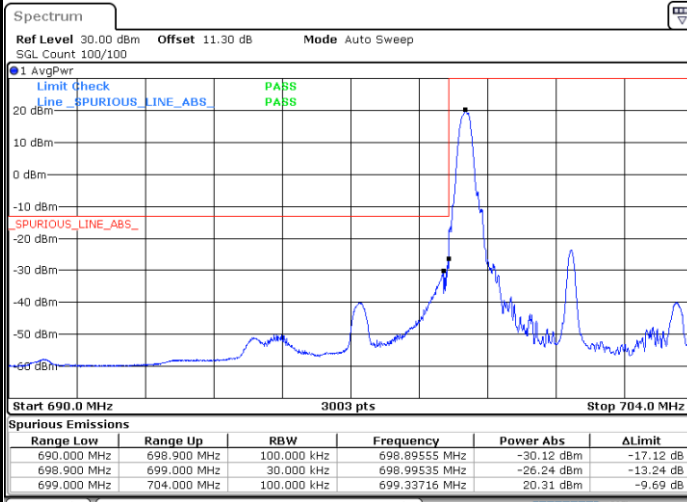




LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



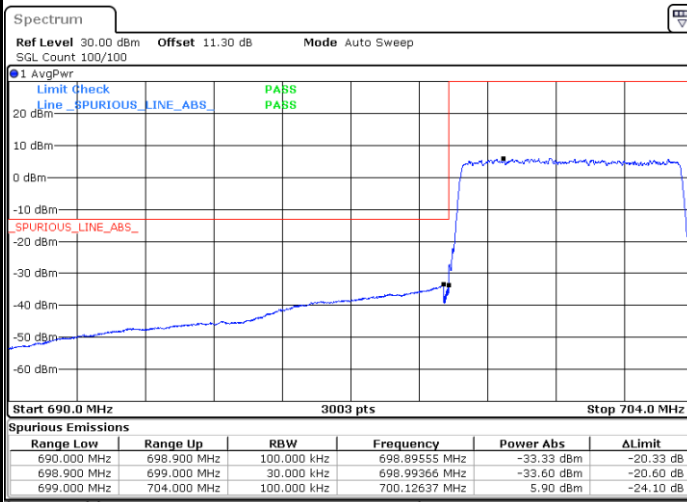
Date: 15 JUN 2021 09:40:48

Highest Band Edge / 1 RB



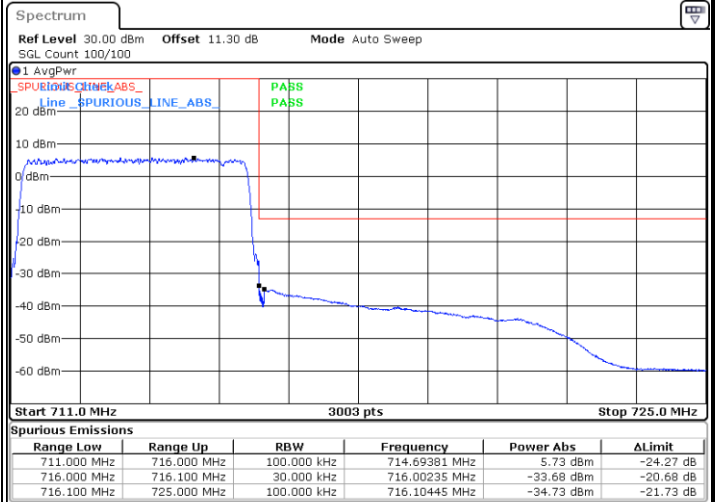
Date: 15 JUN 2021 09:48:08

Lowest Band Edge / Full RB



Date: 15 JUN 2021 09:39:57

Highest Band Edge / Full RB

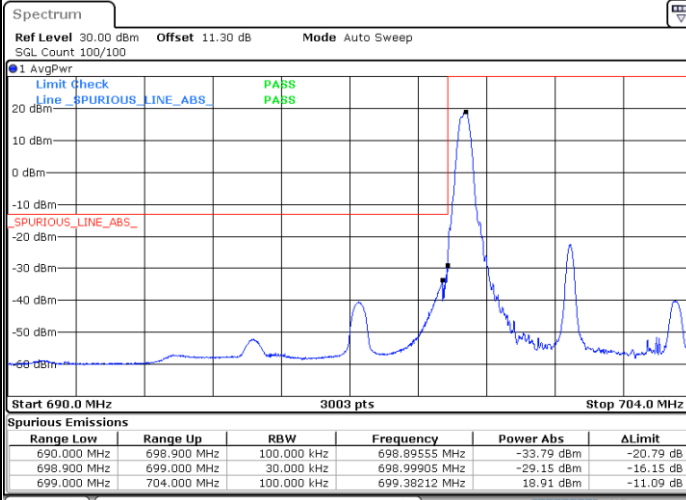


Date: 15 JUN 2021 09:46:27



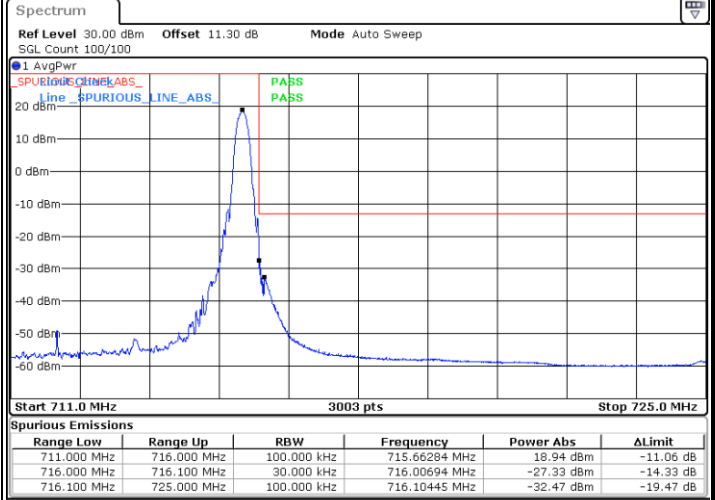
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



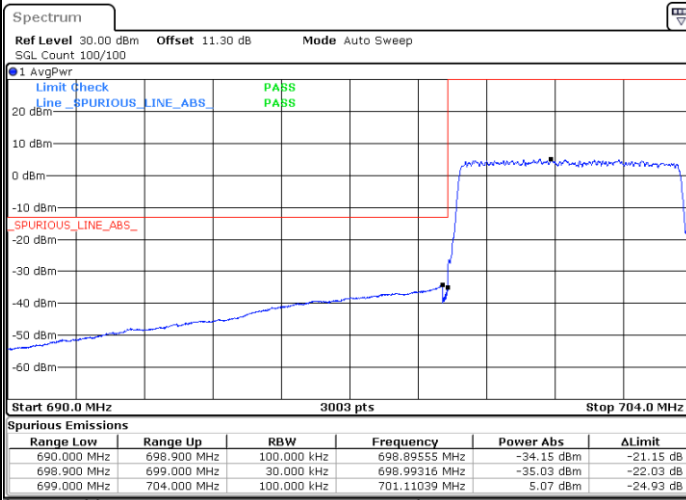
Date: 15 JUN 2021 09:35:51

Highest Band Edge / 1 RB



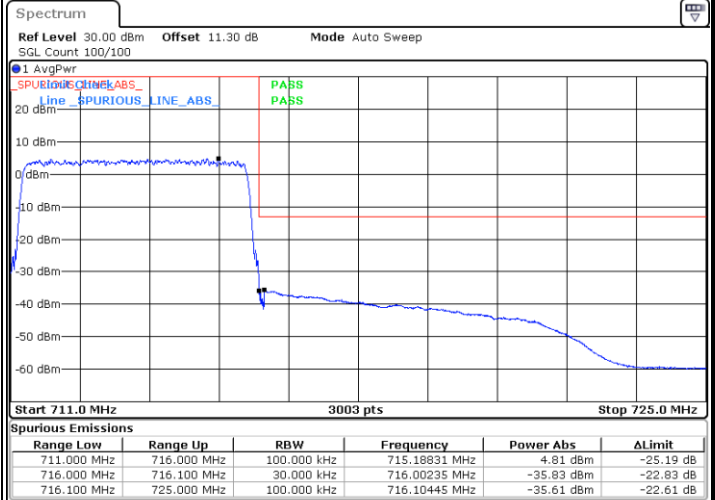
Date: 15 JUN 2021 09:38:16

Lowest Band Edge / Full RB



Date: 15 JUN 2021 09:35:00

Highest Band Edge / Full RB

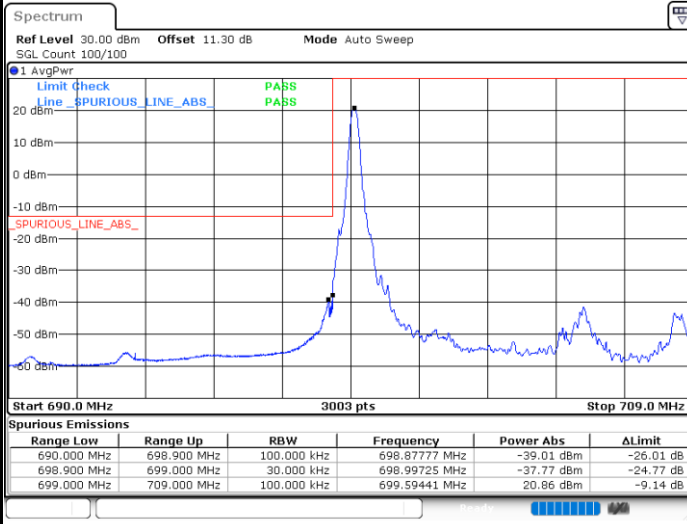


Date: 15 JUN 2021 09:37:24



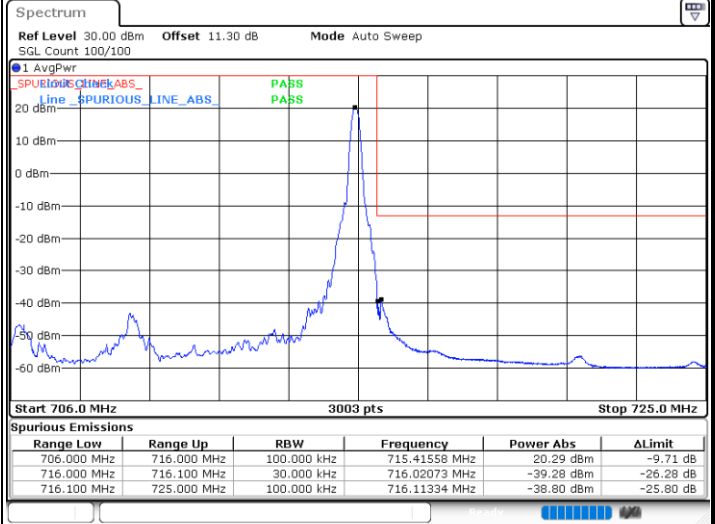
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



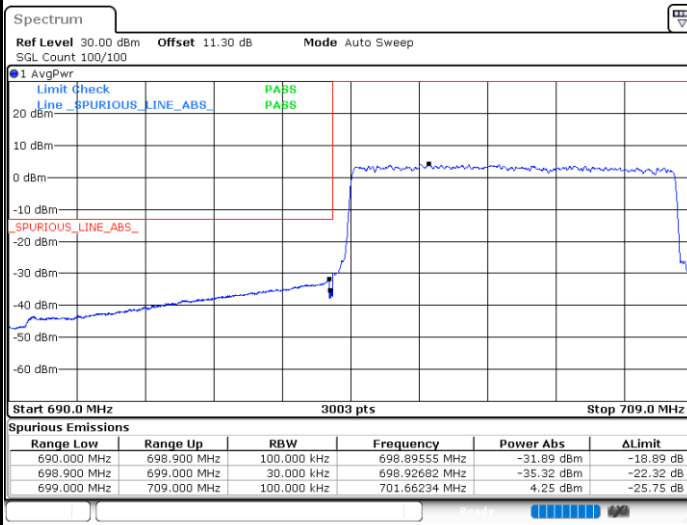
Date: 15 JUN 2021 09:52:21

Highest Band Edge / 1 RB



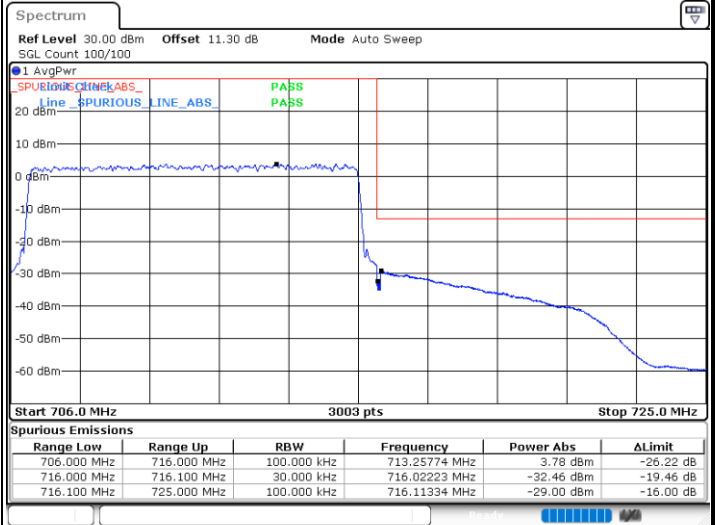
Date: 15 JUN 2021 09:58:52

Lowest Band Edge / Full RB



Date: 15 JUN 2021 09:49:50

Highest Band Edge / Full RB

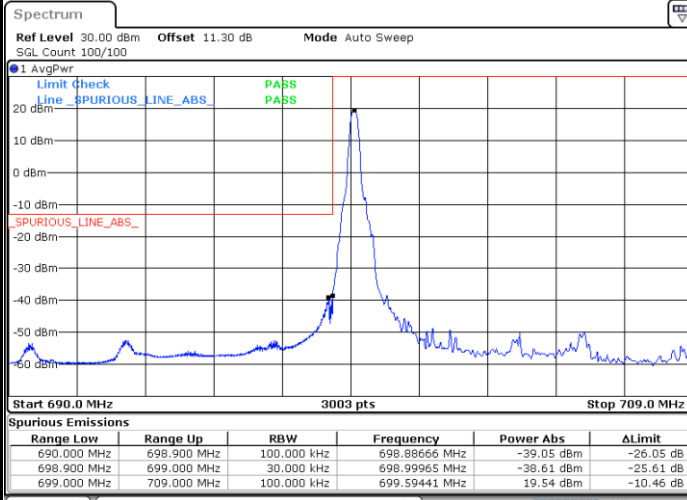


Date: 15 JUN 2021 09:56:20



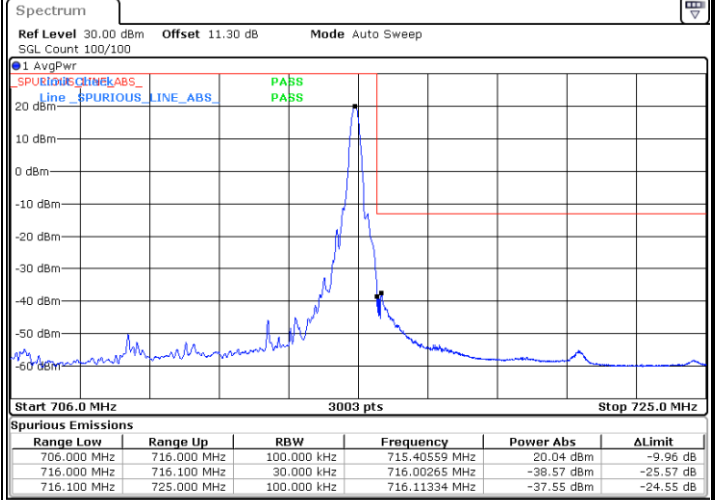
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



