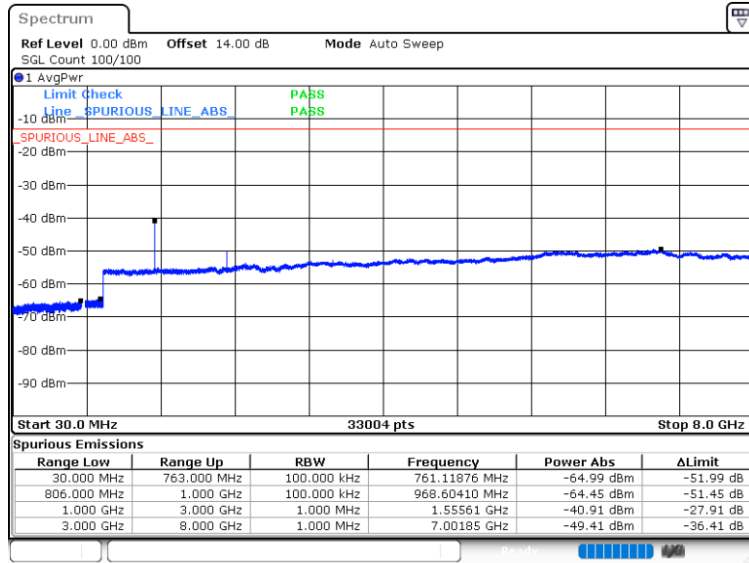




LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 29.SEP.2023 15:01:02



### 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	0.0003	PASS
40	Normal Voltage	0.0043	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0050	
-10	Normal Voltage	0.0043	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

**Note:**

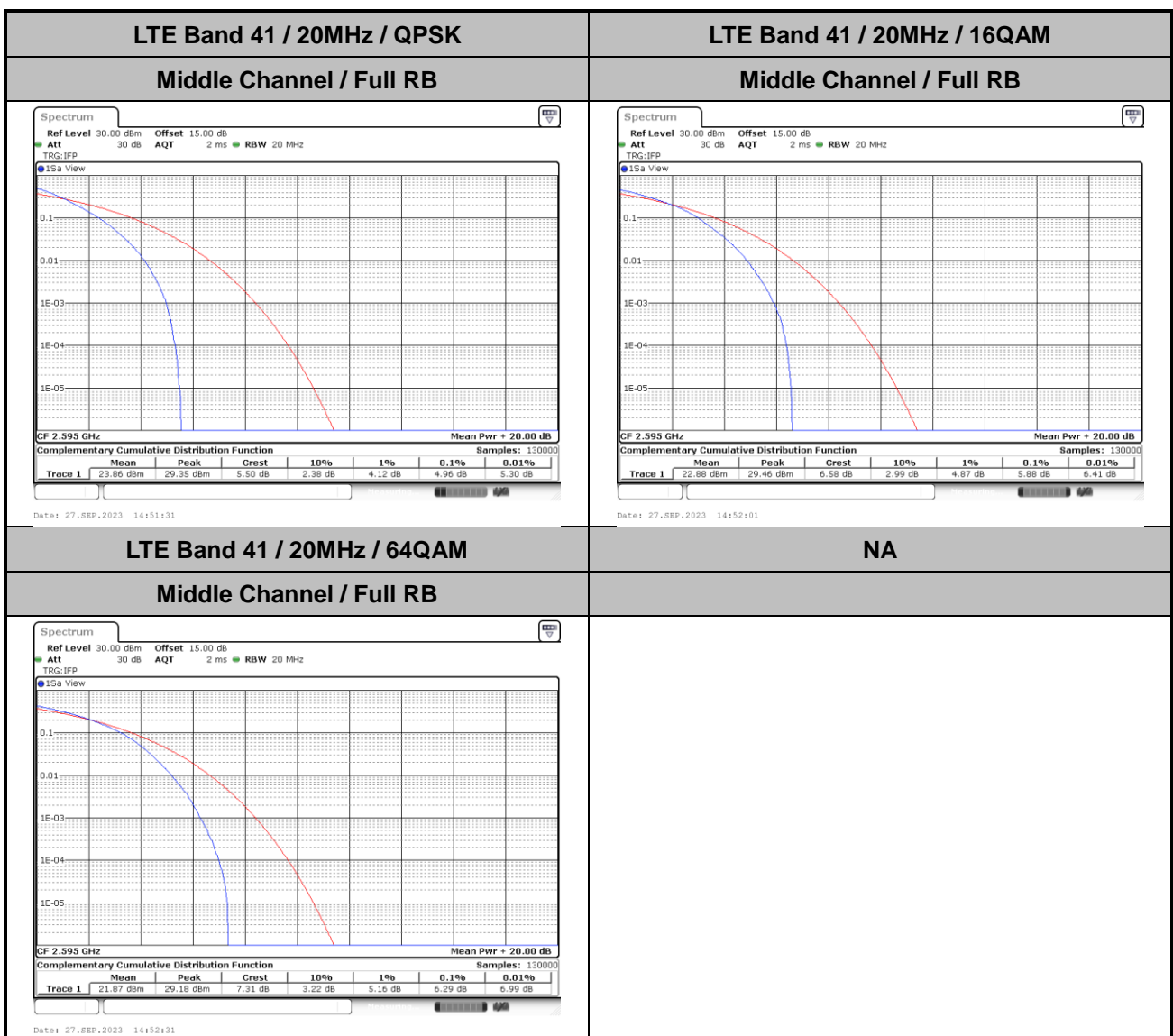
1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 41

## Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.96	5.88	6.29	PASS

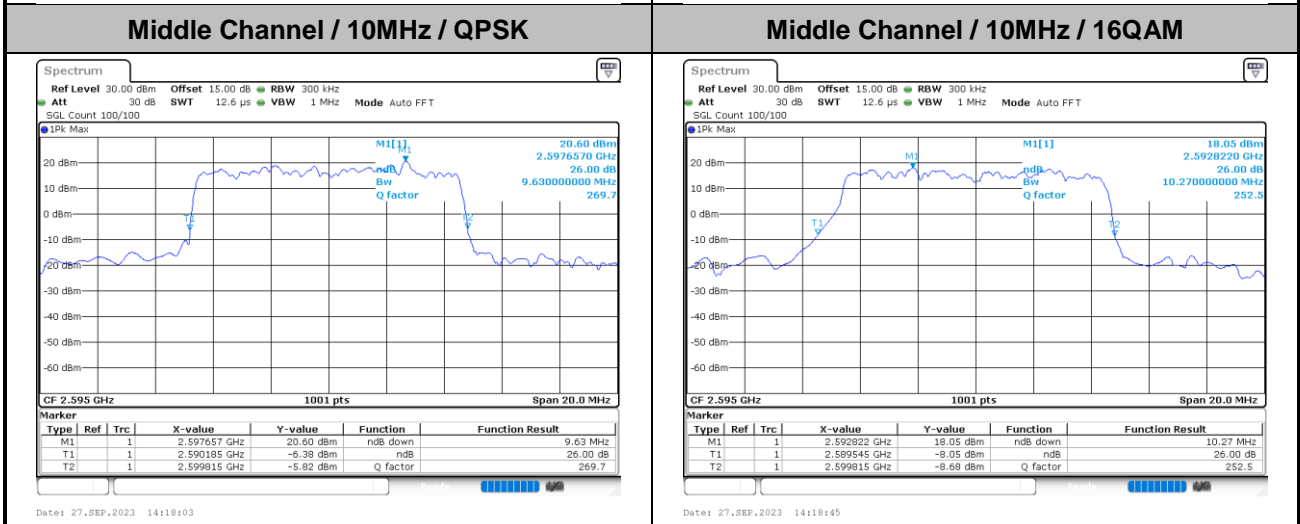
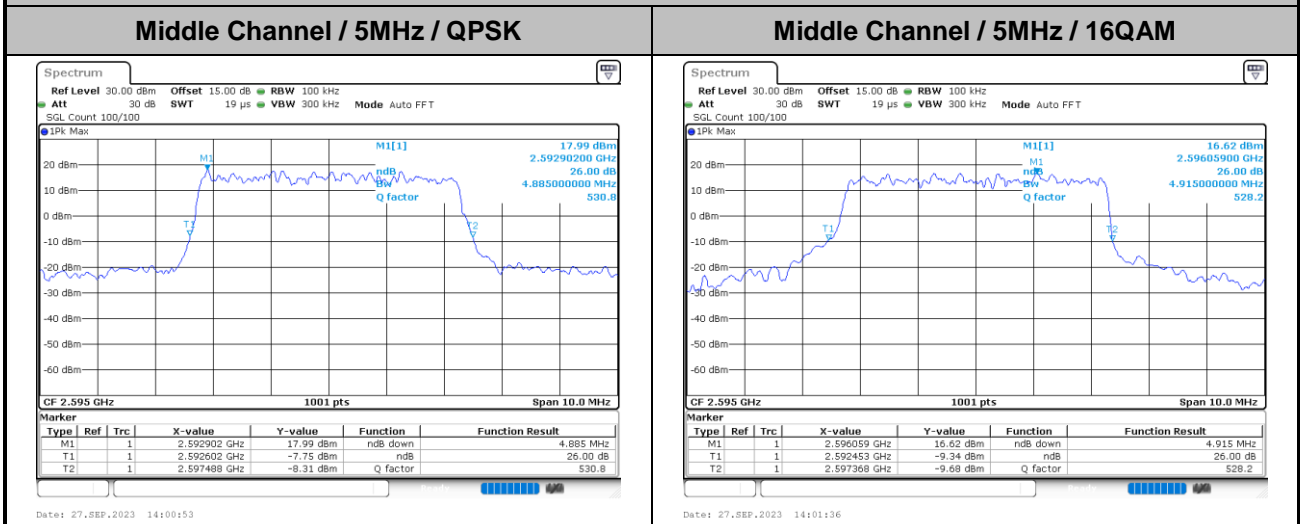




# 26dB Bandwidth

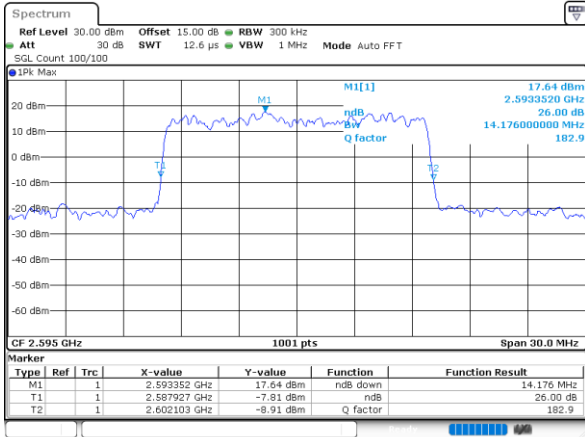
Mode	LTE Band 41 : 26dB BW(MHz)											
	-				5MHz		10MHz		15MHz		20MHz	
BW	-	-	-	-	5MHz	10MHz	10MHz	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	-	-	-	-	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.89	4.92	9.63	10.27	14.18	14.33	18.94	18.70

