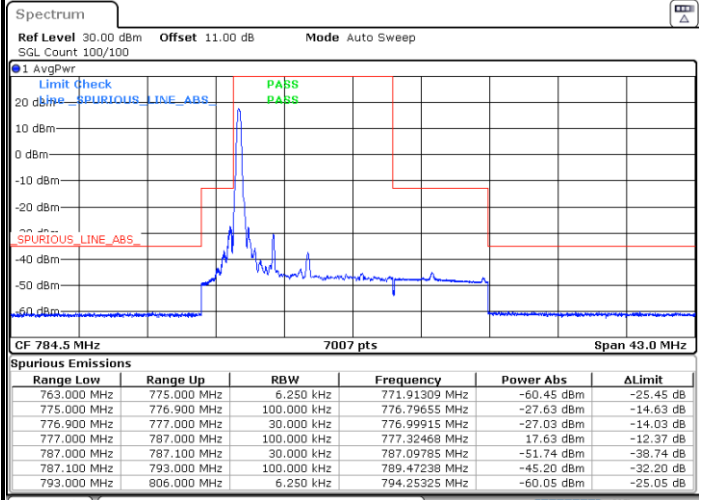




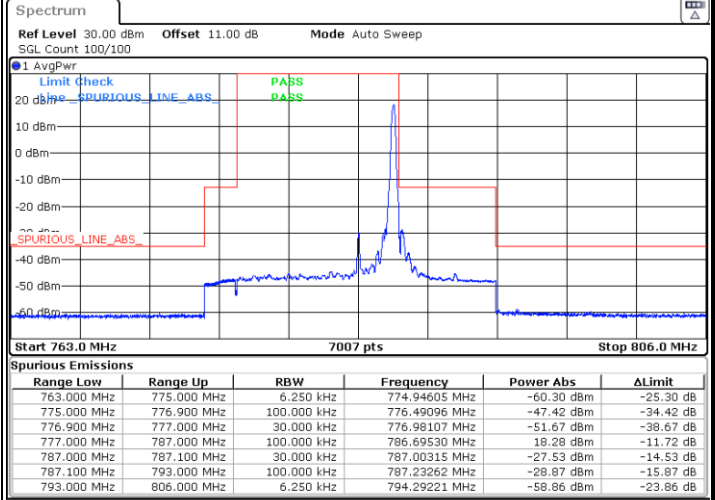
IC LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



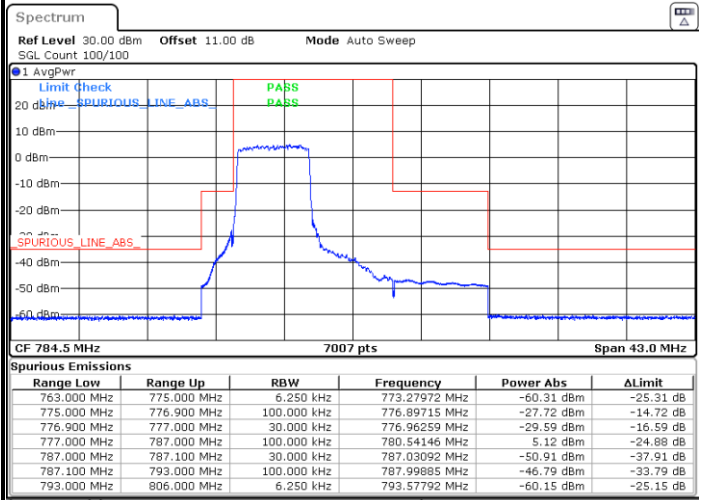
Date: 24.FEB.2023 21:48:33



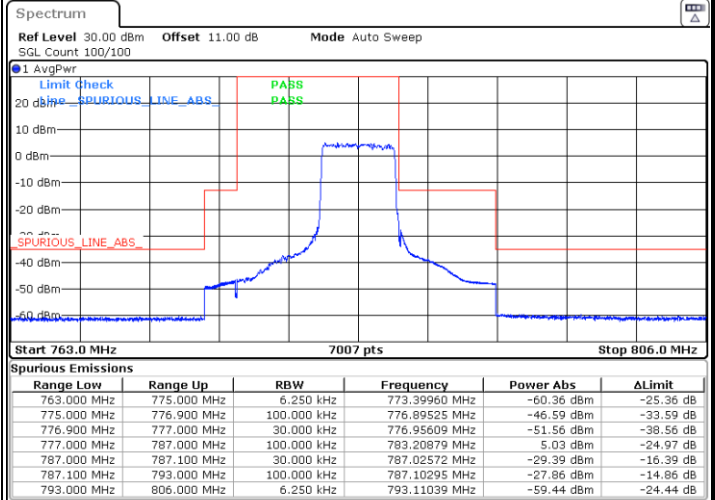
Date: 24.FEB.2023 21:50:35

Lowest Band Edge / Full RB

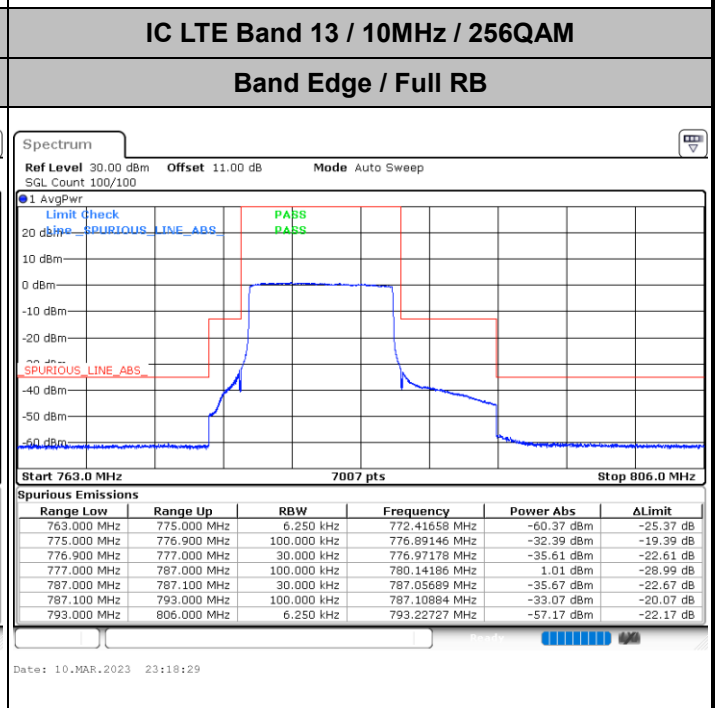
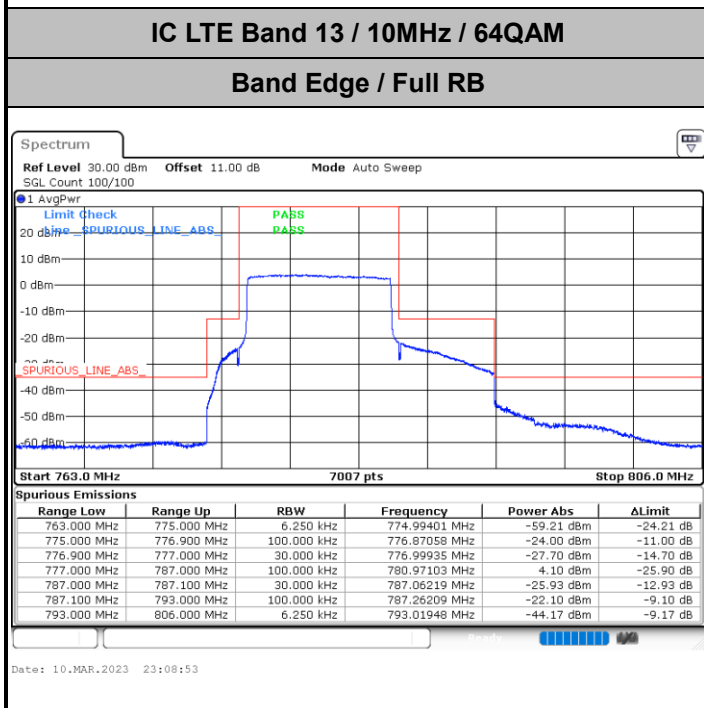
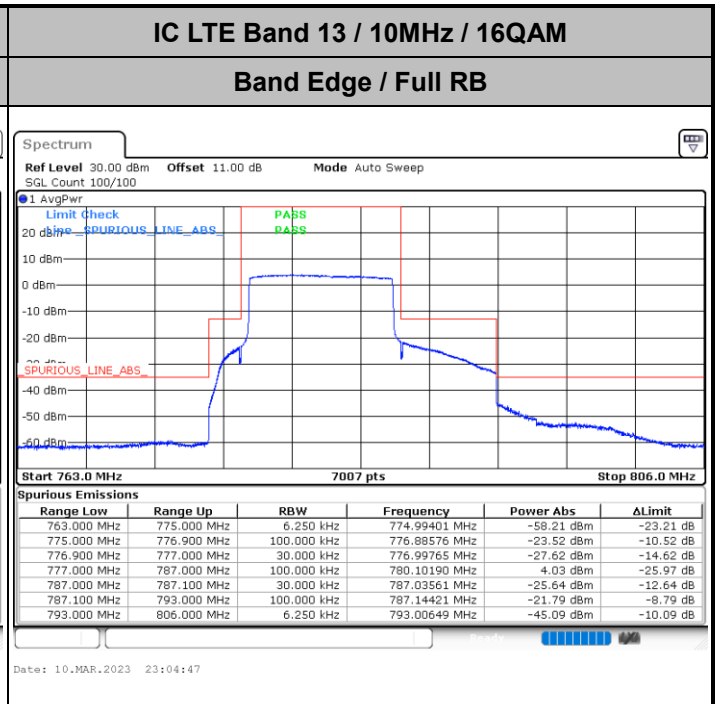
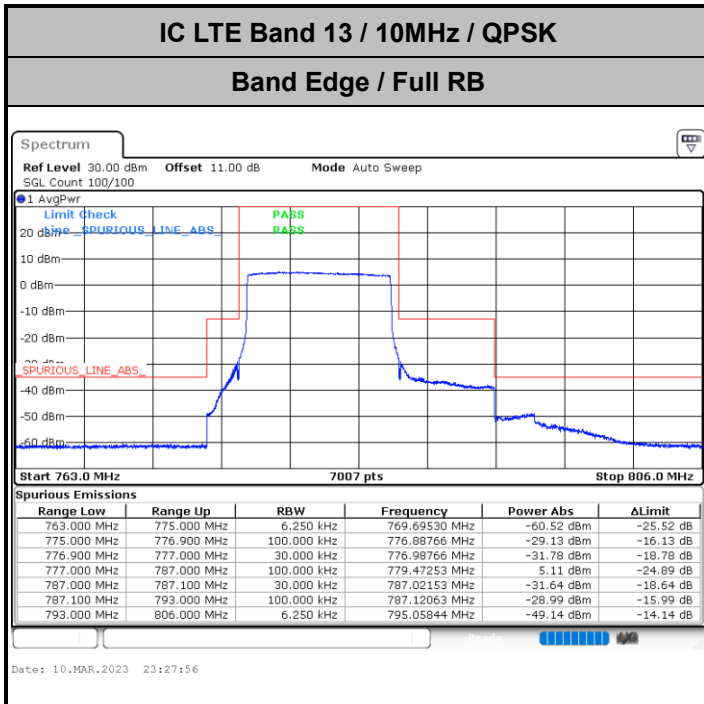
Highest Band Edge / Full RB



