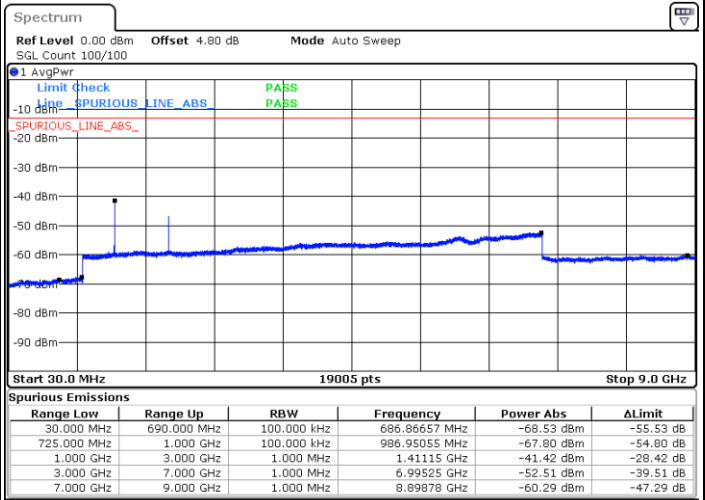
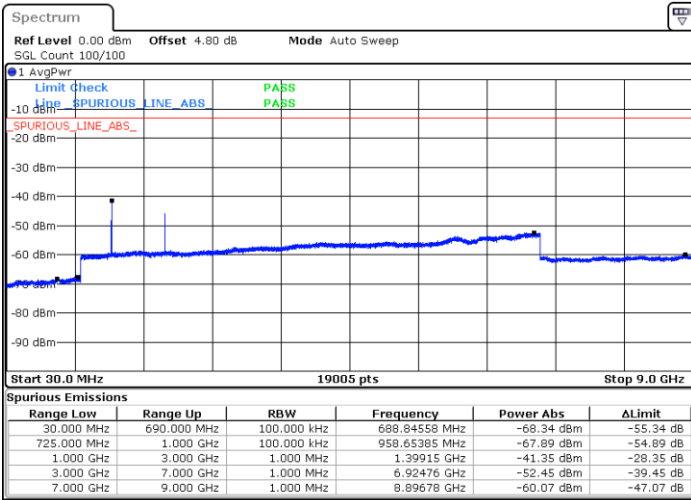




LTE Band 12 / 5MHz

Lowest Channel / QPSK

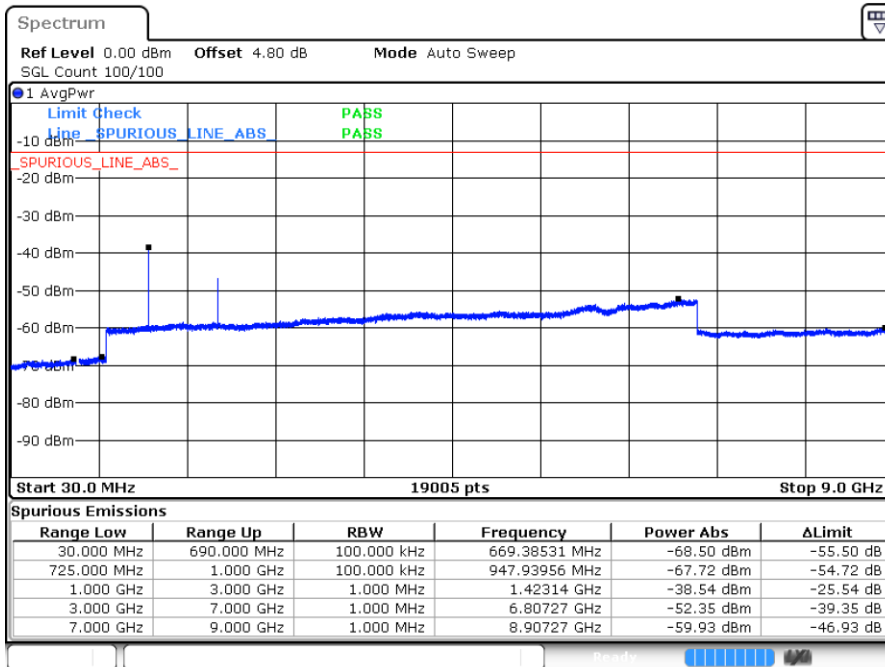
Middle Channel / QPSK



Date: 1.AUG.2023 15:57:39

Date: 1.AUG.2023 16:12:26

Highest Channel / QPSK



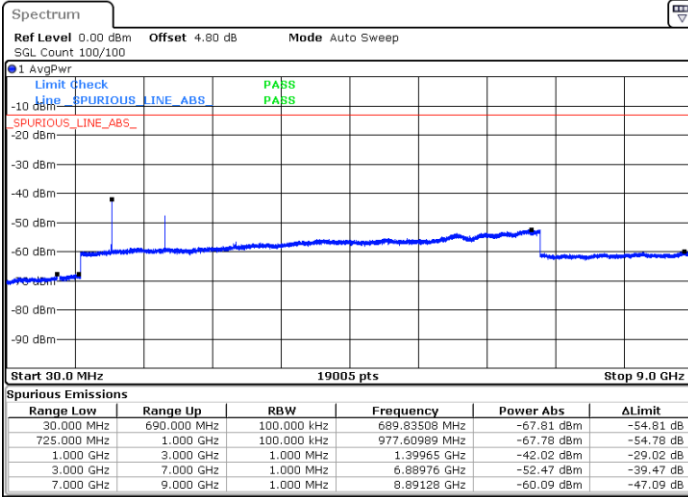
Date: 1.AUG.2023 16:13:46



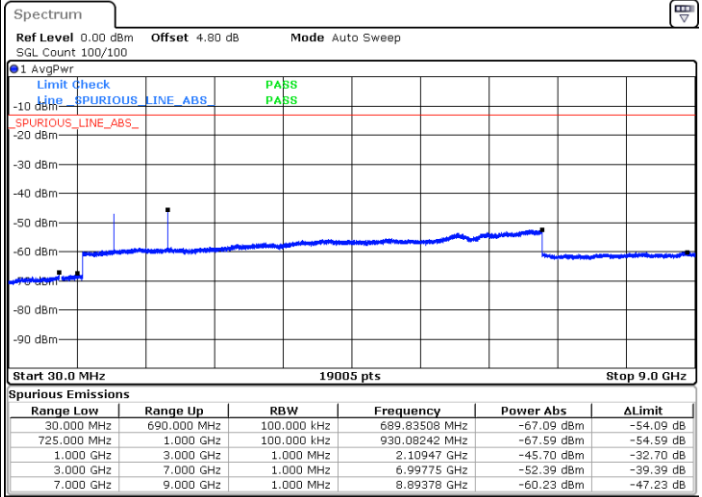
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

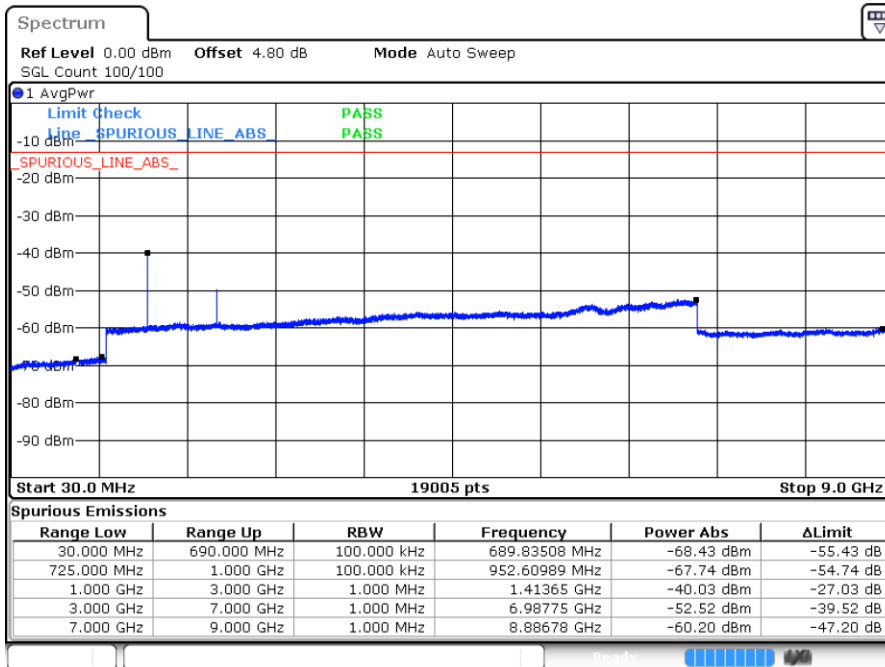


Date: 1.AUG.2023 16:25:27



Date: 1.AUG.2023 16:37:34

Highest Channel / QPSK



Date: 1.AUG.2023 16:38:54



Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0032	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0048	
-10	Normal Voltage	0.0026	
-20	Normal Voltage	0.0029	
-30	Normal Voltage	0.0053	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0005	
20	Minimum Voltage	0.0017	

Note:

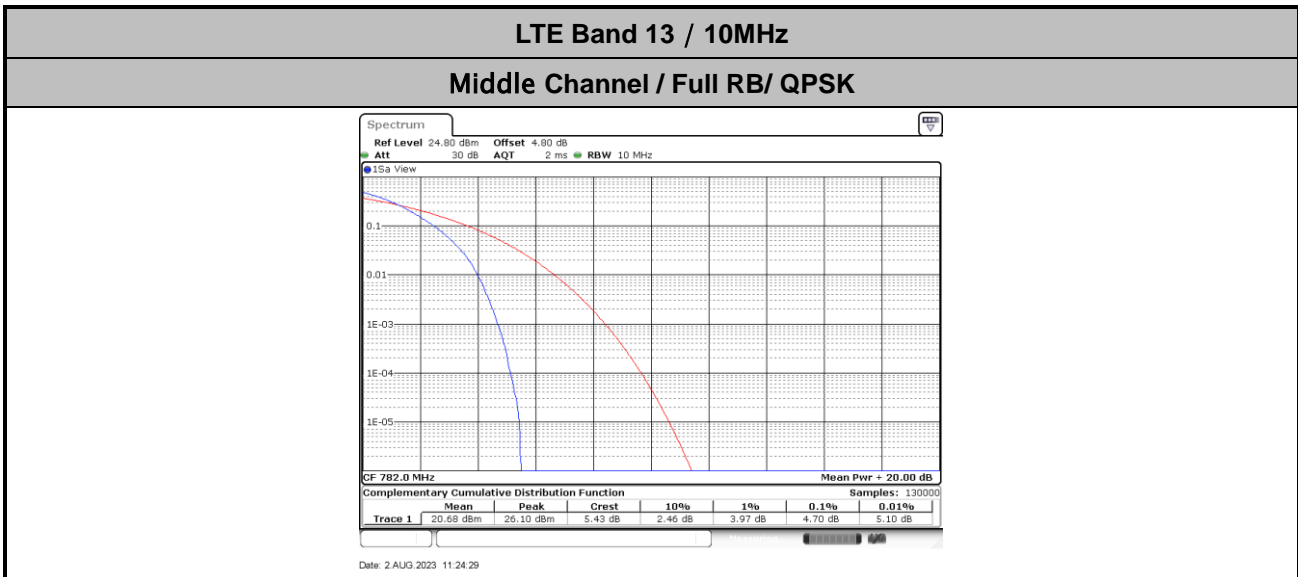
1. Normal Voltage =3.8 V. ; Minimum Voltage =3.5 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 13

