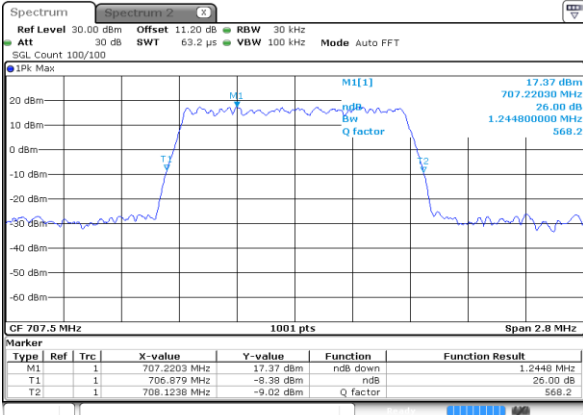




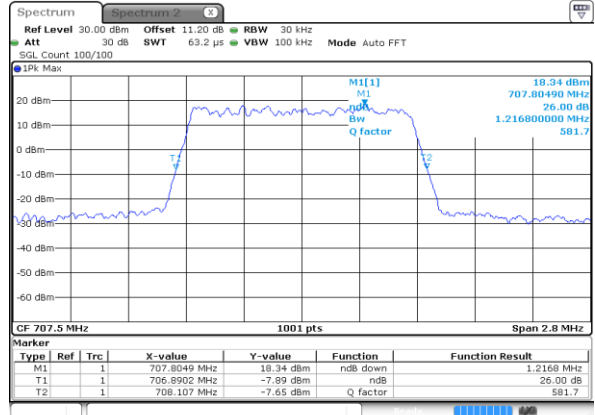
LTE Band 12

Middle Channel / 1.4MHz / QPSK



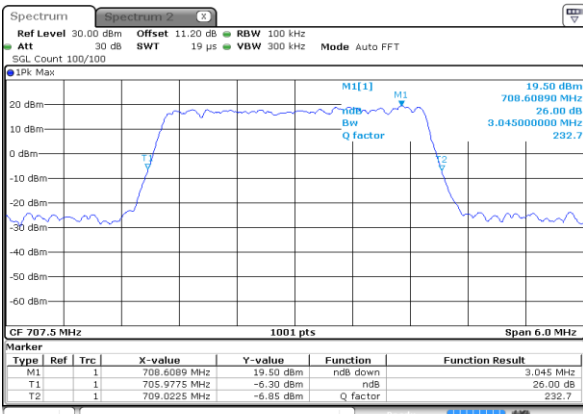
Date: 1 APR 2021 22:56:43

Middle Channel / 1.4MHz / 16QAM



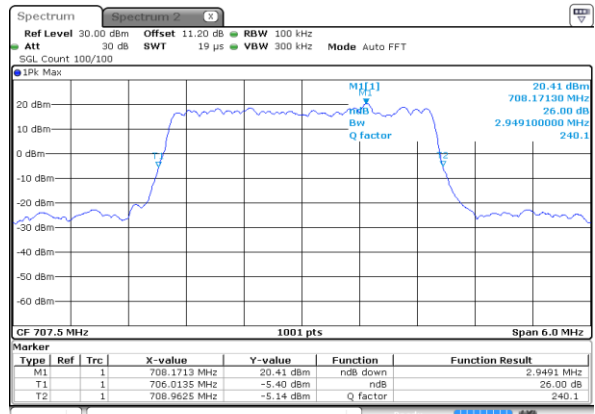
Date: 1 APR 2021 22:57:05

Middle Channel / 3MHz / QPSK



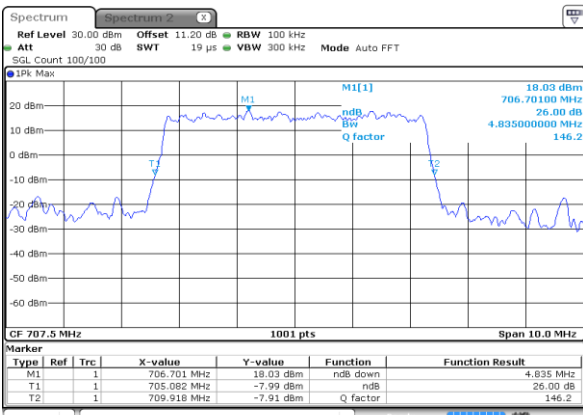
Date: 1 APR 2021 23:11:44

Middle Channel / 3MHz / 16QAM



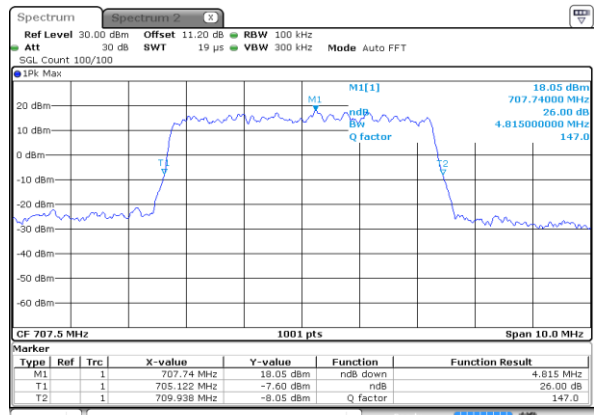
Date: 1 APR 2021 23:12:08

Middle Channel / 5MHz / QPSK



Date: 1 APR 2021 23:30:39

Middle Channel / 5MHz / 16QAM

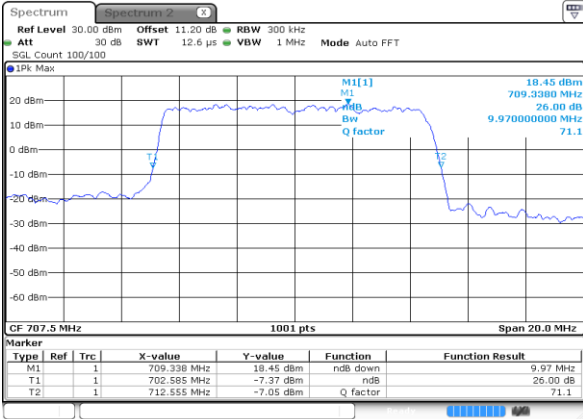


Date: 1 APR 2021 23:31:03



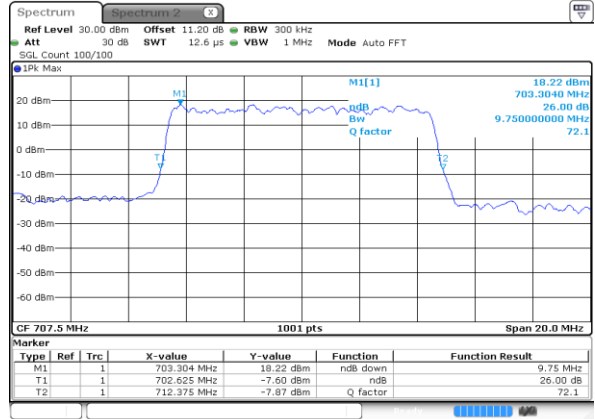
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 1 APR 2021 23:41:45

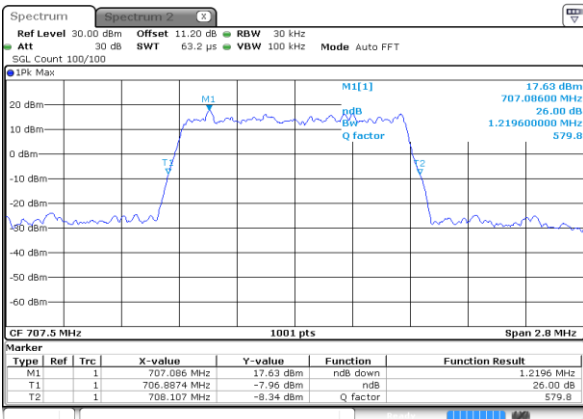
Middle Channel / 10MHz / 16QAM



Date: 1 APR 2021 23:42:09

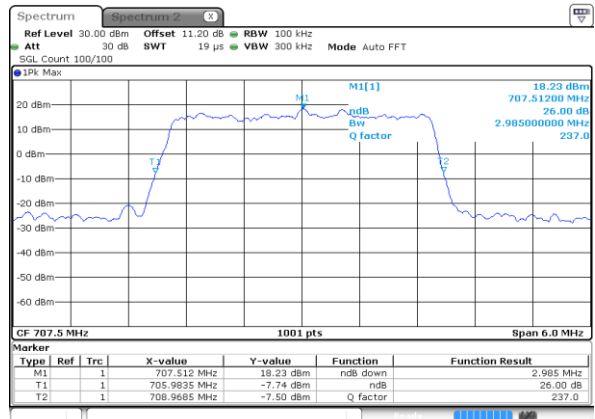
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



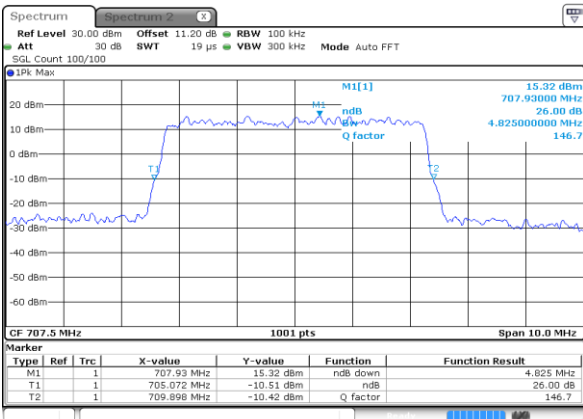
Date: 1 APR 2021 23:04:48

Middle Channel / 3MHz / 64QAM



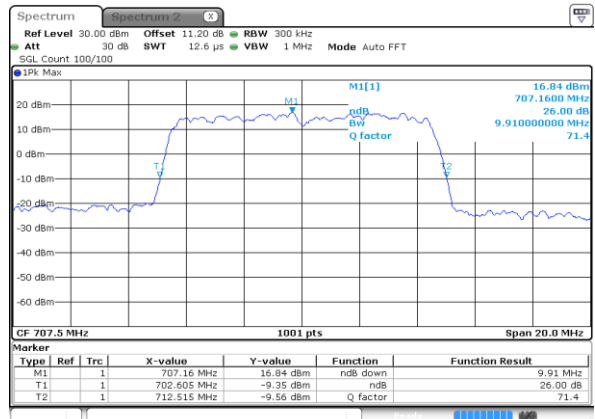
Date: 1 APR 2021 23:19:49

Middle Channel / 5MHz / 64QAM



Date: 1 APR 2021 23:23:47

Middle Channel / 10MHz / 64QAM



Date: 1 APR 2021 23:49:49



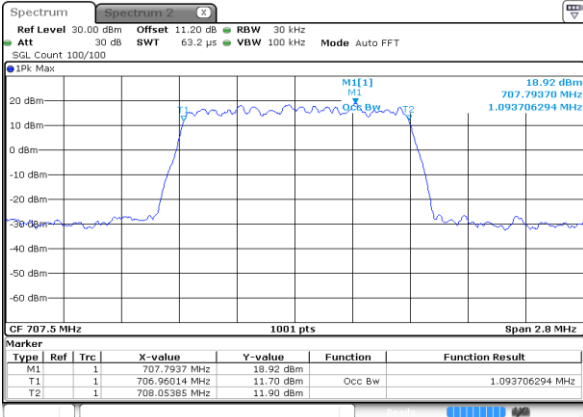
Occupied Bandwidth

Mode	LTE Band 12 : 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	1.09	1.09	2.73	2.72	4.47	4.51	9.09	9.01	-	-	-	-
Mode	LTE Band 12 : 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	1.09	-	2.72	-	4.45	-	9.01	-	-	-	-	-



