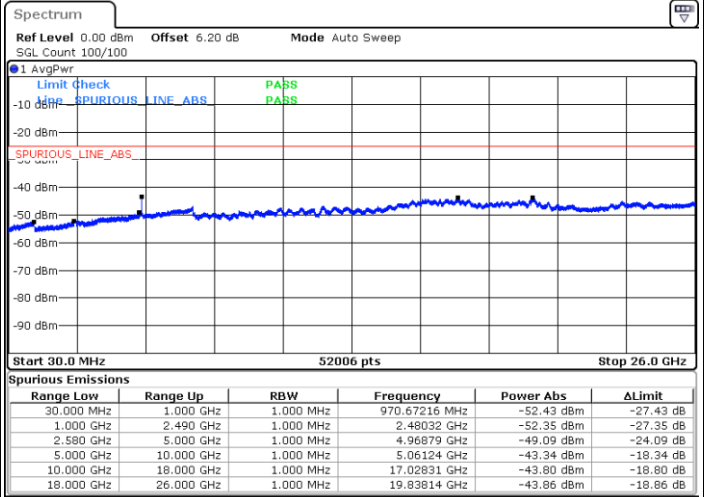
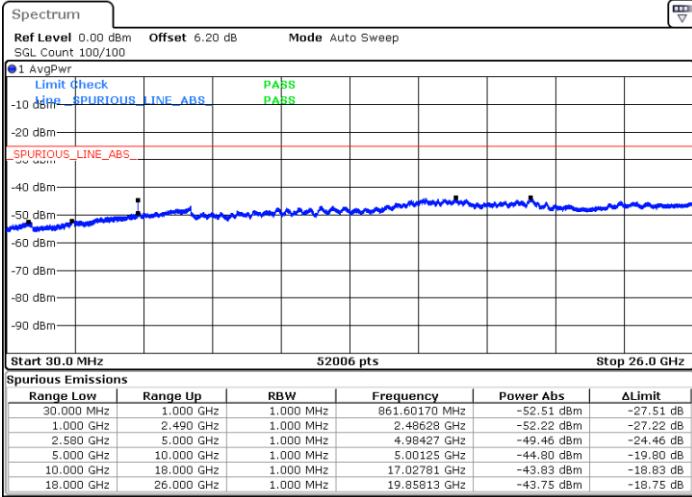




LTE Band 7 / 10MHz

Lowest Channel / QPSK

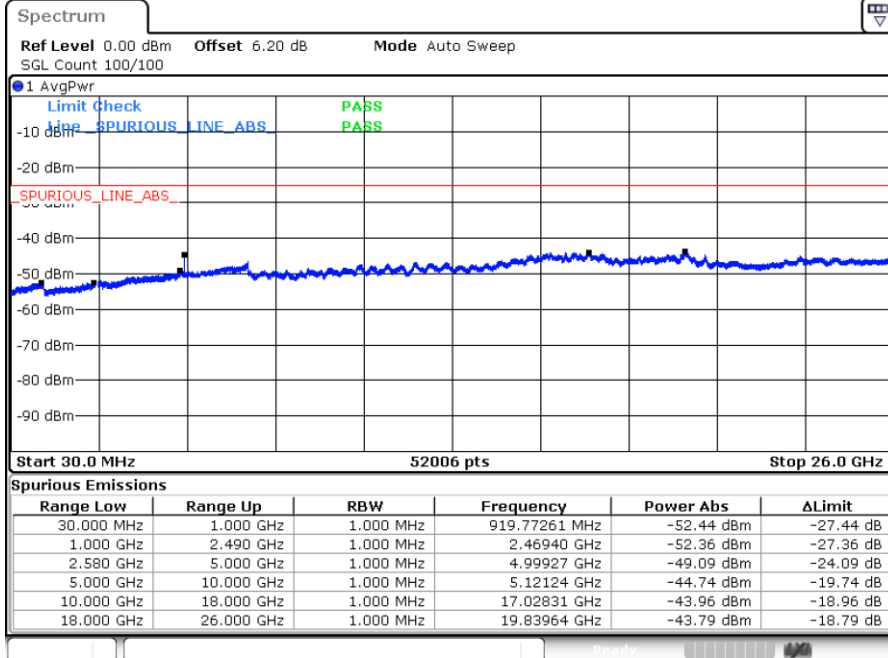
Middle Channel / QPSK



Date: 7.NOV.2023 08:11:45

Date: 7.NOV.2023 08:19:12

Highest Channel / QPSK



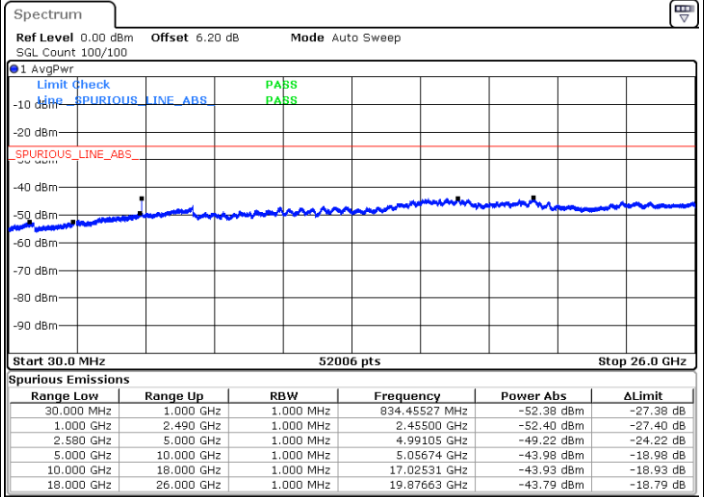
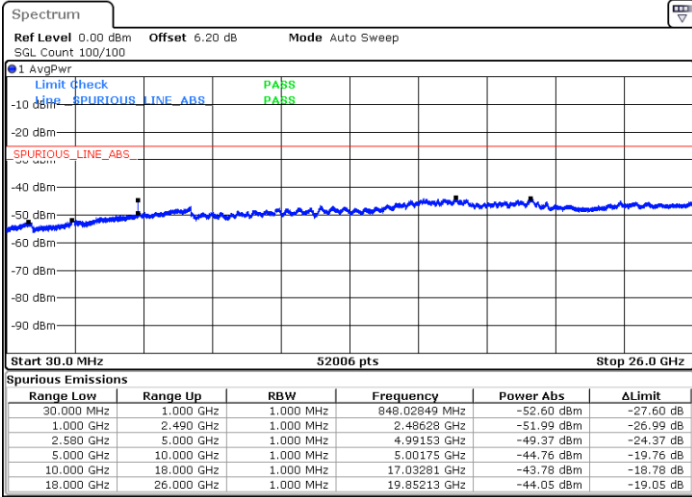
Date: 7.NOV.2023 08:21:14



LTE Band 7 / 15MHz

Lowest Channel / QPSK

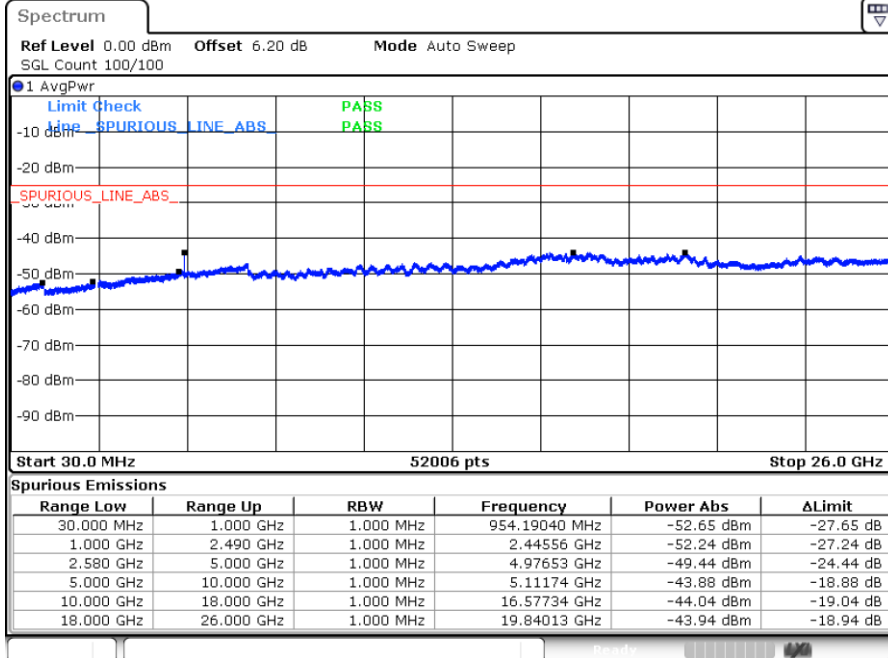
Middle Channel / QPSK



Date: 7.NOV.2023 08:37:41

Date: 7.NOV.2023 08:43:44

Highest Channel / QPSK



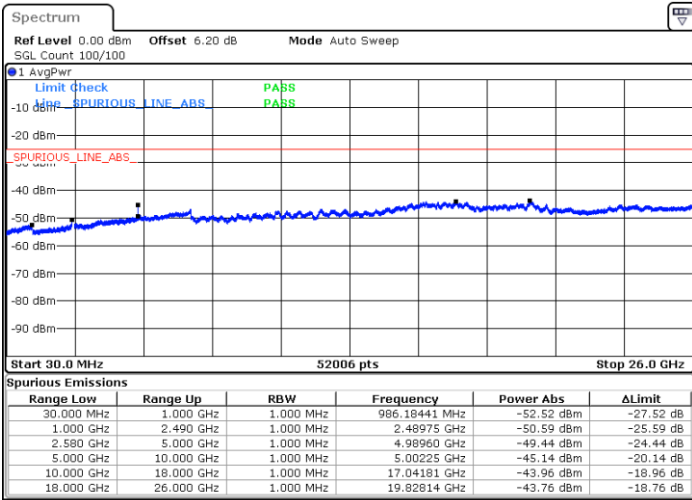
Date: 7.NOV.2023 08:46:30



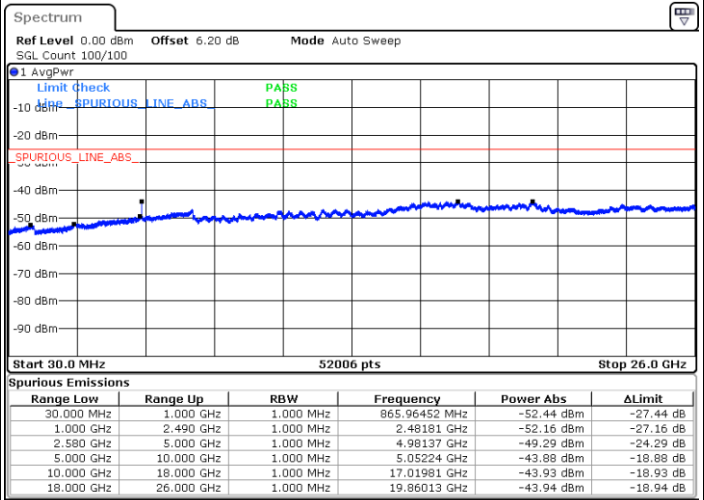
LTE Band 7 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

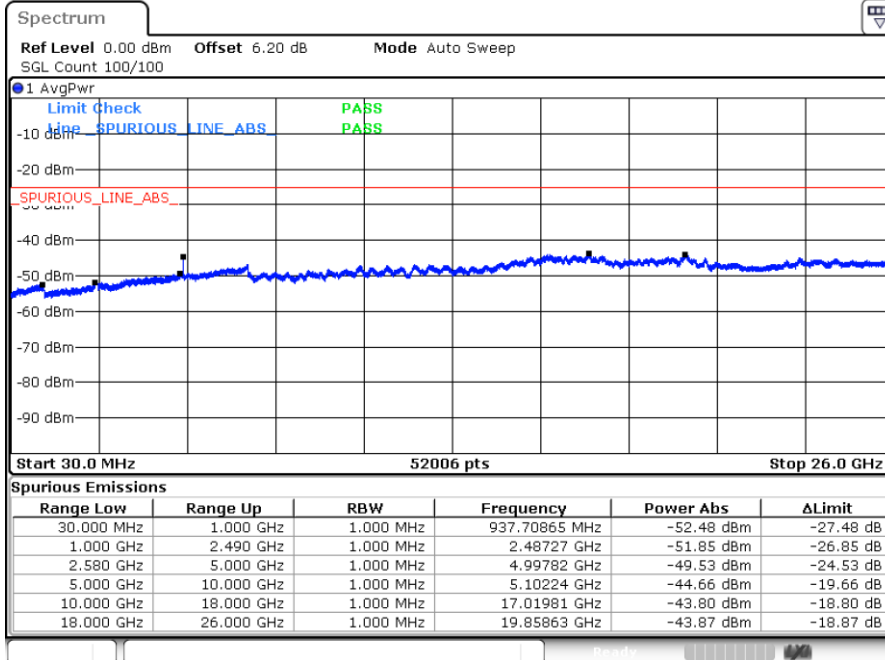


Date: 7.NOV.2023 08:53:29



Date: 7.NOV.2023 08:57:37

Highest Channel / QPSK



Date: 7.NOV.2023 09:07:16



Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0016	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0014	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0025	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0031	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0034	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0022	

Note:

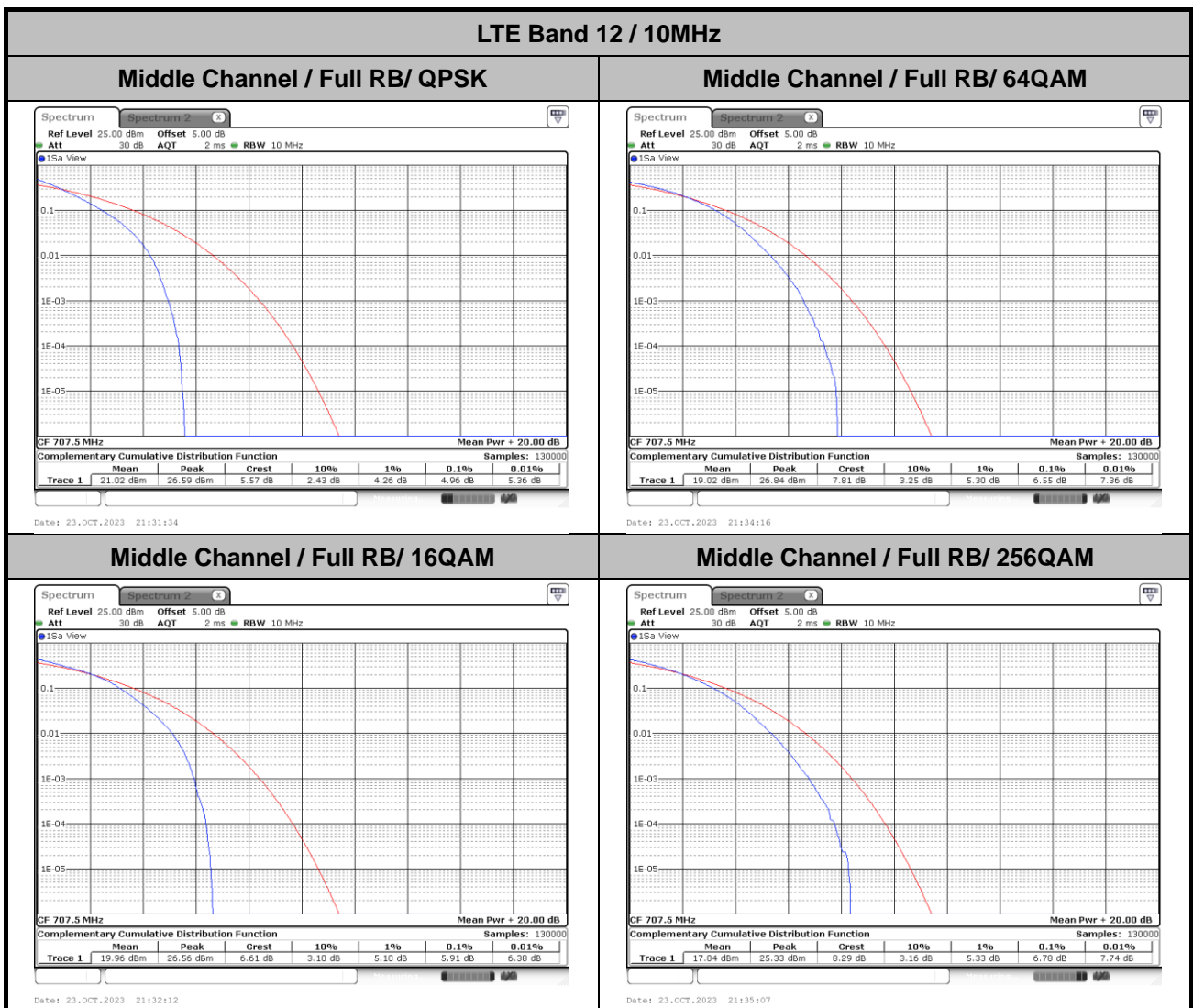
1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.5 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 12