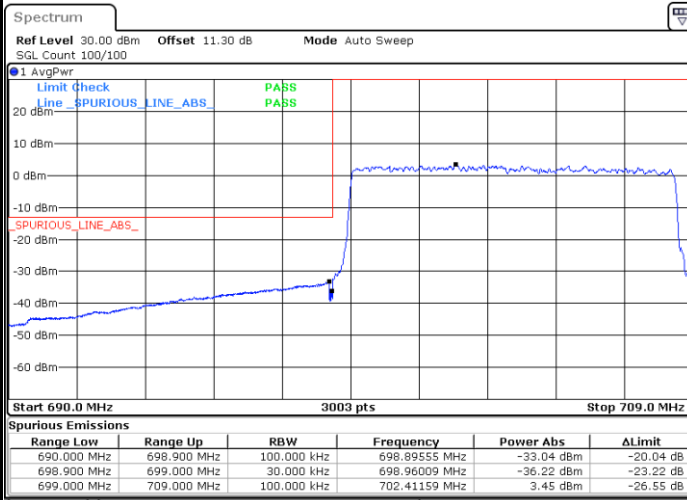
Date: 15 JUN 2021 09:51:31

Highest Band Edge / 1 RB



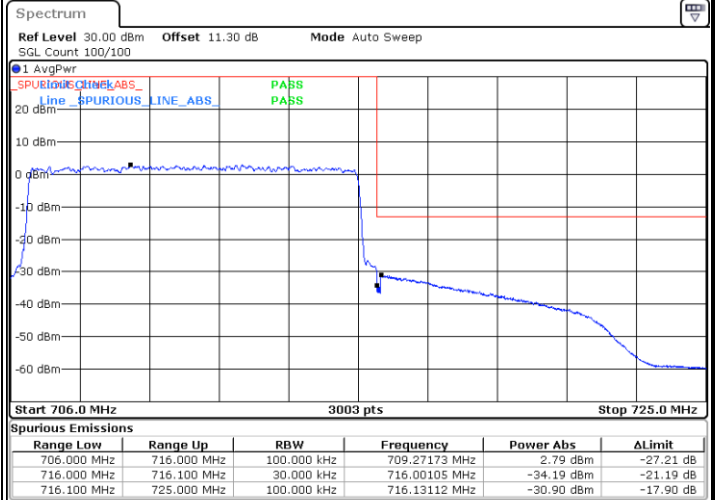
Date: 15 JUN 2021 09:58:01

Lowest Band Edge / Full RB



Date: 15 JUN 2021 09:50:40

Highest Band Edge / Full RB

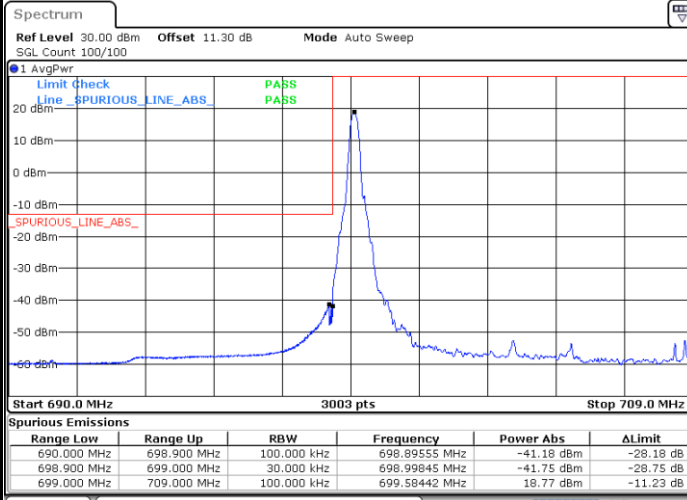


Date: 15 JUN 2021 09:57:10



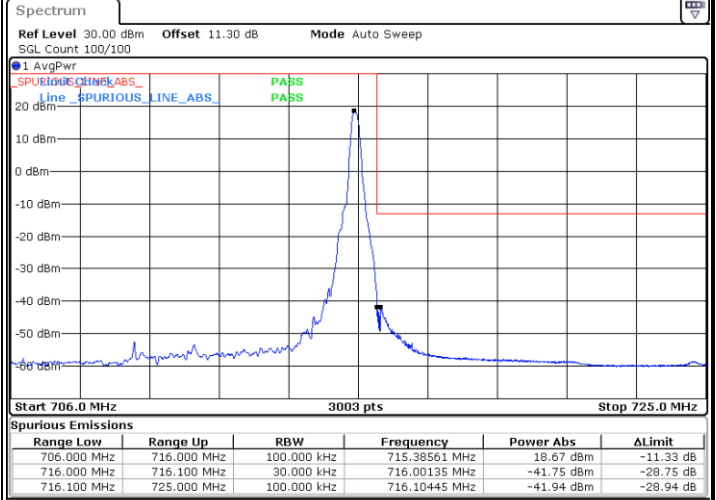
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



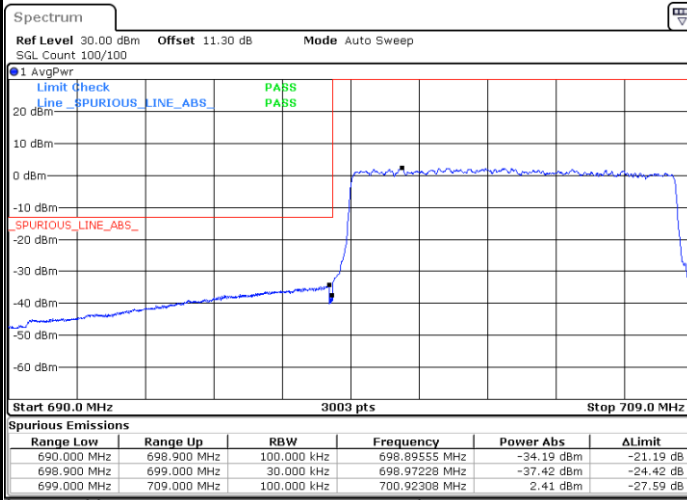
Date: 15 JUN 2021 10:01:25

Highest Band Edge / 1 RB



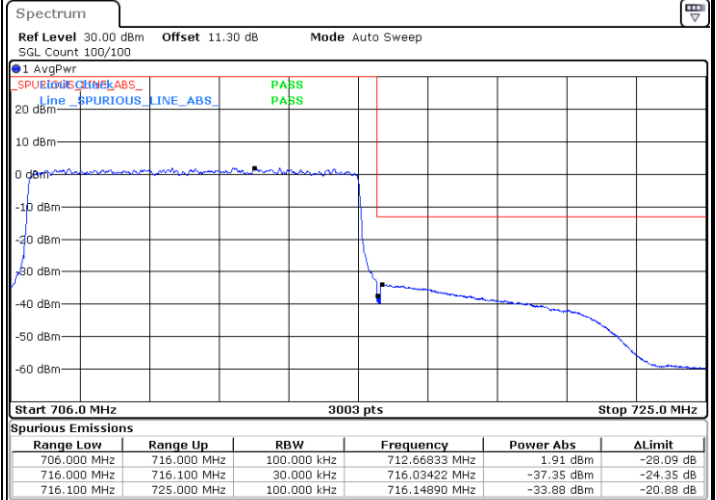
Date: 15 JUN 2021 10:03:50

Lowest Band Edge / Full RB



Date: 15 JUN 2021 10:00:34

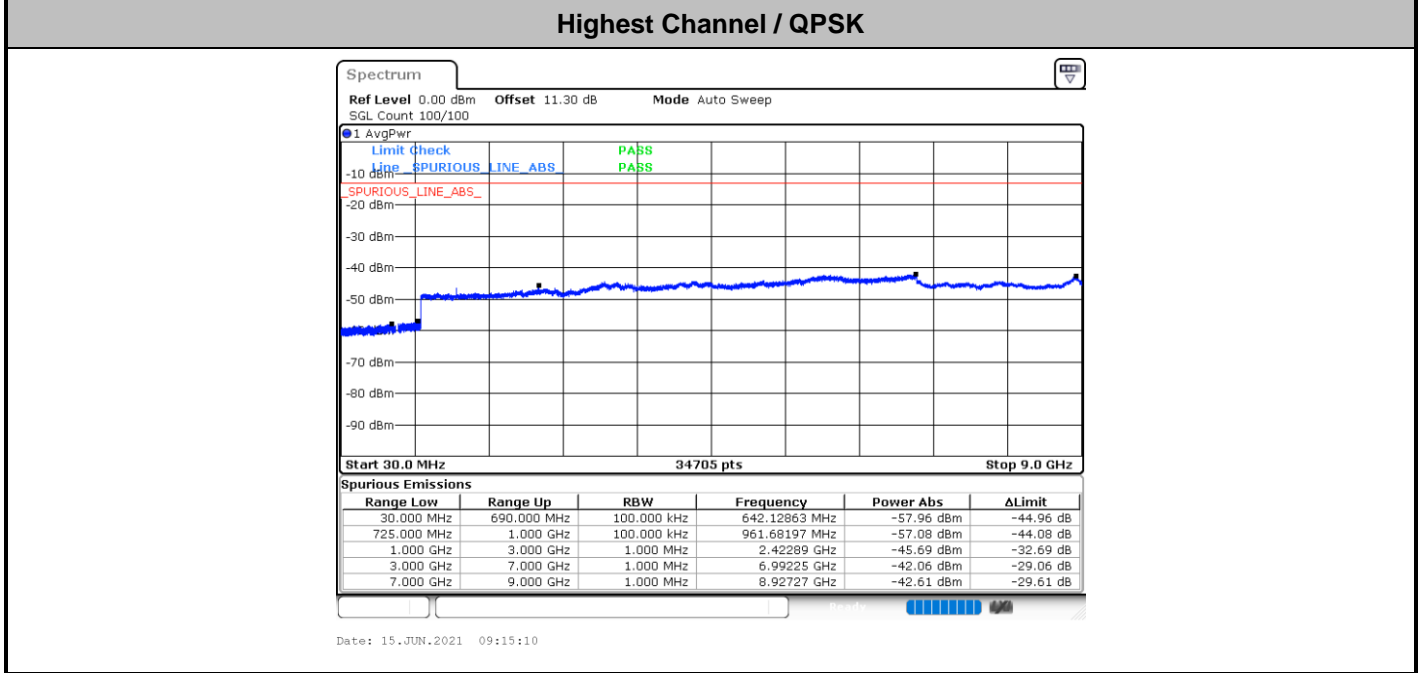
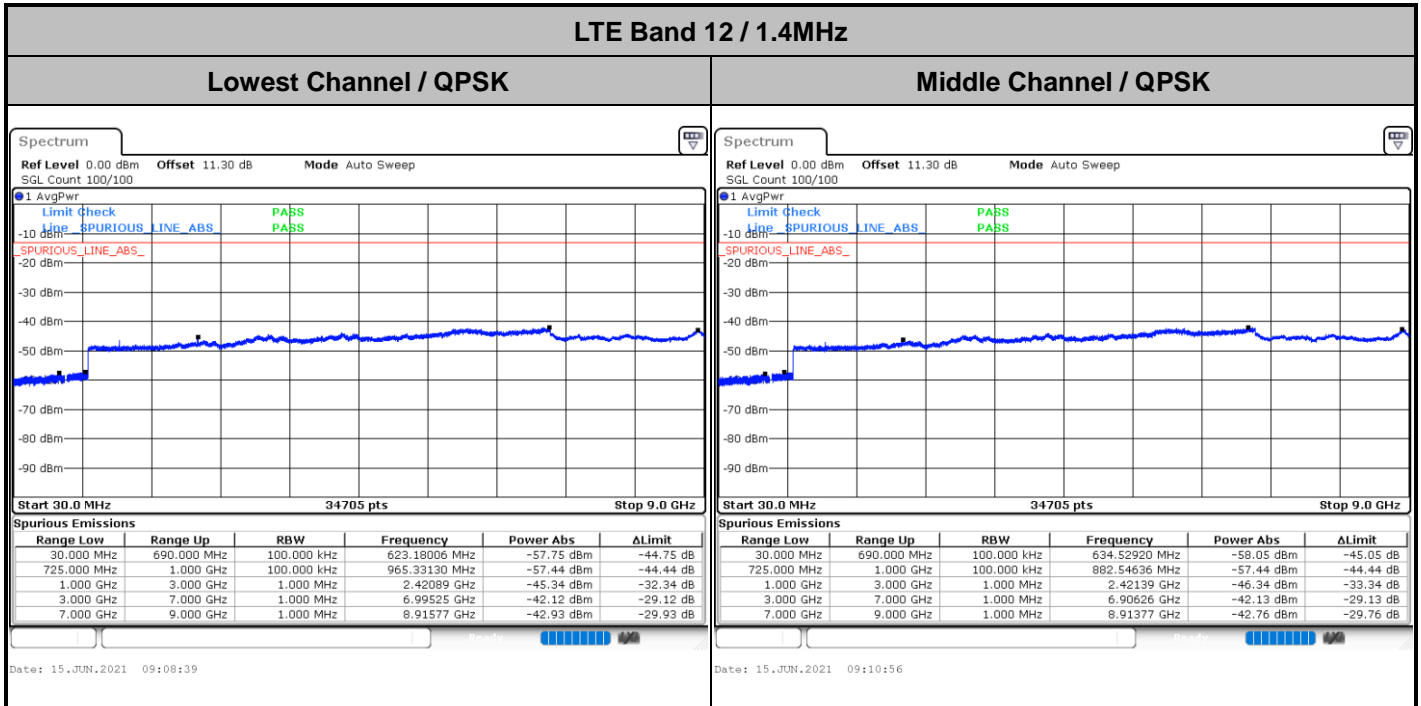
Highest Band Edge / Full RB



Date: 15 JUN 2021 10:02:59



# Conducted Spurious Emission

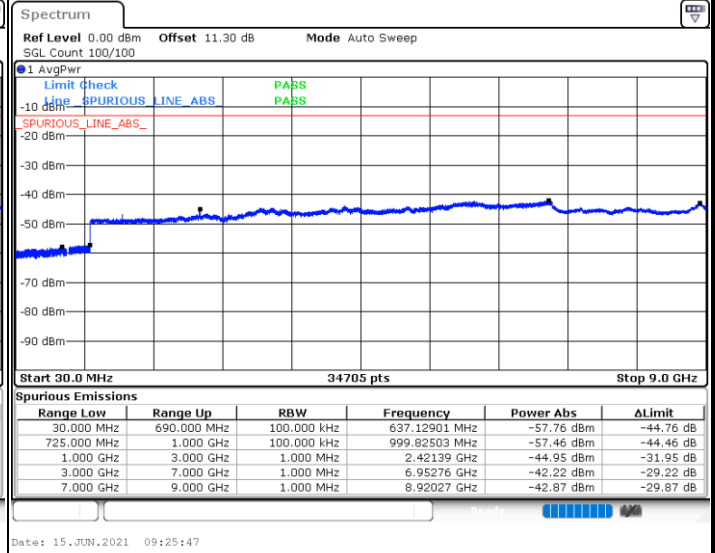
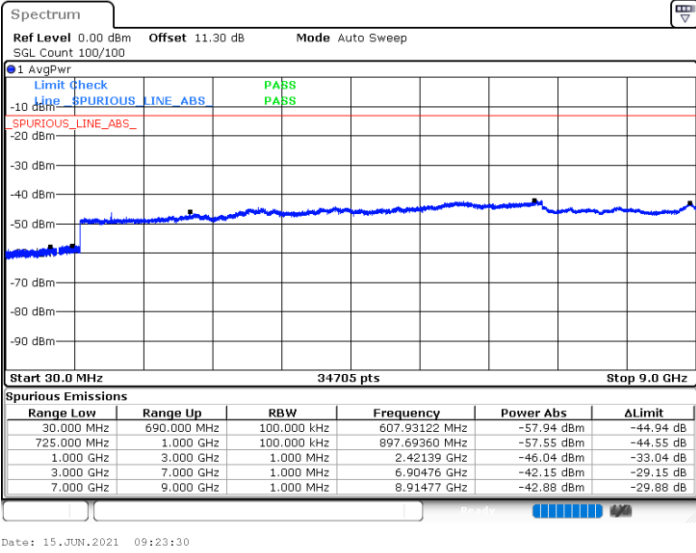




