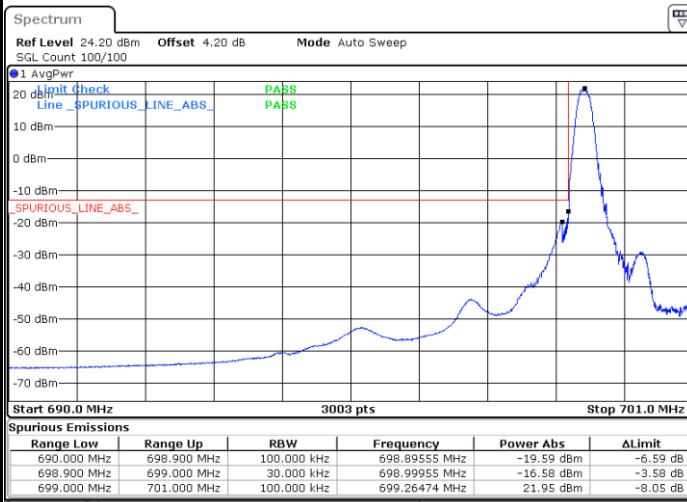




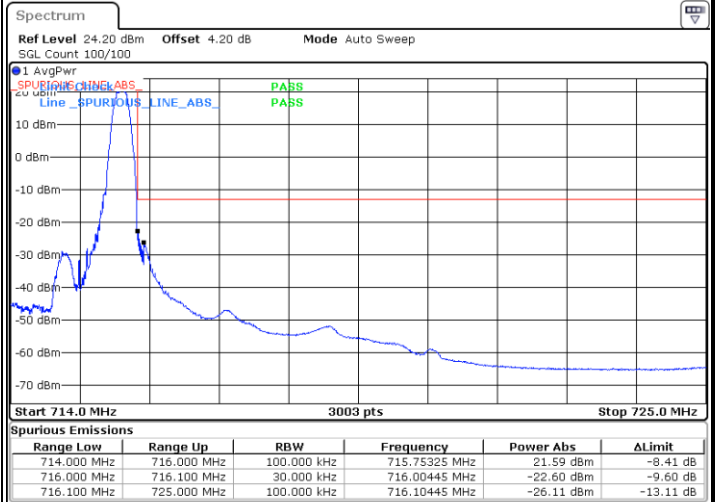
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



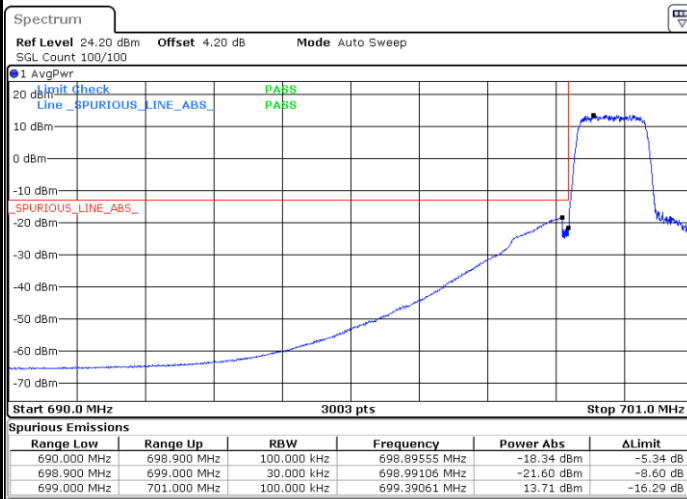
Date: 24.MAY.2022 12:21:28

Highest Band Edge / 1 RB



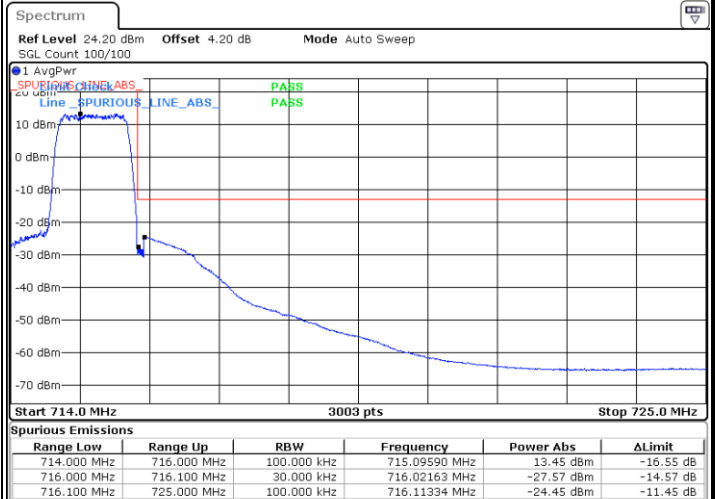
Date: 24.MAY.2022 12:31:59

Lowest Band Edge / Full RB



Date: 24.MAY.2022 12:03:27

Highest Band Edge / Full RB

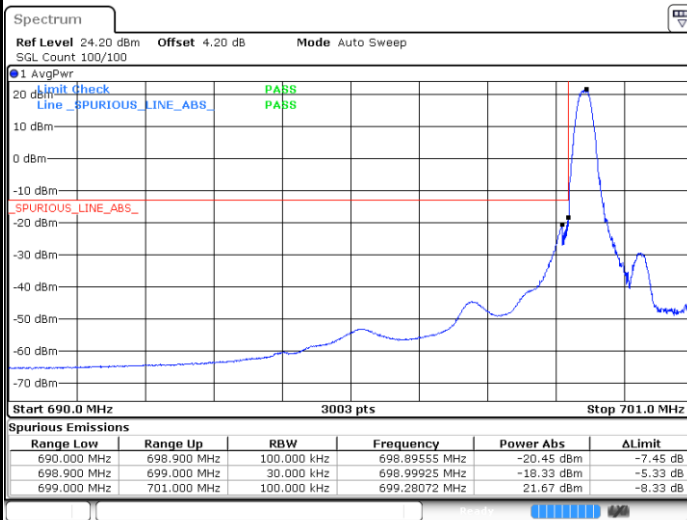


Date: 24.MAY.2022 12:35:34



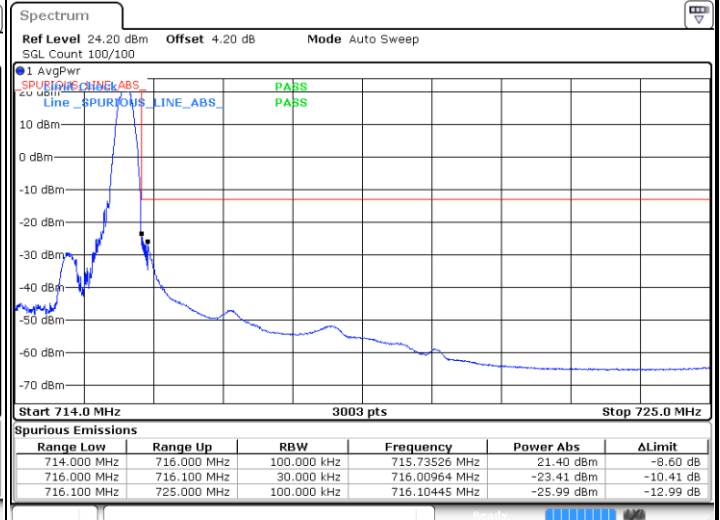
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



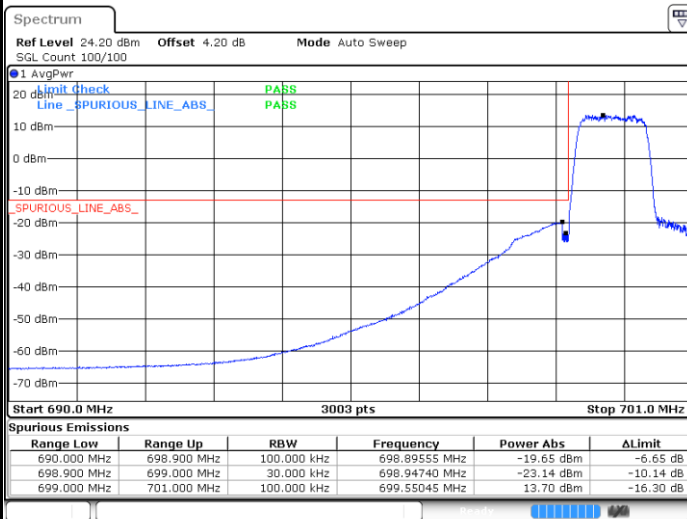
Date: 24.MAY.2022 12:20:23

Highest Band Edge / 1 RB



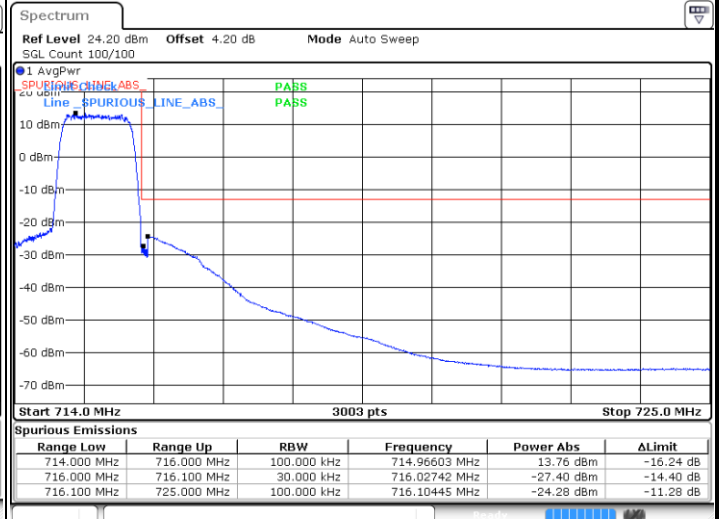
Date: 24.MAY.2022 12:33:37

Lowest Band Edge / Full RB



Date: 24.MAY.2022 12:15:48

Highest Band Edge / Full RB

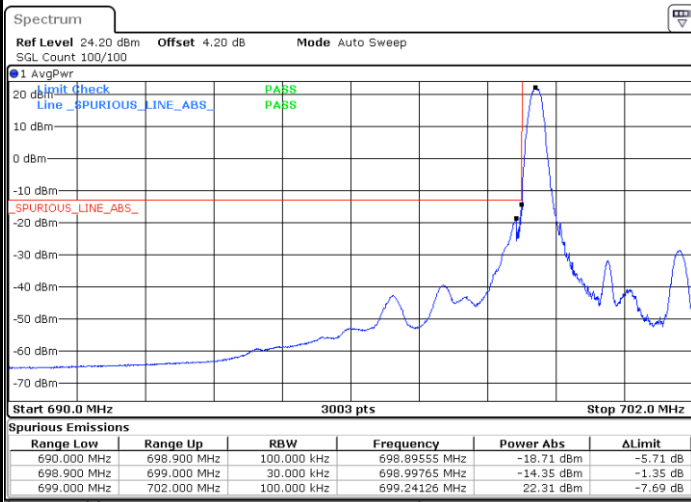


Date: 24.MAY.2022 12:34:34



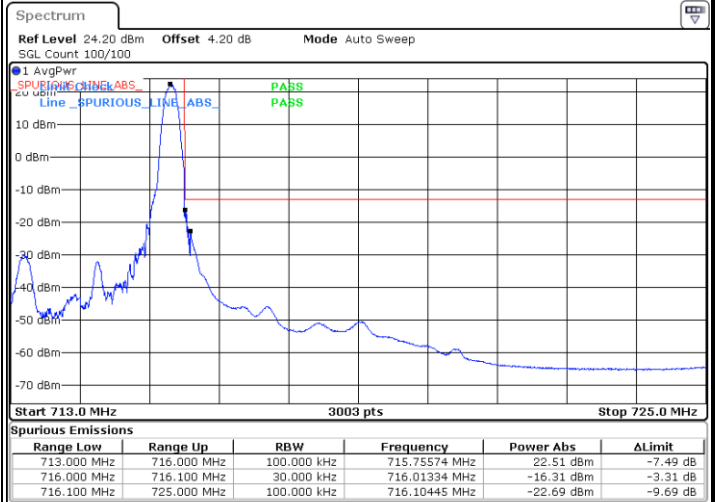
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



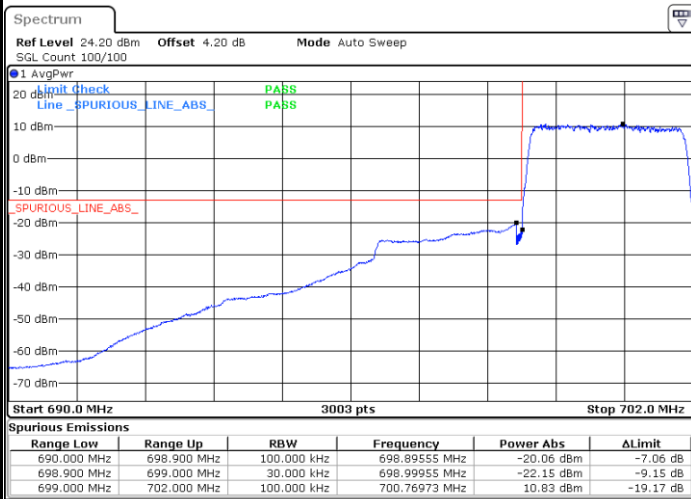
Date: 24.MAY.2022 12:47:02

Highest Band Edge / 1 RB



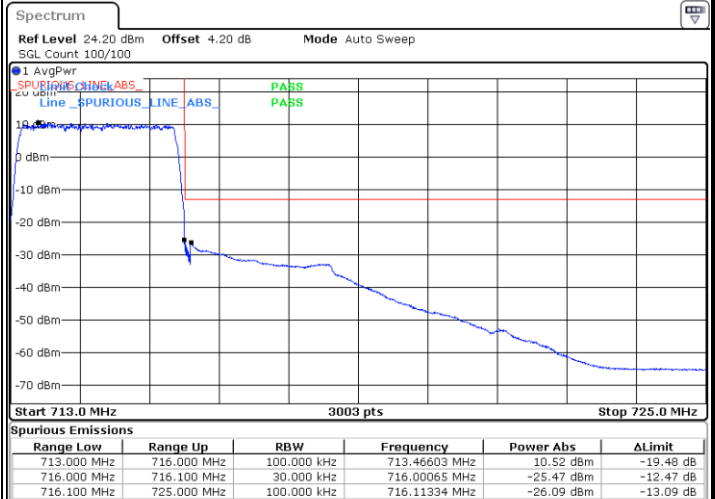
Date: 24.MAY.2022 12:55:18

Lowest Band Edge / Full RB



Date: 24.MAY.2022 12:41:13

Highest Band Edge / Full RB

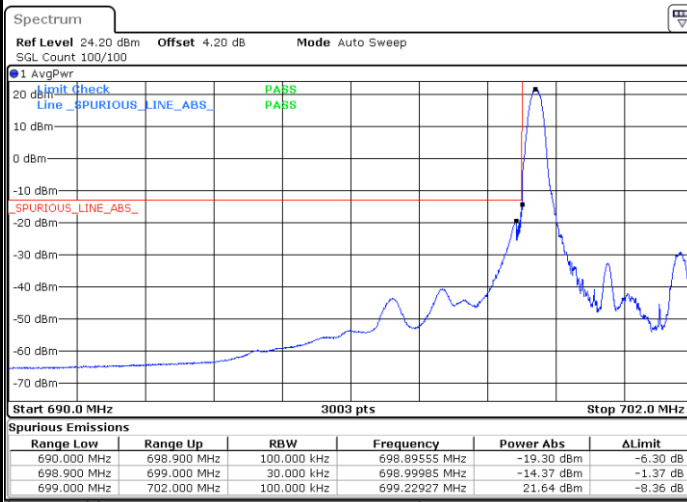


Date: 24.MAY.2022 13:00:26



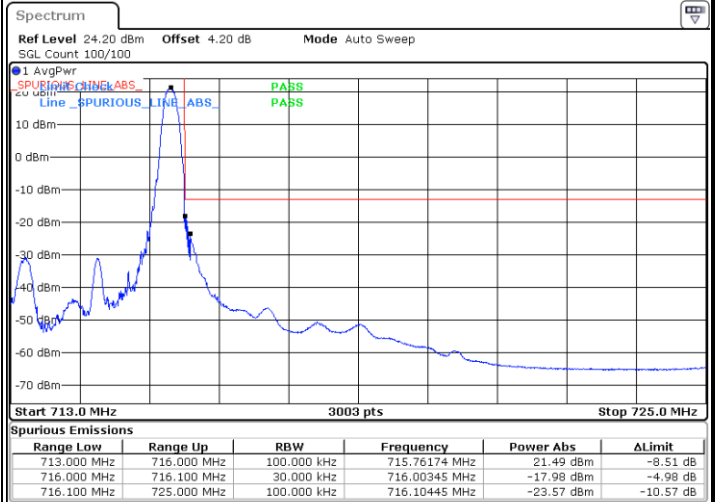
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



