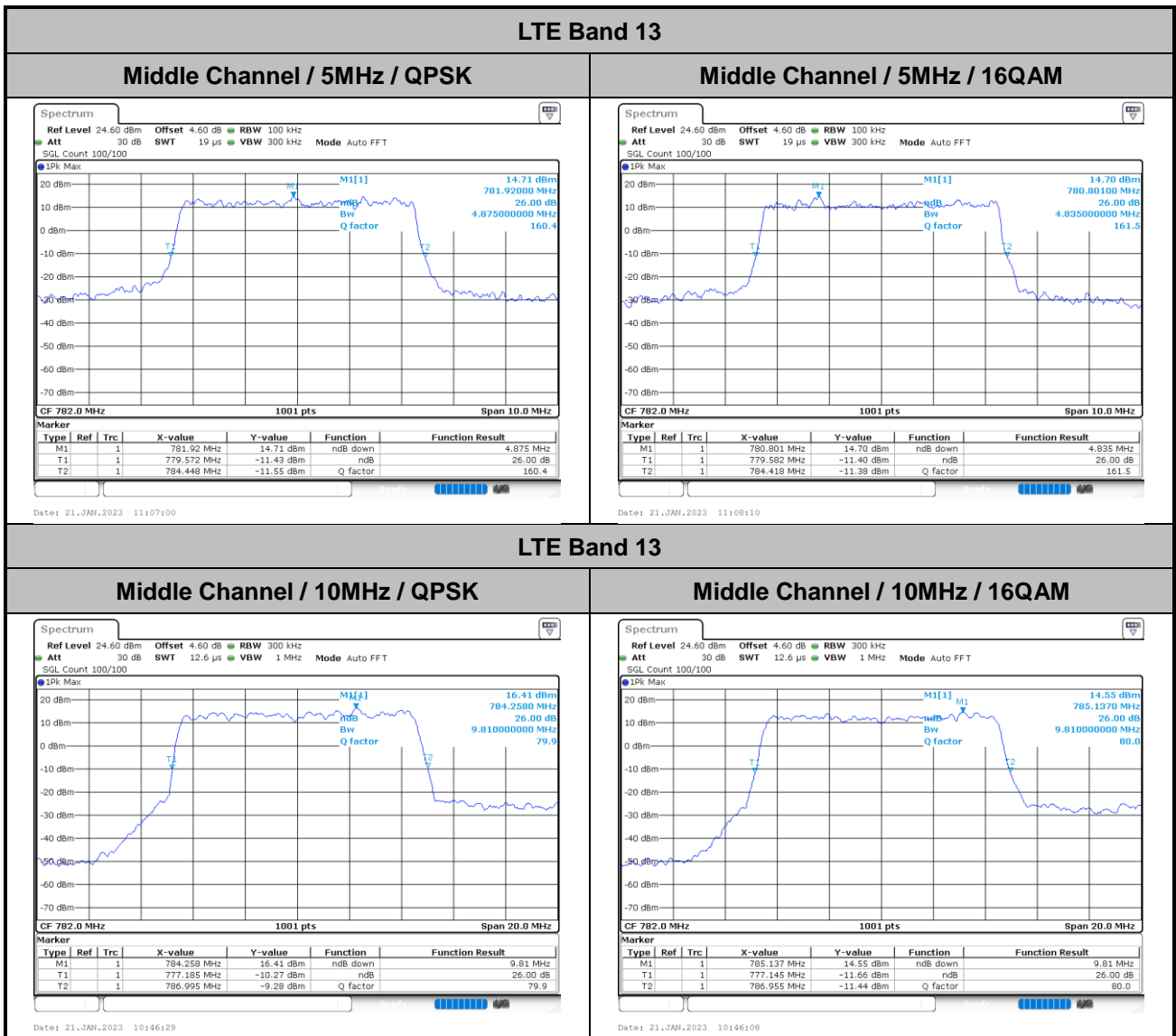




# 26dB Bandwidth

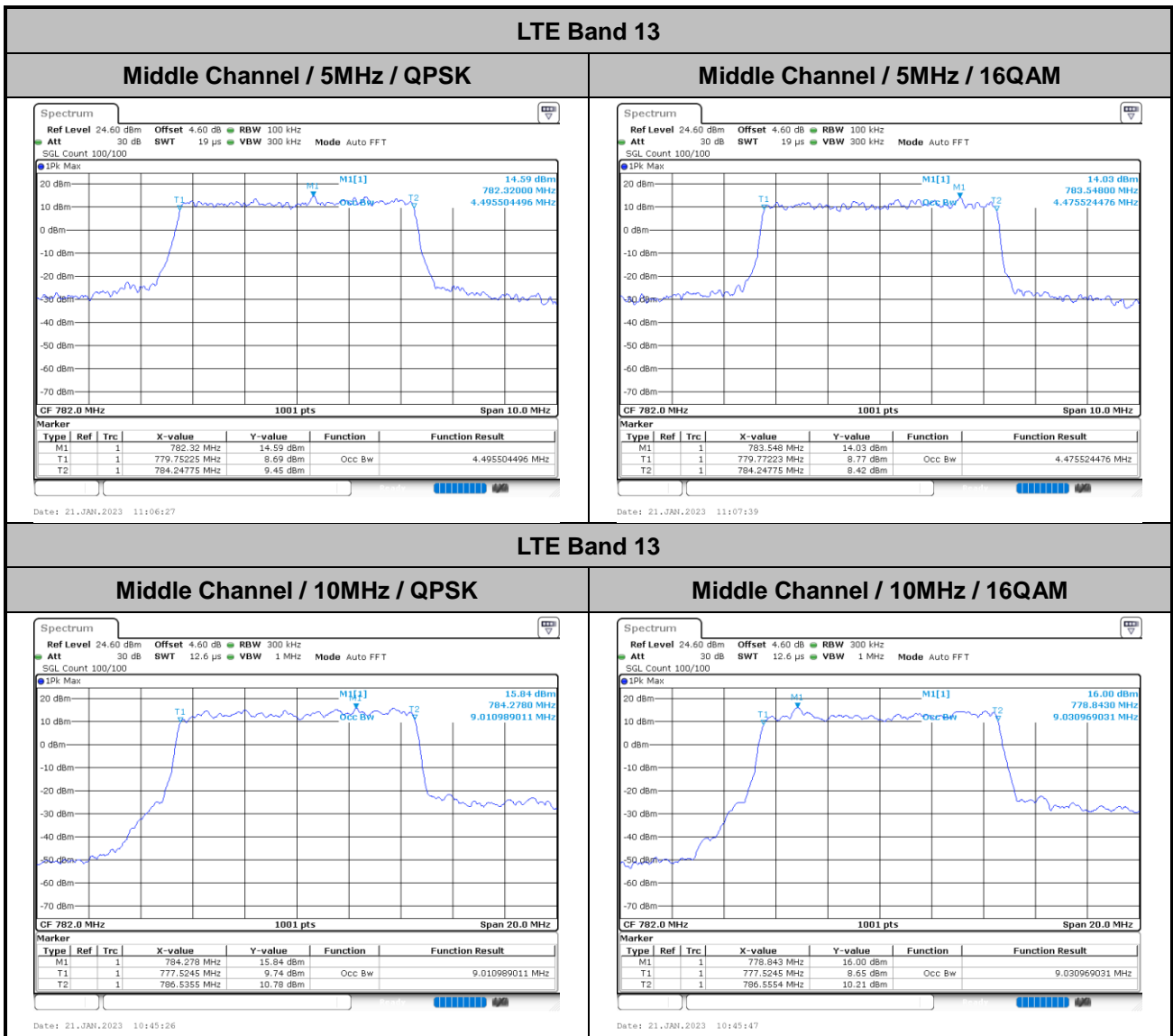
Mode	LTE Band 13 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.88	4.84
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.81	9.81





# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)		
BW	5MHz		
Mod.	QPSK	16QAM	
Middle CH	4.50	4.48	
BW	10MHz		
Mod.	QPSK	16QAM	
Middle CH	9.01	9.03	

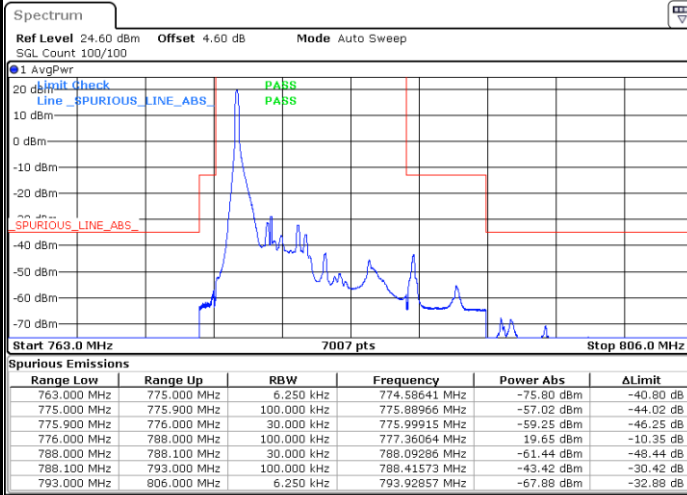




# Conducted Band Edge

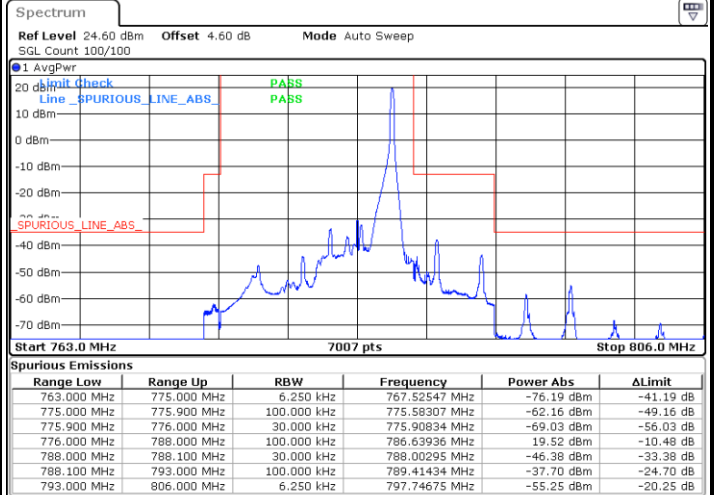
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



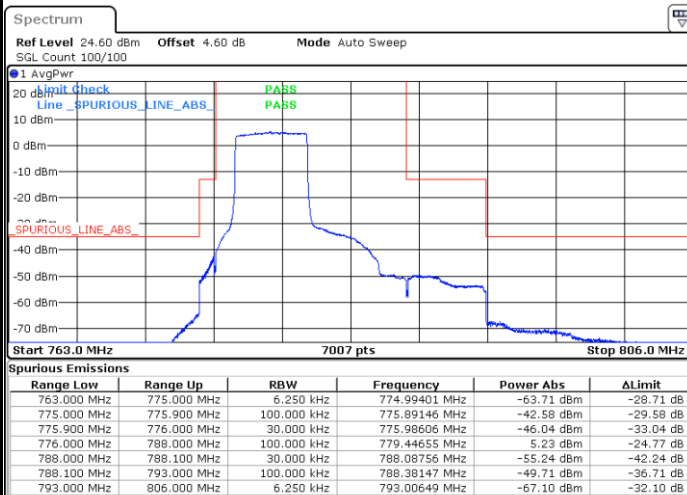
Date: 21.JAN.2023 10:06:09

### Highest Band Edge / 1 RB



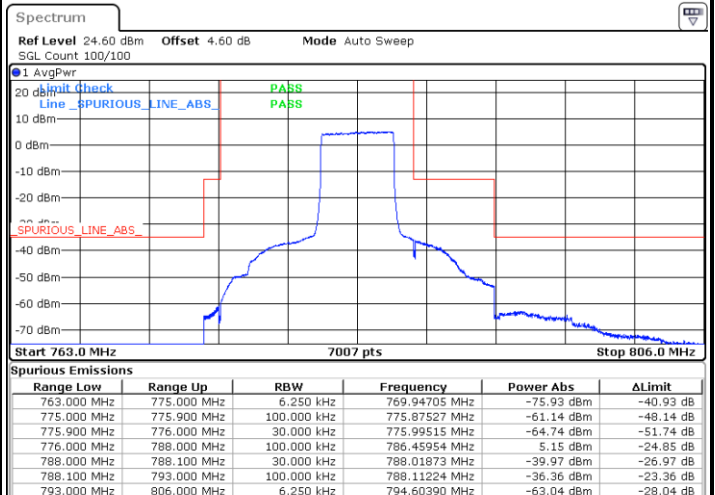
Date: 21.JAN.2023 10:18:46

### Lowest Band Edge / Full RB



Date: 21.JAN.2023 10:15:18

### Highest Band Edge / Full RB



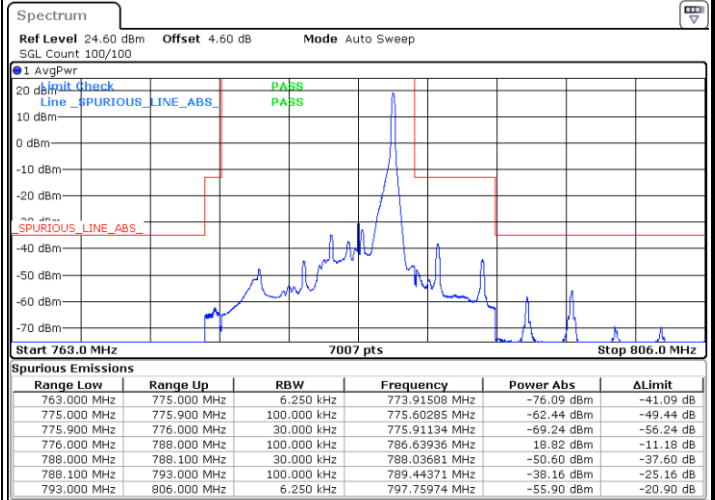
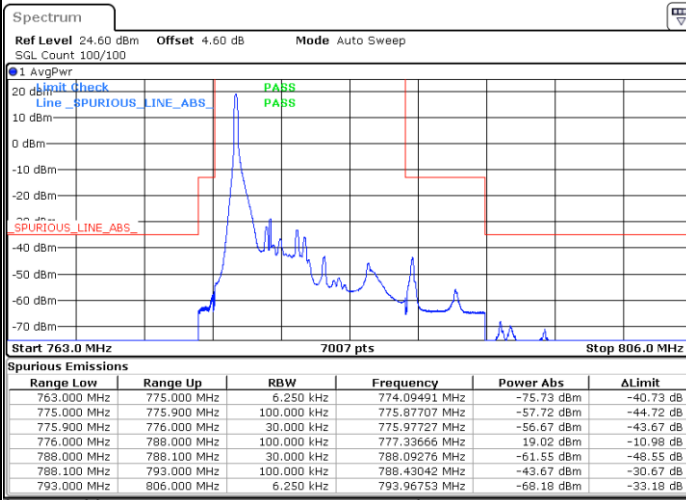
Date: 21.JAN.2023 10:27:54



