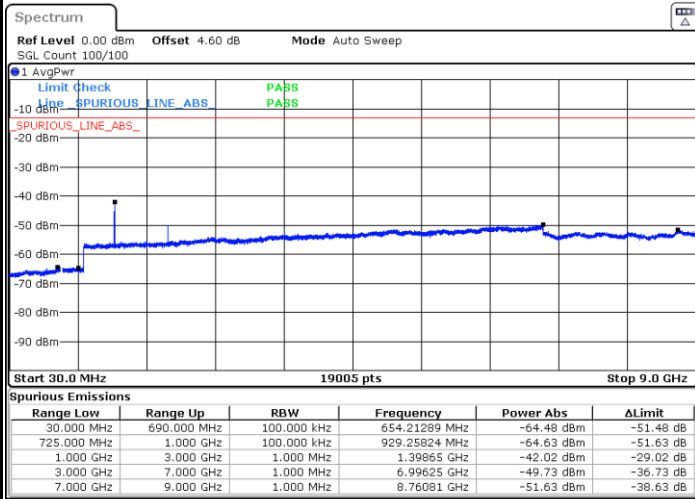




# Conducted Spurious Emission

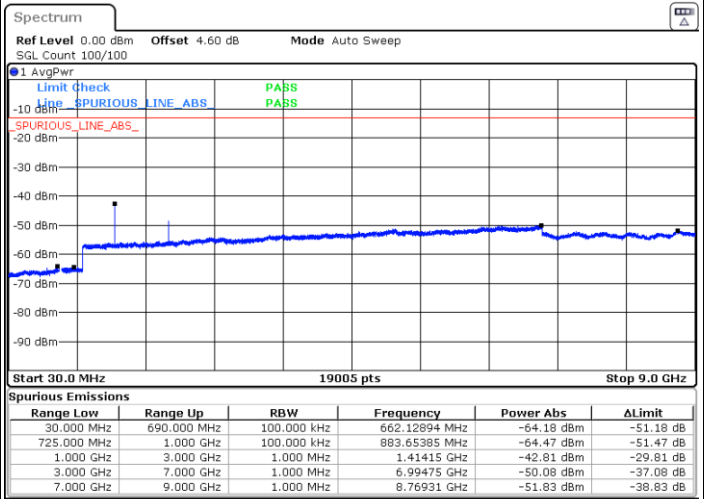
## LTE Band 12 / 1.4MHz

### Lowest Channel / QPSK



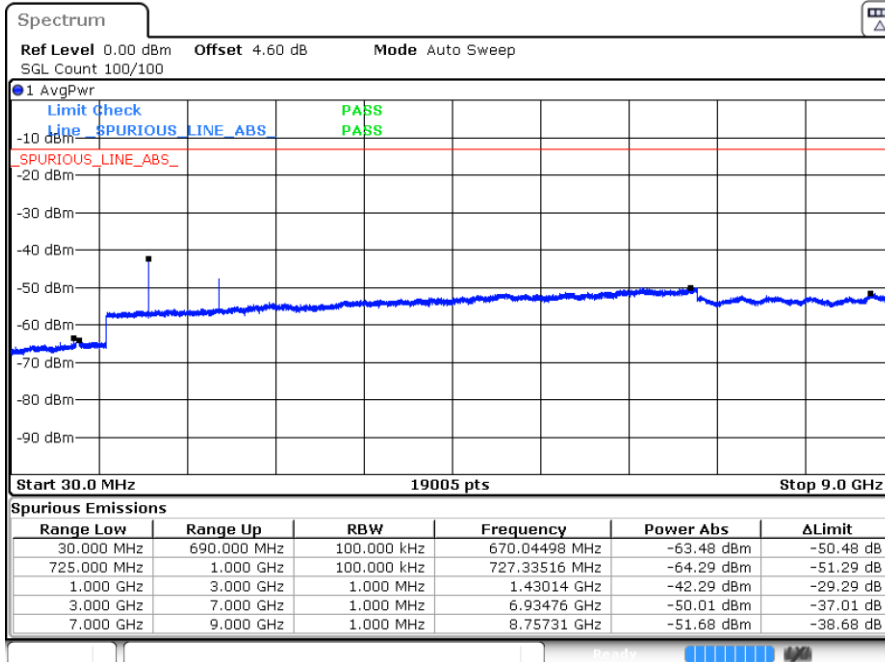
Date: 20.SEP.2022 03:55:50

### Middle Channel / QPSK



Date: 20.SEP.2022 04:08:17

### Highest Channel / QPSK



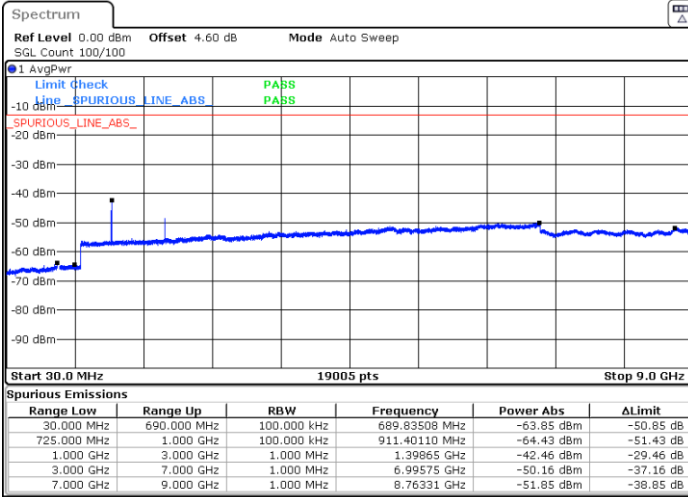
Date: 20.SEP.2022 04:09:57



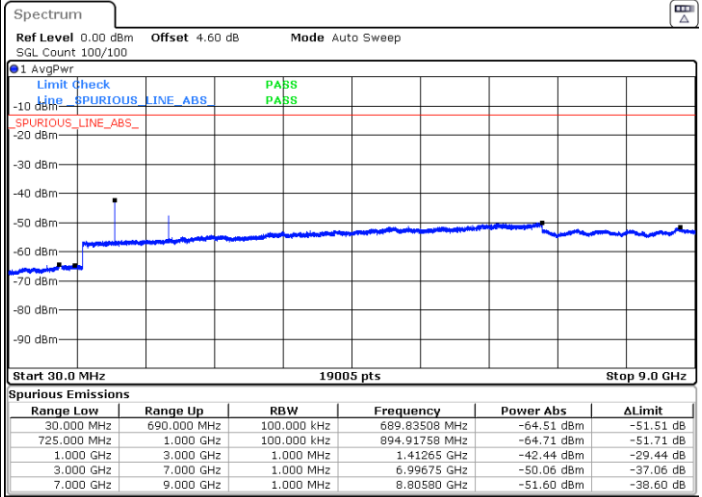
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

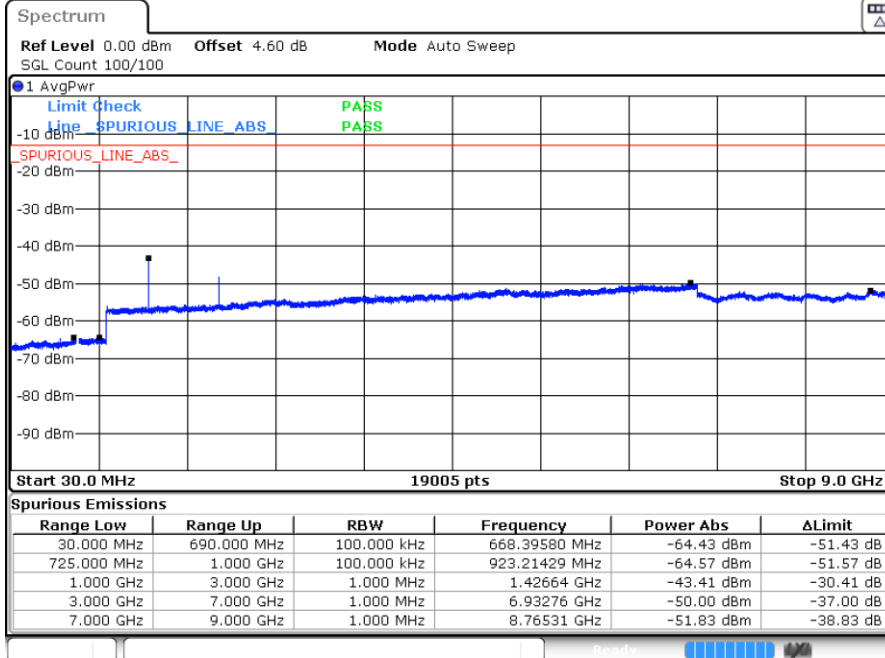


Date: 20.SEP.2022 04:22:25



Date: 20.SEP.2022 04:35:13

Highest Channel / QPSK



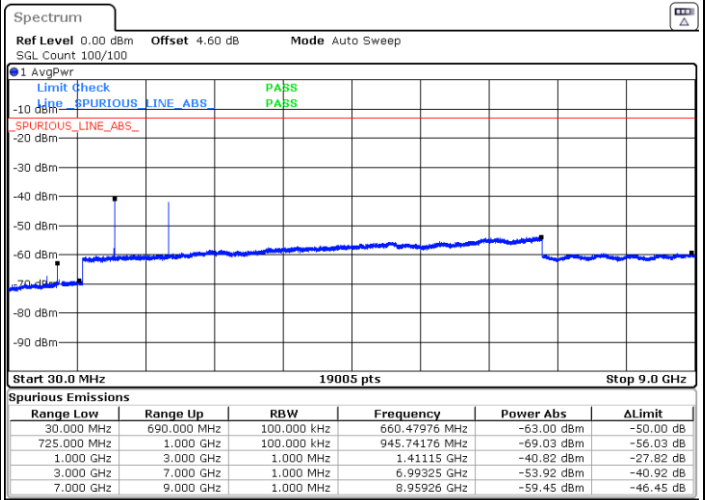
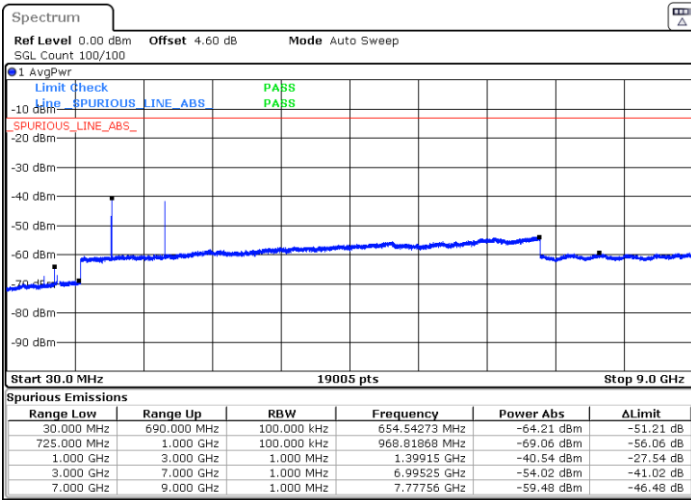
Date: 20.SEP.2022 04:36:53



LTE Band 12 / 5MHz

Lowest Channel / QPSK

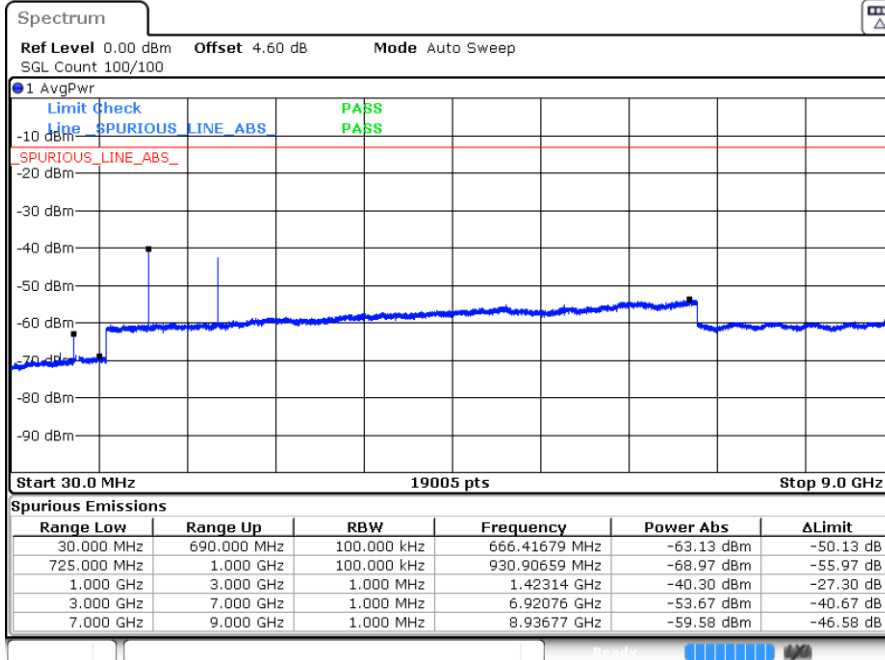
Middle Channel / QPSK



Date: 20.SEP.2022 04:49:21

Date: 20.SEP.2022 05:02:12

Highest Channel / QPSK



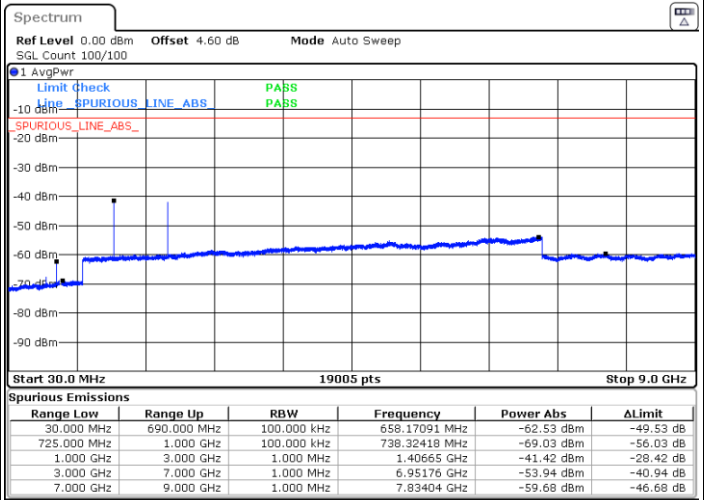
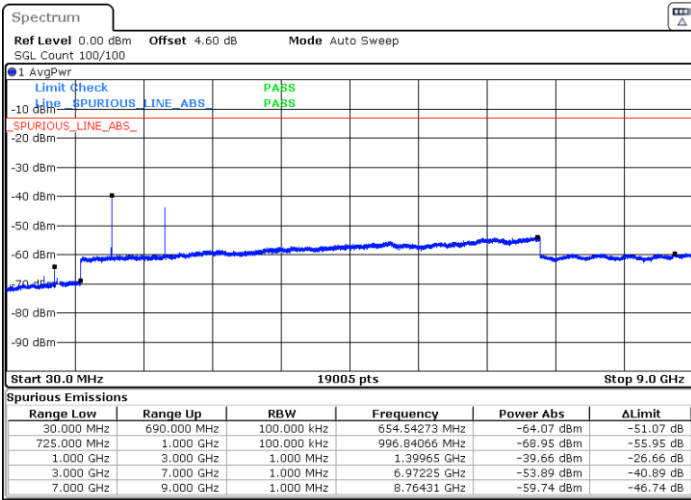
Date: 20.SEP.2022 05:03:52



