

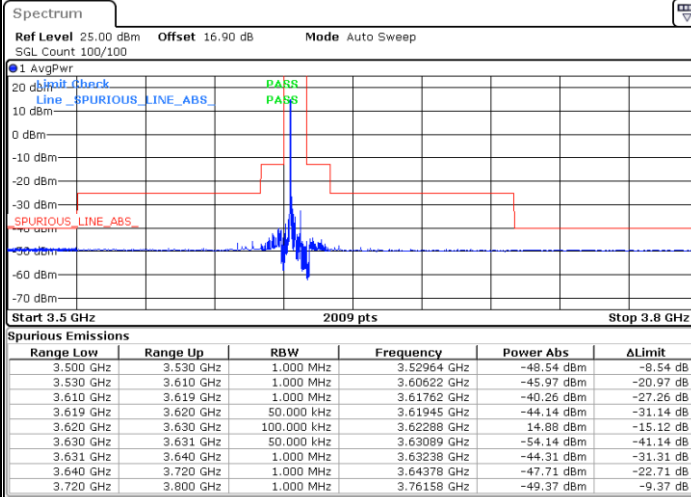


LTE Band 48 / 5MHz

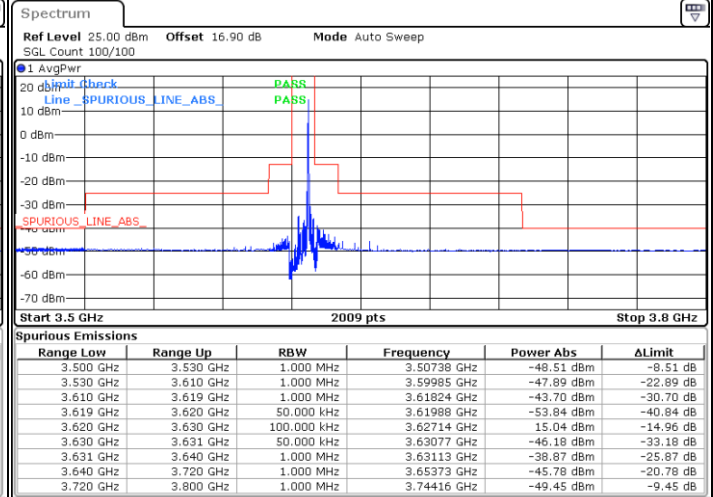
256QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



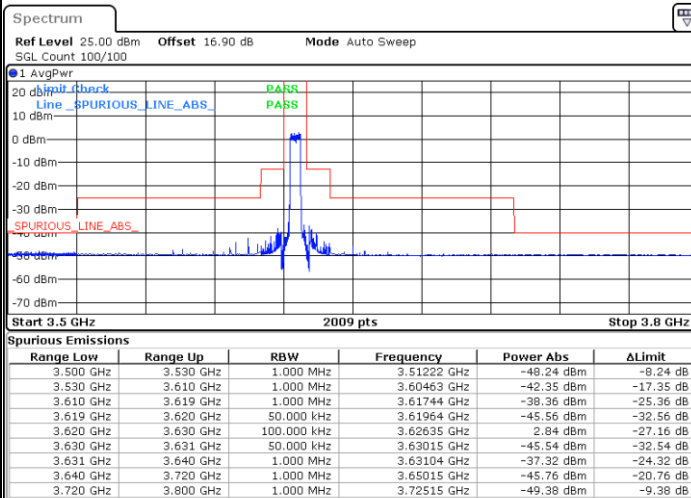
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Date: 13.DEC.2024 12:16:16

Middle Channel / FullRB

N/A



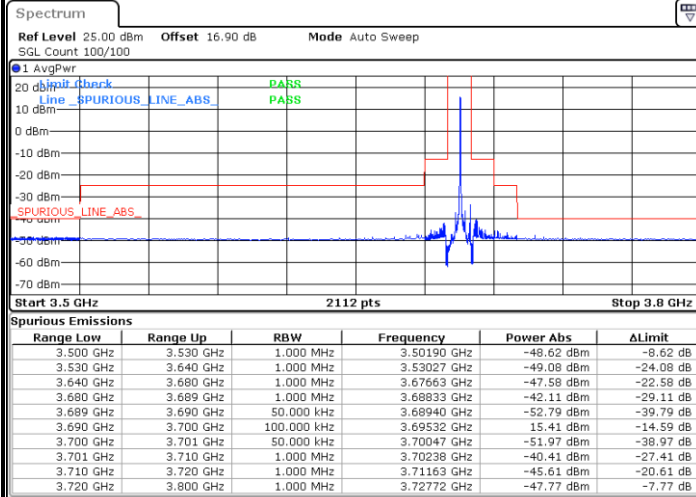
Date: 13.DEC.2024 12:03:23



LTE Band 48 / 5MHz

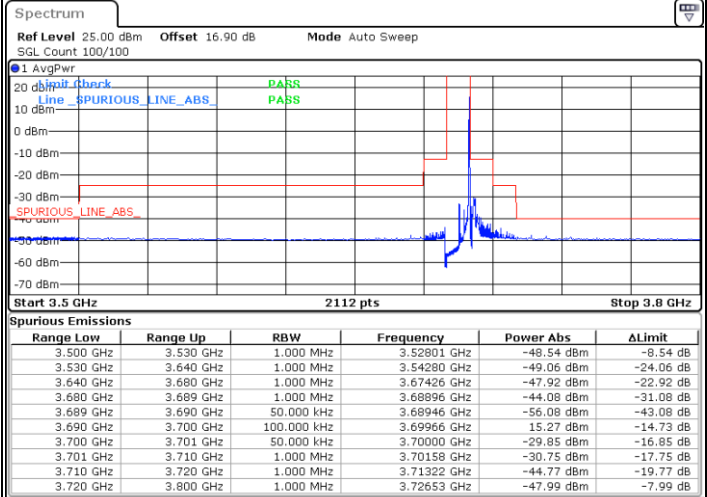
256QAM

Highest Channel / 1RB0



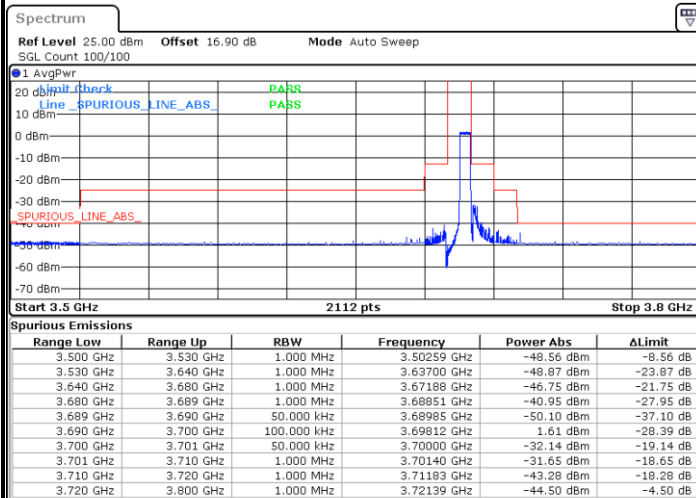
Date: 13.DEC.2024 11:54:48

Highest Channel / 1RBmax



Date: 13.DEC.2024 12:20:33

Highest Channel / FullIRB



Date: 13.DEC.2024 12:07:40

N/A



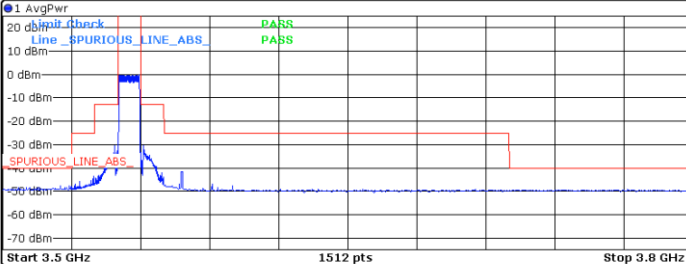
LTE Band 48 / 10MHz

256QAM

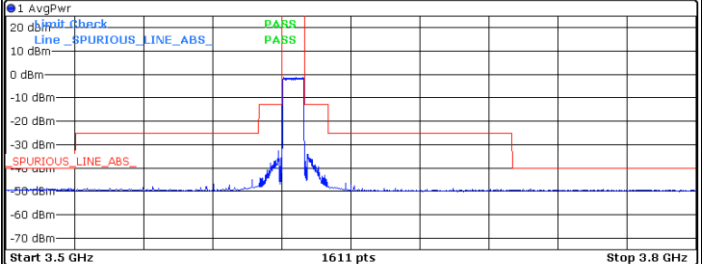
Lowest Channel / FullIRB

Middle Channel / FullIRB

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

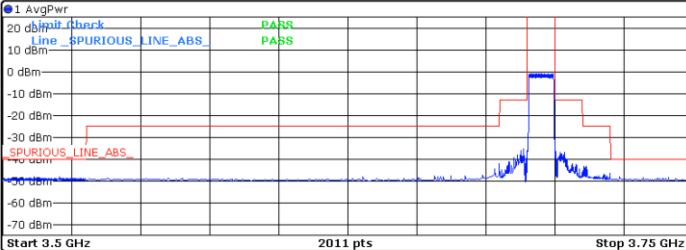
Date: 13.DEC.2024 12:25:34

Date: 13.DEC.2024 12:29:49

Highest Channel / FullIRB

N/A

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Date: 13.DEC.2024 12:34:50



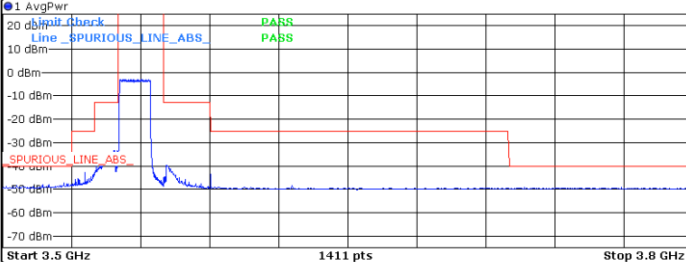
LTE Band 48 / 15MHz

256QAM

Lowest Channel / FullIRB

Middle Channel / FullIRB

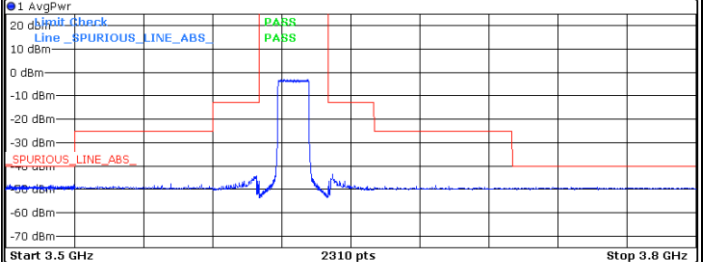
Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52658 GHz	-47.33 dBm	-7.33 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53559 GHz	-42.96 dBm	-17.96 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54887 GHz	-33.46 dBm	-20.46 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54998 GHz	-33.61 dBm	-20.61 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55237 GHz	-3.00 dBm	-33.00 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57091 GHz	-43.92 dBm	-30.92 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57109 GHz	-39.66 dBm	-26.66 dB
3.590 GHz	3.720 GHz	1.000 MHz	3.59032 GHz	-43.66 dBm	-18.66 dB
3.720 GHz	3.800 GHz	1.000 MHz	3.76891 GHz	-49.16 dBm	-9.16 dB

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52964 GHz	-47.90 dBm	-7.90 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.57194 GHz	-47.83 dBm	-22.83 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.60891 GHz	-44.45 dBm	-31.45 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.61000 GHz	-46.49 dBm	-33.49 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.63109 GHz	-3.07 dBm	-33.07 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.64040 GHz	-46.54 dBm	-33.54 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.64203 GHz	-43.54 dBm	-30.54 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.68672 GHz	-48.54 dBm	-23.54 dB
3.720 GHz	3.800 GHz	1.000 MHz	3.73050 GHz	-49.18 dBm	-9.18 dB

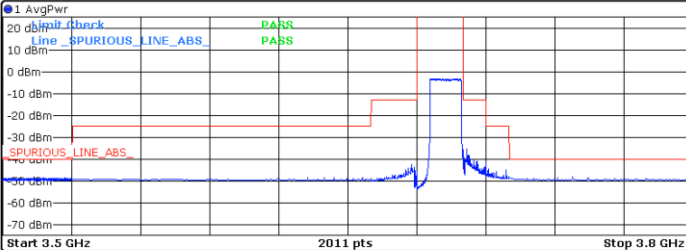
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Date: 13.DEC.2024 12:44:31

Highest Channel / FullIRB

N/A

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52711 GHz	-48.67 dBm	-8.67 dB
3.530 GHz	3.630 GHz	1.000 MHz	3.61960 GHz	-49.09 dBm	-24.09 dB
3.630 GHz	3.660 GHz	1.000 MHz	3.63252 GHz	-48.46 dBm	-23.46 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67759 GHz	-42.75 dBm	-29.75 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67928 GHz	-45.56 dBm	-32.56 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68870 GHz	-3.33 dBm	-33.33 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70010 GHz	-35.72 dBm	-22.72 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70158 GHz	-35.55 dBm	-22.55 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71015 GHz	-41.48 dBm	-16.48 dB
3.720 GHz	3.800 GHz	1.000 MHz	3.74752 GHz	-48.04 dBm	-8.04 dB

Date: 13.DEC.2024 12:48:48



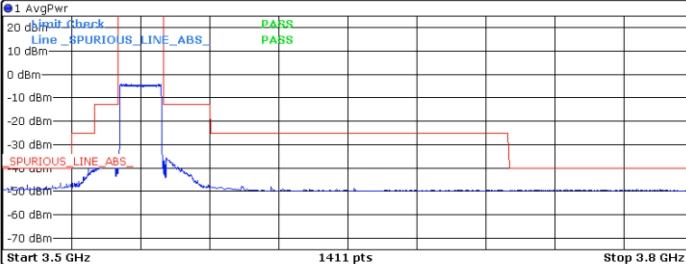
LTE Band 48 / 20MHz

256QAM

Lowest Channel / FullIRB

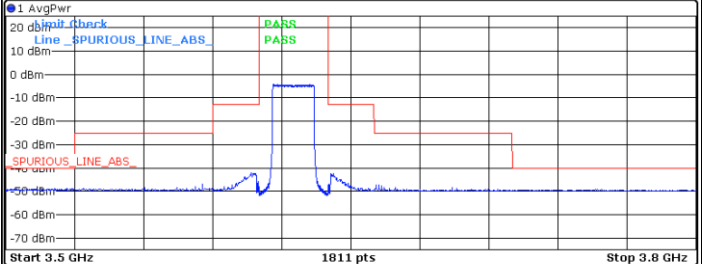
Middle Channel / FullIRB

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52510 GHz	-46.41 dBm	-6.41 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53728 GHz	-40.48 dBm	-15.48 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54771 GHz	-34.19 dBm	-21.19 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54996 GHz	-37.45 dBm	-24.45 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55152 GHz	-4.11 dBm	-34.11 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57041 GHz	-36.91 dBm	-23.91 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57109 GHz	-35.64 dBm	-22.64 dB
3.590 GHz	3.720 GHz	1.000 MHz	3.60384 GHz	-47.86 dBm	-22.86 dB
3.720 GHz	3.800 GHz	1.000 MHz	3.74475 GHz	-49.23 dBm	-9.23 dB

