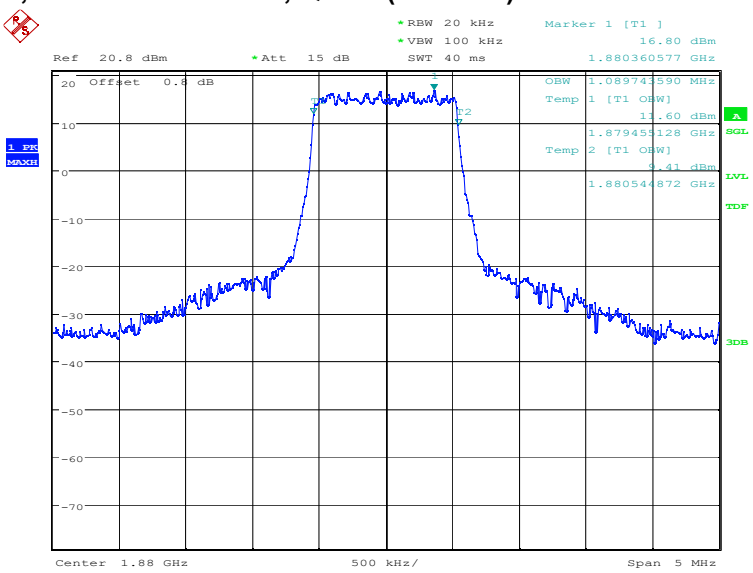
A.4 Occupied Bandwidth

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

LTE band 2, 1.4MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	1089.74	1097.76

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



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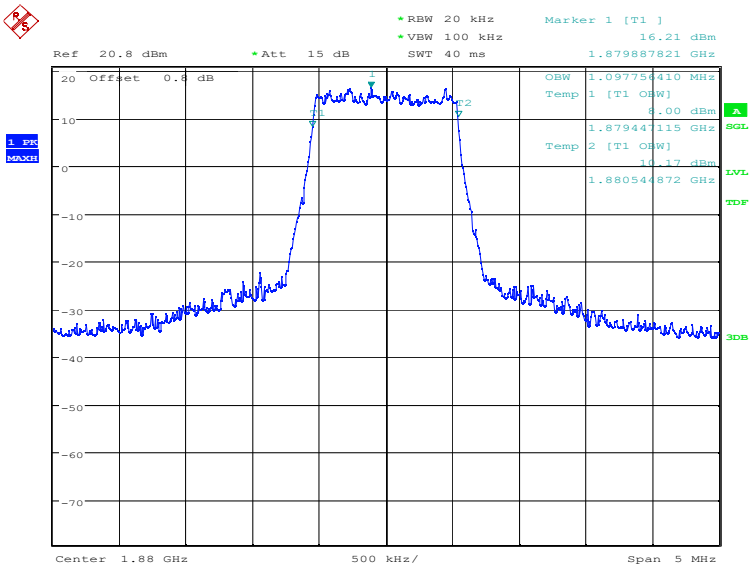
LTE band 2, 1.4MHz Bandwidth, 16QAM (99% BW)



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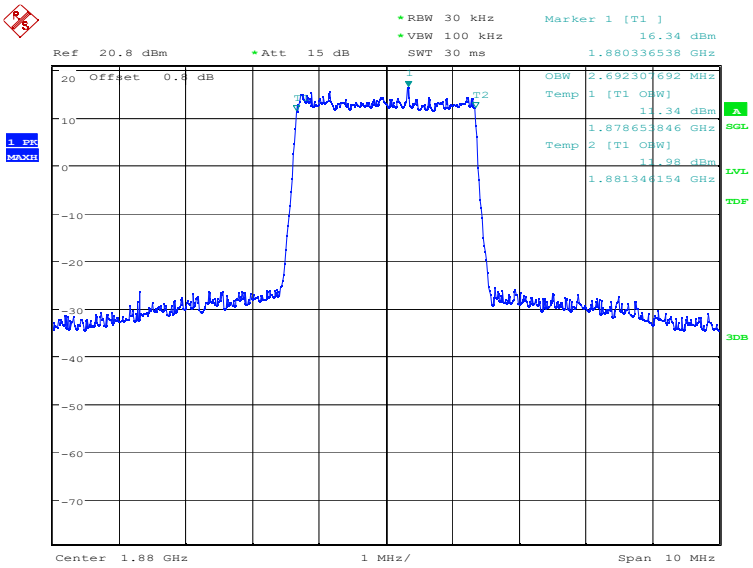
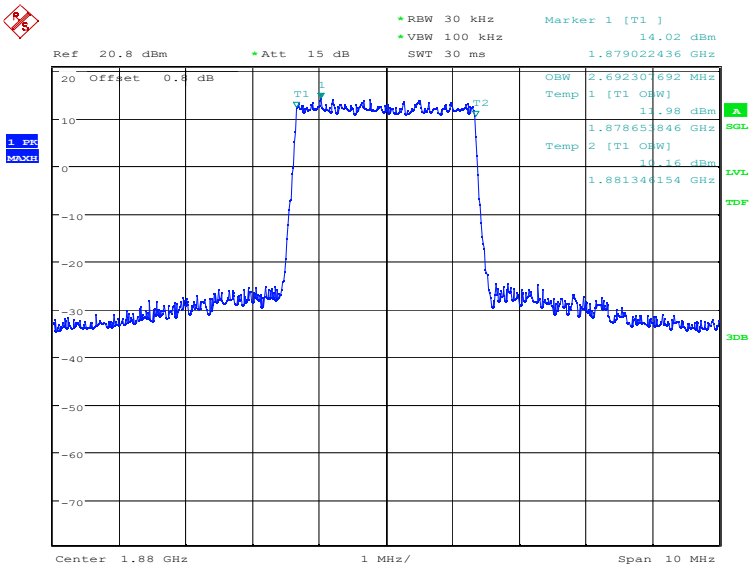
LTE band 2, 3MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	2692.31	2692.31

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



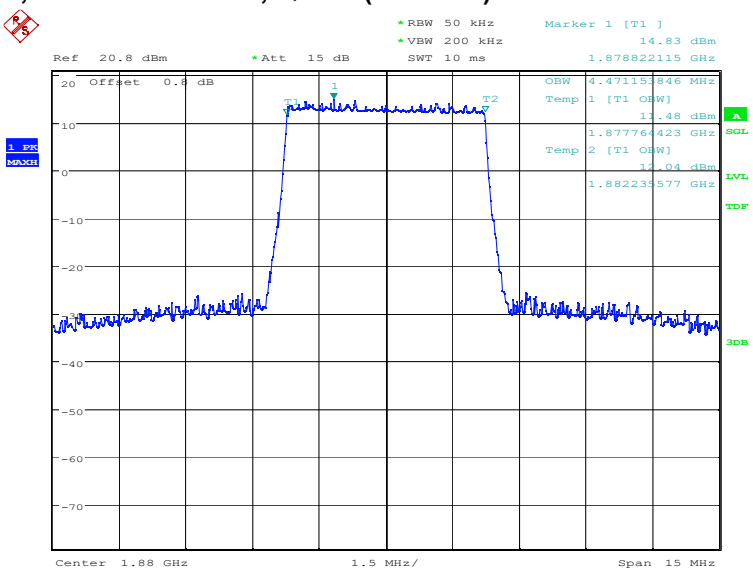
LTE band 2, 3MHz Bandwidth, 16QAM (99% BW)



LTE band 2, 5MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	4471.15	4471.15

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



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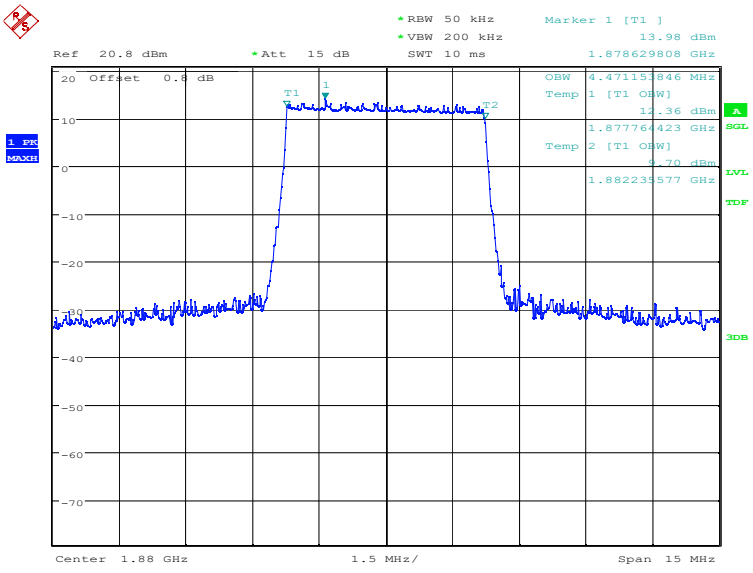
LTE band 2, 5MHz Bandwidth, 16QAM (99% BW)



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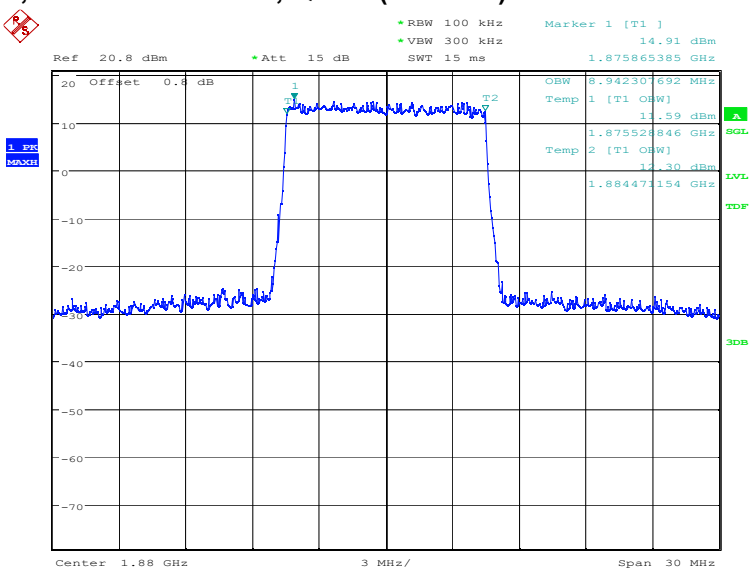
LTE band 2, 10MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	8942.31	8942.31

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



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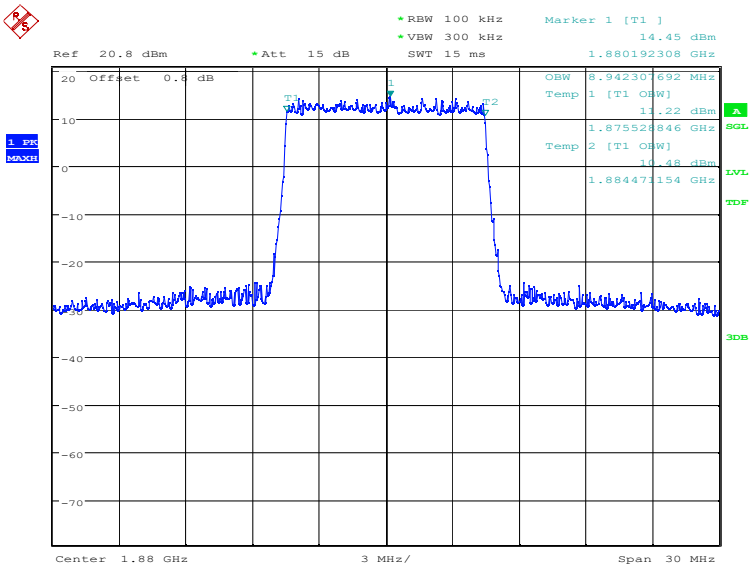
LTE band 2, 10MHz Bandwidth, 16QAM (99% BW)



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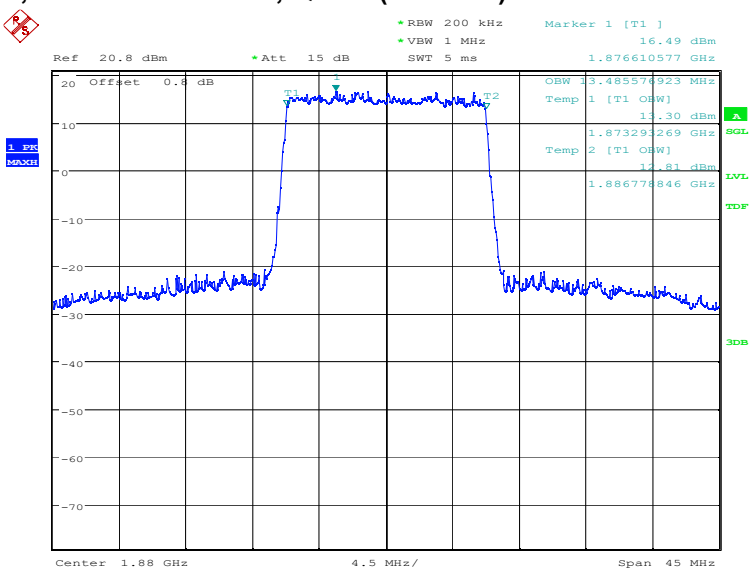
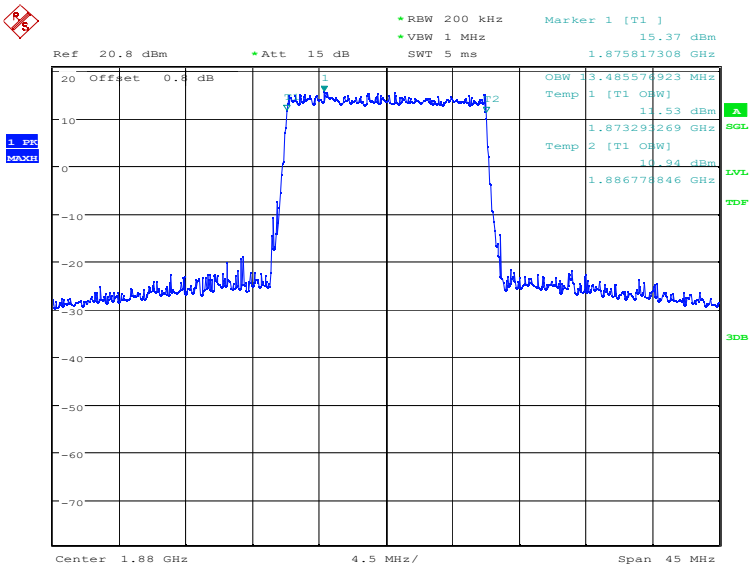
LTE band 2, 15MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	13485.58	13485.58

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



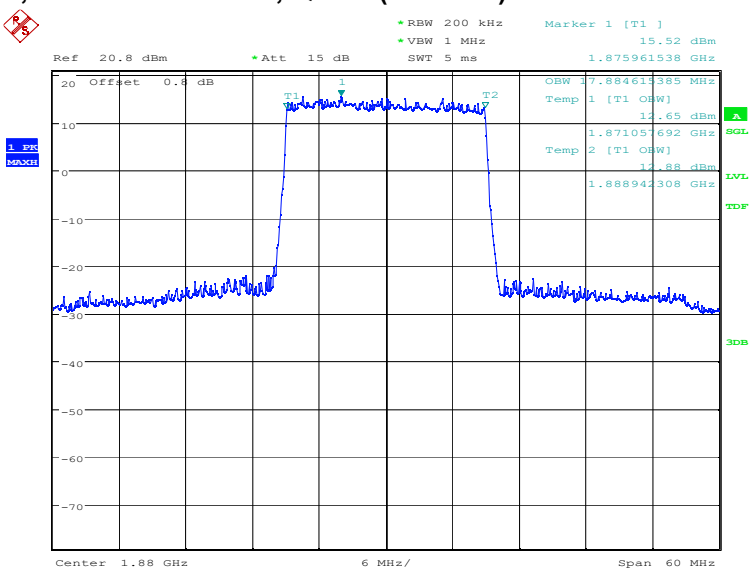
LTE band 2, 15MHz Bandwidth, 16QAM (99% BW)



LTE band 2, 20MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1880.0	QPSK	16QAM
	17884.62	17884.62

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



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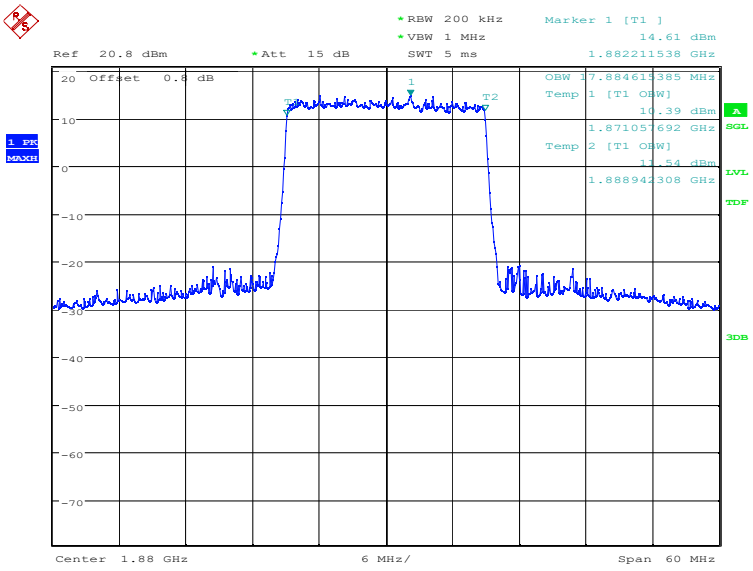
LTE band 2, 20MHz Bandwidth, 16QAM (99% BW)



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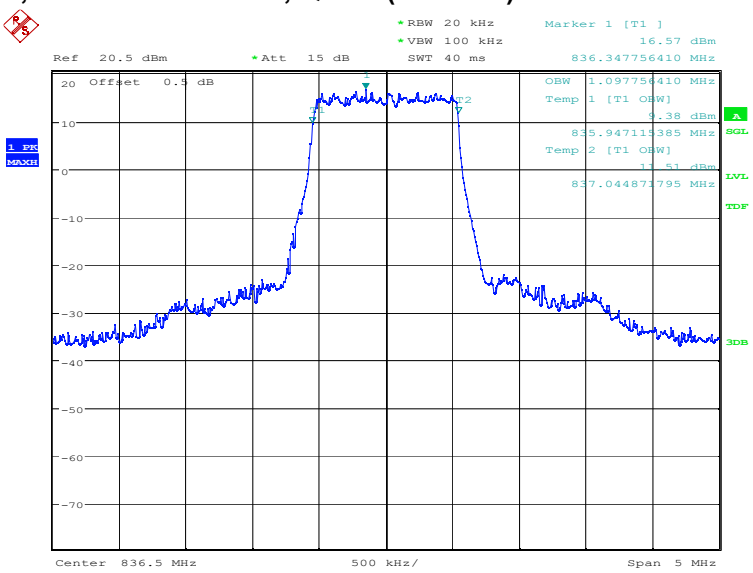
LTE band 5, 1.4MHz (99%)

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

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



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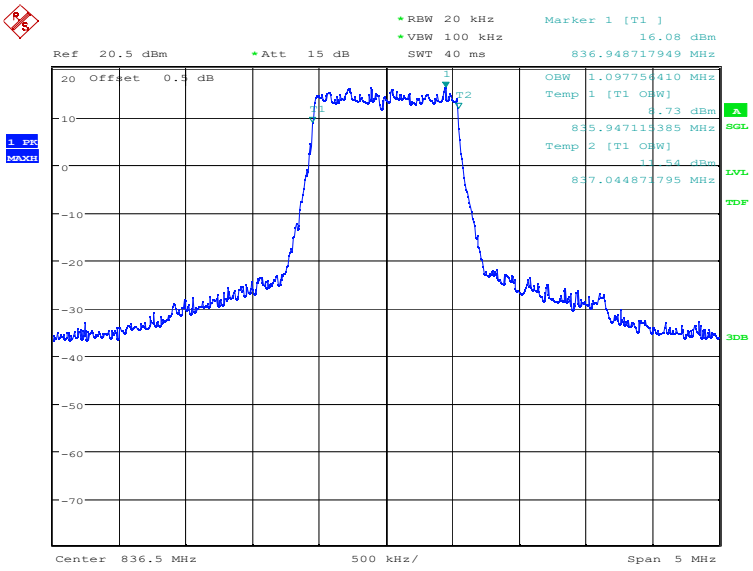
LTE band 5, 1.4MHz Bandwidth, 16QAM (99% BW)



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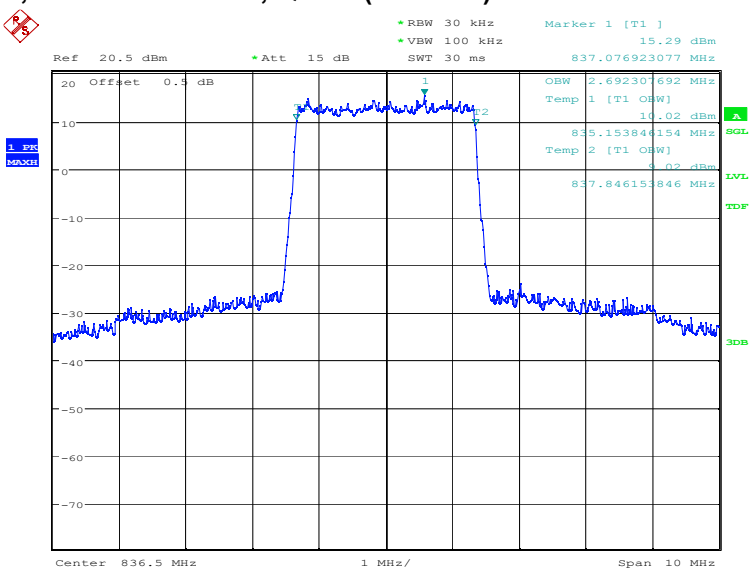
LTE band 5, 3MHz (99%)

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

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



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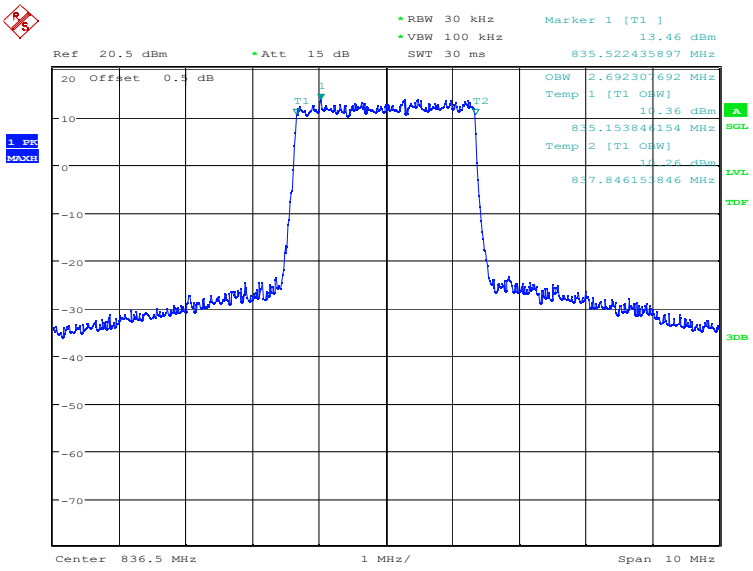
LTE band 5, 3MHz Bandwidth, 16QAM (99% BW)

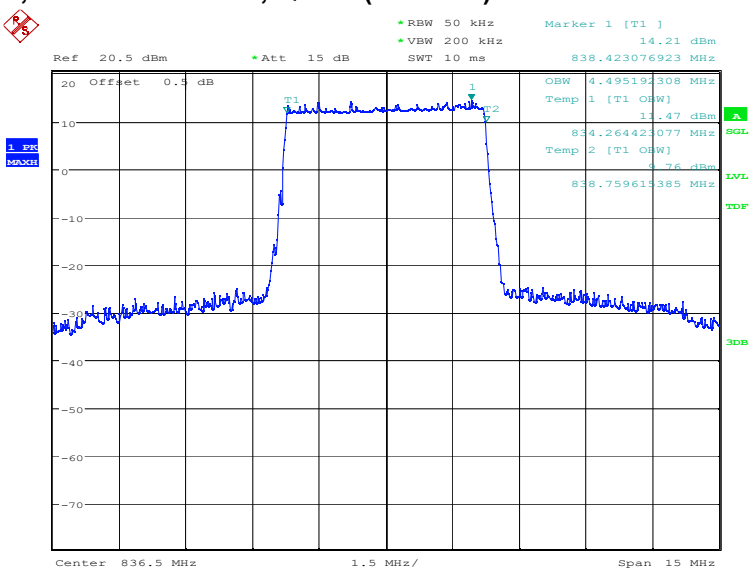


Date: 7.DEC.2021 18:17:53

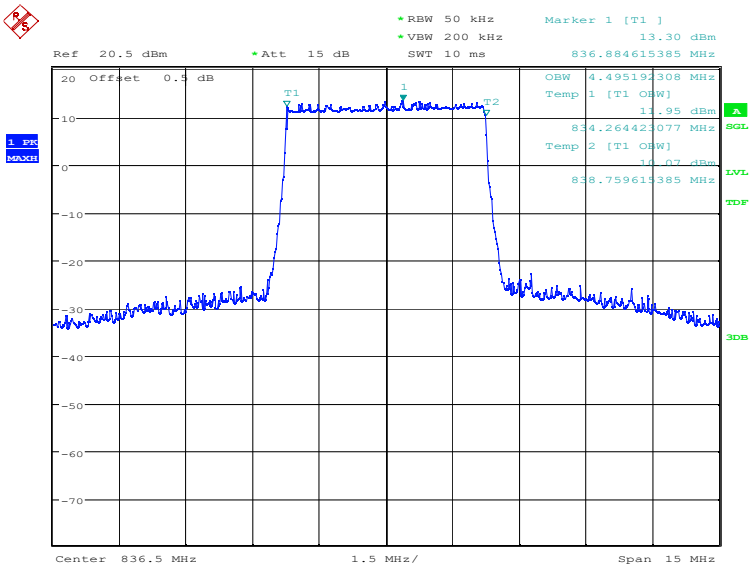
LTE band 5, 5MHz (99%)

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

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



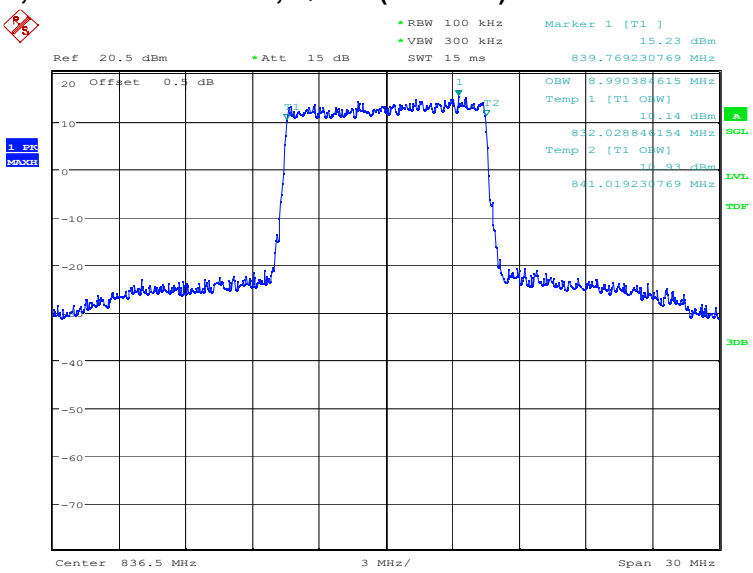
LTE band 5, 5MHz Bandwidth, 16QAM (99% BW)



LTE band 5, 10MHz (99%)

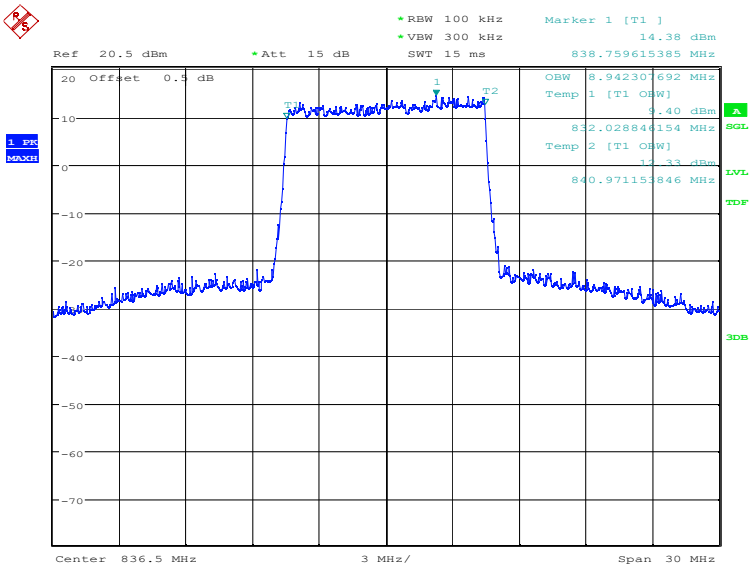
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	8990.38	8942.31

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



Date: 7.DEC.2021 18:19:56

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

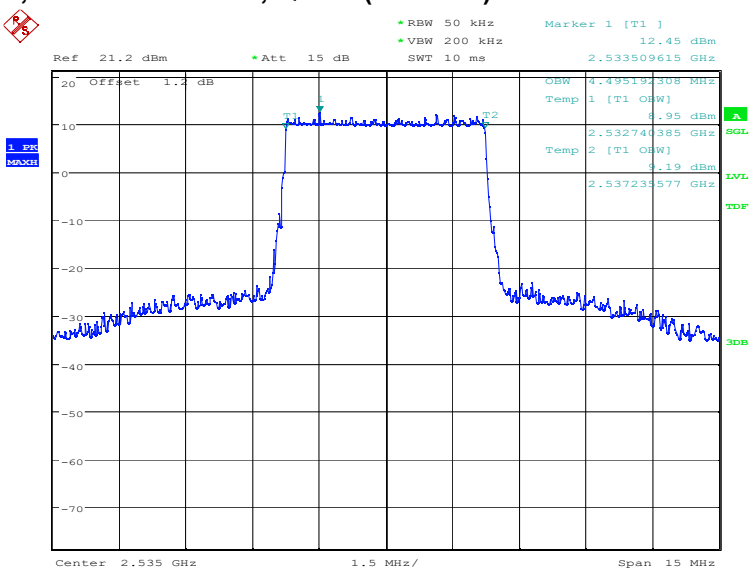


Date: 7.DEC.2021 18:20:35

LTE band 7, 5MHz (99%)

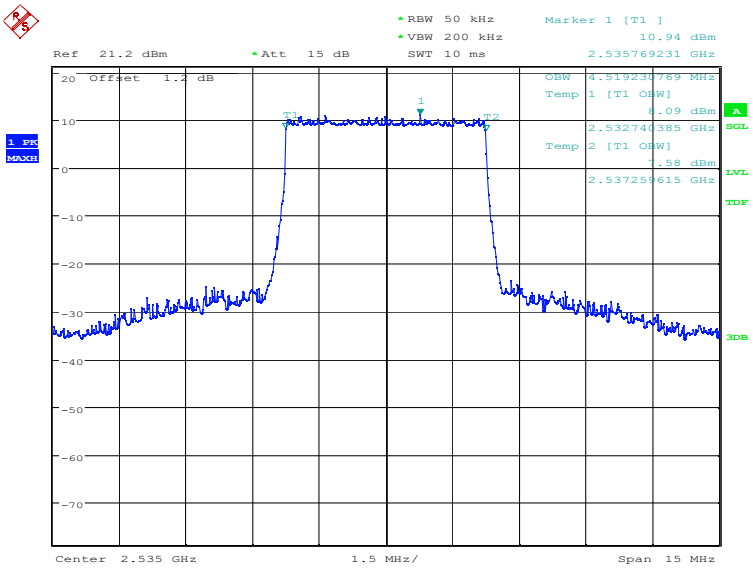
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	4495.19	4519.23

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



Date: 7.DEC.2021 18:21:18

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

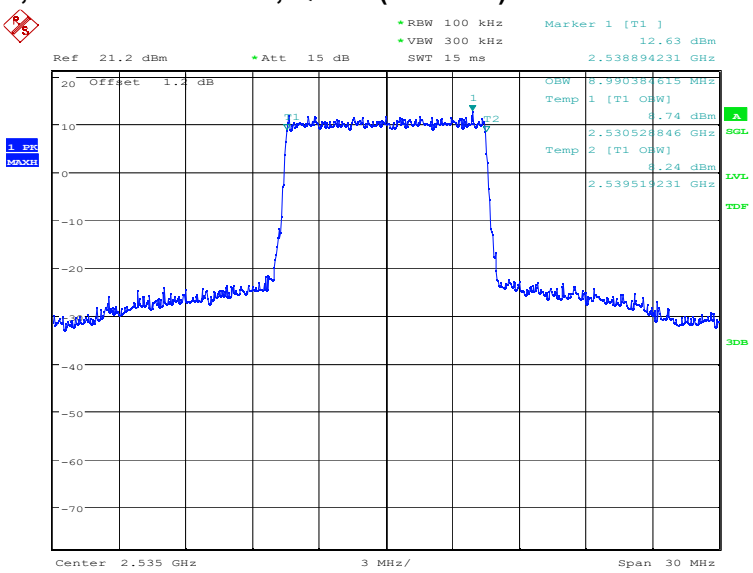


Date: 7.DEC.2021 18:21:58

LTE band 7, 10MHz (99%)

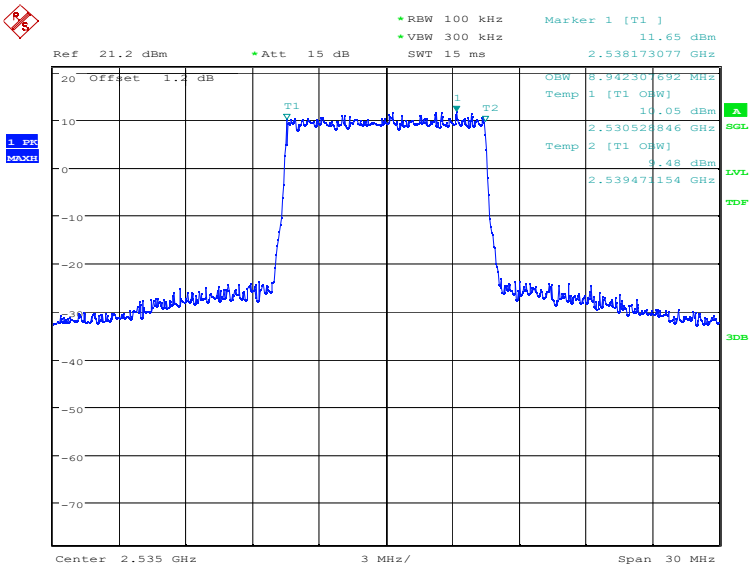
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	8990.38	8942.31

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



Date: 7.DEC.2021 18:22:39

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

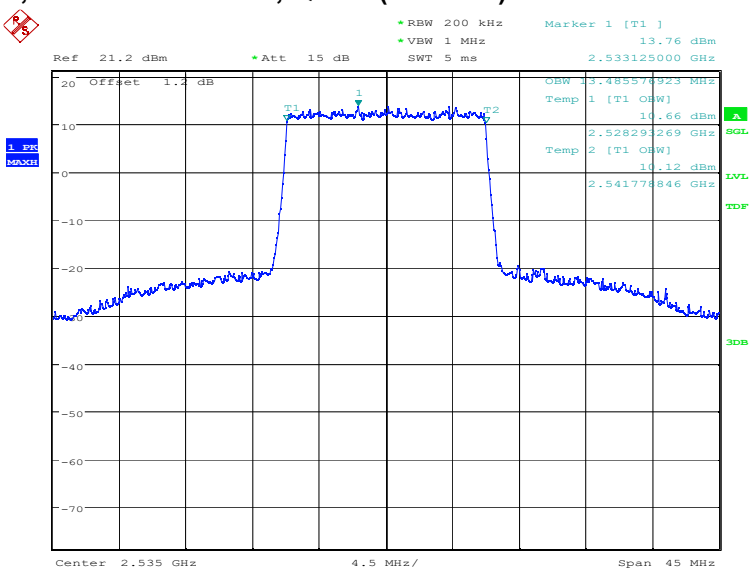


Date: 7.DEC.2021 18:23:19

LTE band 7, 15MHz (99%)

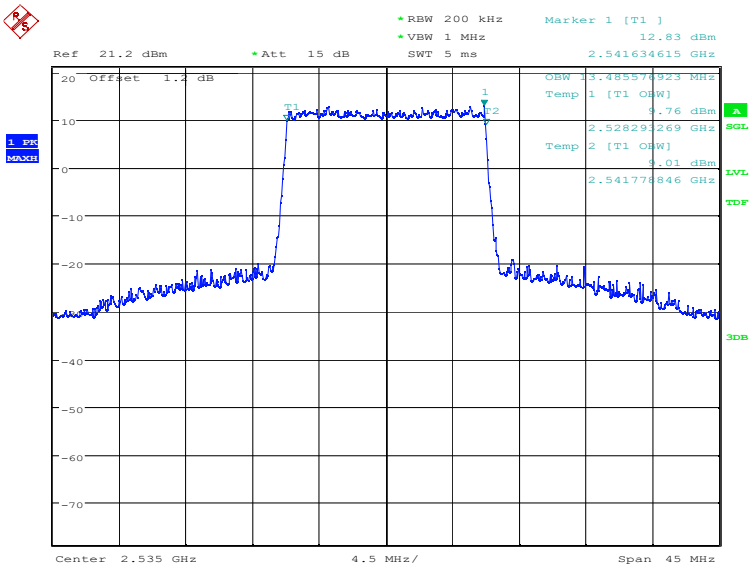
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	13485.58	13485.58

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



Date: 7.DEC.2021 18:24:00

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

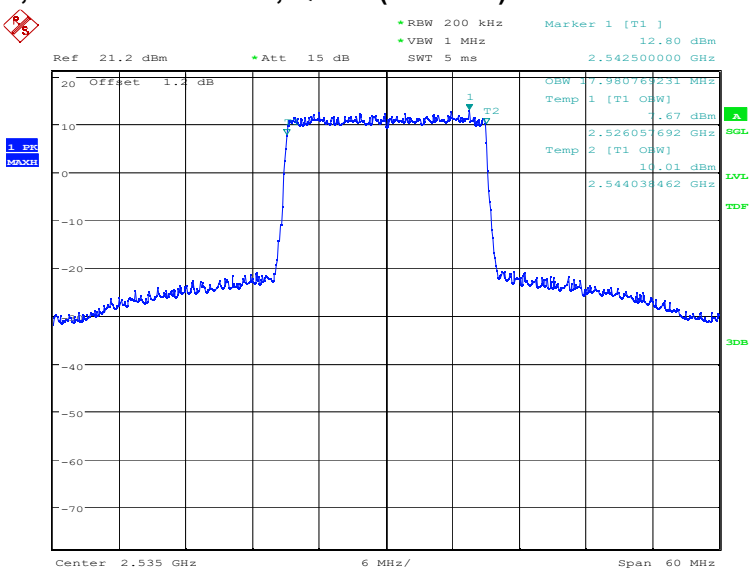


Date: 7.DEC.2021 18:24:40

LTE band 7, 20MHz (99%)

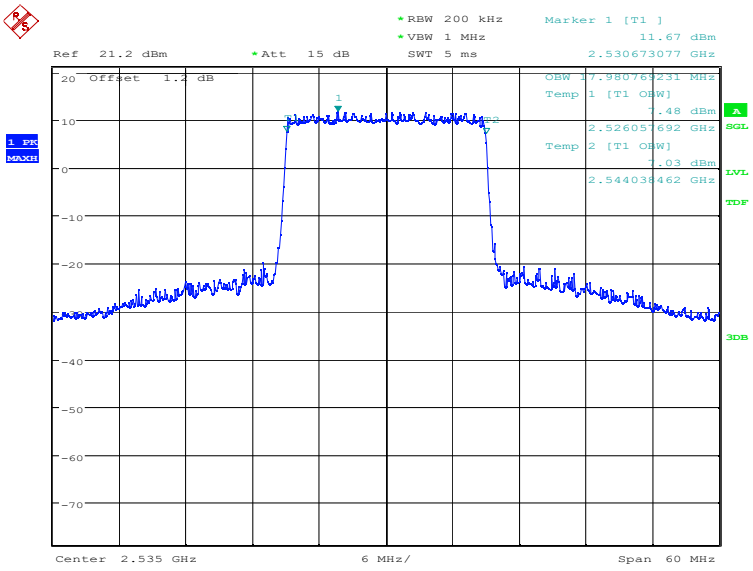
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	17980.77	17980.77

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



Date: 7.DEC.2021 18:25:22

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

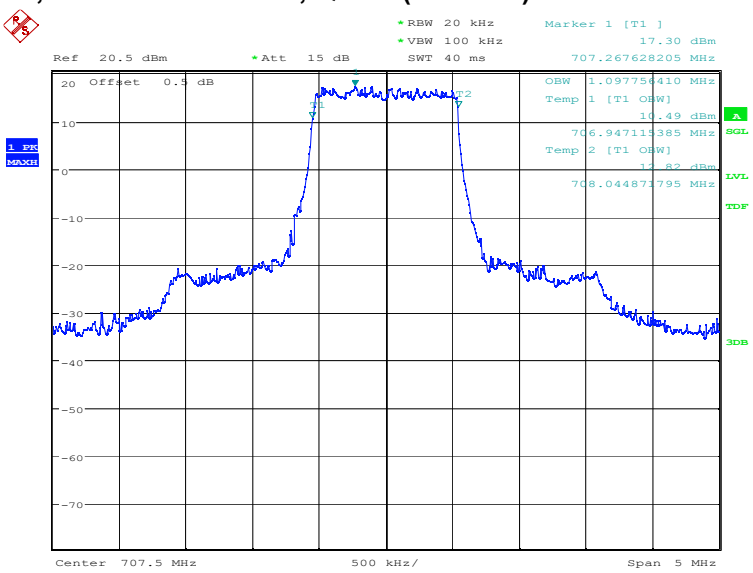


Date: 7.DEC.2021 18:26:01

LTE band 12, 1.4MHz (99%)

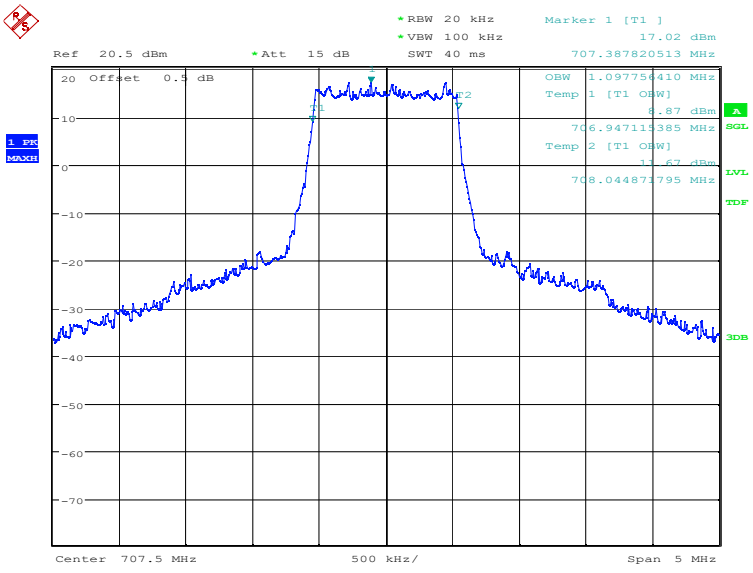
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	1097.76	1097.76

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



Date: 7.DEC.2021 18:27:39

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

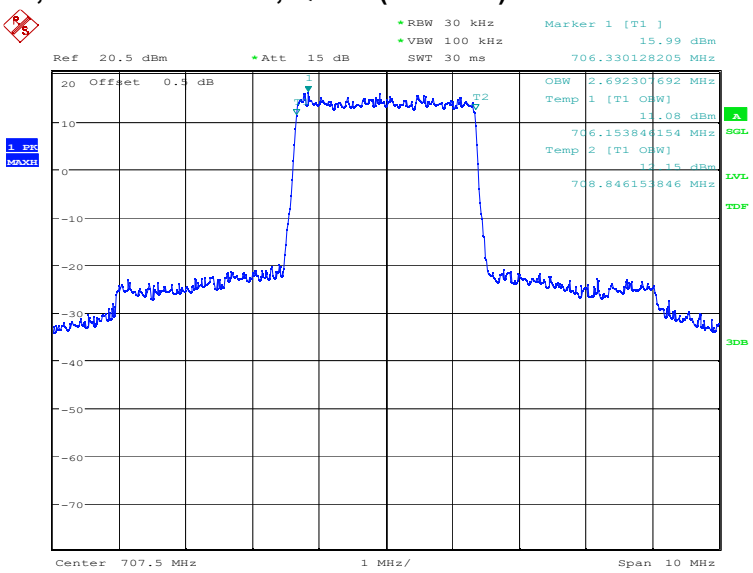


Date: 7.DEC.2021 18:28:19

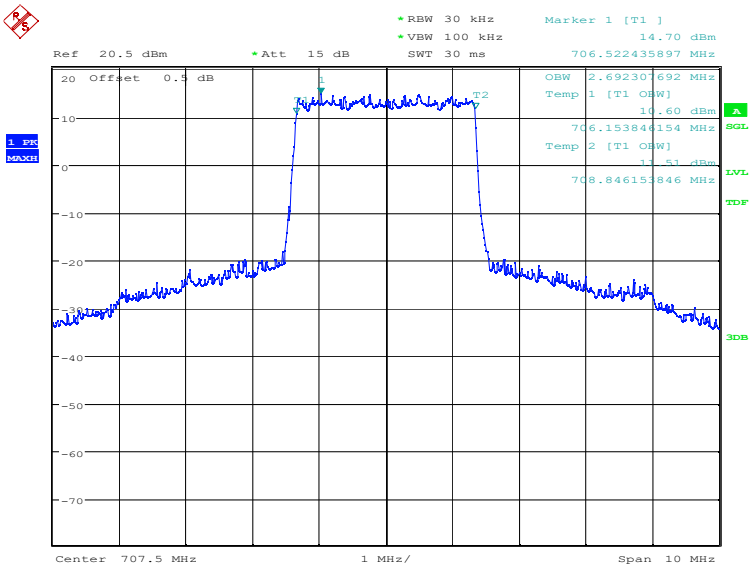
LTE band 12, 3MHz (99%)

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

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



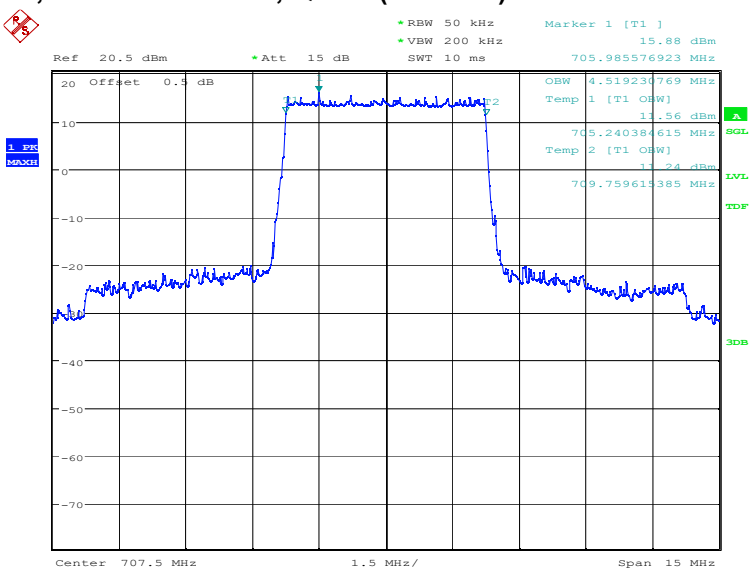
LTE band 12, 3MHz Bandwidth, 16QAM (99% BW)



LTE band 12, 5MHz (99%)

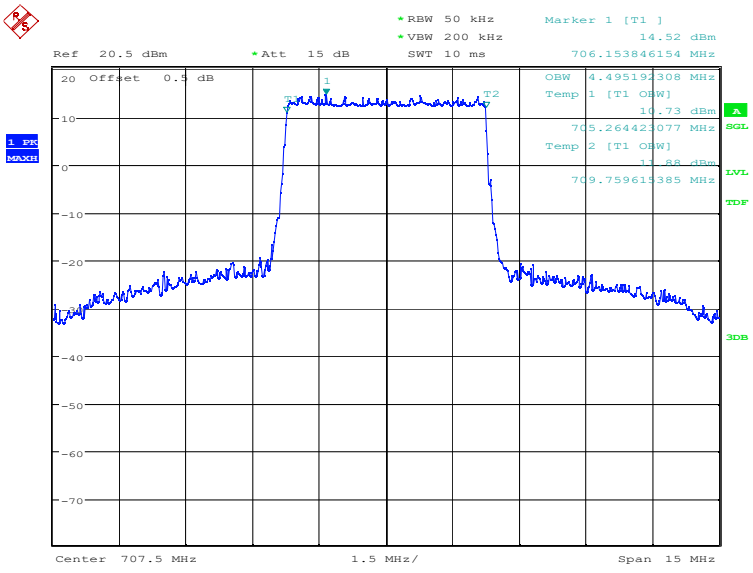
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	4519.23	4495.19

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



Date: 7.DEC.2021 18:30:21

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

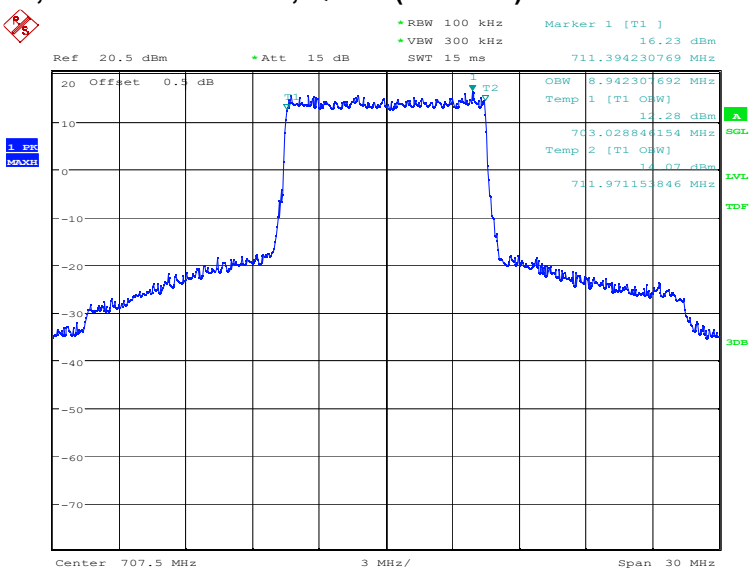


Date: 7.DEC.2021 18:31:01

LTE band 12, 10MHz (99%)

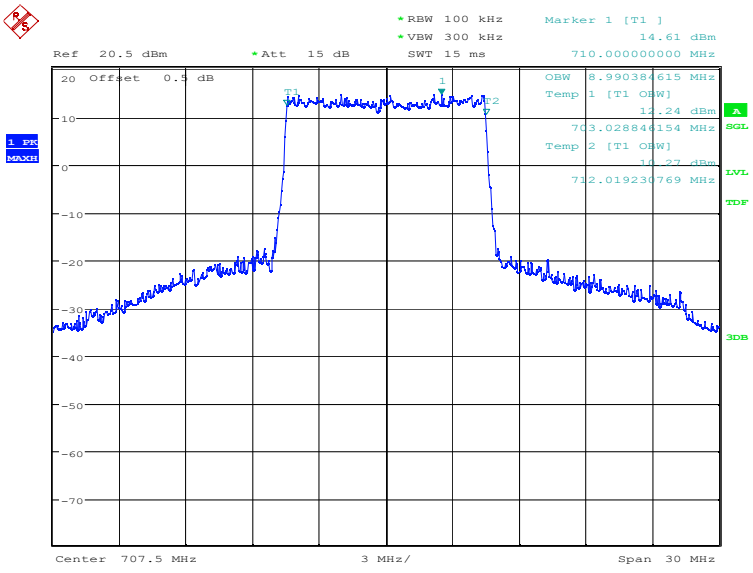
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	8942.31	8990.38

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



Date: 7.DEC.2021 18:31:43

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

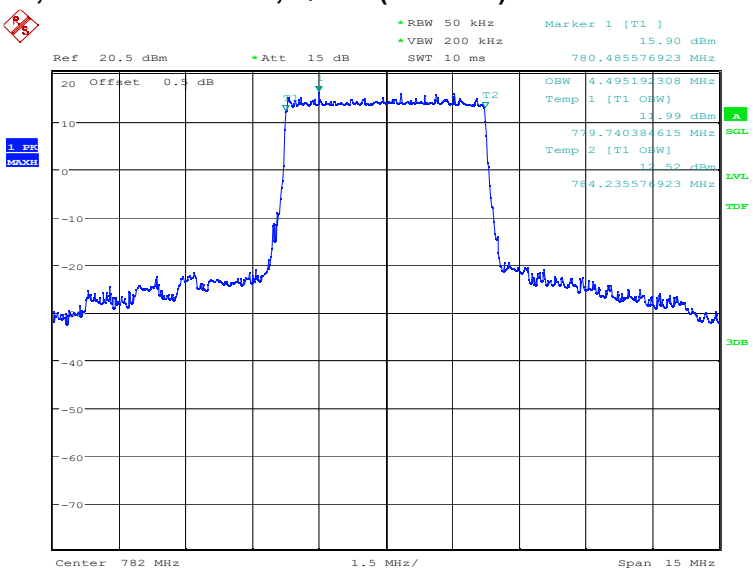


Date: 7.DEC.2021 18:32:22

LTE band 13, 5MHz (99%)

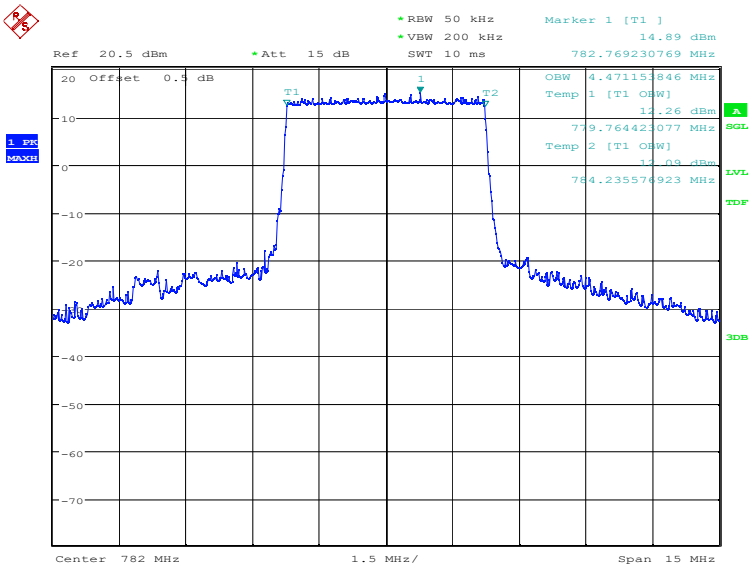
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
782.0	QPSK	16QAM
	4495.19	4471.15

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



Date: 7.DEC.2021 18:33:05

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

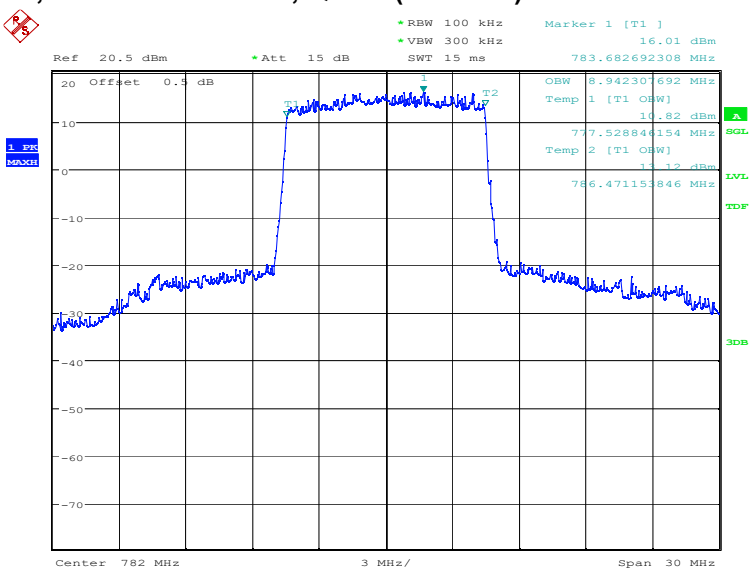


Date: 7.DEC.2021 18:33:45

LTE band 13, 10MHz (99%)

