

LTE CA band 7C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	7.82	2500.520	2569.480		
50				-0.36	0.0001
40				-0.04	0.0000
30				-0.90	0.0004
10				-0.32	0.0001
0				0.16	0.0001
-10				0.43	0.0002
-20				0.54	0.0002
-30				0.33	0.0001

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
6.6	20	2500.520	2569.480	0.94	0.0004
9				0.79	0.0003

LTE CA band 41C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	7.82	2496.880	2689.120		
50				0.20	0.0001
40				0.19	0.0001
30				1.30	0.0005
10				-0.24	0.0001
0				-0.46	0.0002
-10				0.11	0.0000
-20				0.46	0.0002
-30				1.40	0.0005

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
6.6	20	2496.880	2689.120	0.50	0.0002
9				0.29	0.0001

LTE CA band 48C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	7.82	3550.440	3699.540		
50				1.13	0.0003
40				1.56	0.0004
30				1.86	0.0005
10				0.03	0.0000
0				0.93	0.0003
-10				2.09	0.0006
-20				0.79	0.0002
-30				2.03	0.0006

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
6.6	20	3550.440	3699.540	1.47	0.0004
9				1.62	0.0004

LTE CA band 66B, 10MHz+10MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	7.82	1710.320	1779.680		
50				-0.39	0.0002
40				0.26	0.0001
30				-0.04	0.0000
10				-0.22	0.0001
0				0.06	0.0000
-10				-0.33	0.0002
-20				-0.10	0.0001
-30				0.23	0.0001

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
6.6	20	1710.320	1779.680	-0.23	0.0001
9				0.06	0.0000

LTE CA band 66C, 20MHz+20MHz bandwidth QPSK(worst case of all bandwidths)
Frequency Error vs Voltage

Temperature(°C)	Voltage(V)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
20	7.82	1710.500	1779.480		
50				-0.36	0.0002
40				-0.56	0.0003
30				-1.00	0.0006
10				-0.17	0.0001
0				0.00	0.0000
-10				-0.27	0.0002
-20				0.14	0.0001
-30				-0.02	0.0000

Frequency Error vs Voltage

Voltage(V)	Temperature(°C)	FL(MHz)	FH(MHz)	Offset(Hz)	Frequency error(ppm)
6.6	20	1710.500	1779.480	-0.20	0.0001
9				1.06	0.0006

Note: Expanded measurement uncertainty is $U = 0.01 \text{ PPM}$, $k = 2$.

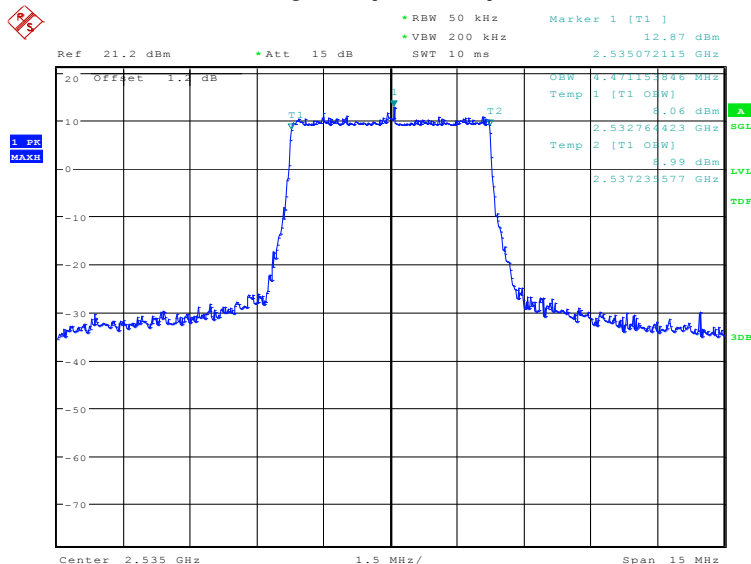
A.4 Occupied Bandwidth

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

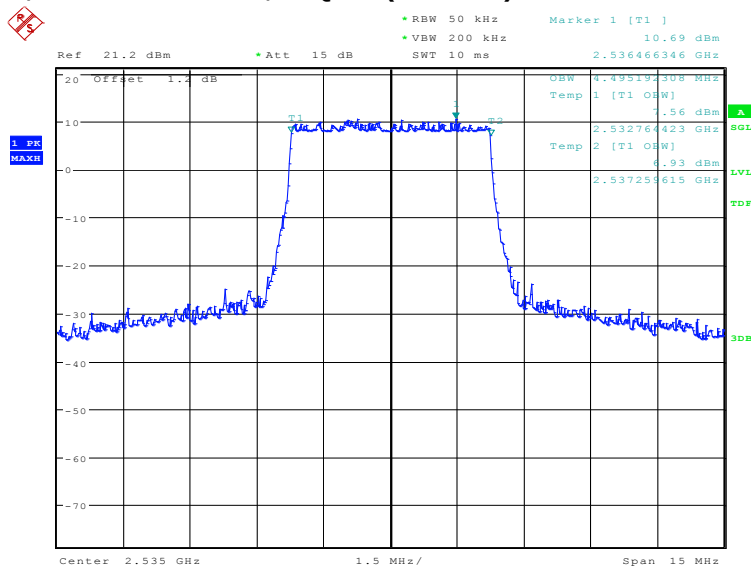
The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
- b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) Set the detection mode to peak, and the trace mode to max-hold.

Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	4471.15	4495.19



Date: 9.OCT.2023 08:27:10

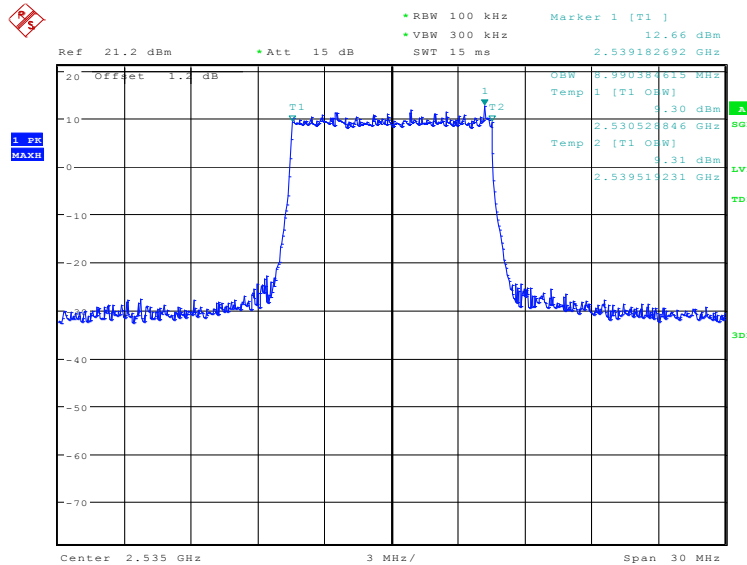


Date: 9.OCT.2023 08:27:51

LTE band 7, 10MHz (99%)

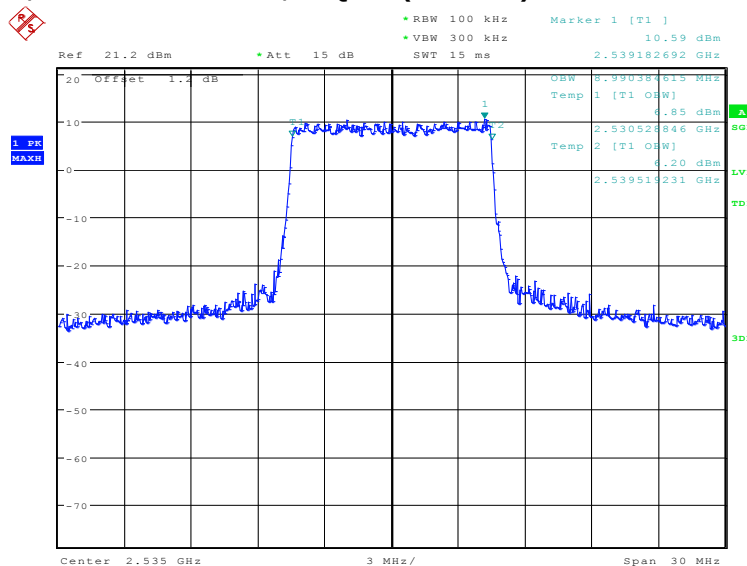
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	8990.38	8990.38

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



Date: 9.OCT.2023 08:28:35

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

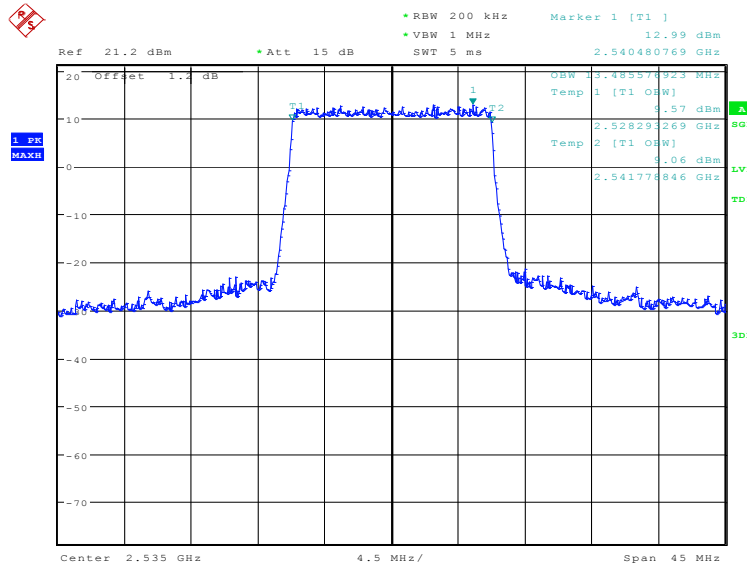


Date: 9.OCT.2023 08:29:15

LTE band 7, 15MHz (99%)

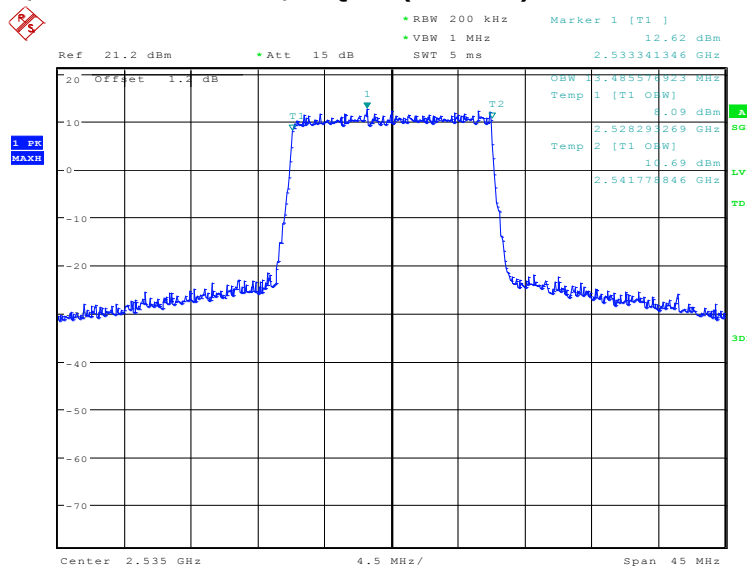
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	13485.58	13485.58

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



Date: 9.OCT.2023 08:29:58

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

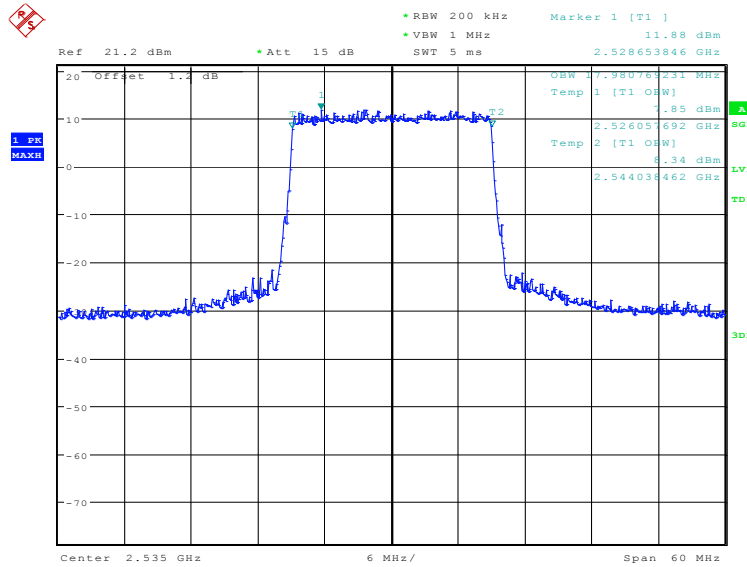


Date: 9.OCT.2023 08:30:38

LTE band 7, 20MHz (99%)

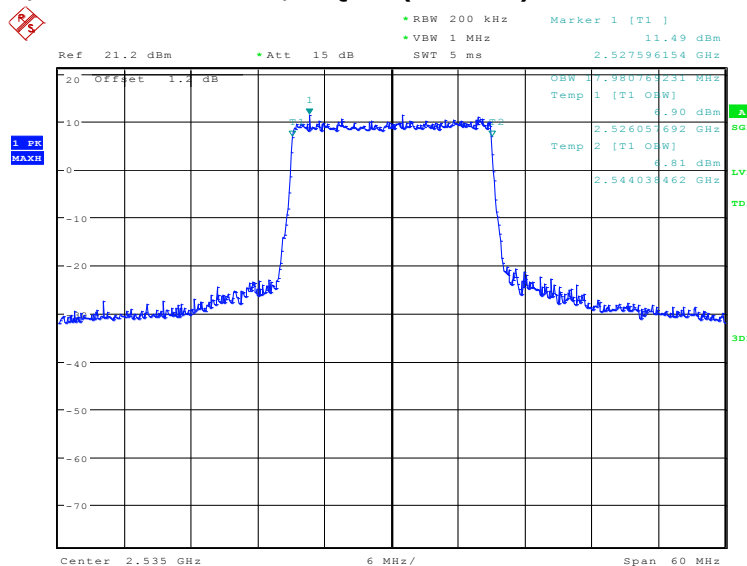
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2535.0	QPSK	16QAM
	17980.77	17980.77

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



Date: 9.OCT.2023 08:31:21

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

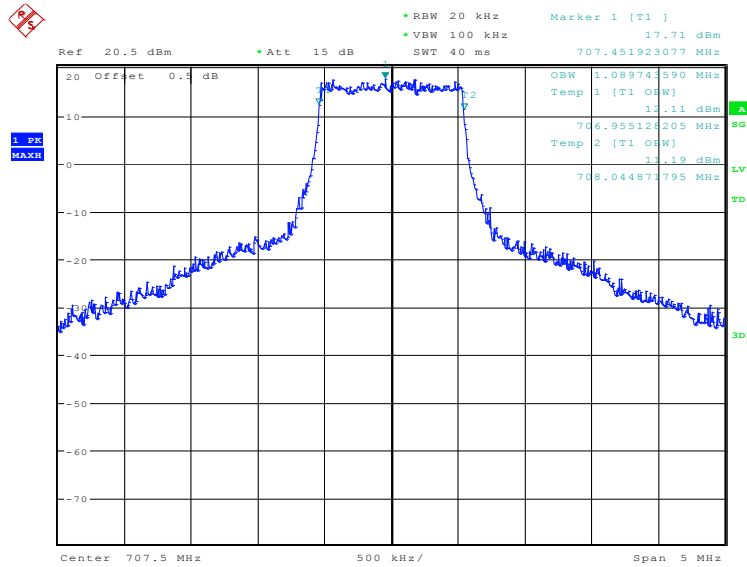


Date: 9.OCT.2023 08:32:01

LTE band 12, 1.4MHz (99%)

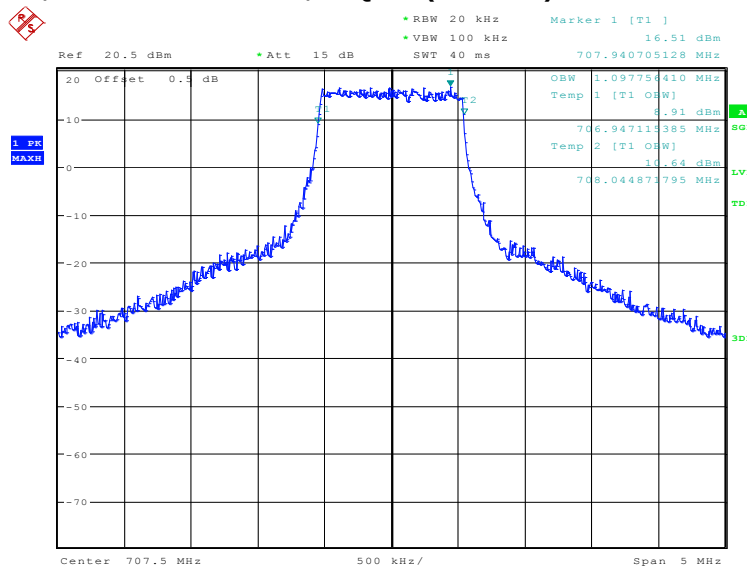
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	1089.74	1097.76

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



Date: 8.OCT.2023 16:56:57

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

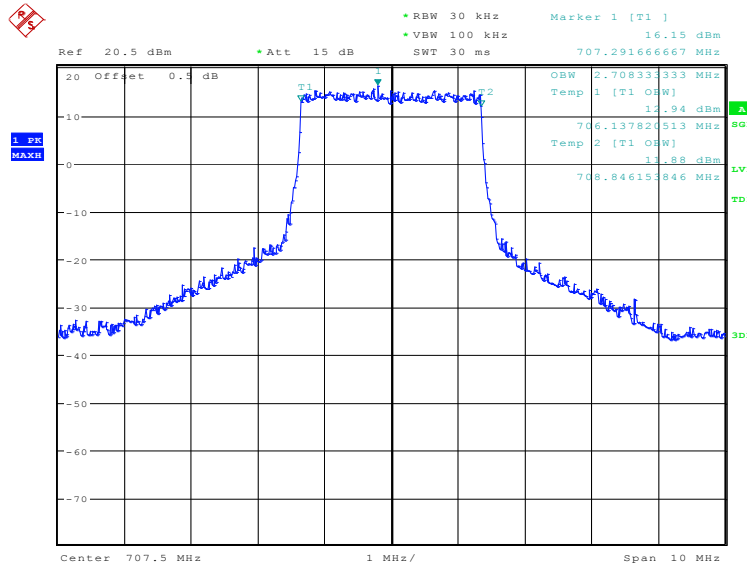


Date: 8.OCT.2023 16:57:37

LTE band 12, 3MHz (99%)

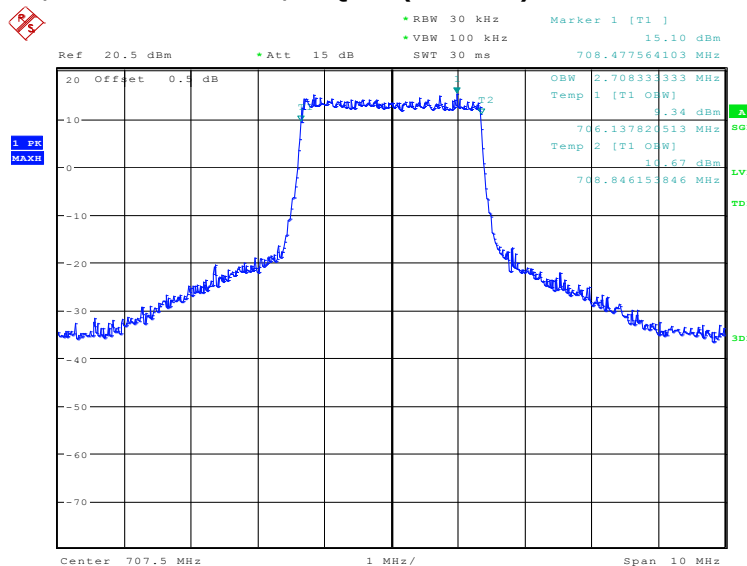
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	2708.33	2708.33

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



Date: 8.OCT.2023 16:58:21

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

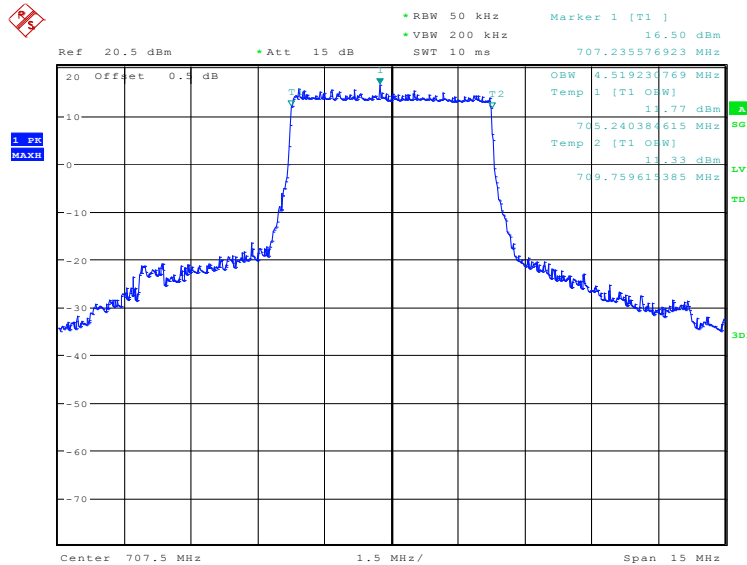


Date: 8.OCT.2023 16:59:01

LTE band 12, 5MHz (99%)

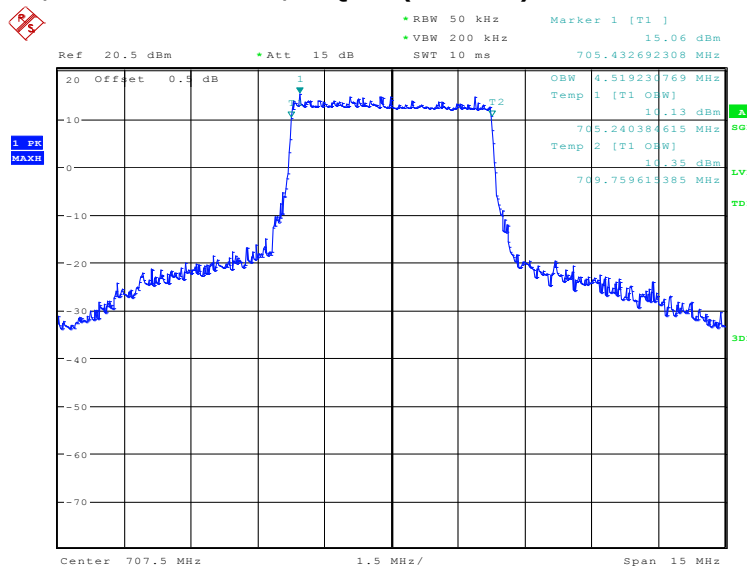
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	4519.23	4519.23

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



Date: 8.OCT.2023 16:59:44

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

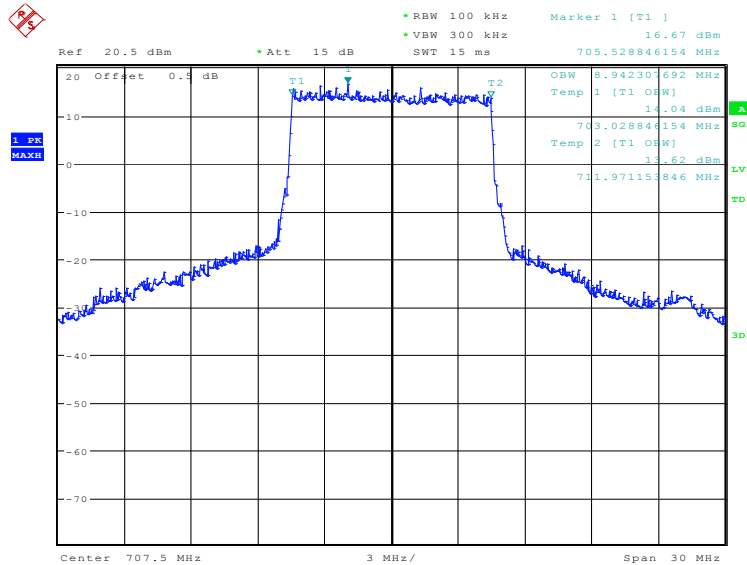


Date: 8.OCT.2023 17:00:24

LTE band 12, 10MHz (99%)

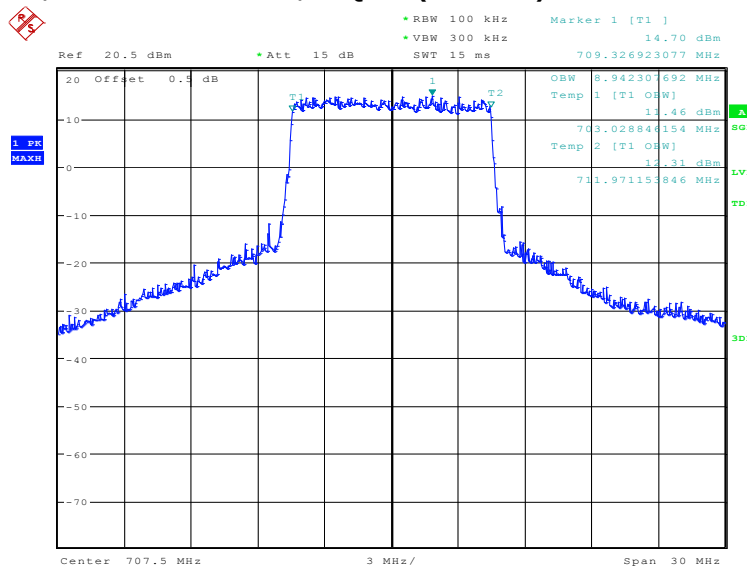
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
707.5	QPSK	16QAM
	8942.31	8942.31

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



Date: 8.OCT.2023 17:01:08

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

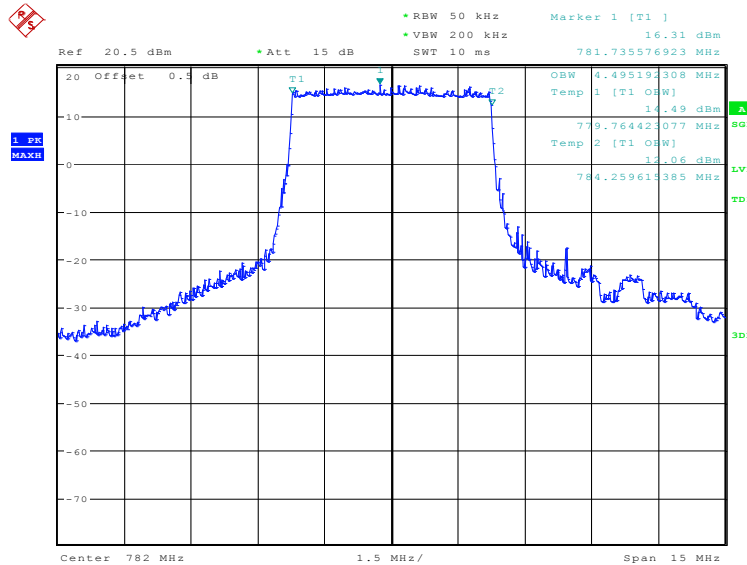


Date: 8.OCT.2023 17:01:48

LTE band 13, 5MHz (99%)

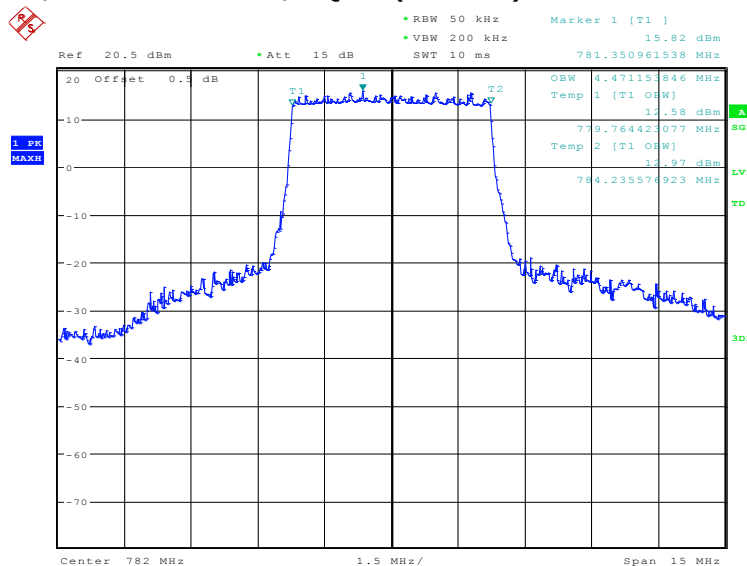
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
782.0	QPSK	16QAM
	4495.19	4471.15

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



Date: 8.OCT.2023 17:02:44

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

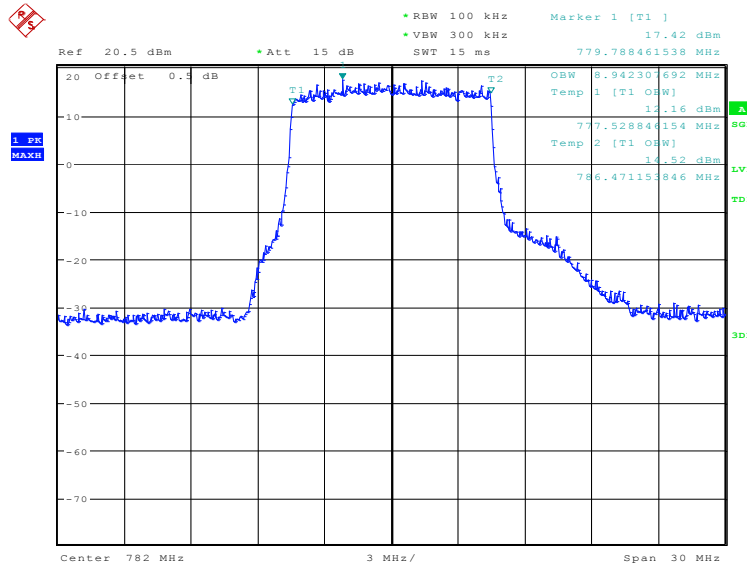


Date: 8.OCT.2023 17:03:25

LTE band 13, 10MHz (99%)

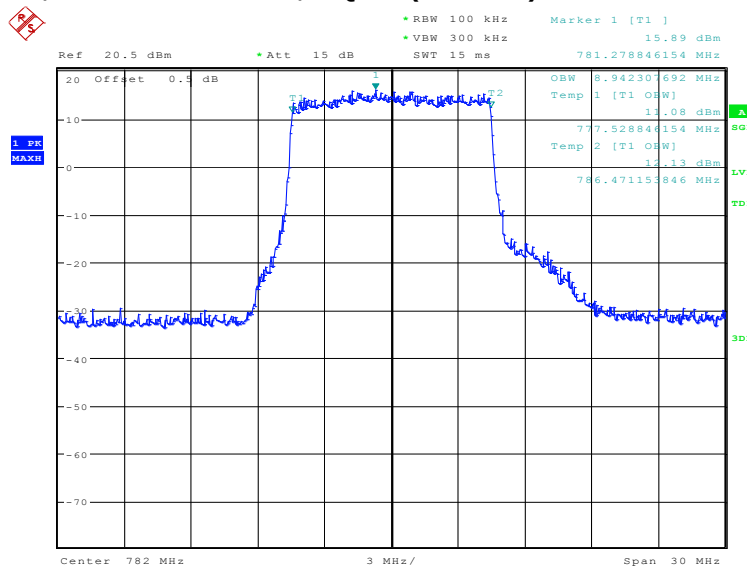
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
782.0	QPSK	16QAM
	8942.31	8942.31

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



Date: 8.OCT.2023 17:04:09

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

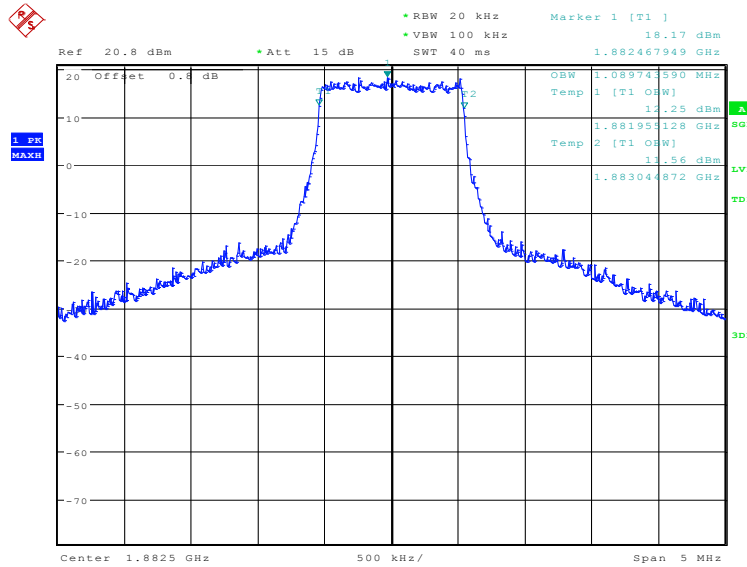


Date: 8.OCT.2023 17:04:49

LTE band 25, 1.4MHz (99%)

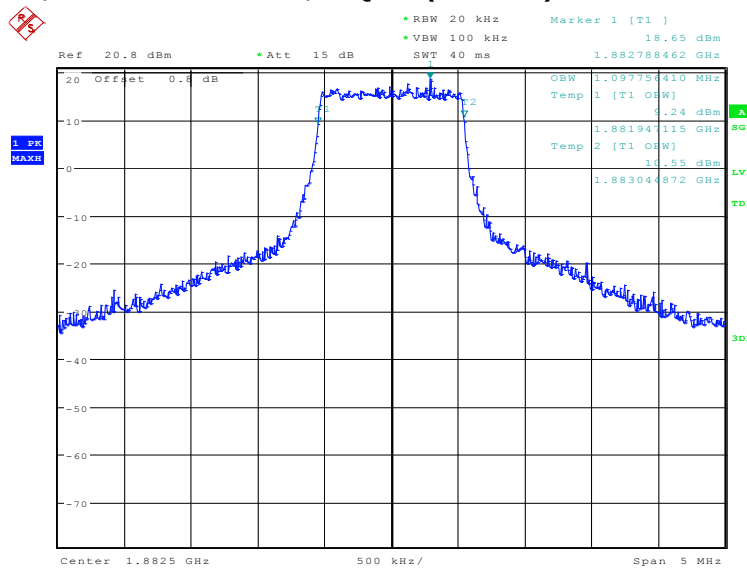
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1882.5	QPSK	16QAM
	1089.74	1097.76

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



Date: 9.OCT.2023 09:06:23

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

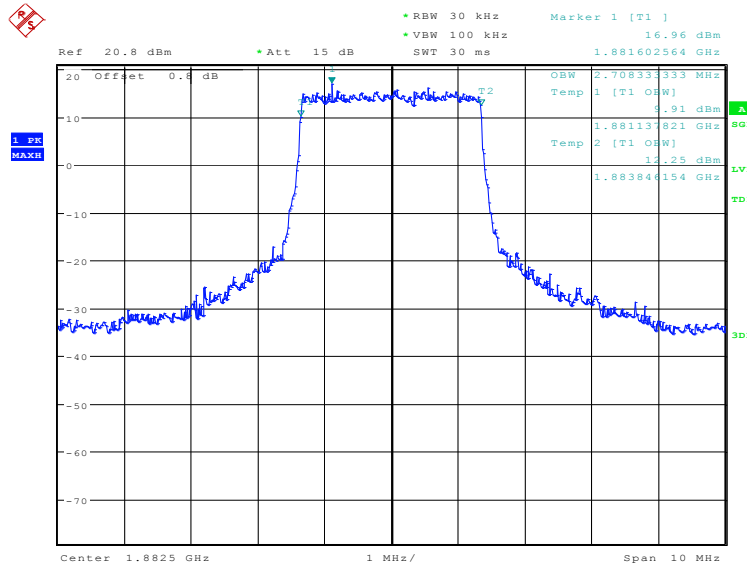


Date: 9.OCT.2023 09:07:03

LTE band 25, 3MHz (99%)

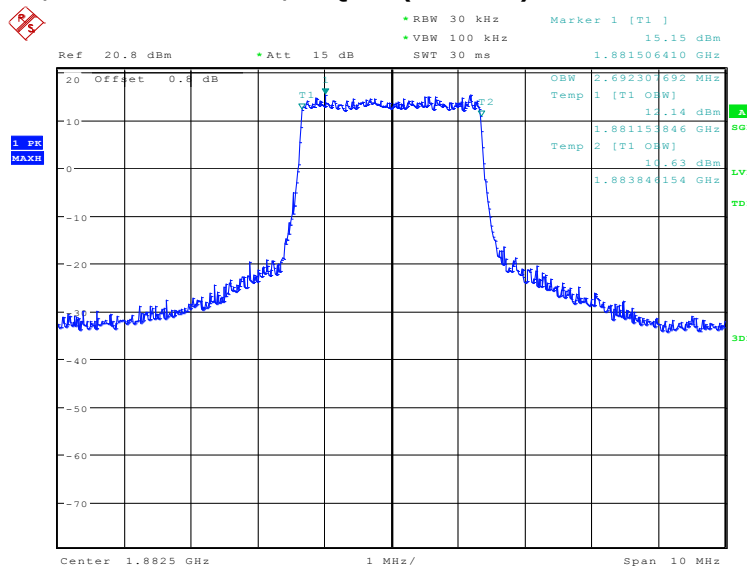
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1882.5	QPSK	16QAM
	2708.33	2692.31

