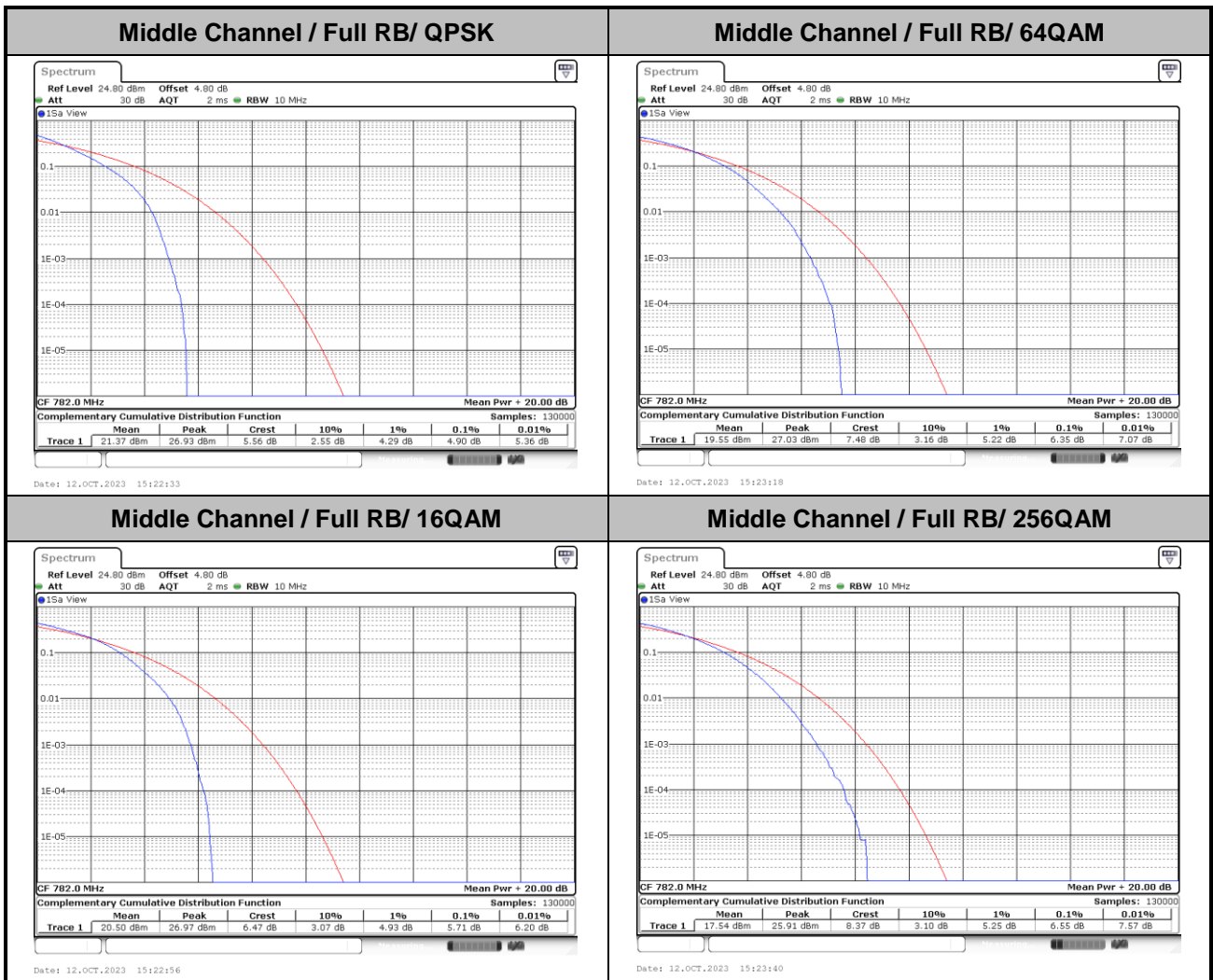




# LTE Band 13

## Peak-to-Average Ratio

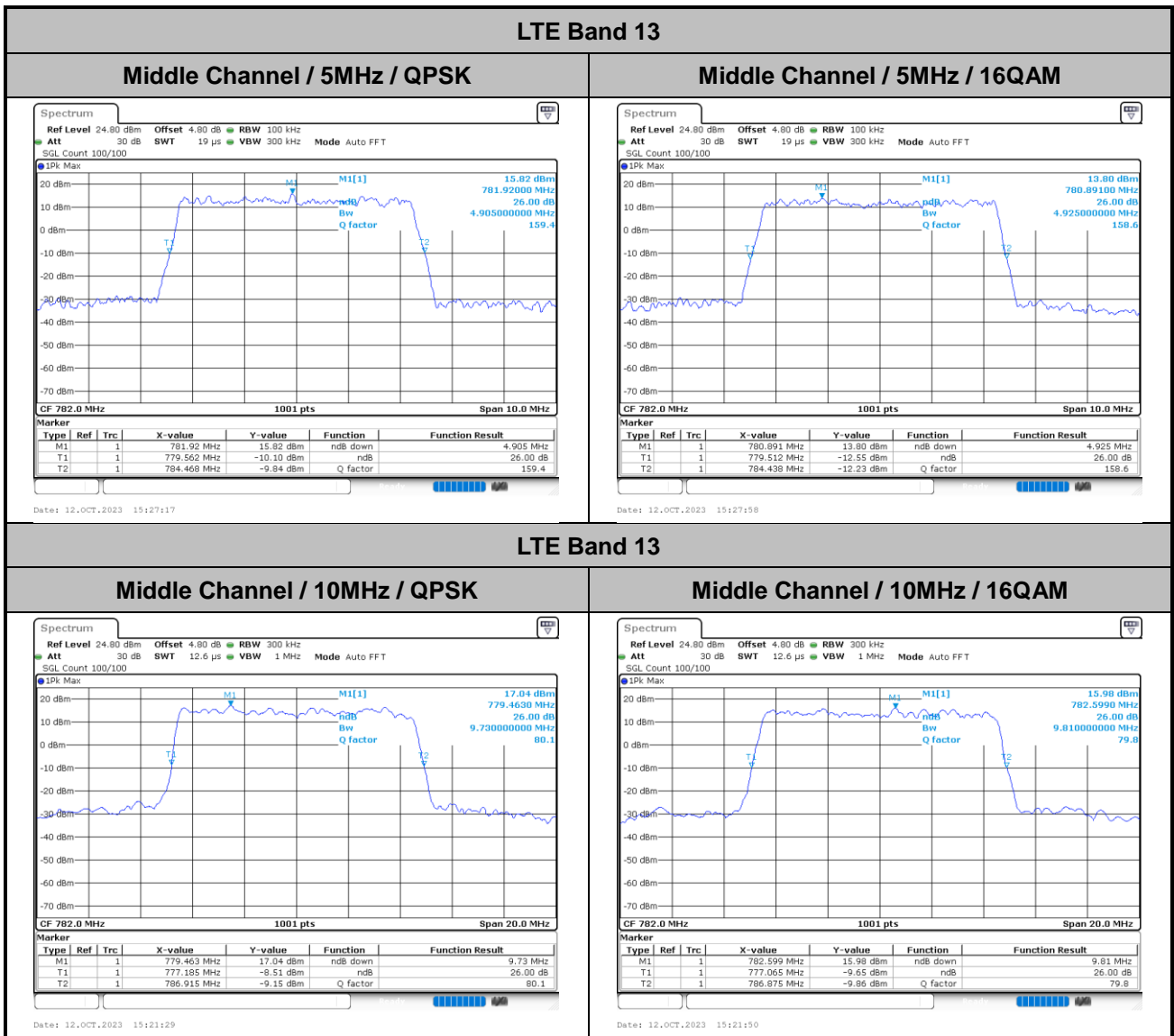
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.90	5.71	6.35	6.55	PASS





## 26dB Bandwidth

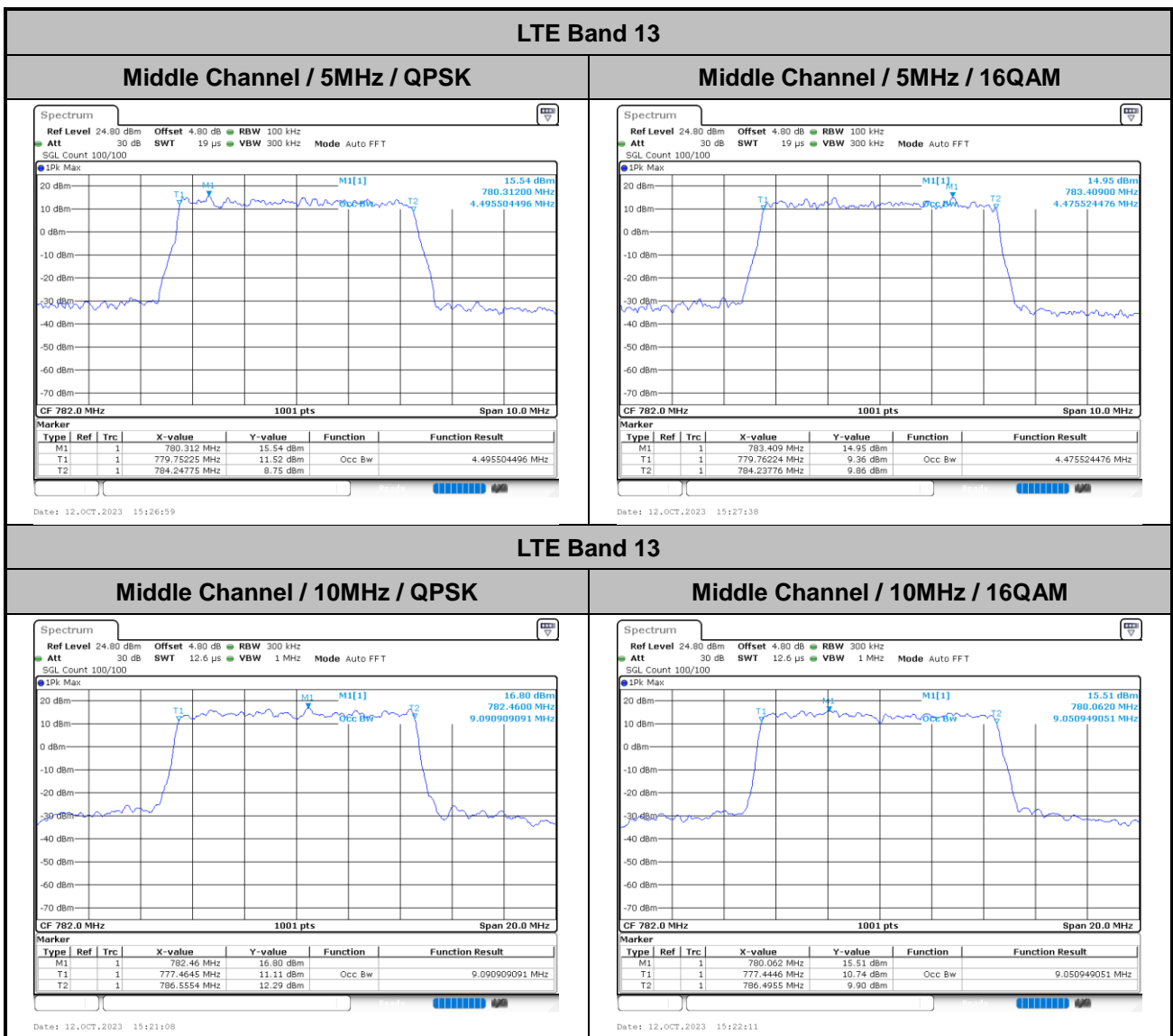
Mode		LTE Band 13 : 26dB BW(MHz)	
<b>BW</b>		<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>		<b>16QAM</b>
<b>Middle CH</b>	4.91		4.93
<b>BW</b>		<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>		<b>16QAM</b>
<b>Middle CH</b>	9.73		9.81





# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)		
BW	5MHz		
Mod.	QPSK		16QAM
Middle CH	4.50		4.48
BW	10MHz		
Mod.	QPSK		16QAM
Middle CH	9.09		9.05