## Peak-to-Average Ratio

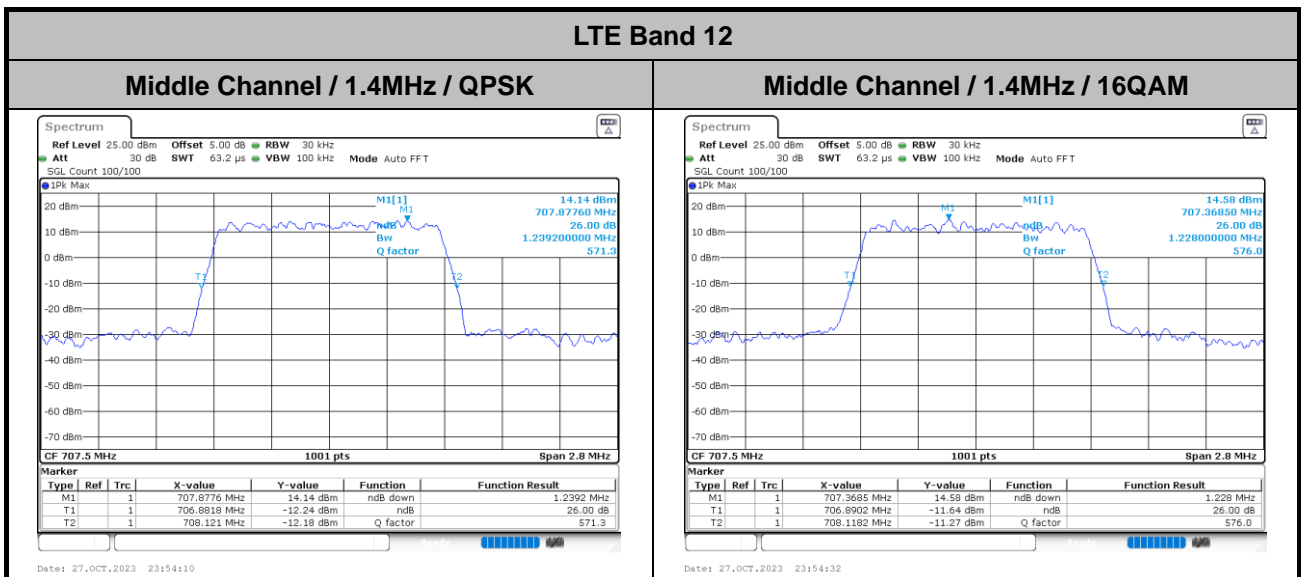
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.96	5.91	6.55	6.78	PASS





## 26dB Bandwidth

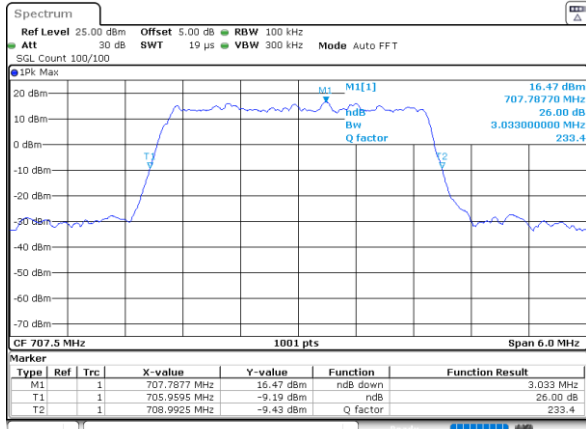
Mode	LTE Band 12 : 26dB BW(MHz)	
<b>BW</b>	<b>1.4MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	1.24	1.23
<b>BW</b>	<b>3MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	3.03	2.97
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.95	4.91
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.75	9.71





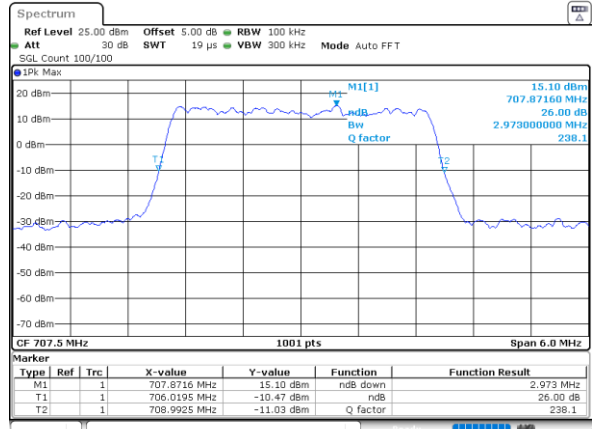
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 28.OCT.2023 00:33:03

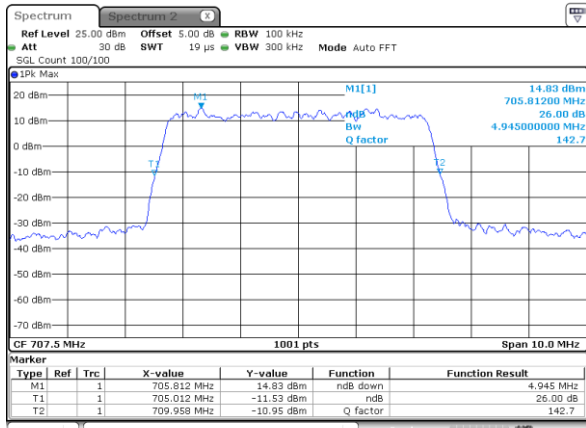
Middle Channel / 3MHz / 16QAM



Date: 28.OCT.2023 00:33:25

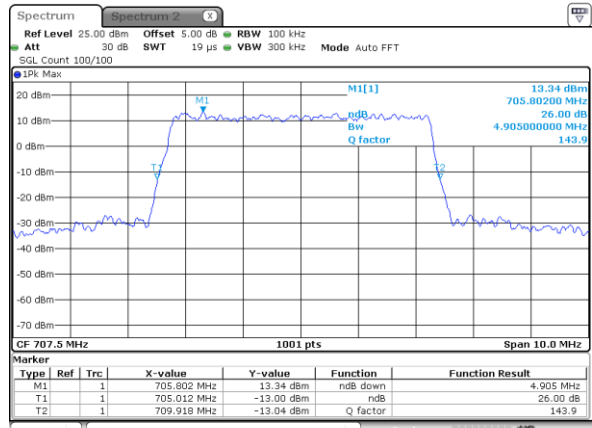
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 23.OCT.2023 22:05:59

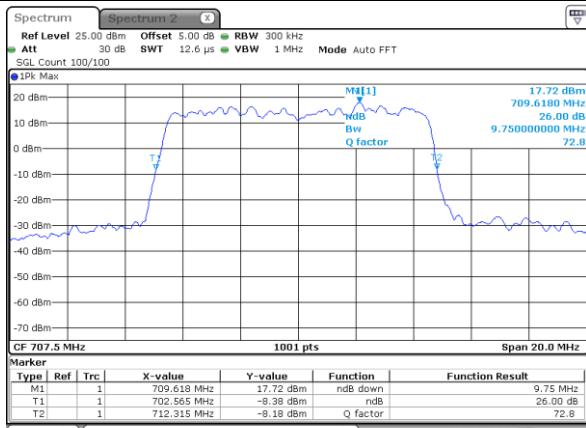
Middle Channel / 5MHz / 16QAM



Date: 23.OCT.2023 22:06:20

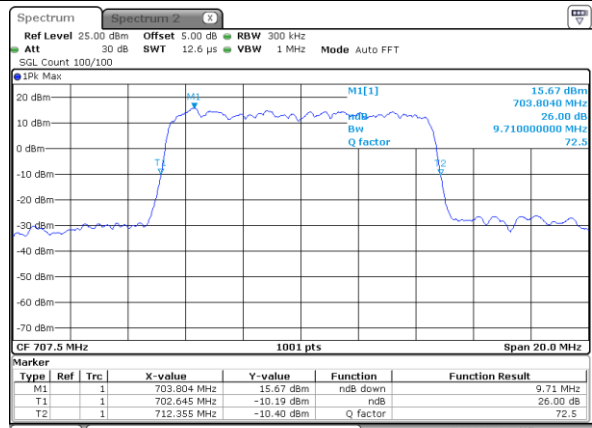
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 23.OCT.2023 21:29:16

Middle Channel / 10MHz / 16QAM

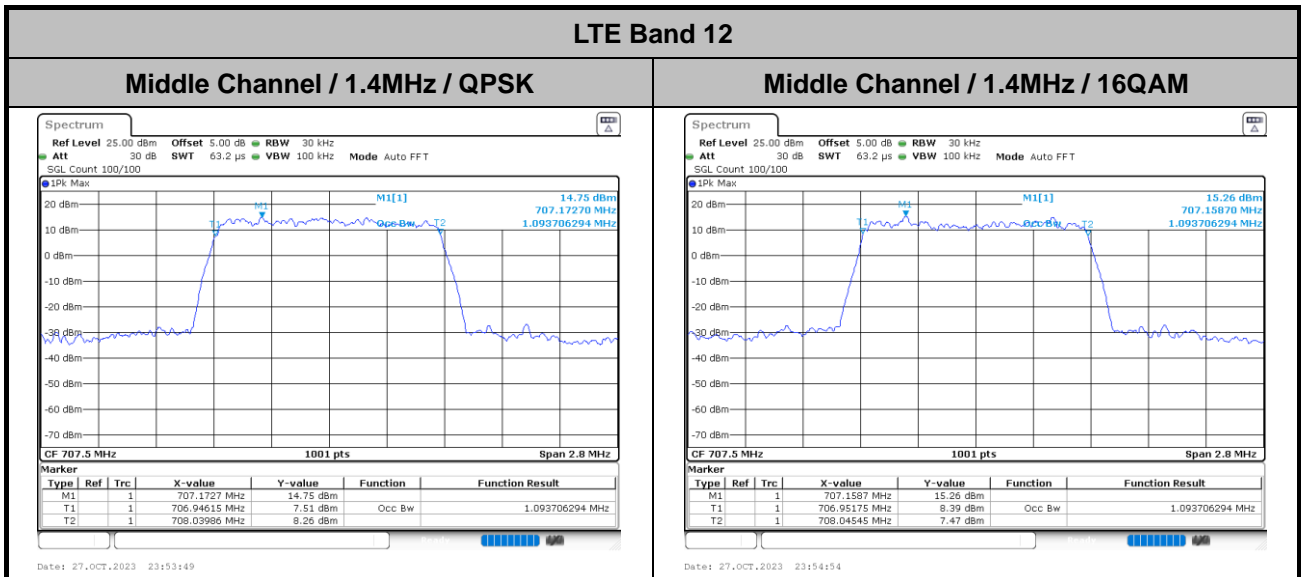


Date: 23.OCT.2023 21:33:39



# Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.09	1.09
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.70	2.72
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.49	4.48
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.01	8.99

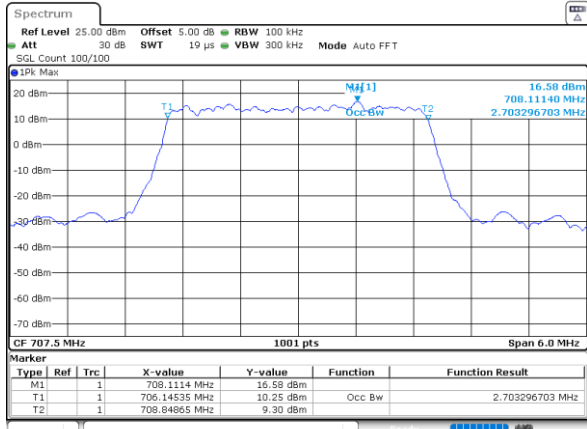






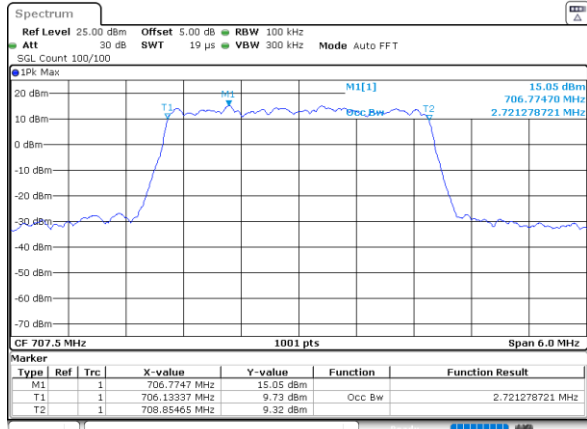
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 28.OCT.2023 00:32:41

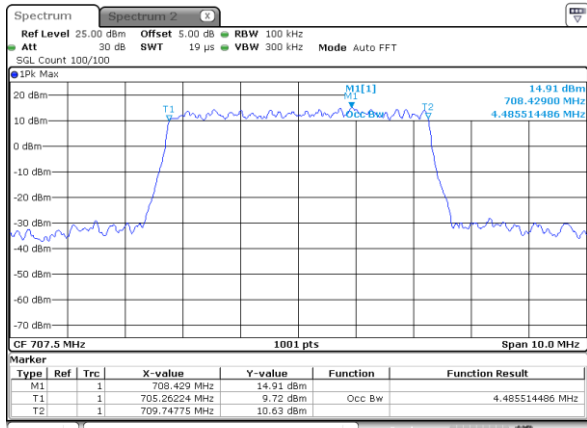
Middle Channel / 3MHz / 16QAM



Date: 28.OCT.2023 00:33:46

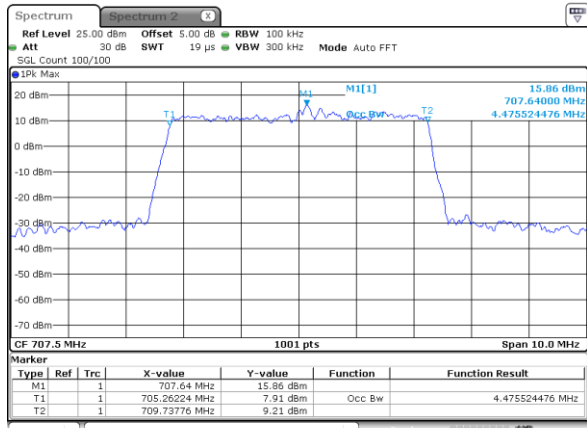
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 23.OCT.2023 22:05:38

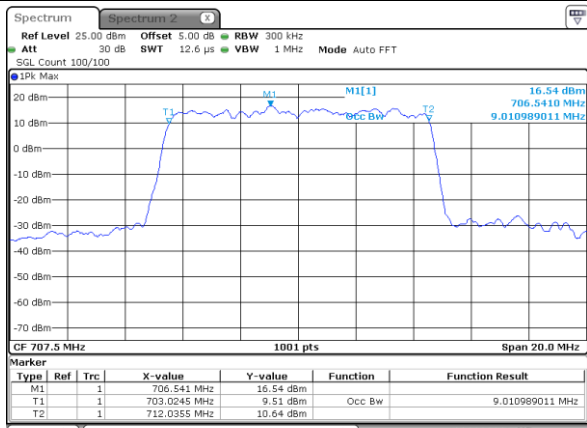
Middle Channel / 5MHz / 16QAM



Date: 23.OCT.2023 22:06:41

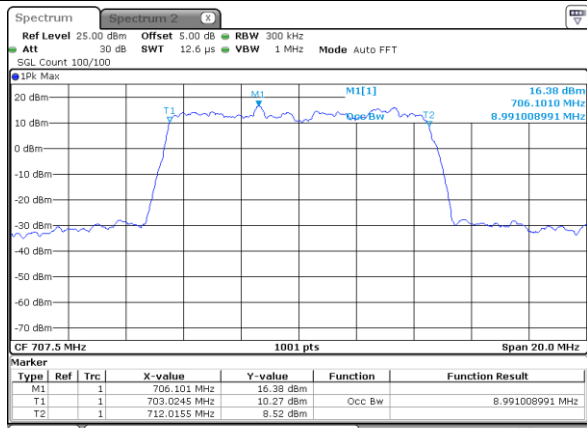
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 23.OCT.2023 21:30:17

