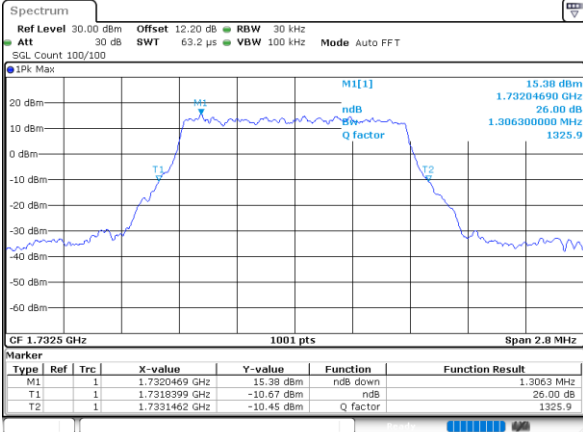




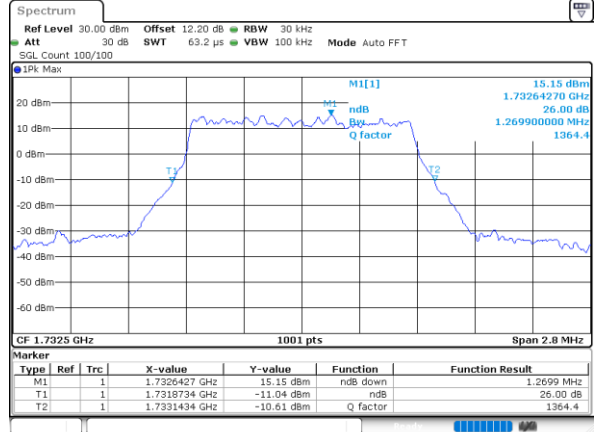
LTE Cat 1 Band 4

Middle Channel / 1.4MHz / QPSK



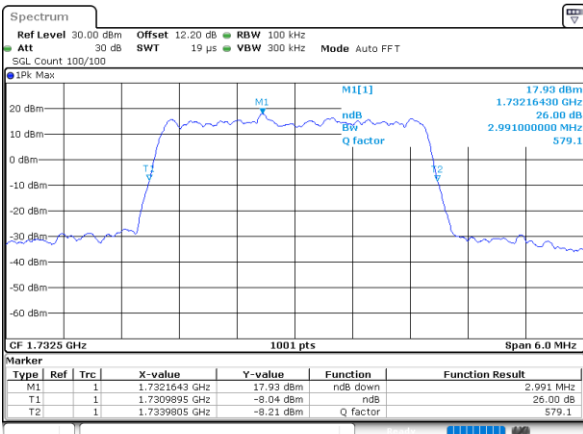
Date: 18.FEB.2022 00:42:19

Middle Channel / 1.4MHz / 16QAM



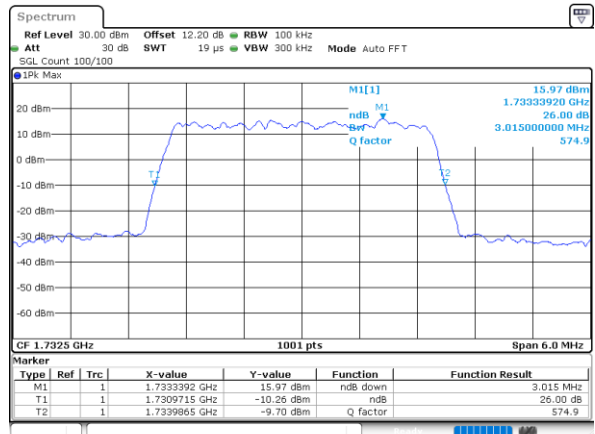
Date: 18.FEB.2022 00:42:44

Middle Channel / 3MHz / QPSK



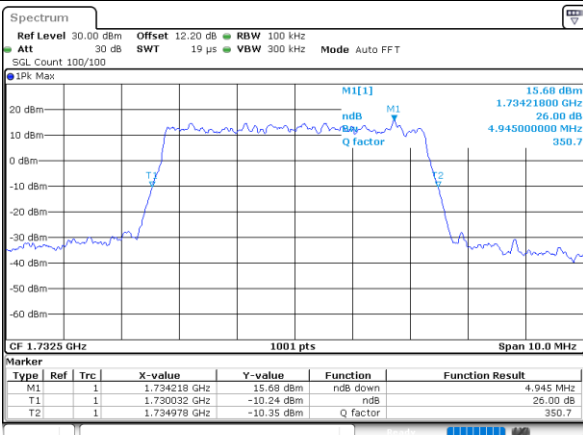
Date: 18.FEB.2022 00:52:10

Middle Channel / 3MHz / 16QAM



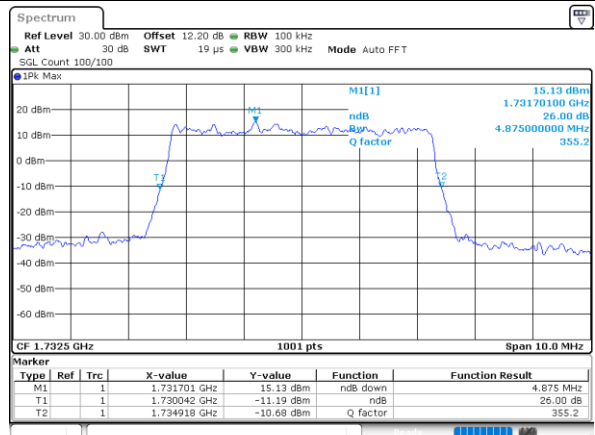
Date: 18.FEB.2022 00:52:35

Middle Channel / 5MHz / QPSK

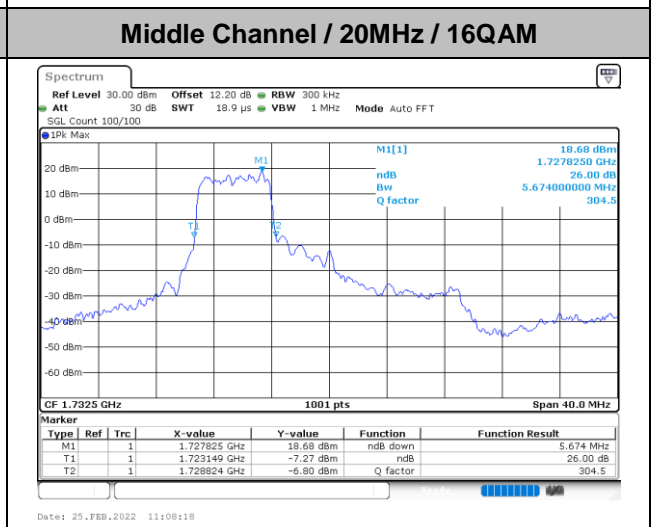
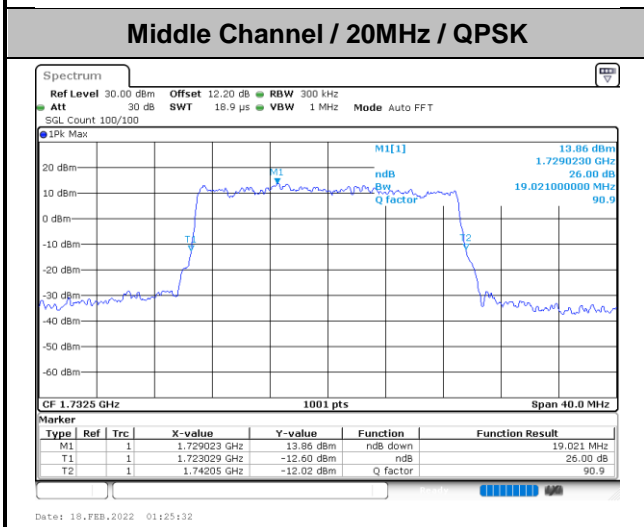
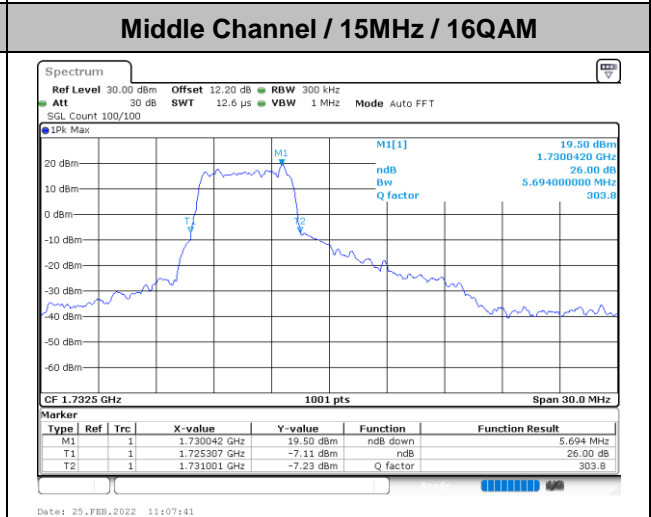
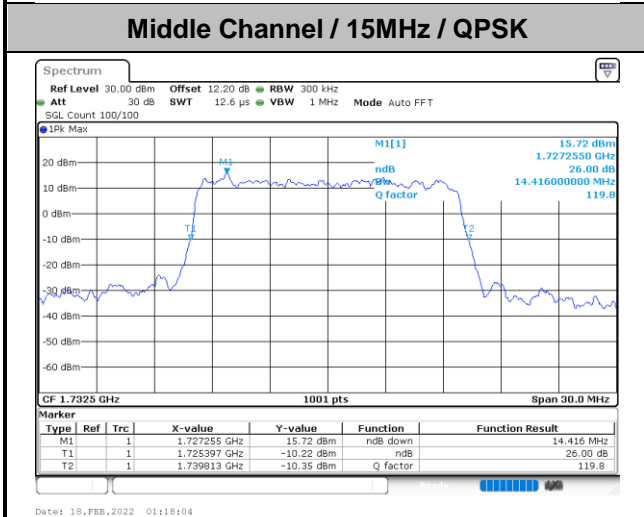
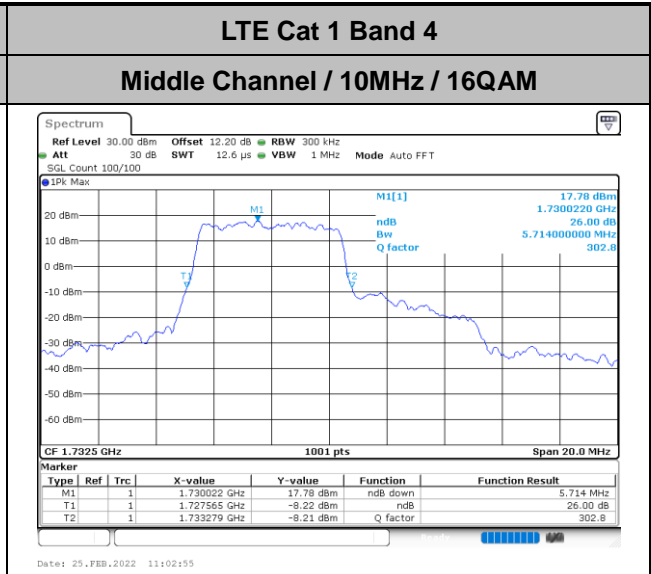
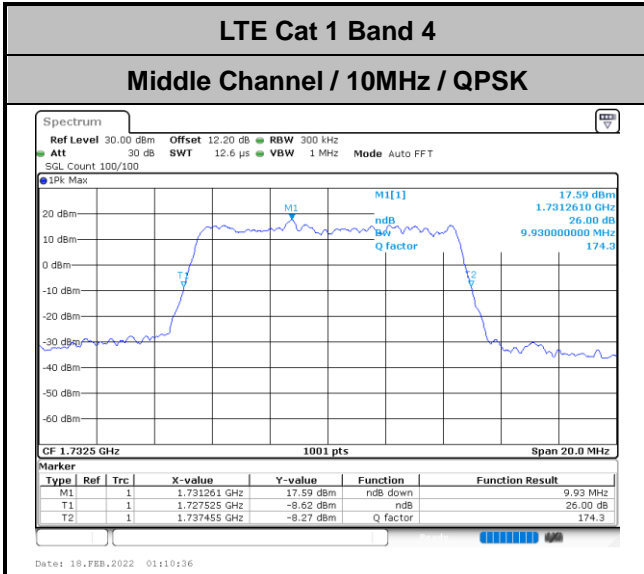


Date: 18.FEB.2022 01:02:01

Middle Channel / 5MHz / 16QAM



Date: 18.FEB.2022 01:02:27





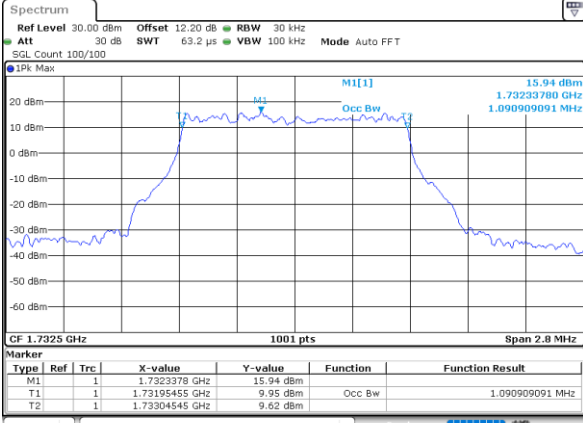
Occupied Bandwidth

Mode	LTE Cat 1 Band 4 : 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	1.10	2.72	2.73	4.50	4.48	9.03	5.03	13.40	4.98	17.86	5.03
Mode	LTE Cat 1 Band 4 : 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	-	-	-	-	-	-	-	-	-	-	-	-