## LTE Band 41



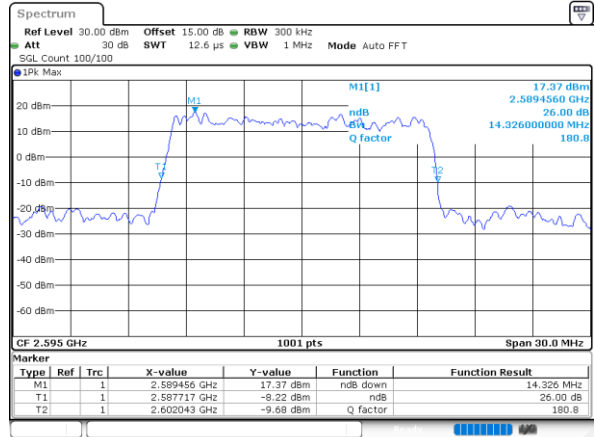


Middle Channel / 15MHz / QPSK



Date: 27\_SEP.2023 14:34:11

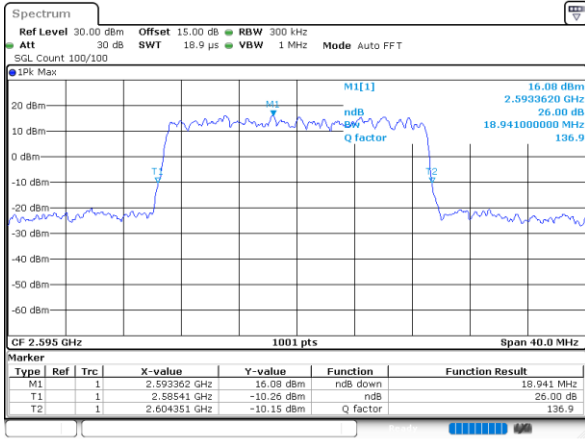
Middle Channel / 15MHz / 16QAM



Date: 27\_SEP.2023 14:34:53

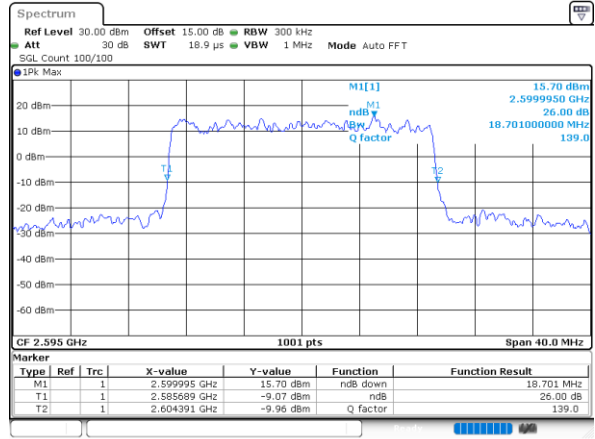
LTE Band 41

Middle Channel / 20MHz / QPSK



Date: 27\_SEP.2023 14:50:19

Middle Channel / 20MHz / 16QAM

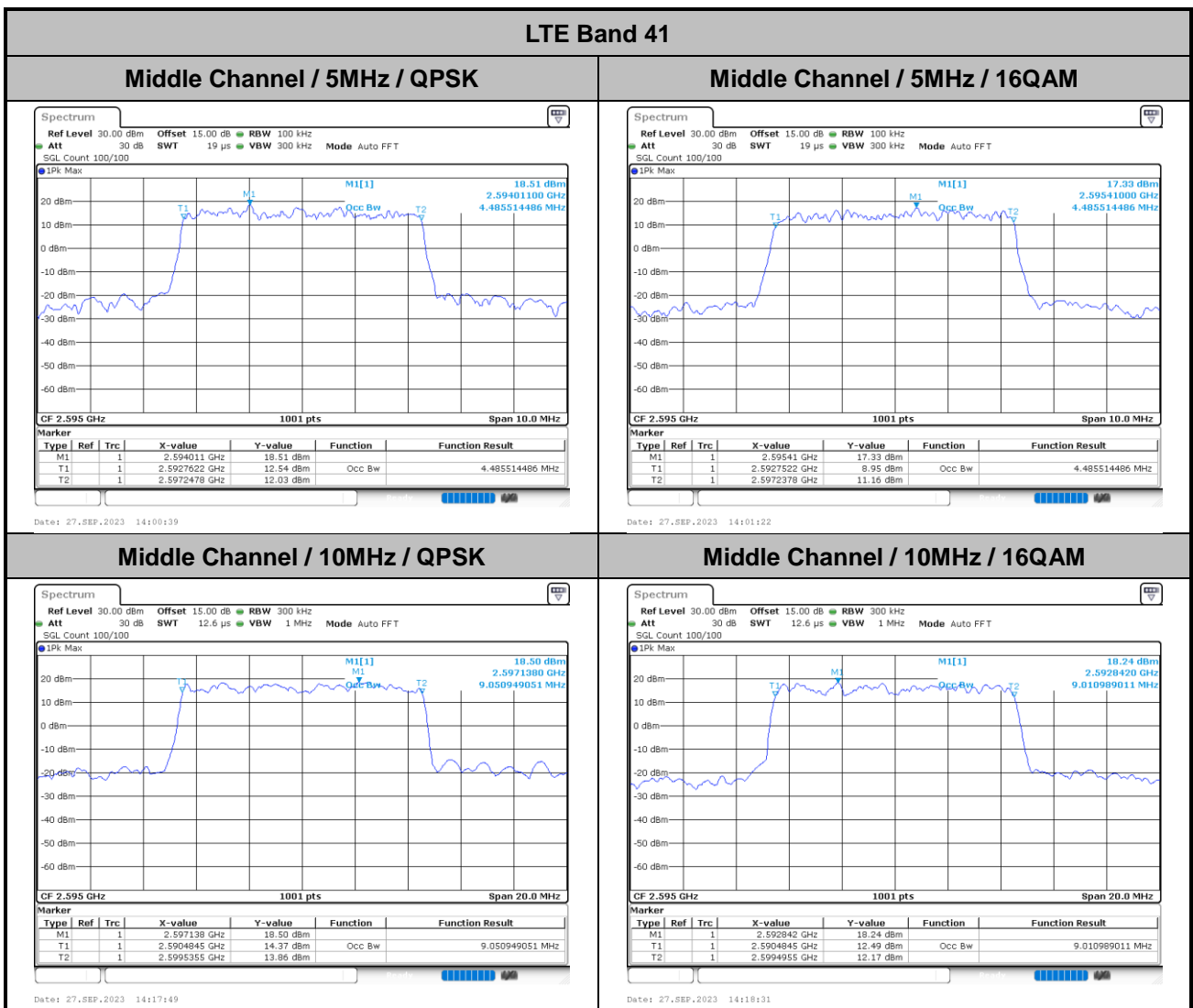


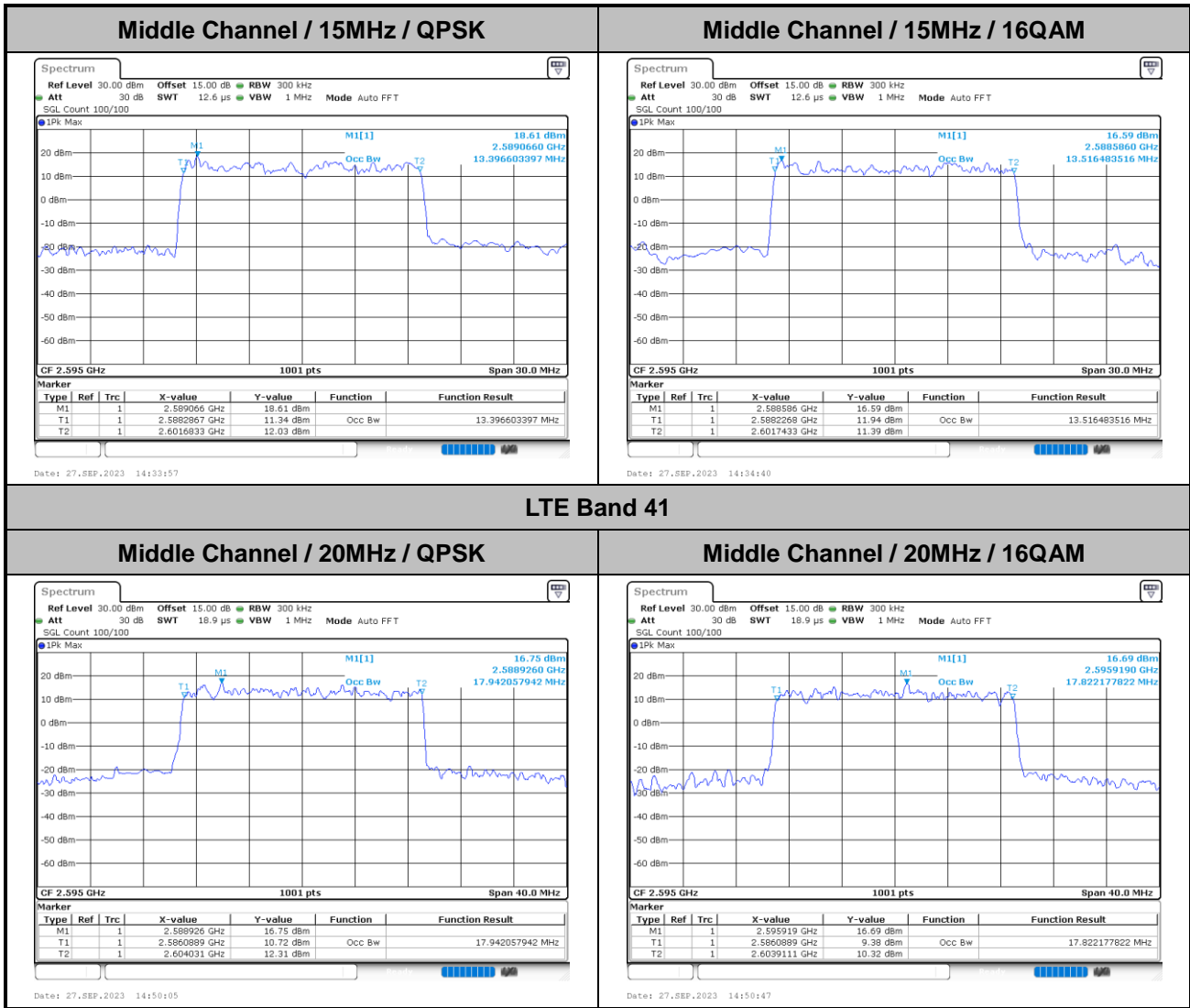
Date: 27\_SEP.2023 14:51:01



# Occupied Bandwidth

Mode	LTE Band 41 : 99%OBW(MHz)											
	BW		-		5MHz		10MHz		15MHz		20MHz	
Mod.	-	-	-	-	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.49	9.05	9.01	13.40	13.52	17.94	17.82





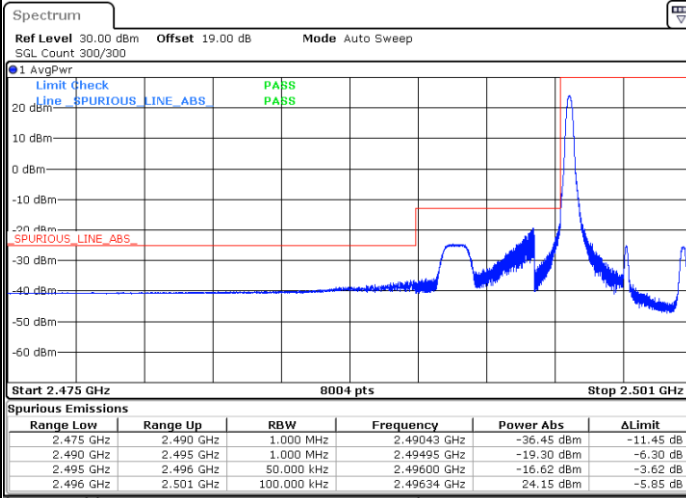
LTE Band 41



# Conducted Band Edge

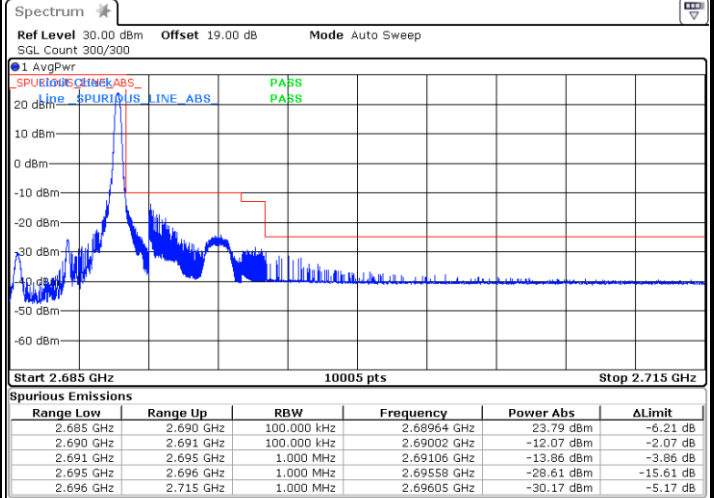
## LTE Band 41 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



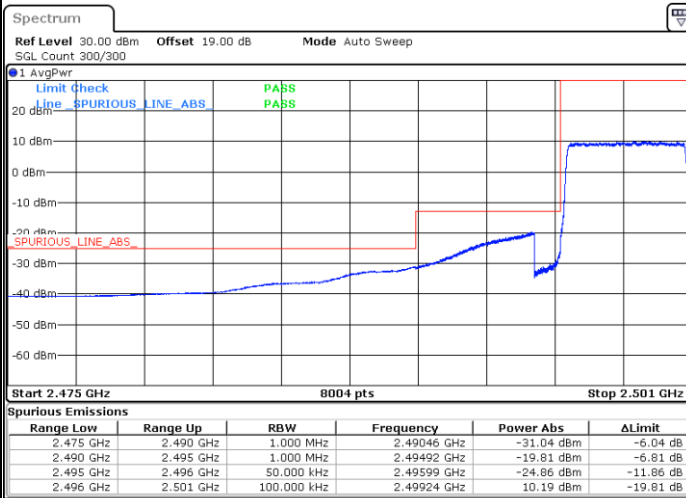
Date: 26 SEP 2023 13:33:48

### Highest Band Edge / 1 RB



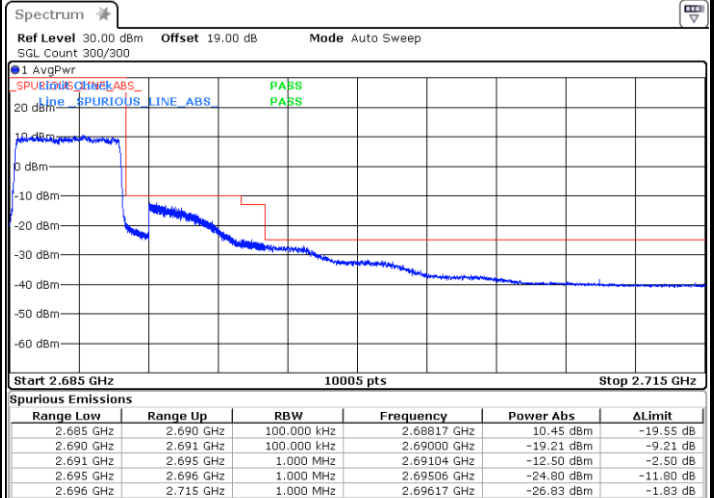
Date: 26 SEP 2023 15:49:19

### Lowest Band Edge / Full RB



Date: 26 SEP 2023 13:42:57

### Highest Band Edge / Full RB



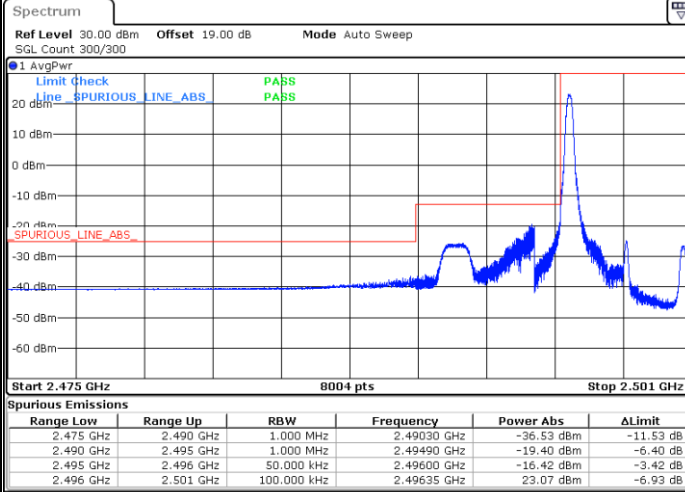
Date: 26 SEP 2023 14:20:59





LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



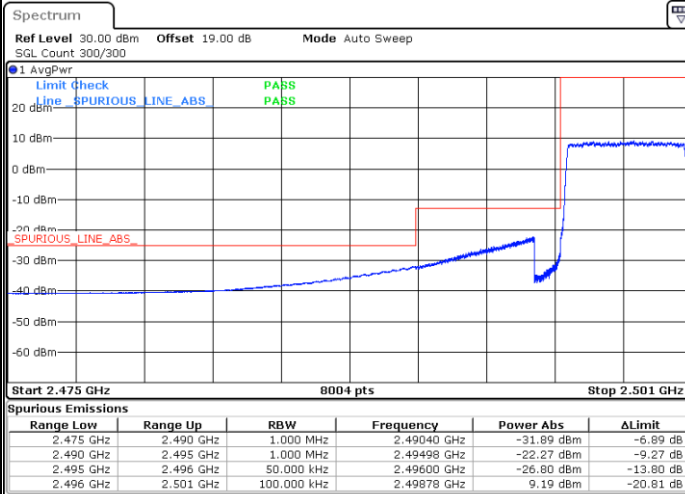
Date: 26 SEP 2023 13:35:38

Highest Band Edge / 1 RB



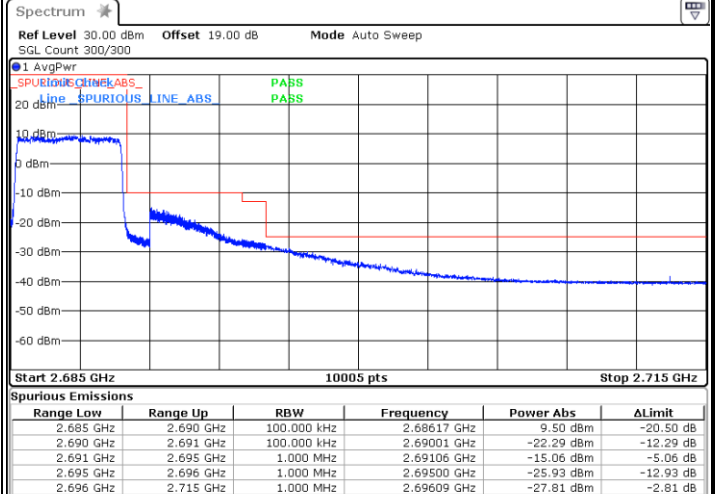
Date: 26 SEP 2023 14:13:42

Lowest Band Edge / Full RB



Date: 26 SEP 2023 13:41:08

Highest Band Edge / Full RB

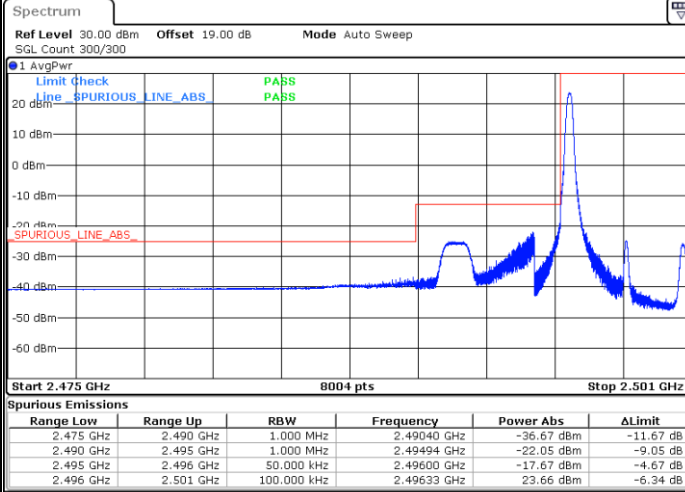


Date: 26 SEP 2023 14:19:09



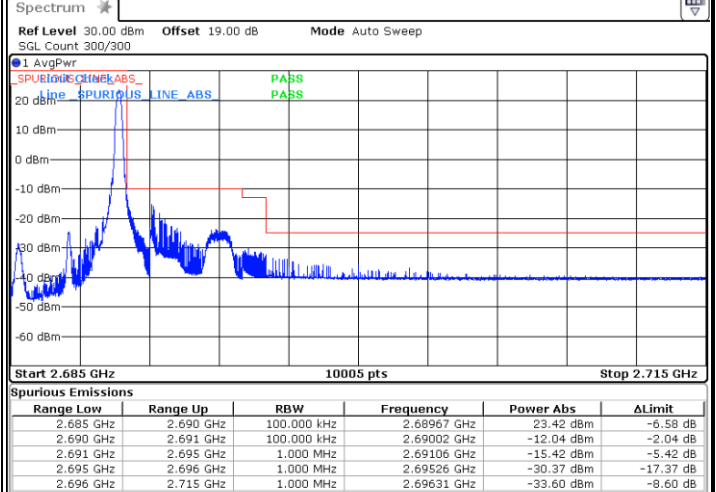
LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB



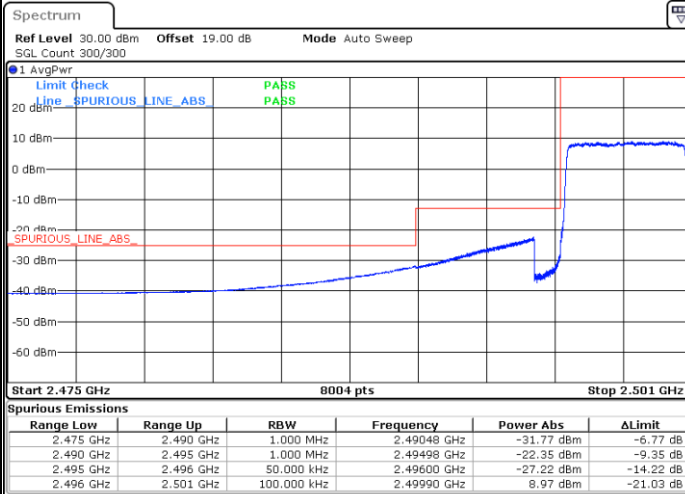
Date: 26 SEP 2023 13:37:28

Highest Band Edge / 1 RB



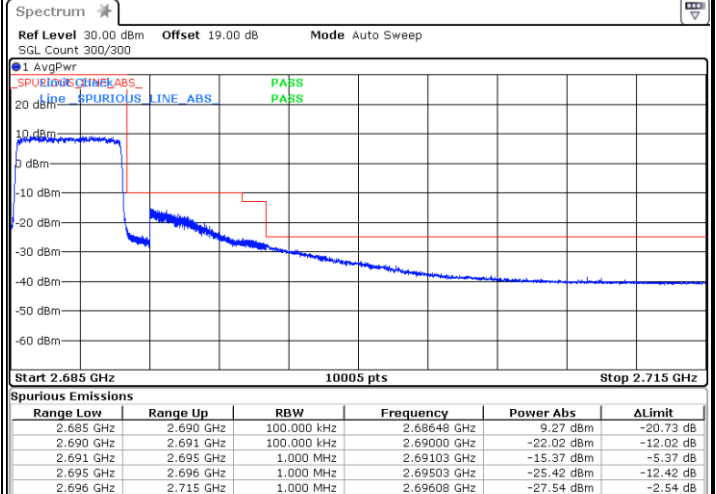
Date: 26 SEP 2023 14:15:31

Lowest Band Edge / Full RB



Date: 26 SEP 2023 13:39:18

Highest Band Edge / Full RB

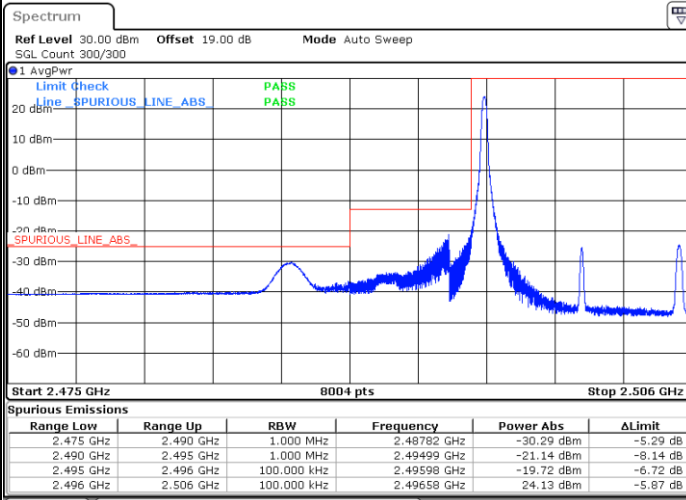


Date: 26 SEP 2023 14:17:20



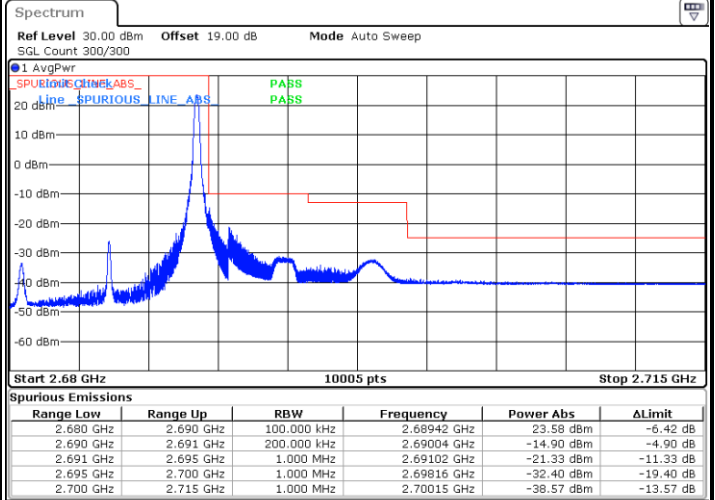
LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB



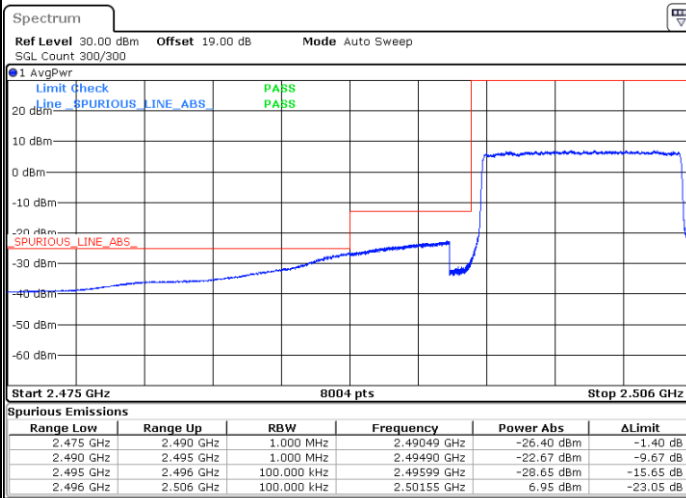
Date: 26 SEP 2023 14:24:09

Highest Band Edge / 1 RB



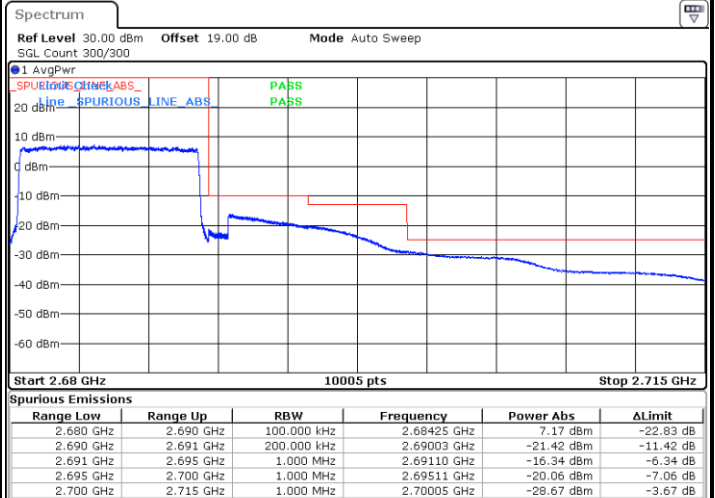
Date: 26 SEP 2023 14:39:09

Lowest Band Edge / Full RB



Date: 26 SEP 2023 14:33:18

Highest Band Edge / Full RB

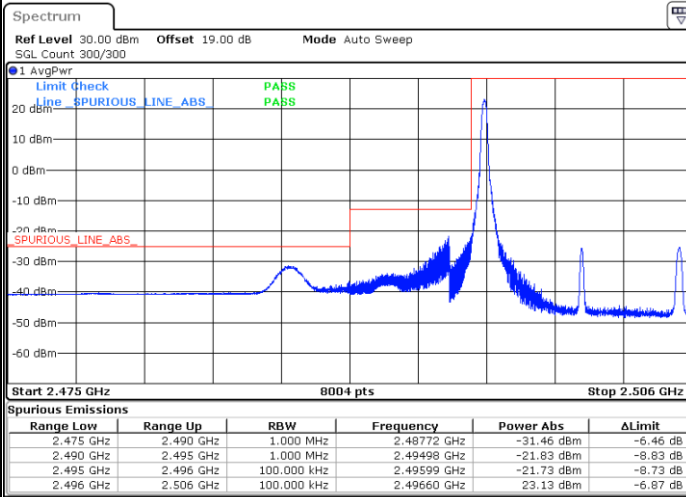


Date: 26 SEP 2023 14:48:16



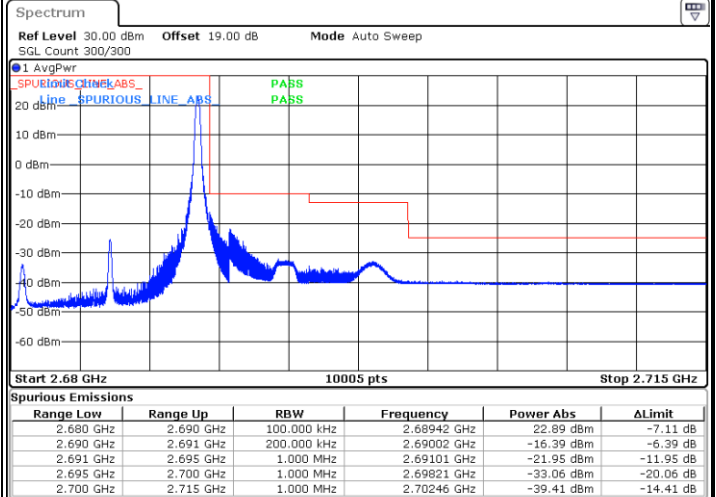
LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1RB