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



Date: 9.OCT.2023 09:07:47

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

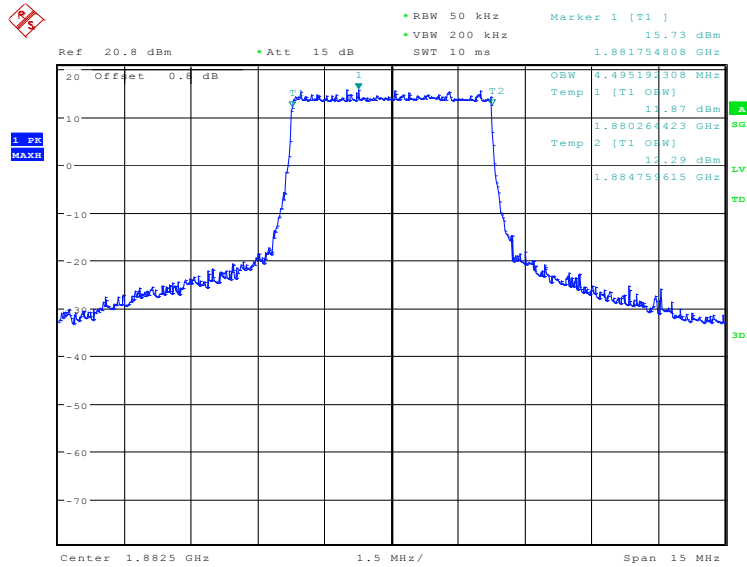


Date: 9.OCT.2023 09:08:27

LTE band 25, 5MHz (99%)

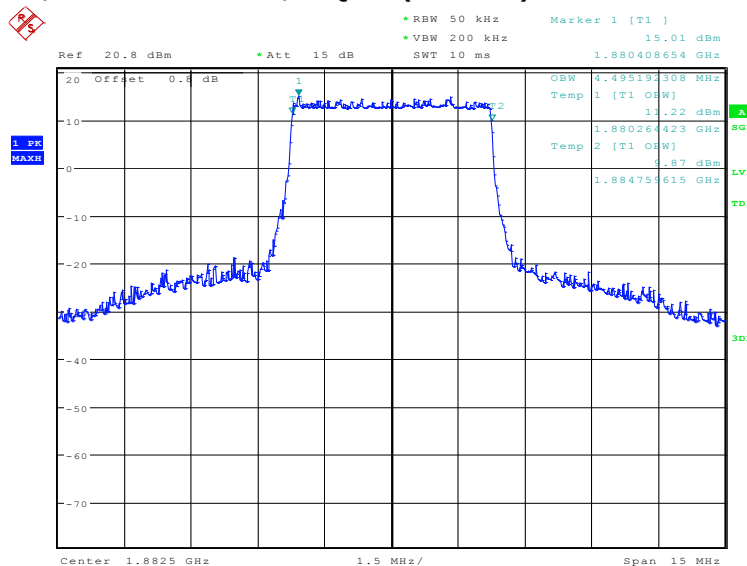
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1882.5	QPSK	16QAM
	4495.19	4495.19

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



Date: 9.OCT.2023 09:09:10

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

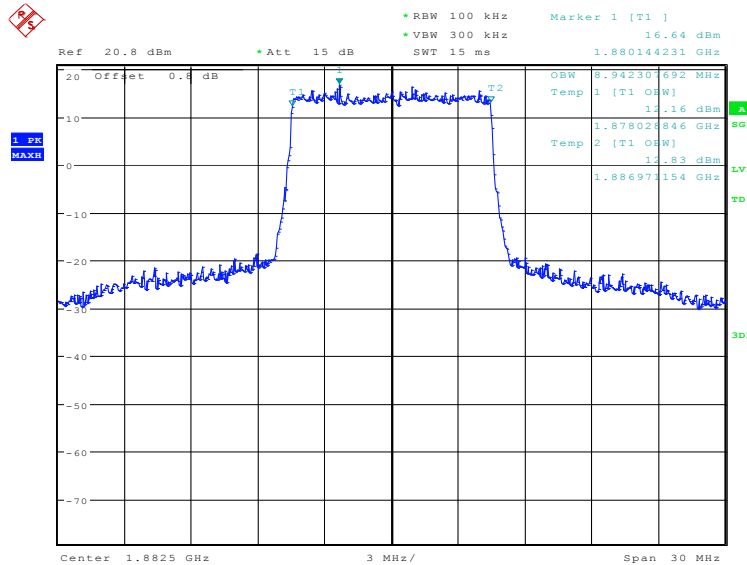


Date: 9.OCT.2023 09:09:50

LTE band 25, 10MHz (99%)

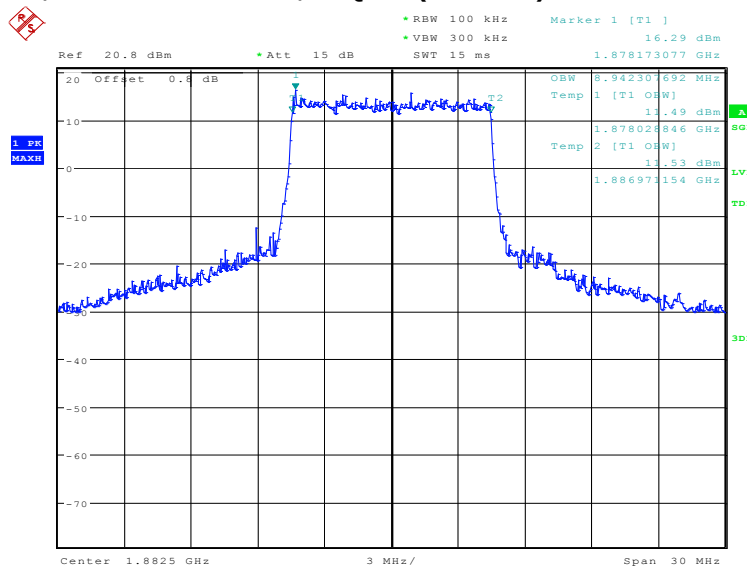
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1882.5	QPSK	16QAM
	8942.31	8942.31

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



Date: 9.OCT.2023 09:10:34

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

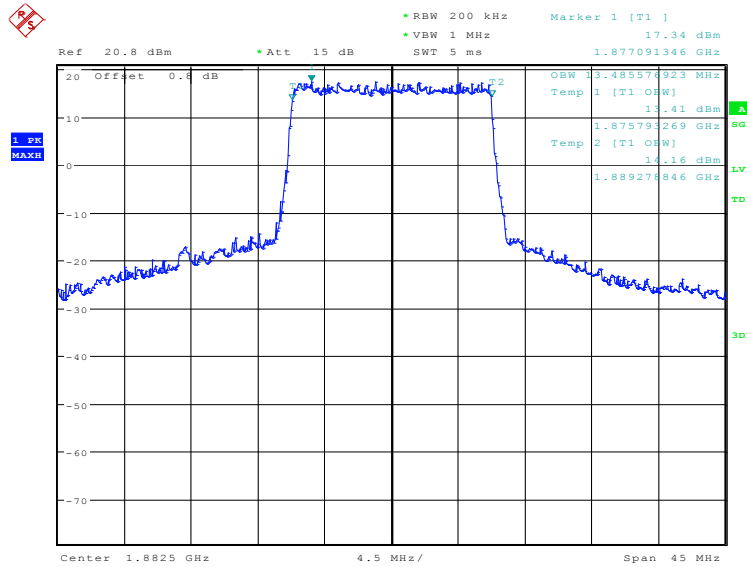


Date: 9.OCT.2023 09:11:14

LTE band 25, 15MHz (99%)

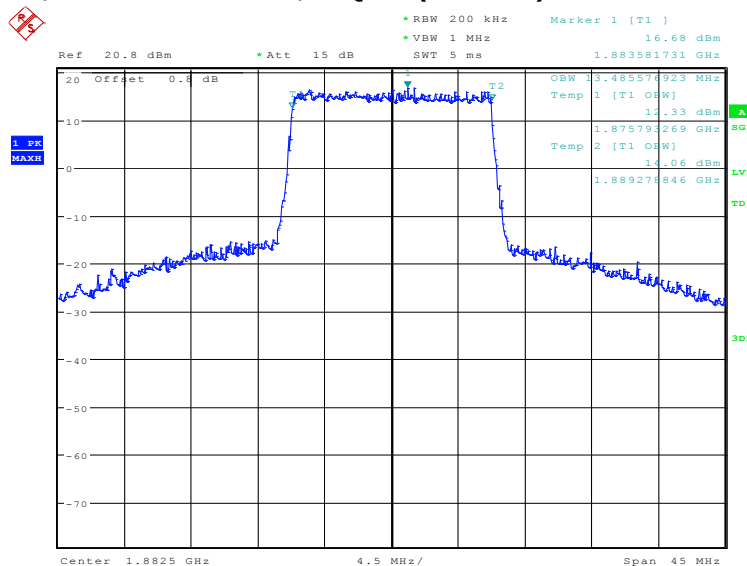
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1882.5	QPSK	16QAM
	13485.58	13485.58

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



Date: 9.OCT.2023 09:11:57

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

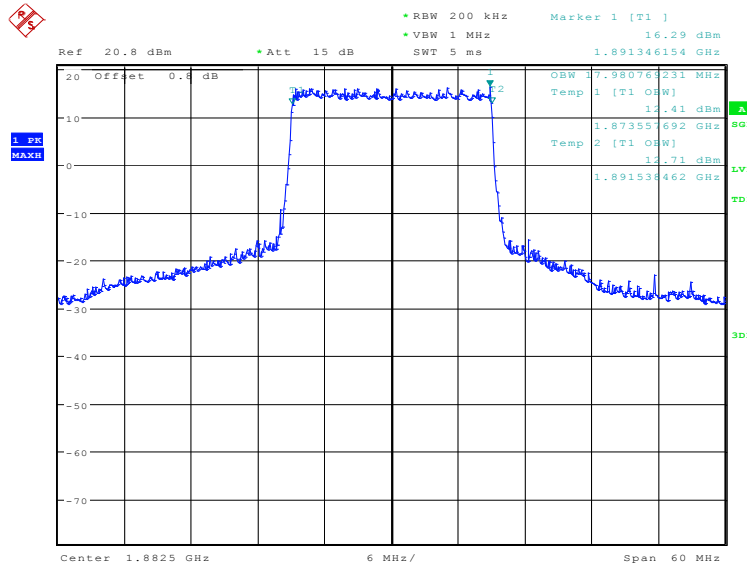


Date: 9.OCT.2023 09:12:37

LTE band 25, 20MHz (99%)

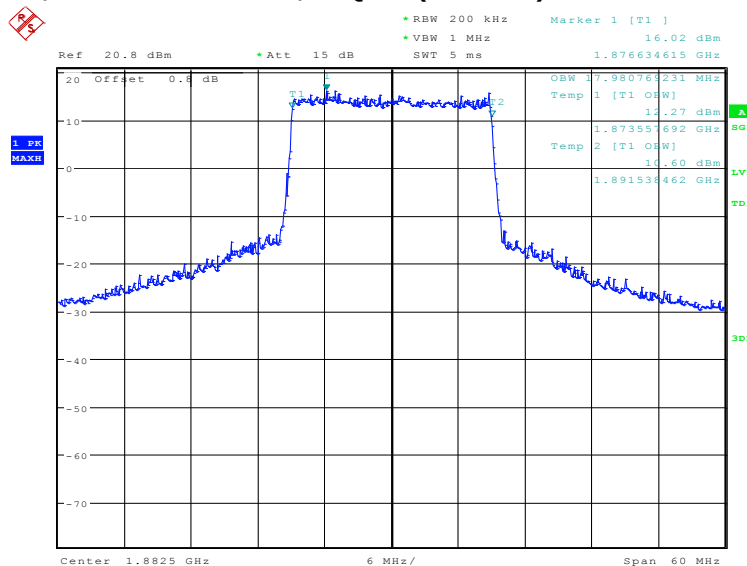
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1882.5	QPSK	16QAM
	17980.77	17980.77

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



Date: 9.OCT.2023 09:13:21

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

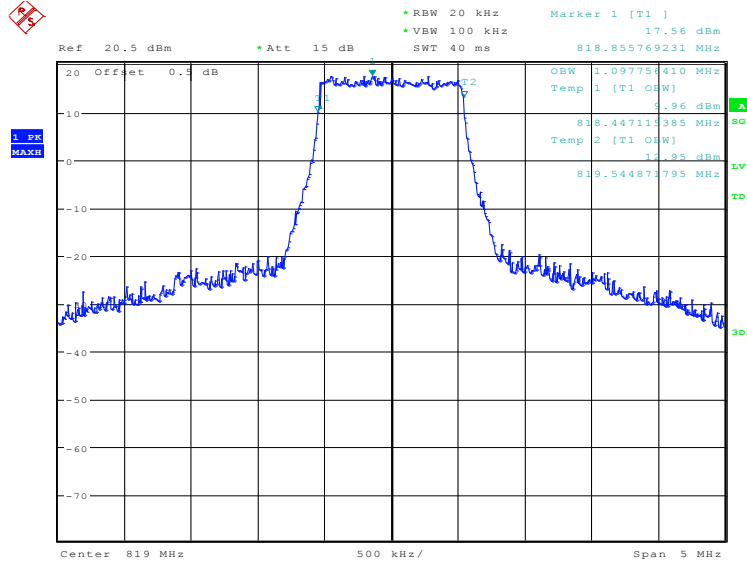


Date: 9.OCT.2023 09:14:01

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

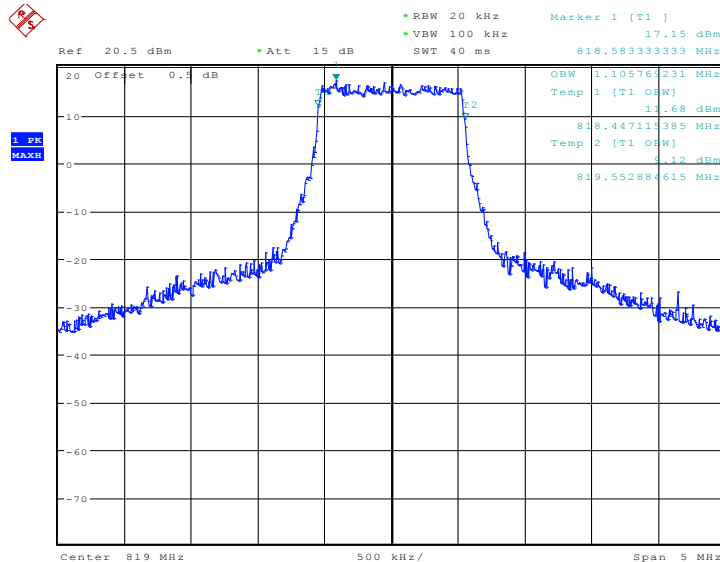
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	1097.76	1105.77

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



Date: 8.OCT.2023 17:13:20

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

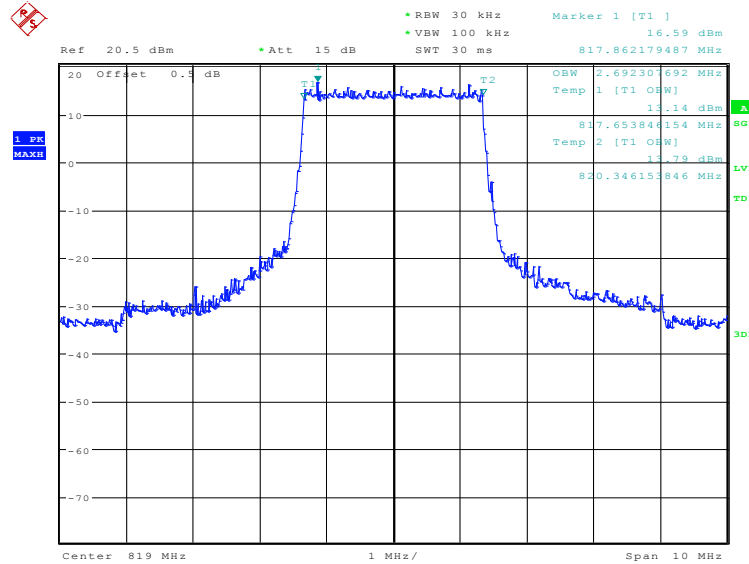


Date: 8.OCT.2023 17:14:01

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

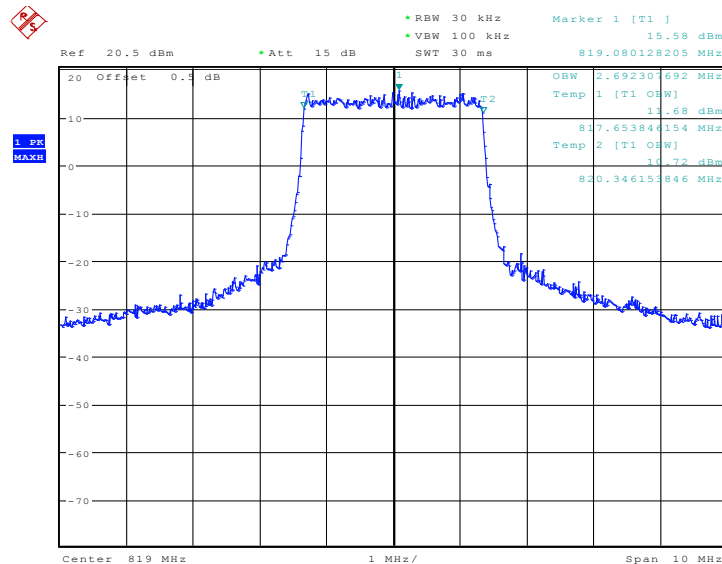
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	2692.31	2692.31

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



Date: 8.OCT.2023 17:14:44

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

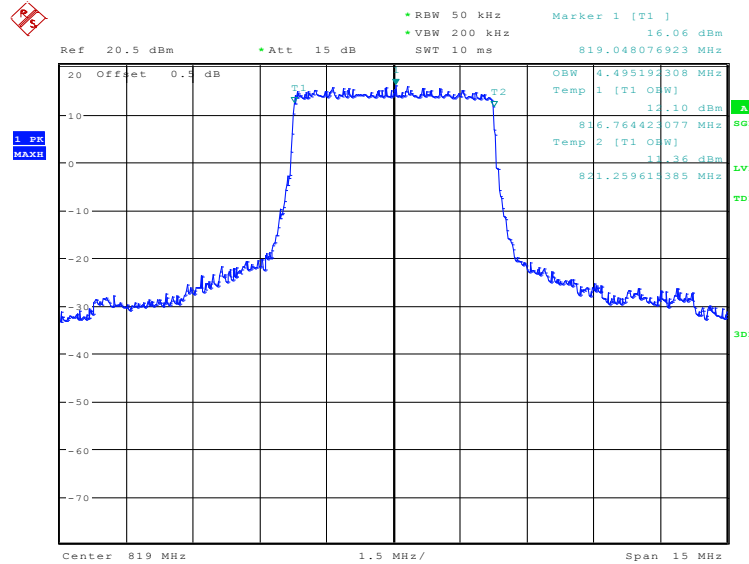


Date: 8.OCT.2023 17:15:24

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

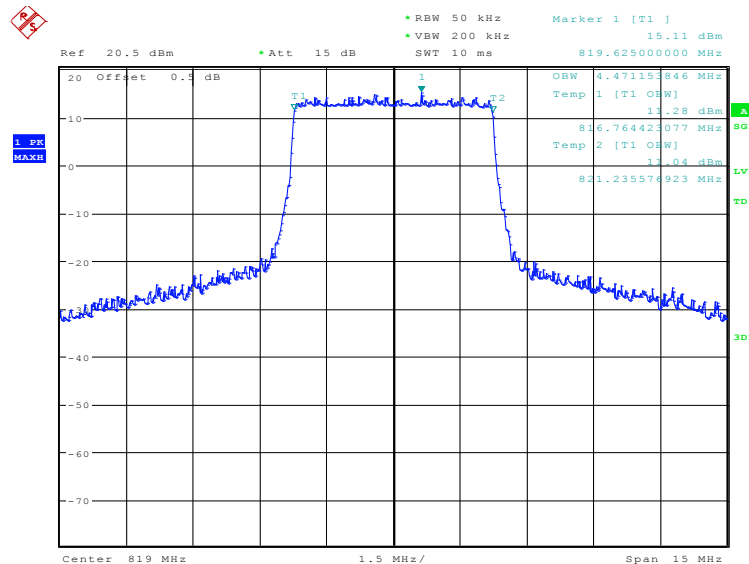
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	4495.19	4471.15

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



Date: 8.OCT.2023 17:16:07

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

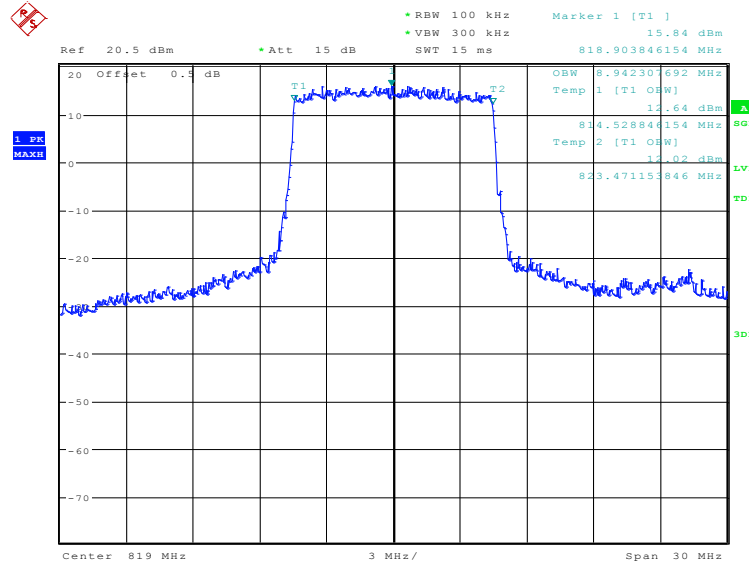


Date: 8.OCT.2023 17:16:48

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

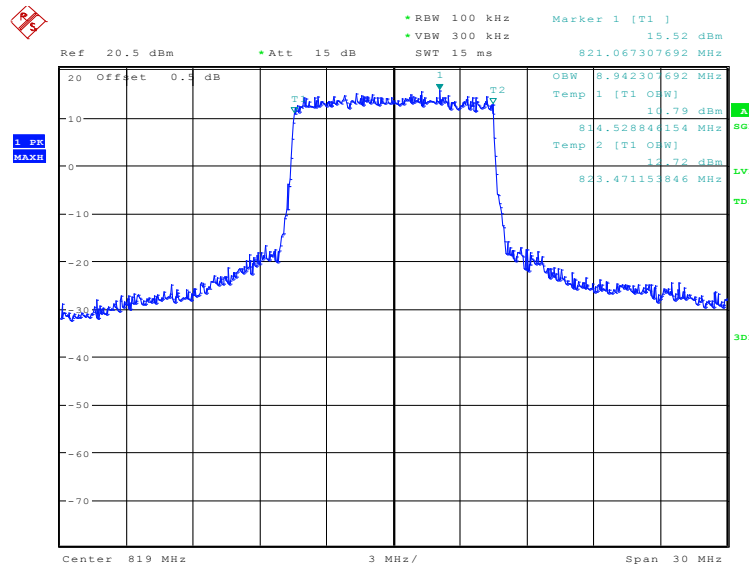
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
819.0	QPSK	16QAM
	8942.31	8942.31

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



Date: 8.OCT.2023 17:17:32

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

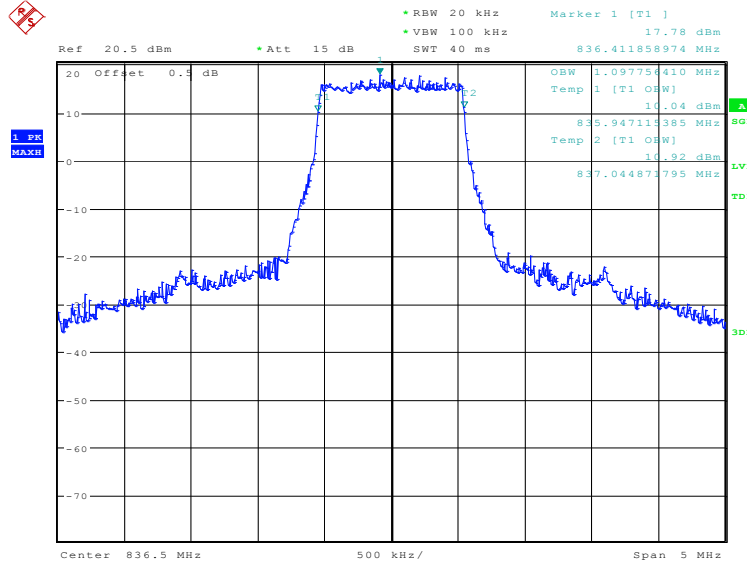


Date: 8.OCT.2023 17:18:12

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

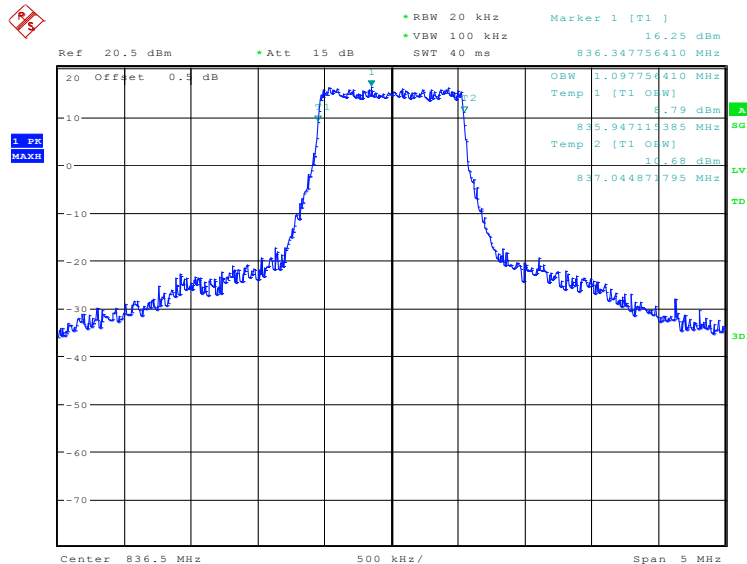
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	1097.76	1097.76

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



Date: 8.OCT.2023 17:05:35

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

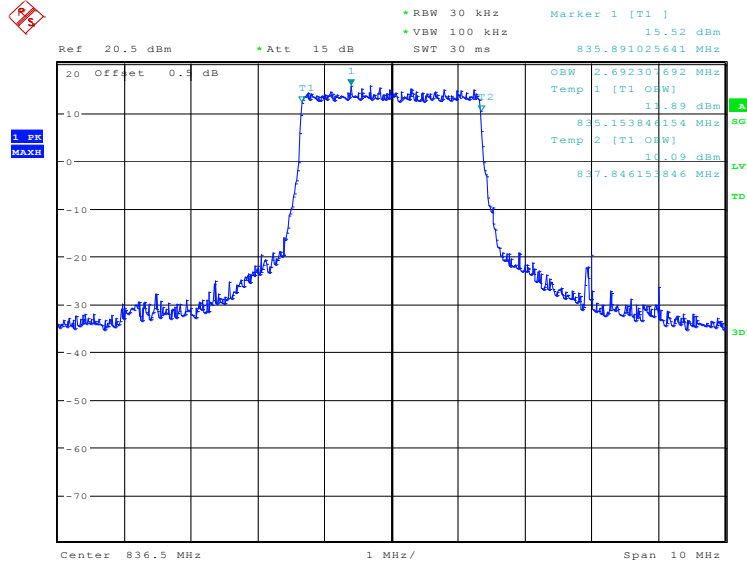


Date: 8.OCT.2023 17:06:15

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

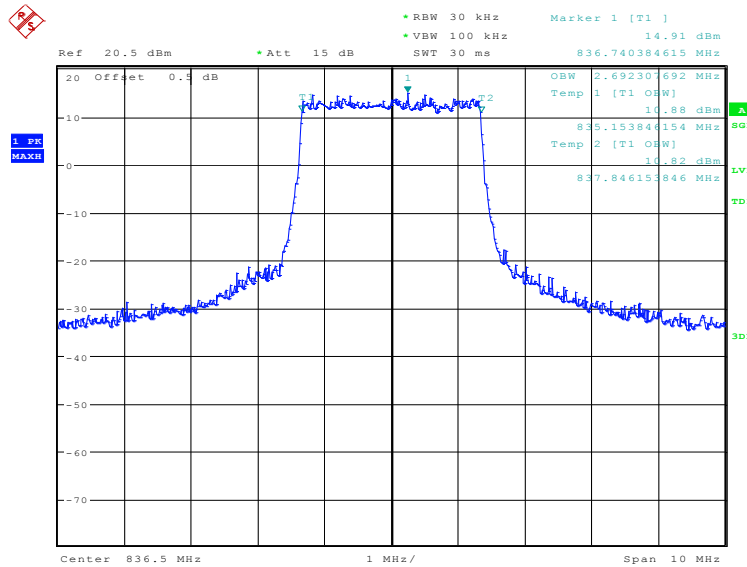
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	2692.31	2692.31

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



Date: 8.OCT.2023 17:06:59

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

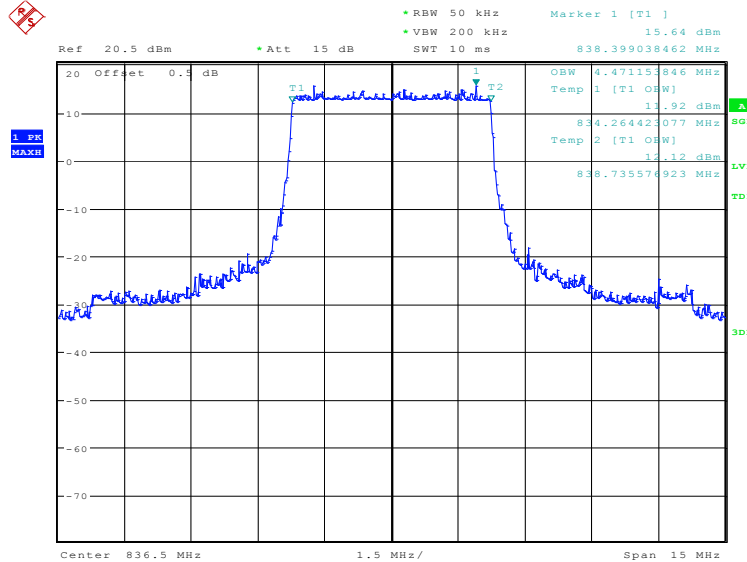


Date: 8.OCT.2023 17:07:39

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

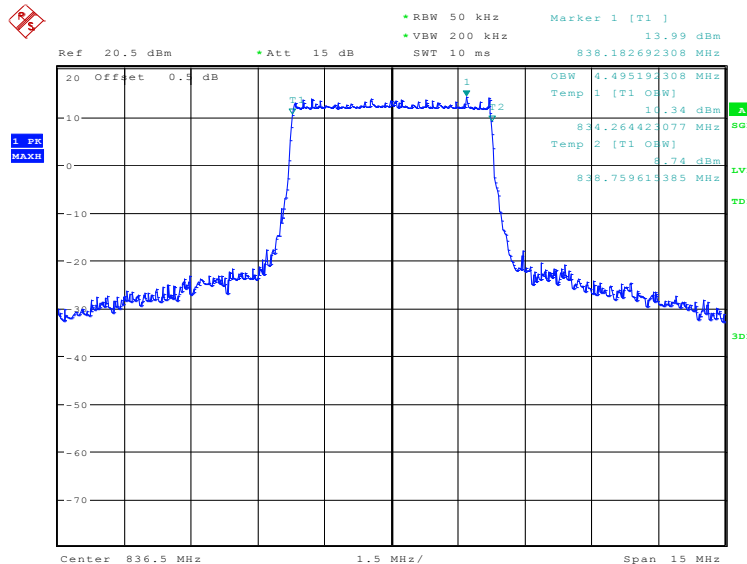
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	4471.15	4495.19

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



Date: 8.OCT.2023 17:08:22

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

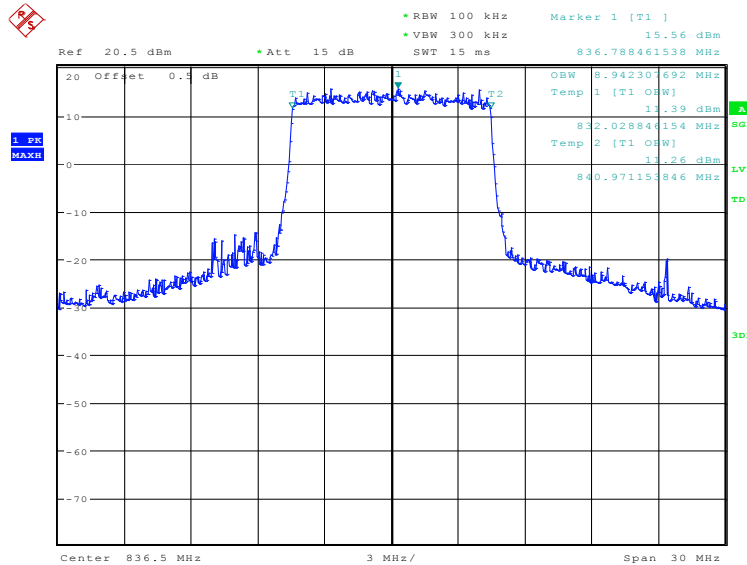


Date: 8.OCT.2023 17:09:02

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

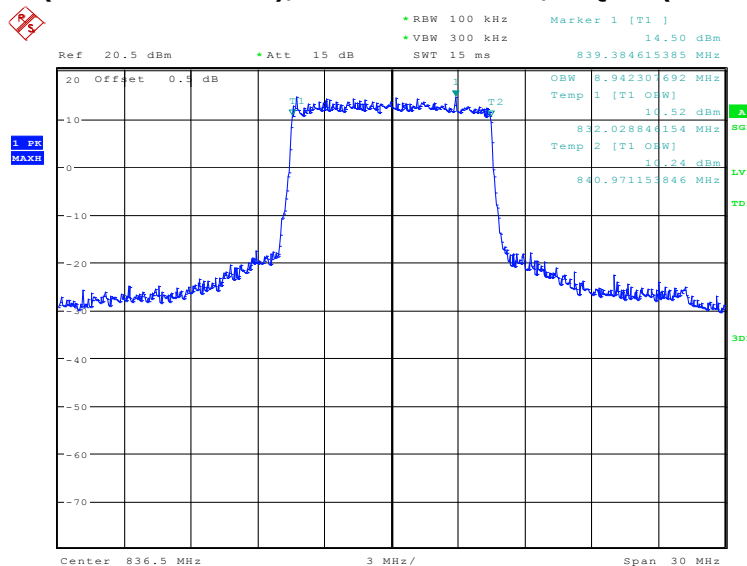
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	8942.31	8942.31

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



Date: 8.OCT.2023 17:09:46

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

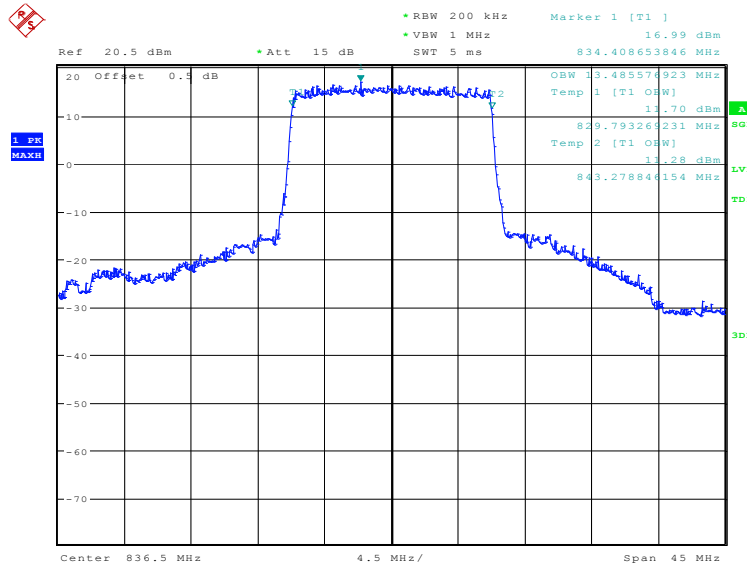


Date: 8.OCT.2023 17:10:26

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

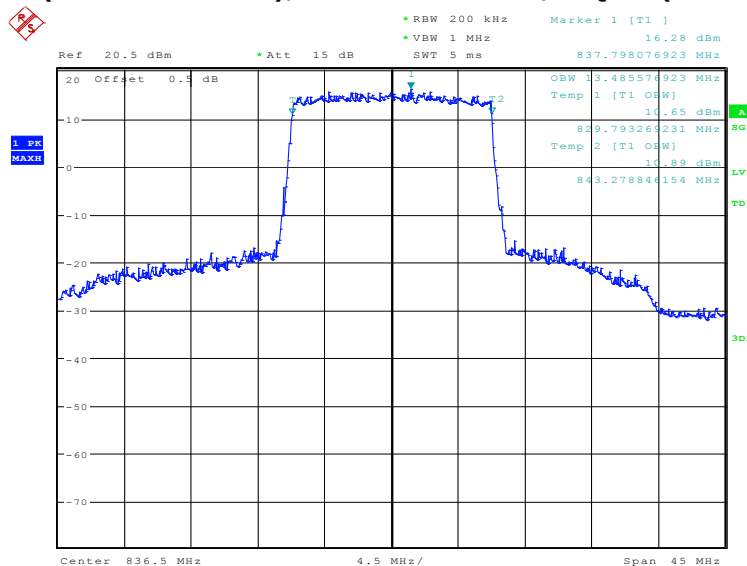
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
836.5	QPSK	16QAM
	13485.58	13485.58