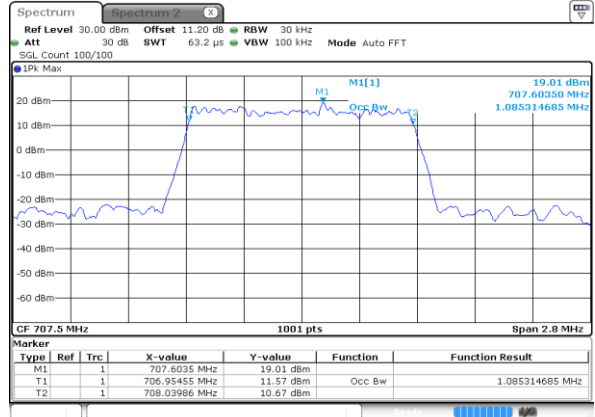
LTE Band 12

Middle Channel / 1.4MHz / QPSK



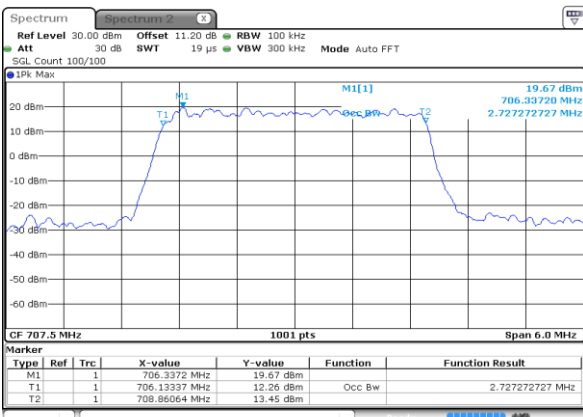
Date: 1 APR 2021 22:56:27

Middle Channel / 1.4MHz / 16QAM



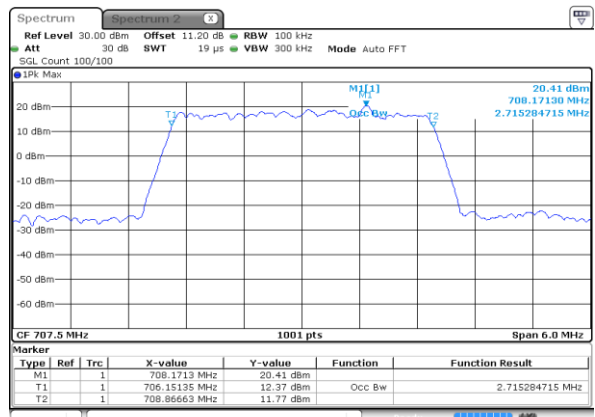
Date: 1 APR 2021 22:56:02

Middle Channel / 3MHz / QPSK



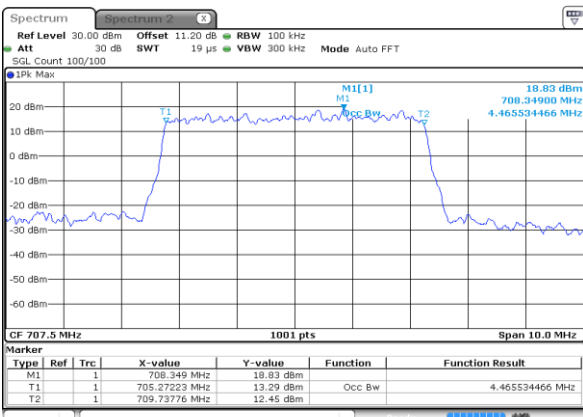
Date: 1 APR 2021 23:11:28

Middle Channel / 3MHz / 16QAM



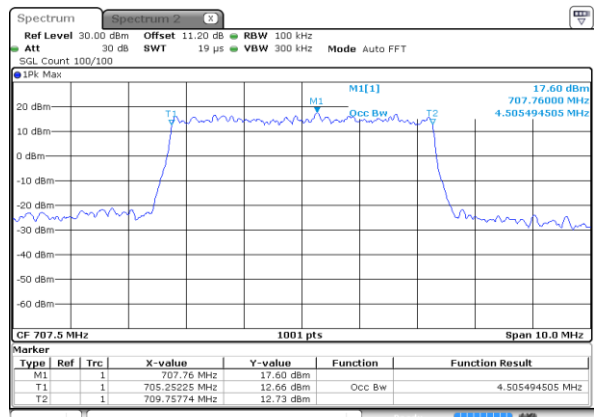
Date: 1 APR 2021 23:11:03

Middle Channel / 5MHz / QPSK



Date: 1 APR 2021 23:30:23

Middle Channel / 5MHz / 16QAM

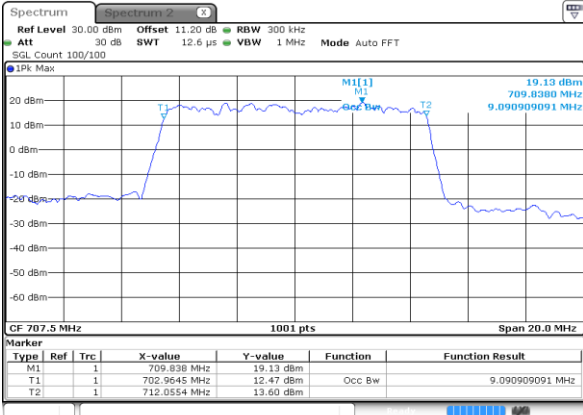


Date: 1 APR 2021 23:29:58



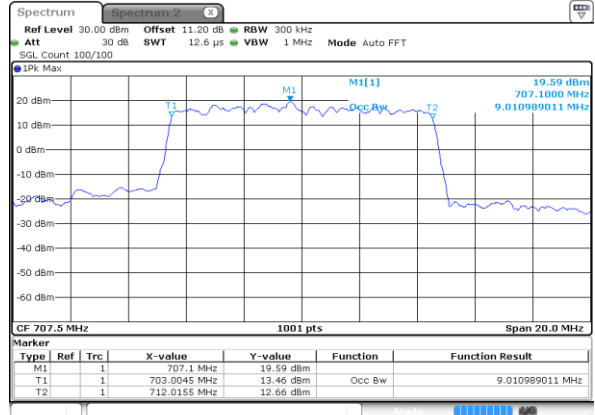
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 1 APR 2021 23:41:29

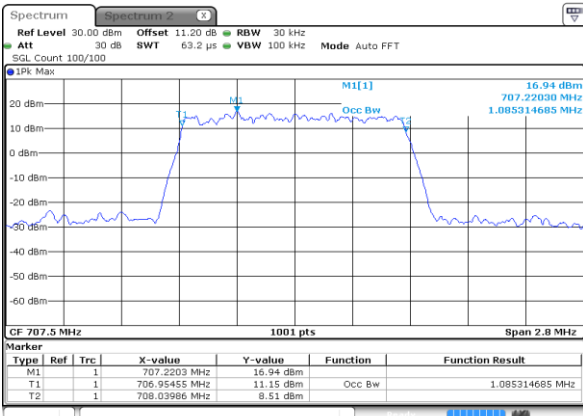
Middle Channel / 10MHz / 16QAM



Date: 1 APR 2021 23:41:04

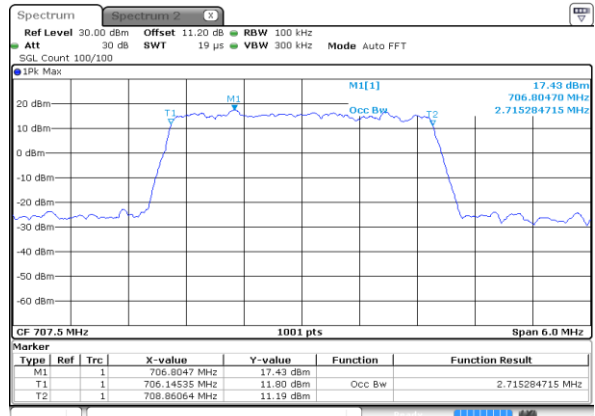
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



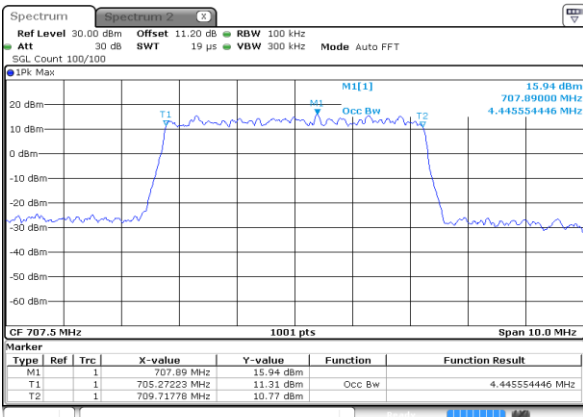
Date: 1 APR 2021 23:04:32

Middle Channel / 3MHz / 64QAM



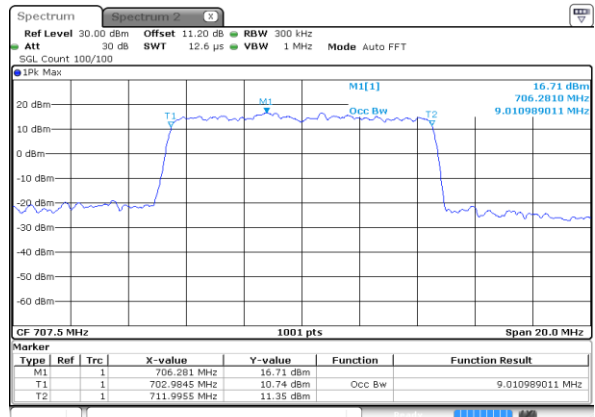
Date: 1 APR 2021 23:19:33

Middle Channel / 5MHz / 64QAM



Date: 1 APR 2021 23:23:31

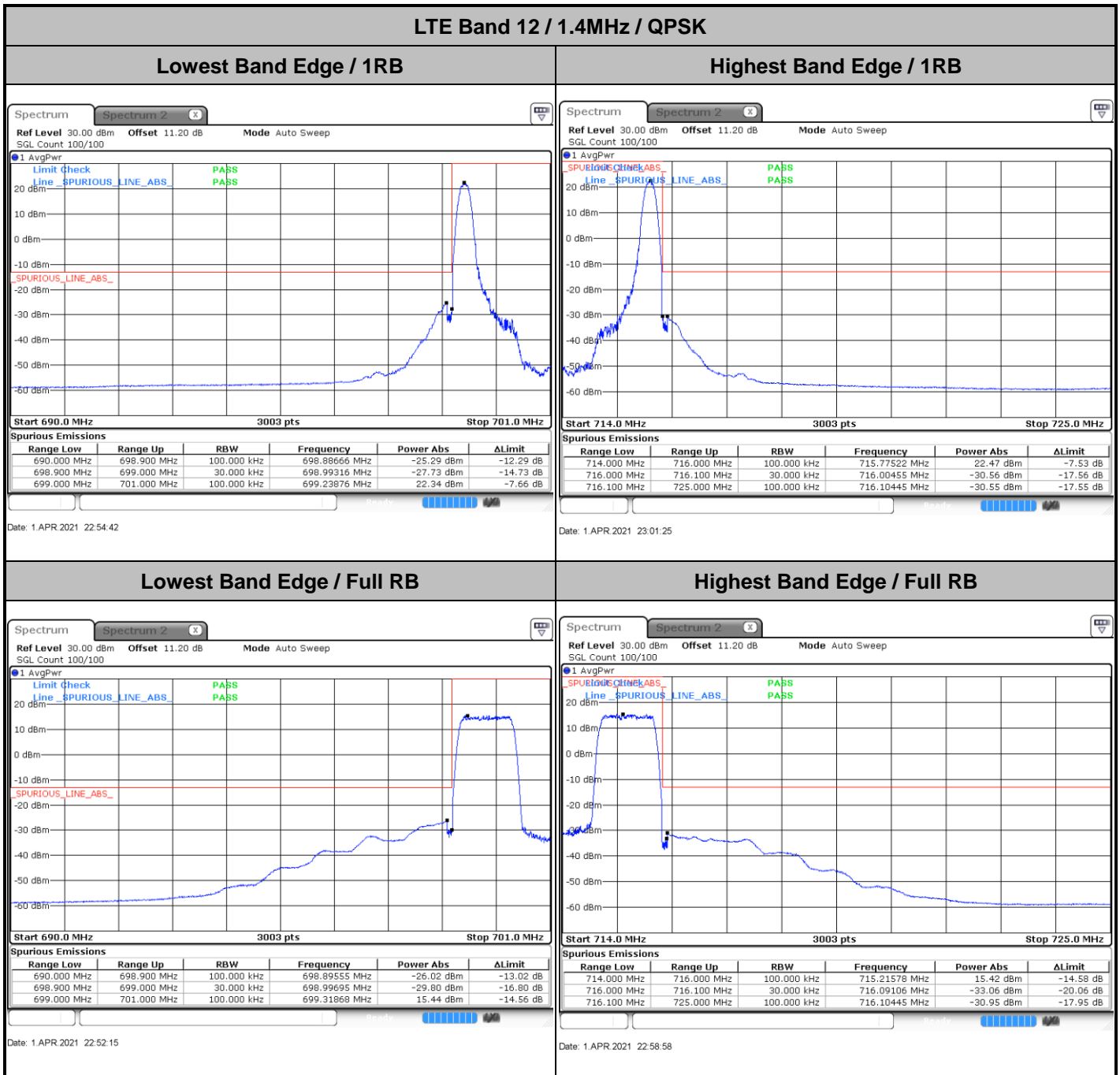
Middle Channel / 10MHz / 64QAM



Date: 1 APR 2021 23:49:33



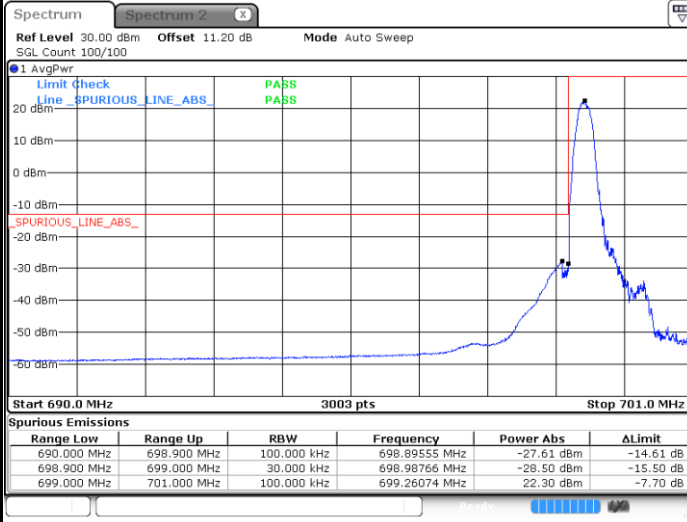
# Conducted Band Edge





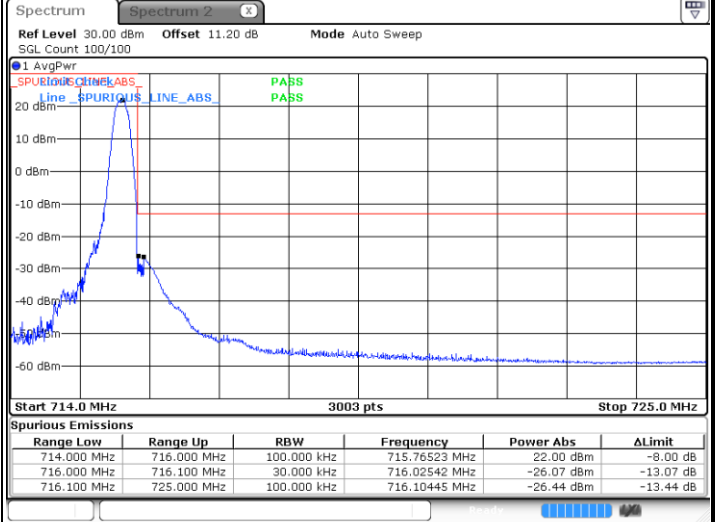
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