LTE Band 12 / 10MHz

Lowest Channel / QPSK

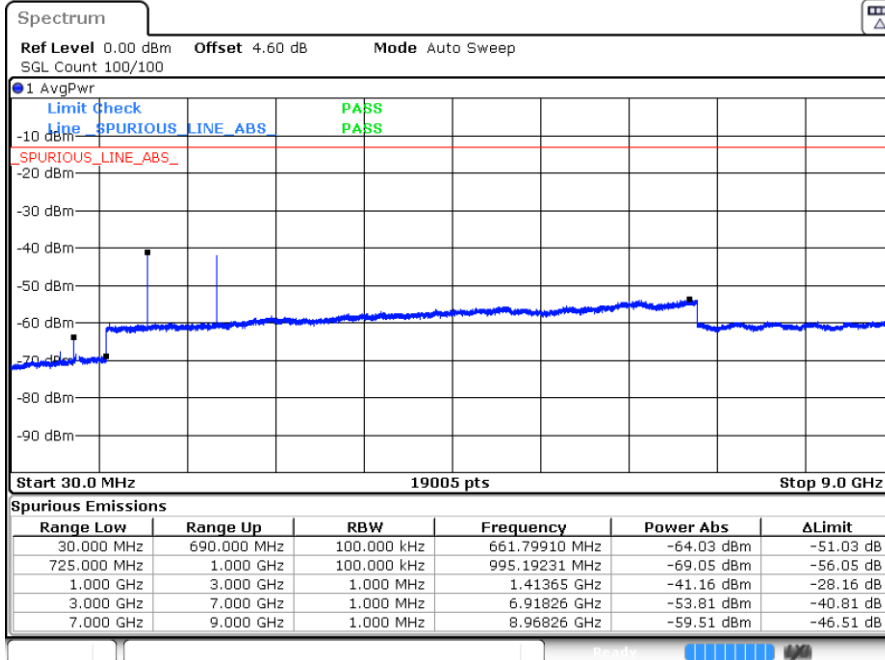
Middle Channel / QPSK



Date: 20.SEP.2022 05:22:15

Date: 20.SEP.2022 05:35:05

Highest Channel / QPSK



Date: 20.SEP.2022 05:36:45



### 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	0.0012	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0008	

**Note:**

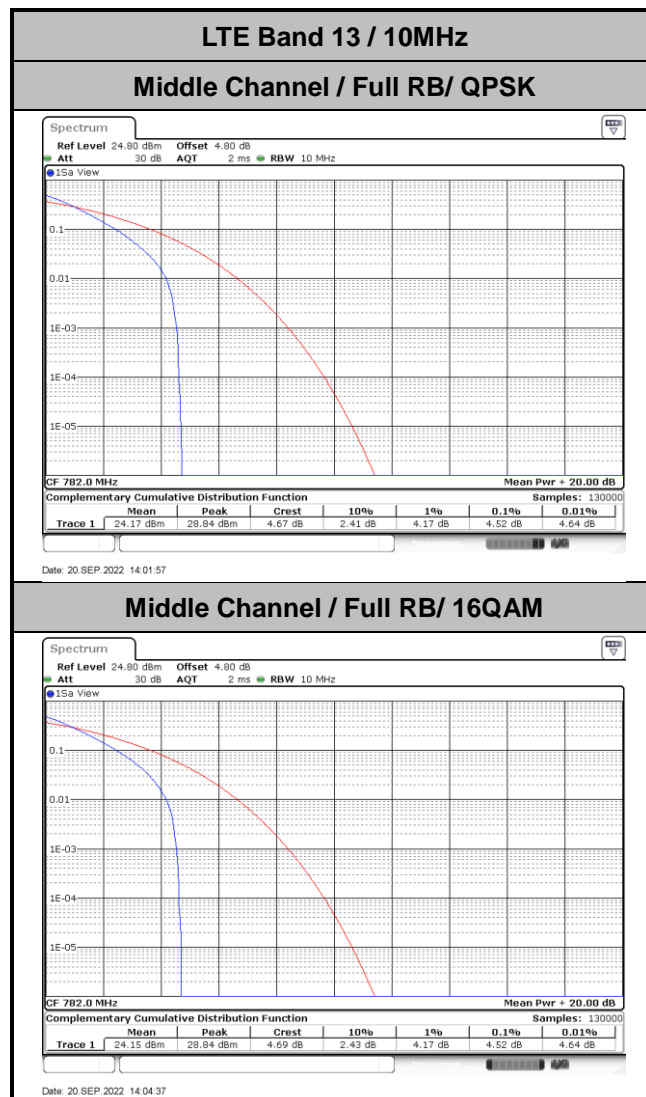
1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

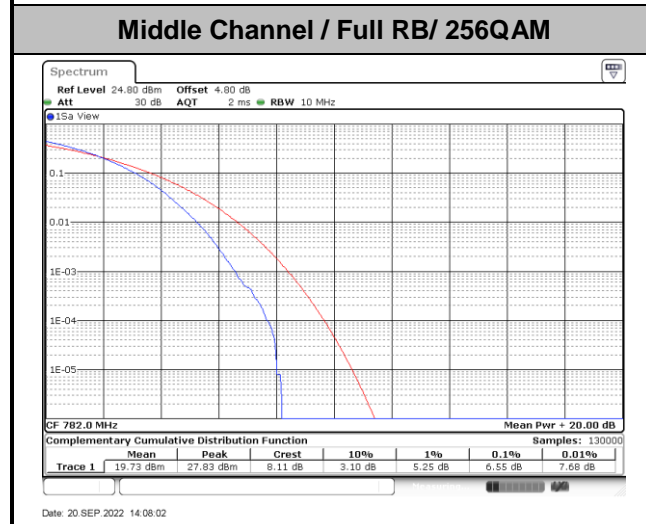
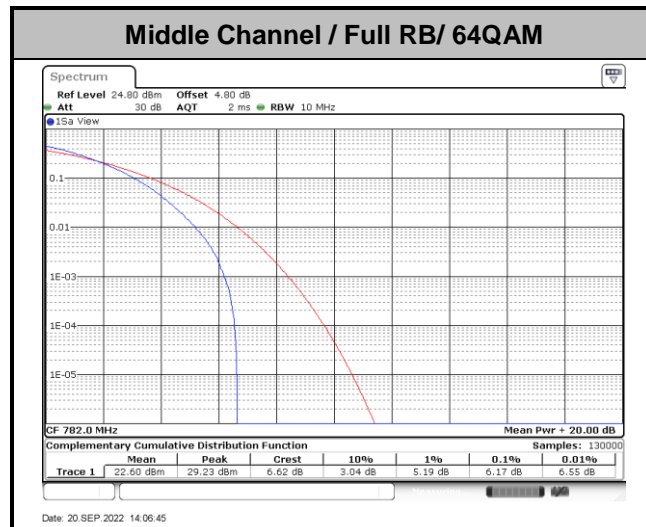


# LTE Band 13

## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.52	4.52	6.17	6.55	PASS

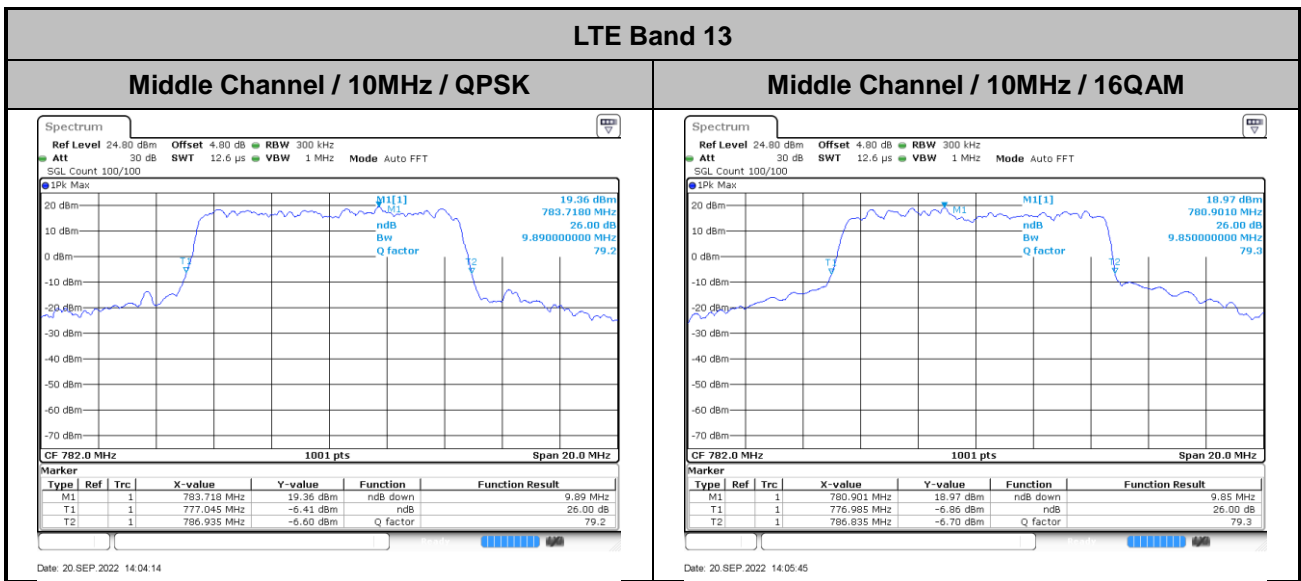






**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.89	9.85

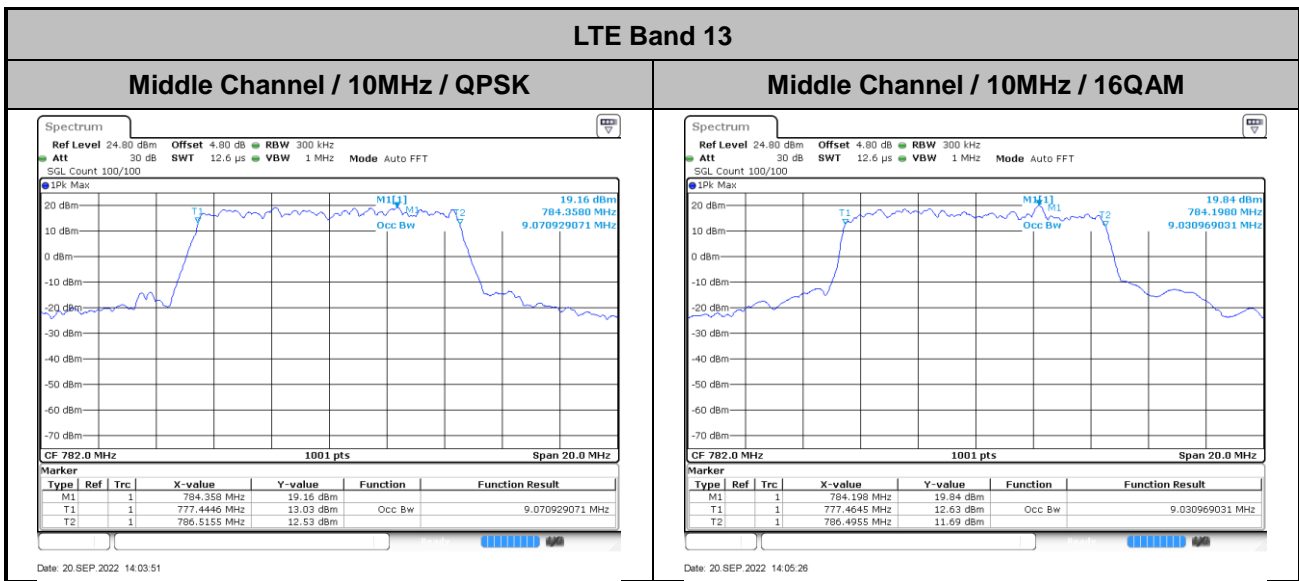






# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.07	9.03

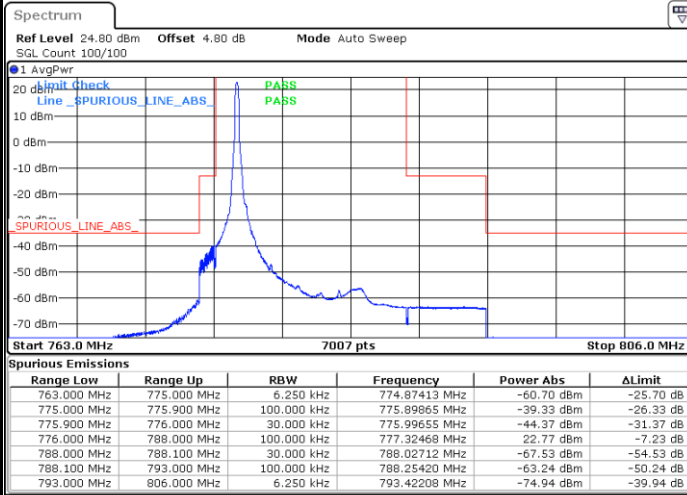




# Conducted Band Edge

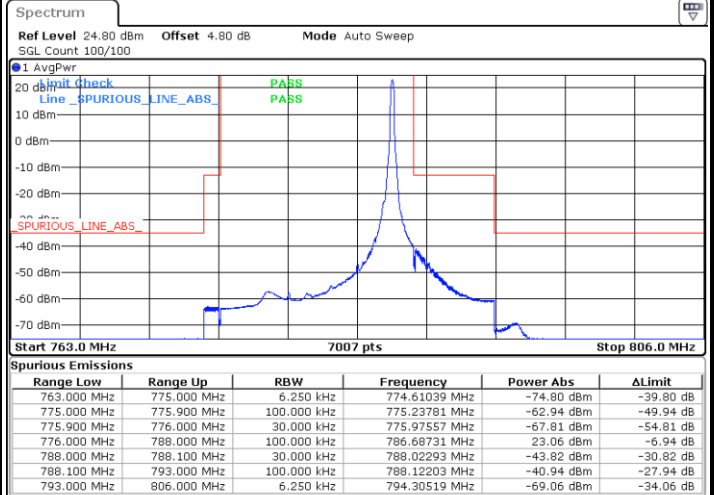
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