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



Date: 8.OCT.2023 17:11:10

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

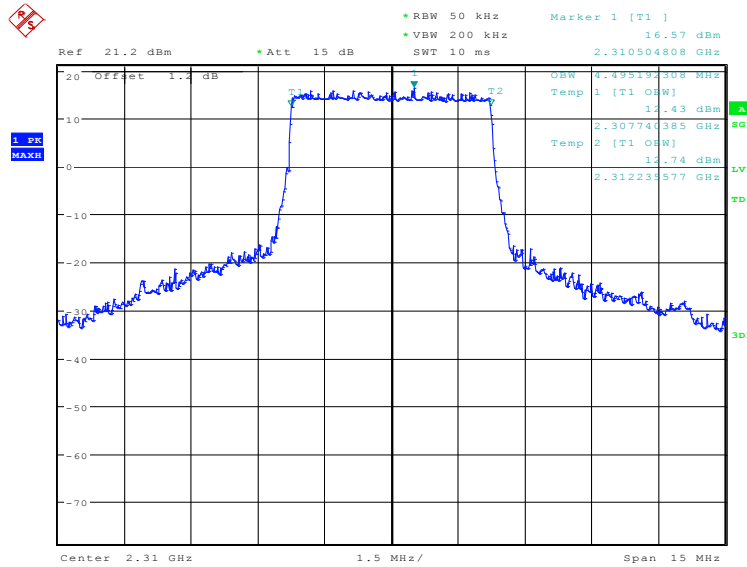


Date: 8.OCT.2023 17:11:50

LTE band 30, 5MHz (99%)

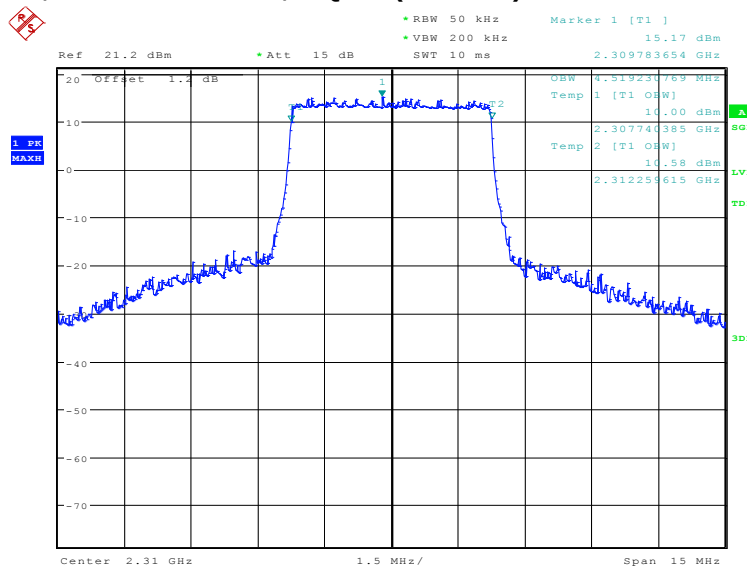
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2310.0	QPSK	16QAM
	4495.19	4519.23

LTE band 30, 5MHz Bandwidth, QPSK (99% BW)



Date: 9.OCT.2023 09:15:46

LTE band 30, 5MHz Bandwidth,16QAM (99% BW)

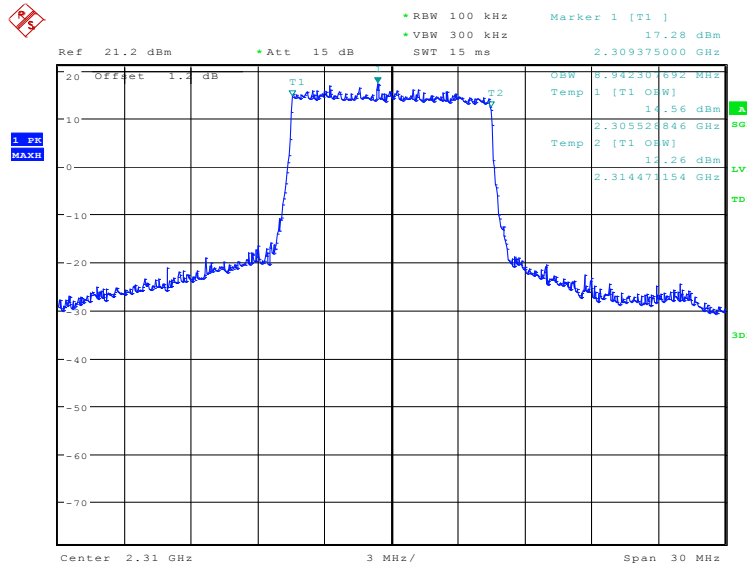


Date: 9.OCT.2023 09:16:26

LTE band 30, 10MHz (99%)

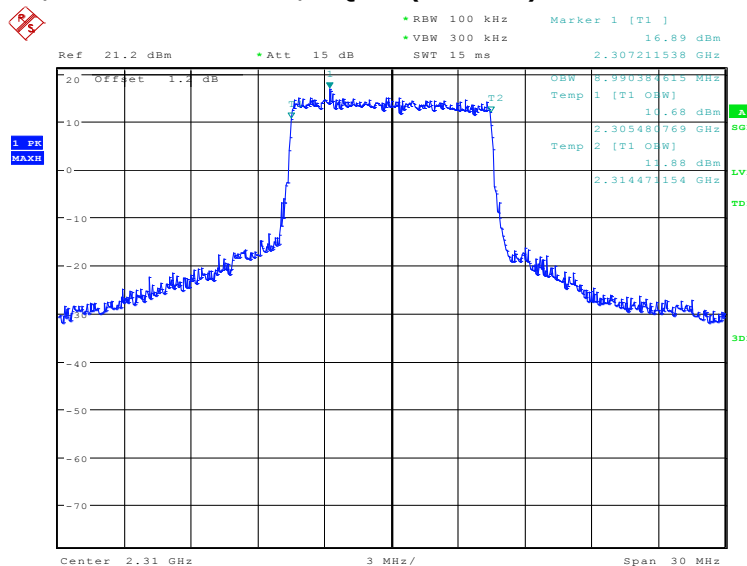
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2310.0	QPSK	16QAM
	8942.31	8990.38

LTE band 30, 10MHz Bandwidth, QPSK (99% BW)



Date: 9.OCT.2023 09:17:09

LTE band 30, 10MHz Bandwidth,16QAM (99% BW)

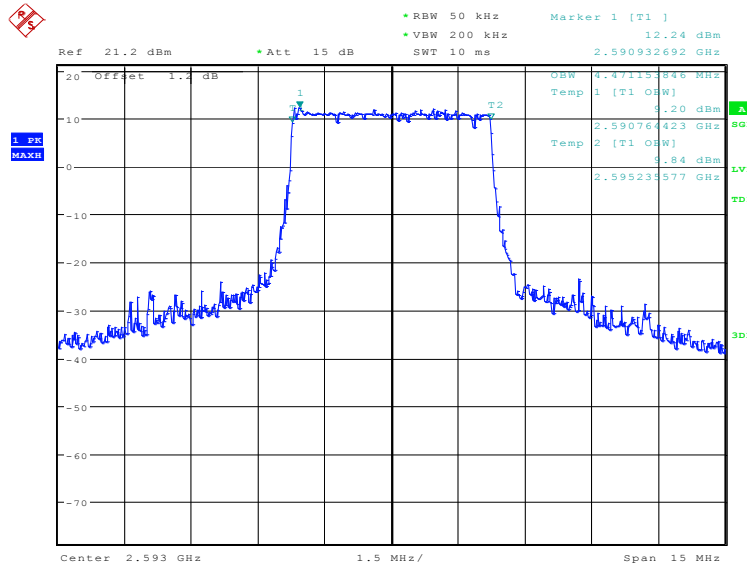


Date: 9.OCT.2023 09:17:50

LTE band 41, 5MHz (99%)

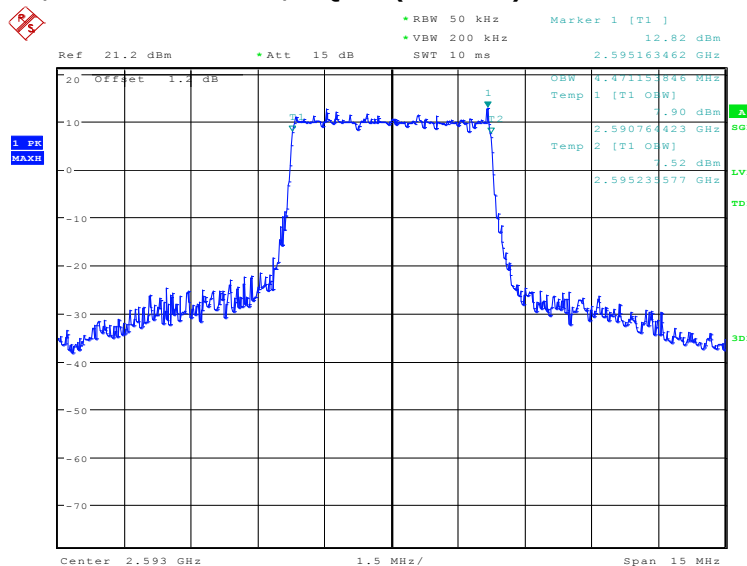
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	4471.15	4471.15

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



Date: 9.OCT.2023 09:27:50

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

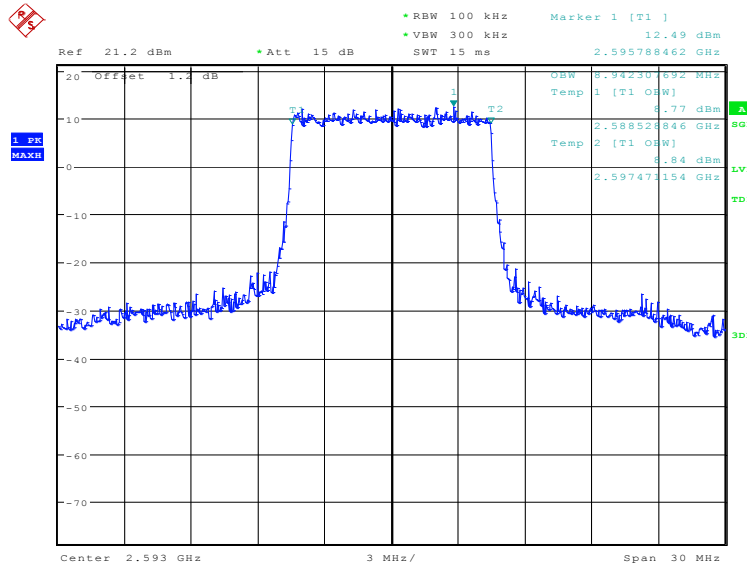


Date: 9.OCT.2023 09:28:31

LTE band 41, 10MHz (99%)

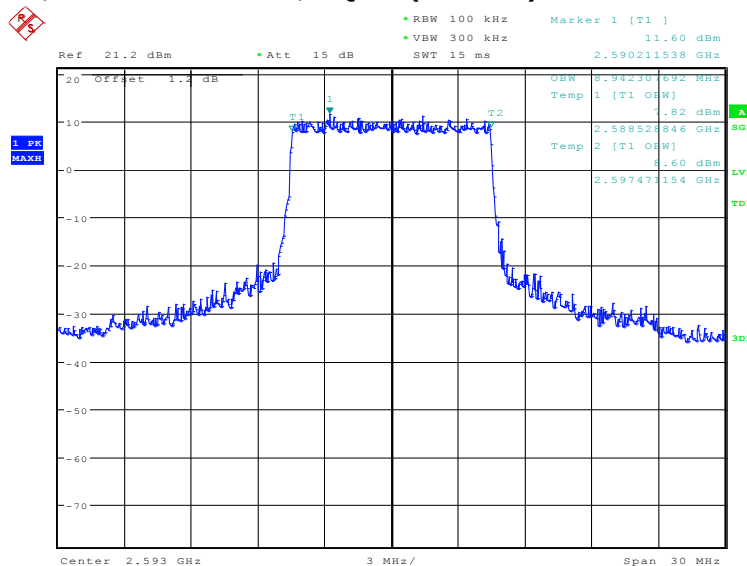
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	8942.31	8942.31

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



Date: 9.OCT.2023 09:29:14

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

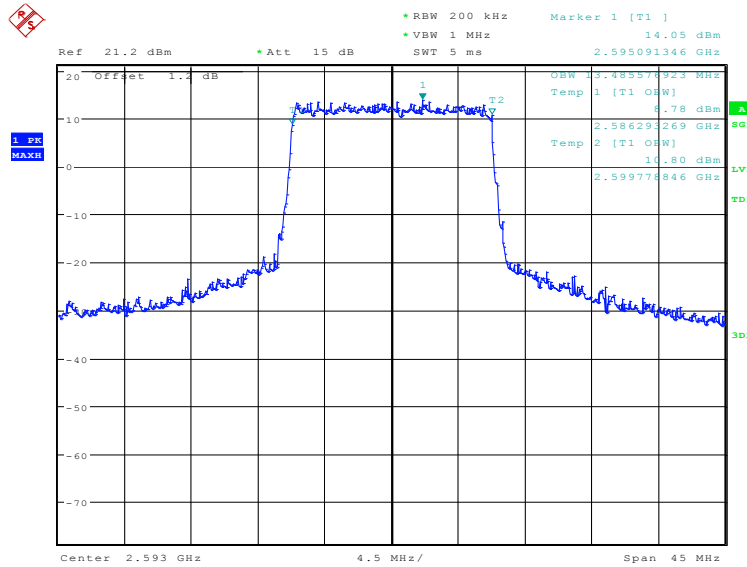


Date: 9.OCT.2023 09:29:55

LTE band 41, 15MHz (99%)

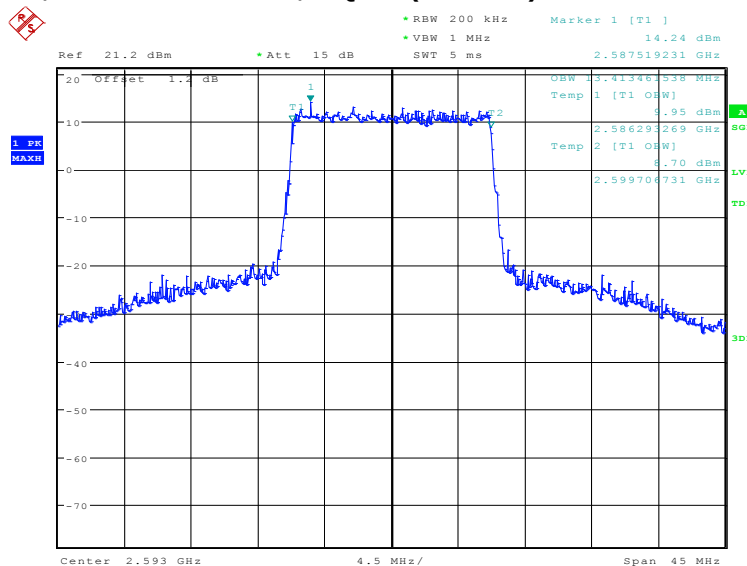
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	13485.58	13413.46

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



Date: 9.OCT.2023 09:30:38

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

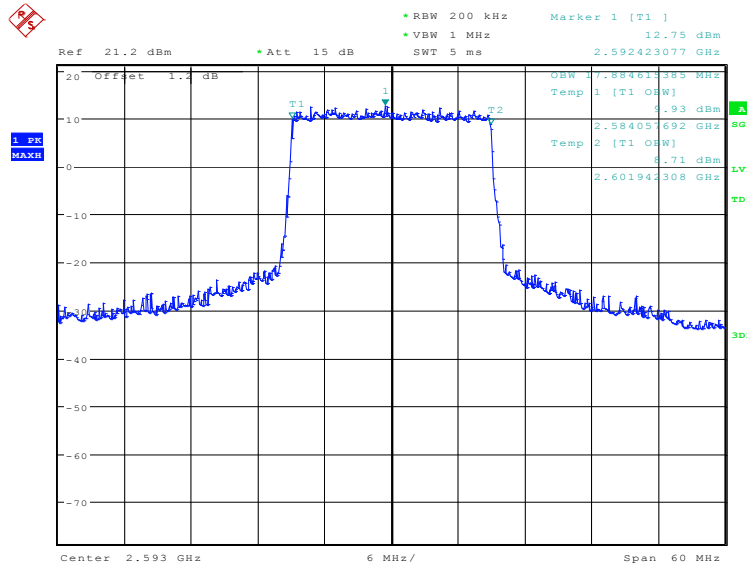


Date: 9.OCT.2023 09:31:18

LTE band 41, 20MHz (99%)

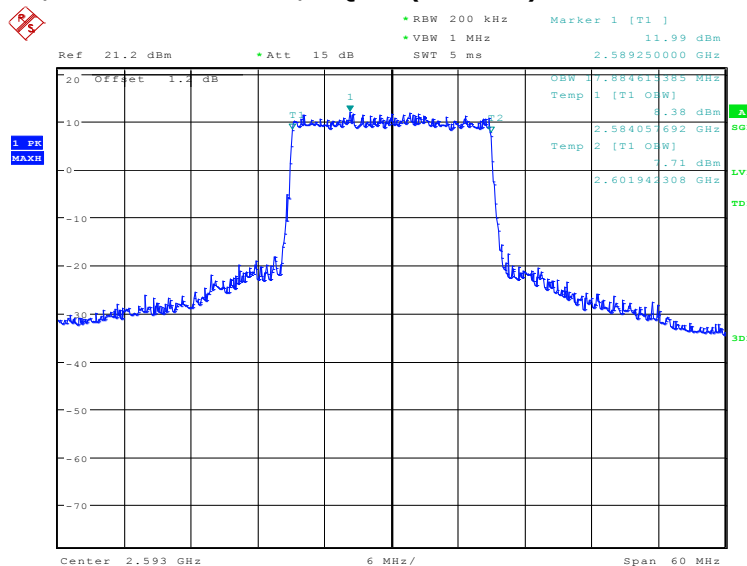
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
2593.0	QPSK	16QAM
	17884.62	17884.62

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



Date: 9.OCT.2023 09:32:02

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

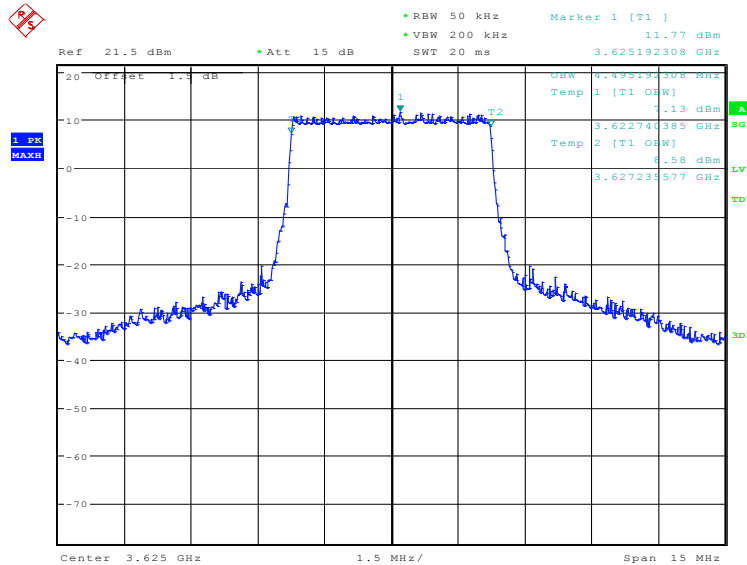


Date: 9.OCT.2023 09:32:42

LTE band 48, 5MHz (99%)

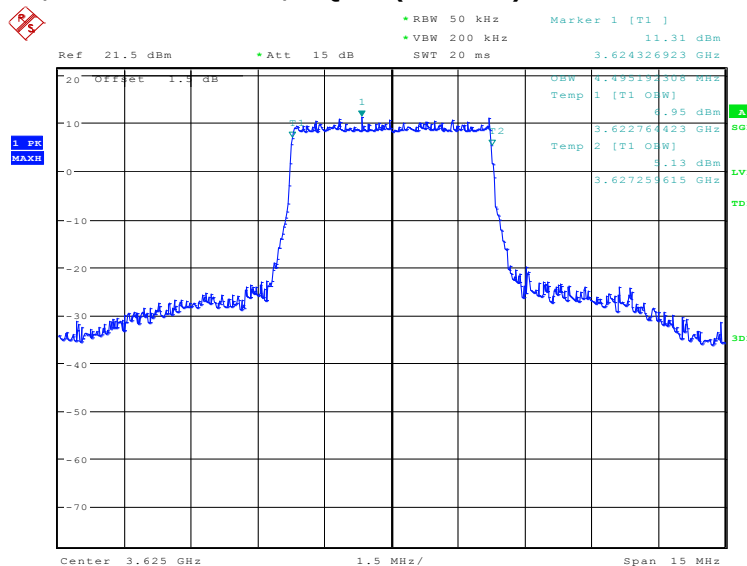
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
3625.0	QPSK	16QAM
	4495.19	4495.19

LTE band 48, 5MHz Bandwidth, QPSK (99% BW)



Date: 9.OCT.2023 10:45:03

LTE band 48, 5MHz Bandwidth,16QAM (99% BW)

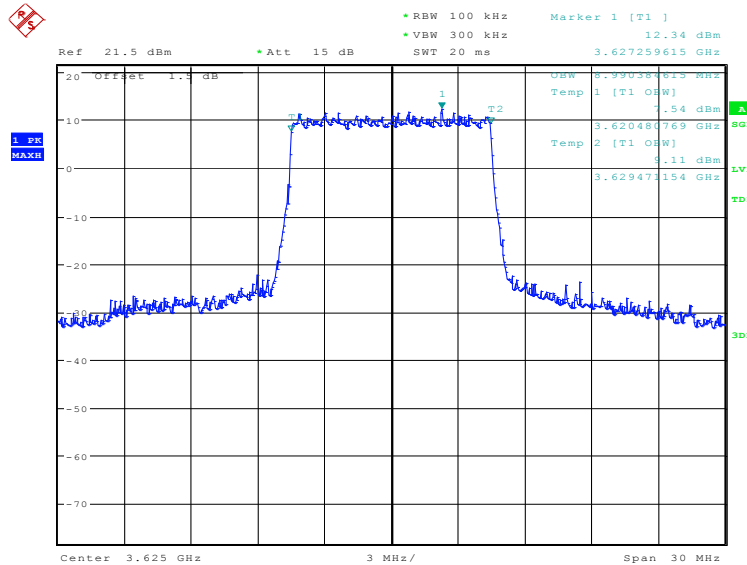


Date: 9.OCT.2023 10:45:43

LTE band 48, 10MHz (99%)

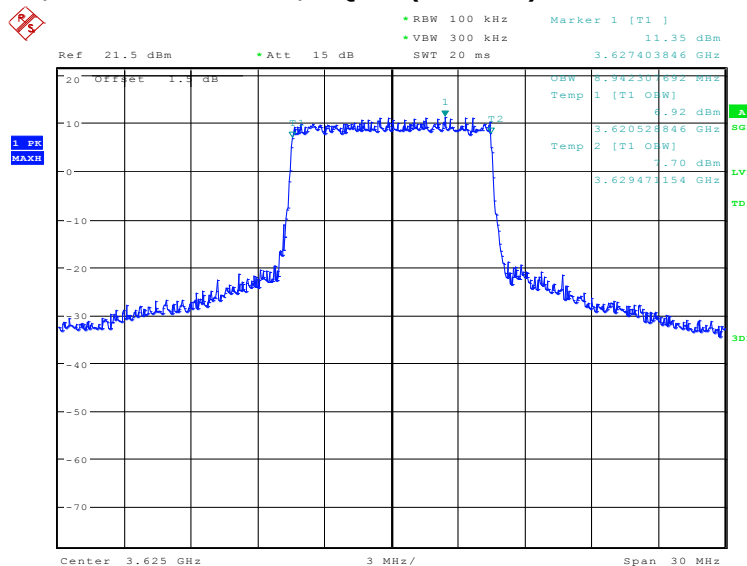
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
3625.0	QPSK	16QAM
	8990.38	8942.31

LTE band 48, 10MHz Bandwidth, QPSK (99% BW)



Date: 9.OCT.2023 10:46:27

LTE band 48, 10MHz Bandwidth,16QAM (99% BW)

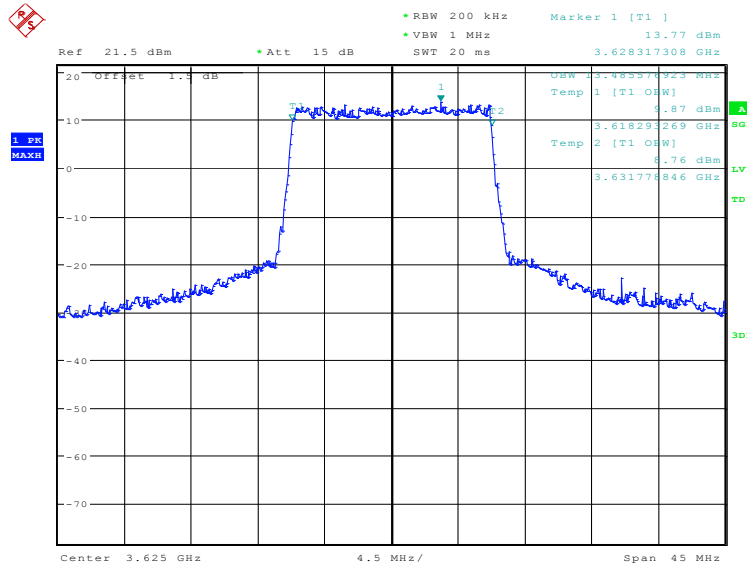


Date: 9.OCT.2023 10:47:07

LTE band 48, 15MHz (99%)

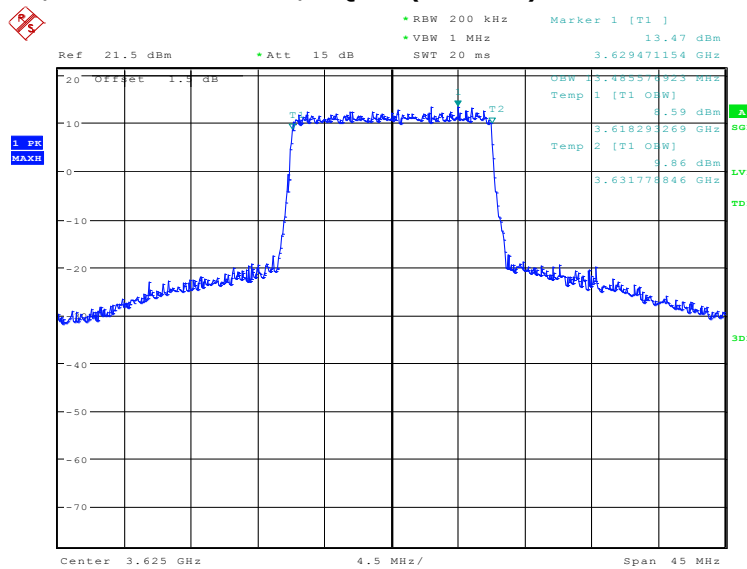
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
3625.0	QPSK	16QAM
	13485.58	13485.58

LTE band 48, 15MHz Bandwidth, QPSK (99% BW)



Date: 9.OCT.2023 10:47:50

LTE band 48, 15MHz Bandwidth,16QAM (99% BW)

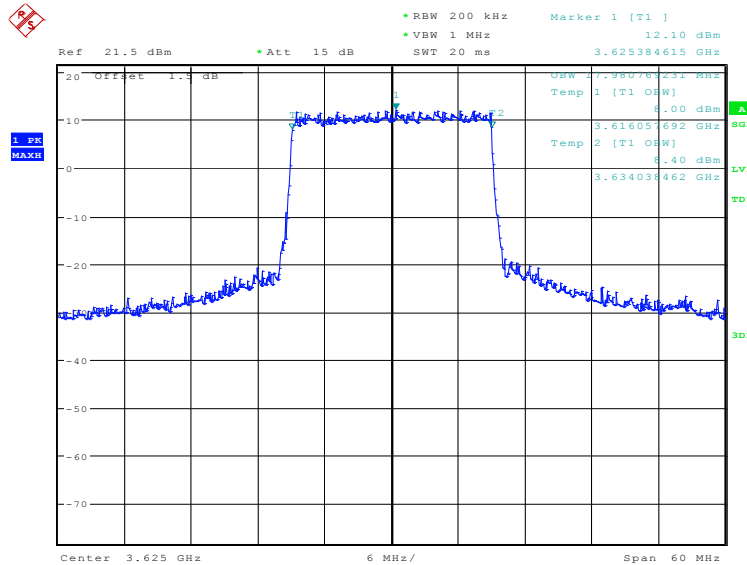


Date: 9.OCT.2023 10:48:30

LTE band 48, 20MHz (99%)

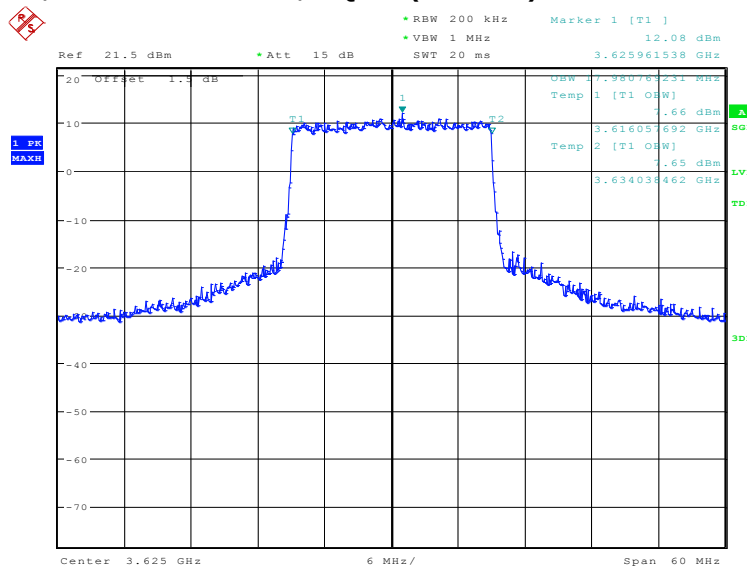
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
3625.0	QPSK	16QAM
	17980.77	17980.77

LTE band 48, 20MHz Bandwidth, QPSK (99% BW)



Date: 9.OCT.2023 10:49:14

LTE band 48, 20MHz Bandwidth,16QAM (99% BW)

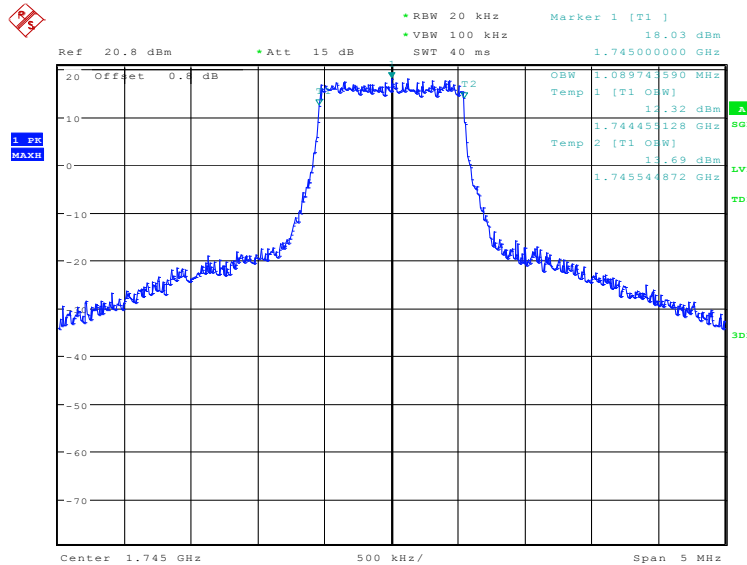


Date: 9.OCT.2023 10:49:54

LTE band 66, 1.4MHz (99%)

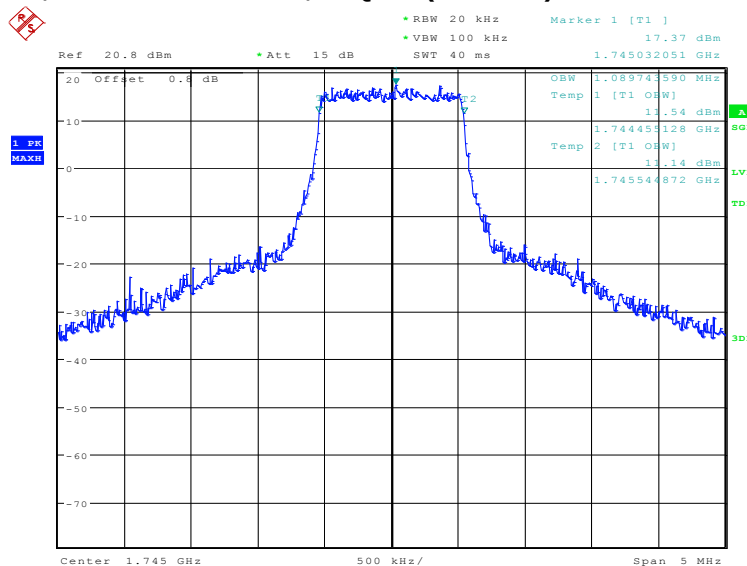
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	1089.74	1089.74

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



Date: 9.OCT.2023 09:18:36

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

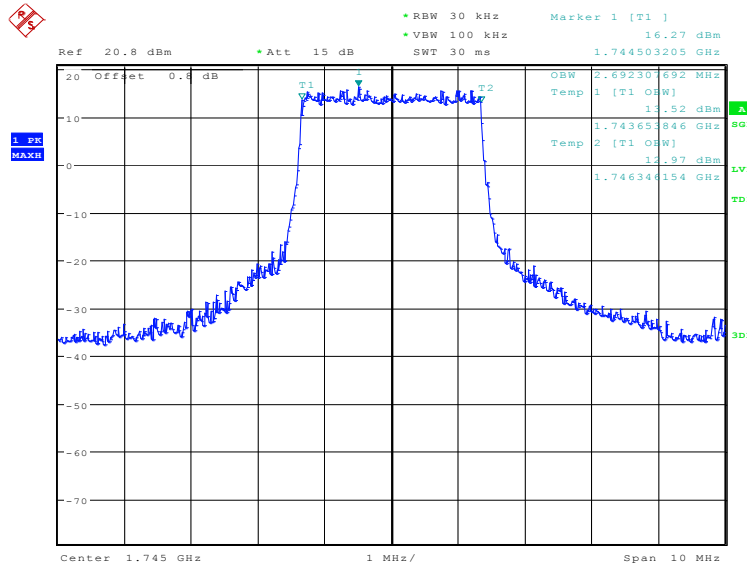


Date: 9.OCT.2023 09:19:16

LTE band 66, 3MHz (99%)

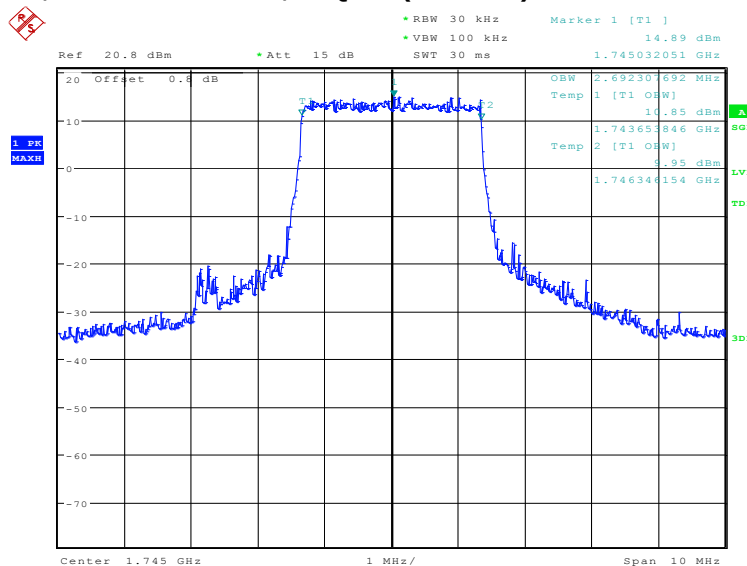
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	2692.31	2692.31

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



Date: 9.OCT.2023 09:20:00

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

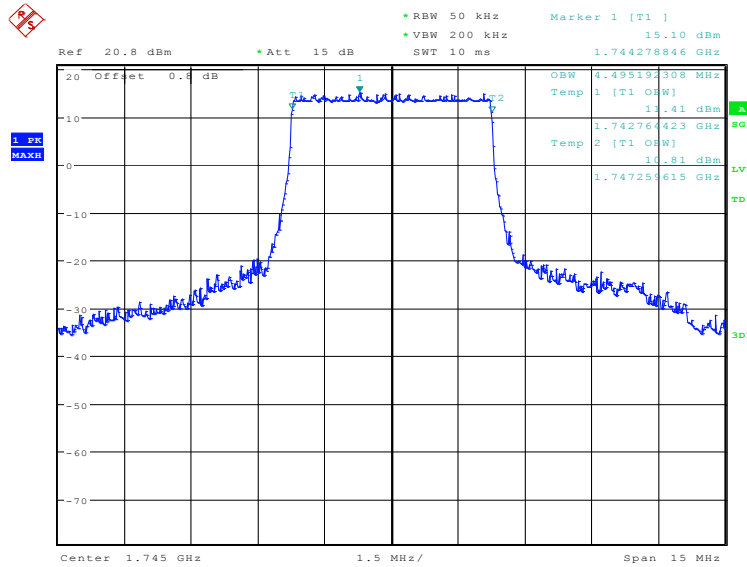


Date: 9.OCT.2023 09:20:40

LTE band 66, 5MHz (99%)