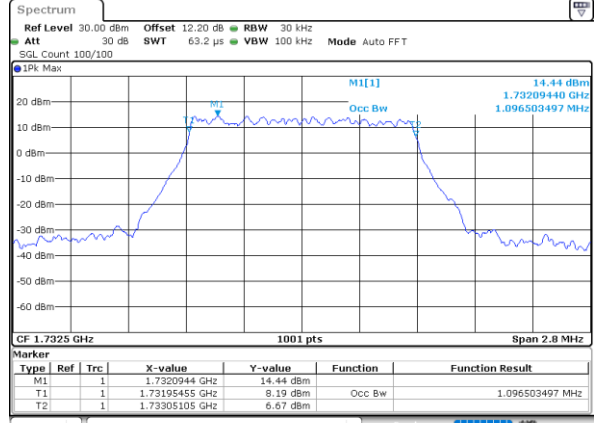


LTE Cat 1 Band 4

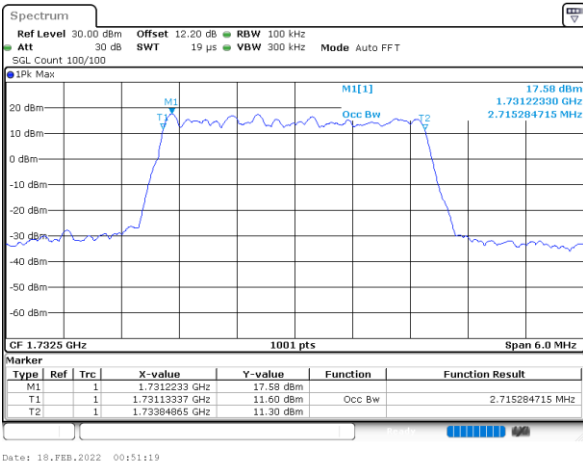
Middle Channel / 1.4MHz / QPSK



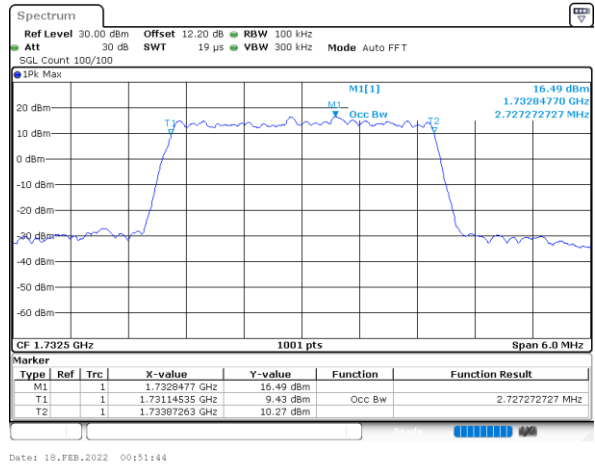
Middle Channel / 1.4MHz / 16QAM



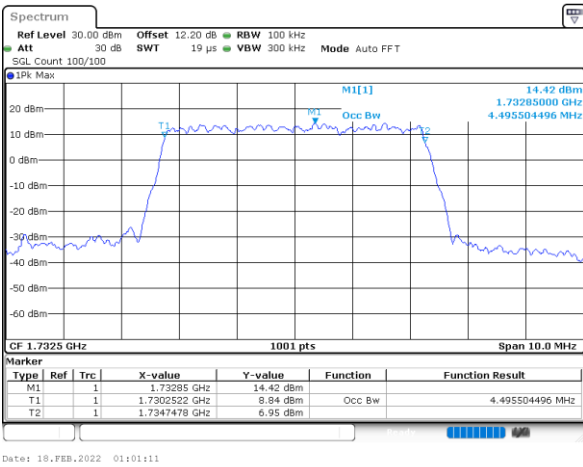
Middle Channel / 3MHz / QPSK



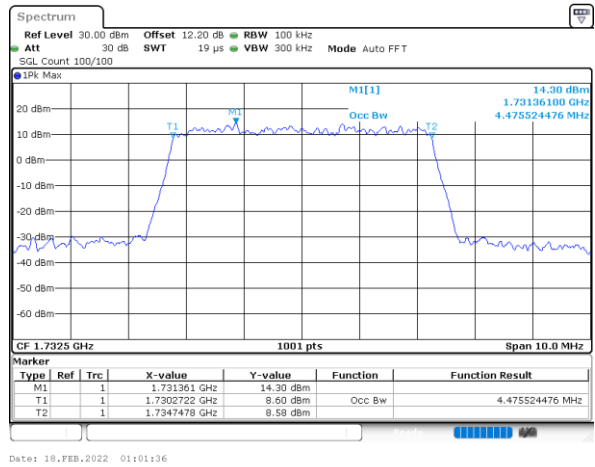
Middle Channel / 3MHz / 16QAM

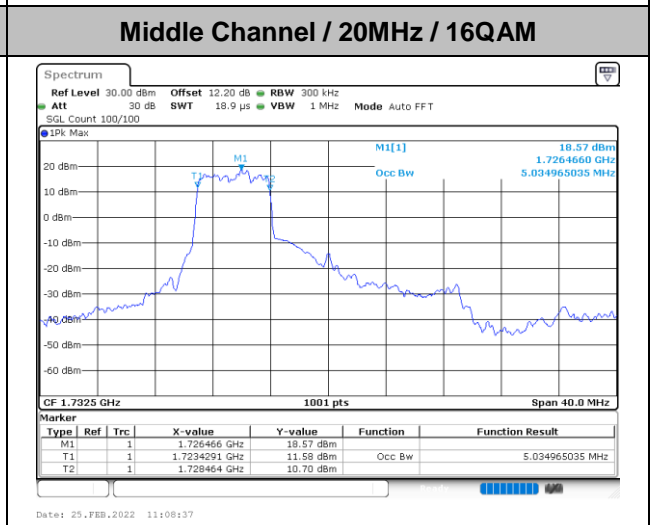
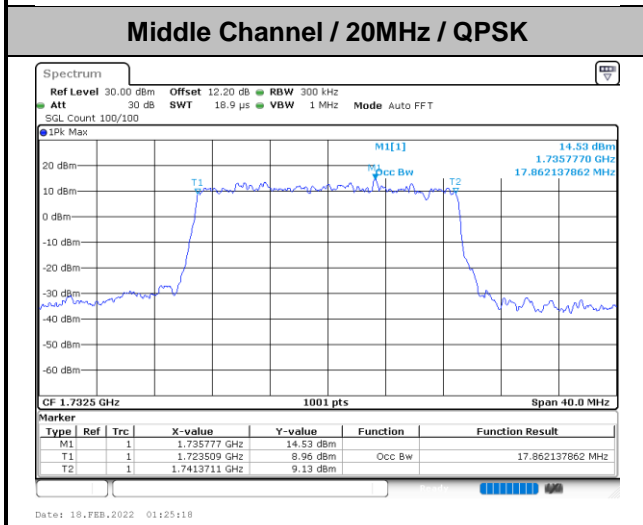
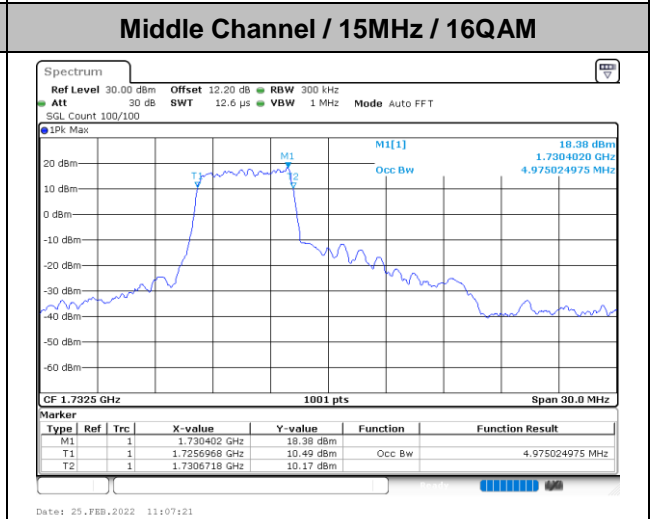
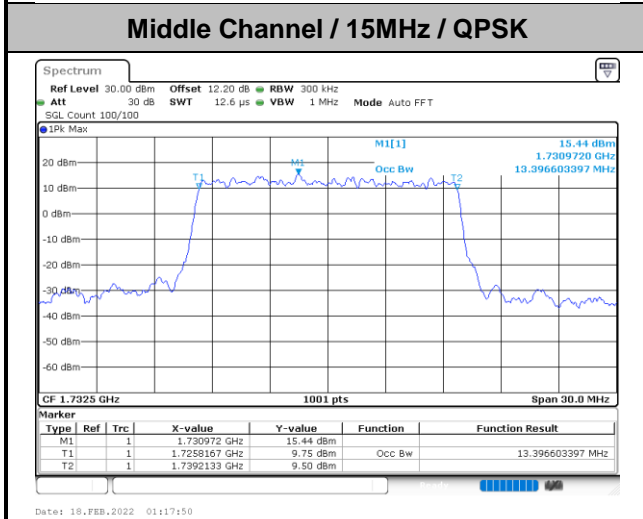
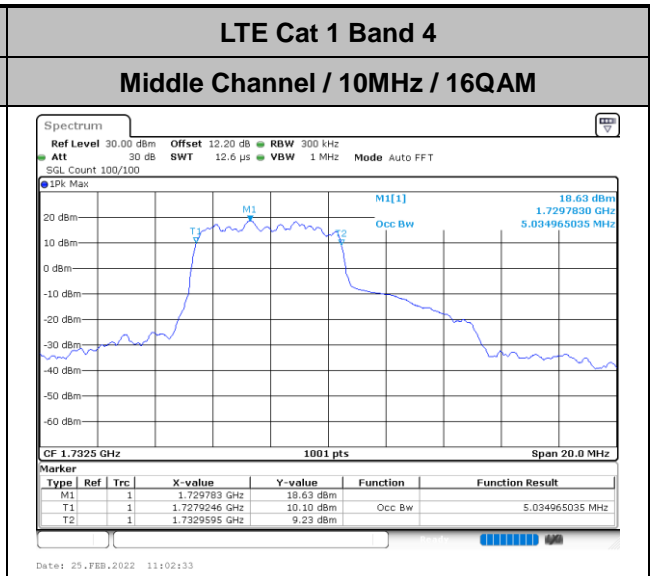
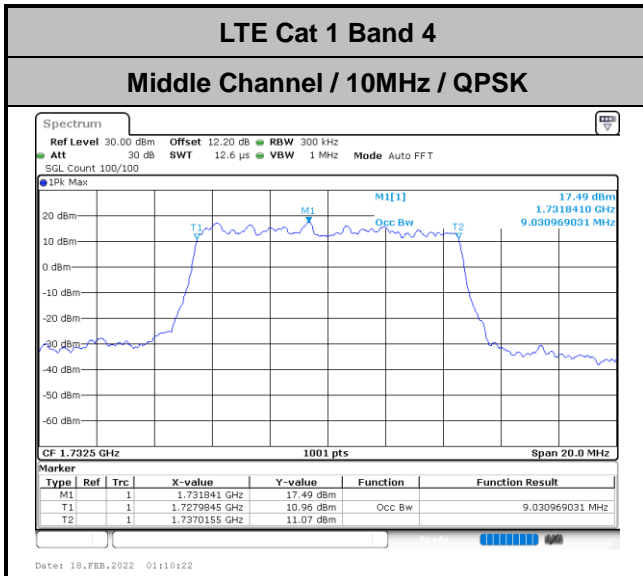


Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM



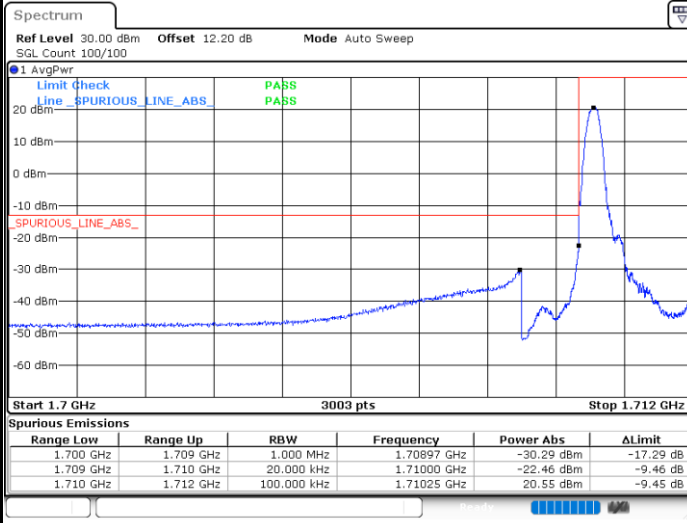




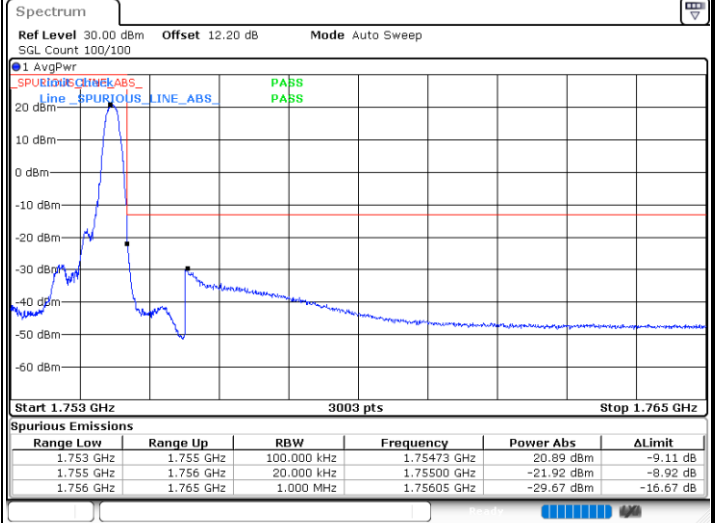
# Conducted Band Edge

## LTE Cat 1 Band 4 / 1.4MHz / QPSK

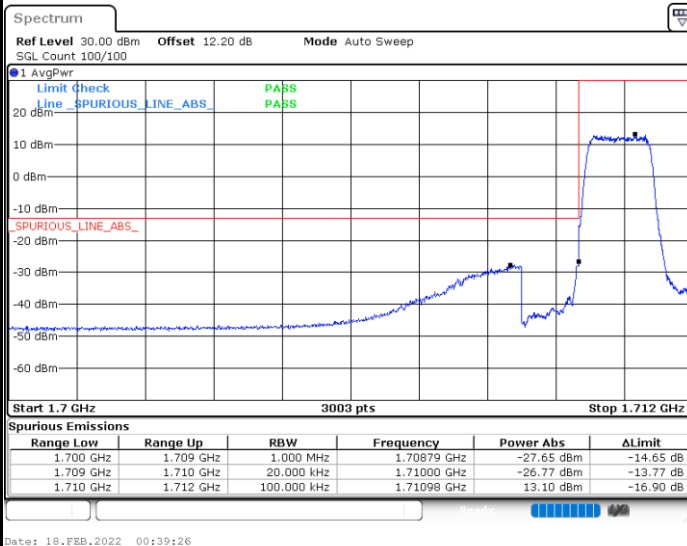
### Lowest Band Edge / 1RB



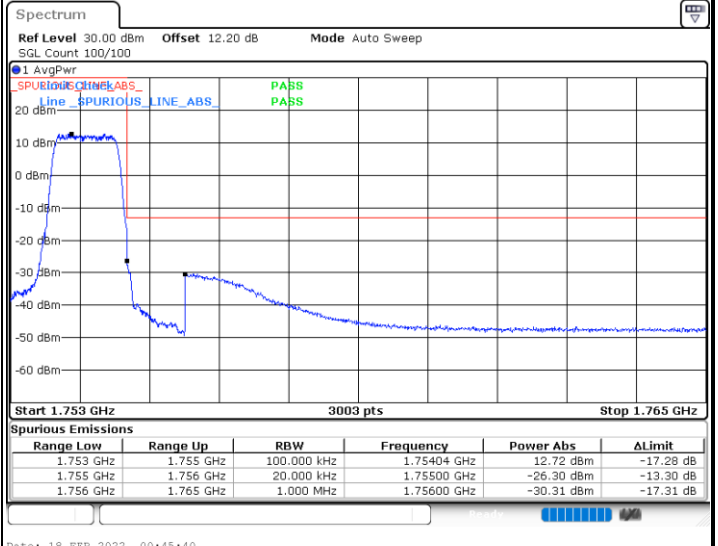
### Highest Band Edge / 1RB



### Lowest Band Edge / Full RB



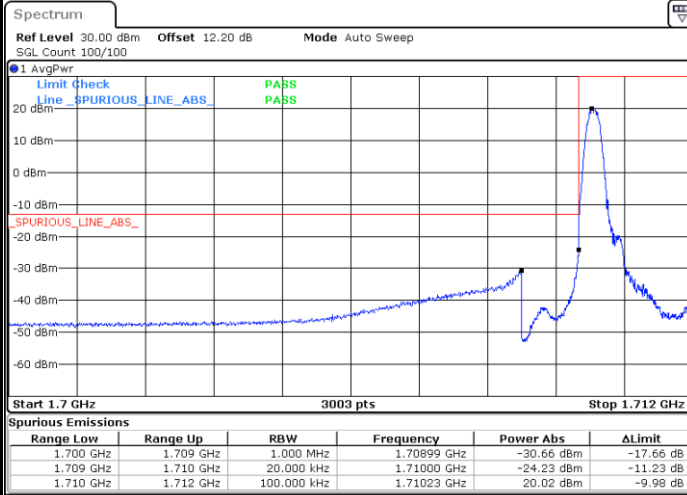
### Highest Band Edge / Full RB





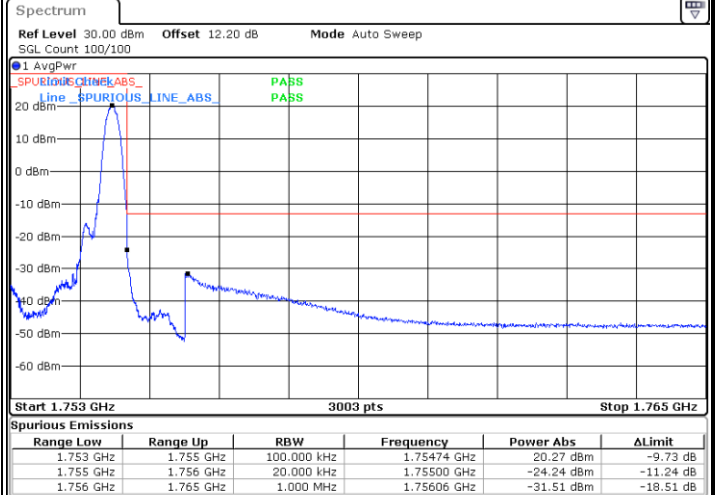
LTE Cat 1 Band 4 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



