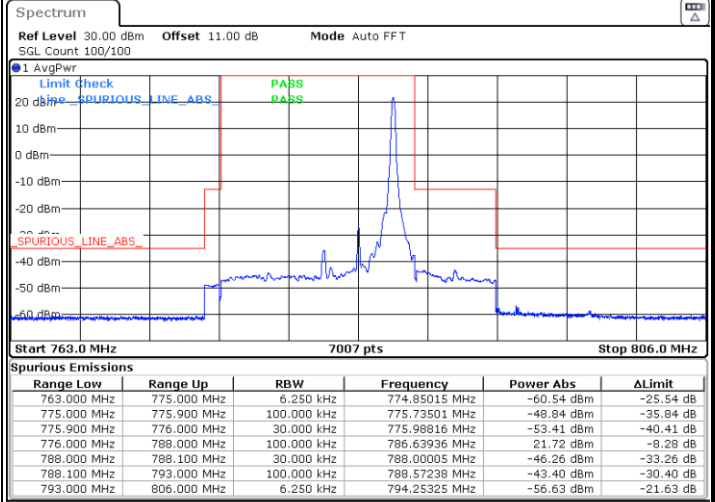
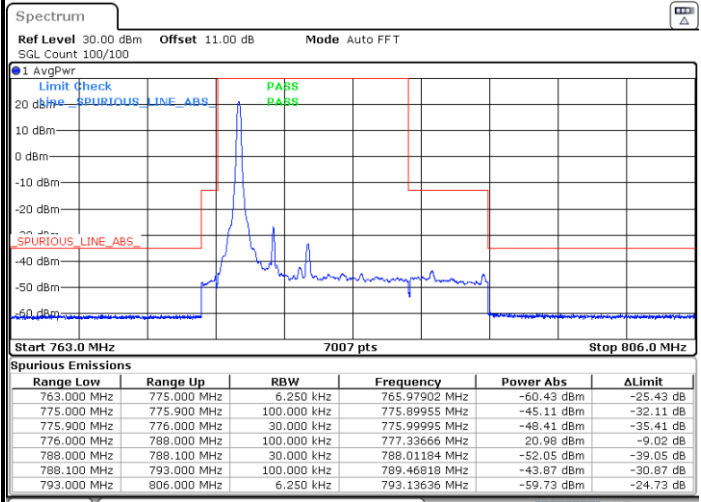




LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

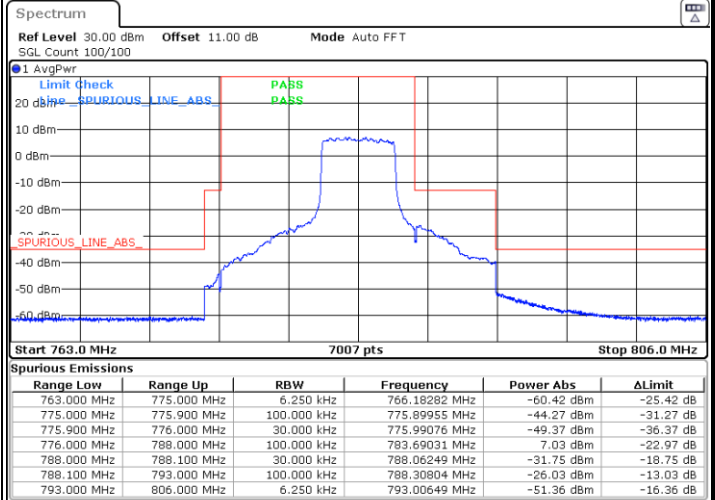
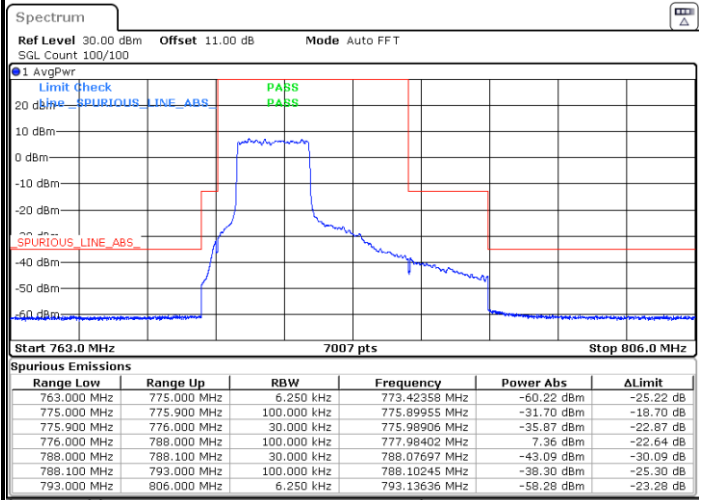


Date: 2.DEC.2022 17:40:20

Date: 2.DEC.2022 17:48:23

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



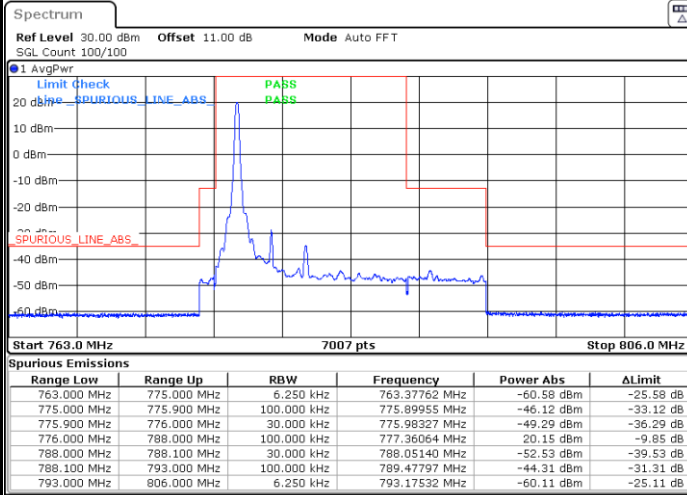
Date: 2.DEC.2022 17:39:20

Date: 2.DEC.2022 17:47:23



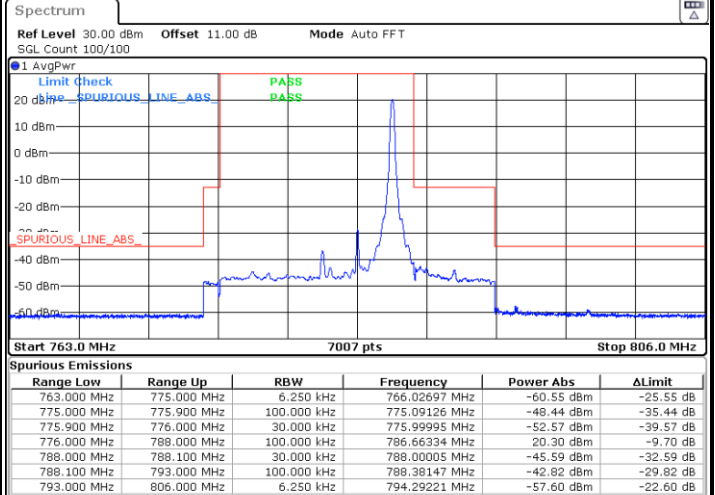
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



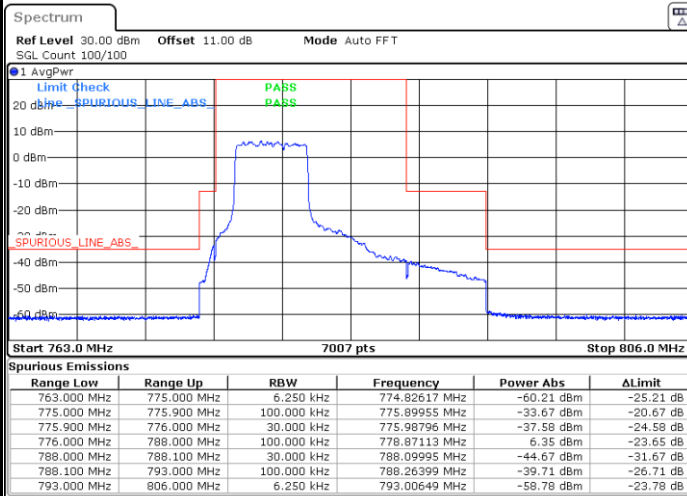
Date: 2.DEC.2022 17:52:42

Highest Band Edge / 1 RB



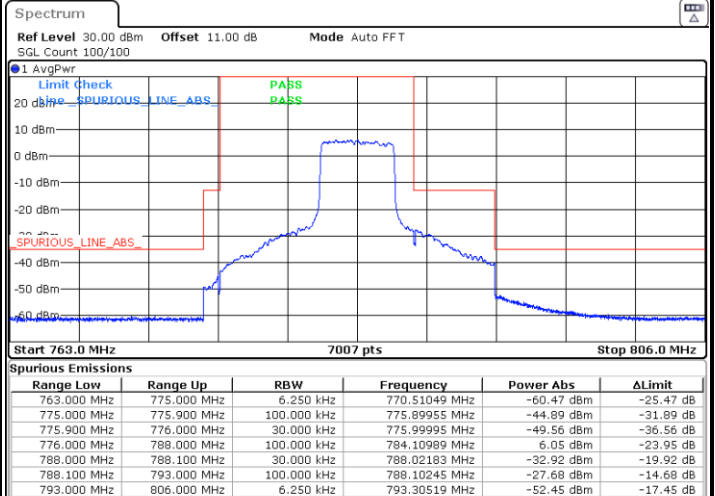
Date: 2.DEC.2022 17:55:26

Lowest Band Edge / Full RB



Date: 2.DEC.2022 17:51:42

Highest Band Edge / Full RB

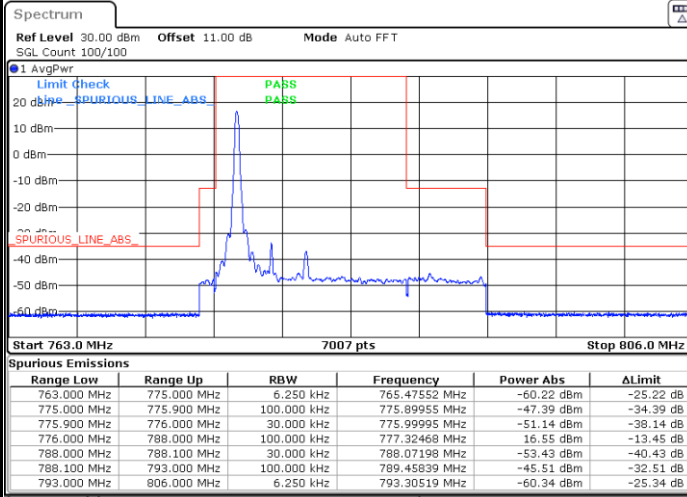


Date: 2.DEC.2022 17:54:25



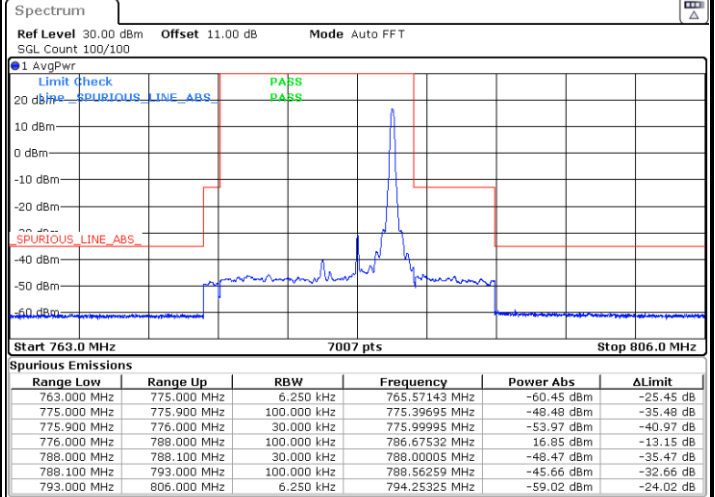
LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1 RB



