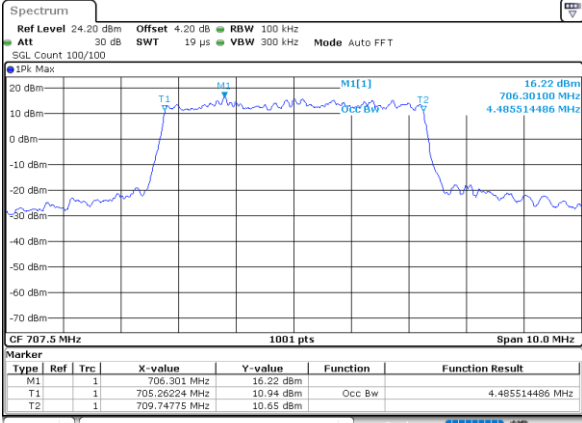




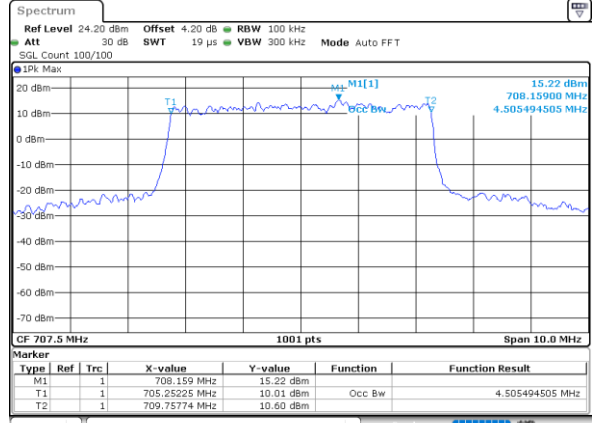
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 15 JUN 2022 13:30:27

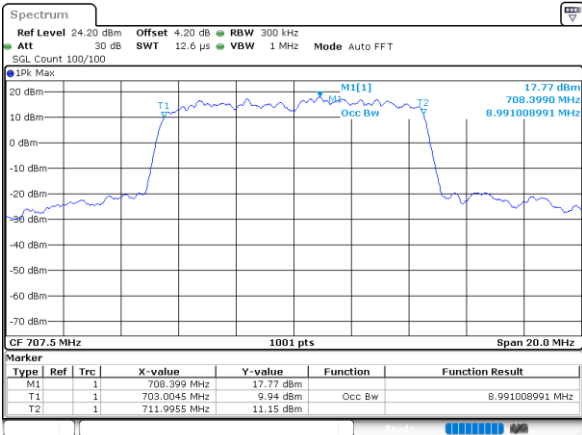
Middle Channel / 5MHz / 16QAM



Date: 15 JUN 2022 13:31:45

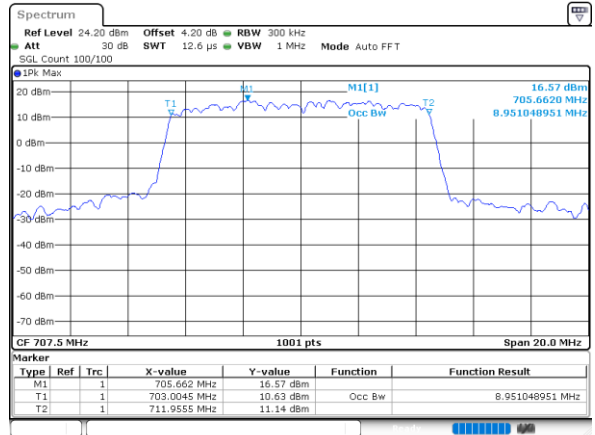
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 15 JUN 2022 13:25:07

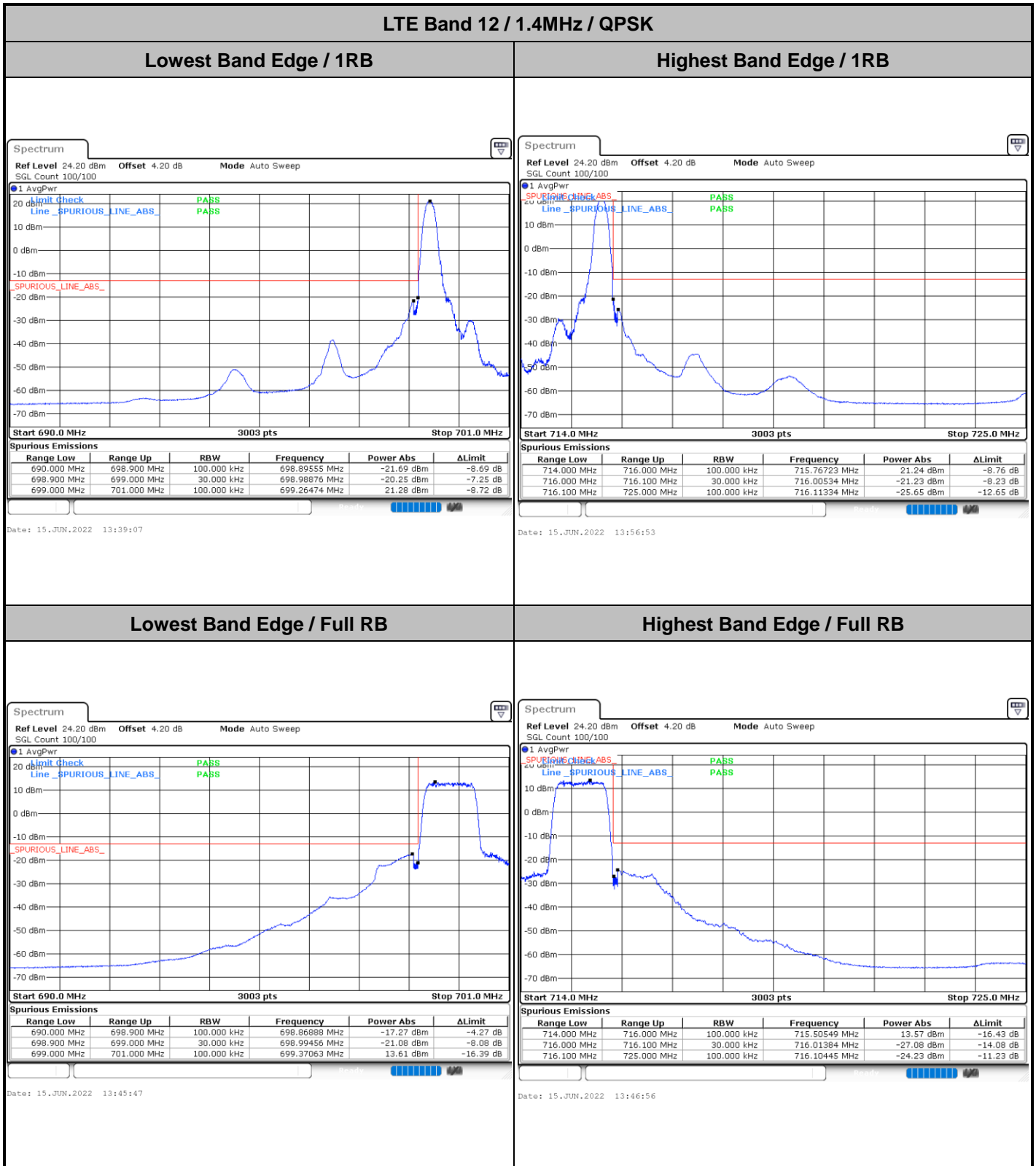
Middle Channel / 10MHz / 16QAM



Date: 15 JUN 2022 13:25:35



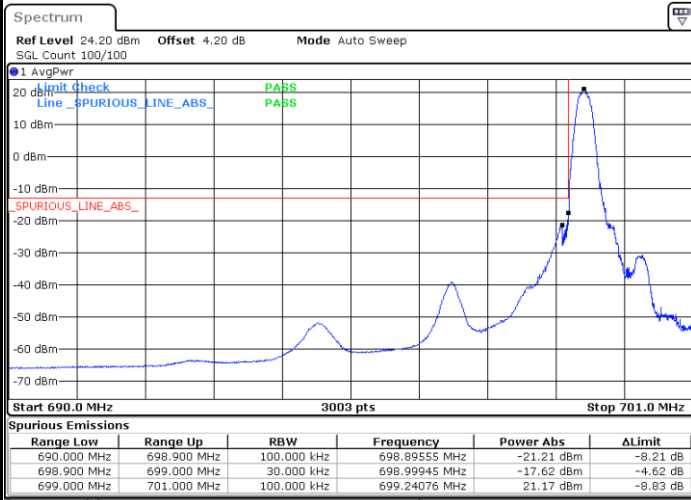
Conducted Band Edge





LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



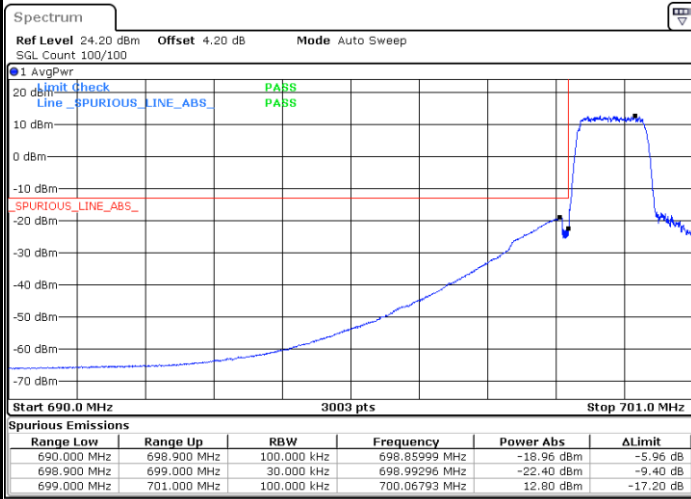
Date: 15 JUN.2022 13:41:05

Highest Band Edge / 1 RB



Date: 15 JUN.2022 13:55:39

Lowest Band Edge / Full RB



Date: 15 JUN.2022 13:44:59

Highest Band Edge / Full RB

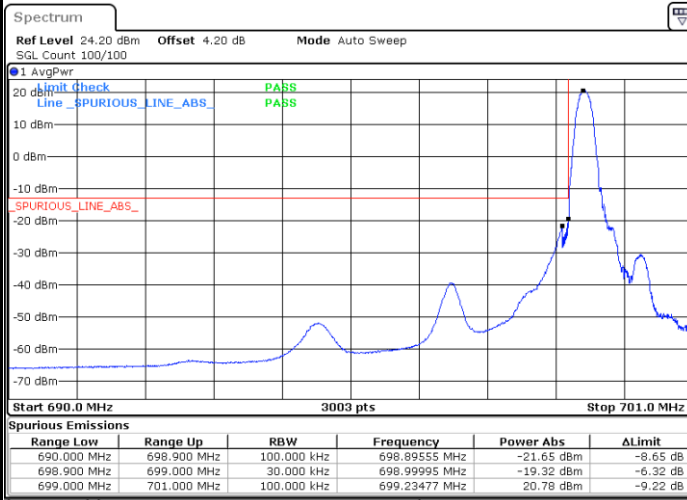


Date: 15 JUN.2022 13:50:08



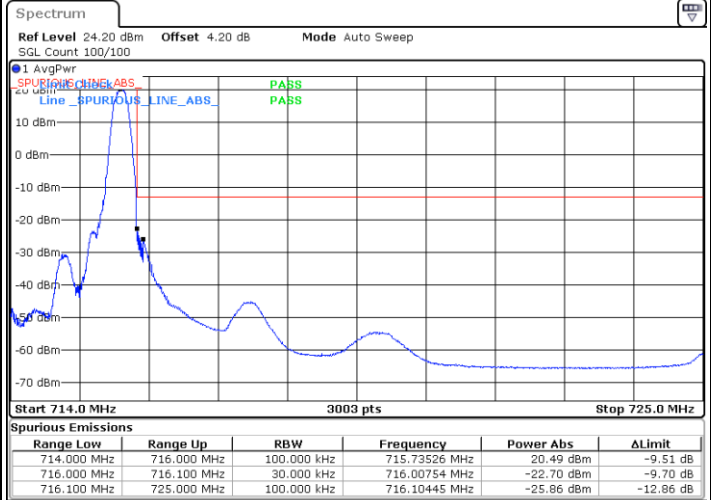
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