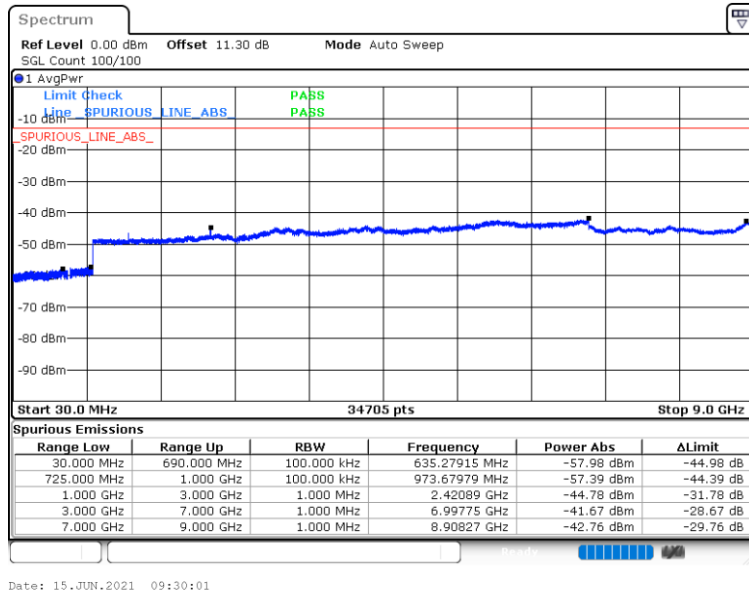
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

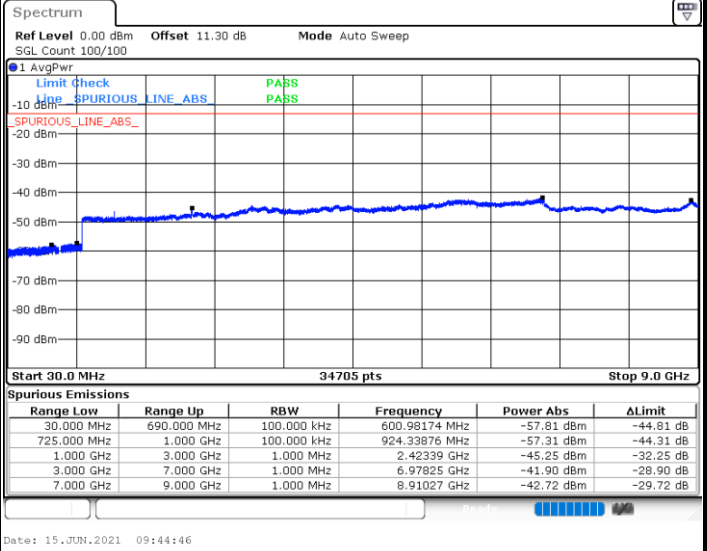
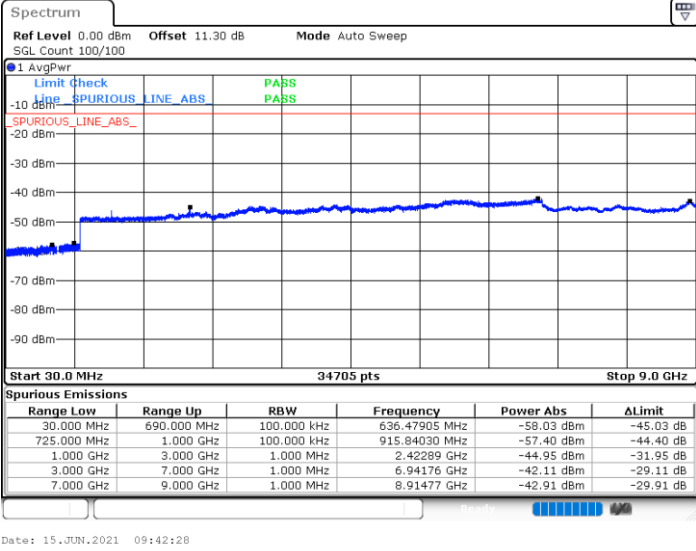




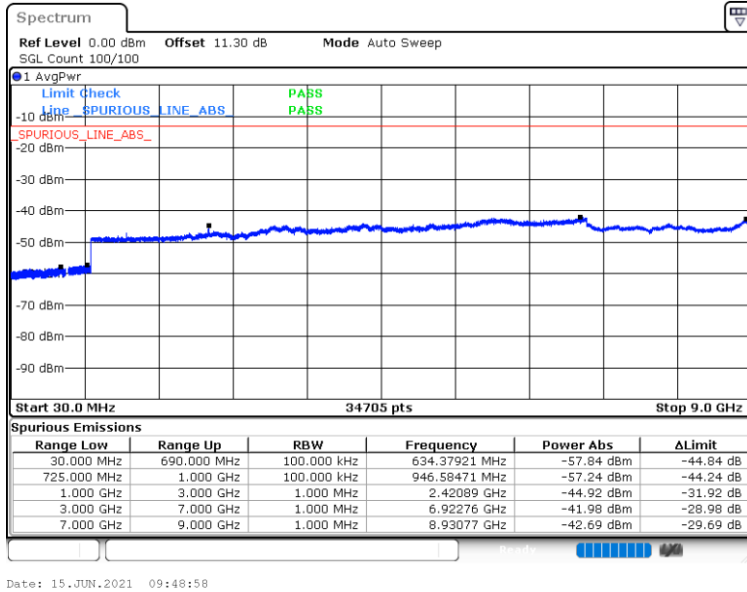
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK



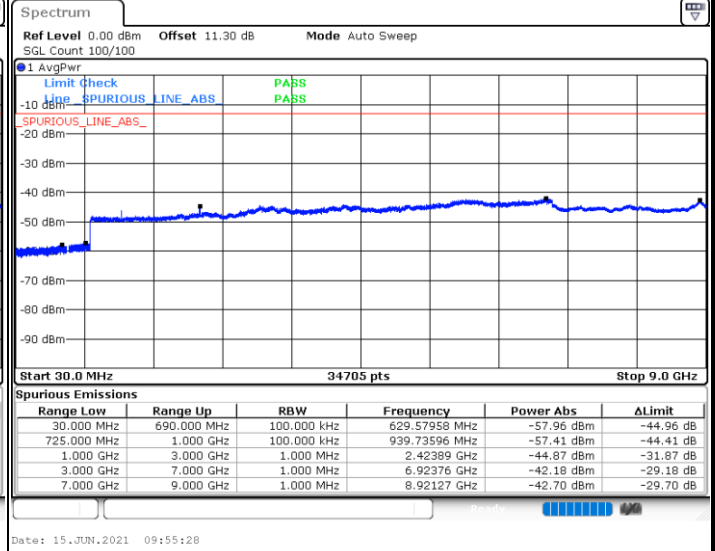
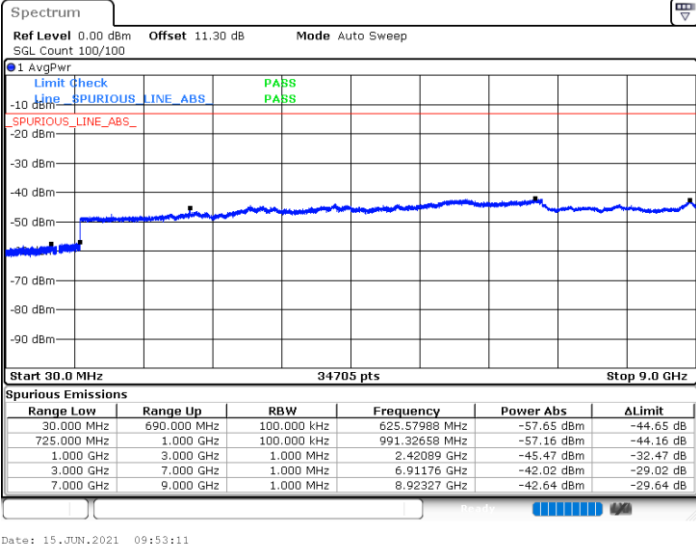




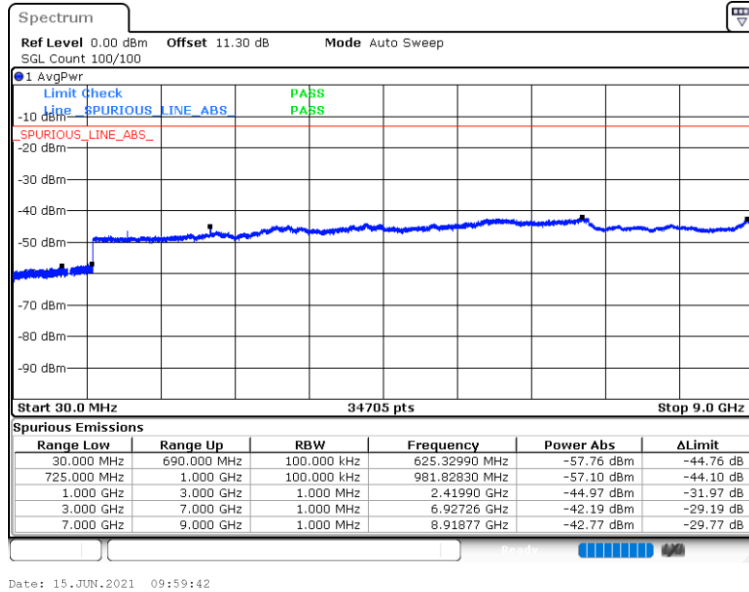
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK





### Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
40	Normal Voltage	0.0037	PASS
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0098	
-10	Normal Voltage	0.0062	
-20	Normal Voltage	0.0007	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0027	

**Note:**

- 1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.
- 3. EUT can't operate outside the temperatures between -20 °C and 40 °C.



## LTE Band 13

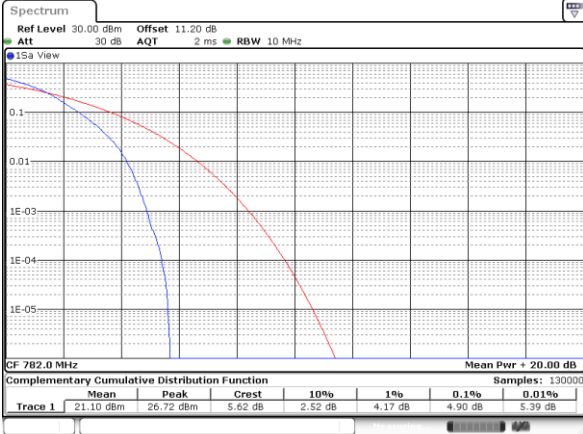
### Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.90	5.91	6.38	<b>PASS</b>



LTE Band 13 / 10MHz / QPSK

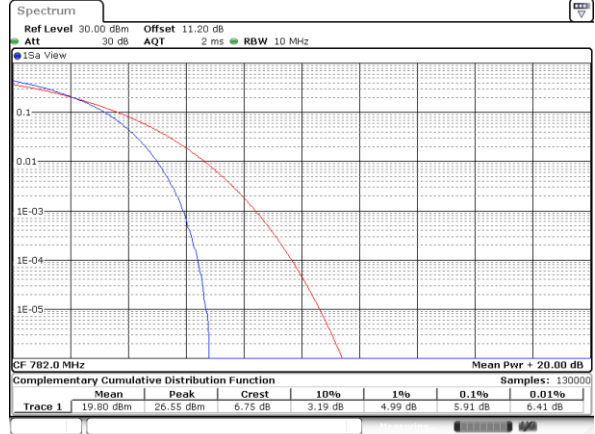
Middle Channel / Full RB



Date: 15 JUN 2021 11:50:00

LTE Band 13 / 10MHz / 16QAM

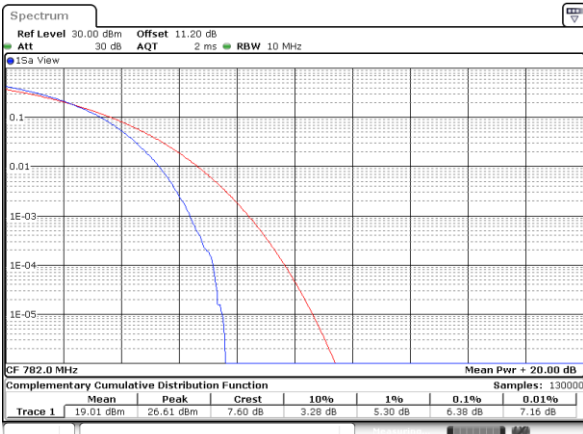
Middle Channel / Full RB



Date: 15 JUN 2021 11:49:36

LTE Band 13 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 15 JUN 2021 11:49:11



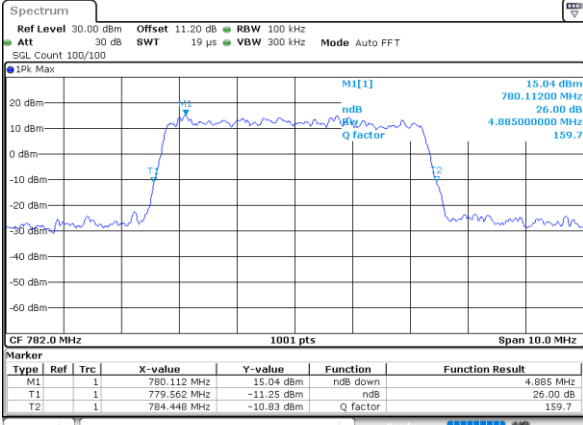
**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.89	4.88	9.83	9.73	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.92	-	9.83	-	-	-	-	-