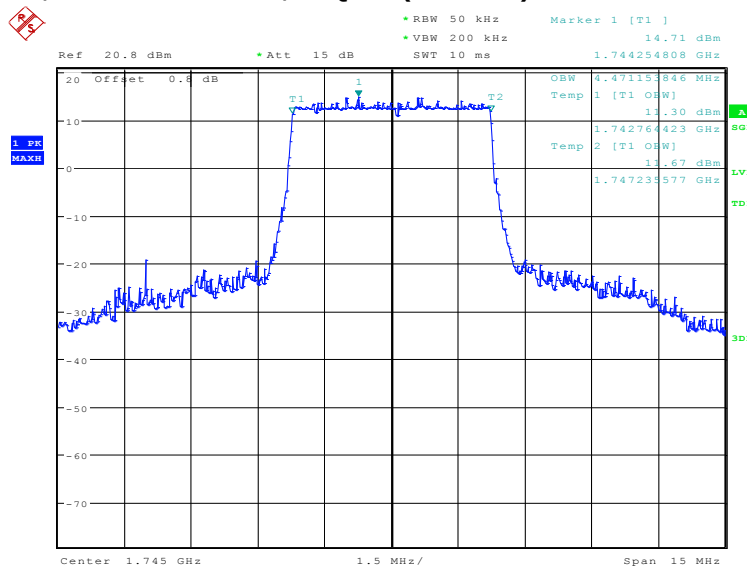
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	4495.19	4471.15

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



Date: 9.OCT.2023 09:21:23

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

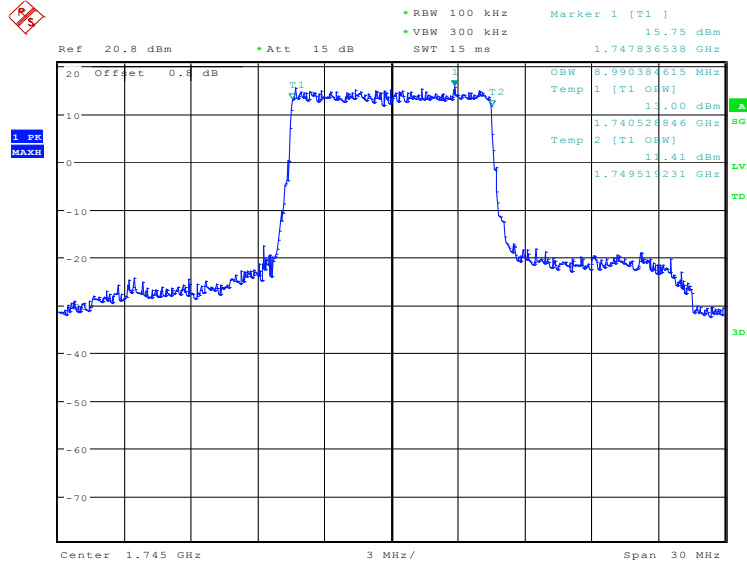


Date: 9.OCT.2023 09:22:03

LTE band 66, 10MHz (99%)

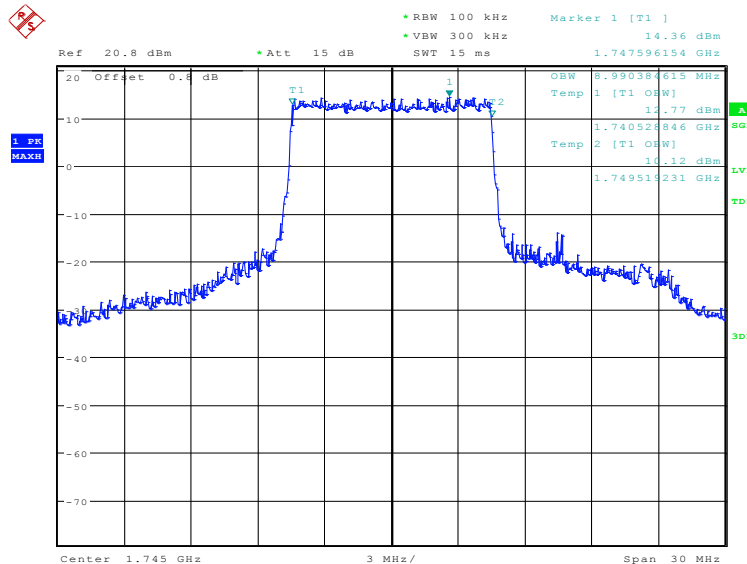
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	8990.38	8990.38

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



Date: 9.OCT.2023 09:22:47

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

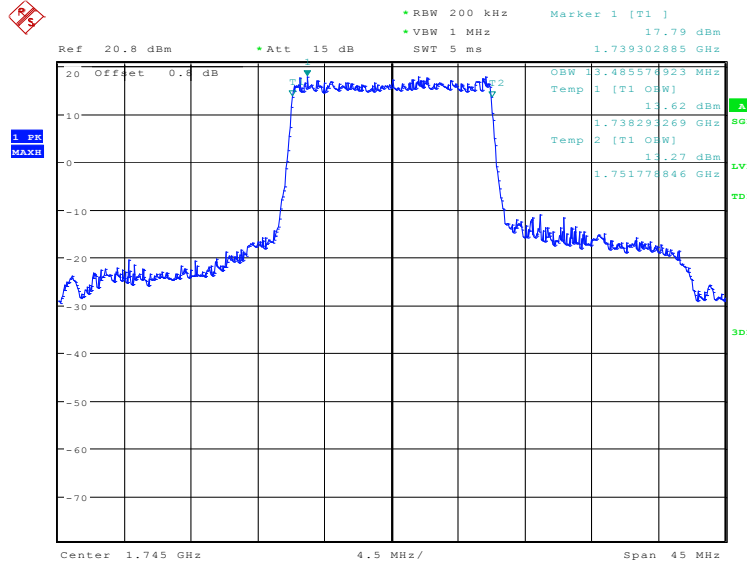


Date: 9.OCT.2023 09:23:27

LTE band 66, 15MHz (99%)

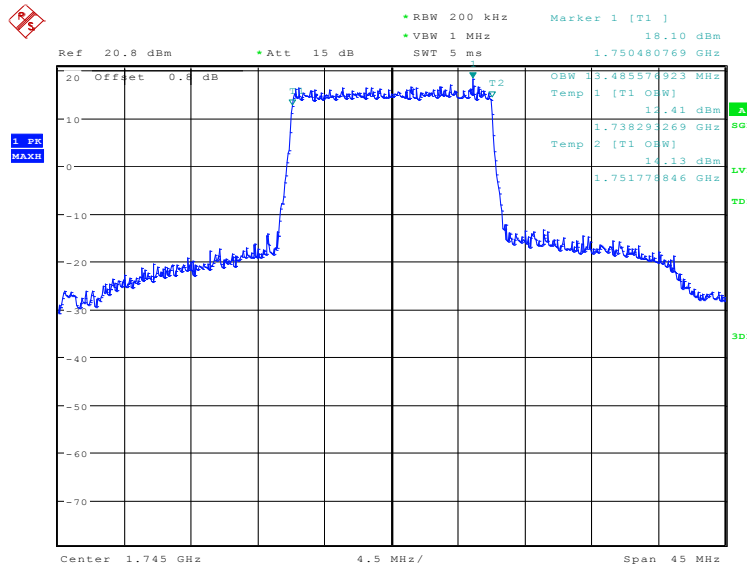
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	13485.58	13485.58

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



Date: 9.OCT.2023 09:24:10

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

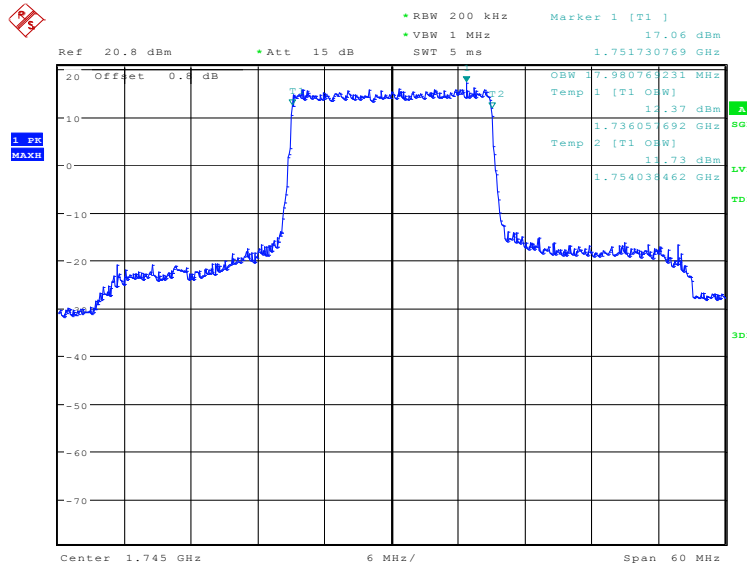


Date: 9.OCT.2023 09:24:51

LTE band 66, 20MHz (99%)

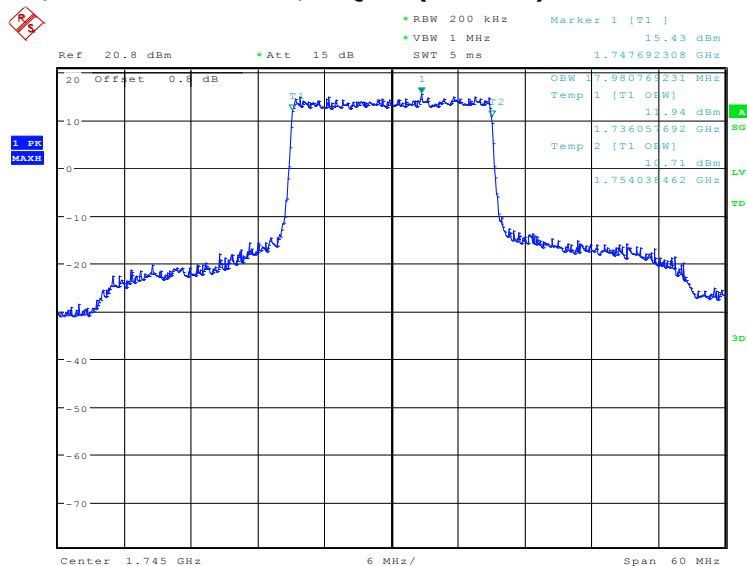
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
1745.0	QPSK	16QAM
	17980.77	17980.77

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



Date: 9.OCT.2023 09:25:34

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

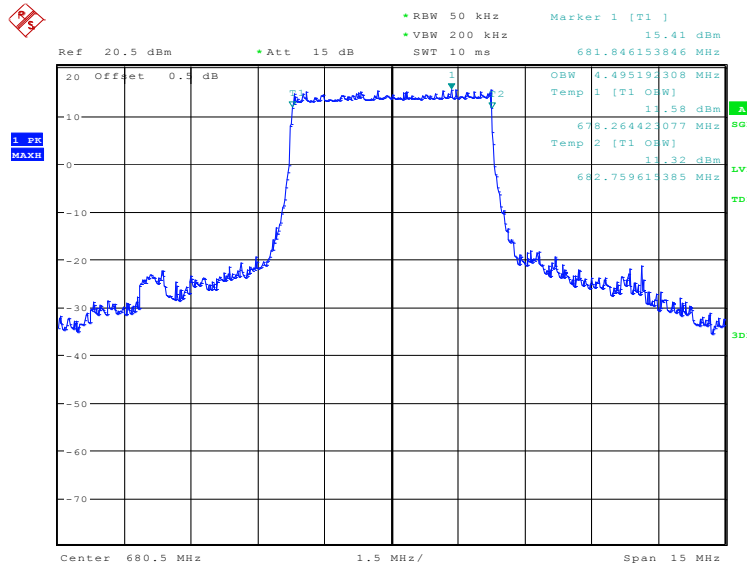


Date: 9.OCT.2023 09:26:15

LTE band 71, 5MHz (99%)

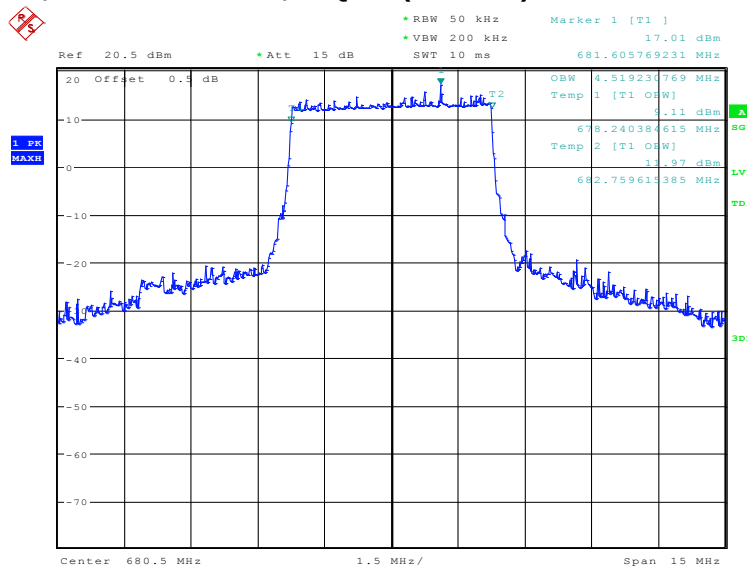
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
680.5	QPSK	16QAM
	4495.19	4519.23

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



Date: 8.OCT.2023 16:50:22

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

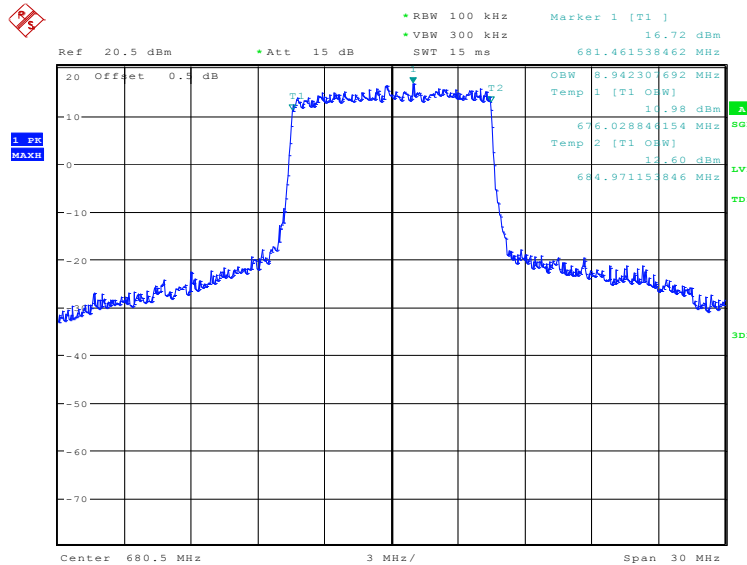


Date: 8.OCT.2023 16:51:02

LTE band 71, 10MHz (99%)

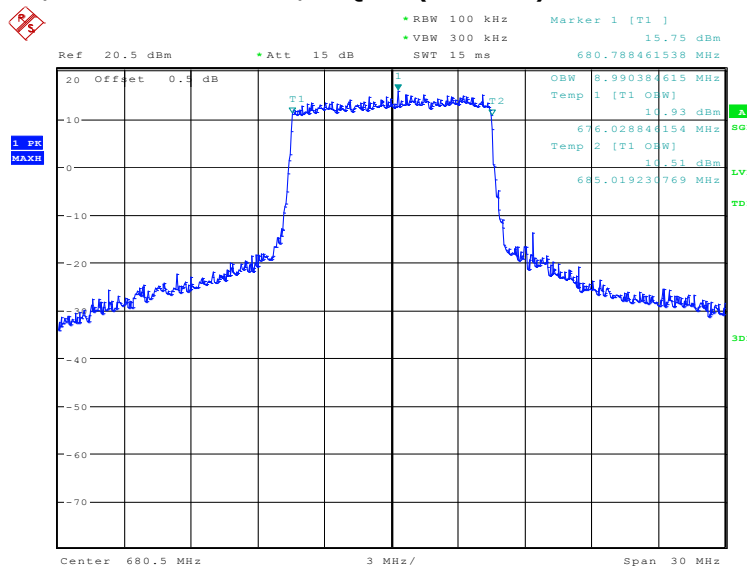
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
680.5	QPSK	16QAM
	8942.31	8990.38

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



Date: 8.OCT.2023 16:51:45

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

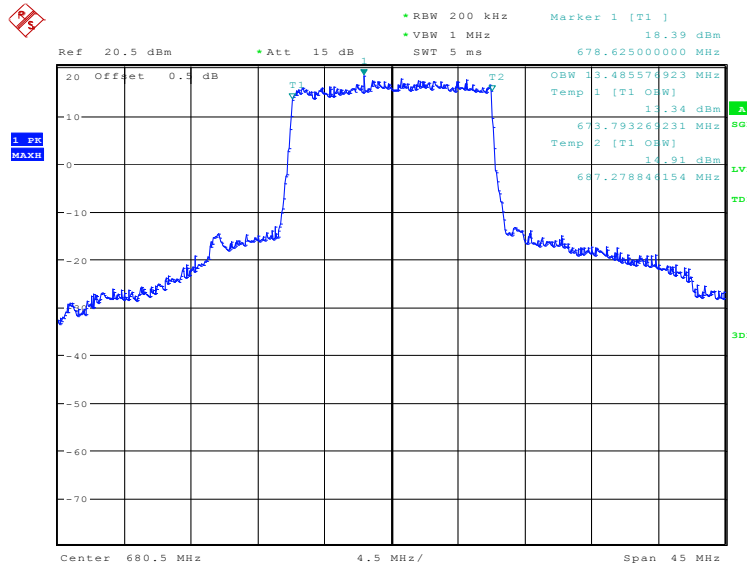


Date: 8.OCT.2023 16:52:26

LTE band 71, 15MHz (99%)

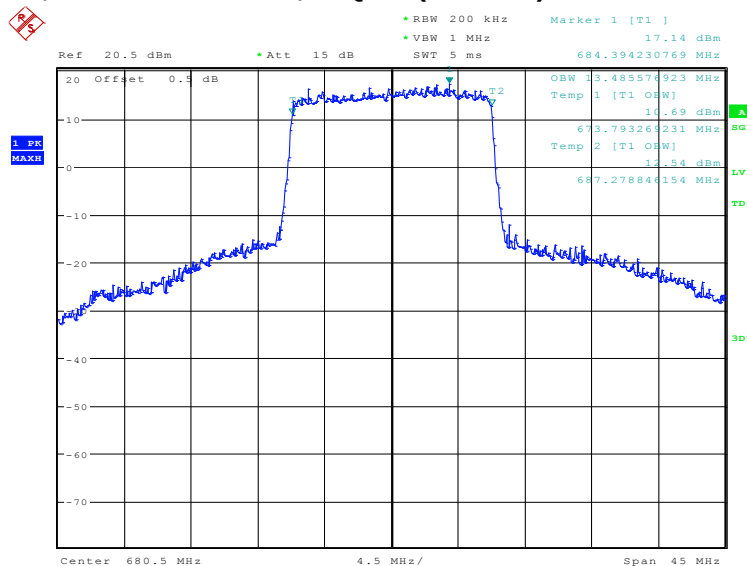
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
680.5	QPSK	16QAM
	13485.58	13485.58

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



Date: 8.OCT.2023 16:53:09

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

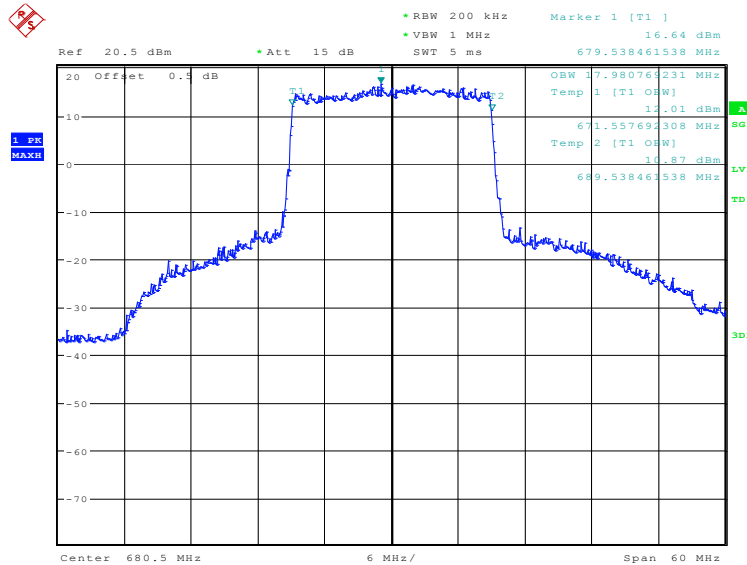


Date: 8.OCT.2023 16:53:49

LTE band 71, 20MHz (99%)

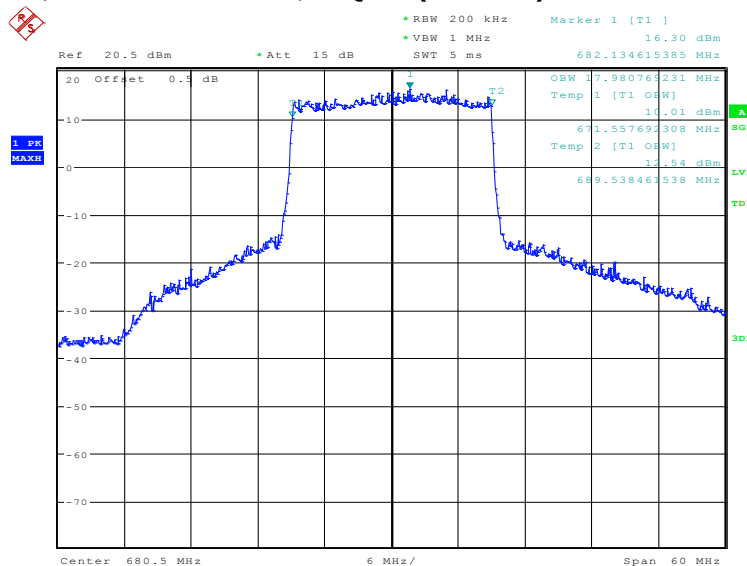
Frequency(MHz)	Occupied Bandwidth (99%)(kHz)	
680.5	QPSK	16QAM
	17980.77	17980.77

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



Date: 8.OCT.2023 16:54:32

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

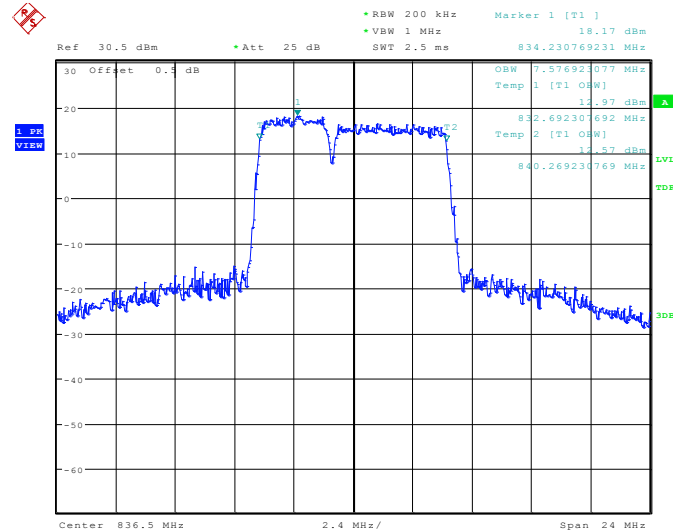


Date: 8.OCT.2023 16:55:12

LTE CA band 5B, 3MHz+5MHz(99%)

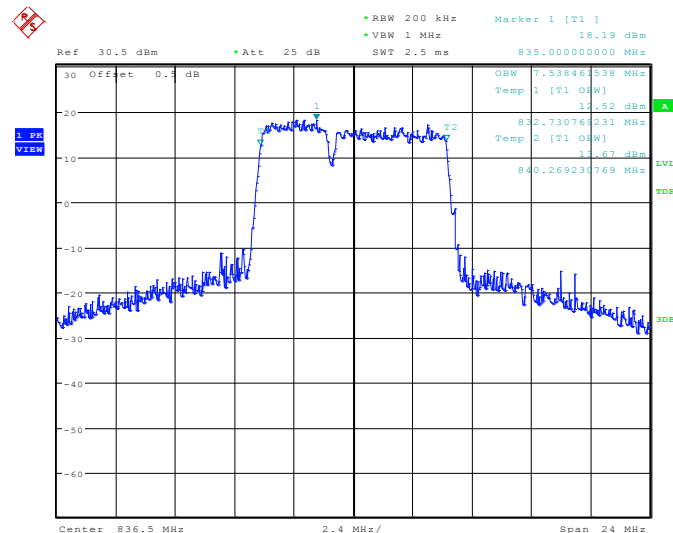
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
836.5	7.577	7.538

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



Date: 10.OCT.2023 14:40:18

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

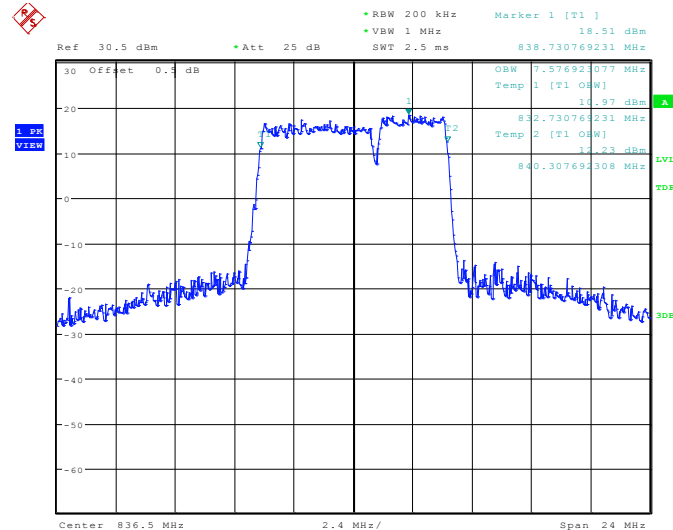


Date: 10.OCT.2023 14:40:42

LTE CA band 5B, 5MHz+3MHz(99%)

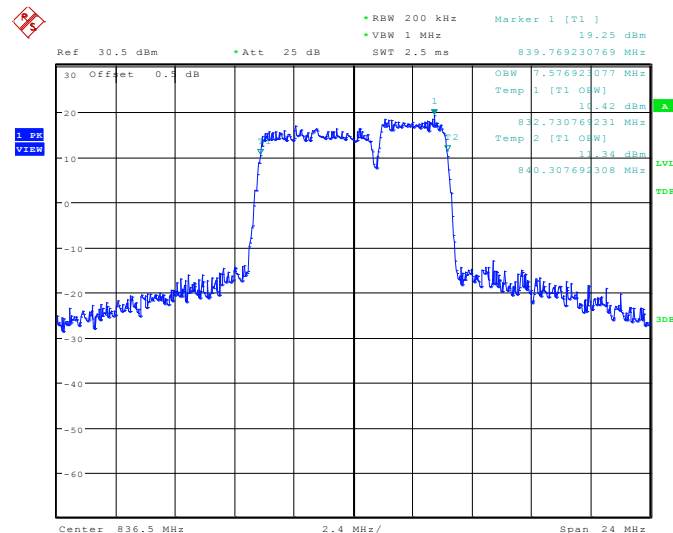
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
836.5	7.577	7.577

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



Date: 10.OCT.2023 14:41:38

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

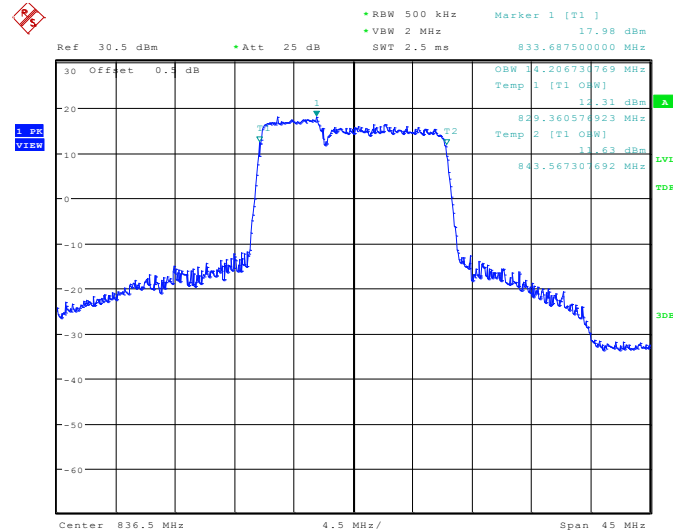


Date: 10.OCT.2023 14:42:01

LTE CA band 5B, 5MHz+10MHz(99%)

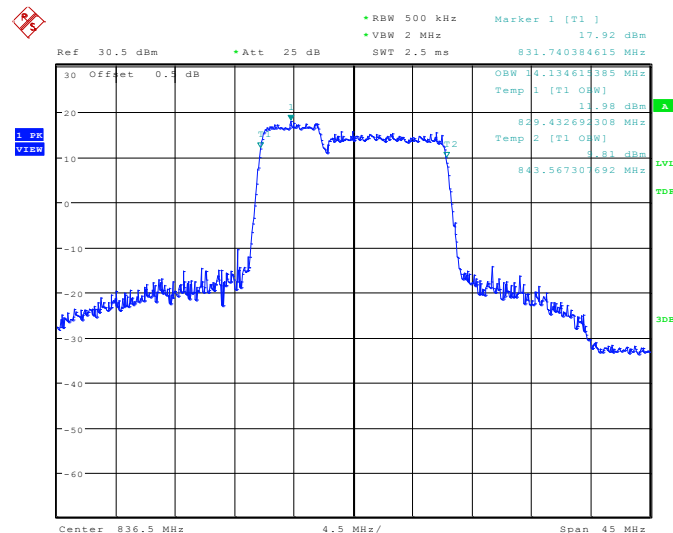
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
836.5	14.207	14.135

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



Date: 10.OCT.2023 14:42:57

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

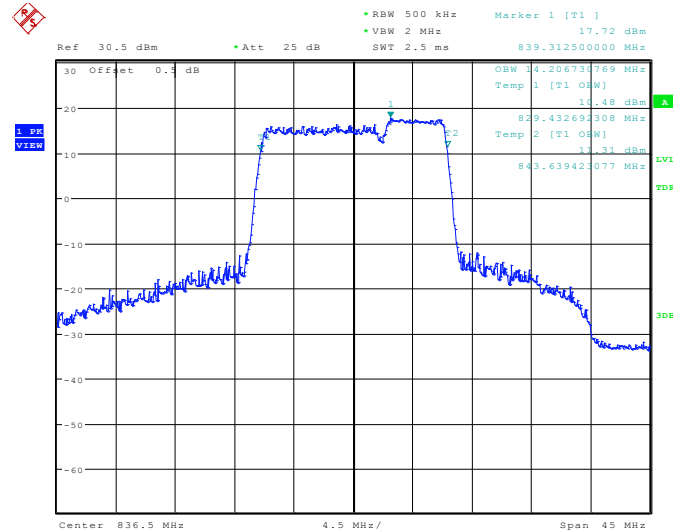


Date: 10.OCT.2023 14:43:20

LTE CA band 5B, 10MHz+5MHz(99%)

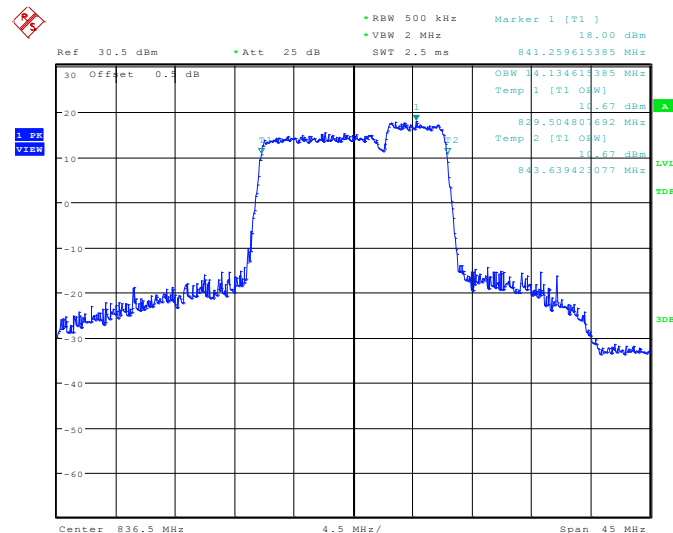
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
836.5	14.207	14.135

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



Date: 10.OCT.2023 14:44:17

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

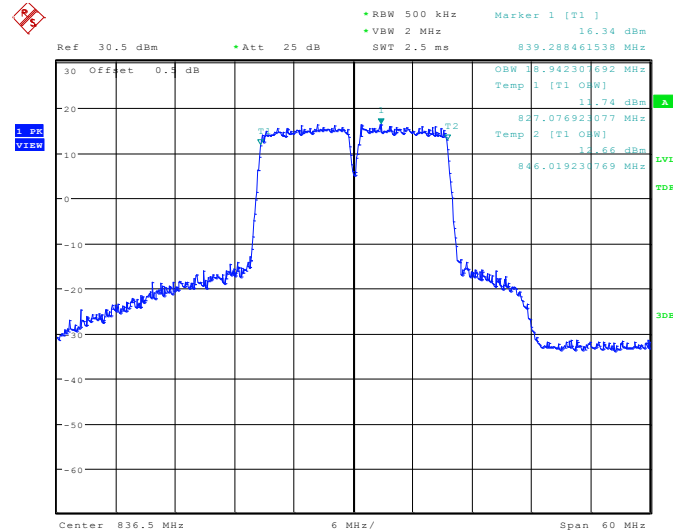


Date: 10.OCT.2023 14:44:41

LTE CA band 5B, 10MHz+10MHz(99%)

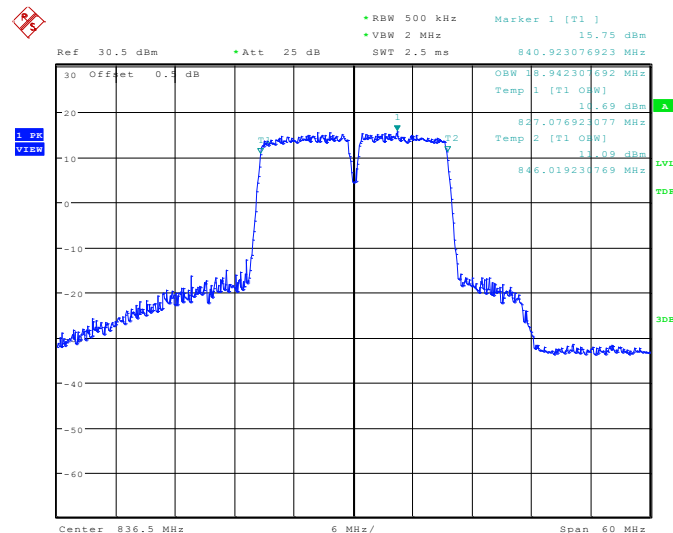
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
836.5	18.942	18.942

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



Date: 10.OCT.2023 14:45:37

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

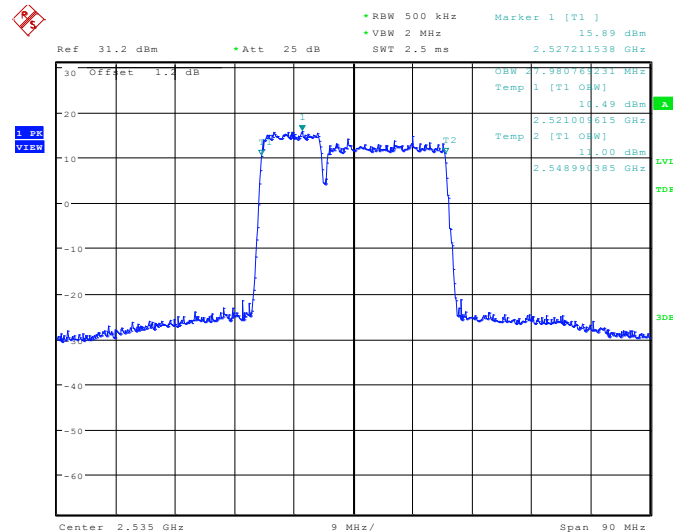


Date: 10.OCT.2023 14:46:00

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

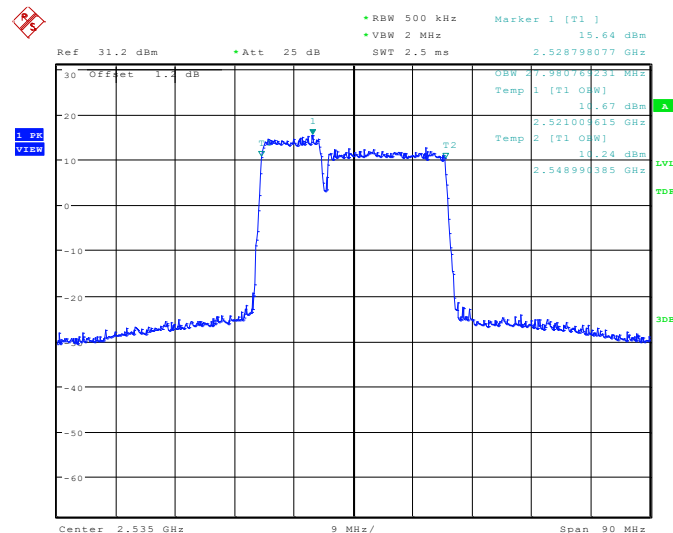
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	27.981	27.981