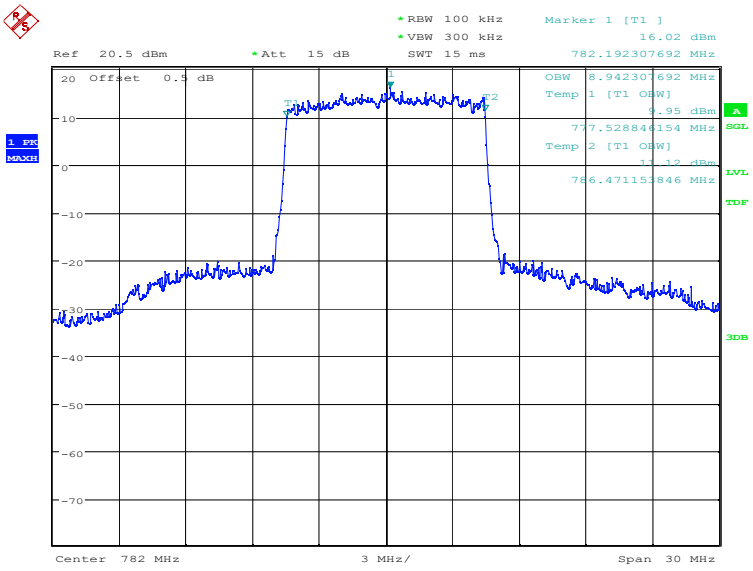
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
782.0	QPSK	16QAM
	8942.31	8942.31

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



Date: 7.DEC.2021 18:34:26

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

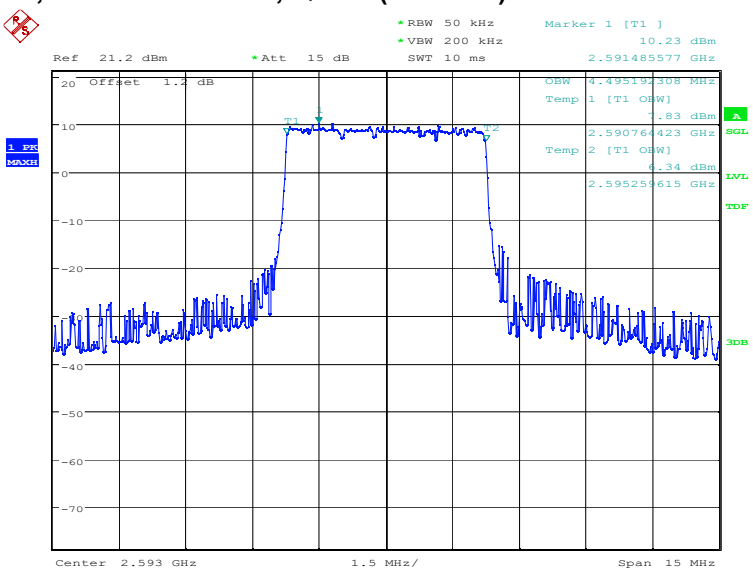


Date: 7.DEC.2021 18:35:06

LTE band 41, 5MHz (99%)

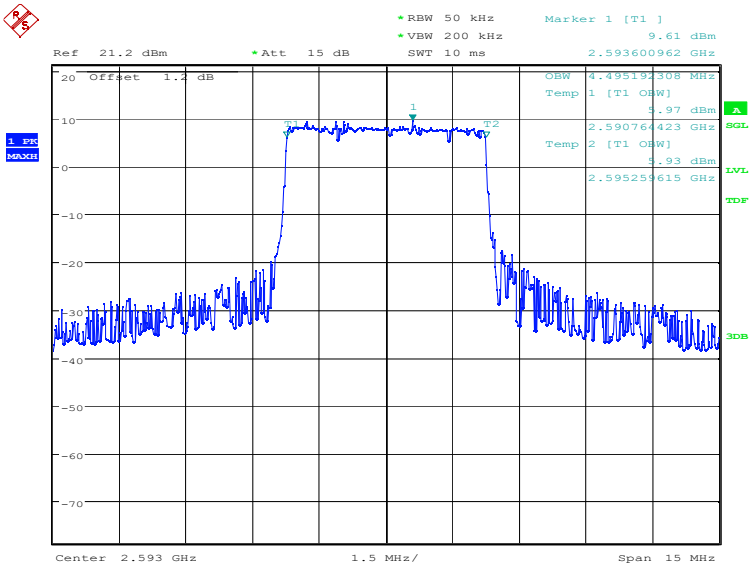
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	4495.19	4495.19

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



Date: 7.DEC.2021 18:44:42

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

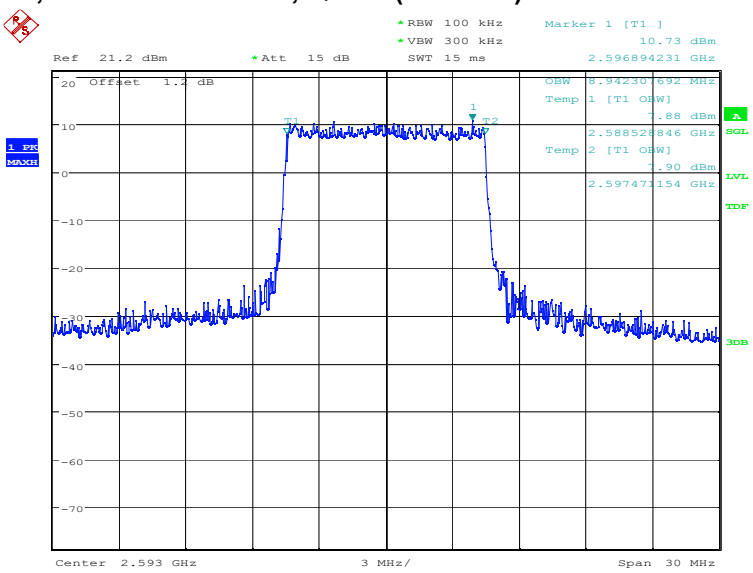


Date: 7.DEC.2021 18:45:22

LTE band 41, 10MHz (99%)

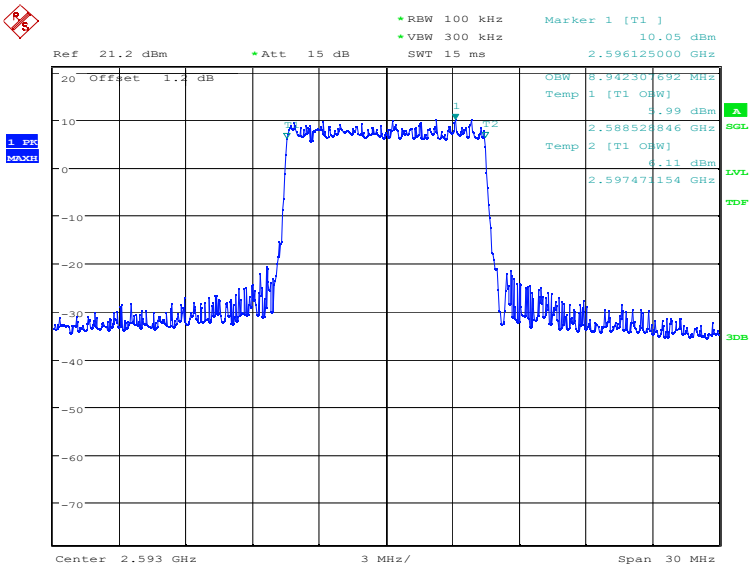
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	8942.31	8942.31

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



Date: 7.DEC.2021 18:46:04

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

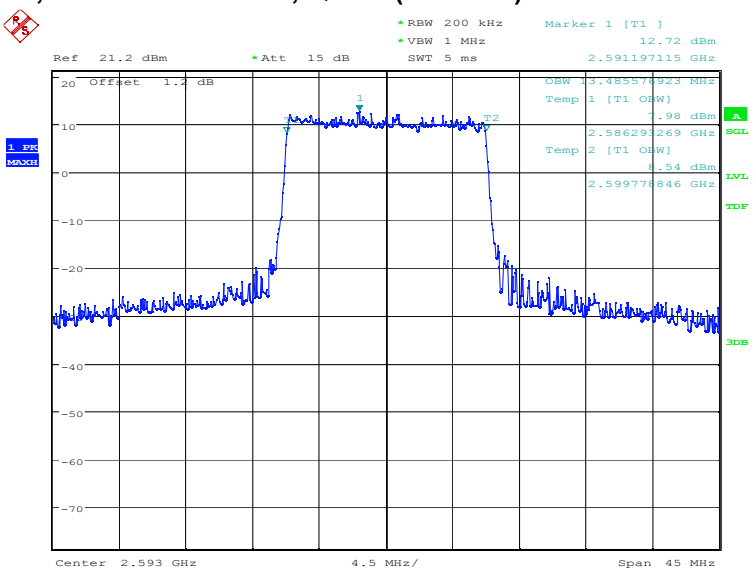


Date: 7.DEC.2021 18:46:44

LTE band 41, 15MHz (99%)

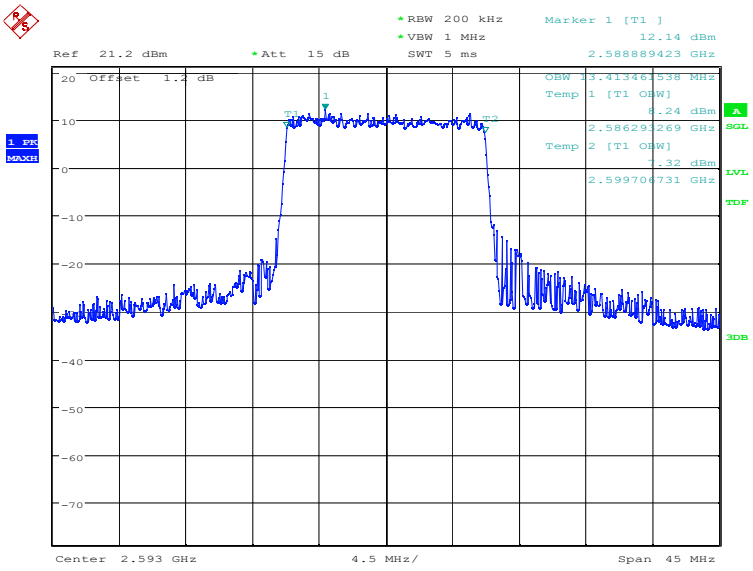
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	13485.58	13413.46

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



Date: 7.DEC.2021 18:47:26

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

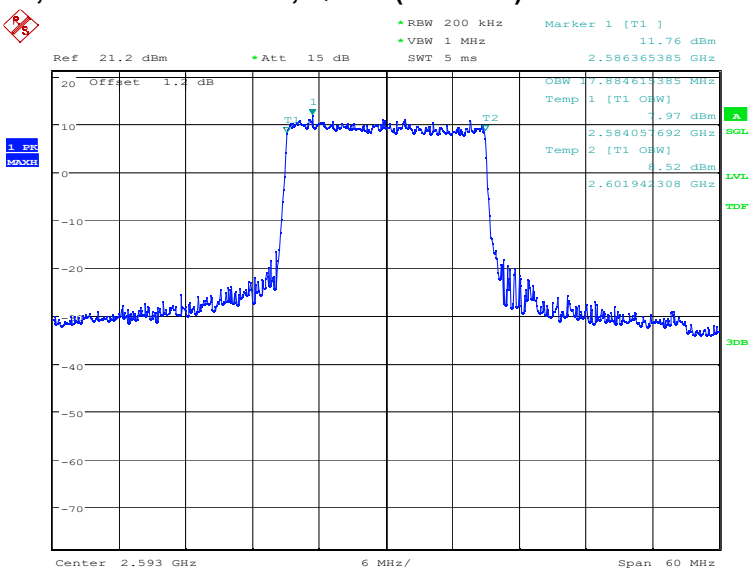


Date: 7.DEC.2021 18:48:06

LTE band 41, 20MHz (99%)

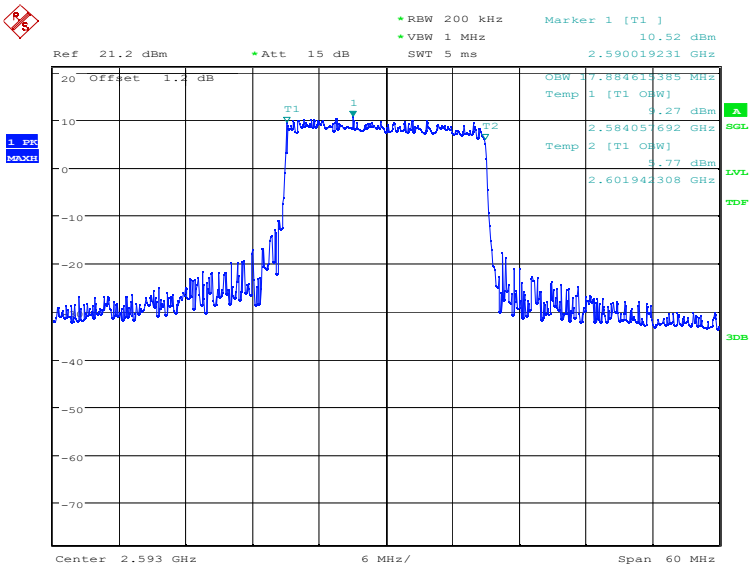
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	17884.62	17884.62

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



Date: 7.DEC.2021 18:48:48

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

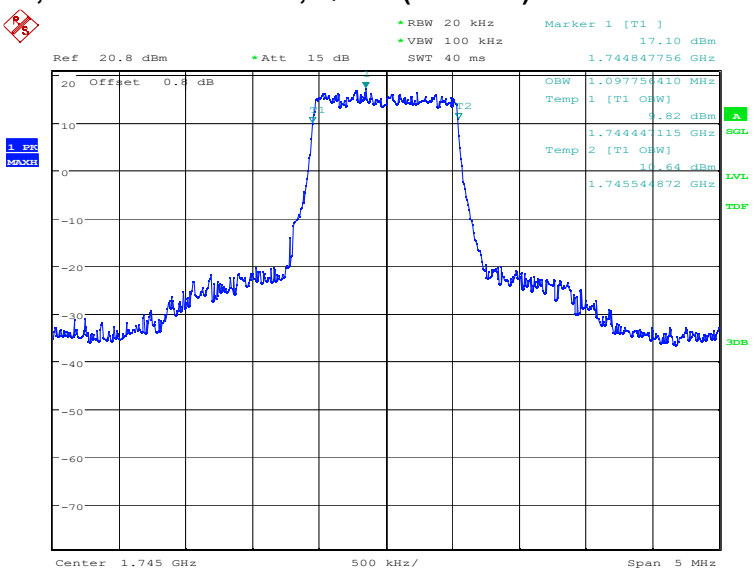


Date: 7.DEC.2021 18:49:27

LTE band 66, 1.4MHz (99%)

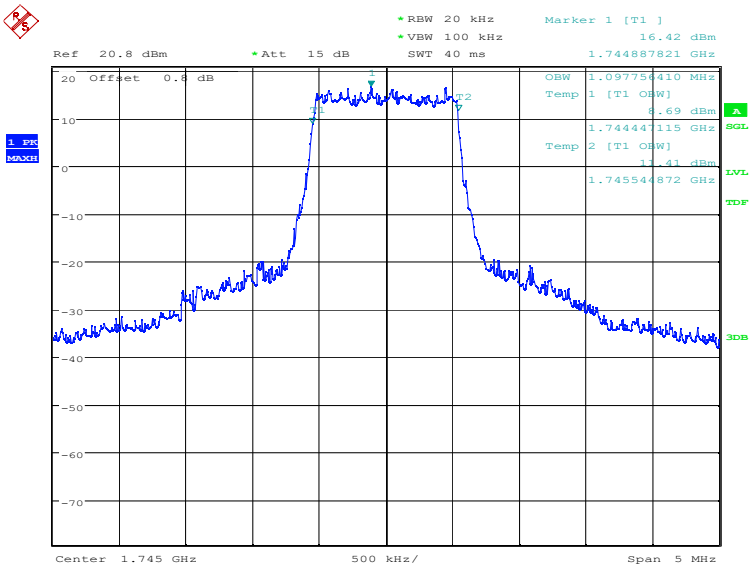
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	1097.76	1097.76

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



Date: 7.DEC.2021 18:35:49

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

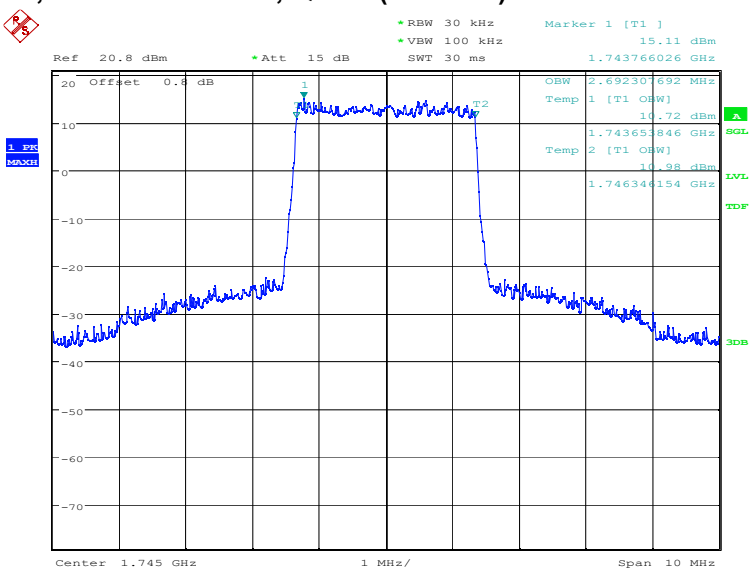


Date: 7.DEC.2021 18:36:29

LTE band 66, 3MHz (99%)

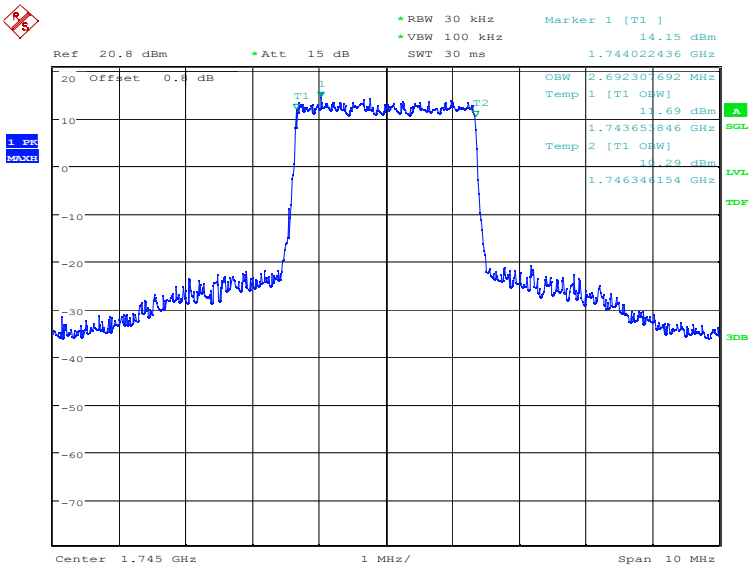
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	2692.31	2692.31

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



Date: 7.DEC.2021 18:37:11

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

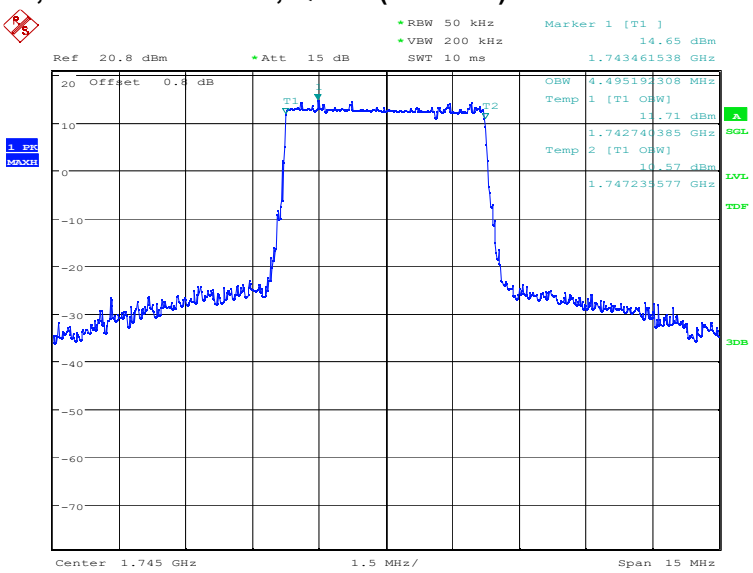


Date: 7.DEC.2021 18:37:50

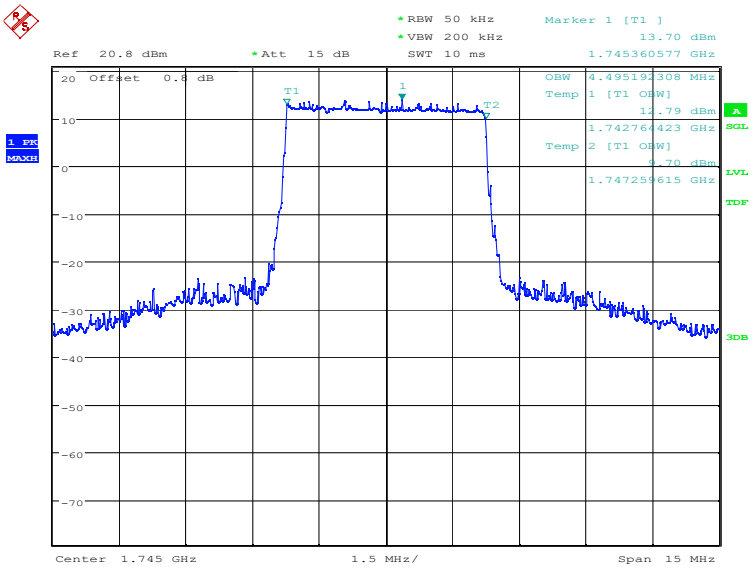
LTE band 66, 5MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	4495.19	4495.19

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



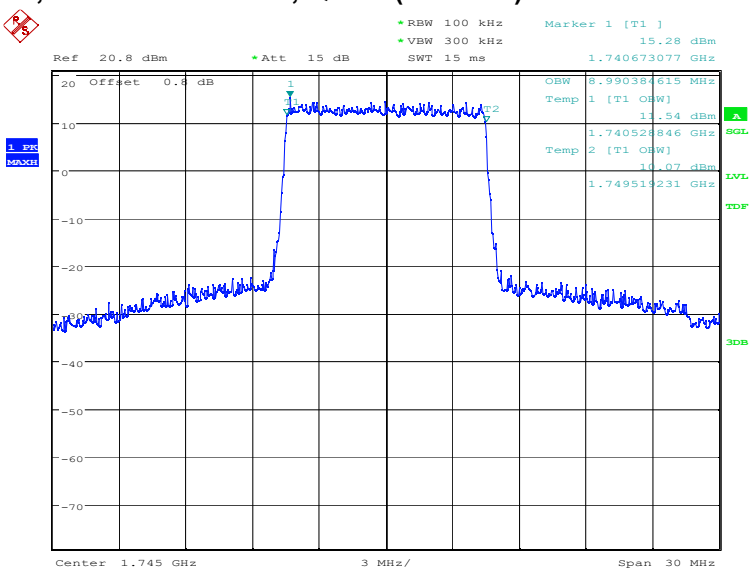
LTE band 66, 5MHz Bandwidth, 16QAM (99% BW)



LTE band 66, 10MHz (99%)

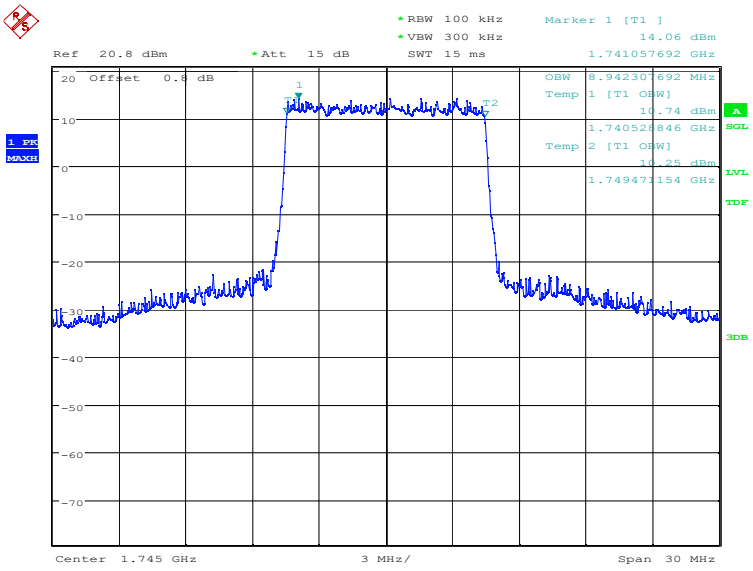
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	8990.38	8942.31

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



Date: 7.DEC.2021 18:39:53

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

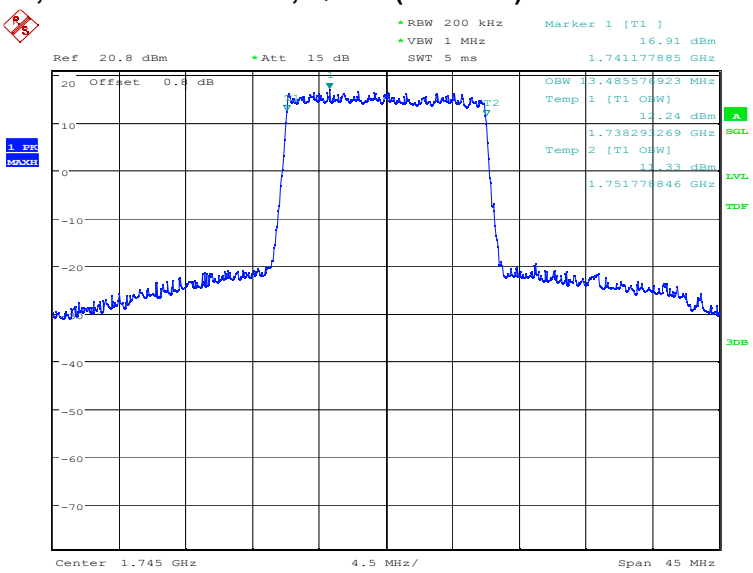


Date: 7.DEC.2021 18:40:33

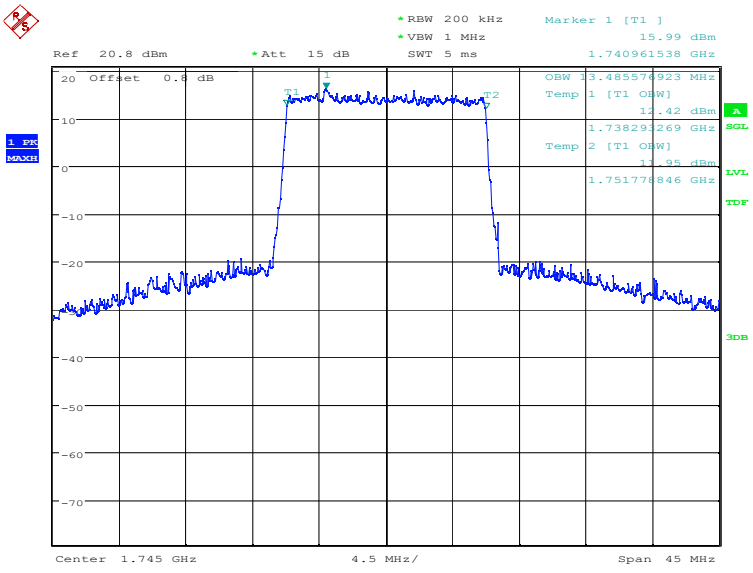
LTE band 66, 15MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	13485.58	13485.58

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



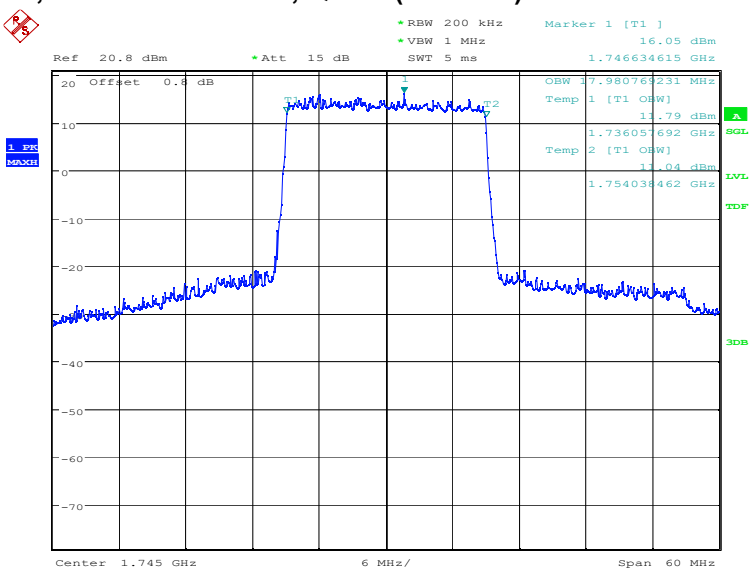
LTE band 66, 15MHz Bandwidth, 16QAM (99% BW)



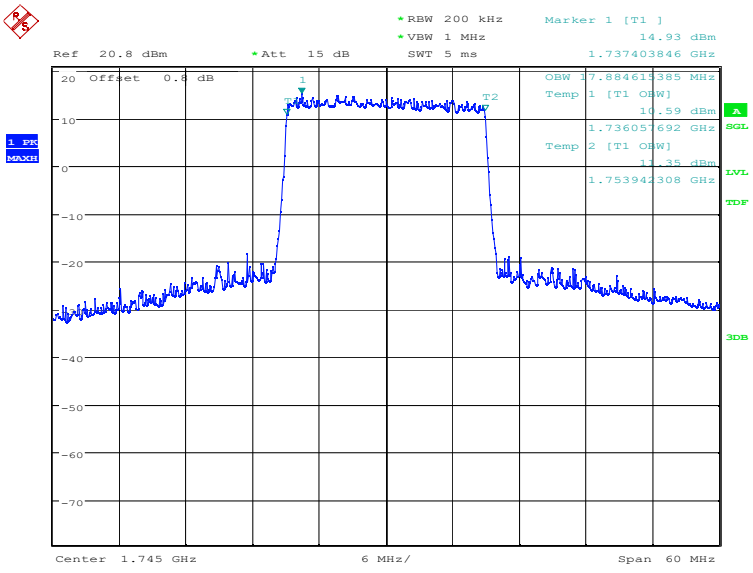
LTE band 66, 20MHz (99%)

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	17980.77	17884.62

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



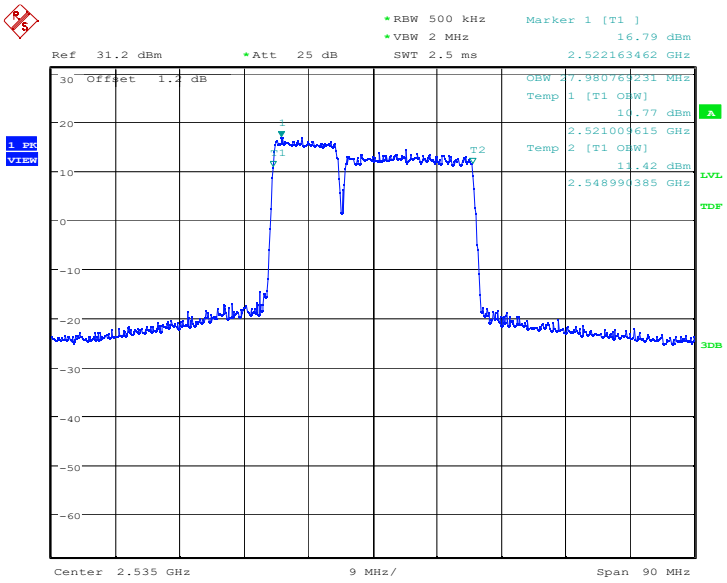
LTE band 66, 20MHz Bandwidth, 16QAM (99% BW)



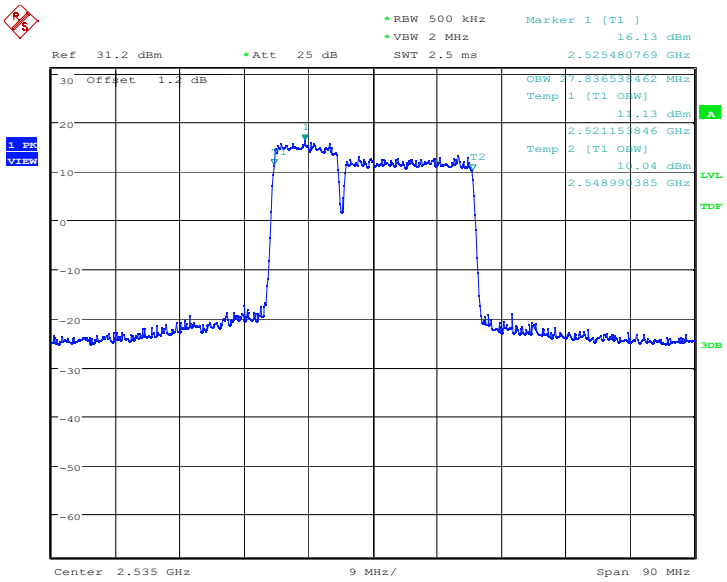
LTE CA Band 7C , 10MHz+20MHz (99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2525.6	27.981	27.837

LTE CA Band 7C , 10MHz+20MHz Bandwidth, QPSK (99% BW)



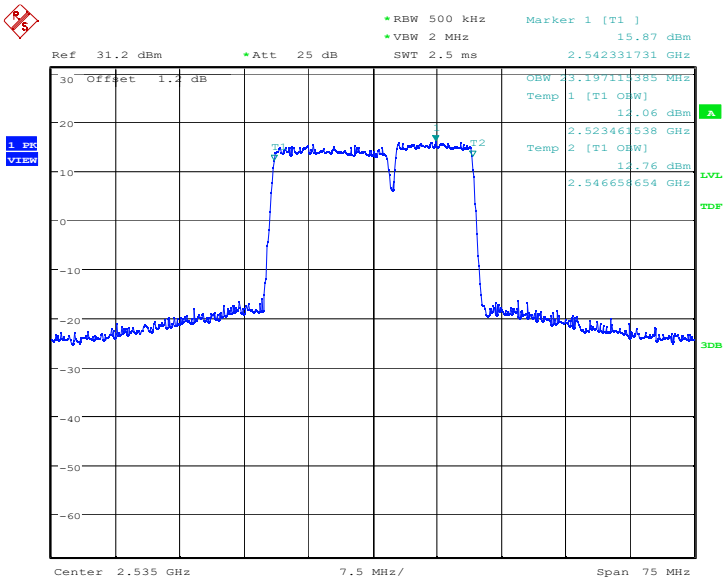
LTE CA Band 7C , 10MHz+20MHz Bandwidth, 16QAM (99% BW)



LTE CA Band 7C , 15MHz+10MHz (99%)

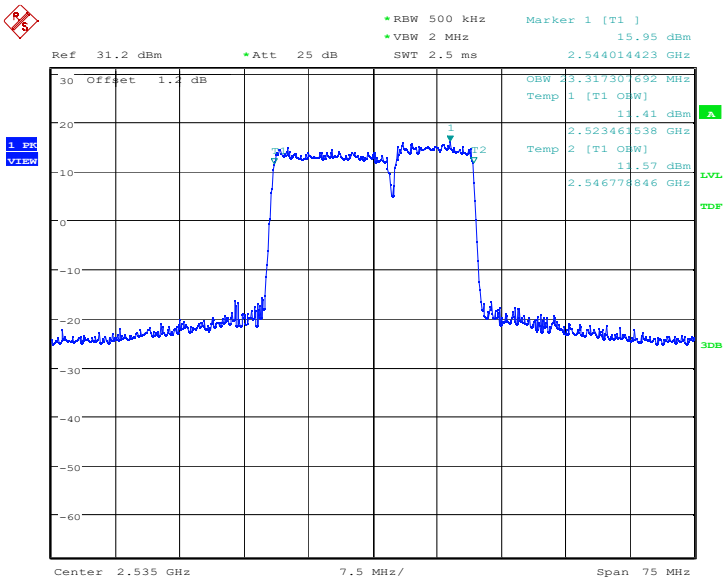
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2530.1	23.197	23.317

LTE CA Band 7C , 15MHz+10MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:30:44

LTE CA Band 7C , 15MHz+10MHz Bandwidth, 16QAM (99% BW)

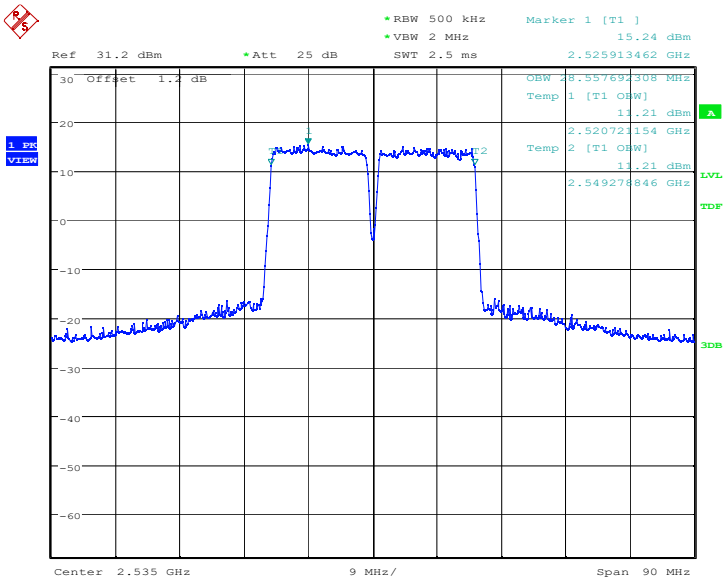


Date: 14.DEC.2021 14:31:06

LTE CA Band 7C , 15MHz+15MHz (99%)

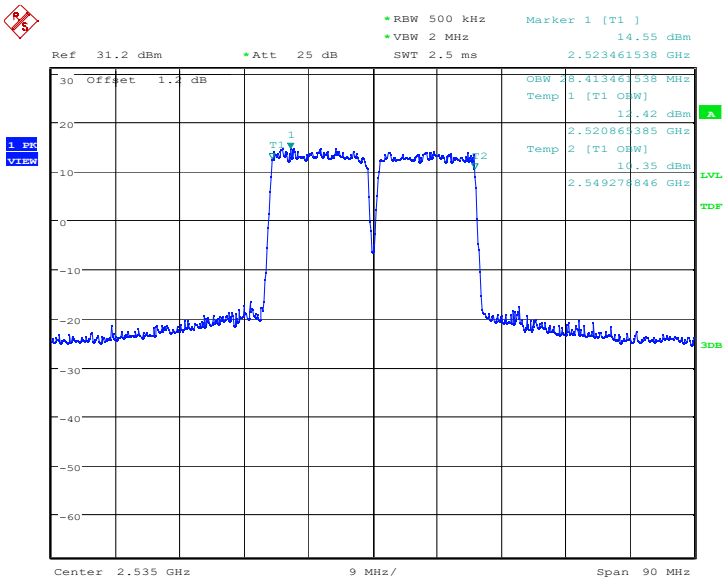
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2527.5	28.558	28.413

LTE CA Band 7C , 15MHz+15MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:32:00

LTE CA Band 7C , 15MHz+15MHz Bandwidth, 16QAM (99% BW)

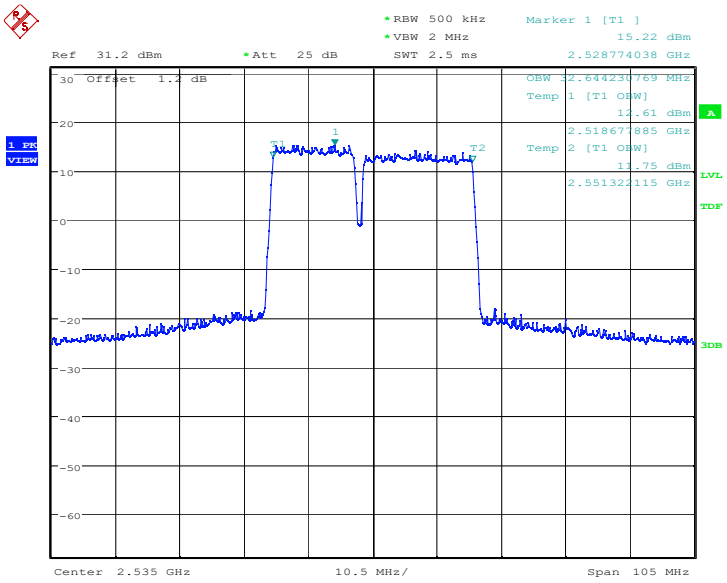


Date: 14.DEC.2021 14:32:22

LTE CA Band 7C , 15MHz+20MHz (99%)

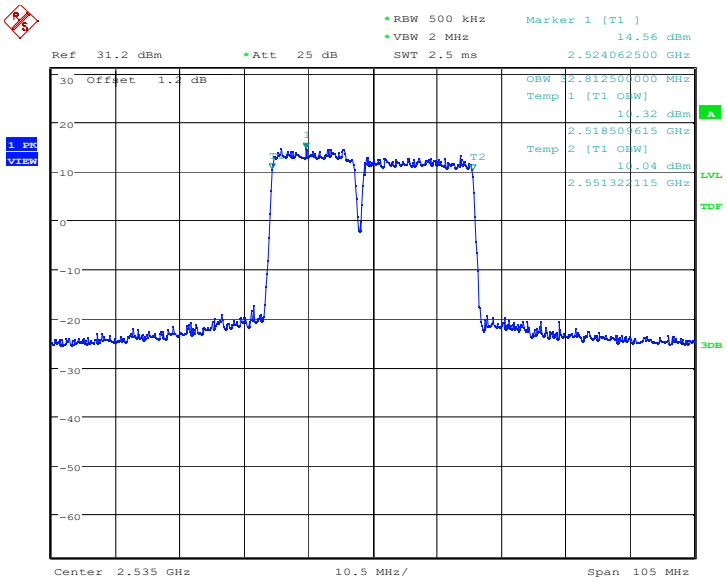
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2525.3	32.644	32.812

LTE CA Band 7C , 15MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:33:16

LTE CA Band 7C , 15MHz+20MHz Bandwidth, 16QAM (99% BW)

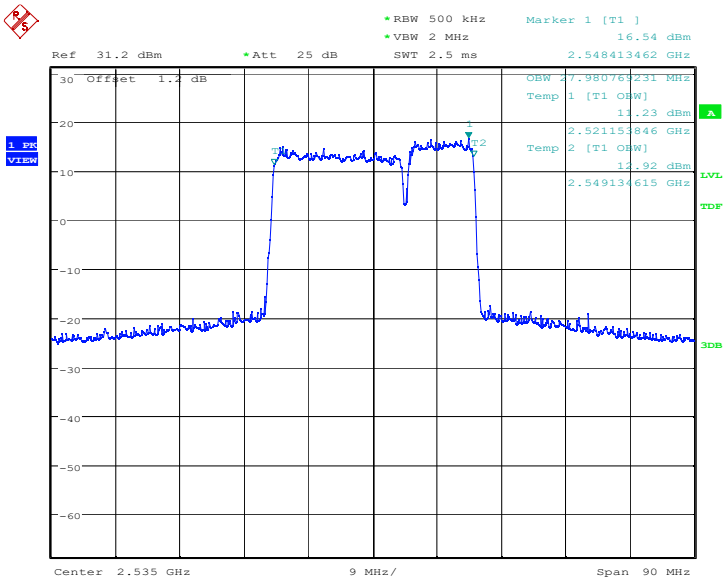


Date: 14.DEC.2021 14:33:38

LTE CA Band 7C , 20MHz+10MHz (99%)

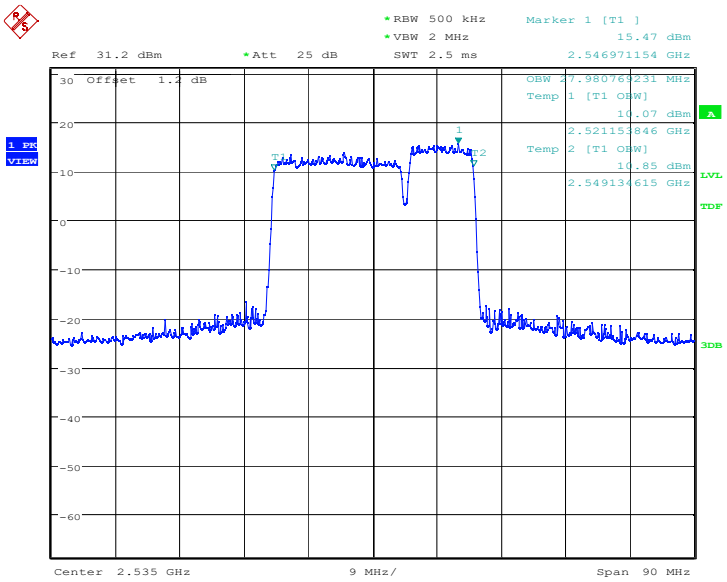
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2530.1	27.981	27.981

LTE CA Band 7C , 20MHz+10MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:34:35

LTE CA Band 7C , 20MHz+10MHz Bandwidth, 16QAM (99% BW)

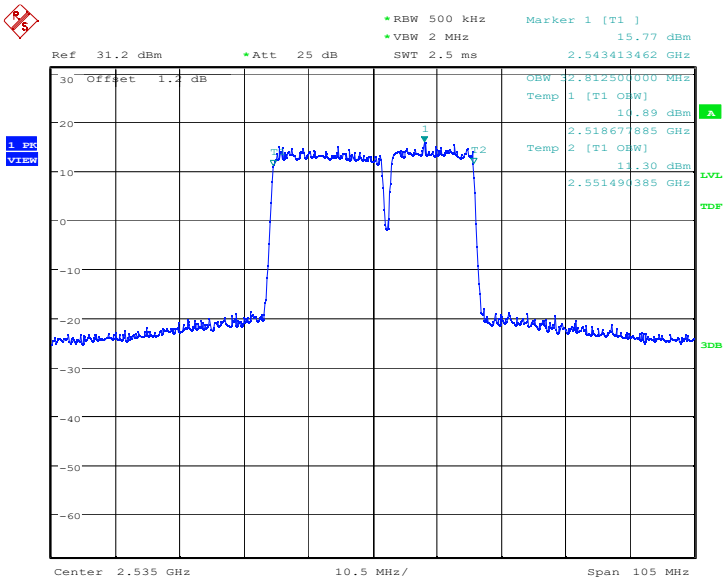


Date: 14.DEC.2021 14:34:57

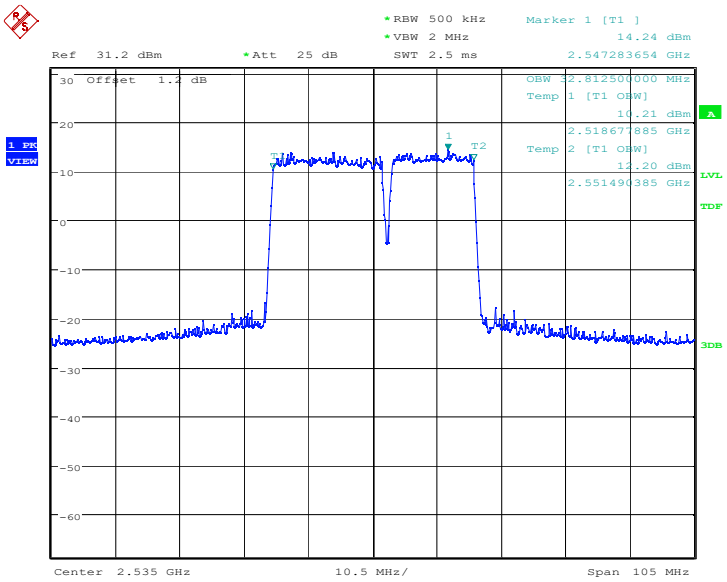
LTE CA Band 7C , 20MHz+15MHz (99%)

Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2527.6	32.812	32.812

LTE CA Band 7C , 20MHz+15MHz Bandwidth, QPSK (99% BW)



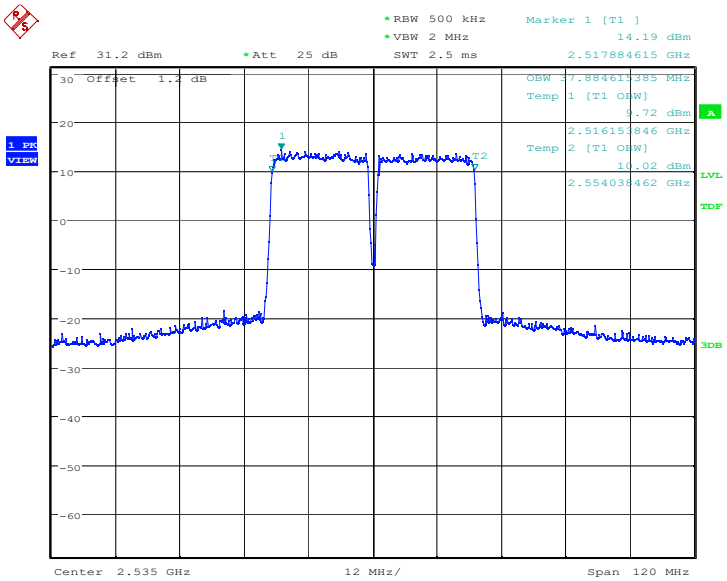
LTE CA Band 7C , 20MHz+15MHz Bandwidth, 16QAM (99% BW)



LTE CA Band 7C , 20MHz+20MHz (99%)

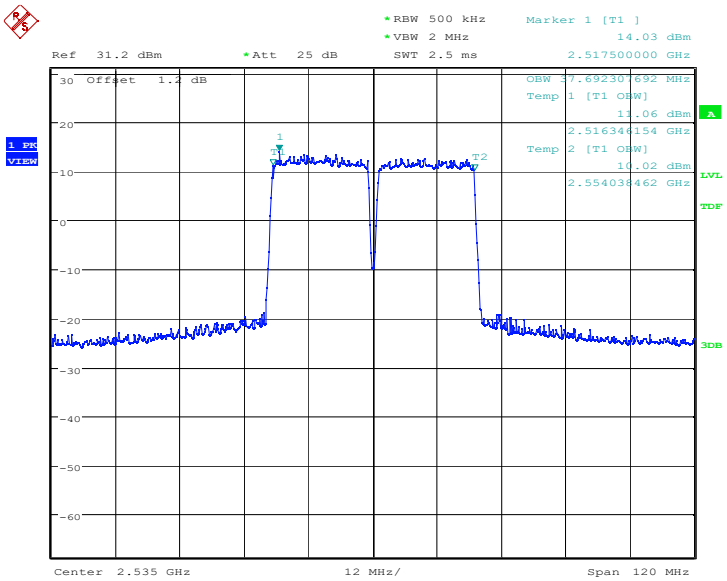
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2525.1	37.885	37.692

LTE CA Band 7C , 20MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:37:07

LTE CA Band 7C , 20MHz+20MHz Bandwidth, 16QAM (99% BW)

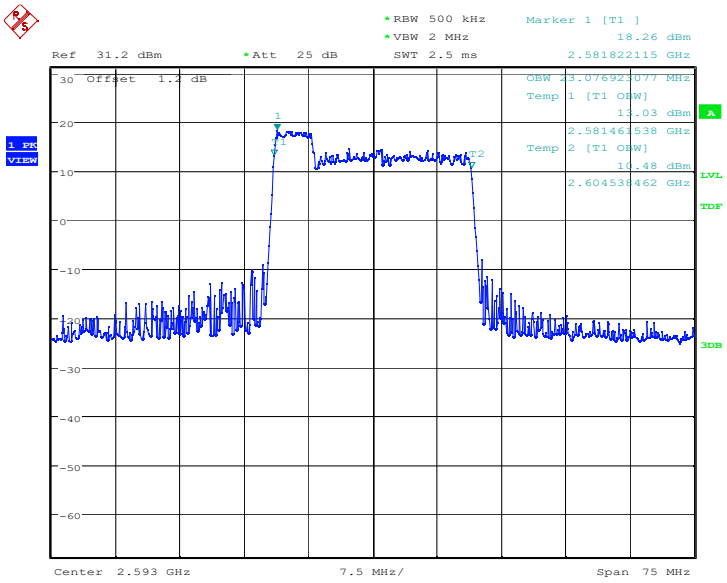


Date: 14.DEC.2021 14:37:29

LTE CA Band 41C , 5MHz+20MHz (99%)

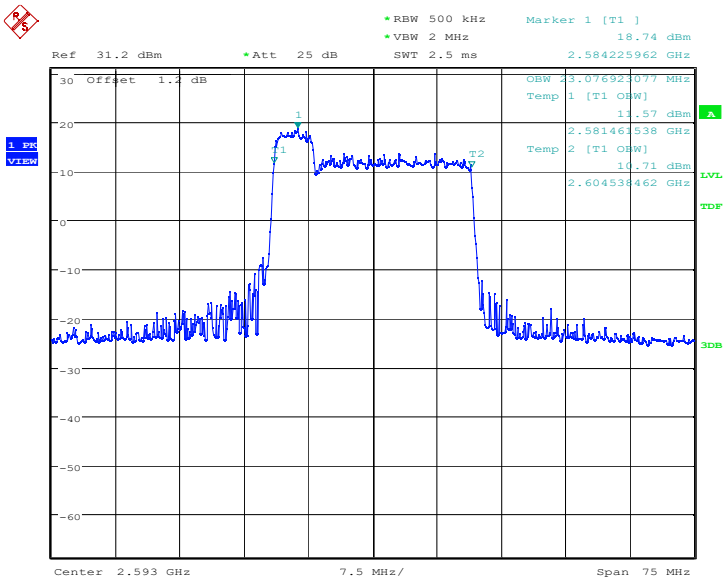
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2583.8	23.077	23.077

LTE CA Band 41C , 5MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:38:24

LTE CA Band 41C , 5MHz+20MHz Bandwidth, 16QAM (99% BW)

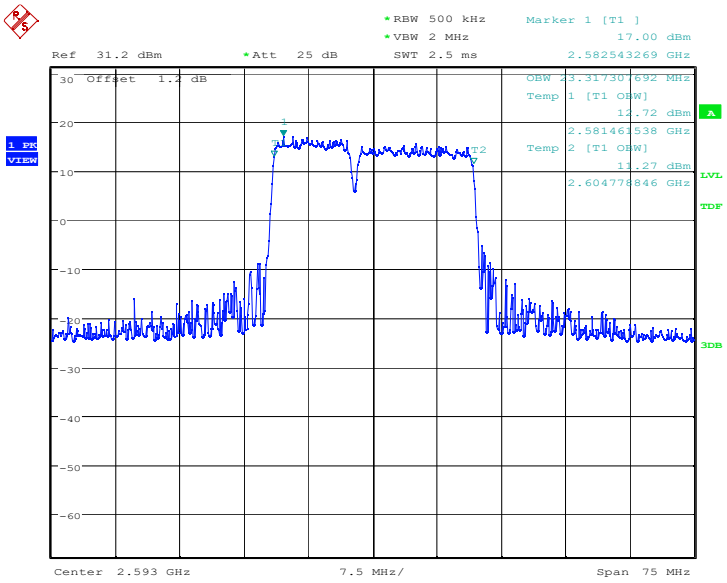


Date: 14.DEC.2021 14:38:47

LTE CA Band 41C , 10MHz+15MHz (99%)

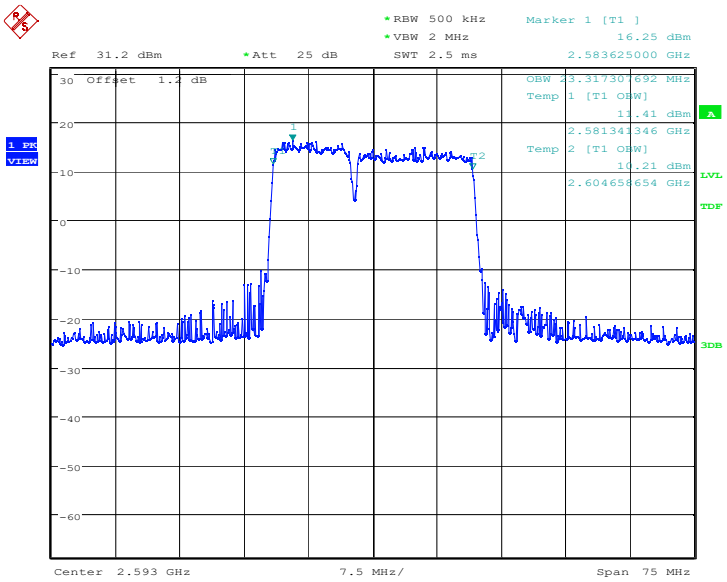
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2585.9	23.317	23.317

