



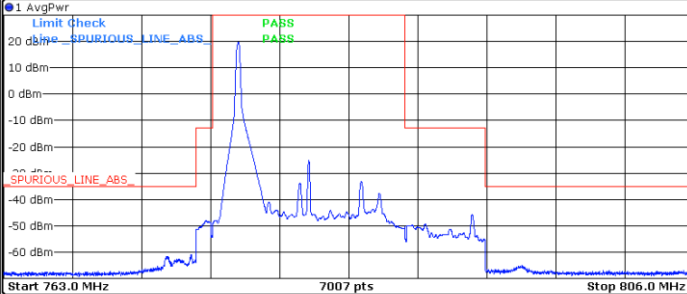
LTE Band 13 / 10MHz / 64QAM

Band Edge / 1 RB

LTE Band 13 / 10MHz / 64QAM

Band Edge / 1 RB

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 100/100

Start 763.0 MHz

7007 pts

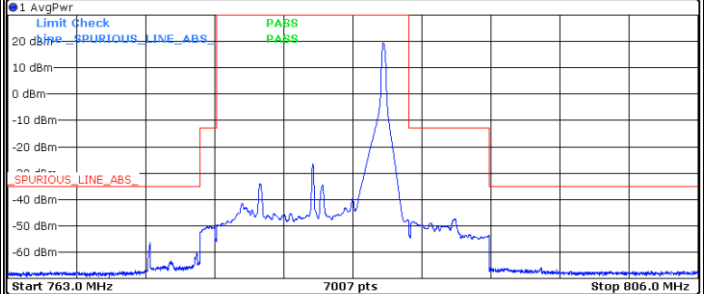
Stop 806.0 MHz

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.68232 MHz	-61.10 dBm	-26.10 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.59386 MHz	-48.13 dBm	-35.13 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.96259 MHz	-53.82 dBm	-40.82 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.61239 MHz	-19.73 dBm	-10.27 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00005 MHz	-55.07 dBm	-42.07 dB
788.100 MHz	793.000 MHz	100.000 kHz	792.17517 MHz	-45.70 dBm	-32.70 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.25325 MHz	-65.16 dBm	-30.16 dB

Date: 9.APR.2024 10:16:52

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 100/100

Start 763.0 MHz

7007 pts

Stop 806.0 MHz

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	771.86513 MHz	-56.44 dBm	-21.44 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.62892 MHz	-50.21 dBm	-37.21 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.94580 MHz	-55.17 dBm	-42.17 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.39960 MHz	-19.41 dBm	-10.59 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00005 MHz	-53.53 dBm	-40.53 dB
788.100 MHz	793.000 MHz	100.000 kHz	790.85350 MHz	-47.36 dBm	-34.36 dB
793.000 MHz	806.000 MHz	6.250 kHz	796.22727 MHz	-65.88 dBm	-30.88 dB

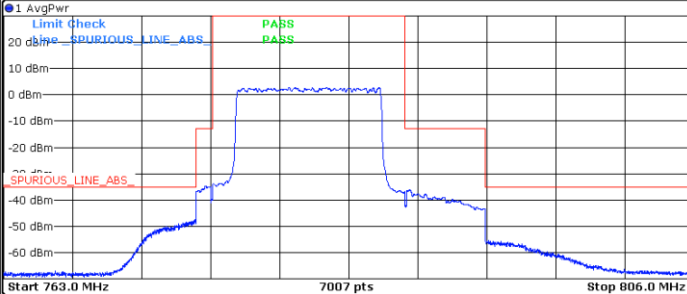
Date: 9.APR.2024 10:19:37

LTE Band 13 / 10MHz / 64QAM

Band Edge / Full RB

NA

Spectrum

Ref Level 30.00 dBm Offset 14.00 dB Mode Auto FFT
SGL Count 100/100

Start 763.0 MHz

7007 pts

Stop 806.0 MHz

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.95804 MHz	-47.30 dBm	-12.30 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.57318 MHz	-34.73 dBm	-21.73 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.92922 MHz	-39.74 dBm	-26.74 dB
776.000 MHz	788.000 MHz	100.000 kHz	780.80120 MHz	2.88 dBm	-27.12 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09995 MHz	-41.91 dBm	-28.91 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.27867 MHz	-36.08 dBm	-23.08 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.22727 MHz	-55.49 dBm	-20.49 dB

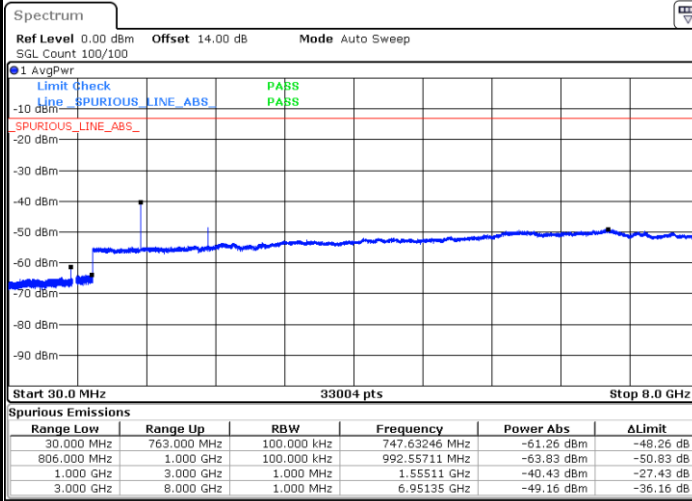
Date: 9.APR.2024 10:22:22



Conducted Spurious Emission

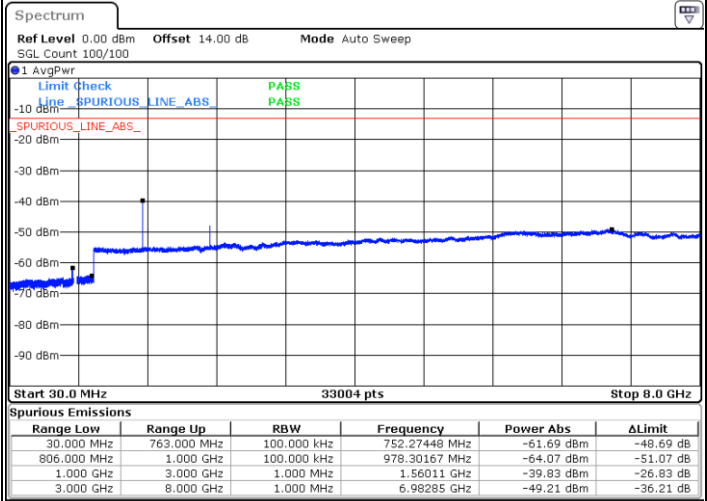
LTE Band 13 / 5MHz

Lowest Channel / QPSK



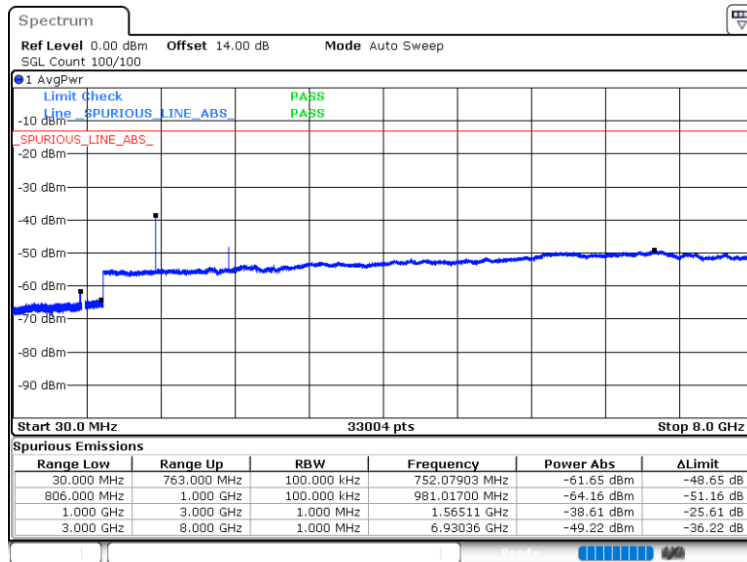
Date: 9.APR.2024 10:04:42

Middle Channel / QPSK



Date: 9.APR.2024 10:05:36

Highest Channel / QPSK

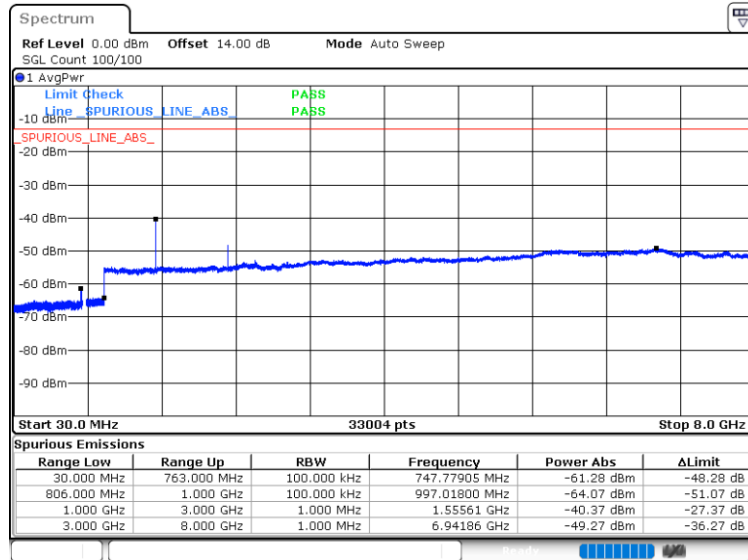


Date: 9.APR.2024 10:13:23



LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 9.APR.2024 10:23:17

**Frequency Stability**

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0024	

Note:

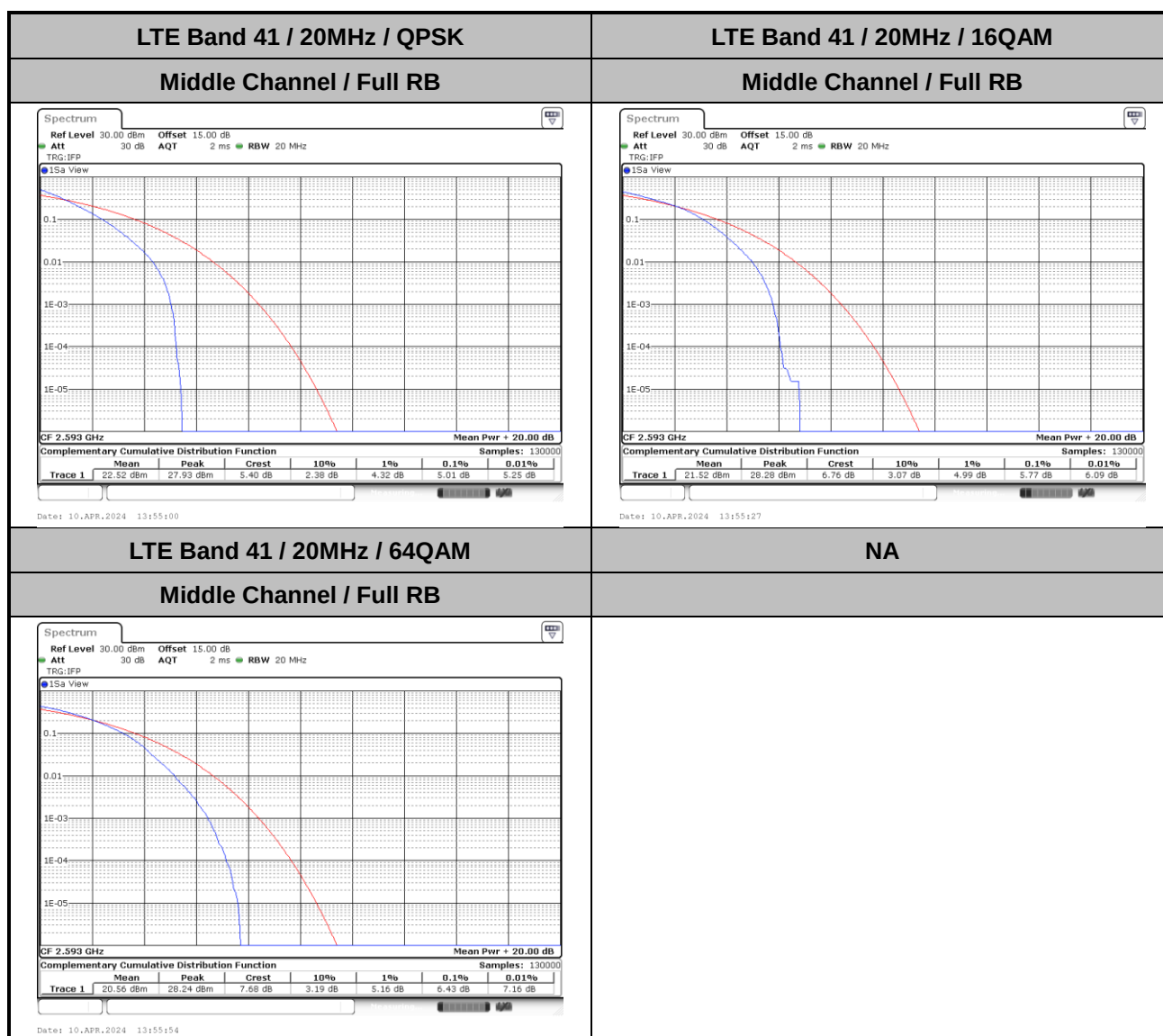
1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 41

Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.01	5.77	6.43	PASS



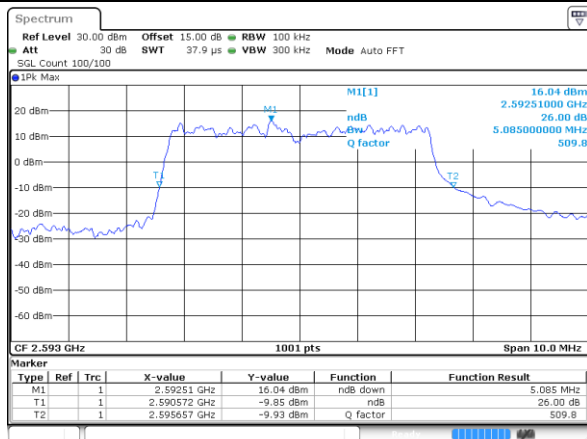


26dB Bandwidth

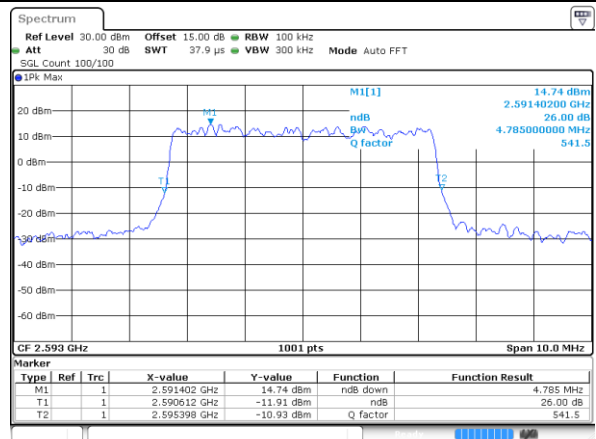
Mode	LTE Band 41 : 26dB BW(MHz)											
BW	-		-		5MHz		10MHz		15MHz		20MHz	
Mod.	-	-	-	-	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	5.09	4.79	9.75	9.73	14.30	14.18	18.62	18.74

