

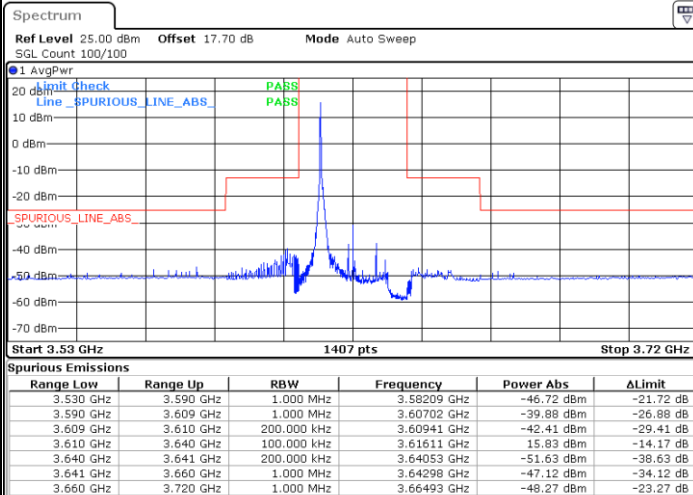


LTE Band 48 / 20MHz

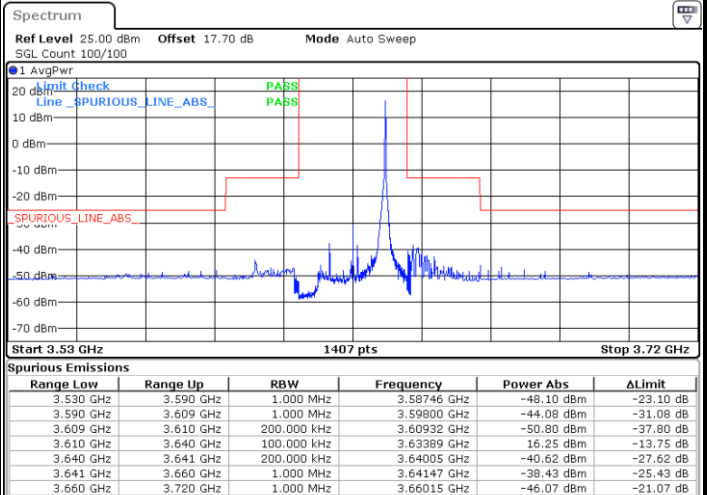
256QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



