

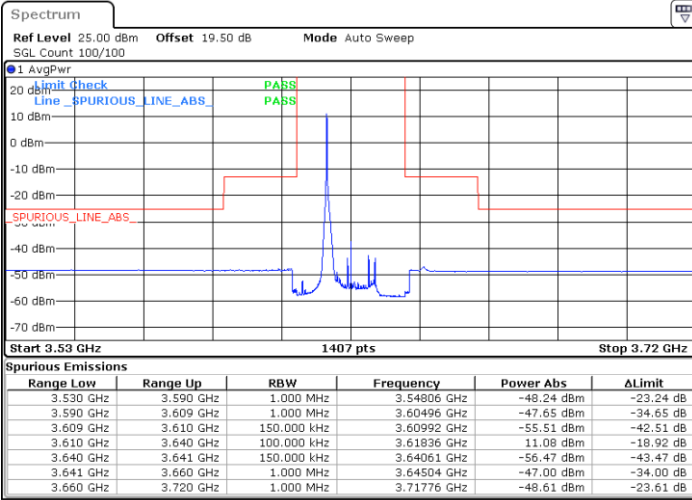


LTE Band 48 / 15MHz

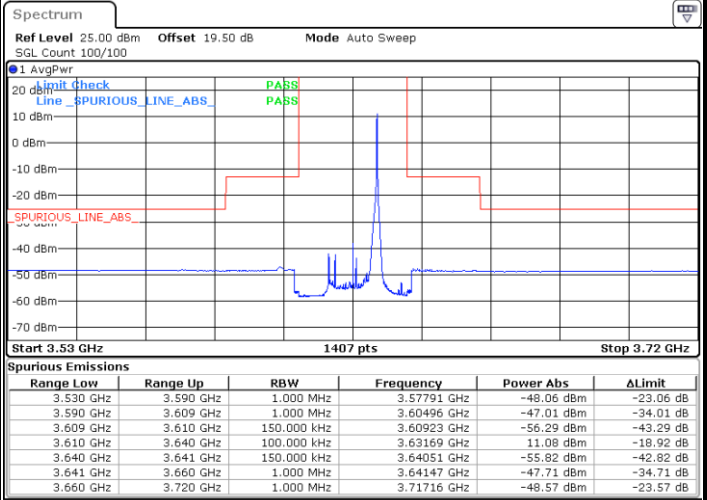
16QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



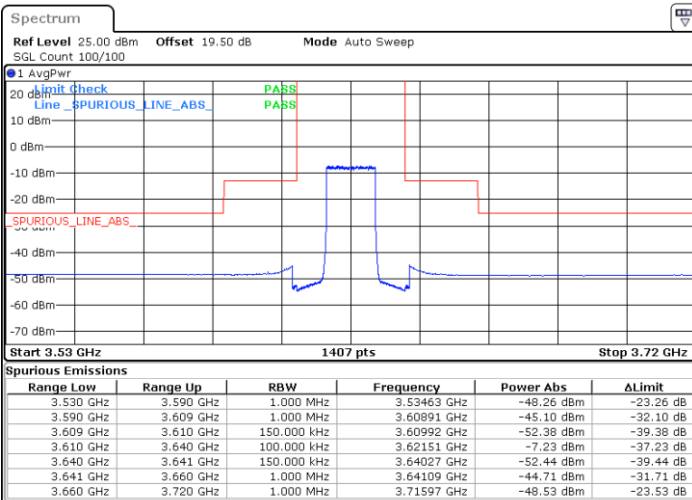
Date: 17.JUL.2024 11:04:26



Date: 17.JUL.2024 10:59:33

Middle Channel / Full RB

N/A



Date: 17.JUL.2024 10:54:40

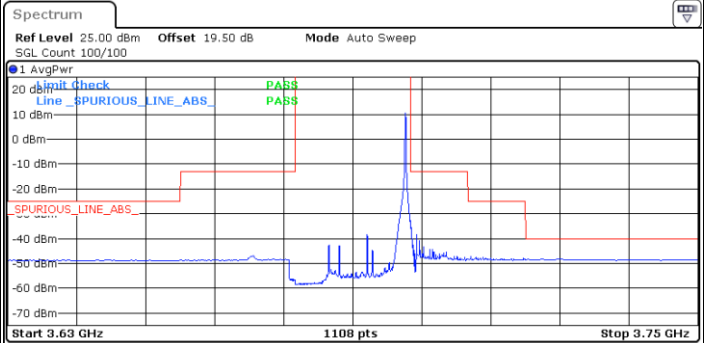
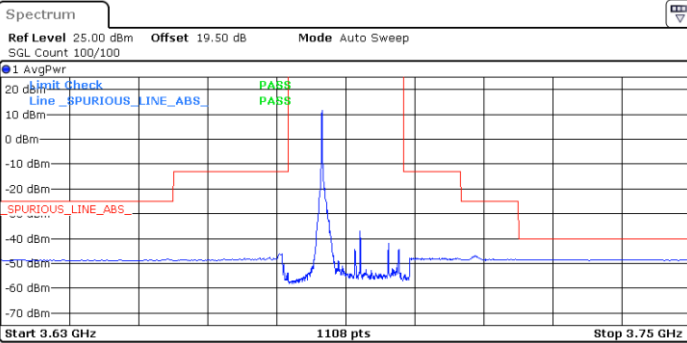


LTE Band 48 / 15MHz

16QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.630 GHz	3.660 GHz	1.000 MHz	3.65926 GHz	-48.23 dBm	-23.23 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67891 GHz	-46.03 dBm	-33.03 dB
3.679 GHz	3.680 GHz	150.000 kHz	3.67916 GHz	-50.45 dBm	-37.45 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68586 GHz	11.61 dBm	-18.39 dB
3.700 GHz	3.701 GHz	150.000 kHz	3.70022 GHz	-54.50 dBm	-41.50 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70131 GHz	-47.73 dBm	-34.73 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71243 GHz	-46.83 dBm	-21.83 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72074 GHz	-48.45 dBm	-8.45 dB

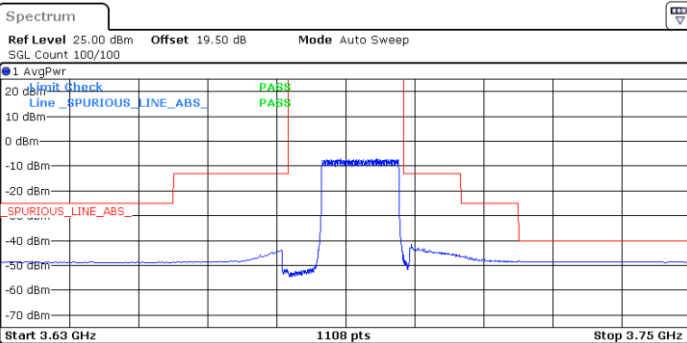
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.630 GHz	3.660 GHz	1.000 MHz	3.64559 GHz	-48.65 dBm	-23.65 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67270 GHz	-46.92 dBm	-33.92 dB
3.679 GHz	3.680 GHz	150.000 kHz	3.67918 GHz	-56.17 dBm	-43.17 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.69918 GHz	10.46 dBm	-19.54 dB
3.700 GHz	3.701 GHz	150.000 kHz	3.70001 GHz	-32.70 dBm	-19.70 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70104 GHz	-38.44 dBm	-25.44 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71054 GHz	-47.23 dBm	-22.23 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72579 GHz	-48.15 dBm	-8.15 dB

Date: 16.JUL.2024 21:16:48

Date: 16.JUL.2024 21:20:58

Highest Channel / Full RB

N/A



Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.630 GHz	3.660 GHz	1.000 MHz	3.63639 GHz	-48.65 dBm	-23.65 dB
3.660 GHz	3.679 GHz	1.000 MHz	3.67891 GHz	-43.86 dBm	-30.86 dB
3.679 GHz	3.680 GHz	150.000 kHz	3.67966 GHz	-51.34 dBm	-38.34 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68905 GHz	-7.21 dBm	-37.21 dB
3.700 GHz	3.701 GHz	150.000 kHz	3.70000 GHz	-45.65 dBm	-32.65 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70140 GHz	-41.65 dBm	-28.65 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71074 GHz	-46.20 dBm	-21.20 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72015 GHz	-48.35 dBm	-8.35 dB

Date: 16.JUL.2024 21:25:08

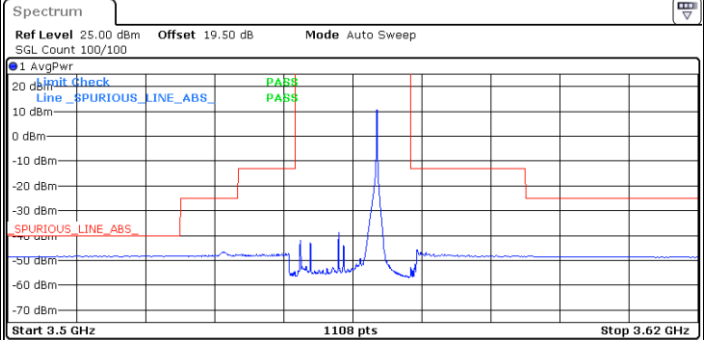
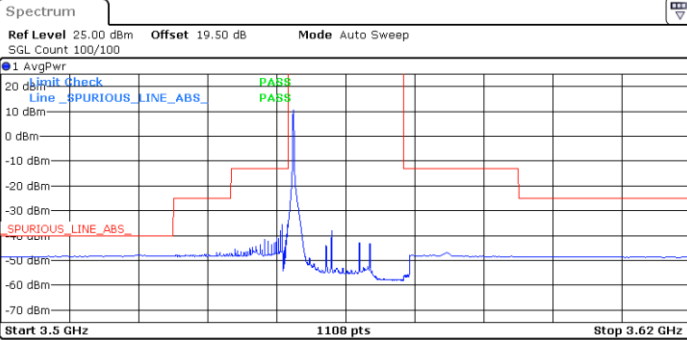


LTE Band 48 / 15MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52421 GHz	-47.98 dBm	-7.98 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53748 GHz	-46.83 dBm	-21.83 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54896 GHz	-35.40 dBm	-22.40 dB
3.549 GHz	3.550 GHz	150.000 kHz	3.54997 GHz	-33.71 dBm	-20.71 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55082 GHz	10.67 dBm	-19.33 dB
3.570 GHz	3.571 GHz	150.000 kHz	3.57079 GHz	-55.05 dBm	-42.05 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57749 GHz	-46.83 dBm	-33.83 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59104 GHz	-48.43 dBm	-23.43 dB

Spurious Emissions

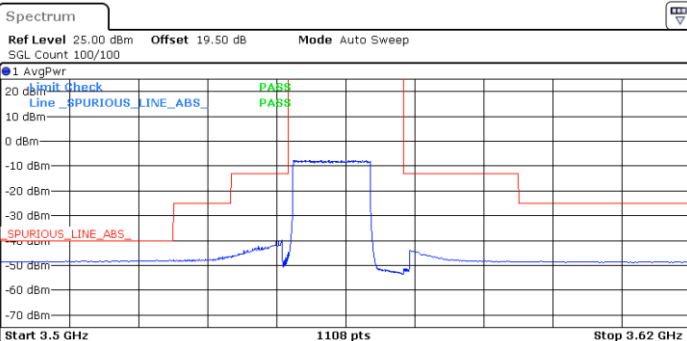
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52421 GHz	-48.19 dBm	-8.19 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53748 GHz	-46.65 dBm	-21.65 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54878 GHz	-47.11 dBm	-34.11 dB
3.549 GHz	3.550 GHz	150.000 kHz	3.54986 GHz	-54.44 dBm	-41.44 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.56414 GHz	10.67 dBm	-19.33 dB
3.570 GHz	3.571 GHz	150.000 kHz	3.57083 GHz	-51.29 dBm	-38.29 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57128 GHz	-45.72 dBm	-32.72 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59104 GHz	-48.26 dBm	-23.26 dB

Date: 16.JUL.2024 20:28:15

Date: 16.JUL.2024 20:35:11

Lowest Channel / Full RB

N/A



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52718 GHz	-48.03 dBm	-8.03 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53985 GHz	-46.34 dBm	-21.34 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54896 GHz	-39.69 dBm	-26.69 dB
3.549 GHz	3.550 GHz	150.000 kHz	3.55000 GHz	-44.82 dBm	-31.82 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55297 GHz	-7.61 dBm	-37.61 dB
3.570 GHz	3.571 GHz	150.000 kHz	3.57003 GHz	-51.42 dBm	-38.42 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57109 GHz	-43.98 dBm	-30.98 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59401 GHz	-48.41 dBm	-23.41 dB

Date: 16.JUL.2024 20:36:34

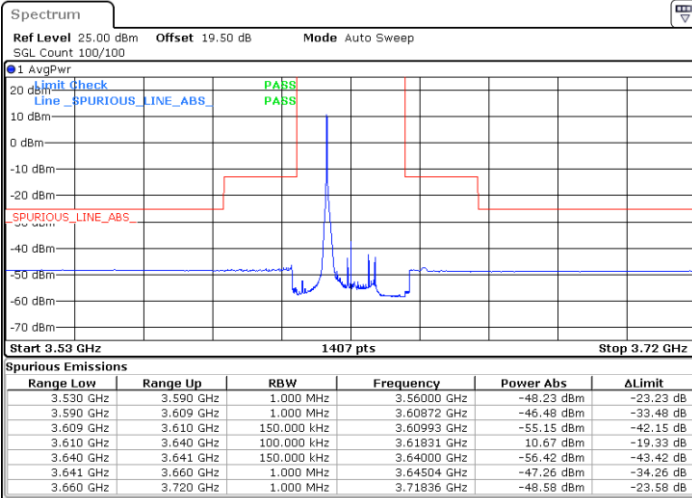


LTE Band 48 / 15MHz

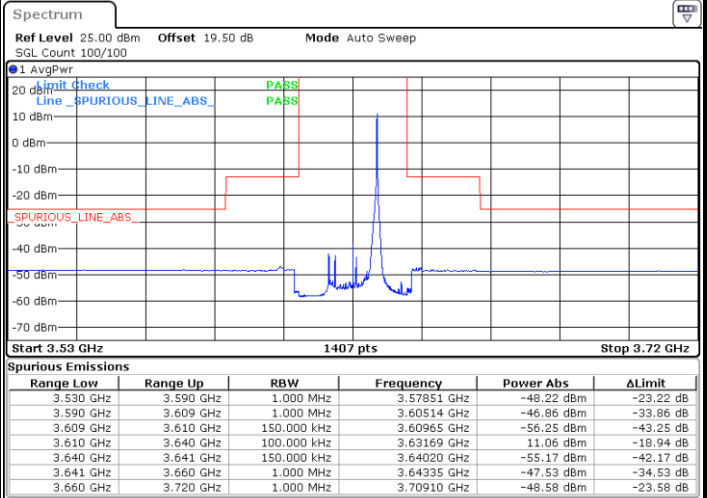
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