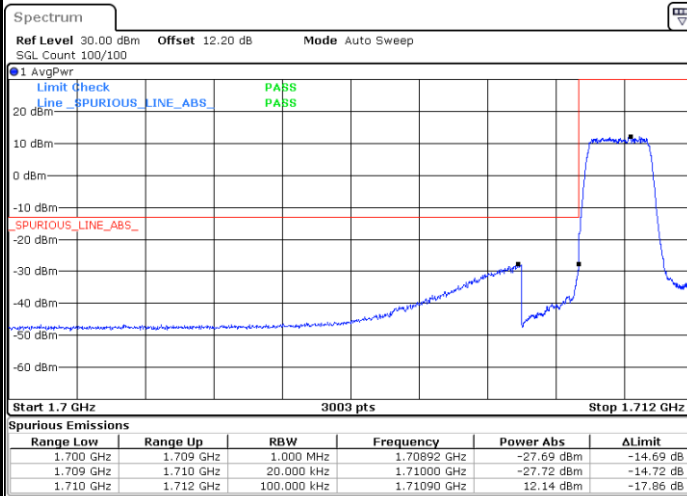
Date: 18.FEB.2022 00:38:45

Highest Band Edge / 1 RB



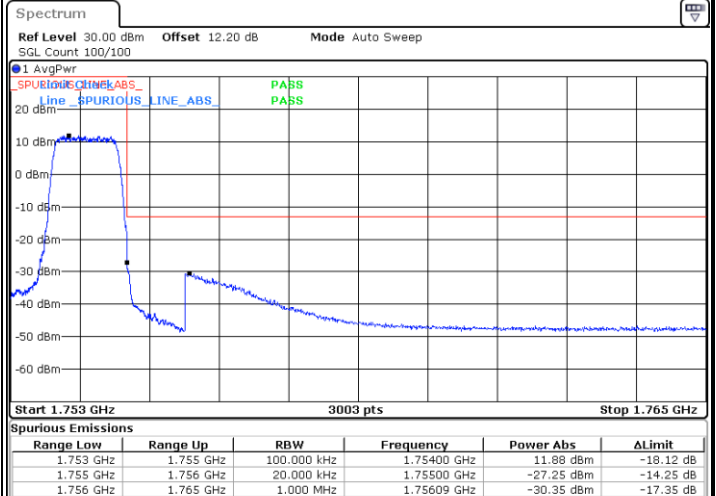
Date: 18.FEB.2022 00:44:59

Lowest Band Edge / Full RB



Date: 18.FEB.2022 00:40:07

Highest Band Edge / Full RB

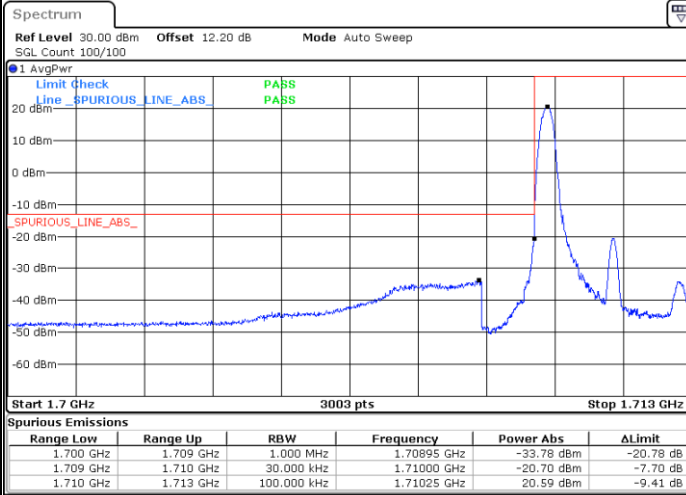


Date: 18.FEB.2022 00:46:20



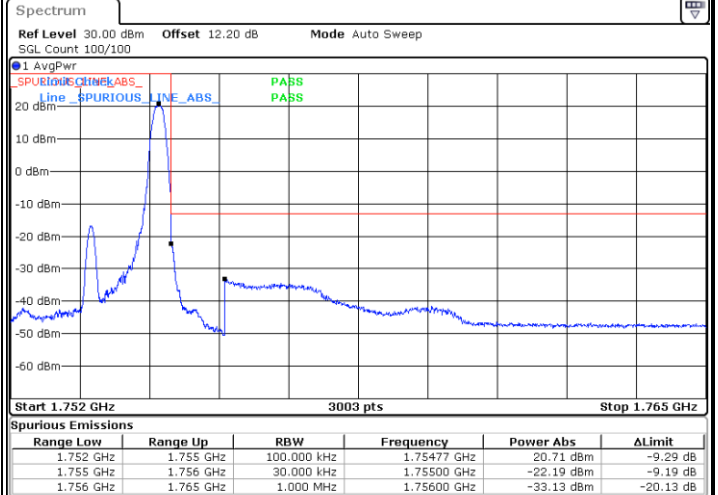
LTE Cat 1 Band 4 / 3MHz / QPSK

Lowest Band Edge / 1RB



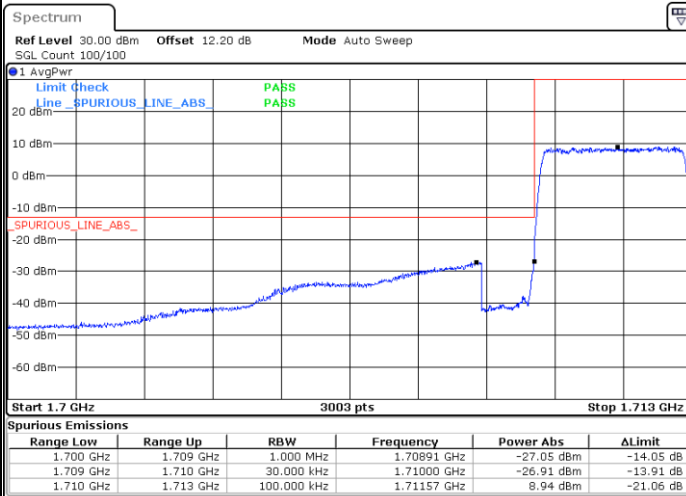
Date: 18.FEB.2022 00:47:56

Highest Band Edge / 1 RB



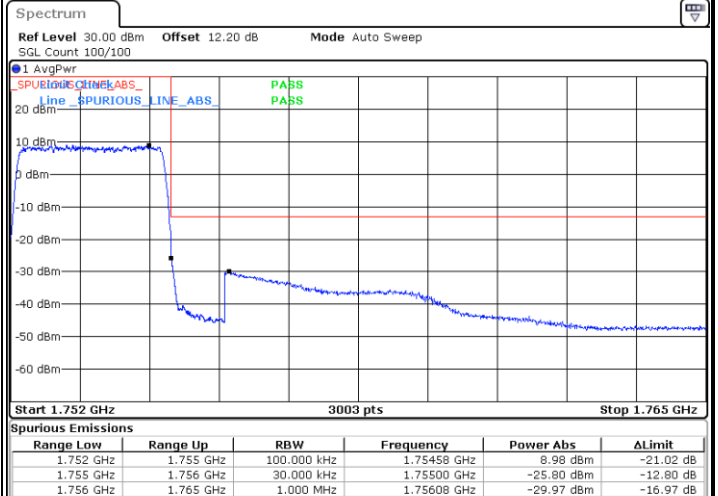
Date: 18.FEB.2022 00:54:10

Lowest Band Edge / Full RB



Date: 18.FEB.2022 00:49:17

Highest Band Edge / Full RB



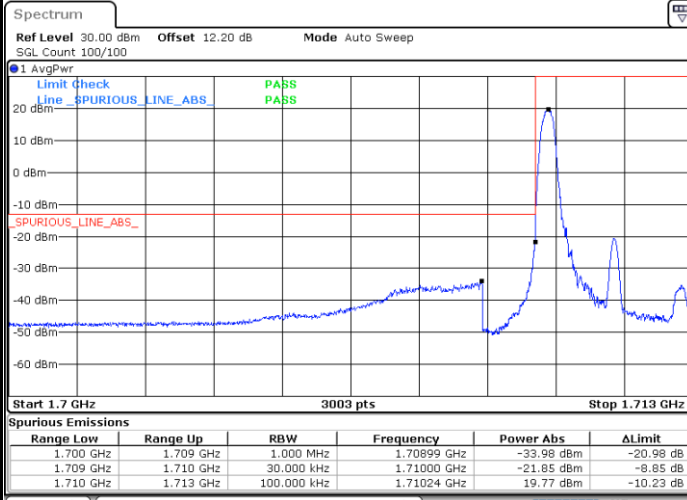
Date: 18.FEB.2022 00:55:31





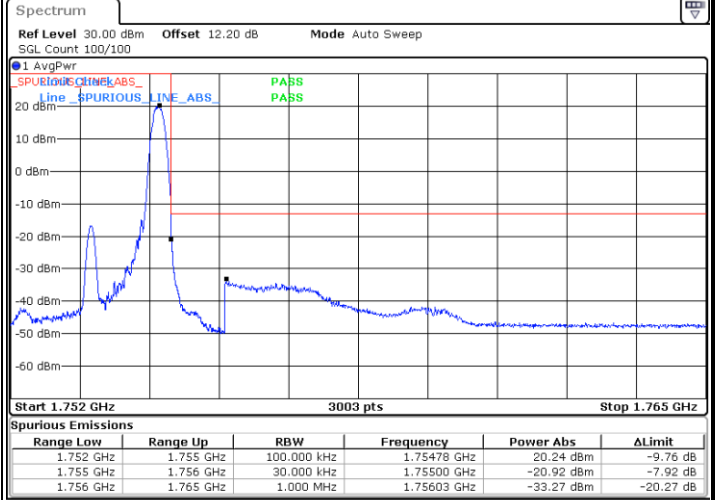
LTE Cat 1 Band 4 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