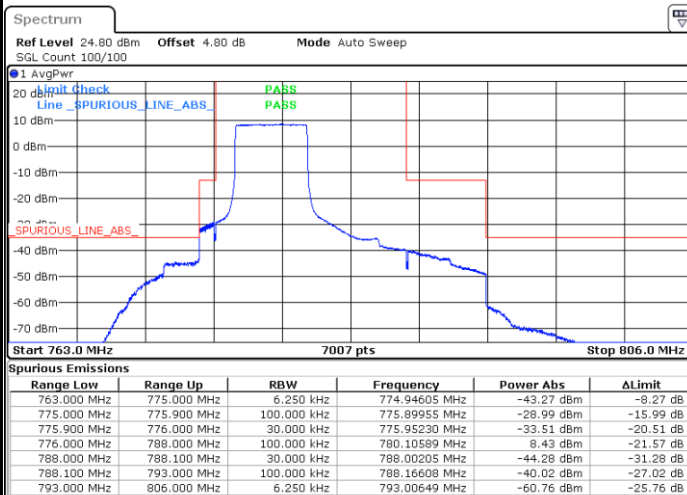
Date: 20.SEP.2022 15:00:01

### Highest Band Edge / 1 RB



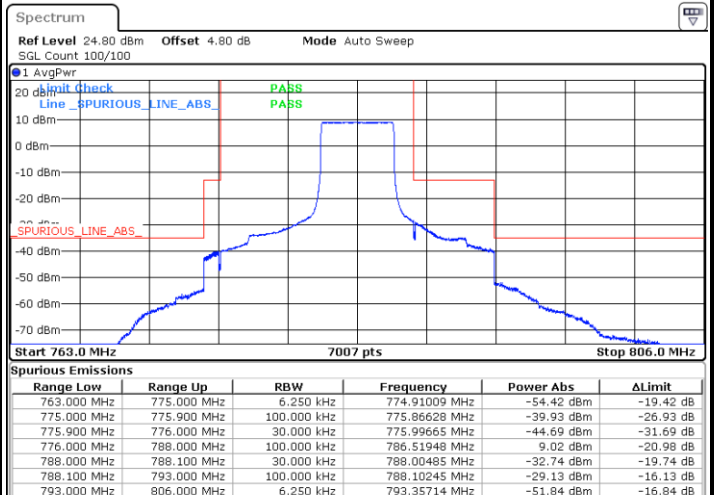
Date: 20.SEP.2022 15:45:59

### Lowest Band Edge / Full RB



Date: 20.SEP.2022 15:13:41

### Highest Band Edge / Full RB



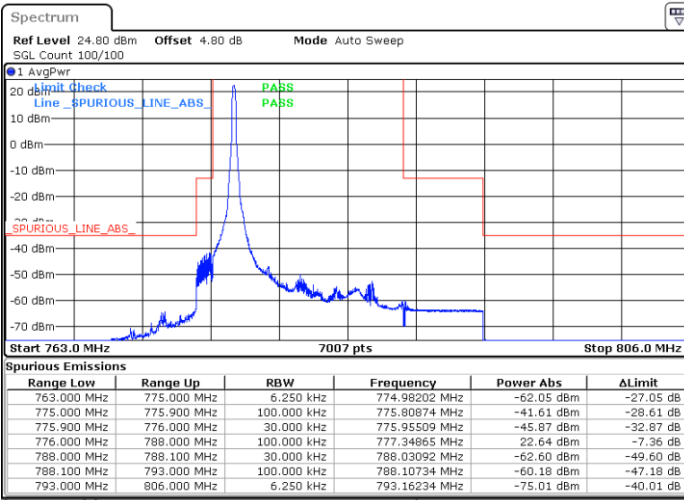
Date: 20.SEP.2022 15:18:17



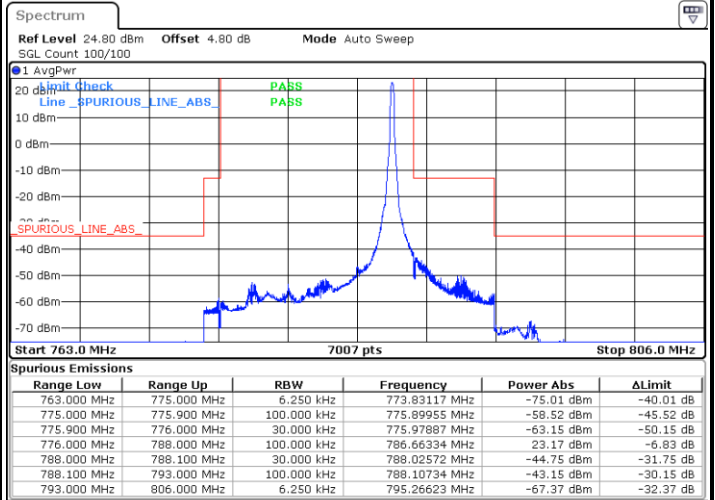
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



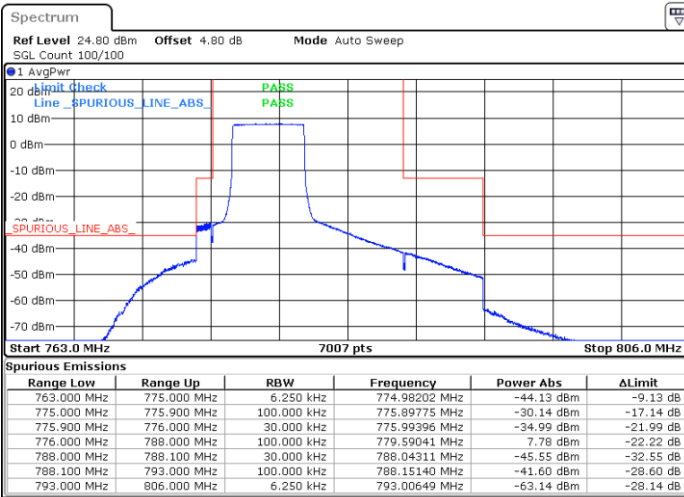
Date: 20.SEP.2022 15:02:33



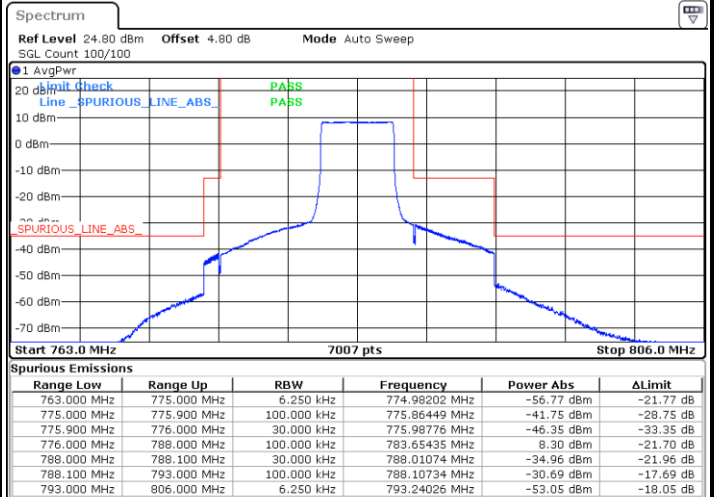
Date: 20.SEP.2022 15:44:32

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 20.SEP.2022 15:12:18



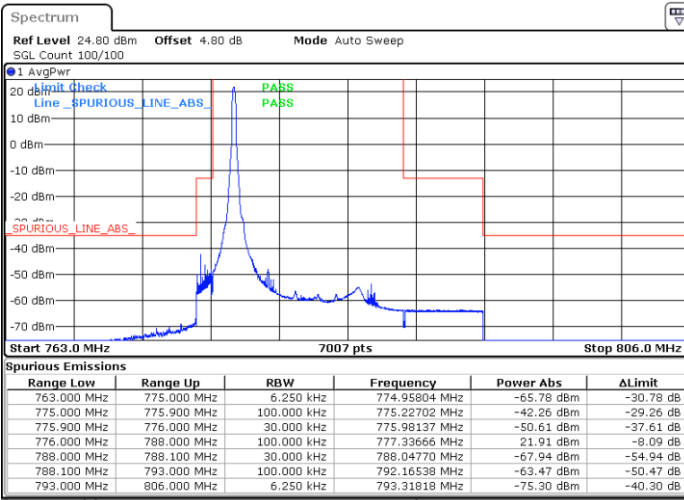
Date: 20.SEP.2022 15:35:39



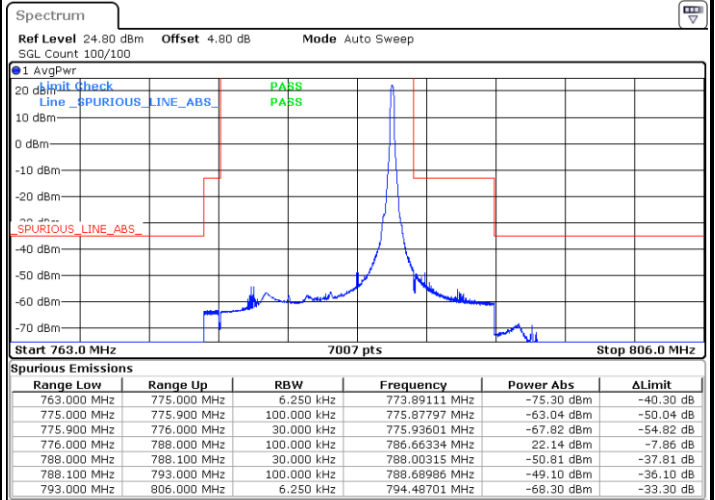
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



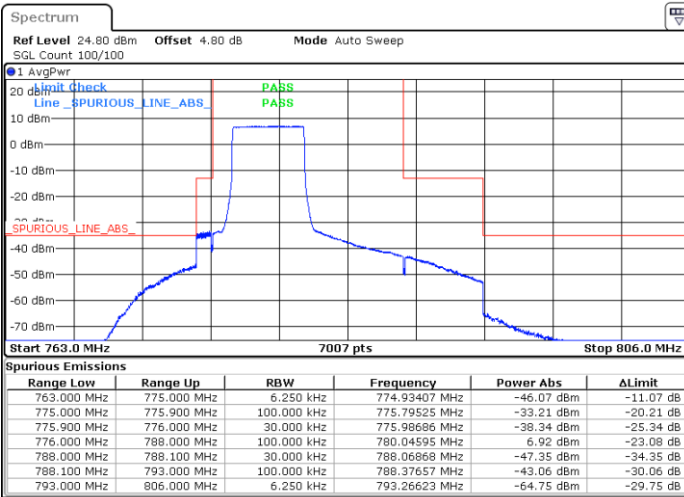
Date: 20.SEP.2022 15:04:30



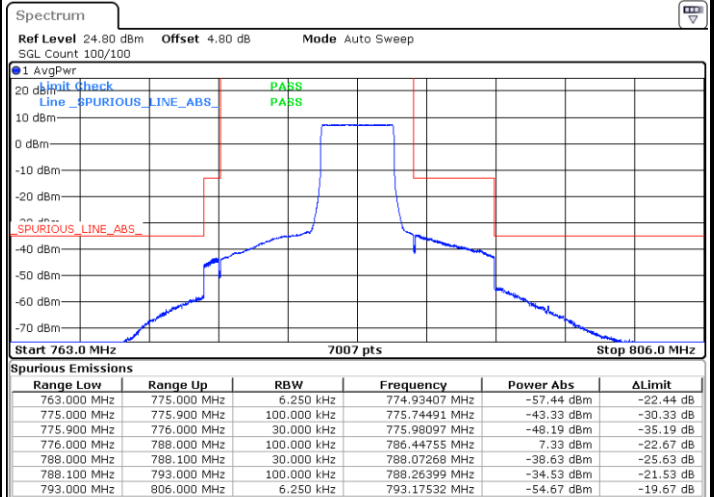
Date: 20.SEP.2022 15:42:54

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 20.SEP.2022 15:10:50



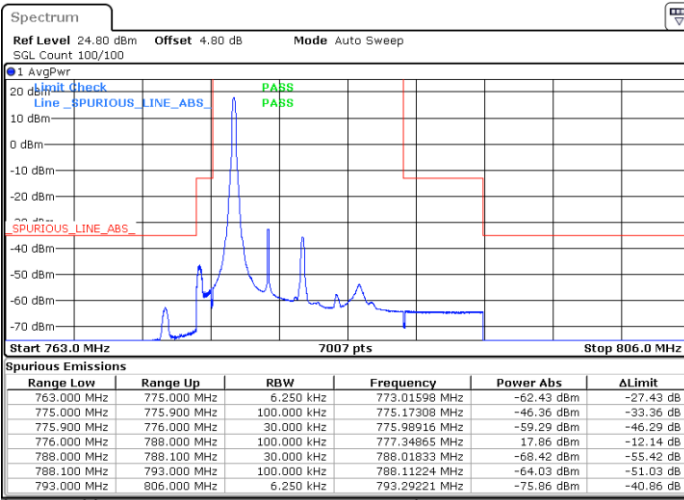
Date: 20.SEP.2022 15:37:38



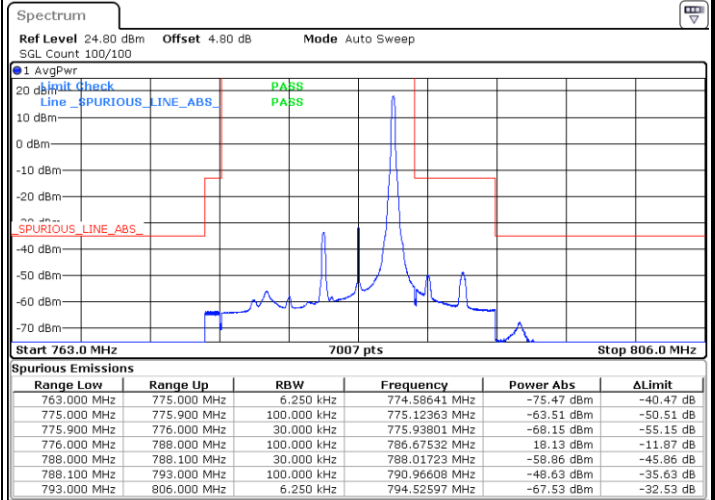
LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