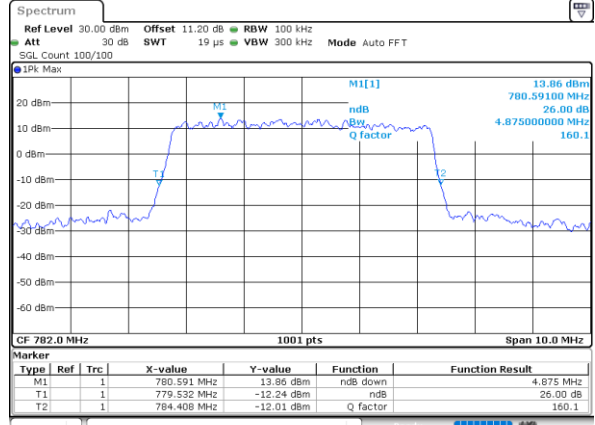
LTE Band 13

Middle Channel / 5MHz / QPSK



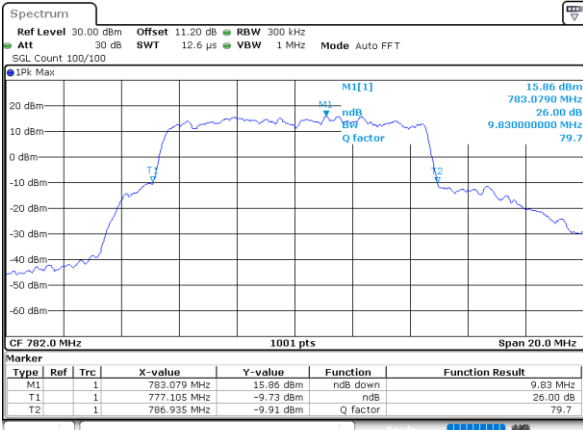
Date: 15 JUN 2021 11:11:44

Middle Channel / 5MHz / 16QAM



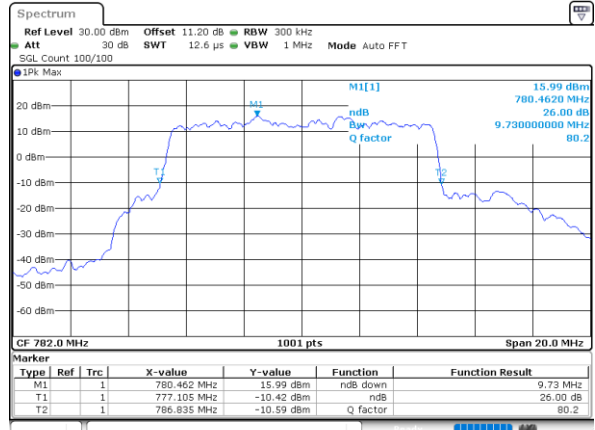
Date: 15 JUN 2021 11:12:05

Middle Channel / 10MHz / QPSK



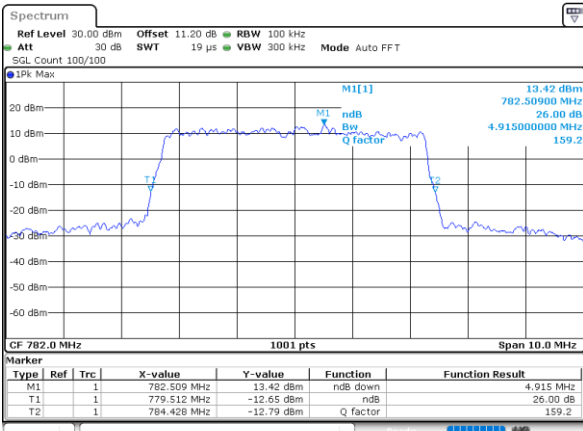
Date: 15 JUN 2021 11:30:42

Middle Channel / 10MHz / 16QAM



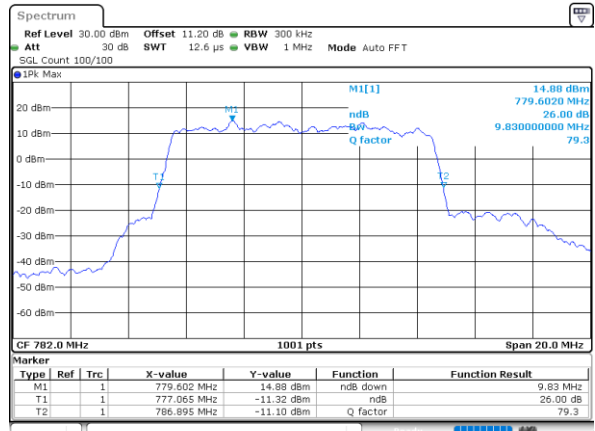
Date: 15 JUN 2021 11:30:21

Middle Channel / 5MHz / 64QAM



Date: 15 JUN 2021 11:25:09

Middle Channel / 10MHz / 64QAM



Date: 15 JUN 2021 11:43:17



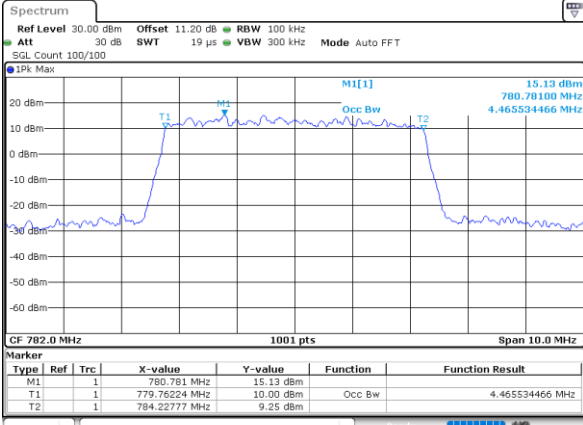
**Occupied Bandwidth**

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.47	4.48	9.01	9.01	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.49	-	8.99	-	-	-	-	-



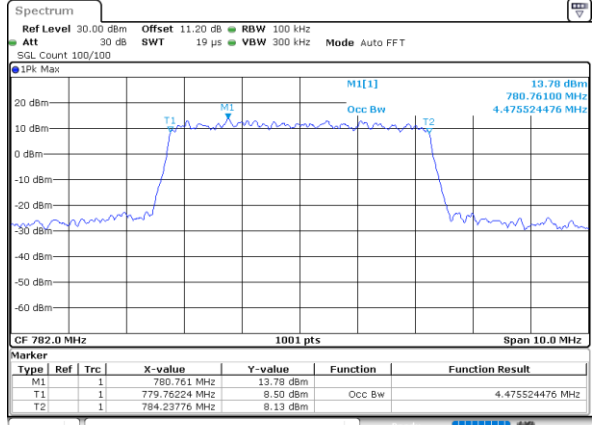
LTE Band 13

Middle Channel / 5MHz / QPSK



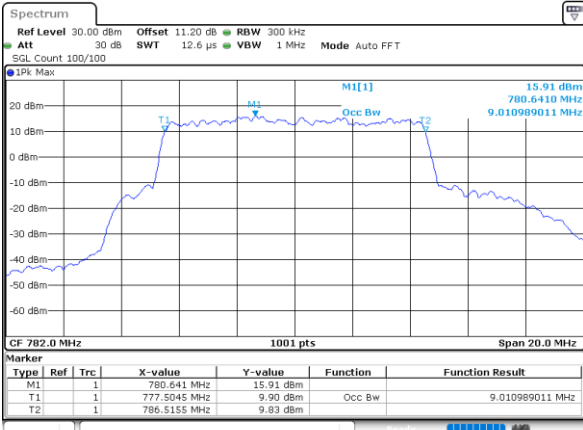
Date: 15 JUN 2021 11:12:49

Middle Channel / 5MHz / 16QAM



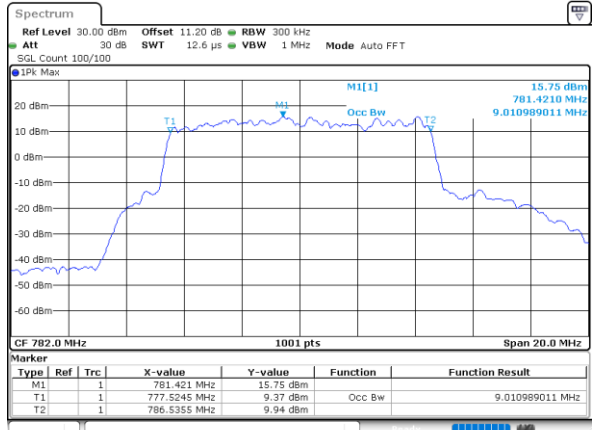
Date: 15 JUN 2021 11:12:26

Middle Channel / 10MHz / QPSK



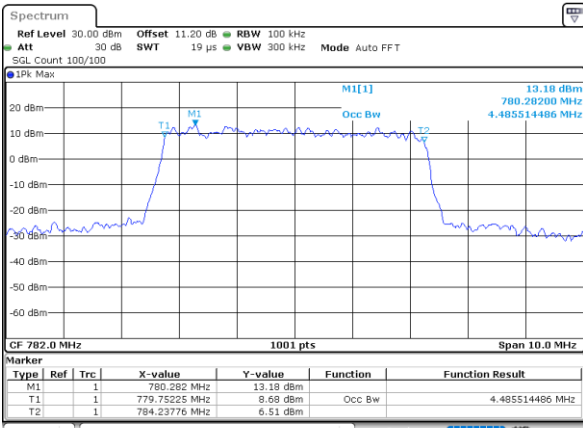
Date: 15 JUN 2021 11:29:36

Middle Channel / 10MHz / 16QAM



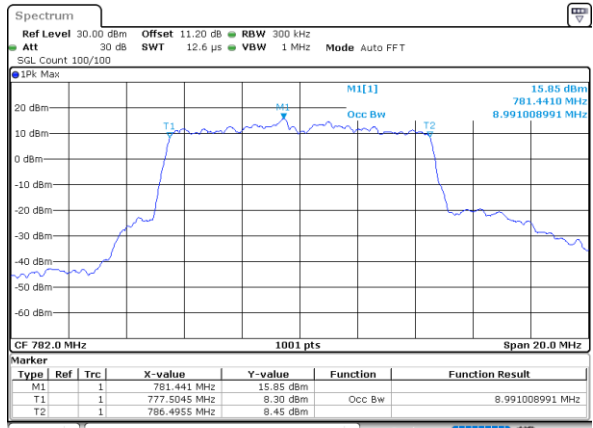
Date: 15 JUN 2021 11:29:59

Middle Channel / 5MHz / 64QAM



Date: 15 JUN 2021 11:25:30

Middle Channel / 10MHz / 64QAM



Date: 15 JUN 2021 11:42:54



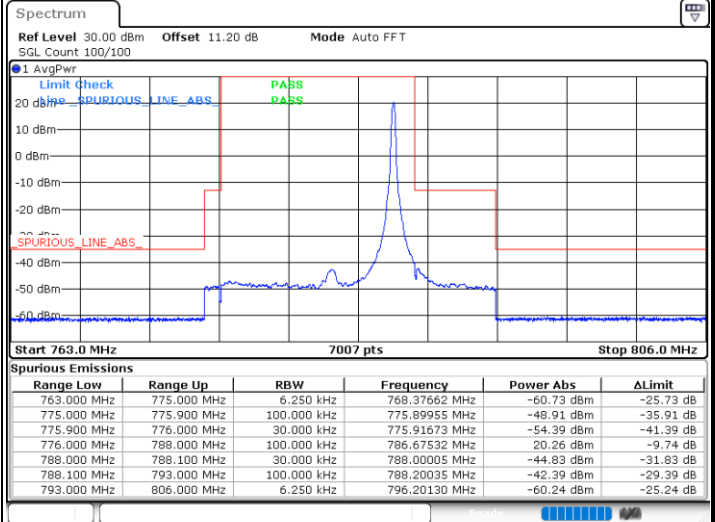
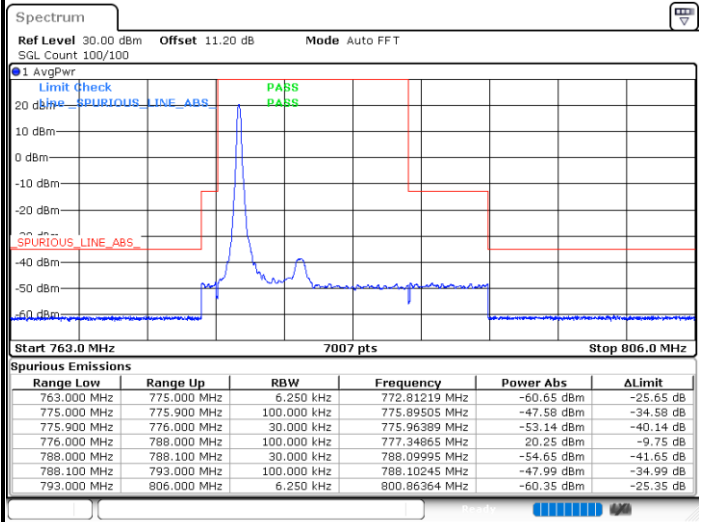


# Conducted Band Edge

## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB

### Highest Band Edge / 1 RB

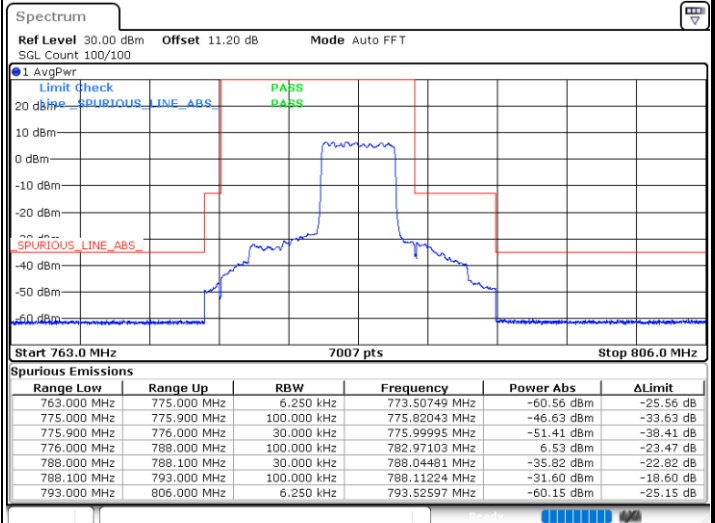
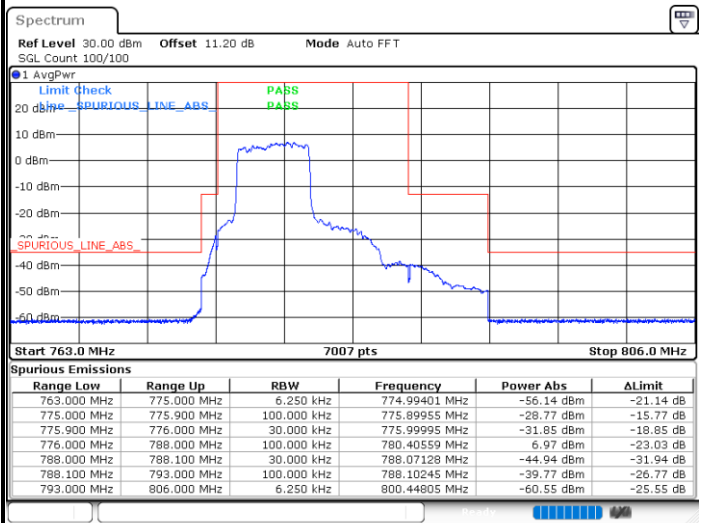


Date: 15 JUN 2021 11:09:40

Date: 15 JUN 2021 11:20:14

### Lowest Band Edge / Full RB

### Highest Band Edge / Full RB



Date: 15 JUN 2021 11:04:06

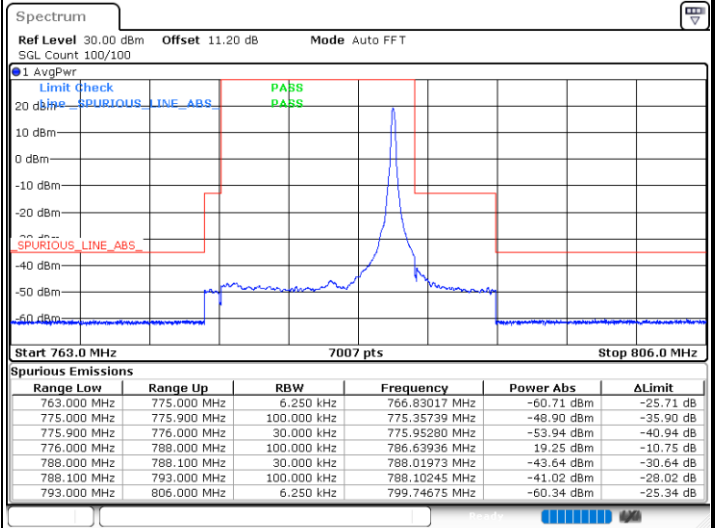
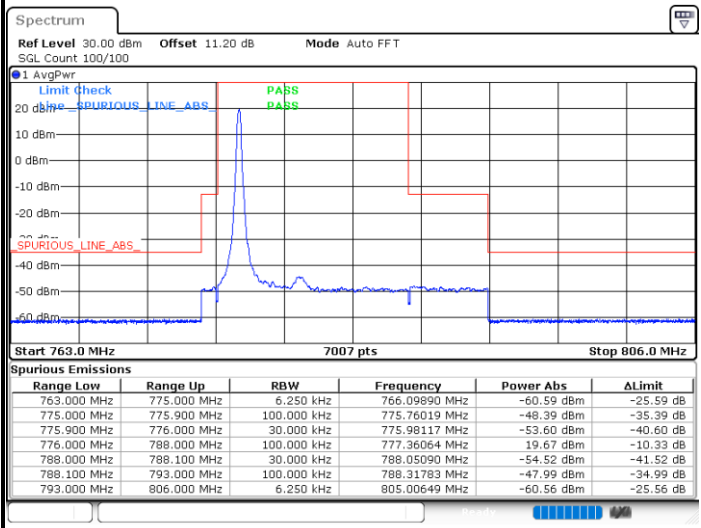
Date: 15 JUN 2021 11:14:41