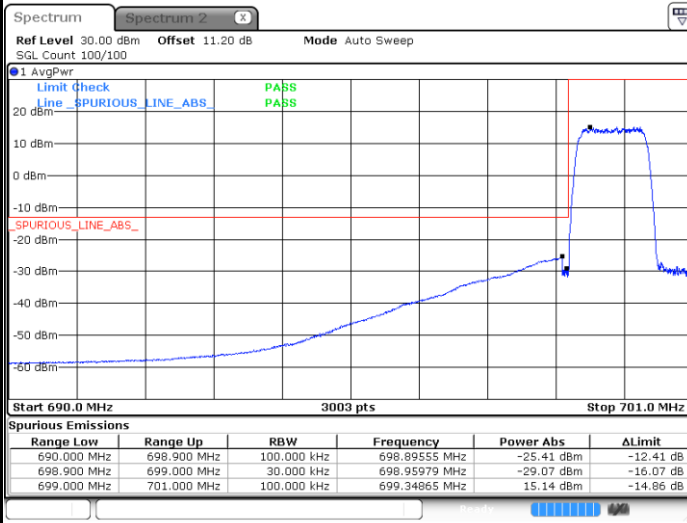
Date: 2 APR 2021 02:49:53

Highest Band Edge / 1 RB



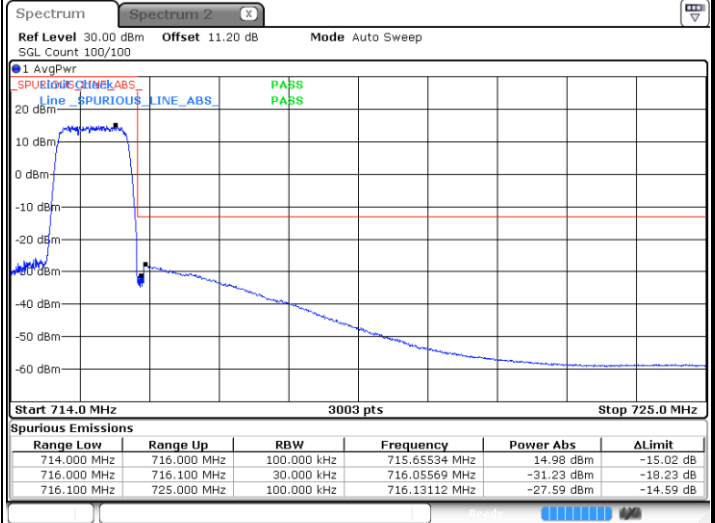
Date: 1 APR 2021 23:00:36

Lowest Band Edge / Full RB



Date: 1 APR 2021 22:53:05

Highest Band Edge / Full RB

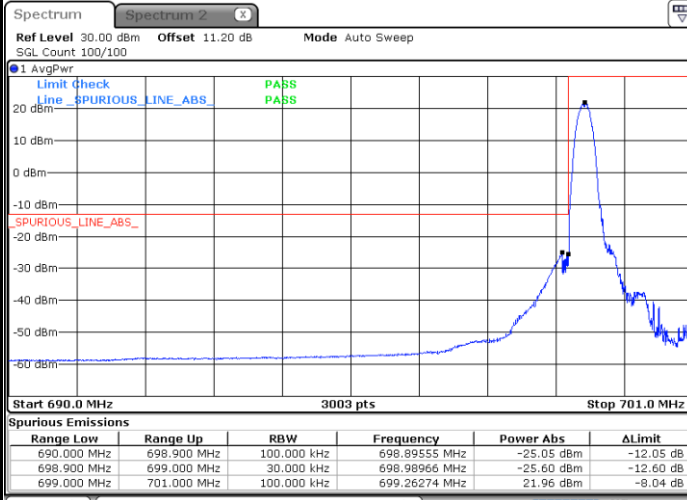


Date: 1 APR 2021 22:59:47



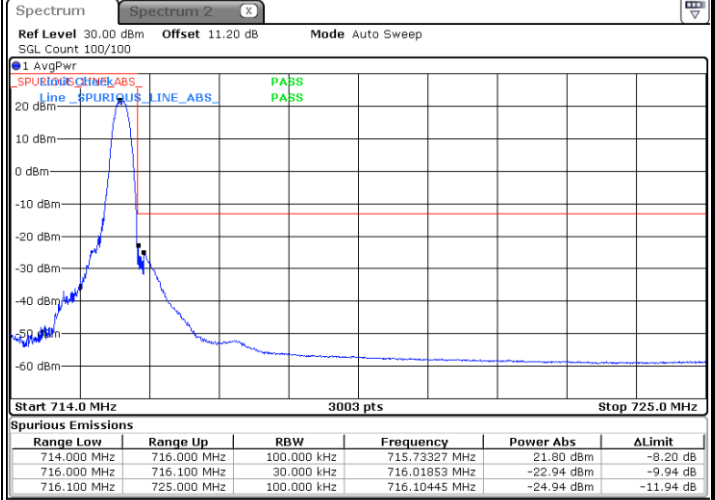
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



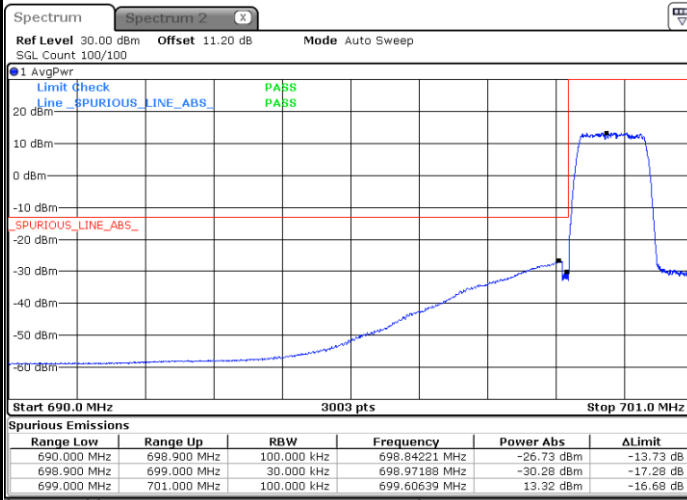
Date: 1 APR 2021 23:04:07

Highest Band Edge / 1 RB



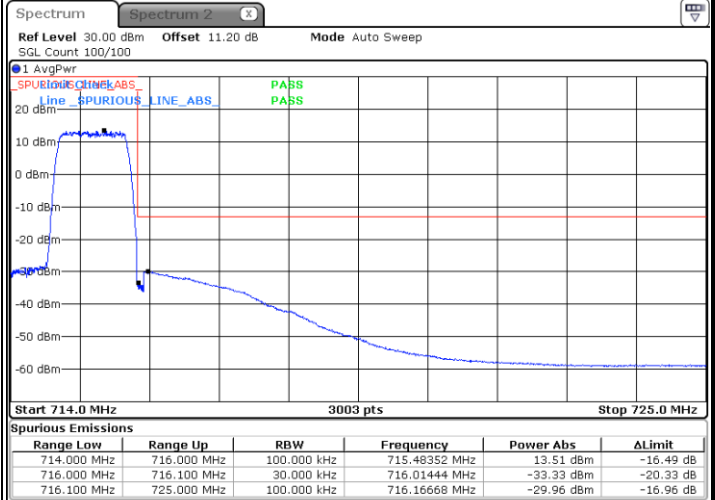
Date: 1 APR 2021 23:06:26

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:03:18

Highest Band Edge / Full RB



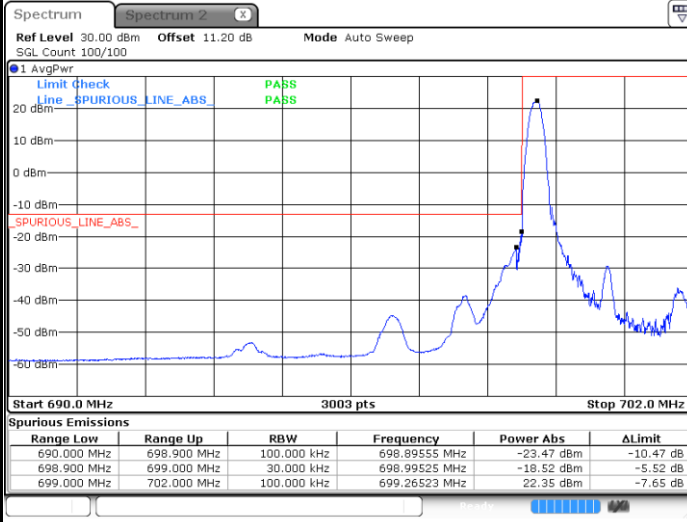
Date: 1 APR 2021 23:05:36



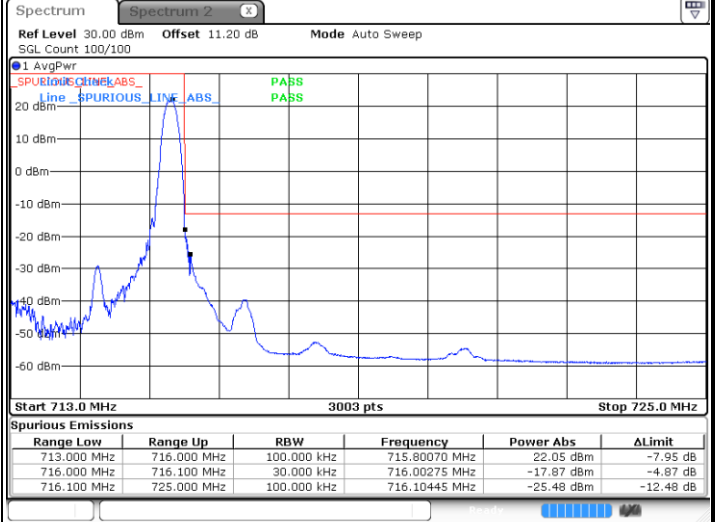


LTE Band 12 / 3MHz / QPSK

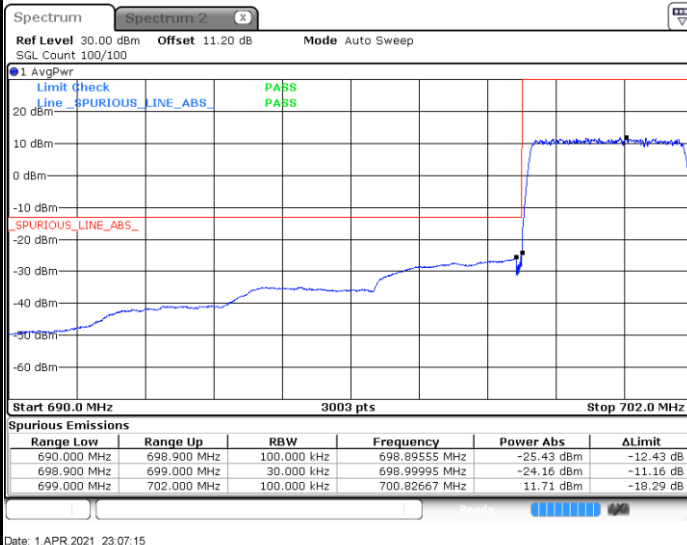
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



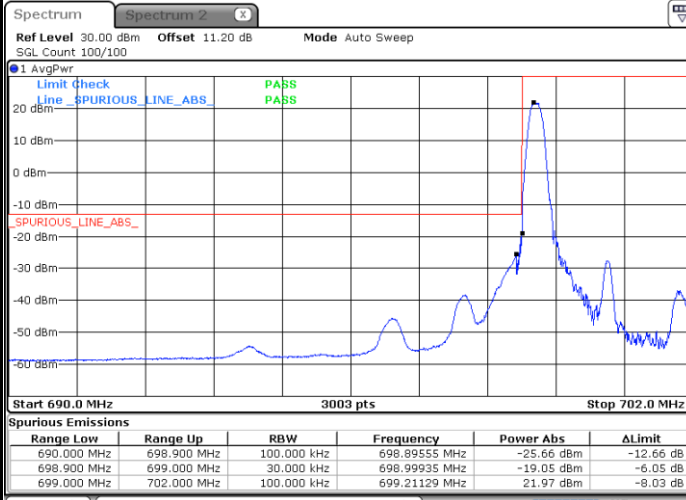
Highest Band Edge / Full RB





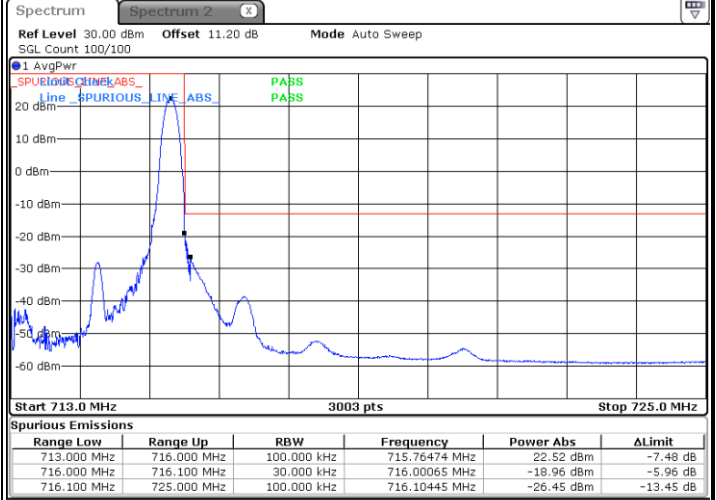
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