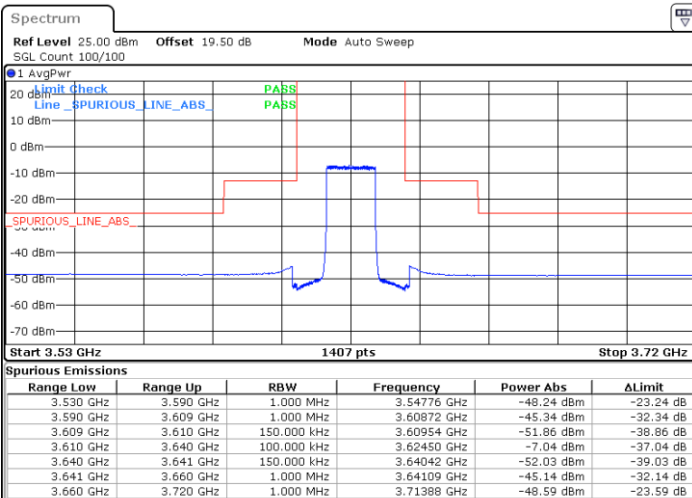
Date: 17. JUL. 2024 11:06:04



Date: 17. JUL. 2024 10:57:55

Middle Channel / Full RB

N/A



Date: 17. JUL. 2024 10:56:17

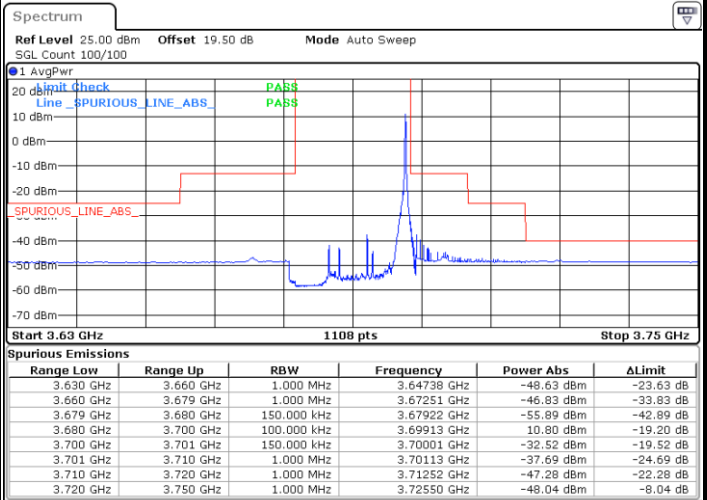
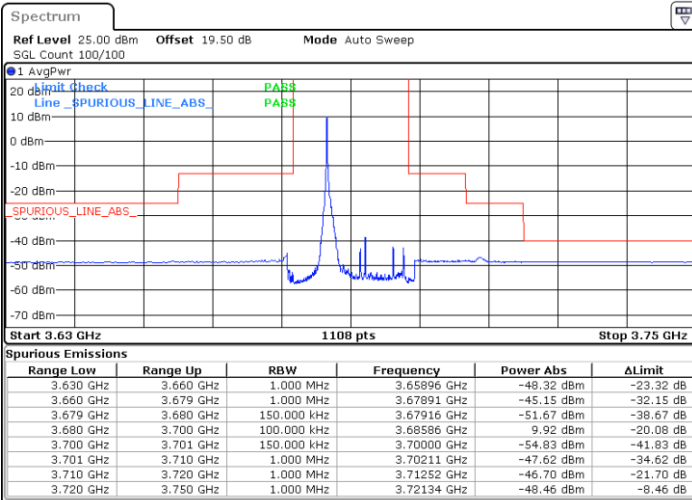


LTE Band 48 / 15MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

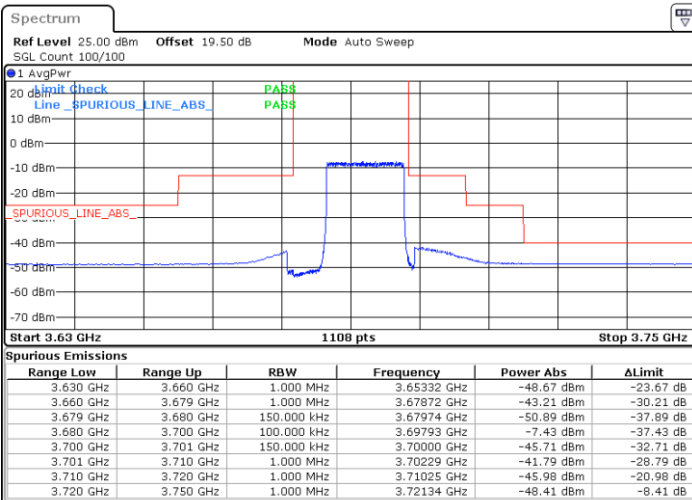


Date: 16. JUL. 2024 21:15:25

Date: 16. JUL. 2024 21:22:21

Highest Channel / Full RB

N/A



Date: 16. JUL. 2024 21:23:44

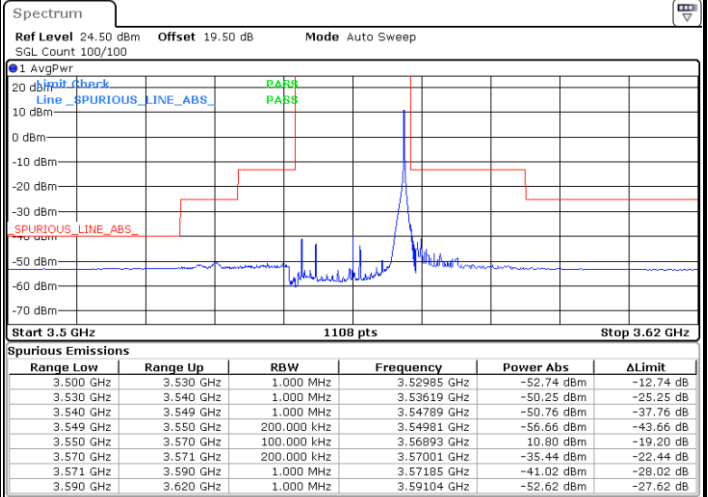
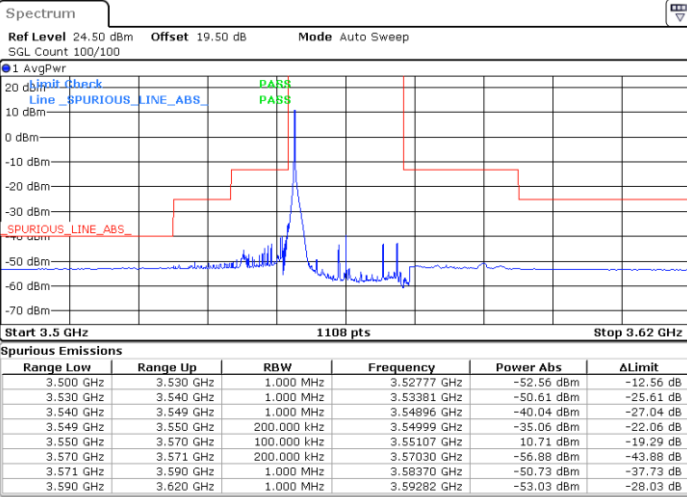


LTE Band 48 / 20MHz

QPSK

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

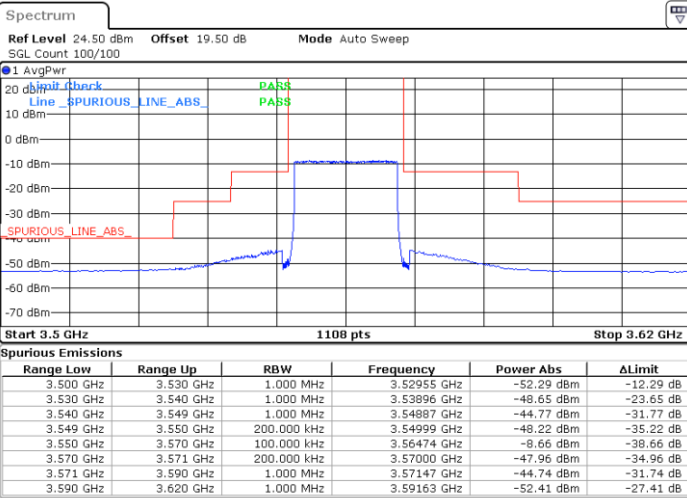


Date: 16.JUL.2024 21:39:34

Date: 16.JUL.2024 21:46:32

Lowest Channel / Full RB

N/A



Date: 16.JUL.2024 21:47:56

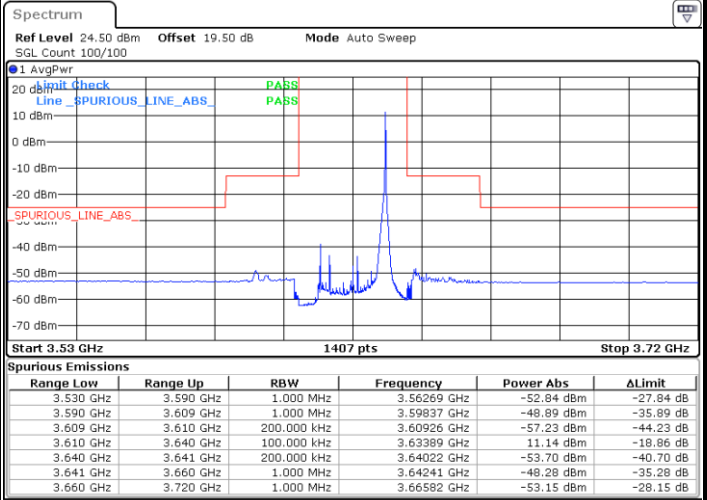
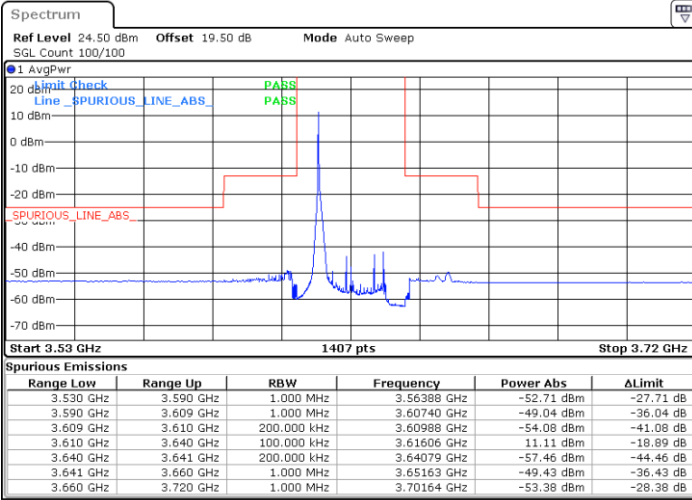


LTE Band 48 / 20MHz

QPSK

Middle Channel / 1RB0

Middle Channel / 1RBmax

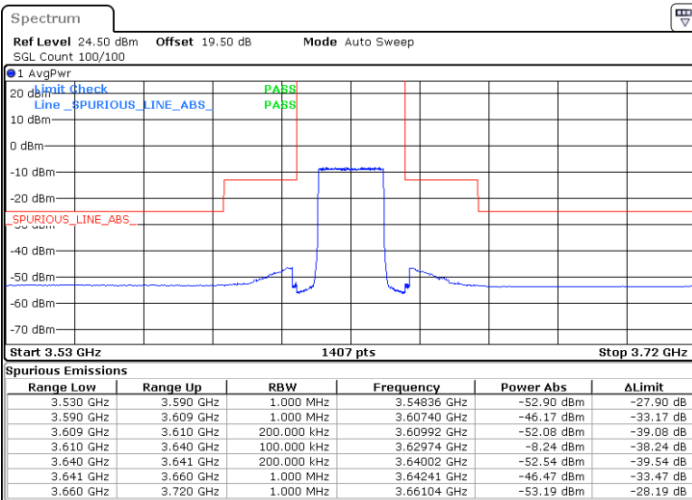


Date: 17.JUL.2024 11:20:50

Date: 17.JUL.2024 11:12:41

Middle Channel / Full RB

N/A



Date: 17.JUL.2024 11:11:03

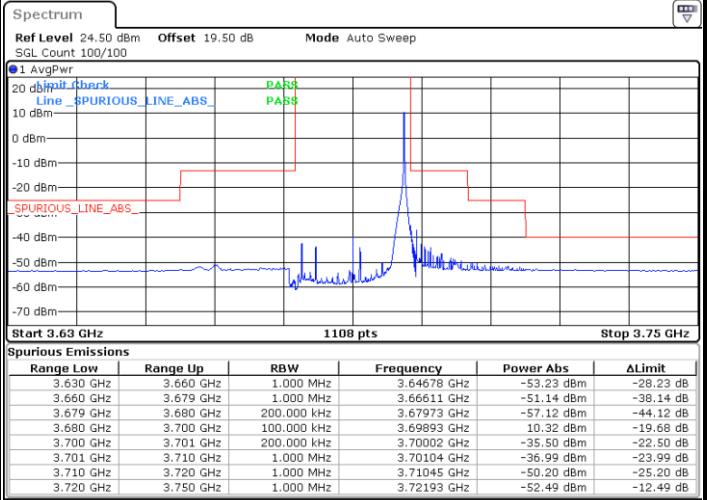
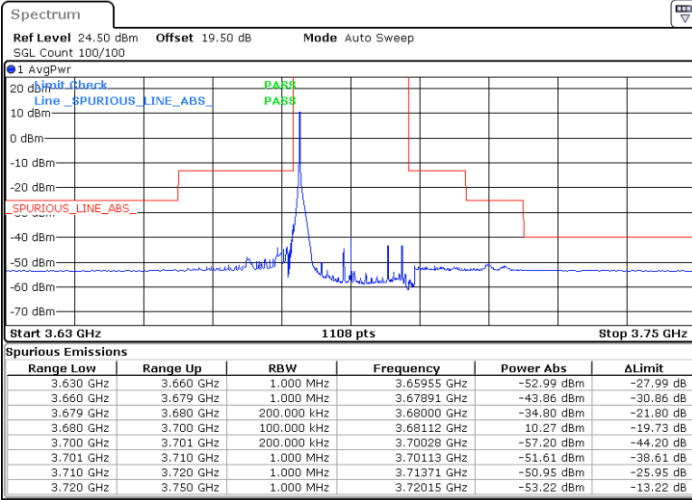