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52146 GHz	-48.93 dBm	-8.93 dB
3.530 GHz	3.590 GHz	1.000 MHz	3.58537 GHz	-46.73 dBm	-21.73 dB
3.590 GHz	3.609 GHz	1.000 MHz	3.60665 GHz	-42.01 dBm	-29.01 dB
3.609 GHz	3.610 GHz	200.000 kHz	3.60983 GHz	-45.69 dBm	-32.69 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.63209 GHz	-4.35 dBm	-34.35 dB
3.640 GHz	3.641 GHz	200.000 kHz	3.64040 GHz	-46.98 dBm	-33.98 dB
3.641 GHz	3.660 GHz	1.000 MHz	3.64109 GHz	-42.49 dBm	-29.49 dB
3.660 GHz	3.720 GHz	1.000 MHz	3.66104 GHz	-47.16 dBm	-22.16 dB
3.720 GHz	3.800 GHz	1.000 MHz	3.75624 GHz	-49.24 dBm	-9.24 dB

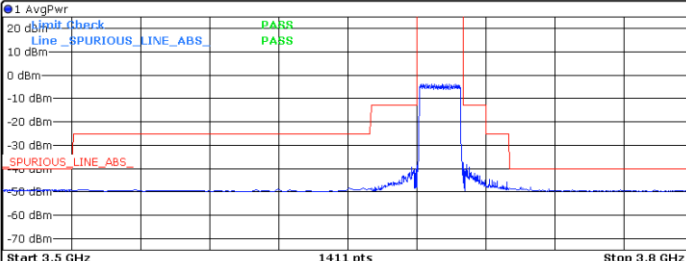
Date: 13.DEC.2024 12:53:50

Date: 13.DEC.2024 12:58:05

Highest Channel / FullIRB

N/A

Spectrum

Ref Level 25.00 dBm Offset 16.90 dB Mode Auto Sweep
SGL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52532 GHz	-49.02 dBm	-9.02 dB
3.530 GHz	3.660 GHz	1.000 MHz	3.65678 GHz	-48.30 dBm	-23.30 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67778 GHz	-39.44 dBm	-26.44 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67989 GHz	-38.69 dBm	-25.69 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68172 GHz	-3.66 dBm	-33.66 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70006 GHz	-37.38 dBm	-24.38 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70149 GHz	-38.42 dBm	-25.42 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71153 GHz	-44.49 dBm	-19.49 dB
3.720 GHz	3.800 GHz	1.000 MHz	3.72495 GHz	-48.04 dBm	-8.04 dB

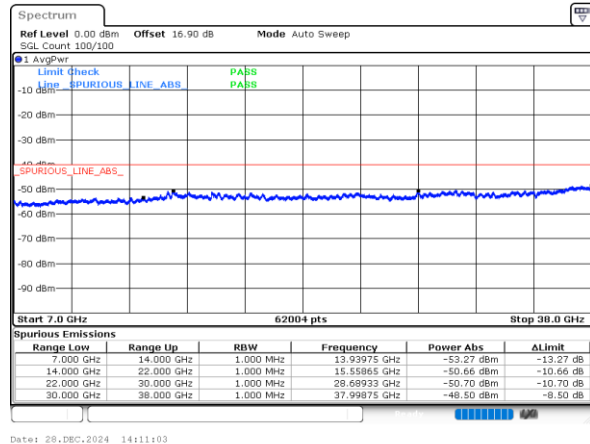
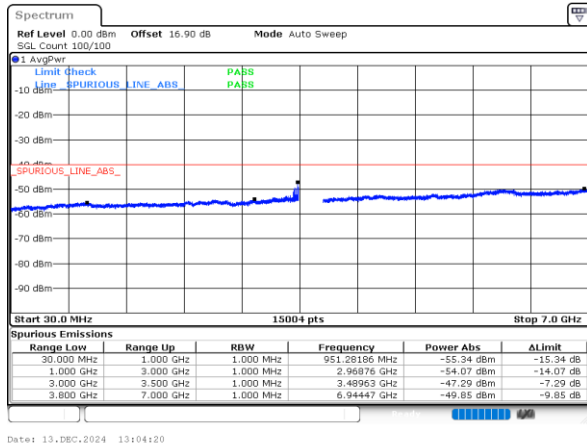
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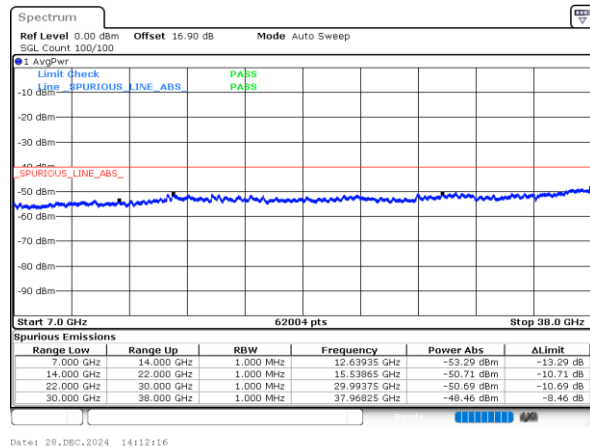
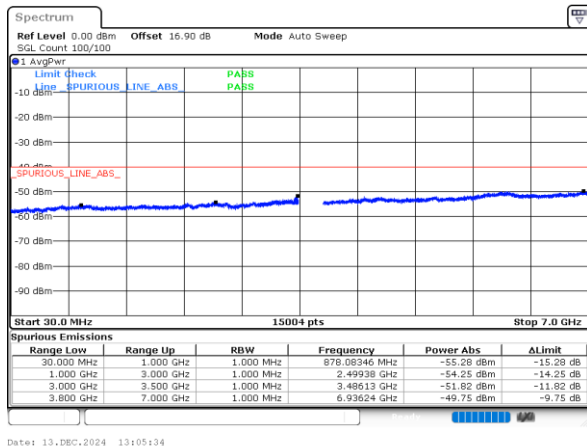
Conducted Spurious Emission

LTE Band 48 / 5MHz

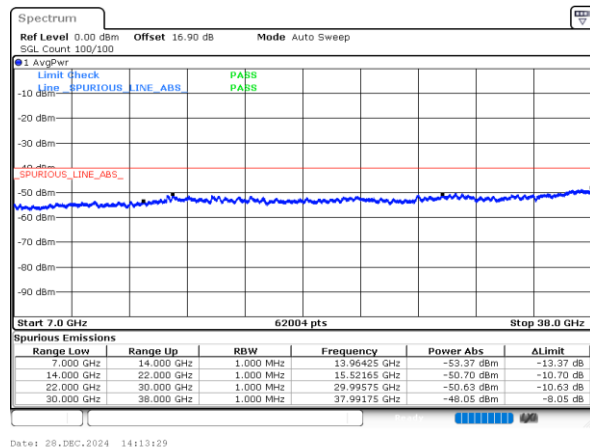
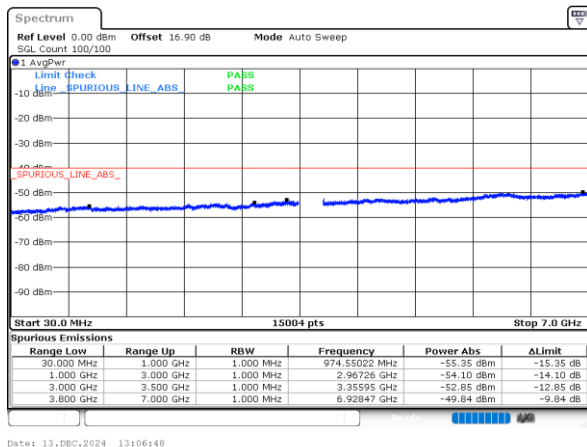
Lowest Channel / QPSK



Middle Channel / QPSK



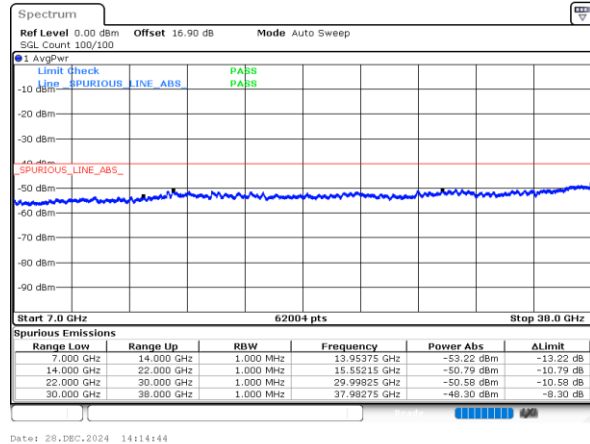
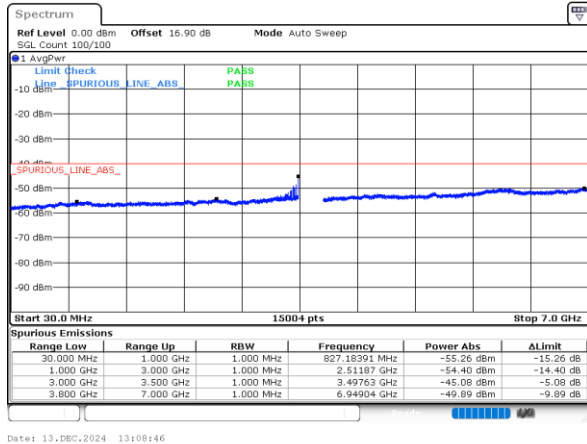
Highest Channel / QPSK



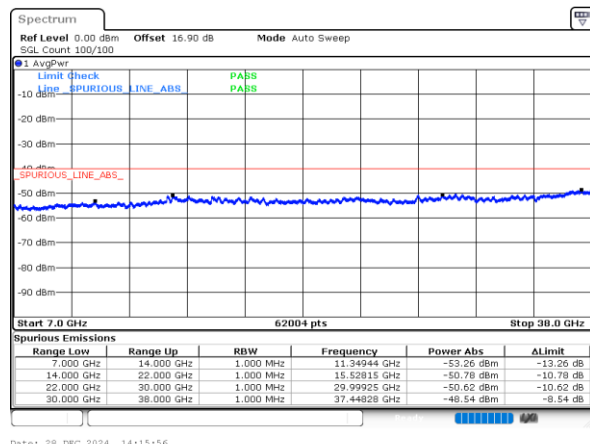
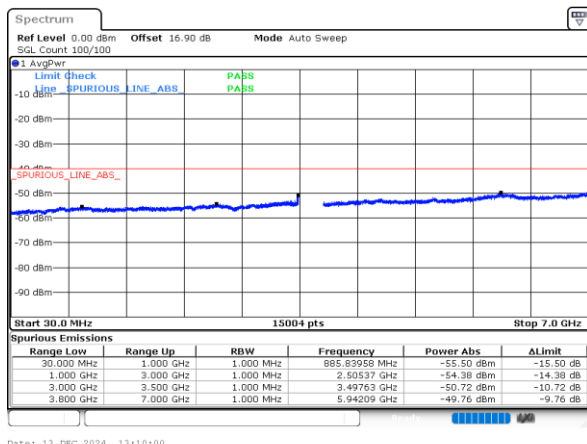


LTE Band 48 / 10MHz

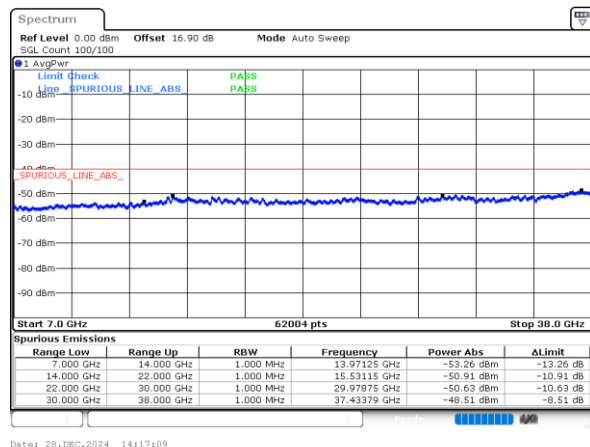
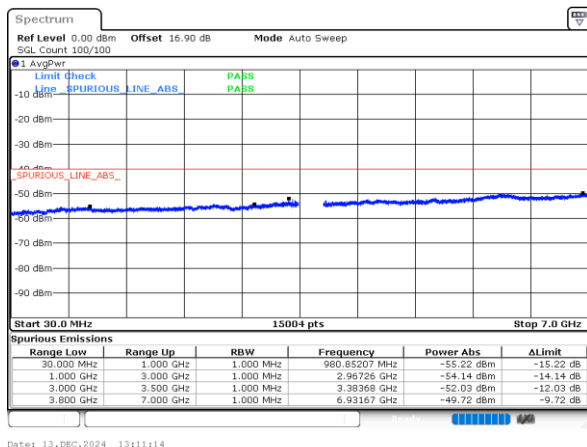
Lowest Channel / QPSK



Middle Channel / QPSK



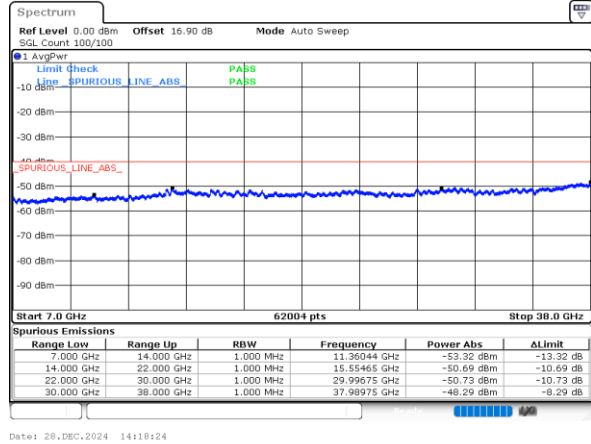
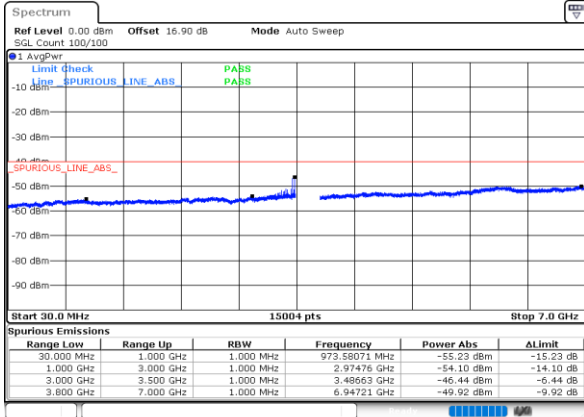
Highest Channel / QPSK