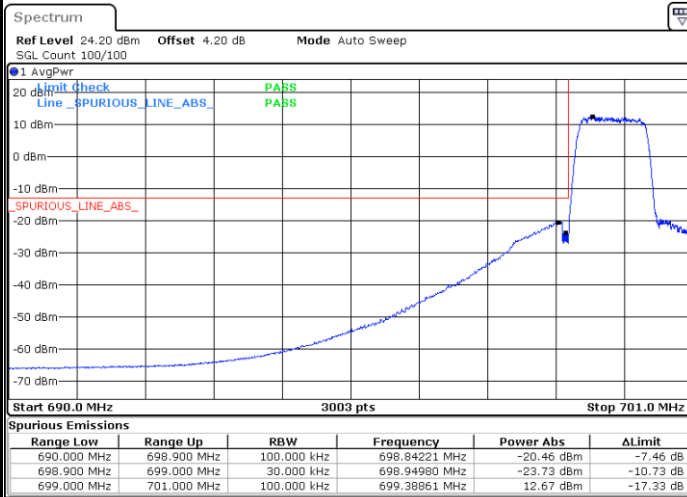
Date: 15 JUN.2022 13:41:54

Highest Band Edge / 1 RB



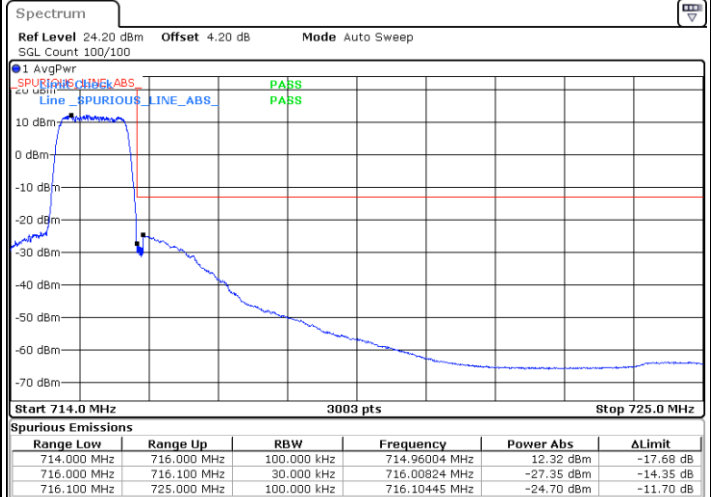
Date: 15 JUN.2022 13:54:49

Lowest Band Edge / Full RB



Date: 15 JUN.2022 13:44:10

Highest Band Edge / Full RB

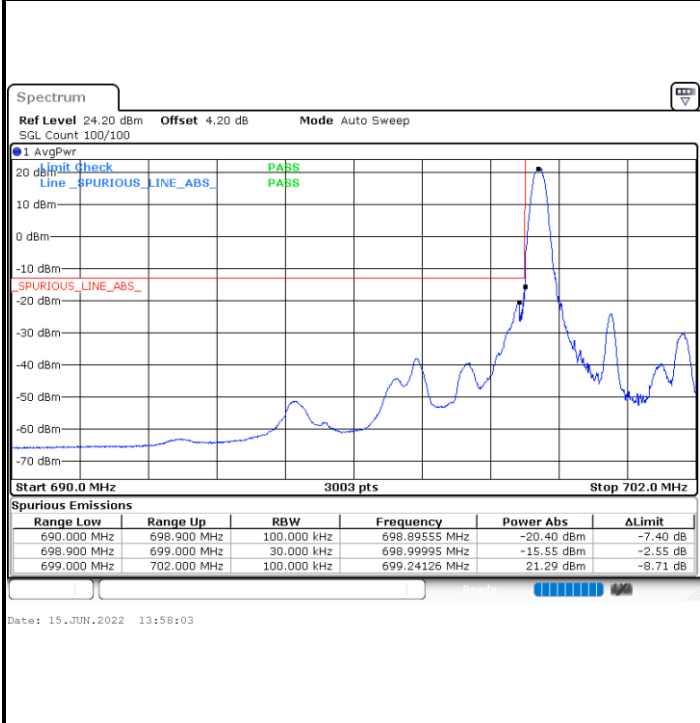


Date: 15 JUN.2022 13:52:14

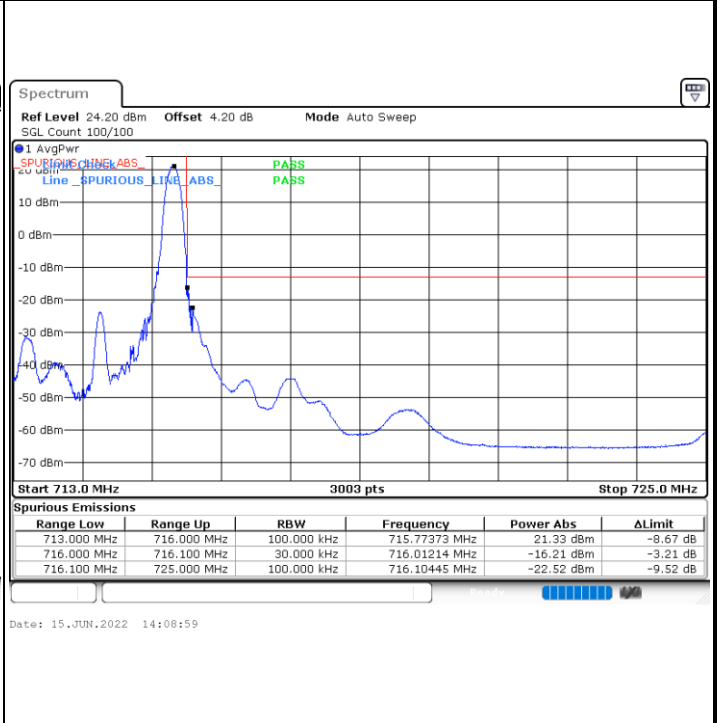


LTE Band 12 / 3MHz / QPSK

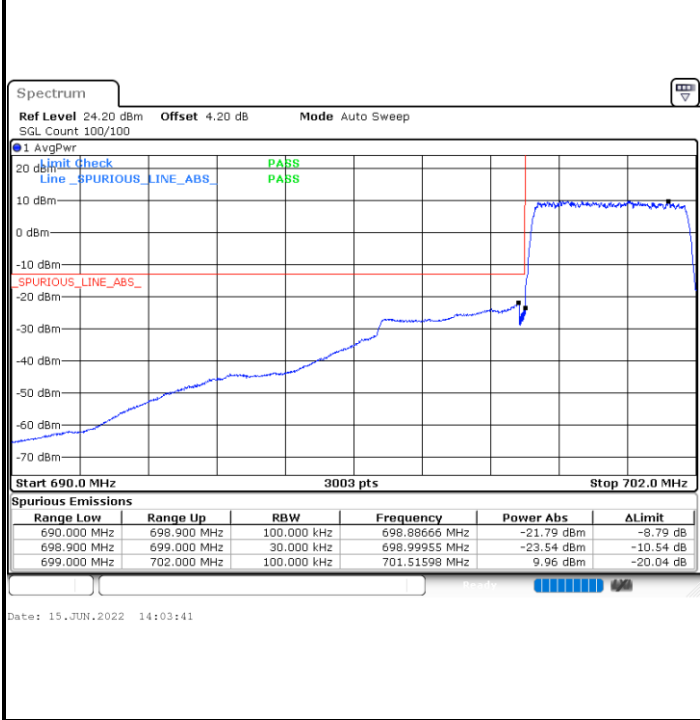
Lowest Band Edge / 1RB



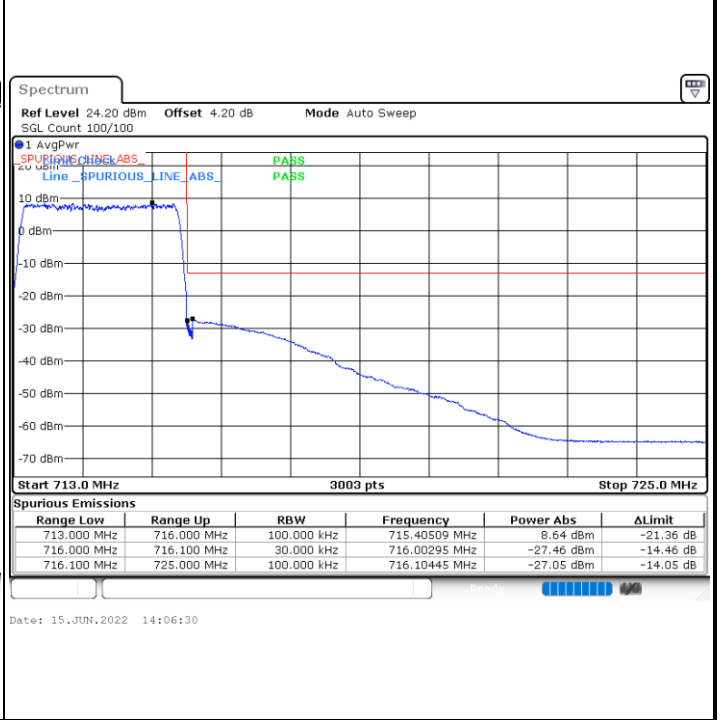
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



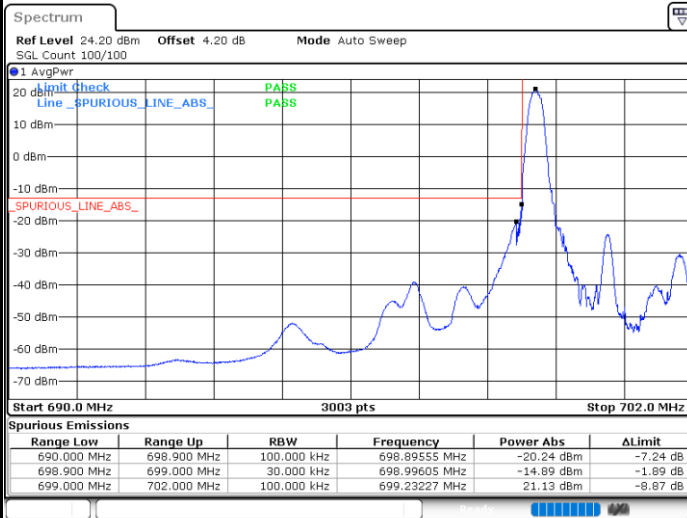
Highest Band Edge / Full RB





LTE Band 12 / 3MHz / 16QAM

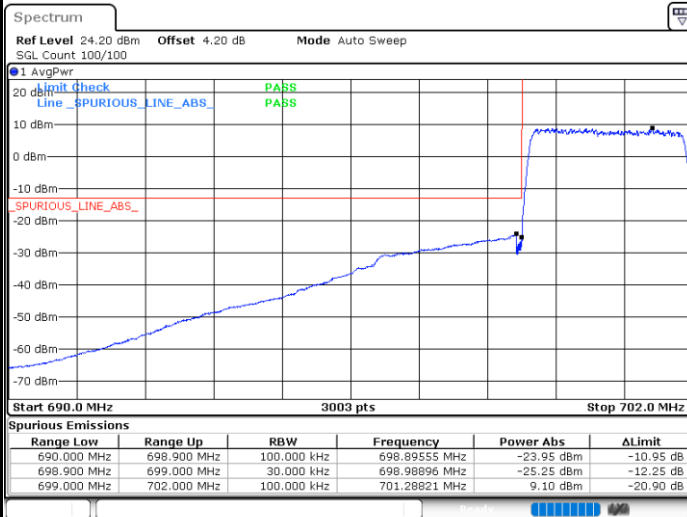
Lowest Band Edge / 1 RB



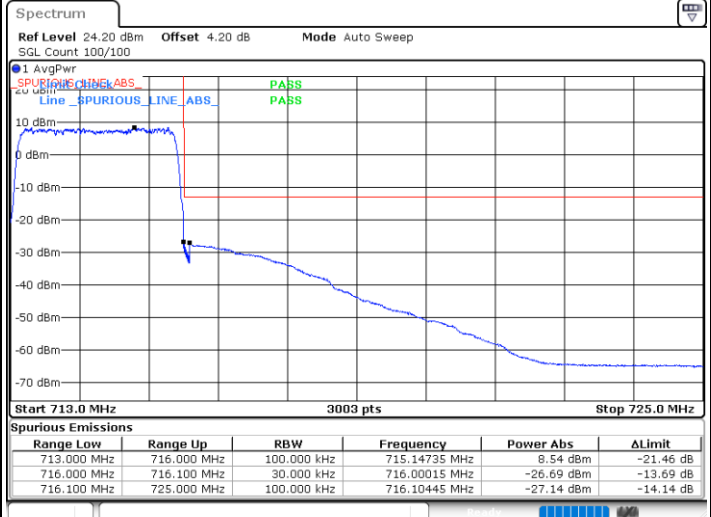
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



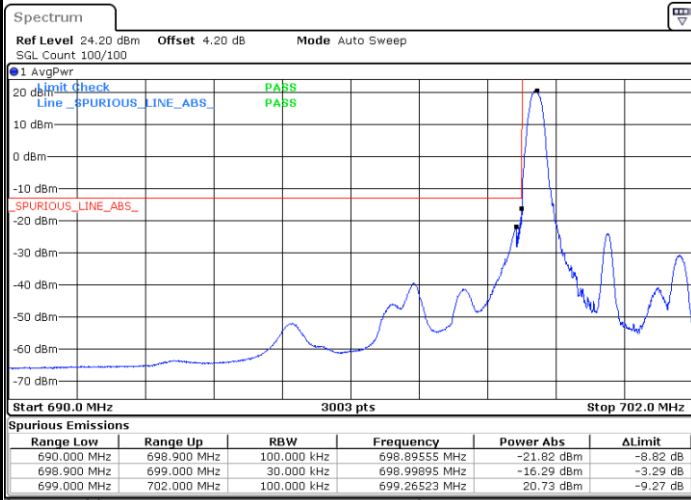
Highest Band Edge / Full RB





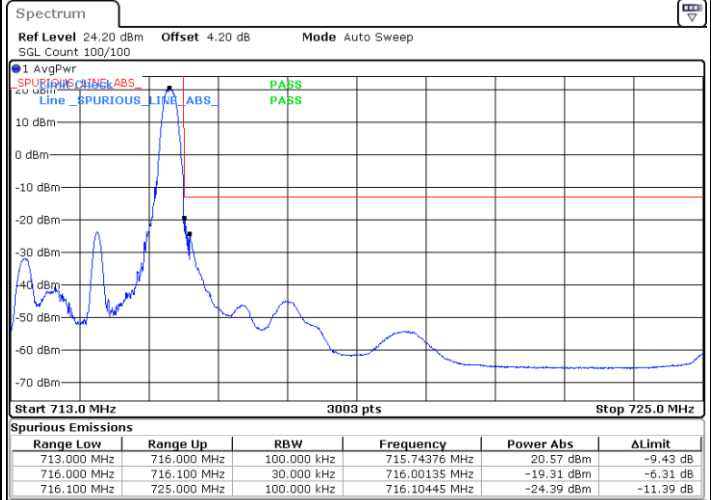
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