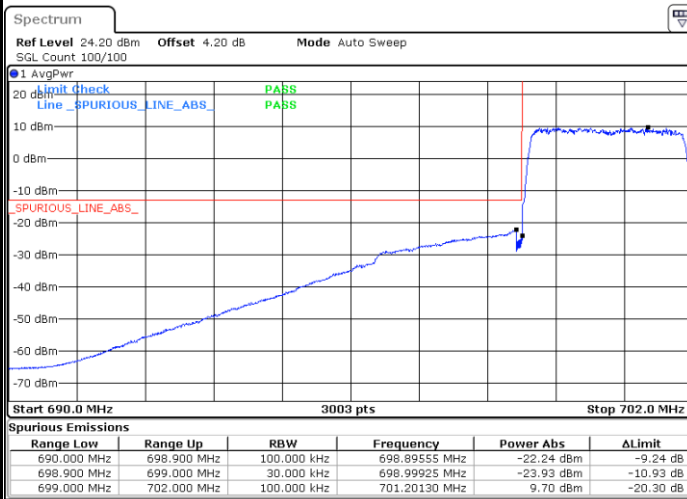
Date: 24.MAY.2022 12:45:25

Highest Band Edge / 1 RB



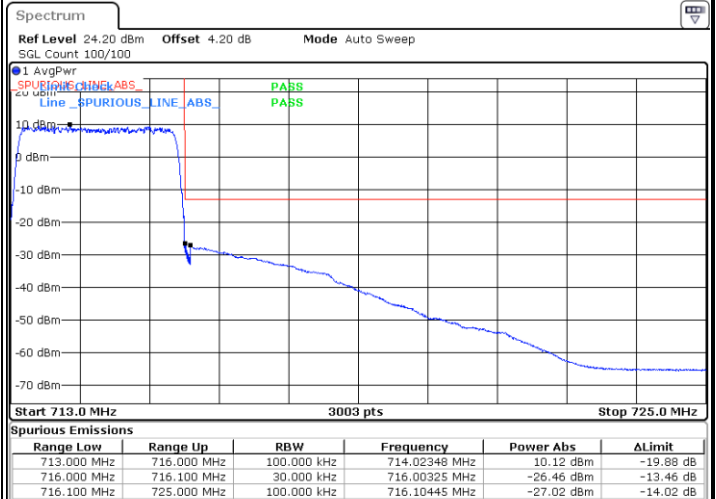
Date: 24.MAY.2022 12:56:10

Lowest Band Edge / Full RB



Date: 24.MAY.2022 12:42:32

Highest Band Edge / Full RB

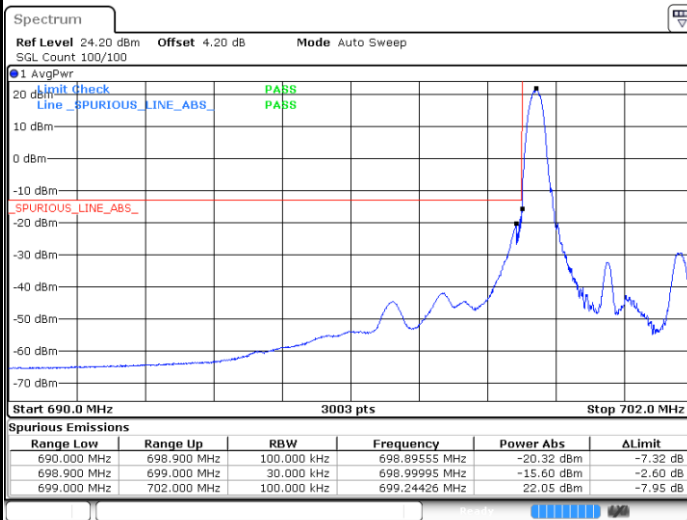


Date: 24.MAY.2022 12:59:05



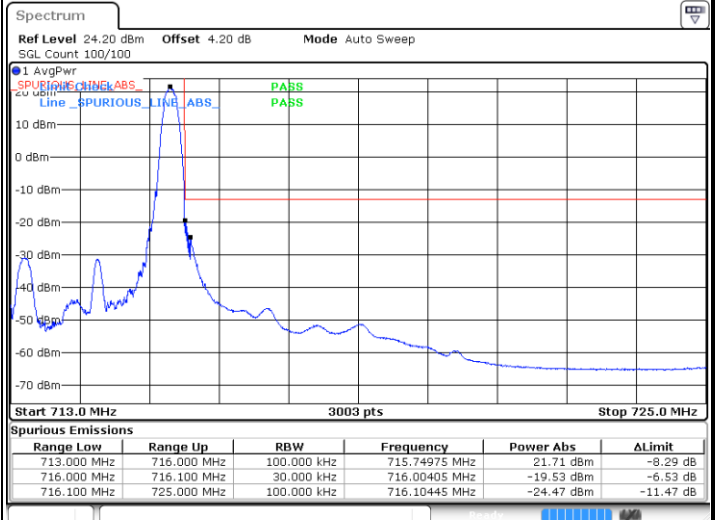
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



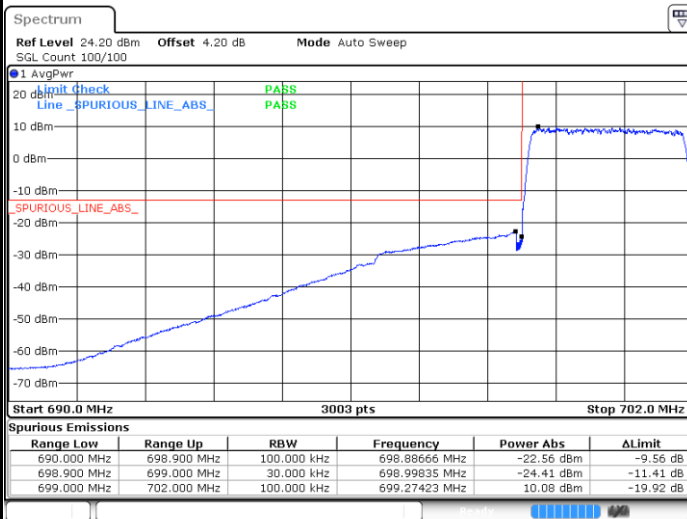
Date: 24.MAY.2022 12:44:29

Highest Band Edge / 1 RB



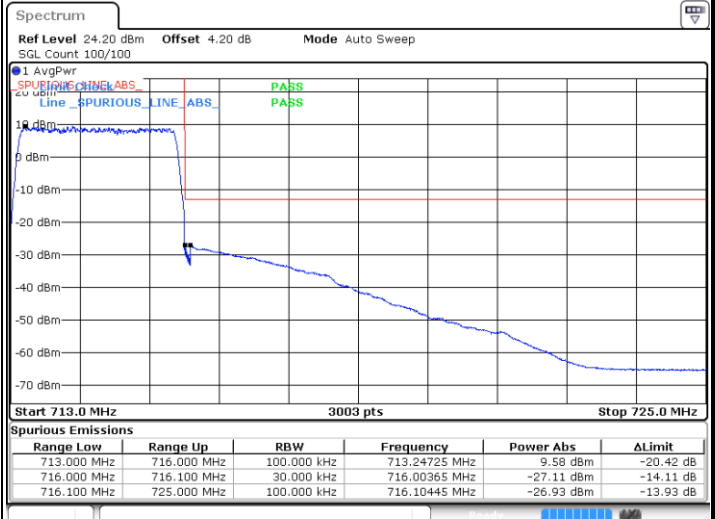
Date: 24.MAY.2022 12:57:02

Lowest Band Edge / Full RB



Date: 24.MAY.2022 12:43:25

Highest Band Edge / Full RB

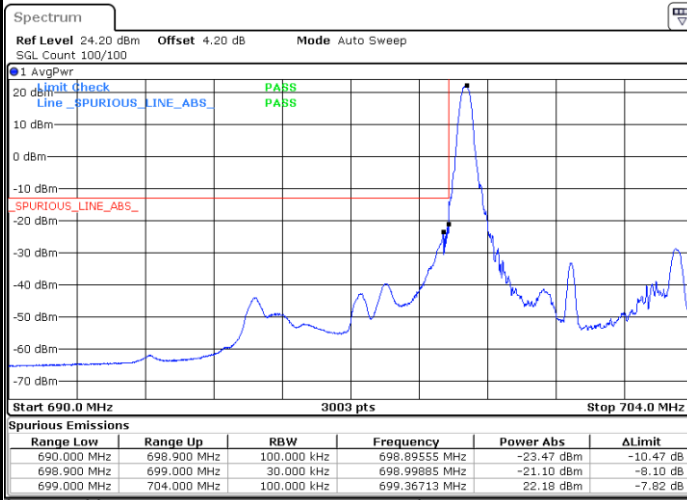


Date: 24.MAY.2022 12:58:00



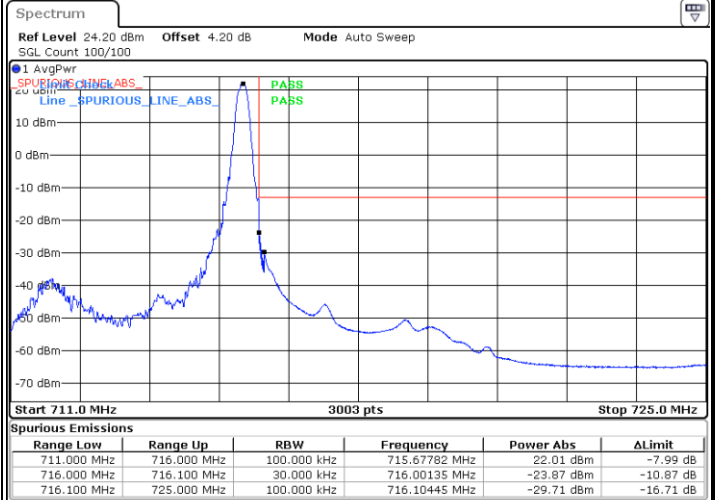
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