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

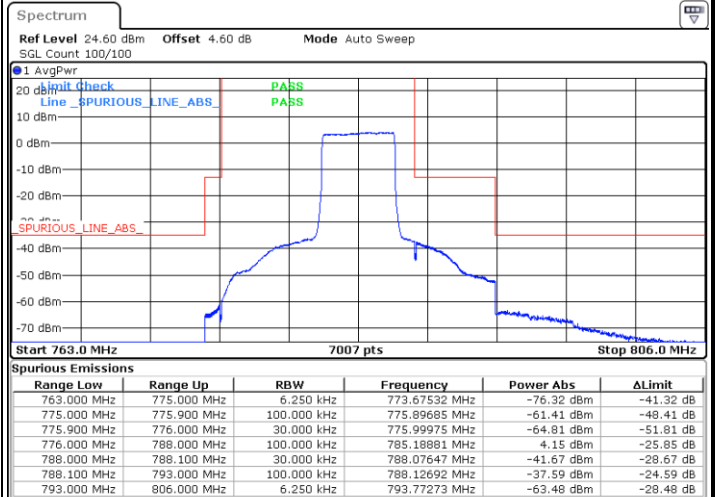
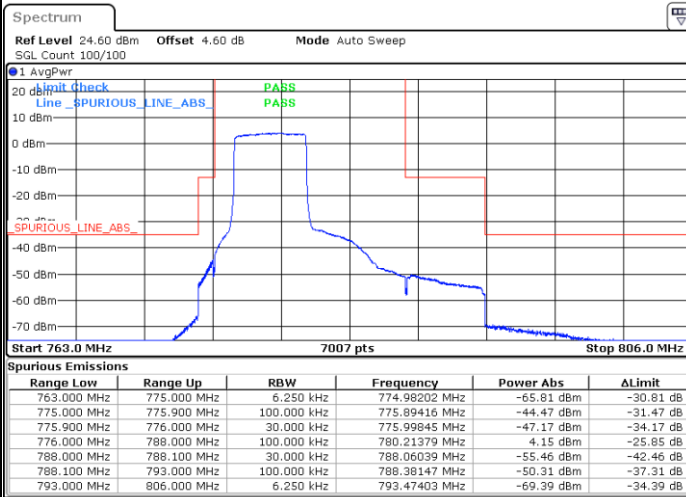


Date: 21.JAN.2023 10:07:59

Date: 21.JAN.2023 10:20:35

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 21.JAN.2023 10:13:28

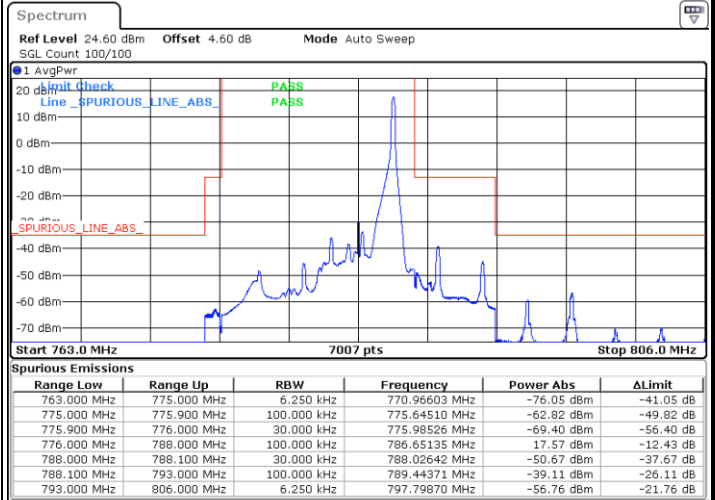
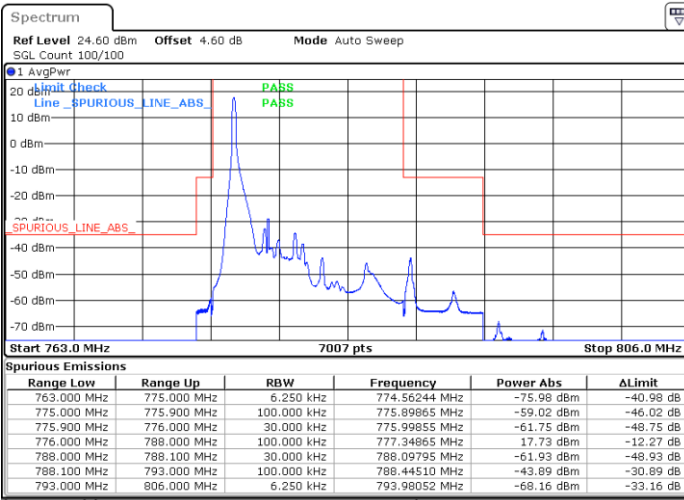
Date: 21.JAN.2023 10:26:04



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

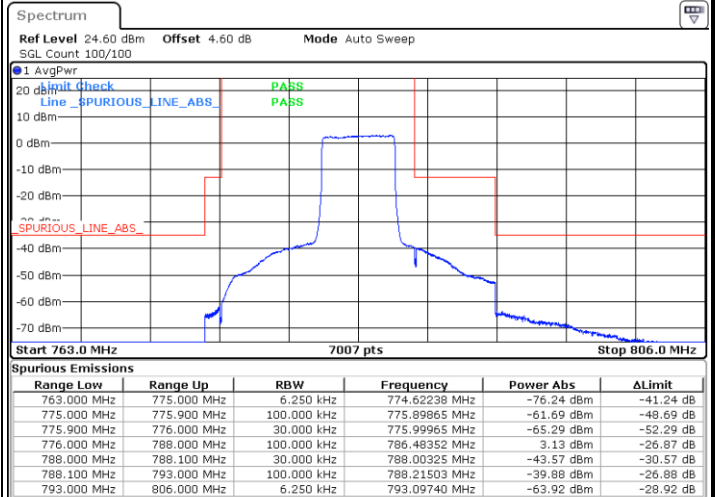
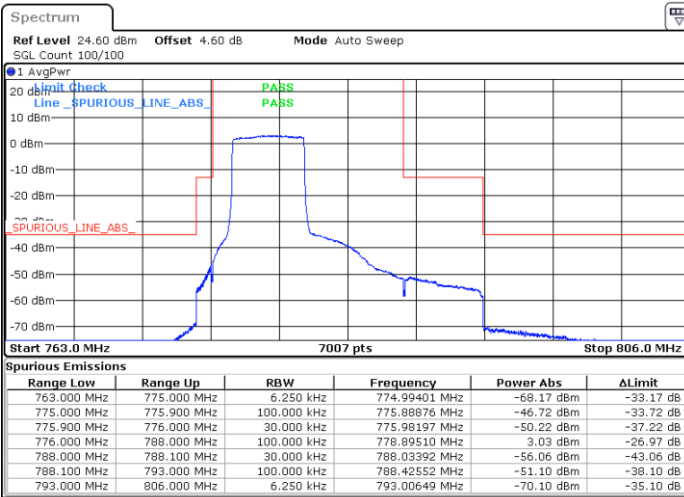


Date: 21.JAN.2023 10:09:48

Date: 21.JAN.2023 10:22:25

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 21.JAN.2023 10:11:38

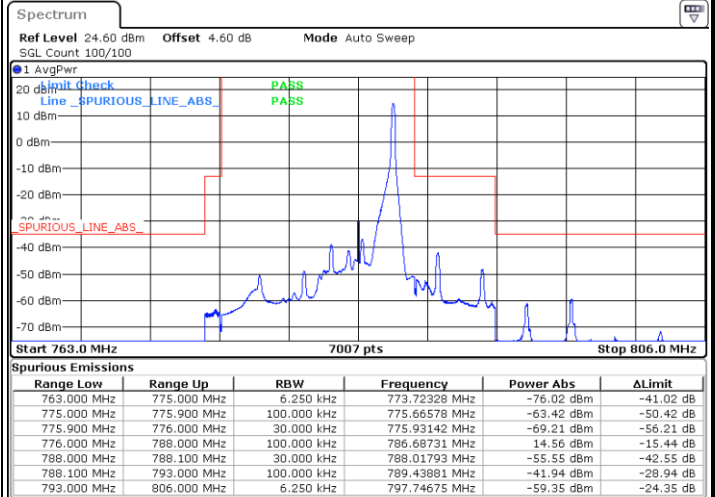
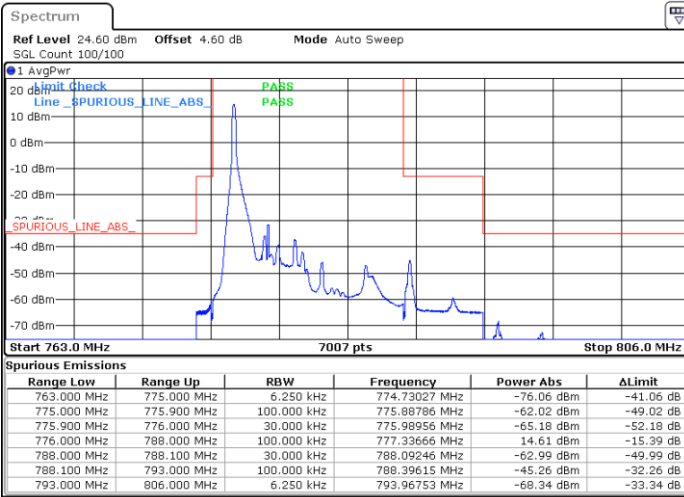
Date: 21.JAN.2023 10:24:15



LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

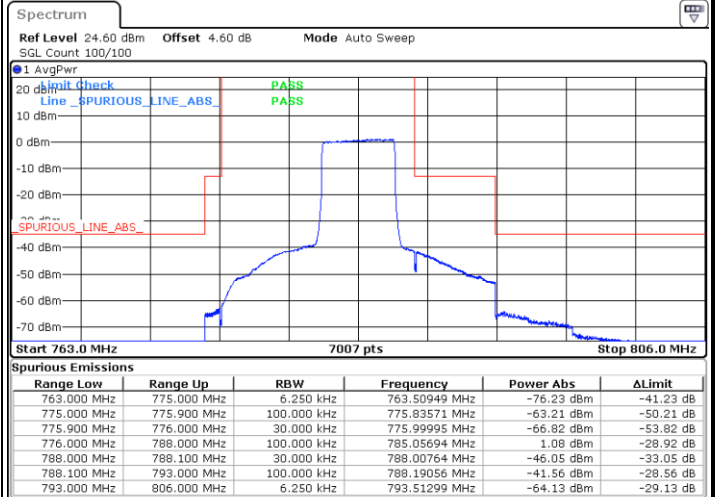
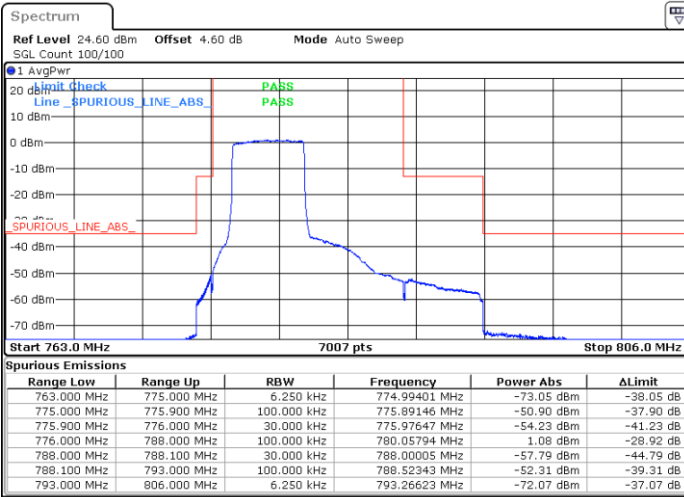