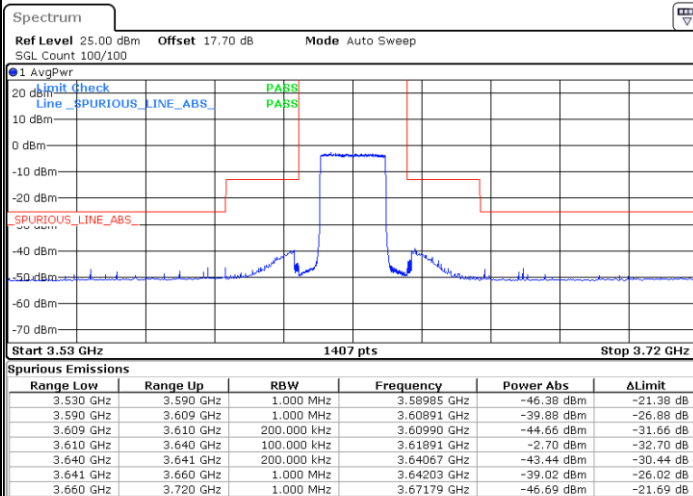
Date: 26 MAY 2021 15:20:45



Date: 26 MAY 2021 15:21:23

Middle Channel / FullIRB

N/A



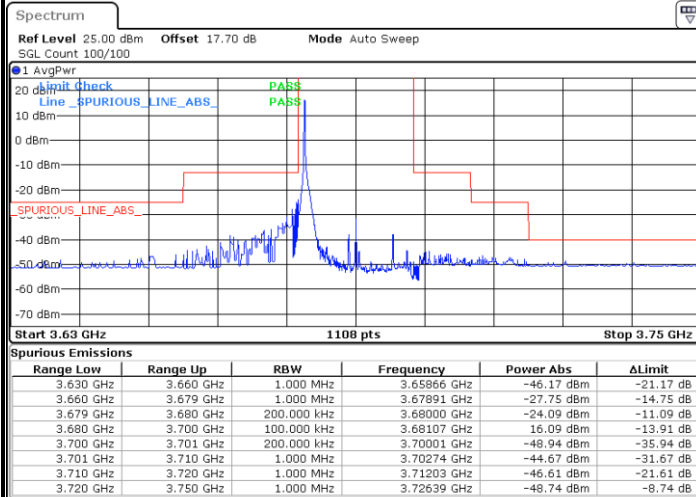
Date: 26 MAY 2021 15:20:07



LTE Band 48 / 20MHz

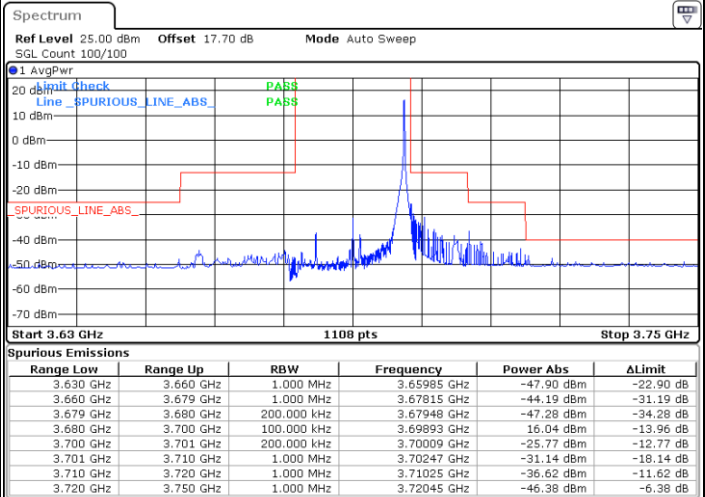
256QAM

Highest Channel / 1RB0



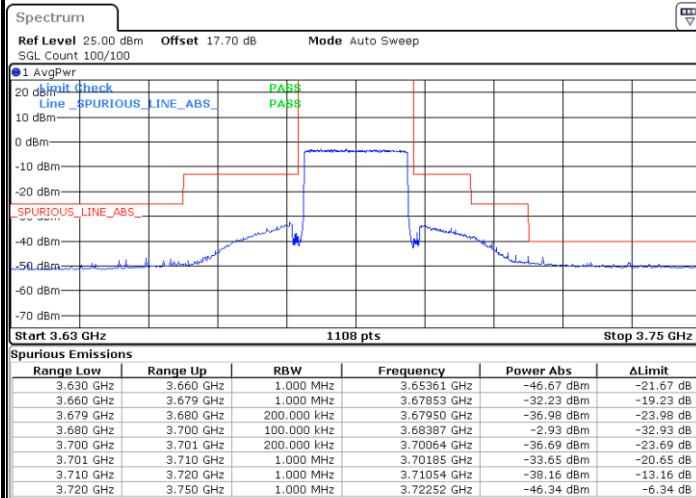
Date: 26 MAY 2021 15:25:24

Highest Channel / 1RBmax



Date: 26 MAY 2021 15:26:05

Highest Channel / FullRB



Date: 26 MAY 2021 15:16:20

N/A

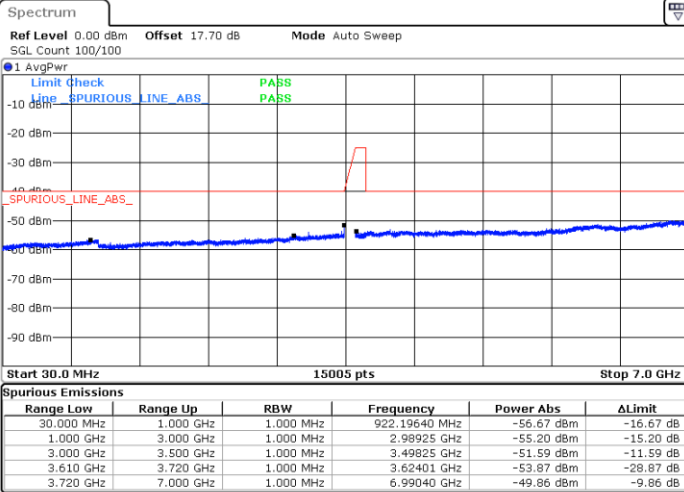


Conducted Spurious Emission

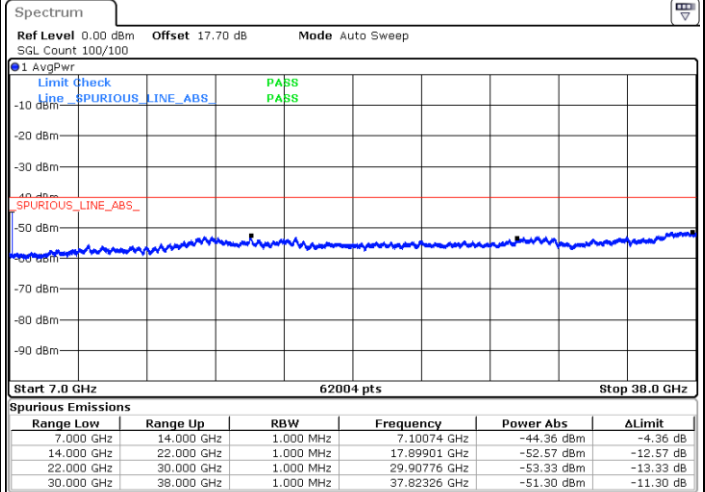
LTE Band 48 / 5MHz

Lowest Channel / QPSK

Lowest Channel / QPSK



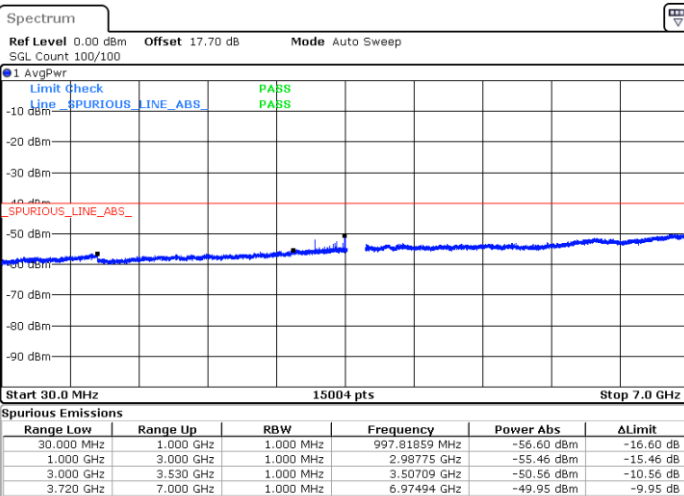
Date: 26 MAY 2021 10:47:43



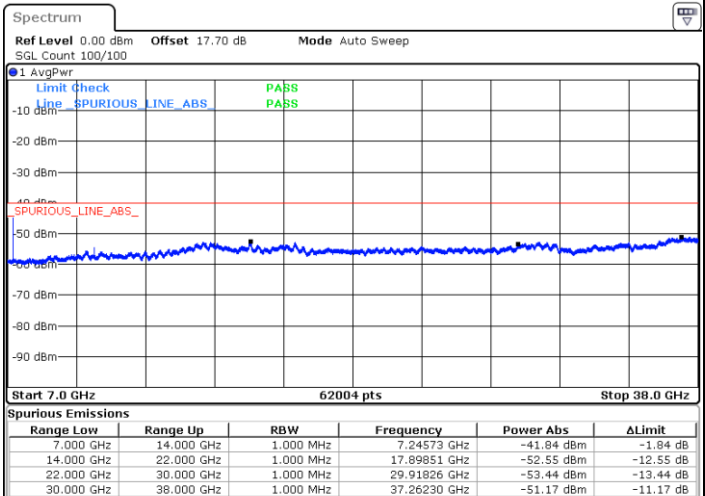
Date: 26 MAY 2021 16:48:06

Middle Channel / QPSK

Middle Channel / QPSK



Date: 26 MAY 2021 10:48:54

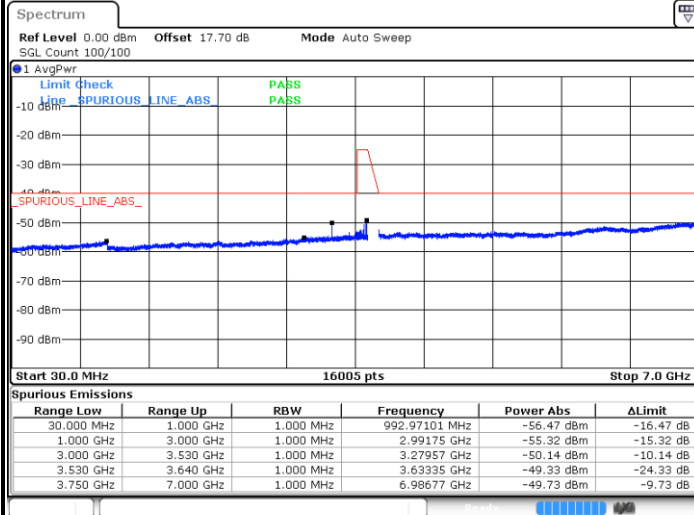


Date: 27 MAY 2021 09:22:44



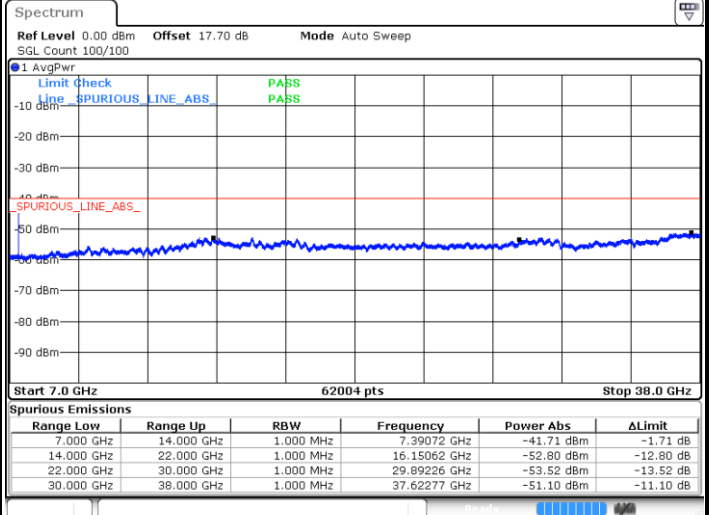
LTE Band 48 / 5MHz

Highest Channel / QPSK



Date: 26 MAY 2021 10:50:04

Highest Channel / QPSK



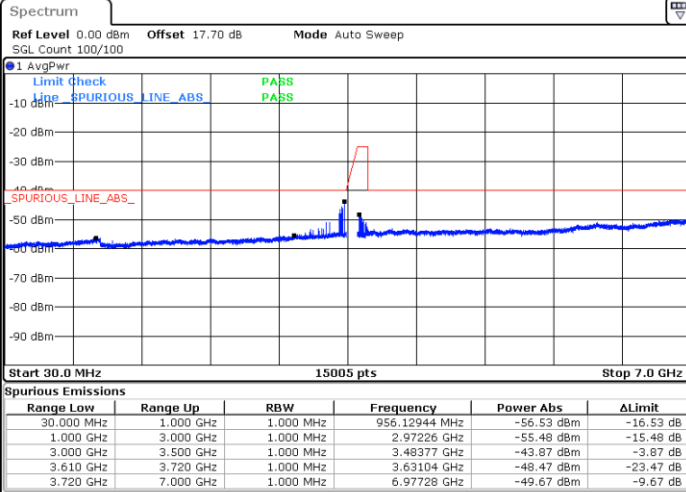
Date: 26 MAY 2021 16:50:37



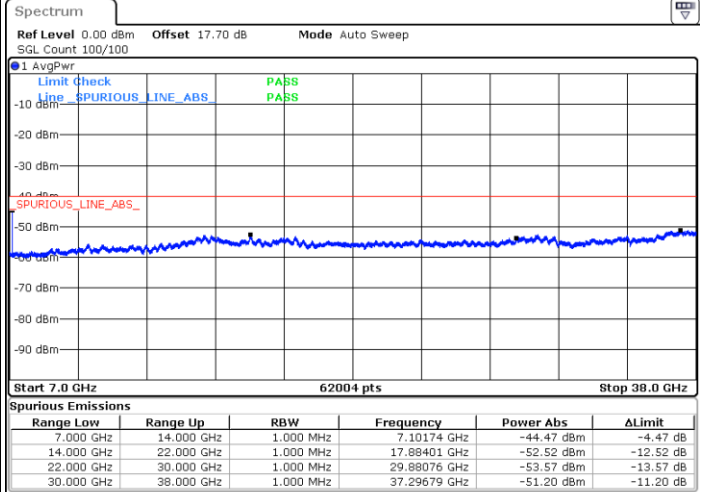
LTE Band 48 / 10MHz

Lowest Channel / QPSK

Lowest Channel / QPSK



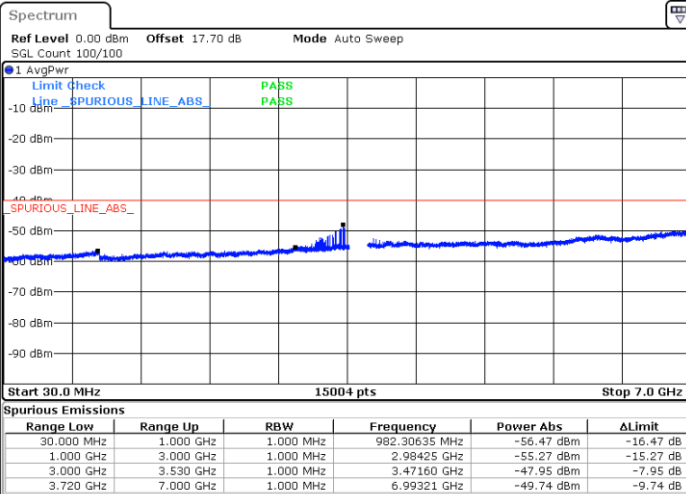
Date: 26 MAY 2021 10:51:16



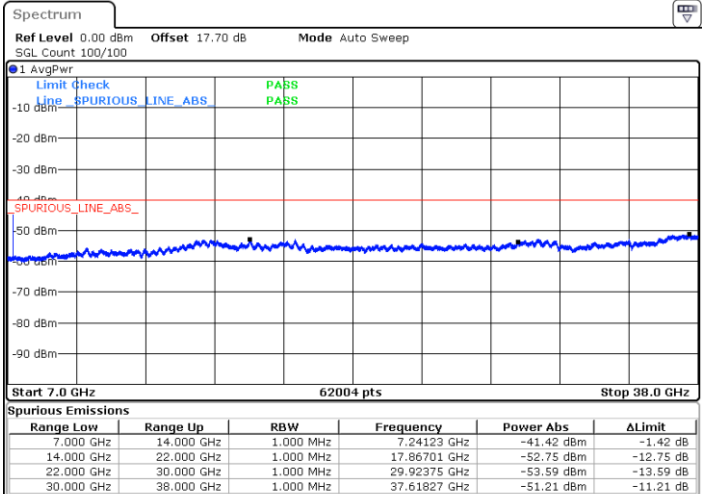
Date: 26 MAY 2021 16:51:49

Middle Channel / QPSK

Middle Channel / QPSK



Date: 26 MAY 2021 10:52:27

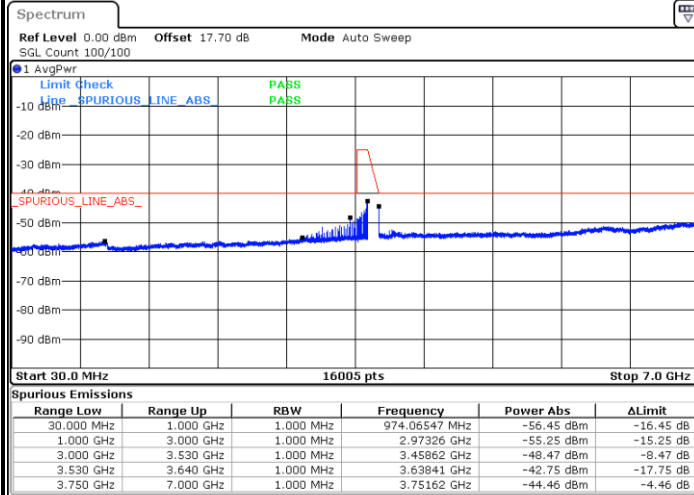


Date: 26 MAY 2021 16:53:01



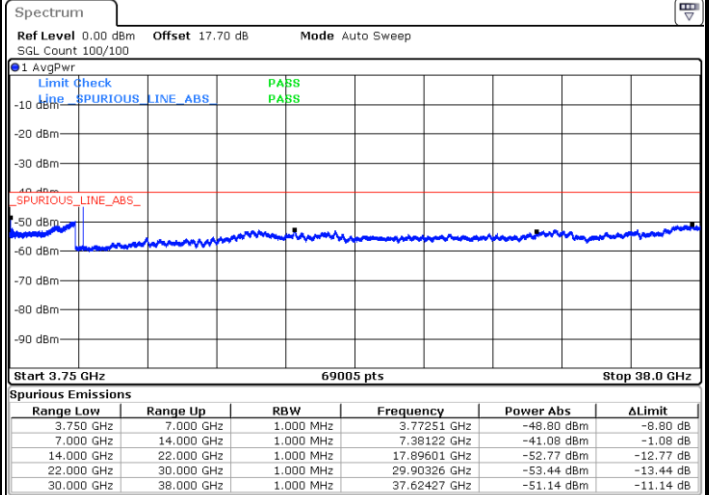
LTE Band 48 / 10MHz

Highest Channel / QPSK



Date: 26 MAY 2021 10:53:37

Highest Channel / QPSK



Date: 26 MAY 2021 16:54:16

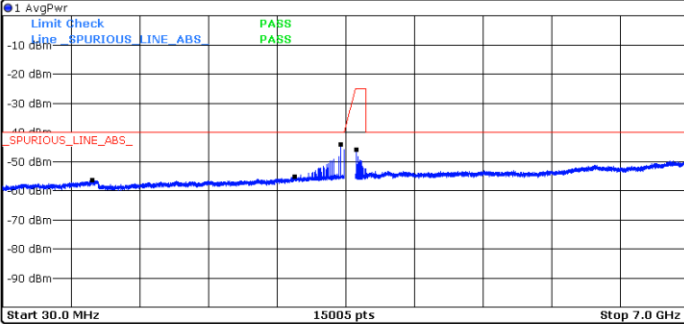


LTE Band 48 / 15MHz

Lowest Channel / QPSK

Lowest Channel / QPSK

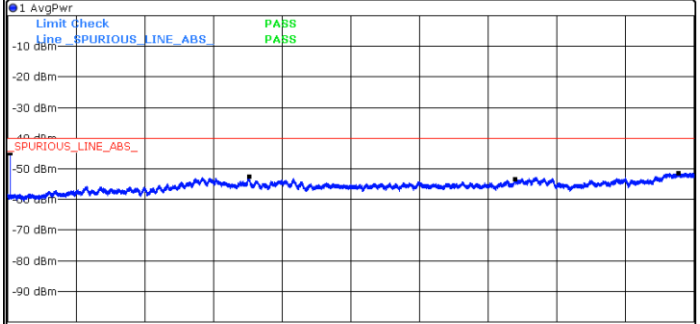
Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	941.10195 MHz	-56.44 dBm	-16.44 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99625 GHz	-55.18 dBm	-15.18 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.45979 GHz	-44.23 dBm	-4.23 dB
3.510 GHz	3.720 GHz	1.000 MHz	3.61951 GHz	-46.09 dBm	-21.09 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.98993 GHz	-49.65 dBm	-9.65 dB

Date: 26 MAY 2021 10:54:48

Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

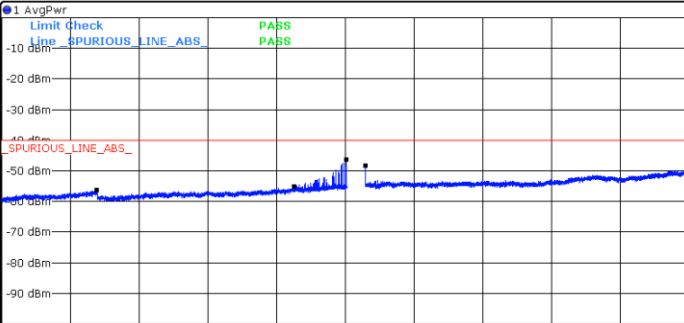
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
7.000 GHz	14.000 GHz	1.000 MHz	7.10174 GHz	-44.91 dBm	-4.91 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.90301 GHz	-52.61 dBm	-12.61 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.92625 GHz	-53.45 dBm	-13.45 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.28029 GHz	-51.30 dBm	-11.30 dB

Date: 26 MAY 2021 16:55:29

Middle Channel / QPSK

Middle Channel / QPSK

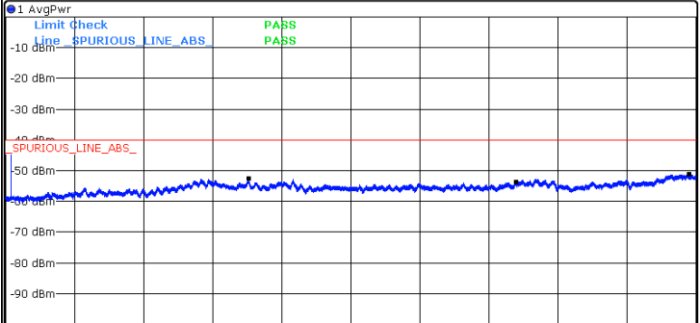
Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	995.39480 MHz	-56.34 dBm	-16.34 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99375 GHz	-55.16 dBm	-15.16 dB
3.000 GHz	3.530 GHz	1.000 MHz	3.52642 GHz	-46.21 dBm	-6.21 dB
3.720 GHz	7.000 GHz	1.000 MHz	3.72023 GHz	-48.19 dBm	-8.19 dB

Date: 26 MAY 2021 10:56:00

Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

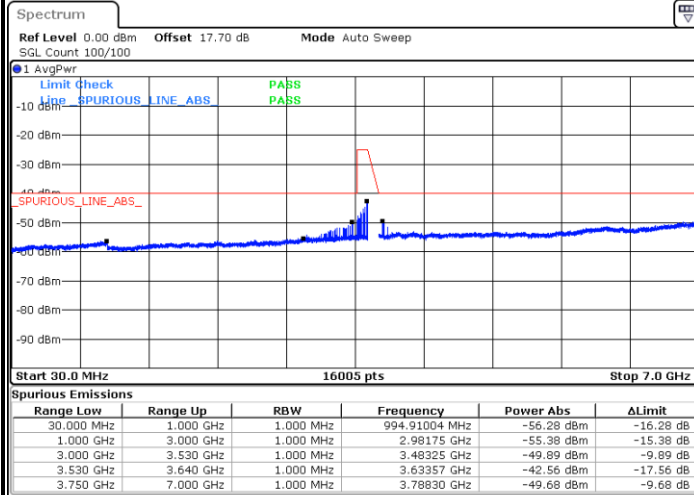
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
7.000 GHz	14.000 GHz	1.000 MHz	7.23673 GHz	-42.18 dBm	-2.18 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.89401 GHz	-52.56 dBm	-12.56 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.91126 GHz	-53.65 dBm	-13.65 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.67377 GHz	-51.20 dBm	-11.20 dB

Date: 26 MAY 2021 16:56:41



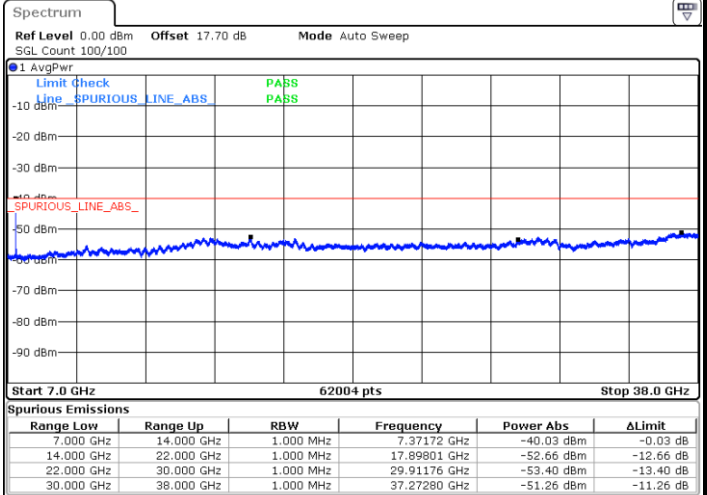
LTE Band 48 / 15MHz

Highest Channel / QPSK



Date: 26 MAY 2021 10:57:10

Highest Channel / QPSK



Date: 26 MAY 2021 16:57:52

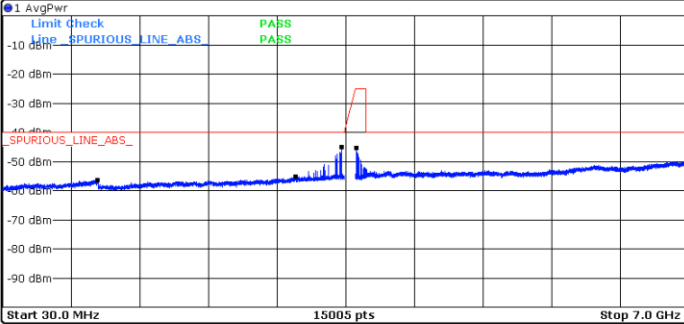


LTE Band 48 / 20MHz

Lowest Channel / QPSK

Lowest Channel / QPSK

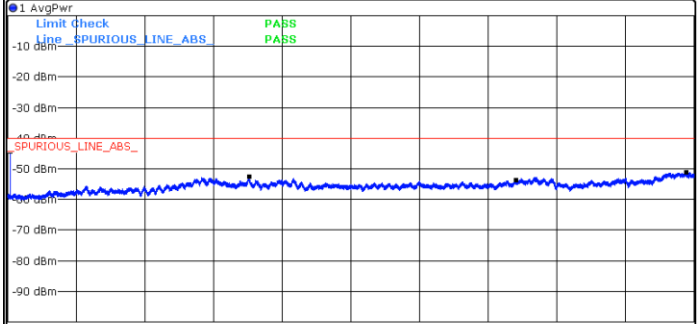
Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	990.54723 MHz	-56.41 dBm	-16.41 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99975 GHz	-55.23 dBm	-15.23 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.46778 GHz	-45.16 dBm	-5.16 dB
3.510 GHz	3.720 GHz	1.000 MHz	3.61731 GHz	-45.44 dBm	-20.44 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.98571 GHz	-49.91 dBm	-9.91 dB

