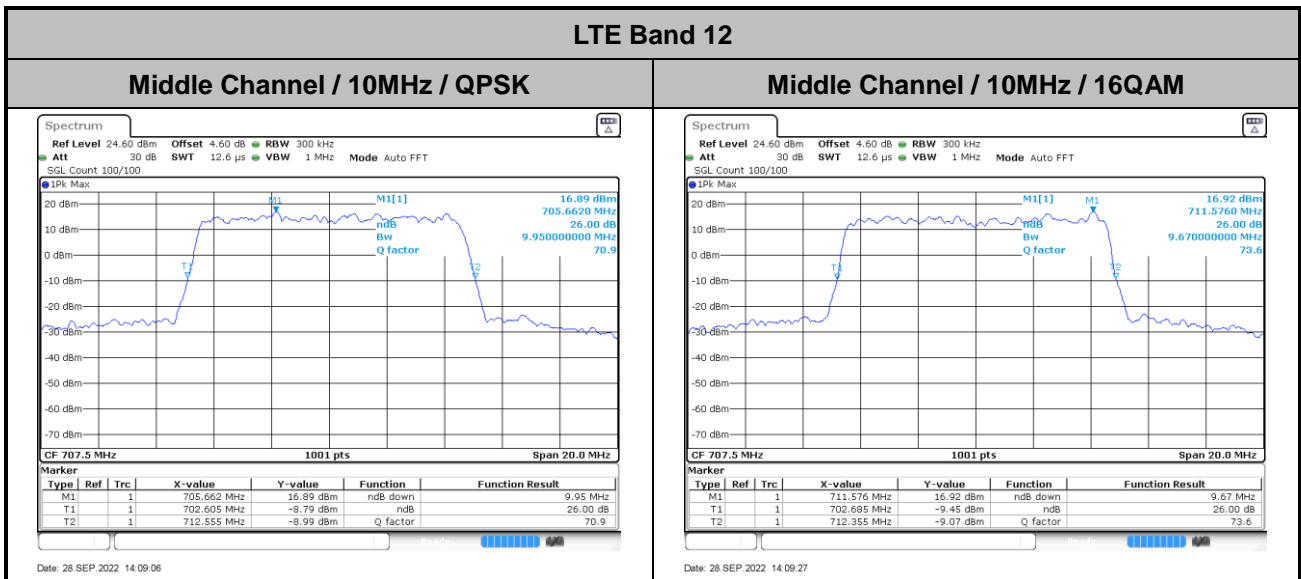




## 26dB Bandwidth

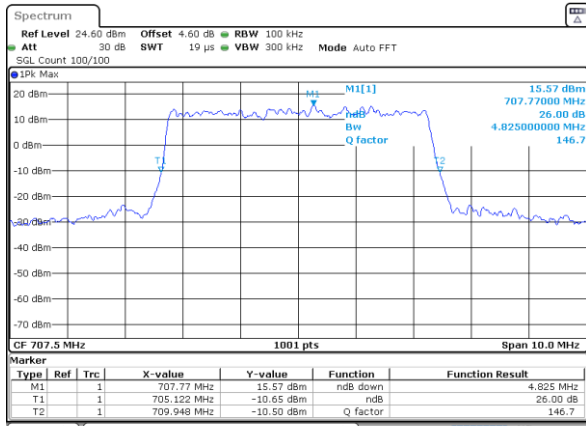
Mode	LTE Band 12 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.95	9.67
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.83	4.90
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.99	2.98
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.28	1.28





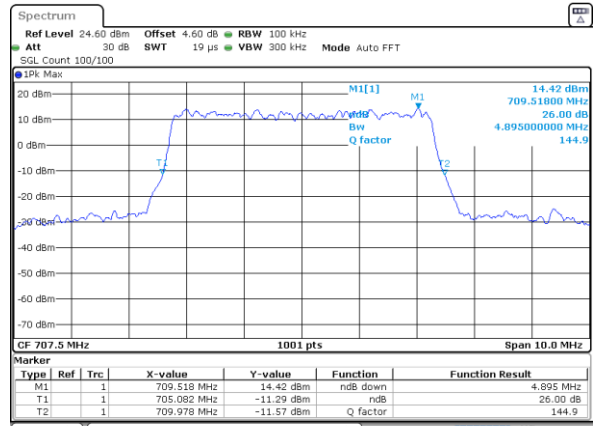
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 28 SEP 2022 13:21:50

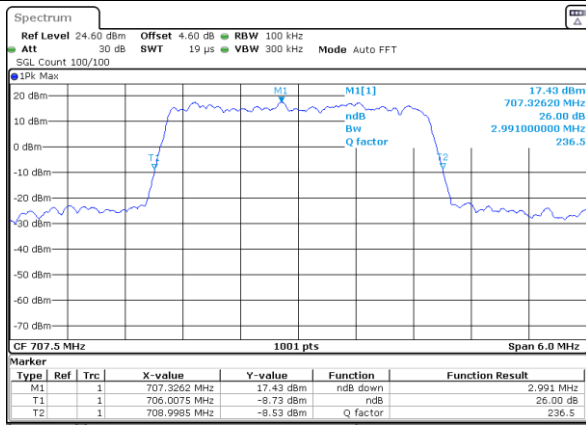
Middle Channel / 5MHz / 16QAM



Date: 28 SEP 2022 13:22:11

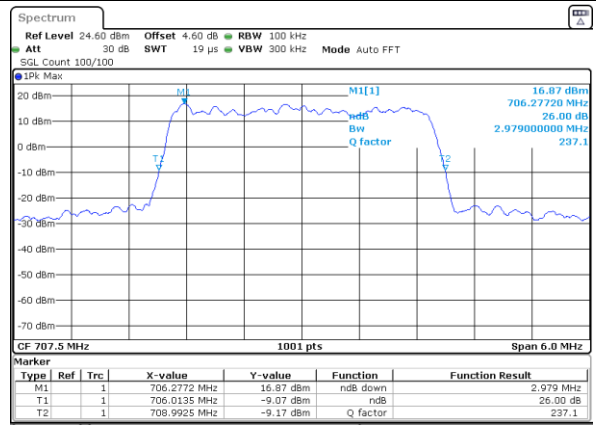
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 28 SEP 2022 12:51:03

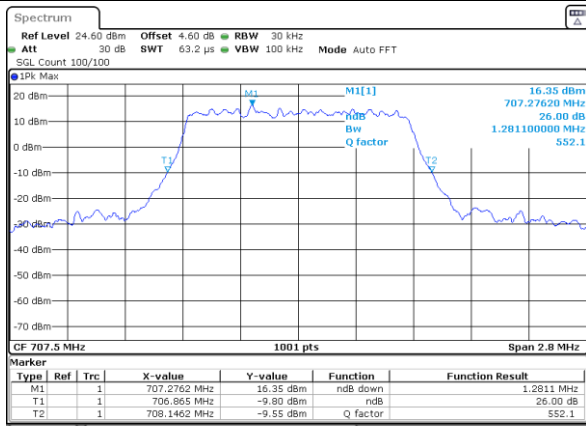
Middle Channel / 3MHz / 16QAM



Date: 28 SEP 2022 12:52:06

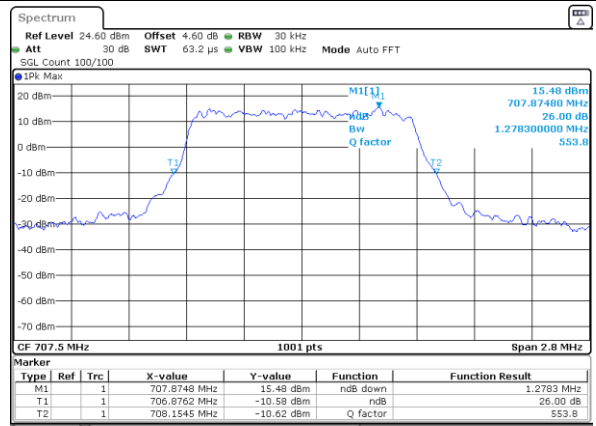
LTE Band 12

Middle Channel / 1.4MHz / QPSK



Date: 28 SEP 2022 12:20:36

Middle Channel / 1.4MHz / 16QAM

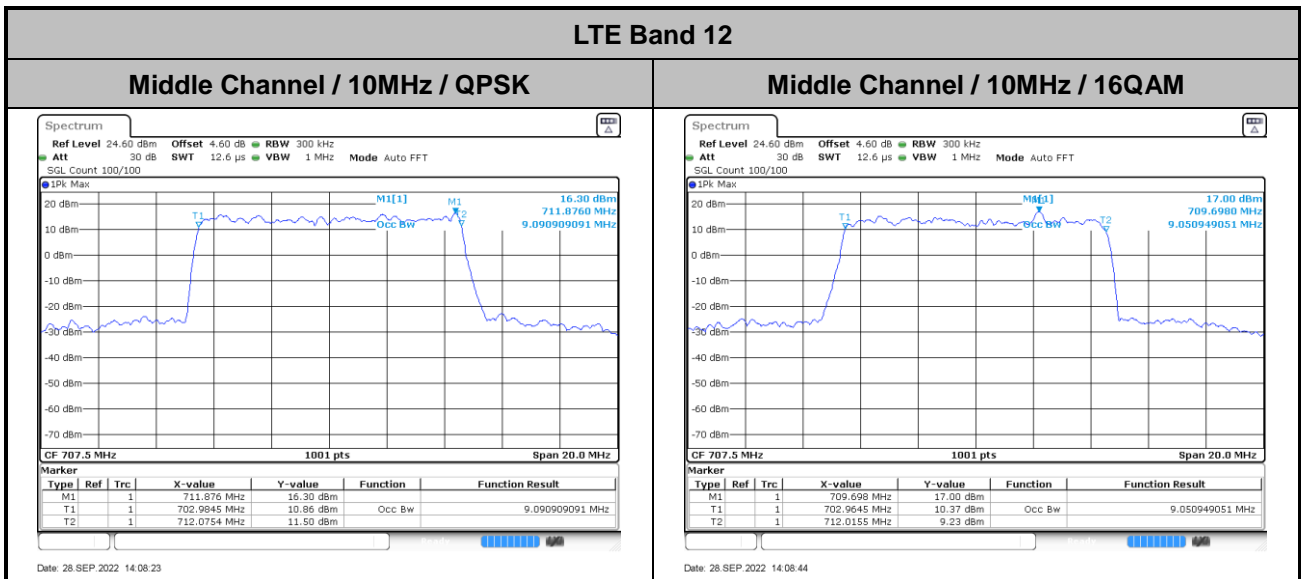


Date: 28 SEP 2022 12:20:58



# Occupied Bandwidth

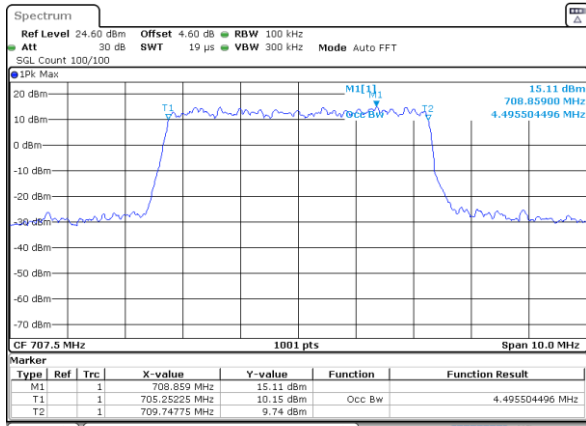
Mode	LTE Band 12 : 99%OBW(MHz)	
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.09	9.05
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.50	4.48
<b>BW</b>	<b>3MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	2.72	2.72
<b>BW</b>	<b>1.4MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	1.10	1.09





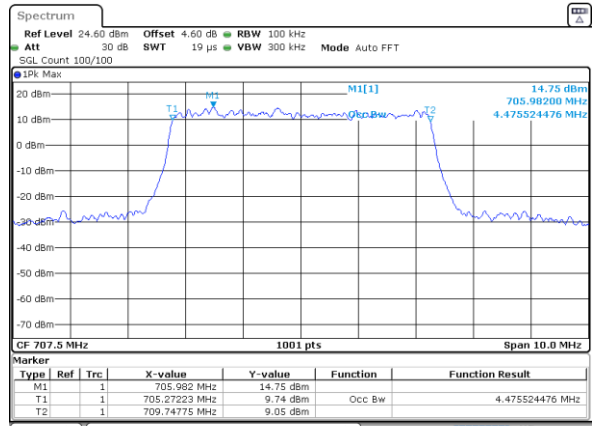
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 28 SEP 2022 13:21:29

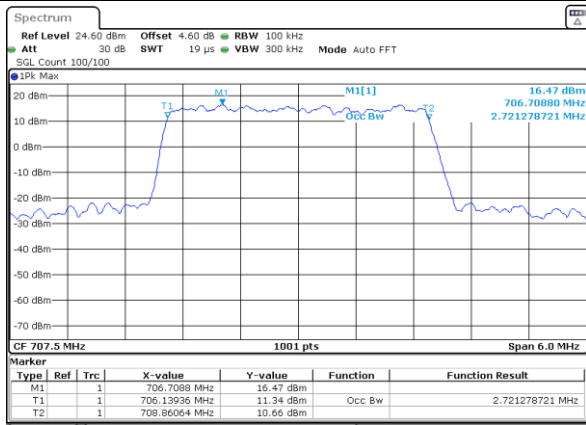
Middle Channel / 5MHz / 16QAM



Date: 28 SEP 2022 13:22:32

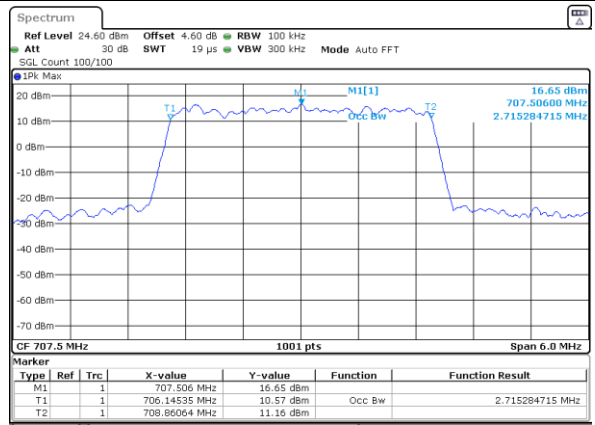
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 28 SEP 2022 12:51:24