LTE CA Band 41C , 10MHz+15MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:39:43

LTE CA Band 41C , 10MHz+15MHz Bandwidth, 16QAM (99% BW)

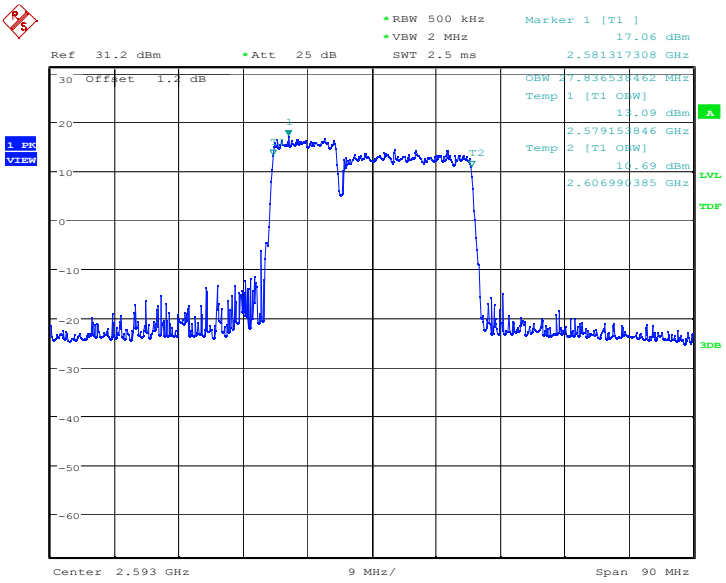


Date: 14.DEC.2021 14:40:06

LTE CA Band 41C , 10MHz+20MHz (99%)

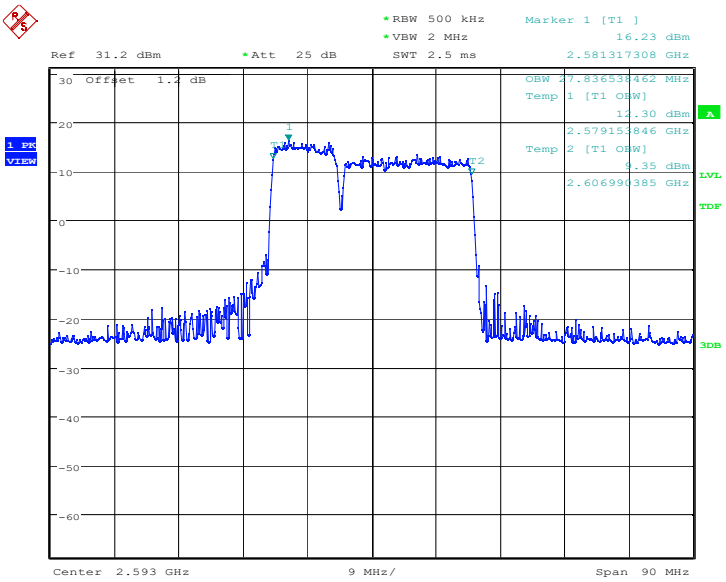
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2583.6	27.837	27.837

LTE CA Band 41C , 10MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:41:00

LTE CA Band 41C , 10MHz+20MHz Bandwidth, 16QAM (99% BW)

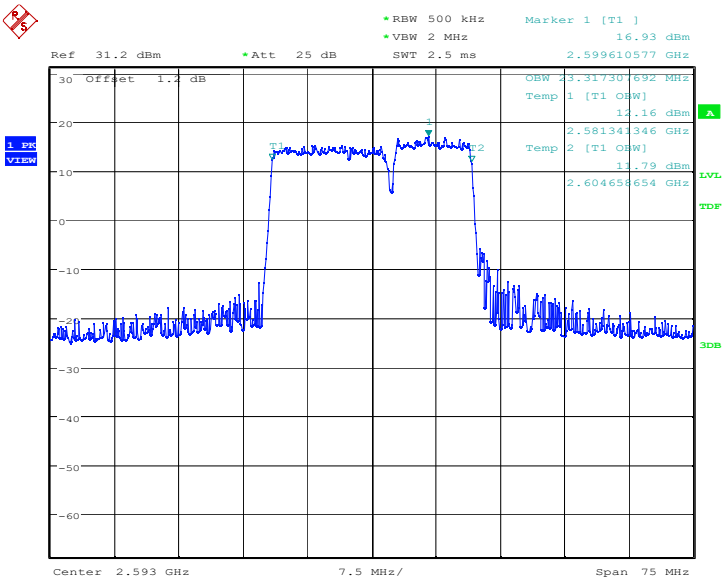


Date: 14.DEC.2021 14:41:22

LTE CA Band 41C , 15MHz+10MHz (99%)

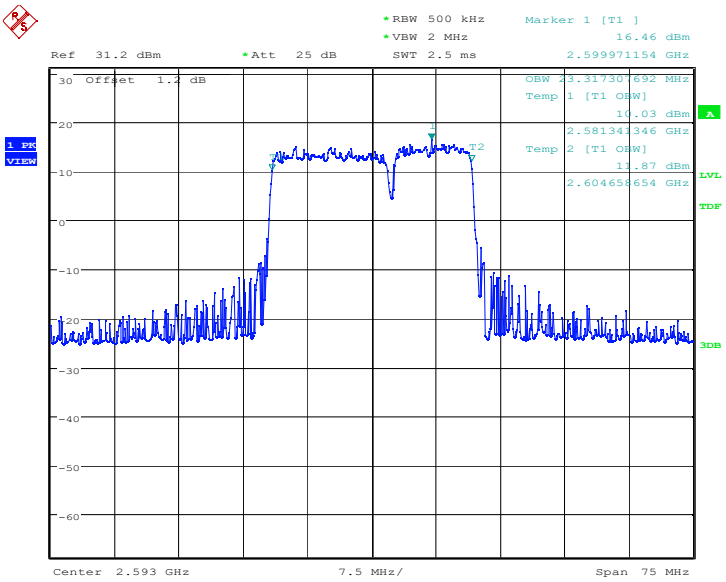
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2588.1	23.317	23.317

LTE CA Band 41C , 15MHz+10MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:42:19

LTE CA Band 41C , 15MHz+10MHz Bandwidth, 16QAM (99% BW)

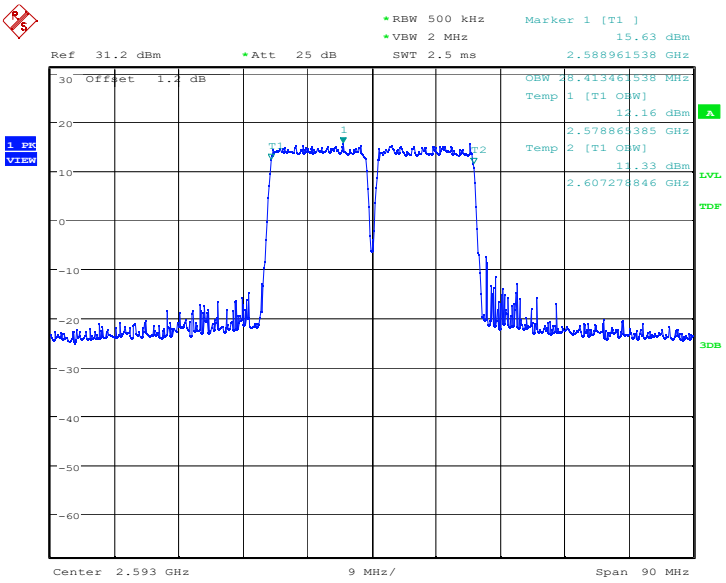


Date: 14.DEC.2021 14:42:41

LTE CA Band 41C , 15MHz+15MHz (99%)

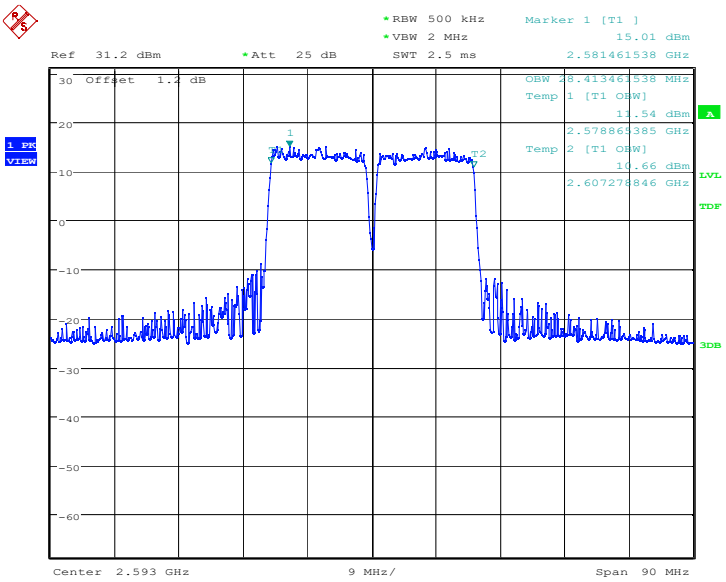
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2585.5	28.413	28.413

LTE CA Band 41C , 15MHz+15MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:43:35

LTE CA Band 41C , 15MHz+15MHz Bandwidth, 16QAM (99% BW)

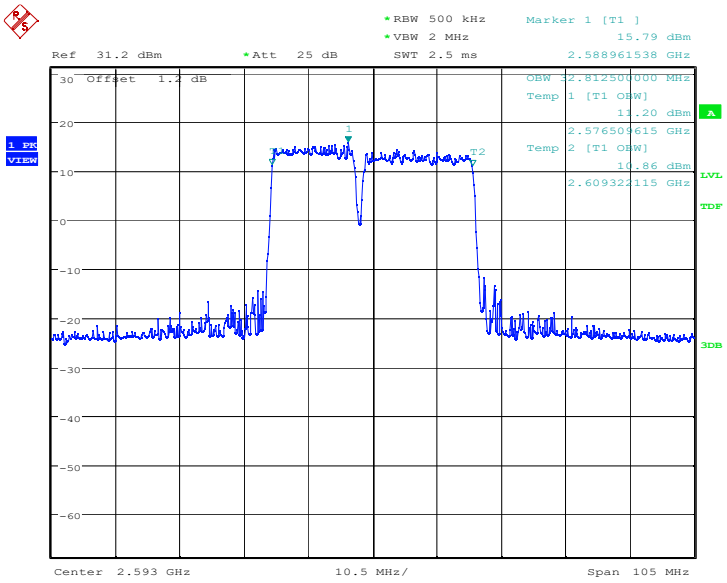


Date: 14.DEC.2021 14:43:58

LTE CA Band 41C , 15MHz+20MHz (99%)

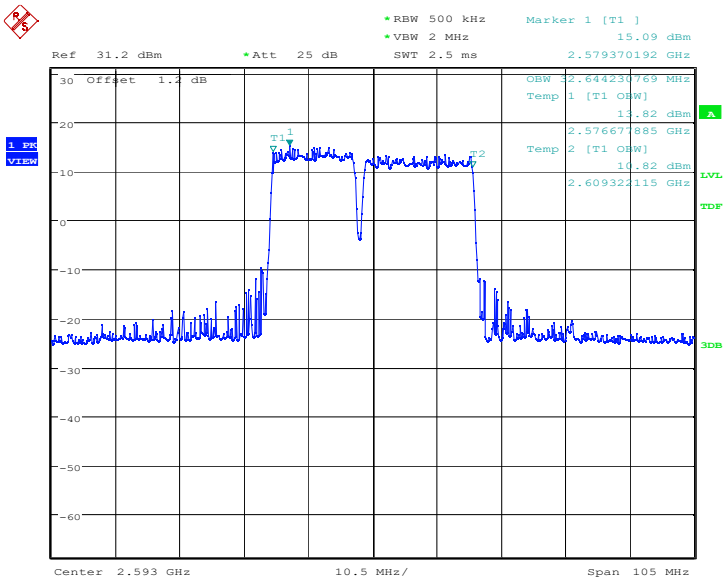
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2583.3	32.812	32.644

LTE CA Band 41C , 15MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:44:51

LTE CA Band 41C , 15MHz+20MHz Bandwidth, 16QAM (99% BW)

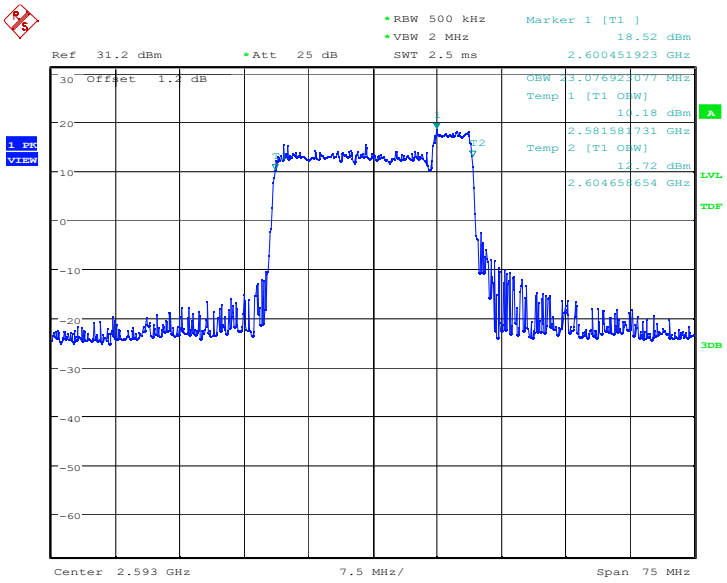


Date: 14.DEC.2021 14:45:13

LTE CA Band 41C , 20MHz+5MHz (99%)

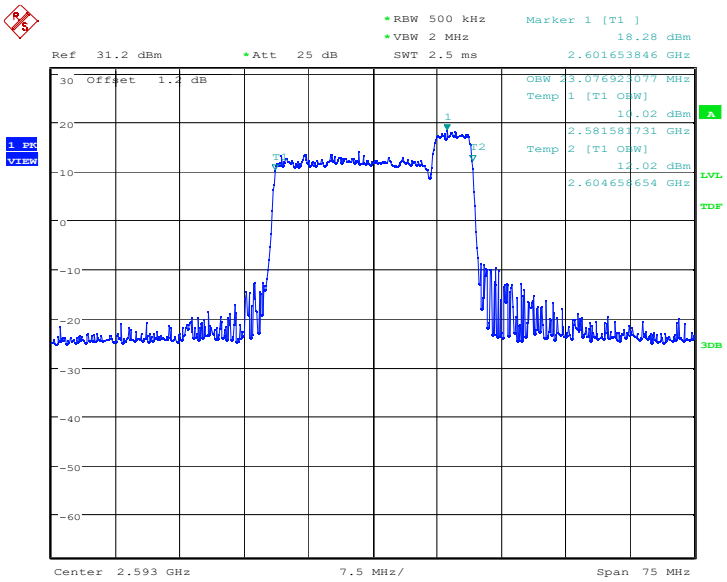
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2590.5	23.077	23.077

LTE CA Band 41C , 20MHz+5MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:46:11

LTE CA Band 41C , 20MHz+5MHz Bandwidth, 16QAM (99% BW)

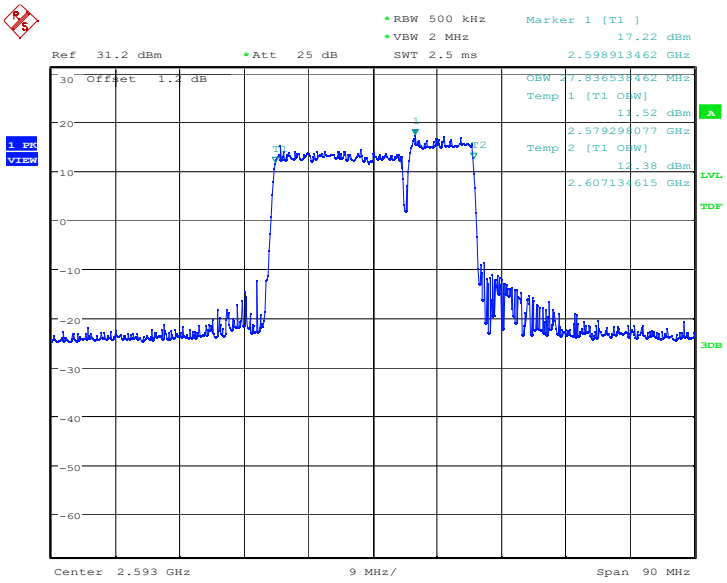


Date: 14.DEC.2021 14:46:33

LTE CA Band 41C , 20MHz+10MHz (99%)

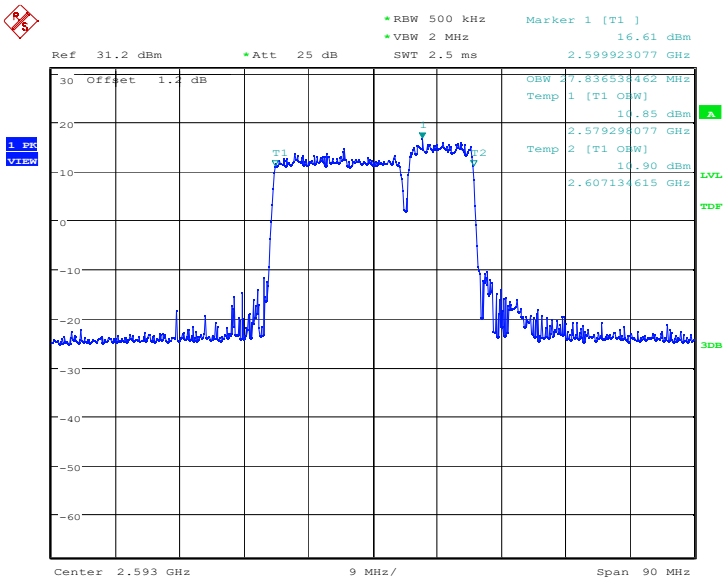
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2588.1	27.837	27.837

LTE CA Band 41C , 20MHz+10MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:47:26

LTE CA Band 41C , 20MHz+10MHz Bandwidth, 16QAM (99% BW)

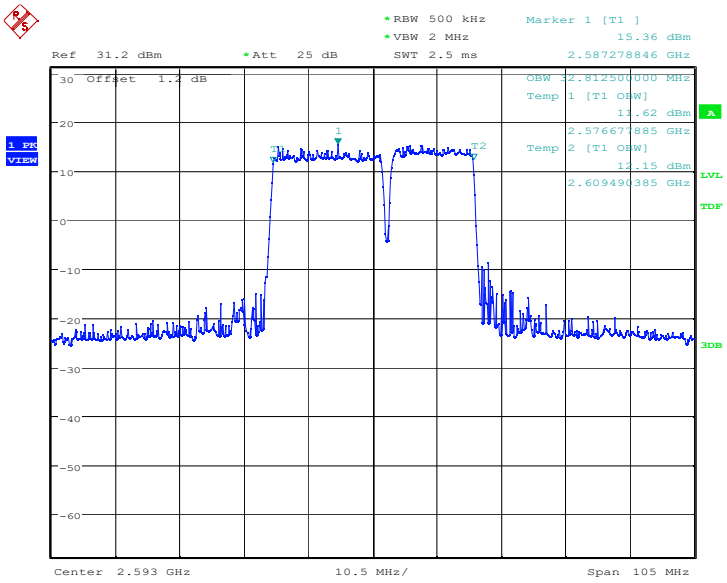


Date: 14.DEC.2021 14:47:49

LTE CA Band 41C , 20MHz+15MHz (99%)

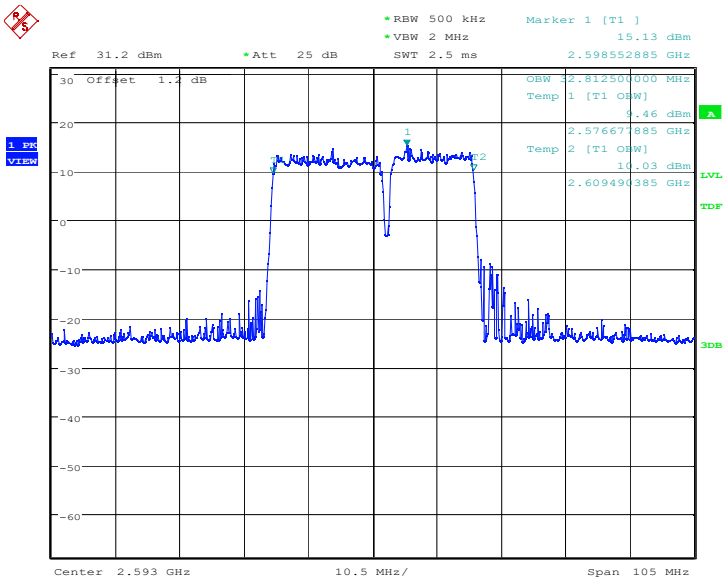
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2585.6	32.812	32.812

LTE CA Band 41C , 20MHz+15MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:48:43

LTE CA Band 41C , 20MHz+15MHz Bandwidth, 16QAM (99% BW)

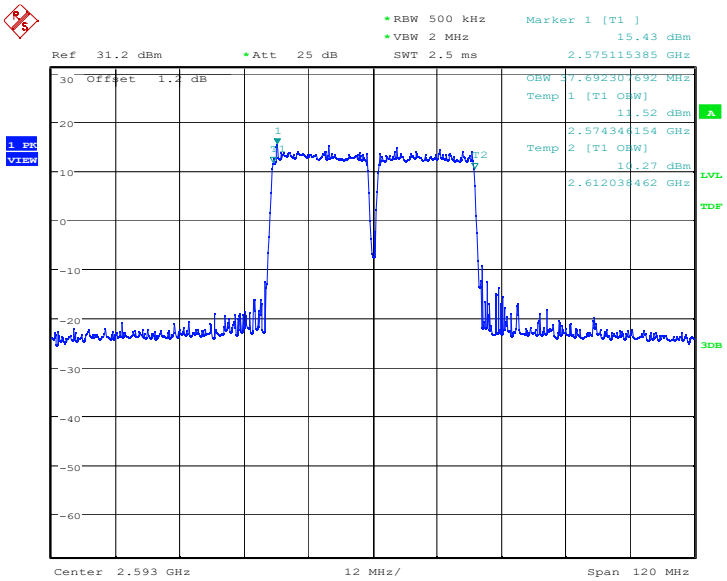


Date: 14.DEC.2021 14:49:05

LTE CA Band 41C , 20MHz+20MHz (99%)

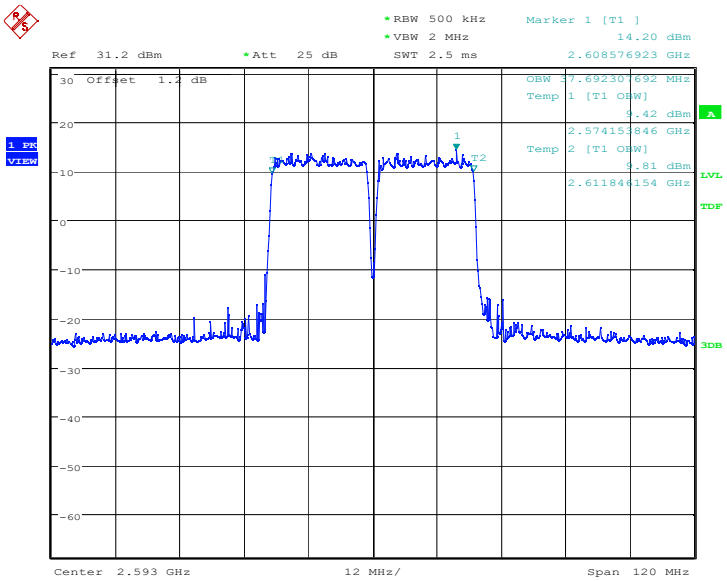
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2583.1	37.692	37.692

LTE CA Band 41C , 20MHz+20MHz Bandwidth, QPSK (99% BW)



Date: 14.DEC.2021 14:49:59

LTE CA Band 41C , 20MHz+20MHz Bandwidth, 16QAM (99% BW)



Date: 14.DEC.2021 14:50:21

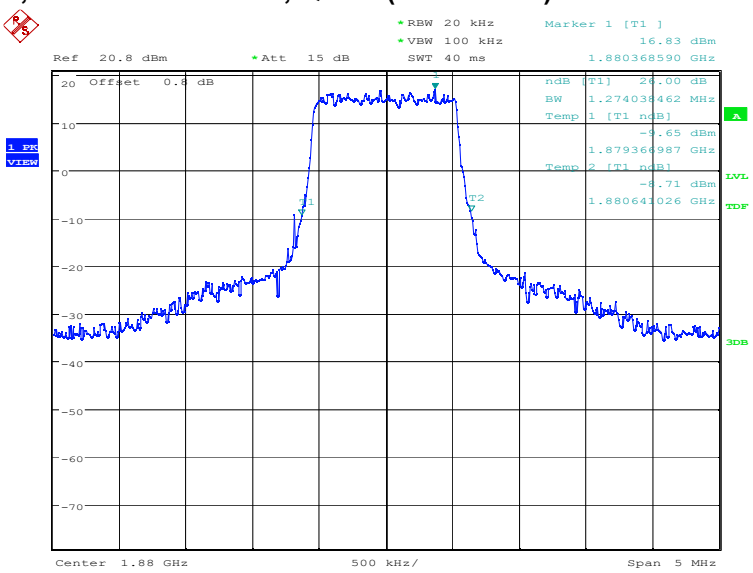
A.5 Emission Bandwidth

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. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.
The measurement method is from ANSI C63.26:
a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “−X dB” requirement, i.e., if the requirement calls for measuring the −26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

LTE band 2, 1.4MHz (-26dBc)

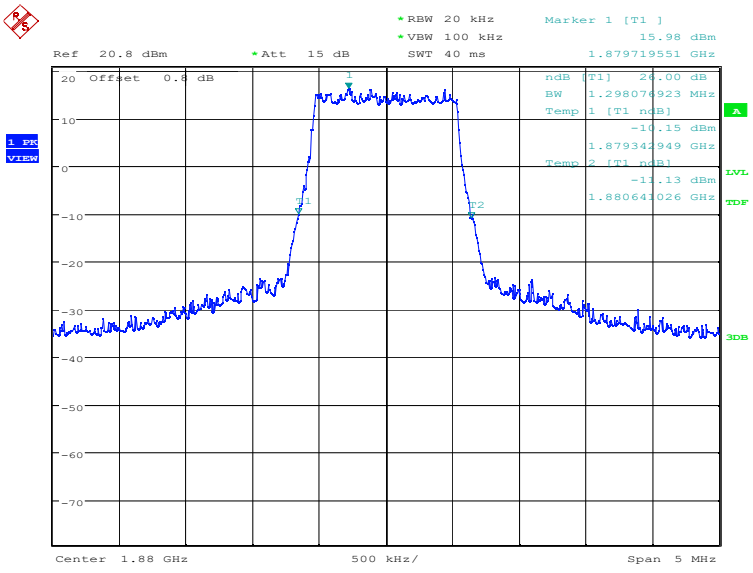
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	1274.04	1298.08

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



Date: 7.DEC.2021 18:50:47

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

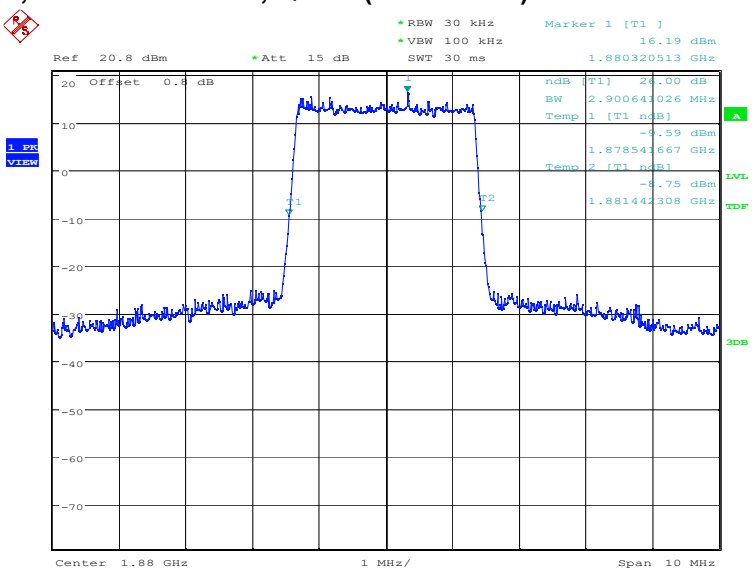


Date: 7.DEC.2021 18:51:27

LTE band 2, 3MHz (-26dBc)

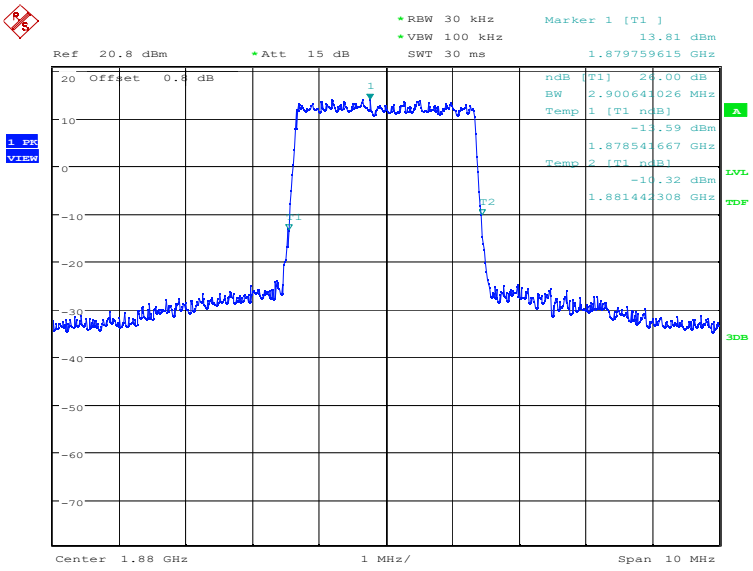
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
	QPSK	16QAM
1880.0	2900.64	2900.64

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



Date: 7.DEC.2021 18:52:08

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

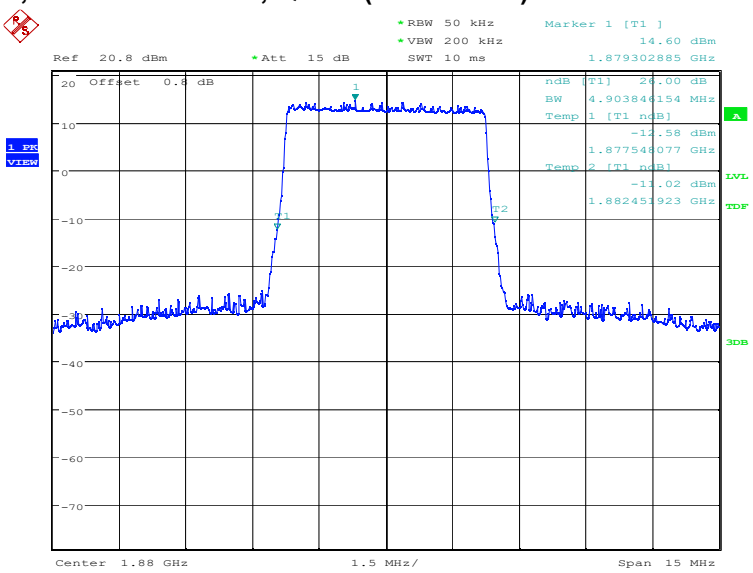


Date: 7.DEC.2021 18:52:48

LTE band 2, 5MHz (-26dBc)

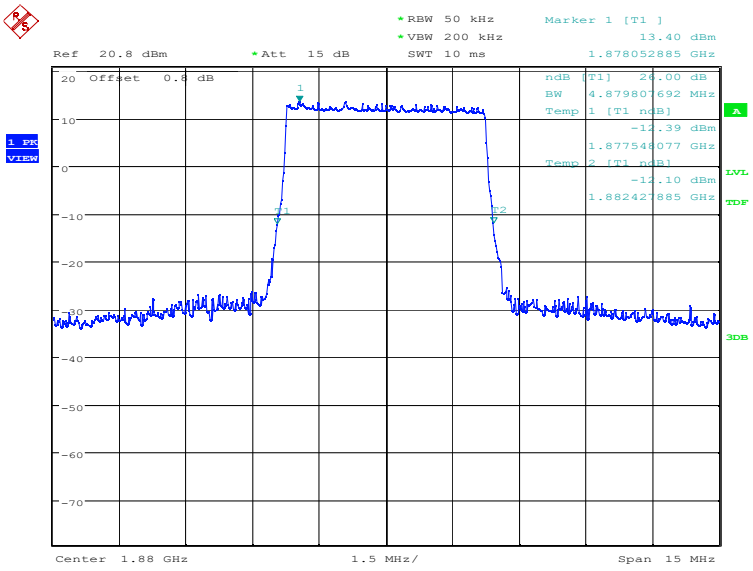
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	4903.85	4879.81

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



Date: 7.DEC.2021 18:53:30

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

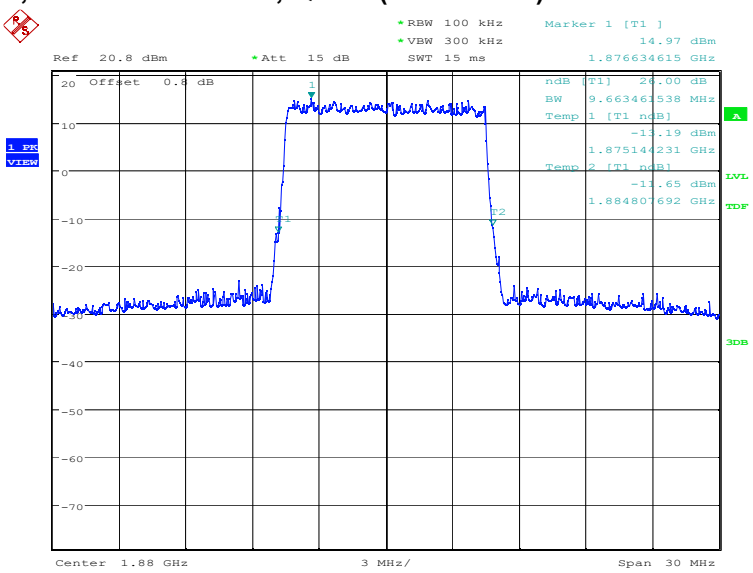


Date: 7.DEC.2021 18:54:10

LTE band 2, 10MHz (-26dBc)

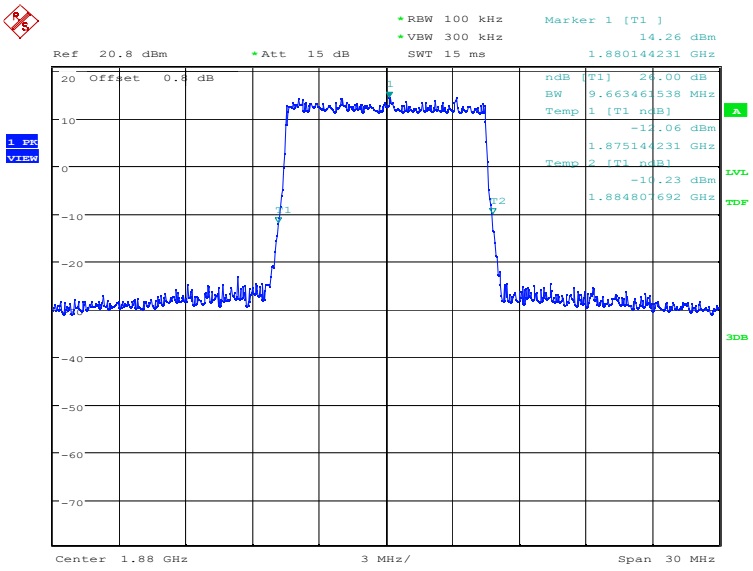
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	9663.46	9663.46

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



Date: 7.DEC.2021 18:54:52

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

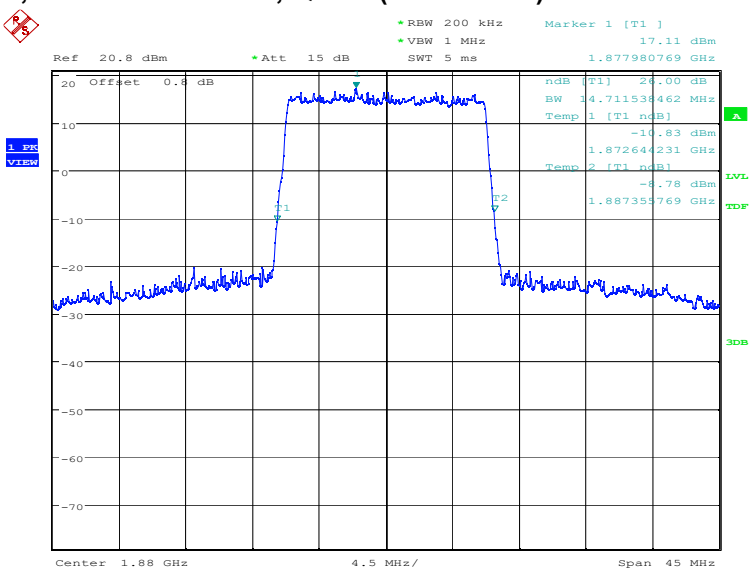


Date: 7.DEC.2021 18:55:32

LTE band 2, 15MHz (-26dBc)

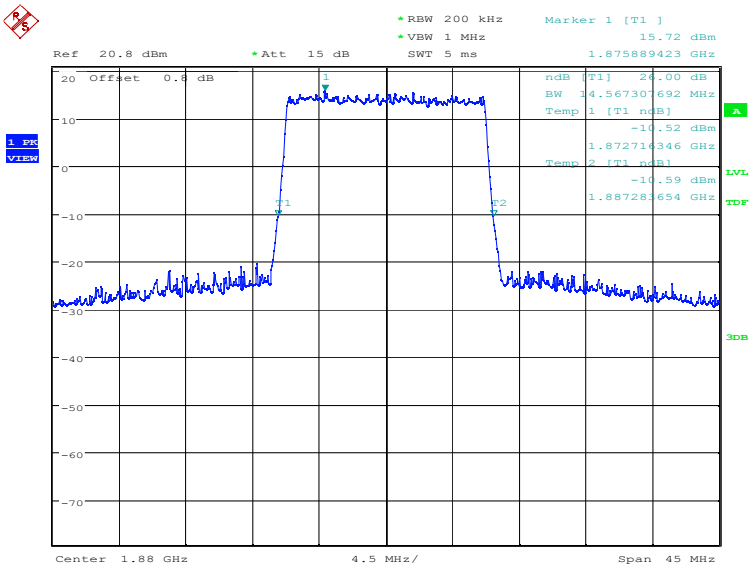
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	14711.54	14567.31

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



Date: 7.DEC.2021 18:56:14

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

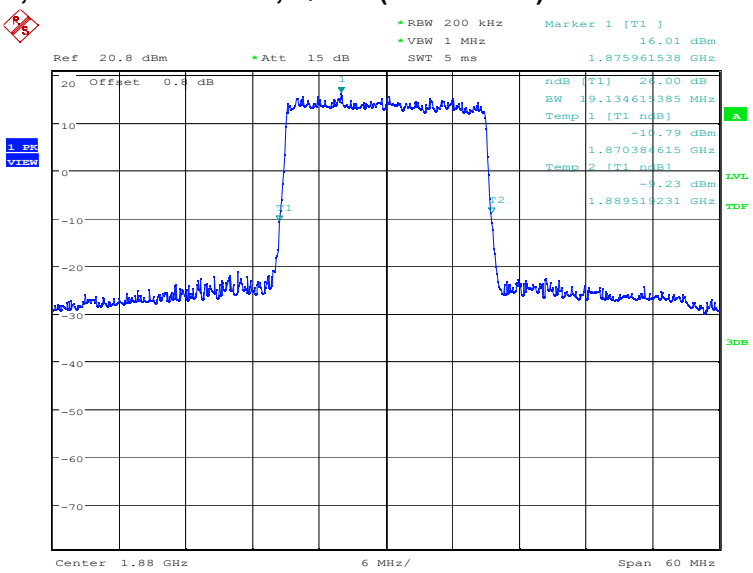


Date: 7.DEC.2021 18:56:54

LTE band 2, 20MHz (-26dBc)

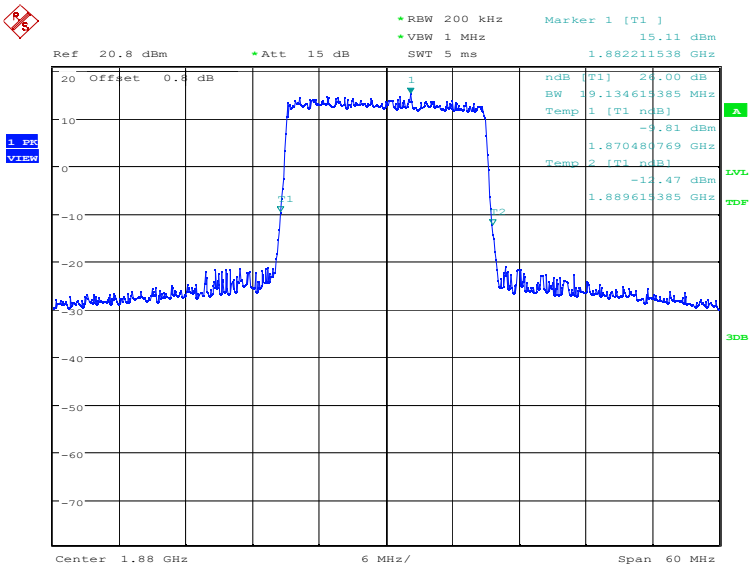
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1880.0	QPSK	16QAM
	19134.62	19134.62

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



Date: 7.DEC.2021 18:57:36

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

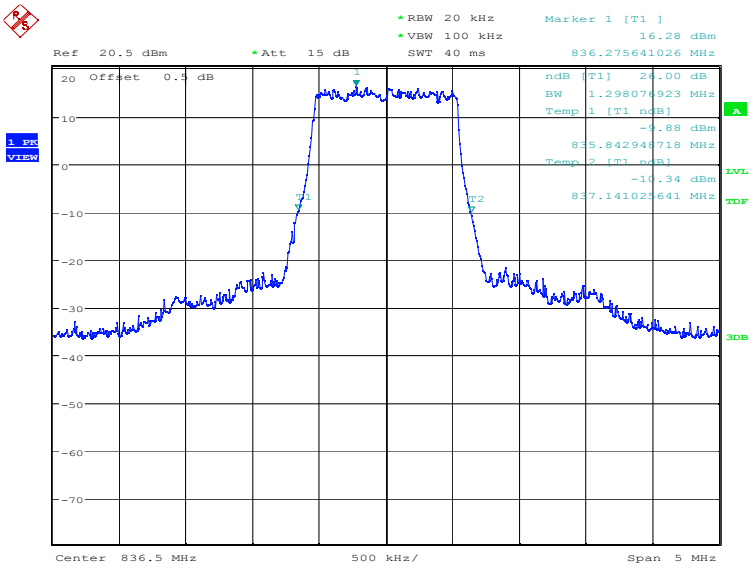


Date: 7.DEC.2021 18:58:16

LTE band 5, 1.4MHz (-26dBc)

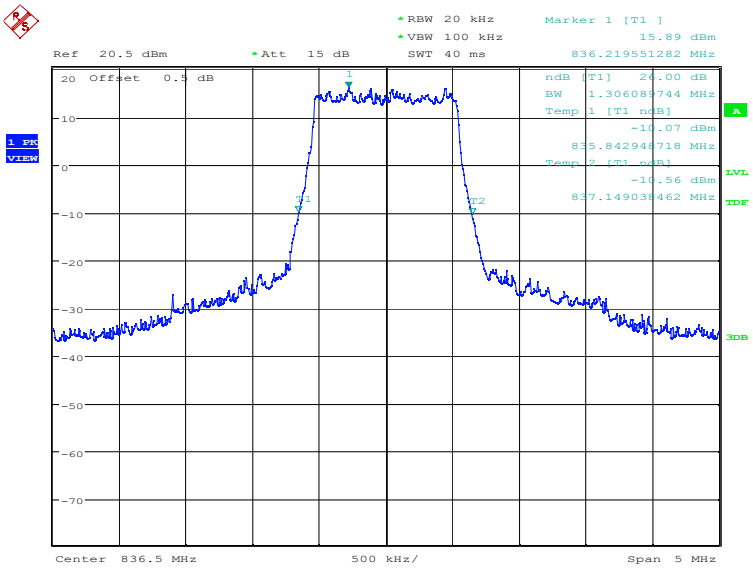
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	1298.08	1306.09

LTE band 5, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 18:58:59

LTE band 5, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

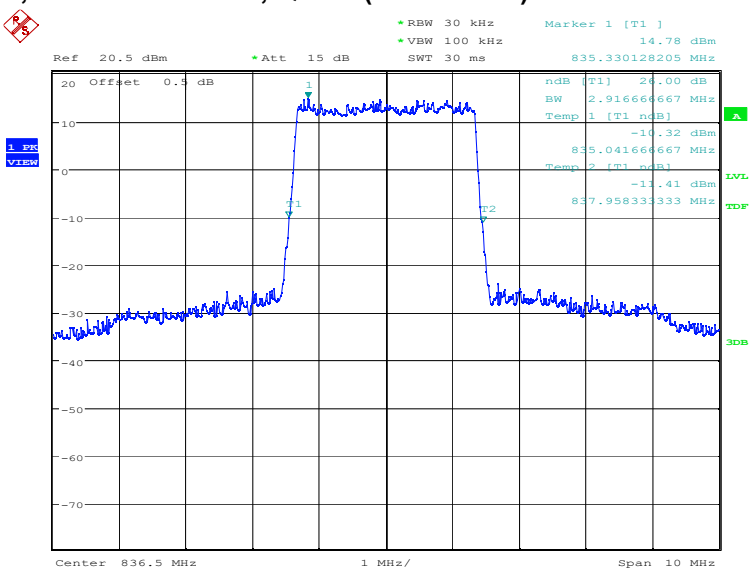


Date: 7.DEC.2021 18:59:40

LTE band 5, 3MHz (-26dBc)

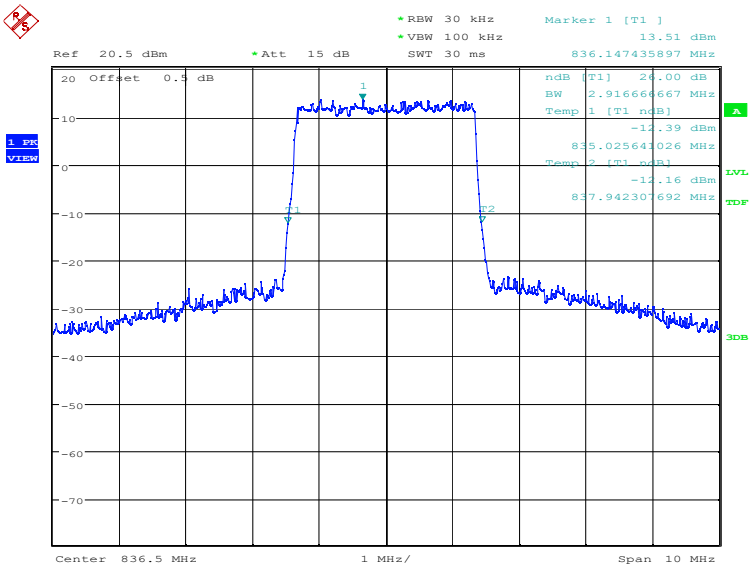
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	2916.67	2916.67

LTE band 5, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:00:22

LTE band 5, 3MHz Bandwidth, 16QAM (-26dBc BW)

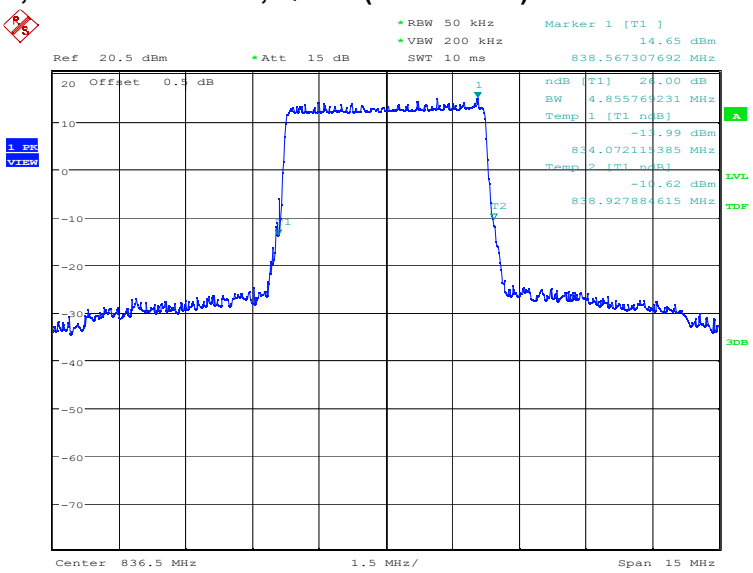


Date: 7.DEC.2021 19:01:02

LTE band 5, 5MHz (-26dBc)

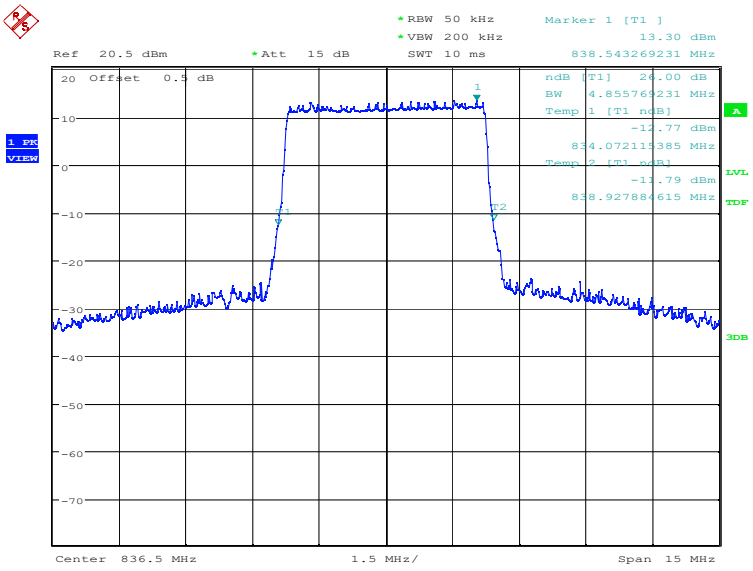
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	4855.77	4855.77

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



Date: 7.DEC.2021 19:01:44

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

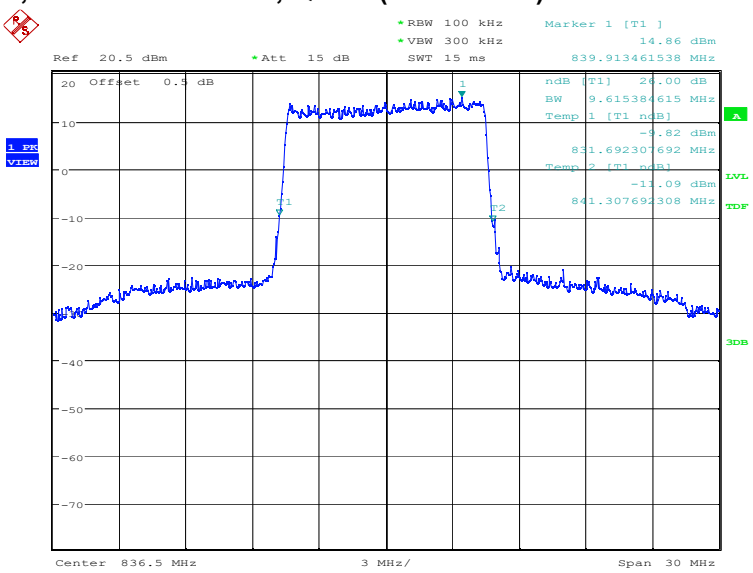


Date: 7.DEC.2021 19:02:24

LTE band 5, 10MHz (-26dBc)

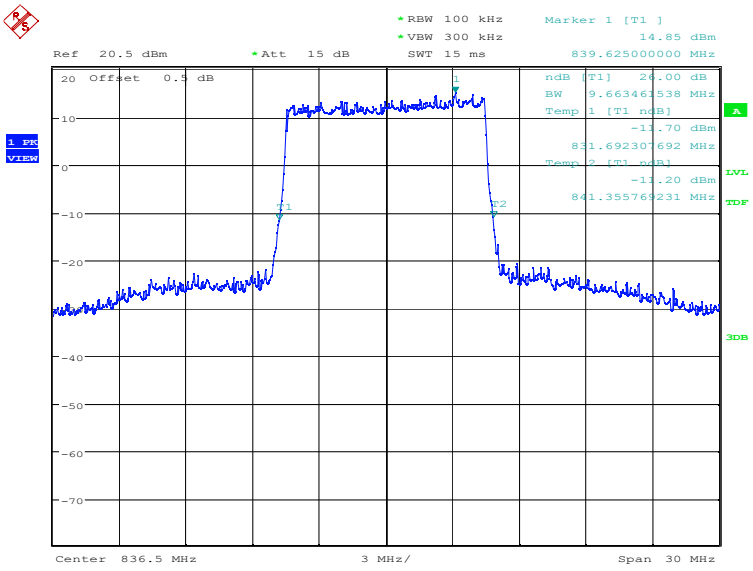
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
836.5	QPSK	16QAM
	9615.38	9663.46

LTE band 5, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:03:06

LTE band 5, 10MHz Bandwidth, 16QAM (-26dBc BW)

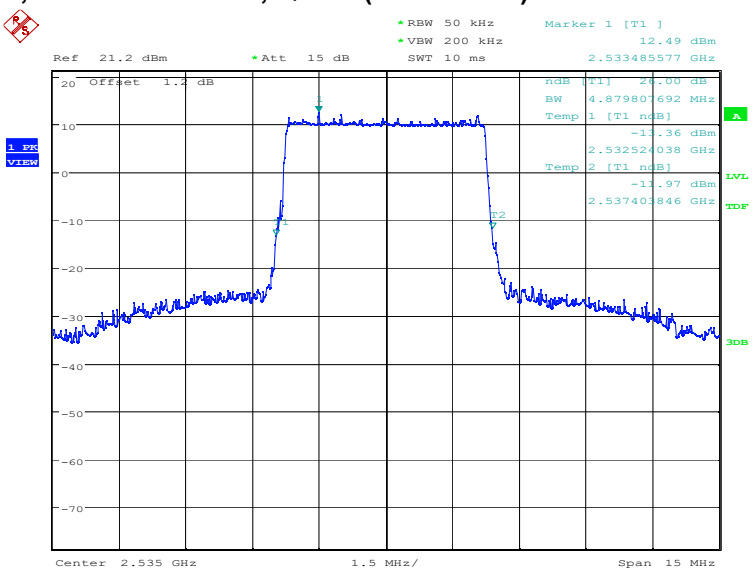


Date: 7.DEC.2021 19:03:46

LTE band 7, 5MHz (-26dBc)

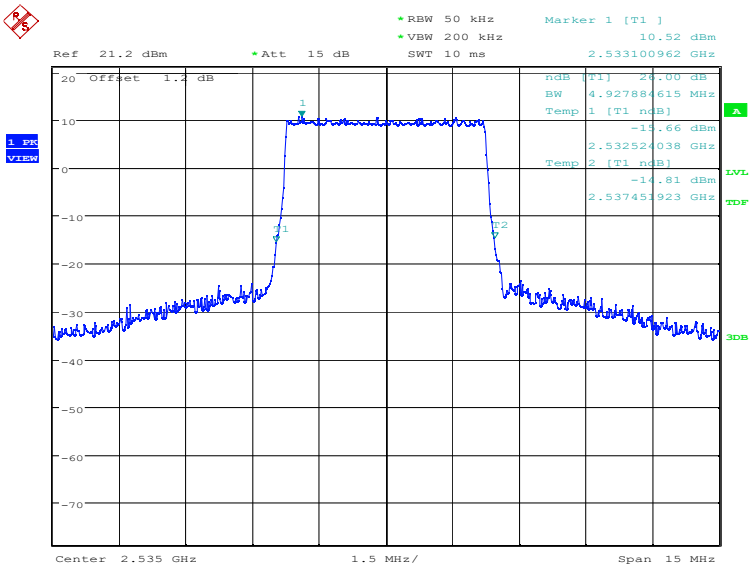
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	4879.81	4927.88