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

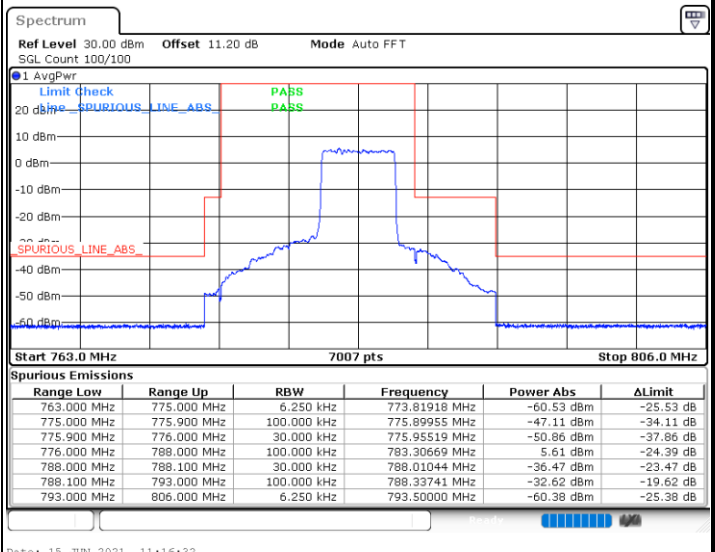
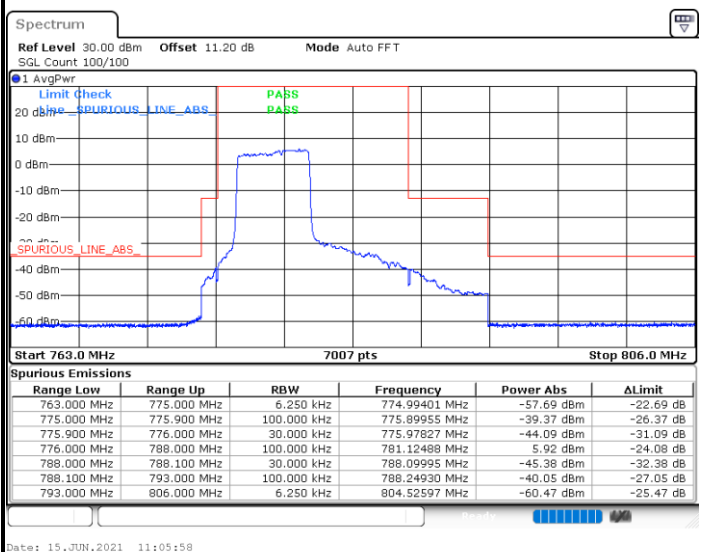


Date: 15 JUN 2021 11:07:49

Date: 15 JUN 2021 11:18:23

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15 JUN 2021 11:05:58

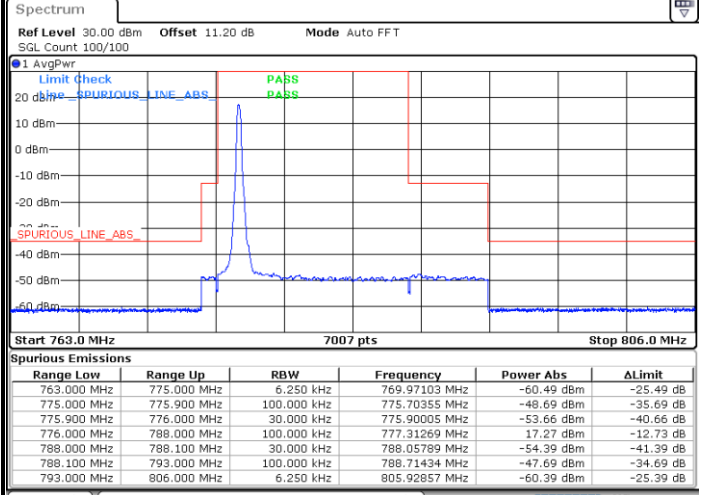
Date: 15 JUN 2021 11:16:32



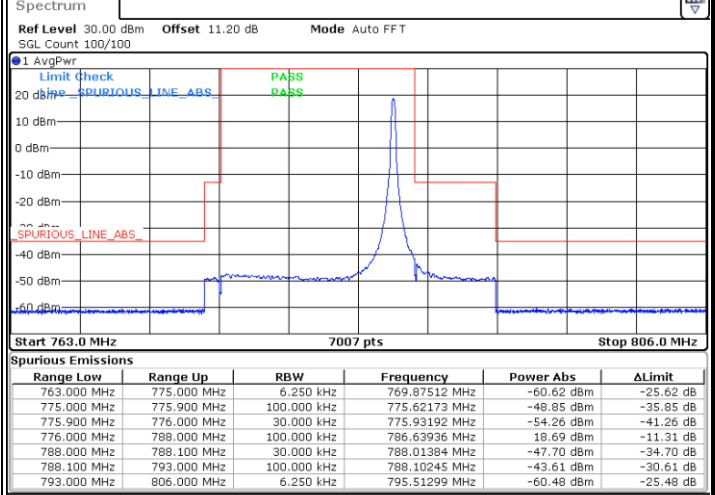
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



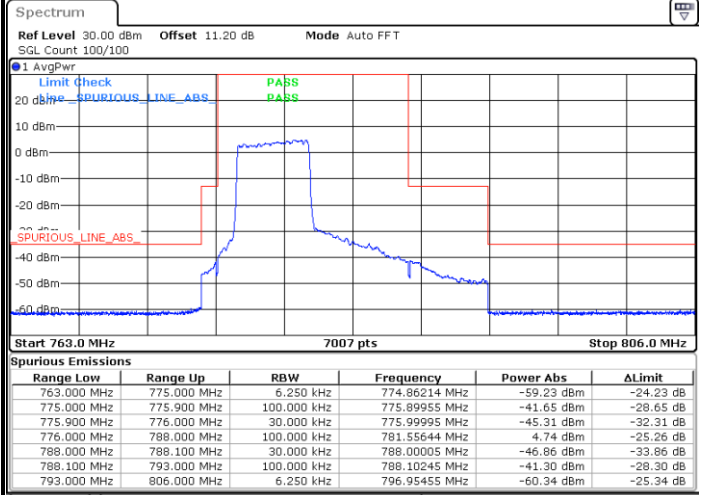
Date: 15 JUN 2021 11:24:48



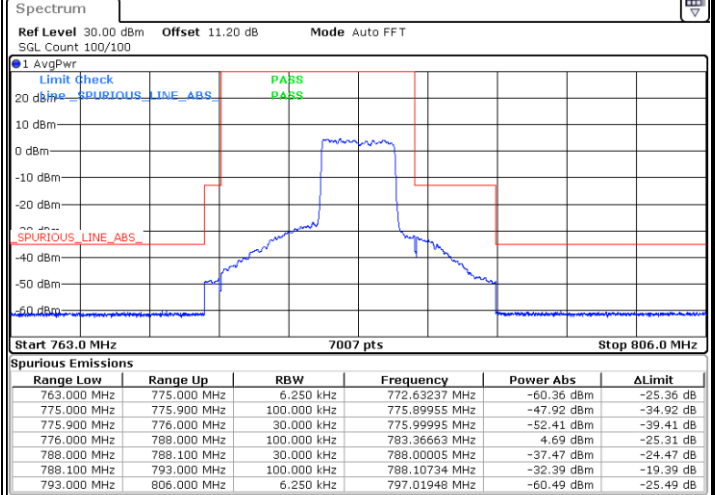
Date: 15 JUN 2021 11:29:13

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15 JUN 2021 11:22:56



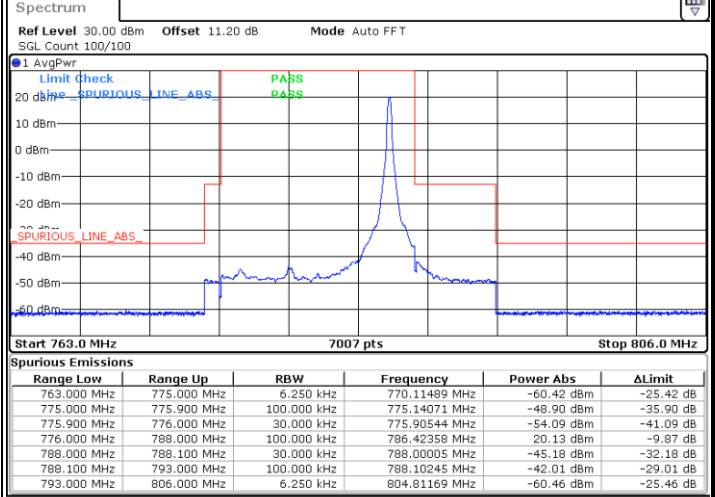
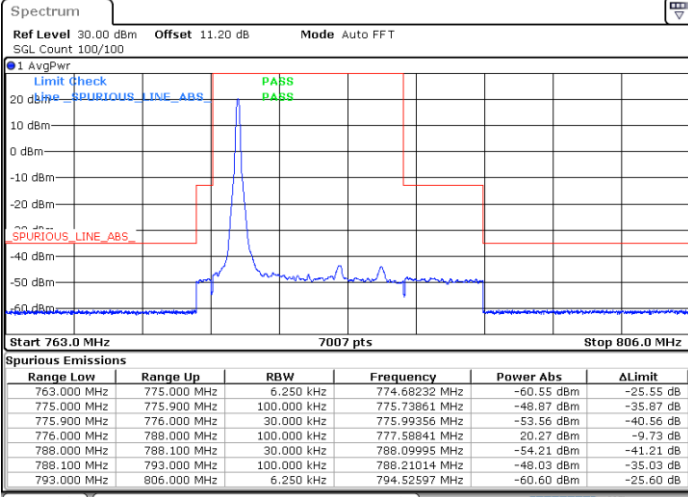
Date: 15 JUN 2021 11:27:21



LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

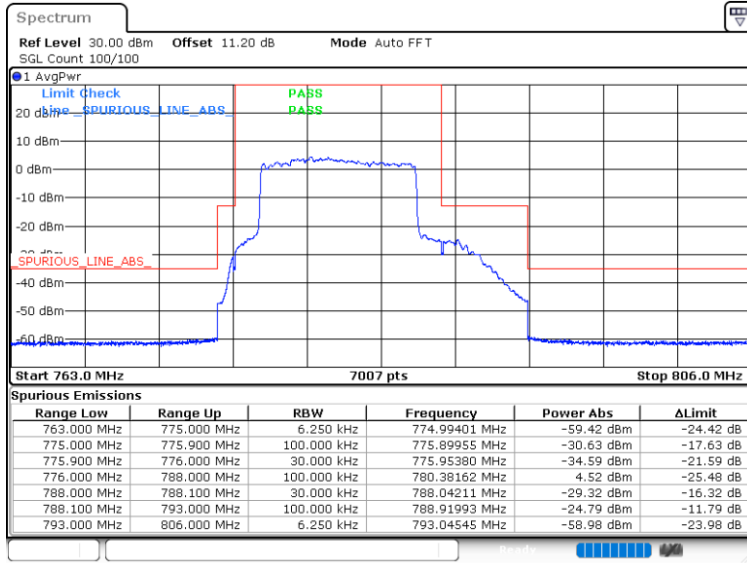
Highest Band Edge / 1 RB



Date: 15 JUN 2021 11:38:03

Date: 15 JUN 2021 11:39:53

Band Edge / Full RB

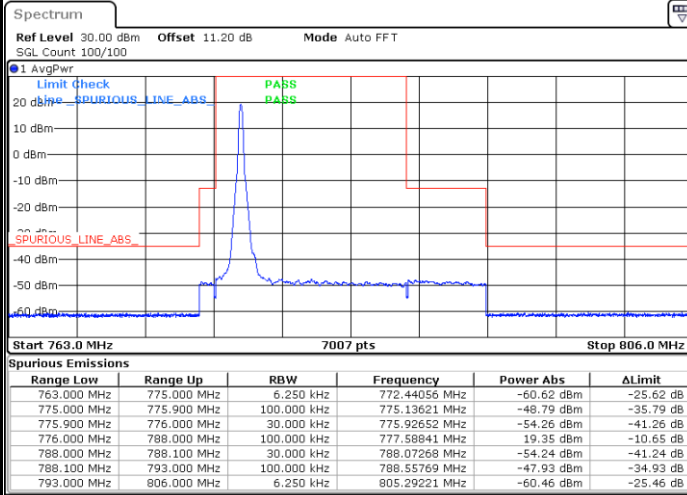


Date: 15 JUN 2021 11:32:32



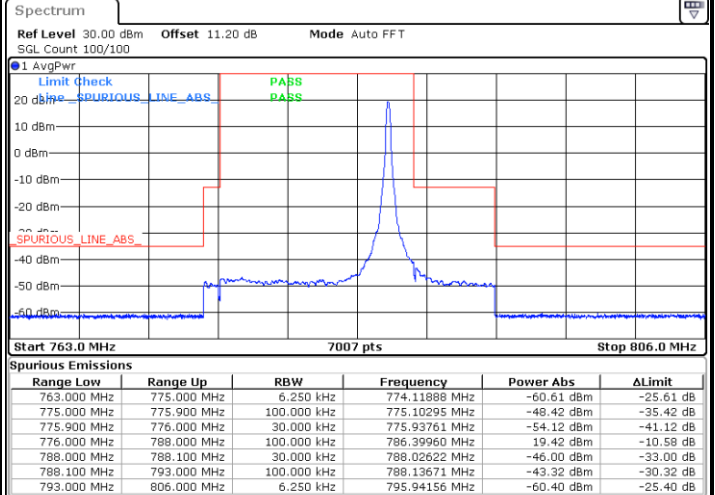
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