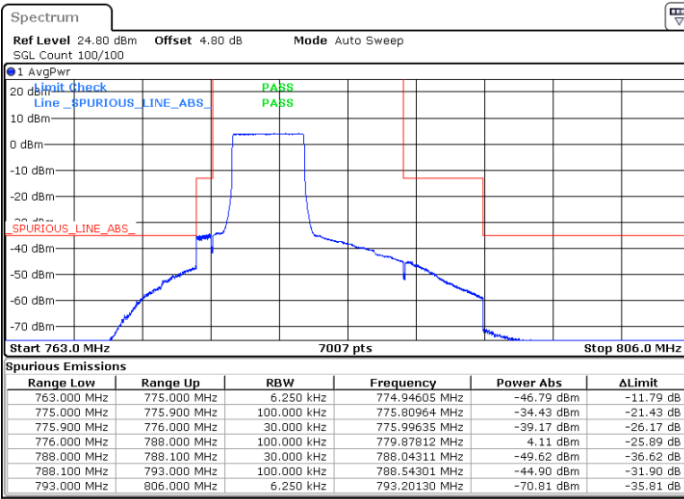
Date: 20.SEP.2022 15:07:23



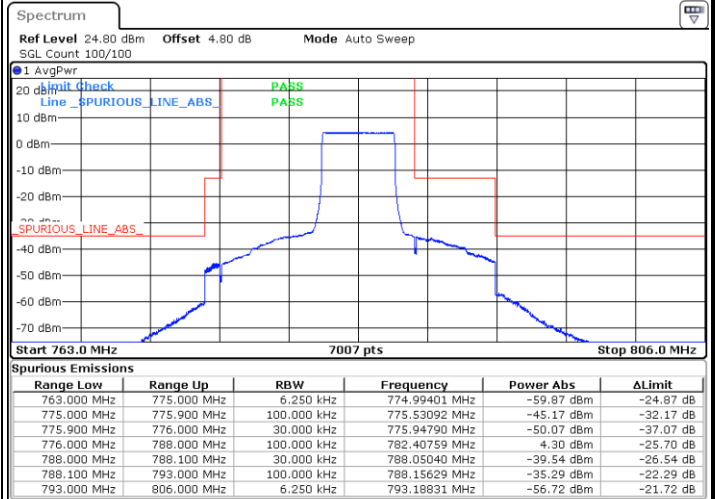
Date: 20.SEP.2022 15:40:53

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 20.SEP.2022 15:09:08



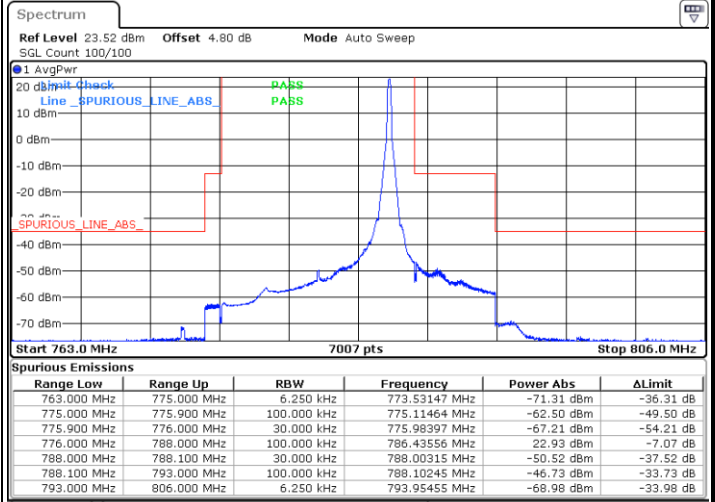
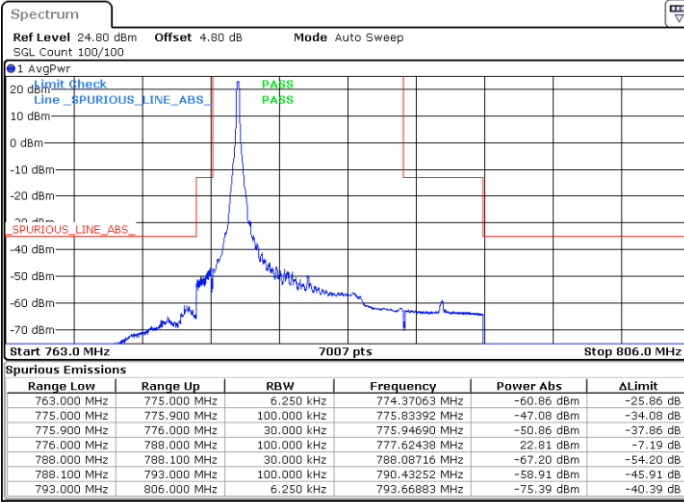
Date: 20.SEP.2022 15:38:05



LTE Band 13 / 10MHz / QPSK

middle Band Edge / 1 RB

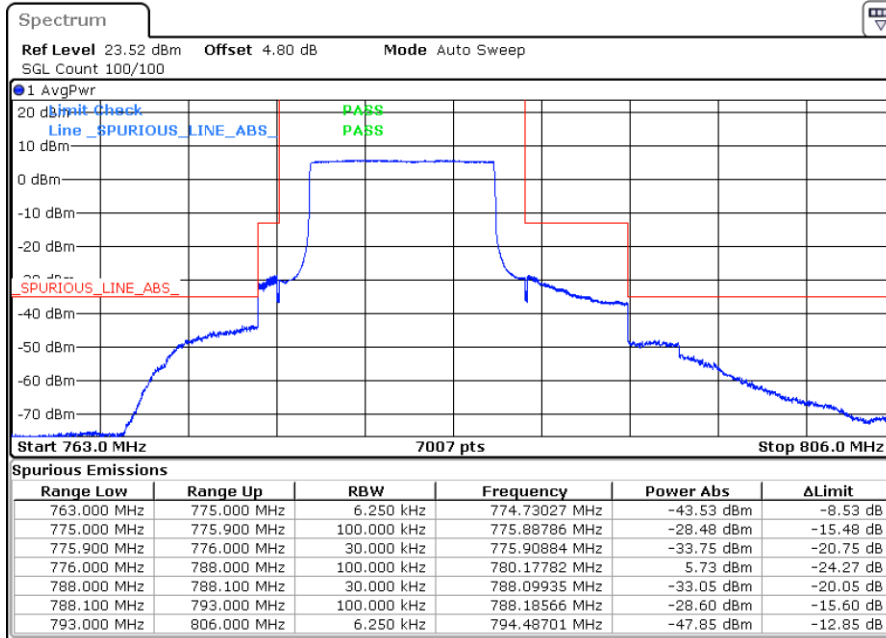
middle Band Edge / 1 RB



Date: 23.SEP.2022 07:35:03

Date: 20.SEP.2022 14:50:03

Middle Band Edge / Full RB

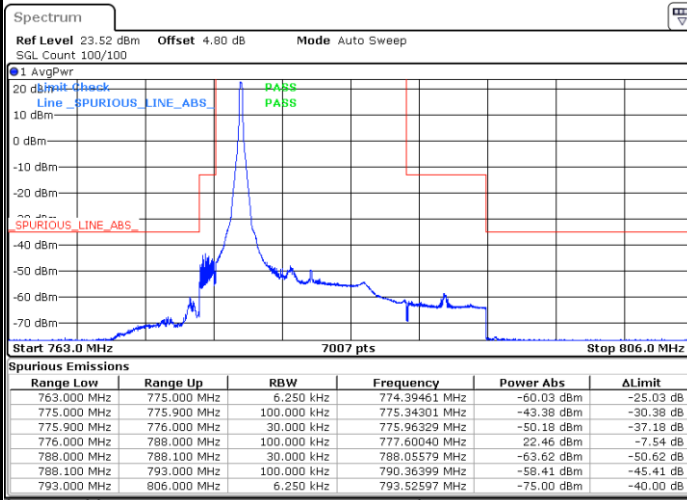


Date: 20.SEP.2022 14:51:24



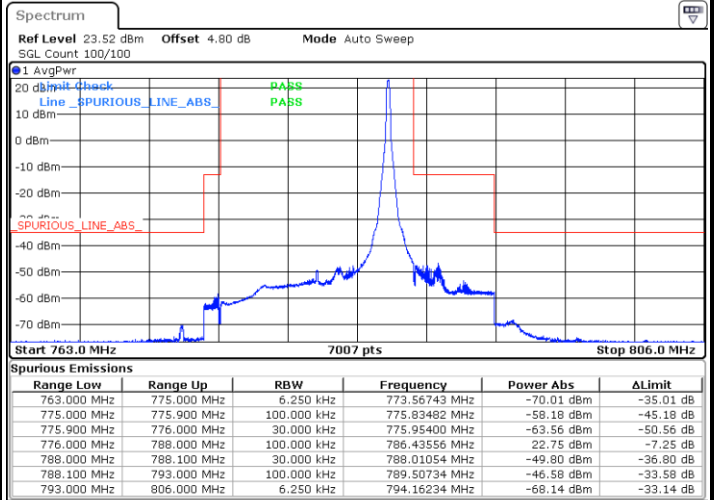
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