LTE Band 41

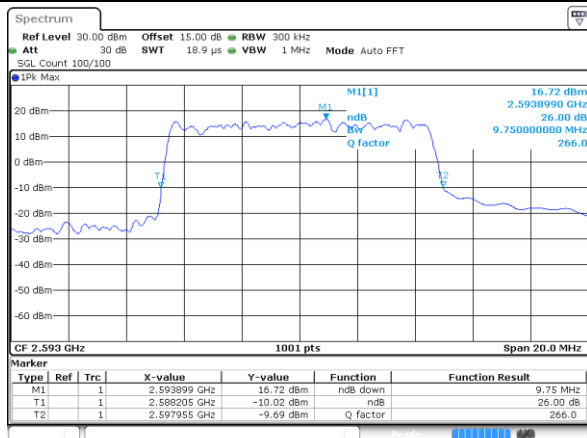
Middle Channel / 5MHz / QPSK



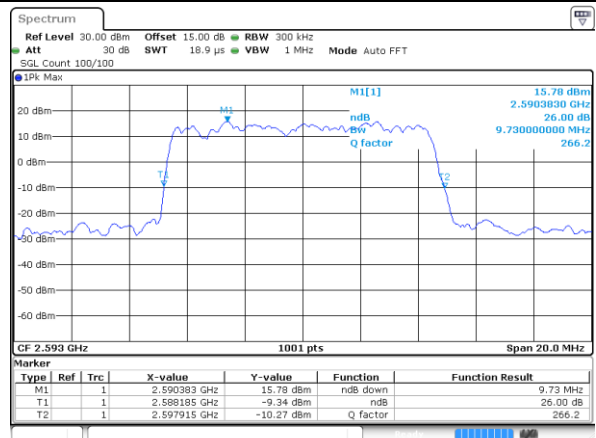
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK

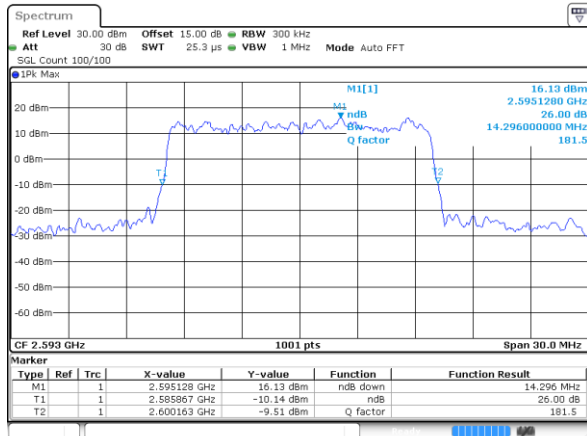


Middle Channel / 10MHz / 16QAM



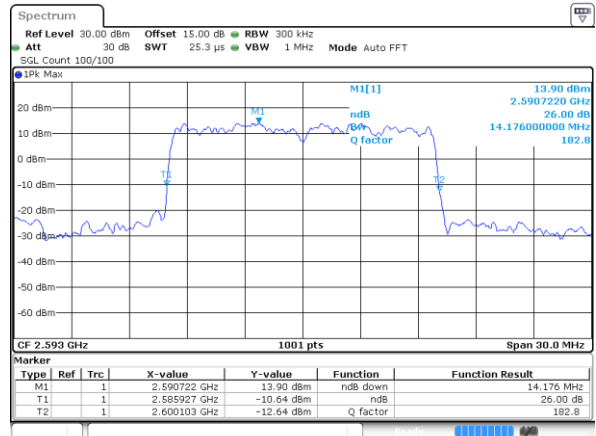


Middle Channel / 15MHz / QPSK



Date: 8 APR 2024 15:10:20

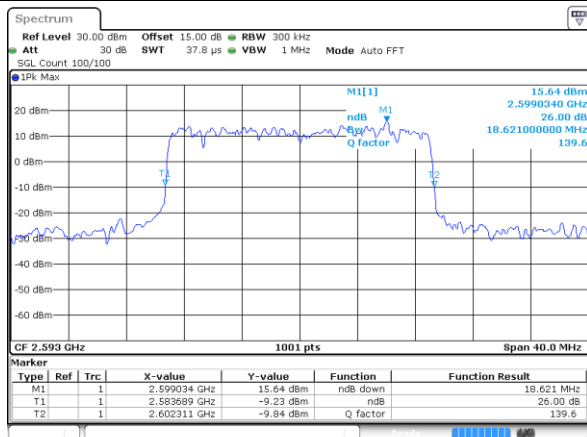
Middle Channel / 15MHz / 16QAM



Date: 8 APR 2024 15:10:59

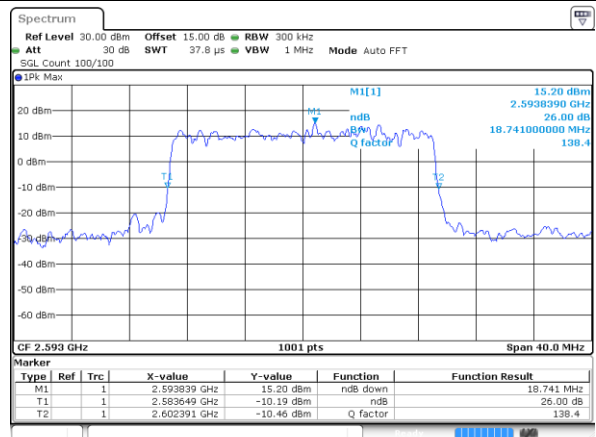
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 8 APR 2024 15:32:25

Middle Channel / 20MHz / 16QAM



Date: 8 APR 2024 15:33:04

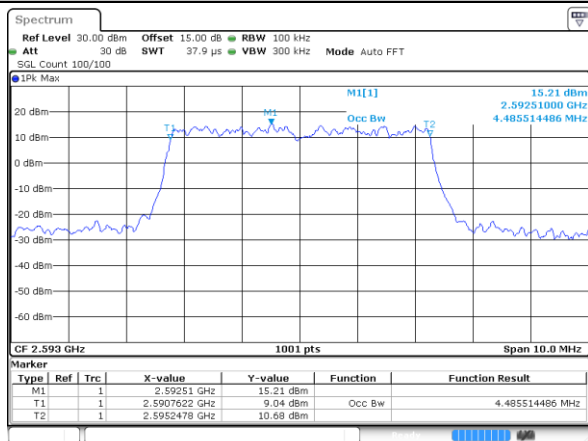


Occupied Bandwidth

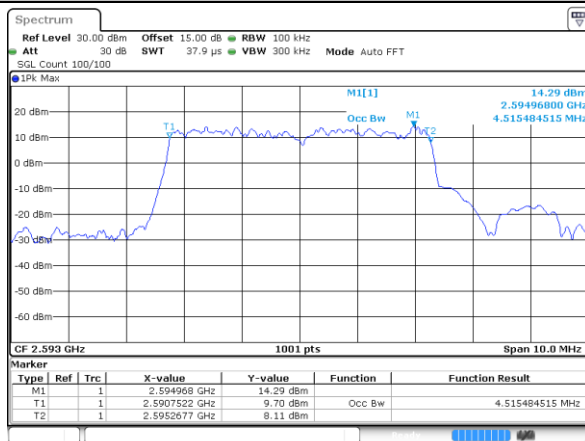
Mode	LTE Band 41 : 99%OBW(MHz)											
BW	-		-		5MHz		10MHz		15MHz		20MHz	
Mod.	-	-	-	-	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.52	8.97	9.01	13.40	13.52	17.86	17.90

LTE Band 41

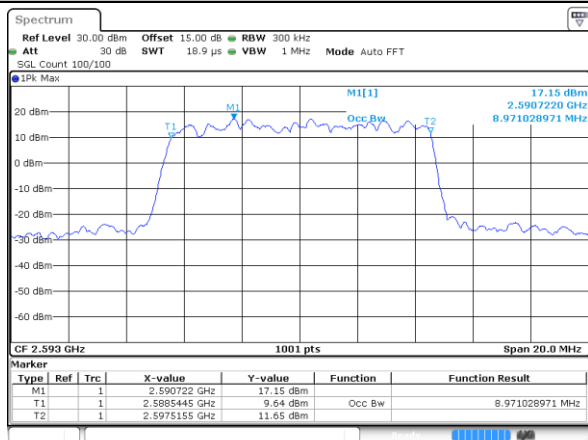
Middle Channel / 5MHz / QPSK



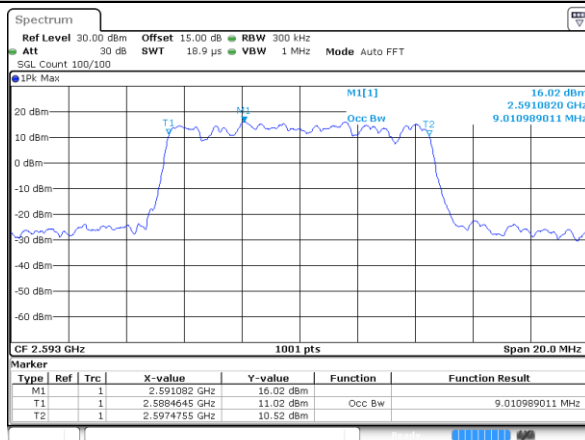
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK

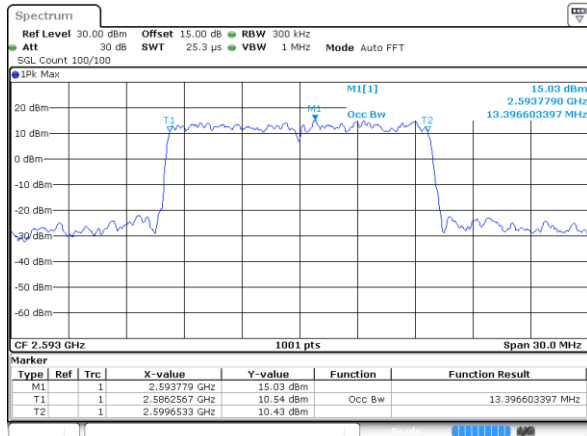


Middle Channel / 10MHz / 16QAM



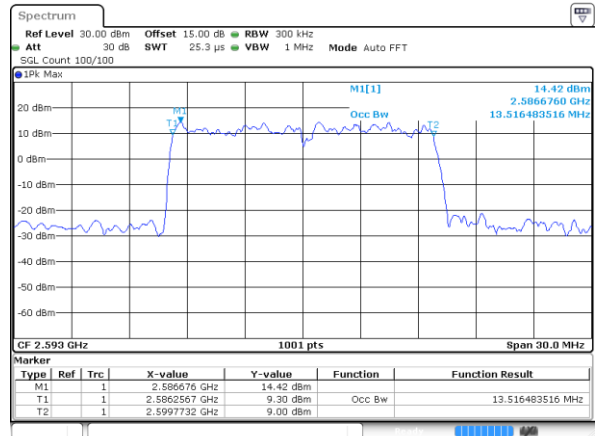


Middle Channel / 15MHz / QPSK



Date: 8 APR 2024 15:10:06

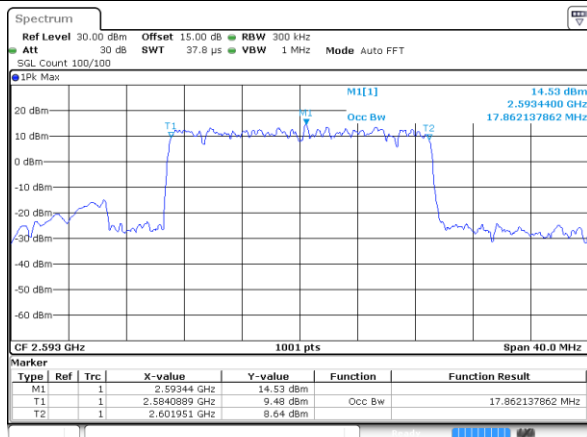
Middle Channel / 15MHz / 16QAM



Date: 8 APR 2024 15:10:45

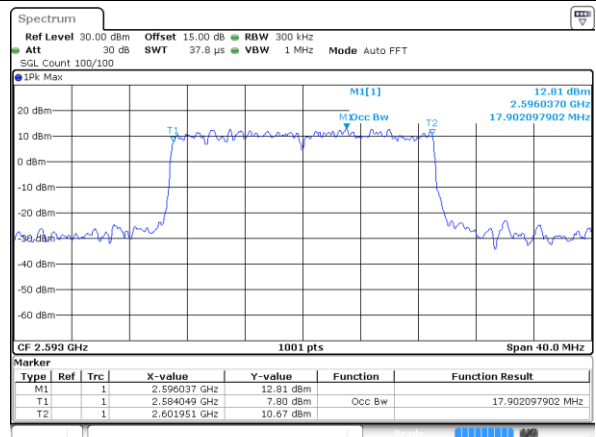
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 8 APR 2024 15:32:11