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



Date: 10.OCT.2023 11:27:51

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

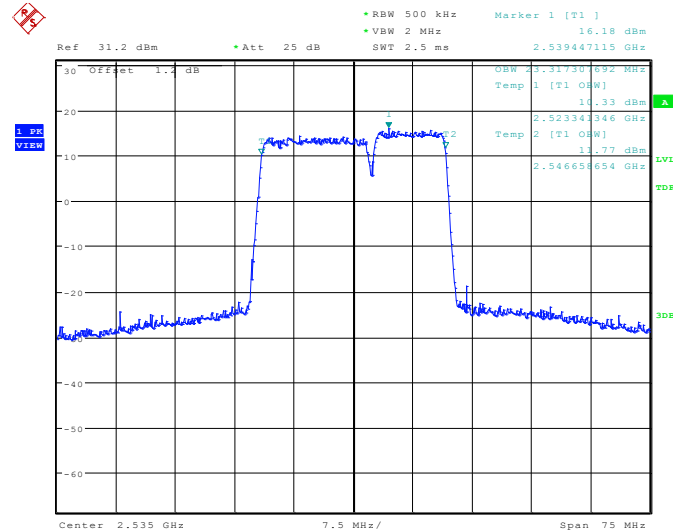


Date: 10.OCT.2023 11:28:14

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

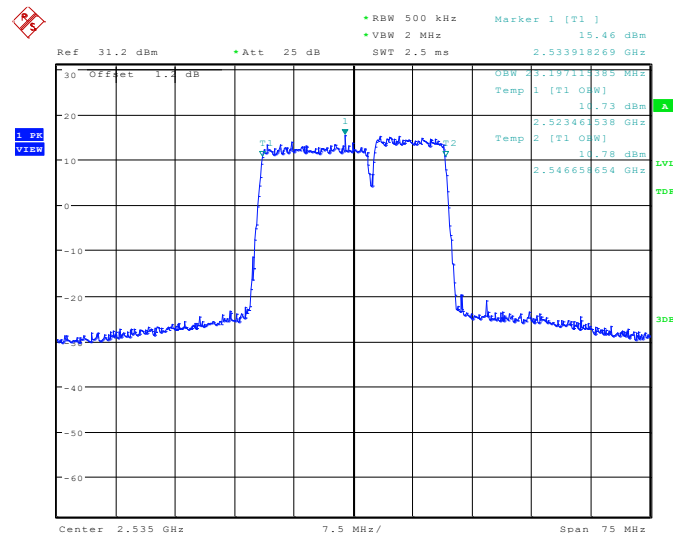
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	23.317	23.197

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



Date: 10.OCT.2023 11:29:11

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

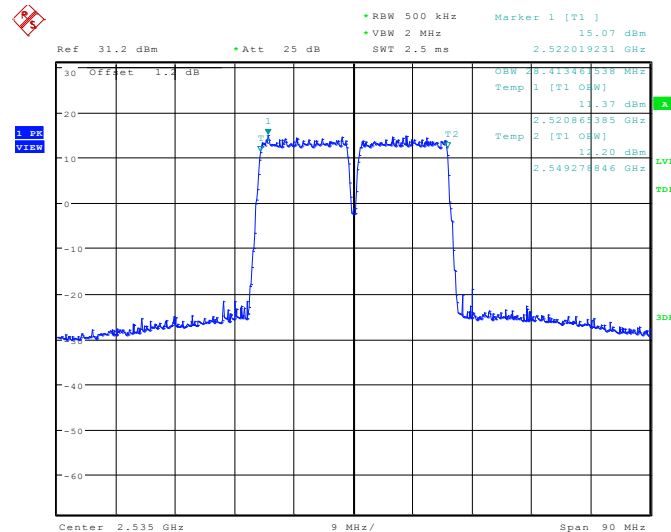


Date: 10.OCT.2023 11:29:34

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

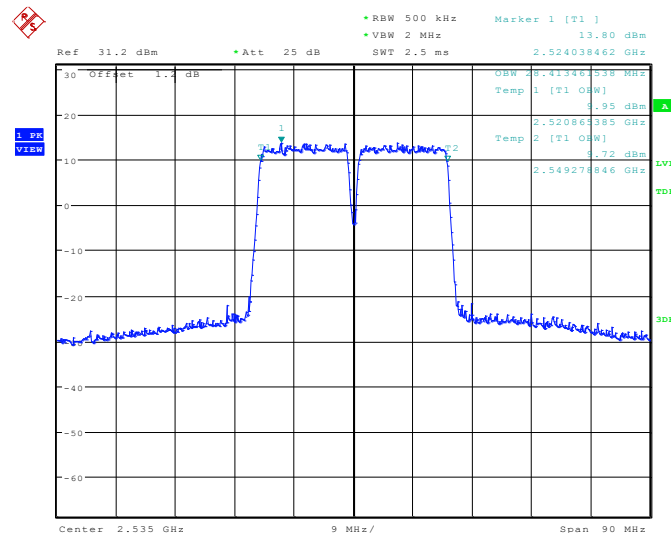
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	28.413	28.413

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



Date: 10.OCT.2023 11:30:30

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

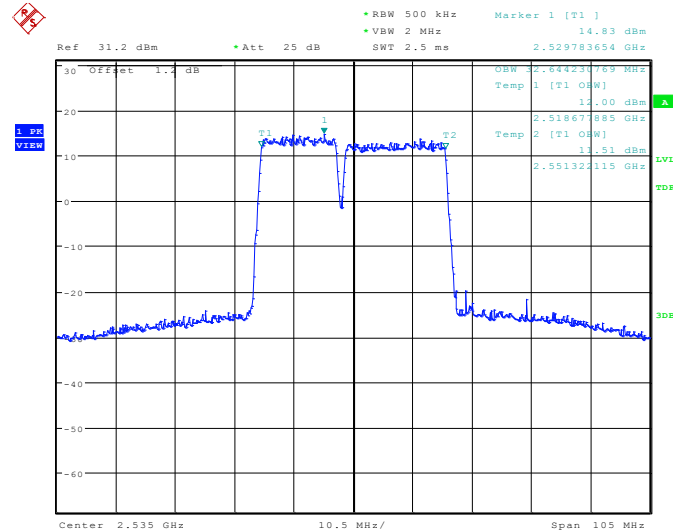


Date: 10.OCT.2023 11:30:53

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

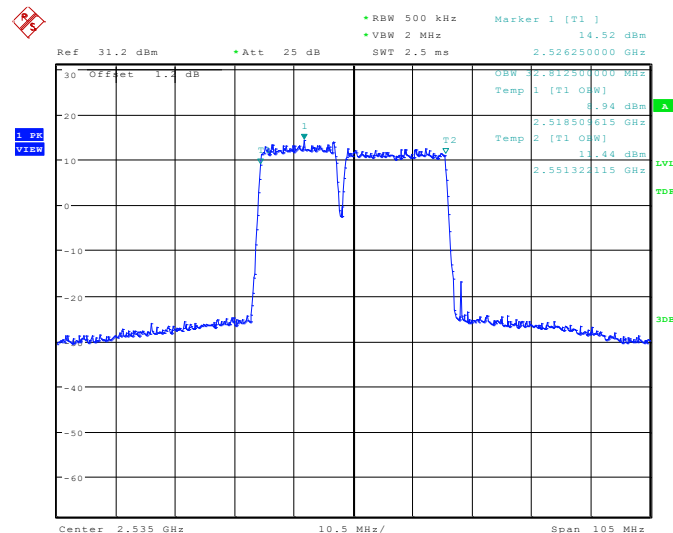
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	32.644	32.812

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



Date: 10.OCT.2023 11:31:49

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

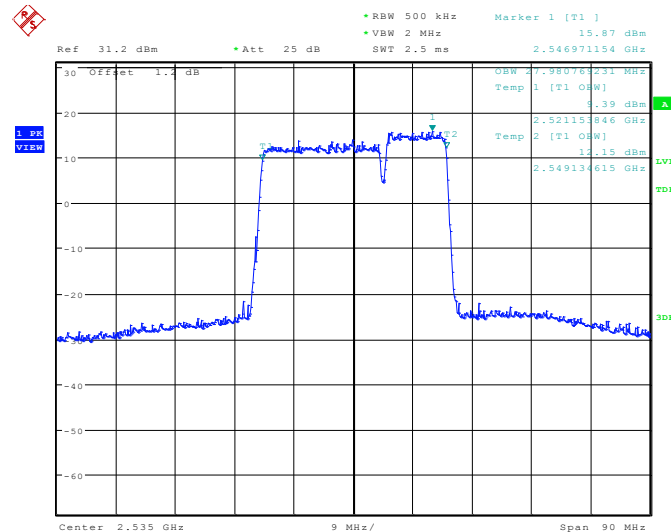


Date: 10.OCT.2023 11:32:12

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

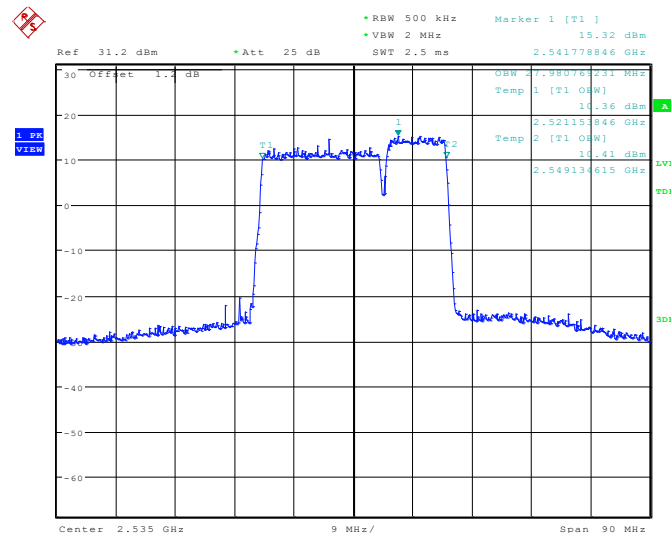
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	27.981	27.981

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



Date: 10.OCT.2023 11:33:09

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

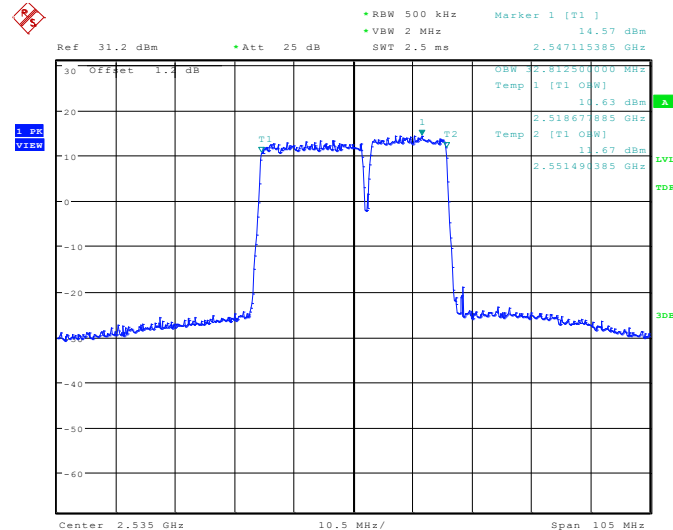


Date: 10.OCT.2023 11:33:33

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

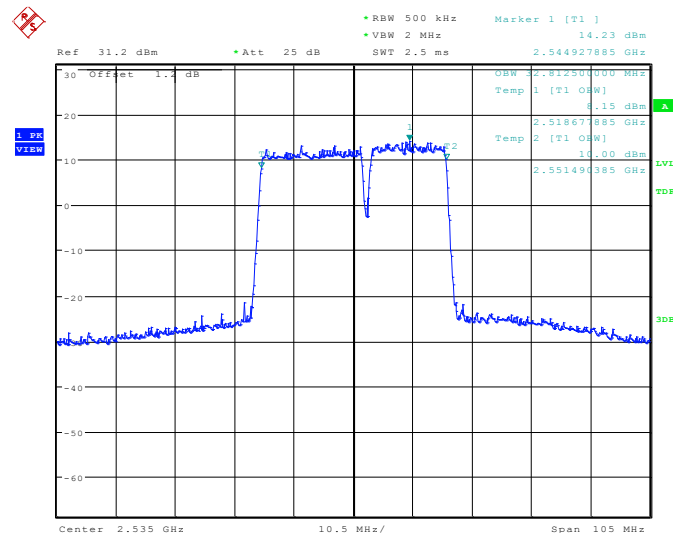
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	32.812	32.812

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



Date: 10.OCT.2023 11:34:29

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

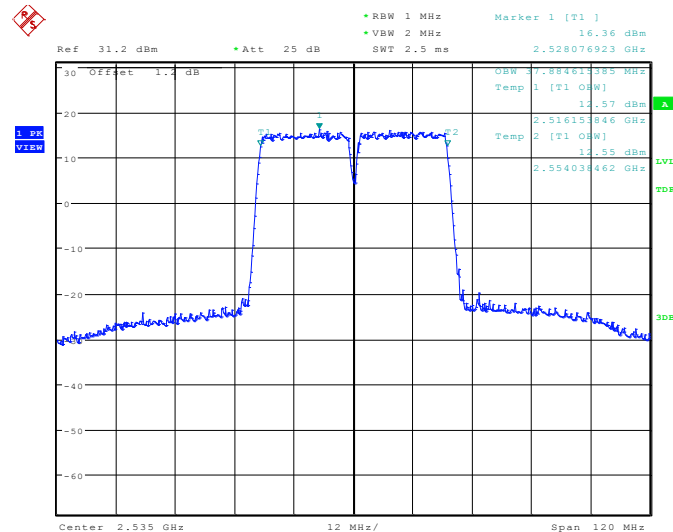


Date: 10.OCT.2023 11:34:52

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

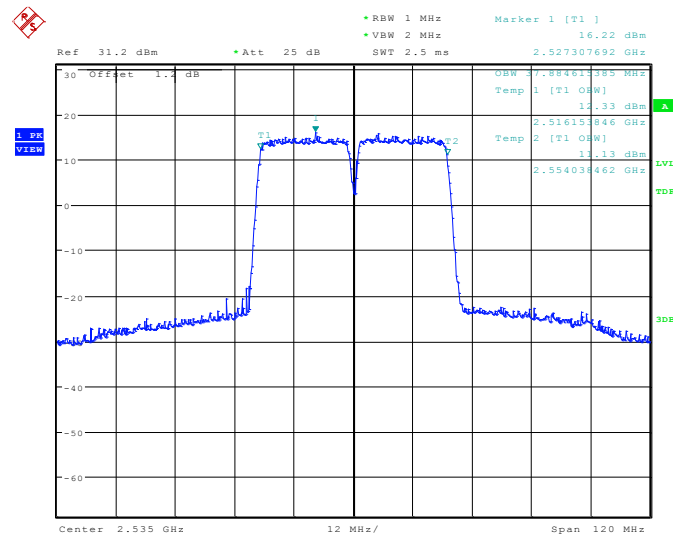
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2535.0	37.885	37.885

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



Date: 10.OCT.2023 11:35:48

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

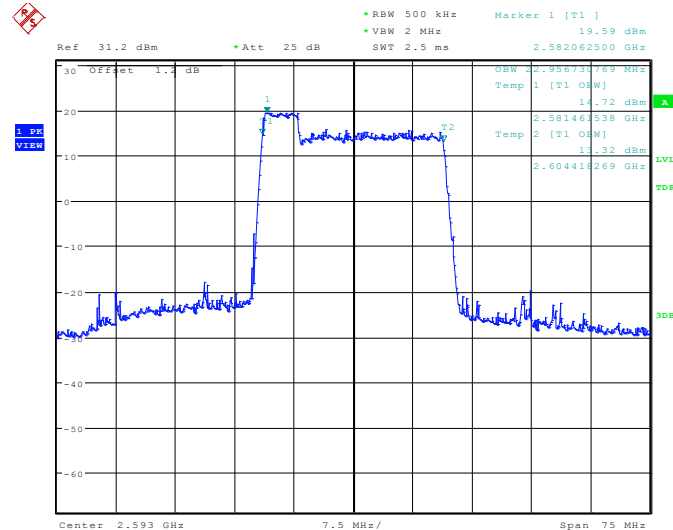


Date: 10.OCT.2023 11:36:12

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

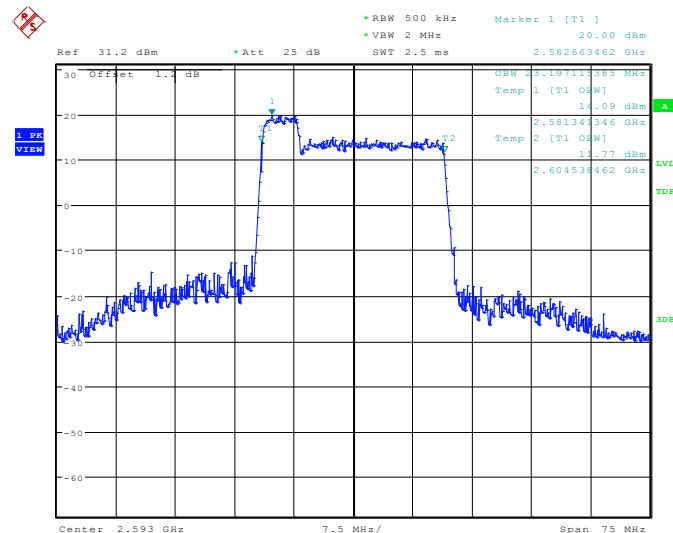
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	22.957	23.197

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



Date: 9.OCT.2023 14:39:03

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

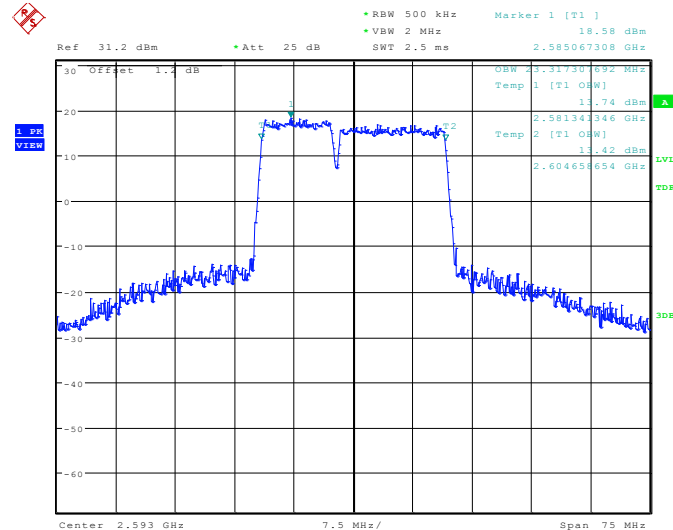


Date: 9.OCT.2023 14:39:27

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

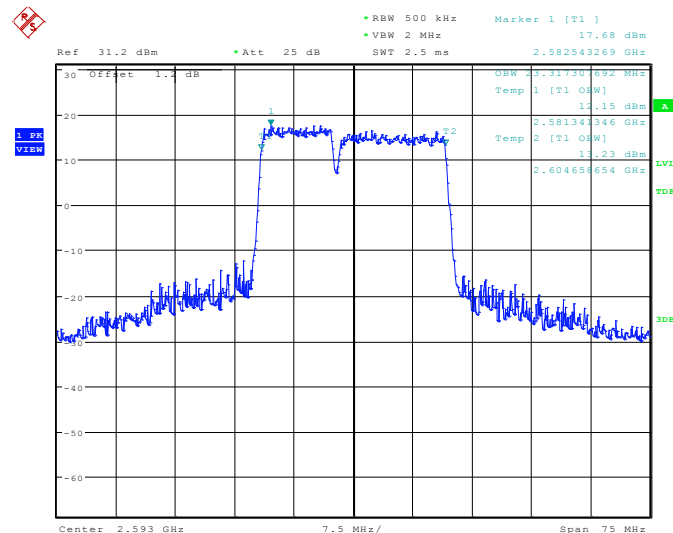
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	23.317	23.317

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



Date: 9.OCT.2023 14:40:28

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

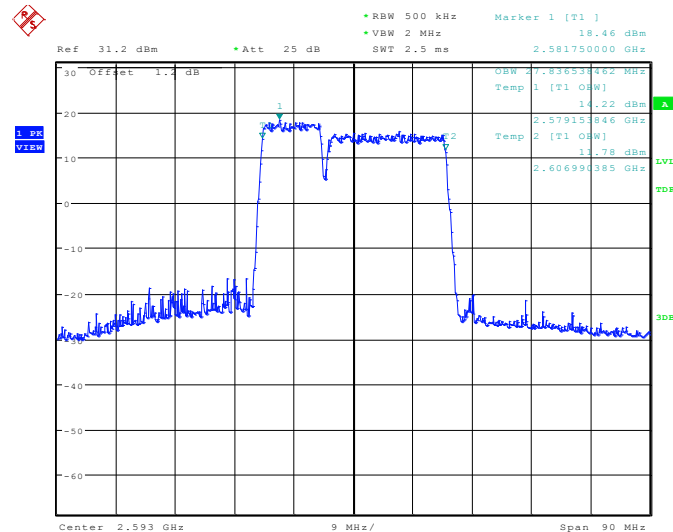


Date: 9.OCT.2023 14:40:51

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

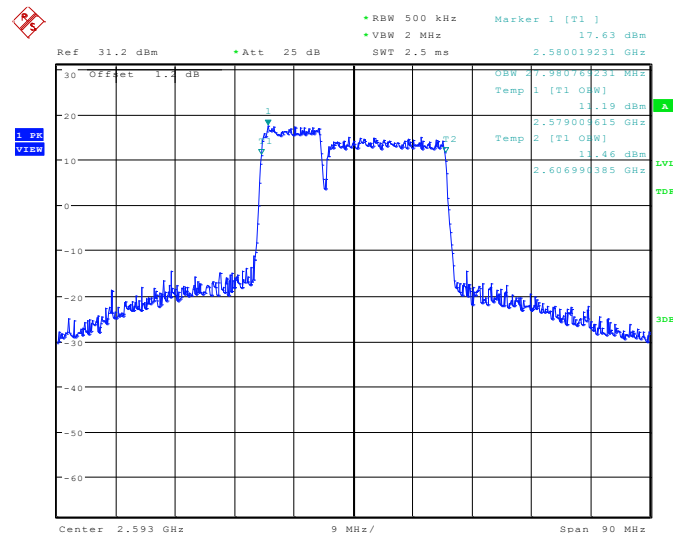
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	27.837	27.981

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



Date: 9.OCT.2023 14:41:44

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

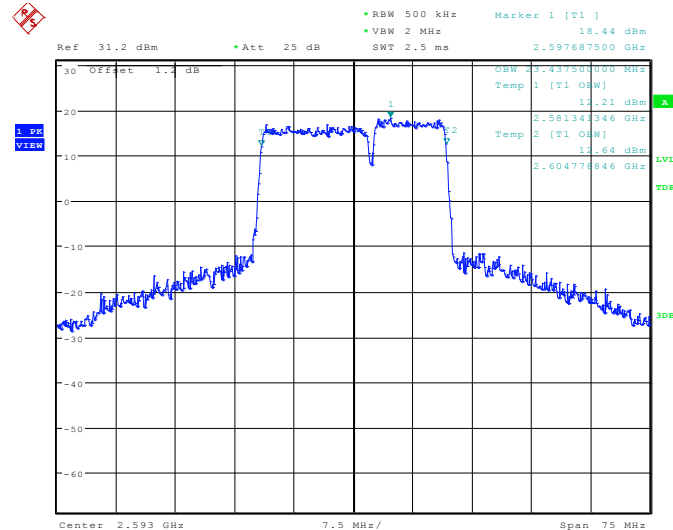


Date: 9.OCT.2023 14:42:07

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

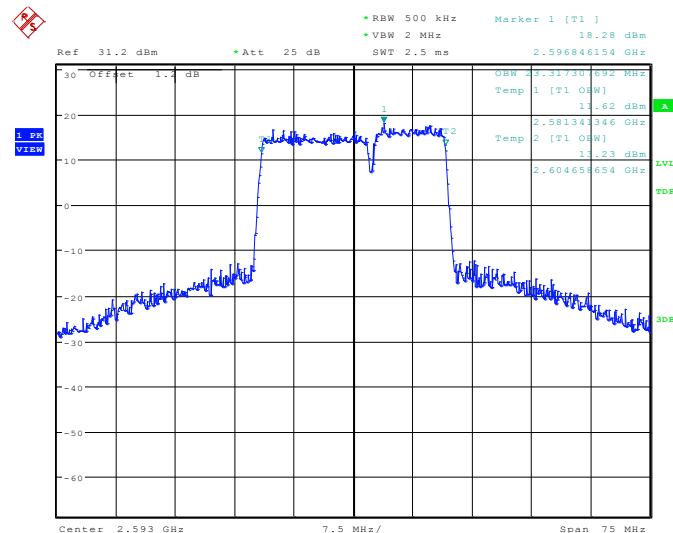
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	23.438	23.317

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



Date: 9.OCT.2023 14:43:08

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

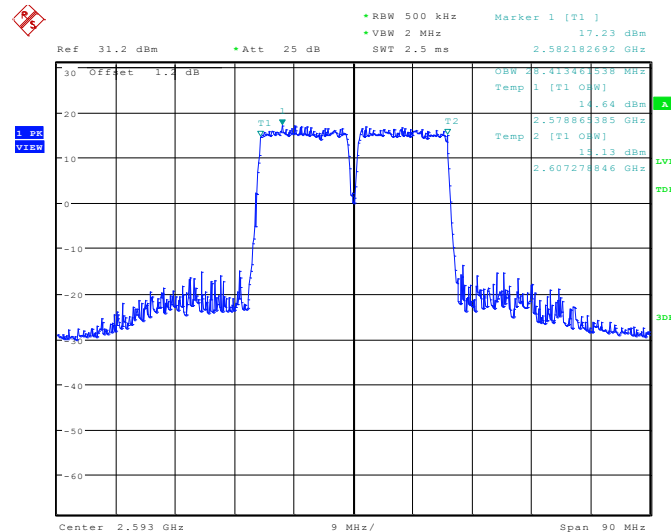


Date: 9.OCT.2023 14:43:32

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

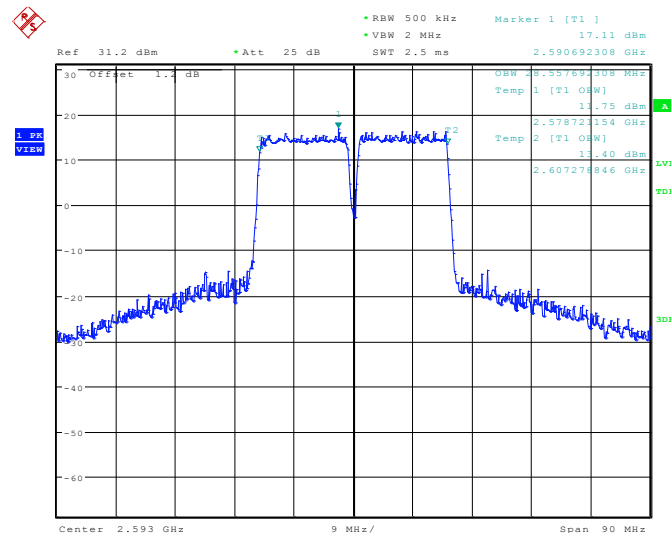
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	28.413	28.558

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



Date: 9.OCT.2023 14:44:26

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

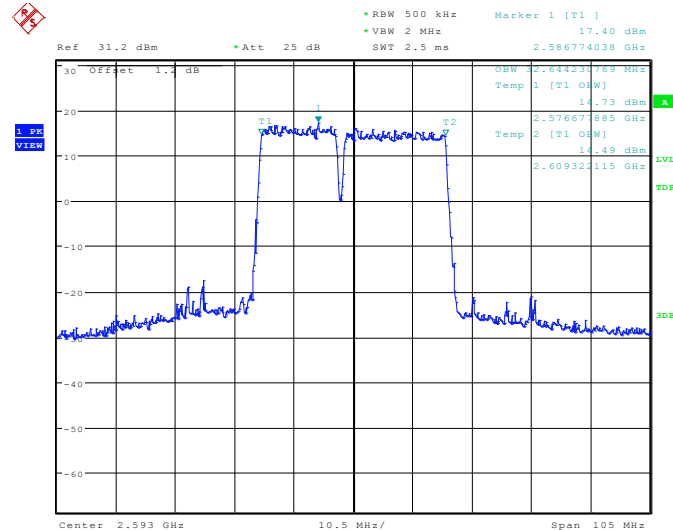


Date: 9.OCT.2023 14:44:49

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

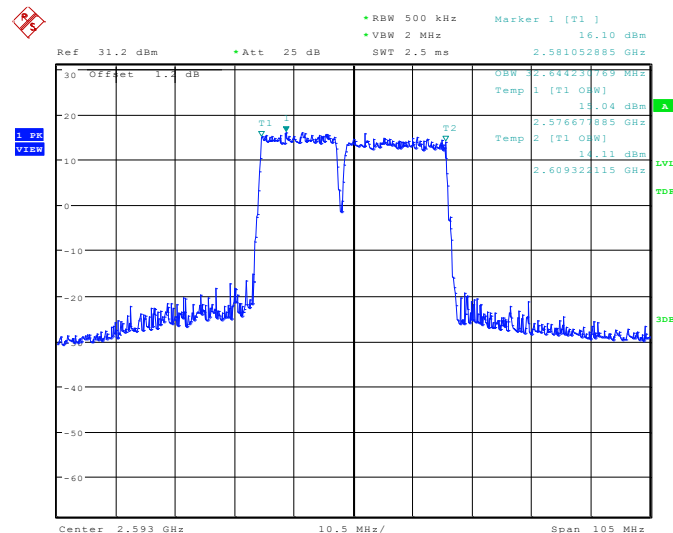
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	32.644	32.644

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



Date: 9.OCT.2023 14:45:43

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

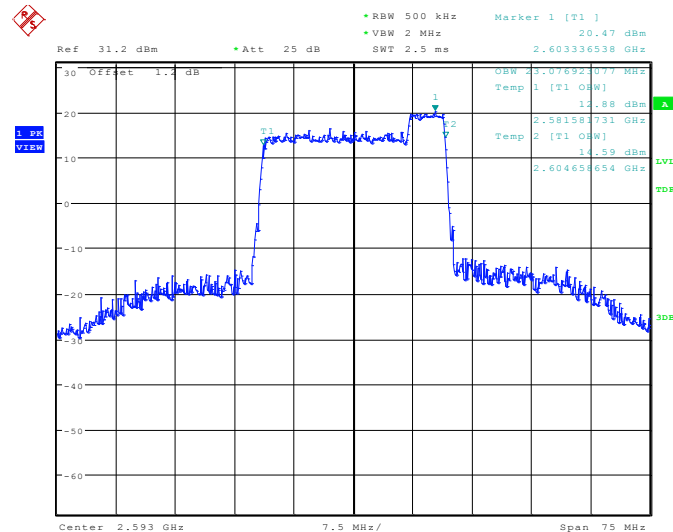


Date: 9.OCT.2023 14:46:06

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

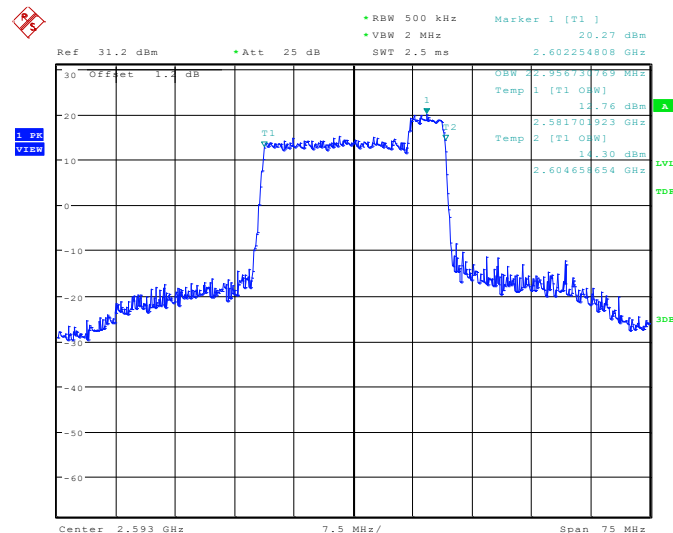
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	23.077	22.957

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



Date: 9.OCT.2023 14:47:08

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

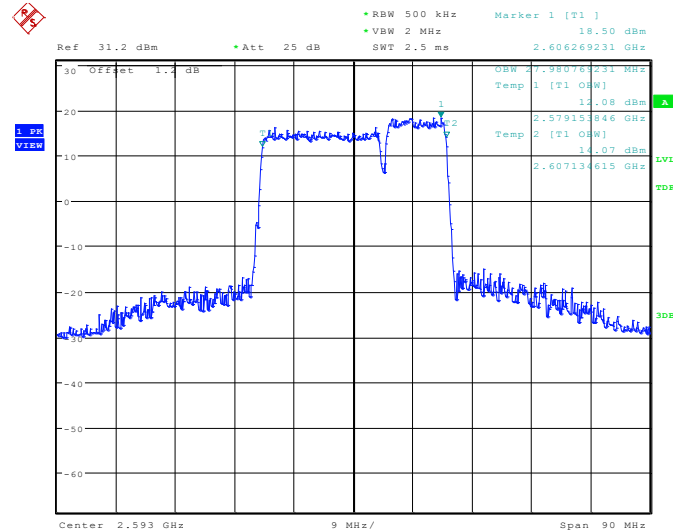


Date: 9.OCT.2023 14:47:31

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

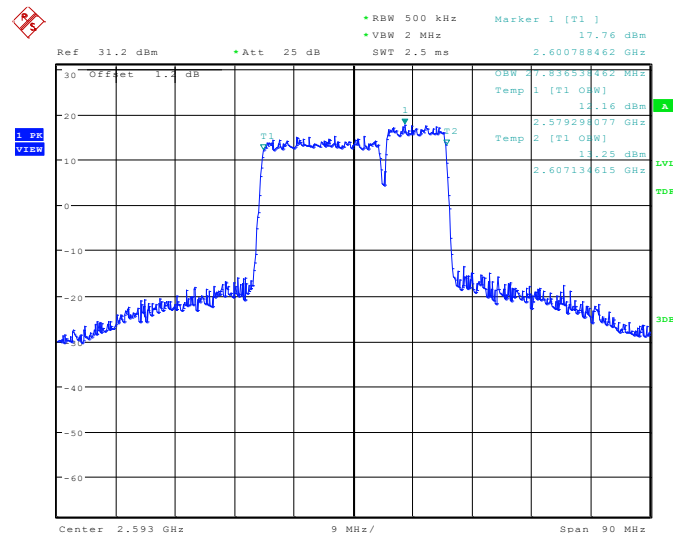
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	27.981	27.837

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



Date: 9.OCT.2023 14:48:27

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

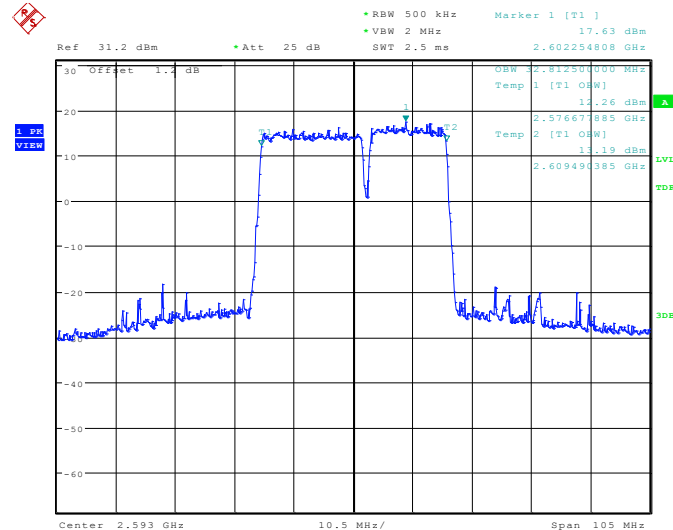


Date: 9.OCT.2023 14:48:50

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

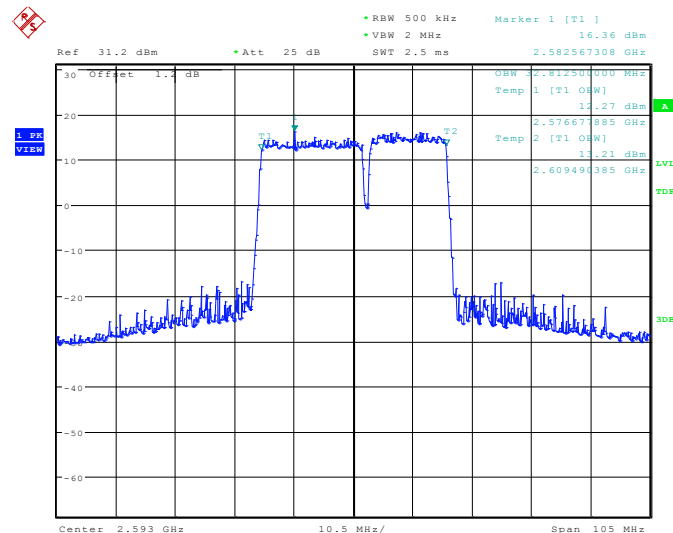
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	32.812	32.812

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



Date: 9.OCT.2023 14:49:45

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

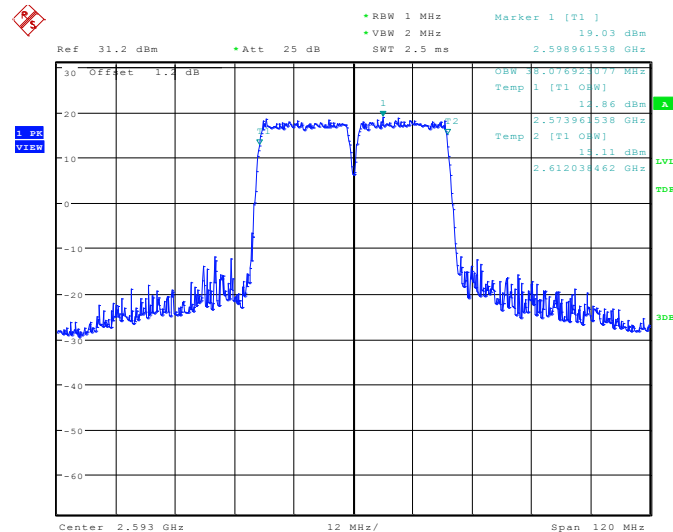


Date: 9.OCT.2023 14:50:09

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

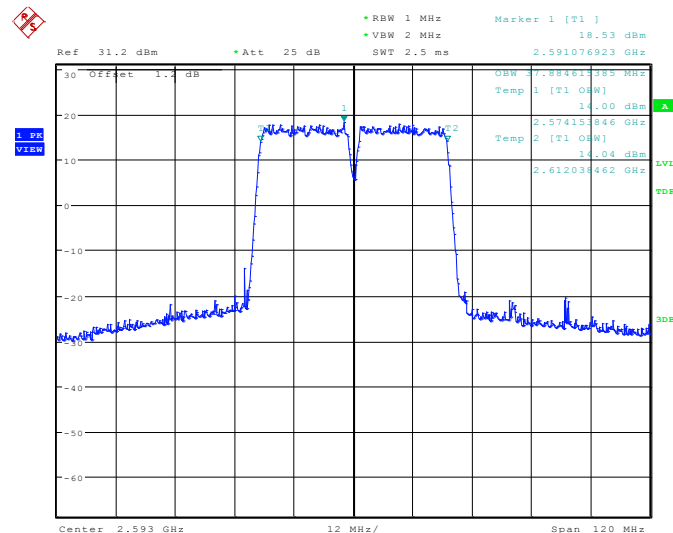
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
2593.0	38.077	37.885