Date: 26 MAY 2021 10:58:21

Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

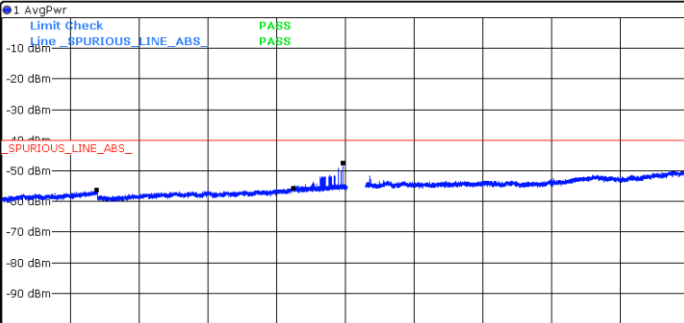
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
7.000 GHz	14.000 GHz	1.000 MHz	7.10224 GHz	-44.36 dBm	-4.36 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.89051 GHz	-52.66 dBm	-12.66 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.94525 GHz	-53.59 dBm	-13.59 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.62827 GHz	-51.17 dBm	-11.17 dB

Date: 26 MAY 2021 16:59:05

Middle Channel / QPSK

Middle Channel / QPSK

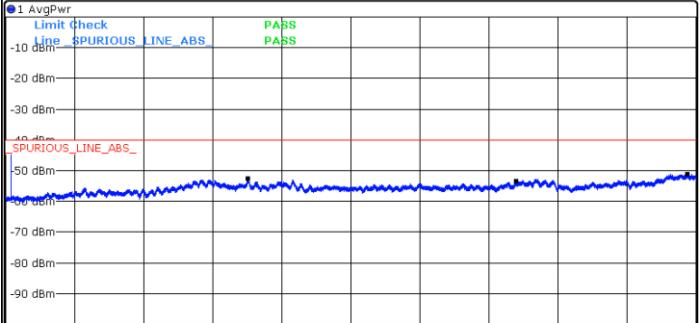
Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	992.48626 MHz	-56.36 dBm	-16.36 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.98625 GHz	-55.57 dBm	-15.57 dB
3.000 GHz	3.530 GHz	1.000 MHz	3.48987 GHz	-47.58 dBm	-7.58 dB
3.720 GHz	7.000 GHz	1.000 MHz	6.99461 GHz	-49.84 dBm	-9.84 dB

Date: 26 MAY 2021 10:59:32

Spectrum

Ref Level 0.00 dBm Offset 17.70 dB Mode Auto Sweep
SQL Count 100/100

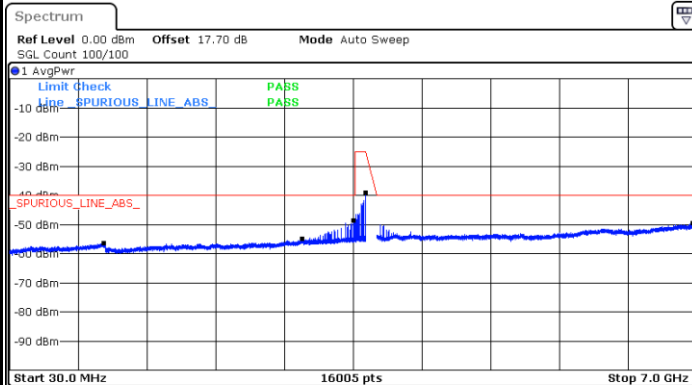
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
7.000 GHz	14.000 GHz	1.000 MHz	7.23223 GHz	-40.78 dBm	-0.78 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.88451 GHz	-52.67 dBm	-12.67 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.92275 GHz	-53.49 dBm	-13.49 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.61877 GHz	-51.09 dBm	-11.09 dB

Date: 26 MAY 2021 17:00:17



LTE Band 48 / 20MHz

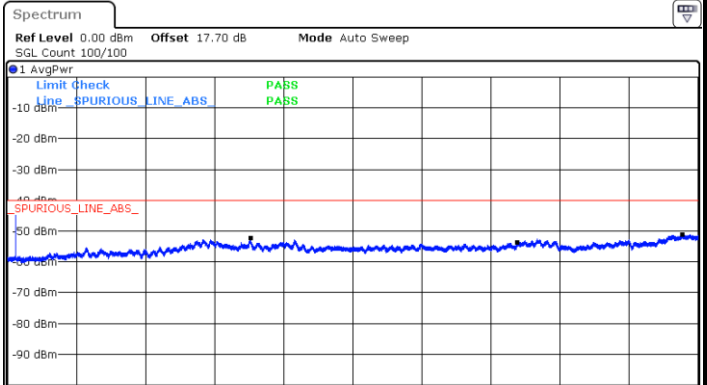
Highest Channel / QPSK



Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	981.82159 MHz	-56.32 dBm	-16.32 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.99225 GHz	-55.03 dBm	-15.03 dB
3.000 GHz	3.530 GHz	1.000 MHz	3.51636 GHz	-48.61 dBm	-8.61 dB
3.530 GHz	3.640 GHz	1.000 MHz	3.63500 GHz	-39.16 dBm	-14.16 dB
3.750 GHz	7.000 GHz	1.000 MHz	6.95799 GHz	-49.69 dBm	-9.69 dB

Date: 26 MAY 2021 11:00:43

Highest Channel / QPSK



Spurious Emissions					
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
7.000 GHz	14.000 GHz	1.000 MHz	7.36222 GHz	-41.07 dBm	-1.07 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.89101 GHz	-52.35 dBm	-12.35 dB
22.000 GHz	30.000 GHz	1.000 MHz	29.89476 GHz	-53.58 dBm	-13.58 dB
30.000 GHz	38.000 GHz	1.000 MHz	37.29279 GHz	-51.16 dBm	-11.16 dB

Date: 27 MAY 2021 09:26:04

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	0.0017	PASS
40	Normal Voltage	0.0041	
30	Normal Voltage	0.0031	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0043	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0047	
-20	Normal Voltage	0.0034	
-30	Normal Voltage	0.0031	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0000	
20	Minimum Voltage	0.0040	

Note:

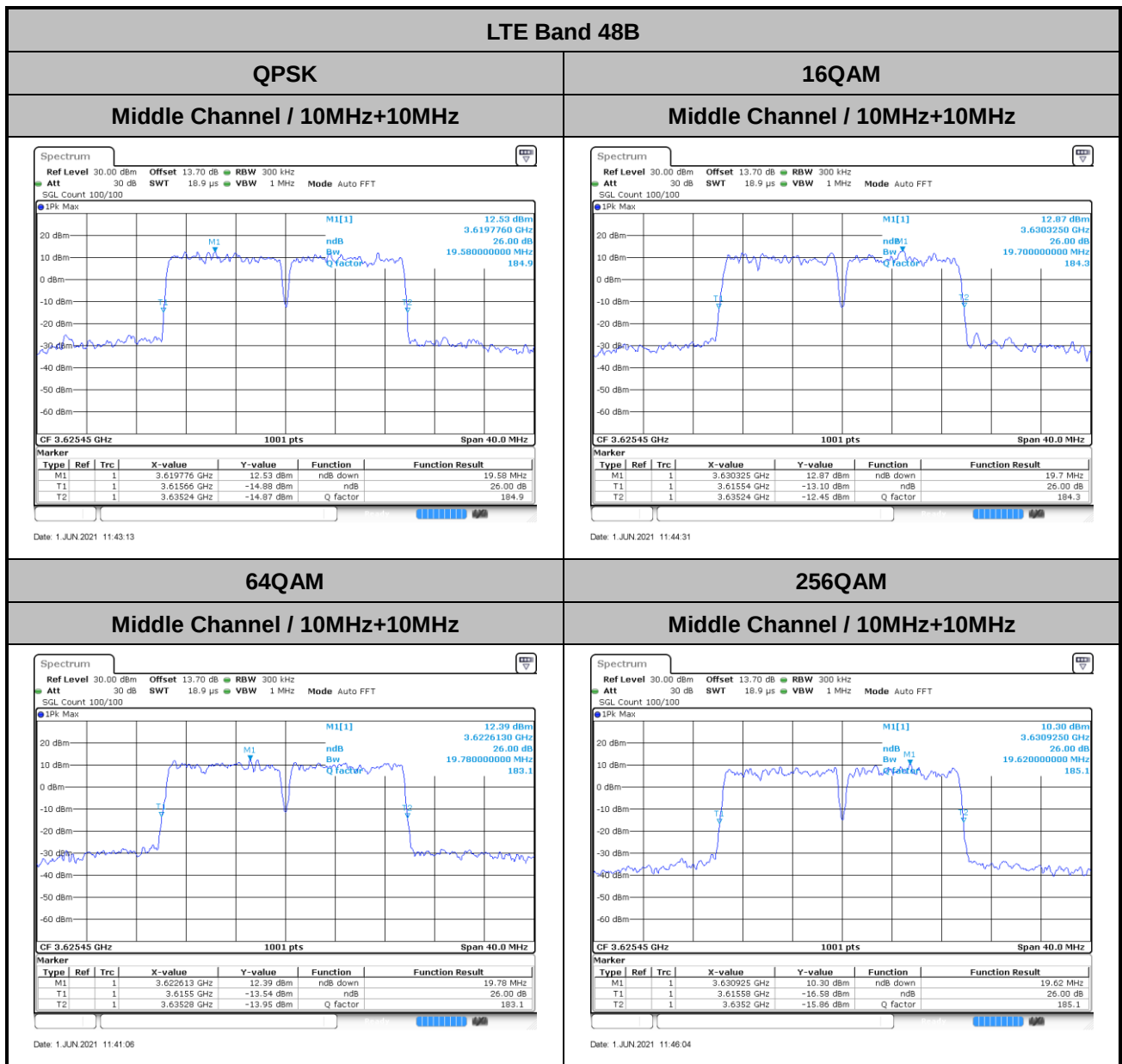
1. Normal Voltage =3.8 V. ; Minimum Voltage =3.4 V. ; Maximum Voltage =4.3 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 48B

26dB Bandwidth

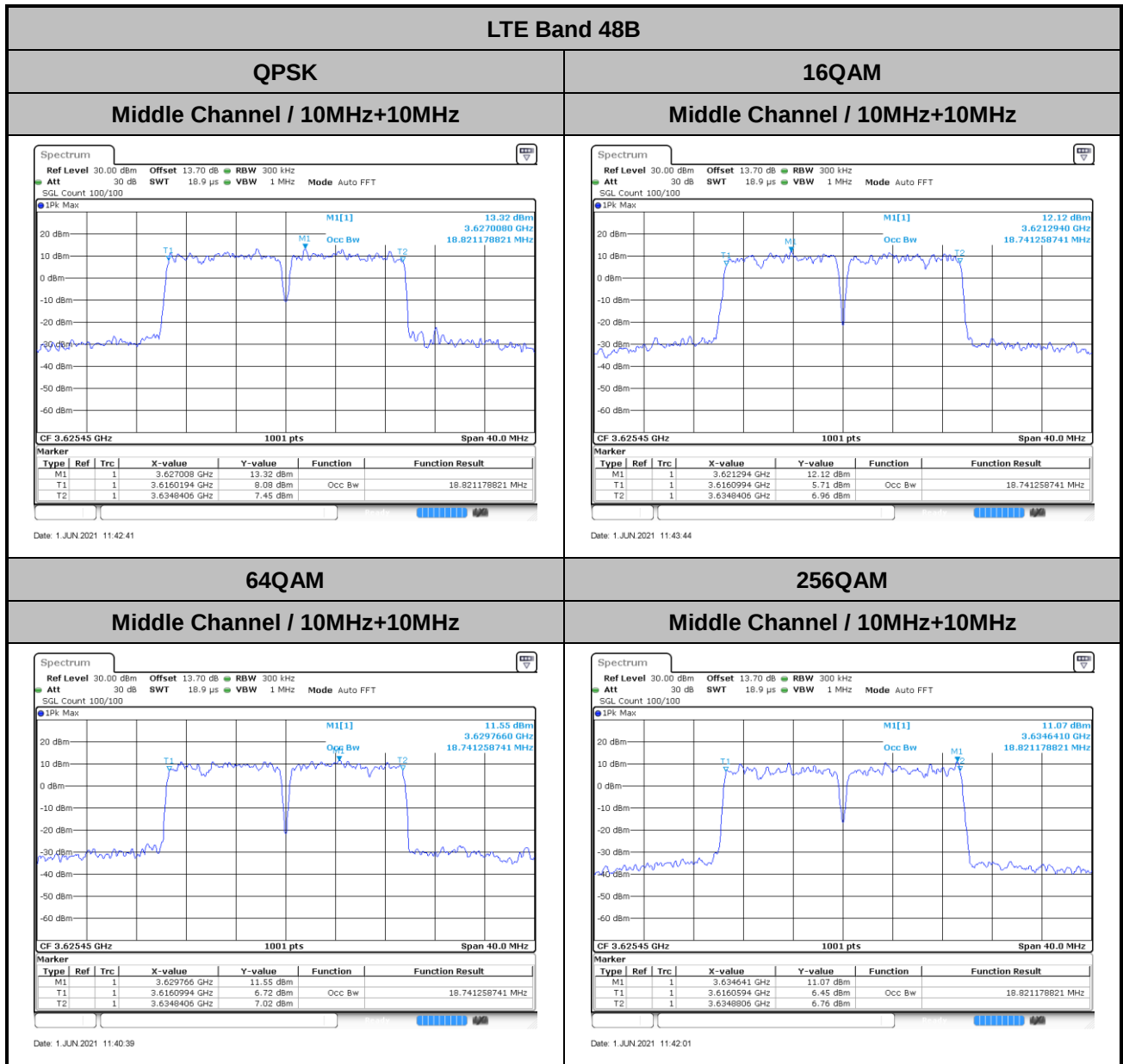
Mode	LTE Band 48B : 26dB BW(MHz)			
10MHz+10MHz				
BW	QPSK	16QAM	64QAM	256QAM
Middle CH	19.58	19.70	19.78	19.62





Occupied Bandwidth

Mode	LTE Band 48B : 99%OBW(MHz)			
	10MHz+10MHz			
BW	QPSK	16QAM	64QAM	256QAM
Middle CH	18.82	18.74	18.74	18.82