Date: 24.FEB.2023 21:47:34

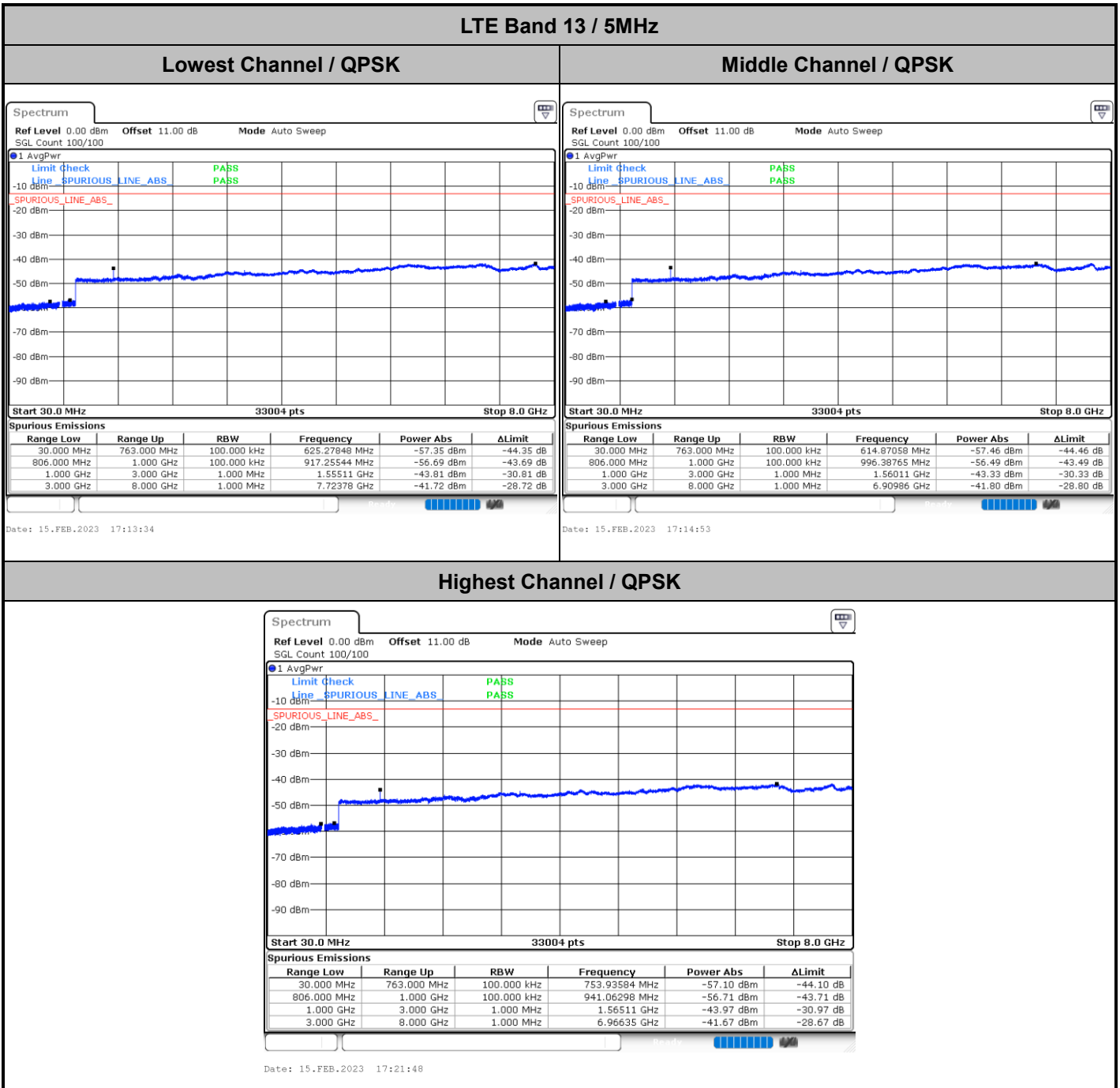


Date: 24.FEB.2023 21:49:37





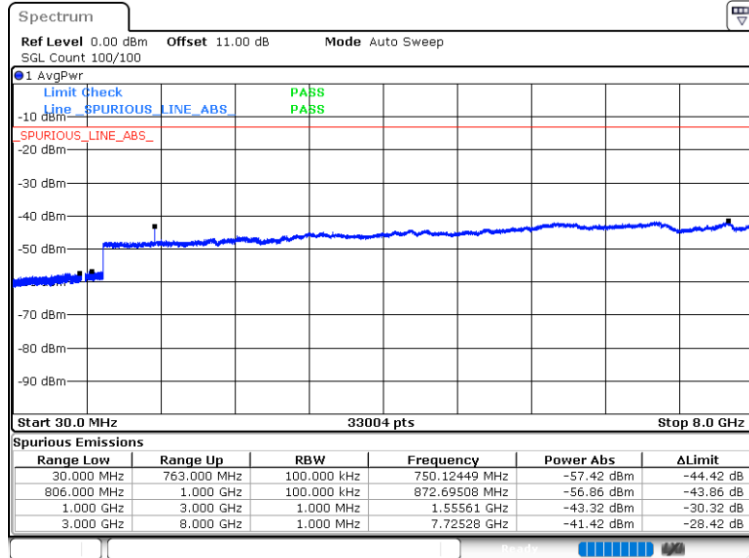
# Conducted Spurious Emission





LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 15.FEB.2023 17:40:29



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	0.0047	PASS
40	Normal Voltage	0.0159	
30	Normal Voltage	0.0077	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0119	
0	Normal Voltage	0.0066	
-10	Normal Voltage	0.0123	
-20	Normal Voltage	0.0107	
-30	Normal Voltage	0.0133	
20	Maximum Voltage	0.0073	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0060	

Note:

1. Normal Voltage =3.89 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

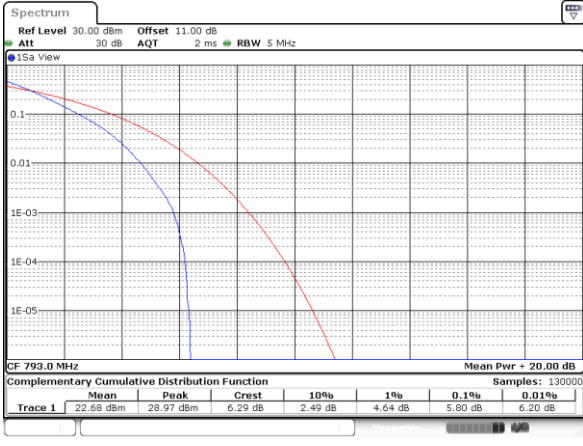
Mode	LTE Band 14 / 5MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.8	5.94	6.2	6.61	PASS

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	6.03	6.12	6.26	6.70	PASS



LTE Band 14 / 5MHz / QPSK

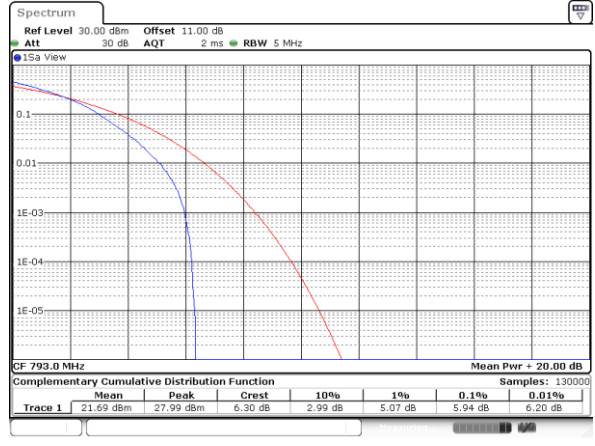
Middle Channel / Full RB



Date: 20\_MAR\_2023 14:00:19

LTE Band 14 / 5MHz / 16QAM

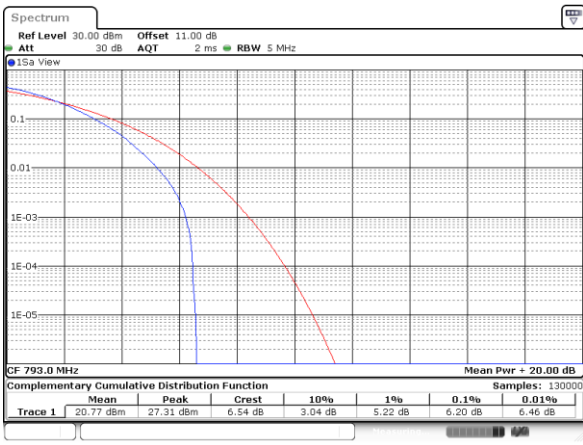
Middle Channel / Full RB



Date: 20\_MAR\_2023 14:00:46

LTE Band 14 / 5MHz / 64QAM

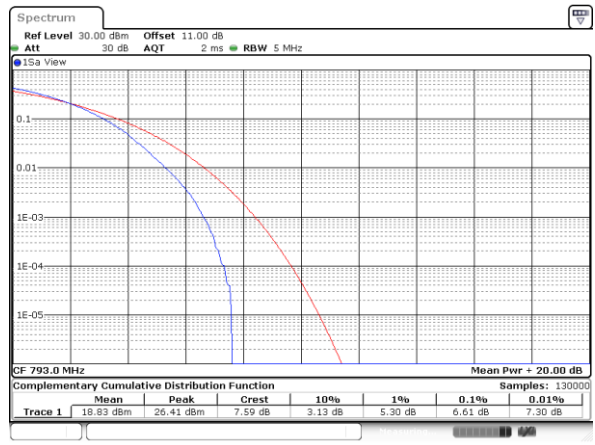
Middle Channel / Full RB



Date: 20\_MAR\_2023 14:01:14

LTE Band 14 / 5MHz / 256QAM

Middle Channel / Full RB

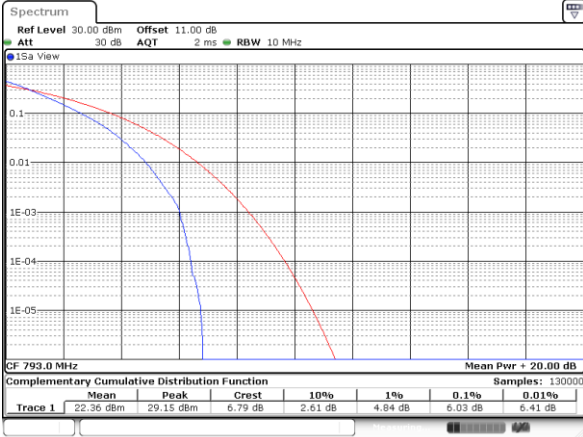


Date: 20\_MAR\_2023 14:01:42



LTE Band 14 / 10MHz / QPSK

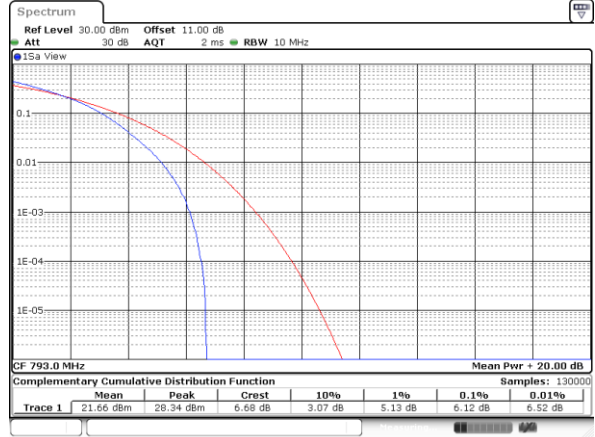
Middle Channel / Full RB



Date: 20\_MAR\_2023 11:57:12

LTE Band 14 / 10MHz / 16QAM

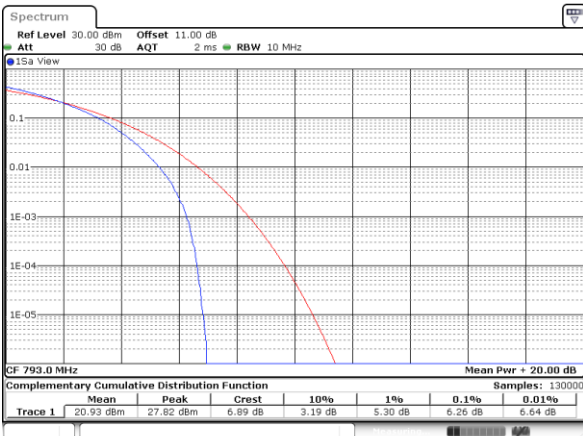
Middle Channel / Full RB



Date: 20\_MAR\_2023 11:57:39

LTE Band 14 / 10MHz / 64QAM

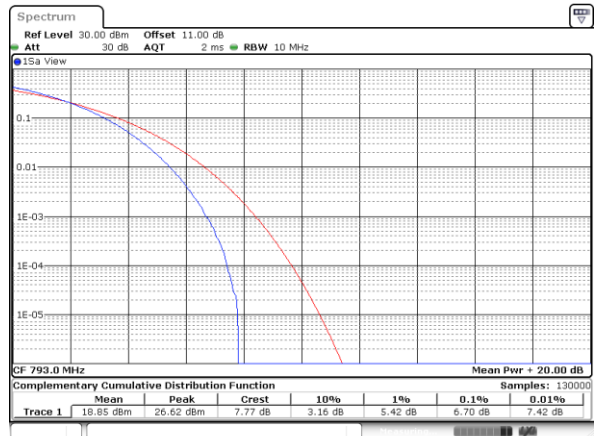
Middle Channel / Full RB



Date: 20\_MAR\_2023 12:02:40

LTE Band 14 / 10MHz / 256QAM

Middle Channel / Full RB



Date: 20\_MAR\_2023 12:03:22





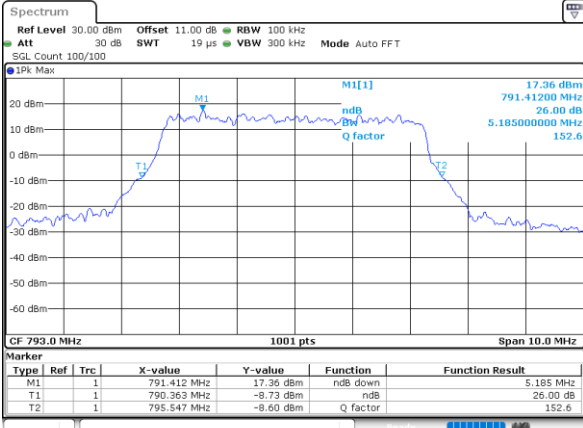
**26dB Bandwidth**

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	-	-	-	-	5.19	5.06	9.69	10.33	-	-	-	-
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	-	-	-	-	5.16	5.18	9.89	9.79	-	-	-	-