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



Date: 9.OCT.2023 14:51:05

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

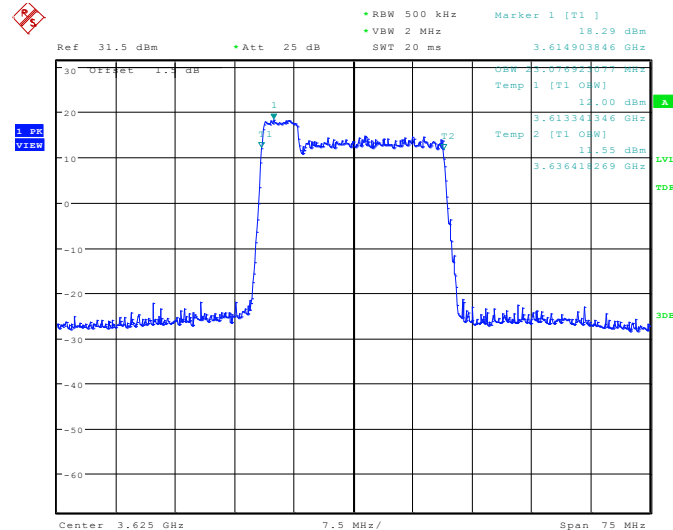


Date: 9.OCT.2023 14:51:28

LTE CA band 48C, 5MHz+20MHz(99%)

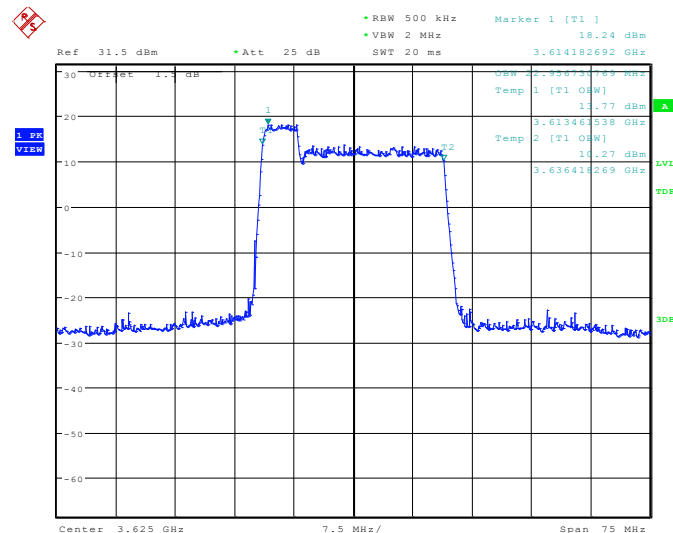
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
3625.0	23.077	22.957

LTE CA band 48C , 5MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 17:32:02

LTE CA band 48C , 5MHz+20MHz Bandwidth,16QAM (99% BW)

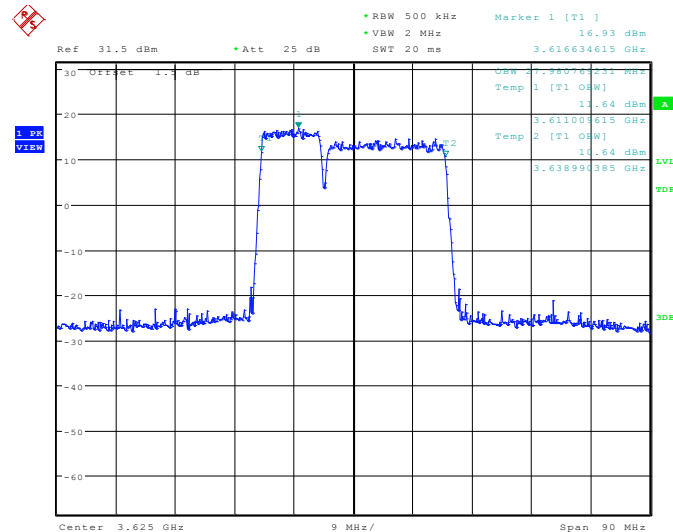


Date: 9.OCT.2023 17:32:25

LTE CA band 48C, 10MHz+20MHz(99%)

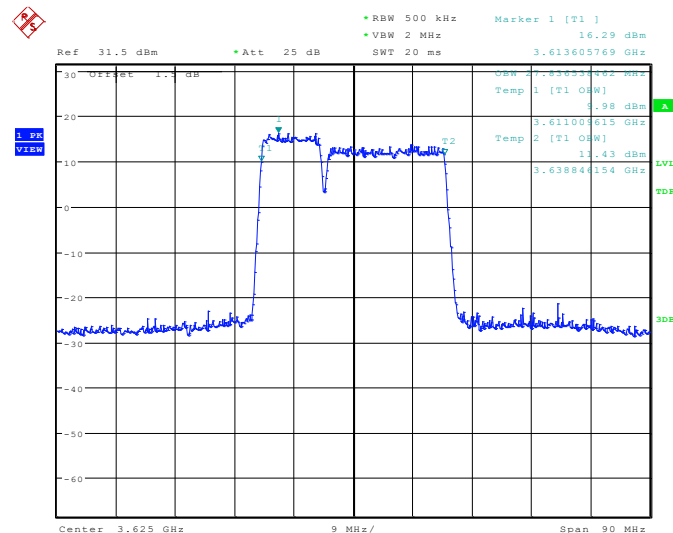
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
3625.0	27.981	27.837

LTE CA band 48C , 10MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 17:33:18

LTE CA band 48C , 10MHz+20MHz Bandwidth,16QAM (99% BW)

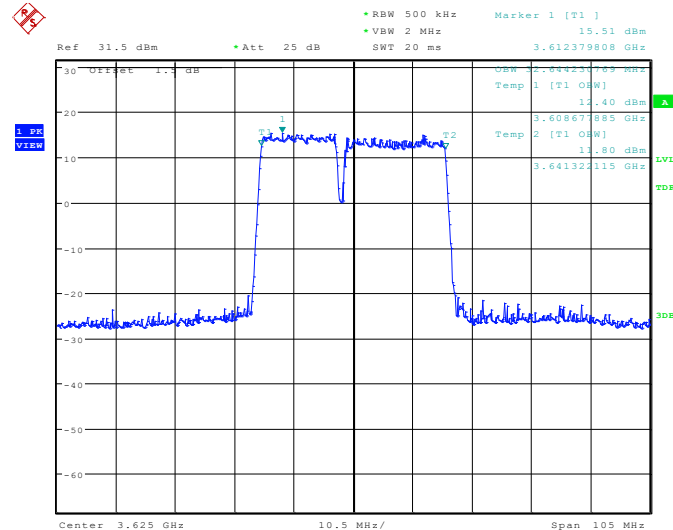


Date: 9.OCT.2023 17:33:41

LTE CA band 48C, 15MHz+20MHz(99%)

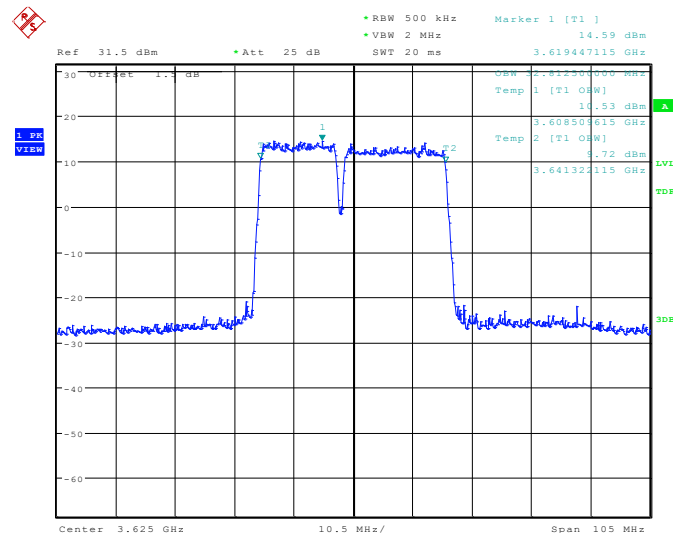
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
3625.0	32.644	32.812

LTE CA band 48C , 15MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 17:34:33

LTE CA band 48C , 15MHz+20MHz Bandwidth,16QAM (99% BW)

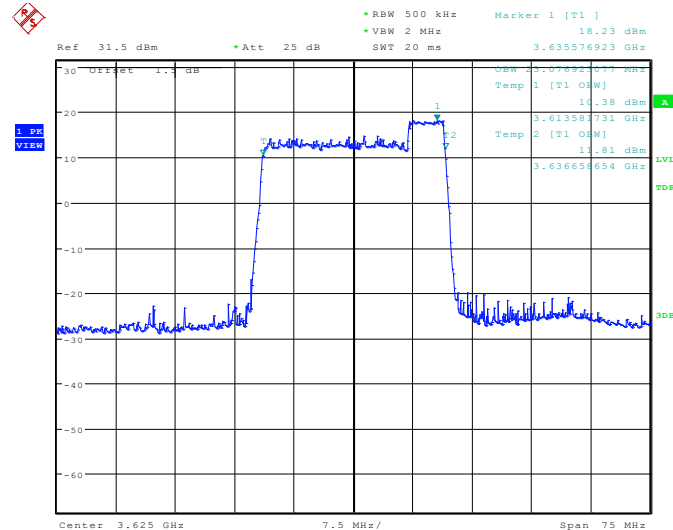


Date: 9.OCT.2023 17:34:56

LTE CA band 48C, 20MHz+5MHz(99%)

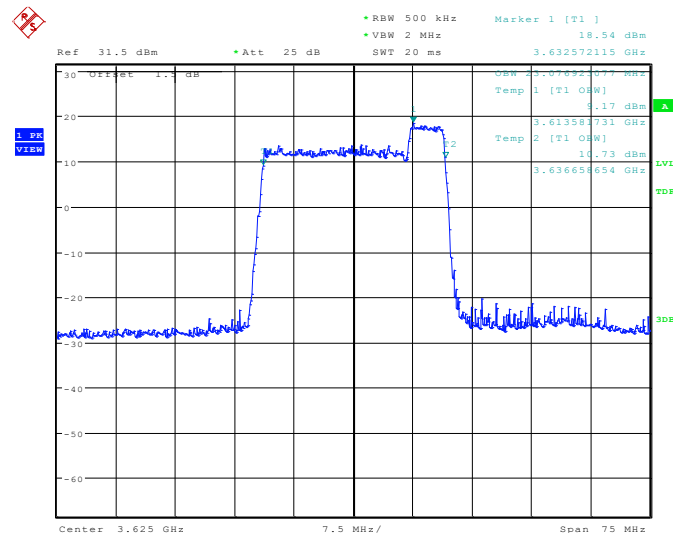
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
3625.0	23.077	23.077

LTE CA band 48C , 20MHz+5MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 17:35:50

LTE CA band 48C , 20MHz+5MHz Bandwidth,16QAM (99% BW)

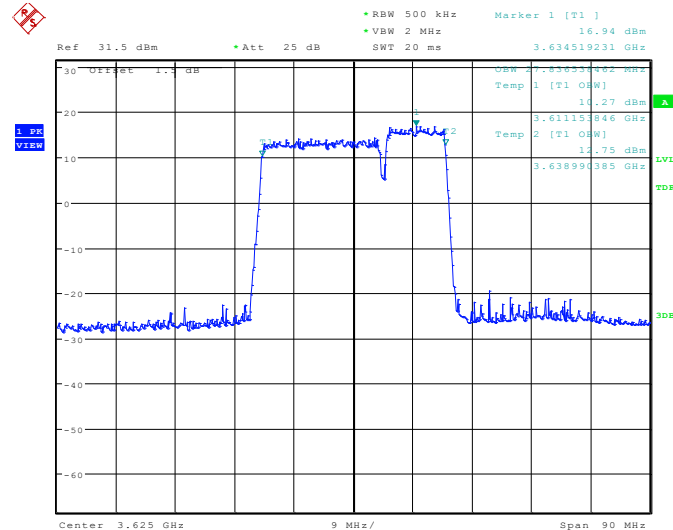


Date: 9.OCT.2023 17:36:14

LTE CA band 48C, 20MHz+10MHz(99%)

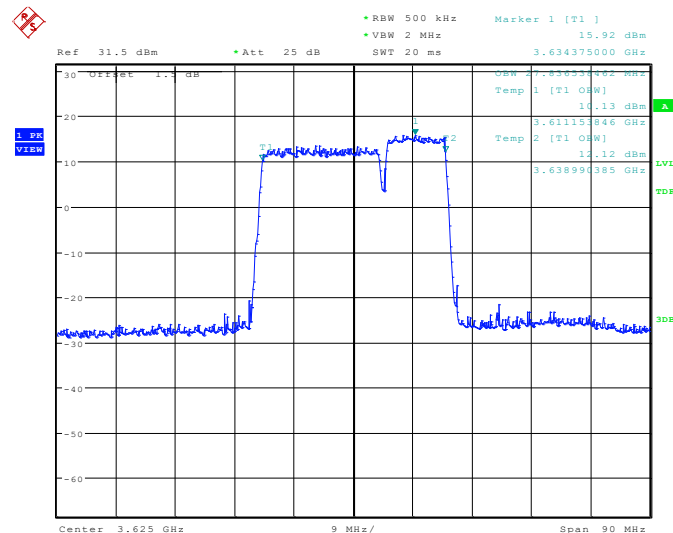
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
3625.0	27.837	27.837

LTE CA band 48C , 20MHz+10MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 17:37:08

LTE CA band 48C , 20MHz+10MHz Bandwidth,16QAM (99% BW)

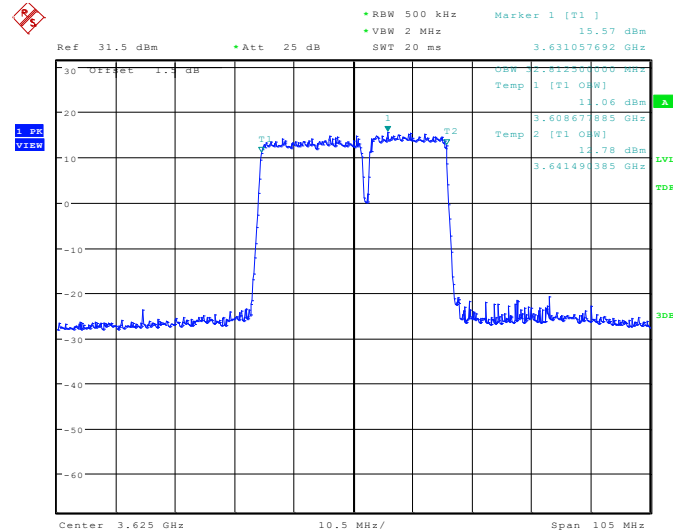


Date: 9.OCT.2023 17:37:31

LTE CA band 48C, 20MHz+15MHz(99%)

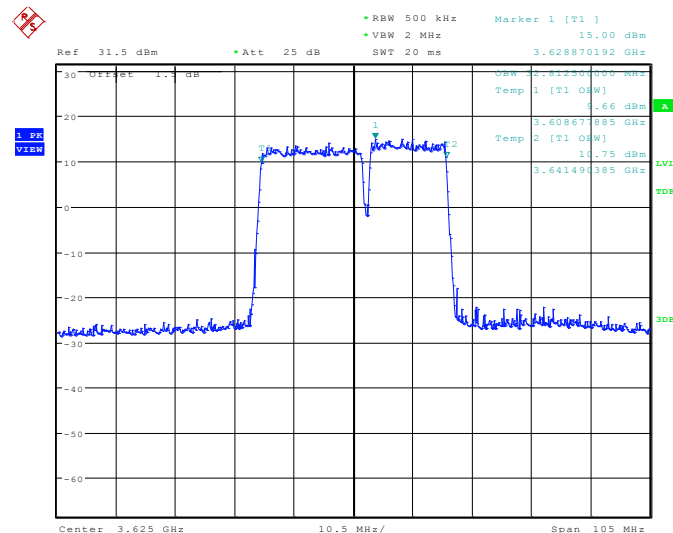
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
3625.0	32.812	32.812

LTE CA band 48C , 20MHz+15MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 17:38:26

LTE CA band 48C , 20MHz+15MHz Bandwidth,16QAM (99% BW)

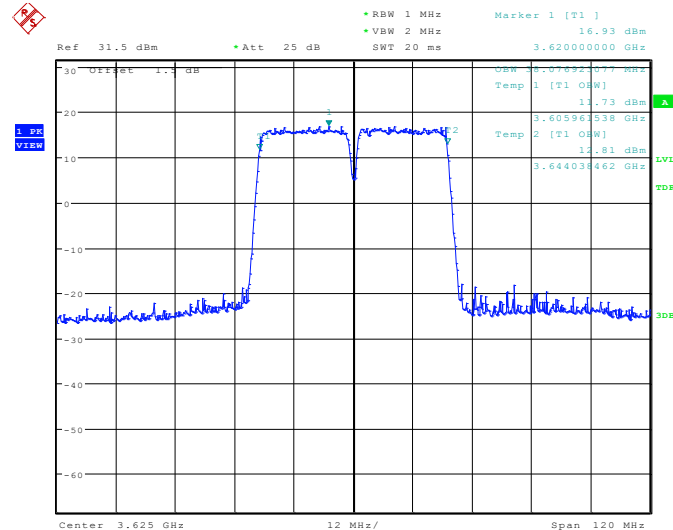


Date: 9.OCT.2023 17:38:49

LTE CA band 48C, 20MHz+20MHz(99%)

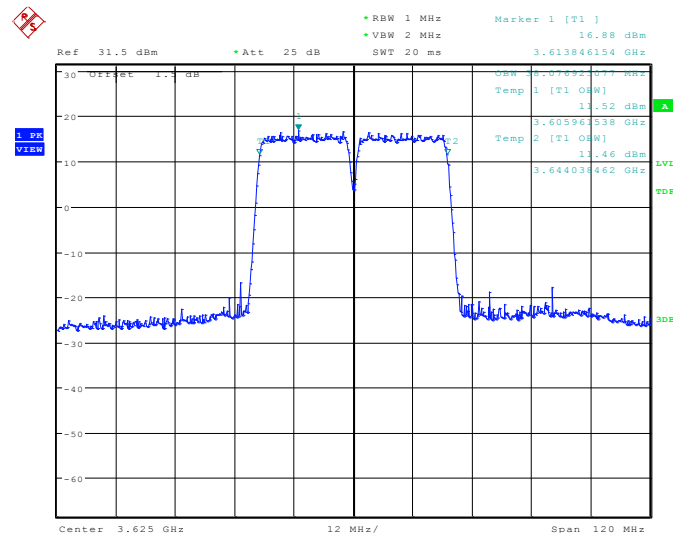
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
3625.0	38.077	38.077

LTE CA band 48C , 20MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 17:39:44

LTE CA band 48C , 20MHz+20MHz Bandwidth,16QAM (99% BW)

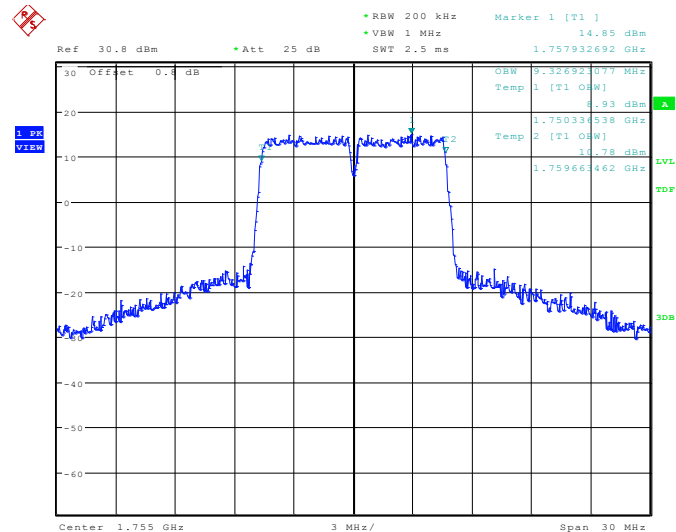


Date: 9.OCT.2023 17:40:05

LTE CA band 66B, 5MHz+5MHz(99%)

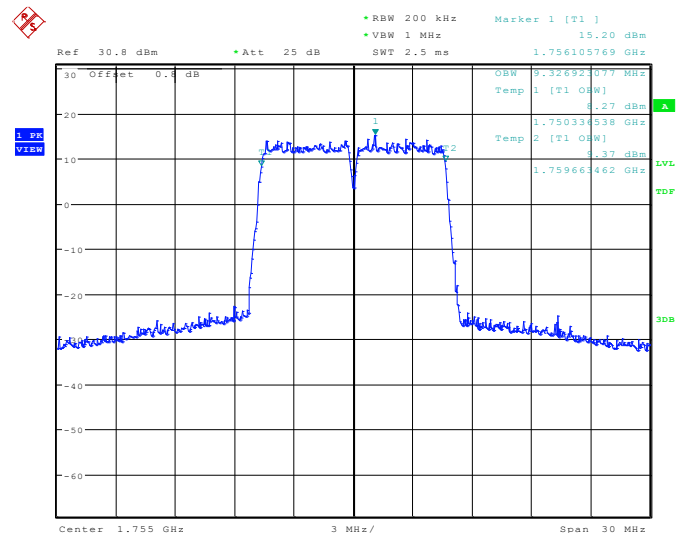
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	9.327	9.327

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



Date: 9.OCT.2023 14:52:33

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

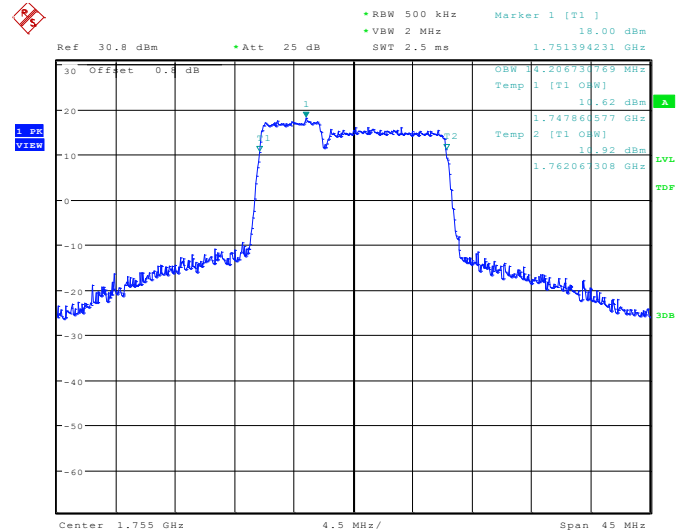


Date: 9.OCT.2023 14:53:10

LTE CA band 66B, 5MHz+10MHz(99%)

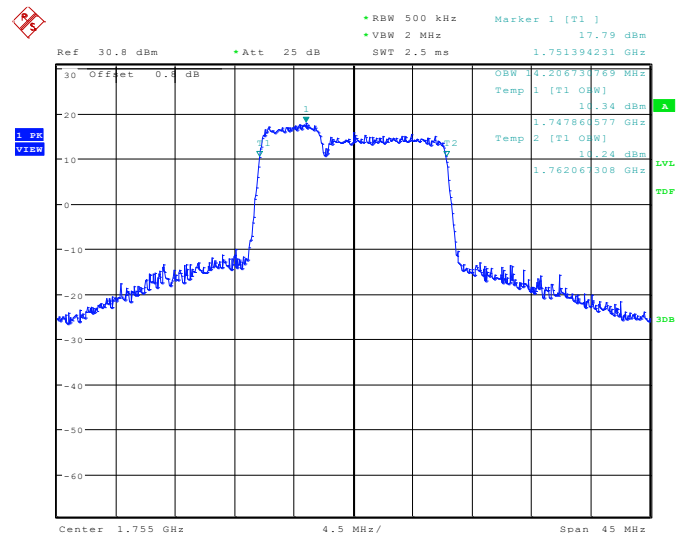
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	14.207	14.207

LTE CA band 66B , 5MHz+10MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 14:54:07

LTE CA band 66B , 5MHz+10MHz Bandwidth,16QAM (99% BW)

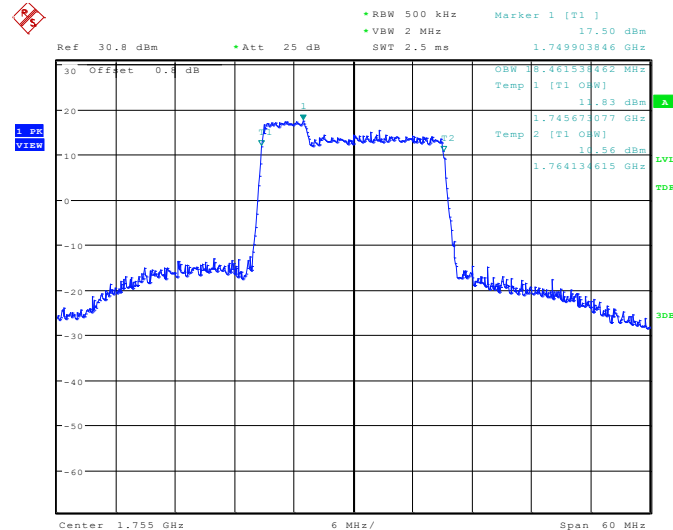


Date: 9.OCT.2023 14:54:30

LTE CA band 66B, 5MHz+15MHz(99%)

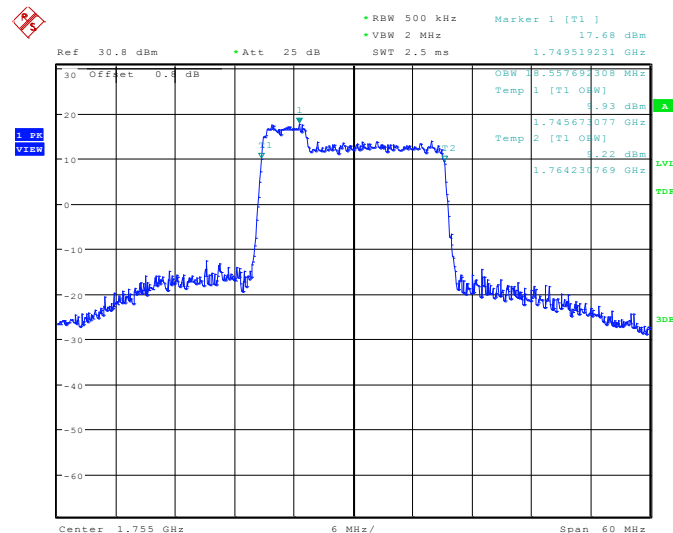
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	18.462	18.558

LTE CA band 66B , 5MHz+15MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 14:55:27

LTE CA band 66B , 5MHz+15MHz Bandwidth,16QAM (99% BW)

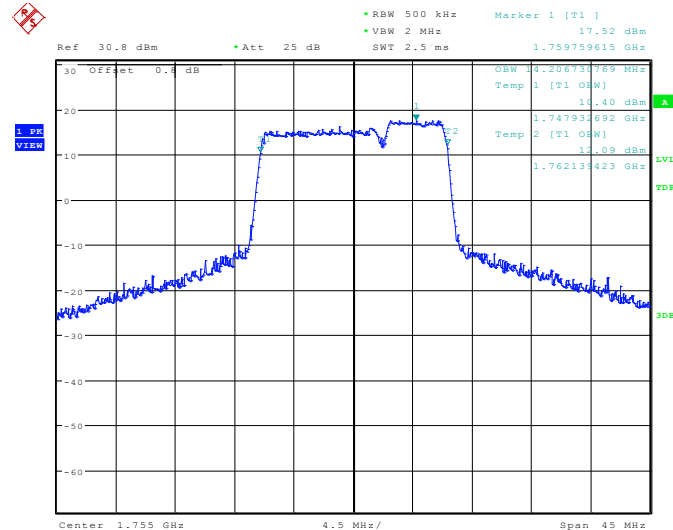


Date: 9.OCT.2023 14:55:50

LTE CA band 66B, 10MHz+5MHz(99%)

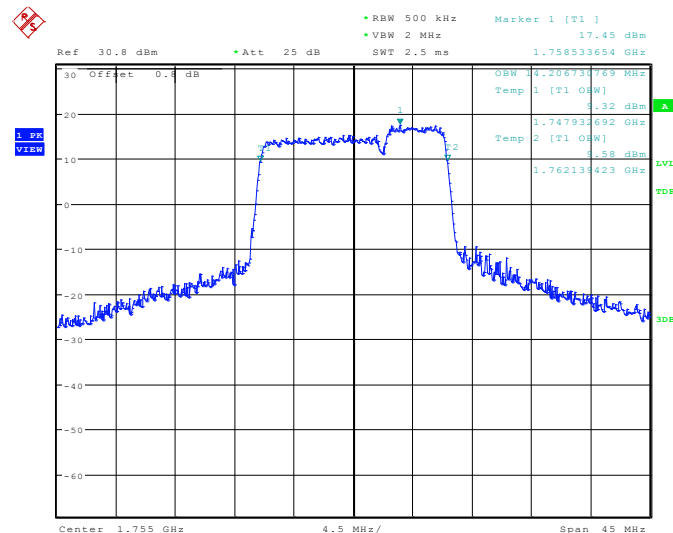
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	14.207	14.207

LTE CA band 66B , 10MHz+5MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 14:56:51

LTE CA band 66B , 10MHz+5MHz Bandwidth,16QAM (99% BW)

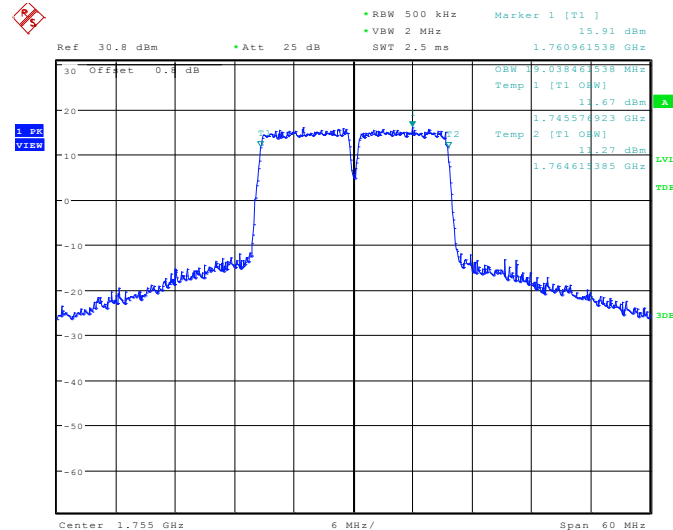


Date: 9.OCT.2023 14:57:15

LTE CA band 66B, 10MHz+10MHz(99%)

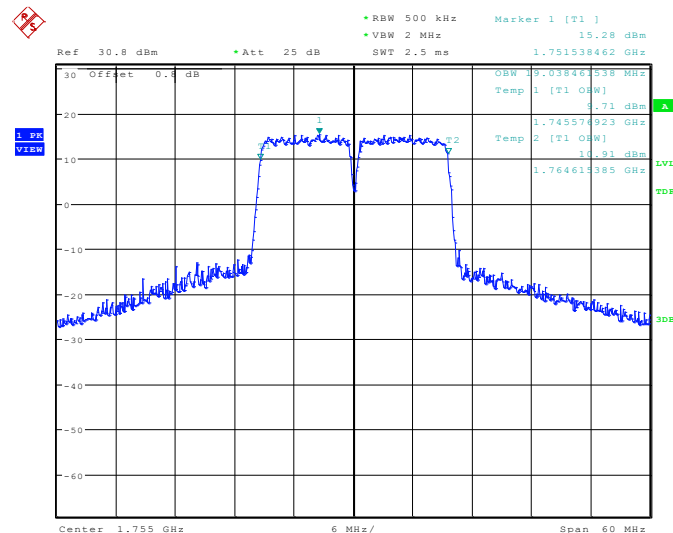
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	19.038	19.038

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



Date: 9.OCT.2023 14:58:11

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

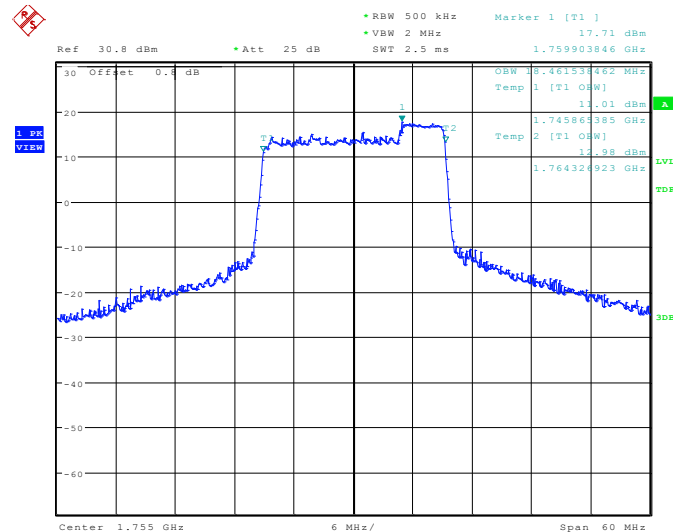


Date: 9.OCT.2023 14:58:34

LTE CA band 66B, 15MHz+5MHz(99%)

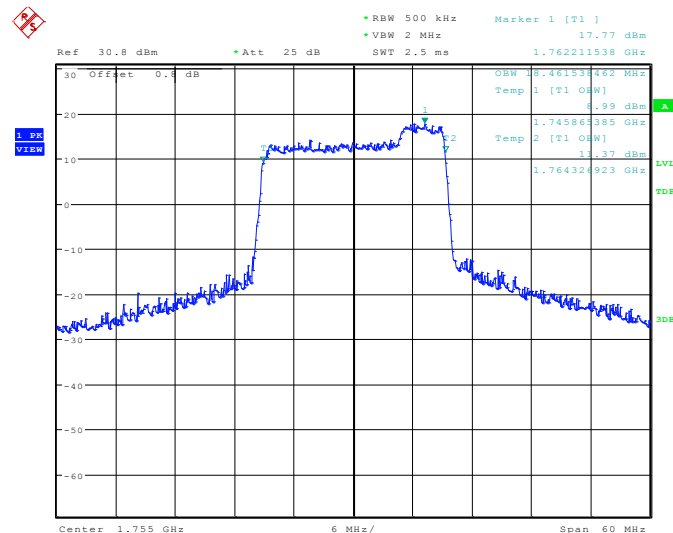
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	18.462	18.462

LTE CA band 66B , 15MHz+5MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 14:59:32

LTE CA band 66B , 15MHz+5MHz Bandwidth,16QAM (99% BW)

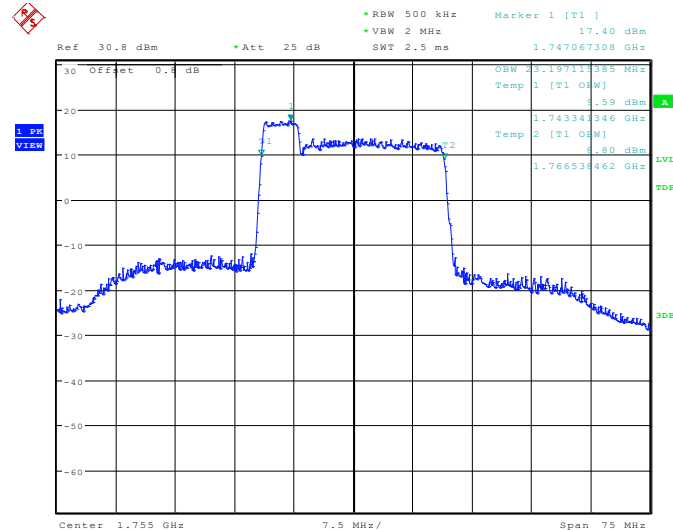


Date: 9.OCT.2023 14:59:55

LTE CA band 66C, 5MHz+20MHz(99%)

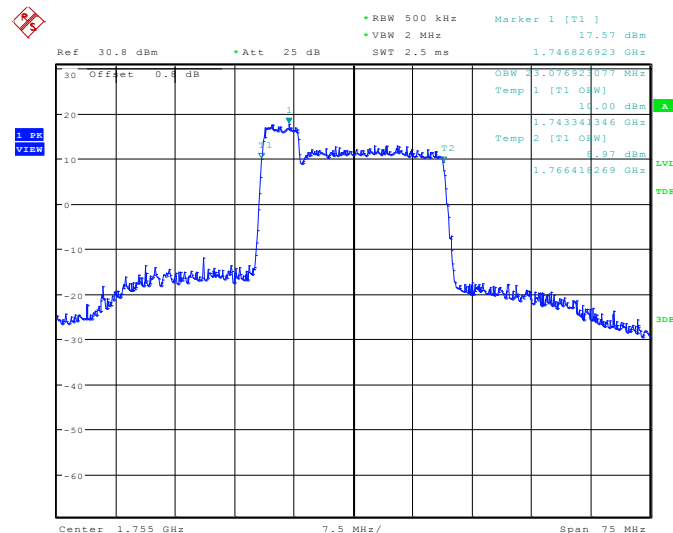
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	23.197	23.077