LTE Band 48 / 20MHz

QPSK

Highest Channel / 1RB0

Highest Channel / 1RBmax

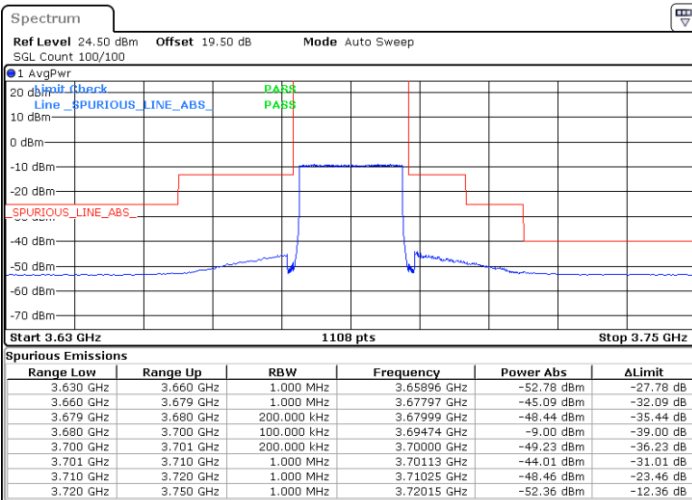


Date: 17.JUL.2024 11:52:26

Date: 17.JUL.2024 12:00:38

Highest Channel / Full RB

N/A



Date: 17.JUL.2024 12:02:16

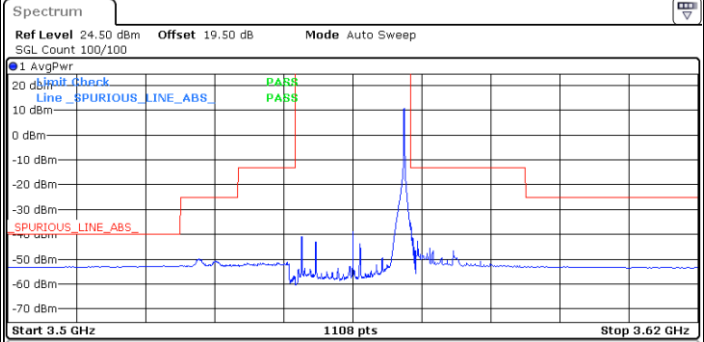
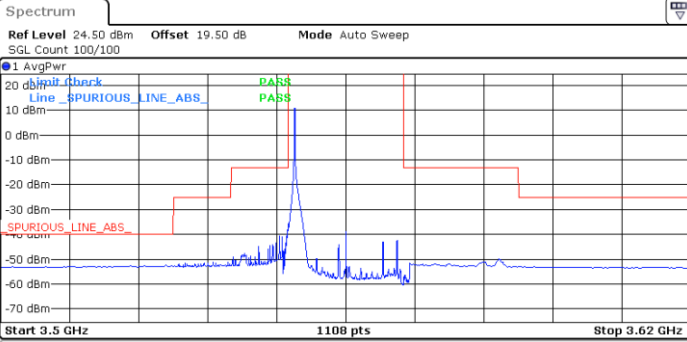


LTE Band 48 / 20MHz

16QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52866 GHz	-52.43 dBm	-12.43 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53688 GHz	-51.26 dBm	-26.26 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54851 GHz	-40.78 dBm	-27.78 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54995 GHz	-35.70 dBm	-22.70 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55107 GHz	10.85 dBm	-19.15 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57027 GHz	-55.39 dBm	-43.39 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.58652 GHz	-49.87 dBm	-36.87 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59015 GHz	-52.98 dBm	-27.98 dB

Spurious Emissions

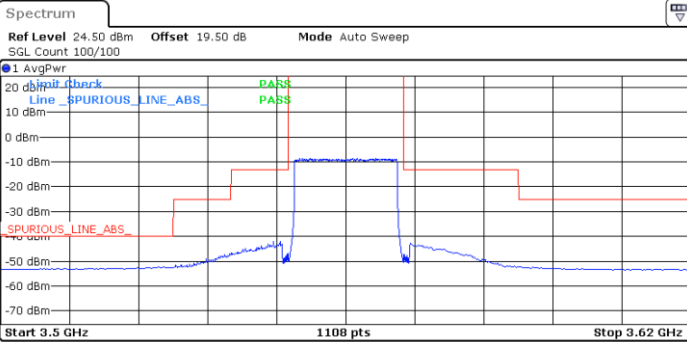
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52718 GHz	-52.75 dBm	-12.75 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53322 GHz	-49.88 dBm	-24.88 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54869 GHz	-51.33 dBm	-38.33 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54974 GHz	-56.86 dBm	-43.86 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.56893 GHz	10.72 dBm	-19.28 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57003 GHz	-35.24 dBm	-22.24 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57128 GHz	-42.86 dBm	-29.86 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59728 GHz	-52.93 dBm	-27.93 dB

Date: 16.JUL.2024 21:40:57

Date: 16.JUL.2024 21:45:08

Lowest Channel / Full RB

N/A



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52748 GHz	-52.26 dBm	-12.26 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53975 GHz	-47.09 dBm	-22.09 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54744 GHz	-42.00 dBm	-29.00 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54997 GHz	-46.95 dBm	-33.95 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.55247 GHz	-8.72 dBm	-38.72 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57002 GHz	-47.26 dBm	-34.26 dB
3.571 GHz	3.590 GHz	1.000 MHz	3.57128 GHz	-42.74 dBm	-29.74 dB
3.590 GHz	3.620 GHz	1.000 MHz	3.59045 GHz	-52.32 dBm	-27.32 dB

Date: 16.JUL.2024 21:49:19

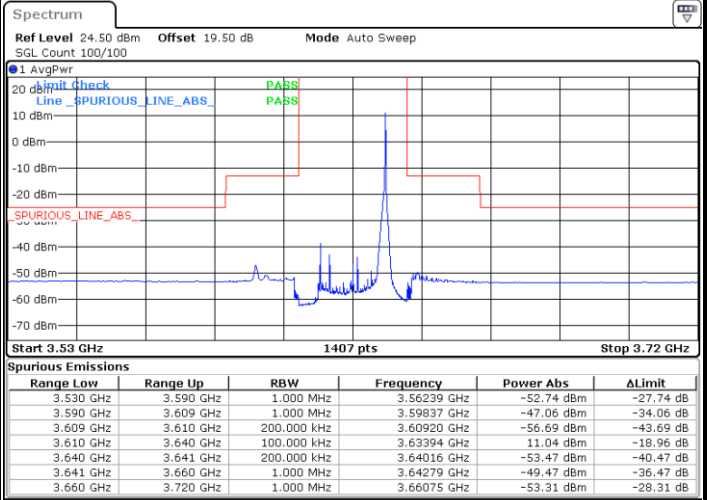
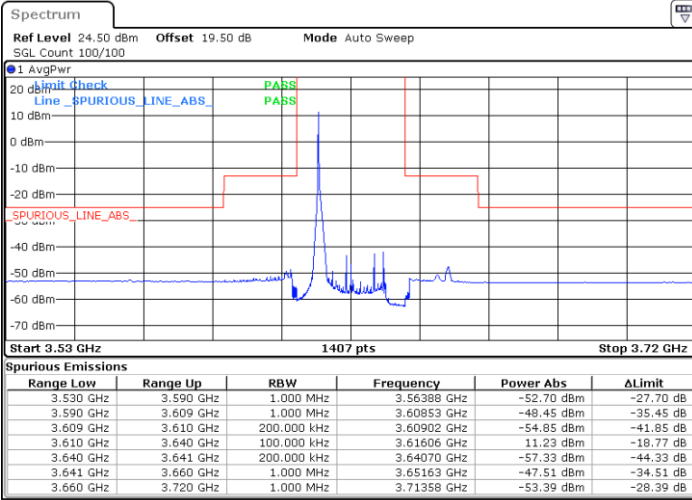


LTE Band 48 / 20MHz

16QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax

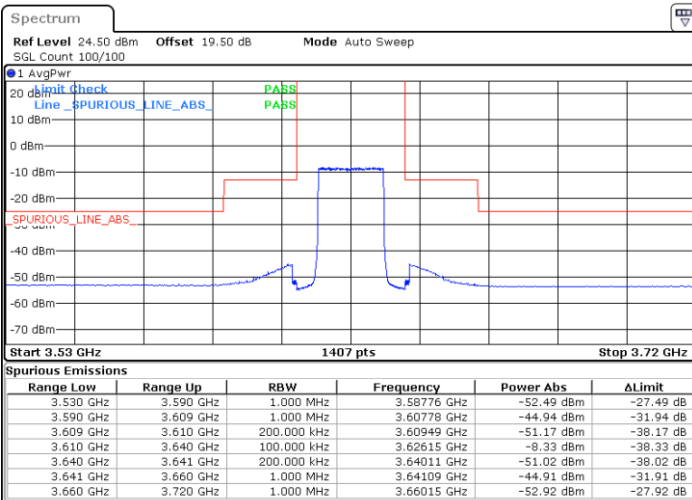


Date: 17.JUL.2024 11:19:12

Date: 17.JUL.2024 11:14:19

Middle Channel / Full RB

N/A



Date: 17.JUL.2024 11:09:25

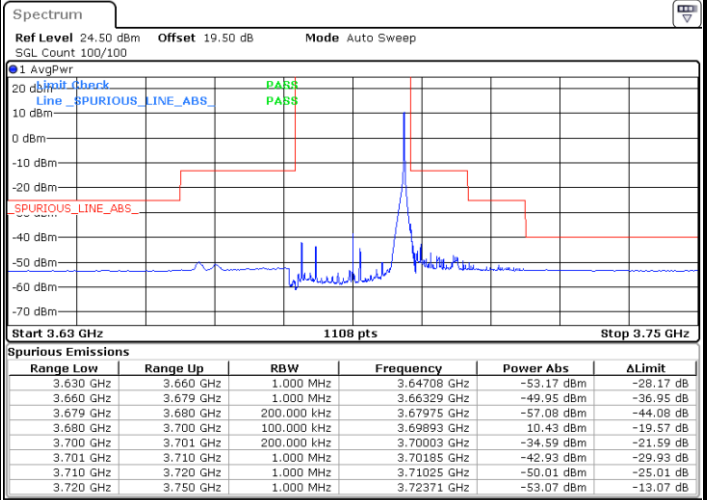
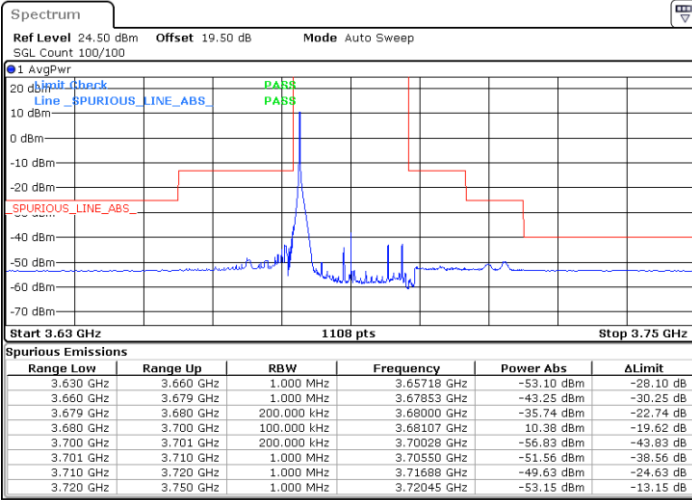


LTE Band 48 / 20MHz

16QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

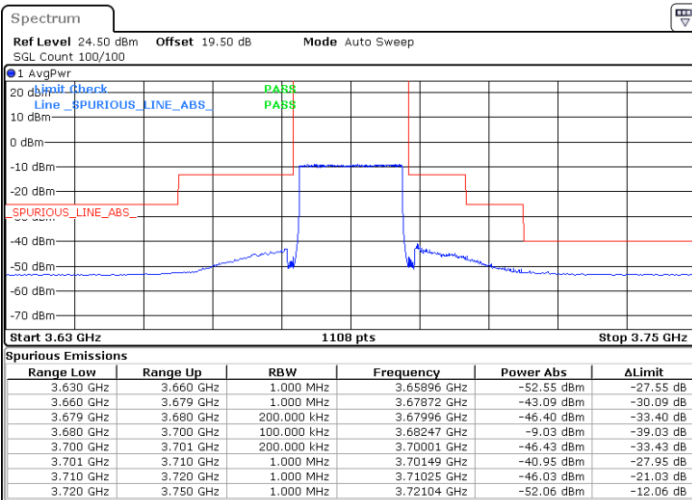


Date: 17. JUL. 2024 11:54:04

Date: 17. JUL. 2024 11:58:59

Highest Channel / Full RB

N/A



Date: 17. JUL. 2024 12:03:55

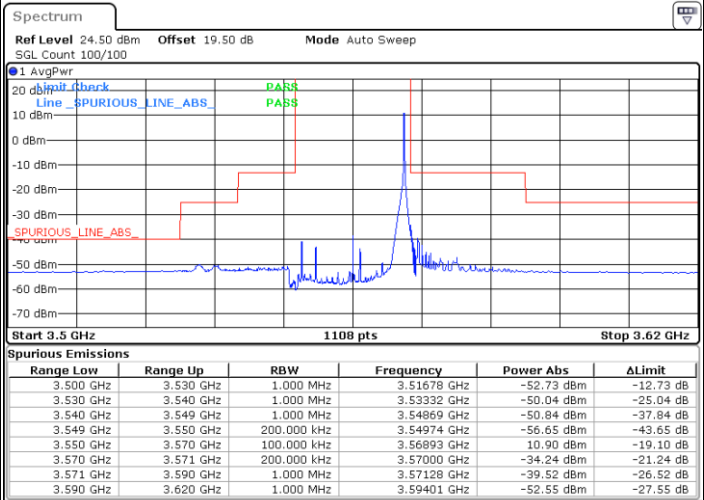
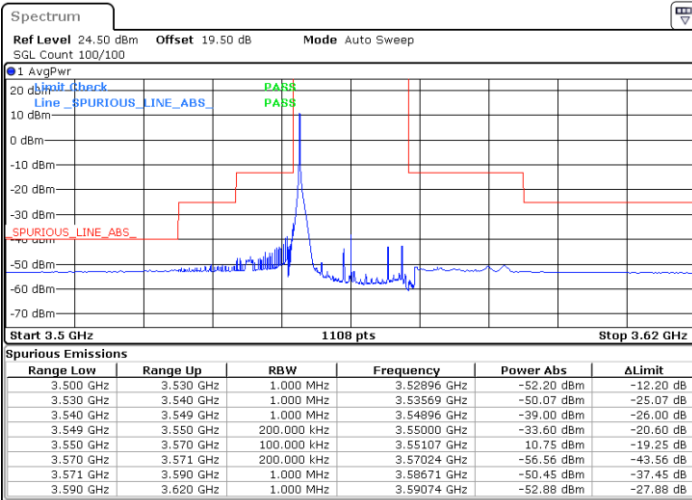