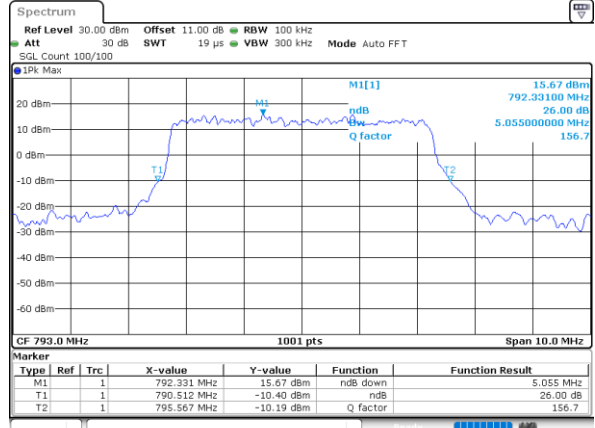
LTE Band 14

Middle Channel / 5MHz / QPSK



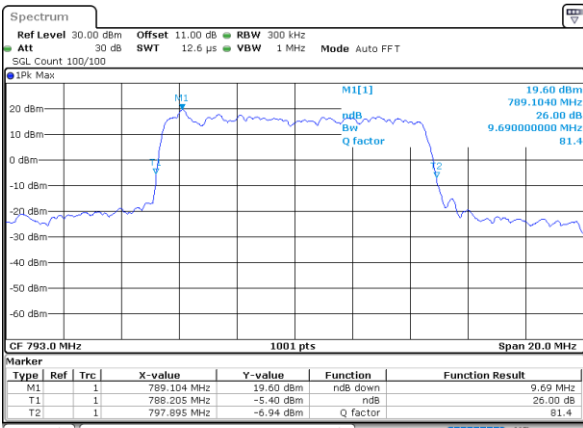
Date: 20\_MAR\_2023 11:16:54

Middle Channel / 5MHz / 16QAM



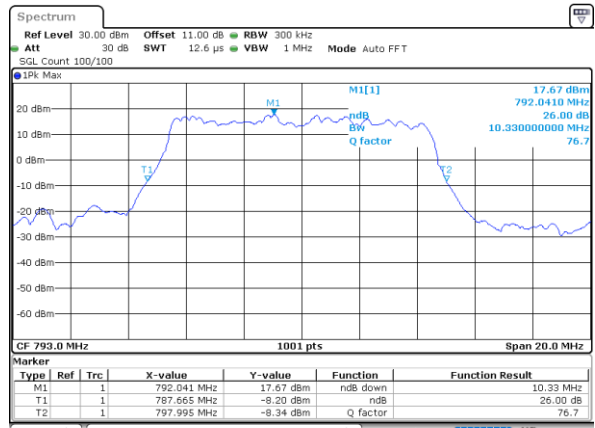
Date: 20\_MAR\_2023 11:17:20

Middle Channel / 10MHz / QPSK



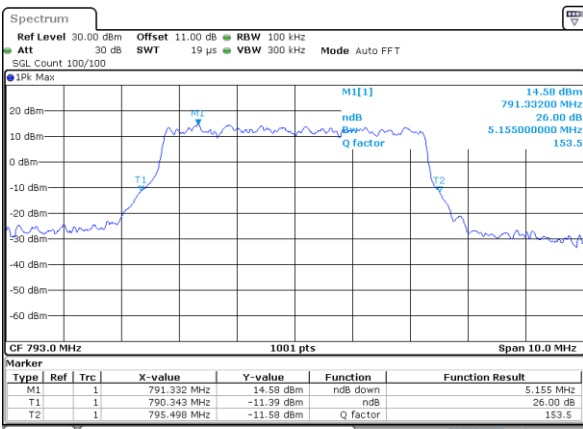
Date: 20\_MAR\_2023 11:56:57

Middle Channel / 10MHz / 16QAM



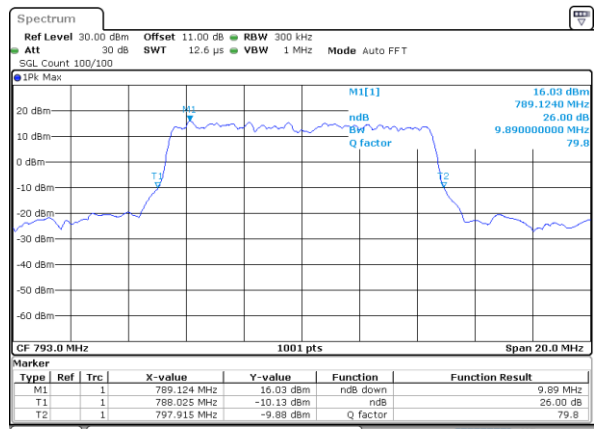
Date: 20\_MAR\_2023 11:58:07

Middle Channel / 5MHz / 64QAM



Date: 20\_MAR\_2023 11:18:14

Middle Channel / 10MHz / 64QAM



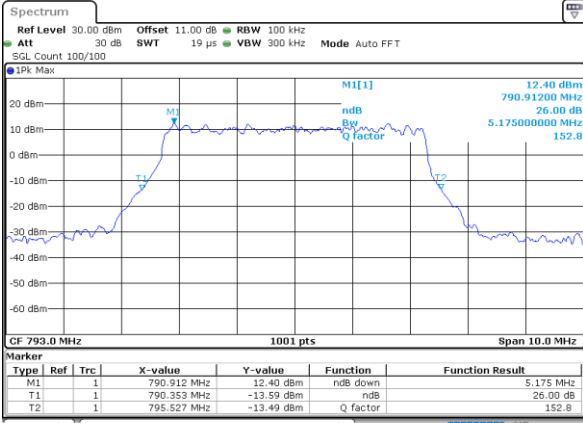
Date: 20\_MAR\_2023 12:02:55



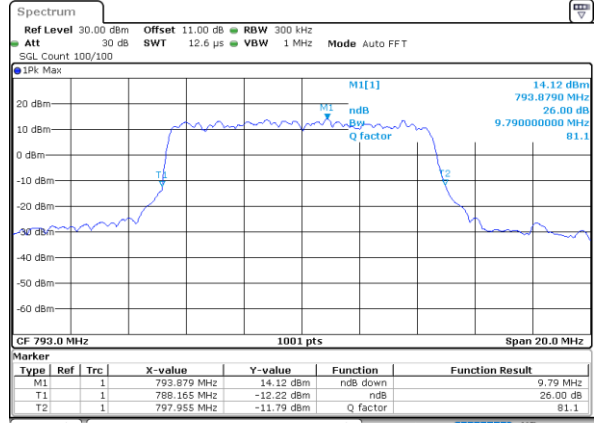
LTE Band 14

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 20\_MAR\_2023 11:18:40



Date: 20\_MAR\_2023 12:03:50



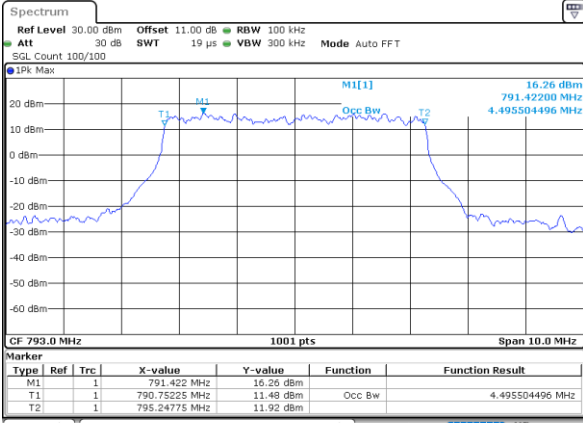
**Occupied Bandwidth**

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	-	-	-	-	4.50	4.51	9.05	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	-	-	-	-	4.49	4.51	8.99	9.11	-	-	-	-



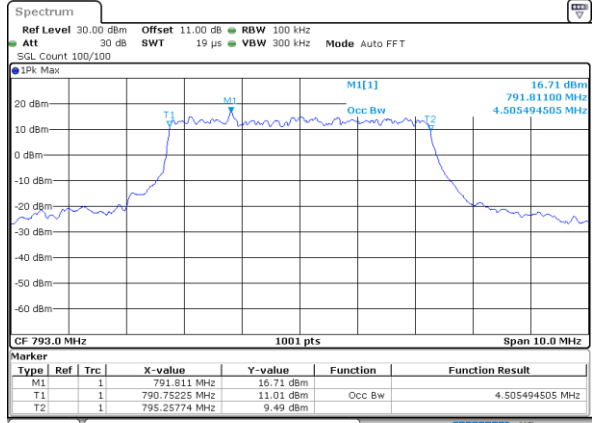
LTE Band 14

Middle Channel / 5MHz / QPSK



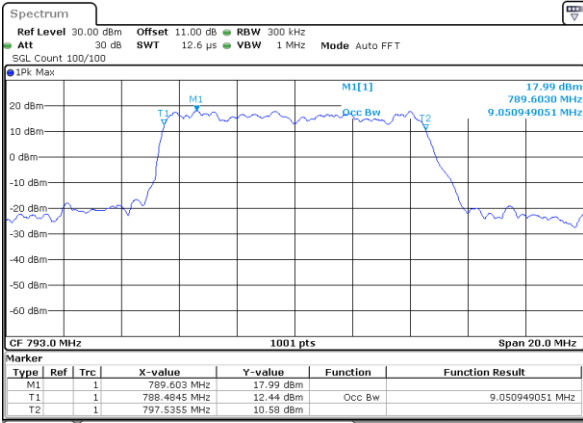
Date: 20\_MAR\_2023 11:16:40

Middle Channel / 5MHz / 16QAM



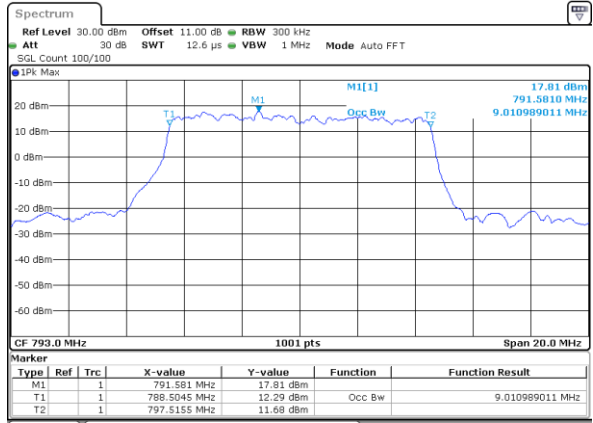
Date: 20\_MAR\_2023 11:17:34

Middle Channel / 10MHz / QPSK



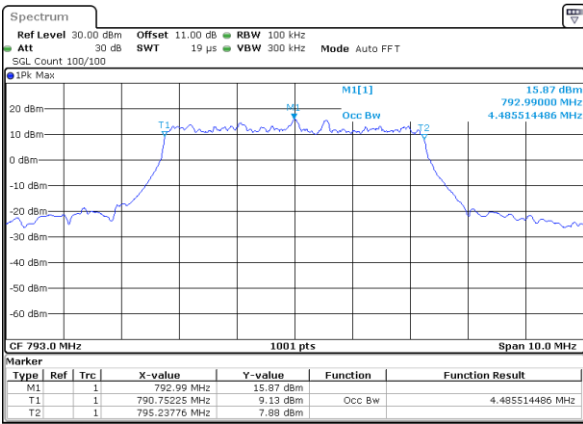
Date: 20\_MAR\_2023 11:56:43

Middle Channel / 10MHz / 16QAM



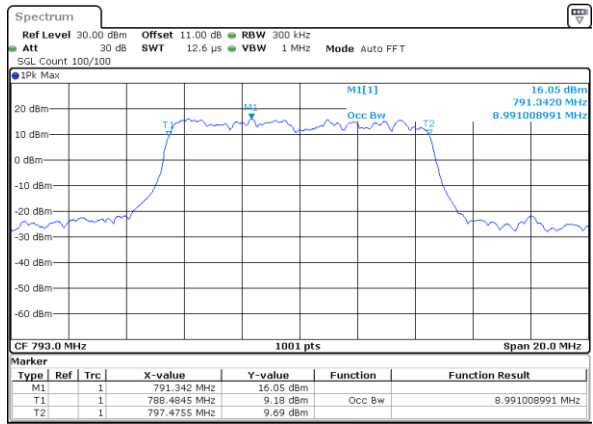
Date: 20\_MAR\_2023 11:57:53

Middle Channel / 5MHz / 64QAM



Date: 20\_MAR\_2023 11:18:00

Middle Channel / 10MHz / 64QAM



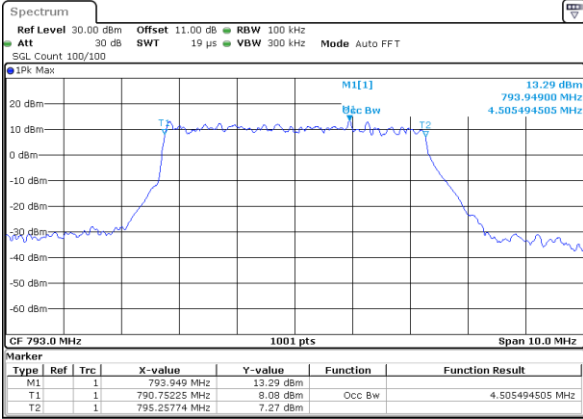
Date: 20\_MAR\_2023 12:02:25



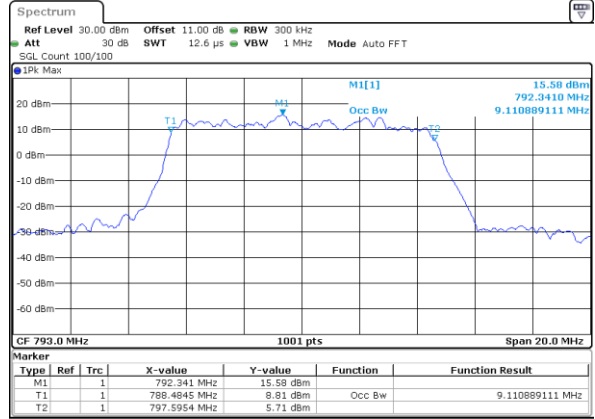
LTE Band 14

Middle Channel / 5MHz / 256QAM

Middle Channel / 10MHz / 256QAM



Date: 20\_MAR\_2023 11:18:54



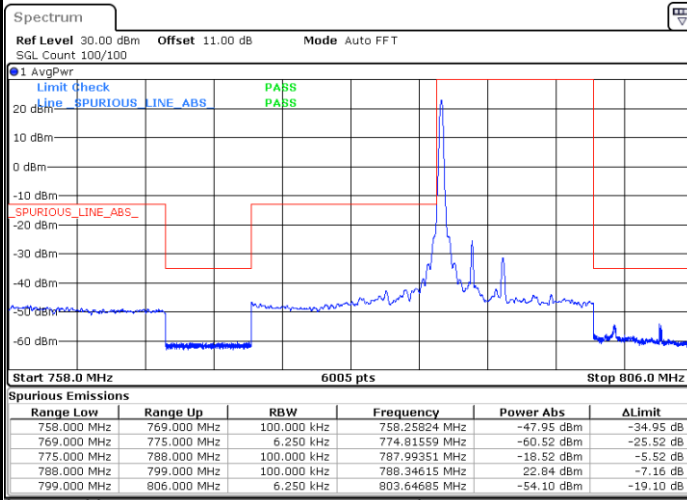
Date: 20\_MAR\_2023 12:03:36



# Conducted Band Edge

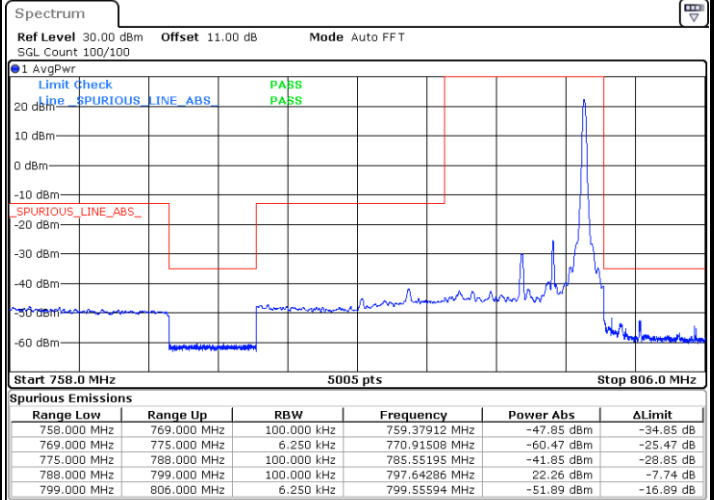
## LTE Band 14 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