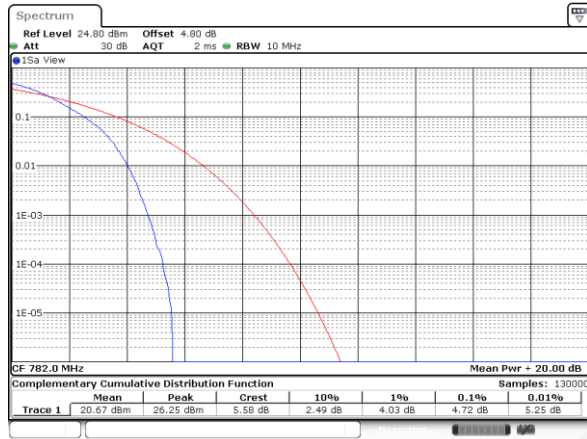
## Peak-to-Average Ratio

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	4.70	4.72	6.00	6.03	PASS



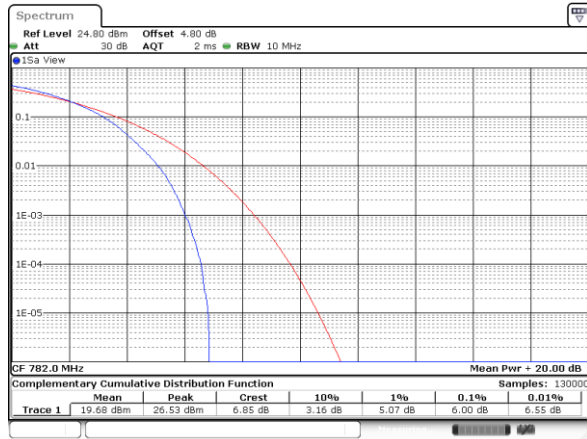


Middle Channel / Full RB/ 16QAM



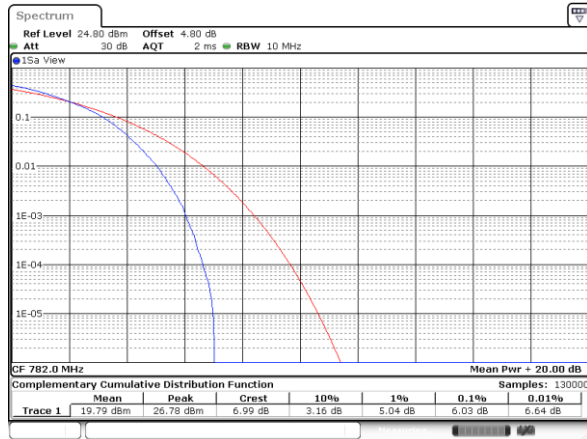
Date: 2.AUG.2023 11:24:51

Middle Channel / Full RB/ 64QAM



Date: 2.AUG.2023 11:25:14

Middle Channel / Full RB/ 256QAM

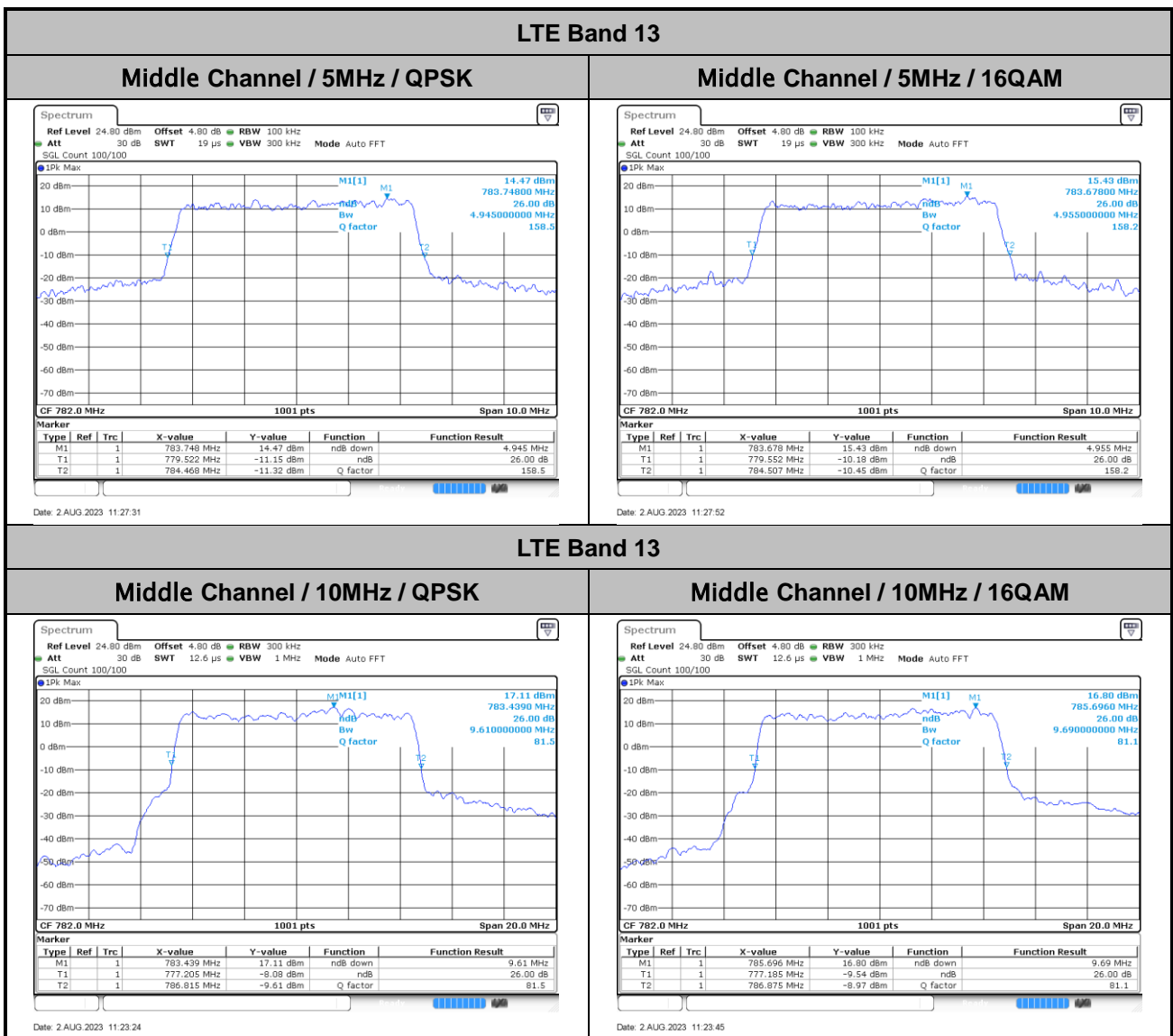


Date: 2.AUG.2023 11:25:36



## 26dB Bandwidth

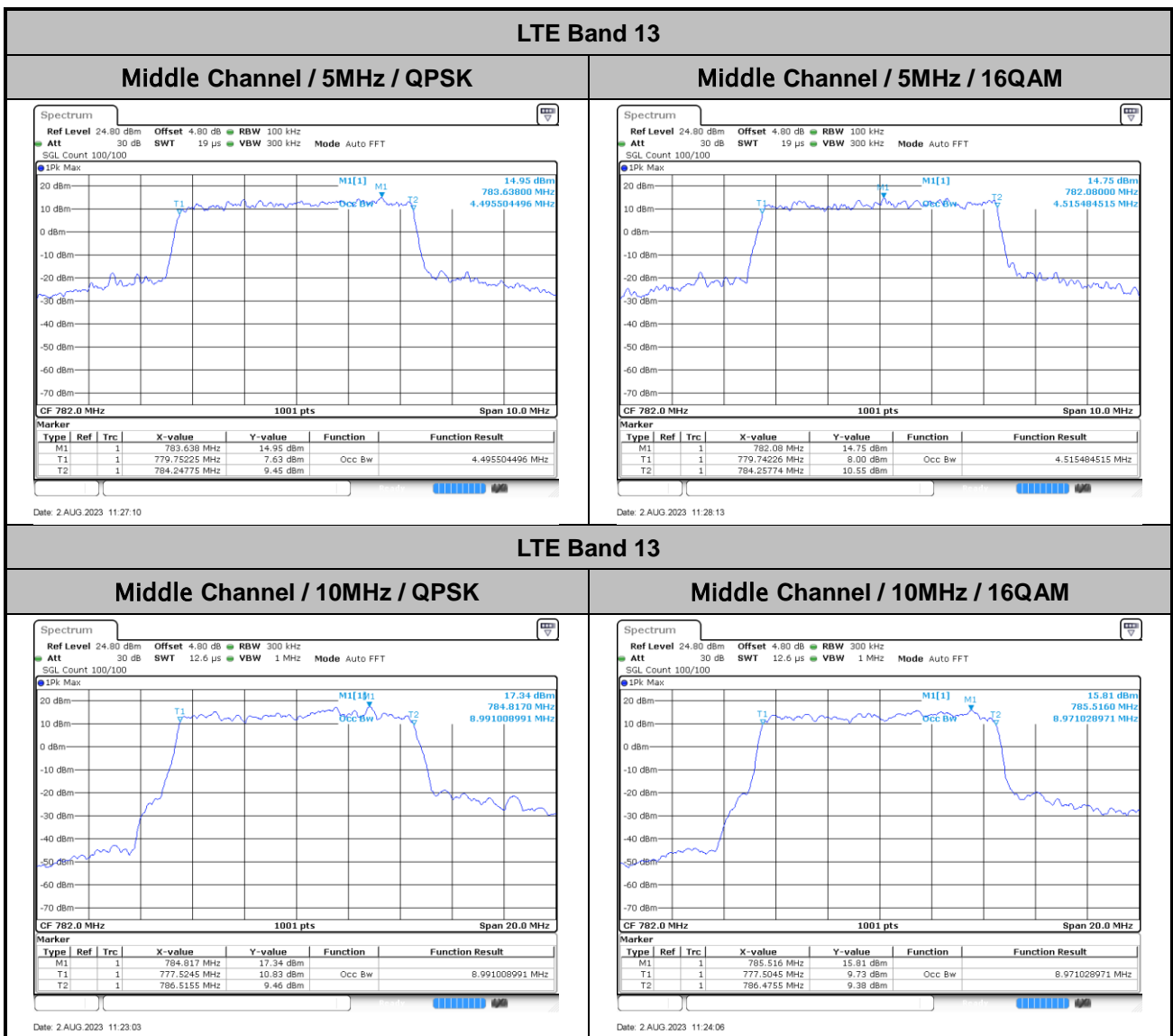
Mode	LTE Band 13 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.95	4.96
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.61	9.69





# Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.50	4.52
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.99	8.97

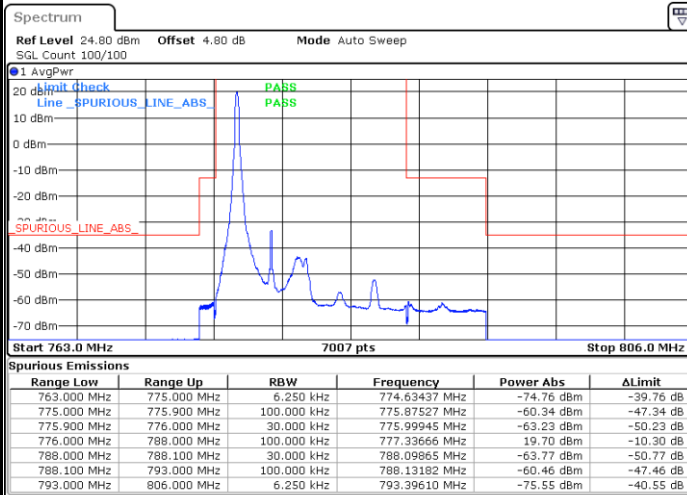




# Conducted Band Edge

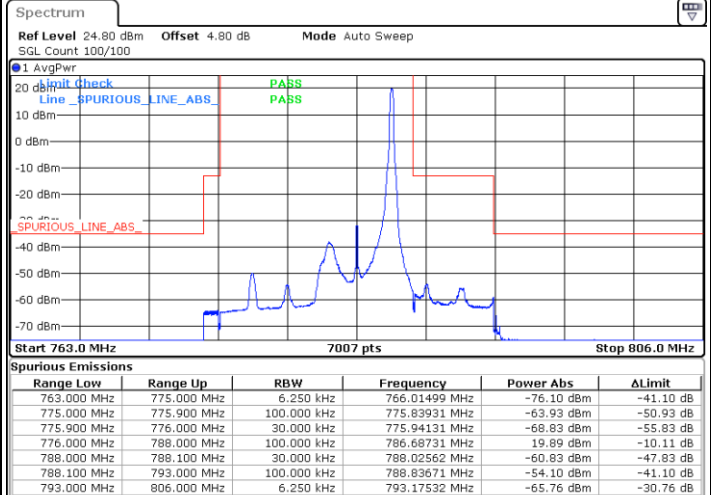
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



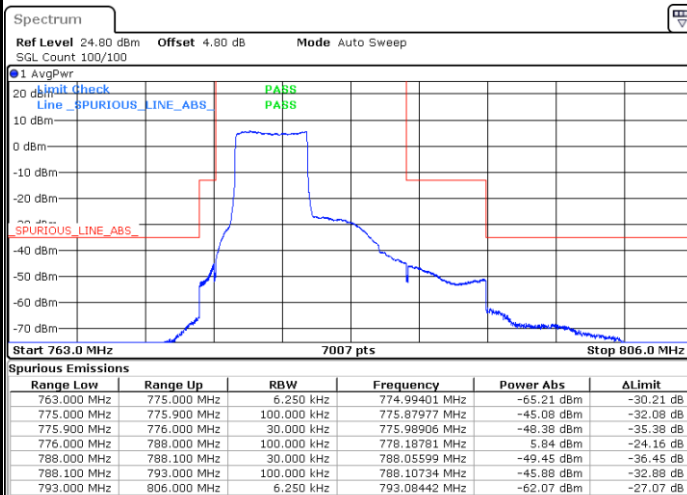
Date: 2 AUG 2023 10:24:00

### Highest Band Edge / 1 RB



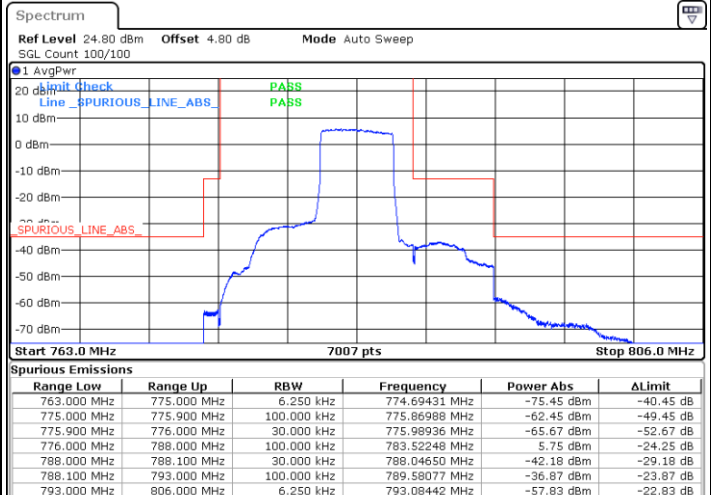
Date: 2 AUG 2023 10:44:33

### Lowest Band Edge / Full RB



Date: 2 AUG 2023 10:33:26

### Highest Band Edge / Full RB



Date: 2 AUG 2023 10:53:00

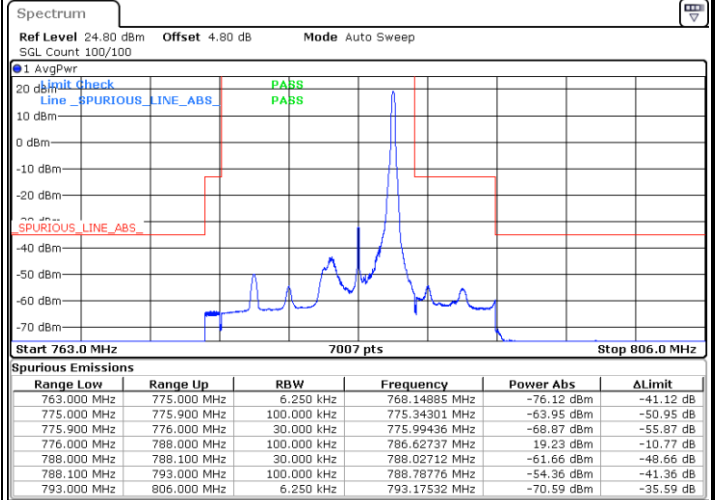
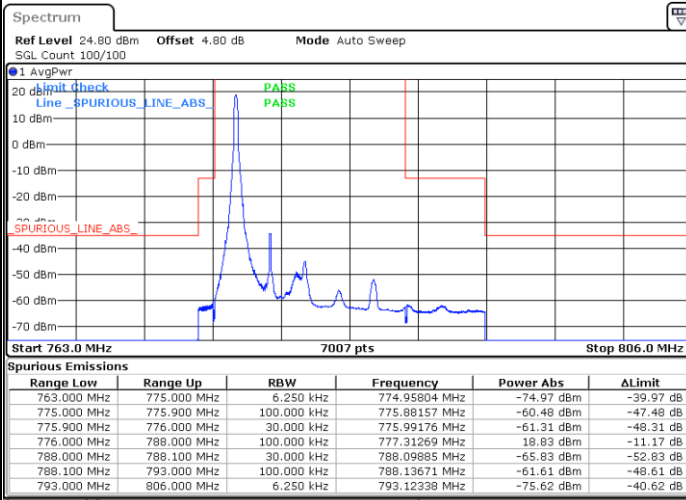




LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

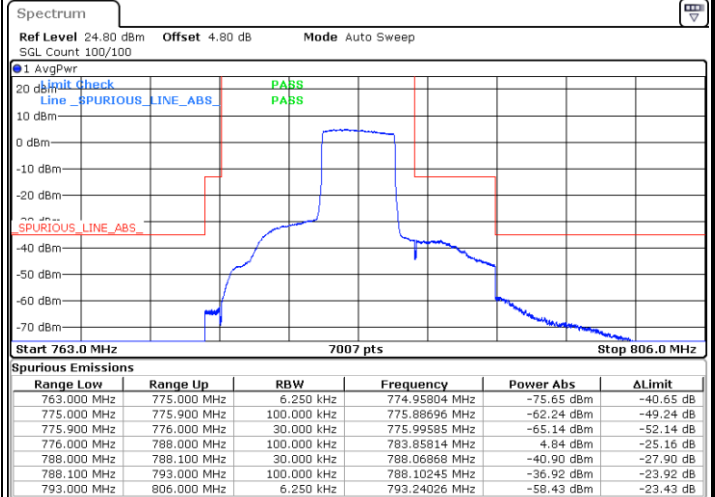
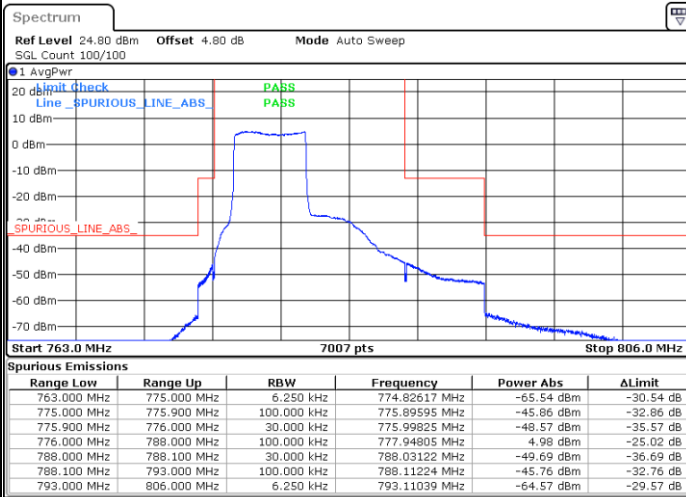


Date: 2 AUG 2023 10:25:50

Date: 2 AUG 2023 10:46:23

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



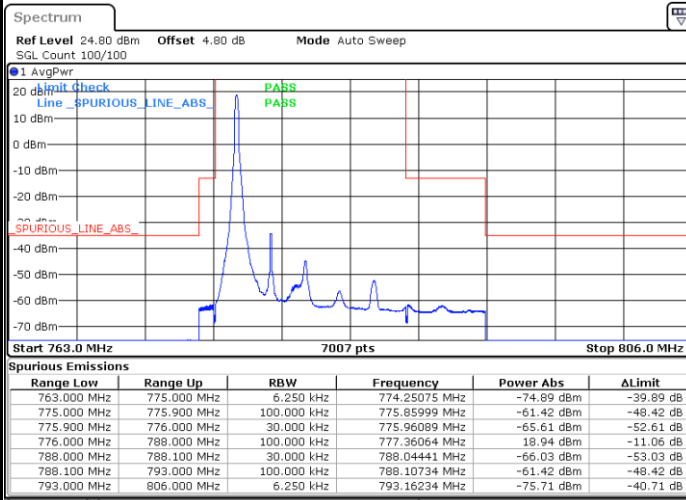
Date: 2 AUG 2023 10:35:16

Date: 2 AUG 2023 10:54:50



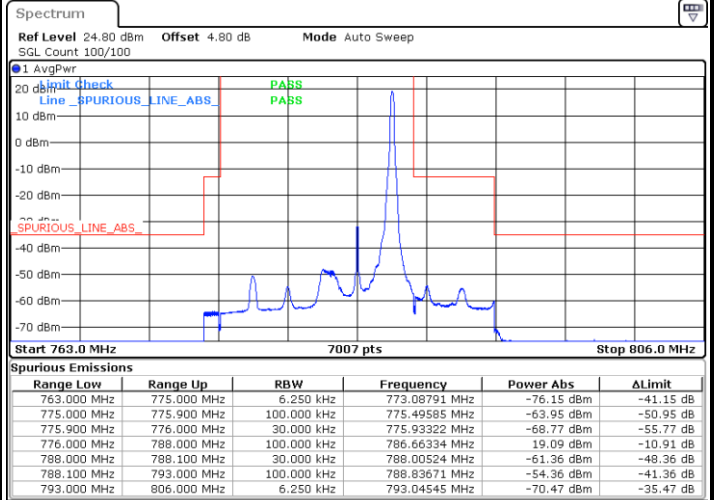
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1RB



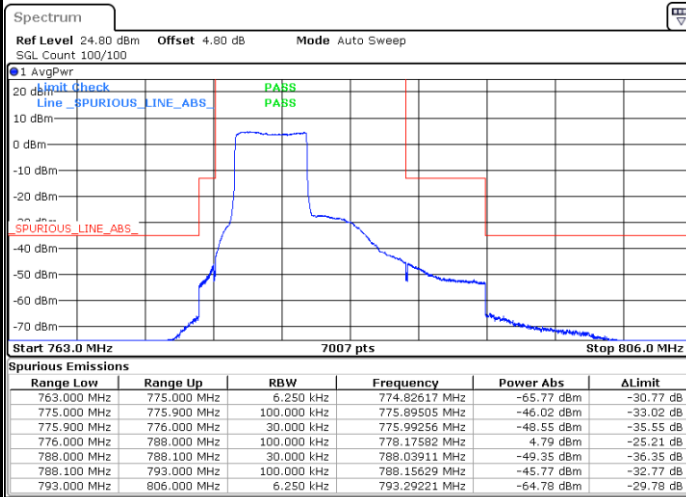
Date: 2 AUG 2023 10:27:40

Highest Band Edge / 1 RB



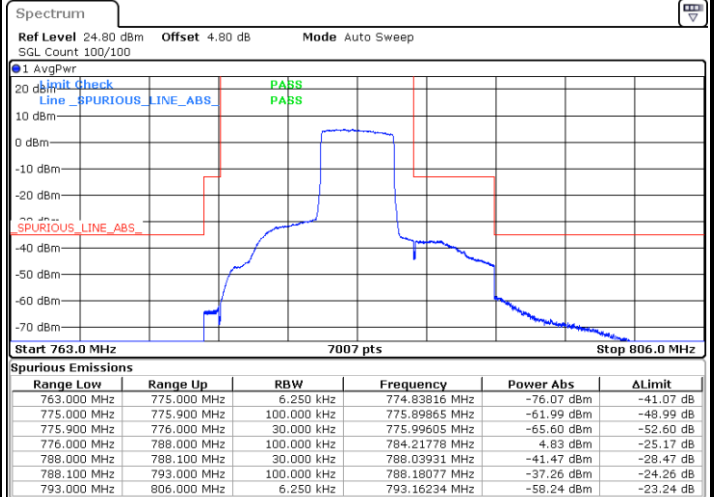
Date: 2 AUG 2023 10:48:12

Lowest Band Edge / Full RB



Date: 2 AUG 2023 10:37:06

Highest Band Edge / Full RB



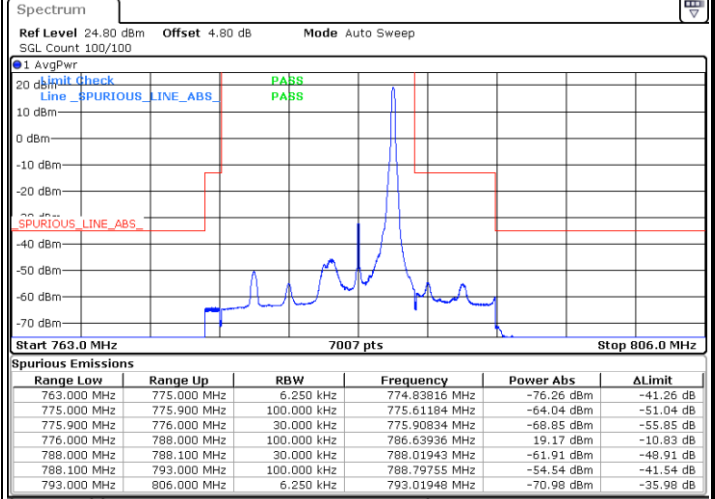
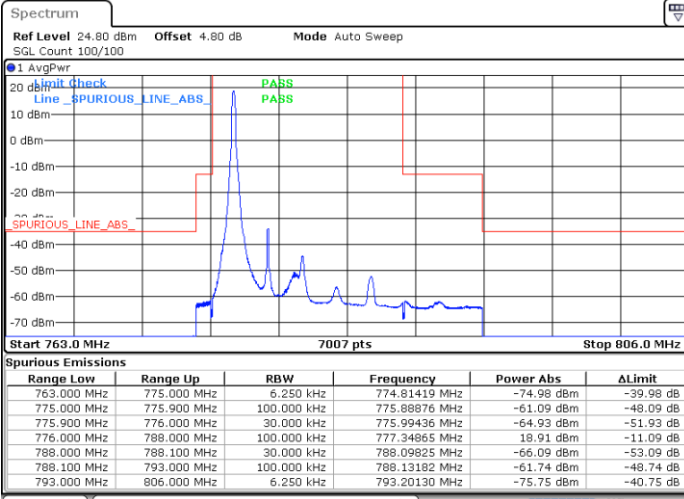
Date: 2 AUG 2023 10:56:40



LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB

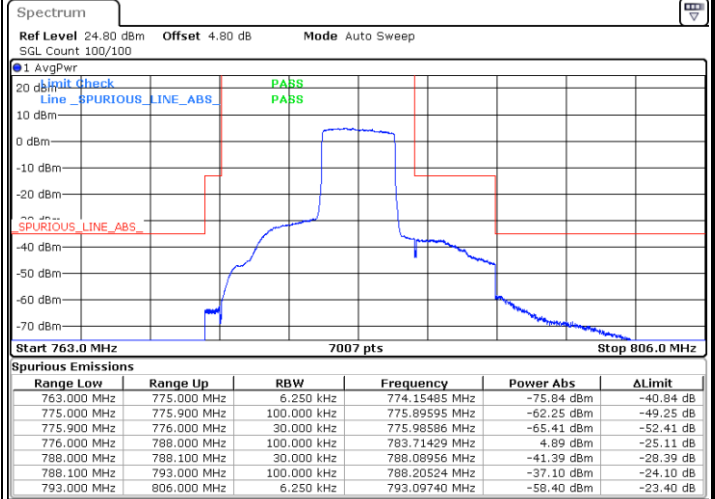
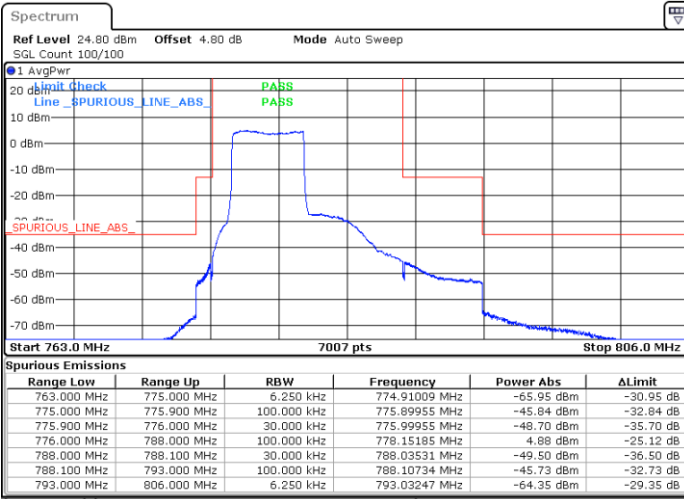