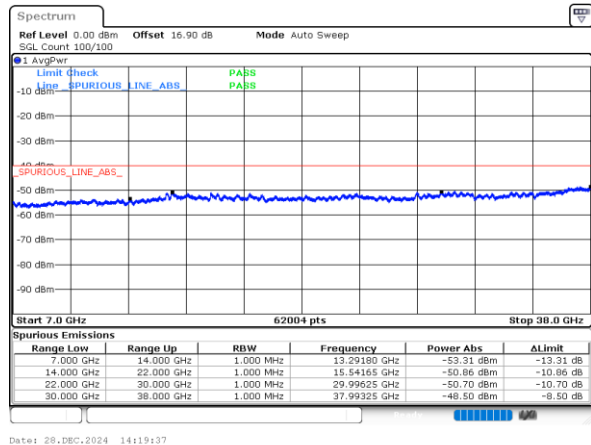
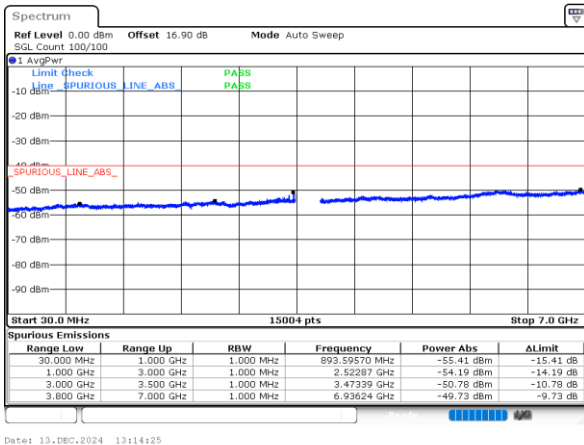


LTE Band 48 / 15MHz

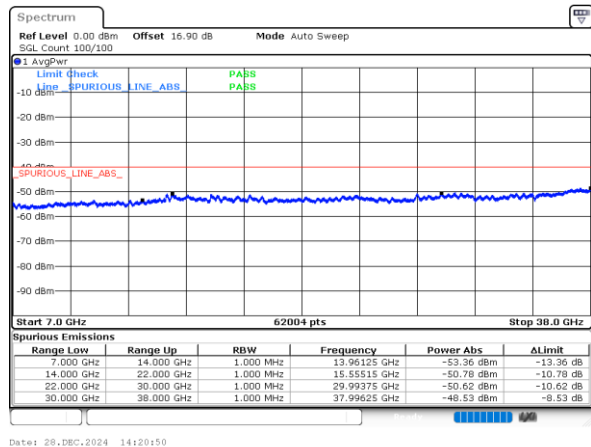
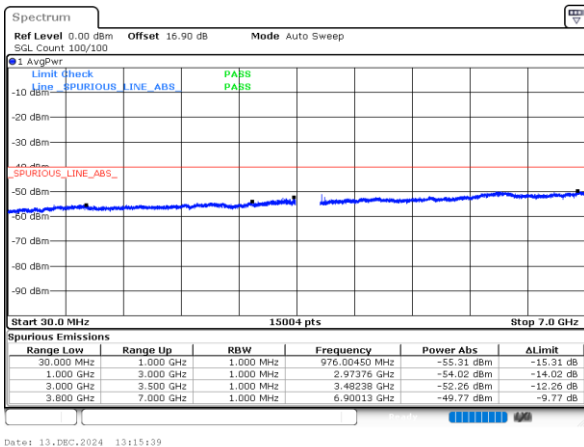
Lowest Channel / QPSK



Middle Channel / QPSK



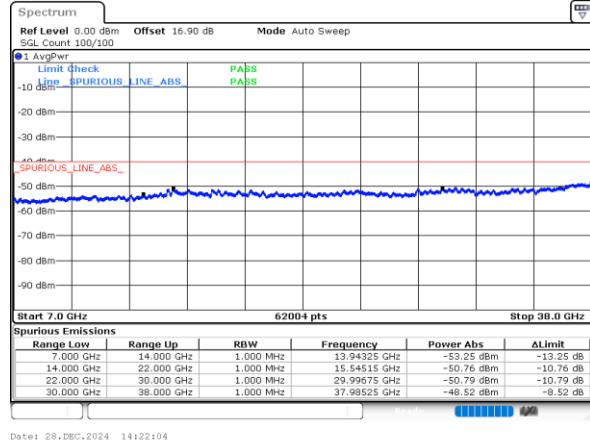
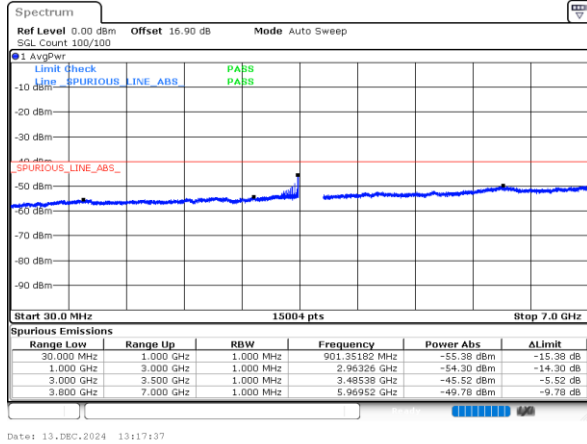
Highest Channel / QPSK



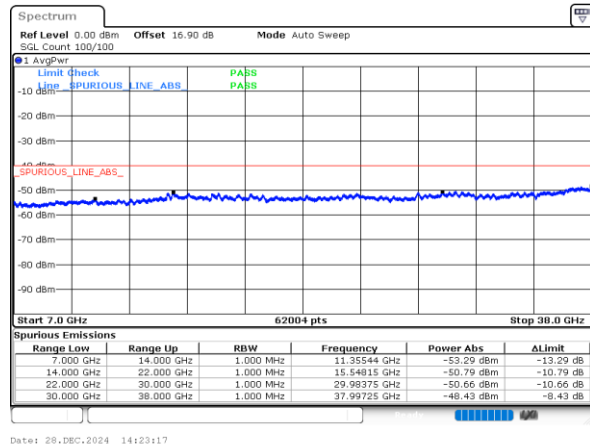
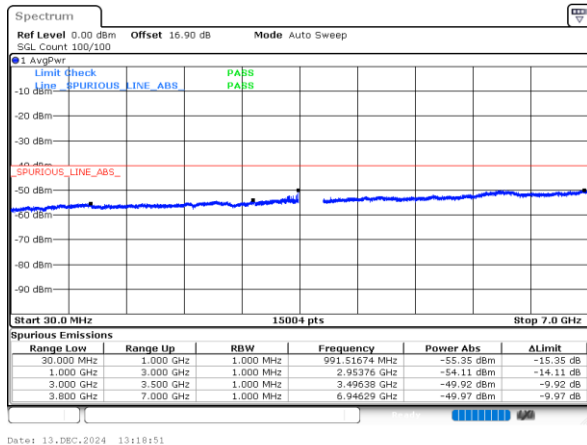


LTE Band 48 / 20MHz

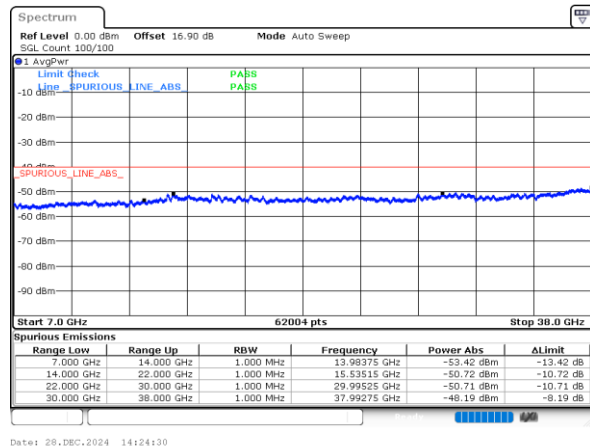
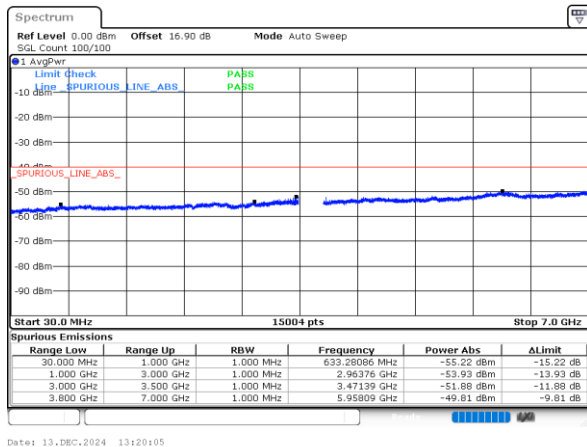
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK



Frequency Stability

Test Conditions		LTE Band 48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0034	
-10	Normal Voltage	0.0047	
-20	Normal Voltage	0.0041	
-30	Normal Voltage	0.0024	
20	Maximum Voltage	0.0044	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0037	

Note:

1. Normal Voltage = 3.8 V. ; Minimum Voltage = 3.6 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 48C

26dB Bandwidth

Mode	LTE Band 48C : 26dB BW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.77	29.96	34.82	24.97
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.03	34.89	39.79	-

Mode	LTE Band 48C : 26dB BW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.72	29.91	34.68	24.97
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.14	34.96	39.71	-

Mode	LTE Band 48C : 26dB BW(MHz)			
64QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.52	29.78	34.82	24.87
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.96	34.82	39.88	-

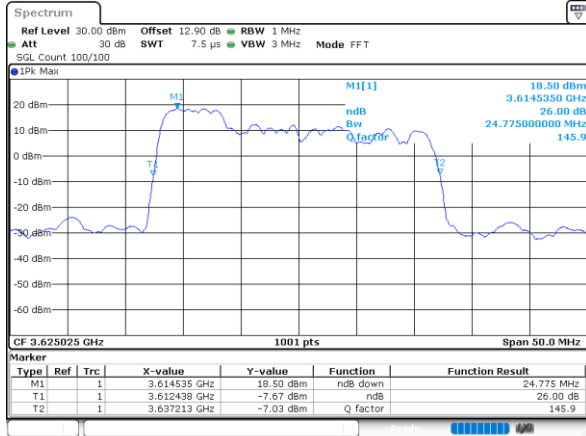
Mode	LTE Band 48C : 26dB BW(MHz)			
256QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.62	30.08	34.89	24.87
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.50	35.03	39.88	-



LTE Band 48C

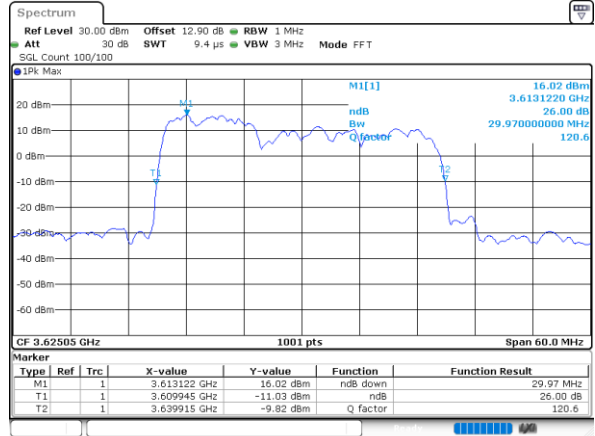
QPSK

Middle Channel / 5MHz+20MHz



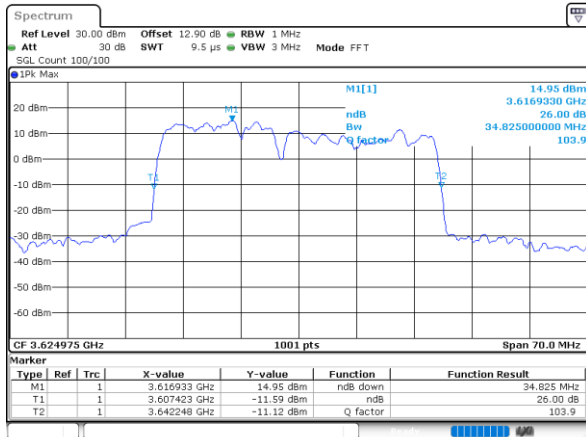
Date: 26.DEC.2024 15:51:59

Middle Channel / 10MHz+20MHz



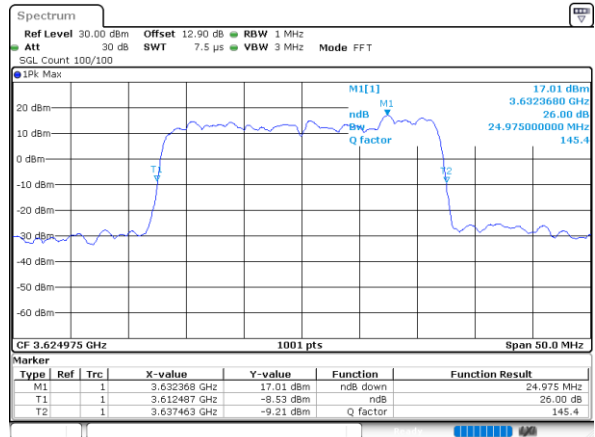
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Middle Channel / 15MHz+20MHz



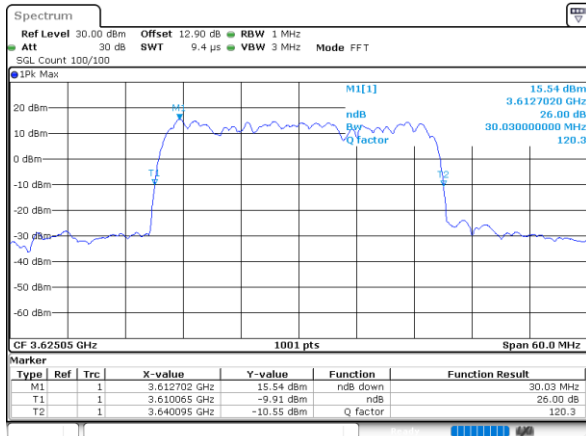
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Middle Channel / 20MHz+5MHz