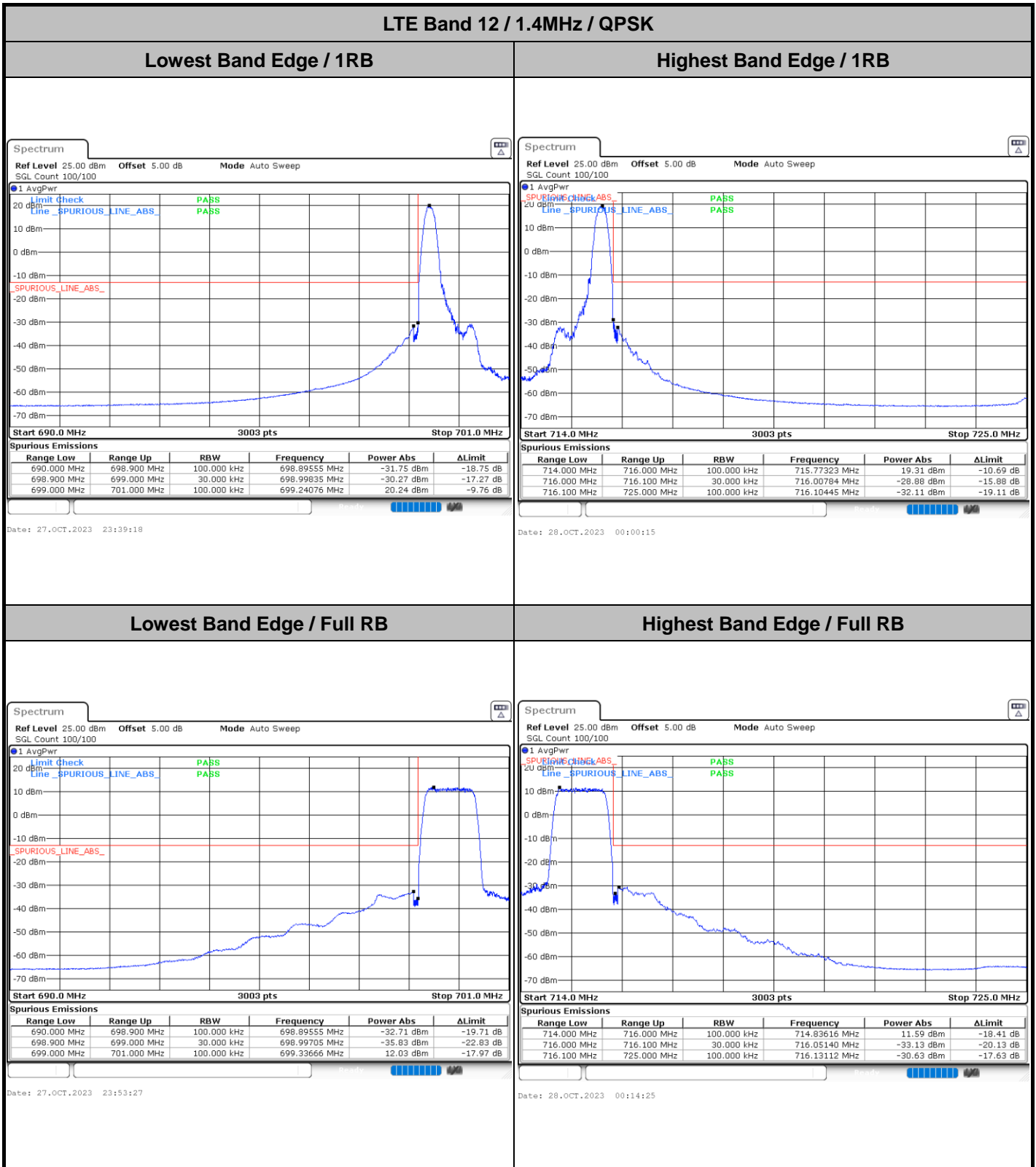
Middle Channel / 10MHz / 16QAM



Date: 23.OCT.2023 21:32:47



# Conducted Band Edge

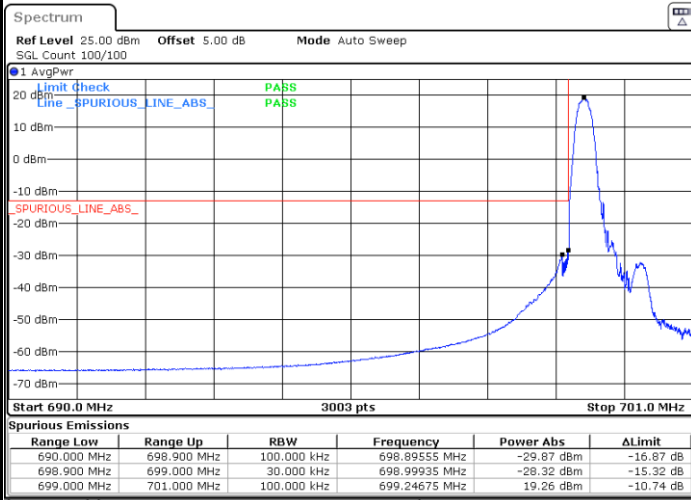




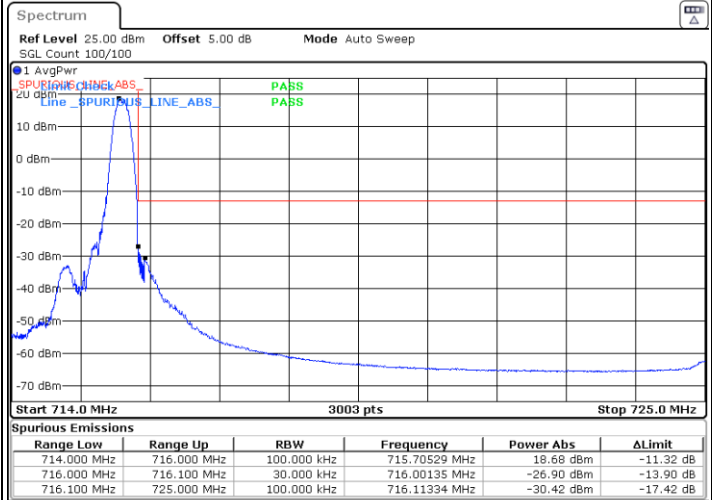
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



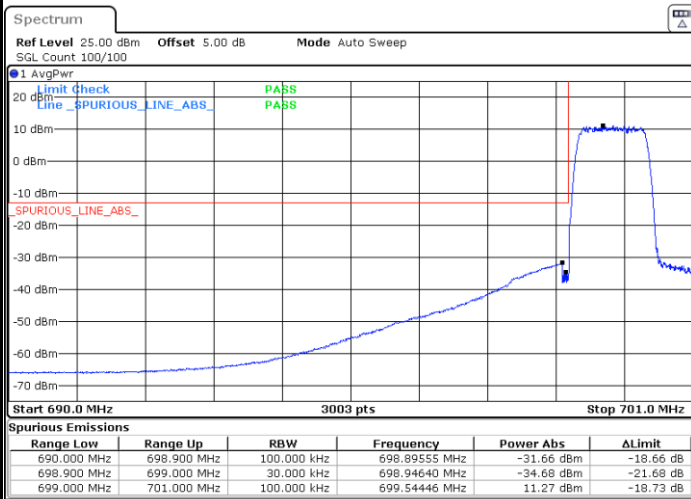
Date: 27.OCT.2023 23:41:18



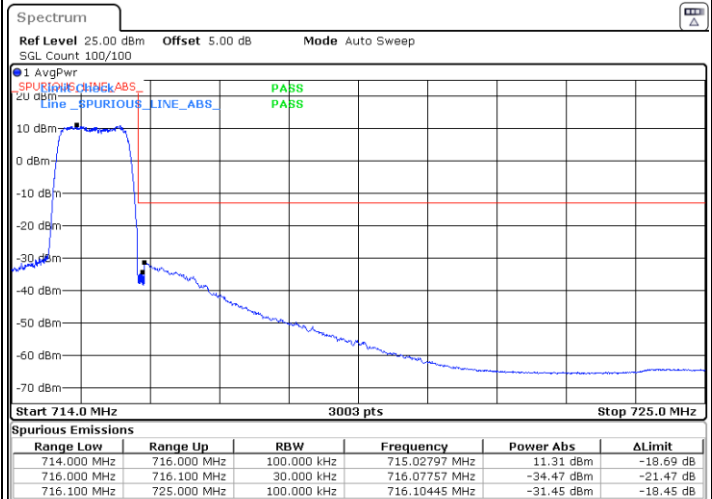
Date: 28.OCT.2023 00:02:15

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 27.OCT.2023 23:51:26

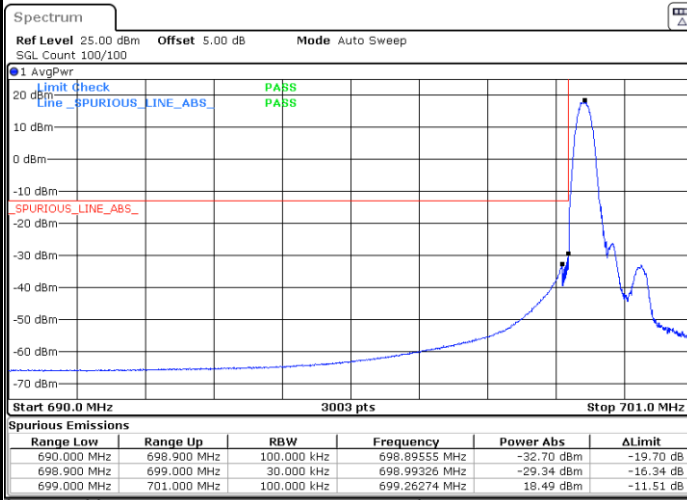


Date: 28.OCT.2023 00:12:24



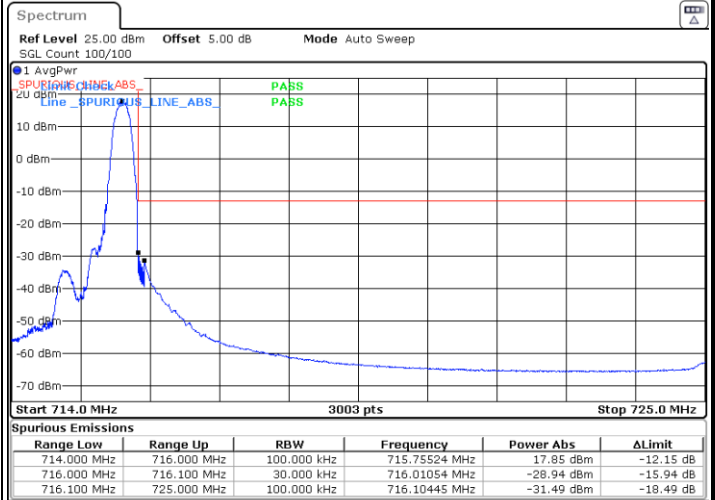
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