Date: 21.JAN.2023 11:05:04

Date: 21.JAN.2023 10:59:31

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 21.JAN.2023 11:03:21

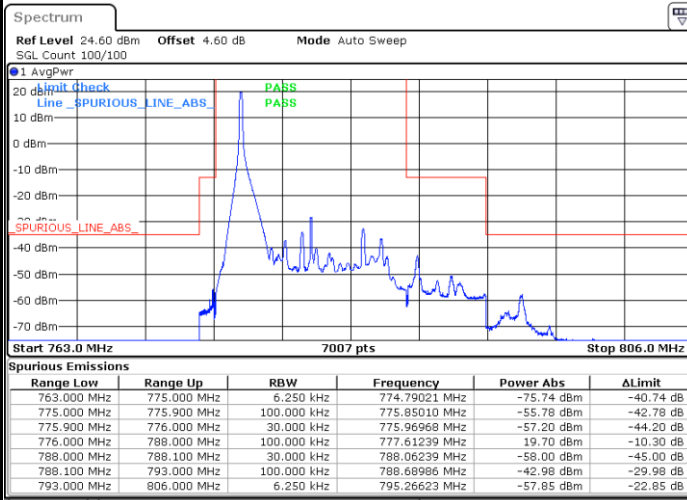
Date: 21.JAN.2023 11:00:57





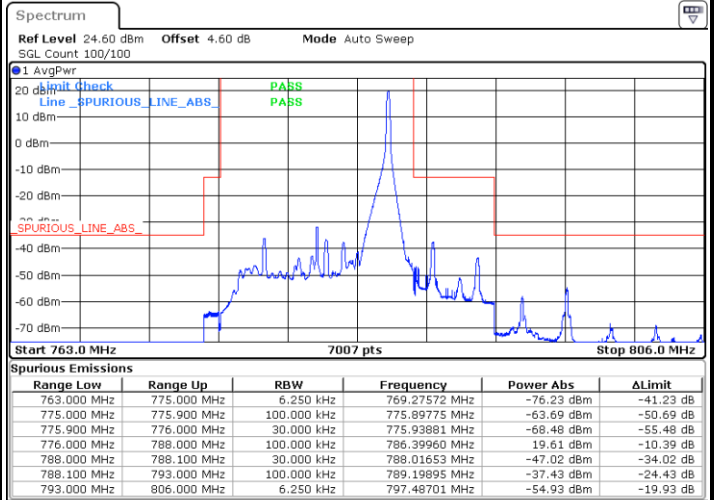
LTE Band 13 / 10MHz / QPSK

middle Band Edge / 1 RB



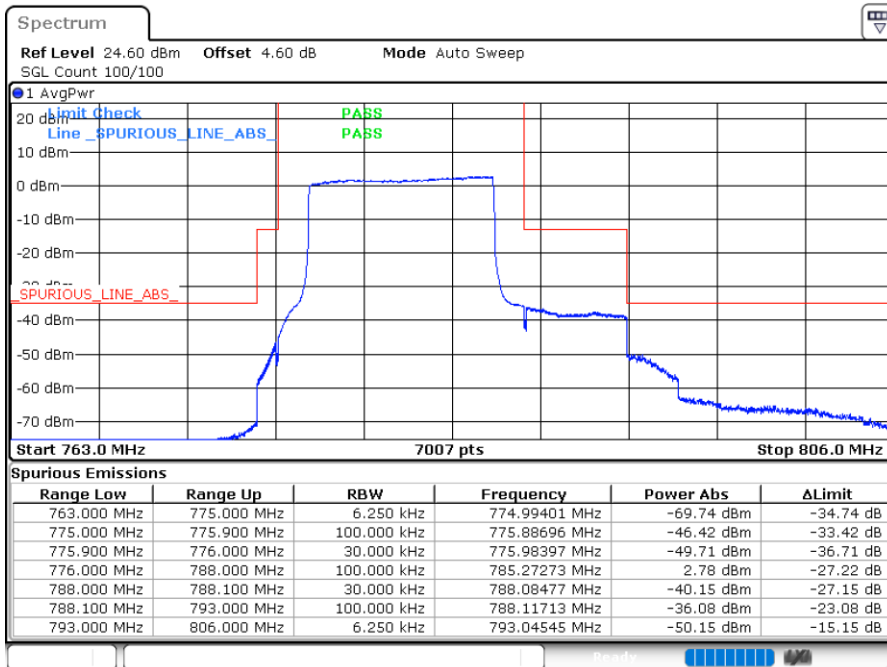
Date: 21.JAN.2023 10:30:33

middle Band Edge / 1 RB



Date: 21.JAN.2023 10:39:38

Middle Band Edge / Full RB



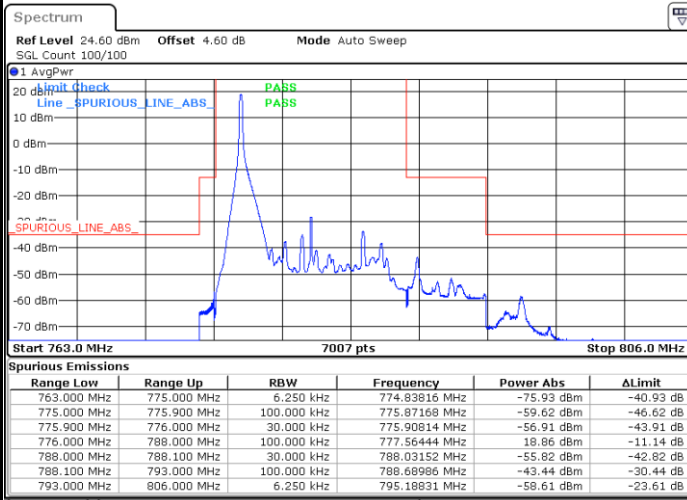
Date: 21.JAN.2023 10:41:27





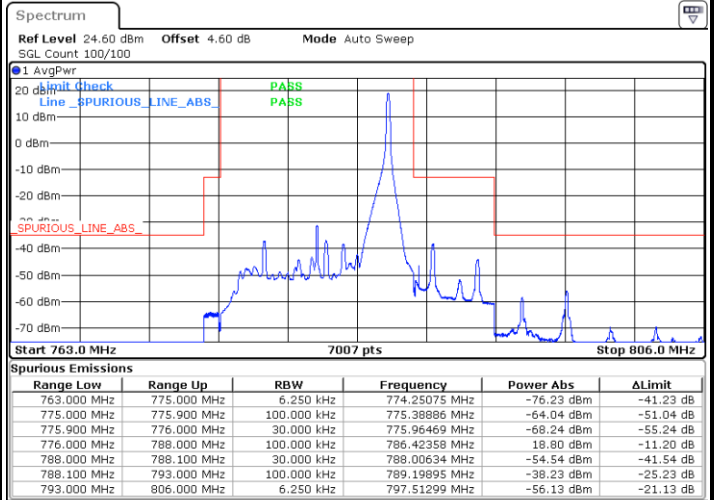
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



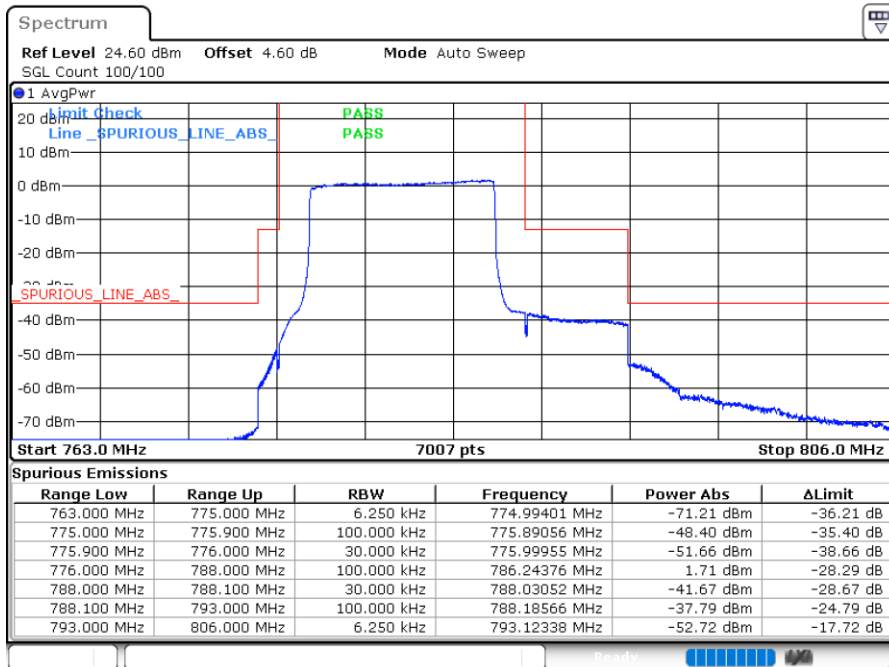
Date: 21.JAN.2023 10:32:22

middle Band Edge / 1 RB



Date: 21.JAN.2023 10:37:49

middle Band Edge / Full RB

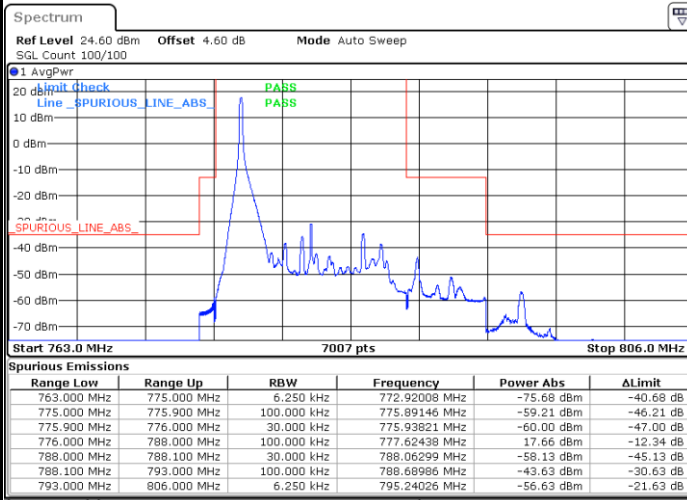


Date: 21.JAN.2023 10:43:16



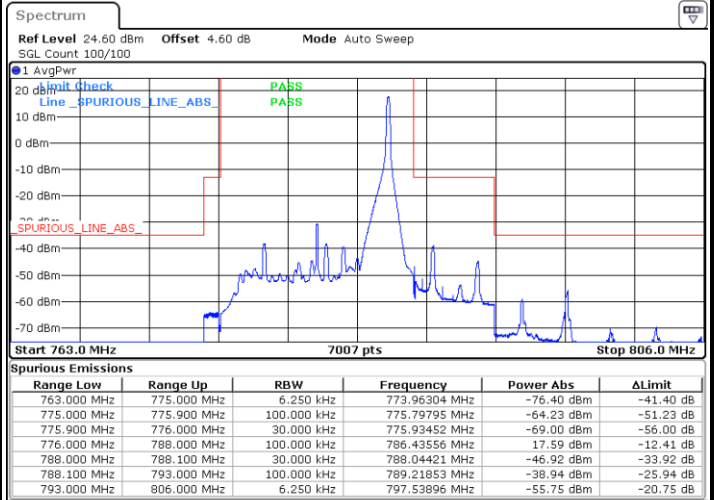
LTE Band 13 / 10MHz / 64QAM

middle Band Edge / 1 RB



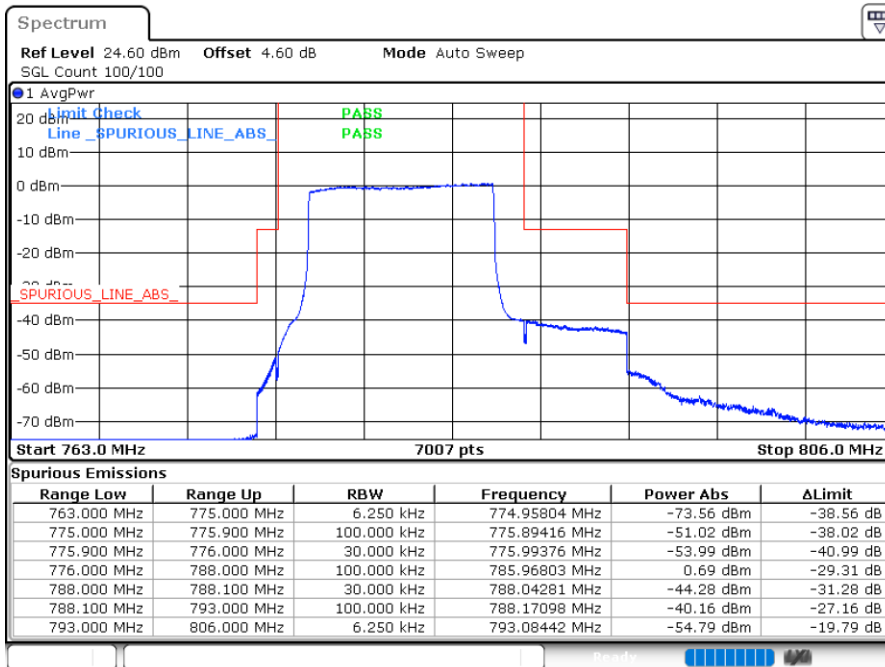
Date: 21. JAN. 2023 10:34:11

middle Band Edge / 1 RB



Date: 21. JAN. 2023 10:36:00

middle Band Edge / Full RB



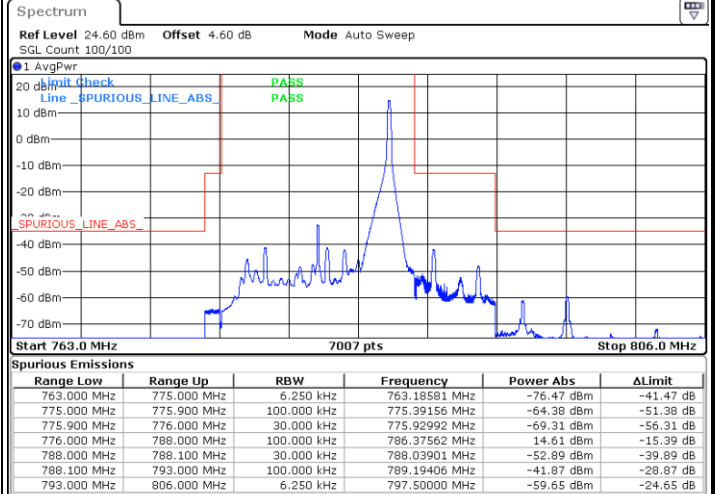
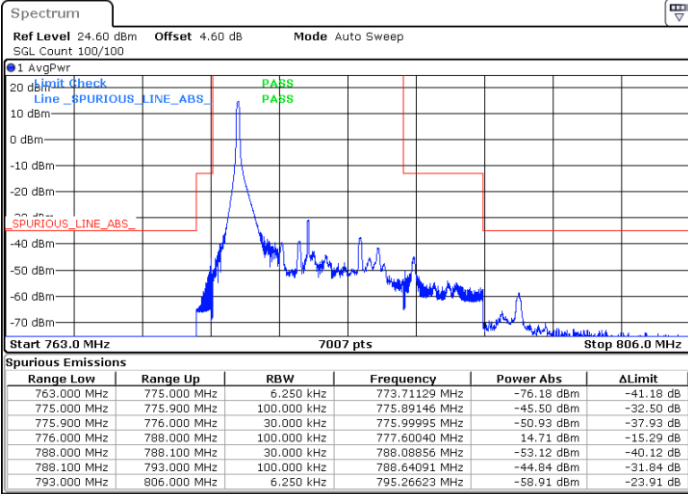
Date: 21. JAN. 2023 10:45:05