Middle Channel / 20MHz / 16QAM



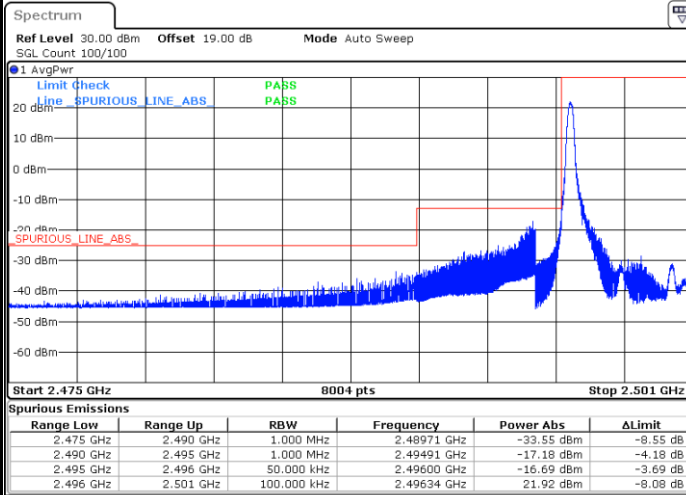
Date: 8 APR 2024 15:32:50



Conducted Band Edge

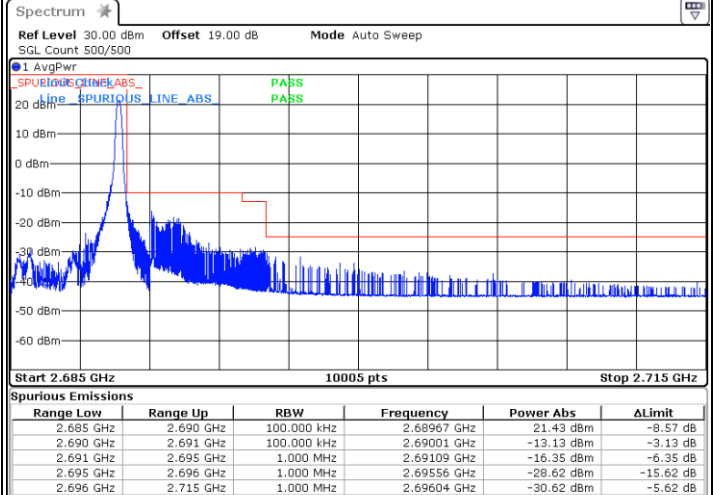
LTE Band 41 / 5MHz / QPSK

Lowest Band Edge / 1 RB



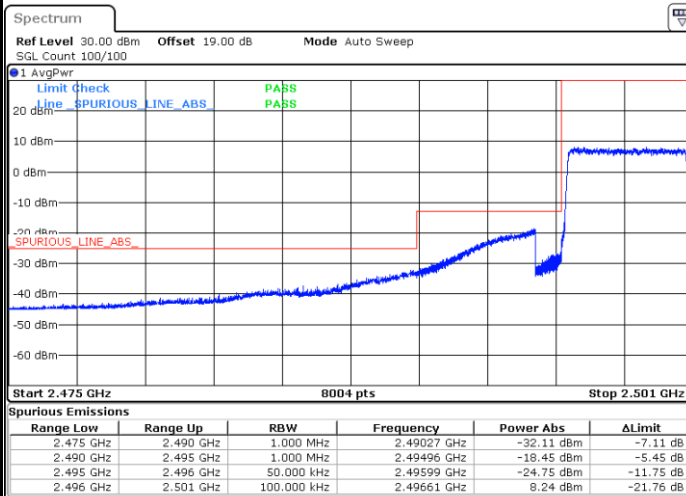
Date: 8 APR 2024 14:20:37

Highest Band Edge / 1 RB



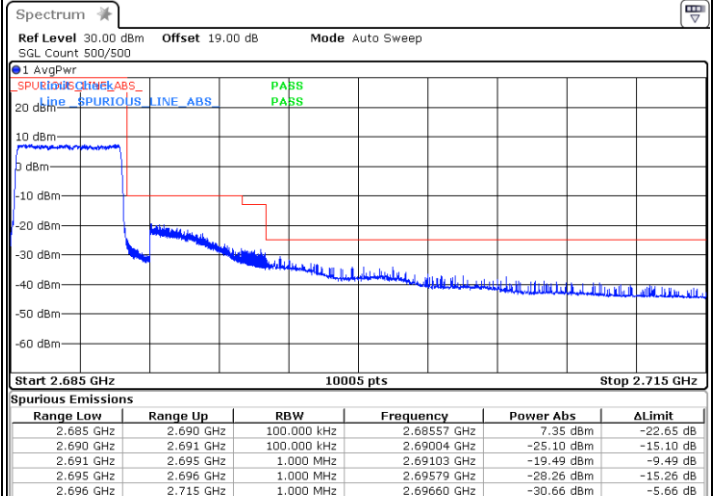
Date: 8 APR 2024 16:05:03

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:25:06

Highest Band Edge / Full RB

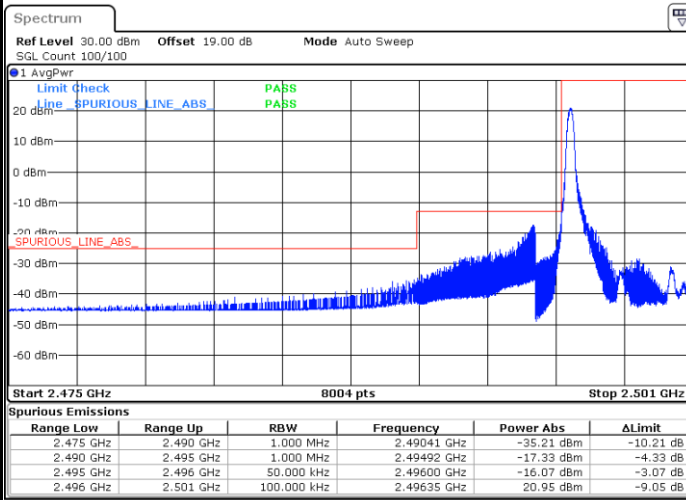


Date: 8 APR 2024 16:10:56



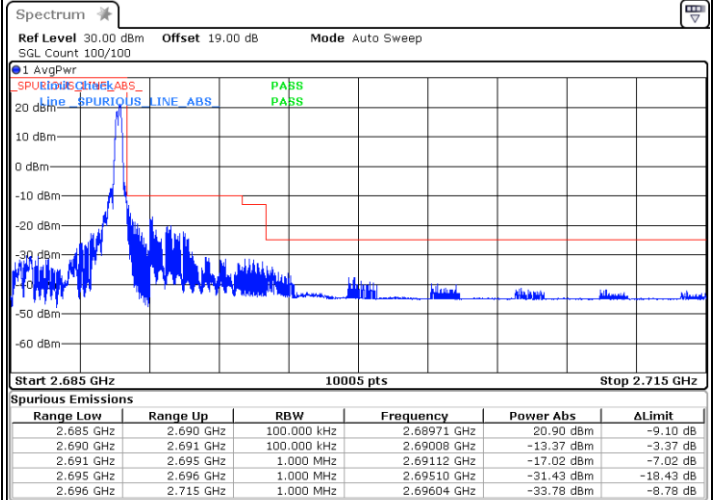
LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



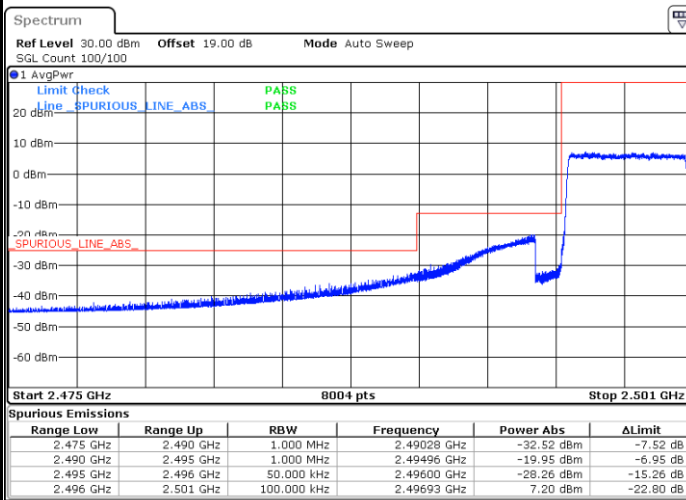
Date: 8 APR 2024 14:21:29

Highest Band Edge / 1 RB



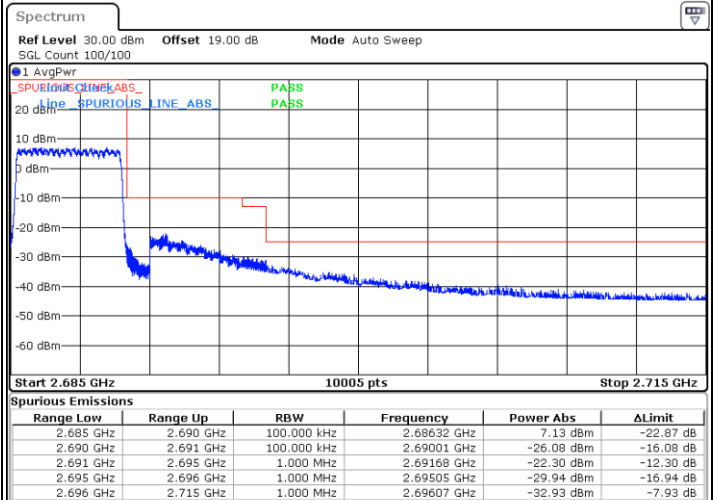
Date: 8 APR 2024 16:01:05

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:24:05

Highest Band Edge / Full RB

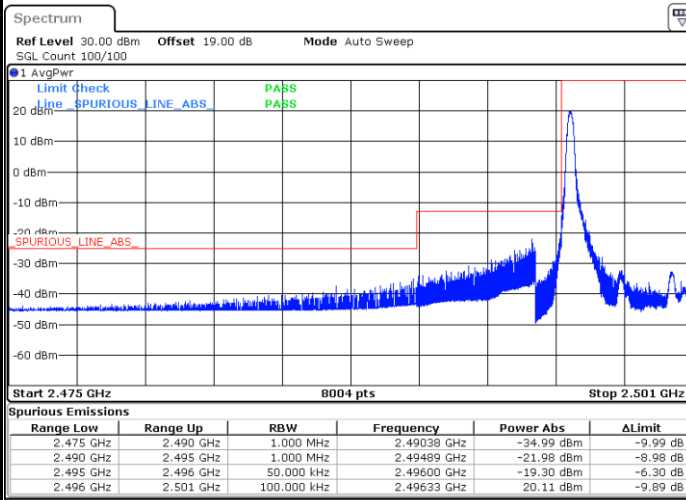


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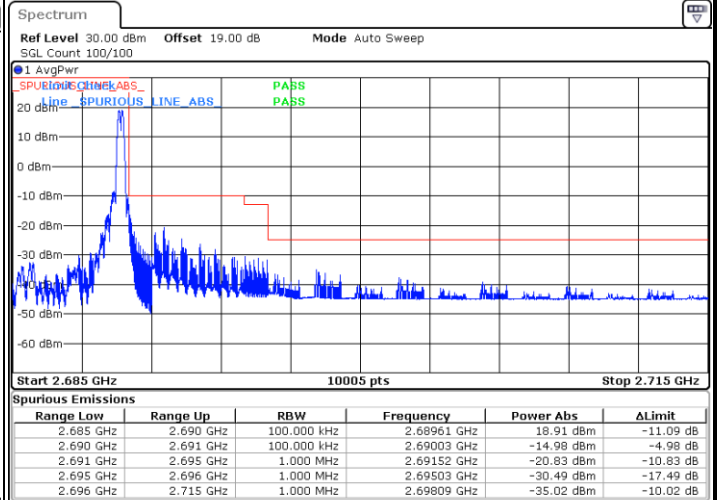


LTE Band 41 / 5MHz / 64QAM

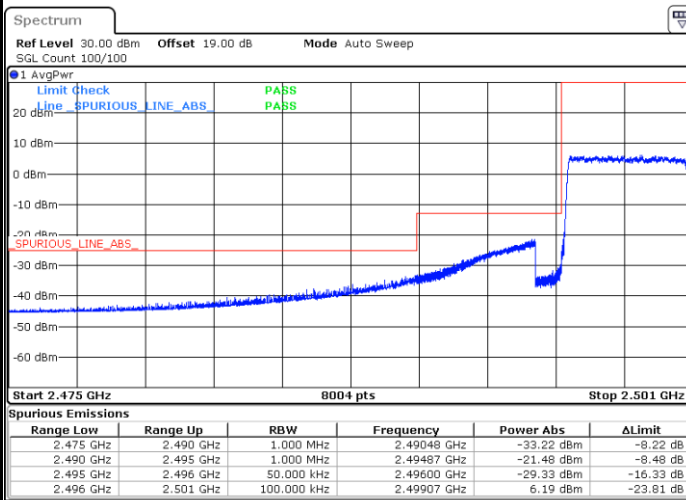
Lowest Band Edge / 1RB



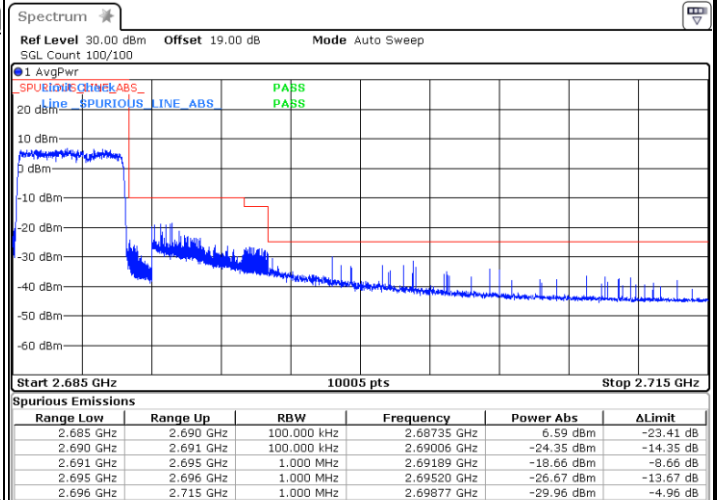
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