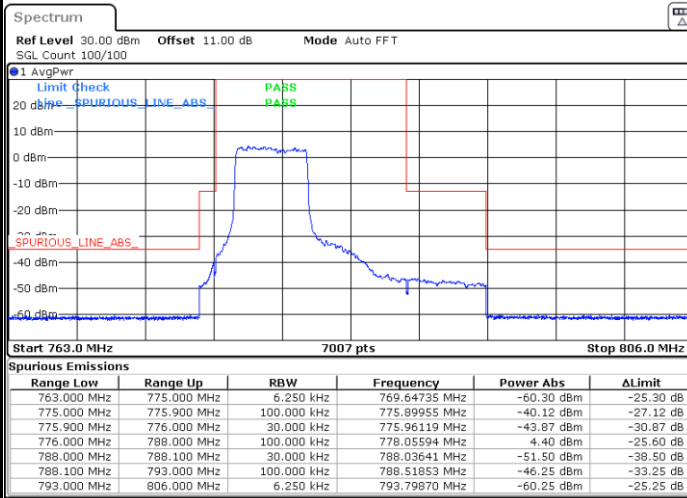
Date: 2.DEC.2022 18:03:48

Highest Band Edge / 1 RB



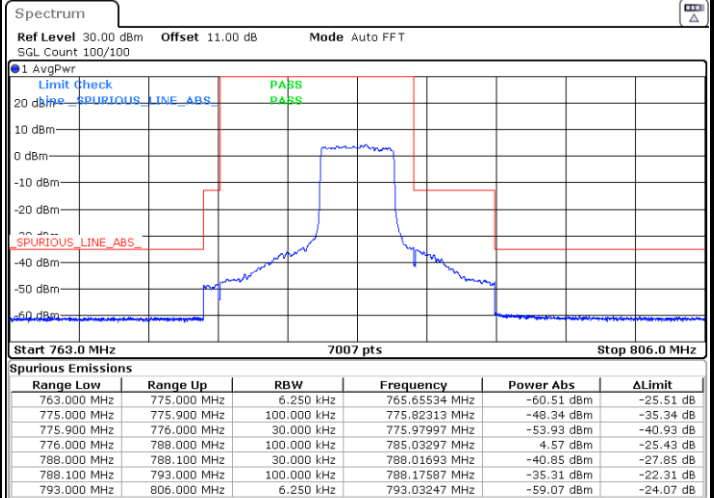
Date: 2.DEC.2022 18:06:32

Lowest Band Edge / Full RB

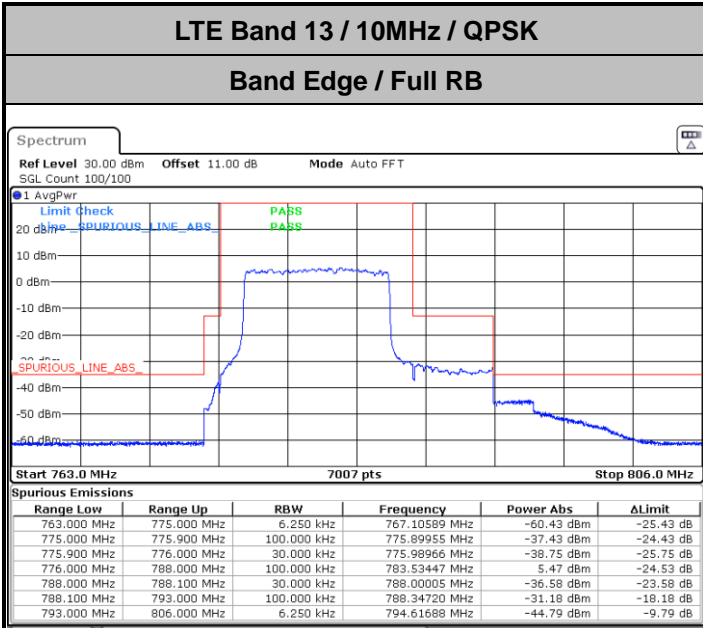


Date: 2.DEC.2022 18:02:48

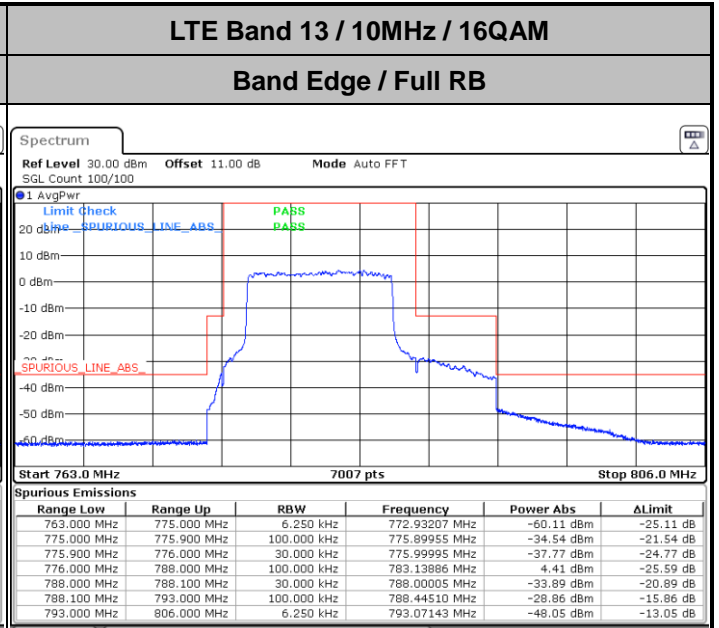
Highest Band Edge / Full RB



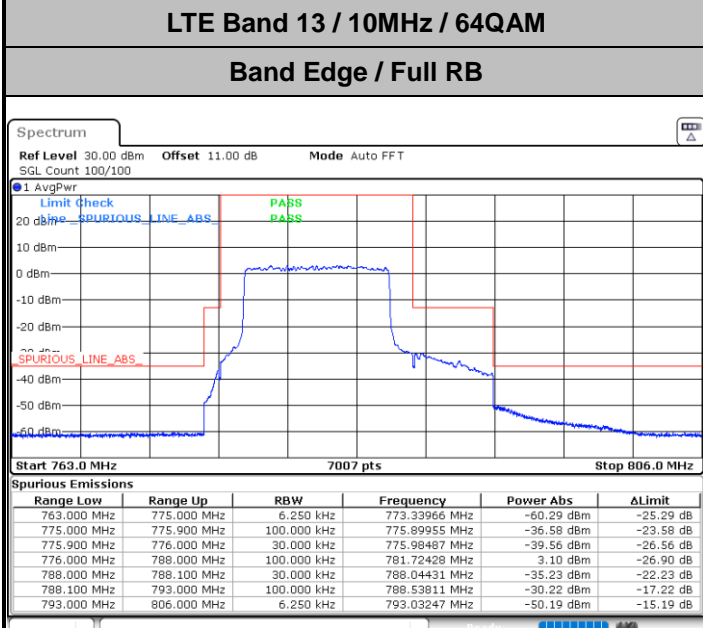
Date: 2.DEC.2022 18:05:31



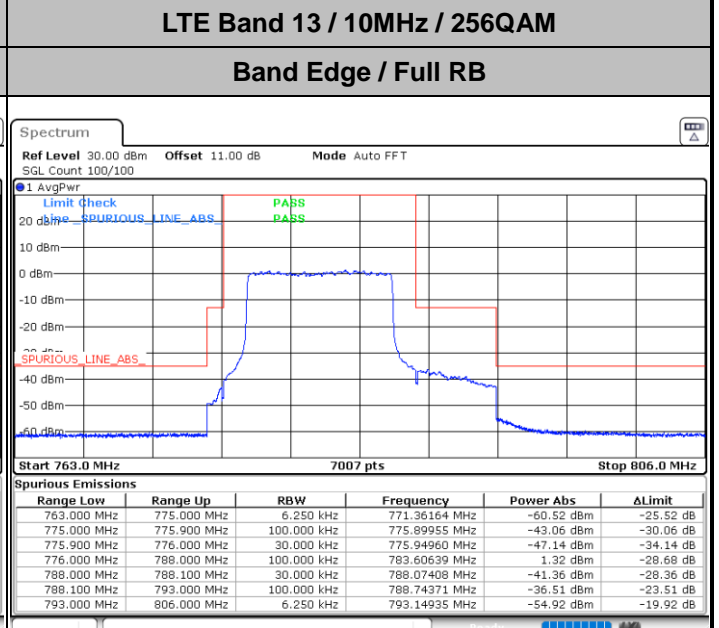
Date: 2.DEC.2022 17:57:57



Date: 2.DEC.2022 17:58:56



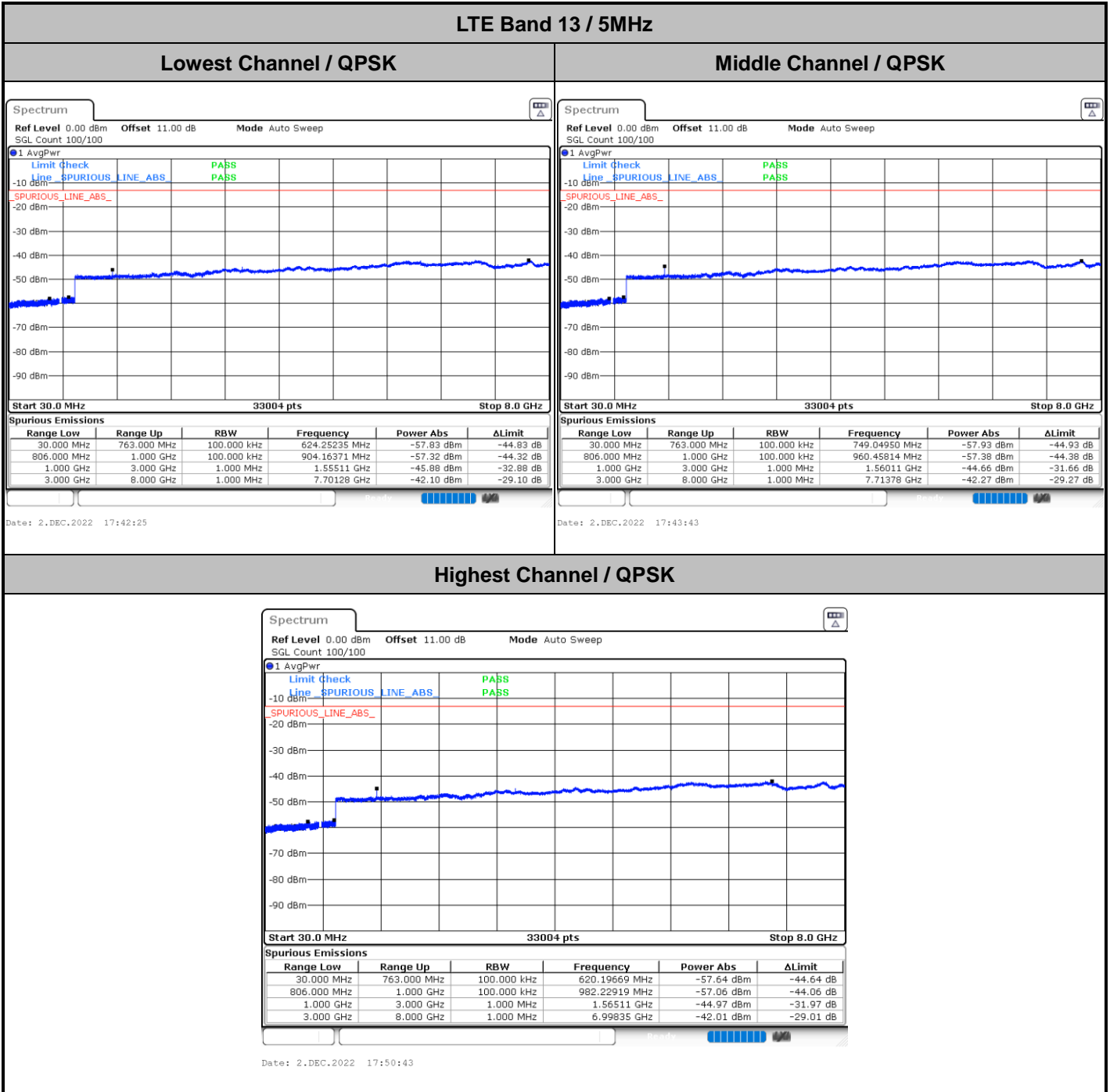
Date: 2.DEC.2022 18:00:24



Date: 2.DEC.2022 18:08:05



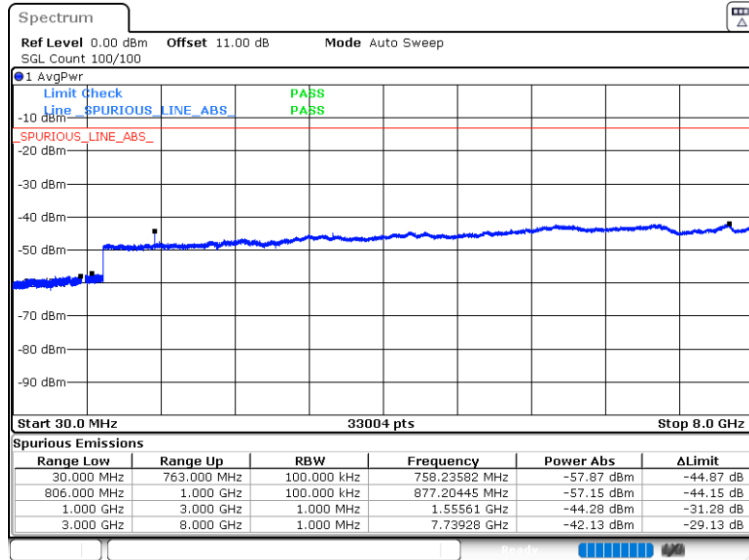
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 2.DEC.2022 18:09:41



Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0229	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0178	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0202	
0	Normal Voltage	0.0116	
-10	Normal Voltage	0.0198	
-20	Normal Voltage	0.0033	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0216	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0084	

Note:

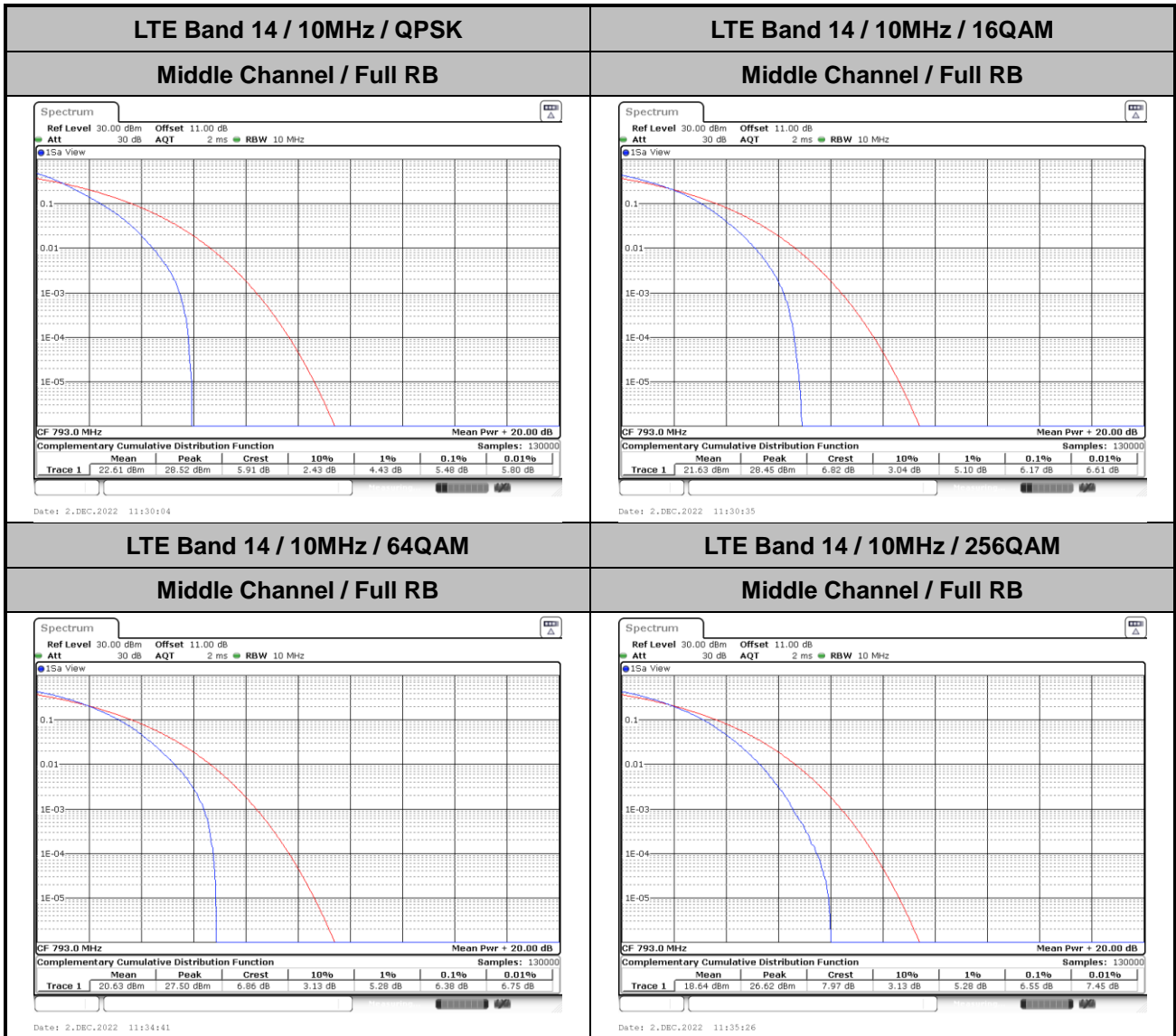
1. Normal Voltage =3.88 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 14

## Peak-to-Average Ratio

Mode	LTE Band 14 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.48	6.17	6.38	6.55	PASS