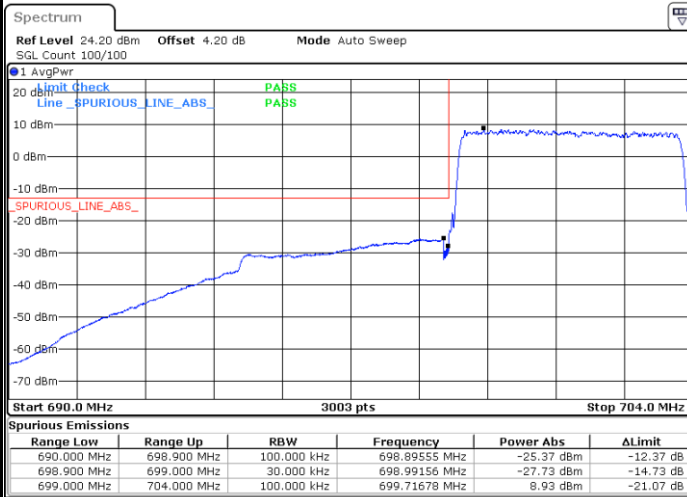
Date: 24.MAY.2022 13:07:56

Highest Band Edge / 1 RB



Date: 24.MAY.2022 13:19:47

Lowest Band Edge / Full RB



Date: 24.MAY.2022 13:02:04

Highest Band Edge / Full RB

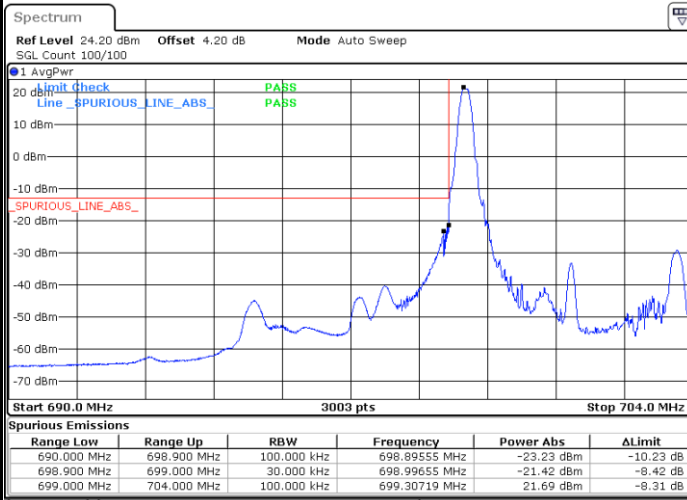


Date: 24.MAY.2022 13:14:44



LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



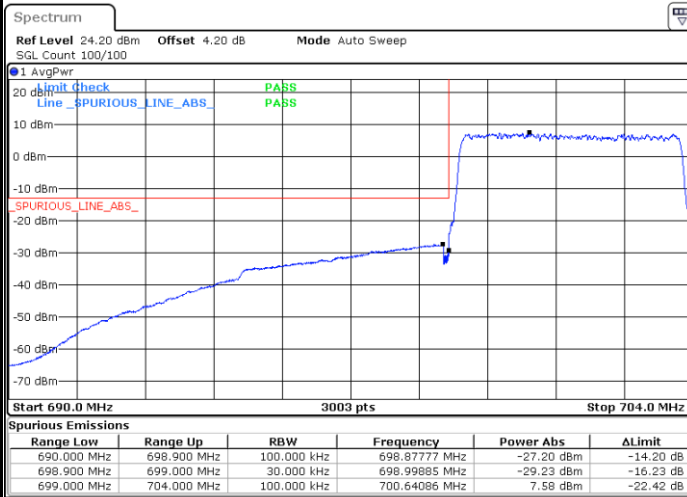
Date: 24.MAY.2022 13:06:53

Highest Band Edge / 1 RB



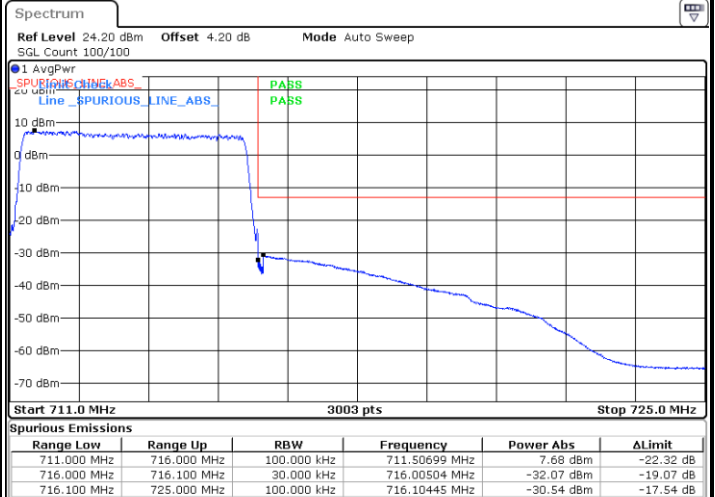
Date: 24.MAY.2022 13:18:47

Lowest Band Edge / Full RB



Date: 24.MAY.2022 13:02:53

Highest Band Edge / Full RB

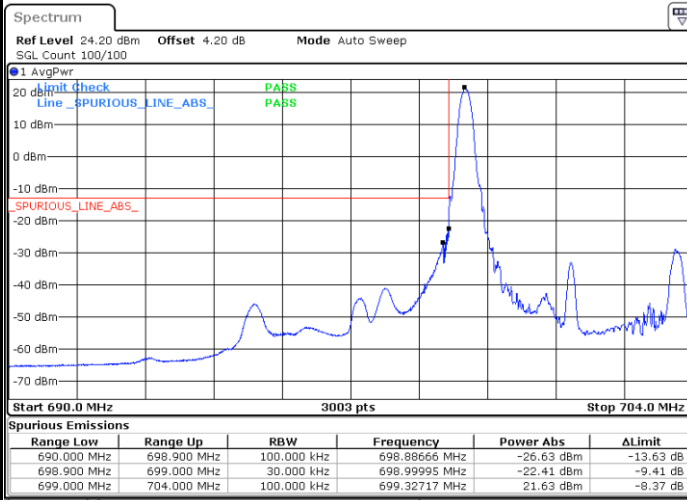


Date: 24.MAY.2022 13:15:36



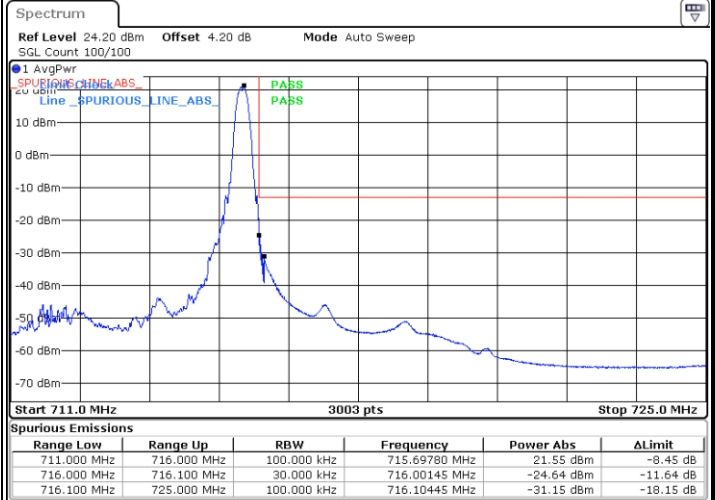
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



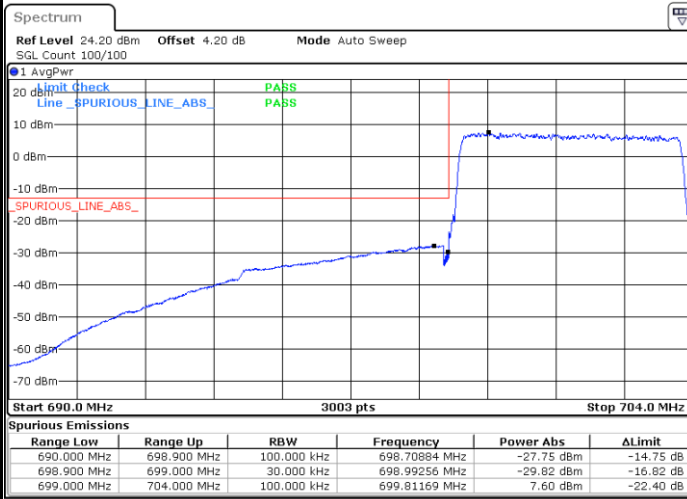
Date: 24.MAY.2022 13:05:44

Highest Band Edge / 1 RB



Date: 24.MAY.2022 13:17:50

Lowest Band Edge / Full RB



Date: 24.MAY.2022 13:03:47

Highest Band Edge / Full RB



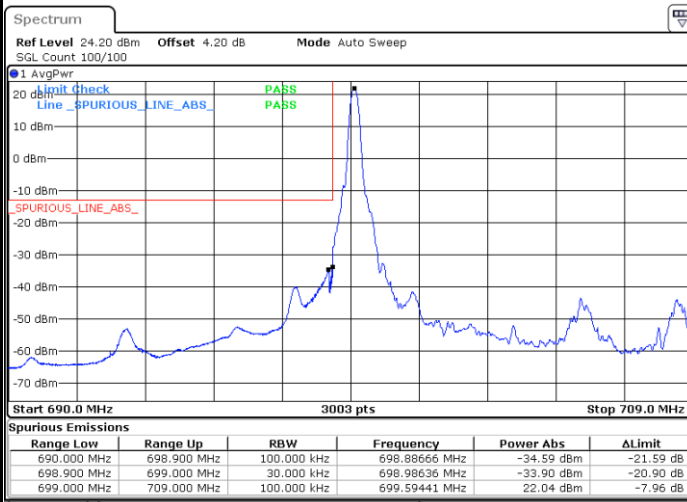
Date: 24.MAY.2022 13:16:42





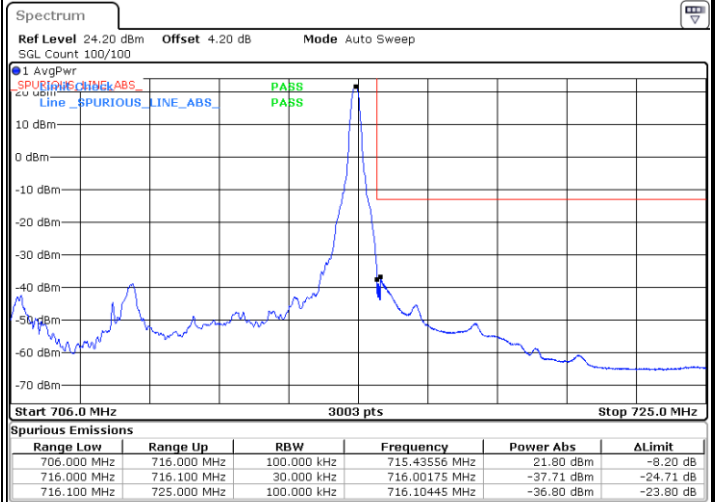
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



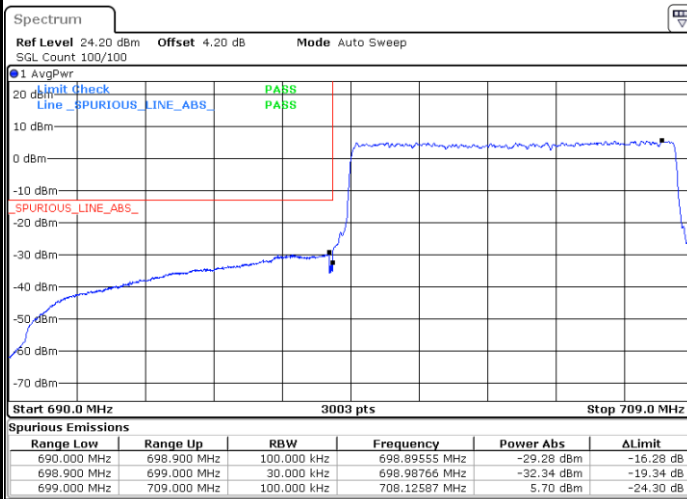
Date: 24.MAY.2022 13:29:10

Highest Band Edge / 1 RB



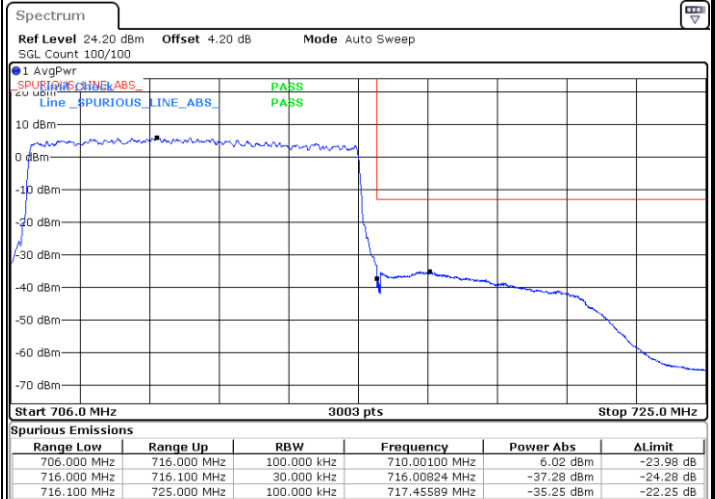
Date: 24.MAY.2022 14:46:25

Lowest Band Edge / Full RB



Date: 24.MAY.2022 13:21:16

Highest Band Edge / Full RB

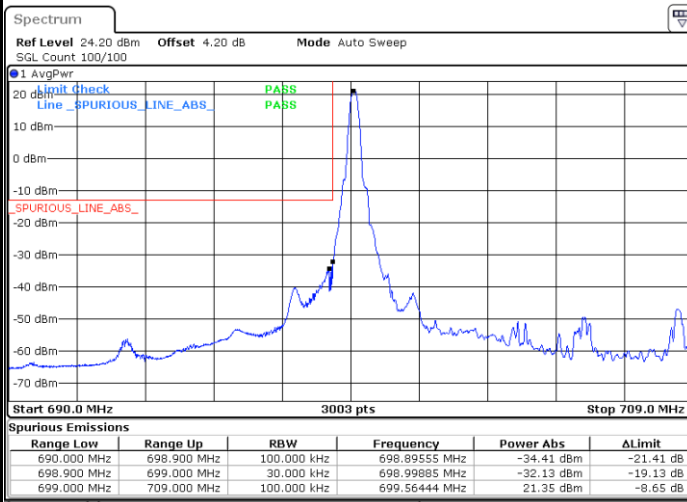


Date: 24.MAY.2022 17:55:26



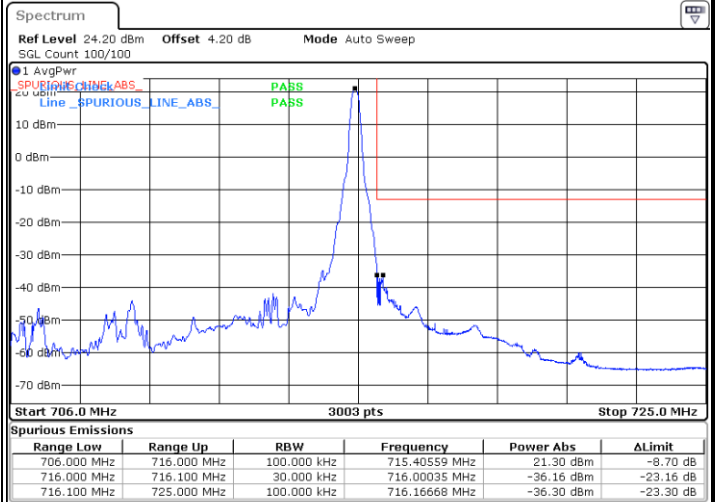
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