Date: 2 AUG 2023 10:29:30

Date: 2 AUG 2023 10:50:02

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



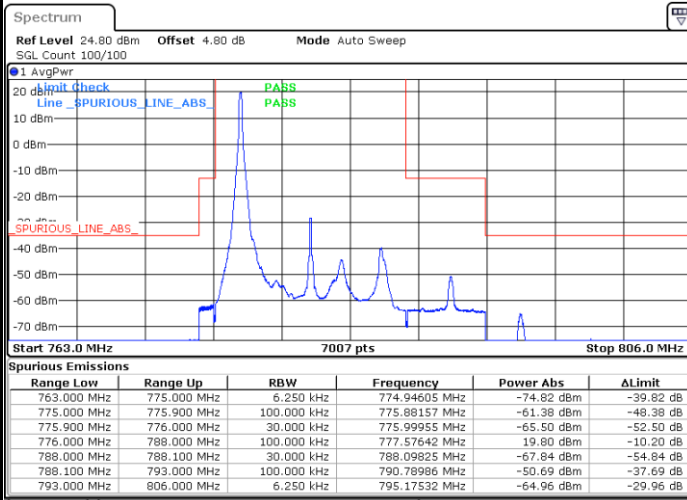
Date: 2 AUG 2023 10:38:56

Date: 2 AUG 2023 10:58:30



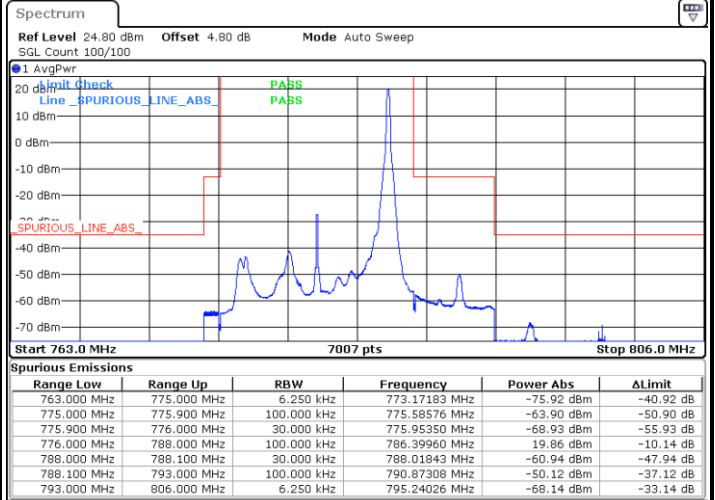
LTE Band 13 / 10MHz / QPSK

middle Band Edge / 1 RB



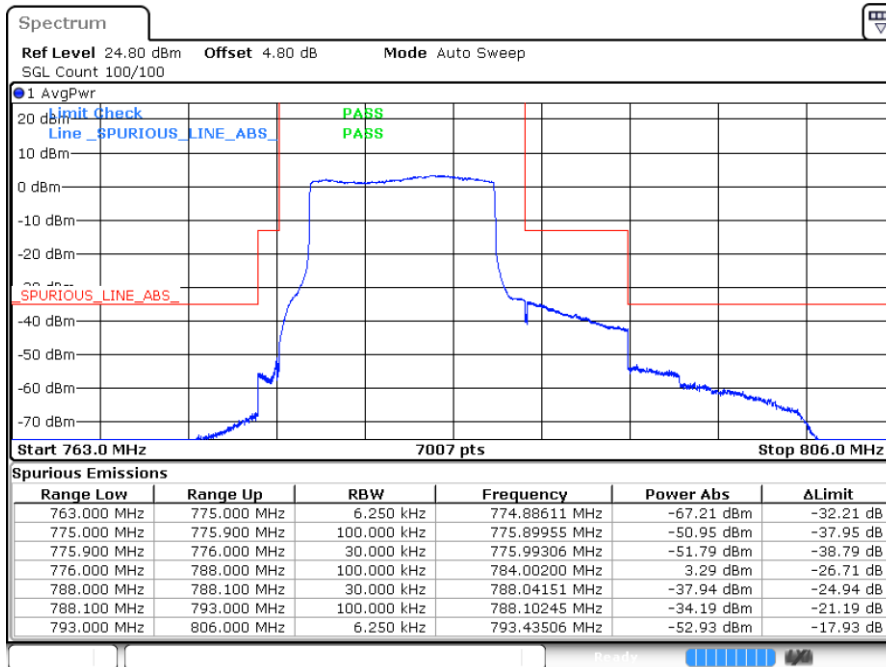
Date: 2 AUG 2023 11:02:39

middle Band Edge / 1 RB



Date: 2 AUG 2023 11:17:14

Middle Band Edge / Full RB

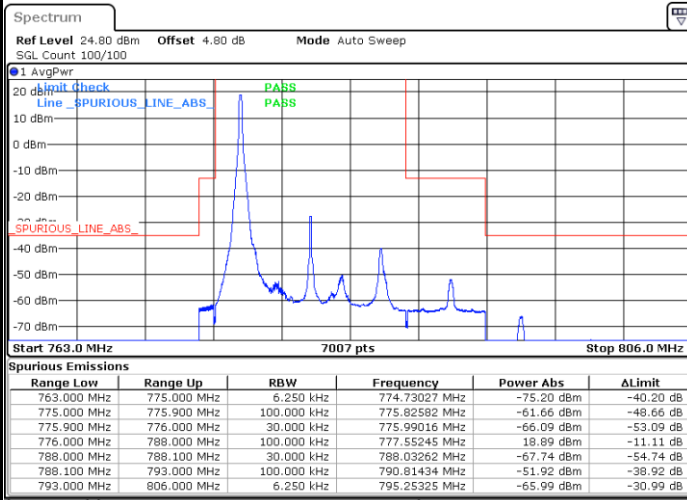


Date: 2 AUG 2023 11:09:57



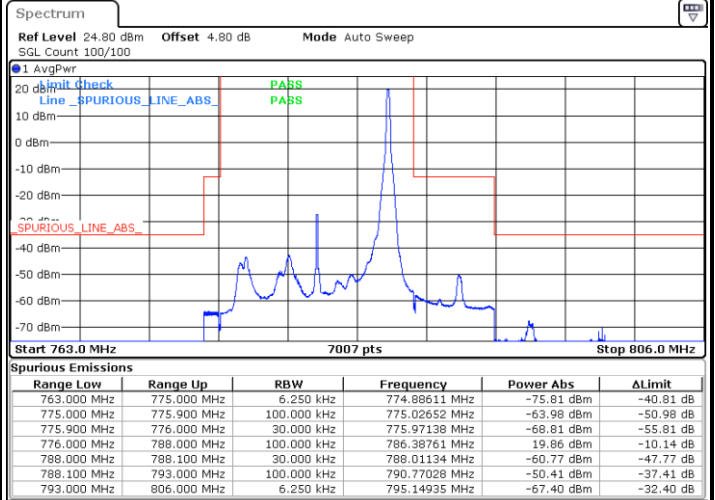
LTE Band 13 / 10MHz / 16QAM

middle Band Edge / 1 RB



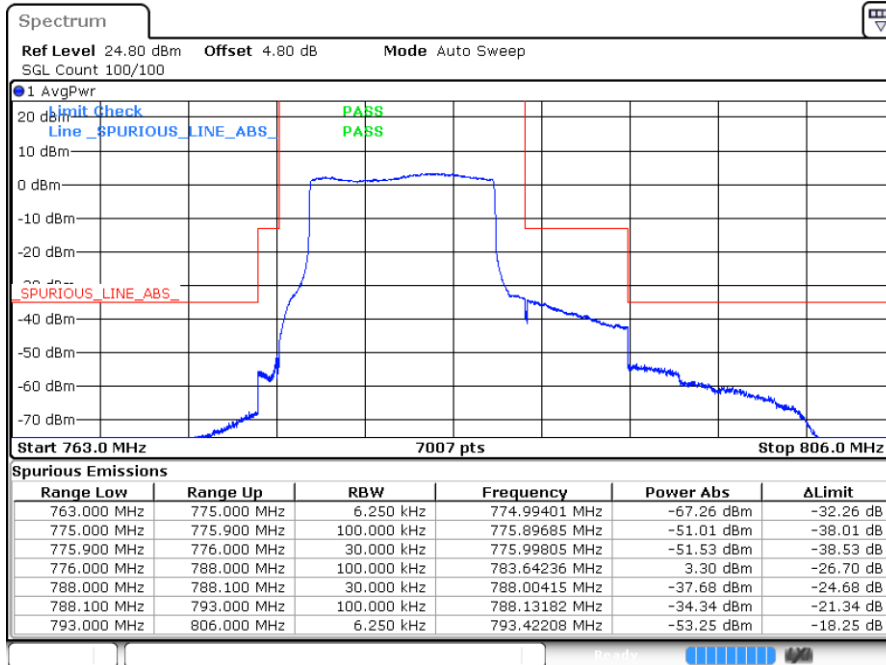
Date: 2 AUG 2023 11:04:28

middle Band Edge / 1 RB



Date: 2 AUG 2023 11:19:03

middle Band Edge / Full RB

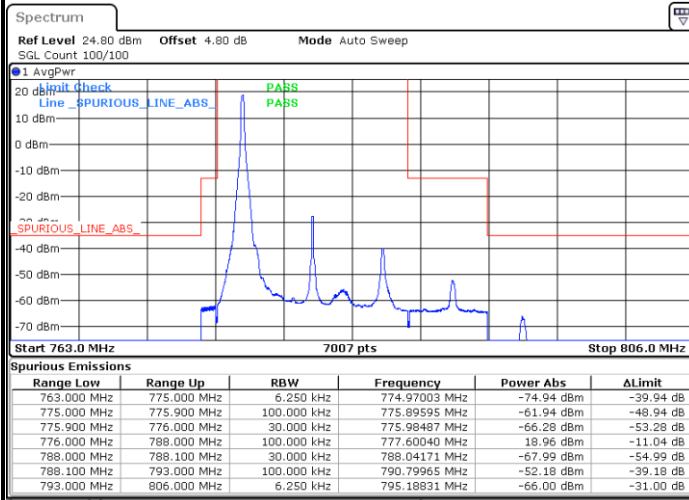


Date: 2 AUG 2023 11:11:46



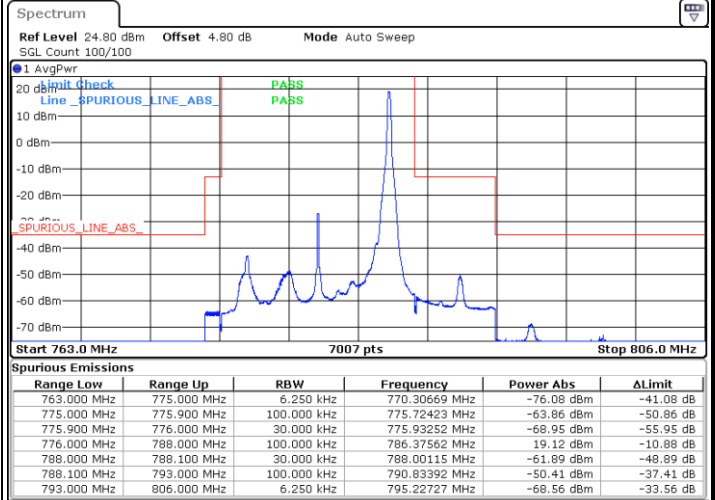
LTE Band 13 / 10MHz / 64QAM

middle Band Edge / 1 RB



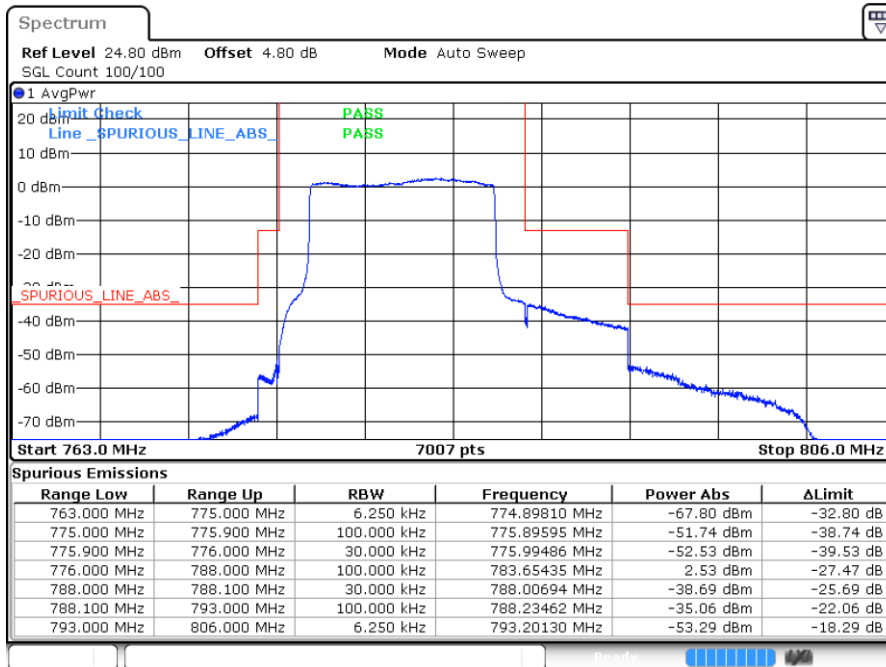
Date: 2 AUG 2023 11:06:18

middle Band Edge / 1 RB



Date: 2 AUG 2023 11:20:53

middle Band Edge / Full RB



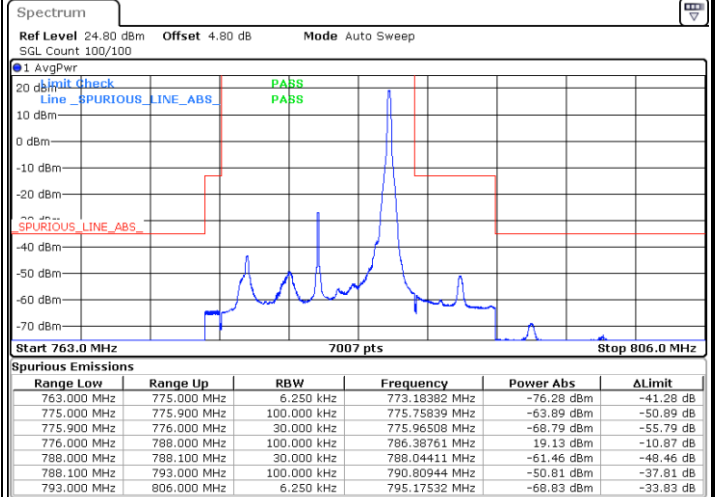
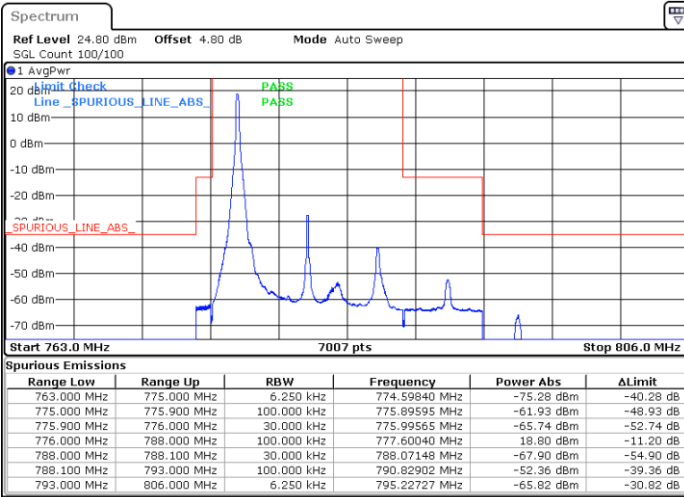
Date: 2 AUG 2023 11:13:35