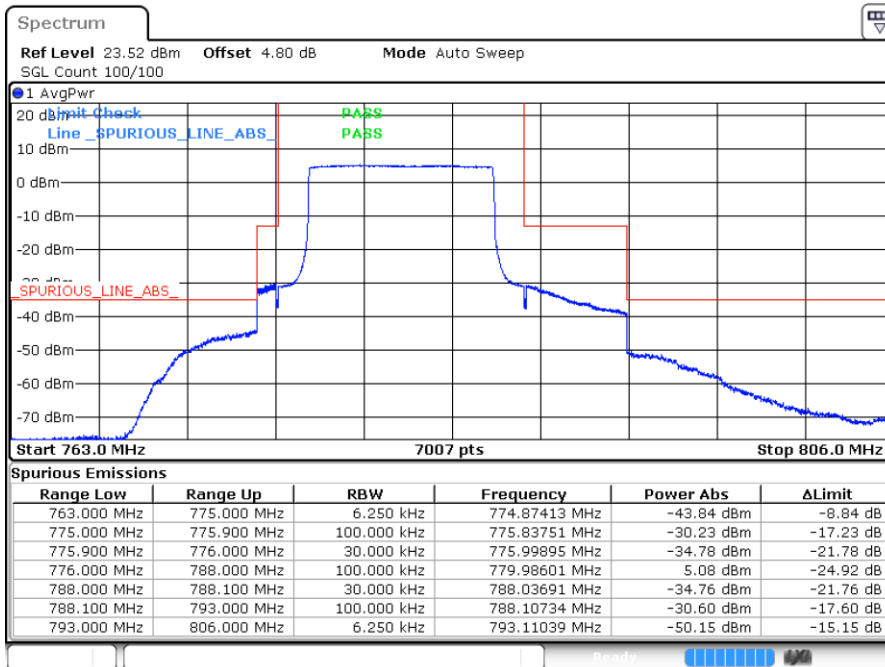
Date: 20.SEP.2022 14:28:22

middle Band Edge / 1 RB



Date: 20.SEP.2022 14:48:47

middle Band Edge / Full RB



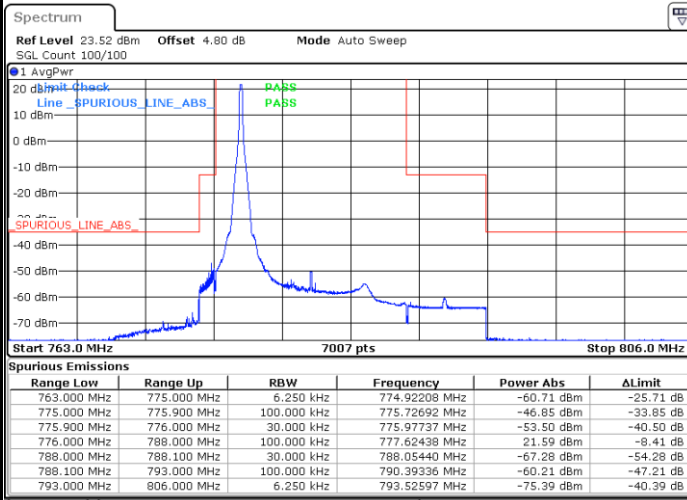
Date: 20.SEP.2022 14:52:51





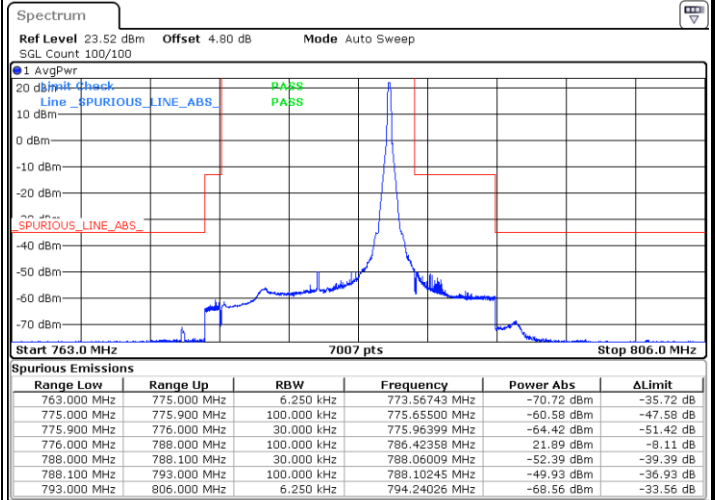
LTE Band 13 / 10MHz / 64QAM

middle Band Edge / 1 RB



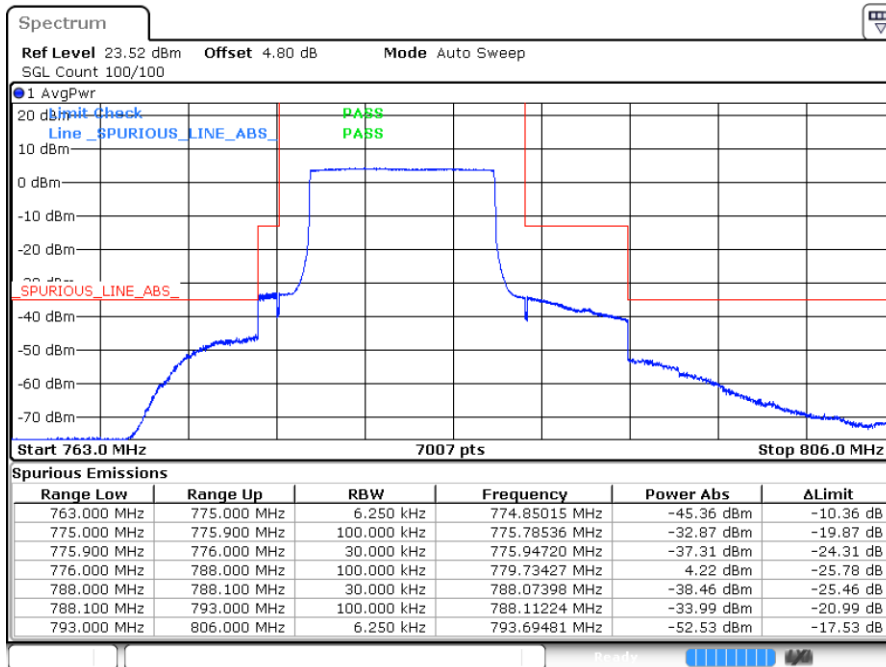
Date: 20.SEP.2022 14:29:55

middle Band Edge / 1 RB



Date: 20.SEP.2022 14:46:15

middle Band Edge / Full RB



Date: 20.SEP.2022 14:54:07

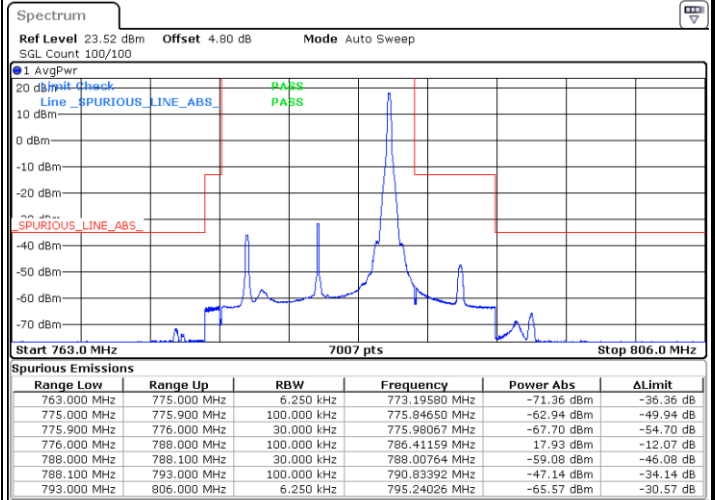
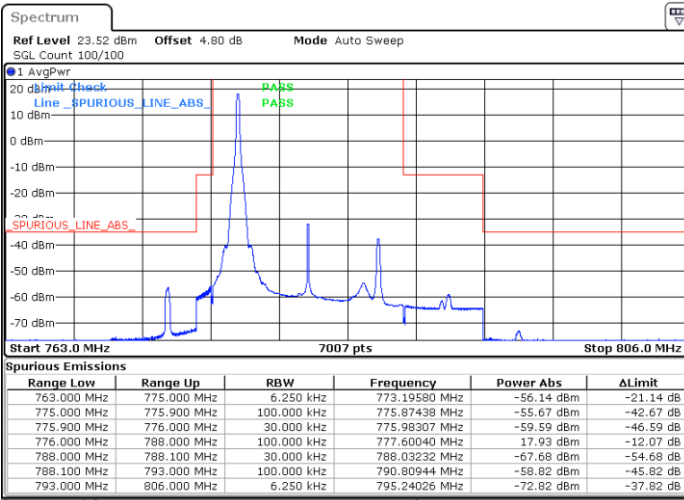




LTE Band 13 / 10MHz /256QAM

middle Band Edge / 1 RB

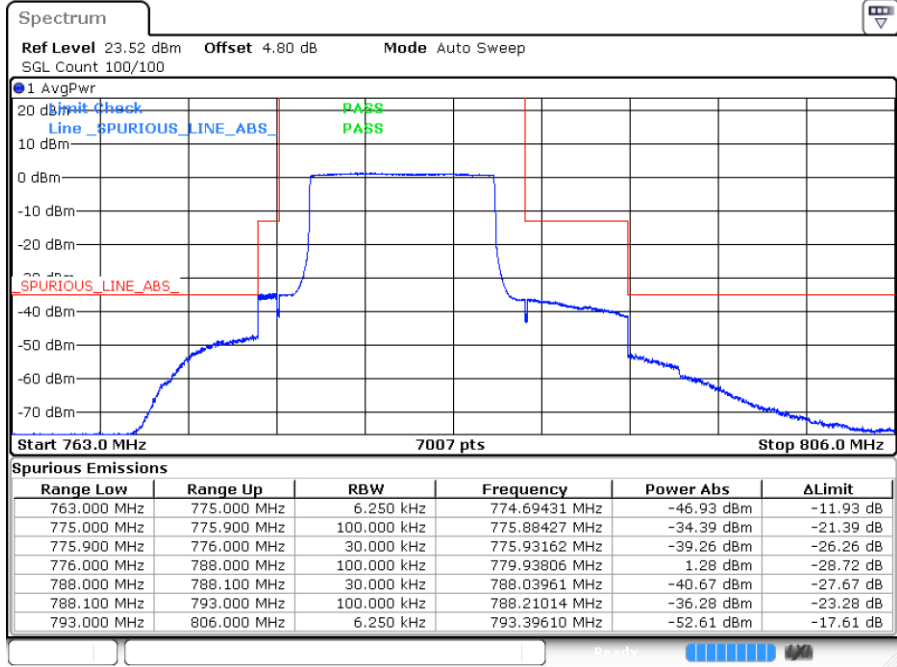
middle Band Edge / 1 RB



Date: 20.SEP.2022 14:31:38

Date: 20.SEP.2022 14:44:52

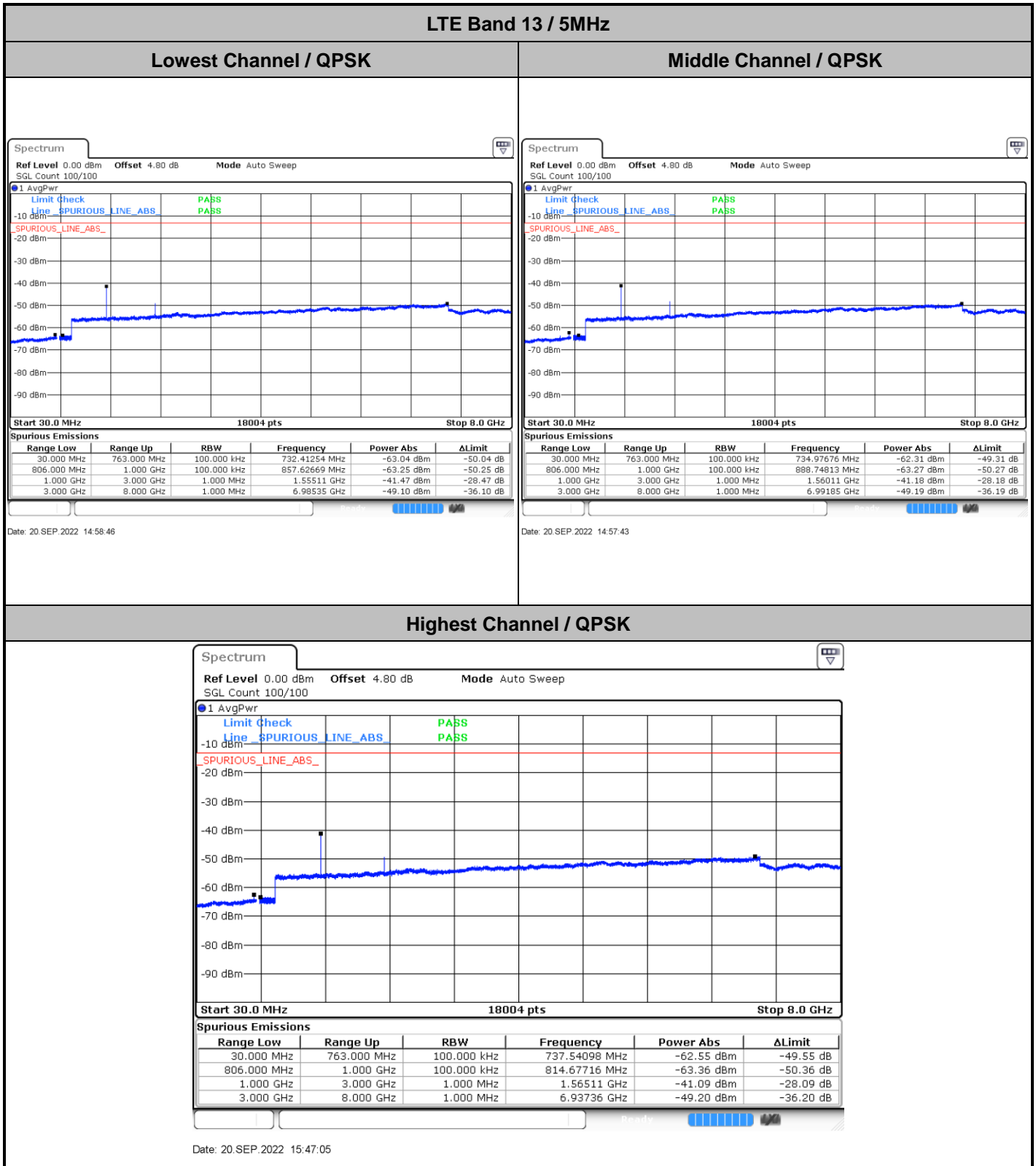
middle Band Edge / Full RB



Date: 20.SEP.2022 14:55:35



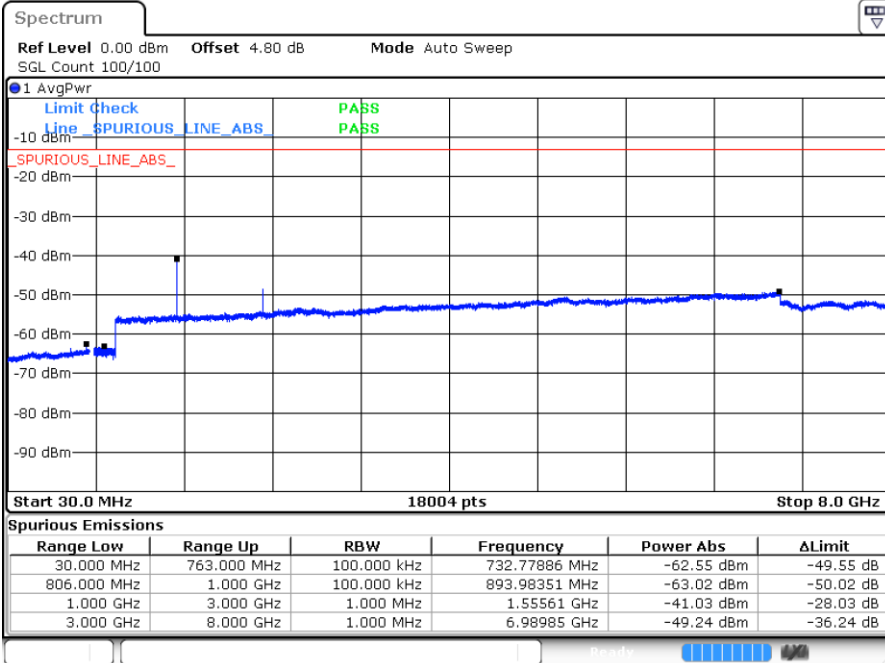
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 20.SEP.2022 14:09:27



### 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	0.0016	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0027	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0024	
0	Normal Voltage	0.0008	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0005	
20	Battery End Point	0.0011	