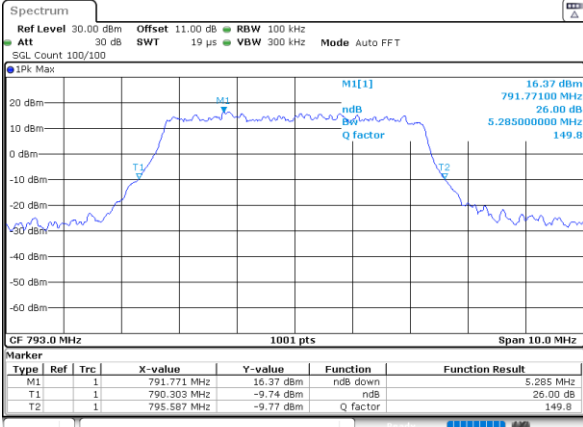
**26dB Bandwidth**

Mode	LTE Band 14 : 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	-	-	-	-	5.29	4.87	10.13	9.91	-	-	-	-
Mode	LTE Band 14 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.97	5.19	10.59	9.79	-	-	-	-



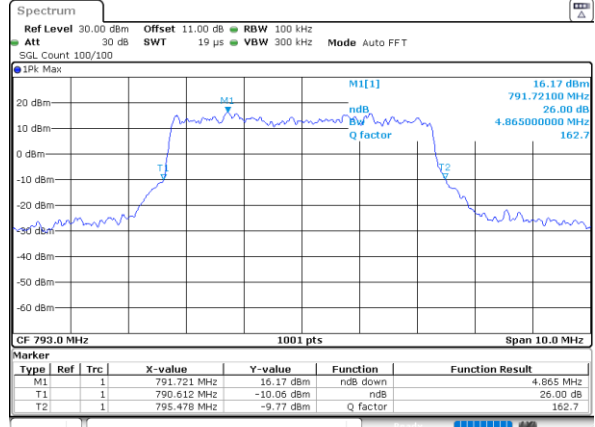
LTE Band 14

Middle Channel / 5MHz / QPSK



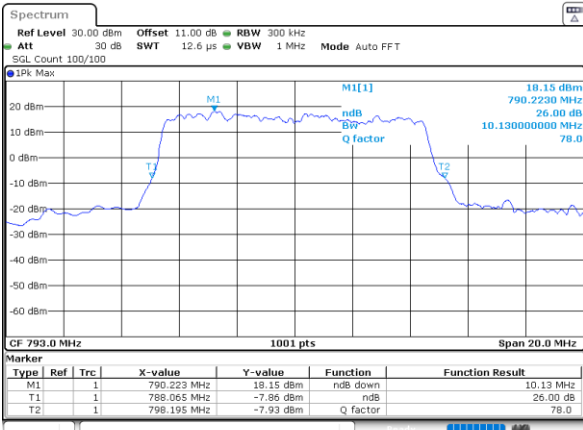
Date: 2,DEC,2022 10:52:09

Middle Channel / 5MHz / 16QAM



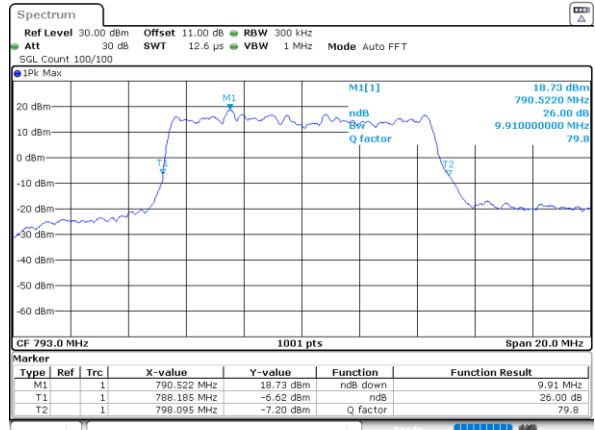
Date: 2,DEC,2022 10:52:38

Middle Channel / 10MHz / QPSK



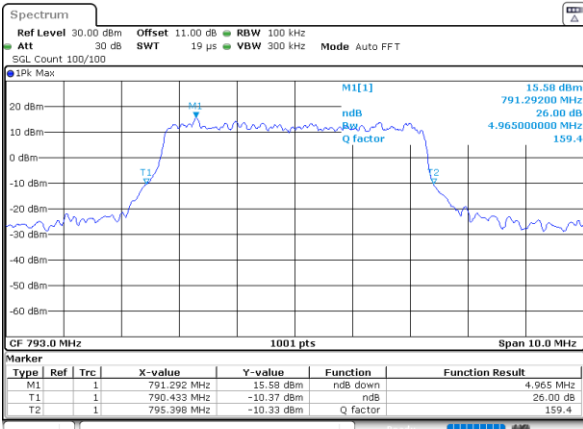
Date: 2,DEC,2022 11:29:49

Middle Channel / 10MHz / 16QAM



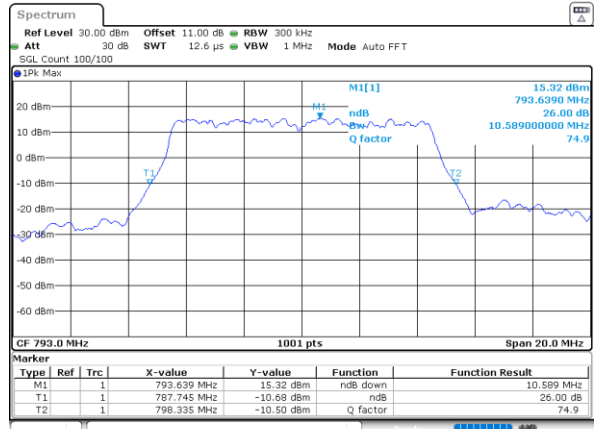
Date: 2,DEC,2022 11:31:04

Middle Channel / 5MHz / 64QAM



Date: 2,DEC,2022 10:53:34

Middle Channel / 10MHz / 64QAM



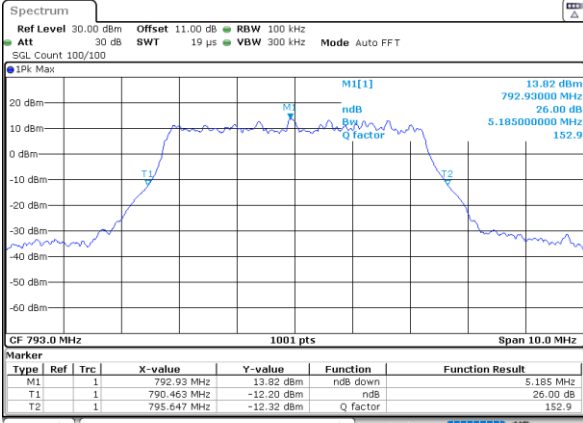
Date: 2,DEC,2022 11:34:56



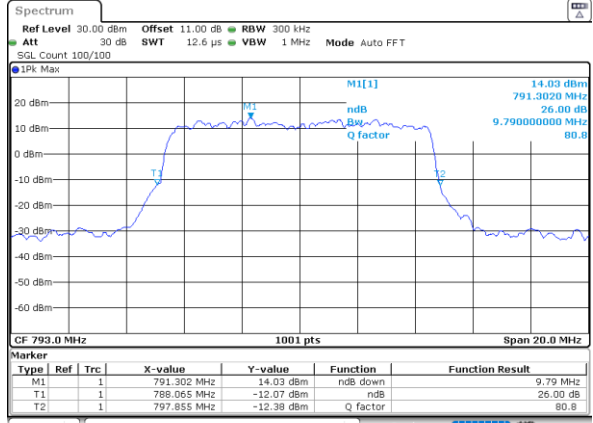
LTE Band 14

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 2,DEC,2022 10:54:03



Date: 2,DEC,2022 11:35:56



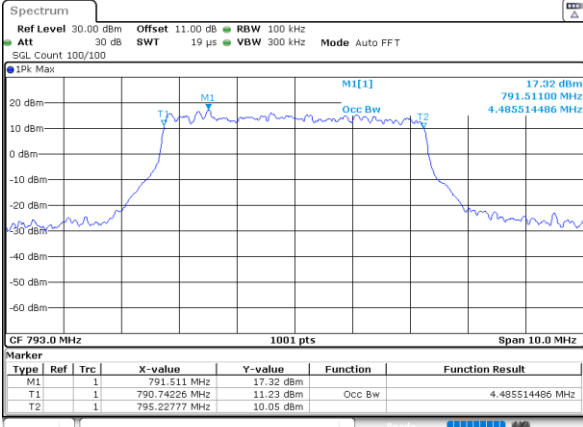
**Occupied Bandwidth**

Mode	LTE Band 14 : 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	-	-	-	-	4.49	4.51	9.01	9.01	-	-	-	-
Mode	LTE Band 14 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.48	4.49	9.07	9.03	-	-	-	-



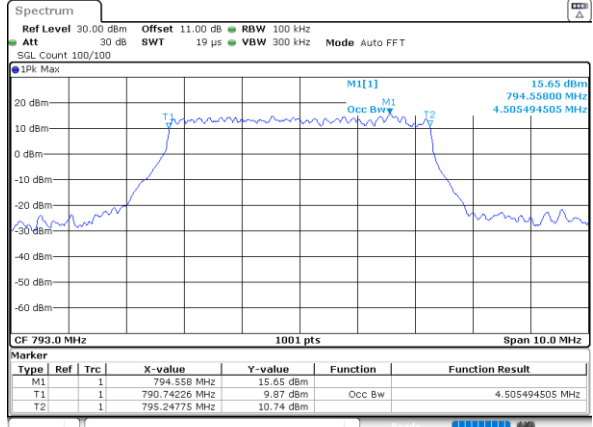
LTE Band 14

Middle Channel / 5MHz / QPSK



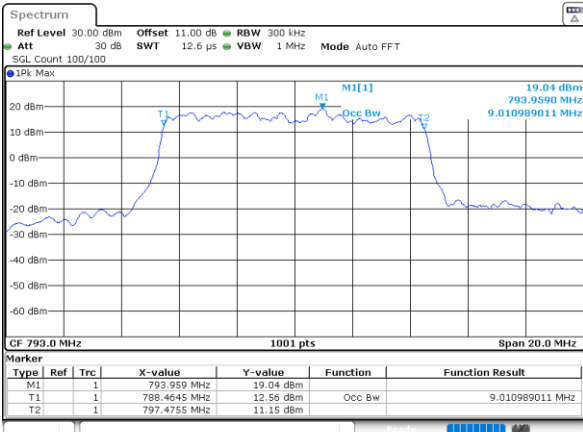
Date: 2.DEC.2022 10:51:55

Middle Channel / 5MHz / 16QAM



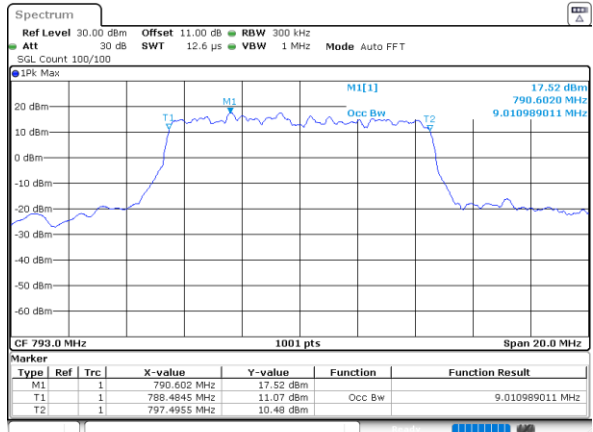
Date: 2.DEC.2022 10:52:52

Middle Channel / 10MHz / QPSK



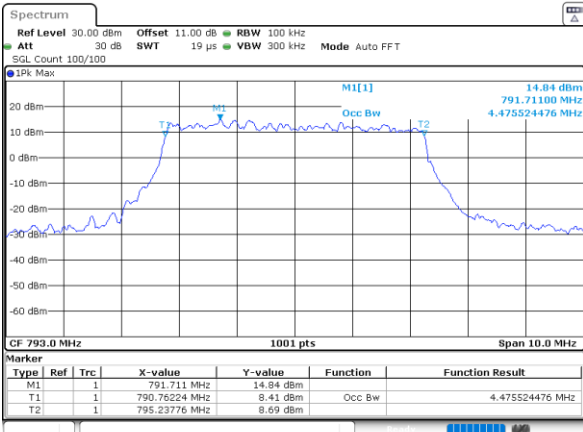
Date: 2.DEC.2022 11:29:35

Middle Channel / 10MHz / 16QAM



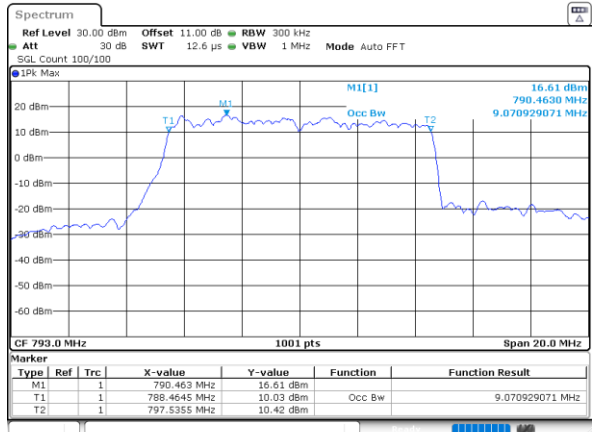
Date: 2.DEC.2022 11:30:50

Middle Channel / 5MHz / 64QAM



Date: 2.DEC.2022 10:53:20

Middle Channel / 10MHz / 64QAM



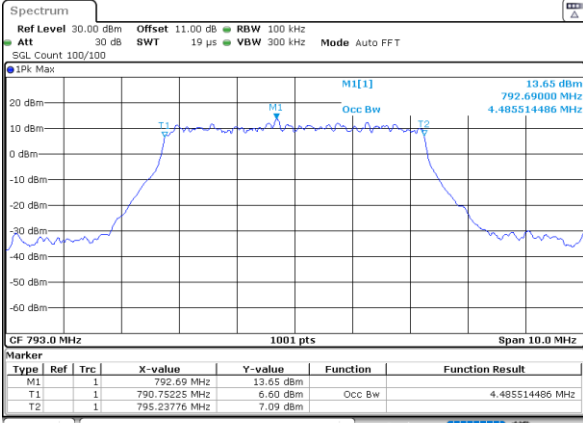
Date: 2.DEC.2022 11:34:26



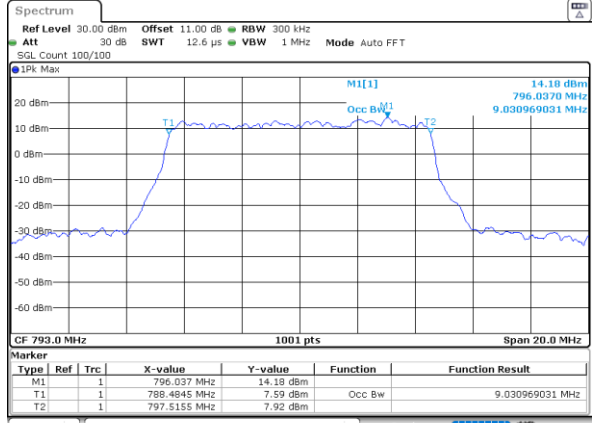
LTE Band 14

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 2,DEC,2022 10:54:18



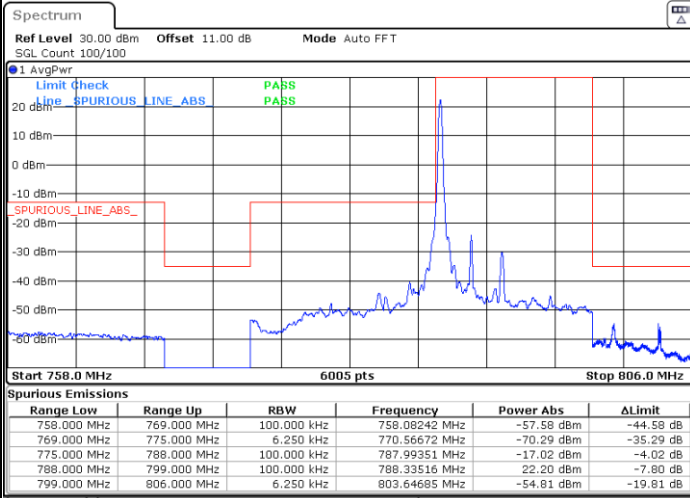
Date: 2,DEC,2022 11:35:42



# Conducted Band Edge

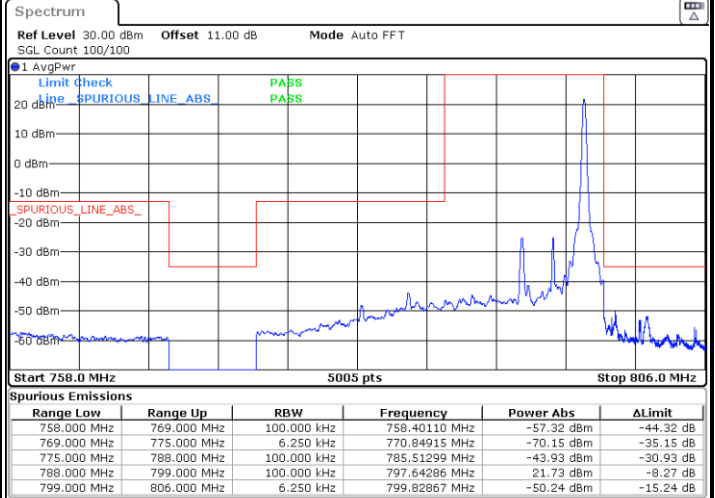
## LTE Band 14 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