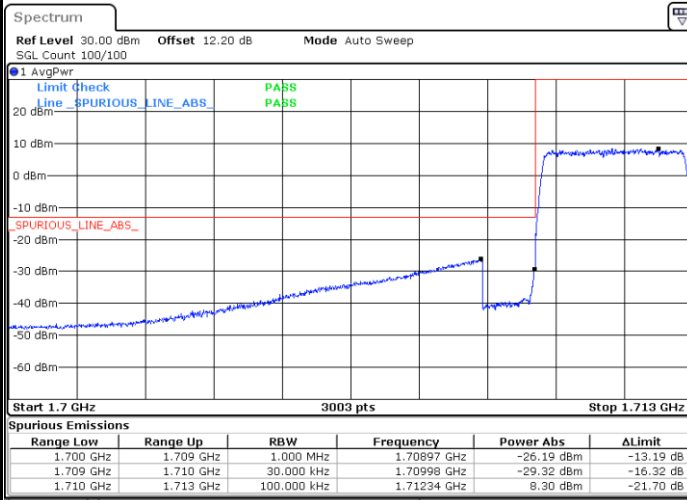
Date: 18.FEB.2022 00:48:37

Highest Band Edge / 1 RB



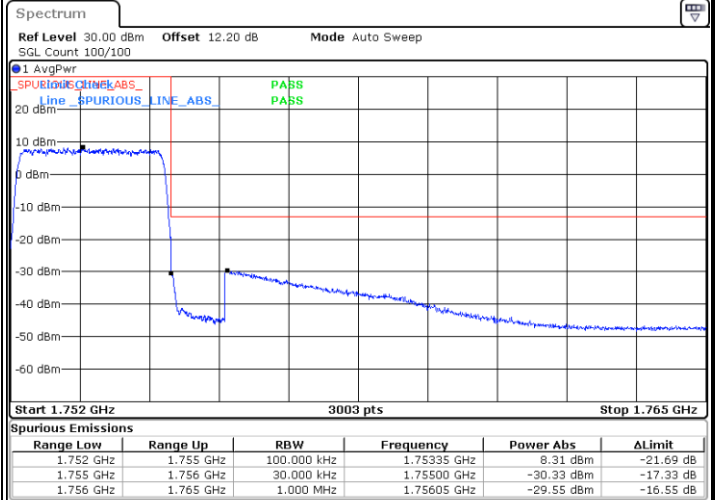
Date: 18.FEB.2022 00:54:50

Lowest Band Edge / Full RB



Date: 18.FEB.2022 00:49:58

Highest Band Edge / Full RB

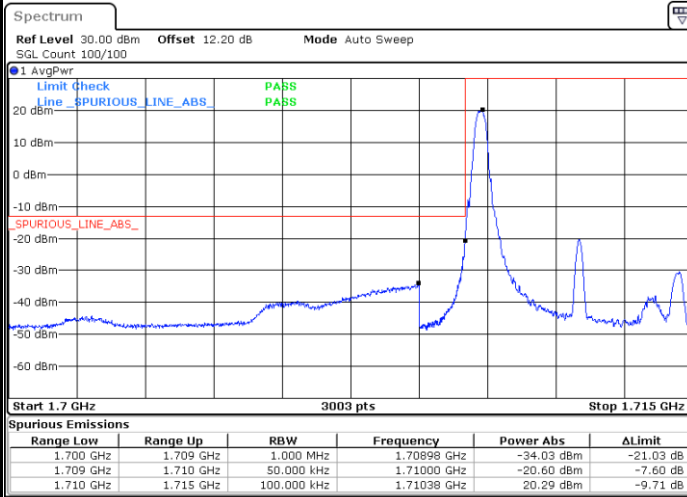


Date: 18.FEB.2022 00:56:12



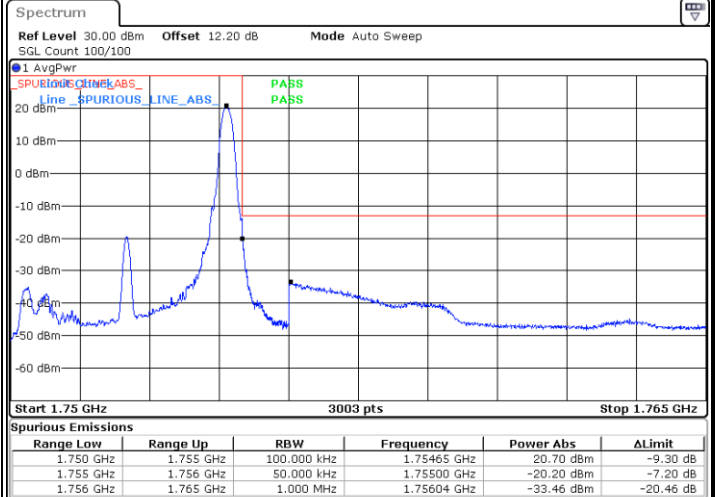
LTE Cat 1 Band 4 / 5MHz / QPSK

Lowest Band Edge / 1 RB



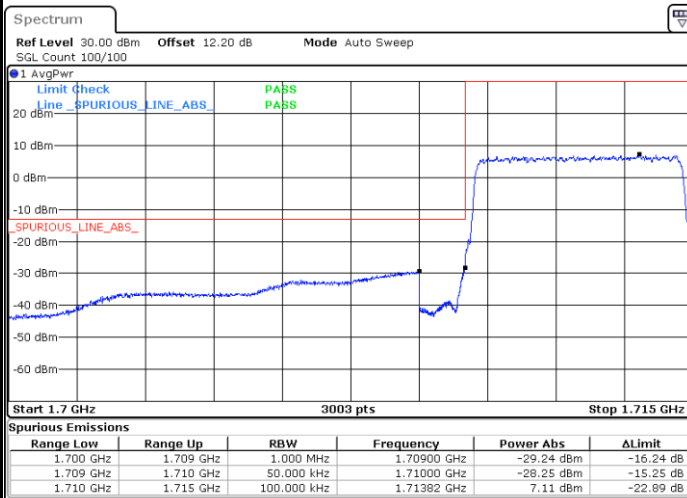
Date: 18.FEB.2022 00:57:48

Highest Band Edge / 1 RB



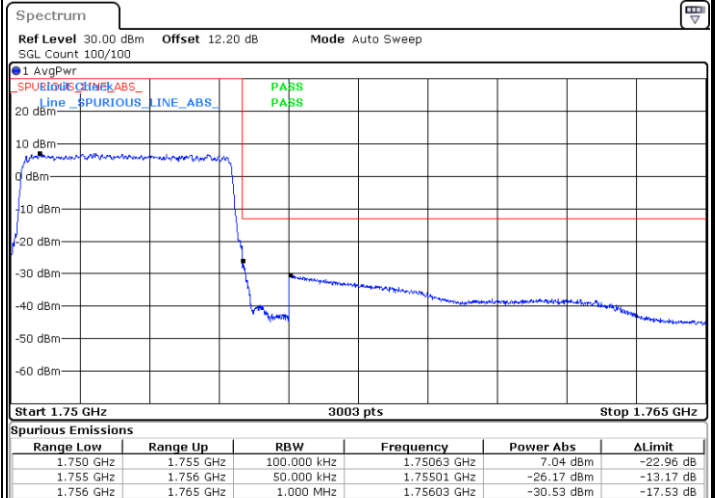
Date: 18.FEB.2022 01:04:02

Lowest Band Edge / Full RB



Date: 18.FEB.2022 00:59:09

Highest Band Edge / Full RB

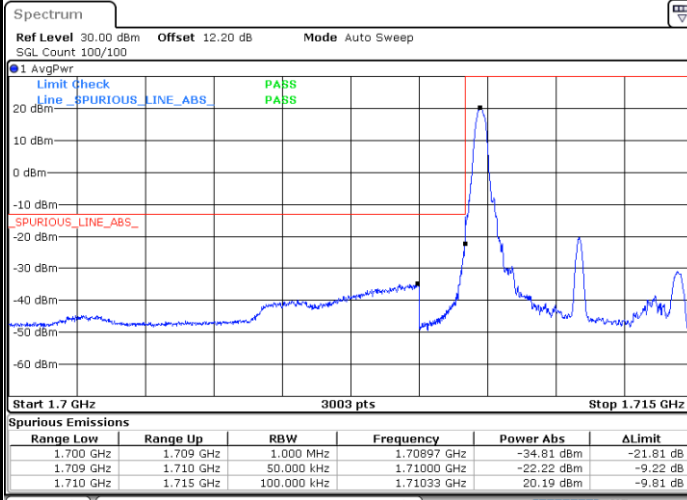


Date: 18.FEB.2022 01:05:23



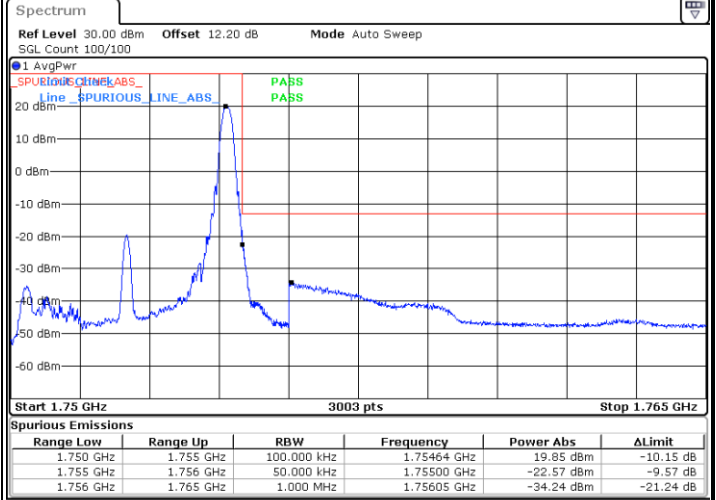
LTE Cat 1 Band 4 / 5MHz / 16QAM

Lowest Band Edge / 1RB



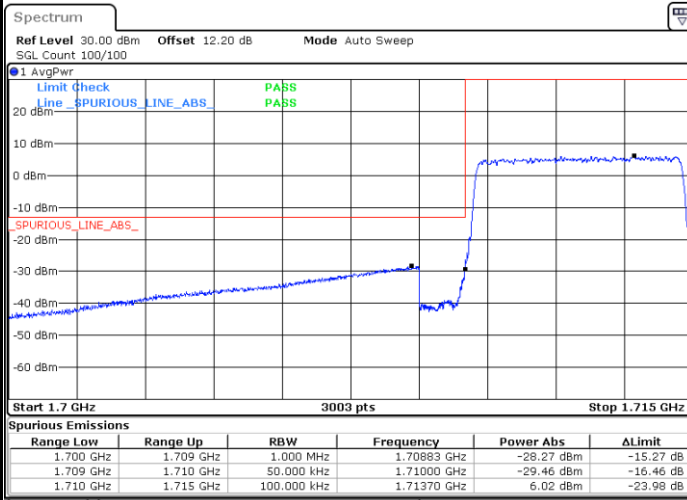
Date: 18.FEB.2022 00:58:28

Highest Band Edge / 1 RB



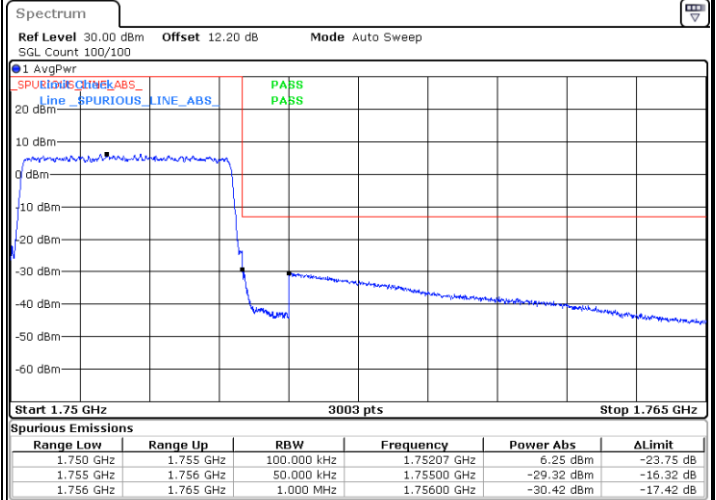
Date: 18.FEB.2022 01:04:43

Lowest Band Edge / Full RB



Date: 18.FEB.2022 00:59:49

Highest Band Edge / Full RB

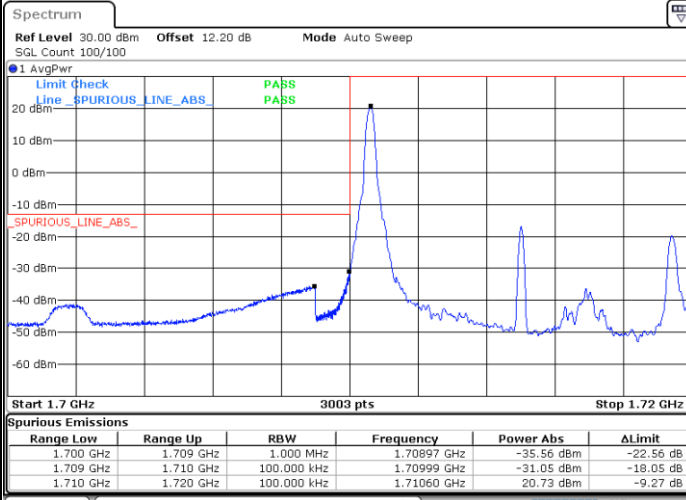


Date: 18.FEB.2022 01:06:03



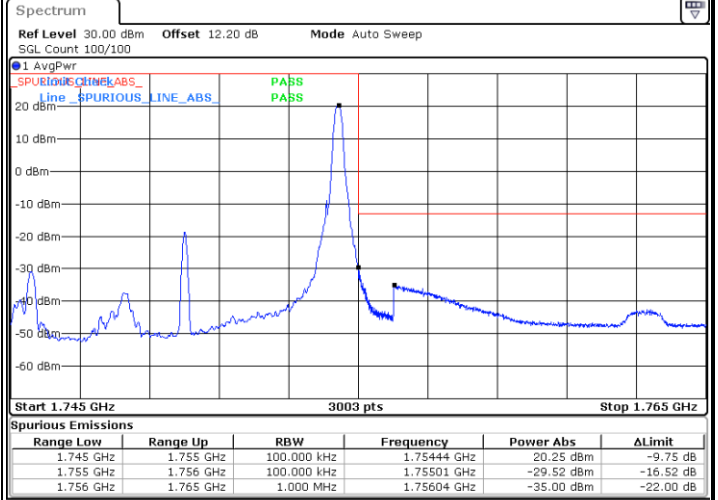
LTE Cat 1 Band 4 / 10MHz / QPSK

Lowest Band Edge / 1 RB



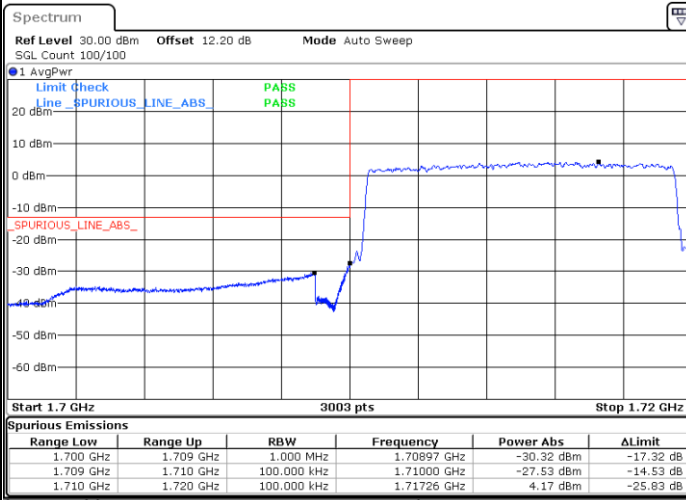
Date: 18.FEB.2022 01:07:39

Highest Band Edge / 1 RB



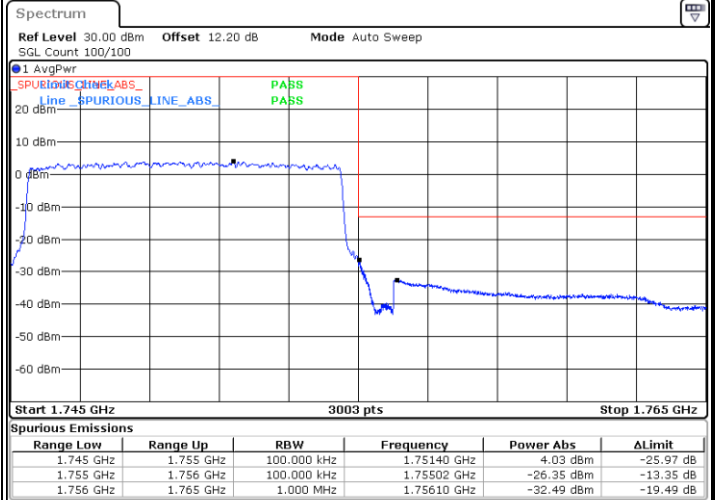
Date: 18.FEB.2022 01:12:11

Lowest Band Edge / Full RB



Date: 18.FEB.2022 01:09:01

Highest Band Edge / Full RB

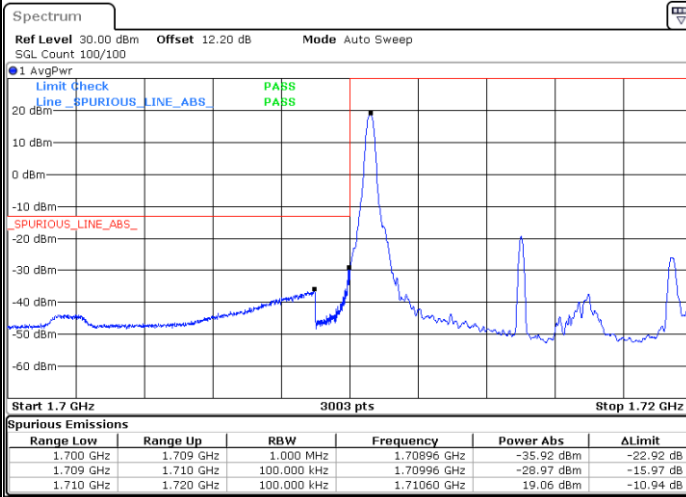


Date: 18.FEB.2022 01:13:31



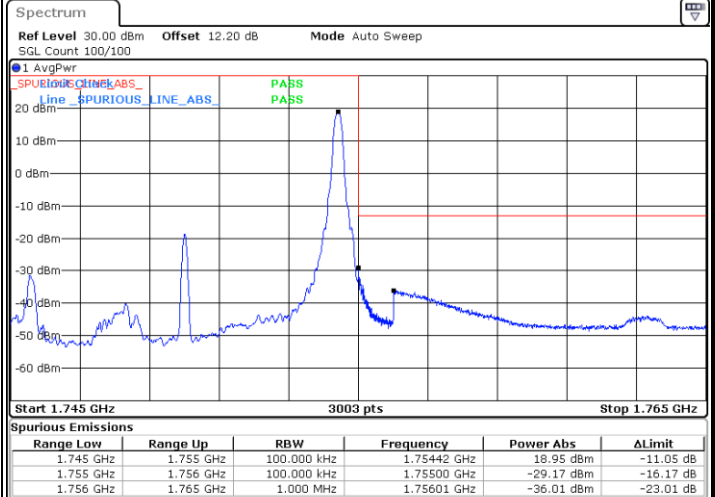
LTE Cat 1 Band 4 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