LTE band 7, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:04:29

LTE band 7, 5MHz Bandwidth,16QAM (-26dBc BW)

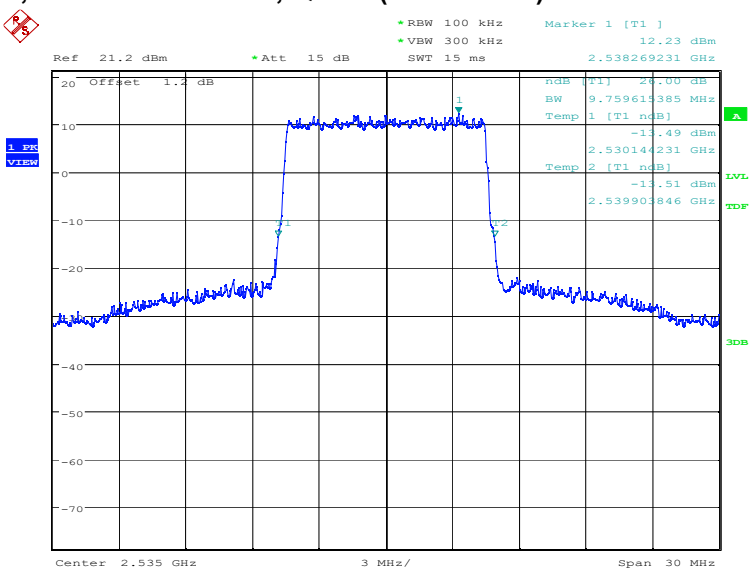


Date: 7.DEC.2021 19:05:09

LTE band 7, 10MHz (-26dBc)

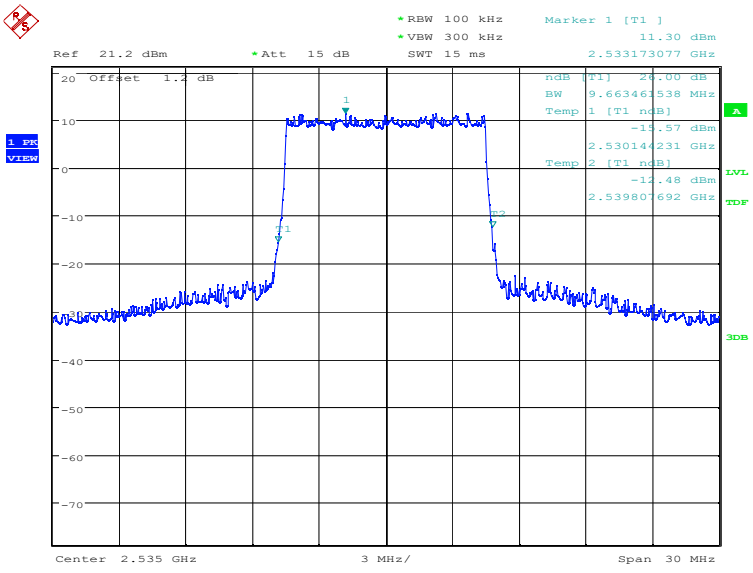
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	9759.62	9663.46

LTE band 7, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:05:51

LTE band 7, 10MHz Bandwidth,16QAM (-26dBc BW)

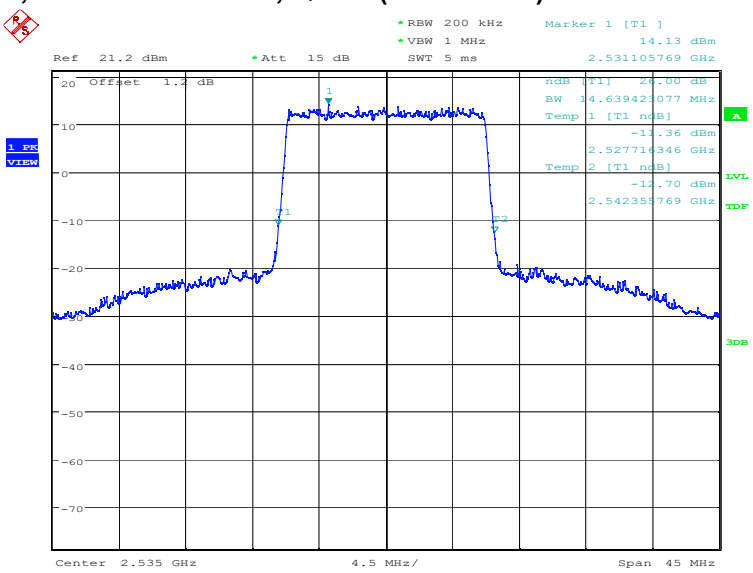


Date: 7.DEC.2021 19:06:31

LTE band 7, 15MHz (-26dBc)

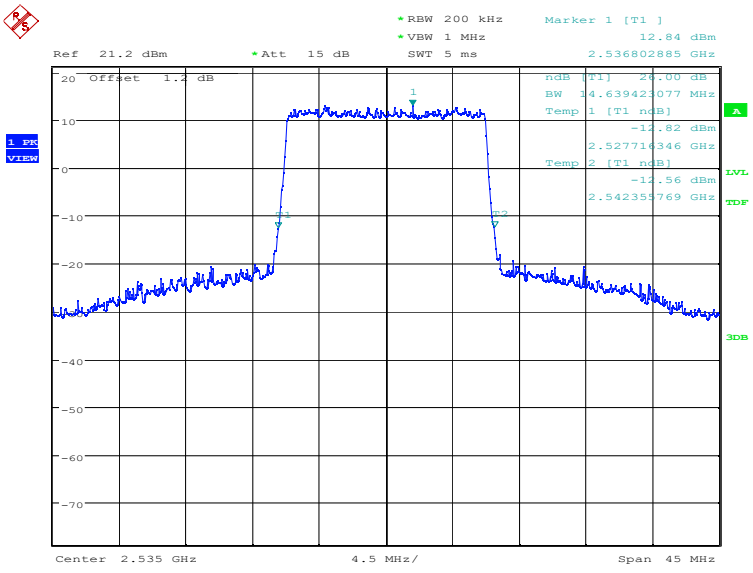
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	14639.42	14639.42

LTE band 7, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:07:14

LTE band 7, 15MHz Bandwidth,16QAM (-26dBc BW)

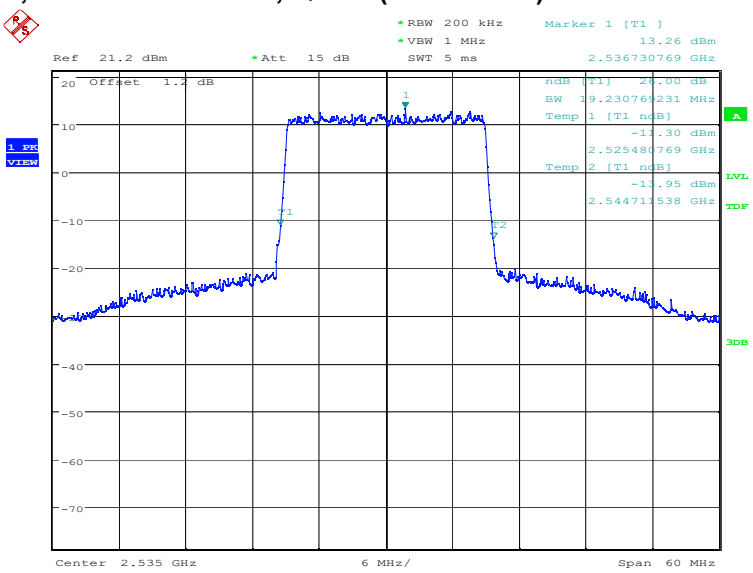


Date: 7.DEC.2021 19:07:54

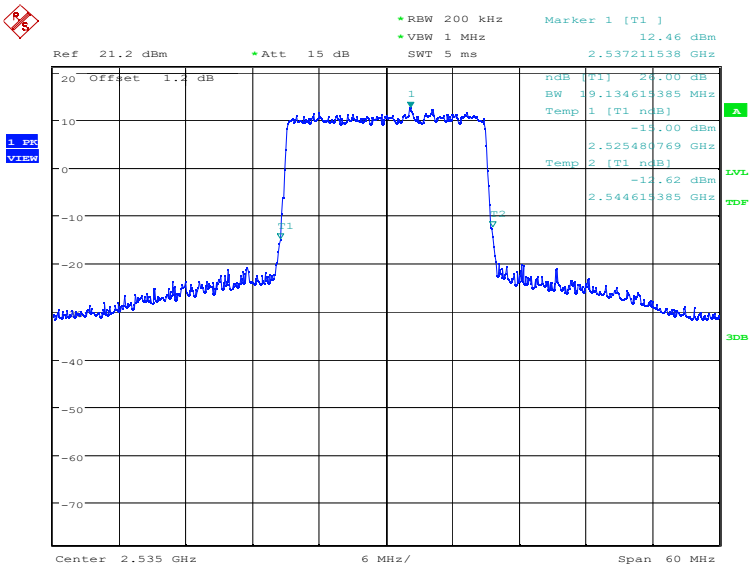
LTE band 7, 20MHz (-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	19230.77	19134.62

LTE band 7, 20MHz Bandwidth, QPSK (-26dBc BW)



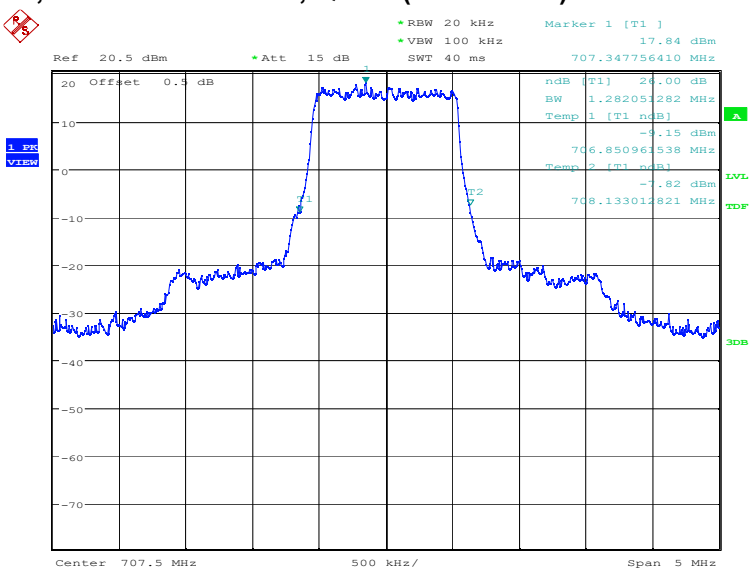
LTE band 7, 20MHz Bandwidth,16QAM (-26dBc BW)



LTE band 12, 1.4MHz (-26dBc)

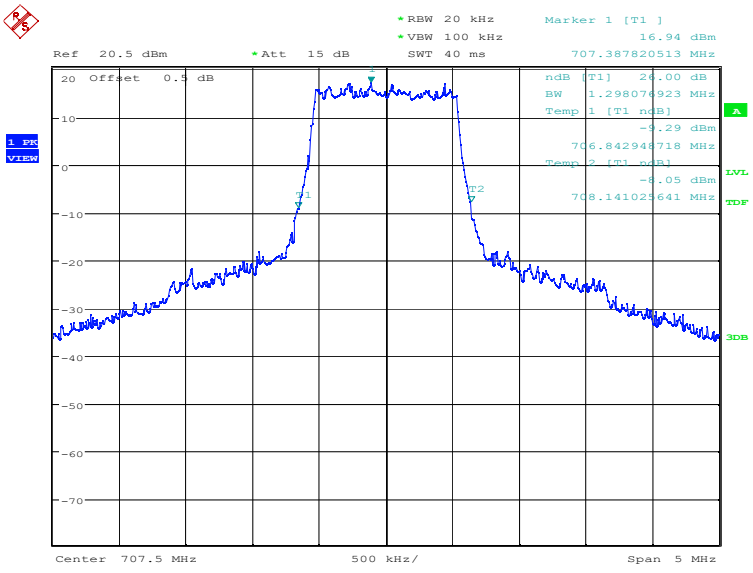
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	1282.05	1298.08

LTE band 12, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:10:54

LTE band 12, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

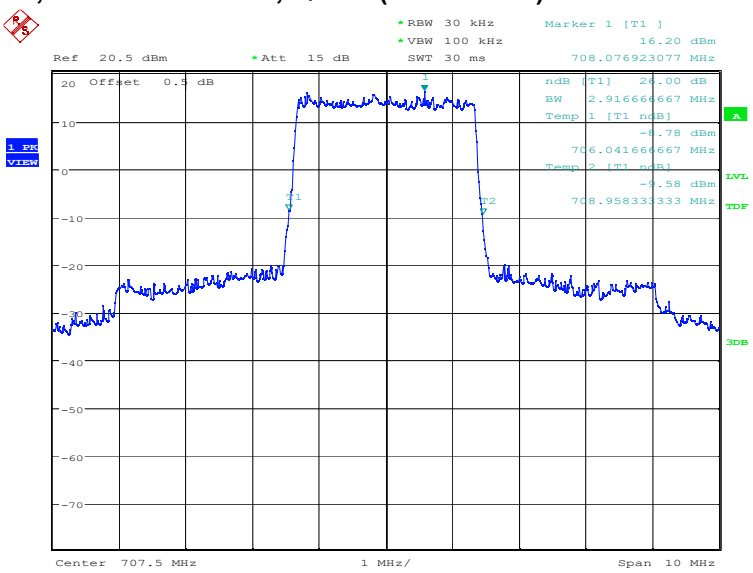


Date: 7.DEC.2021 19:11:35

LTE band 12, 3MHz (-26dBc)

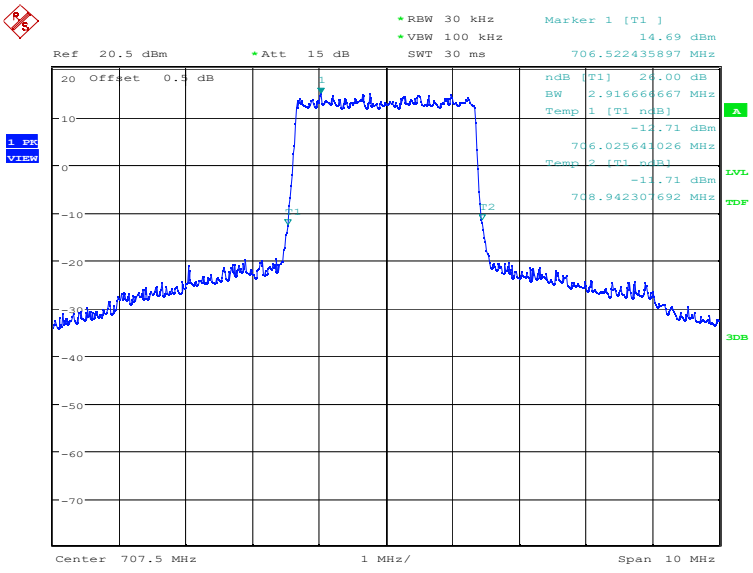
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	2916.67	2916.67

LTE band 12, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:12:17

LTE band 12, 3MHz Bandwidth, 16QAM (-26dBc BW)

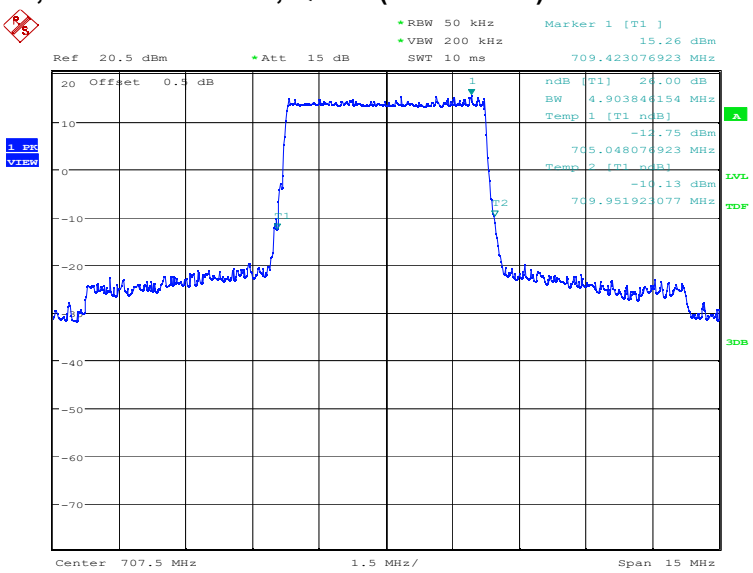


Date: 7.DEC.2021 19:12:57

LTE band 12, 5MHz (-26dBc)

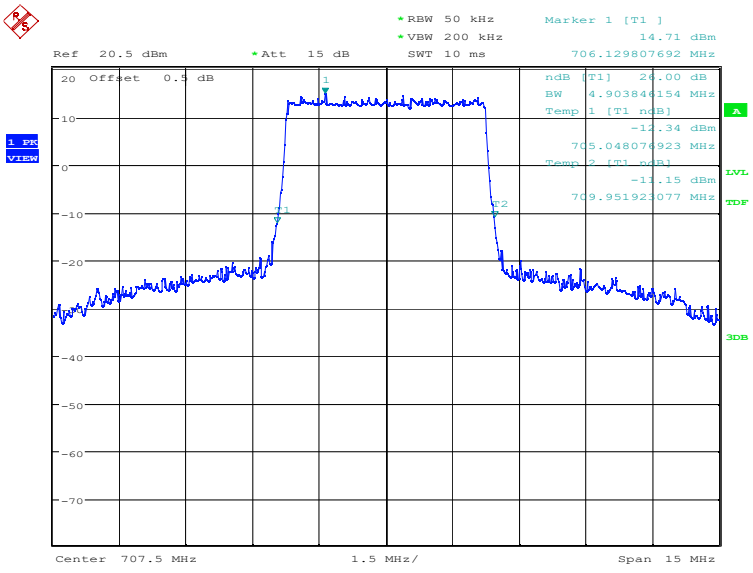
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	4903.85	4903.85

LTE band 12, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:13:39

LTE band 12, 5MHz Bandwidth, 16QAM (-26dBc BW)

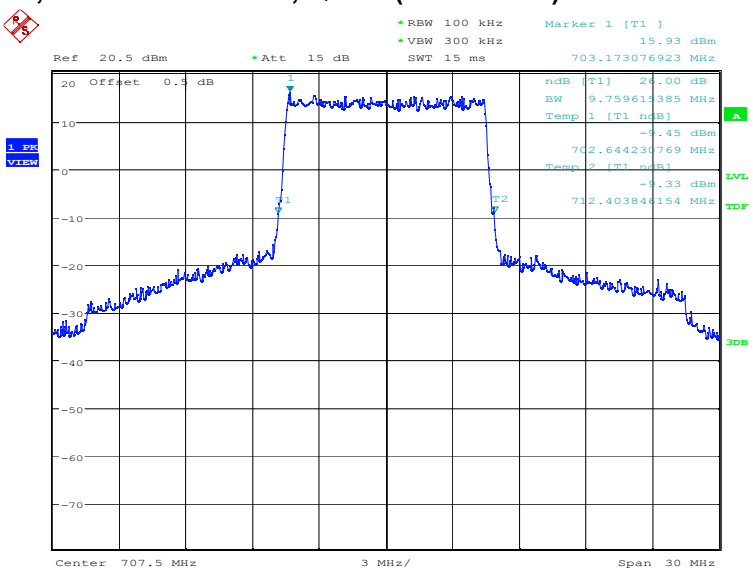


Date: 7.DEC.2021 19:14:20

LTE band 12, 10MHz (-26dBc)

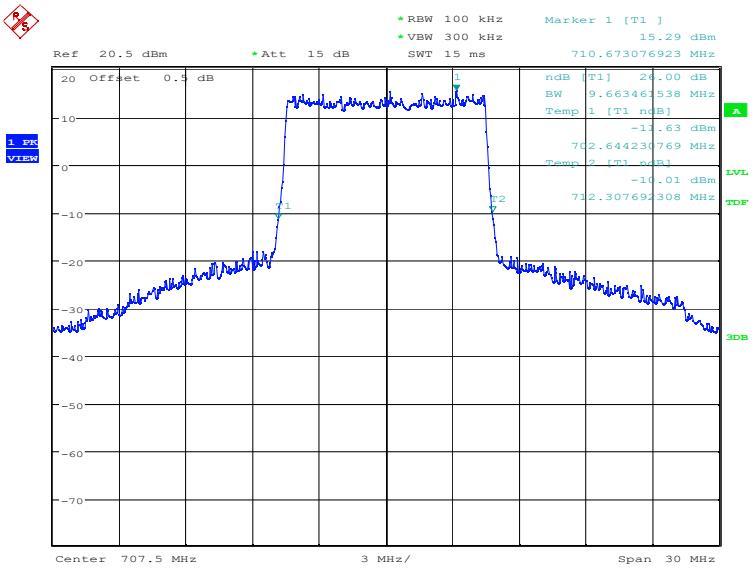
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
	QPSK	16QAM
707.5	9759.62	9663.46

LTE band 12, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:15:02

LTE band 12, 10MHz Bandwidth, 16QAM (-26dBc BW)

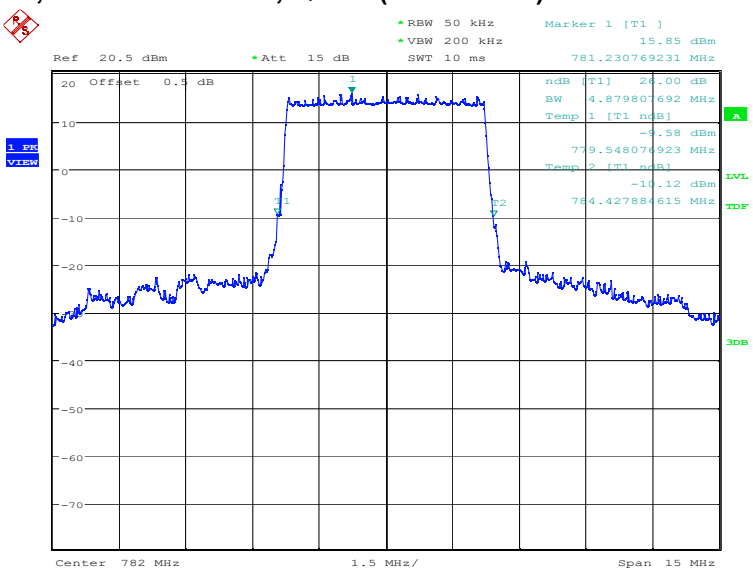


Date: 7.DEC.2021 19:15:42

LTE band 13, 5MHz (-26dBc)

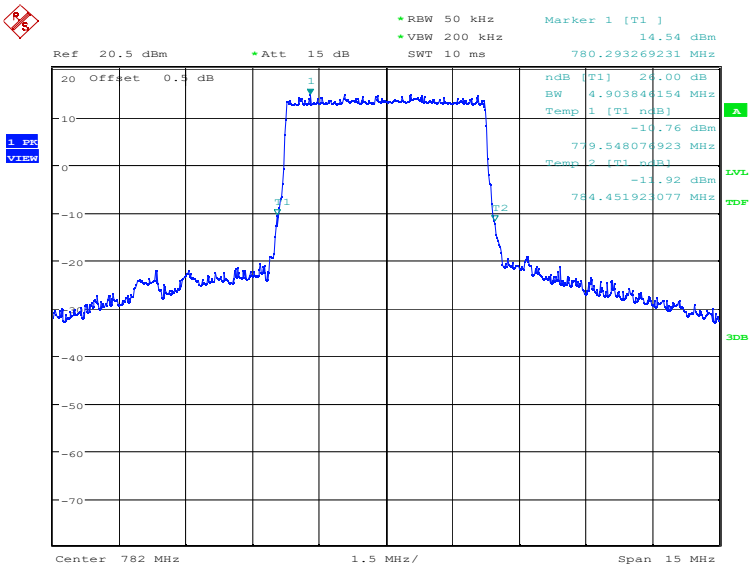
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
782.0	QPSK	16QAM
	4879.81	4903.85

LTE band 13, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:16:26

LTE band 13, 5MHz Bandwidth,16QAM (-26dBc BW)

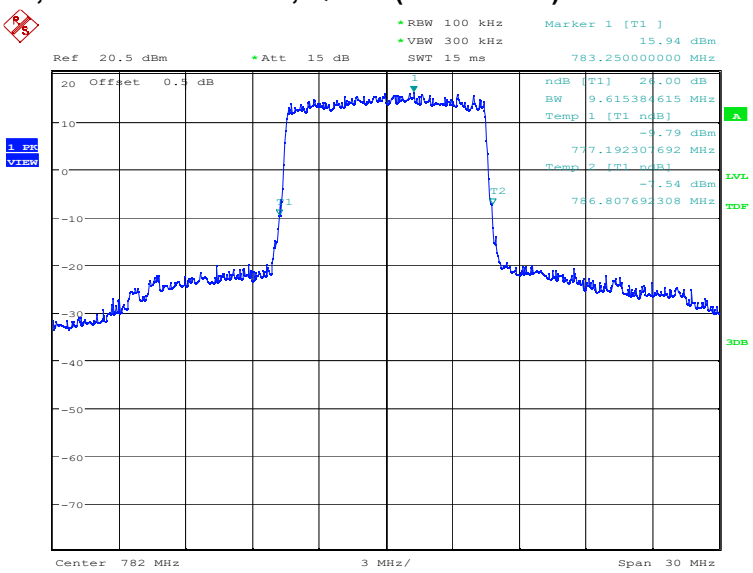


Date: 7.DEC.2021 19:17:06

LTE band 13, 10MHz (-26dBc)

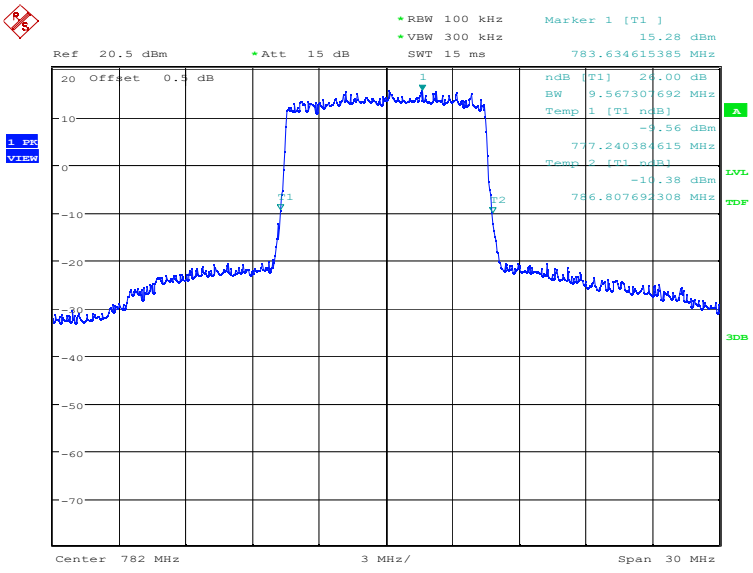
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
782.0	QPSK	16QAM
	9615.38	9567.31

LTE band 13, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:17:49

LTE band 13, 10MHz Bandwidth,16QAM (-26dBc BW)

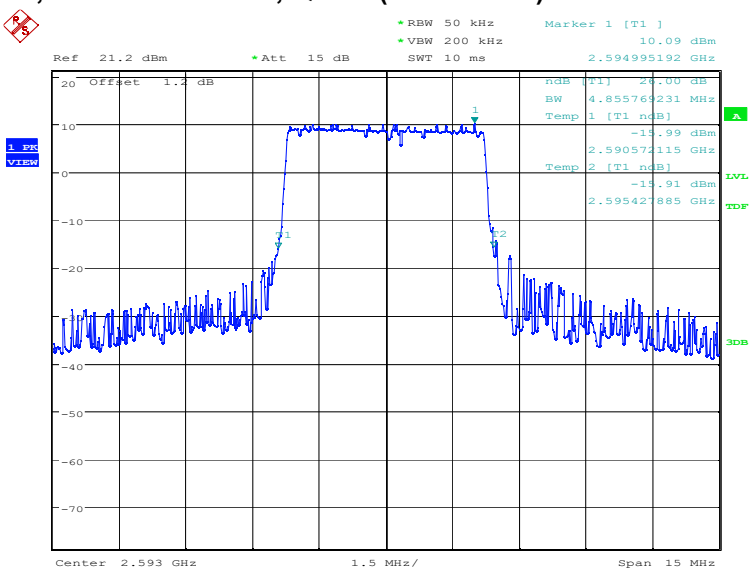


Date: 7.DEC.2021 19:18:29

LTE band 41, 5MHz (-26dBc)

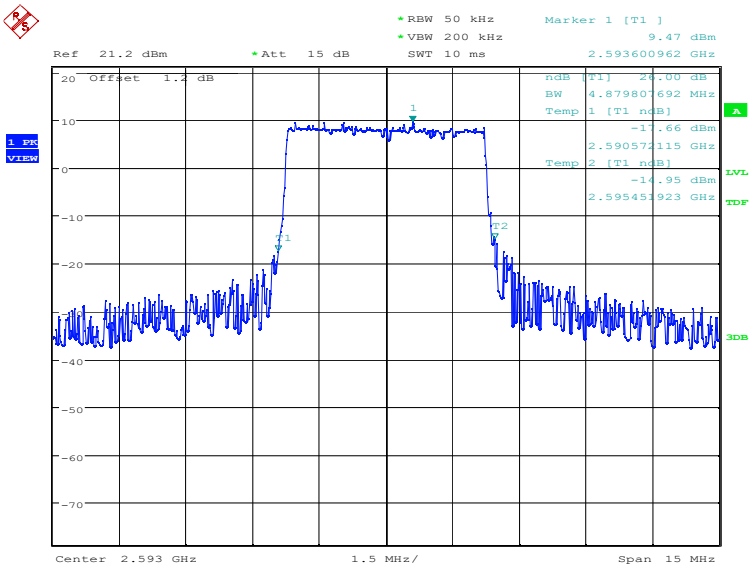
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2593.0	QPSK	16QAM
	4855.77	4879.81

LTE band 41, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:28:14

LTE band 41, 5MHz Bandwidth,16QAM (-26dBc BW)

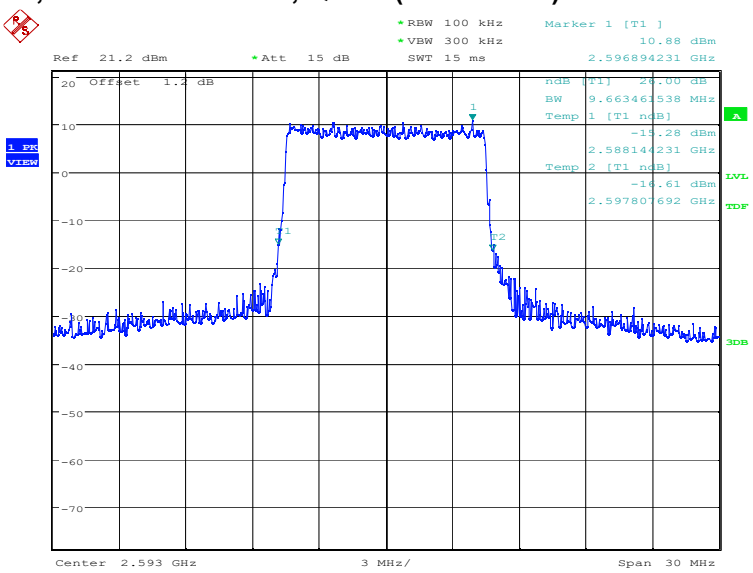


Date: 7.DEC.2021 19:28:54

LTE band 41, 10MHz (-26dBc)

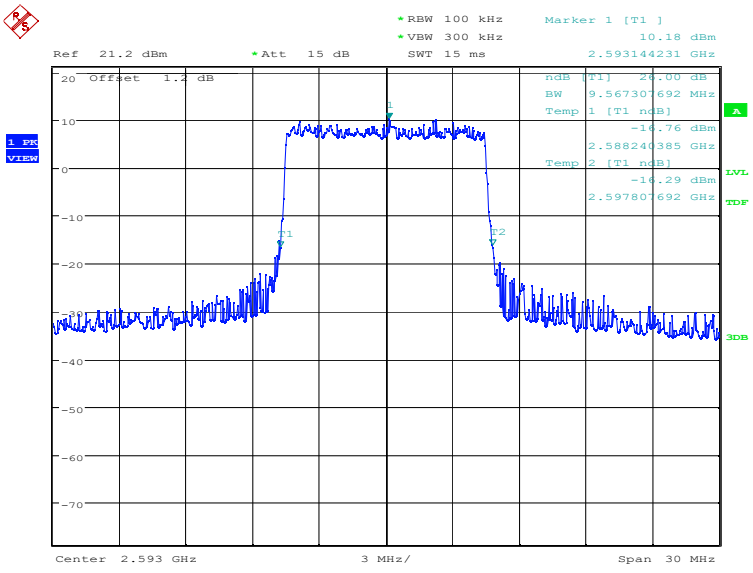
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2593.0	QPSK	16QAM
	9663.46	9567.31

LTE band 41, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:29:36

LTE band 41, 10MHz Bandwidth,16QAM (-26dBc BW)

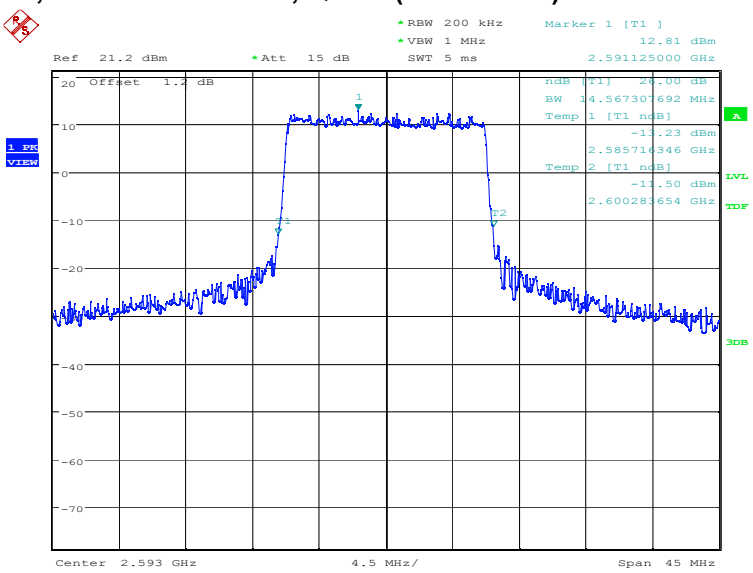


Date: 7.DEC.2021 19:30:17

LTE band 41, 15MHz (-26dBc)

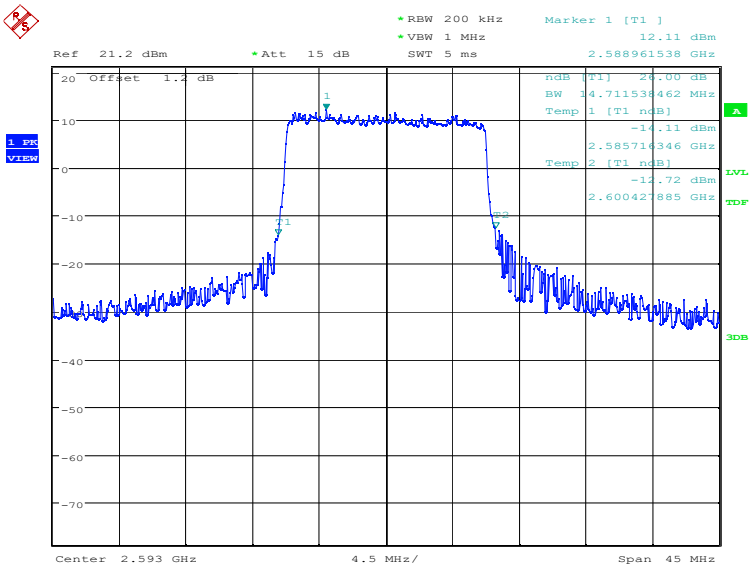
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
	QPSK	16QAM
2593.0	14567.31	14711.54

LTE band 41, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:31:00

LTE band 41, 15MHz Bandwidth,16QAM (-26dBc BW)

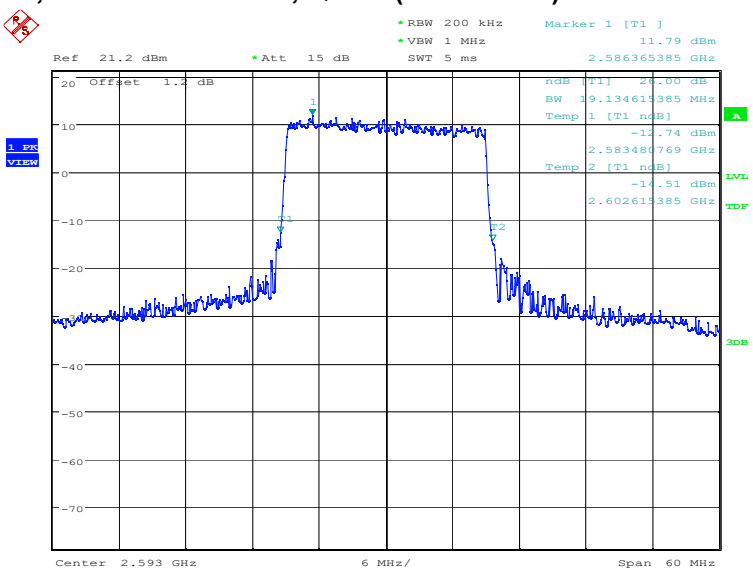


Date: 7.DEC.2021 19:31:40

LTE band 41, 20MHz (-26dBc)

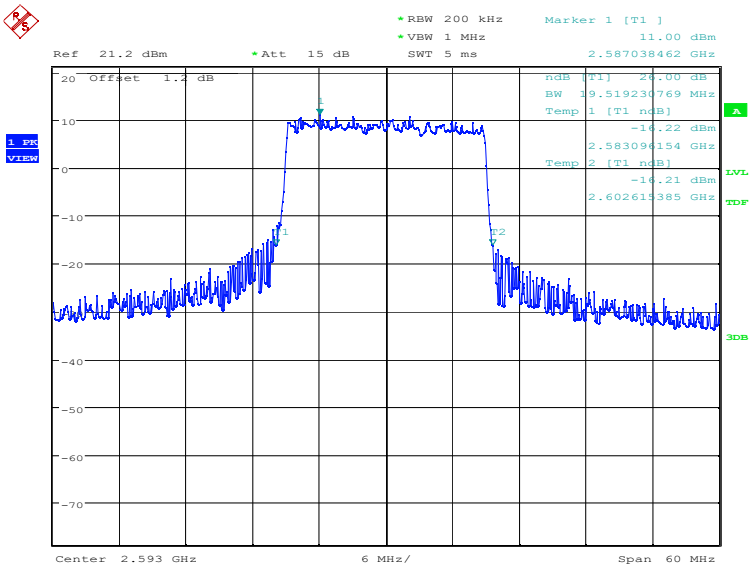
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2593.0	QPSK	16QAM
	19134.62	19519.23

LTE band 41, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:32:22

LTE band 41, 20MHz Bandwidth,16QAM (-26dBc BW)

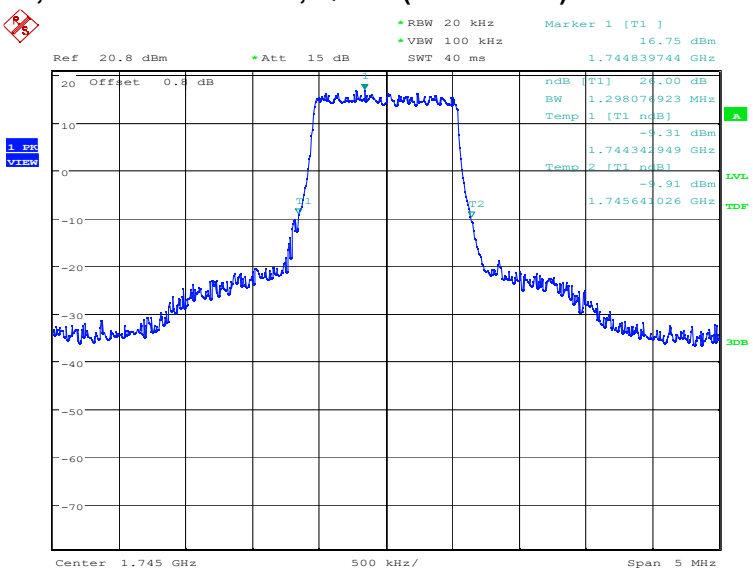


Date: 7.DEC.2021 19:33:03

LTE band 66, 1.4MHz (-26dBc)

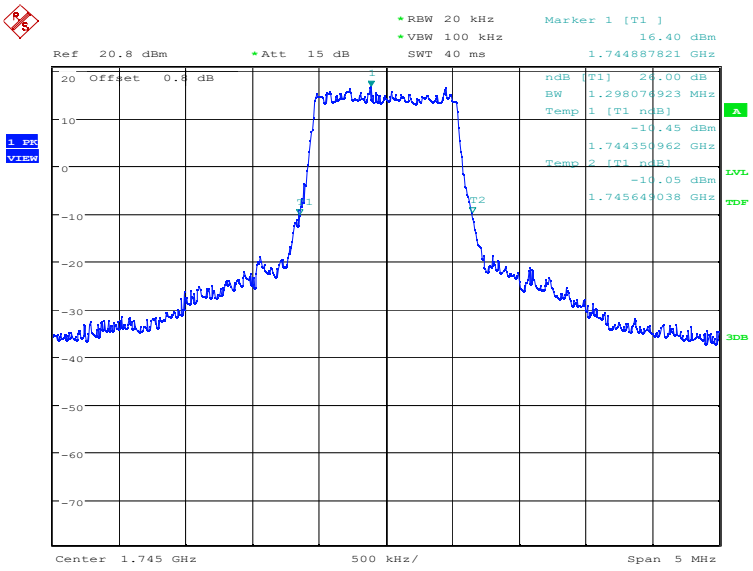
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	1298.08	1298.08

LTE band 66, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:19:13

LTE band 66, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

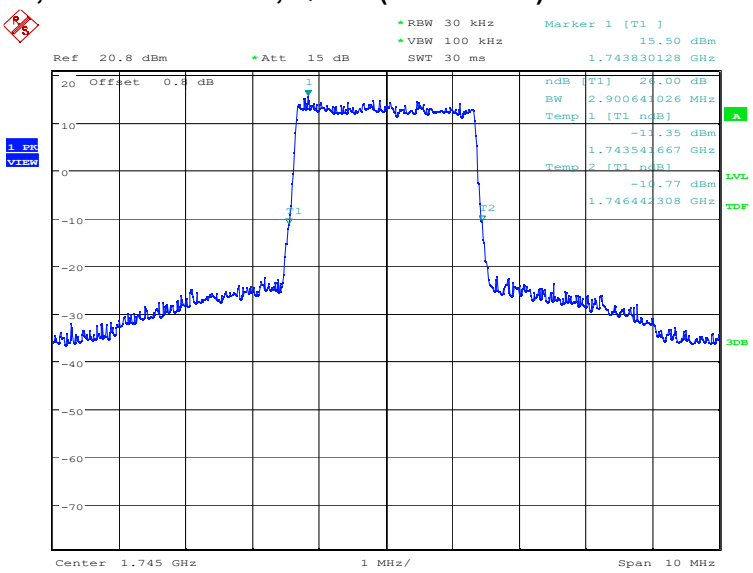


Date: 7.DEC.2021 19:19:53

LTE band 66, 3MHz (-26dBc)

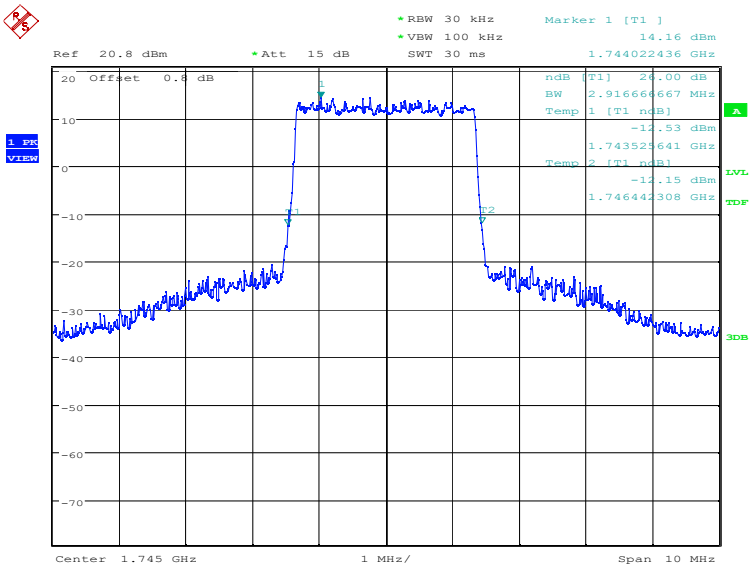
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	2900.64	2916.67

LTE band 66, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:20:36

LTE band 66, 3MHz Bandwidth, 16QAM (-26dBc BW)

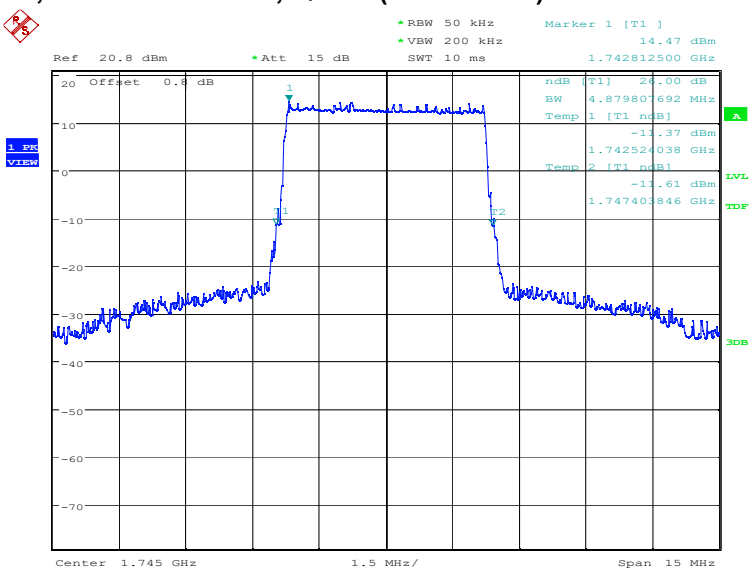


Date: 7.DEC.2021 19:21:16

LTE band 66, 5MHz (-26dBc)

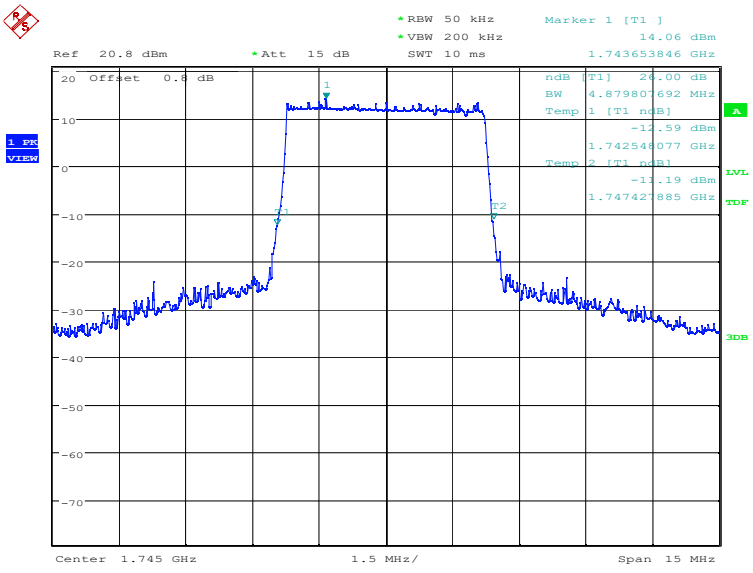
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	4879.81	4879.81

LTE band 66, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:21:58

LTE band 66, 5MHz Bandwidth, 16QAM (-26dBc BW)

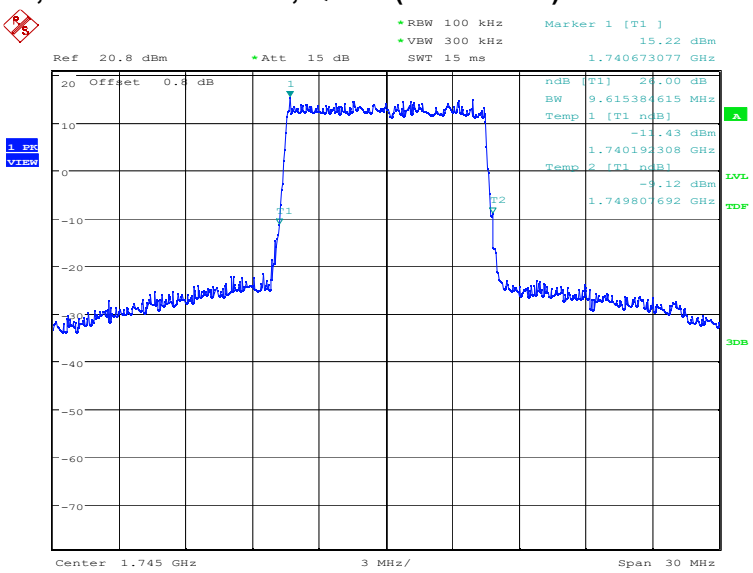


Date: 7.DEC.2021 19:22:38

LTE band 66, 10MHz (-26dBc)

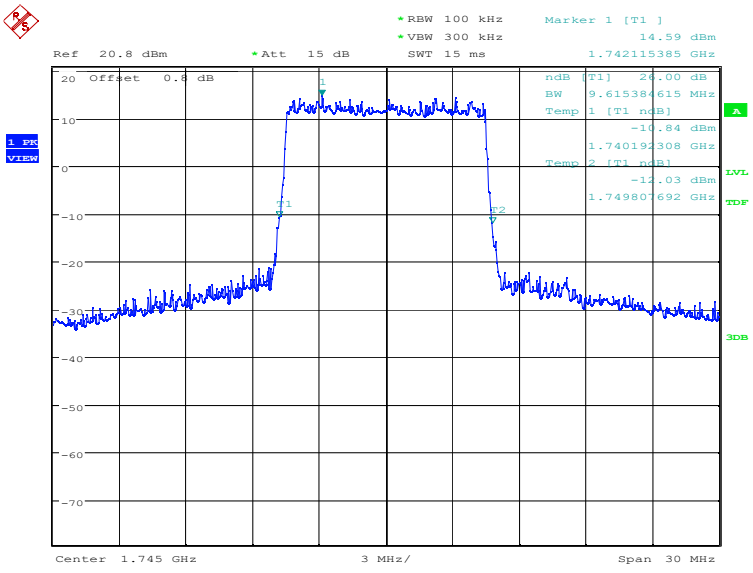
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	9615.38	9615.38

LTE band 66, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:23:21

LTE band 66, 10MHz Bandwidth, 16QAM (-26dBc BW)

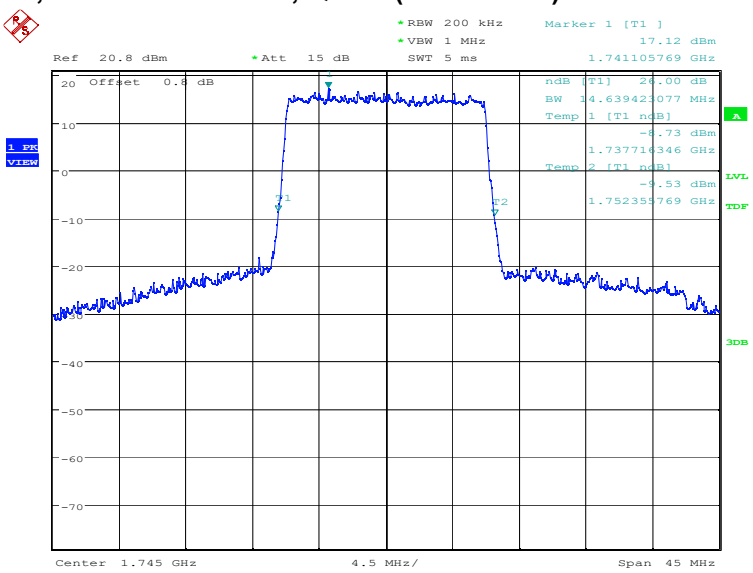


Date: 7.DEC.2021 19:24:01

LTE band 66, 15MHz (-26dBc)

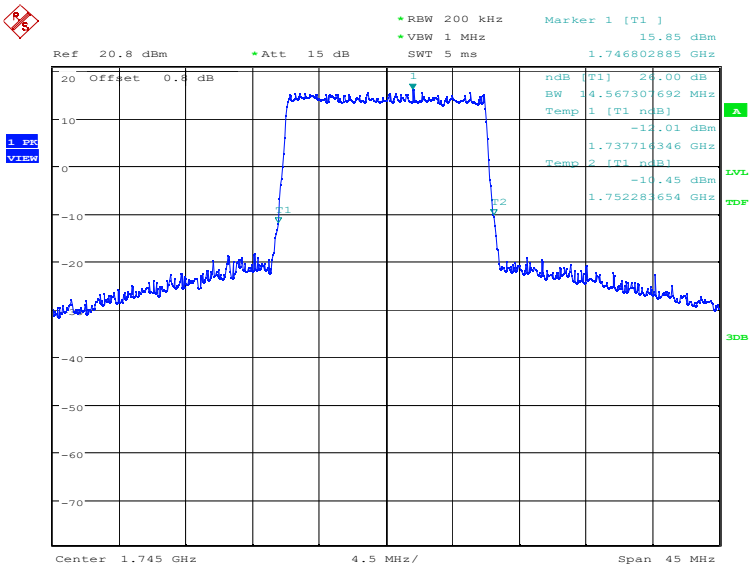
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	14639.42	14567.31

LTE band 66, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 7.DEC.2021 19:24:43

LTE band 66, 15MHz Bandwidth, 16QAM (-26dBc BW)

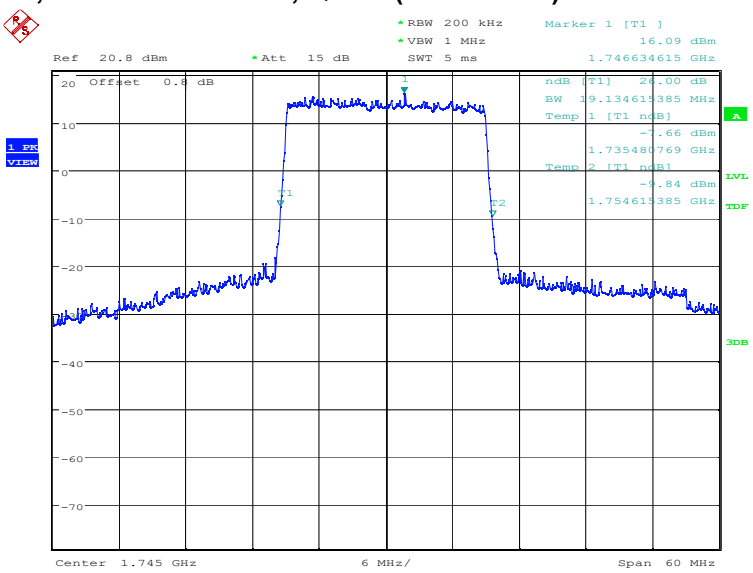


Date: 7.DEC.2021 19:25:24

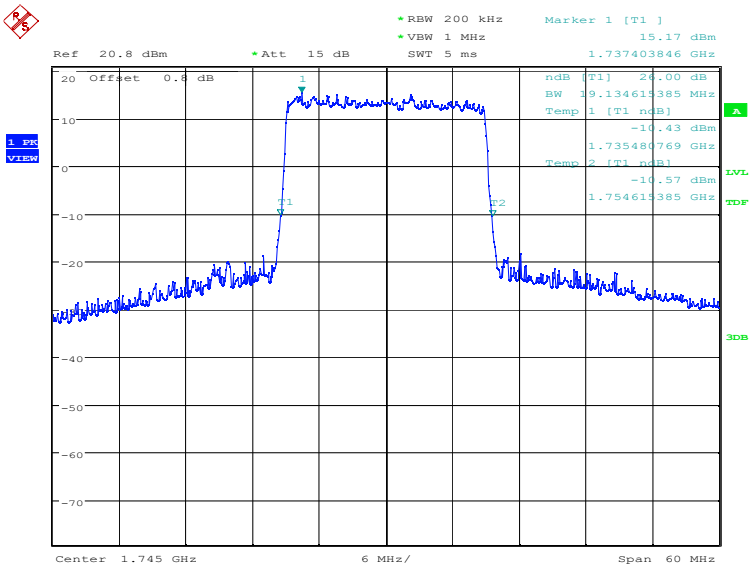
LTE band 66, 20MHz (-26dBc)

Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1745.0	QPSK	16QAM
	19134.62	19134.62

LTE band 66, 20MHz Bandwidth, QPSK (-26dBc BW)



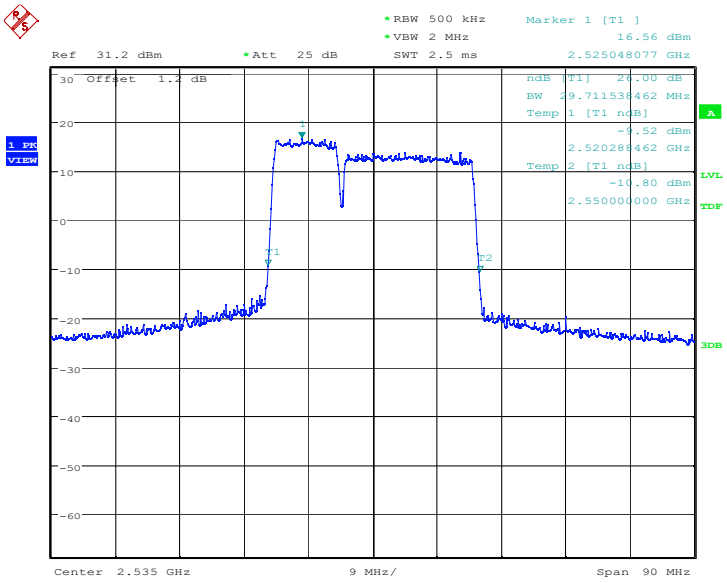
LTE band 66, 20MHz Bandwidth, 16QAM (-26dBc BW)



LTE CA Band 7C , 10MHz+20MHz (-26dBc)

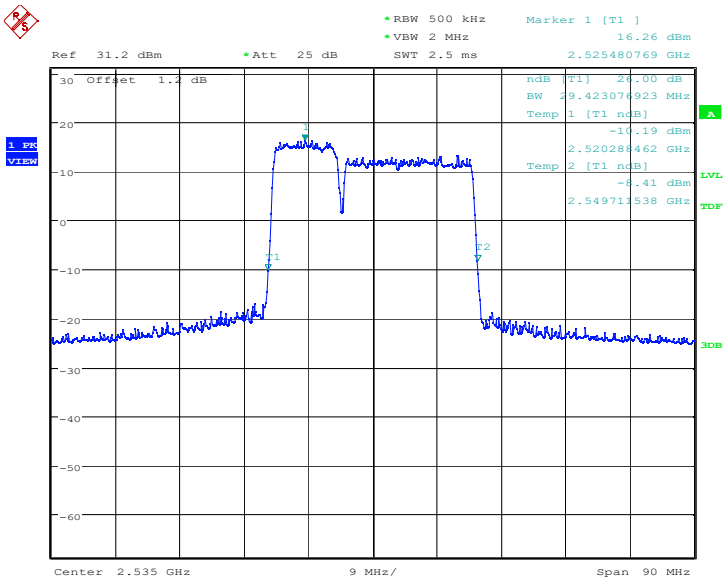
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2525.6	29.712	29.423

LTE CA Band 7C , 10MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 14:51:37

LTE CA Band 7C , 10MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

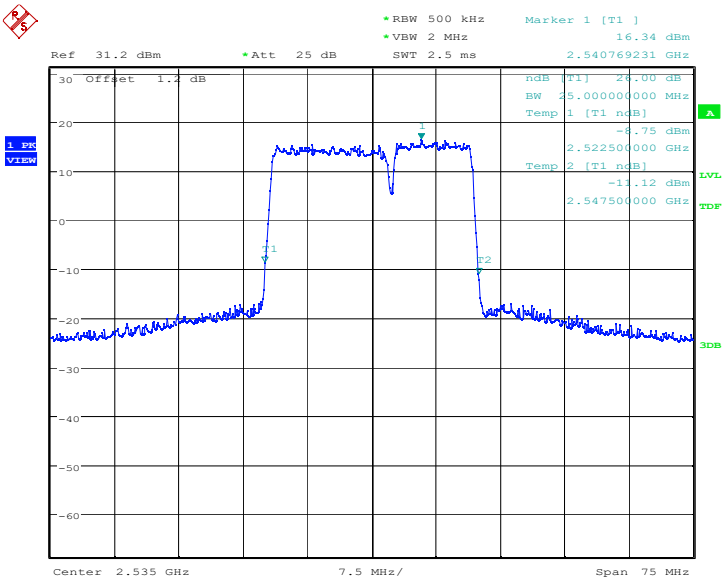


Date: 14.DEC.2021 14:51:58

LTE CA Band 7C , 15MHz+10MHz (-26dBc)

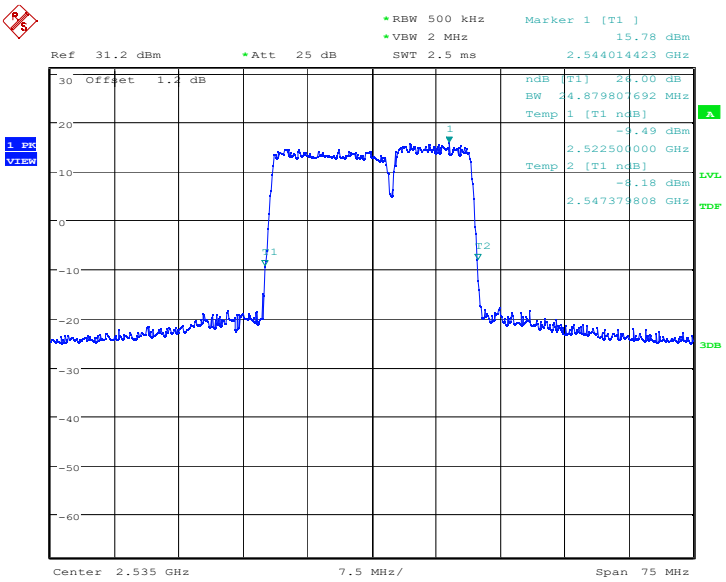
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2530.1	25.000	24.880

LTE CA Band 7C , 15MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 14:52:55

LTE CA Band 7C , 15MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

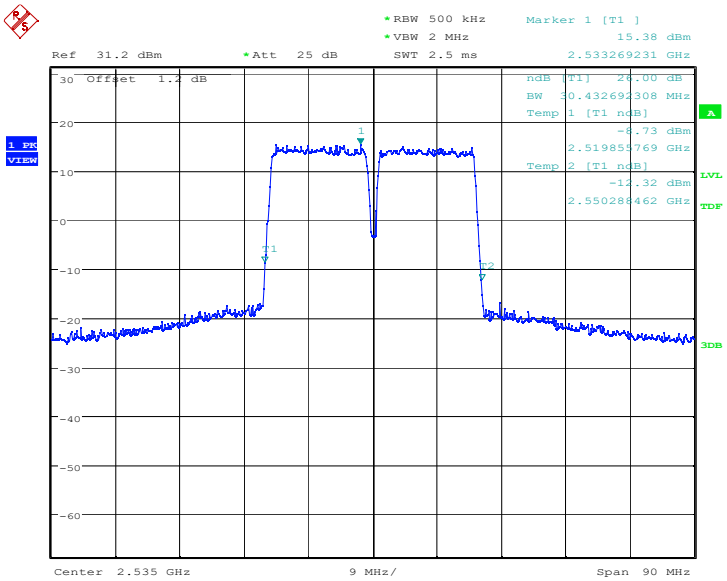


Date: 14.DEC.2021 14:53:16

LTE CA Band 7C , 15MHz+15MHz (-26dBc)

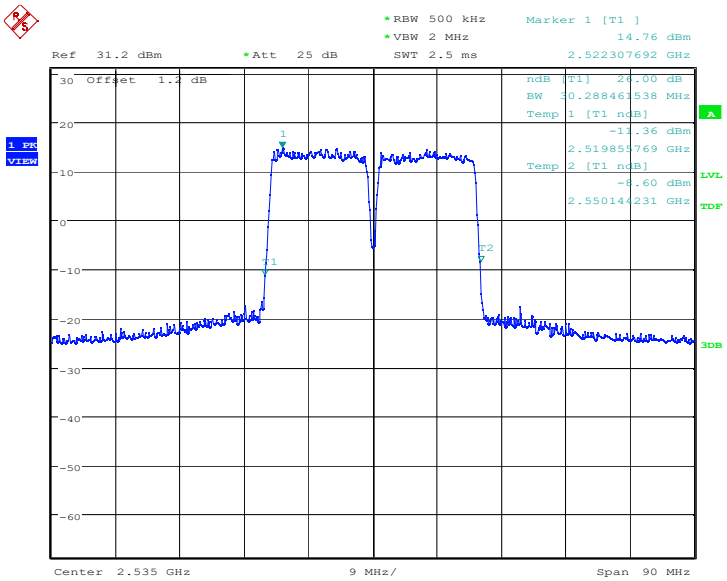
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2527.5	30.433	30.288

LTE CA Band 7C , 15MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 14:54:09

LTE CA Band 7C , 15MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

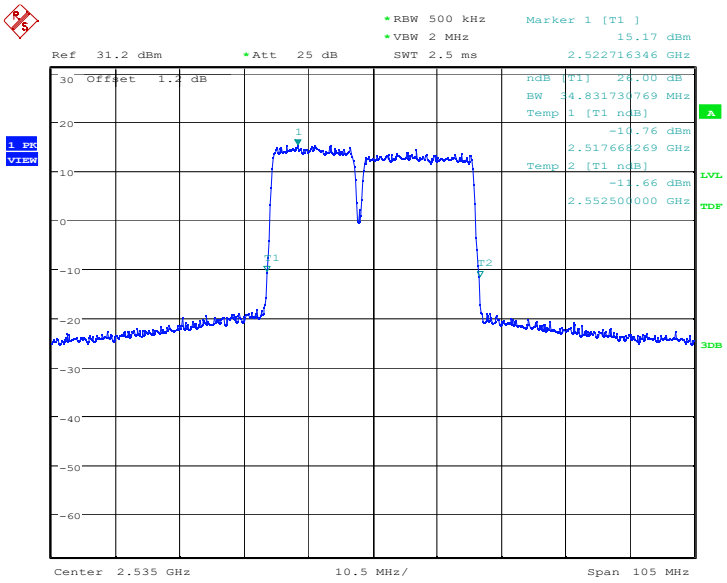


Date: 14.DEC.2021 14:54:30

LTE CA Band 7C , 15MHz+20MHz (-26dBc)

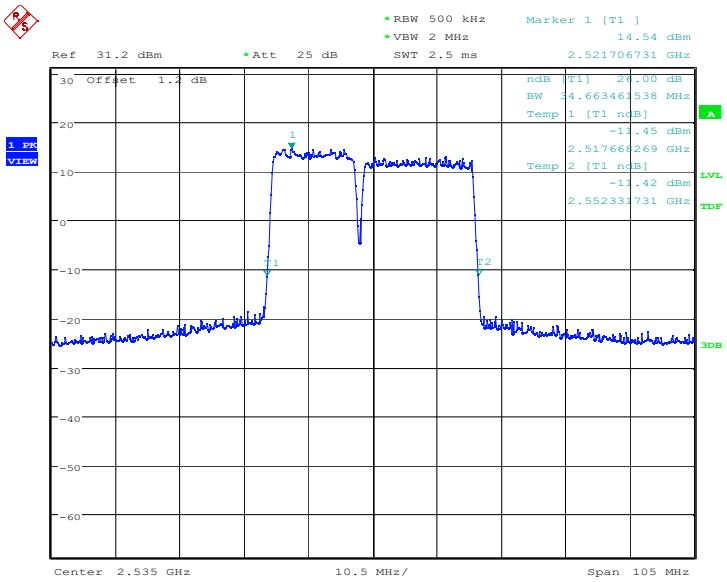
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2525.3	34.832	34.663

LTE CA Band 7C , 15MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 14:55:23

LTE CA Band 7C , 15MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

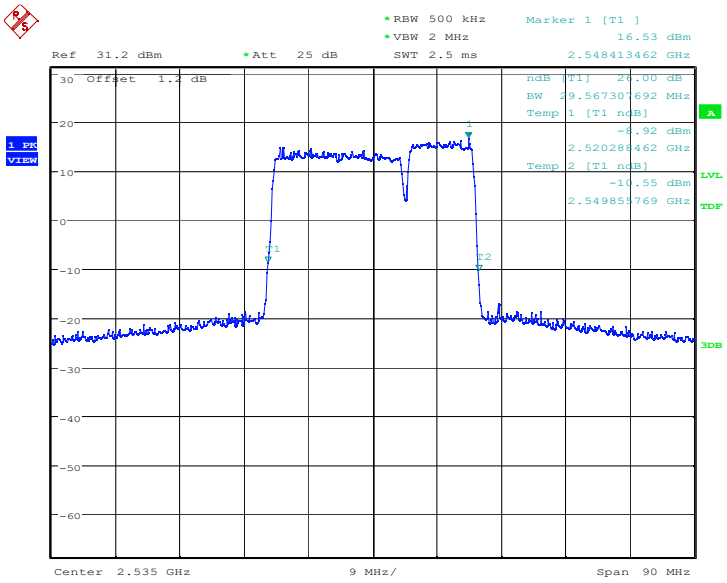


Date: 14.DEC.2021 14:55:44

LTE CA Band 7C , 20MHz+10MHz (-26dBc)

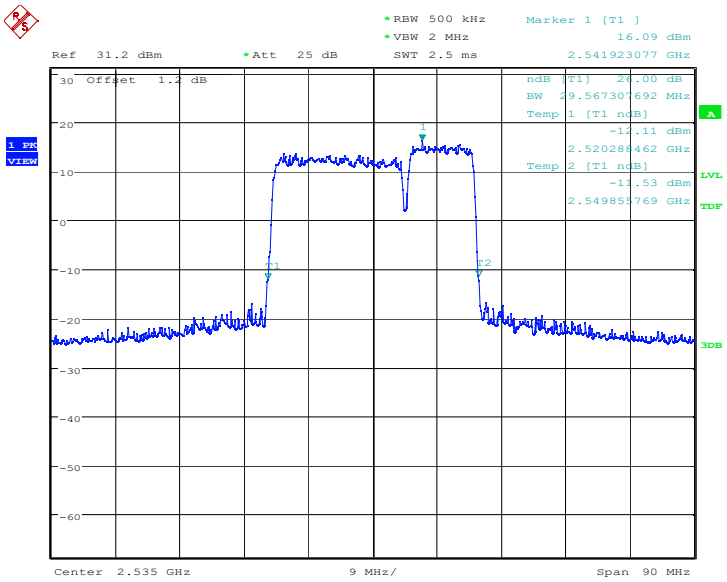
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2530.1	29.567	29.567

LTE CA Band 7C , 20MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 14:56:40

LTE CA Band 7C , 20MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

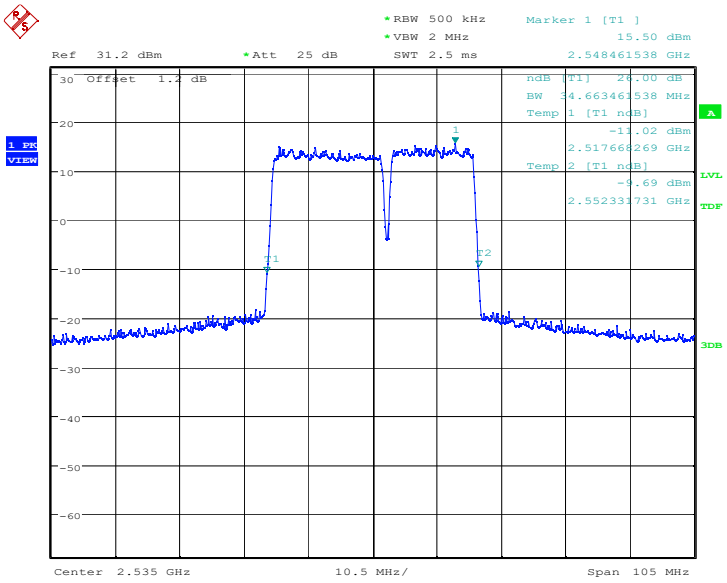


Date: 14.DEC.2021 14:57:01

LTE CA Band 7C , 20MHz+15MHz (-26dBc)

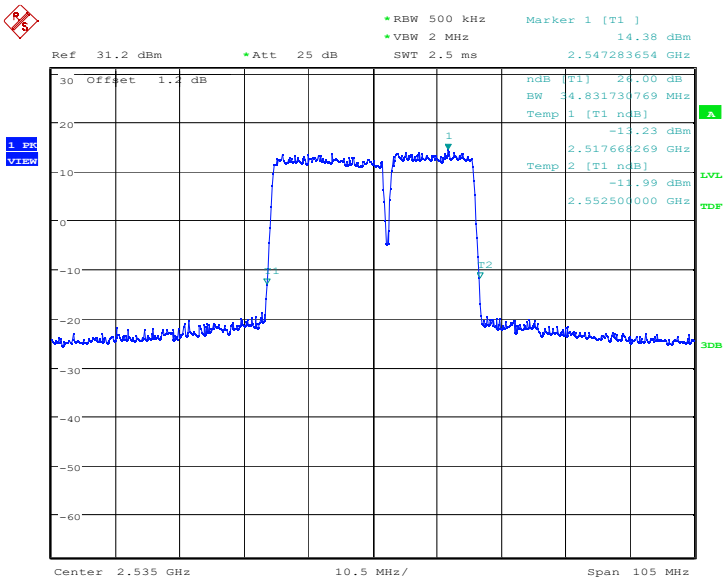
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2527.6	34.663	34.832

LTE CA Band 7C , 20MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 14:57:54

LTE CA Band 7C , 20MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

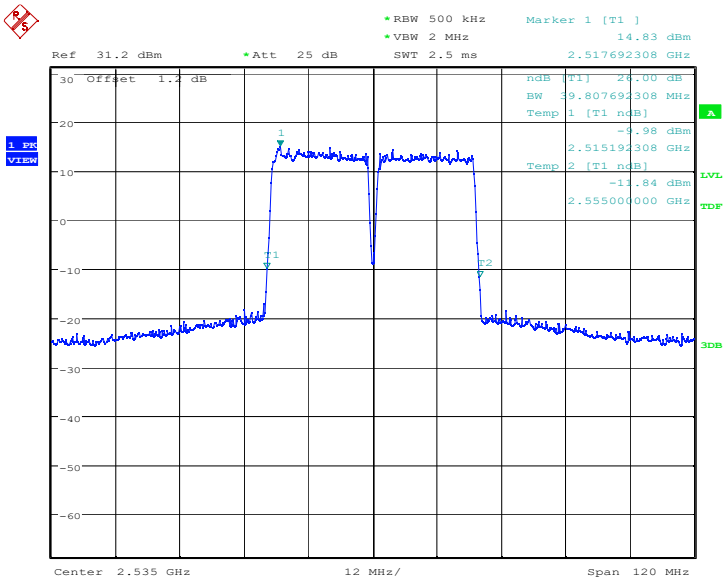


Date: 14.DEC.2021 14:58:16

LTE CA Band 7C , 20MHz+20MHz (-26dBc)

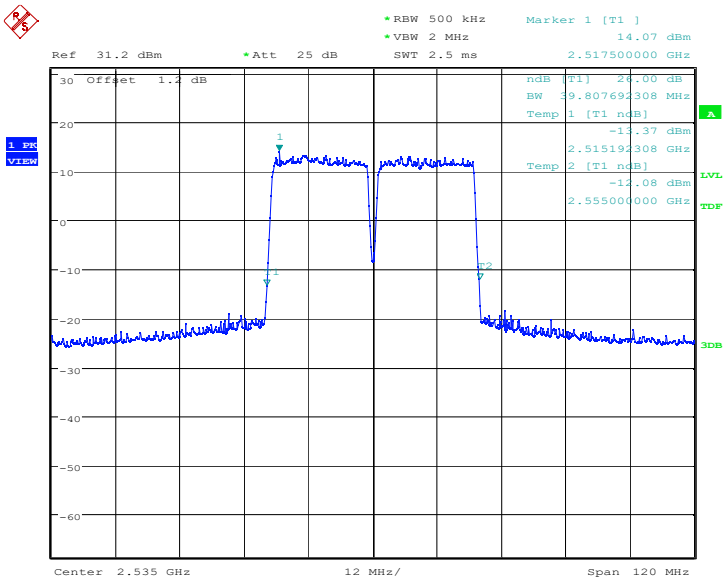
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2525.1	39.808	39.808

LTE CA Band 7C , 20MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 14:59:08

LTE CA Band 7C , 20MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

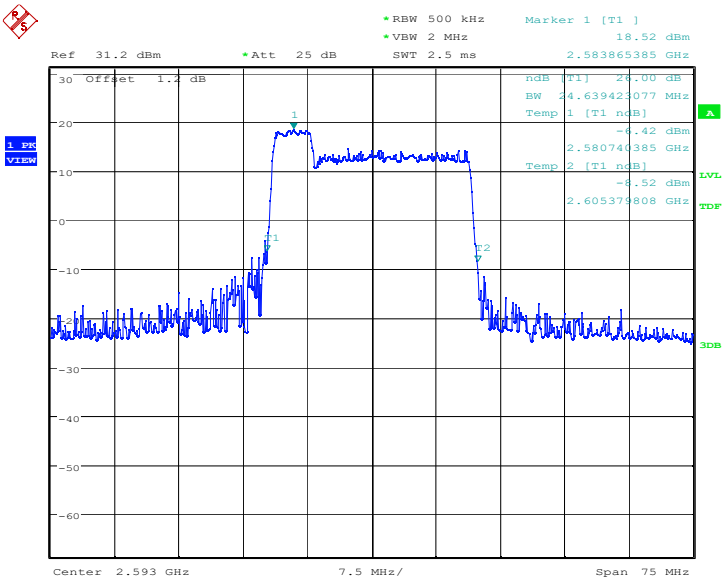


Date: 14.DEC.2021 14:59:29

LTE CA Band 41C , 5MHz+20MHz (-26dBc)

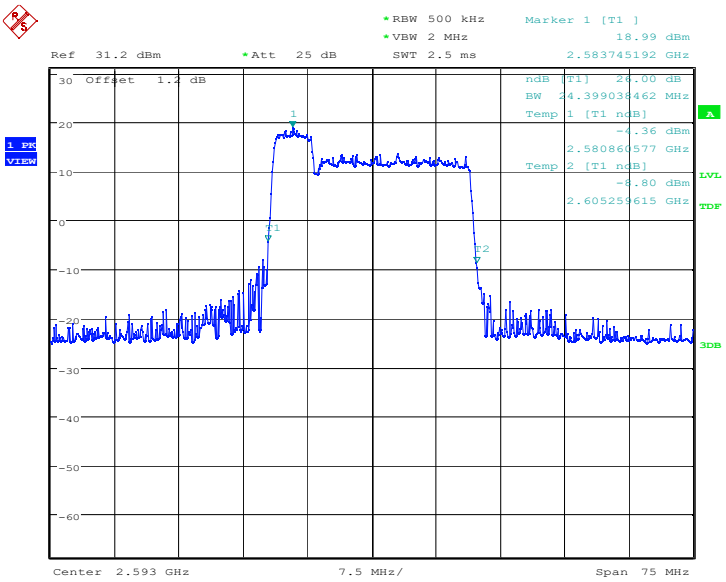
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2583.8	24.639	24.399

LTE CA Band 41C , 5MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:00:22

LTE CA Band 41C , 5MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

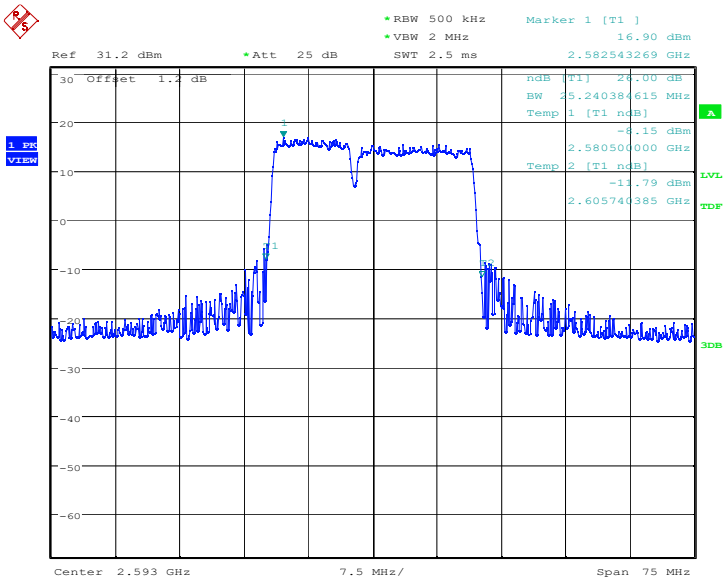


Date: 14.DEC.2021 15:00:43

LTE CA Band 41C , 10MHz+15MHz (-26dBc)

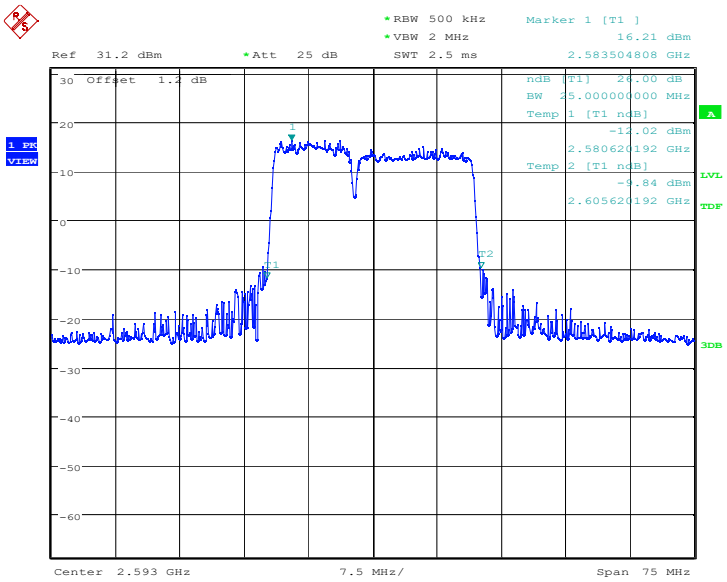
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2585.9	25.240	25.000

LTE CA Band 41C , 10MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:01:39

LTE CA Band 41C , 10MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

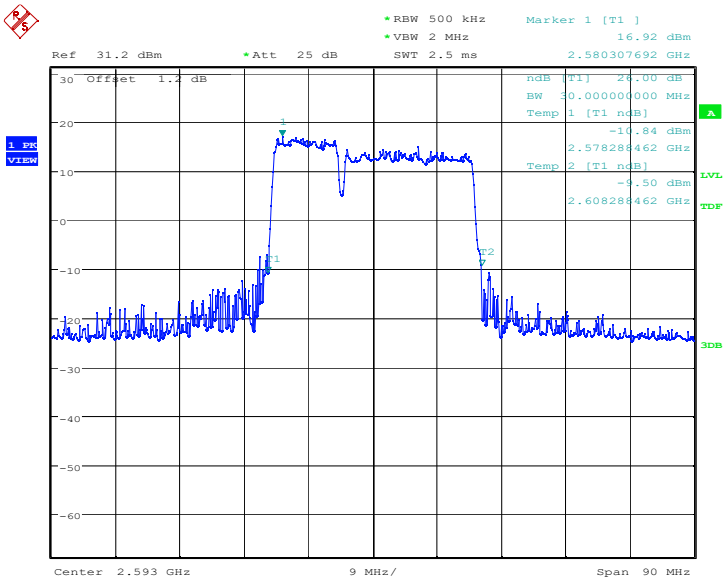


Date: 14.DEC.2021 15:02:01

LTE CA Band 41C , 10MHz+20MHz (-26dBc)

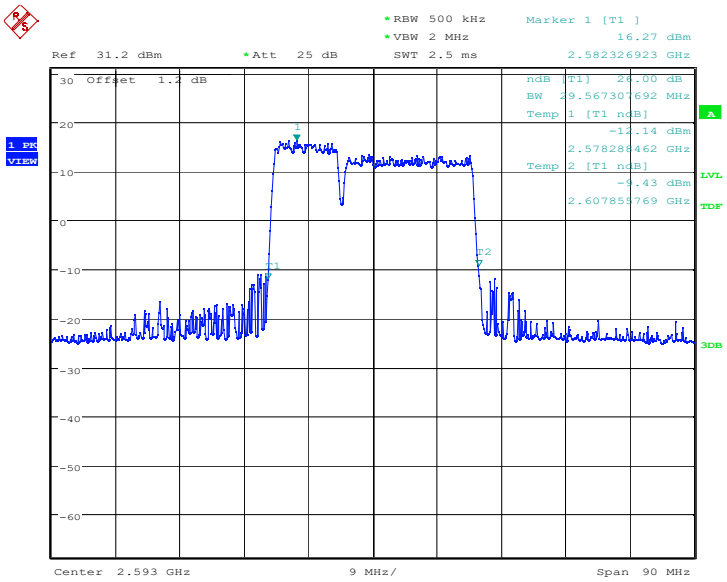
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2583.6	30.000	29.567

LTE CA Band 41C , 10MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:02:53

LTE CA Band 41C , 10MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

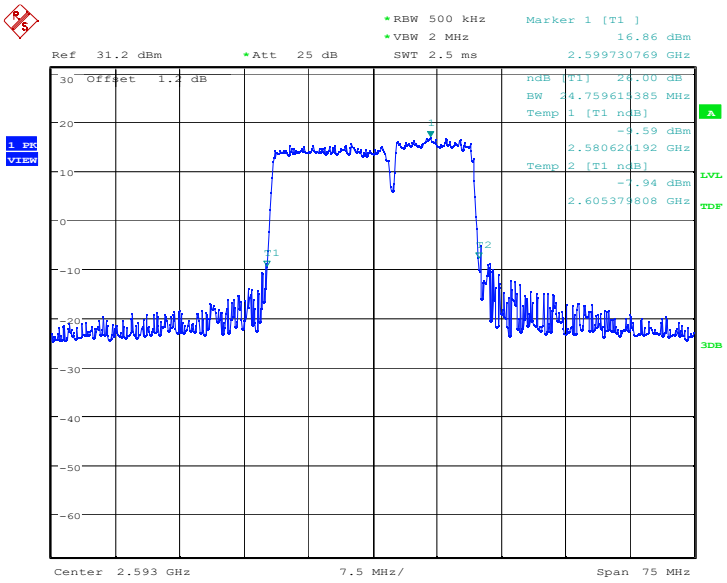


Date: 14.DEC.2021 15:03:14

LTE CA Band 41C , 15MHz+10MHz (-26dBc)

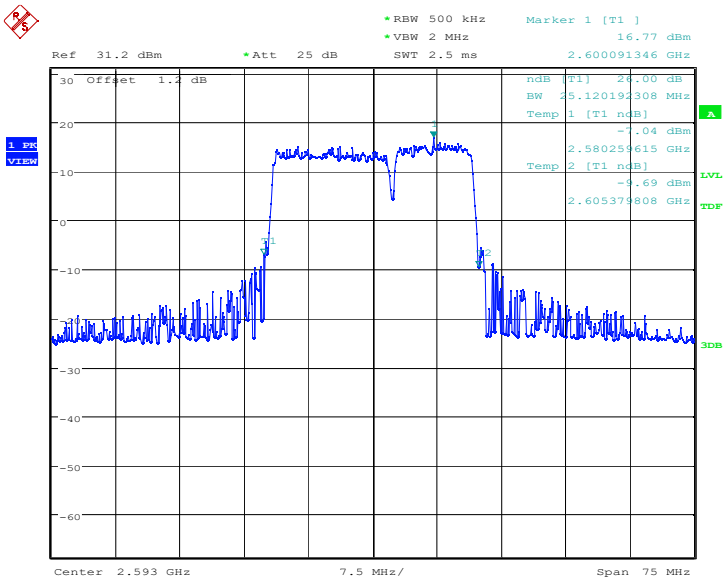
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2588.1	24.760	25.120

LTE CA Band 41C , 15MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:04:11

LTE CA Band 41C , 15MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

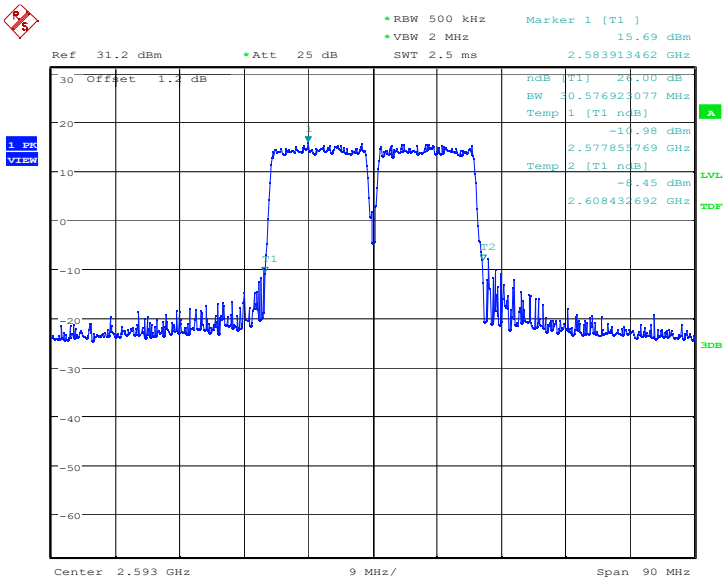


Date: 14.DEC.2021 15:04:32

LTE CA Band 41C , 15MHz+15MHz (-26dBc)

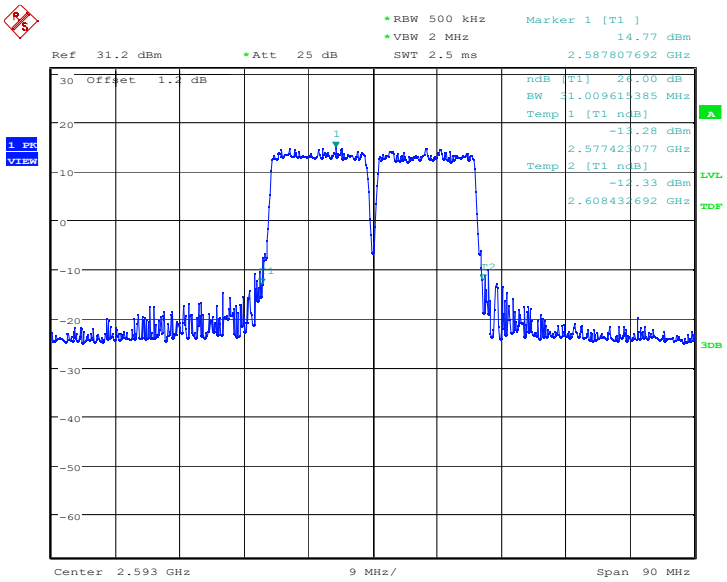
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2585.5	30.577	31.010

LTE CA Band 41C , 15MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:05:25

LTE CA Band 41C , 15MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

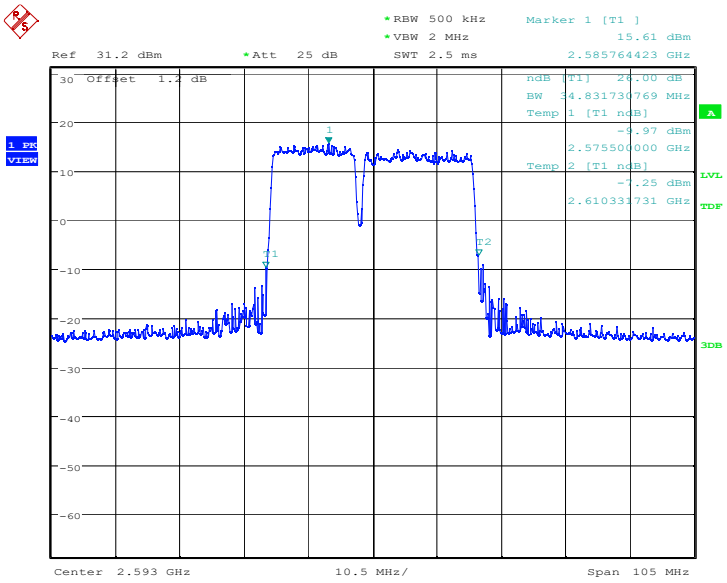


Date: 14.DEC.2021 15:05:46

LTE CA Band 41C , 15MHz+20MHz (-26dBc)

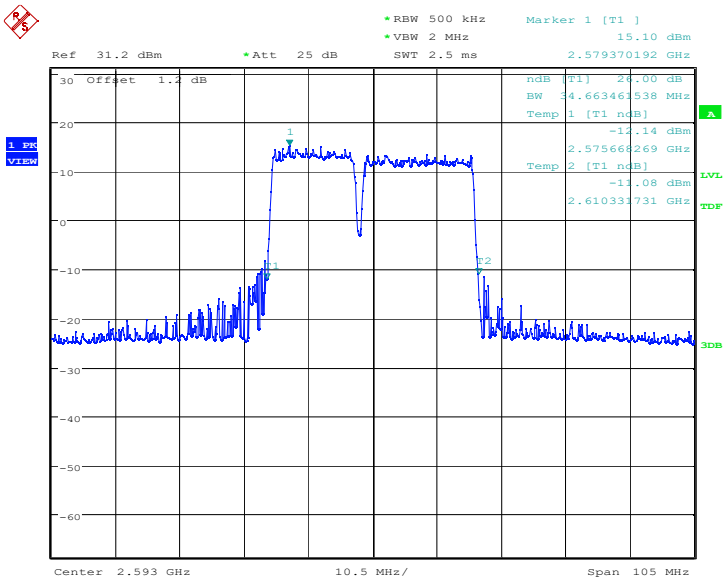
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2583.3	34.832	34.663

LTE CA Band 41C , 15MHz+20MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:06:39

LTE CA Band 41C , 15MHz+20MHz Bandwidth, 16QAM (-26dBc BW)

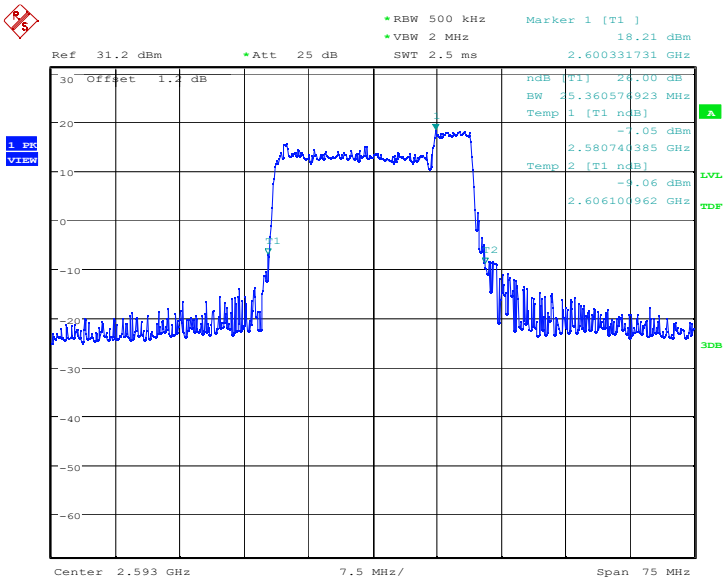


Date: 14.DEC.2021 15:07:00

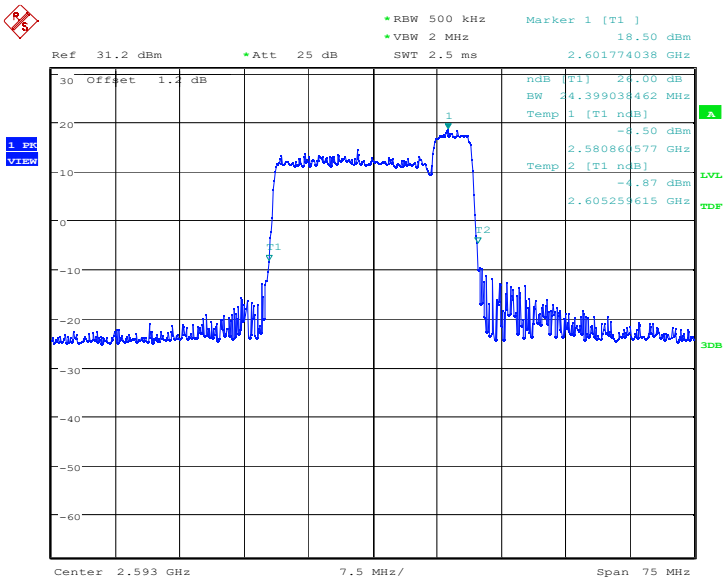
LTE CA Band 41C , 20MHz+5MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2590.5	25.361	24.399

LTE CA Band 41C , 20MHz+5MHz Bandwidth, QPSK (-26dBc BW)



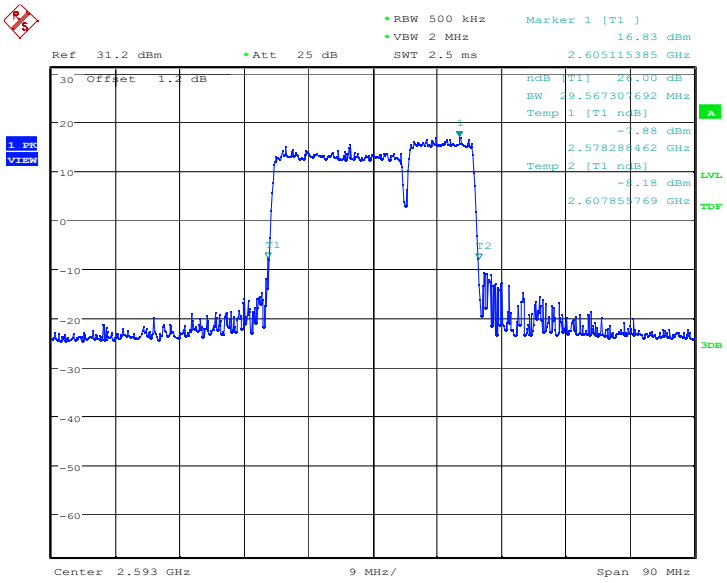
LTE CA Band 41C , 20MHz+5MHz Bandwidth, 16QAM (-26dBc BW)



LTE CA Band 41C , 20MHz+10MHz (-26dBc)

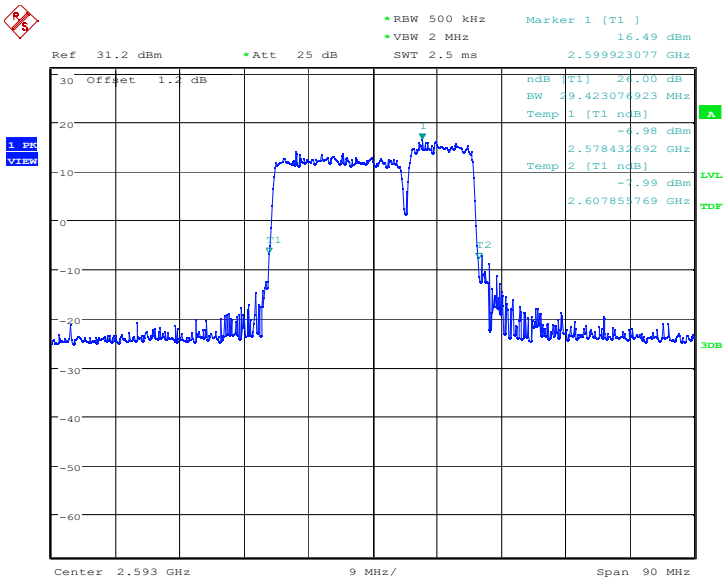
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2588.1	29.567	29.423

LTE CA Band 41C , 20MHz+10MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:09:10

LTE CA Band 41C , 20MHz+10MHz Bandwidth, 16QAM (-26dBc BW)

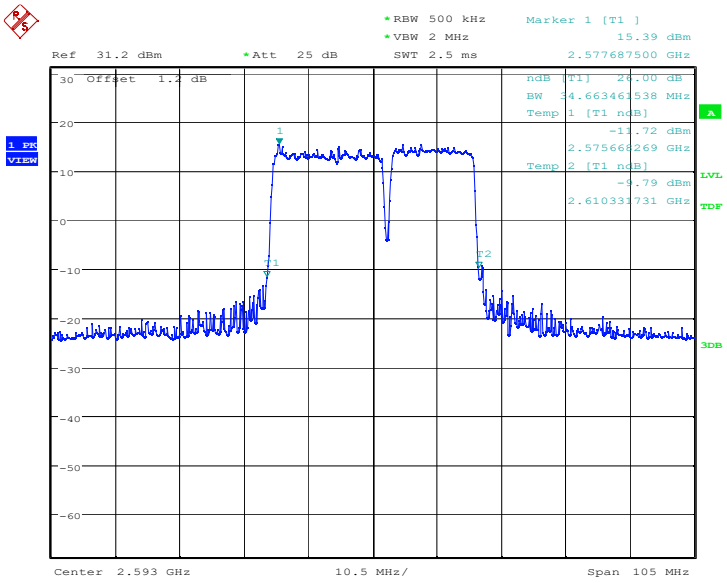


Date: 14.DEC.2021 15:09:31

LTE CA Band 41C , 20MHz+15MHz (-26dBc)

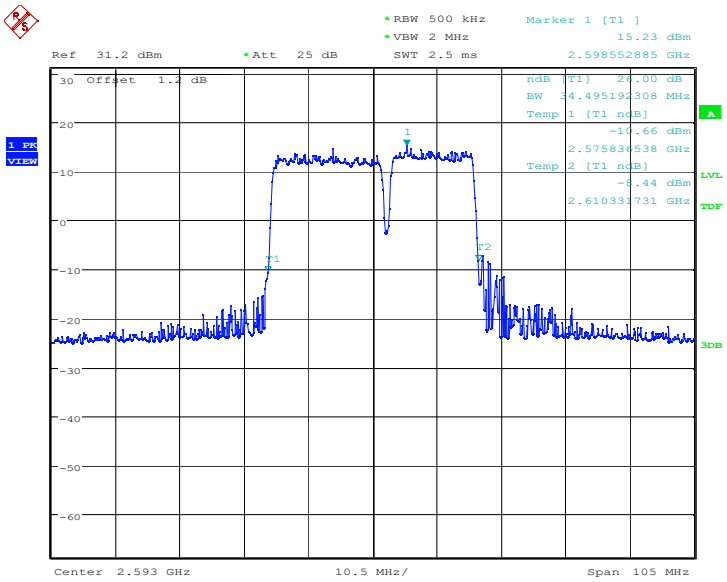
Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2585.6	34.663	34.495

LTE CA Band 41C , 20MHz+15MHz Bandwidth, QPSK (-26dBc BW)



Date: 14.DEC.2021 15:10:23

LTE CA Band 41C , 20MHz+15MHz Bandwidth, 16QAM (-26dBc BW)

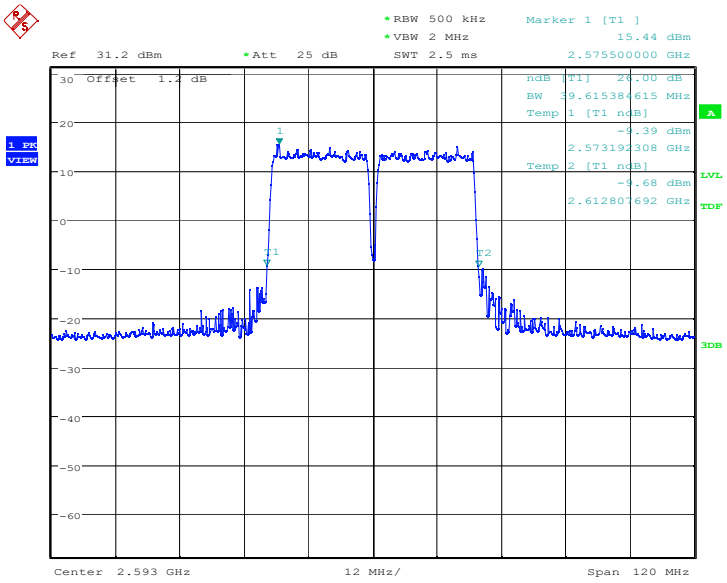


Date: 14.DEC.2021 15:10:43

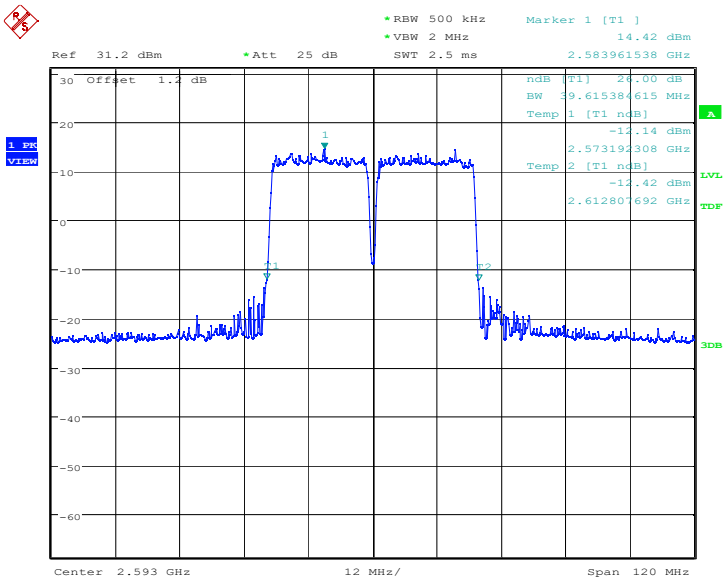
LTE CA Band 41C , 20MHz+20MHz (-26dBc)

Frequency (MHz)	Emission Bandwidth (-26dBc) (MHz)	
	QPSK	16QAM
2583.1	39.615	39.615

LTE CA Band 41C , 20MHz+20MHz Bandwidth, QPSK (-26dBc BW)



LTE CA Band 41C , 20MHz+20MHz Bandwidth, 16QAM (-26dBc BW)



A.6 Band Edge Compliance

A.6.1 Measurement limit

Part 22.917, Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

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

Part 27.53(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

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

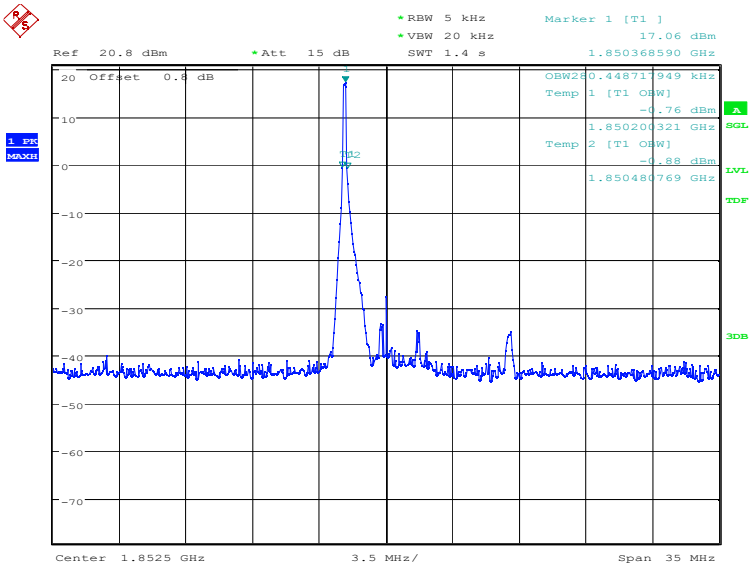
The spectrum analyzer readings are corrected by [10 log (1/duty cycle)] for the non-continuous transmitting scenario.