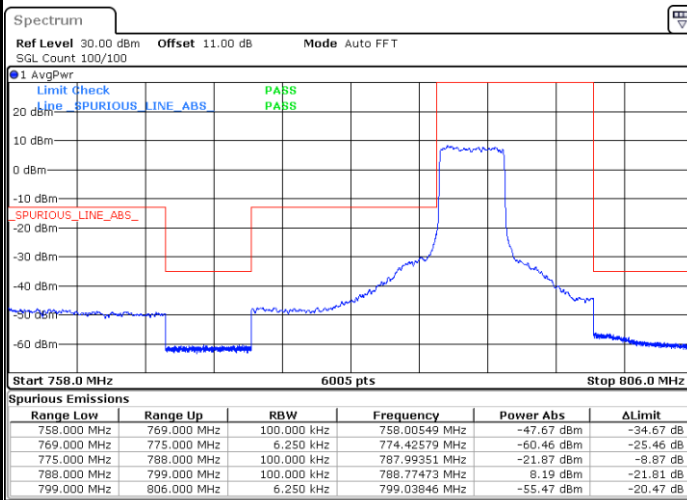
Date: 20.MAR.2023 10:55:42

### Highest Band Edge / 1 RB



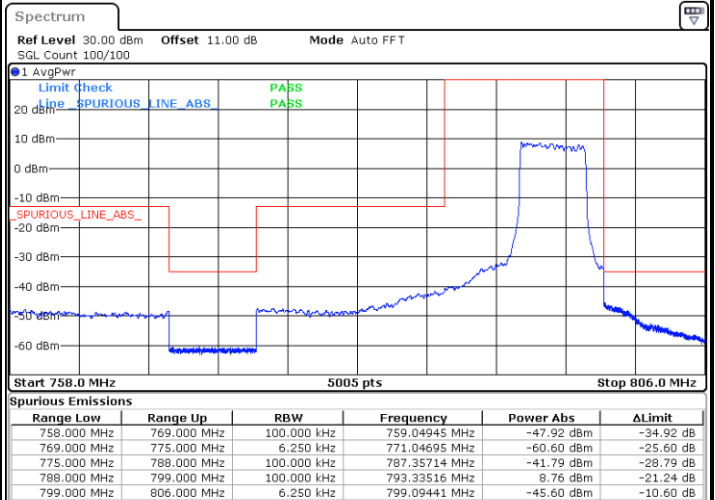
Date: 20.MAR.2023 11:33:09

### Lowest Band Edge / Full RB



Date: 20.MAR.2023 10:54:15

### Highest Band Edge / Full RB

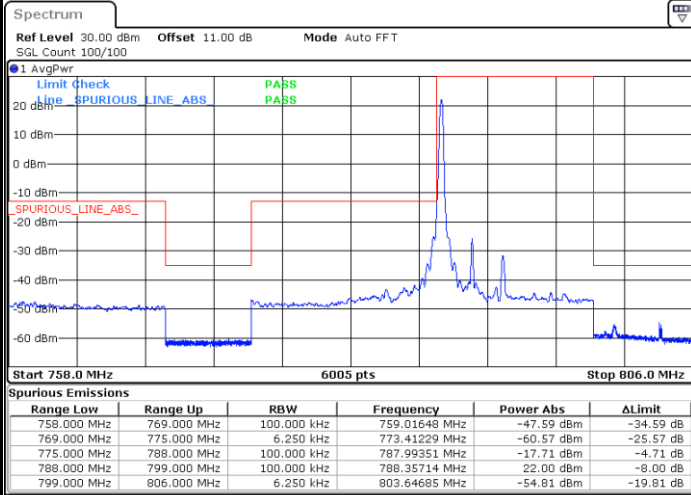


Date: 20.MAR.2023 11:34:36



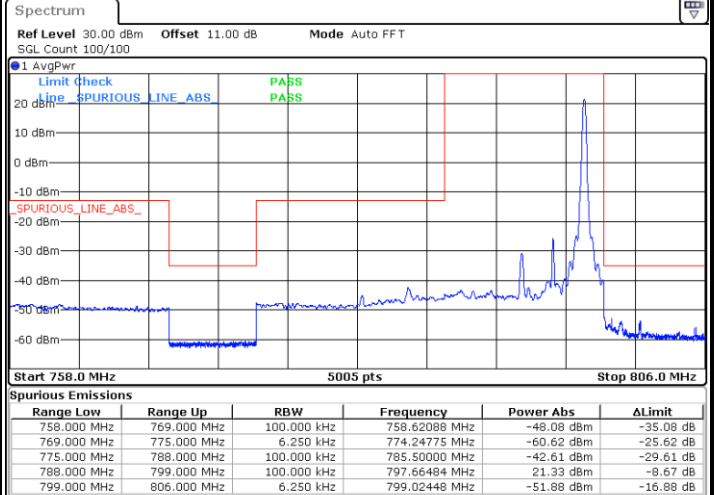
LTE Band 14 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



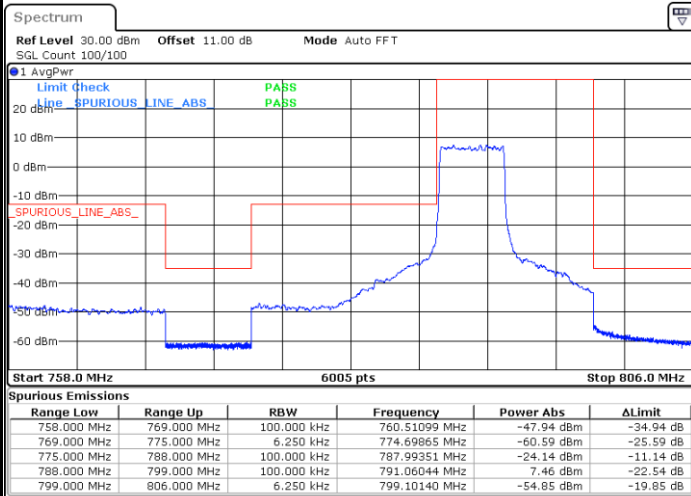
Date: 20.MAR.2023 10:58:01

Highest Band Edge / 1 RB



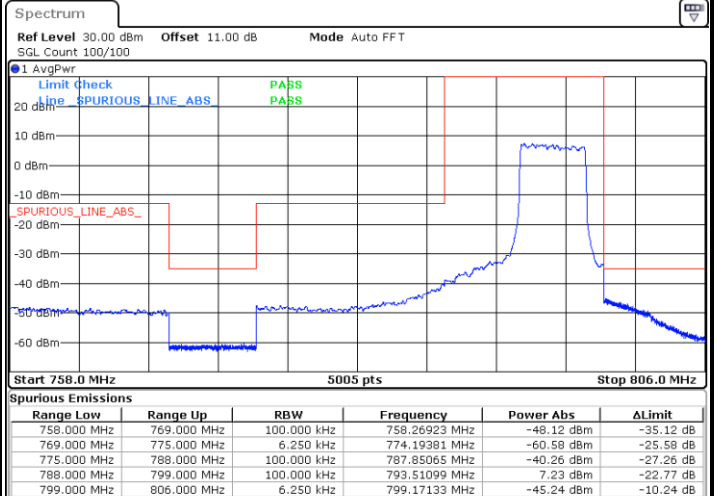
Date: 20.MAR.2023 11:37:30

Lowest Band Edge / Full RB



Date: 20.MAR.2023 10:59:27

Highest Band Edge / Full RB



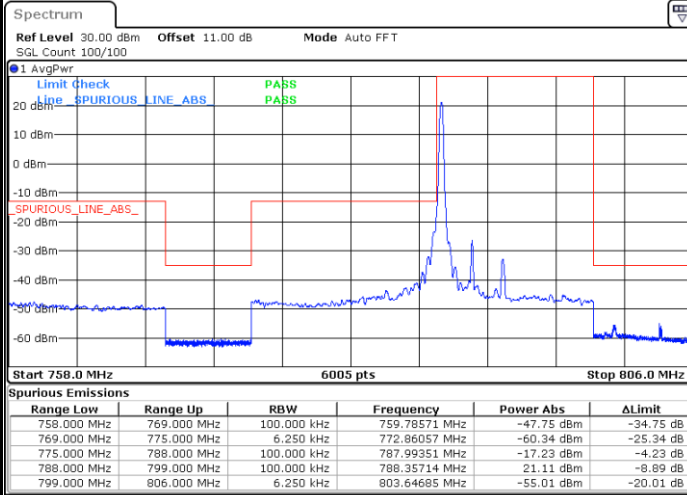
Date: 20.MAR.2023 11:36:03





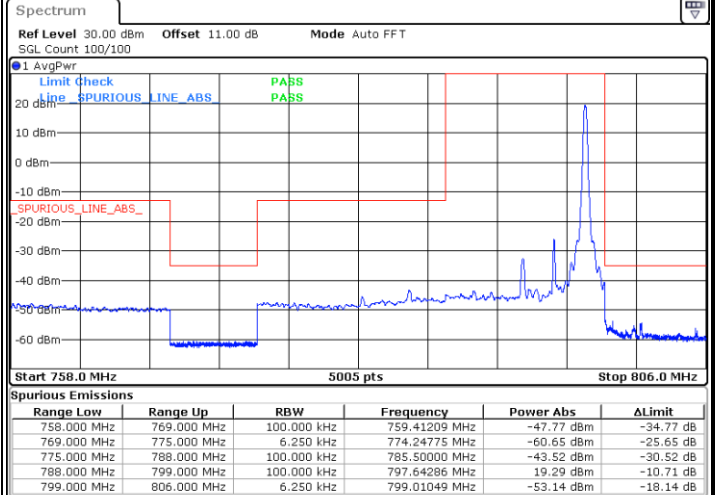
LTE Band 14 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