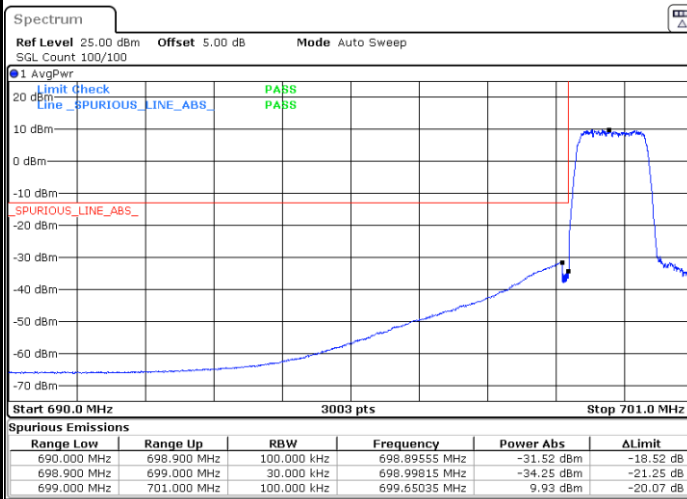
Date: 27.OCT.2023 23:43:18

Highest Band Edge / 1 RB



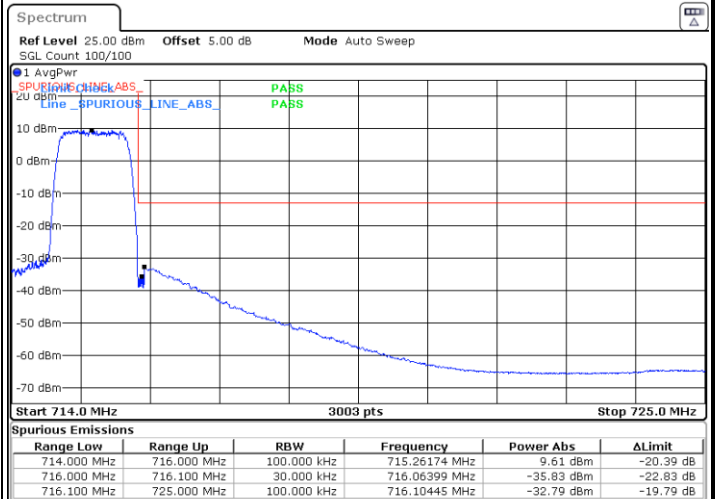
Date: 28.OCT.2023 00:04:16

Lowest Band Edge / Full RB



Date: 27.OCT.2023 23:49:26

Highest Band Edge / Full RB

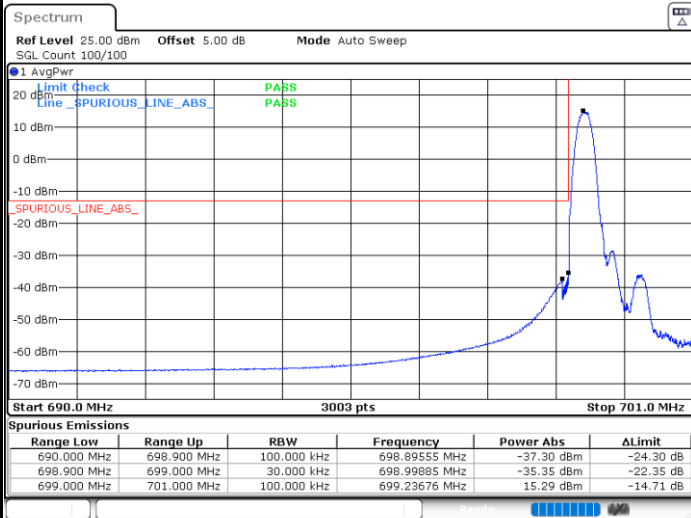


Date: 28.OCT.2023 00:10:24

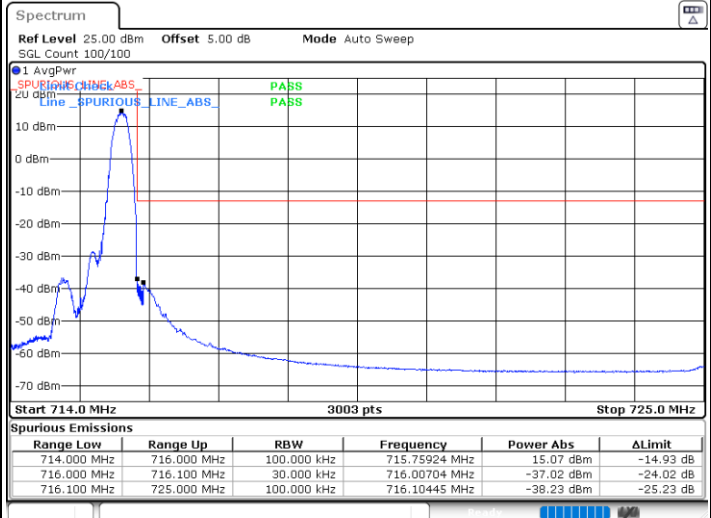


LTE Band 12 / 1.4MHz / 256QAM

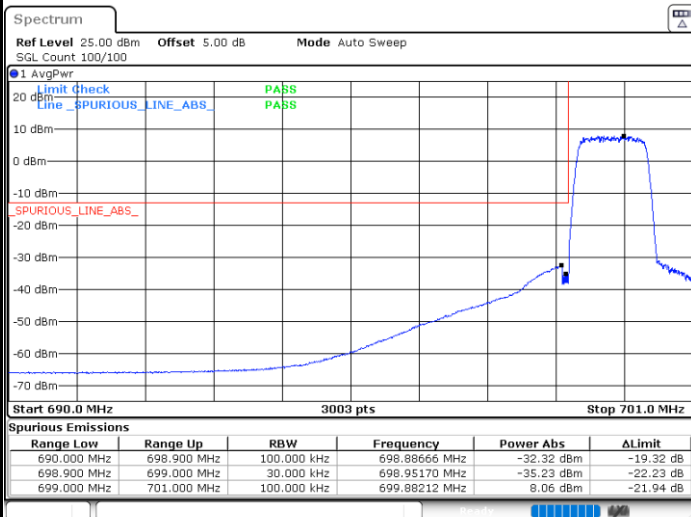
Lowest Band Edge / 1 RB



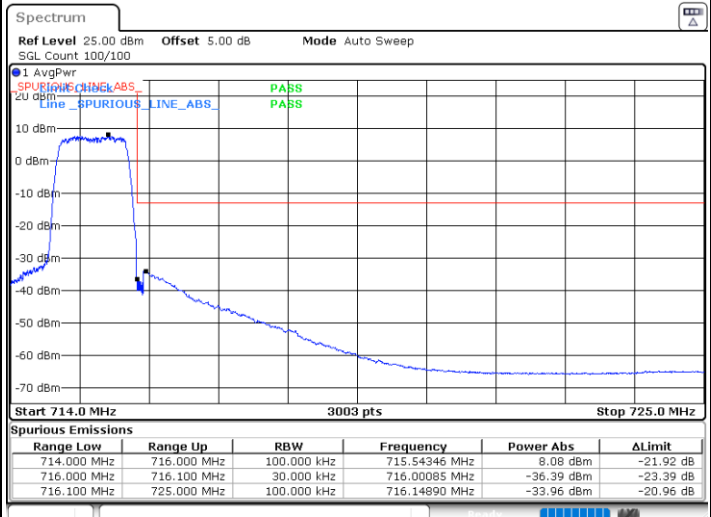
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



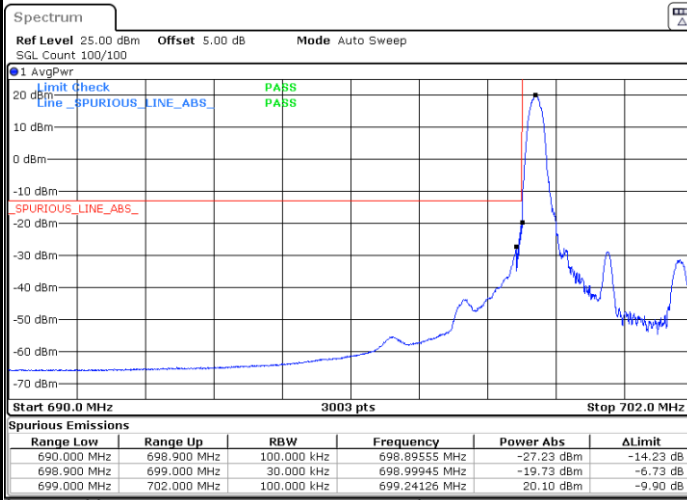
Highest Band Edge / Full RB



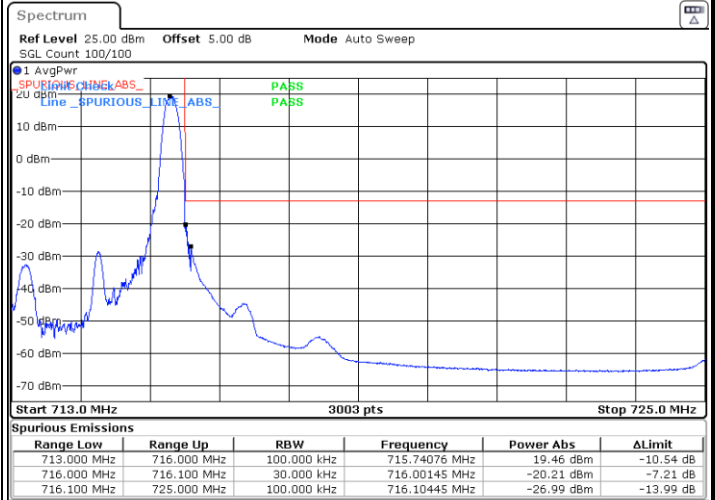


LTE Band 12 / 3MHz / QPSK

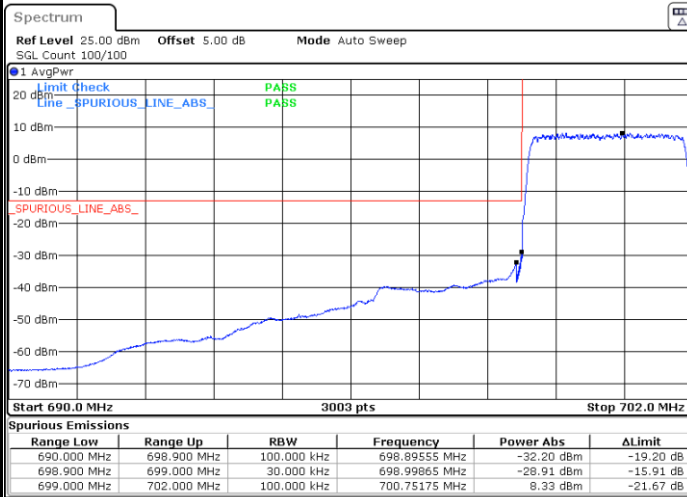
Lowest Band Edge / 1RB



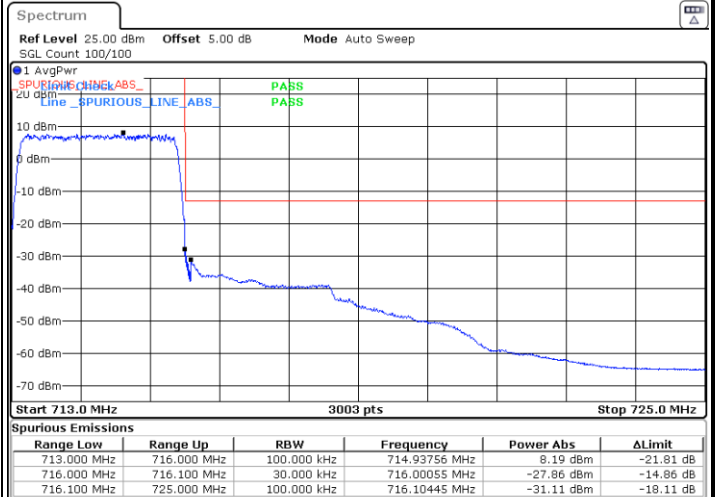
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



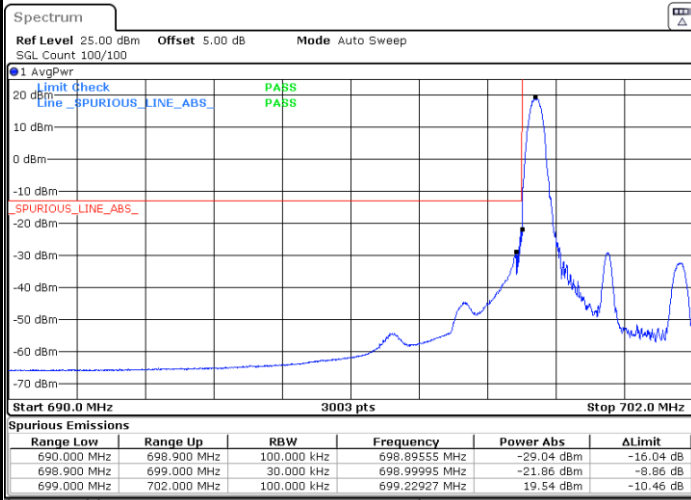
Highest Band Edge / Full RB





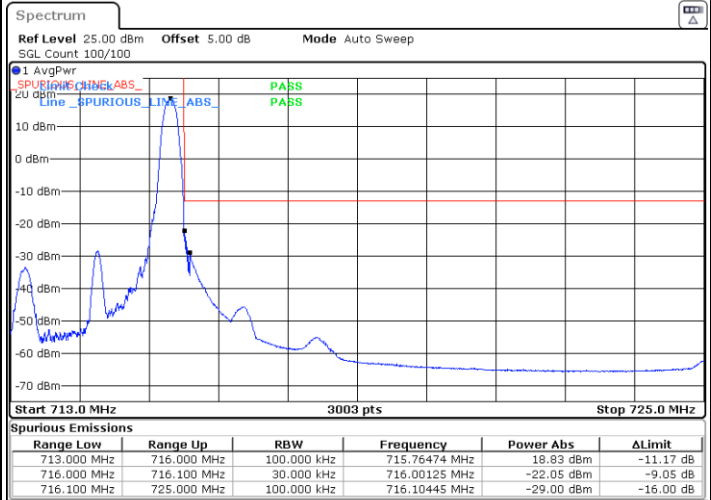
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



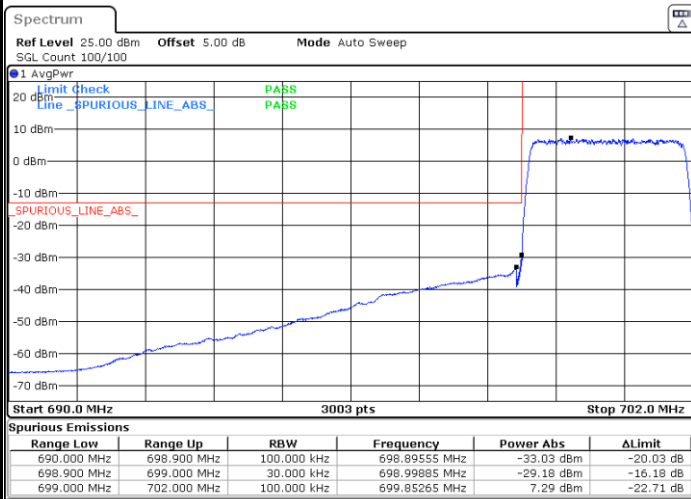
Date: 28.OCT.2023 00:20:09

Highest Band Edge / 1 RB



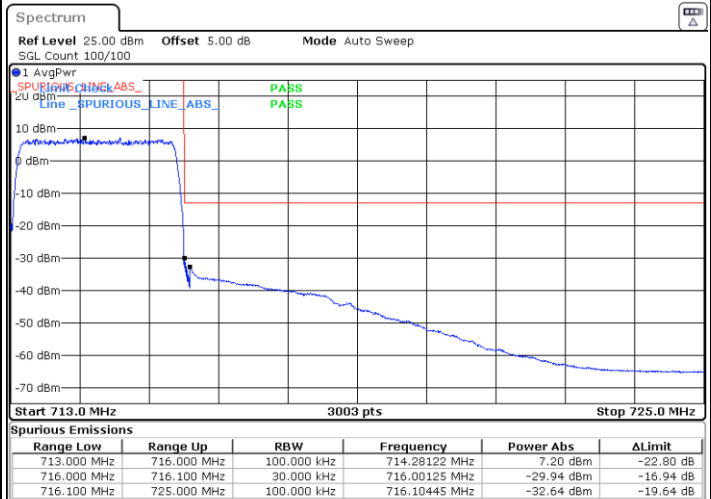
Date: 28.OCT.2023 00:41:09

Lowest Band Edge / Full RB



Date: 28.OCT.2023 00:30:19

Highest Band Edge / Full RB

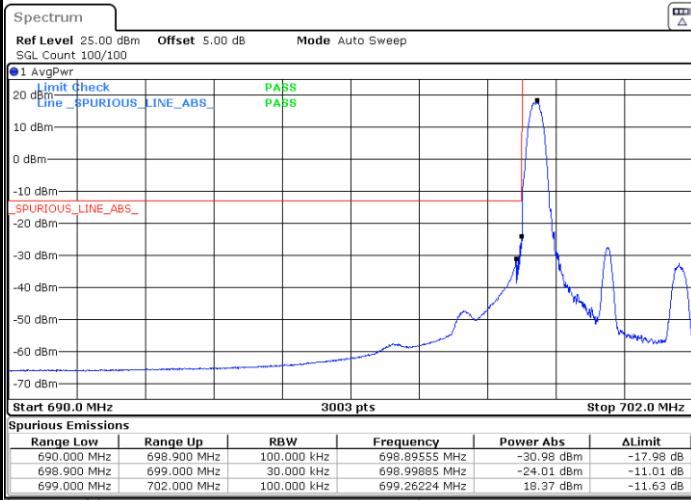


Date: 28.OCT.2023 00:51:18

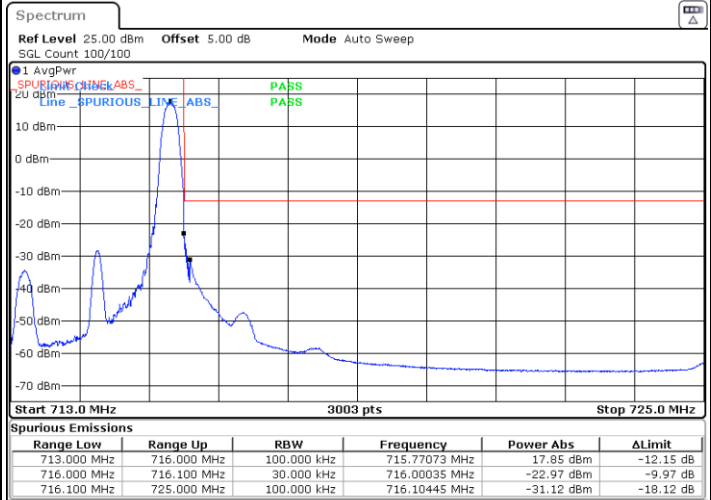


LTE Band 12 / 3MHz / 64QAM

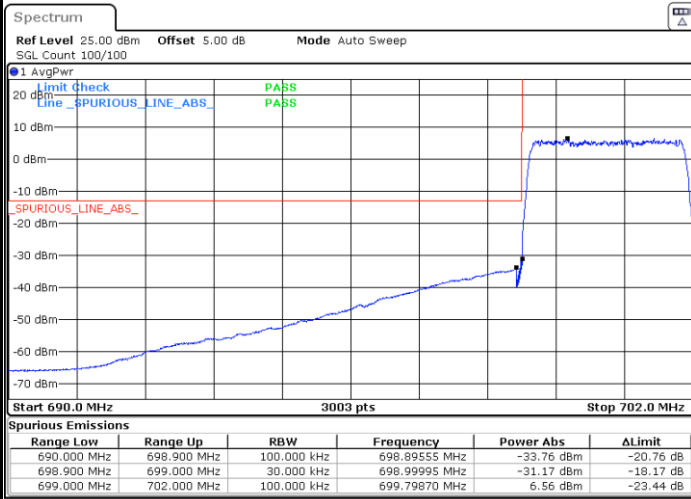
Lowest Band Edge / 1 RB



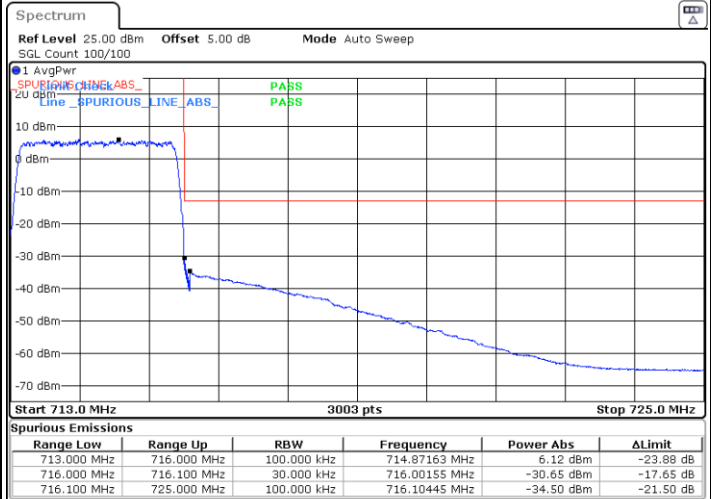
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