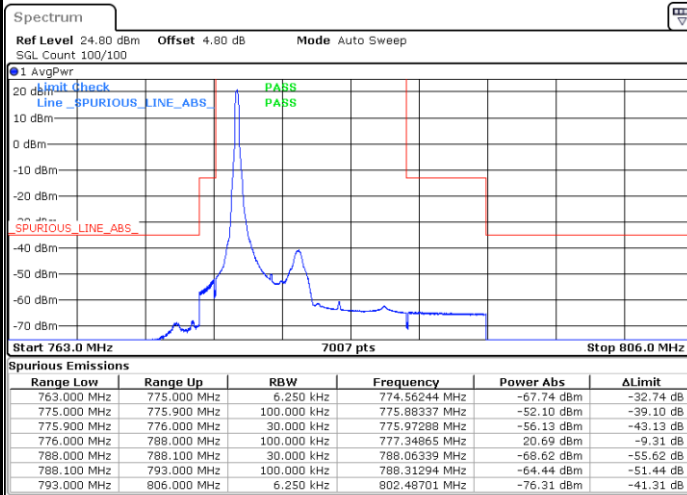




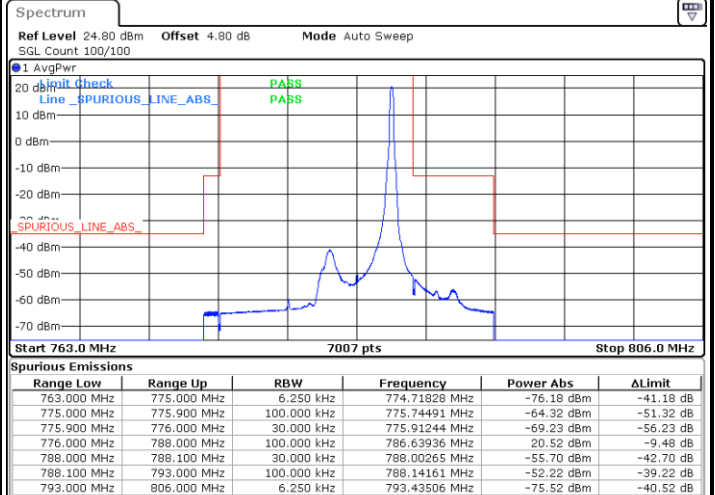
# Conducted Band Edge

## LTE Band 13 / 5MHz / QPSK

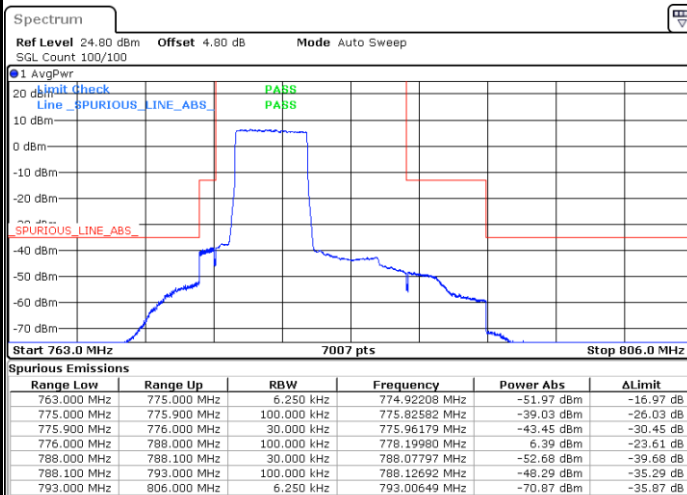
### Lowest Band Edge / 1 RB



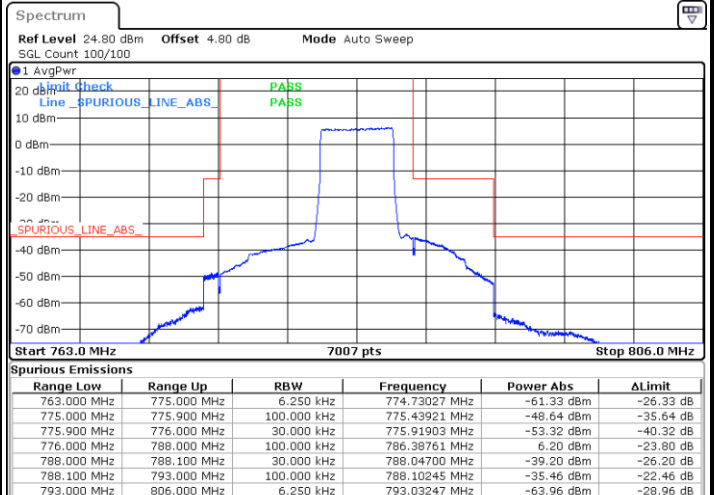
### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



### Highest Band Edge / Full RB

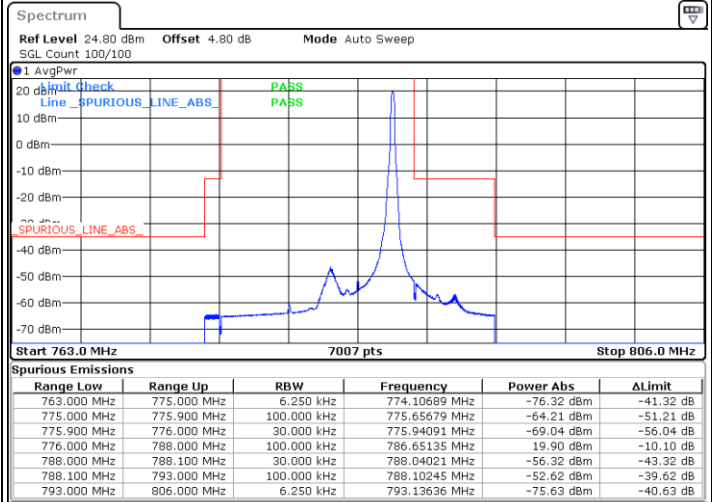
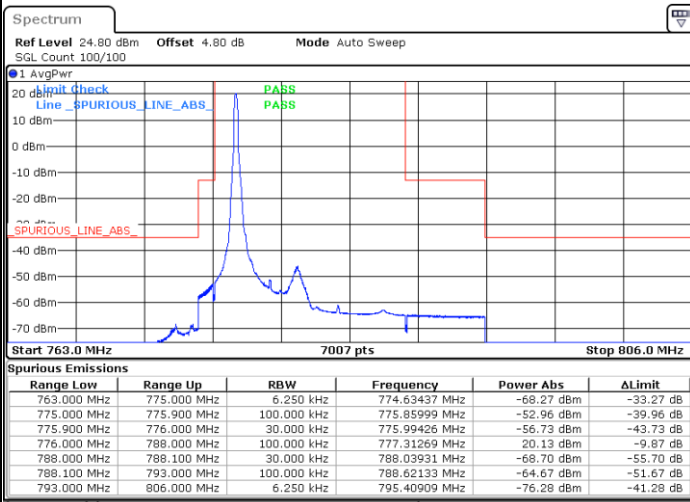




LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

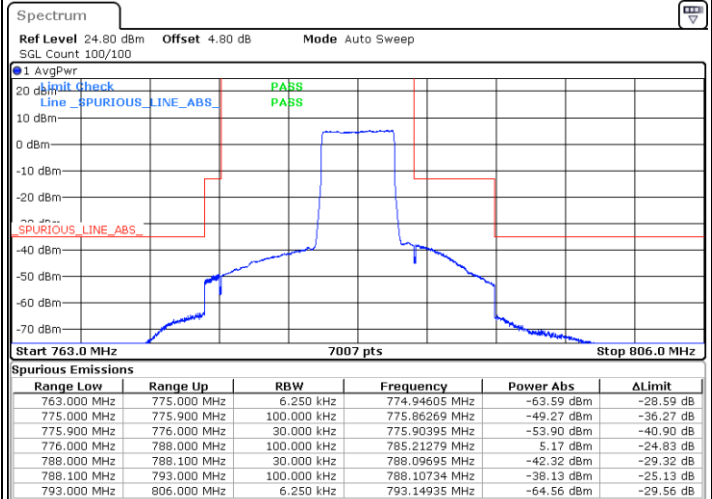
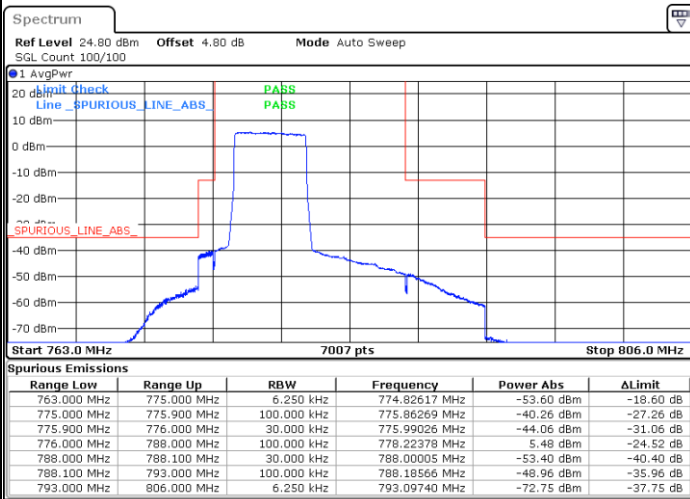


Date: 12.OCT.2023 14:09:44

Date: 12.OCT.2023 14:46:02

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



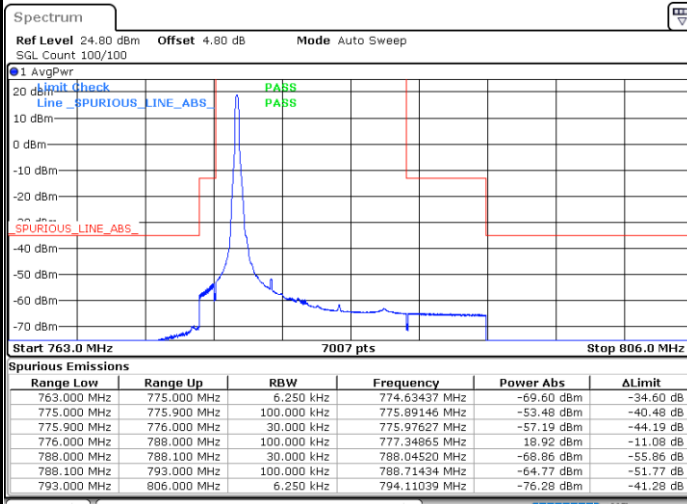
Date: 12.OCT.2023 14:37:42

Date: 12.OCT.2023 14:55:37



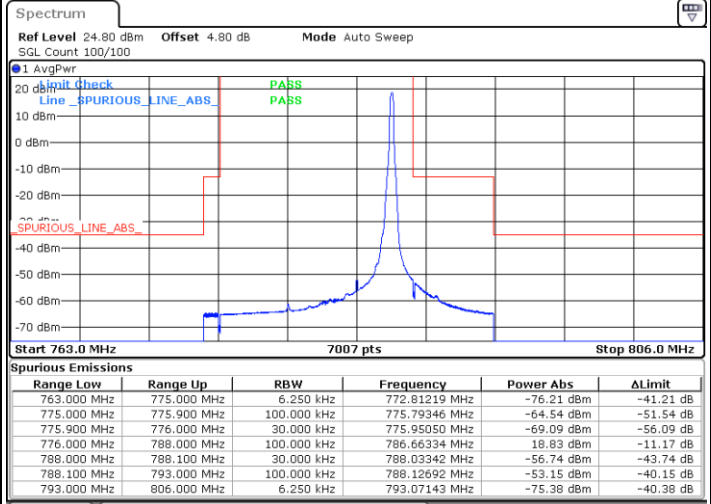
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB



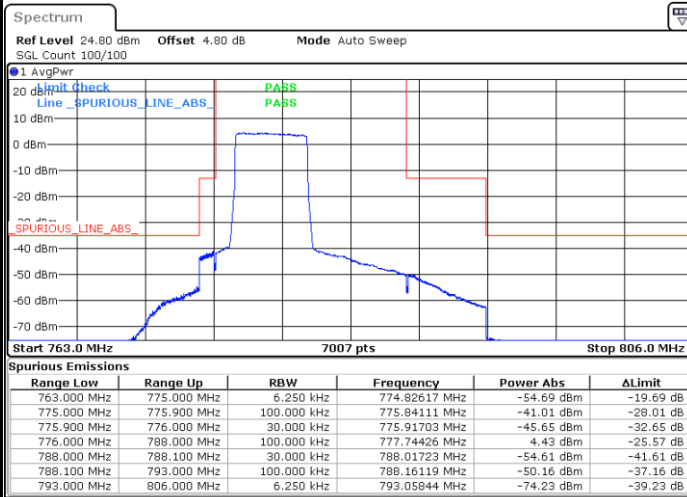
Date: 12.OCT.2023 14:11:34

Highest Band Edge / 1 RB



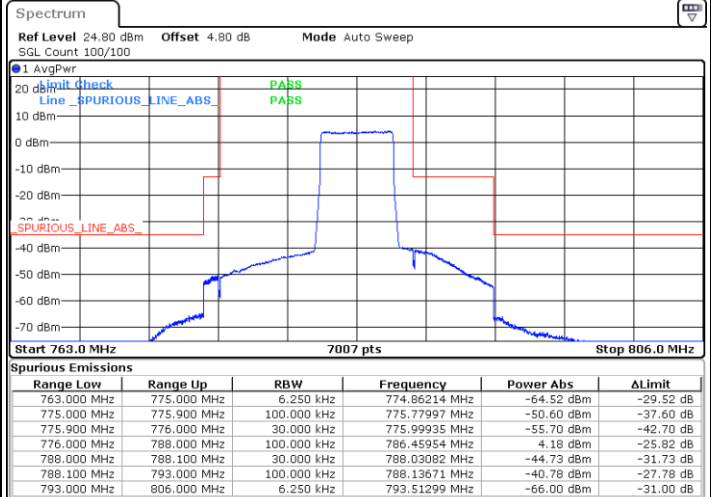
Date: 12.OCT.2023 14:47:52

Lowest Band Edge / Full RB



Date: 12.OCT.2023 14:35:52

Highest Band Edge / Full RB



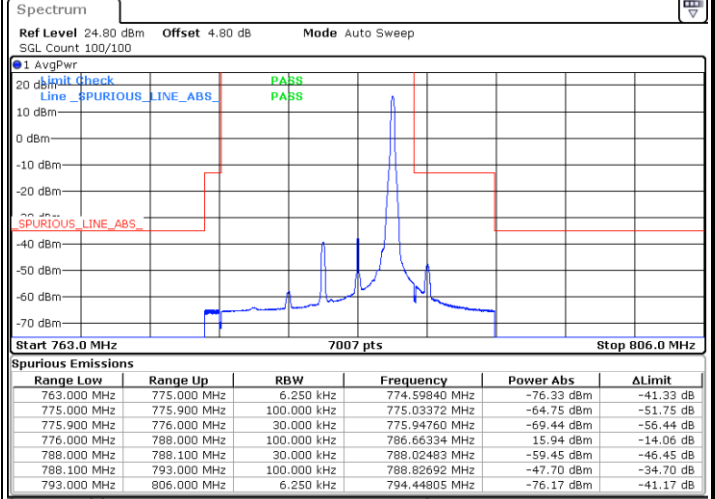
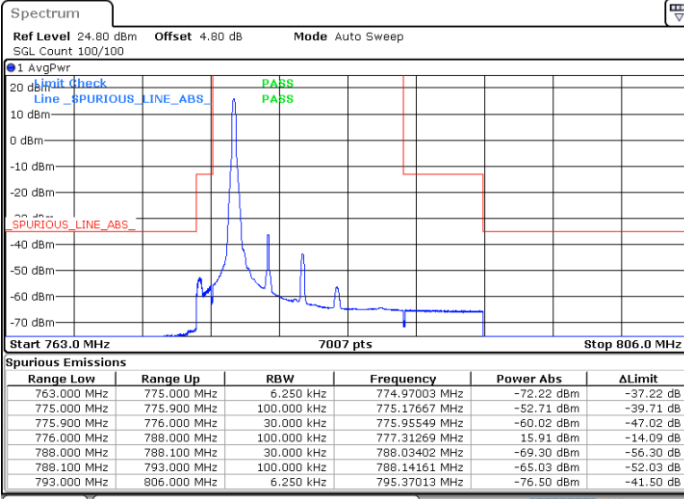
Date: 12.OCT.2023 14:53:47



LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

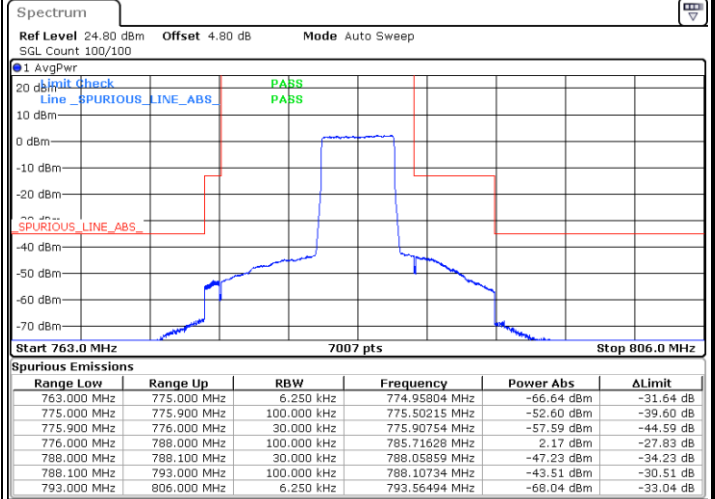
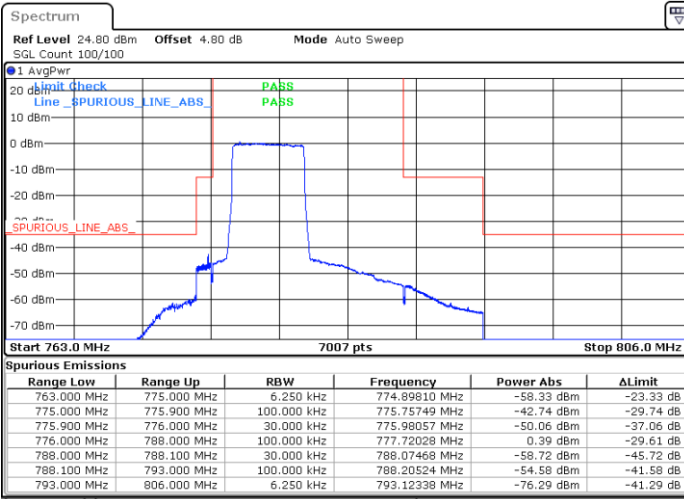


Date: 12.OCT.2023 14:13:24

Date: 12.OCT.2023 14:49:43

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.OCT.2023 14:15:17

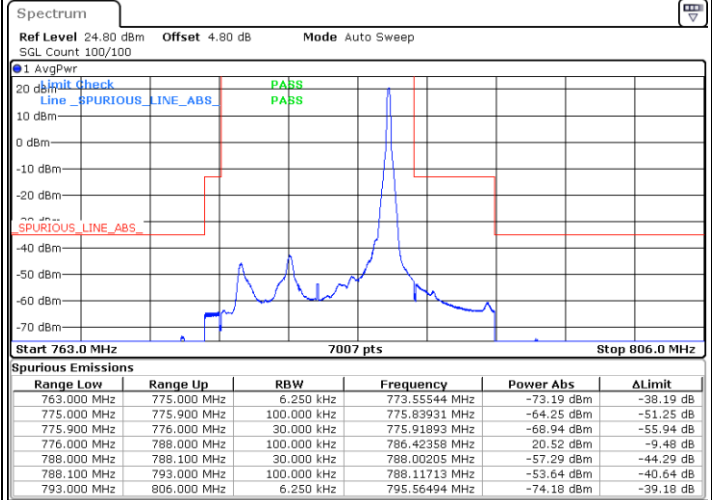
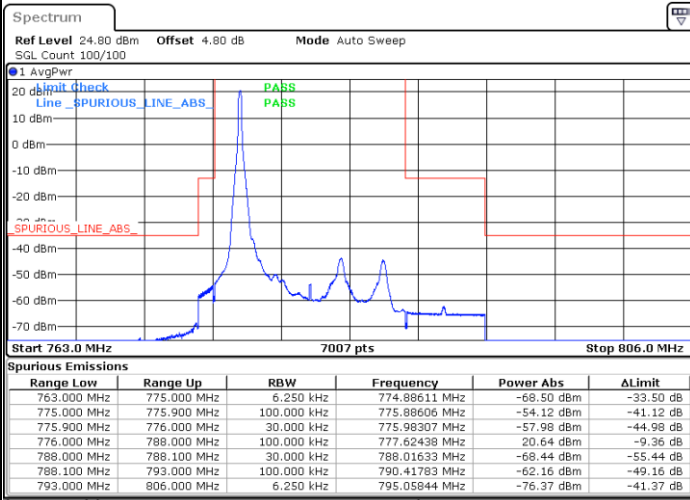
Date: 12.OCT.2023 15:29:23



LTE Band 13 / 10MHz / QPSK

middle Band Edge / 1 RB

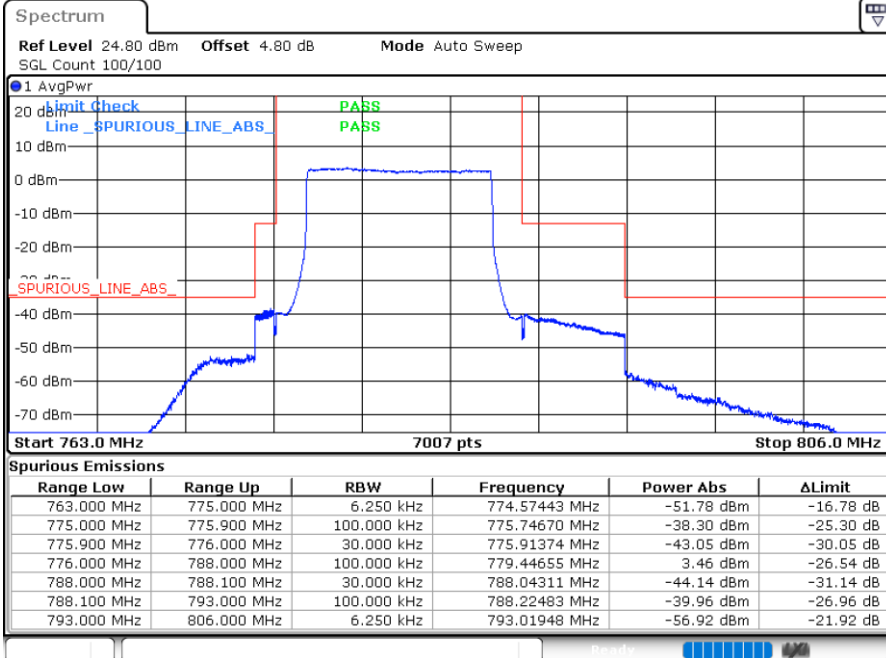
middle Band Edge / 1 RB



Date: 12.OCT.2023 15:00:43

Date: 12.OCT.2023 15:15:19

Middle Band Edge / Full RB



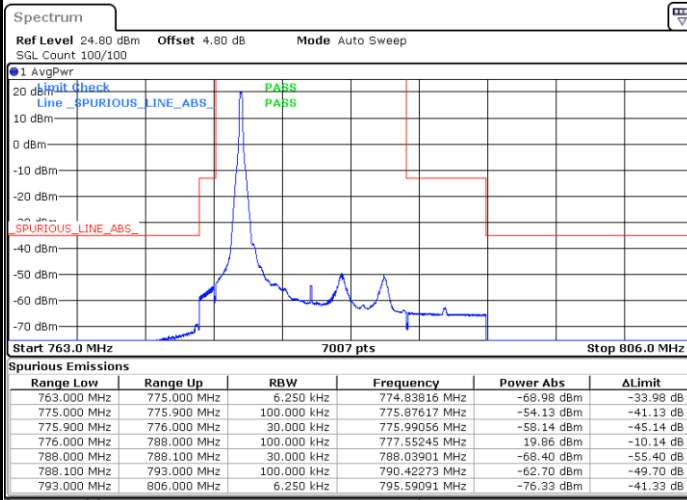
Date: 12.OCT.2023 15:13:29





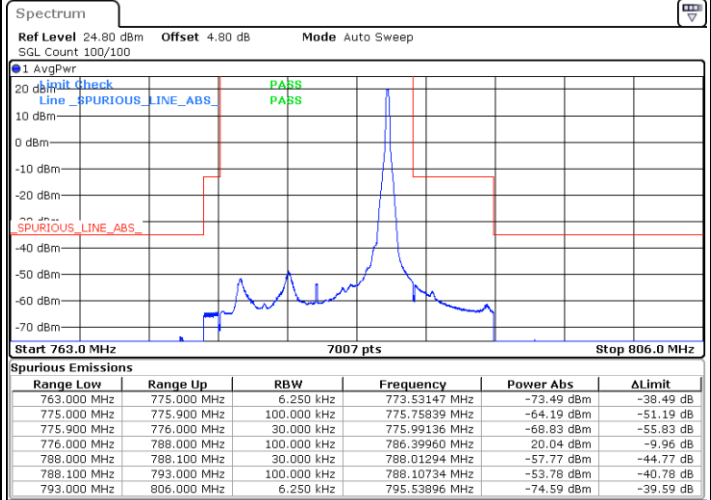
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