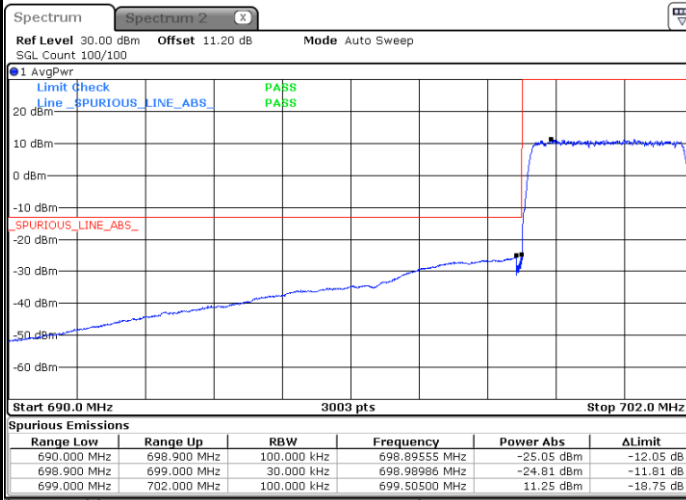
Date: 1 APR 2021 23:08:55

Highest Band Edge / 1 RB



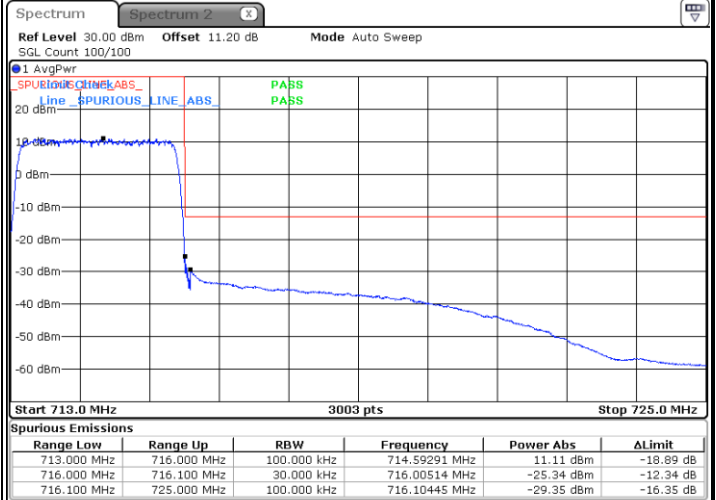
Date: 1 APR 2021 23:15:38

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:08:05

Highest Band Edge / Full RB

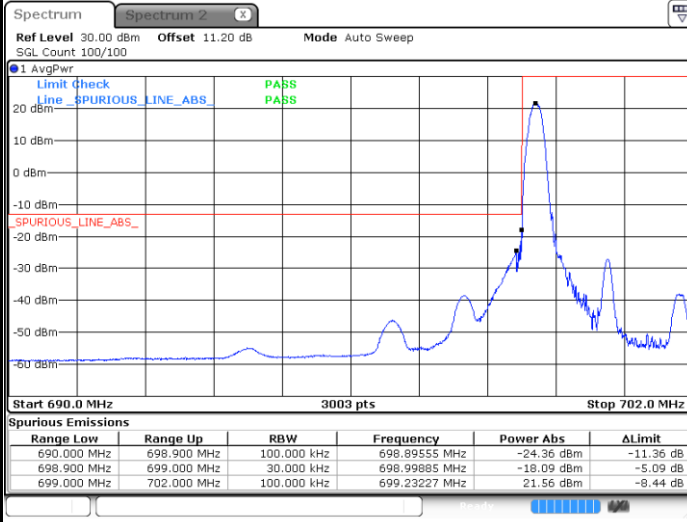


Date: 1 APR 2021 23:14:49



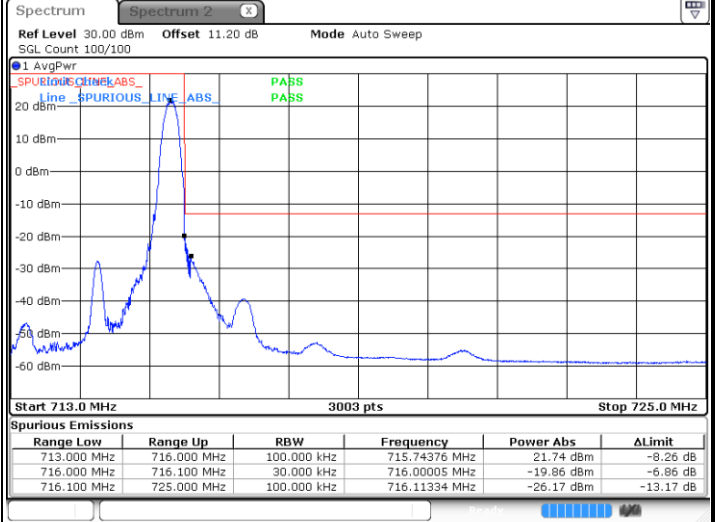
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



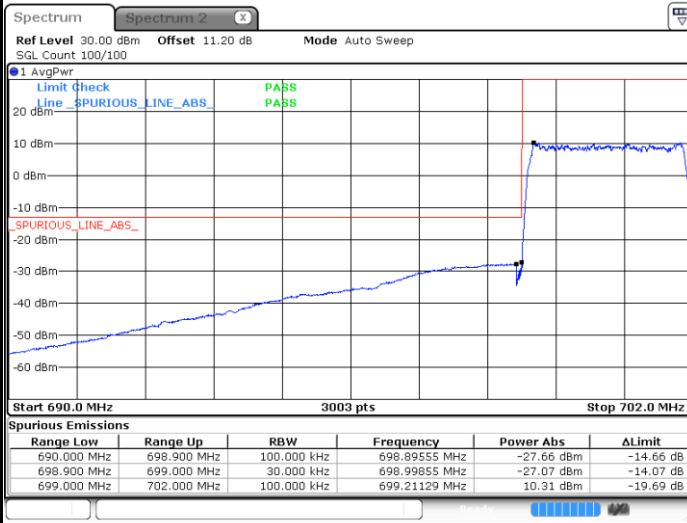
Date: 1 APR 2021 23:19:08

Highest Band Edge / 1 RB



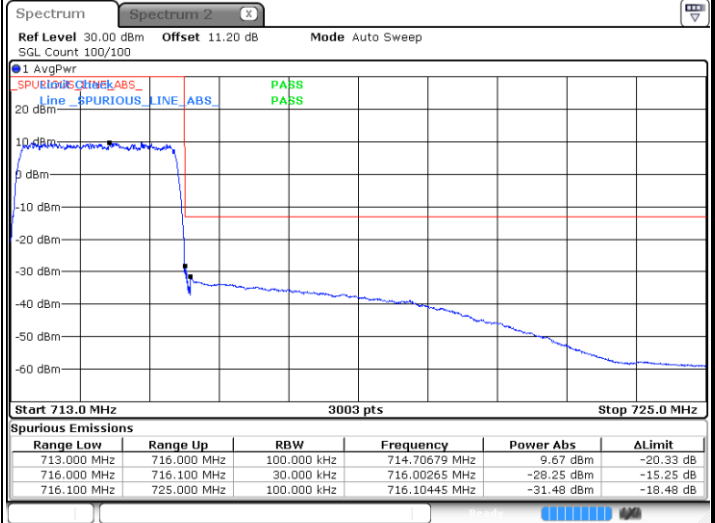
Date: 1 APR 2021 23:21:27

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:18:19

Highest Band Edge / Full RB

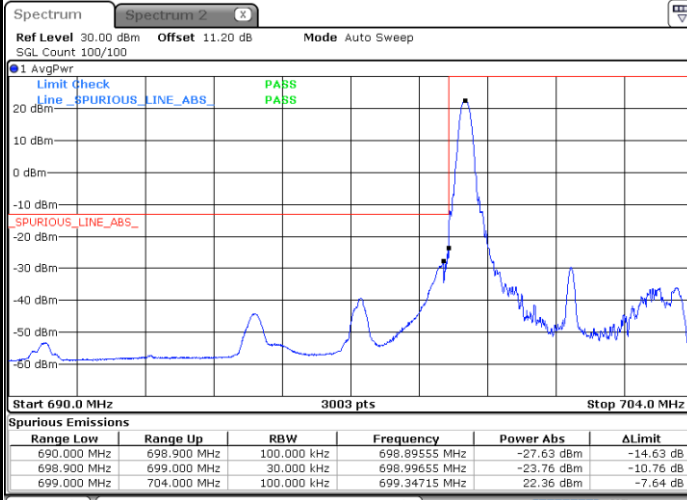


Date: 1 APR 2021 23:20:37



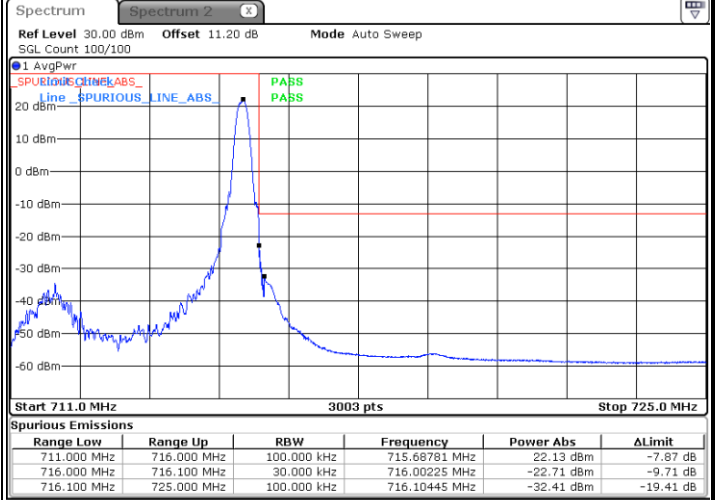
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



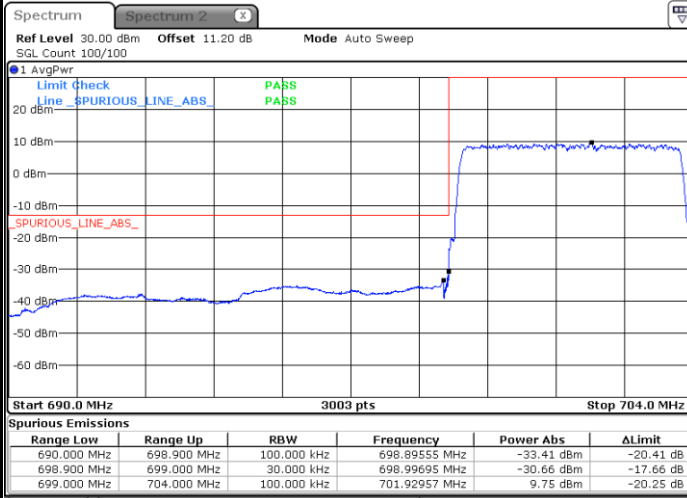
Date: 1 APR 2021 23:28:39

Highest Band Edge / 1 RB



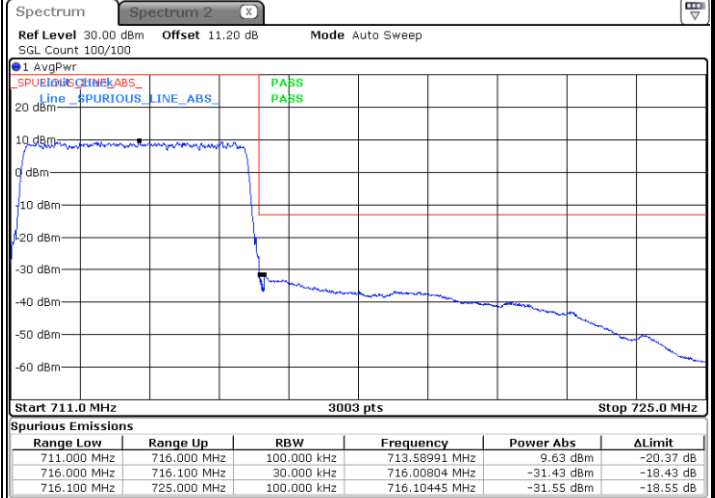
Date: 1 APR 2021 23:34:33

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:26:12

Highest Band Edge / Full RB

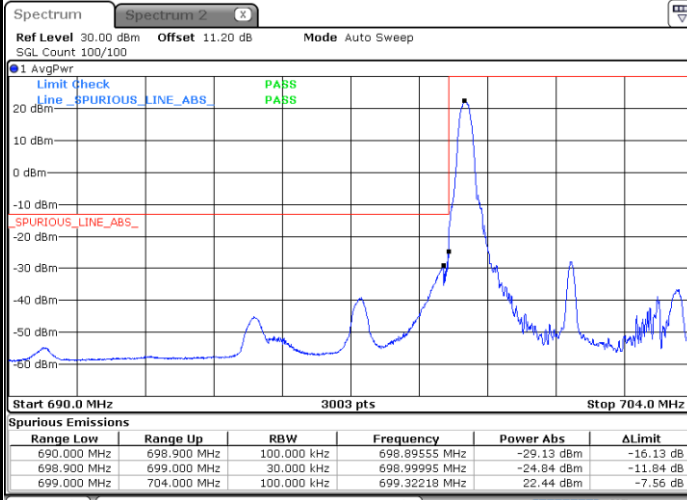


Date: 1 APR 2021 23:32:55



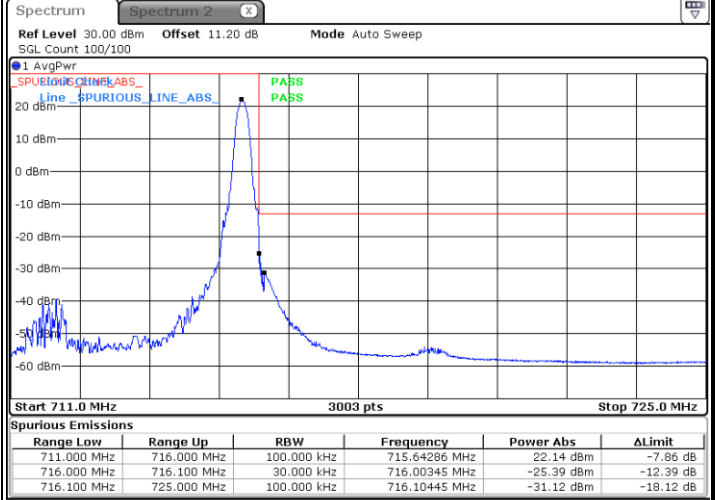
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