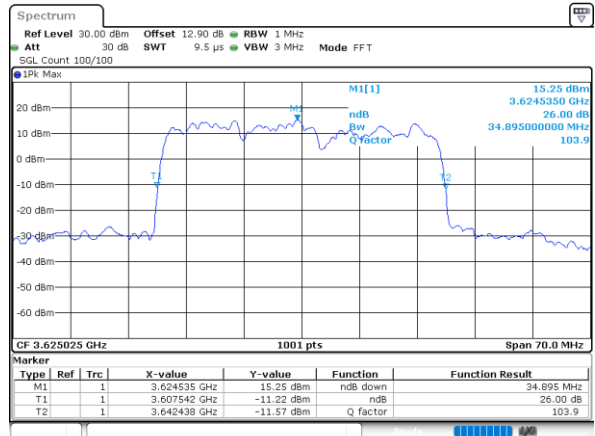
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Middle Channel / 20MHz+10MHz



Date: 26.DEC.2024 15:59:43

Middle Channel / 20MHz+15MHz



Date: 26.DEC.2024 16:04:54

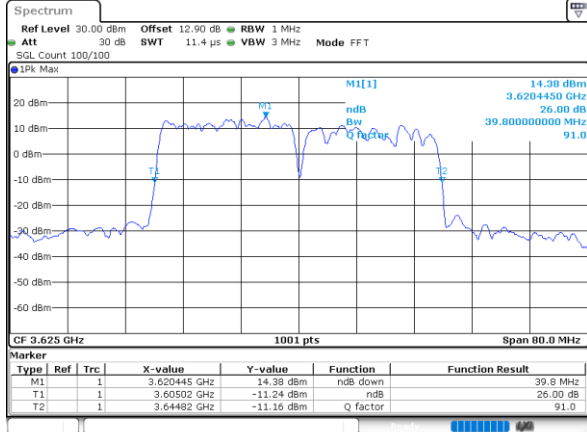


LTE Band 48C

QPSK

Middle Channel / 20MHz+20MHz

N/A



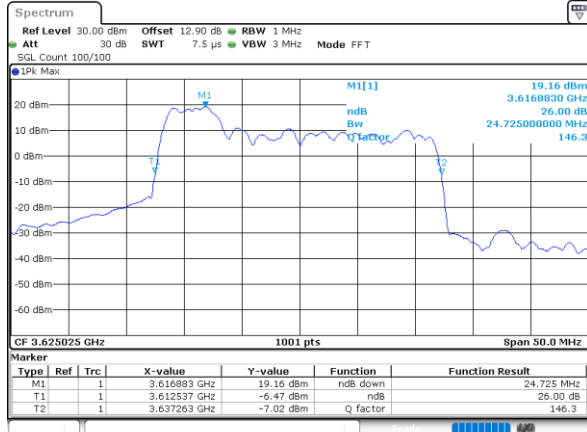
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LTE Band 48C

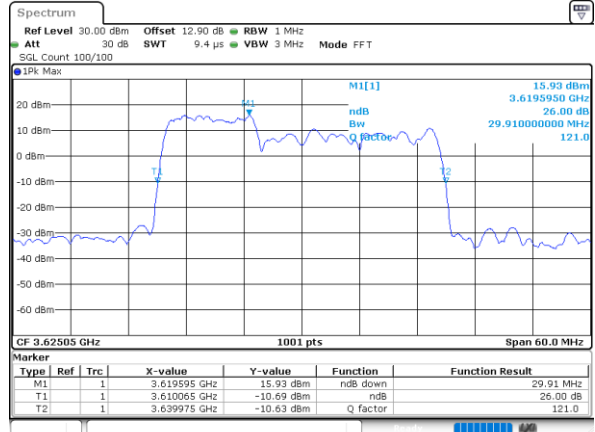
16QAM

Middle Channel / 5MHz+20MHz



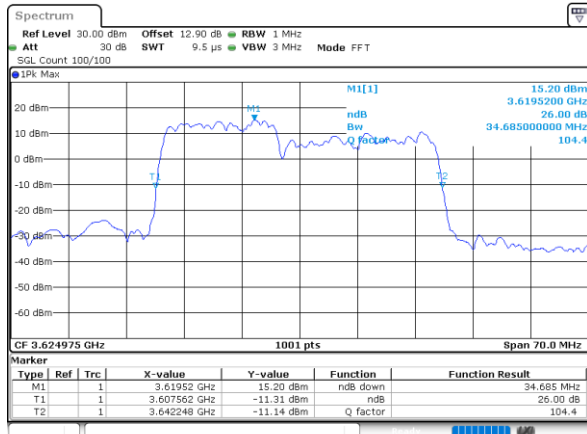
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Middle Channel / 10MHz+20MHz



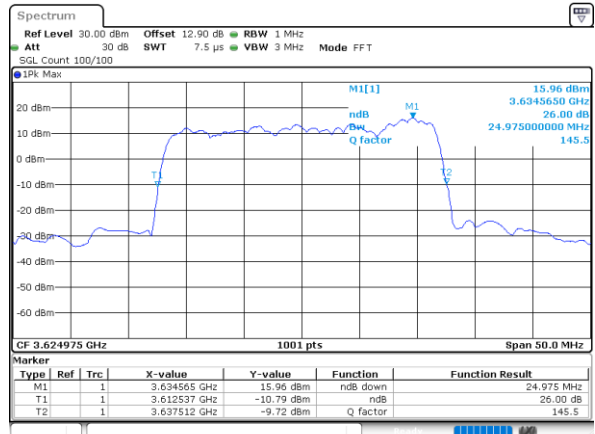
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Middle Channel / 15MHz+20MHz