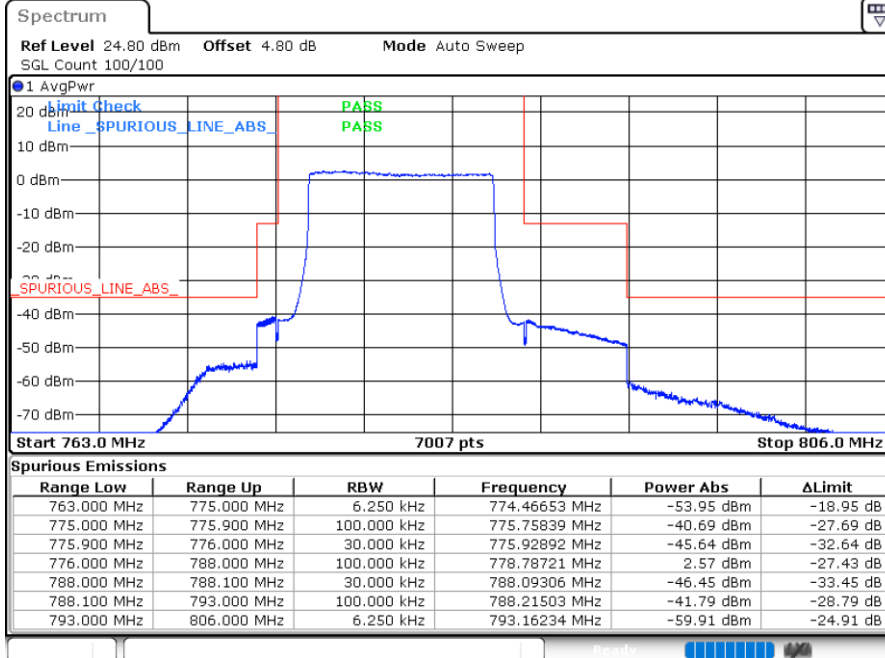
Date: 12.OCT.2023 15:02:33

middle Band Edge / 1 RB



Date: 12.OCT.2023 15:17:08

middle Band Edge / Full RB



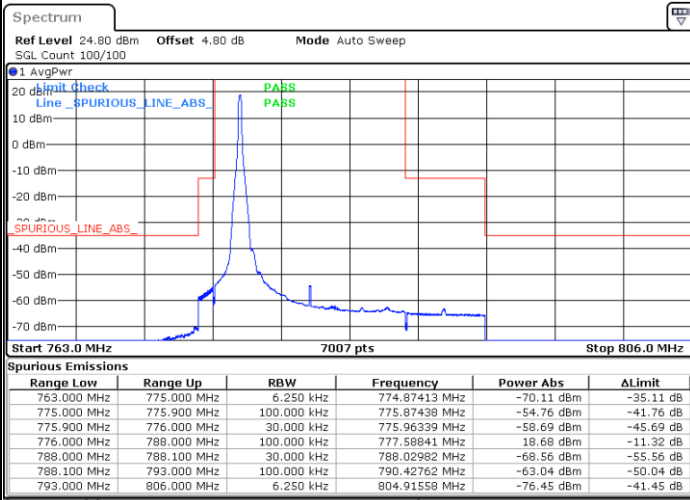
Date: 12.OCT.2023 15:11:40



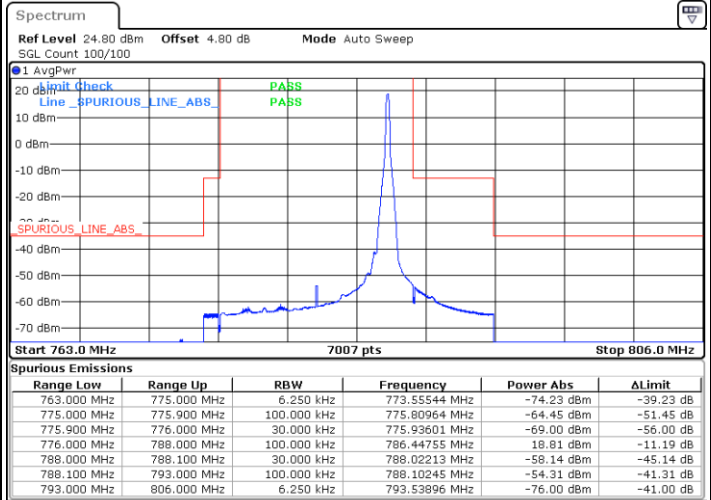
LTE Band 13 / 10MHz / 64QAM

middle Band Edge / 1 RB

middle Band Edge / 1 RB

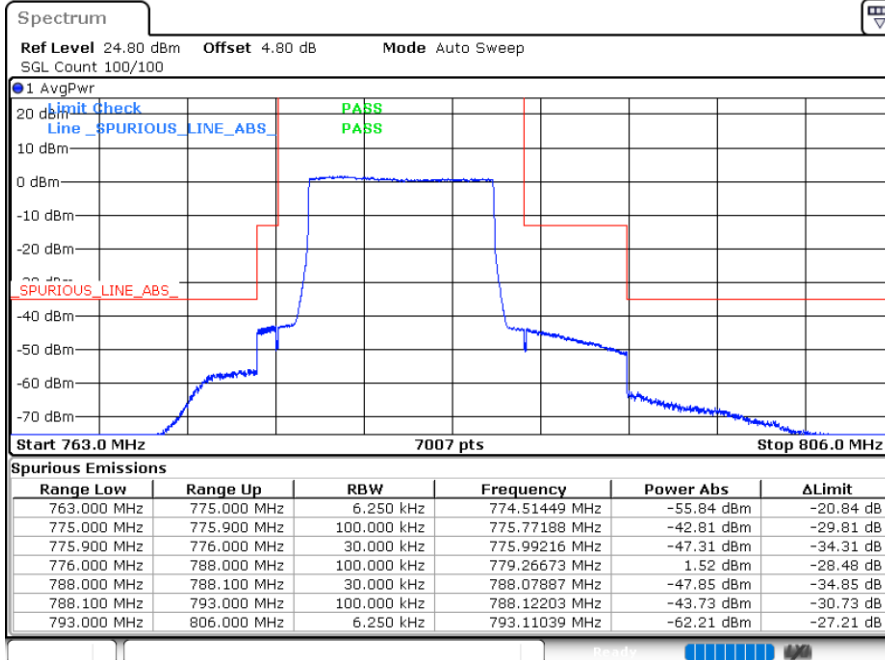


Date: 12.OCT.2023 15:04:22



Date: 12.OCT.2023 15:18:58

middle Band Edge / Full RB



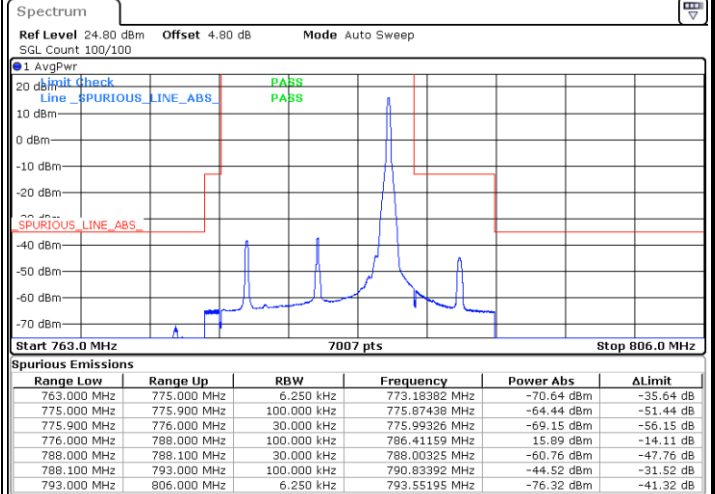
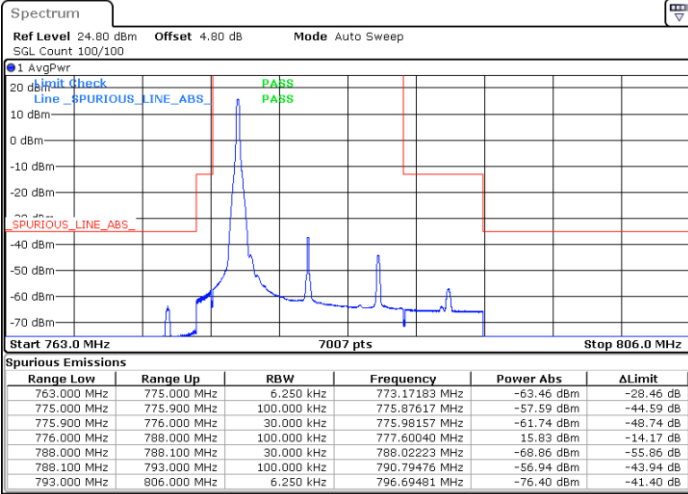
Date: 12.OCT.2023 15:09:50



LTE Band 13 / 10MHz / 256QAM

middle Band Edge / 1 RB

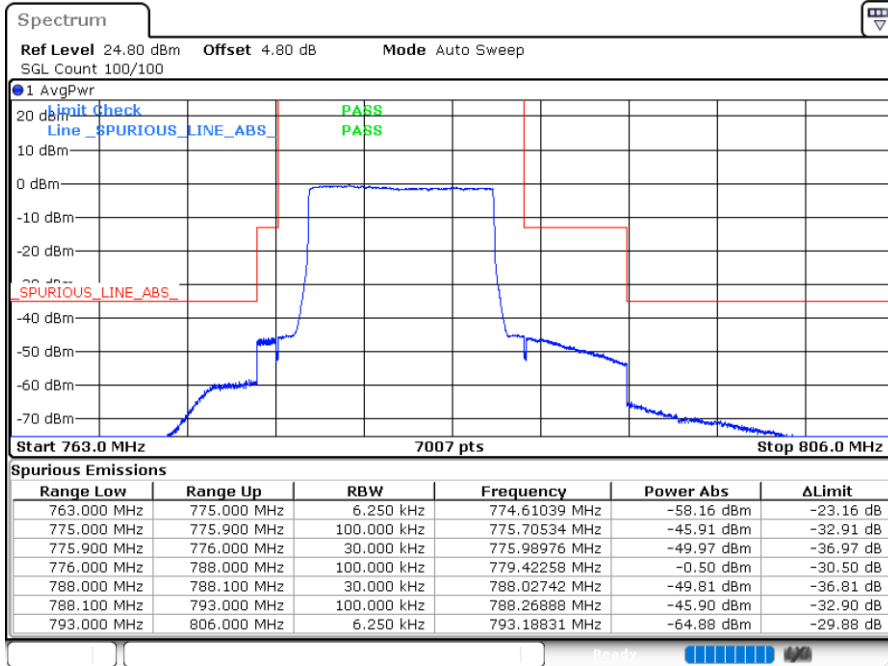
middle Band Edge / 1 RB



Date: 12.OCT.2023 15:06:11

Date: 12.OCT.2023 15:20:47

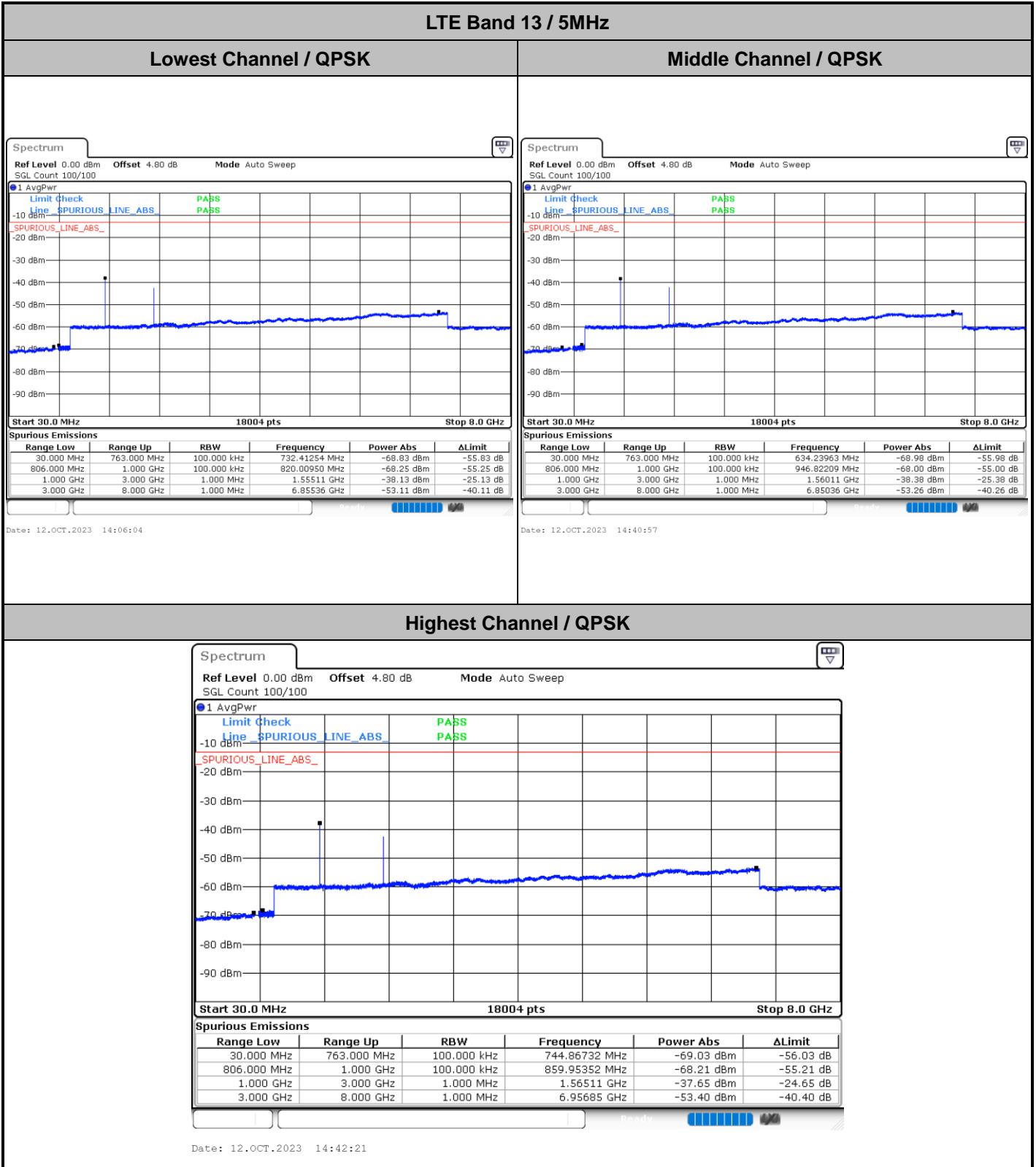
middle Band Edge / Full RB



Date: 12.OCT.2023 15:08:01



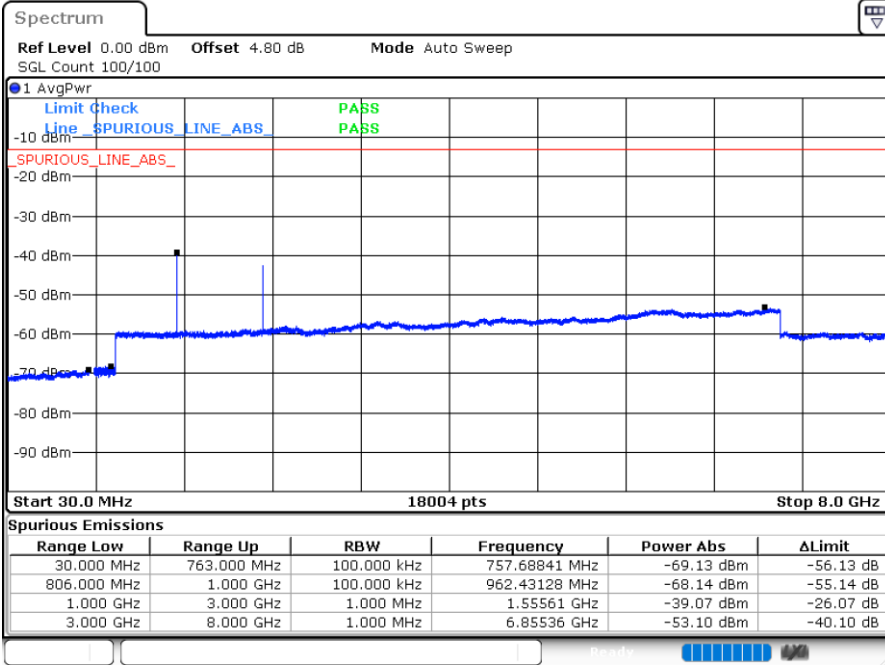
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 12.OCT.2023 14:58:53



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	0.0006	PASS
40	Normal Voltage	0.0031	
30	Normal Voltage	0.0051	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0042	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0054	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0018	

Note:

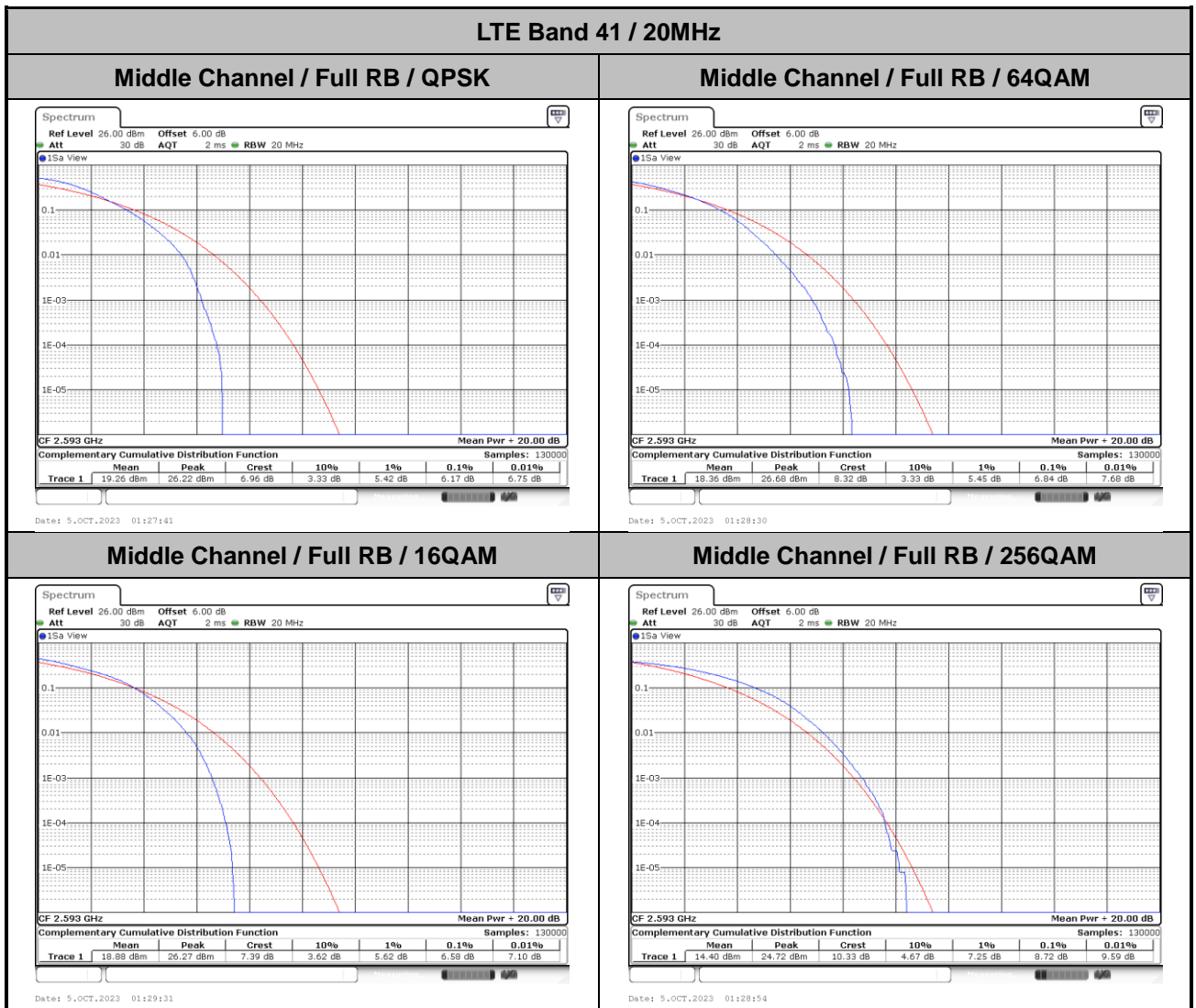
1. Normal Voltage =3.91V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.5 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 41

## Peak-to-Average Ratio

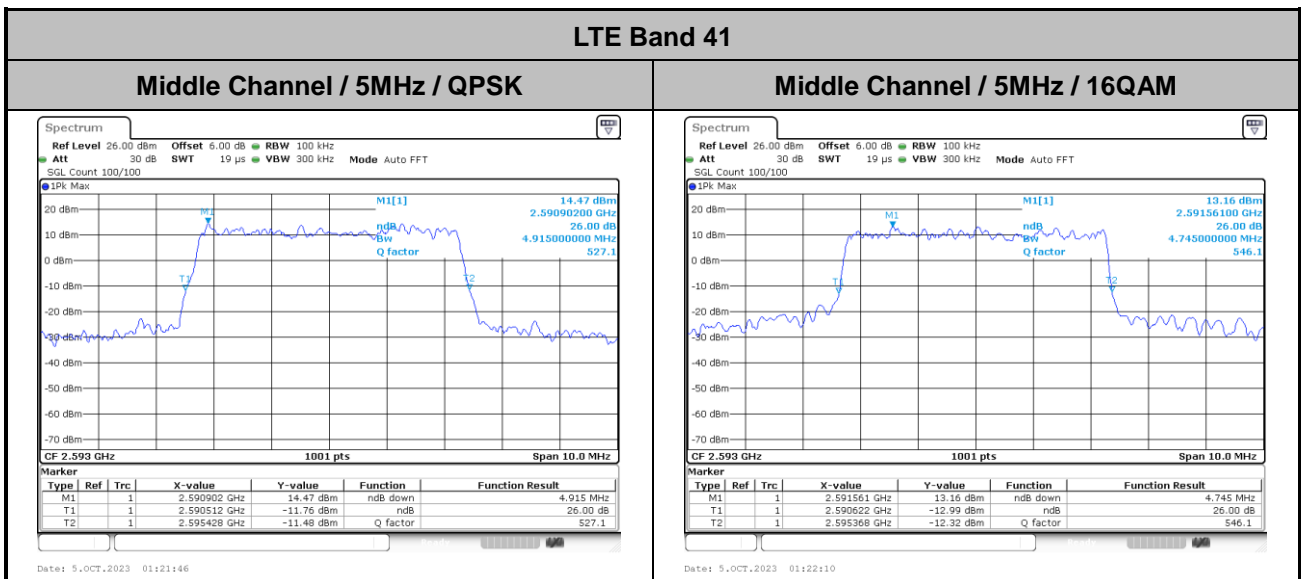
Mode	LTE Band 41 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	6.17	6.58	6.84	8.72	PASS





## 26dB Bandwidth

Mode	LTE Band 41 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.92	4.75
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.85	9.65
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	14.48	14.21
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	19.06	18.70

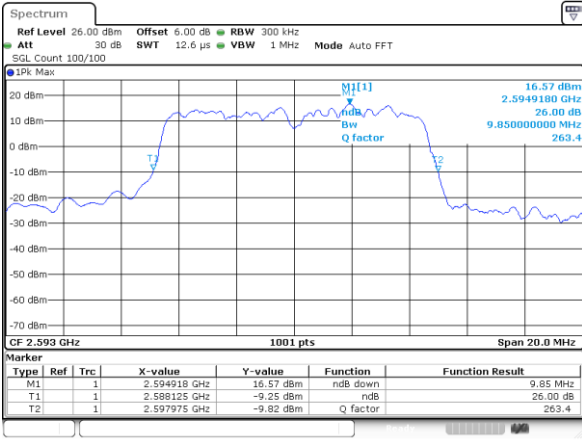






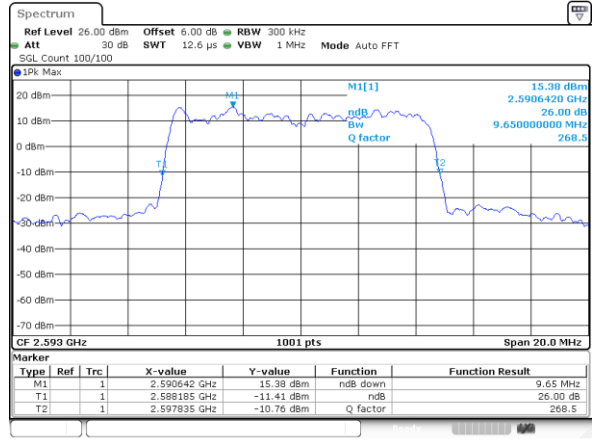
LTE Band 41

Middle Channel / 10MHz / QPSK



Date: 5.OCT.2023 01:23:19

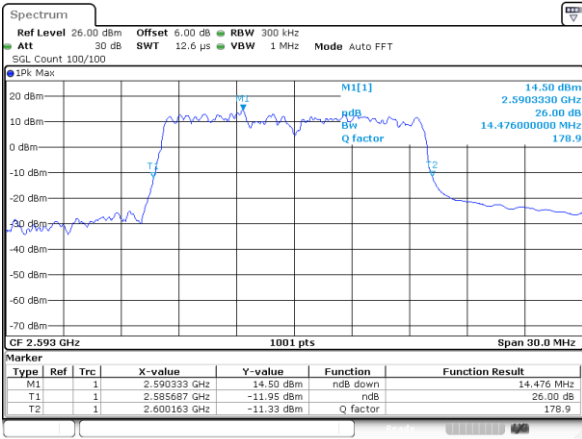
Middle Channel / 10MHz / 16QAM



Date: 5.OCT.2023 01:23:52

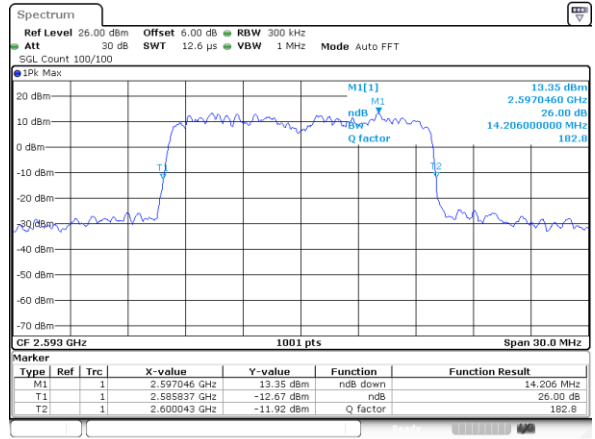
LTE Band 41

Middle Channel / 15MHz / QPSK



Date: 5.OCT.2023 01:24:59

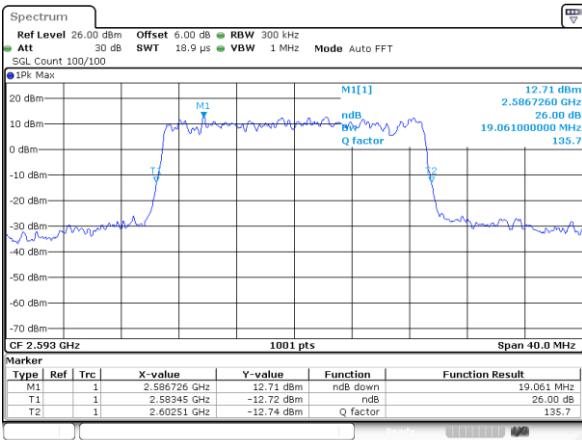
Middle Channel / 15MHz / 16QAM



Date: 5.OCT.2023 01:25:21

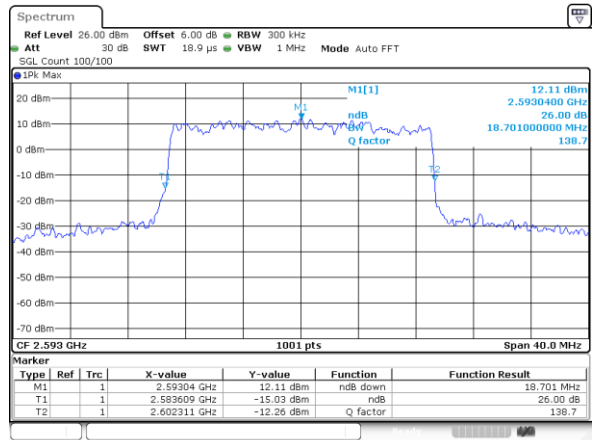
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 5.OCT.2023 01:26:33

Middle Channel / 20MHz / 16QAM

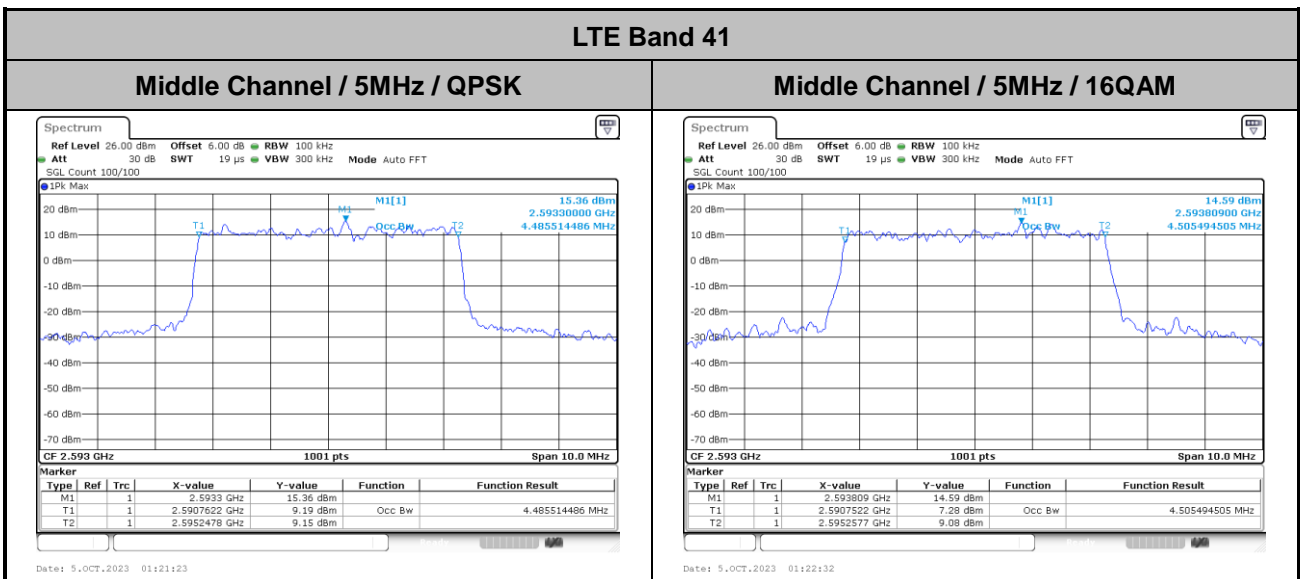


Date: 5.OCT.2023 01:26:55



# Occupied Bandwidth

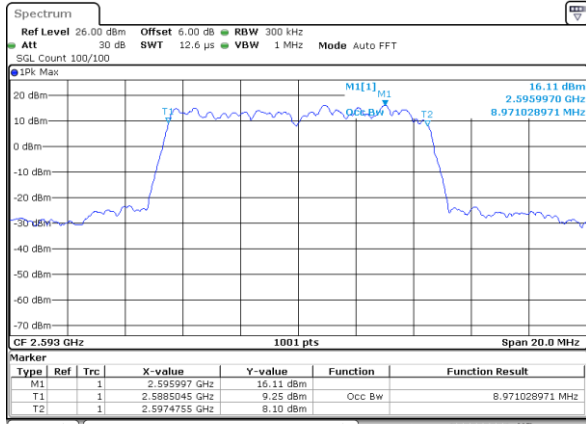
Mode	LTE Band 41 : 99%OBW(MHz)	
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.49	4.51
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	8.97	9.01
<b>BW</b>	<b>15MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	13.40	13.40
<b>BW</b>	<b>20MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	17.82	17.86