**Note:**

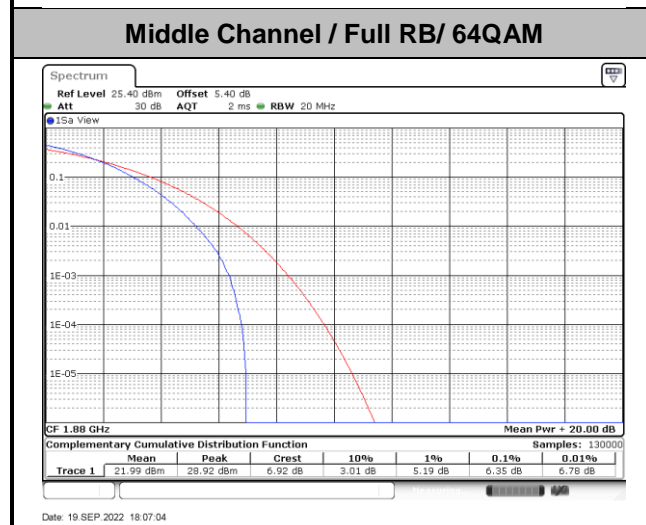
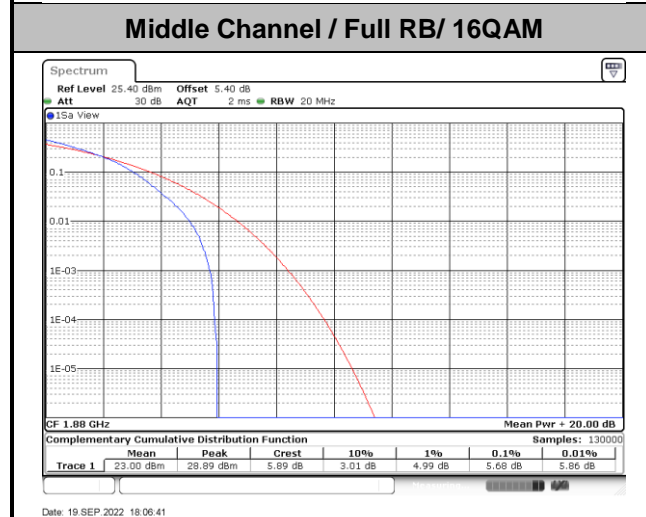
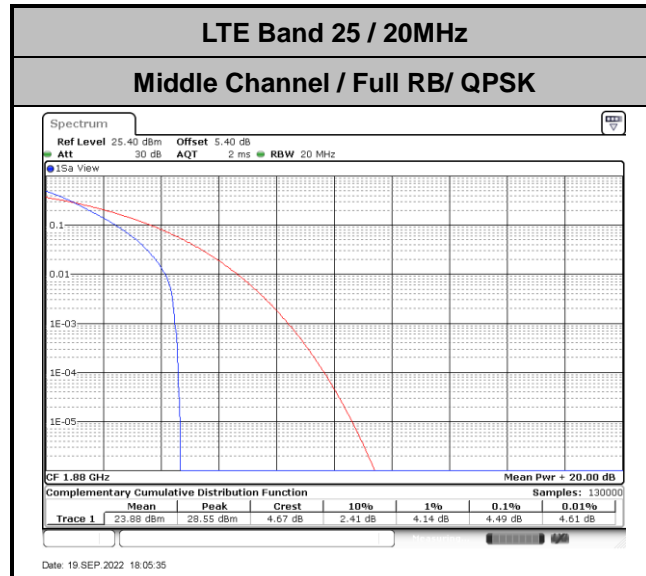
1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.48 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

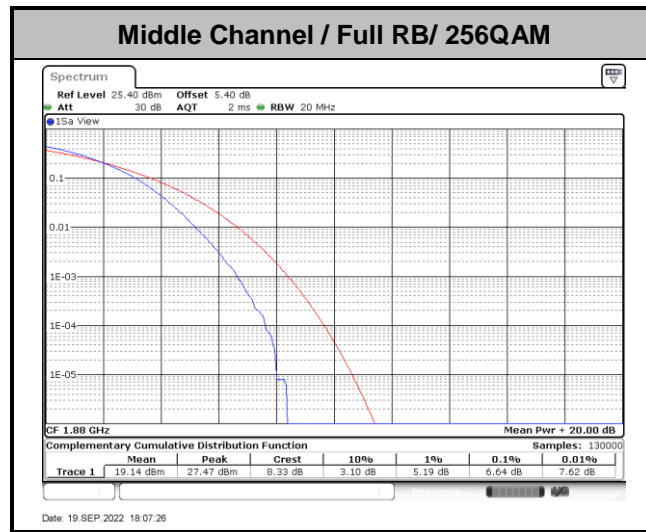


# LTE Band 25

## Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.49	5.68	6.35	PASS
Mode	LTE Band 25 / 20MHz			
Mod.	256QAM			Limit: 13dB
RB Size	Full RB			Result
Middle CH	6.64			PASS

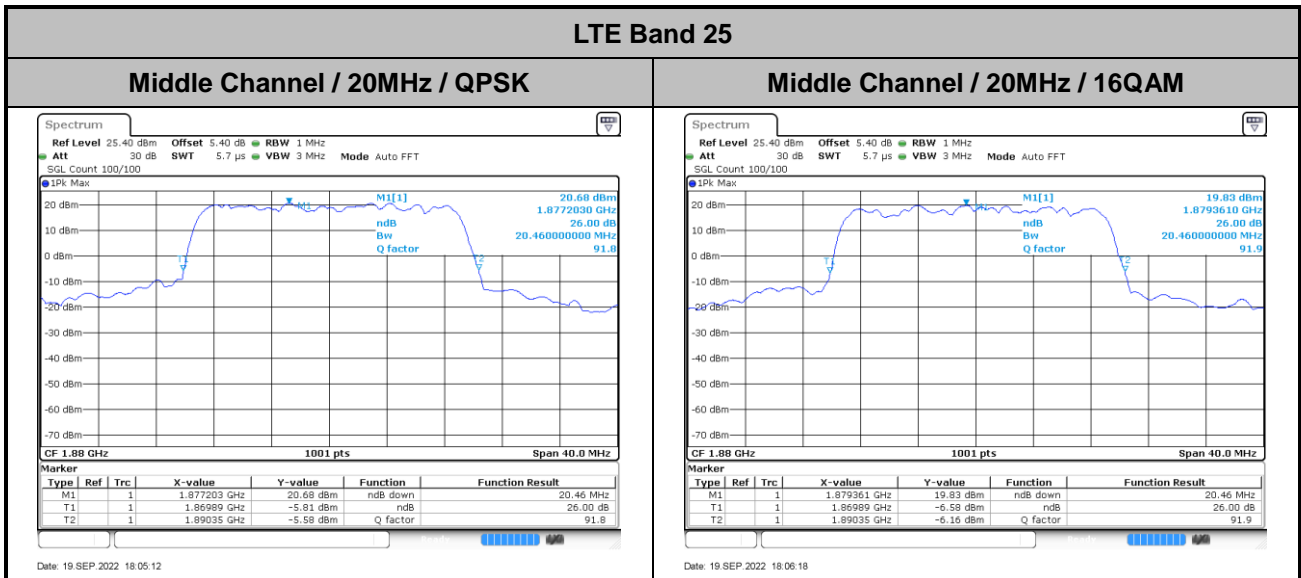






**26dB Bandwidth**

Mode	LTE Band 25 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.46	20.46

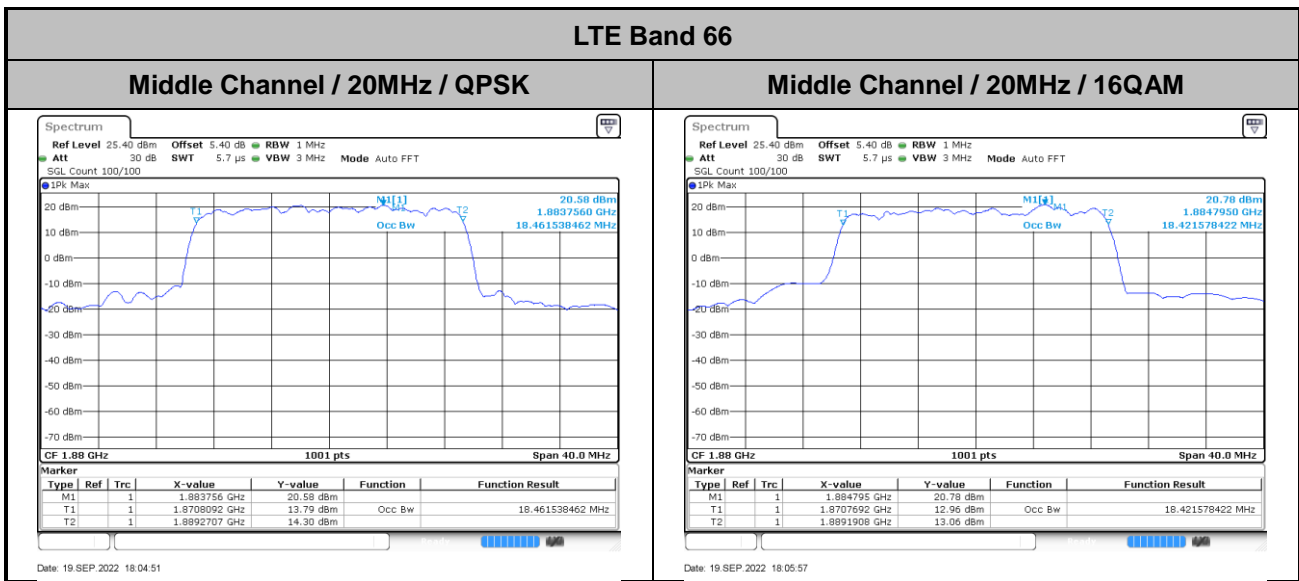






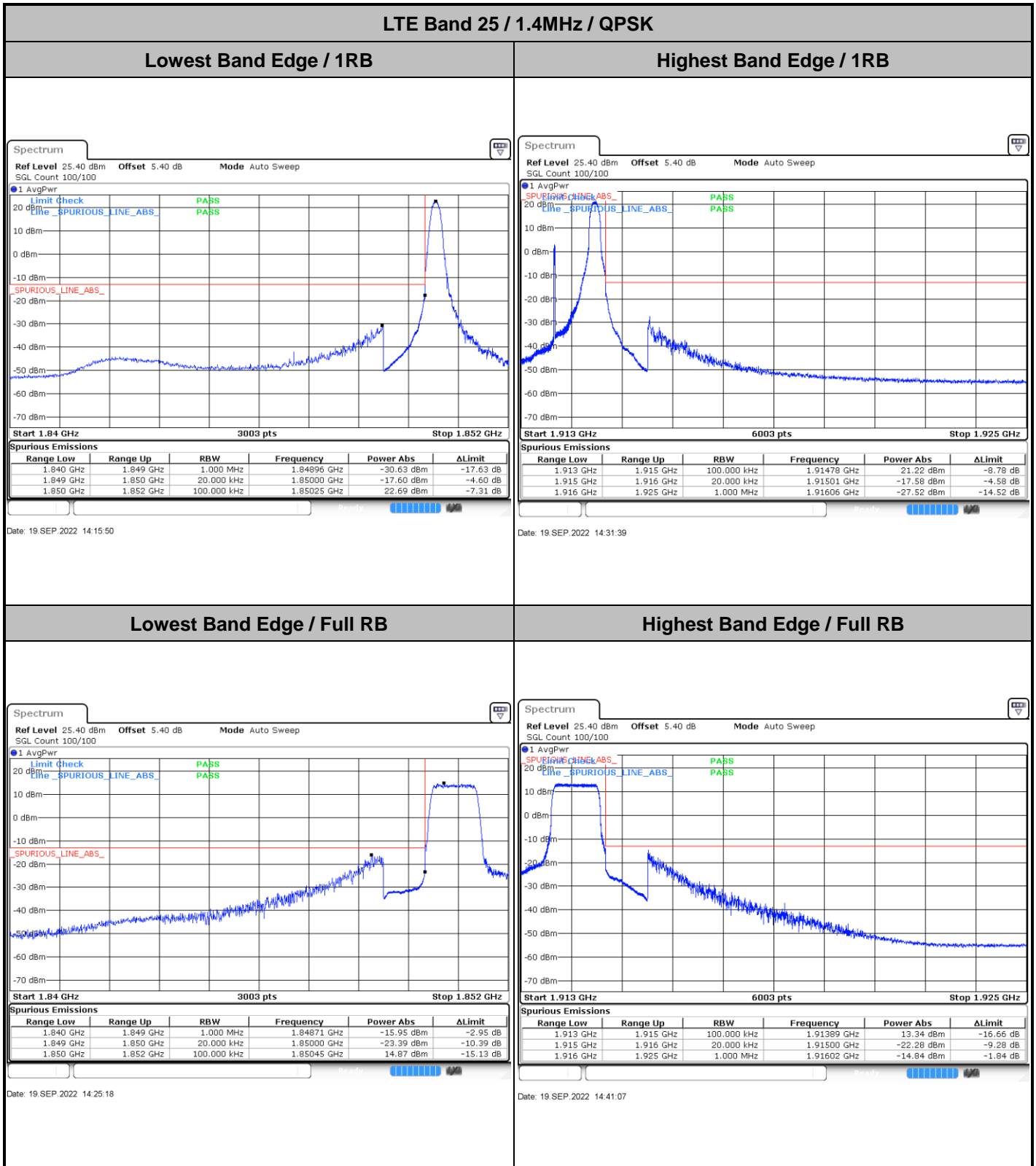
# Occupied Bandwidth

Mode	LTE Band 25 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.46	18.42





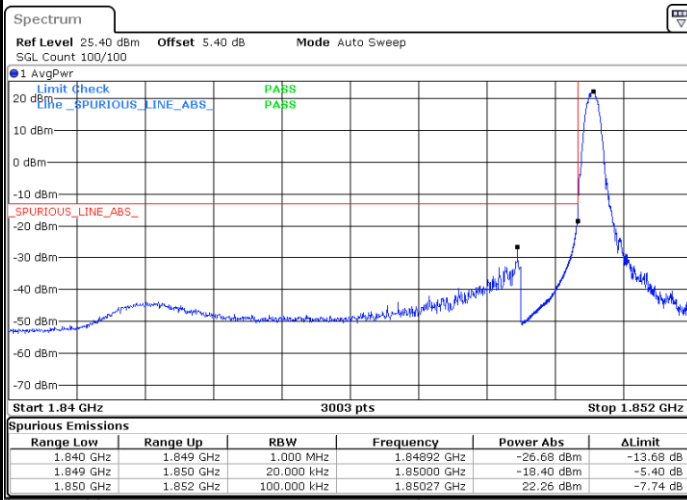
# Conducted Band Edge





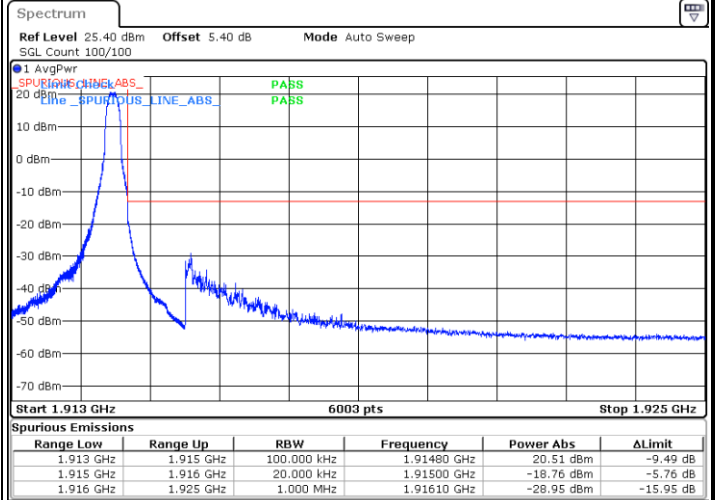
LTE Band 25 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