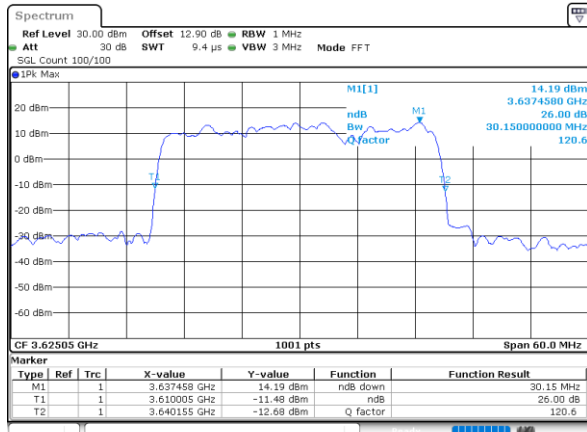
Date: 26,DEC,2024 16:02:56

Middle Channel / 20MHz+5MHz



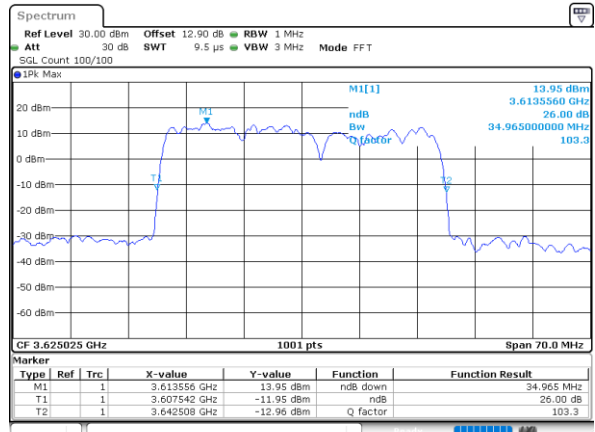
Date: 26,DEC,2024 15:55:09

Middle Channel / 20MHz+10MHz



Date: 26,DEC,2024 16:00:19

Middle Channel / 20MHz+15MHz



Date: 26,DEC,2024 16:05:29

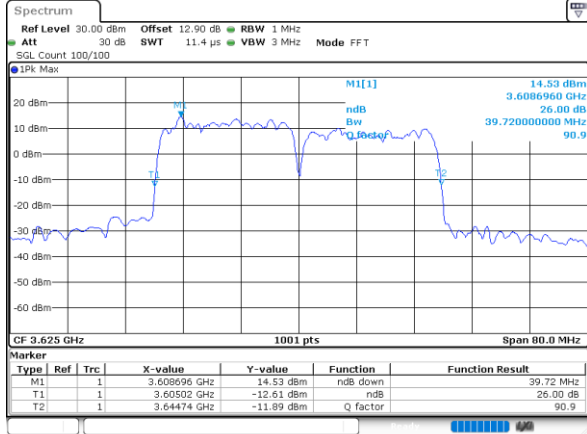


LTE Band 48C

16QAM

Middle Channel / 20MHz+20MHz

N/A



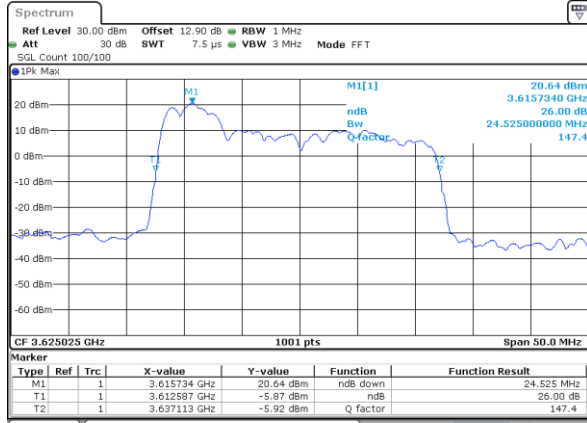
Date: 26, DEC, 2024 16:07:51



LTE Band 48C

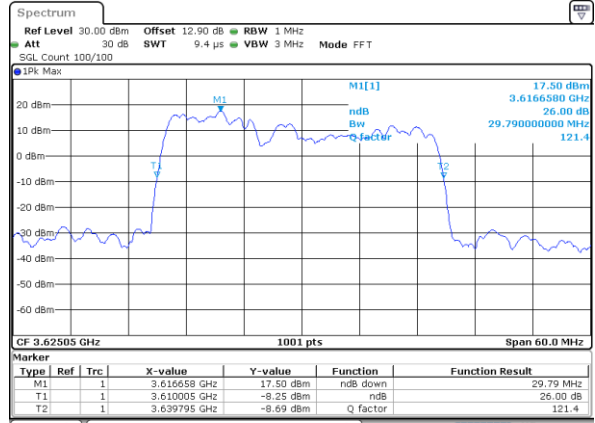
64QAM

Middle Channel / 5MHz+20MHz



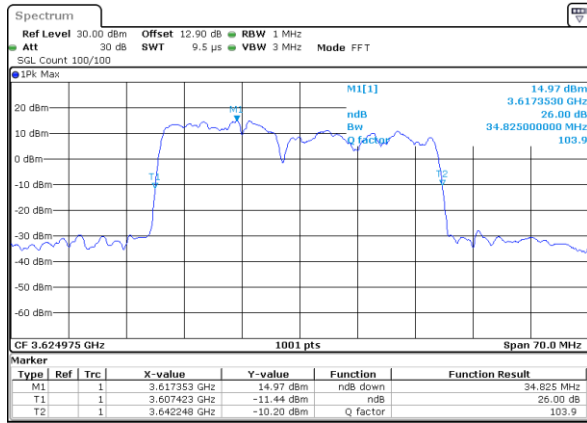
Date: 26.DEC.2024 15:53:12

Middle Channel / 10MHz+20MHz



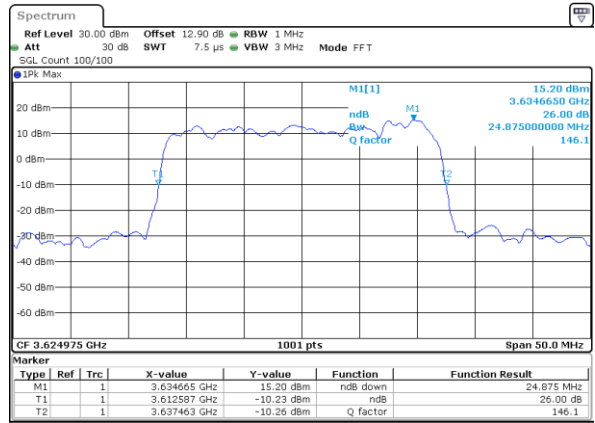
Date: 26.DEC.2024 15:58:22

Middle Channel / 15MHz+20MHz



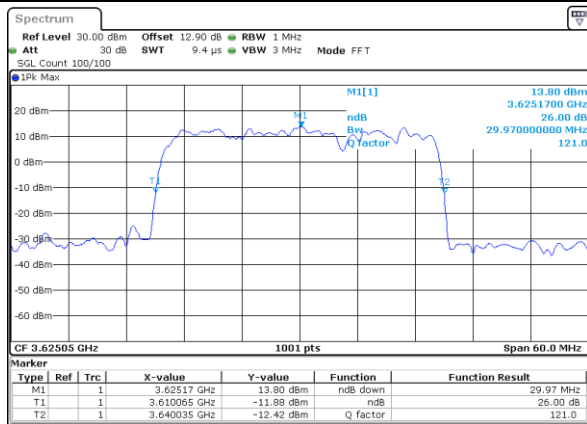
Date: 26.DEC.2024 16:03:32

Middle Channel / 20MHz+5MHz



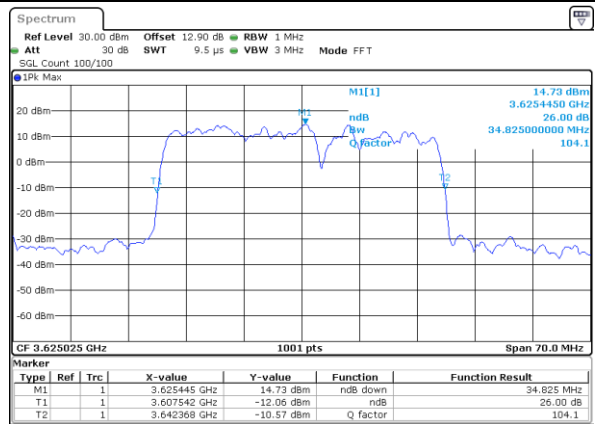
Date: 26.DEC.2024 15:55:45

Middle Channel / 20MHz+10MHz



Date: 26.DEC.2024 16:00:56

Middle Channel / 20MHz+15MHz



Date: 26.DEC.2024 16:06:06

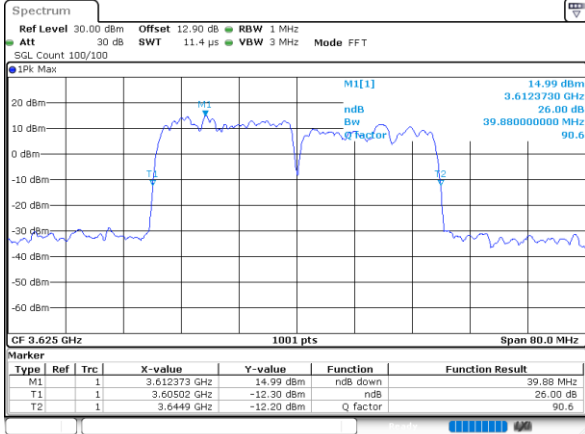


LTE Band 48C

64QAM

Middle Channel / 20MHz+20MHz

N/A



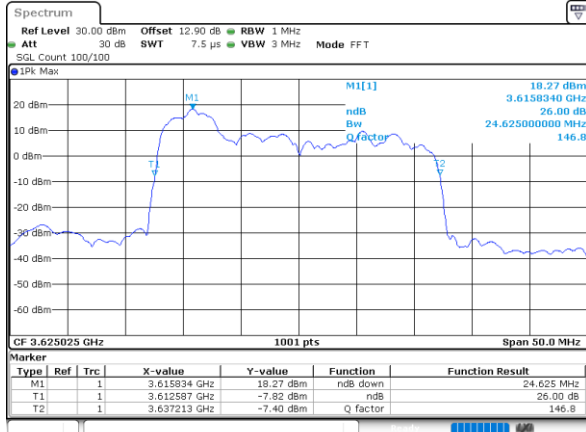
Date: 26, DEC, 2024 16:08:22



LTE Band 48C

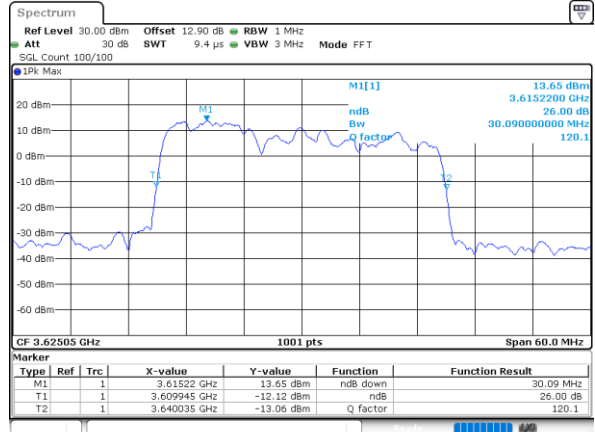
256QAM

Middle Channel / 5MHz+20MHz



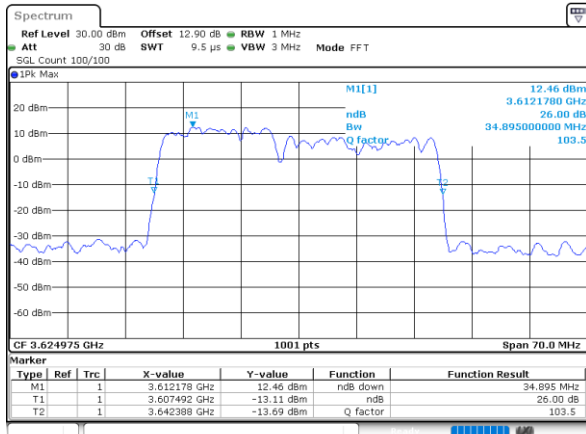
Date: 26, DEC, 2024 15:53:48

Middle Channel / 10MHz+20MHz



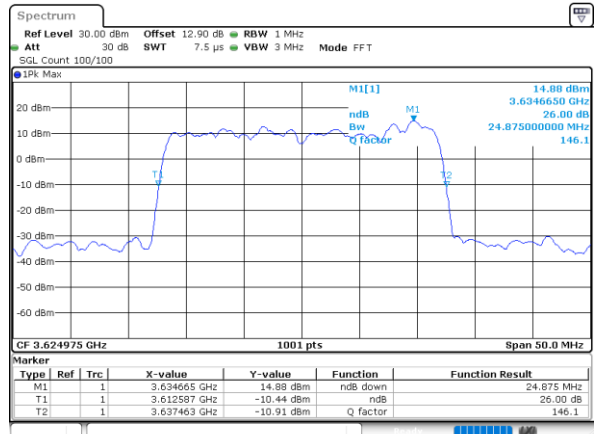
Date: 26, DEC, 2024 15:58:58

Middle Channel / 15MHz+20MHz



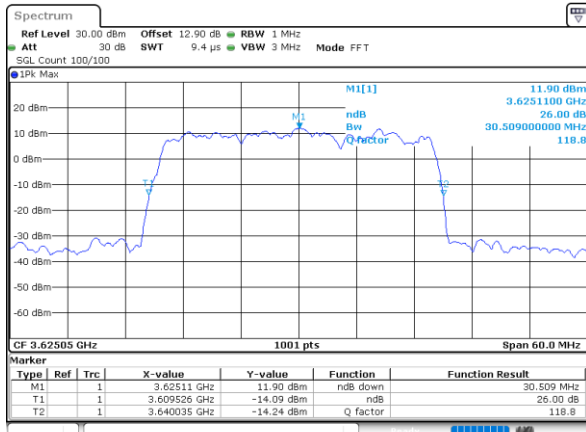
Date: 26, DEC, 2024 16:04:08

Middle Channel / 20MHz+5MHz



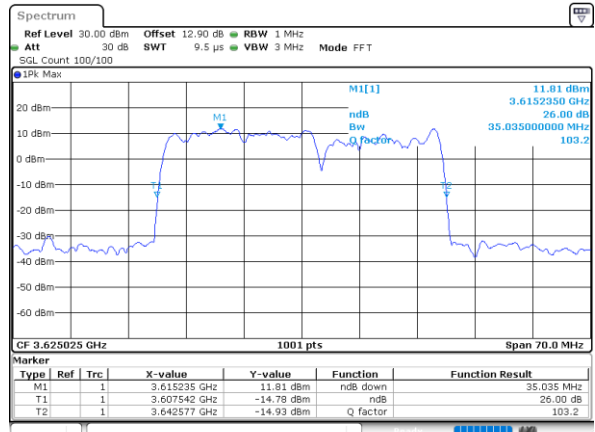
Date: 26, DEC, 2024 15:56:22

Middle Channel / 20MHz+10MHz



Date: 26, DEC, 2024 16:01:31

Middle Channel / 20MHz+15MHz



Date: 26, DEC, 2024 16:06:42

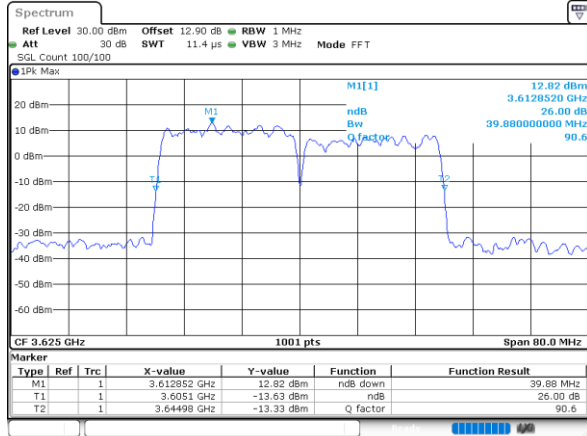


LTE Band 48C

256QAM

Middle Channel / 20MHz+20MHz

N/A



Date: 26, DEC, 2024 16:08:53

Occupied Bandwidth

Mode	LTE Band 48C : 99%OBW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.12	27.80	32.87	23.43
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.07	32.76	37.81	-

Mode	LTE Band 48C : 99%OBW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.06	28.16	32.49	23.29
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	27.95	32.69	37.66	-

Mode	LTE Band 48C : 99%OBW(MHz)			
64QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.23	27.74	32.91	23.09
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.02	32.65	38.17	-

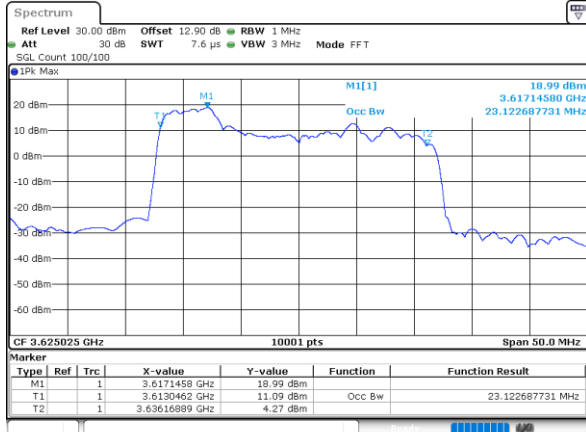
Mode	LTE Band 48C : 99%OBW(MHz)			
256QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.29	27.80	32.78	23.16
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.11	32.93	37.85	-



