



TEST REPORT

No. I18Z62006-WMD03

for

Wiko SAS

SMART PHONE

Model Name: W-U300

FCC ID: 2AM86WU300AS

with

Hardware Version: V1.0

Software Version: W-U300-V01.28

Issued Date: 2019-01-15



Note:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I18Z62006-WMD03	Rev.0	1 st edition	2018-12-10
I18Z62006-WMD03	Rev.1	Band 41 normal mode result added	2019-01-15



CONTENTS

1. TEST LABORATORY	4
1.1. TESTING LOCATION	4
1.2. TESTING ENVIRONMENT	4
1.3. PROJECT DATA.....	4
1.4. SIGNATURE	4
2. CLIENT INFORMATION	5
2.1. APPLICANT INFORMATION.....	5
2.2. MANUFACTURER INFORMATION.....	5
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	6
3.1. ABOUT EUT	6
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	6
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST.....	6
3.4. GENERAL DESCRIPTION	6
4. REFERENCE DOCUMENTS	7
4.1. REFERENCE DOCUMENTS FOR TESTING	7
5. LABORATORY ENVIRONMENT	8
6. SUMMARY OF TEST RESULTS.....	9
6.1. SUMMARY OF TEST RESULTS	9
6.2. STATEMENTS	14
7. TEST EQUIPMENTS UTILIZED.....	15
ANNEX A: MEASUREMENT RESULTS	16
A.1 OUTPUT POWER.....	16
A.2 EMISSION LIMIT	71
A.3 FREQUENCY STABILITY	104
A.4 OCCUPIED BANDWIDTH	110
A.5 EMISSION BANDWIDTH.....	209
A.6 BAND EDGE COMPLIANCE	308
A.7 CONDUCTED SPURIOUS EMISSION	354
A.8 PEAK-TO-AVERAGE POWER RATIO	362
ANNEX B: ACCREDITATION CERTIFICATE	364

1. Test Laboratory

1.1. Testing Location

Location 1: CTTL(huayuan North Road)

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

Location 2: CTTL(Shouxiang)

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

1.2. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2018-11-07

Testing End Date: 2019-01-14

1.4. 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

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2.2. Manufacturer Information

Company Name: Shenzhen Tinno Mobile Technology Corp.
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3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	SMART PHONE
Model Name	W-U300
FCC ID	2AM86WU300AS
Antenna	Embedded
Output power	25.81dBm maximum EIRP measured for Band 2
Extreme vol. Limits	3.55VDC to 4.35VDC (nominal: 3.8VDC)
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	352798100012861	V1.0	W-U300-V01.28	2018-11-06
UT08a	352798100012841	V1.0	W-U300-V01.28	2018-11-06

*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	C210AEBATT
Manufacturer	Ningbo Veken Battery Co.,Ltd
Capacitance	2500mAh

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

3.4. General Description

The Equipment Under Test (EUT) is a model of SMART PHONE with embedded antenna. Manual and specifications of the EUT were provided to fulfil the test.

4. Reference Documents

4.1. Reference Documents for testing

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

Reference	Title	Version
FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	10-1-17 Edition
FCC Part 22	PUBLIC MOBILE SERVICES	10-1-17 Edition
FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	10-1-17 Edition
FCC Part 90	PRIVATE LAND MOBILE RADIO SERVICES	10-1-17 Edition
ANSI/TIA-603-E	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards	2016
TIA-102.CAAA-E	DIGITAL C4FMCQPSK TRANSCEIVER MEASUREMENT METHODS	2016
ANSI C63.26	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services	2015
KDB 971168 D01	MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS	v03r01

5. LABORATORY ENVIRONMENT

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

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

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

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	>2 MΩ
Ground system resistance	< 1 Ω
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 4000 MHz

Fully-anechoic chamber FAC-3 (9 meters X 6.5 meters X 4 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4 Ω
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 4000 MHz

6. SUMMARY OF TEST RESULTS

6.1. Summary of test results

Abbreviations used in this clause:		
Verdict Column	P	Pass
	F	Fail
	NA	Not applicable
	NM	Not measured
Location Column	A/B/C/D	The test is performed in test location A, B, C or D which are described in section 1.1 of this report

LTE Band 2

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	24.232(c)	A.1	P
2	Emission Limit	24.238(a), 2.1051	A.2	P
3	Frequency Stability	24.235, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	24.238(a)	A.5	P
6	Band Edge Compliance	24.238(a)	A.6	P
7	Conducted Spurious Emission	24.238, 2.1057	A.7	P
8	Peak to Average Power Ratio	24.232 (d)	A.8	P

LTE Band 4

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	27.50(d)(4)	A.1	P
2	Emission Limit	27.53(h), 2.1051	A.2	P
3	Frequency Stability	27.54, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	27.53(h)	A.5	P
6	Band Edge Compliance	27.53(h)	A.6	P
7	Conducted Spurious Emission	27.53(h), 2.1057	A.7	P
8	Peak to Average Power Ratio	27.50(a)	A.8	P



LTE Band 5

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	§2.1046(a), 22.913(a)	A.1	P
2	Emission Limit	22.917, 2.1051	A.2	P
3	Frequency Stability	22.235, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	22.917(b)	A.5	P
6	Band Edge Compliance	22.917(b)	A.6	P
7	Conducted Spurious Emission	22.917, 2.1057	A.7	P

LTE Band 12

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	27.50(c)(10)	A.1	P
2	Emission Limit	27.53(g), 2.1051	A.2	P
3	Frequency Stability	27.54, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	27.53(g)	A.5	P
6	Band Edge Compliance	27.53(g)	A.6	P
7	Conducted Spurious Emission	27.53(g), 2.1057	A.7	P
8	Peak to Average Power Ratio	27.50(a)	A.8	P



LTE Band 13

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	27.50(b)(10)	A.1	P
2	Emission Limit	27.53(c), 2.1051	A.2	P
3	Frequency Stability	27.54, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	27.53(c)	A.5	P
6	Band Edge Compliance	27.53(c)	A.6	P
7	Conducted Spurious Emission	27.53(c), 2.1057	A.7	P
8	Peak to Average Power Ratio	27.50(a)	A.8	P

LTE Band 25

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	24.232(c)	A.1	P
2	Emission Limit	24.238(a), 2.1051	A.2	P
3	Frequency Stability	24.235, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	24.238(a)	A.5	P
6	Band Edge Compliance	24.238(a)	A.6	P
7	Conducted Spurious Emission	24.238, 2.1057	A.7	P
8	Peak to Average Power Ratio	24.232 (d)	A.8	P

LTE Band 26(814MHz~824MHz)

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	90.635	A.1	P
2	Emission Limit	2.1053/90.691	A.2	P
3	Frequency Stability	2.1055/90.213	A.3	P
4	Occupied Bandwidth	2.1049	A.4	P
5	Emission Bandwidth	2.1049	A.5	P
6	Conducted Spurious Emission	2.1051/90.691	A.6	P



LTE Band 26(824MHz~849MHz)

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	§2.1046(a), 22.913(a)	A.1	P
2	Emission Limit	22.917, 2.1051	A.2	P
3	Frequency Stability	22.235, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	22.917(b)	A.5	P
6	Band Edge Compliance	22.917(b)	A.6	P
7	Conducted Spurious Emission	22.917, 2.1057	A.7	P



LTE Band 41

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	27.50(h)(2)	A.1	P
2	Emission Limit	27.53(m), 2.1051	A.2	P
3	Frequency Stability	27.54, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	27.53(m)	A.5	P
6	Band Edge Compliance	27.53(m)	A.6	P
7	Conducted Spurious Emission	27.53(m), 2.1057	A.7	P
8	Peak to Average Power Ratio	27.50(a)	A.8	P

LTE Band 71

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Output Power	27.50(c)(10)	A.1	P
2	Emission Limit	27.53(g), 2.1051	A.2	P
3	Frequency Stability	27.54, 2.1055	A.3	P
4	Occupied Bandwidth	2.1049(h)(i)	A.4	P
5	Emission Bandwidth	27.53(g)	A.5	P
6	Band Edge Compliance	27.53(g)	A.6	P
7	Conducted Spurious Emission	27.53(g), 2.1057	A.7	P
8	Peak to Average Power Ratio	27.50(a)	A.8	P



6.2. Statements

The test cases listed in section 6.1 of this report for the EUT specified in section 3 were performed by CTTL according to the standards or reference documents in section 4.1

The EUT met all applicable requirements of the standards or reference documents in section 4.1.

This report only deals with the LTE functions among the features described in section 3.

7. Test Equipments Utilized

NO.	Description	TYPE	series number	MANUFACTURE	CAL DUE DATE	Calibration interval
1	EMI Antenna	VULB9163	9163-483	Schwarzbeck	2019-09-21	1 year
2	EMI Antenna	3117	00058889	ETS-Lindgren	2020-01-12	3 years
3	EMI Antenna	3117	00119024	ETS-Lindgren	2020-01-21	3 years
4	Universal Radio Communication Tester	CMW500	159082	R&S	2019-01-26	1 year
5	Spectrum Analyzer	FSU26	200030	R&S	2019-06-04	1 year
6	EMI Antenna	9117	167	Schwarzbeck	2019-04-13	1 year
7	Signal Generator	N5183A	MY49060052	Agilent	2019-03-31	1 year
8	Climate chamber	SH-242	93008556	ESPEC	2019-12-21	2 year
9	Test Receiver	E4440A	MY48250642	Agilent	2019-03-31	1 year
10	Universal Radio Communication Tester	CMW500	143008	R&S	2019-11-26	1 year
11	Power Amplifier	5S1G4	0341863	AR	/	
12	EMI Antenna	VULB9163	9163-235	Schwarzbeck	2019-11-20	1 year
13	Universal Radio Communication Tester	MT8821C	6201623363	Anritsu	2019-06-21	1 year

Test Software Utilized

Test Item	Test Software and Version	Software Vendor
ERP/EIRP/RSE	Tile V7.2.3.5	ETS-Lindgren

ANNEX A: MEASUREMENT RESULTS

A.1 OUTPUT POWER

A.1.1 Summary

During the process of testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication tester (CMW500) to ensure max power transmission and proper modulation. In all cases, output power is within the specified limits.

A.1.2 Conducted

A.1.2.1 Method of Measurements

The EUT was set up for the max output power with pseudo random data modulation. These measurements were done at 3 frequencies (bottom, middle and top of operational frequency range) for each bandwidth.

A.1.2.2 Measurement result

LTE band 2

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1909.3	22.97	21.85	20.52
		1880.0	21.02	21.86	20.43
		1850.7	21.52	22.06	20.19
	1 RB low	1909.3	22.88	21.84	20.38
		1880.0	22.81	21.87	20.28
		1850.7	22.76	22.10	20.15
	50% RB mid	1909.3	23.02	22.13	20.49
		1880.0	22.94	21.90	20.46
		1850.7	22.91	22.00	20.17
	100% RB	1909.3	21.95	21.05	19.38
		1880.0	21.85	21.02	19.25
		1850.7	21.83	20.76	19.06
3MHz	1 RB high	1908.5	23.03	21.88	20.53
		1880.0	22.89	21.74	20.37
		1851.5	22.83	22.14	20.25
	1 RB low	1908.5	22.98	21.93	20.36
		1880.0	22.96	21.78	20.49
		1851.5	22.94	22.15	20.30
	50% RB mid	1908.5	21.98	20.99	19.36
		1880.0	21.90	21.02	19.21
		1851.5	21.81	20.93	19.17

	100% RB	1908.5	21.93	20.87	19.24
		1880.0	21.89	20.90	19.12
		1851.5	21.78	20.83	19.11
5MHz	1 RB high	1907.5	22.96	21.99	20.64
		1880.0	22.87	21.99	20.48
		1852.5	22.82	22.27	20.54
	1 RB low	1907.5	22.95	22.01	20.31
		1880.0	22.86	22.00	20.56
		1852.5	22.89	22.30	20.25
	50% RB mid	1907.5	21.98	21.08	19.31
		1880.0	21.93	20.98	19.35
		1852.5	21.86	21.00	19.16
	100% RB	1907.5	21.96	20.94	19.27
		1880.0	21.88	20.92	19.23
		1852.5	21.79	20.91	19.25
10MHz	1 RB high	1905.0	23.02	22.25	20.59
		1880.0	22.92	21.83	20.48
		1855.0	22.87	21.75	20.54
	1 RB low	1905.0	22.90	22.24	20.36
		1880.0	22.89	21.85	20.67
		1855.0	22.86	21.68	20.48
	50% RB mid	1905.0	21.94	21.04	19.29
		1880.0	21.91	20.98	19.28
		1855.0	21.90	20.92	19.17
	100% RB	1905.0	21.96	21.01	19.26
		1880.0	21.87	20.96	19.12
		1855.0	21.85	20.90	19.21
15MHz	1 RB high	1902.5	22.97	22.25	20.37
		1880.0	22.90	21.77	20.56
		1857.5	22.91	22.23	20.45
	1 RB low	1902.5	23.02	22.35	20.58
		1880.0	22.89	21.79	20.70
		1857.5	22.94	22.15	20.36
	50% RB mid	1902.5	22.09	20.99	19.37
		1880.0	22.04	20.96	19.29
		1857.5	21.94	20.91	19.21
	100% RB	1902.5	22.01	20.93	19.29
		1880.0	21.96	20.91	19.18
		1857.5	21.97	20.91	19.15



20MHz	1 RB high	1900.0	22.92	22.36	20.61
		1880.0	22.95	22.49	20.58
		1860.0	22.88	22.34	20.51
	1 RB low	1900.0	22.95	22.40	20.55
		1880.0	22.84	22.41	20.21
		1860.0	22.86	22.26	20.33
	50% RB mid	1900.0	22.04	21.04	19.37
		1880.0	21.96	21.04	19.28
		1860.0	21.91	20.98	19.25
	100% RB	1900.0	21.92	20.93	19.25
		1880.0	21.85	20.87	19.18
		1860.0	21.94	20.97	19.22

LTE band 4

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1754.3	22.54	21.68	20.73
		1732.5	22.63	21.94	20.75
		1710.7	22.63	21.72	21.39
	1 RB low	1754.3	22.56	21.65	20.98
		1732.5	22.68	21.97	20.96
		1710.7	22.63	21.75	20.98
	50% RB mid	1754.3	22.67	21.69	20.95
		1732.5	22.68	21.87	20.67
		1710.7	22.77	21.96	21.06
	100% RB	1754.3	21.65	20.76	19.54
		1732.5	21.66	20.58	19.84
		1710.7	21.74	20.92	19.92
3MHz	1 RB high	1753.5	22.55	21.61	20.82
		1732.5	22.65	21.58	20.77
		1711.5	22.79	22.14	21.31
	1 RB low	1753.5	22.62	21.68	20.98
		1732.5	22.64	21.62	20.95
		1711.5	22.79	22.08	21.17
	50% RB mid	1753.5	21.63	20.73	19.76
		1732.5	21.67	20.75	19.81
		1711.5	21.76	20.85	20.04
	100% RB	1753.5	21.63	20.59	19.74
		1732.5	21.64	20.65	19.84
		1711.5	21.70	20.74	19.96
5MHz	1 RB high	1752.5	22.64	21.73	20.95
		1732.5	22.70	21.78	20.97
		1712.5	22.73	22.20	21.17
	1 RB low	1752.5	22.65	21.76	20.77
		1732.5	22.70	21.80	20.80
		1712.5	22.72	22.19	20.95
	50% RB mid	1752.5	21.69	20.72	19.71
		1732.5	21.67	20.72	19.76
		1712.5	21.78	20.86	19.97
	100% RB	1752.5	21.63	20.59	19.72
		1732.5	21.65	20.63	19.85
		1712.5	21.72	20.75	19.96
10MHz	1 RB high	1750	22.53	21.58	20.98
		1732.5	22.58	21.51	20.92

	1 RB low	1715	22.70	22.03	20.86
		1750	22.52	21.52	20.85
		1732.5	22.58	21.54	20.76
	50% RB mid	1715	22.70	22.04	20.87
		1750	21.64	20.70	19.74
		1732.5	21.69	20.68	19.96
	100% RB	1715	21.77	20.77	19.90
		1750	21.63	20.63	19.76
		1732.5	21.62	20.61	19.82
15MHz	1 RB high	1715	21.73	20.75	19.97
		1750	21.63	20.63	19.76
		1732.5	21.62	20.61	19.82
	1 RB low	1747.5	22.59	21.92	20.80
		1732.5	22.56	21.50	20.66
		1717.5	22.67	22.00	20.65
	50% RB mid	1747.5	22.56	21.91	20.81
		1732.5	22.59	21.55	20.77
		1717.5	22.72	22.09	20.71
	100% RB	1747.5	21.66	20.59	19.71
		1732.5	21.70	20.62	19.77
		1717.5	21.73	20.76	19.81
20MHz	1 RB high	1747.5	21.68	20.64	19.77
		1732.5	21.68	20.63	19.73
		1717.5	21.76	20.75	19.83
	1 RB low	1745	22.51	21.99	20.83
		1732.5	22.51	21.90	20.73
		1720	22.61	22.10	20.72
	50% RB mid	1745	22.50	21.93	21.05
		1732.5	22.60	22.01	21.15
		1720	22.65	22.17	21.15
	100% RB	1745	21.63	20.64	19.68
		1732.5	21.65	20.64	19.85
		1720	21.69	20.74	19.96
	1 RB high	1745	21.59	20.59	19.74
		1732.5	21.60	20.60	19.79
		1720	21.59	20.68	19.97

LTE band 5

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	22.80	21.70	20.59
		836.5	22.78	21.83	20.63
		824.7	22.79	22.17	20.67
	1 RB low	848.3	22.72	21.72	20.65
		836.5	22.85	21.83	20.78
		824.7	22.80	22.14	20.59
	50% RB mid	848.3	22.87	21.99	20.57
		836.5	22.83	21.90	20.43
		824.7	22.91	22.00	20.61
	100% RB	848.3	21.87	21.04	19.63
		836.5	21.84	21.03	19.50
		824.7	21.87	20.81	19.58
3MHz	1 RB high	847.5	22.84	21.71	20.48
		836.5	22.83	21.66	20.78
		825.5	22.90	22.21	20.39
	1 RB low	847.5	22.82	21.81	20.51
		836.5	22.80	21.71	20.63
		825.5	22.87	22.16	20.46
	50% RB mid	847.5	21.86	20.91	19.54
		836.5	21.86	20.98	19.58
		825.5	21.90	21.02	19.51
	100% RB	847.5	21.82	20.80	19.42
		836.5	21.81	20.87	19.47
		825.5	21.81	20.87	19.43
5MHz	1 RB high	846.5	22.86	21.82	20.39
		836.5	22.89	21.90	20.69
		826.5	22.82	22.27	20.69
	1 RB low	846.5	22.86	21.85	20.57
		836.5	22.89	21.94	20.39
		826.5	22.82	22.27	20.37
	50% RB mid	846.5	21.88	20.90	19.58
		836.5	21.84	20.95	19.56
		826.5	21.90	21.01	19.39
	100% RB	846.5	21.81	20.79	19.56
		836.5	21.79	20.88	19.47
		826.5	21.84	20.94	19.57
10MHz	1 RB high	844.0	22.90	22.08	20.59



		836.5	22.77	21.79	20.40
		829.0	22.81	21.72	20.58
	1 RB low	844.0	22.81	22.09	20.49
		836.5	22.76	21.76	20.87
		829.0	22.75	21.67	20.79
	50% RB mid	844.0	21.83	20.92	19.57
		836.5	21.82	20.95	19.46
		829.0	21.84	20.90	19.58
	100% RB	844.0	21.79	20.84	19.46
		836.5	21.80	20.89	19.54
		829.0	21.81	20.84	19.43

LTE band 12

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	715.3	22.70	21.79	20.61
		707.5	22.78	21.91	20.43
		699.7	22.84	22.21	20.67
	1 RB low	715.3	22.66	21.77	20.55
		707.5	22.77	21.88	20.62
		699.7	22.82	22.17	20.67
	50% RB mid	715.3	22.90	22.03	20.47
		707.5	22.85	21.90	20.67
		699.7	22.94	22.07	20.46
	100% RB	715.3	21.85	21.00	19.52
		707.5	21.80	21.02	19.50
		699.7	21.89	20.77	19.59
3MHz	1 RB high	714.5	22.75	21.80	20.64
		707.5	22.83	21.75	20.65
		700.5	22.91	22.22	20.79
	1 RB low	714.5	22.77	21.83	20.45
		707.5	22.79	21.76	20.75
		700.5	22.91	22.18	20.89
	50% RB mid	714.5	21.84	20.88	19.44
		707.5	21.84	20.95	19.63
		700.5	21.88	21.03	19.59
	100% RB	714.5	21.75	20.71	19.42
		707.5	21.80	20.85	19.66
		700.5	21.83	20.85	19.52
5MHz	1 RB high	713.5	22.87	21.90	20.30
		707.5	22.88	22.00	20.60
		701.5	22.82	22.34	20.74
	1 RB low	713.5	22.87	21.97	20.44
		707.5	22.90	21.95	20.57
		701.5	22.83	22.34	20.64
	50% RB mid	713.5	21.84	20.88	19.36
		707.5	21.85	20.93	19.53
		701.5	21.86	21.00	19.40
	100% RB	713.5	21.78	20.76	19.43
		707.5	21.86	20.89	19.54
		701.5	21.75	20.87	19.52
10MHz	1 RB high	711.0	22.85	21.72	20.72
		707.5	22.86	22.20	20.85



		704.0	22.82	21.88	20.49
	1 RB low	711.0	22.77	21.70	20.53
		707.5	22.76	22.13	20.70
		704.0	22.77	21.85	20.73
	50% RB mid	711.0	21.90	20.95	19.65
		707.5	21.87	20.94	19.55
		704.0	21.85	20.93	19.62
	100% RB	711.0	21.88	20.87	19.57
		707.5	21.95	21.01	19.60
		704.0	21.80	20.83	19.41

LTE band 13

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	784.5	22.84	21.93	20.25
		782	22.85	22.00	20.47
		779.5	22.83	22.24	20.51
	1 RB low	784.5	22.82	21.88	20.57
		782	22.89	21.89	20.28
		779.5	22.80	22.25	20.46
	50% RB mid	784.5	21.86	20.91	19.40
		782	21.83	20.93	19.28
		779.5	21.85	21.02	19.33
	100% RB	784.5	21.77	20.80	19.27
		782	21.83	20.85	19.23
		779.5	21.80	20.93	19.28
10MHz	1 RB high	782.0	22.81	21.72	20.31
	1 RB low	782.0	22.75	21.68	20.43
	50% RB mid	782.0	21.86	20.94	19.37
	100% RB	782.0	21.86	20.90	19.35

LTE band 25

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	1914.3	22.90	21.88	20.76
		1882.5	22.91	21.95	20.49
		1850.7	22.84	22.14	20.54
	1 RB low	1914.3	22.91	21.92	20.73
		1882.5	22.93	21.92	20.52
		1850.7	22.88	22.16	20.14
	50% RB mid	1914.3	23.01	22.16	20.58
		1882.5	22.99	22.00	20.53
		1850.7	22.92	22.04	20.38
	100% RB	1914.3	21.98	21.19	19.52
		1882.5	22.01	21.13	19.60
		1850.7	21.93	20.82	19.25
3MHz	1 RB high	1913.5	22.95	21.85	20.64
		1882.5	22.99	21.79	20.66
		1851.5	22.96	22.21	20.59
	1 RB low	1913.5	23.00	22.02	20.62
		1882.5	22.94	21.84	20.58
		1851.5	22.90	22.18	20.51
	50% RB mid	1913.5	22.03	21.10	19.56
		1882.5	22.00	21.07	19.70
		1851.5	21.93	20.99	19.65
	100% RB	1913.5	22.01	20.97	19.48
		1882.5	21.91	20.93	19.58
		1851.5	21.87	20.89	19.50
5MHz	1 RB high	1912.5	22.98	21.94	20.51
		1882.5	23.00	22.08	20.65
		1852.5	22.89	22.35	20.59
	1 RB low	1912.5	23.02	22.05	20.53
		1882.5	23.00	22.04	20.35
		1852.5	22.86	22.29	20.47
	50% RB mid	1912.5	22.07	21.13	19.44
		1882.5	21.99	21.02	19.45
		1852.5	21.91	21.00	19.50
	100% RB	1912.5	21.99	20.99	19.52
		1882.5	21.96	20.93	19.37
		1852.5	21.88	20.91	19.48
10MHz	1 RB high	1910.0	22.95	21.87	20.56
		1882.5	22.94	21.85	20.74

	1 RB low	1855.0	22.90	22.24	20.66
		1910.0	22.95	21.88	20.60
		1882.5	22.93	21.80	20.69
	50% RB mid	1855.0	22.91	22.17	20.63
		1910.0	22.06	21.23	19.58
		1882.5	21.97	20.98	19.53
	100% RB	1855.0	21.89	20.96	19.56
		1910.0	22.14	21.15	19.65
		1882.5	21.95	20.97	19.42
15MHz	1 RB high	1855.0	21.92	20.92	19.51
		1910.0	22.14	21.15	19.65
		1882.5	21.95	20.97	19.42
	1 RB low	1907.5	22.99	22.19	20.64
		1882.5	22.91	21.82	20.38
		1857.5	22.94	22.23	20.53
	50% RB mid	1907.5	23.02	22.30	20.55
		1882.5	22.92	21.83	20.75
		1857.5	22.93	22.17	20.63
	100% RB	1907.5	22.12	21.06	19.62
		1882.5	22.06	21.03	19.51
		1857.5	21.96	20.99	19.59
20MHz	1 RB high	1907.5	22.10	21.04	19.56
		1882.5	21.99	20.94	19.37
		1857.5	21.99	21.00	19.49
	1 RB low	1905.0	22.92	22.39	20.82
		1882.5	22.89	22.36	20.70
		1860.0	22.87	22.26	20.81
	50% RB mid	1905.0	22.90	22.47	20.51
		1882.5	22.92	22.34	20.56
		1860.0	22.88	22.15	20.55
100% RB	1905.0	22.00	21.04	19.41	
	1882.5	22.01	21.00	19.47	
	1860.0	21.93	20.95	19.45	
1 RB high	1905.0	21.84	20.93	19.28	
	1882.5	21.89	20.90	19.18	
	1860.0	21.92	20.97	19.27	

LTE band 26(814MHz~824MHz)

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	823.3	23.10	21.87	20.67
		819.0	23.07	22.04	20.54
		814.7	23.08	21.82	20.62
	1 RB low	823.3	23.11	22.29	20.65
		819.0	23.08	22.09	20.75
		814.7	23.13	22.25	20.56
	50% RB mid	823.3	23.13	22.11	20.61
		819.0	23.15	22.27	20.53
		814.7	23.12	22.37	20.48
	100% RB	823.3	22.11	21.09	19.51
		819.0	22.13	21.25	19.62
		814.7	22.05	21.19	19.56
3MHz	1 RB high	822.5	23.13	22.16	20.65
		819.0	23.17	22.11	20.71
		815.5	23.22	22.29	20.58
	1 RB low	822.5	23.15	22.37	20.58
		819.0	23.16	22.32	20.73
		815.5	23.13	22.22	20.69
	50% RB mid	822.5	22.16	22.11	19.47
		819.0	22.19	21.41	19.52
		815.5	22.12	21.20	19.54
	100% RB	822.5	22.13	21.21	19.46
		819.0	22.12	21.22	19.58
		815.5	22.05	21.16	19.43
5MHz	1 RB high	821.5	23.09	22.11	20.54
		819.0	23.09	22.07	20.78
		816.5	23.06	22.11	20.62
	1 RB low	821.5	23.08	22.35	20.55
		819.0	23.06	22.48	20.48
		816.5	23.05	22.25	20.61
	50% RB mid	821.5	22.22	21.26	19.56
		819.0	22.23	21.28	19.58
		816.5	22.21	21.19	19.59
	100% RB	821.5	22.13	21.20	19.57
		819.0	22.16	21.19	19.52
		816.5	22.14	21.18	19.58
10MHz	1 RB high	819.0	23.14	22.29	20.61
	1 RB low	819.0	23.04	22.10	20.58



	50% RB mid	819.0	22.17	21.11	19.62
	100% RB	819.0	22.17	21.18	19.59

LTE band 26(824MHz~849MHz)

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
1.4MHz	1 RB high	848.3	23.17	22.13	20.54
		836.5	23.10	22.01	20.62
		824.7	23.05	22.28	20.57
	1 RB low	848.3	23.03	21.91	20.53
		836.5	23.06	22.21	20.46
		824.7	23.03	22.14	20.65
	50% RB mid	848.3	23.14	22.22	20.49
		836.5	23.21	22.31	20.42
		824.7	23.27	22.26	20.36
	100% RB	848.3	22.10	21.20	19.36
		836.5	22.12	21.07	19.46
		824.7	22.16	21.23	19.55
3MHz	1 RB high	847.5	23.22	22.28	20.68
		836.5	23.14	22.05	20.58
		825.5	23.18	22.28	20.61
	1 RB low	847.5	23.20	22.26	20.47
		836.5	23.17	22.09	20.64
		825.5	23.13	22.18	20.71
	50% RB mid	847.5	22.12	21.32	19.35
		836.5	22.16	21.07	19.41
		825.5	22.19	21.21	19.46
	100% RB	847.5	22.14	21.08	19.50
		836.5	22.11	21.18	19.38
		825.5	22.13	21.20	19.51
5MHz	1 RB high	846.5	23.09	22.50	20.60
		836.5	23.16	22.20	20.57
		826.5	23.12	22.36	20.64
	1 RB low	846.5	23.07	22.58	20.48
		836.5	23.15	22.33	20.60
		826.5	23.19	22.20	20.68
	50% RB mid	846.5	22.21	21.32	19.50
		836.5	22.24	21.20	19.44
		826.5	22.23	21.19	19.57
	100% RB	846.5	22.14	21.22	19.52
		836.5	22.20	21.21	19.51
		826.5	22.17	21.24	19.48
10MHz	1 RB high	844.0	23.19	22.11	20.67
		836.5	23.25	22.35	20.68

	1 RB low	829.0	23.17	22.29	20.64
		844.0	23.21	22.08	20.72
		836.5	23.14	22.30	20.62
	50% RB mid	829.0	23.17	22.11	20.66
		844.0	22.16	21.34	19.52
		836.5	22.20	21.20	19.44
	100% RB	829.0	-22.03	21.31	19.52
		844.0	22.20	21.22	19.47
		836.5	22.17	21.28	19.46
15MHz	1 RB high	829.0	22.23	21.27	19.56
		841.5	23.16	22.26	20.58
		836.5	23.18	22.27	20.63
	1 RB low	831.5	23.20	22.52	20.49
		841.5	23.09	22.24	20.48
		836.5	23.11	22.27	20.53
	50% RB mid	831.5	23.16	22.56	20.76
		841.5	22.25	21.28	19.46
		836.5	22.20	21.23	19.48
	100% RB	831.5	22.22	21.23	19.53
		841.5	22.21	21.23	19.56
		836.5	22.24	21.22	19.51
		831.5	22.24	21.23	19.50

LTE band 41
HUPE

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2687.5	25.97	25.21	23.06
		2593.0	25.91	25.11	23.07
		2498.5	26.04	25.39	23.18
	1 RB low	2687.5	25.95	25.18	23.13
		2593.0	25.90	25.15	23.16
		2498.5	26.01	25.40	23.15
	50% RB mid	2687.5	25.06	24.01	22.23
		2593.0	25.05	24.04	22.28
		2498.5	25.14	24.22	22.27
	100% RB	2687.5	24.99	24.01	22.15
		2593.0	24.99	23.97	22.27
		2498.5	25.10	24.13	22.28
10MHz	1 RB high	2685.0	26.00	25.34	23.14
		2593.0	25.97	25.15	23.08
		2501.0	26.03	25.40	23.15
	1 RB low	2685.0	25.98	25.26	23.18
		2593.0	25.97	25.15	23.18
		2501.0	26.02	25.42	23.16
	50% RB mid	2685.0	25.05	24.05	22.34
		2593.0	25.01	24.00	22.30
		2501.0	25.16	24.18	22.35
	100% RB	2685.0	25.06	24.04	22.17
		2593.0	24.99	23.97	22.29
		2501.0	25.17	24.21	22.36
15MHz	1 RB high	2682.5	25.98	25.26	23.06
		2593.0	25.92	25.05	23.04
		2503.5	25.97	25.32	23.16
	1 RB low	2682.5	25.99	25.27	23.15
		2593.0	25.92	25.21	23.09
		2503.5	26.03	25.36	23.16
	50% RB mid	2682.5	25.13	24.04	22.19
		2593.0	25.04	23.96	22.18
		2503.5	25.22	24.17	22.28
	100% RB	2682.5	25.11	24.06	22.29
		2593.0	25.02	24.00	22.19
		2503.5	25.19	24.15	22.24



20MHz	1 RB high	2680.0	25.96	25.31	23.08
		2593.0	25.92	25.02	23.06
		2506.0	26.08	25.27	23.10
	1 RB low	2680.0	25.95	25.27	23.12
		2593.0	25.89	25.11	23.16
		2506.0	26.09	25.30	23.13
	50% RB mid	2680.0	25.03	24.07	22.28
		2593.0	24.97	23.98	22.28
		2506.0	25.13	24.10	22.31
	100% RB	2680.0	24.98	23.98	22.29
		2593.0	24.97	23.96	22.35
		2506.0	25.10	24.08	22.26

normal power

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	2687.5	22.94	22.29	20.11
		2593.0	22.91	22.17	20.21
		2498.5	22.98	22.47	20.25
	1 RB low	2687.5	22.91	22.28	20.12
		2593.0	22.91	22.16	20.20
		2498.5	23.01	22.42	20.31
	50% RB mid	2687.5	22.01	20.99	19.21
		2593.0	21.95	20.99	19.19
		2498.5	22.06	21.14	19.27
	100% RB	2687.5	21.95	21.00	19.27
		2593.0	21.92	20.95	19.24
		2498.5	22.02	21.06	19.33
10MHz	1 RB high	2685.0	22.96	22.45	20.06
		2593.0	22.98	22.22	20.11
		2501.0	22.98	22.49	20.28
	1 RB low	2685.0	22.91	22.42	20.13
		2593.0	22.99	22.20	20.24
		2501.0	22.96	22.46	20.26
	50% RB mid	2685.0	22.02	21.02	19.33
		2593.0	21.93	20.96	19.28
		2501.0	22.08	21.15	19.41
	100% RB	2685.0	21.98	21.02	19.35
		2593.0	21.94	20.92	19.18
		2501.0	22.12	21.16	19.34
15MHz	1 RB high	2682.5	22.92	22.40	20.08
		2593.0	22.91	22.17	20.06
		2503.5	22.88	22.33	20.27
	1 RB low	2682.5	22.93	22.42	20.13
		2593.0	22.96	22.22	20.24
		2503.5	22.96	22.40	20.30
	50% RB mid	2682.5	22.03	20.99	19.18
		2593.0	21.95	20.89	19.18
		2503.5	22.10	21.08	19.19
	100% RB	2682.5	22.00	21.02	19.13
		2593.0	21.92	20.91	19.60
		2503.5	22.06	21.04	19.28
20MHz	1 RB high	2680.0	22.96	22.26	20.14



		2593.0	22.86	22.34	20.07
		2506.0	22.99	22.22	20.13
	1 RB low	2680.0	22.92	22.24	20.16
		2593.0	22.83	22.30	20.28
		2506.0	23.03	22.23	20.22
	50% RB mid	2680.0	22.00	20.97	19.16
		2593.0	21.91	20.97	19.21
		2506.0	22.05	21.06	19.36
	100% RB	2680.0	21.95	20.93	19.20
		2593.0	21.91	20.92	19.18
		2506.0	22.05	21.02	19.26

LTE band 71

Bandwidth	RB size/offset	Frequency (MHz)	Power(dBm)		
			QPSK	16QAM	64QAM
5MHz	1 RB high	695.5	22.86	21.80	21.45
		680.5	22.87	22.11	21.46
		665.5	22.88	21.91	21.42
	1 RB low	695.5	22.84	21.73	21.44
		680.5	22.86	22.12	21.47
		665.5	22.85	21.86	21.41
	50% RB mid	695.5	21.94	20.96	20.39
		680.5	21.87	20.99	20.34
		665.5	21.89	20.92	20.27
	100% RB	695.5	21.89	20.94	20.37
		680.5	21.83	20.81	20.33
		665.5	21.85	20.87	20.32
10MHz	1 RB high	693	22.88	22.47	21.45
		680.5	22.86	21.97	21.42
		668	22.87	22.38	21.34
	1 RB low	693	22.79	22.35	21.43
		680.5	22.79	21.92	21.48
		668	22.85	22.29	21.43
	50% RB mid	693	22.01	21.01	20.42
		680.5	21.89	20.86	20.34
		668	21.87	20.89	20.36
	100% RB	693	22.00	21.01	20.44
		680.5	21.85	20.91	20.35
		668	21.85	20.83	20.24
15MHz	1 RB high	690.5	22.83	22.17	21.46
		680.5	22.87	22.23	21.42
		670.5	22.85	22.19	21.48
	1 RB low	690.5	22.81	22.06	21.42
		680.5	22.82	22.17	21.44
		670.5	22.79	22.13	21.36
	50% RB mid	690.5	21.91	20.82	20.32
		680.5	21.89	20.86	20.33
		670.5	21.97	20.84	20.30
	100% RB	690.5	21.97	20.89	20.35
		680.5	21.89	20.81	20.24
		670.5	21.93	20.83	20.31
20MHz	1 RB high	688	22.93	22.17	21.25



		680.5	22.85	22.46	21.46
		673	22.88	22.07	21.38
	1 RB low	688	22.78	22.09	21.34
		680.5	22.81	22.29	21.47
		673	22.82	21.92	21.31
	50% RB mid	688	21.94	20.93	20.30
		680.5	21.91	20.97	20.34
		673	21.87	20.95	20.28
	100% RB	688	21.84	20.85	20.29
		680.5	21.96	20.92	20.25
		673	21.93	20.94	20.27

A.1.3 Radiated

A.1.3.1 Description

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

Rule Part 22.913(a) specifies “Mobile stations are limited to 2.0 watts EIRP.”

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

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

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

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

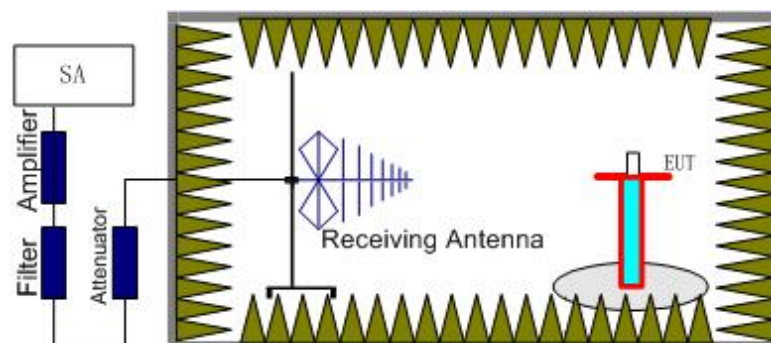
Rule Part 27.50(a)(3) specifies “For mobile and portable stations transmitting in the 2305–2315 MHz band or the 2350–2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards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

Rule Part 90.635(b) specifies “The maximum output power of the transmitter for mobile stations is 100 watts(50dBm)”.

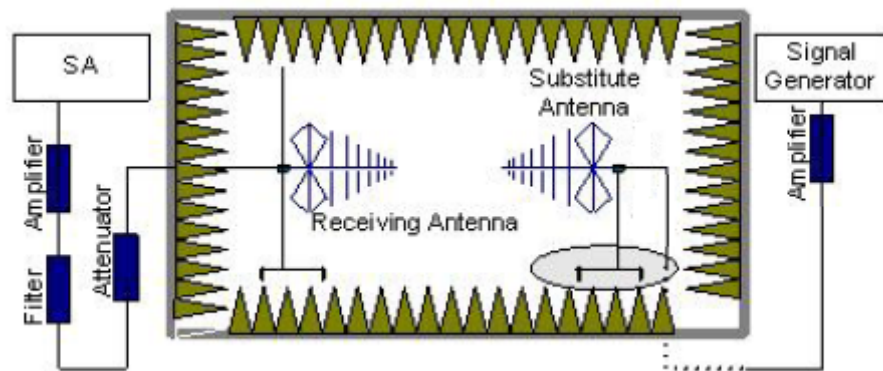
A.1.3.2 Method of Measurement

The measurements procedures in TIA-603E-2016 are used.

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.



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



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

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

The measurement results are obtained as described below:

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

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

A.1.3.3 Measurement result

LTE Band 2- EIRP 24. 232(b)

Limits: ≤33dBm (2W)

LTE Band 2_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1850.70	-21.26	2.92	43.75	4.87	24.44	33.00	8.56	H
1880.00	-21.67	2.85	43.75	4.82	24.05	33.00	8.95	H
1909.30	-19.85	2.87	43.77	4.76	25.81	33.00	7.19	H

LTE Band 2_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1851.50	-21.43	2.87	43.75	4.87	24.32	33.00	8.68	H
1880.00	-21.69	2.85	43.75	4.82	24.03	33.00	8.97	H
1908.50	-20.15	2.89	43.78	4.76	25.50	33.00	7.50	H

LTE Band 2_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1852.50	-21.50	2.87	43.75	4.87	24.25	33.00	8.75	H
1880.00	-21.73	2.85	43.75	4.82	23.99	33.00	9.01	H
1907.50	-20.28	2.84	43.77	4.77	25.42	33.00	7.58	H

LTE Band 2_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1855.00	-21.40	2.88	43.74	4.86	24.32	33.00	8.68	H
1880.00	-21.54	2.85	43.75	4.82	24.18	33.00	8.82	H
1905.00	-20.34	2.87	43.77	4.77	25.33	33.00	7.67	H

LTE Band 2_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1857.50	-22.14	2.87	43.75	4.86	23.60	33.00	9.40	H
1880.00	-21.72	2.85	43.75	4.82	24.00	33.00	9.00	H
1902.50	-20.94	2.86	43.77	4.78	24.75	33.00	8.25	H

LTE Band 2_20 MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1860.00	-22.21	2.86	43.75	4.85	23.53	33.00	9.47	H
1880.00	-22.16	2.85	43.75	4.82	23.56	33.00	9.44	H
1900.00	-21.02	2.87	43.77	4.78	24.66	33.00	8.34	H



LTE Band 2_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1850.70	-22.20	2.92	43.75	4.87	23.50	33.00	9.50	H
1880.00	-23.41	2.85	43.75	4.82	22.31	33.00	10.69	H
1909.30	-20.82	2.87	43.77	4.76	24.84	33.00	8.16	H

LTE Band 2_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1851.50	-22.38	2.87	43.75	4.87	23.37	33.00	9.63	H
1880.00	-22.68	2.85	43.75	4.82	23.04	33.00	9.96	H
1908.50	-21.00	2.89	43.78	4.76	24.65	33.00	8.35	H

LTE Band 2_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1852.50	-22.48	2.87	43.75	4.87	23.27	33.00	9.73	H
1880.00	-22.67	2.85	43.75	4.82	23.05	33.00	9.95	H
1907.50	-21.04	2.84	43.77	4.77	24.66	33.00	8.34	H

LTE Band 2_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1855.00	-22.29	2.88	43.74	4.86	23.43	33.00	9.57	H
1880.00	-22.42	2.85	43.75	4.82	23.30	33.00	9.70	H
1905.00	-21.21	2.87	43.77	4.77	24.46	33.00	8.54	H

LTE Band 2_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1857.50	-23.10	2.87	43.75	4.86	22.64	33.00	10.36	H
1880.00	-22.57	2.85	43.75	4.82	23.15	33.00	9.85	H
1902.50	-21.76	2.86	43.77	4.78	23.93	33.00	9.07	H

LTE Band 2_20 MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1860.00	-23.11	2.86	43.75	4.85	22.63	33.00	10.37	H
1880.00	-23.18	2.85	43.75	4.82	22.54	33.00	10.46	H
1900.00	-21.87	2.87	43.77	4.78	23.81	33.00	9.19	H

LTE Band 2_1.4MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1850.70	-23.11	2.92	43.75	4.87	22.59	33.00	10.41	H
1880.00	-24.31	2.85	43.75	4.82	21.41	33.00	11.59	H
1909.30	-22.06	2.87	43.77	4.76	23.60	33.00	9.40	H

LTE Band 2_3MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1851.50	-23.36	2.87	43.75	4.87	22.39	33.00	10.61	H
1880.00	-23.87	2.85	43.75	4.82	21.85	33.00	11.15	H
1908.50	-22.06	2.89	43.78	4.76	23.59	33.00	9.41	H

LTE Band 2_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1852.50	-23.36	2.87	43.75	4.87	22.39	33.00	10.61	H
1880.00	-23.89	2.85	43.75	4.82	21.83	33.00	11.17	H
1907.50	-22.32	2.84	43.77	4.77	23.38	33.00	9.62	H

LTE Band 2_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1855.00	-23.18	2.88	43.74	4.86	22.54	33.00	10.46	H
1880.00	-23.61	2.85	43.75	4.82	22.11	33.00	10.89	H
1905.00	-22.15	2.87	43.77	4.77	23.52	33.00	9.48	H

LTE Band 2_15MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1857.50	-23.74	2.87	43.75	4.86	22.00	33.00	11.00	H
1880.00	-23.97	2.85	43.75	4.82	21.75	33.00	11.25	H
1902.50	-22.80	2.86	43.77	4.78	22.89	33.00	10.11	H

LTE Band 2_20 MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1860.00	-23.84	2.86	43.75	4.85	21.90	33.00	11.10	H
1880.00	-24.21	2.85	43.75	4.82	21.51	33.00	11.49	H
1900.00	-22.94	2.87	43.77	4.78	22.74	33.00	10.26	H



LTE Band 4- EIRP 27.50(d)

Limits: ≤30dBm (1W)

LTE Band 4_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1710.70	-24.81	3.17	44.10	5.12	21.24	30.00	8.76	H
1732.50	-25.16	3.33	44.14	5.08	20.73	30.00	9.27	H
1754.30	-23.77	3.76	44.14	5.04	21.65	30.00	8.35	H

LTE Band 4_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1711.50	-24.56	3.40	44.10	5.12	21.26	30.00	8.74	H
1732.50	-25.02	3.33	44.14	5.08	20.87	30.00	9.13	H
1753.50	-23.63	3.80	44.13	5.04	21.74	30.00	8.26	H

LTE Band 4_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1712.50	-24.47	3.66	44.10	5.12	21.09	30.00	8.91	H
1732.50	-25.01	3.33	44.14	5.08	20.88	30.00	9.12	H
1752.50	-23.83	3.82	44.14	5.05	21.54	30.00	8.46	H

LTE Band 4_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1715.00	-24.48	3.56	44.10	5.11	21.17	30.00	8.83	H
1732.50	-24.88	3.33	44.14	5.08	21.01	30.00	8.99	H
1750.00	-24.59	3.00	44.15	5.05	21.61	30.00	8.39	H

LTE Band 4_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1717.50	-24.18	3.47	44.11	5.11	21.57	30.00	8.43	H
1732.50	-24.97	3.33	44.14	5.08	20.92	30.00	9.08	H
1747.50	-24.40	3.34	44.15	5.05	21.46	30.00	8.54	H

LTE Band 4_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1720.00	-23.93	3.37	44.11	5.10	21.91	30.00	8.09	H
1732.50	-24.84	3.33	44.14	5.08	21.05	30.00	8.95	H
1745.00	-24.33	3.68	44.16	5.06	21.21	30.00	8.79	H



LTE Band 4_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1710.70	-25.74	3.17	44.10	5.12	20.31	30.00	9.69	H
1732.50	-26.23	3.33	44.14	5.08	19.66	30.00	10.34	H
1754.30	-24.71	3.76	44.14	5.04	20.71	30.00	9.29	H

LTE Band 4_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1711.50	-25.34	3.40	44.10	5.12	20.48	30.00	9.52	H
1732.50	-26.00	3.33	44.14	5.08	19.89	30.00	10.11	H
1753.50	-24.49	3.80	44.13	5.04	20.88	30.00	9.12	H

LTE Band 4_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1712.50	-25.15	3.66	44.10	5.12	20.41	30.00	9.59	H
1732.50	-26.07	3.33	44.14	5.08	19.82	30.00	10.18	H
1752.50	-24.60	3.82	44.14	5.05	20.77	30.00	9.23	H

LTE Band 4_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1715.00	-25.37	3.56	44.10	5.11	20.28	30.00	9.72	H
1732.50	-25.96	3.33	44.14	5.08	19.93	30.00	10.07	H
1750.00	-25.33	3.00	44.15	5.05	20.87	30.00	9.13	H

LTE Band 4_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1717.50	-24.90	3.47	44.11	5.11	20.85	30.00	9.15	H
1732.50	-25.97	3.33	44.14	5.08	19.92	30.00	10.08	H
1747.50	-25.31	3.34	44.15	5.05	20.55	30.00	9.45	H

LTE Band 4_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1720.00	-24.83	3.37	44.11	5.10	21.01	30.00	8.99	H
1732.50	-25.81	3.33	44.14	5.08	20.08	30.00	9.92	H
1745.00	-25.25	3.68	44.16	5.06	20.29	30.00	9.71	H



LTE Band 4_1.4MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1710.70	-26.76	3.17	44.10	5.12	19.29	30.00	10.71	H
1732.50	-27.04	3.33	44.14	5.08	18.85	30.00	11.15	H
1754.30	-25.28	3.76	44.14	5.04	20.14	30.00	9.86	H

LTE Band 4_3MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1711.50	-26.52	3.40	44.10	5.12	19.30	30.00	10.70	H
1732.50	-27.10	3.33	44.14	5.08	18.79	30.00	11.21	H
1753.50	-25.31	3.80	44.13	5.04	20.06	30.00	9.94	H

LTE Band 4_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1712.50	-26.14	3.66	44.10	5.12	19.42	30.00	10.58	H
1732.50	-27.05	3.33	44.14	5.08	18.84	30.00	11.16	H
1752.50	-25.45	3.82	44.14	5.05	19.92	30.00	10.08	H

LTE Band 4_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1715.00	-26.03	3.56	44.10	5.11	19.62	30.00	10.38	H
1732.50	-27.13	3.33	44.14	5.08	18.76	30.00	11.24	H
1750.00	-26.46	3.00	44.15	5.05	19.74	30.00	10.26	H

LTE Band 4_15MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1717.50	-26.20	3.47	44.11	5.11	19.55	30.00	10.45	H
1732.50	-27.07	3.33	44.14	5.08	18.82	30.00	11.18	H
1747.50	-26.48	3.34	44.15	5.05	19.38	30.00	10.62	H

LTE Band 4_20MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1720.00	-26.28	3.37	44.11	5.10	19.56	30.00	10.44	H
1732.50	-27.05	3.33	44.14	5.08	18.84	30.00	11.16	H
1745.00	-26.19	3.68	44.16	5.06	19.35	30.00	10.65	H



LTE Band 5- ERP 22.913(a)

Limits: ≤38.45dBm (7W)

LTE Band 5_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
824.70	-23.40	2.26	45.79	0.95	2.15	18.93	38.45	19.52	H
836.50	-22.56	2.26	45.66	0.82	2.15	19.51	38.45	18.94	H
848.30	-23.17	2.27	45.55	0.80	2.15	18.76	38.45	19.69	V

LTE Band 5_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
825.50	-23.15	2.26	45.79	0.94	2.15	19.17	38.45	19.28	H
836.50	-22.51	2.26	45.66	0.82	2.15	19.56	38.45	18.89	H
847.50	-22.98	2.27	45.56	0.81	2.15	18.97	38.45	19.48	V

LTE Band 5_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
826.50	-23.10	2.25	45.77	0.93	2.15	19.20	38.45	19.25	H
836.50	-22.48	2.26	45.66	0.82	2.15	19.59	38.45	18.86	H
846.50	-23.03	2.26	45.56	0.82	2.15	18.94	38.45	19.51	V

LTE Band 5_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
829.00	-23.14	2.13	45.74	0.90	2.15	19.22	38.45	19.23	H
836.50	-22.42	2.26	45.66	0.82	2.15	19.65	38.45	18.80	H
844.00	-22.91	2.26	45.59	0.82	2.15	19.09	38.45	19.36	H



LTE Band 5_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
824.70	-24.07	2.26	45.79	0.95	2.15	18.26	38.45	20.19	H
836.50	-23.34	2.26	45.66	0.82	2.15	18.73	38.45	19.72	H
848.30	-24.12	2.27	45.55	0.80	2.15	17.81	38.45	20.64	V

LTE Band 5_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
825.50	-23.97	2.26	45.79	0.94	2.15	18.35	38.45	20.10	H
836.50	-23.22	2.26	45.66	0.82	2.15	18.85	38.45	19.60	H
847.50	-23.86	2.27	45.56	0.81	2.15	18.09	38.45	20.36	V

LTE Band 5_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
826.50	-23.87	2.25	45.77	0.93	2.15	18.43	38.45	20.02	H
836.50	-23.22	2.26	45.66	0.82	2.15	18.85	38.45	19.60	H
846.50	-23.80	2.26	45.56	0.82	2.15	18.17	38.45	20.28	V

LTE Band 5_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
829.00	-23.89	2.13	45.74	0.90	2.15	18.47	38.45	19.98	H
836.50	-23.12	2.26	45.66	0.82	2.15	18.95	38.45	19.50	H
844.00	-23.72	2.26	45.59	0.82	2.15	18.28	38.45	20.17	H



LTE Band 5_1.4MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
824.70	-25.04	2.26	45.79	0.95	2.15	17.29	38.45	21.16	H
836.50	-24.28	2.26	45.66	0.82	2.15	17.79	38.45	20.66	H
848.30	-24.96	2.27	45.55	0.80	2.15	16.97	38.45	21.48	V

LTE Band 5_3MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
825.50	-24.93	2.26	45.79	0.94	2.15	17.39	38.45	21.06	H
836.50	-24.28	2.26	45.66	0.82	2.15	17.79	38.45	20.66	H
847.50	-24.84	2.27	45.56	0.81	2.15	17.11	38.45	21.34	V

LTE Band 5_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
826.50	-24.89	2.25	45.77	0.93	2.15	17.41	38.45	21.04	H
836.50	-24.23	2.26	45.66	0.82	2.15	17.84	38.45	20.61	H
846.50	-24.78	2.26	45.56	0.82	2.15	17.19	38.45	21.26	V

LTE Band 5_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
829.00	-24.91	2.13	45.74	0.90	2.15	17.45	38.45	21.00	H
836.50	-24.10	2.26	45.66	0.82	2.15	17.97	38.45	20.48	H
844.00	-24.74	2.26	45.59	0.82	2.15	17.26	38.45	21.19	H



LTE Band 12 - ERP 27.50(c)(10)

Limits: ≤34.77dBm (3W)

LTE Band 12_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
699.70	-23.42	1.90	44.66	0.77	2.15	17.96	34.77	16.81	V
707.50	-23.43	1.91	44.94	0.62	2.15	18.07	34.77	16.70	V
715.30	-23.46	1.92	45.26	0.50	2.15	18.23	34.77	16.54	V

LTE Band 12_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
700.50	-23.47	1.90	44.68	0.76	2.15	17.92	34.77	16.85	V
707.50	-23.57	1.91	44.94	0.62	2.15	17.93	34.77	16.84	V
714.50	-23.60	1.92	45.26	0.50	2.15	18.09	34.77	16.68	V

LTE Band 12_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
701.50	-23.50	1.90	44.81	0.74	2.15	18.00	34.77	16.77	V
707.50	-23.54	1.91	44.94	0.62	2.15	17.96	34.77	16.81	V
713.50	-23.49	1.92	45.22	0.50	2.15	18.16	34.77	16.61	V

LTE Band 12_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
704.00	-23.52	1.91	44.93	0.70	2.15	18.05	34.77	16.72	V
707.50	-23.61	1.91	44.94	0.62	2.15	17.89	34.77	16.88	V
711.00	-23.58	1.92	45.19	0.53	2.15	18.07	34.77	16.70	V



LTE Band 12_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
699.70	-24.24	1.90	44.66	0.77	2.15	17.14	34.77	17.63	V
707.50	-24.28	1.91	44.94	0.62	2.15	17.22	34.77	17.55	V
715.30	-24.34	1.92	45.26	0.50	2.15	17.35	34.77	17.42	V

LTE Band 12_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
700.50	-24.25	1.90	44.68	0.76	2.15	17.14	34.77	17.63	V
707.50	-24.28	1.91	44.94	0.62	2.15	17.22	34.77	17.55	V
714.50	-24.37	1.92	45.26	0.50	2.15	17.32	34.77	17.45	V

LTE Band 12_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
701.50	-24.21	1.90	44.81	0.74	2.15	17.29	34.77	17.48	V
707.50	-24.34	1.91	44.94	0.62	2.15	17.16	34.77	17.61	V
713.50	-24.27	1.92	45.22	0.50	2.15	17.38	34.77	17.39	V

LTE Band 12_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
704.00	-24.24	1.91	44.93	0.70	2.15	17.33	34.77	17.44	V
707.50	-24.27	1.91	44.94	0.62	2.15	17.23	34.77	17.54	V
711.00	-24.25	1.92	45.19	0.53	2.15	17.40	34.77	17.37	V



LTE Band 12_1.4MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
699.70	-25.42	1.90	44.66	0.77	2.15	15.96	34.77	18.81	V
707.50	-25.42	1.91	44.94	0.62	2.15	16.08	34.77	18.69	V
715.30	-25.38	1.92	45.26	0.50	2.15	16.31	34.77	18.46	V

LTE Band 12_3MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
700.50	-25.42	1.90	44.68	0.76	2.15	15.97	34.77	18.80	V
707.50	-25.47	1.91	44.94	0.62	2.15	16.03	34.77	18.74	V
714.50	-25.45	1.92	45.26	0.50	2.15	16.24	34.77	18.53	V

LTE Band 12_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
701.50	-25.37	1.90	44.81	0.74	2.15	16.13	34.77	18.64	V
707.50	-25.46	1.91	44.94	0.62	2.15	16.04	34.77	18.73	V
713.50	-25.36	1.92	45.22	0.50	2.15	16.29	34.77	18.48	V

LTE Band 12_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
704.00	-25.35	1.91	44.93	0.70	2.15	16.22	34.77	18.55	V
707.50	-25.52	1.91	44.94	0.62	2.15	15.98	34.77	18.79	V
711.00	-25.44	1.92	45.19	0.53	2.15	16.21	34.77	18.56	V



LTE Band 13- ERP 27.50(b)(10)

Limits: ≤34.77 dBm (3W)

LTE Band 13_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
779.50	-22.06	2.01	45.64	0.04	2.15	19.46	34.77	15.31	V
782.00	-22.21	2.01	45.65	0.09	2.15	19.37	34.77	15.40	V
784.50	-22.21	2.01	45.67	0.16	2.15	19.46	34.77	15.31	H

LTE Band 13_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
782.00	-22.22	2.01	45.65	0.09	2.15	19.36	34.77	15.41	V

LTE Band 13_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
779.50	-22.86	2.01	45.64	0.04	2.15	18.66	34.77	16.11	V
782.00	-22.94	2.01	45.65	0.09	2.15	18.64	34.77	16.13	V
784.50	-22.90	2.01	45.67	0.16	2.15	18.77	34.77	16.00	H

LTE Band 13_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
782.00	-22.99	2.01	45.65	0.09	2.15	18.59	34.77	16.18	H

LTE Band 13_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
779.50	-23.87	2.01	45.64	0.04	2.15	17.65	34.77	17.12	V
782.00	-23.96	2.01	45.65	0.09	2.15	17.62	34.77	17.15	V
784.50	-23.97	2.01	45.67	0.16	2.15	17.70	34.77	17.07	H

LTE Band 13_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
782.00	-24.02	2.01	45.65	0.09	2.15	17.56	34.77	17.21	H



LTE Band 25- EIRP 24. 232(b)

Limits: ≤33dBm (2W)

LTE Band 25_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1850.70	-21.40	2.92	43.75	4.87	24.30	33.00	8.70	H
1882.50	-21.07	3.13	43.75	4.81	24.36	33.00	8.64	H
1914.30	-19.95	2.89	43.78	4.75	25.69	33.00	7.31	H

LTE Band 25_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1851.50	-21.59	2.87	43.75	4.87	24.16	33.00	8.84	H
1882.50	-21.17	3.13	43.75	4.81	24.26	33.00	8.74	H
1913.50	-20.12	2.88	43.78	4.76	25.54	33.00	7.46	H

LTE Band 25_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1852.50	-21.58	2.87	43.75	4.87	24.17	33.00	8.83	H
1882.50	-21.15	3.13	43.75	4.81	24.28	33.00	8.72	H
1912.50	-20.05	2.86	43.77	4.76	25.62	33.00	7.38	H

LTE Band 25_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1855.00	-21.74	2.88	43.74	4.86	23.98	33.00	9.02	H
1882.50	-21.28	3.13	43.75	4.81	24.15	33.00	8.85	H
1910.00	-20.09	2.88	43.77	4.76	25.56	33.00	7.44	H

LTE Band 25_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1857.50	-21.96	2.87	43.75	4.86	23.78	33.00	9.22	H
1882.50	-21.29	3.13	43.75	4.81	24.14	33.00	8.86	H
1907.50	-20.28	2.84	43.77	4.77	25.42	33.00	7.58	H

LTE Band 25_20 MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1860.00	-22.05	2.86	43.75	4.85	23.69	33.00	9.31	H
1882.50	-21.30	3.13	43.75	4.81	24.13	33.00	8.87	H
1905.00	-20.30	2.87	43.77	4.77	25.37	33.00	7.63	H

LTE Band 25_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1850.70	-22.27	2.92	43.75	4.87	23.43	33.00	9.57	H
1882.50	-21.93	3.13	43.75	4.81	23.50	33.00	9.50	H
1914.30	-20.93	2.89	43.78	4.75	24.71	33.00	8.29	H

LTE Band 25_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1851.50	-22.34	2.87	43.75	4.87	23.41	33.00	9.59	H
1882.50	-21.99	3.13	43.75	4.81	23.44	33.00	9.56	H
1913.50	-21.04	2.88	43.78	4.76	24.62	33.00	8.38	H

LTE Band 25_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1852.50	-22.28	2.87	43.75	4.87	23.47	33.00	9.53	H
1882.50	-21.96	3.13	43.75	4.81	23.47	33.00	9.53	H
1912.50	-20.83	2.86	43.77	4.76	24.84	33.00	8.16	H

LTE Band 25_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1855.00	-22.43	2.88	43.74	4.86	23.29	33.00	9.71	H
1882.50	-21.97	3.13	43.75	4.81	23.46	33.00	9.54	H
1910.00	-20.78	2.88	43.77	4.76	24.87	33.00	8.13	H

LTE Band 25_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1857.50	-22.62	2.87	43.75	4.86	23.12	33.00	9.88	H
1882.50	-21.99	3.13	43.75	4.81	23.44	33.00	9.56	H
1907.50	-20.98	2.84	43.77	4.77	24.72	33.00	8.28	H

LTE Band 25_20 MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1860.00	-22.70	2.86	43.75	4.85	23.04	33.00	9.96	H
1882.50	-21.99	3.13	43.75	4.81	23.44	33.00	9.56	H
1905.00	-21.05	2.87	43.77	4.77	24.62	33.00	8.38	H

LTE Band 25_1.4MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1850.70	-23.24	2.92	43.75	4.87	22.46	33.00	10.54	H
1882.50	-22.95	3.13	43.75	4.81	22.48	33.00	10.52	H
1914.30	-21.90	2.89	43.78	4.75	23.74	33.00	9.26	H

LTE Band 25_3MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1851.50	-23.35	2.87	43.75	4.87	22.40	33.00	10.60	H
1882.50	-22.97	3.13	43.75	4.81	22.46	33.00	10.54	H
1913.50	-21.96	2.88	43.78	4.76	23.70	33.00	9.30	H

LTE Band 25_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1852.50	-23.41	2.87	43.75	4.87	22.34	33.00	10.66	H
1882.50	-22.98	3.13	43.75	4.81	22.45	33.00	10.55	H
1912.50	-21.88	2.86	43.77	4.76	23.79	33.00	9.21	H

LTE Band 25_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1855.00	-23.54	2.88	43.74	4.86	22.18	33.00	10.82	H
1882.50	-23.00	3.13	43.75	4.81	22.43	33.00	10.57	H
1910.00	-21.88	2.88	43.77	4.76	23.77	33.00	9.23	H

LTE Band 25_15MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1857.50	-23.67	2.87	43.75	4.86	22.07	33.00	10.93	H
1882.50	-23.03	3.13	43.75	4.81	22.40	33.00	10.60	H
1907.50	-22.05	2.84	43.77	4.77	23.65	33.00	9.35	H

LTE Band 25_20 MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
1860.00	-23.77	2.86	43.75	4.85	21.97	33.00	11.03	H
1882.50	-23.01	3.13	43.75	4.81	22.42	33.00	10.58	H
1905.00	-22.07	2.87	43.77	4.77	23.60	33.00	9.40	H



LTE Band 26(814MHz~824MHz)- ERP 90.635(b)

Limits: ≤50dBm (100W)

LTE Band 26_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
814.70	-23.81	2.13	45.86	0.89	2.15	18.66	50.00	31.34	H
819.00	-23.88	2.19	45.84	1.05	2.15	18.67	50.00	31.33	H
823.30	-22.87	2.24	45.79	0.55	2.15	19.08	50.00	30.92	H

LTE Band 26_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
815.50	-23.97	2.14	45.87	0.93	2.15	18.54	50.00	31.46	H
819.00	-24.03	2.19	45.84	1.05	2.15	18.52	50.00	31.48	H
822.50	-22.91	2.23	45.81	0.33	2.15	18.85	50.00	31.15	H

LTE Band 26_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
816.50	-24.15	2.16	45.88	0.98	2.15	18.40	50.00	31.60	H
819.00	-24.11	2.19	45.84	1.05	2.15	18.44	50.00	31.56	H
821.50	-23.48	2.22	45.82	0.71	2.15	18.68	50.00	31.32	H

LTE Band 26_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
819.00	-24.10	2.19	45.84	1.05	2.15	18.45	50.00	31.55	H



LTE Band 26_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
814.70	-24.66	2.13	45.86	0.89	2.15	17.81	50.00	32.19	H
819.00	-24.67	2.19	45.84	1.05	2.15	17.88	50.00	32.12	H
823.30	-23.66	2.24	45.79	0.55	2.15	18.29	50.00	31.71	H

LTE Band 26_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
815.50	-24.70	2.14	45.87	0.93	2.15	17.81	50.00	32.19	H
819.00	-24.70	2.19	45.84	1.05	2.15	17.85	50.00	32.15	H
822.50	-23.56	2.23	45.81	0.33	2.15	18.20	50.00	31.80	H

LTE Band 26_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
816.50	-24.84	2.16	45.88	0.98	2.15	17.71	50.00	32.29	H
819.00	-24.78	2.19	45.84	1.05	2.15	17.77	50.00	32.23	H
821.50	-24.11	2.22	45.82	0.71	2.15	18.05	50.00	31.95	H

LTE Band 26_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
819.00	-24.73	2.19	45.84	1.05	2.15	17.82	50.00	32.18	H



LTE Band 26_1.4MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
814.70	-25.68	2.13	45.86	0.89	2.15	16.79	50.00	33.21	H
819.00	-25.81	2.19	45.84	1.05	2.15	16.74	50.00	33.26	H
823.30	-24.62	2.24	45.79	0.55	2.15	17.33	50.00	32.67	H

LTE Band 26_3MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
815.50	-25.75	2.14	45.87	0.93	2.15	16.76	50.00	33.24	H
819.00	-25.79	2.19	45.84	1.05	2.15	16.76	50.00	33.24	H
822.50	-24.64	2.23	45.81	0.33	2.15	17.12	50.00	32.88	H

LTE Band 26_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
816.50	-25.90	2.16	45.88	0.98	2.15	16.65	50.00	33.35	H
819.00	-25.87	2.19	45.84	1.05	2.15	16.68	50.00	33.32	H
821.50	-25.21	2.22	45.82	0.71	2.15	16.95	50.00	33.05	H

LTE Band 26_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
819.00	-25.87	2.19	45.84	1.05	2.15	16.68	50.00	33.32	H



LTE Band 26(824MHz~849MHz)- ERP 22.913(a)

Limits: ≤38.45dBm (7W)

LTE Band 26_1.4MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
824.70	-22.79	2.26	45.79	0.95	2.15	19.54	38.45	18.91	H
836.50	-22.07	2.26	45.66	0.82	2.15	20.00	38.45	18.45	H
848.30	-22.39	2.27	45.55	0.80	2.15	19.54	38.45	18.91	V

LTE Band 26_3MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
825.50	-22.89	2.26	45.79	0.94	2.15	19.43	38.45	19.02	H
836.50	-22.14	2.26	45.66	0.82	2.15	19.93	38.45	18.52	H
847.50	-22.57	2.27	45.56	0.81	2.15	19.38	38.45	19.07	V

LTE Band 26_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
826.50	-22.85	2.25	45.77	0.93	2.15	19.45	38.45	19.00	H
836.50	-22.18	2.26	45.66	0.82	2.15	19.89	38.45	18.56	H
846.50	-22.66	2.26	45.56	0.82	2.15	19.31	38.45	19.14	V

LTE Band 26_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
829.00	-22.86	2.13	45.74	0.90	2.15	19.50	38.45	18.95	H
836.50	-22.15	2.26	45.66	0.82	2.15	19.92	38.45	18.53	H
844.00	-22.67	2.26	45.59	0.82	2.15	19.33	38.45	19.12	H

LTE Band 26_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
831.50	-22.65	2.12	45.71	0.87	2.15	19.66	38.45	18.79	H
836.50	-22.19	2.26	45.66	0.82	2.15	19.88	38.45	18.57	H
841.50	-22.89	2.26	45.61	0.82	2.15	19.13	38.45	19.32	H



LTE Band 26_1.4MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
824.70	-23.64	2.26	45.79	0.95	2.15	18.69	38.45	19.76	H
836.50	-22.83	2.26	45.66	0.82	2.15	19.24	38.45	19.21	H
848.30	-23.37	2.27	45.55	0.80	2.15	18.56	38.45	19.89	V

LTE Band 26_3MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
825.50	-23.72	2.26	45.79	0.94	2.15	18.60	38.45	19.85	H
836.50	-22.96	2.26	45.66	0.82	2.15	19.11	38.45	19.34	H
847.50	-23.42	2.27	45.56	0.81	2.15	18.53	38.45	19.92	V

LTE Band 26_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
826.50	-23.56	2.25	45.77	0.93	2.15	18.74	38.45	19.71	H
836.50	-22.93	2.26	45.66	0.82	2.15	19.14	38.45	19.31	H
846.50	-23.45	2.26	45.56	0.82	2.15	18.52	38.45	19.93	V

LTE Band 26_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
829.00	-23.56	2.13	45.74	0.90	2.15	18.80	38.45	19.65	H
836.50	-22.82	2.26	45.66	0.82	2.15	19.25	38.45	19.20	H
844.00	-23.40	2.26	45.59	0.82	2.15	18.60	38.45	19.85	H

LTE Band 26_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
831.50	-23.36	2.12	45.71	0.87	2.15	18.95	38.45	19.50	H
836.50	-22.87	2.26	45.66	0.82	2.15	19.20	38.45	19.25	H
841.50	-23.66	2.26	45.61	0.82	2.15	18.36	38.45	20.09	H



LTE Band 26_1.4MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
824.70	-24.61	2.26	45.79	0.95	2.15	17.72	38.45	20.73	H
836.50	-23.94	2.26	45.66	0.82	2.15	18.13	38.45	20.32	H
848.30	-24.40	2.27	45.55	0.80	2.15	17.53	38.45	20.92	V

LTE Band 26_3MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
825.50	-24.69	2.26	45.79	0.94	2.15	17.63	38.45	20.82	H
836.50	-23.97	2.26	45.66	0.82	2.15	18.10	38.45	20.35	H
847.50	-24.43	2.27	45.56	0.81	2.15	17.52	38.45	20.93	V

LTE Band 26_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
826.50	-24.60	2.25	45.77	0.93	2.15	17.70	38.45	20.75	H
836.50	-23.99	2.26	45.66	0.82	2.15	18.08	38.45	20.37	H
846.50	-24.51	2.26	45.56	0.82	2.15	17.46	38.45	20.99	V

LTE Band 26_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
829.00	-24.54	2.13	45.74	0.90	2.15	17.82	38.45	20.63	H
836.50	-23.81	2.26	45.66	0.82	2.15	18.26	38.45	20.19	H
844.00	-24.42	2.26	45.59	0.82	2.15	17.58	38.45	20.87	H

LTE Band 26_15MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	G _a Antenna Gain(dB)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
831.50	-24.37	2.12	45.71	0.87	2.15	17.94	38.45	20.51	H
836.50	-23.97	2.26	45.66	0.82	2.15	18.10	38.45	20.35	H
841.50	-24.68	2.26	45.61	0.82	2.15	17.34	38.45	21.11	H



LTE Band 41- EIRP Part 27.50(h)(2)

Limits: ≤33dBm (2W)

HUPE

LTE Band 41_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2498.50	-25.87	3.58	45.59	6.10	22.24	33.00	10.76	H
2593.00	-25.30	3.69	44.93	6.27	22.21	33.00	10.79	H
2687.50	-23.52	3.73	44.98	6.44	24.17	33.00	8.83	H

LTE Band 41_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2501.00	-25.74	3.58	45.65	6.10	22.43	33.00	10.57	H
2593.00	-25.15	3.69	44.93	6.27	22.36	33.00	10.64	H
2685.00	-23.55	3.73	44.98	6.43	24.13	33.00	8.87	H

LTE Band 41_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2503.50	-26.19	3.58	45.65	6.11	21.99	33.00	11.01	H
2593.00	-25.40	3.69	44.93	6.27	22.11	33.00	10.89	H
2682.50	-23.71	3.73	44.98	6.43	23.97	33.00	9.03	H

LTE Band 41_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2506.00	-25.63	3.59	45.15	6.11	22.04	33.00	10.96	H
2593.00	-25.18	3.69	44.93	6.27	22.33	33.00	10.67	H
2680.00	-23.46	3.73	44.97	6.42	24.20	33.00	8.80	H



LTE Band 41_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2498.50	-26.69	3.58	45.59	6.10	21.42	33.00	11.58	H
2593.00	-26.08	3.69	44.93	6.27	21.43	33.00	11.57	H
2687.50	-24.30	3.73	44.98	6.44	23.39	33.00	9.61	H

LTE Band 41_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2501.00	-26.53	3.58	45.65	6.10	21.64	33.00	11.36	H
2593.00	-26.03	3.69	44.93	6.27	21.48	33.00	11.52	H
2685.00	-24.61	3.73	44.98	6.43	23.07	33.00	9.93	H

LTE Band 41_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2503.50	-27.20	3.58	45.65	6.11	20.98	33.00	12.02	H
2593.00	-26.21	3.69	44.93	6.27	21.30	33.00	11.70	H
2682.50	-24.59	3.73	44.98	6.43	23.09	33.00	9.91	H

LTE Band 41_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2506.00	-26.56	3.59	45.15	6.11	21.11	33.00	11.89	H
2593.00	-25.98	3.69	44.93	6.27	21.53	33.00	11.47	H
2680.00	-24.42	3.73	44.97	6.42	23.24	33.00	9.76	H

LTE Band 41_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2498.50	-28.36	3.58	45.59	6.10	19.75	33.00	13.25	H
2593.00	-27.61	3.69	44.93	6.27	19.90	33.00	13.10	H
2687.50	-25.39	3.73	44.98	6.44	22.30	33.00	10.70	H

LTE Band 41_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2501.00	-28.41	3.58	45.65	6.10	19.76	33.00	13.24	H
2593.00	-27.53	3.69	44.93	6.27	19.98	33.00	13.02	H
2685.00	-25.38	3.73	44.98	6.43	22.30	33.00	10.70	H

LTE Band 41_15MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2503.50	-28.53	3.58	45.65	6.11	19.65	33.00	13.35	H
2593.00	-27.23	3.69	44.93	6.27	20.28	33.00	12.72	H
2682.50	-25.50	3.73	44.98	6.43	22.18	33.00	10.82	H

LTE Band 41_20MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2506.00	-27.98	3.59	45.15	6.11	19.69	33.00	13.31	H
2593.00	-27.14	3.69	44.93	6.27	20.37	33.00	12.63	H
2680.00	-25.37	3.73	44.97	6.42	22.29	33.00	10.71	H



normal power

LTE Band 41_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2498.50	-28.74	3.58	45.59	6.10	19.37	33.00	13.63	H
2593.00	-28.20	3.69	44.93	6.27	19.31	33.00	13.69	H
2687.50	-26.44	3.73	44.98	6.44	21.25	33.00	11.75	H

LTE Band 41_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2501.00	-28.75	3.58	45.65	6.10	19.42	33.00	13.58	H
2593.00	-27.98	3.69	44.93	6.27	19.53	33.00	13.47	H
2685.00	-26.23	3.73	44.98	6.43	21.45	33.00	11.55	H

LTE Band 41_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2503.50	-29.05	3.58	45.65	6.11	19.13	33.00	13.87	H
2593.00	-28.27	3.69	44.93	6.27	19.24	33.00	13.76	H
2682.50	-26.40	3.73	44.98	6.43	21.28	33.00	11.72	H

LTE Band 41_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2506.00	-28.58	3.59	45.15	6.11	19.09	33.00	13.91	H
2593.00	-28.05	3.69	44.93	6.27	19.46	33.00	13.54	H
2680.00	-26.21	3.73	44.97	6.42	21.45	33.00	11.55	H



LTE Band 41_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2498.50	-29.50	3.58	45.59	6.10	18.61	33.00	14.39	H
2593.00	-28.98	3.69	44.93	6.27	18.53	33.00	14.47	H
2687.50	-27.20	3.73	44.98	6.44	20.49	33.00	12.51	H

LTE Band 41_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2501.00	-29.77	3.58	45.65	6.10	18.40	33.00	14.60	H
2593.00	-28.96	3.69	44.93	6.27	18.55	33.00	14.45	H
2685.00	-27.06	3.73	44.98	6.43	20.62	33.00	12.38	H

LTE Band 41_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2503.50	-29.81	3.58	45.65	6.11	18.37	33.00	14.63	H
2593.00	-29.09	3.69	44.93	6.27	18.42	33.00	14.58	H
2682.50	-27.15	3.73	44.98	6.43	20.53	33.00	12.47	H

LTE Band 41_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2506.00	-29.34	3.59	45.15	6.11	18.33	33.00	14.67	H
2593.00	-28.81	3.69	44.93	6.27	18.70	33.00	14.30	H
2680.00	-27.10	3.73	44.97	6.42	20.56	33.00	12.44	H

LTE Band 41_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2498.50	-30.73	3.58	45.59	6.10	17.38	33.00	15.62	H
2593.00	-30.00	3.69	44.93	6.27	17.51	33.00	15.49	H
2687.50	-28.17	3.73	44.98	6.44	19.52	33.00	13.48	H

LTE Band 41_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2501.00	-31.12	3.58	45.65	6.10	17.05	33.00	15.95	H
2593.00	-30.34	3.69	44.93	6.27	17.17	33.00	15.83	H
2685.00	-28.23	3.73	44.98	6.43	19.45	33.00	13.55	H

LTE Band 41_15MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2503.50	-31.28	3.58	45.65	6.11	16.90	33.00	16.10	H
2593.00	-30.05	3.69	44.93	6.27	17.46	33.00	15.54	H
2682.50	-28.32	3.73	44.98	6.43	19.36	33.00	13.64	H

LTE Band 41_20MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _c (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	EIRP(dBm)	Limit(dBm)	Margin(dB)	Polarization
2506.00	-30.72	3.59	45.15	6.11	16.95	33.00	16.05	H
2593.00	-29.97	3.69	44.93	6.27	17.54	33.00	15.46	H
2680.00	-28.16	3.73	44.97	6.42	19.50	33.00	13.50	H



LTE Band 71- ERP 27.50(c)(10)

Limits: ≤34.77 dBm (3W)

LTE Band 71_5MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
665.50	-24.32	1.87	44.73	0.78	2.15	17.17	34.77	17.60	V
680.50	-24.04	1.88	44.72	0.78	2.15	17.42	34.77	17.35	V
695.50	-23.92	1.89	44.67	0.77	2.15	17.48	34.77	17.29	V

LTE Band 71_10MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
668.00	-23.98	1.87	44.75	0.78	2.15	17.53	34.77	17.24	V
680.50	-23.93	1.88	44.72	0.78	2.15	17.53	34.77	17.24	V
693.00	-23.65	1.89	44.67	0.77	2.15	17.75	34.77	17.02	V

LTE Band 71_15MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
670.50	-23.90	1.88	44.75	0.78	2.15	17.60	34.77	17.17	V
680.50	-24.07	1.88	44.72	0.78	2.15	17.39	34.77	17.38	V
690.50	-23.58	1.89	44.73	0.77	2.15	17.88	34.77	16.89	V

LTE Band 71_20MHz_QPSK

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
673.00	-24.15	1.88	44.71	0.78	2.15	17.31	34.77	17.46	V
680.50	-23.92	1.88	44.72	0.78	2.15	17.54	34.77	17.23	V
688.00	-23.59	1.89	44.72	0.77	2.15	17.87	34.77	16.90	V



LTE Band 71_5MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
665.50	-25.13	1.87	44.73	0.78	2.15	16.36	34.77	18.41	V
680.50	-24.80	1.88	44.72	0.78	2.15	16.66	34.77	18.11	V
695.50	-24.82	1.89	44.67	0.77	2.15	16.58	34.77	18.19	V

LTE Band 71_10MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
668.00	-24.90	1.87	44.75	0.78	2.15	16.61	34.77	18.16	V
680.50	-24.85	1.88	44.72	0.78	2.15	16.61	34.77	18.16	V
693.00	-24.57	1.89	44.67	0.77	2.15	16.83	34.77	17.94	V

LTE Band 71_15MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
670.50	-25.08	1.88	44.75	0.78	2.15	16.42	34.77	18.35	V
680.50	-24.89	1.88	44.72	0.78	2.15	16.57	34.77	18.20	V
690.50	-24.49	1.89	44.73	0.77	2.15	16.97	34.77	17.80	V

LTE Band 71_20MHz_16QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{ci} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
673.00	-25.18	1.88	44.71	0.78	2.15	16.28	34.77	18.49	V
680.50	-24.65	1.88	44.72	0.78	2.15	16.82	34.77	17.95	V
688.00	-24.76	1.89	44.72	0.77	2.15	16.70	34.77	18.07	V



LTE Band 71_5MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
665.50	-25.99	1.87	44.73	0.78	2.15	15.50	34.77	19.27	V
680.50	-25.68	1.88	44.72	0.78	2.15	15.78	34.77	18.99	V
695.50	-25.75	1.89	44.67	0.77	2.15	15.65	34.77	19.12	V

LTE Band 71_10MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
668.00	-25.86	1.87	44.75	0.78	2.15	15.65	34.77	19.12	V
680.50	-25.79	1.88	44.72	0.78	2.15	15.67	34.77	19.10	V
693.00	-25.41	1.89	44.67	0.77	2.15	15.99	34.77	18.78	V

LTE Band 71_15MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
670.50	-25.98	1.88	44.75	0.78	2.15	15.52	34.77	19.25	V
680.50	-25.71	1.88	44.72	0.78	2.15	15.75	34.77	19.02	V
690.50	-25.42	1.89	44.73	0.77	2.15	16.04	34.77	18.73	V

LTE Band 71_20MHz_64QAM

Frequency(MHz)	P _{Mea} (dBm)	P _{cl} (dB)	P _{Ag} (dB)	Ga Antenna Gain(dBi)	Correction (dB)	ERP(dBm)	Limit(dBm)	Margin(dB)	Polarization
673.00	-26.04	1.88	44.71	0.78	2.15	15.42	34.77	19.35	V
680.50	-25.73	1.88	44.72	0.78	2.15	15.73	34.77	19.04	V
688.00	-25.64	1.89	44.72	0.77	2.15	15.82	34.77	18.95	V

Peak EIRP(dBm) = P_{Mea}(-19.85dBm) - G_a (-4.76dBi) - P_{Ag} (-43.77dB) - P_{cl} (2.87dB) = 25.81dBm

ANALYZER SETTINGS:

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

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

Note: Expanded measurement uncertainty is $U = 2.84$ dB, $k = 2$.