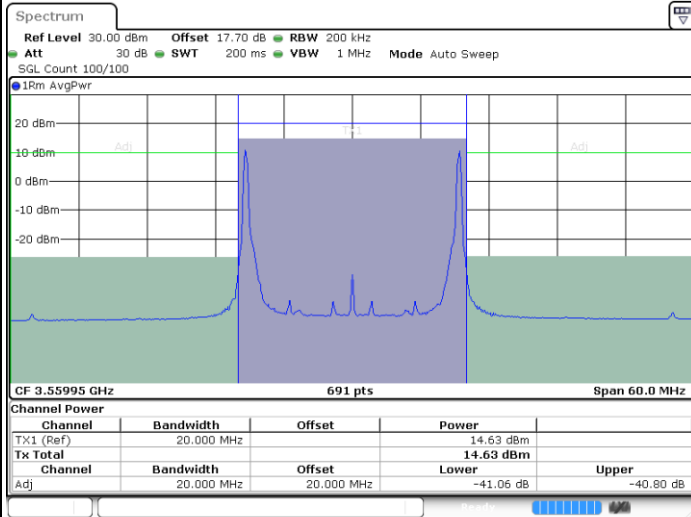
ACLR

LTE Band 48B / 10MHz+10MHz

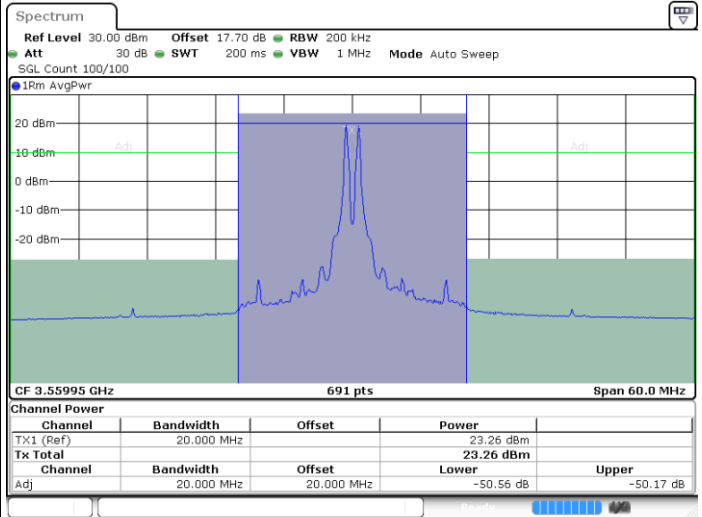
QPSK

Lowest Channel / 1RB0 and 1RB49

Lowest Channel / 1RB49 and 1RB0



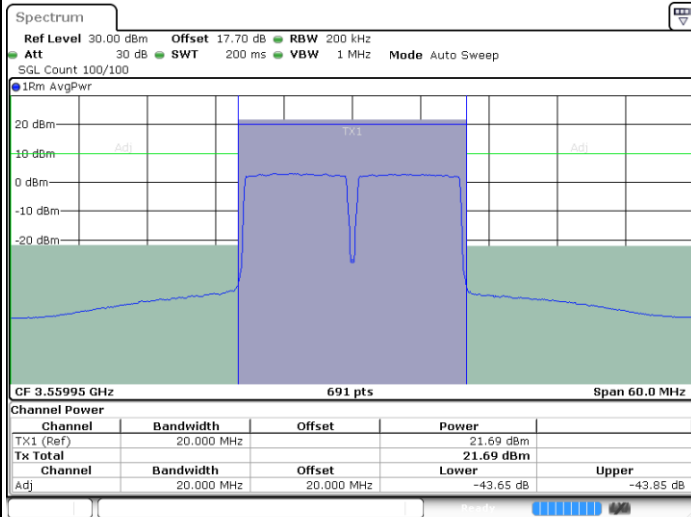
Date: 1 JUN 2021 14:32:57



Date: 1 JUN 2021 14:33:41

Lowest Channel / FullRB

N/A



Date: 1 JUN 2021 14:29:08

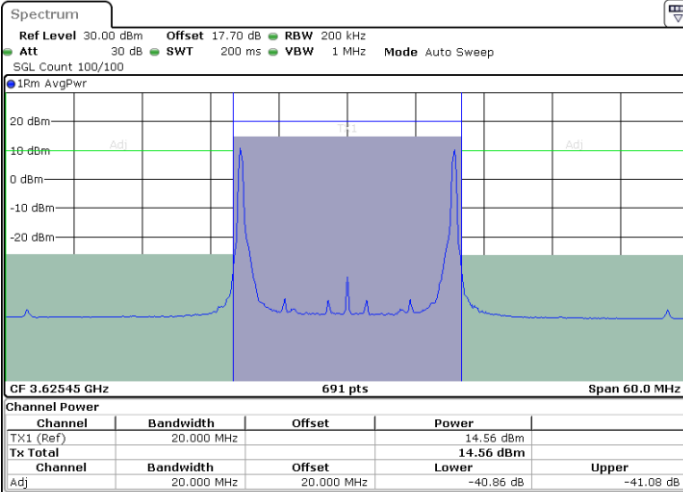


LTE Band 48B / 10MHz+10MHz

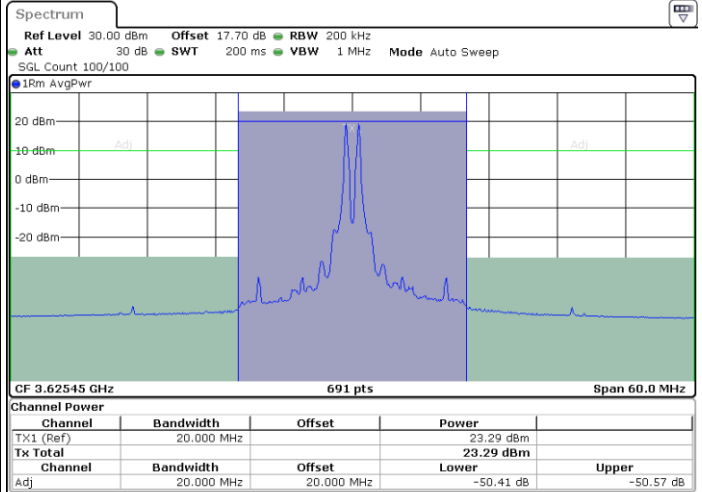
QPSK

Middle Channel / 1RB0 and 1RB49

Middle Channel / 1RB49 and 1RB0



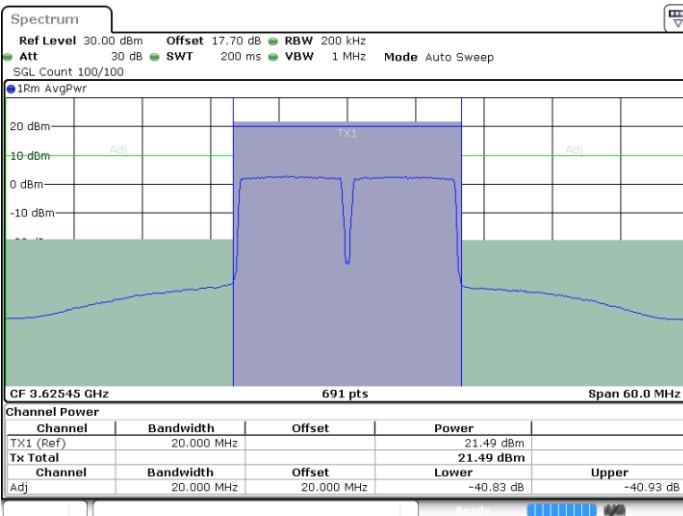
Date: 1 JUN 2021 11:54:18



Date: 1 JUN 2021 11:55:03

Middle Channel / FullRB

N/A



Date: 1 JUN 2021 11:50:32

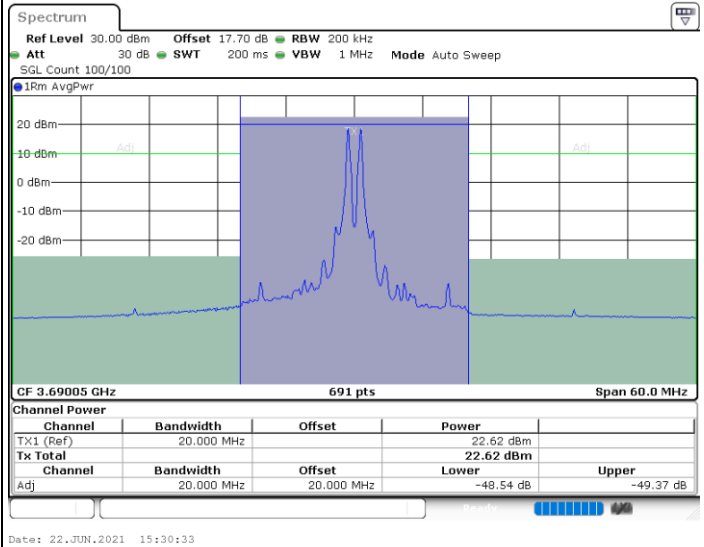
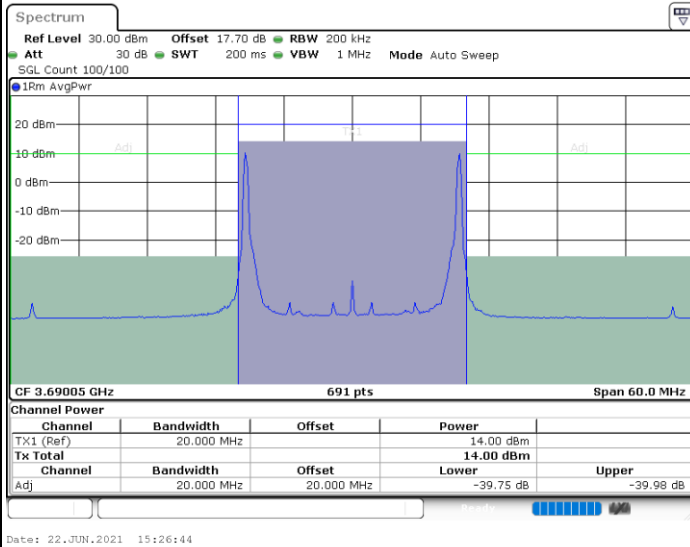


LTE Band 48B / 10MHz+10MHz

QPSK

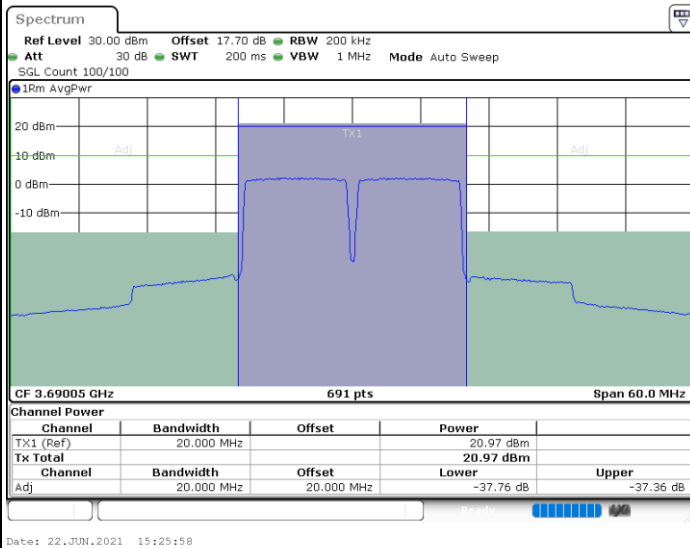
Highest Channel / 1RB0 and 1RB49

Highest Channel / 1RB49 and 1RB0



Highest Channel / FullRB

N/A



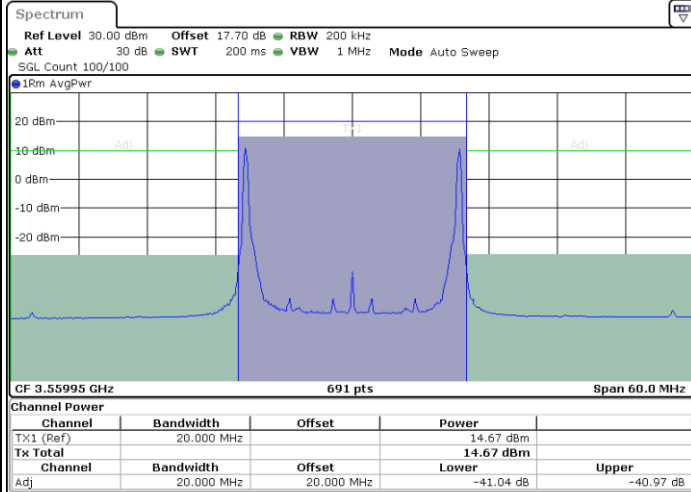


LTE Band 48B / 10MHz+10MHz

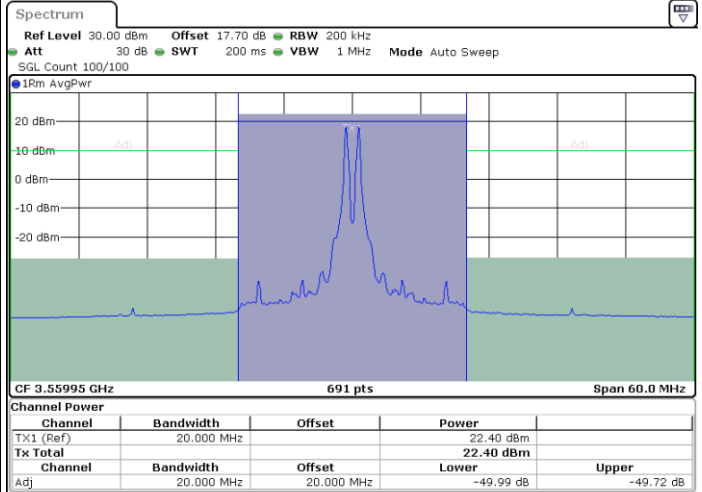
16QAM

Lowest Channel / 1RB0 and 1RB49

Lowest Channel / 1RB49 and 1RB0



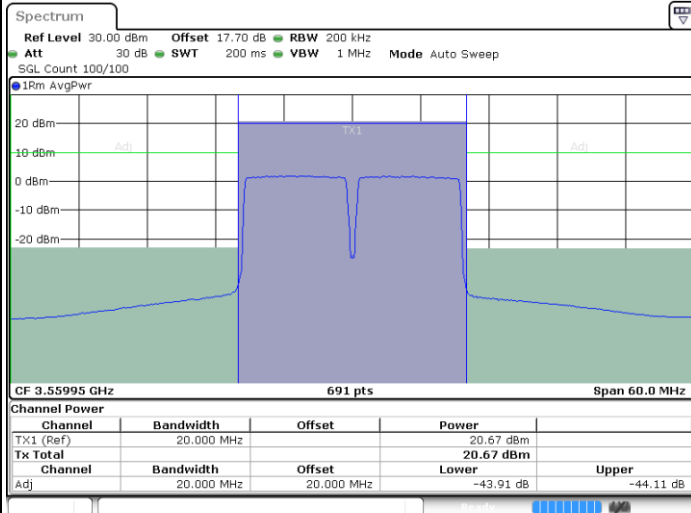
Date: 1 JUN 2021 14:32:11



Date: 1 JUN 2021 14:34:27

Lowest Channel / FullRB

N/A



Date: 1 JUN 2021 14:29:53

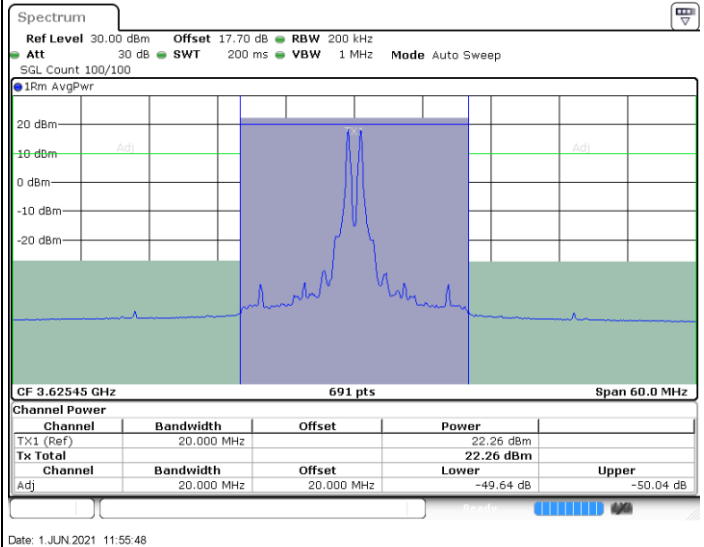
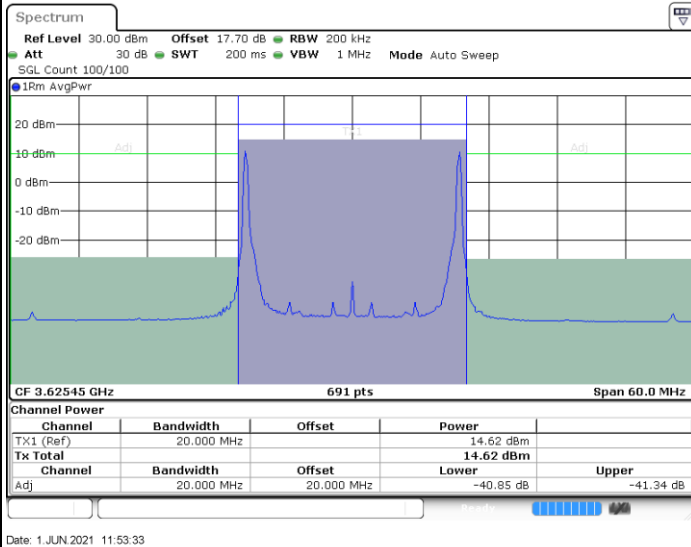