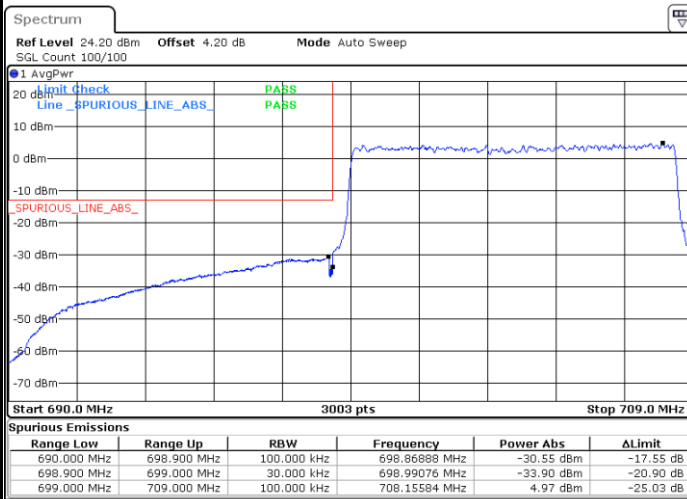
Date: 24.MAY.2022 13:28:20

Highest Band Edge / 1 RB



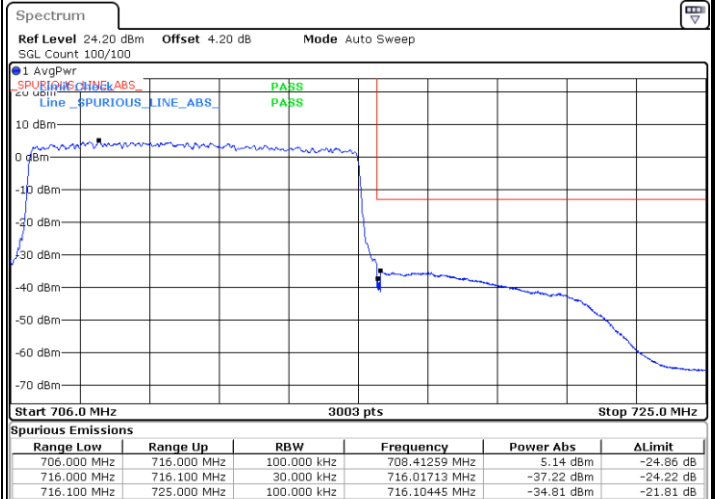
Date: 24.MAY.2022 14:47:33

Lowest Band Edge / Full RB



Date: 24.MAY.2022 13:22:30

Highest Band Edge / Full RB

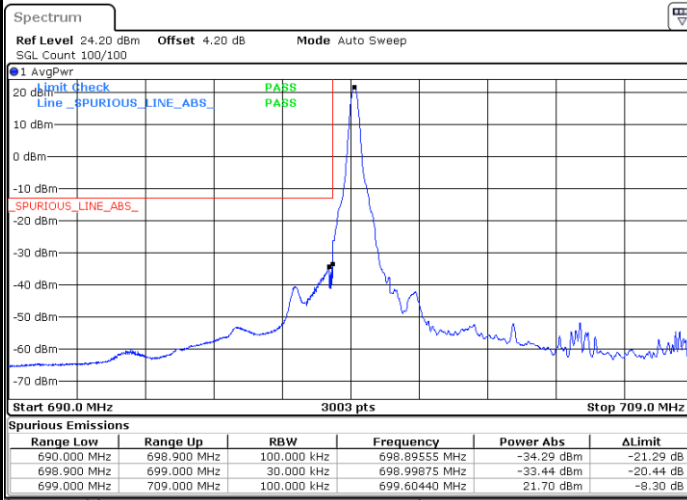


Date: 24.MAY.2022 17:56:41



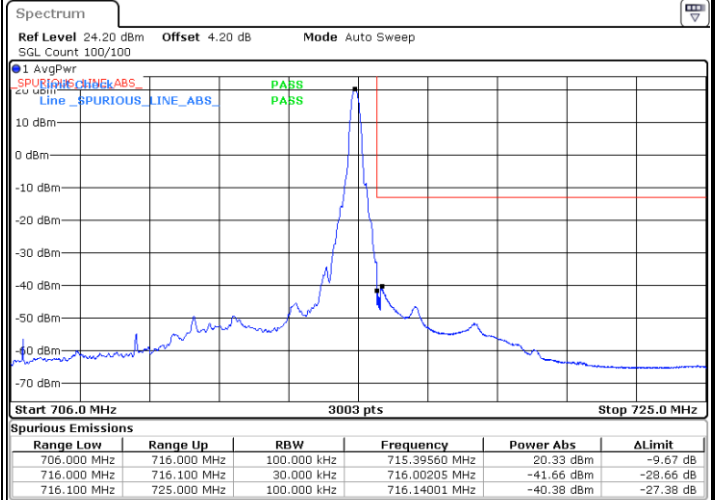
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



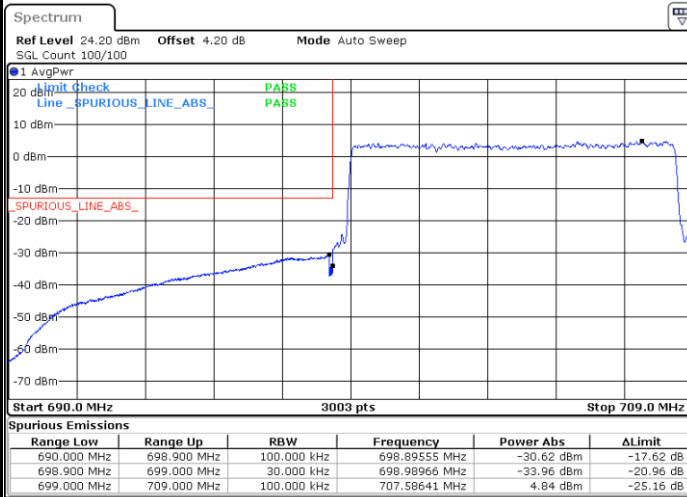
Date: 24.MAY.2022 13:26:42

Highest Band Edge / 1 RB



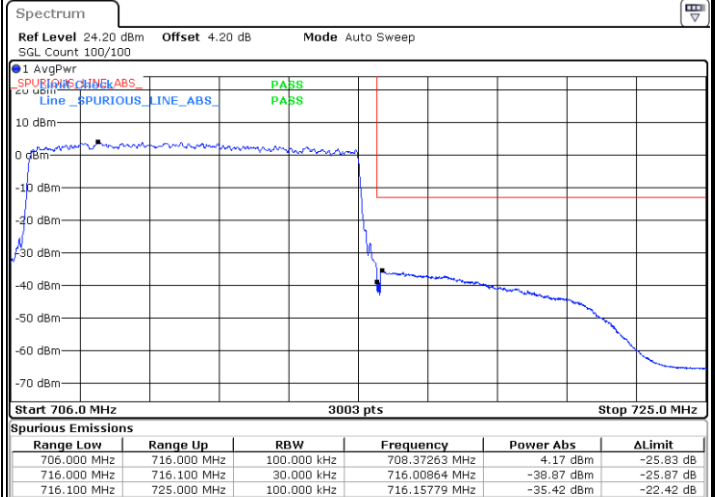
Date: 24.MAY.2022 14:48:30

Lowest Band Edge / Full RB



Date: 24.MAY.2022 13:25:16

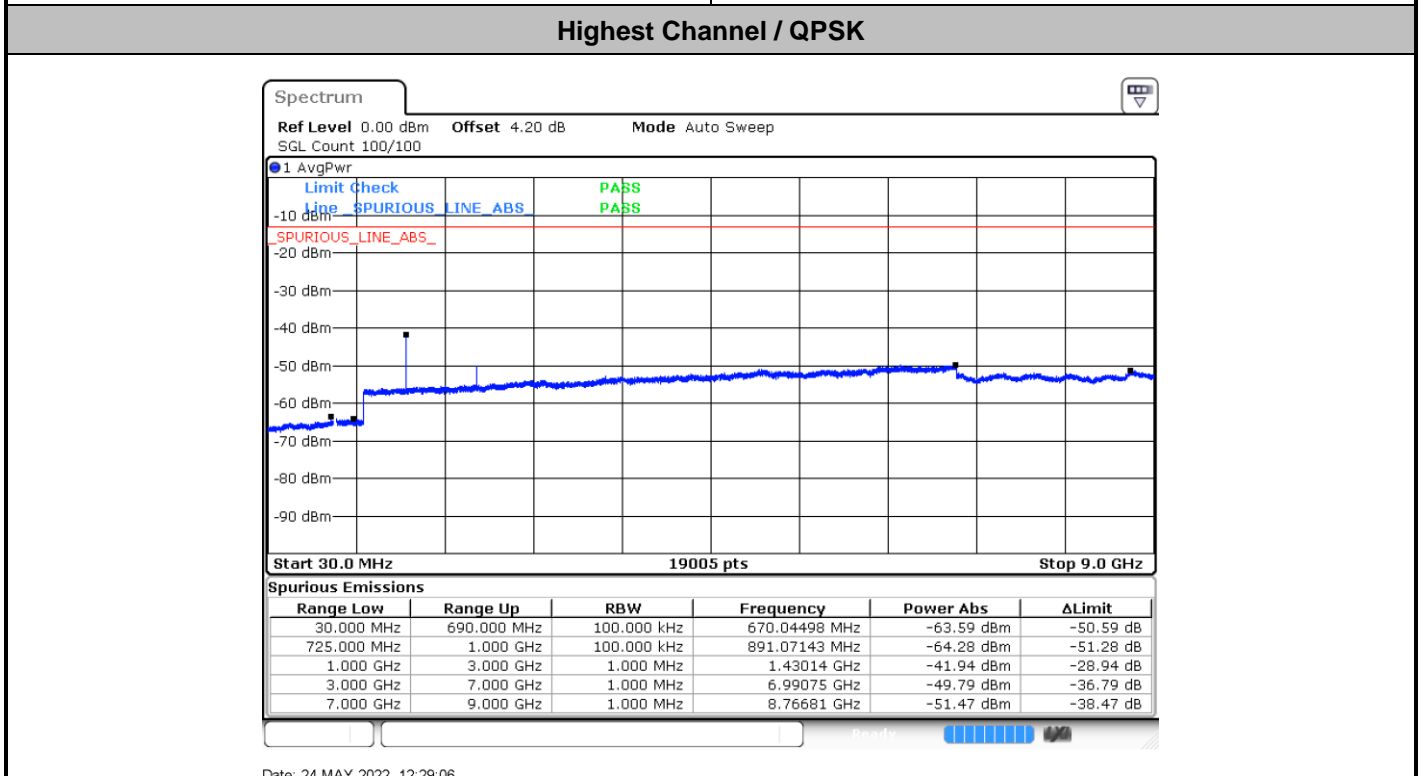
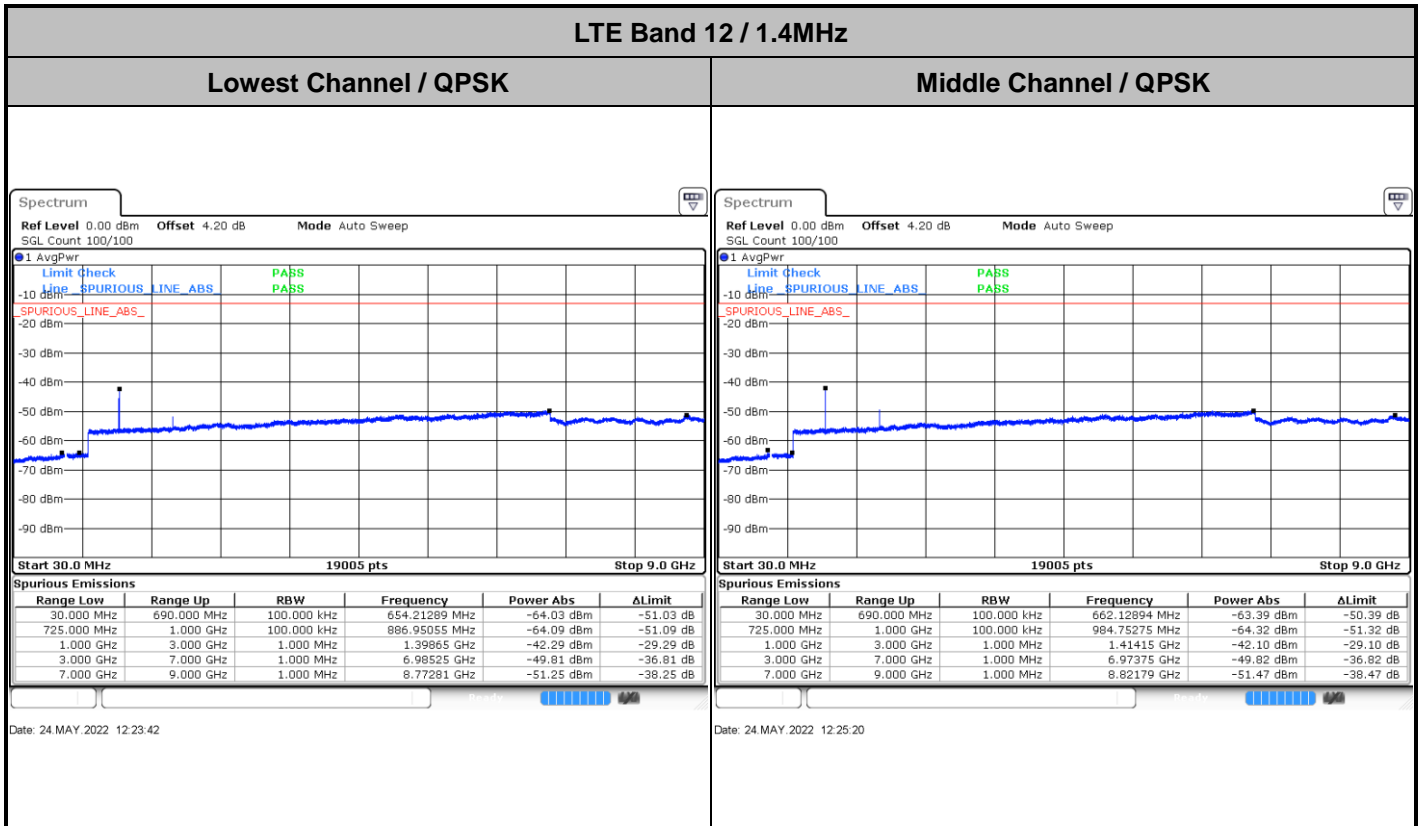
Highest Band Edge / Full RB