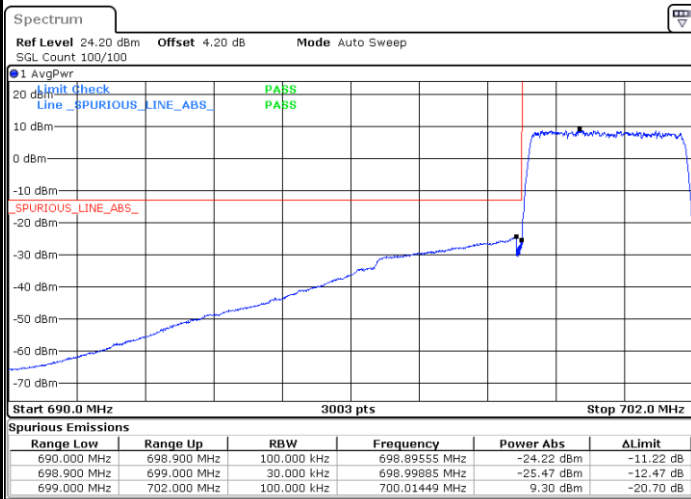
Date: 15 JUN.2022 13:59:39

Highest Band Edge / 1 RB



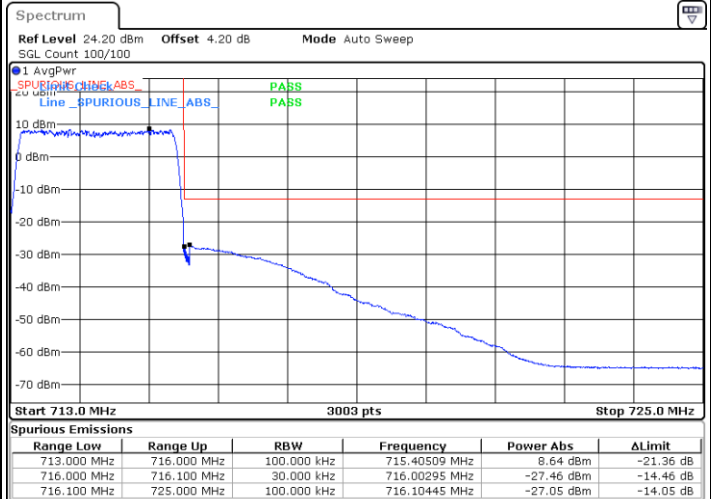
Date: 15 JUN.2022 14:07:27

Lowest Band Edge / Full RB



Date: 15 JUN.2022 14:02:09

Highest Band Edge / Full RB

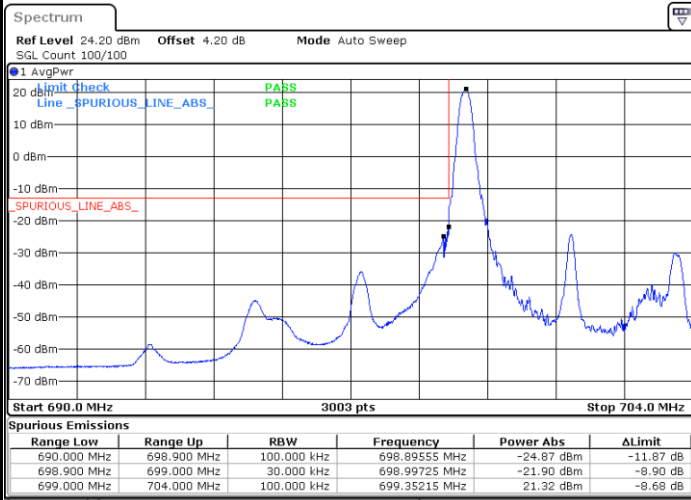


Date: 15 JUN.2022 14:06:30

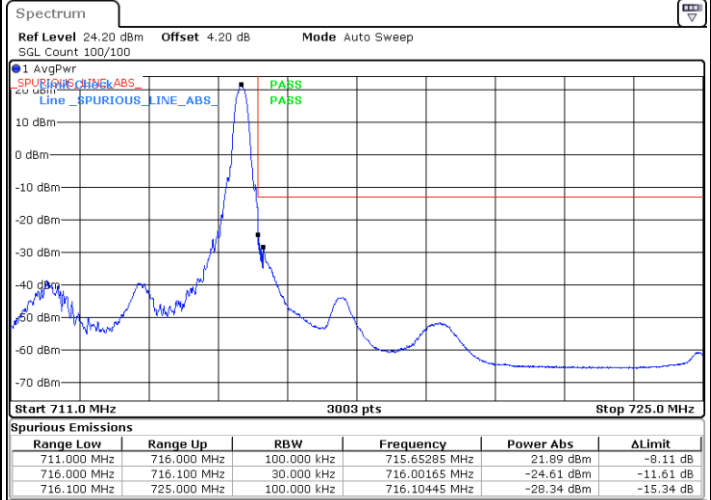


LTE Band 12 / 5MHz / QPSK

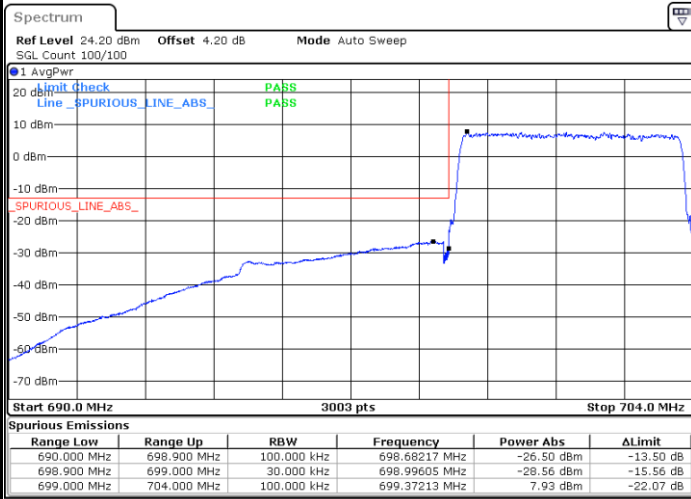
Lowest Band Edge / 1 RB



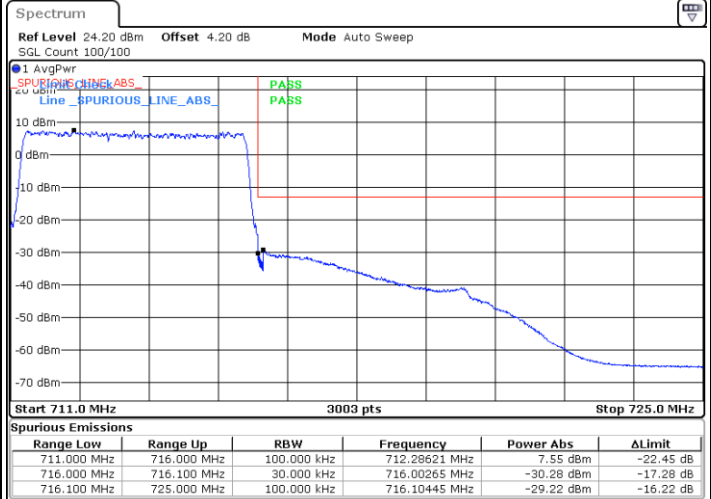
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



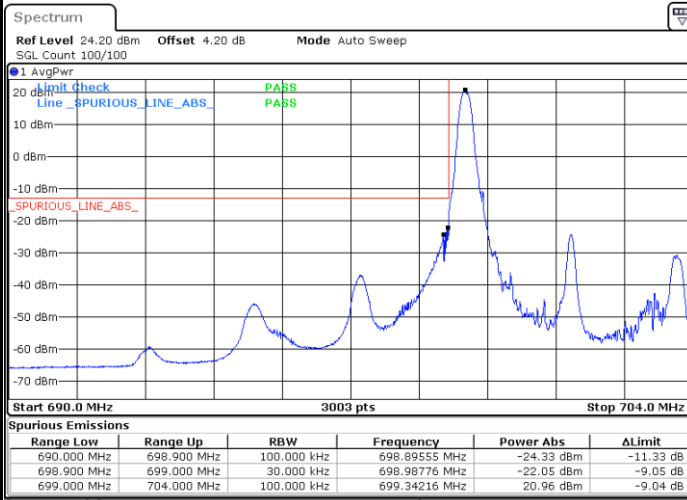
Highest Band Edge / Full RB





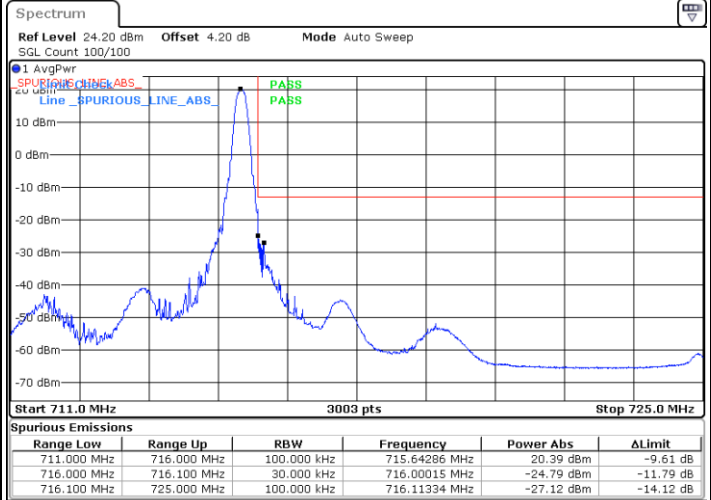
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



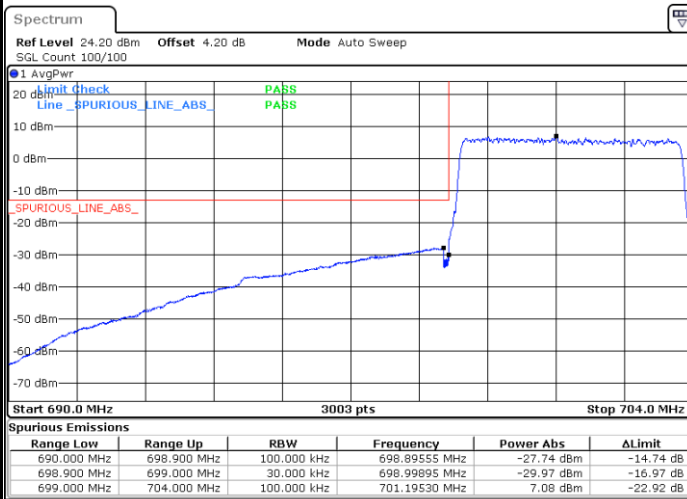
Date: 15 JUN.2022 14:11:03

Highest Band Edge / 1 RB



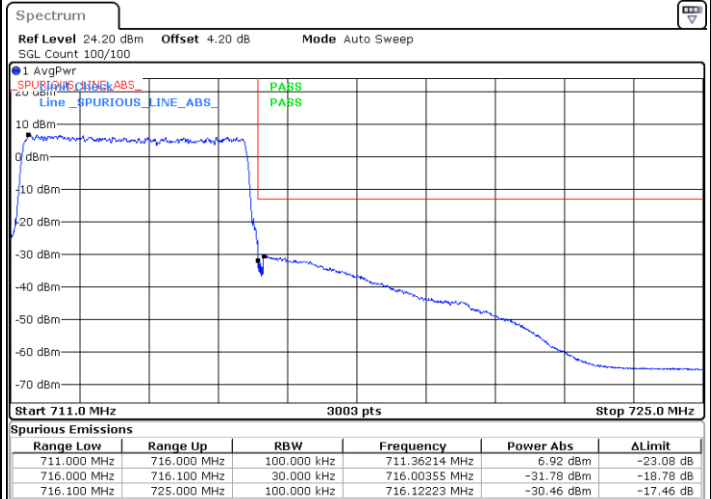
Date: 15 JUN.2022 14:21:45

Lowest Band Edge / Full RB



Date: 15 JUN.2022 14:14:39

Highest Band Edge / Full RB

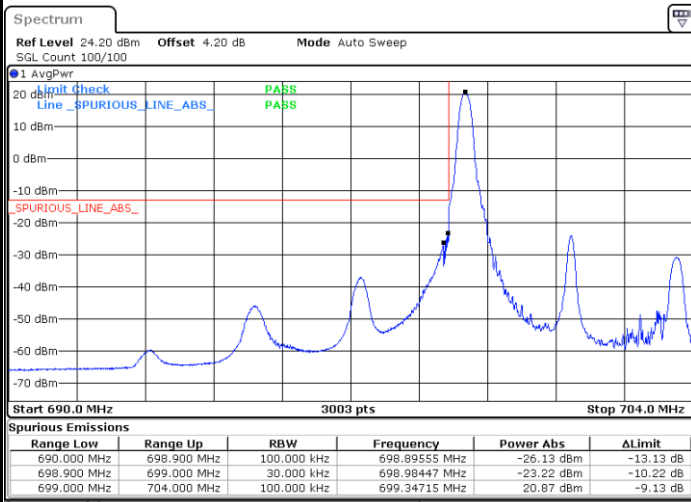


Date: 15 JUN.2022 14:18:15



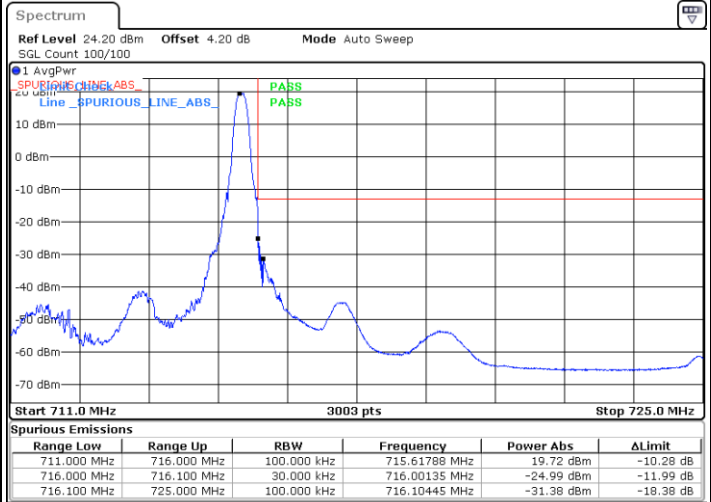
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