A.6.2 Measurement result

Only the worst case result is given below

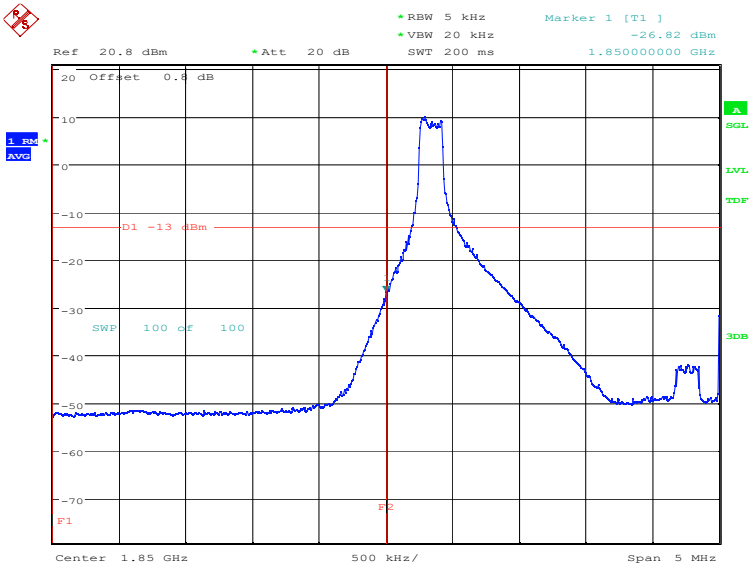
LTE band 2

OBW: 1RB-low_offset



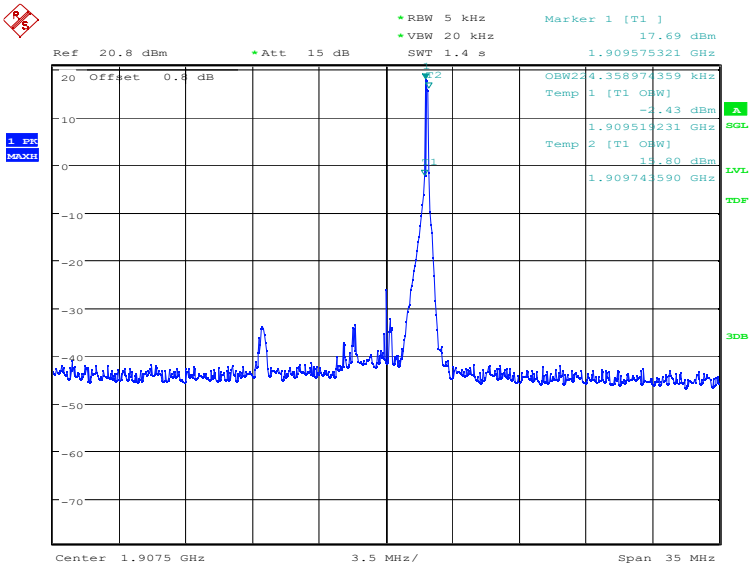
Date: 23.DEC.2021 09:40:34

LOW BAND EDGE BLOCK-1RB-low_offset



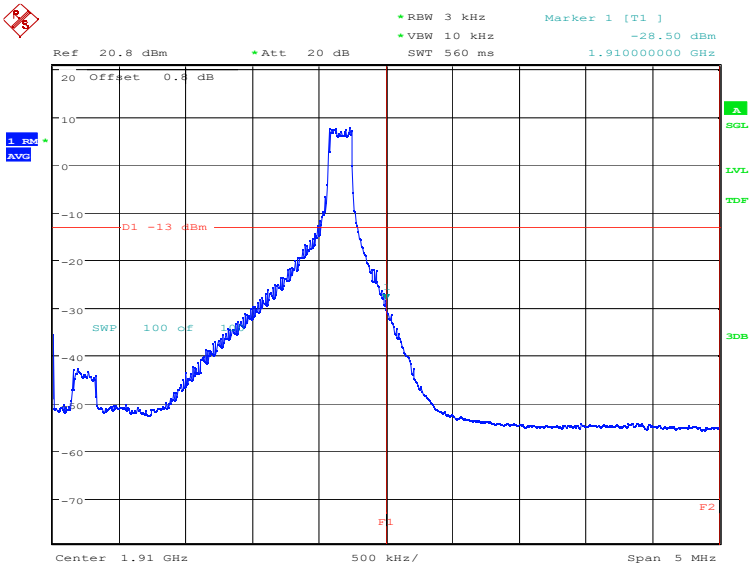
Date: 23.DEC.2021 09:41:47

OBW: 1RB-high_offset



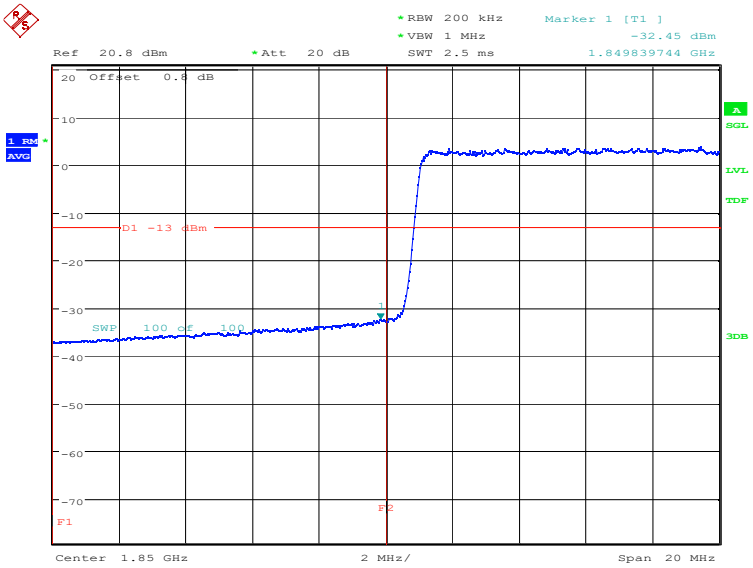
Date: 23.DEC.2021 09:42:11

HIGH BAND EDGE BLOCK-1RB-high_offset



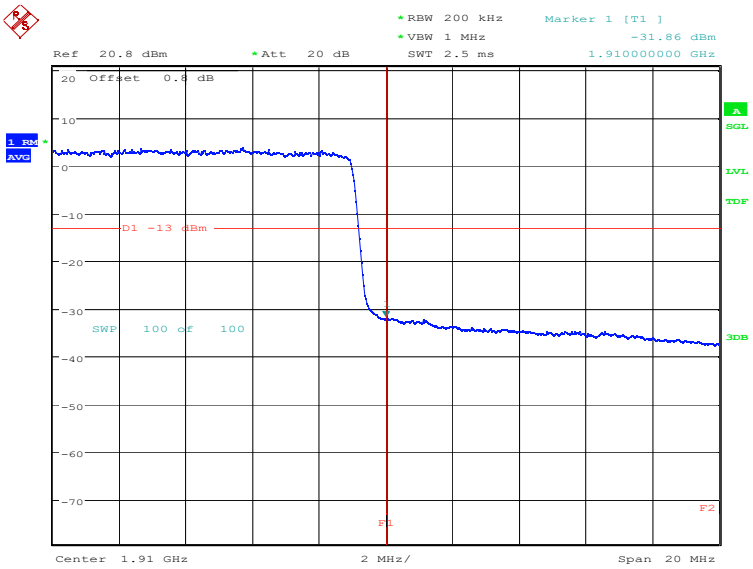
Date: 23.DEC.2021 09:43:25

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 7.DEC.2021 19:34:52

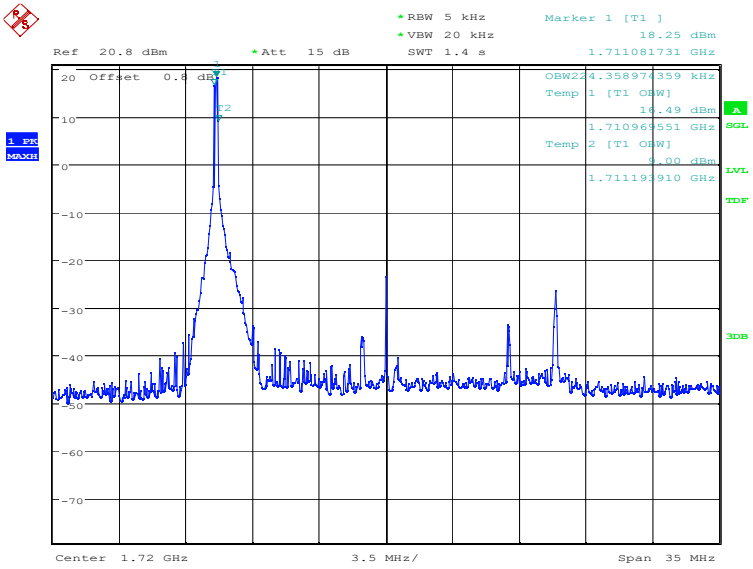
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 7.DEC.2021 19:36:24

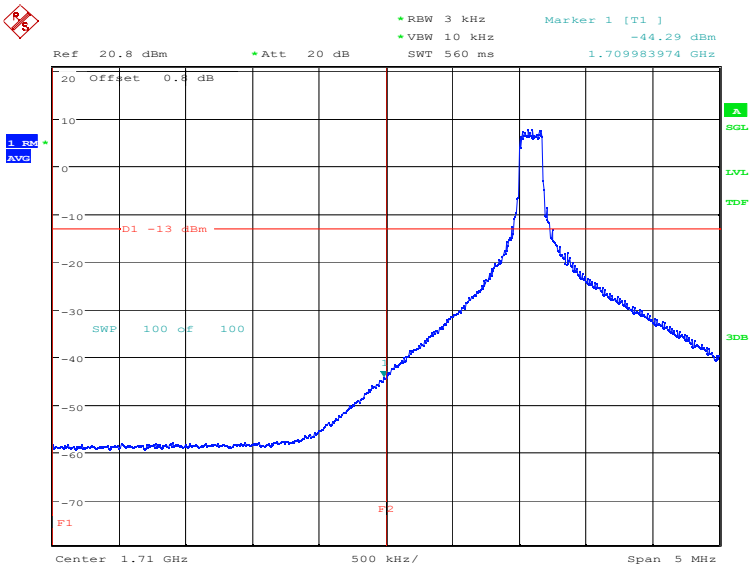
LTE band 4

OBW: 1RB-low_offset



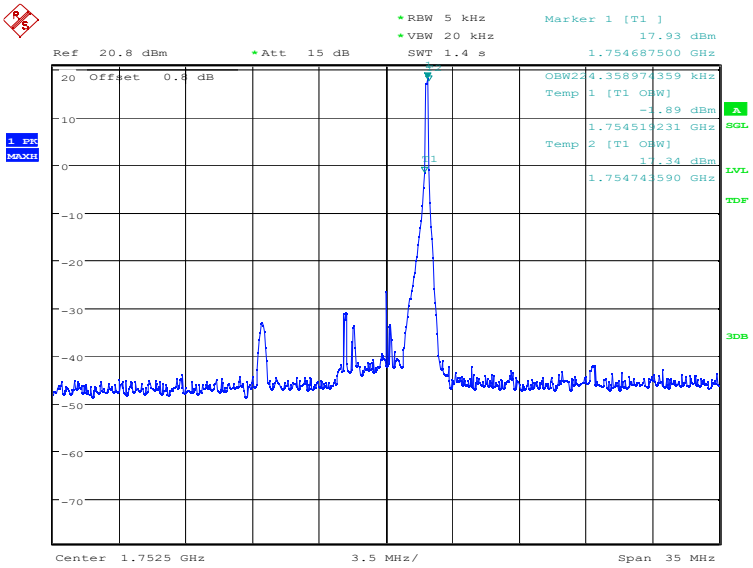
Date: 23.DEC.2021 09:43:52

LOW BAND EDGE BLOCK-1RB-low_offset



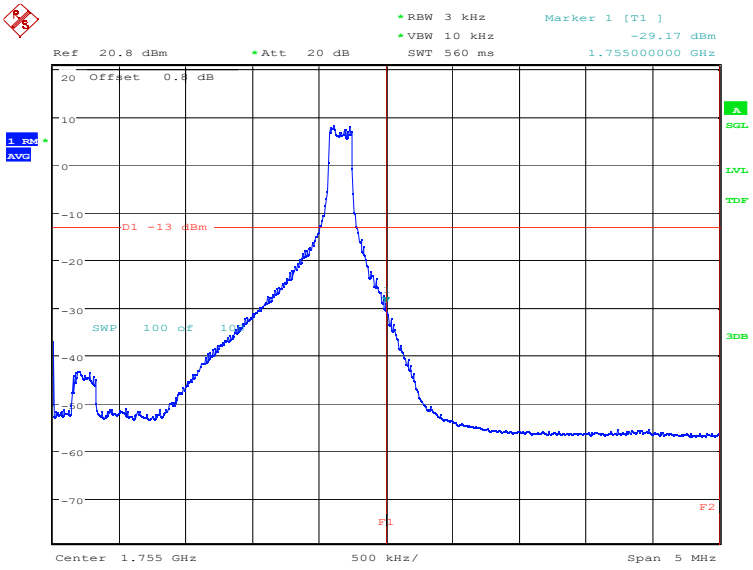
Date: 23.DEC.2021 09:45:05

OBW: 1RB-high_offset



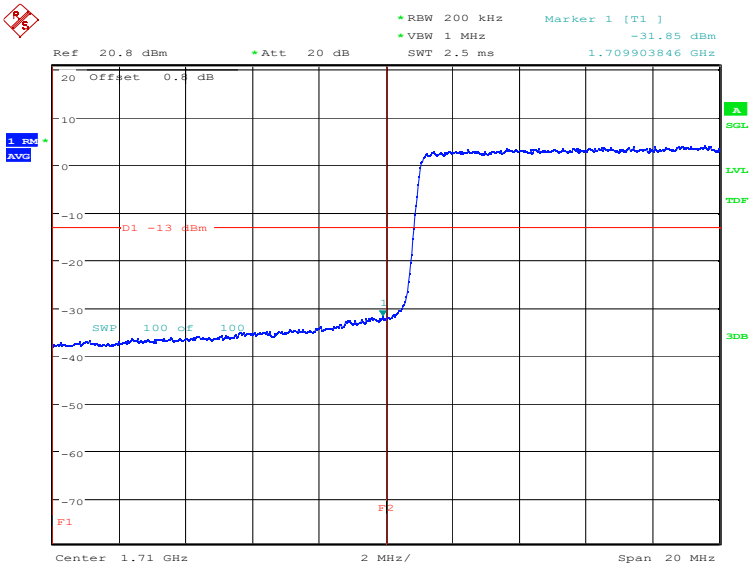
Date: 23.DEC.2021 09:48:06

HIGH BAND EDGE BLOCK-1RB-high_offset



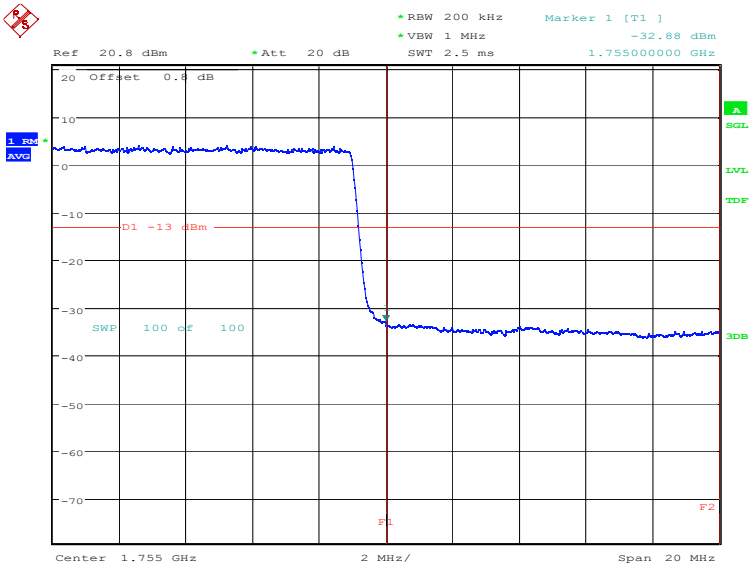
Date: 23.DEC.2021 09:49:20

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 23.DEC.2021 09:45:27

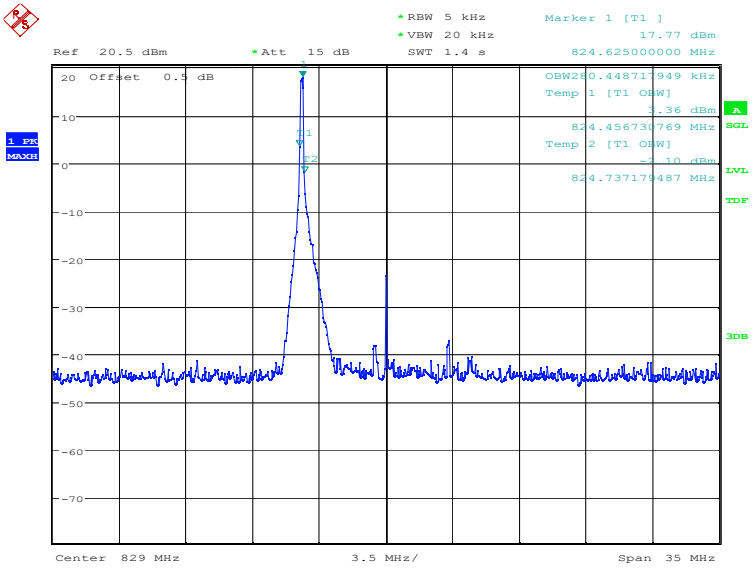
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 23.DEC.2021 09:49:44

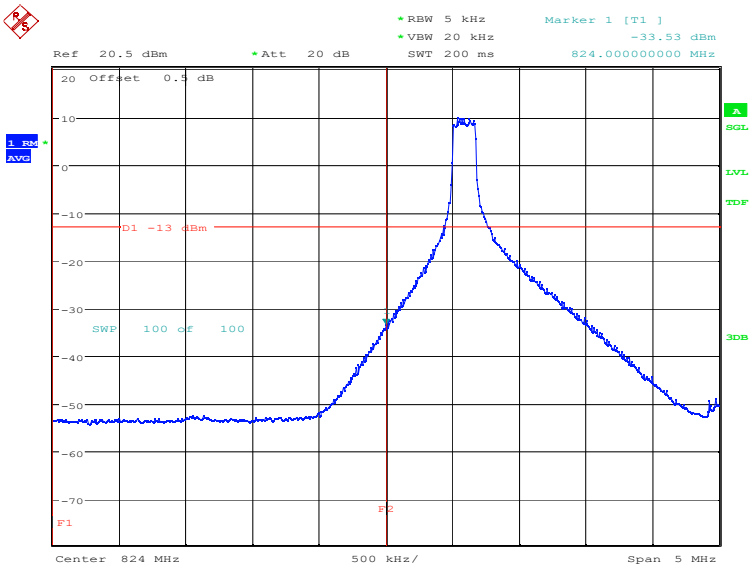
LTE band 5

OBW: 1RB-low_offset



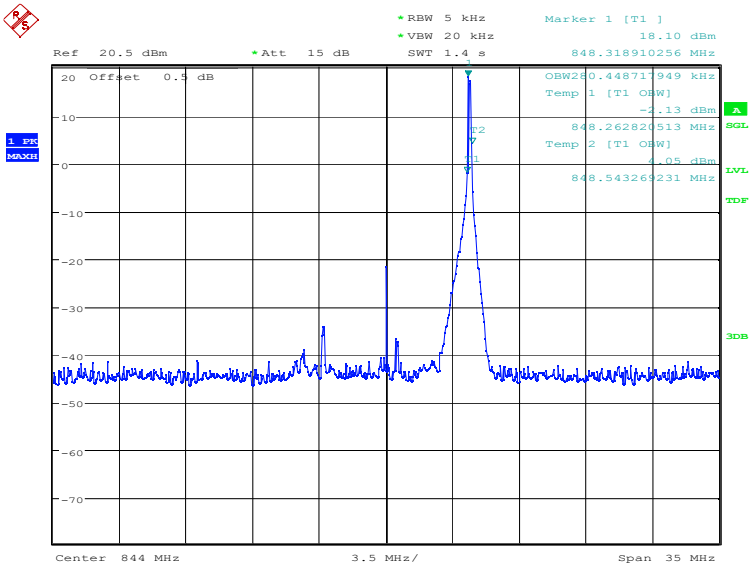
Date: 23.DEC.2021 09:51:45

LOW BAND EDGE BLOCK-1RB-low_offset



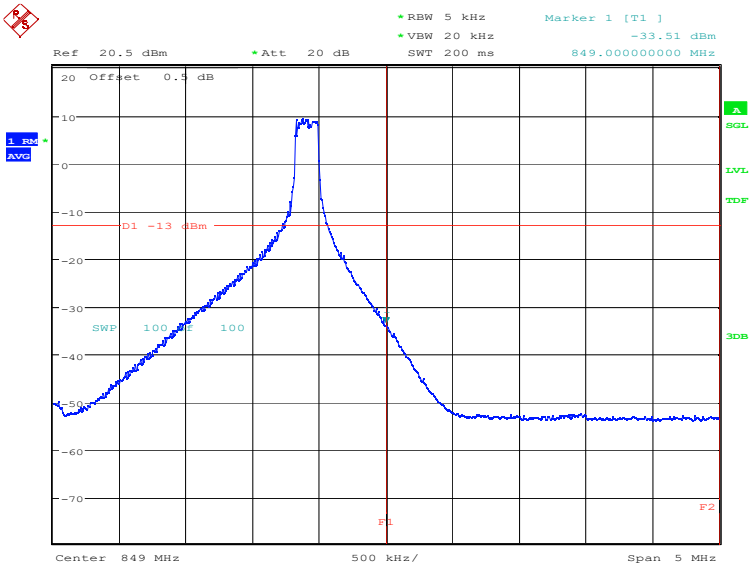
Date: 23.DEC.2021 09:52:59

OBW: 1RB-high_offset



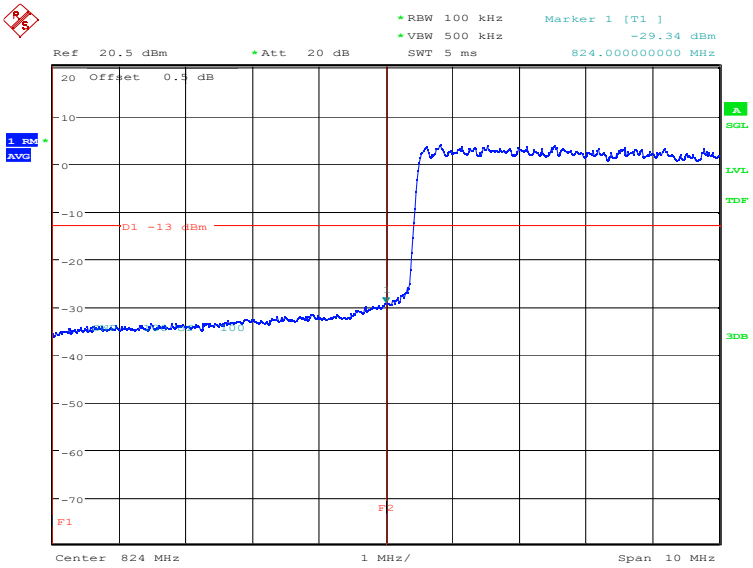
Date: 23.DEC.2021 09:53:23

HIGH BAND EDGE BLOCK-1RB-high_offset



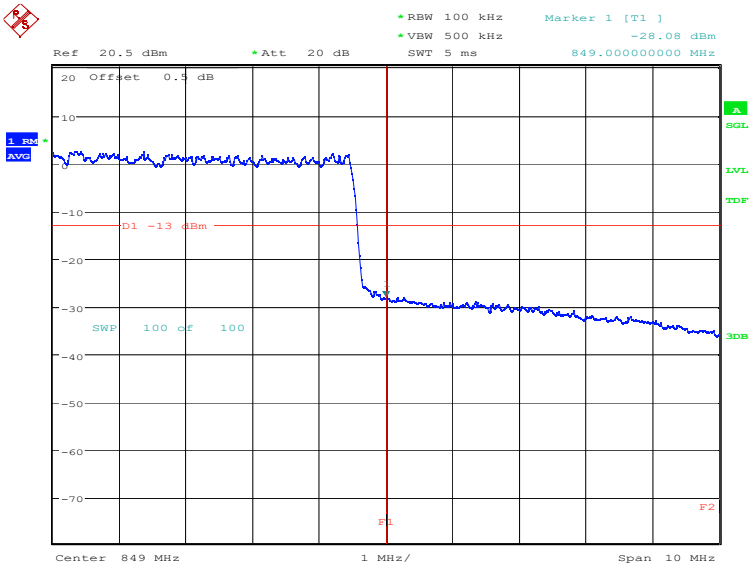
Date: 23.DEC.2021 09:54:37

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 7.DEC.2021 19:38:52

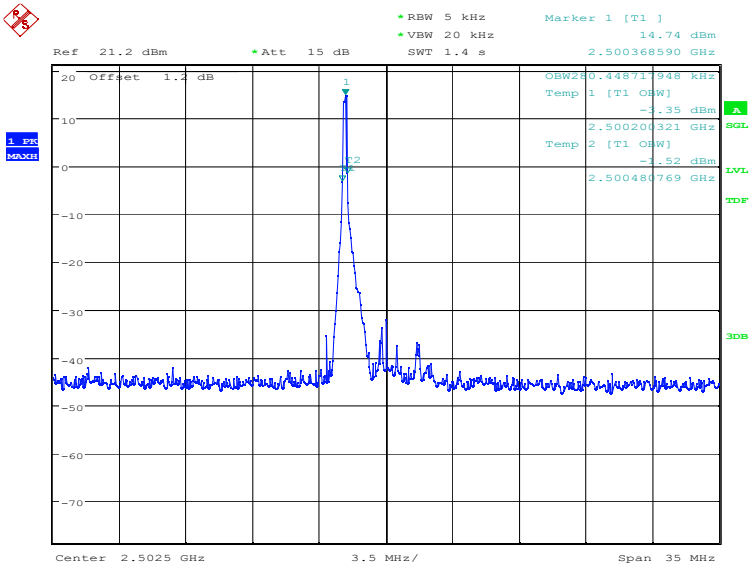
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 7.DEC.2021 19:40:24

LTE band 7

OBW: 1RB-low_offset



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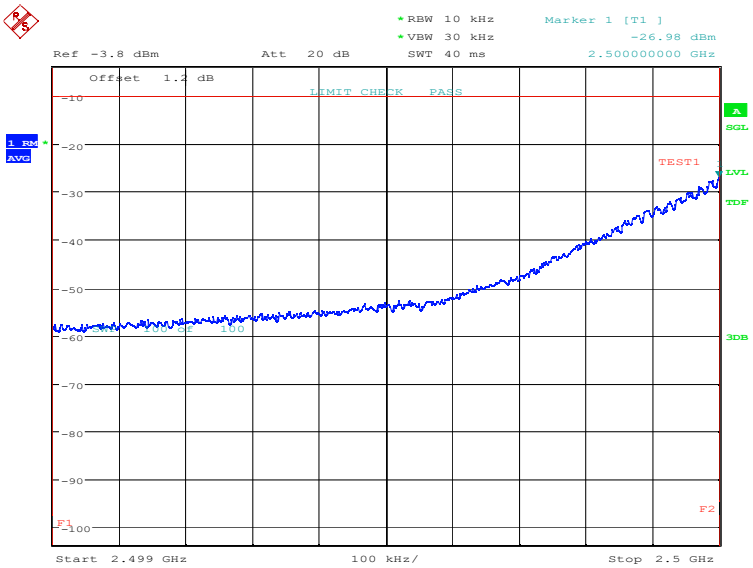
LOW BAND EDGE BLOCK-1RB-low_offset



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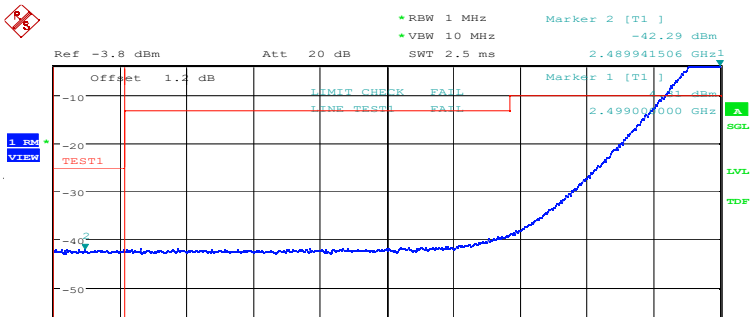

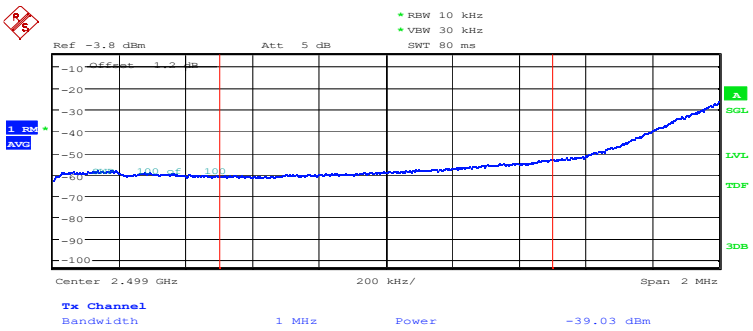

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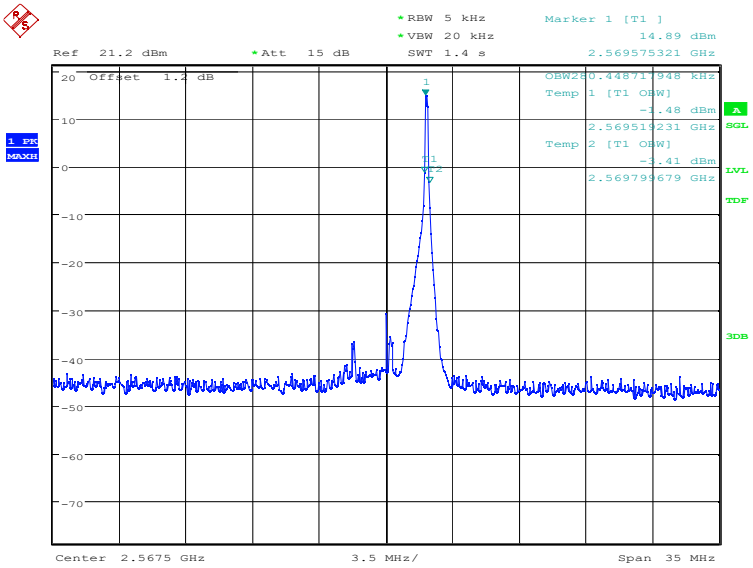
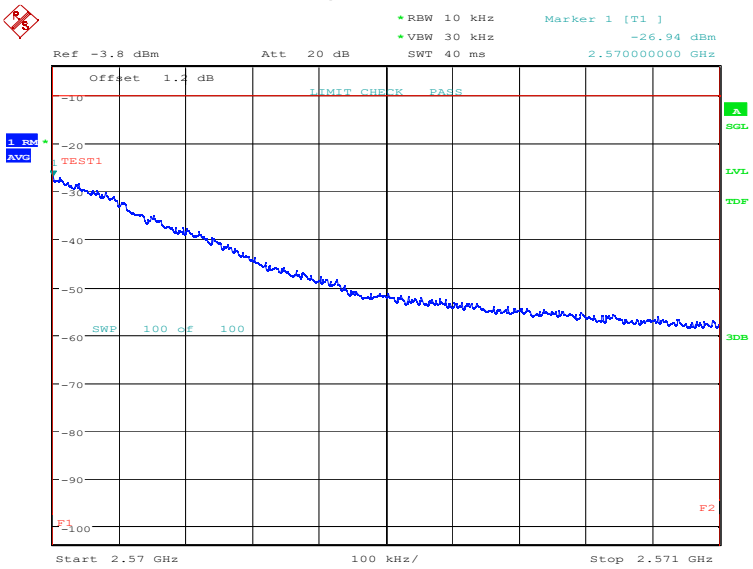
OBW: 1RB-high_offset



Date: 23.DEC.2021 09:59:39

HIGH BAND EDGE BLOCK-1RB-high_offset



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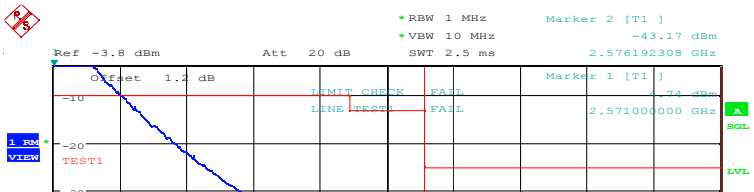
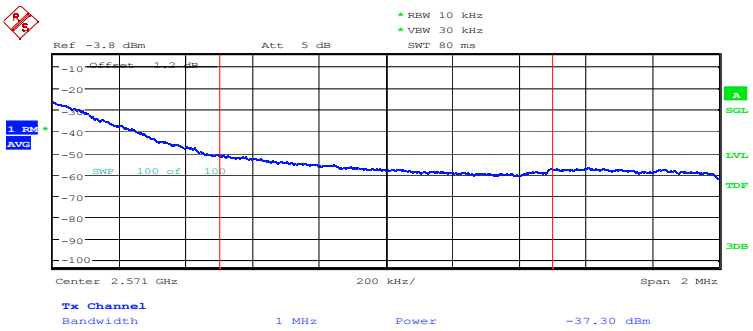
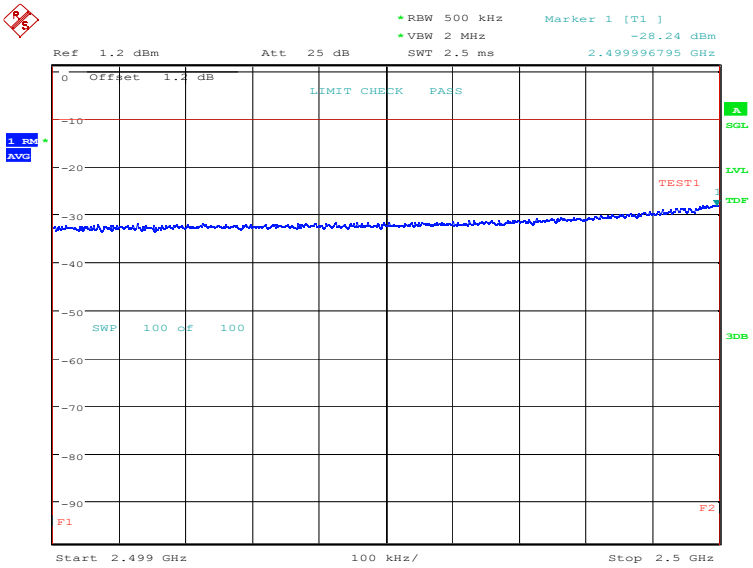


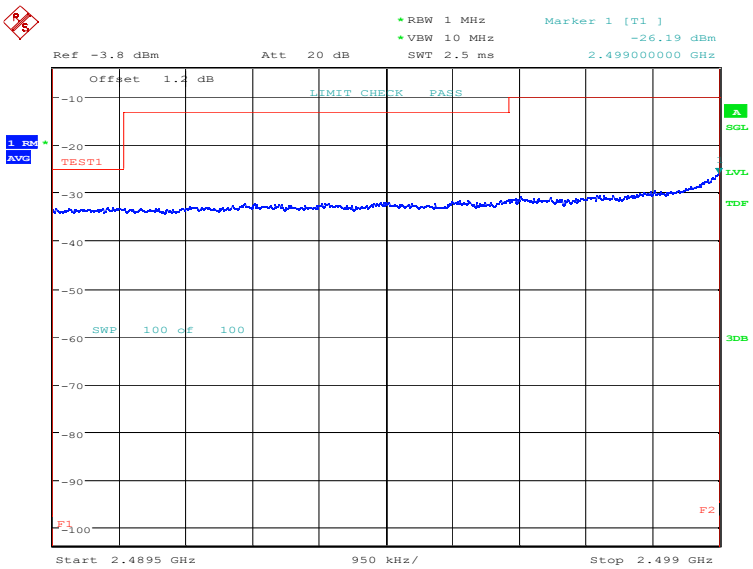


Date: 23.DEC.2021 10:03:14

LOW BAND EDGE BLOCK-20MHz-100%RB

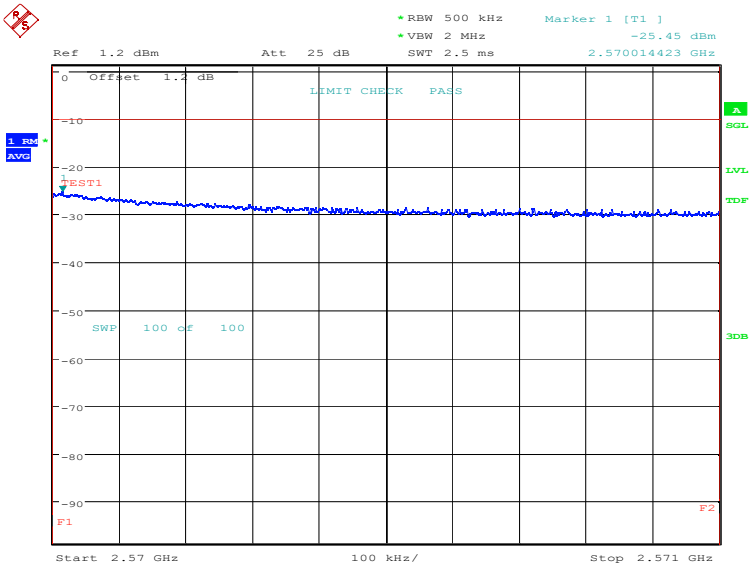


Date: 7.DEC.2021 19:43:23

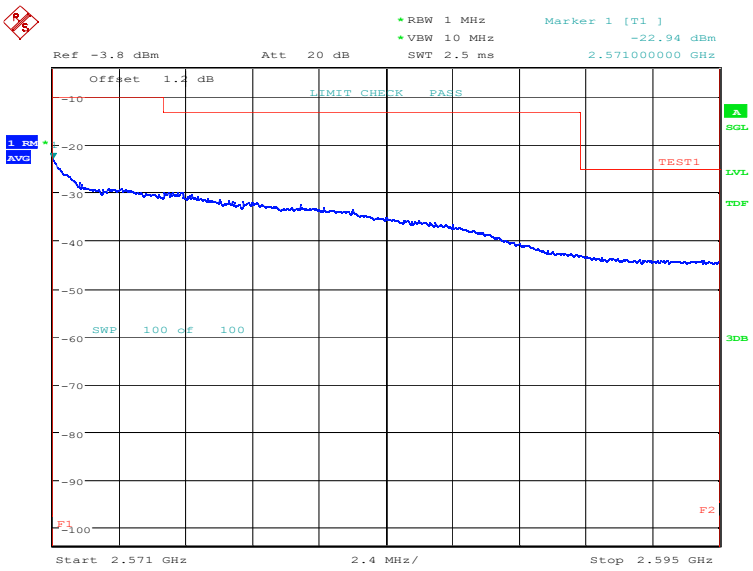


Date: 7.DEC.2021 19:45:03

HIGH BAND EDGE BLOCK-20MHz-100%RB



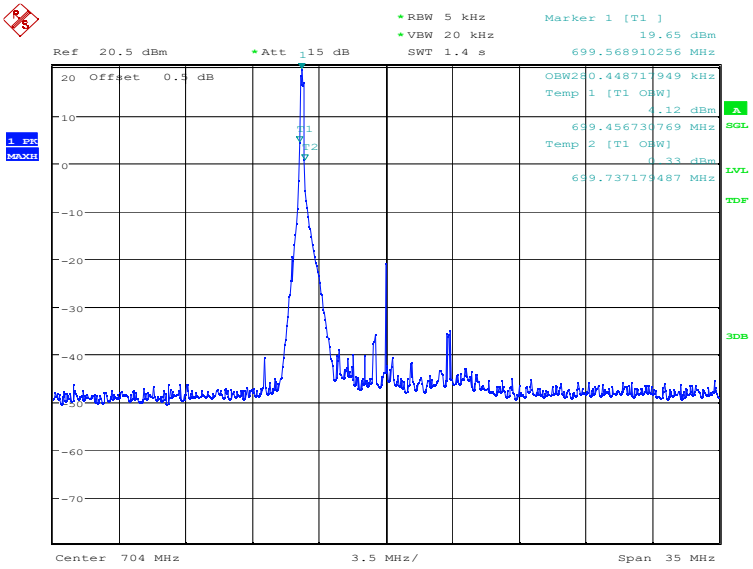
Date: 7.DEC.2021 19:48:01



Date: 7.DEC.2021 19:49:42

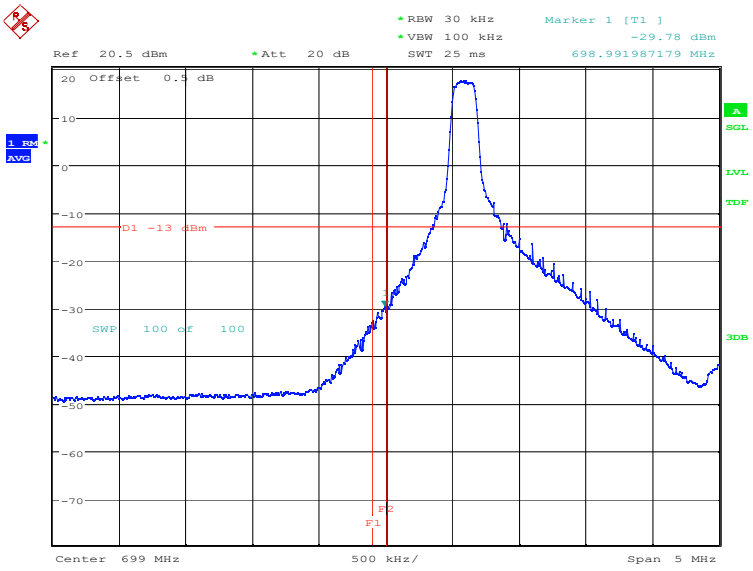
LTE band 12

OBW: 1RB-low_offset



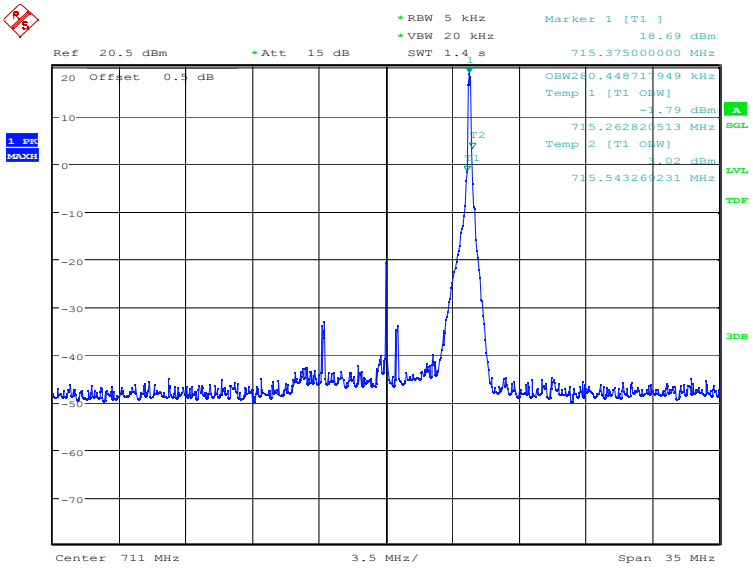
Date: 23.DEC.2021 10:03:41

LOW BAND EDGE BLOCK-1RB-low_offset



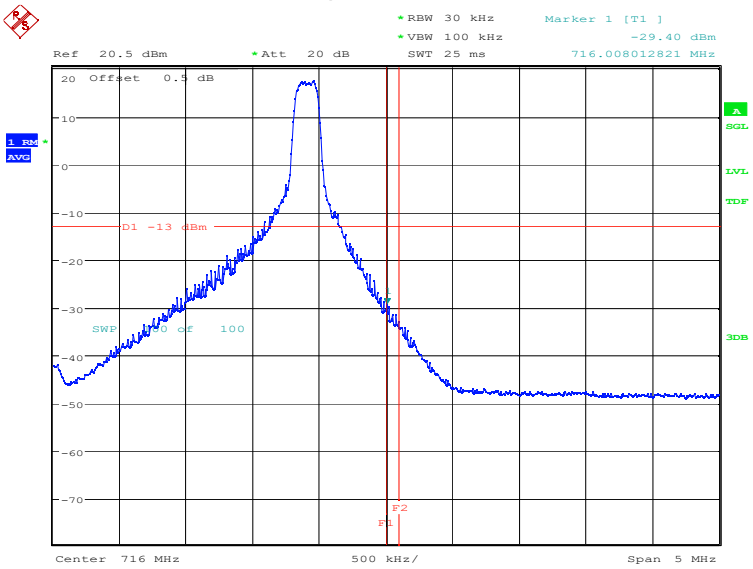
Date: 23.DEC.2021 10:03:59

OBW: 1RB-high_offset



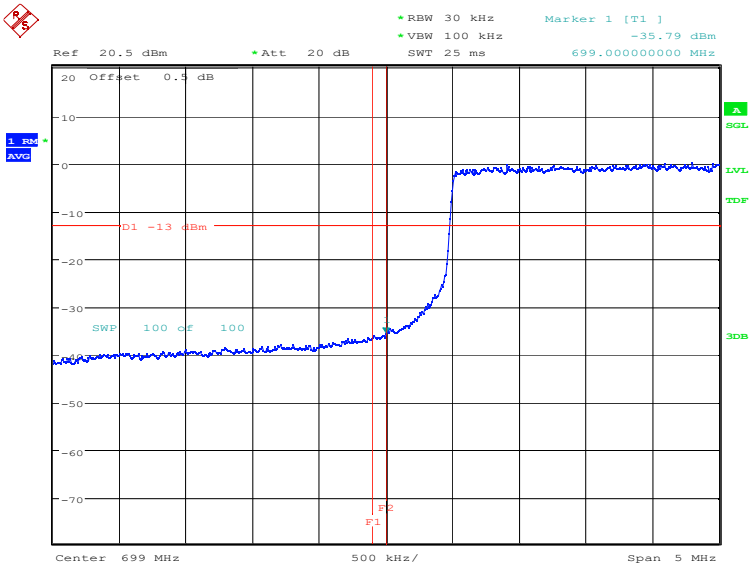
Date: 23.DEC.2021 10:04:23

HIGH BAND EDGE BLOCK-1RB-high_offset



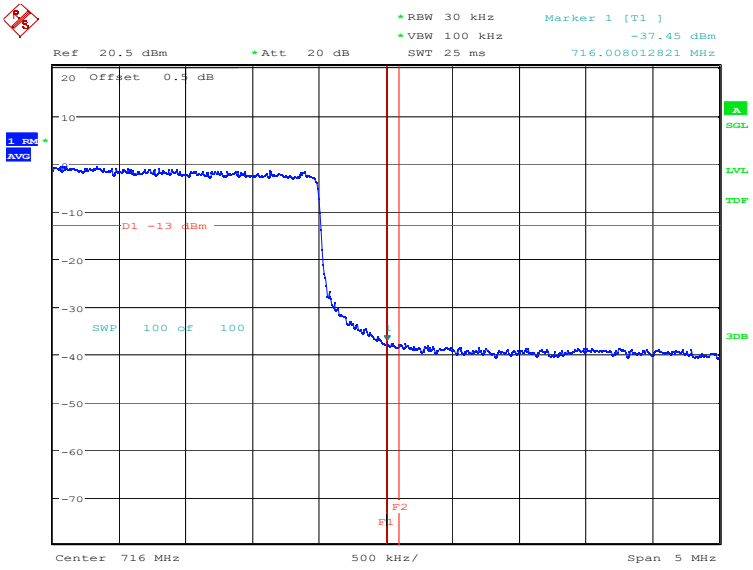
Date: 23.DEC.2021 10:04:42

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 7.DEC.2021 19:52:14

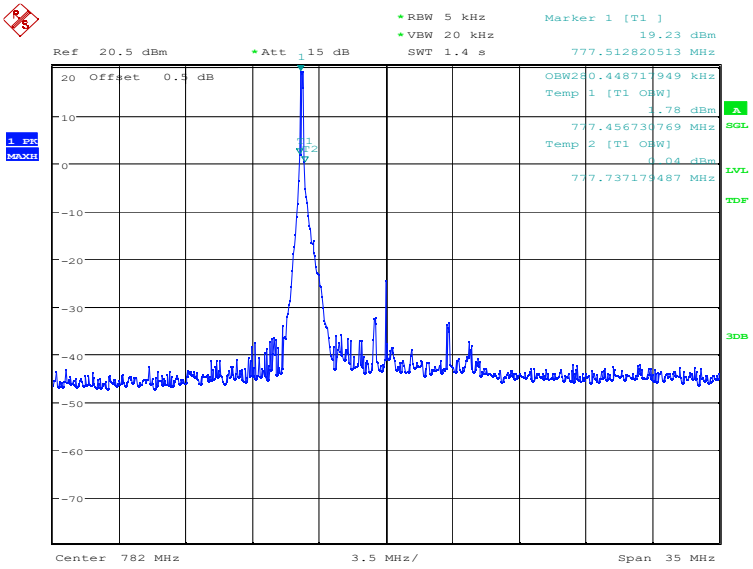
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 7.DEC.2021 19:53:45

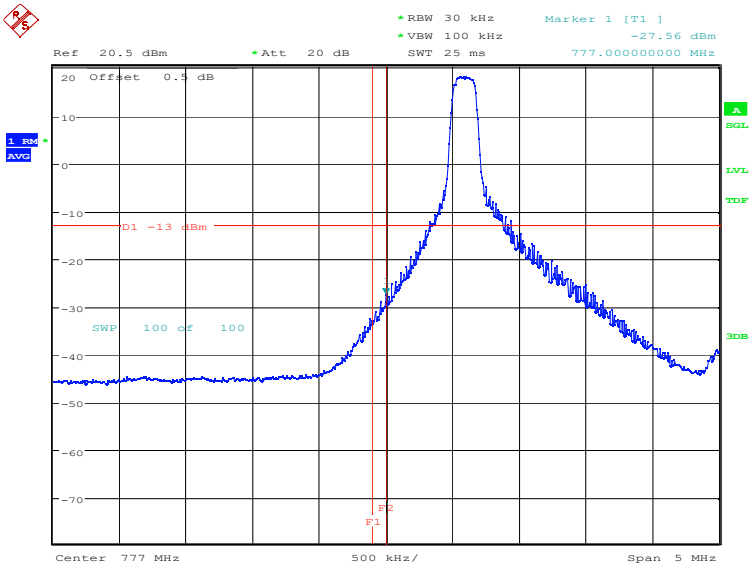
LTE band 13

OBW: 1RB-low_offset

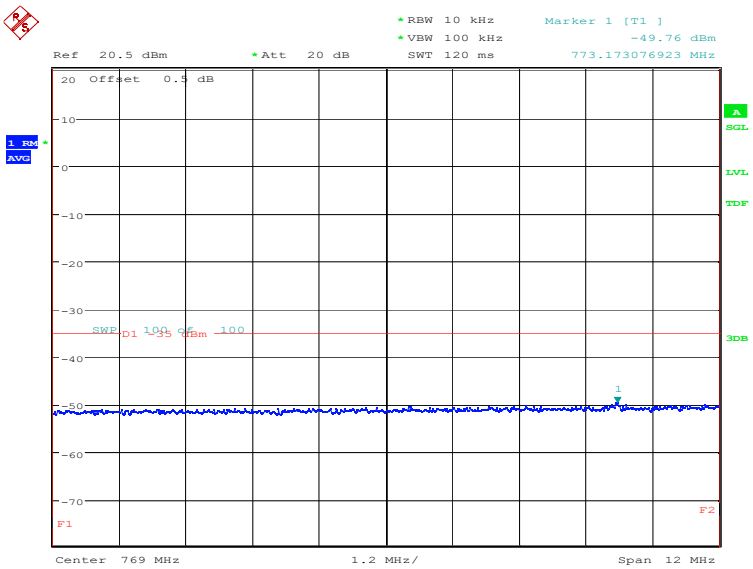


Date: 23.DEC.2021 10:18:09

LOW BAND EDGE BLOCK-1RB-low_offset

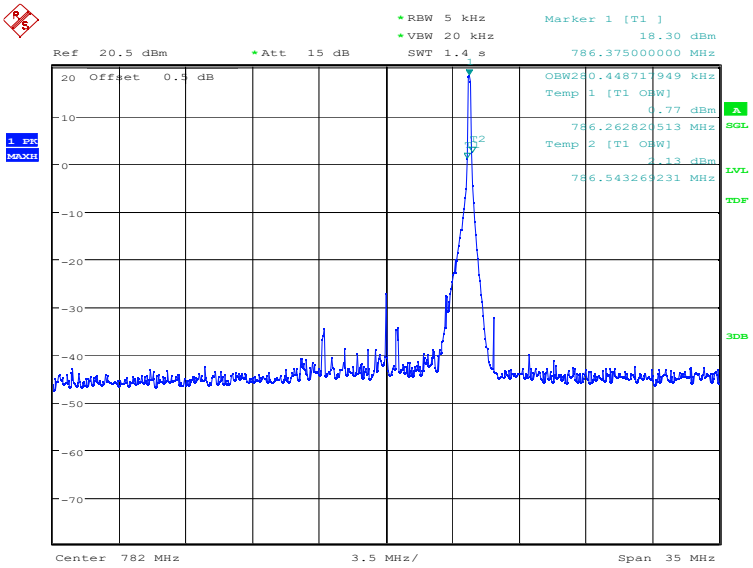


Date: 23.DEC.2021 10:18:27



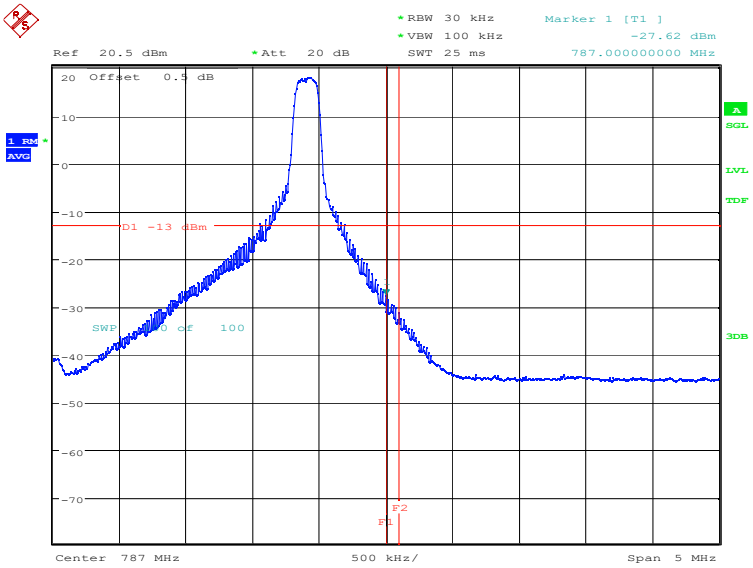
Date: 23.DEC.2021 10:18:53

OBW: 1RB-high_offset



Date: 23.DEC.2021 10:19:16

HIGH BAND EDGE BLOCK-1RB-high_offset



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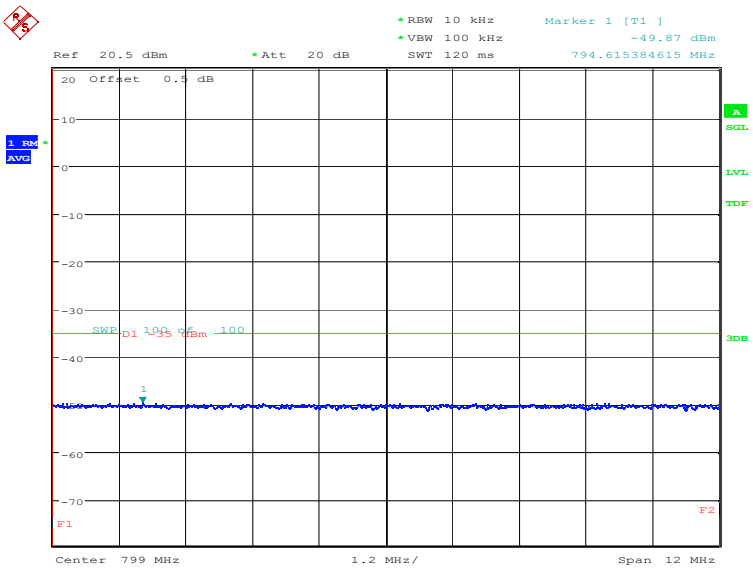
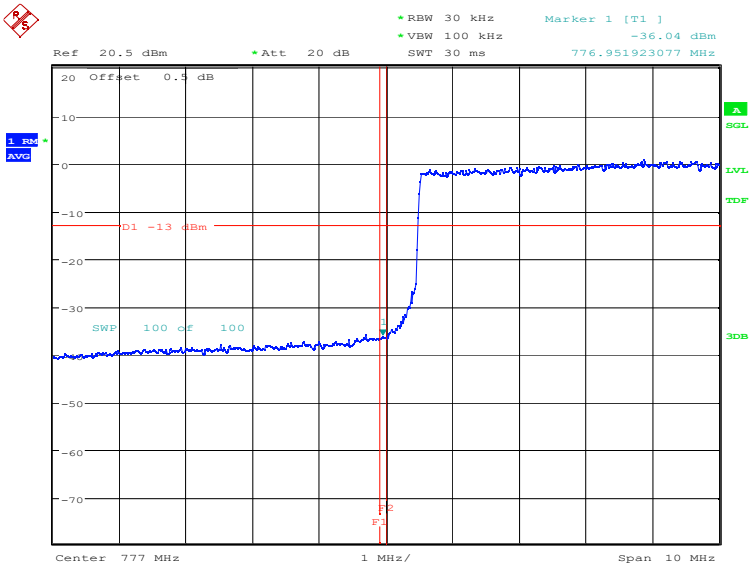
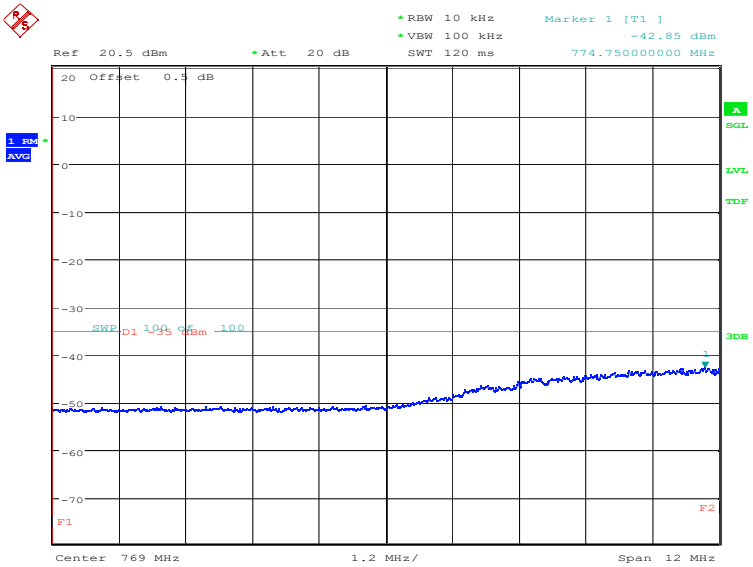