LTE Band 13 / 10MHz / 256QAM

middle Band Edge / 1 RB

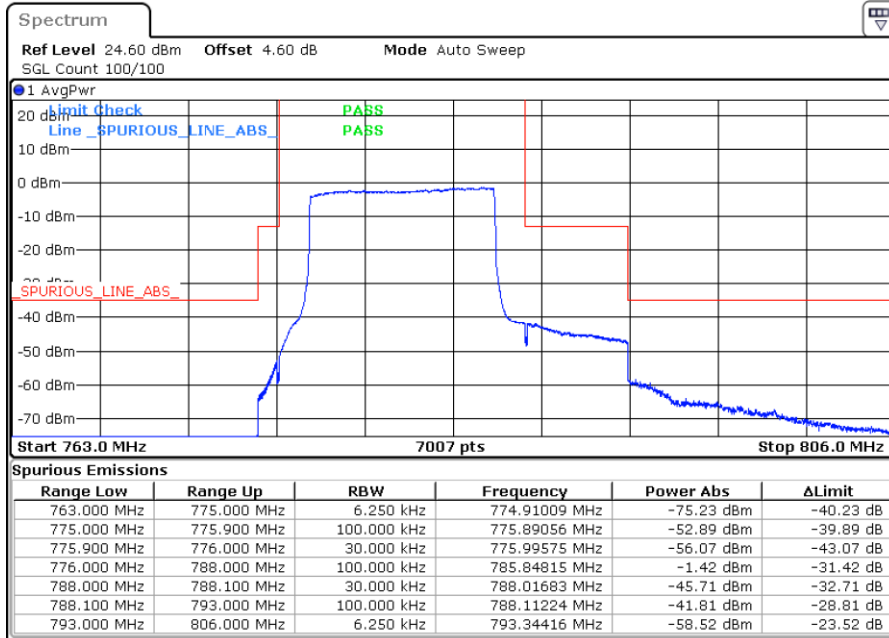
middle Band Edge / 1 RB



Date: 21.JAN.2023 10:55:50

Date: 21.JAN.2023 10:57:20

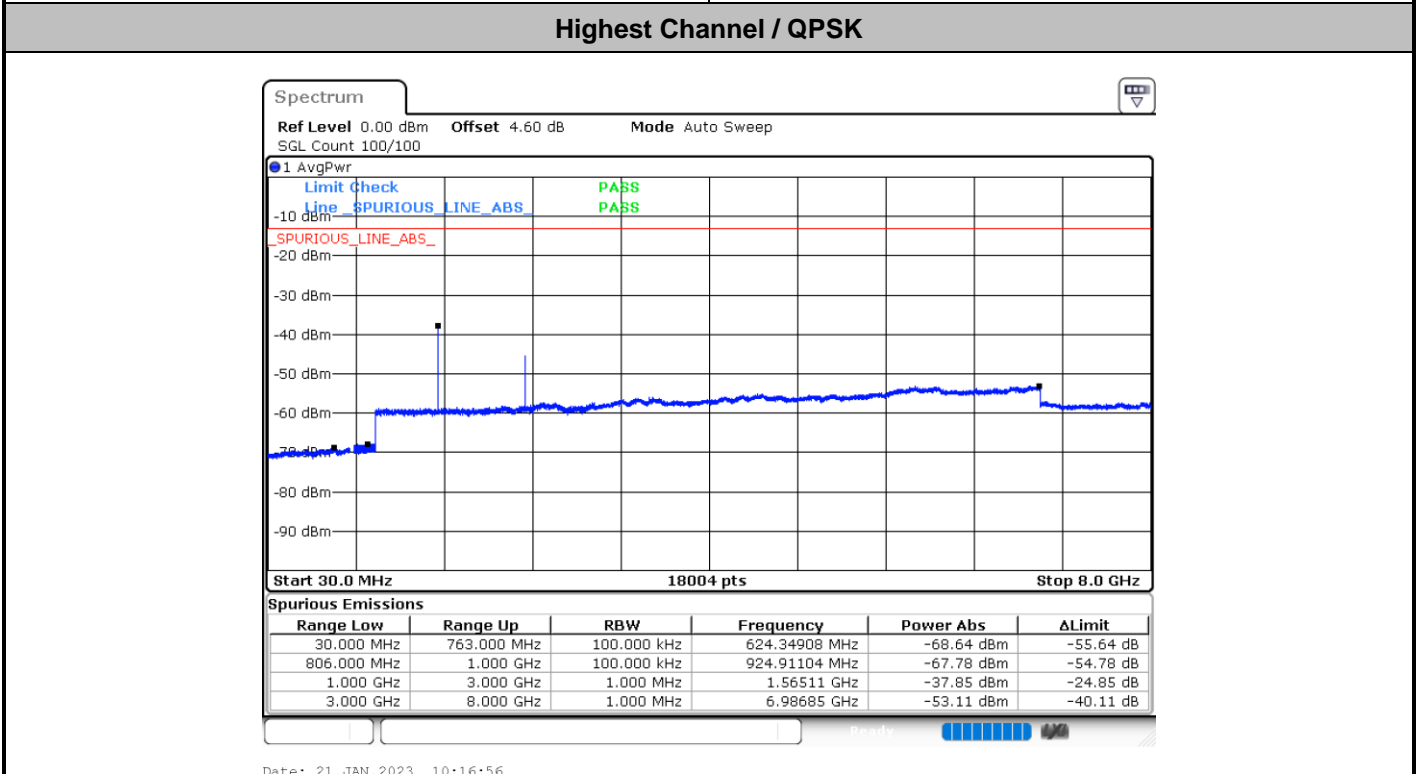
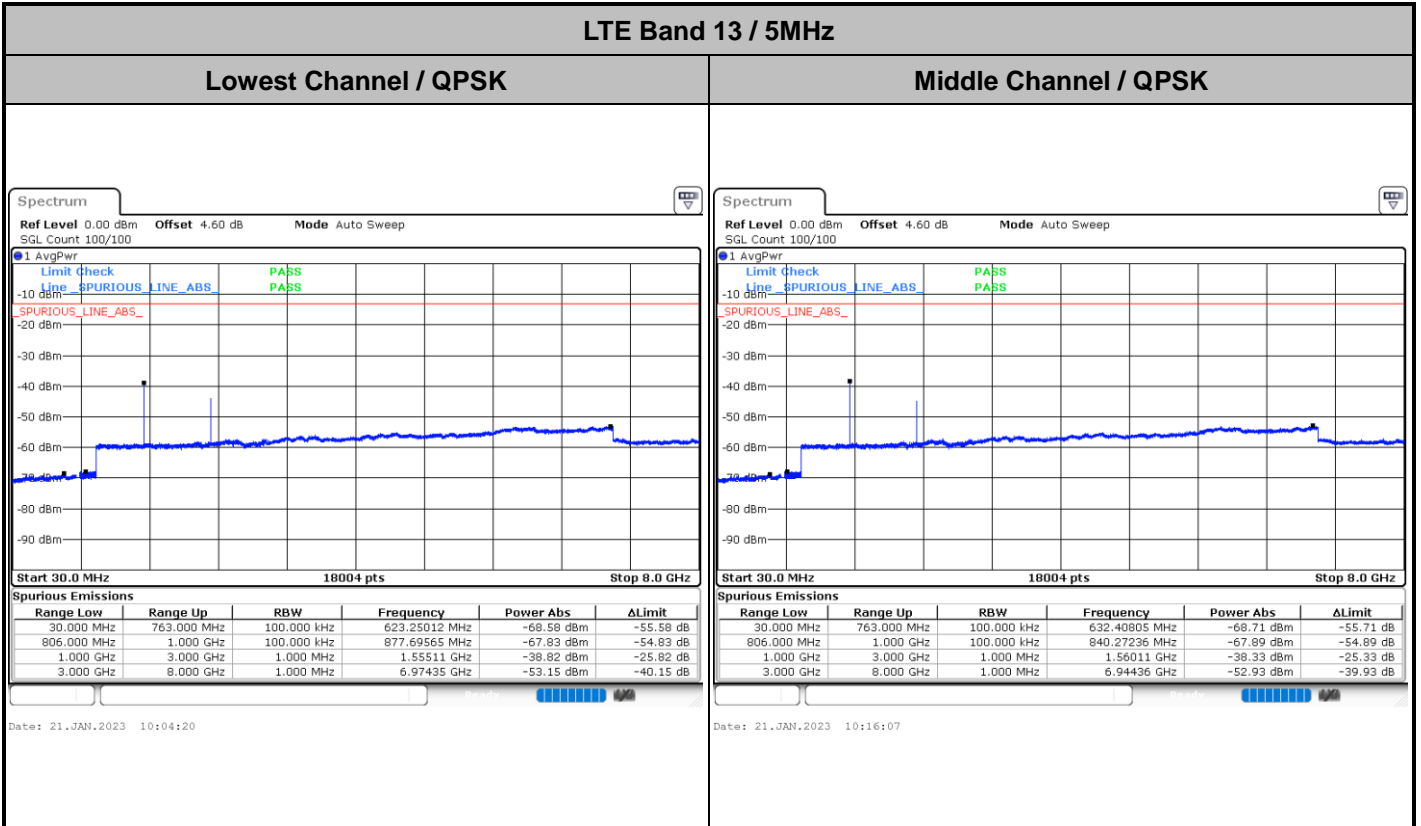
middle Band Edge / Full RB



Date: 21.JAN.2023 10:54:25



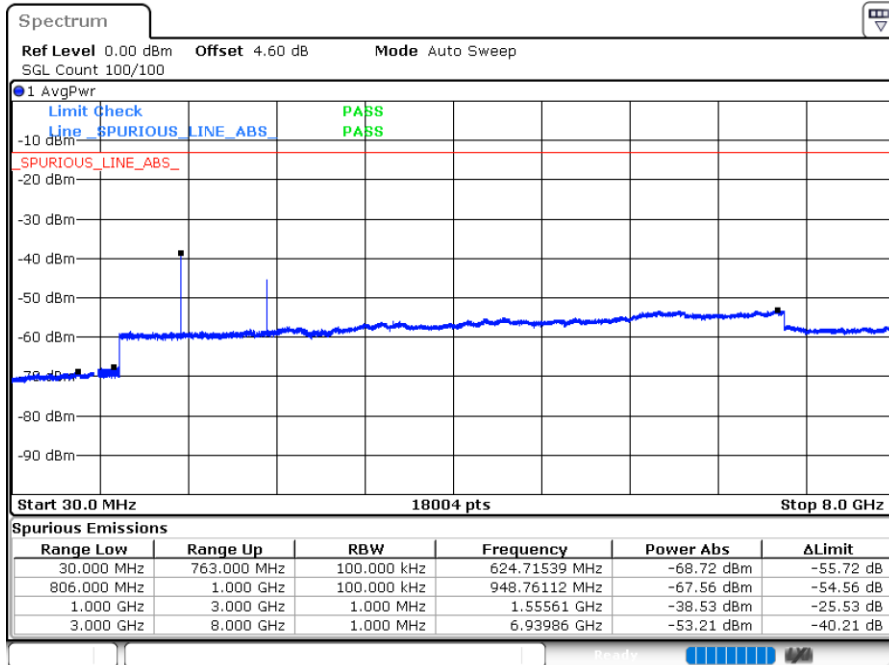
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 21 JAN 2023 10:28:44



### 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	0.0005	PASS
40	Normal Voltage	0.0031	
30	Normal Voltage	0.0052	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0041	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0053	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0002	
20	Battery End Point	0.0018	

**Note:**

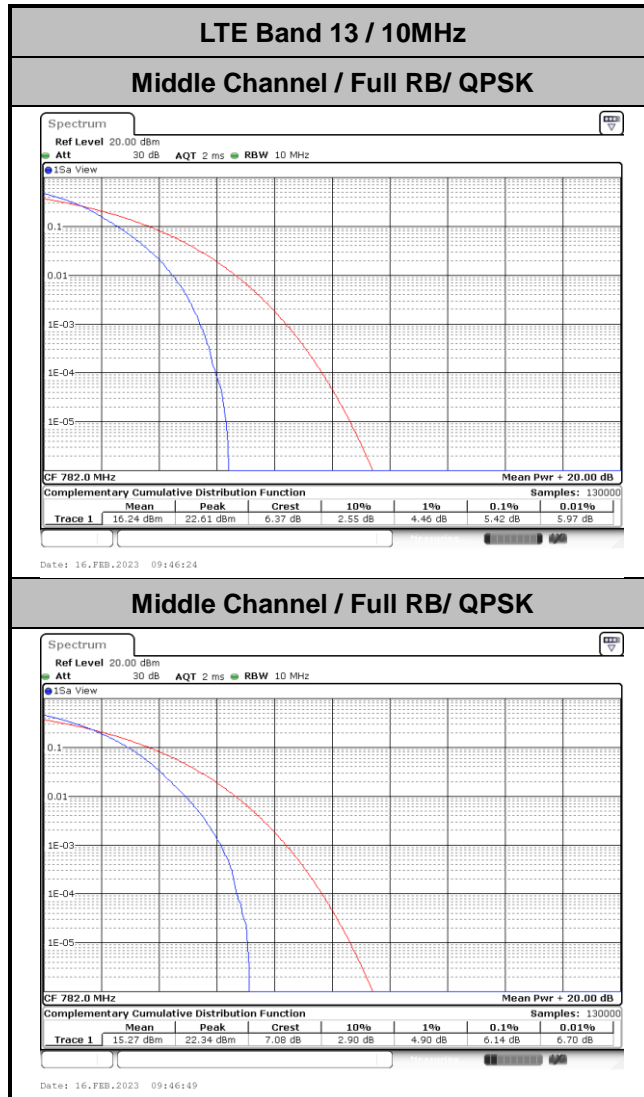
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



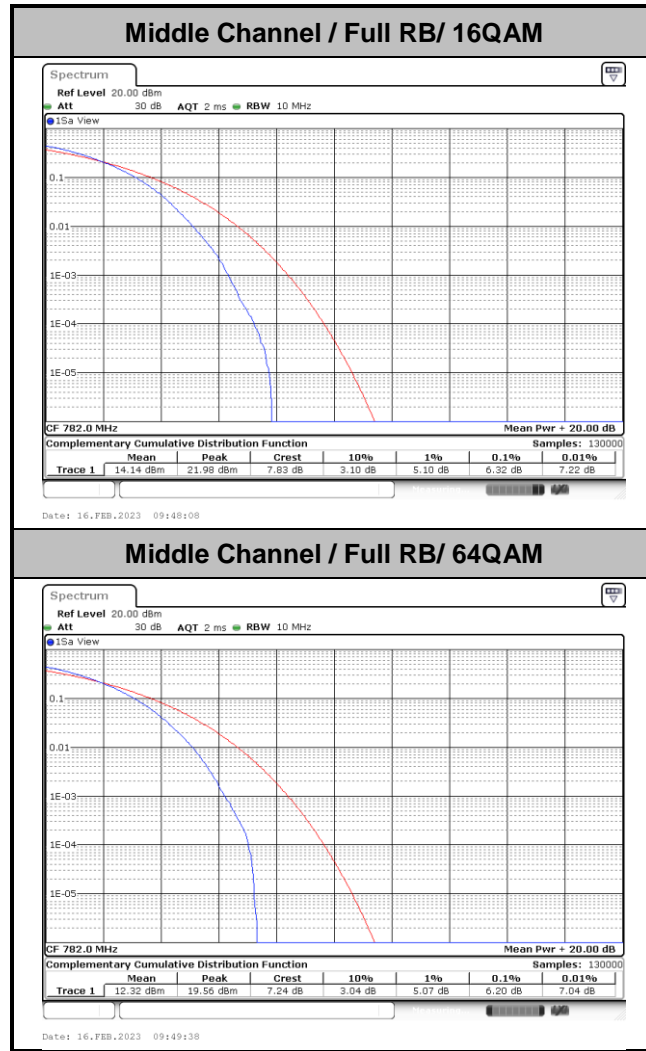
# LTE Band 13 (other PA)