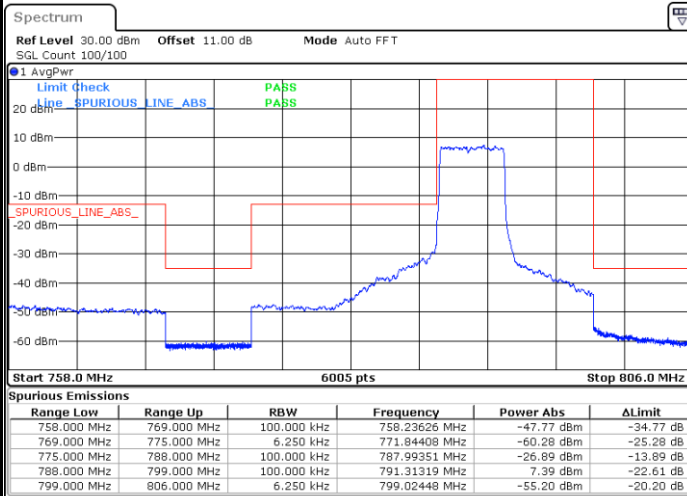
Date: 20.MAR.2023 11:02:20

Highest Band Edge / 1 RB



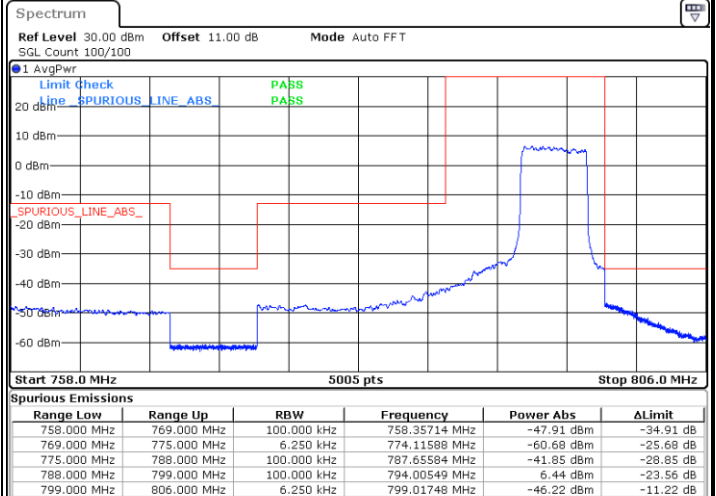
Date: 20.MAR.2023 11:38:56

Lowest Band Edge / Full RB



Date: 20.MAR.2023 11:00:54

Highest Band Edge / Full RB

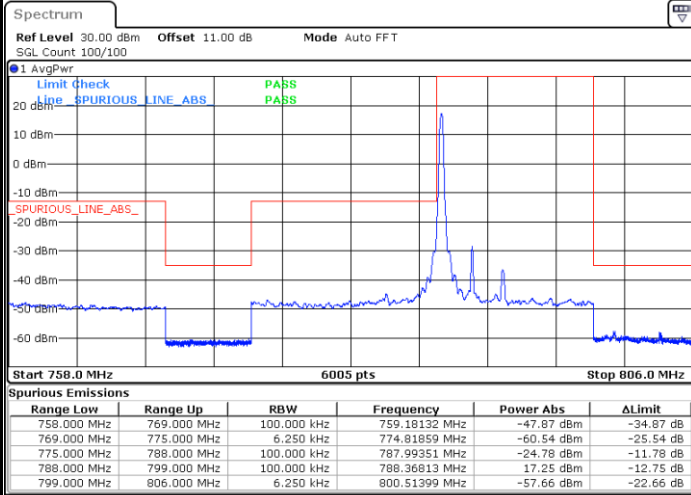


Date: 20.MAR.2023 11:40:23



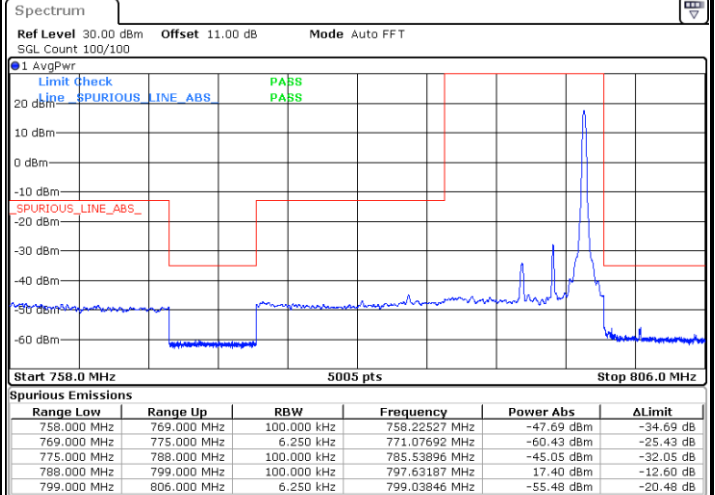
LTE Band 14 / 5MHz / 256QAM

Lowest Band Edge / 1 RB



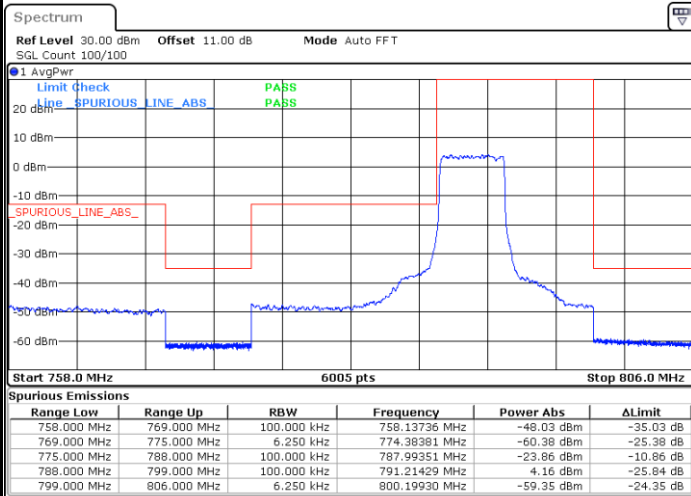
Date: 20.MAR.2023 11:03:46

Highest Band Edge / 1 RB



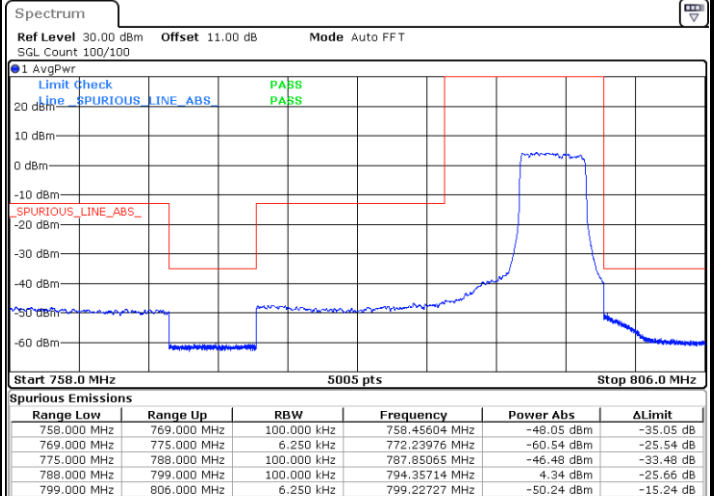
Date: 20.MAR.2023 11:43:16

Lowest Band Edge / Full RB

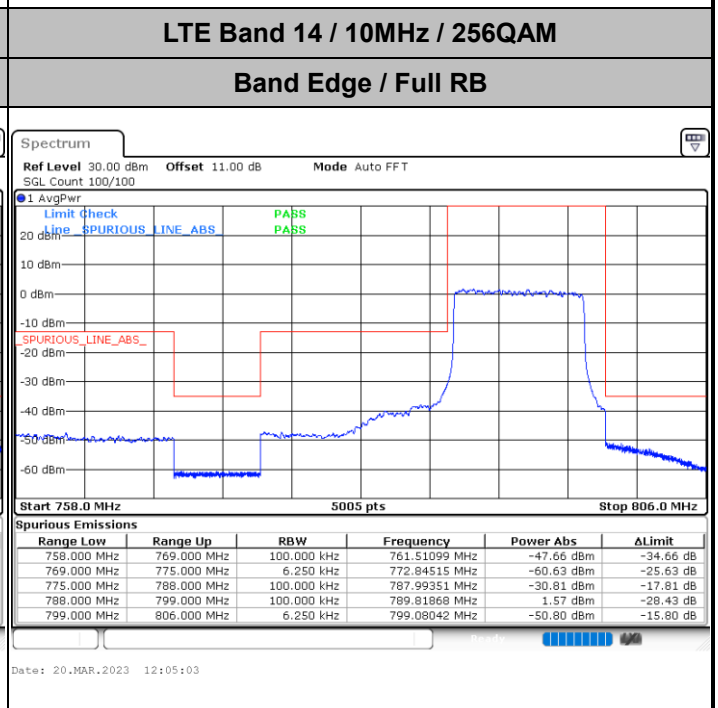
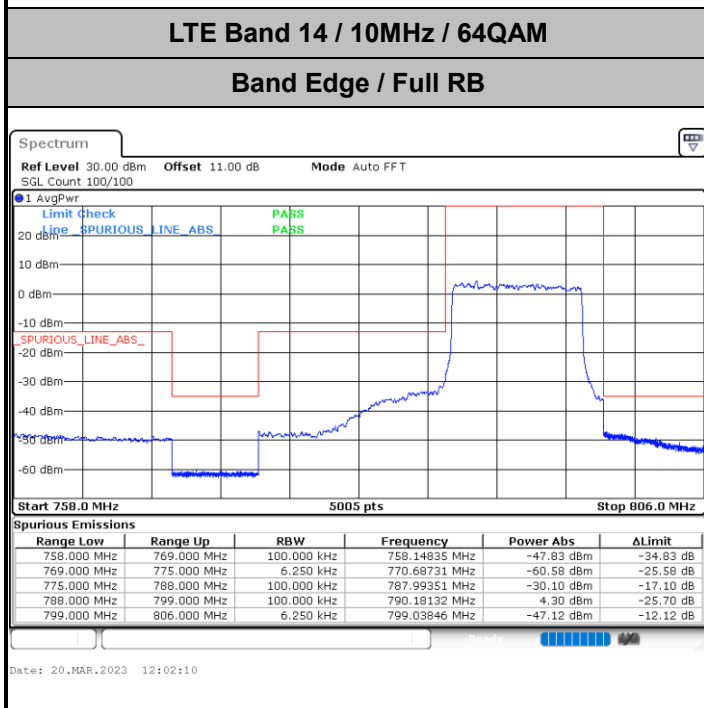
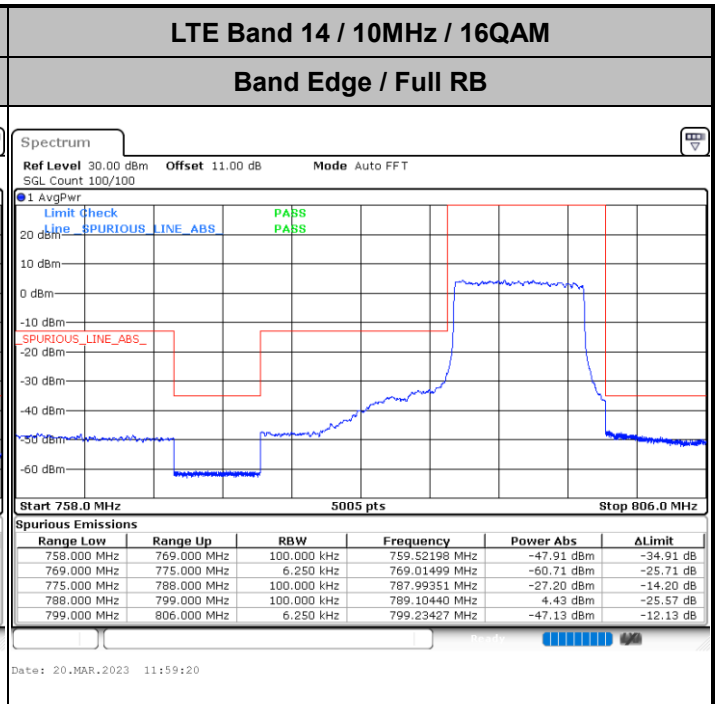
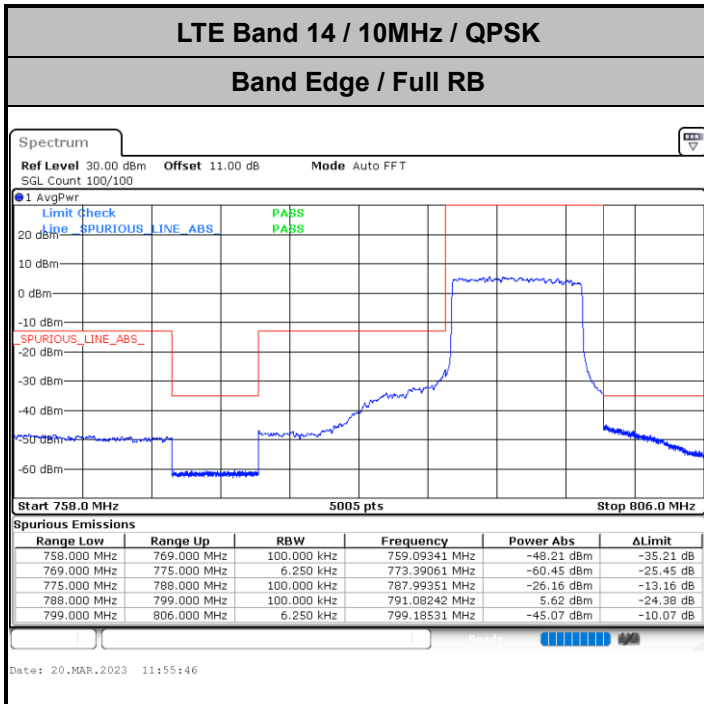