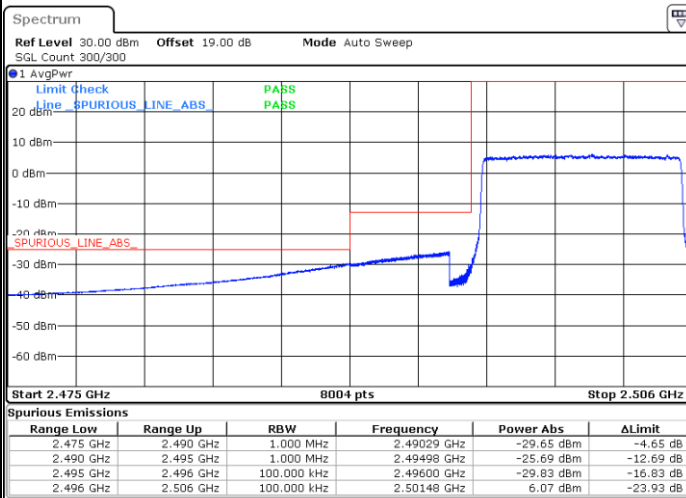
Date: 26 SEP 2023 14:25:59

Highest Band Edge / 1 RB



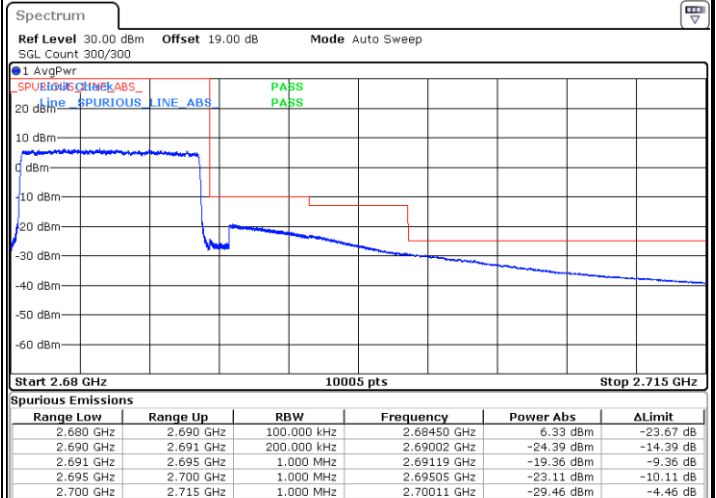
Date: 26 SEP 2023 14:40:58

Lowest Band Edge / Full RB



Date: 26 SEP 2023 14:31:28

Highest Band Edge / Full RB

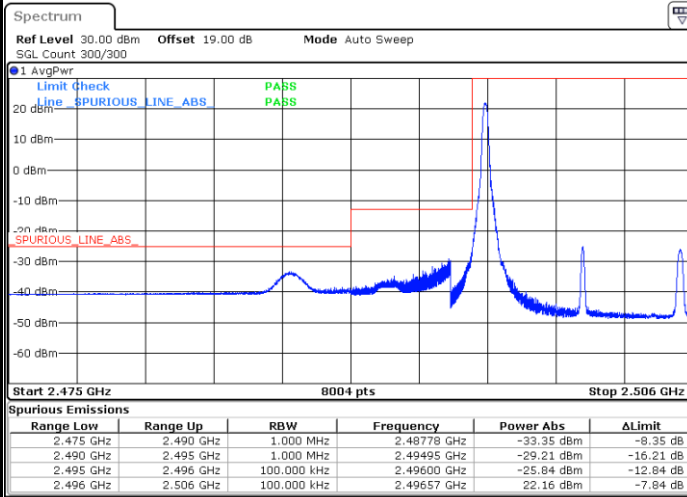


Date: 26 SEP 2023 14:46:26



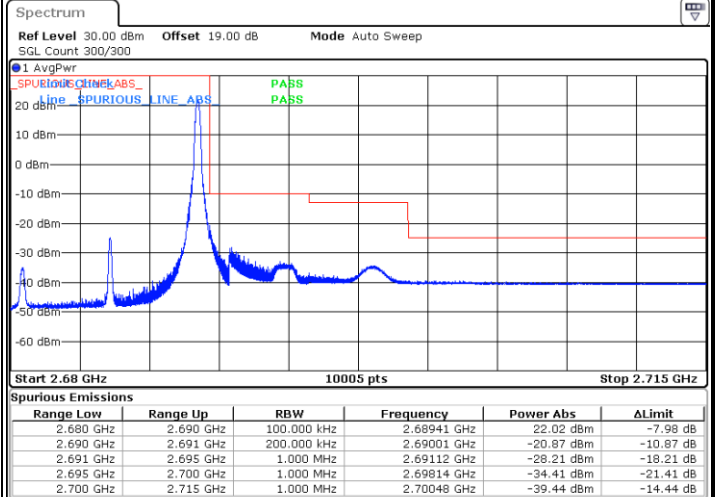
LTE Band 41 / 10MHz / 64QAM

Lowest Band Edge / 1RB



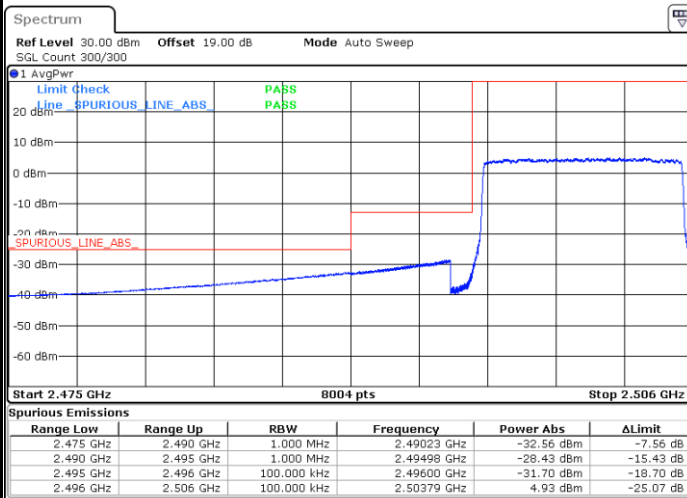
Date: 26 SEP 2023 14:27:49

Highest Band Edge / 1 RB



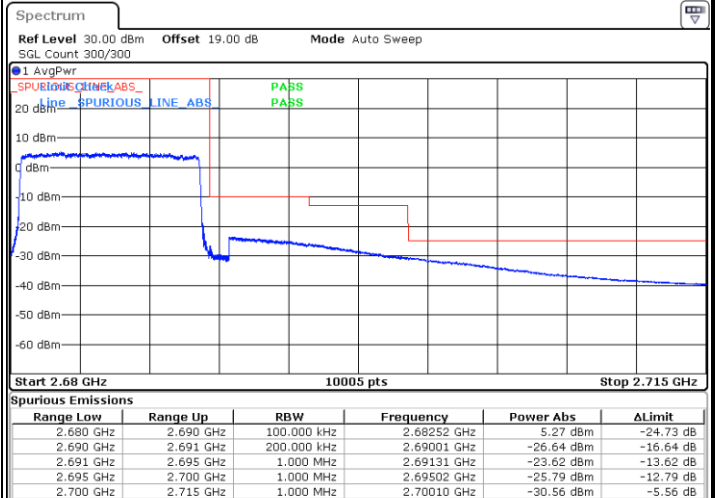
Date: 26 SEP 2023 14:42:48

Lowest Band Edge / Full RB



Date: 26 SEP 2023 14:29:38

Highest Band Edge / Full RB

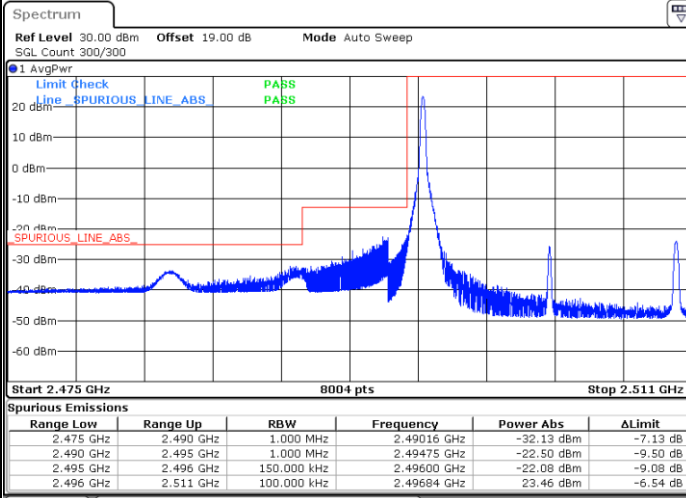


Date: 26 SEP 2023 14:44:37



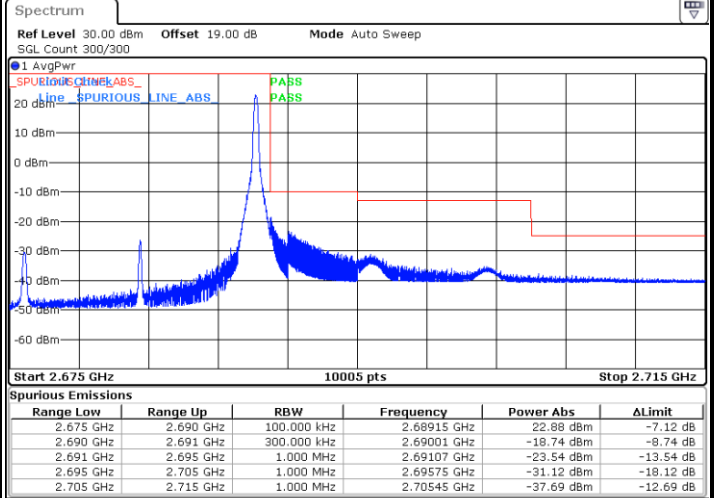
LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB



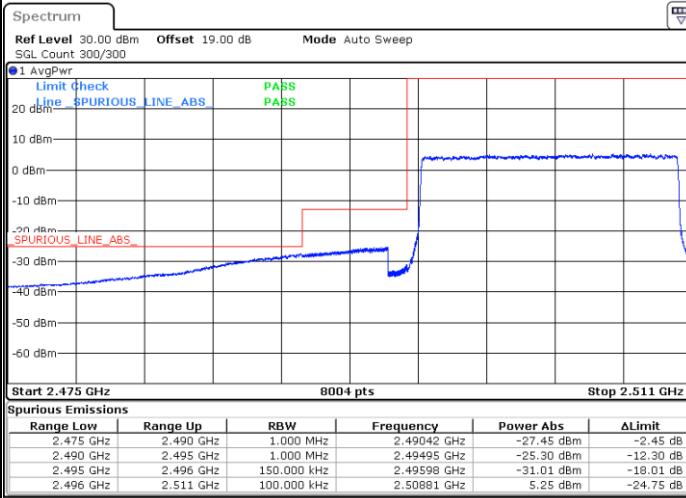
Date: 26 SEP. 2023 14:51:26

Highest Band Edge / 1 RB



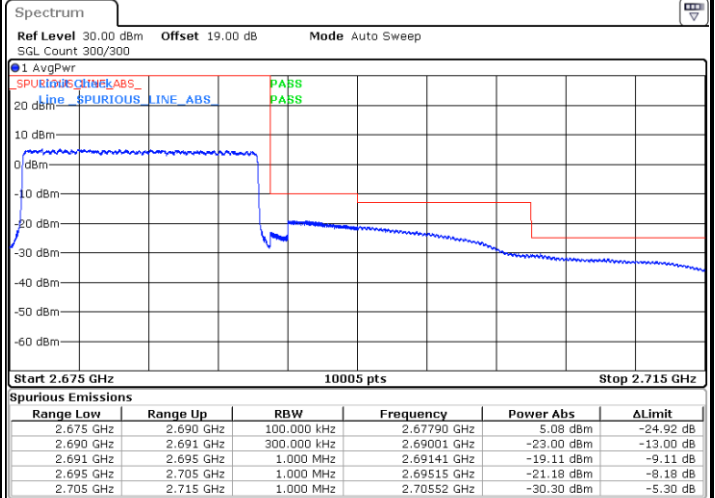
Date: 26 SEP. 2023 15:06:29

Lowest Band Edge / Full RB



Date: 26 SEP. 2023 15:00:34

Highest Band Edge / Full RB

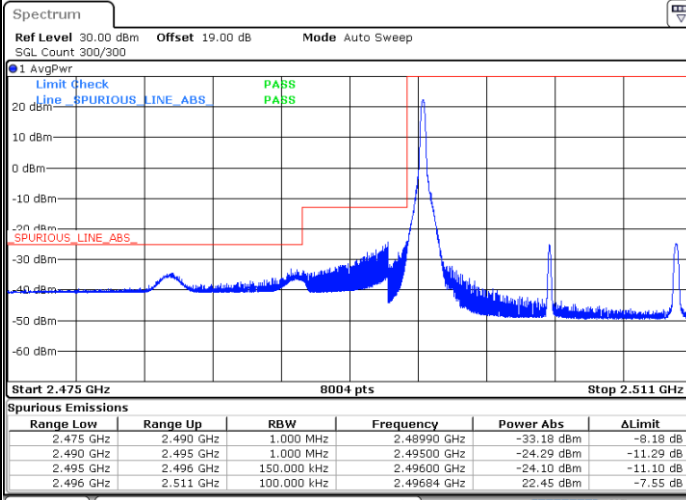


Date: 26 SEP. 2023 15:15:53



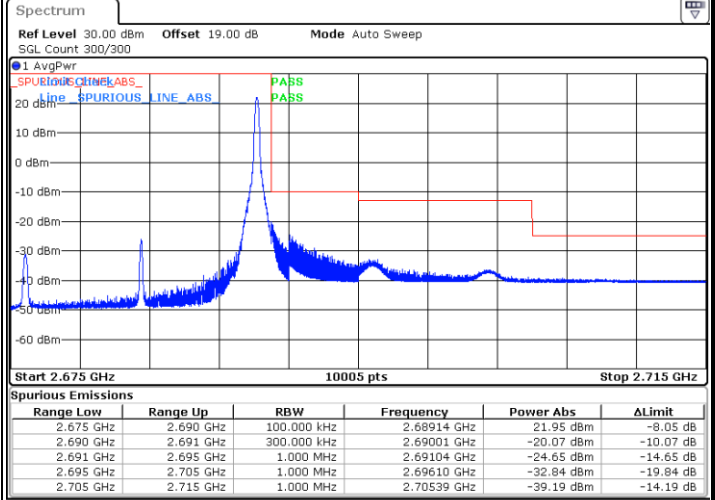
LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1RB