LTE Band 48 / 20MHz

64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax

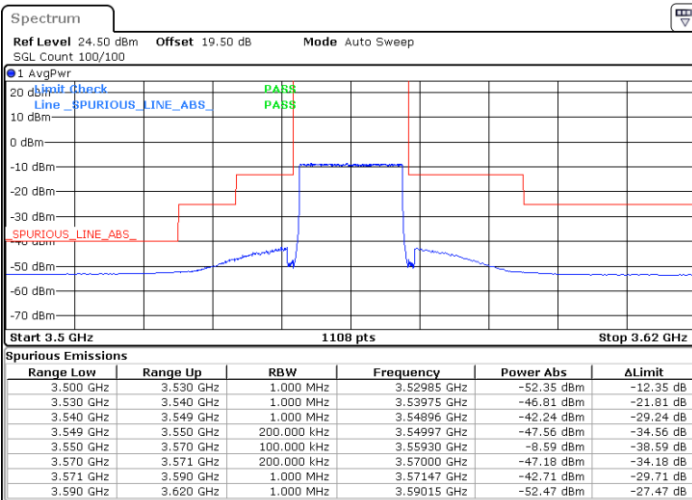


Date: 16. JUL. 2024 21:42:21

Date: 16. JUL. 2024 21:43:44

Lowest Channel / Full RB

N/A



Date: 16. JUL. 2024 21:50:43

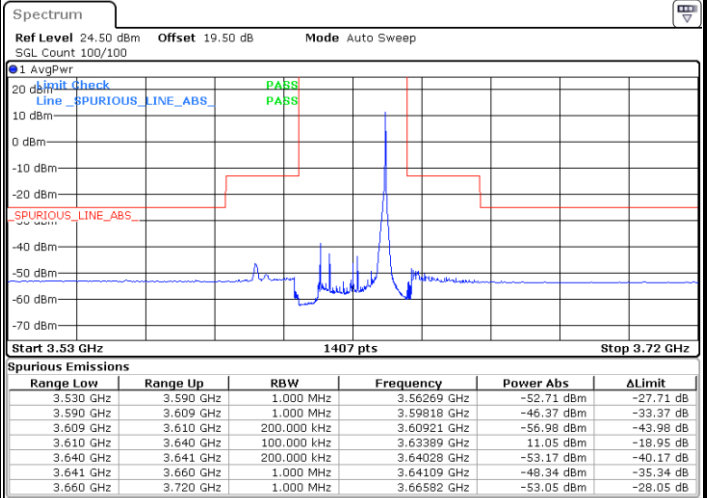
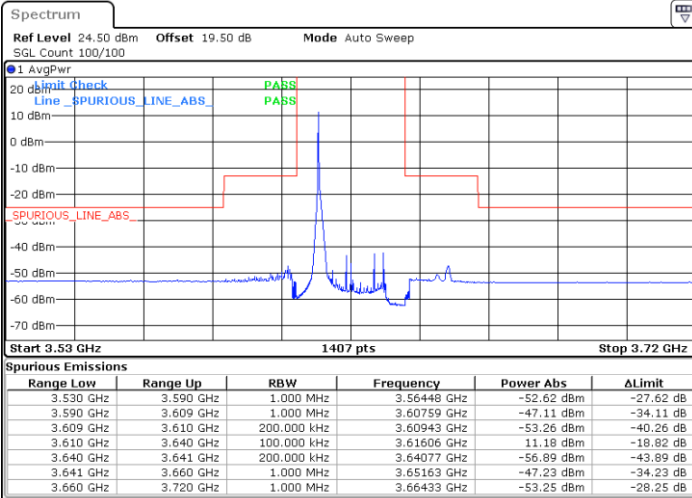


LTE Band 48 / 20MHz

64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax

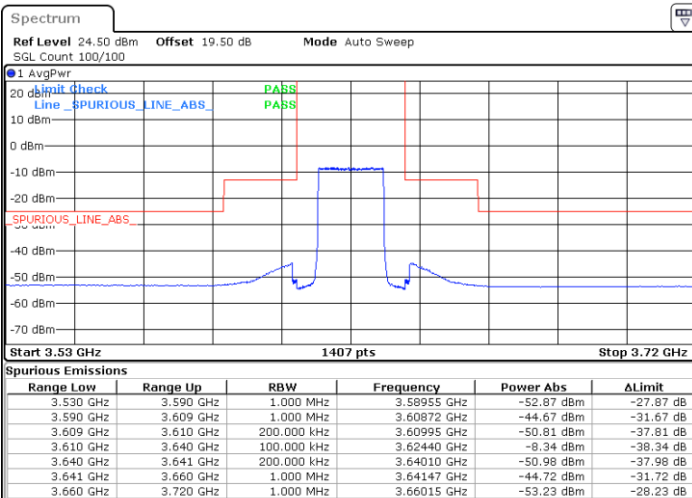


Date: 17.JUL.2024 11:17:34

Date: 17.JUL.2024 11:15:57

Middle Channel / Full RB

N/A



Date: 17.JUL.2024 11:07:48

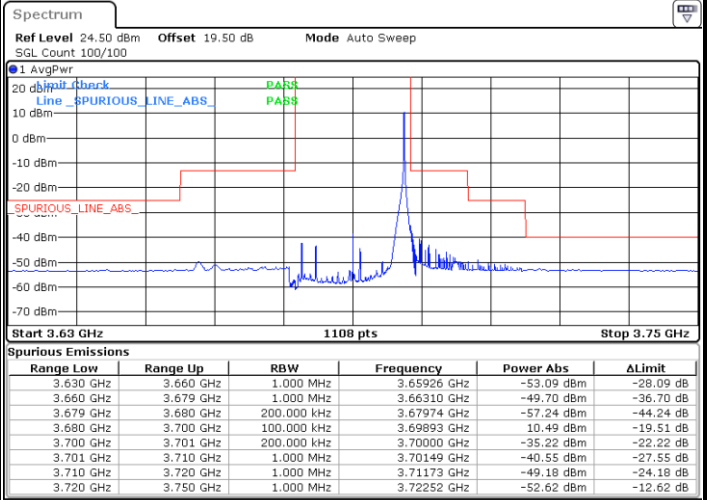
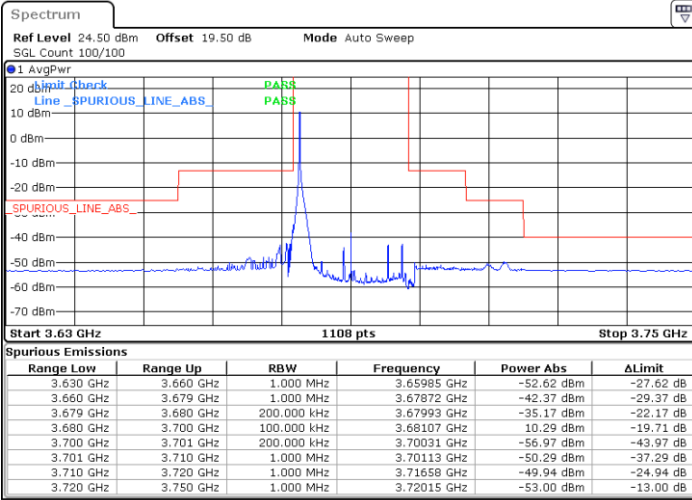


LTE Band 48 / 20MHz

64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax

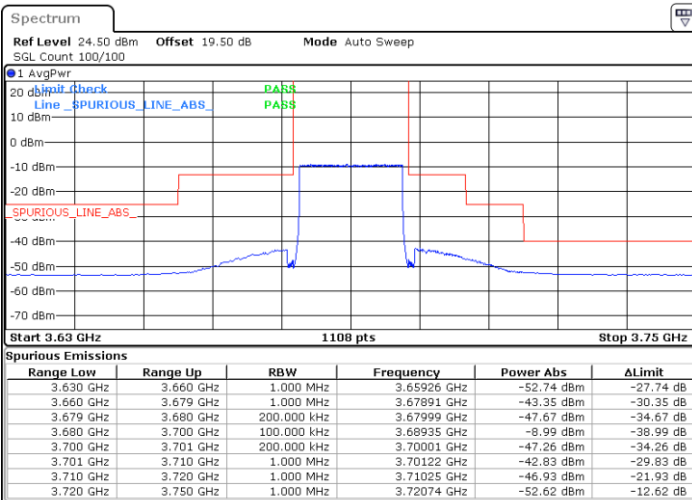


Date: 17. JUL. 2024 11:55:43

Date: 17. JUL. 2024 11:57:21

Highest Channel / Full RB

N/A



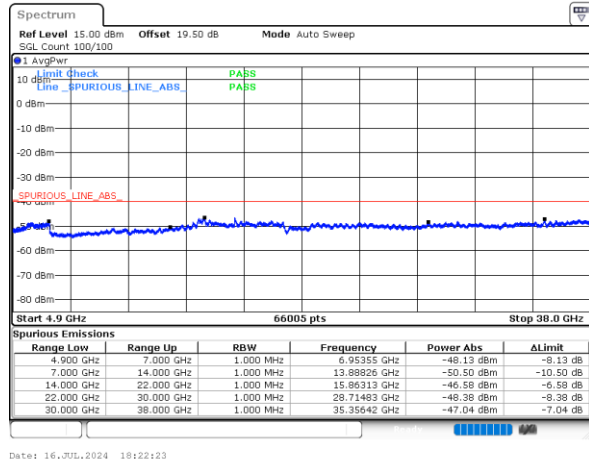
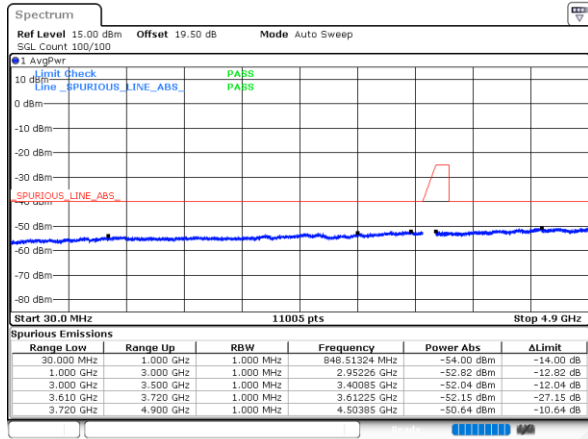
Date: 17. JUL. 2024 12:05:33



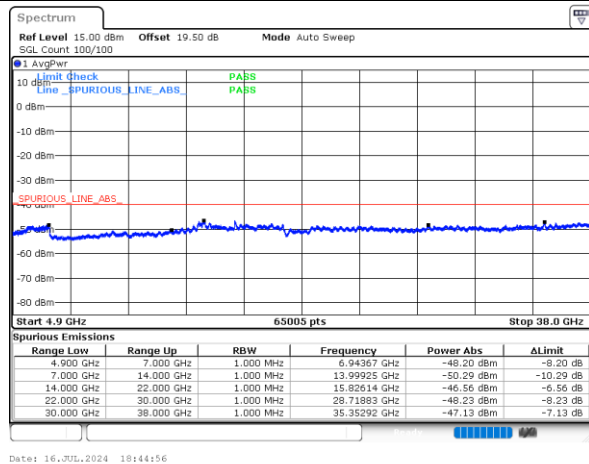
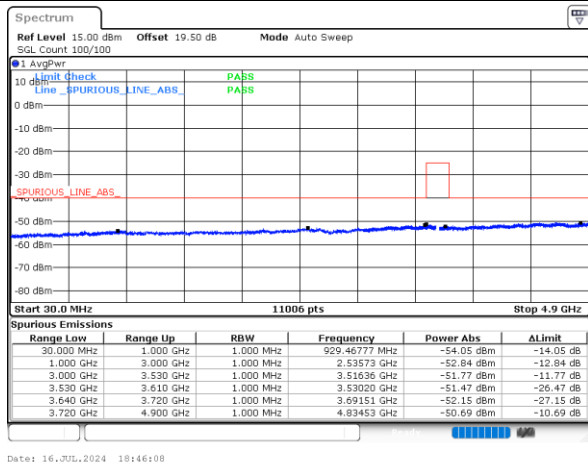
A2.5 Conducted Spurious Emission

LTE Band 48 / 5MHz

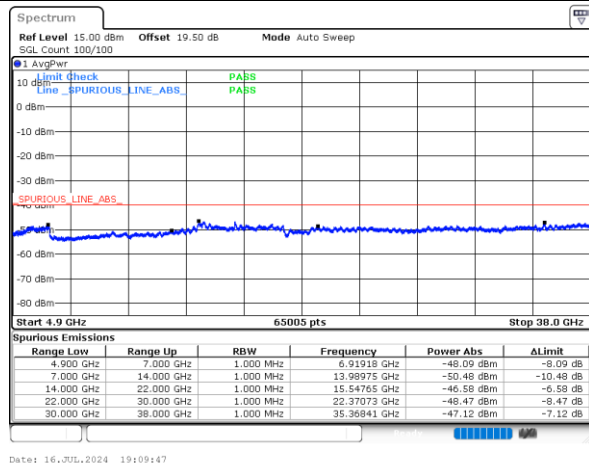
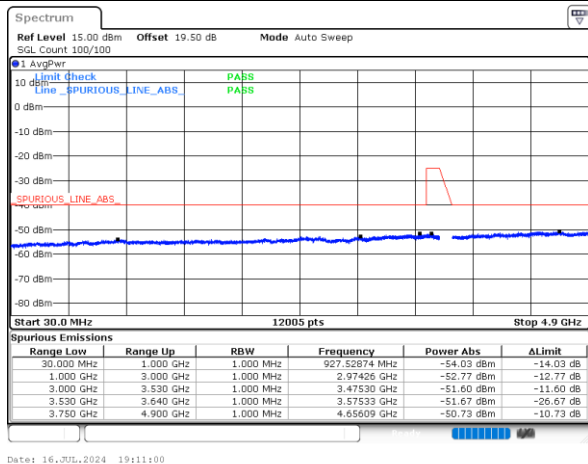
Lowest Channel / QPSK