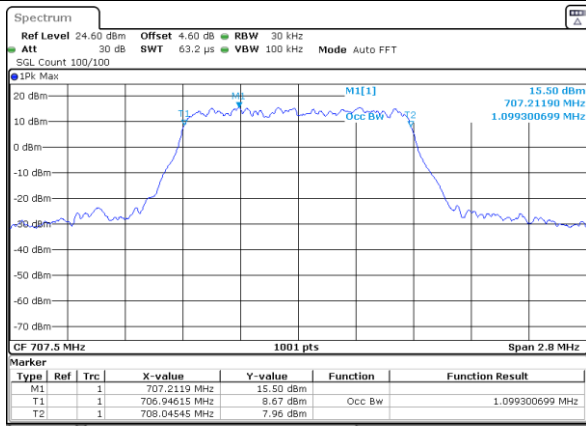
Middle Channel / 3MHz / 16QAM



Date: 28 SEP 2022 12:51:45

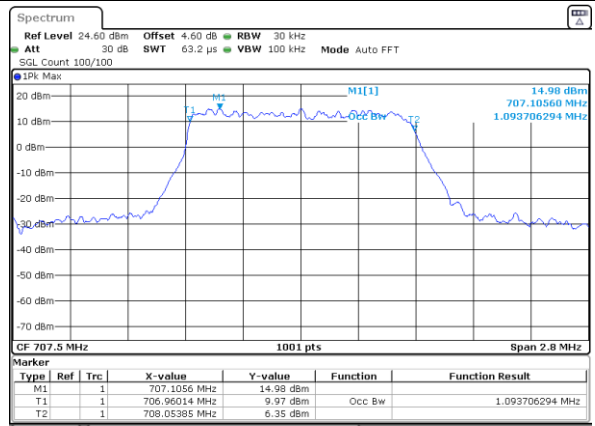
LTE Band 12

Middle Channel / 1.4MHz / QPSK



Date: 28 SEP 2022 14:09:49

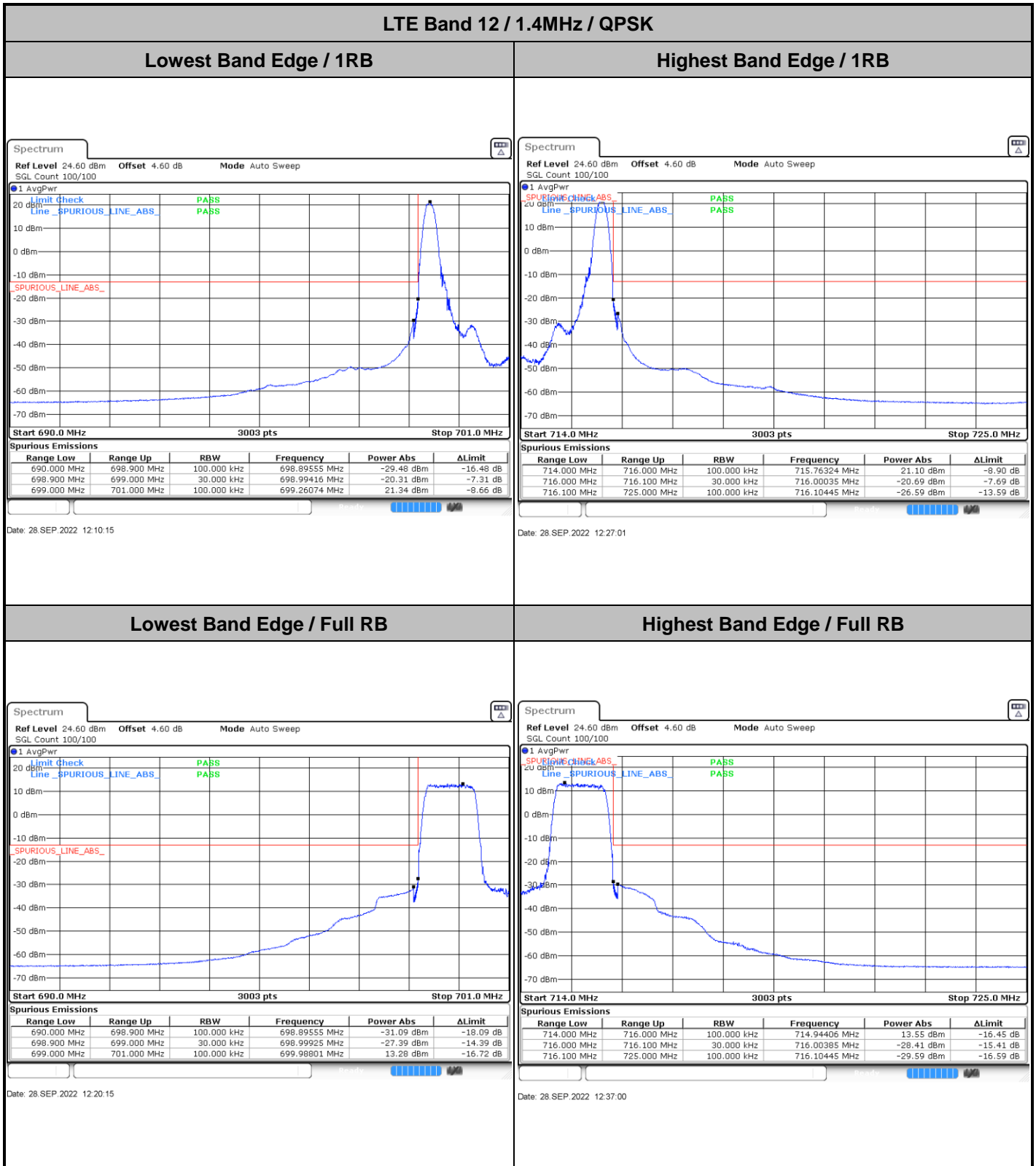
Middle Channel / 1.4MHz / 16QAM



Date: 28 SEP 2022 12:21:19



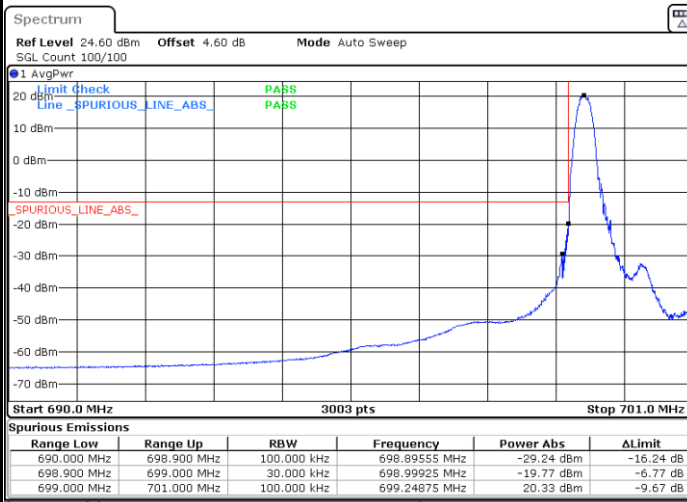
# Conducted Band Edge





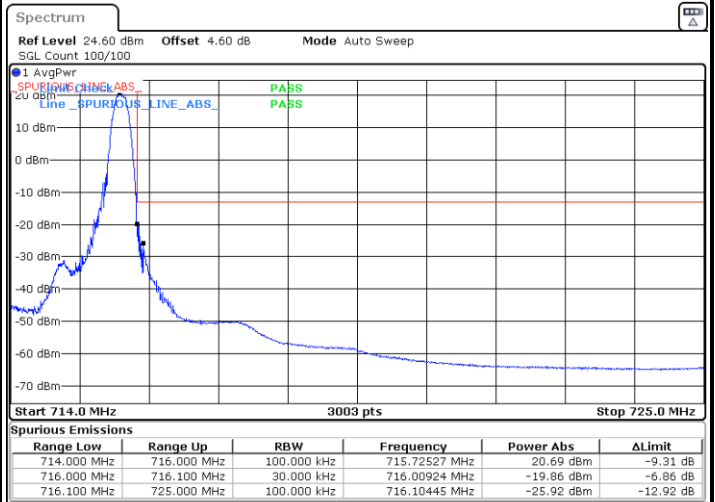
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



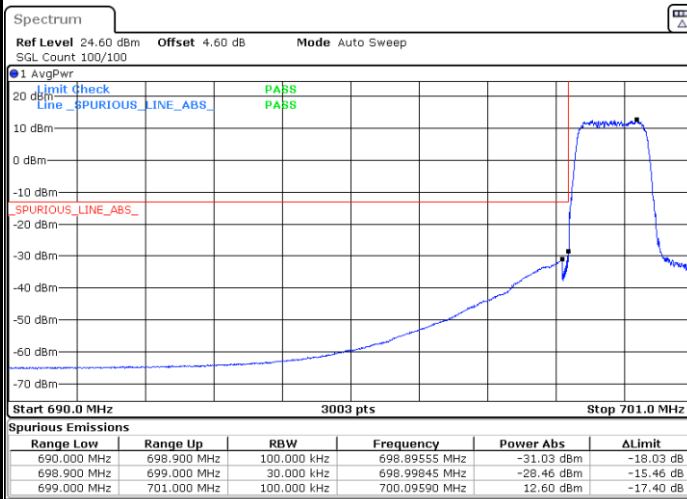
Date: 28.SEP.2022 12:12:15

Highest Band Edge / 1 RB



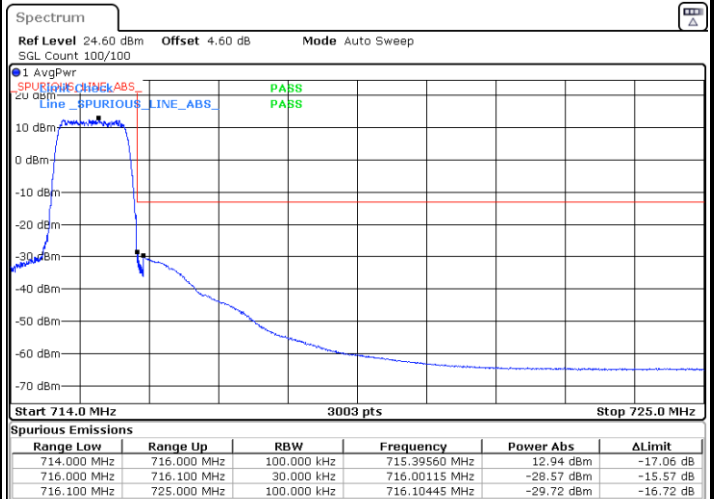
Date: 28.SEP.2022 12:29:01

Lowest Band Edge / Full RB



Date: 28.SEP.2022 12:18:15

Highest Band Edge / Full RB

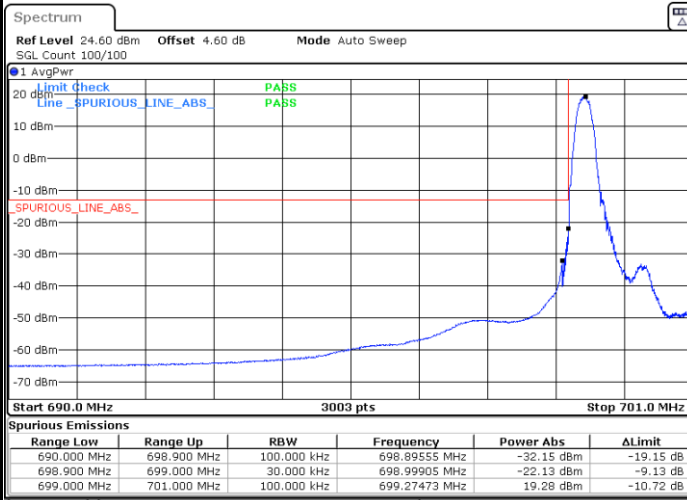


Date: 28.SEP.2022 12:35:00



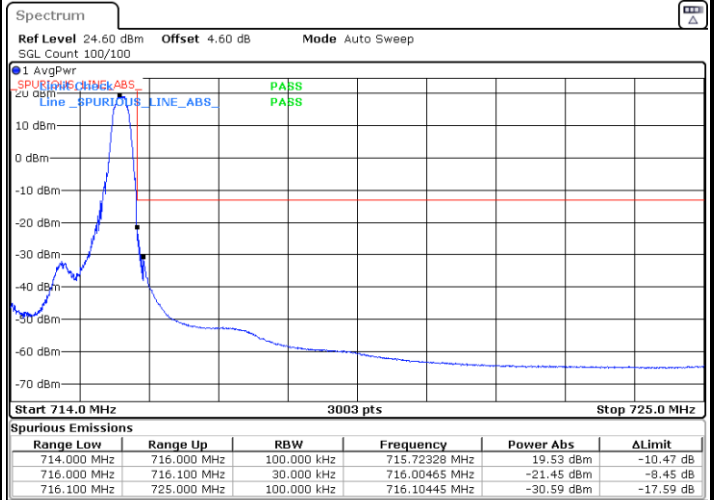
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