LTE Band 13 / 10MHz / 256QAM

middle Band Edge / 1 RB

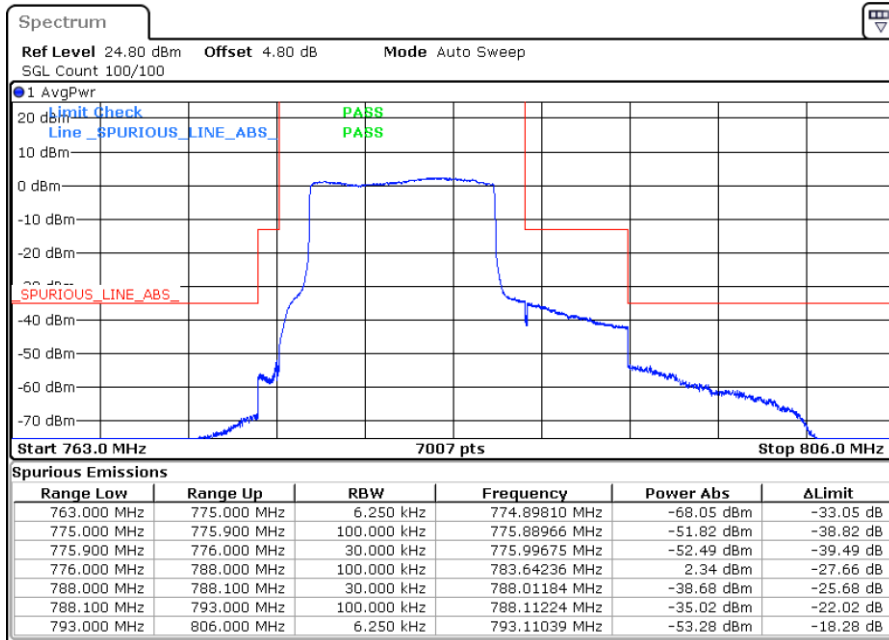
middle Band Edge / 1 RB



Date: 2 AUG 2023 11:08:07

Date: 2 AUG 2023 11:22:42

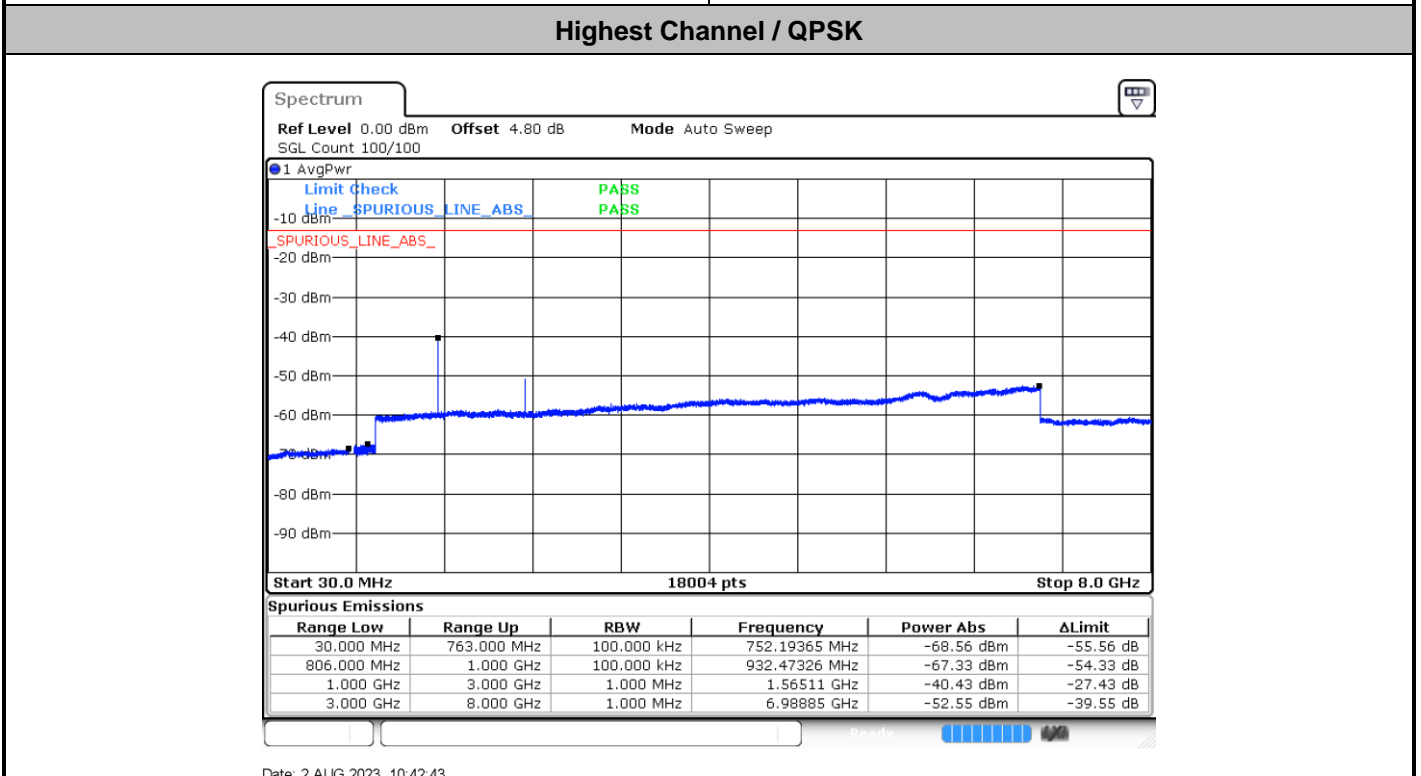
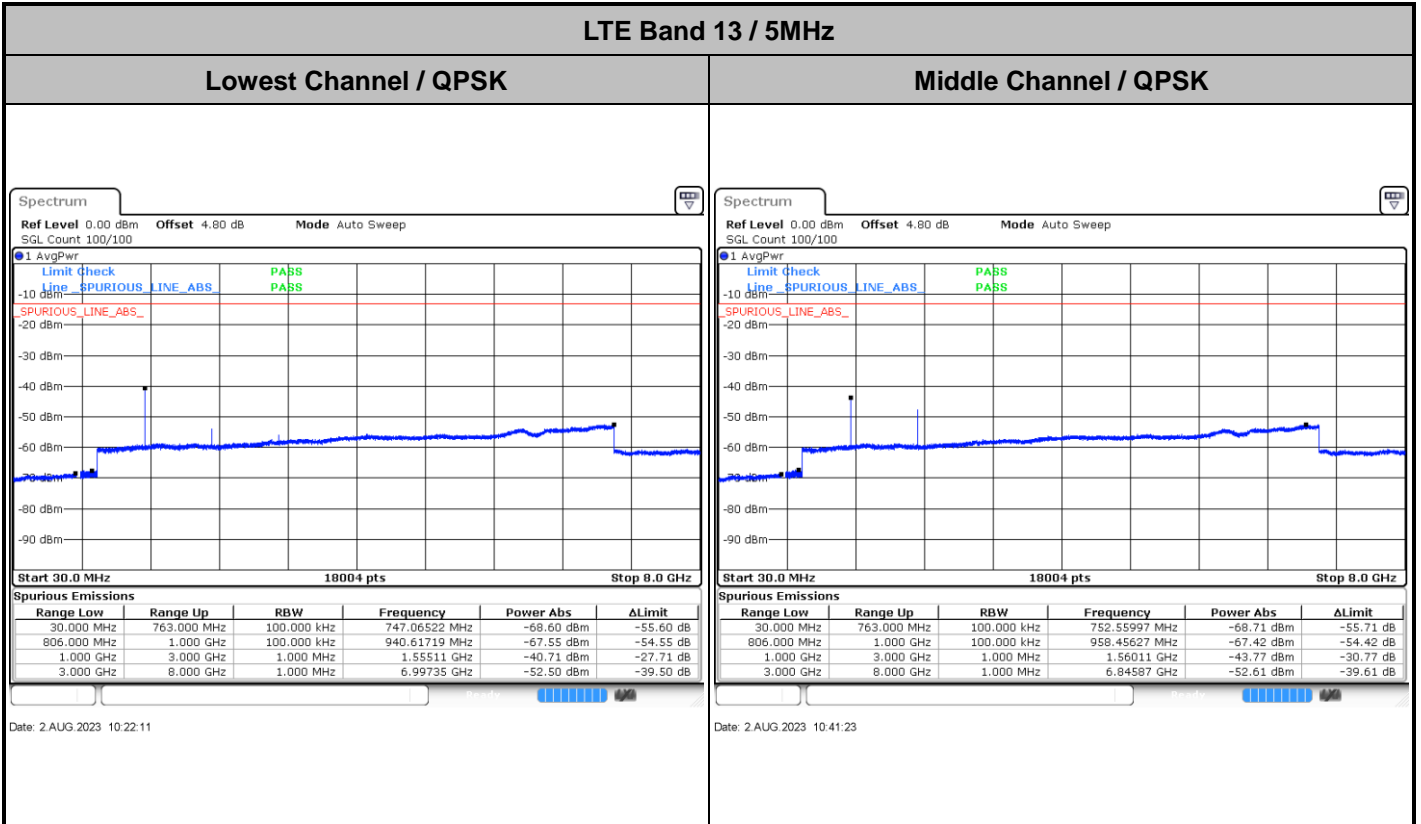
middle Band Edge / Full RB



Date: 2 AUG 2023 11:15:24



# Conducted Spurious Emission

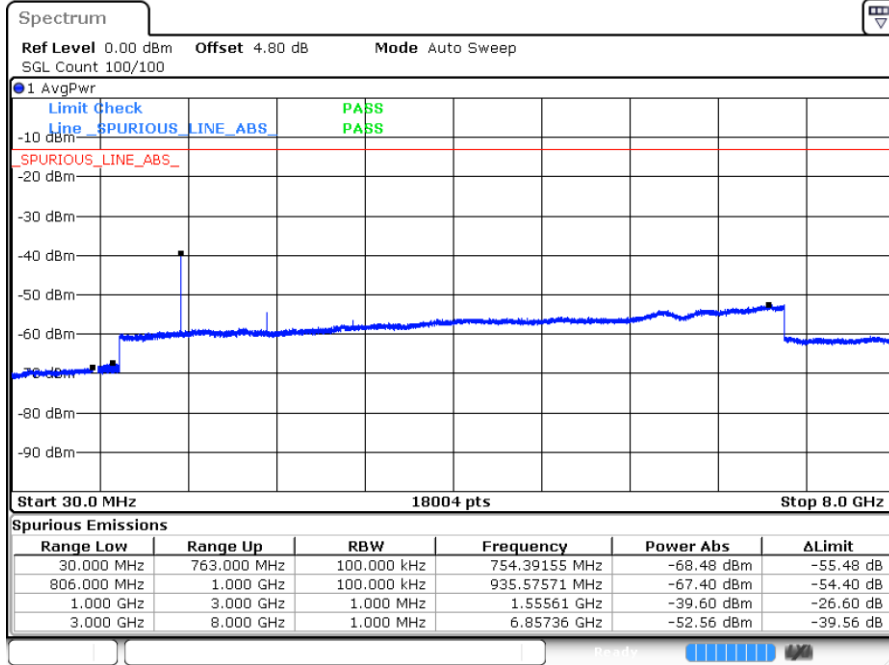






LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 2 AUG 2023 11:00:50



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	0.0029	PASS
40	Normal Voltage	0.0042	
30	Normal Voltage	0.0059	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0044	
20	Minimum Voltage	0.0006	

Note:

1. Normal Voltage =3.8 V. ; Minimum Voltage =3.5 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



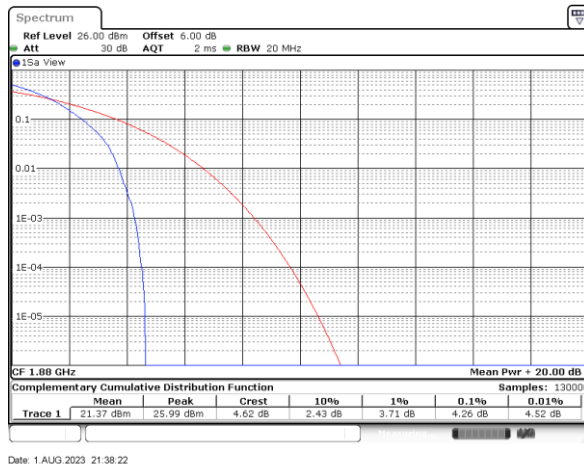
# LTE Band 25

## Peak-to-Average Ratio

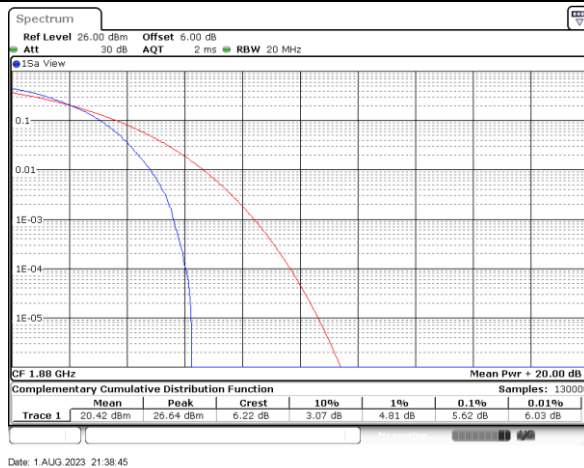
Mode	LTE Band 25 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.26	5.62	6.32	6.26	PASS

### LTE Band 25 / 20MHz

#### Middle Channel / Full RB/ QPSK

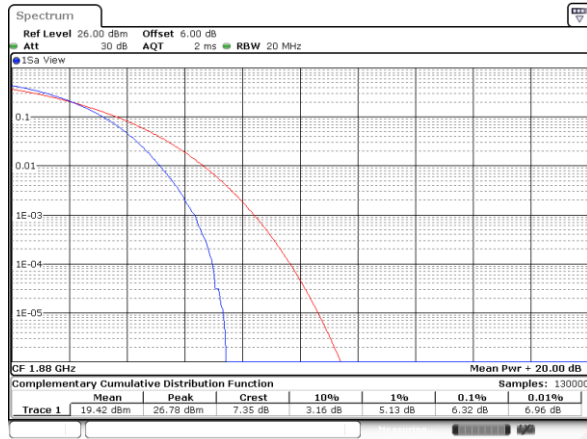


#### Middle Channel / Full RB/ 16QAM





Middle Channel / Full RB/ 64QAM



Date: 1.AUG.2023 21:39:08

Middle Channel / Full RB/ 256QAM



Date: 1.AUG.2023 21:39:32



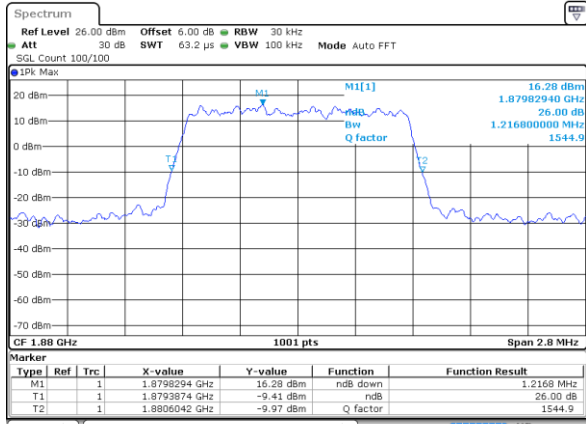
**26dB Bandwidth**

Mode	LTE Band 25 : 26dB BW(MHz)	
<b>BW</b>	<b>1.4MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	1.22	1.22
<b>BW</b>	<b>3MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	3.02	3.05
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.86	4.93
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.89	9.89
<b>BW</b>	<b>15MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	14.42	14.27
<b>BW</b>	<b>20MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	18.86	18.74