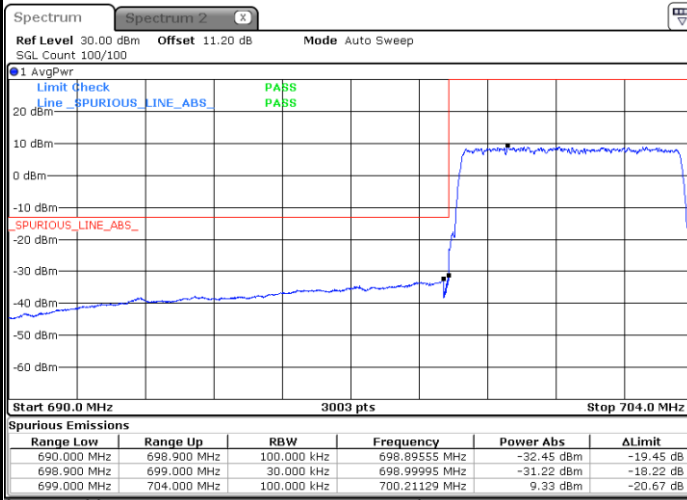
Date: 1 APR 2021 23:27:50

Highest Band Edge / 1 RB



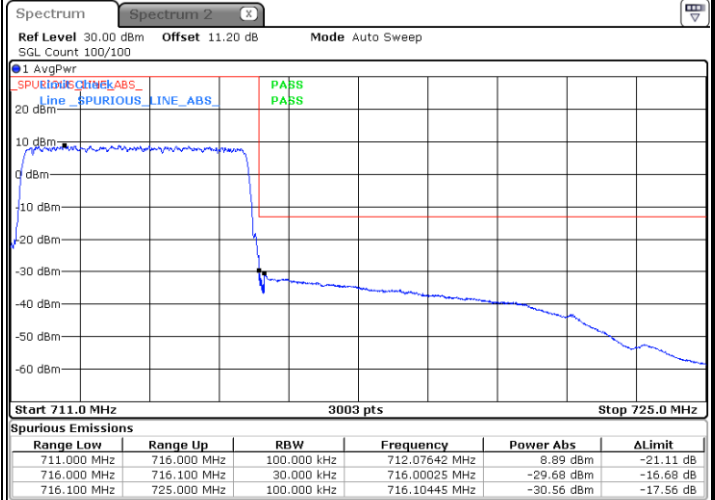
Date: 1 APR 2021 23:35:22

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:27:01

Highest Band Edge / Full RB

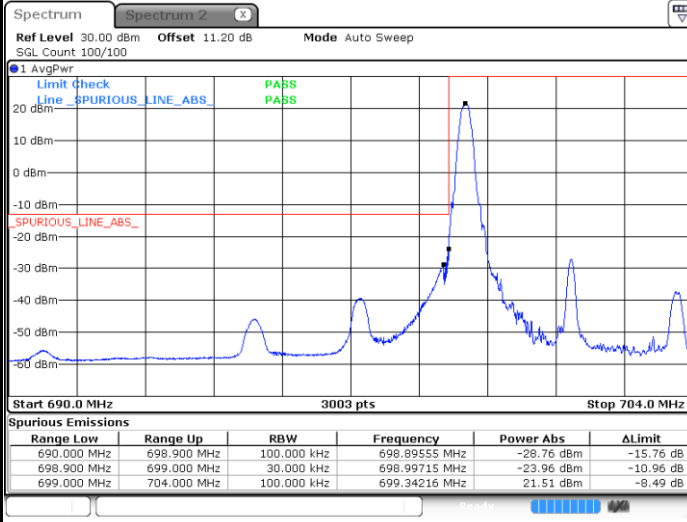


Date: 1 APR 2021 23:33:43



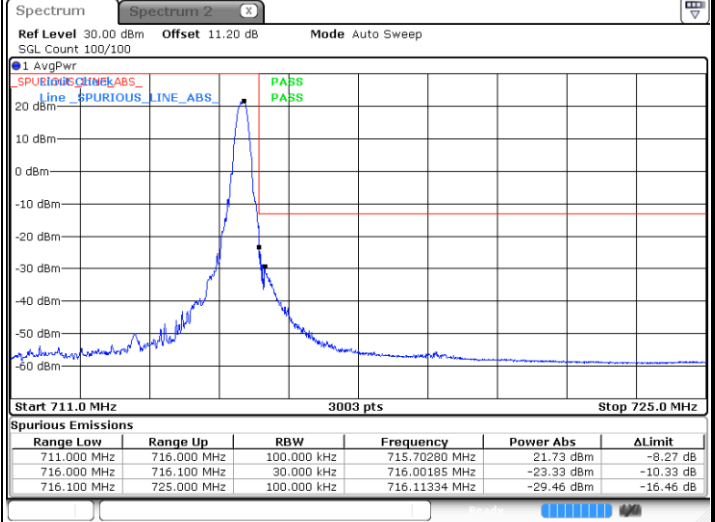
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



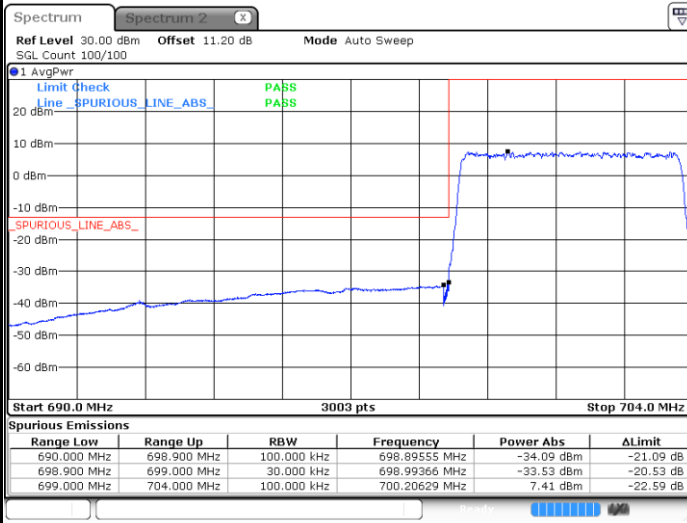
Date: 1 APR 2021 23:23:06

Highest Band Edge / 1 RB



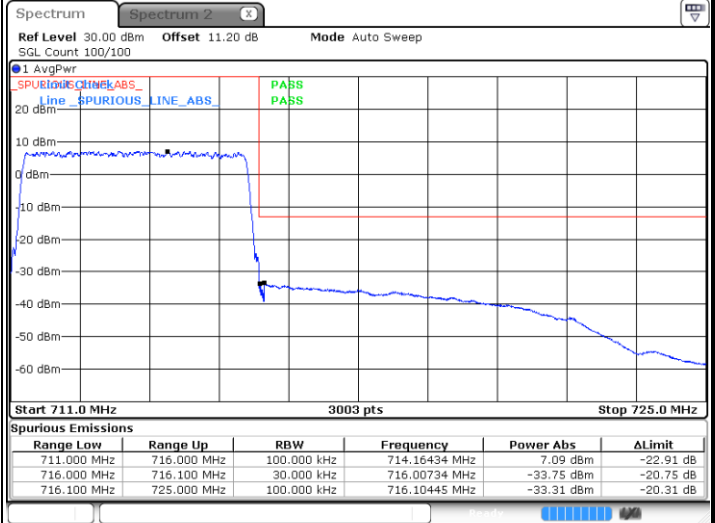
Date: 1 APR 2021 23:25:24

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:22:17

Highest Band Edge / Full RB

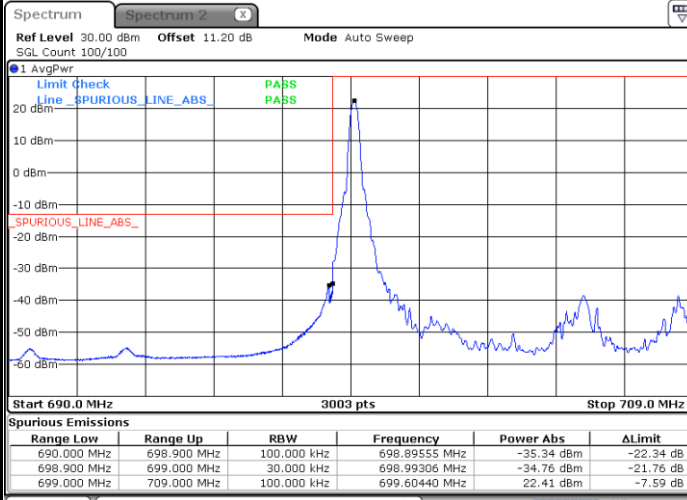


Date: 1 APR 2021 23:24:35



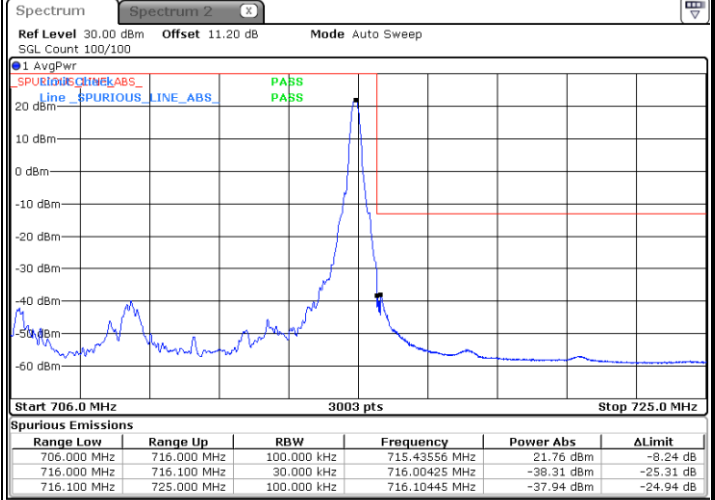
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



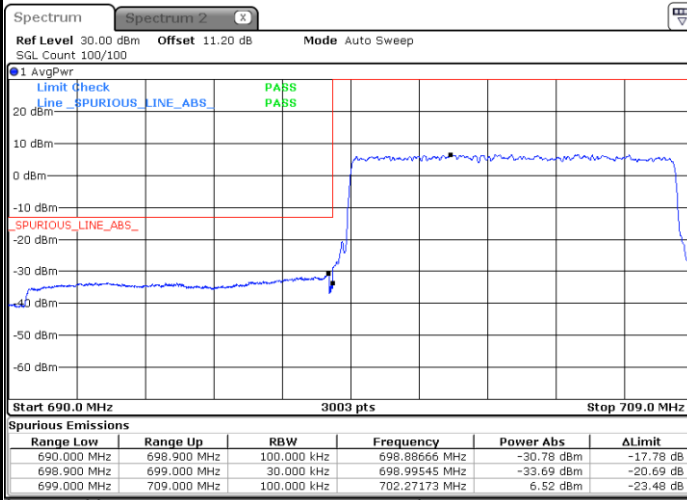
Date: 1 APR 2021 23:39:45

Highest Band Edge / 1 RB



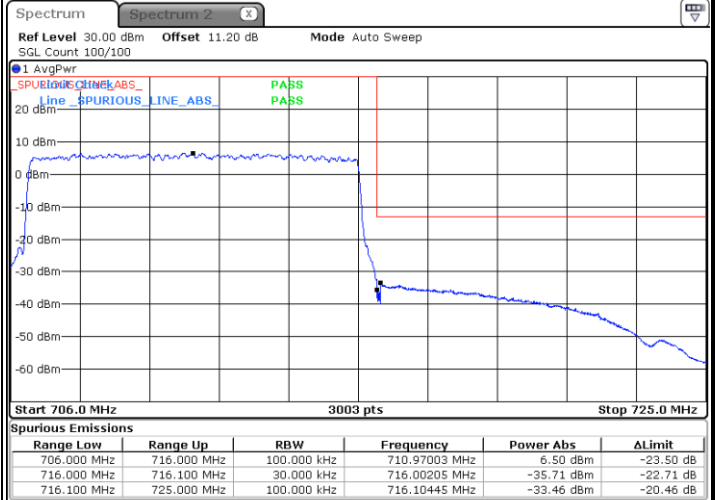
Date: 1 APR 2021 23:46:26

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:37:17

Highest Band Edge / Full RB

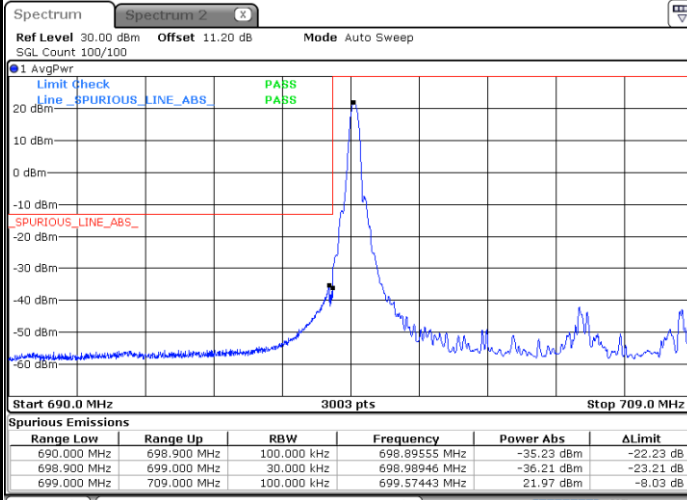


Date: 1 APR 2021 23:44:00



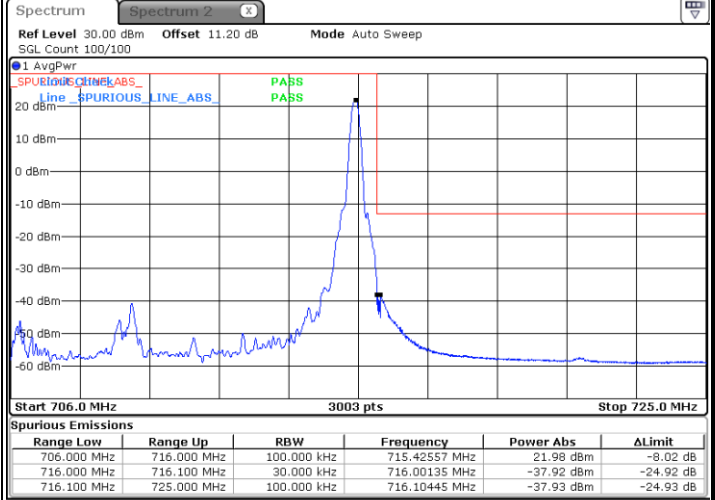
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



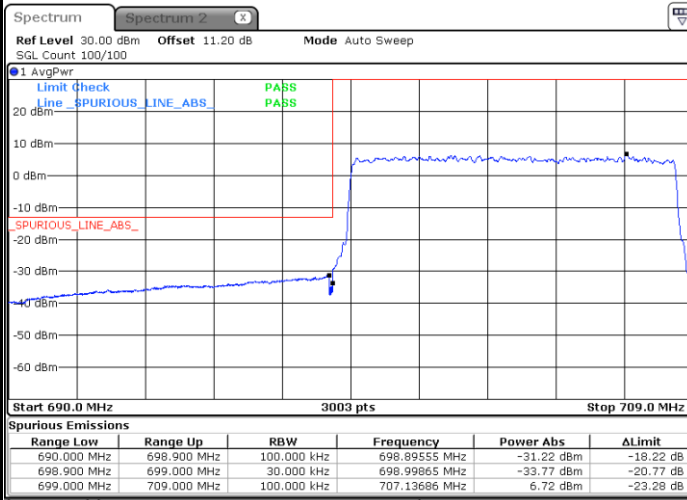
Date: 1 APR 2021 23:38:55

Highest Band Edge / 1 RB



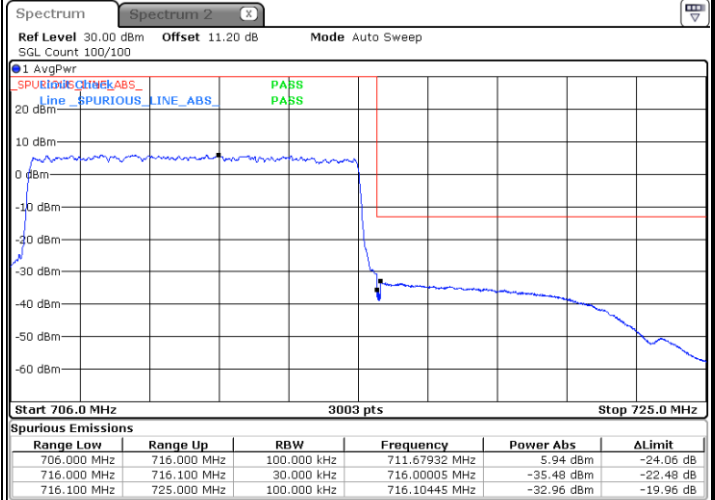
Date: 1 APR 2021 23:45:38

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:38:05

Highest Band Edge / Full RB



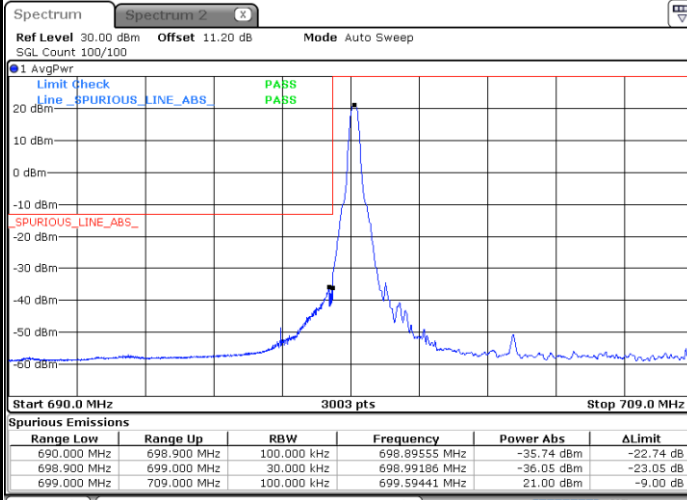
Date: 1 APR 2021 23:44:49





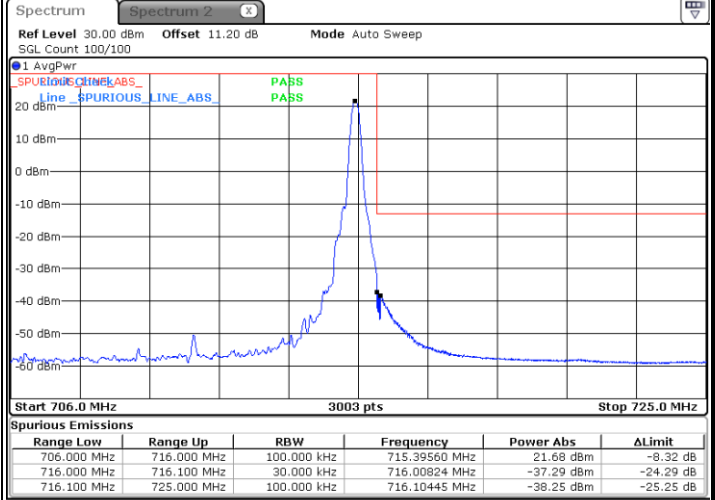
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