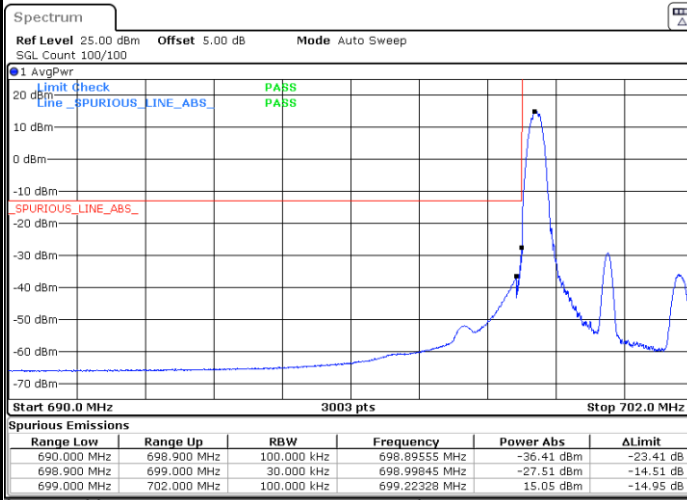






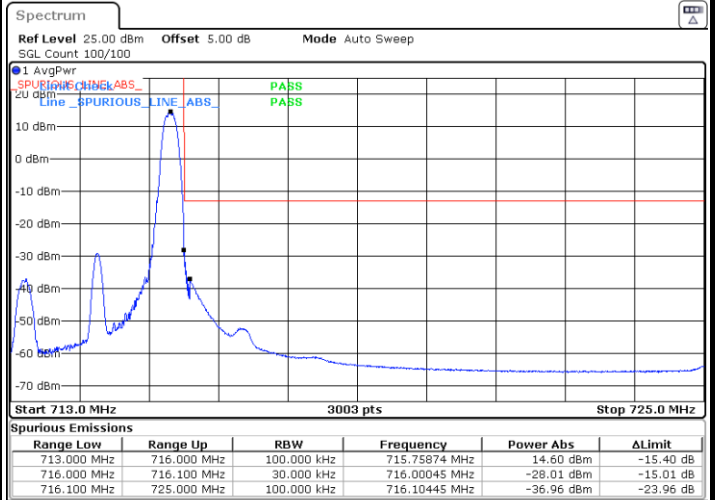
LTE Band 12 / 3MHz / 256QAM

Lowest Band Edge / 1 RB



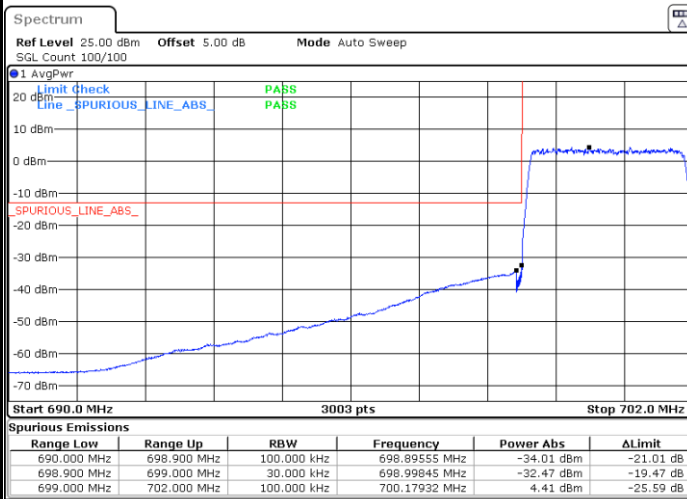
Date: 28.OCT.2023 00:24:10

Highest Band Edge / 1 RB



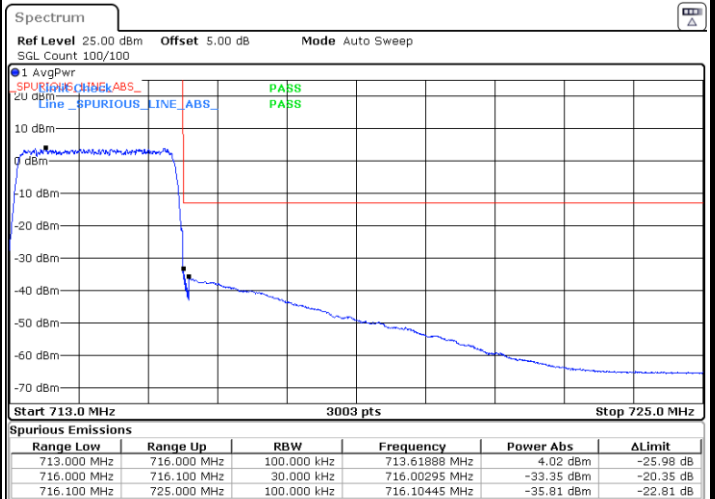
Date: 28.OCT.2023 00:45:10

Lowest Band Edge / Full RB



Date: 28.OCT.2023 00:26:14

Highest Band Edge / Full RB

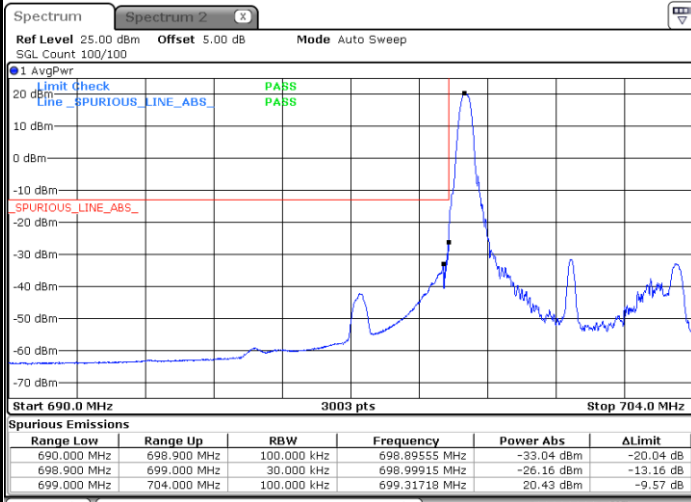


Date: 28.OCT.2023 00:47:14



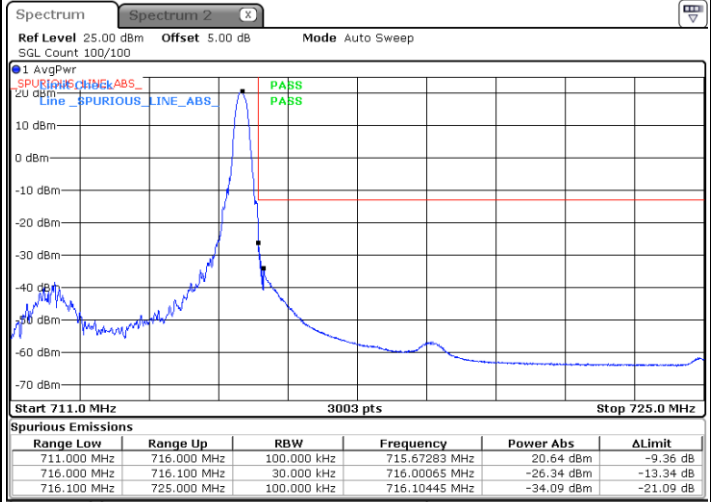
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



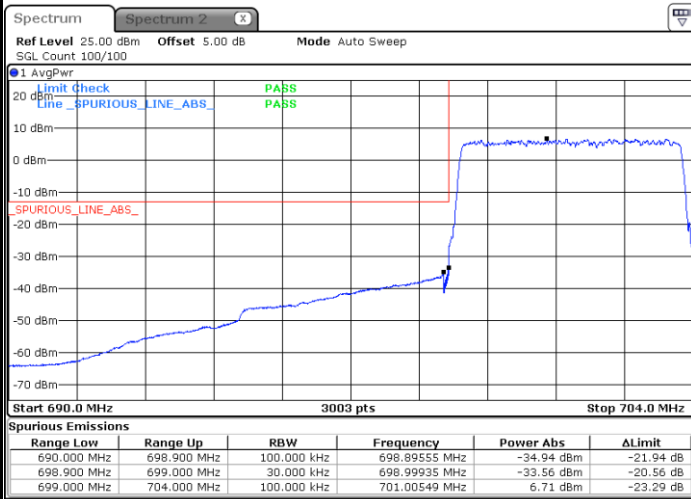
Date: 23.OCT.2023 21:41:05

Highest Band Edge / 1 RB



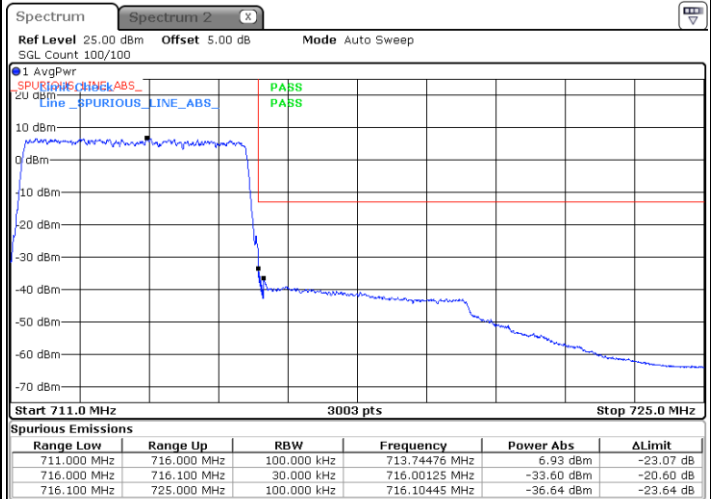
Date: 23.OCT.2023 21:55:48

Lowest Band Edge / Full RB



Date: 23.OCT.2023 21:51:43

Highest Band Edge / Full RB

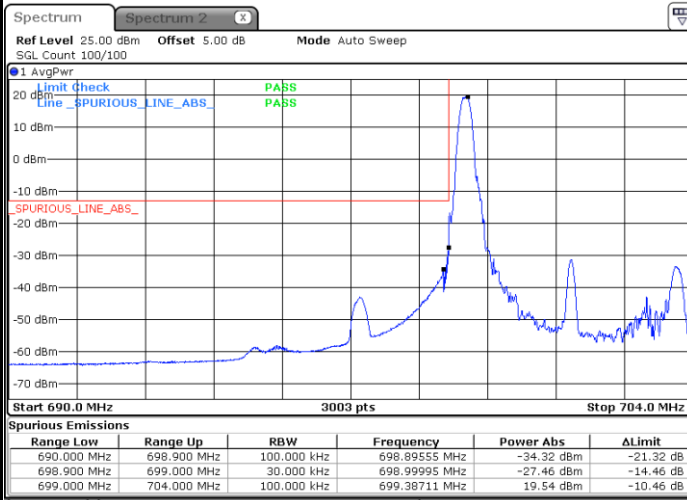


Date: 23.OCT.2023 22:05:16



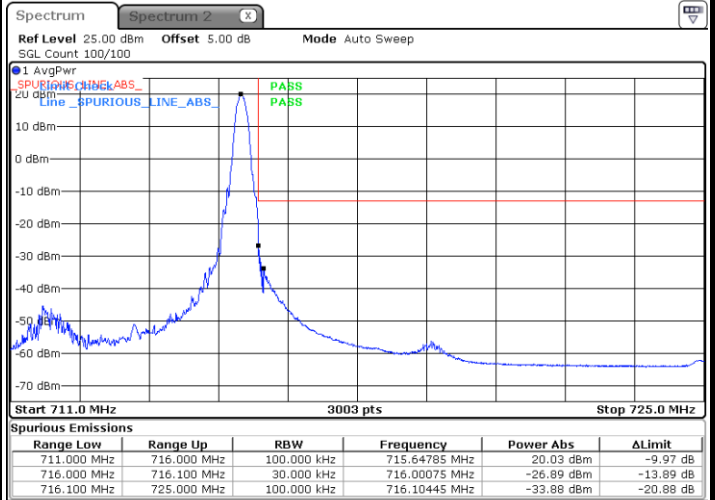
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



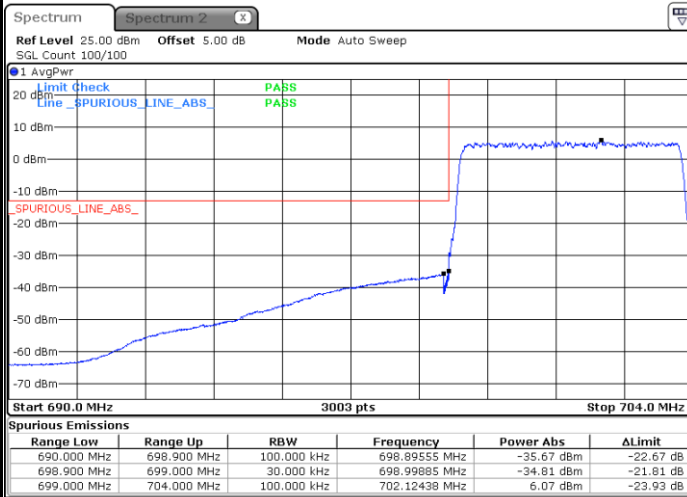
Date: 23.OCT.2023 21:42:26

Highest Band Edge / 1 RB



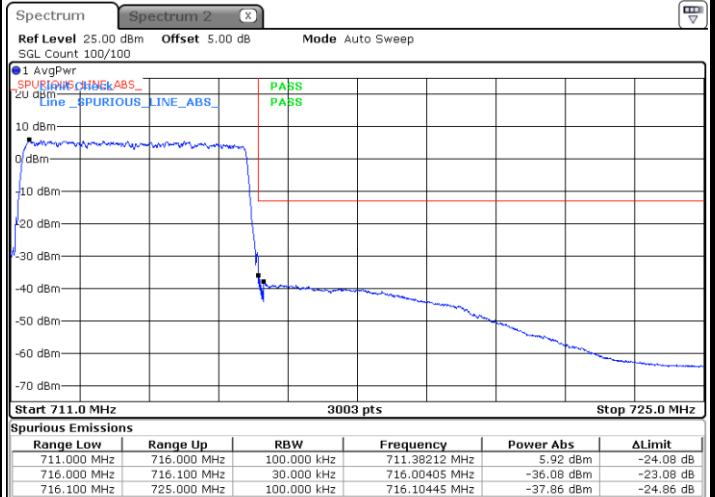
Date: 23.OCT.2023 21:57:10

Lowest Band Edge / Full RB



Date: 23.OCT.2023 21:50:23

Highest Band Edge / Full RB

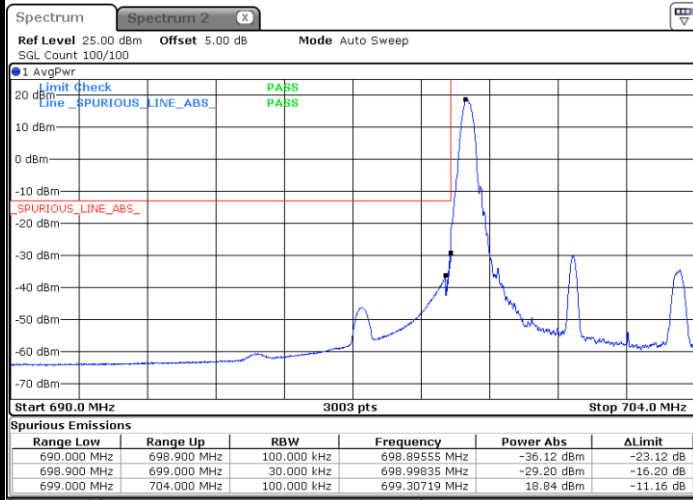


Date: 23.OCT.2023 22:03:55



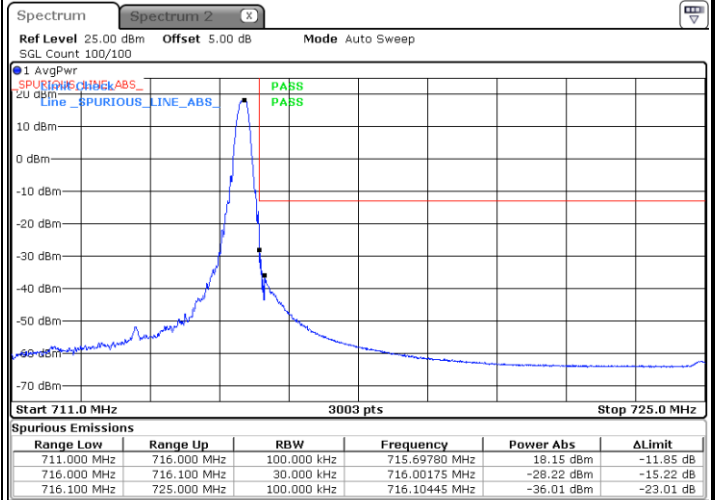
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