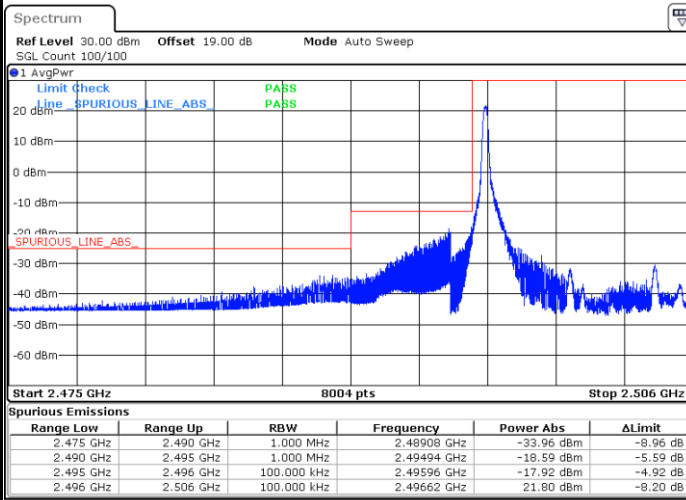
Highest Band Edge / Full RB





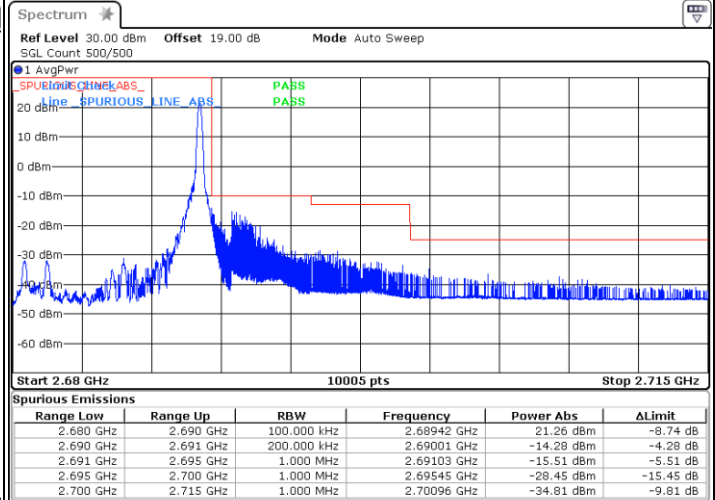
LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB



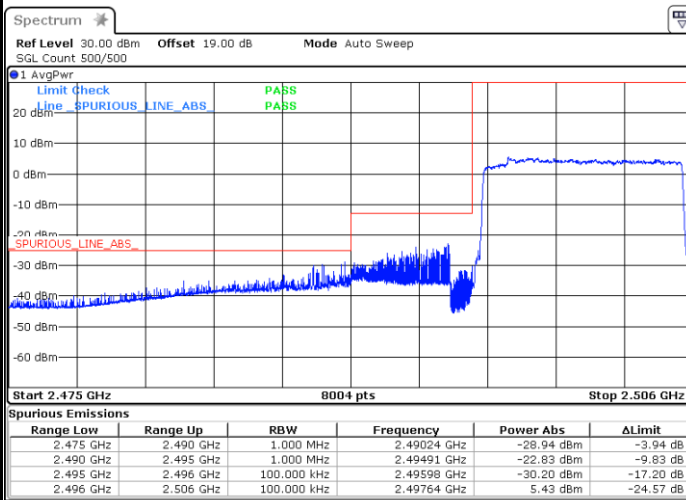
Date: 8 APR 2024 14:40:40

Highest Band Edge / 1 RB



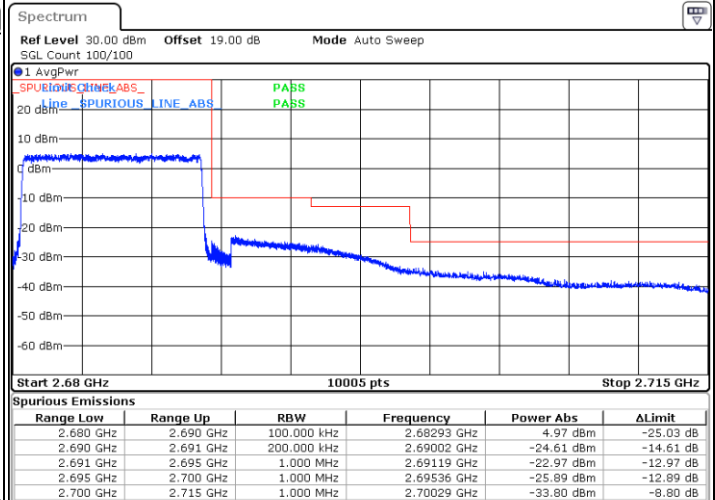
Date: 8 APR 2024 16:16:24

Lowest Band Edge / Full RB



Date: 8 APR 2024 16:14:49

Highest Band Edge / Full RB

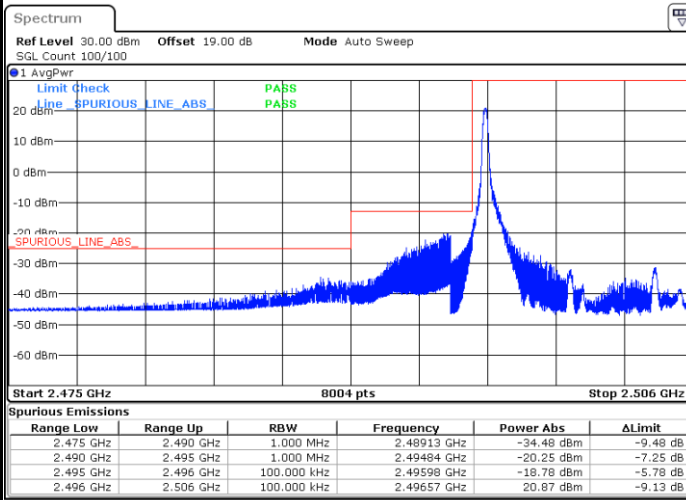


Date: 8 APR 2024 14:55:52



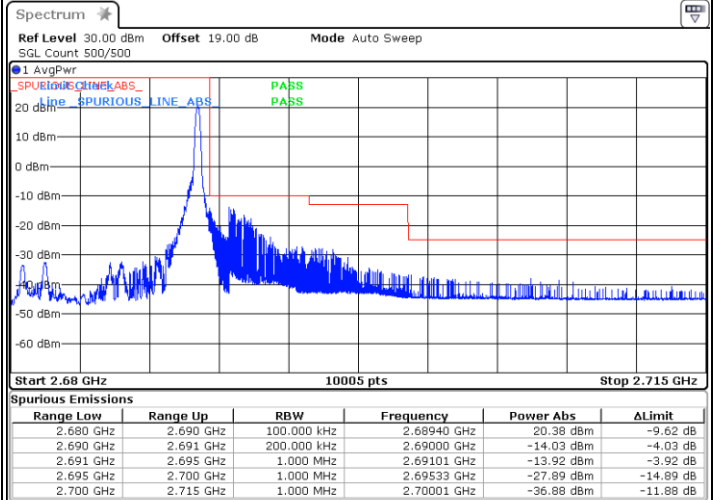
LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1RB



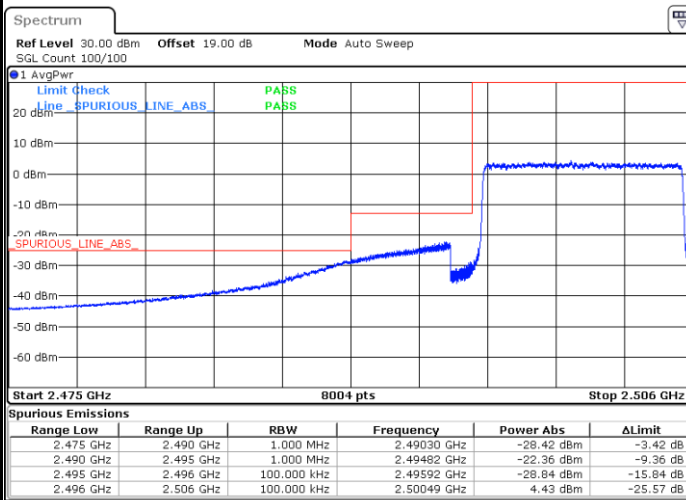
Date: 8 APR 2024 14:41:41

Highest Band Edge / 1 RB



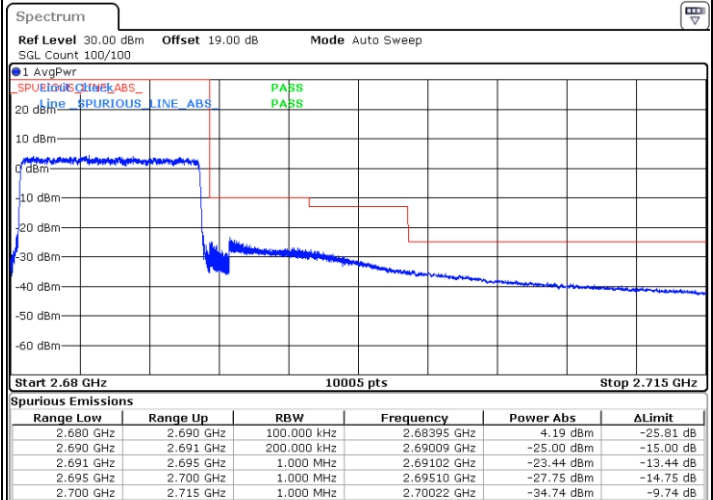
Date: 8 APR 2024 16:17:56

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:44:46

Highest Band Edge / Full RB

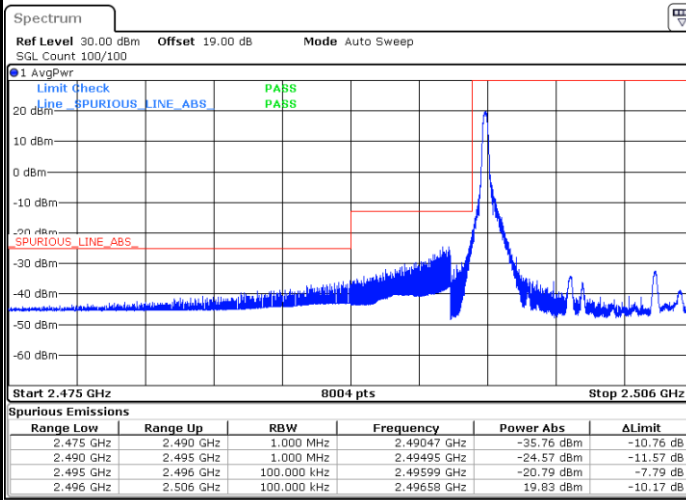


Date: 8 APR 2024 14:54:51



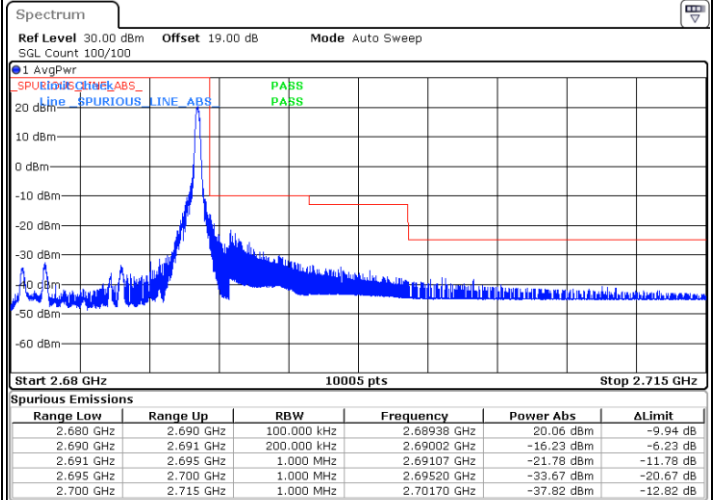
LTE Band 41 / 10MHz / 64QAM

Lowest Band Edge / 1RB



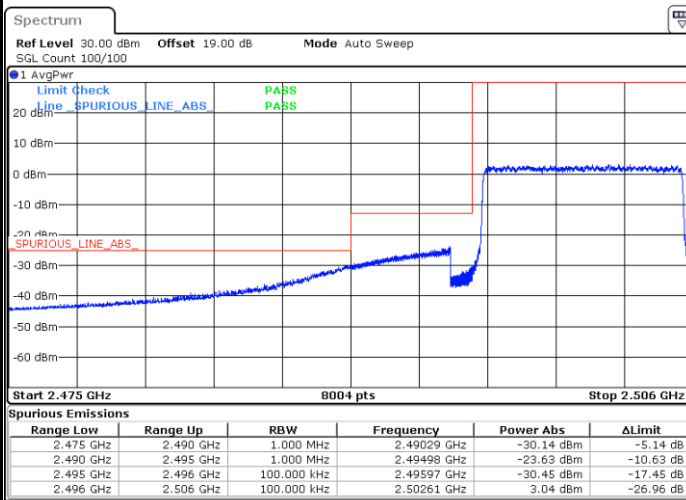
Date: 8 APR 2024 14:42:43

Highest Band Edge / 1 RB



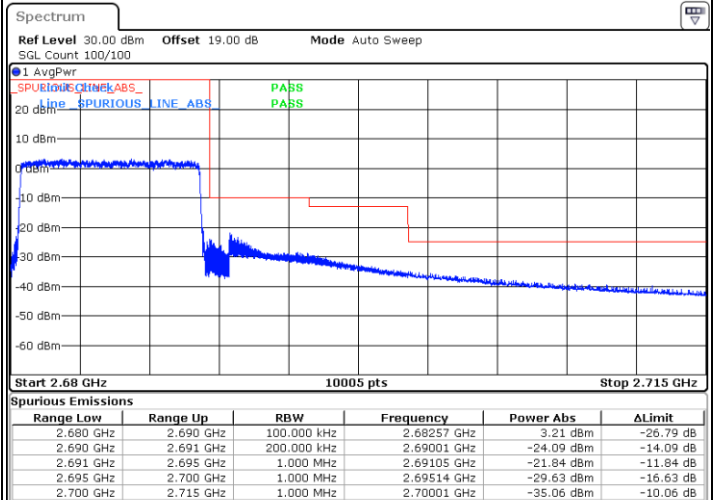
Date: 8 APR 2024 14:52:49

Lowest Band Edge / Full RB



Date: 8 APR 2024 14:43:44

Highest Band Edge / Full RB

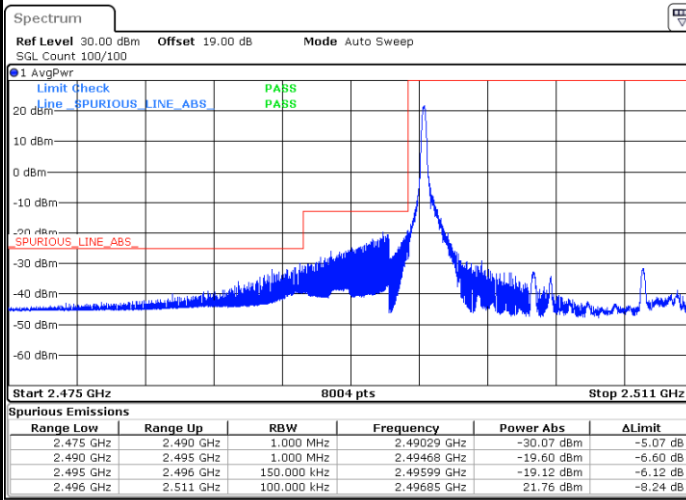


Date: 8 APR 2024 14:53:50



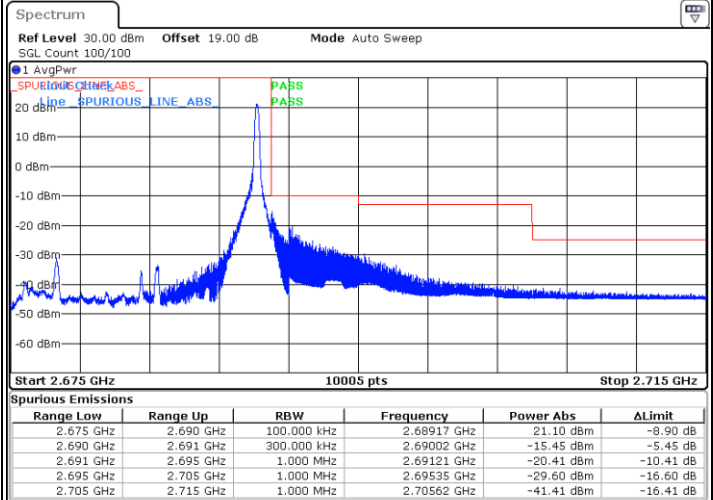
LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB



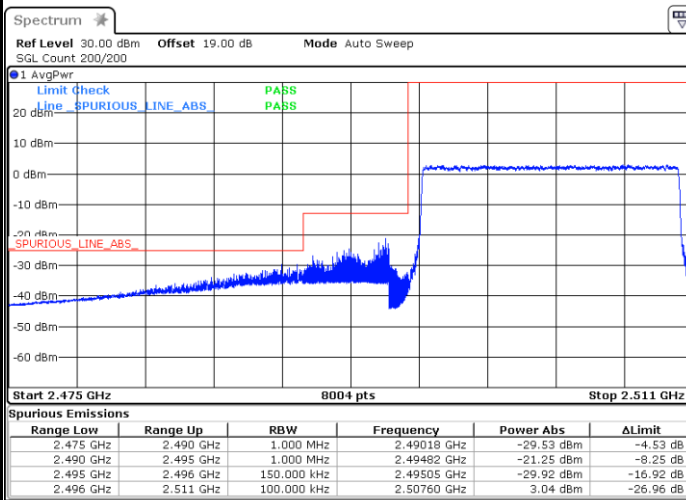
Date: 8 APR 2024 15:01:52

Highest Band Edge / 1 RB



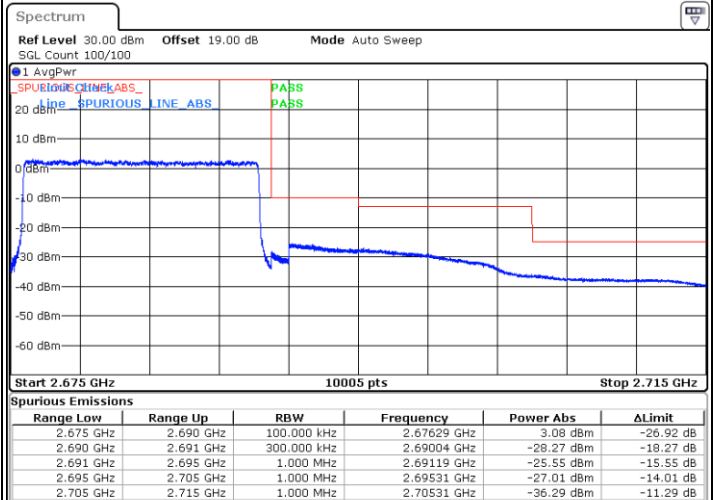
Date: 8 APR 2024 15:11:59

Lowest Band Edge / Full RB



Date: 8 APR 2024 16:26:02

Highest Band Edge / Full RB

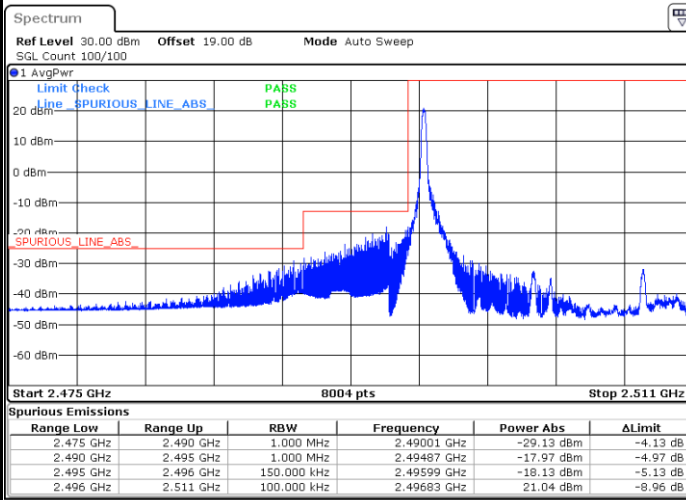


Date: 8 APR 2024 15:17:04



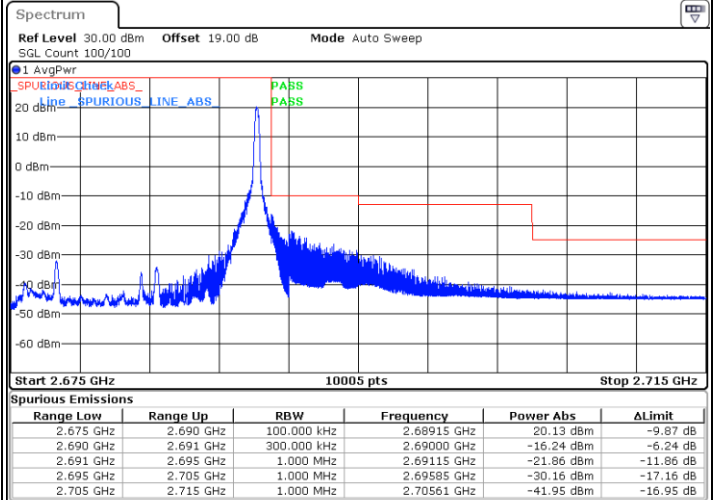
LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1RB



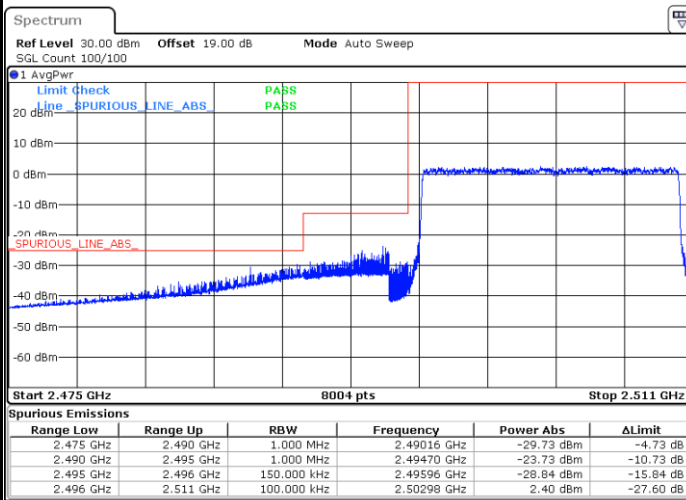
Date: 8 APR 2024 15:02:54

Highest Band Edge / 1 RB



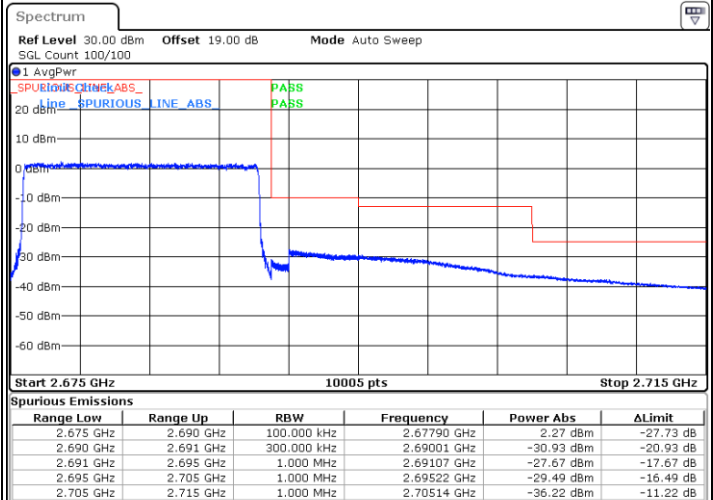
Date: 8 APR 2024 15:13:00

Lowest Band Edge / Full RB



Date: 8 APR 2024 16:20:21

Highest Band Edge / Full RB

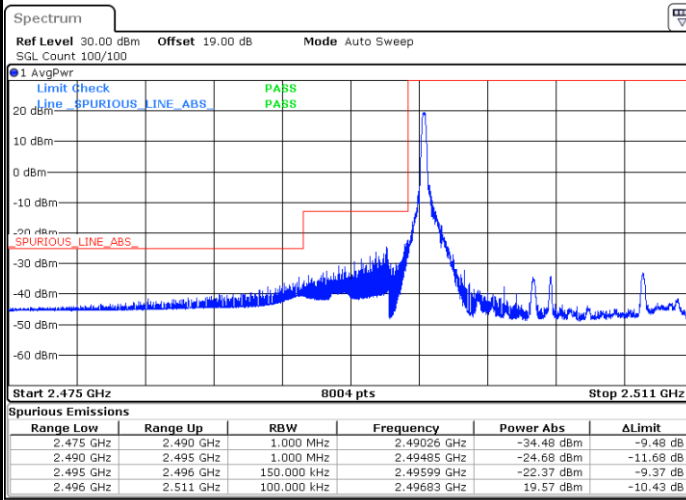


Date: 8 APR 2024 15:16:03

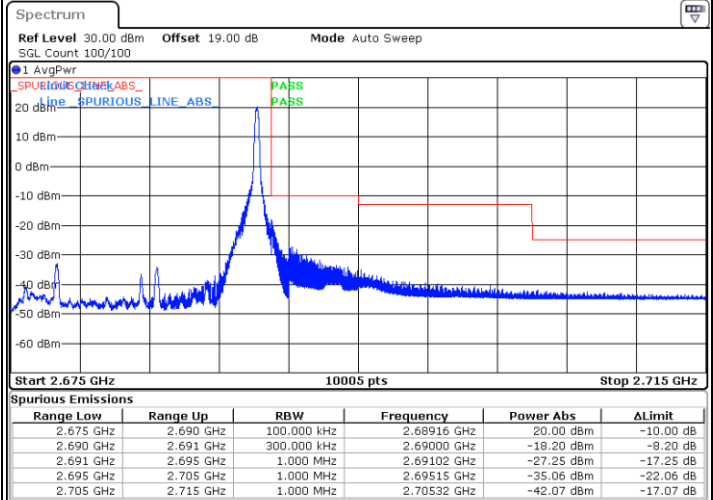


LTE Band 41 / 15MHz / 64QAM

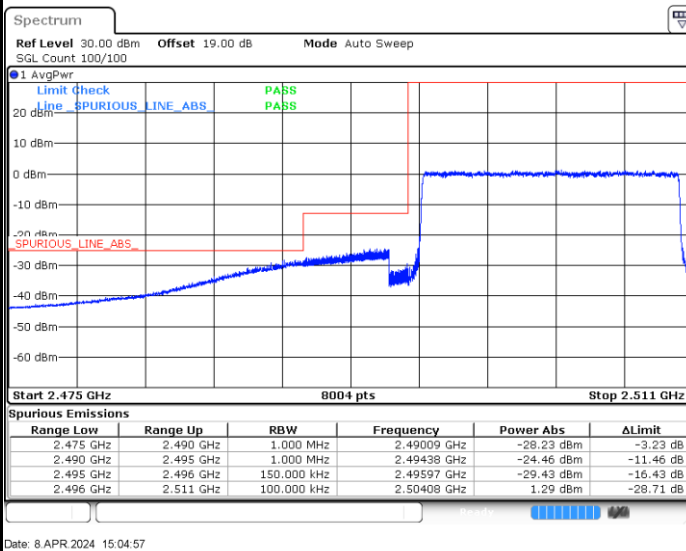
Lowest Band Edge / 1RB



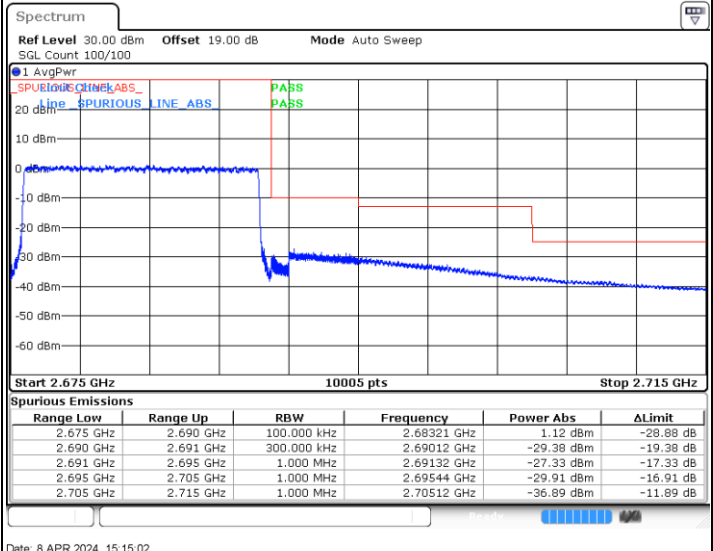
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