Date: 24.MAY.2022 14:49:44



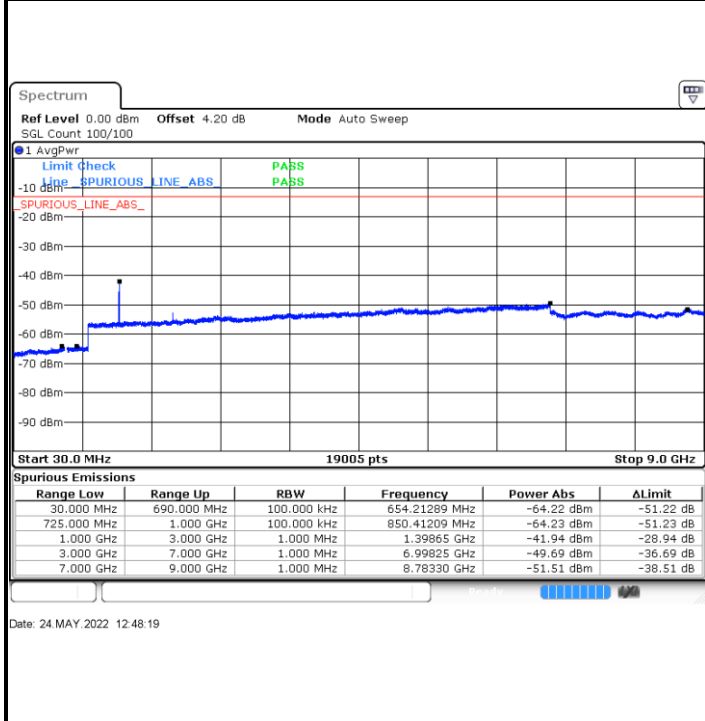
# Conducted Spurious Emission



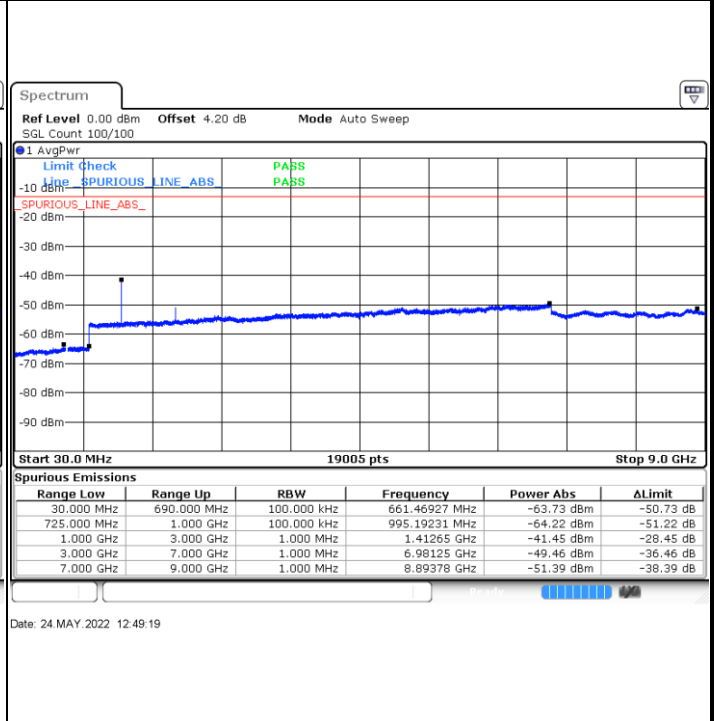


**LTE Band 12 / 3MHz**

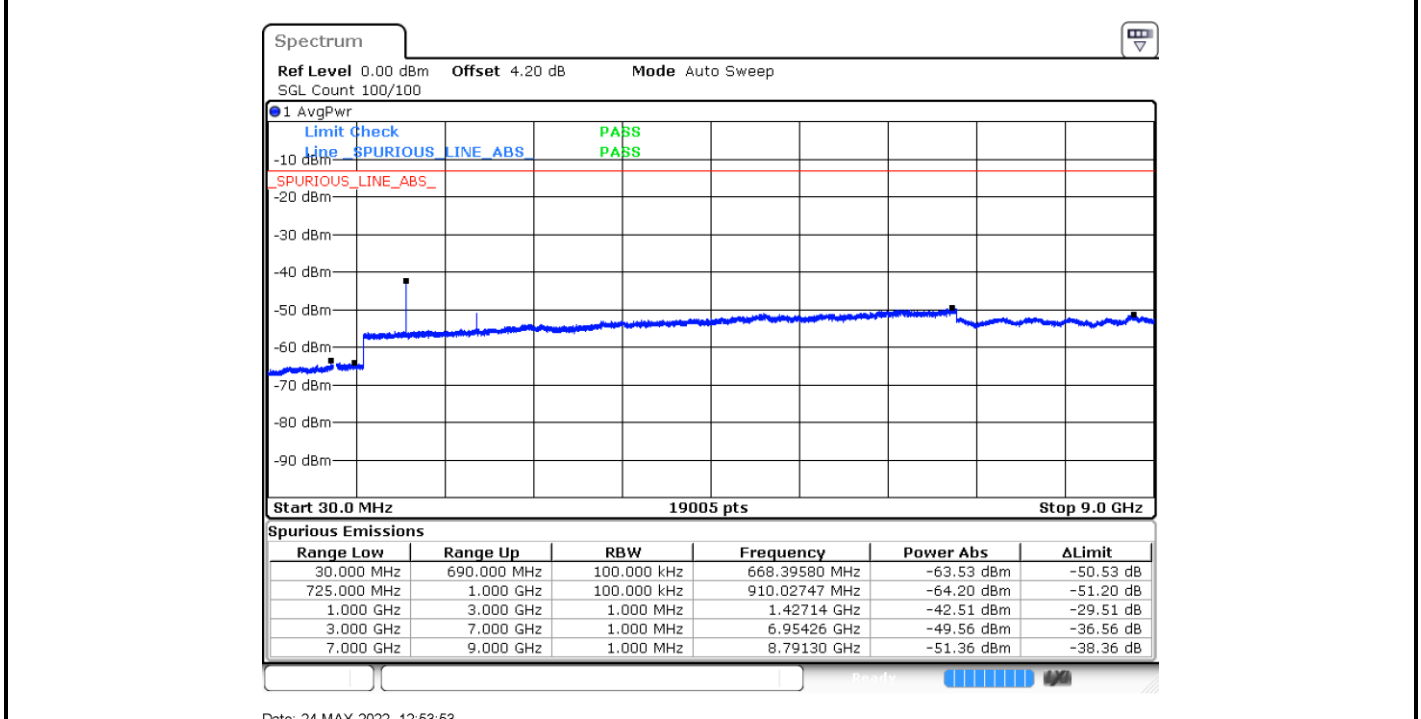
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



**Highest Channel / QPSK**

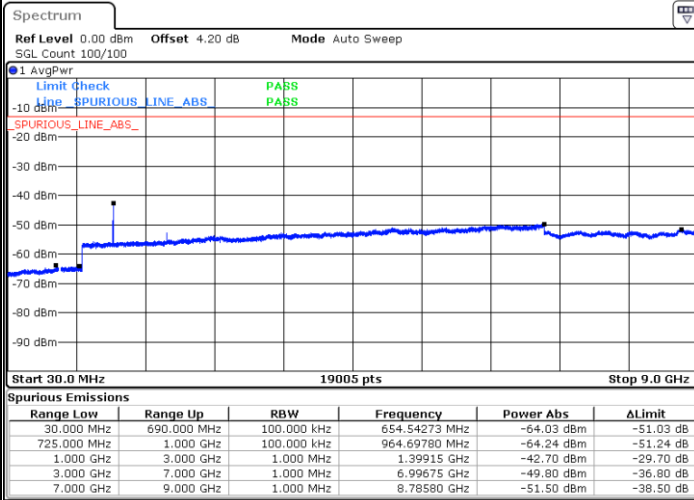




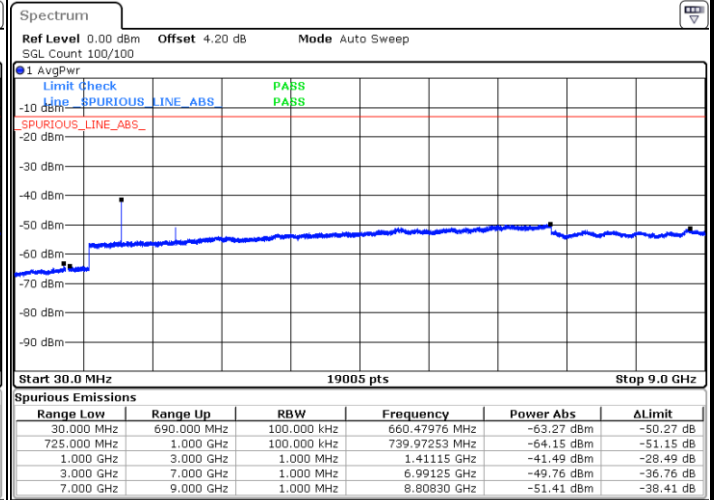
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

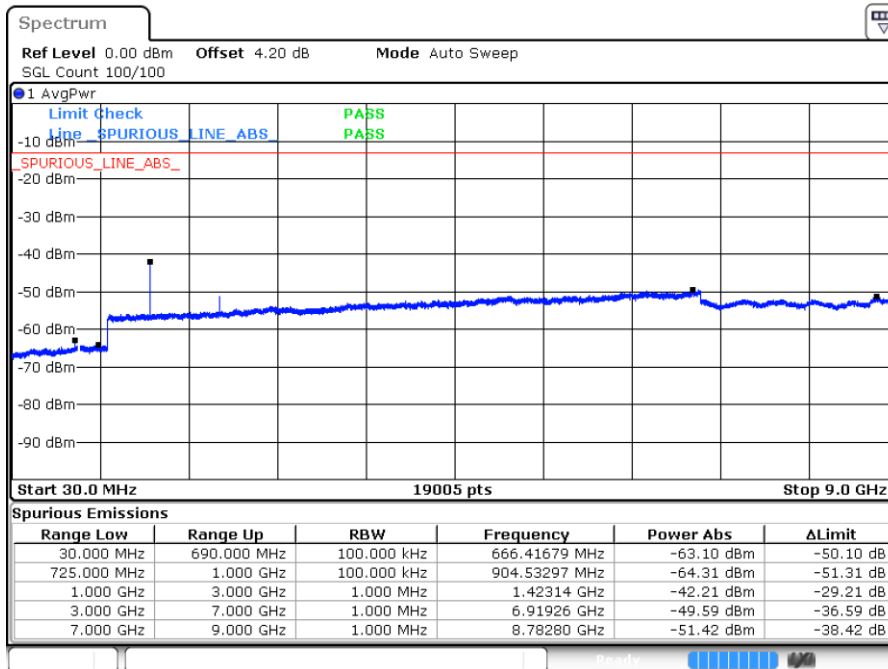


Date: 24 MAY 2022 13:08:43



Date: 24 MAY 2022 13:09:22

Highest Channel / QPSK



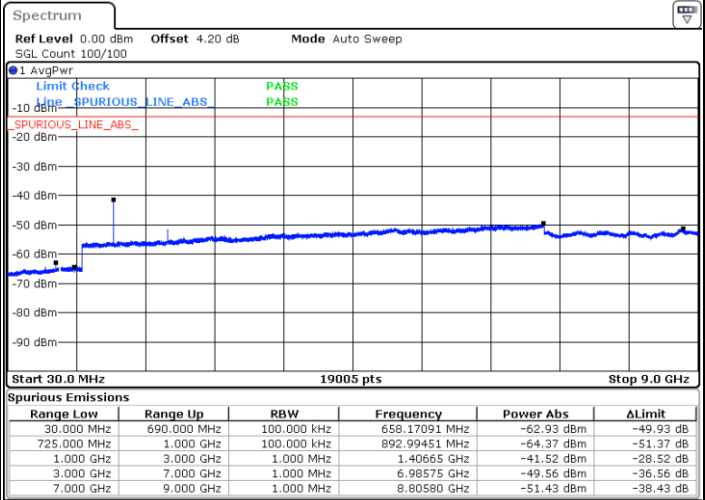
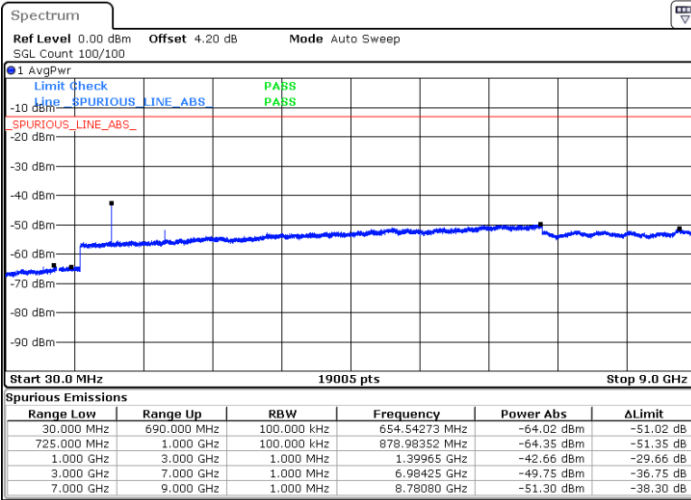
Date: 24 MAY 2022 13:13:46



LTE Band 12 / 10MHz

Lowest Channel / QPSK

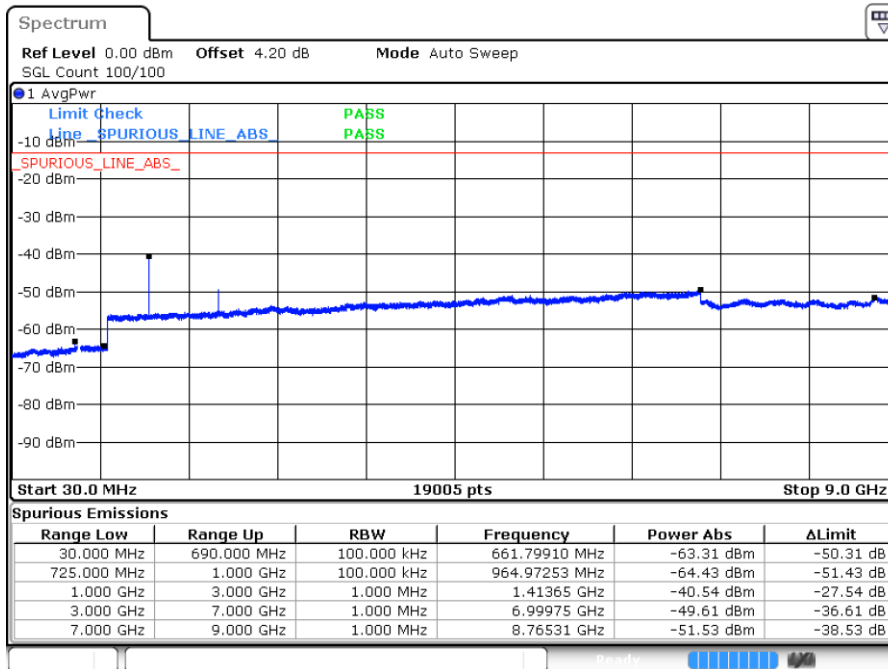
Middle Channel / QPSK



Date: 24 MAY 2022 13:29:52

Date: 24 MAY 2022 13:31:56

Highest Channel / QPSK



Date: 24 MAY 2022 14:45:07



### 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	0.0006	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0085	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0099	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0071	
-30	Normal Voltage	0.0061	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0002	