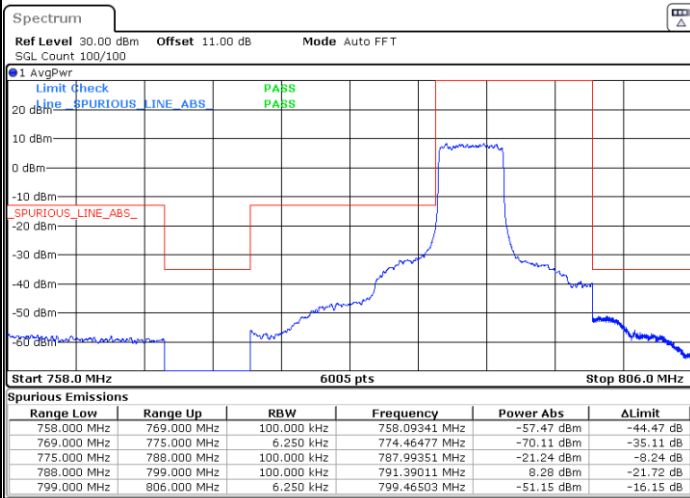
Date: 2.DEC.2022 10:32:43

### Highest Band Edge / 1 RB



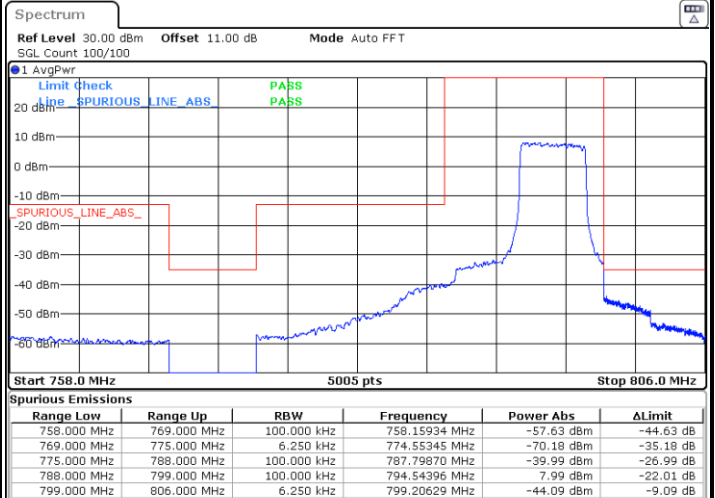
Date: 2.DEC.2022 11:09:01

### Lowest Band Edge / Full RB



Date: 2.DEC.2022 10:31:44

### Highest Band Edge / Full RB

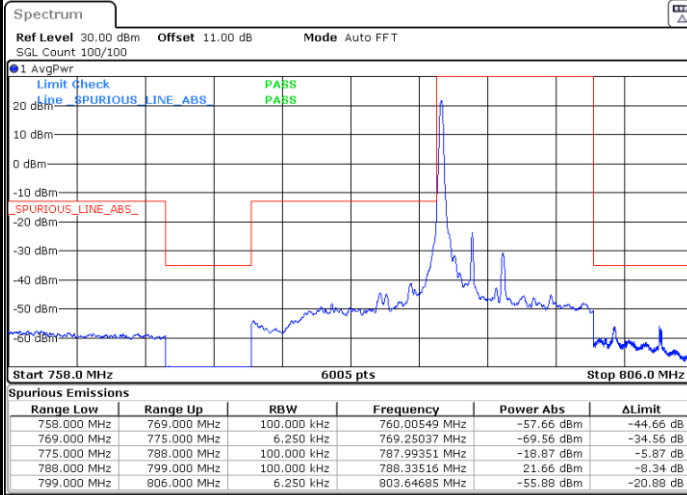


Date: 2.DEC.2022 11:10:01



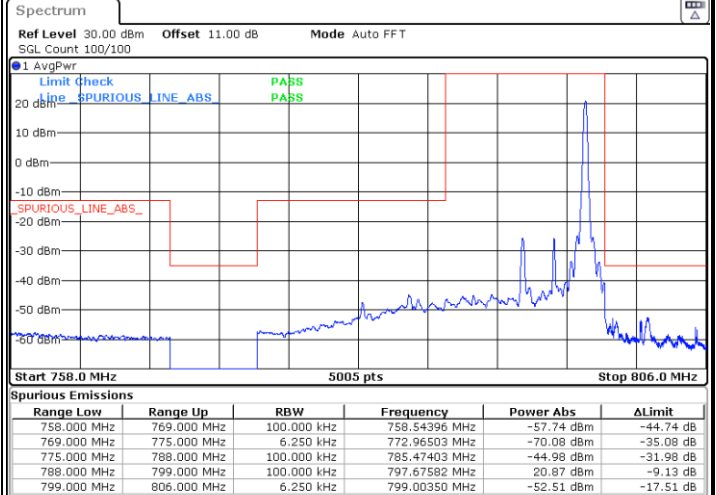
LTE Band 14 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



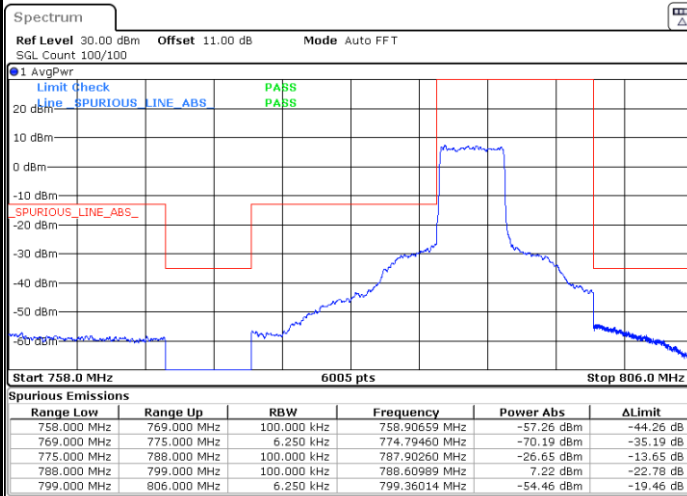
Date: 2.DEC.2022 10:34:46

Highest Band Edge / 1 RB



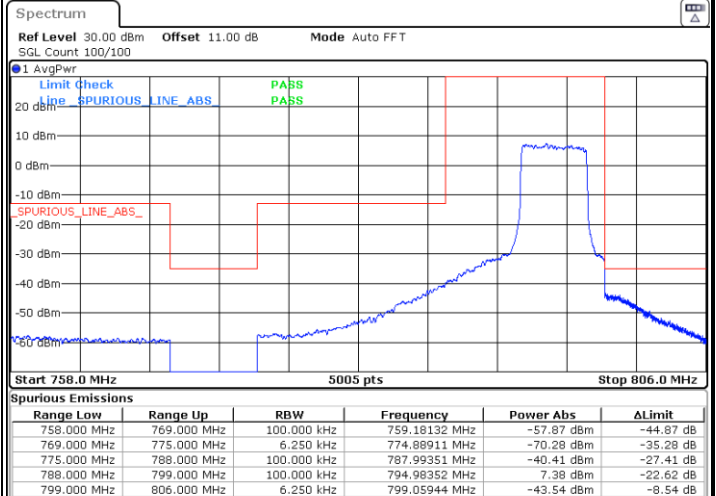
Date: 2.DEC.2022 11:12:01

Lowest Band Edge / Full RB



Date: 2.DEC.2022 10:35:46

Highest Band Edge / Full RB



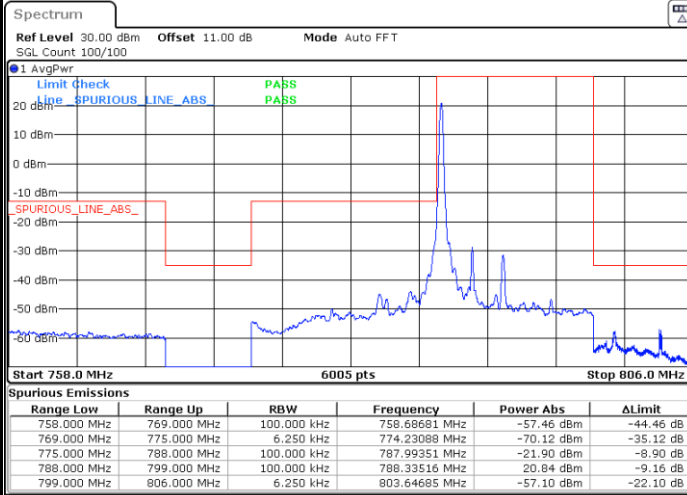
Date: 2.DEC.2022 11:11:01





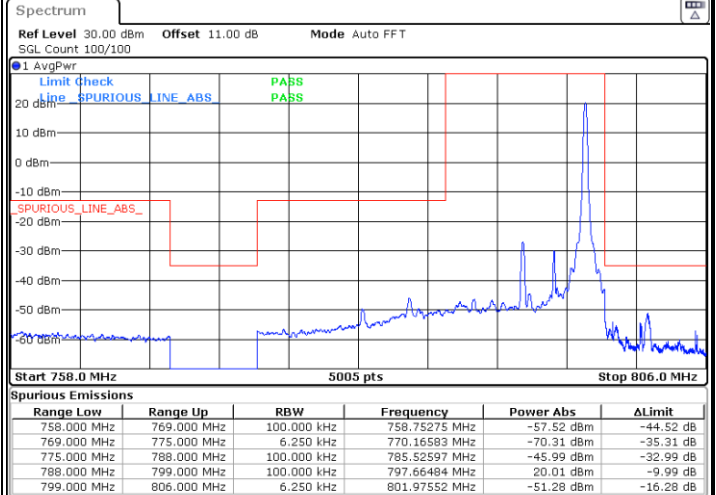
LTE Band 14 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