A.2 EMISSION LIMIT

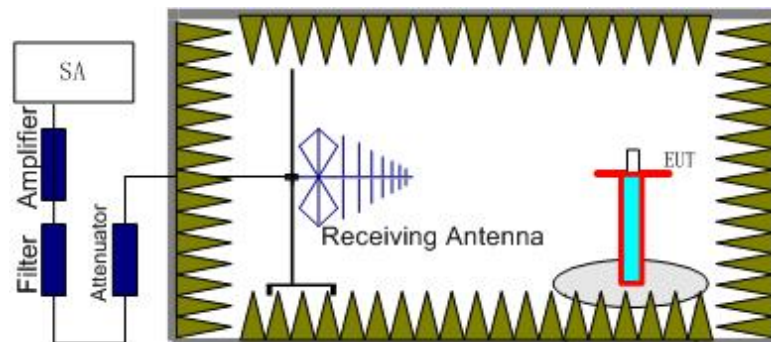
A.2.1 Measurement Method

The measurements procedures in TIA-603E-2016 are used. This measurement is carried out in fully-anechoic chamber FAC-3.

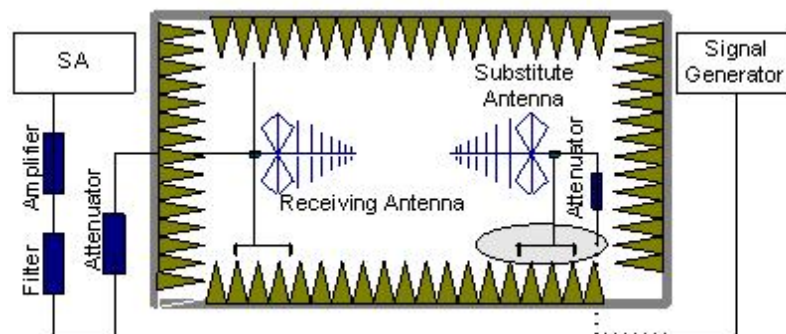
The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment, which is the transmitted carrier. The resolution bandwidth is set 1MHz. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of the LTE Bands 2 4 5 12 13 25 26 41 71.

The procedure of radiated spurious emissions is as follows:

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector.



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



In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere

with the radiation pattern of the antenna. A power (P_{Mea}) is applied to the input of the substitution antenna. Adjust the level of the signal generator output until the value of the receiver reaches the previously recorded (P_r). The power of signal source (P_{Mea}) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

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

An amplifier should be connected in for the test.

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

The measurement results are obtained as described below:

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

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

A.2.2 Measurement Limit

Part 22.917, Part 24.238(a), Part 27.53(g), 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.

The specification that emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

Part 27.53(a) states for mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands: By a factor of not less than: $43 + 10 \log(P)$ dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than $55 + 10 \log(P)$ dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than $61 + 10 \log(P)$ dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than $67 + 10 \log(P)$ dB on all frequencies between 2328 and 2337 MHz; By a factor of not less than $43 + 10 \log(P)$ dB on all frequencies between 2300 and 2305 MHz, $55 + 10 \log(P)$ dB on all frequencies between 2296 and 2300 MHz, $61 + 10 \log(P)$ dB on all frequencies between 2292 and 2296 MHz, $67 + 10 \log(P)$ dB on all frequencies between 2288 and 2292 MHz, and $70 + 10 \log(P)$ dB below 2288 MHz; By a factor of not less than $43 + 10 \log(P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log(P)$ dB above 2365 MHz.

A.2.3 Measurement Results

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of the LTE Bands 2 4 5 12 13 25 26 41 71. 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 LTE Bands 2 4 5 12 13 25 26 41 71 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 evaluated frequency range is from 30MHz to 26GHz.

LTE Band 2, 1.4MHz, QPSK, Channel 18607

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3685.02	-55.77	6.46	8.46	-53.77	-13.00	40.77	V
5553.02	-55.40	7.18	10.59	-51.99	-13.00	38.99	H
7423.01	-54.18	8.18	12.11	-50.25	-13.00	37.25	V
9209.01	-53.47	8.95	13.23	-49.19	-13.00	36.19	V
11104.01	-51.21	9.82	13.18	-47.85	-13.00	34.85	H
12935.01	-48.90	10.49	13.46	-45.93	-13.00	32.93	V

LTE Band 2, 1.4MHz, QPSK, Channel 18900

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3809.02	-56.87	6.11	8.63	-54.35	-13.00	41.35	H
5656.02	-56.25	7.27	10.57	-52.95	-13.00	39.95	H
7507.01	-54.12	8.36	12.21	-50.27	-13.00	37.27	H
9431.01	-54.15	9.19	13.36	-49.98	-13.00	36.98	V
11237.01	-50.93	9.62	13.15	-47.40	-13.00	34.40	V
13171.01	-46.78	10.62	13.74	-43.66	-13.00	30.66	V

LTE Band 2, 1.4MHz, QPSK, Channel 19193

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3817.02	-55.70	6.09	8.64	-53.15	-13.00	40.15	H
5734.02	-52.02	7.29	10.55	-48.76	-13.00	35.76	V
7611.01	-54.58	8.02	12.29	-50.31	-13.00	37.31	H
9580.01	-53.00	9.25	13.32	-48.93	-13.00	35.93	H
11483.01	-50.61	9.85	13.10	-47.36	-13.00	34.36	H
13377.01	-40.57	10.57	14.03	-37.11	-13.00	24.11	V



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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3678.02	-56.26	6.48	8.45	-54.29	-13.00	41.29	V
5553.02	-55.16	7.18	10.59	-51.75	-13.00	38.75	H
7451.01	-54.35	8.26	12.14	-50.47	-13.00	37.47	H
9230.01	-53.89	9.00	13.24	-49.65	-13.00	36.65	H
11087.01	-51.17	9.86	13.18	-47.85	-13.00	34.85	H
13003.01	-49.00	10.48	13.50	-45.98	-13.00	32.98	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3755.02	-56.80	6.28	8.56	-54.52	-13.00	41.52	V
5670.02	-56.43	7.28	10.57	-53.14	-13.00	40.14	V
7521.01	-54.14	8.31	12.22	-50.23	-13.00	37.23	V
9378.01	-54.71	9.06	13.33	-50.44	-13.00	37.44	V
11252.01	-50.80	9.71	13.15	-47.36	-13.00	34.36	V
13169.01	-46.48	10.63	13.74	-43.37	-13.00	30.37	V

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3777.02	-56.72	6.21	8.59	-54.34	-13.00	41.34	V
5734.02	-52.65	7.29	10.55	-49.39	-13.00	36.39	V
7636.01	-54.35	8.14	12.31	-50.18	-13.00	37.18	H
9553.01	-52.69	9.35	13.35	-48.69	-13.00	35.69	V
11467.01	-50.44	9.90	13.11	-47.23	-13.00	34.23	V
13377.01	-40.70	10.57	14.03	-37.24	-13.00	24.24	V



LTE Band 2, 1.4MHz, 64QAM, Channel 18607

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3681.02	-56.19	6.47	8.45	-54.21	-13.00	41.21	V
5552.02	-55.09	7.18	10.59	-51.68	-13.00	38.68	H
7439.01	-54.03	8.23	12.13	-50.13	-13.00	37.13	H
9208.01	-53.14	8.95	13.22	-48.87	-13.00	35.87	H
11147.01	-51.46	9.63	13.17	-47.92	-13.00	34.92	H
12958.01	-48.13	10.48	13.47	-45.14	-13.00	32.14	V

LTE Band 2, 1.4MHz, 64QAM, Channel 18900

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3774.02	-56.63	6.22	8.58	-54.27	-13.00	41.27	V
5686.02	-56.83	7.29	10.56	-53.56	-13.00	40.56	H
7533.01	-54.64	8.26	12.23	-50.67	-13.00	37.67	H
9408.01	-53.74	9.08	13.34	-49.48	-13.00	36.48	H
11259.01	-50.73	9.75	13.15	-47.33	-13.00	34.33	H
13144.01	-47.50	10.74	13.70	-44.54	-13.00	31.54	V

LTE Band 2, 1.4MHz, 64QAM, Channel 19193

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3770.02	-56.69	6.23	8.58	-54.34	-13.00	41.34	H
5729.02	-55.15	7.29	10.55	-51.89	-13.00	38.89	V
7597.01	-54.96	7.99	12.28	-50.67	-13.00	37.67	H
9583.01	-53.89	9.24	13.32	-49.81	-13.00	36.81	H
11410.01	-50.90	10.04	13.12	-47.82	-13.00	34.82	V
13372.01	-40.98	10.57	14.02	-37.53	-13.00	24.53	V

LTE Band 4, 1.4MHz QPSK, Channel 19957

Frequency(MHz)	P _{Mea} (dB m)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3390.02	-56.85	5.35	7.94	-54.26	-13.00	41.26	V
5133.02	-54.66	6.86	10.09	-51.43	-13.00	38.43	H
6803.01	-54.18	7.89	11.36	-50.71	-13.00	37.71	H
8514.01	-54.85	8.65	13.00	-50.50	-13.00	37.50	H
10227.01	-52.37	9.39	12.99	-48.77	-13.00	35.77	H
12002.01	-49.75	10.06	13.00	-46.81	-13.00	33.81	H

LTE Band 4, 1.4MHz, QPSK, Channel 20175

Frequency(MHz)	P _{Mea} (dB m)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3466.02	-57.12	5.46	8.12	-54.46	-13.00	41.46	H
5204.02	-54.44	6.97	10.19	-51.22	-13.00	38.22	H
6938.01	-54.42	7.82	11.53	-50.71	-13.00	37.71	H
8628.01	-54.14	8.46	13.03	-49.57	-13.00	36.57	H
10346.01	-50.32	9.72	13.04	-47.00	-13.00	34.00	H
12085.01	-48.35	10.30	13.03	-45.62	-13.00	32.62	H

LTE Band 4, 1.4MHz, QPSK, Channel 20393

Frequency(MHz)	P _{Mea} (dB m)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3475.02	-57.50	5.47	8.14	-54.83	-13.00	41.83	V
5264.02	-55.79	6.99	10.27	-52.51	-13.00	39.51	H
6983.01	-55.04	8.17	11.58	-51.63	-13.00	38.63	H
8797.01	-54.51	8.65	13.06	-50.10	-13.00	37.10	H
10518.01	-51.91	9.59	13.10	-48.40	-13.00	35.40	V
12245.01	-48.68	10.03	13.10	-45.61	-13.00	32.61	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3449.02	-57.12	5.43	8.08	-54.47	-13.00	41.47	H
5232.02	-56.96	7.00	10.22	-53.74	-13.00	40.74	V
6889.01	-53.36	7.77	11.47	-49.66	-13.00	36.66	H
8692.01	-54.00	8.37	13.04	-49.33	-13.00	36.33	H
10392.01	-50.79	9.79	13.06	-47.52	-13.00	34.52	H
12139.01	-48.06	10.23	13.06	-45.23	-13.00	32.23	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3373.02	-56.98	5.34	7.90	-54.42	-13.00	41.42	H
5133.02	-54.43	6.86	10.09	-51.20	-13.00	38.20	H
6881.01	-53.79	7.78	11.46	-50.11	-13.00	37.11	H
8536.01	-54.73	8.61	13.01	-50.33	-13.00	37.33	H
10310.01	-51.91	9.66	13.02	-48.55	-13.00	35.55	V
11976.01	-49.87	10.16	13.00	-47.03	-13.00	34.03	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3513.02	-57.18	5.54	8.22	-54.50	-13.00	41.50	H
5264.02	-55.85	6.99	10.27	-52.57	-13.00	39.57	H
6969.01	-54.52	8.06	11.56	-51.02	-13.00	38.02	H
8822.01	-54.50	8.70	13.06	-50.14	-13.00	37.14	H
10489.01	-51.55	9.67	13.10	-48.12	-13.00	35.12	V
12253.01	-48.69	10.03	13.10	-45.62	-13.00	32.62	V



LTE Band 4, 1.4MHz, 64QAM, Channel 19957

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3398.02	-56.64	5.36	7.96	-54.04	-13.00	41.04	V
5133.02	-54.46	6.86	10.09	-51.23	-13.00	38.23	H
6821.01	-54.25	7.86	11.39	-50.72	-13.00	37.72	V
8541.01	-54.38	8.60	13.01	-49.97	-13.00	36.97	H
10311.01	-51.41	9.66	13.02	-48.05	-13.00	35.05	V
11940.01	-49.32	10.33	13.01	-46.64	-13.00	33.64	V

LTE Band 4, 1.4MHz, 64QAM, Channel 20175

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3470.02	-56.27	5.47	8.13	-53.61	-13.00	40.61	H
5157.02	-56.10	6.89	10.12	-52.87	-13.00	39.87	H
6938.01	-54.87	7.82	11.53	-51.16	-13.00	38.16	H
8706.01	-53.97	8.38	13.04	-49.31	-13.00	36.31	V
10346.01	-50.78	9.72	13.04	-47.46	-13.00	34.46	V
12124.01	-49.18	10.28	13.05	-46.41	-13.00	33.41	V

LTE Band 4, 1.4MHz, 64QAM, Channel 20393

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
3557.02	-57.10	5.90	8.28	-54.72	-13.00	41.72	V
5263.02	-55.22	6.99	10.27	-51.94	-13.00	38.94	V
7016.01	-54.20	8.28	11.62	-50.86	-13.00	37.86	H
8739.01	-54.44	8.48	13.05	-49.87	-13.00	36.87	H
10514.01	-50.99	9.60	13.10	-47.49	-13.00	34.49	V
12239.01	-49.29	10.03	13.10	-46.22	-13.00	33.22	V



LTE Band 5, 1.4MHz, QPSK, Channel 20407

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1664.01	-59.53	3.57	5.20	2.15	-60.05	-13.00	47.05	H
2482.00	-52.12	4.61	6.05	2.15	-52.83	-13.00	39.83	H
3312.02	-54.43	5.29	7.75	2.15	-54.12	-13.00	41.12	H
4121.02	-55.58	6.04	9.02	2.15	-54.75	-13.00	41.75	H
4939.01	-55.60	6.71	9.84	2.15	-54.62	-13.00	41.62	V
5780.01	-54.61	7.22	10.54	2.15	-53.44	-13.00	40.44	H

LTE Band 5, 1.4MHz, QPSK, Channel 20525

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1673.01	-58.92	3.58	5.19	2.15	-59.46	-13.00	46.46	H
2512.00	-52.54	4.64	6.12	2.15	-53.21	-13.00	40.21	H
3355.02	-54.08	5.32	7.85	2.15	-53.70	-13.00	40.70	H
4185.02	-55.02	6.17	9.09	2.15	-54.25	-13.00	41.25	V
5025.01	-55.28	6.56	9.94	2.15	-54.05	-13.00	41.05	H
5849.01	-53.79	7.23	10.53	2.15	-52.64	-13.00	39.64	H

LTE Band 5, 1.4MHz, QPSK, Channel 20643

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1688.01	-60.16	3.59	5.16	2.15	-60.74	-13.00	47.74	H
2558.00	-51.86	4.67	6.20	2.15	-52.48	-13.00	39.48	H
3405.02	-55.22	5.37	7.97	2.15	-54.77	-13.00	41.77	V
4237.02	-55.39	6.25	9.14	2.15	-54.65	-13.00	41.65	H
5075.01	-55.39	6.70	10.01	2.15	-54.23	-13.00	41.23	V
5931.01	-52.57	7.47	10.51	2.15	-51.68	-13.00	38.68	H



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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1658.01	-60.29	3.57	5.22	2.15	-60.79	-13.00	47.79	H
2462.00	-53.37	4.58	5.99	2.15	-54.11	-13.00	41.11	H
3313.02	-55.36	5.29	7.75	2.15	-55.05	-13.00	42.05	H
4113.02	-56.05	6.04	9.01	2.15	-55.23	-13.00	42.23	V
4953.01	-55.30	6.68	9.85	2.15	-54.28	-13.00	41.28	H
5769.01	-53.99	7.24	10.55	2.15	-52.83	-13.00	39.83	V

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1683.01	-49.48	3.59	5.17	2.15	-50.05	-13.00	37.05	V
2522.00	-52.80	4.65	6.14	2.15	-53.46	-13.00	40.46	V
3356.02	-54.30	5.32	7.85	2.15	-53.92	-13.00	40.92	H
4179.02	-54.91	6.16	9.08	2.15	-54.14	-13.00	41.14	V
5016.01	-55.46	6.58	9.92	2.15	-54.27	-13.00	41.27	V
5858.01	-53.47	7.26	10.53	2.15	-52.35	-13.00	39.35	V

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1704.01	-59.45	3.60	5.13	2.15	-60.07	-13.00	47.07	H
2532.00	-52.91	4.65	6.16	2.15	-53.55	-13.00	40.55	H
3403.02	-55.22	5.36	7.97	2.15	-54.76	-13.00	41.76	V
4248.02	-55.83	6.24	9.15	2.15	-55.07	-13.00	42.07	H
5102.01	-55.71	6.78	10.04	2.15	-54.60	-13.00	41.60	H
5925.01	-53.35	7.47	10.51	2.15	-52.46	-13.00	39.46	V



LTE Band 5, 1.4MHz, 64QAM, Channel 20407

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1662.01	-59.51	3.57	5.21	2.15	-60.02	-13.00	47.02	H
2463.00	-53.19	4.59	5.99	2.15	-53.94	-13.00	40.94	V
3302.02	-55.29	5.29	7.72	2.15	-55.01	-13.00	42.01	H
4111.02	-55.98	6.04	9.01	2.15	-55.16	-13.00	42.16	H
4938.01	-54.61	6.71	9.84	2.15	-53.63	-13.00	40.63	H
5773.01	-54.02	7.23	10.55	2.15	-52.85	-13.00	39.85	H

LTE Band 5, 1.4MHz, 64QAM, Channel 20525

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1662.01	-60.16	3.57	5.21	2.15	-60.67	-13.00	47.67	H
2513.00	-52.80	4.64	6.12	2.15	-53.47	-13.00	40.47	H
3339.02	-54.60	5.31	7.81	2.15	-54.25	-13.00	41.25	V
4180.02	-55.07	6.16	9.08	2.15	-54.30	-13.00	41.30	V
5032.01	-55.37	6.58	9.94	2.15	-54.16	-13.00	41.16	H
5866.01	-54.31	7.29	10.53	2.15	-53.22	-13.00	40.22	V

LTE Band 5, 1.4MHz, 64QAM, Channel 20643

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1701.01	-59.16	3.60	5.14	2.15	-59.77	-13.00	46.77	H
2548.00	-52.07	4.67	6.19	2.15	-52.70	-13.00	39.70	H
3388.02	-54.78	5.35	7.93	2.15	-54.35	-13.00	41.35	V
4241.02	-55.43	6.25	9.14	2.15	-54.69	-13.00	41.69	H
5084.01	-55.44	6.73	10.02	2.15	-54.30	-13.00	41.30	H
5946.01	-53.34	7.47	10.51	2.15	-52.45	-13.00	39.45	H



LTE Band 12, 1.4MHz, QPSK, Channel 23017

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1400.01	-44.26	3.24	4.98	2.15	-44.67	-13.00	31.67	H
2099.00	-54.64	4.19	4.90	2.15	-56.08	-13.00	43.08	H
2800.00	-52.76	4.91	6.64	2.15	-53.18	-13.00	40.18	V
3509.02	-56.18	5.54	8.21	2.15	-55.66	-13.00	42.66	H
4204.02	-54.31	6.22	9.10	2.15	-53.58	-13.00	40.58	H
4903.01	-55.14	6.73	9.80	2.15	-54.22	-13.00	41.22	V

LTE Band 12, 1.4MHz, QPSK, Channel 23095

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1415.01	-42.61	3.25	5.06	2.15	-42.95	-13.00	29.95	H
2123.00	-43.00	4.21	4.97	2.15	-44.39	-13.00	31.39	H
2815.00	-51.64	4.93	6.67	2.15	-52.05	-13.00	39.05	H
3547.02	-55.59	5.79	8.27	2.15	-55.26	-13.00	42.26	V
4249.02	-53.98	6.24	9.15	2.15	-53.22	-13.00	40.22	H
4962.01	-54.51	6.67	9.86	2.15	-53.47	-13.00	40.47	H

LTE Band 12, 1.4MHz, QPSK, Channel 23173

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1431.01	-43.26	3.28	5.14	2.15	-43.55	-13.00	30.55	H
2146.00	-50.64	4.24	5.04	2.15	-51.99	-13.00	38.99	H
2866.00	-51.44	4.96	6.76	2.15	-51.79	-13.00	38.79	V
3589.02	-55.32	6.23	8.32	2.15	-55.38	-13.00	42.38	H
4304.02	-54.77	6.19	9.20	2.15	-53.91	-13.00	40.91	H
5011.01	-55.85	6.58	9.92	2.15	-54.66	-13.00	41.66	V



LTE Band 12, 1.4MHz, 16QAM, Channel 23017

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1400.01	-44.25	3.24	4.98	2.15	-44.66	-13.00	31.66	H
2099.00	-55.67	4.19	4.90	2.15	-57.11	-13.00	44.11	H
2808.00	-51.71	4.92	6.65	2.15	-52.13	-13.00	39.13	H
3488.02	-56.03	5.50	8.17	2.15	-55.51	-13.00	42.51	H
4197.02	-55.09	6.20	9.10	2.15	-54.34	-13.00	41.34	H
4902.01	-54.42	6.73	9.80	2.15	-53.50	-13.00	40.50	V

LTE Band 12, 1.4MHz 16QAM, Channel 23095

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1415.01	-42.05	3.25	5.06	2.15	-42.39	-13.00	29.39	H
2123.00	-40.54	4.21	4.97	2.15	-41.93	-13.00	28.93	H
2821.00	-52.30	4.94	6.68	2.15	-52.71	-13.00	39.71	V
3543.02	-55.35	5.75	8.26	2.15	-54.99	-13.00	41.99	V
4251.02	-54.60	6.24	9.15	2.15	-53.84	-13.00	40.84	H
4966.01	-55.35	6.66	9.87	2.15	-54.29	-13.00	41.29	V

LTE Band 12, 1.4MHz, 16QAM, Channel 23173

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1431.01	-44.06	3.28	5.14	2.15	-44.35	-13.00	31.35	V
2146.00	-51.24	4.24	5.04	2.15	-52.59	-13.00	39.59	H
2857.00	-51.96	4.96	6.74	2.15	-52.33	-13.00	39.33	V
3575.02	-55.20	6.08	8.31	2.15	-55.12	-13.00	42.12	V
4297.02	-55.07	6.20	9.20	2.15	-54.22	-13.00	41.22	H
5012.01	-55.90	6.58	9.92	2.15	-54.71	-13.00	41.71	V



LTE Band 12, 1.4MHz, 64QAM, Channel 23017

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1399.01	-44.25	3.23	4.97	2.15	-44.66	-13.00	31.66	H
2109.00	-54.77	4.20	4.93	2.15	-56.19	-13.00	43.19	H
2811.00	-52.20	4.93	6.66	2.15	-52.62	-13.00	39.62	V
3493.02	-54.55	5.51	8.18	2.15	-54.03	-13.00	41.03	H
4199.02	-53.57	6.20	9.10	2.15	-52.82	-13.00	39.82	H
4910.01	-55.21	6.73	9.81	2.15	-54.28	-13.00	41.28	H

LTE Band 12, 1.4MHz 64QAM, Channel 23095

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1415.01	-42.54	3.25	5.06	2.15	-42.88	-13.00	29.88	H
2123.00	-42.59	4.21	4.97	2.15	-43.98	-13.00	30.98	H
2825.00	-52.34	4.95	6.69	2.15	-52.75	-13.00	39.75	H
3538.02	-55.53	5.70	8.25	2.15	-55.13	-13.00	42.13	H
4248.02	-54.13	6.24	9.15	2.15	-53.37	-13.00	40.37	H
4948.01	-55.52	6.69	9.85	2.15	-54.51	-13.00	41.51	H

LTE Band 12, 1.4MHz, 64QAM, Channel 23173

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1431.01	-42.73	3.28	5.14	2.15	-43.02	-13.00	30.02	H
2146.00	-47.40	4.24	5.04	2.15	-48.75	-13.00	35.75	H
2872.00	-51.72	4.97	6.77	2.15	-52.07	-13.00	39.07	V
3586.02	-55.33	6.19	8.32	2.15	-55.35	-13.00	42.35	H
4284.02	-54.61	6.21	9.18	2.15	-53.79	-13.00	40.79	H
5003.01	-55.96	6.60	9.90	2.15	-54.81	-13.00	41.81	V



LTE Band 13, 5MHz, QPSK, Channel 23205

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1559.01	-60.57	3.47	5.39	2.15	-60.80	-13.00	47.80	H
2346.00	-54.55	4.45	5.64	2.15	-55.51	-13.00	42.51	V
3125.02	-54.23	5.40	7.30	2.15	-54.48	-13.00	41.48	H
3891.02	-55.36	6.10	8.75	2.15	-54.86	-13.00	41.86	V
4677.02	-55.29	6.49	9.58	2.15	-54.35	-13.00	41.35	H
5442.01	-55.94	6.84	10.52	2.15	-54.41	-13.00	41.41	H

LTE Band 13, 5MHz, QPSK, Channel 23230

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1549.01	-61.00	3.46	5.41	2.15	-61.20	-13.00	48.20	H
2349.00	-54.26	4.46	5.65	2.15	-55.22	-13.00	42.22	V
3126.02	-55.00	5.40	7.30	2.15	-55.25	-13.00	42.25	H
3912.02	-55.83	6.12	8.78	2.15	-55.32	-13.00	42.32	V
4704.02	-50.98	6.51	9.60	2.15	-50.04	-13.00	37.04	V
5471.01	-55.50	6.95	10.56	2.15	-54.04	-13.00	41.04	V

LTE Band 13, 5MHz, QPSK, Channel 23255

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1570.01	-60.48	3.48	5.37	2.15	-60.74	-13.00	47.74	H
2344.00	-54.38	4.45	5.63	2.15	-55.35	-13.00	42.35	V
3124.02	-54.82	5.40	7.30	2.15	-55.07	-13.00	42.07	H
3917.02	-55.26	6.12	8.78	2.15	-54.75	-13.00	41.75	H
4707.02	-54.34	6.51	9.61	2.15	-53.39	-13.00	40.39	H
5495.01	-55.05	7.04	10.59	2.15	-53.65	-13.00	40.65	H



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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1559.01	-61.27	3.47	5.39	2.15	-61.50	-13.00	48.50	H
2331.00	-54.48	4.43	5.59	2.15	-55.47	-13.00	42.47	V
3104.02	-54.33	5.33	7.25	2.15	-54.56	-13.00	41.56	H
3897.02	-55.67	6.11	8.76	2.15	-55.17	-13.00	42.17	H
4662.02	-55.00	6.47	9.56	2.15	-54.06	-13.00	41.06	H
5451.01	-55.45	6.87	10.53	2.15	-53.94	-13.00	40.94	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1567.01	-60.90	3.48	5.38	2.15	-61.15	-13.00	48.15	V
2345.00	-54.72	4.45	5.64	2.15	-55.68	-13.00	42.68	H
3127.02	-54.18	5.40	7.30	2.15	-54.43	-13.00	41.43	V
3902.02	-55.00	6.11	8.76	2.15	-54.50	-13.00	41.50	H
4679.02	-54.55	6.49	9.58	2.15	-53.61	-13.00	40.61	V
5484.01	-55.12	7.00	10.58	2.15	-53.69	-13.00	40.69	H

LTE Band13, 5MHz, 16QAM, Channel 23255

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1576.01	-61.11	3.49	5.36	2.15	-61.39	-13.00	48.39	V
2358.00	-54.64	4.47	5.67	2.15	-55.59	-13.00	42.59	V
3150.02	-54.97	5.37	7.36	2.15	-55.13	-13.00	42.13	H
3923.02	-56.10	6.12	8.79	2.15	-55.58	-13.00	42.58	H
4701.02	-55.29	6.51	9.60	2.15	-54.35	-13.00	41.35	V
5487.01	-54.85	7.01	10.58	2.15	-53.43	-13.00	40.43	H



LTE Band 13, 5MHz, 64QAM, Channel 23205

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1558.01	-60.44	3.47	5.40	2.15	-60.66	-13.00	47.66	V
2343.00	-54.34	4.45	5.63	2.15	-55.31	-13.00	42.31	V
3121.02	-53.68	5.39	7.29	2.15	-53.93	-13.00	40.93	H
3883.02	-55.19	6.10	8.74	2.15	-54.70	-13.00	41.70	V
4662.02	-54.53	6.47	9.56	2.15	-53.59	-13.00	40.59	H
5452.01	-54.51	6.88	10.53	2.15	-53.01	-13.00	40.01	V

LTE Band 13, 5 MHz, 64QAM, Channel 23230

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1551.01	-60.89	3.46	5.41	2.15	-61.09	-13.00	48.09	V
2343.00	-54.15	4.45	5.63	2.15	-55.12	-13.00	42.12	V
3121.02	-54.26	5.39	7.29	2.15	-54.51	-13.00	41.51	V
3908.02	-55.20	6.11	8.77	2.15	-54.69	-13.00	41.69	V
4692.02	-54.86	6.50	9.59	2.15	-53.92	-13.00	40.92	V
5464.01	-54.43	6.92	10.55	2.15	-52.95	-13.00	39.95	H

LTE Band13, 5MHz, 64QAM, Channel 23255

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1561.01	-60.12	3.47	5.39	2.15	-60.35	-13.00	47.35	V
2368.00	-54.06	4.48	5.70	2.15	-54.99	-13.00	41.99	H
3132.02	-54.53	5.39	7.32	2.15	-54.75	-13.00	41.75	H
3924.02	-55.53	6.12	8.79	2.15	-55.01	-13.00	42.01	V
4709.02	-55.08	6.51	9.61	2.15	-54.13	-13.00	41.13	V
5499.01	-54.96	7.06	10.60	2.15	-53.57	-13.00	40.57	V

LTE Band 25, 1.4MHz, QPSK, Channel 26047

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
7967.01	-54.57	8.36	12.57	-50.36	-13.00	37.36	H
9075.01	-52.83	9.00	13.15	-48.68	-13.00	35.68	V
11607.01	-50.50	9.79	13.08	-47.21	-13.00	34.21	H
13504.01	-47.08	10.65	14.20	-43.53	-13.00	30.53	H
14738.00	-45.23	11.18	14.21	-42.20	-13.00	29.20	V
16678.00	-40.84	11.79	13.67	-38.96	-13.00	25.96	H

LTE Band 25, 1.4MHz, QPSK, Channel 26365

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
7525.01	-54.76	8.29	12.22	-50.83	-13.00	37.83	H
9433.01	-54.77	9.20	13.36	-50.61	-13.00	37.61	V
11256.01	-51.41	9.73	13.15	-47.99	-13.00	34.99	V
13179.01	-47.00	10.59	13.75	-43.84	-13.00	30.84	V
15038.00	-44.76	11.27	13.98	-42.05	-13.00	29.05	H
16964.00	-40.80	12.24	13.79	-39.25	-13.00	26.25	H

LTE Band 25, 1.4MHz, QPSK, Channel 26683

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5749.02	-51.55	7.27	10.55	-48.27	-13.00	35.27	V
9604.01	-54.45	9.16	13.30	-50.31	-13.00	37.31	H
11522.01	-50.55	9.81	13.10	-47.26	-13.00	34.26	H
13411.01	-39.12	10.58	14.08	-35.62	-13.00	22.62	V
15353.00	-45.30	11.34	13.79	-42.85	-13.00	29.85	V
17266.00	-42.14	12.36	14.39	-40.11	-13.00	27.11	H

LTE Band 25, 1.4MHz, 16QAM, Channel 26047

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
7628.01	-54.81	8.10	12.30	-50.61	-13.00	37.61	H
9781.01	-53.74	8.99	13.12	-49.61	-13.00	36.61	H
11735.01	-50.38	9.79	13.05	-47.12	-13.00	34.12	V
13624.01	-47.76	10.79	14.27	-44.28	-13.00	31.28	V
14850.00	-45.42	11.16	14.12	-42.46	-13.00	29.46	V
16684.00	-41.46	11.77	13.67	-39.56	-13.00	26.56	H

LTE Band 25, 1.4MHz, 16QAM, Channel 26365

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
7579.01	-54.72	8.06	12.26	-50.52	-13.00	37.52	H
9384.01	-54.65	9.05	13.33	-50.37	-13.00	37.37	H
11283.01	-51.32	9.89	13.14	-48.07	-13.00	35.07	H
13186.01	-46.56	10.56	13.76	-43.36	-13.00	30.36	V
15059.00	-45.22	11.30	13.96	-42.56	-13.00	29.56	V
16968.00	-41.06	12.25	13.79	-39.52	-13.00	26.52	H

LTE Band 25, 1.4MHz, 16QAM, Channel 26683

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5748.02	-52.18	7.27	10.55	-48.90	-13.00	35.90	V
9550.01	-53.89	9.36	13.35	-49.90	-13.00	36.90	V
11517.01	-50.80	9.81	13.10	-47.51	-13.00	34.51	H
13410.01	-40.08	10.57	14.07	-36.58	-13.00	23.58	V
15337.00	-45.20	11.32	13.80	-42.72	-13.00	29.72	H
17269.00	-41.95	12.37	14.39	-39.93	-13.00	26.93	H

LTE Band 25, 1.4MHz, 64QAM, Channel 26047

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
7899.01	-53.20	8.43	12.52	-49.11	-13.00	36.11	V
8967.01	-52.91	9.08	13.09	-48.90	-13.00	35.90	H
11723.01	-49.43	9.73	13.06	-46.10	-13.00	33.10	V
13316.01	-47.77	10.58	13.94	-44.41	-13.00	31.41	H
14832.00	-45.00	11.14	14.13	-42.01	-13.00	29.01	V
16978.00	-40.85	12.29	13.79	-39.35	-13.00	26.35	H

LTE Band 25, 1.4MHz, 64QAM, Channel 26365

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
7539.01	-54.52	8.23	12.23	-50.52	-13.00	37.52	H
9384.01	-54.20	9.05	13.33	-49.92	-13.00	36.92	V
11268.01	-50.73	9.80	13.15	-47.38	-13.00	34.38	V
13186.01	-46.80	10.56	13.76	-43.60	-13.00	30.60	H
15040.00	-44.42	11.27	13.98	-41.71	-13.00	28.71	H
16967.00	-41.13	12.25	13.79	-39.59	-13.00	26.59	H

LTE Band 25, 1.4MHz, 64QAM, Channel 26683

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5741.02	-53.12	7.28	10.55	-49.85	-13.00	36.85	H
9558.01	-53.74	9.33	13.34	-49.73	-13.00	36.73	H
11535.01	-49.78	9.81	13.09	-46.50	-13.00	33.50	H
13409.01	-39.99	10.57	14.07	-36.49	-13.00	23.49	V
15357.00	-45.09	11.34	13.79	-42.64	-13.00	29.64	H
17265.00	-39.68	12.36	14.38	-37.66	-13.00	24.66	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5711.01	-54.23	7.29	10.56	2.15	-53.11	-13.00	40.11	H
6530.01	-53.37	7.52	11.04	2.15	-52.00	-13.00	39.00	H
7317.01	-52.70	8.10	11.98	2.15	-50.97	-13.00	37.97	H
8162.01	-51.73	8.44	12.73	2.15	-49.59	-13.00	36.59	H
8965.00	-51.49	9.08	13.09	2.15	-49.63	-13.00	36.63	V
9771.00	-51.36	8.97	13.13	2.15	-49.35	-13.00	36.35	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1650.01	-59.86	3.57	5.23	2.15	-60.35	-13.00	47.35	H
2472.00	-52.82	4.59	6.02	2.15	-53.54	-13.00	40.54	V
3291.02	-53.83	5.29	7.70	2.15	-53.57	-13.00	40.57	H
4105.02	-55.40	6.04	9.01	2.15	-54.58	-13.00	41.58	V
4928.01	-55.23	6.73	9.83	2.15	-54.28	-13.00	41.28	H
5722.01	-54.47	7.30	10.56	2.15	-53.36	-13.00	40.36	V

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5860.01	-52.74	7.27	10.53	2.15	-51.63	-13.00	38.63	V
6731.01	-51.87	7.99	11.28	2.15	-50.73	-13.00	37.73	V
7345.01	-51.59	8.11	12.01	2.15	-49.84	-13.00	36.84	H
8157.01	-51.69	8.43	12.73	2.15	-49.54	-13.00	36.54	H
8916.00	-51.13	8.90	13.08	2.15	-49.10	-13.00	36.10	H
9904.00	-51.11	9.09	13.00	2.15	-49.35	-13.00	36.35	H



LTE Band 26(814MHz~824MHz), 1.4MHz, 16QAM, Channel 26697

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5694.01	-54.05	7.29	10.56	2.15	-52.93	-13.00	39.93	H
6513.01	-53.25	7.51	11.02	2.15	-51.89	-13.00	38.89	H
7338.01	-52.75	8.11	12.01	2.15	-51.00	-13.00	38.00	H
8137.01	-52.50	8.39	12.71	2.15	-50.33	-13.00	37.33	H
8956.00	-51.42	9.04	13.09	2.15	-49.52	-13.00	36.52	H
9768.00	-51.96	8.96	13.13	2.15	-49.94	-13.00	36.94	V

LTE Band 26(814MHz~824MHz), 1.4MHz, 16QAM, Channel 26740

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1653.01	-59.68	3.57	5.22	2.15	-60.18	-13.00	47.18	H
2453.00	-53.25	4.58	5.96	2.15	-54.02	-13.00	41.02	V
3258.02	-55.62	5.28	7.62	2.15	-55.43	-13.00	42.43	V
4077.02	-55.31	6.04	8.98	2.15	-54.52	-13.00	41.52	H
4896.01	-55.09	6.73	9.80	2.15	-54.17	-13.00	41.17	H
5750.01	-53.80	7.26	10.55	2.15	-52.66	-13.00	39.66	V

LTE Band 26(814MHz~824MHz), 1.4MHz, 16QAM, Channel 26783

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5963.01	-52.29	7.47	10.51	2.15	-51.40	-13.00	38.40	H
6744.01	-52.19	7.97	11.29	2.15	-51.02	-13.00	38.02	H
7581.01	-52.53	8.05	12.26	2.15	-50.47	-13.00	37.47	H
8352.00	-50.73	8.65	12.88	2.15	-48.65	-13.00	35.65	H
8936.00	-50.56	8.97	13.09	2.15	-48.59	-13.00	35.59	H
9955.00	-50.55	9.14	12.94	2.15	-48.90	-13.00	35.90	H



LTE Band 26(814MHz~824MHz), 1.4MHz, 64QAM, Channel 26697

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5713.01	-54.06	7.30	10.56	2.15	-52.95	-13.00	39.95	H
6527.01	-53.63	7.51	11.03	2.15	-52.26	-13.00	39.26	H
7344.01	-52.71	8.11	12.01	2.15	-50.96	-13.00	37.96	V
8160.01	-52.31	8.43	12.73	2.15	-50.16	-13.00	37.16	H
8961.00	-51.17	9.06	13.09	2.15	-49.29	-13.00	36.29	H
9781.00	-51.09	8.99	13.12	2.15	-49.11	-13.00	36.11	V

LTE Band 26(814MHz~824MHz), 1.4MHz, 64QAM, Channel 26740

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1620.01	-58.92	3.54	5.28	2.15	-59.33	-13.00	46.33	V
2476.00	-52.84	4.60	6.03	2.15	-53.56	-13.00	40.56	H
3283.02	-54.42	5.28	7.68	2.15	-54.17	-13.00	41.17	V
4107.02	-55.11	6.04	9.01	2.15	-54.29	-13.00	41.29	H
4903.01	-55.10	6.73	9.80	2.15	-54.18	-13.00	41.18	H
5729.01	-53.91	7.29	10.55	2.15	-52.80	-13.00	39.80	H

LTE Band 26(814MHz~824MHz), 1.4MHz, 64QAM, Channel 26783

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5848.01	-50.84	7.23	10.53	2.15	-49.69	-13.00	36.69	V
6754.01	-52.53	7.95	11.30	2.15	-51.33	-13.00	38.33	H
7546.01	-51.91	8.20	12.24	2.15	-50.02	-13.00	37.02	H
8077.01	-52.33	8.32	12.66	2.15	-50.14	-13.00	37.14	H
9151.00	-51.57	8.93	13.19	2.15	-49.46	-13.00	36.46	H
9952.00	-50.90	9.14	12.95	2.15	-49.24	-13.00	36.24	V



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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1669.01	-58.46	3.58	5.20	2.15	-58.99	-13.00	45.99	H
2479.00	-52.65	4.60	6.04	2.15	-53.36	-13.00	40.36	H
3309.02	-54.47	5.29	7.74	2.15	-54.17	-13.00	41.17	H
4133.02	-55.49	6.05	9.03	2.15	-54.66	-13.00	41.66	V
4966.01	-55.10	6.66	9.87	2.15	-54.04	-13.00	41.04	V
5770.01	-54.01	7.23	10.55	2.15	-52.84	-13.00	39.84	V

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1657.01	-59.51	3.57	5.22	2.15	-60.01	-13.00	47.01	H
2528.00	-53.79	4.65	6.15	2.15	-54.44	-13.00	41.44	H
3355.02	-54.62	5.32	7.85	2.15	-54.24	-13.00	41.24	H
4180.02	-54.68	6.16	9.08	2.15	-53.91	-13.00	40.91	V
5005.01	-55.72	6.59	9.91	2.15	-54.55	-13.00	41.55	V
5846.01	-53.96	7.22	10.53	2.15	-52.80	-13.00	39.80	H

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

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1713.01	-60.05	3.61	5.12	2.15	-60.69	-13.00	47.69	V
2530.00	-52.19	4.65	6.15	2.15	-52.84	-13.00	39.84	H
3395.02	-54.47	5.36	7.95	2.15	-54.03	-13.00	41.03	V
4242.02	-55.35	6.25	9.14	2.15	-54.61	-13.00	41.61	V
5109.01	-55.02	6.80	10.05	2.15	-53.92	-13.00	40.92	H
5943.01	-53.06	7.47	10.51	2.15	-52.17	-13.00	39.17	V



LTE Band 26(824MHz~849MHz), 1.4MHz, 16QAM, Channel 26797

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1664.01	-60.06	3.57	5.20	2.15	-60.58	-13.00	47.58	H
2463.00	-51.57	4.59	5.99	2.15	-52.32	-13.00	39.32	V
3280.02	-54.65	5.28	7.67	2.15	-54.41	-13.00	41.41	V
4118.02	-55.30	6.04	9.02	2.15	-54.47	-13.00	41.47	H
4960.01	-54.43	6.67	9.86	2.15	-53.39	-13.00	40.39	H
5792.01	-54.15	7.20	10.54	2.15	-52.96	-13.00	39.96	V

LTE Band 26(824MHz~849MHz), 1.4MHz, 16QAM, Channel 26915

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1664.01	-59.08	3.57	5.20	2.15	-59.60	-13.00	46.60	H
2507.00	-52.55	4.63	6.11	2.15	-53.22	-13.00	40.22	H
3337.02	-54.22	5.31	7.81	2.15	-53.87	-13.00	40.87	H
4183.02	-54.75	6.17	9.08	2.15	-53.99	-13.00	40.99	V
5020.01	-54.46	6.57	9.93	2.15	-53.25	-13.00	40.25	H
5843.01	-53.96	7.21	10.53	2.15	-52.79	-13.00	39.79	H

LTE Band 26(824MHz~849MHz), 1.4MHz, 16QAM, Channel 27033

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1715.01	-59.27	3.61	5.11	2.15	-59.92	-13.00	46.92	H
2548.00	-52.42	4.67	6.19	2.15	-53.05	-13.00	40.05	V
3400.02	-54.55	5.36	7.96	2.15	-54.10	-13.00	41.10	V
4242.02	-55.16	6.25	9.14	2.15	-54.42	-13.00	41.42	H
5097.01	-55.24	6.76	10.04	2.15	-54.11	-13.00	41.11	V
5934.01	-52.75	7.47	10.51	2.15	-51.86	-13.00	38.86	H



LTE Band 26(824MHz~849MHz), 1.4MHz, 64QAM, Channel 26797

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1654.01	-59.59	3.57	5.22	2.15	-60.09	-13.00	47.09	H
2467.00	-53.39	4.59	6.00	2.15	-54.13	-13.00	41.13	V
3318.02	-55.25	5.29	7.76	2.15	-54.93	-13.00	41.93	H
4121.02	-55.97	6.04	9.02	2.15	-55.14	-13.00	42.14	H
4946.01	-55.13	6.70	9.85	2.15	-54.13	-13.00	41.13	H
5771.01	-54.32	7.23	10.55	2.15	-53.15	-13.00	40.15	H

LTE Band 26(824MHz~849MHz), 1.4MHz, 64QAM, Channel 26915

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1664.01	-59.32	3.57	5.20	2.15	-59.84	-13.00	46.84	H
2496.00	-53.40	4.62	6.09	2.15	-54.08	-13.00	41.08	H
3335.02	-54.52	5.30	7.80	2.15	-54.17	-13.00	41.17	H
4169.02	-54.84	6.14	9.07	2.15	-54.06	-13.00	41.06	V
5030.01	-55.47	6.57	9.94	2.15	-54.25	-13.00	41.25	V
5868.01	-53.23	7.29	10.53	2.15	-52.14	-13.00	39.14	H

LTE Band 26(824MHz~849MHz), 1.4MHz, 64QAM, Channel 27033

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1712.01	-59.68	3.61	5.12	2.15	-60.32	-13.00	47.32	H
2540.00	-52.43	4.66	6.17	2.15	-53.07	-13.00	40.07	H
3409.02	-55.02	5.37	7.98	2.15	-54.56	-13.00	41.56	H
4259.02	-55.39	6.23	9.16	2.15	-54.61	-13.00	41.61	V
5084.01	-55.42	6.73	10.02	2.15	-54.28	-13.00	41.28	V
5943.01	-52.35	7.47	10.51	2.15	-51.46	-13.00	38.46	H



**LTE Band 41, 5MHz, QPSK, Channel 39675
HPUE**

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
4999.02	-58.76	6.60	9.90	-55.46	-13.00	42.46	H
7500.01	-53.46	8.39	12.20	-49.65	-13.00	36.65	V
9994.01	-53.26	9.18	12.91	-49.53	-13.00	36.53	H
12489.01	-50.58	10.20	13.20	-47.58	-13.00	34.58	H
14989.00	-46.34	11.21	14.01	-43.54	-13.00	30.54	V
17494.00	-43.14	12.71	14.89	-40.96	-13.00	27.96	V

LTE Band 41, 5MHz, QPSK, Channel 40620

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5173.02	-49.83	6.92	10.14	-46.61	-13.00	33.61	V
7759.01	-50.89	8.34	12.41	-46.82	-13.00	33.82	H
9048.01	-52.93	9.07	13.13	-48.87	-13.00	35.87	H
10346.01	-51.27	9.72	13.04	-47.95	-13.00	34.95	H
11649.01	-51.45	9.71	13.07	-48.09	-13.00	35.09	V
12983.01	-49.51	10.47	13.49	-46.49	-13.00	33.49	V

LTE Band 41, 5MHz, QPSK, Channel 41565

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
4052.02	-57.58	6.04	8.95	-54.67	-13.00	41.67	V
5380.02	-57.07	6.87	10.43	-53.51	-13.00	40.51	H
6722.02	-55.05	7.99	11.27	-51.77	-13.00	38.77	V
8065.01	-54.26	8.32	12.65	-49.93	-13.00	36.93	H
9413.01	-55.01	9.10	13.35	-50.76	-13.00	37.76	H
10741.01	-51.66	9.41	13.15	-47.92	-13.00	34.92	V



LTE Band 41 5MHz, 16QAM, Channel 39675

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
5000.02	-58.70	6.60	9.90	-55.40	-13.00	42.40	H
7499.01	-51.83	8.39	12.20	-48.02	-13.00	35.02	V
9998.01	-54.03	9.18	12.90	-50.31	-13.00	37.31	H
12494.01	-50.82	10.19	13.20	-47.81	-13.00	34.81	V
14991.00	-47.11	11.21	14.01	-44.31	-13.00	31.31	H
17485.00	-43.09	12.69	14.87	-40.91	-13.00	27.91	H

LTE Band 41, 5MHz, 16QAM, Channel 40620

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
6465.02	-55.25	7.54	10.97	-51.82	-13.00	38.82	V
7800.01	-55.66	8.29	12.44	-51.51	-13.00	38.51	H
9097.01	-54.39	8.94	13.16	-50.17	-13.00	37.17	H
10391.01	-51.22	9.79	13.06	-47.95	-13.00	34.95	H
11676.01	-51.08	9.66	13.06	-47.68	-13.00	34.68	H
12962.01	-49.78	10.48	13.48	-46.78	-13.00	33.78	V

LTE Band 41, 5MHz, 16QAM, Channel 41565

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
4009.02	-57.66	6.06	8.91	-54.81	-13.00	41.81	H
5377.02	-57.23	6.88	10.43	-53.68	-13.00	40.68	V
6703.02	-54.85	7.97	11.24	-51.58	-13.00	38.58	V
8067.01	-53.75	8.32	12.65	-49.42	-13.00	36.42	H
9418.01	-55.25	9.13	13.35	-51.03	-13.00	38.03	V
10729.01	-51.95	9.38	13.15	-48.18	-13.00	35.18	H



LTE Band 41 5MHz, 64QAM, Channel 39675

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
4997.02	-56.85	6.61	9.90	-53.56	-13.00	40.56	V
7496.01	-52.21	8.38	12.20	-48.39	-13.00	35.39	V
9998.01	-52.99	9.18	12.90	-49.27	-13.00	36.27	V
12488.01	-50.00	10.2 1	13.20	-47.01	-13.00	34.01	H
14986.00	-46.21	11.2 1	14.01	-43.41	-13.00	30.41	V
17486.00	-42.68	12.6 9	14.87	-40.50	-13.00	27.50	V

LTE Band 41, 5MHz, 64QAM, Channel 40620

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
6511.02	-55.44	7.51	11.01	-51.94	-13.00	38.94	V
7780.01	-53.79	8.31	12.42	-49.68	-13.00	36.68	V
9098.01	-53.71	8.94	13.16	-49.49	-13.00	36.49	H
10392.01	-50.77	9.79	13.06	-47.50	-13.00	34.50	H
11647.01	-50.18	9.71	13.07	-46.82	-13.00	33.82	V
12935.01	-48.78	10.4 9	13.46	-45.81	-13.00	32.81	V

LTE Band 41, 5MHz, 64QAM, Channel 41565

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Peak EIRP(dBm)	Limit (dBm)	Margin(dB)	Polarization
4026.02	-57.00	6.05	8.93	-54.12	-13.00	41.12	V
5378.02	-56.87	6.88	10.43	-53.32	-13.00	40.32	H
6742.02	-54.23	7.97	11.29	-50.91	-13.00	37.91	H
8064.01	-53.12	8.32	12.65	-48.79	-13.00	35.79	H
9382.01	-54.43	9.06	13.33	-50.16	-13.00	37.16	H
10739.01	-51.28	9.40	13.15	-47.53	-13.00	34.53	H



LTE Band 71, 5MHz, QPSK, Channel 133147

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1331.01	-49.15	3.15	4.62	2.15	-49.83	-13.00	36.83	V
1997.01	-53.73	4.04	4.61	2.15	-55.31	-13.00	42.31	H
2689.00	-52.87	4.78	6.44	2.15	-53.36	-13.00	40.36	H
3351.02	-53.92	5.32	7.84	2.15	-53.55	-13.00	40.55	H
4019.02	-55.71	6.05	8.92	2.15	-54.99	-13.00	41.99	V
4654.02	-55.20	6.47	9.55	2.15	-54.27	-13.00	41.27	V

LTE Band 71, 5MHz, QPSK, Channel 133297

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1361.01	-52.95	3.19	4.78	2.15	-53.51	-13.00	40.51	H
2042.00	-56.49	4.14	4.73	2.15	-58.05	-13.00	45.05	V
2716.00	-52.07	4.80	6.49	2.15	-52.53	-13.00	39.53	V
3395.02	-55.56	5.36	7.95	2.15	-55.12	-13.00	42.12	V
4081.02	-54.63	6.04	8.98	2.15	-53.84	-13.00	40.84	H
4752.01	-55.33	6.58	9.65	2.15	-54.41	-13.00	41.41	V

LTE Band 71, 5MHz, QPSK, Channel 133447

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1392.01	-52.78	3.23	4.94	2.15	-53.22	-13.00	40.22	H
2087.00	-50.21	4.18	4.86	2.15	-51.68	-13.00	38.68	H
2807.00	-52.45	4.92	6.65	2.15	-52.87	-13.00	39.87	V
3454.02	-55.01	5.44	8.09	2.15	-54.51	-13.00	41.51	H
4184.02	-55.21	6.17	9.08	2.15	-54.45	-13.00	41.45	H
4839.01	-54.91	6.71	9.74	2.15	-54.03	-13.00	41.03	H



LTE Band 71, 5MHz, 16QAM, Channel 133147

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1331.01	-49.28	3.15	4.62	2.15	-49.96	-13.00	36.96	V
1997.01	-55.19	4.04	4.61	2.15	-56.77	-13.00	43.77	H
2635.00	-52.42	4.73	6.34	2.15	-52.96	-13.00	39.96	V
3338.02	-54.63	5.31	7.81	2.15	-54.28	-13.00	41.28	H
4016.02	-55.61	6.05	8.92	2.15	-54.89	-13.00	41.89	V
4679.02	-55.12	6.49	9.58	2.15	-54.18	-13.00	41.18	H

LTE Band 71, 5MHz, 16QAM, Channel 133297

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1361.01	-52.63	3.19	4.78	2.15	-53.19	-13.00	40.19	V
2016.00	-56.20	4.10	4.65	2.15	-57.80	-13.00	44.80	V
2693.00	-51.21	4.78	6.45	2.15	-51.69	-13.00	38.69	H
3377.02	-53.92	5.34	7.90	2.15	-53.51	-13.00	40.51	V
4089.02	-55.81	6.04	8.99	2.15	-55.01	-13.00	42.01	H
4744.02	-54.66	6.56	9.64	2.15	-53.73	-13.00	40.73	H

LTE Band 71, 5MHz, 16QAM, Channel 133447

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1391.01	-53.13	3.22	4.93	2.15	-53.57	-13.00	40.57	H
2087.00	-52.27	4.18	4.86	2.15	-53.74	-13.00	40.74	H
2806.00	-51.26	4.92	6.65	2.15	-51.68	-13.00	38.68	H
3473.02	-55.14	5.47	8.14	2.15	-54.62	-13.00	41.62	H
4176.02	-55.07	6.15	9.08	2.15	-54.29	-13.00	41.29	H
4853.01	-54.59	6.72	9.75	2.15	-53.71	-13.00	40.71	V



LTE Band 71, 5MHz, 64QAM, Channel 133147

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1331.01	-47.37	3.15	4.62	2.15	-48.05	-13.00	35.05	V
1997.01	-54.07	4.04	4.61	2.15	-55.65	-13.00	42.65	H
2655.00	-51.69	4.75	6.38	2.15	-52.21	-13.00	39.21	H
3322.02	-54.66	5.30	7.77	2.15	-54.34	-13.00	41.34	H
4014.02	-54.77	6.06	8.91	2.15	-54.07	-13.00	41.07	H
4640.02	-54.47	6.46	9.54	2.15	-53.54	-13.00	40.54	H

LTE Band 71, 5MHz, 64QAM, Channel 133297

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1361.01	-52.45	3.19	4.78	2.15	-53.01	-13.00	40.01	H
2053.00	-56.13	4.15	4.76	2.15	-57.67	-13.00	44.67	V
2719.00	-52.01	4.80	6.49	2.15	-52.47	-13.00	39.47	V
3387.02	-55.40	5.35	7.93	2.15	-54.97	-13.00	41.97	V
4088.02	-54.81	6.04	8.99	2.15	-54.01	-13.00	41.01	H
4755.01	-55.32	6.58	9.66	2.15	-54.39	-13.00	41.39	V

LTE Band 71, 5MHz, 64QAM, Channel 133447

Frequency(MHz)	P _{Mea} (dBm)	Path Loss	Antenna Gain	Correction (dB)	Peak ERP(dBm)	Limit (dBm)	Margin(dB)	Polarization
1391.01	-52.36	3.22	4.93	2.15	-52.80	-13.00	39.80	H
2087.00	-50.97	4.18	4.86	2.15	-52.44	-13.00	39.44	H
2782.00	-51.11	4.89	6.61	2.15	-51.54	-13.00	38.54	H
3459.02	-55.77	5.45	8.10	2.15	-55.27	-13.00	42.27	H
4164.02	-55.49	6.12	9.06	2.15	-54.70	-13.00	41.70	V
4847.01	-55.33	6.72	9.75	2.15	-54.45	-13.00	41.45	V

Note: The maximum value of expanded measurement uncertainty for this test item is $U = 5.16$ dB, $k = 2$.

A.3 FREQUENCY STABILITY

A.3.1 Method of Measurement

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

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -10°C.
3. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on middle channel for LTE band 2 4 5 12 13 25 26 41 71, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10°C increments from -10°C to +55°C. 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 +55°C.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 °C increments from -10°C to +55°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

A.3.2 Measurement Limit

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. 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 between 3.55VDC and 4.35VDC, with a nominal voltage of 3.8VDC. 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. These voltages represent a tolerance from -5.4% to 10.8%. For the purposes of measuring frequency stability these voltage limits are to be used.