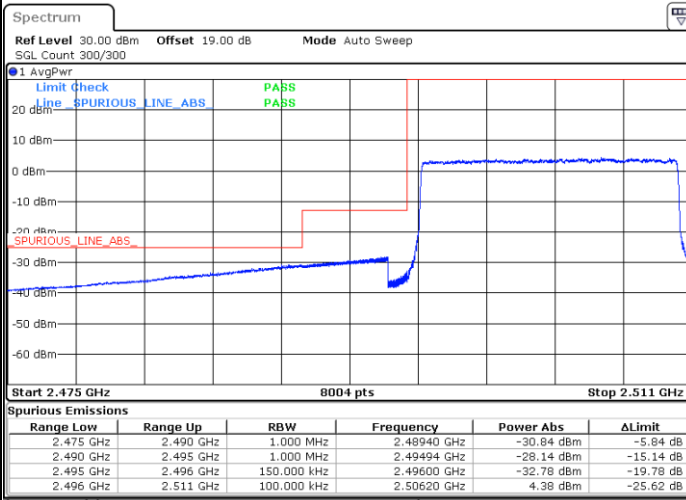
Date: 26 SEP 2023 14:53:15

Highest Band Edge / 1 RB



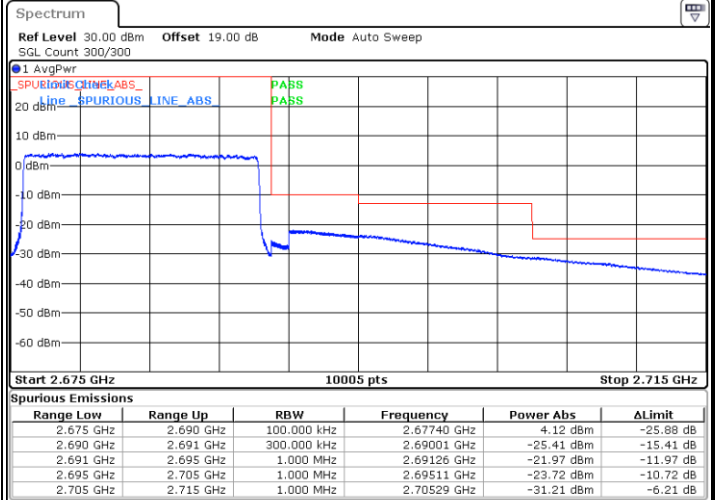
Date: 26 SEP 2023 15:08:22

Lowest Band Edge / Full RB



Date: 26 SEP 2023 14:58:44

Highest Band Edge / Full RB

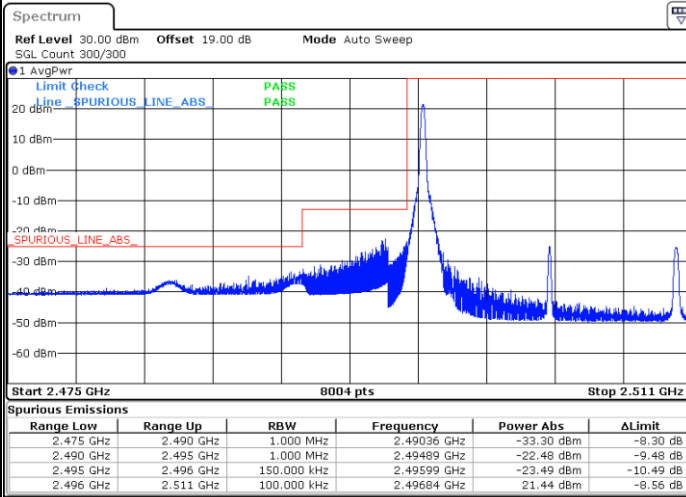


Date: 26 SEP 2023 15:14:00



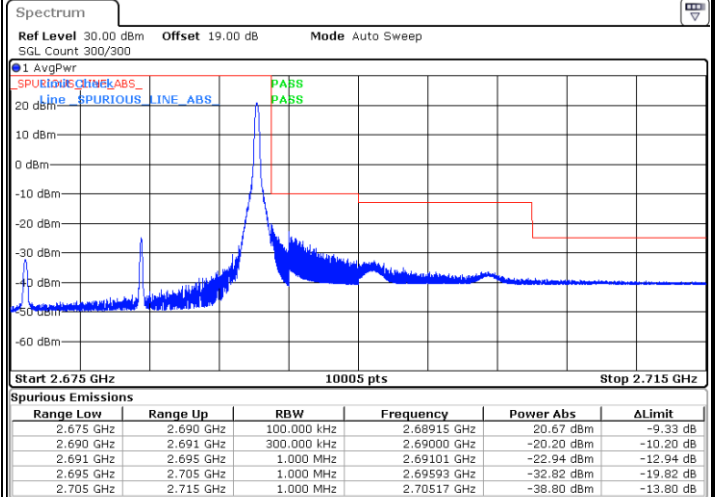
LTE Band 41 / 15MHz / 64QAM

Lowest Band Edge / 1RB



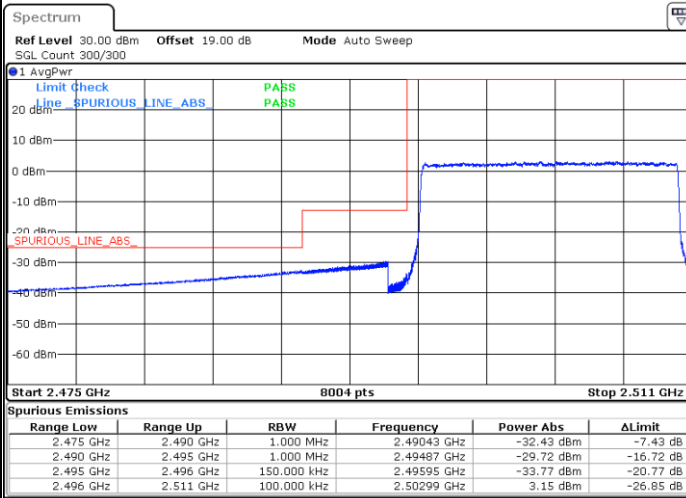
Date: 26 SEP 2023 14:55:05

Highest Band Edge / 1 RB



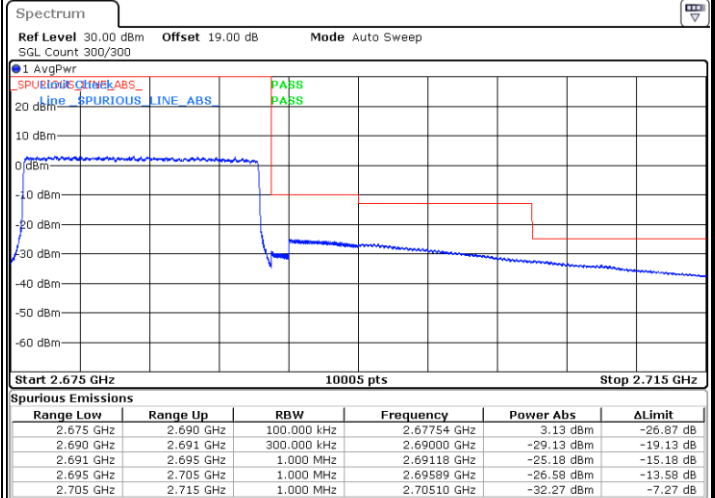
Date: 26 SEP 2023 15:10:14

Lowest Band Edge / Full RB



Date: 26 SEP 2023 14:56:55

Highest Band Edge / Full RB



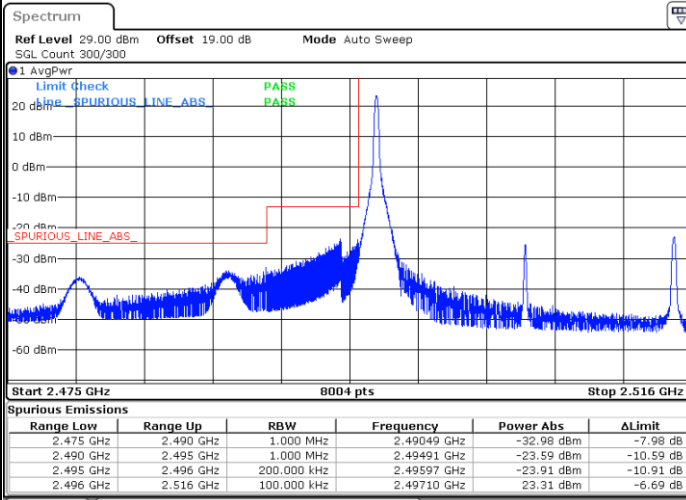
Date: 26 SEP 2023 15:12:07





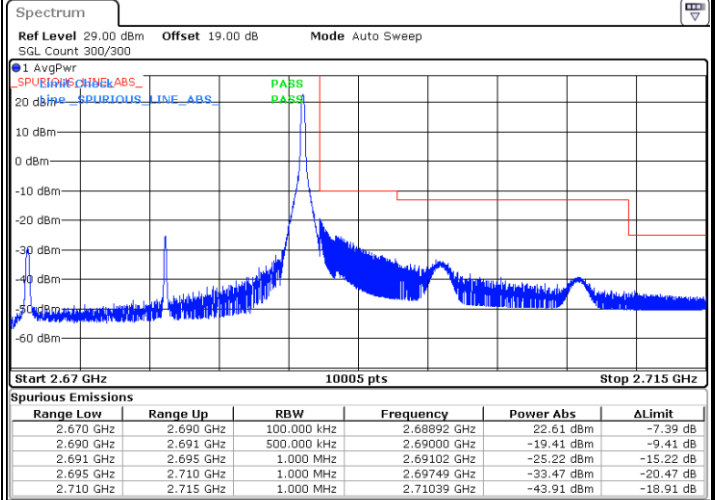
LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB



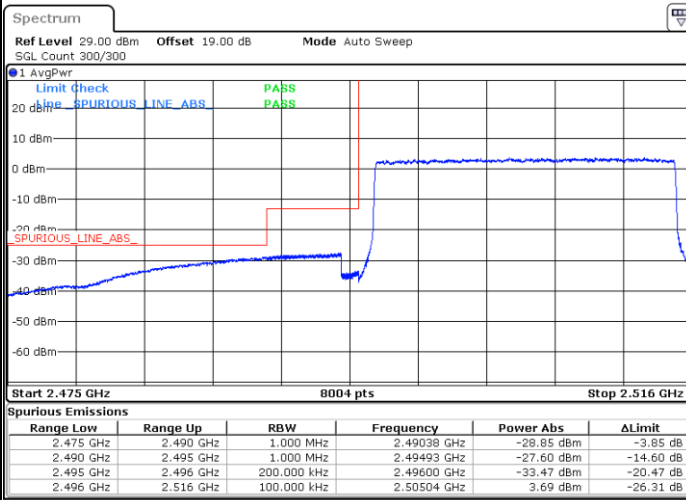
Date: 26 SEP 2023 15:19:04

Highest Band Edge / 1 RB



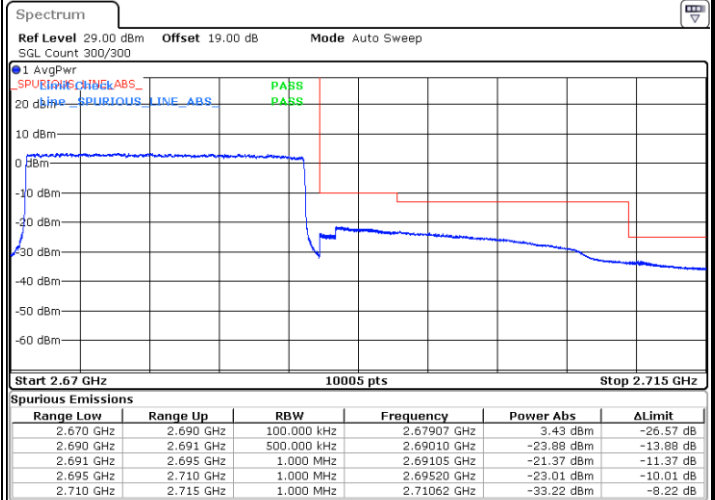
Date: 26 SEP 2023 15:35:38

Lowest Band Edge / Full RB



Date: 26 SEP 2023 15:28:11

Highest Band Edge / Full RB

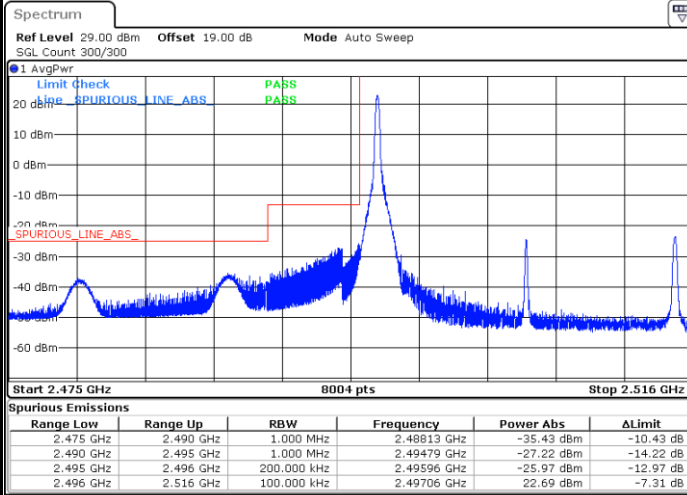


Date: 26 SEP 2023 15:45:06



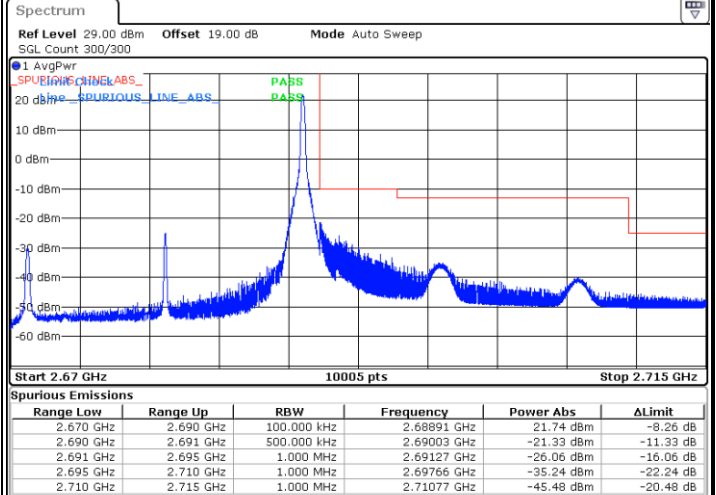
LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1RB