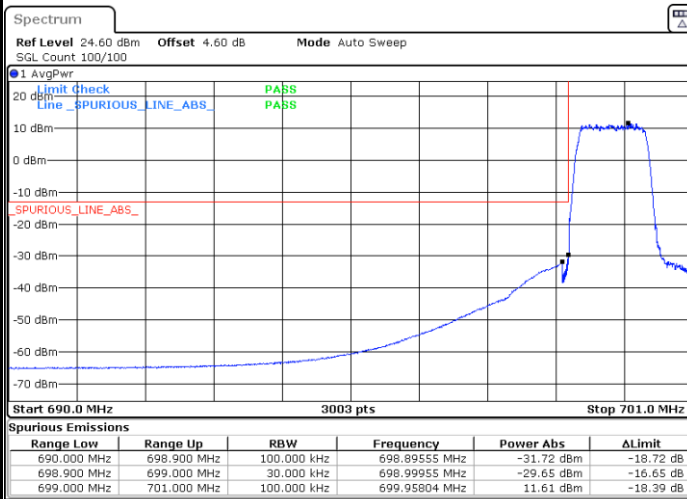
Date: 28.SEP.2022 12:14:15

Highest Band Edge / 1 RB



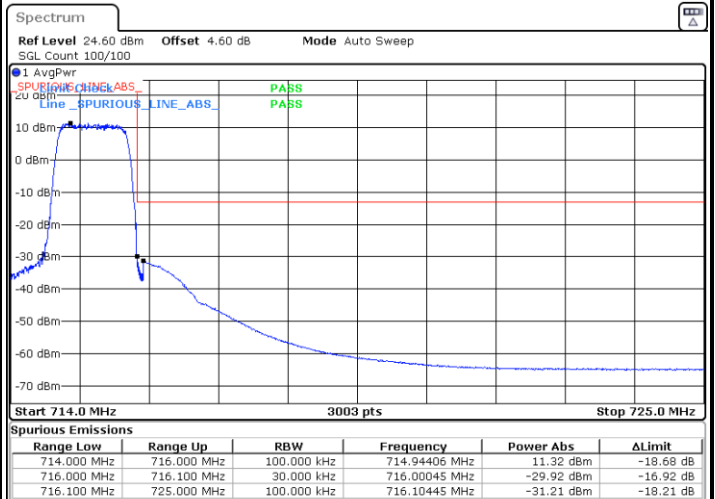
Date: 28.SEP.2022 12:31:01

Lowest Band Edge / Full RB



Date: 28.SEP.2022 12:16:15

Highest Band Edge / Full RB



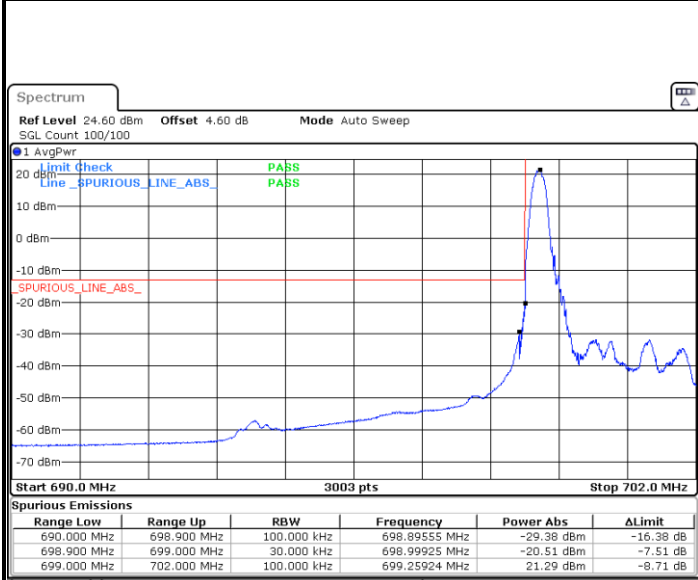
Date: 28.SEP.2022 12:33:01





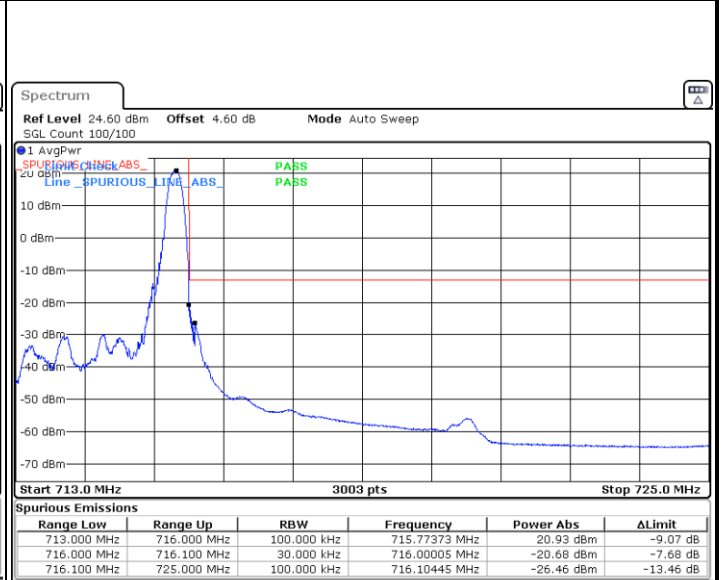
**LTE Band 12 / 3MHz / QPSK**

**Lowest Band Edge / 1RB**



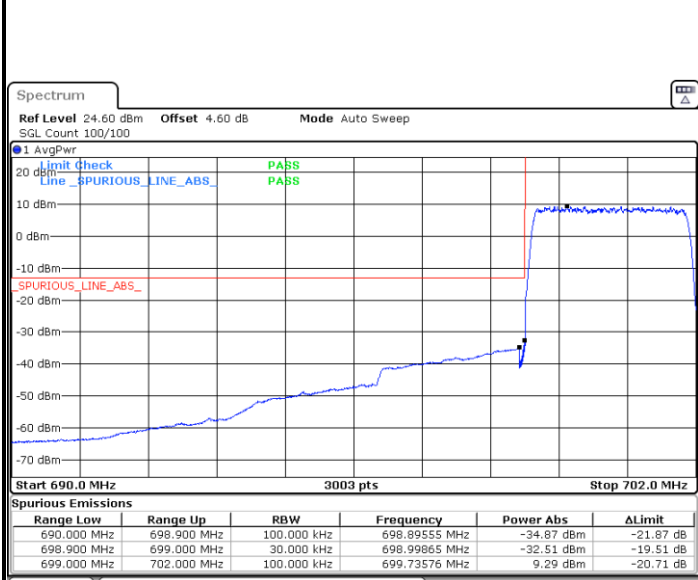
Date: 28.SEP.2022 12:40:41

**Highest Band Edge / 1 RB**



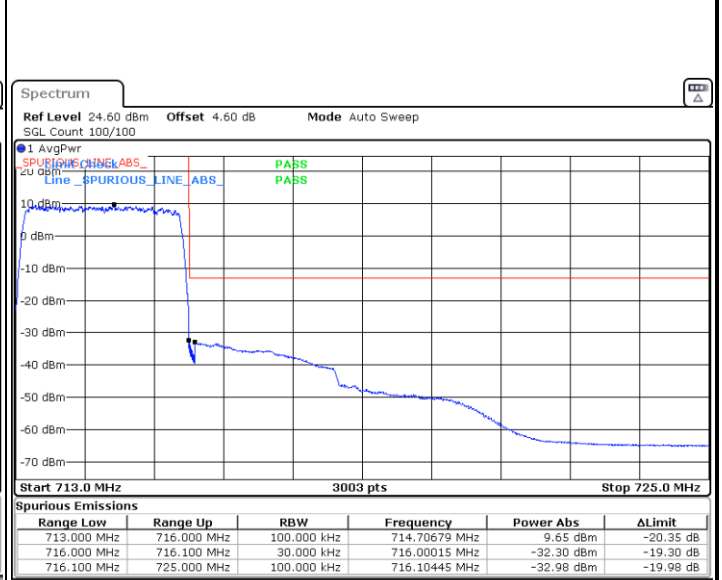
Date: 28.SEP.2022 12:57:27

**Lowest Band Edge / Full RB**



Date: 28.SEP.2022 12:50:41

**Highest Band Edge / Full RB**

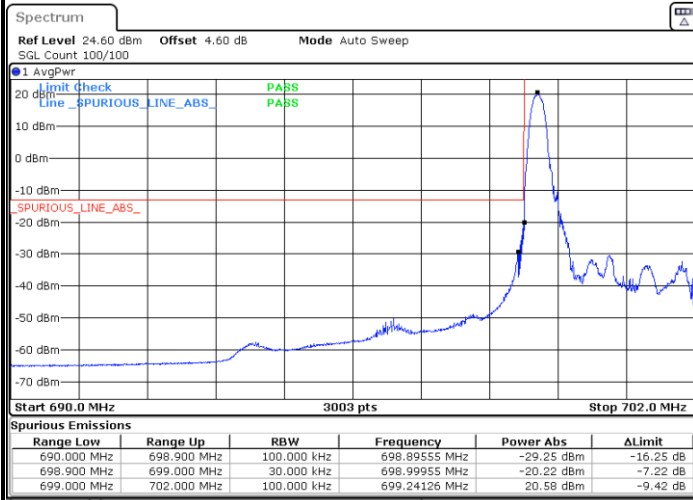


Date: 28.SEP.2022 13:07:27



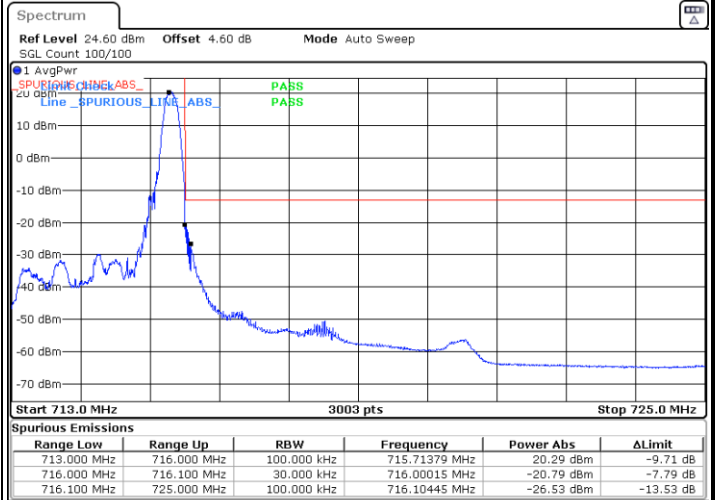
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



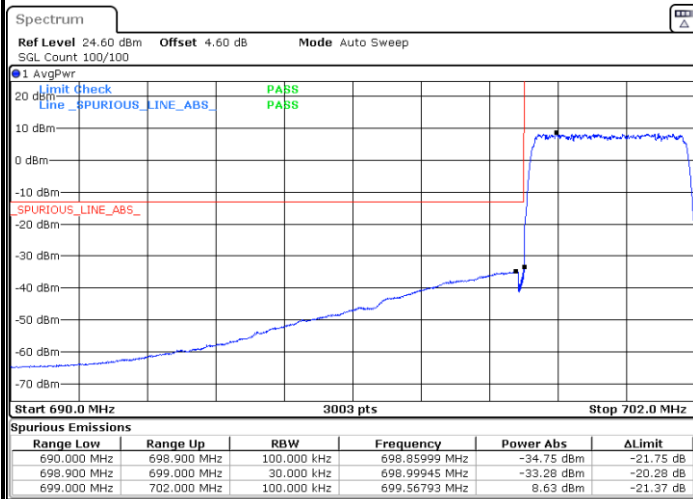
Date: 28.SEP.2022 12:42:41

Highest Band Edge / 1 RB



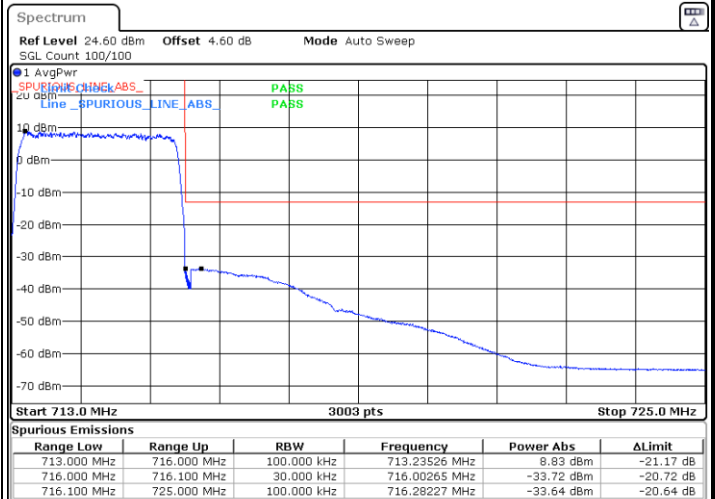
Date: 28.SEP.2022 12:59:27

Lowest Band Edge / Full RB



Date: 28.SEP.2022 12:48:41

Highest Band Edge / Full RB

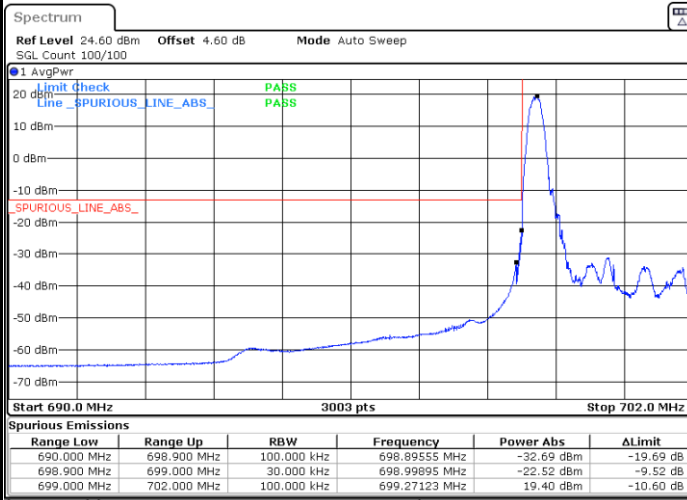


Date: 28.SEP.2022 13:05:27



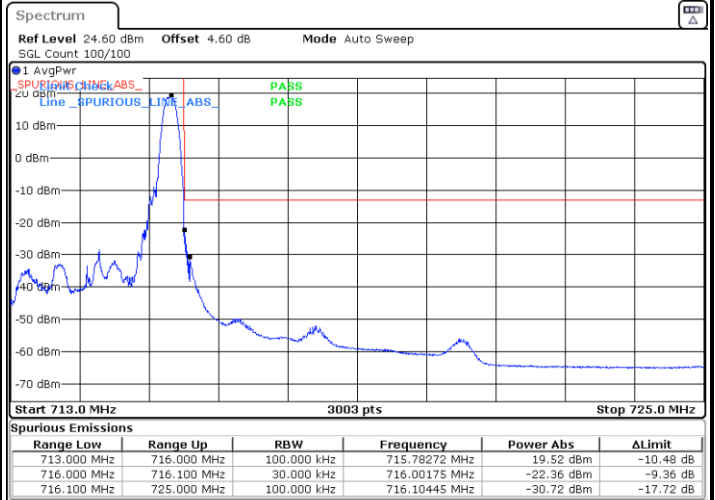
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



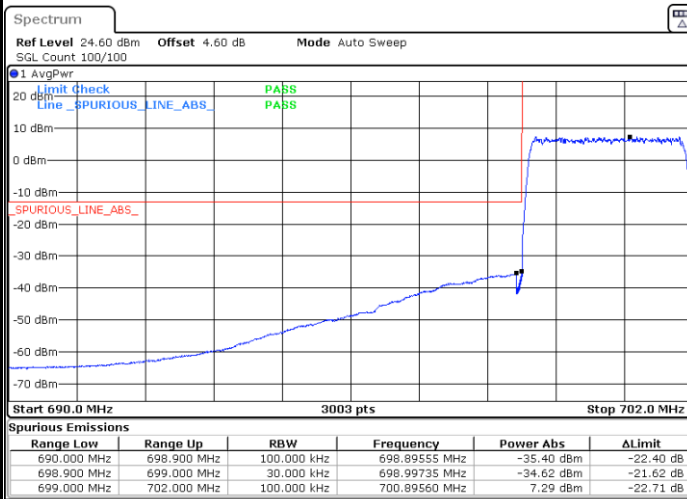
Date: 28.SEP.2022 12:44:41

Highest Band Edge / 1 RB



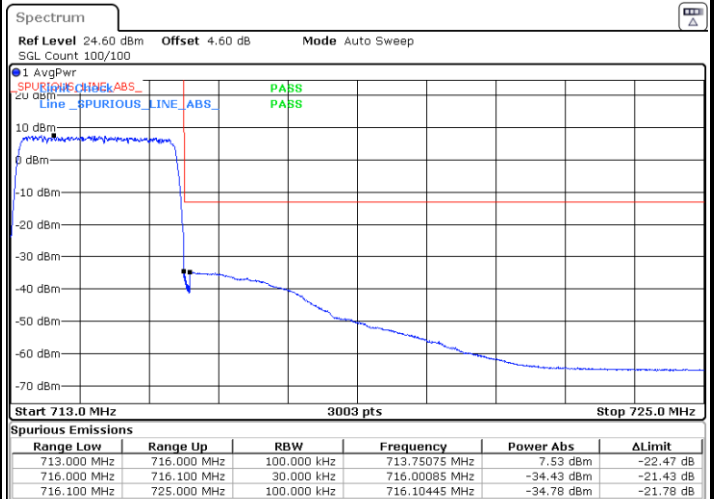
Date: 28.SEP.2022 13:01:27

Lowest Band Edge / Full RB



Date: 28.SEP.2022 12:46:41

Highest Band Edge / Full RB

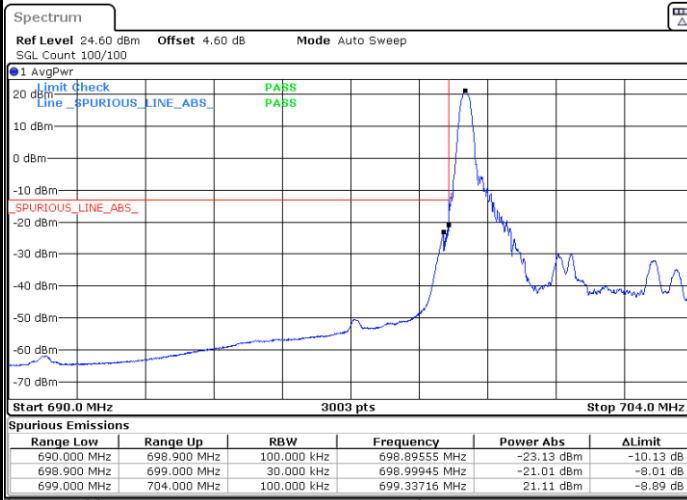


Date: 28.SEP.2022 14:19:28



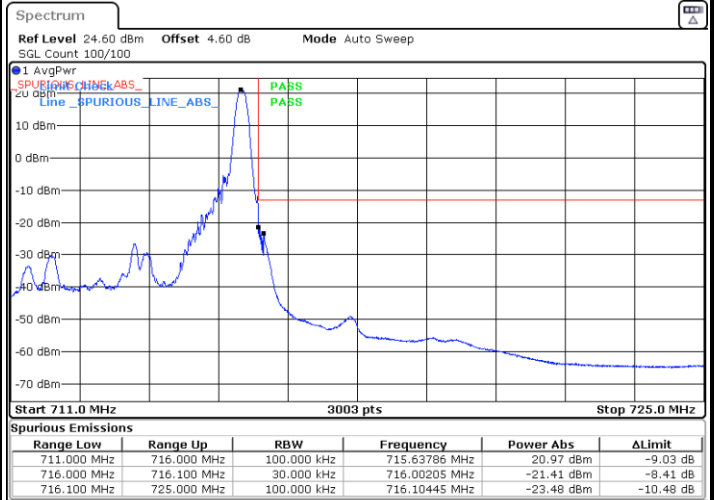
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