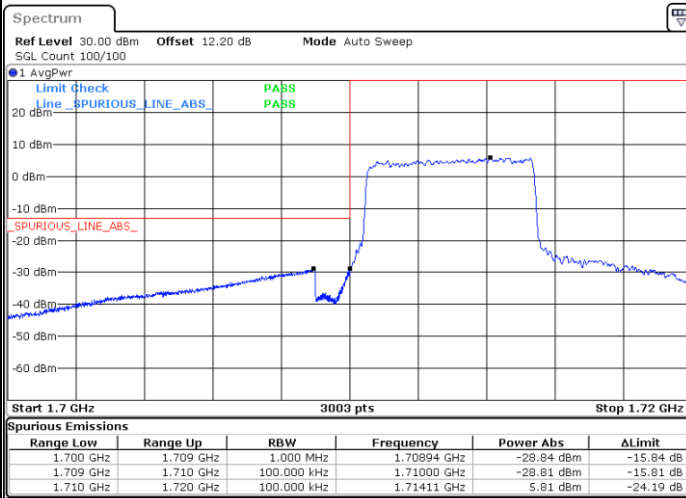
Date: 18.FEB.2022 01:08:20

Highest Band Edge / 1 RB



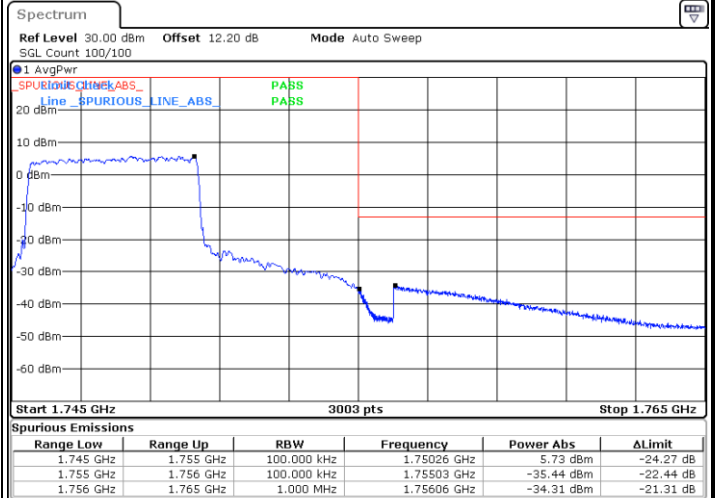
Date: 18.FEB.2022 01:12:51

Lowest Band Edge / Full RB



Date: 25.FEB.2022 11:03:52

Highest Band Edge / Full RB

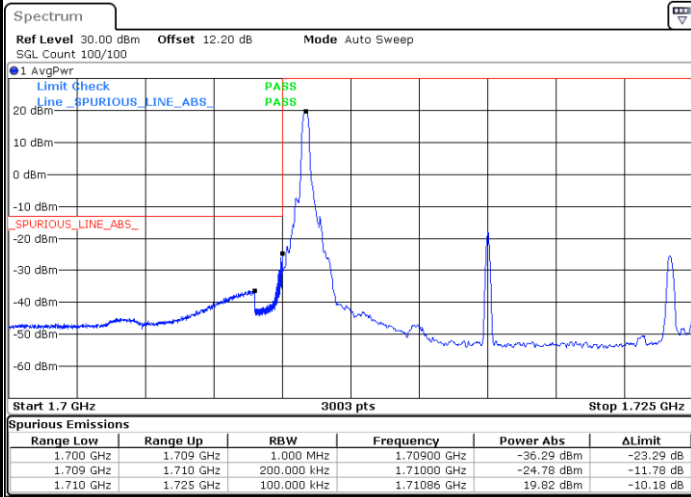


Date: 25.FEB.2022 11:04:43



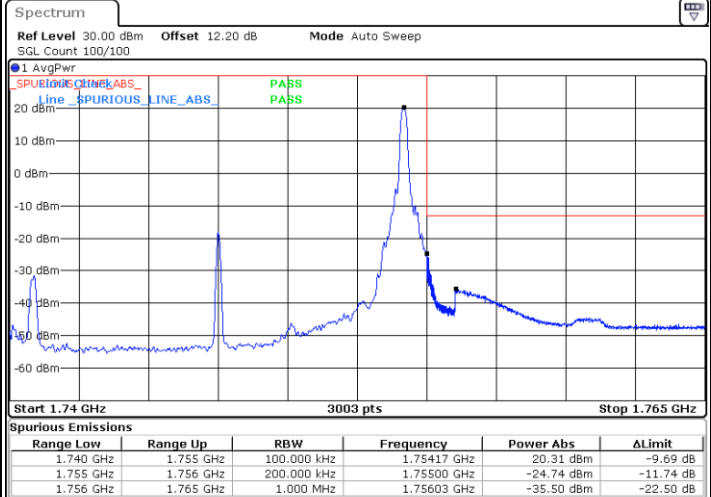
LTE Cat 1 Band 4 / 15MHz / QPSK

Lowest Band Edge / 1 RB



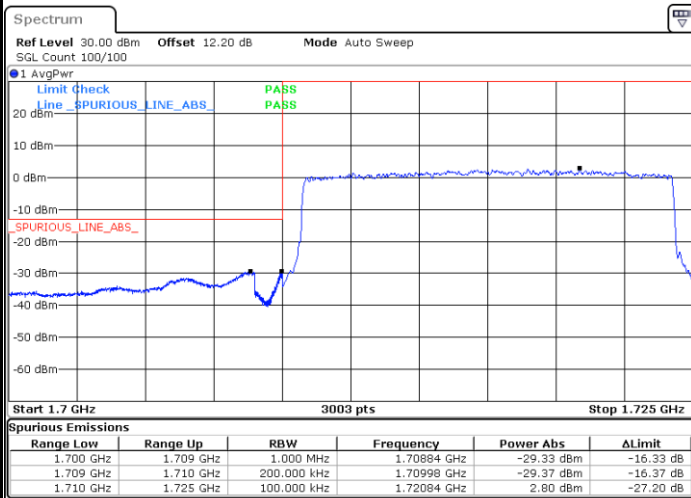
Date: 18.FEB.2022 01:15:08

Highest Band Edge / 1 RB



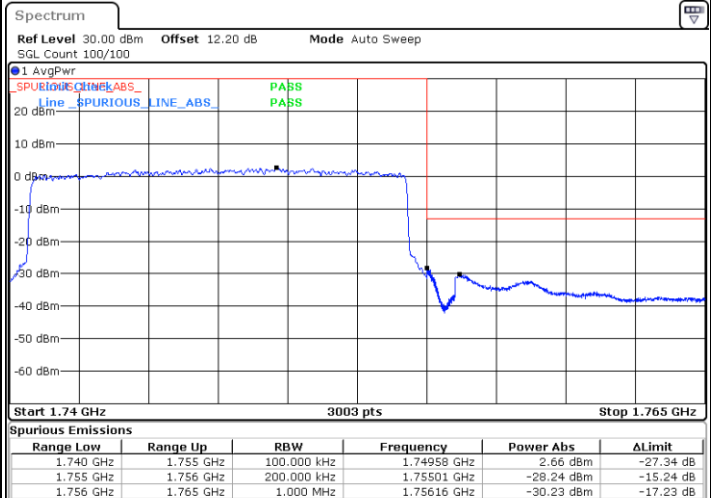
Date: 18.FEB.2022 01:19:39

Lowest Band Edge / Full RB



Date: 18.FEB.2022 01:16:29

Highest Band Edge / Full RB

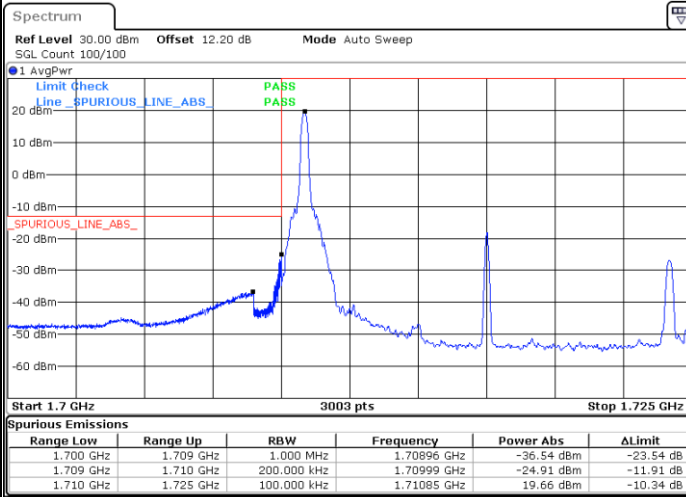


Date: 18.FEB.2022 01:21:00



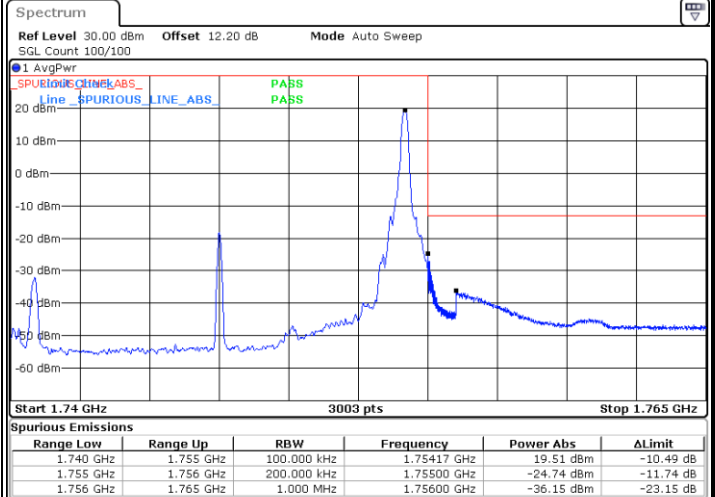
LTE Cat 1 Band 4 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



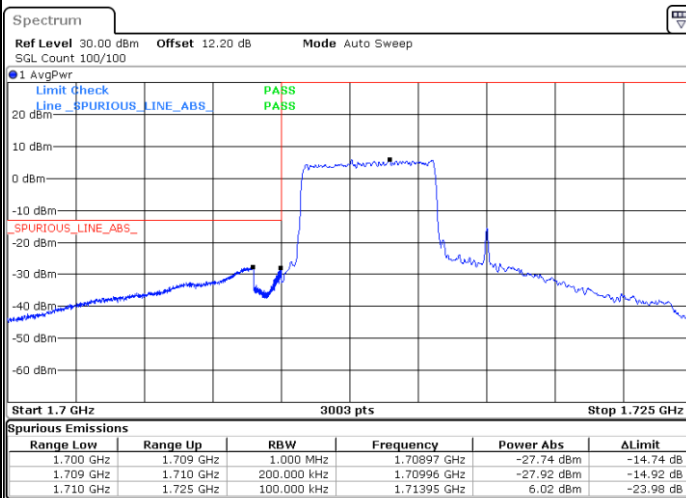
Date: 18.FEB.2022 01:15:48

Highest Band Edge / 1 RB



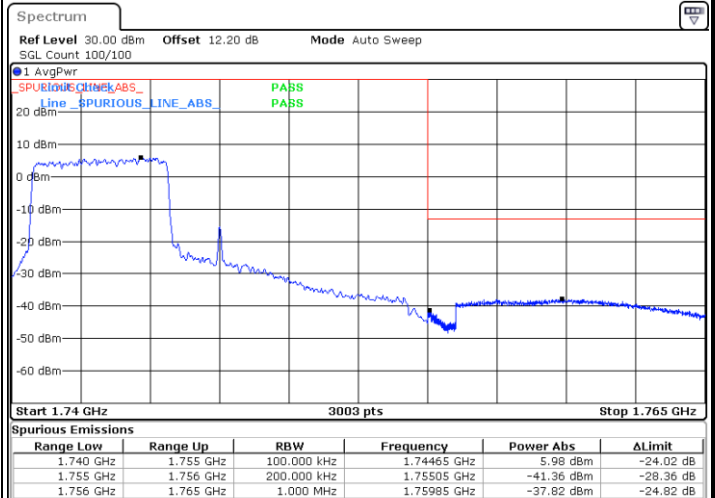
Date: 18.FEB.2022 01:20:19

Lowest Band Edge / Full RB



Date: 25.FEB.2022 11:05:57

Highest Band Edge / Full RB

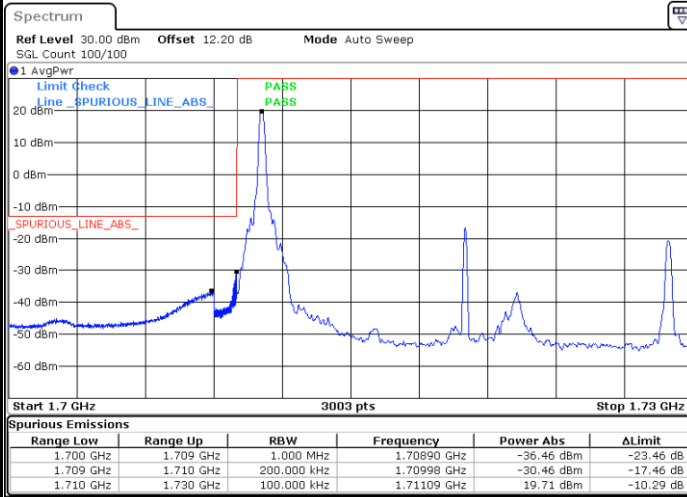


Date: 25.FEB.2022 11:06:55



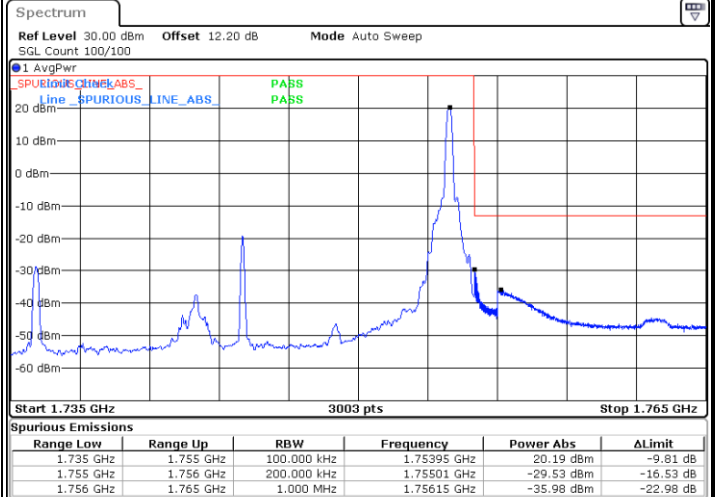
LTE Cat 1 Band 4 / 20MHz / QPSK

Lowest Band Edge / 1 RB



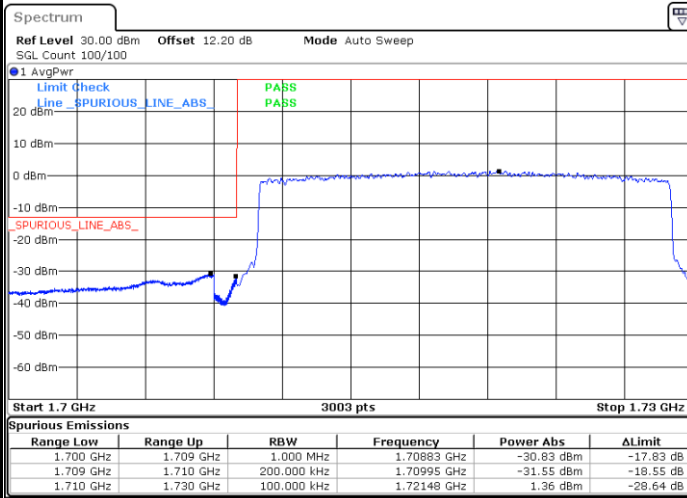
Date: 18.FEB.2022 01:22:36

Highest Band Edge / 1 RB



Date: 18.FEB.2022 01:27:07

Lowest Band Edge / Full RB



Date: 18.FEB.2022 01:23:57

Highest Band Edge / Full RB



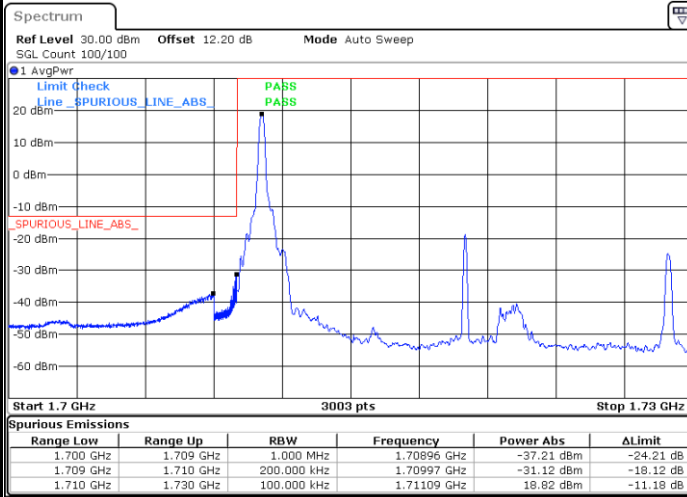
Date: 18.FEB.2022 01:28:28





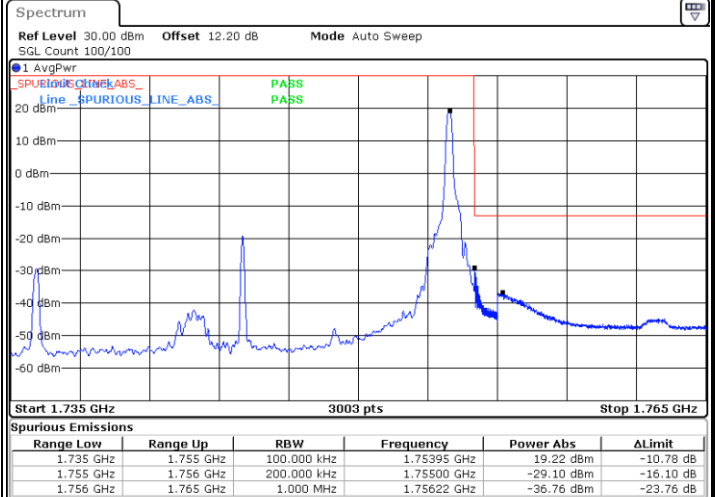
LTE Cat 1 Band 4 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