## 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	5.42	6.14	6.32	6.20	PASS



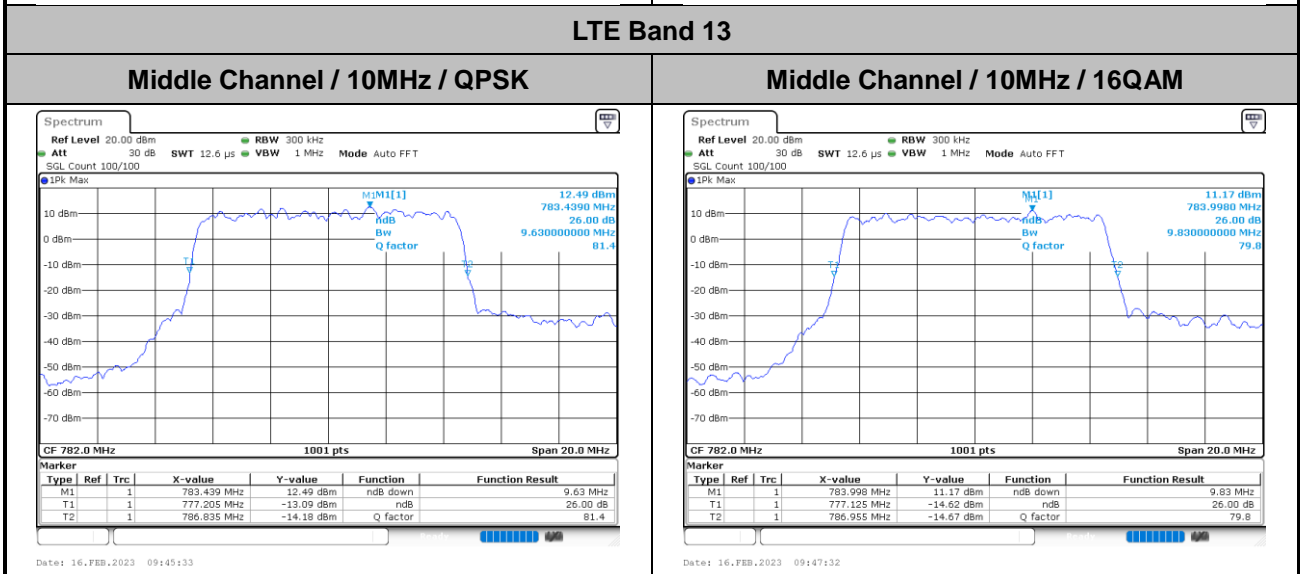
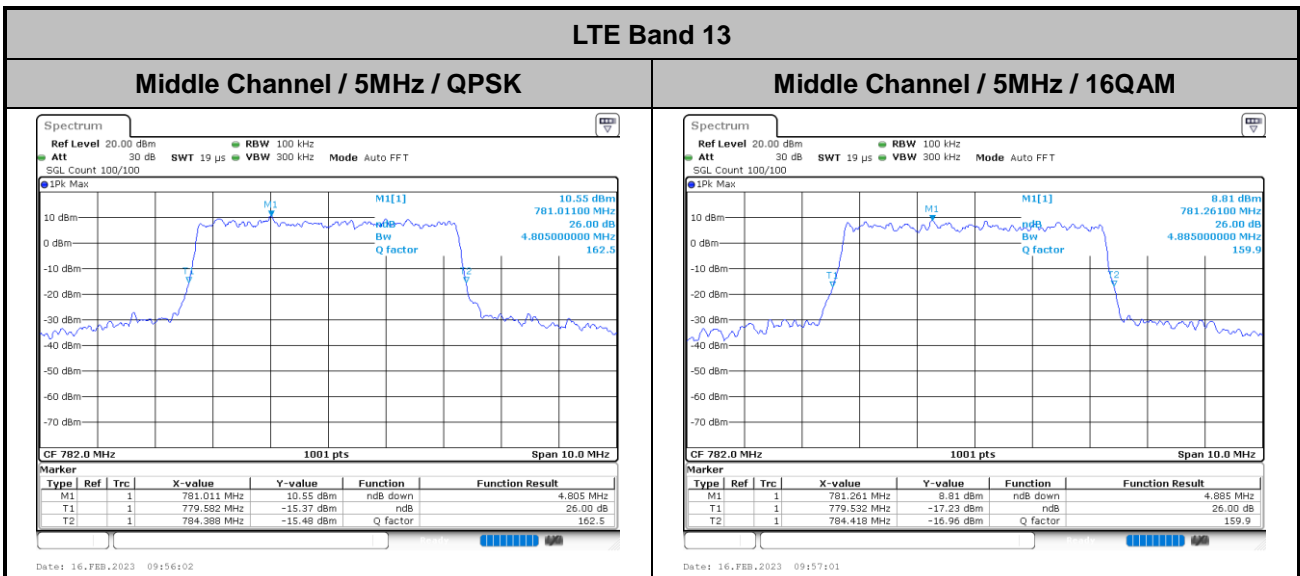






**26dB Bandwidth**

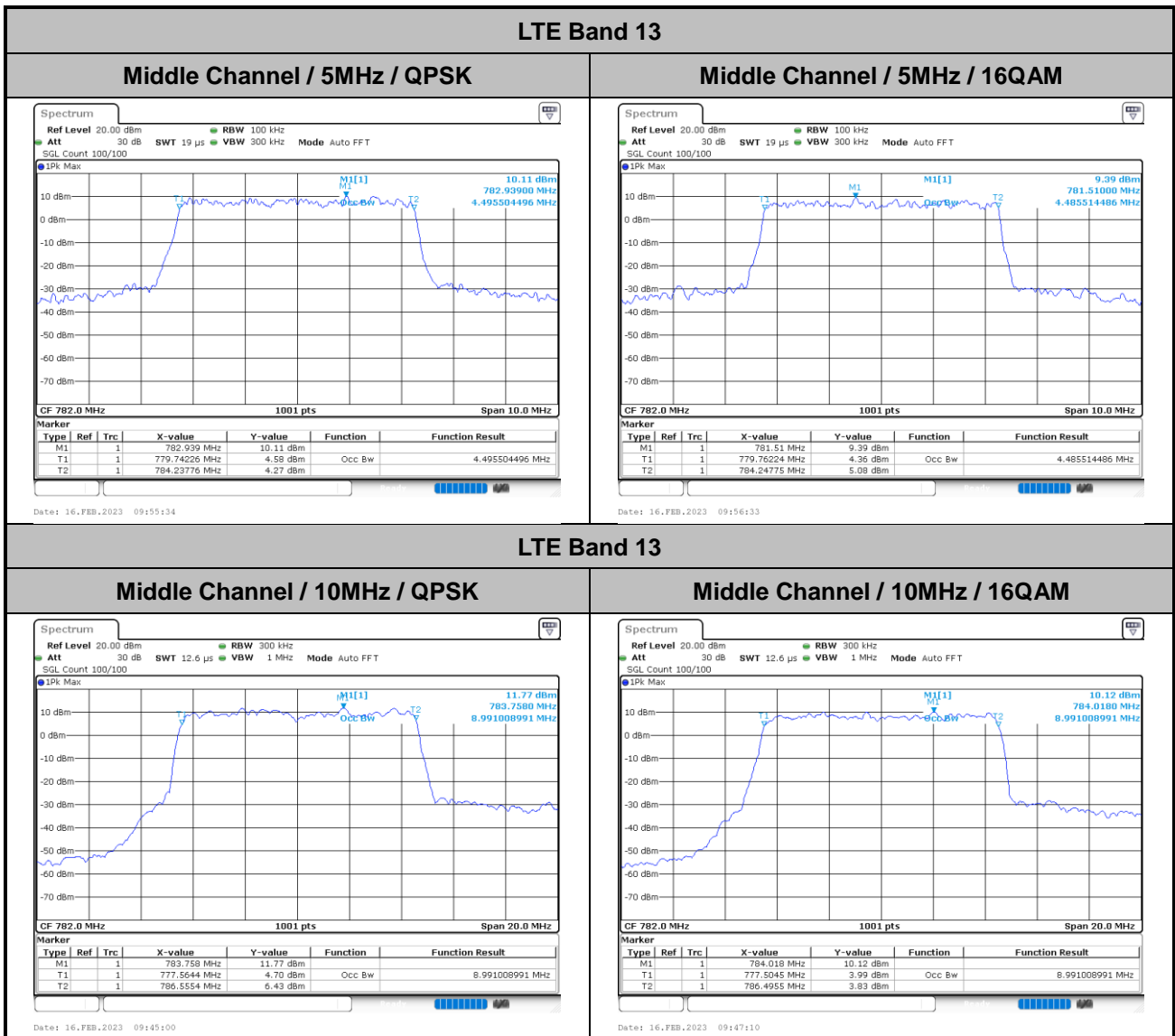
Mode	LTE Band 13 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.81	4.89
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.63	9.83





# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.50	4.49
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.99	8.99

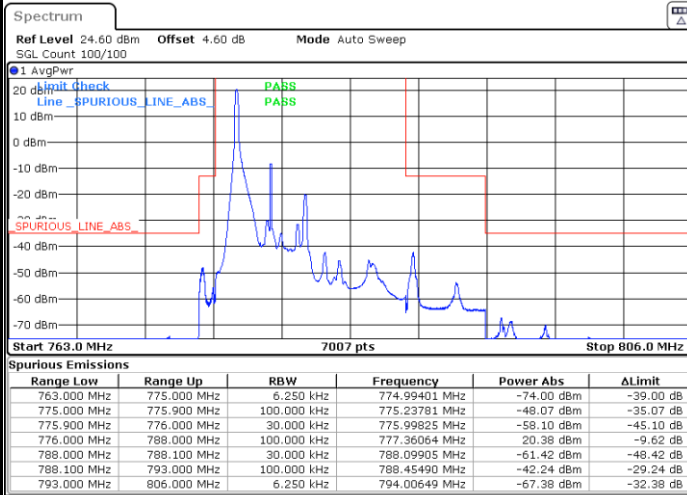




# Conducted Band Edge

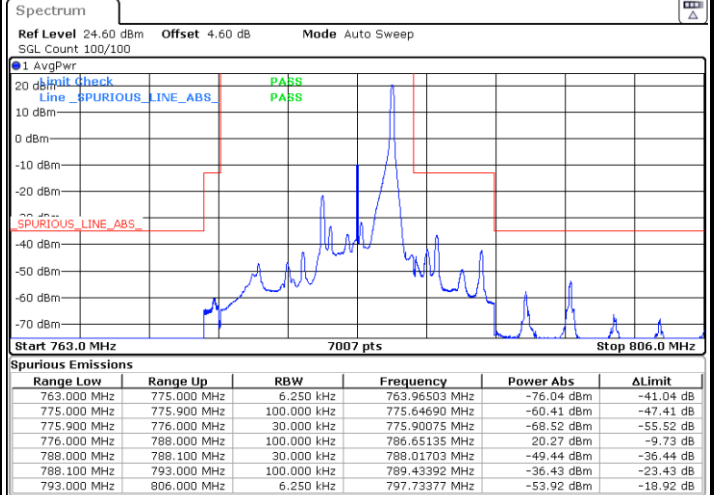
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



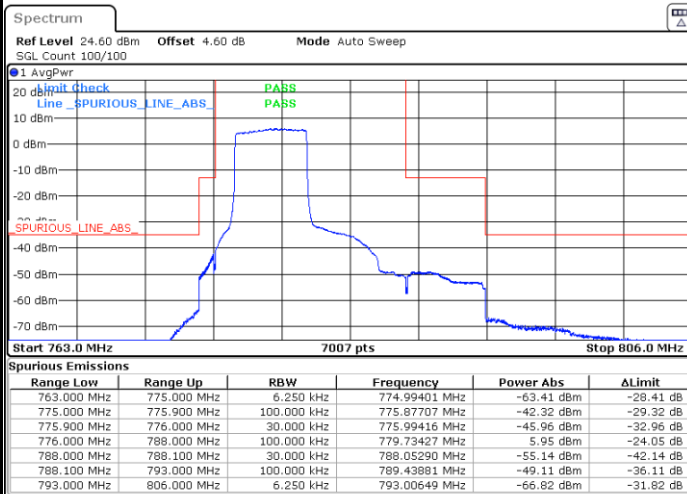
Date: 15.FEB.2023 01:02:37

### Highest Band Edge / 1 RB



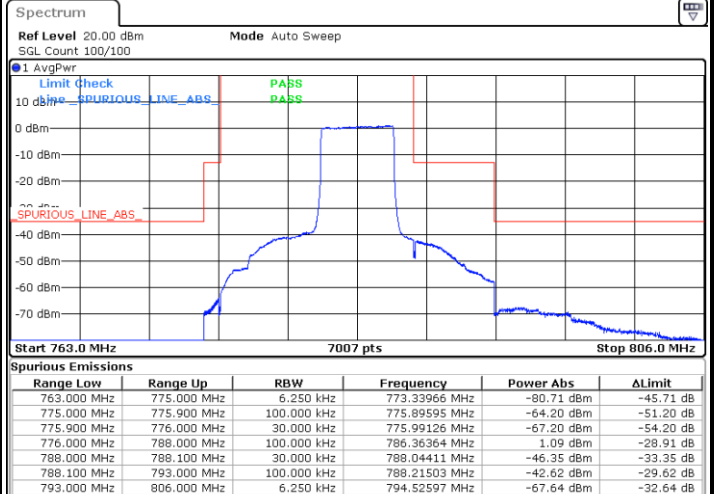
Date: 15.FEB.2023 01:17:22

### Lowest Band Edge / Full RB



Date: 15.FEB.2023 01:09:59

### Highest Band Edge / Full RB

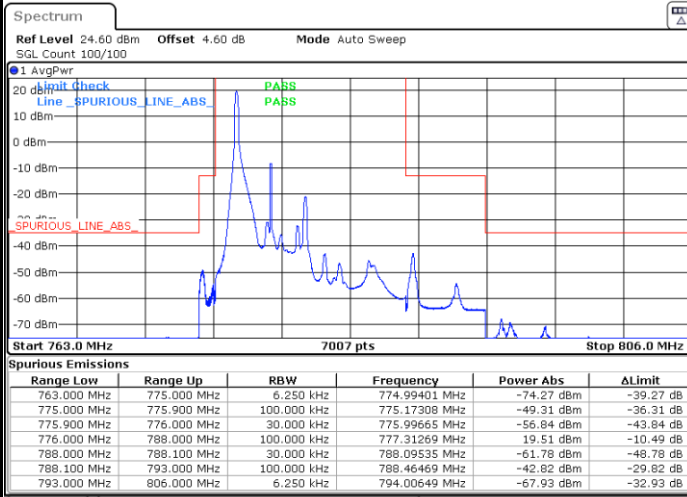


Date: 16.FEB.2023 08:52:18



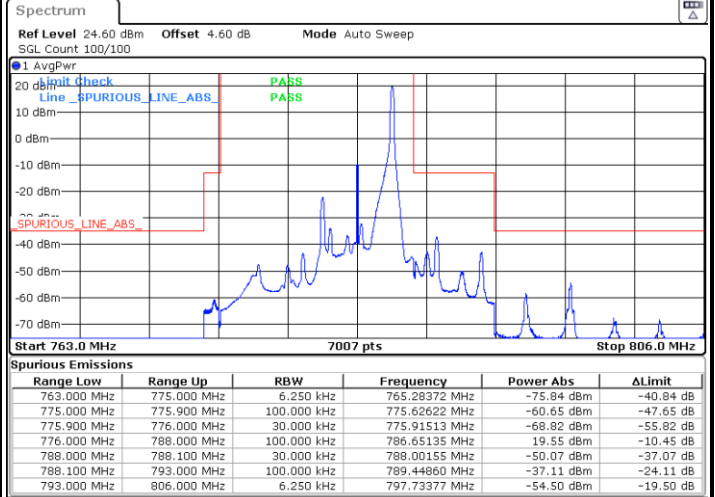
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB