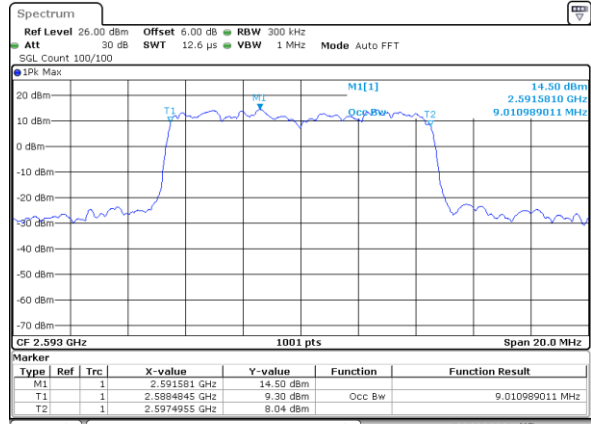
LTE Band 41

Middle Channel / 10MHz / QPSK



Date: 5.OCT.2023 01:22:57

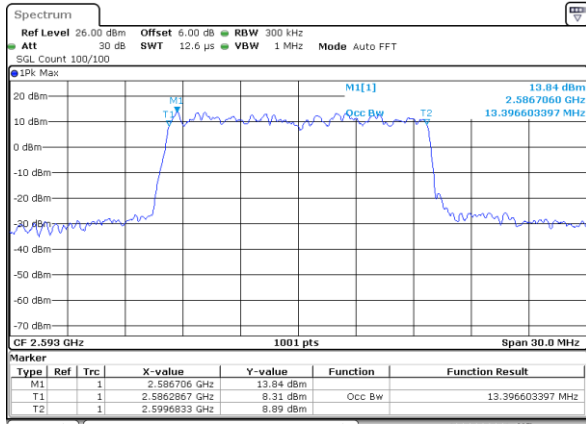
Middle Channel / 10MHz / 16QAM



Date: 5.OCT.2023 01:24:14

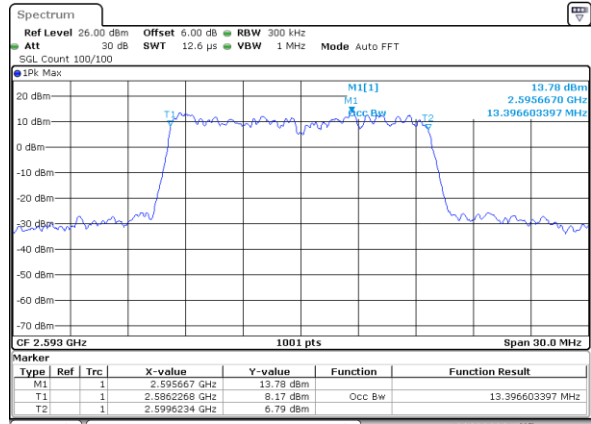
LTE Band 41

Middle Channel / 15MHz / QPSK



Date: 5.OCT.2023 01:24:37

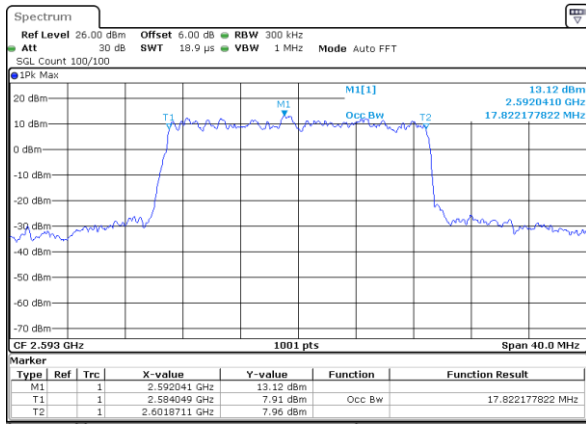
Middle Channel / 15MHz / 16QAM



Date: 5.OCT.2023 01:25:44

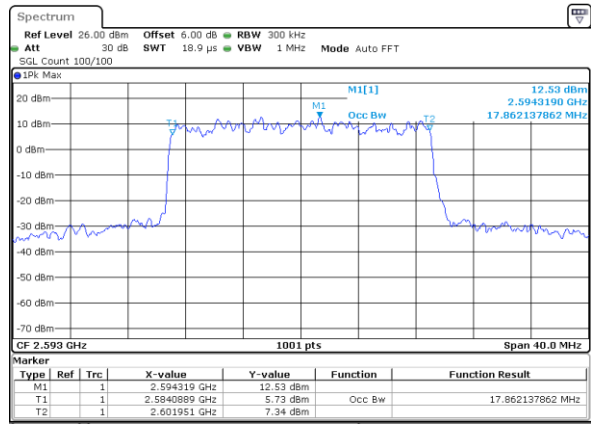
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 5.OCT.2023 01:26:07

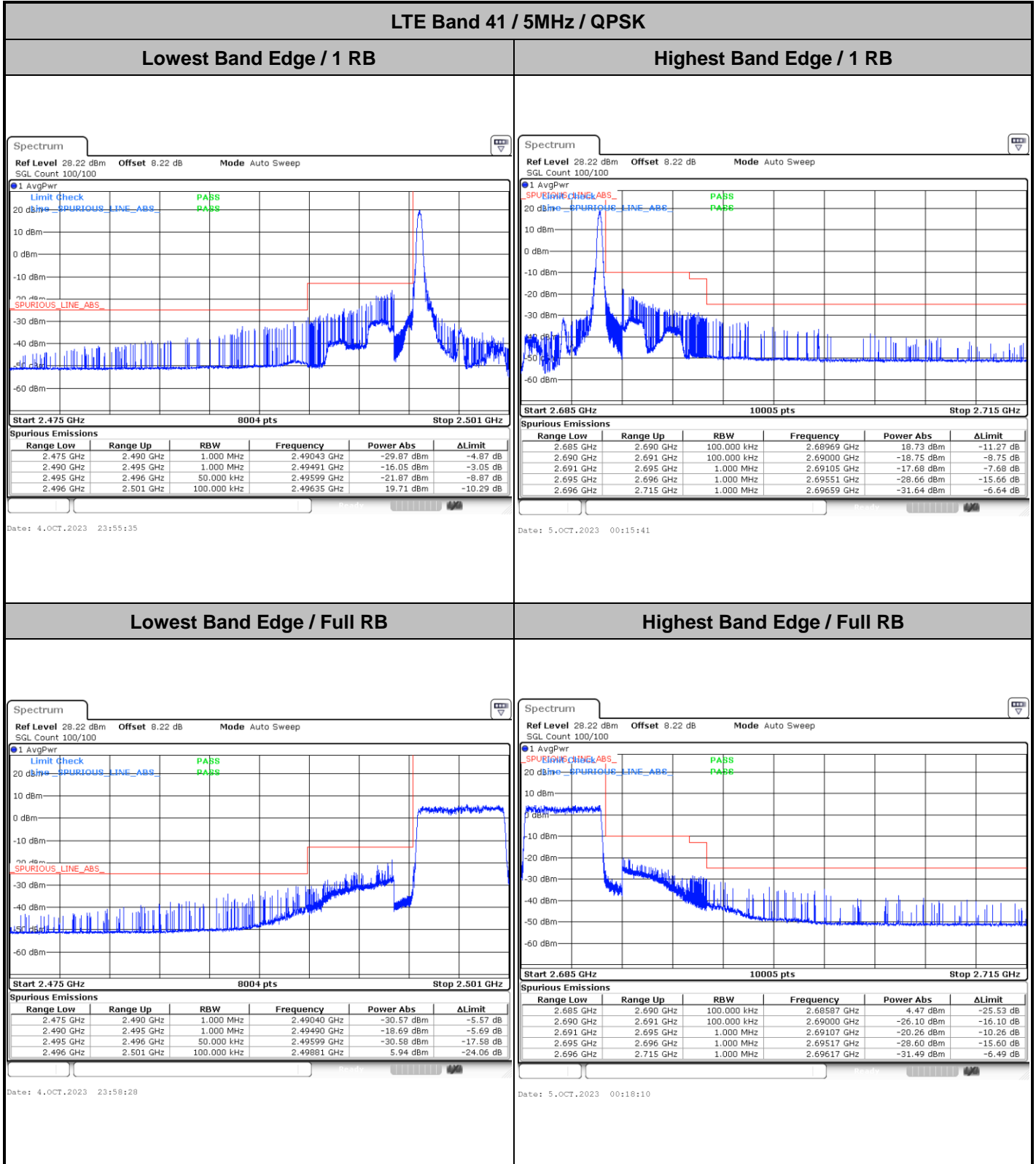
Middle Channel / 20MHz / 16QAM



Date: 5.OCT.2023 01:27:18



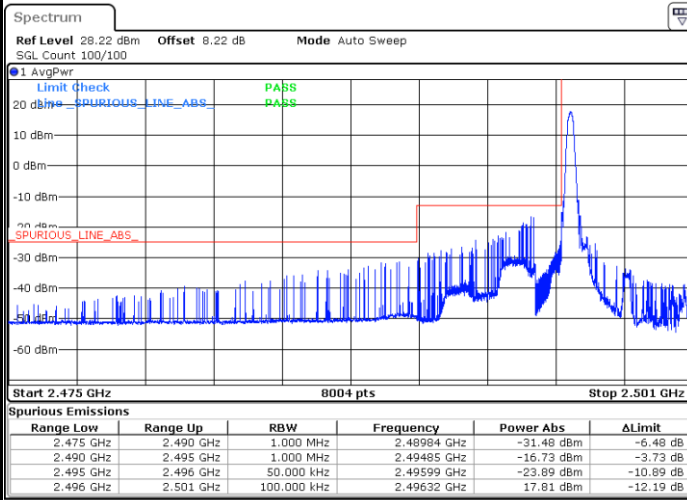
# Conducted Band Edge





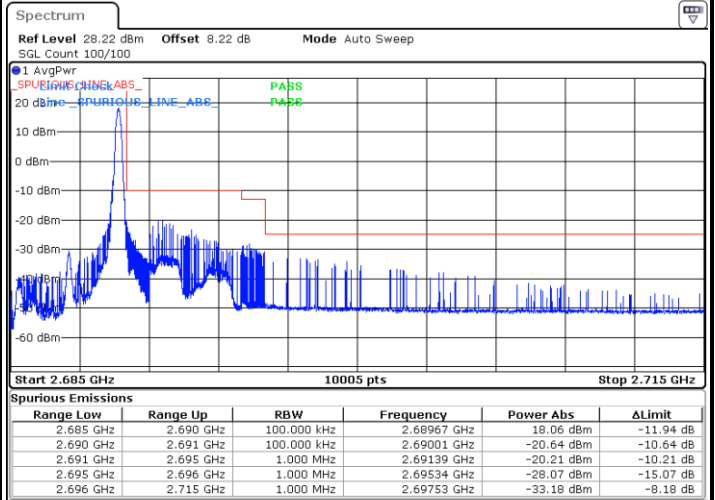
LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



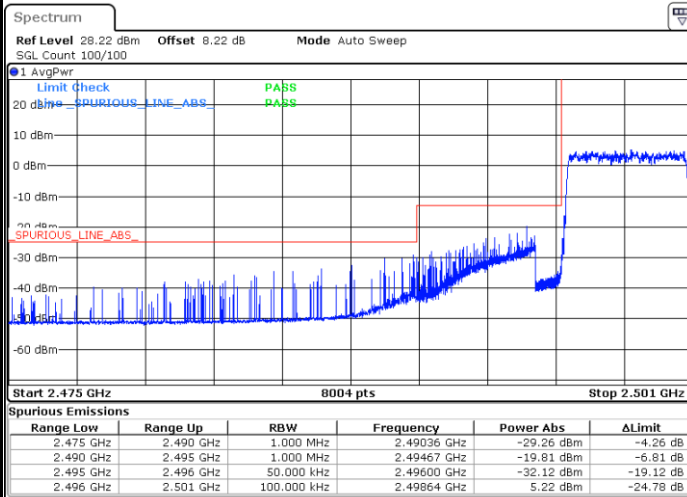
Date: 4.OCT.2023 23:56:18

Highest Band Edge / 1 RB



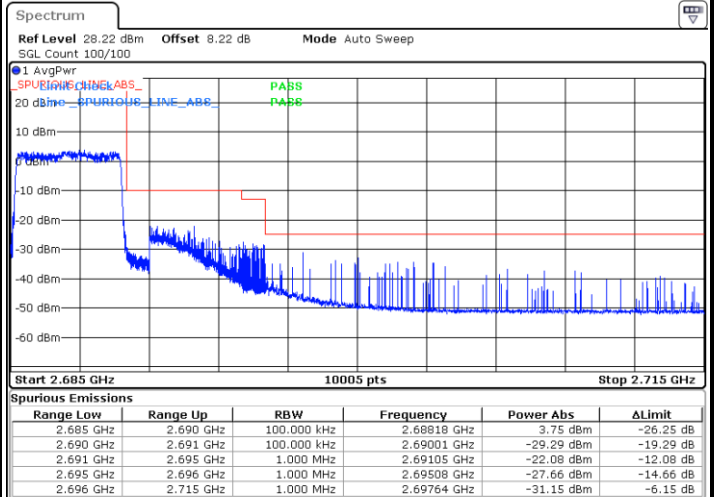
Date: 5.OCT.2023 00:16:22

Lowest Band Edge / Full RB



Date: 5.OCT.2023 00:00:37

Highest Band Edge / Full RB

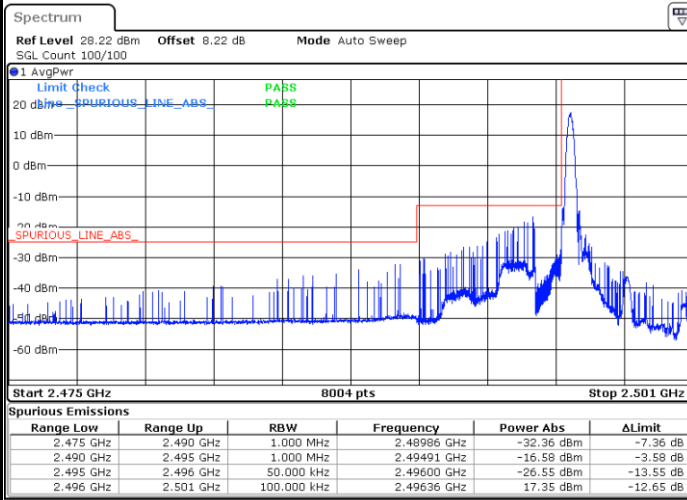


Date: 5.OCT.2023 00:19:58



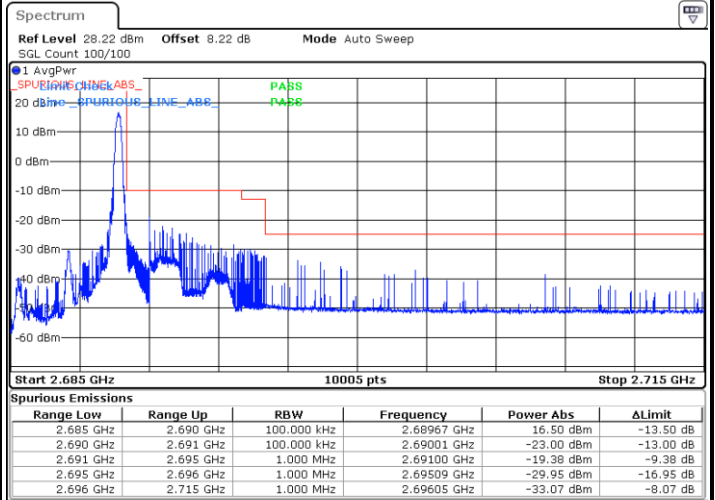
LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB



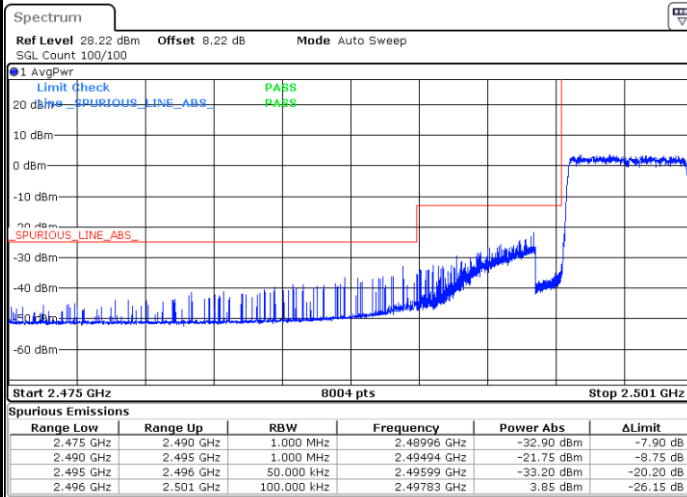
Date: 4.OCT.2023 23:57:02

Highest Band Edge / 1 RB



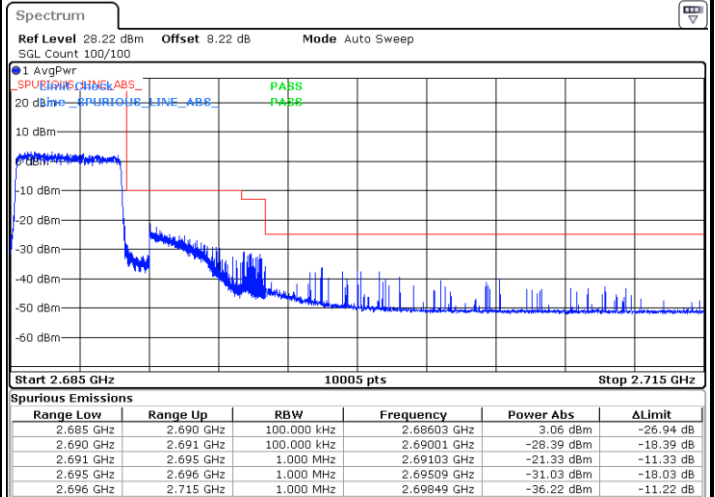
Date: 5.OCT.2023 00:16:58

Lowest Band Edge / Full RB



Date: 4.OCT.2023 23:59:54

Highest Band Edge / Full RB



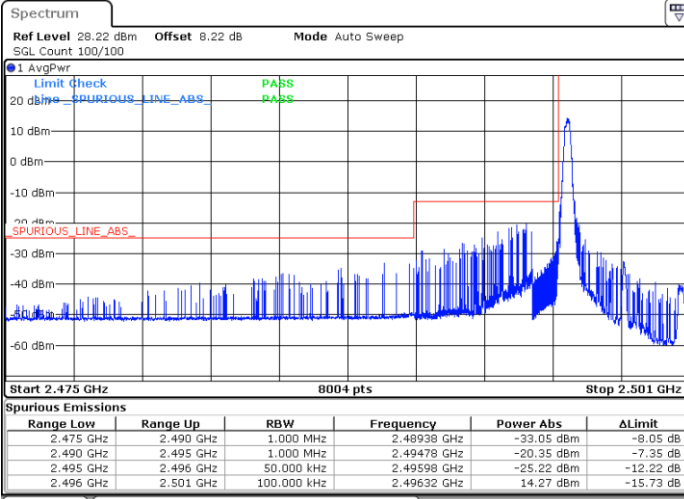
Date: 5.OCT.2023 00:19:22



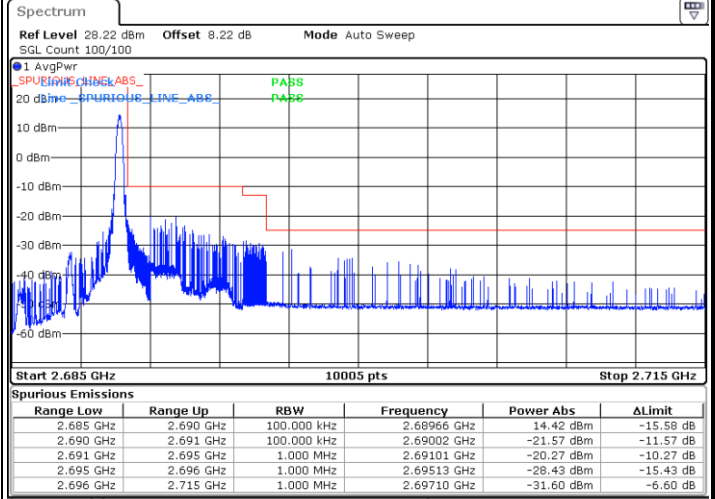
LTE Band 41 / 5MHz / 256QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



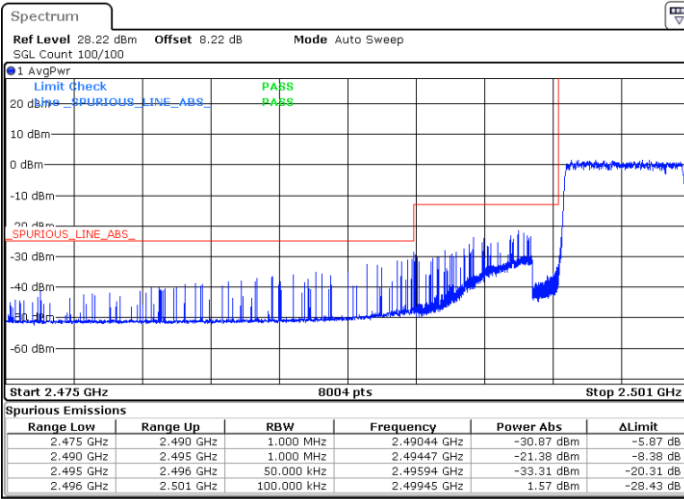
Date: 4.OCT.2023 23:57:45



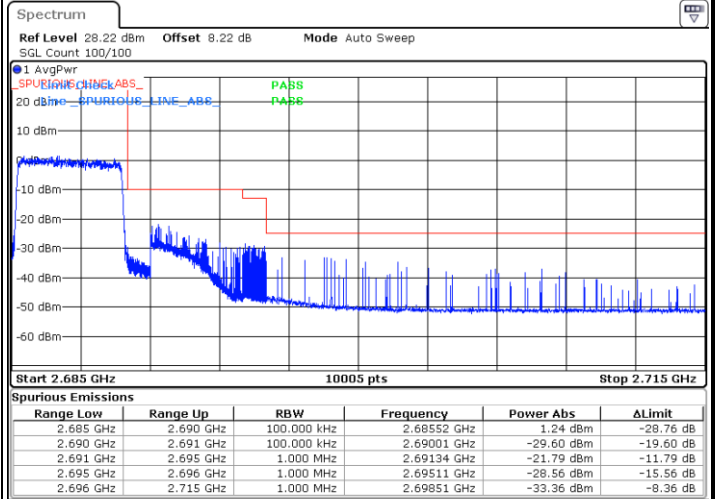
Date: 5.OCT.2023 00:17:34

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 4.OCT.2023 23:59:11

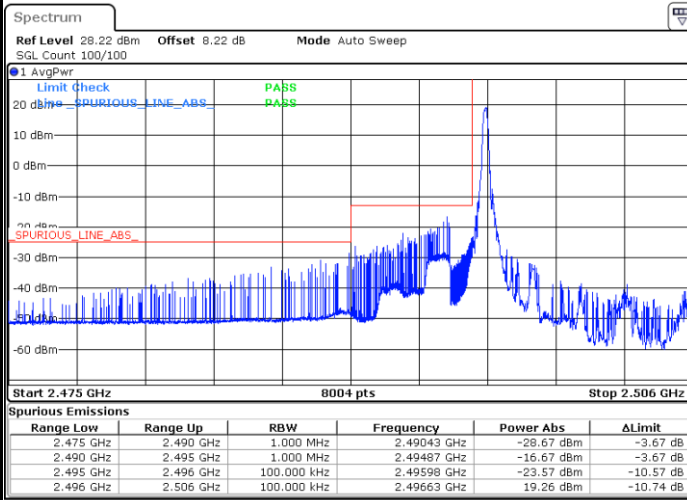


Date: 5.OCT.2023 00:18:46



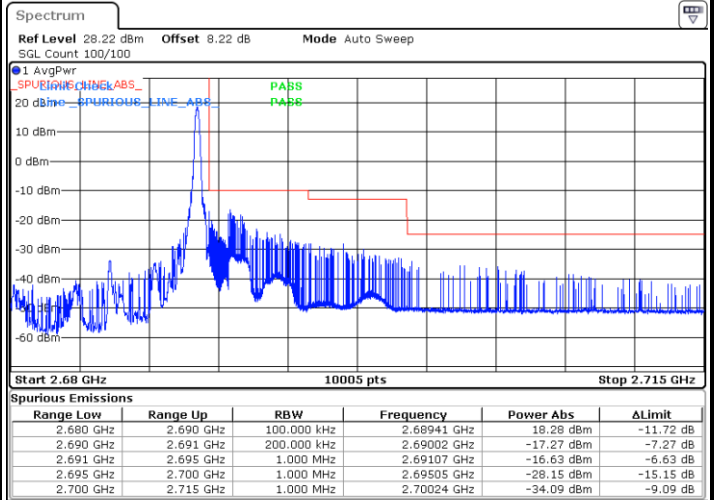
LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB



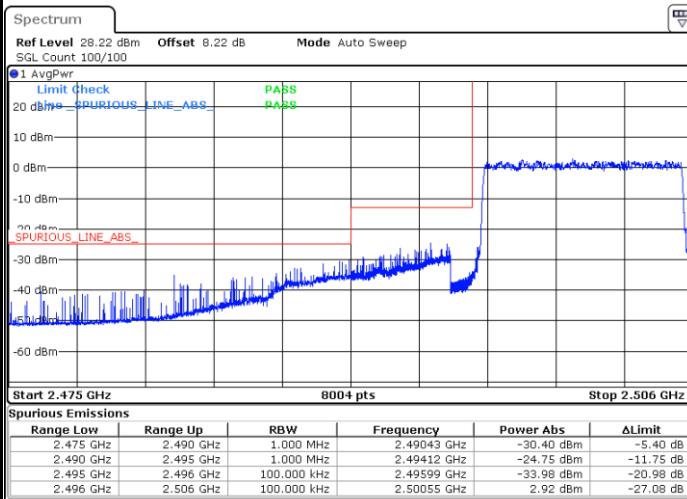
Date: 5.OCT.2023 00:22:00

Highest Band Edge / 1 RB



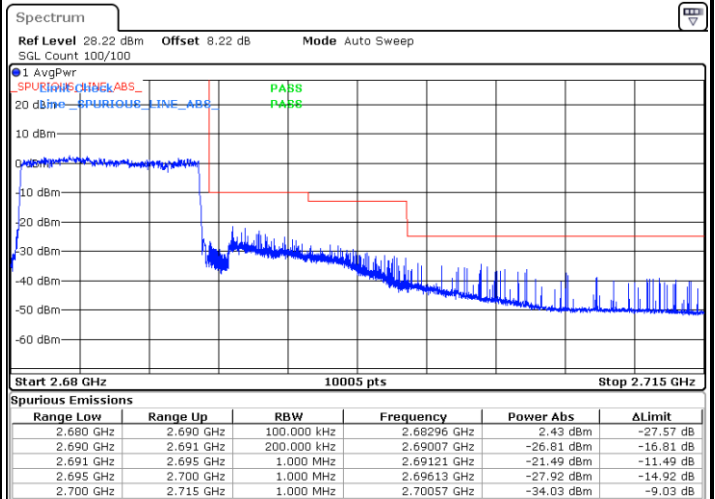
Date: 5.OCT.2023 00:31:00

Lowest Band Edge / Full RB



Date: 5.OCT.2023 00:24:32

Highest Band Edge / Full RB



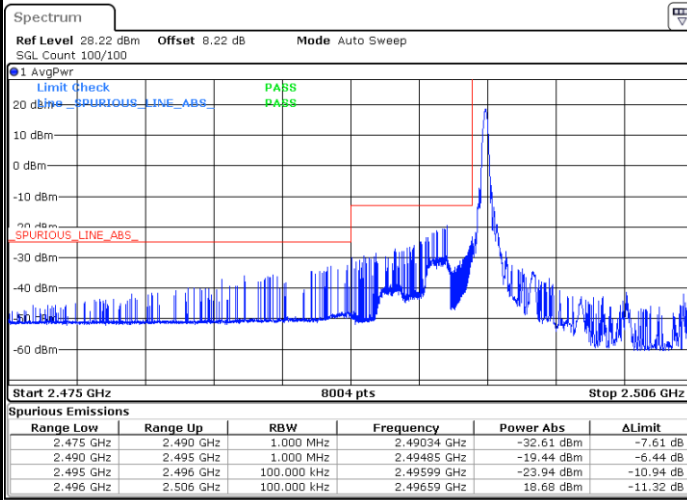
Date: 5.OCT.2023 00:36:03





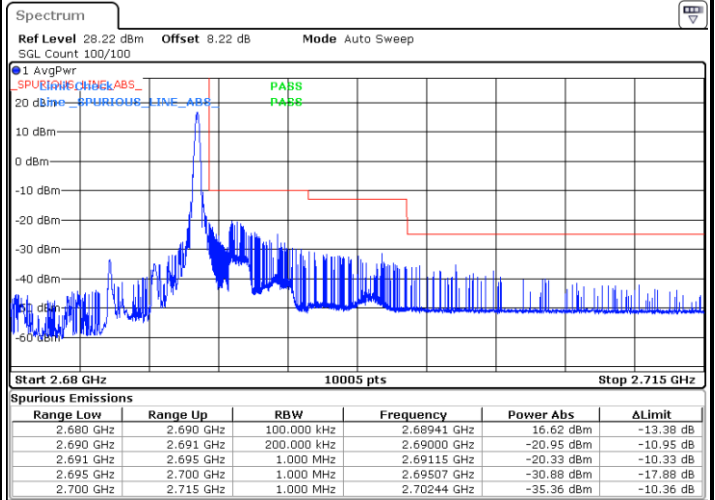
LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