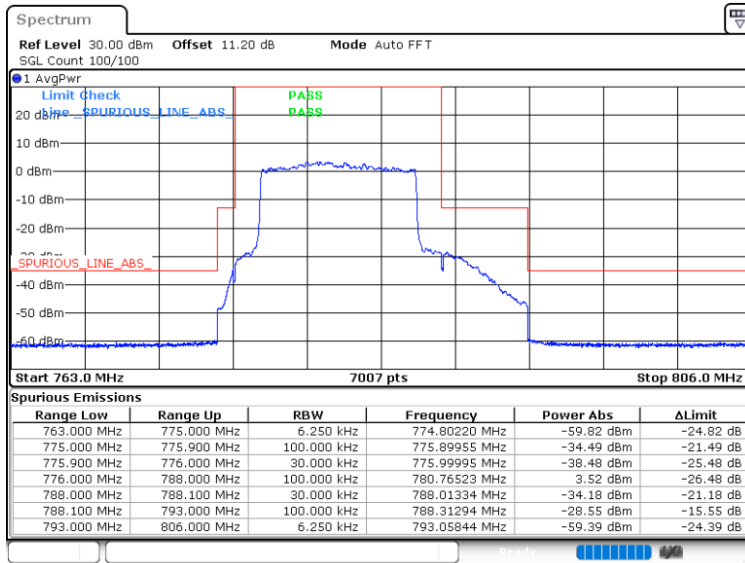
Date: 15 JUN 2021 11:36:13

Highest Band Edge / 1 RB



Date: 15 JUN 2021 11:41:43

Band Edge / Full RB



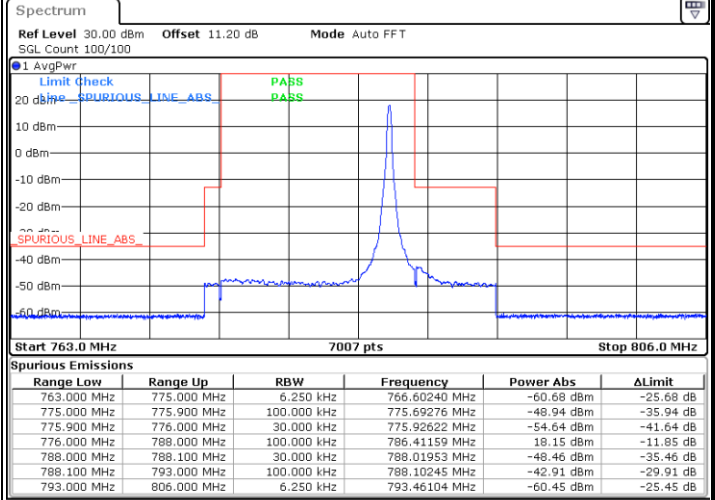
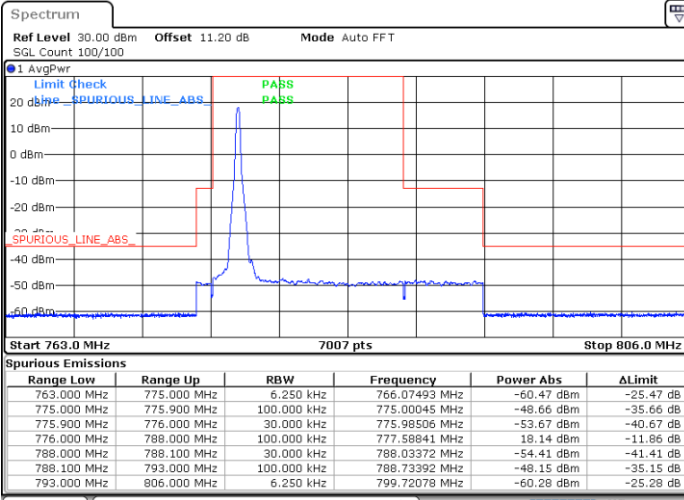
Date: 15 JUN 2021 11:34:22



LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

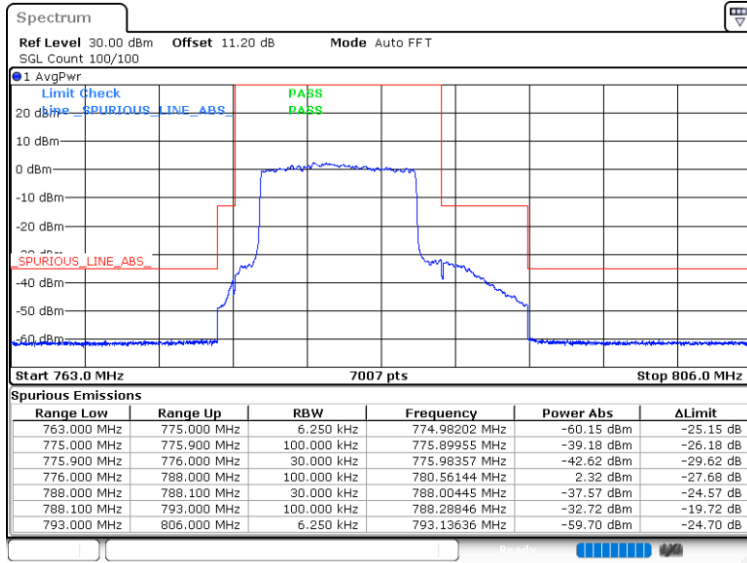
Highest Band Edge / 1 RB



Date: 15 JUN 2021 11:46:58

Date: 15 JUN 2021 11:48:48

Band Edge / Full RB



Date: 15 JUN 2021 11:45:07

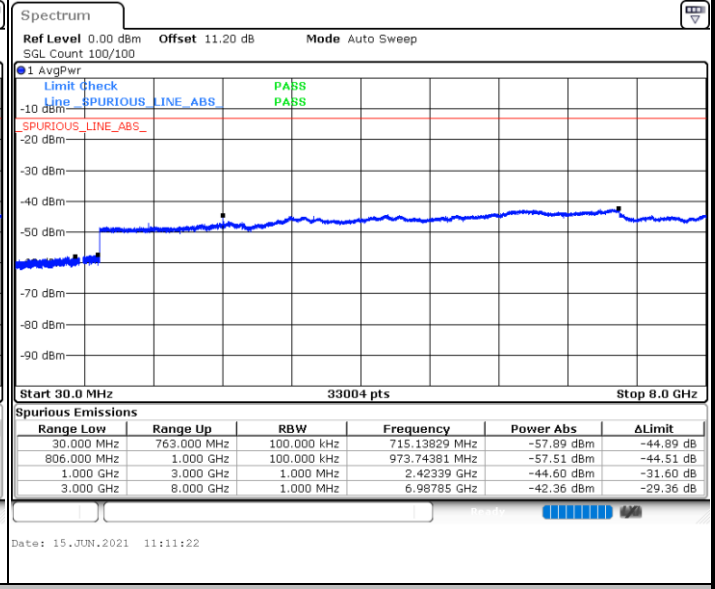
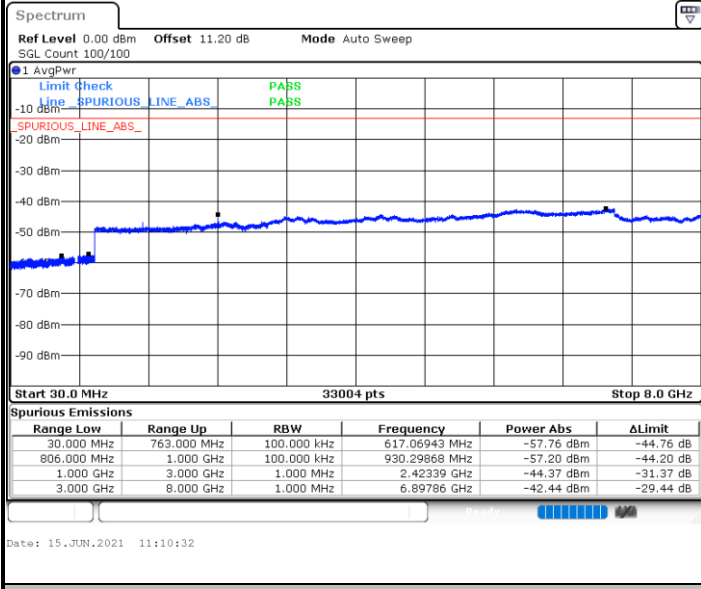


# Conducted Spurious Emission

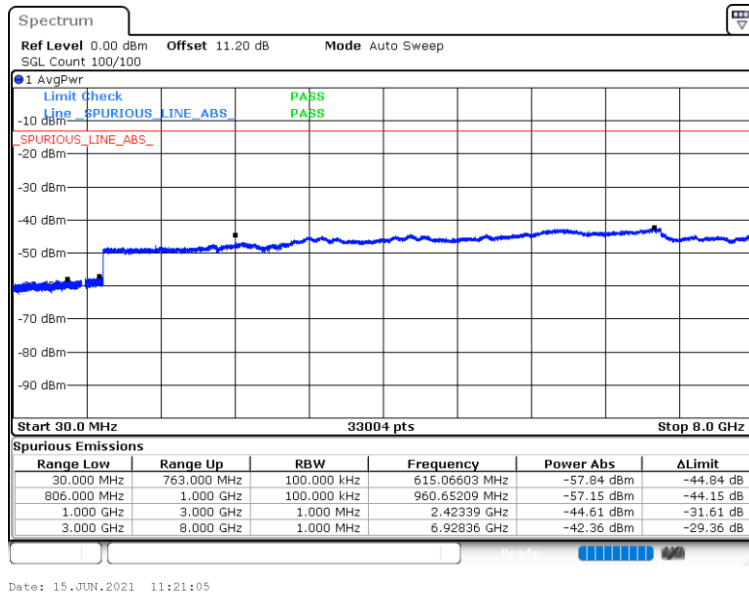
## LTE Band 13 / 5MHz

### Lowest Channel / QPSK

### Middle Channel / QPSK



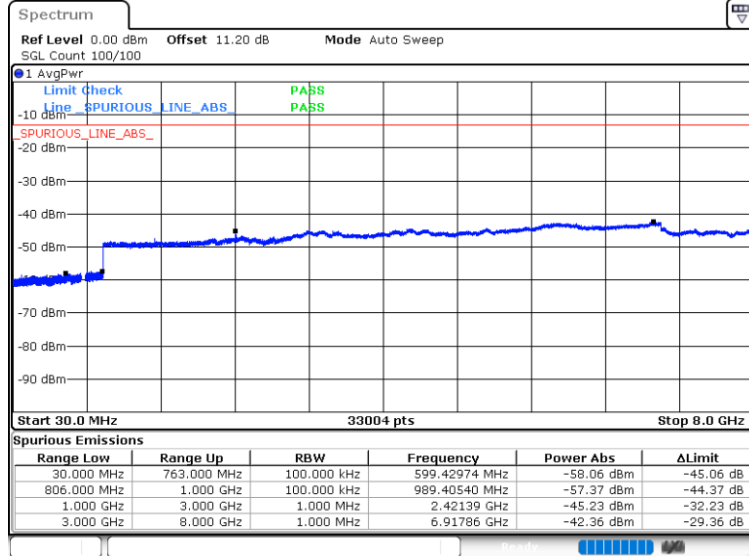
### Highest Channel / QPSK





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 15 JUN 2021 11:42:32





### Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
40	Normal Voltage	0.0100	PASS
30	Normal Voltage	0.0081	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0029	
-10	Normal Voltage	0.0042	
-20	Normal Voltage	0.0000	
20	Maximum Voltage	0.0038	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

**Note:**

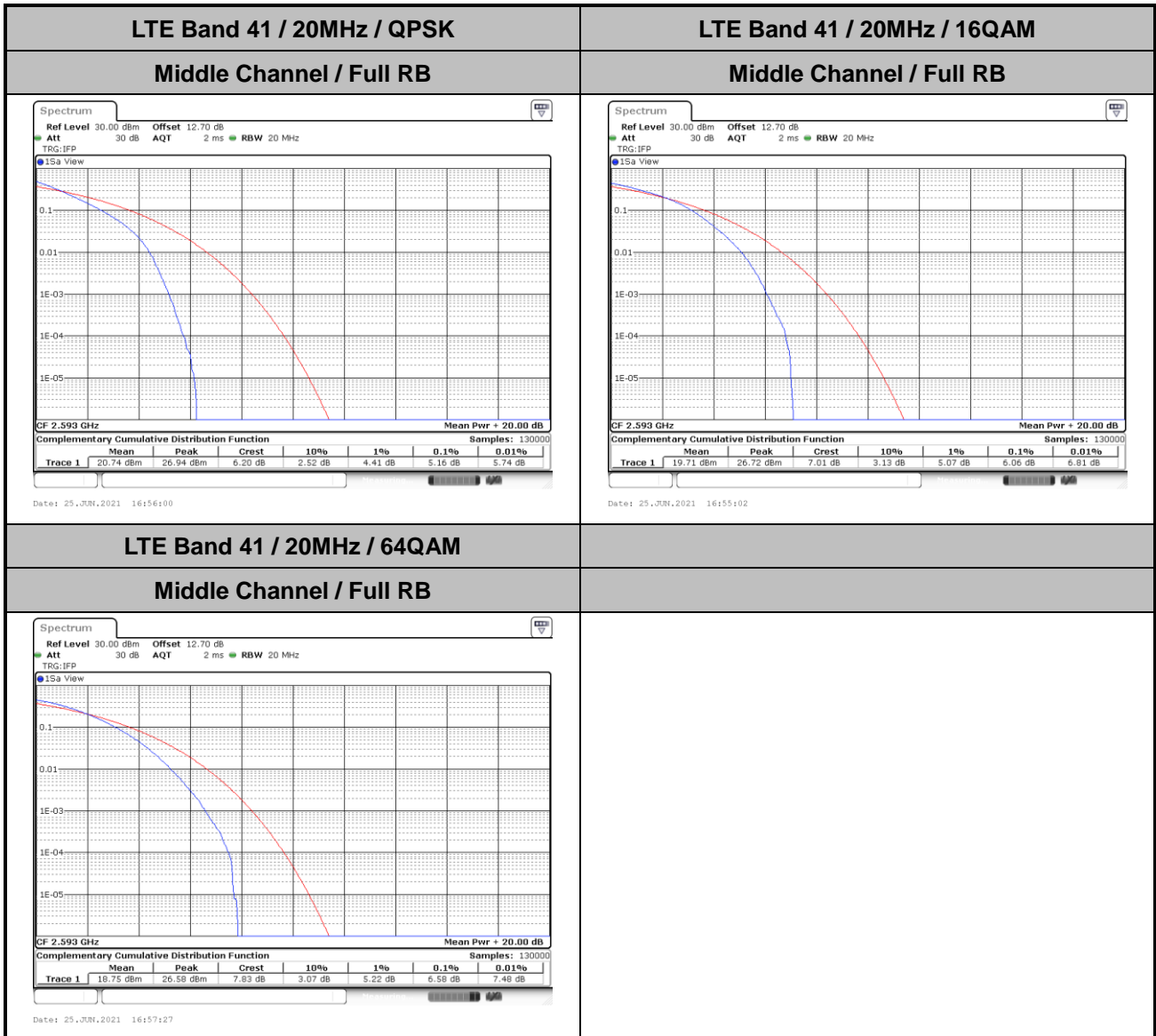
- 1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.
- 3. EUT can't operate outside the temperatures between -20 °C and 40 °C.