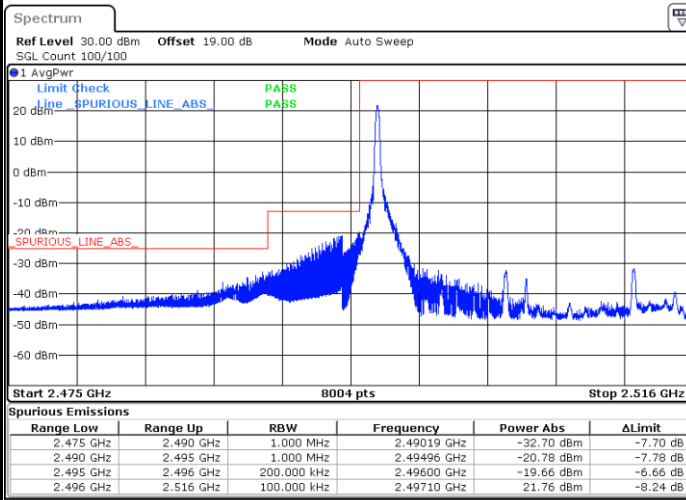
Highest Band Edge / Full RB



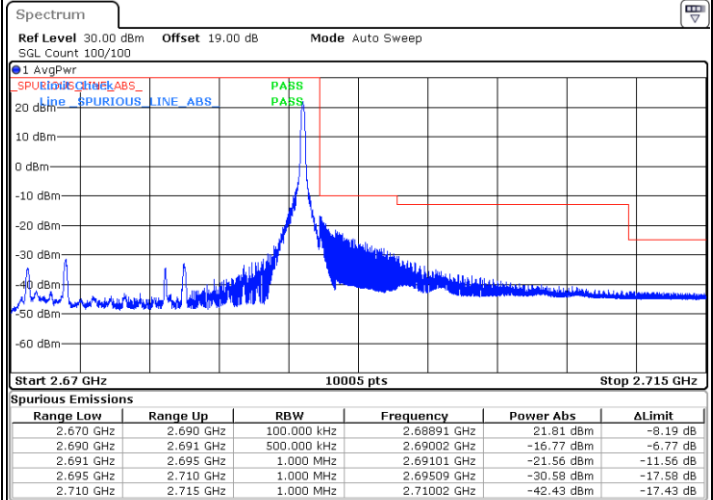


LTE Band 41 / 20MHz / QPSK

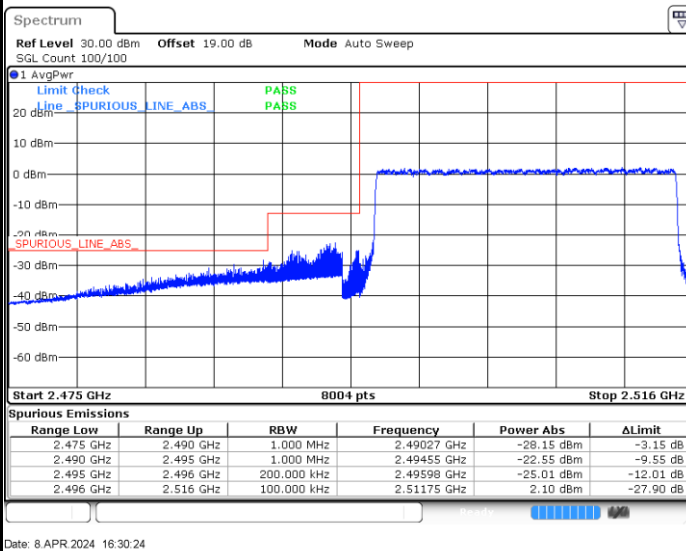
Lowest Band Edge / 1 RB



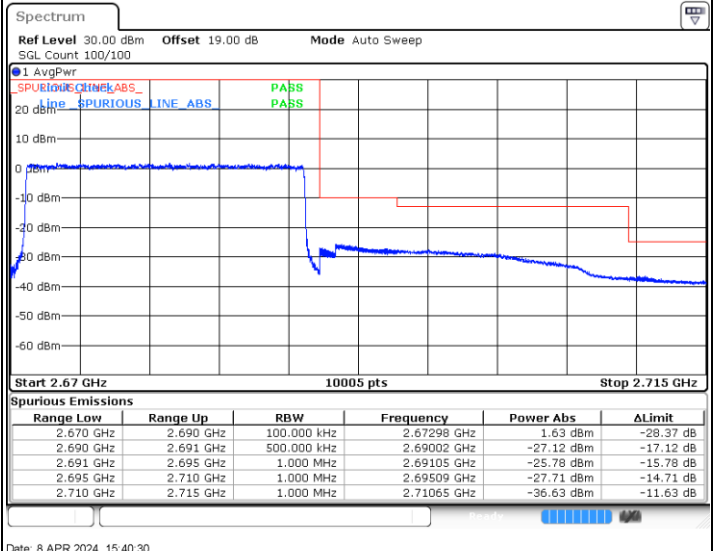
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



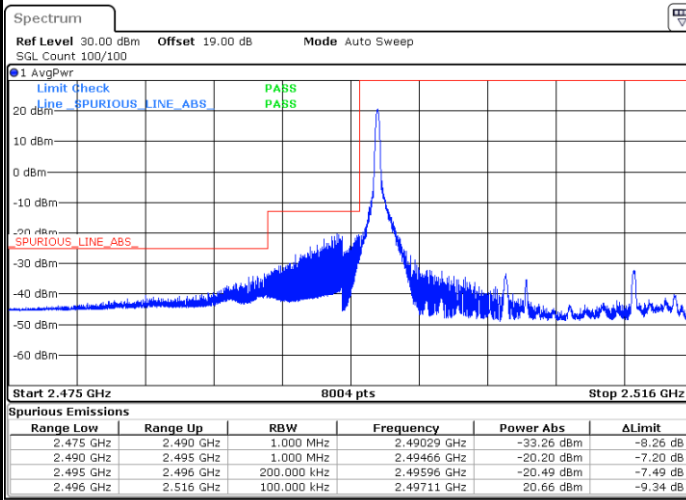
Highest Band Edge / Full RB





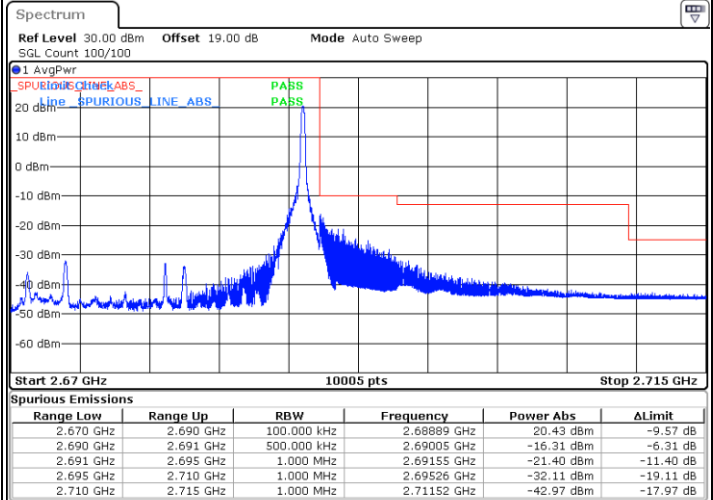
LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1RB