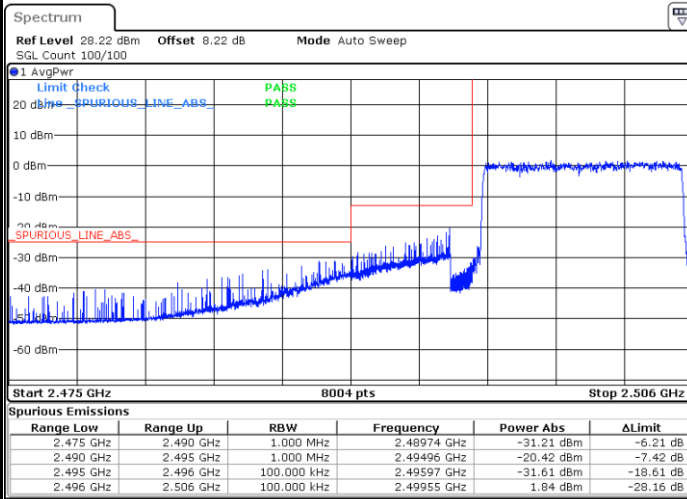
Date: 5.OCT.2023 00:22:37

Highest Band Edge / 1 RB



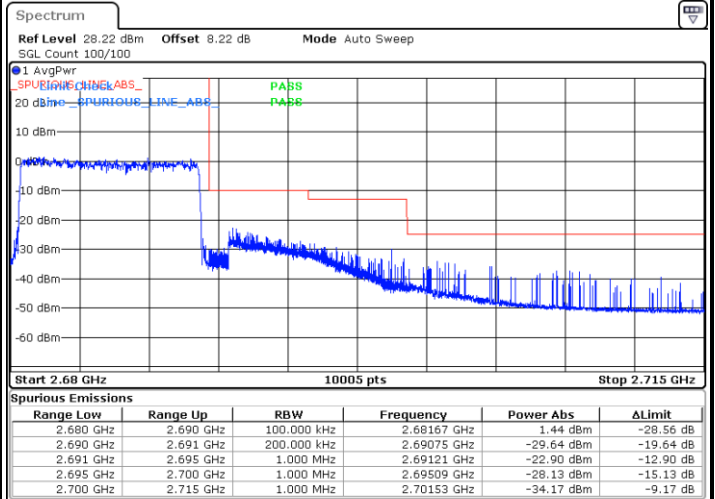
Date: 5.OCT.2023 00:31:36

Lowest Band Edge / Full RB



Date: 5.OCT.2023 00:25:09

Highest Band Edge / Full RB

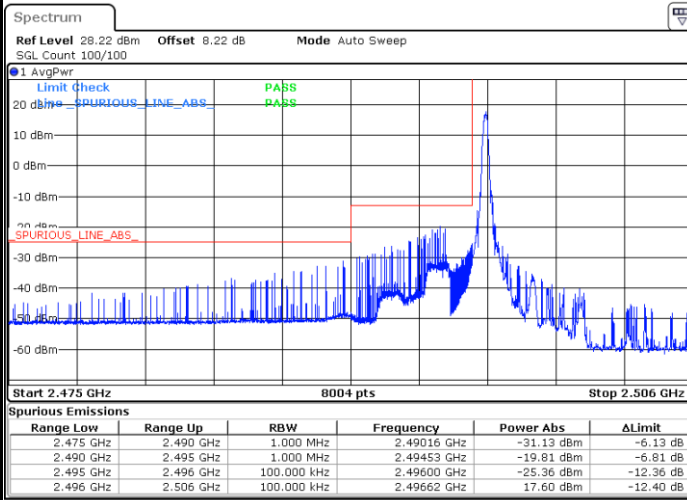


Date: 5.OCT.2023 00:36:39



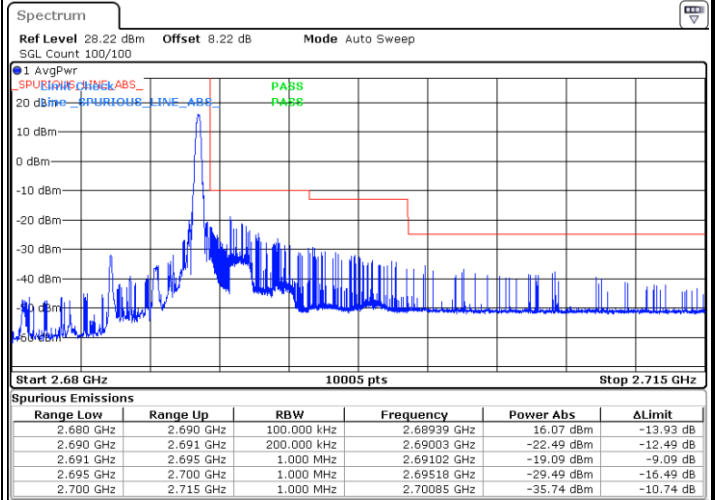
LTE Band 41 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



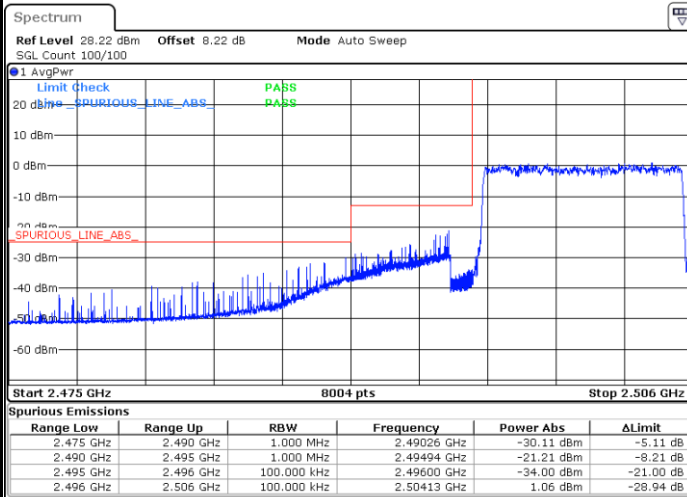
Date: 5.OCT.2023 00:23:15

Highest Band Edge / 1 RB



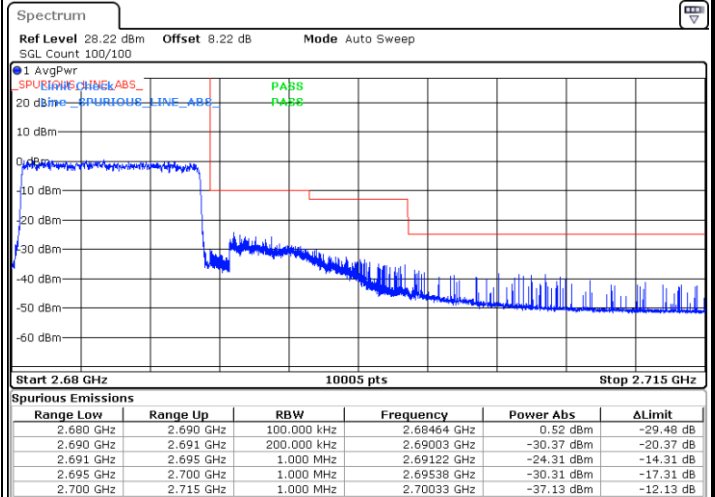
Date: 5.OCT.2023 00:32:12

Lowest Band Edge / Full RB



Date: 5.OCT.2023 00:25:47

Highest Band Edge / Full RB

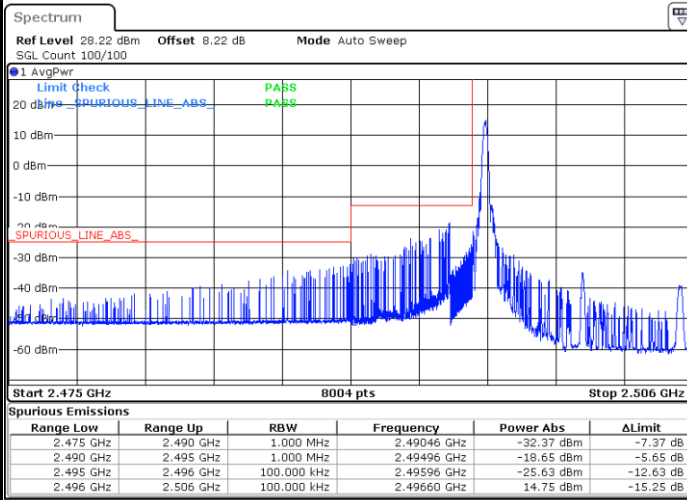


Date: 5.OCT.2023 00:37:14



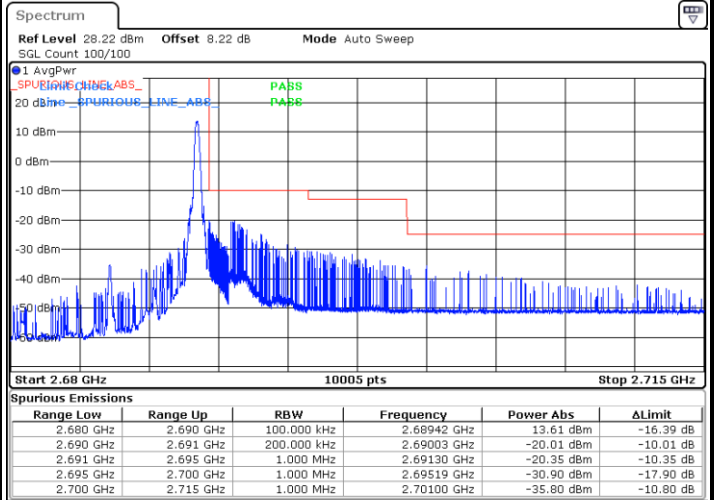
LTE Band 41 / 10MHz / 256QAM

Lowest Band Edge / 1 RB



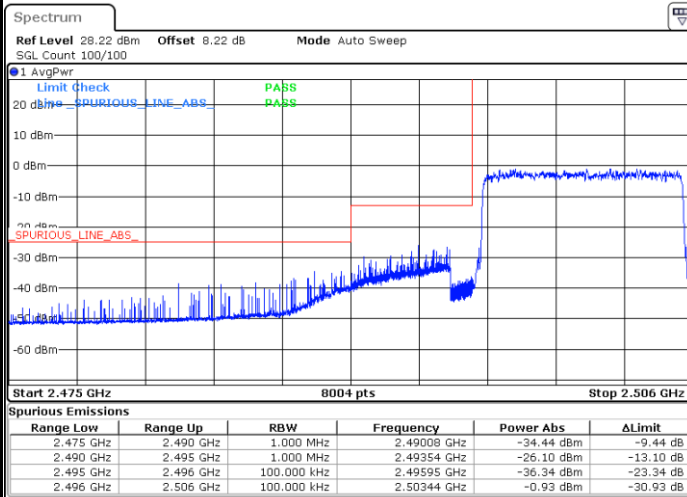
Date: 5.OCT.2023 00:23:54

Highest Band Edge / 1 RB



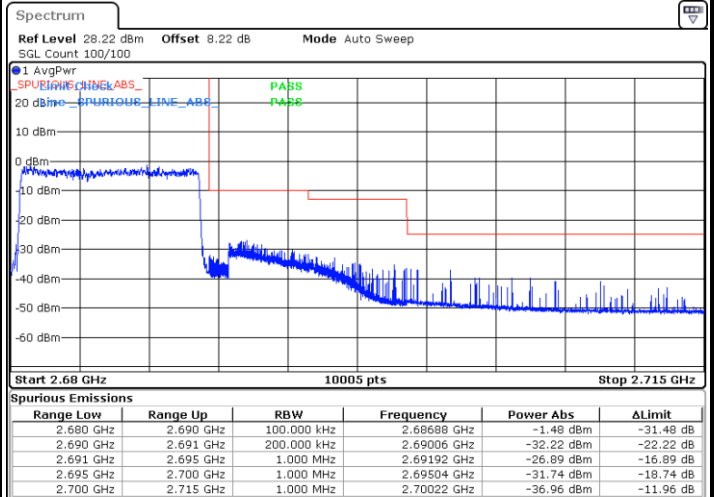
Date: 5.OCT.2023 00:35:27

Lowest Band Edge / Full RB



Date: 5.OCT.2023 00:26:25

Highest Band Edge / Full RB



Date: 5.OCT.2023 00:37:50