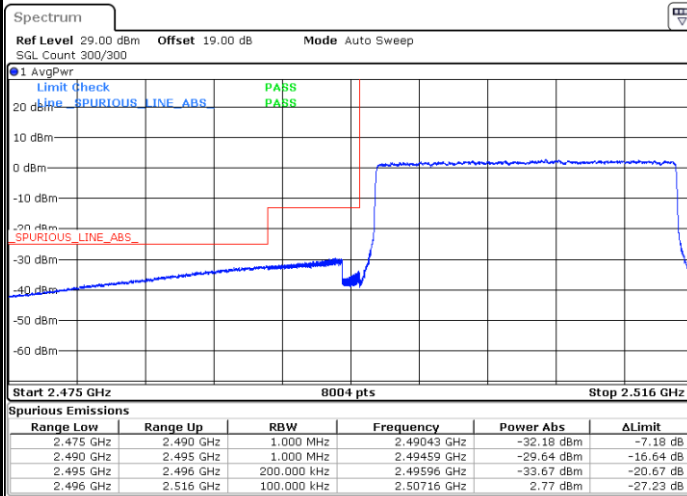
Date: 26 SEP 2023 15:20:53

Highest Band Edge / 1 RB



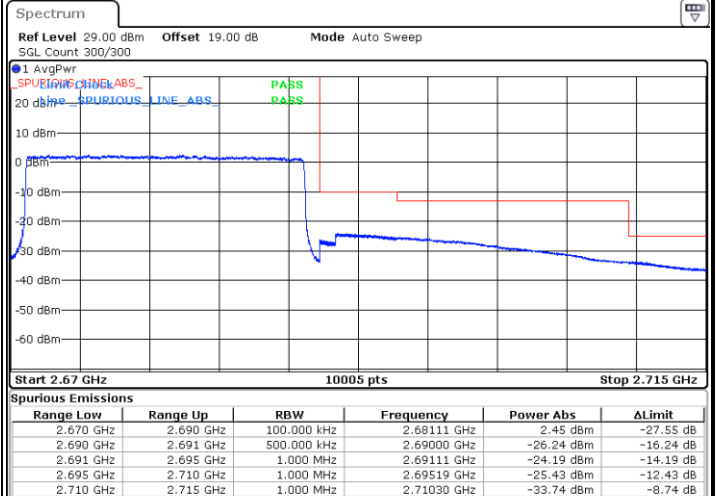
Date: 26 SEP 2023 15:37:31

Lowest Band Edge / Full RB



Date: 26 SEP 2023 15:26:22

Highest Band Edge / Full RB

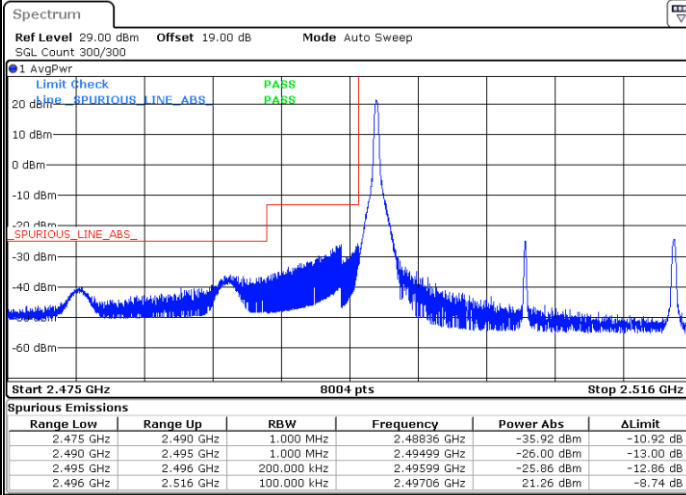


Date: 26 SEP 2023 15:43:13



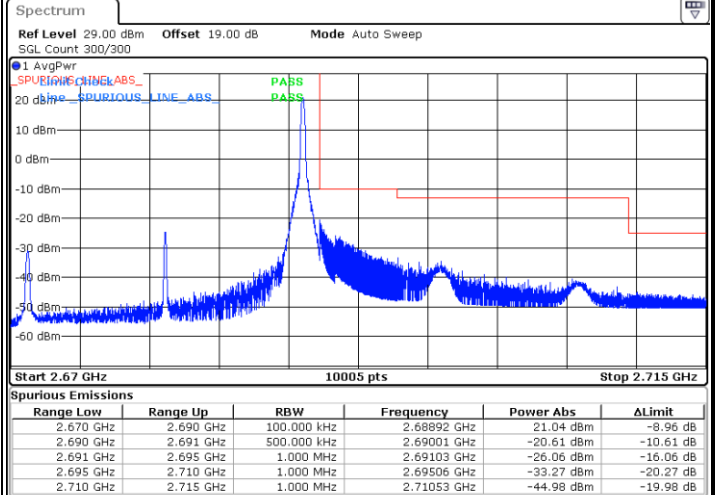
LTE Band 41 / 20MHz / 64QAM

Lowest Band Edge / 1RB



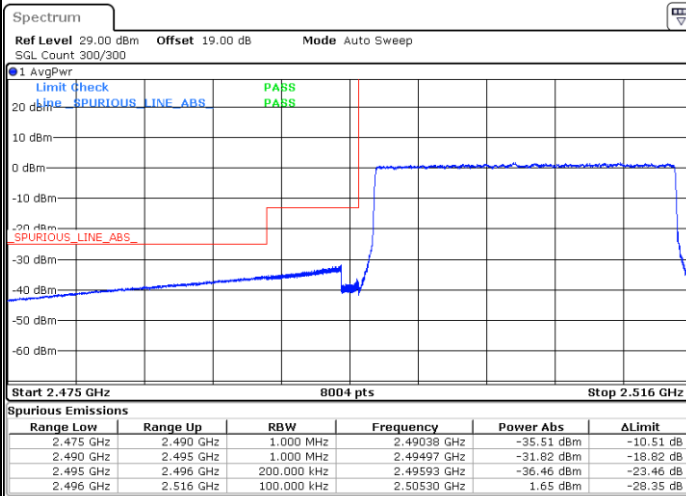
Date: 26 SEP 2023 15:22:43

Highest Band Edge / 1 RB



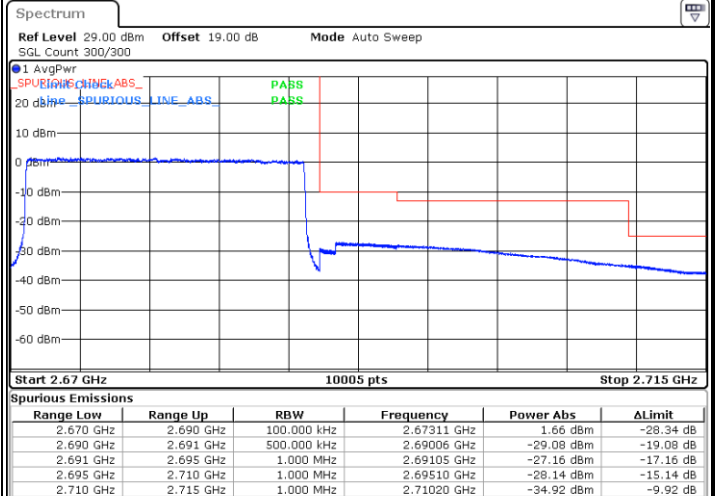
Date: 26 SEP 2023 15:39:25

Lowest Band Edge / Full RB



Date: 26 SEP 2023 15:24:32

Highest Band Edge / Full RB



Date: 26 SEP 2023 15:41:18

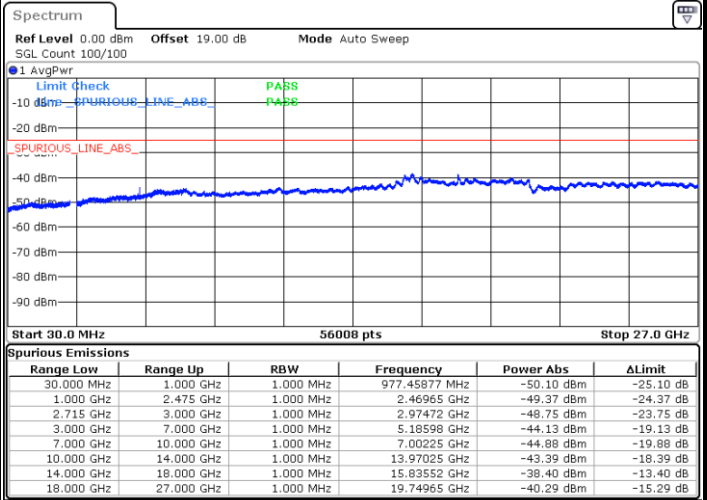
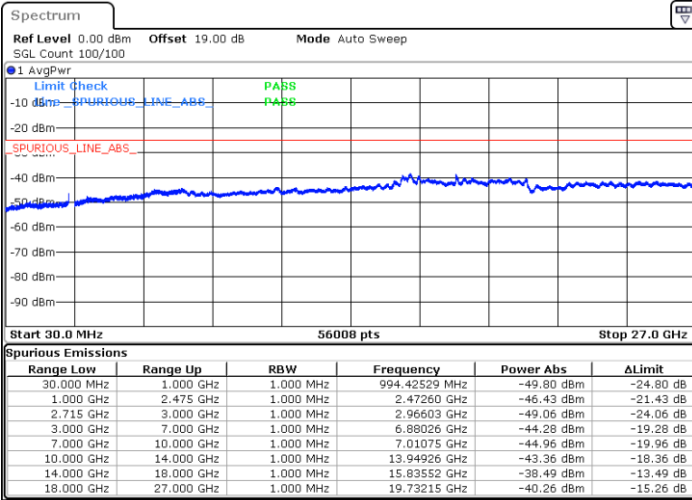


# Conducted Spurious Emission

## LTE Band 41 / 5MHz

### Lowest Channel / QPSK

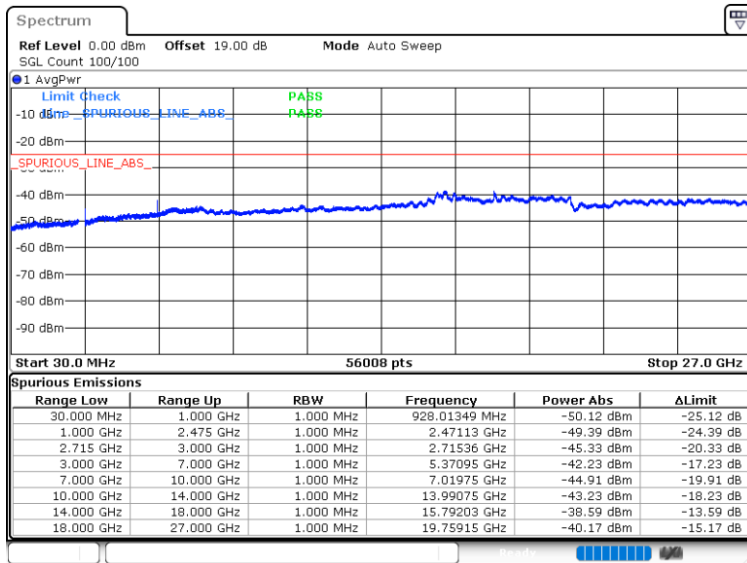
### Middle Channel / QPSK



Date: 27.SEP.2023 13:58:51

Date: 27.SEP.2023 14:00:09

### Highest Channel / QPSK



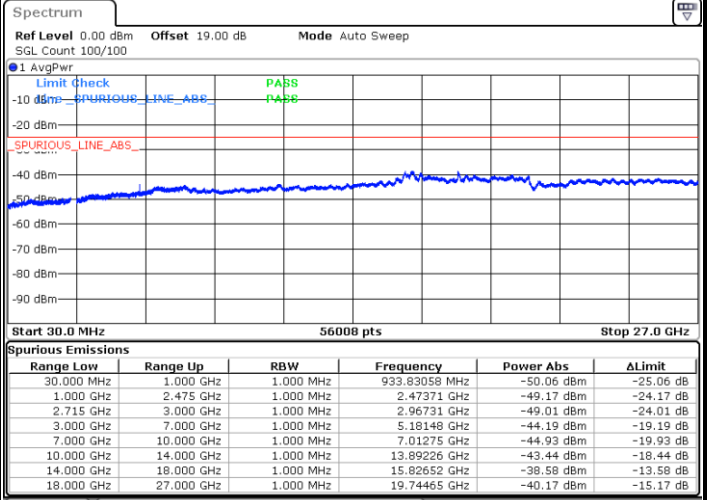
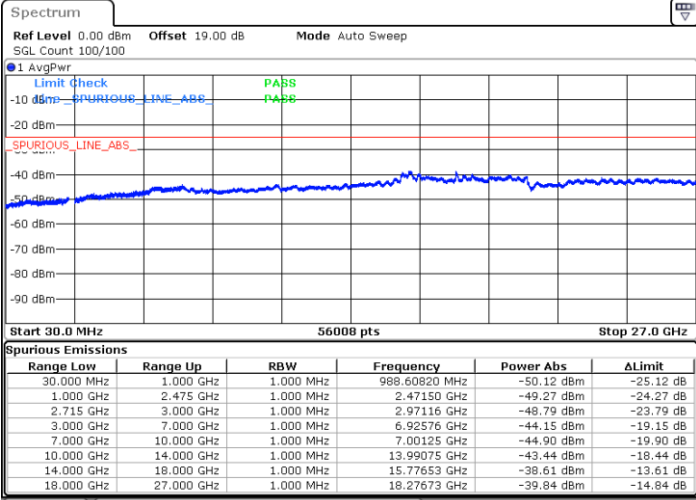
Date: 27.SEP.2023 14:08:26



LTE Band 41 / 10MHz

Lowest Channel / QPSK

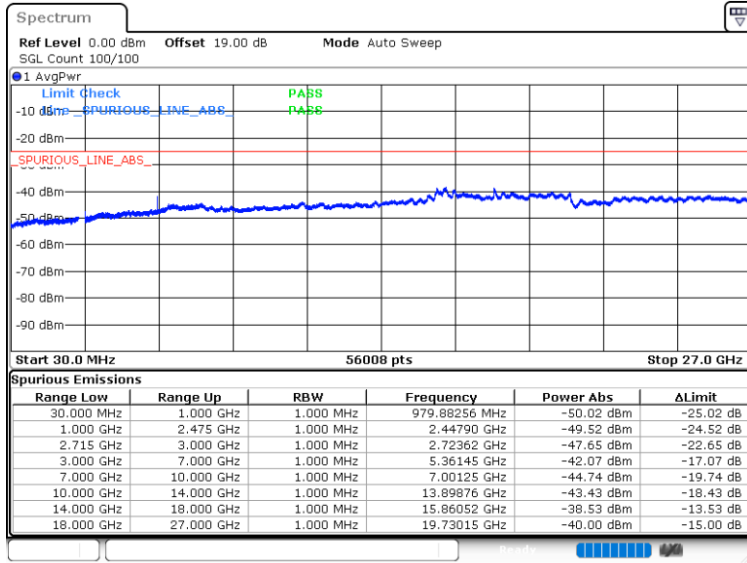
Middle Channel / QPSK



Date: 27.SEP.2023 14:16:01

Date: 27.SEP.2023 14:17:19

Highest Channel / QPSK



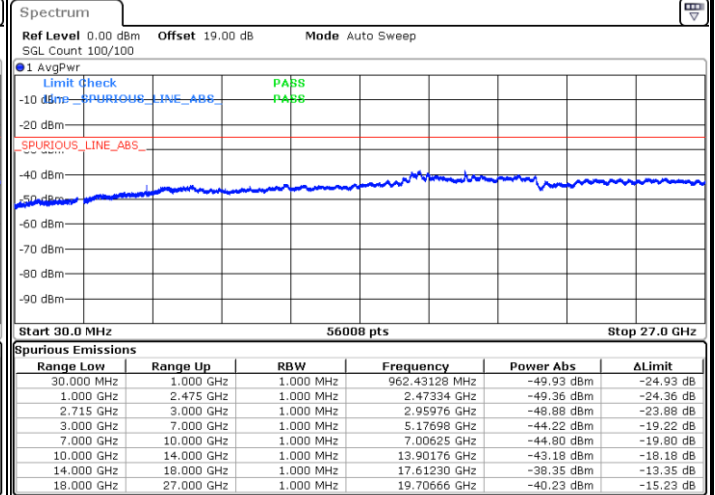
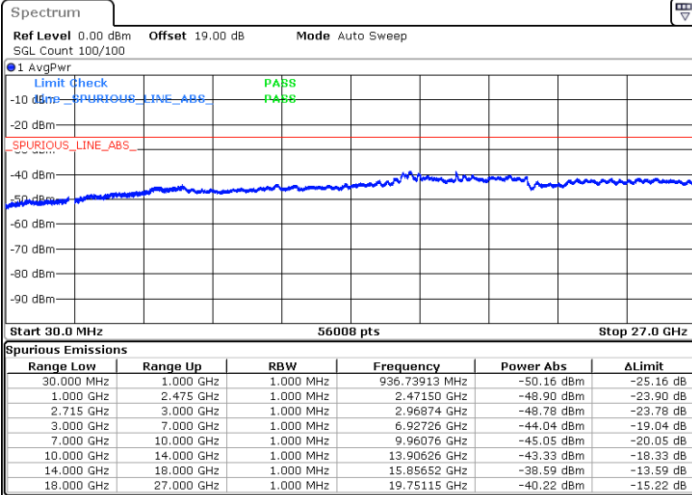
Date: 27.SEP.2023 14:25:25



LTE Band 41 / 15MHz

Lowest Channel / QPSK

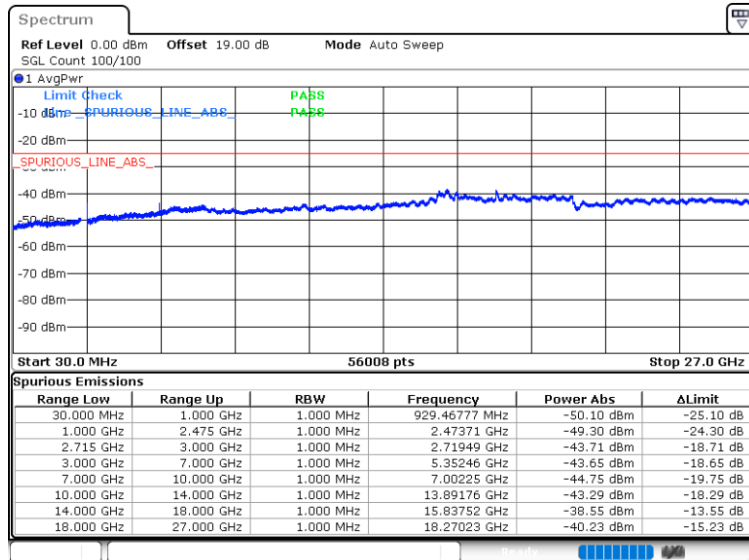
Middle Channel / QPSK



Date: 27.SEP.2023 14:32:09

Date: 27.SEP.2023 14:33:27

Highest Channel / QPSK



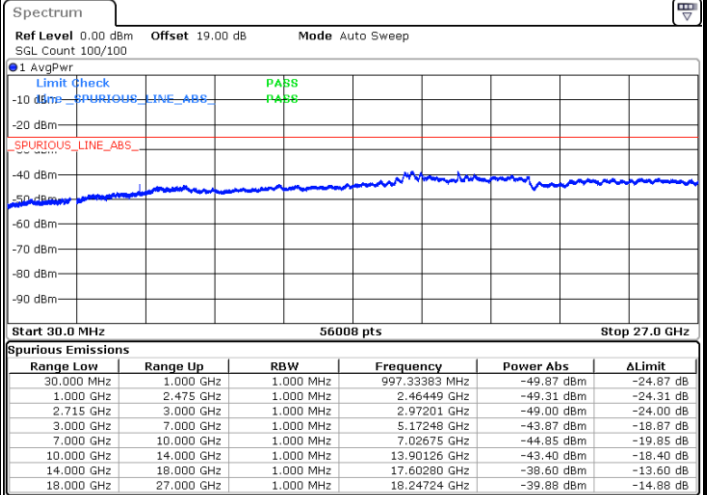
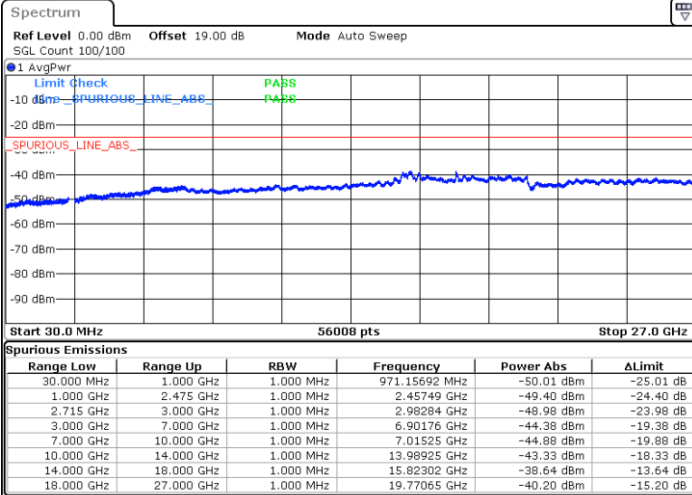
Date: 27.SEP.2023 14:41:34



LTE Band 41 / 20MHz

Lowest Channel / QPSK

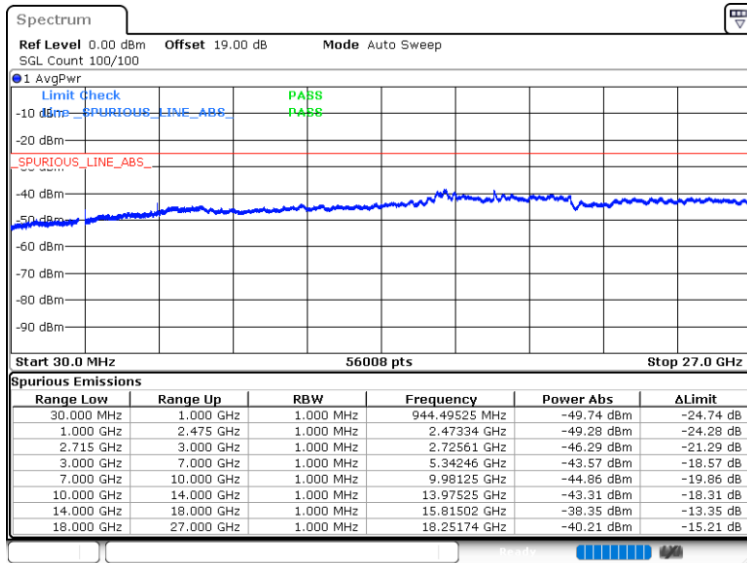
Middle Channel / QPSK



Date: 27.SEP.2023 14:48:18

Date: 27.SEP.2023 14:49:35

Highest Channel / QPSK



Date: 27.SEP.2023 14:59:12



### Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

**Note:**

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.