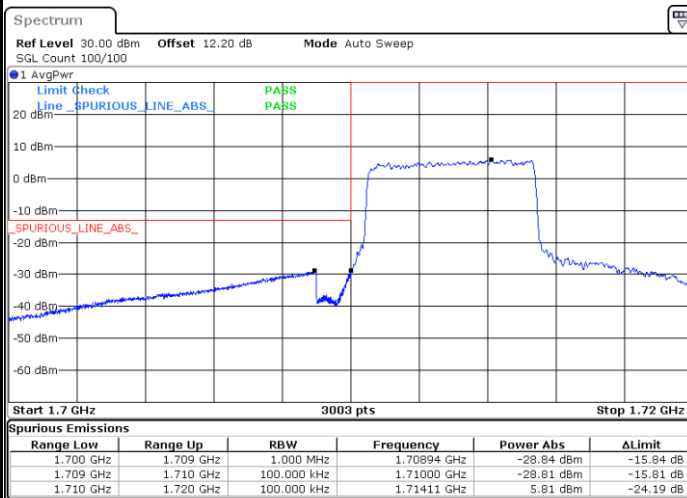
Date: 18.FEB.2022 01:23:16

Highest Band Edge / 1 RB



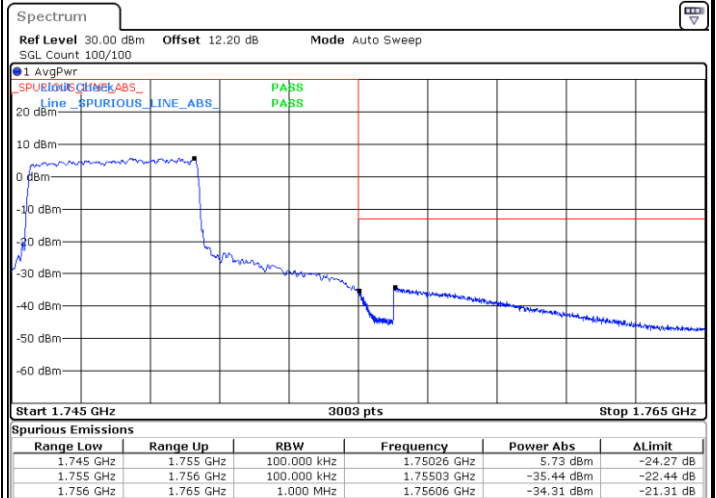
Date: 18.FEB.2022 01:27:47

Lowest Band Edge / Full RB



Date: 25.FEB.2022 11:03:52

Highest Band Edge / Full RB



Date: 25.FEB.2022 11:04:43

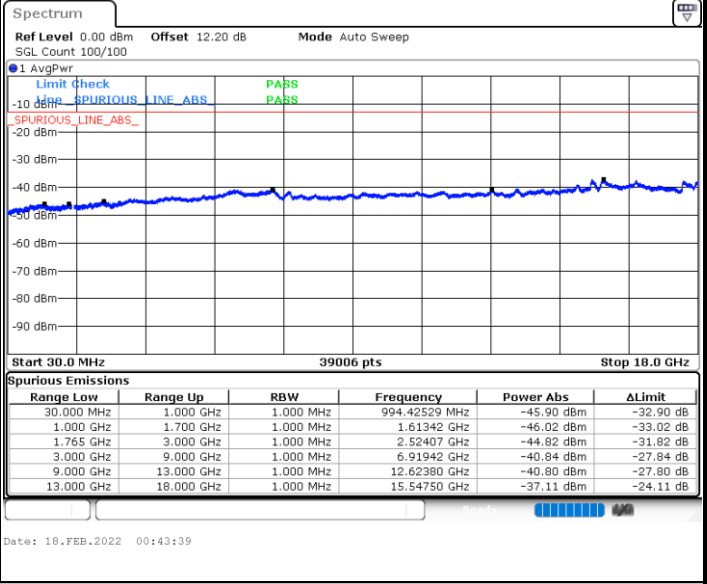
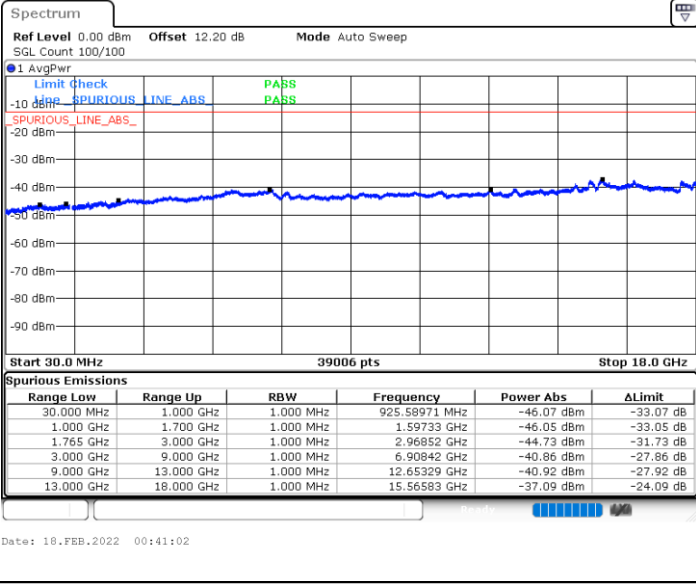


# Conducted Spurious Emission

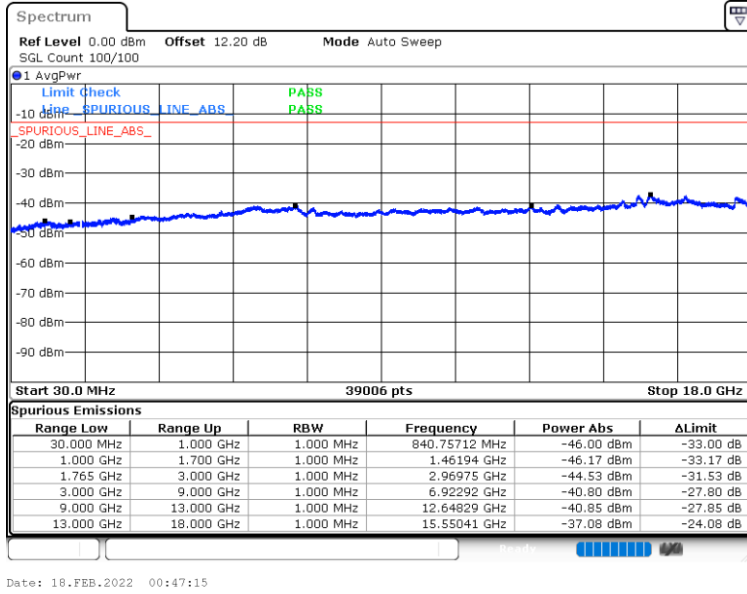
## LTE Cat 1 Band 4 / 1.4MHz

### Lowest Channel / QPSK

### Middle Channel / QPSK



### Highest Channel / QPSK

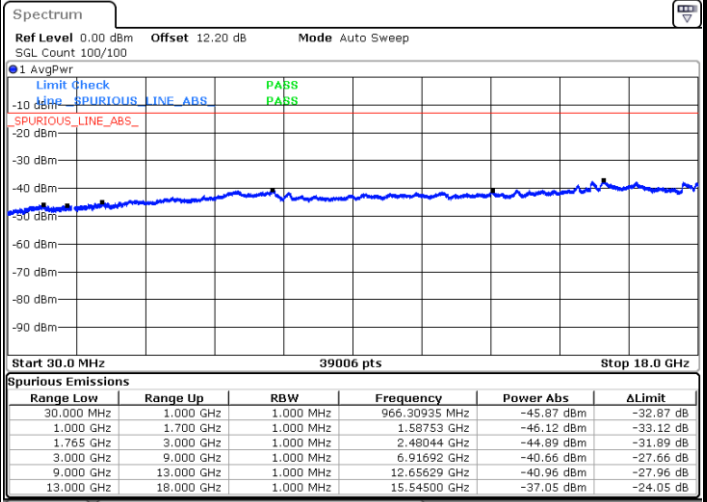
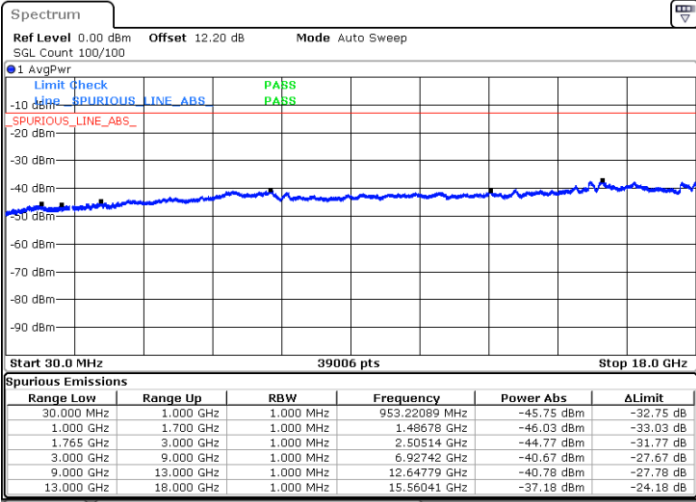




LTE Cat 1 Band 4 / 3MHz

Lowest Channel / QPSK

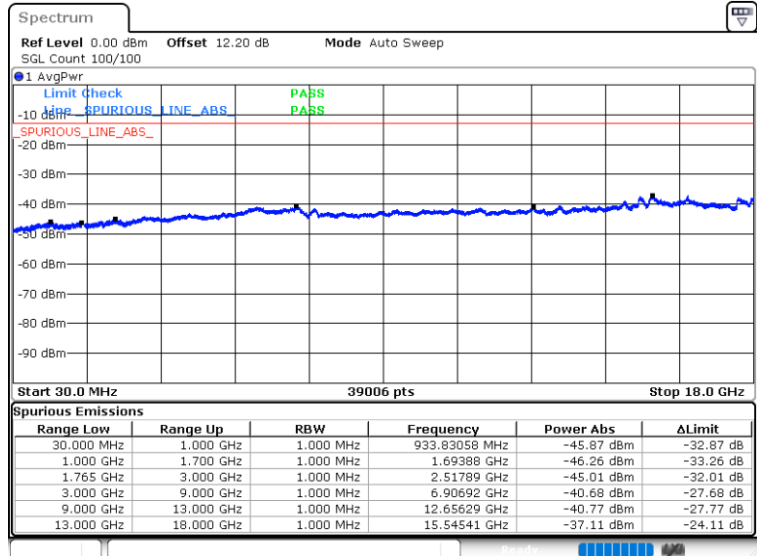
Middle Channel / QPSK



Date: 18.FEB.2022 00:50:53

Date: 18.FEB.2022 00:53:30

Highest Channel / QPSK



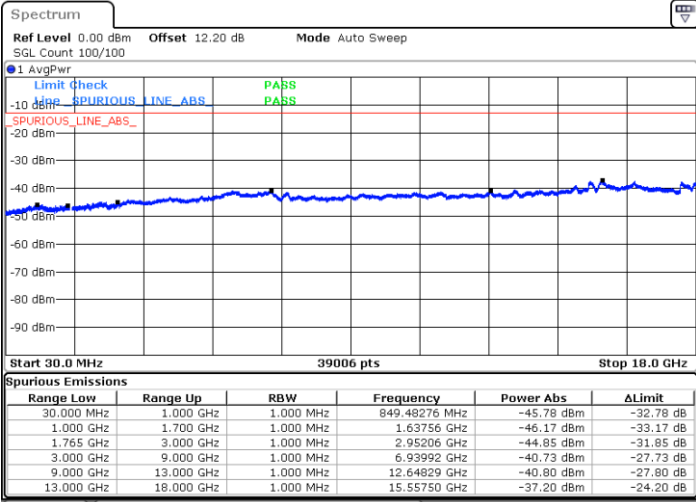
Date: 18.FEB.2022 00:57:06



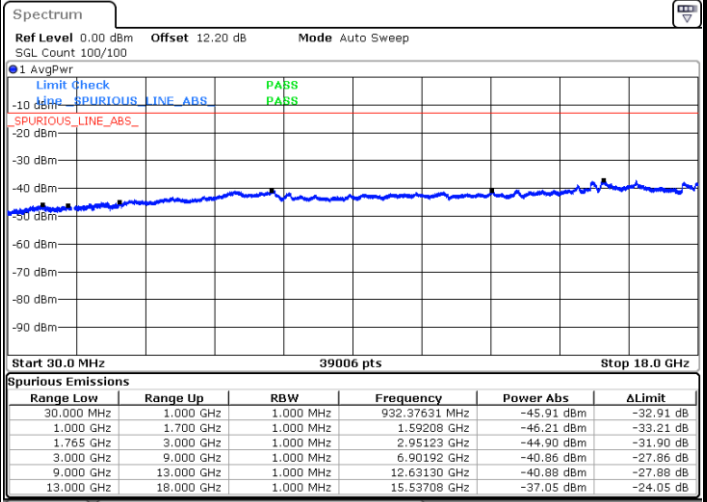
LTE Cat 1 Band 4 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

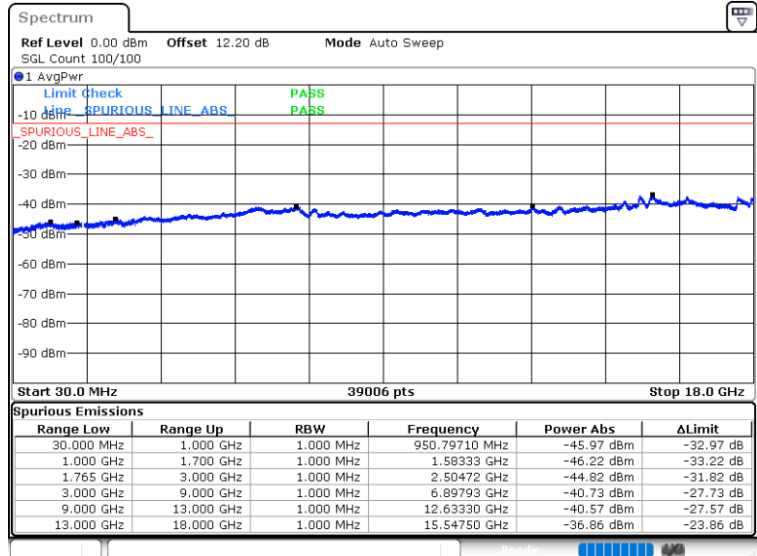


Date: 18.FEB.2022 01:00:44



Date: 18.FEB.2022 01:03:21

Highest Channel / QPSK



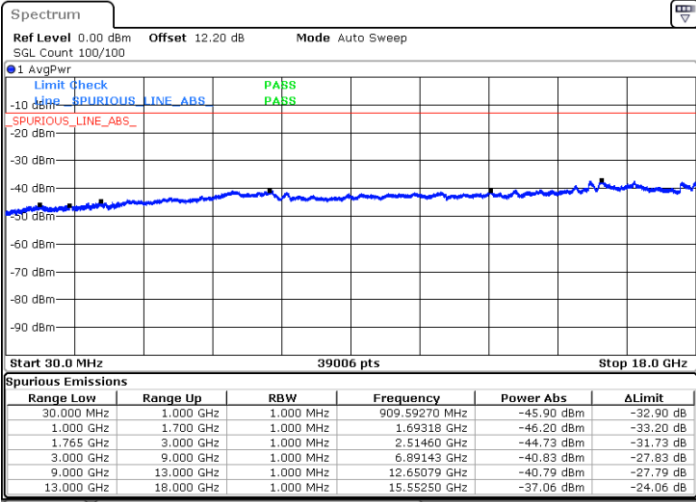
Date: 18.FEB.2022 01:06:58



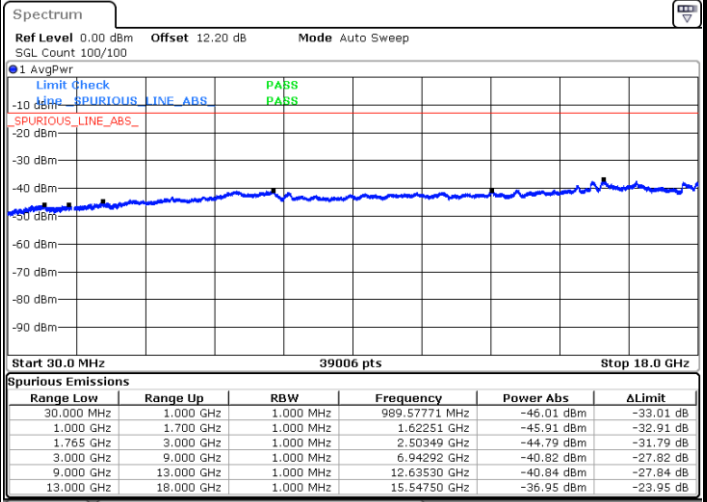
LTE Cat 1 Band 4 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