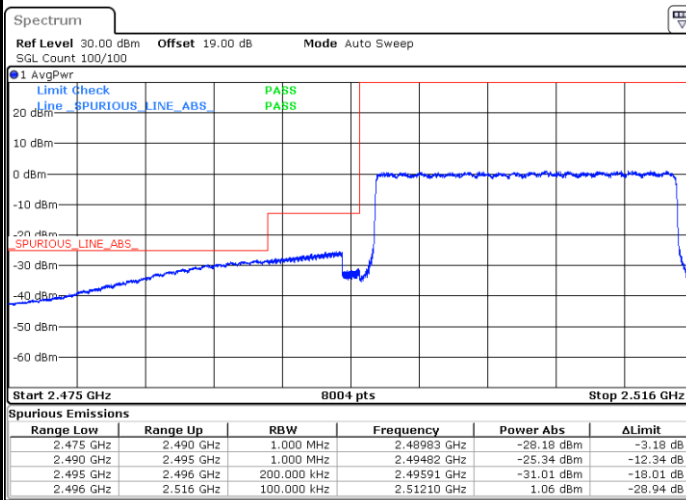
Date: 8 APR 2024 15:24:59

Highest Band Edge / 1 RB



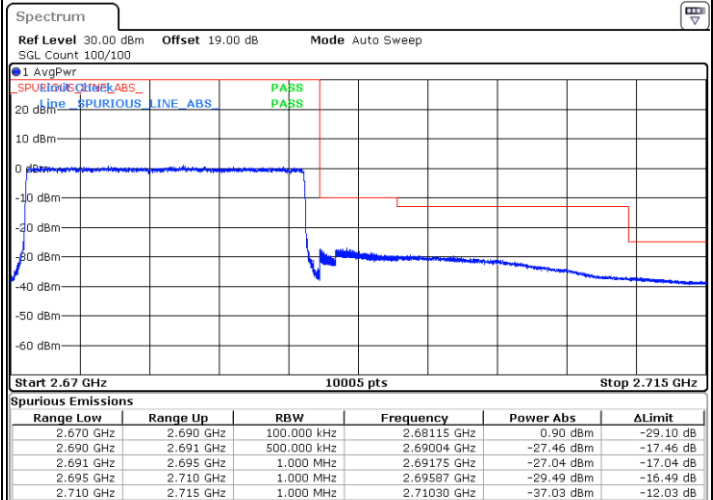
Date: 8 APR 2024 15:36:26

Lowest Band Edge / Full RB



Date: 8 APR 2024 15:28:03

Highest Band Edge / Full RB

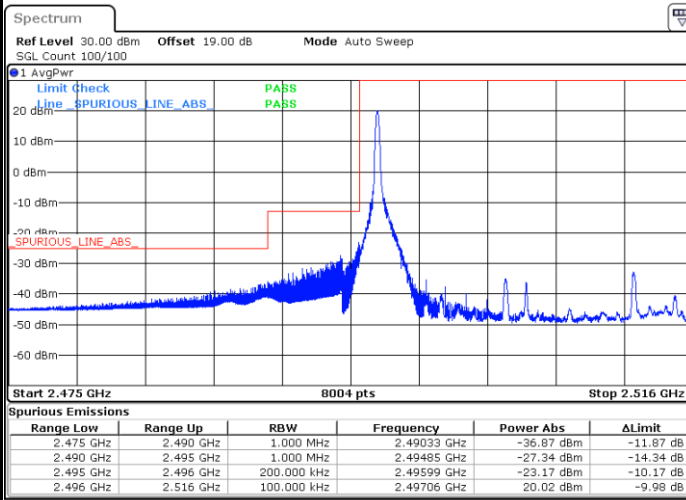


Date: 8 APR 2024 15:39:29



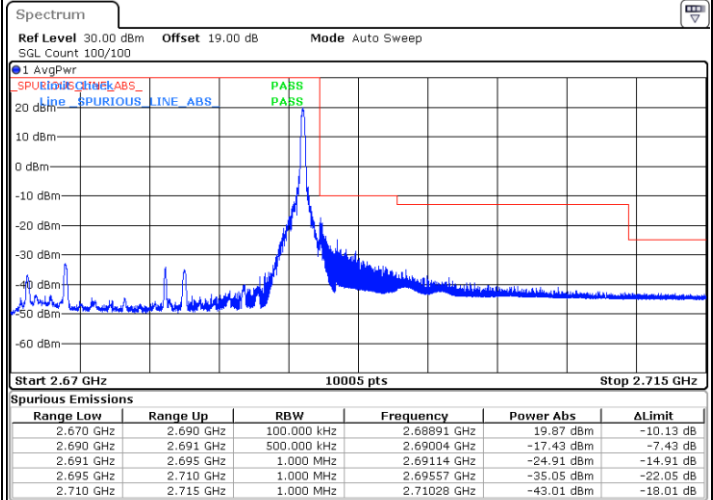
LTE Band 41 / 20MHz / 64QAM

Lowest Band Edge / 1RB



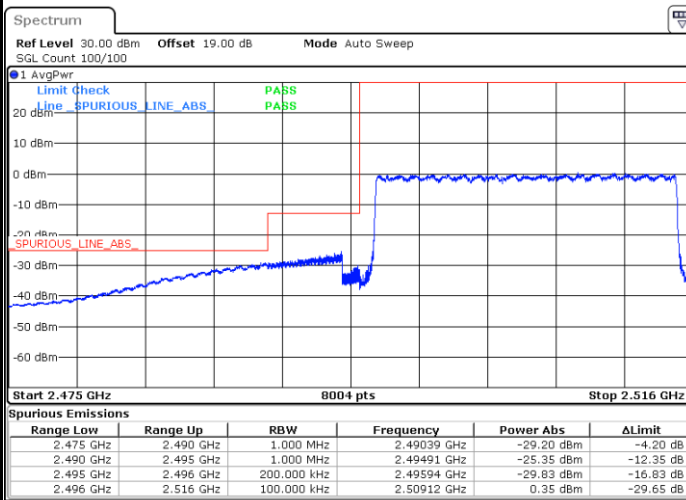
Date: 8 APR 2024 15:26:00

Highest Band Edge / 1 RB



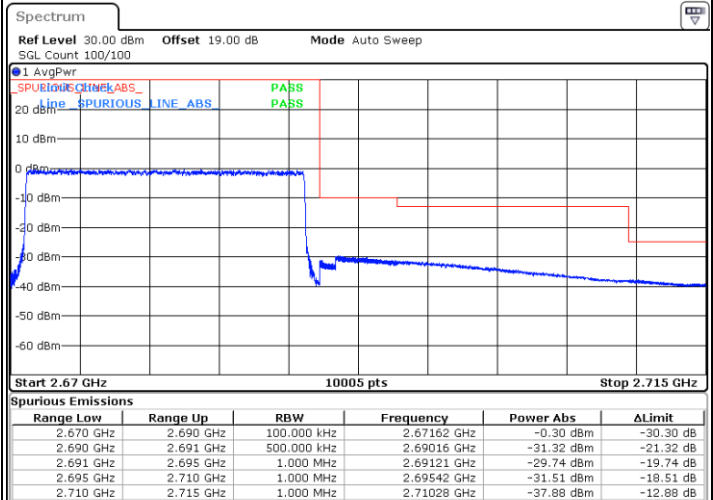
Date: 8 APR 2024 15:37:27

Lowest Band Edge / Full RB



Date: 8 APR 2024 15:27:02

Highest Band Edge / Full RB



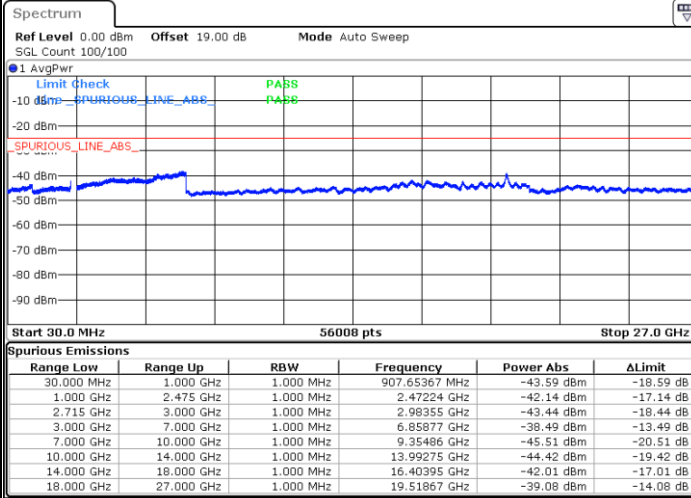
Date: 8 APR 2024 15:38:28



Conducted Spurious Emission

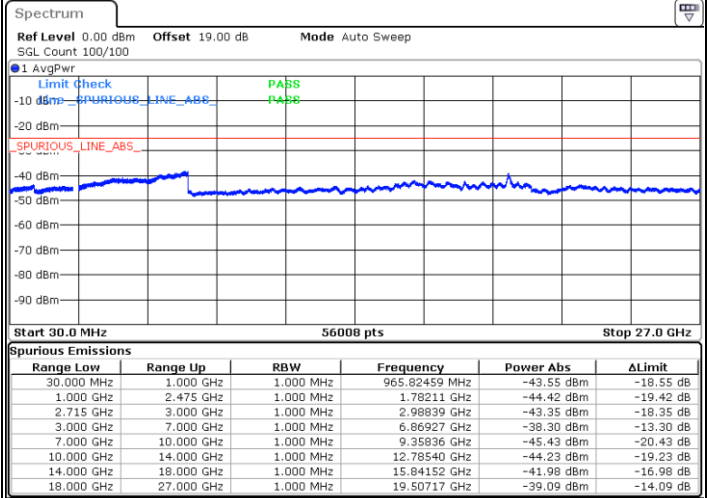
LTE Band 41 / 5MHz

Lowest Channel / QPSK



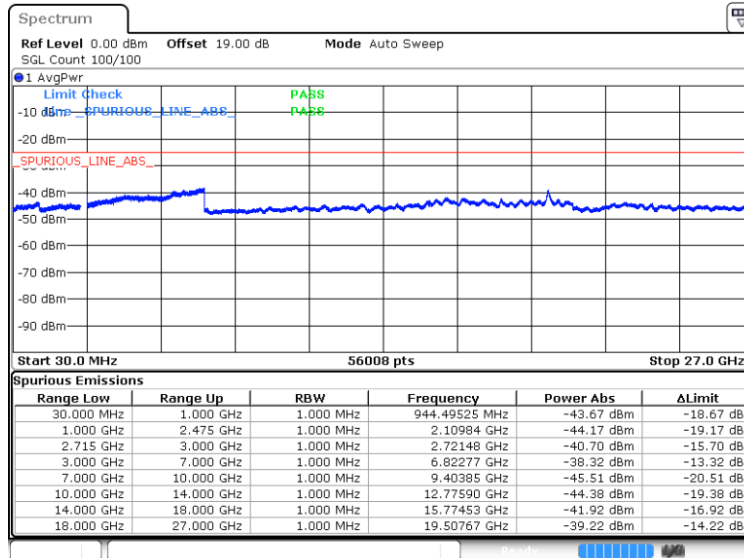
Date: 8 APR 2024 14:26:27

Middle Channel / QPSK



Date: 8 APR 2024 14:27:46

Highest Channel / QPSK

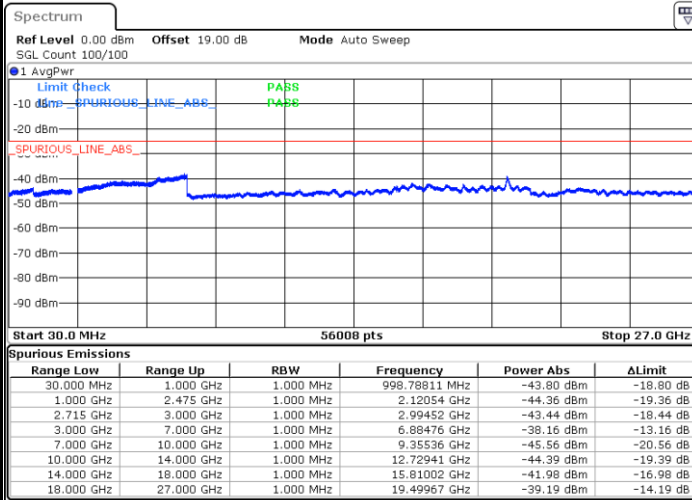


Date: 8 APR 2024 14:36:50



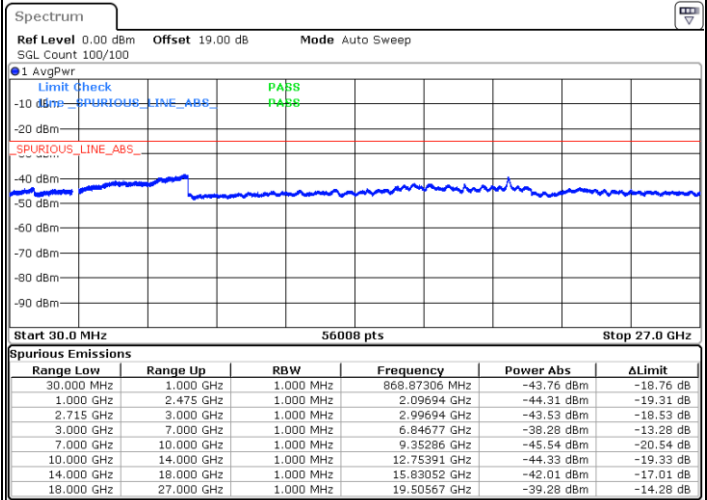
LTE Band 41 / 10MHz

Lowest Channel / QPSK



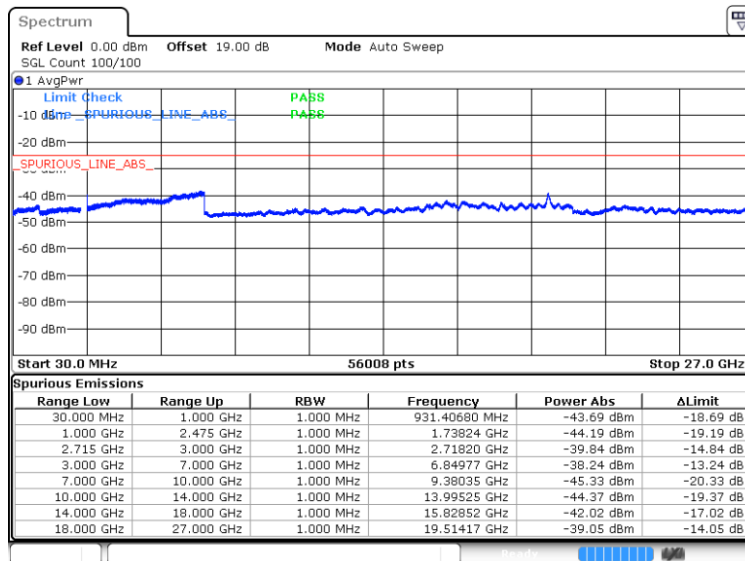
Date: 8 APR 2024 14:47:08

Middle Channel / QPSK



Date: 8 APR 2024 14:48:27

Highest Channel / QPSK

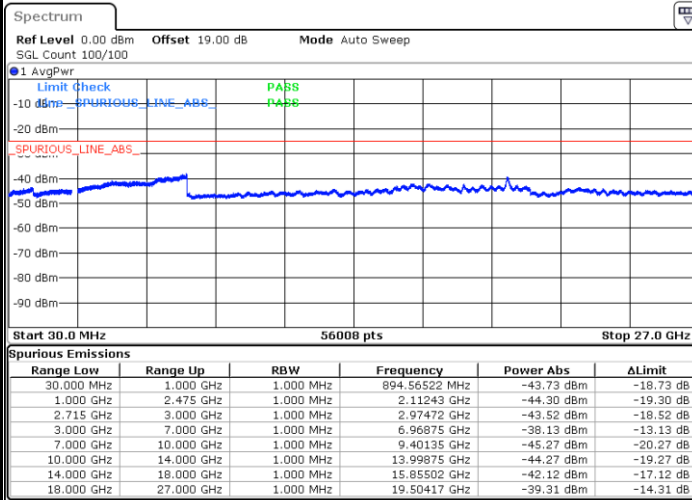


Date: 8 APR 2024 14:57:13



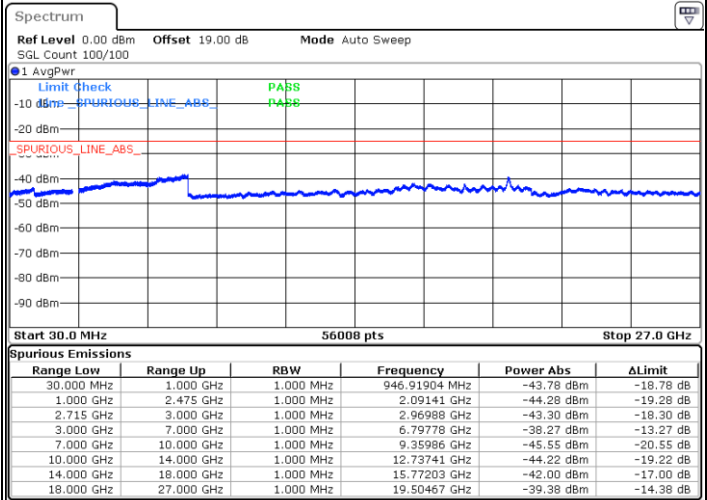
LTE Band 41 / 15MHz

Lowest Channel / QPSK



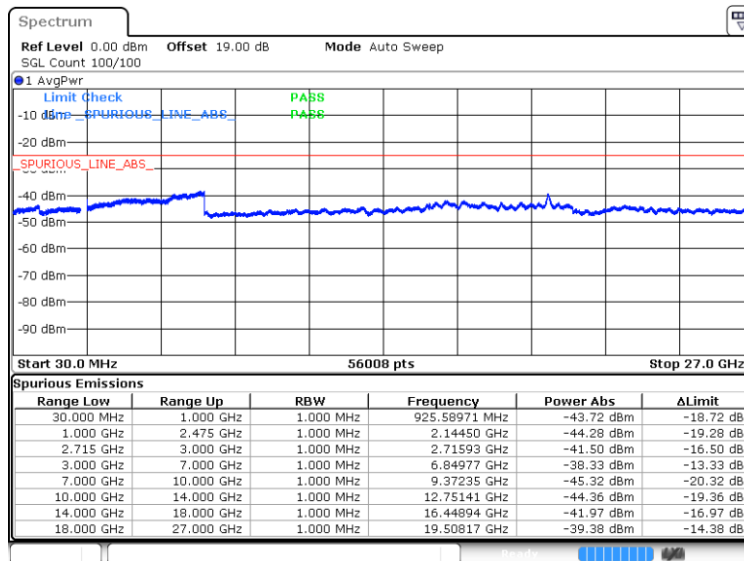
Date: 8 APR 2024 15:08:20

Middle Channel / QPSK



Date: 8 APR 2024 15:09:39

Highest Channel / QPSK

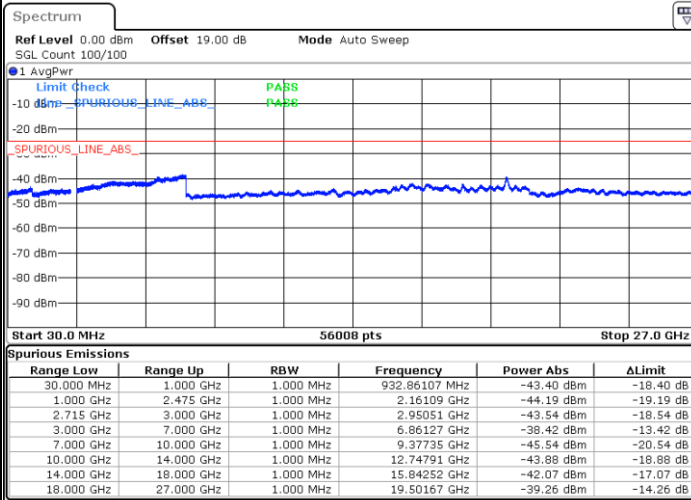


Date: 8 APR 2024 15:20:08



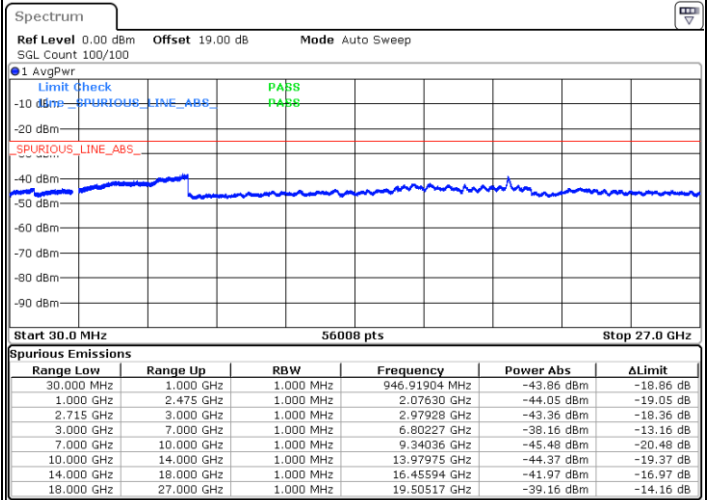
LTE Band 41 / 20MHz

Lowest Channel / QPSK



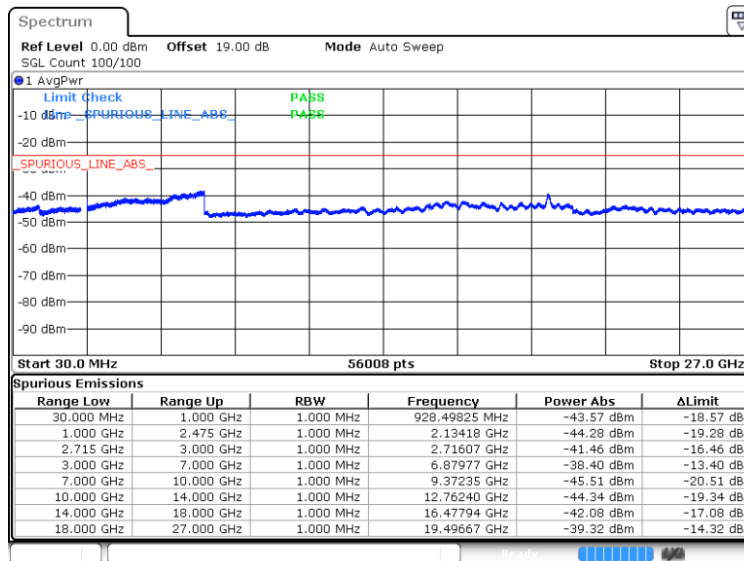
Date: 8 APR 2024 15:30:25

Middle Channel / QPSK



Date: 8 APR 2024 15:31:45

Highest Channel / QPSK



Date: 8 APR 2024 15:41:50

**Frequency Stability**

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band CA_7C

26dB Bandwidth

Mode	LTE Band 7C : 26dB BW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	29.97	25.33	30.57	34.97
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	29.97	35.04	40.04	