Date: 20.MAR.2023 11:05:13

Highest Band Edge / Full RB

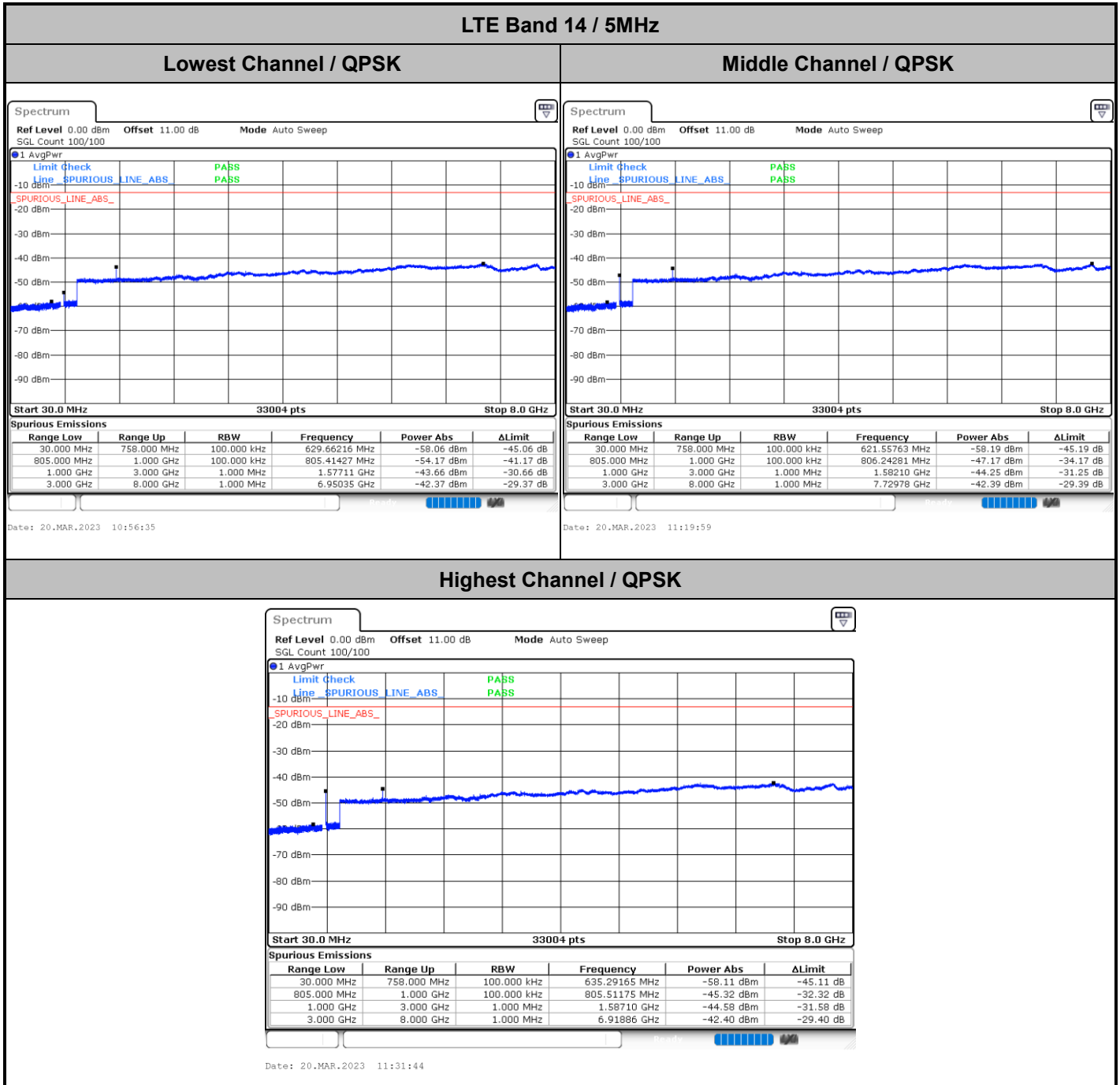


Date: 20.MAR.2023 11:41:50





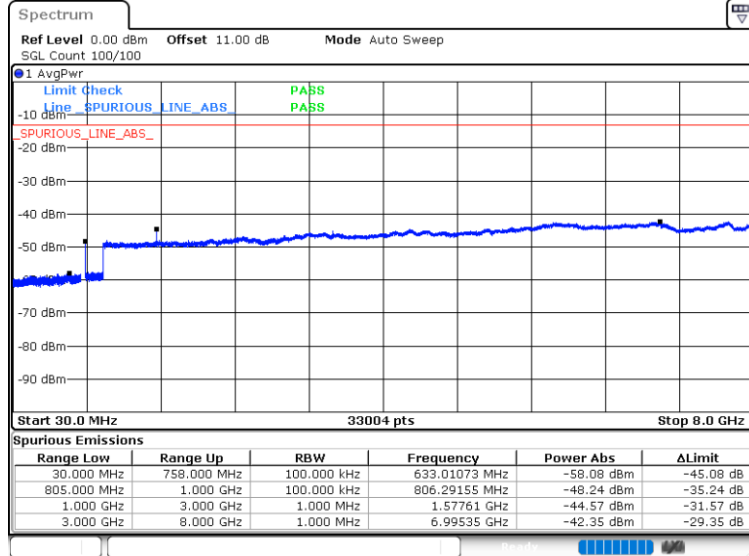
# Conducted Spurious Emission





LTE Band 14 / 10MHz

Middle Channel / QPSK



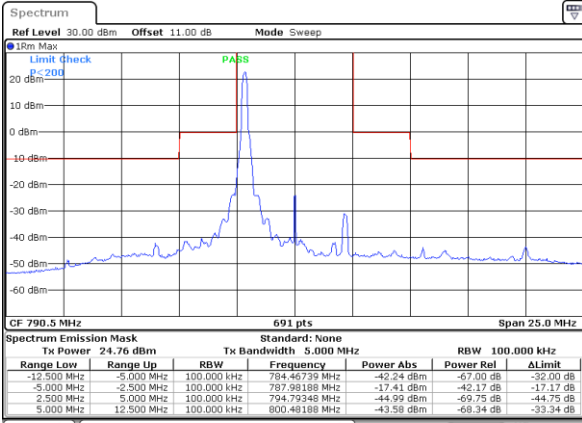
Date: 20.MAR.2023 12:06:51



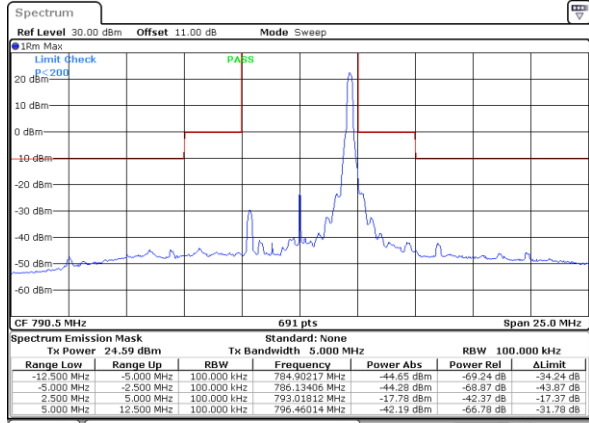
**Mask**

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

**Lowest Channel / 1RB**

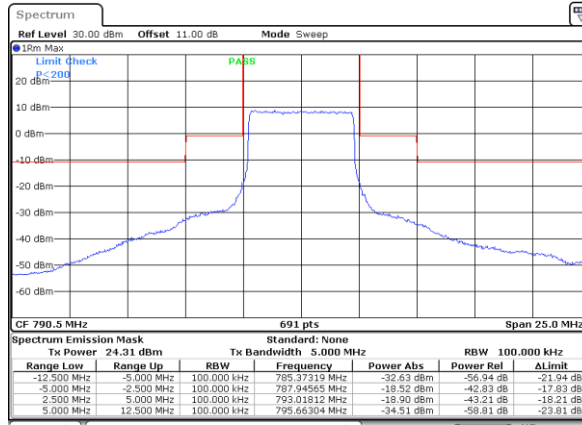


Date: 20.MAR.2023 11:06:08



Date: 20.MAR.2023 11:07:03

**Lowest Channel / Full RB**

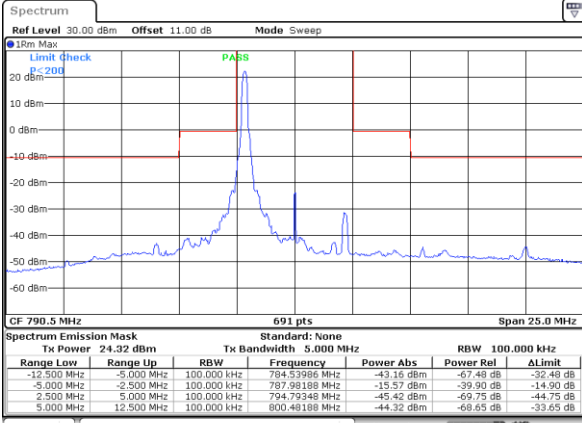


Date: 20.MAR.2023 11:07:58

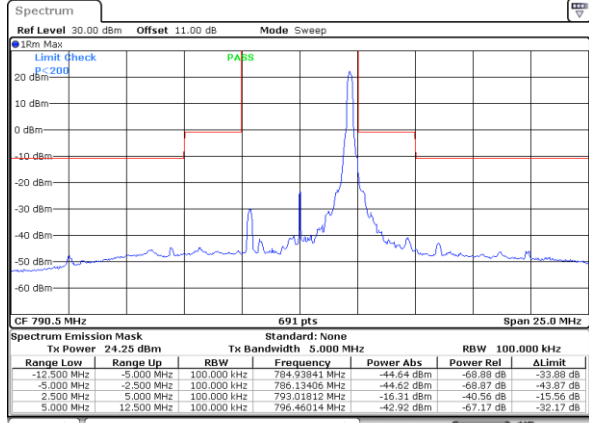


LTE Band 14 / 5MHz / 16QAM

Lowest Channel / 1RB

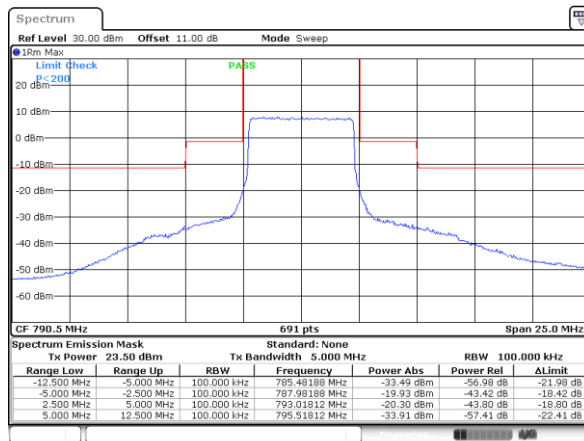


Date: 20.MAR.2023 11:10:43



Date: 20.MAR.2023 11:09:48

Lowest Channel / Full RB

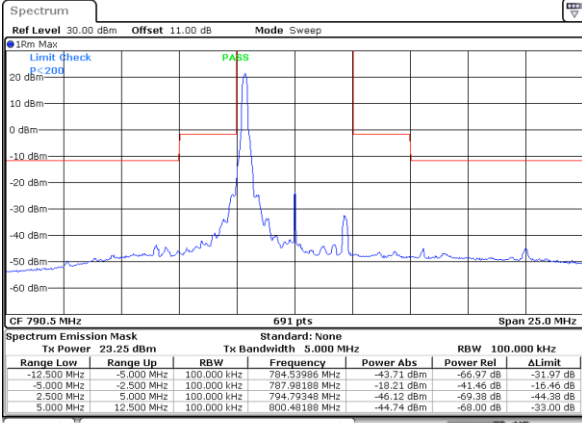


Date: 20.MAR.2023 11:08:53

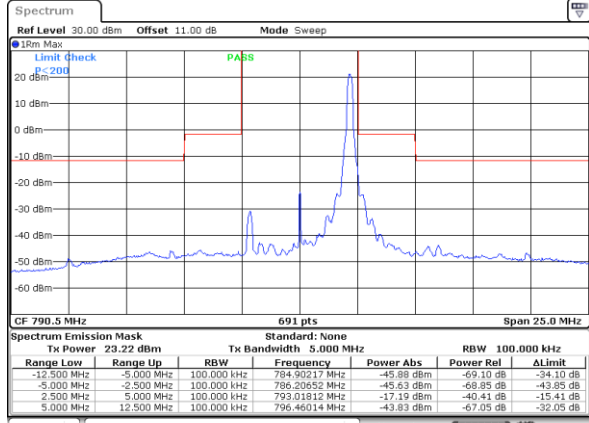


LTE Band 14 / 5MHz / 64QAM

Lowest Channel / 1RB

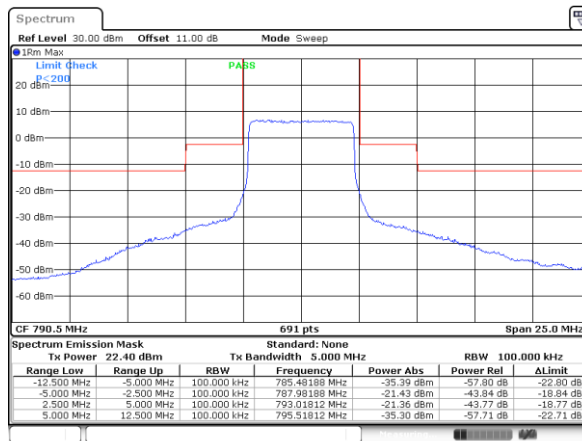


Date: 20.MAR.2023 11:11:30



Date: 20.MAR.2023 11:12:33

Lowest Channel / Full RB



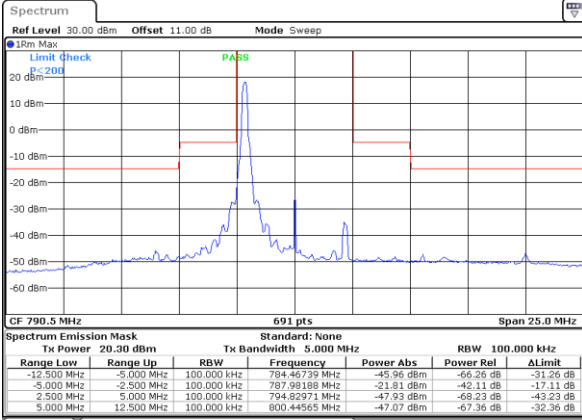
Date: 20.MAR.2023 11:13:28



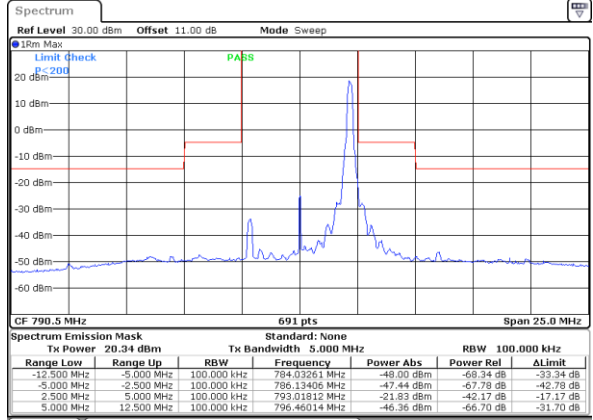


LTE Band 14 / 5MHz / 256QAM

Lowest Channel / 1RB

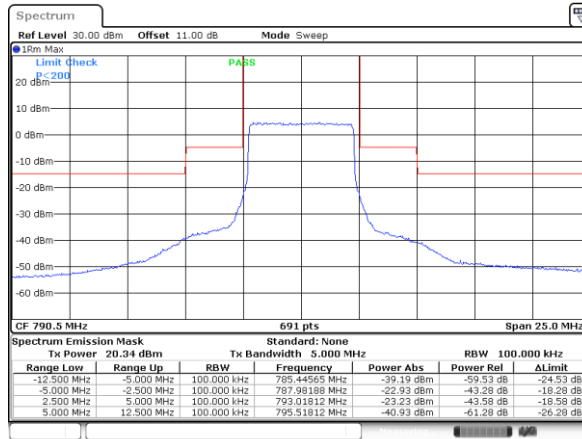


Date: 20.MAR.2023 11:16:13



Date: 20.MAR.2023 11:15:18

Lowest Channel / Full RB

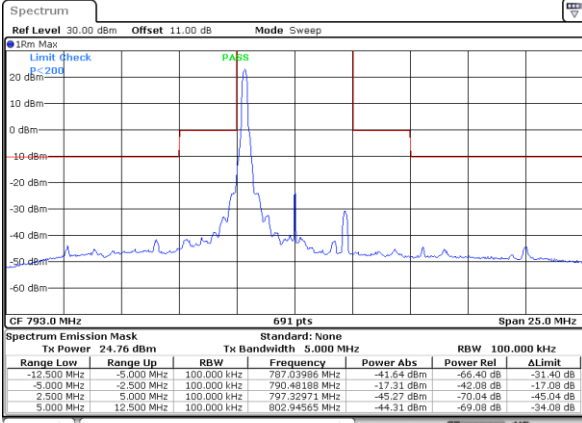