Middle Channel / QPSK



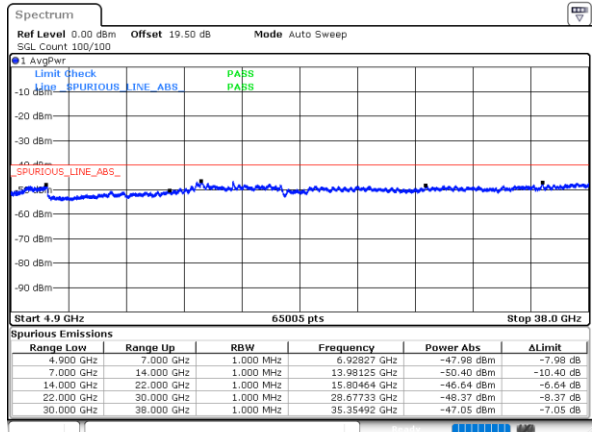
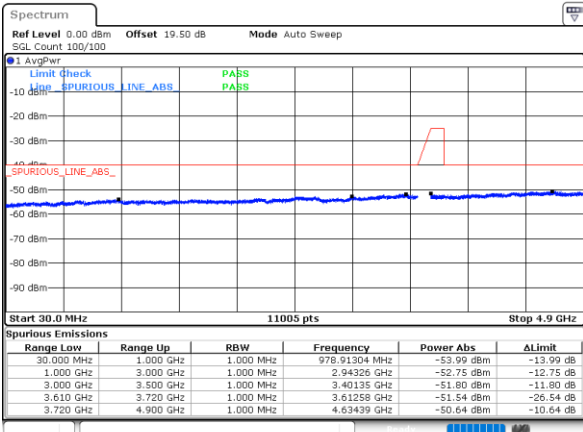
Highest Channel / QPSK



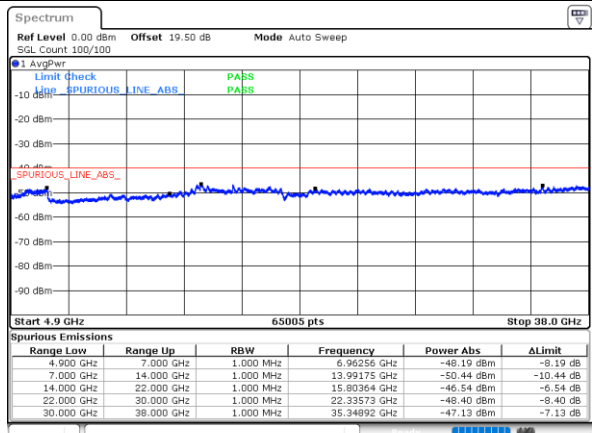
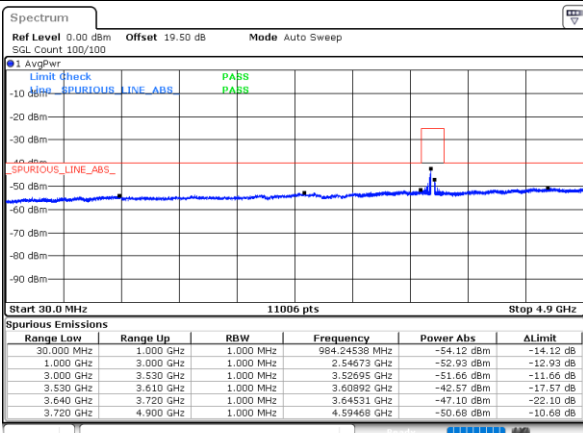


LTE Band 48 / 10MHz

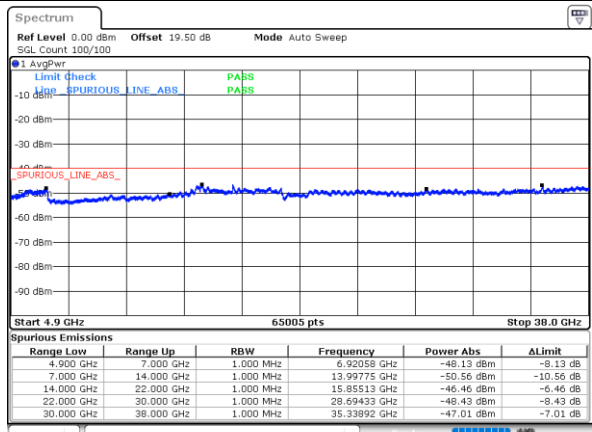
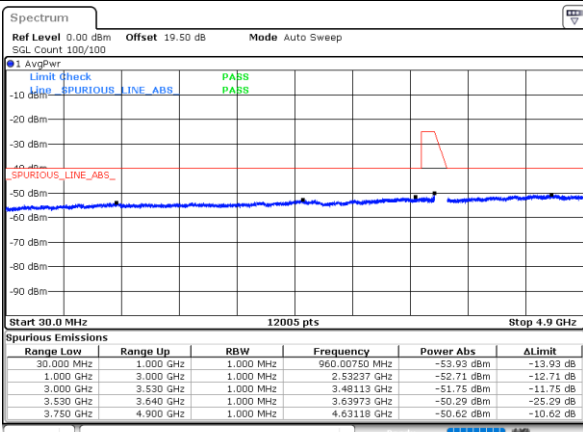
Lowest Channel / QPSK