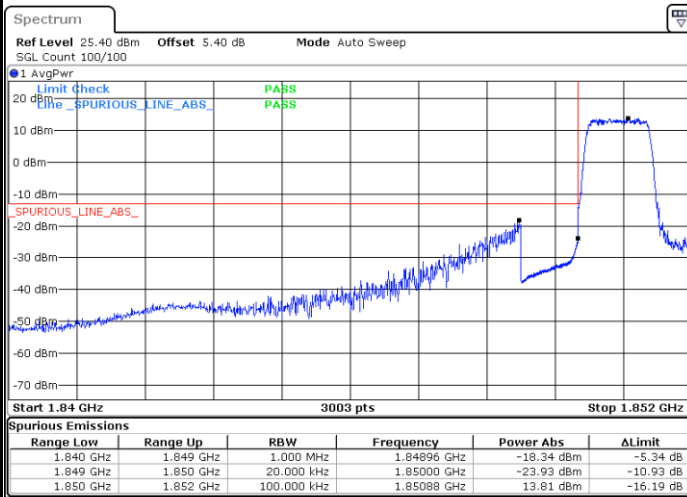
Date: 19 SEP 2022 14:17:10

Highest Band Edge / 1 RB



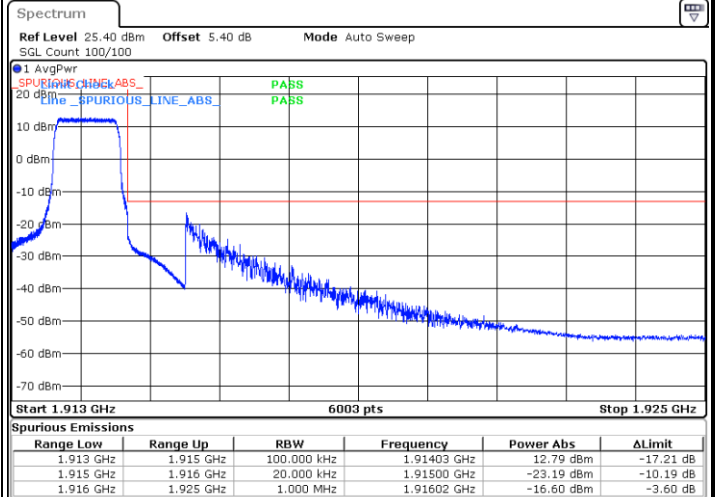
Date: 19 SEP 2022 14:32:59

Lowest Band Edge / Full RB



Date: 19 SEP 2022 14:23:58

Highest Band Edge / Full RB

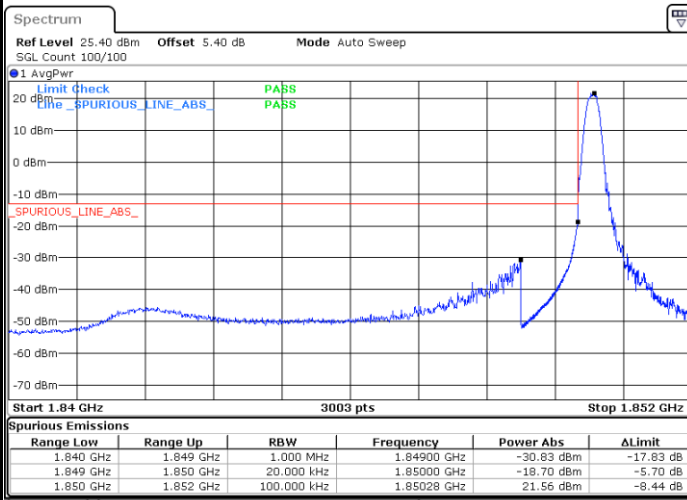


Date: 19 SEP 2022 14:39:47



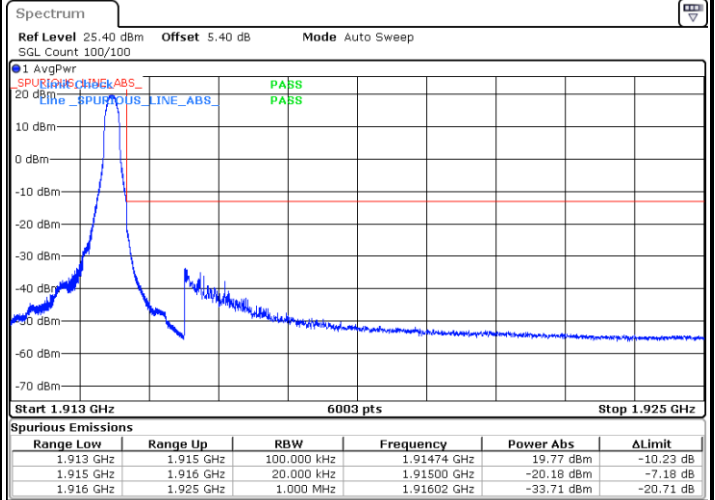
LTE Band 25 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