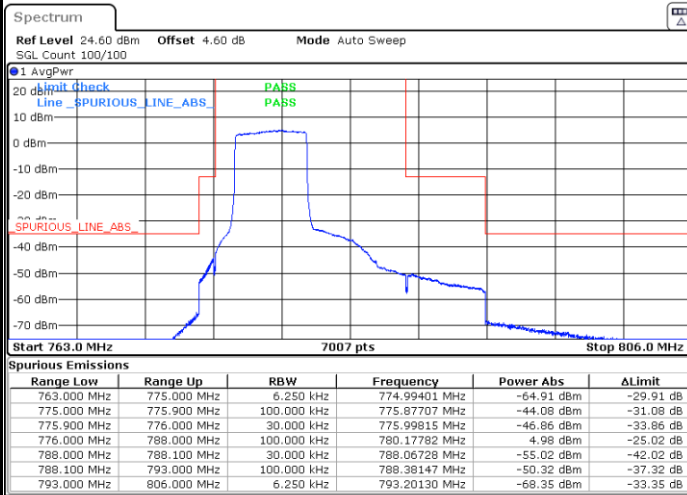
Date: 15.FEB.2023 01:04:27

Highest Band Edge / 1 RB



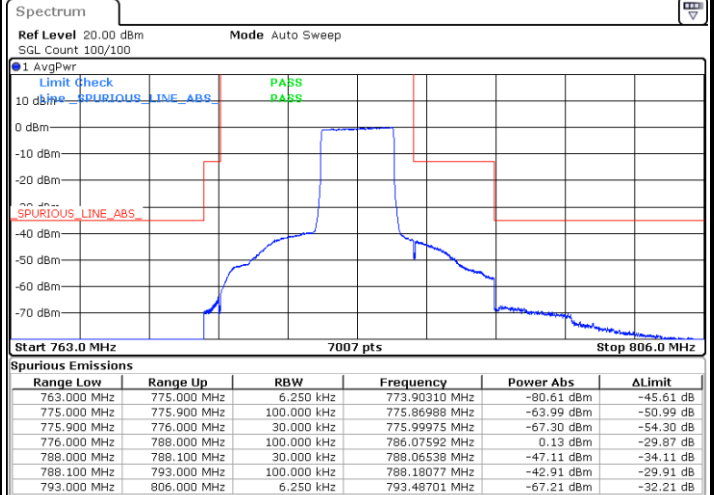
Date: 15.FEB.2023 01:19:12

Lowest Band Edge / Full RB



Date: 15.FEB.2023 01:11:49

Highest Band Edge / Full RB

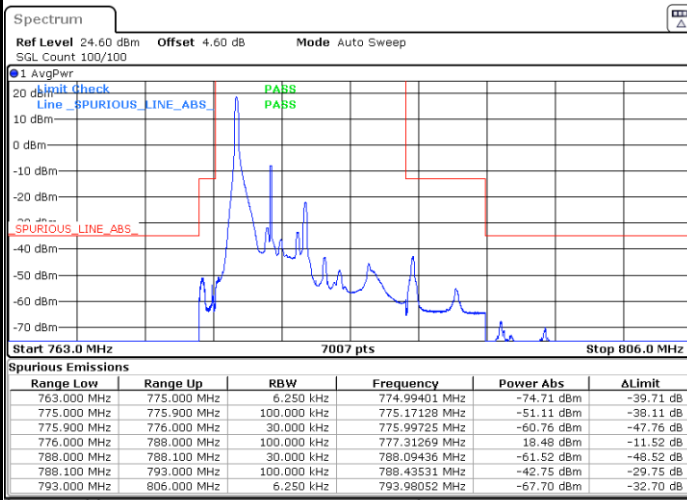


Date: 16.FEB.2023 08:54:08



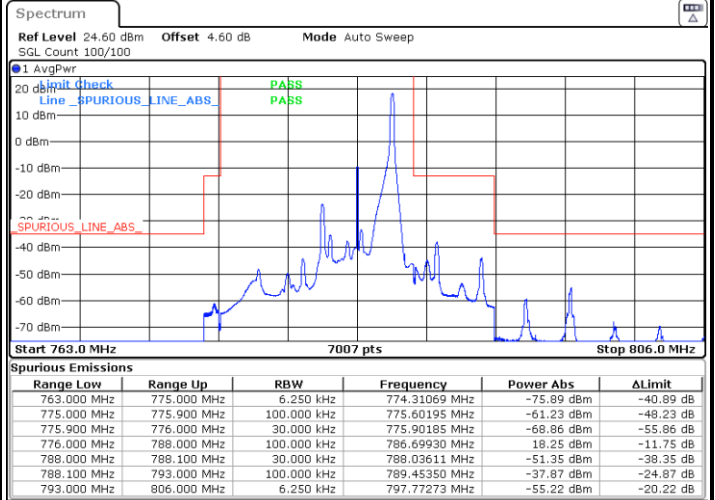
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB



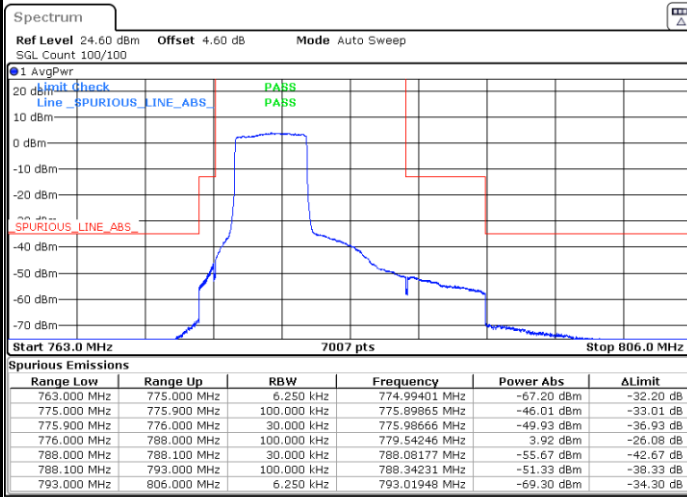
Date: 15.FEB.2023 01:06:17

Highest Band Edge / 1 RB



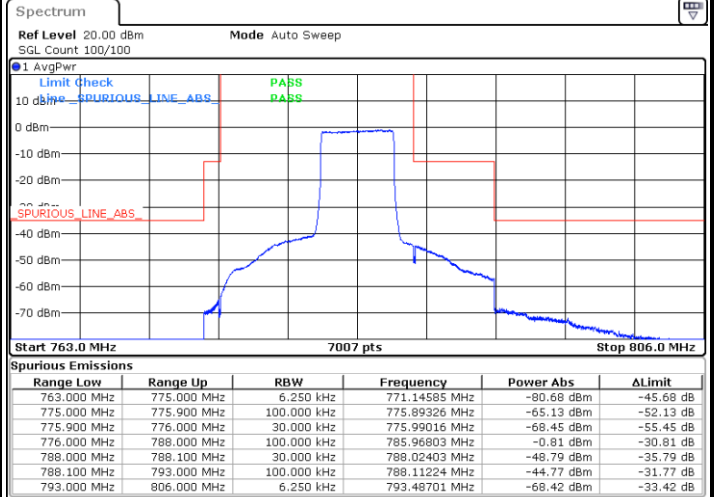
Date: 15.FEB.2023 01:21:02

Lowest Band Edge / Full RB



Date: 15.FEB.2023 01:13:40

Highest Band Edge / Full RB



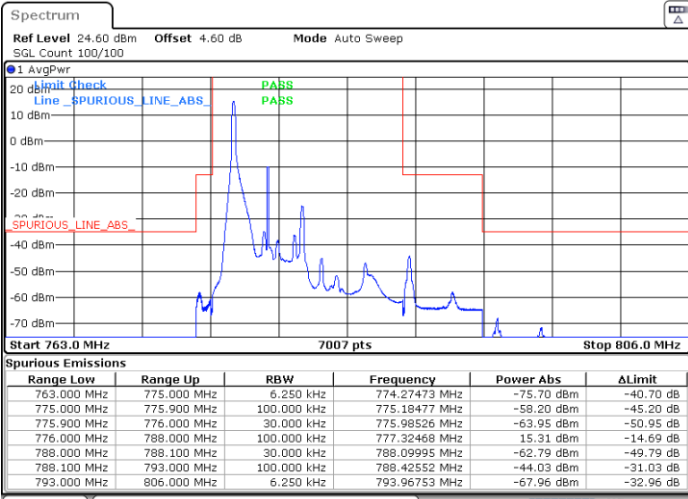
Date: 16.FEB.2023 08:55:58



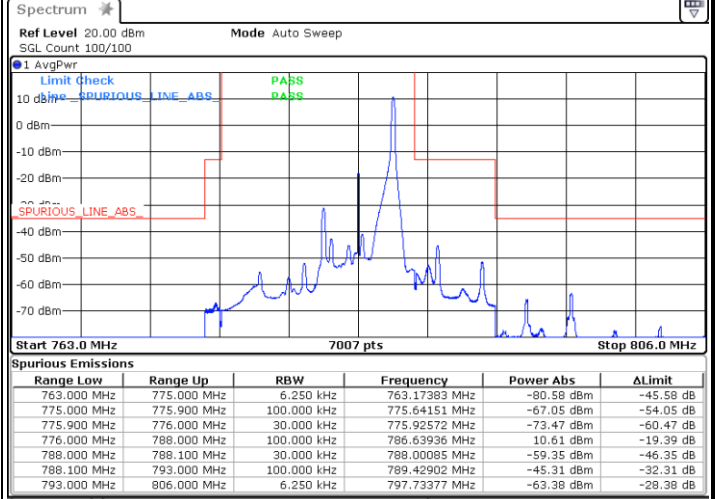
LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