A.3.3 Measurement results

LTE Band 2, 1.4MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-15.21	-35.61	-9.3	0.0081	0.0189	0.0049
3.8	-15.15	-36.71	-10.8	0.0081	0.0195	0.0057
4.35	-18.22	-39.87	-11.2	0.0097	0.0212	0.0060

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-9.74	-36.12	-9.30	0.0052	0.0192	0.0049
40°	-17.87	-35.66	-9.80	0.0095	0.0190	0.0052
30°	-13.60	-39.30	-13.30	0.0072	0.0209	0.0071
20°	-14.89	-32.93	-5.00	0.0079	0.0175	0.0027
10°	8.64	-35.65	-13.30	0.0046	0.0190	0.0071
0°	-16.44	-34.95	-4.50	0.0087	0.0186	0.0024
- 10°	-16.54	-36.42	-7.20	0.0088	0.0194	0.0038

LTE Band 4, 1.4MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-12.70	-27.48	-5.00	0.0073	0.0159	0.0029
3.8	9.31	-33.17	-7.30	0.0054	0.0191	0.0042
4.35	-13.23	-31.49	-7.40	0.0076	0.0182	0.0043

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-9.36	-34.66	-10.30	0.0054	0.0200	0.0059
40°	-12.79	-29.38	-9.40	0.0074	0.0170	0.0054
30°	-9.26	-40.73	-7.30	0.0053	0.0235	0.0042
20°	-5.84	-34.40	-6.40	0.0034	0.0199	0.0037
10°	-14.39	30.28	-5.90	0.0083	0.0175	0.0034
0°	9.68	-34.95	-5.80	0.0056	0.0202	0.0033
- 10°	-15.58	-33.59	-6.70	0.0090	0.0194	0.0039

LTE Band 5, 1.4MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-8.96	-34.16	-8.40	0.0107	0.0408	0.0100
3.8	-12.39	-29.74	-5.60	0.0148	0.0356	0.0067
4.35	-10.21	-27.55	-7.20	0.0122	0.0329	0.0086

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-9.70	-30.64	-9.70	0.0116	0.0366	0.0116
40°	-6.91	-31.31	-9.40	0.0083	0.0374	0.0112
30°	-3.59	-29.43	-5.90	0.0043	0.0352	0.0071
20°	-9.90	-33.22	-6.10	0.0118	0.0397	0.0073
10°	-8.40	-29.53	-7.30	0.0100	0.0353	0.0087
0°	-10.30	-32.52	-8.20	0.0123	0.0389	0.0098
- 10°	-13.23	-35.68	-7.80	0.0158	0.0427	0.0093

LTE Band 12, 5MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-9.34	-13.43	-11.20	0.0132	0.0190	0.0158
3.8	-9.31	-13.78	-8.60	0.0132	0.0195	0.0122
4.35	-10.44	-20.00	-7.50	0.0148	0.0283	0.0106

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-9.33	-17.29	-10.40	0.0132	0.0244	0.0147
40°	-10.90	-20.66	-9.60	0.0154	0.0292	0.0136
30°	-10.64	-20.54	-12.60	0.0150	0.0290	0.0178
20°	-10.74	-18.27	-13.40	0.0152	0.0258	0.0189
10°	-11.76	-20.57	-8.40	0.0166	0.0291	0.0119
0°	-16.71	-21.59	-9.40	0.0236	0.0305	0.0133
- 10°	-9.53	-19.51	-10.10	0.0135	0.0276	0.0143

LTE Band 13, 5MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-9.93	-19.01	-7.10	0.0127	0.0243	0.0091
3.8	-11.59	-20.24	-7.40	0.0148	0.0259	0.0095
4.35	-12.17	-19.90	-8.10	0.0156	0.0254	0.0104

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-14.06	-18.07	-7.20	0.0180	0.0231	0.0092
40°	-10.14	-15.05	-7.50	0.0130	0.0192	0.0096
30°	-10.97	-17.80	-7.80	0.0140	0.0228	0.0100
20°	-12.46	-19.93	-9.60	0.0159	0.0255	0.0123
10°	-9.88	-18.97	-11.00	0.0126	0.0243	0.0141
0°	-6.34	-13.88	-8.80	0.0081	0.0177	0.0113
- 10°	-13.96	-15.74	-9.10	0.0179	0.0201	0.0116

LTE Band 25, 1.4MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-11.59	-33.23	-9.70	0.0062	0.0177	0.0052
3.8	-16.25	-29.84	-7.60	0.0086	0.0159	0.0040
4.35	-14.58	-33.17	-8.70	0.0077	0.0176	0.0046

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-11.20	-38.74	-7.90	0.0059	0.0206	0.0042
40°	-12.59	-38.01	-9.40	0.0067	0.0202	0.0050
30°	-14.20	-36.22	-12.70	0.0075	0.0192	0.0067
20°	-14.26	-37.61	-9.40	0.0076	0.0200	0.0050
10°	-15.56	-38.09	-10.00	0.0083	0.0202	0.0053
0°	-15.52	-37.98	-11.30	0.0082	0.0202	0.0060
- 10°	-14.06	-36.16	-13.70	0.0075	0.0192	0.0073

LTE Band 26(814MHz~824MHz), 5MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-12.43	-21.09	-6.50	0.0152	0.0258	0.0079
3.8	-9.17	-18.00	-8.70	0.0112	0.0220	0.0106
4.35	-10.56	-20.67	-7.90	0.0129	0.0252	0.0096

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-12.36	-15.54	-8.10	0.0151	0.0190	0.0099
40°	-9.86	-17.09	-8.80	0.0120	0.0209	0.0107
30°	-11.44	-23.53	-7.30	0.0140	0.0287	0.0089
20°	-7.68	-17.38	-9.20	0.0094	0.0212	0.0112
10°	-12.72	-17.58	-9.60	0.0155	0.0215	0.0117
0°	-11.56	-18.85	-8.20	0.0141	0.0230	0.0100
- 10°	-9.41	-15.68	-7.00	0.0115	0.0191	0.0085

LTE Band 26(824MHz~849MHz), 1.4MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-9.60	-31.09	-8.30	0.0115	0.0372	0.0099
3.8	-9.98	-27.49	-12.10	0.0119	0.0329	0.0145
4.35	-8.14	-27.54	-12.60	0.0097	0.0329	0.0151

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-9.17	-31.97	-10.40	0.0110	0.0382	0.0124
40°	-9.58	-29.30	-6.80	0.0115	0.0350	0.0081
30°	-9.18	-33.32	-10.30	0.0110	0.0398	0.0123
20°	-9.67	-26.32	-6.90	0.0116	0.0315	0.0082
10°	-10.29	-33.09	-7.80	0.0123	0.0396	0.0093
0°	-9.73	-29.04	-9.20	0.0116	0.0347	0.0110
- 10°	-4.66	-28.48	-10.30	0.0056	0.0340	0.0123

LTE Band 41, 5MHz bandwidth (worst case of all bandwidths)

HPUE

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-19.74	-18.28	-13.50	0.0076	0.0070	0.0198
3.8	-24.08	-15.76	-14.80	0.0093	0.0061	0.0217
4.35	-18.37	16.05	-7.50	0.0071	0.0062	0.0110

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-18.40	17.32	-12.50	0.0071	0.0067	0.0184
40°	-26.68	-20.71	-8.90	0.0103	0.0080	0.0131
30°	-14.62	20.89	-10.10	0.0056	0.0081	0.0148
20°	-18.30	-23.70	-10.40	0.0071	0.0091	0.0153
10°	-25.16	19.66	-7.50	0.0097	0.0076	0.0110
0°	-16.71	-19.11	-7.40	0.0064	0.0074	0.0109
- 10°	-16.44	-16.44	-8.30	0.0063	0.0063	0.0122

LTE Band 71, 10MHz bandwidth (worst case of all bandwidths)

Frequency Error vs Voltage

Voltage (V)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3.55	-17.88	-22.33	-13.50	0.0263	0.0328	0.0198
3.8	-13.89	-19.18	-14.80	0.0204	0.0282	0.0217
4.35	-21.40	-19.53	-7.50	0.0314	0.0287	0.0110

Frequency Error vs Temperature

Temperature (°C)	Frequency error (Hz)			Frequency error (ppm)		
	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
50°	-18.63	-18.24	-12.50	0.0274	0.0268	0.0184
40°	-18.93	-21.23	-8.90	0.0278	0.0312	0.0131
30°	-25.32	-18.21	-10.10	0.0372	0.0268	0.0148
20°	-17.08	-22.72	-10.40	0.0251	0.0334	0.0153
10°	-20.99	-16.58	-7.50	0.0308	0.0244	0.0110
0°	-18.64	-22.16	-7.40	0.0274	0.0326	0.0109
- 10°	-16.95	-18.31	-8.30	0.0249	0.0269	0.0122

A.4 OCCUPIED BANDWIDTH

A.4.1 Occupied Bandwidth Results

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

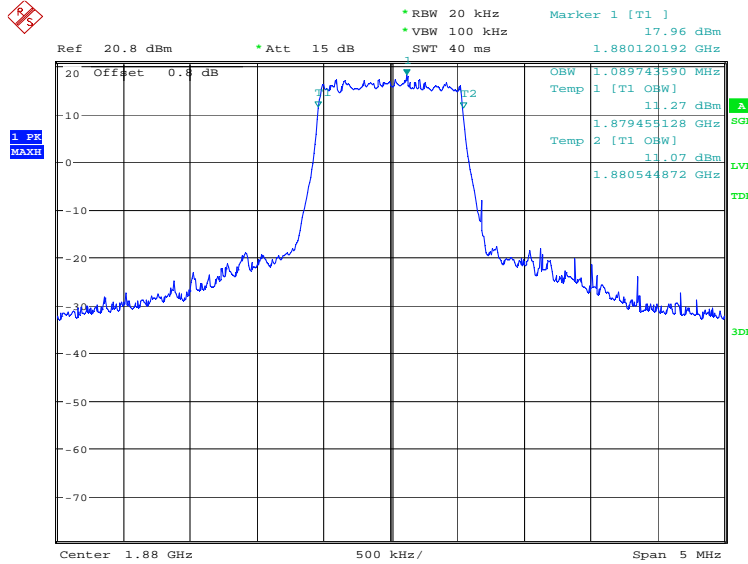
The measurement method is from KDB 971168 4.2:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (i.e., two to five times the OBW).
- b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
- c) Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least $10\log(\text{OBW} / \text{RBW})$ below the reference level.
- d) Set the detection mode to peak, and the trace mode to max hold.
- e) Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

LTE band 2, 1.4MHz (99%)

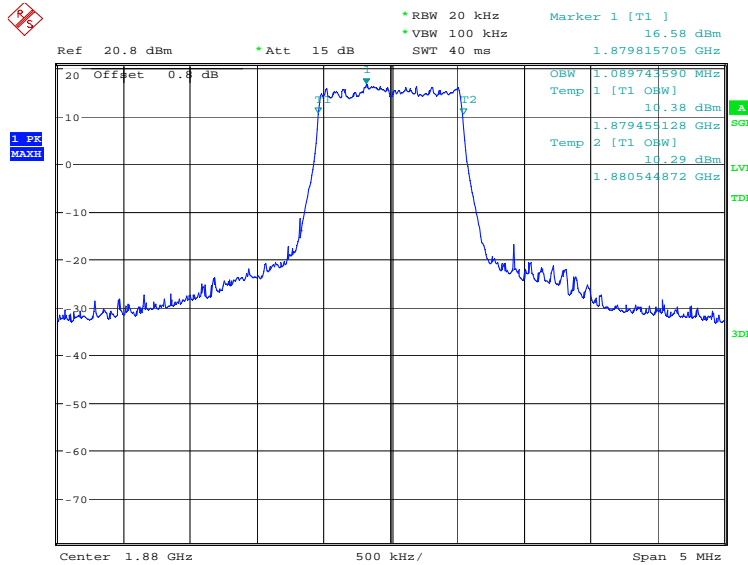
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1880.0	1089.74	1089.74	1089.74

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



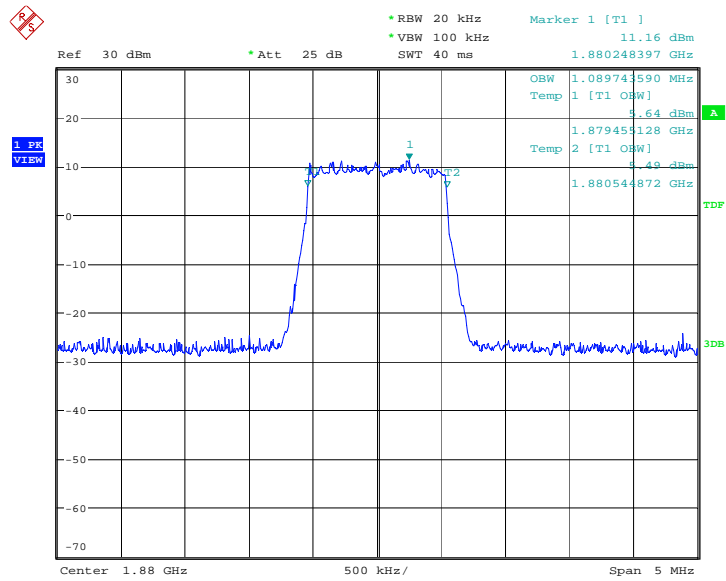
Date: 7.NOV.2018 20:27:38

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



Date: 7.NOV.2018 20:29:02

LTE band 2, 1.4MHz Bandwidth, 64QAM (99% BW)

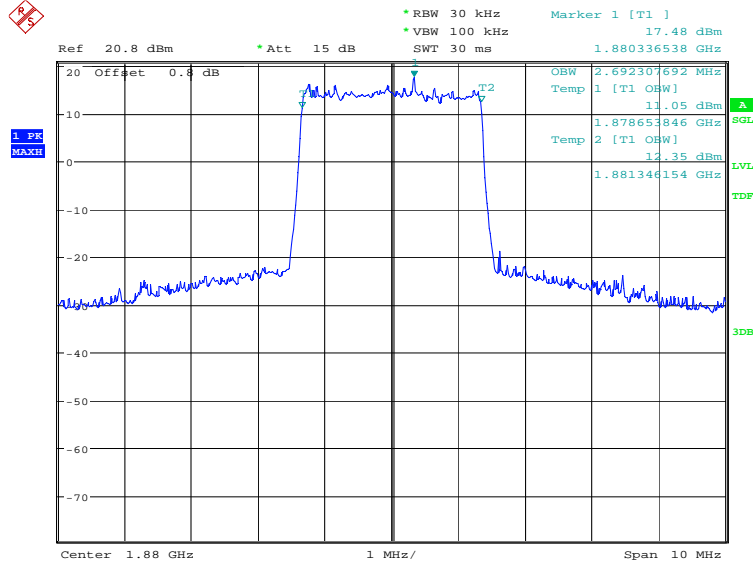


Date: 20.NOV.2018 15:49:07

LTE band 2, 3MHz (99%)

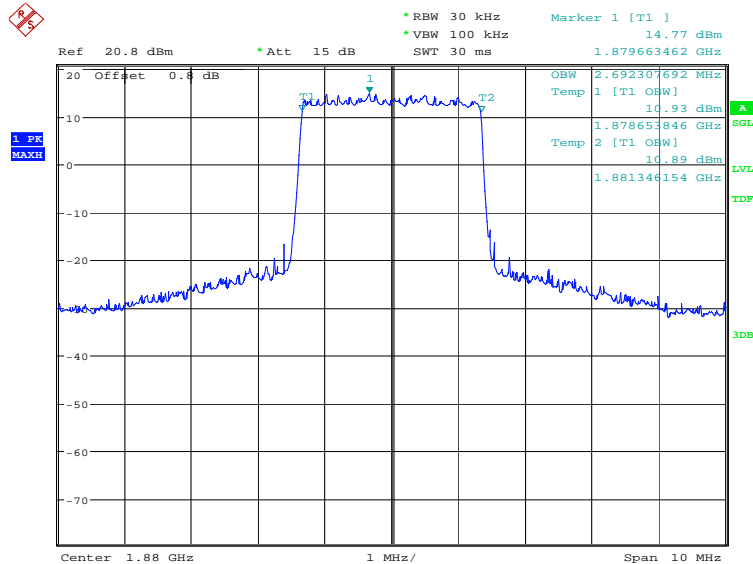
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1880.0	2692.31	2692.31	2692.31

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



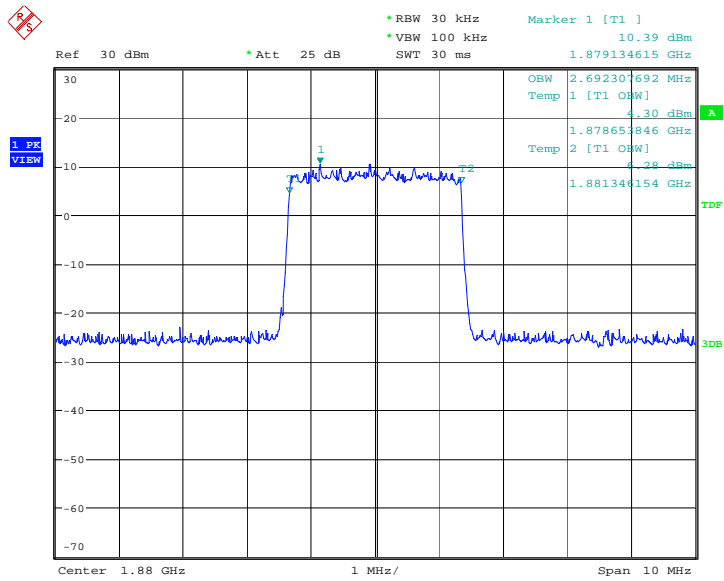
Date: 7.NOV.2018 20:31:20

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



Date: 7.NOV.2018 20:32:44

LTE band 2, 3MHz Bandwidth, 64QAM (99% BW)

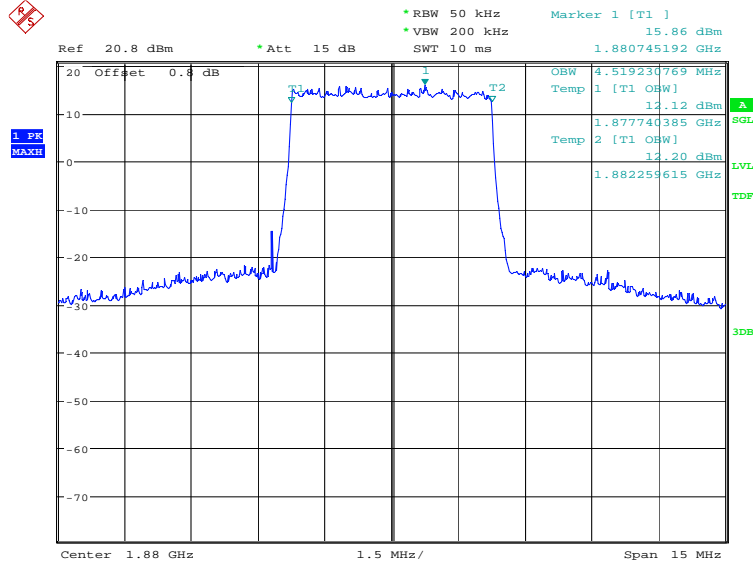


Date: 21.NOV.2018 09:55:39

LTE band 2, 5MHz (99%)

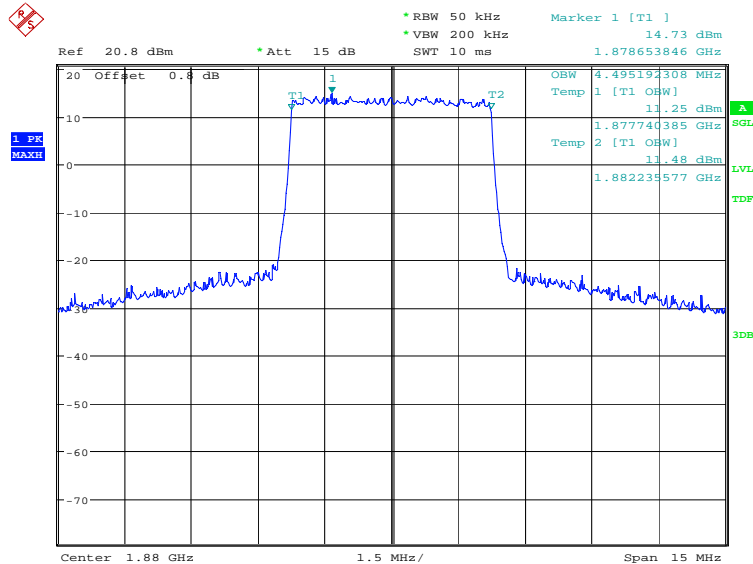
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1880.0	4519.23	4495.19	4471.15

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



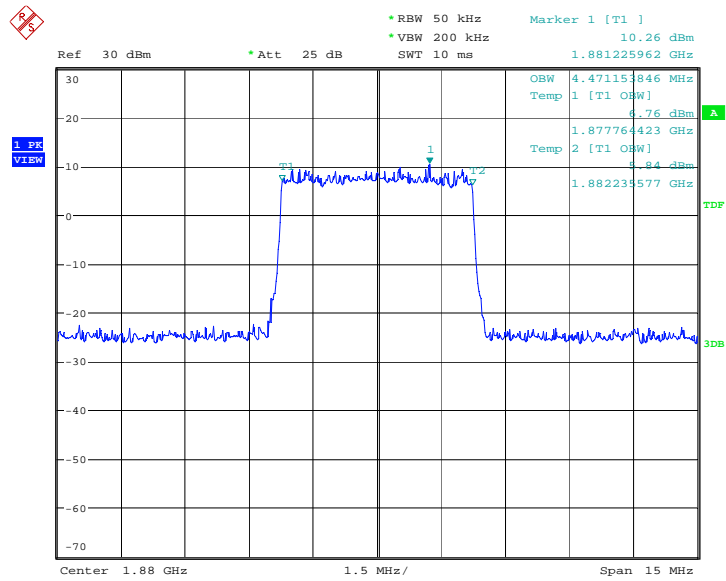
Date: 7.NOV.2018 20:35:01

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



Date: 7.NOV.2018 20:36:25

LTE band 2, 5MHz Bandwidth, 64QAM (99% BW)

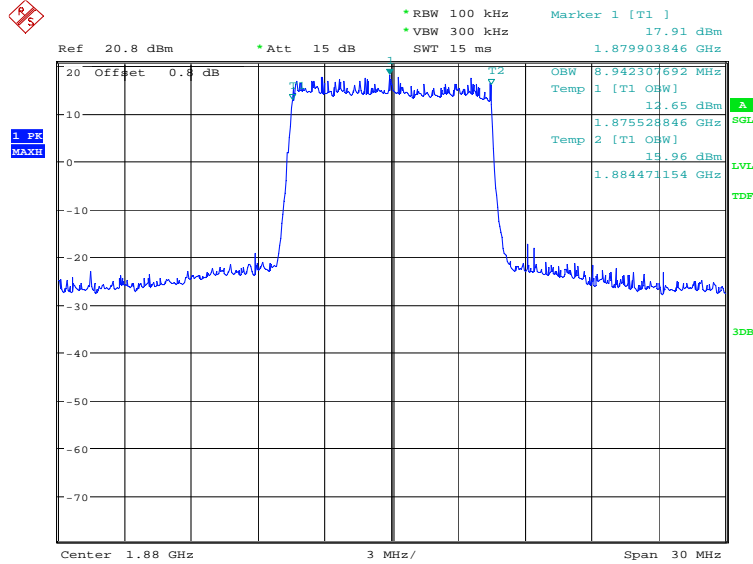


Date: 20.NOV.2018 15:51:58

LTE band 2, 10MHz (99%)

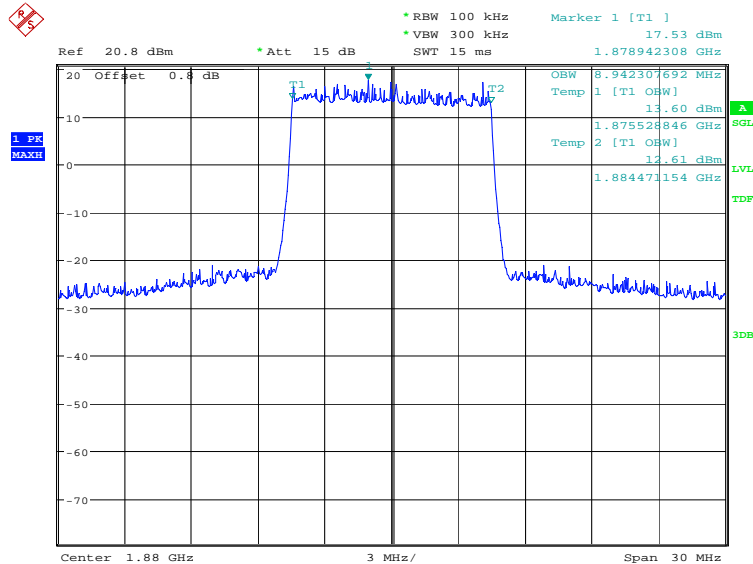
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
1880.0	QPSK	16QAM	64QAM
	8942.31	8942.31	9038.46

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



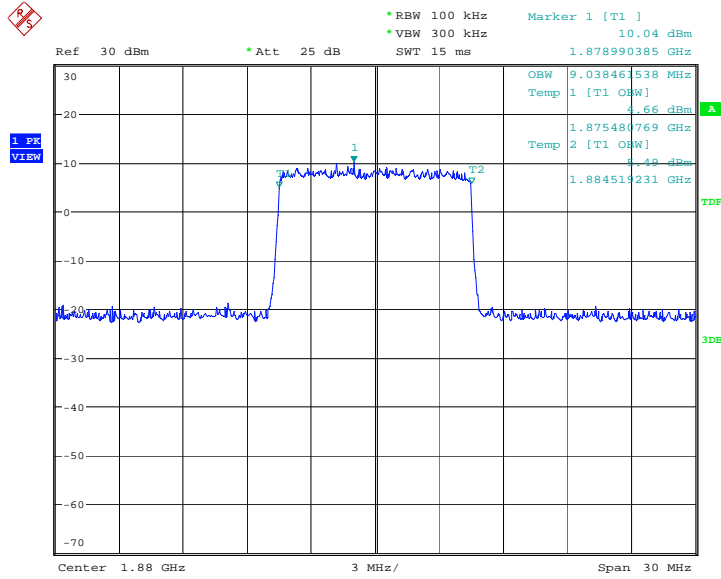
Date: 7.NOV.2018 20:38:45

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



Date: 7.NOV.2018 20:40:09

LTE band 2, 10MHz Bandwidth, 64QAM (99% BW)

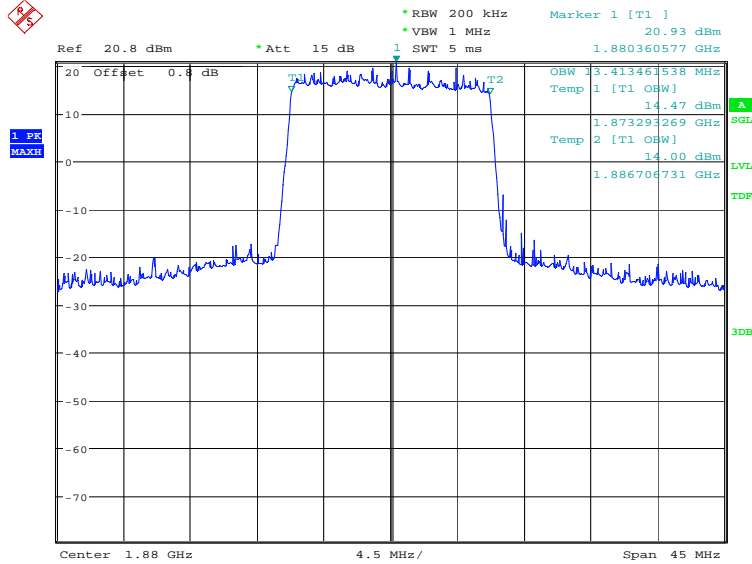


Date: 20.NOV.2018 15:53:30

LTE band 2, 15MHz (99%)

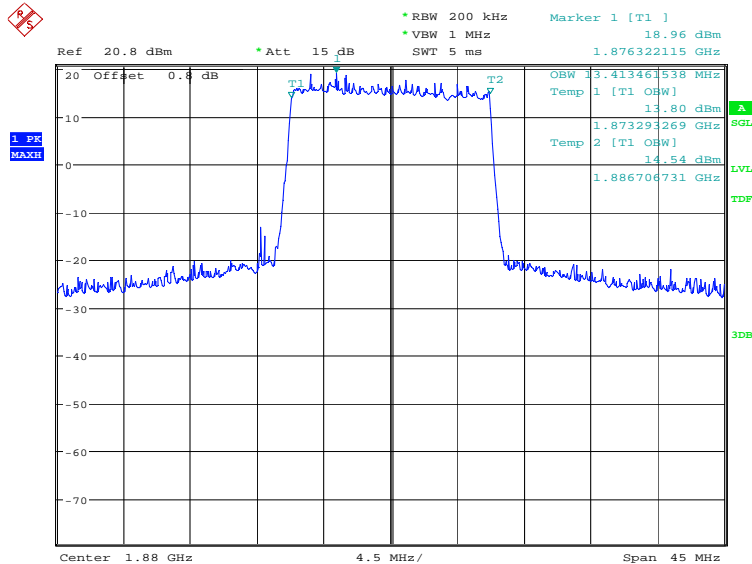
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1880.0	13413.46	13413.46	13413.46

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



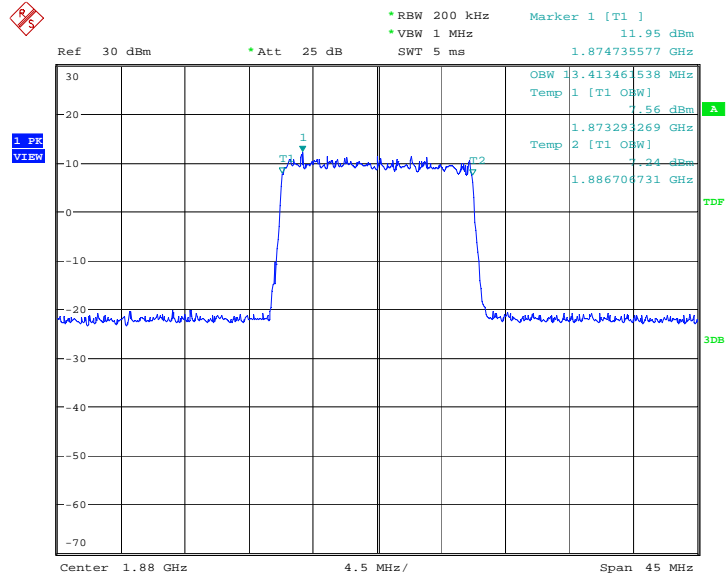
Date: 7.NOV.2018 20:42:29

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



Date: 7.NOV.2018 20:43:53

LTE band 2, 15MHz Bandwidth, 64QAM (99% BW)

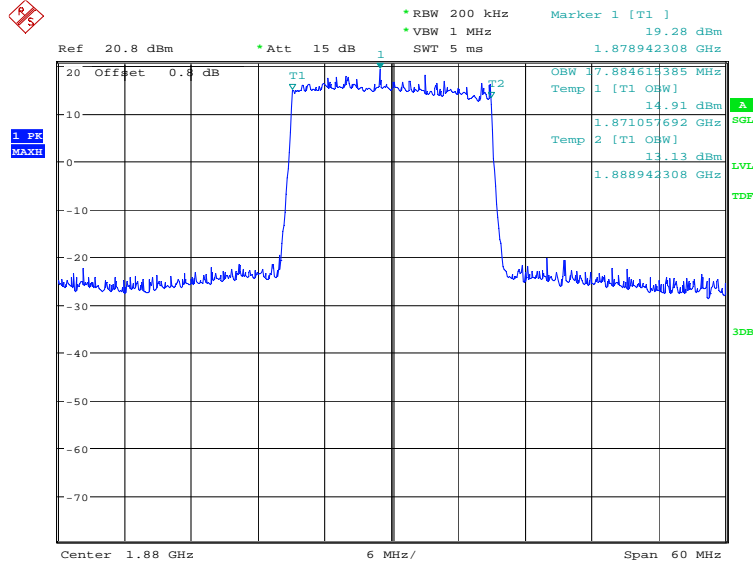


Date: 20.NOV.2018 15:54:52

LTE band 2, 20MHz (99%)

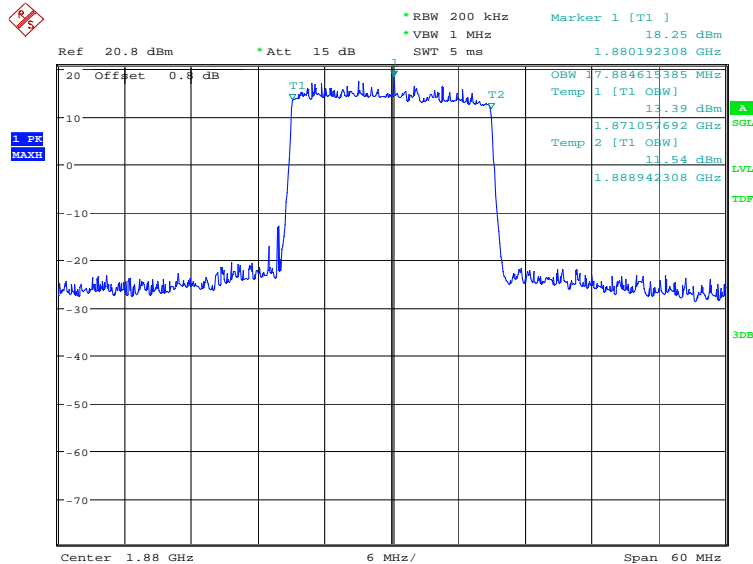
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
1880.0	QPSK	16QAM	64QAM
	17884.62	17884.62	17884.62

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



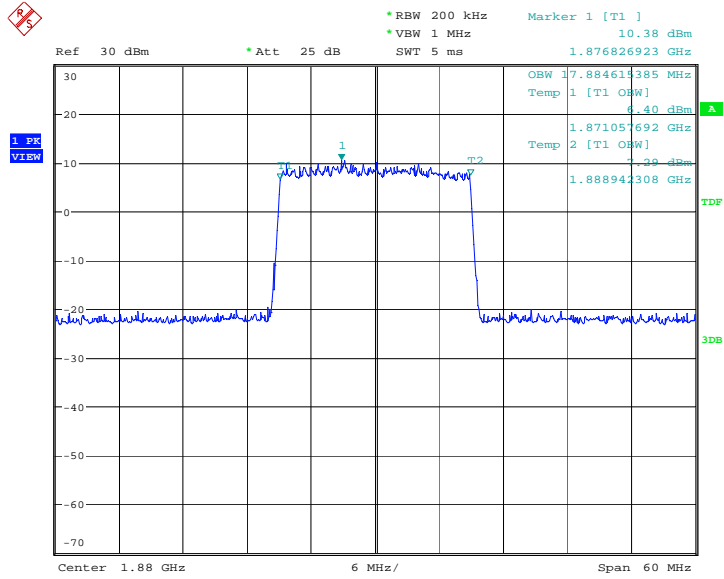
Date: 7.NOV.2018 20:46:17

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



Date: 7.NOV.2018 20:47:41

LTE band 2, 20MHz Bandwidth, 64QAM (99% BW)

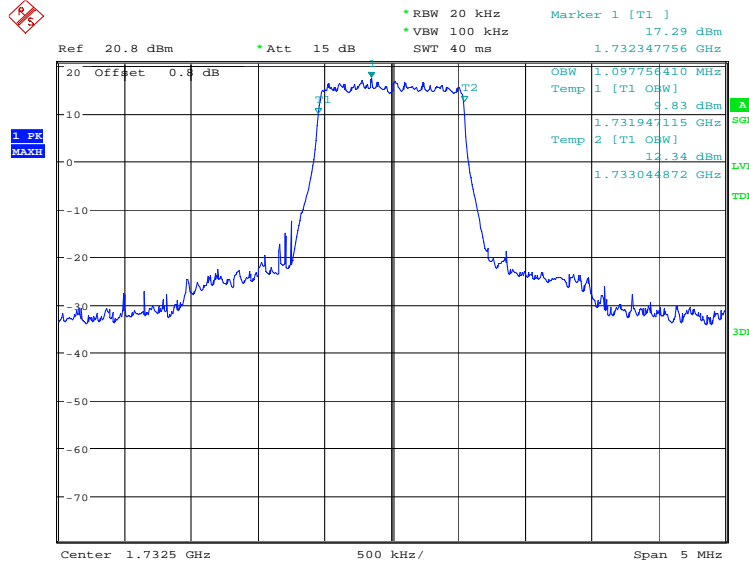


Date: 20.NOV.2018 15:57:17

LTE band 4, 1.4MHz (99%)

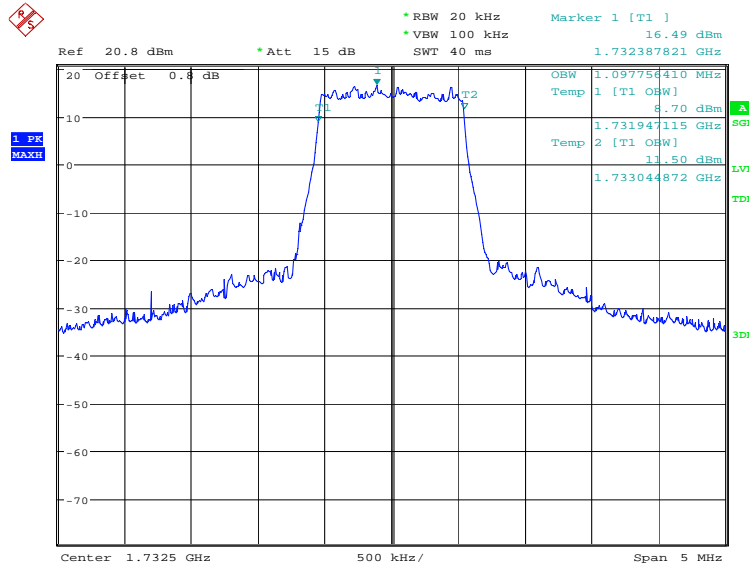
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1732.5	1097.76	1097.76	1089.74

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



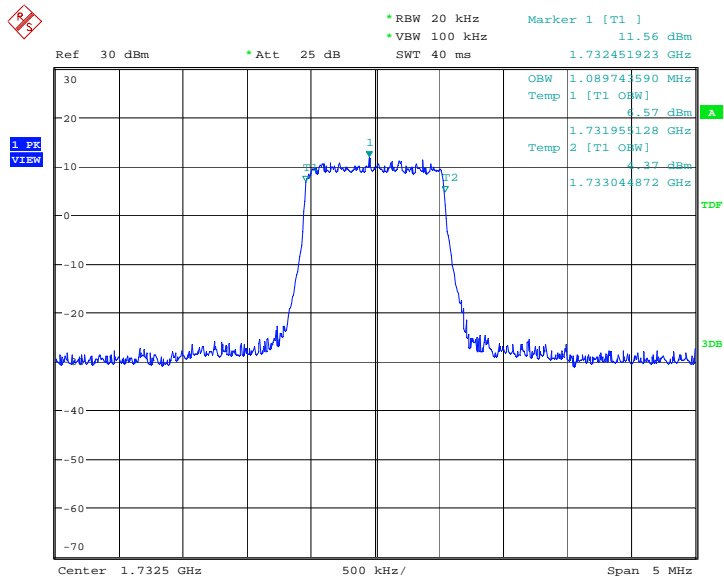
Date: 7.NOV.2018 20:49:58

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



Date: 7.NOV.2018 20:51:22

LTE band 4, 1.4MHz Bandwidth, 64QAM (99% BW)

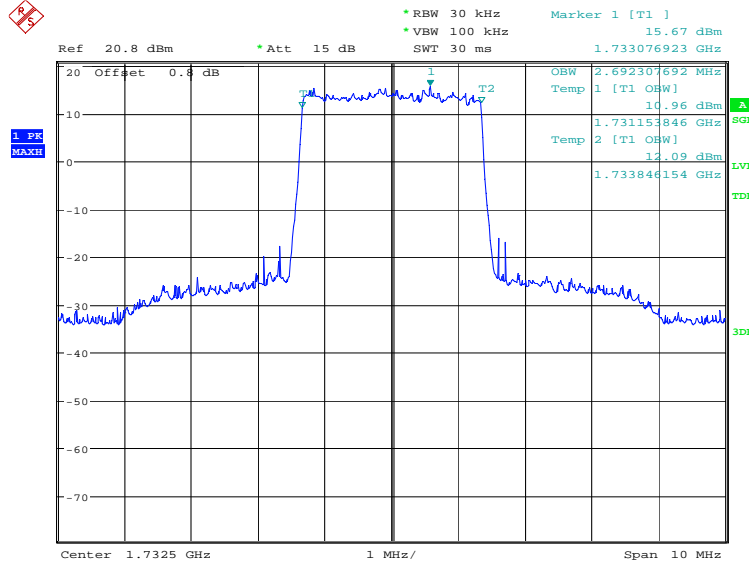


Date: 27.NOV.2018 04:52:13

LTE band 4, 3MHz (99%)

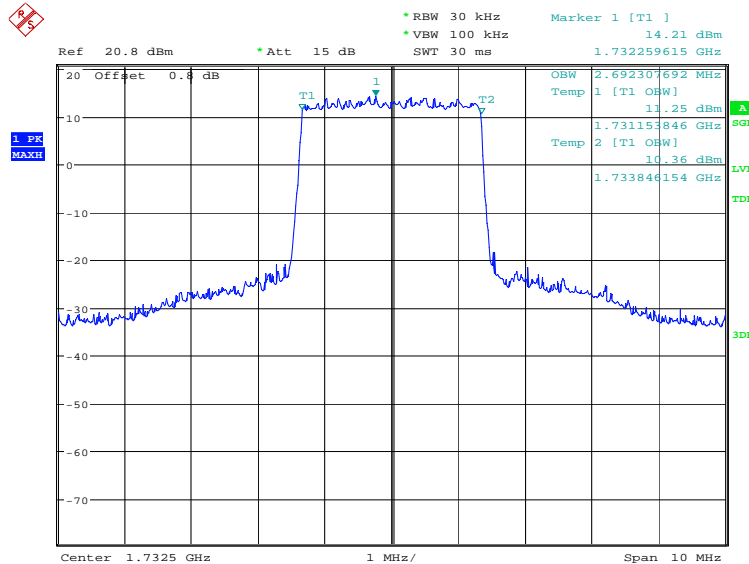
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
1732.5	QPSK	16QAM	64QAM
	2692.31	2692.31	2692.31

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



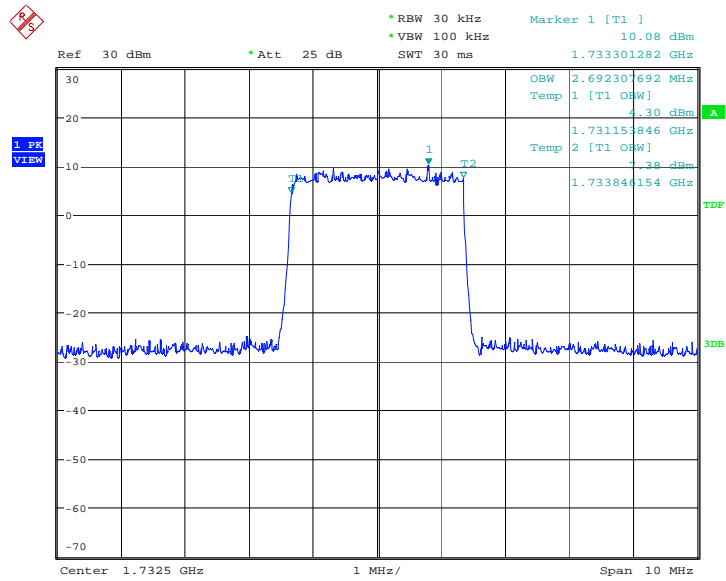
Date: 7.NOV.2018 20:52:48

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



Date: 7.NOV.2018 20:54:12

LTE band 4, 3MHz Bandwidth, 64QAM (99% BW)

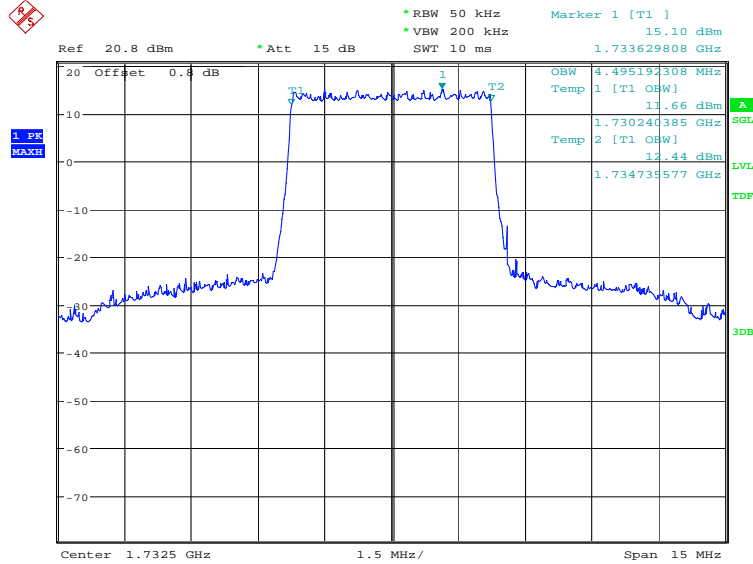


Date: 27.NOV.2018 04:54:57

LTE band 4, 5MHz (99%)

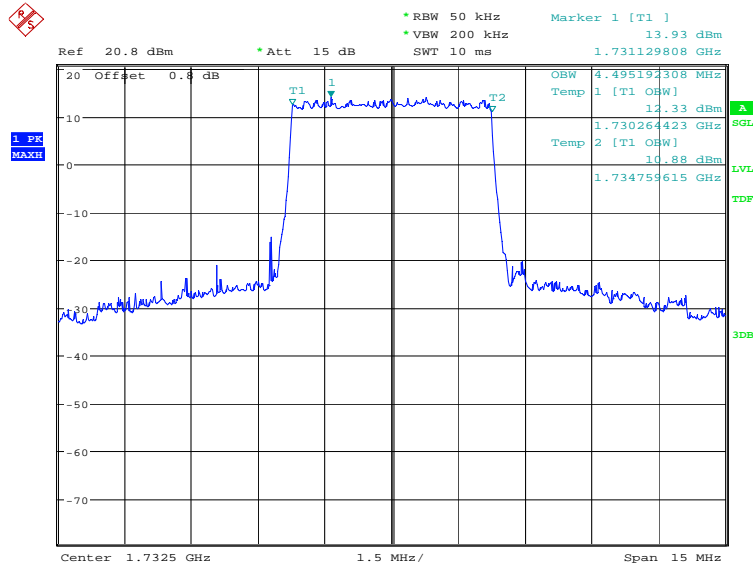
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
1732.5	QPSK	16QAM	64QAM
	4495.19	4495.19	4495.19

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



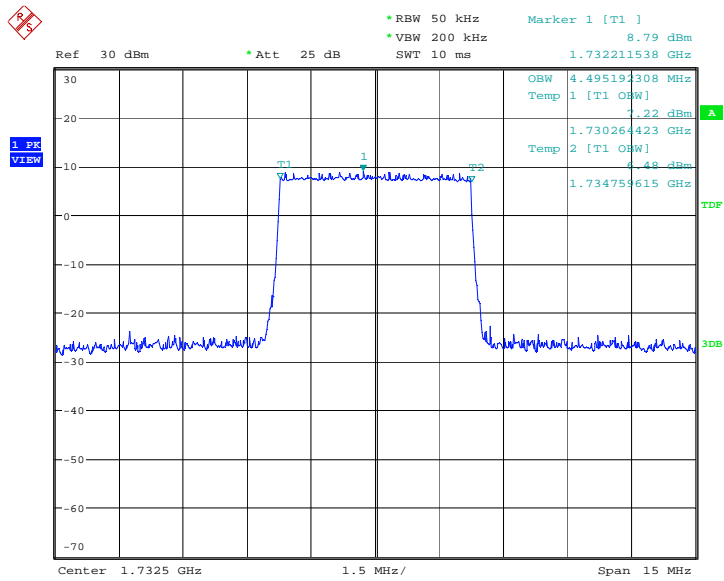
Date: 7.NOV.2018 20:55:37

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



Date: 7.NOV.2018 20:57:01

LTE band 4, 5MHz Bandwidth, 64QAM (99% BW)

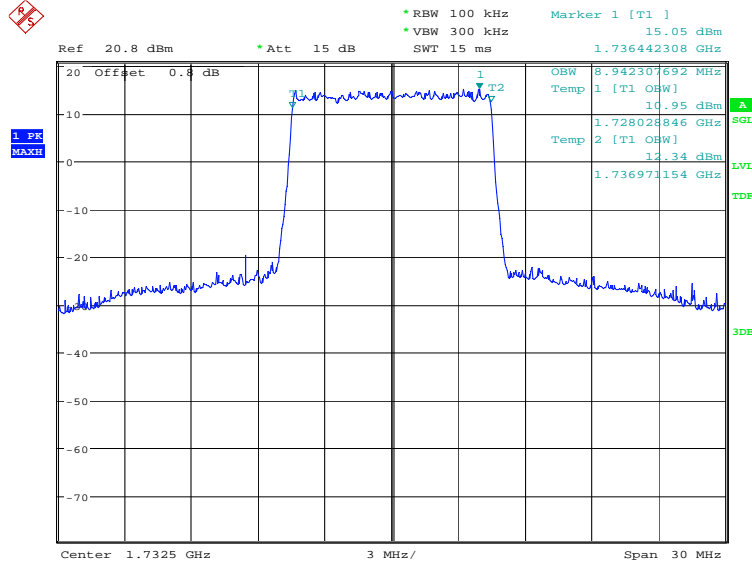


Date: 27.NOV.2018 04:57:41

LTE band 4, 10MHz (99%)

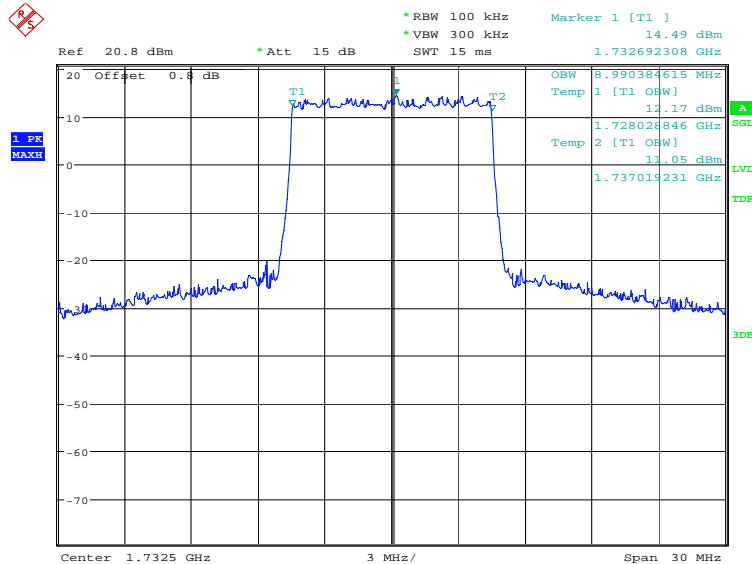
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1732.5	8942.31	8990.38	8990.38

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



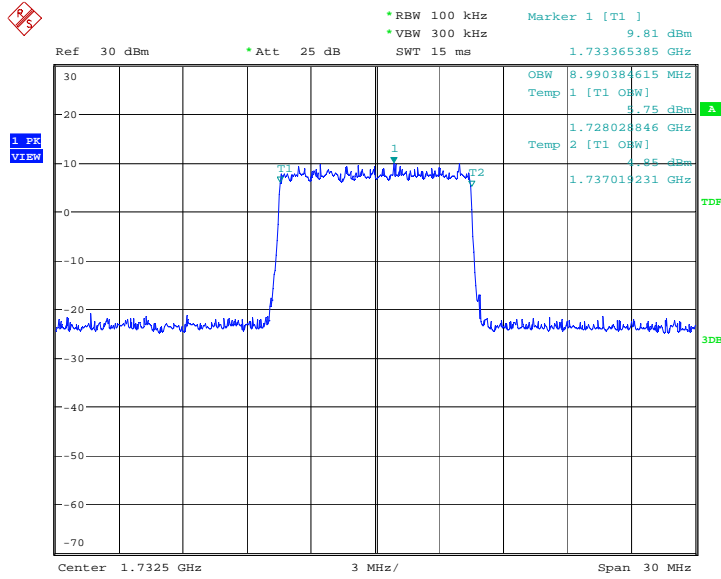
Date: 7.NOV.2018 20:59:19

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



Date: 7.NOV.2018 21:00:43

LTE band 4, 10MHz Bandwidth, 64QAM (99% BW)

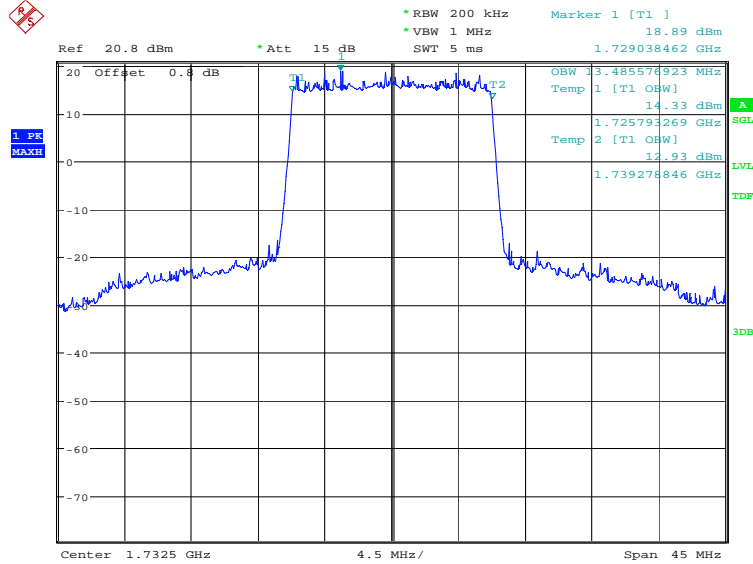


Date: 27.NOV.2018 05:00:26

LTE band 4, 15MHz (99%)

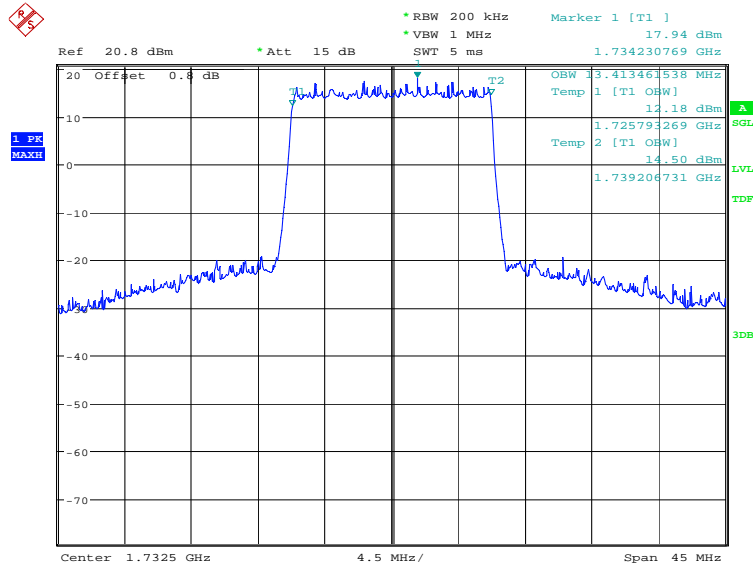
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1732.5	13485.58	13413.46	13485.58

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



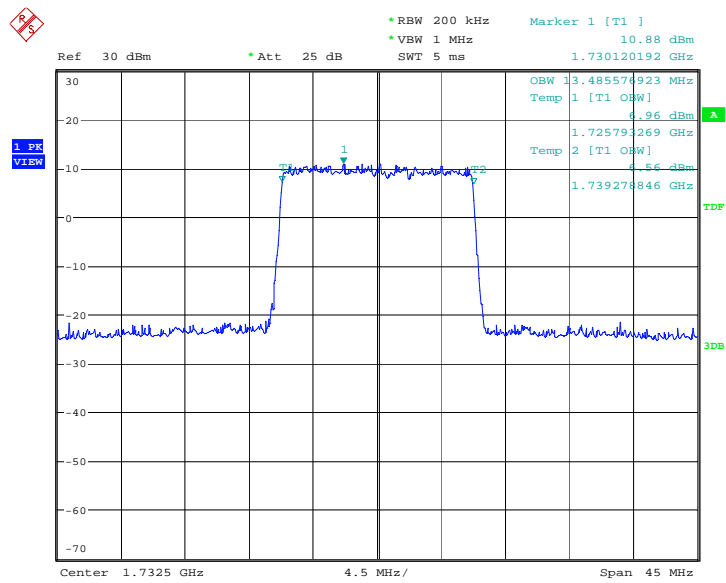
Date: 7.NOV.2018 21:02:09

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



Date: 7.NOV.2018 21:03:33

LTE band 4, 15MHz Bandwidth, 64QAM (99% BW)

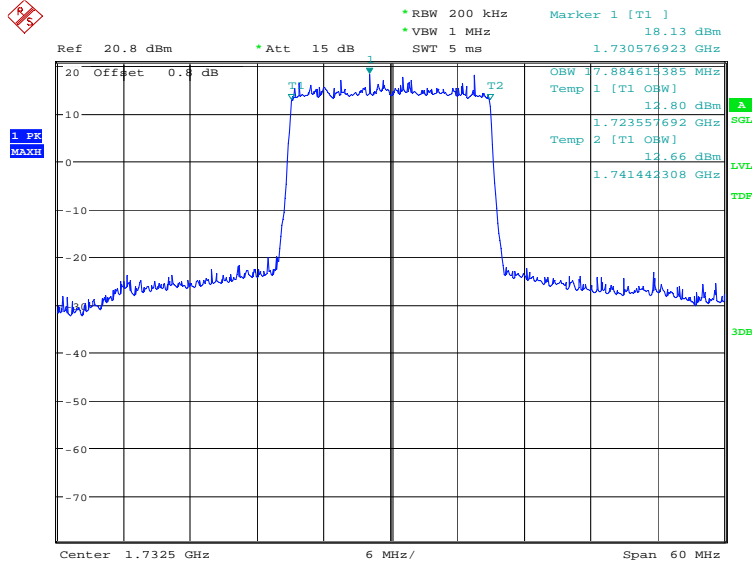


Date: 27.NOV.2018 05:03:10

LTE band 4, 20MHz (99%)

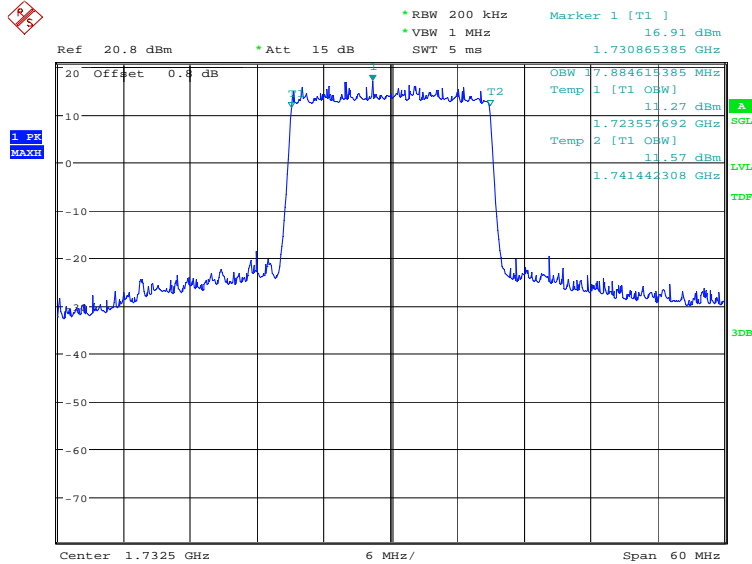
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1732.5	17884.62	17884.62	17980.77

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



Date: 7.NOV.2018 21:04:59

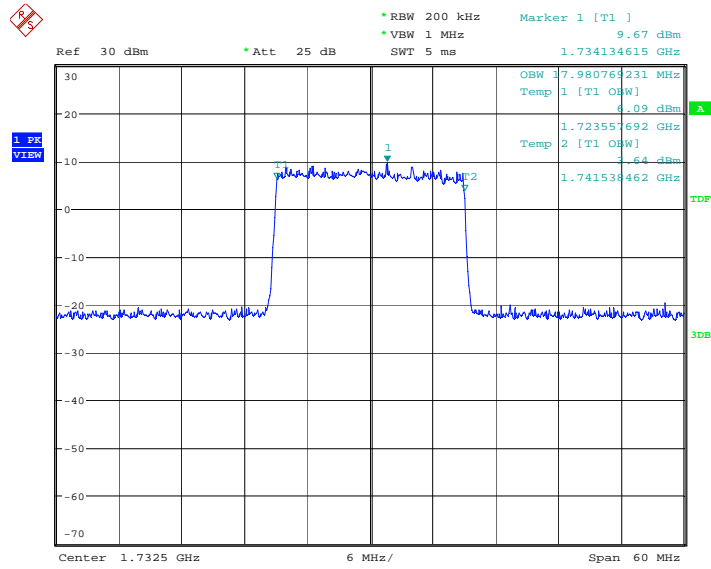
LTE band 4, 20MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 21:06:23



LTE band 4, 20MHz Bandwidth, 64QAM(99% BW)

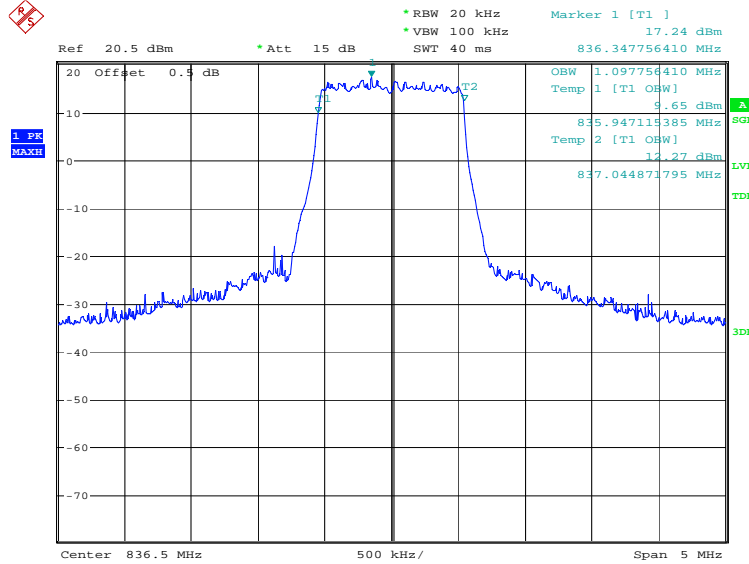


Date: 5.DEC.2018 14:42:40

LTE band 5, 1.4MHz (99%)

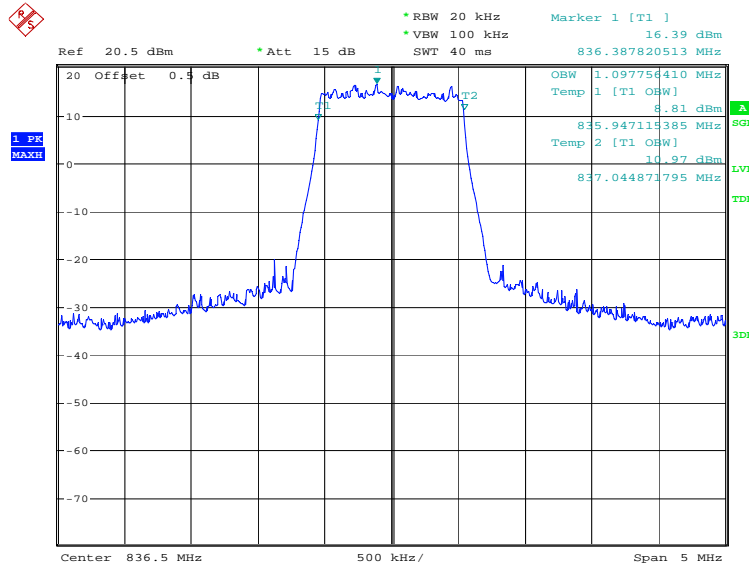
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
836.5	QPSK	16QAM	64QAM
	1097.76	1097.76	1089.74

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



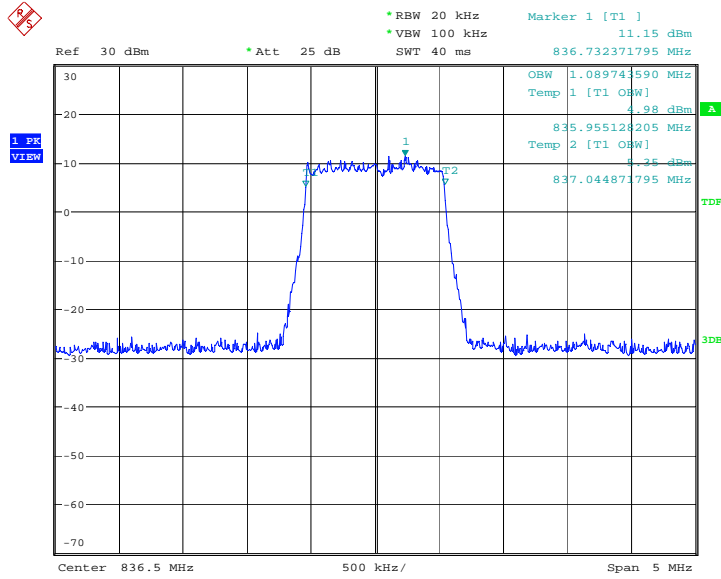
Date: 7.NOV.2018 21:08:42

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



Date: 7.NOV.2018 21:10:06

LTE band 5, 1.4MHz Bandwidth, 64QAM (99% BW)

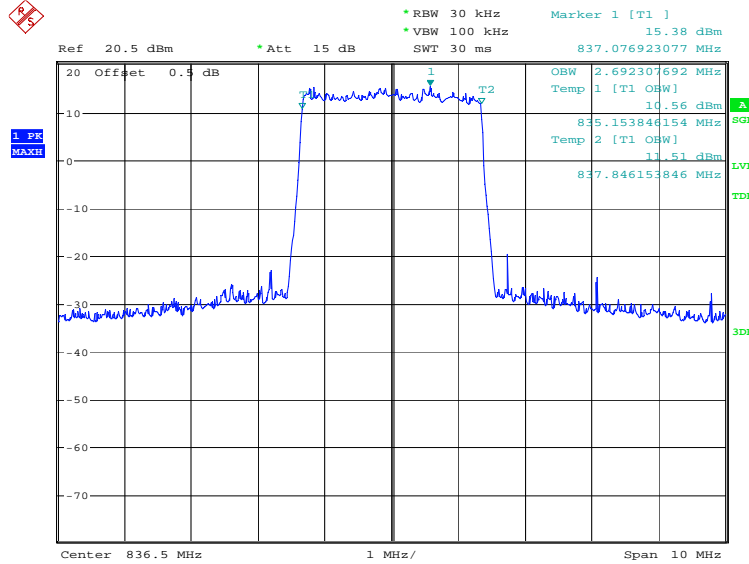


Date: 20.NOV.2018 16:01:05

LTE band 5, 3MHz (99%)

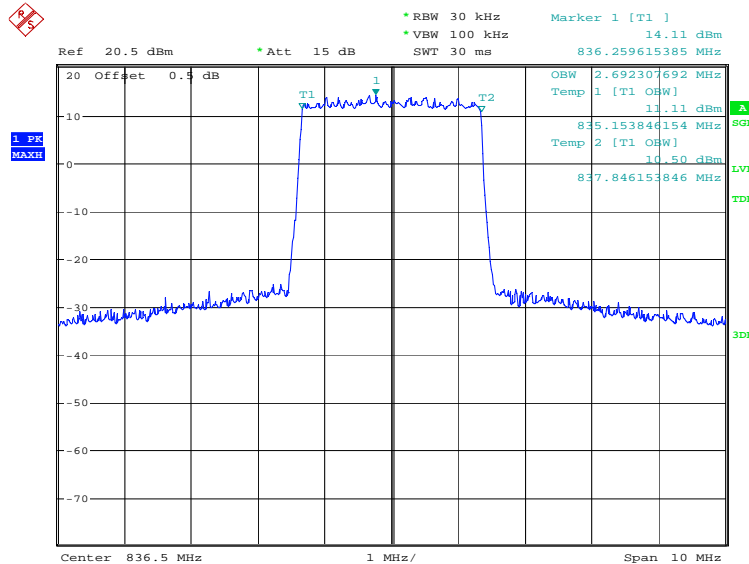
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
836.5	2692.31	2692.31	2692.31

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



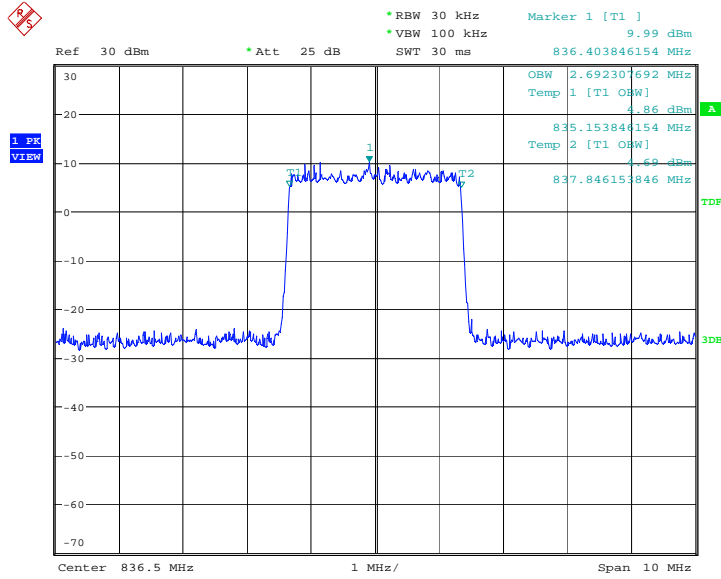
Date: 7.NOV.2018 21:12:24

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



Date: 7.NOV.2018 21:13:48

LTE band 5, 3MHz Bandwidth, 64QAM (99% BW)

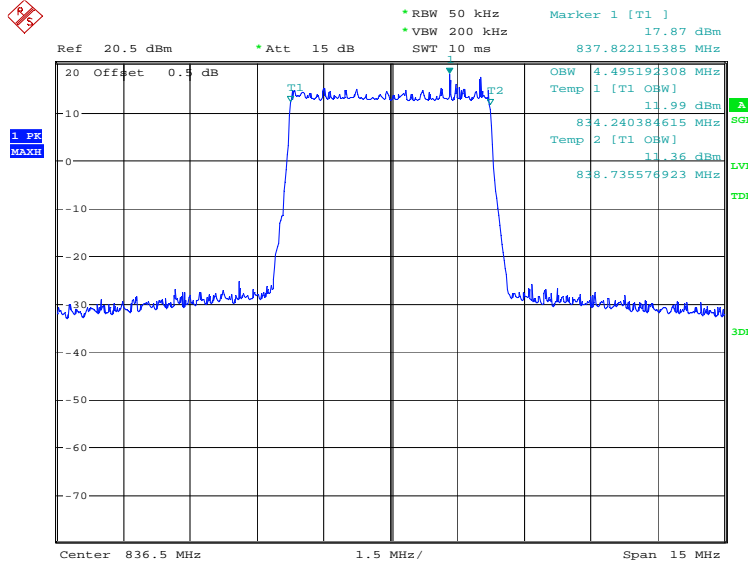


Date: 20.NOV.2018 16:02:26

LTE band 5, 5MHz (99%)

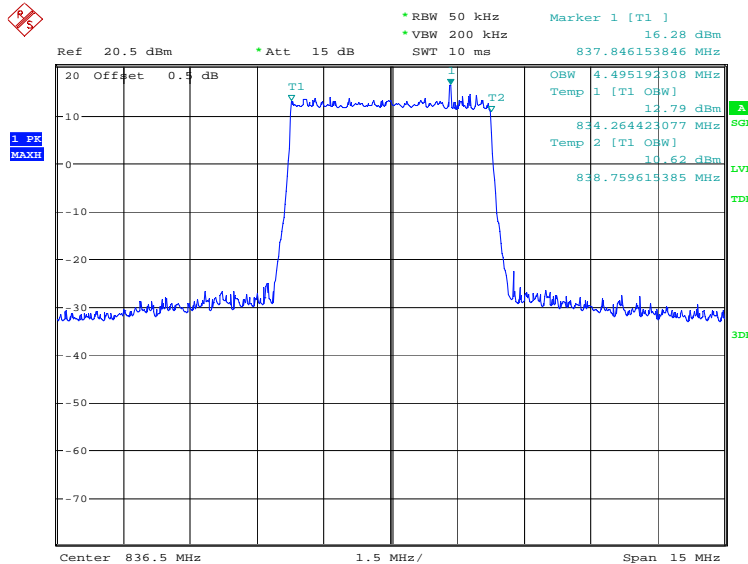
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
836.5	QPSK	16QAM	64QAM
	4495.19	4495.19	4495.19

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



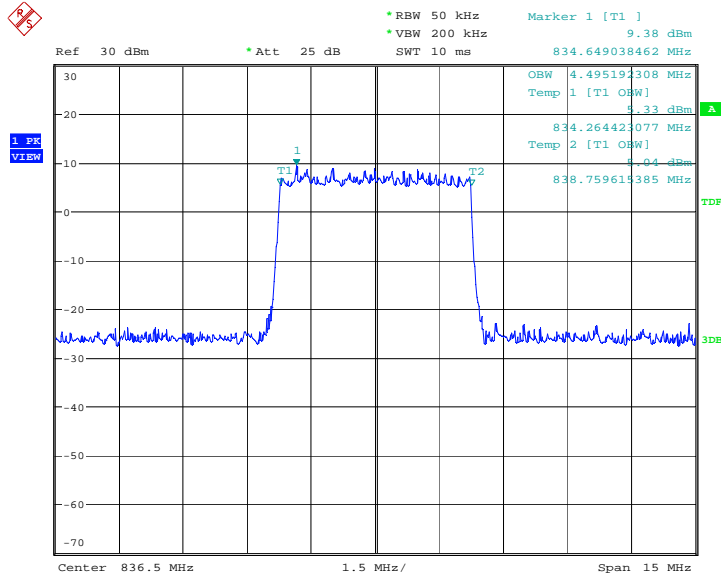
Date: 7.NOV.2018 21:16:05

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



Date: 7.NOV.2018 21:17:30

LTE band 5, 5MHz Bandwidth, 64QAM (99% BW)

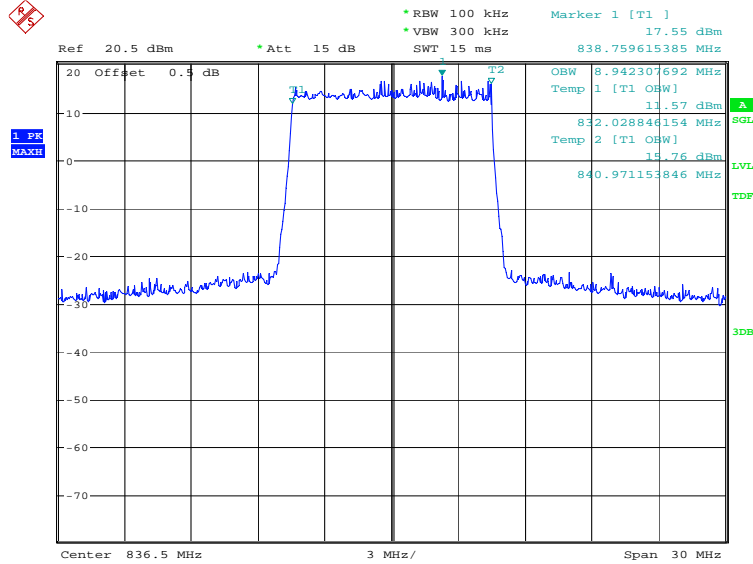


Date: 20.NOV.2018 16:03:45

LTE band 5, 10MHz (99%)

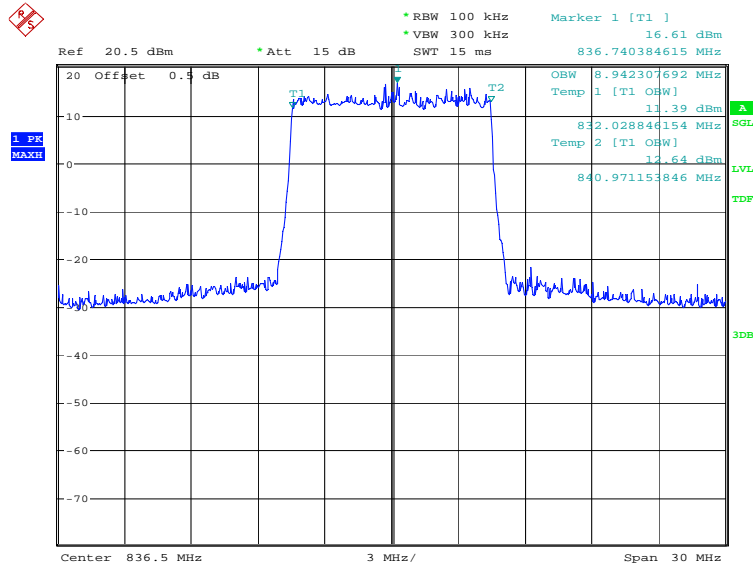
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
836.5	QPSK	16QAM	64QAM
	8942.31	8942.31	8990.38

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



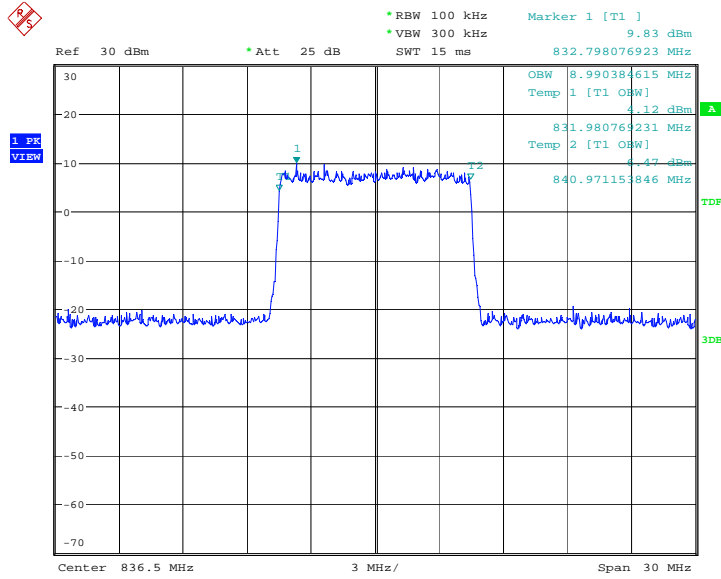
Date: 7.NOV.2018 21:19:48

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



Date: 7.NOV.2018 21:21:12

LTE band 5, 10MHz Bandwidth, 64QAM (99% BW)

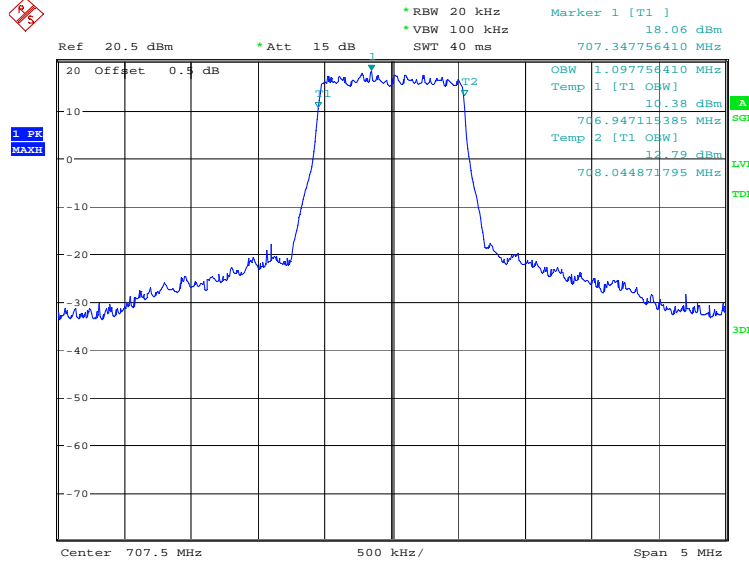


Date: 20.NOV.2018 16:05:04

LTE band 12, 1.4MHz (99%)