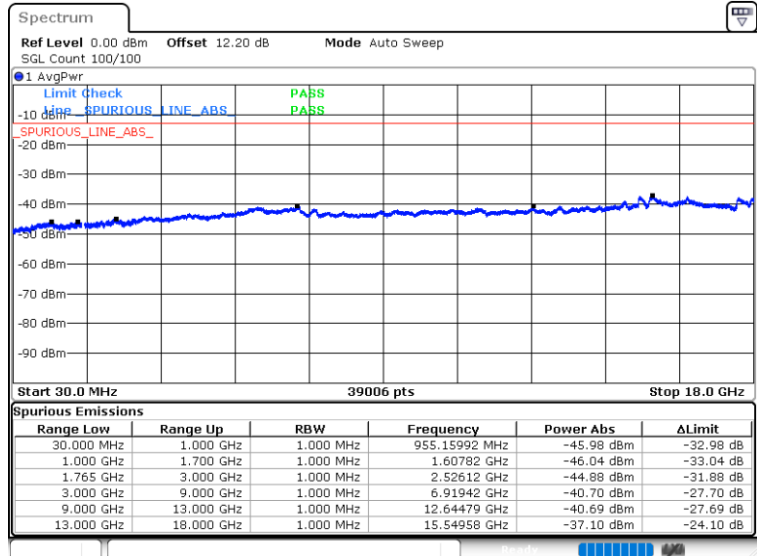


Date: 18.FEB.2022 01:09:56



Date: 18.FEB.2022 01:11:30

Highest Channel / QPSK



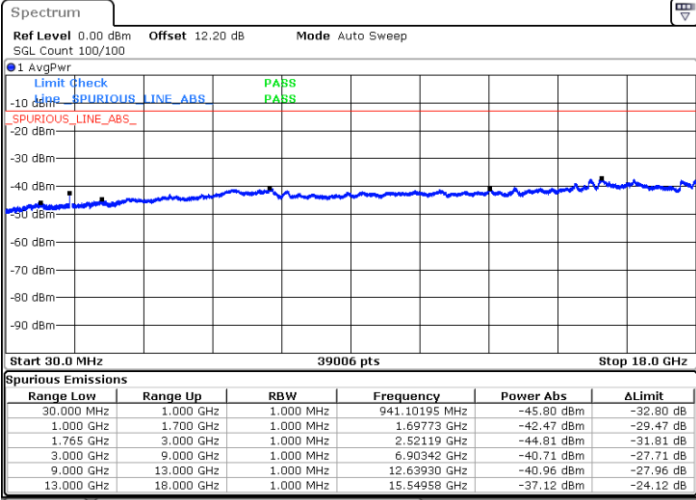
Date: 18.FEB.2022 01:14:26



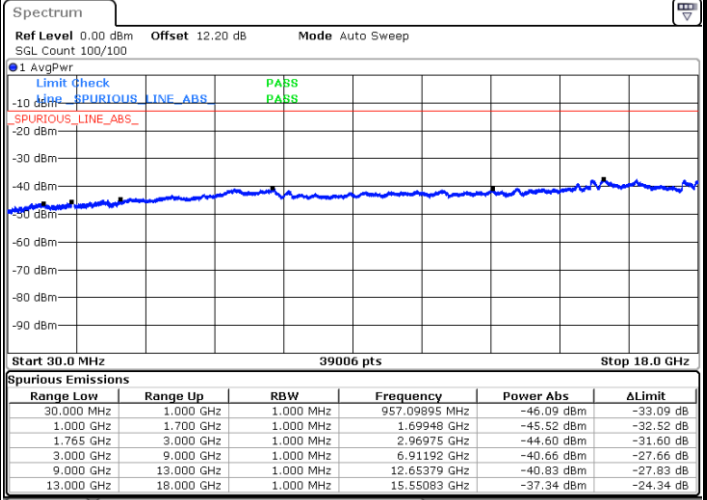
LTE Cat 1 Band 4 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

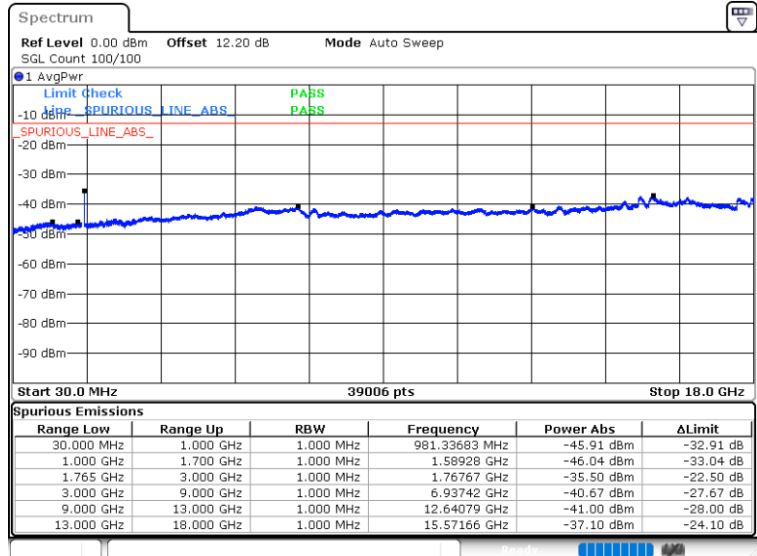


Date: 18.FEB.2022 01:17:24



Date: 18.FEB.2022 01:18:58

Highest Channel / QPSK



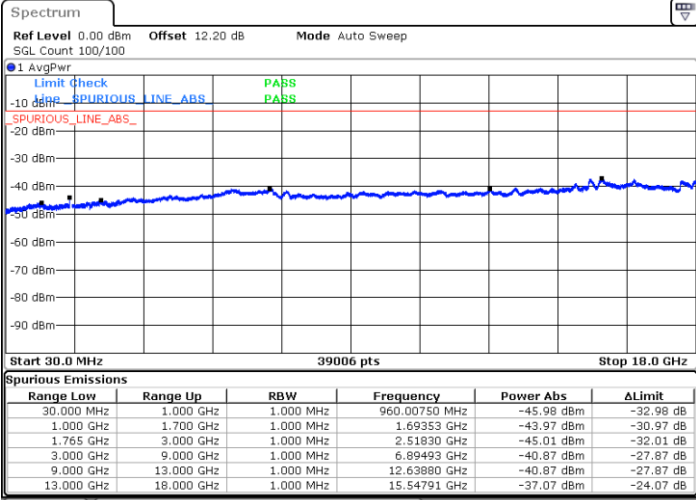
Date: 18.FEB.2022 01:21:55



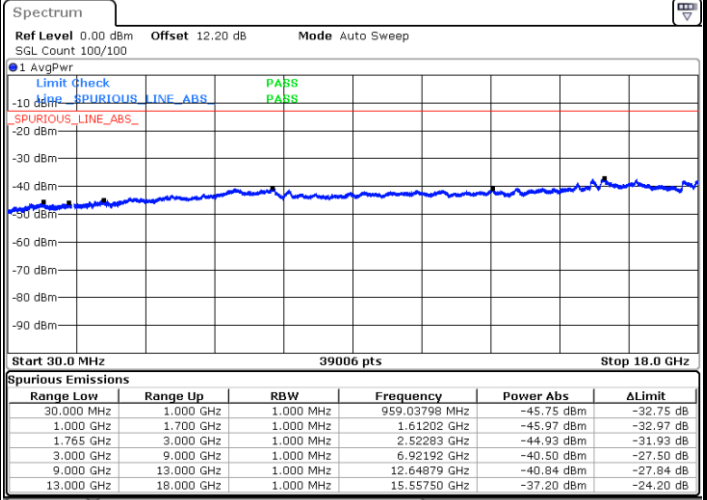
LTE Cat 1 Band 4 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

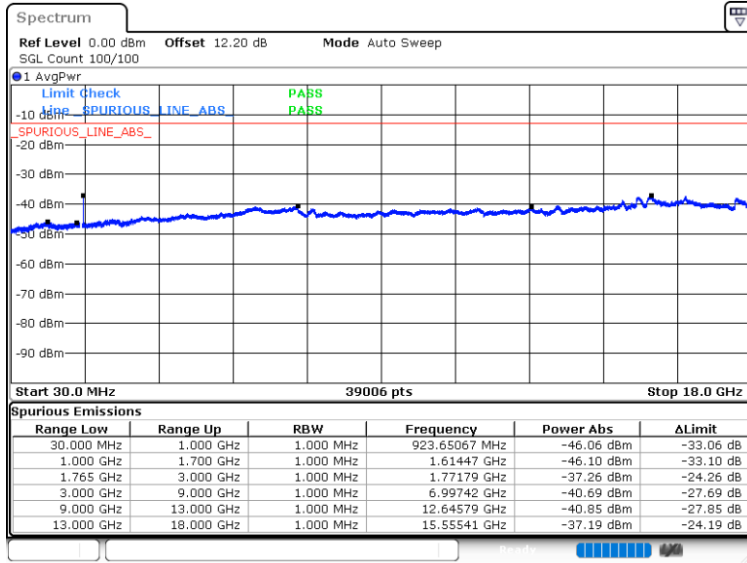


Date: 18.FEB.2022 01:24:52



Date: 18.FEB.2022 01:26:26

Highest Channel / QPSK



Date: 18.FEB.2022 01:29:23



### Frequency Stability

Test Conditions		LTE Cat 1 Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0052	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0062	
0	Normal Voltage	0.0025	
-10	Normal Voltage	0.0079	
-20	Normal Voltage	0.0018	
-30	Normal Voltage	0.0065	
20	Maximum Voltage	0.0048	
20	Normal Voltage	0.0014	
20	Battery End Point	0.0072	

**Note:**

- 1. Normal Voltage =3.88 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.

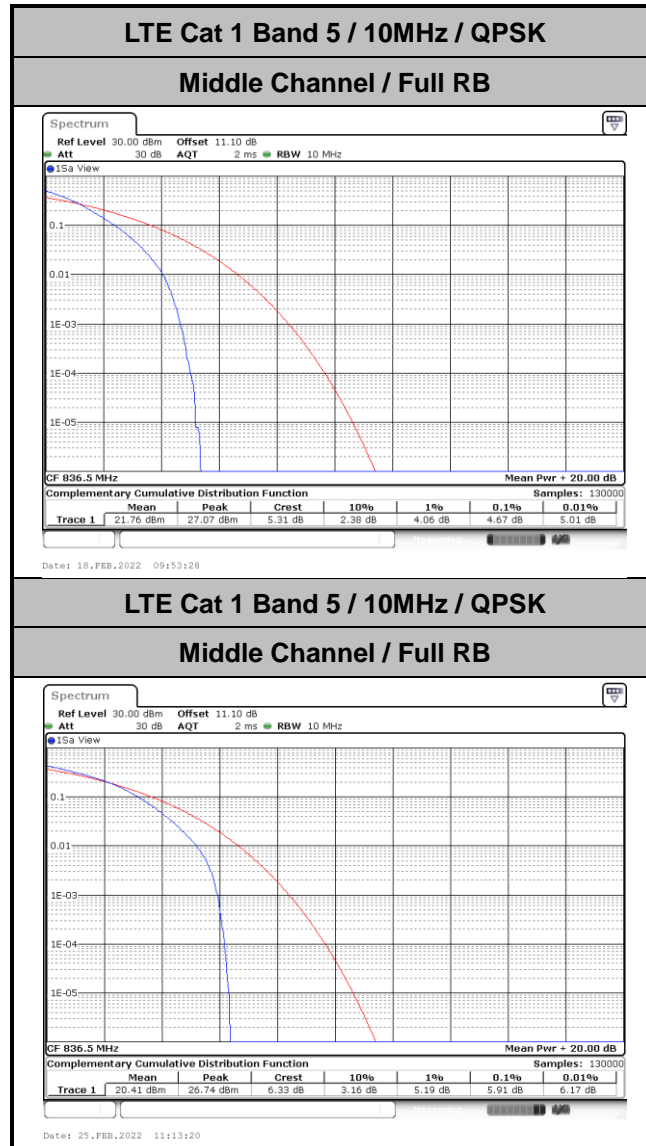




## LTE Cat 1 Band 5

### Peak-to-Average Ratio

Mode	LTE Cat 1 Band 5 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.67	5.91	-	-	PASS





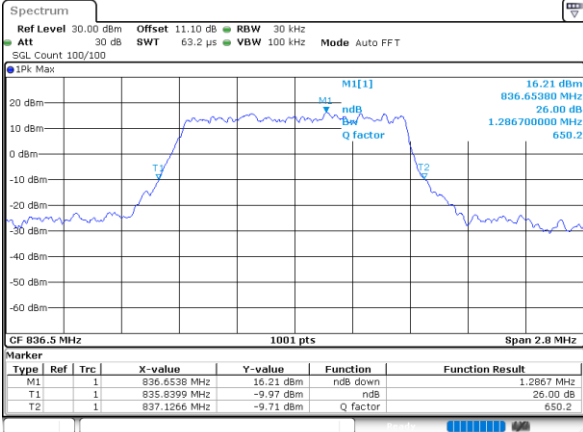
**26dB Bandwidth**

Mode	LTE Cat 1 Band 5 : 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	1.29	1.28	3.02	2.99	4.96	4.95	9.67	5.67	-	-	-	-
Mode	LTE Cat 1 Band 5 : 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	-	-	-	-	-	-	-	-	-	-	-	-