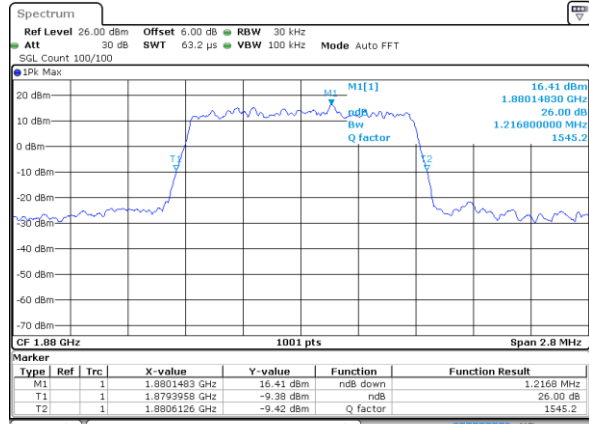
LTE Band 25

Middle Channel / 1.4MHz / QPSK



Date: 1.AUG.2023 21:52:44

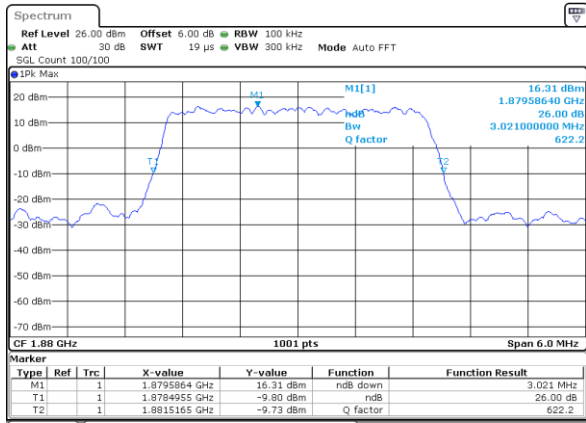
Middle Channel / 1.4MHz / 16QAM



Date: 1.AUG.2023 21:53:06

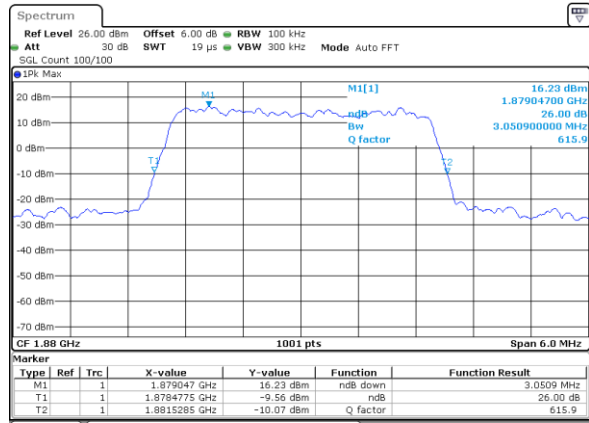
LTE Band 25

Middle Channel / 3MHz / QPSK



Date: 1.AUG.2023 21:50:59

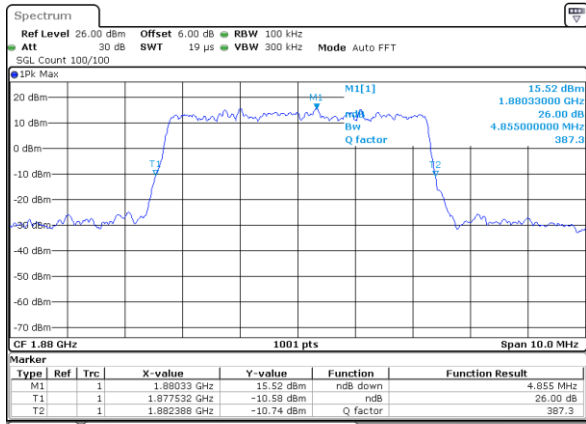
Middle Channel / 3MHz / 16QAM



Date: 1.AUG.2023 21:51:21

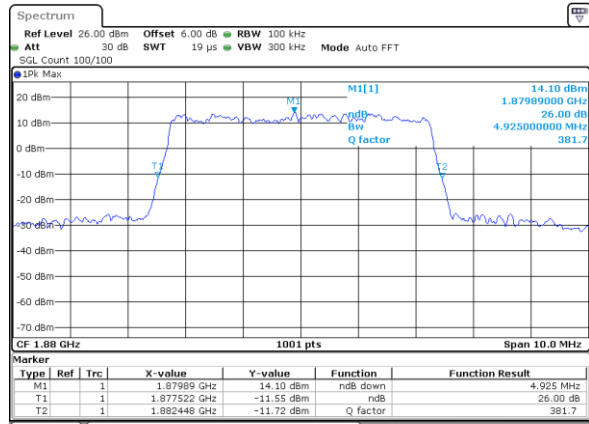
LTE Band 25

Middle Channel / 5MHz / QPSK



Date: 1.AUG.2023 21:47:23

Middle Channel / 5MHz / 16QAM

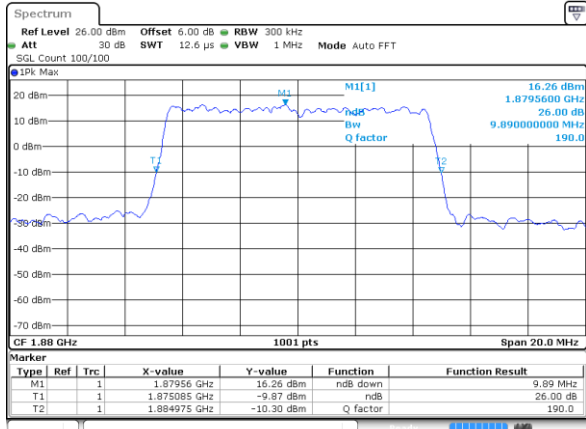


Date: 1.AUG.2023 21:47:45



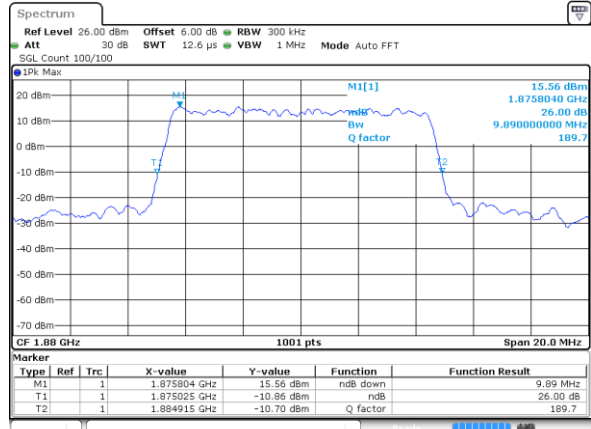
LTE Band 25

Middle Channel / 10MHz / QPSK



Date: 1.AUG.2023 21:45:56

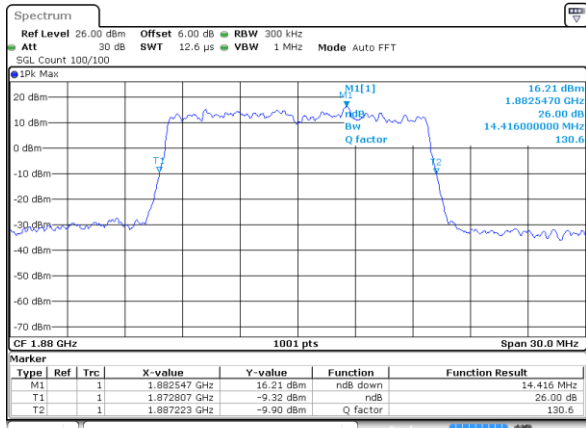
Middle Channel / 10MHz / 16QAM



Date: 1.AUG.2023 21:46:18

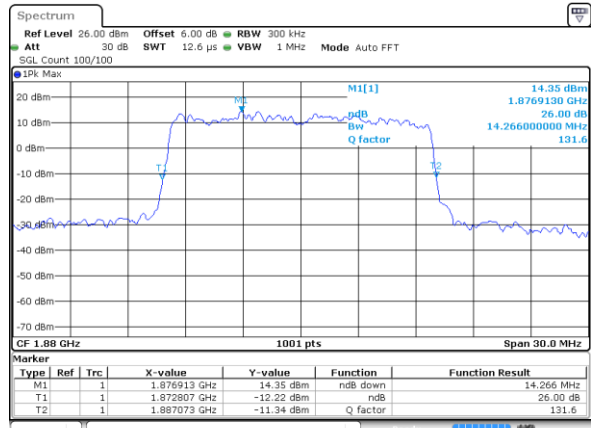
LTE Band 25

Middle Channel / 15MHz / QPSK



Date: 1.AUG.2023 21:44:30

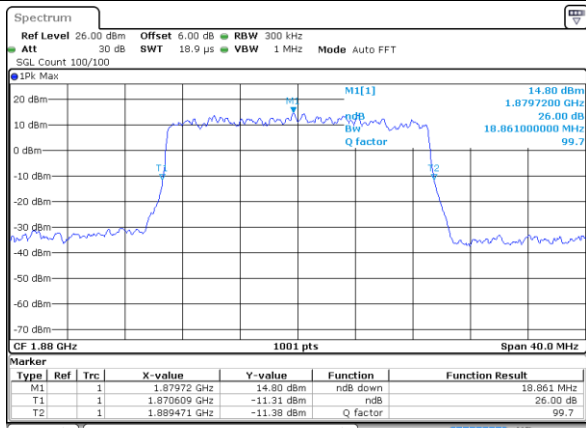
Middle Channel / 15MHz / 16QAM



Date: 1.AUG.2023 21:44:51

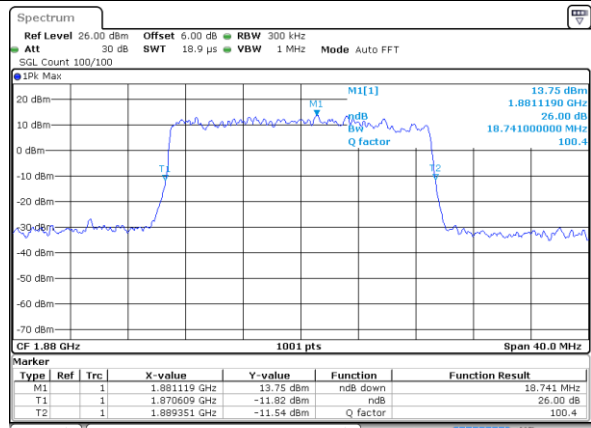
LTE Band 25

Middle Channel / 20MHz / QPSK



Date: 1.AUG.2023 21:24:20

Middle Channel / 20MHz / 16QAM



Date: 1.AUG.2023 21:24:42



Occupied Bandwidth

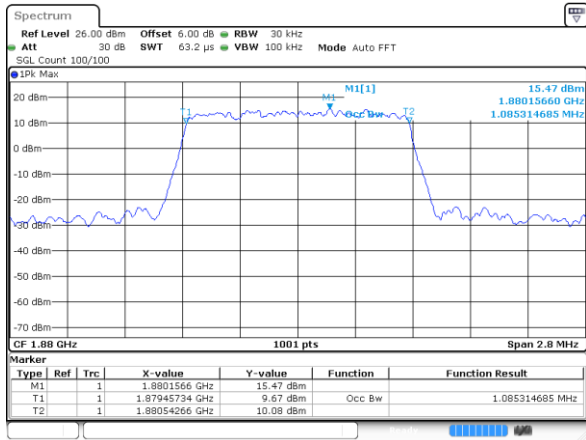
Mode	LTE Band 25 : 99%OBW(MHz)	
<b>BW</b>	<b>1.4MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	1.09	1.10
<b>BW</b>	<b>3MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	2.70	2.71
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.50	4.50
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.01	9.01
<b>BW</b>	<b>15MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	13.37	13.34
<b>BW</b>	<b>20MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	17.82	17.82