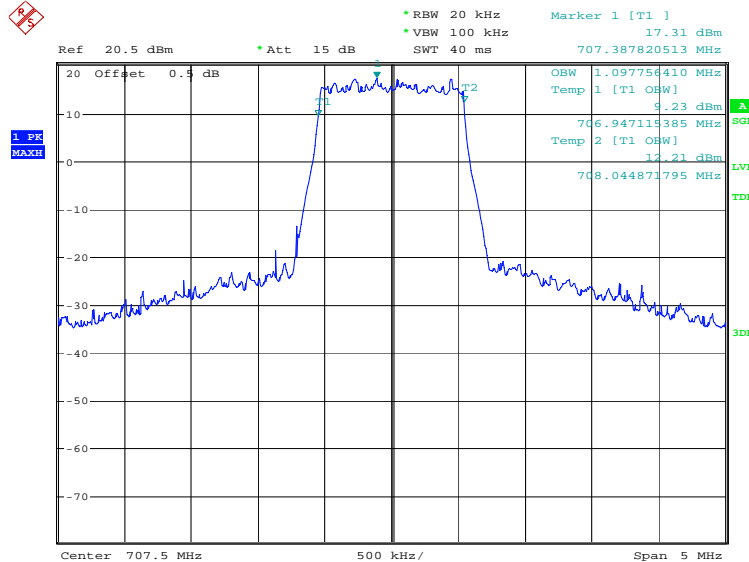
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
707.5	QPSK	16QAM	64QAM
	1097.76	1097.76	1089.74

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



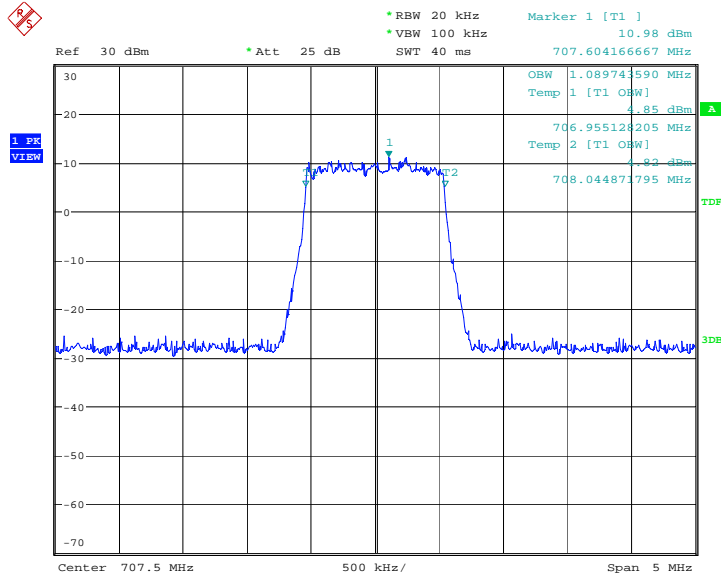
Date: 7.NOV.2018 21:23:31

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



Date: 7.NOV.2018 21:24:55

LTE band 12, 1.4MHz Bandwidth, 64QAM (99% BW)

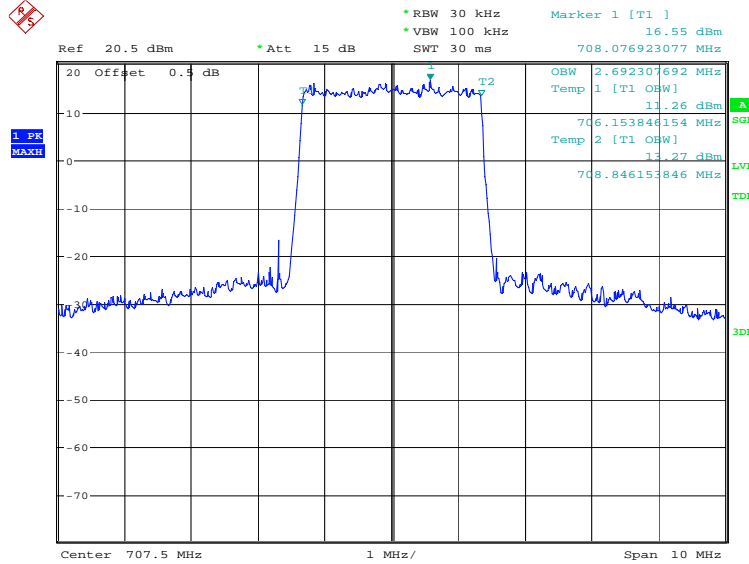


Date: 20.NOV.2018 16:22:16

LTE band 12, 3MHz (99%)

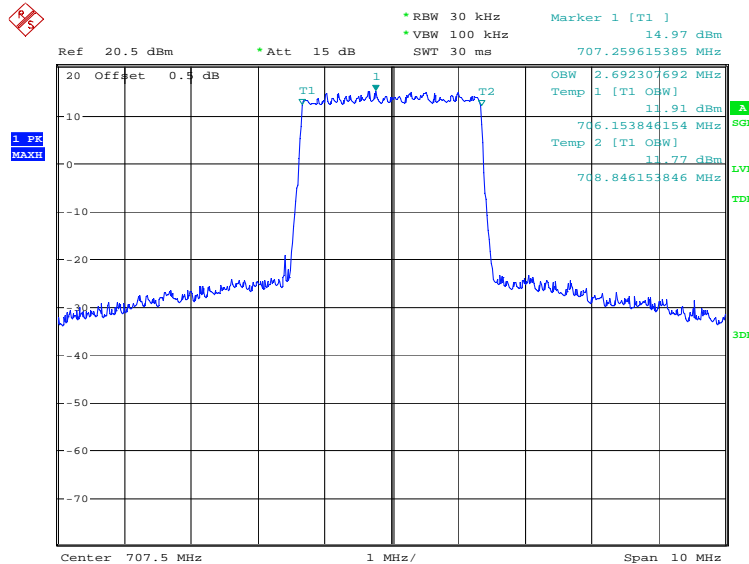
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
707.5	2692.31	2692.31	2692.31

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



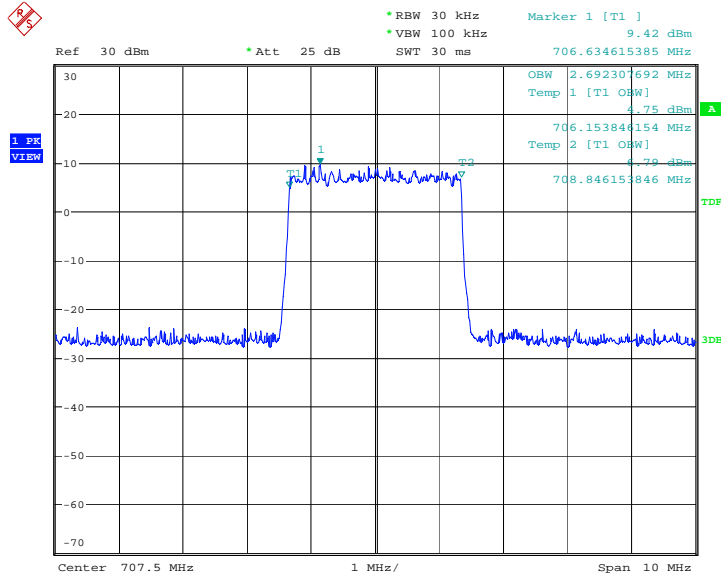
Date: 7.NOV.2018 21:27:12

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



Date: 7.NOV.2018 21:28:37

LTE band 12, 3MHz Bandwidth, 64QAM (99% BW)

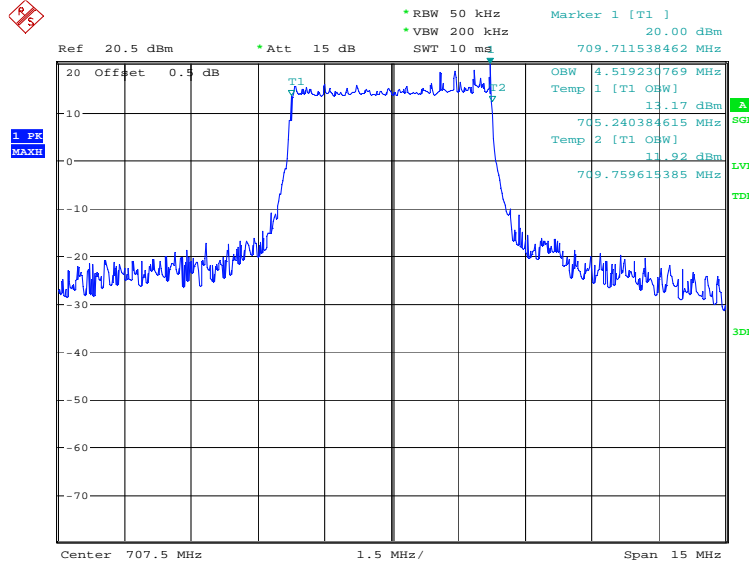


Date: 20.NOV.2018 16:24:22

LTE band 12, 5MHz (99%)

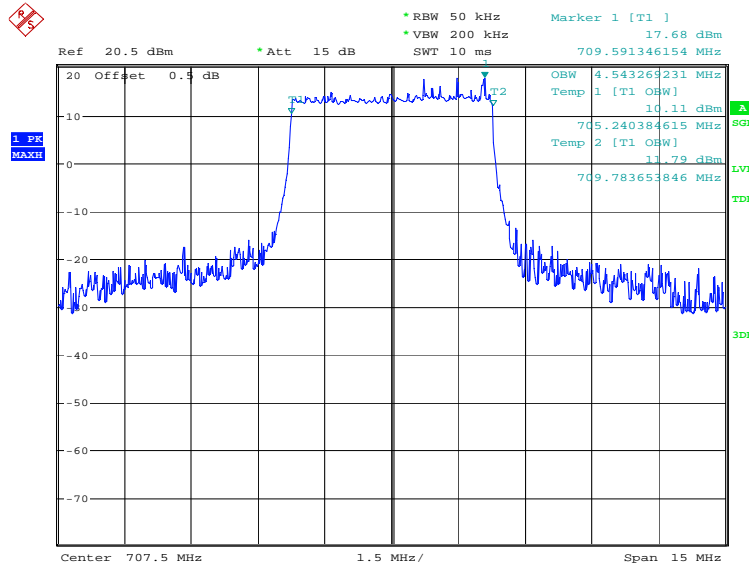
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
707.5	QPSK	16QAM	64QAM
	4519.23	4543.27	4519.23

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



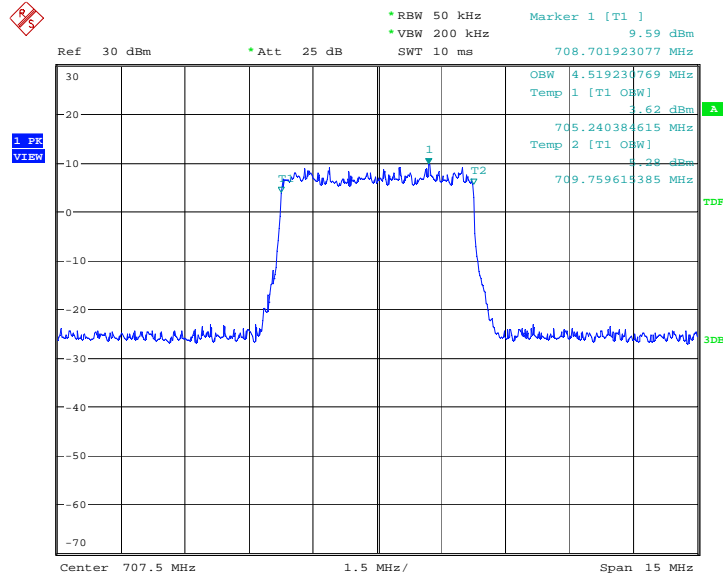
Date: 7.NOV.2018 21:30:56

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



Date: 7.NOV.2018 21:32:21

LTE band 12, 5MHz Bandwidth, 64QAM (99% BW)

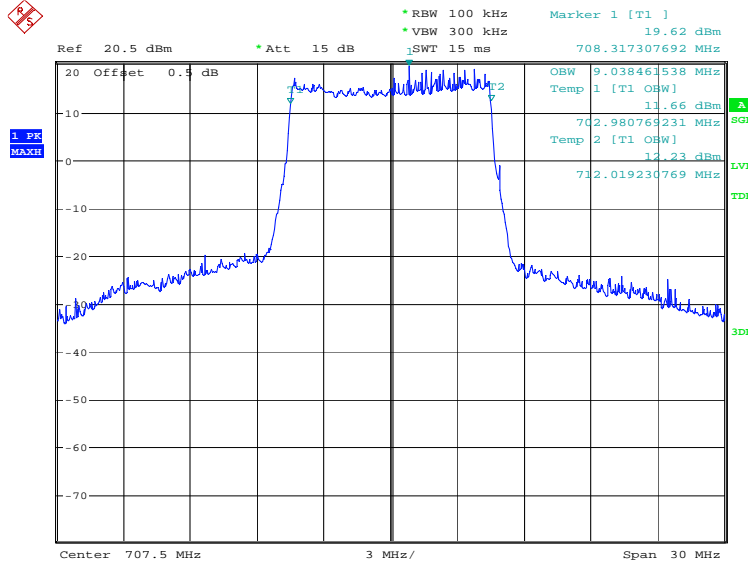


Date: 20.NOV.2018 16:25:53

LTE band 12, 10MHz (99%)

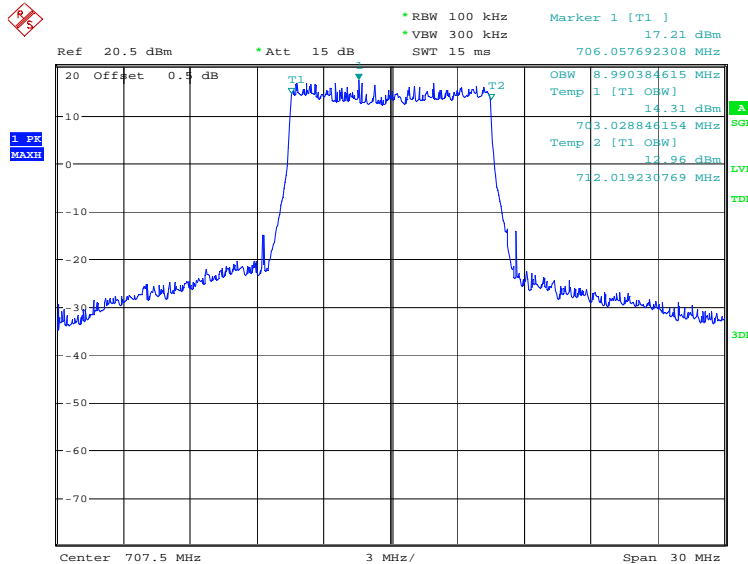
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
707.5	9038.46	8990.38	9038.46

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



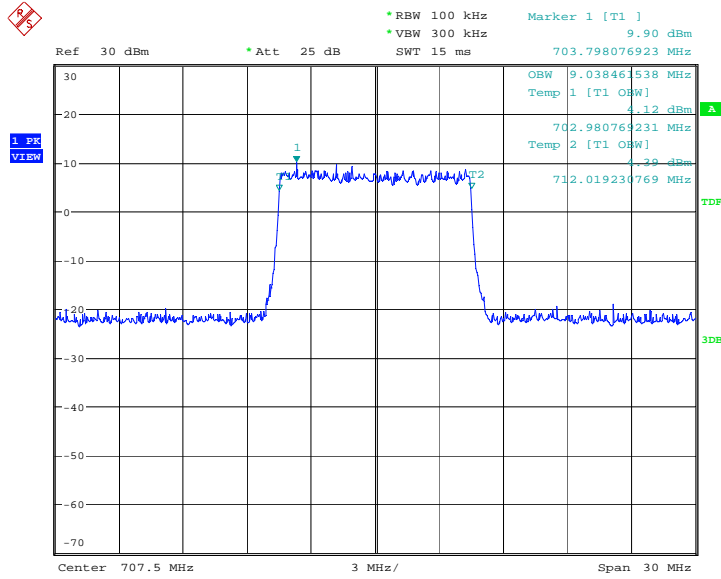
Date: 7.NOV.2018 21:34:39

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



Date: 7.NOV.2018 21:36:03

LTE band 12, 10MHz Bandwidth, 64QAM (99% BW)

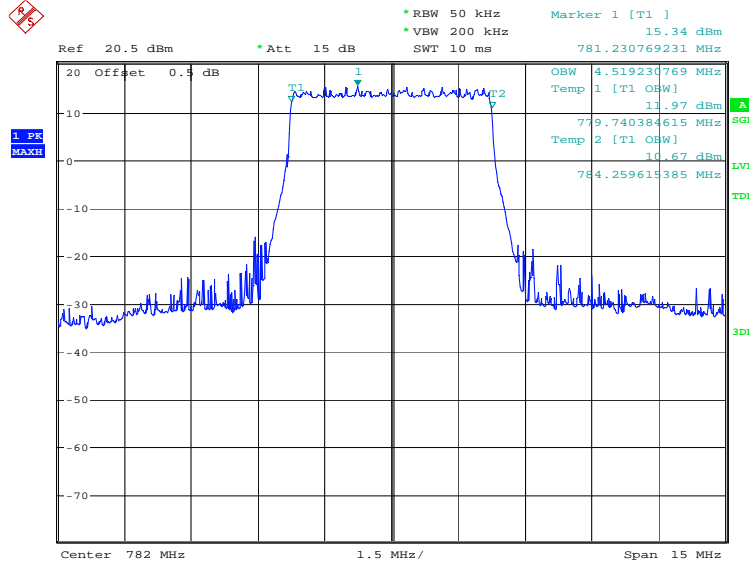


Date: 20.NOV.2018 16:27:43

LTE band 13, 5MHz (99%)

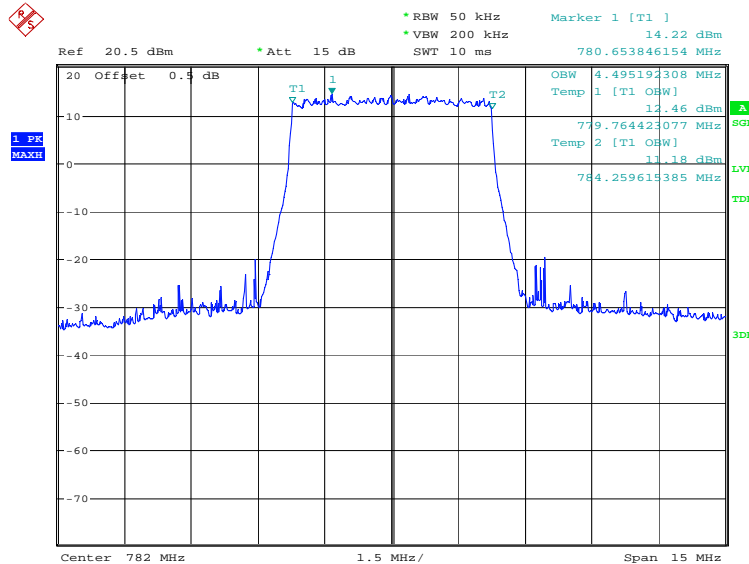
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
782.0	4519.23	4495.19	4495.19

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



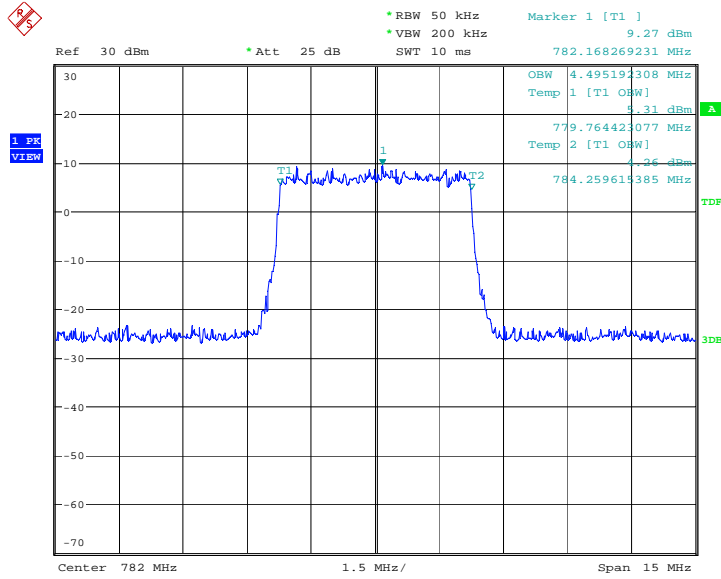
Date: 7.NOV.2018 21:38:25

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



Date: 7.NOV.2018 21:39:49

LTE band 13, 5MHz Bandwidth, 64QAM (99% BW)

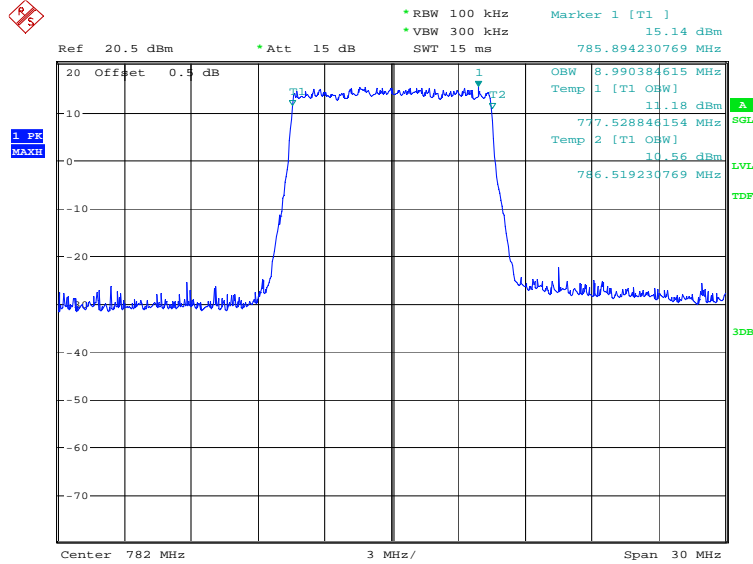


Date: 20.NOV.2018 16:29:29

LTE band 13, 10MHz (99%)

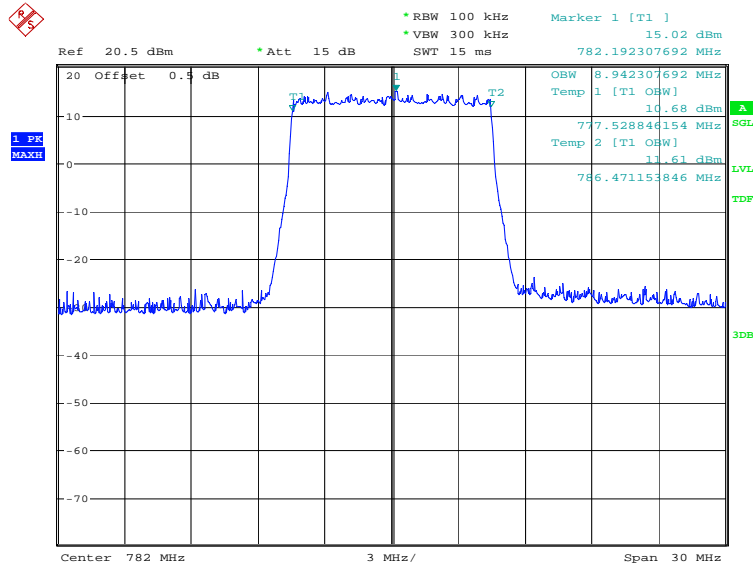
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
782.0	QPSK	16QAM	64QAM
	8990.38	8942.31	8990.38

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



Date: 7.NOV.2018 21:42:06

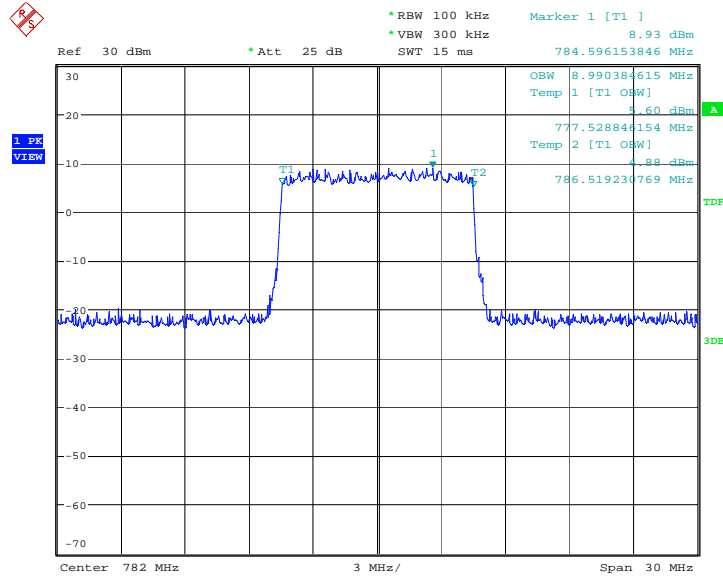
LTE band 13, 10MHz Bandwidth,16QAM (99% BW)



Date: 7.NOV.2018 21:43:31



LTE band 13, 10MHz Bandwidth, 64QAM (99% BW)

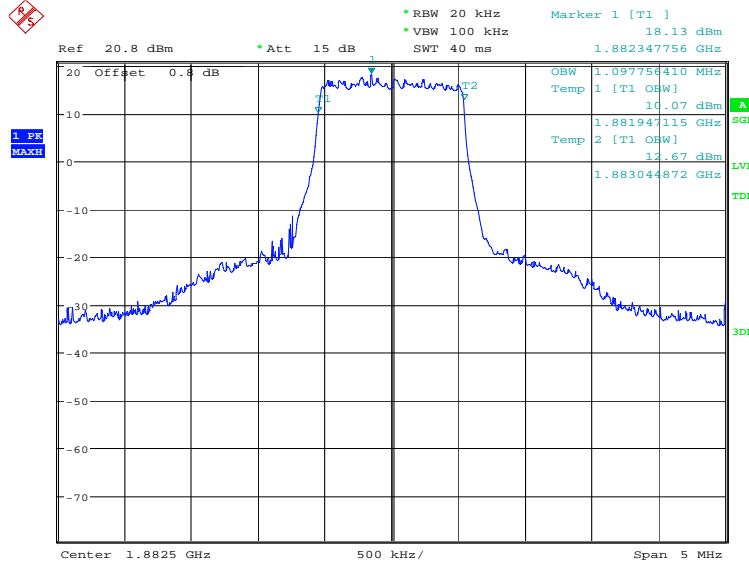


Date: 20.NOV.2018 16:30:52

LTE band 25, 1.4MHz (99%)

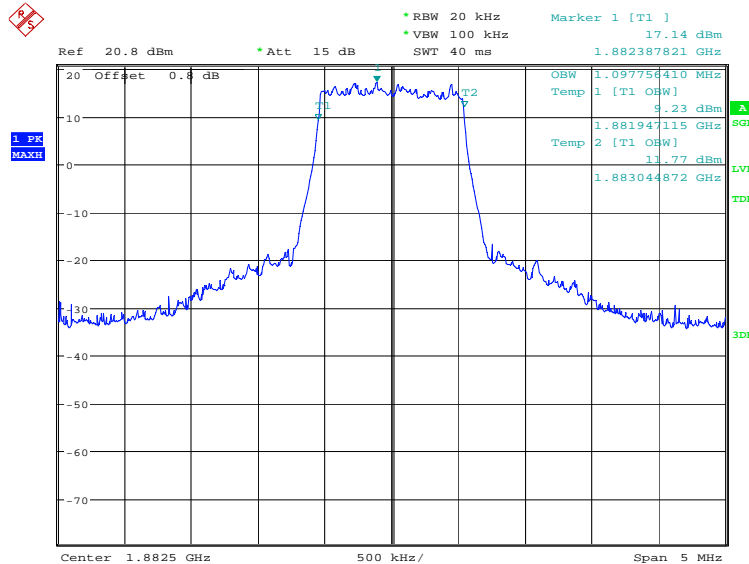
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1882.5	1097.76	1097.76	1089.74

LTE band 25, 1.4MHz Bandwidth, QPSK (99% BW)



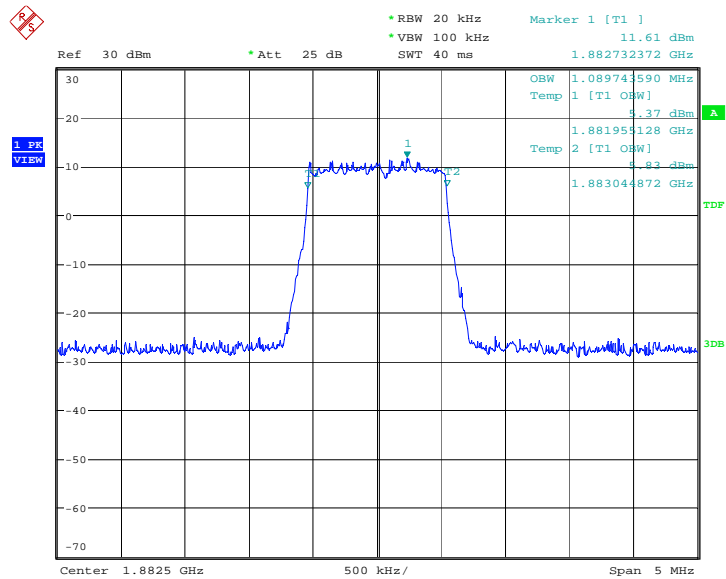
Date: 7.NOV.2018 21:45:50

LTE band 25, 1.4MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 21:47:14

LTE band 25, 1.4MHz Bandwidth, 64QAM (99% BW)

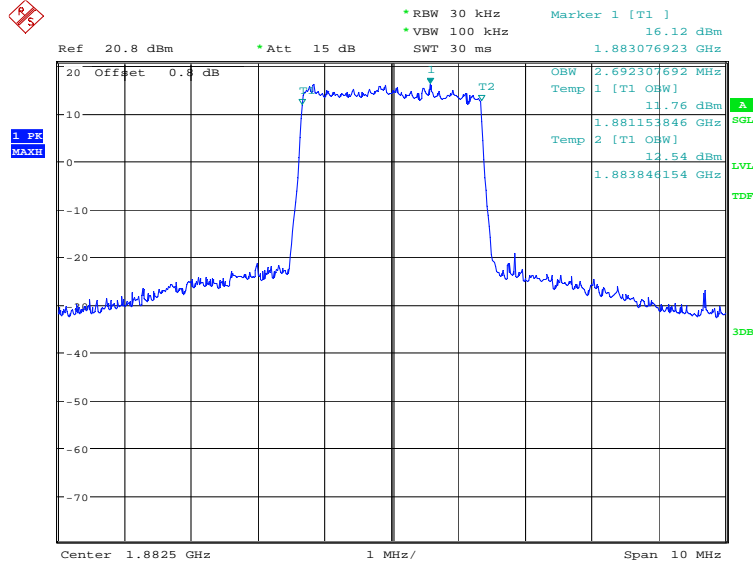


Date: 20.NOV.2018 16:32:46

LTE band 25, 3MHz (99%)

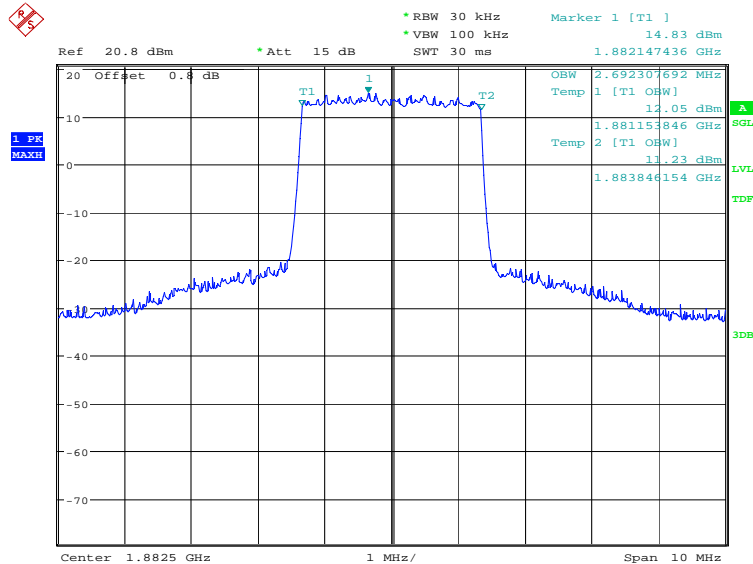
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1882.5	2692.31	2692.31	2692.31

LTE band 25, 3MHz Bandwidth, QPSK (99% BW)



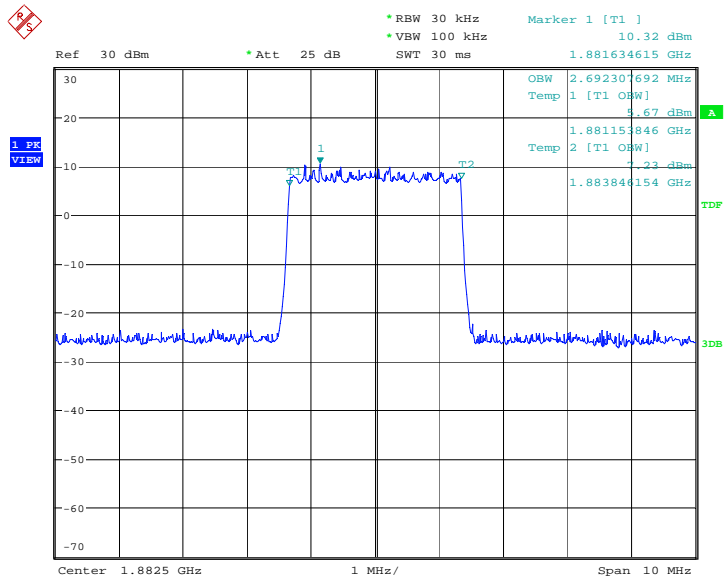
Date: 7.NOV.2018 21:49:34

LTE band 25, 3MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 21:50:58

LTE band 25, 3MHz Bandwidth, 64QAM (99% BW)

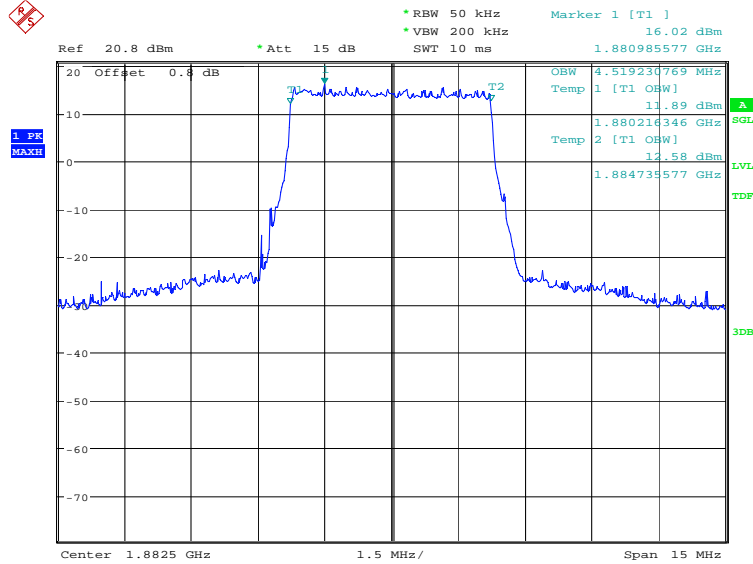


Date: 20.NOV.2018 16:34:03

LTE band 25, 5MHz (99%)

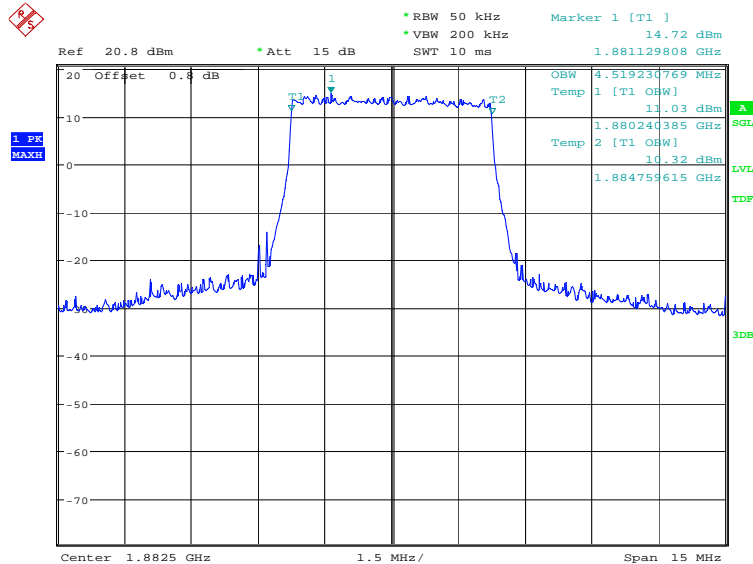
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1882.5	4519.23	4519.23	4519.23

LTE band 25, 5MHz Bandwidth, QPSK (99% BW)



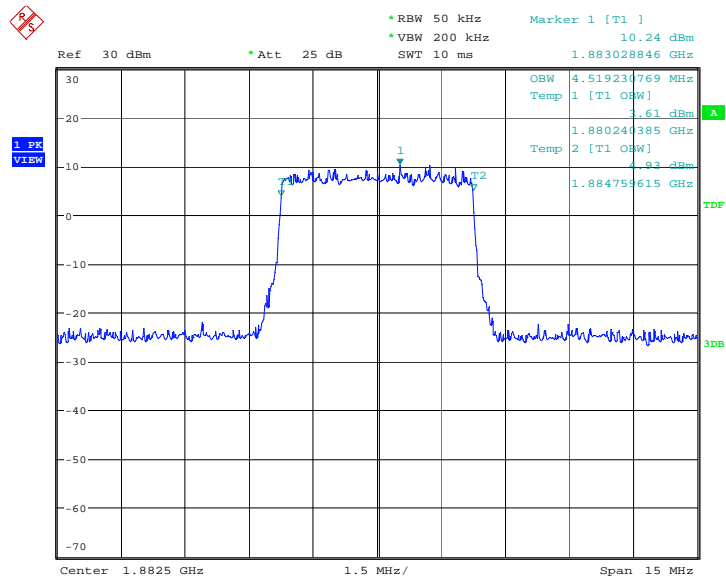
Date: 7.NOV.2018 21:53:16

LTE band 25, 5MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 21:54:40

LTE band 25, 5MHz Bandwidth, 64QAM (99% BW)

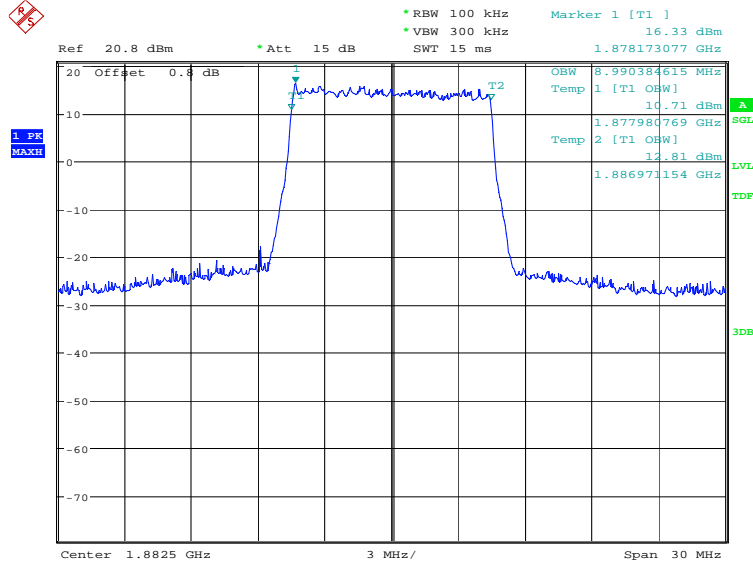


Date: 20.NOV.2018 16:38:43

LTE band 25, 10MHz (99%)

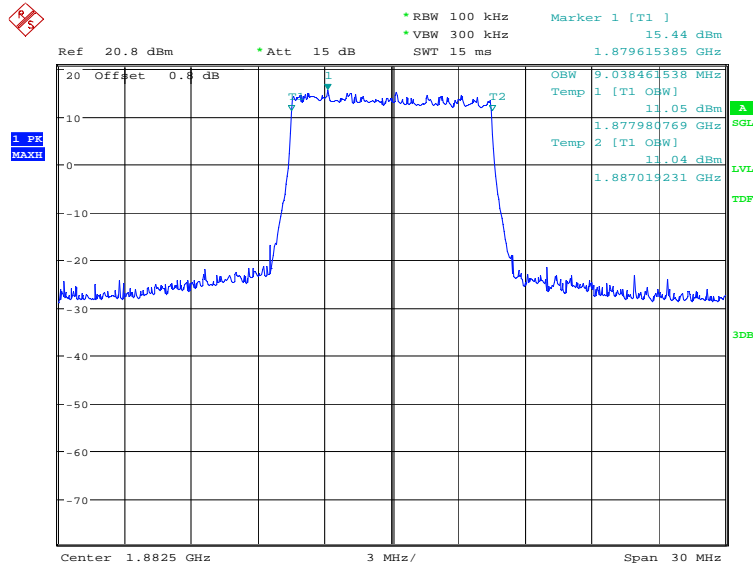
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1882.5	8990.38	9038.46	9038.46

LTE band 25, 10MHz Bandwidth, QPSK (99% BW)



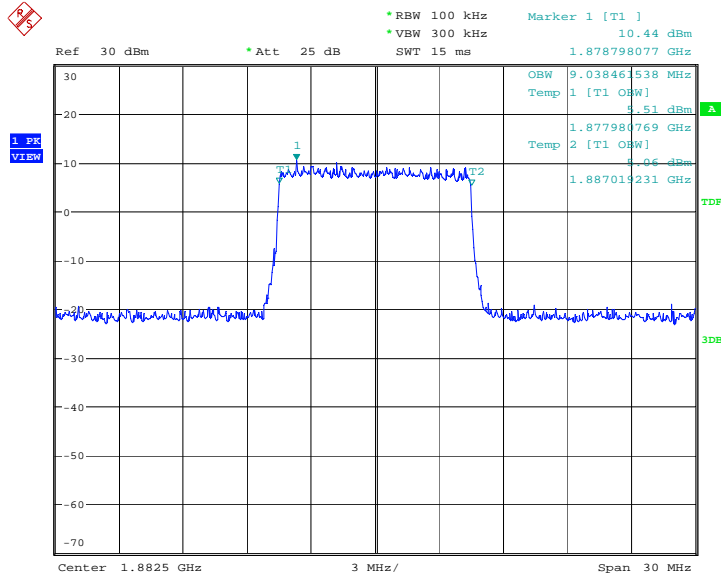
Date: 7.NOV.2018 21:57:00

LTE band 25, 10MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 21:58:24

LTE band 25, 10MHz Bandwidth, 64QAM(99% BW)

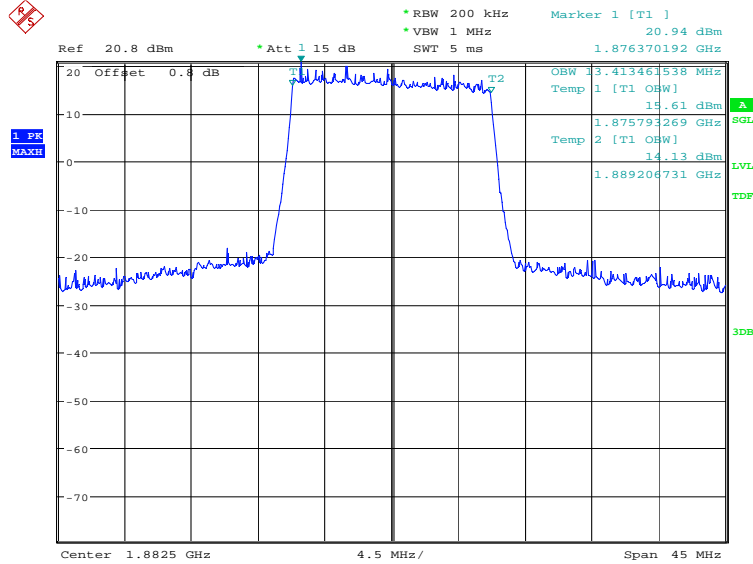


Date: 20.NOV.2018 16:40:04

LTE band 25, 15MHz (99%)

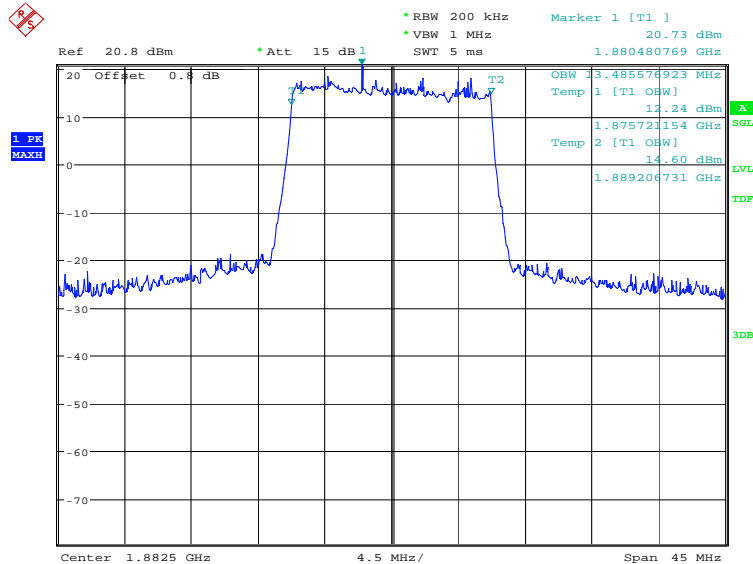
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1882.5	13413.46	13485.58	13557.69

LTE band 25, 15MHz Bandwidth, QPSK (99% BW)



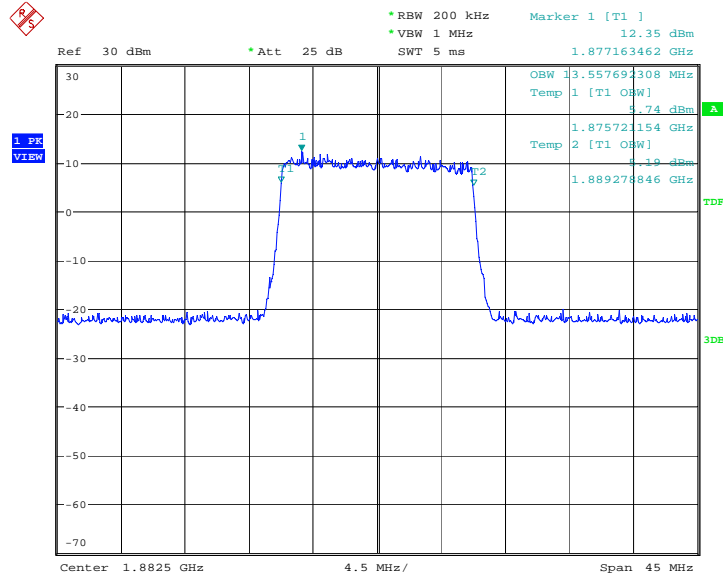
Date: 7.NOV.2018 22:00:44

LTE band 25, 15MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:02:09

LTE band 25, 15MHz Bandwidth, 64QAM (99% BW)

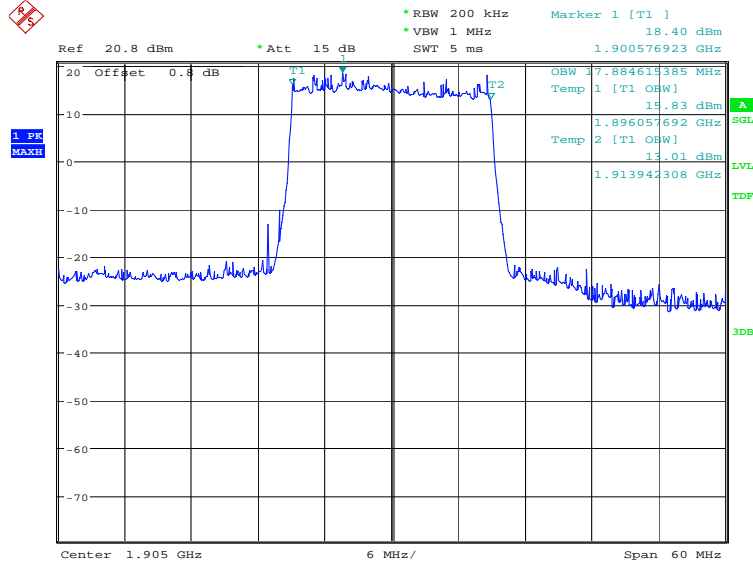


Date: 20.NOV.2018 16:41:20

LTE band 25, 20MHz (99%)

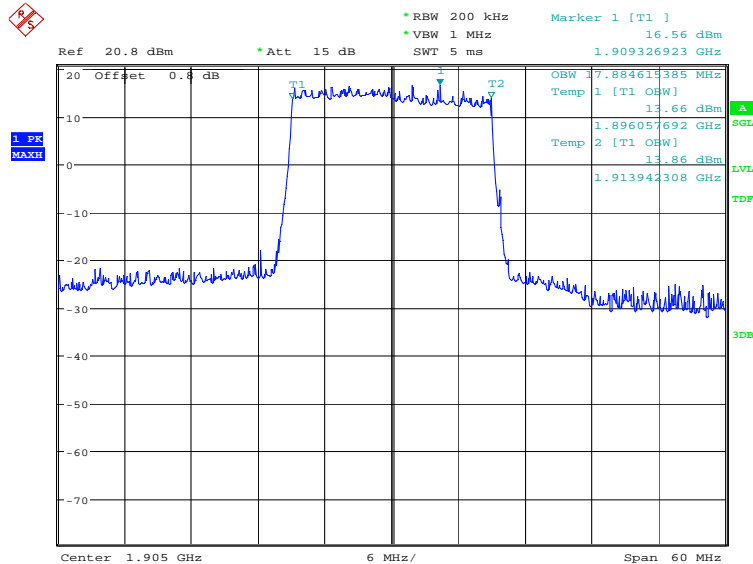
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
1882.5	17884.62	17884.62	17980.77

LTE band 25, 20MHz Bandwidth, QPSK (99% BW)



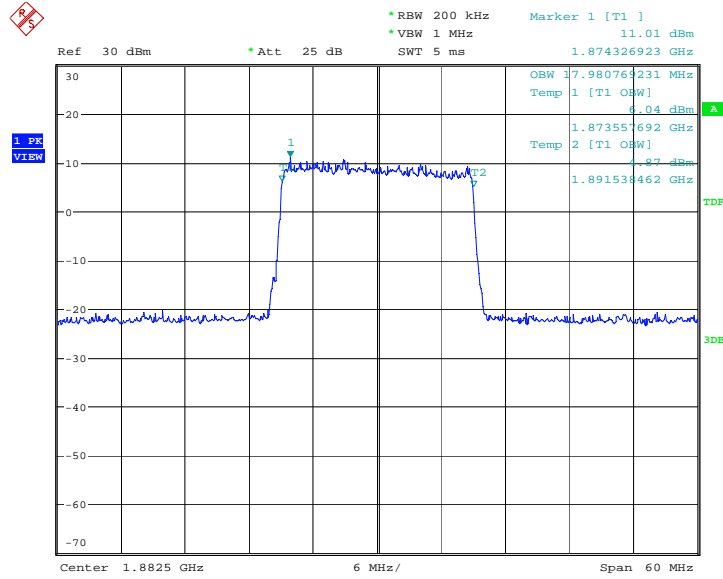
Date: 7.NOV.2018 22:03:41

LTE band 25, 20MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:05:05

LTE band 25, 20MHz Bandwidth, 64QAM (99% BW)

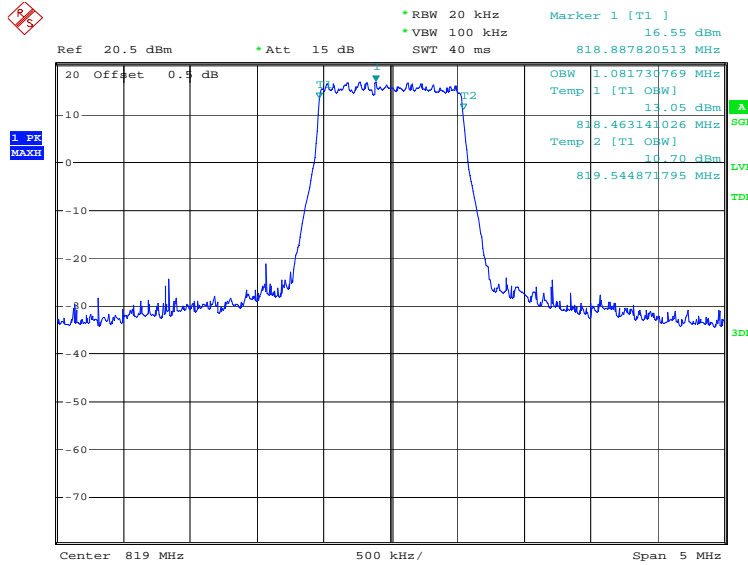


Date: 20.NOV.2018 16:42:42

LTE band 26(814MHz-824MHz), 1.4MHz (99%)

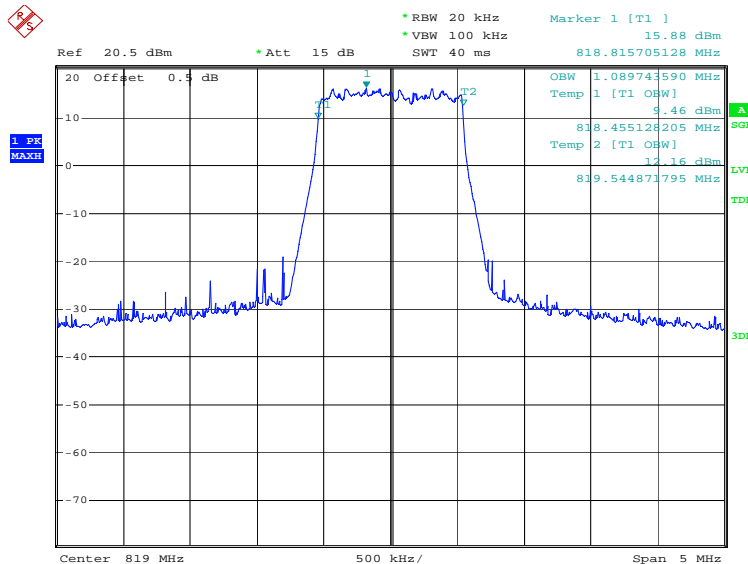
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
819.0	QPSK	16QAM	64QAM
	1081.73	1089.74	1089.74

LTE band 26(814MHz-824MHz), 1.4MHz Bandwidth, QPSK (99% BW)



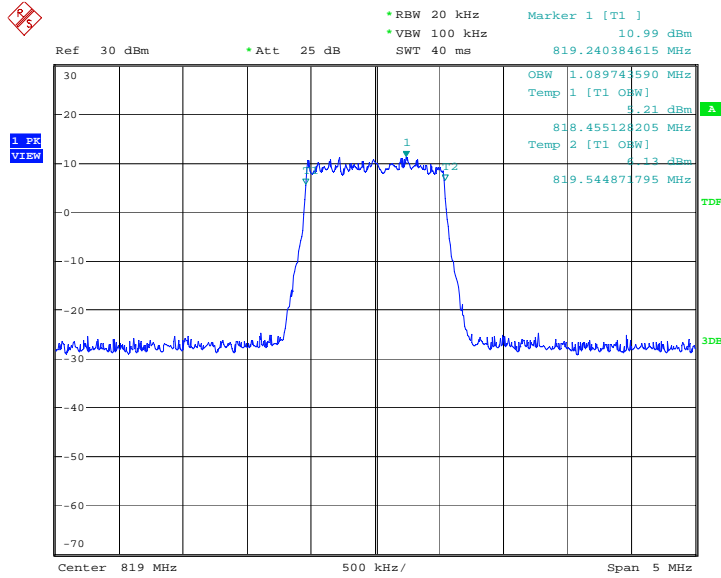
Date: 7.NOV.2018 22:25:35

LTE band 26(814MHz-824MHz), 1.4MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:26:59

LTE band 26(814MHz-824MHz), 1.4MHz Bandwidth, 64QAM (99% BW)

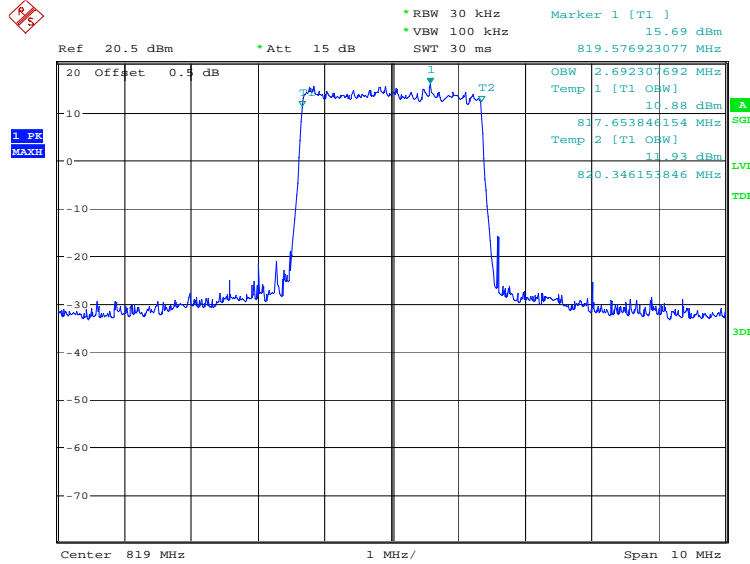


Date: 21.NOV.2018 14:03:54

LTE band 26(814MHz-824MHz), 3MHz (99%)

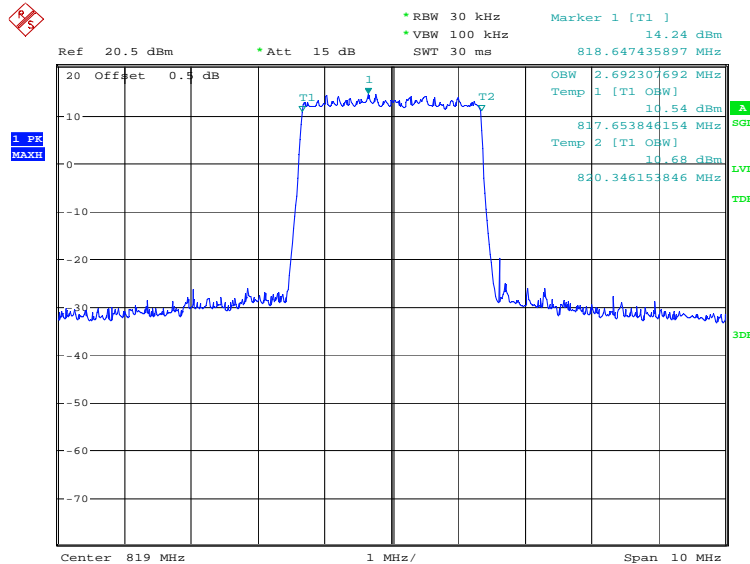
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
819.0	2692.31	2692.31	2692.31

LTE band 26(814MHz-824MHz), 3MHz Bandwidth, QPSK (99% BW)



Date: 7.NOV.2018 22:29:17

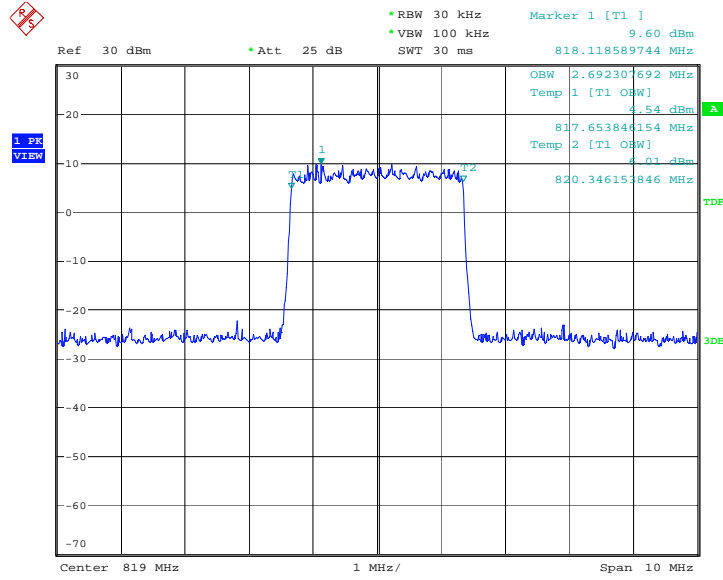
LTE band 26(814MHz-824MHz), 3MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:30:42



LTE band 26(814MHz-824MHz), 3MHz Bandwidth, 64QAM (99% BW)

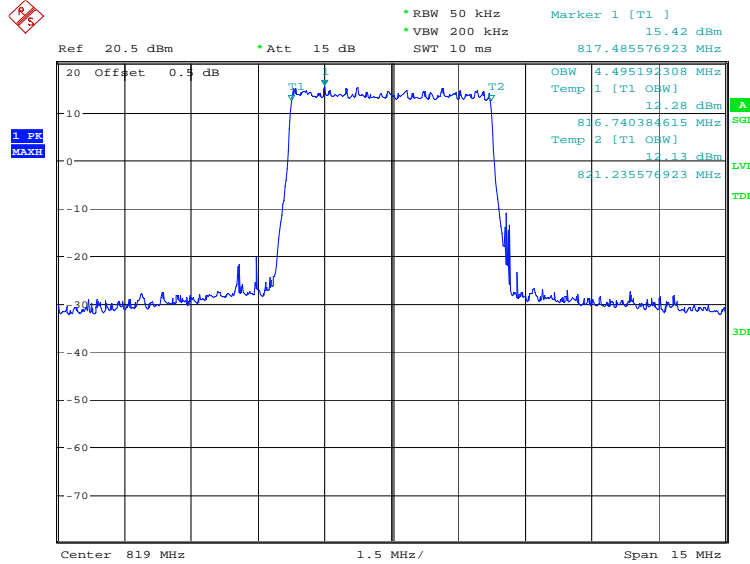


Date: 21.NOV.2018 14:06:52

LTE band 26(814MHz-824MHz), 5MHz (99%)

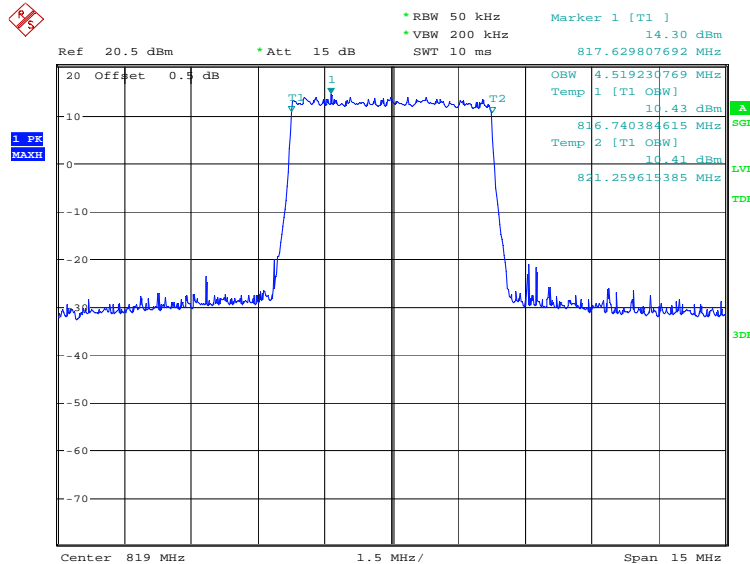
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
819.0	4495.19	4519.23	4471.15

LTE band 26(814MHz-824MHz), 5MHz Bandwidth, QPSK (99% BW)



Date: 7.NOV.2018 22:32:59

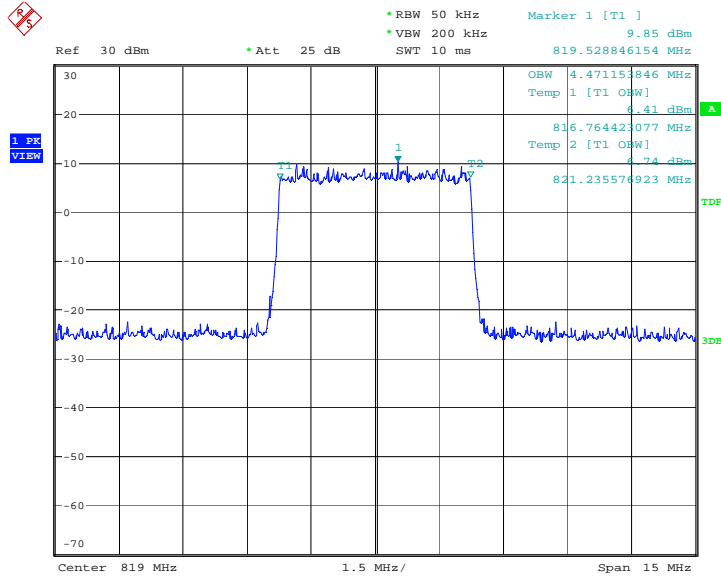
LTE band 26(814MHz-824MHz), 5MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:34:24



LTE band 26(814MHz-824MHz), 5MHz Bandwidth,64QAM (99% BW)

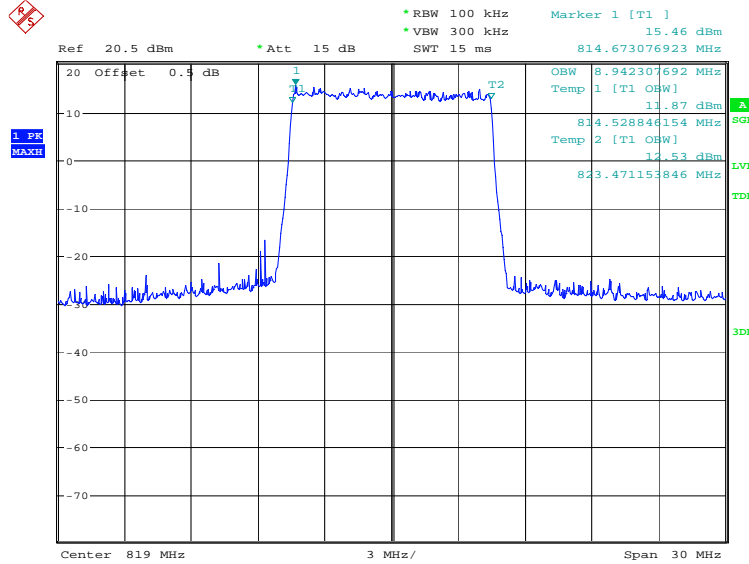


Date: 21.NOV.2018 14:08:56

LTE band 26(814MHz-824MHz), 10MHz (99%)

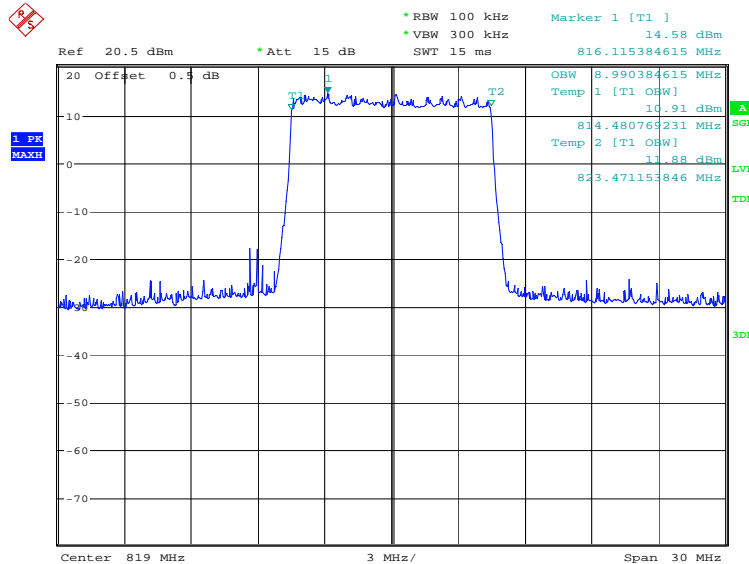
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
819.0	8942.31	8990.38	9038.46

LTE band 26(814MHz-824MHz), 10MHz Bandwidth, QPSK (99% BW)



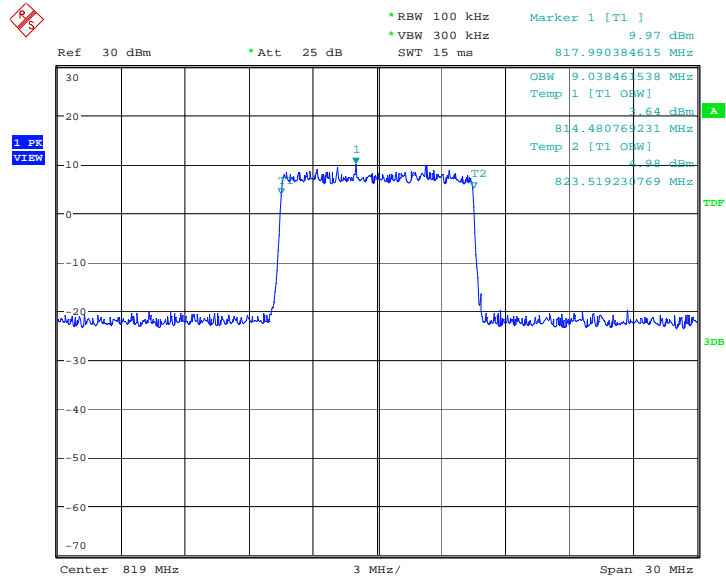
Date: 7.NOV.2018 22:36:40

LTE band 26(814MHz-824MHz), 10MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:38:04

LTE band 26(814MHz-824MHz), 10MHz Bandwidth, 64QAM (99% BW)

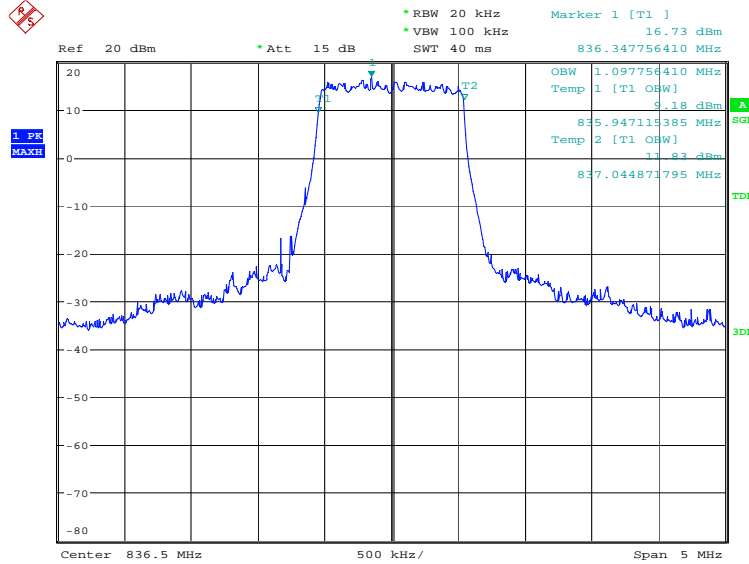


Date: 21.NOV.2018 14:10:14

LTE band 26(824MHz-849MHz), 1.4MHz (99%)

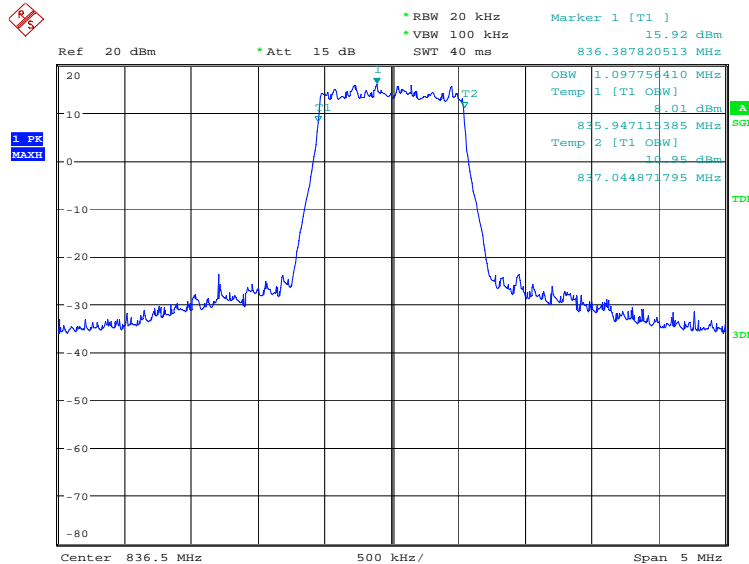
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
836.5	QPSK	16QAM	64QAM
	1097.76	1097.76	1089.74

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, QPSK (99% BW)



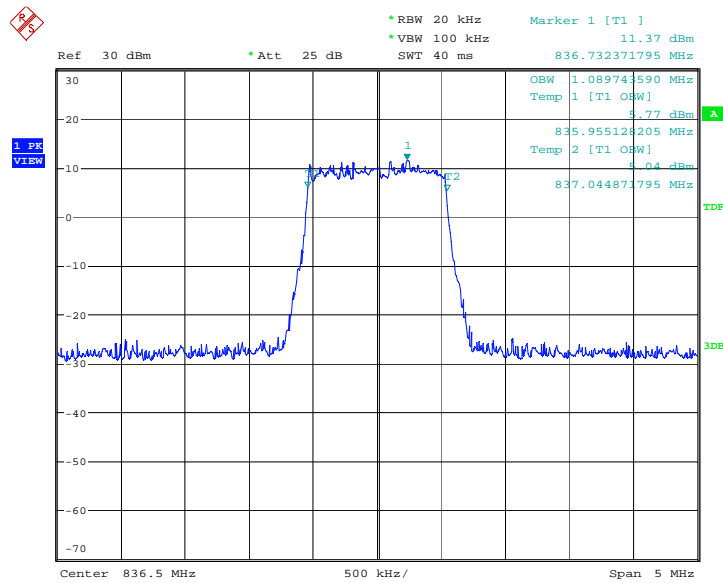
Date: 7.NOV.2018 22:07:14

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:08:38

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, 64QAM (99% BW)

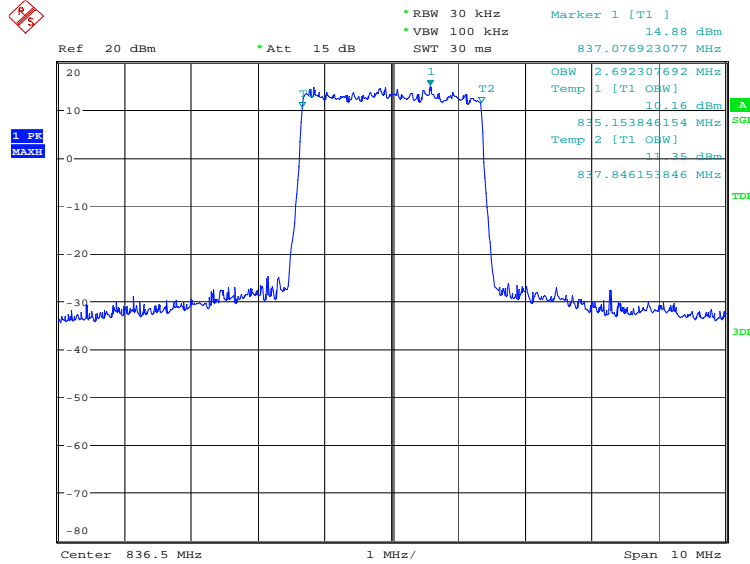


Date: 21.NOV.2018 13:52:23

LTE band 26(824MHz-849MHz), 3MHz (99%)