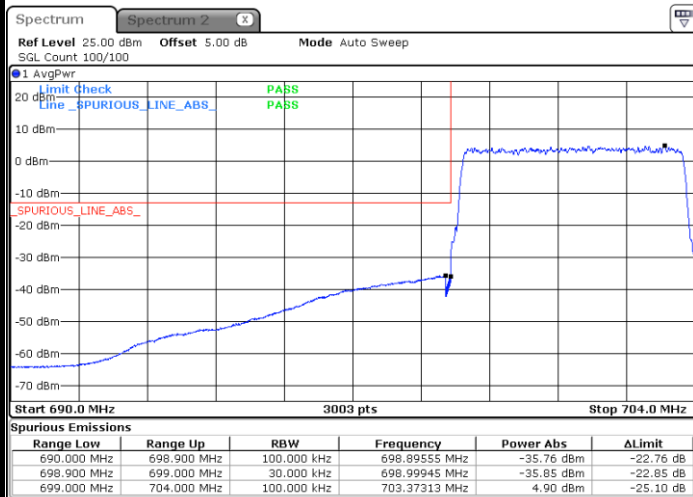
Date: 23.OCT.2023 21:43:46

Highest Band Edge / 1 RB



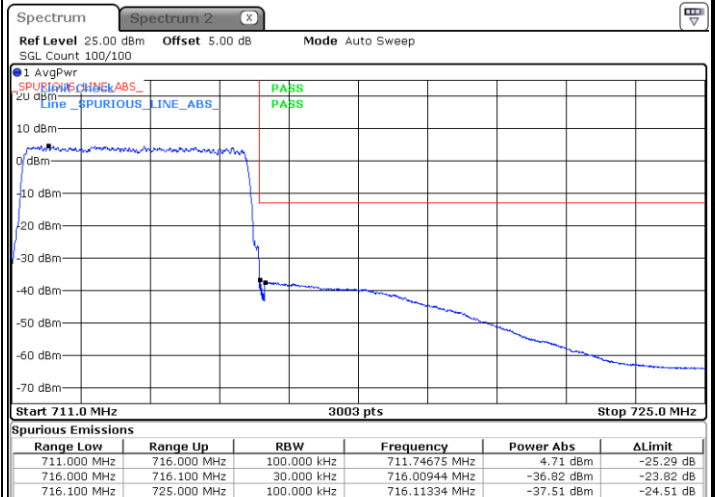
Date: 23.OCT.2023 21:58:30

Lowest Band Edge / Full RB



Date: 23.OCT.2023 21:49:02

Highest Band Edge / Full RB

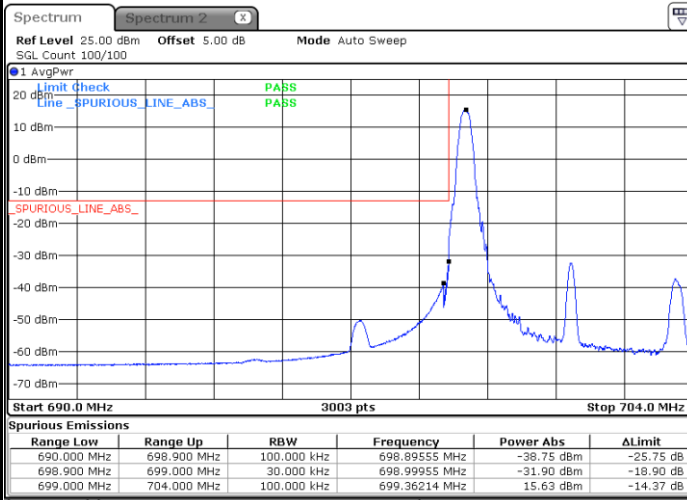


Date: 23.OCT.2023 22:02:34



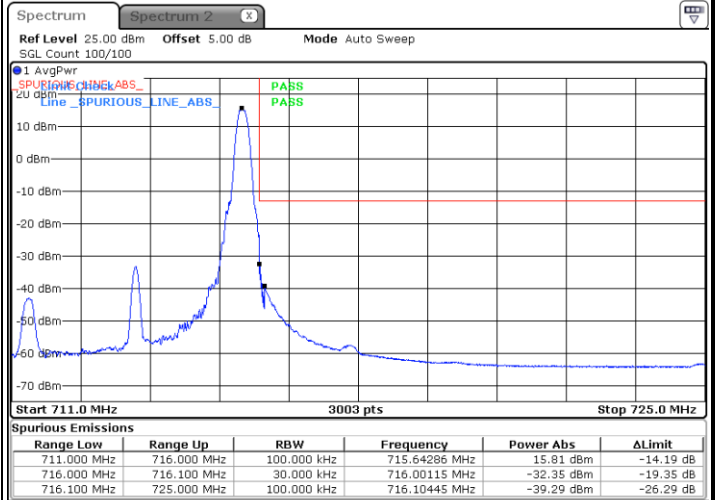
LTE Band 12 / 5MHz / 256QAM

Lowest Band Edge / 1RB



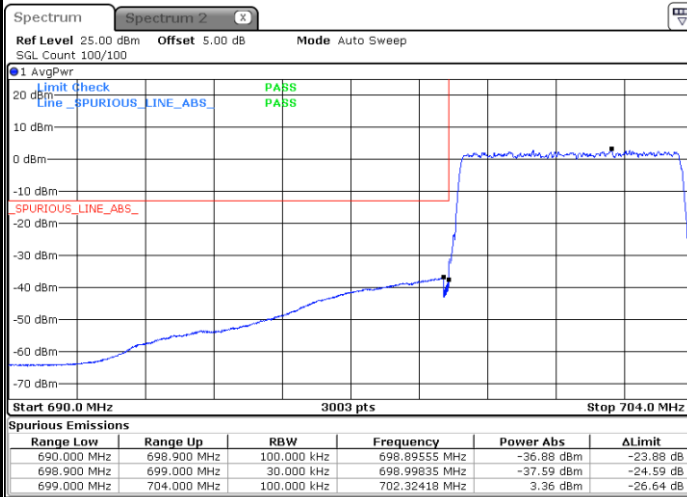
Date: 23.OCT.2023 21:45:07

Highest Band Edge / 1 RB



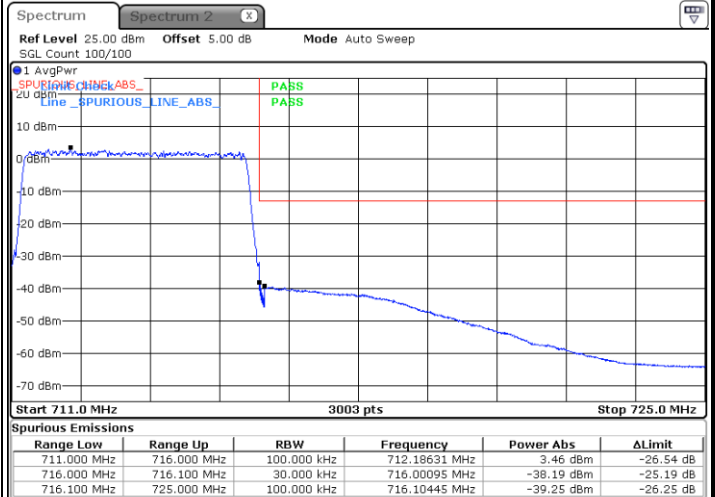
Date: 23.OCT.2023 21:59:51

Lowest Band Edge / Full RB



Date: 23.OCT.2023 21:47:42

Highest Band Edge / Full RB

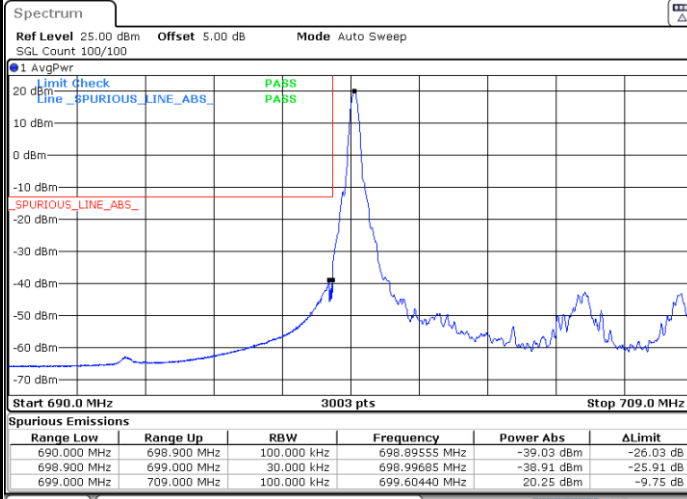


Date: 23.OCT.2023 22:01:14



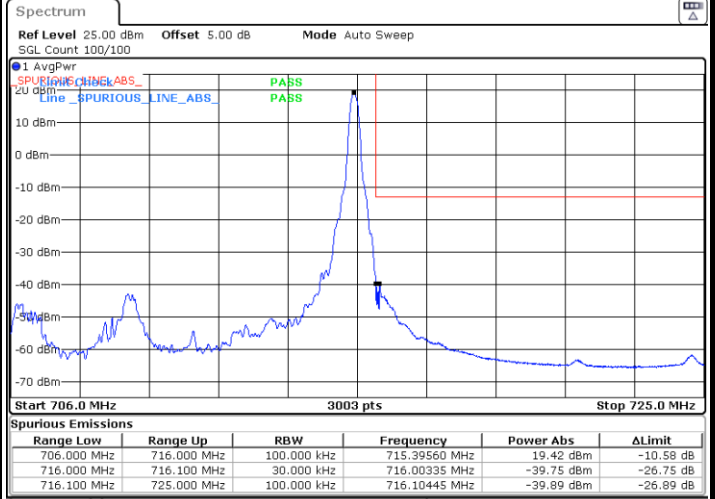
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



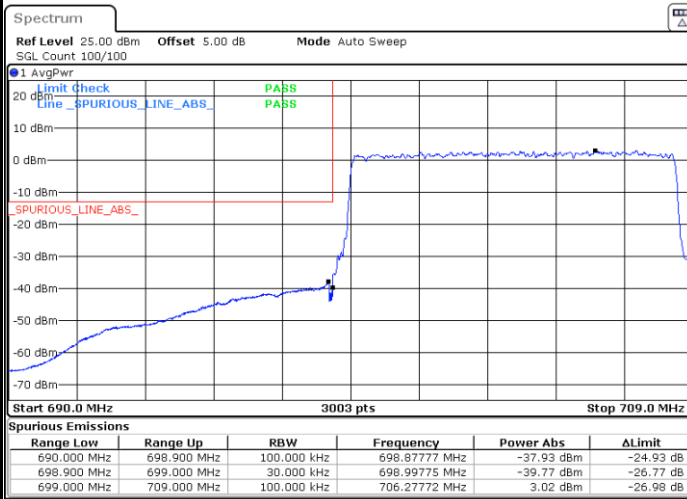
Date: 28.OCT.2023 01:29:01

Highest Band Edge / 1 RB



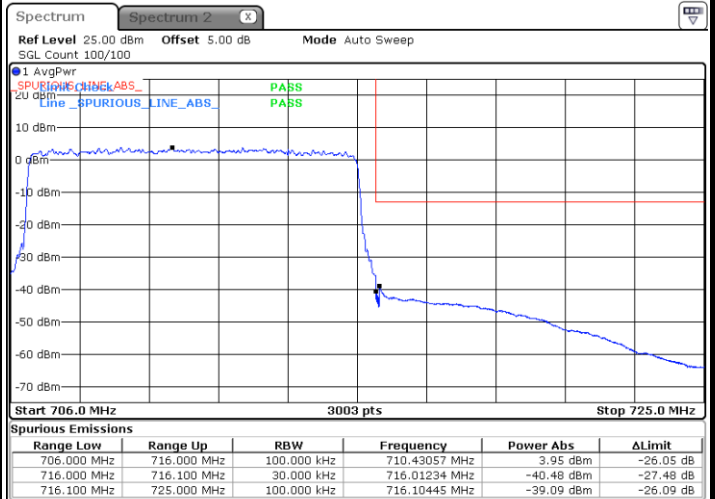
Date: 28.OCT.2023 01:48:34

Lowest Band Edge / Full RB



Date: 28.OCT.2023 01:43:12

Highest Band Edge / Full RB

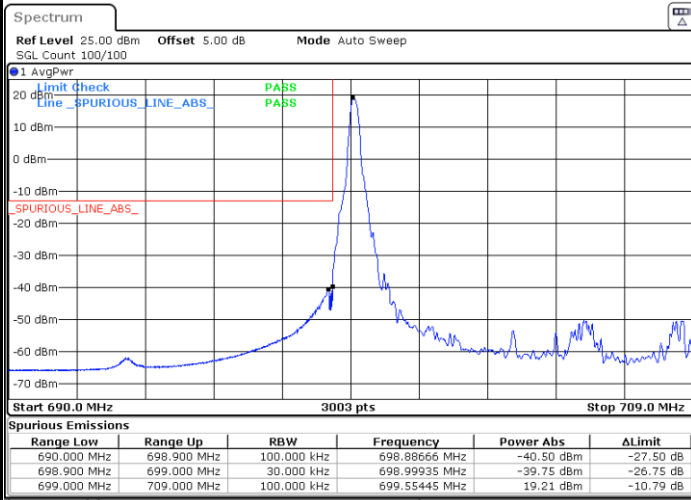


Date: 23.OCT.2023 21:15:51



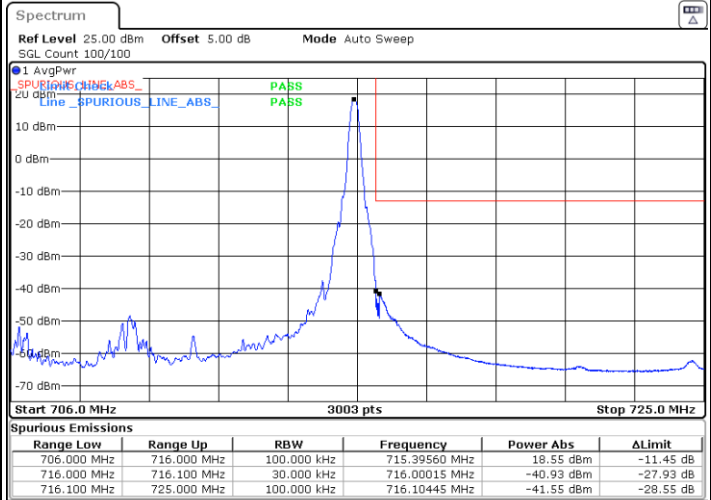
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