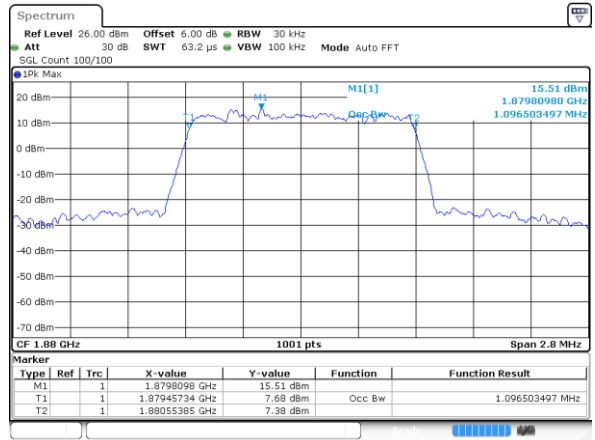
LTE Band 25

Middle Channel / 1.4MHz / QPSK



Date: 1.AUG.2023 21:52:23

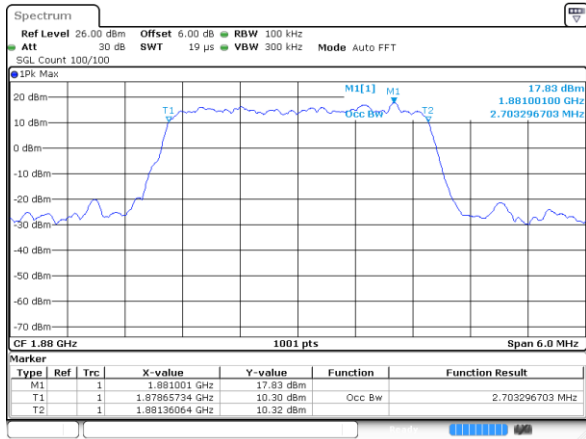
Middle Channel / 1.4MHz / 16QAM



Date: 1.AUG.2023 21:53:28

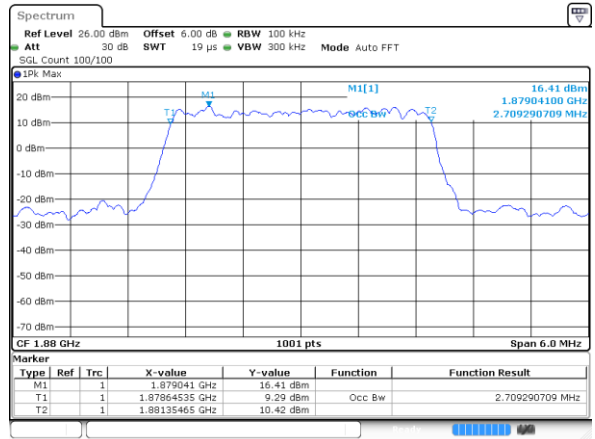
LTE Band 25

Middle Channel / 3MHz / QPSK



Date: 1.AUG.2023 21:50:38

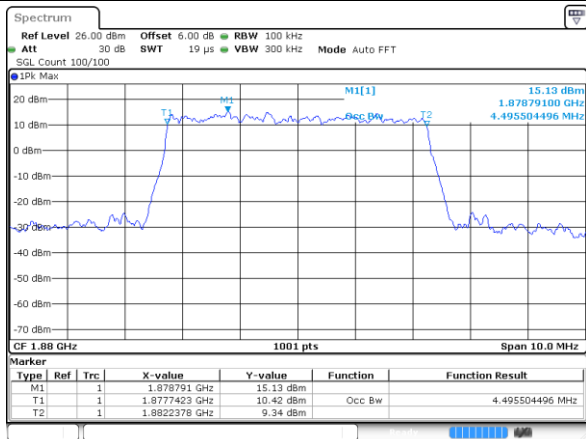
Middle Channel / 3MHz / 16QAM



Date: 1.AUG.2023 21:51:42

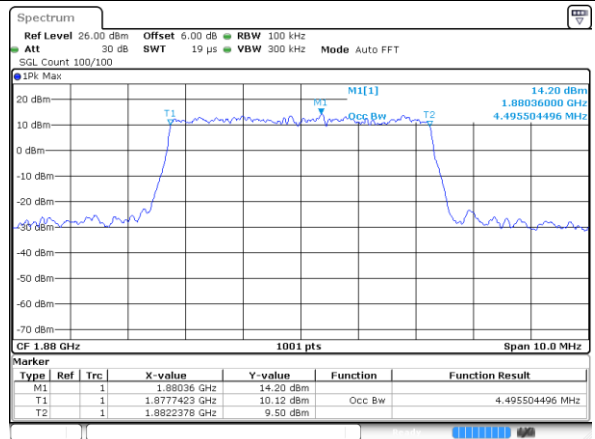
LTE Band 25

Middle Channel / 5MHz / QPSK



Date: 1.AUG.2023 21:47:02

Middle Channel / 5MHz / 16QAM

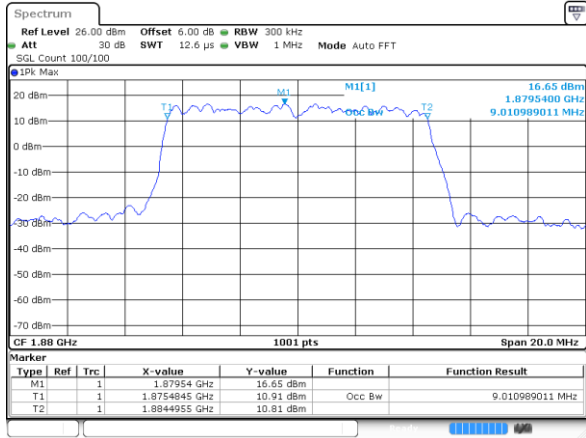


Date: 1.AUG.2023 21:48:06



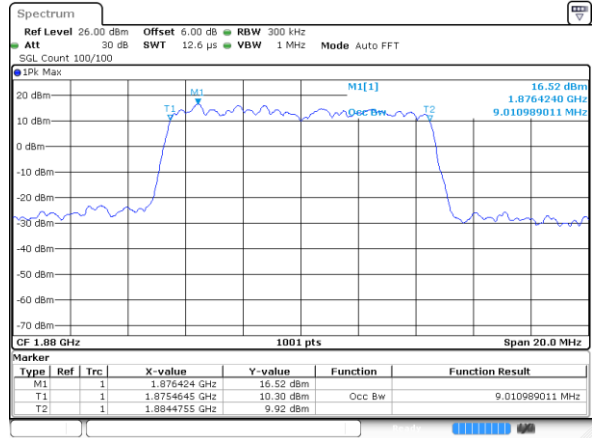
LTE Band 25

Middle Channel / 10MHz / QPSK



Date: 1.AUG.2023 21:45:35

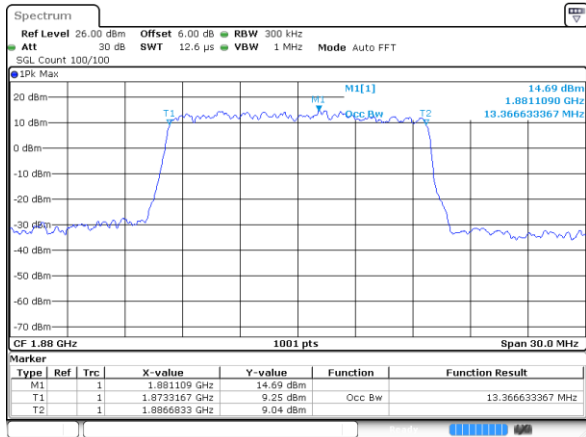
Middle Channel / 10MHz / 16QAM



Date: 1.AUG.2023 21:46:39

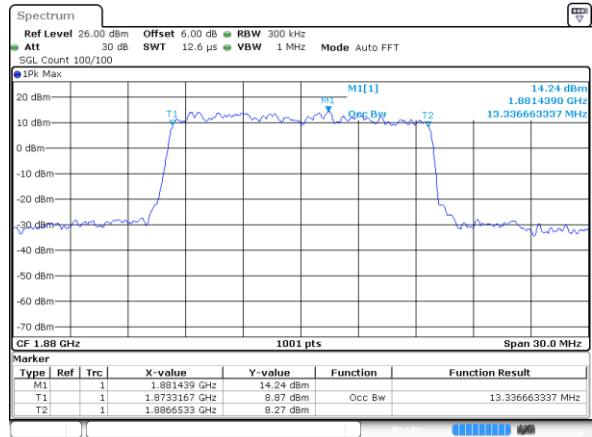
LTE Band 25

Middle Channel / 15MHz / QPSK



Date: 1.AUG.2023 21:44:08

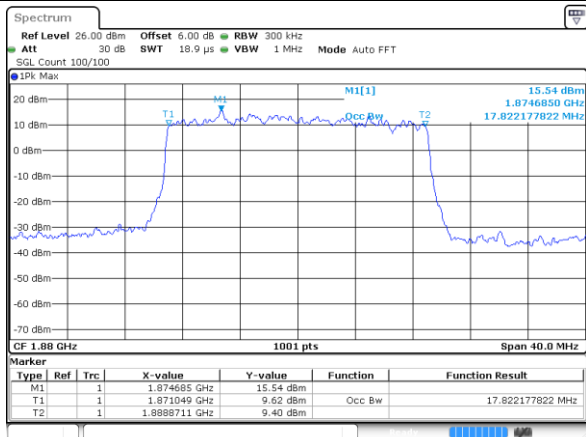
Middle Channel / 15MHz / 16QAM



Date: 1.AUG.2023 21:45:13

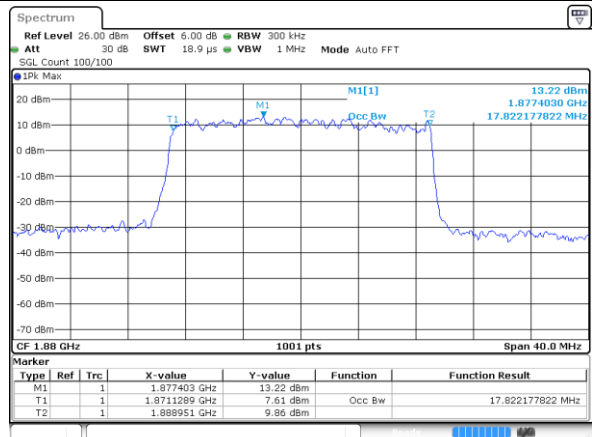
LTE Band 25

Middle Channel / 20MHz / QPSK



Date: 1.AUG.2023 21:23:59

Middle Channel / 20MHz / 16QAM



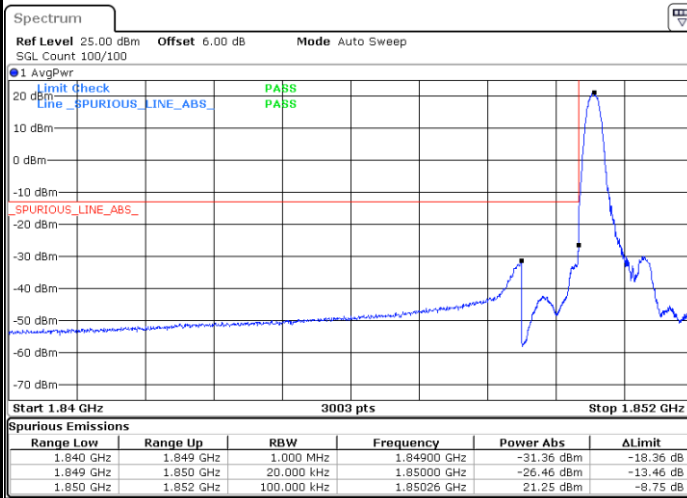
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# Conducted Band Edge

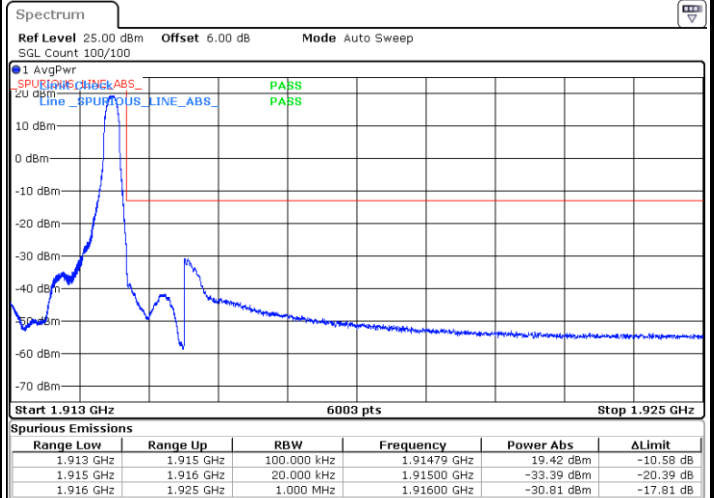
## LTE Band 25 / 1.4MHz / QPSK

### Lowest Band Edge / 1RB



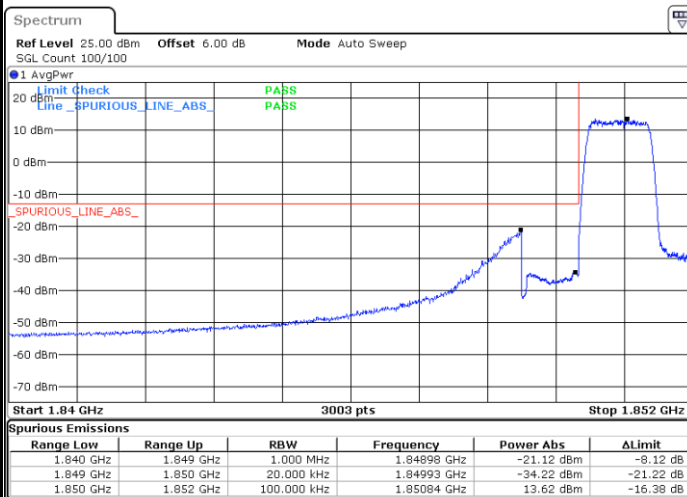
Date: 1 AUG 2023 17:50:07

### Highest Band Edge / 1RB



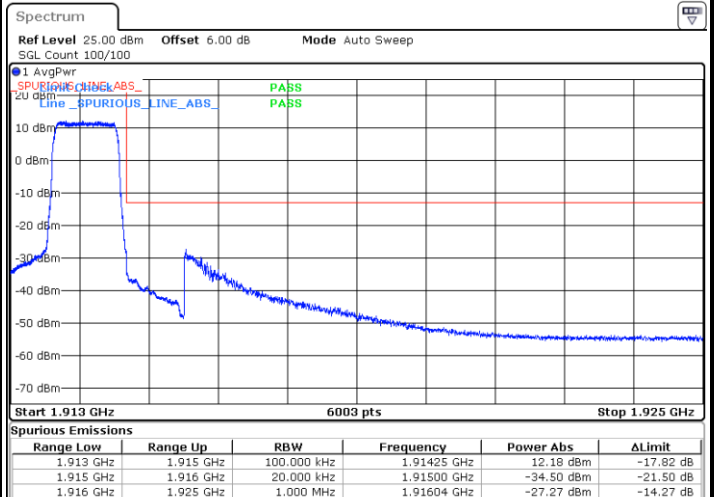
Date: 1 AUG 2023 18:09:14

### Lowest Band Edge / Full RB



Date: 1 AUG 2023 17:59:18

### Highest Band Edge / Full RB

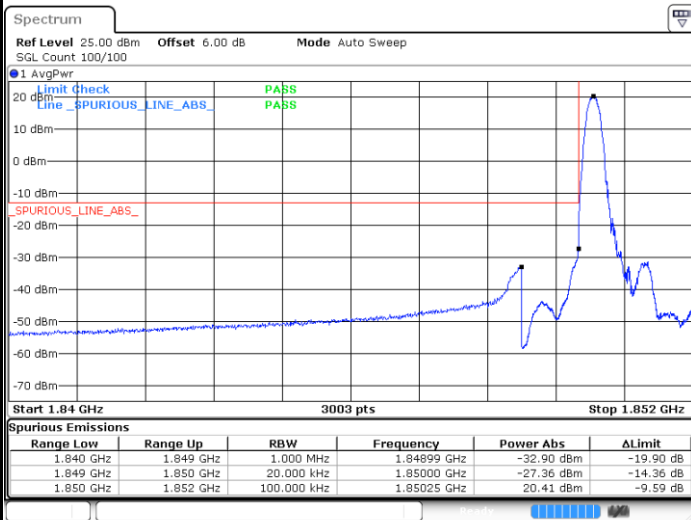


Date: 1 AUG 2023 18:24:18



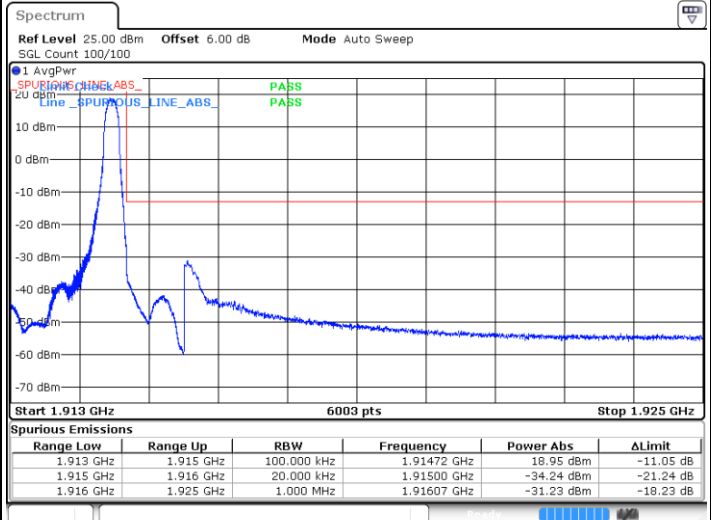
LTE Band 25 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