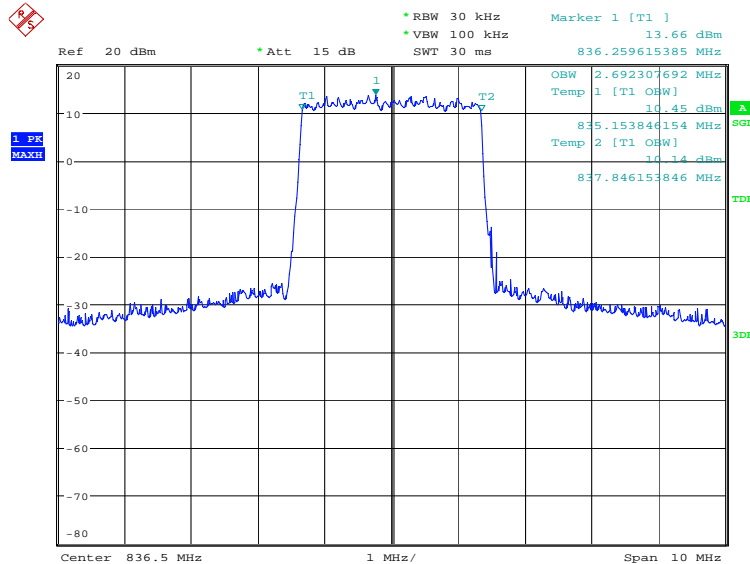
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
836.5	QPSK	16QAM	64QAM
	2692.31	2692.31	2692.31

LTE band 26(824MHz-849MHz), 3MHz Bandwidth, QPSK (99% BW)



Date: 7.NOV.2018 22:10:56

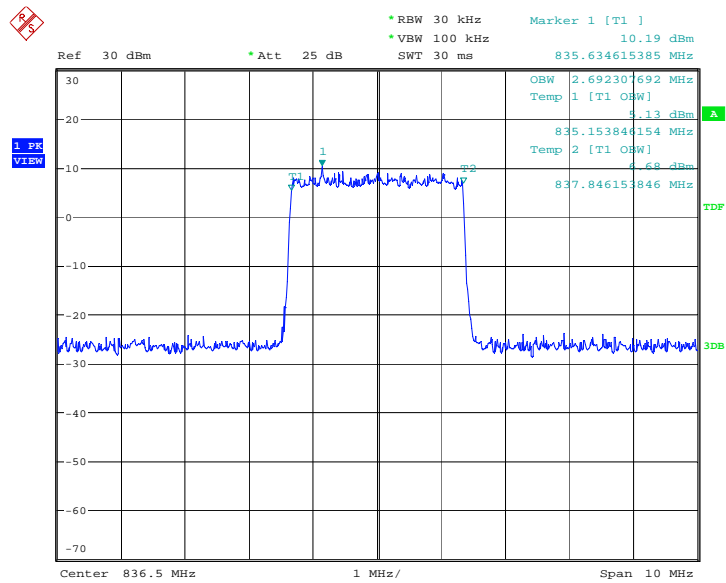
LTE band 26(824MHz-849MHz), 3MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:12:20



LTE band 26(824MHz-849MHz), 3MHz Bandwidth, 64QAM (99% BW)

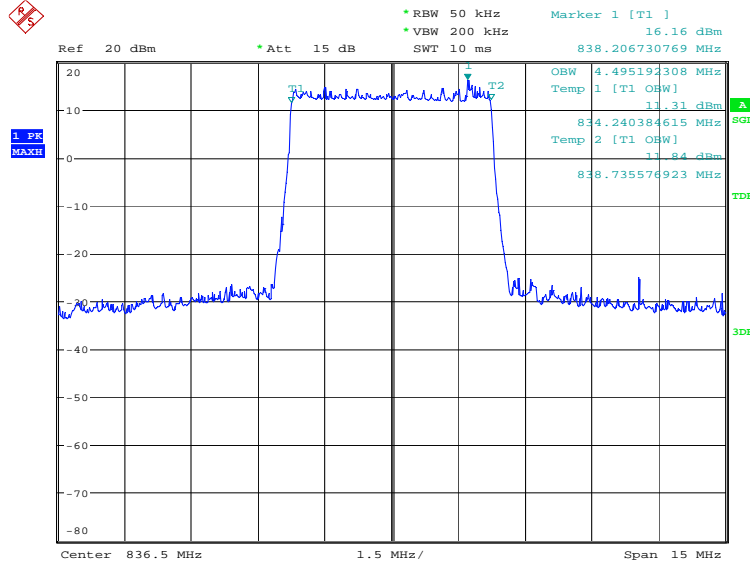


Date: 21.NOV.2018 13:54:03

LTE band 26(824MHz-849MHz), 5MHz (99%)

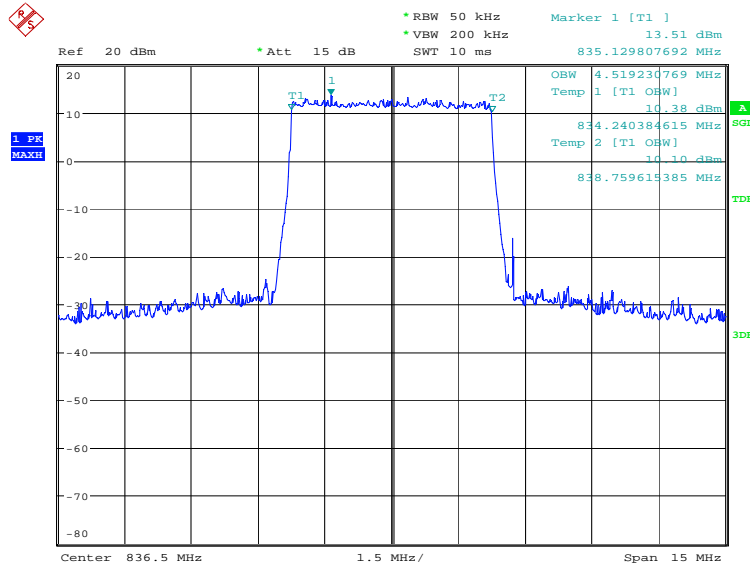
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
836.5	4495.19	4519.23	4495.19

LTE band 26(824MHz-849MHz), 5MHz Bandwidth, QPSK (99% BW)



Date: 7.NOV.2018 22:14:38

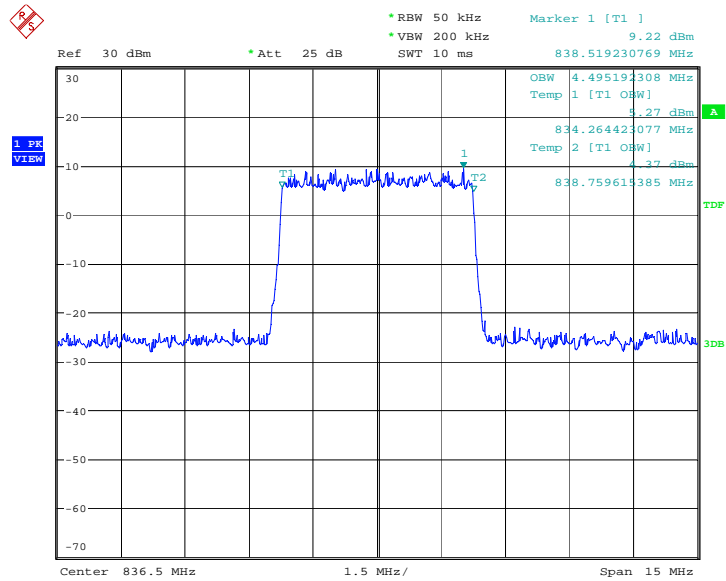
LTE band 26(824MHz-849MHz), 5MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:16:02



LTE band 26(824MHz-849MHz), 5MHz Bandwidth, 64QAM (99% BW)

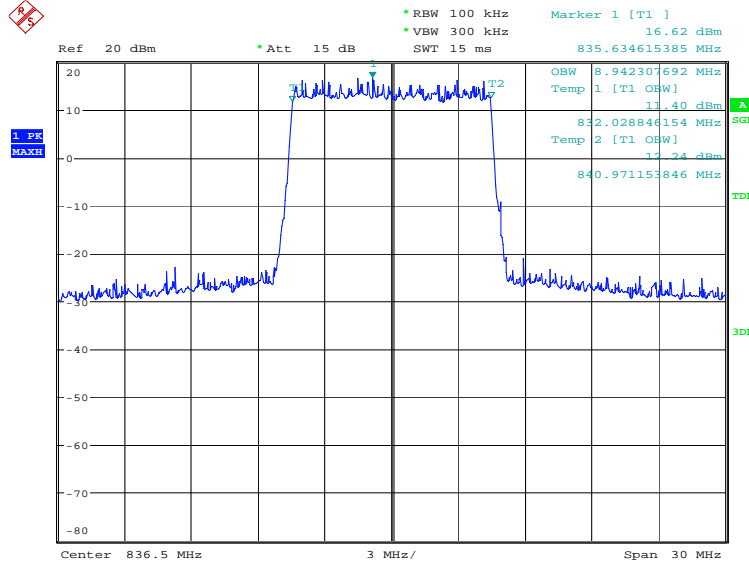


Date: 21.NOV.2018 13:55:49

LTE band 26(824MHz-849MHz), 10MHz (99%)

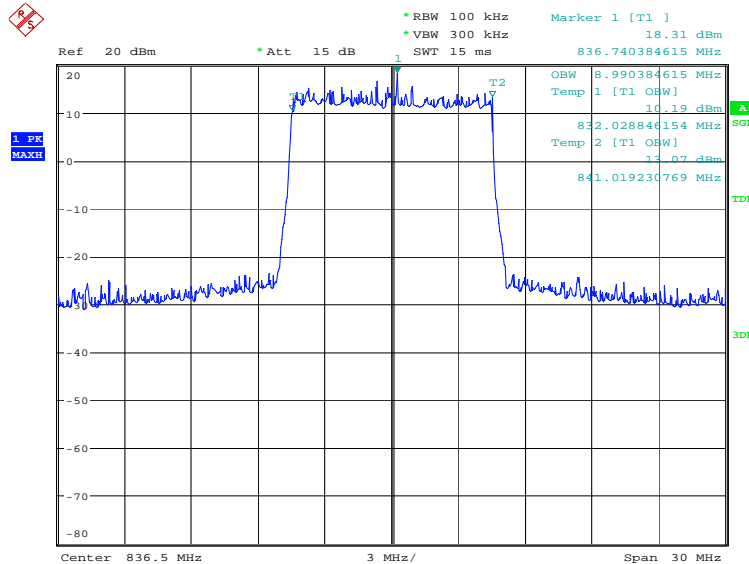
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
836.5	QPSK	16QAM	64QAM
	8942.31	8990.38	8990.38

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, QPSK (99% BW)



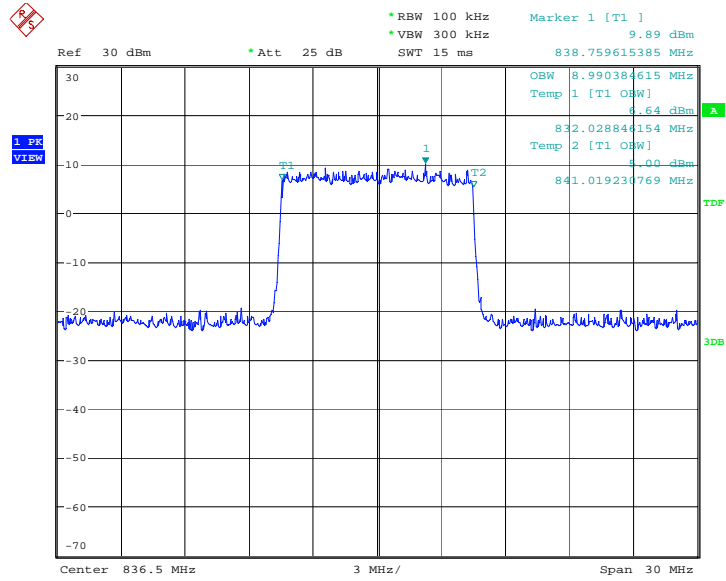
Date: 7.NOV.2018 22:18:20

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:19:44

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, 64QAM (99% BW)

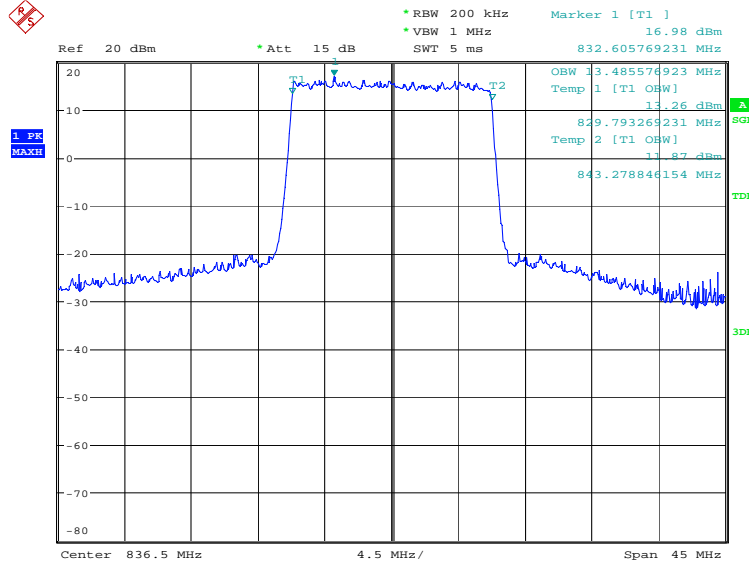


Date: 21.NOV.2018 13:57:43

LTE band 26(824MHz-849MHz), 15MHz (99%)

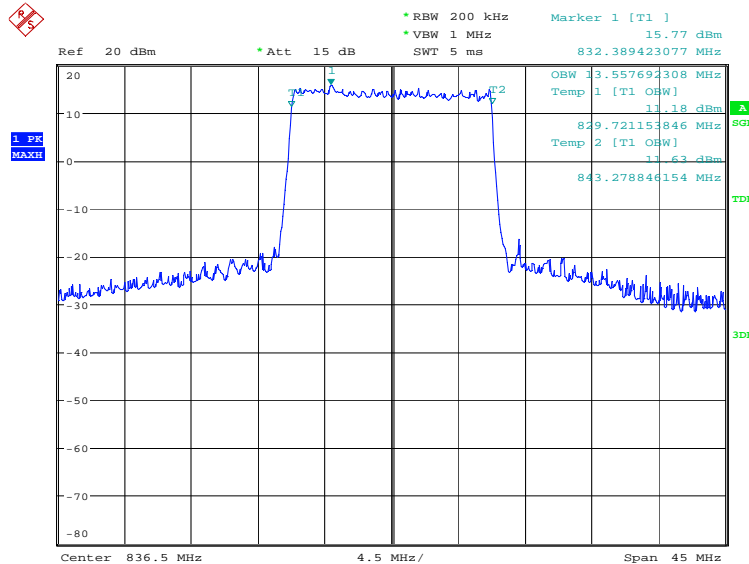
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
836.5	QPSK	16QAM	64QAM
	13485.58	13557.69	13485.58

LTE band 26(824MHz-849MHz), 15MHz Bandwidth, QPSK (99% BW)



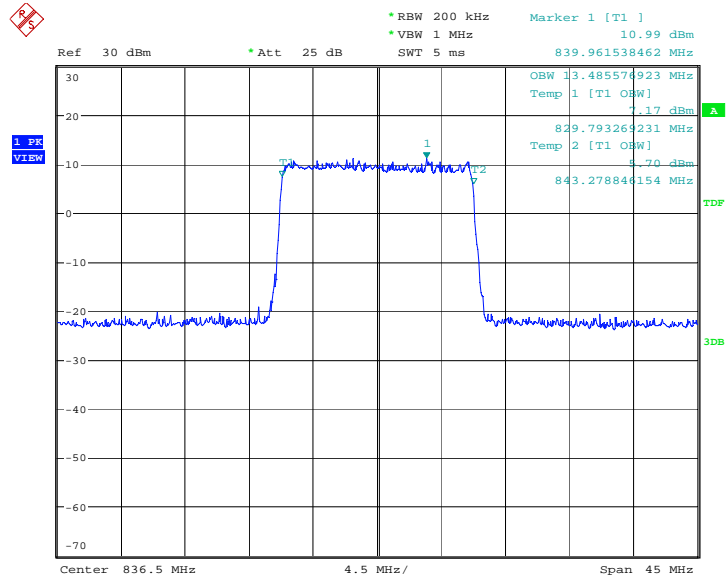
Date: 7.NOV.2018 22:22:02

LTE band 26(824MHz-849MHz), 15MHz Bandwidth, 16QAM (99% BW)



Date: 7.NOV.2018 22:23:27

LTE band 26(824MHz-849MHz), 15MHz Bandwidth, 64QAM (99% BW)



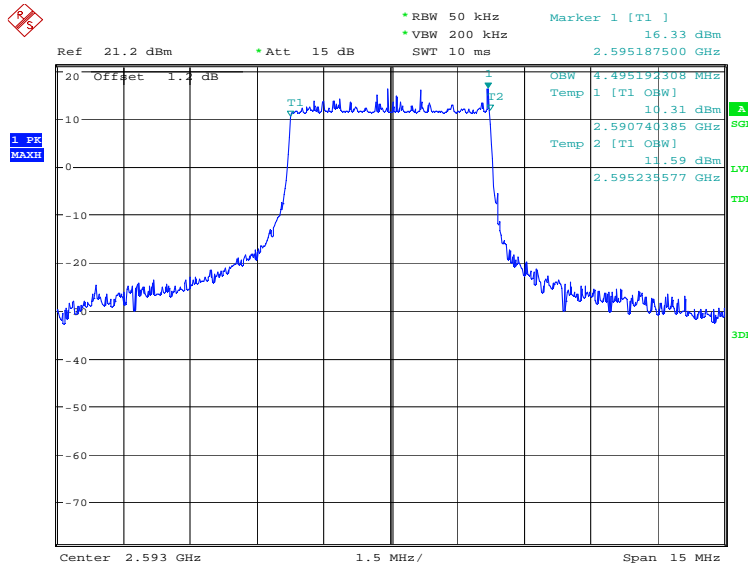
Date: 21.NOV.2018 13:59:11

HPUE

LTE band 41, 5MHz (99%)

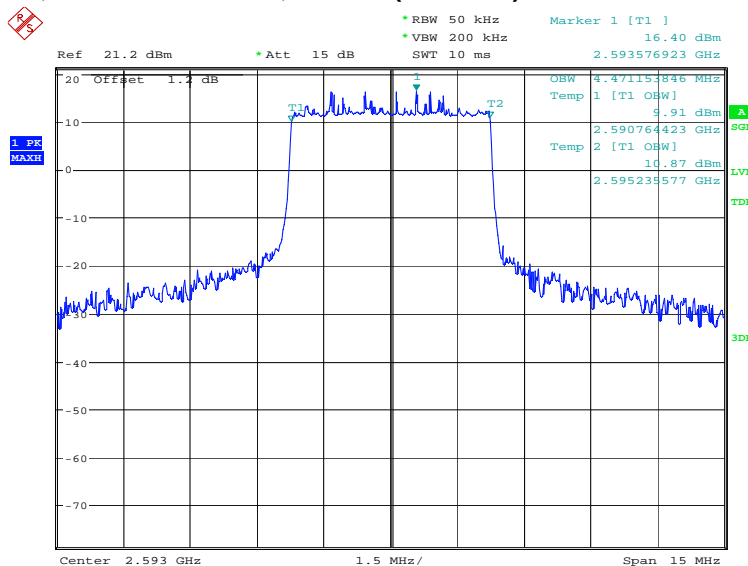
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
2593.0	4495.19	4471.15	4495.19

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



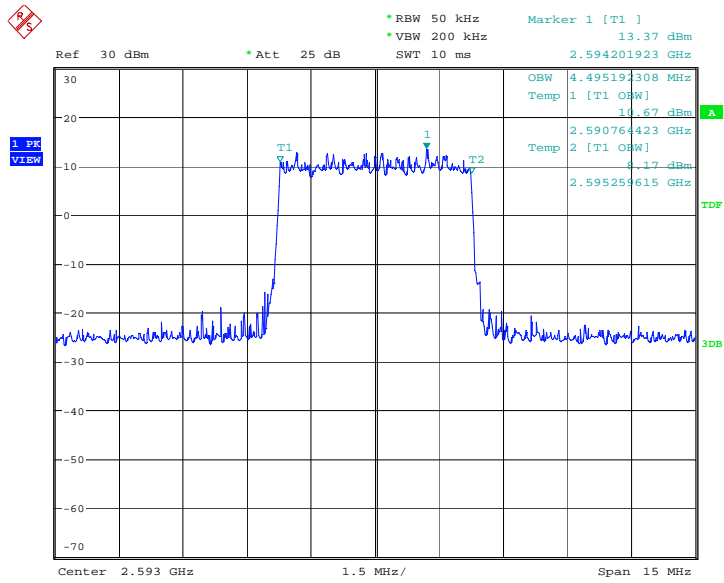
Date: 7.NOV.2018 22:40:25

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



Date: 7.NOV.2018 22:41:50

LTE band 41, 5MHz Bandwidth, 64QAM (99% BW)

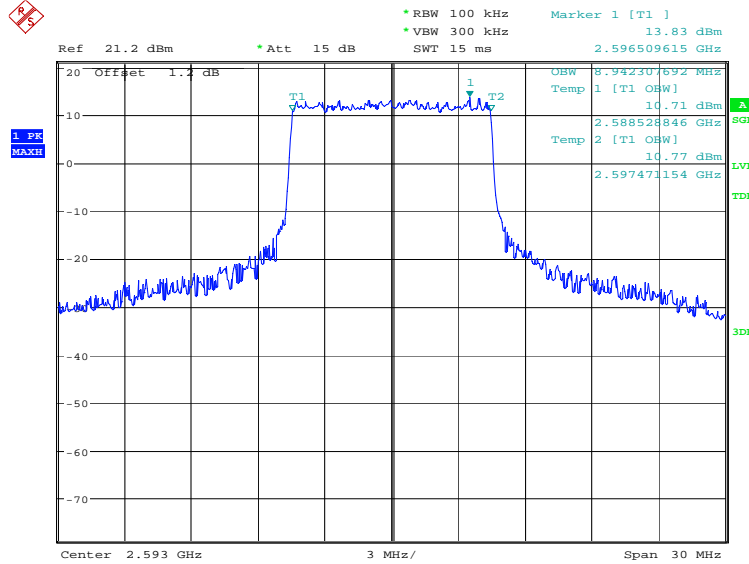


Date: 21.NOV.2018 09:58:58

LTE band 41, 10MHz (99%)

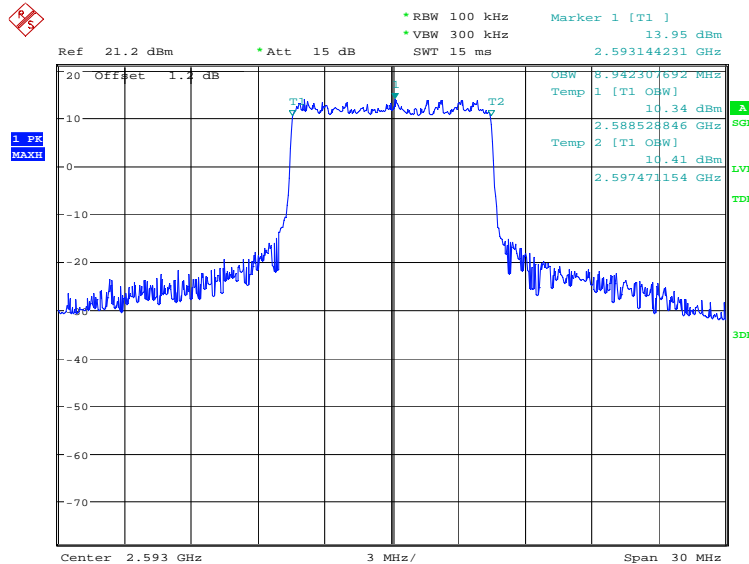
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
2593.0	8942.31	8942.31	8942.31

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



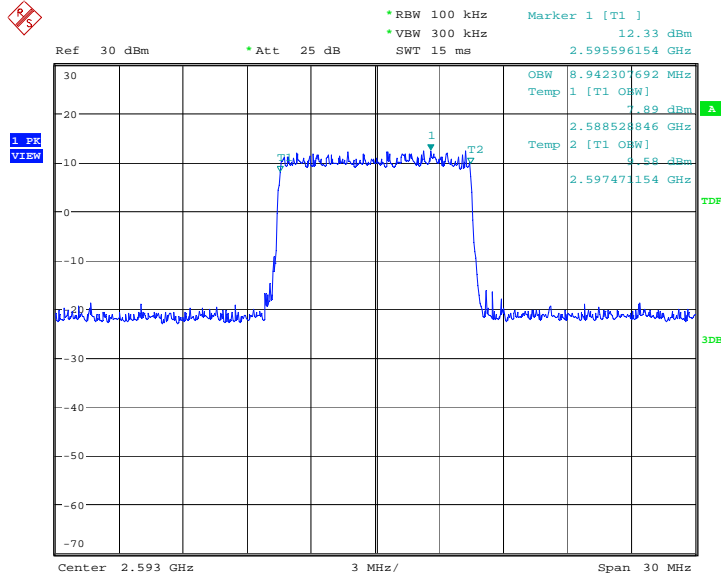
Date: 7.NOV.2018 22:44:03

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



Date: 7.NOV.2018 22:45:28

LTE band 41, 10MHz Bandwidth, 64QAM (99% BW)

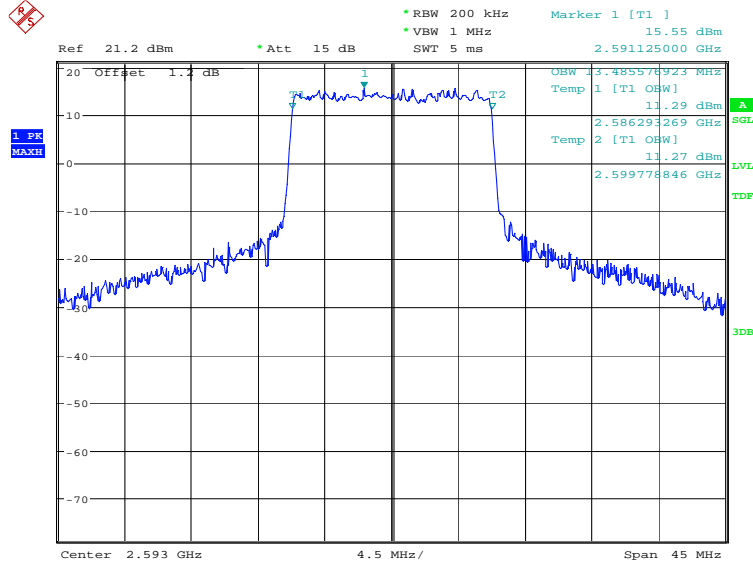


Date: 21.NOV.2018 10:00:53

LTE band 41, 15MHz (99%)

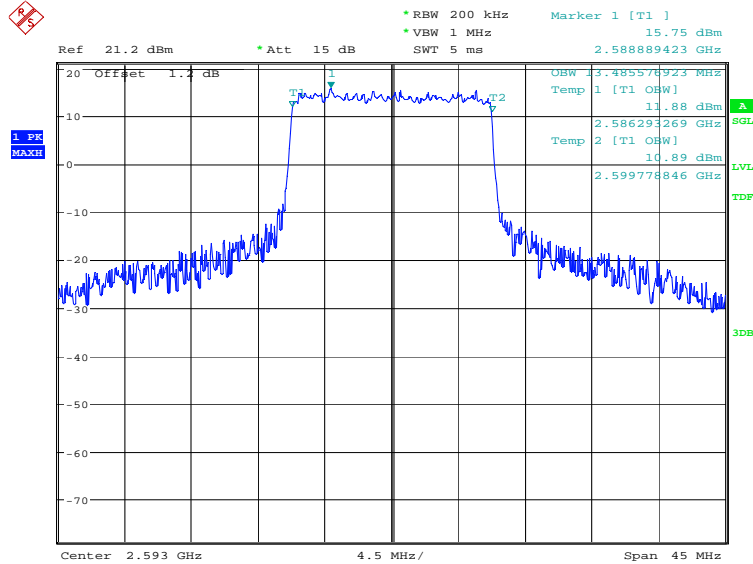
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
2593.0	13485.58	13485.58	13485.58

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



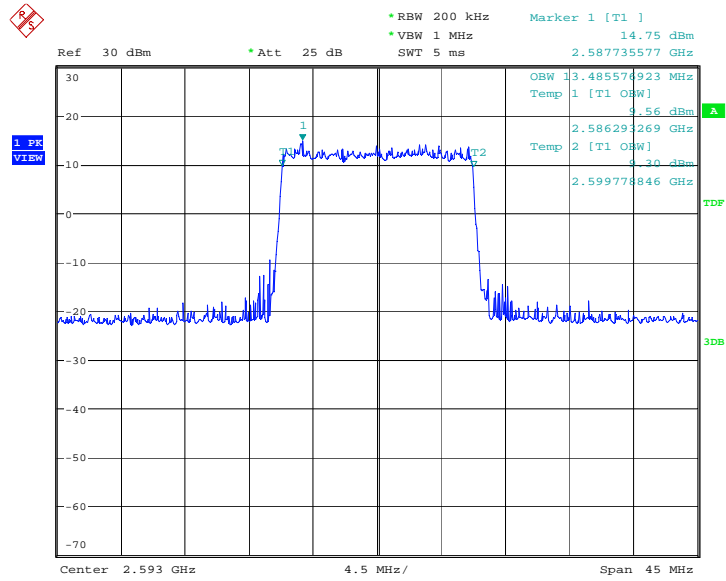
Date: 7.NOV.2018 22:47:42

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



Date: 7.NOV.2018 22:49:06

LTE band 41, 15MHz Bandwidth, 64QAM (99% BW)

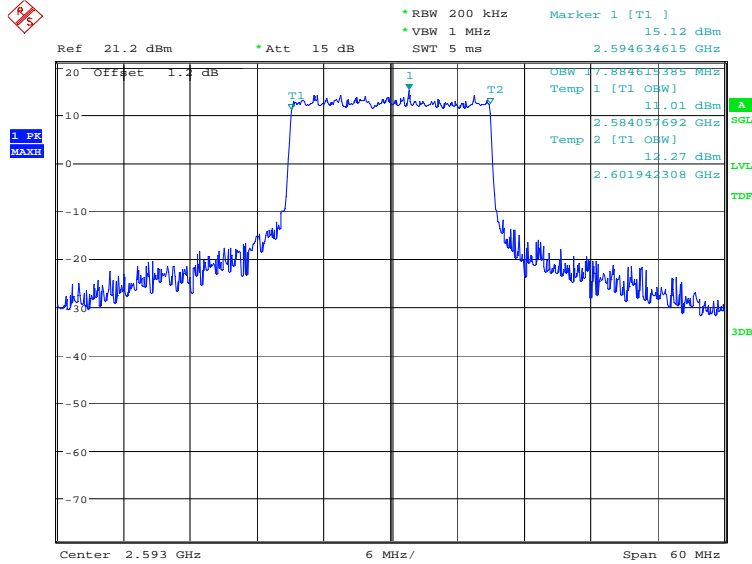


Date: 21.NOV.2018 10:05:14

LTE band 41, 20MHz (99%)

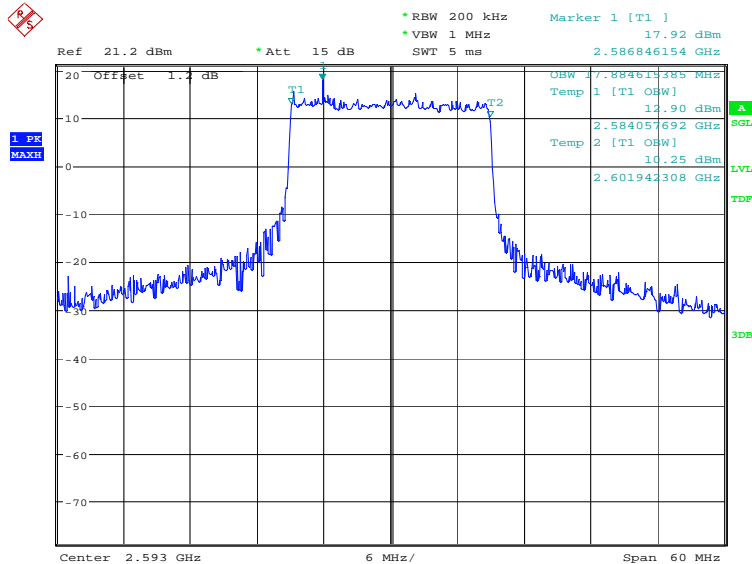
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
2593.0	17884.62	17884.62	17980.77

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



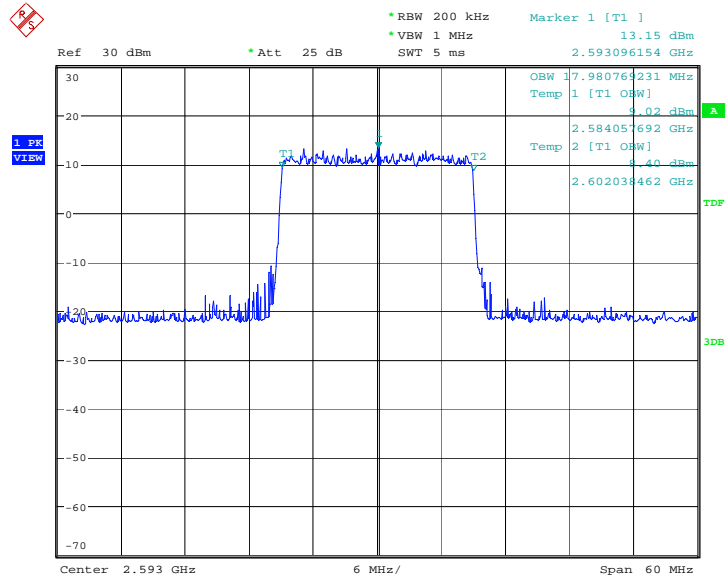
Date: 7.NOV.2018 22:50:32

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



Date: 7.NOV.2018 22:51:57

LTE band 41, 20MHz Bandwidth, 64QAM (99% BW)



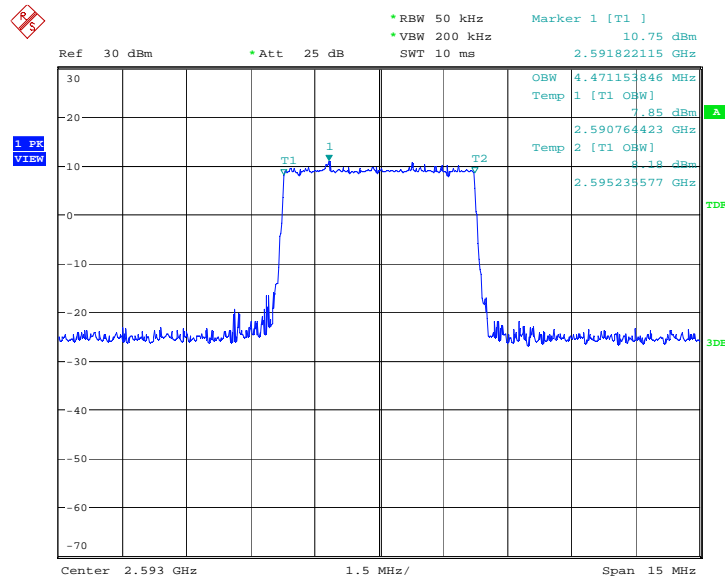
Date: 21.NOV.2018 10:07:23

normal power

LTE band 41, 5MHz (99%)

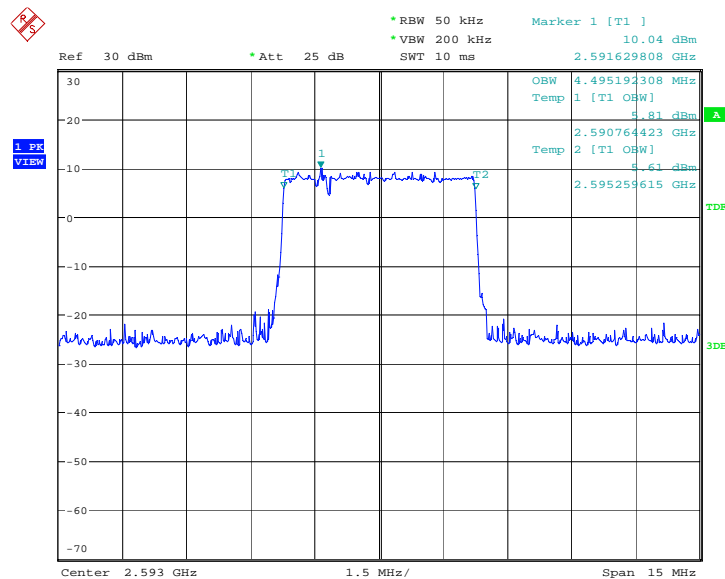
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
2593.0	4471.15	4495.19	4495.19

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



Date: 9.JAN.2019 09:26:05

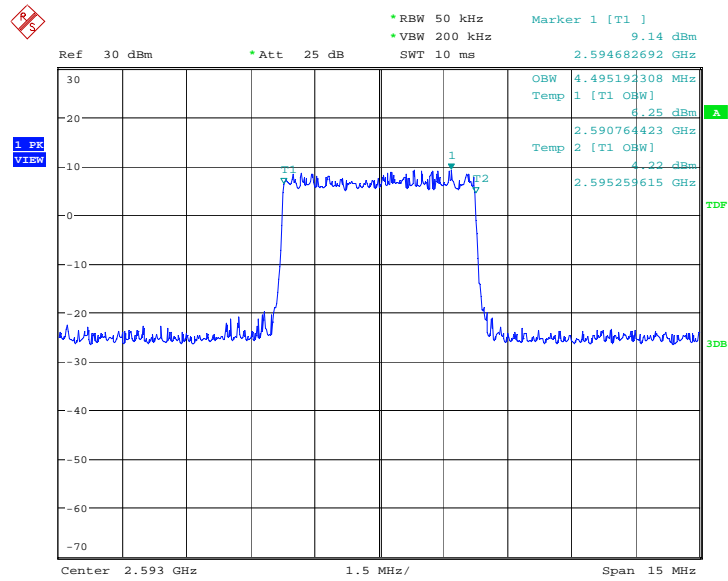
LTE band 41, 5MHz Bandwidth,16QAM (99% BW)



Date: 9.JAN.2019 09:26:20



LTE band 41, 5MHz Bandwidth, 64QAM (99% BW)

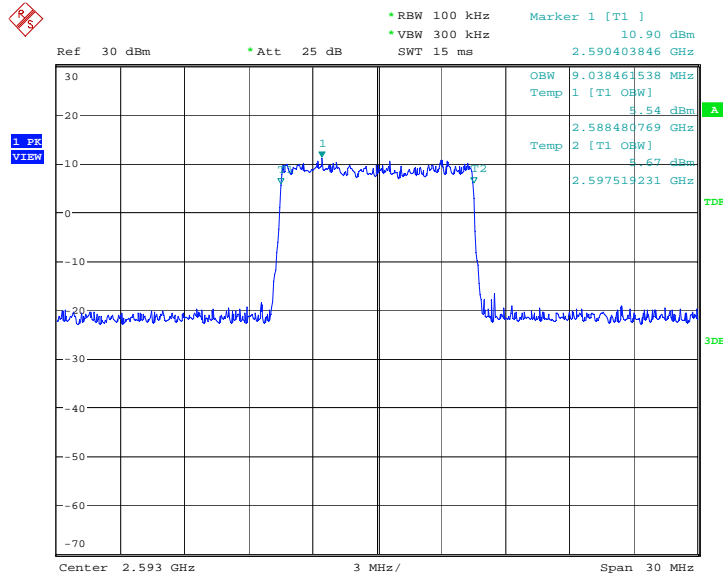


Date: 9.JAN.2019 09:44:32

LTE band 41, 10MHz (99%)

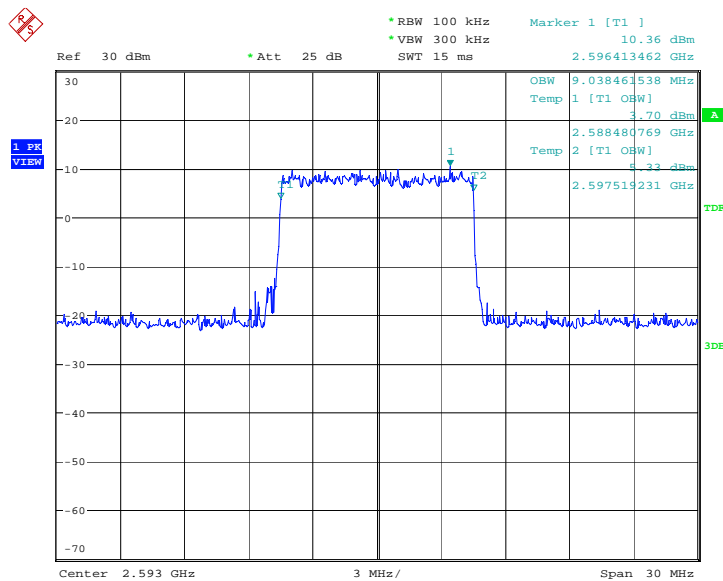
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
2593.0	QPSK	16QAM	64QAM
	9038.46	9038.46	8990.38

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



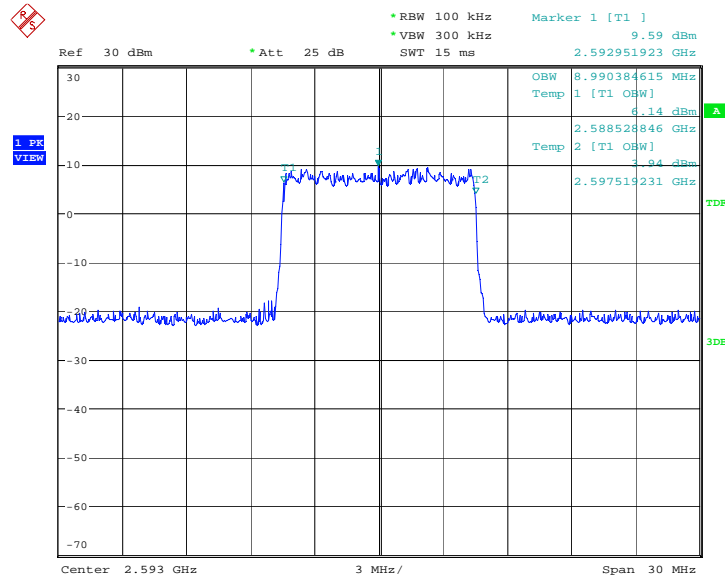
Date: 9.JAN.2019 09:28:28

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



Date: 9.JAN.2019 09:28:44

LTE band 41, 10MHz Bandwidth, 64QAM (99% BW)

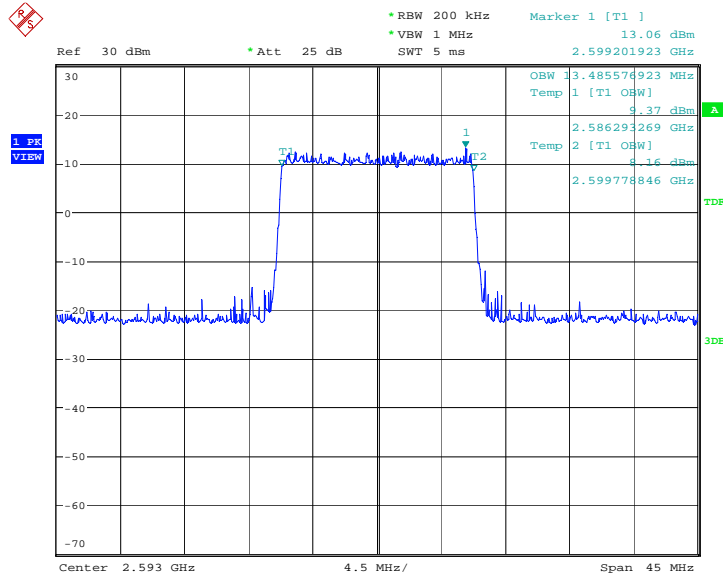


Date: 9.JAN.2019 09:51:22

LTE band 41, 15MHz (99%)

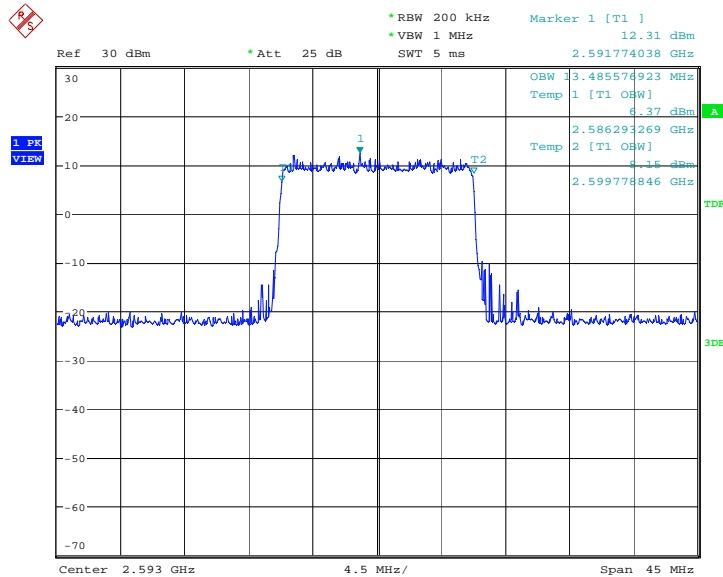
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
2593.0	13485.6	13485.6	13485.6

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



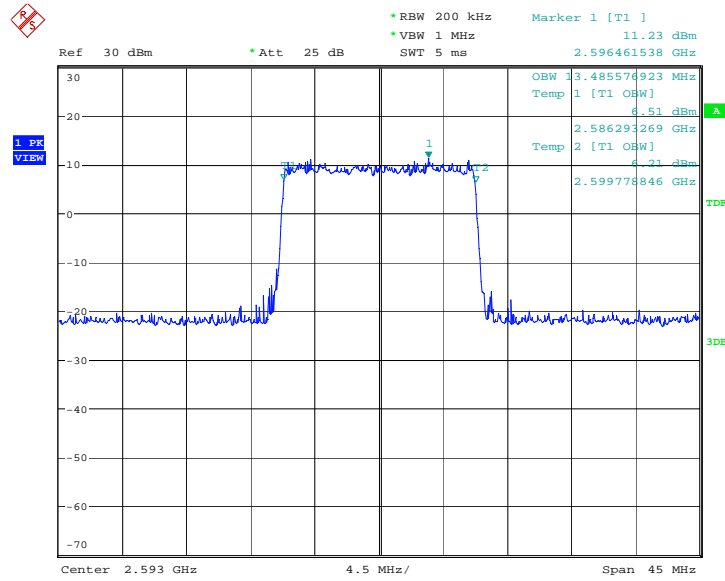
Date: 9.JAN.2019 09:30:52

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



Date: 9.JAN.2019 09:31:07

LTE band 41, 15MHz Bandwidth, 64QAM (99% BW)

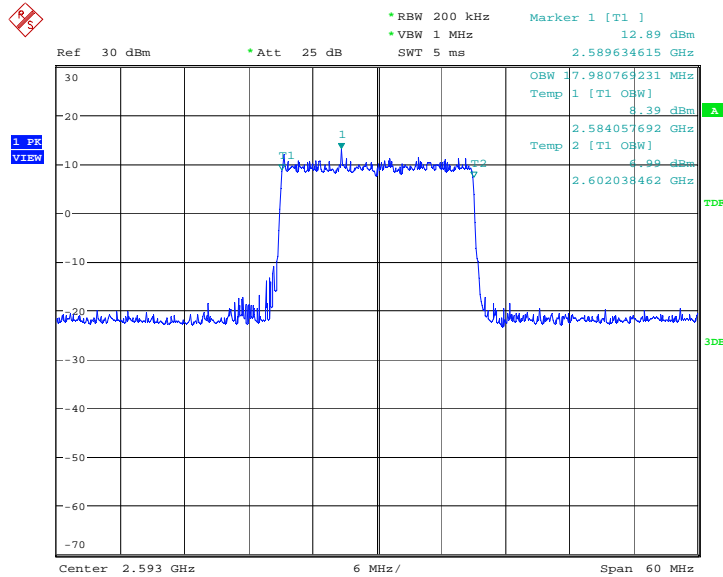


Date: 9.JAN.2019 09:46:49

LTE band 41, 20MHz (99%)

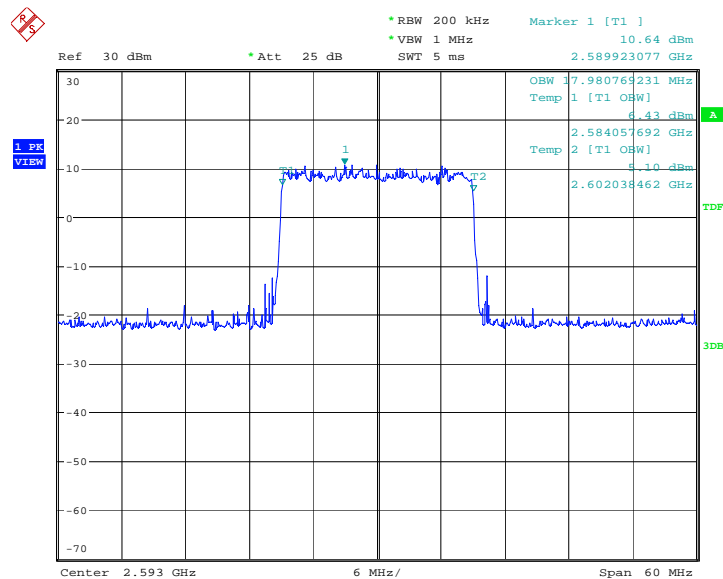
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
2593.0	17980.8	17980.8	17980.8

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



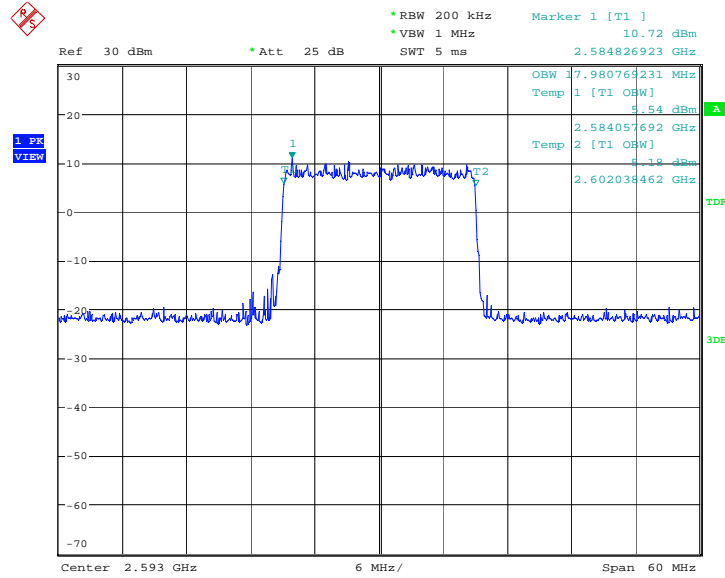
Date: 9.JAN.2019 09:33:16

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



Date: 9.JAN.2019 09:33:31

LTE band 41, 20MHz Bandwidth, 64QAM (99% BW)

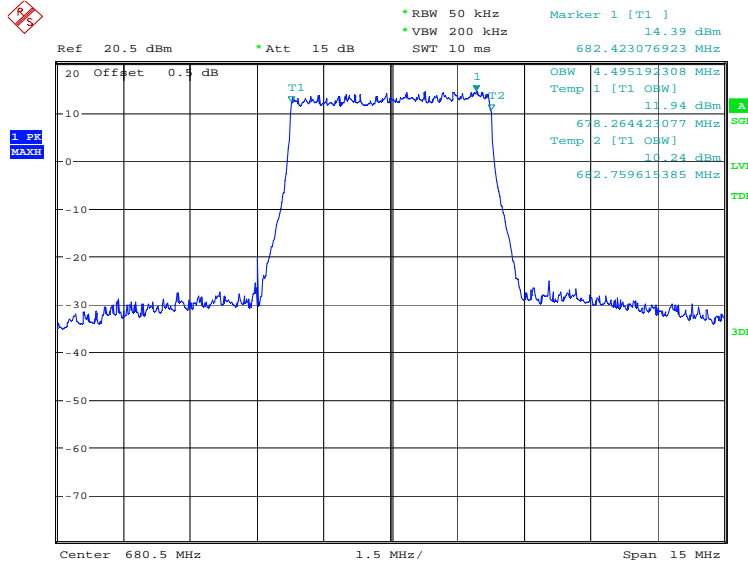


Date: 9.JAN.2019 09:48:40

LTE band 71, 5MHz (99%)

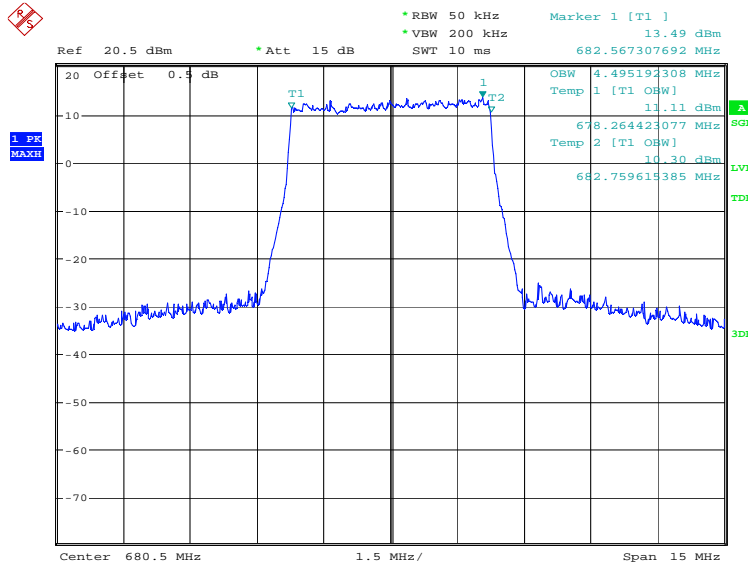
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
680.5	4495.19	4495.19	4495.19

LTE band 71, 5MHz Bandwidth, QPSK (99% BW)



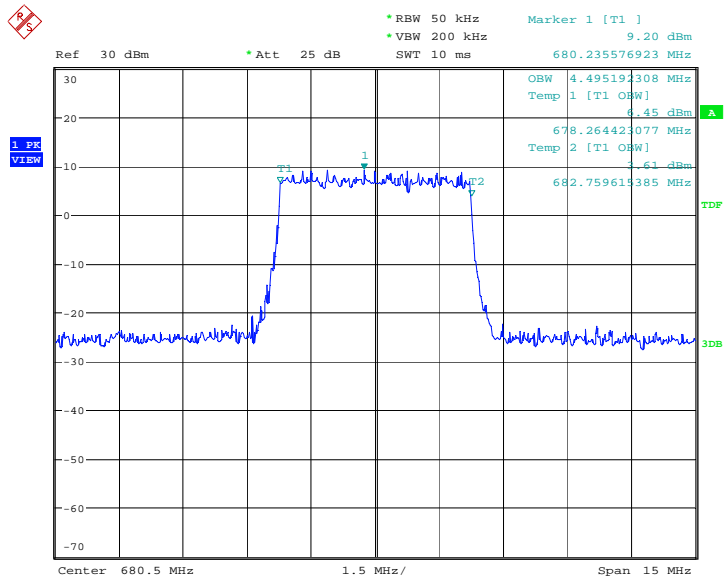
Date: 27.NOV.2018 05:48:56

LTE band 71, 5MHz Bandwidth, 16QAM (99% BW)



Date: 27.NOV.2018 05:50:20

LTE band 71, 5MHz Bandwidth, 64QAM (99% BW)

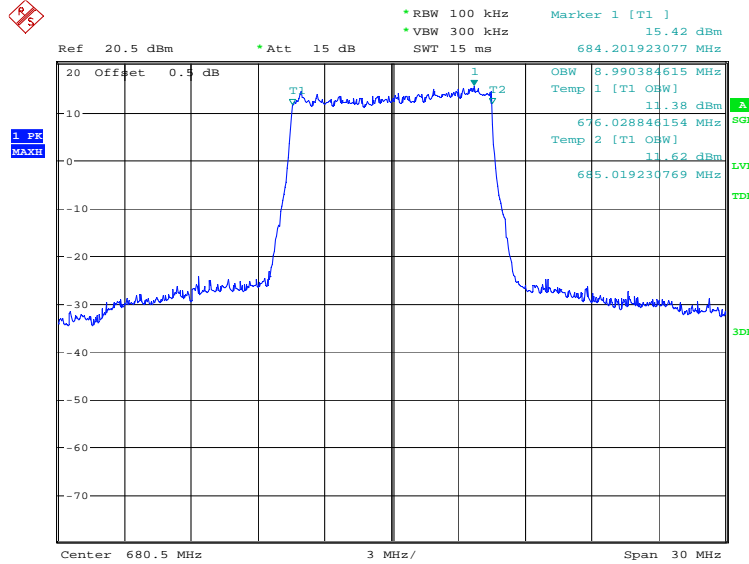


Date: 21.NOV.2018 10:12:36

LTE band 71, 10MHz (99%)

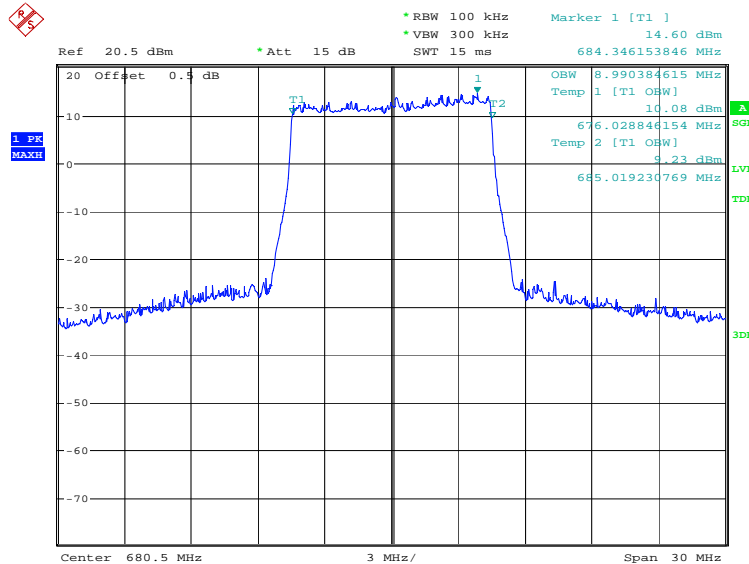
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
680.5	QPSK	16QAM	64QAM
	8990.38	8990.38	8990.38

LTE band 71, 10MHz Bandwidth, QPSK (99% BW)



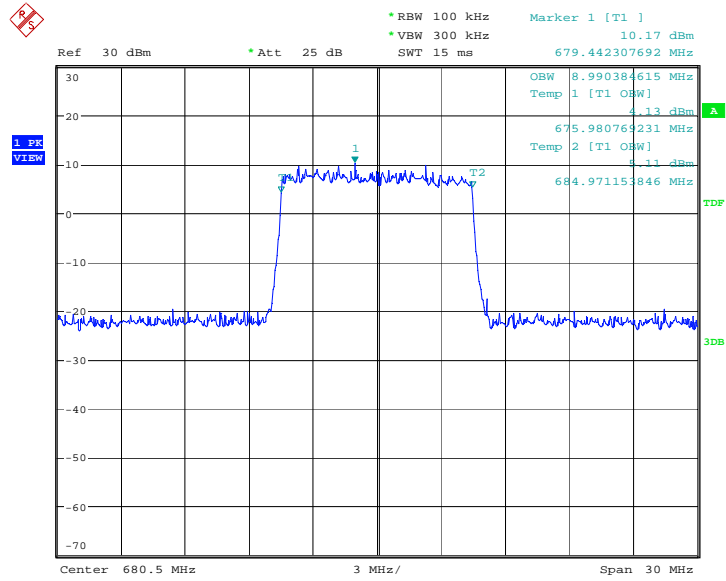
Date: 27.NOV.2018 05:52:33

LTE band 71, 10MHz Bandwidth, 16QAM (99% BW)



Date: 27.NOV.2018 05:53:56

LTE band 71, 10MHz Bandwidth, 64QAM(99% BW)

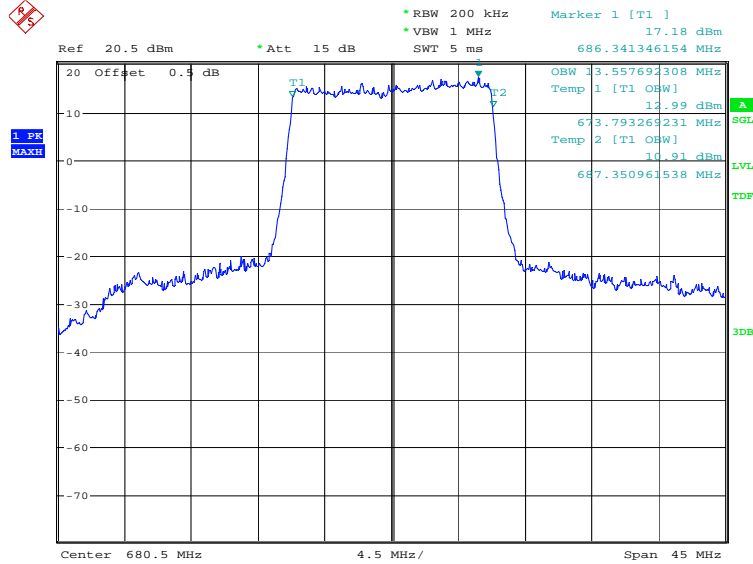


Date: 21.NOV.2018 10:20:38

LTE band 71, 15MHz (99%)

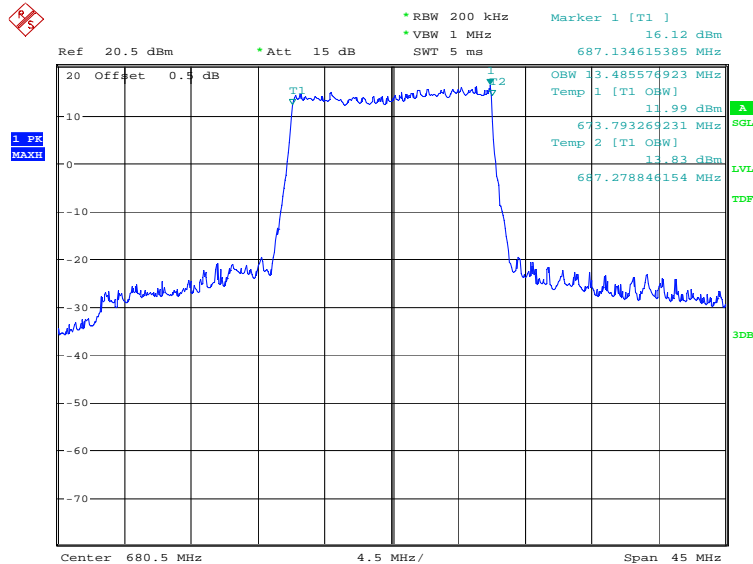
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
680.5	QPSK	16QAM	64QAM
	13557.69	13485.58	13485.58

LTE band 71, 15MHz Bandwidth, QPSK (99% BW)



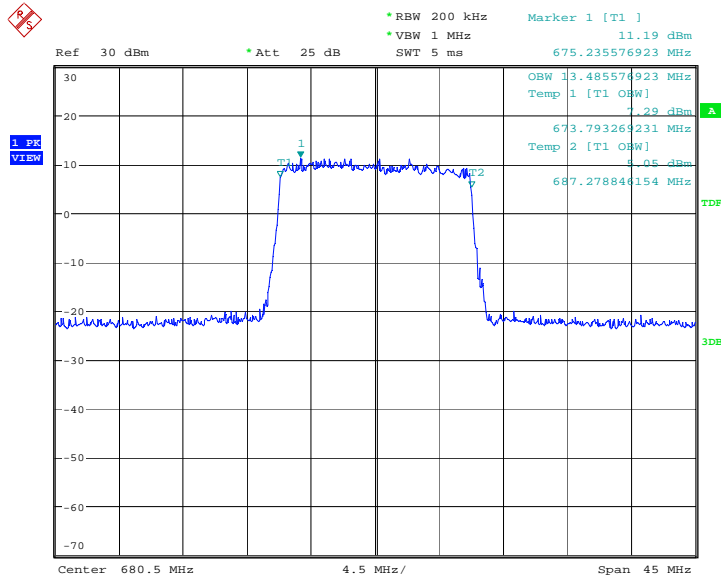
Date: 27.NOV.2018 05:56:09

LTE band 71, 15MHz Bandwidth, 16QAM (99% BW)



Date: 27.NOV.2018 05:57:33

LTE band 71, 15MHz Bandwidth, 64QAM (99% BW)

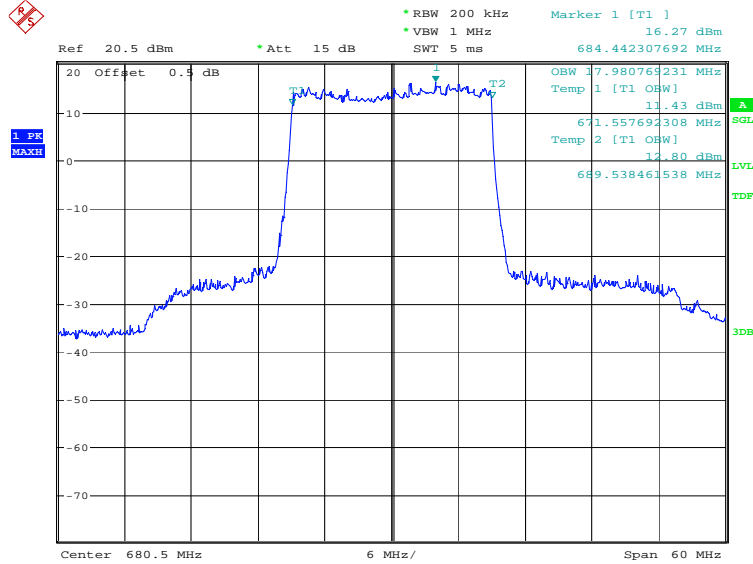


Date: 21.NOV.2018 10:23:05

LTE band 71, 20MHz (99%)

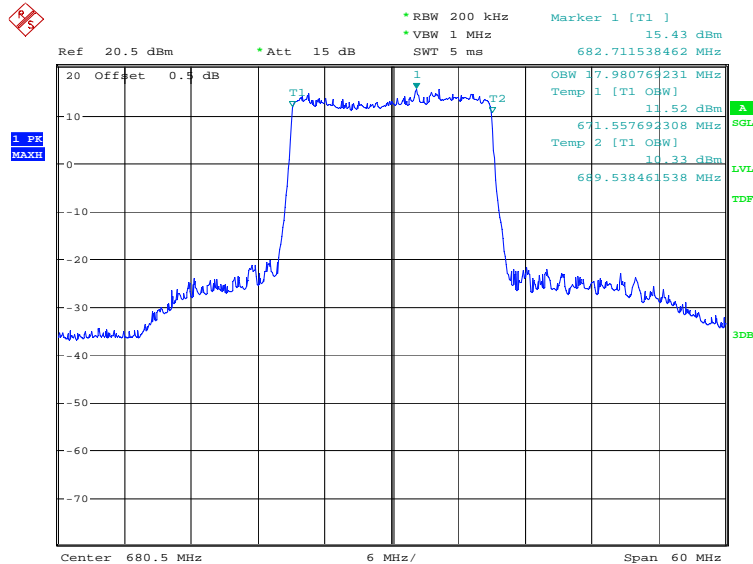
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)		
	QPSK	16QAM	64QAM
680.5	17980.77	17980.77	17980.77

LTE band 71, 20MHz Bandwidth, QPSK (99% BW)



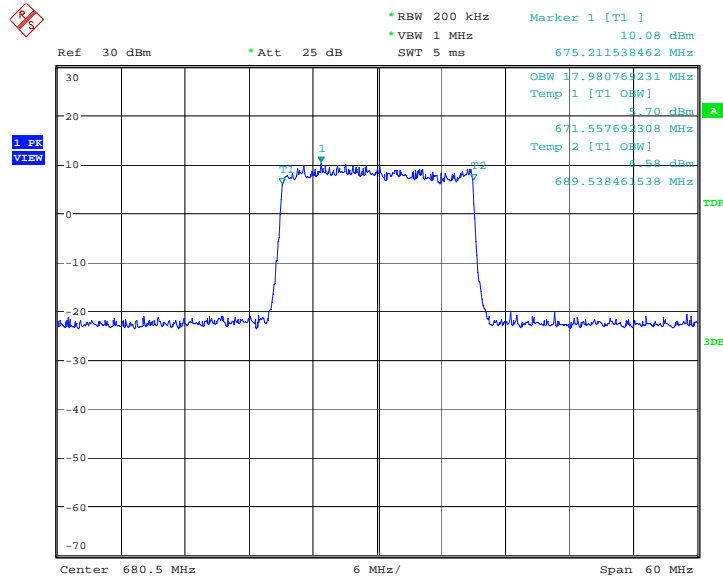
Date: 27.NOV.2018 05:59:46

LTE band 71, 20MHz Bandwidth, 16QAM (99% BW)



Date: 27.NOV.2018 06:01:10

LTE band 71, 20MHz Bandwidth, 64QAM (99% BW)



Date: 21.NOV.2018 10:24:37



A.5 EMISSION BANDWIDTH

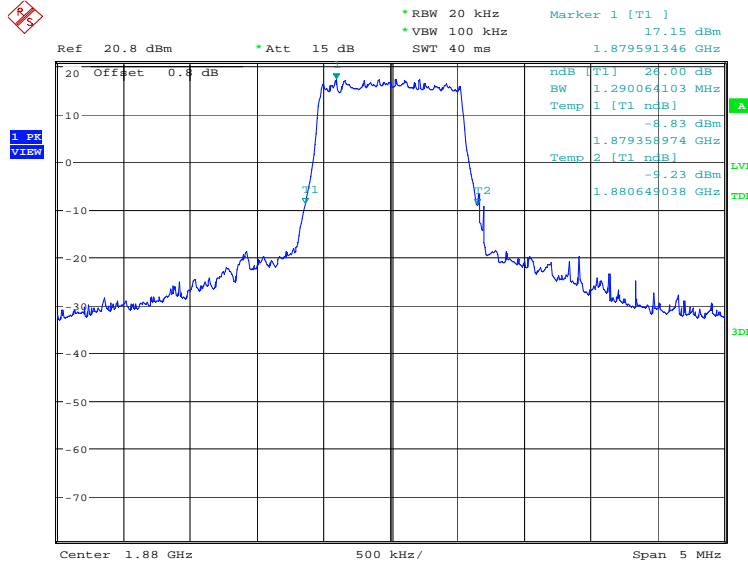
A.5.1 Emission Bandwidth Results

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.