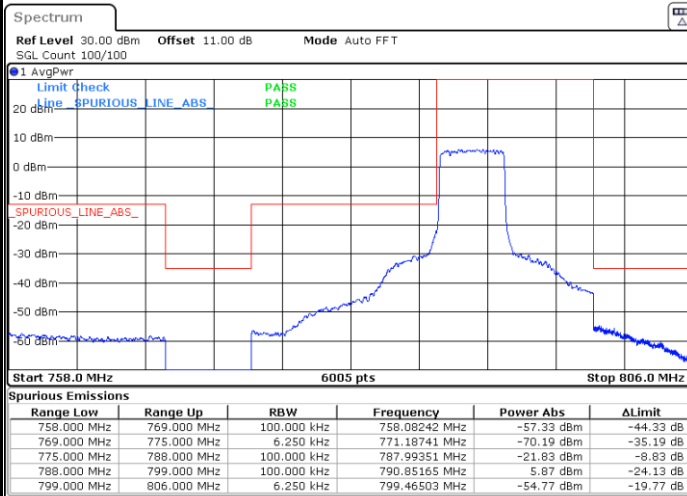
Date: 2.DEC.2022 10:37:45

Highest Band Edge / 1 RB



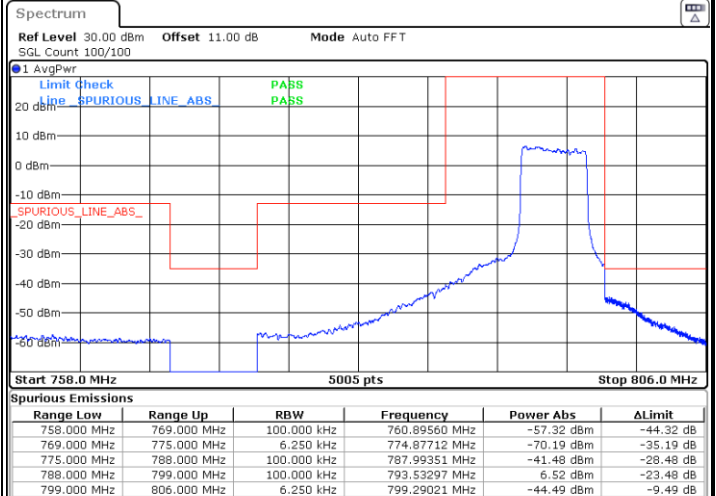
Date: 2.DEC.2022 11:13:00

Lowest Band Edge / Full RB



Date: 2.DEC.2022 10:36:45

Highest Band Edge / Full RB

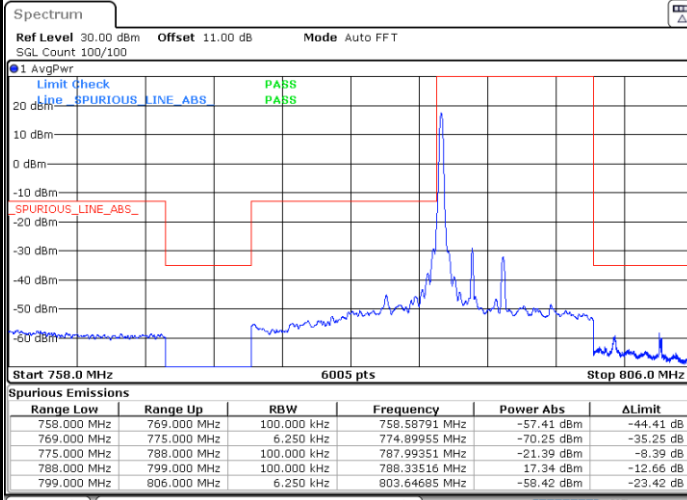


Date: 2.DEC.2022 11:14:00



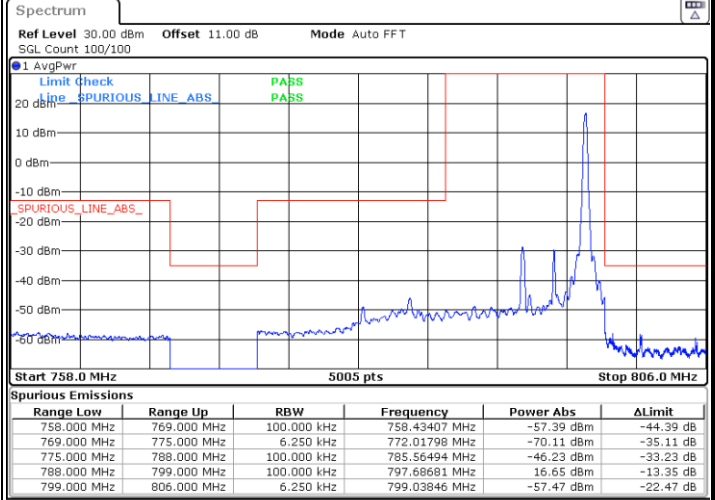
LTE Band 14 / 5MHz / 256QAM

Lowest Band Edge / 1 RB



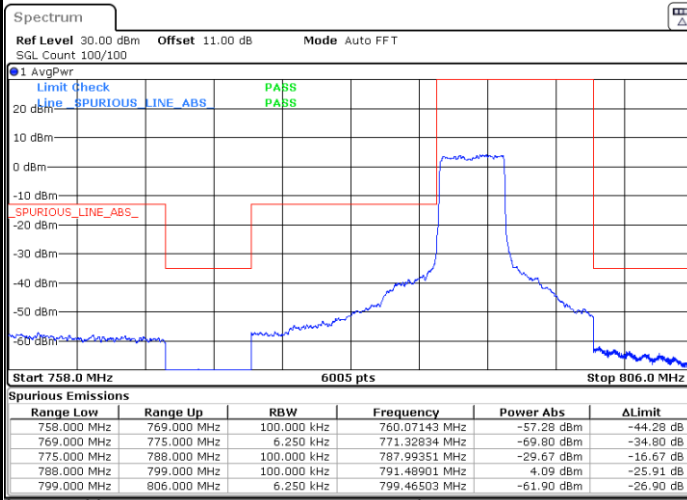
Date: 2.DEC.2022 10:38:45

Highest Band Edge / 1 RB



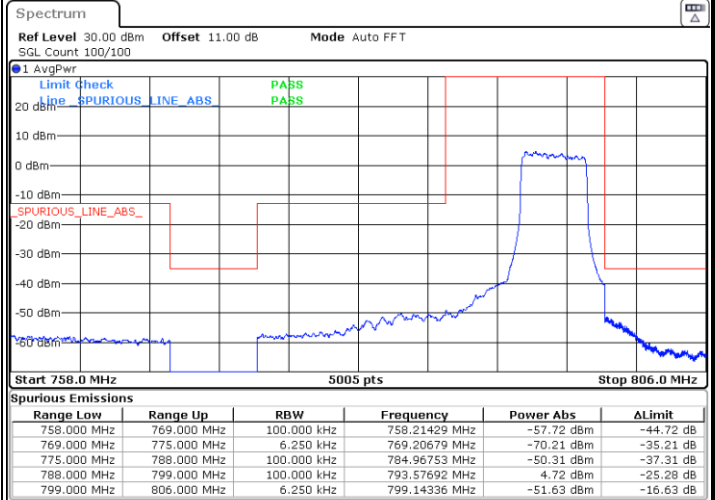
Date: 2.DEC.2022 11:15:59

Lowest Band Edge / Full RB

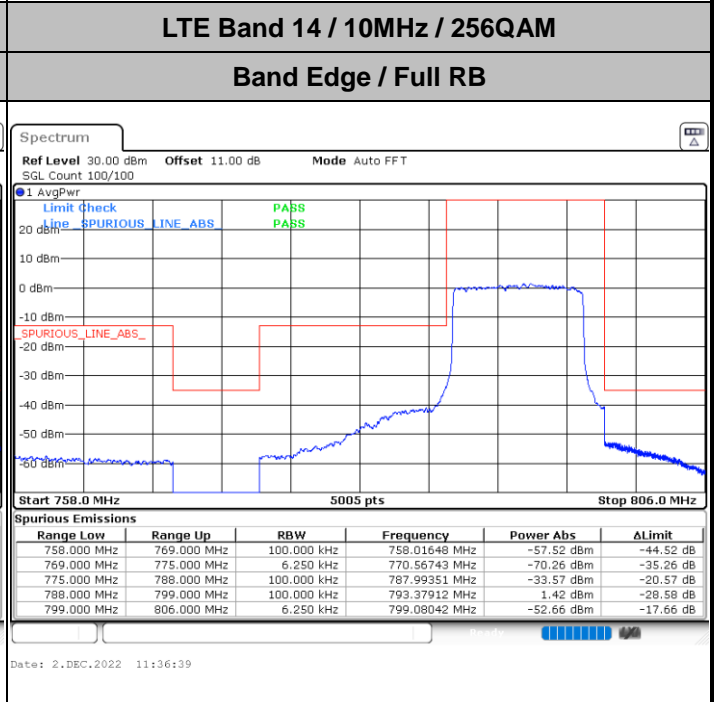
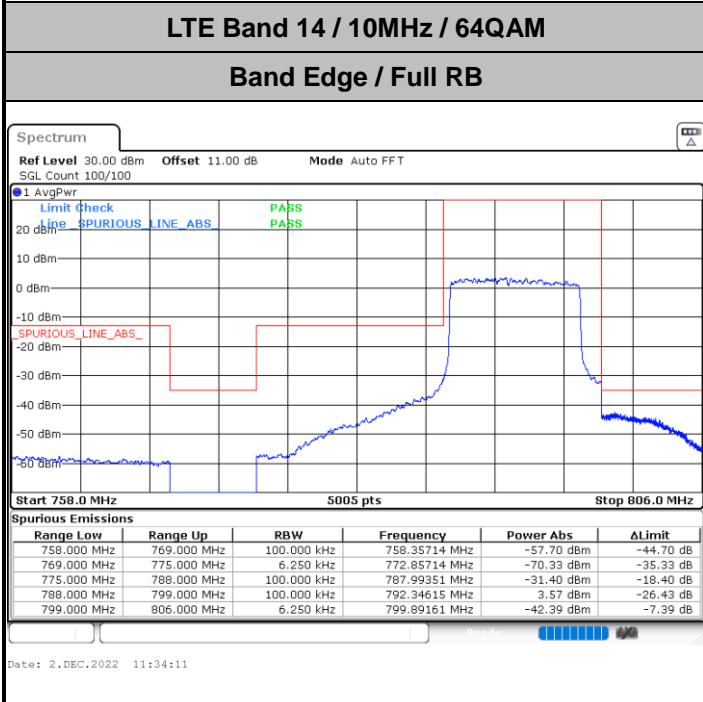
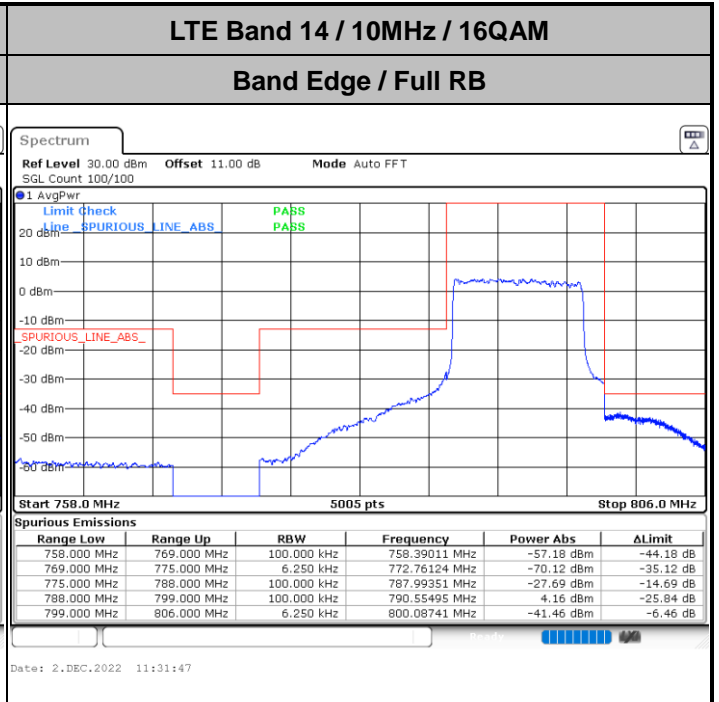
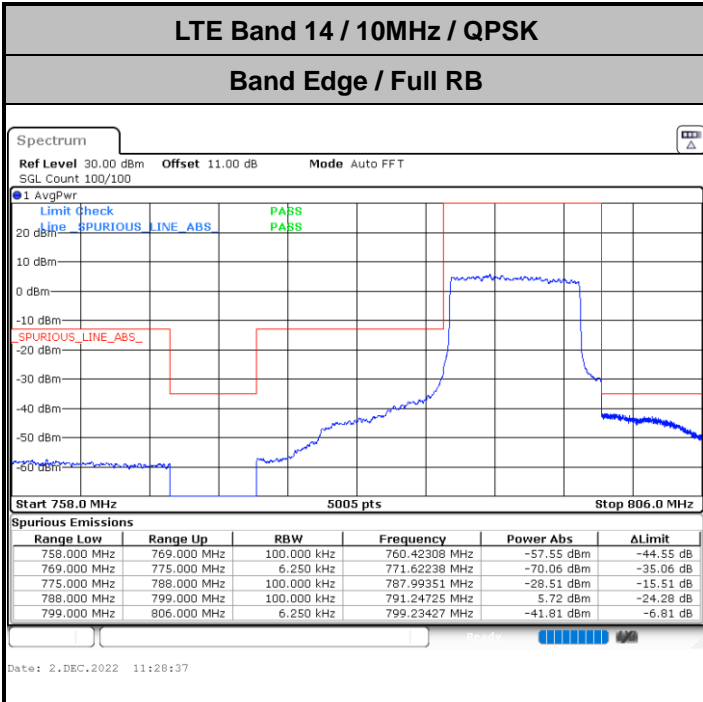