## 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	5.16	6.06	6.58	<b>PASS</b>





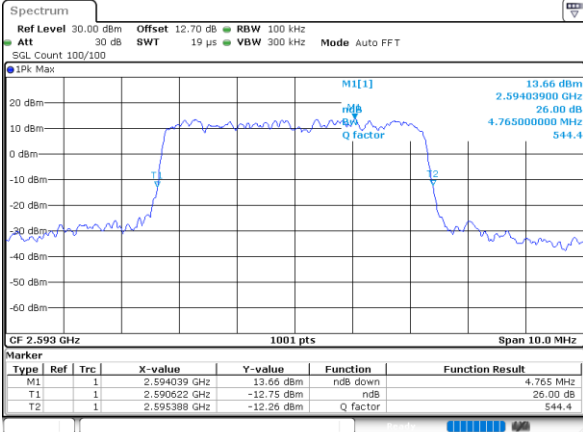
**26dB Bandwidth**

Mode	LTE Band 41 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.77	4.83	9.91	9.71	14.15	14.54	19.02	18.74
Mode	LTE Band 41 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.96	-	9.81	-	14.45	-	18.62	-



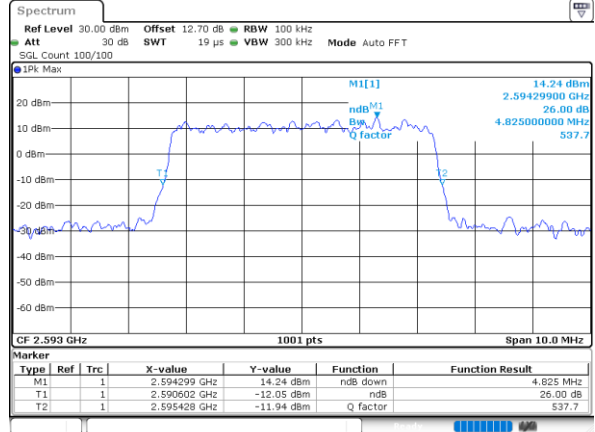
LTE Band 41

Middle Channel / 5MHz / QPSK



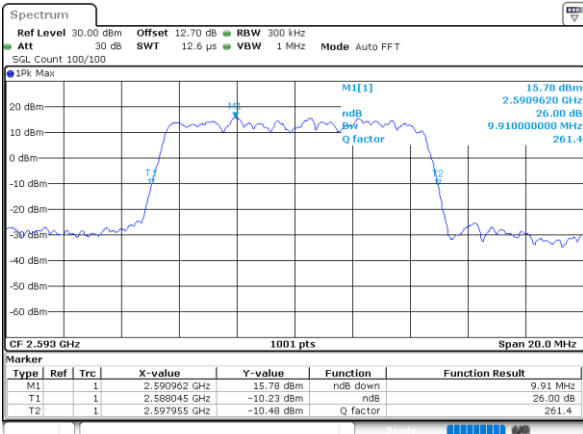
Date: 25 JUN 2021 16:19:02

Middle Channel / 5MHz / 16QAM



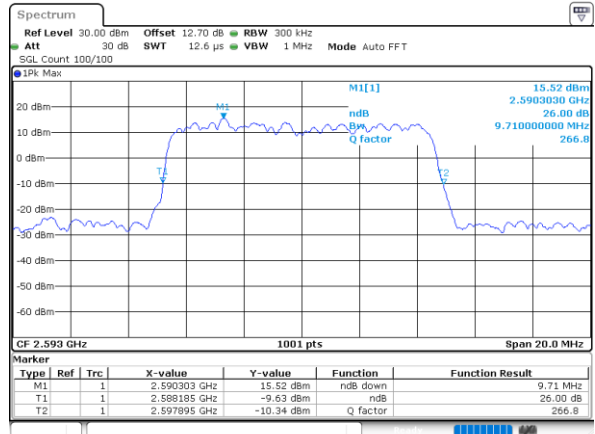
Date: 25 JUN 2021 16:19:23

Middle Channel / 10MHz / QPSK



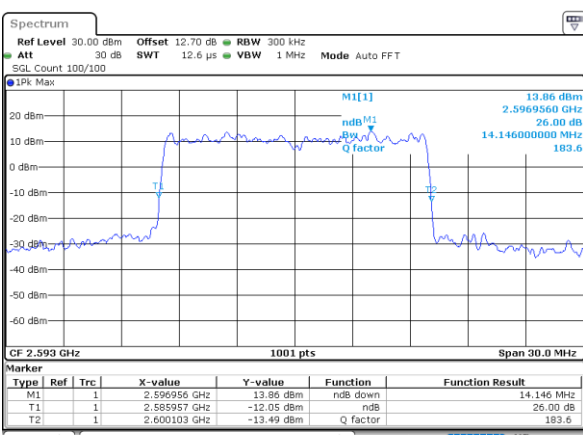
Date: 25 JUN 2021 16:20:30

Middle Channel / 10MHz / 16QAM



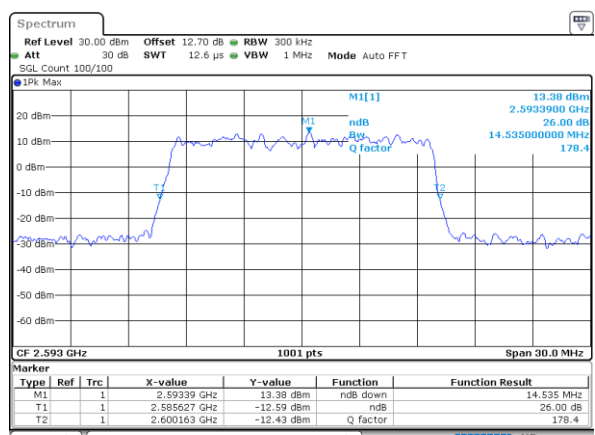
Date: 25 JUN 2021 16:20:51

Middle Channel / 15MHz / QPSK



Date: 25 JUN 2021 16:21:57

Middle Channel / 15MHz / 16QAM

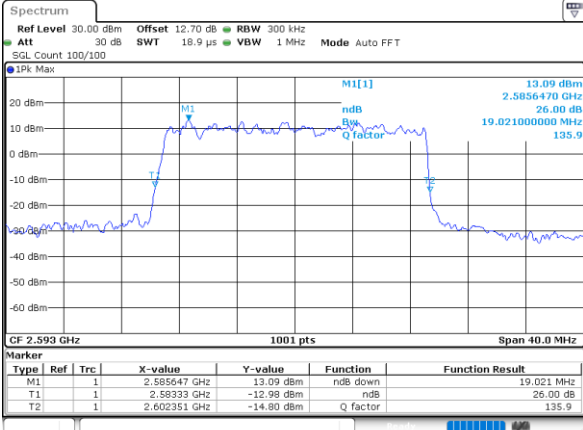


Date: 25 JUN 2021 16:22:18



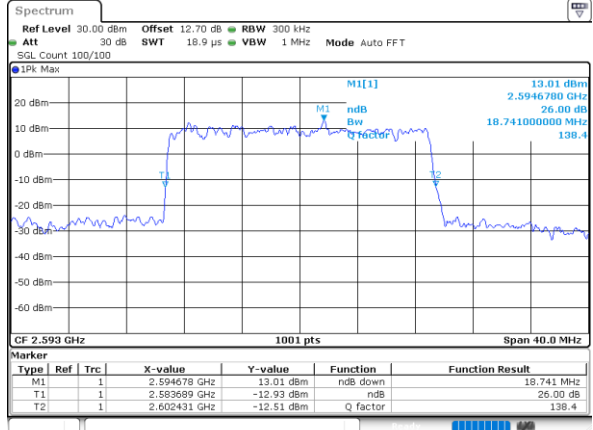
LTE Band 41

Middle Channel / 20MHz / QPSK



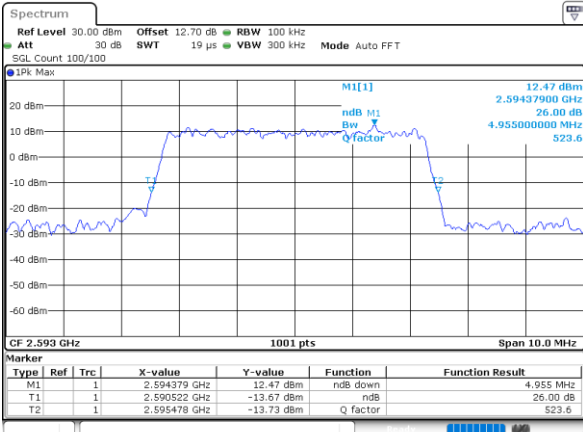
Date: 25 JUN 2021 16:23:25

Middle Channel / 20MHz / 16QAM



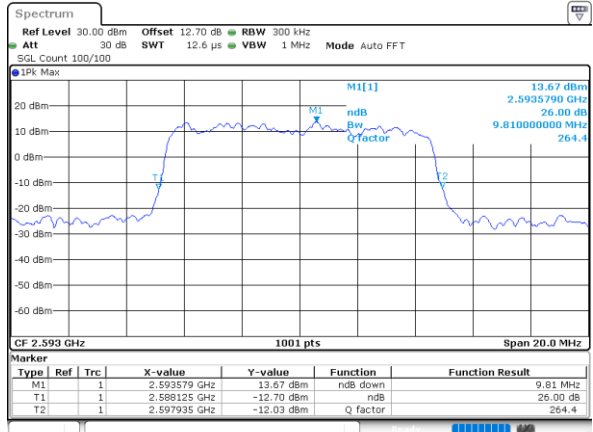
Date: 25 JUN 2021 16:23:46

Middle Channel / 5MHz / 64QAM



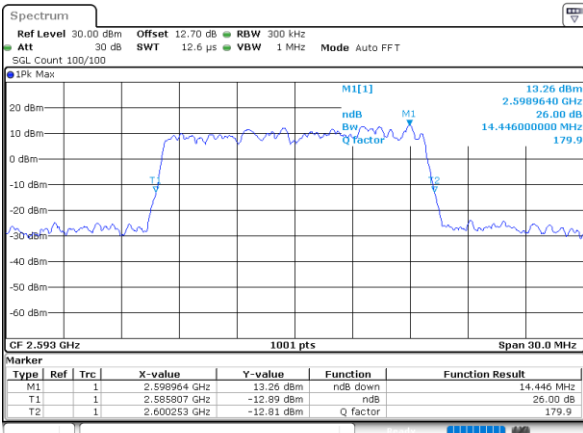
Date: 25 JUN 2021 16:24:30

Middle Channel / 10MHz / 64QAM



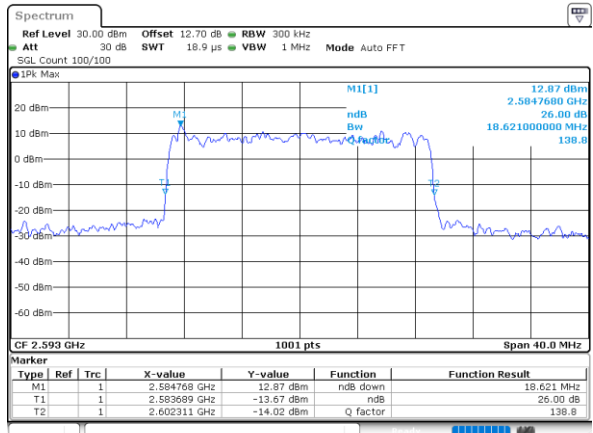
Date: 25 JUN 2021 16:25:14

Middle Channel / 15MHz / 64QAM



Date: 25 JUN 2021 16:25:58

Middle Channel / 20MHz / 64QAM



Date: 25 JUN 2021 16:26:42



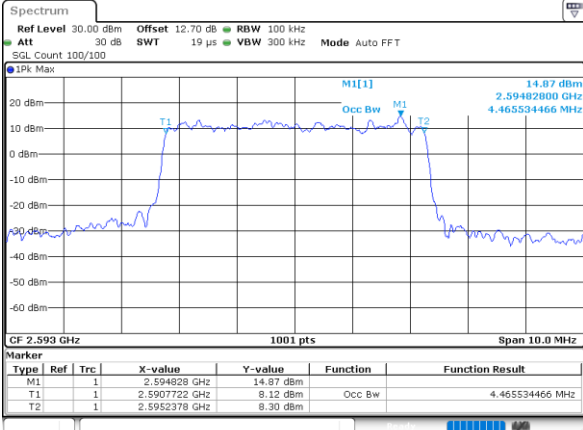
**Occupied Bandwidth**

Mode	LTE Band 41 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.47	4.48	9.07	8.99	13.40	13.46	17.86	17.74
Mode	LTE Band 41 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.49	-	9.01	-	13.46	-	17.86	-