LTE Band 48B / 10MHz+10MHz

16QAM

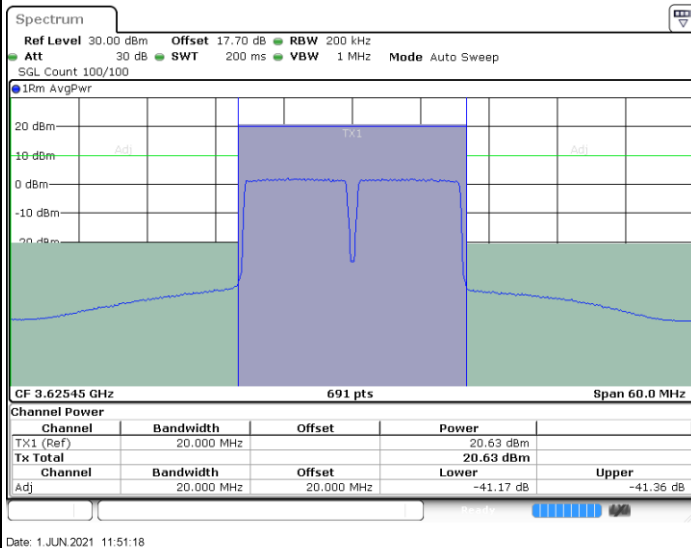
Middle Channel / 1RB0 and 1RB49

Middle Channel / 1RB49 and 1RB0



Middle Channel / FullRB

N/A



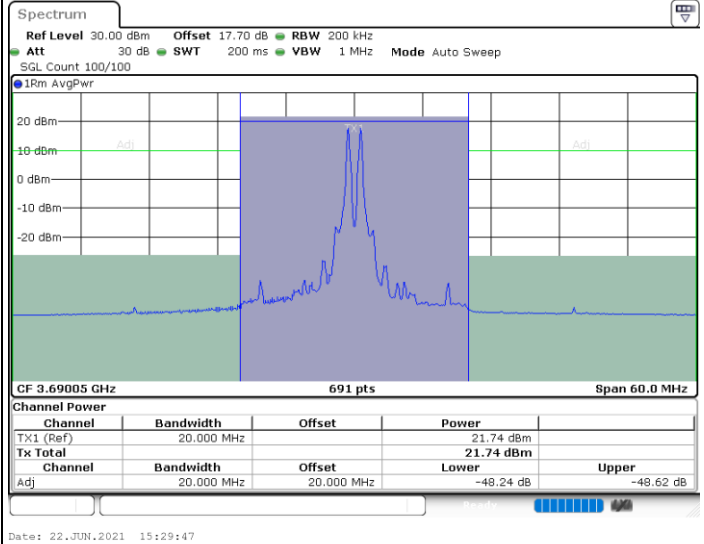
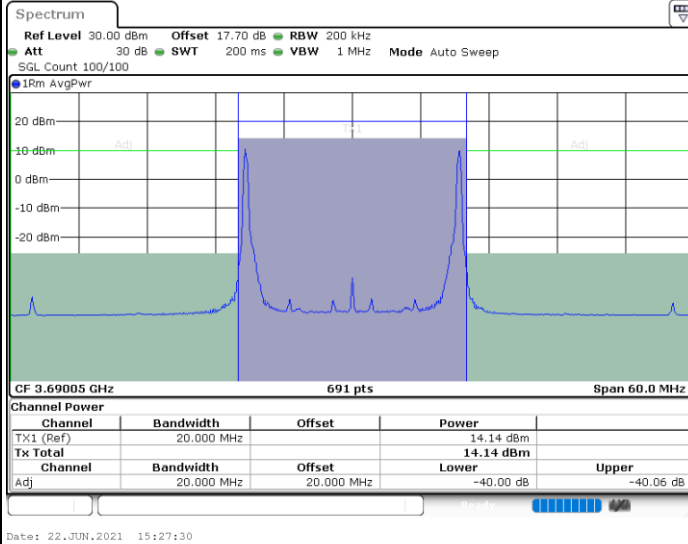


LTE Band 48B / 10MHz+10MHz

16QAM

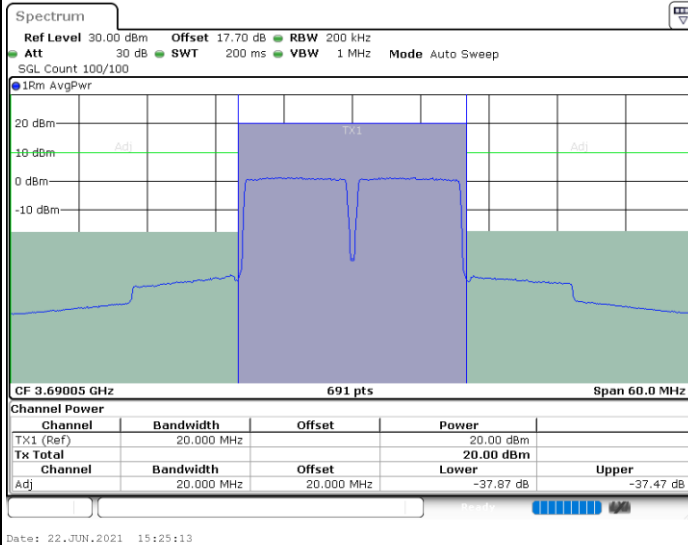
Highest Channel / 1RB0 and 1RB49

Highest Channel / 1RB49 and 1RB0



Highest Channel / FullRB

N/A



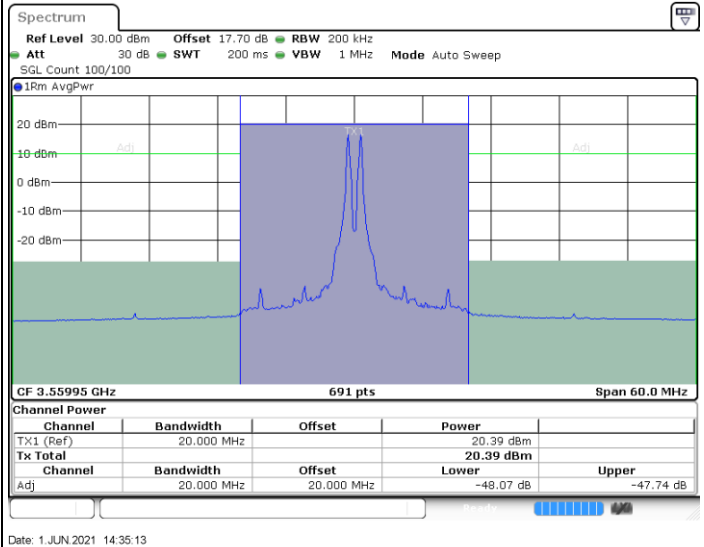
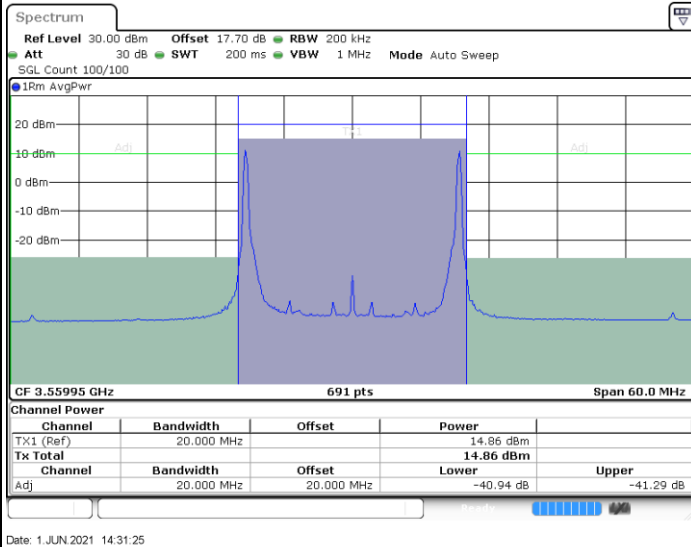


LTE Band 48B / 10MHz+10MHz

64QAM

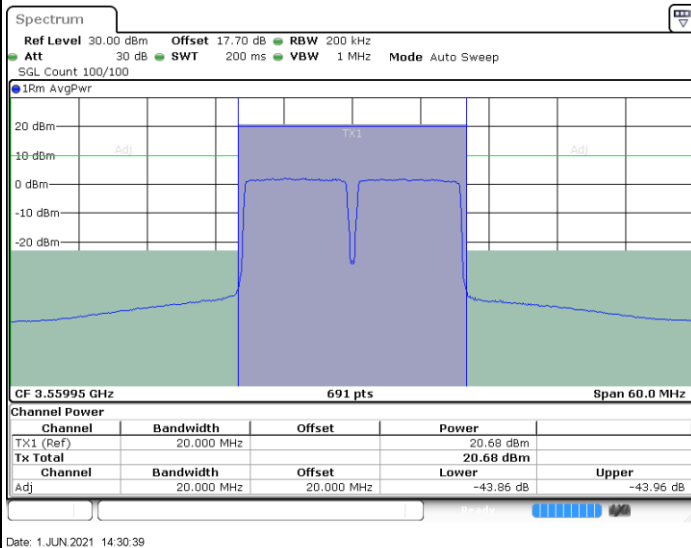
Lowest Channel / 1RB0 and 1RB49

Lowest Channel / 1RB49 and 1RB0



Lowest Channel / FullRB

N/A



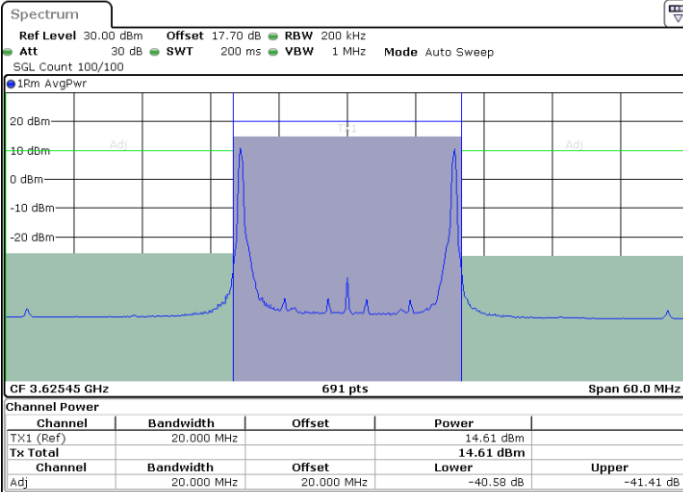


LTE Band 48B / 10MHz+10MHz

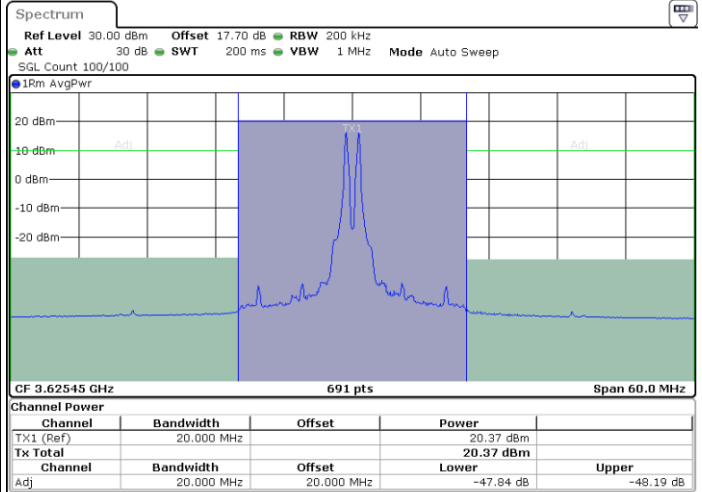
64QAM

Middle Channel / 1RB0 and 1RB49

Middle Channel / 1RB49 and 1RB0



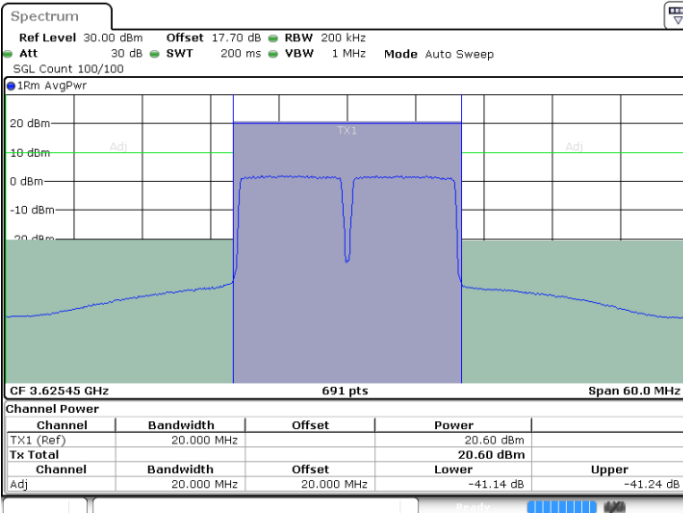
Date: 1 JUN 2021 11:52:48



Date: 1 JUN 2021 11:58:34

Middle Channel / FullRB

N/A



Date: 1 JUN 2021 11:52:03

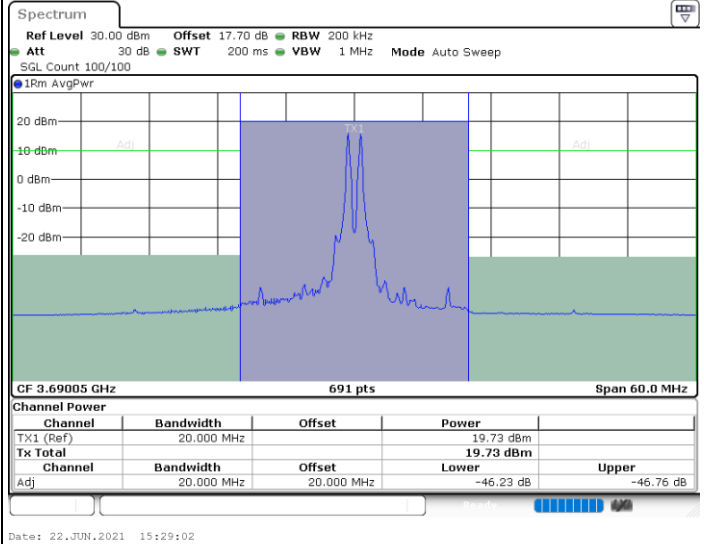
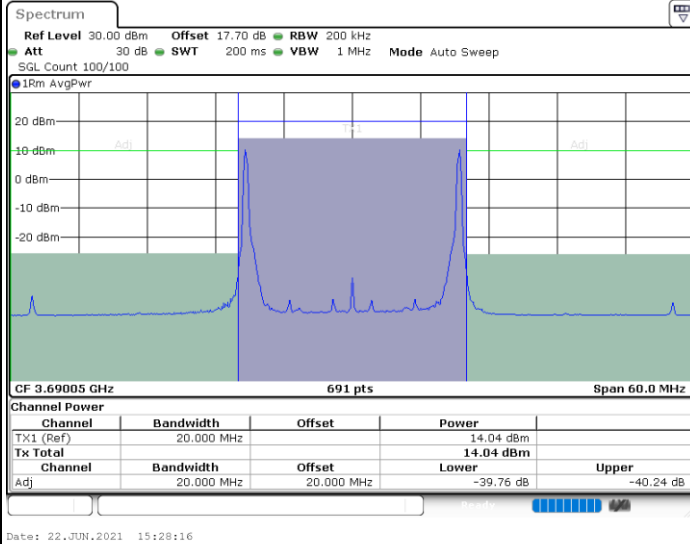