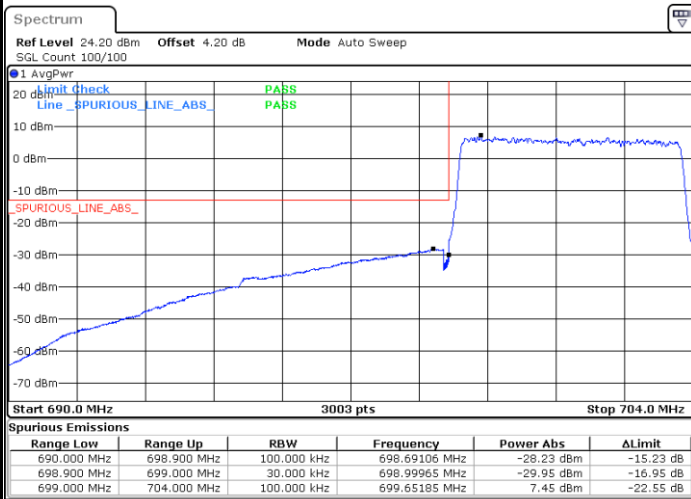
Date: 15 JUN.2022 14:11:53

Highest Band Edge / 1 RB



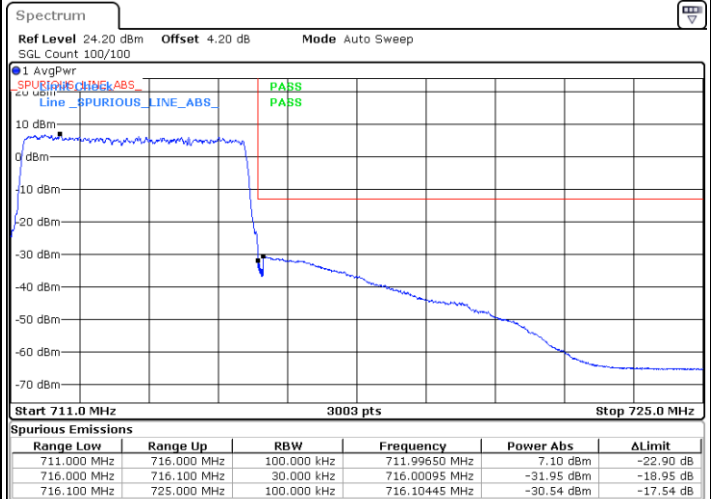
Date: 15 JUN.2022 14:20:04

Lowest Band Edge / Full RB



Date: 15 JUN.2022 14:13:31

Highest Band Edge / Full RB

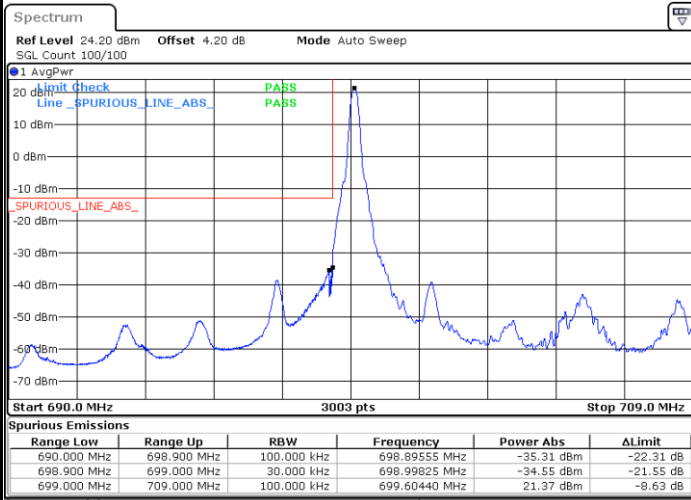


Date: 15 JUN.2022 14:19:06



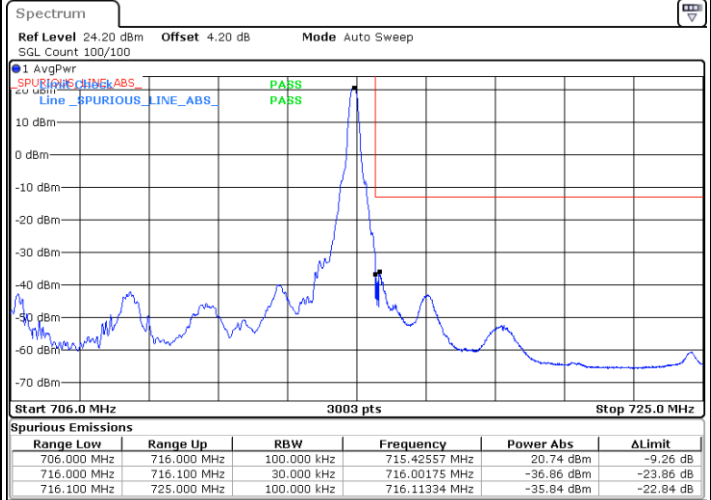
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



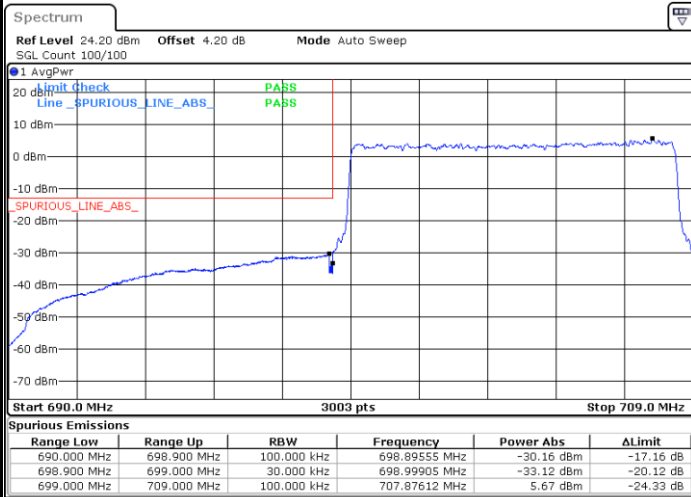
Date: 15 JUN.2022 14:24:10

Highest Band Edge / 1 RB



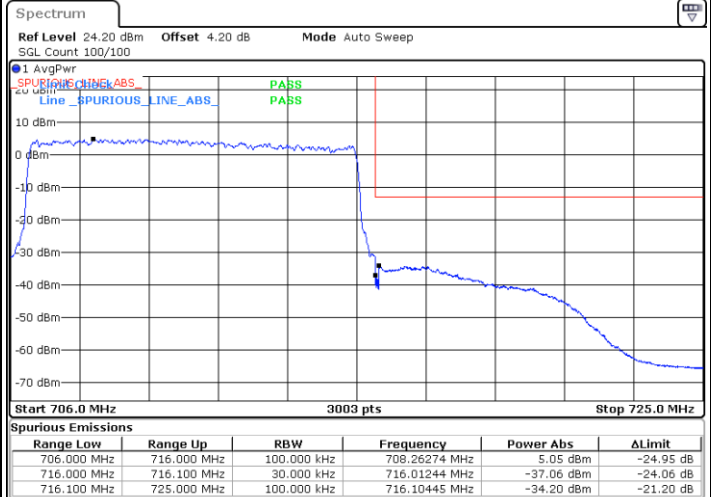
Date: 15 JUN.2022 14:59:23

Lowest Band Edge / Full RB



Date: 15 JUN.2022 14:28:12

Highest Band Edge / Full RB

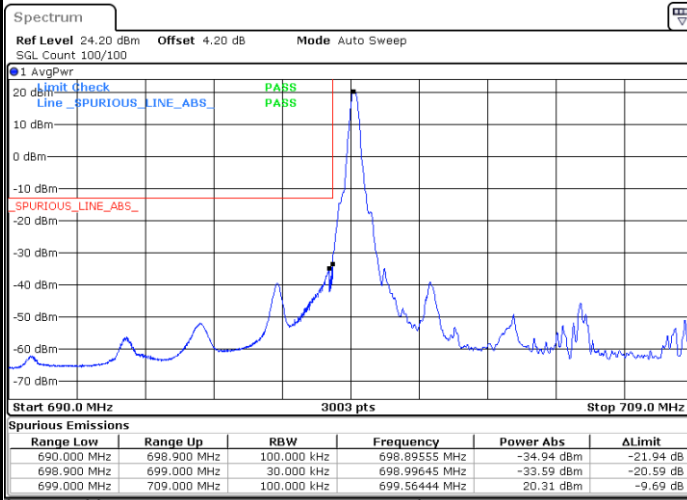


Date: 15 JUN.2022 14:54:20



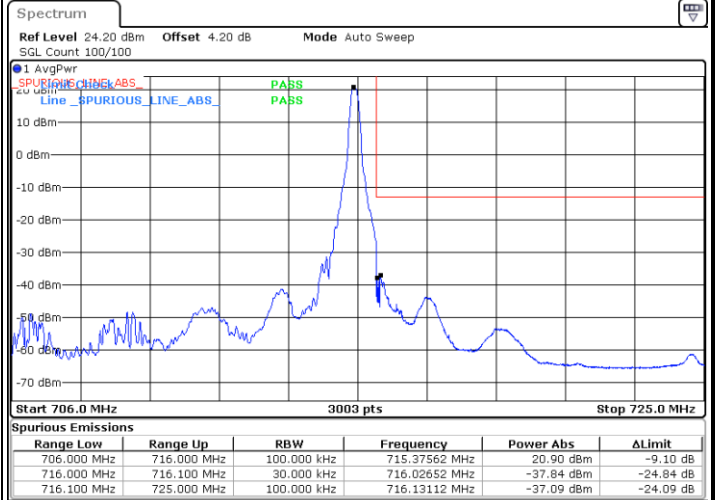
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



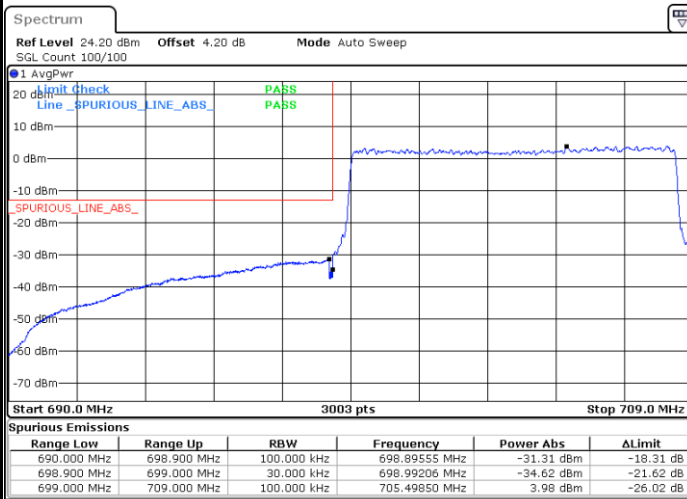
Date: 15 JUN.2022 14:24:56

Highest Band Edge / 1 RB



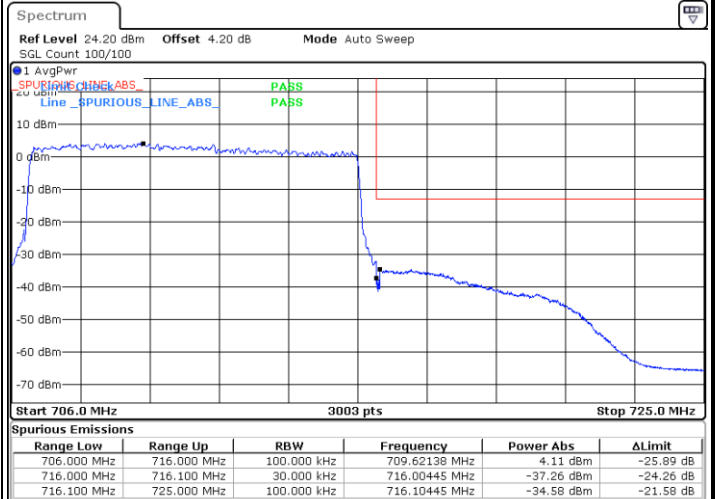
Date: 15 JUN.2022 14:57:45

Lowest Band Edge / Full RB



Date: 15 JUN.2022 14:27:24

Highest Band Edge / Full RB

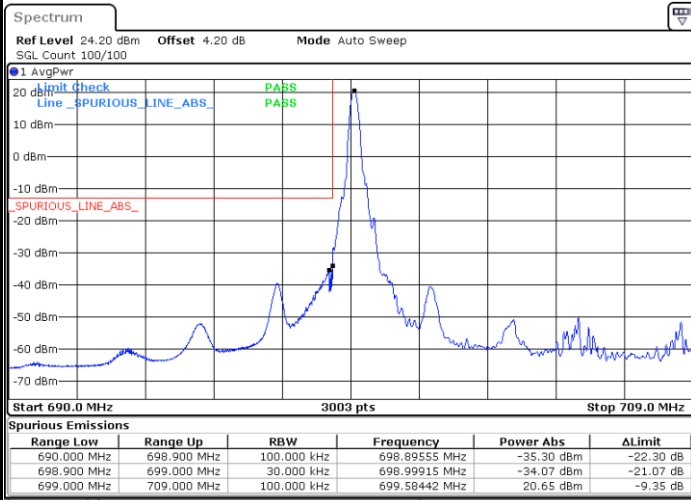


Date: 15 JUN.2022 14:55:18



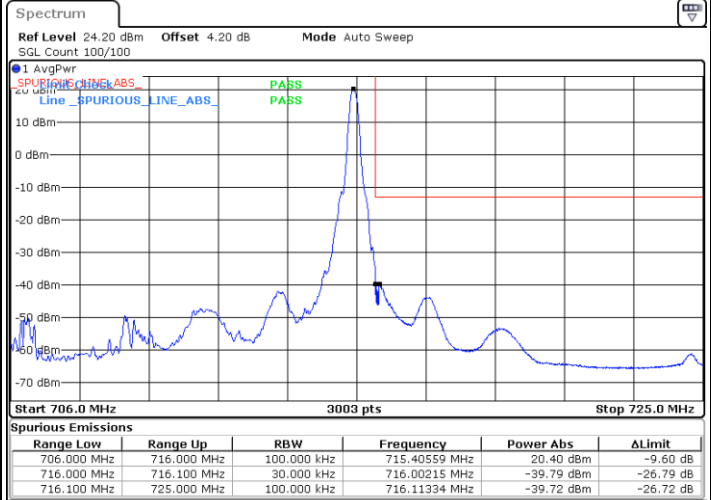
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