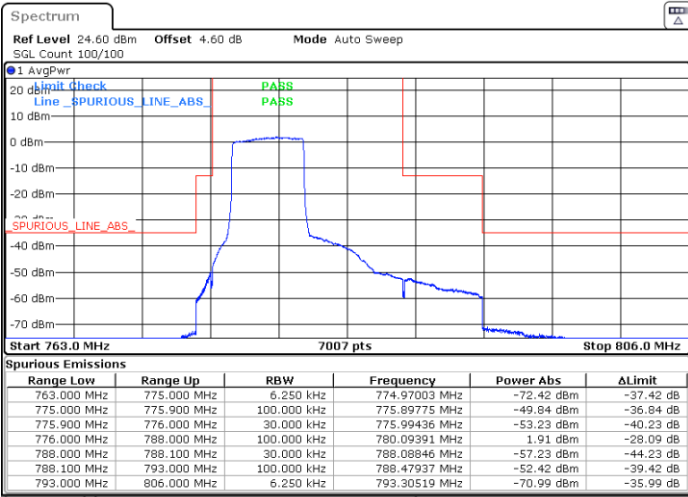
Date: 15.FEB.2023 01:08:08



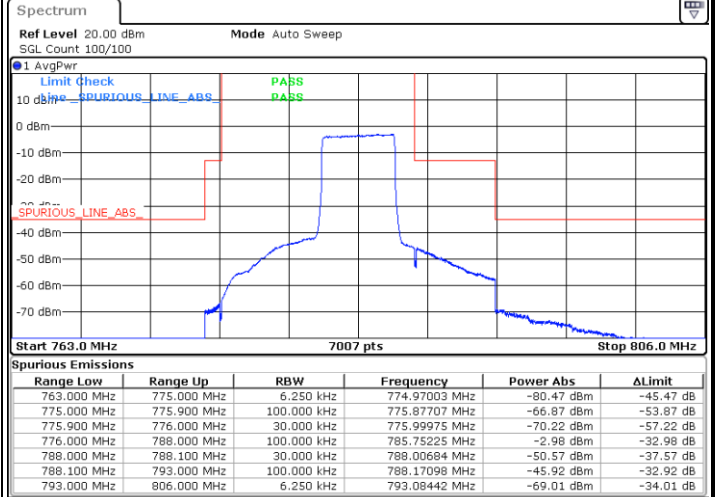
Date: 16.FEB.2023 10:10:19

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15.FEB.2023 01:15:31



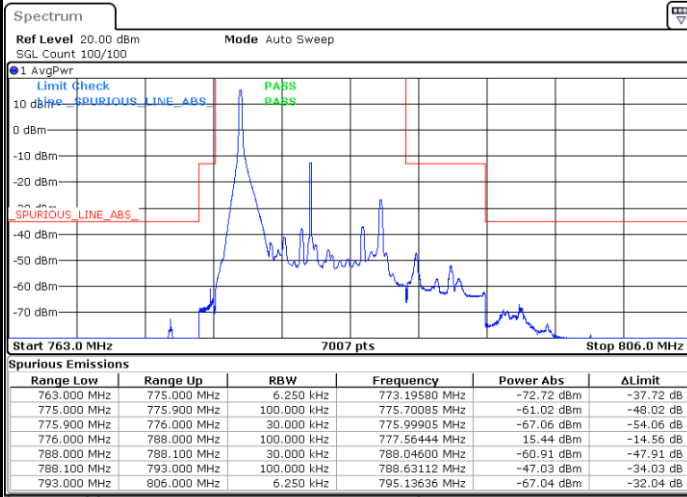
Date: 16.FEB.2023 08:59:32





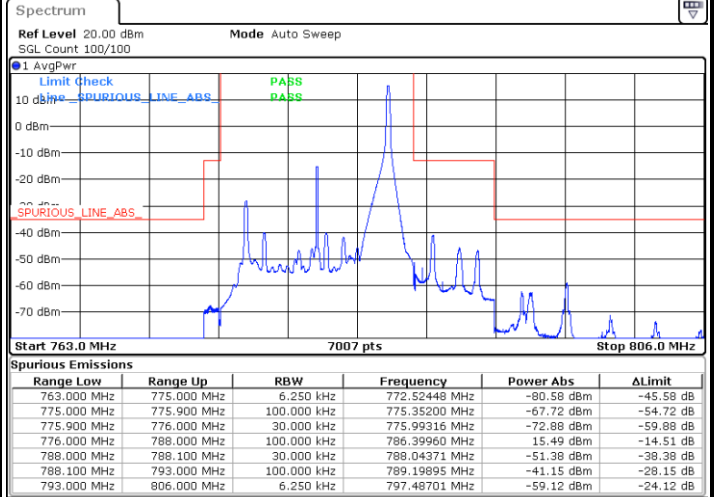
LTE Band 13 / 10MHz / QPSK

middle Band Edge / 1 RB



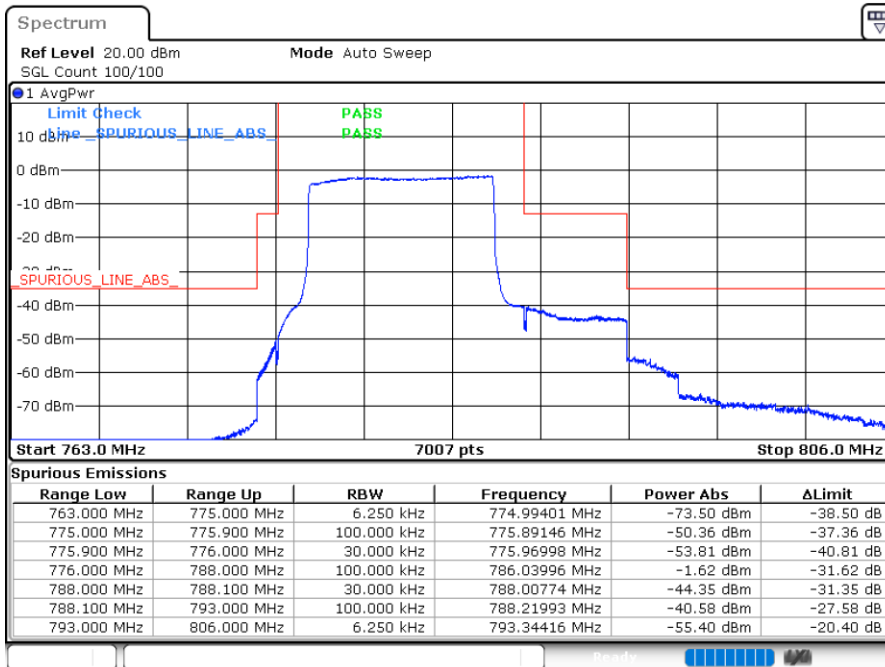
Date: 16.FEB.2023 09:21:45

middle Band Edge / 1 RB



Date: 16.FEB.2023 09:29:02

Middle Band Edge / Full RB

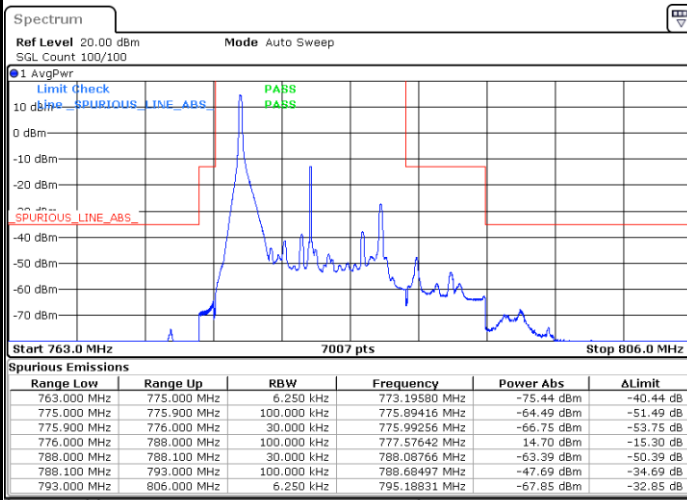


Date: 16.FEB.2023 09:36:19



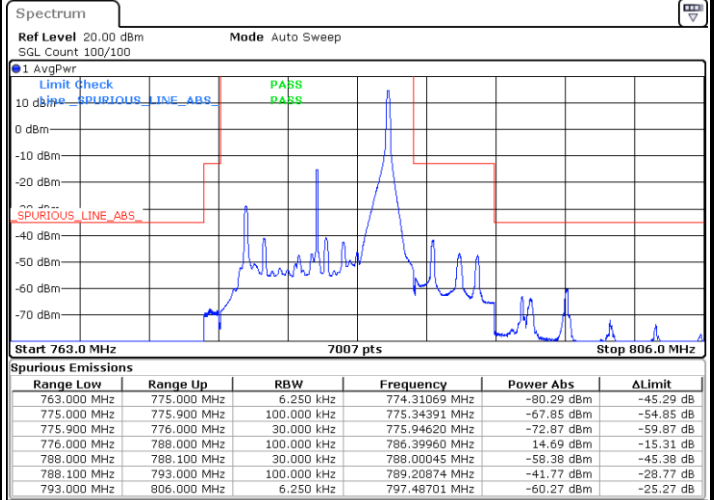
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



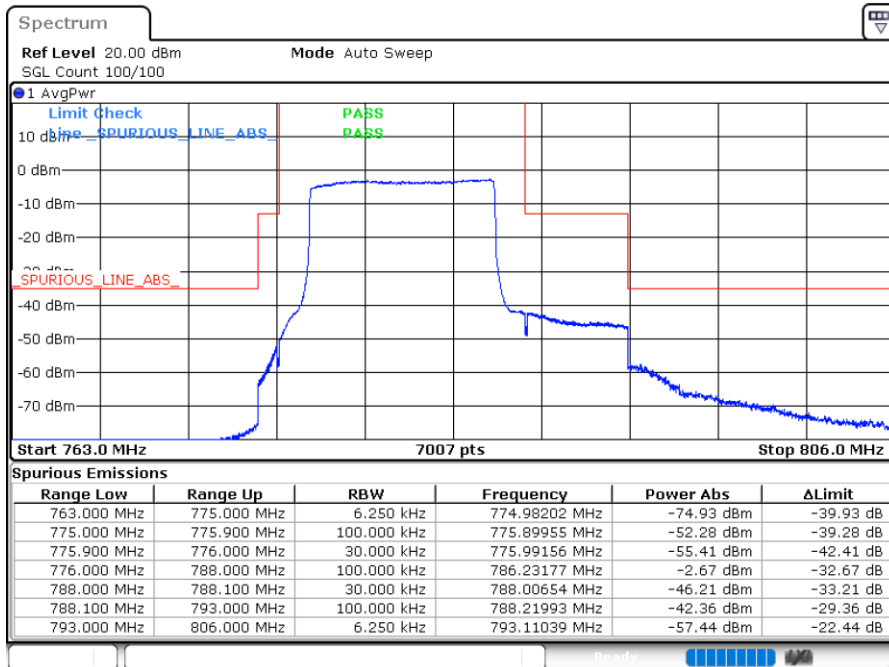
Date: 16.FEB.2023 09:23:34

middle Band Edge / 1 RB



Date: 16.FEB.2023 09:30:51

middle Band Edge / Full RB

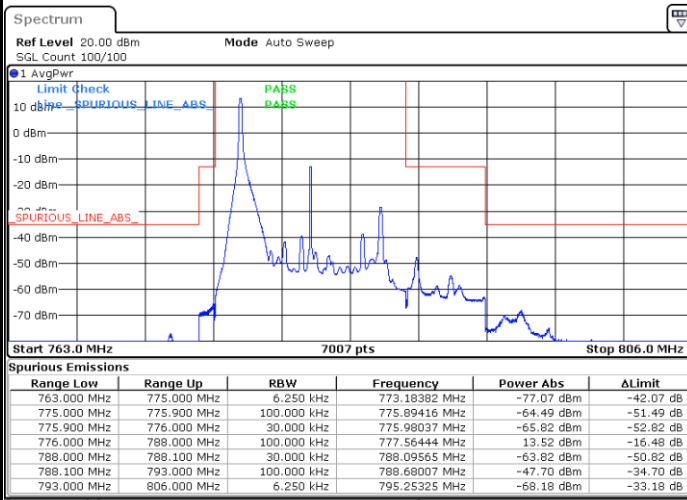


Date: 16.FEB.2023 09:38:09



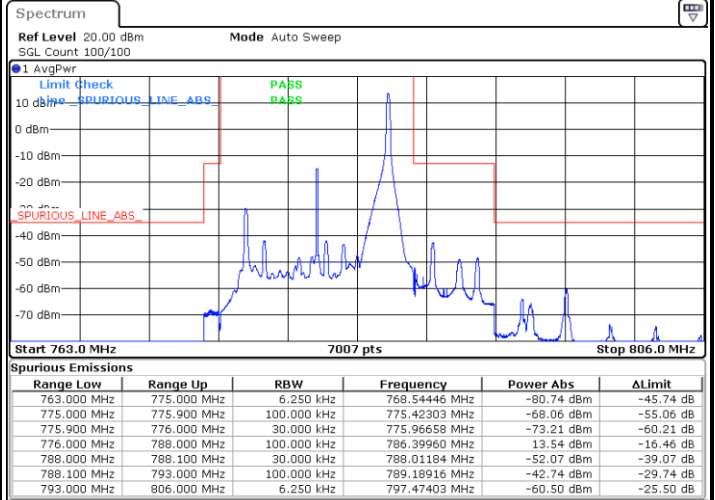
LTE Band 13 / 10MHz / 64QAM

middle Band Edge / 1 RB



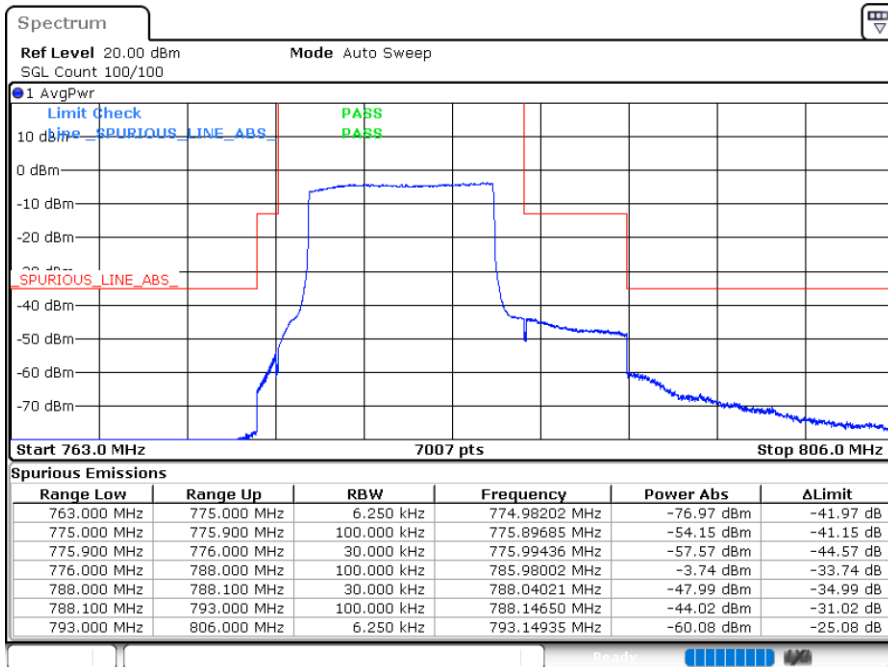
Date: 16.FEB.2023 09:25:23

middle Band Edge / 1 RB



Date: 16.FEB.2023 09:32:40

middle Band Edge / Full RB



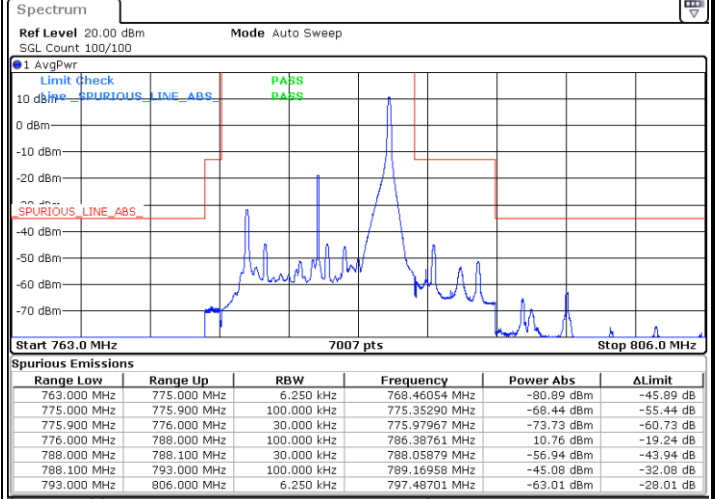
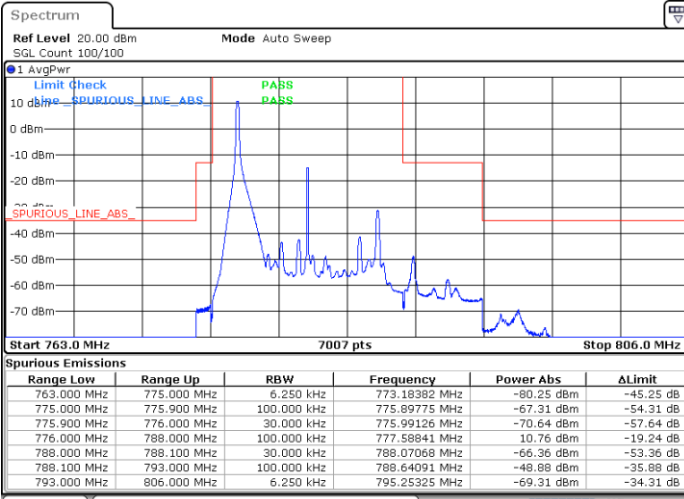
Date: 16.FEB.2023 09:39:59