Date: 23.DEC.2021 10:20:05

LOW BAND EDGE BLOCK-10MHz-100%RB

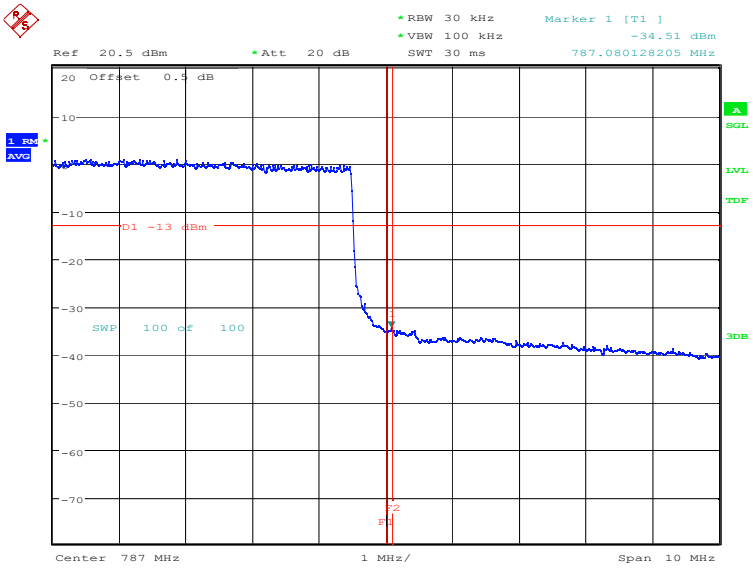


Date: 8.DEC.2021 08:15:38

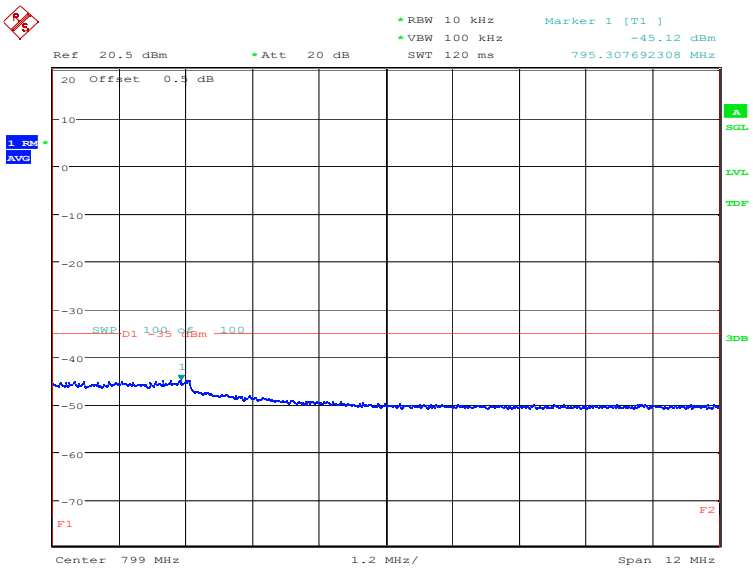


Date: 8.DEC.2021 08:16:15

HIGH BAND EDGE BLOCK-10MHz-100%RB



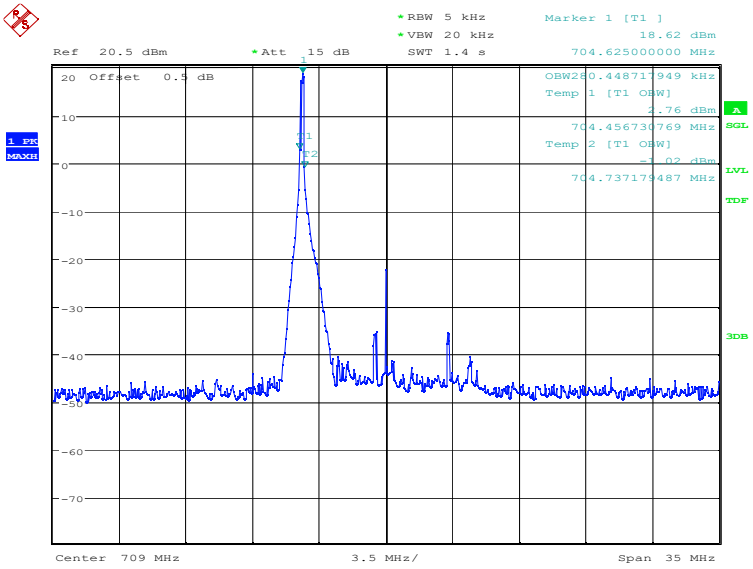
Date: 8.DEC.2021 08:17:45



Date: 8.DEC.2021 08:18:54

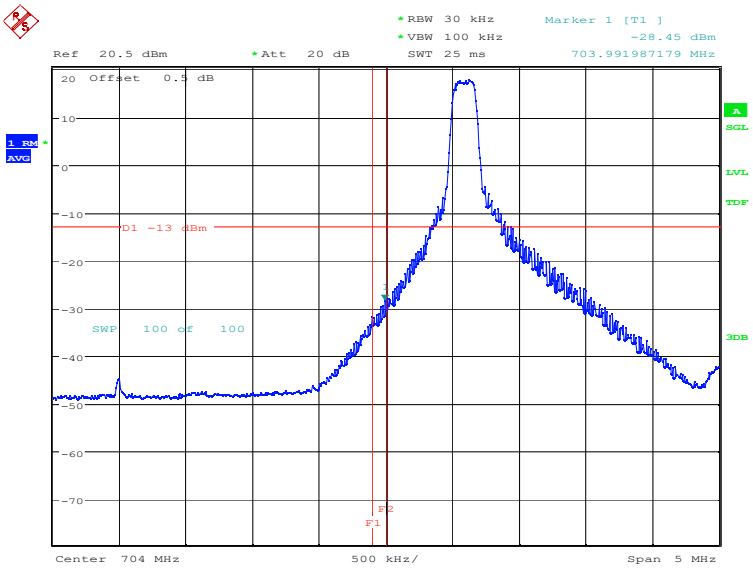
LTE band 17

OBW: 1RB-low_offset



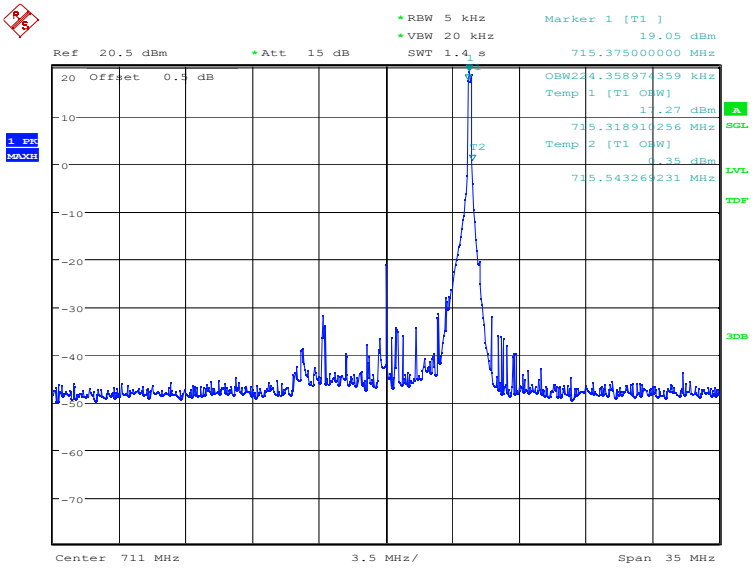
Date: 23.DEC.2021 10:07:09

LOW BAND EDGE BLOCK-1RB-low_offset



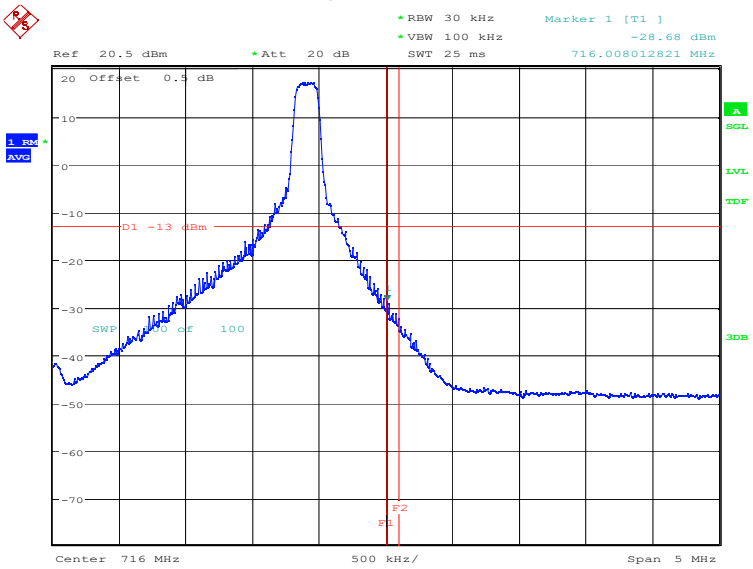
Date: 23.DEC.2021 10:07:27

OBW: 1RB-high_offset



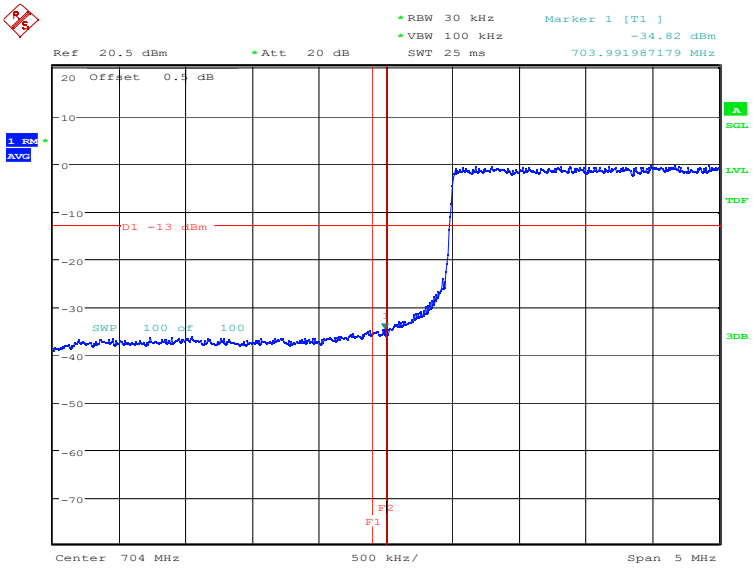
Date: 23.DEC.2021 10:09:10

HIGH BAND EDGE BLOCK-1RB-high_offset



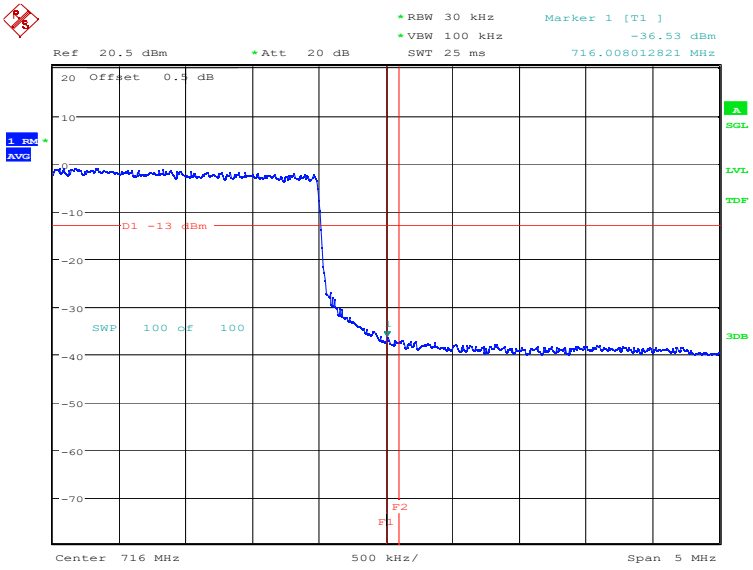
Date: 23.DEC.2021 10:09:28

LOW BAND EDGE BLOCK-10MHz-100%RB



Date: 23.DEC.2021 10:07:49

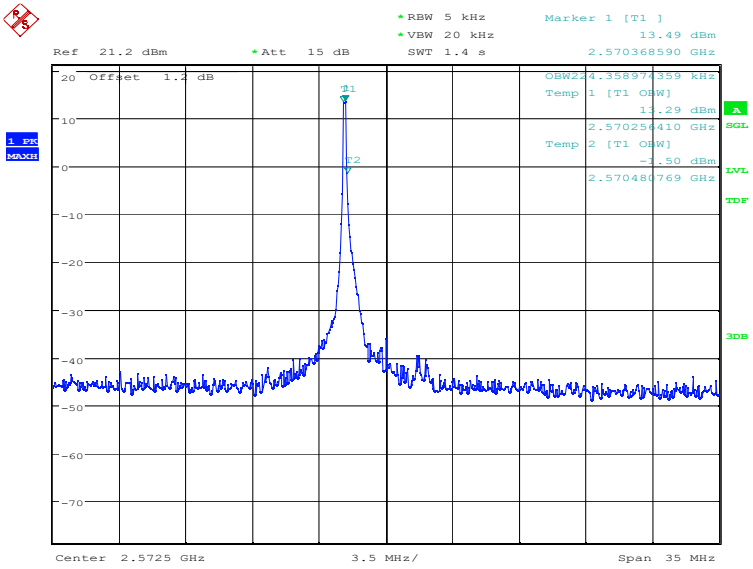
HIGH BAND EDGE BLOCK-10MHz-100%RB



Date: 23.DEC.2021 10:09:50

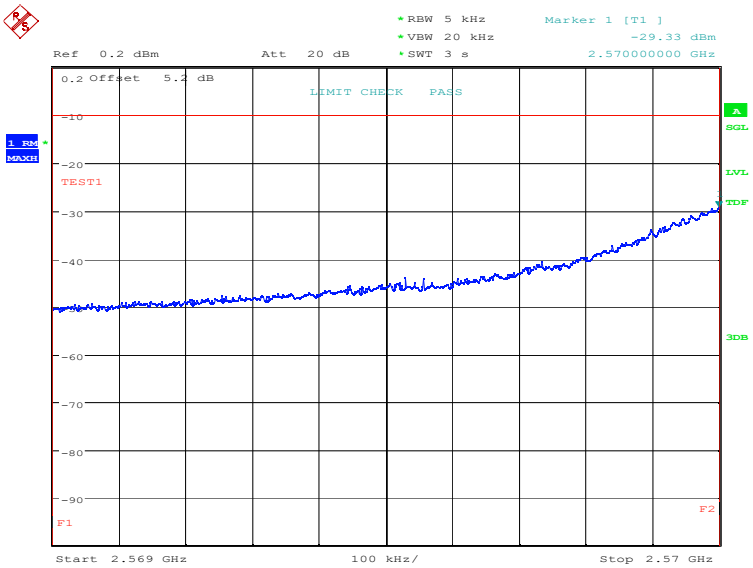
LTE band 38

OBW: 1RB-low_offset

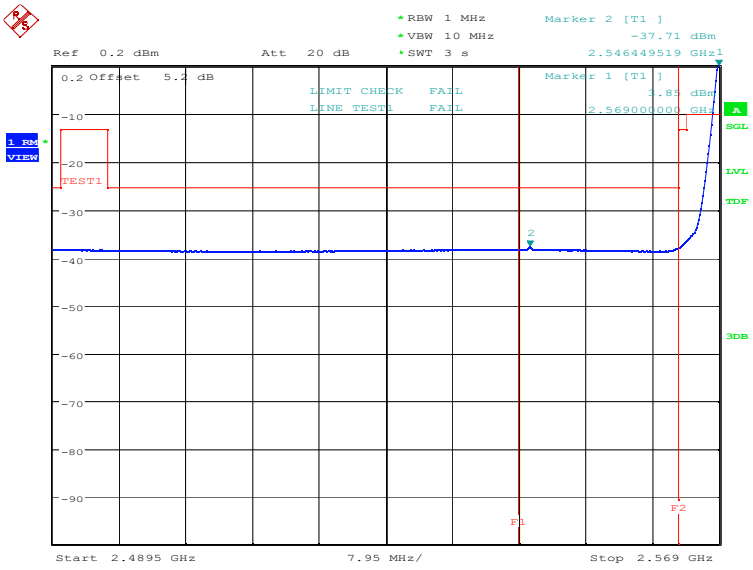


Date: 23.DEC.2021 10:35:00

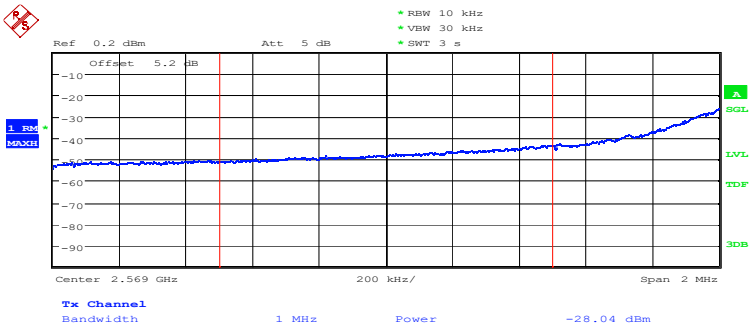
LOW BAND EDGE BLOCK-1RB-low_offset



Date: 23.DEC.2021 10:35:40

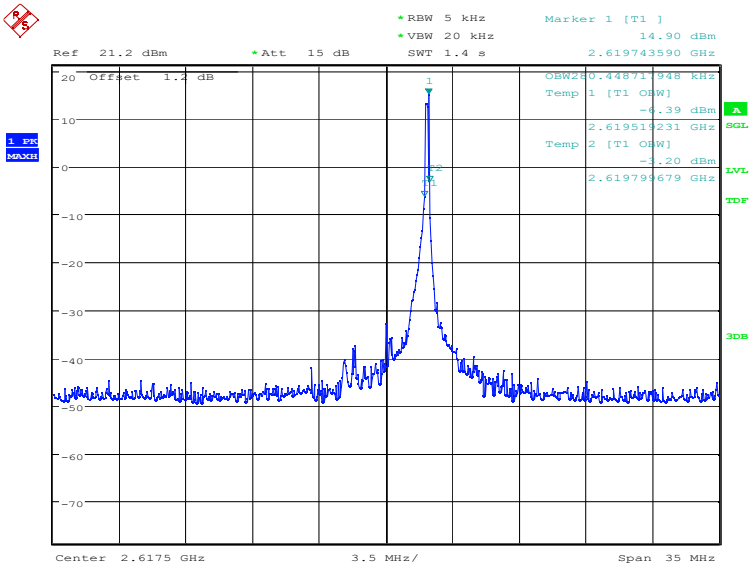


Date: 23.DEC.2021 10:36:26



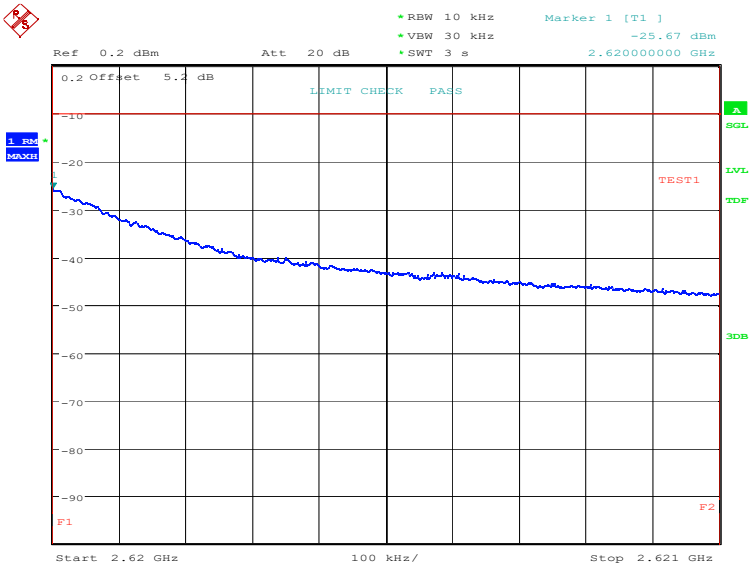
Date: 23.DEC.2021 10:36:44

OBW: 1RB-high_offset

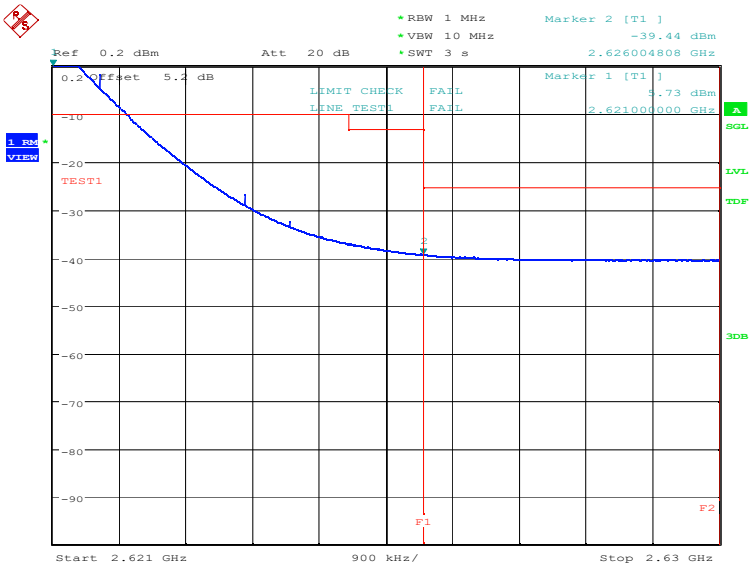


Date: 23.DEC.2021 10:49:23

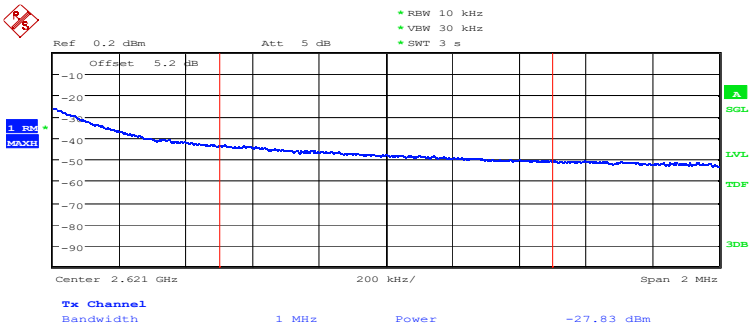
HIGH BAND EDGE BLOCK-1RB-high_offset



Date: 23.DEC.2021 10:50:03

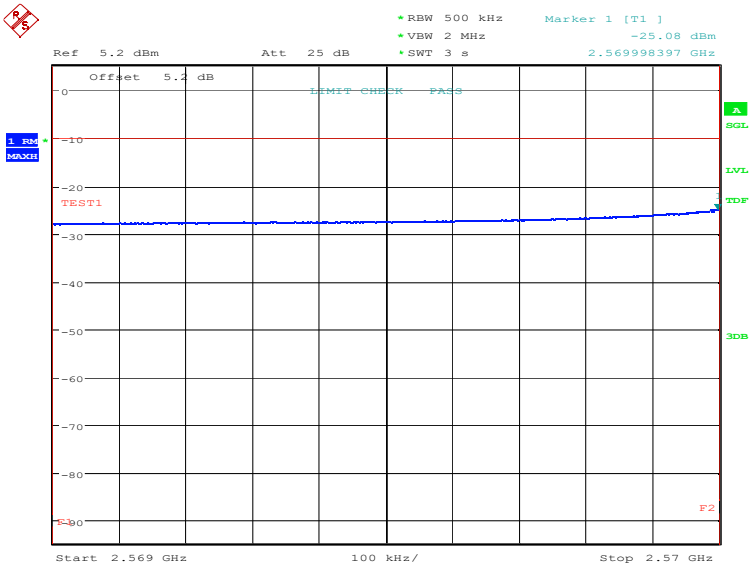


Date: 23.DEC.2021 10:50:50

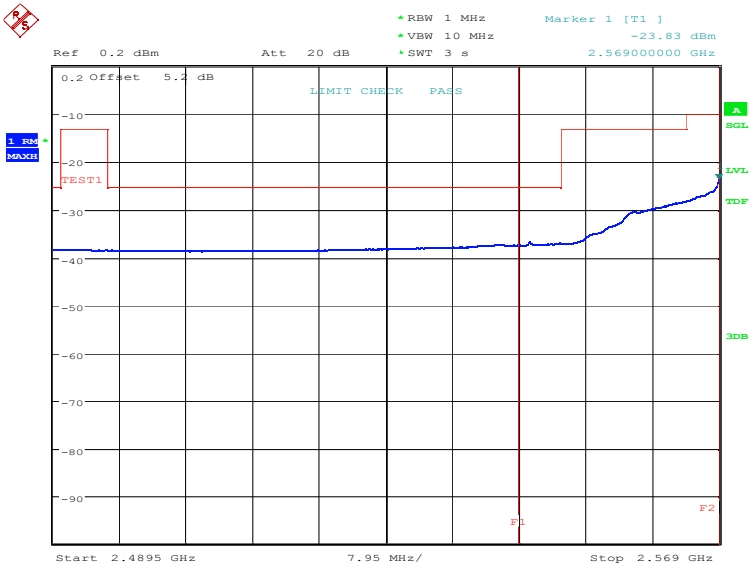


Date: 23.DEC.2021 10:51:07

LOW BAND EDGE BLOCK-20MHz-100%RB

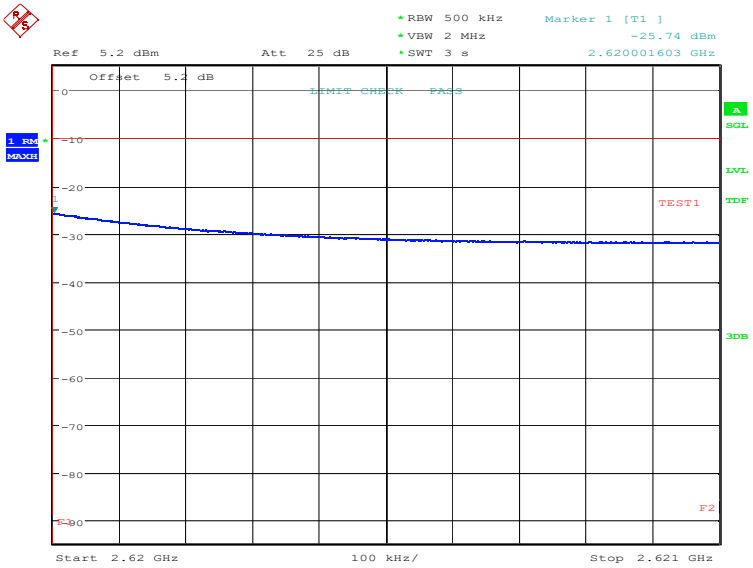


Date: 23.DEC.2021 10:37:29

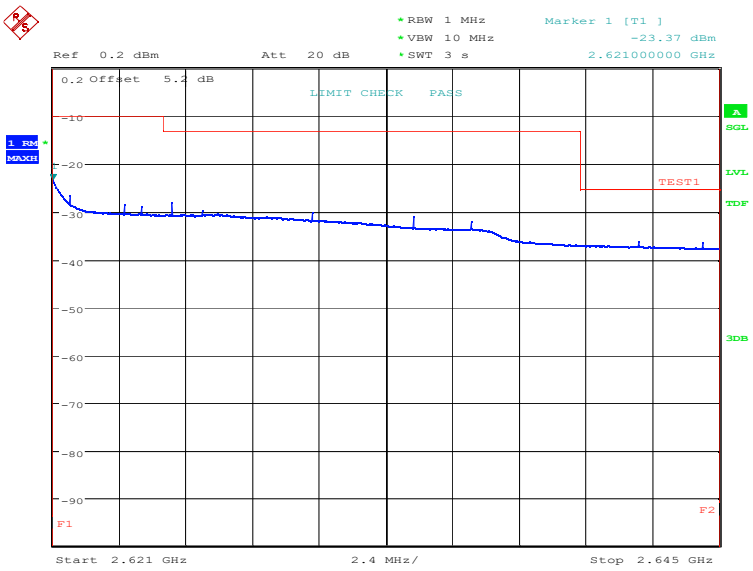


Date: 23.DEC.2021 10:38:08

HIGH BAND EDGE BLOCK-20MHz-100%RB



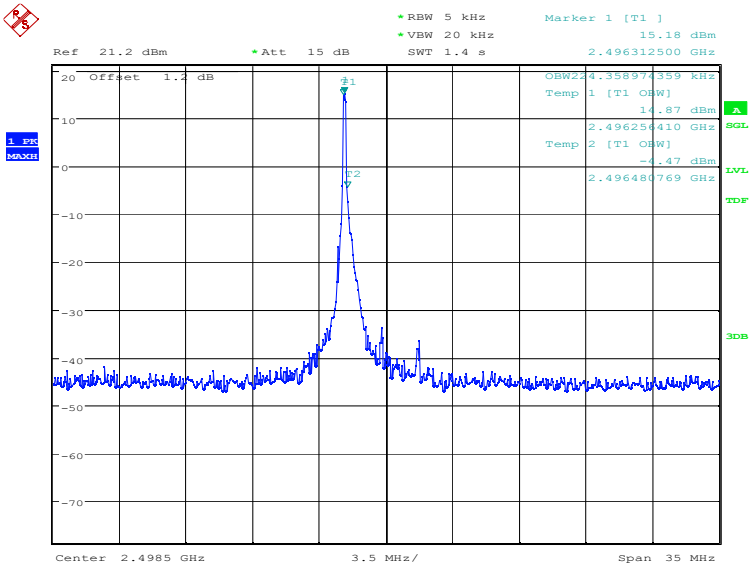
Date: 23.DEC.2021 10:51:53



Date: 23.DEC.2021 10:52:31

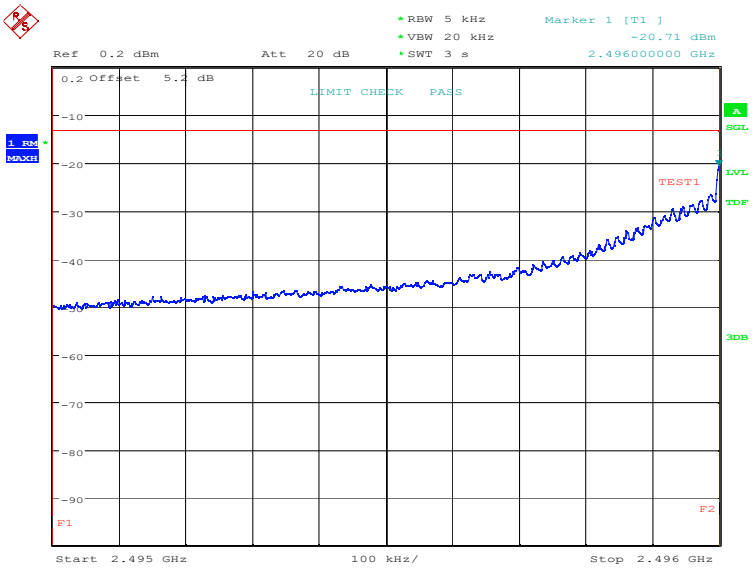
LTE band 41

OBW: 1RB-low_offset

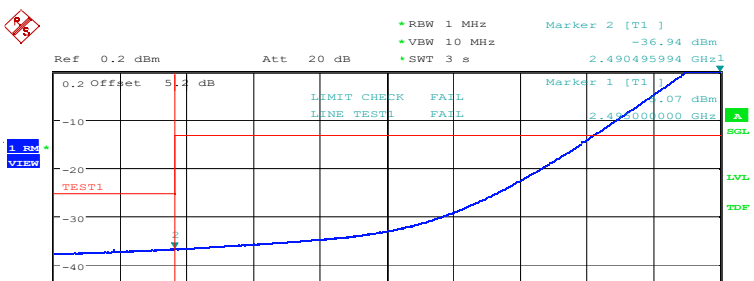


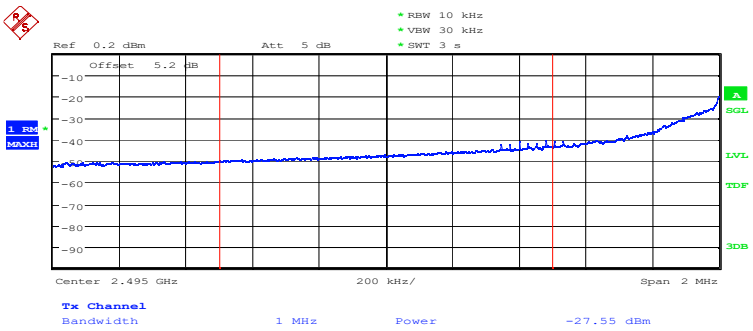
Date: 23.DEC.2021 10:54:26

LOW BAND EDGE BLOCK-1RB-low_offset



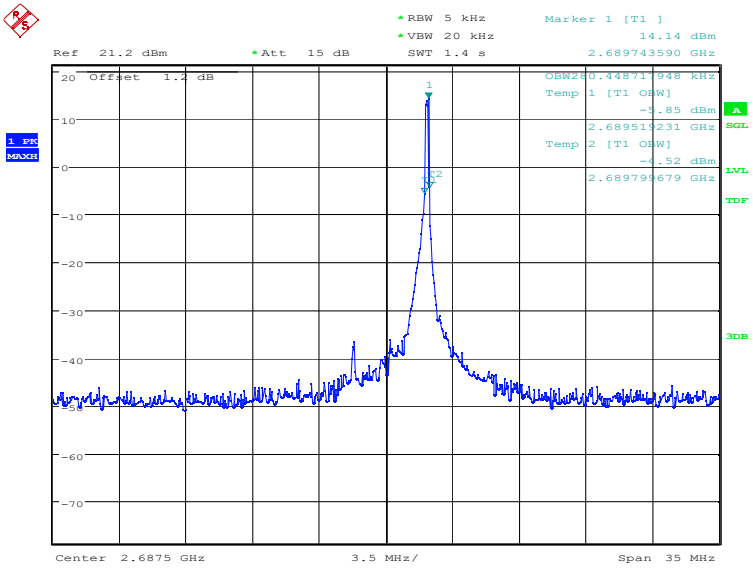
Date: 23.DEC.2021 10:55:07





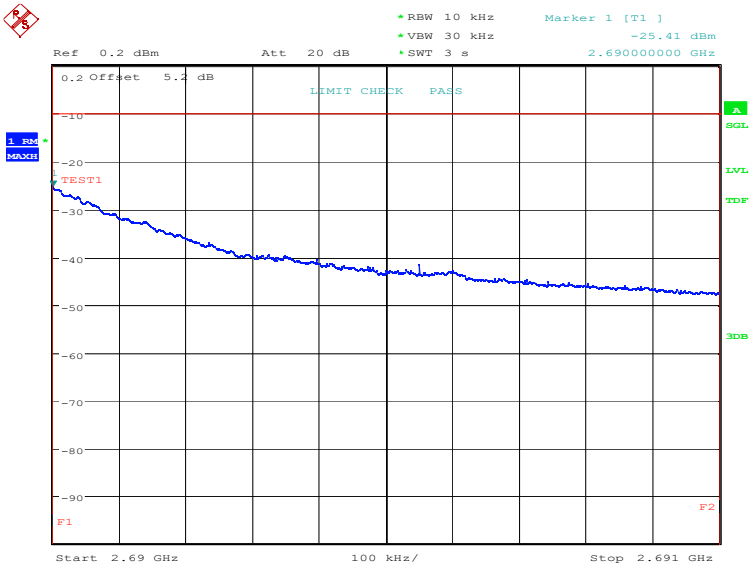
Date: 23.DEC.2021 10:56:08

OBW: 1RB-high_offset

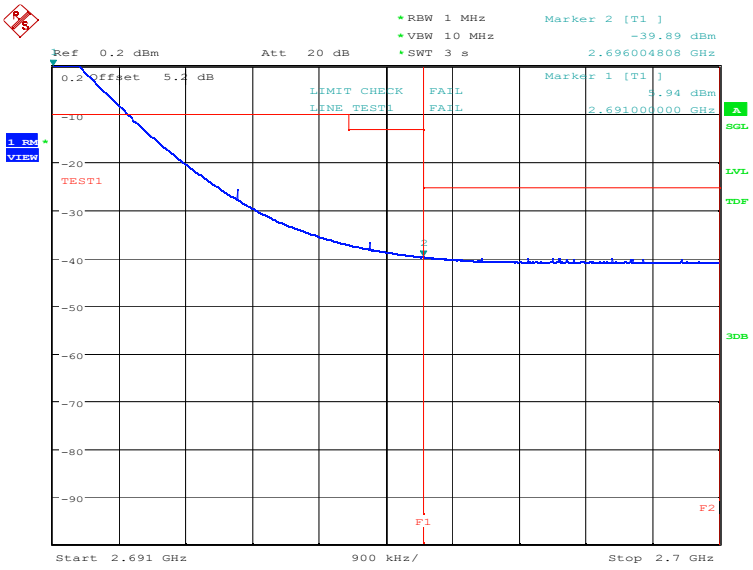


Date: 23.DEC.2021 10:56:31

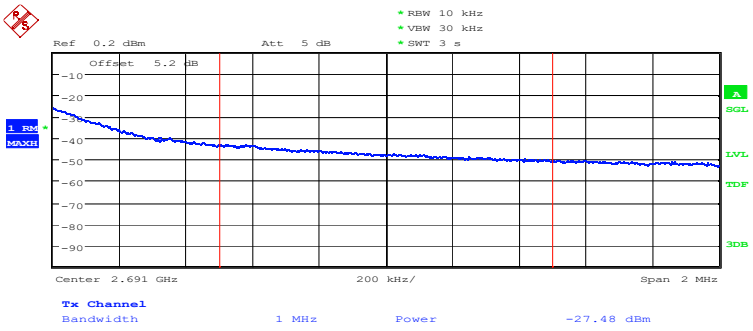
HIGH BAND EDGE BLOCK-1RB-high_offset



Date: 23.DEC.2021 10:57:12

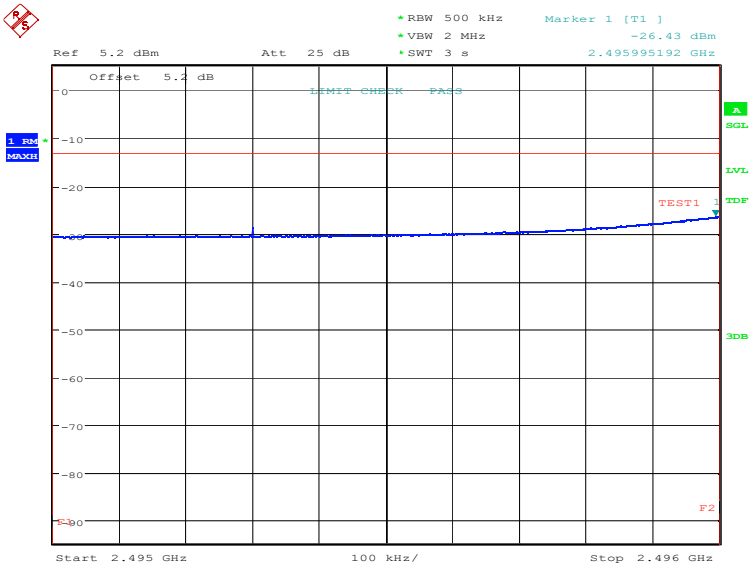


Date: 23.DEC.2021 10:57:58

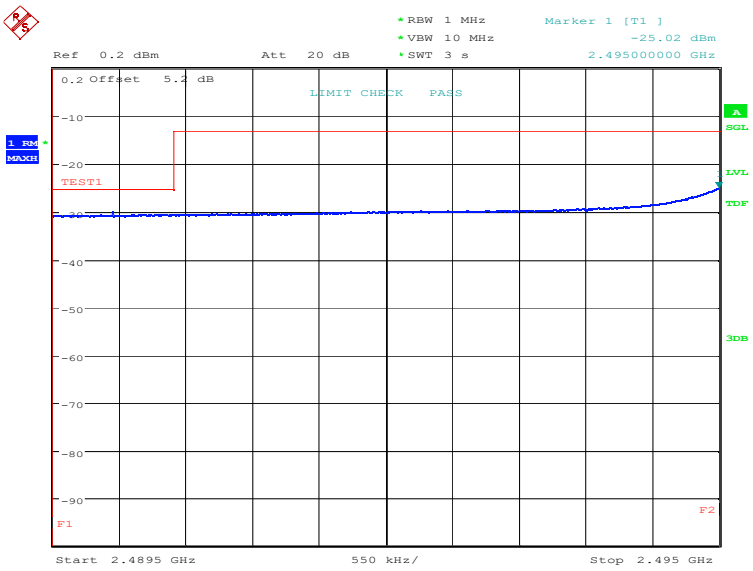


Date: 23.DEC.2021 10:58:16

LOW BAND EDGE BLOCK-20MHz-100%RB

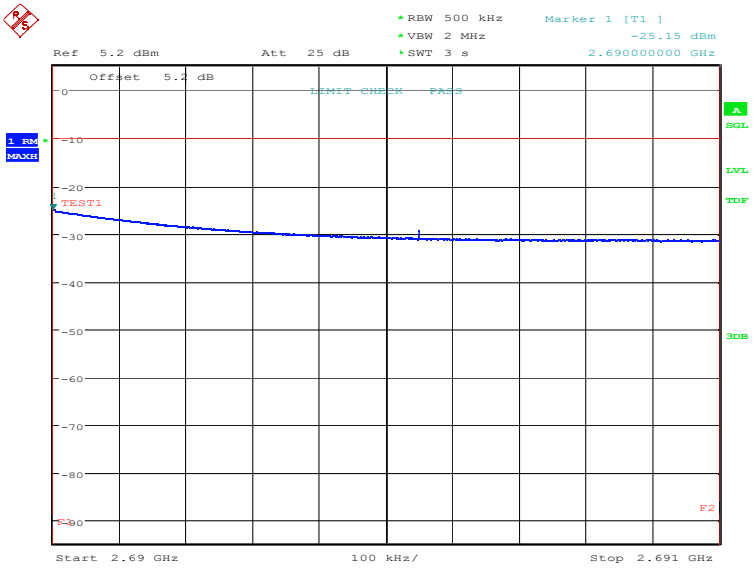


Date: 7.DEC.2021 20:04:01

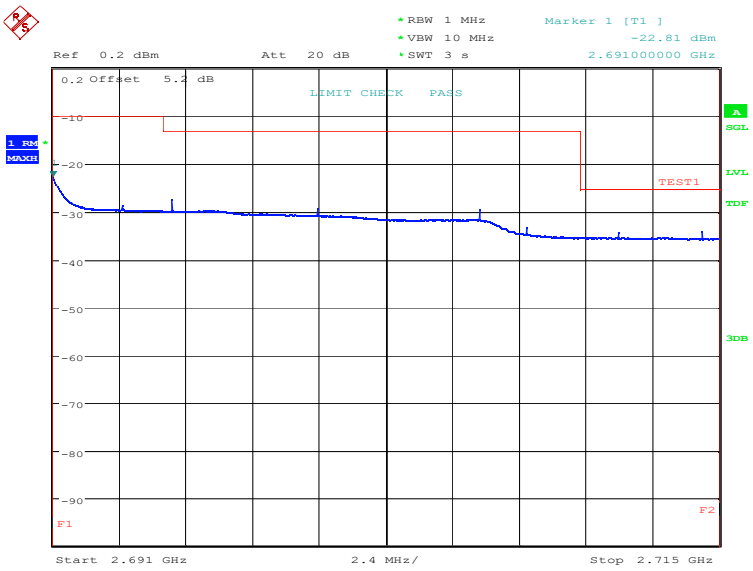


Date: 7.DEC.2021 20:04:39

HIGH BAND EDGE BLOCK-20MHz-100%RB



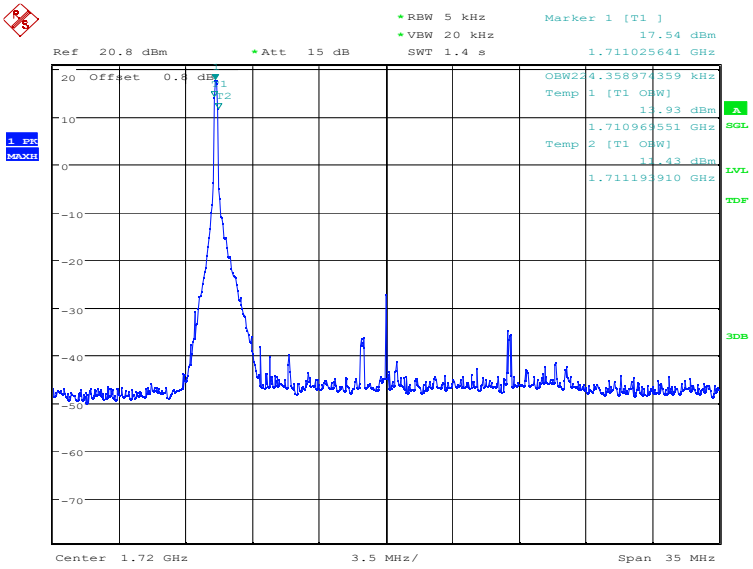
Date: 7.DEC.2021 20:06:35



Date: 7.DEC.2021 20:07:14

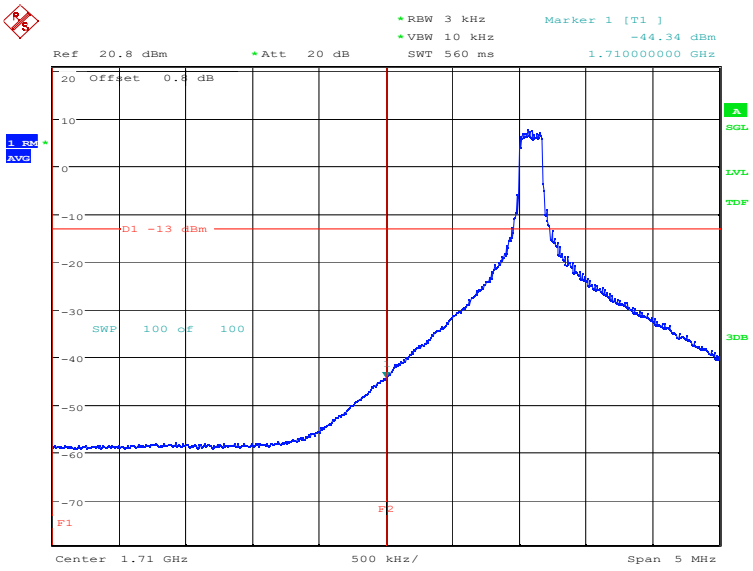
LTE band 66

OBW: 1RB-low_offset



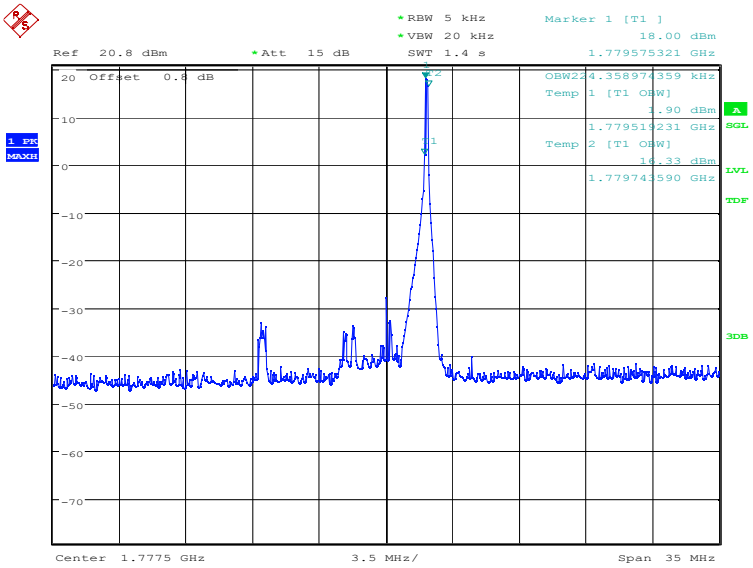
Date: 23.DEC.2021 10:20:32

LOW BAND EDGE BLOCK-1RB-low_offset



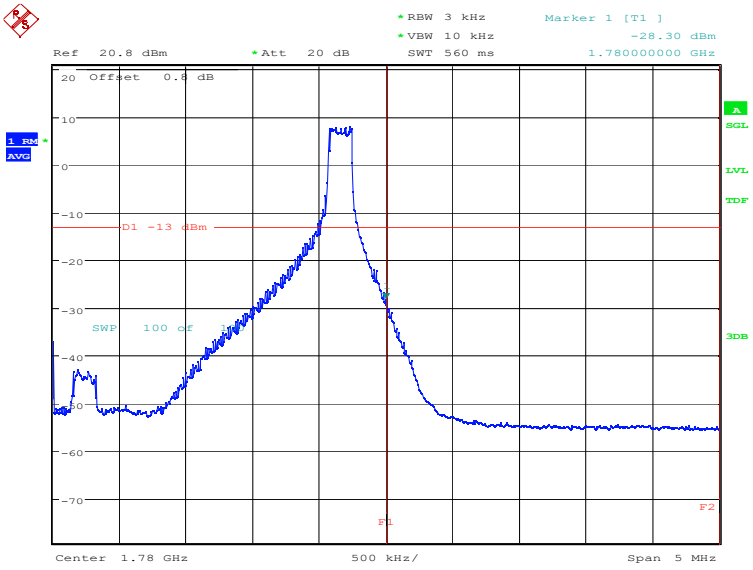
Date: 23.DEC.2021 10:21:46

OBW: 1RB-high_offset



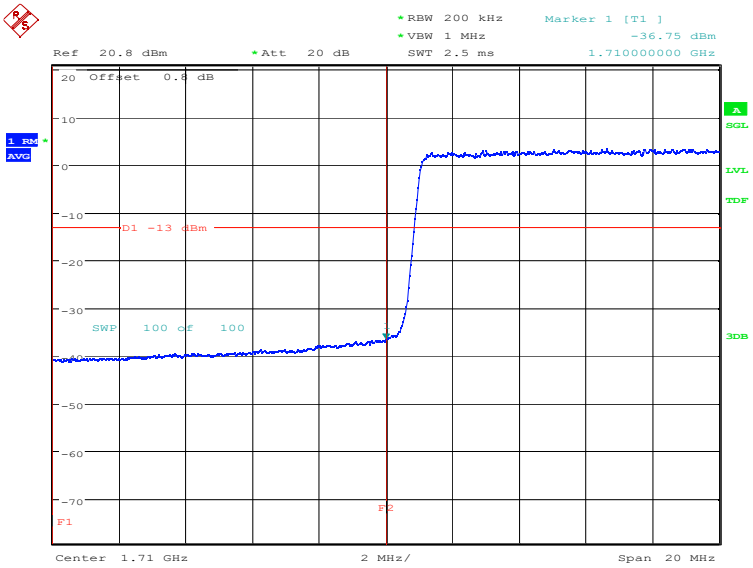
Date: 23.DEC.2021 10:22:12

HIGH BAND EDGE BLOCK-1RB-high_offset



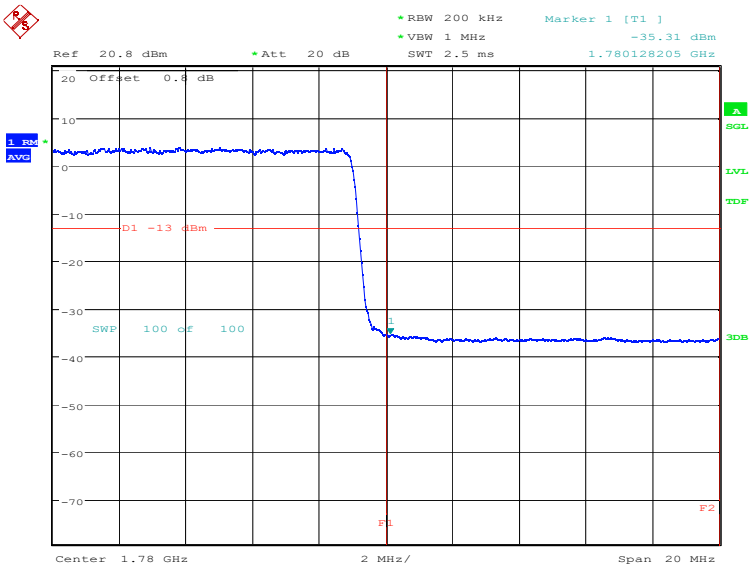
Date: 23.DEC.2021 10:23:26

LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 7.DEC.2021 19:59:01

HIGH BAND EDGE BLOCK-20MHz-100%RB

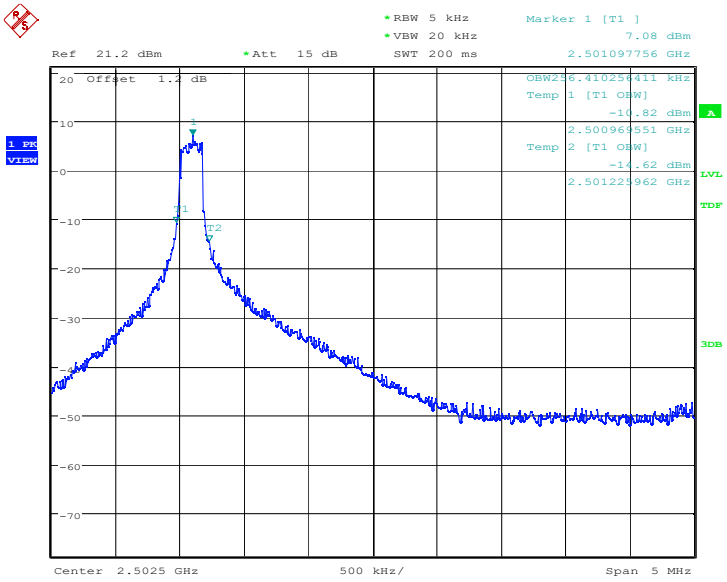


Date: 7.DEC.2021 20:00:32

LTE CA Band 7C

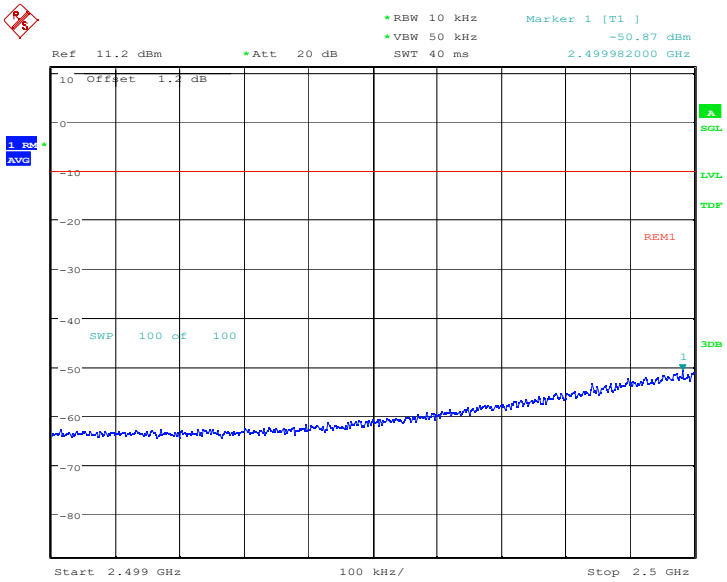
Only the worst case result is given below