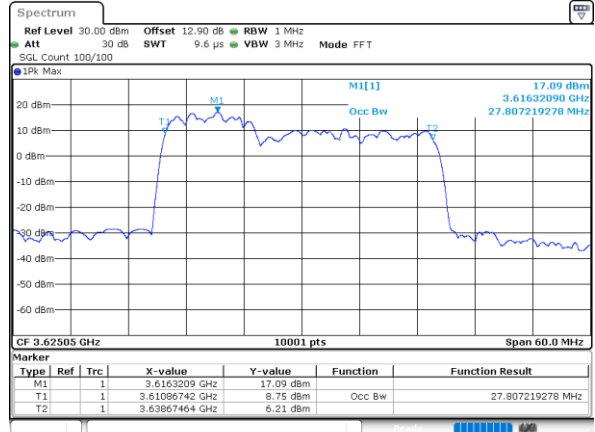
LTE Band 48C

QPSK

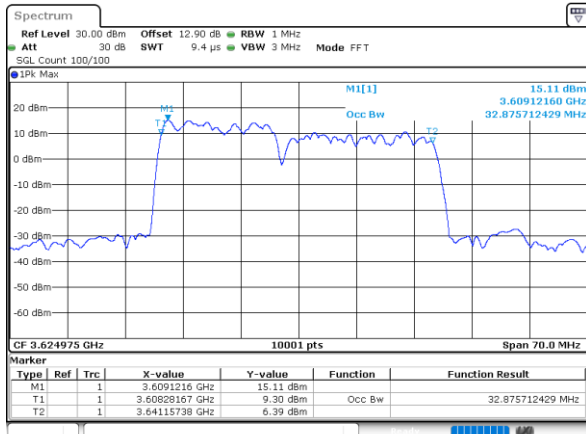
Middle Channel / 5MHz+20MHz



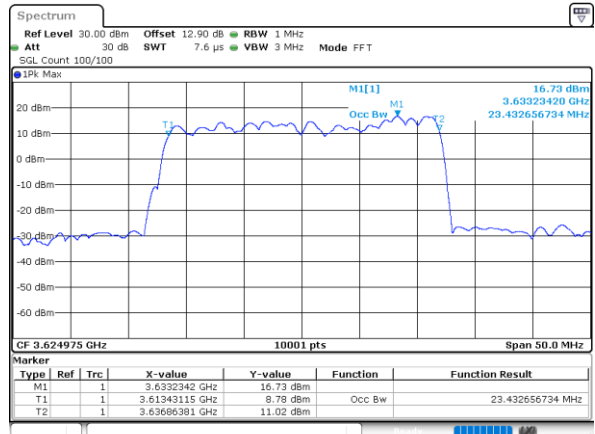
Middle Channel / 10MHz+20MHz



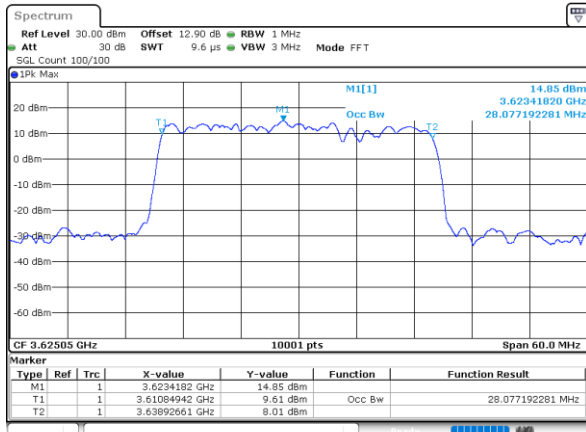
Middle Channel / 15MHz+20MHz



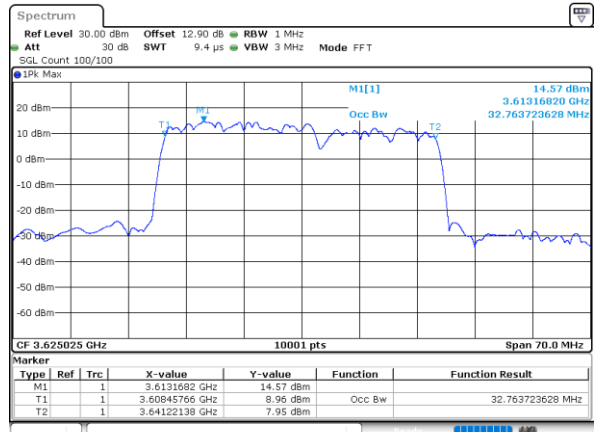
Middle Channel / 20MHz+5MHz



Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



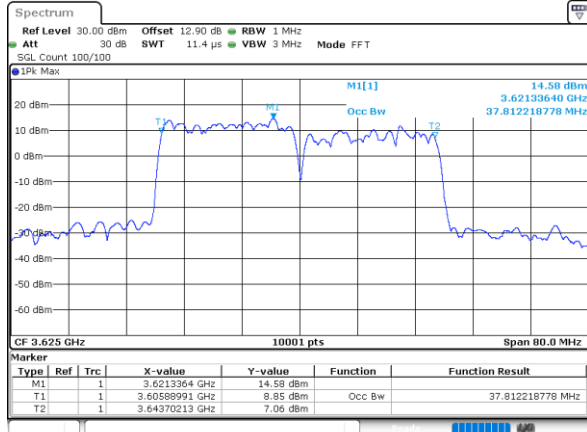


LTE Band 48C

QPSK

Middle Channel / 20MHz+20MHz

N/A



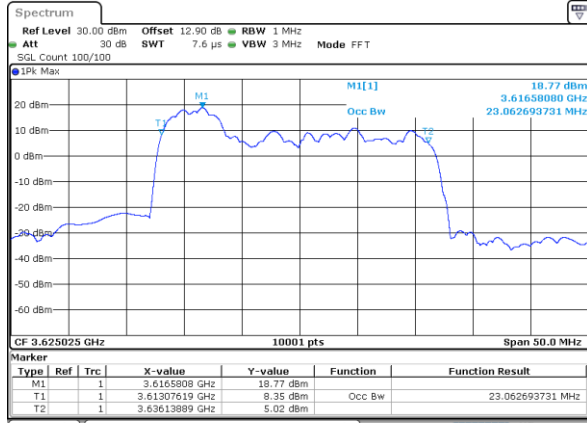
Date: 26, DEC, 2024 15:49:41



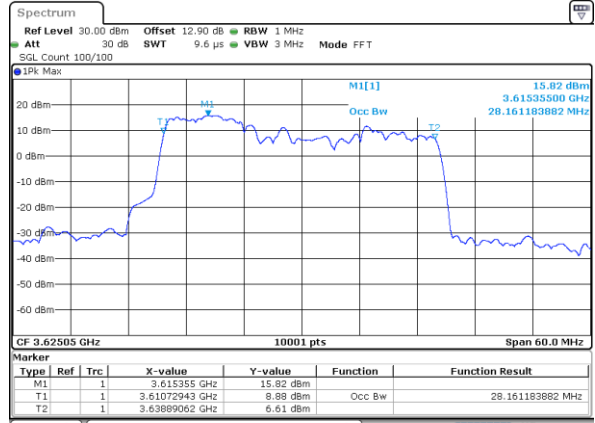
LTE Band 48C

16QAM

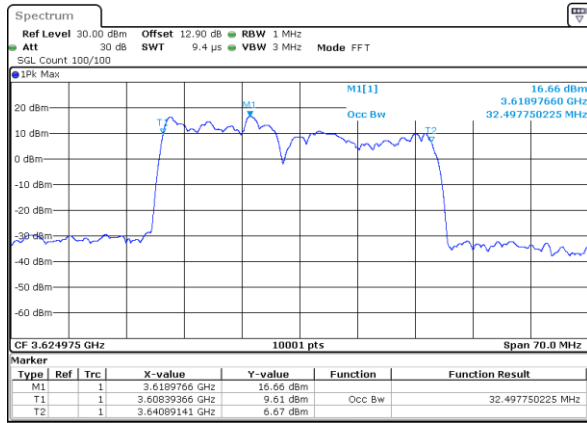
Middle Channel / 5MHz+20MHz



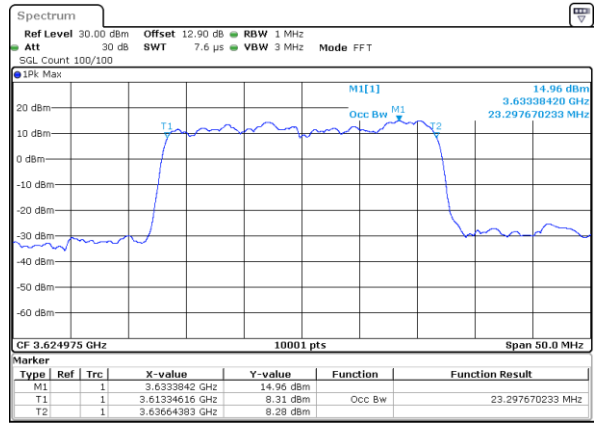
Middle Channel / 10MHz+20MHz



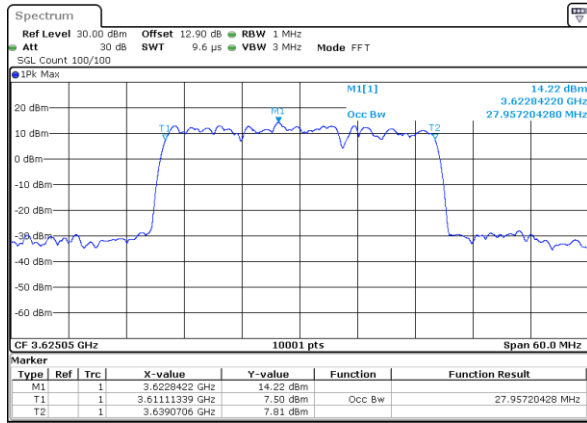
Middle Channel / 15MHz+20MHz



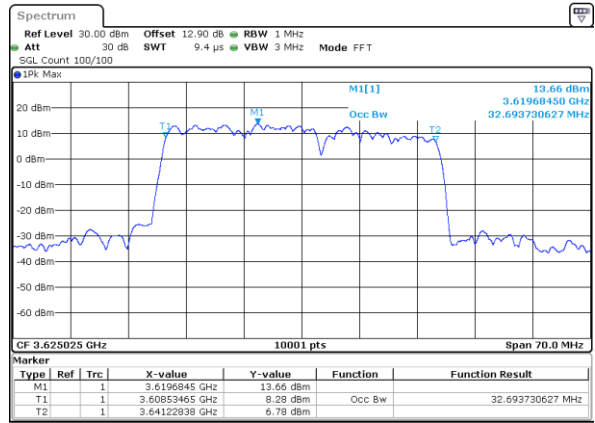
Middle Channel / 20MHz+5MHz



Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



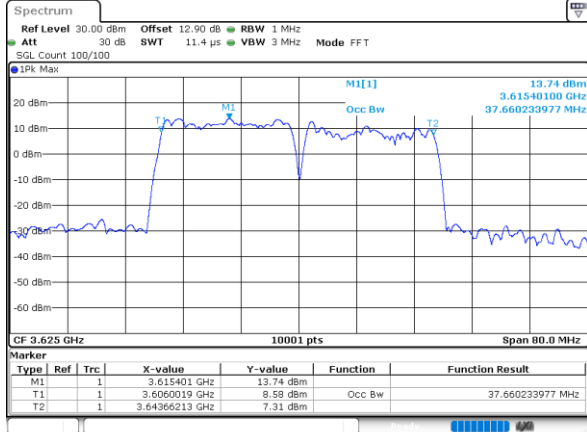


LTE Band 48C

16QAM

Middle Channel / 20MHz+20MHz

N/A



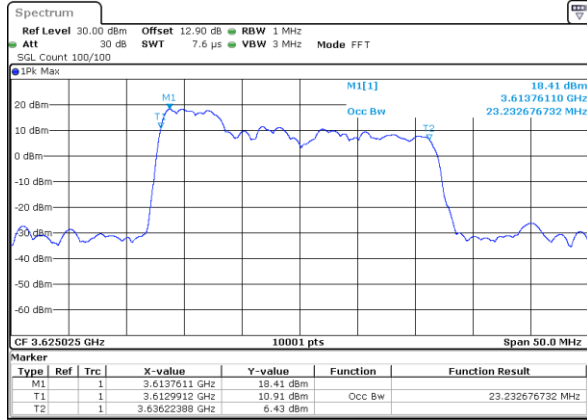
Date: 26, DEC, 2024 15:50:12



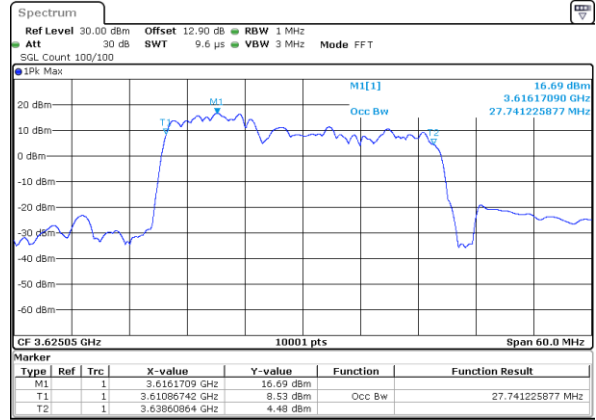
LTE Band 48C

64QAM

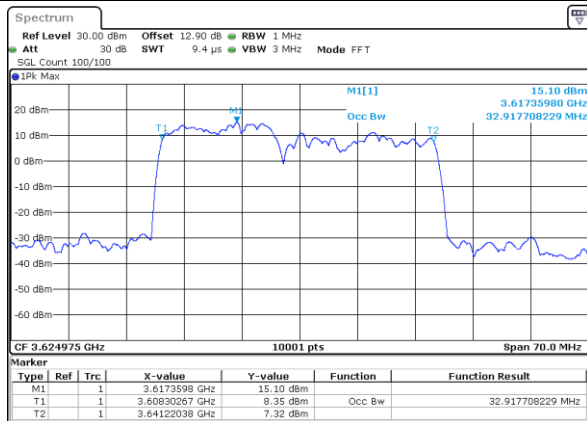
Middle Channel / 5MHz+20MHz



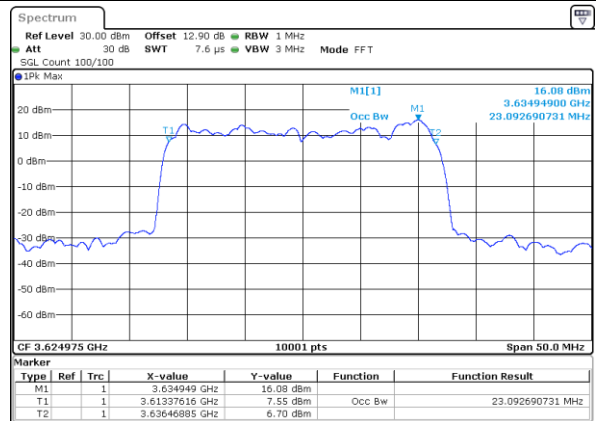
Middle Channel / 10MHz+20MHz



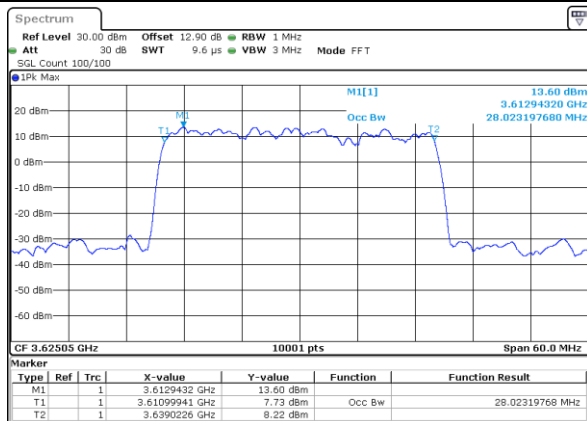
Middle Channel / 15MHz+20MHz



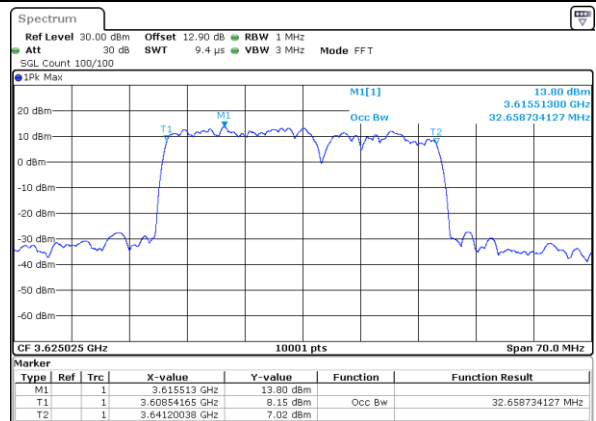
Middle Channel / 20MHz+5MHz



Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



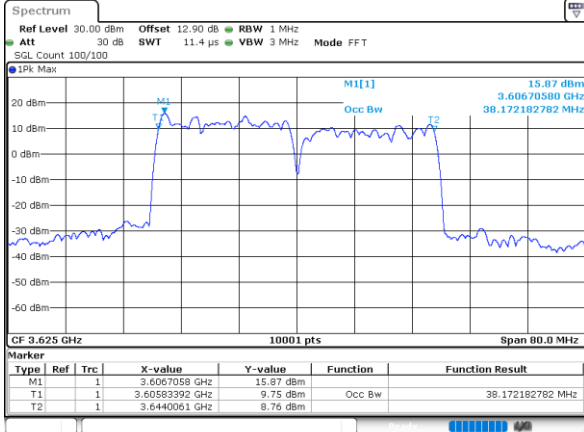


LTE Band 48C

64QAM

Middle Channel / 20MHz+20MHz

N/A



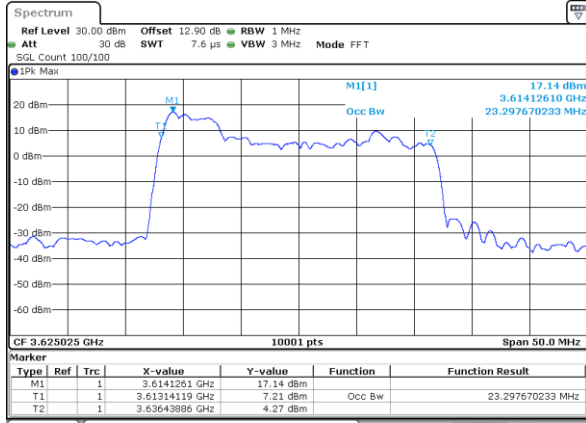
Date: 26, DEC, 2024 15:50:43



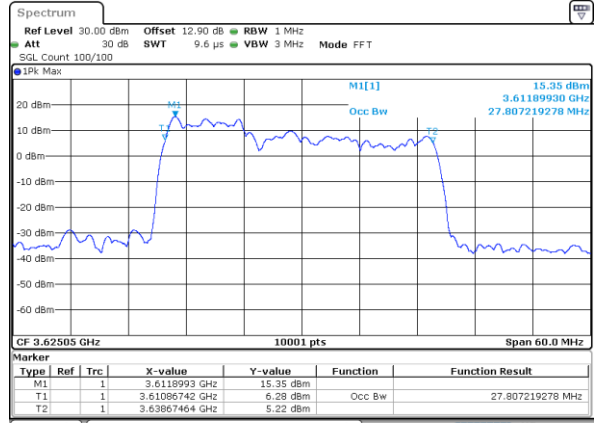
LTE Band 48C

256QAM

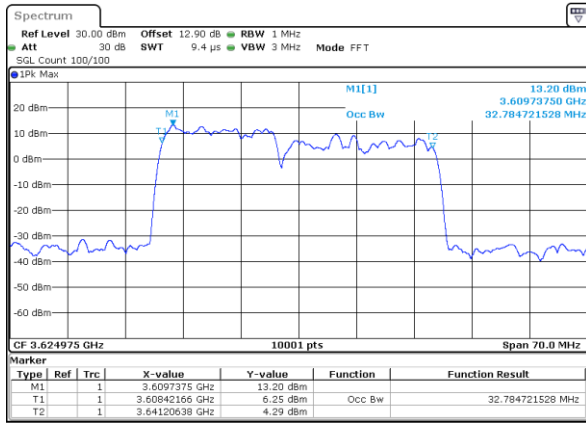
Middle Channel / 5MHz+20MHz



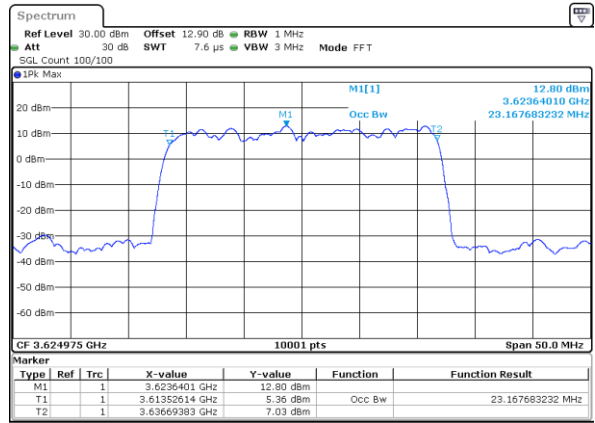
Middle Channel / 10MHz+20MHz



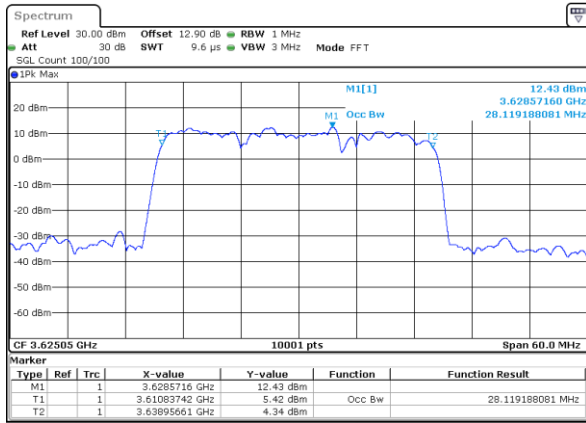
Middle Channel / 15MHz+20MHz



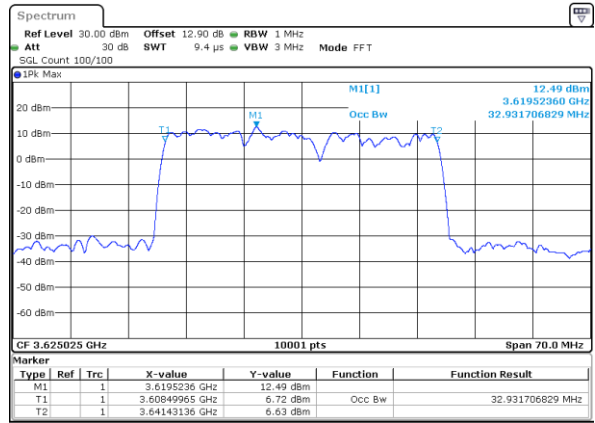
Middle Channel / 20MHz+5MHz



Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



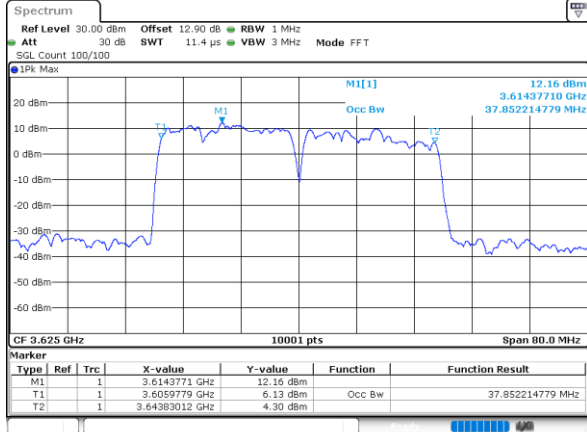


LTE Band 48C

256QAM

Middle Channel / 20MHz+20MHz

N/A



Date: 26, DEC, 2024 15:51:14



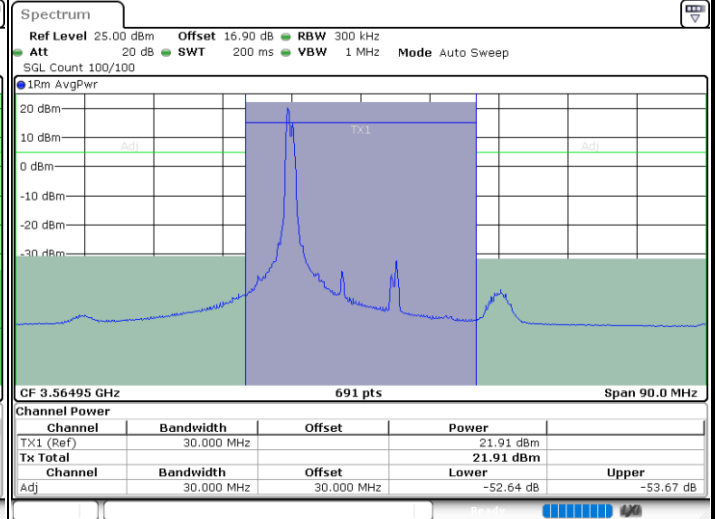
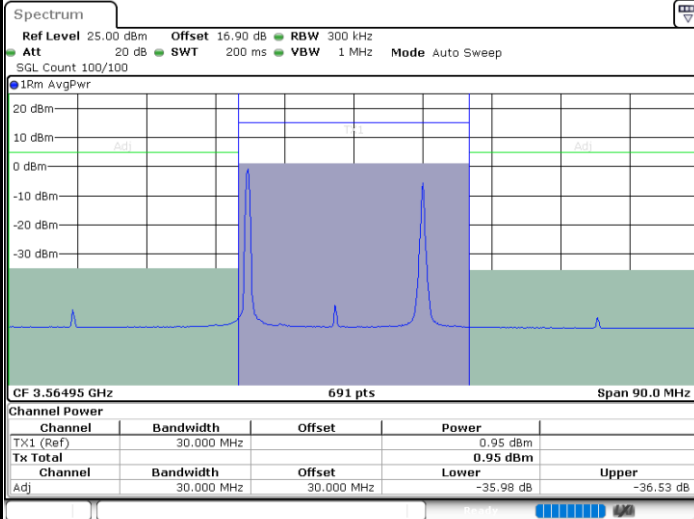
ACLR

LTE Band 48C / 5MHz+20MHz

QPSK

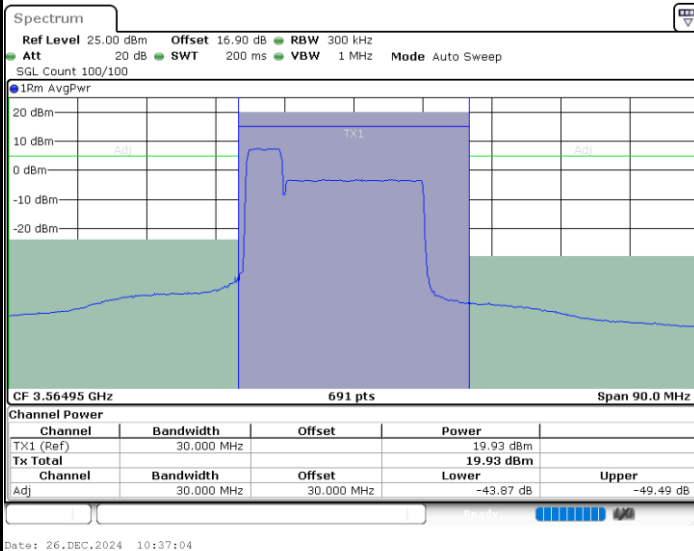
Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB24 and 1RB0



Lowest Channel / FullRB

N/A



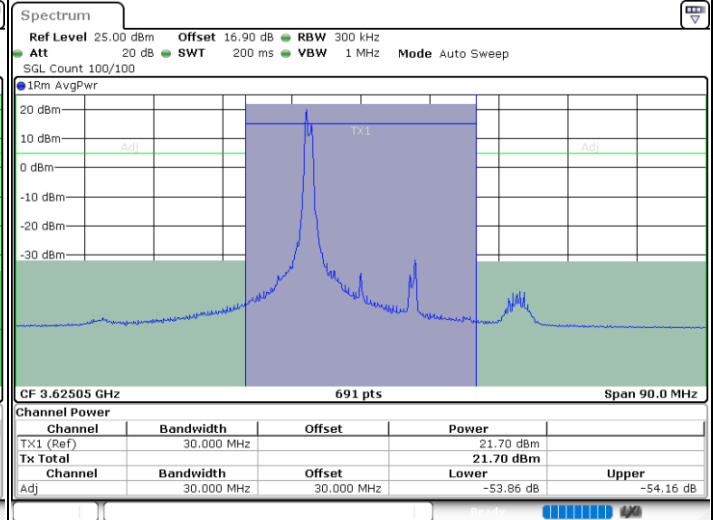
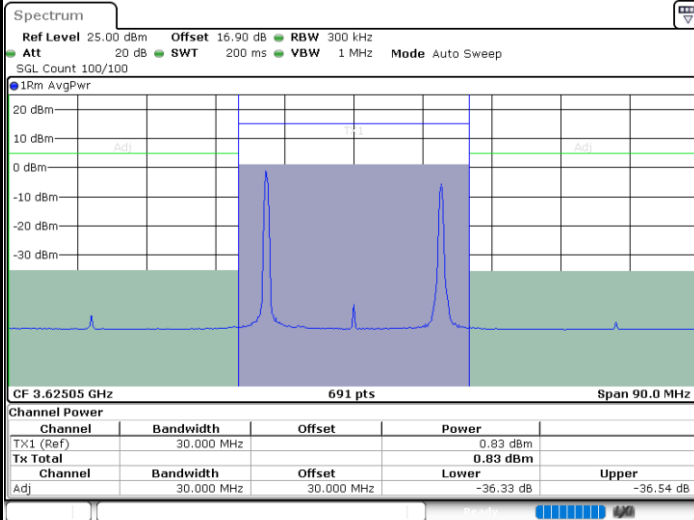


LTE Band 48C / 5MHz+20MHz

QPSK

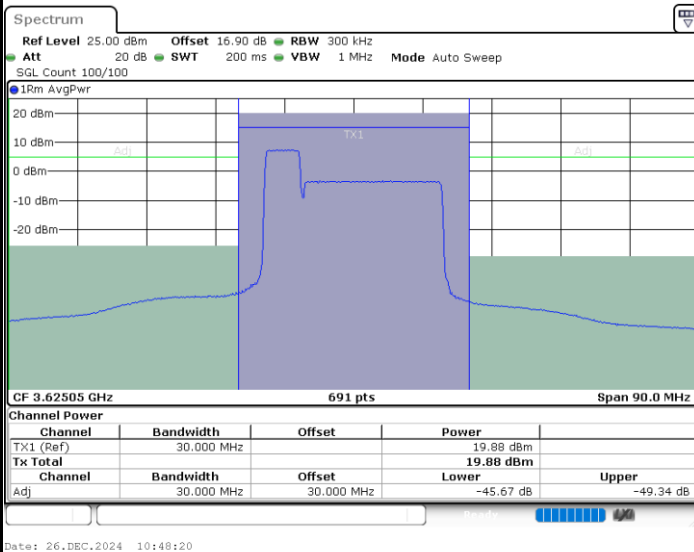
Middle Channel / 1RB0 and 1RB99

Middle Channel / 1RB24 and 1RB0



Middle Channel / FullRB

N/A



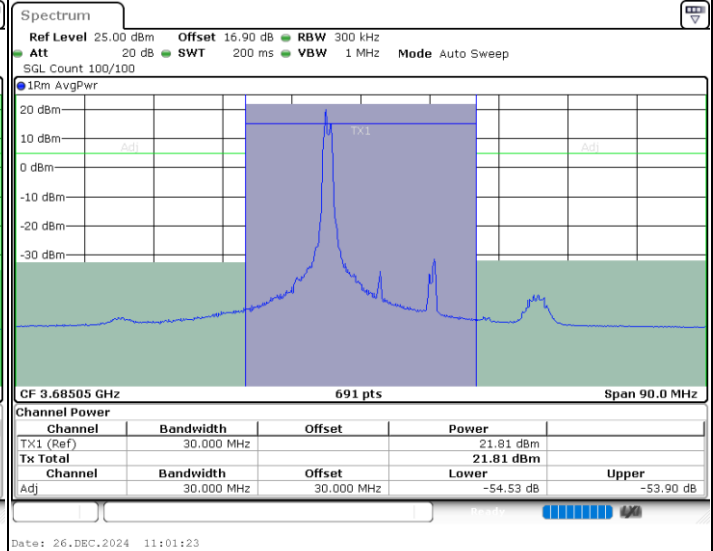
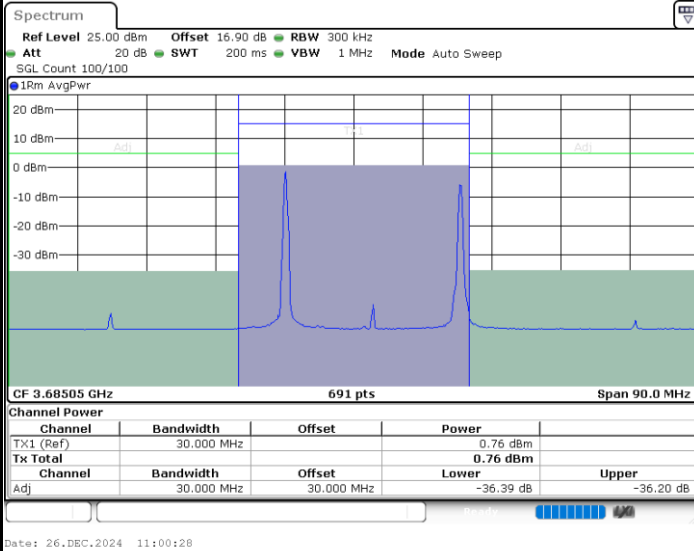


LTE Band 48C / 5MHz+20MHz

QPSK

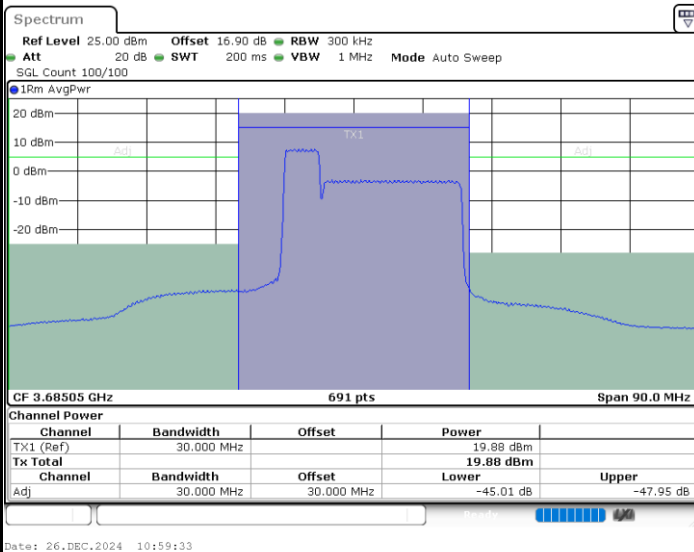
Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB24 and 1RB0