LTE CA band 66C , 5MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:00:57

LTE CA band 66C , 5MHz+20MHz Bandwidth,16QAM (99% BW)

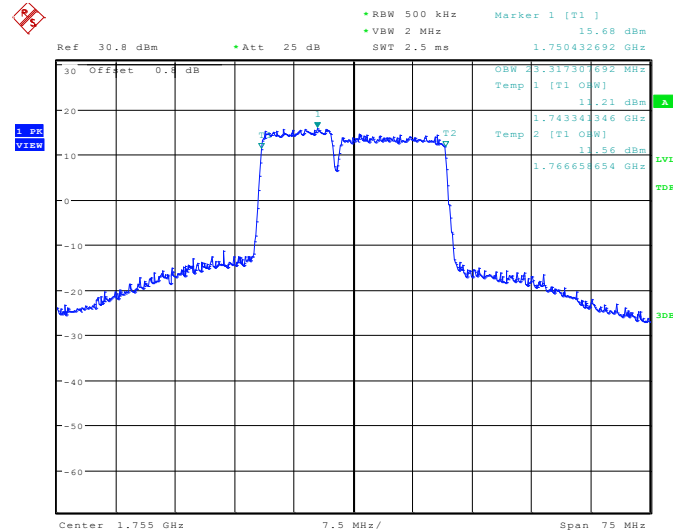


Date: 9.OCT.2023 15:01:24

LTE CA band 66C, 10MHz+15MHz(99%)

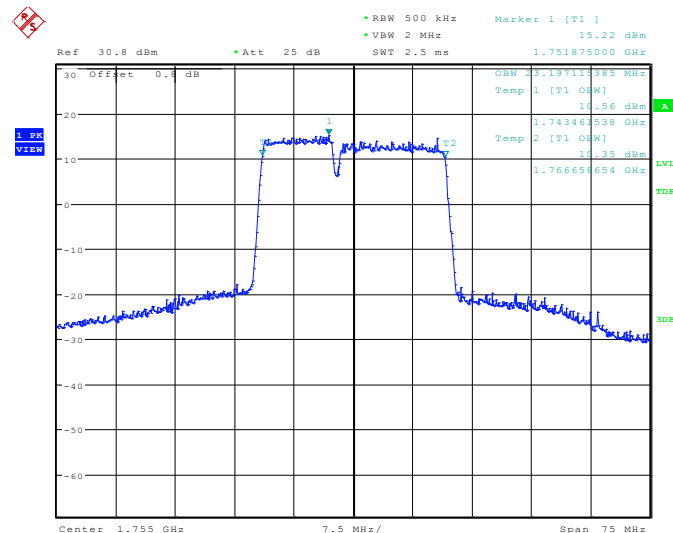
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	23.317	23.197

LTE CA band 66C , 10MHz+15MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:02:25

LTE CA band 66C , 10MHz+15MHz Bandwidth,16QAM (99% BW)

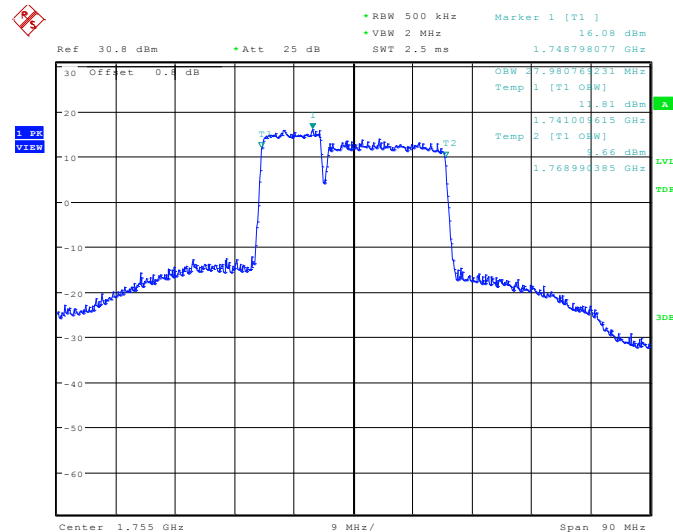


Date: 9.OCT.2023 15:02:49

LTE CA band 66C, 10MHz+20MHz(99%)

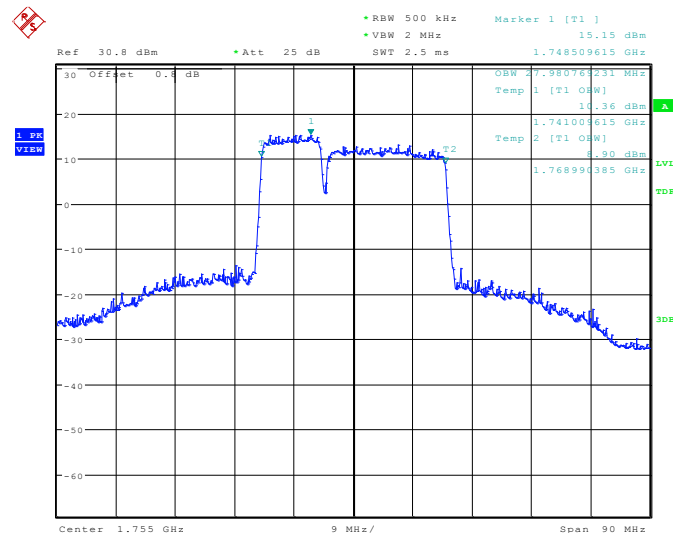
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	27.981	27.981

LTE CA band 66C , 10MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:03:45

LTE CA band 66C , 10MHz+20MHz Bandwidth,16QAM (99% BW)

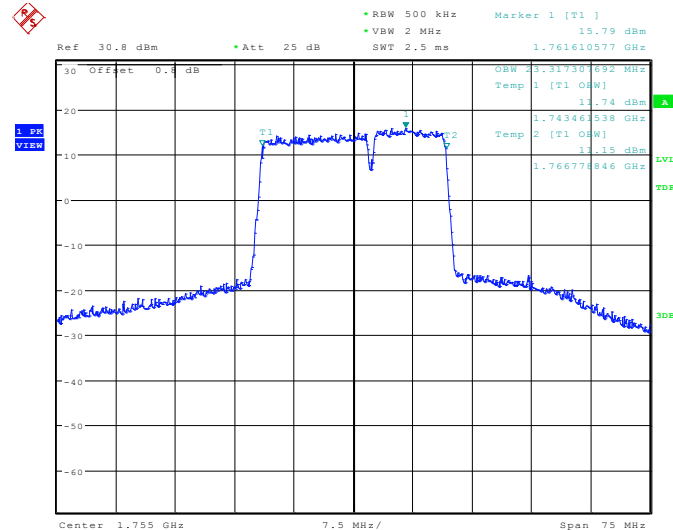


Date: 9.OCT.2023 15:04:08

LTE CA band 66C, 15MHz+10MHz(99%)

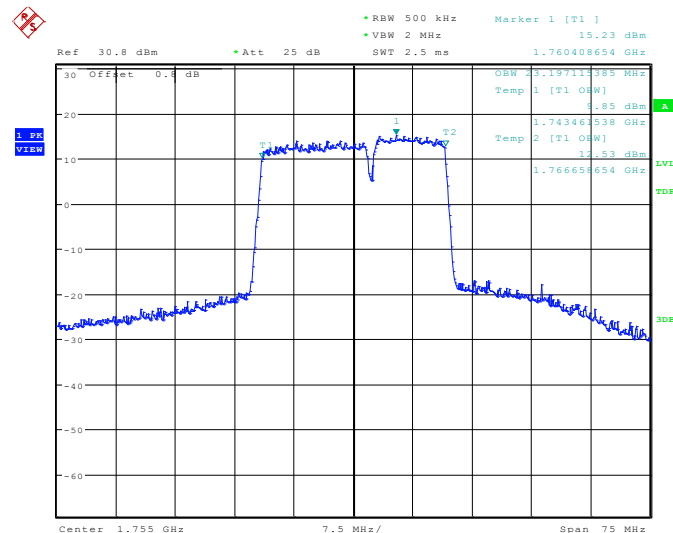
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	23.317	23.197

LTE CA band 66C , 15MHz+10MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:05:06

LTE CA band 66C , 15MHz+10MHz Bandwidth,16QAM (99% BW)

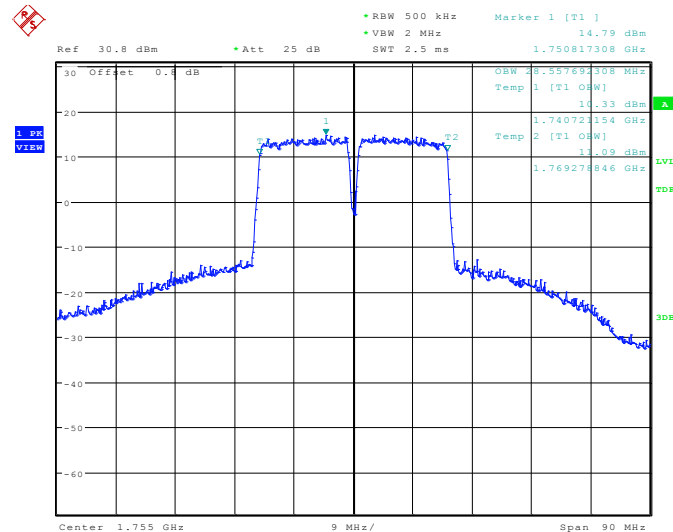


Date: 9.OCT.2023 15:05:29

LTE CA band 66C, 15MHz+15MHz(99%)

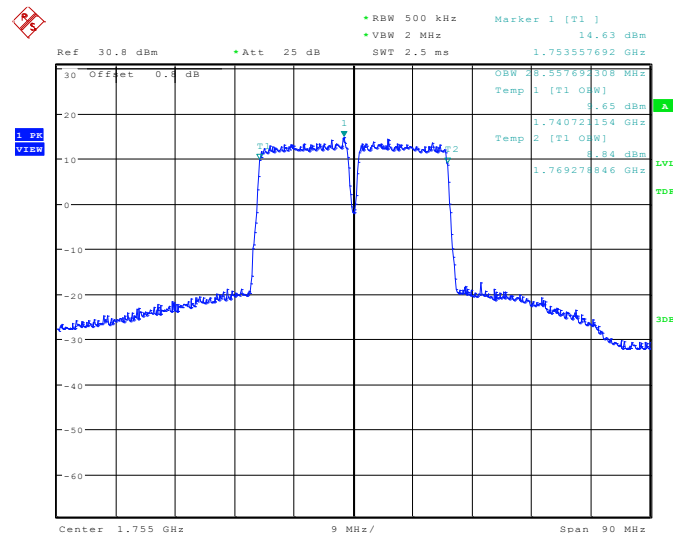
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	28.558	28.558

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



Date: 9.OCT.2023 15:06:25

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

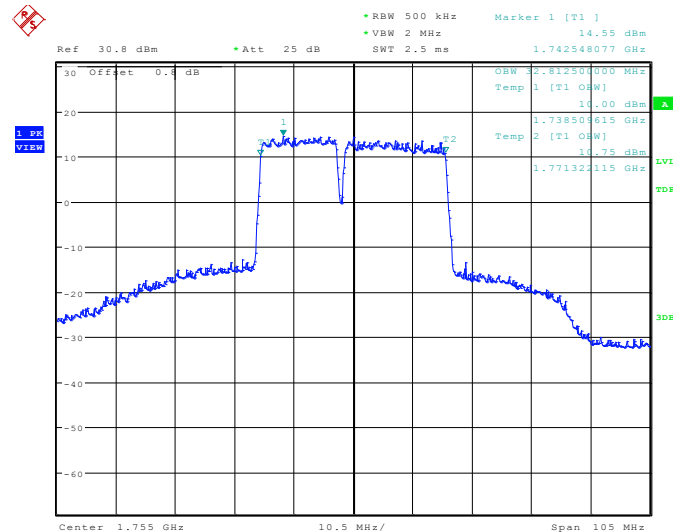


Date: 9.OCT.2023 15:06:49

LTE CA band 66C, 15MHz+20MHz(99%)

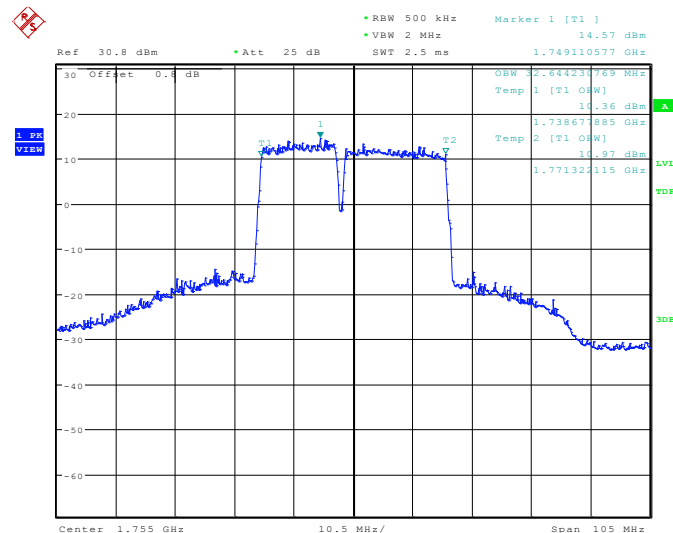
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	32.812	32.644

LTE CA band 66C , 15MHz+20MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:07:44

LTE CA band 66C , 15MHz+20MHz Bandwidth,16QAM (99% BW)

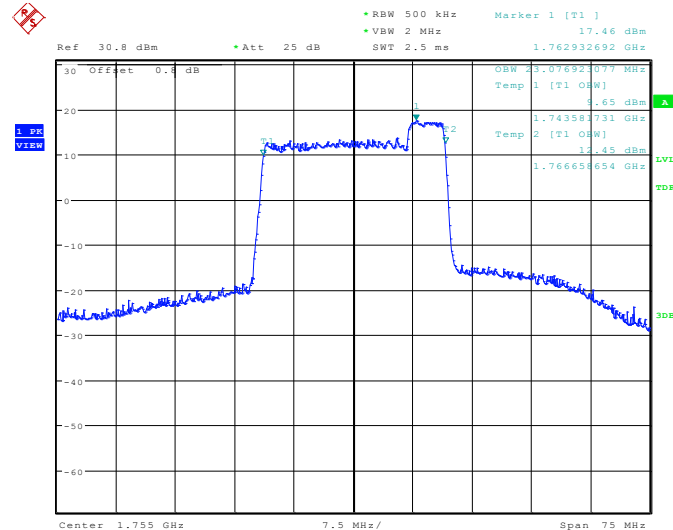


Date: 9.OCT.2023 15:08:11

LTE CA band 66C, 20MHz+5MHz(99%)

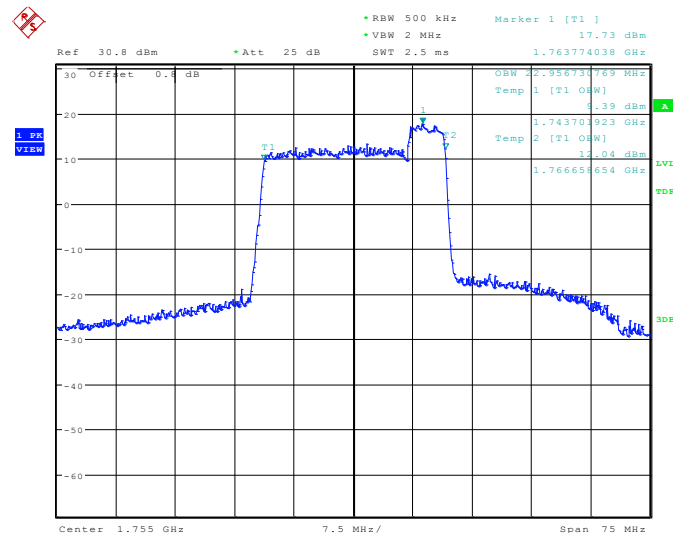
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	23.077	22.957

LTE CA band 66C , 20MHz+5MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:09:07

LTE CA band 66C , 20MHz+5MHz Bandwidth,16QAM (99% BW)

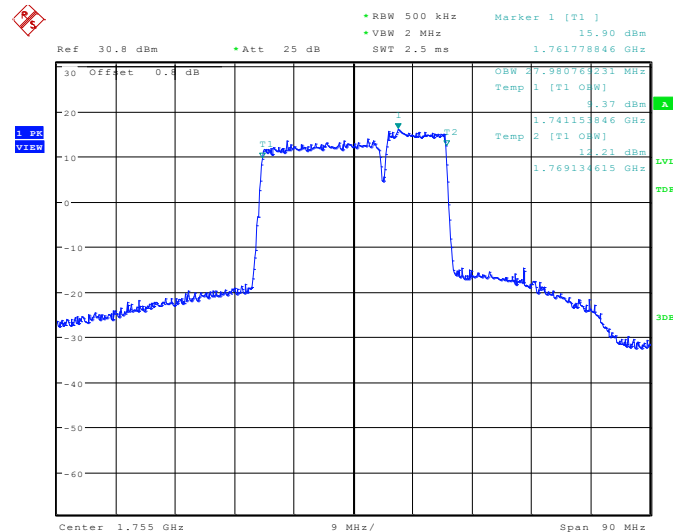


Date: 9.OCT.2023 15:09:31

LTE CA band 66C, 20MHz+10MHz(99%)

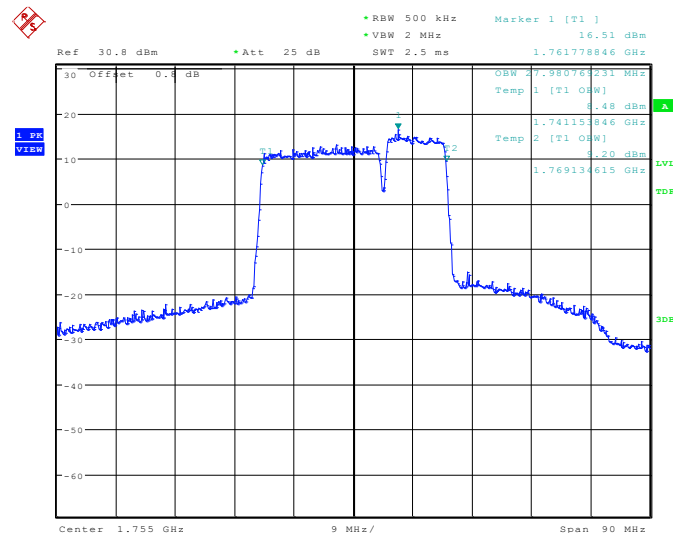
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	27.981	27.981

LTE CA band 66C , 20MHz+10MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:10:27

LTE CA band 66C , 20MHz+10MHz Bandwidth,16QAM (99% BW)

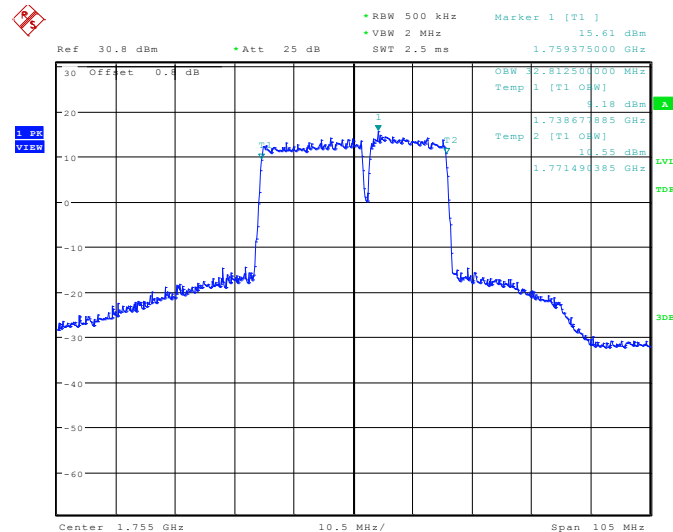


Date: 9.OCT.2023 15:10:51

LTE CA band 66C, 20MHz+15MHz(99%)

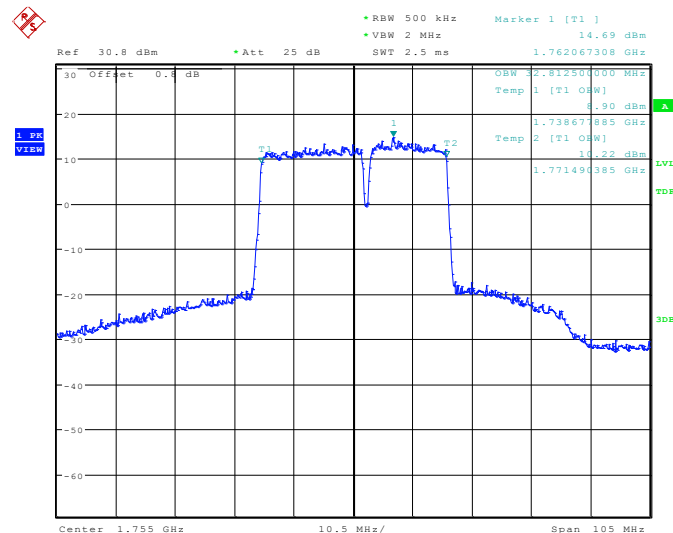
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	32.812	32.812

LTE CA band 66C , 20MHz+15MHz Bandwidth,QPSK (99% BW)



Date: 9.OCT.2023 15:11:47

LTE CA band 66C , 20MHz+15MHz Bandwidth,16QAM (99% BW)

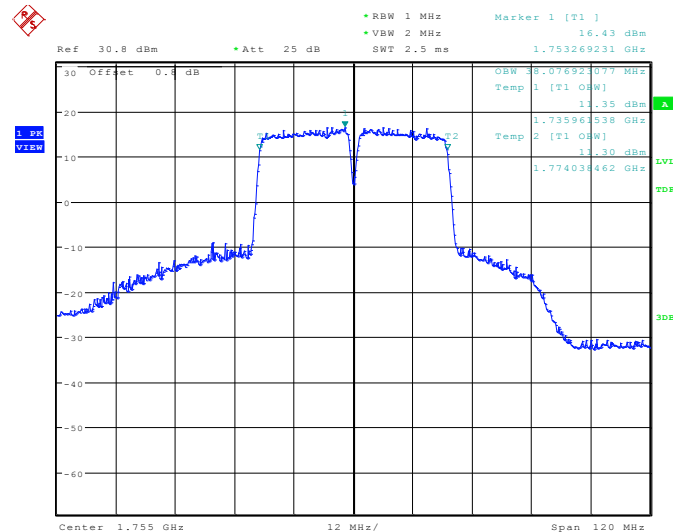


Date: 9.OCT.2023 15:12:10

LTE CA band 66C, 20MHz+20MHz(99%)

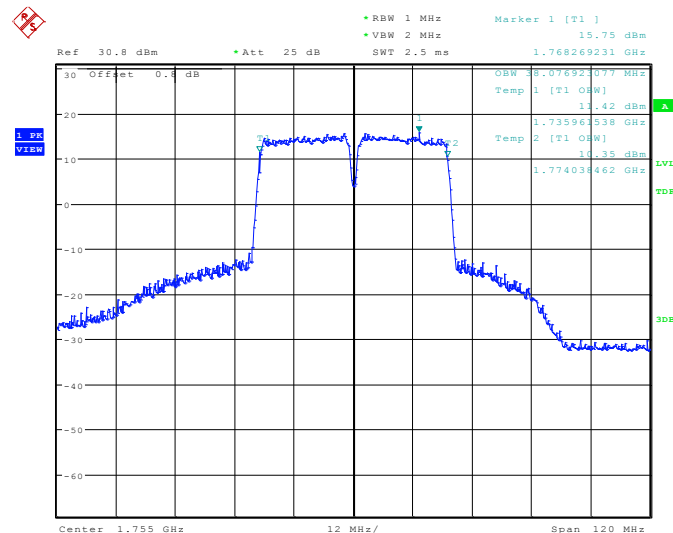
Frequency (MHz)	Occupied Bandwidth (99%) (MHz)	
	QPSK	16QAM
1755.0	38.077	38.077

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



Date: 9.OCT.2023 15:13:06

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



Date: 9.OCT.2023 15:13:30

Note: Expanded measurement uncertainty is $U = 3428 \text{ Hz}$, $k = 2$.

A.5 Emission Bandwidth

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Table below lists the measured -26dBc BW. Spectrum analyzer plots are included on the following pages.

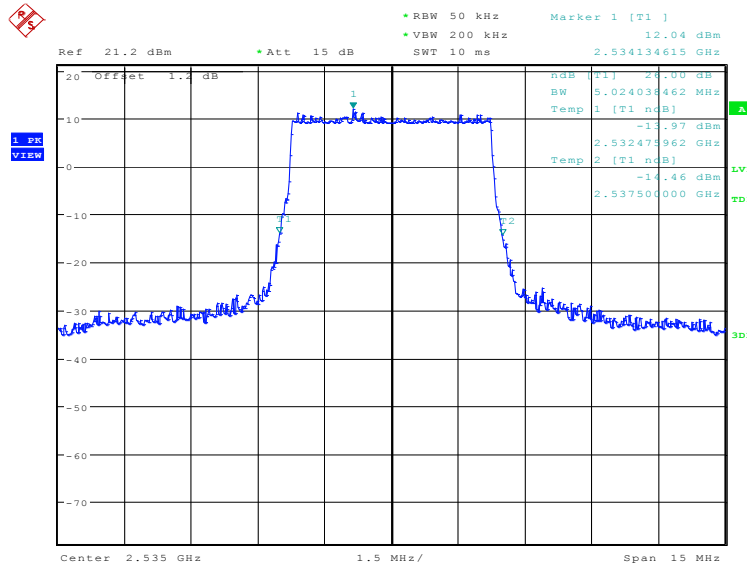
The measurement method is from ANSI C63.26:

- a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
- d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

LTE band 7, 5MHz (-26dBc)

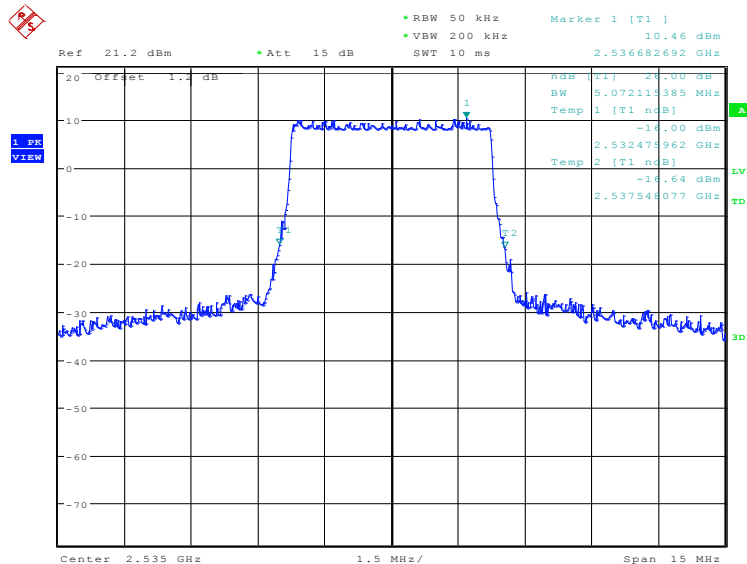
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	5024.04	5072.12

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



Date: 9.OCT.2023 08:33:27

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

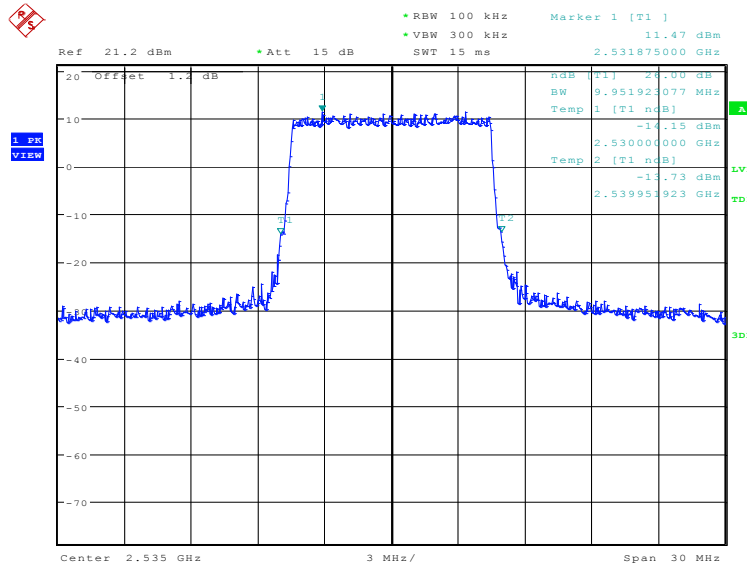


Date: 9.OCT.2023 08:34:08

LTE band 7, 10MHz (-26dBc)

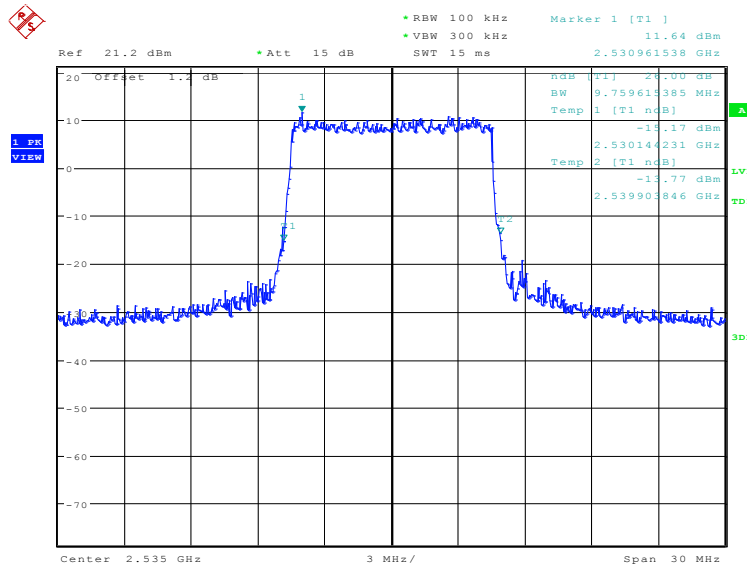
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	9951.92	9759.62

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



Date: 9.OCT.2023 08:34:52

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

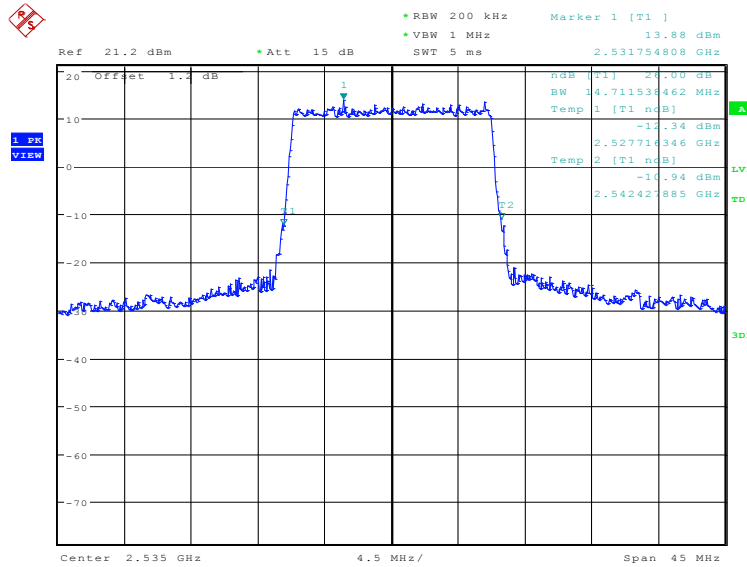


Date: 9.OCT.2023 08:35:32

LTE band 7, 15MHz (-26dBc)

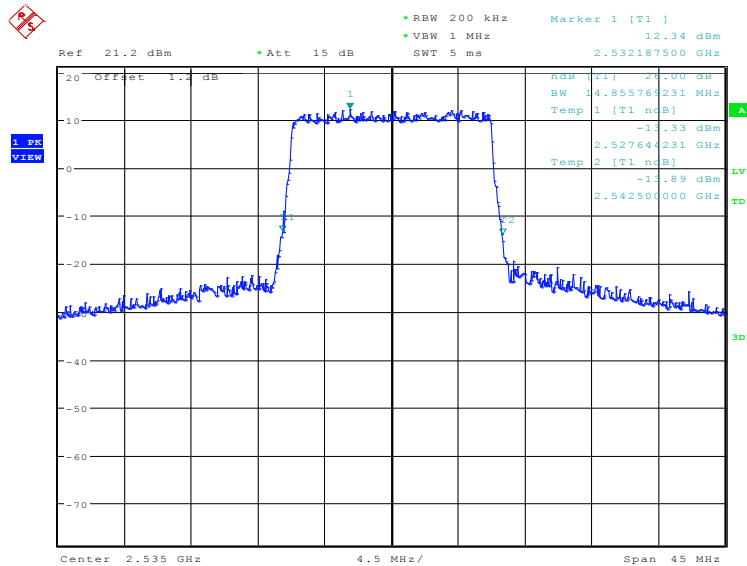
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	14711.54	14855.77

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



Date: 9.OCT.2023 08:36:16

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

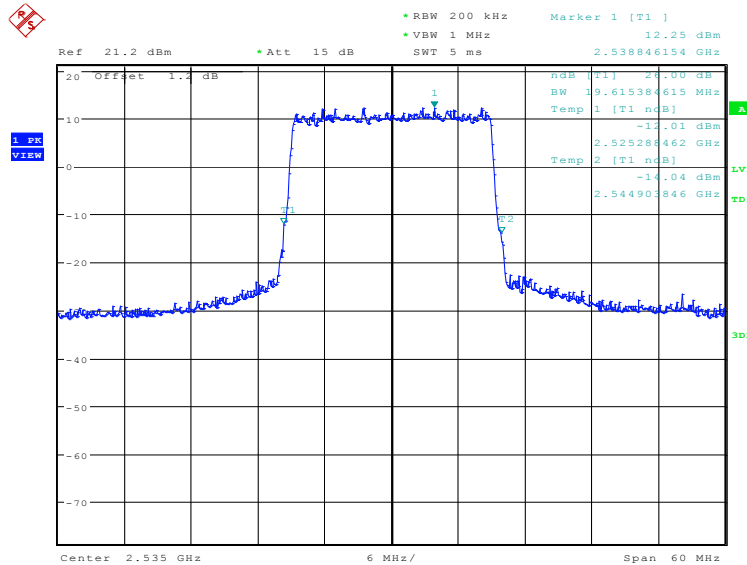


Date: 9.OCT.2023 08:36:56

LTE band 7, 20MHz (-26dBc)

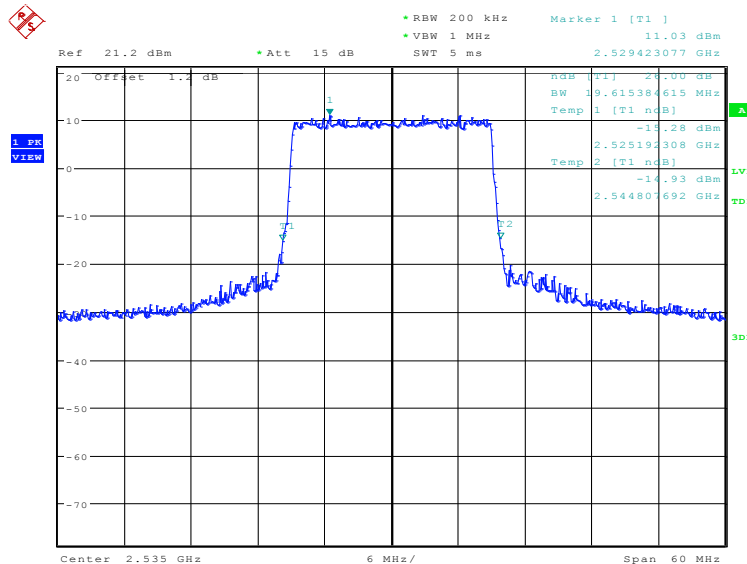
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
2535.0	QPSK	16QAM
	19615.38	19615.38

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



Date: 9.OCT.2023 08:37:39

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

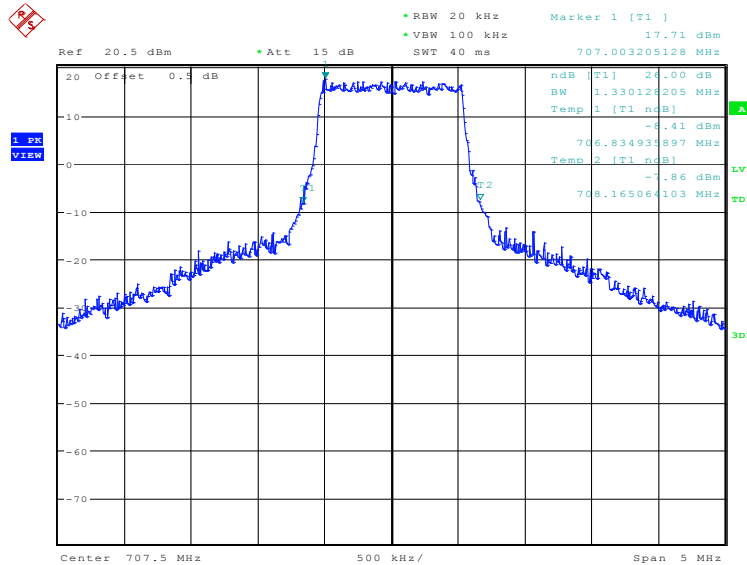


Date: 9.OCT.2023 08:38:20

LTE band 12, 1.4MHz (-26dBc)