LTE band 2, 1.4MHz (-26dBc)

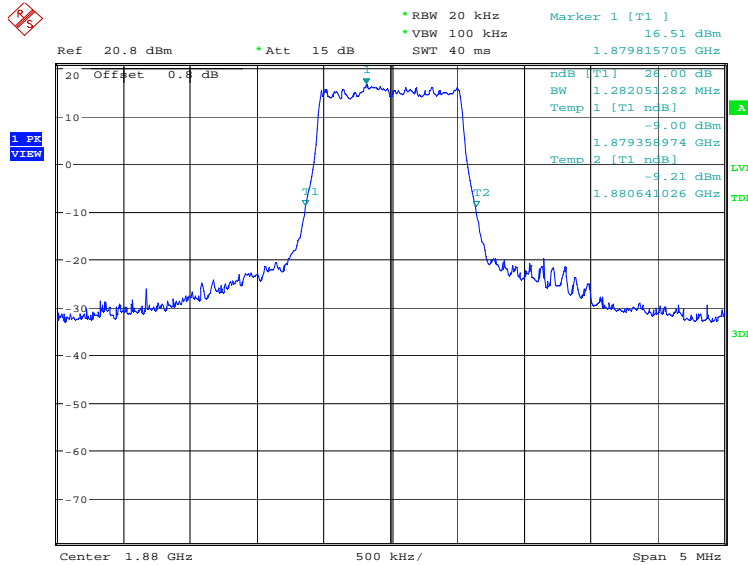
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1880.0	1290.06	1282.05	1290.06

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



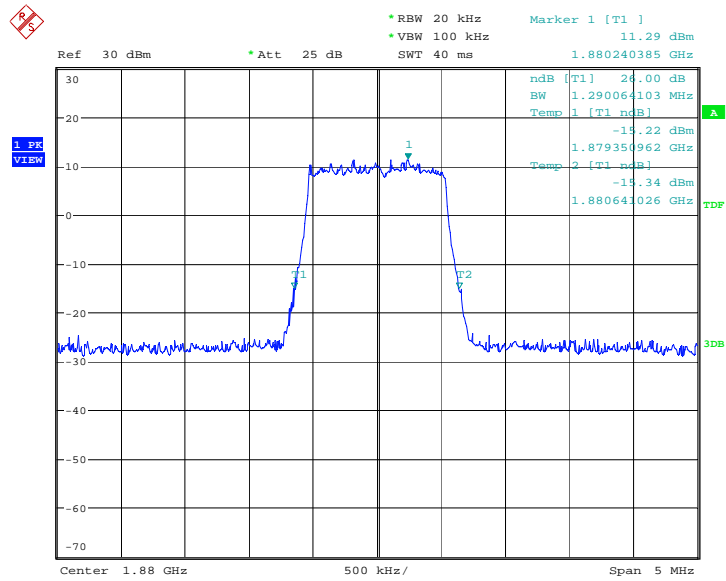
Date: 7.NOV.2018 23:07:46

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



Date: 7.NOV.2018 23:09:11

LTE band 2, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

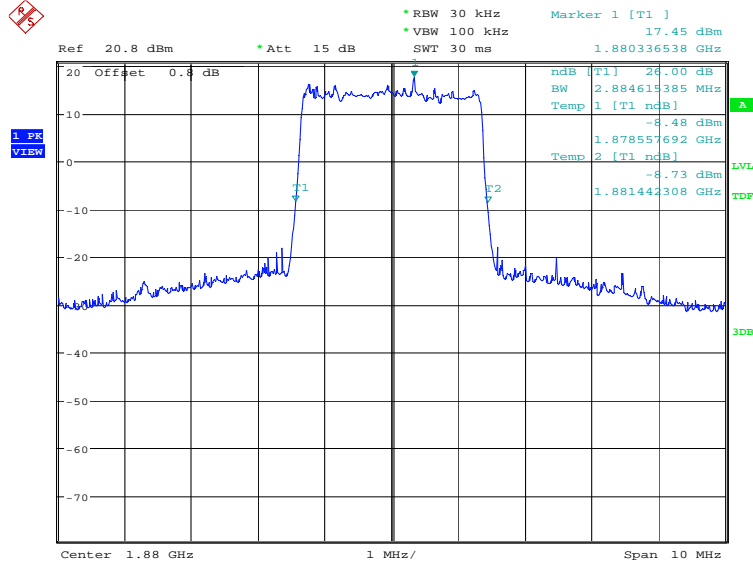


Date: 20.NOV.2018 15:49:32

LTE band 2, 3MHz (-26dBc)

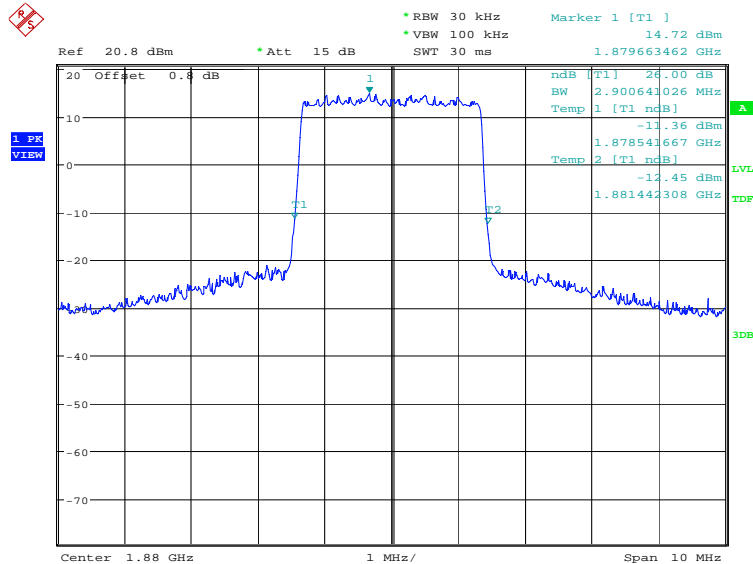
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1880.0	QPSK	16QAM	64QAM
	2884.62	2900.64	2868.59

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



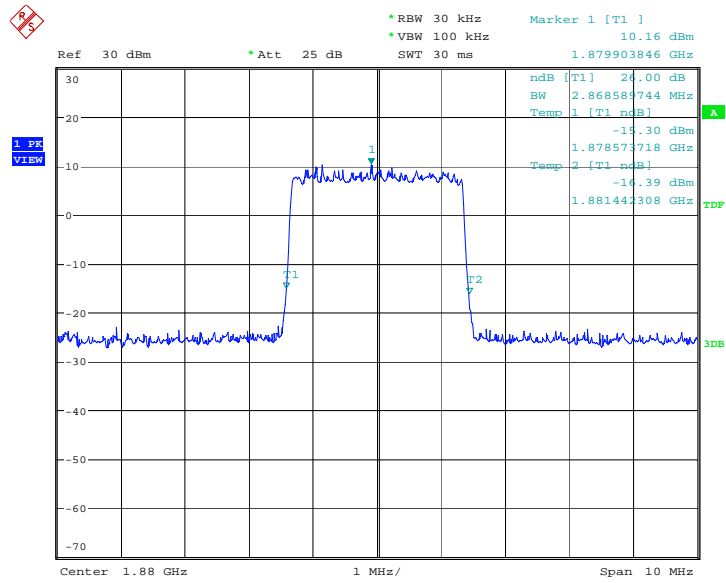
Date: 7.NOV.2018 23:11:30

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



Date: 7.NOV.2018 23:12:55

LTE band 2, 3MHz Bandwidth, 64QAM (-26dBc BW)

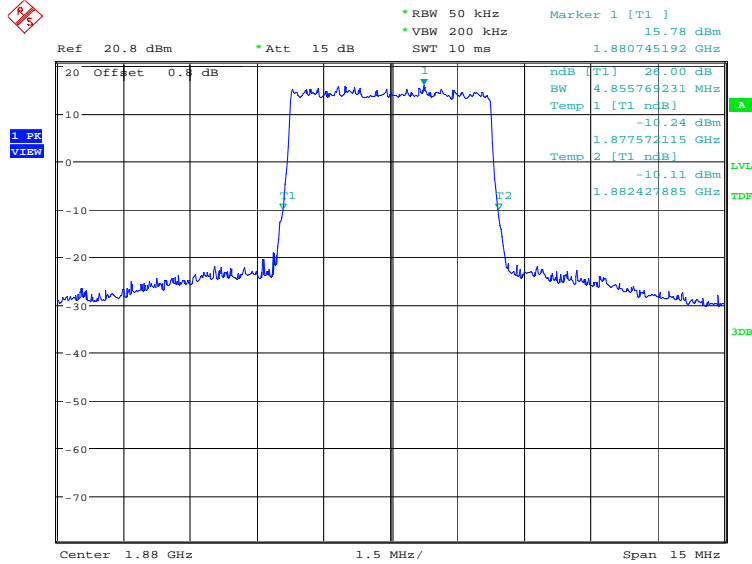


Date: 20.NOV.2018 15:51:06

LTE band 2, 5MHz (-26dBc)

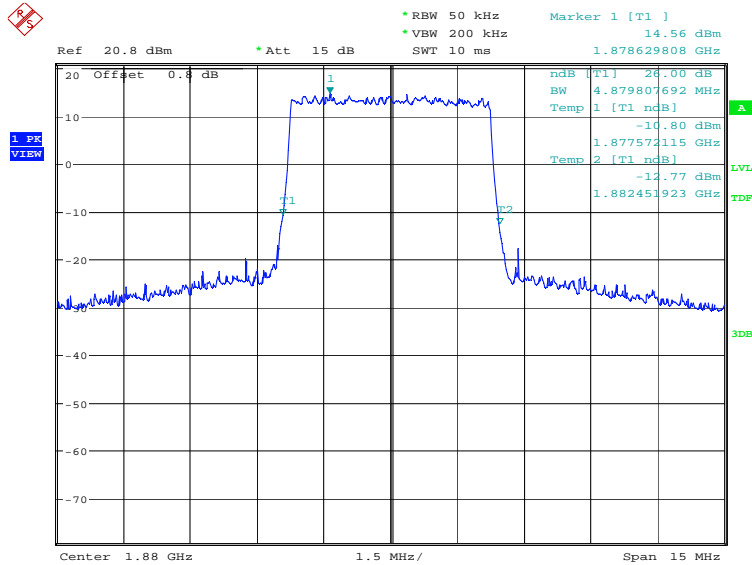
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
1880.0	QPSK	16QAM	64QAM
	4855.77	4879.81	4855.77

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



Date: 7.NOV.2018 23:15:13

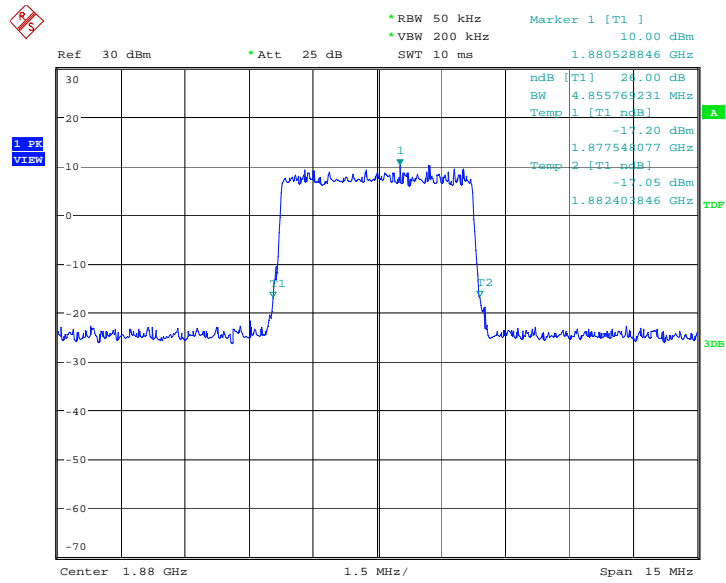
LTE band 2, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 7.NOV.2018 23:16:38



LTE band 2, 5MHz Bandwidth, 64QAM (-26dBc BW)

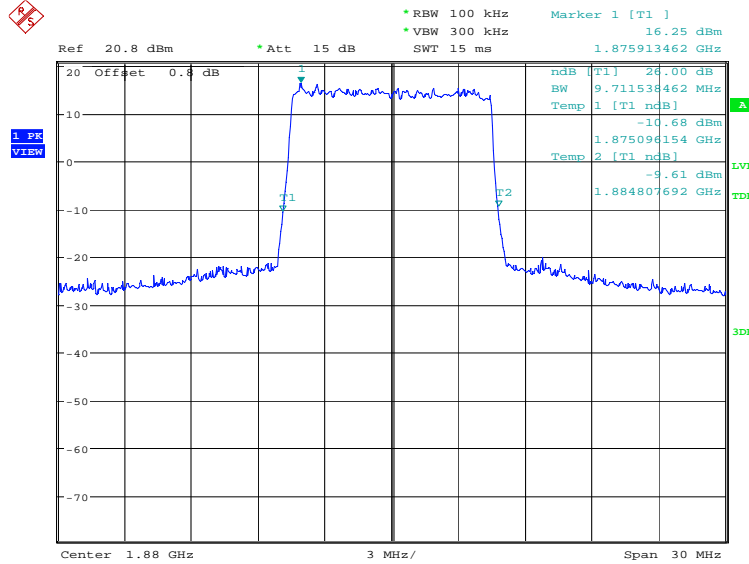


Date: 20.NOV.2018 15:52:37

LTE band 2, 10MHz (-26dBc)

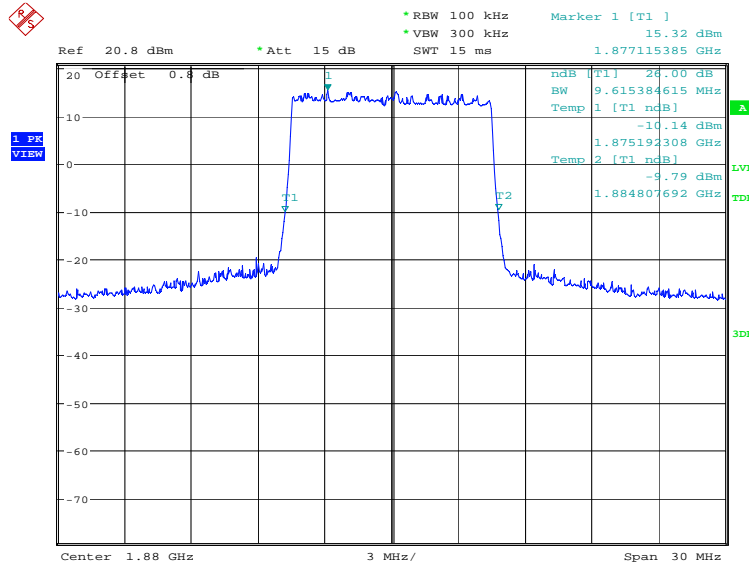
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1880.0	9711.54	9615.38	9615.38

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



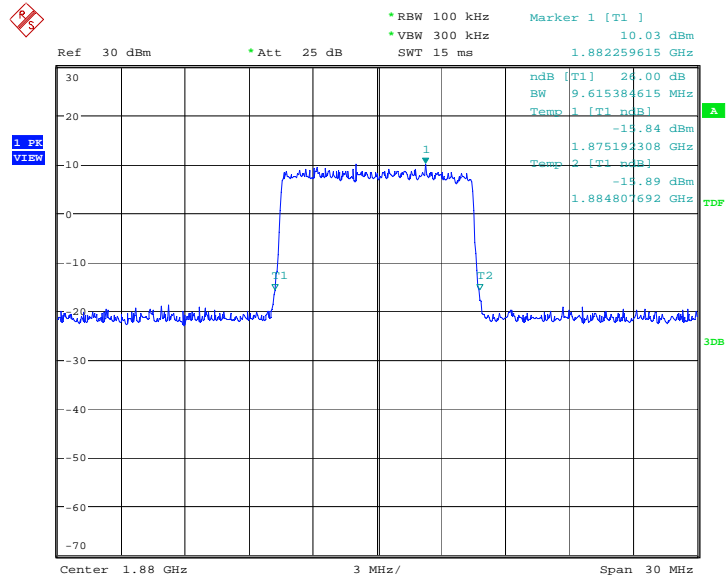
Date: 7.NOV.2018 23:18:56

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



Date: 7.NOV.2018 23:20:21

LTE band 2, 10MHz Bandwidth, 64QAM (-26dBc BW)

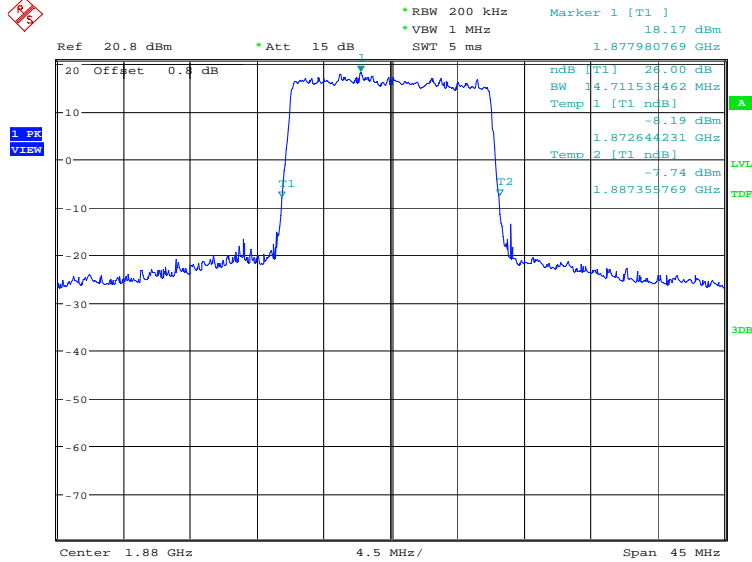


Date: 20.NOV.2018 15:53:54

LTE band 2, 15MHz (-26dBc)

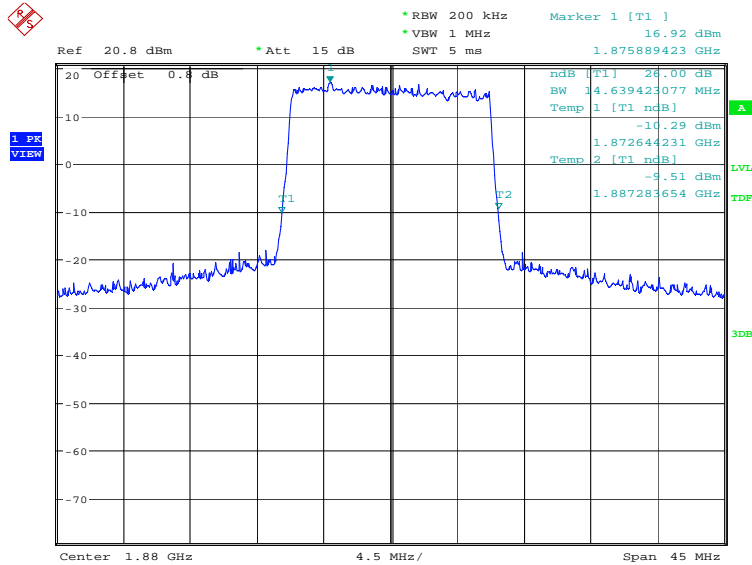
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1880.0	14711.54	14639.42	14639.42

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



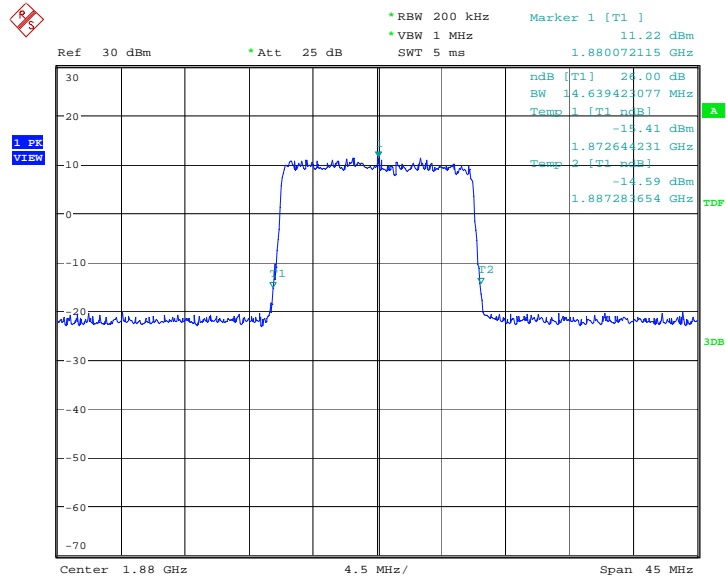
Date: 7.NOV.2018 23:22:42

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



Date: 7.NOV.2018 23:24:07

LTE band 2, 15MHz Bandwidth, 64QAM (-26dBc BW)

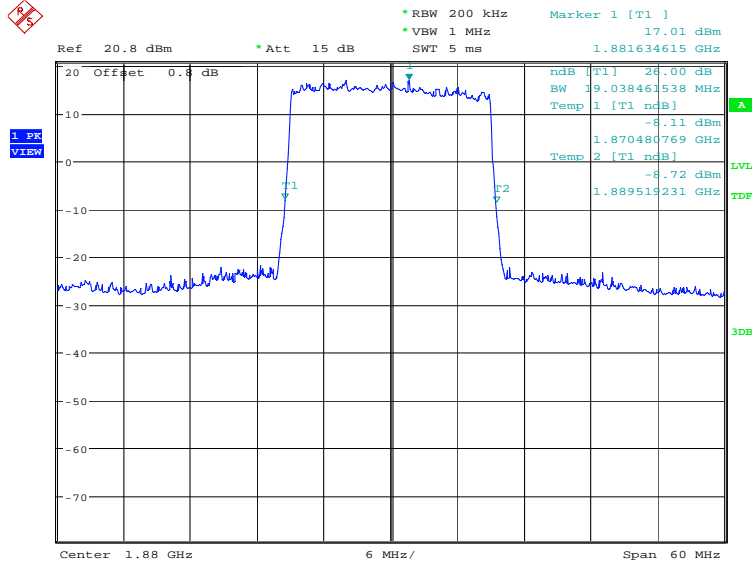


Date: 20.NOV.2018 15:55:20

LTE band 2, 20MHz (-26dBc)

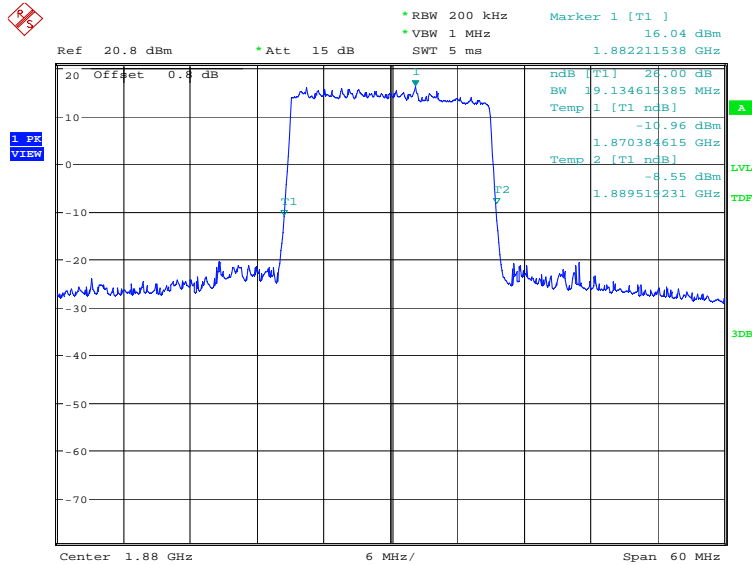
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1880.0	19038.46	19134.62	19230.77

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



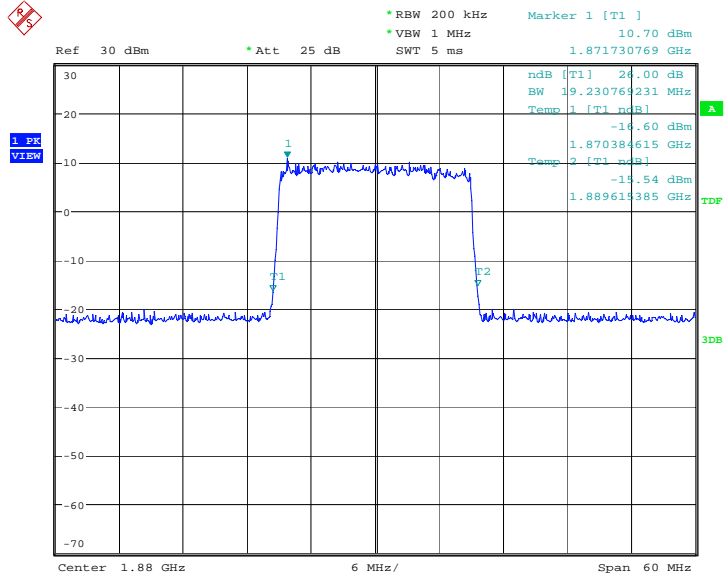
Date: 7.NOV.2018 23:26:30

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



Date: 7.NOV.2018 23:27:55

LTE band 2, 20MHz Bandwidth, 64QAM (-26dBc BW)

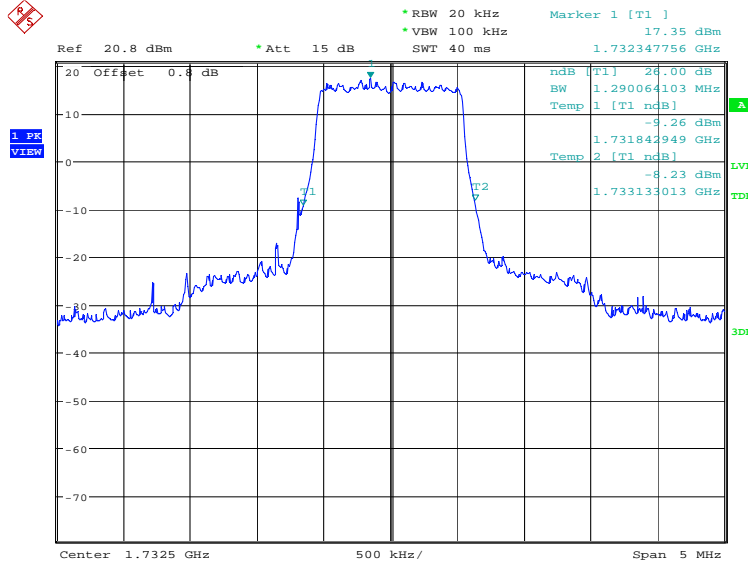


Date: 20.NOV.2018 15:57:48

LTE band 4, 1.4MHz (-26dBc)

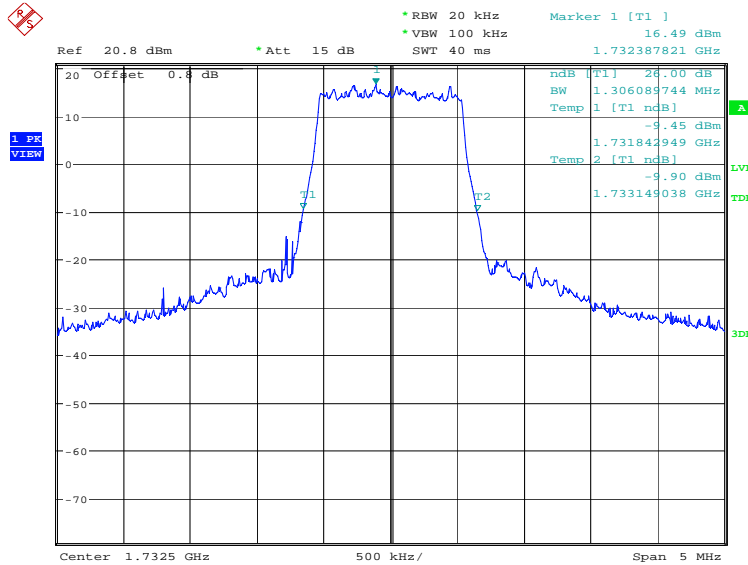
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1732.5	1290.06	1306.09	1290.06

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



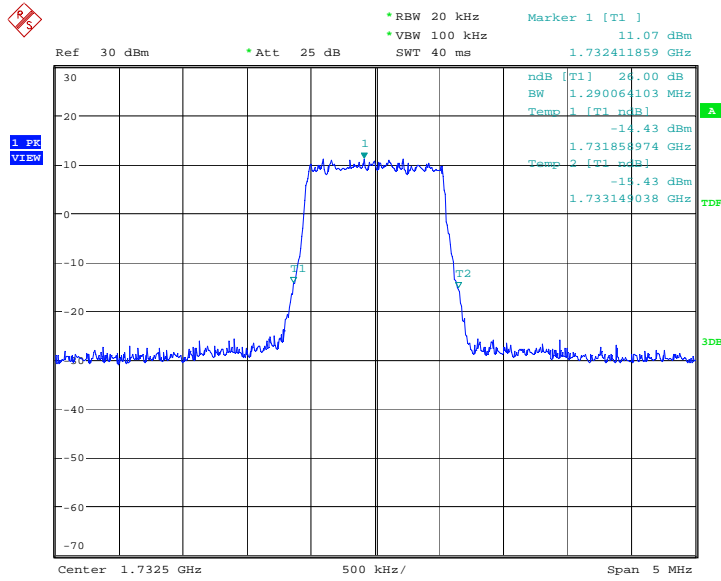
Date: 7.NOV.2018 23:30:15

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



Date: 7.NOV.2018 23:31:40

LTE band 4, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

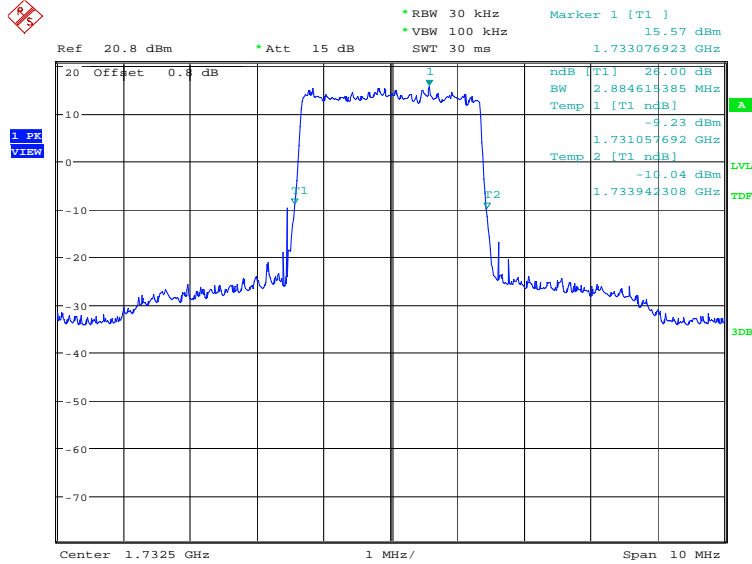


Date: 27.NOV.2018 04:53:08

LTE band 4, 3MHz (-26dBc)

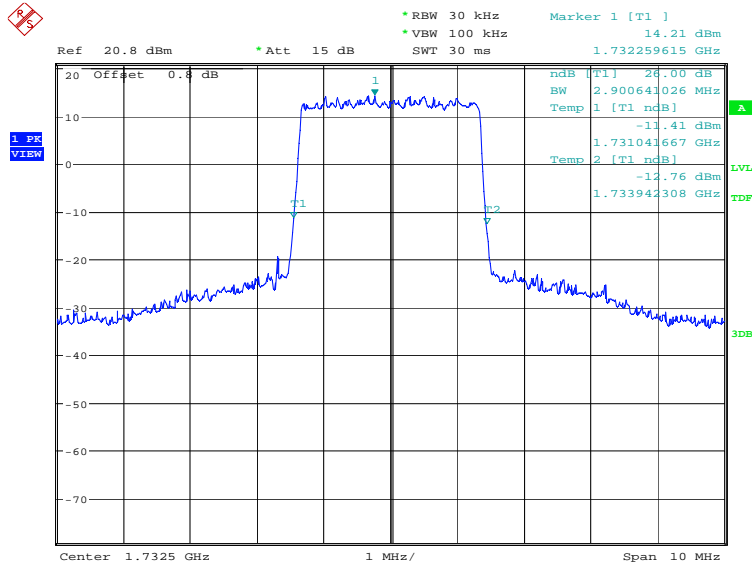
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1732.5	2884.62	2900.64	2900.64

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



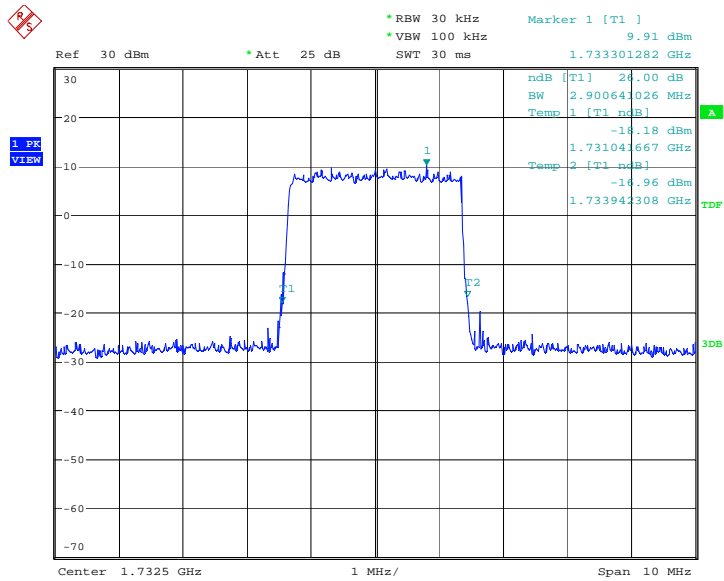
Date: 7.NOV.2018 23:33:56

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



Date: 7.NOV.2018 23:35:22

LTE band 4, 3MHz Bandwidth, 64QAM (-26dBc BW)

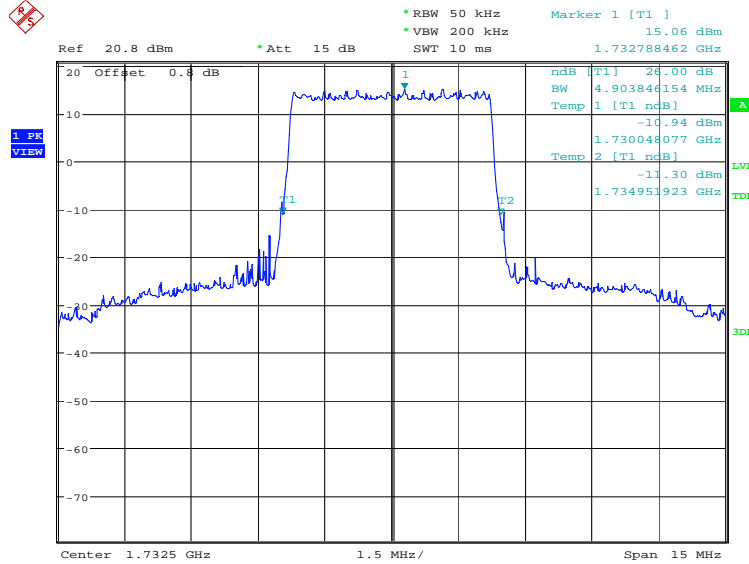


Date: 27.NOV.2018 04:55:52

LTE band 4, 5MHz (-26dBc)

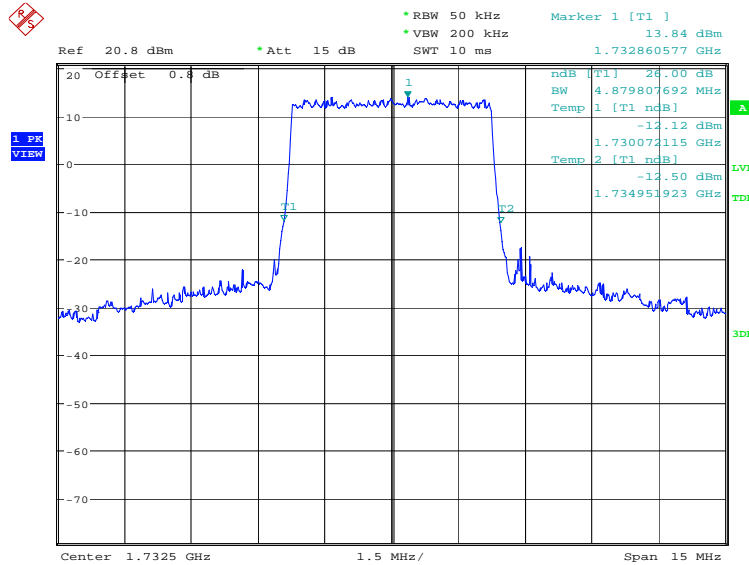
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1732.5	4903.85	4879.81	4855.77

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



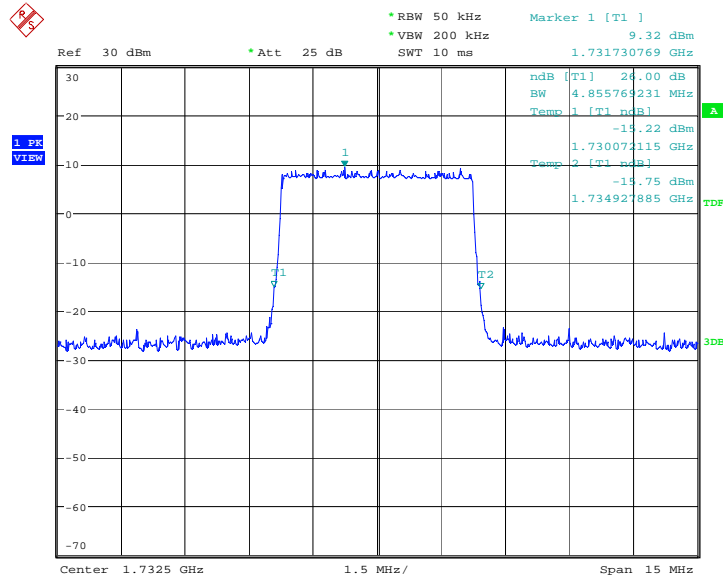
Date: 7.NOV.2018 23:36:48

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



Date: 7.NOV.2018 23:38:13

LTE band 4, 5MHz Bandwidth, 64QAM (-26dBc BW)

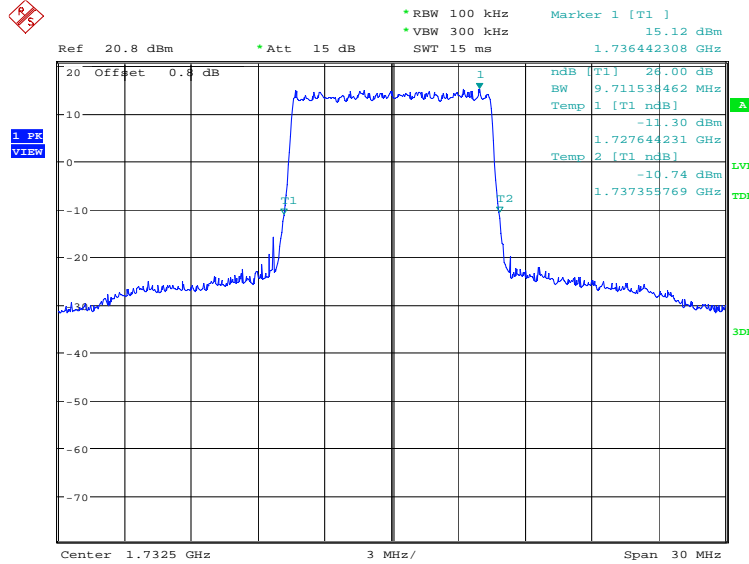


Date: 27.NOV.2018 04:58:37

LTE band 4, 10MHz (-26dBc)

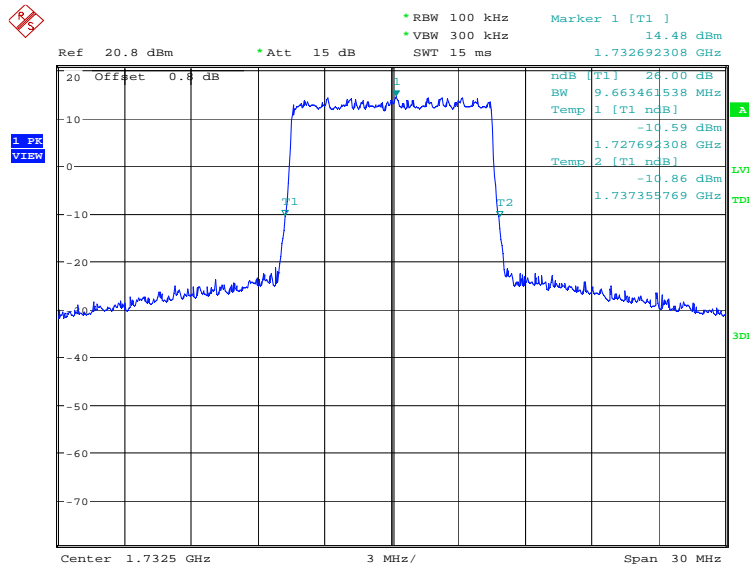
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1732.5	9711.54	9663.46	9663.46

LTE band 4, 10MHz Bandwidth, QPSK (-26dBc BW)



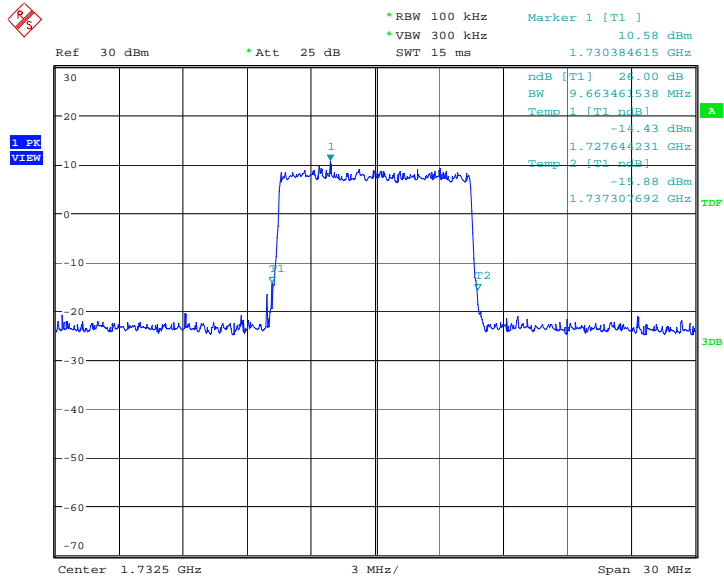
Date: 7.NOV.2018 23:39:39

LTE band 4, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 7.NOV.2018 23:41:05

LTE band 4, 10MHz Bandwidth, 64QAM (-26dBc BW)

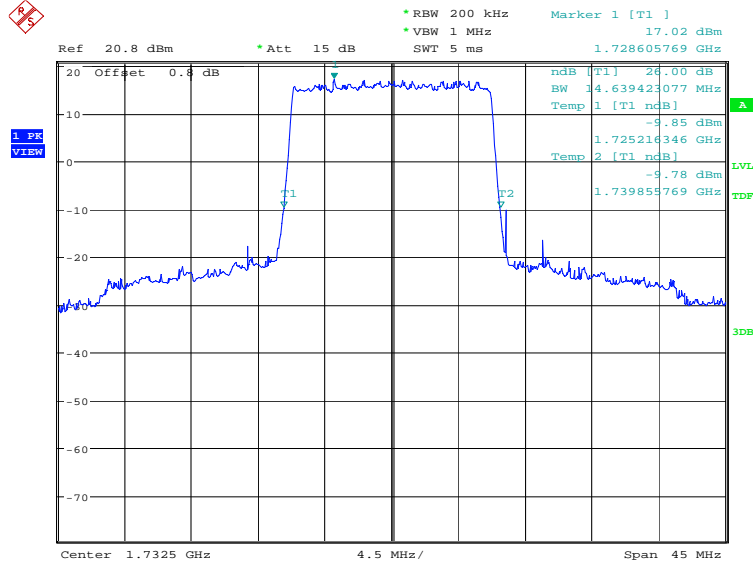


Date: 27.NOV.2018 05:01:21

LTE band 4, 15MHz (-26dBc)

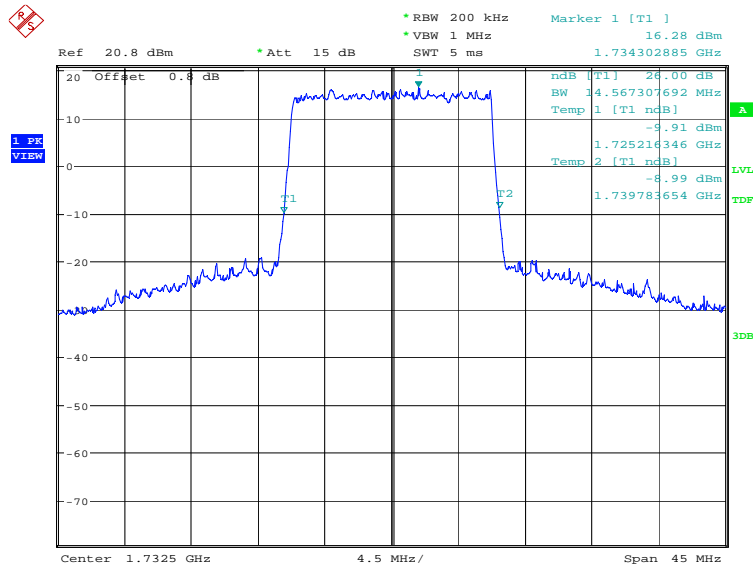
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1732.5	14639.42	14567.31	14711.54

LTE band 4, 15MHz Bandwidth, QPSK (-26dBc BW)



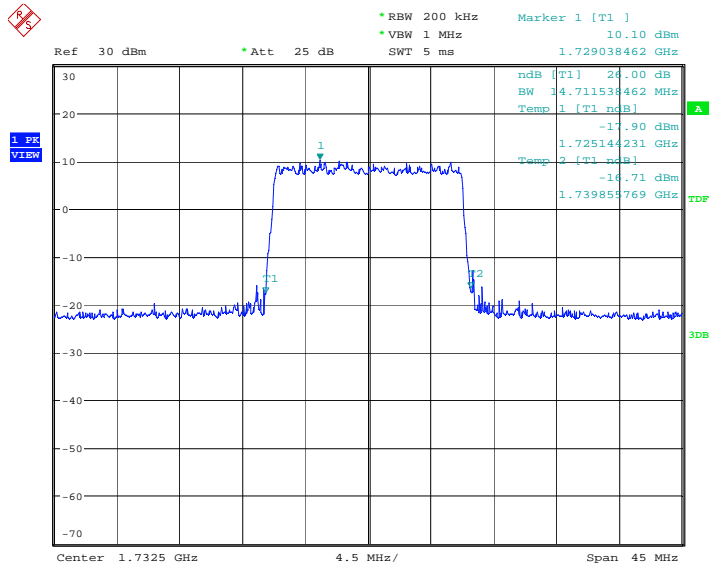
Date: 7.NOV.2018 23:43:23

LTE band 4, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 7.NOV.2018 23:44:48

LTE band 4, 15MHz Bandwidth, 64QAM (-26dBc BW)

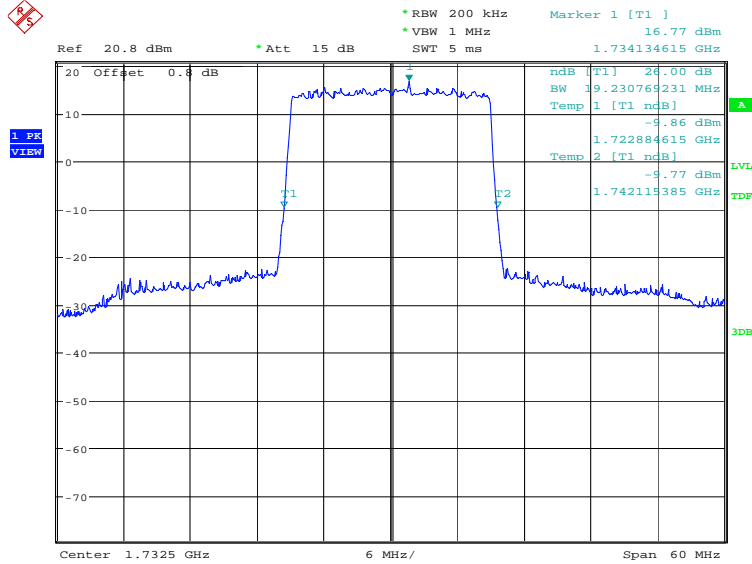


Date: 6.DEC.2018 08:55:26

LTE band 4, 20MHz (-26dBc)

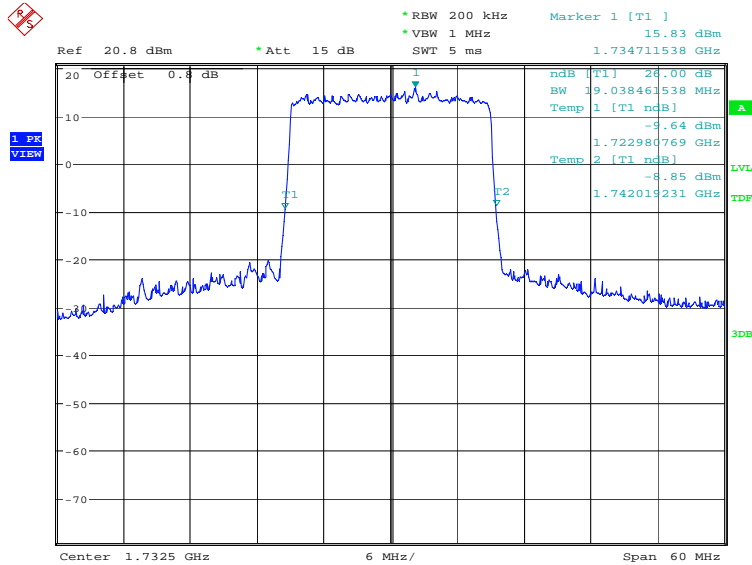
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1732.5	19230.77	19038.46	19230.77

LTE band 4, 20MHz Bandwidth, QPSK (-26dBc BW)



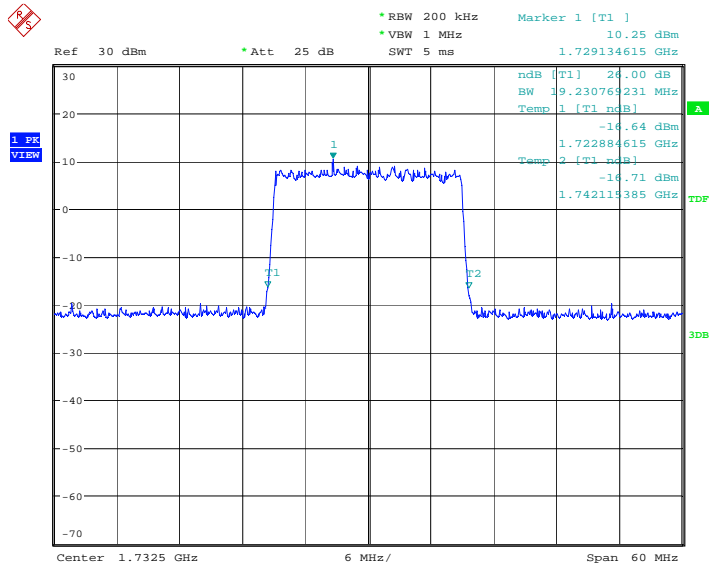
Date: 7.NOV.2018 23:47:07

LTE band 4, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 7.NOV.2018 23:48:32

LTE band 4, 20MHz Bandwidth, 64QAM (-26dBc BW)

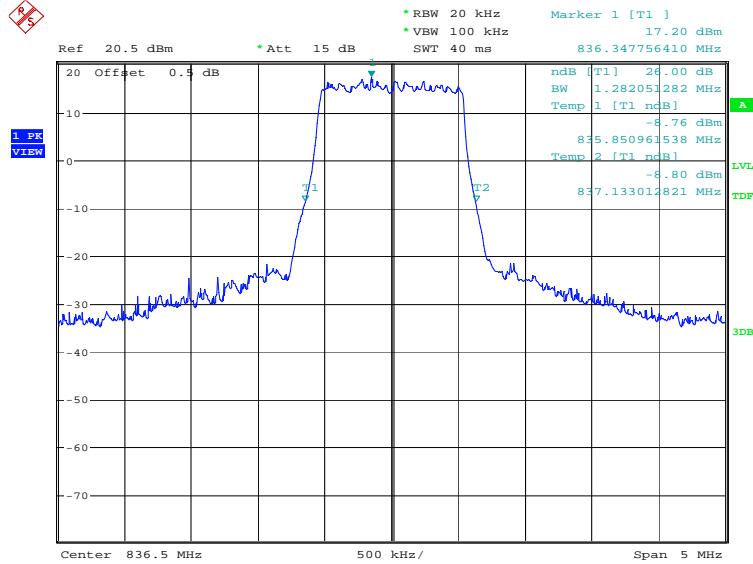


Date: 5.DEC.2018 14:44:37

LTE band 5, 1.4MHz (-26dBc)

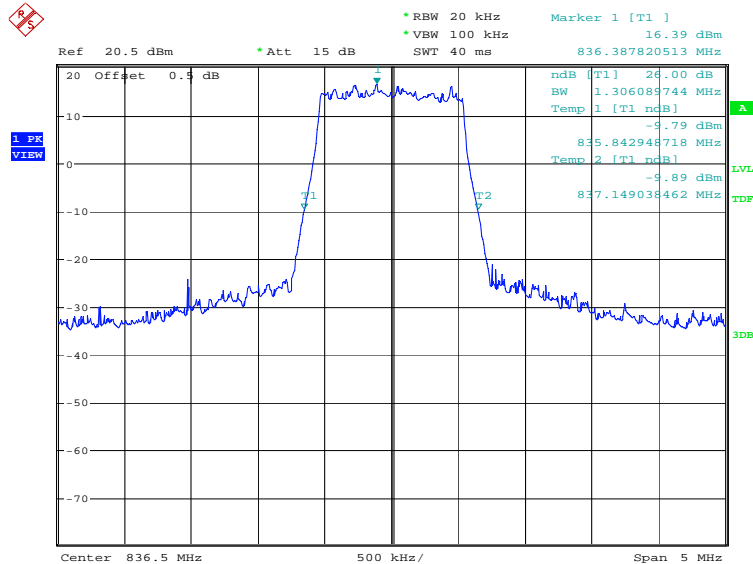
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
836.5	QPSK	16QAM	64QAM
	1282.05	1306.09	1298.08

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



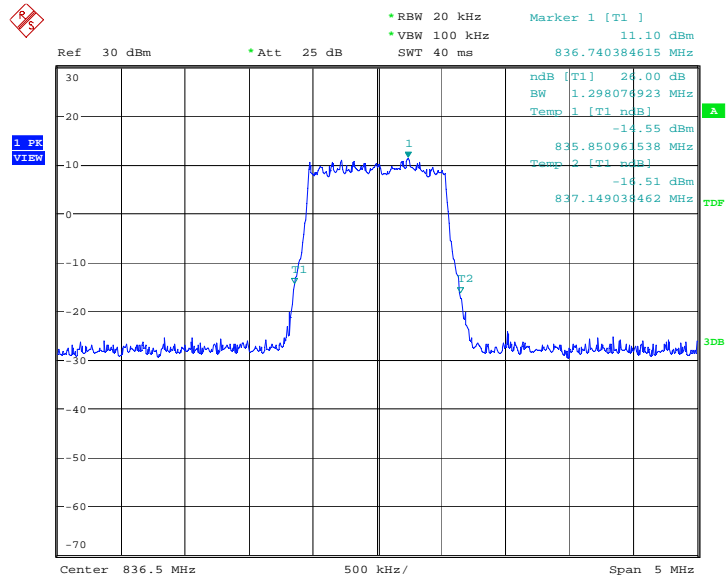
Date: 7.NOV.2018 23:50:49

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



Date: 7.NOV.2018 23:52:15

LTE band 5, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

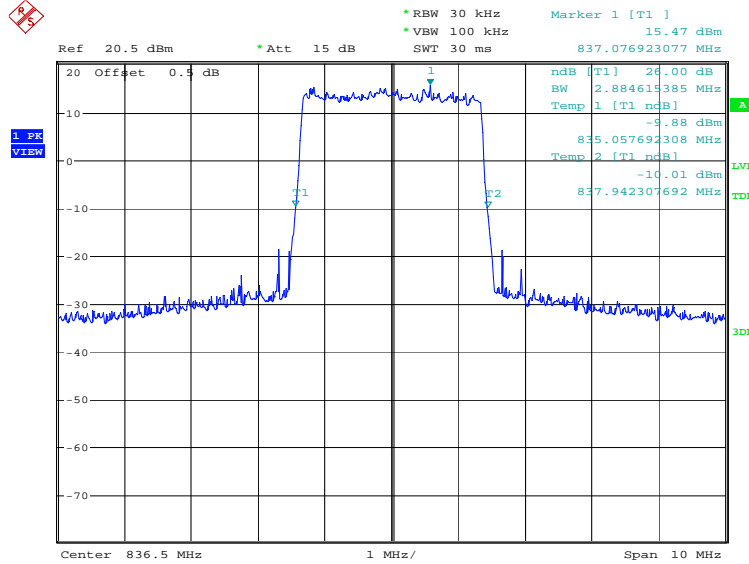


Date: 20.NOV.2018 16:01:28

LTE band 5, 3MHz (-26dBc)

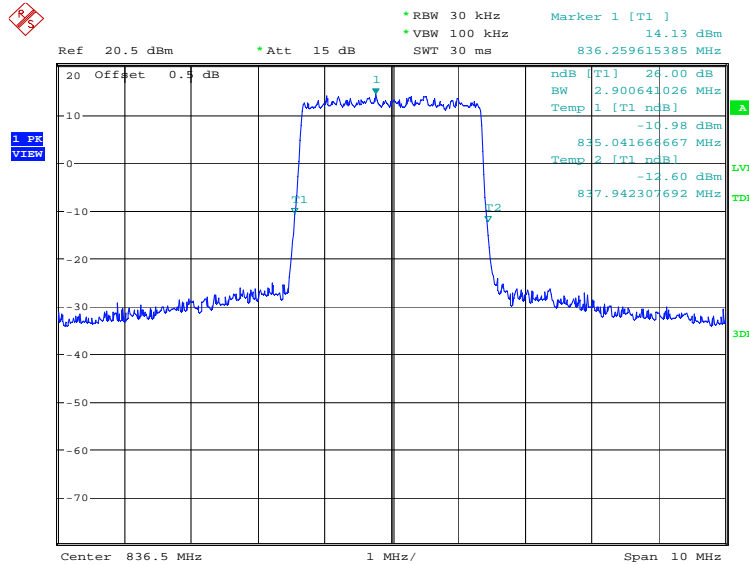
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
836.5	2884.62	2900.64	2868.59

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



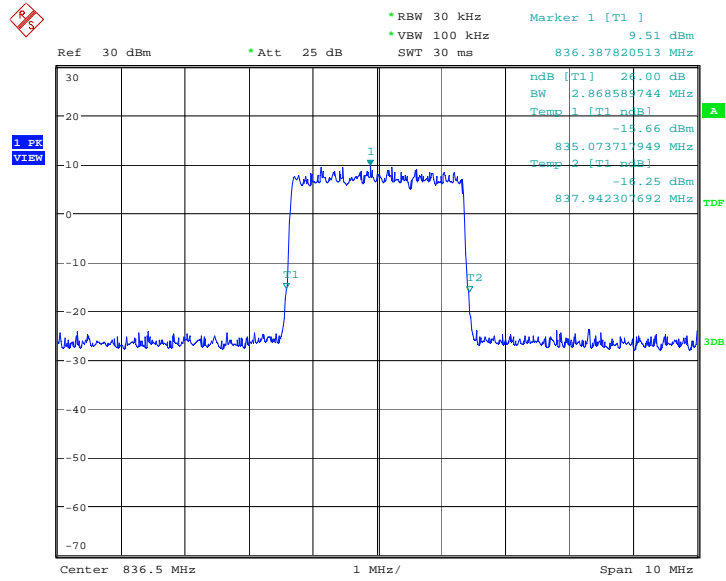
Date: 7.NOV.2018 23:54:33

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



Date: 7.NOV.2018 23:55:58

LTE band 5, 3MHz Bandwidth, 64QAM (-26dBc BW)

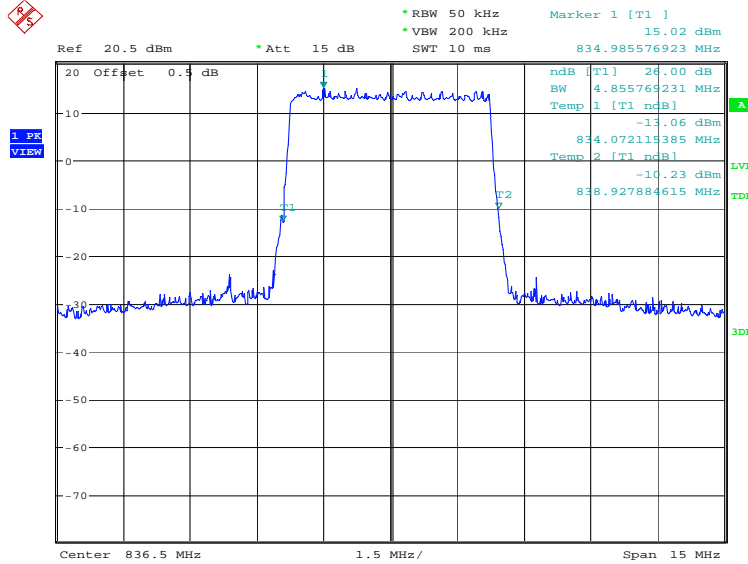


Date: 20.NOV.2018 16:02:51

LTE band 5, 5MHz (-26dBc)

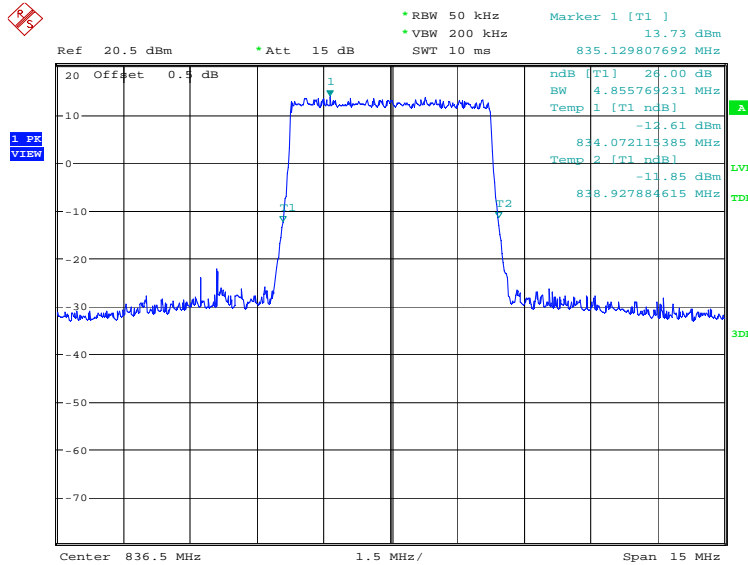
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
836.5	4855.77	4855.77	4759.62

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



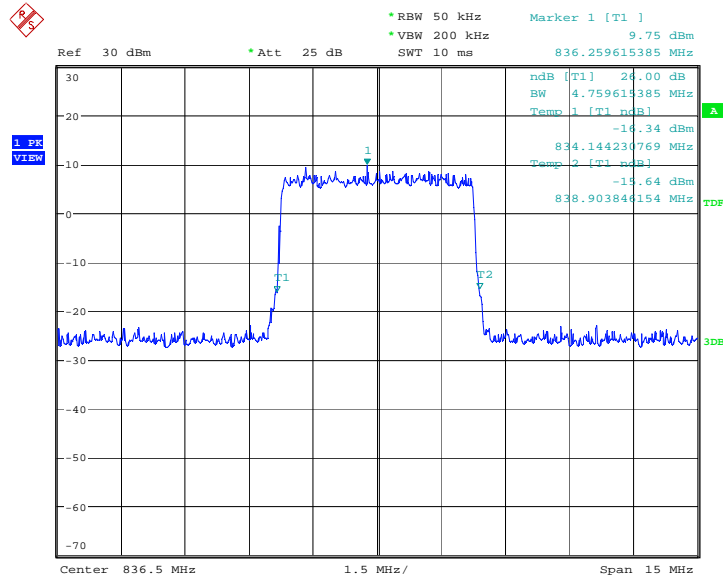
Date: 7.NOV.2018 23:58:17

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



Date: 7.NOV.2018 23:59:42

LTE band 5, 5MHz Bandwidth, 64QAM (-26dBc BW)

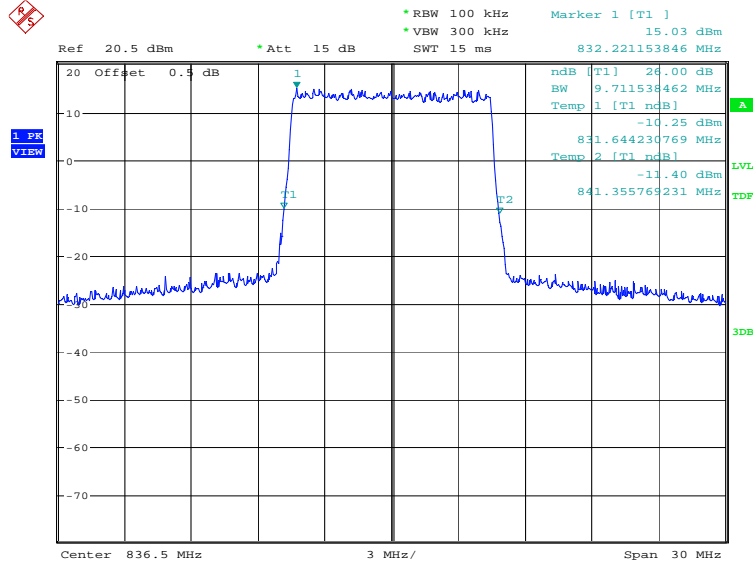


Date: 20.NOV.2018 16:04:08

LTE band 5, 10MHz (-26dBc)

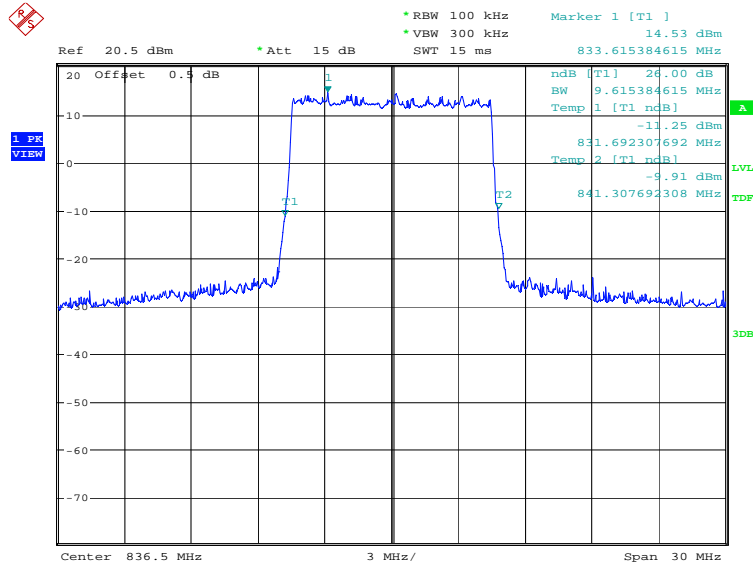
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
836.5	9711.54	9615.38	9663.46

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



Date: 8.NOV.2018 00:01:58

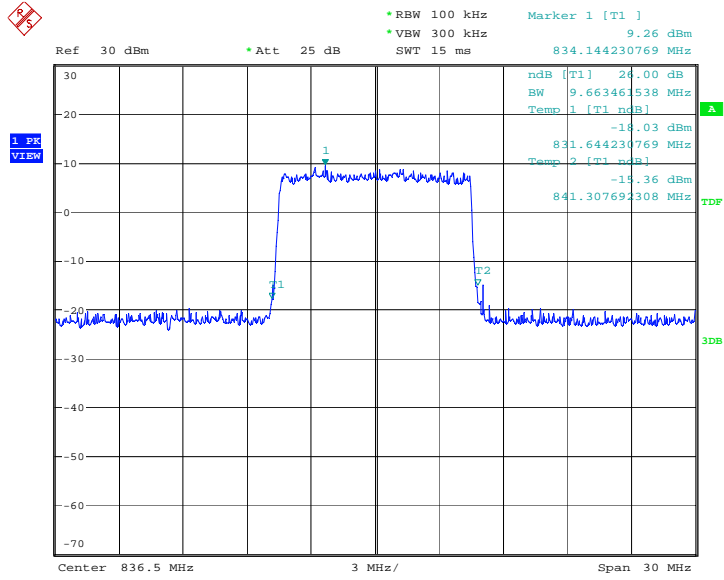
LTE band 5, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:03:23



LTE band 5, 10MHz Bandwidth, 64QAM (-26dBc BW)

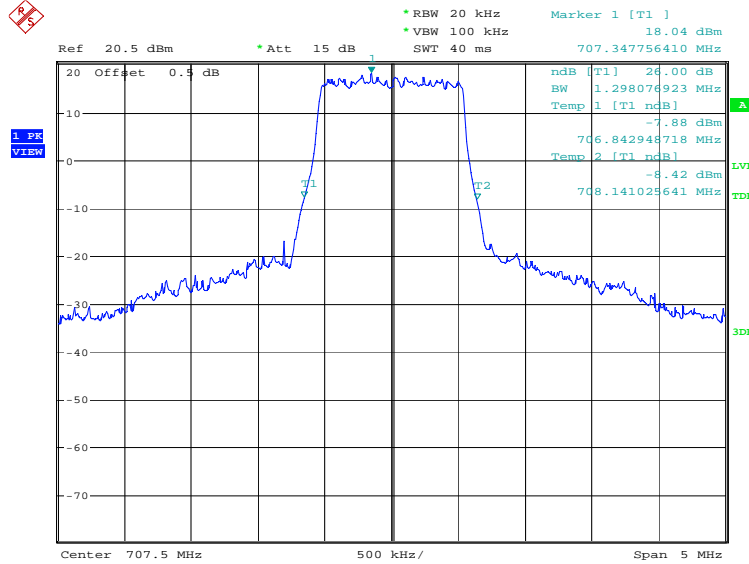


Date: 20.NOV.2018 16:05:40

LTE band 12, 1.4MHz (-26dBc)

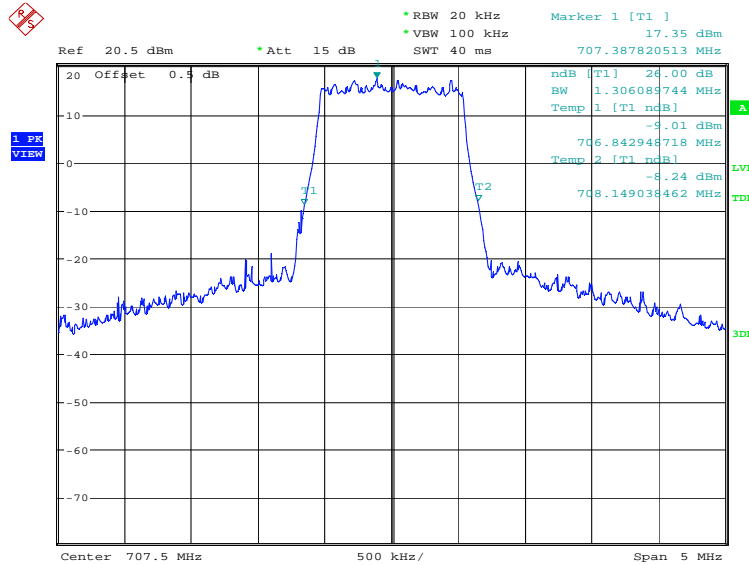
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	1298.08	1306.09	1298.08

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



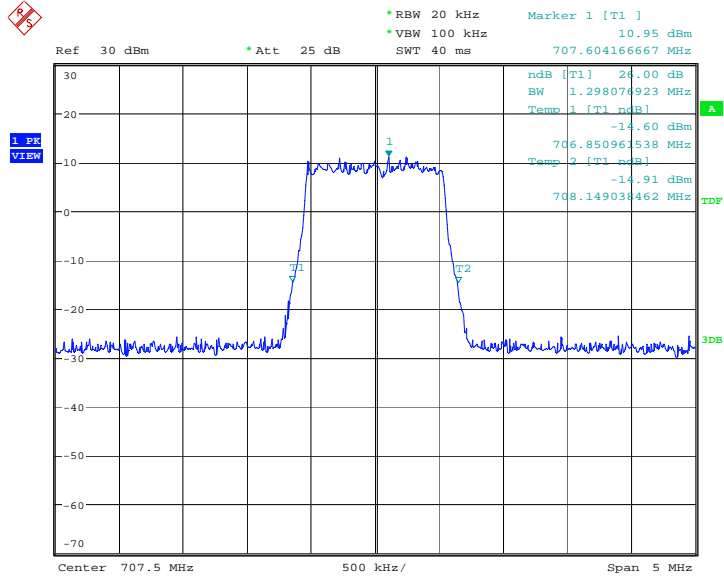
Date: 8.NOV.2018 00:05:43

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



Date: 8.NOV.2018 00:07:08

LTE band 12, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

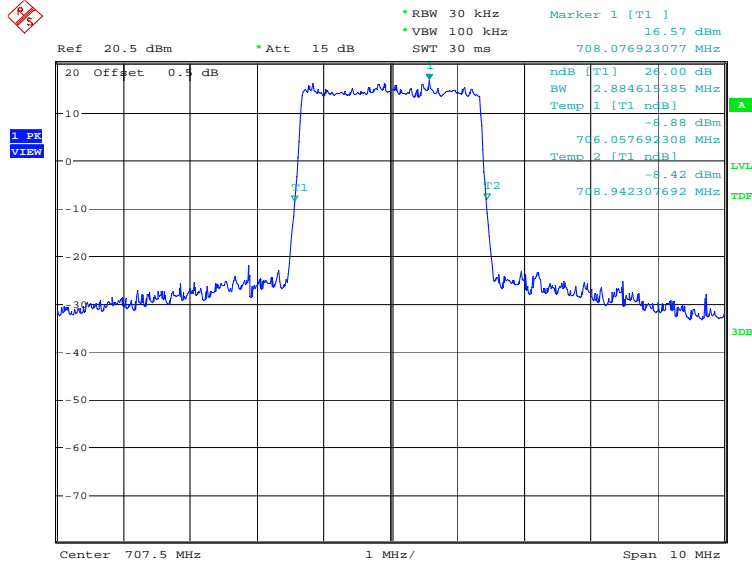


Date: 20.NOV.2018 16:22:38

LTE band 12, 3MHz (-26dBc)

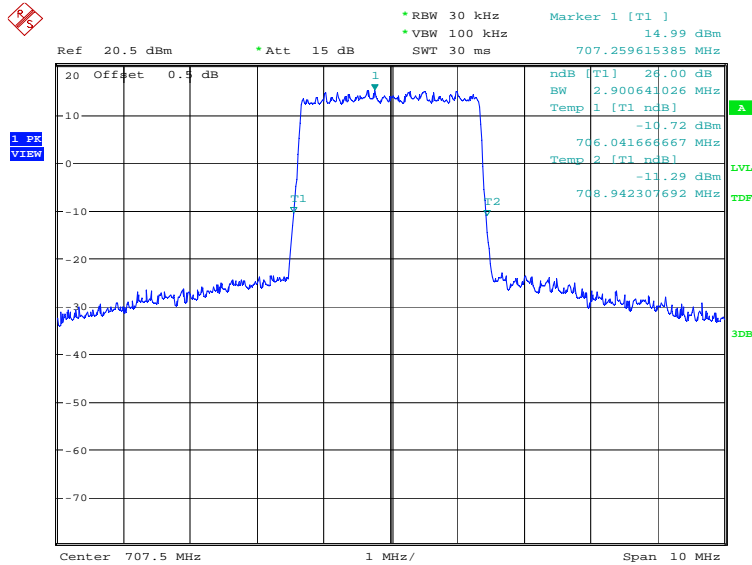
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
707.5	2884.62	2900.64	2884.62