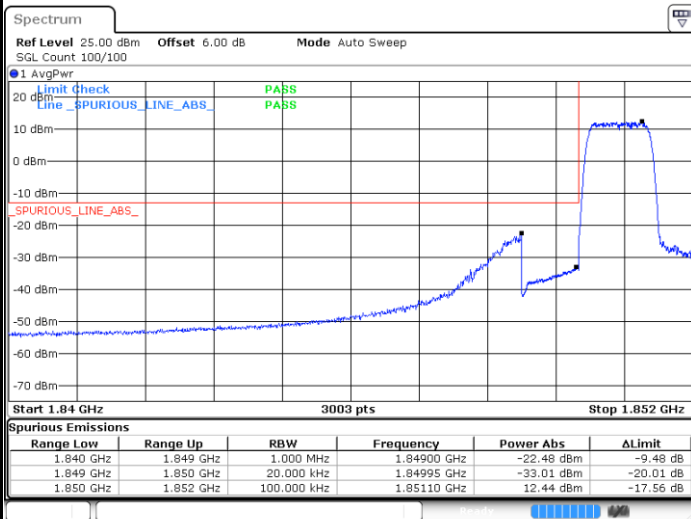
Date: 1 AUG 2023 17:53:47

Highest Band Edge / 1 RB



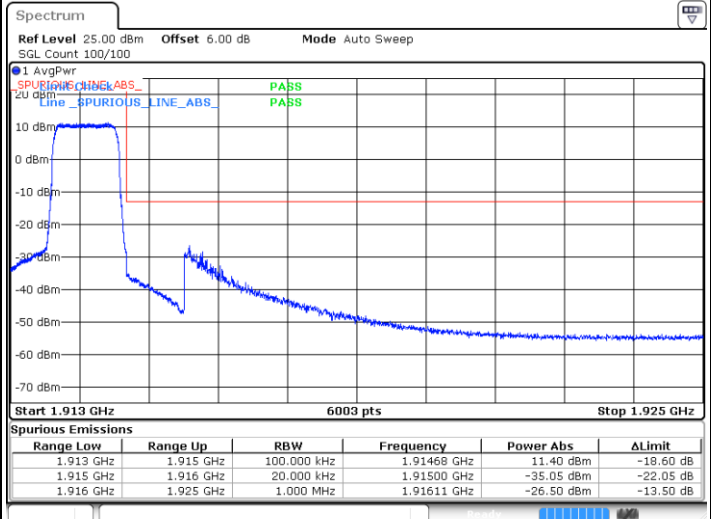
Date: 1 AUG 2023 18:22:31

Lowest Band Edge / Full RB



Date: 1 AUG 2023 18:01:04

Highest Band Edge / Full RB

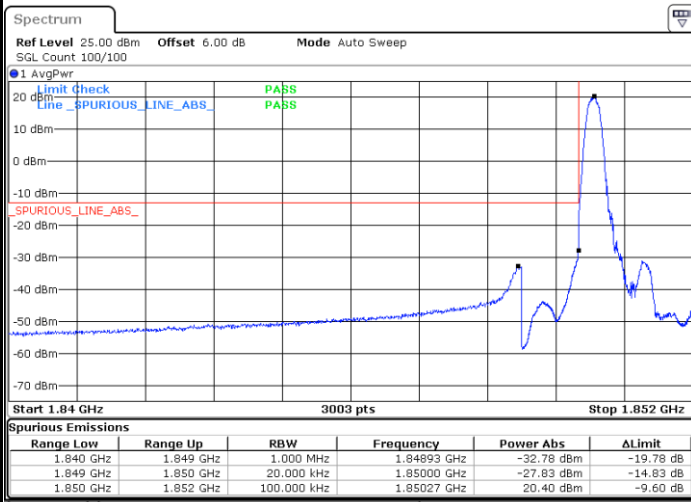


Date: 1 AUG 2023 18:26:04



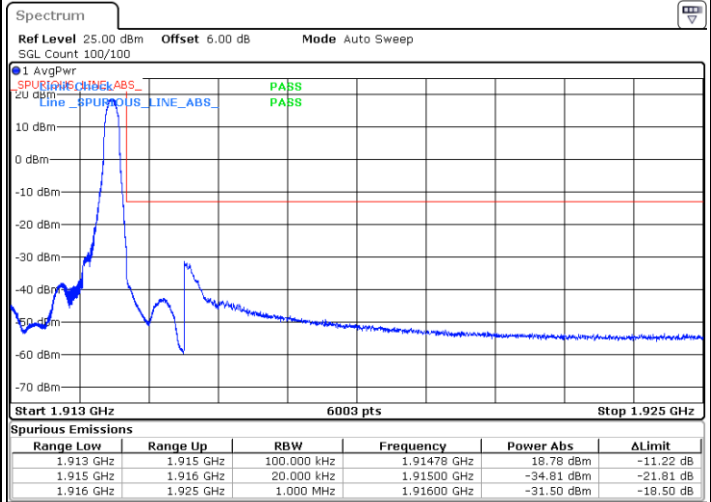
LTE Band 25 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



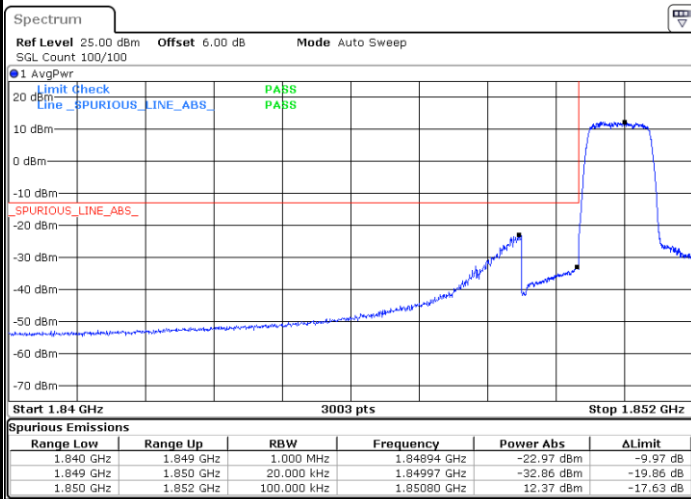
Date: 1 AUG 2023 17:55:32

Highest Band Edge / 1 RB



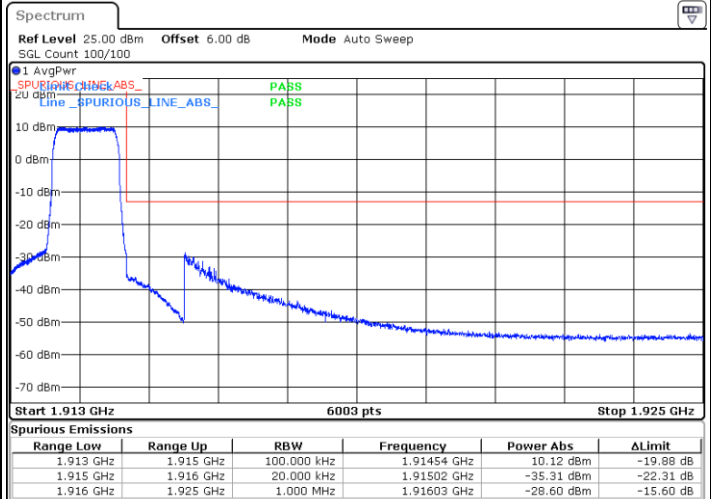
Date: 1 AUG 2023 18:12:44

Lowest Band Edge / Full RB



Date: 1 AUG 2023 18:02:48

Highest Band Edge / Full RB

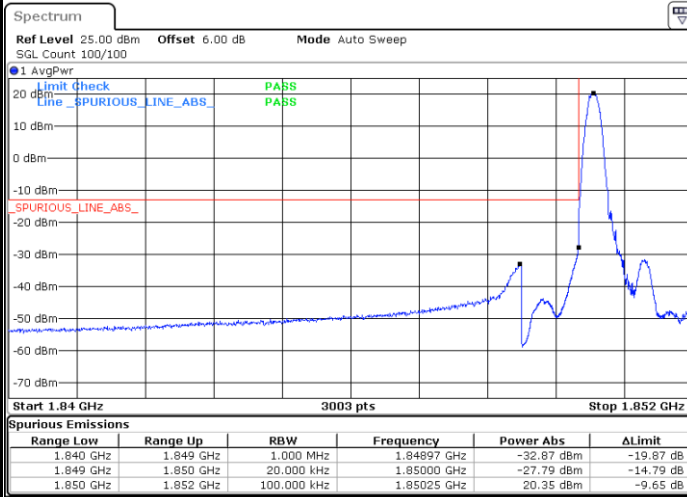


Date: 1 AUG 2023 18:27:49



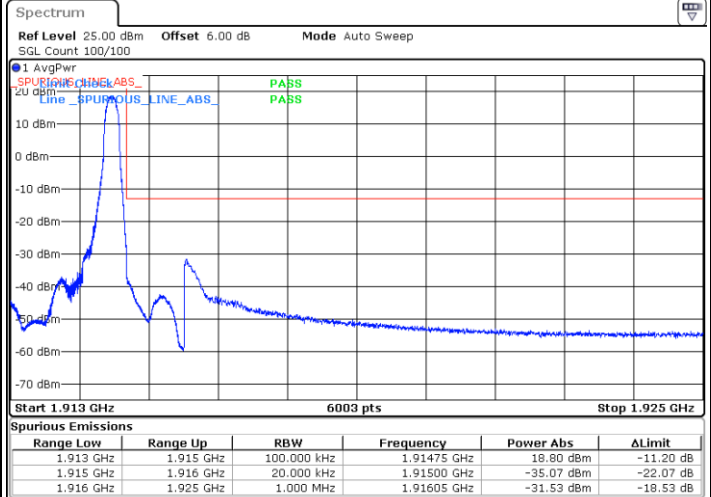
LTE Band 25 / 1.4MHz / 256QAM

Lowest Band Edge / 1 RB



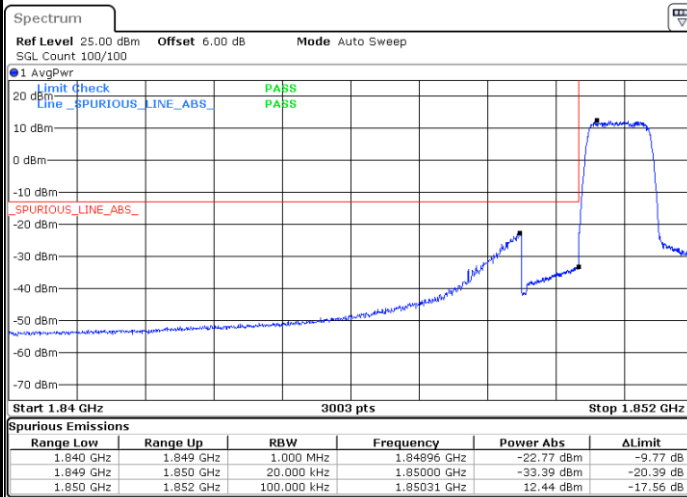
Date: 1 AUG 2023 17:57:17

Highest Band Edge / 1 RB



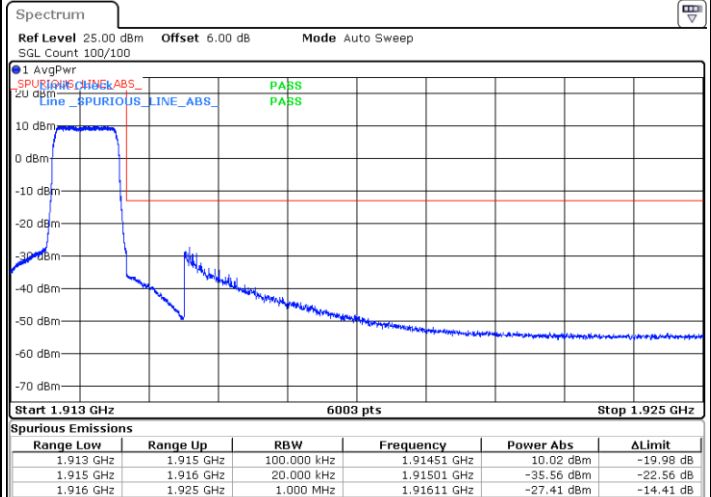
Date: 1 AUG 2023 18:14:29

Lowest Band Edge / Full RB



Date: 1 AUG 2023 18:04:33

Highest Band Edge / Full RB

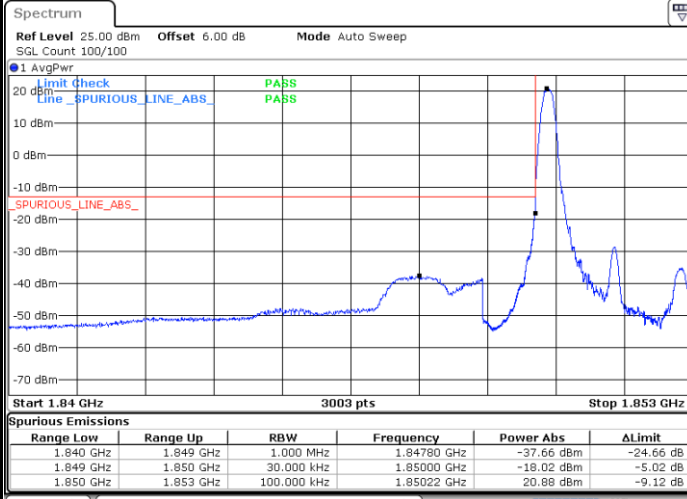


Date: 1 AUG 2023 18:29:36



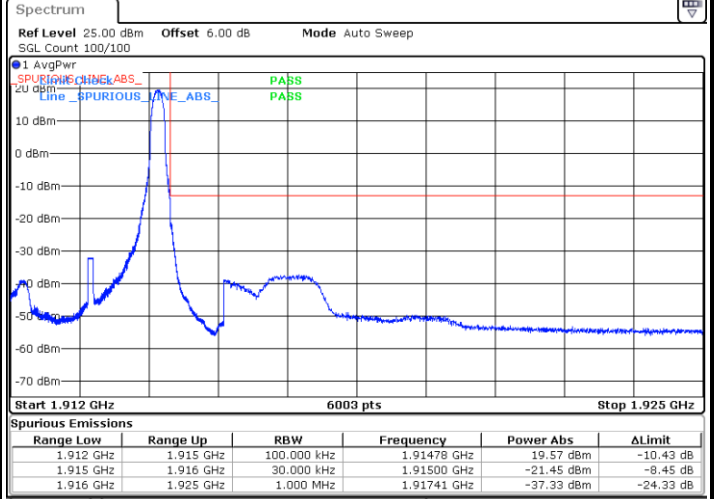
LTE Band 25 / 3MHz / QPSK

Lowest Band Edge / 1RB



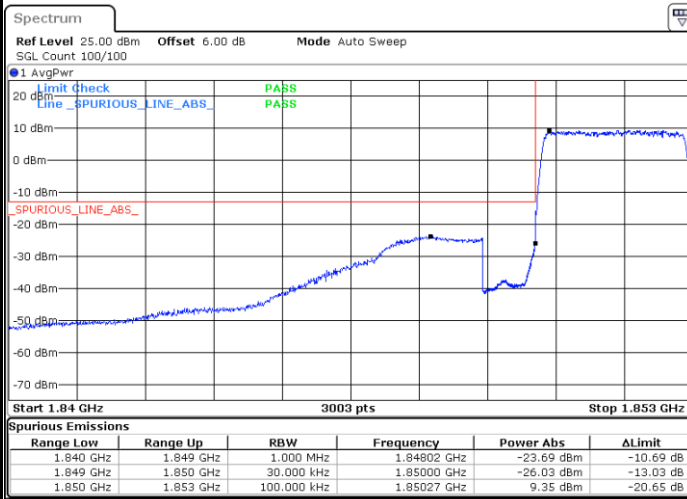
Date: 1 AUG 2023 18:41:35

Highest Band Edge / 1 RB



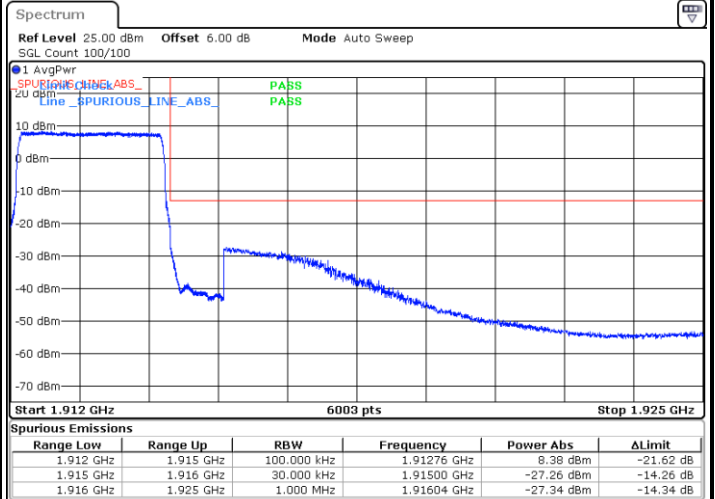
Date: 1 AUG 2023 18:51:16

Lowest Band Edge / Full RB



Date: 1 AUG 2023 18:31:21

Highest Band Edge / Full RB



Date: 1 AUG 2023 18:59:37