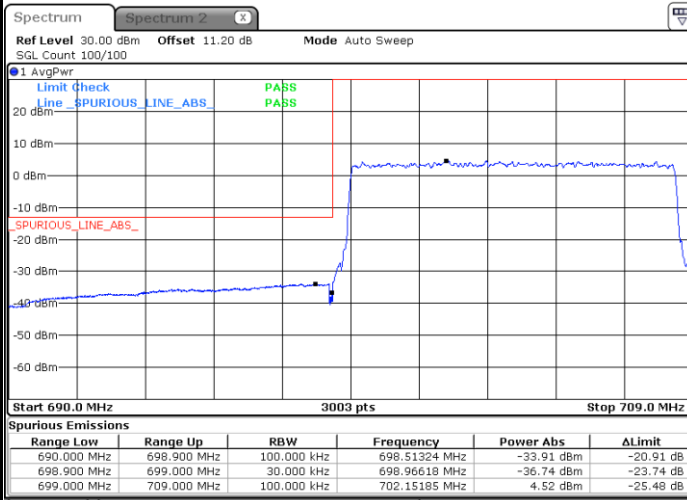
Date: 1 APR 2021 23:49:09

Highest Band Edge / 1 RB



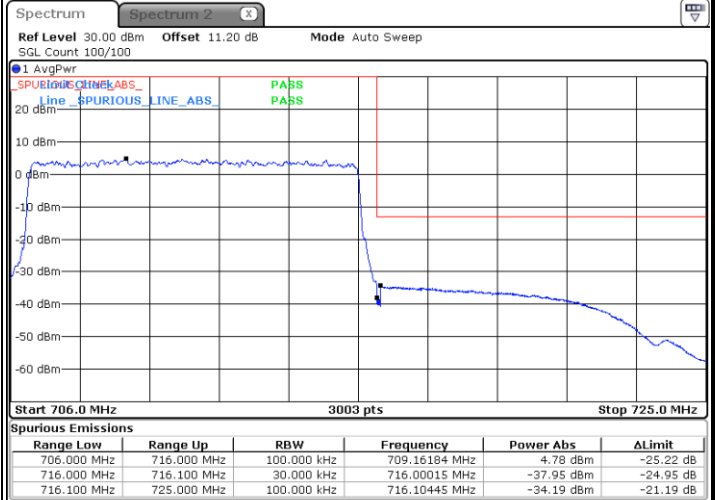
Date: 1 APR 2021 23:51:27

Lowest Band Edge / Full RB



Date: 1 APR 2021 23:48:20

Highest Band Edge / Full RB



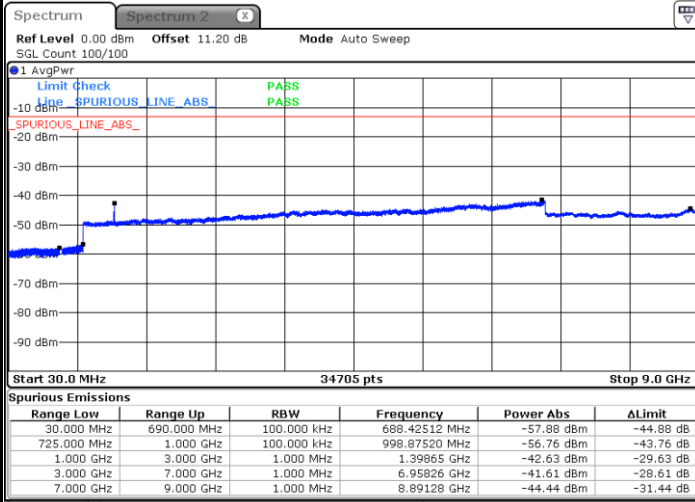
Date: 1 APR 2021 23:50:37



# Conducted Spurious Emission

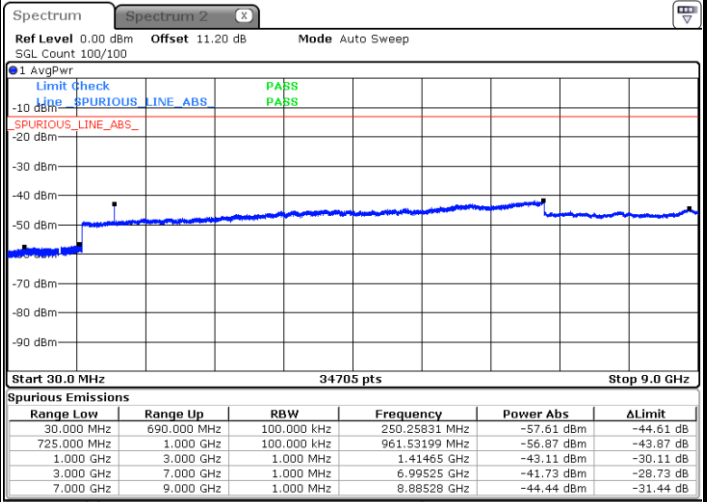
## LTE Band 12 / 1.4MHz

### Lowest Channel / QPSK



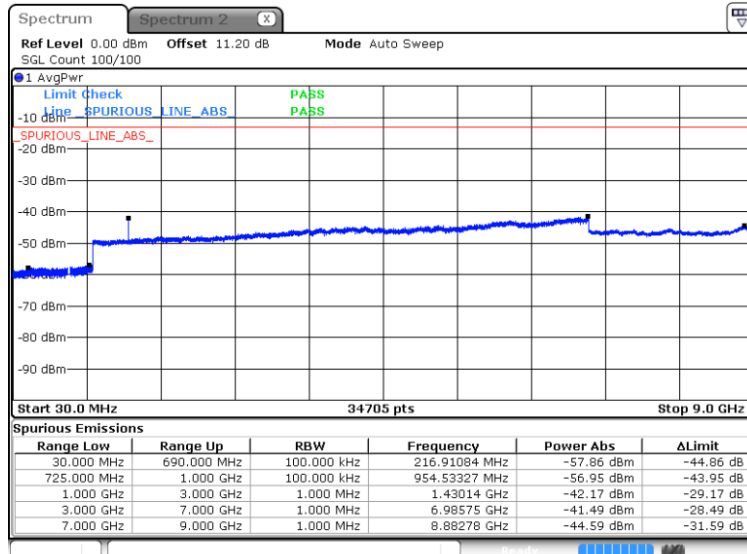
Date: 1.APR.2021 22:55:37

### Middle Channel / QPSK



Date: 1.APR.2021 22:58:09

### Highest Channel / QPSK

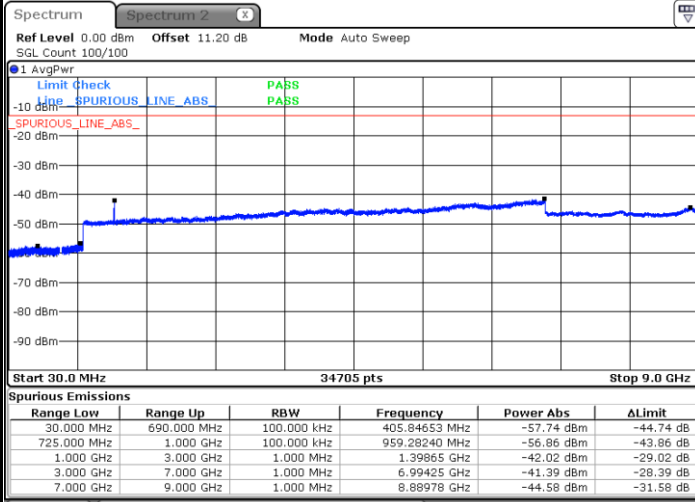


Date: 1.APR.2021 23:02:28



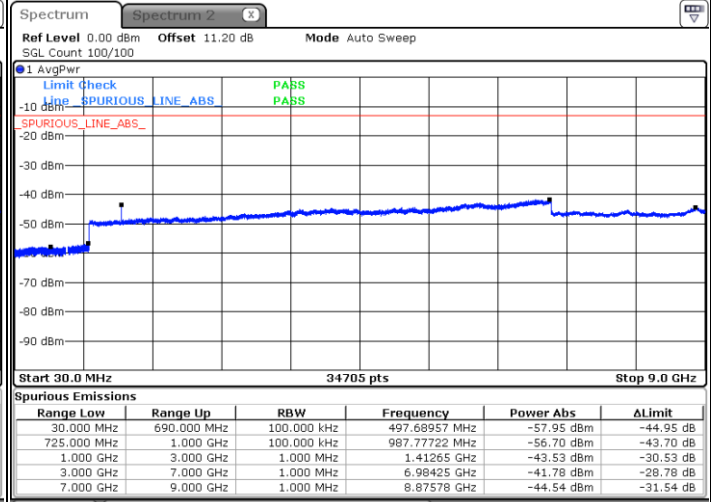
LTE Band 12 / 3MHz

Lowest Channel / QPSK



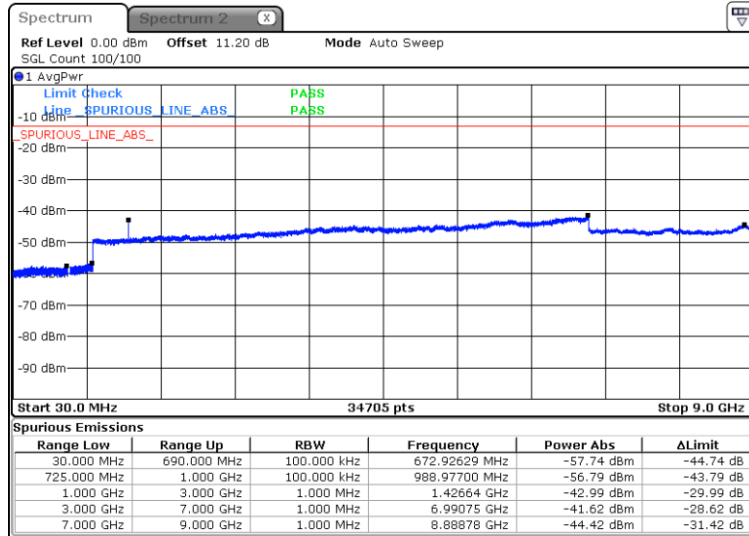
Date: 1 APR 2021 23:10:38

Middle Channel / QPSK



Date: 1 APR 2021 23:13:10

Highest Channel / QPSK

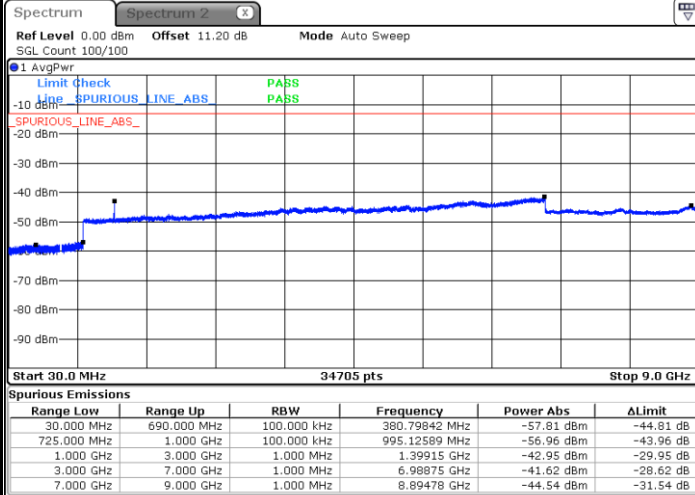


Date: 1 APR 2021 23:17:30



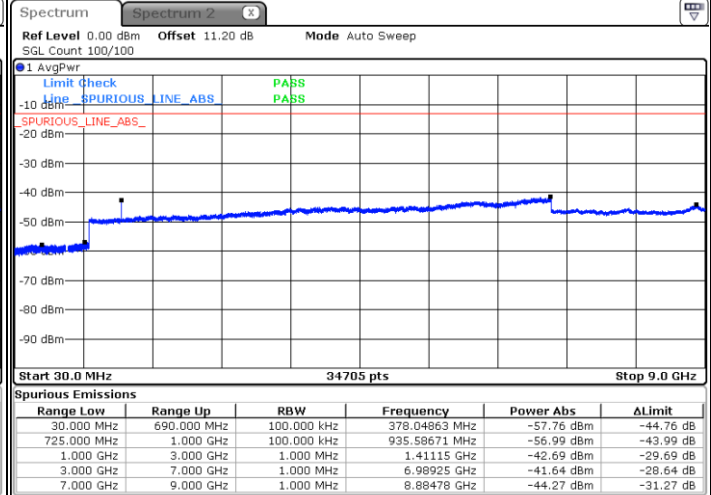
LTE Band 12 / 5MHz

Lowest Channel / QPSK



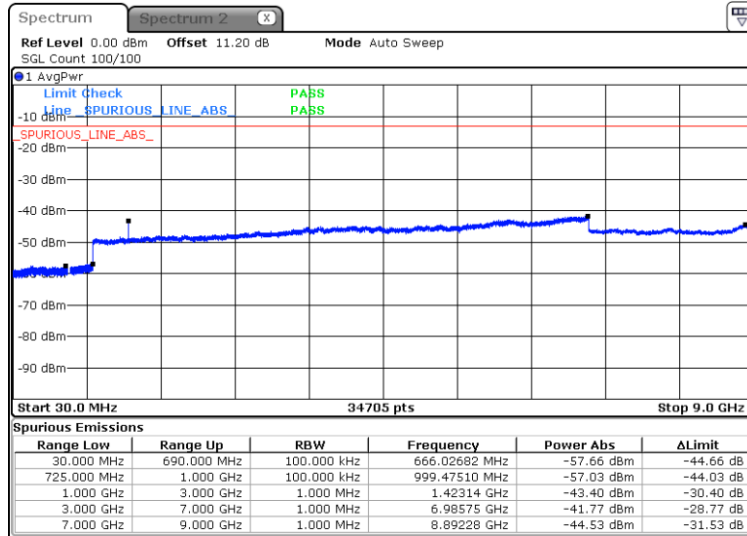
Date: 1 APR 2021 23:29:33

Middle Channel / QPSK



Date: 1 APR 2021 23:32:05

Highest Channel / QPSK

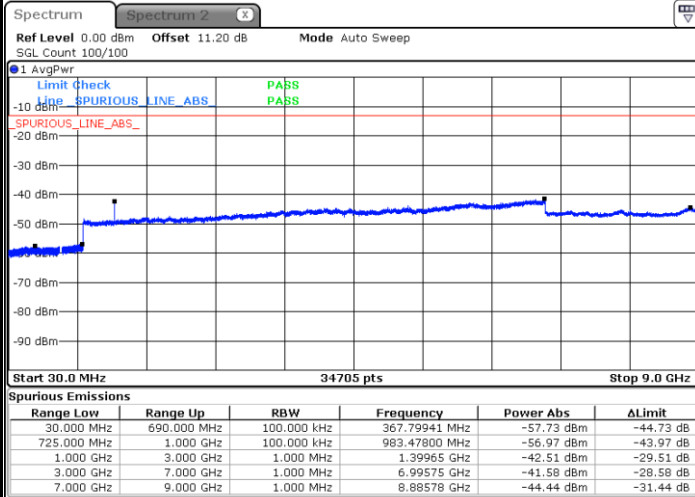


Date: 1 APR 2021 23:36:26



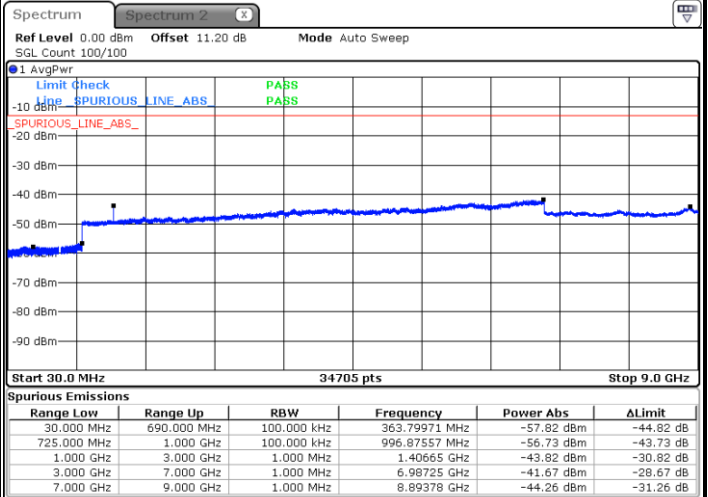
LTE Band 12 / 10MHz

Lowest Channel / QPSK



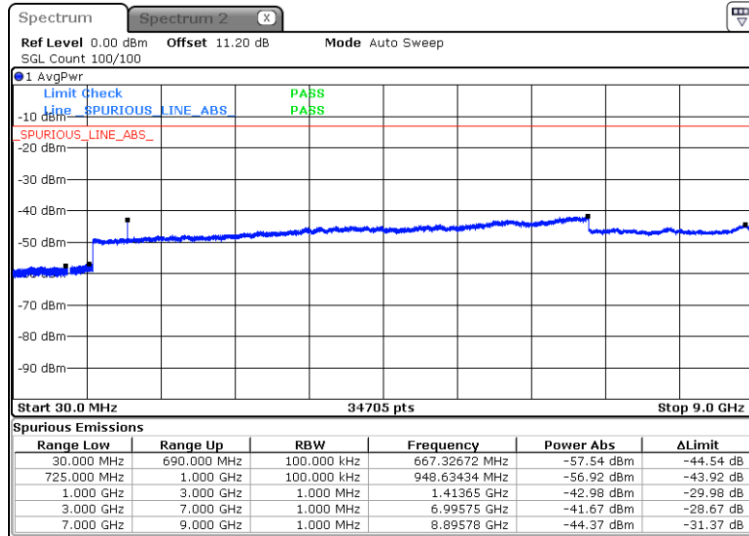
Date: 1 APR 2021 23:40:39

Middle Channel / QPSK



Date: 1 APR 2021 23:43:11

Highest Channel / QPSK



Date: 1 APR 2021 23:47:30



### 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	0.0020	PASS
40	Normal Voltage	0.0016	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0128	
-20	Normal Voltage	0.0158	
-30	Normal Voltage	0.0073	