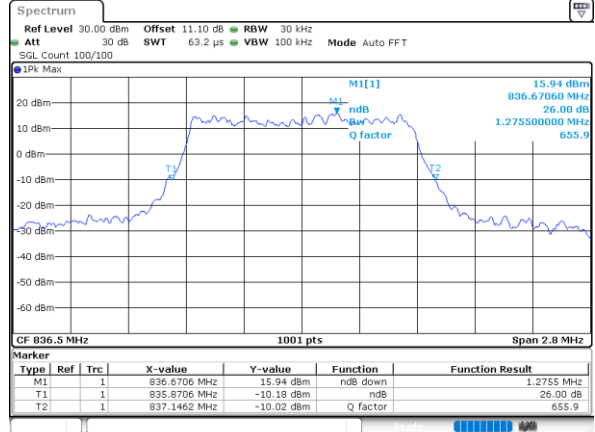
LTE Cat 1 Band 5

Middle Channel / 1.4MHz / QPSK



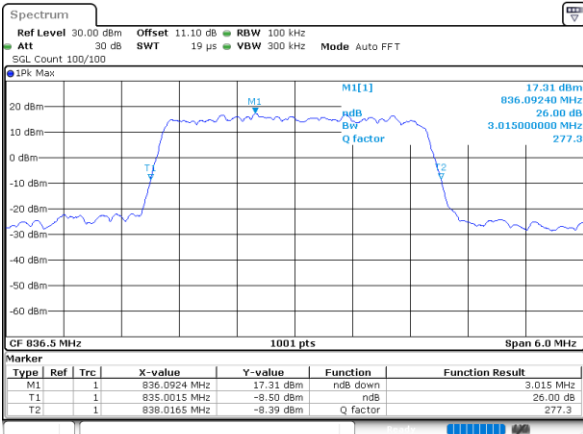
Date: 18.FEB.2022 09:19:50

Middle Channel / 1.4MHz / 16QAM



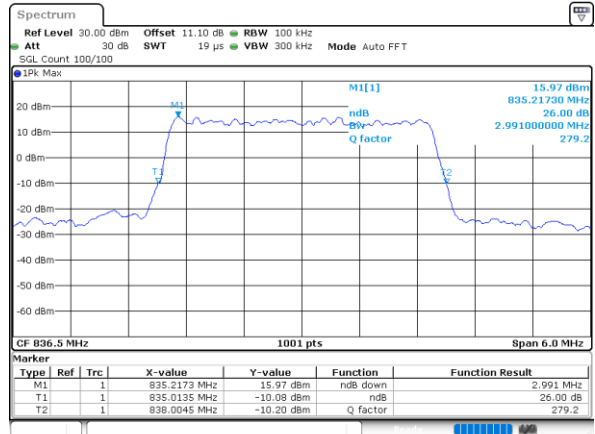
Date: 18.FEB.2022 09:20:13

Middle Channel / 3MHz / QPSK



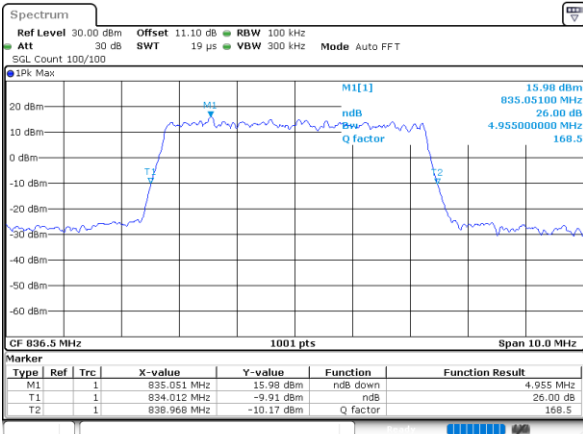
Date: 18.FEB.2022 09:29:55

Middle Channel / 3MHz / 16QAM



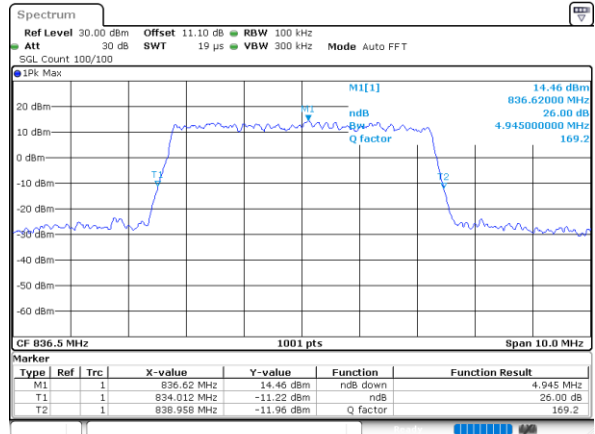
Date: 18.FEB.2022 09:30:19

Middle Channel / 5MHz / QPSK



Date: 18.FEB.2022 09:40:01

Middle Channel / 5MHz / 16QAM

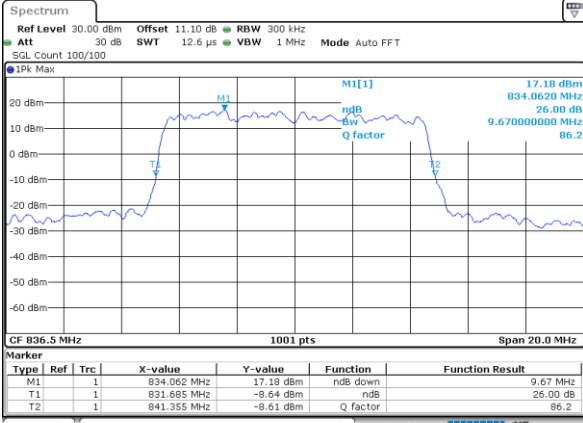


Date: 18.FEB.2022 09:40:24



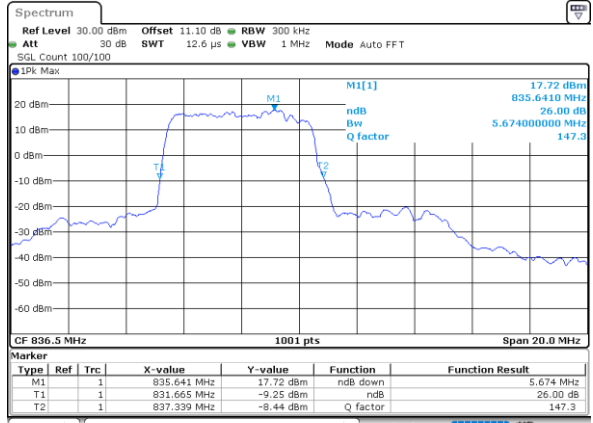
LTE Cat 1 Band 5

Middle Channel / 10MHz / QPSK



LTE Cat 1 Band 5

Middle Channel / 10MHz / 16QAM





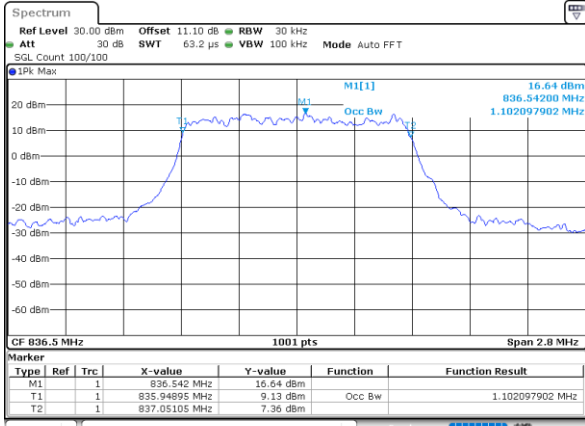
**Occupied Bandwidth**

Mode	LTE Cat 1 Band 5 : 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	1.10	1.10	2.73	2.72	4.47	4.48	9.01	5.03	-	-	-	-
Mode	LTE Cat 1 Band 5 : 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	-	-	-	-	-	-	-	-	-	-	-	-

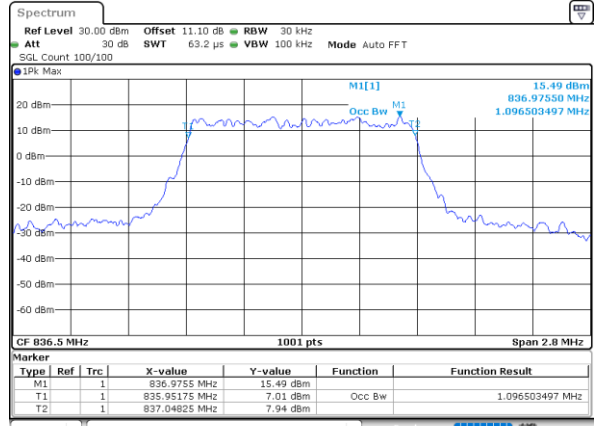


LTE Cat 1 Band 5

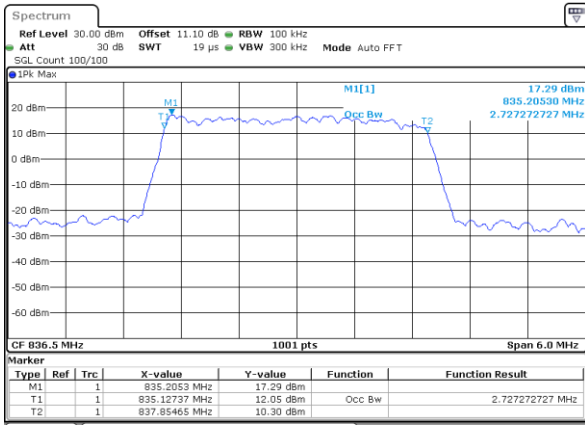
Middle Channel / 1.4MHz / QPSK



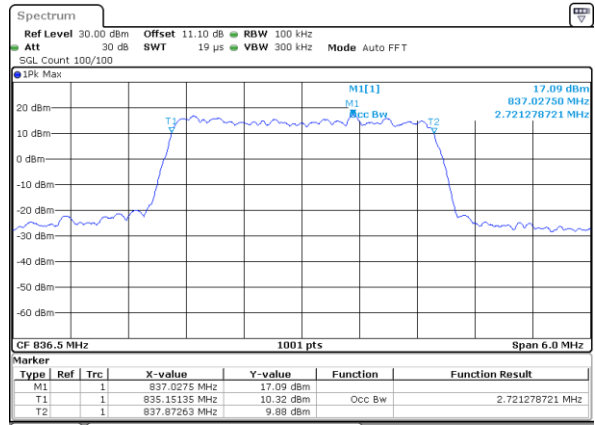
Middle Channel / 1.4MHz / 16QAM



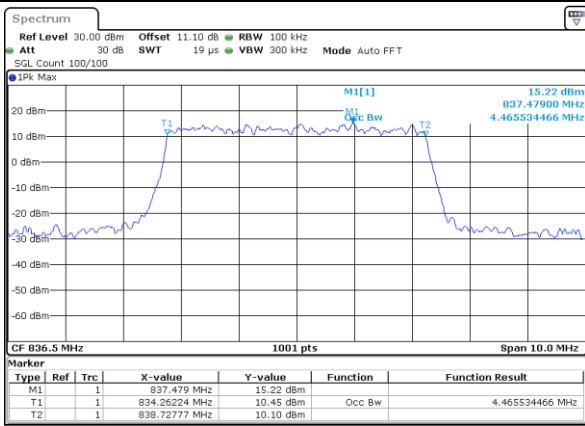
Middle Channel / 3MHz / QPSK



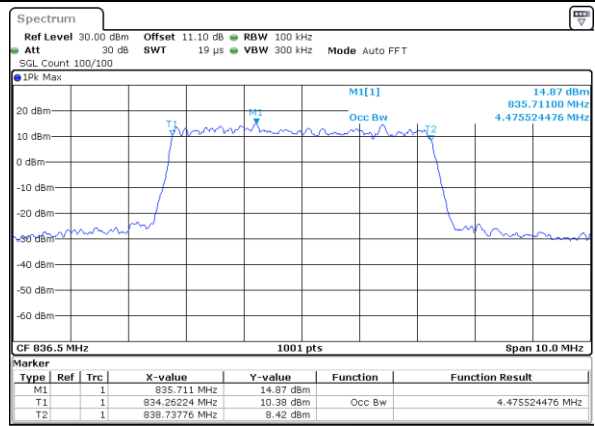
Middle Channel / 3MHz / 16QAM

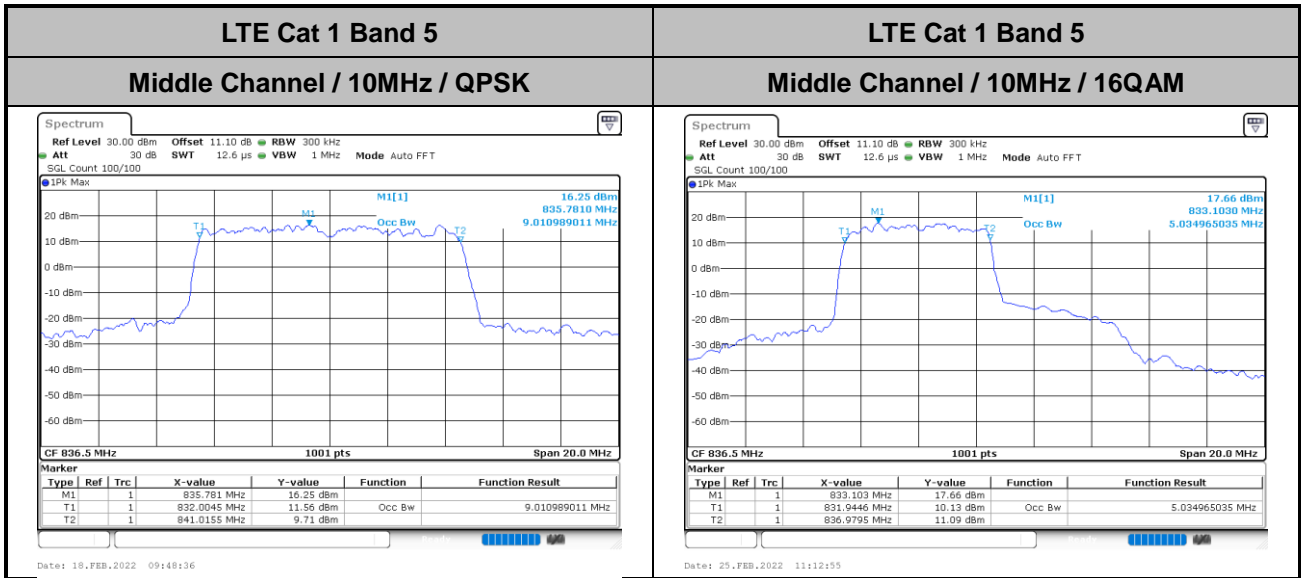


Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM





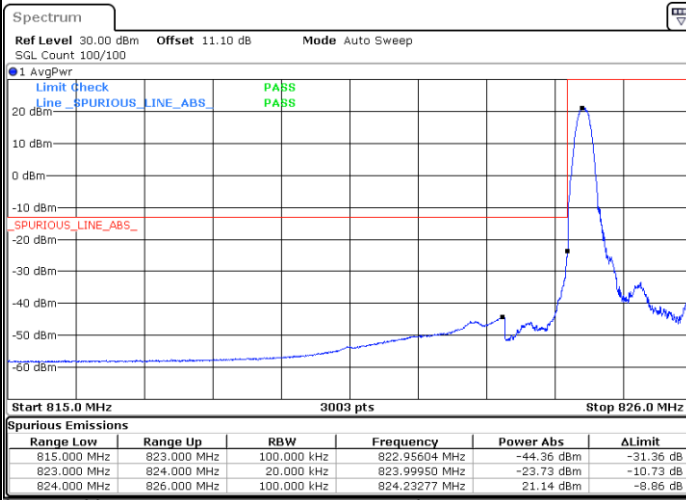




# Conducted Band Edge

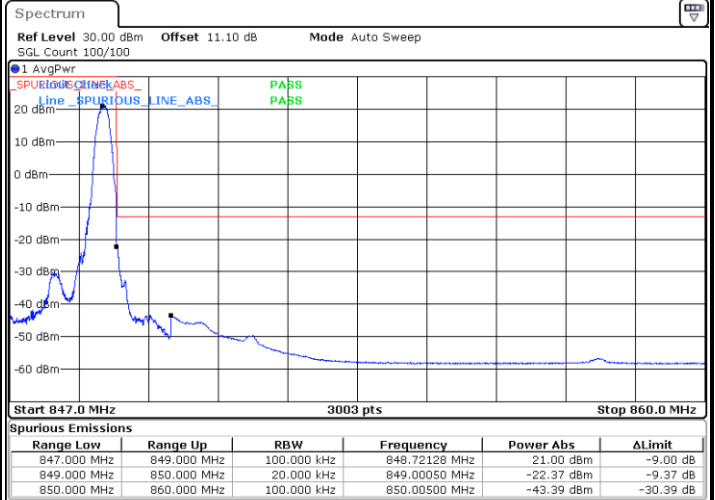
## LTE Cat 1 Band 5 / 1.4MHz / QPSK

### Lowest Band Edge / 1RB



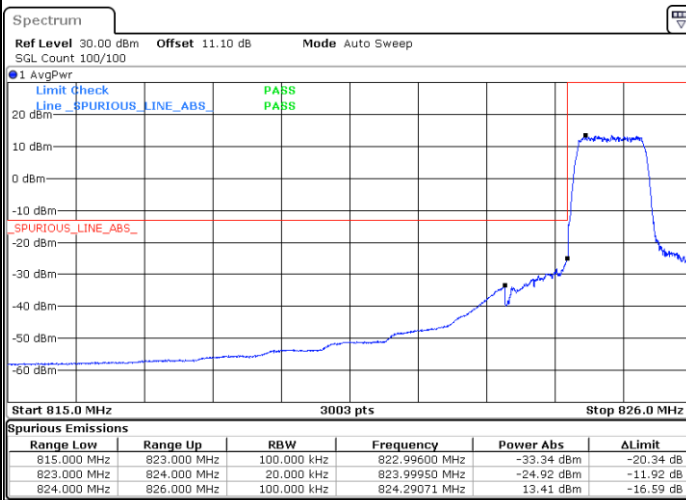
Date: 18.FEB.2022 09:15:39

### Highest Band Edge / 1RB



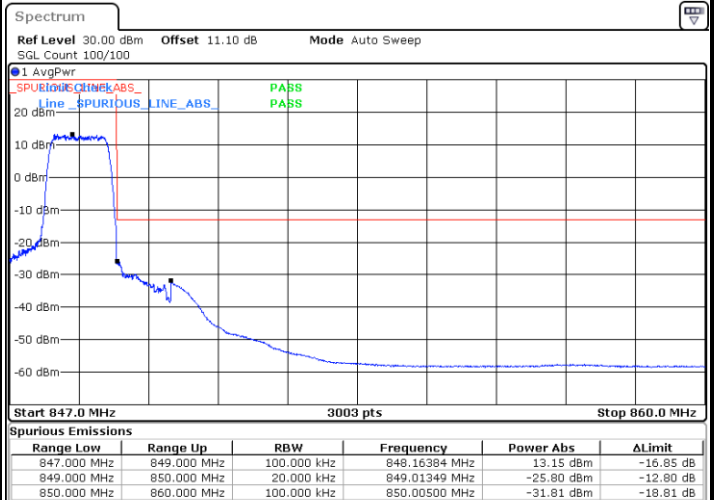
Date: 18.FEB.2022 09:23:23

### Lowest Band Edge / Full RB



Date: 18.FEB.2022 09:17:03

### Highest Band Edge / Full RB



Date: 18.FEB.2022 09:21:51