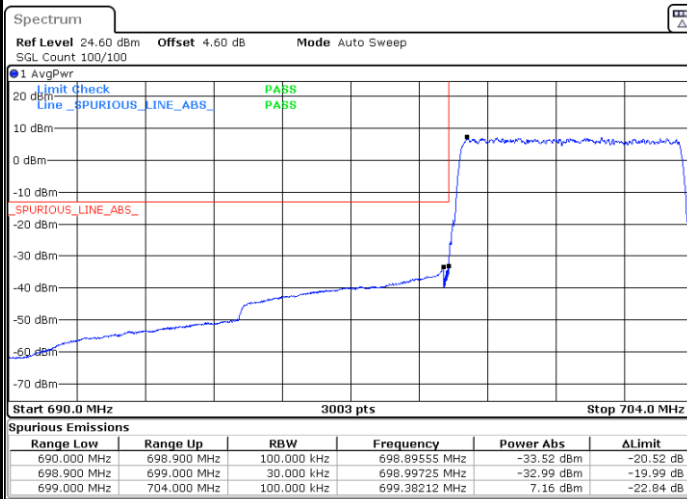
Date: 28.SEP.2022 13:11:08

Highest Band Edge / 1 RB



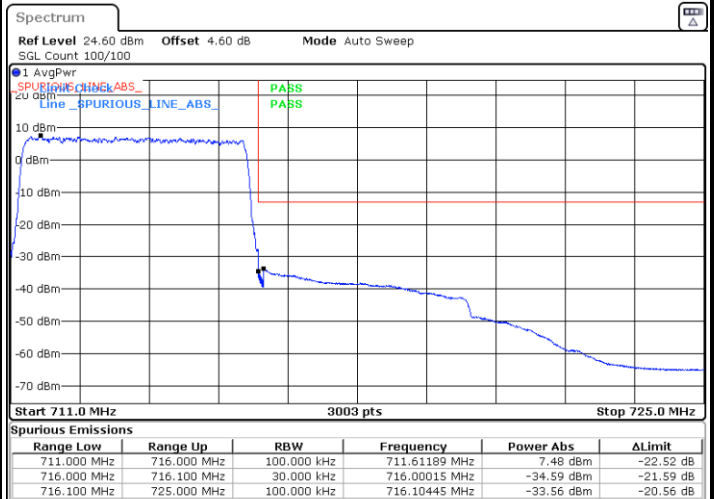
Date: 28.SEP.2022 13:27:53

Lowest Band Edge / Full RB



Date: 28.SEP.2022 13:21:07

Highest Band Edge / Full RB

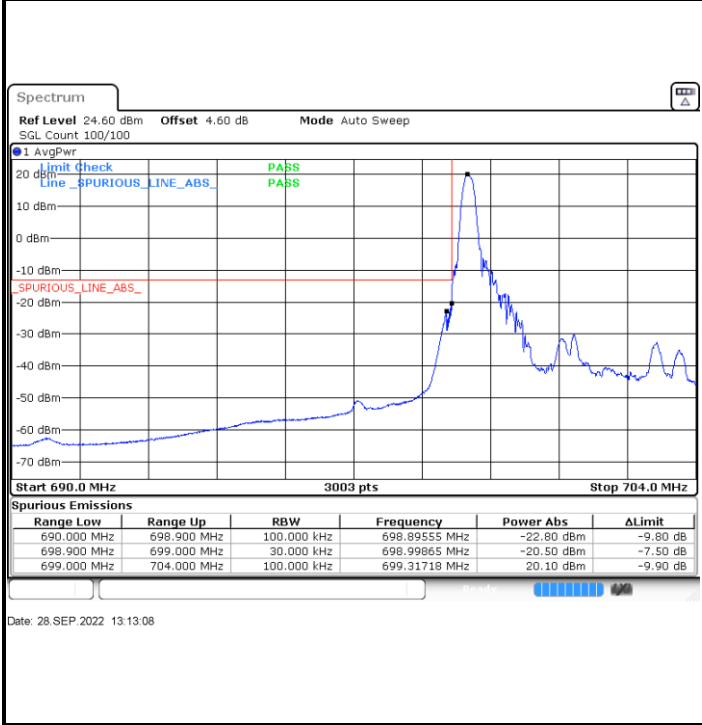


Date: 28.SEP.2022 13:37:53

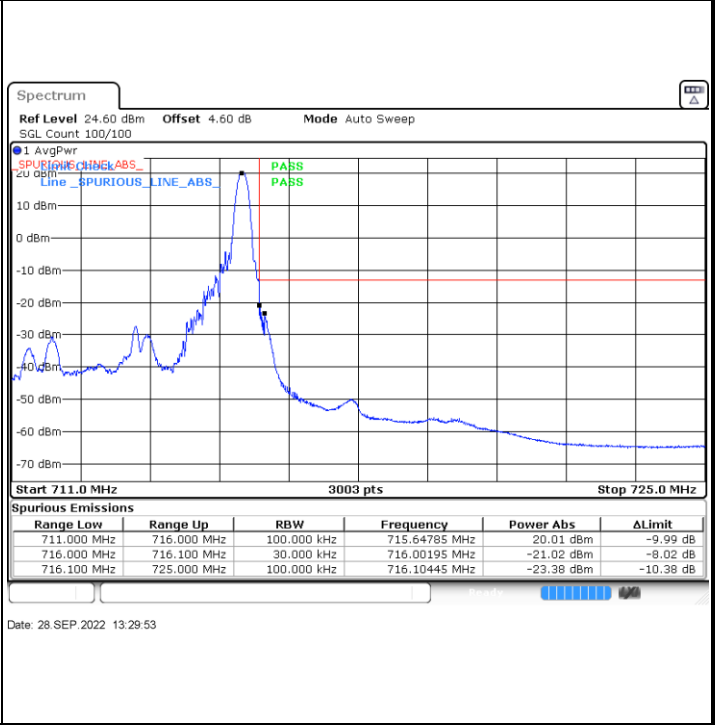


**LTE Band 12 / 5MHz / 16QAM**

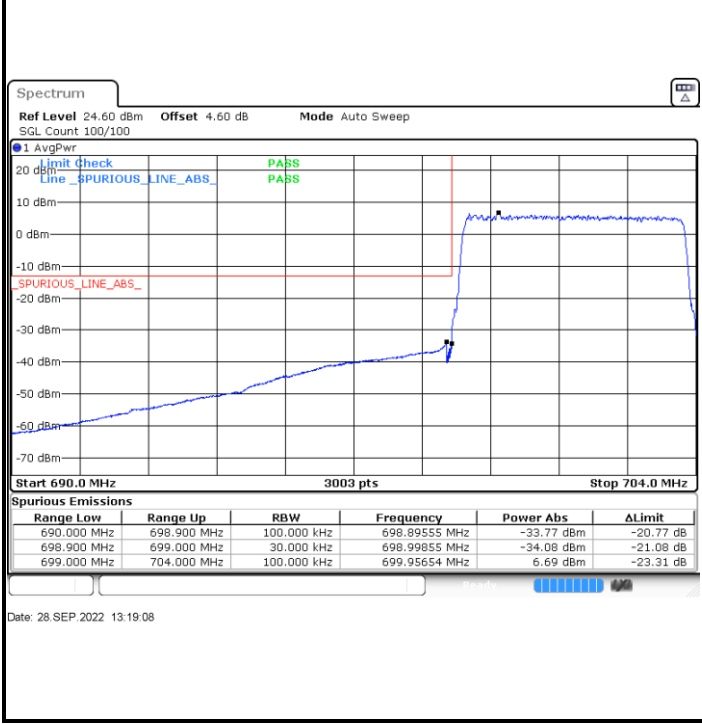
**Lowest Band Edge / 1RB**



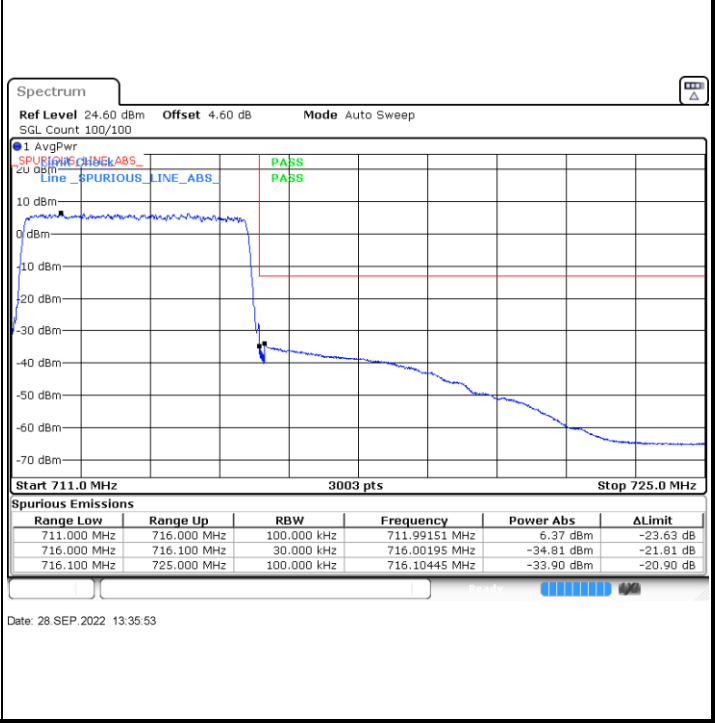
**Highest Band Edge / 1 RB**



**Lowest Band Edge / Full RB**



**Highest Band Edge / Full RB**





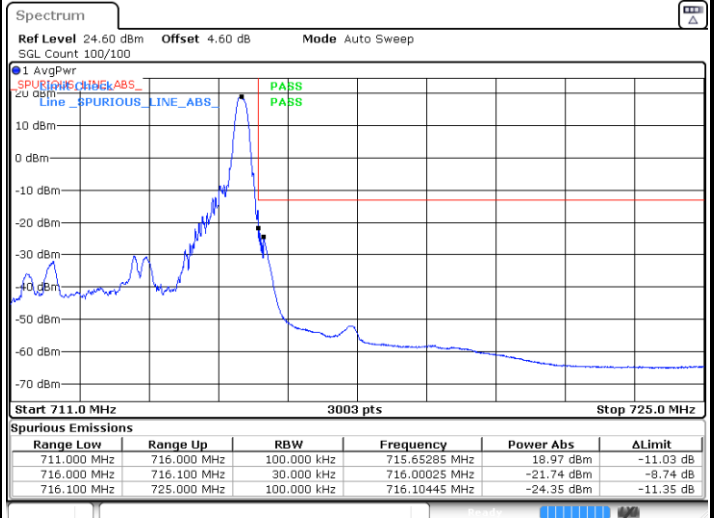
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



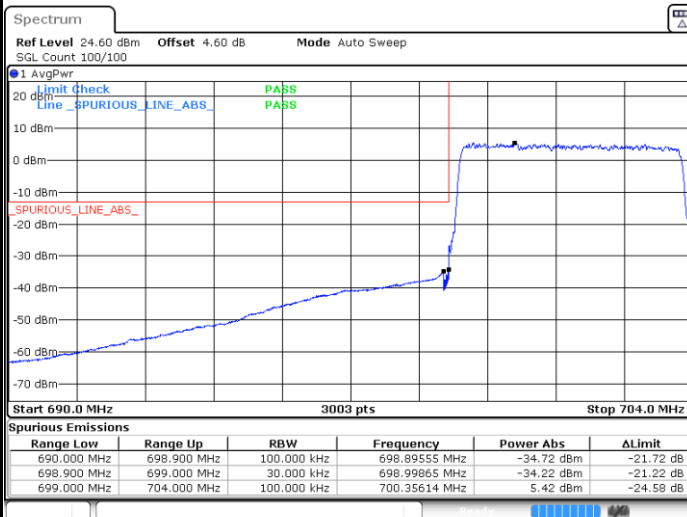
Date: 28.SEP.2022 13:15:08

Highest Band Edge / 1 RB



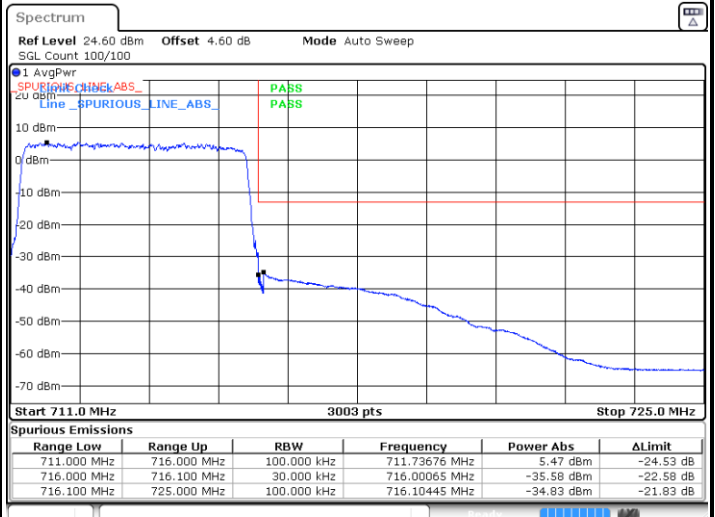
Date: 28.SEP.2022 13:31:53

Lowest Band Edge / Full RB



Date: 28.SEP.2022 13:17:08

Highest Band Edge / Full RB

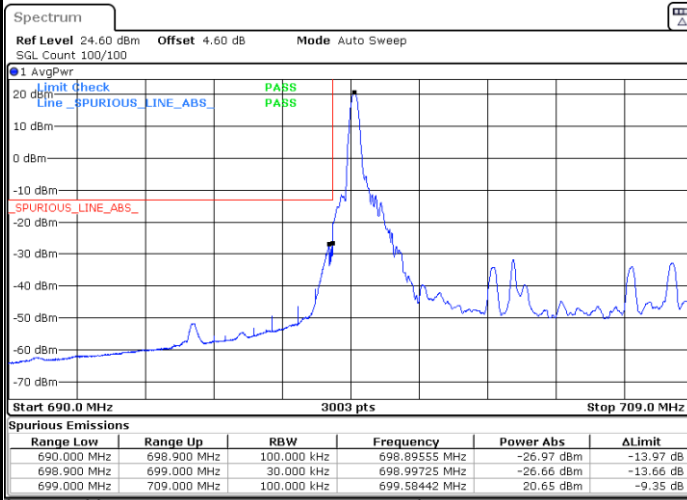


Date: 28.SEP.2022 13:33:53



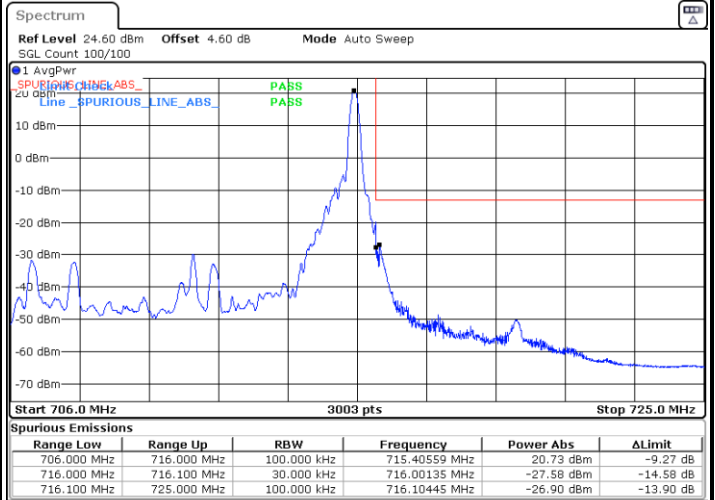
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