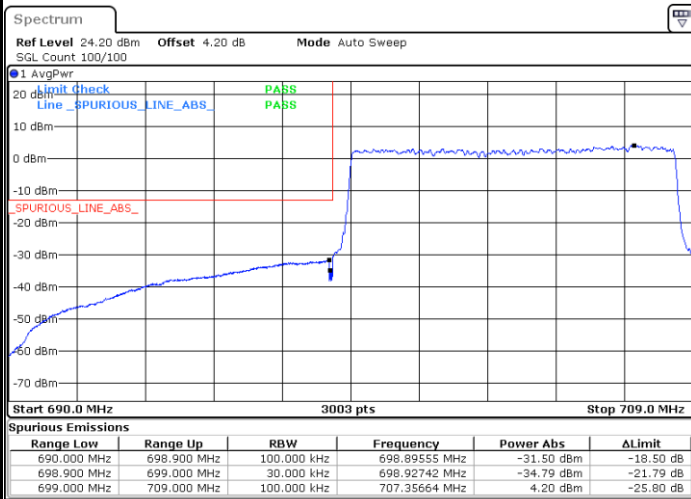
Date: 15 JUN.2022 14:25:46

Highest Band Edge / 1 RB



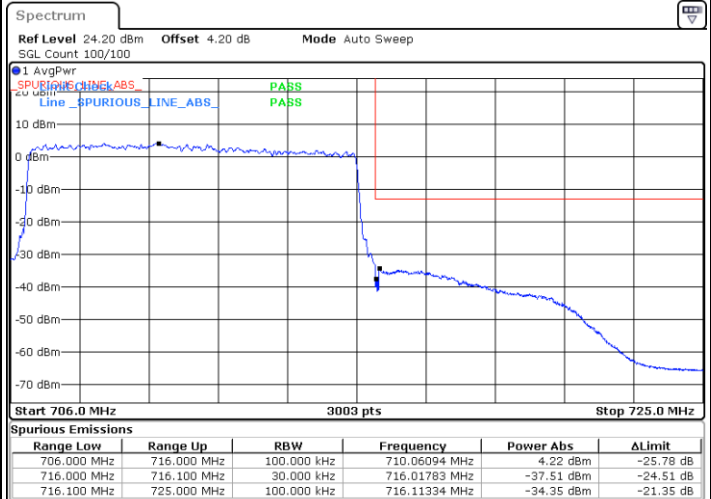
Date: 15 JUN.2022 14:56:55

Lowest Band Edge / Full RB



Date: 15 JUN.2022 14:26:33

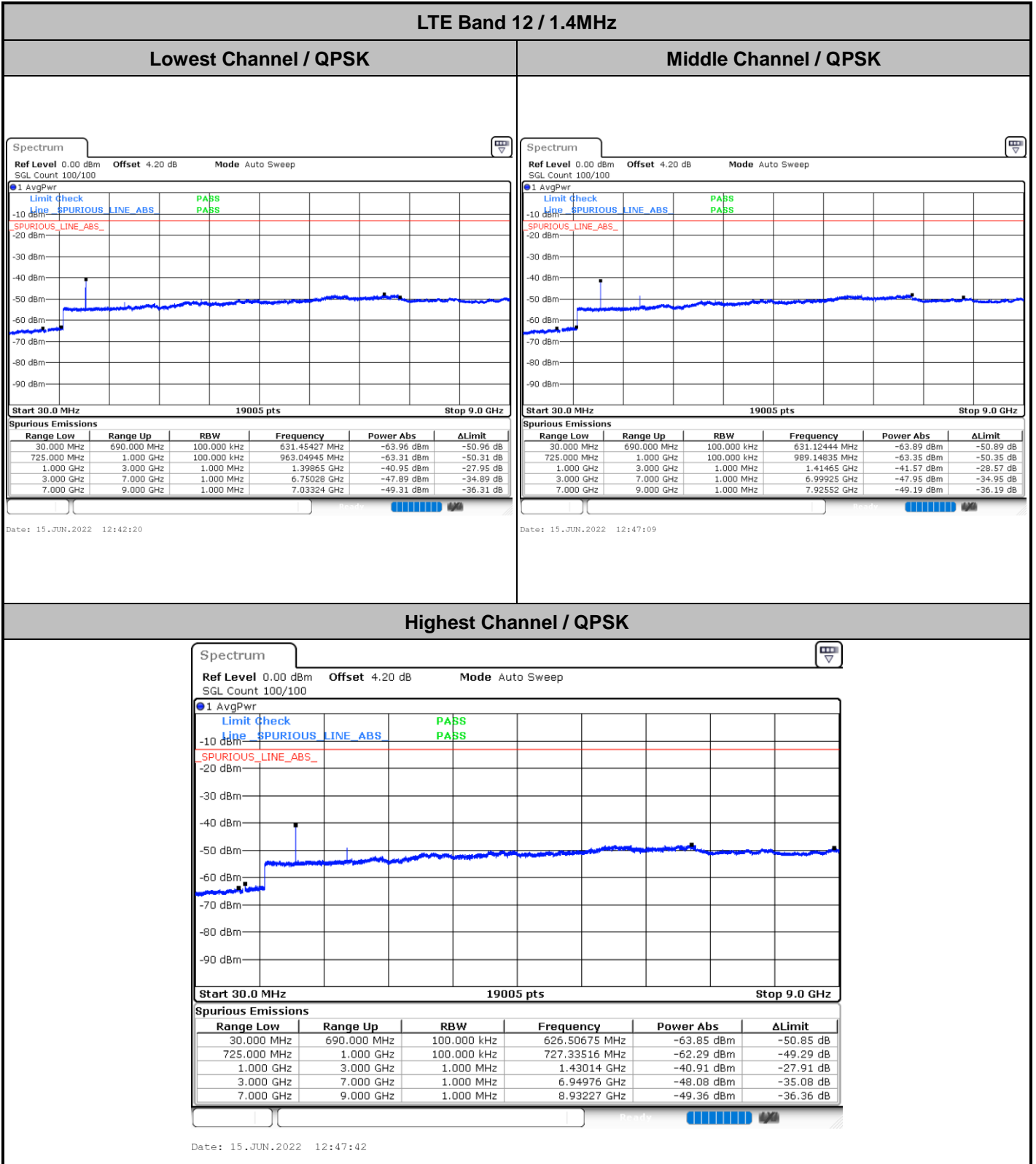
Highest Band Edge / Full RB



Date: 15 JUN.2022 14:56:02



Conducted Spurious Emission

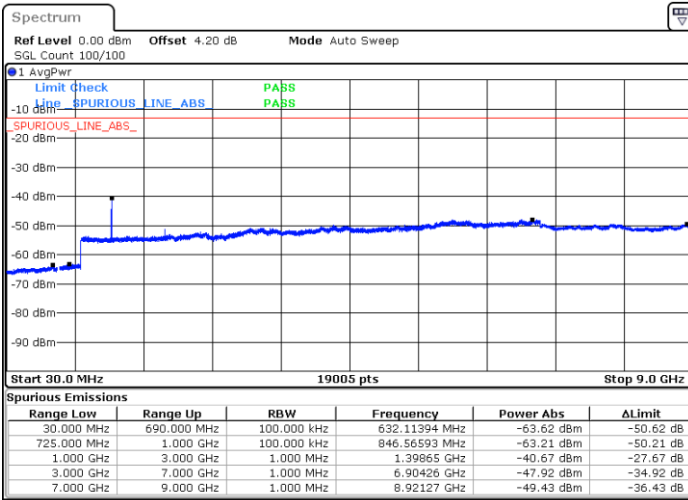




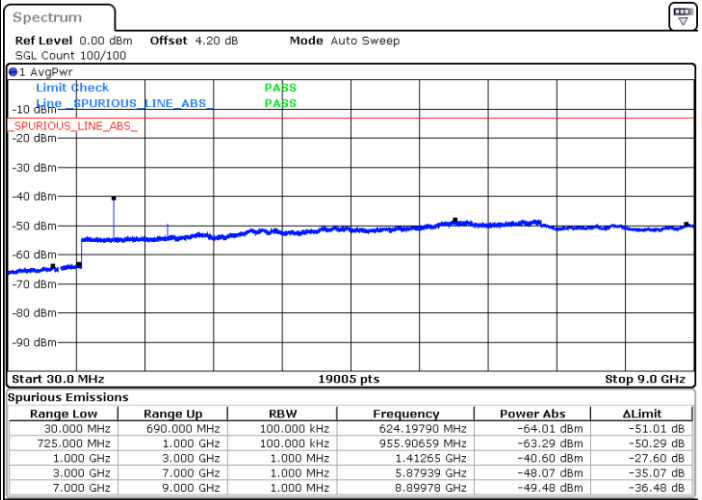
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

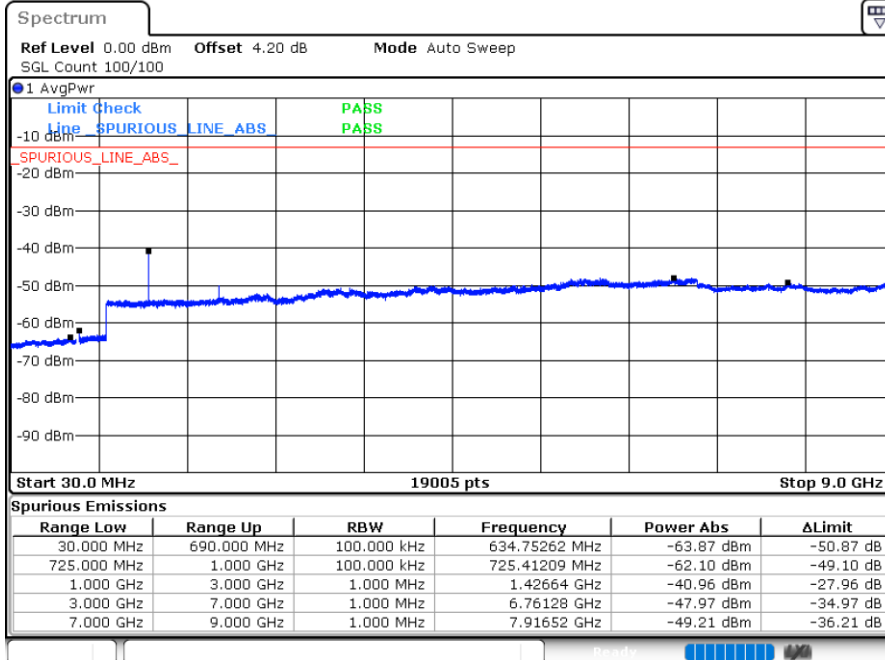


Date: 15 JUN.2022 12:52:30



Date: 15 JUN.2022 12:57:20

Highest Channel / QPSK



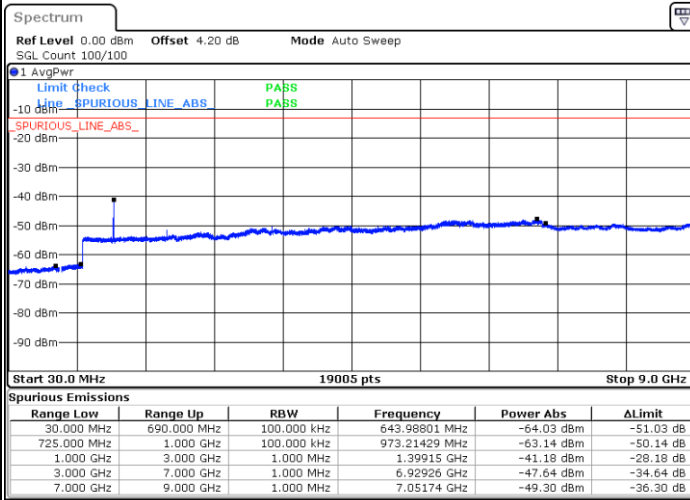
Date: 15 JUN.2022 12:57:54



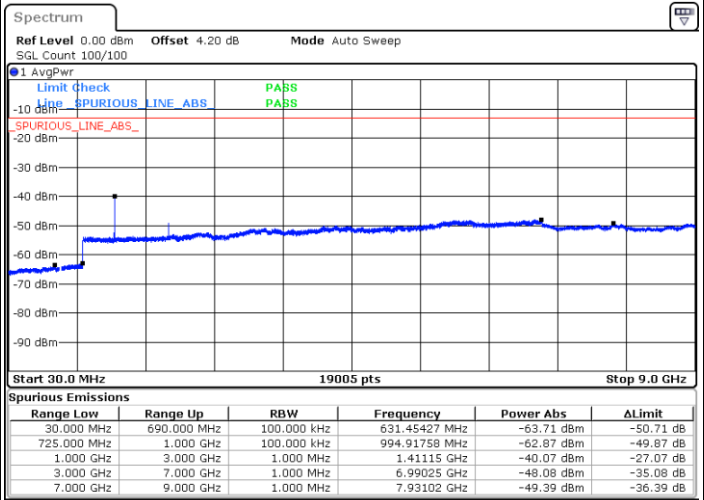
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

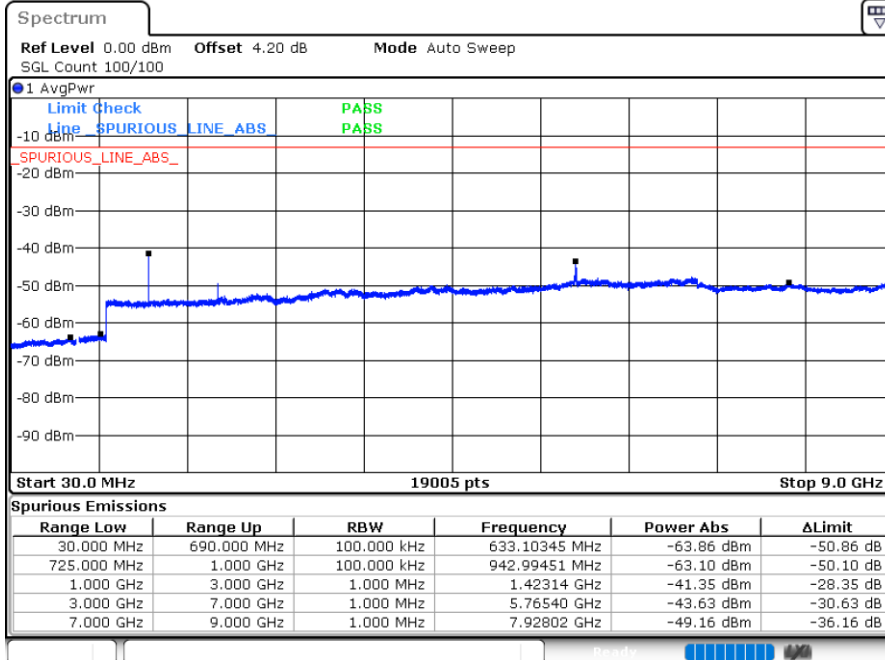


Date: 15 JUN.2022 13:02:44



Date: 15 JUN.2022 13:07:33

Highest Channel / QPSK



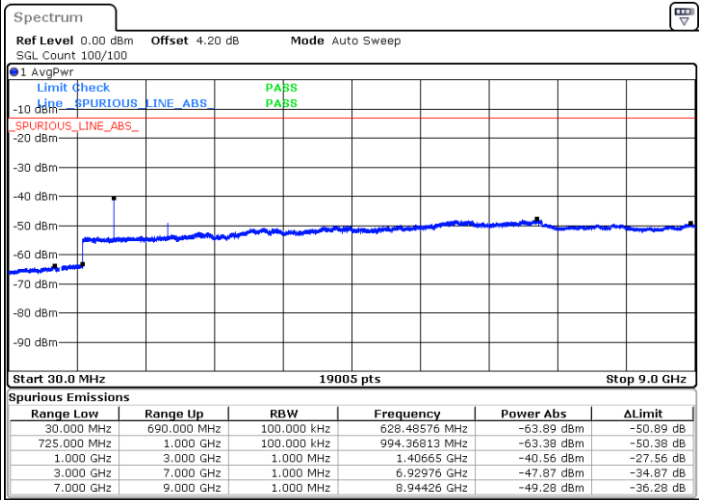
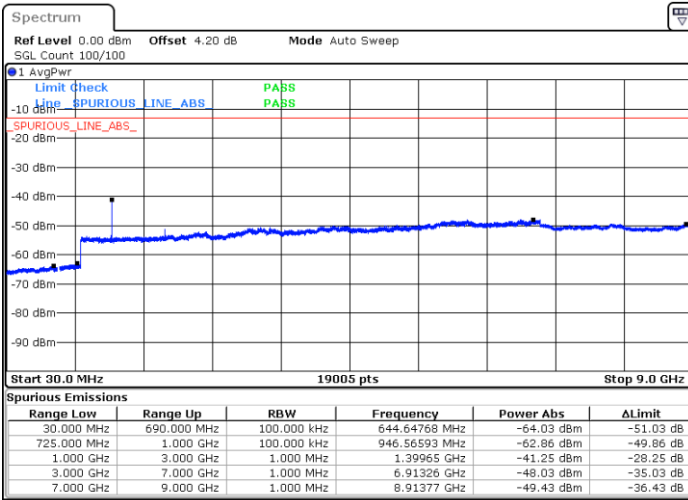
Date: 15 JUN.2022 13:08:07