Highest Channel / FullIRB

N/A



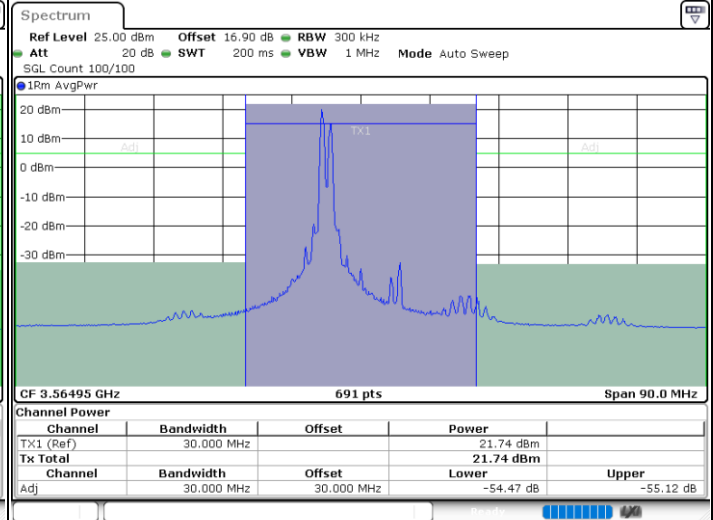
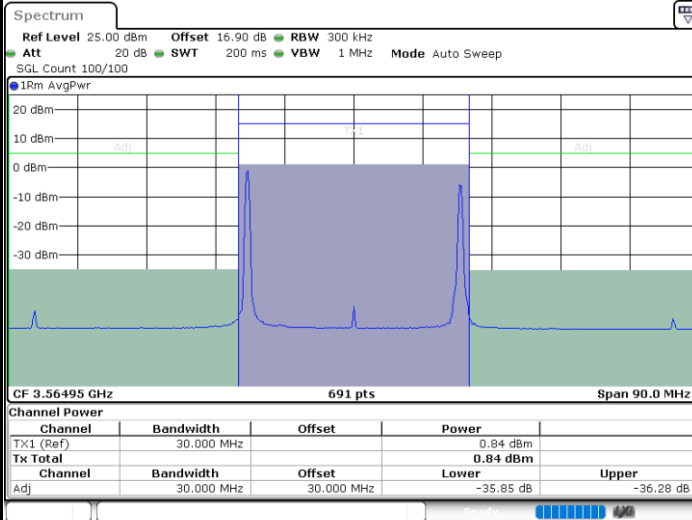


LTE Band 48C / 10MHz+20MHz

QPSK

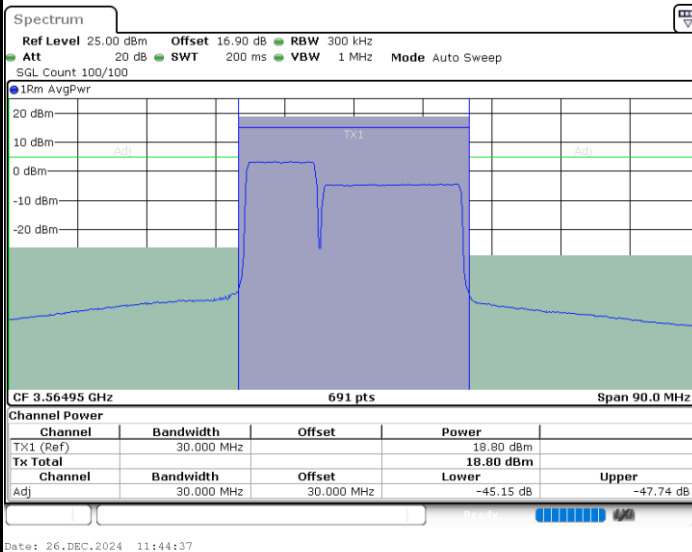
Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB49 and 1RB0



Lowest Channel / FullRB

N/A



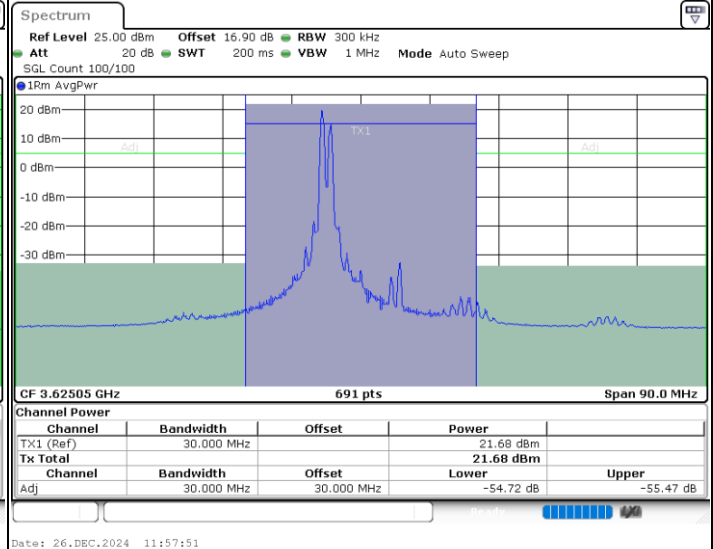
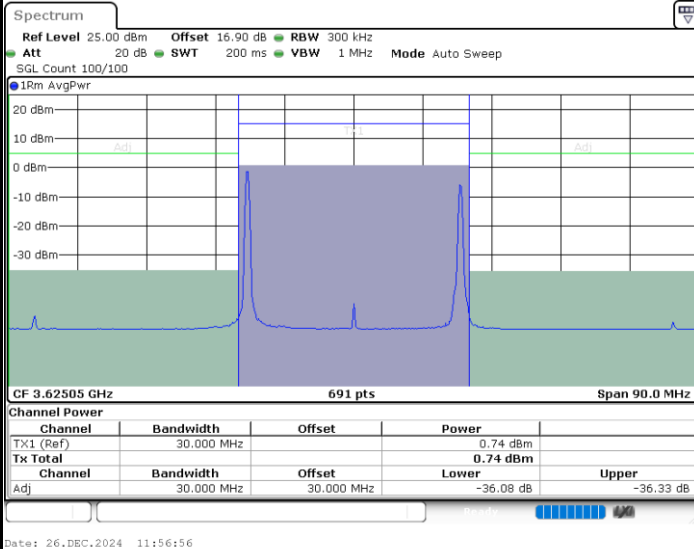


LTE Band 48C / 10MHz+20MHz

QPSK

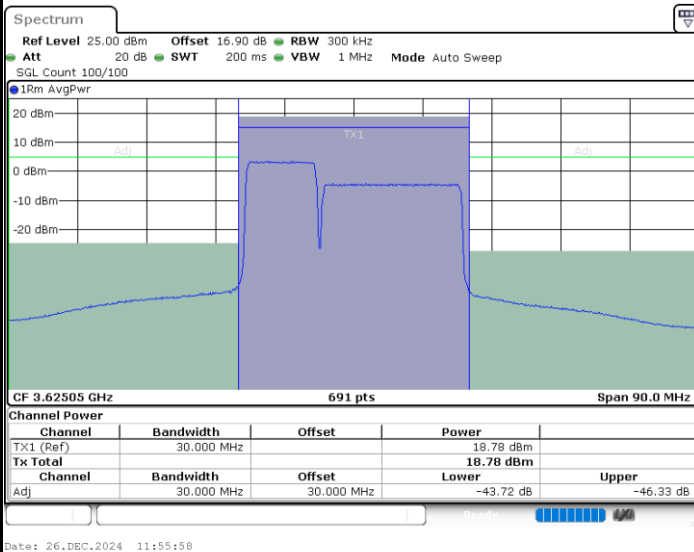
Middle Channel / 1RB0 and 1RB99

Middle Channel / 1RB49 and 1RB0



Middle Channel / FullRB

N/A



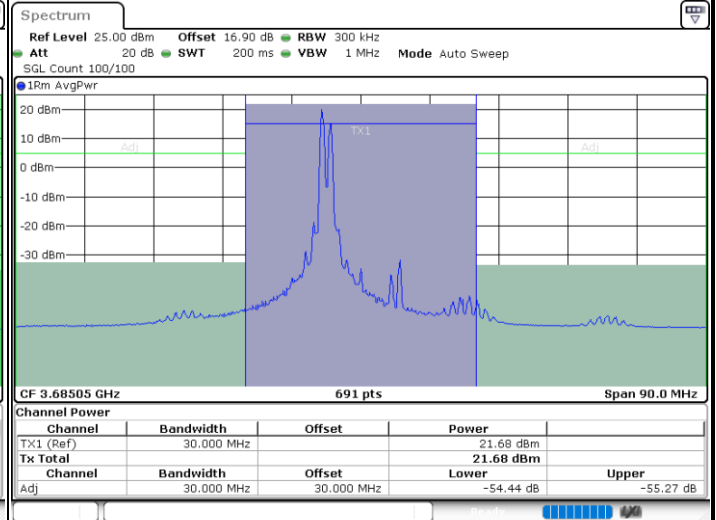
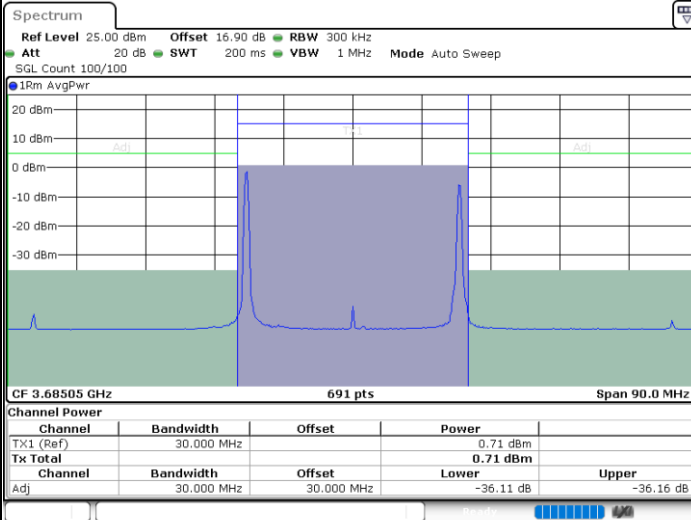


LTE Band 48C / 10MHz+20MHz

QPSK

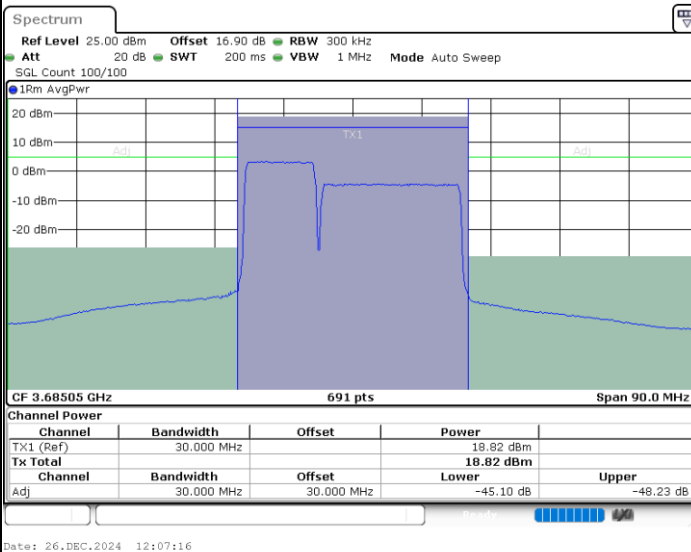
Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB49 and 1RB0



Highest Channel / FullIRB

N/A



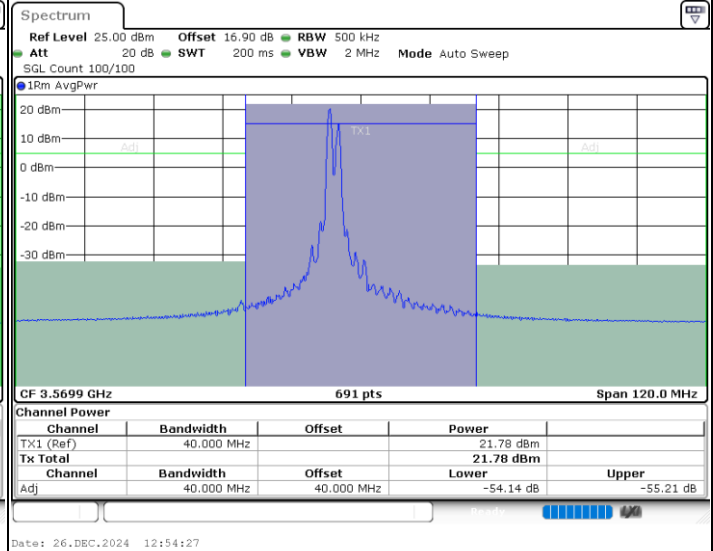
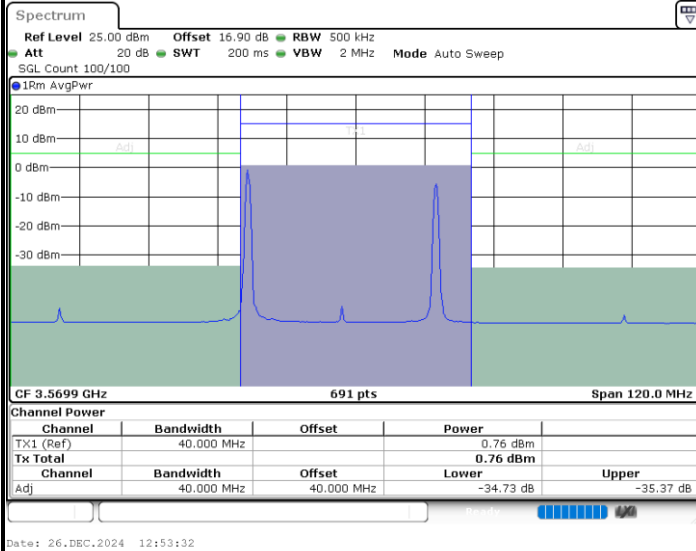


LTE Band 48C / 15MHz+20MHz

QPSK

Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB74 and 1RB0



Lowest Channel / FullRB

N/A