Middle Channel / QPSK



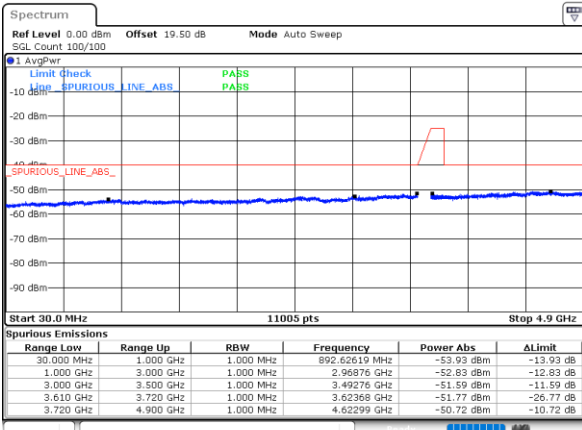
Highest Channel / QPSK



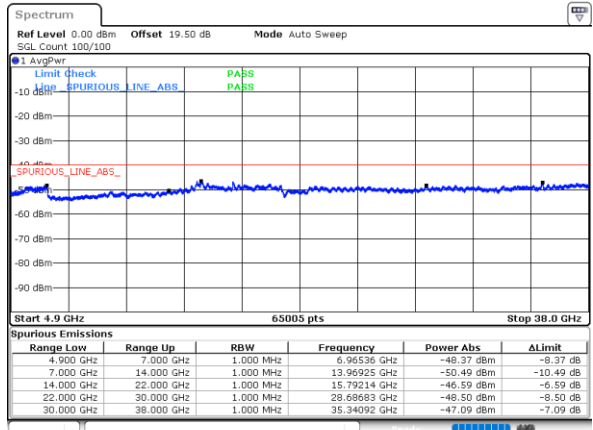


LTE Band 48 / 15MHz

Lowest Channel / QPSK

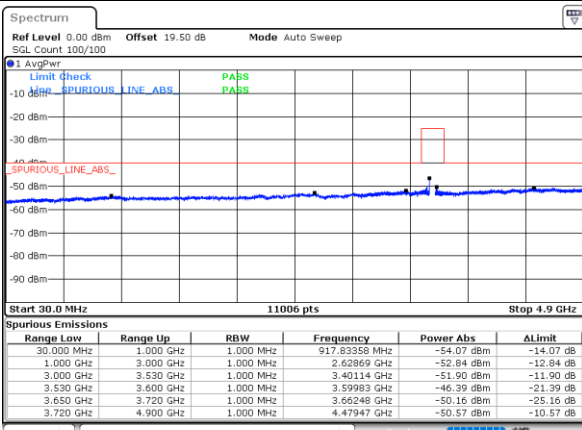


Date: 16_JUL_2024 20:42:02

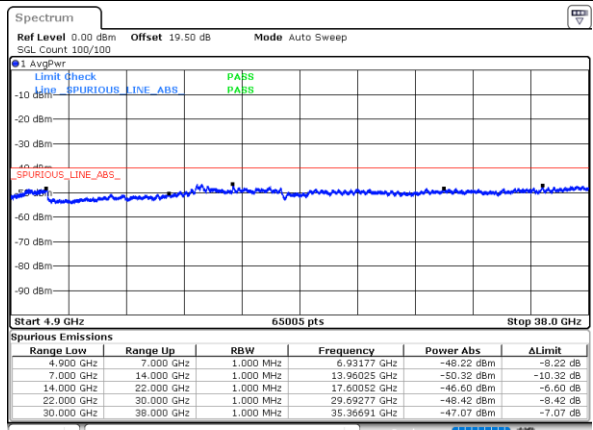


Date: 16_JUL_2024 20:40:49

Middle Channel / QPSK

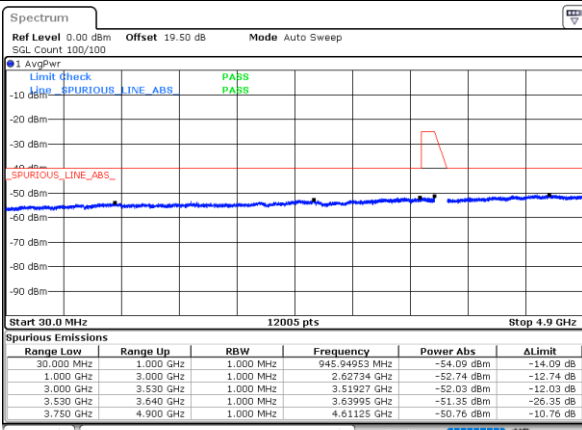


Date: 16_JUL_2024 21:06:49

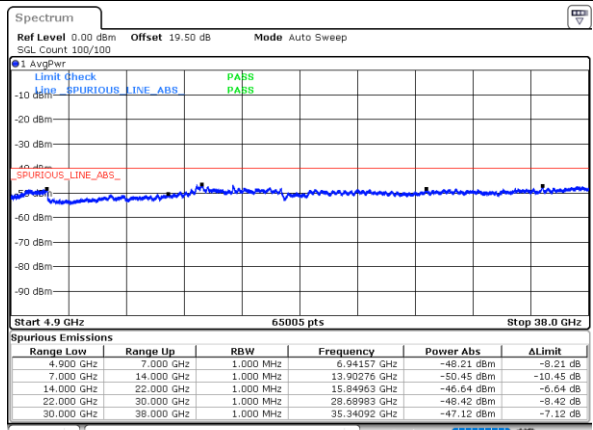


Date: 16_JUL_2024 21:05:37

Highest Channel / QPSK



Date: 16_JUL_2024 21:29:12

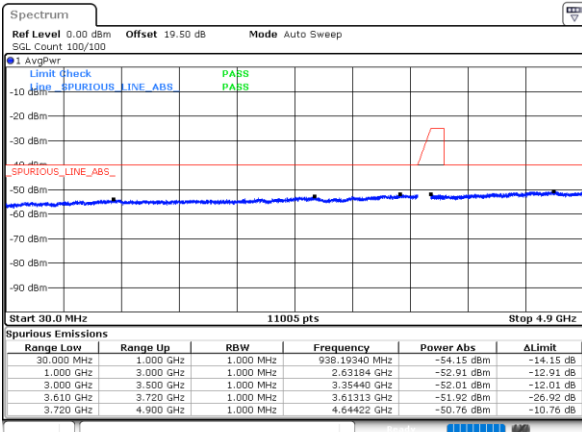


Date: 16_JUL_2024 21:27:59

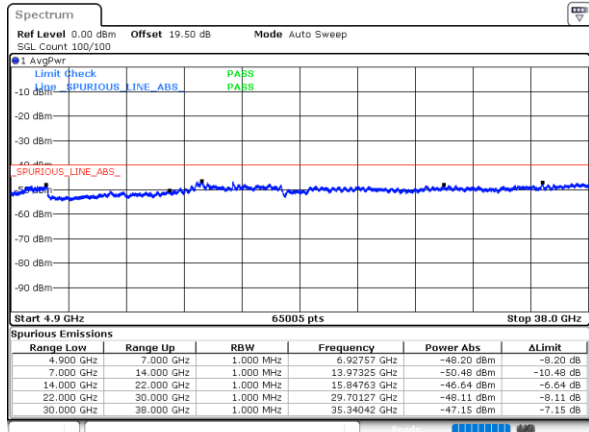


LTE Band 48 / 20MHz

Lowest Channel / QPSK

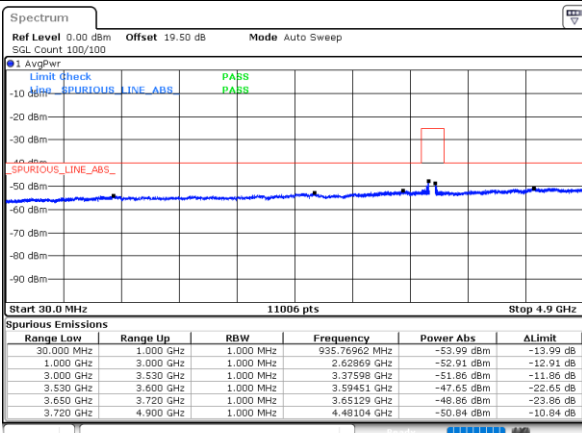


Date: 16_JUL_2024 21:53:24

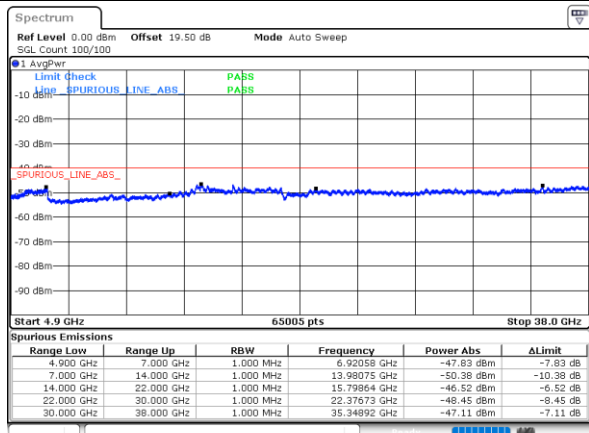


Date: 16_JUL_2024 21:52:11

Middle Channel / QPSK

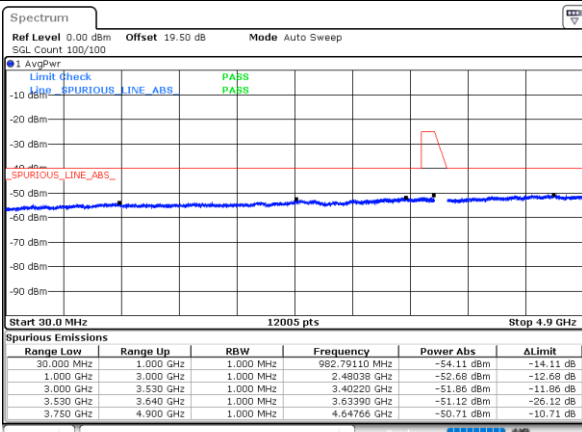


Date: 17_JUL_2024 11:23:16

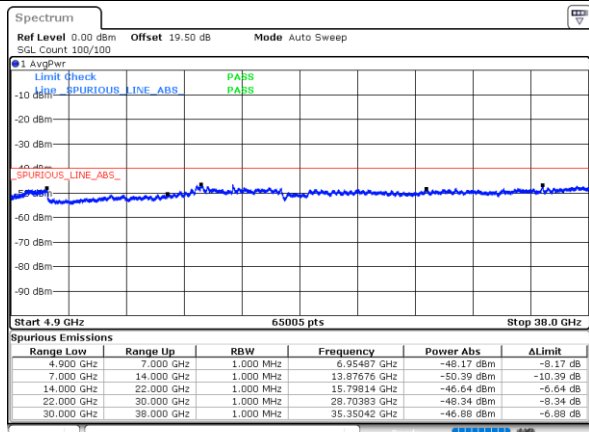


Date: 17_JUL_2024 11:22:03

Highest Channel / QPSK



Date: 17_JUL_2024 11:25:56



Date: 17_JUL_2024 11:24:43



A2.6 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	0.0004	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage = 54 V. ; Battery End Point (ACLRP) = 48 V. ; Maximum Voltage = 57 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



A3. LTE Band 48C

A3.1 26dB Bandwidth

Mode	LTE Band 48C : 26dB BW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.93	29.91	34.90	24.93
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.97	34.97	39.88	-

Mode	LTE Band 48C : 26dB BW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	24.88	30.03	34.97	24.83
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.09	34.90	39.96	-



LTE Band 48C

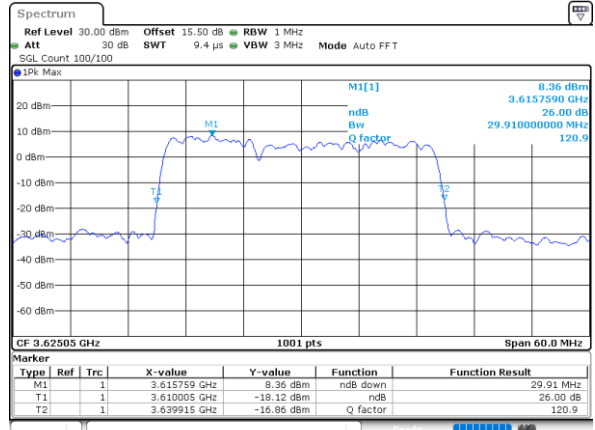
QPSK

Middle Channel / 5MHz+20MHz



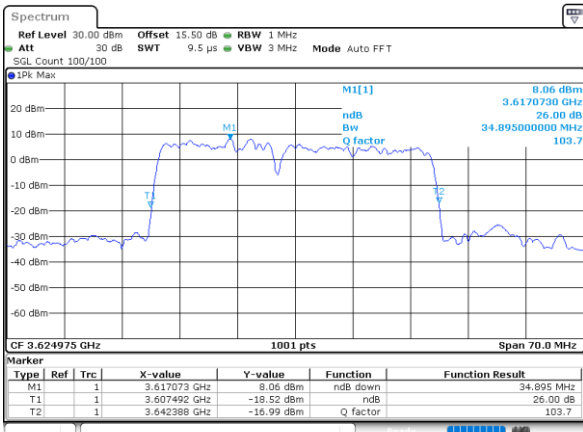
Date: 19_JUL_2024 18:52:21

Middle Channel / 10MHz+20MHz



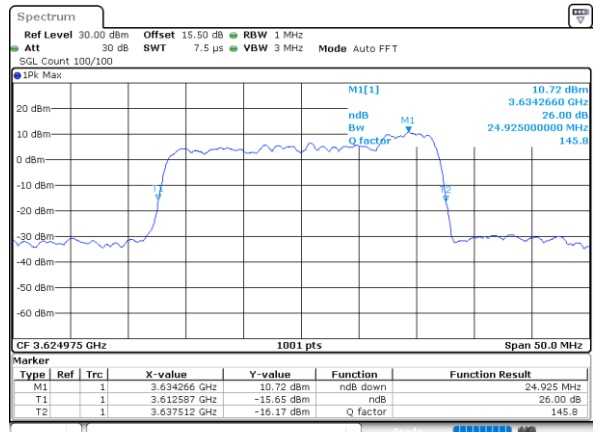
Date: 19_JUL_2024 18:56:17

Middle Channel / 15MHz+20MHz



Date: 19_JUL_2024 18:57:51

Middle Channel / 20MHz+5MHz



Date: 19_JUL_2024 18:59:01

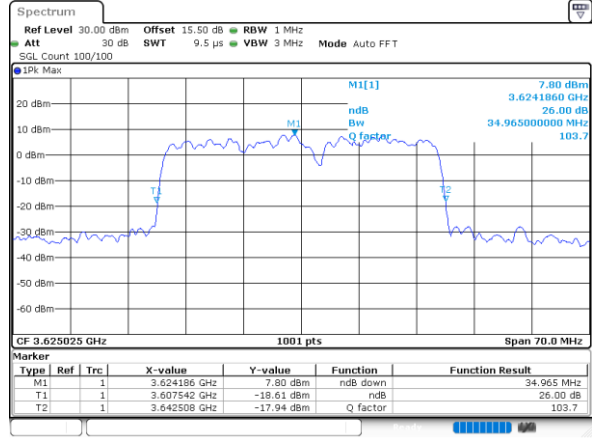
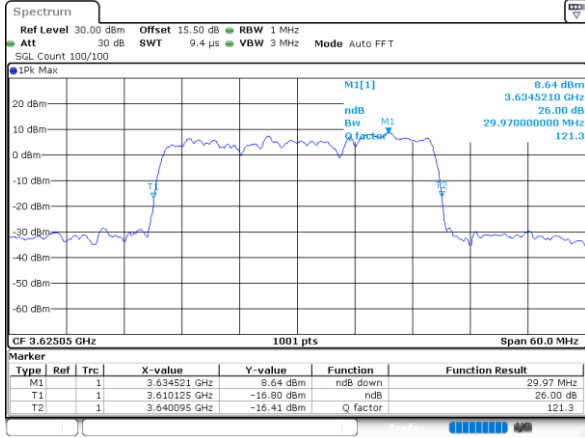


LTE Band 48C

QPSK

Middle Channel / 20MHz+10MHz

Middle Channel / 20MHz+15MHz

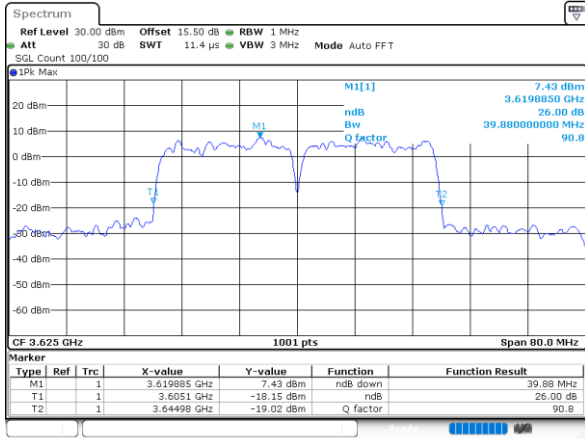


Date: 19_JUL_2024 19:00:19

Date: 19_JUL_2024 19:00:19

Middle Channel / 20MHz+20MHz

N/A



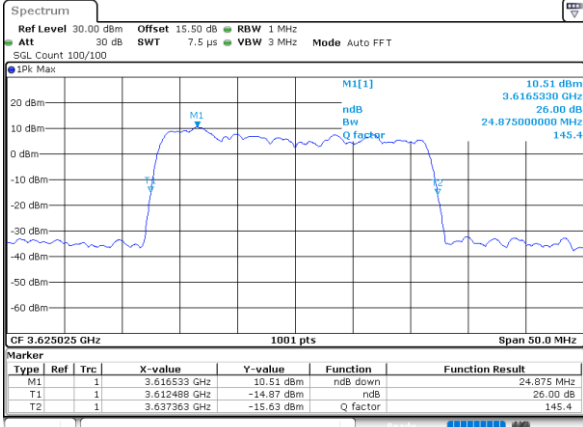
Date: 19_JUL_2024 19:02:24



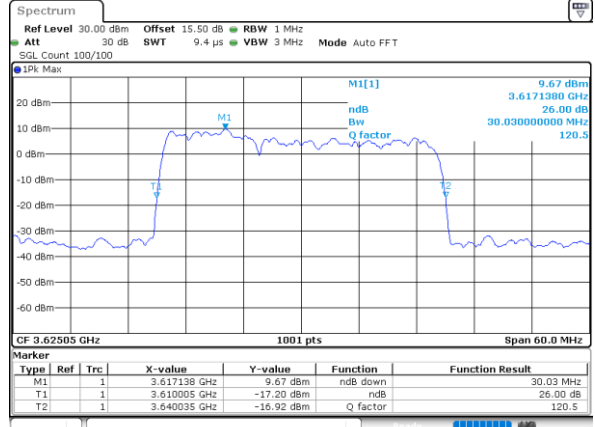
LTE Band 48C

16QAM

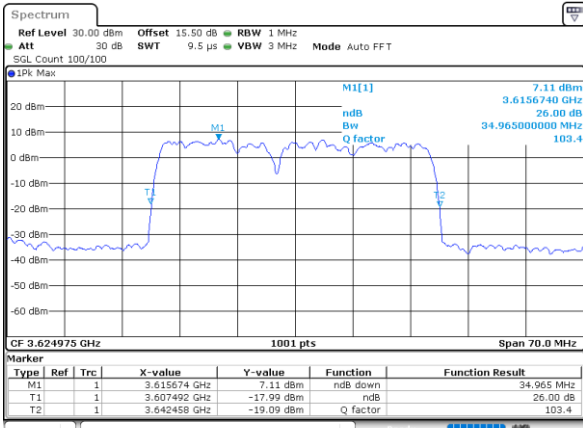
Middle Channel / 5MHz+20MHz



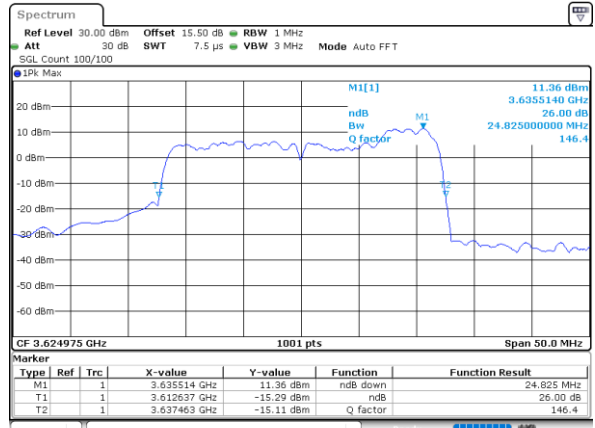
Middle Channel / 10MHz+20MHz



Middle Channel / 15MHz+20MHz



Middle Channel / 20MHz+5MHz

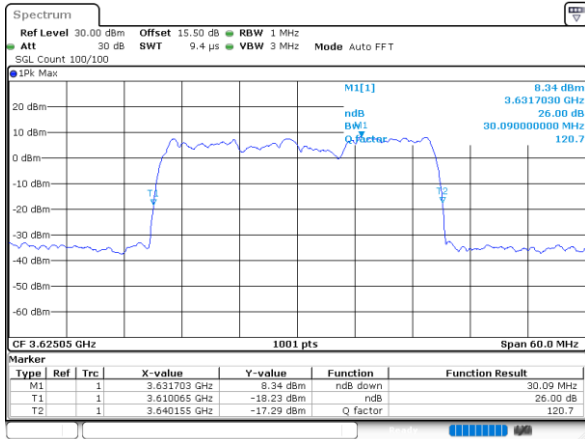




LTE Band 48C

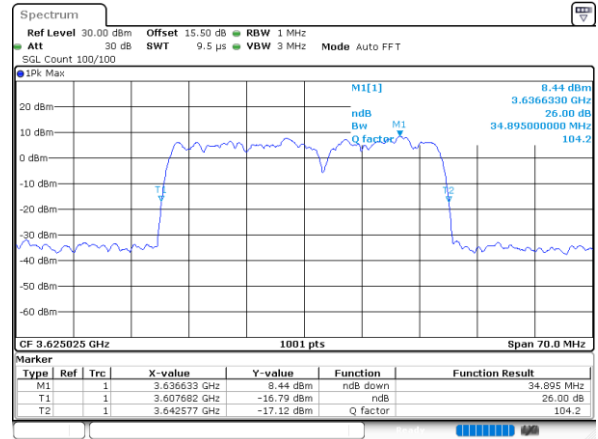
16QAM

Middle Channel / 20MHz+10MHz



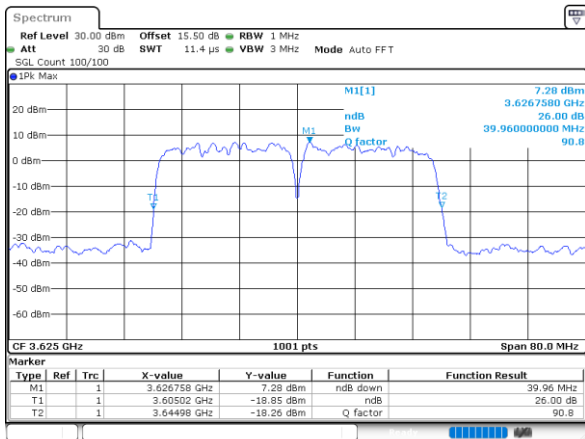
Date: 19_JUL_2024 19:00:00

Middle Channel / 20MHz+15MHz



Date: 19_JUL_2024 19:01:23

Middle Channel / 20MHz+20MHz



Date: 19_JUL_2024 19:02:12

N/A



A3.2 Occupied Bandwidth

Mode	LTE Band 48C : 99%OBW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.23	28.23	32.87	23.23
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.23	32.59	37.72	-