# LTE Band 41C

## 26dB Bandwidth

Mode	LTE Band 41C : 26dB BW(MHz)				
QPSK					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Middle CH	24.68	25.08	29.91	25.08	30.57
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Middle CH	34.69	25.03	30.03	34.90	39.56

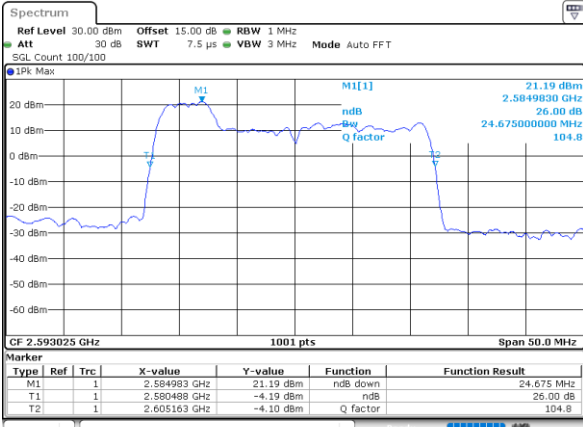
Mode	LTE Band 41C : 26dB BW(MHz)				
16QAM					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Middle CH	24.73	24.93	29.85	25.08	30.69
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Middle CH	34.83	24.93	29.97	34.76	39.72