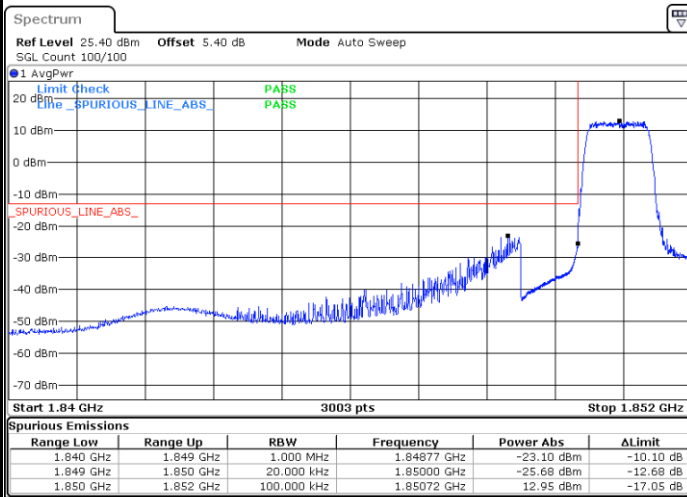
Date: 19 SEP 2022 14:18:30

Highest Band Edge / 1 RB



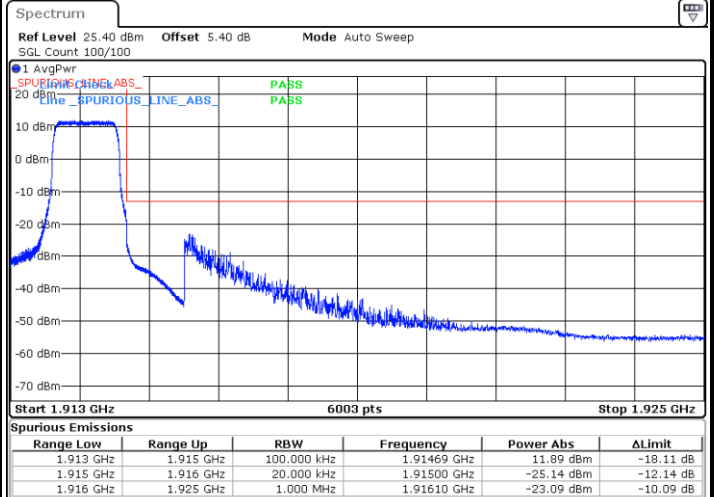
Date: 19 SEP 2022 14:34:19

Lowest Band Edge / Full RB



Date: 19 SEP 2022 14:22:35

Highest Band Edge / Full RB

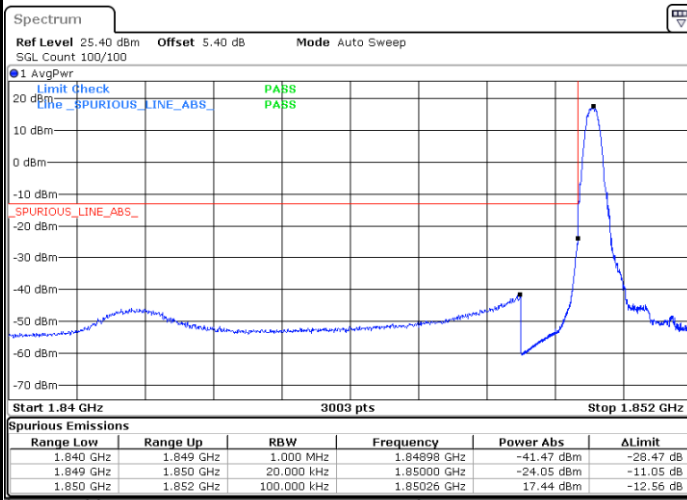


Date: 19 SEP 2022 14:38:24



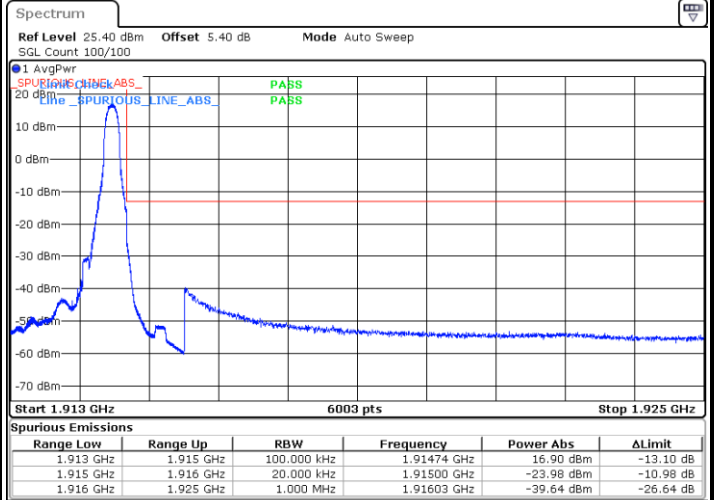
LTE Band 25 / 1.4MHz /256QAM

Lowest Band Edge / 1 RB



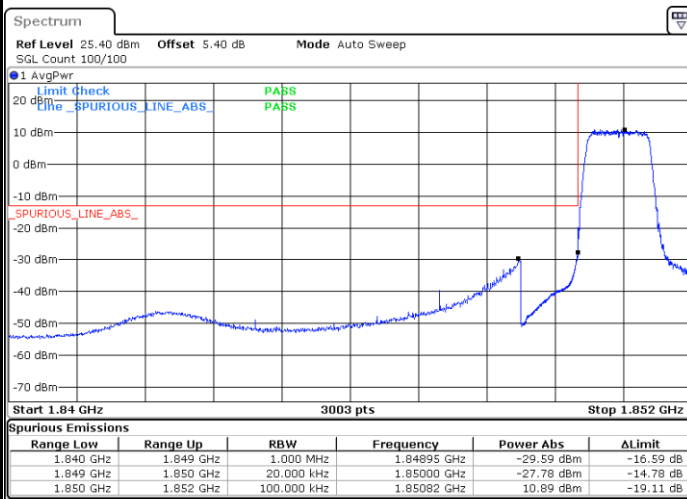
Date: 19.SEP.2022 14:19:50

Highest Band Edge / 1 RB



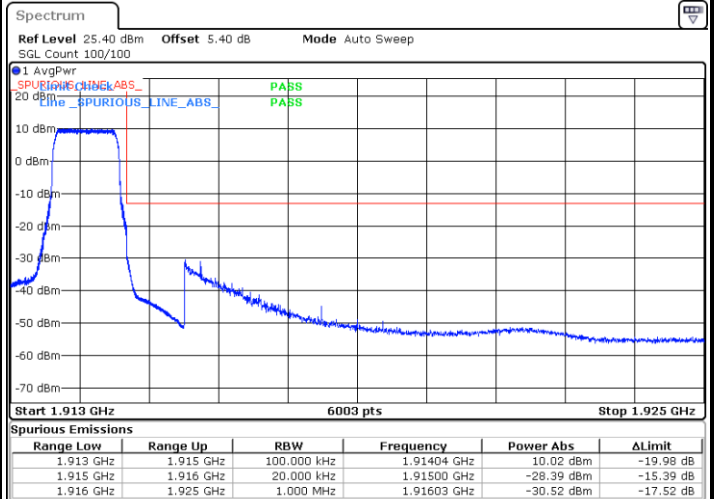
Date: 19.SEP.2022 14:35:39

Lowest Band Edge / Full RB



Date: 19.SEP.2022 14:21:13

Highest Band Edge / Full RB

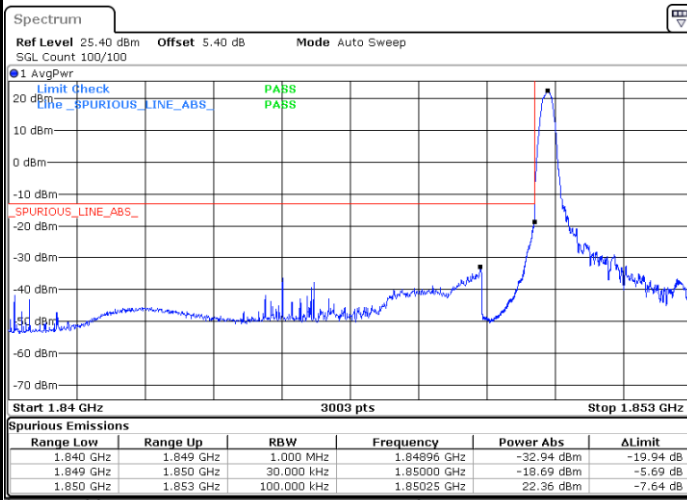


Date: 19.SEP.2022 14:37:02



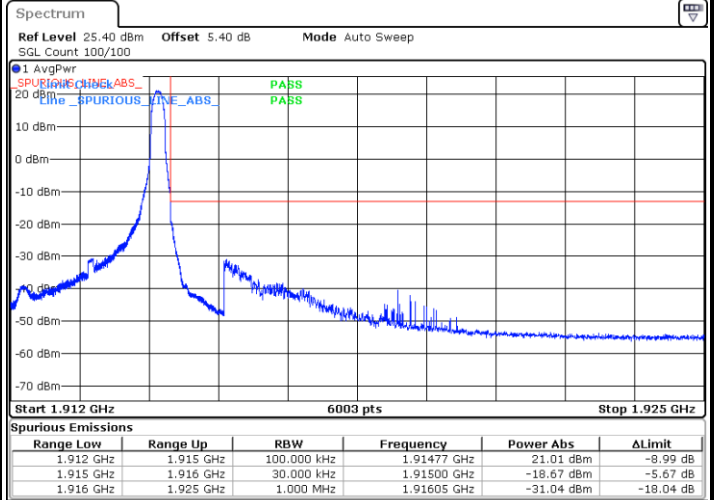
LTE Band 25 / 3MHz / QPSK

Lowest Band Edge / 1RB



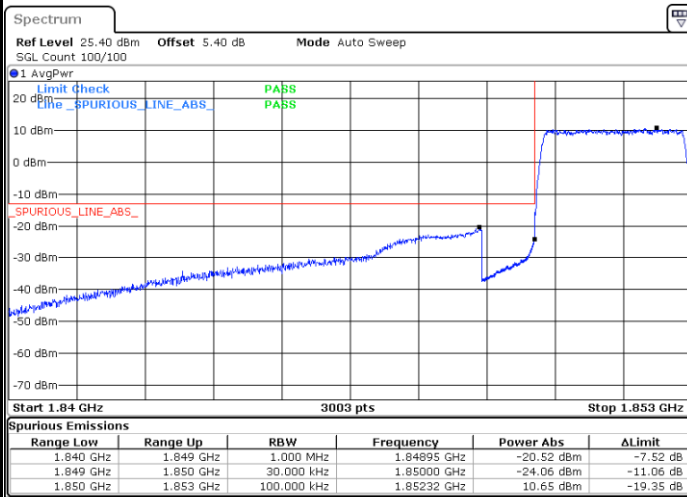
Date: 19 SEP 2022 14:42:27

Highest Band Edge / 1 RB



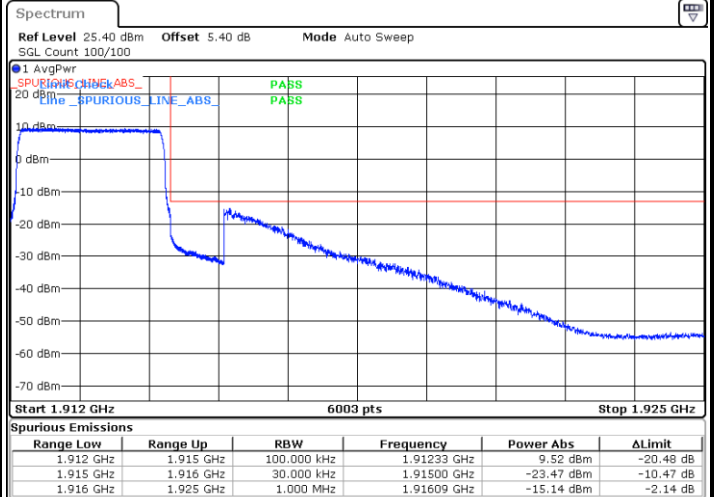
Date: 19 SEP 2022 14:59:03

Lowest Band Edge / Full RB



Date: 19 SEP 2022 14:52:42

Highest Band Edge / Full RB

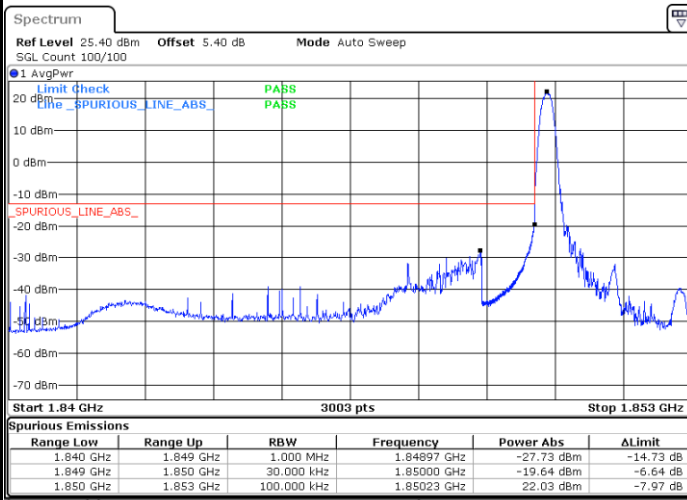


Date: 19 SEP 2022 15:08:28



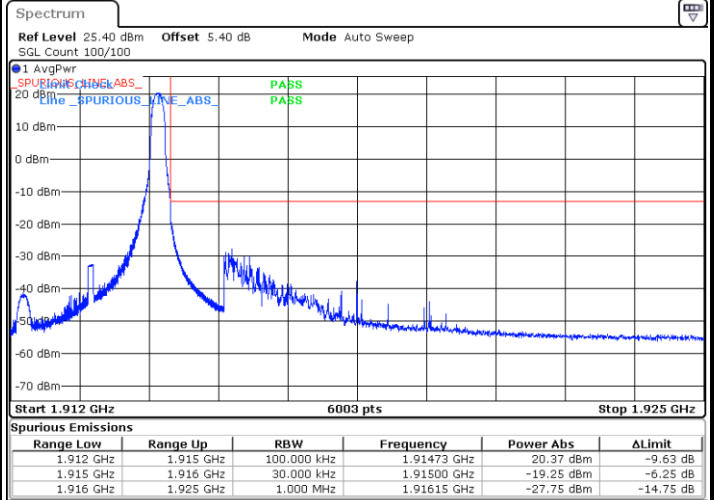
LTE Band 25 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



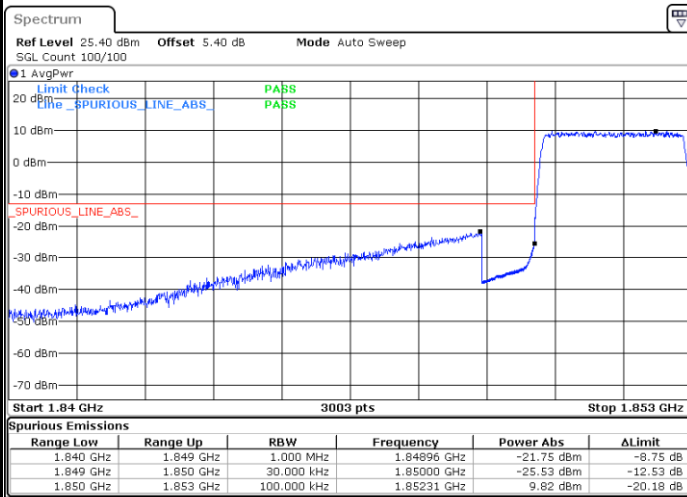
Date: 19 SEP 2022 14:43:47

Highest Band Edge / 1 RB



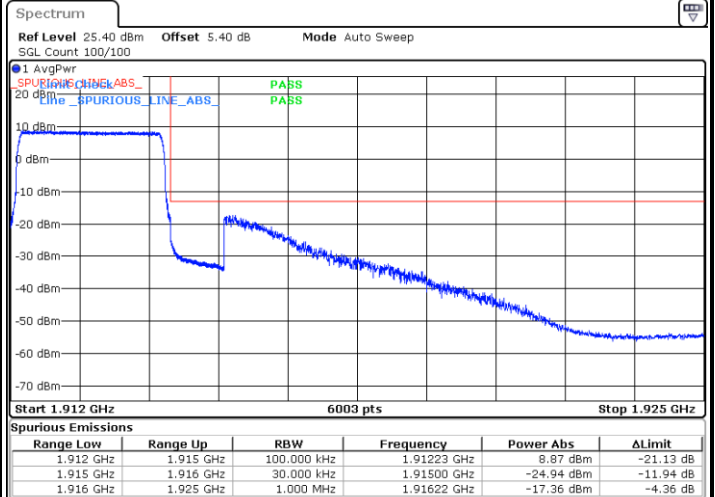
Date: 19 SEP 2022 15:00:23

Lowest Band Edge / Full RB



Date: 19 SEP 2022 14:51:23

Highest Band Edge / Full RB

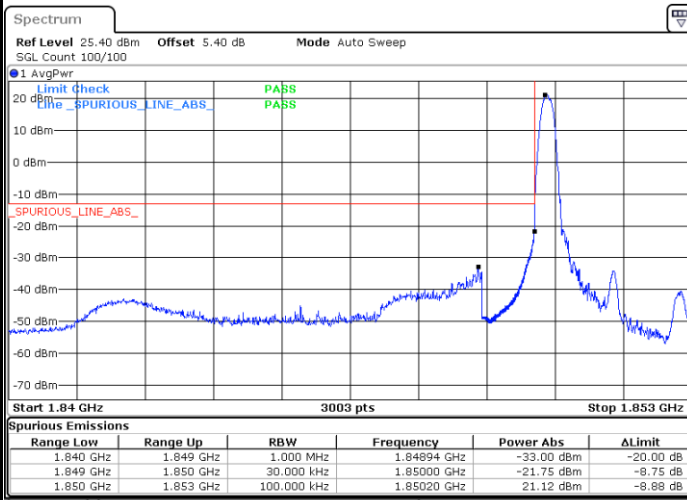


Date: 19 SEP 2022 15:07:08



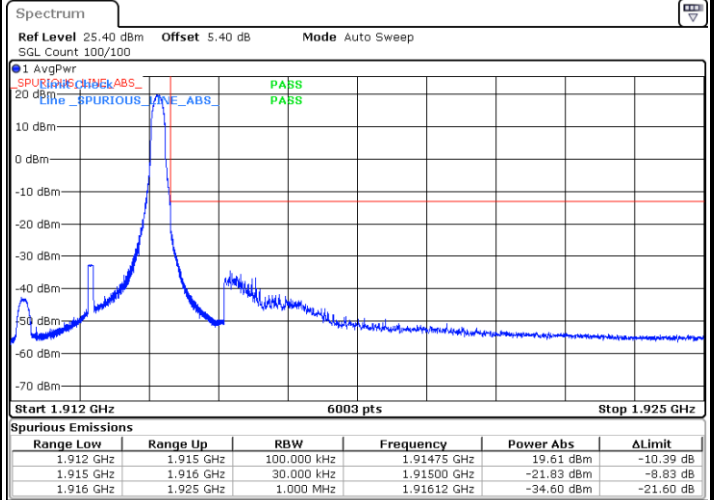
LTE Band 25 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



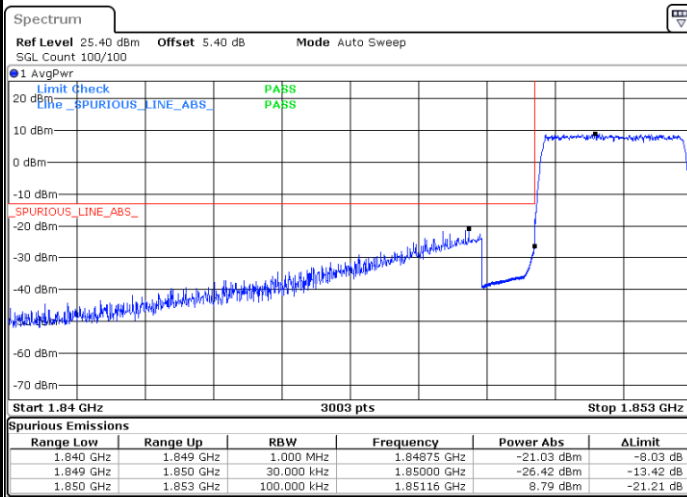
Date: 19 SEP 2022 14:45:07

Highest Band Edge / 1 RB



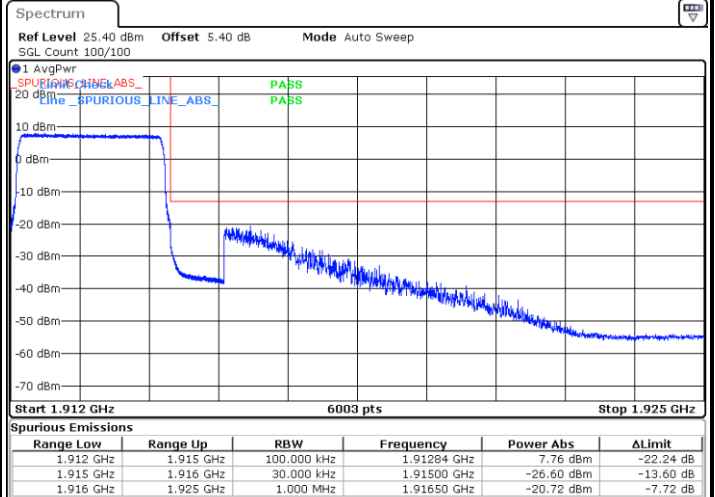
Date: 19 SEP 2022 15:01:43

Lowest Band Edge / Full RB



Date: 19 SEP 2022 14:50:03

Highest Band Edge / Full RB



Date: 19 SEP 2022 15:05:48