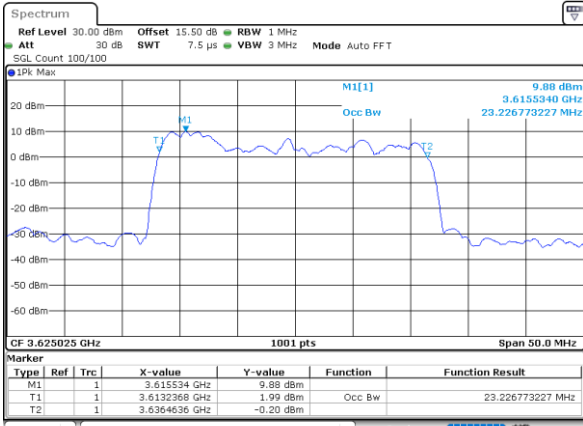
Mode	LTE Band 48C : 99%OBW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Middle CH	23.23	27.87	32.59	23.18
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.17	32.73	37.72	-



LTE Band 48C

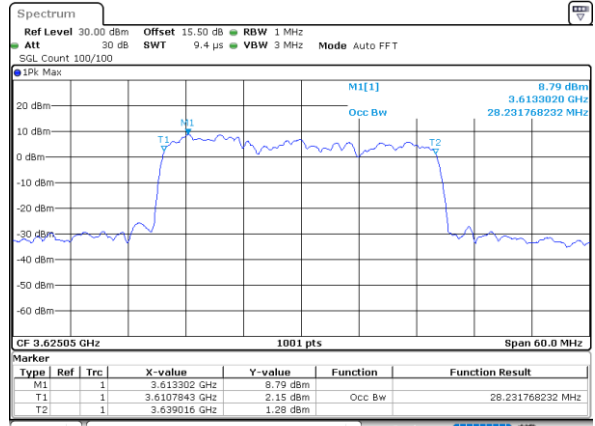
QPSK

Middle Channel / 5MHz+20MHz



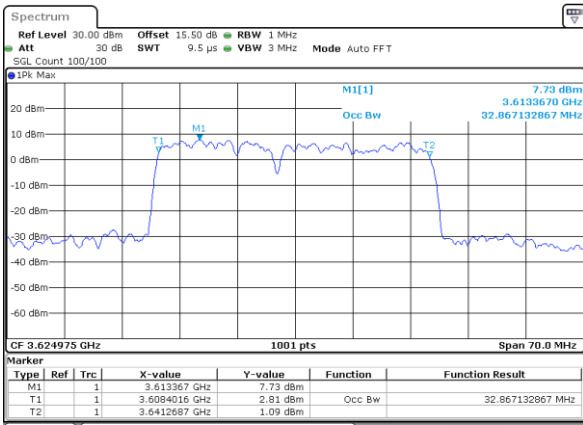
Date: 19_JUL_2024 18:52:08

Middle Channel / 10MHz+20MHz



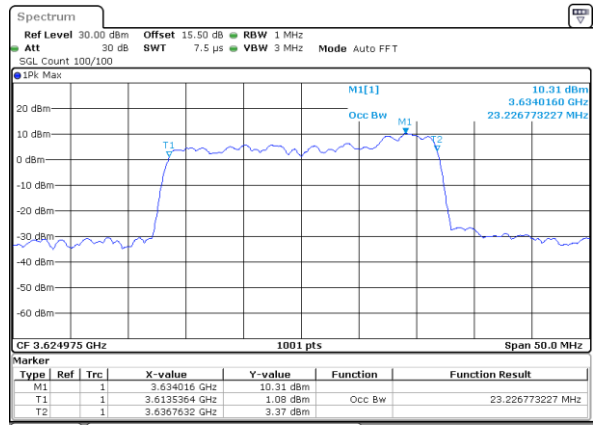
Date: 19_JUL_2024 18:56:07

Middle Channel / 15MHz+20MHz



Date: 19_JUL_2024 18:57:42

Middle Channel / 20MHz+5MHz



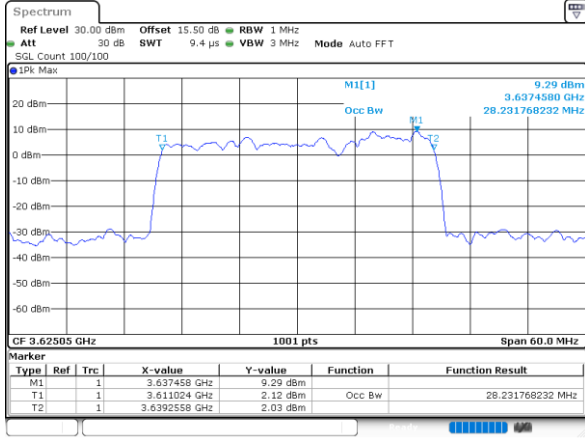
Date: 19_JUL_2024 18:58:52



LTE Band 48C

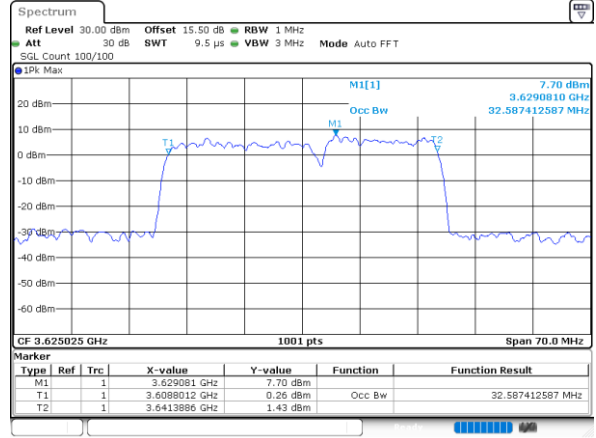
QPSK

Middle Channel / 20MHz+10MHz



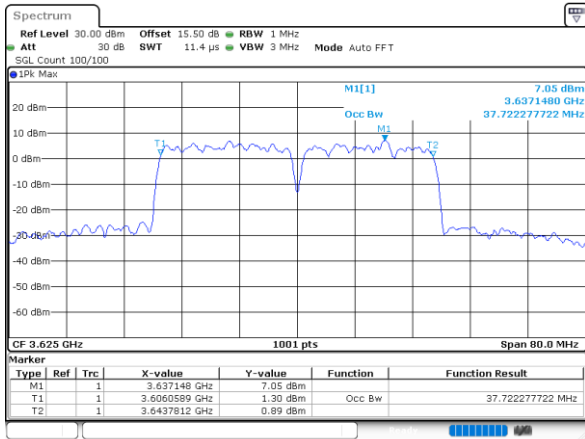
Date: 19_JUL_2024 19:00:11

Middle Channel / 20MHz+15MHz



Date: 19_JUL_2024 19:00:53

Middle Channel / 20MHz+20MHz



Date: 19_JUL_2024 19:02:31

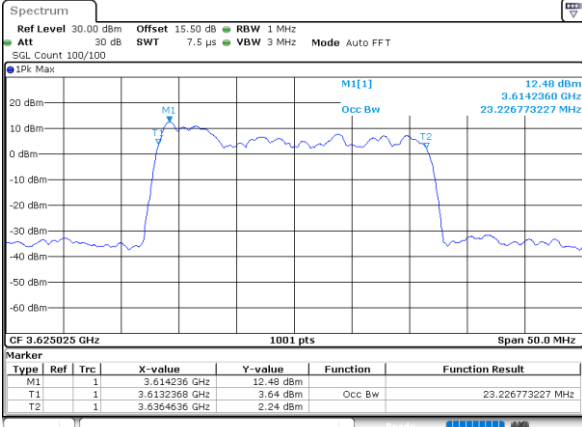
N/A



LTE Band 48C

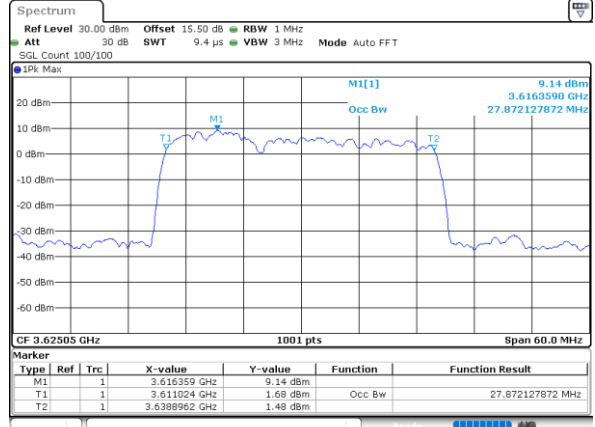
16QAM

Middle Channel / 5MHz+20MHz



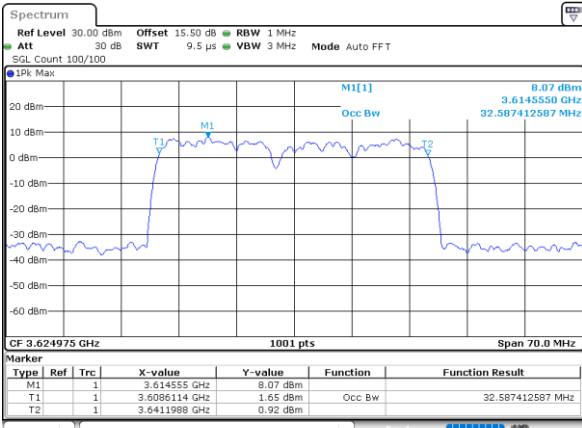
Date: 19_JUL_2024 18:52:38

Middle Channel / 10MHz+20MHz



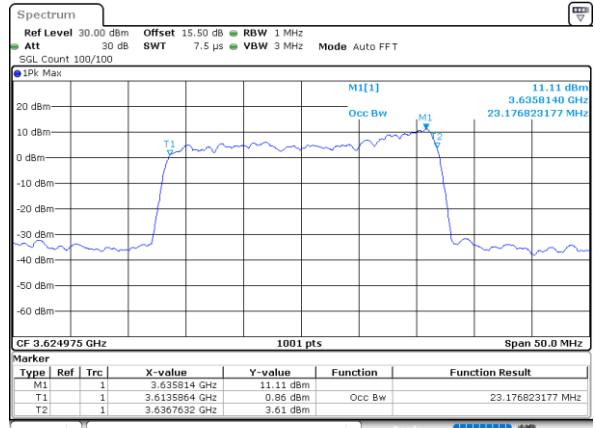
Date: 19_JUL_2024 18:56:29

Middle Channel / 15MHz+20MHz



Date: 19_JUL_2024 18:57:21

Middle Channel / 20MHz+5MHz