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



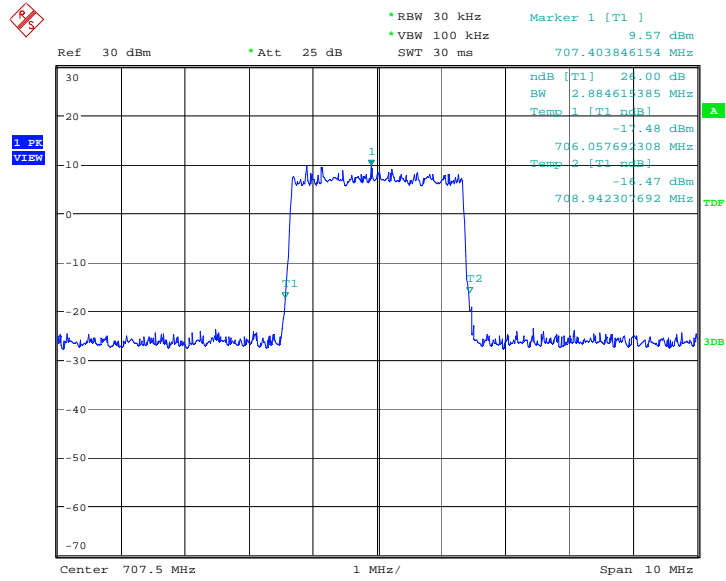
Date: 8.NOV.2018 00:09:26

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



Date: 8.NOV.2018 00:10:52

LTE band 12, 3MHz Bandwidth, 64QAM (-26dBc BW)

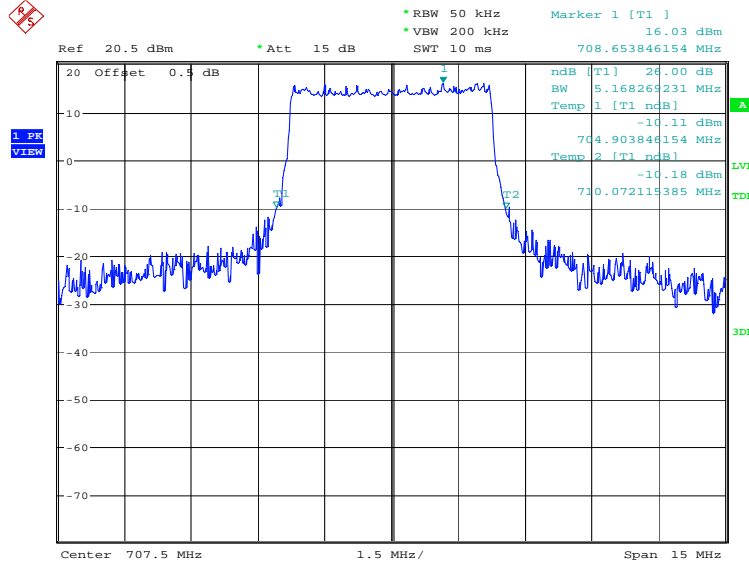


Date: 20.NOV.2018 16:24:42

LTE band 12, 5MHz (-26dBc)

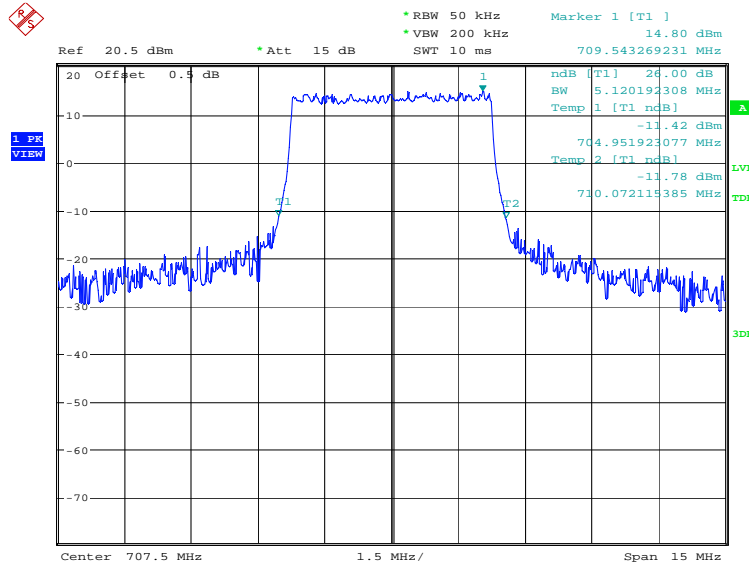
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
707.5	QPSK	16QAM	64QAM
	5168.27	5120.19	5072.12

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



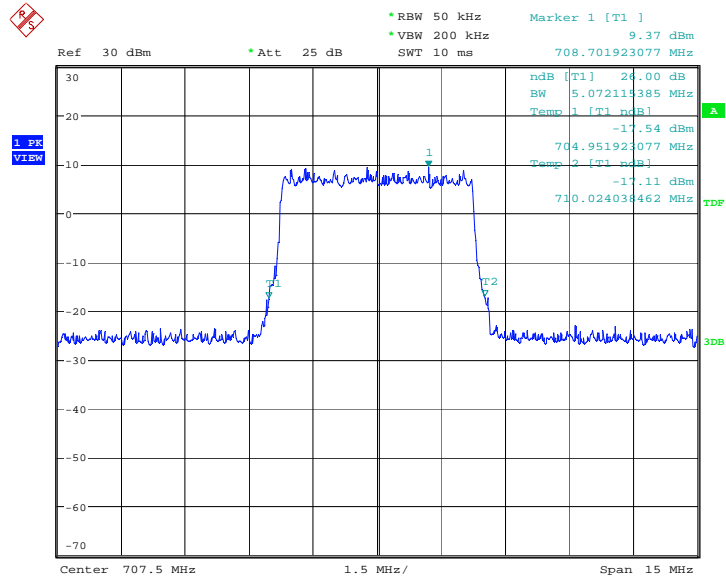
Date: 8.NOV.2018 00:13:10

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



Date: 8.NOV.2018 00:14:35

LTE band 12, 5MHz Bandwidth, 64QAM (-26dBc BW)

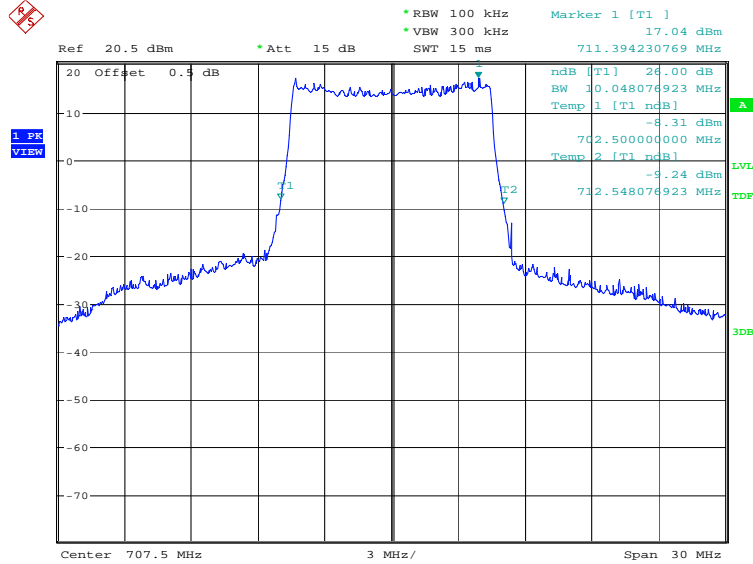


Date: 20.NOV.2018 16:26:38

LTE band 12, 10MHz (-26dBc)

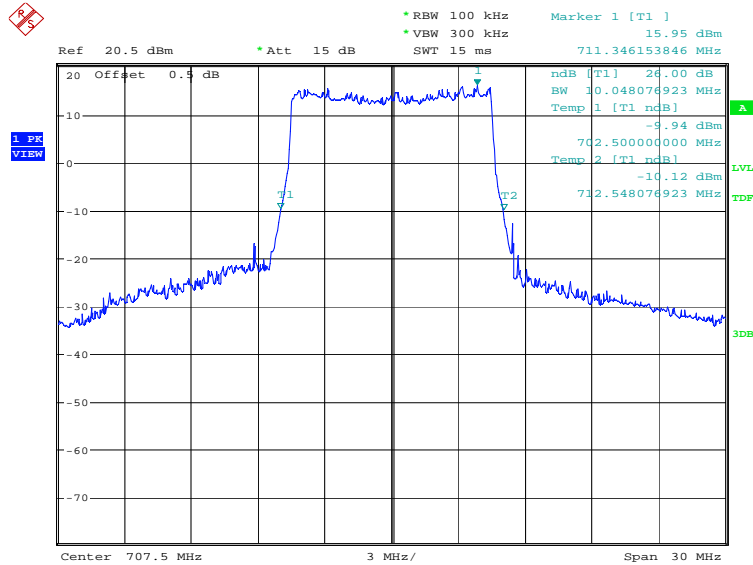
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
707.5	10048.08	10048.08	9951.92

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



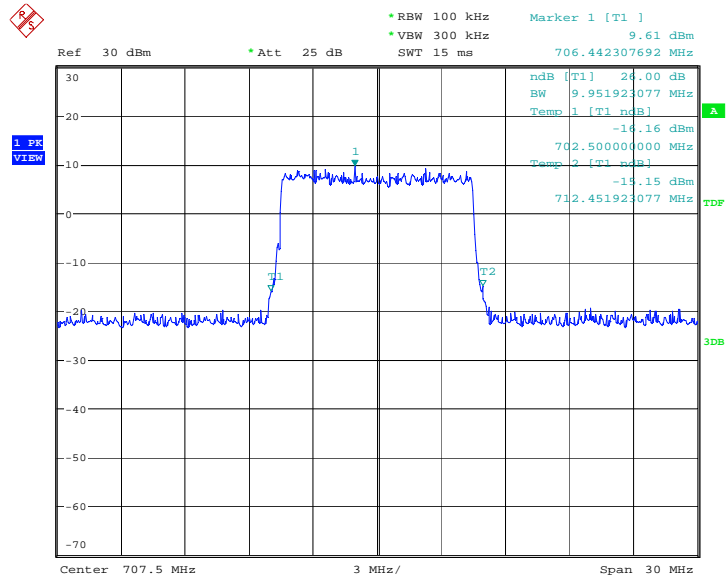
Date: 8.NOV.2018 00:16:54

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



Date: 8.NOV.2018 00:18:19

LTE band 12, 10MHz Bandwidth, 64QAM (-26dBc BW)

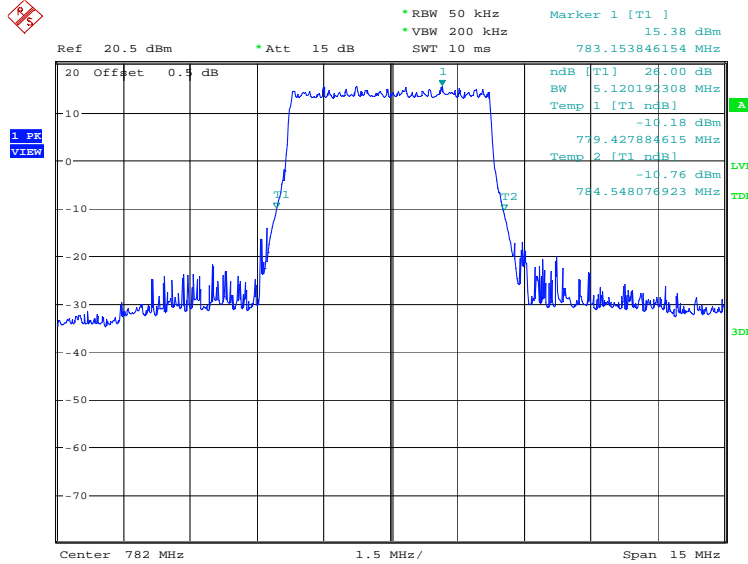


Date: 20.NOV.2018 16:28:06

LTE band 13, 5MHz (-26dBc)

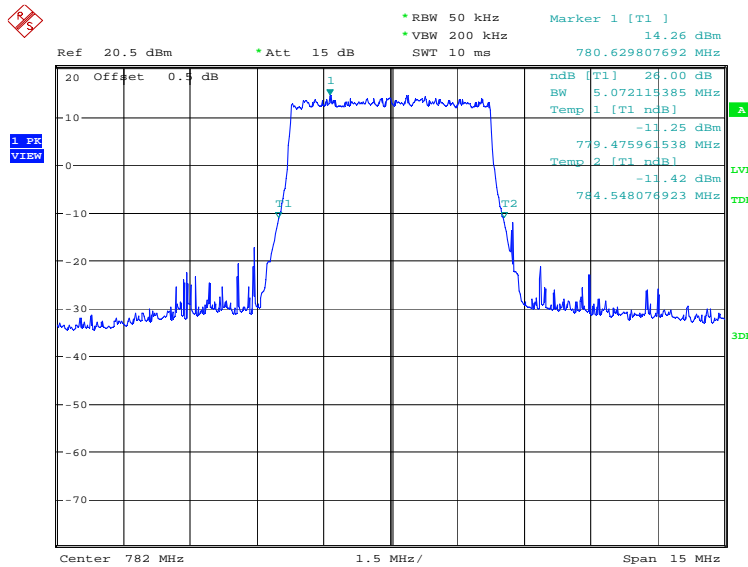
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
782.0	5120.19	5072.12	5024.04

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



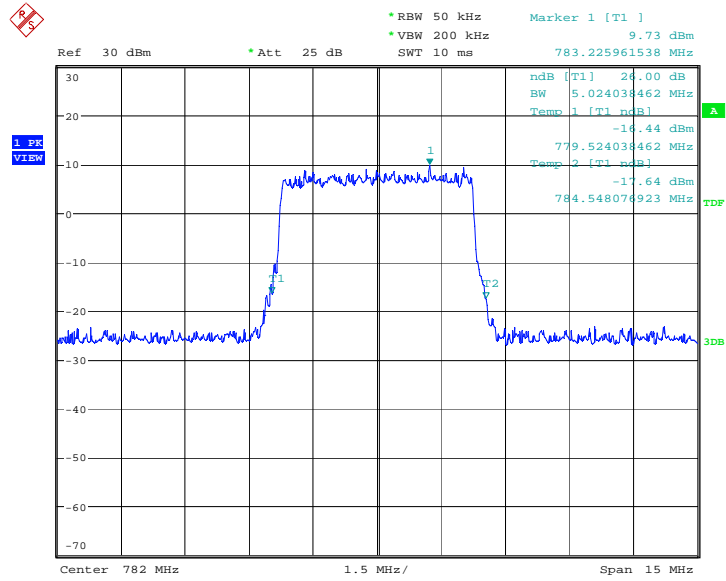
Date: 8.NOV.2018 00:20:39

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



Date: 8.NOV.2018 00:22:04

LTE band 13, 5MHz Bandwidth, 64QAM (-26dBc BW)

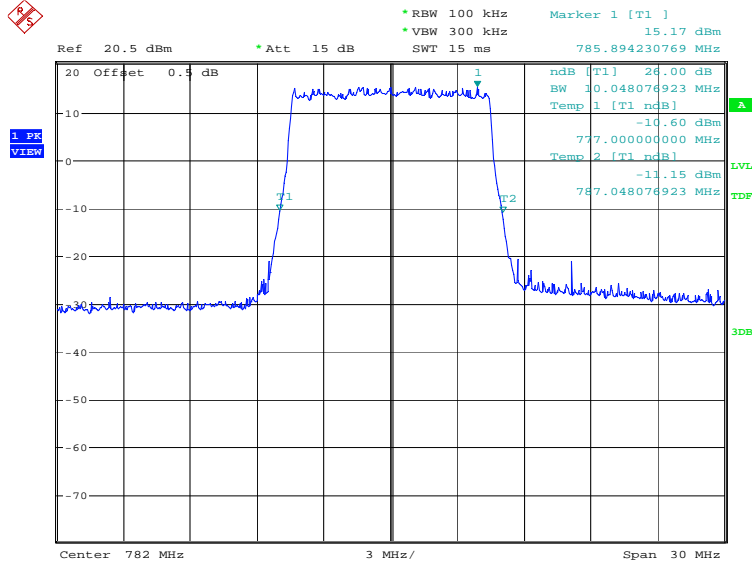


Date: 20.NOV.2018 16:29:59

LTE band 13, 10MHz (-26dBc)

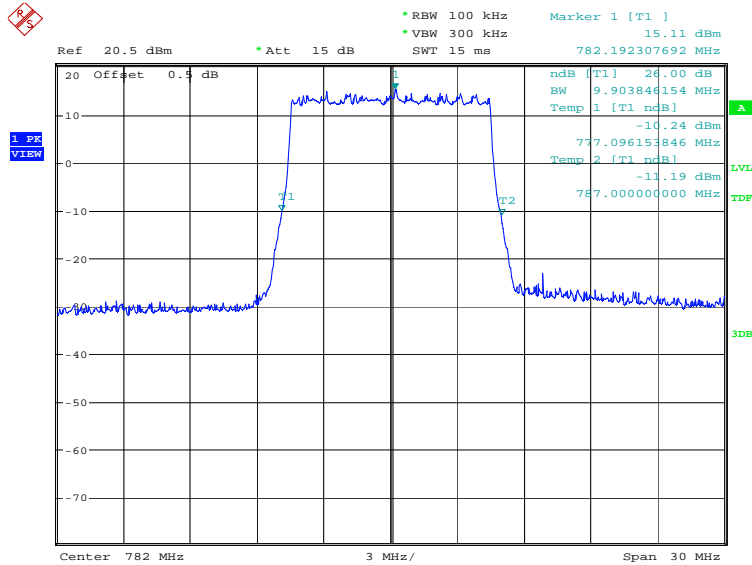
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
782.0	QPSK	16QAM	64QAM
	10048.08	9903.85	9903.85

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



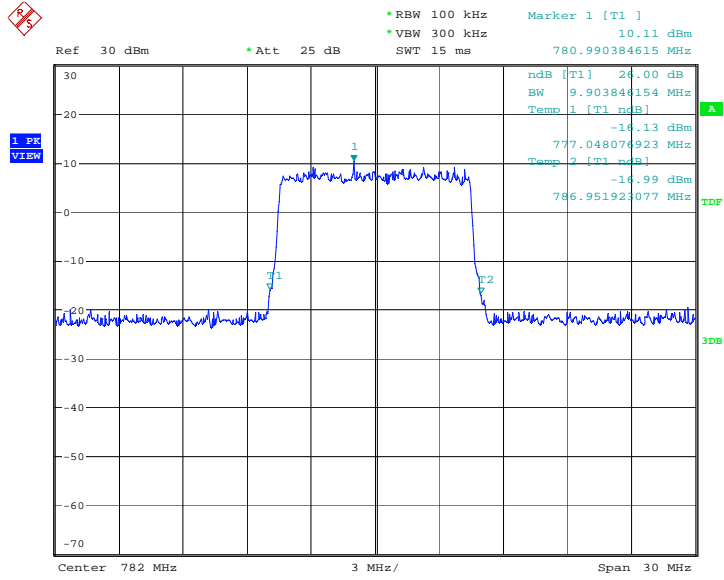
Date: 8.NOV.2018 00:24:21

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



Date: 8.NOV.2018 00:25:46

LTE band 13, 10MHz Bandwidth, 64QAM (-26dBc BW)

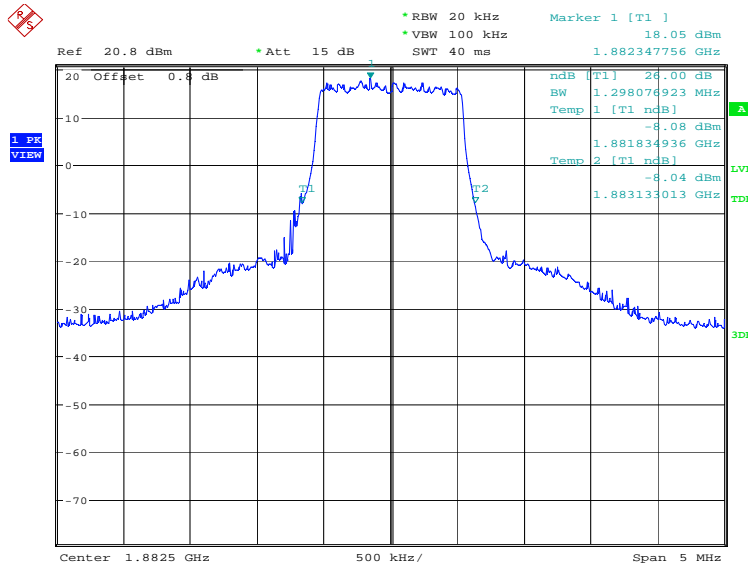


Date: 20.NOV.2018 16:31:13

LTE band 25, 1.4MHz (-26dBc)

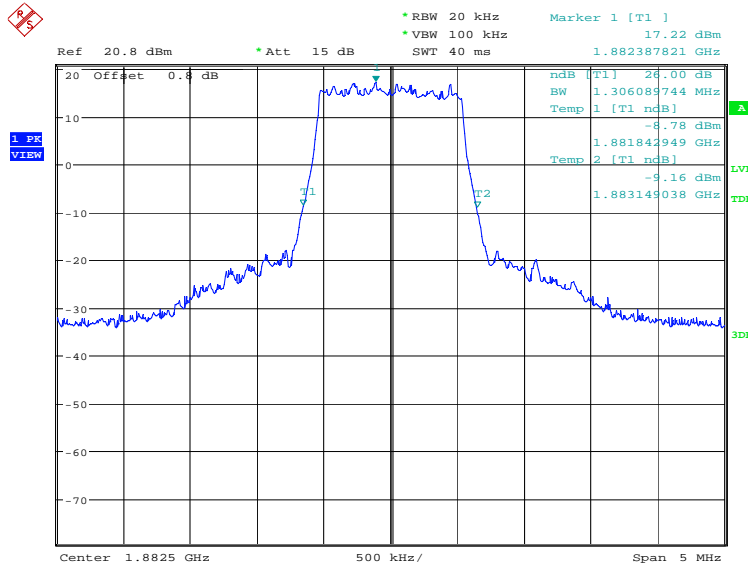
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	1298.08	1306.09	1290.06

LTE band 25, 1.4MHz Bandwidth, QPSK (-26dBc BW)



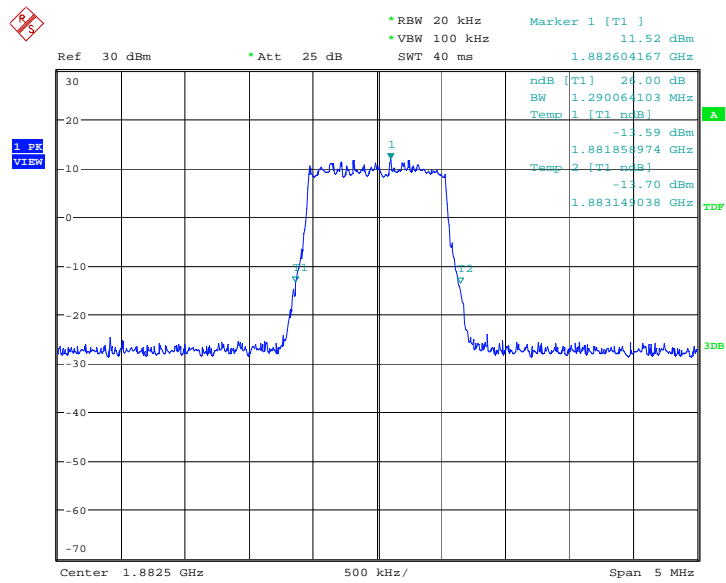
Date: 8.NOV.2018 00:28:06

LTE band 25, 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:29:31

LTE band 25, 1.4MHz Bandwidth, 64QAM (-26dBc BW)

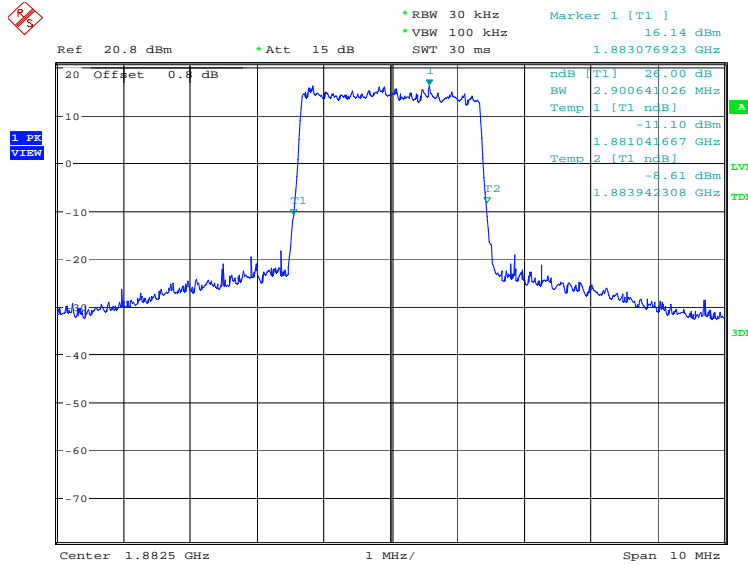


Date: 20.NOV.2018 16:33:15

LTE band 25, 3MHz (-26dBc)

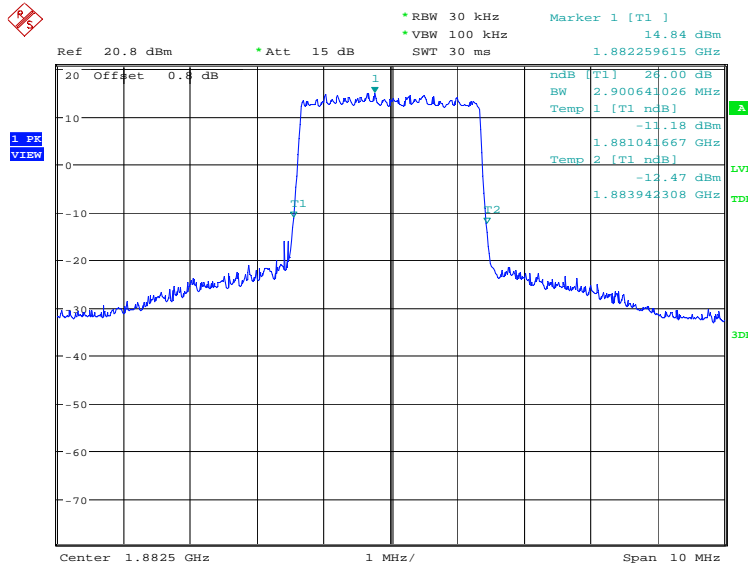
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	2900.64	2900.64	2868.59

LTE band 25, 3MHz Bandwidth, QPSK (-26dBc BW)



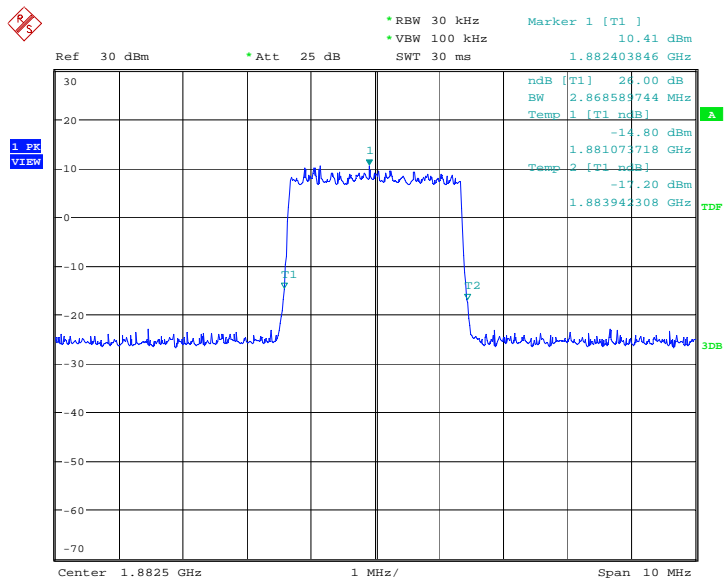
Date: 8.NOV.2018 00:31:50

LTE band 25, 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:33:15

LTE band 25, 3MHz Bandwidth, 64QAM (-26dBc BW)

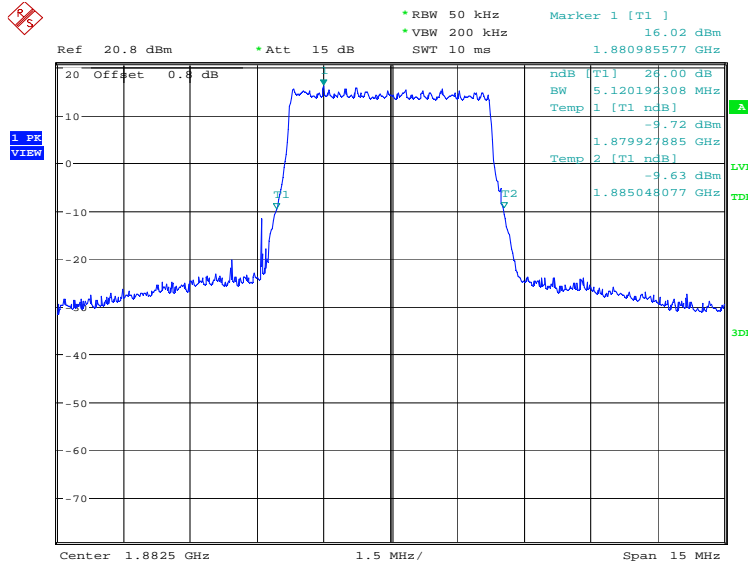


Date: 20.NOV.2018 16:37:40

LTE band 25, 5MHz (-26dBc)

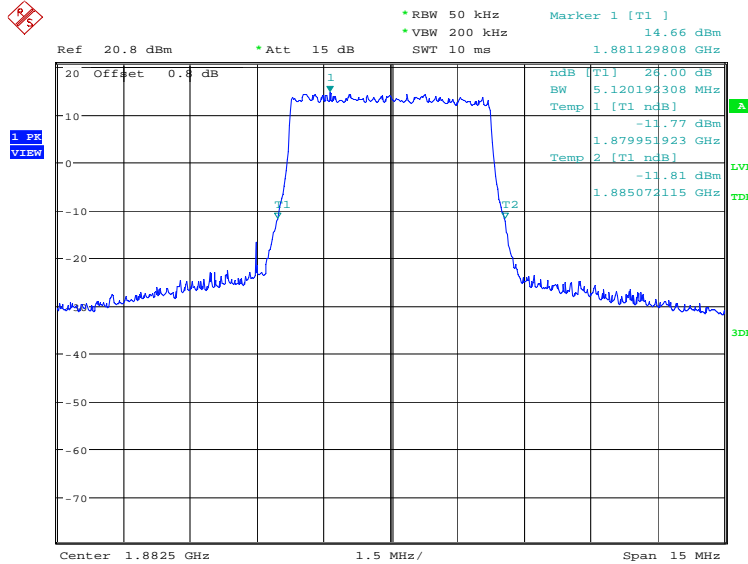
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	5120.19	5120.19	5024.04

LTE band 25, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.NOV.2018 00:35:34

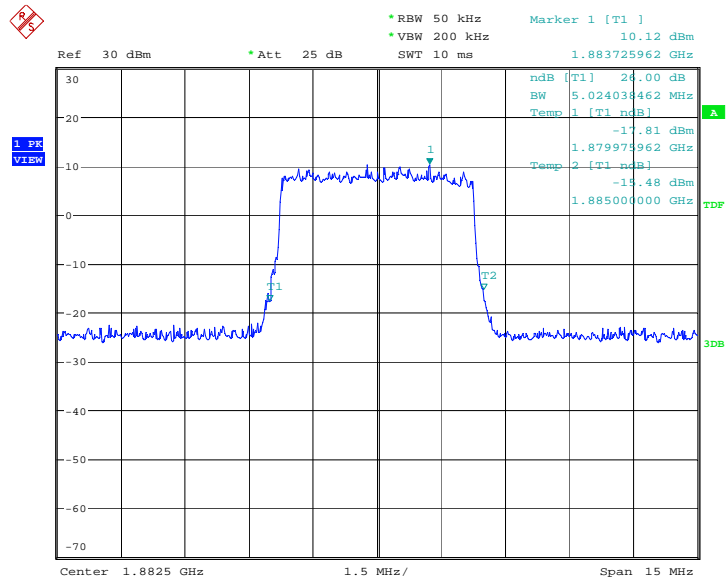
LTE band 25, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:36:59



LTE band 25, 5MHz Bandwidth, 64QAM(-26dBc BW)

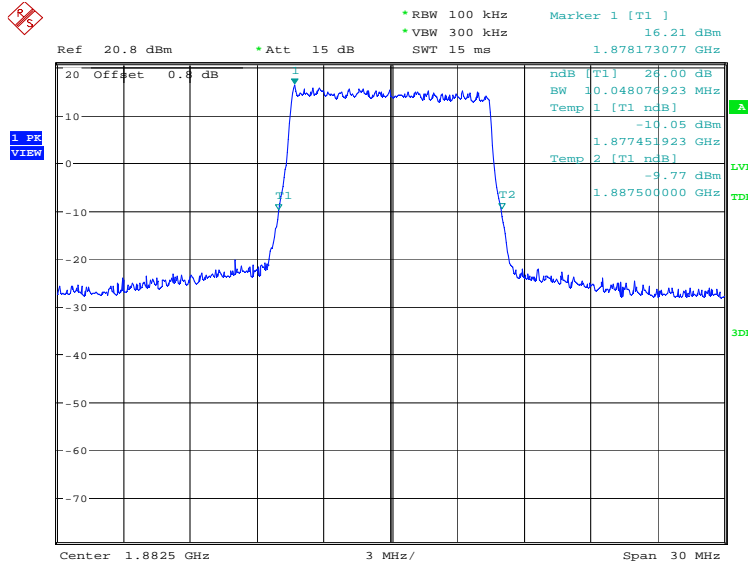


Date: 20.NOV.2018 16:39:10

LTE band 25, 10MHz (-26dBc)

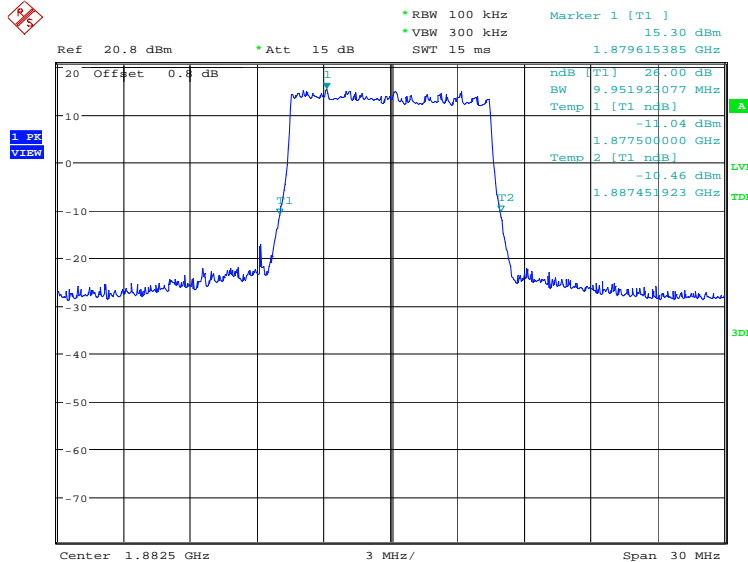
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	10048.08	9951.92	9855.77

LTE band 25, 10MHz Bandwidth, QPSK (-26dBc BW)



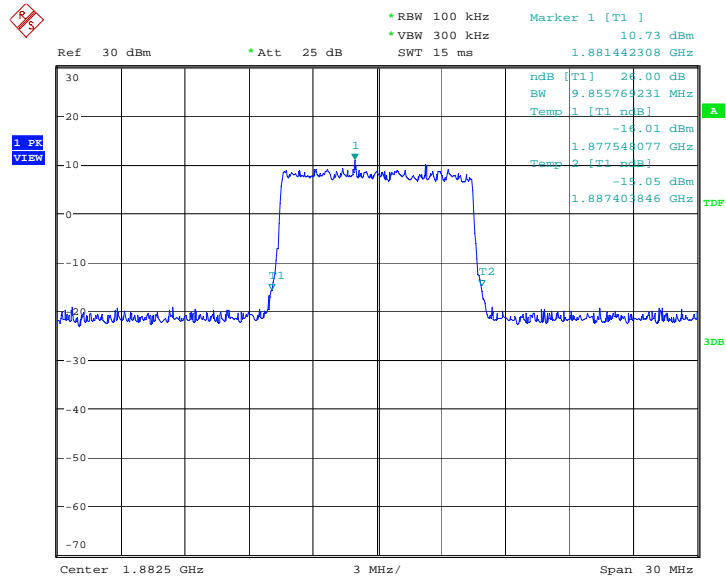
Date: 8.NOV.2018 00:39:18

LTE band 25, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:40:43

LTE band 25, 10MHz Bandwidth, 64QAM (-26dBc BW)

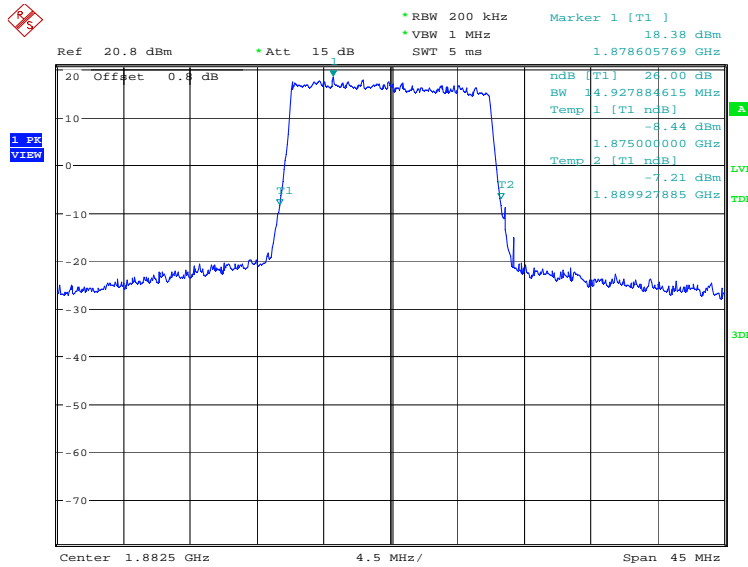


Date: 20.NOV.2018 16:40:27

LTE band 25, 15MHz (-26dBc)

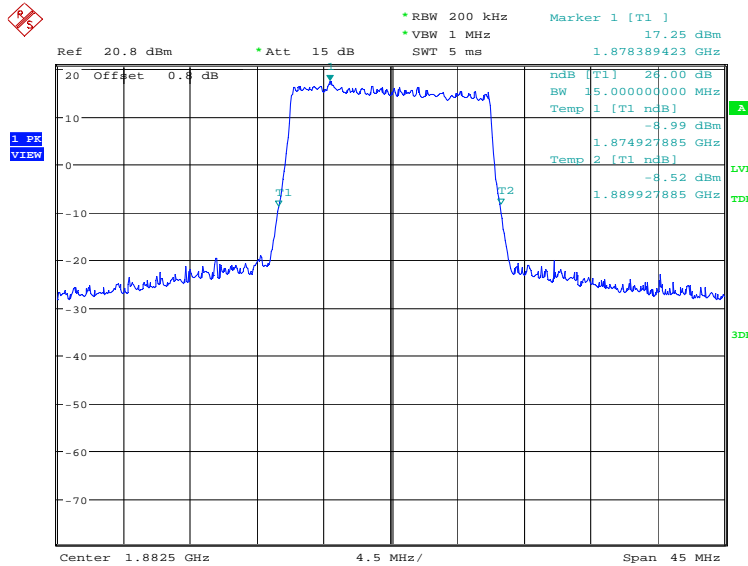
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	14927.88	15000.00	14927.88

LTE band 25, 15MHz Bandwidth, QPSK (-26dBc BW)



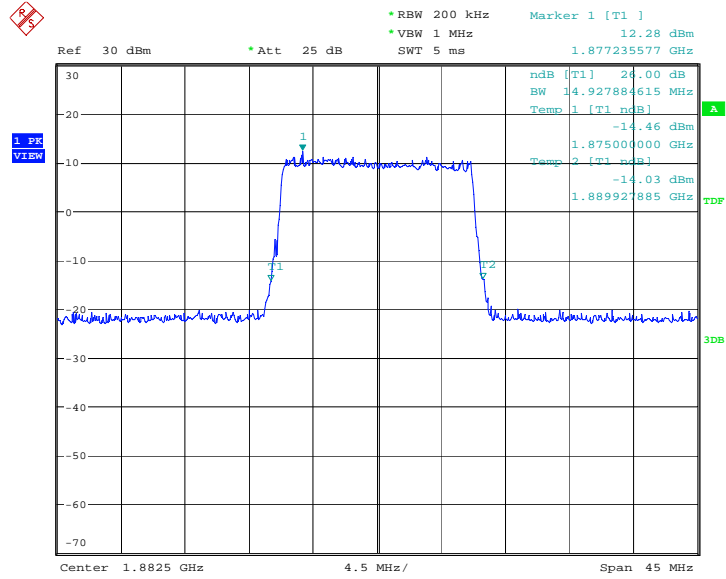
Date: 8.NOV.2018 00:43:02

LTE band 25, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:44:27

LTE band 25, 15MHz Bandwidth, 64QAM (-26dBc BW)

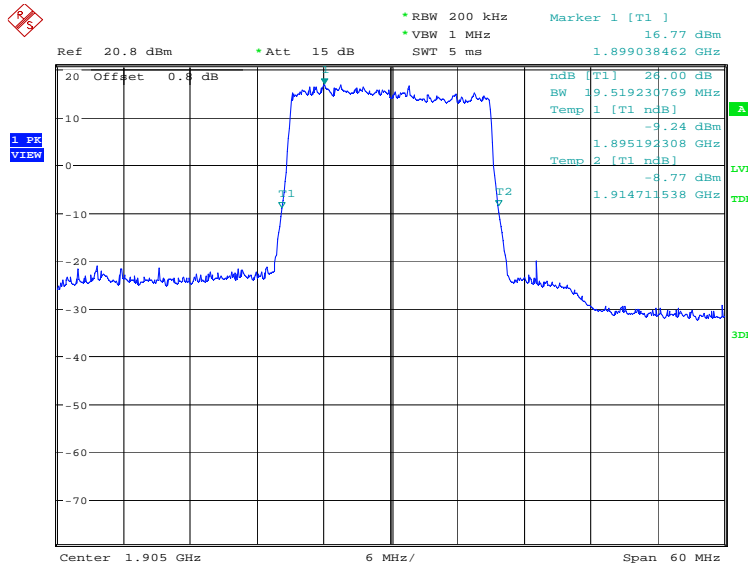


Date: 20.NOV.2018 16:41:41

LTE band 25, 20MHz (-26dBc)

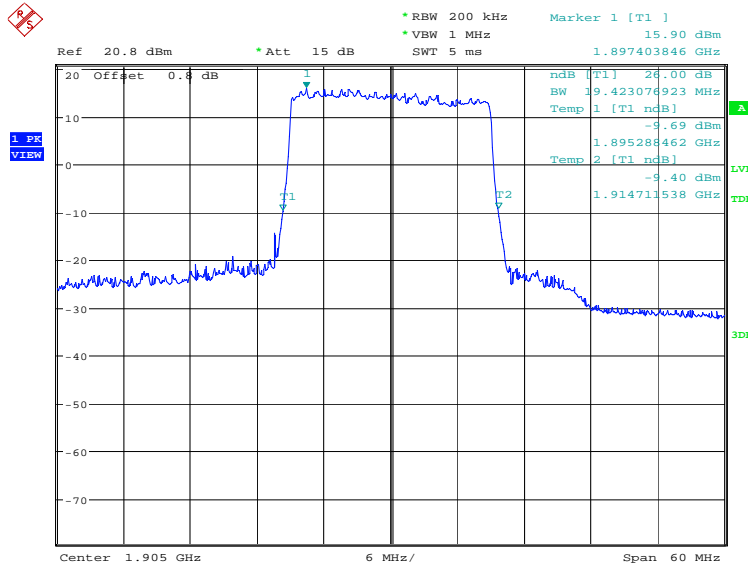
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
1882.5	19519.23	19423.08	19615.38

LTE band 25, 20MHz Bandwidth, QPSK (-26dBc BW)



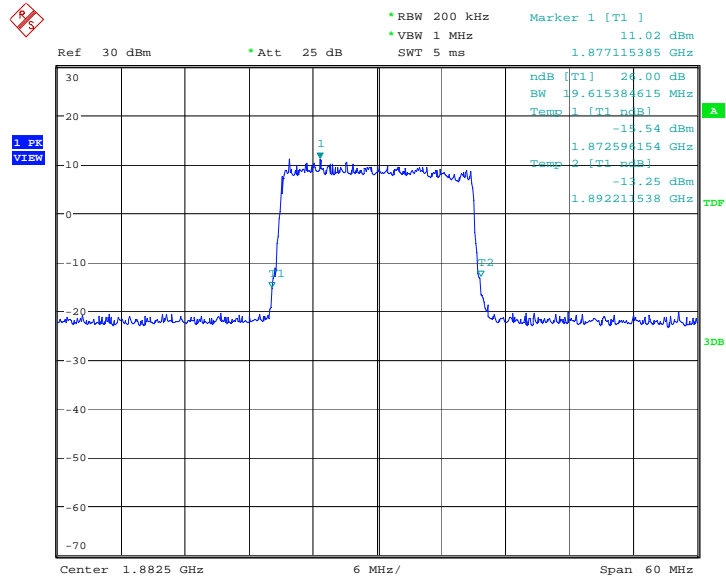
Date: 8.NOV.2018 00:45:54

LTE band 25, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:47:19

LTE band 25, 20MHz Bandwidth, 64QAM (-26dBc BW)

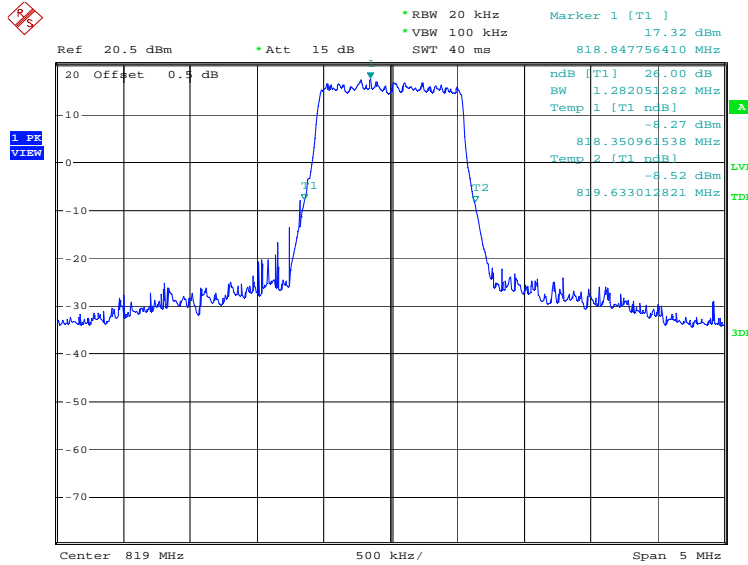


Date: 20.NOV.2018 16:43:31

LTE band 26(814MHz-824MHz), 1.4MHz (-26dBc)

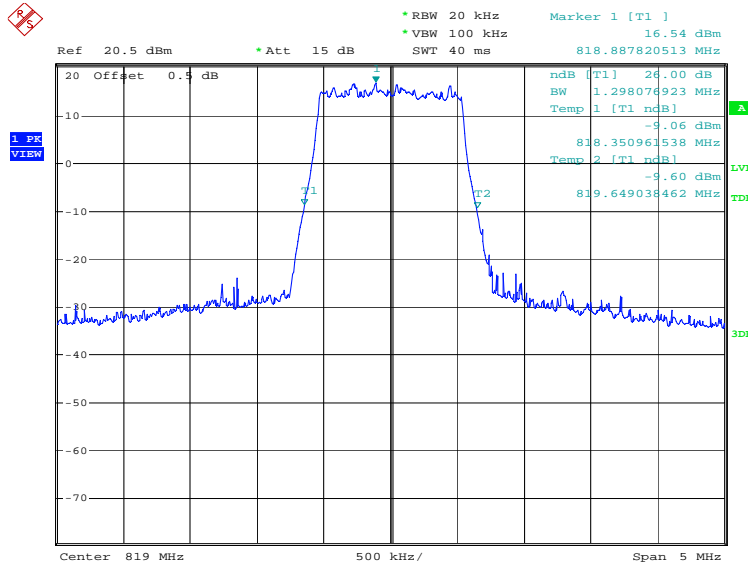
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
819.0	QPSK	16QAM	64QAM
	1282.05	1298.08	1282.05

LTE band 26(814MHz-824MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.NOV.2018 01:07:23

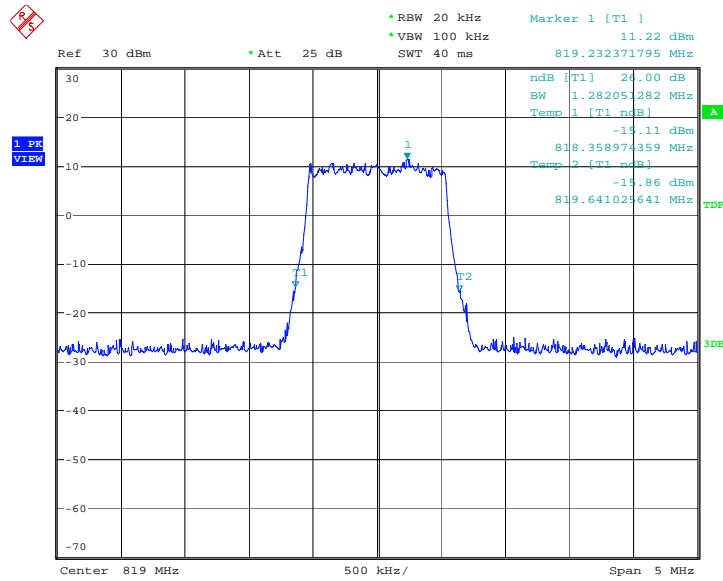
LTE band 26(814MHz-824MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 01:08:48



LTE band 26(814MHz-824MHz), 1.4MHz Bandwidth, 64QAM (-26dBc BW)

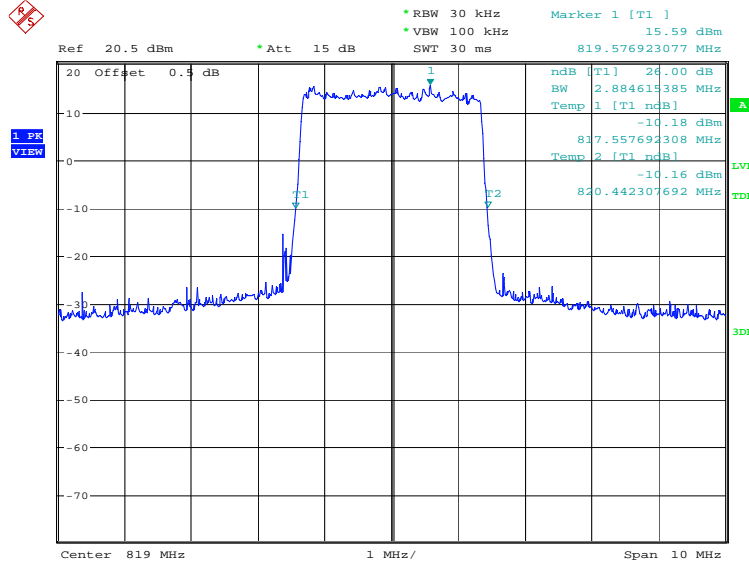


Date: 21.NOV.2018 14:05:20

LTE band 26(814MHz-824MHz), 3MHz (-26dBc)

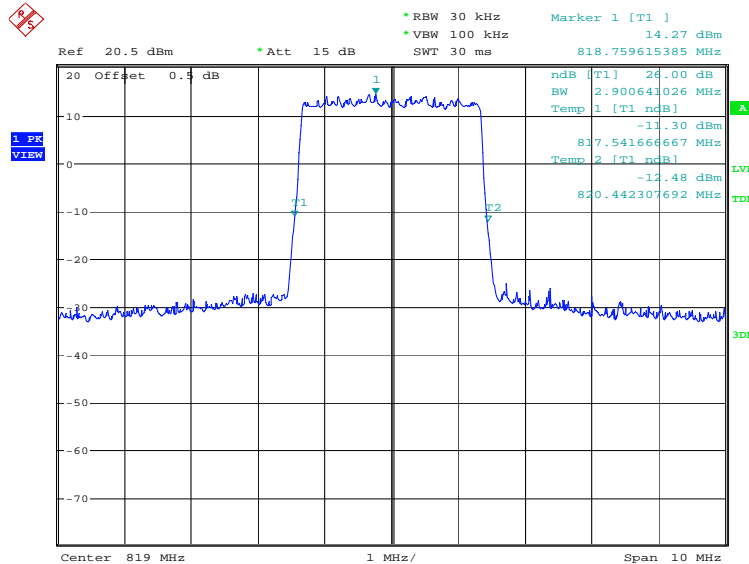
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
	QPSK	16QAM	64QAM
819.0	2884.62	2900.64	2884.62

LTE band 26(814MHz-824MHz), 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.NOV.2018 01:11:05

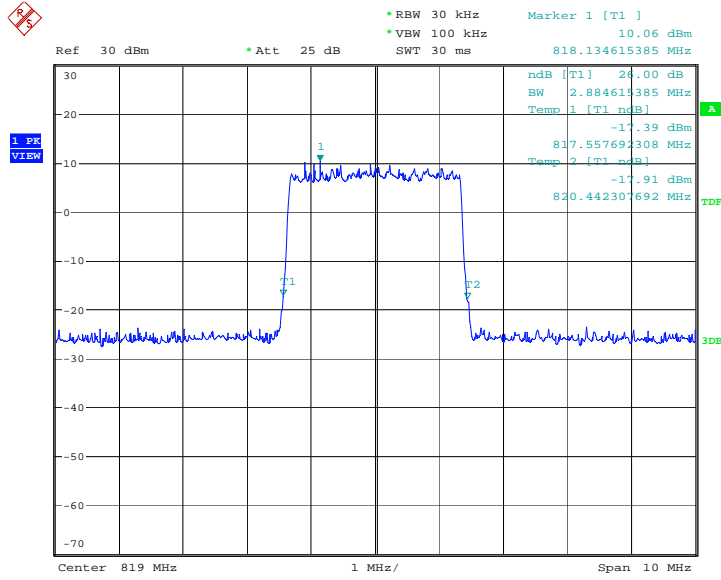
LTE band 26(814MHz-824MHz), 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 01:12:30



LTE band 26(814MHz-824MHz), 3MHz Bandwidth, 64QAM (-26dBc BW)

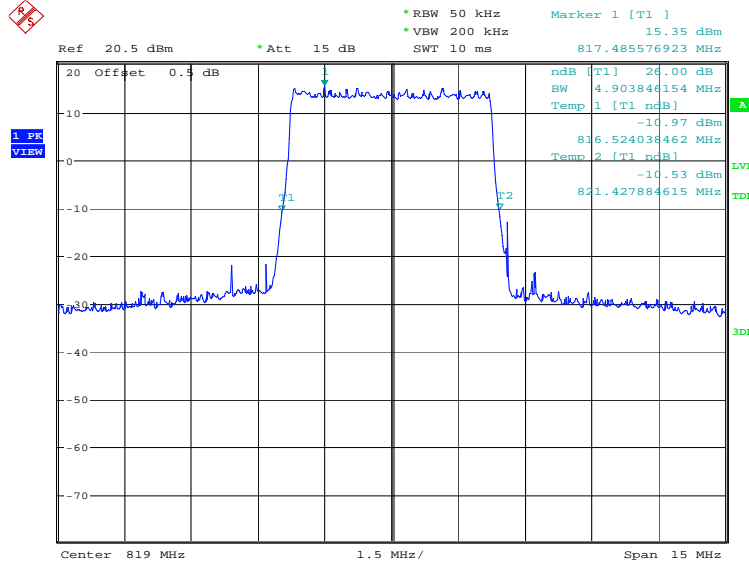


Date: 21.NOV.2018 14:07:22

LTE band 26(814MHz-824MHz), 5MHz (-26dBc)

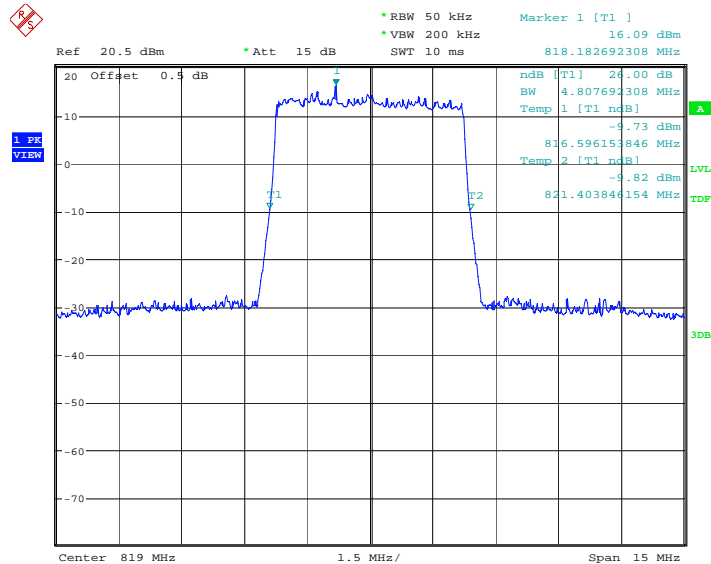
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
819.0	4903.85	4807.69	4855.77

LTE band 26(814MHz-824MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.NOV.2018 01:14:47

LTE band 26(814MHz-824MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)

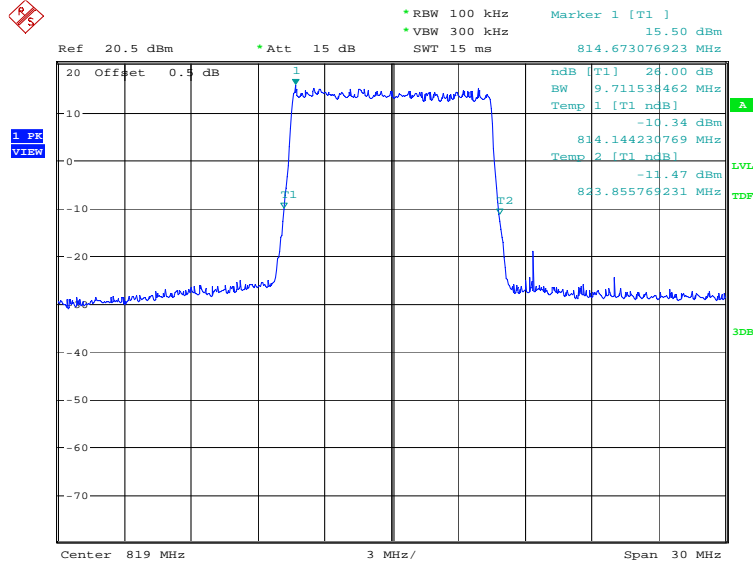


Date: 5.DEC.2018 15:18:02

LTE band 26(814MHz-824MHz), 10MHz (-26dBc)

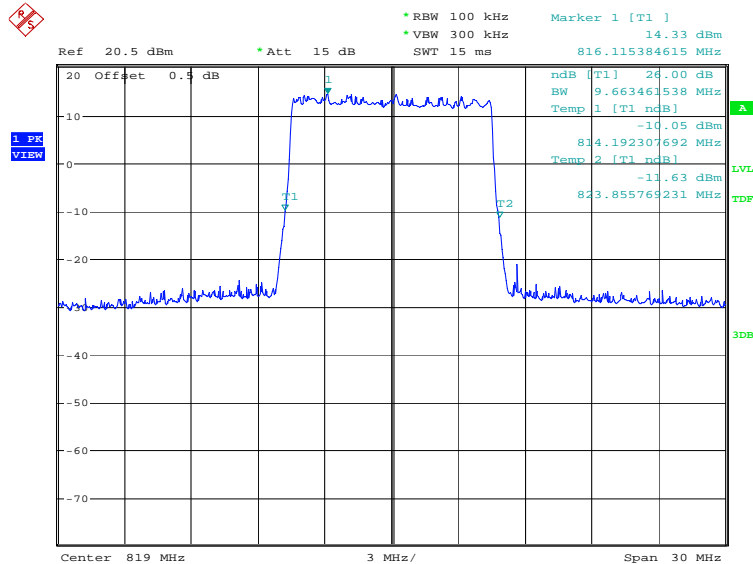
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
	QPSK	16QAM	64QAM
819.0	9711.54	9663.46	9615.38

LTE band 26(814MHz-824MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



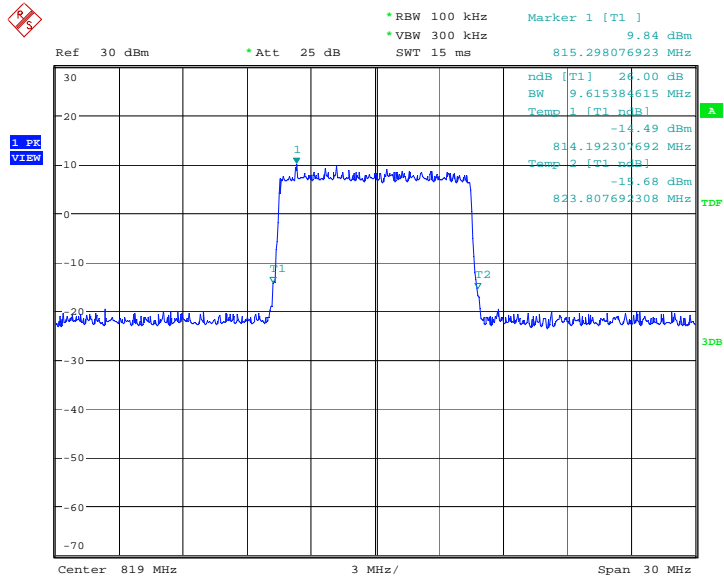
Date: 8.NOV.2018 01:18:29

LTE band 26(814MHz-824MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 01:19:54

LTE band 26(814MHz-824MHz), 10MHz Bandwidth, 64QAM (-26dBc BW)

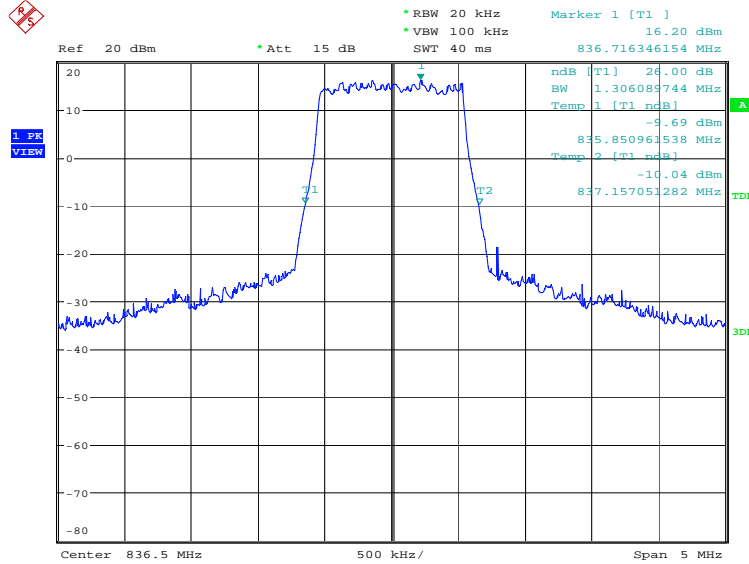


Date: 21.NOV.2018 14:10:54

LTE band 26(824MHz-849MHz), 1.4MHz (-26dBc)

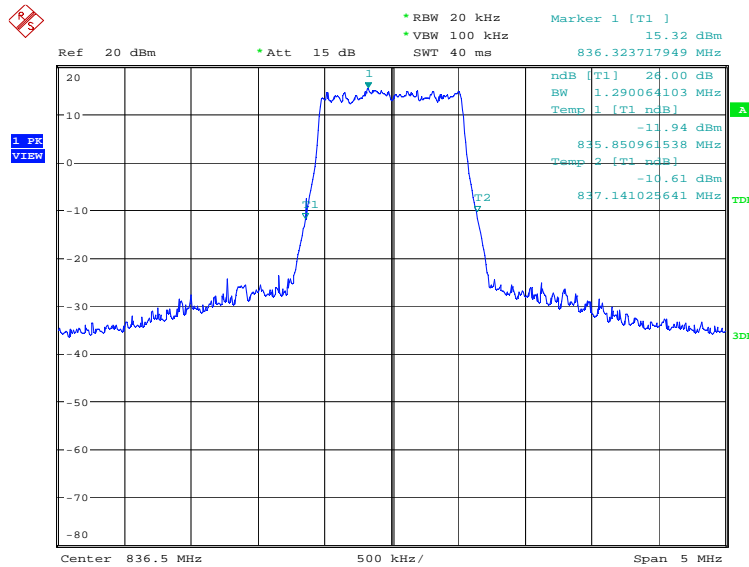
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
836.5	QPSK	16QAM	64QAM
	1306.09	1290.06	1290.06

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



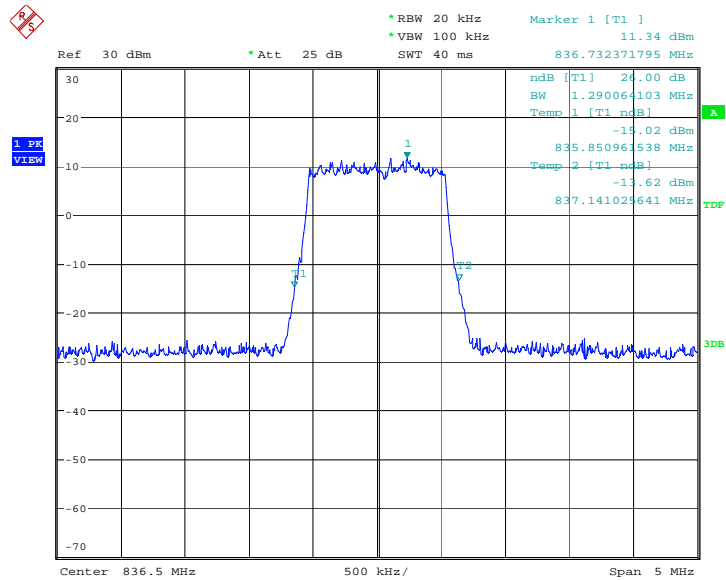
Date: 8.NOV.2018 00:48:53

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:50:18

LTE band 26(824MHz-849MHz), 1.4MHz Bandwidth, 64QAM (-26dBc BW)

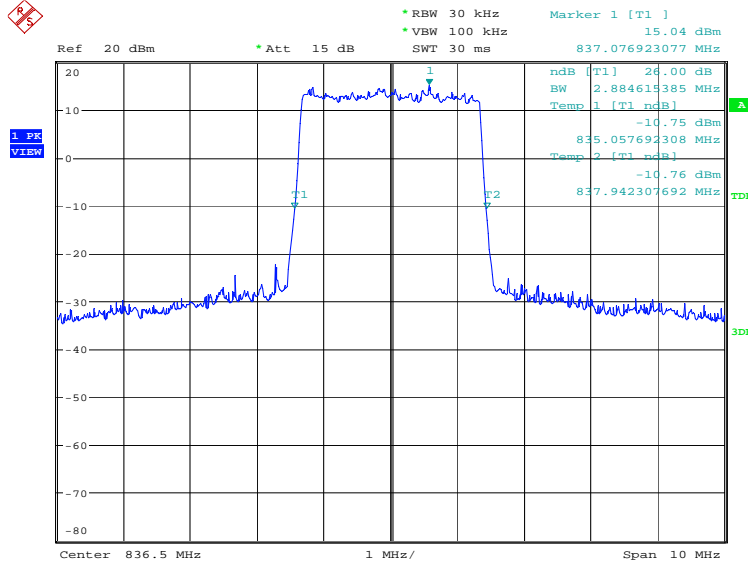


Date: 21.NOV.2018 13:52:52

LTE band 26(824MHz-849MHz), 3MHz (-26dBc)

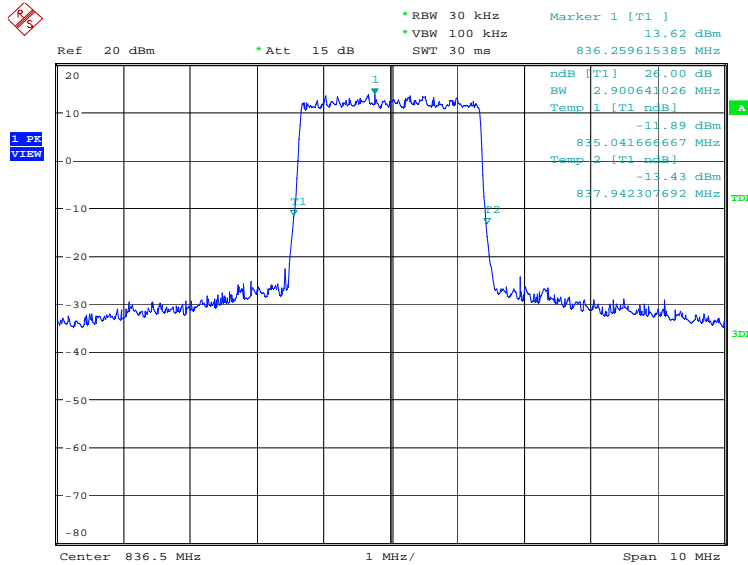
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
836.5	QPSK	16QAM	64QAM
	2884.62	2900.64	2884.62

LTE band 26(824MHz-849MHz), 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.NOV.2018 00:52:37

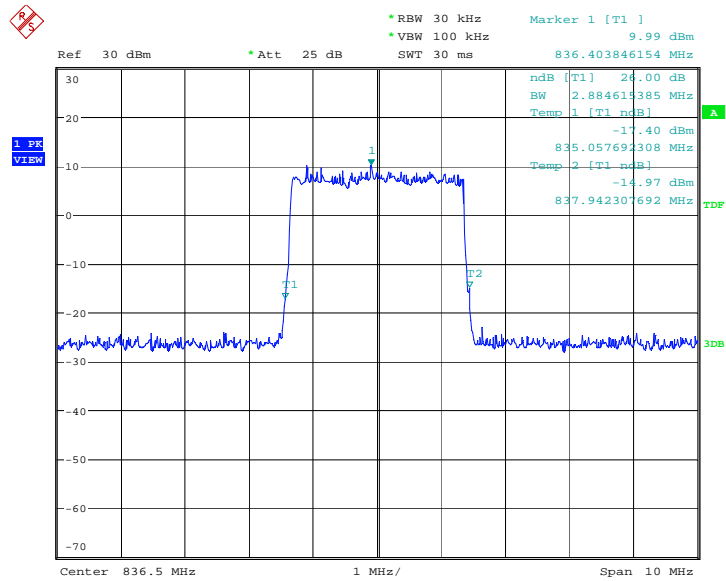
LTE band 26(824MHz-849MHz), 3MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:54:02



LTE band 26(824MHz-849MHz), 3MHz Bandwidth, 64QAM (-26dBc BW)

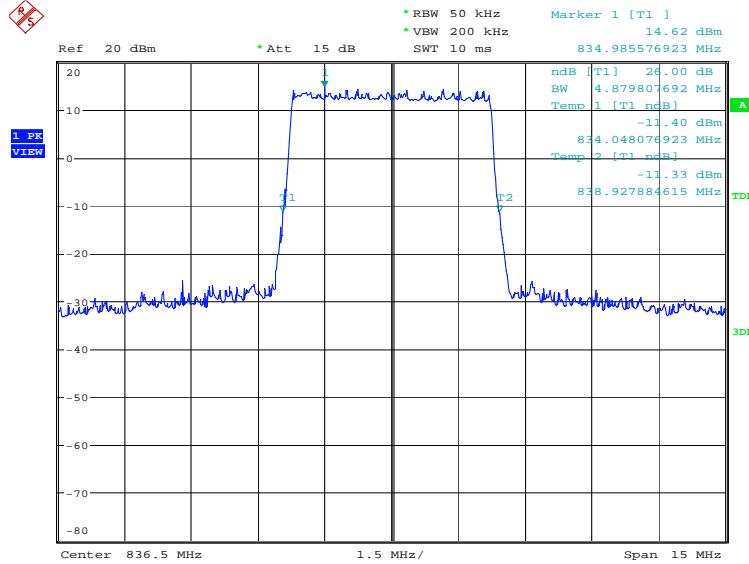


Date: 21.NOV.2018 13:54:42

LTE band 26(824MHz-849MHz), 5MHz (-26dBc)

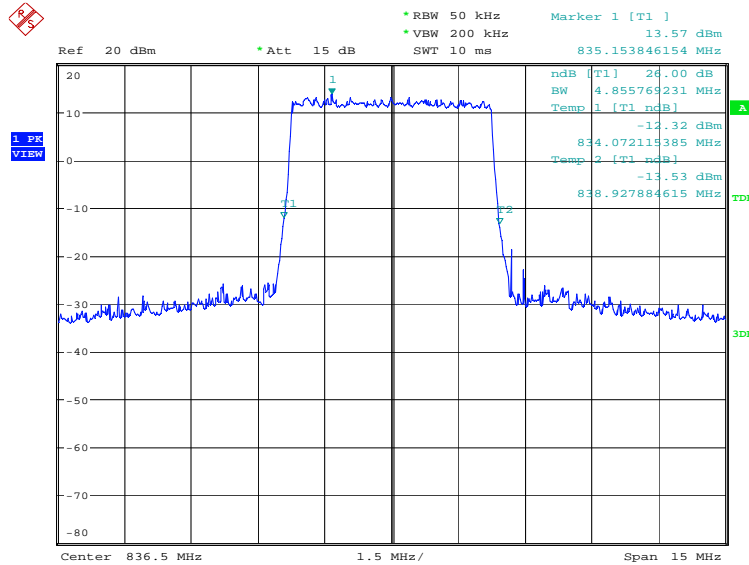
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
	QPSK	16QAM	64QAM
836.5	4879.81	4855.77	4759.62

LTE band 26(824MHz-849MHz), 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.NOV.2018 00:56:19

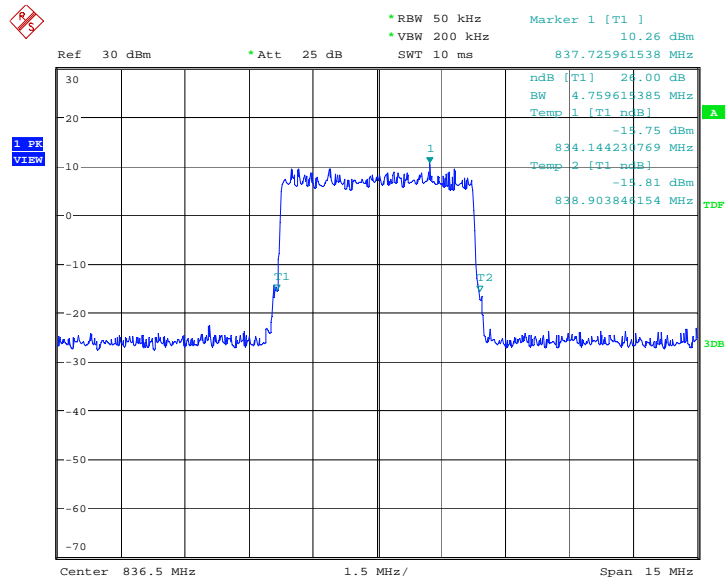
LTE band 26(824MHz-849MHz), 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 00:57:44