Date: 2.DEC.2022 10:39:44

Highest Band Edge / Full RB

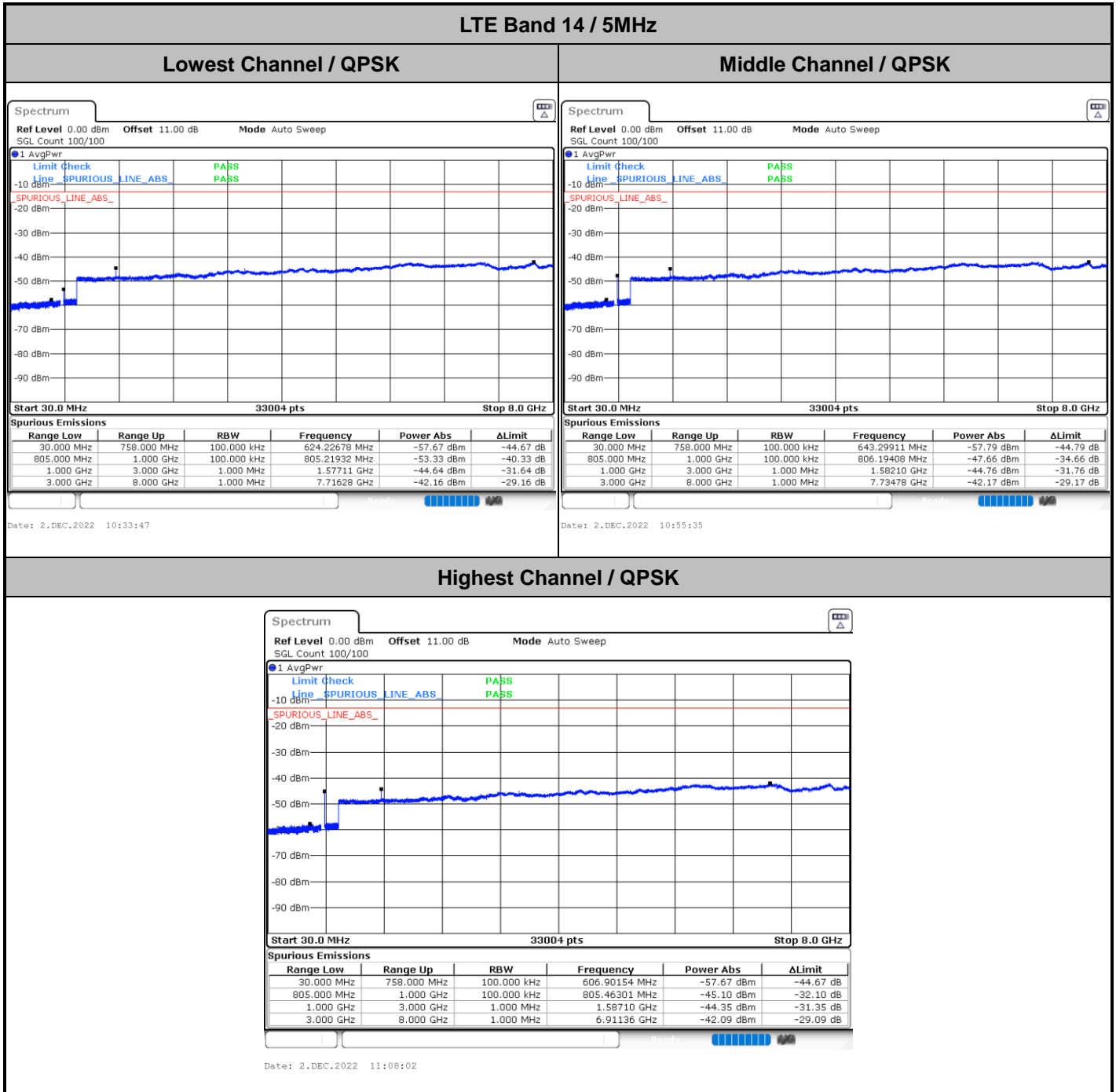


Date: 2.DEC.2022 11:15:00





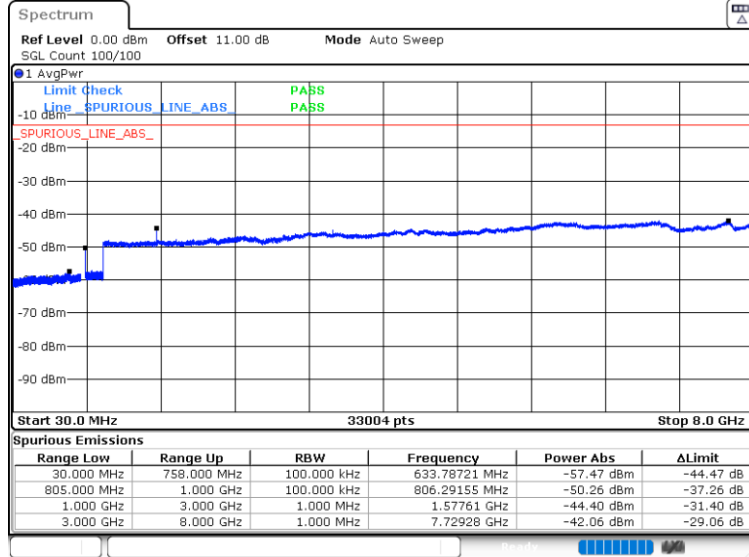
# Conducted Spurious Emission





LTE Band 14 / 10MHz

Middle Channel / QPSK



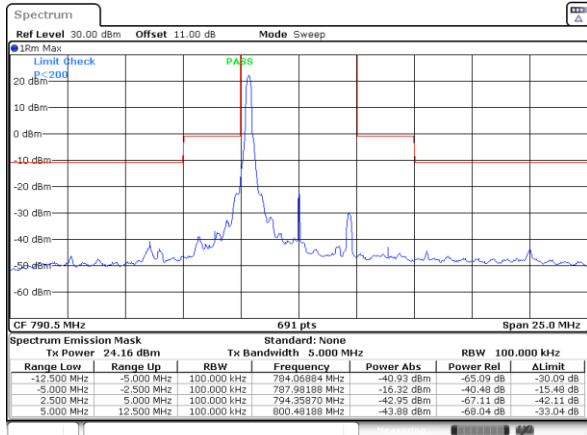
Date: 2.DEC.2022 11:38:40



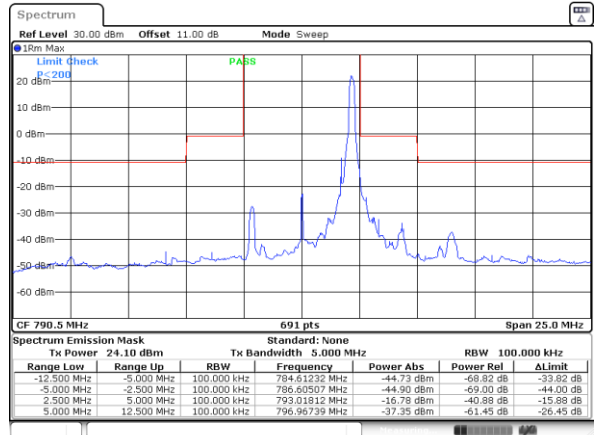
**Mask**

**LTE Band 14 / 5MHz / QPSK**

**Lowest Channel / 1RB**

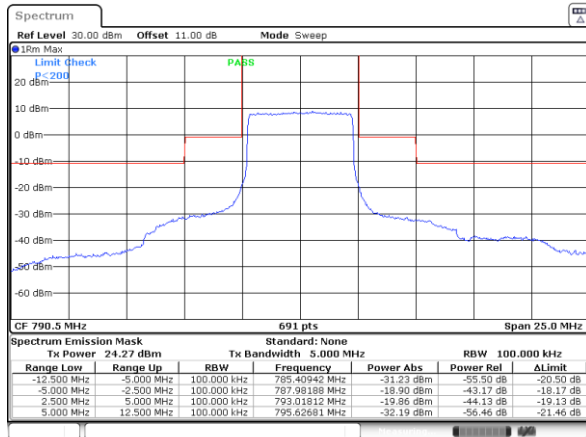


Date: 7.DEC.2022 22:56:04



Date: 7.DEC.2022 22:54:14

**Lowest Channel / Full RB**

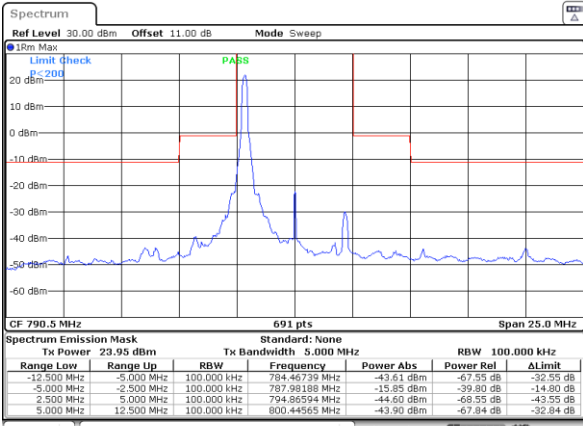


Date: 2.DEC.2022 10:42:42

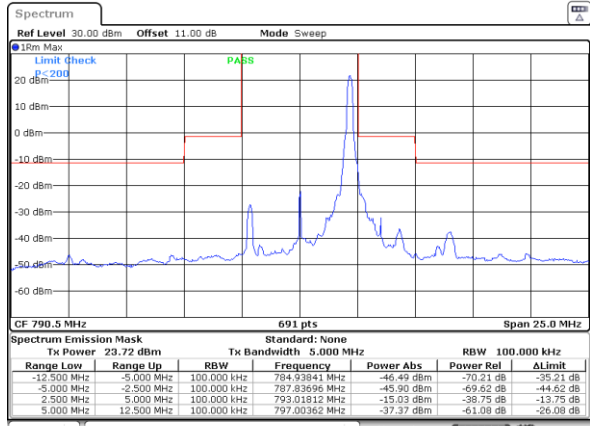


LTE Band 14 / 5MHz / 16QAM

Lowest Channel / 1RB

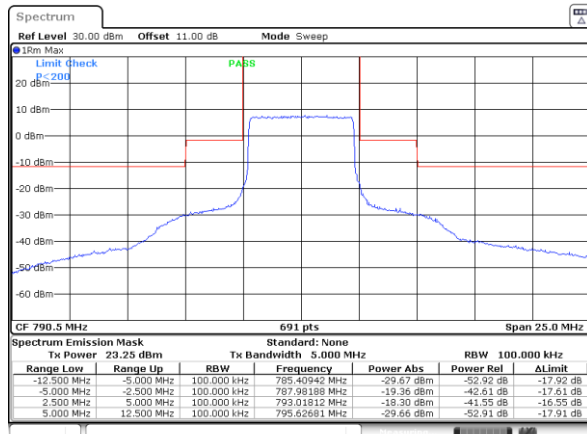


Date: 2.DEC.2022 10:45:35



Date: 2.DEC.2022 10:44:38

Lowest Channel / Full RB

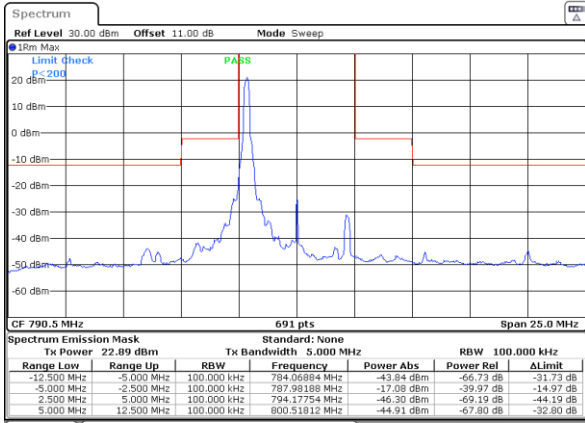


Date: 2.DEC.2022 10:43:40

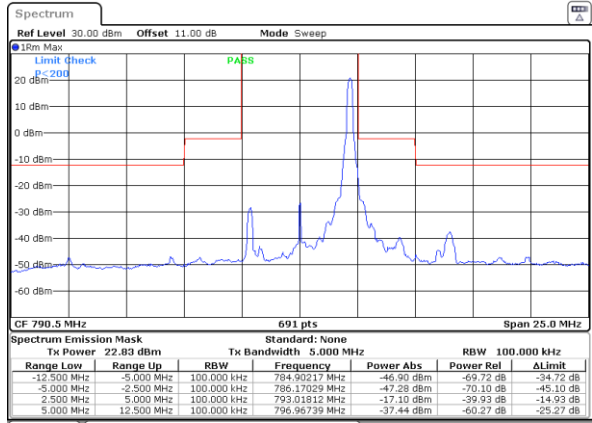


LTE Band 14 / 5MHz / 64QAM

Lowest Channel / 1RB

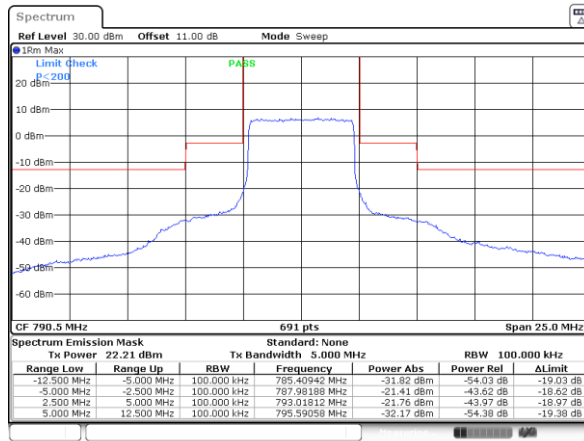


Date: 2.DEC.2022 10:46:32



Date: 2.DEC.2022 10:47:30

Lowest Channel / Full RB



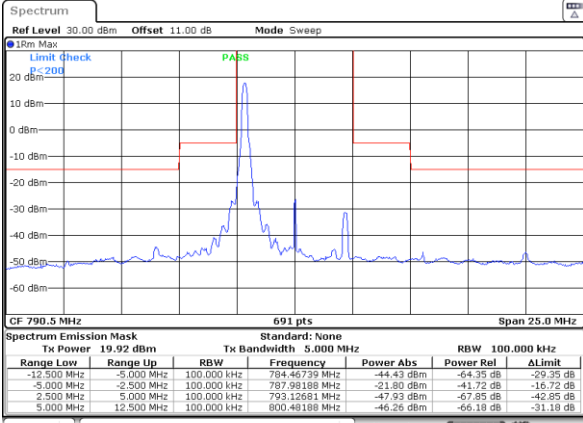
Date: 2.DEC.2022 10:48:28



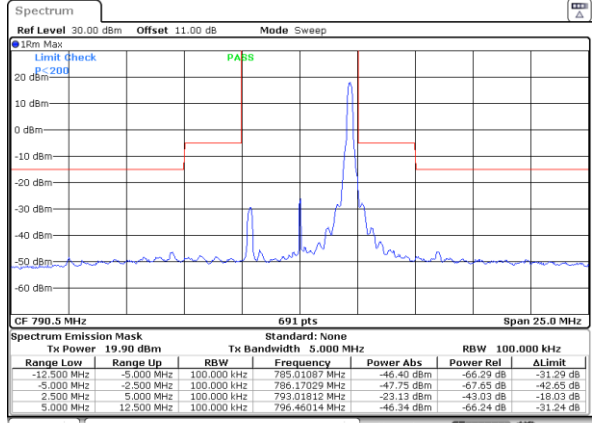


LTE Band 14 / 5MHz / 256QAM

Lowest Channel / 1RB

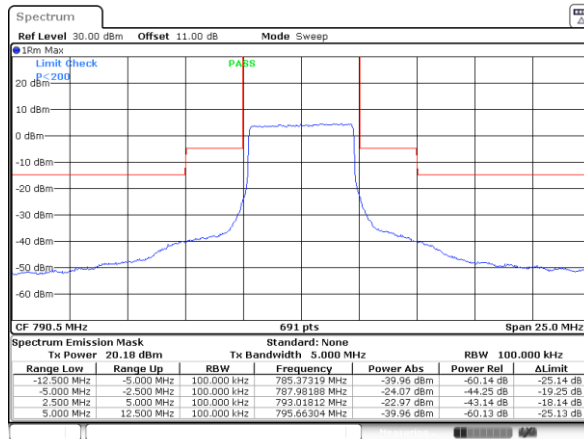


Date: 2.DEC.2022 10:51:25



Date: 2.DEC.2022 10:50:27

Lowest Channel / Full RB

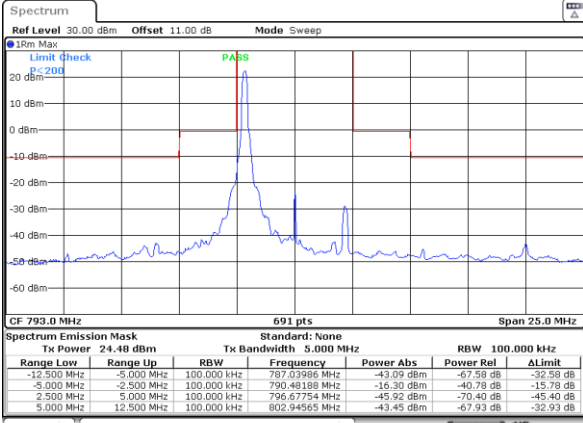


Date: 2.DEC.2022 10:49:26

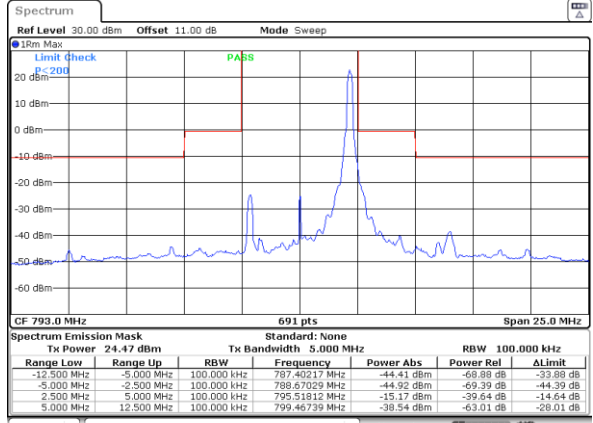


LTE Band 14 / 5MHz / QPSK

Middle Channel / 1RB

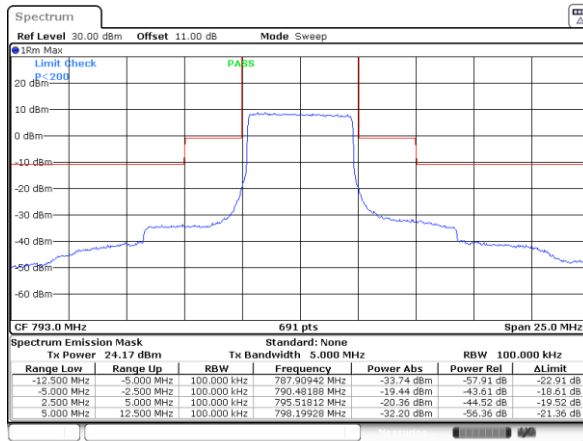