LTE Band 13 / 10MHz / 256QAM

middle Band Edge / 1 RB

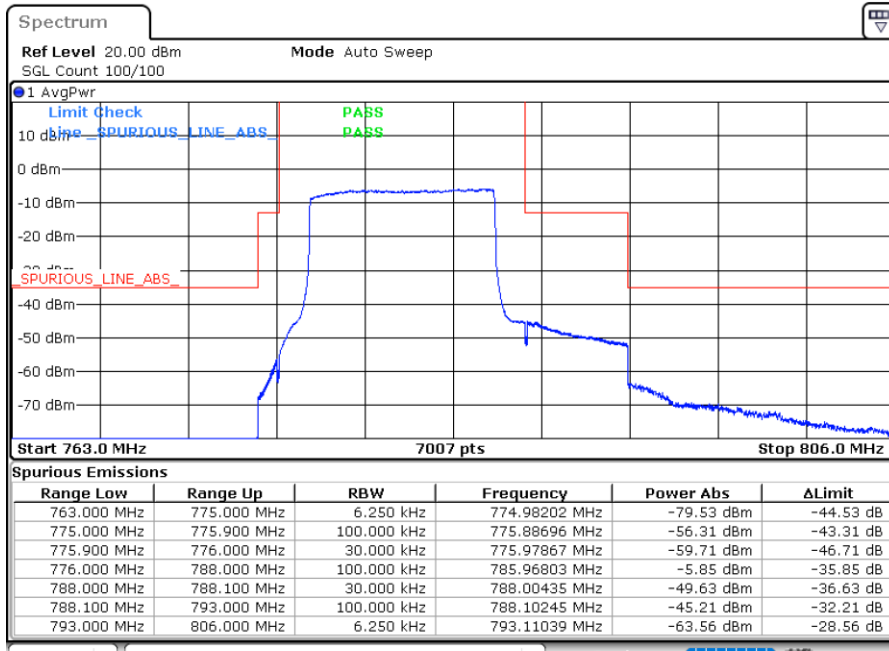
middle Band Edge / 1 RB



Date: 16.FEB.2023 09:27:13

Date: 16.FEB.2023 09:34:30

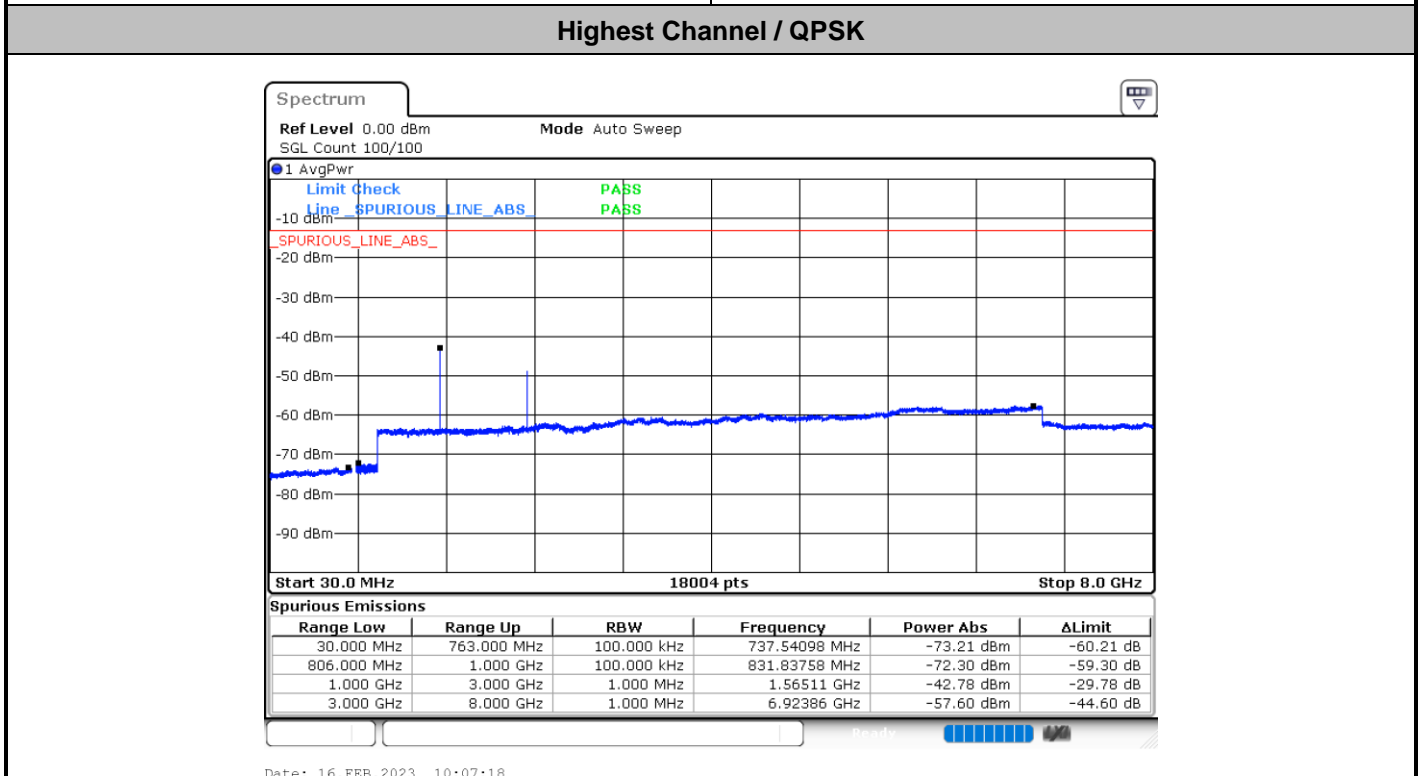
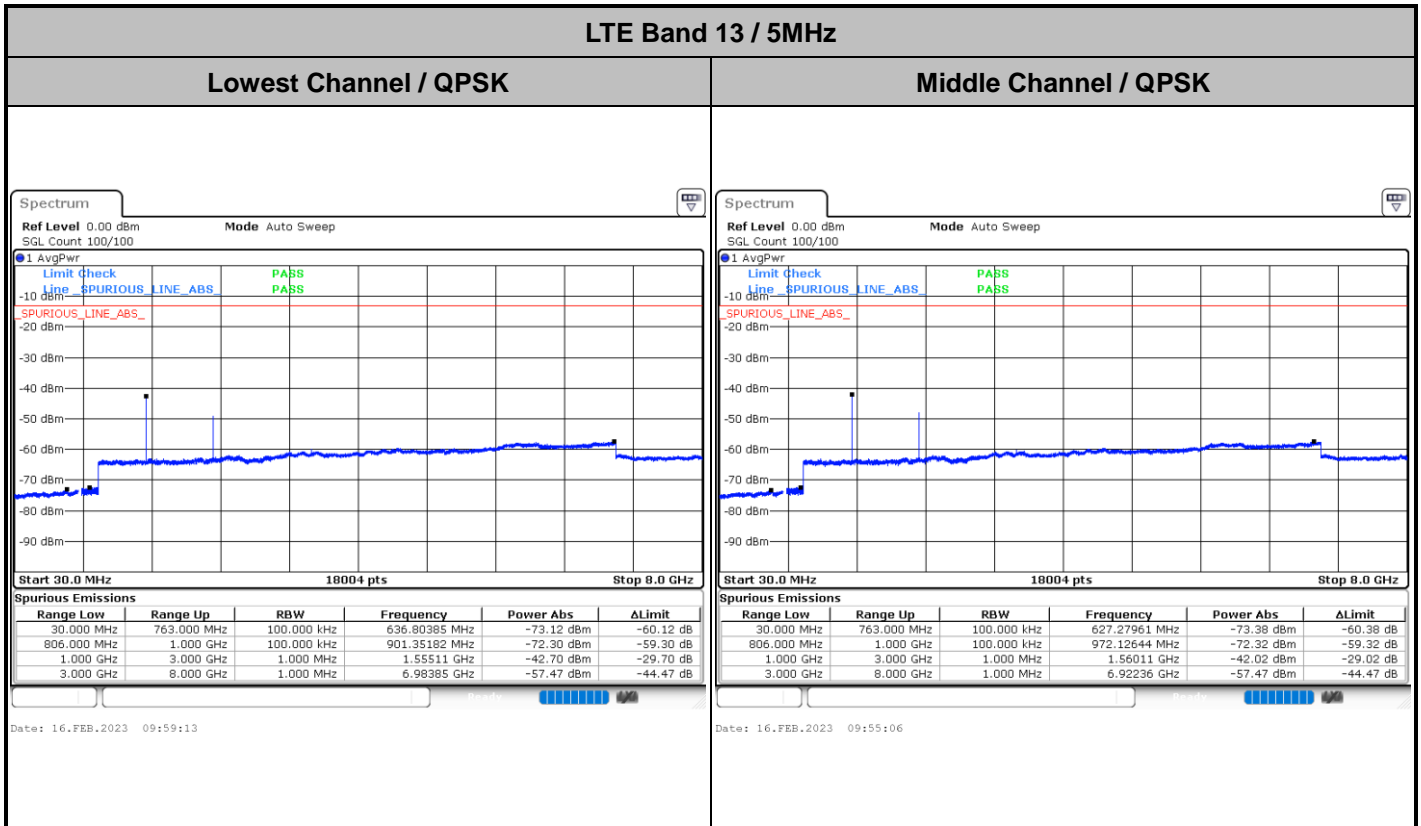
middle Band Edge / Full RB



Date: 16.FEB.2023 09:41:47



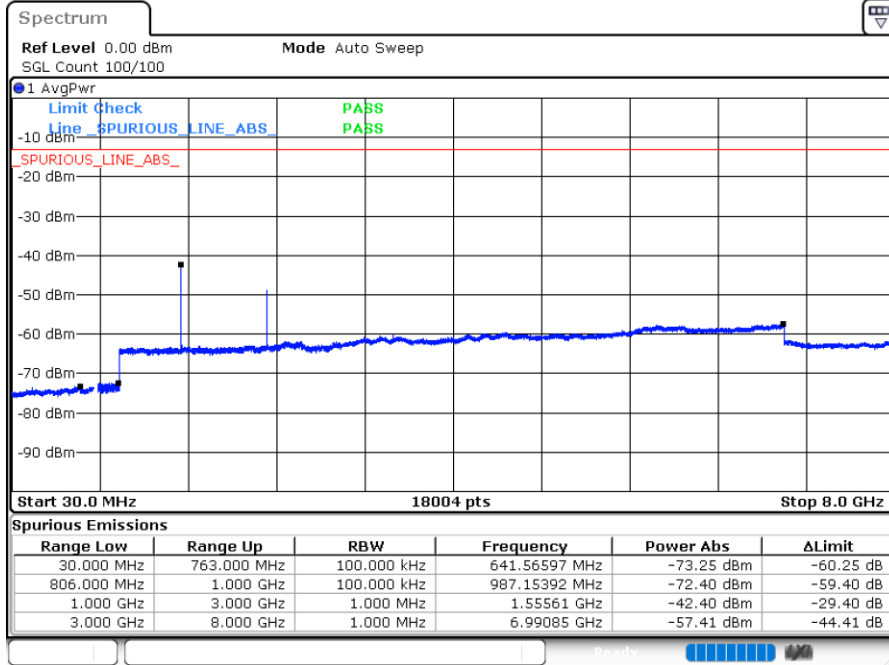
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 16.FEB.2023 09:51:20



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	0.0019	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0047	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0063	
-10	Normal Voltage	0.0010	
-20	Normal Voltage	0.0058	
-30	Normal Voltage	0.0066	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

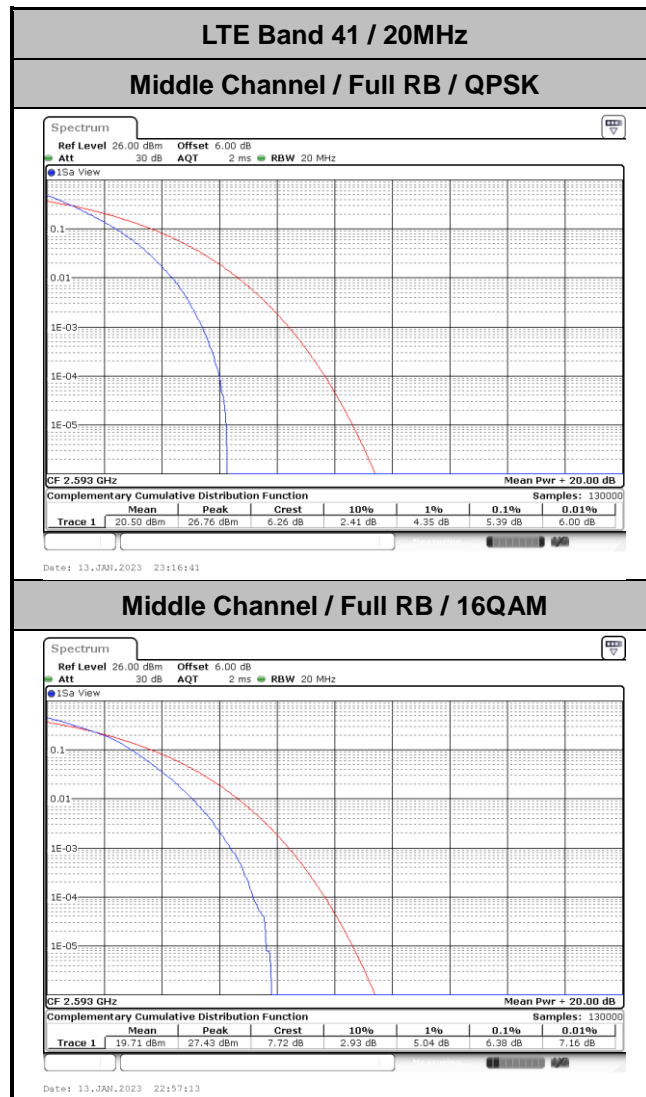


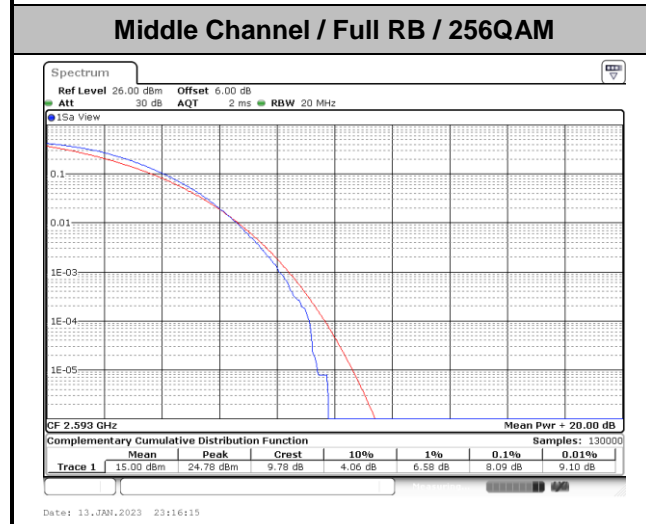
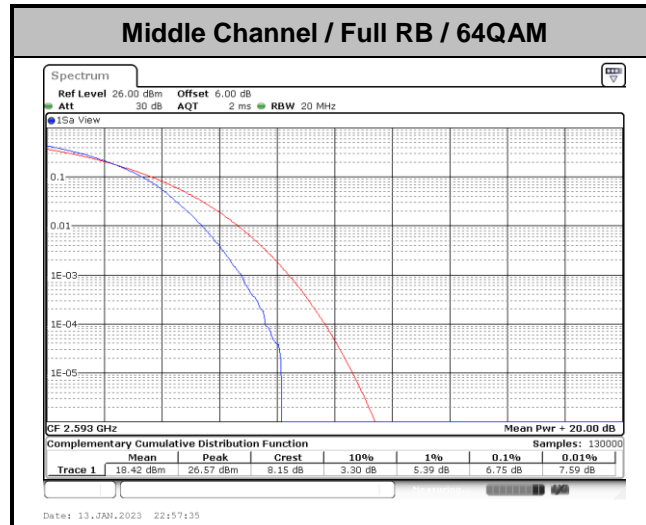


# LTE Band 41

## Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.39	6.38	6.75	8.09	PASS







## 26dB Bandwidth

Mode	LTE Band 41 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.95	4.86
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.73	9.63
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	14.18	14.27
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.86	19.06