**Note:**

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

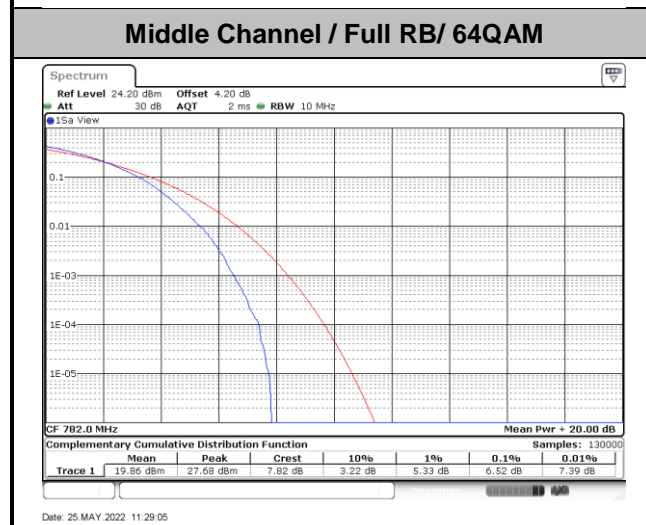
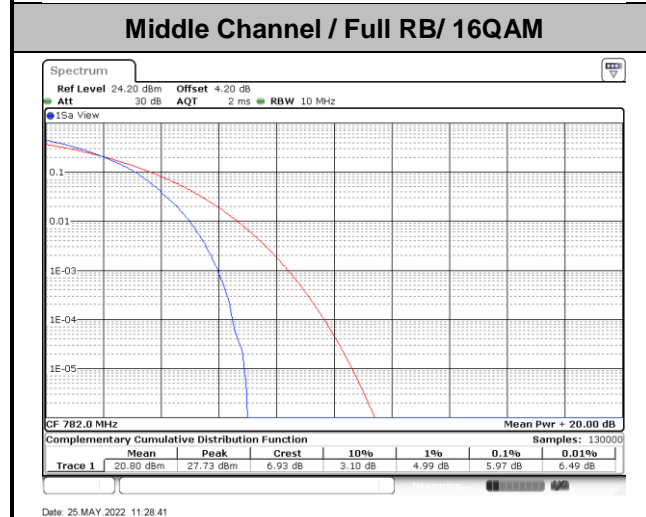
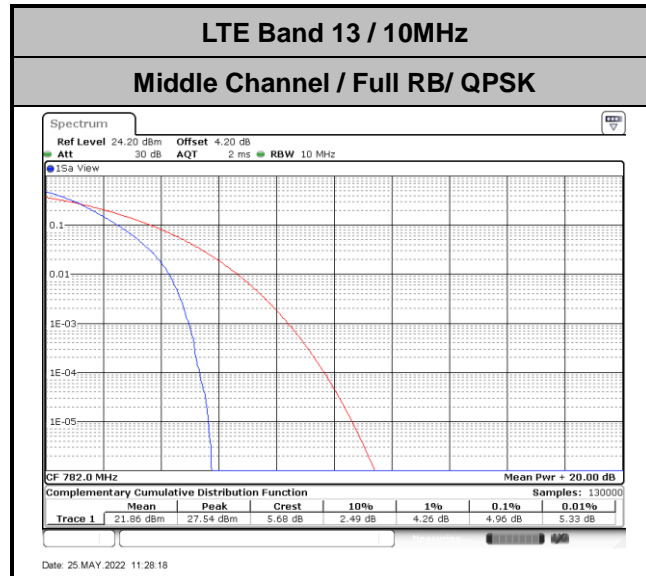




## LTE Band 13

### Peak-to-Average Ratio

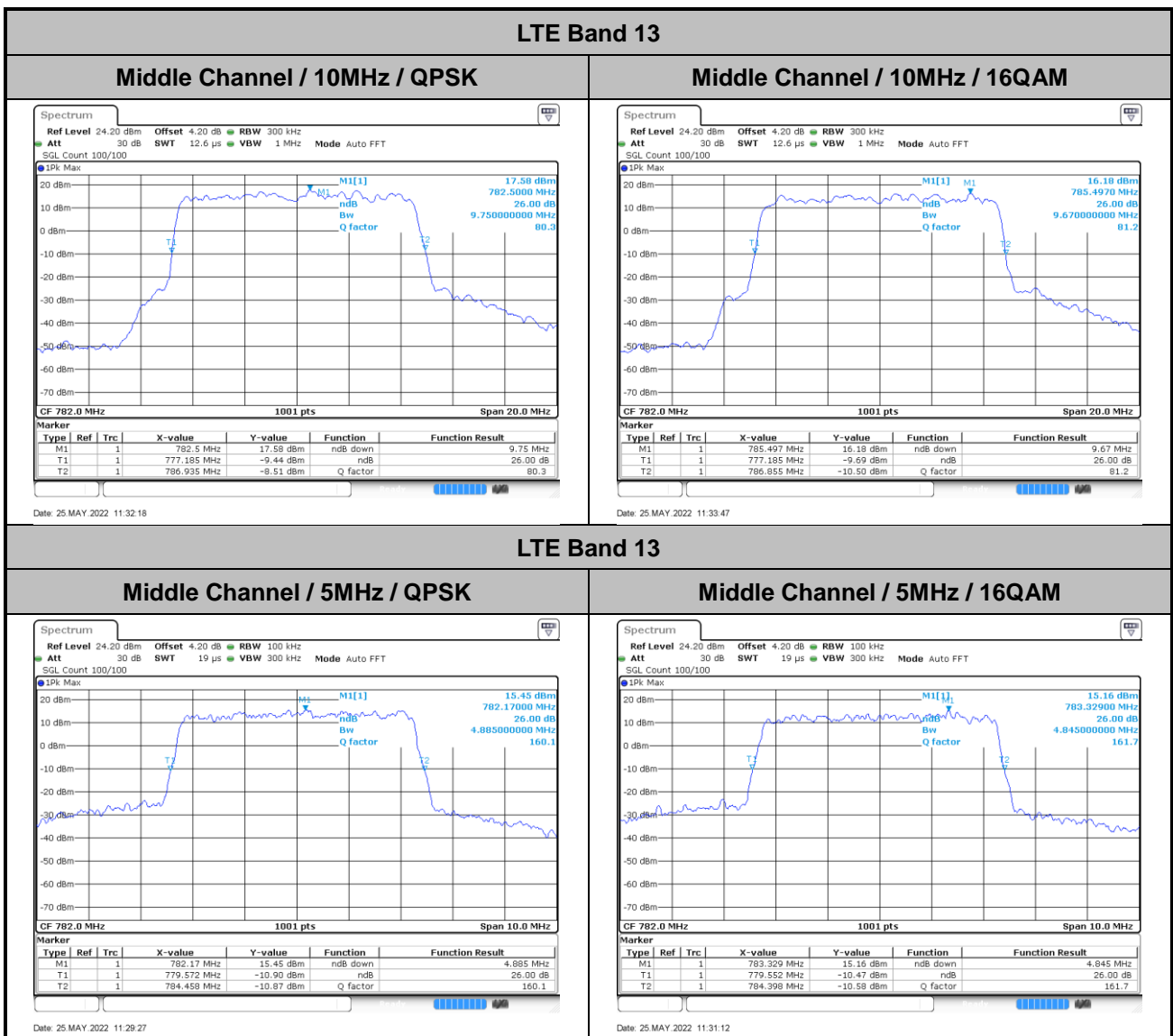
Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.96	5.97	6.52	<b>PASS</b>





**26dB Bandwidth**

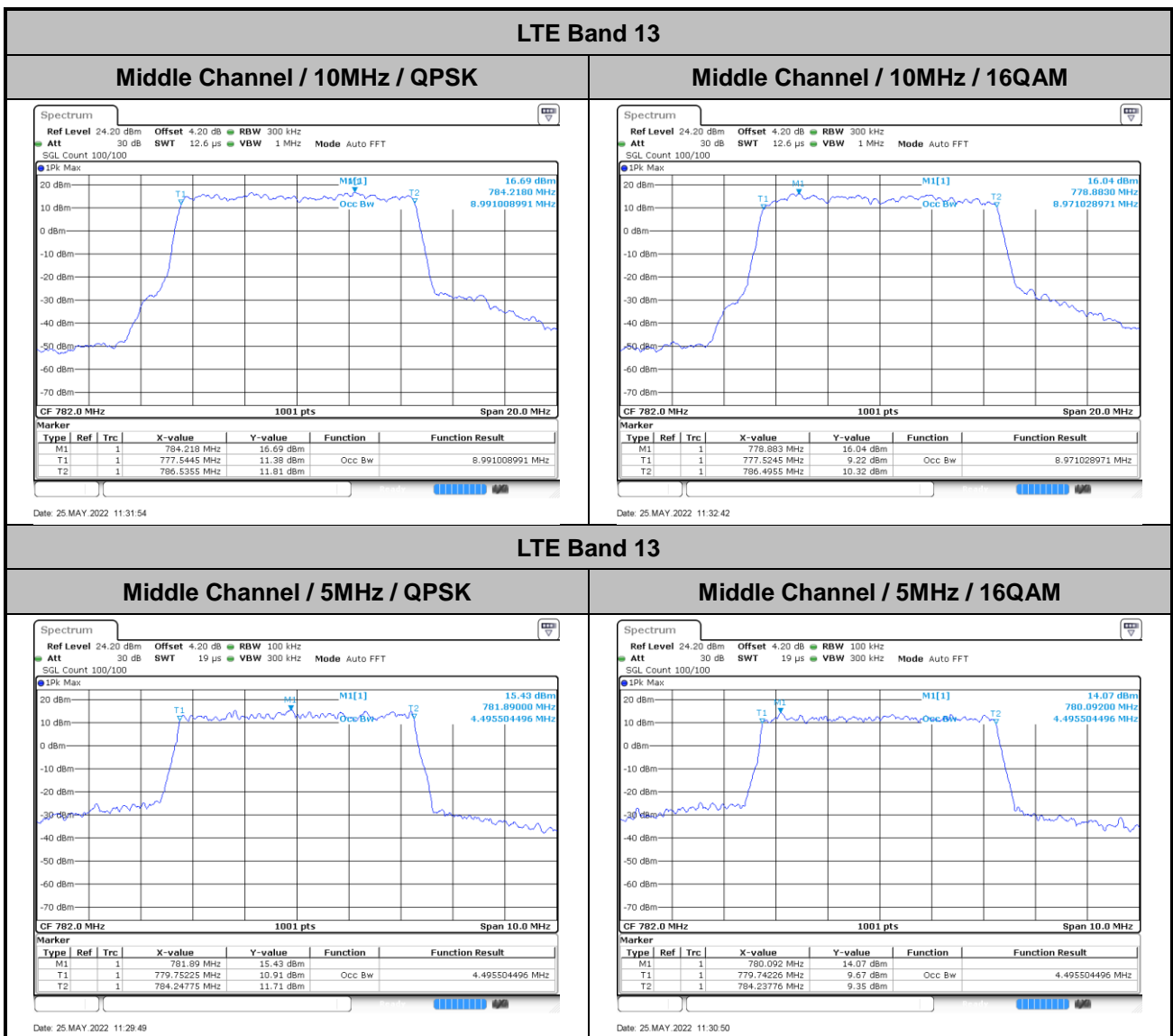
<b>Mode</b>	<b>LTE Band 13 : 26dB BW(MHz)</b>	
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	<b>9.75</b>	<b>9.67</b>
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	<b>4.89</b>	<b>4.85</b>





# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.99	8.97
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.50	4.50

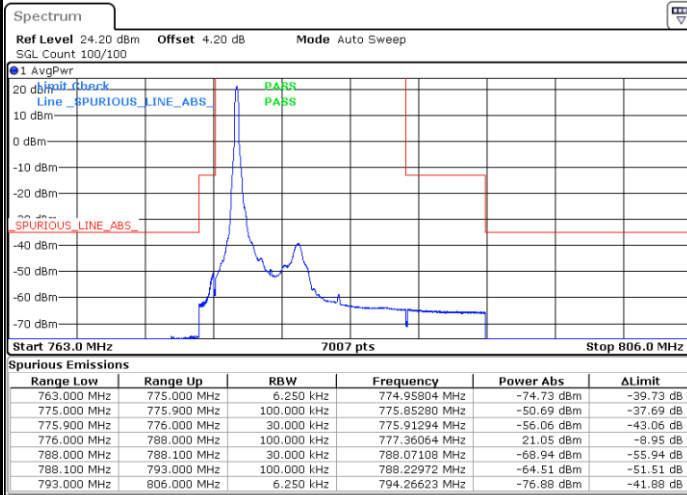




# Conducted Band Edge

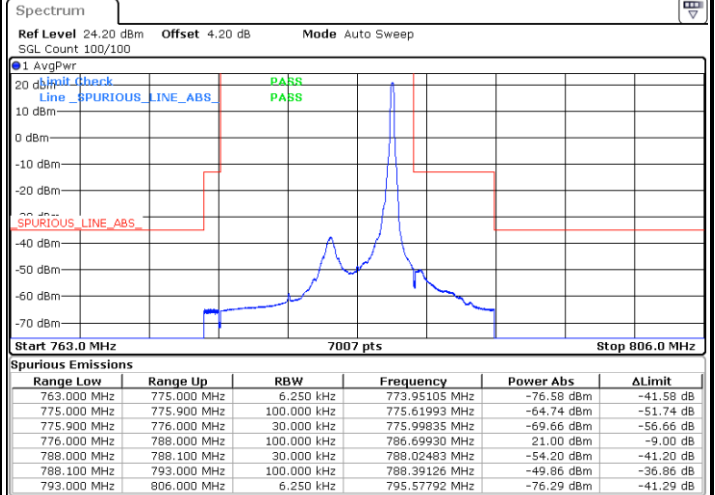
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