Date: 2.DEC.2022 10:15:18



Date: 2.DEC.2022 10:15:15

Middle Channel / Full RB

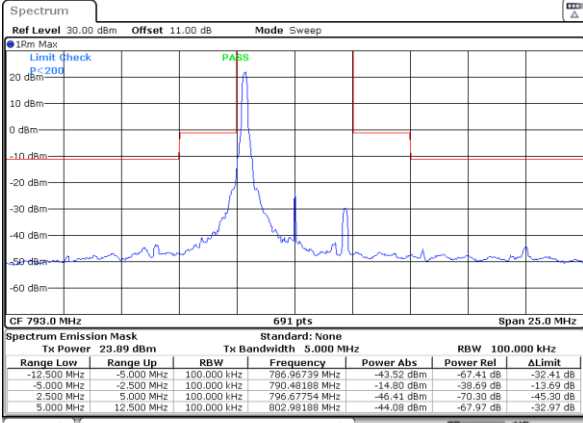


Date: 2.DEC.2022 10:58:12

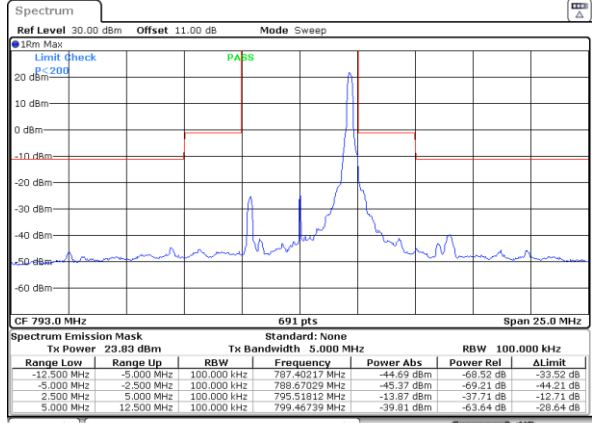


LTE Band 14 / 5MHz / 16QAM

Middle Channel / 1RB

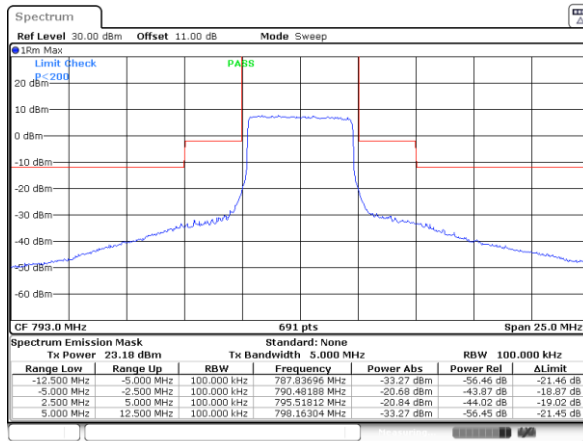


Date: 2.DEC.2022 11:01:03



Date: 2.DEC.2022 11:00:06

Middle Channel / Full RB

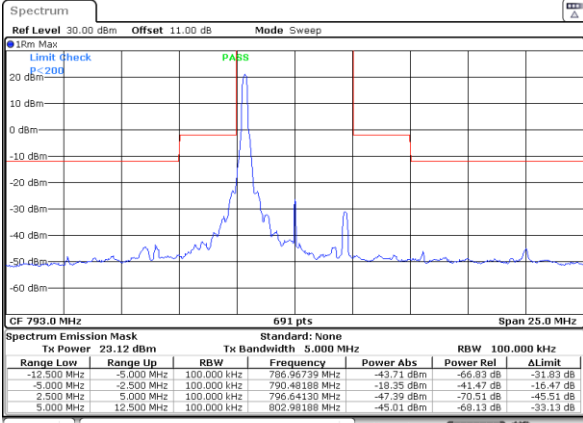


Date: 2.DEC.2022 10:59:09

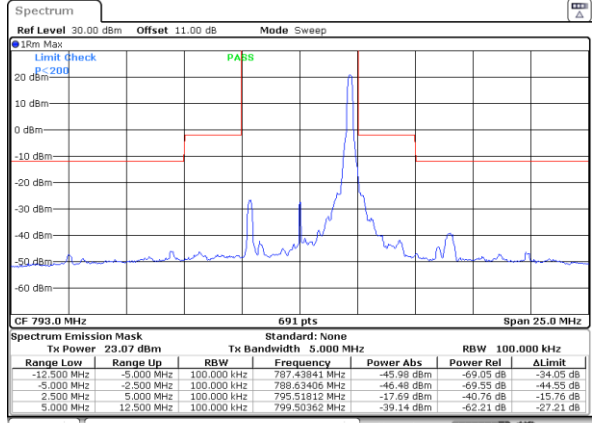


LTE Band 14 / 5MHz / 64QAM

Middle Channel / 1RB

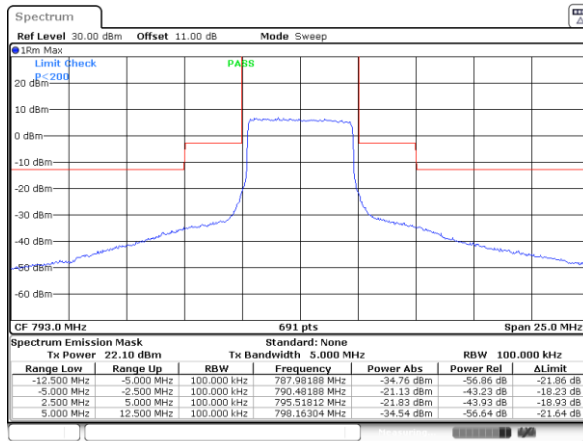


Date: 2.DEC.2022 11:02:00



Date: 2.DEC.2022 11:02:57

Middle Channel / Full RB

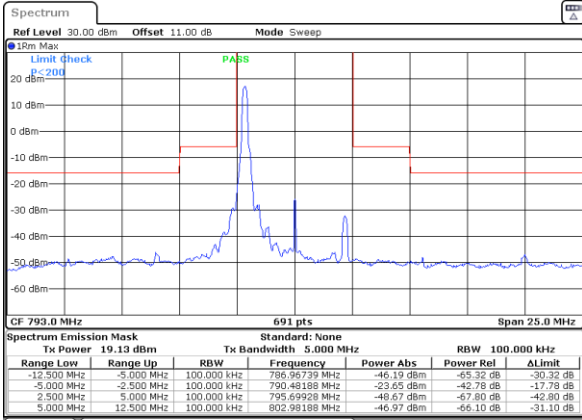


Date: 2.DEC.2022 11:03:54

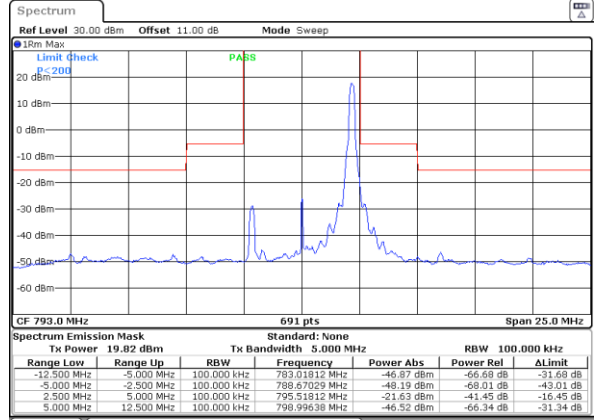


LTE Band 14 / 5MHz / 256QAM

Middle Channel / 1RB

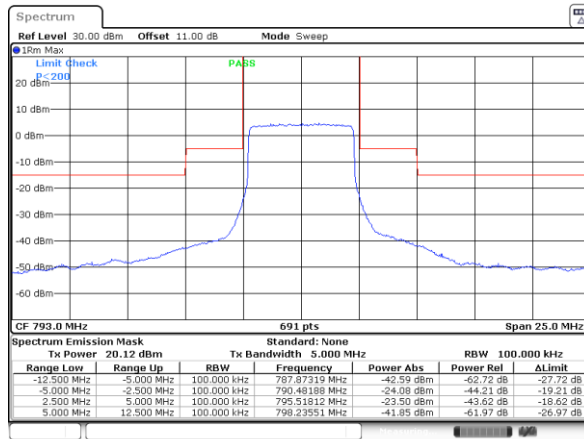


Date: 7.DEC.2022 22:15:133



Date: 2.DEC.2022 11:05:48

Middle Channel / Full RB

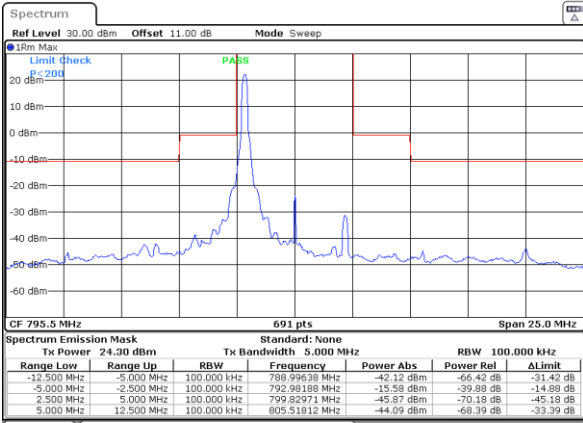


Date: 2.DEC.2022 11:04:51

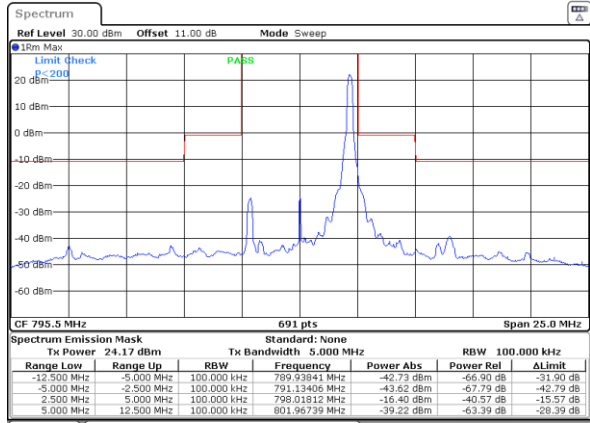


LTE Band 14 / 5MHz / QPSK

Highest Channel / 1RB

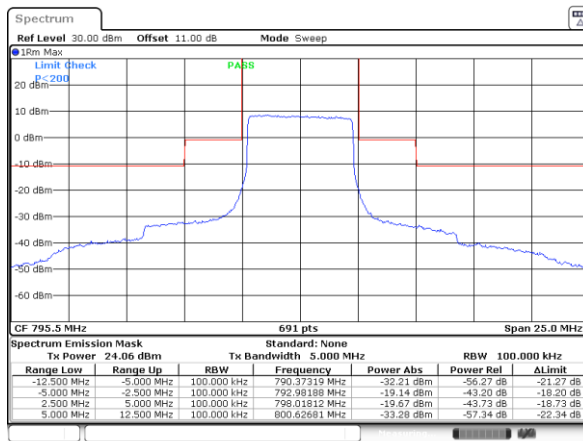


Date: 2,DEC,2022 11:16:58



Date: 2,DEC,2022 11:17:56

Highest Channel / Full RB

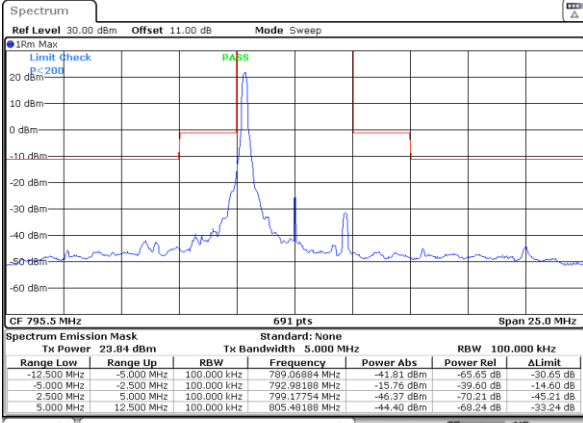


Date: 2,DEC,2022 11:18:54

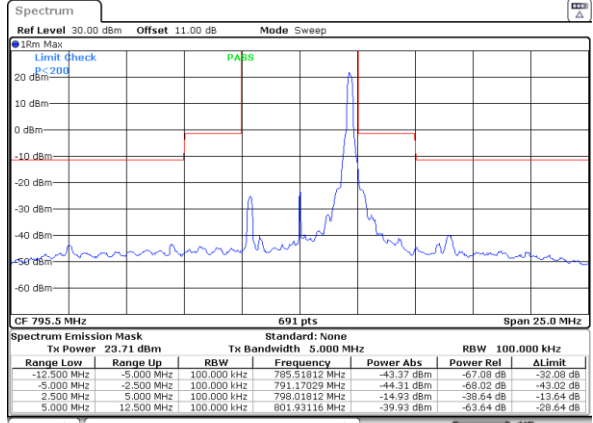


LTE Band 14 / 5MHz / 16QAM

Highest Channel / 1RB

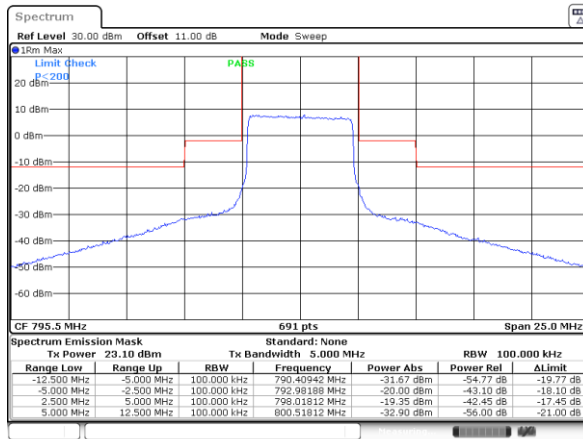


Date: 2,DEC,2022 11:21:47



Date: 2,DEC,2022 11:20:49

Highest Channel / Full RB

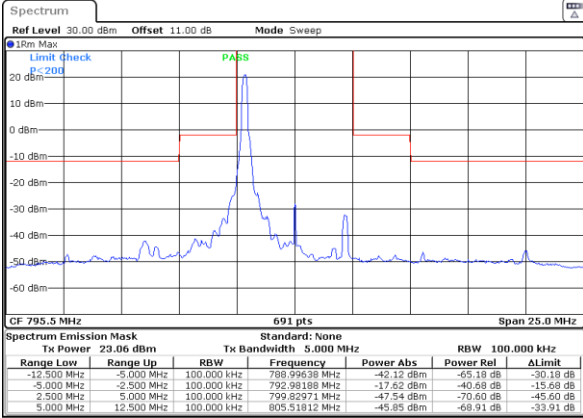


Date: 2,DEC,2022 11:19:51