LTE Band 41C

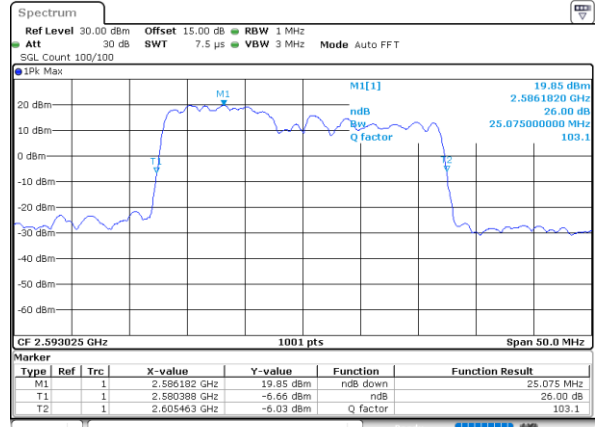
QPSK

Middle Channel / 5MHz+20MHz



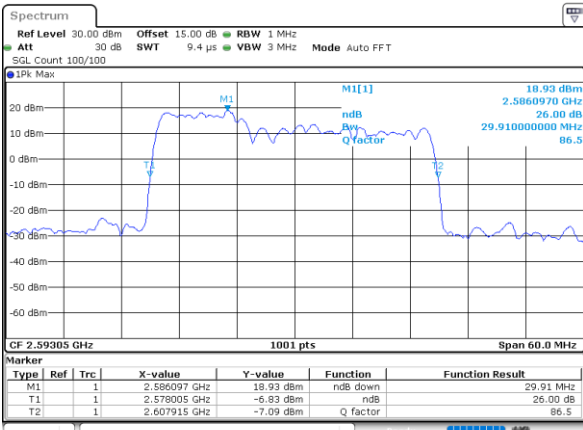
Date: 27\_SEP.2023 17:29:33

Middle Channel / 10MHz+15MHz



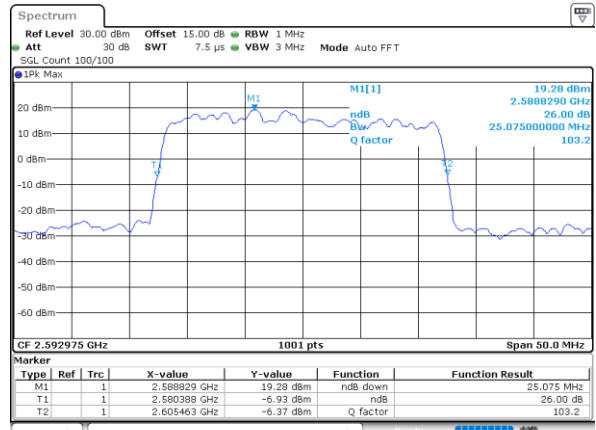
Date: 27\_SEP.2023 18:16:32

Middle Channel / 10MHz+20MHz



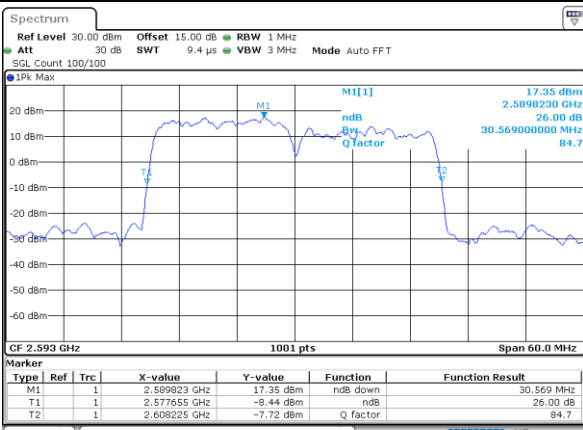
Date: 27\_SEP.2023 19:06:39

Middle Channel / 15MHz+10MHz



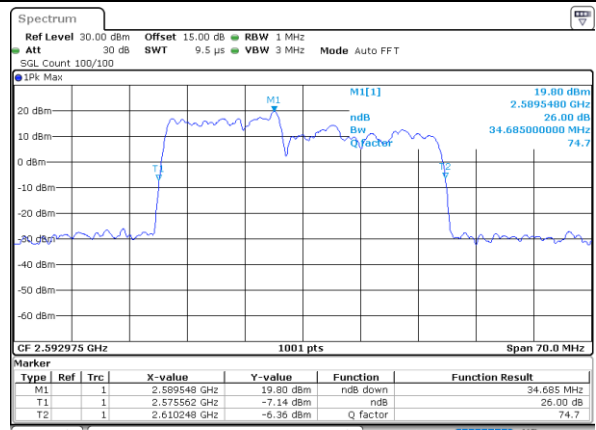
Date: 27\_SEP.2023 18:41:32

Middle Channel / 15MHz+15MHz



Date: 27\_SEP.2023 19:55:01

Middle Channel / 15MHz+20MHz



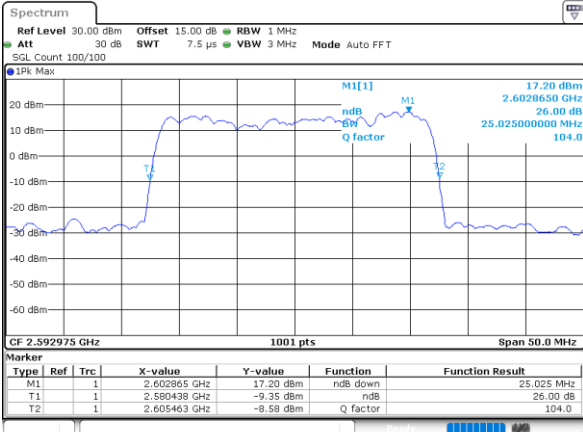
Date: 27\_SEP.2023 20:19:00



LTE Band 41C

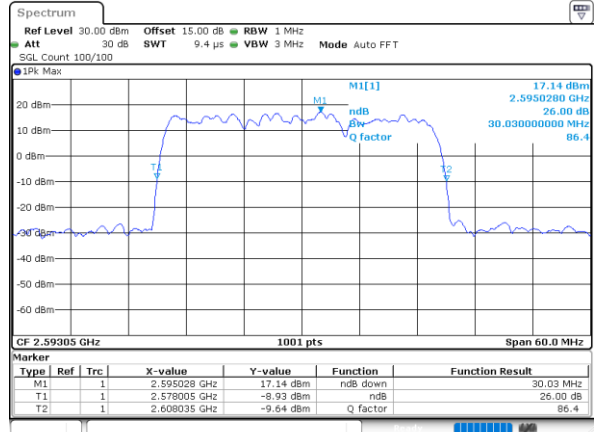
QPSK

Middle Channel / 20MHz+5MHz



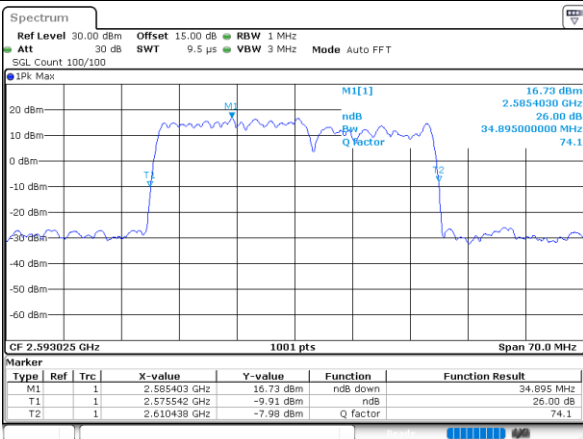
Date: 27\_SEP.2023 17:53:12

Middle Channel / 20MHz+10MHz



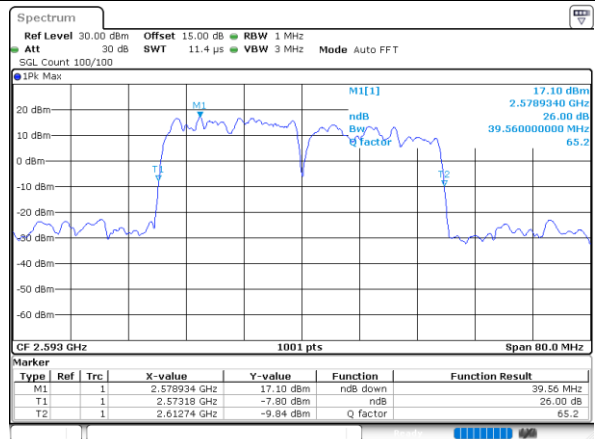
Date: 27\_SEP.2023 19:31:46

Middle Channel / 20MHz+15MHz



Date: 27\_SEP.2023 20:42:21

Middle Channel / 20MHz+20MHz



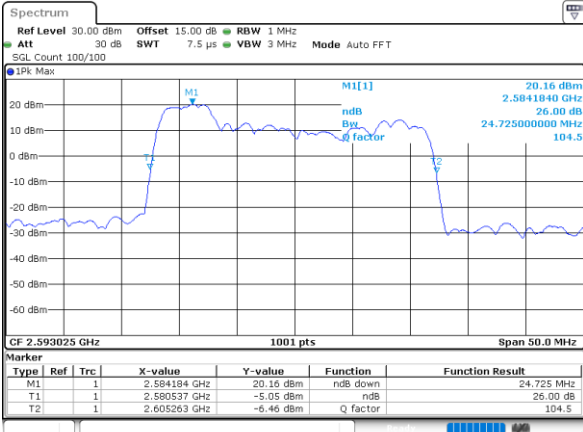
Date: 27\_SEP.2023 21:50:01



LTE Band 41C

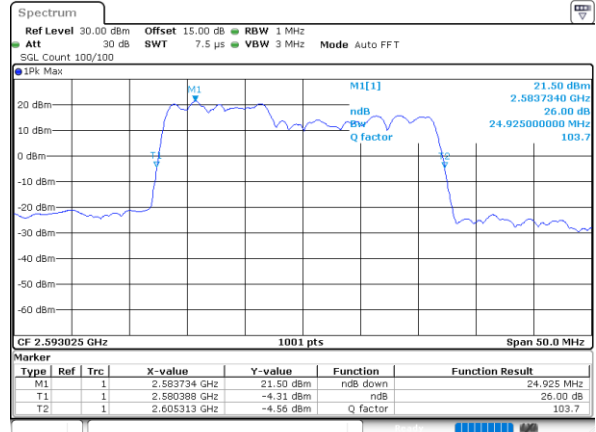
16QAM

Middle Channel / 5MHz+20MHz



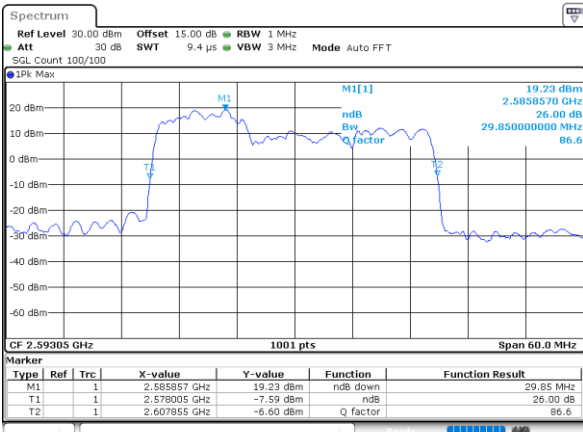
Date: 27\_SEP.2023 17:30:04

Middle Channel / 10MHz+15MHz



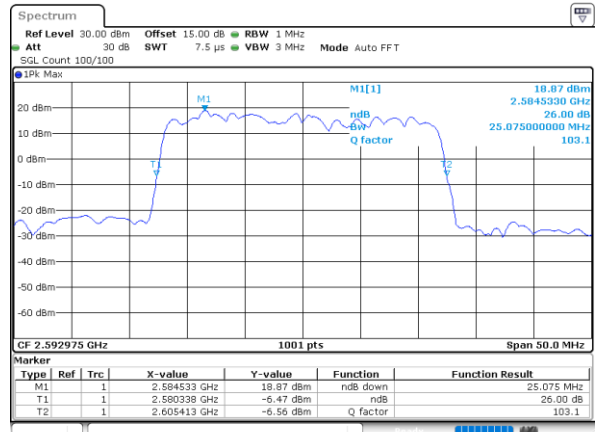
Date: 27\_SEP.2023 18:17:03

Middle Channel / 10MHz+20MHz



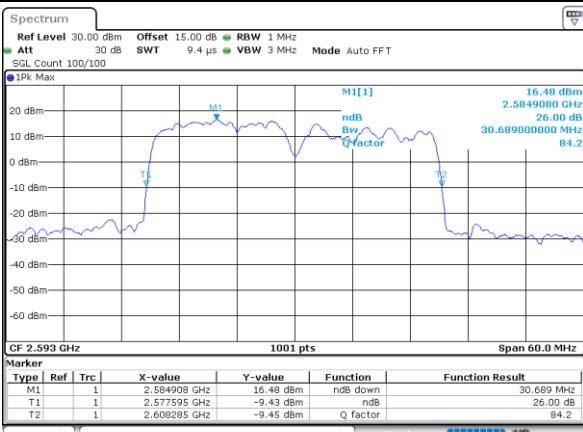
Date: 27\_SEP.2023 19:07:10

Middle Channel / 15MHz+10MHz



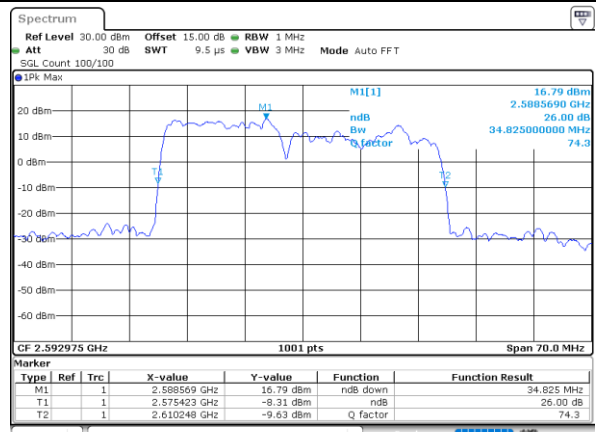
Date: 27\_SEP.2023 18:42:03

Middle Channel / 15MHz+15MHz



Date: 27\_SEP.2023 19:55:29

Middle Channel / 15MHz+20MHz



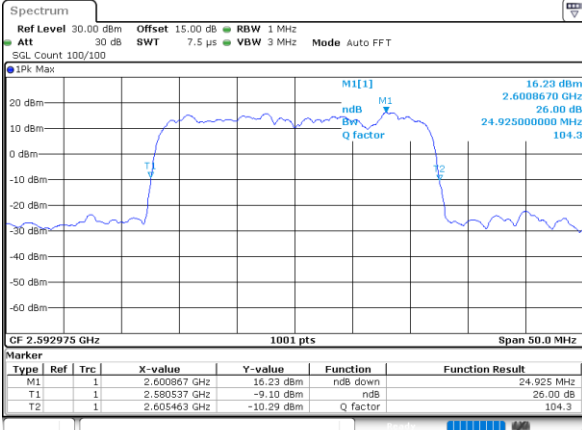
Date: 27\_SEP.2023 20:19:31



LTE Band 41C

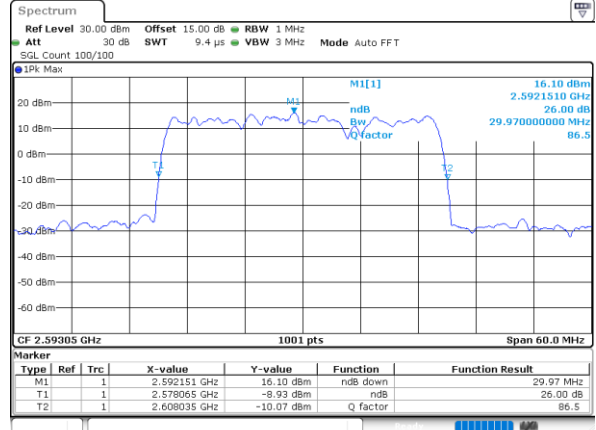
16QAM

Middle Channel / 20MHz+5MHz



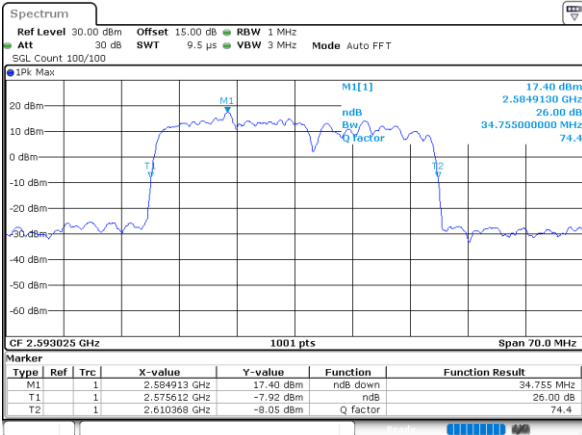
Date: 27\_SEP.2023 17:53:43

Middle Channel / 20MHz+10MHz



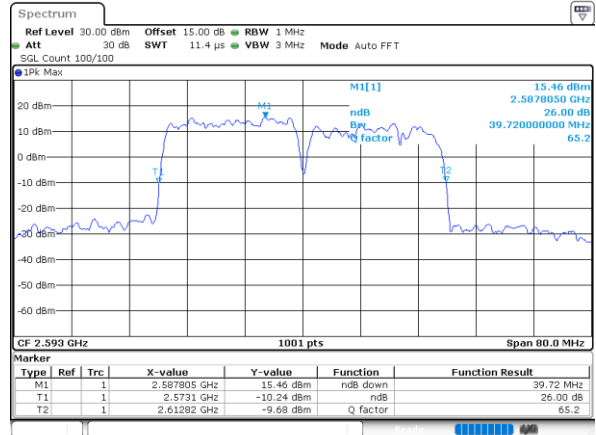
Date: 27\_SEP.2023 19:32:17

Middle Channel / 20MHz+15MHz



Date: 27\_SEP.2023 20:42:52

Middle Channel / 20MHz+20MHz



Date: 27\_SEP.2023 21:50:29



### Occupied Bandwidth

Mode	LTE Band 41C : 99%OBW(MHz)				
QPSK					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Middle CH	23.43	23.33	27.93	23.48	28.11
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Middle CH	32.66	23.18	27.81	32.31	36.84

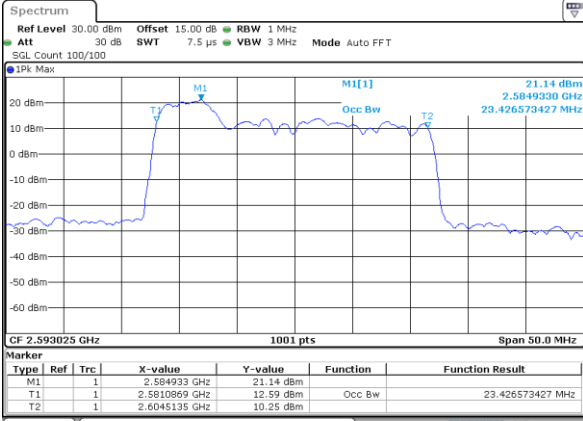
Mode	LTE Band 41C : 99%OBW(MHz)				
16QAM					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Middle CH	23.33	23.33	27.63	23.18	28.77
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Middle CH	32.45	23.13	27.99	32.59	37.08



LTE Band 41C

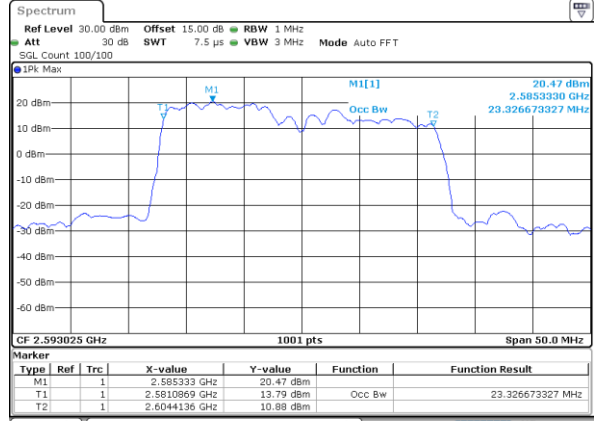
QPSK

Middle Channel / 5MHz+20MHz



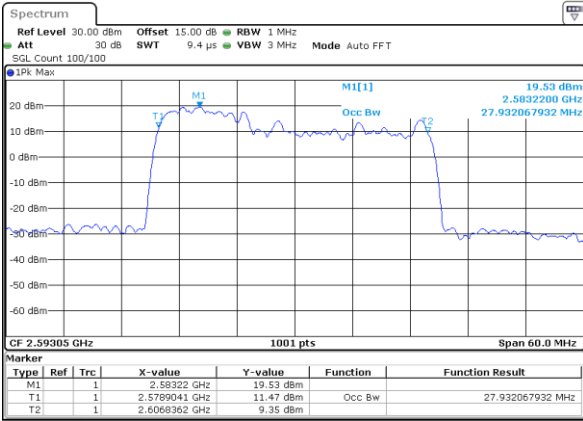
Date: 27\_SEP.2023 17:29:02

Middle Channel / 10MHz+15MHz



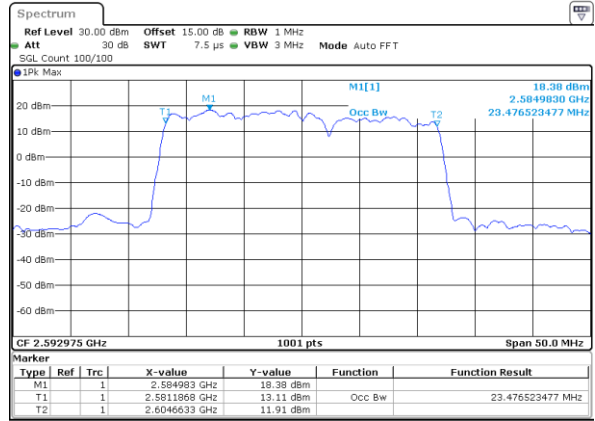
Date: 27\_SEP.2023 18:16:01

Middle Channel / 10MHz+20MHz



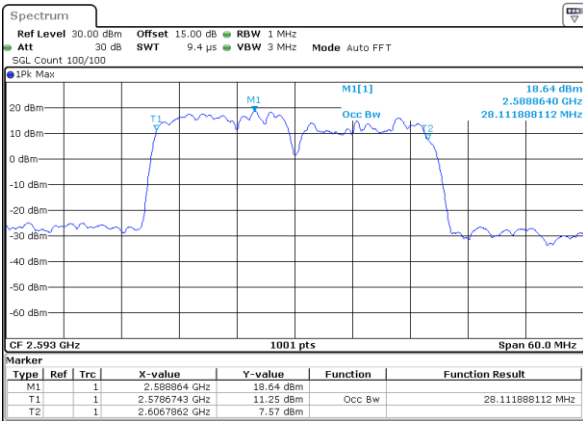
Date: 27\_SEP.2023 19:06:08

Middle Channel / 15MHz+10MHz



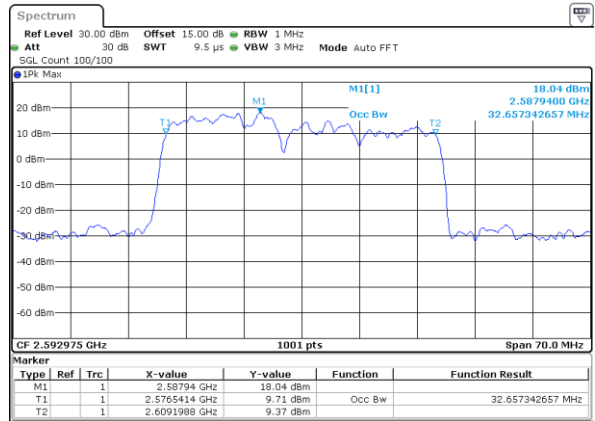
Date: 27\_SEP.2023 18:41:01

Middle Channel / 15MHz+15MHz



Date: 27\_SEP.2023 19:54:33

Middle Channel / 15MHz+20MHz



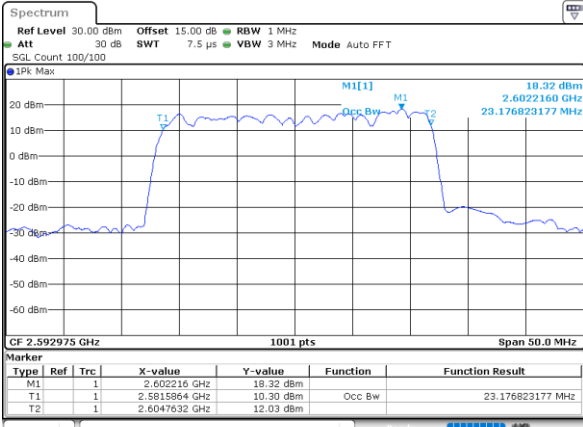
Date: 27\_SEP.2023 20:18:30



LTE Band 41C

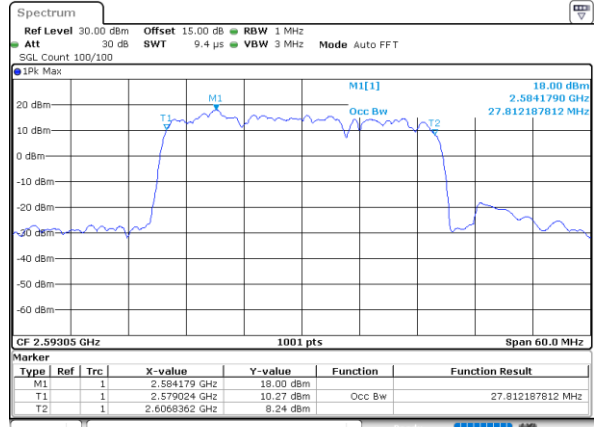
QPSK

Middle Channel / 20MHz+5MHz



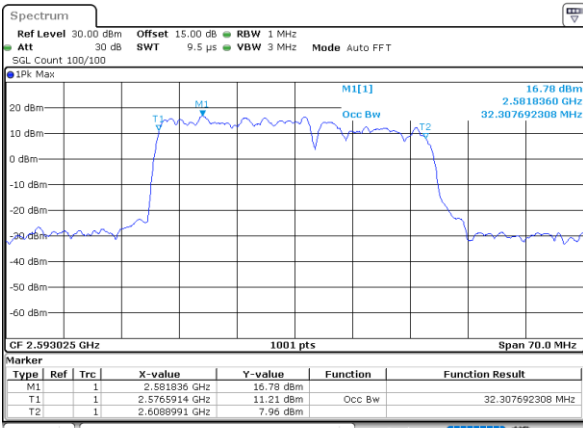
Date: 27\_SEP.2023 17:52:41

Middle Channel / 20MHz+10MHz



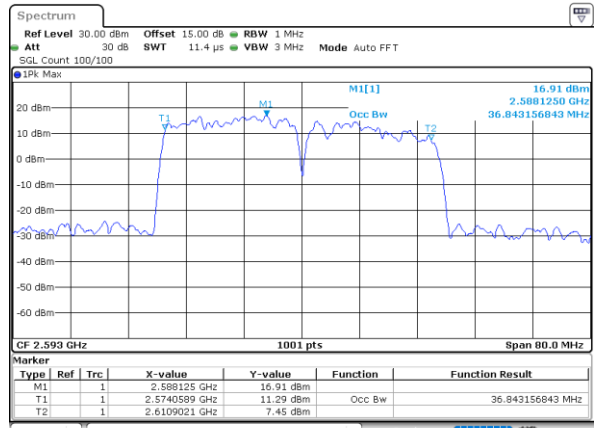
Date: 27\_SEP.2023 19:31:16

Middle Channel / 20MHz+15MHz



Date: 27\_SEP.2023 20:41:50

Middle Channel / 20MHz+20MHz



Date: 27\_SEP.2023 21:49:33