OBW: 1RB-low_offset

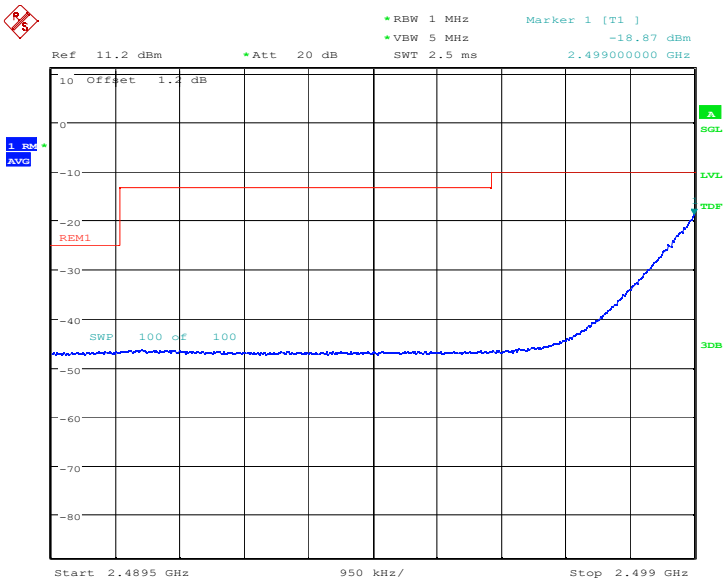


Date: 14.DEC.2021 15:13:11

LOW BAND EDGE BLOCK-20MHz+10MHz-1RB

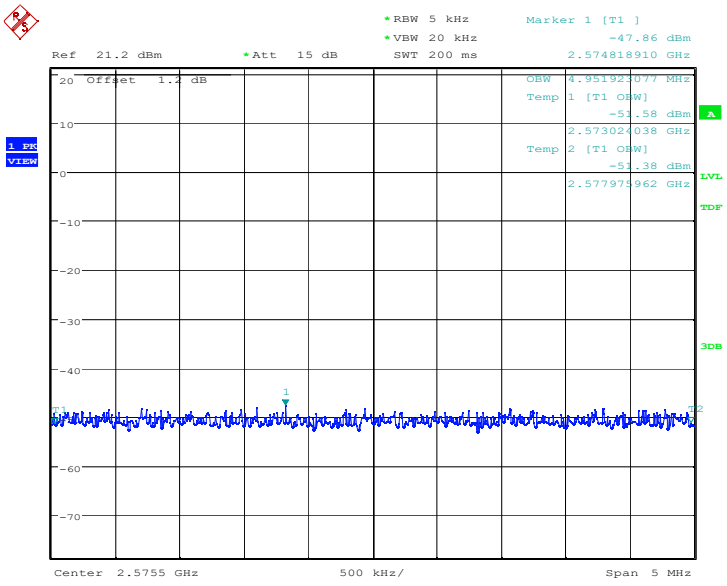


Date: 14.DEC.2021 15:13:52



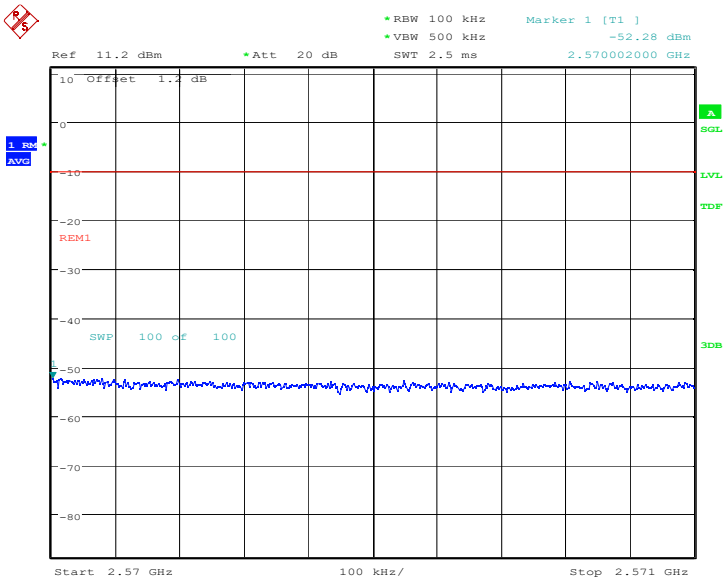
Date: 14.DEC.2021 15:14:34

OBW: 1RB-high_offset

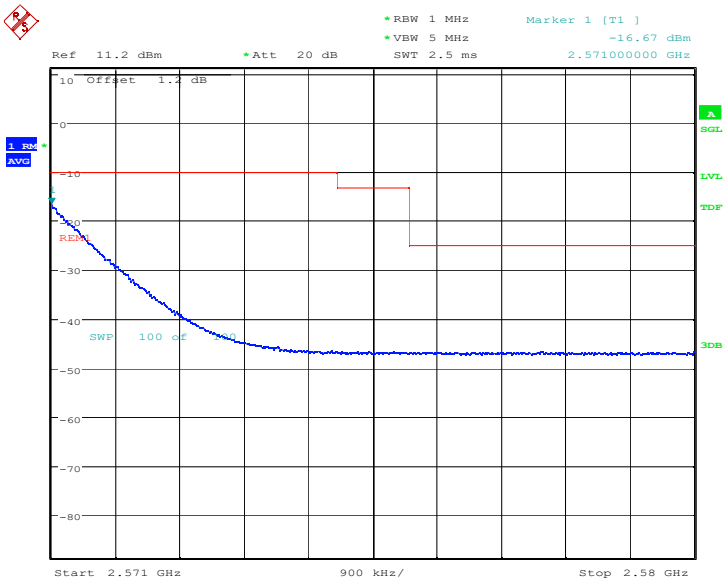


Date: 14.DEC.2021 15:15:24

HIGH BAND EDGE BLOCK-20MHz+10MHz-1RB

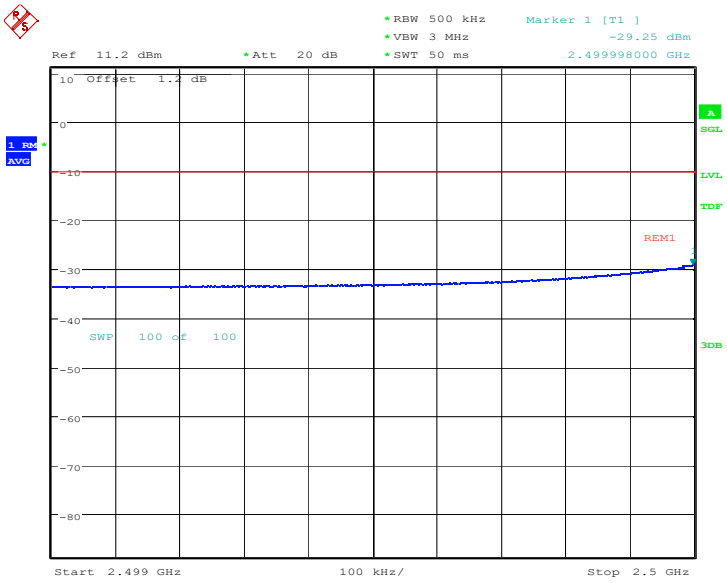


Date: 14.DEC.2021 15:16:05

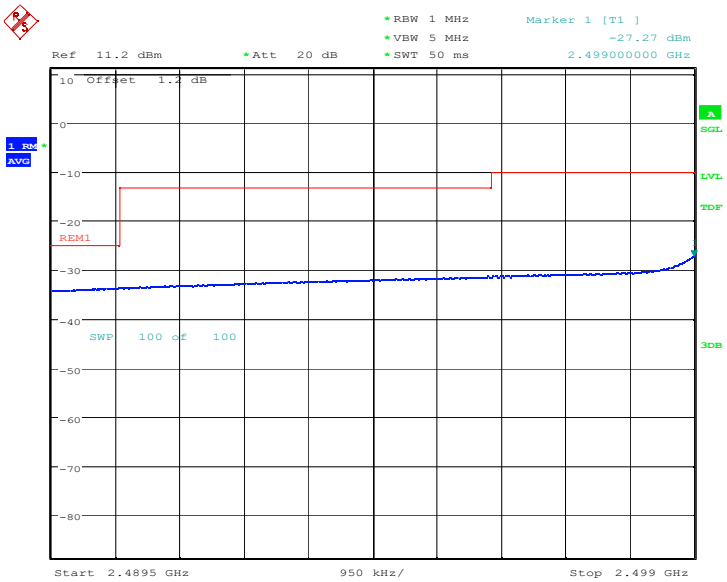


Date: 14.DEC.2021 15:16:46

LOW BAND EDGE BLOCK-20MHz-100%RB

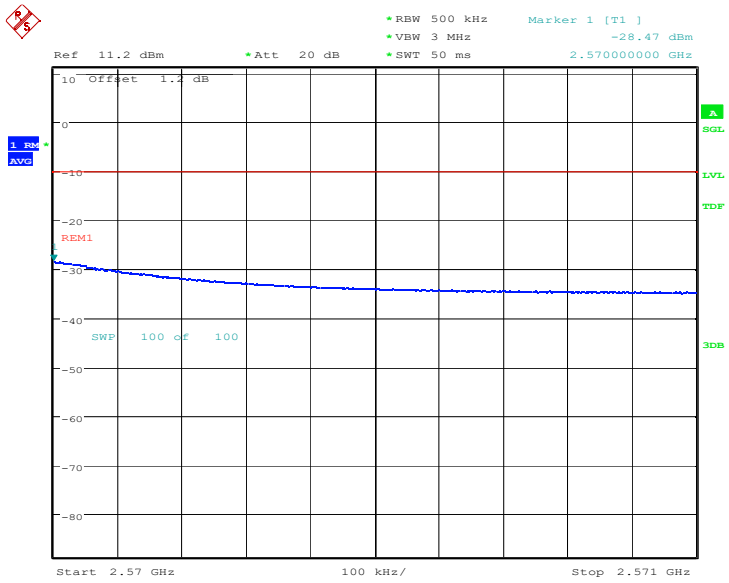


Date: 14.DEC.2021 15:18:03

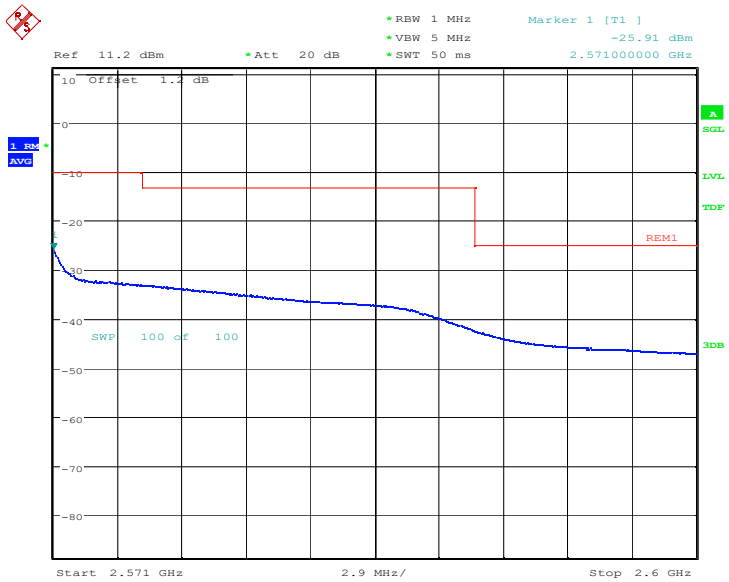


Date: 14.DEC.2021 15:18:45

HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 14.DEC.2021 15:19:59

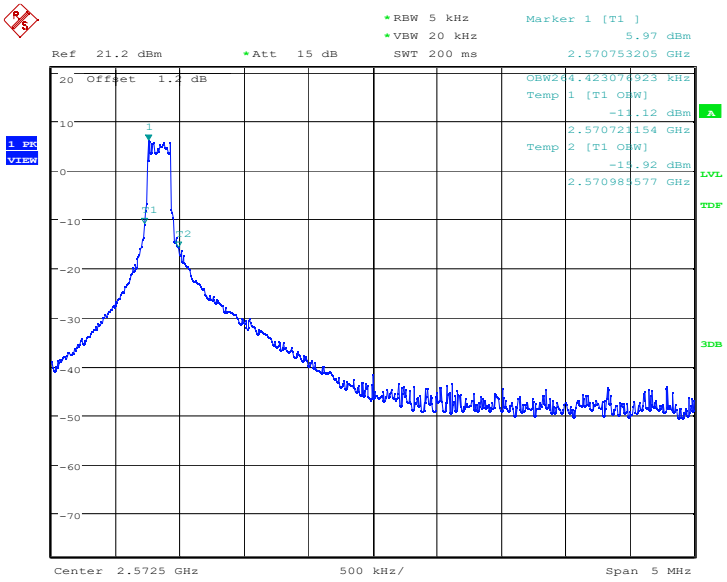


Date: 14.DEC.2021 15:20:41

LTE CA Band 38C

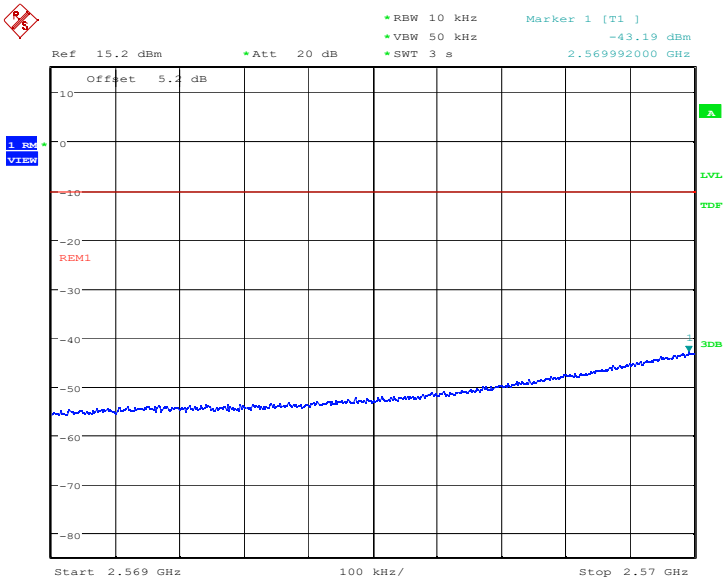
Only the worst case result is given below

OBW: 1RB-low_offset

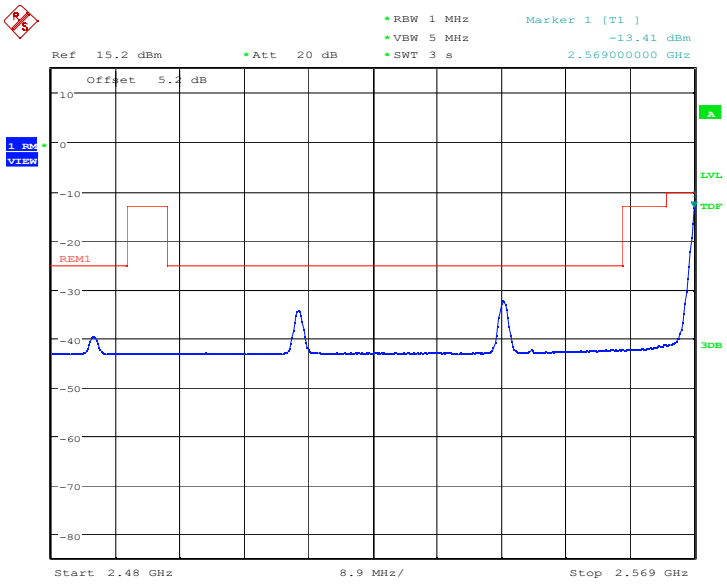


Date: 15.DEC.2021 09:19:40

LOW BAND EDGE BLOCK-15MHz+15MHz-1RB

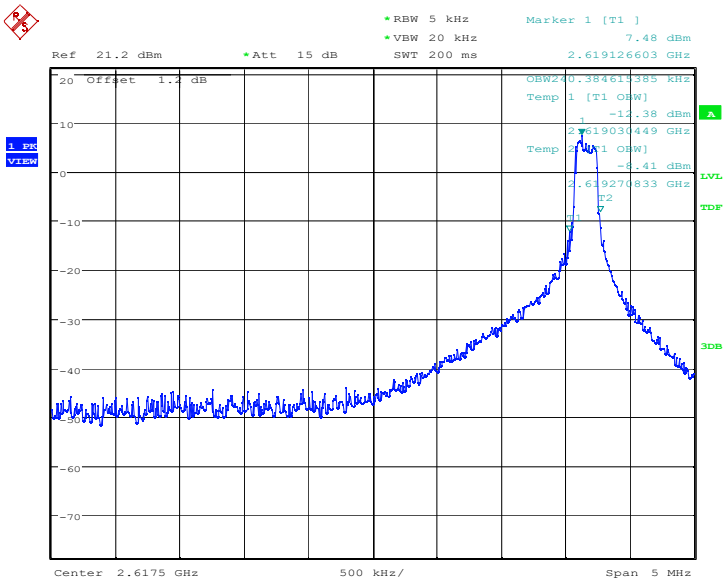


Date: 15.DEC.2021 09:20:22



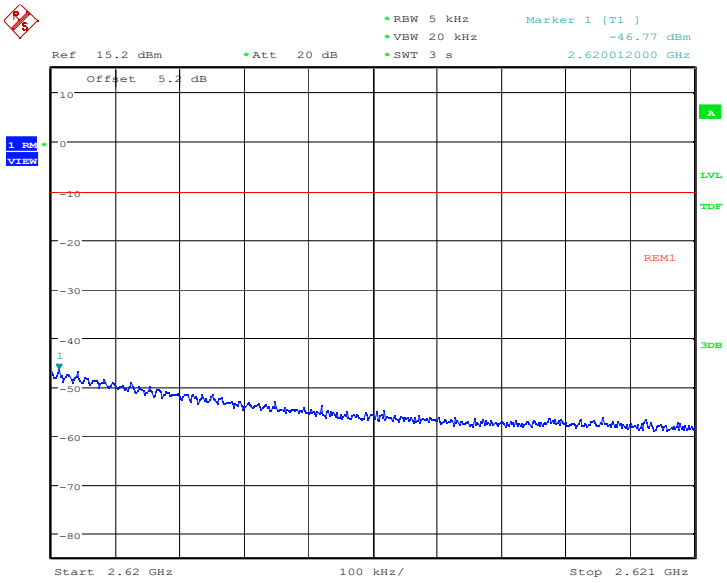
Date: 15.DEC.2021 09:21:26

OBW: 1RB-high_offset

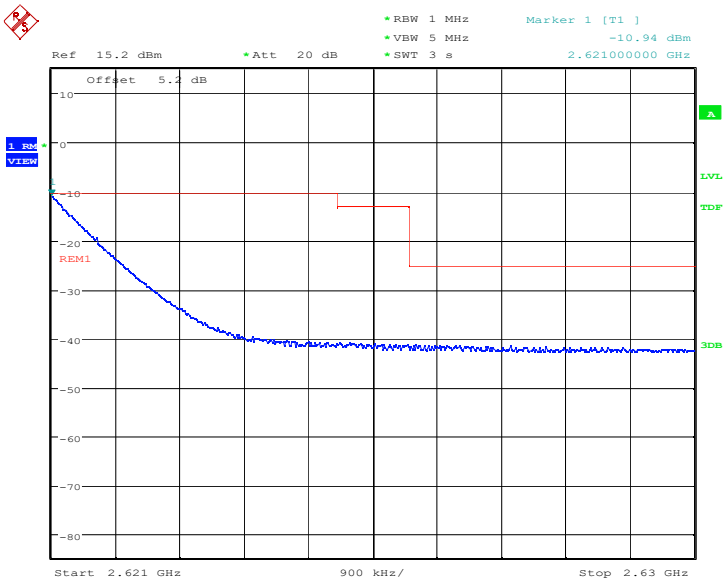


Date: 15.DEC.2021 09:22:18

HIGH BAND EDGE BLOCK- 15MHz+15MHz-1RB

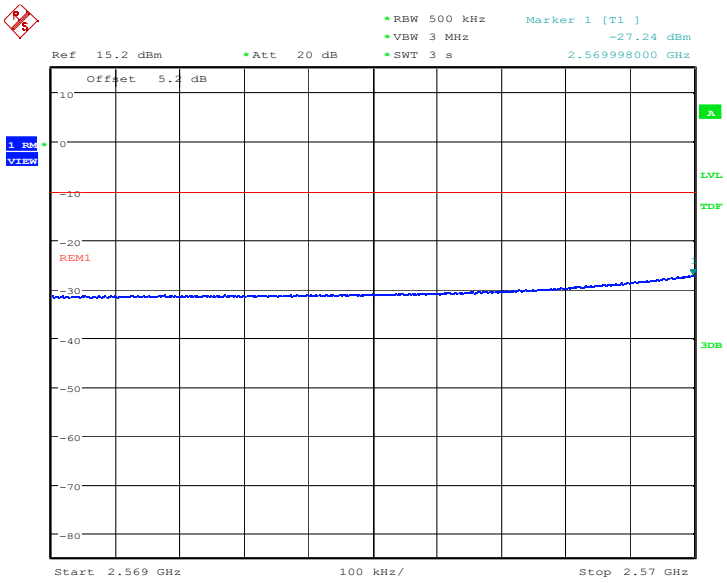


Date: 15.DEC.2021 09:23:00

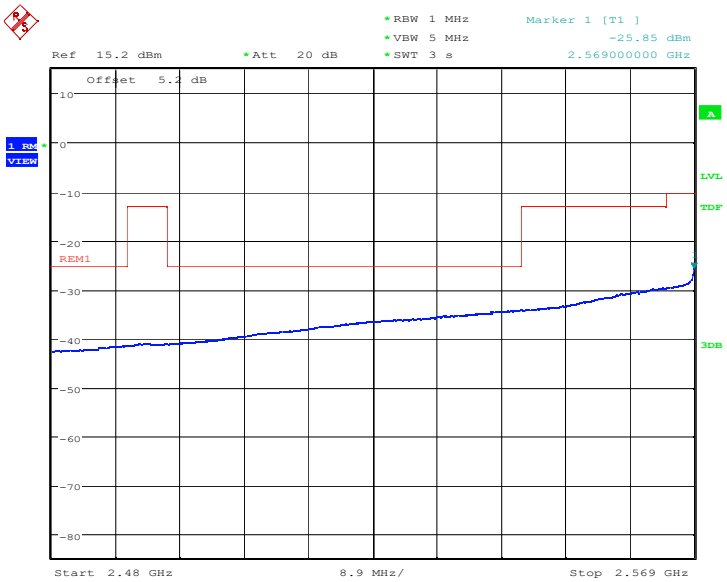


Date: 15.DEC.2021 09:23:42

LOW BAND EDGE BLOCK-20MHz-100%RB

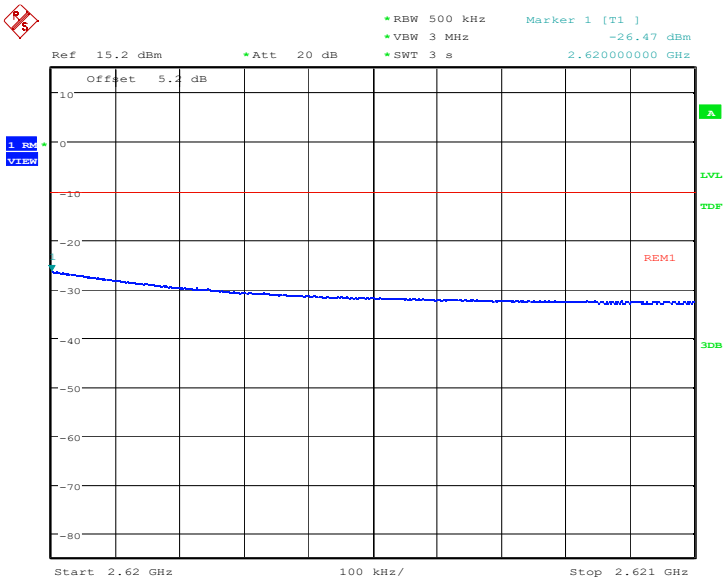


Date: 15.DEC.2021 09:25:02

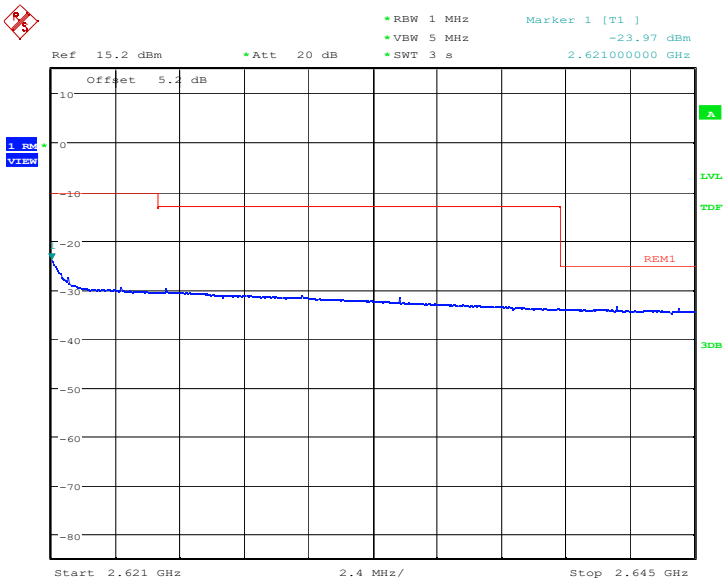


Date: 15.DEC.2021 09:25:44

HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 15.DEC.2021 09:26:58

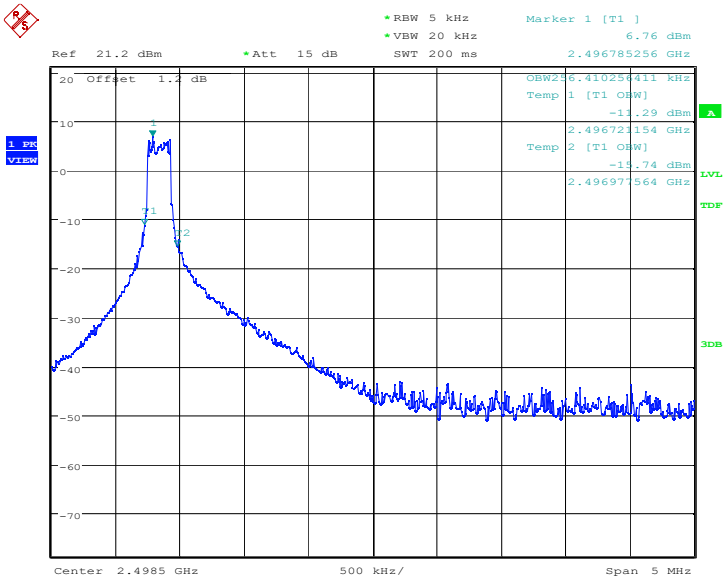


Date: 15.DEC.2021 09:27:40

LTE CA Band 41C

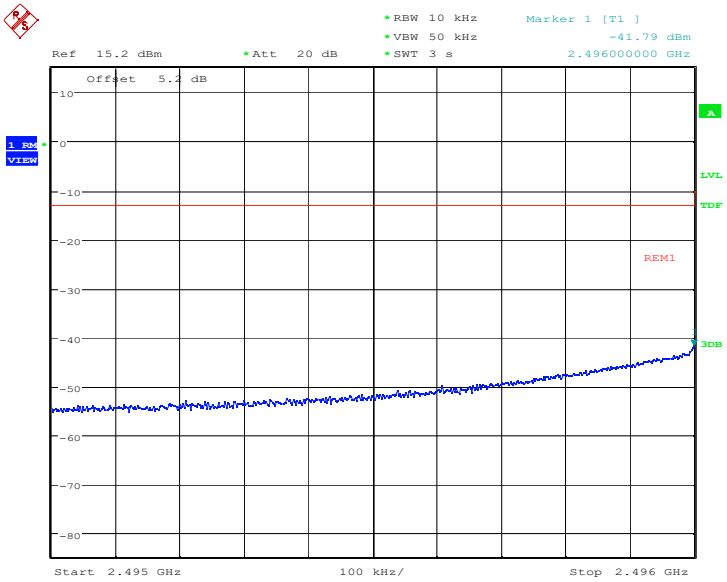
Only the worst case result is given below

OBW: 1RB-low_offset

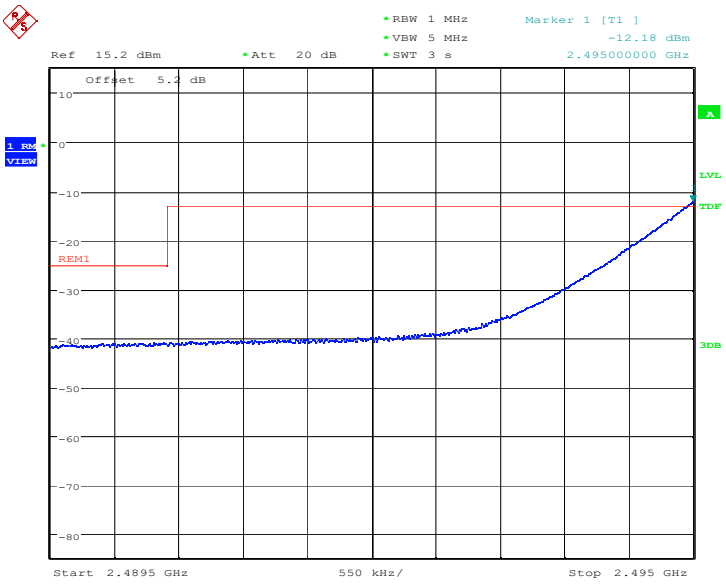


Date: 15.DEC.2021 09:30:31

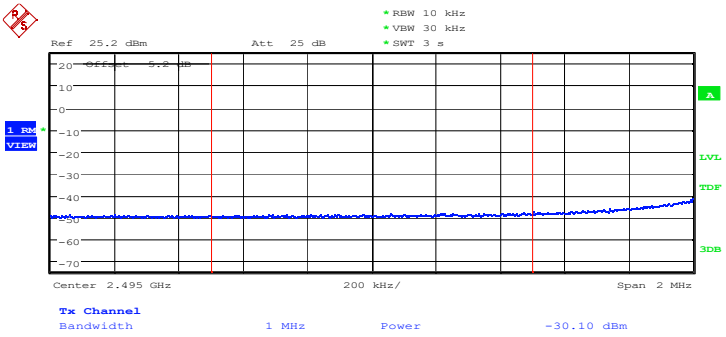
LOW BAND EDGE BLOCK- 15MHz+10MHz-1RB



Date: 15.DEC.2021 09:31:13

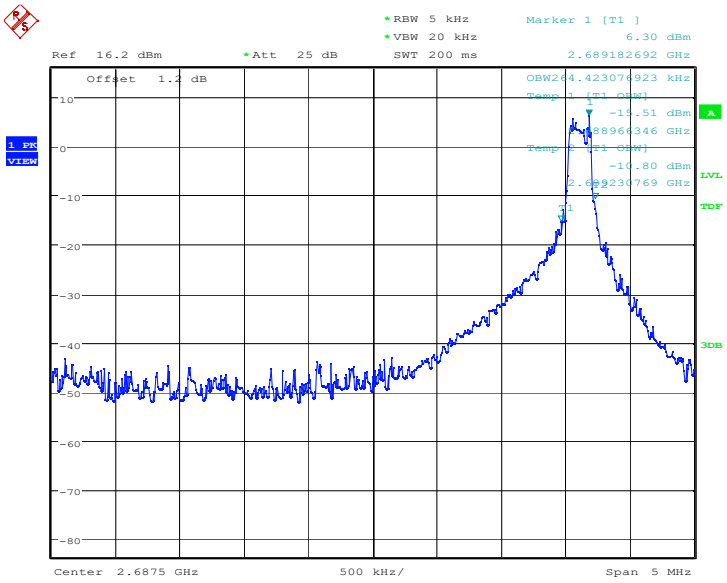


Date: 15.DEC.2021 09:31:55



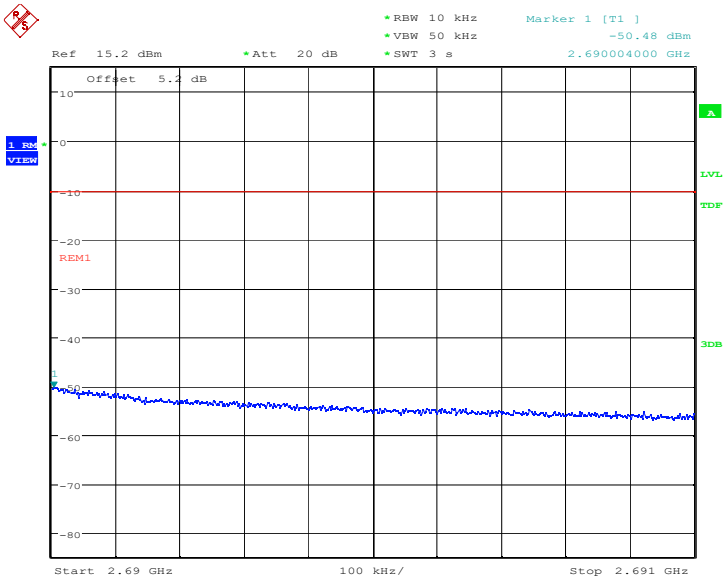
Date: 15.DEC.2021 09:32:19

OBW: 1RB-high_offset

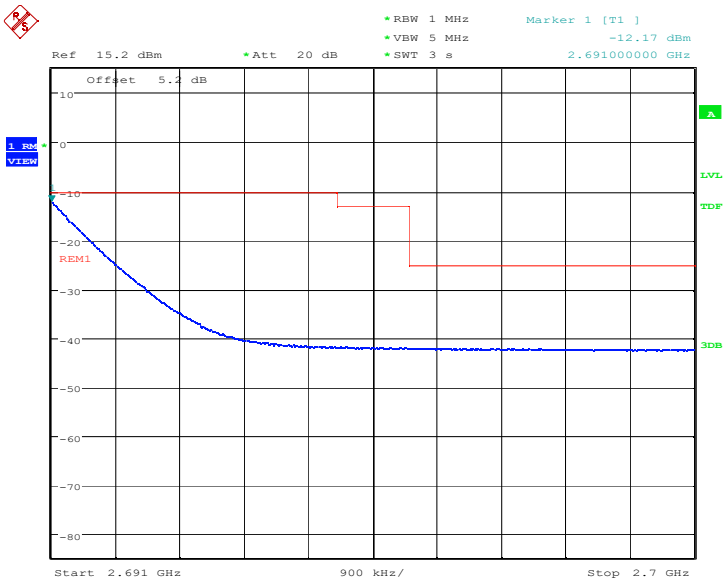


Date: 15.DEC.2021 09:33:10

HIGH BAND EDGE BLOCK5MHz+10MHz-1RB

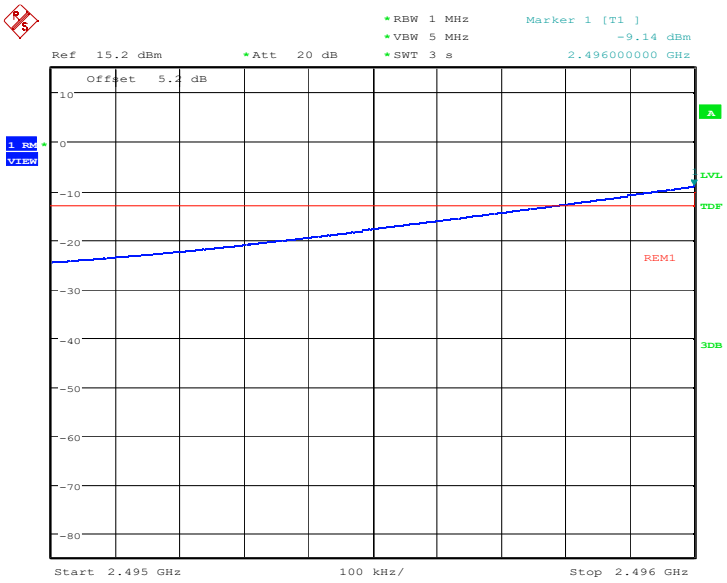


Date: 15.DEC.2021 09:33:52

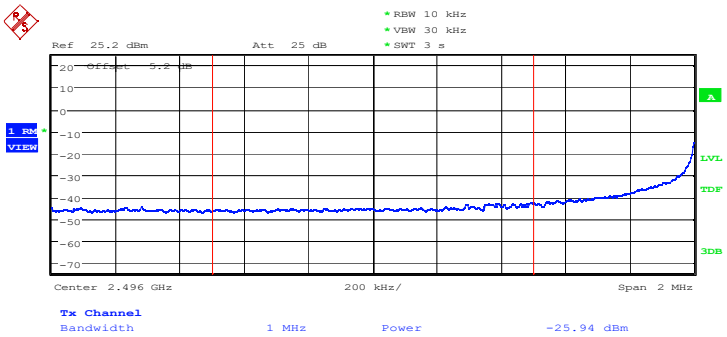


Date: 15.DEC.2021 09:34:34

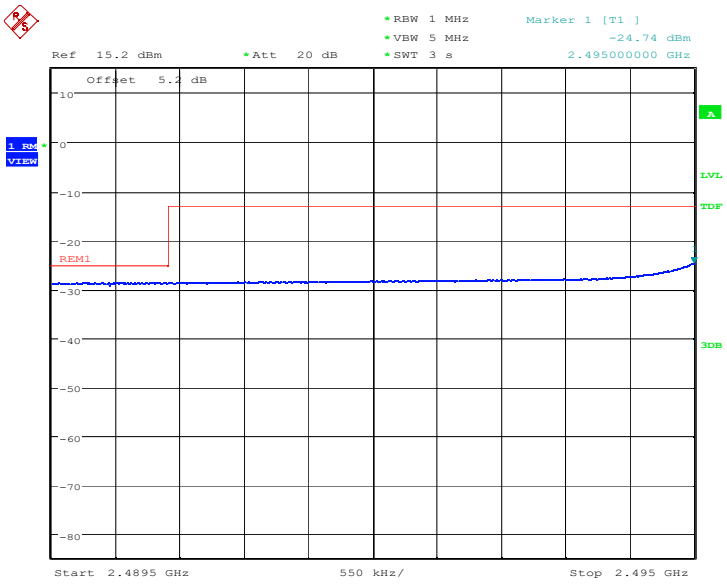
LOW BAND EDGE BLOCK-20MHz-100%RB



Date: 15.DEC.2021 09:35:53

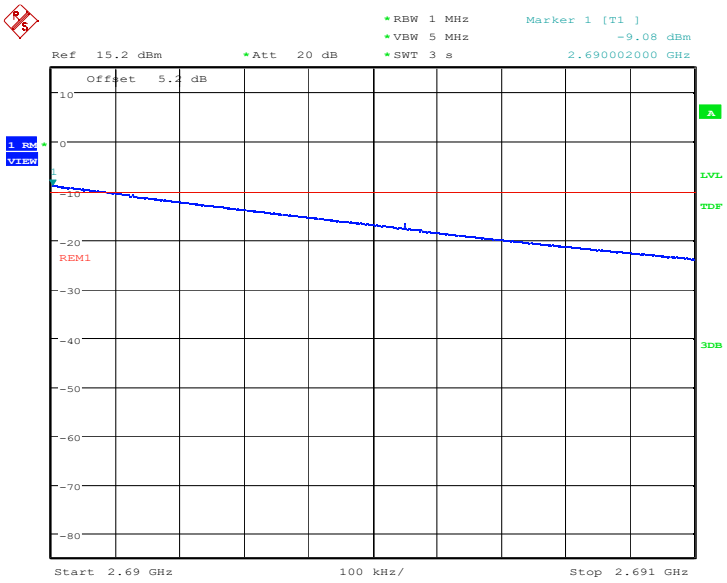


Date: 15.DEC.2021 09:36:16

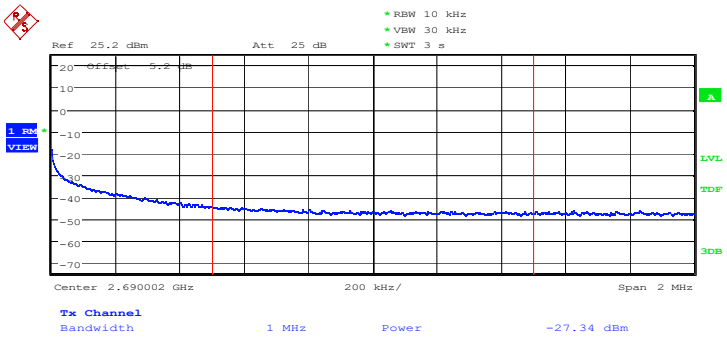


Date: 15.DEC.2021 09:36:58

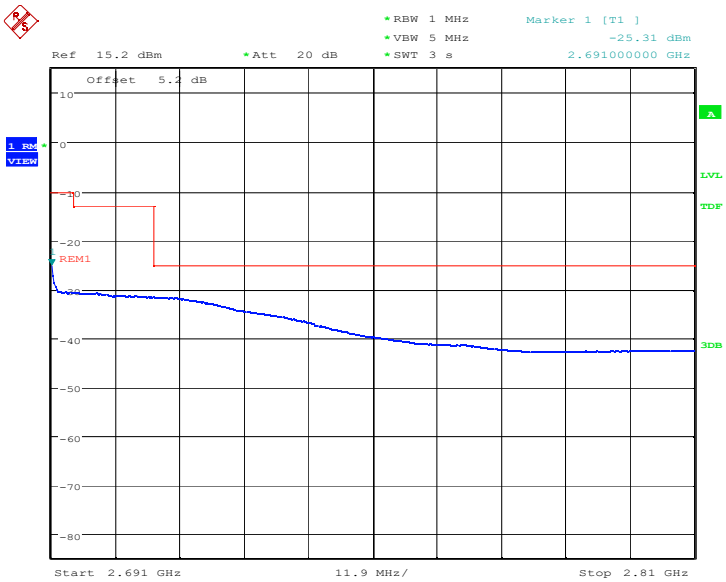
HIGH BAND EDGE BLOCK-20MHz-100%RB



Date: 15.DEC.2021 09:38:11



Date: 15.DEC.2021 09:38:34



Date: 15.DEC.2021 09:39:17

A.7 Conducted Spurious Emission

A.7.1 Measurement Method

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. In measuring unwanted emissions, the spectrum shall be investigated from 30 MHz or the lowest radio frequency signal generated in the equipment, whichever is lower, without going below 9 kHz, up to at least the frequency given below:
   (a) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
   (b) If the equipment operates at or above 10 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
2. Determine EUT transmit frequencies: below outlines the band edge frequencies pertinent to conducted emissions testing.
3. The number of sweep points of spectrum analyzer is greater than 2×span/RBW.

A. 7.2 Measurement Limit

Part 22.917, Part 24.238 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

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

Part 27.53(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

Part 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee’s frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 +

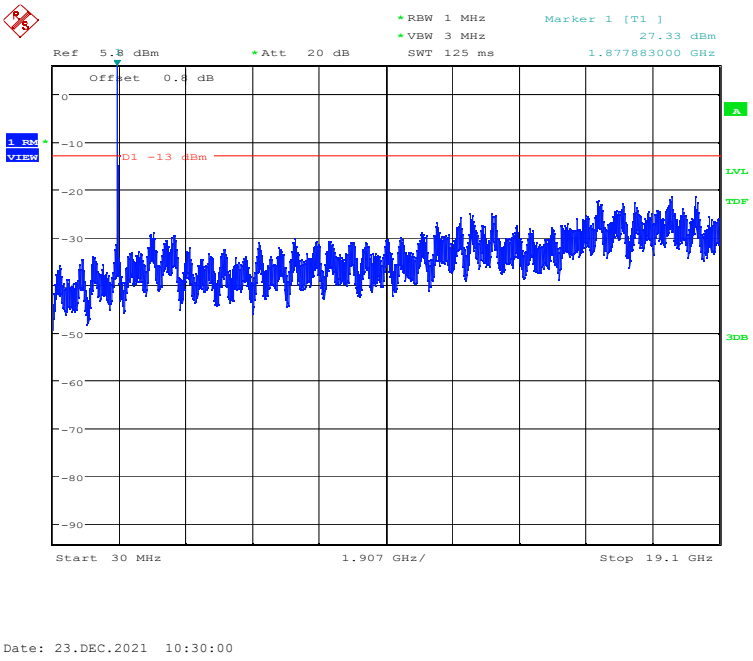
10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

A. 7.3 Measurement result

Only the worst case result is given below

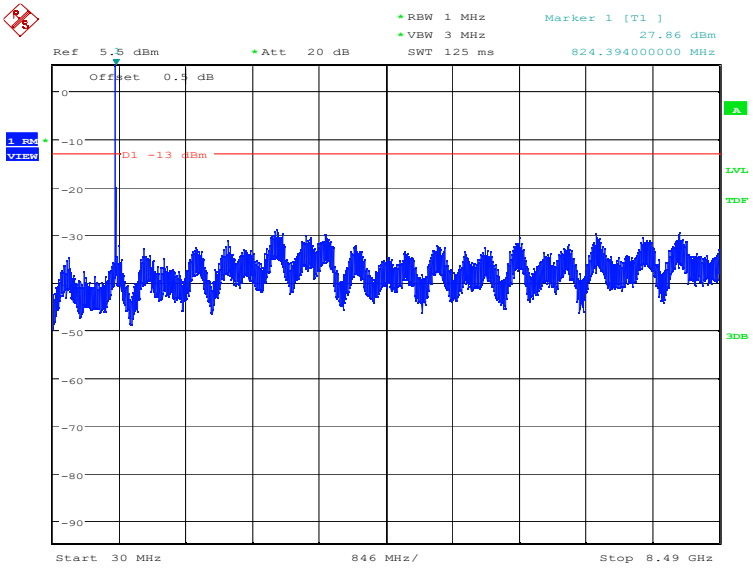
LTE band 2: 30MHz – 19.1GHz

NOTE: peak above the limit line is the carrier frequency.



LTE band 5: 30MHz – 8.49GHz

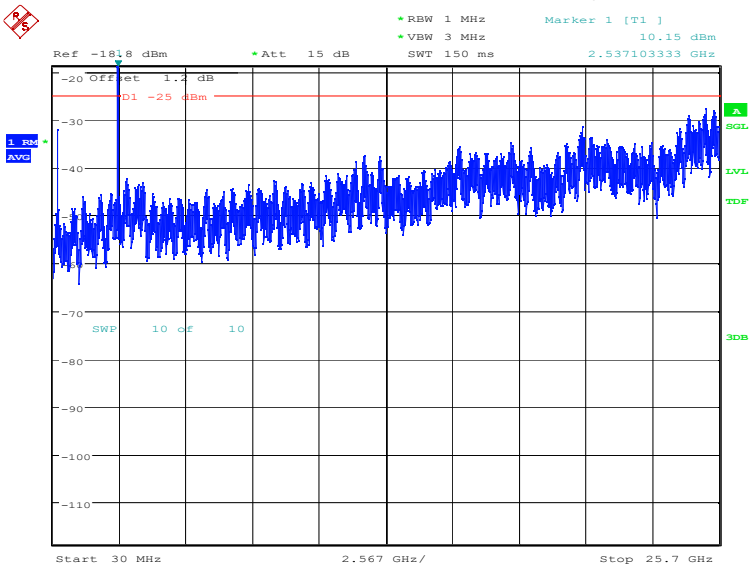
NOTE: peak above the limit line is the carrier frequency.



Date: 23.DEC.2021 10:30:33

LTE band 7: 30MHz – 25.7GHz

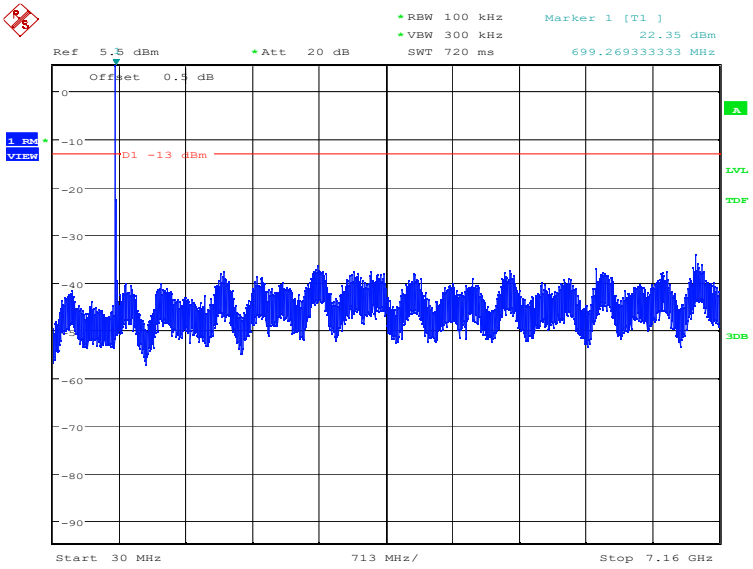
NOTE: peak above the limit line is the carrier frequency.



Date: 23.DEC.2021 10:31:03

LTE band 12: 30MHz – 7.16GHz

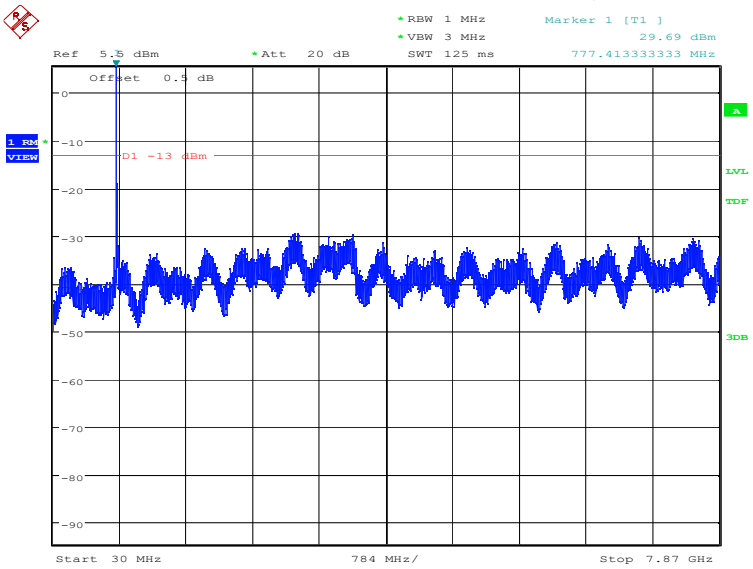
NOTE: peak above the limit line is the carrier frequency.



Date: 23.DEC.2021 10:32:00

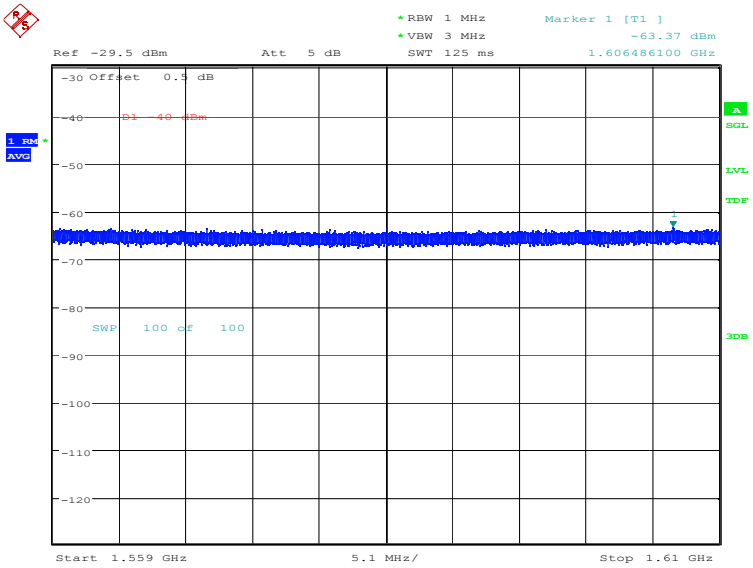
LTE band 13: 30MHz – 7.87GHz

NOTE: peak above the limit line is the carrier frequency.



Date: 23.DEC.2021 10:32:30

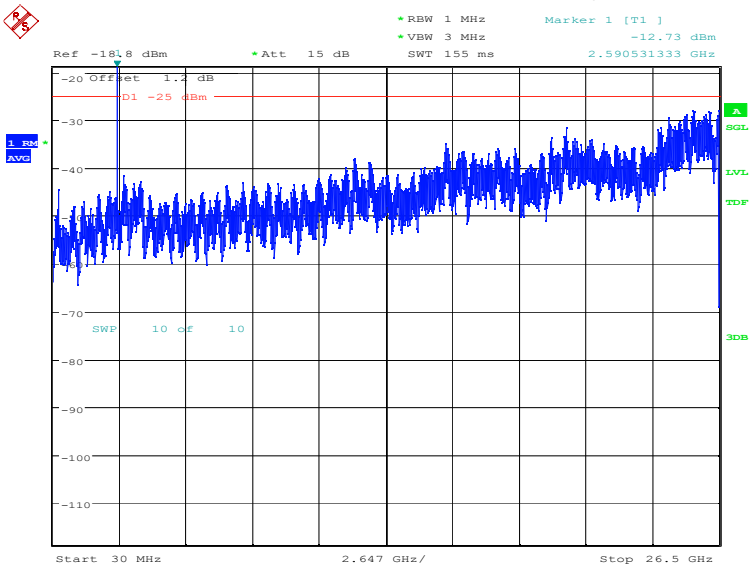
LTE band 13: 1559MHz – 1610MHz



Date: 23.DEC.2021 10:33:04

LTE band 41: 30MHz – 26.5GHz

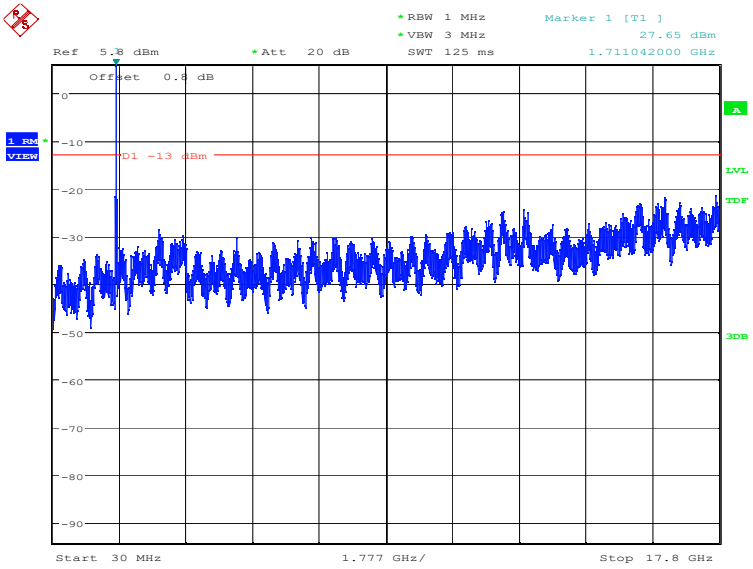
NOTE: peak above the limit line is the carrier frequency.



Date: 23.DEC.2021 10:58:45

LTE band 66: 30MHz – 17.8GHz

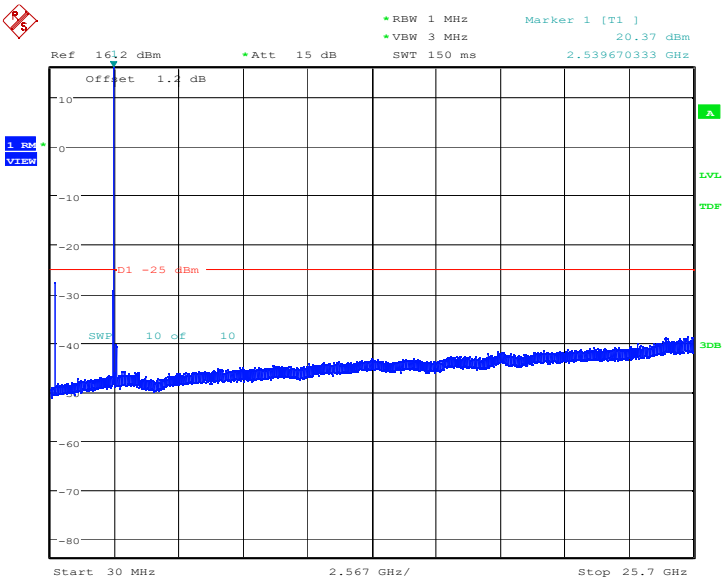
NOTE: peak above the limit line is the carrier frequency.



Date: 23.DEC.2021 10:33:36

LTE CA Band 7C: 30MHz – 25.7GHz

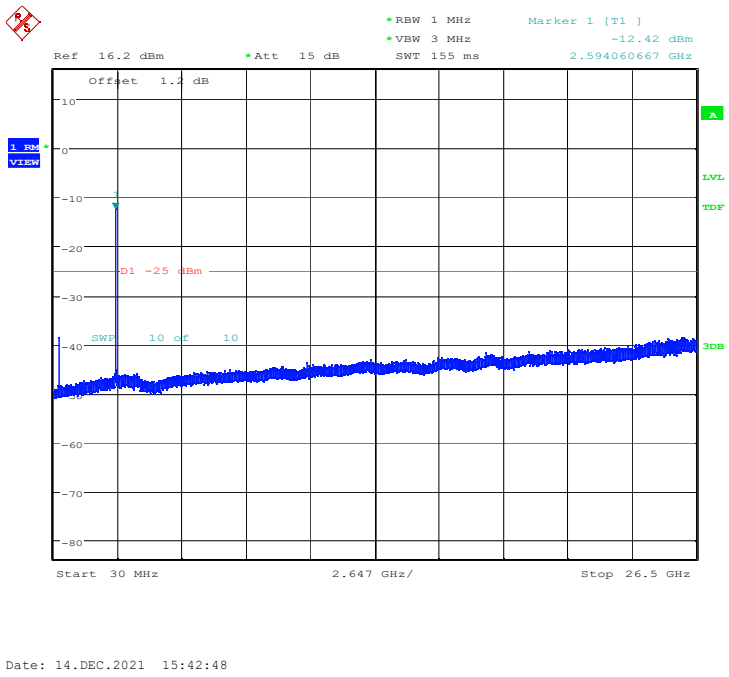
NOTE: peak above the limit line is the carrier frequency.



Date: 14.DEC.2021 16:50:34

LTE CA Band 41C: 30MHz – 26.5GHz

NOTE: peak above the limit line is the carrier frequency.



A.8 Peak-to-Average Power Ratio

The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB

a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

b) Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;

c) Set the number of counts to a value that stabilizes the measured CCDF curve;

d) Record the maximum PAPR level associated with a probability of 0.1%.

LTE band 2, 20MHz

Frequency(MHz)	PAPR(dB)		
1880.0	QPSK	16QAM	64QAM
	6.70	7.34	7.37

LTE band 7, 20MHz

Frequency(MHz)	PAPR(dB)		
2535.0	QPSK	16QAM	64QAM
	6.96	7.50	7.53

LTE band 12, 10MHz

Frequency(MHz)	PAPR(dB)		
707.5	QPSK	16QAM	64QAM
	5.48	6.19	6.51

LTE band 13, 10MHz

Frequency(MHz)	PAPR(dB)		
782.0	QPSK	16QAM	64QAM
	5.38	6.41	6.54

LTE band 41, 20MHz

Frequency (MHz)	PAPR (dB)		
2593.0	QPSK	16QAM	64QAM
	8.14	8.88	8.91

LTE band 66, 20MHz

Frequency(MHz)	PAPR(dB)		
1745.0	QPSK	16QAM	64QAM
	6.41	7.24	7.44

LTE CA Band 7C, 20MHz+20MHz

Frequency (MHz)	PAPR (dB)		
	QPSK	16QAM	64QAM
2525.1	8.01	8.21	8.17

LTE CA Band 41C, 20MHz+20MHz

Frequency (MHz)	PAPR (dB)		
	QPSK	16QAM	64QAM
2583.1	9.81	9.87	9.94

Annex B: Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

ilac-MRA

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2021-09-29 through 2022-09-30
Effective Dates

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA ·

For the National Voluntary Laboratory Accreditation Program

*****END OF REPORT*****