Date: 20.MAR.2023 11:14:23

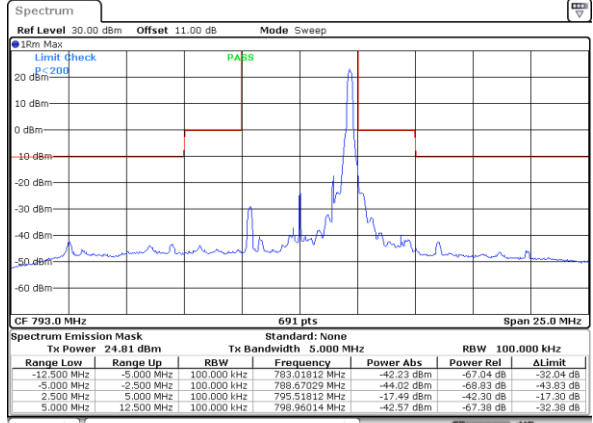


LTE Band 14 / 5MHz / QPSK

Middle Channel / 1RB

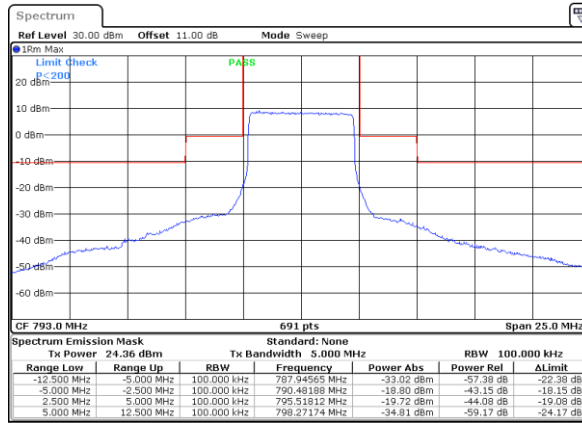


Date: 20.MAR.2023 11:20:42



Date: 20.MAR.2023 11:21:36

Middle Channel / Full RB

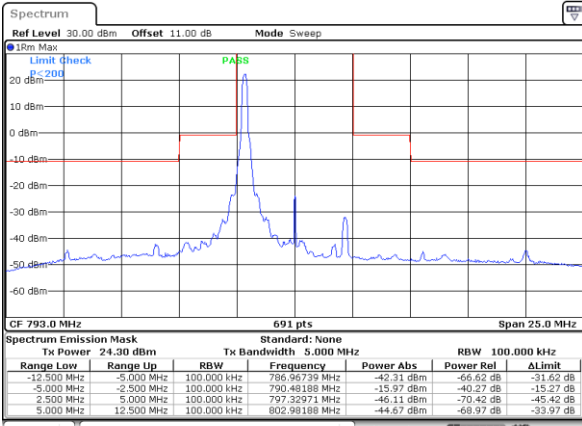


Date: 20.MAR.2023 11:22:30

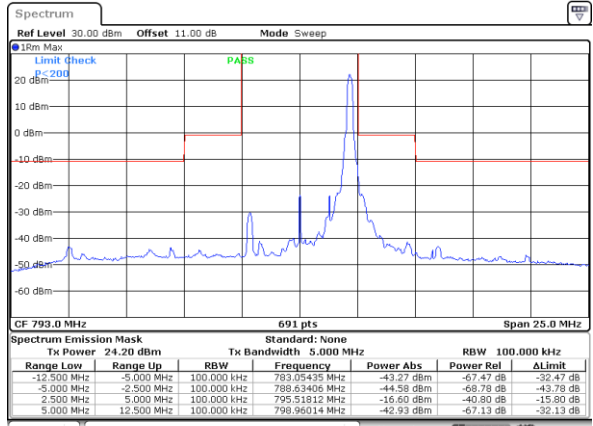


LTE Band 14 / 5MHz / 16QAM

Middle Channel / 1RB

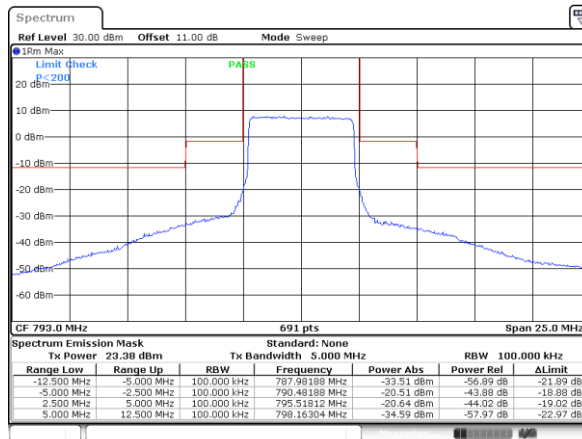


Date: 20.MAR.2023 11:25:13



Date: 20.MAR.2023 11:24:19

Middle Channel / Full RB

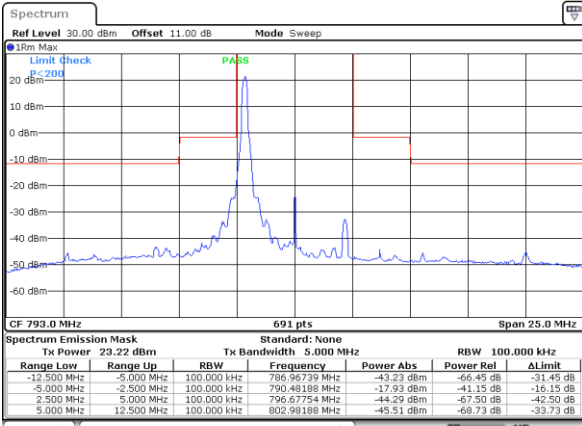


Date: 20.MAR.2023 11:23:24

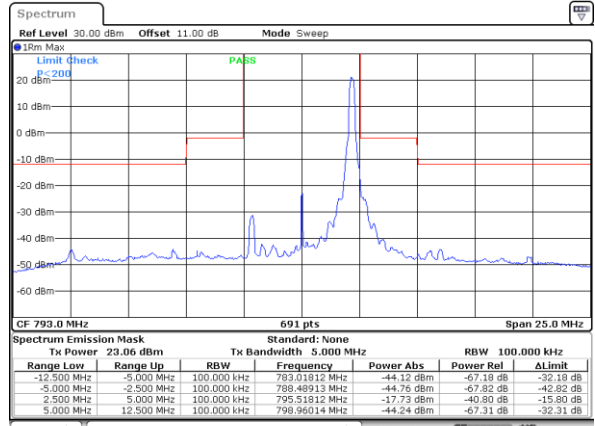


LTE Band 14 / 5MHz / 64QAM

Middle Channel / 1RB

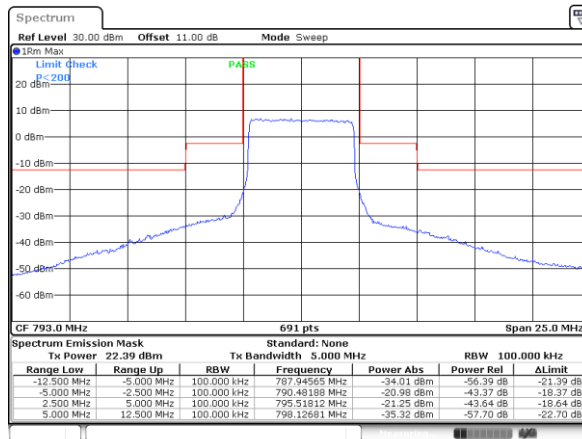


Date: 20.MAR.2023 11:26:07



Date: 20.MAR.2023 11:27:01

Middle Channel / Full RB

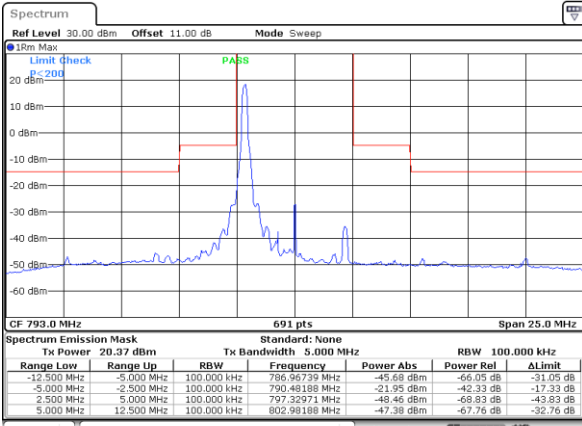


Date: 20.MAR.2023 11:27:56

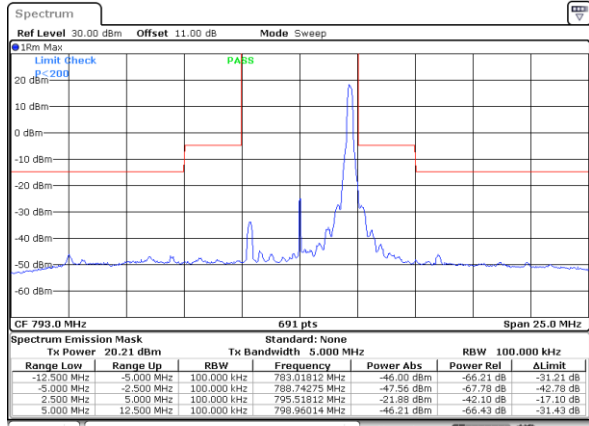


LTE Band 14 / 5MHz / 256QAM

Middle Channel / 1RB

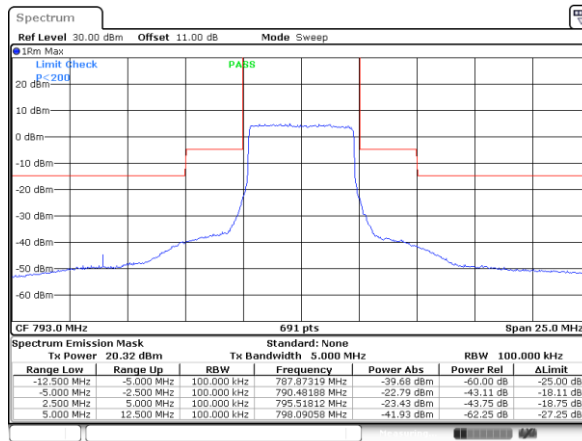


Date: 20.MAR.2023 14:30:40



Date: 20.MAR.2023 11:29:44

Middle Channel / Full RB

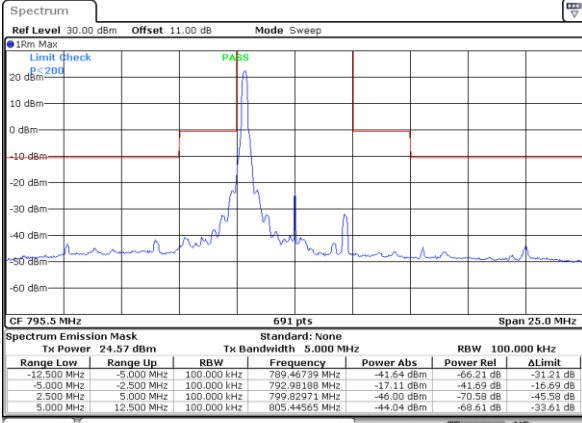


Date: 20.MAR.2023 11:28:50

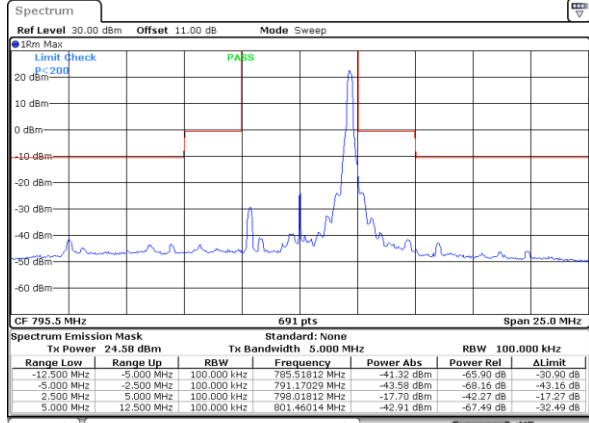


LTE Band 14 / 5MHz / QPSK

Highest Channel / 1RB

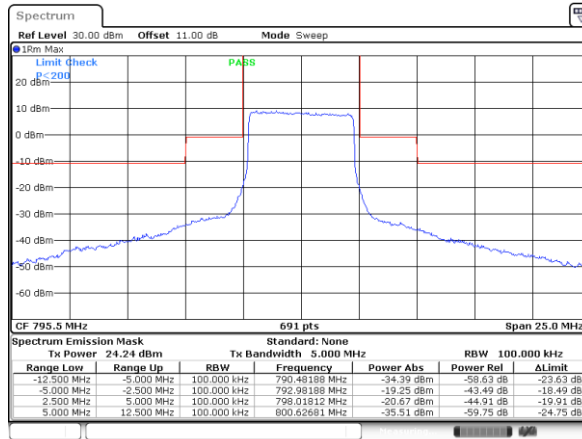


Date: 20.MAR.2023 11:44:12



Date: 20.MAR.2023 11:45:07

Highest Channel / Full RB

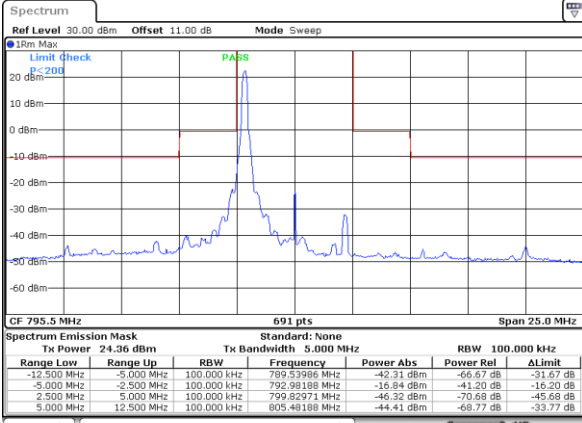


Date: 20.MAR.2023 14:27:51

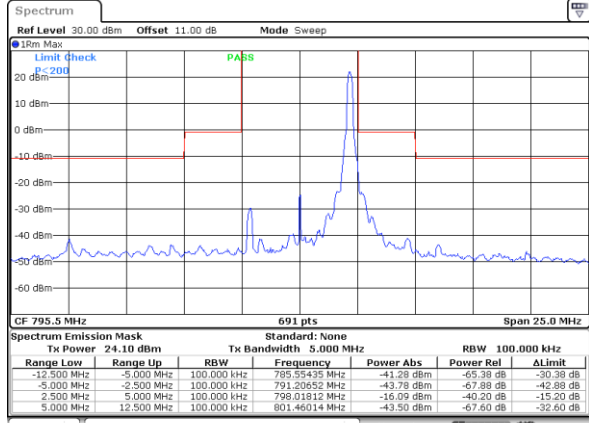