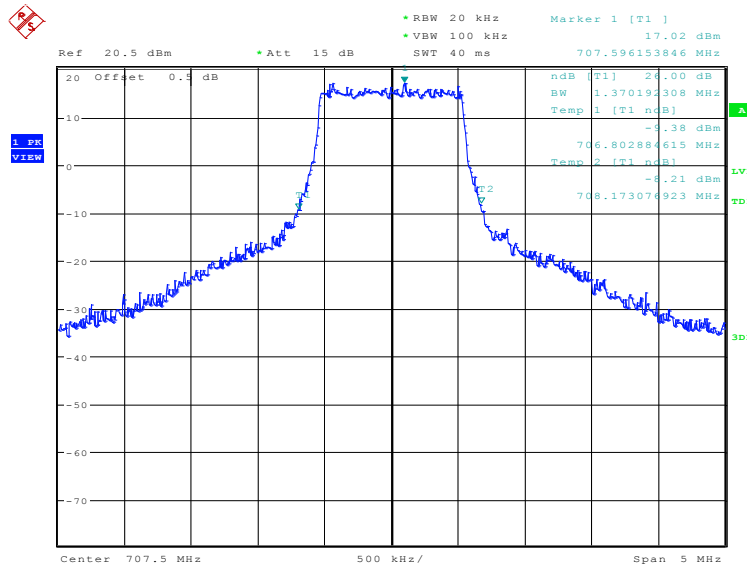
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	1330.13	1370.19

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



Date: 8.OCT.2023 17:26:21

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

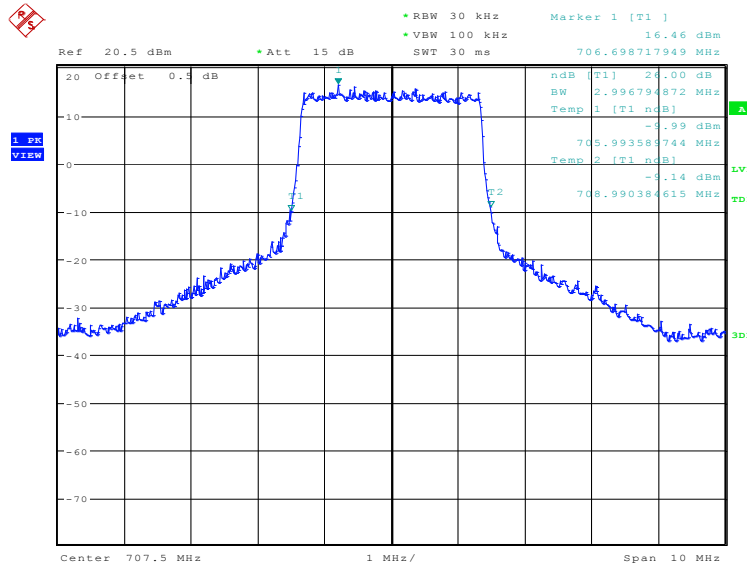


Date: 8.OCT.2023 17:27:01

LTE band 12, 3MHz (-26dBc)

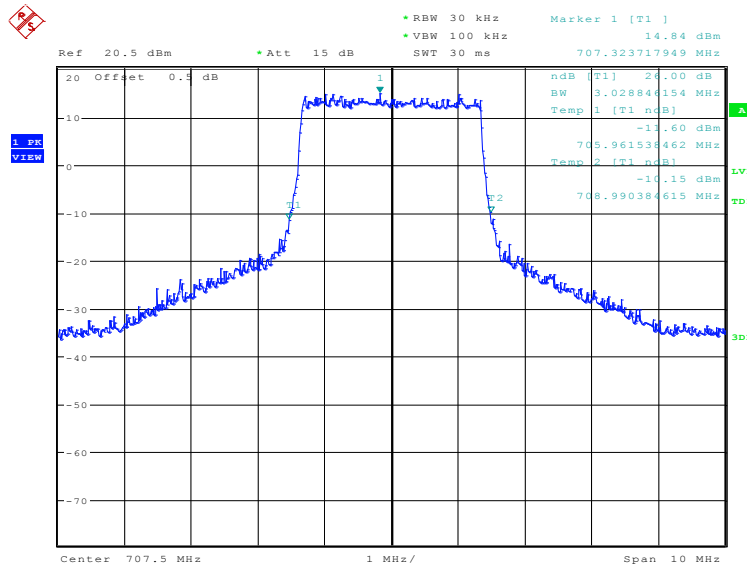
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	2996.79	3028.85

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



Date: 8.OCT.2023 17:27:45

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

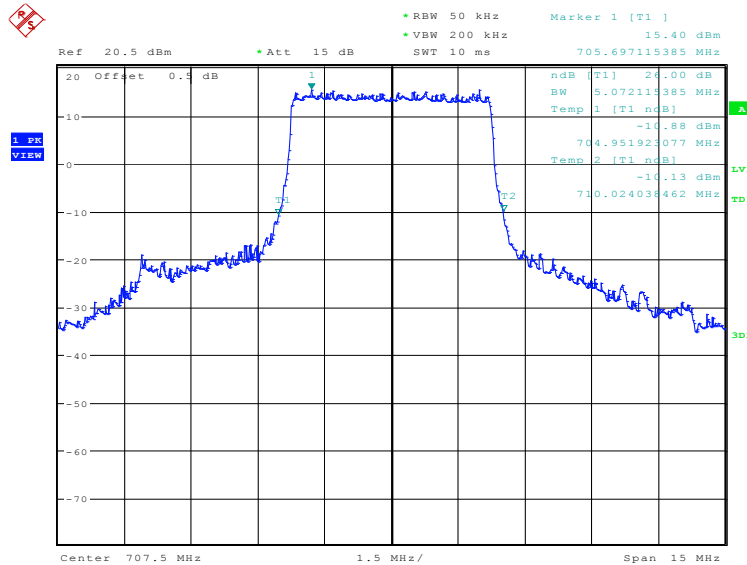


Date: 8.OCT.2023 17:28:25

LTE band 12, 5MHz (-26dBc)

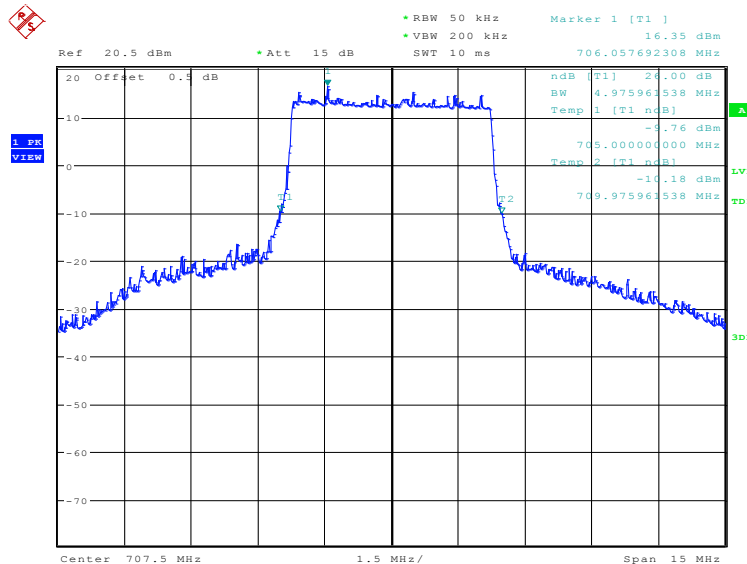
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	5072.12	4975.96

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



Date: 8.OCT.2023 17:29:09

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

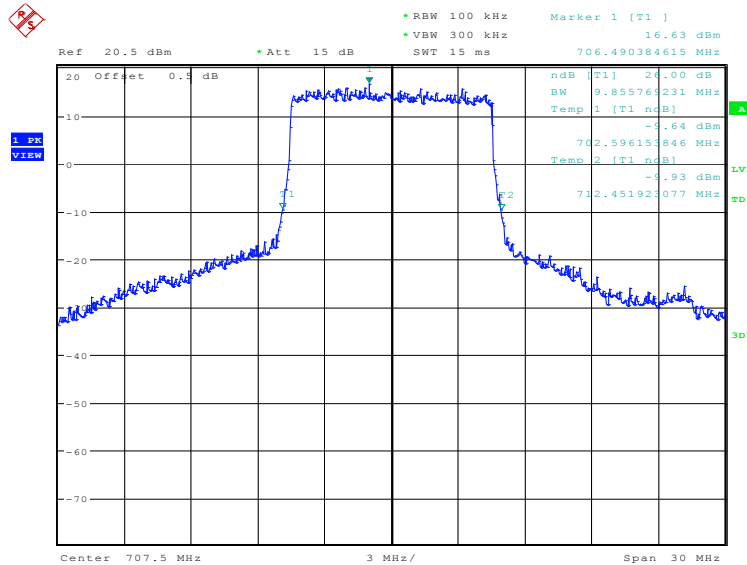


Date: 8.OCT.2023 17:29:50

LTE band 12, 10MHz (-26dBc)

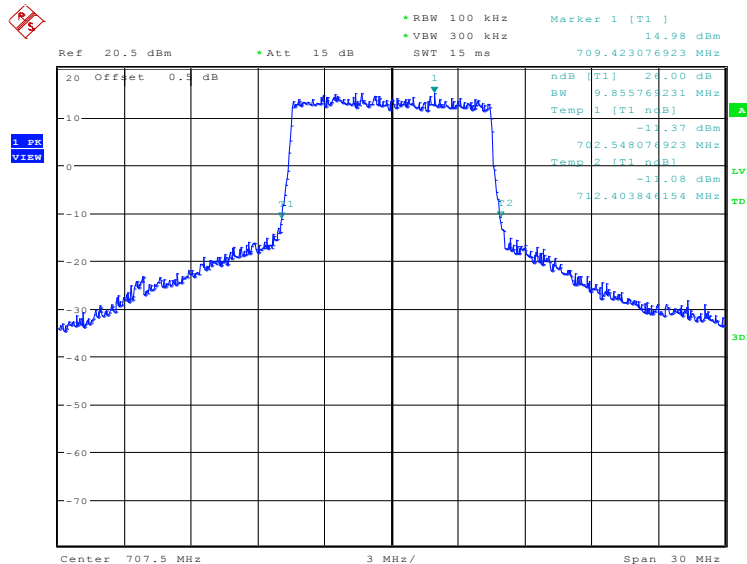
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
707.5	QPSK	16QAM
	9855.77	9855.77

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



Date: 8.OCT.2023 17:30:34

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

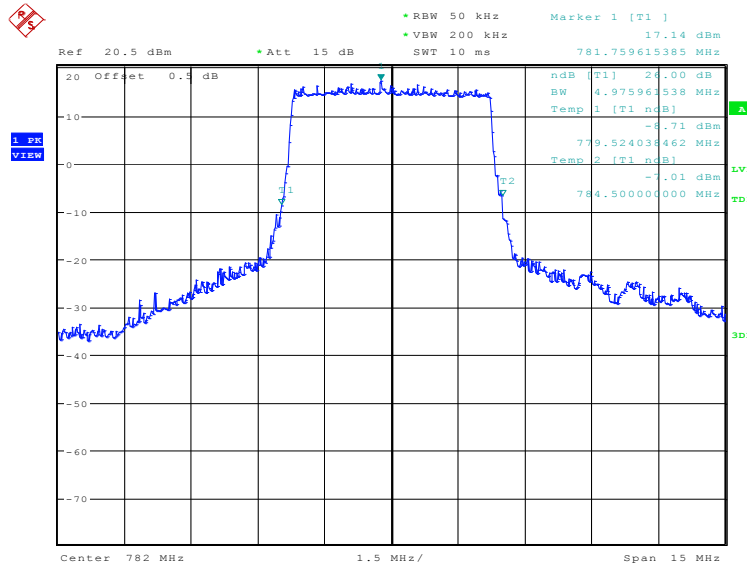


Date: 8.OCT.2023 17:31:15

LTE band 13, 5MHz (-26dBc)

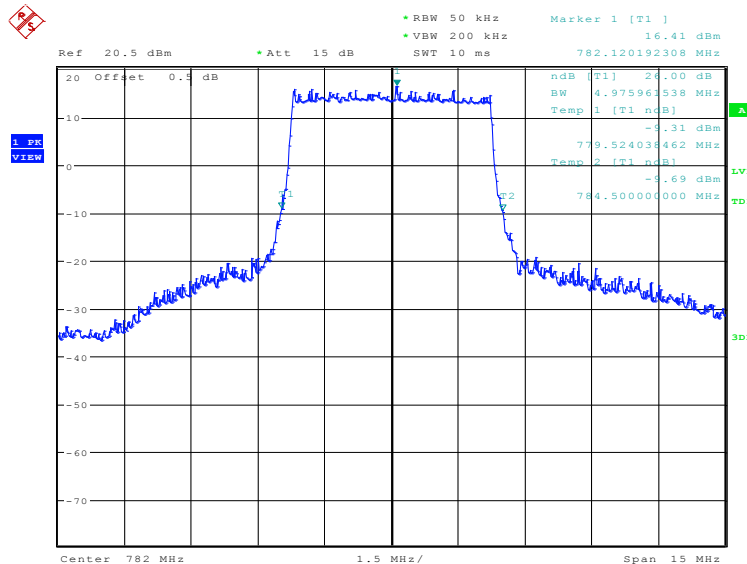
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
782.0	QPSK	16QAM
	4975.96	4975.96

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



Date: 8.OCT.2023 17:32:01

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

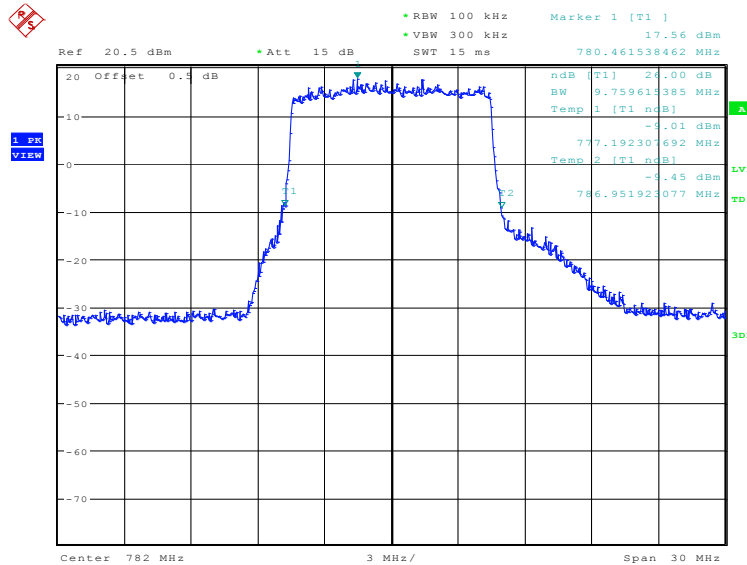


Date: 8.OCT.2023 17:32:42

LTE band 13, 10MHz (-26dBc)

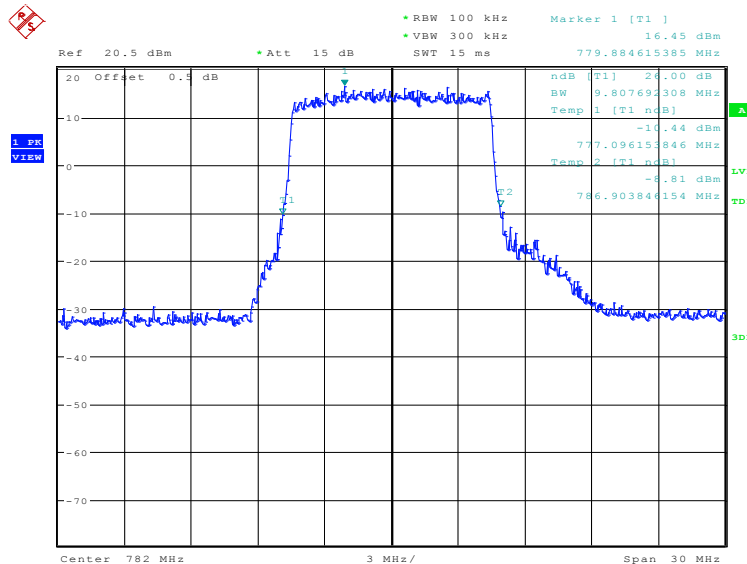
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
782.0	QPSK	16QAM
	9759.62	9807.69

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



Date: 8.OCT.2023 17:33:26

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

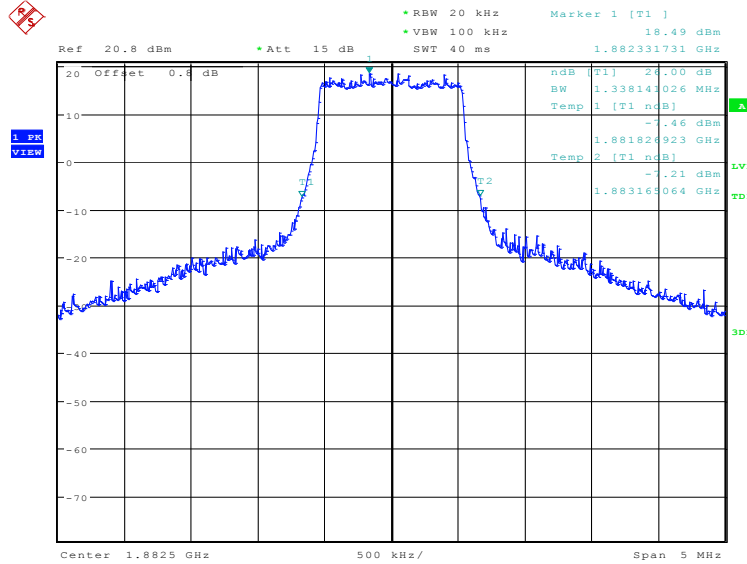


Date: 8.OCT.2023 17:34:07

LTE band 25, 1.4MHz (-26dBc)

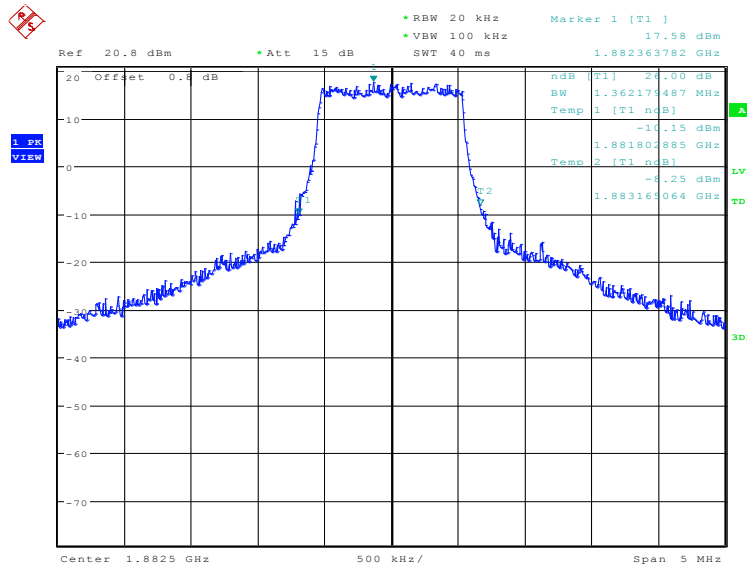
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1882.5	QPSK	16QAM
	1338.14	1362.18

LTE band 25, 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 9.OCT.2023 09:34:09

LTE band 25, 1.4MHz Bandwidth, 16QAM (-26dBc BW)

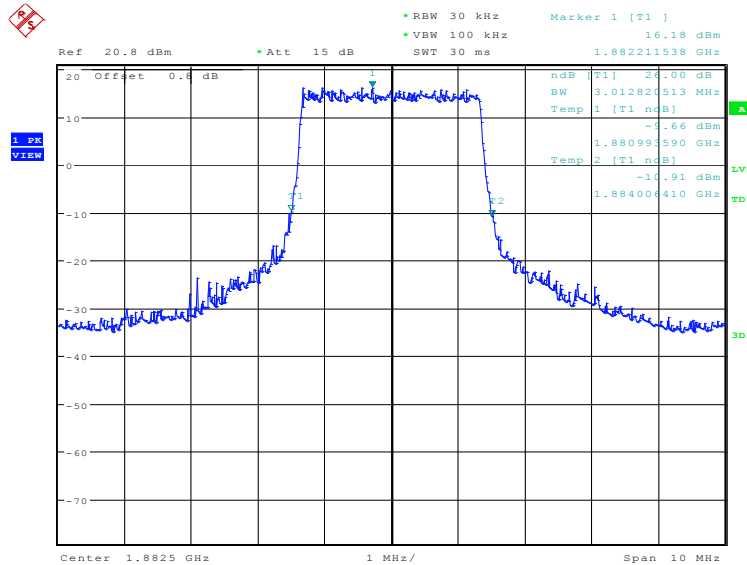


Date: 9.OCT.2023 09:34:50

LTE band 25, 3MHz (-26dBc)

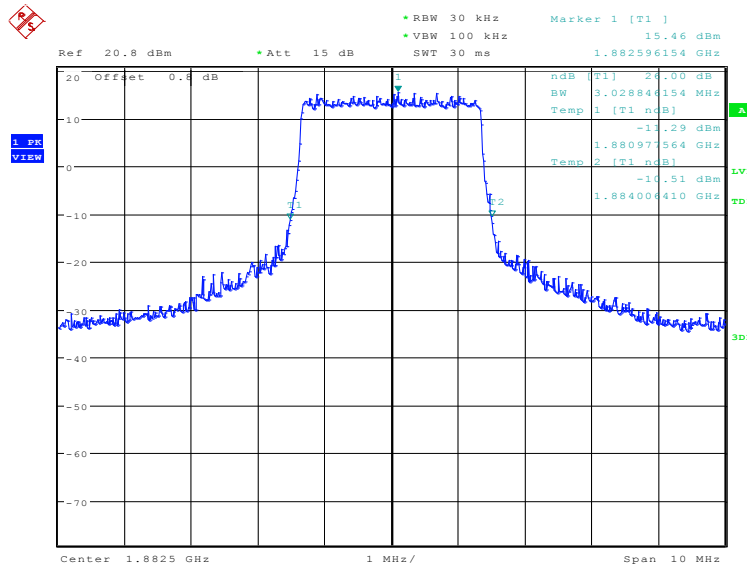
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1882.5	QPSK	16QAM
	3012.82	3028.85

LTE band 25, 3MHz Bandwidth, QPSK (-26dBc BW)



Date: 9.OCT.2023 09:35:33

LTE band 25, 3MHz Bandwidth, 16QAM (-26dBc BW)

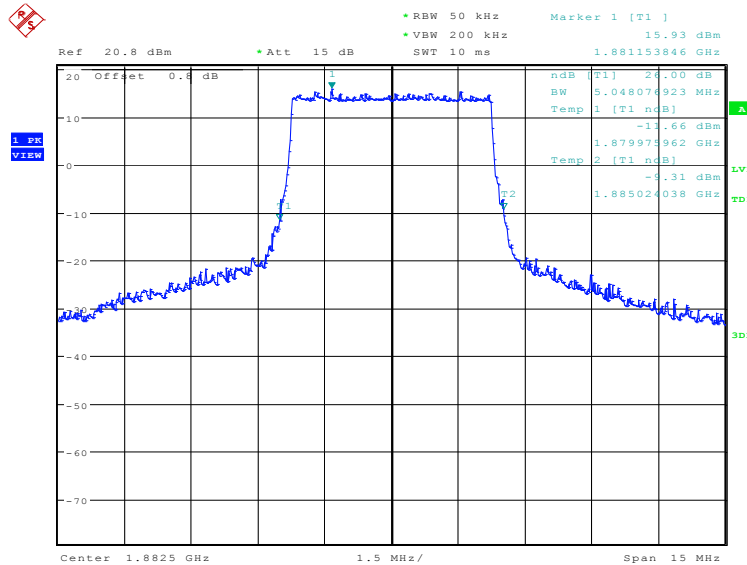


Date: 9.OCT.2023 09:36:14

LTE band 25, 5MHz (-26dBc)

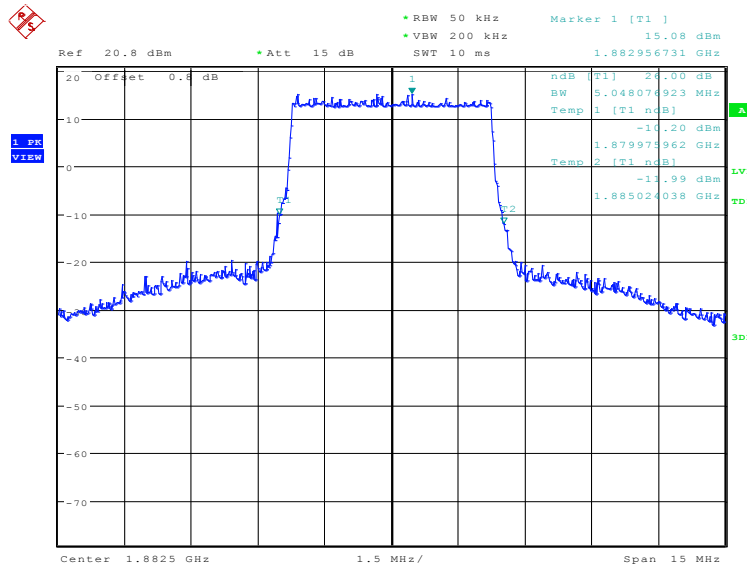
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1882.5	QPSK	16QAM
	5048.08	5048.08

LTE band 25, 5MHz Bandwidth, QPSK (-26dBc BW)



Date: 9.OCT.2023 09:36:58

LTE band 25, 5MHz Bandwidth, 16QAM (-26dBc BW)

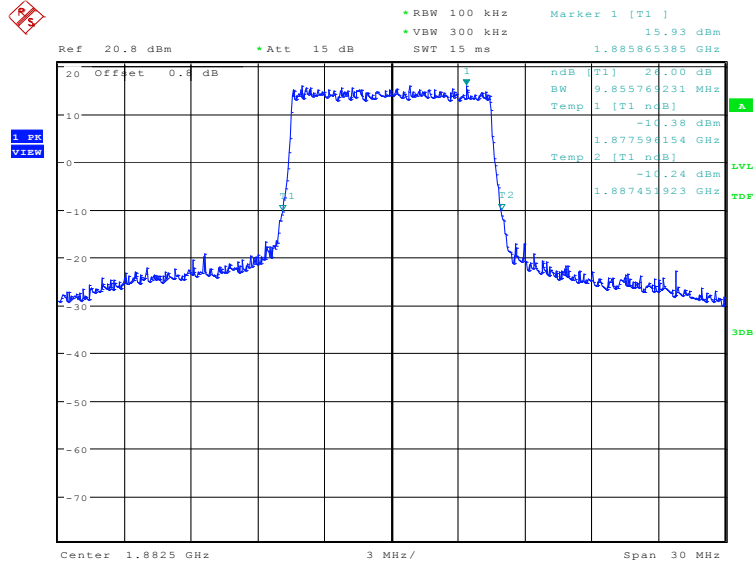


Date: 9.OCT.2023 09:37:38

LTE band 25, 10MHz (-26dBc)

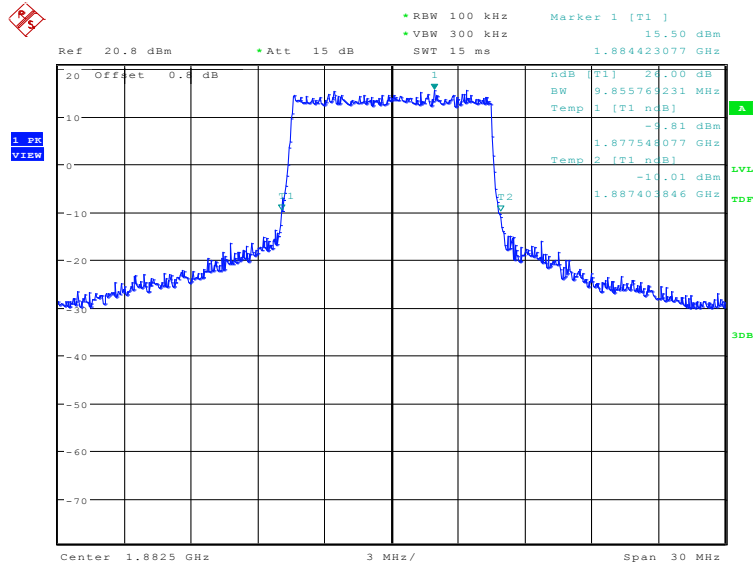
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1882.5	QPSK	16QAM
	9855.77	9855.77

LTE band 25, 10MHz Bandwidth, QPSK (-26dBc BW)



Date: 9.OCT.2023 09:38:22

LTE band 25, 10MHz Bandwidth, 16QAM (-26dBc BW)

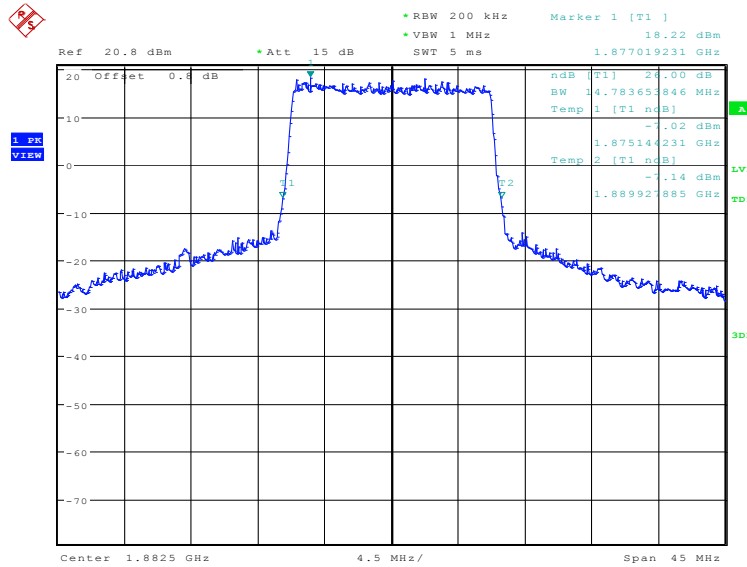


Date: 9.OCT.2023 09:39:02

LTE band 25, 15MHz (-26dBc)

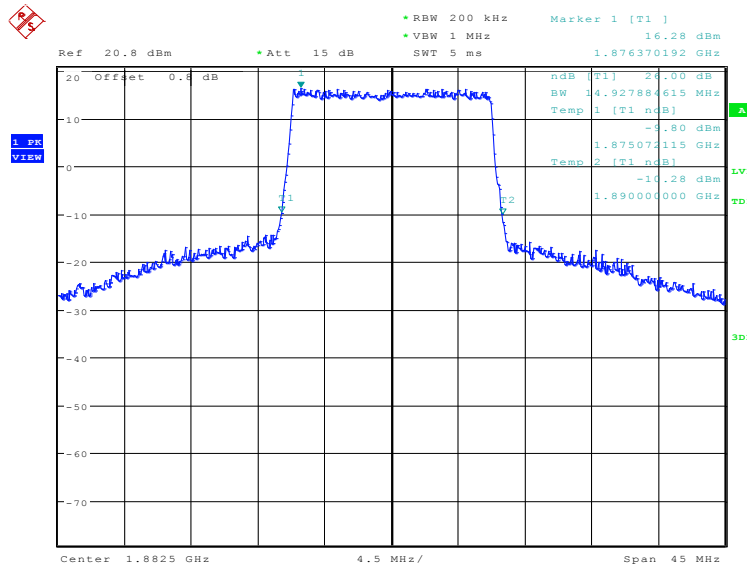
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1882.5	QPSK	16QAM
	14783.65	14927.88

LTE band 25, 15MHz Bandwidth, QPSK (-26dBc BW)



Date: 9.OCT.2023 09:39:46

LTE band 25, 15MHz Bandwidth, 16QAM (-26dBc BW)

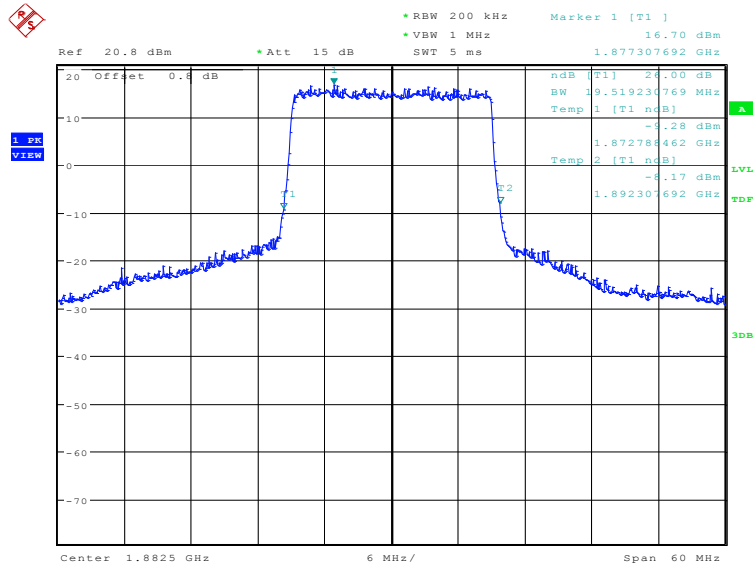


Date: 9.OCT.2023 09:40:27

LTE band 25, 20MHz (-26dBc)

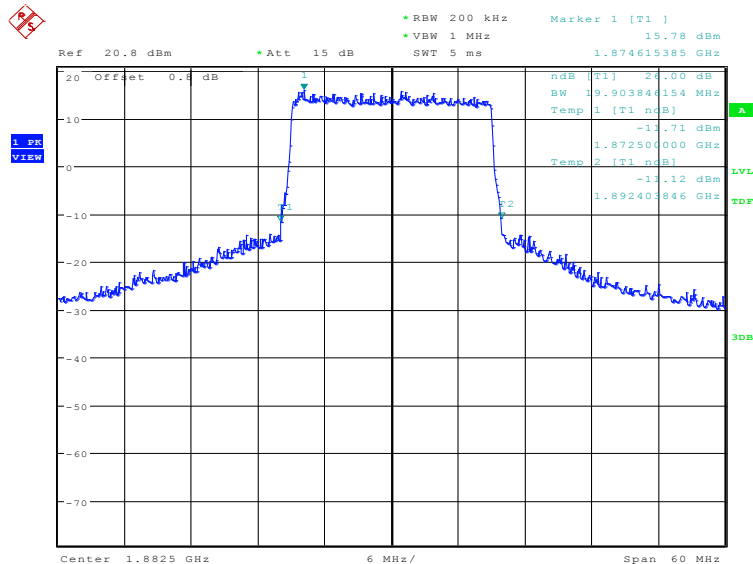
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
1882.5	QPSK	16QAM
	19519.23	19903.85

LTE band 25, 20MHz Bandwidth, QPSK (-26dBc BW)



Date: 9.OCT.2023 09:41:11

LTE band 25, 20MHz Bandwidth, 16QAM (-26dBc BW)

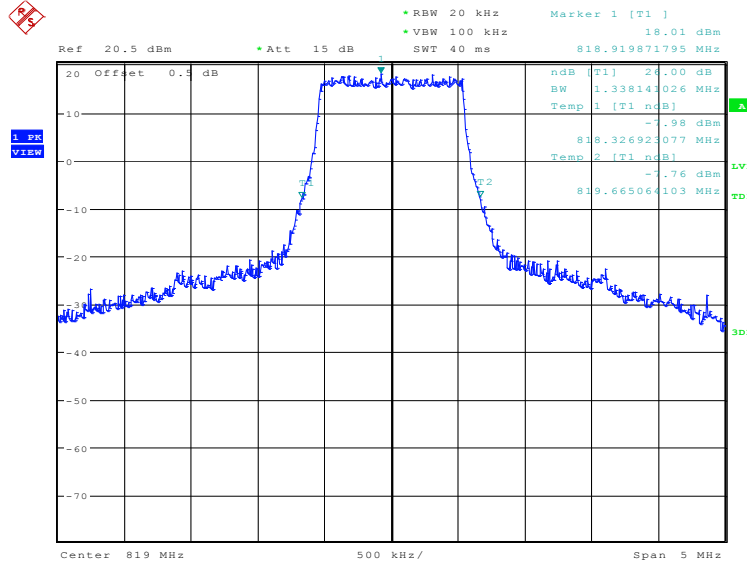


Date: 9.OCT.2023 09:41:51

LTE band 26(814MHz~824MHz), 1.4MHz (-26dBc)

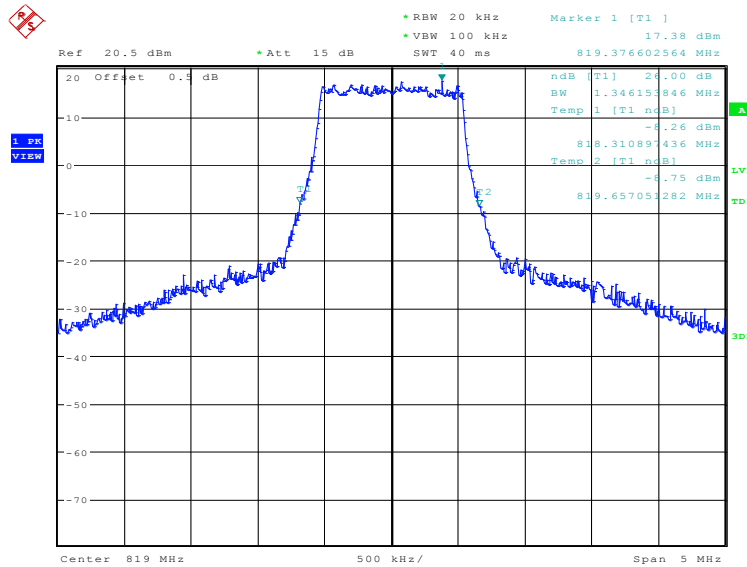
Frequency(MHz)	Emission Bandwidth (-26dBc)(kHz)	
819.0	QPSK	16QAM
	1338.14	1346.15

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, QPSK (-26dBc BW)



Date: 8.OCT.2023 17:42:54

LTE band 26(814MHz~824MHz), 1.4MHz Bandwidth, 16QAM (-26dBc BW)



Date: 8.OCT.2023 17:43:34