LTE band 26(824MHz-849MHz), 5MHz Bandwidth, 64QAM (-26dBc BW)

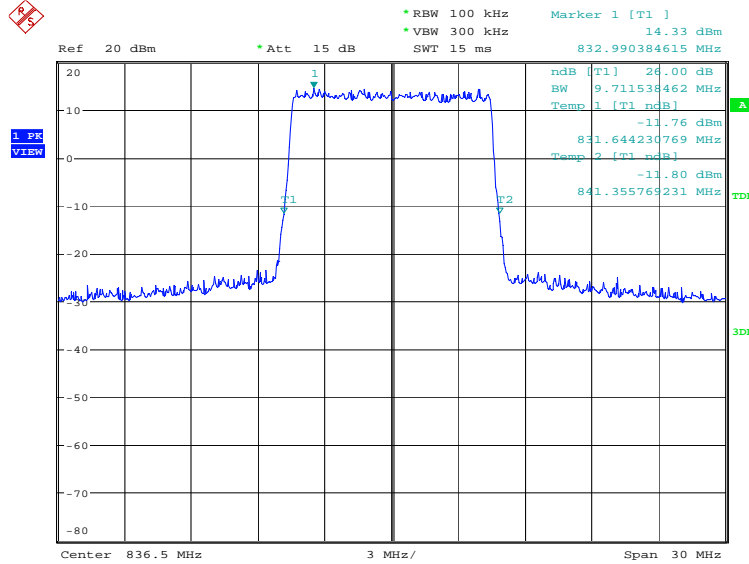


Date: 21.NOV.2018 13:56:22

LTE band 26(824MHz-849MHz), 10MHz (-26dBc)

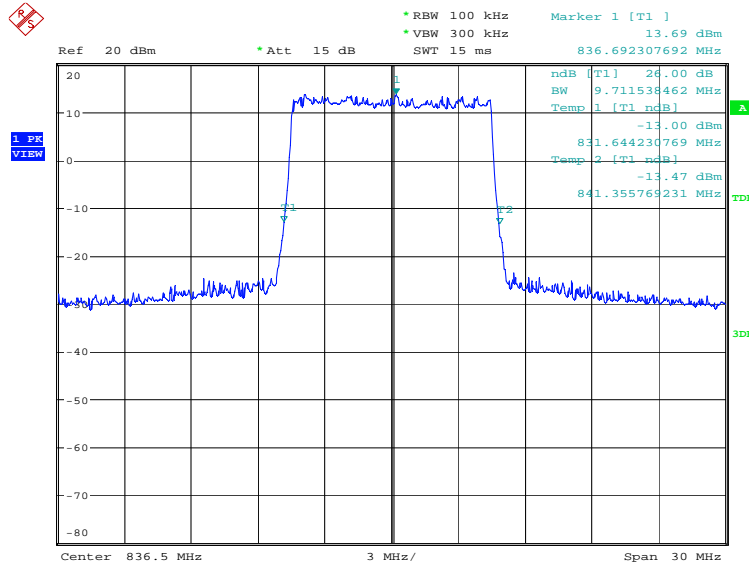
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
836.5	QPSK	16QAM	64QAM
	9711.54	9711.54	9615.38

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, QPSK (-26dBc BW)



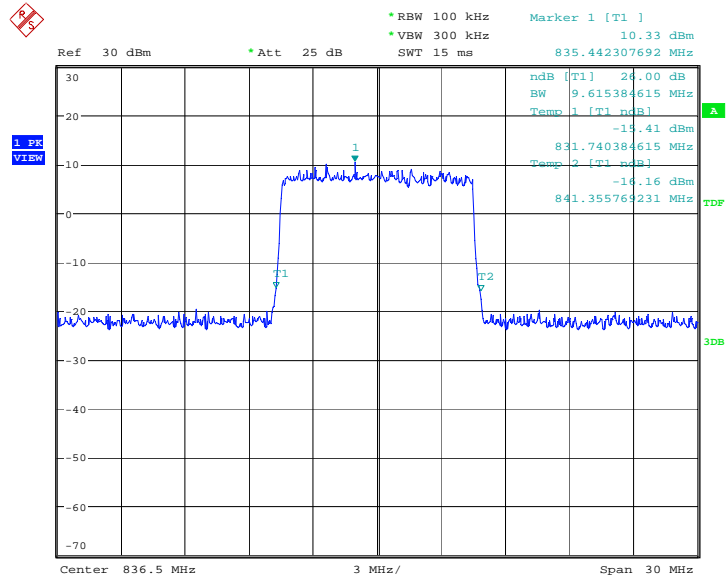
Date: 8.NOV.2018 01:00:03

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 01:01:28

LTE band 26(824MHz-849MHz), 10MHz Bandwidth, 64QAM(-26dBc BW)

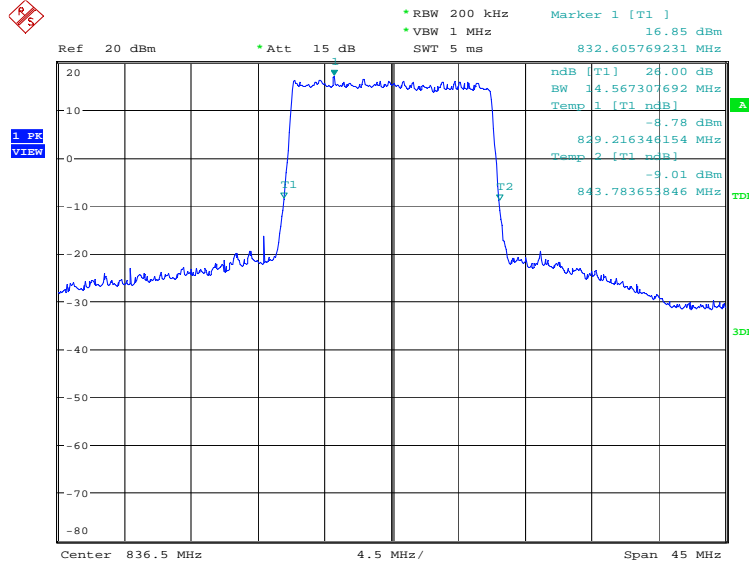


Date: 21.NOV.2018 13:58:14

LTE band 26(824MHz-849MHz), 15MHz (-26dBc)

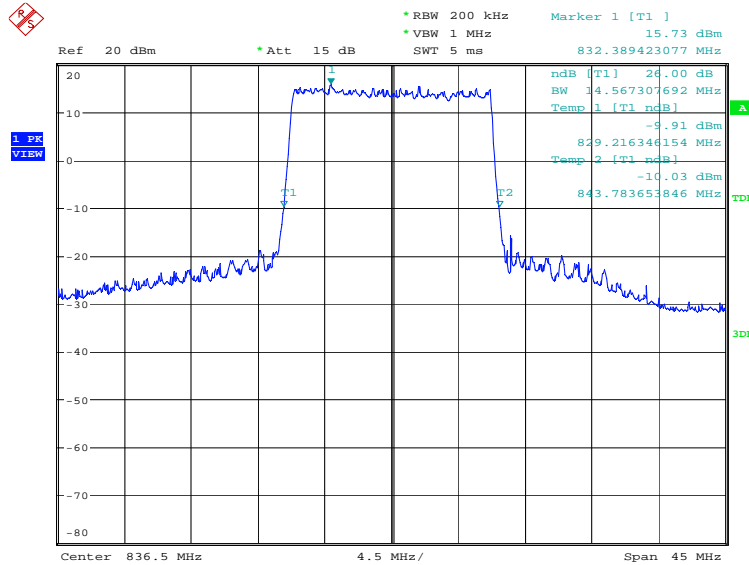
Frequency(MHz)	Occupied Bandwidth (-26dBc)(kHz)		
836.5	QPSK	16QAM	64QAM
	14567.31	14567.31	14567.31

LTE band 26(824MHz-849MHz), 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.NOV.2018 01:03:45

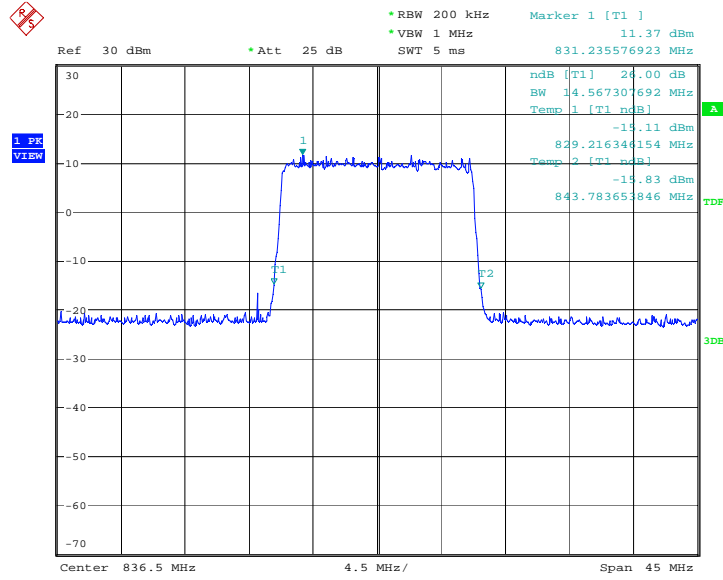
LTE band 26(824MHz-849MHz), 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.NOV.2018 01:05:10



LTE band 26(824MHz-849MHz), 15MHz Bandwidth, 64QAM (-26dBc BW)



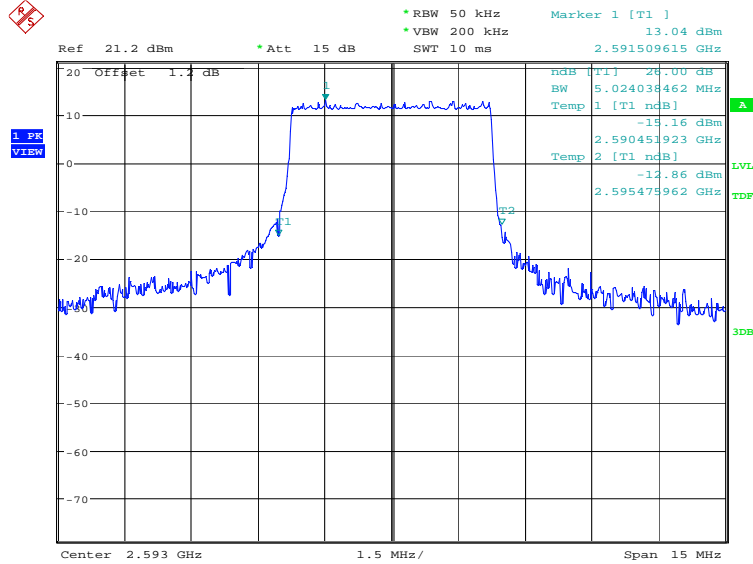
Date: 21.NOV.2018 14:00:16

HPUE

LTE band 41, 5MHz (-26dBc)

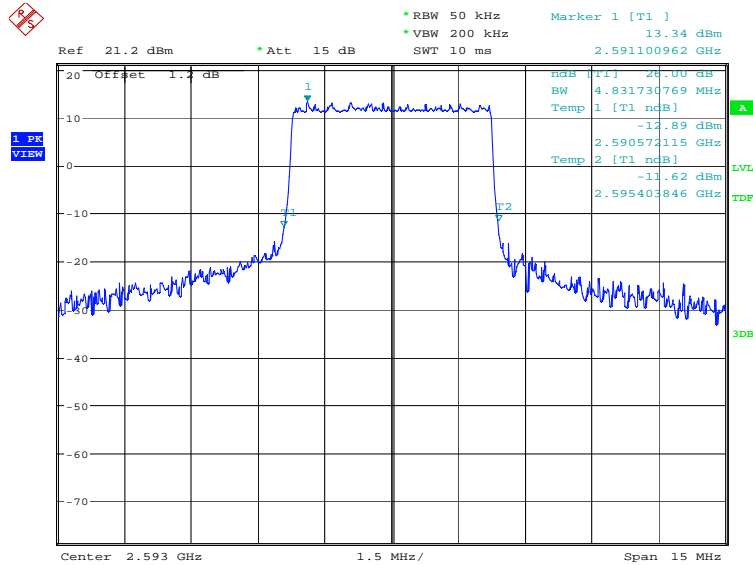
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
2593.0	5024.04	4831.73	4783.65

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



Date: 8.NOV.2018 01:22:16

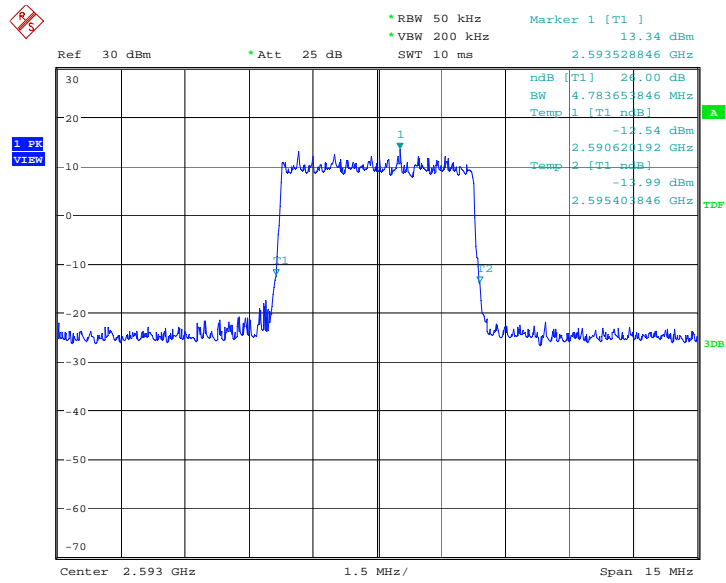
LTE band 41, 5MHz Bandwidth,16QAM (-26dBc BW)



Date: 8.NOV.2018 01:23:42



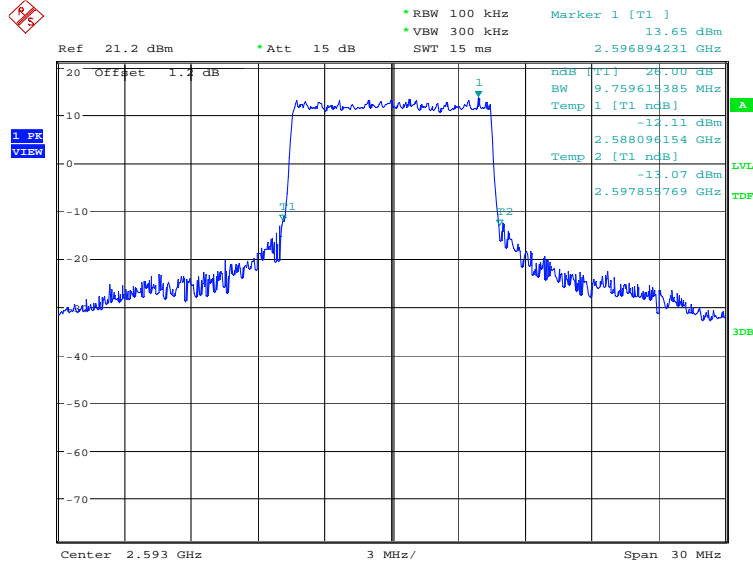
LTE band 41, 5MHz Bandwidth, 64QAM (-26dBc BW)



LTE band 41, 10MHz (-26dBc)

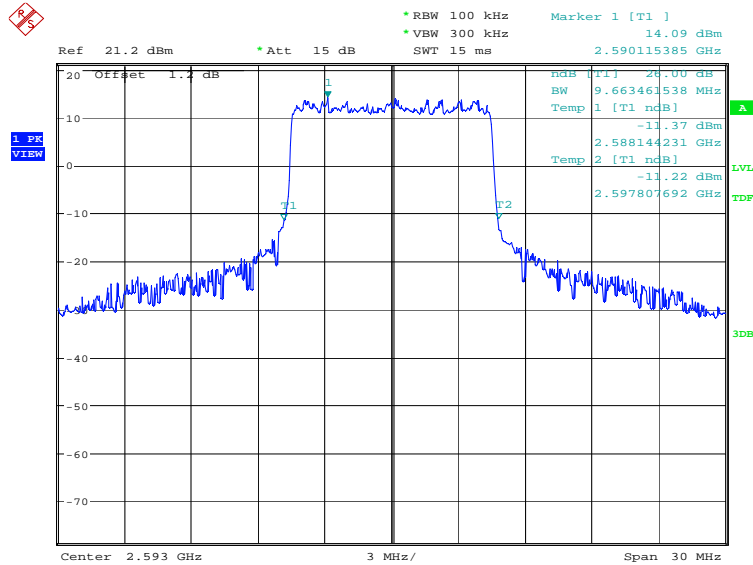
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
2593.0	9759.62	9663.46	9567.31

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



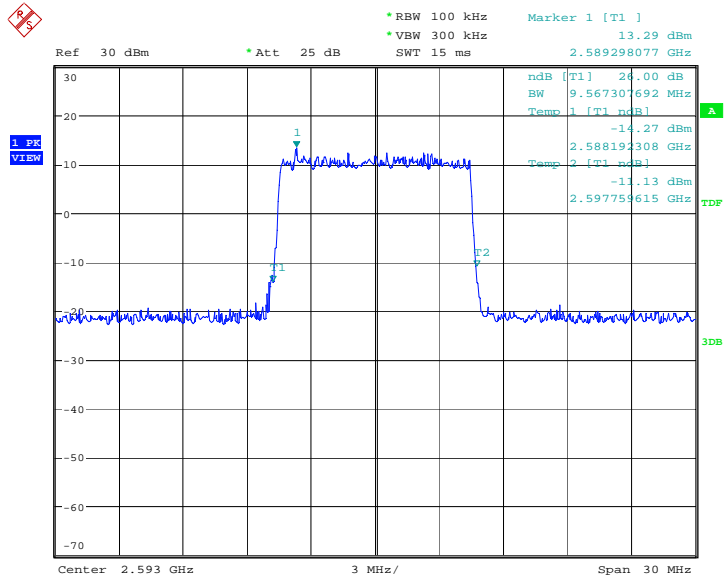
Date: 8.NOV.2018 01:25:57

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



Date: 8.NOV.2018 01:27:22

LTE band 41, 10MHz Bandwidth, 64QAM (-26dBc BW)

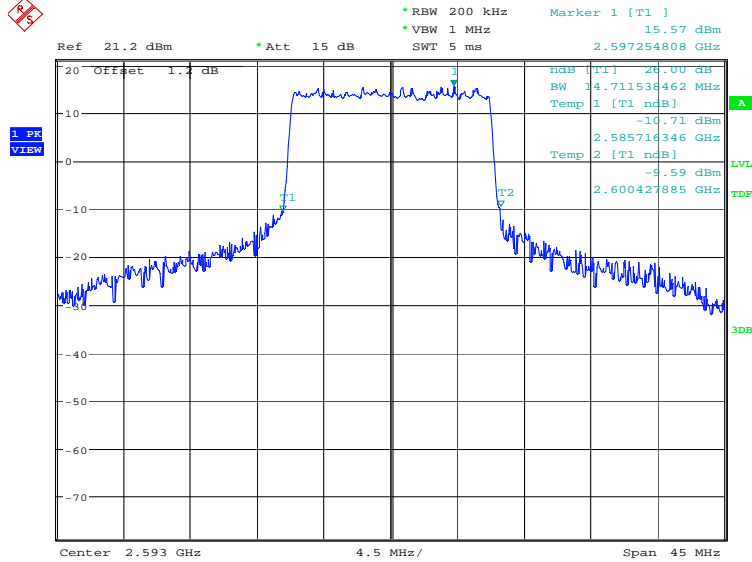


Date: 21.NOV.2018 10:01:33

LTE band 41, 15MHz (-26dBc)

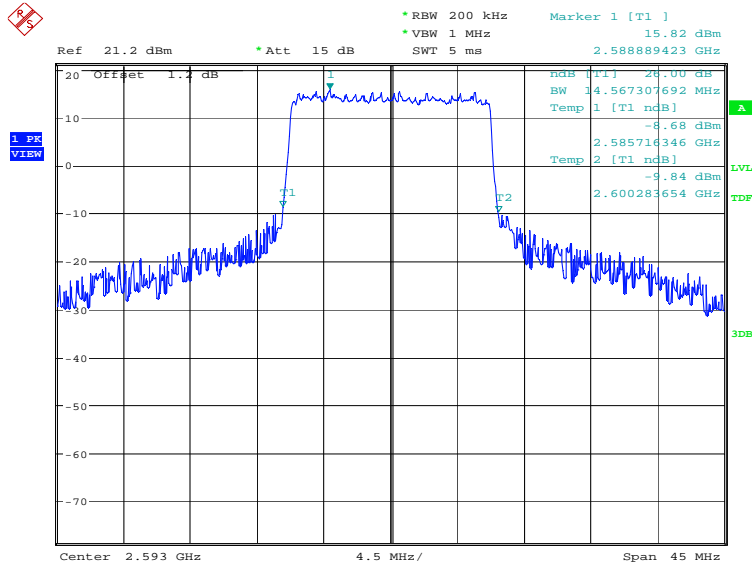
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
2593.0	14711.54	14567.31	14495.19

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



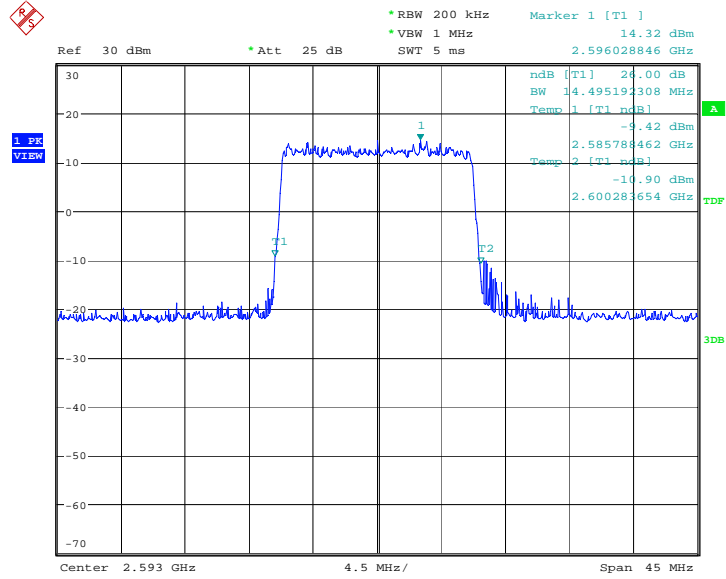
Date: 8.NOV.2018 01:29:37

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



Date: 8.NOV.2018 01:31:02

LTE band 41, 15MHz Bandwidth, 64QAM (-26dBc BW)

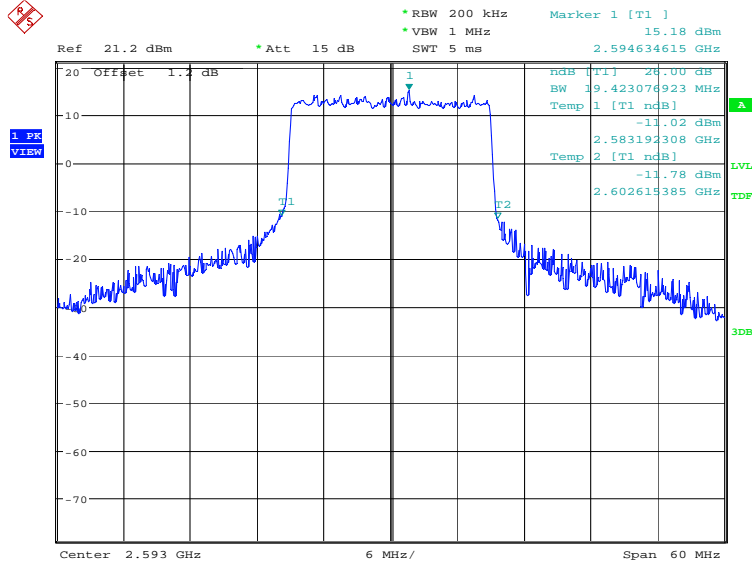


Date: 21.NOV.2018 10:05:47

LTE band 41, 20MHz (-26dBc)

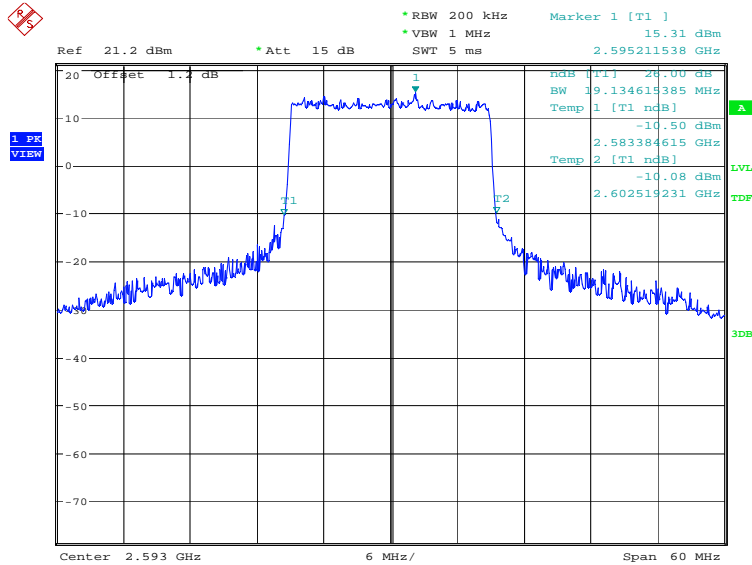
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
2593.0	19423.08	19134.62	19230.77

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



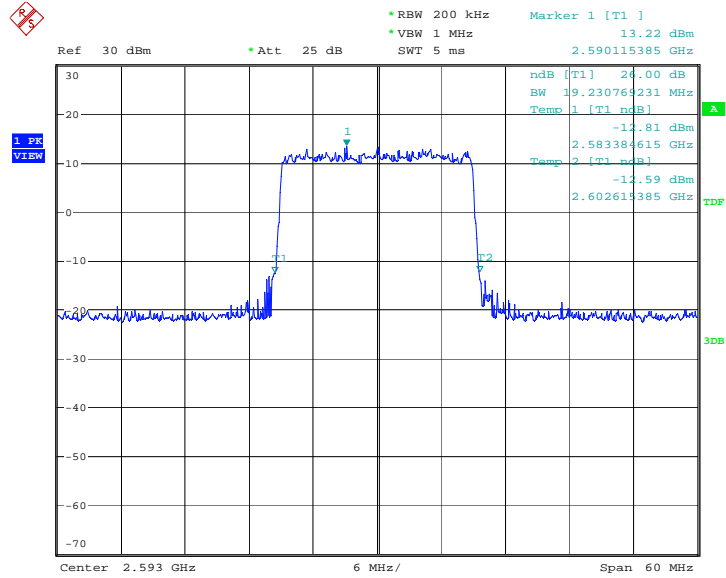
Date: 8.NOV.2018 01:33:17

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



Date: 8.NOV.2018 01:34:43

LTE band 41, 20MHz Bandwidth, 64QAM (-26dBc BW)



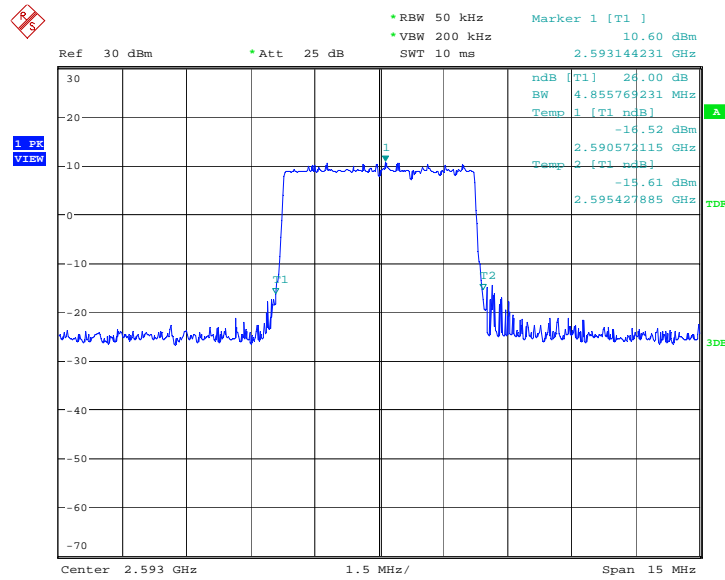
Date: 21.NOV.2018 10:07:52

normal power

LTE band 41, 5MHz (-26dBc)

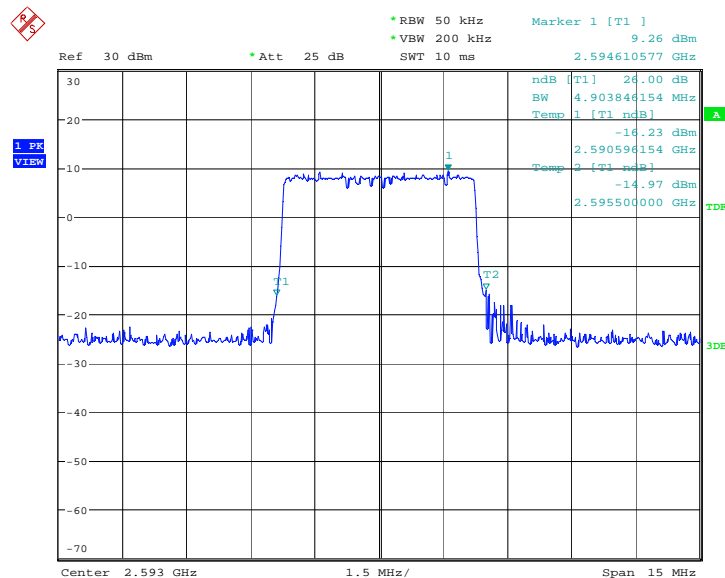
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2593.0	QPSK	16QAM	64QAM
	4855.77	4903.85	4831.73

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



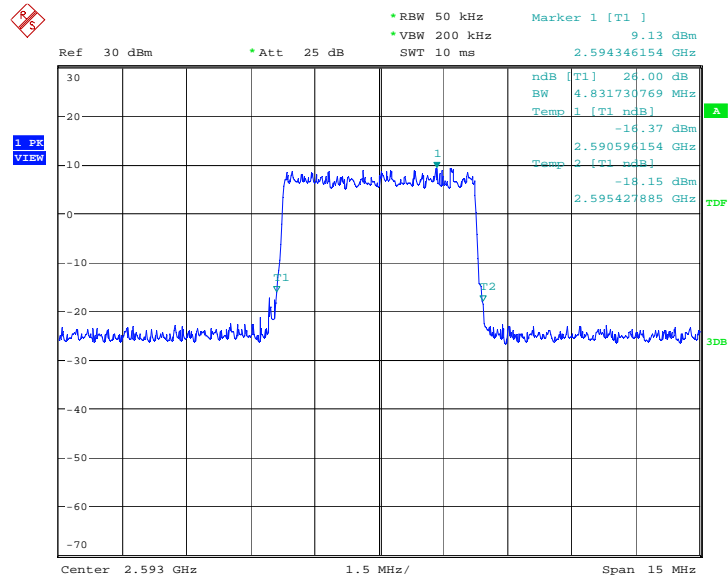
Date: 9.JAN.2019 09:27:16

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



Date: 9.JAN.2019 09:27:33

LTE band 41, 5MHz Bandwidth, 64QAM (-26dBc BW)

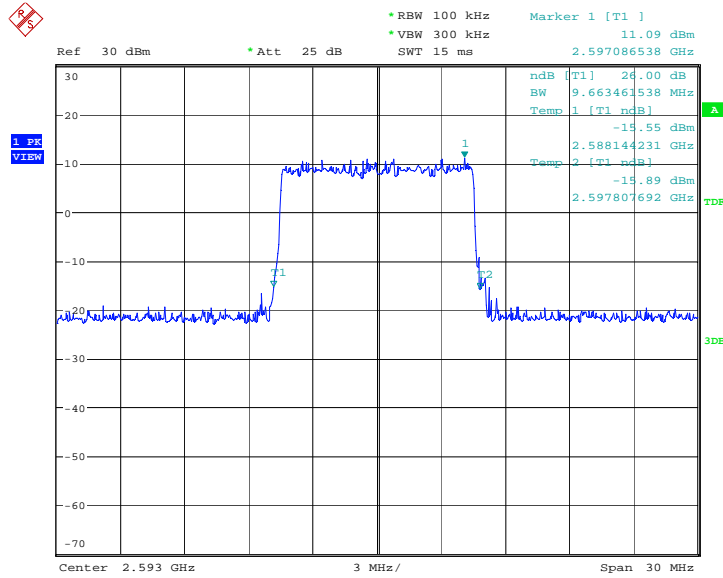


Date: 9.JAN.2019 09:44:55

LTE band 41, 10MHz (-26dBc)

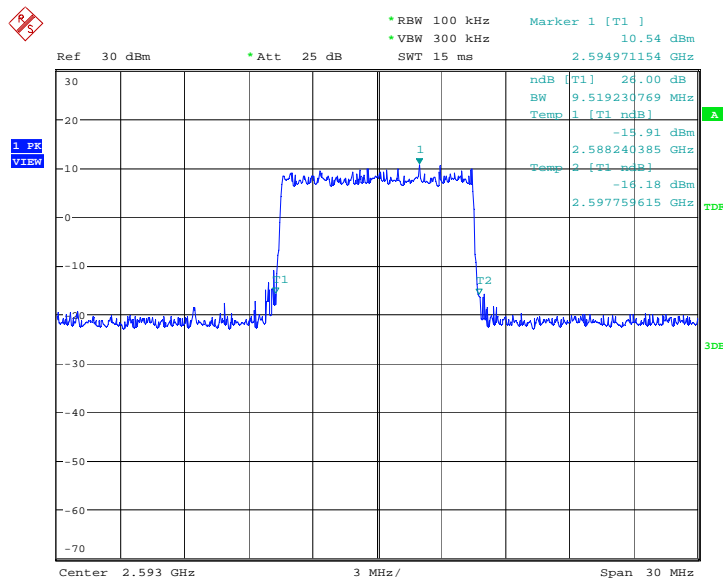
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2593.0	QPSK	16QAM	64QAM
	9663.46	9519.23	9615.38

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



Date: 9.JAN.2019 09:29:39

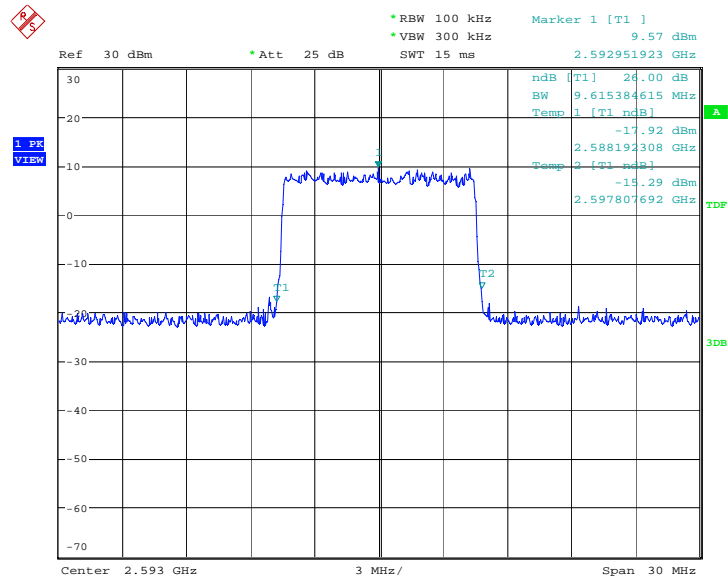
LTE band 41, 10MHz Bandwidth,16QAM (-26dBc BW)



Date: 9.JAN.2019 09:29:56



LTE band 41, 10MHz Bandwidth, 64QAM (-26dBc BW)

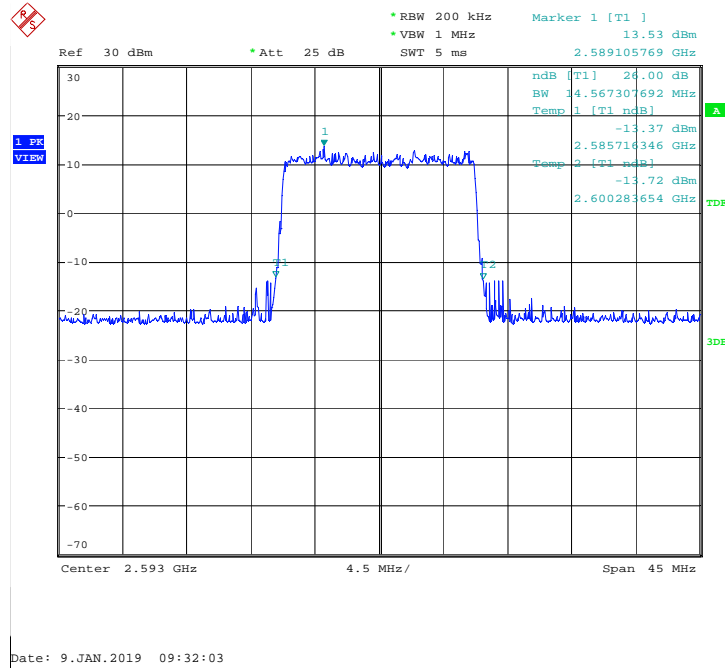


Date: 9.JAN.2019 09:51:55

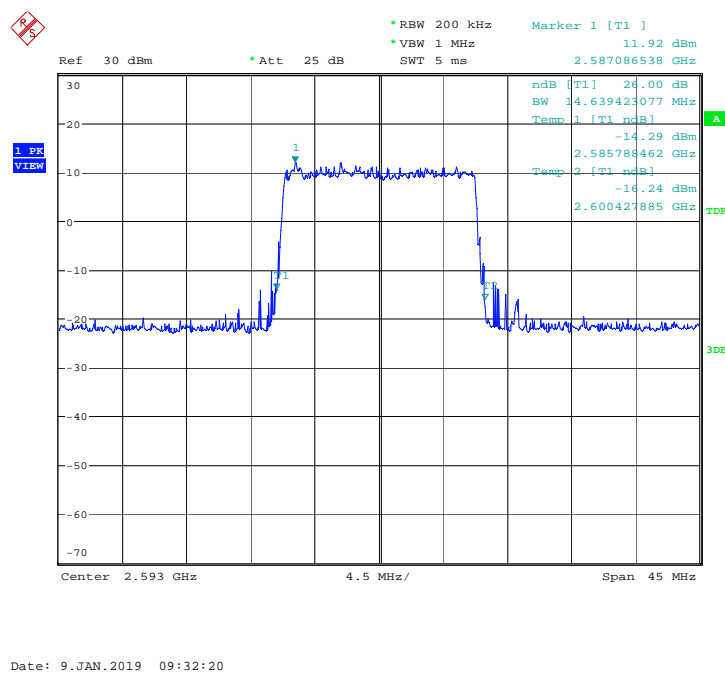
LTE band 41, 15MHz (-26dBc)

Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
2593.0	QPSK	16QAM	64QAM
	14567.3	14639.4	14495.2

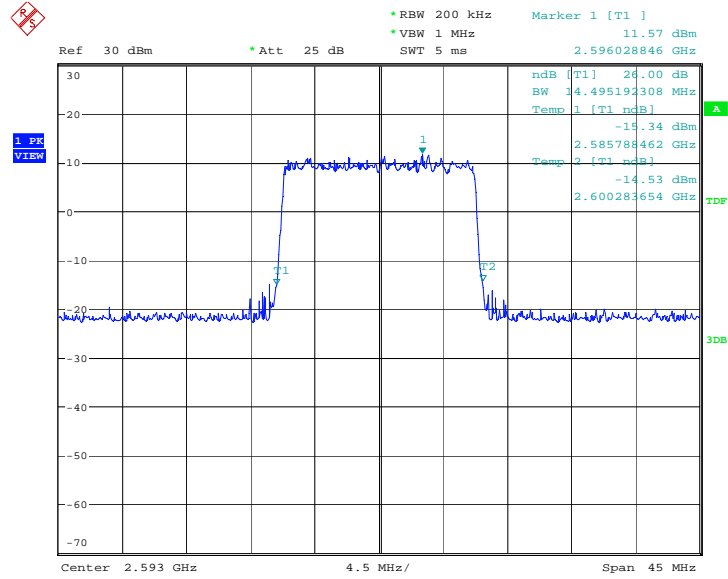
LTE band 41, 15MHz Bandwidth, QPSK (-26dBc BW)



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



LTE band 41, 15MHz Bandwidth, 64QAM (-26dBc BW)

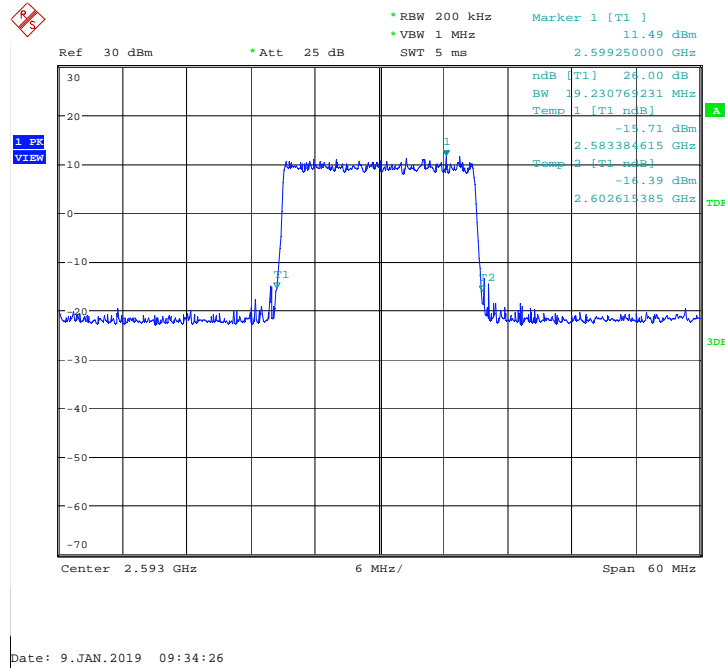


Date: 9.JAN.2019 09:47:28

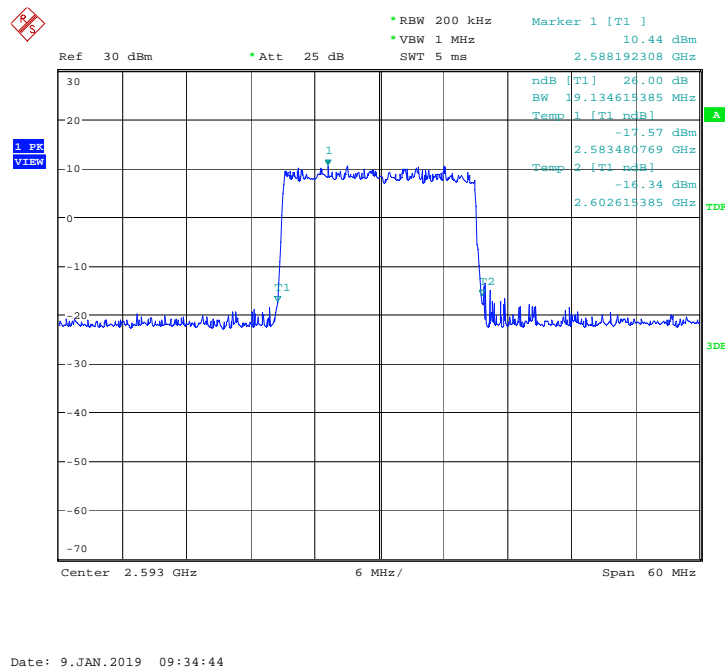
LTE band 41, 20MHz (-26dBc)

Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
2593.0	19230.8	19134.6	19134.6

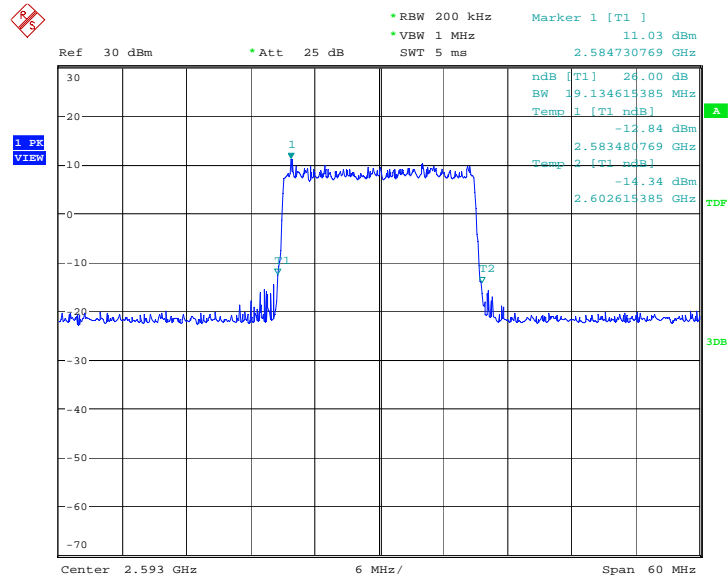
LTE band 41, 20MHz Bandwidth, QPSK (-26dBc BW)



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



LTE band 41, 20MHz Bandwidth, 64QAM (-26dBc BW)

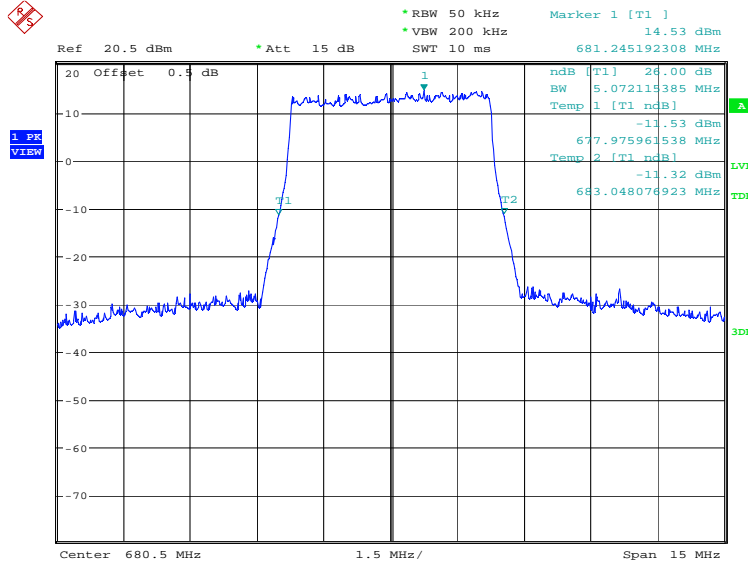


Date: 9.JAN.2019 09:50:41

LTE band 71, 5MHz (-26dBc)

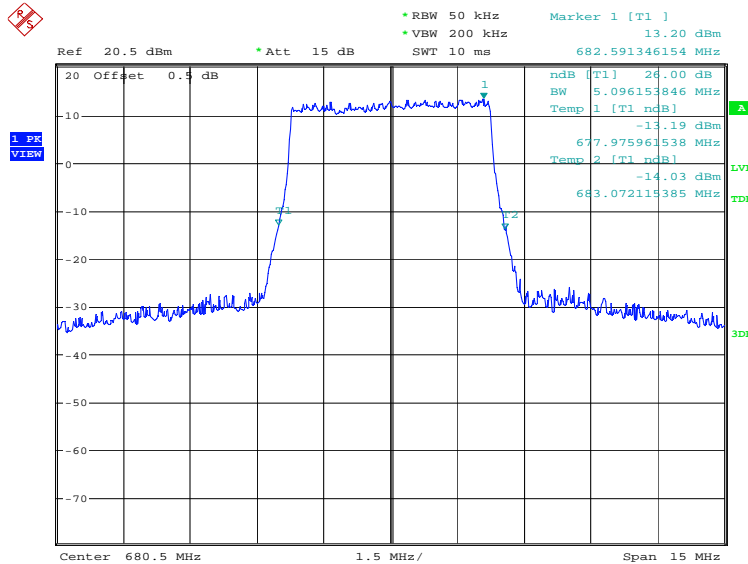
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
680.5	5072.12	5096.15	5000.00

LTE band 71, 5MHz Bandwidth, QPSK (-26dBc BW)



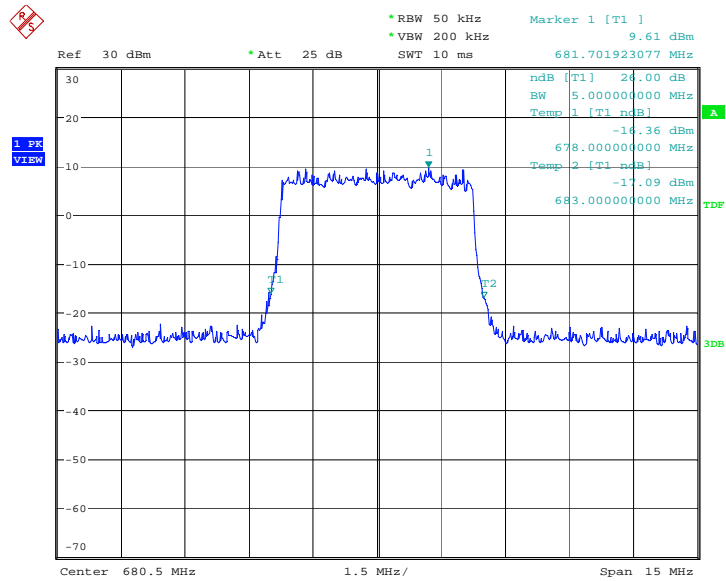
Date: 27.NOV.2018 06:03:22

LTE band 71, 5MHz Bandwidth, 16QAM (-26dBc BW)



Date: 27.NOV.2018 06:04:46

LTE band 71, 5MHz Bandwidth, 64QAM (-26dBc BW)

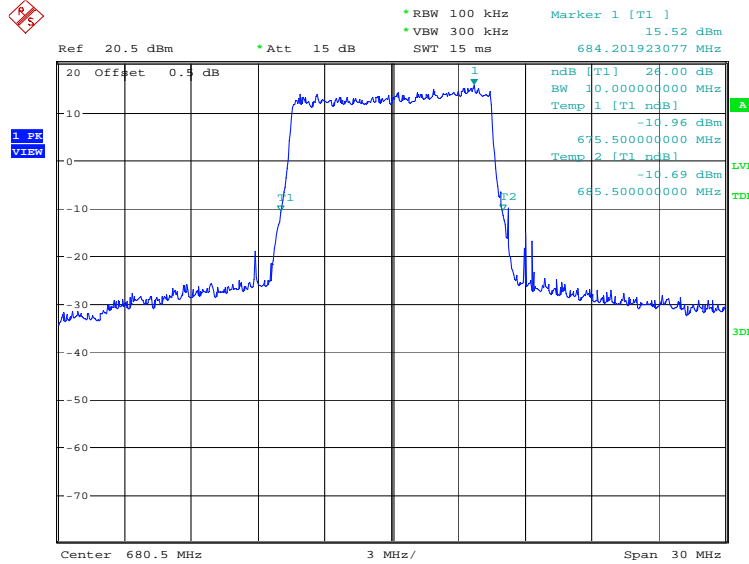


Date: 21.NOV.2018 10:15:04

LTE band 71, 10MHz (-26dBc)

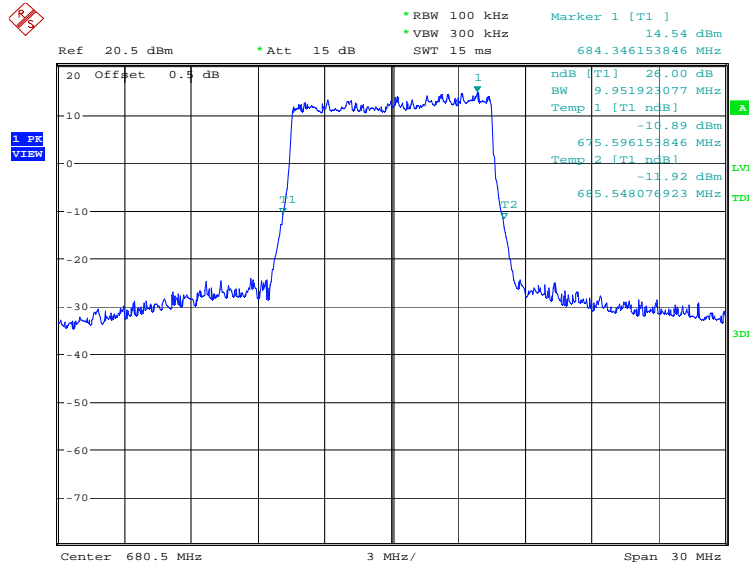
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
680.5	10000.00	9951.92	9807.69

LTE band 71, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 27.NOV.2018 06:06:59

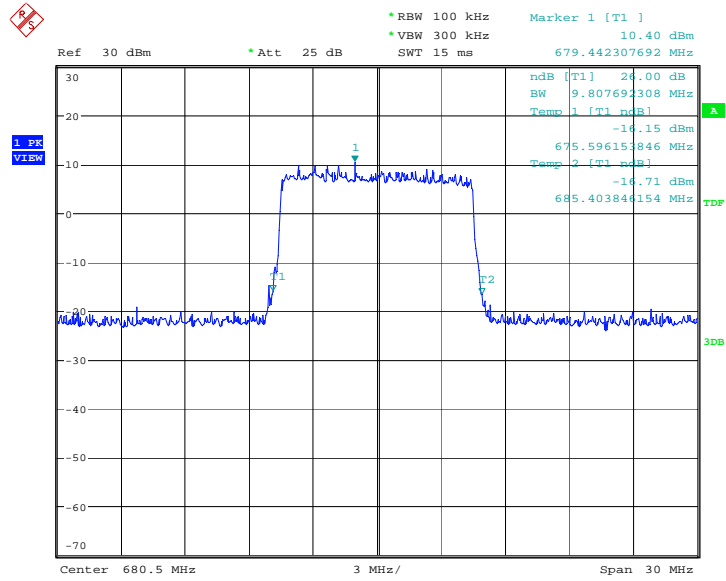
LTE band 71, 10MHz Bandwidth, 16QAM (-26dBc BW)



Date: 27.NOV.2018 06:08:23



LTE band 71, 10MHz Bandwidth, 64QAM (-26dBc BW)

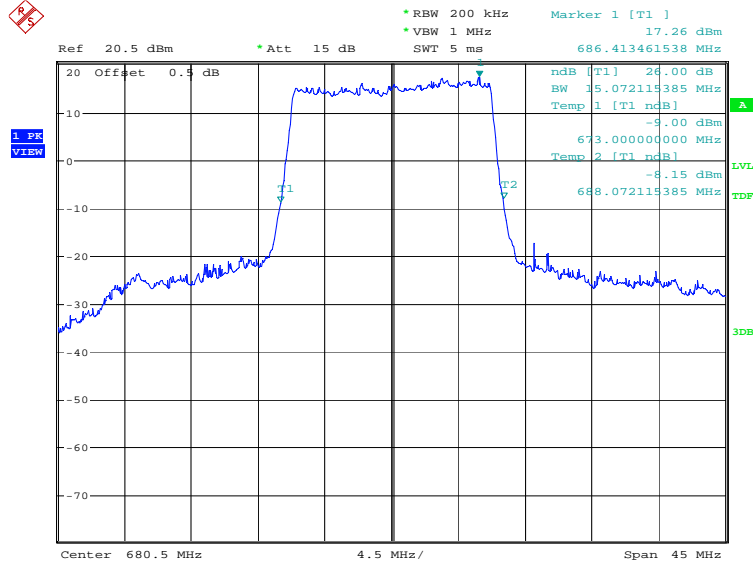


Date: 21.NOV.2018 10:21:48

LTE band 71, 15MHz (-26dBc)

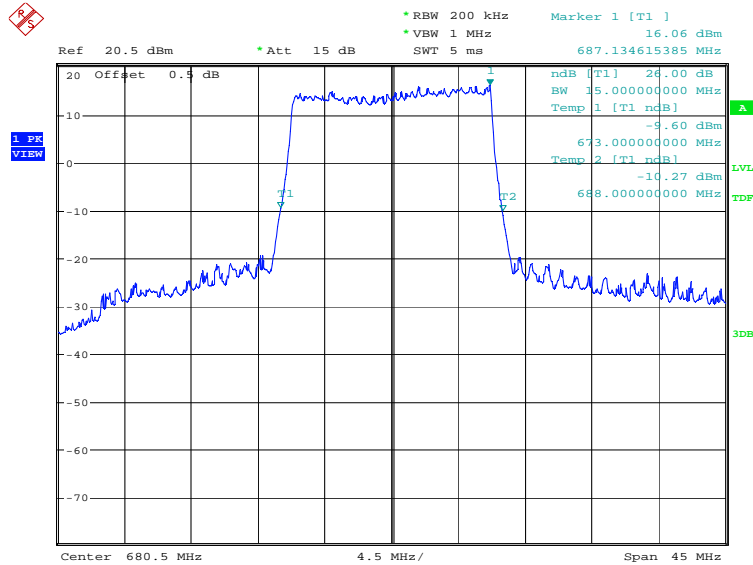
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
680.5	15072.12	15000.00	15000.00

LTE band 71, 15MHz Bandwidth, QPSK (-26dBc BW)



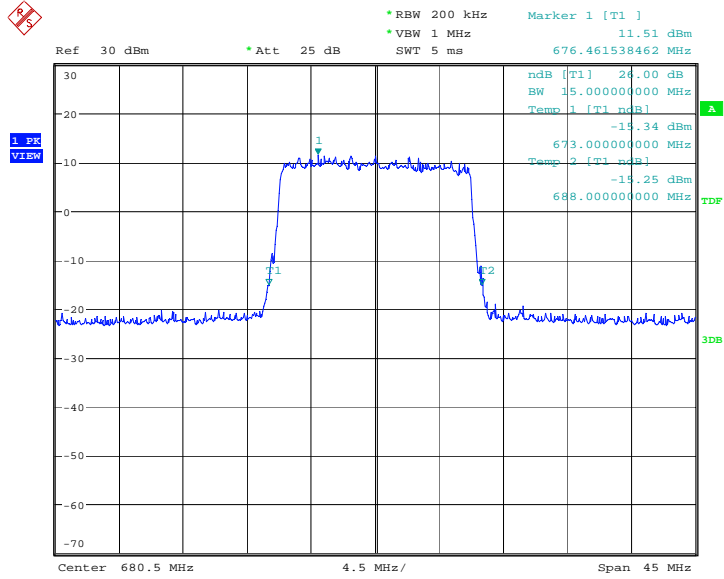
Date: 27.NOV.2018 06:10:36

LTE band 71, 15MHz Bandwidth, 16QAM (-26dBc BW)



Date: 27.NOV.2018 06:12:00

LTE band 71, 15MHz Bandwidth, 64QAM (-26dBc BW)

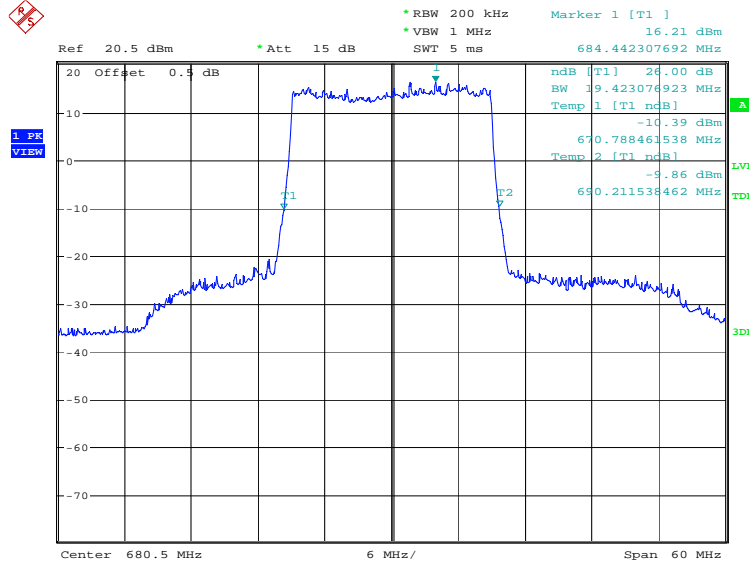


Date: 21.NOV.2018 10:23:31

LTE band 71, 20MHz (-26dBc)

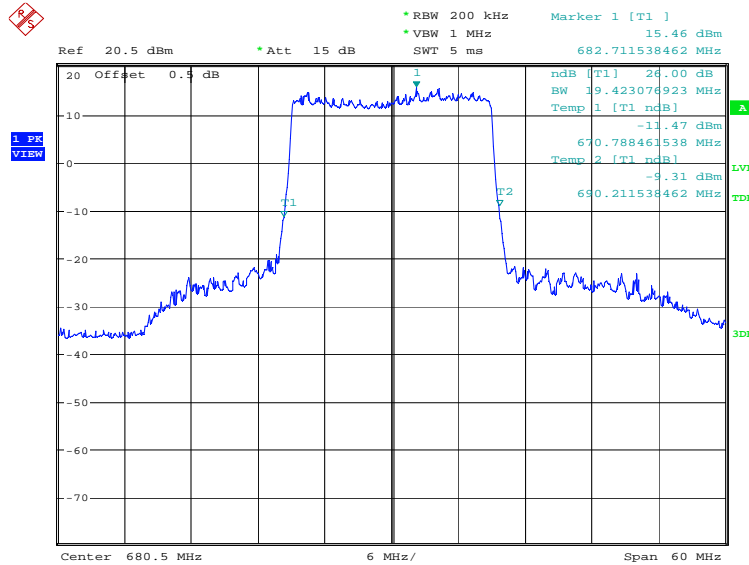
Frequency(MHz)	Occupied Bandwidth (-26dBc) (kHz)		
	QPSK	16QAM	64QAM
680.5	19423.08	19423.08	19615.38

LTE band 71, 20MHz Bandwidth, QPSK (-26dBc BW)



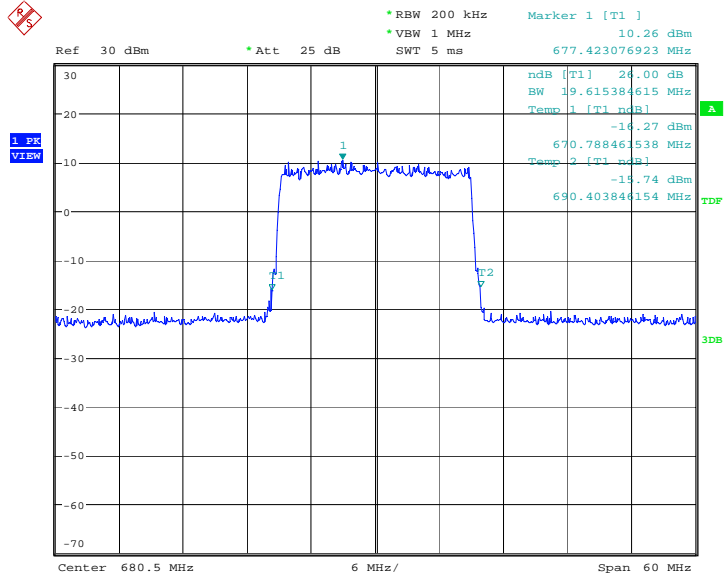
Date: 27.NOV.2018 06:14:14

LTE band 71, 20MHz Bandwidth, 16QAM (-26dBc BW)



Date: 27.NOV.2018 06:15:38

LTE band 71, 20MHz Bandwidth, 64QAM (-26dBc BW)



Date: 21.NOV.2018 10:25:14



A.6 BAND EDGE COMPLIANCE

A.6.1 Measurement limit

Part 22.917(b), 24.238(a), 27.53(h) state that on any frequency outside frequency band of the US Cellular/PCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least $43+10\log(P)$ dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

According to KDB 971168 6.0, a relaxation of the reference bandwidth is often provided for measurements within a specified frequency range at the edge of the authorized frequency block/band. This is often implemented by permitting the use of a narrower RBW (typically limited to a minimum RBW of 1% of the OBW) for measuring the out-of-band emissions without a requirement to integrate the result over the full reference bandwidth.

Part 27.53(m) states that 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 than $43 + 10 \log(P)$ 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.

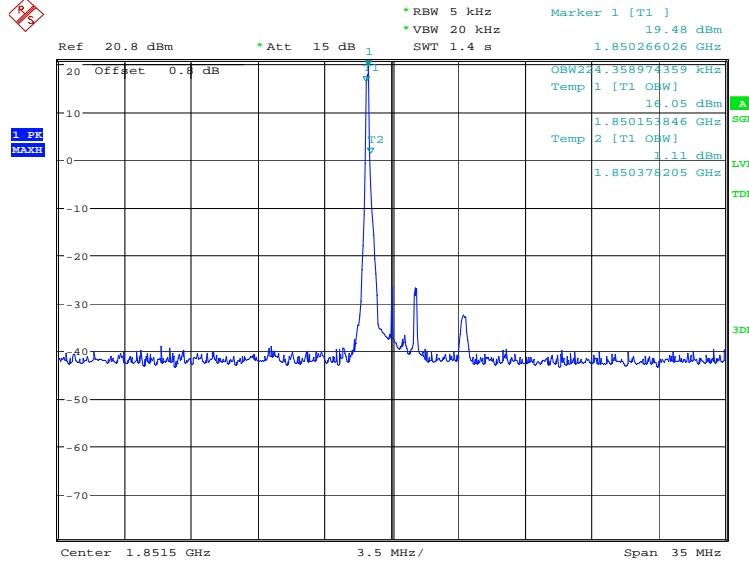
Part 27.53(c) states for operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the 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(a) states for mobile and portable stations operating in the 2305–2315 MHz and 2350–2360 MHz bands: By a factor of not less than: $43 + 10 \log(P)$ dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than $55 + 10 \log(P)$ dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than $61 + 10 \log(P)$ dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than $67 + 10 \log(P)$ dB on all frequencies between 2328 and 2337MHz; By a factor of not less than $43 + 10 \log(P)$ dB on all frequencies between 2300 and 2305 MHz, $55 + 10 \log(P)$ dB on all frequencies between 2296 and 2300MHz, $61 + 10 \log(P)$ dB on all frequencies between 2292 and 2296 MHz, $67 + 10 \log(P)$ dB on all frequencies between 2288



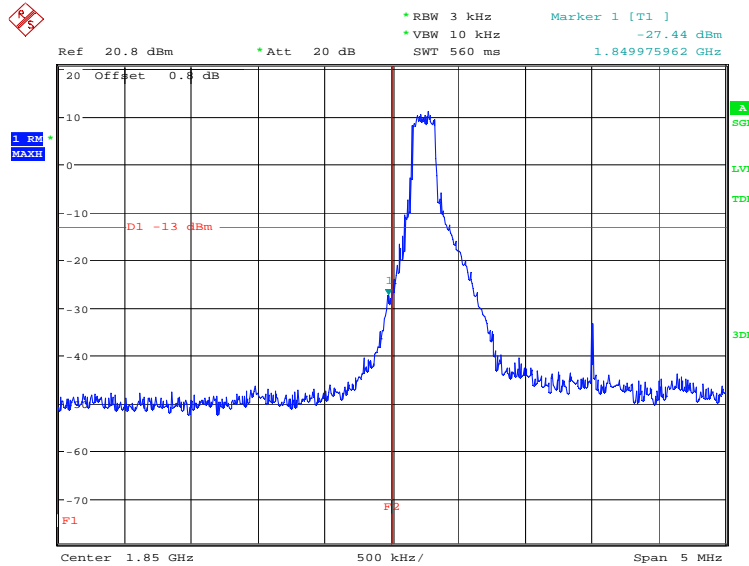
and 2292 MHz, and $70 + 10 \log (P)$ dB below 2288 MHz; By a factor of not less than $43 + 10 \log (P)$ dB on all frequencies between 2360 and 2365 MHz, and not less than $70 + 10 \log (P)$ dB above 2365 MHz.

A.6.2 Measurement result
Only worst case result is given below
LTE band 2
OBW: 1RB-low_offset



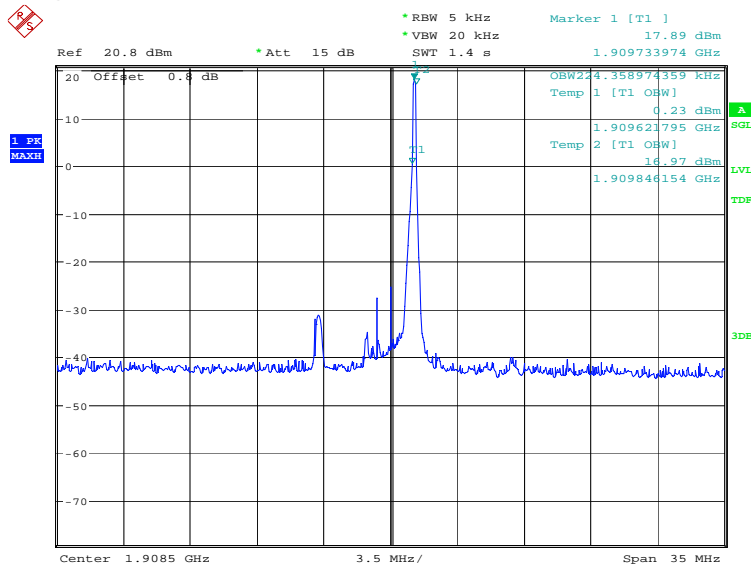
Date: 29.NOV.2018 10:52:32

LOW BAND EDGE BLOCK-1RB-low_offset



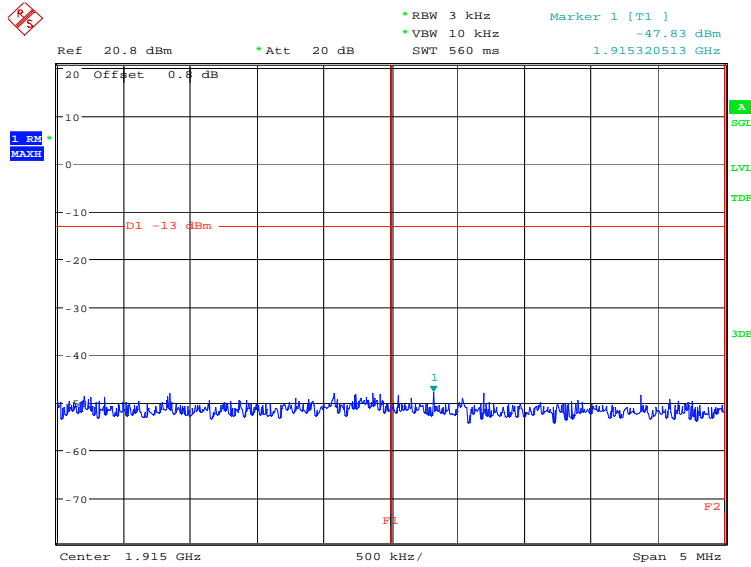
Date: 29.NOV.2018 10:52:47

OBW: 1RB-high_offset



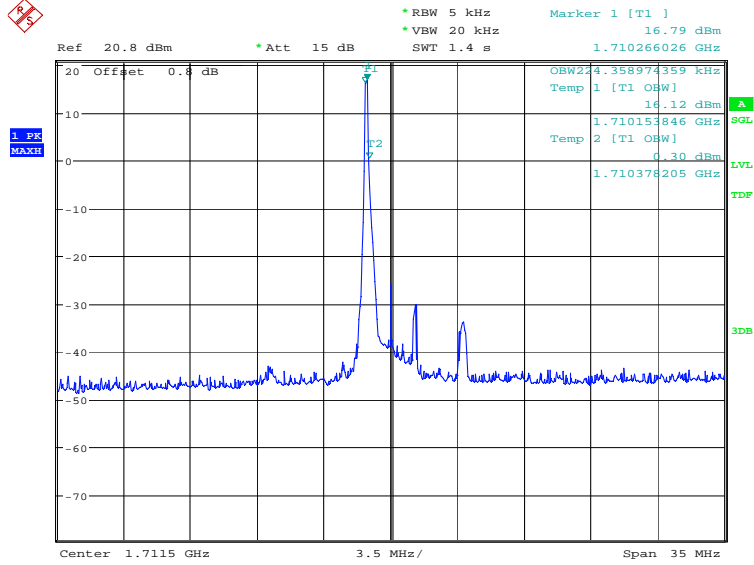
Date: 29.NOV.2018 11:09:58

HIGH BAND EDGE BLOCK-1RB-high_offset



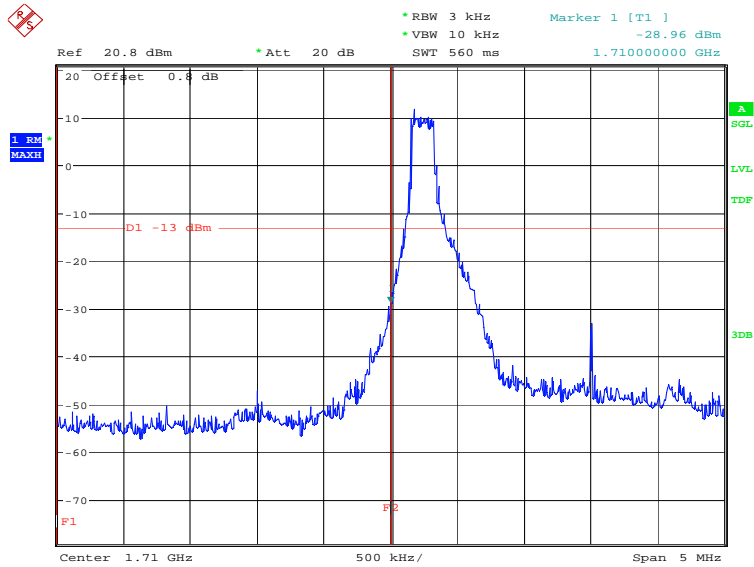
Date: 29.NOV.2018 11:10:14

LTE band 4
OBW: 1RB-low_offset



Date: 29.NOV.2018 11:29:00

LOW BAND EDGE BLOCK-1RB-low_offset



Date: 29.NOV.2018 11:29:15