20	Maximum Voltage	0.0155	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

**Note:**

- 1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.67 V. ; Maximum Voltage =4.26 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 13

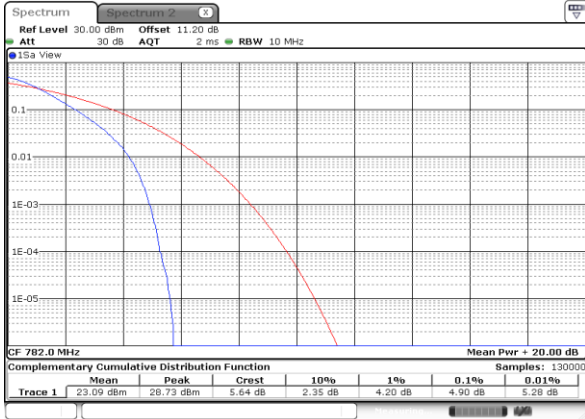
### Peak-to-Average Ratio

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	4.90	5.71	6.52	-	PASS



LTE Band 13 / 10MHz / QPSK

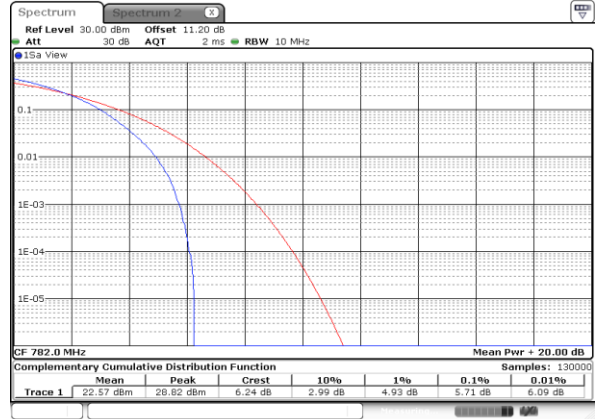
Middle Channel / Full RB



Date: 6 APR 2021 21:26:16

LTE Band 13 / 10MHz / 16QAM

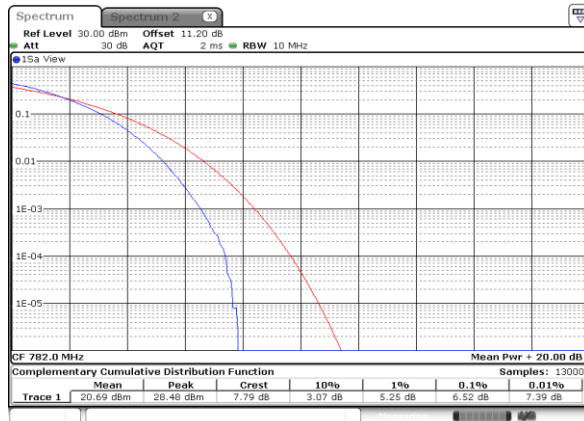
Middle Channel / Full RB



Date: 6 APR 2021 21:25:49

LTE Band 13 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 6 APR 2021 21:25:22





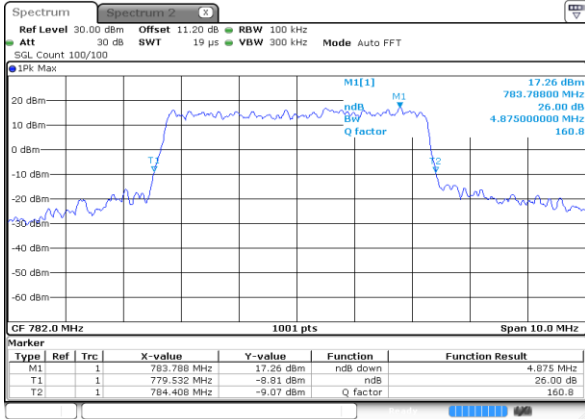
**26dB Bandwidth**

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	-	-	-	-	4.88	4.90	9.77	9.85	-	-	-	-
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	-	-	-	-	4.97	-	9.73	-	-	-	-	-



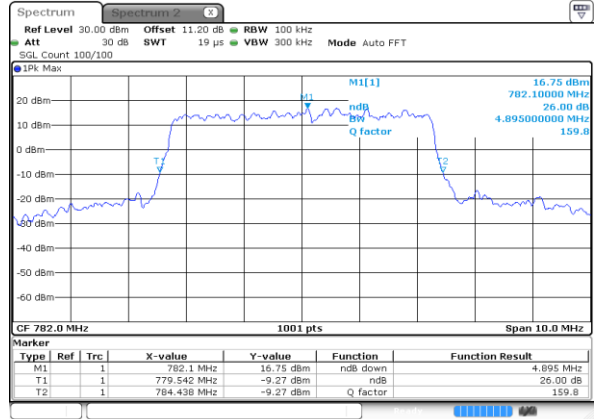
LTE Band 13

Middle Channel / 5MHz / QPSK



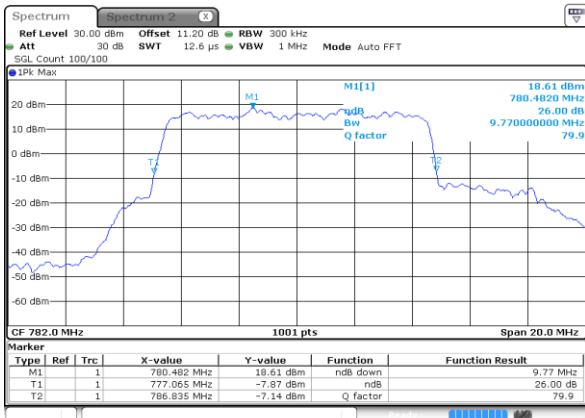
Date: 6 APR 2021 20:46:45

Middle Channel / 5MHz / 16QAM



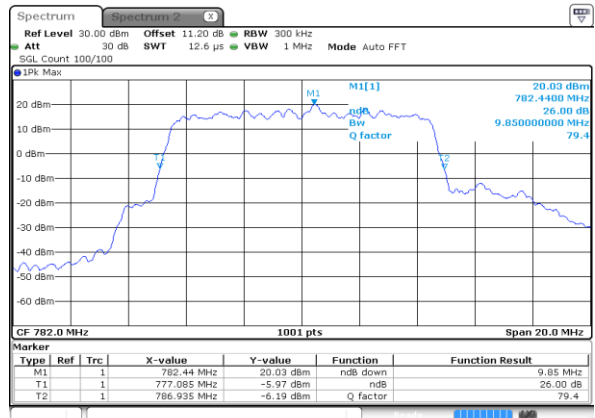
Date: 6 APR 2021 20:47:08

Middle Channel / 10MHz / QPSK



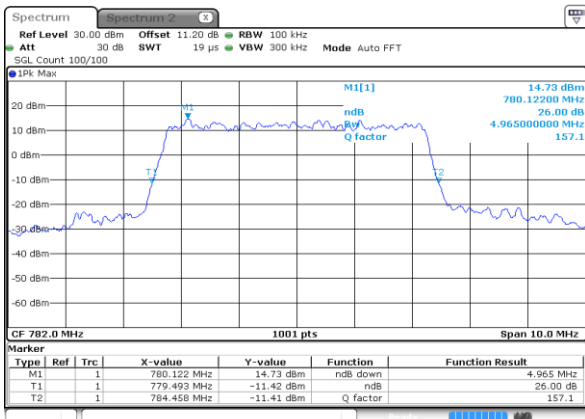
Date: 6 APR 2021 21:06:23

Middle Channel / 10MHz / 16QAM



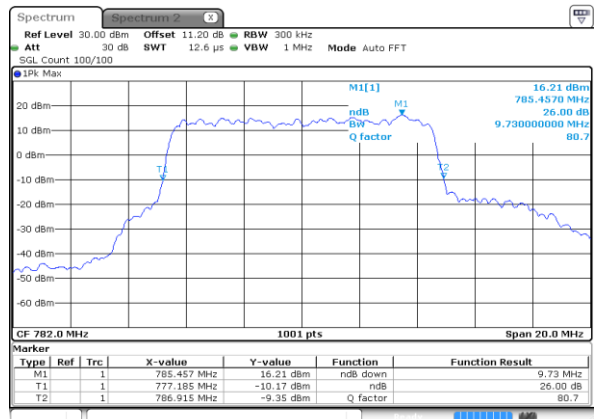
Date: 6 APR 2021 21:06:00

Middle Channel / 5MHz / 64QAM



Date: 6 APR 2021 21:00:50

Middle Channel / 10MHz / 64QAM



Date: 6 APR 2021 21:19:24



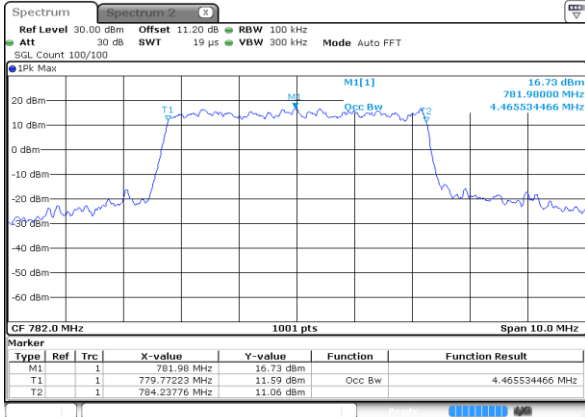
**Occupied Bandwidth**

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	4.52	9.01	8.93	-	-	-	-
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	-	-	-	-	-