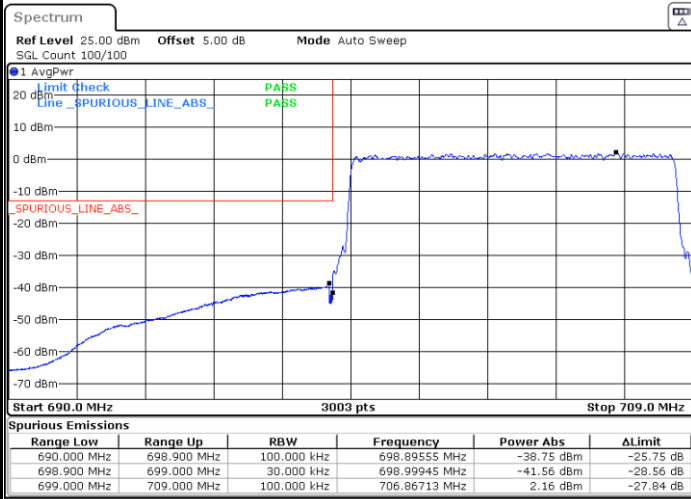
Date: 28.OCT.2023 01:31:03

Highest Band Edge / 1 RB



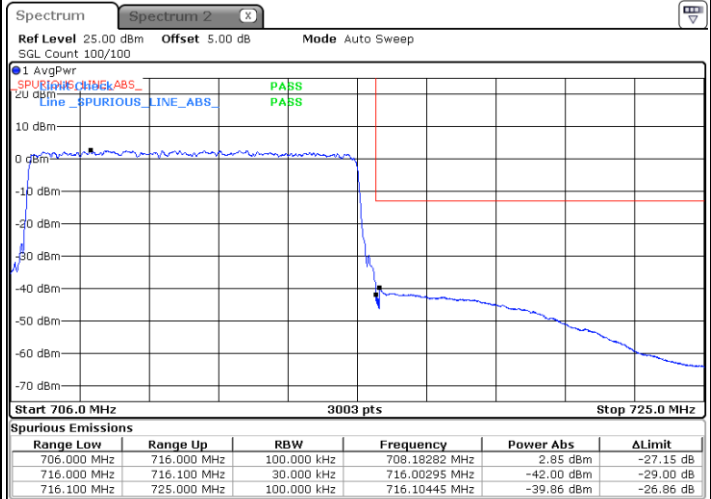
Date: 28.OCT.2023 01:50:34

Lowest Band Edge / Full RB



Date: 28.OCT.2023 01:41:12

Highest Band Edge / Full RB

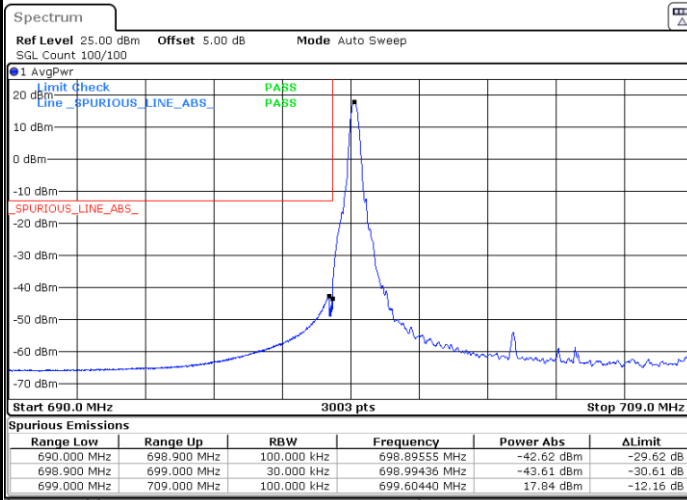


Date: 23.OCT.2023 21:16:51



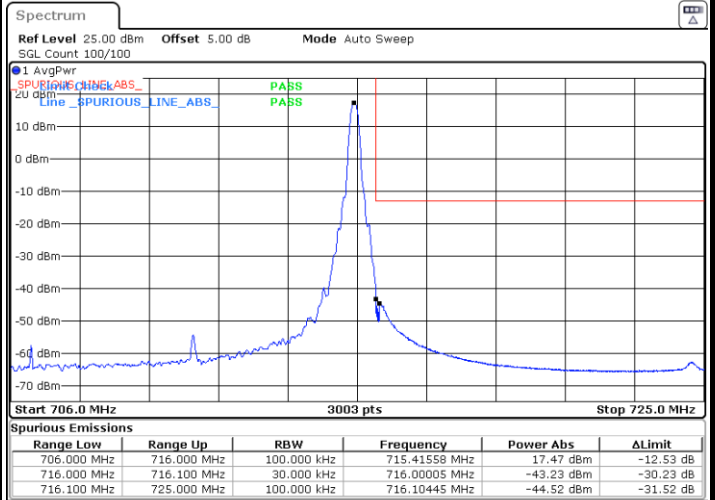
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



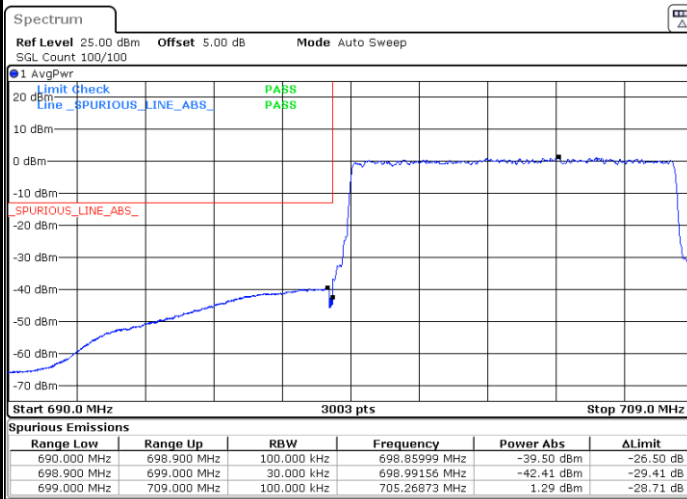
Date: 28.OCT.2023 01:33:04

Highest Band Edge / 1 RB



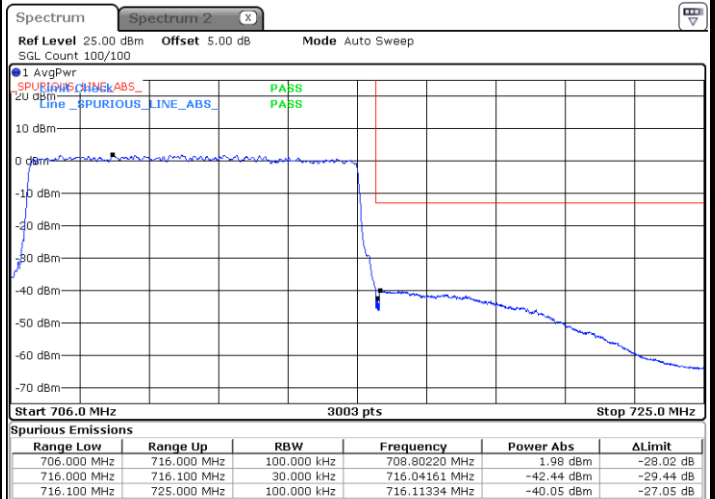
Date: 28.OCT.2023 01:52:34

Lowest Band Edge / Full RB



Date: 28.OCT.2023 01:39:12

Highest Band Edge / Full RB



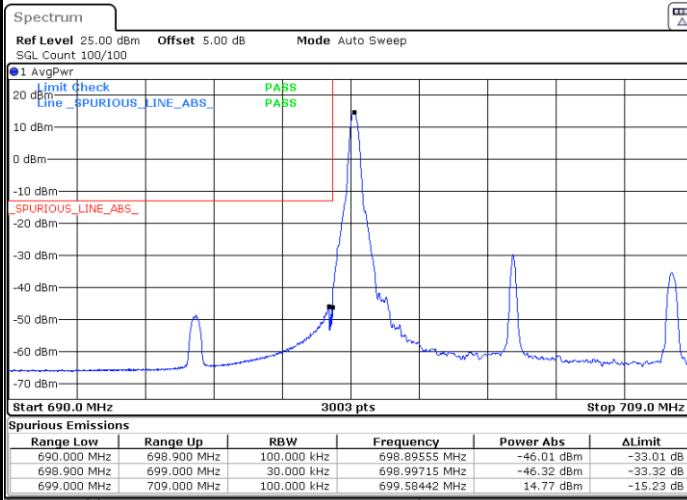
Date: 23.OCT.2023 21:27:27



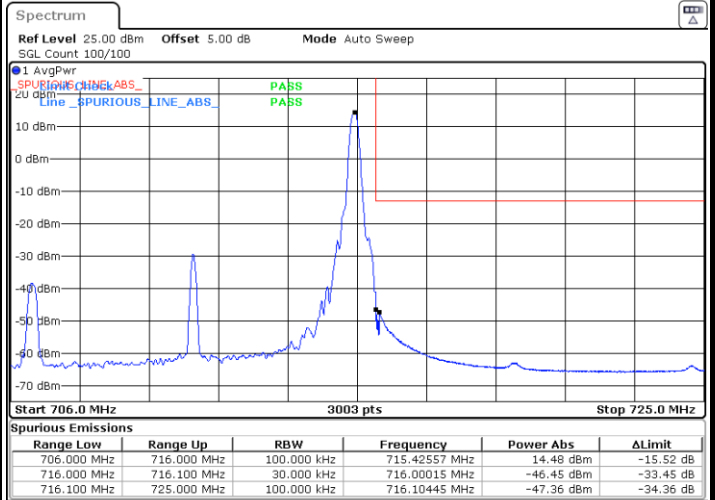


LTE Band 12 / 10MHz / 256QAM

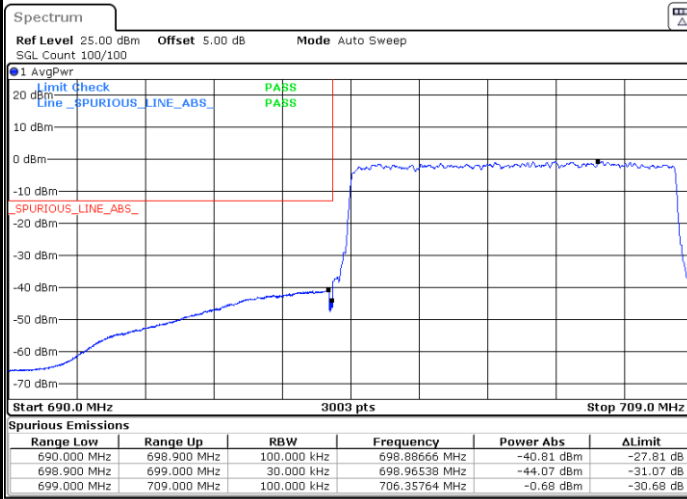
Lowest Band Edge / 1 RB



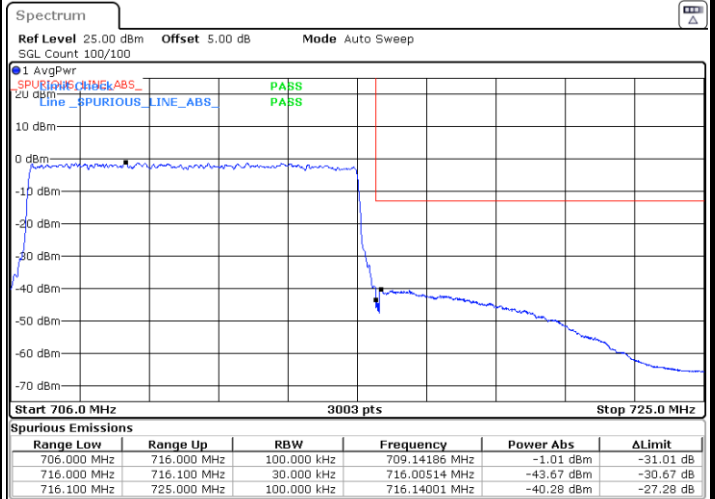
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

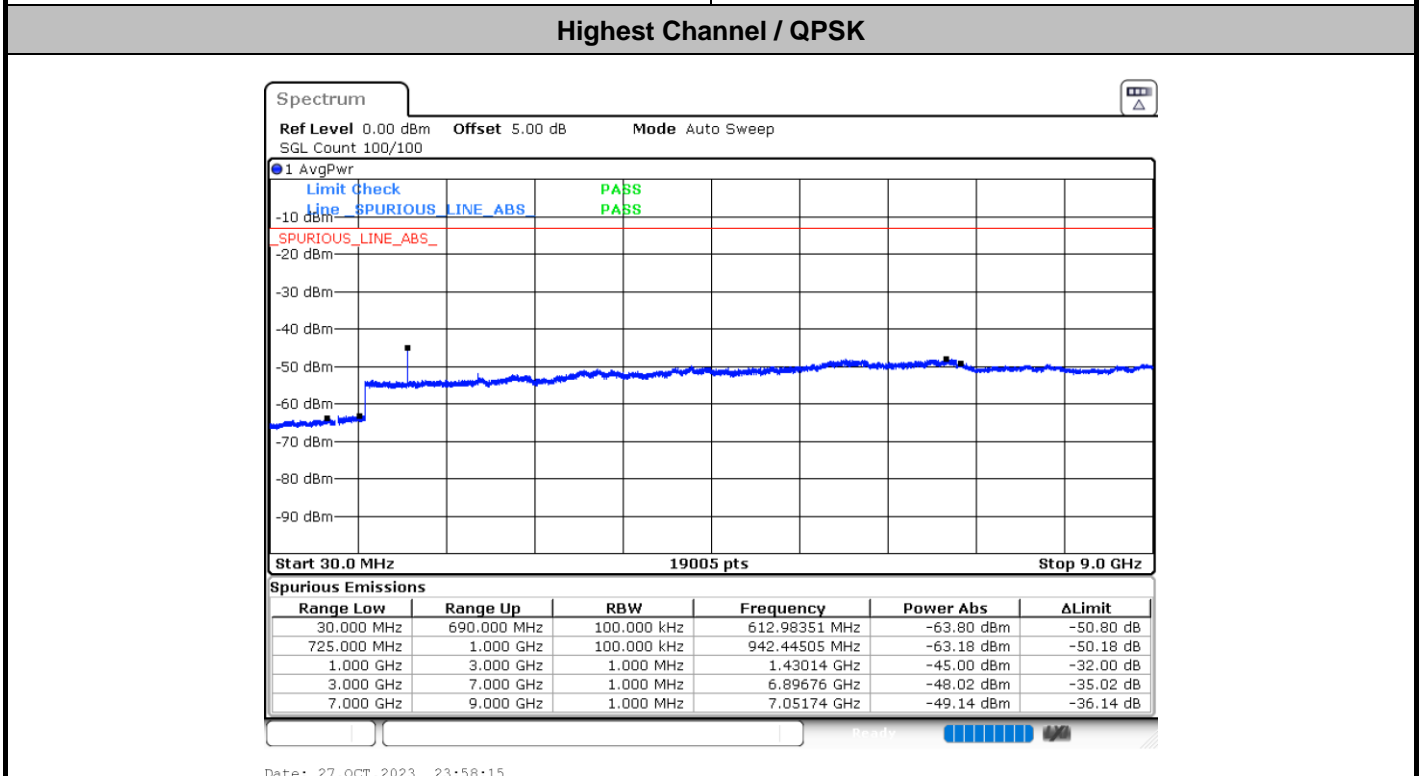
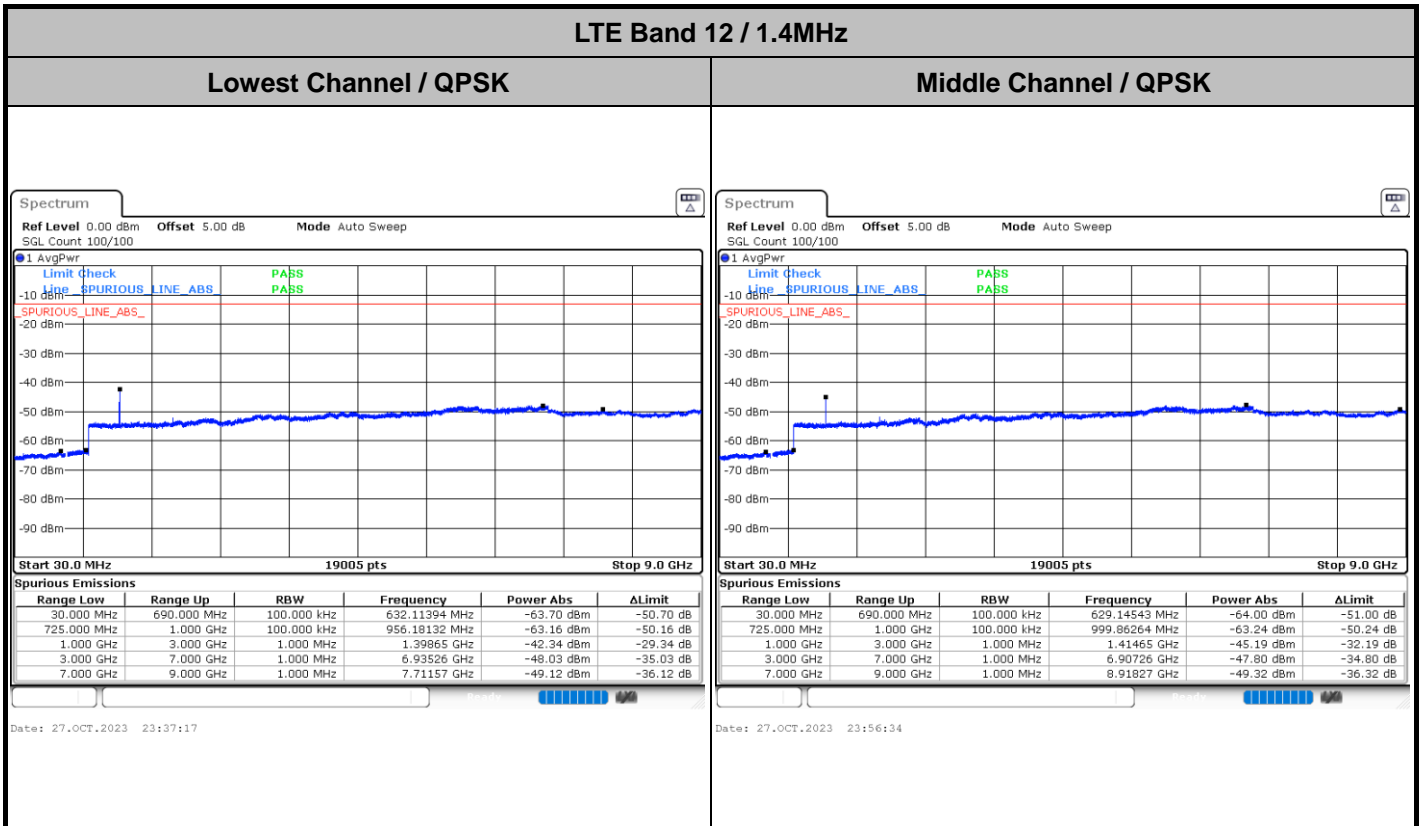