LTE Band 12 / 10MHz

Lowest Channel / QPSK

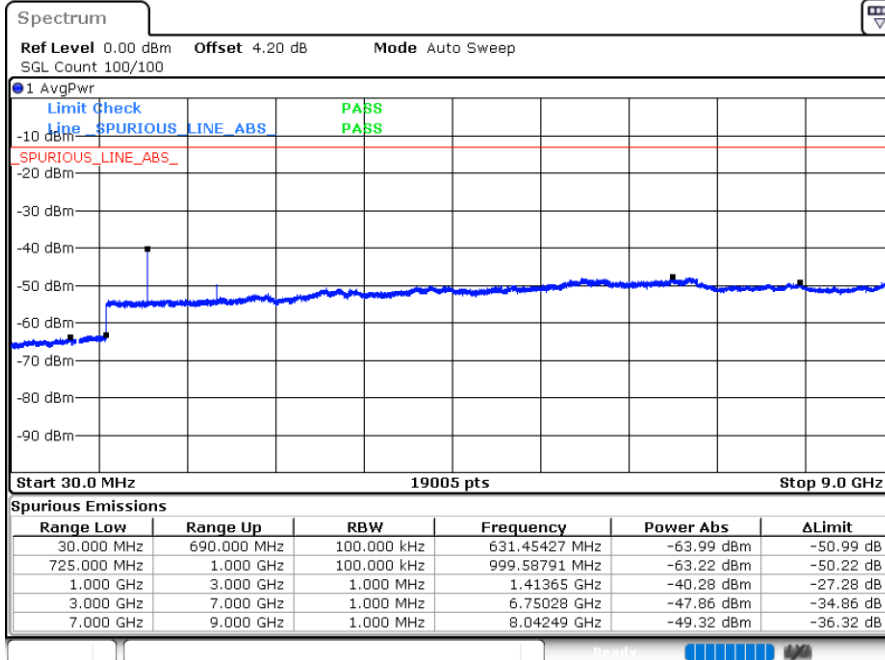
Middle Channel / QPSK



Date: 15.JUN.2022 13:13:02

Date: 15.JUN.2022 13:17:54

Highest Channel / QPSK



Date: 15.JUN.2022 13:18:34



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:

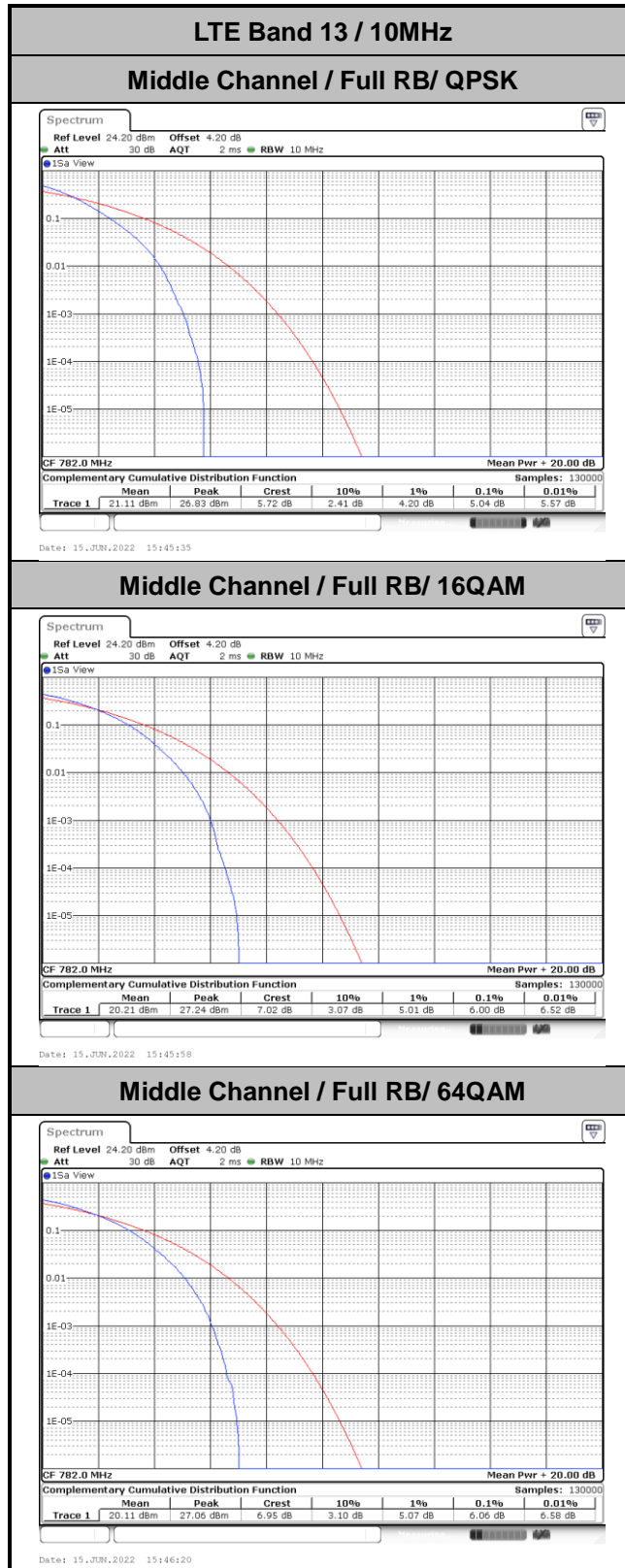
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

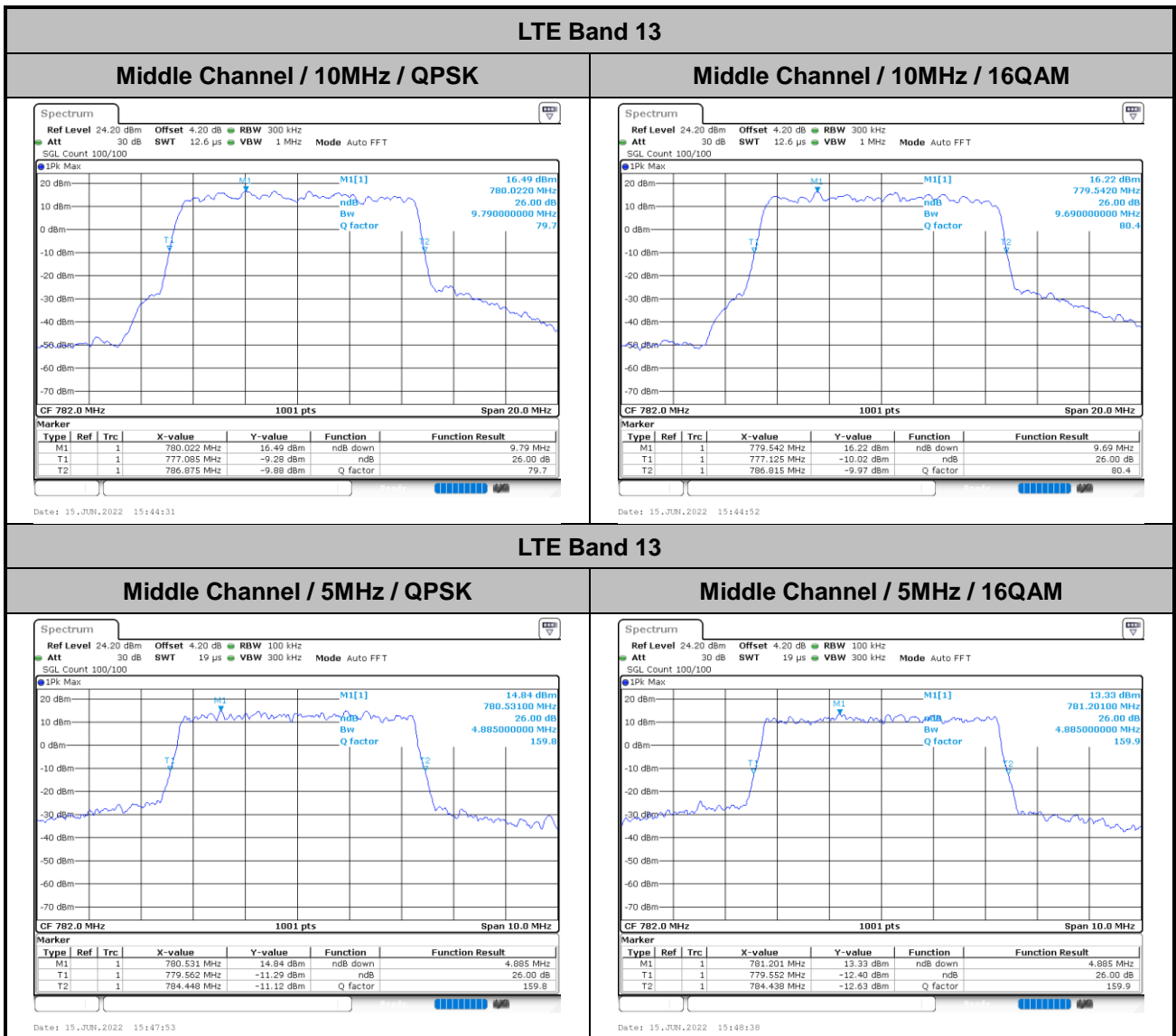
Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.04	6.00	6.06	PASS





26dB Bandwidth

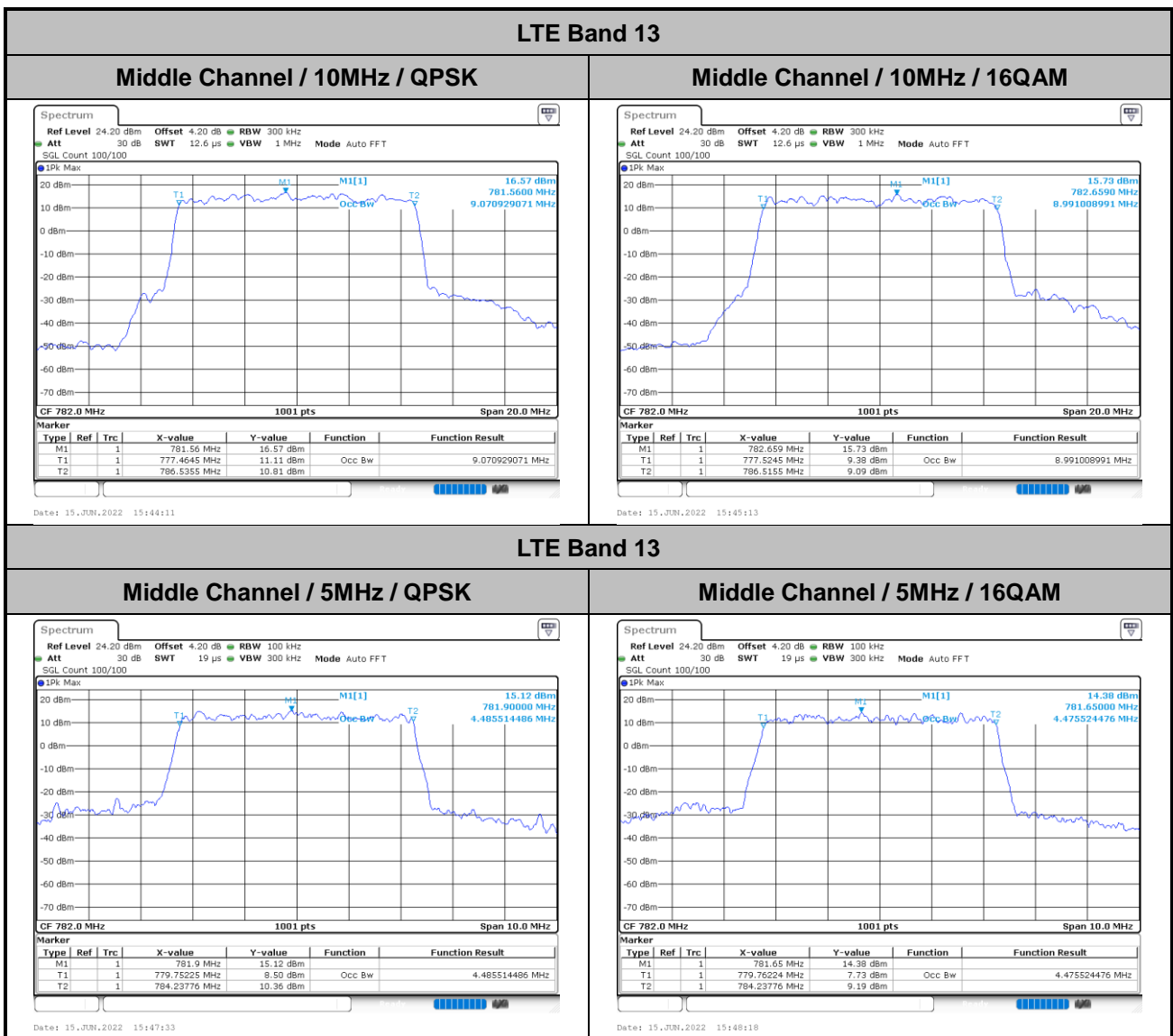
Mode	LTE Band 13 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.79	9.69
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.89	4.89





Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.07	8.99
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.49	4.48

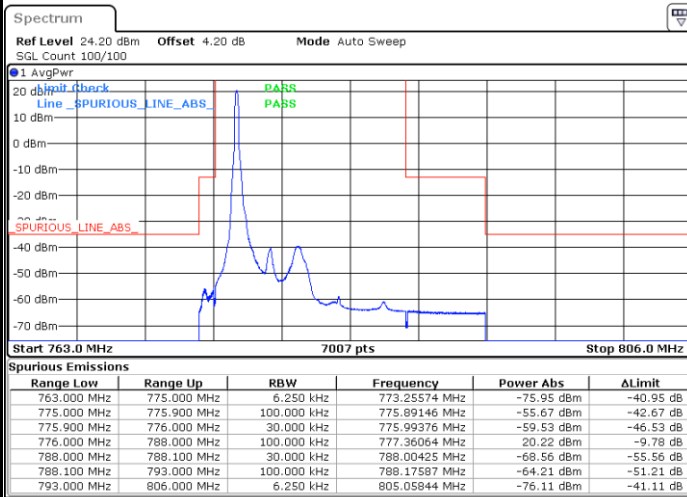




Conducted Band Edge

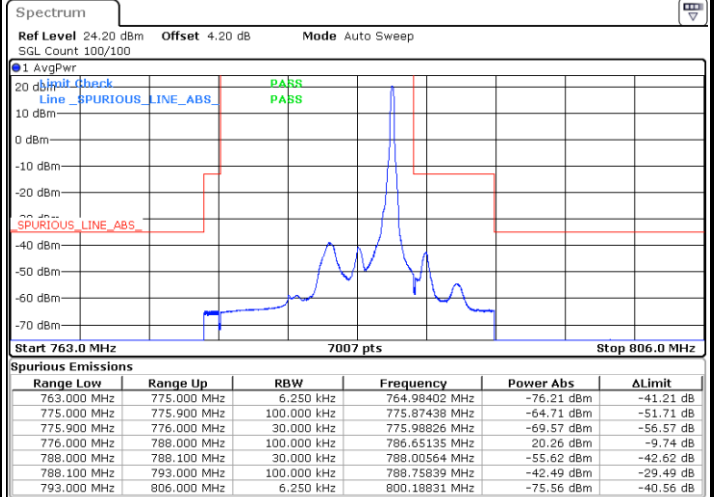
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



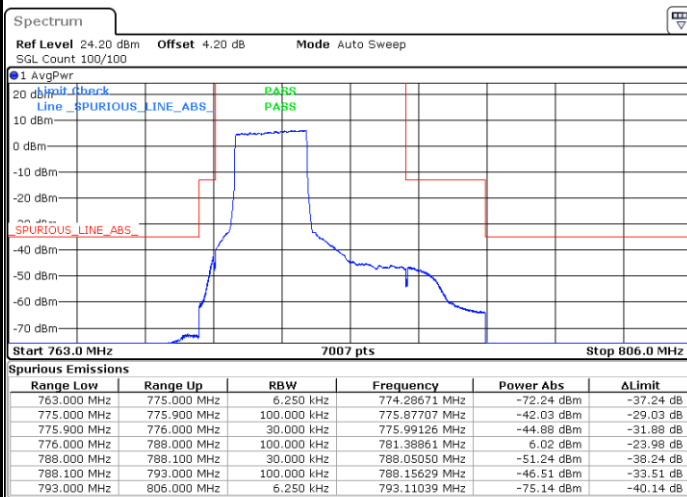
Date: 15 JUN 2022 15:05:35

Highest Band Edge / 1 RB



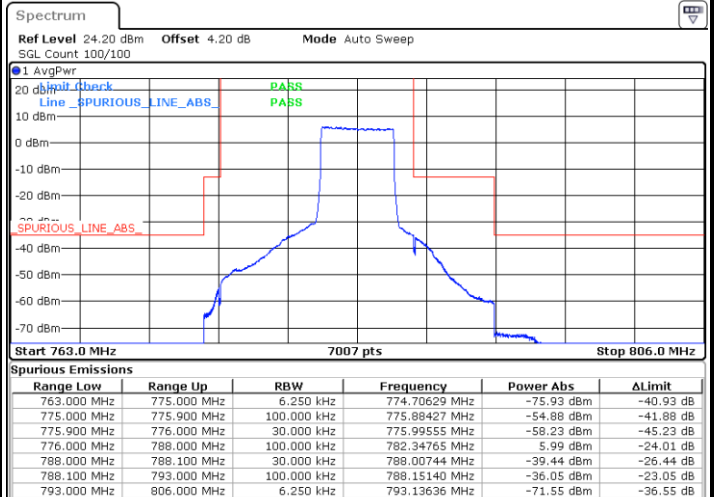
Date: 15 JUN 2022 15:17:40

Lowest Band Edge / Full RB



Date: 15 JUN 2022 15:14:45

Highest Band Edge / Full RB



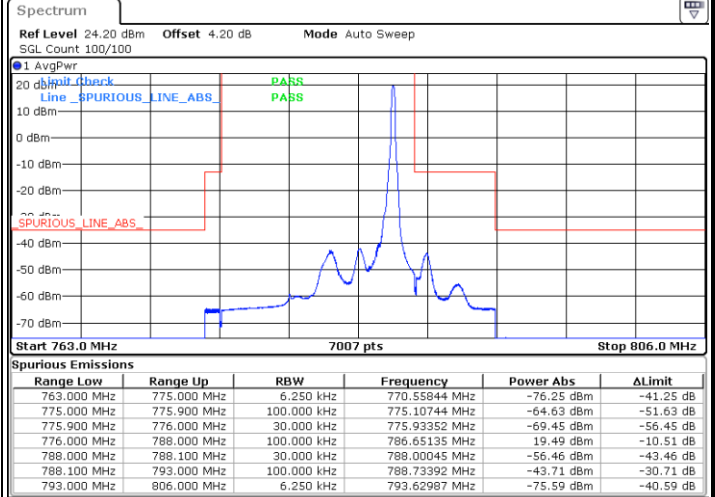
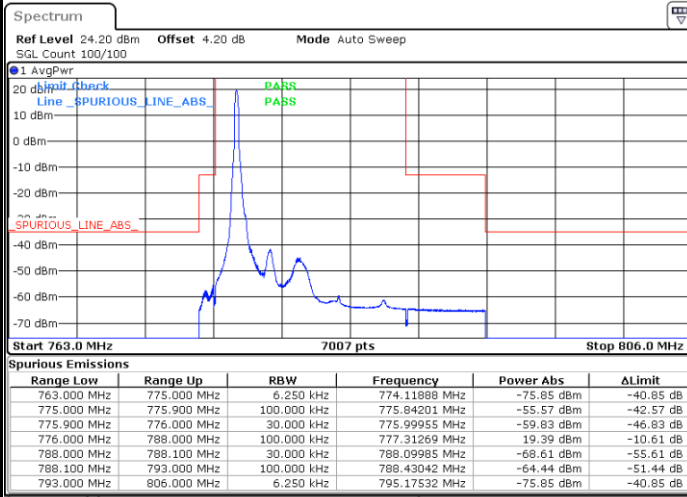
Date: 15 JUN 2022 15:26:50



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

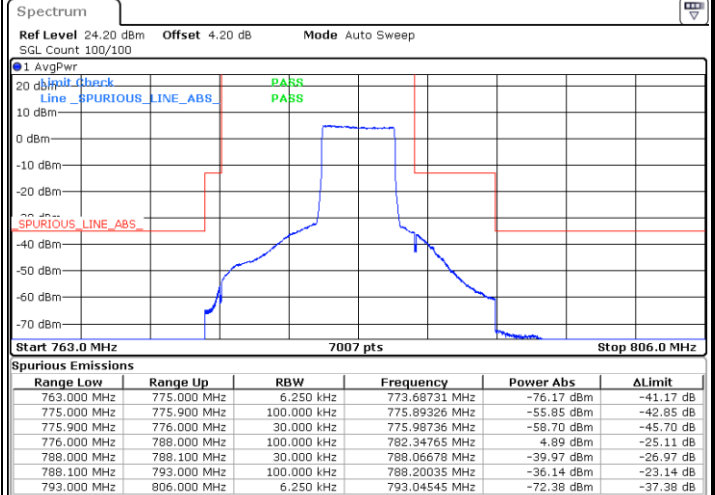
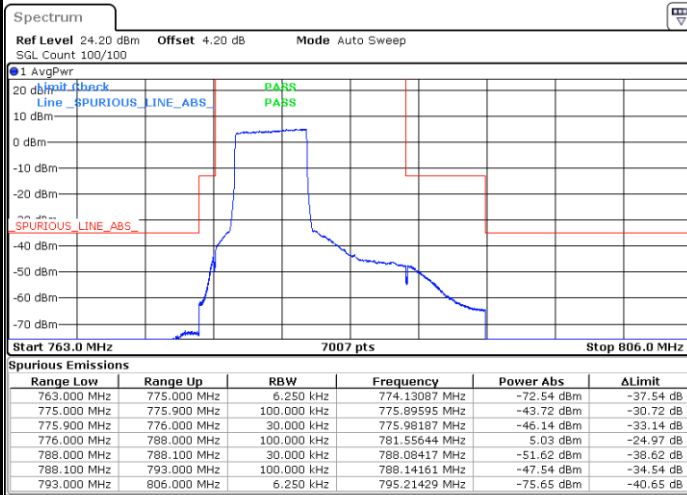


Date: 15 JUN.2022 15:07:25

Date: 15 JUN.2022 15:19:30

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



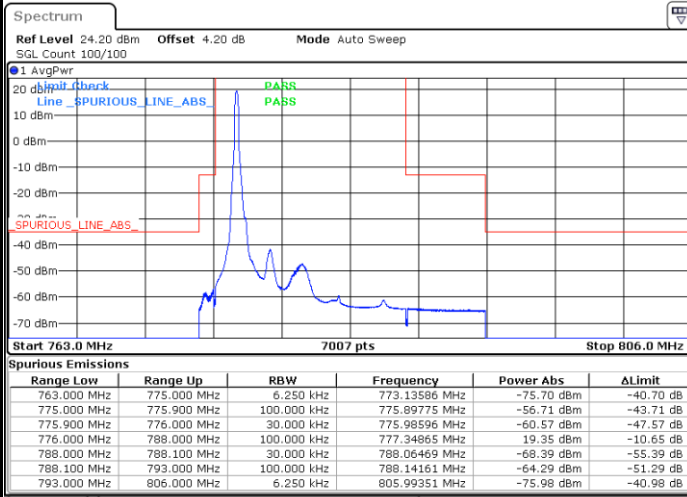
Date: 15 JUN.2022 15:12:55

Date: 15 JUN.2022 15:25:00



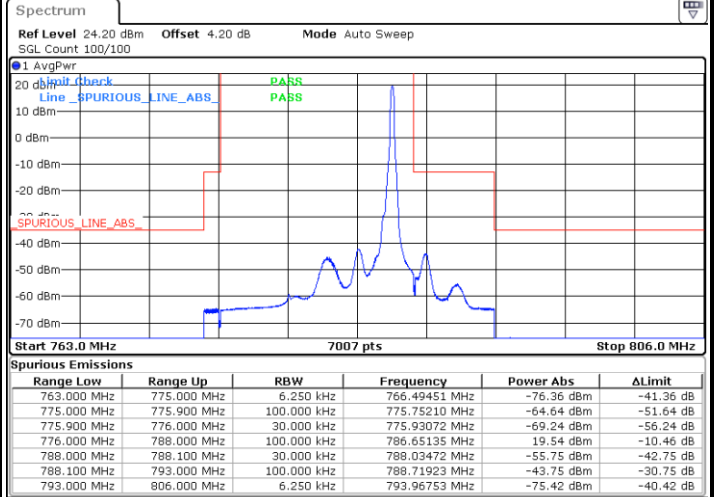
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB



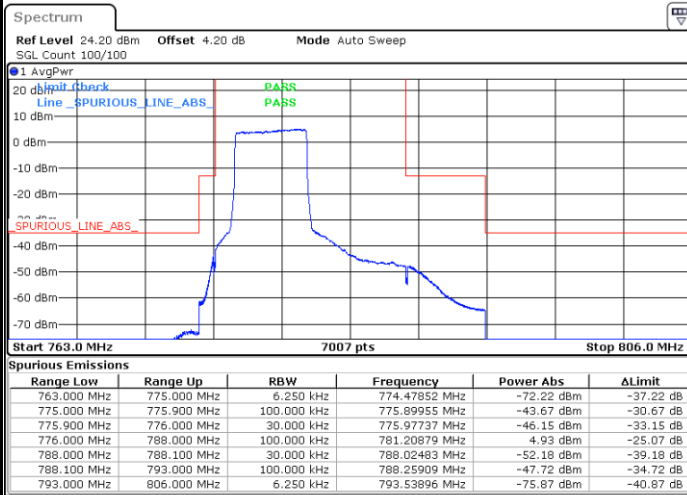
Date: 15 JUN.2022 15:09:15

Highest Band Edge / 1 RB



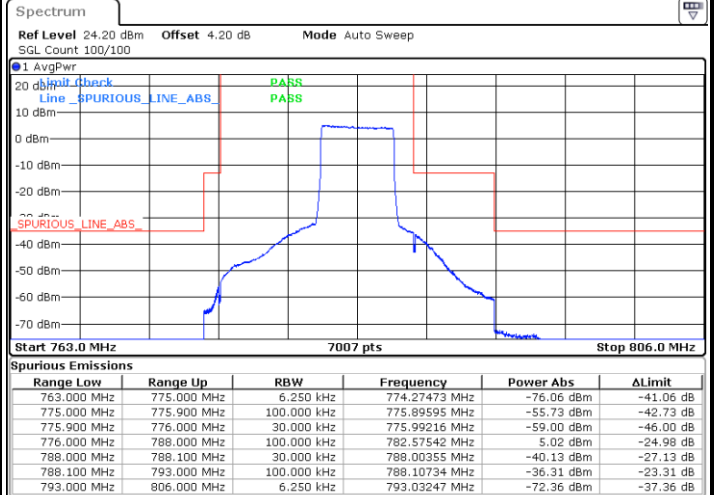
Date: 15 JUN.2022 15:21:20

Lowest Band Edge / Full RB



Date: 15 JUN.2022 15:11:05

Highest Band Edge / Full RB

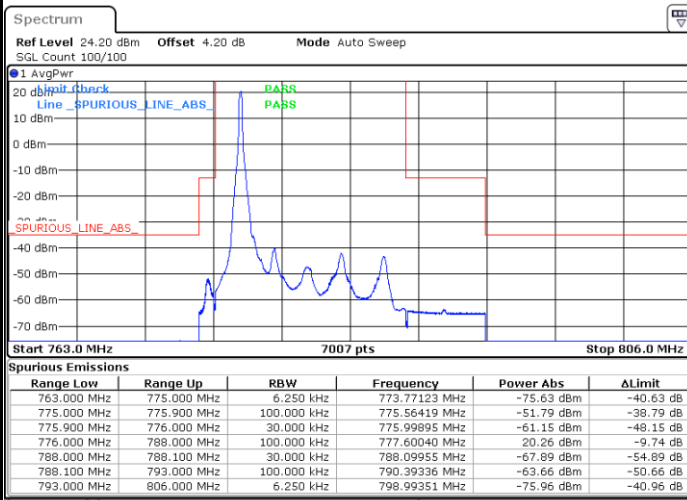


Date: 15 JUN.2022 15:23:10



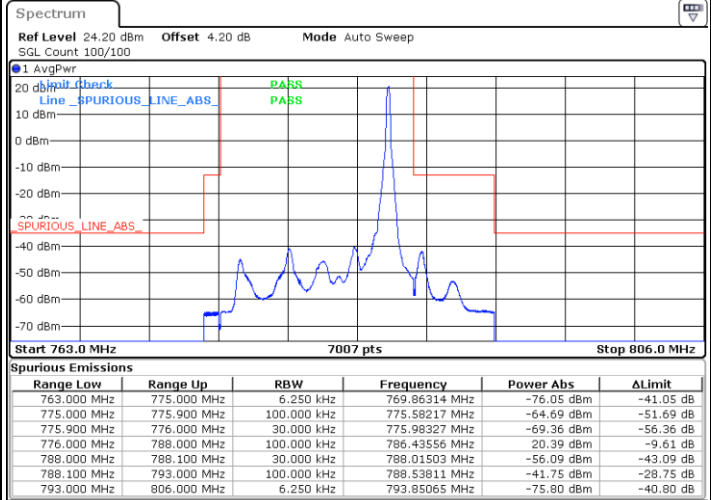
LTE Band 13 / 10MHz / QPSK

middle Band Edge / 1 RB



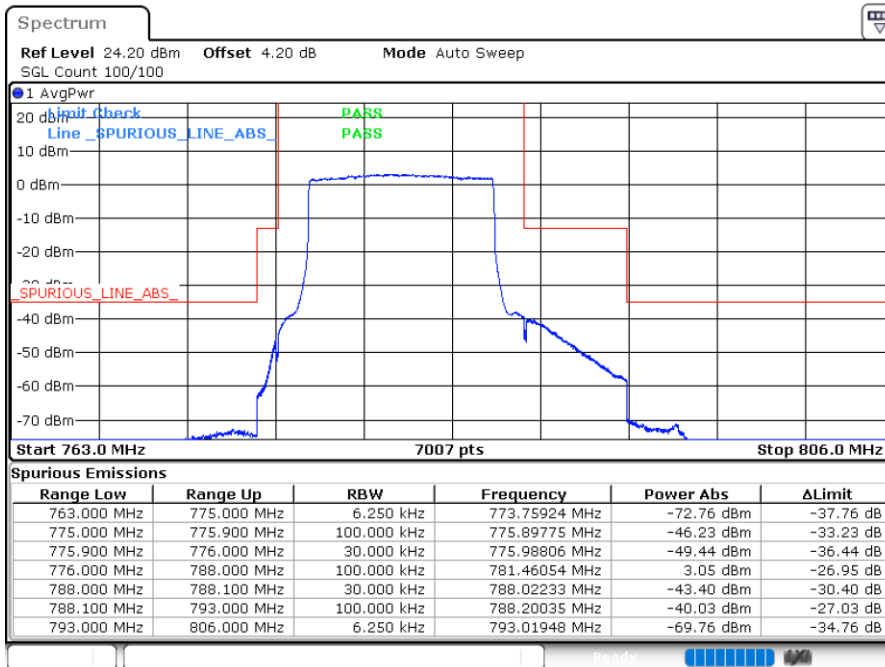
Date: 15 JUN 2022 15:29:13

middle Band Edge / 1 RB



Date: 15 JUN 2022 15:40:11

Middle Band Edge / Full RB

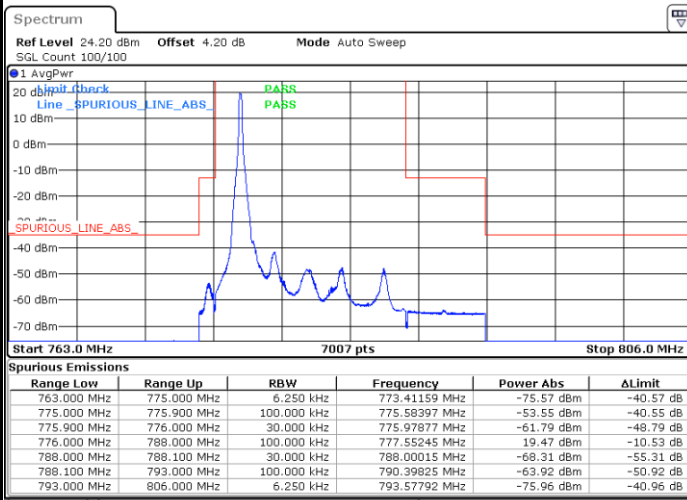


Date: 15 JUN 2022 15:38:21



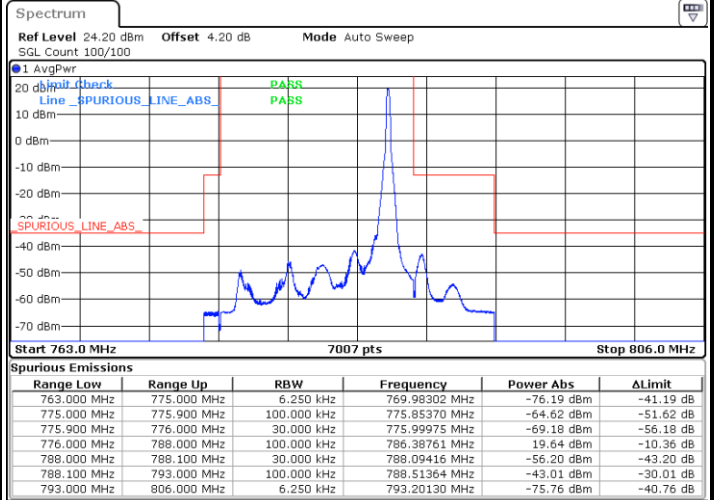
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



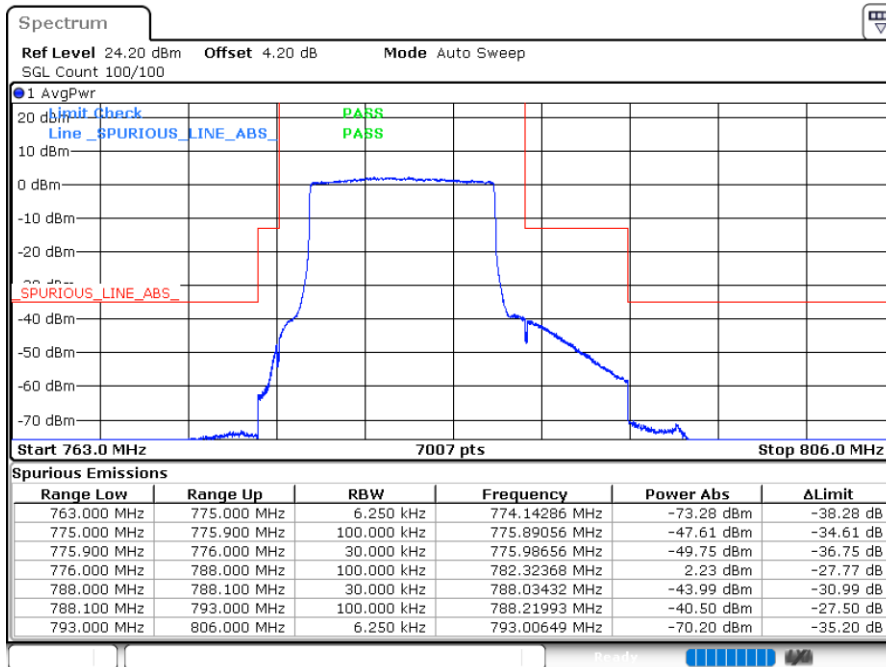
Date: 15 JUN 2022 15:31:03

middle Band Edge / 1 RB



Date: 15 JUN 2022 15:42:00

middle Band Edge / Full RB

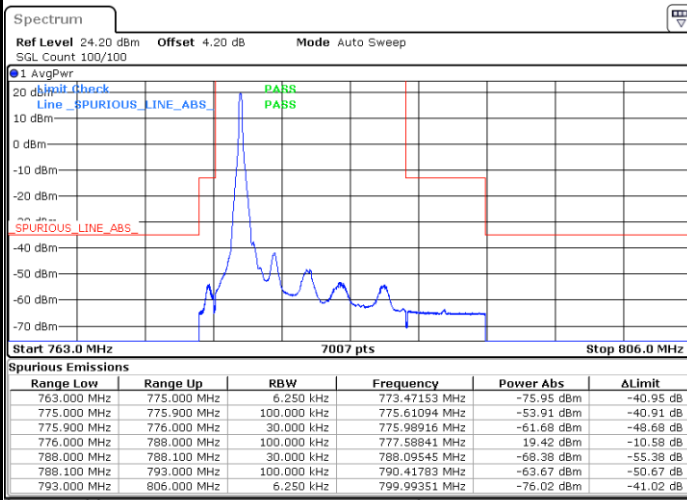


Date: 15 JUN 2022 15:36:31



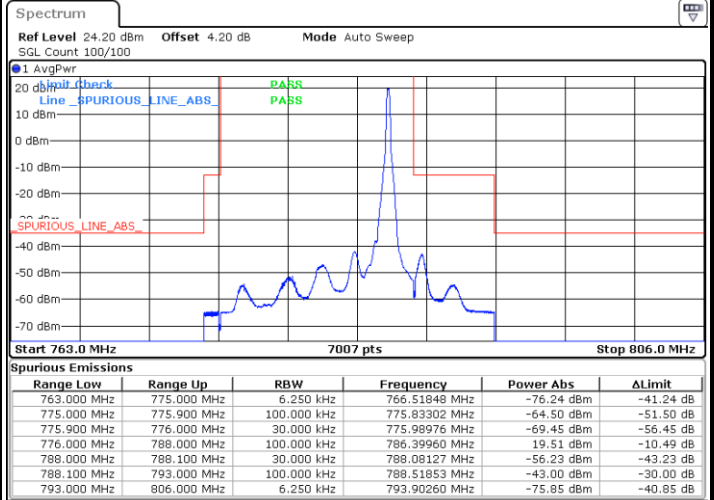
LTE Band 13 / 10MHz / 64QAM

middle Band Edge / 1 RB



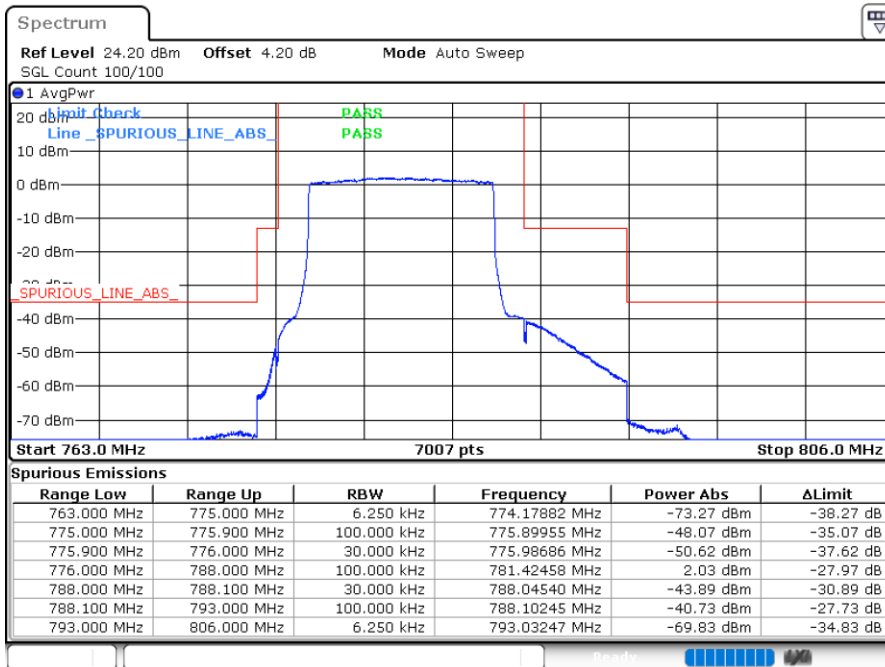
Date: 15 JUN 2022 15:32:52

middle Band Edge / 1 RB



Date: 15 JUN 2022 15:43:49

middle Band Edge / Full RB



Date: 15 JUN 2022 15:34:42