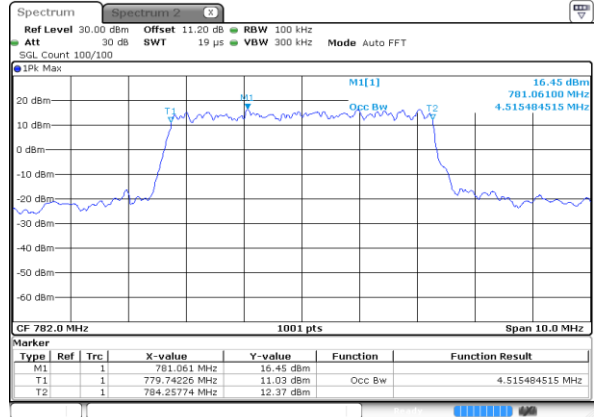
LTE Band 13

Middle Channel / 5MHz / QPSK



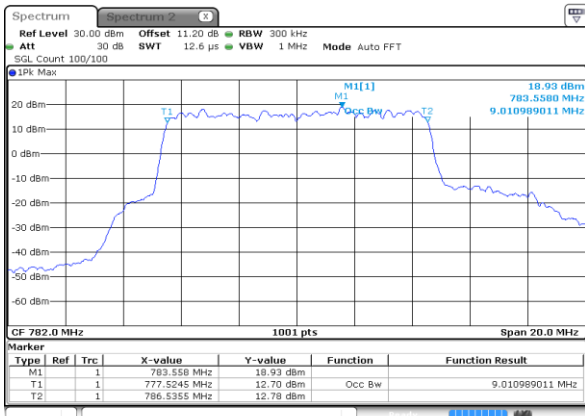
Date: 6 APR 2021 20:47:48

Middle Channel / 5MHz / 16QAM



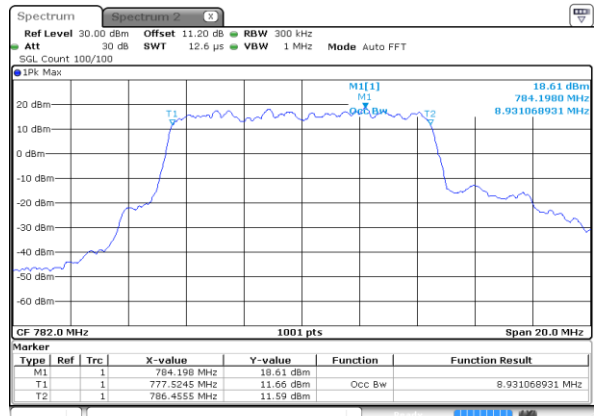
Date: 6 APR 2021 20:47:23

Middle Channel / 10MHz / QPSK



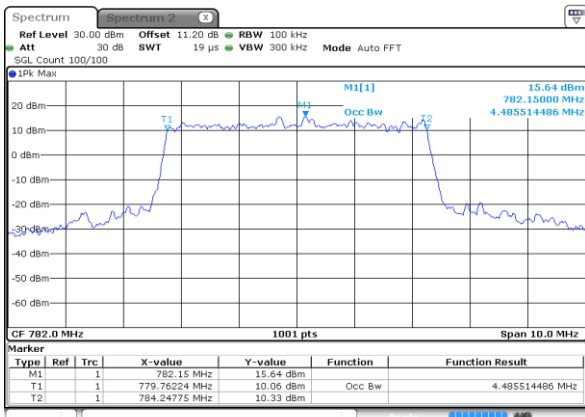
Date: 6 APR 2021 21:05:19

Middle Channel / 10MHz / 16QAM



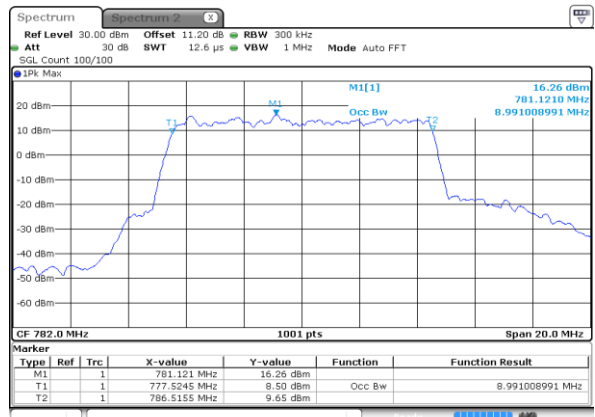
Date: 6 APR 2021 21:05:44

Middle Channel / 5MHz / 64QAM



Date: 6 APR 2021 21:01:04

Middle Channel / 10MHz / 64QAM



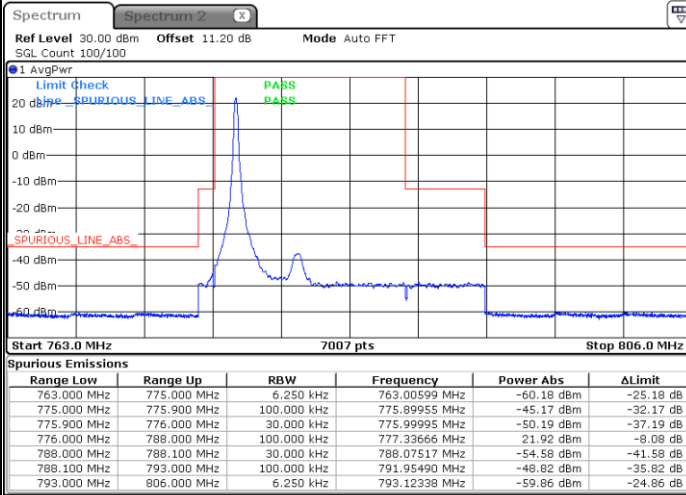
Date: 6 APR 2021 21:19:07



# Conducted Band Edge

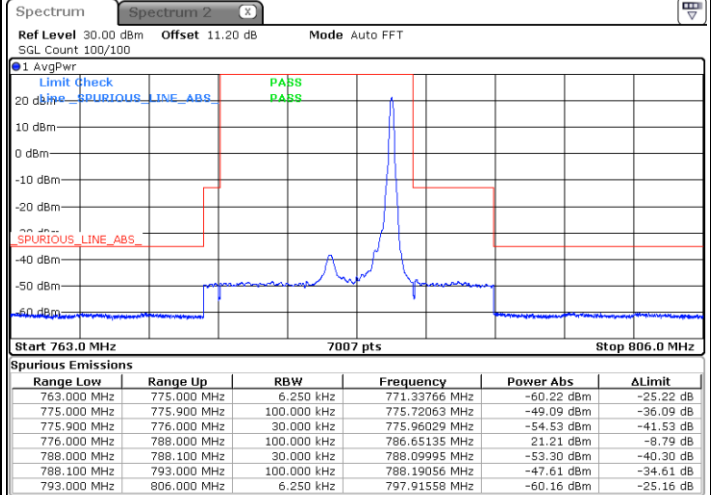
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



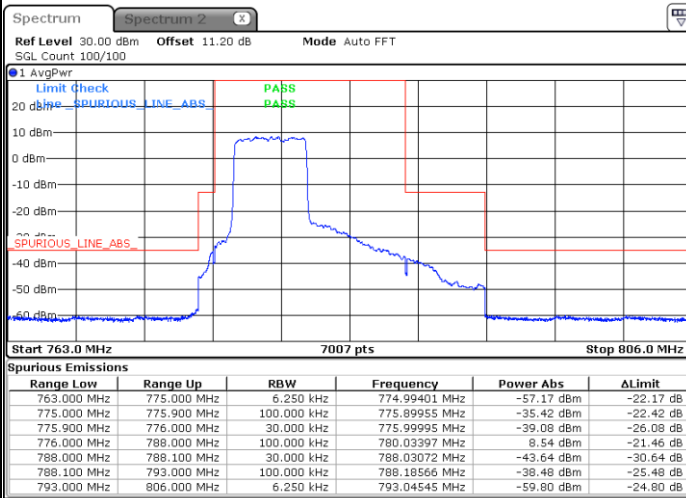
Date: 6 APR 2021 20:44:21

### Highest Band Edge / 1 RB



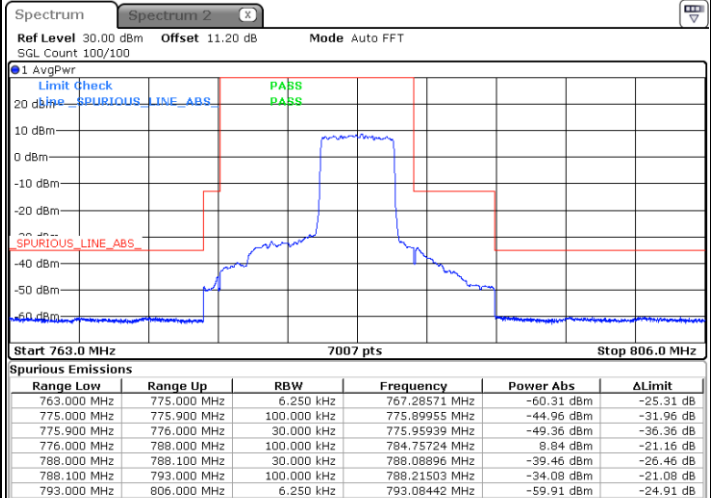
Date: 6 APR 2021 20:55:27

### Lowest Band Edge / Full RB



Date: 6 APR 2021 20:38:36

### Highest Band Edge / Full RB



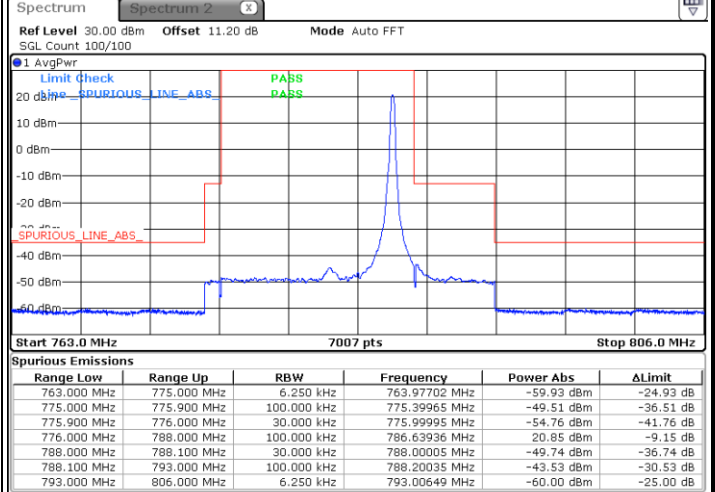
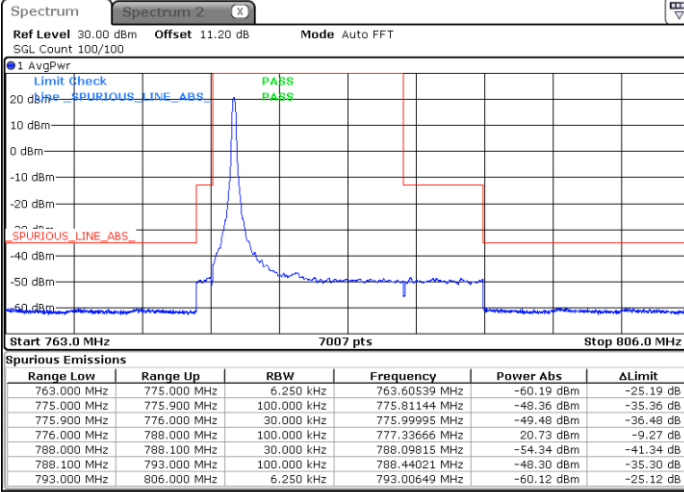
Date: 6 APR 2021 20:49:43



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

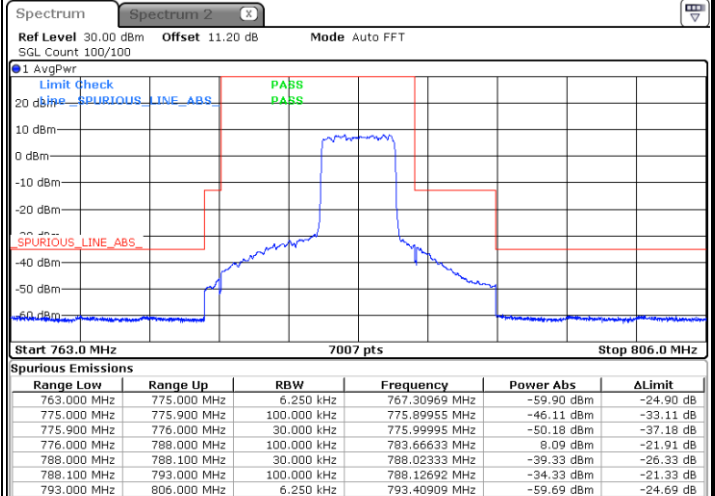
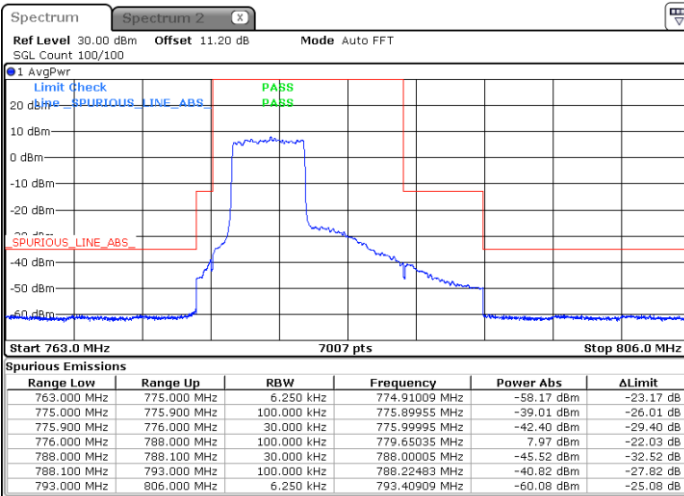


Date: 6 APR 2021 20:42:26

Date: 6 APR 2021 20:53:32

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 6 APR 2021 20:40:32

Date: 6 APR 2021 20:51:37