LTE Band 48B / 10MHz+10MHz

64QAM

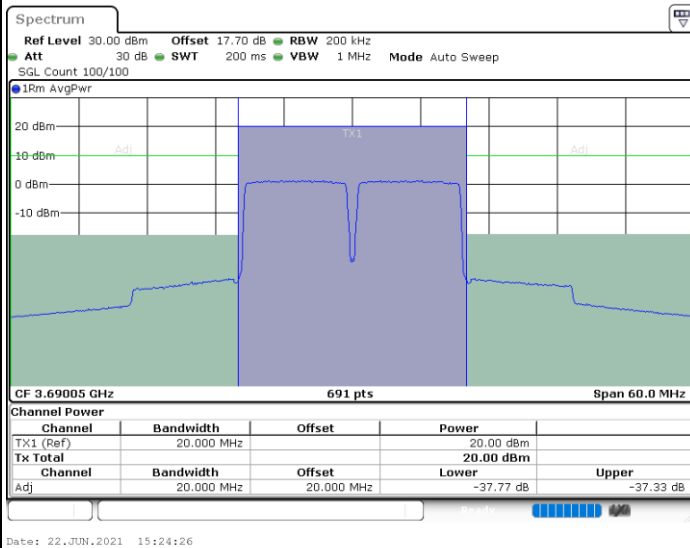
Highest Channel / 1RB0 and 1RB49

Highest Channel / 1RB49 and 1RB0



Highest Channel / FullRB

N/A



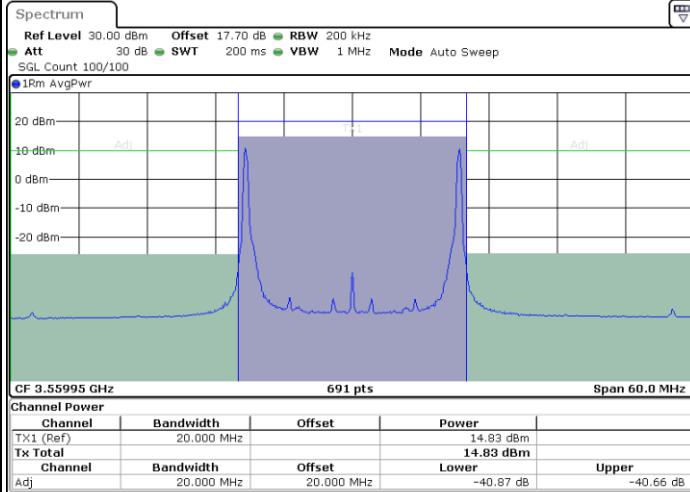


LTE Band 48B / 10MHz+10MHz

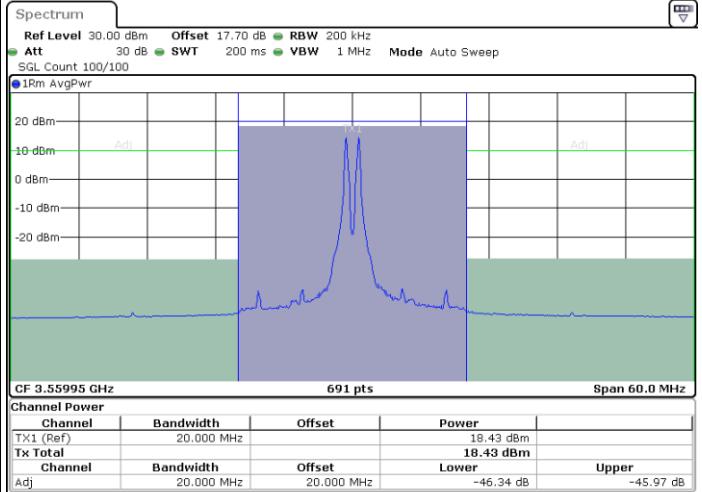
256QAM

Lowest Channel / 1RB0 and 1RB49

Lowest Channel / 1RB49 and 1RB0



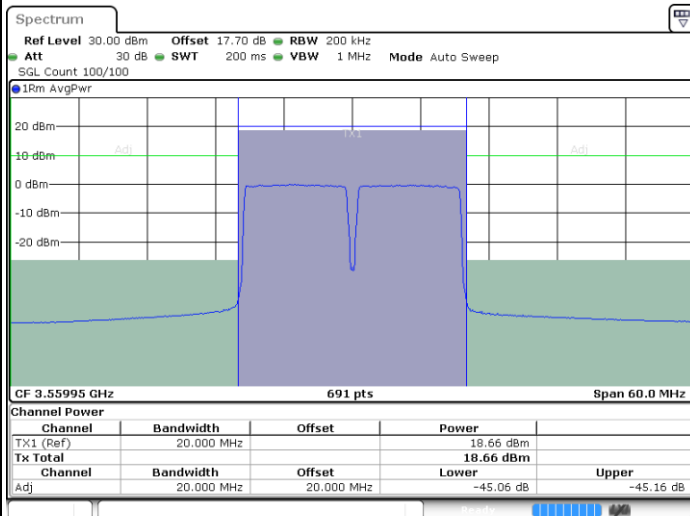
Date: 1 JUN 2021 14:38:38



Date: 1 JUN 2021 14:39:24

Lowest Channel / FullRB

N/A



Date: 1 JUN 2021 14:35:58

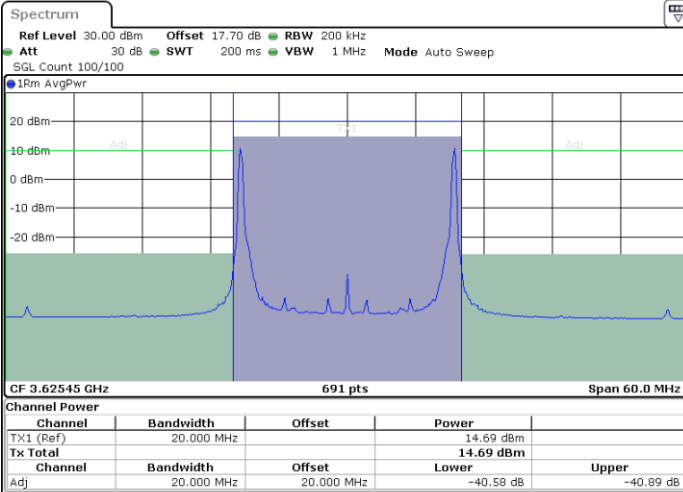


LTE Band 48B / 10MHz+10MHz

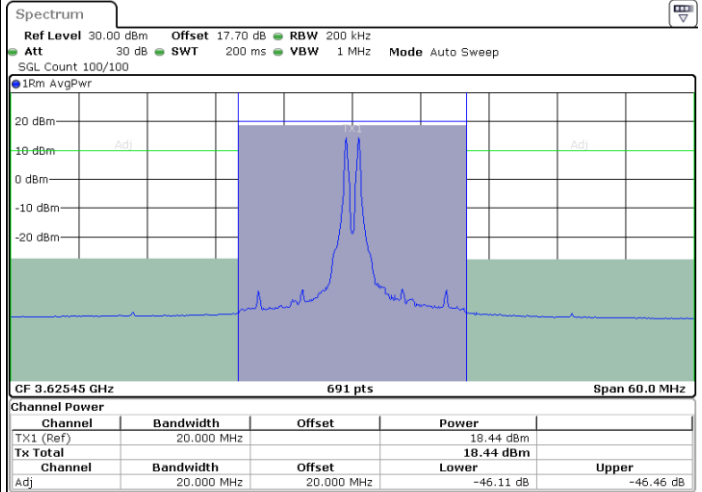
256QAM

Middle Channel / 1RB0 and 1RB49

Middle Channel / 1RB49 and 1RB0



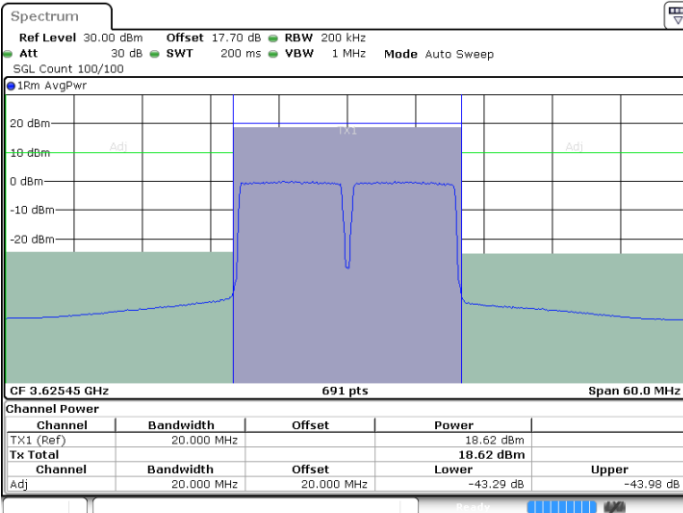
Date: 1 JUN 2021 11:59:02



Date: 1 JUN 2021 11:58:17

Middle Channel / FullRB

N/A



Date: 1 JUN 2021 11:48:13

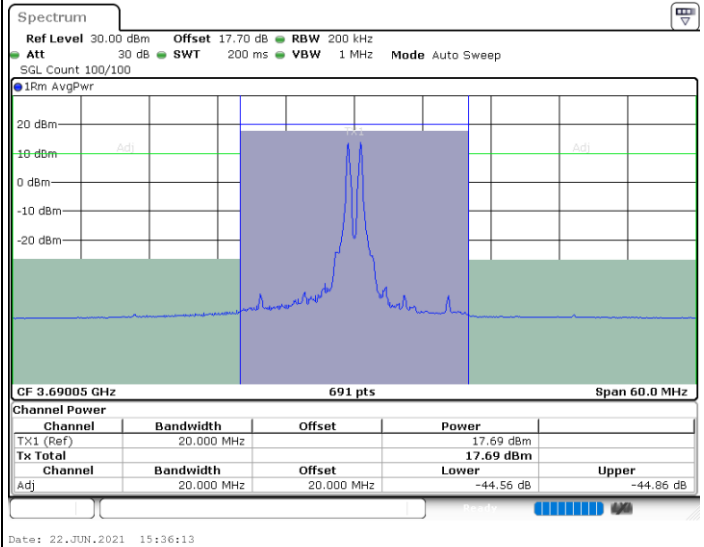
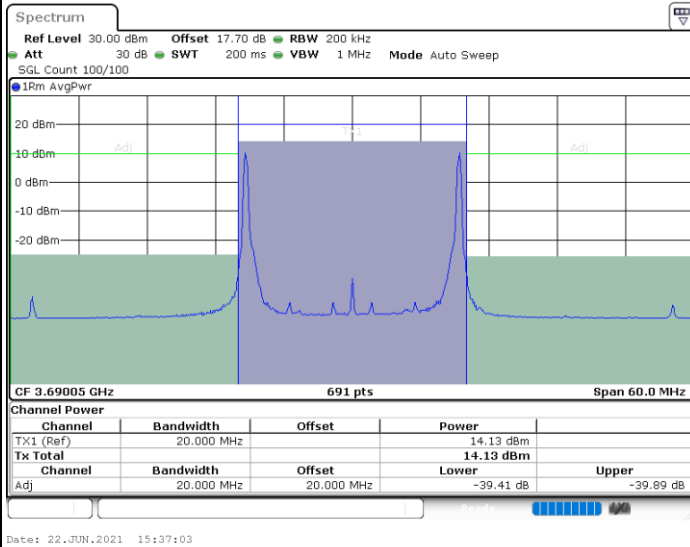