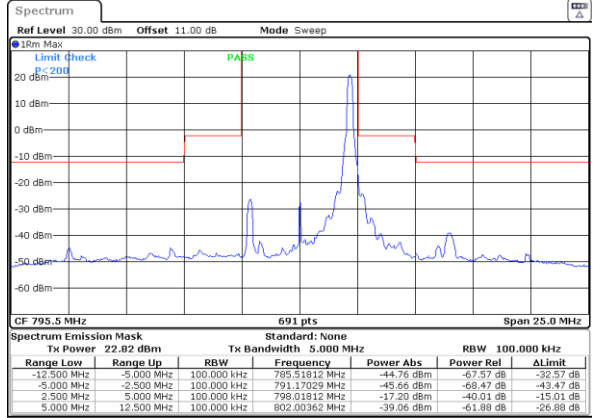


LTE Band 14 / 5MHz / 64QAM

Highest Channel / 1RB

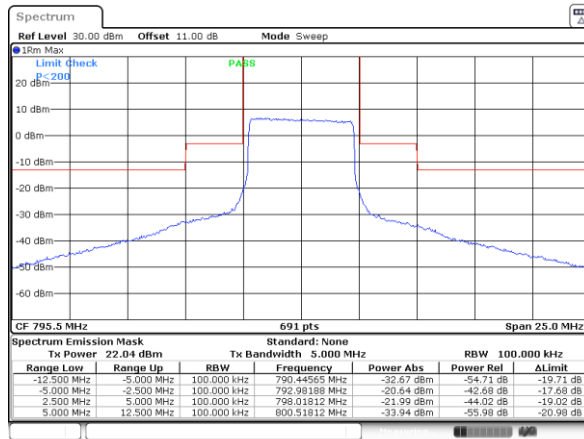


Date: 2,DEC,2022 11:22:45



Date: 2,DEC,2022 11:23:42

Highest Channel / Full RB



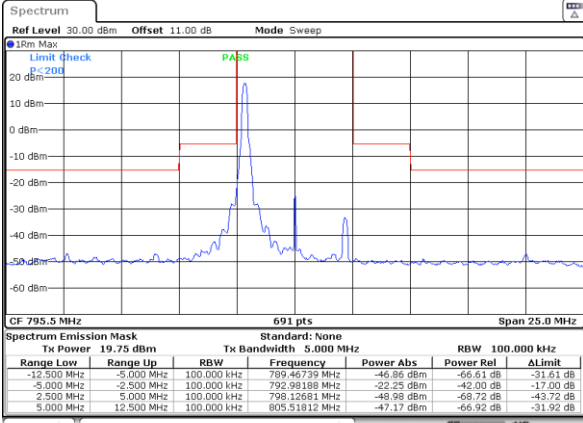
Date: 2,DEC,2022 11:24:40



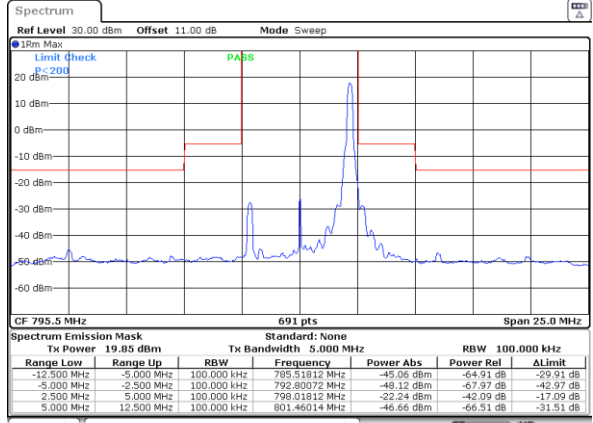


LTE Band 14 / 5MHz / 256QAM

Highest Channel / 1RB

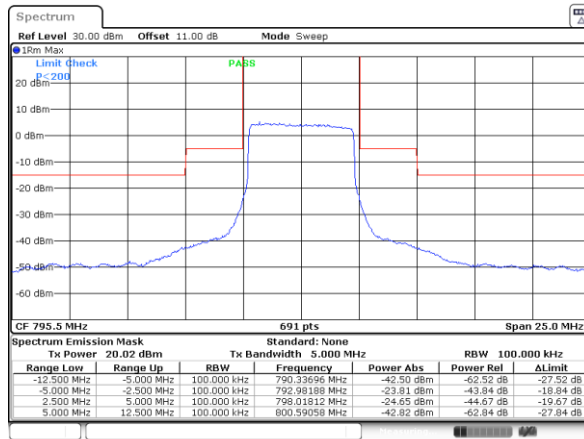


Date: 2,DEC,2022 11:27:33

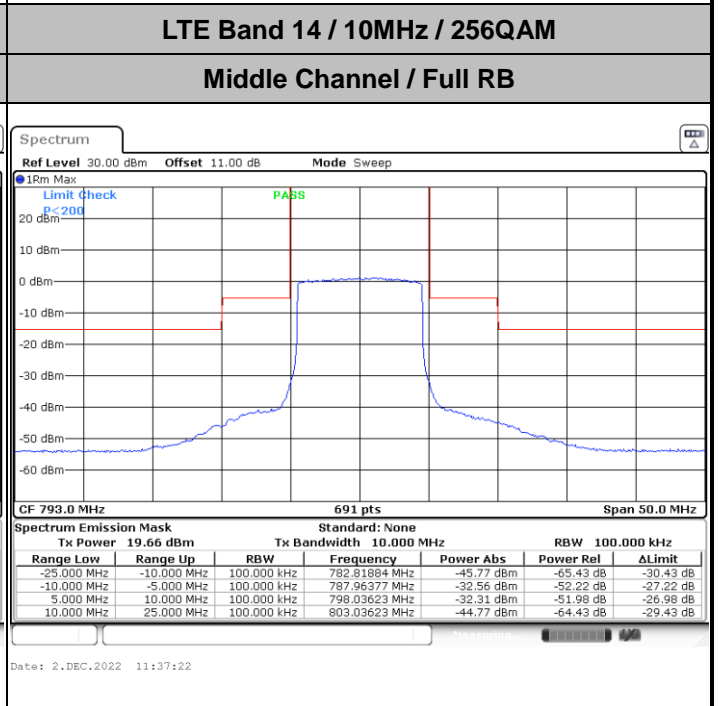
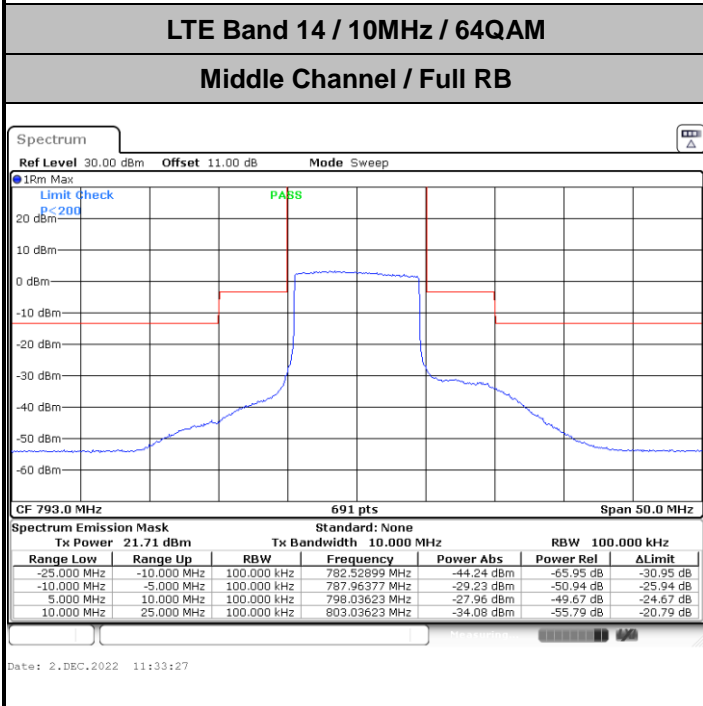
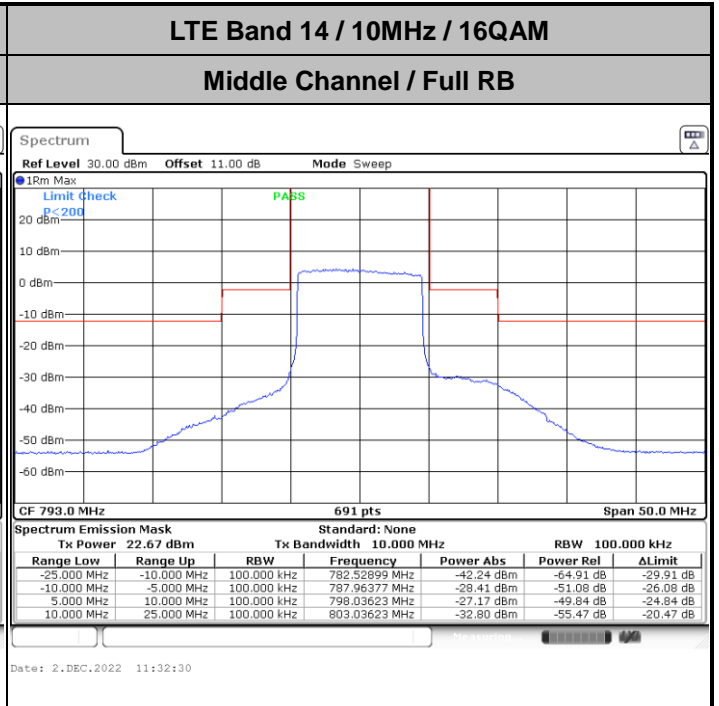
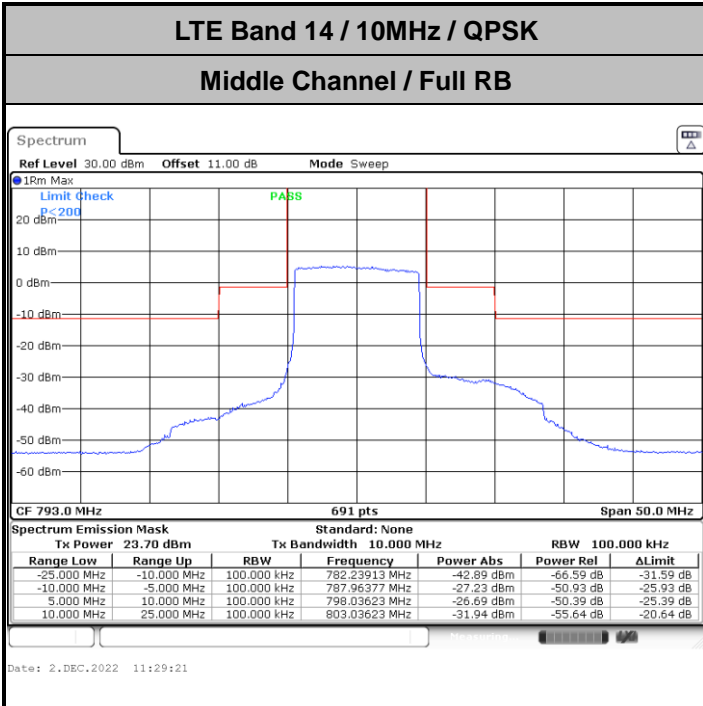


Date: 2,DEC,2022 11:26:36

Highest Channel / Full RB



Date: 2,DEC,2022 11:25:38





**Frequency Stability**

Test Conditions		LTE Band 14 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0073	PASS
40	Normal Voltage	0.0121	
30	Normal Voltage	0.0068	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0037	
0	Normal Voltage	0.0158	
-10	Normal Voltage	0.0145	
-20	Normal Voltage	0.0131	
-30	Normal Voltage	0.0037	
20	Maximum Voltage	0.0068	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0039	

**Note:**

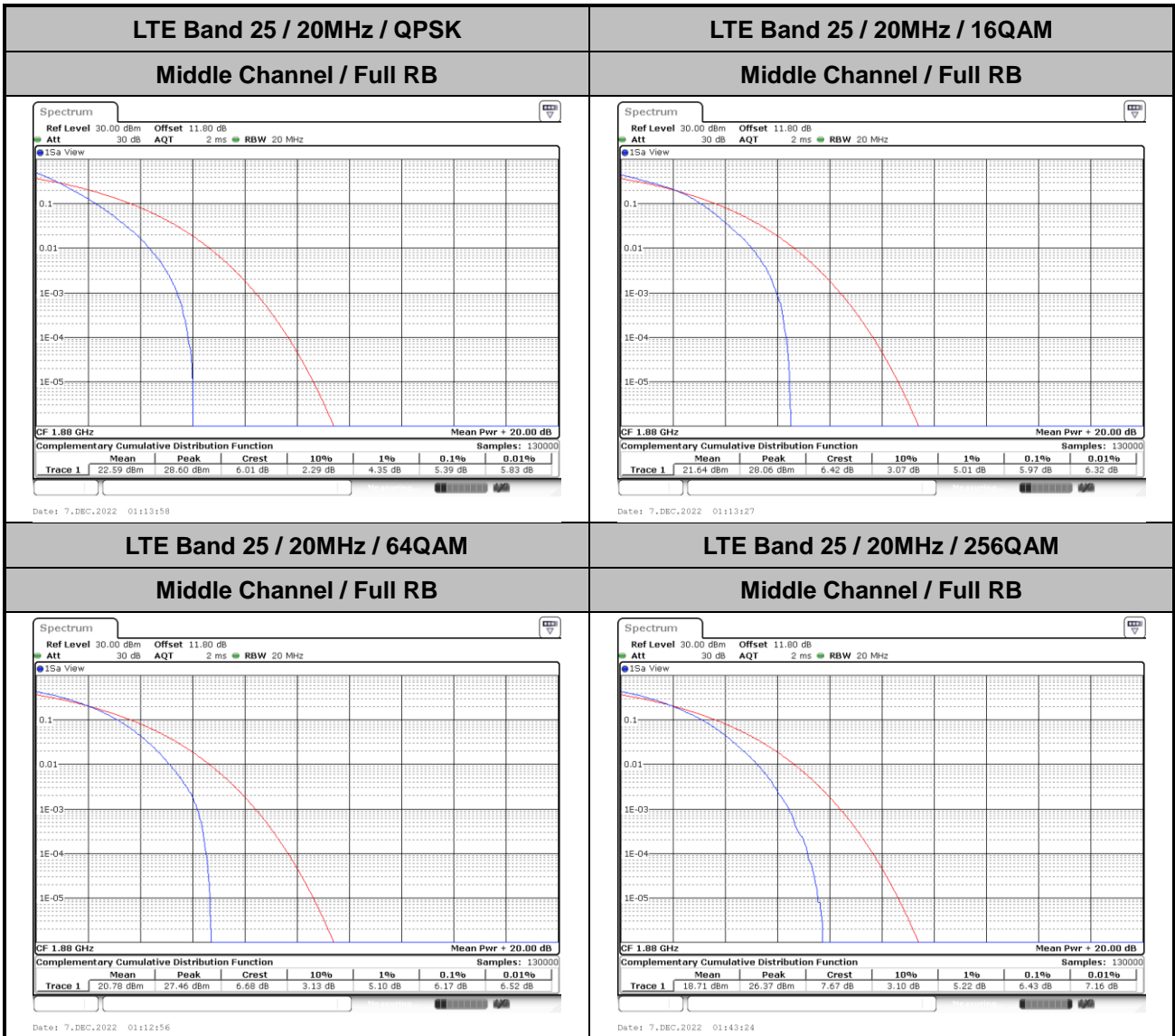
1. Normal Voltage = 3.88 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 25

## Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.39	5.97	6.17	6.43	PASS





**26dB Bandwidth**

Mode	LTE Band 25 : 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	1.33	1.35	3.09	3.15	5.07	5.10	10.17	10.35	15.35	14.48	19.42	19.22
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.28	1.32	3.05	3.05	5.07	5.16	10.13	10.23	14.75	14.51	19.66	19.26