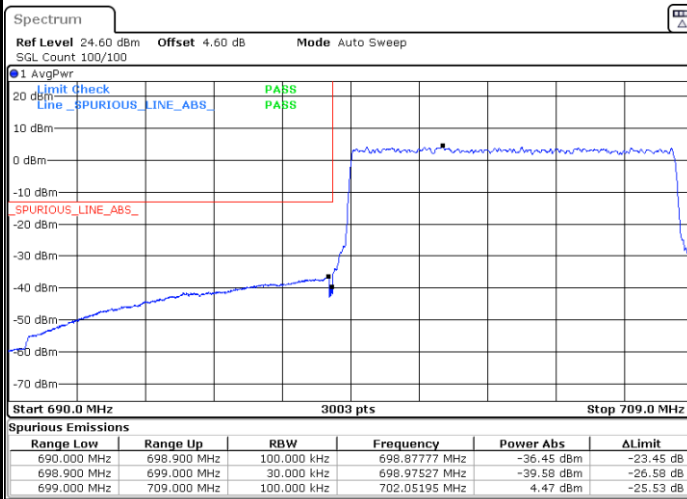
Date: 28 SEP 2022 13:41:33

Highest Band Edge / 1 RB



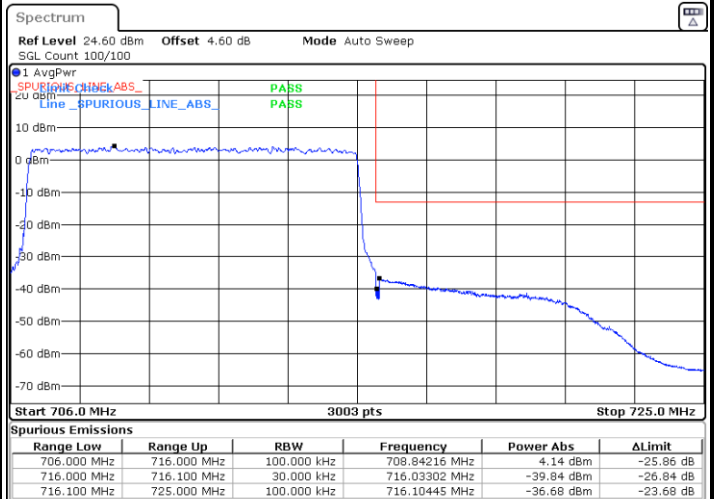
Date: 28 SEP 2022 13:56:54

Lowest Band Edge / Full RB



Date: 28 SEP 2022 13:51:33

Highest Band Edge / Full RB

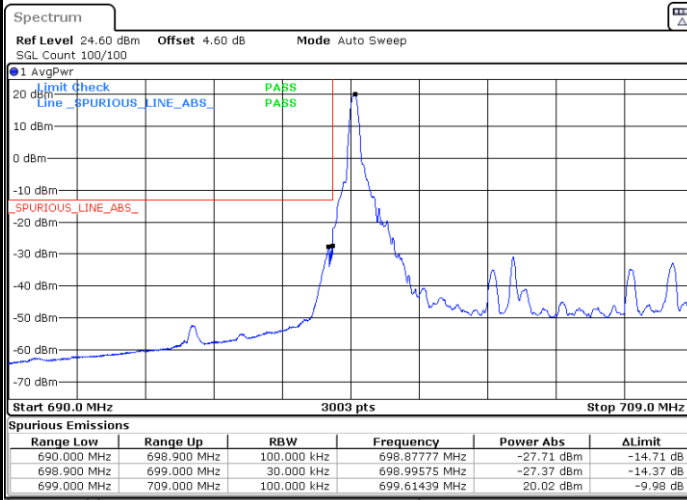


Date: 28 SEP 2022 14:06:53



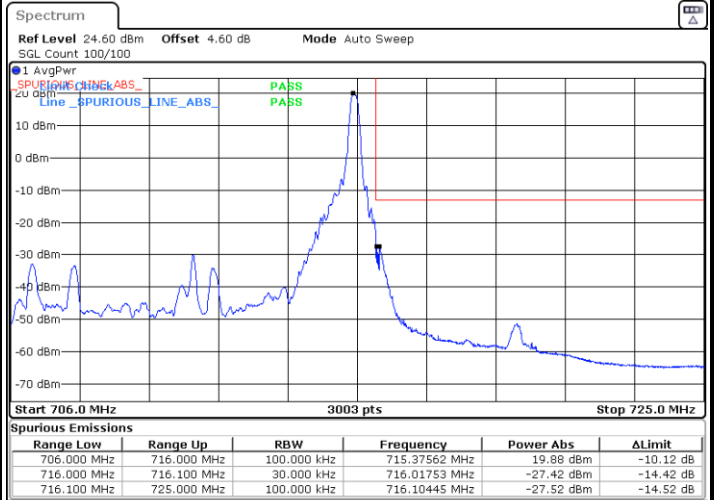
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



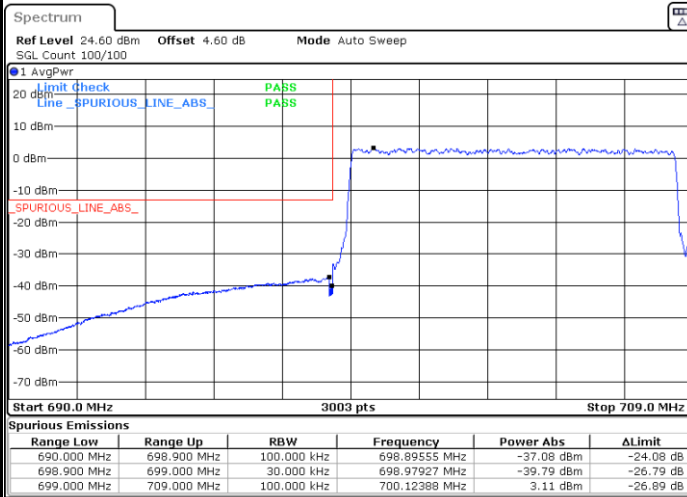
Date: 28.SEP.2022 13:43:33

Highest Band Edge / 1 RB



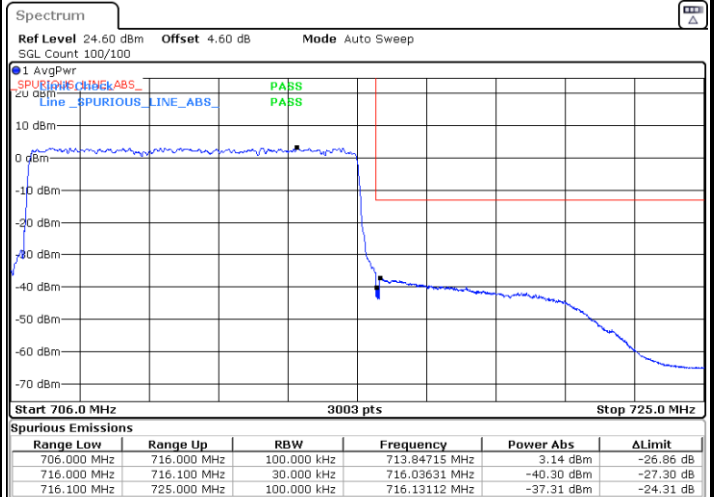
Date: 28.SEP.2022 13:58:54

Lowest Band Edge / Full RB



Date: 28.SEP.2022 13:49:33

Highest Band Edge / Full RB



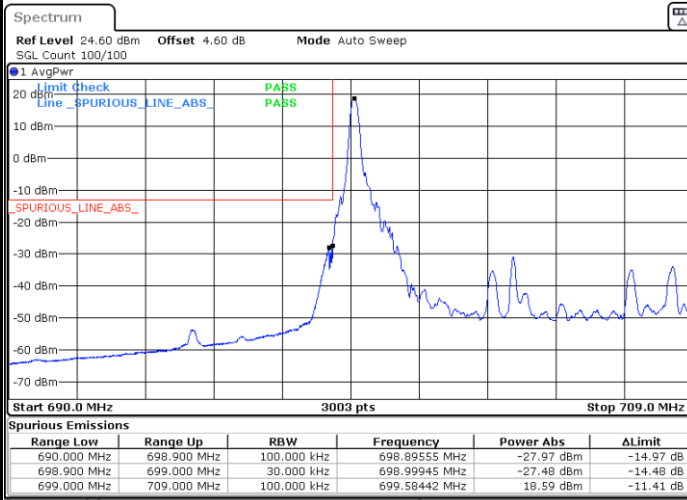
Date: 28.SEP.2022 14:04:54





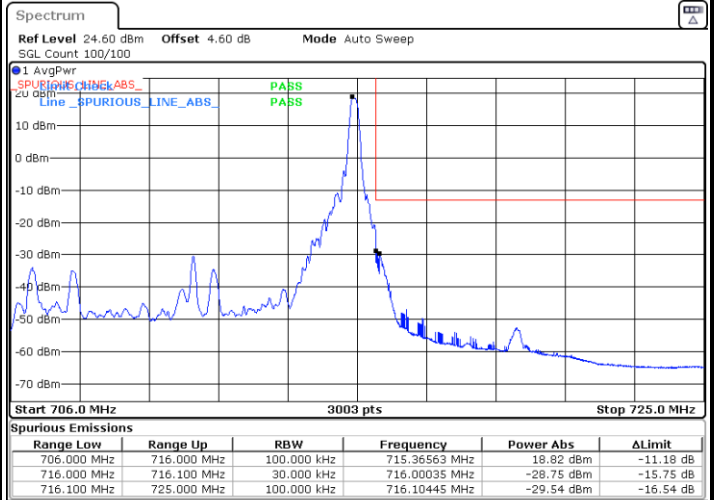
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