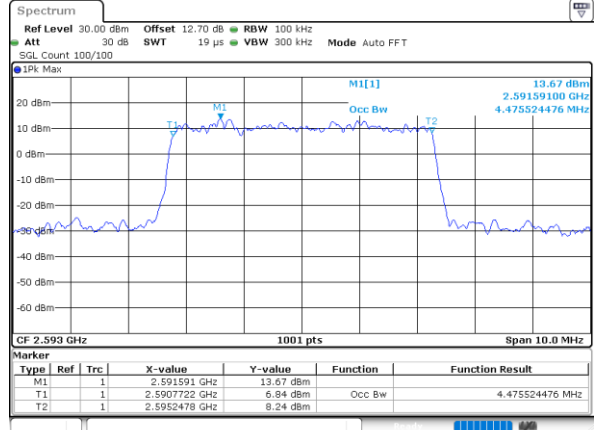
LTE Band 41

Middle Channel / 5MHz / QPSK



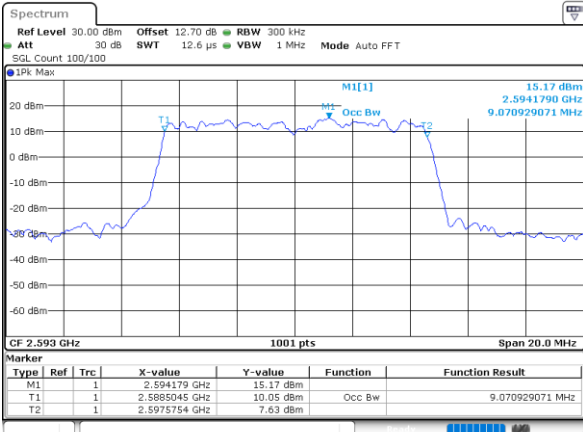
Date: 25 JUN 2021 16:18:17

Middle Channel / 5MHz / 16QAM



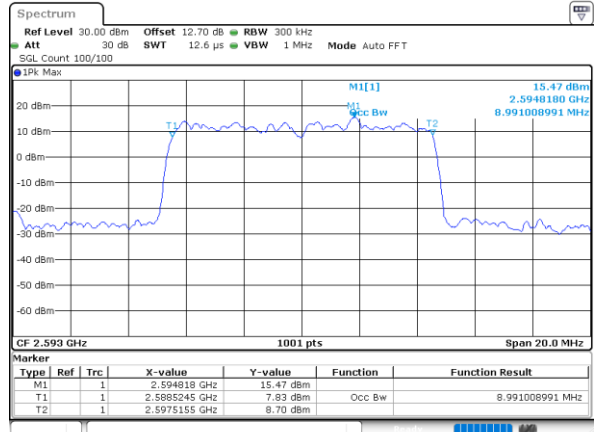
Date: 25 JUN 2021 16:18:40

Middle Channel / 10MHz / QPSK



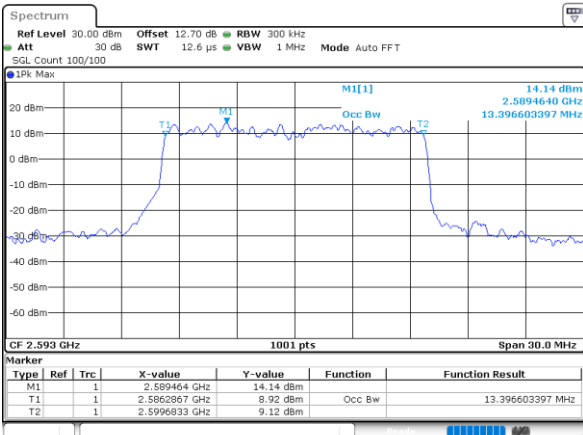
Date: 25 JUN 2021 16:19:45

Middle Channel / 10MHz / 16QAM



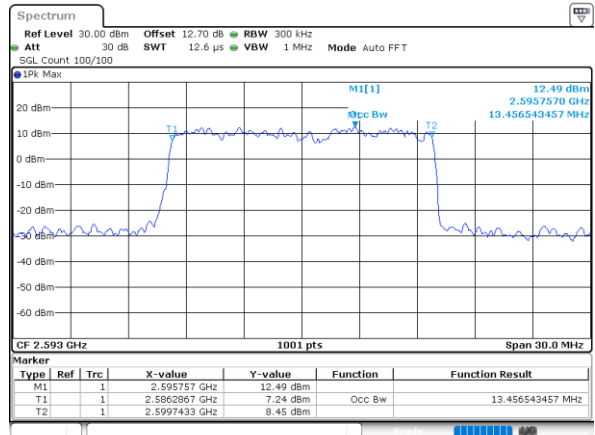
Date: 25 JUN 2021 16:20:07

Middle Channel / 15MHz / QPSK



Date: 25 JUN 2021 16:21:12

Middle Channel / 15MHz / 16QAM



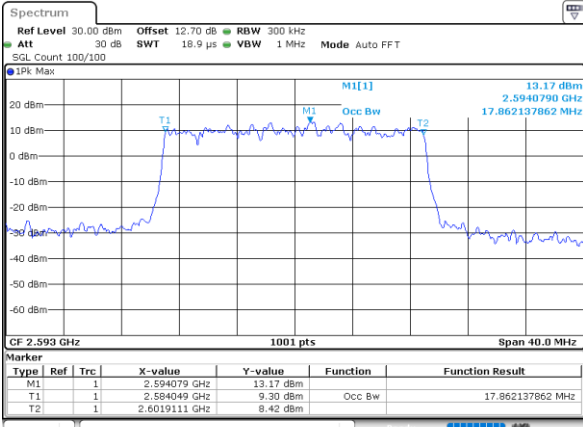
Date: 25 JUN 2021 16:21:35





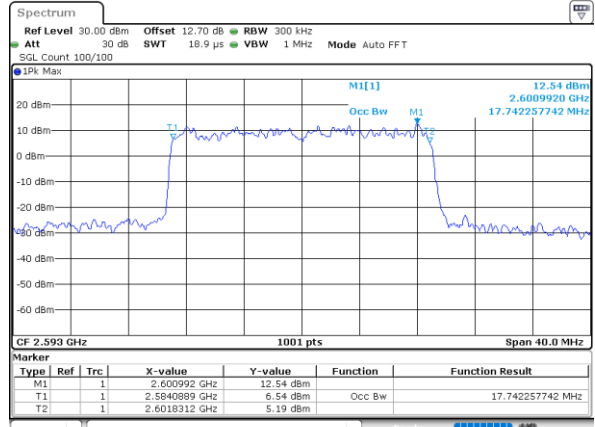
LTE Band 41

Middle Channel / 20MHz / QPSK



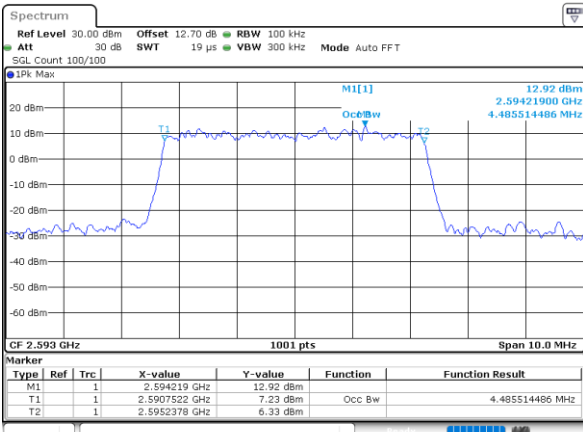
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Middle Channel / 20MHz / 16QAM



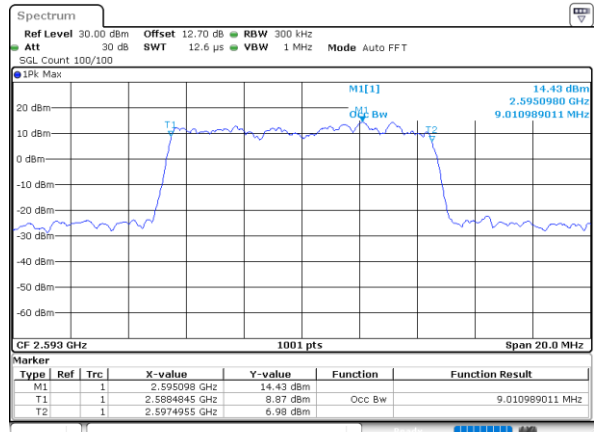
Date: 25 JUN 2021 16:23:02

Middle Channel / 5MHz / 64QAM



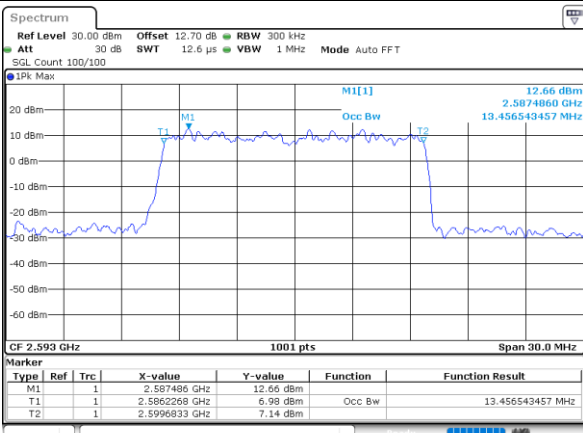
Date: 25 JUN 2021 16:24:07

Middle Channel / 10MHz / 64QAM



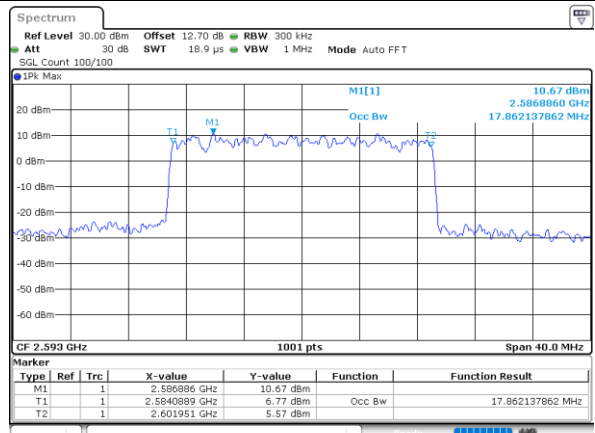
Date: 25 JUN 2021 16:24:52

Middle Channel / 15MHz / 64QAM



Date: 25 JUN 2021 16:25:36

Middle Channel / 20MHz / 64QAM



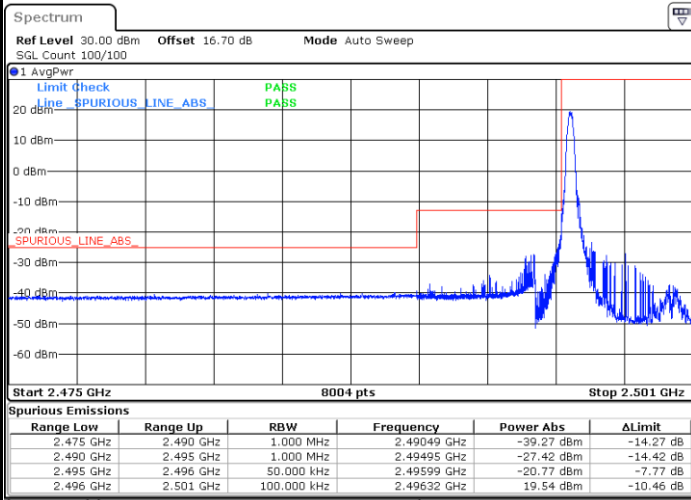
Date: 25 JUN 2021 16:26:20



# Conducted Band Edge

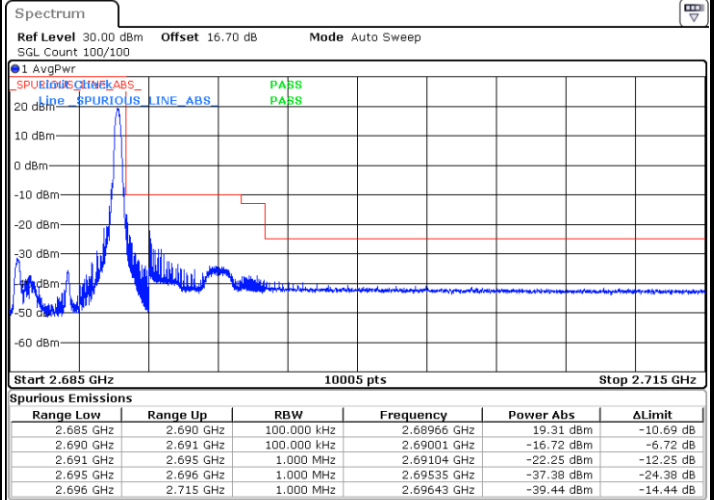
## LTE Band 41 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



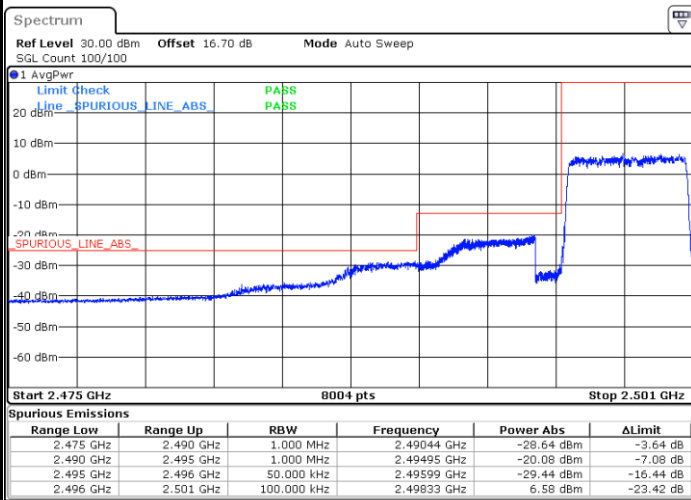
Date: 17.JUN.2021 09:56:32

### Highest Band Edge / 1 RB



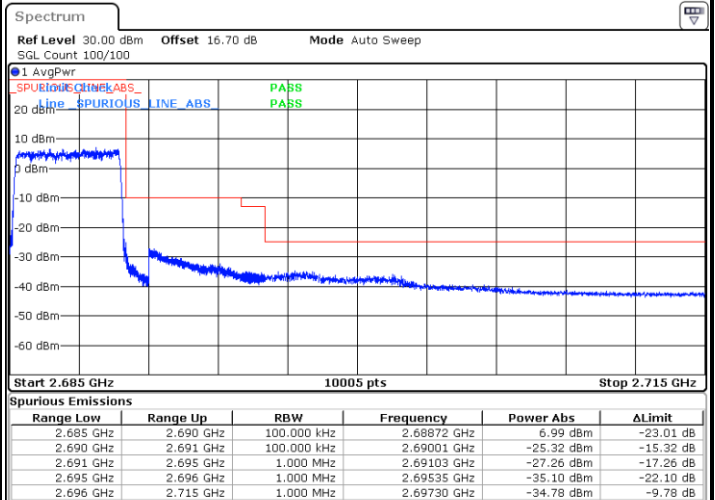
Date: 17.JUN.2021 09:59:55

### Lowest Band Edge / Full RB



Date: 17.JUN.2021 09:58:13

### Highest Band Edge / Full RB

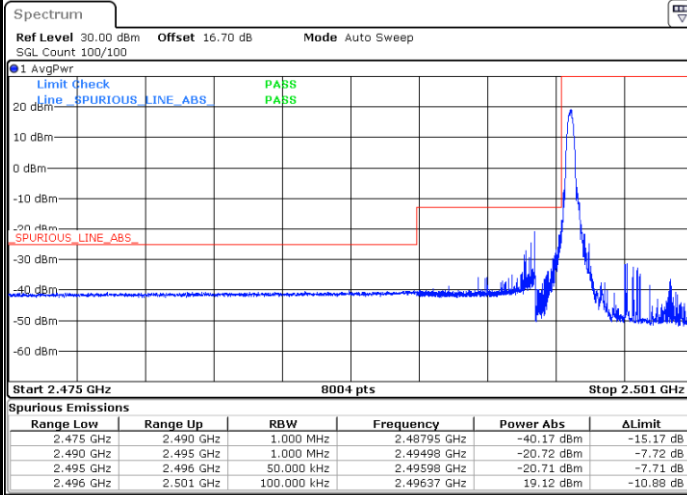


Date: 17.JUN.2021 10:01:36



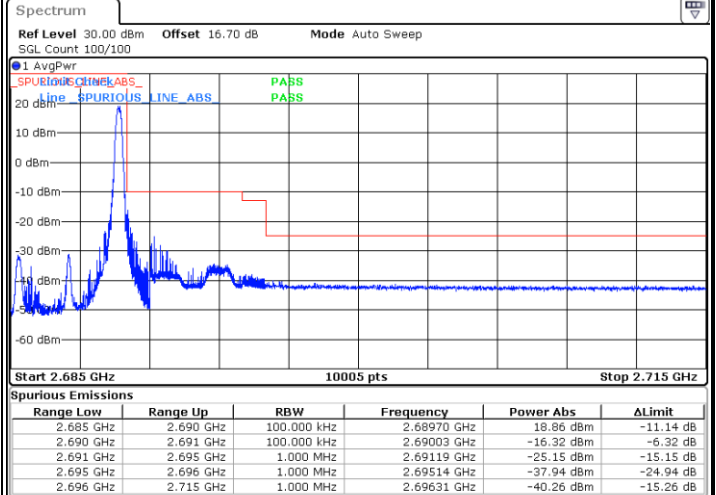
LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



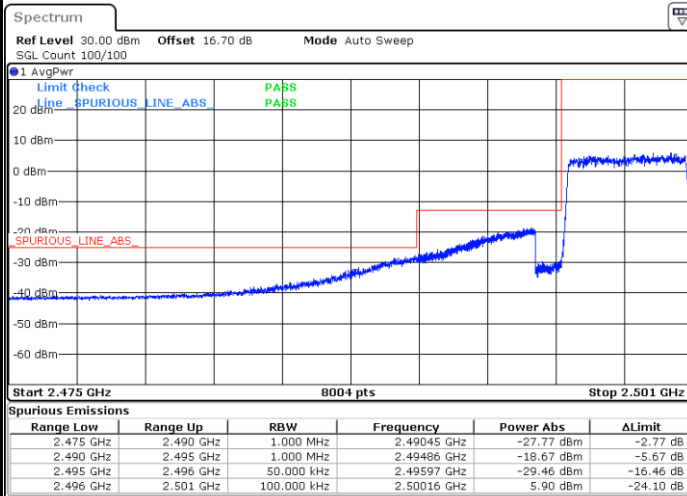
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Highest Band Edge / 1 RB



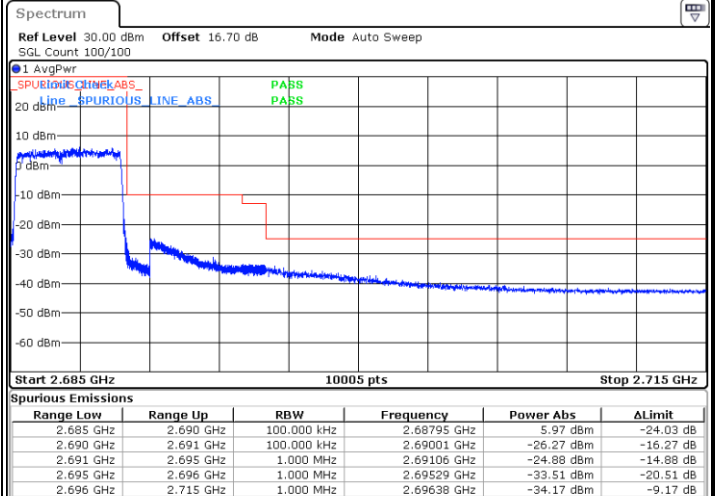
Date: 17 JUN 2021 10:00:46

Lowest Band Edge / Full RB



Date: 17 JUN 2021 11:28:01

Highest Band Edge / Full RB



Date: 17 JUN 2021 10:02:27