LTE Band 48B / 10MHz+10MHz

256QAM

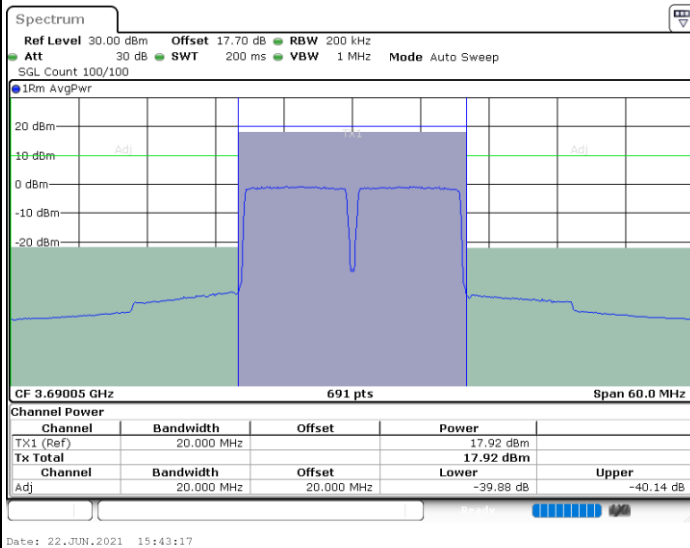
Highest Channel / 1RB0 and 1RB49

Highest Channel / 1RB49 and 1RB0



Highest Channel / FullRB

N/A





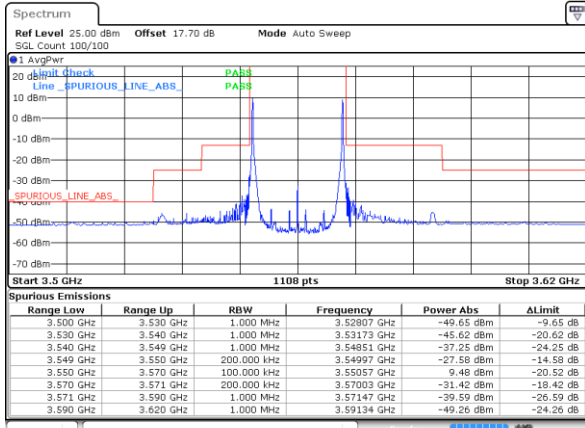
Conducted Band Edge



LTE Band 48B / 10MHz+10MHz

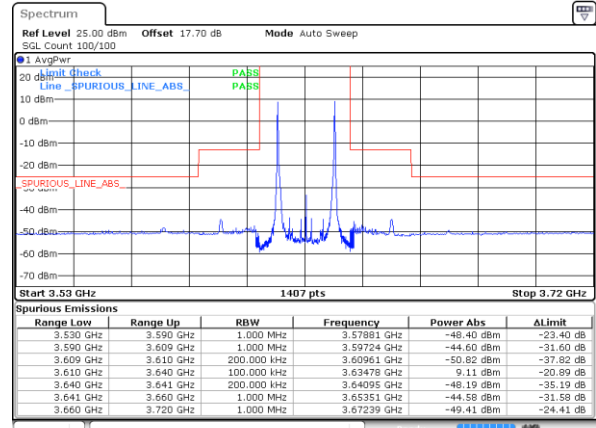
QPSK

Lowest Band Edge / 1RB0 and 1RB49



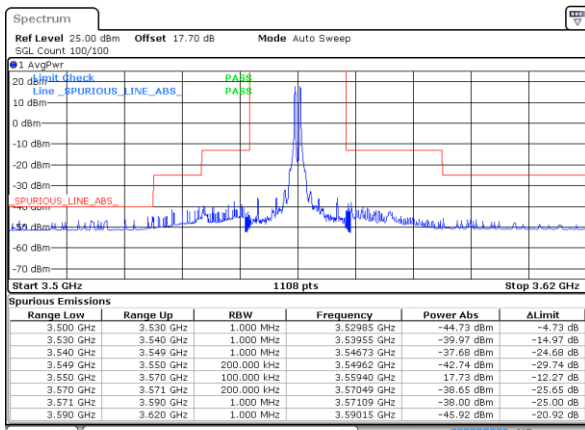
Date: 1 JUN 2021 14:20:20

Middle Band Edge / 1RB0 and 1RB49



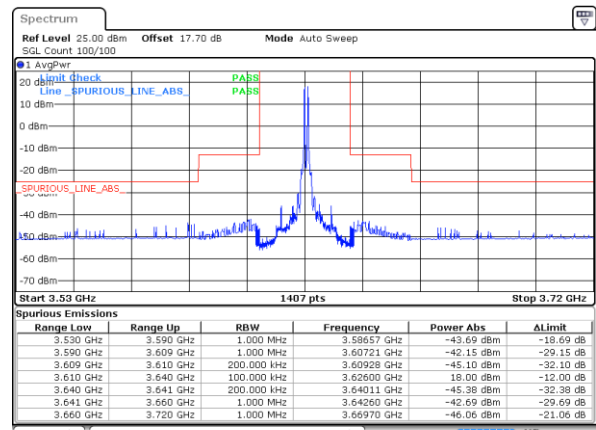
Date: 1 JUN 2021 11:15:15

Lowest Band Edge / 1RB49 and 1RB0



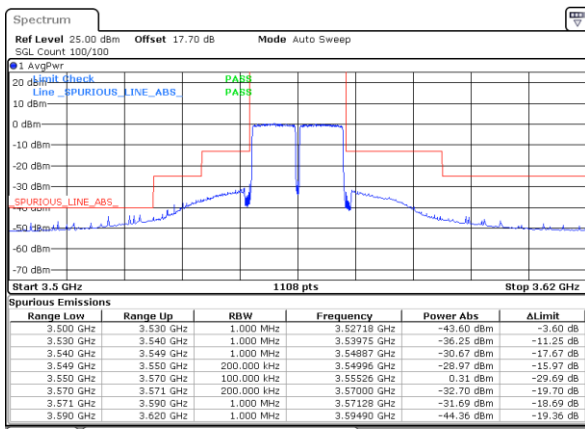
Date: 1 JUN 2021 14:21:17

Middle Band Edge / 1RB49 and 1RB0



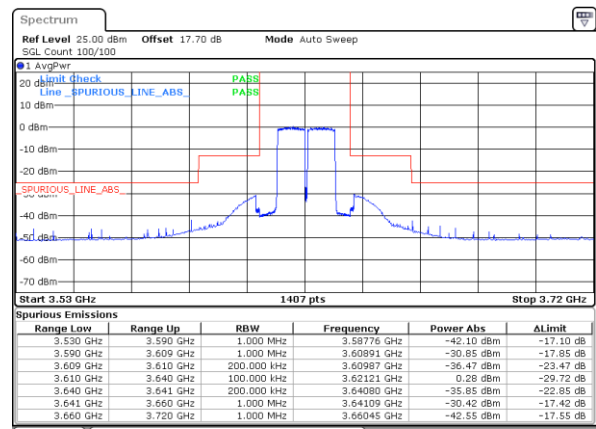
Date: 1 JUN 2021 11:16:12

Lowest Band Edge / Full RB



Date: 1 JUN 2021 14:15:32

Middle Band Edge / Full RB



Date: 1 JUN 2021 11:10:29

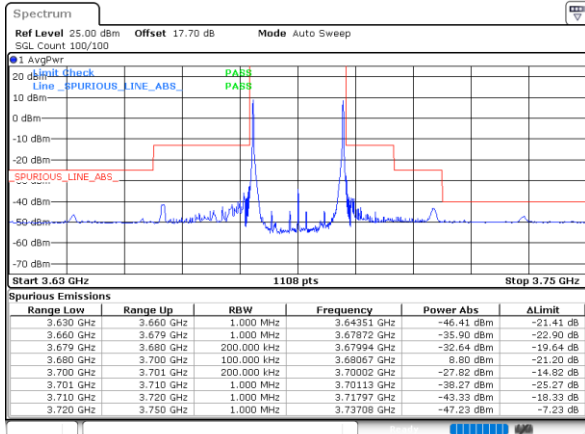


LTE Band 48B / 10MHz+10MHz

QPSK

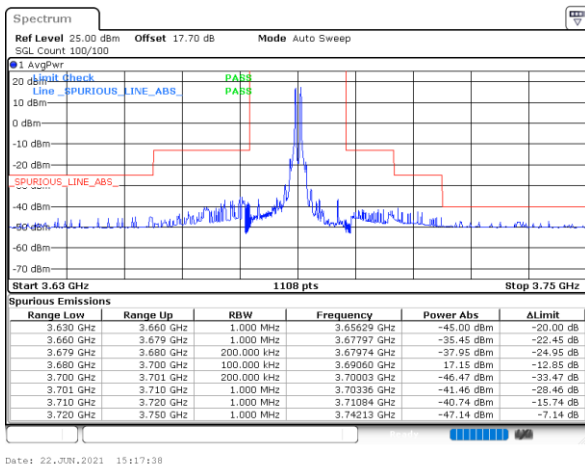
Highest Band Edge / 1RB0 and 1RB49

N/A



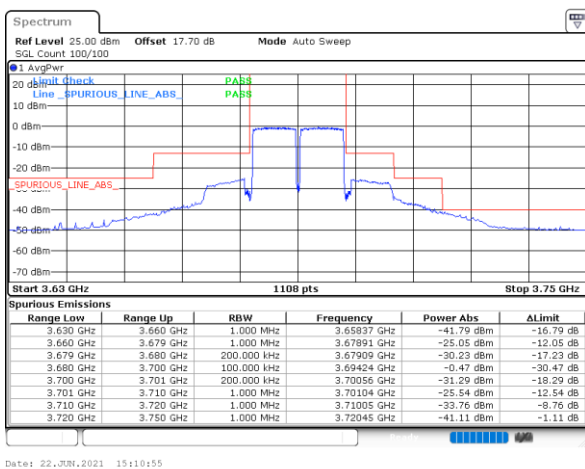
Highest Band Edge / 1RB49 and 1RB0

N/A



Highest Band Edge / Full RB

N/A

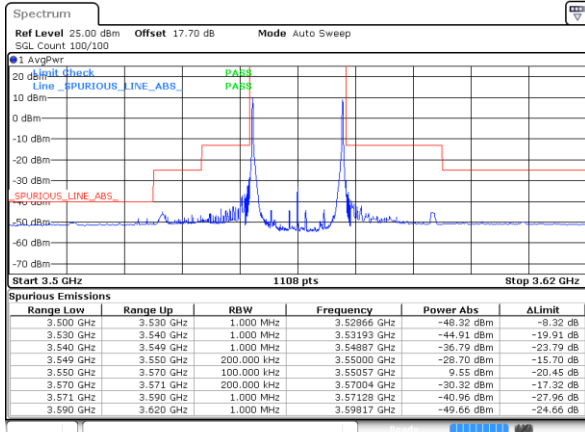




LTE Band 48B / 10MHz+10MHz

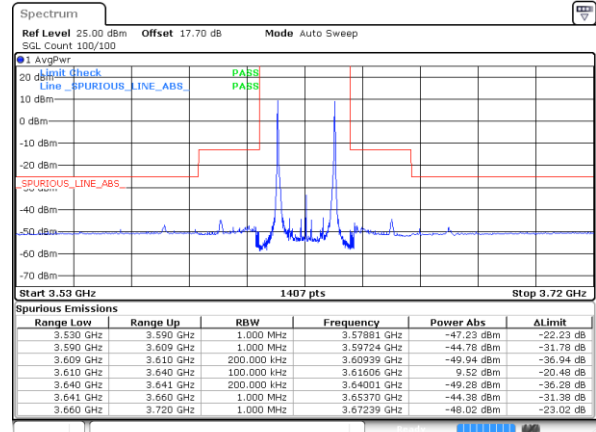
16QAM

Lowest Band Edge / 1RB0 and 1RB49



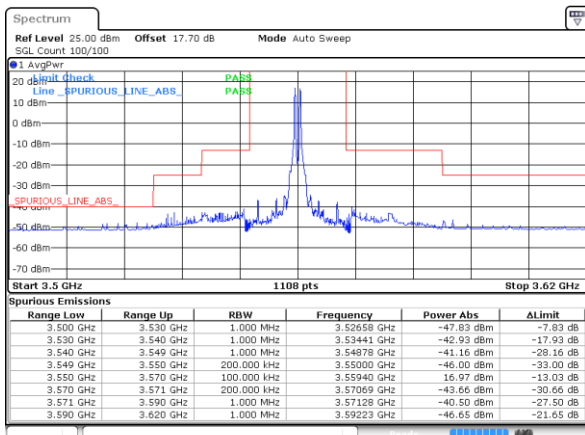
Date: 1 JUN 2021 14:19:22

Middle Band Edge / 1RB0 and 1RB49



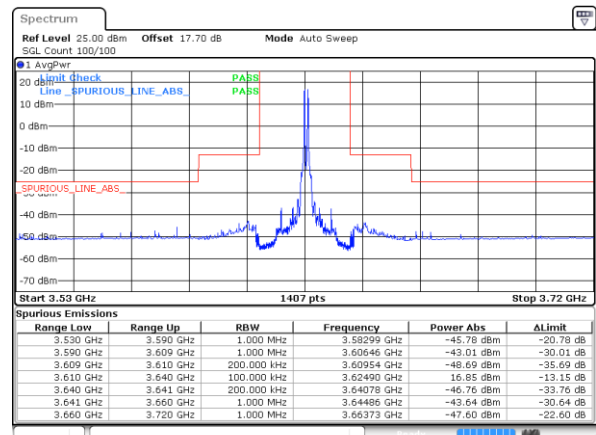
Date: 1 JUN 2021 11:14:17

Lowest Band Edge / 1RB49 and 1RB0



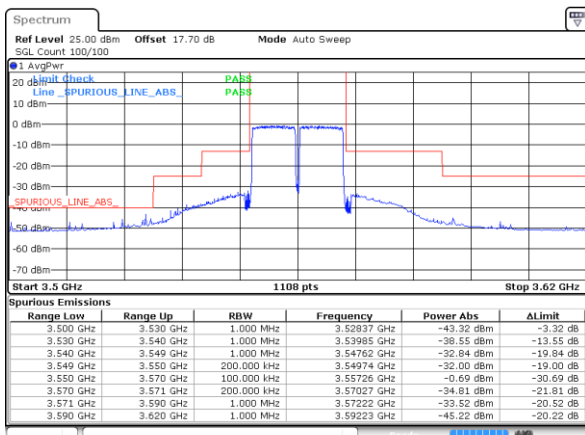
Date: 1 JUN 2021 14:22:15

Middle Band Edge / 1RB49 and 1RB0



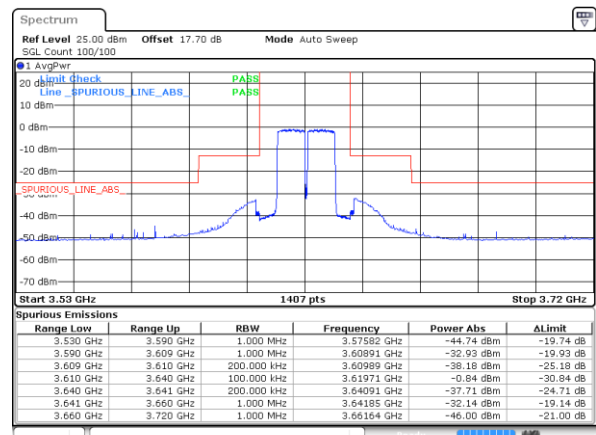
Date: 1 JUN 2021 11:17:09

Lowest Band Edge / Full RB

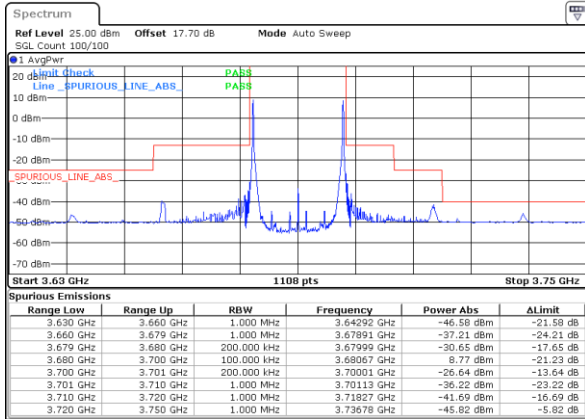
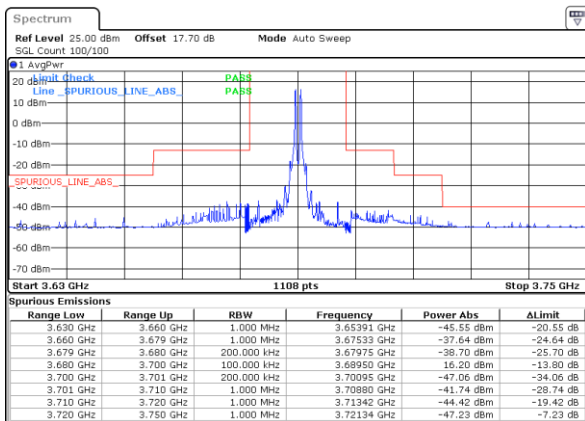
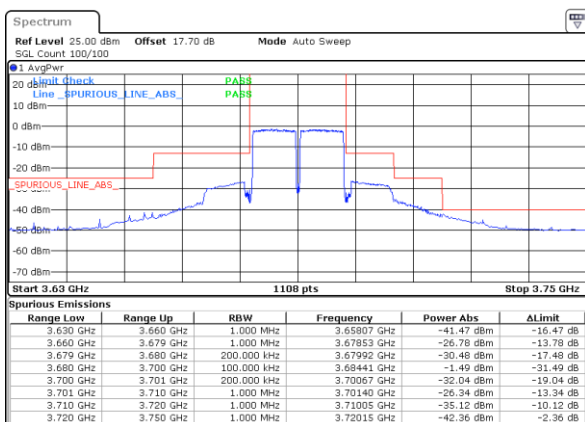