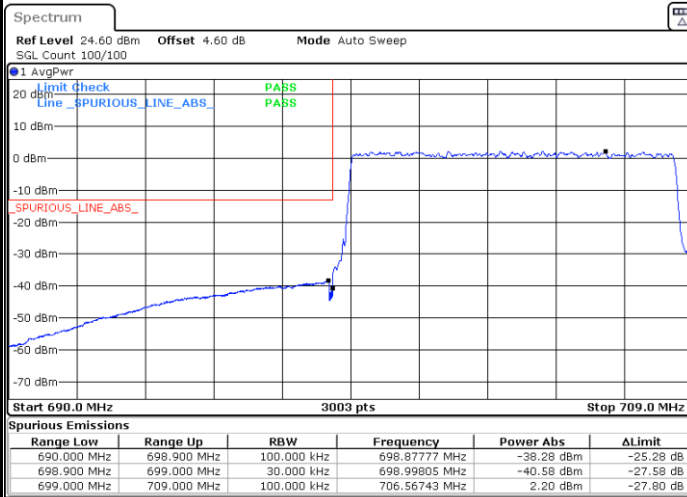
Date: 28.SEP.2022 13:45:33

Highest Band Edge / 1 RB



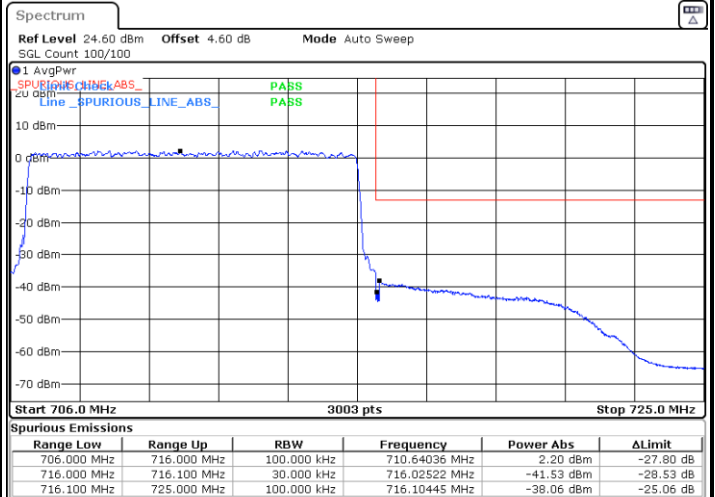
Date: 28.SEP.2022 14:00:54

Lowest Band Edge / Full RB



Date: 28.SEP.2022 13:47:33

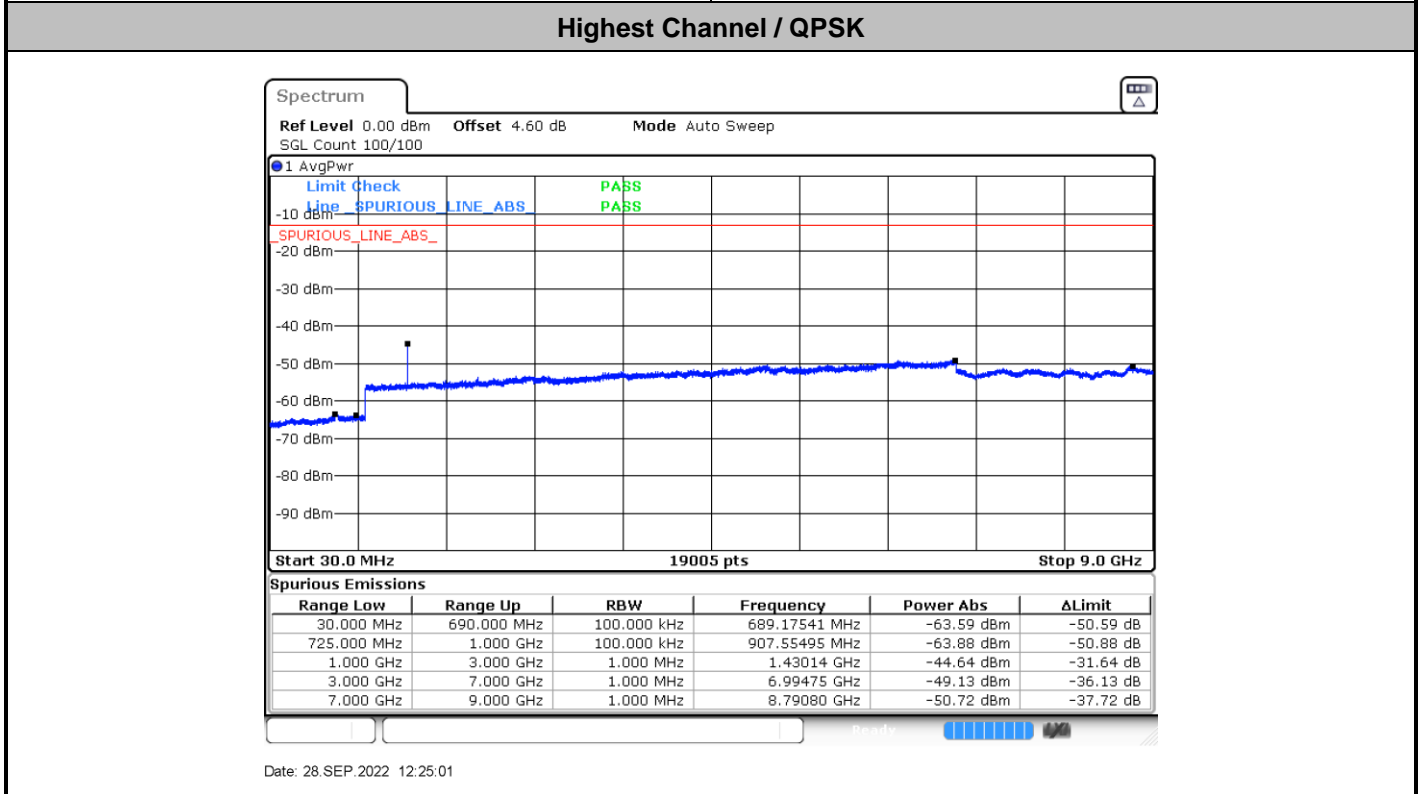
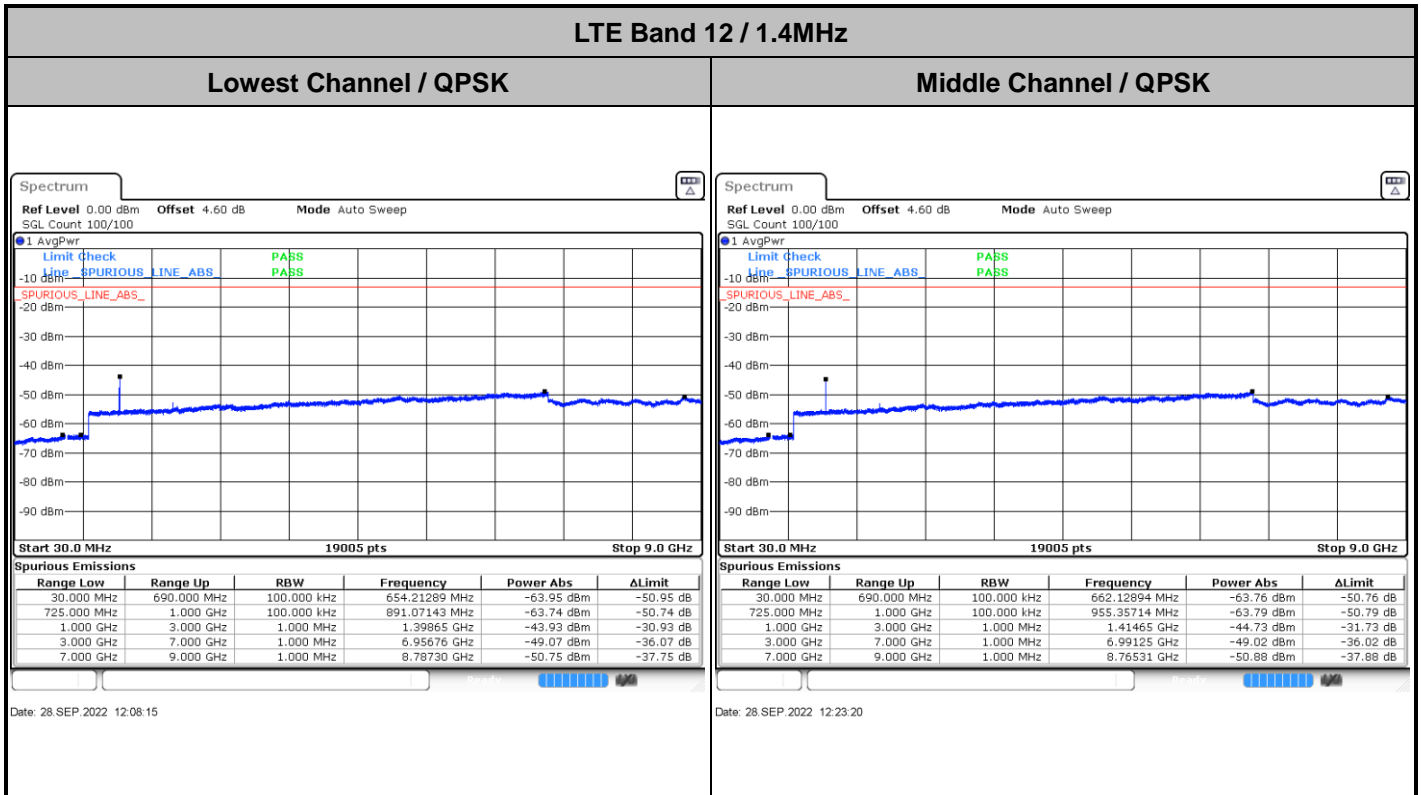
Highest Band Edge / Full RB



Date: 28.SEP.2022 14:02:54



# Conducted Spurious Emission

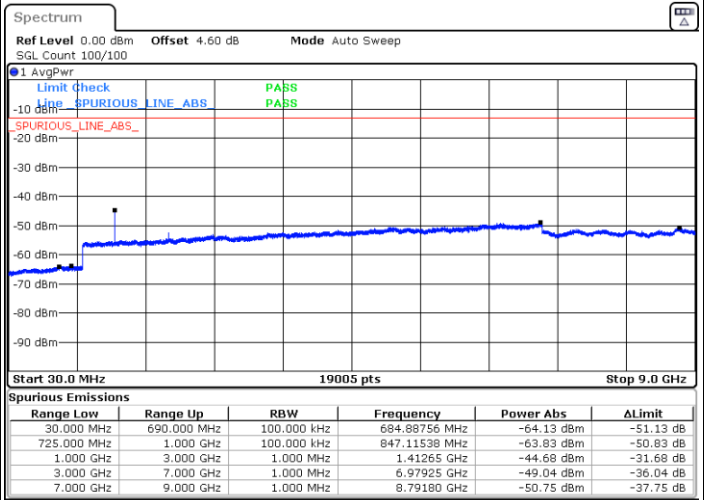
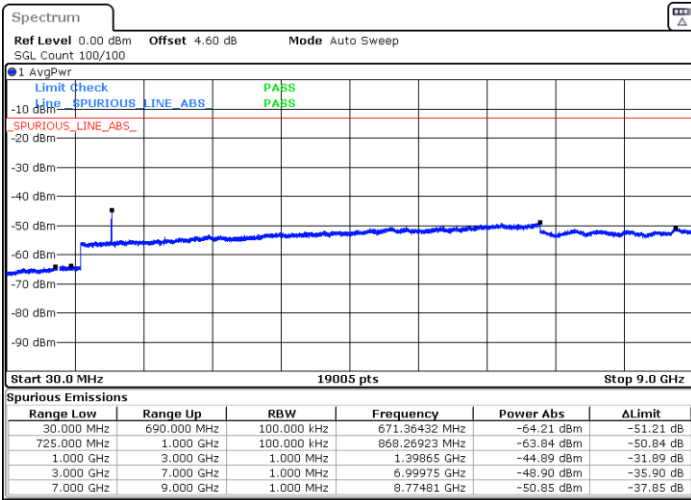




LTE Band 12 / 3MHz

Lowest Channel / QPSK

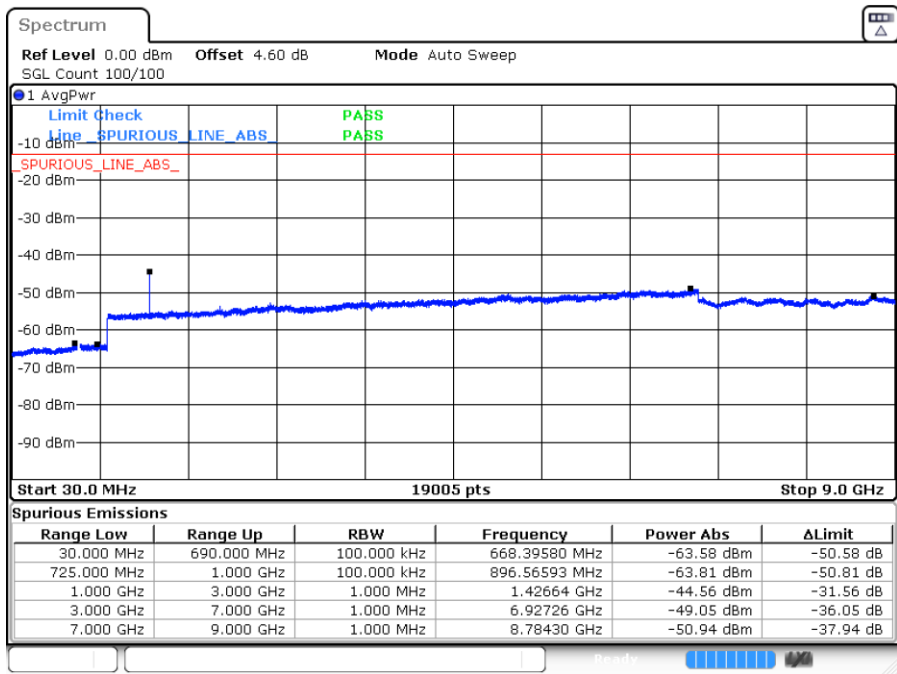
Middle Channel / QPSK



Date: 28 SEP.2022 12:38:41

Date: 28 SEP.2022 12:53:46

Highest Channel / QPSK



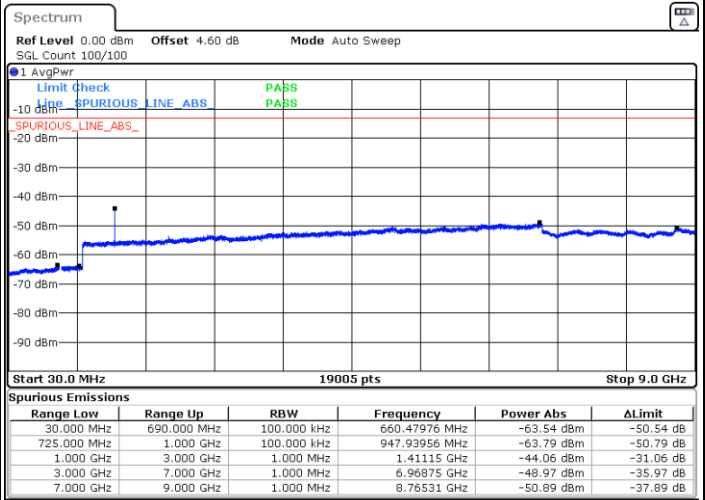
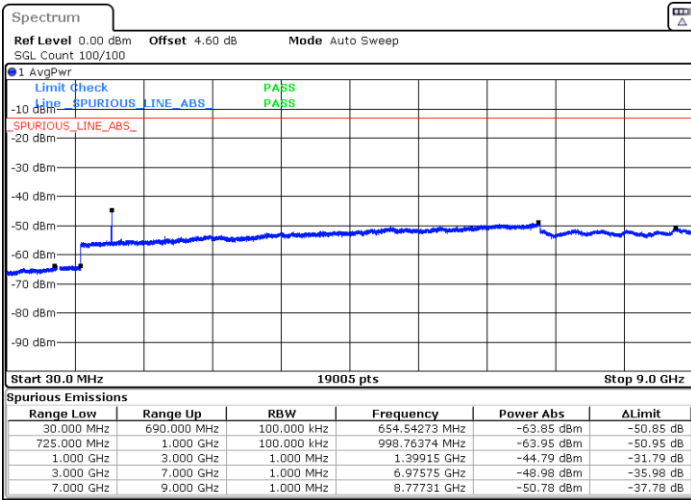
Date: 28 SEP.2022 12:55:27



LTE Band 12 / 5MHz

Lowest Channel / QPSK

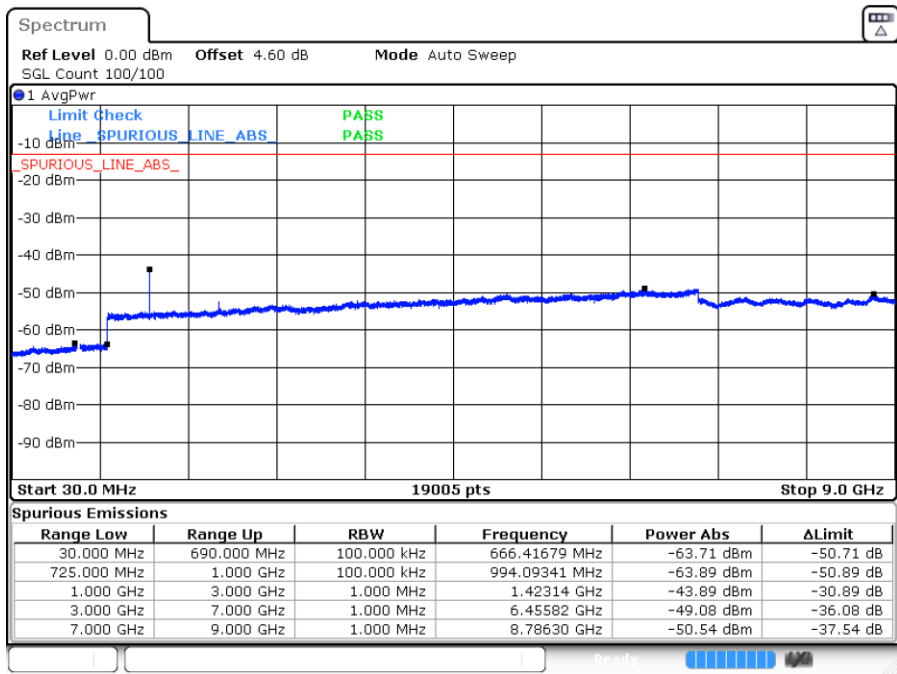
Middle Channel / QPSK



Date: 28 SEP.2022 13:09:08

Date: 28 SEP.2022 13:24:12

Highest Channel / QPSK



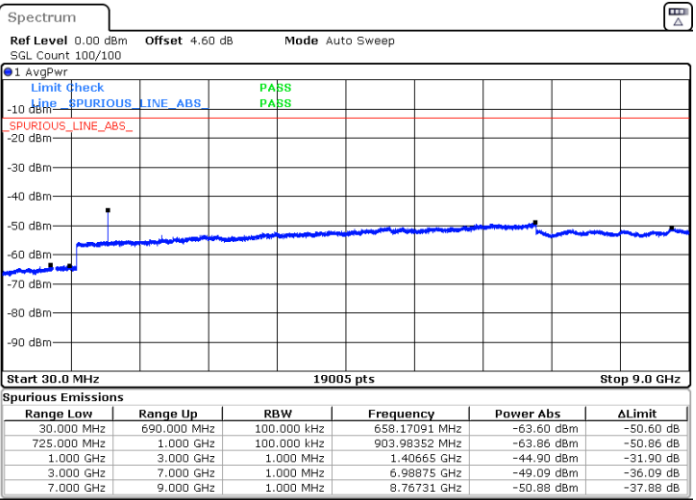
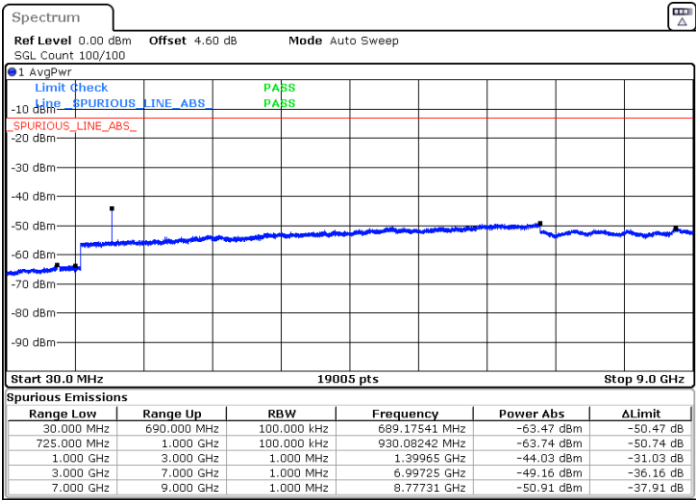
Date: 28 SEP.2022 13:25:53