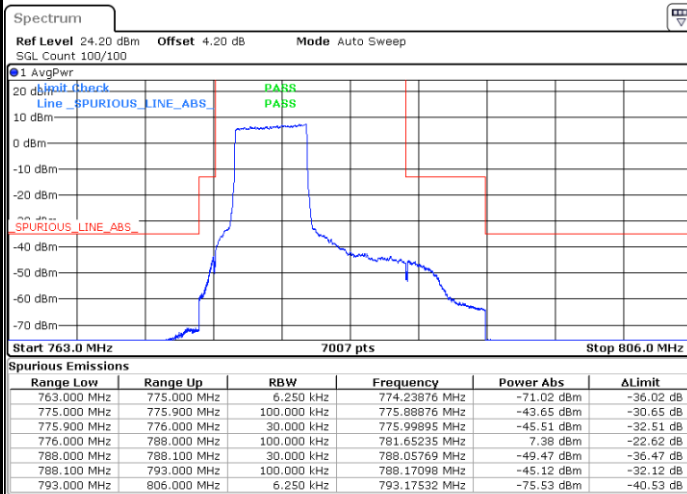
Date: 25 MAY 2022 10:43:00

### Highest Band Edge / 1 RB



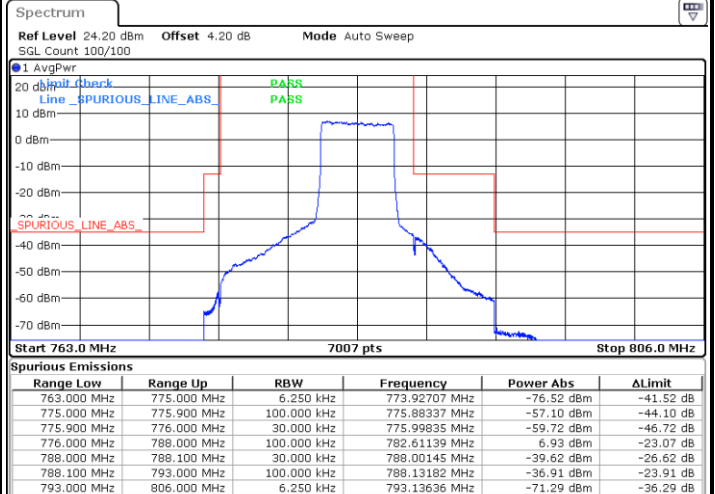
Date: 25 MAY 2022 10:56:46

### Lowest Band Edge / Full RB



Date: 25 MAY 2022 10:52:15

### Highest Band Edge / Full RB

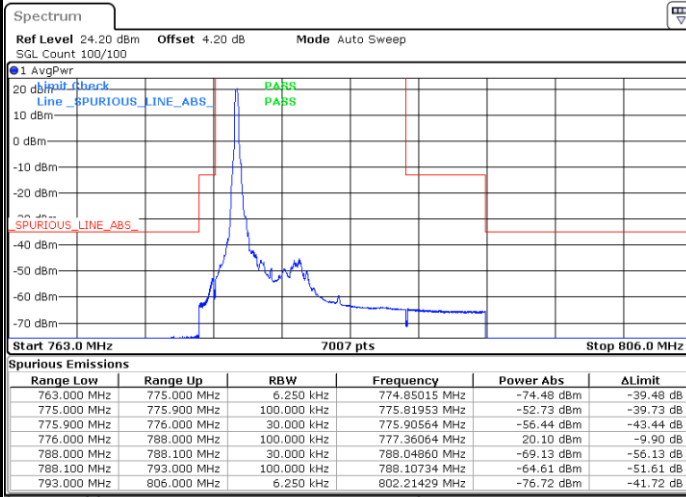


Date: 25 MAY 2022 11:05:57



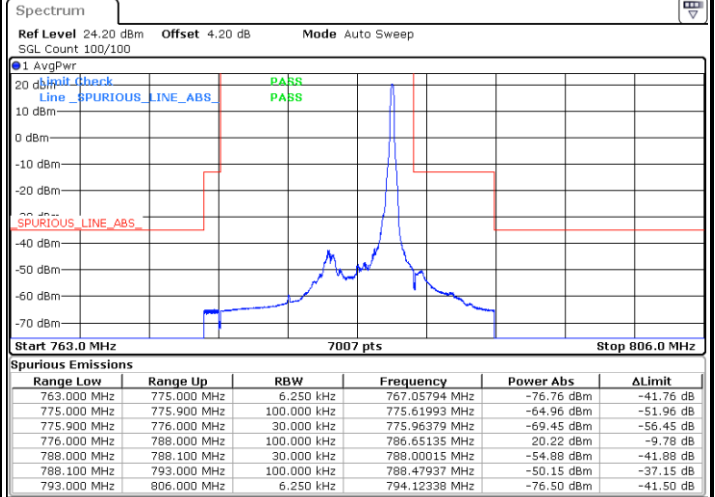
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB



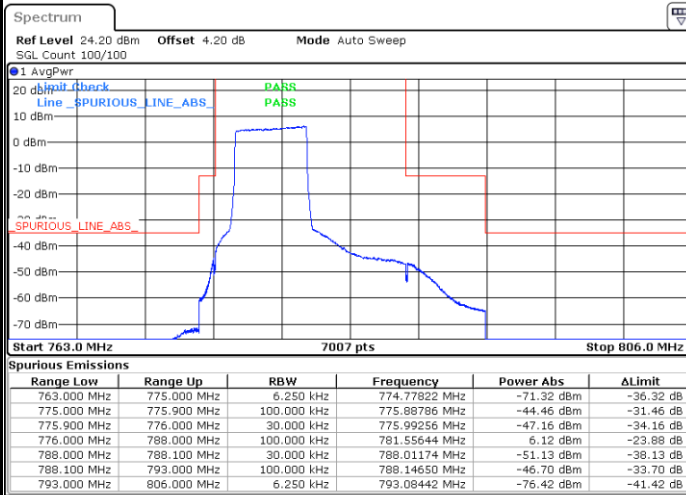
Date: 25 MAY 2022 10:44:52

Highest Band Edge / 1 RB



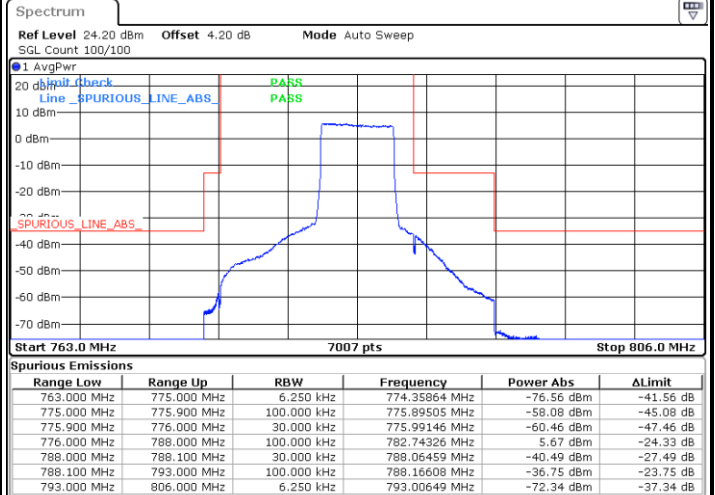
Date: 25 MAY 2022 10:58:36

Lowest Band Edge / Full RB



Date: 25 MAY 2022 10:50:26

Highest Band Edge / Full RB

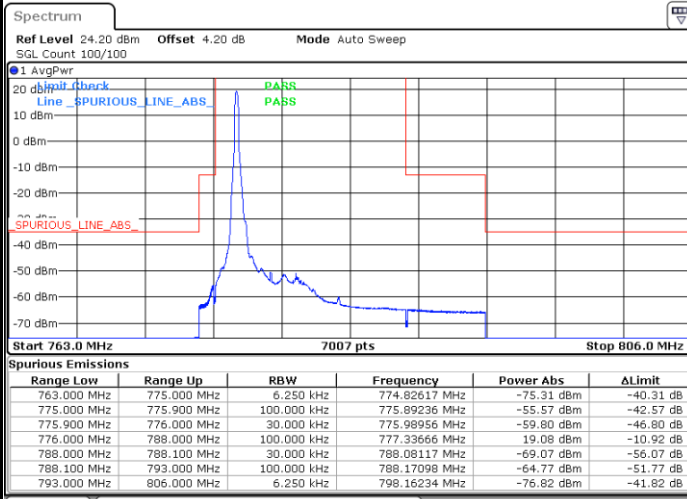


Date: 25 MAY 2022 11:04:07



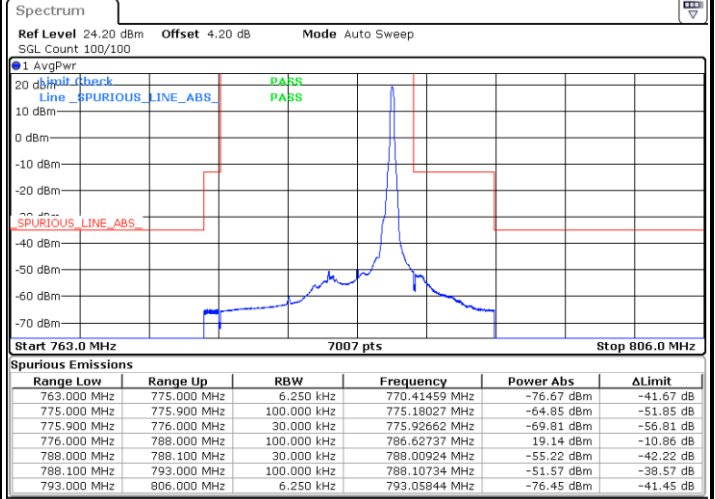
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB



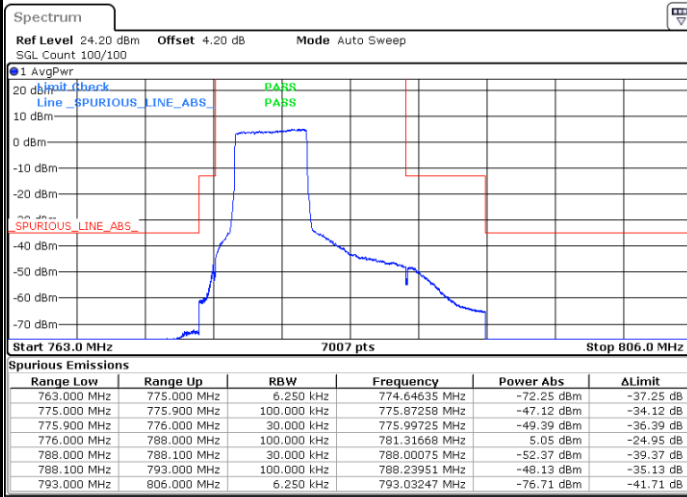
Date: 25 MAY 2022 10:46:42

Highest Band Edge / 1 RB



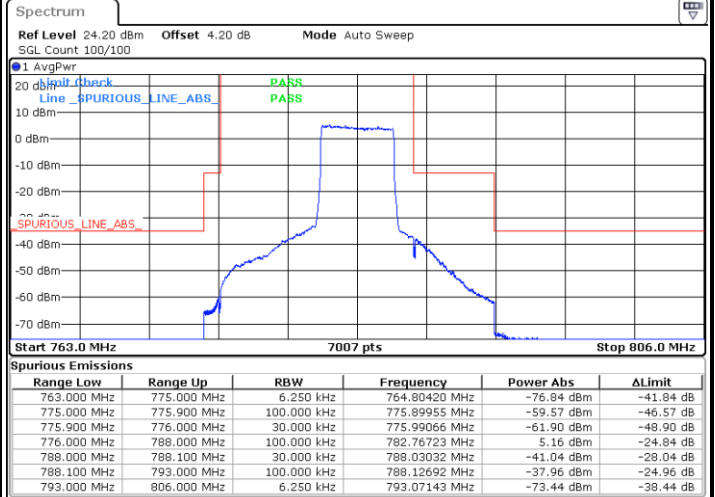
Date: 25 MAY 2022 11:00:26

Lowest Band Edge / Full RB



Date: 25 MAY 2022 10:48:36

Highest Band Edge / Full RB

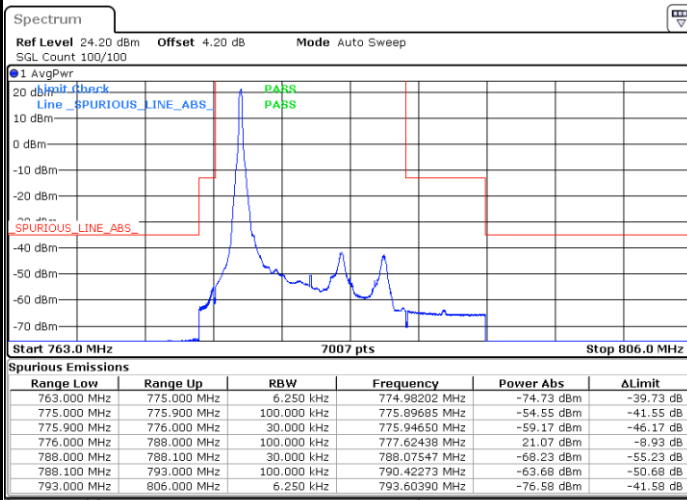


Date: 25 MAY 2022 11:02:17



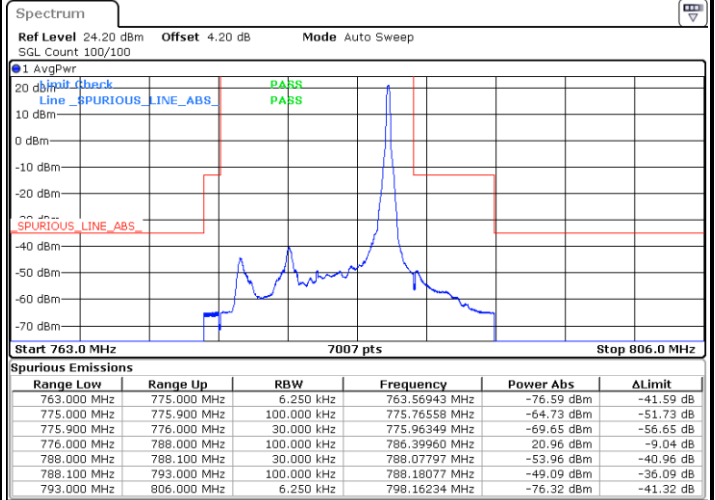
LTE Band 13 / 10MHz / QPSK

middle Band Edge / 1 RB



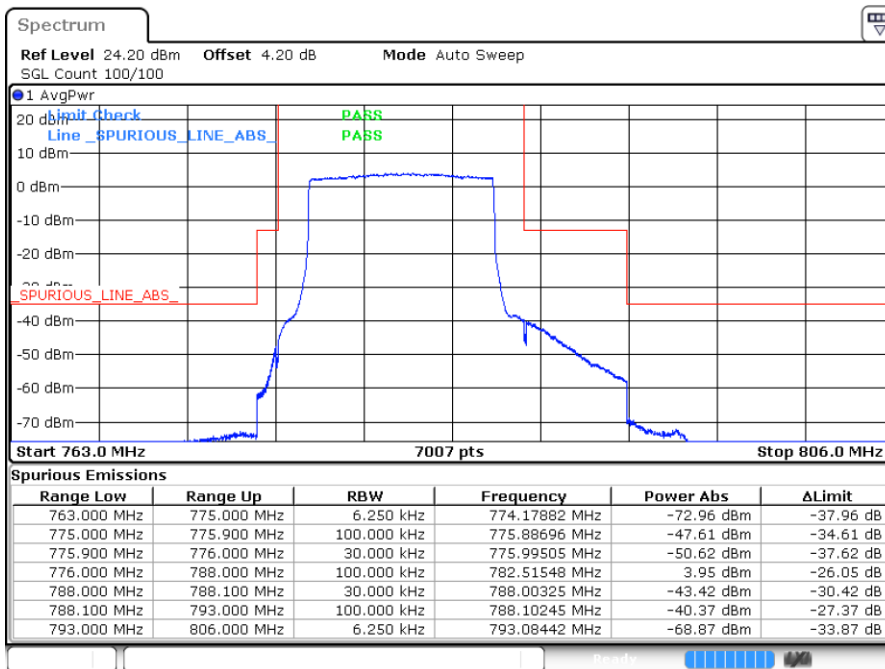
Date: 25 MAY 2022 11:09:07

middle Band Edge / 1 RB



Date: 25 MAY 2022 11:21:58

Middle Band Edge / Full RB



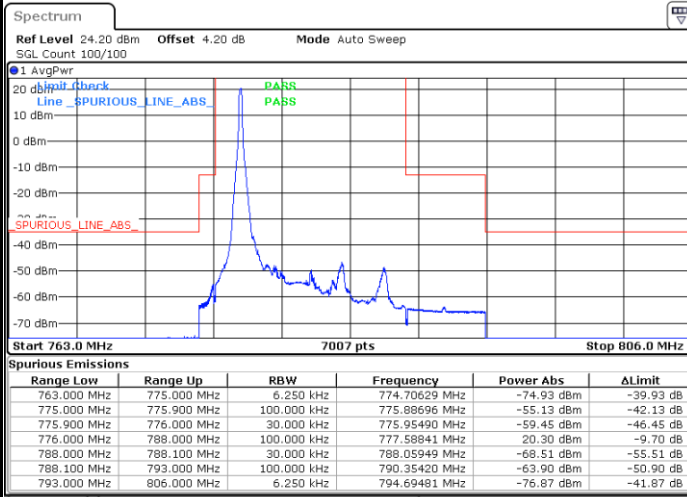
Date: 25 MAY 2022 11:18:14





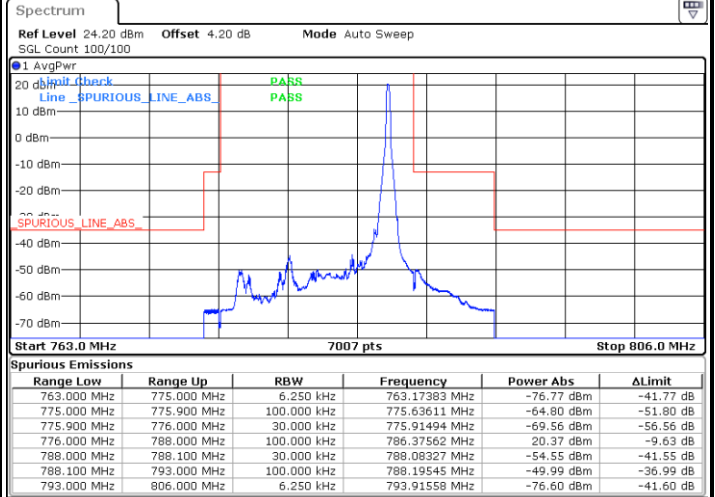
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