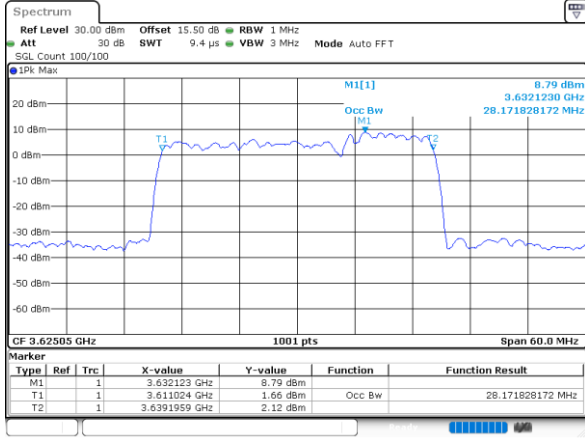
Date: 19_JUL_2024 18:59:17



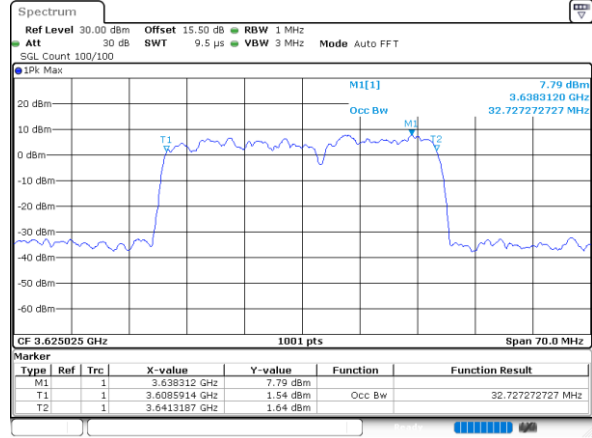
LTE Band 48C

16QAM

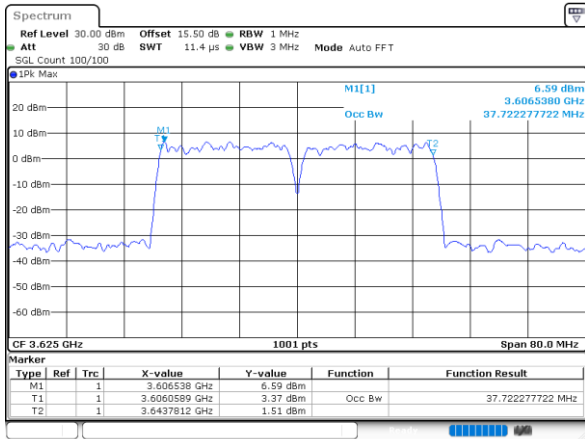
Middle Channel / 20MHz+10MHz



Middle Channel / 20MHz+15MHz



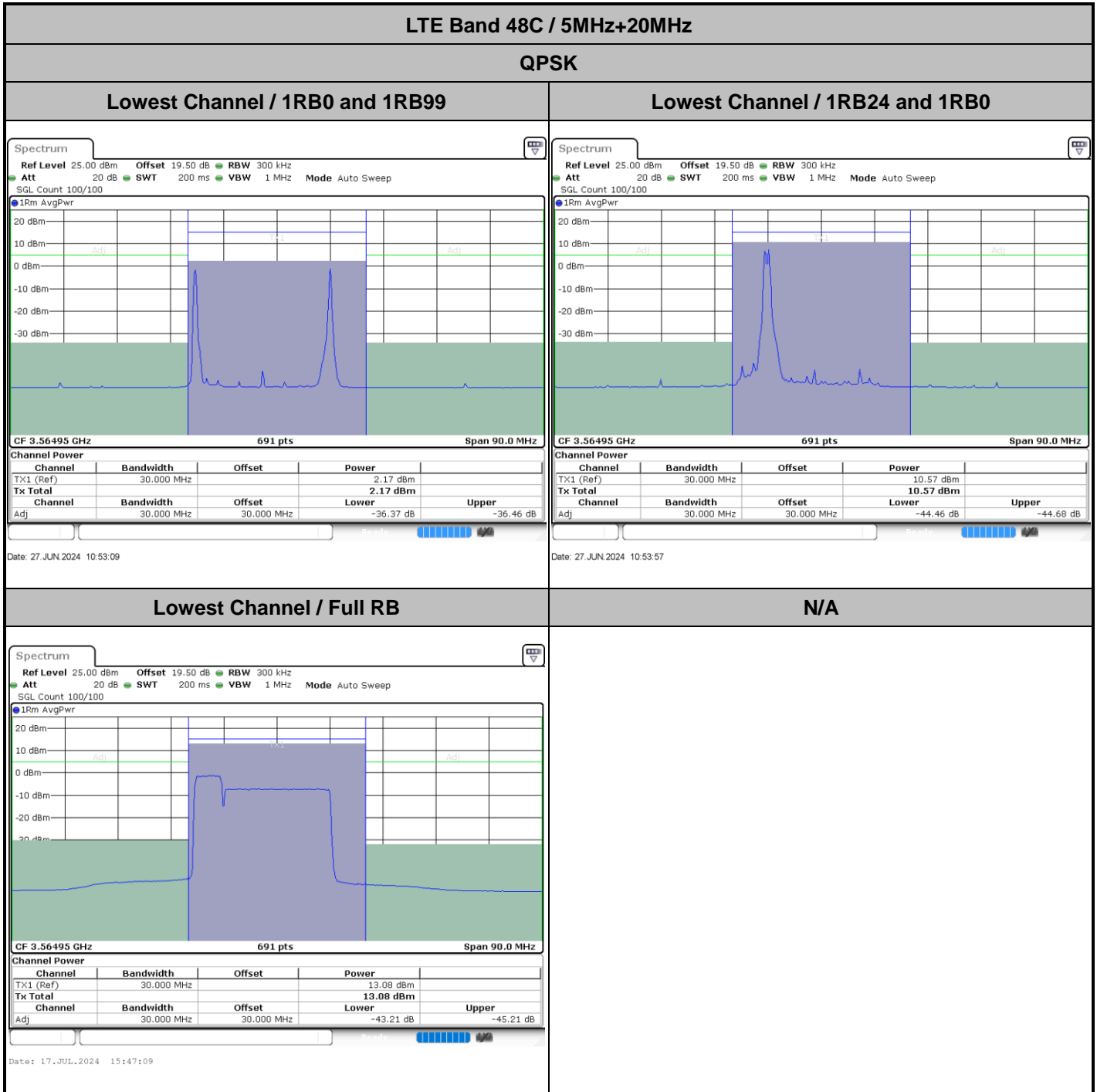
Middle Channel / 20MHz+20MHz



N/A



A3.3 ACLR



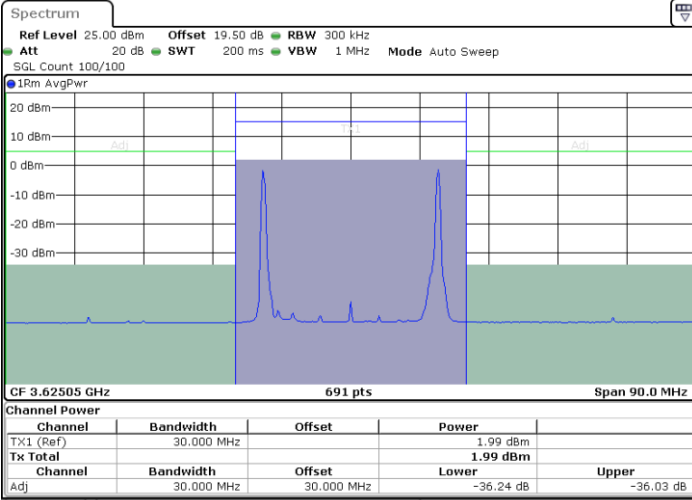


LTE Band 48C / 5MHz+20MHz

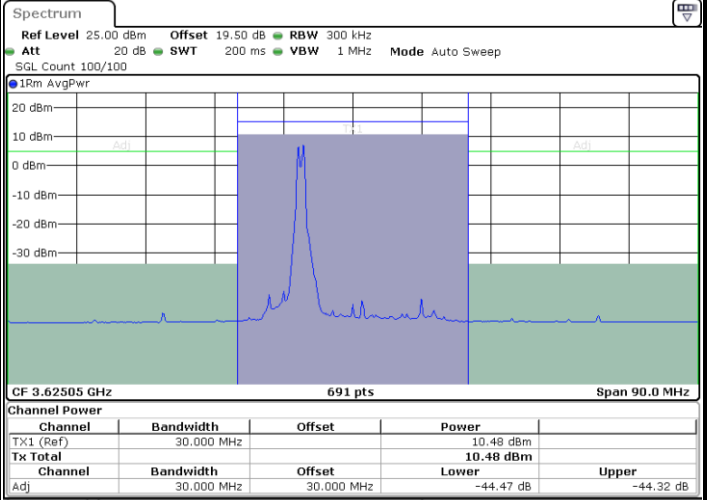
QPSK

Middle Channel / 1RB0 and 1RB99

Middle Channel / 1RB24 and 1RB0



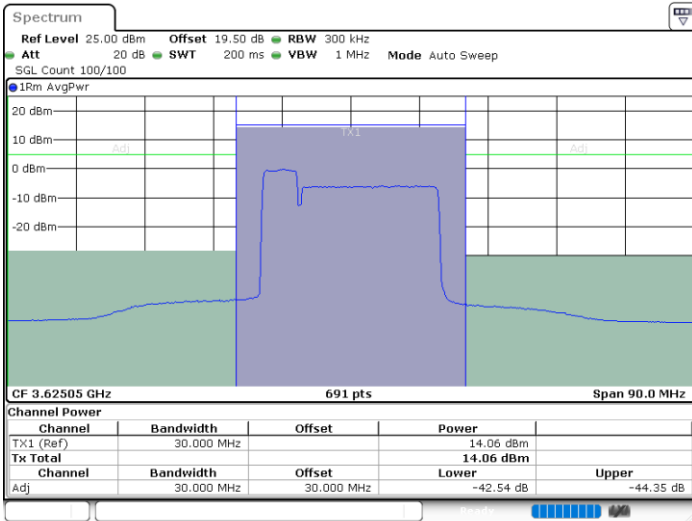
Date: 27 JUN 2024 10:45:09



Date: 27 JUN 2024 10:45:57

Middle Channel / Full RB

N/A



Date: 17 JUL 2024 15:32:07

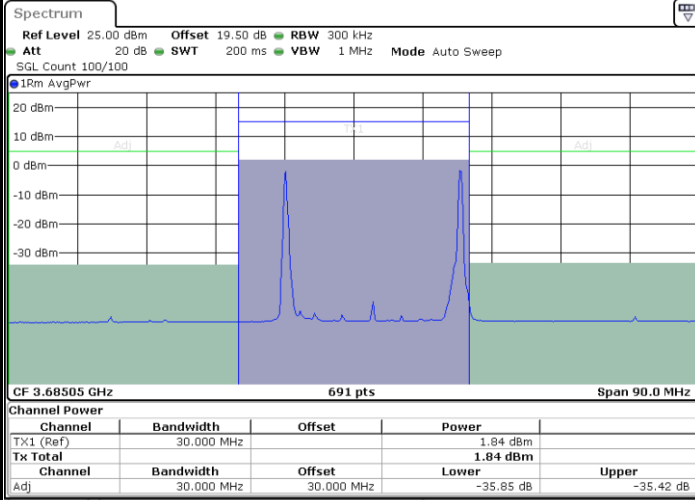


LTE Band 48C / 5MHz+20MHz

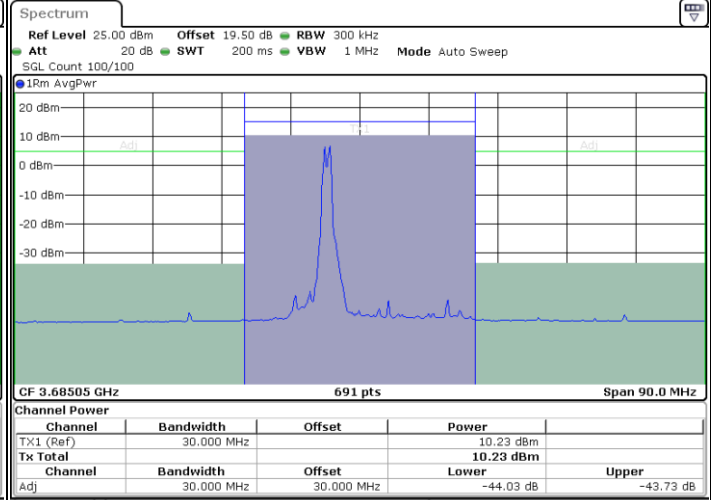
QPSK

Highest Channel / 1RB0 and 1RB99

Highest Channel / 1RB24 and 1RB0



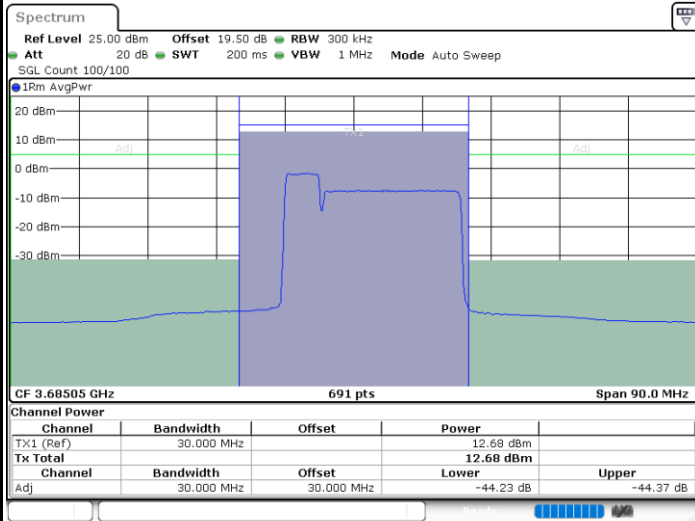
Date: 27 JUN 2024 11:00:24



Date: 27 JUN 2024 11:01:12

Highest Channel / Full RB

N/A



Date: 17 JUL 2024 16:08:00

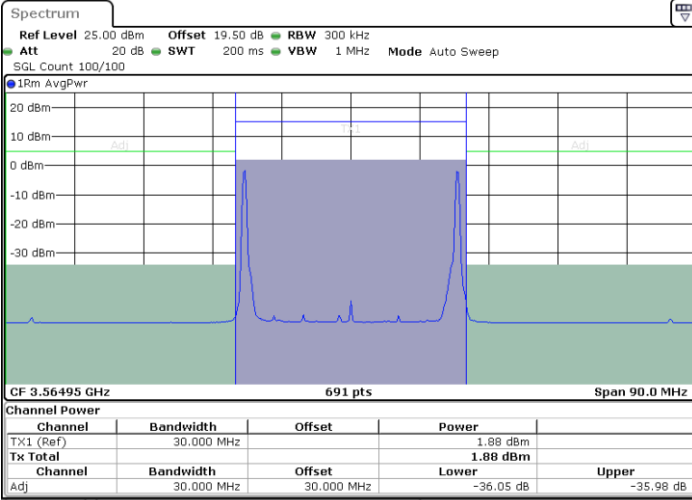


LTE Band 48C / 10MHz+20MHz

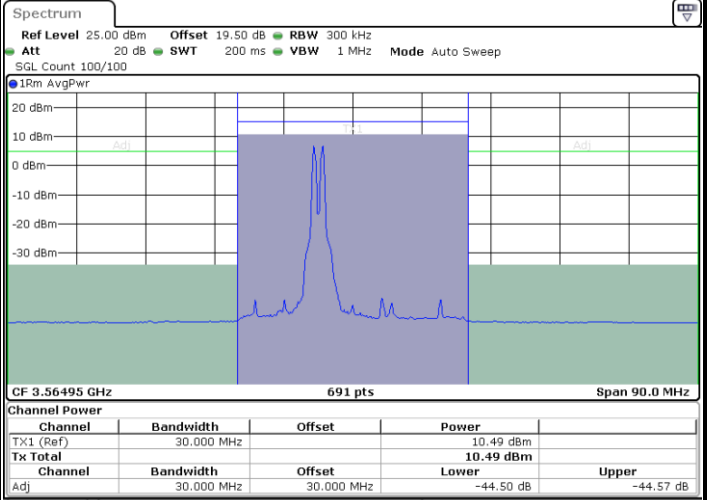
QPSK

Lowest Channel / 1RB0 and 1RB99

Lowest Channel / 1RB49 and 1RB0



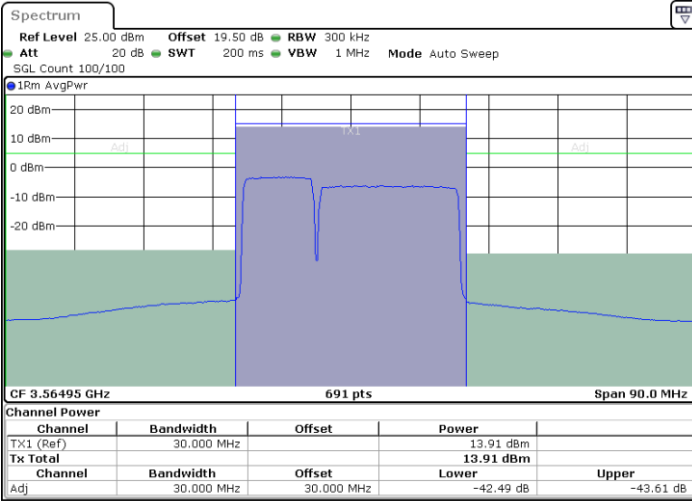
Date: 27 JUN 2024 11:18:04



Date: 27 JUN 2024 11:18:52

Lowest Channel / Full RB

N/A



Date: 18 JUL 2024 13:41:59