LTE Band 14 / 5MHz / 16QAM

Highest Channel / 1RB

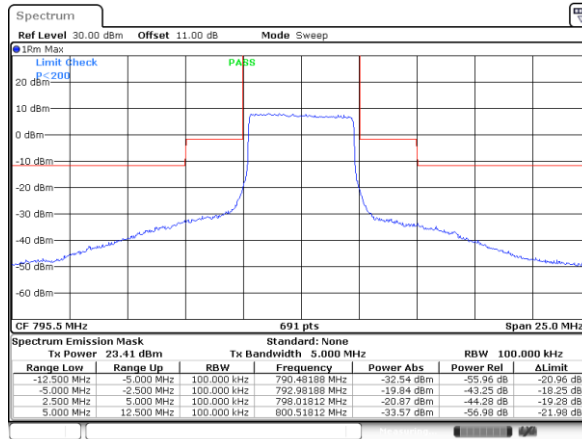


Date: 20.MAR.2023 11:48:47



Date: 20.MAR.2023 11:47:52

Highest Channel / Full RB

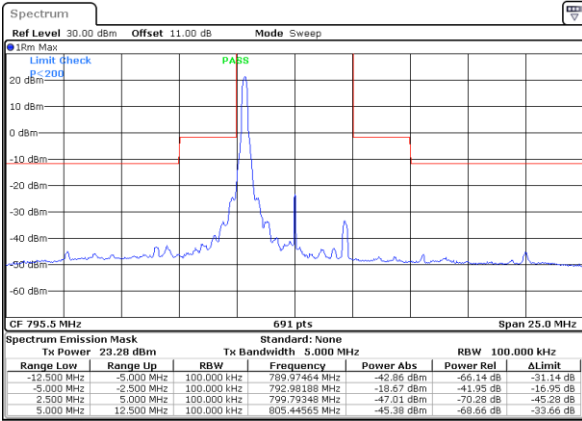


Date: 20.MAR.2023 11:46:57

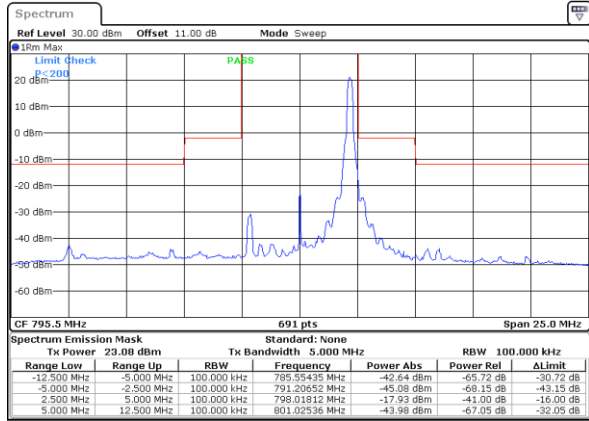


LTE Band 14 / 5MHz / 64QAM

Highest Channel / 1RB

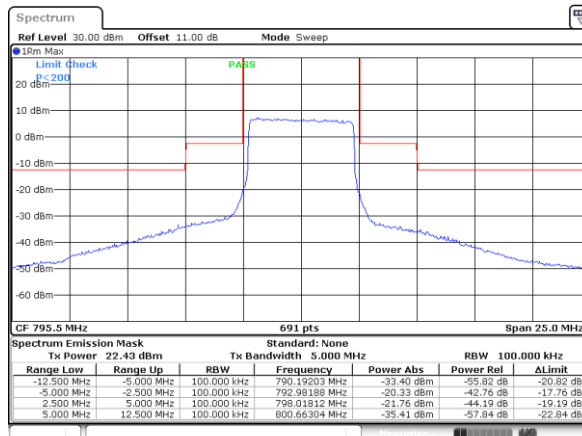


Date: 20.MAR.2023 11:49:42



Date: 20.MAR.2023 11:50:37

Highest Channel / Full RB



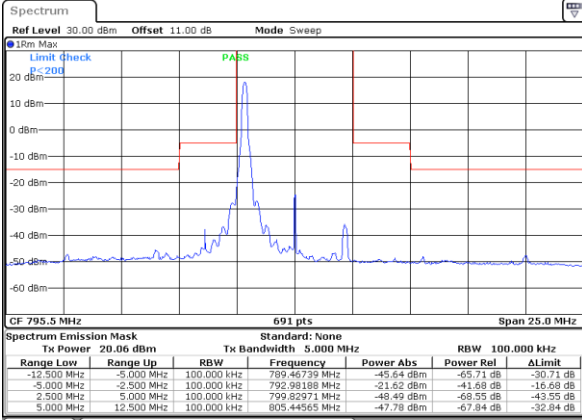
Date: 20.MAR.2023 11:51:33



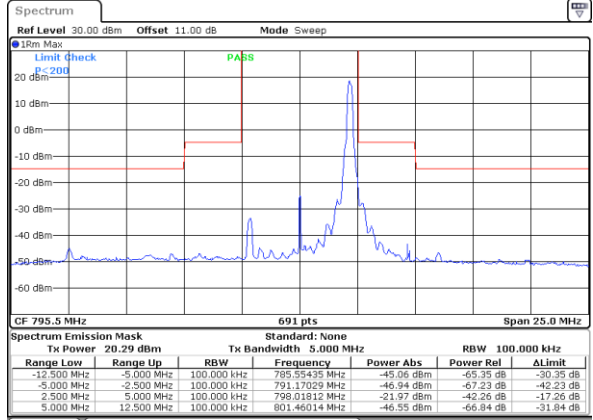


LTE Band 14 / 5MHz / 256QAM

Highest Channel / 1RB

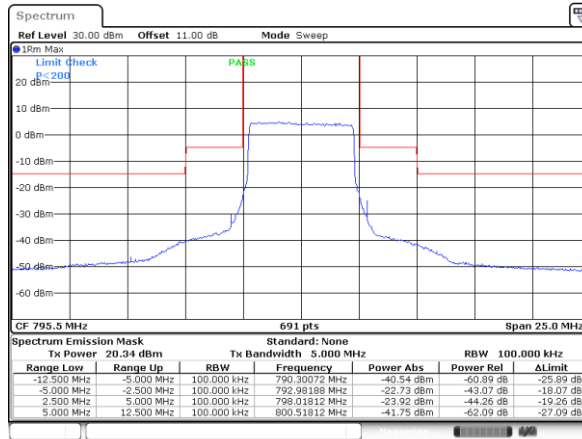


Date: 20.MAR.2023 11:54:17

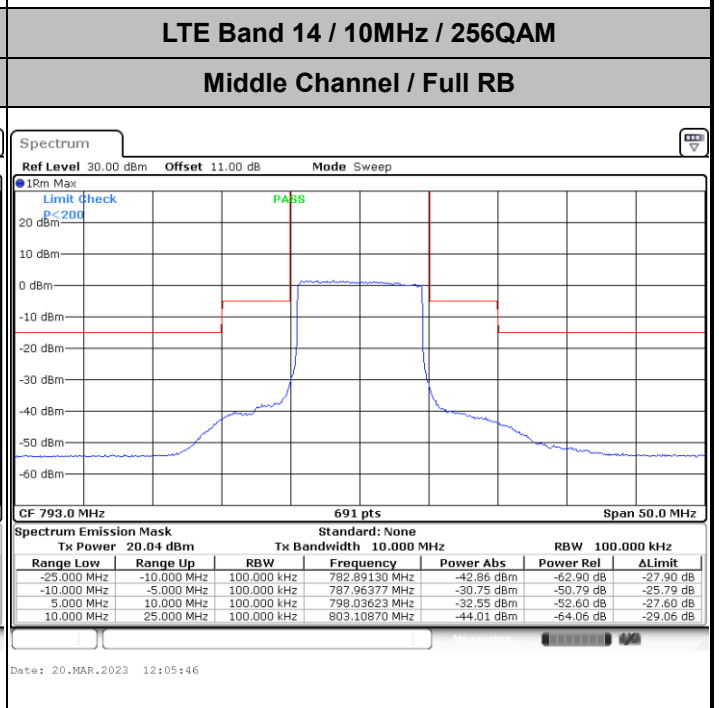
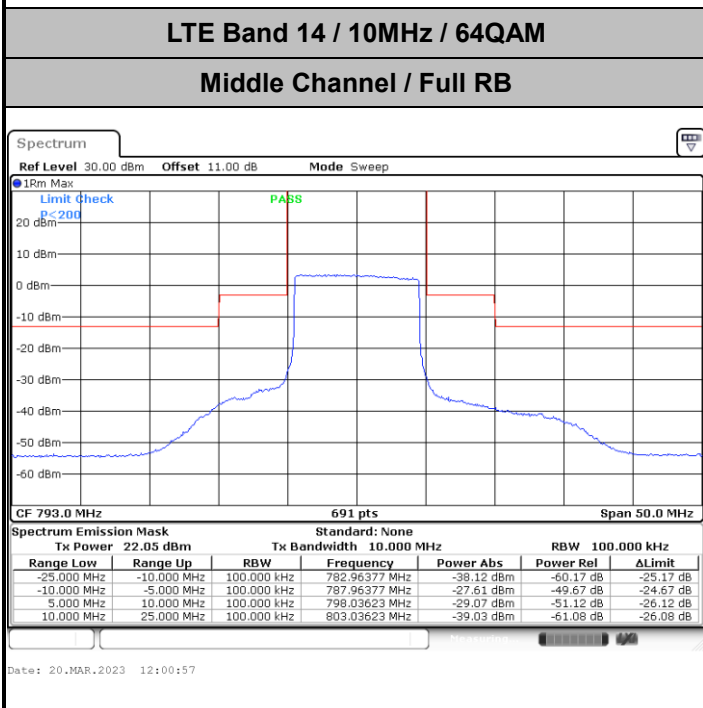
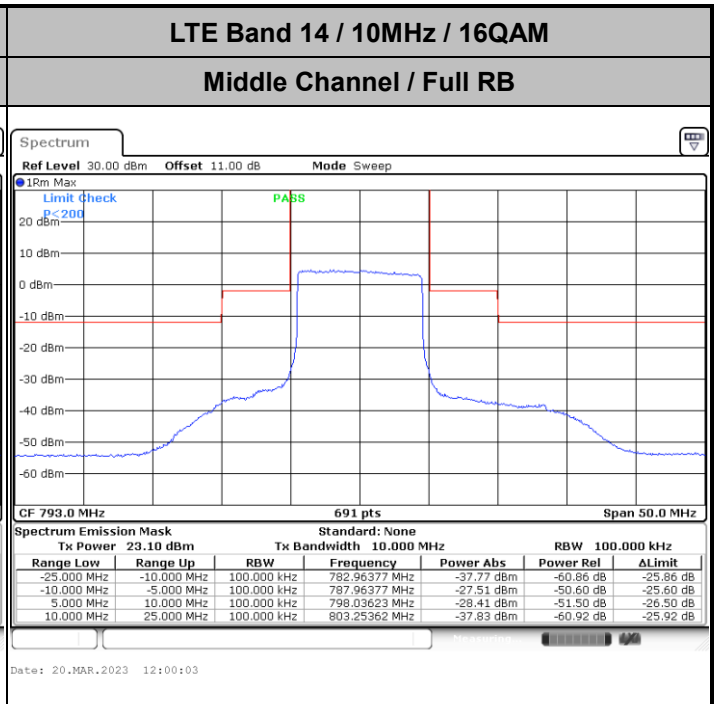
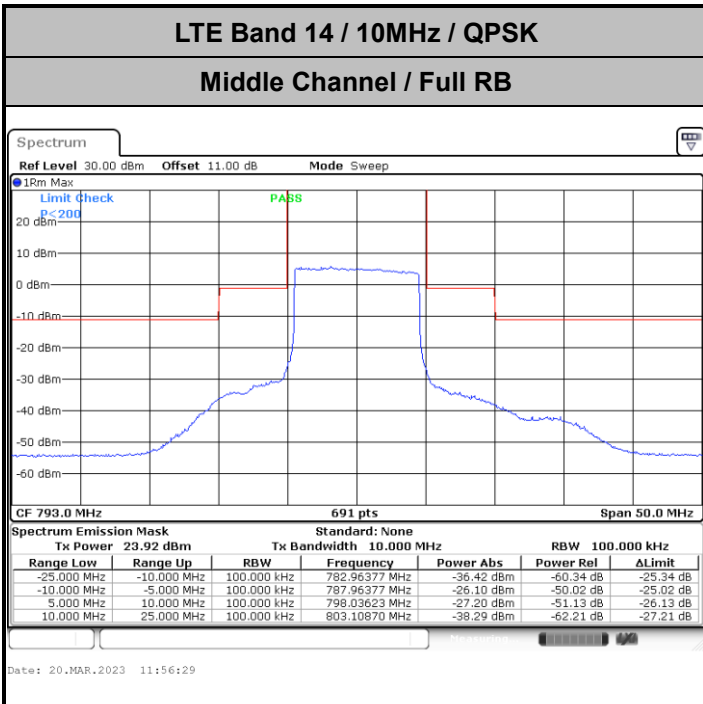


Date: 20.MAR.2023 11:53:23

Highest Channel / Full RB



Date: 20.MAR.2023 11:52:28





**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	0.0044	PASS
40	Normal Voltage	0.0180	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0154	
0	Normal Voltage	0.0024	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0113	
-30	Normal Voltage	0.0120	
20	Maximum Voltage	0.0015	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0054	

**Note:**

- 1. Normal Voltage = 3.89 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 17

### Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.36	5.51	5.51	6.75	<b>PASS</b>