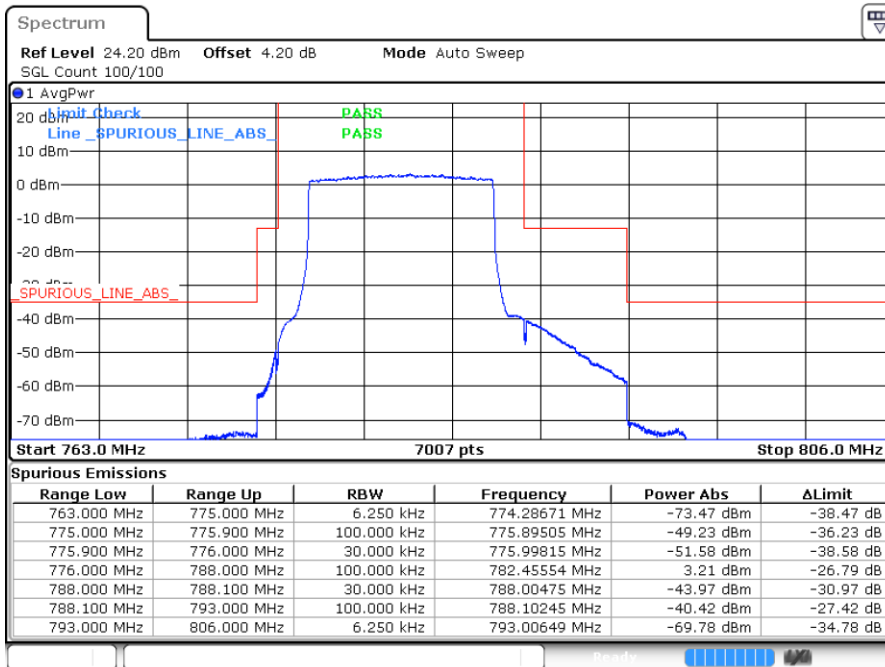
Date: 25 MAY 2022 11:10:58

middle Band Edge / 1 RB



Date: 25 MAY 2022 11:23:52

middle Band Edge / Full RB

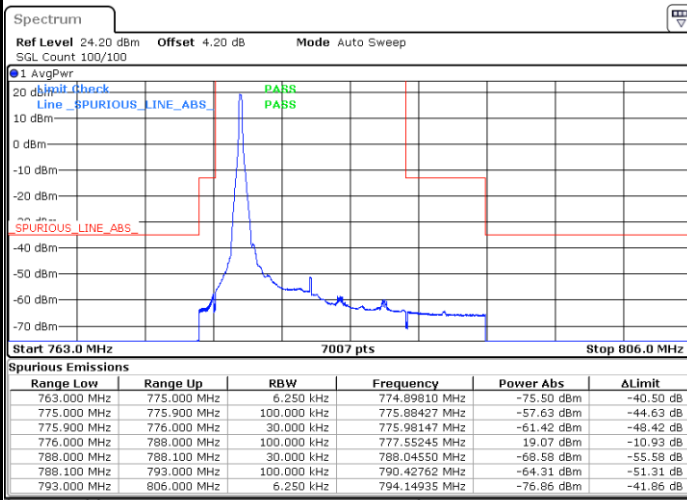


Date: 25 MAY 2022 11:16:25



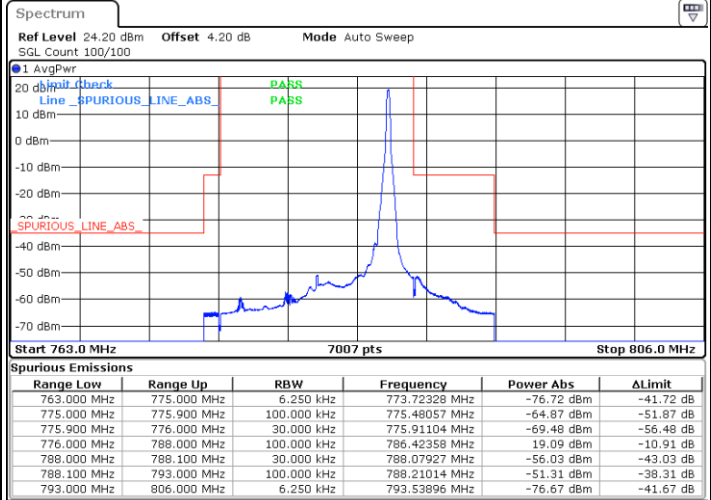
LTE Band 13 / 10MHz / 64QAM

middle Band Edge / 1 RB



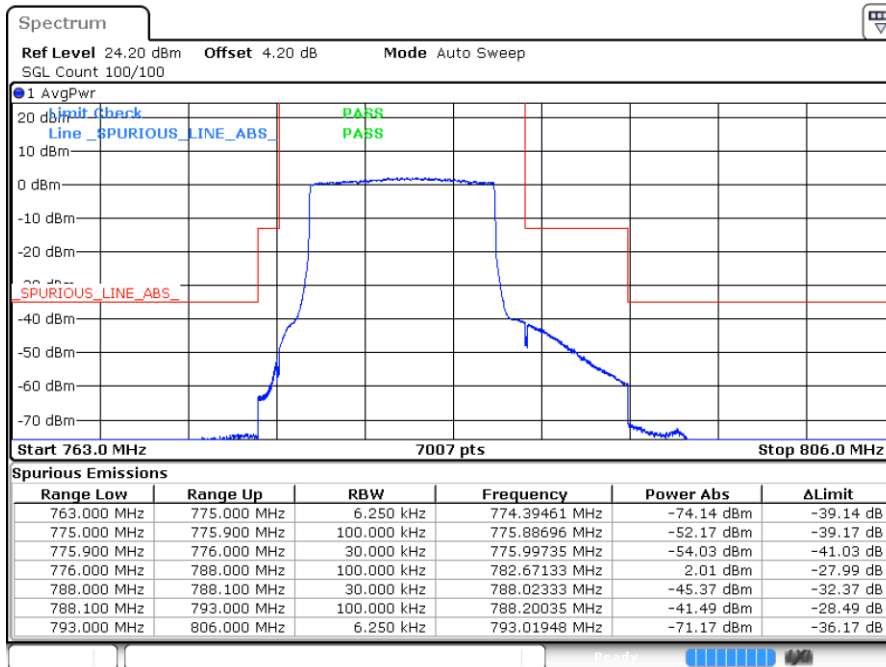
Date: 25 MAY 2022 11:12:47

middle Band Edge / 1 RB



Date: 25 MAY 2022 11:25:42

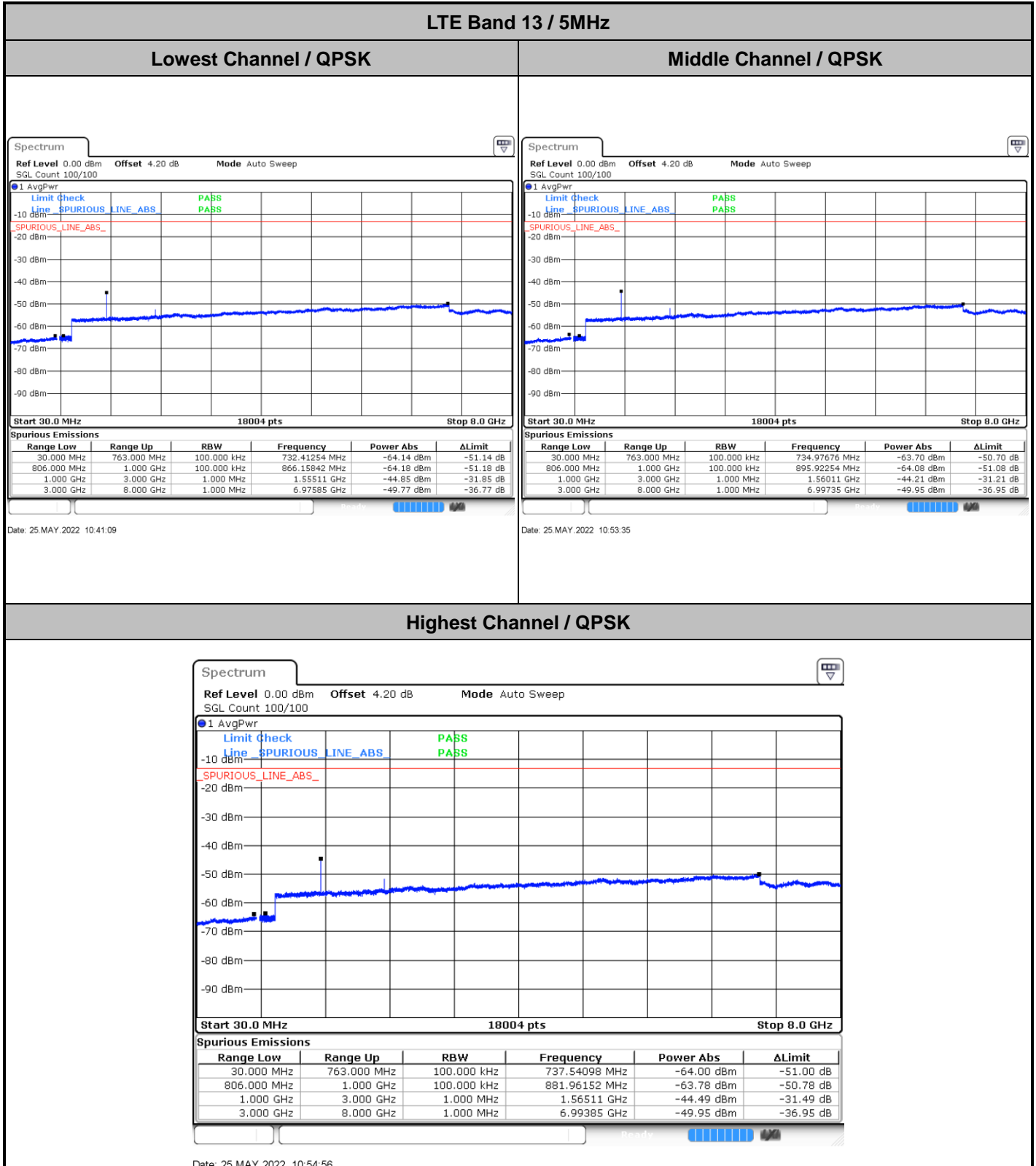
middle Band Edge / Full RB



Date: 25 MAY 2022 11:14:36



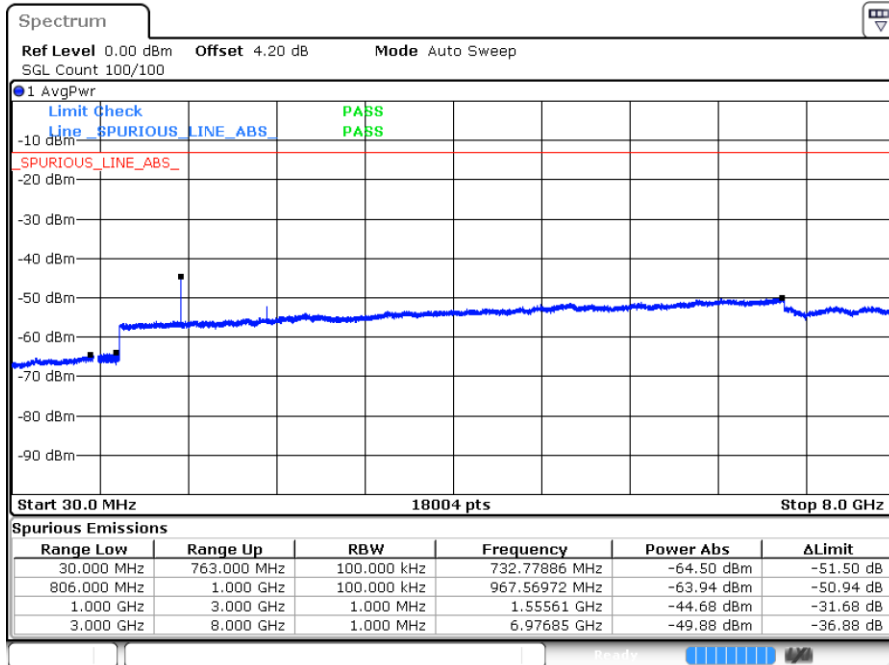
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 25 MAY 2022 11:07:17



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	0.0245	PASS
40	Normal Voltage	0.0036	
30	Normal Voltage	0.0252	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0211	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0053	
20	Maximum Voltage	0.0264	
20	Normal Voltage	0.0002	
20	Battery End Point	0.0026	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 38

### Peak-to-Average Ratio

Mode	LTE Band 38 / 20MHz			
RB Size	Full RB	Full RB	Full RB	Limit: 13dB
Mod.	QPSK	16QAM	64QAM	Result
Middle CH	5.22	7.74	8.14	<b>PASS</b>