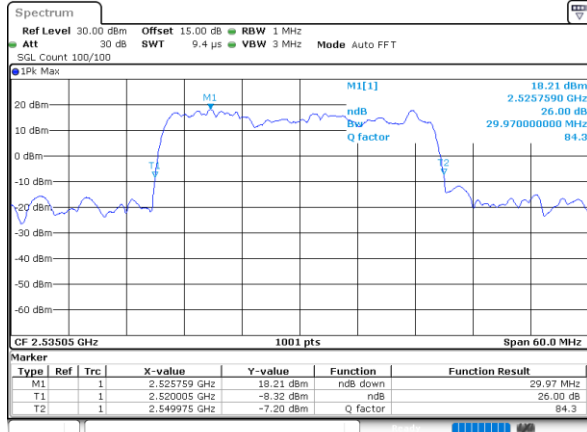
Mode	LTE Band 7C : 26dB BW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	30.09	25.13	30.63	35.04
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	30.09	35.18	39.96	



LTE Band 7C

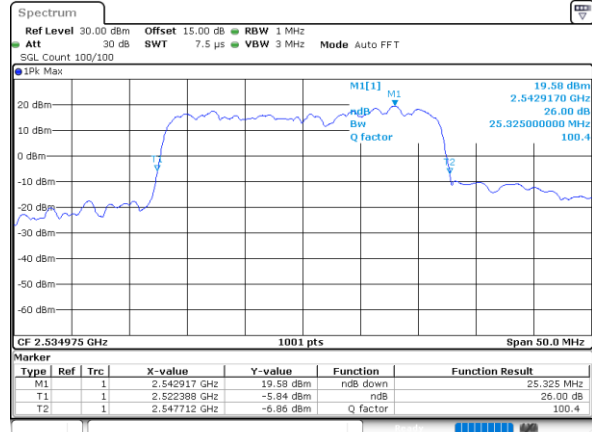
QPSK

Middle Channel / 10MHz+20MHz



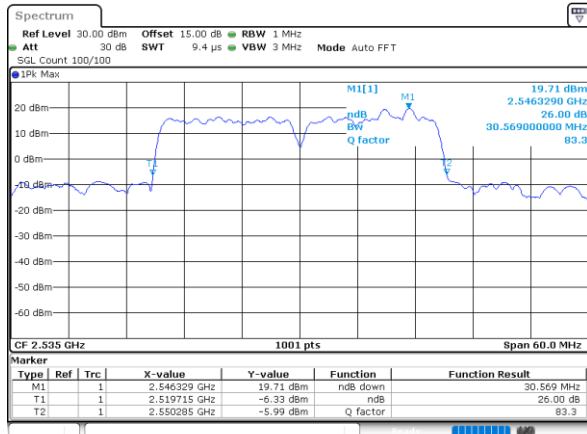
Date: 10, APR, 2024 13:04:53

Middle Channel / 15MHz+10MHz



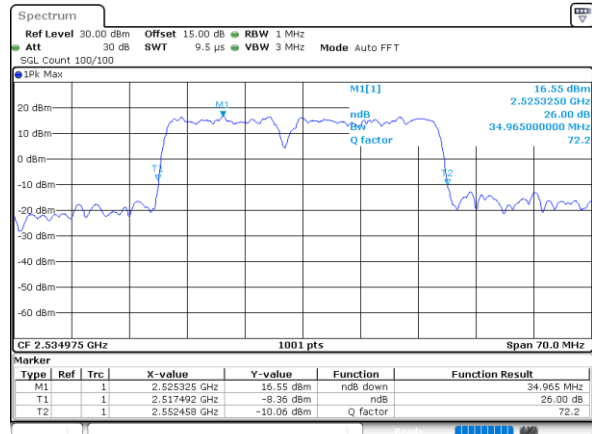
Date: 10, APR, 2024 13:12:56

Middle Channel / 15MHz+15MHz



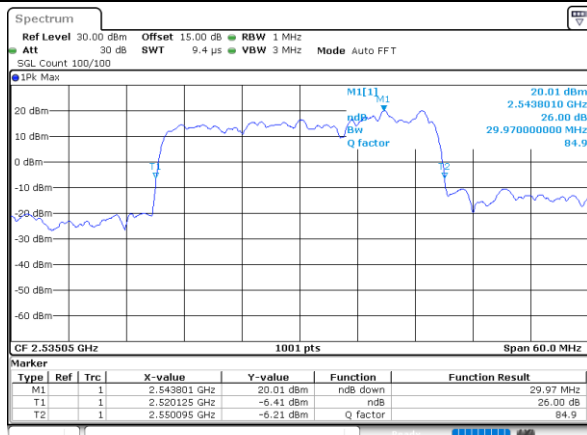
Date: 10, APR, 2024 13:33:01

Middle Channel / 15MHz+20MHz



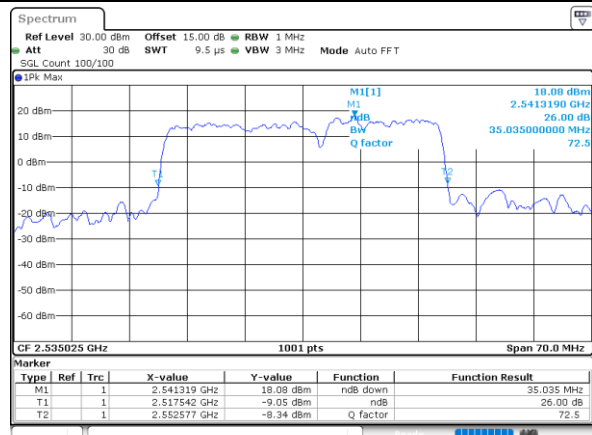
Date: 10, APR, 2024 13:17:58

Middle Channel / 20MHz+10MHz



Date: 10, APR, 2024 13:10:43

Middle Channel / 20MHz+15MHz



Date: 10, APR, 2024 13:21:02

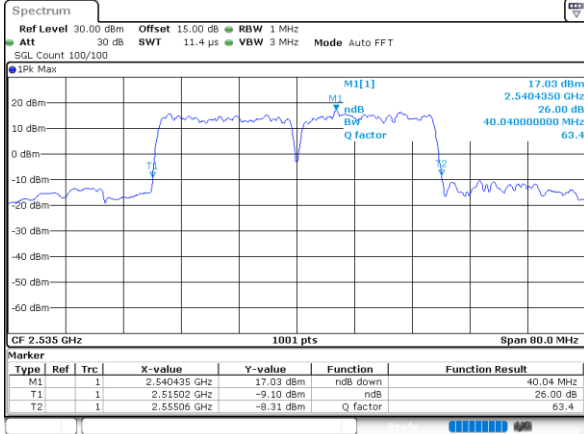


LTE Band 7C

QPSK

Middle Channel / 20MHz+20MHz

N/A



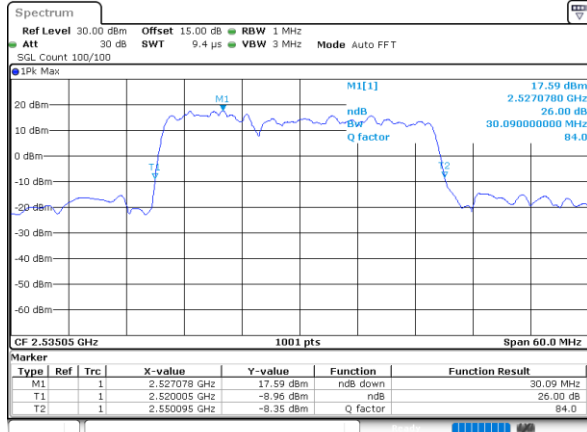
Date: 10, APR, 2024 13:26:40



LTE Band 7C

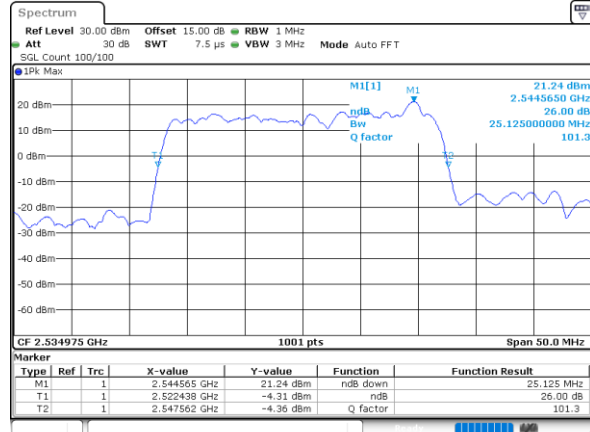
16QAM

Middle Channel / 10MHz+20MHz



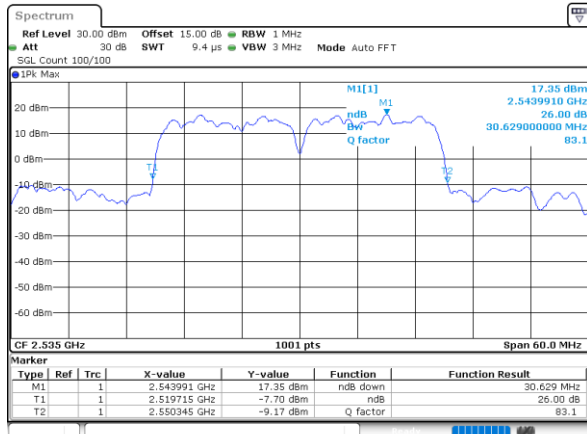
Date: 10, APR, 2024 13:05:22

Middle Channel / 15MHz+10MHz



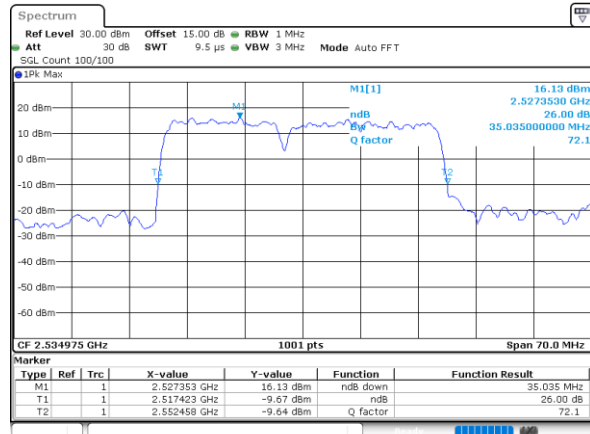
Date: 10, APR, 2024 13:10:25

Middle Channel / 15MHz+15MHz



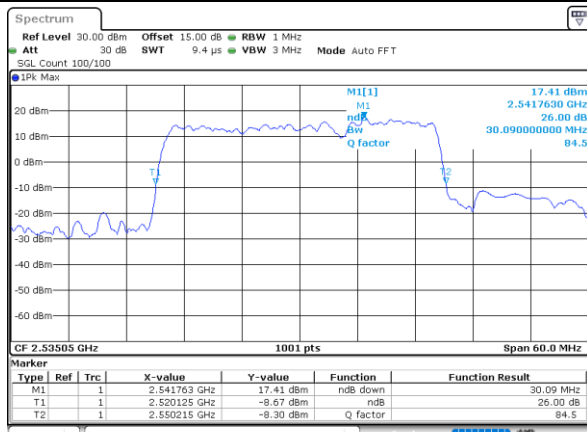
Date: 10, APR, 2024 13:14:40

Middle Channel / 15MHz+20MHz



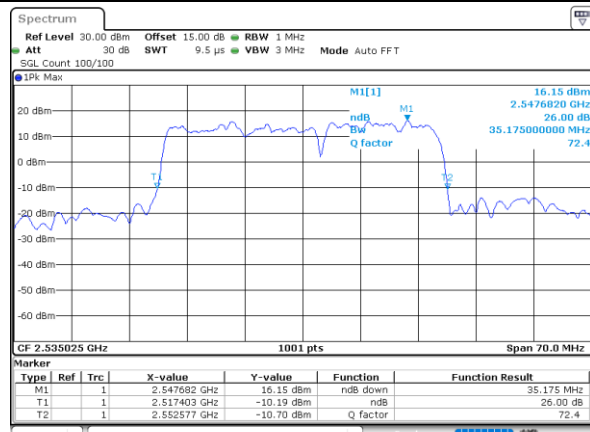
Date: 10, APR, 2024 13:18:28

Middle Channel / 20MHz+10MHz



Date: 10, APR, 2024 13:11:12

Middle Channel / 20MHz+15MHz



Date: 10, APR, 2024 13:21:31

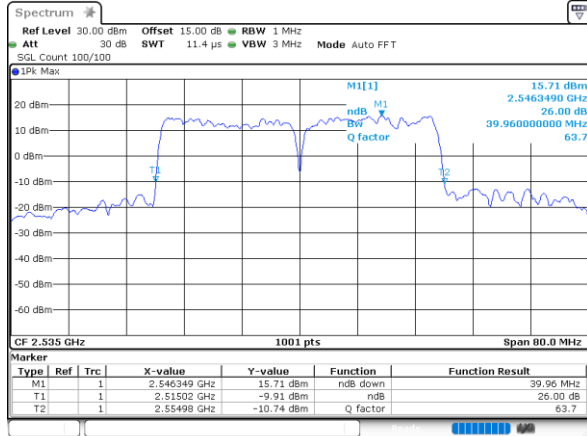


LTE Band 7C

16QAM

Middle Channel / 20MHz+20MHz

N/A



Date: 10, APR, 2024 13:25:27

Occupied Bandwidth

Mode	LTE Band 7C : 99%OBW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	28.05	23.68	28.83	33.01
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.11	32.87	37.96	

Mode	LTE Band 7C : 99%OBW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz	15MHz+20MHz
Middle CH	28.17	23.48	28.65	32.80
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Middle CH	28.05	33.22	37.80	