Date: 1 JUN 2021 14:16:29

Middle Band Edge / Full RB



Date: 1 JUN 2021 11:11:26

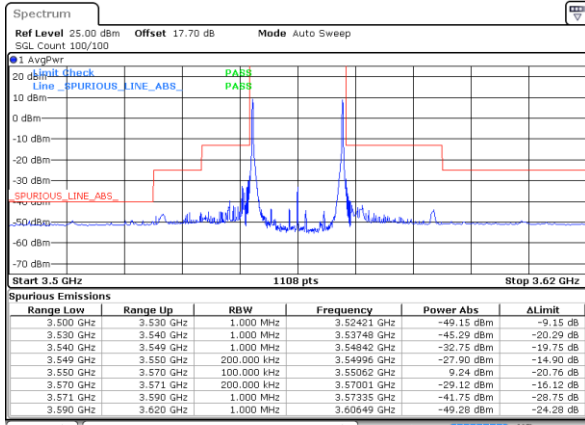
**LTE Band 48B / 10MHz+10MHz****16QAM****Highest Band Edge / 1RB0 and 1RB49****N/A****Highest Band Edge / 1RB49 and 1RB0****N/A****Highest Band Edge / Full RB****N/A**



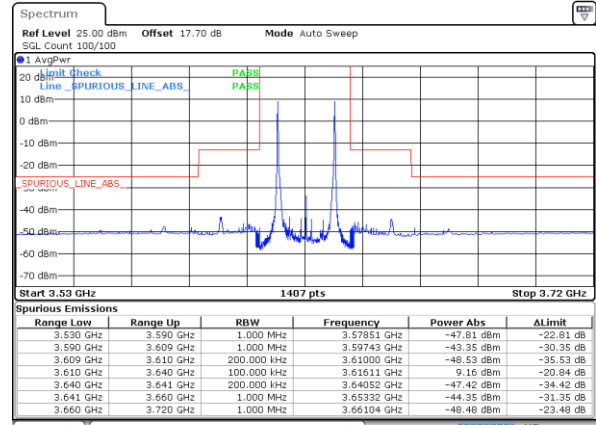
LTE Band 48B / 10MHz+10MHz

64QAM

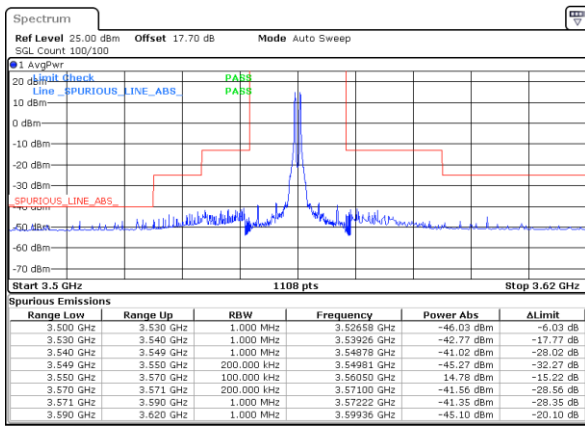
Lowest Band Edge / 1RB0 and 1RB49



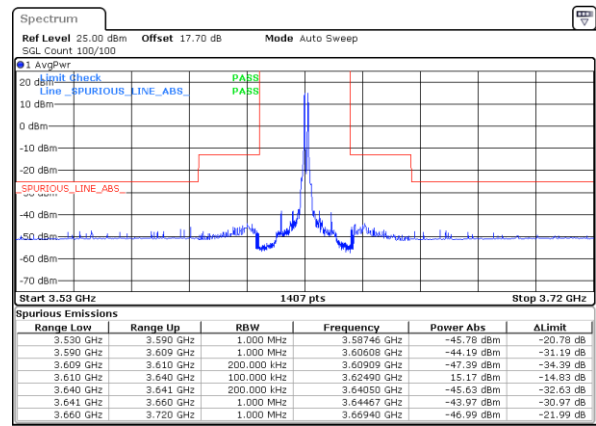
Middle Band Edge / 1RB0 and 1RB49



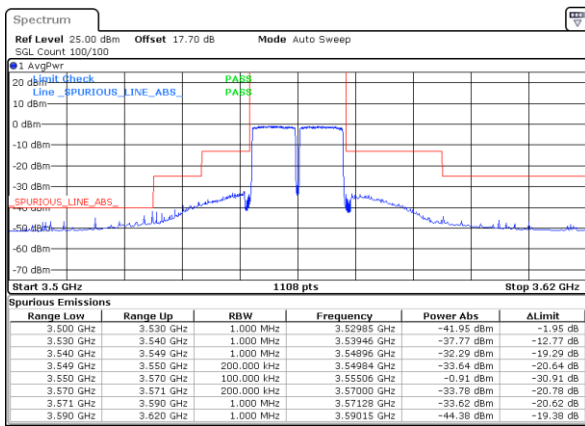
Lowest Band Edge / 1RB49 and 1RB0



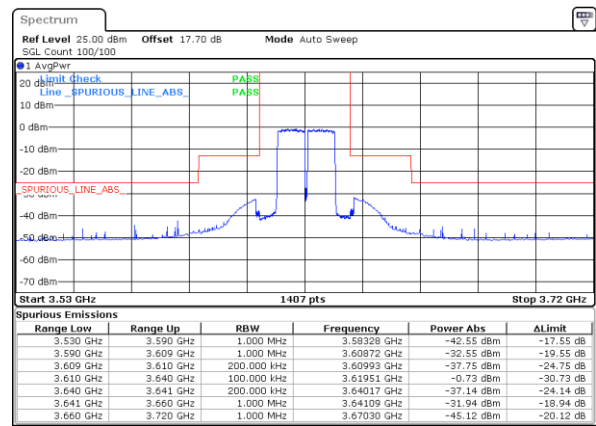
Middle Band Edge / 1RB49 and 1RB0



Lowest Band Edge / Full RB



Middle Band Edge / Full RB



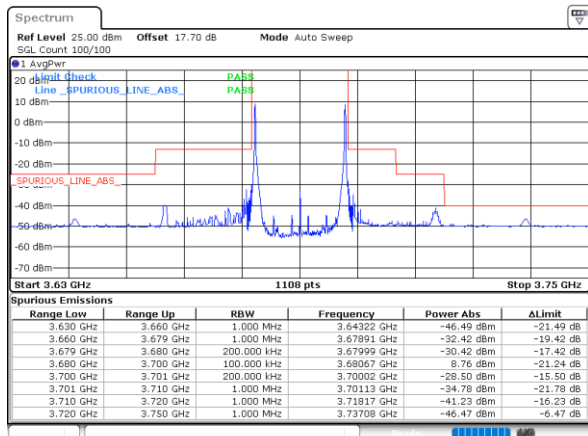


LTE Band 48B / 10MHz+10MHz

64QAM

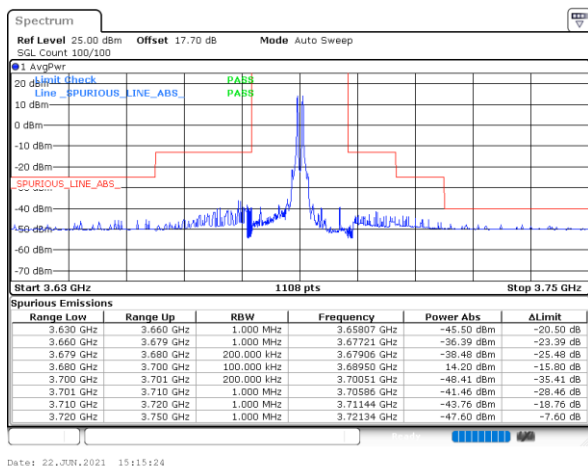
Highest Band Edge / 1RB0 and 1RB49

N/A



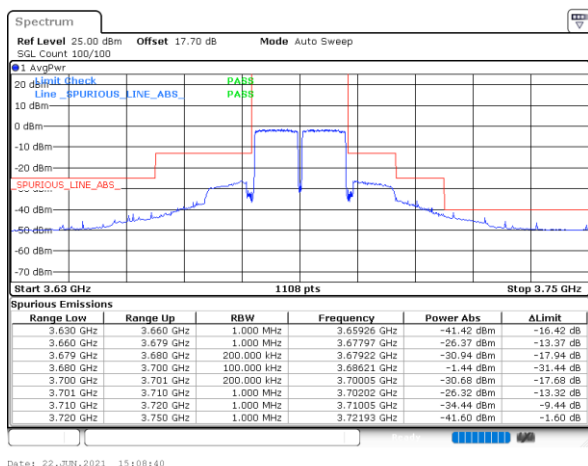
Highest Band Edge / 1RB49 and 1RB0

N/A



Highest Band Edge / Full RB

N/A

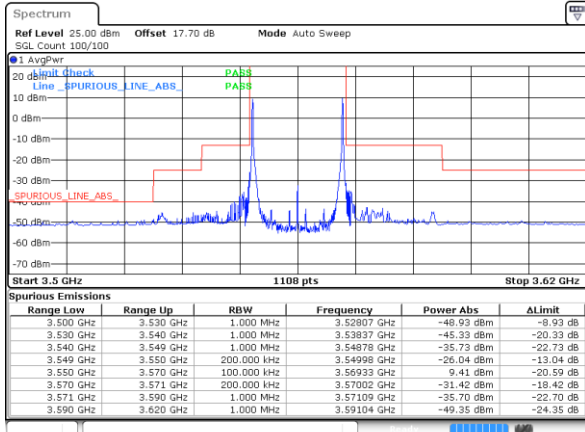




LTE Band 48B / 10MHz+10MHz

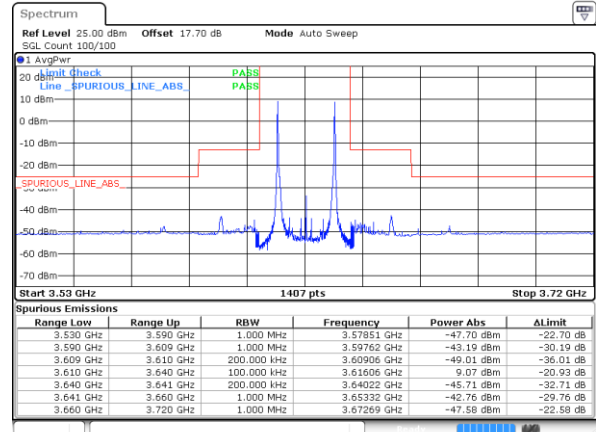
256QAM

Lowest Band Edge / 1RB0 and 1RB49



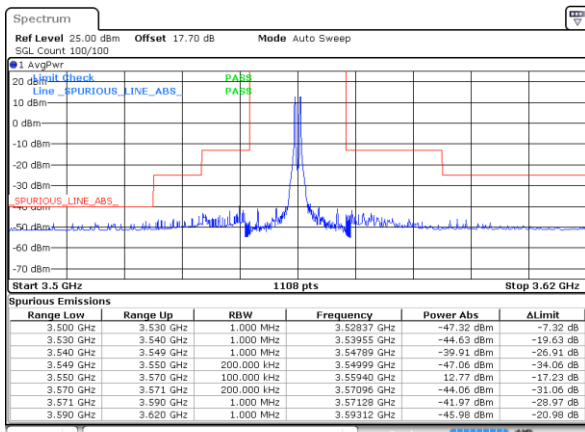
Date: 1 JUN 2021 14:37:51

Middle Band Edge / 1RB0 and 1RB49



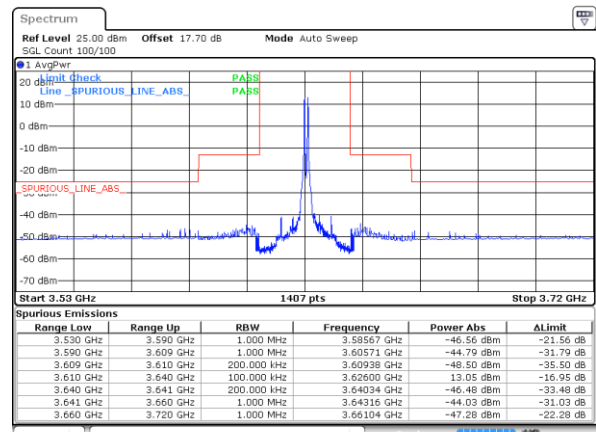
Date: 1 JUN 2021 11:59:56

Lowest Band Edge / 1RB49 and 1RB0



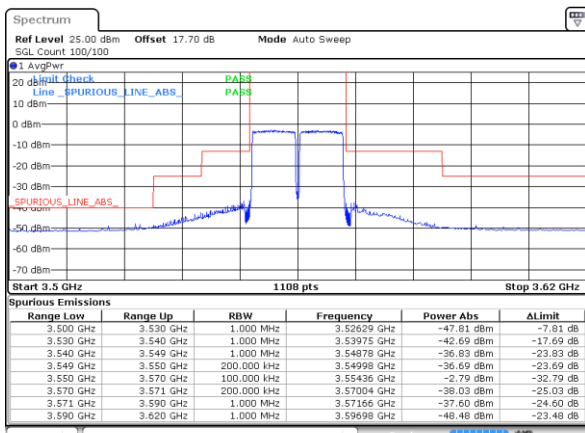
Date: 1 JUN 2021 14:40:19

Middle Band Edge / 1RB49 and 1RB0



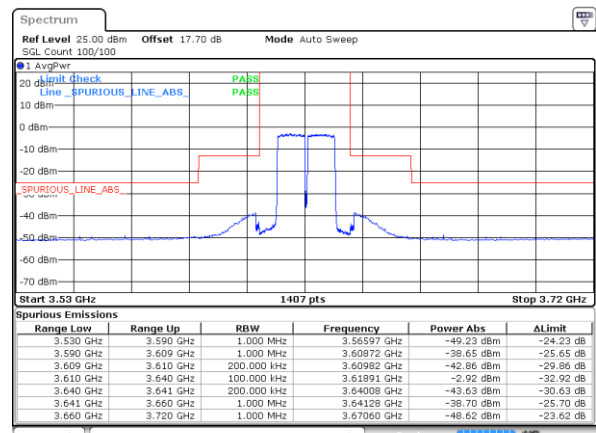
Date: 1 JUN 2021 11:57:30

Lowest Band Edge / Full RB



Date: 1 JUN 2021 14:38:54

Middle Band Edge / Full RB



Date: 1 JUN 2021 11:47:22