LTE Band 12 / 10MHz

Lowest Channel / QPSK

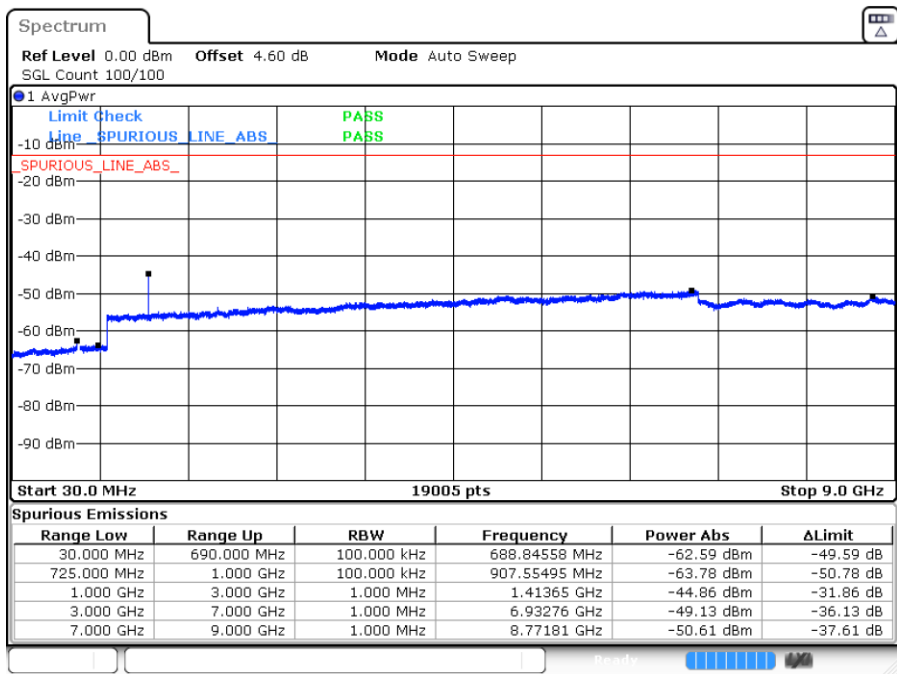
Middle Channel / QPSK



Date: 28 SEP.2022 13:39:33

Date: 28 SEP.2022 13:53:13

Highest Channel / QPSK



Date: 28.SEP.2022 13:54:54



### 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	0.0021	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0029	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0012	

**Note:**

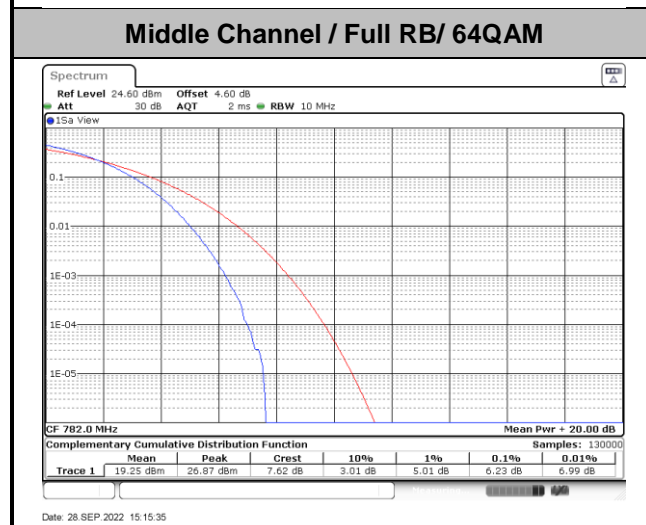
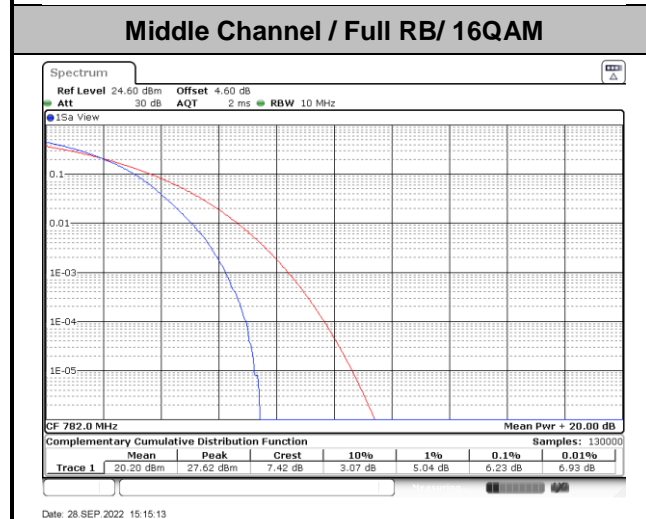
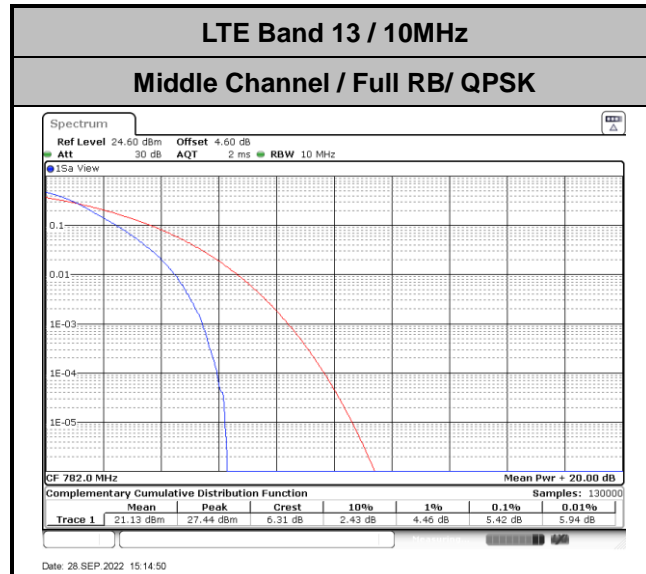
1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 13

### Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.42	6.23	6.23	<b>PASS</b>

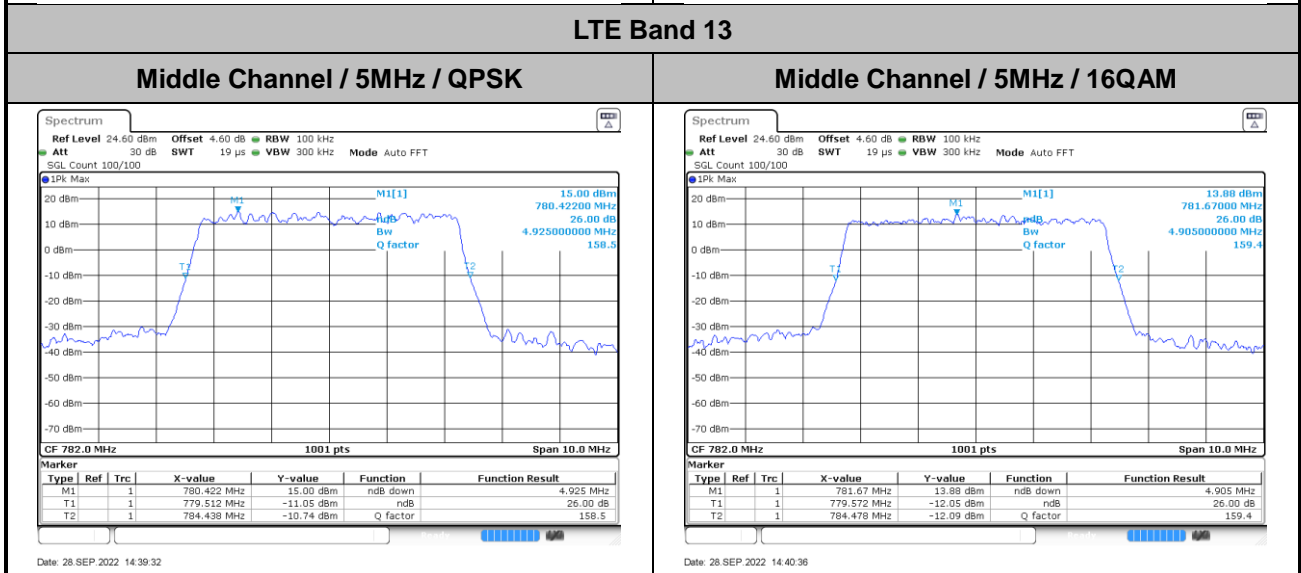
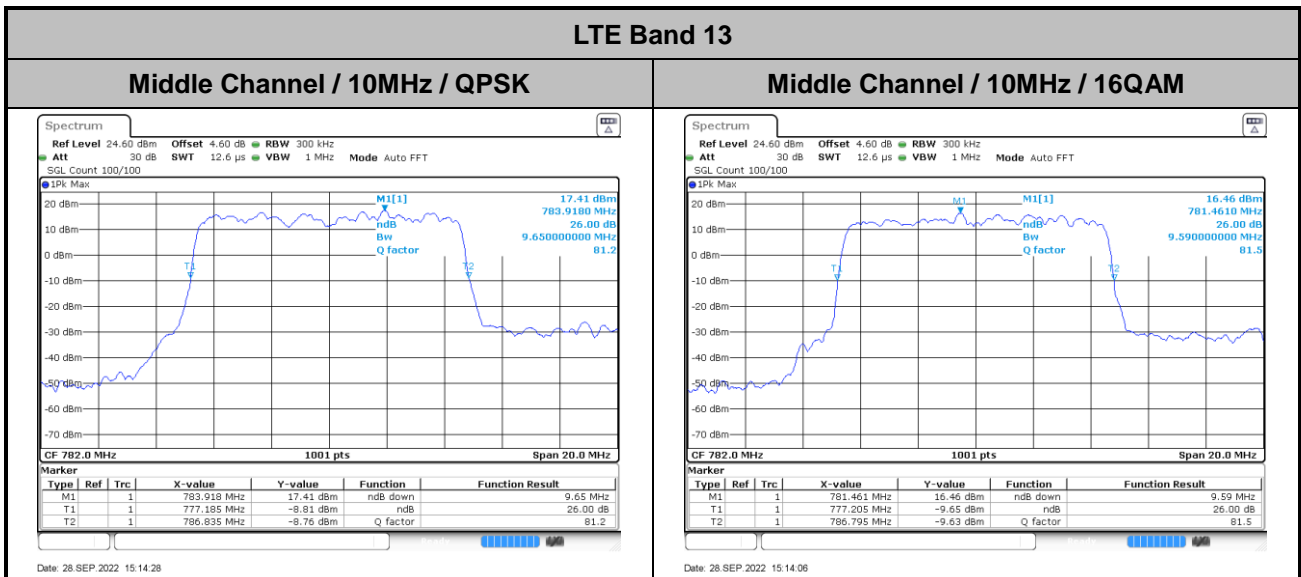






## 26dB Bandwidth

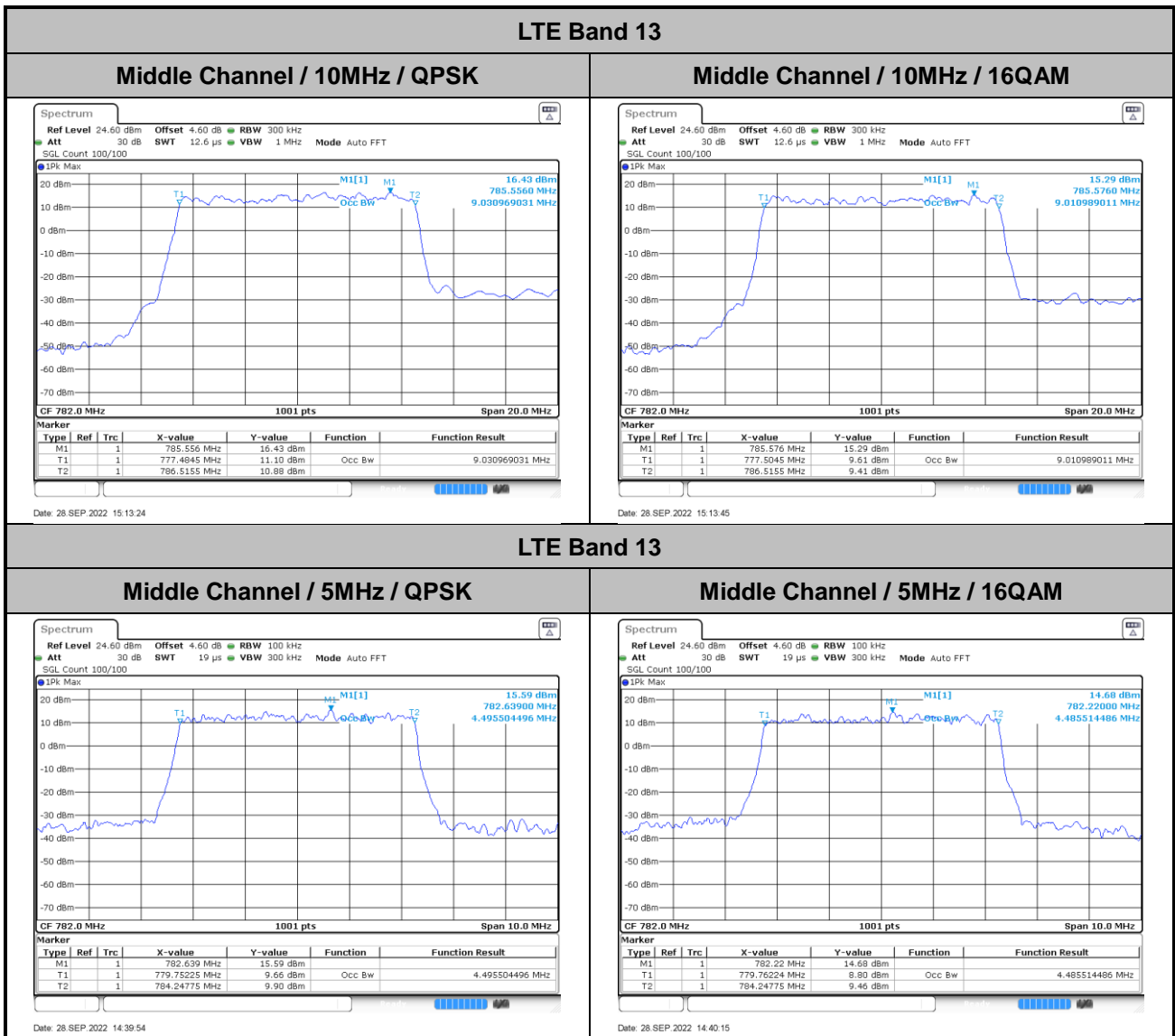
Mode	LTE Band 13 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.65	9.59
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.93	4.91





# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.03	9.01
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.50	4.49

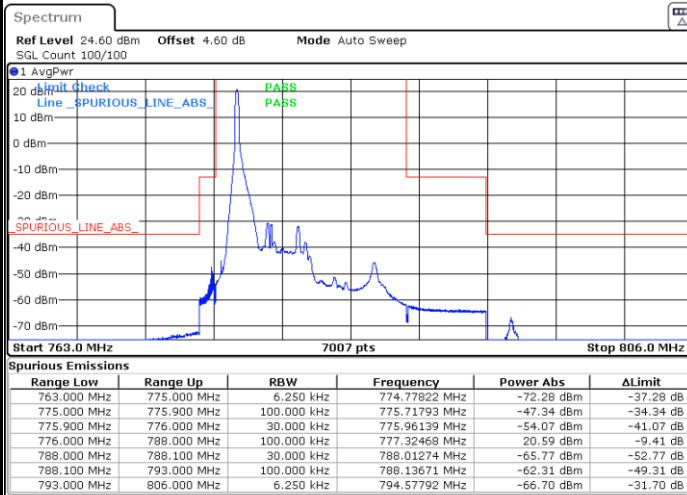




# Conducted Band Edge

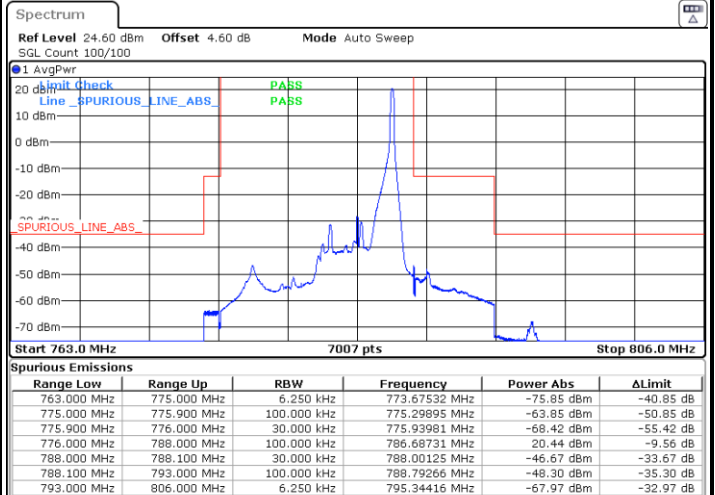
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



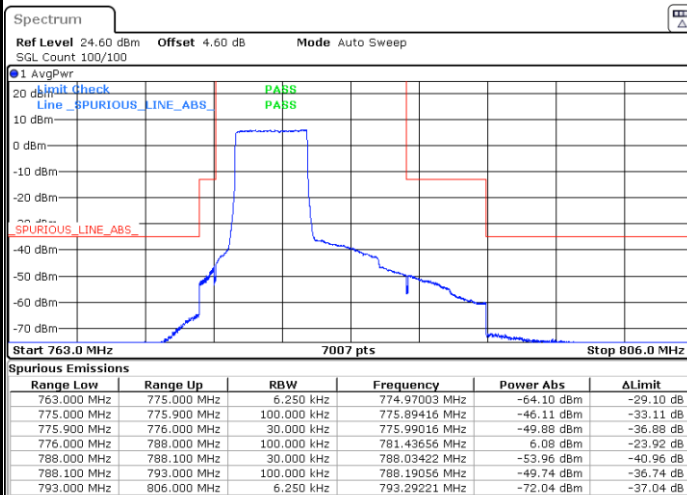
Date: 28 SEP 2022 14:30:01

### Highest Band Edge / 1 RB



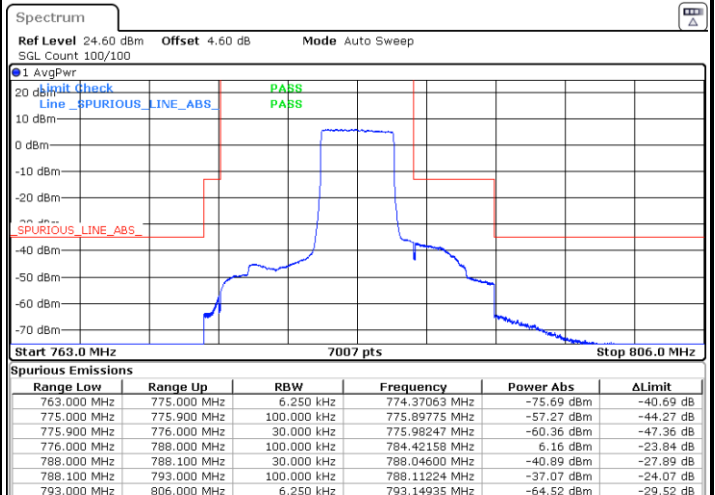
Date: 28 SEP 2022 14:45:46

### Lowest Band Edge / Full RB



Date: 28 SEP 2022 14:39:11

### Highest Band Edge / Full RB



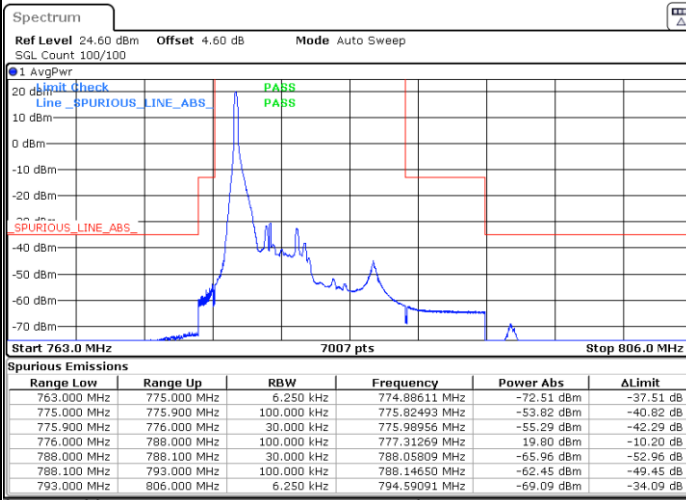
Date: 28 SEP 2022 14:54:56



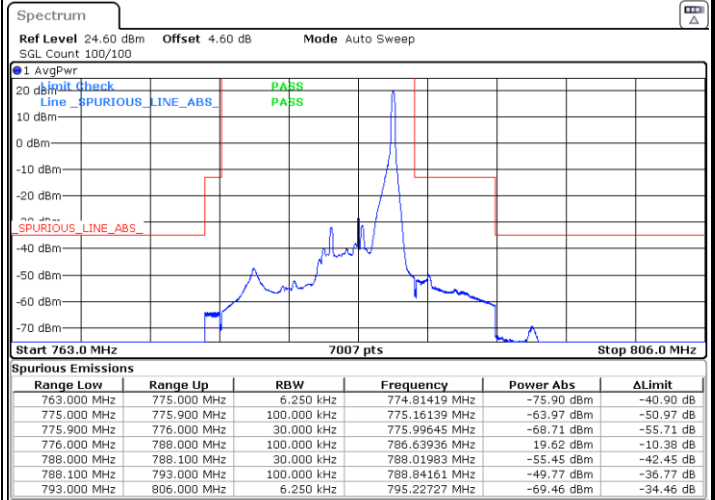
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



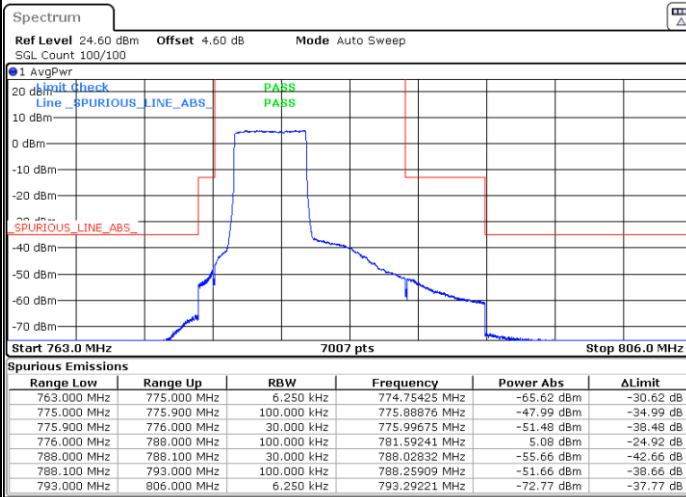
Date: 28 SEP 2022 14:31:51



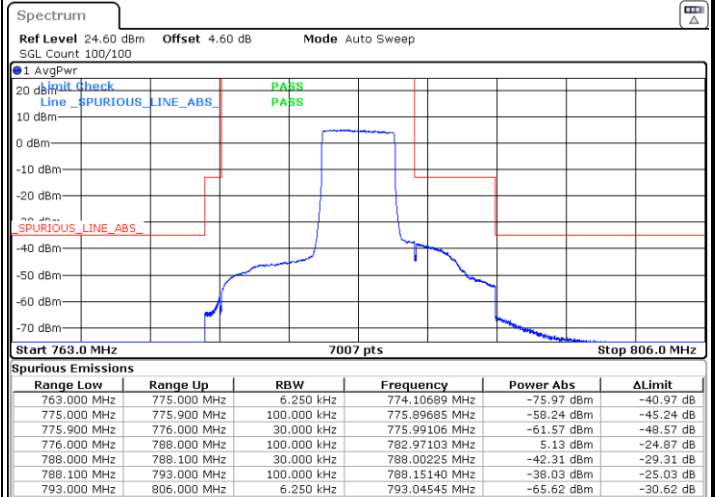
Date: 28 SEP 2022 14:47:36

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 28 SEP 2022 14:37:21



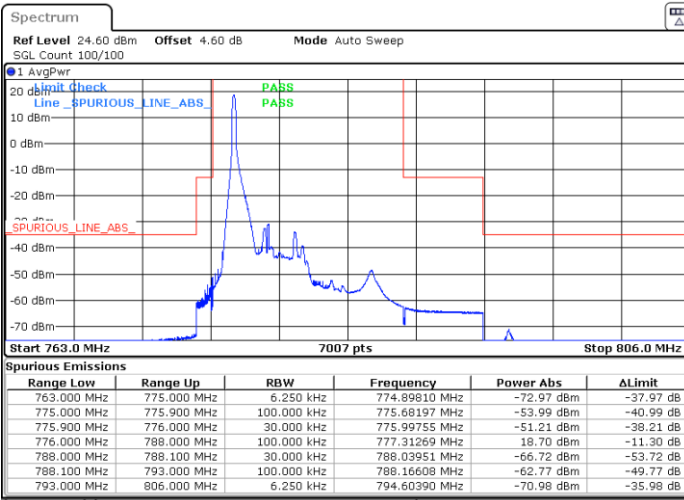
Date: 28 SEP 2022 14:53:06



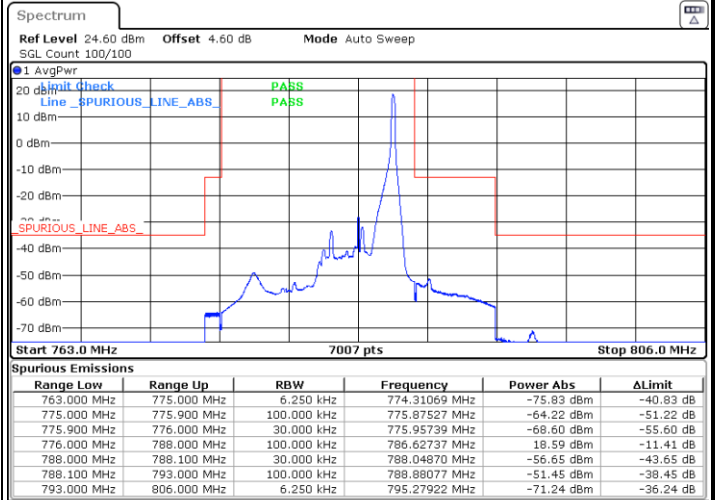
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



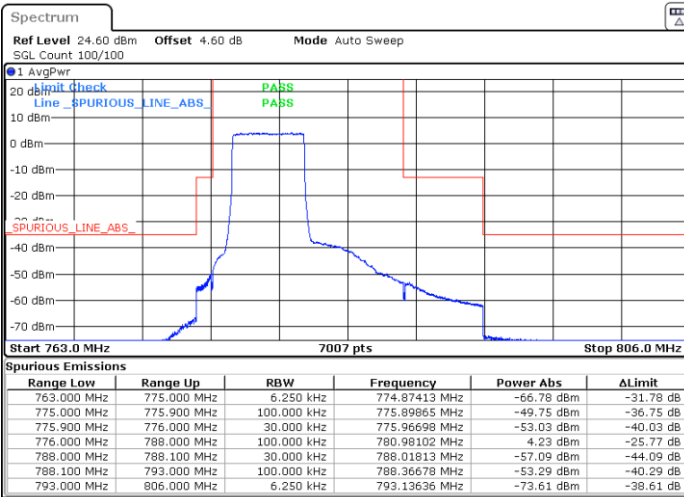
Date: 28 SEP 2022 14:33:41



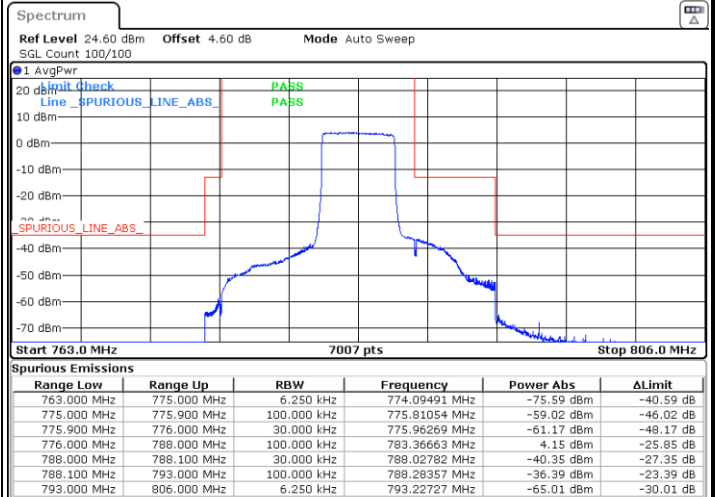
Date: 28 SEP 2022 14:49:26

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 28 SEP 2022 14:35:31



Date: 28 SEP 2022 14:51:16