Highest Band Edge / Full RB





# Conducted Spurious Emission

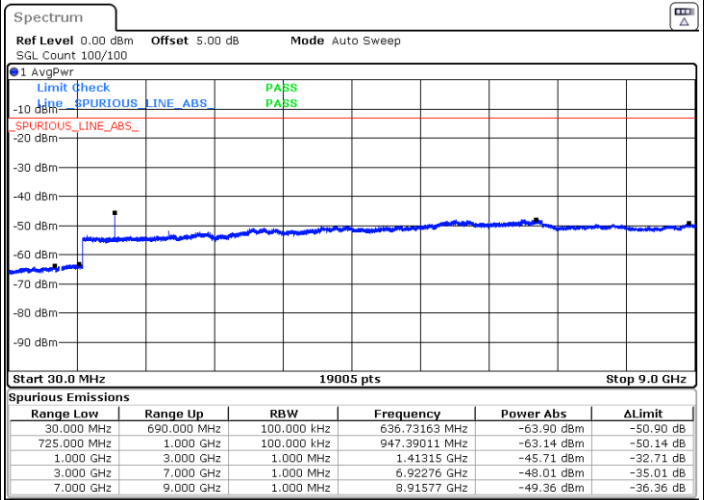
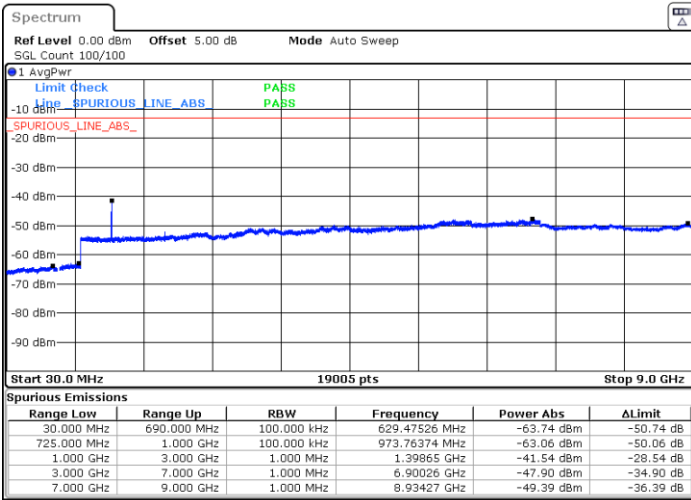




LTE Band 12 / 3MHz

Lowest Channel / QPSK

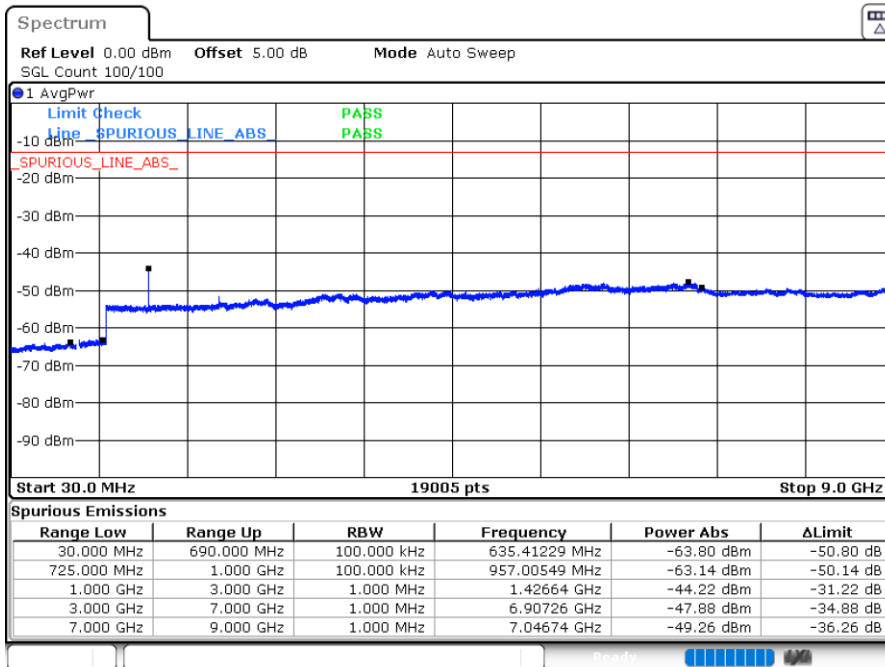
Middle Channel / QPSK



Date: 28.OCT.2023 00:16:07

Date: 28.OCT.2023 00:35:27

Highest Channel / QPSK



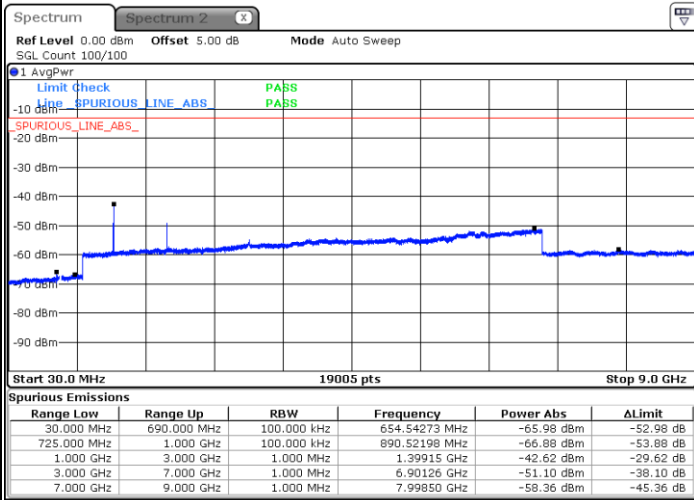
Date: 28.OCT.2023 00:37:07



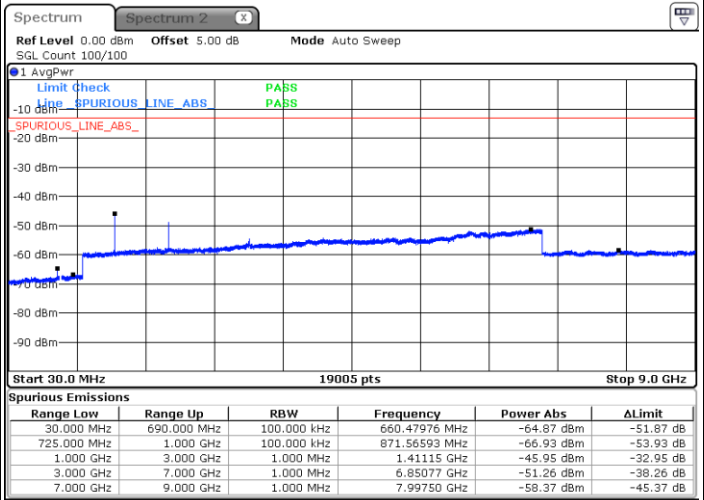
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

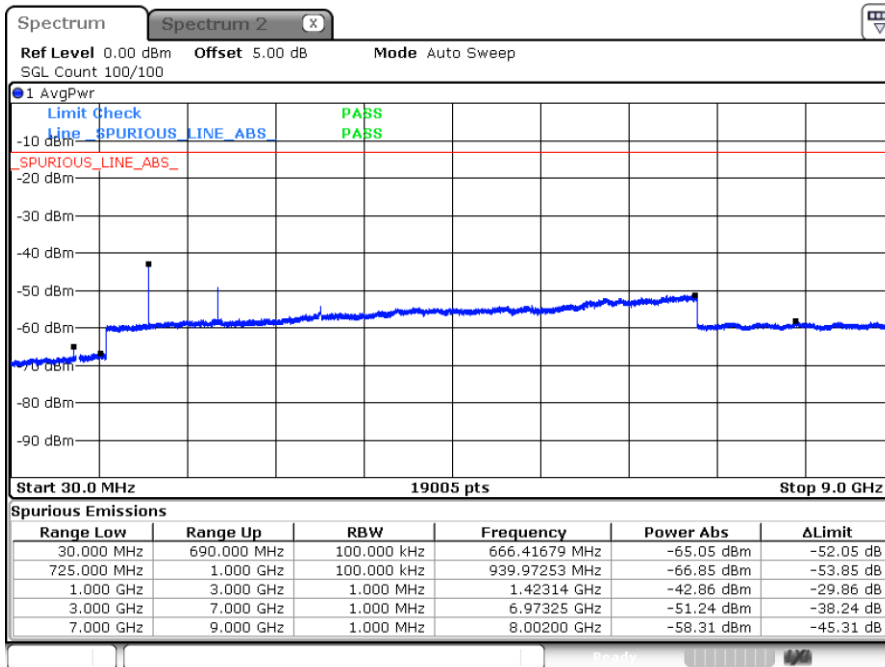


Date: 23.OCT.2023 21:39:45



Date: 23.OCT.2023 21:53:06

Highest Channel / QPSK



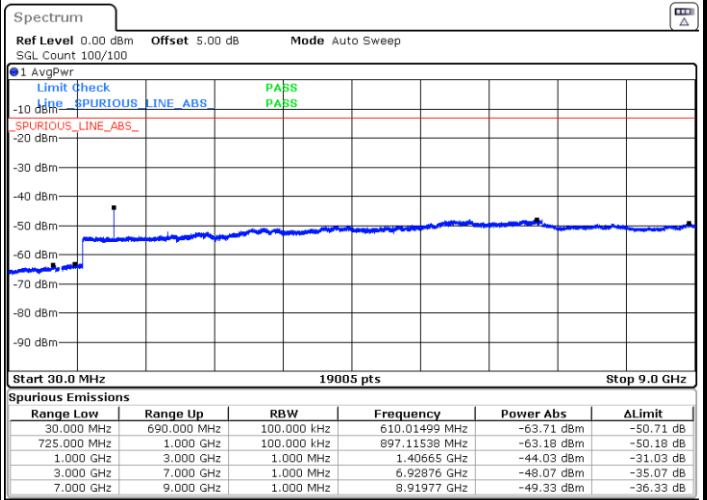
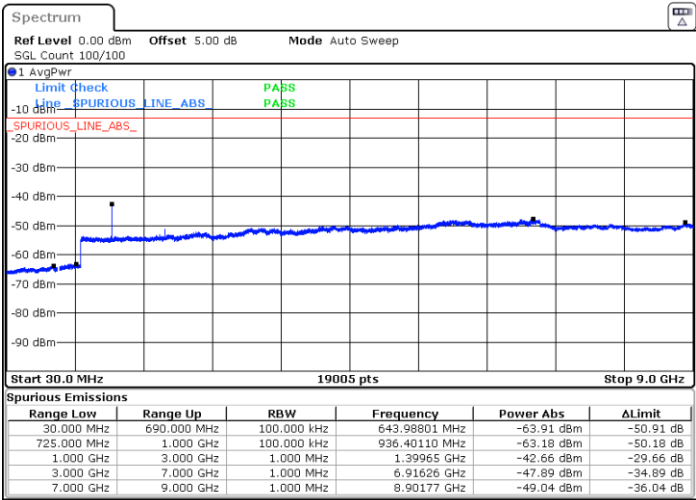
Date: 23.OCT.2023 21:54:28



LTE Band 12 / 10MHz

Lowest Channel / QPSK

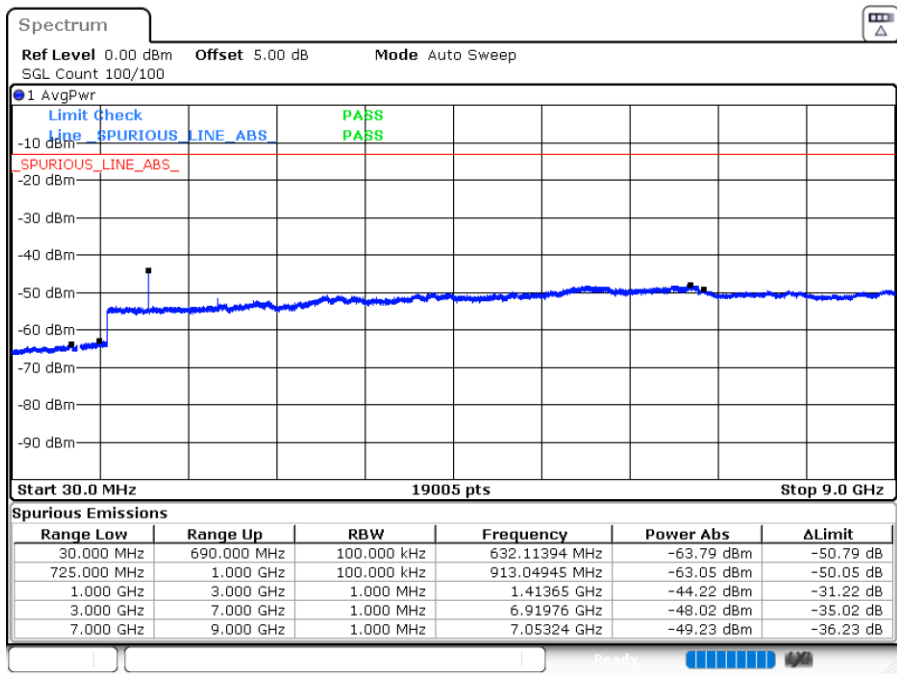
Middle Channel / QPSK



Date: 28.OCT.2023 01:27:00

Date: 28.OCT.2023 01:44:53

Highest Channel / QPSK



Date: 28.OCT.2023 01:46:33



### Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0037	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0024	
-10	Normal Voltage	0.0059	
-20	Normal Voltage	0.0027	
-30	Normal Voltage	0.0052	
20	Maximum Voltage	0.0045	
20	Normal Voltage	0.0016	
20	Battery End Point	0.0013	

**Note:**

1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.5 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.