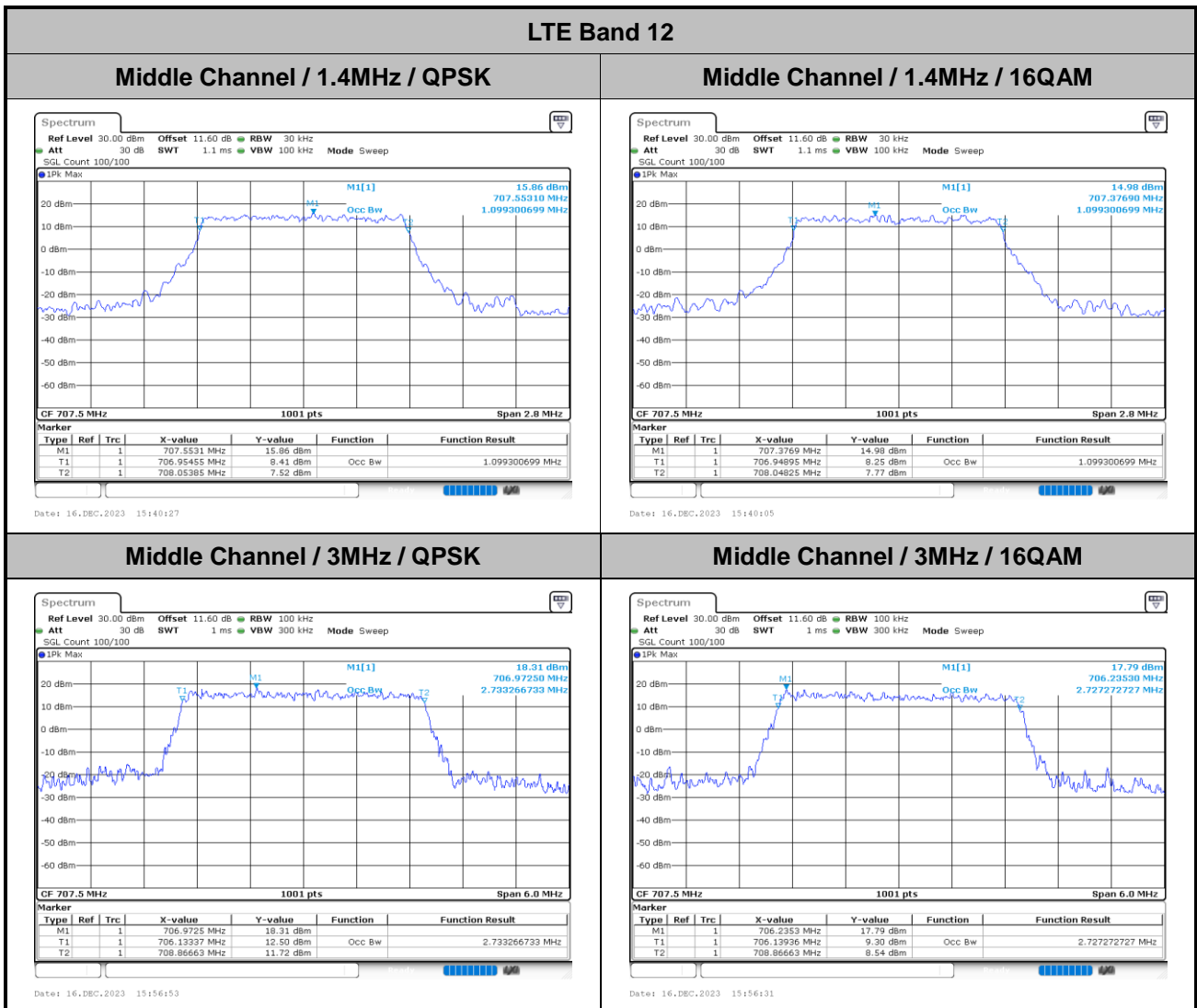




Occupied Bandwidth

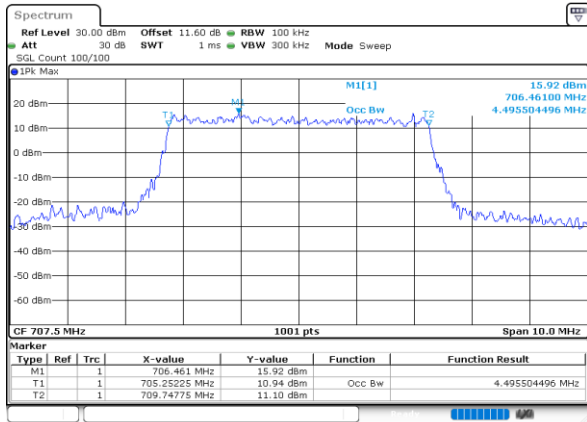
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.09	2.73	2.72	4.49	4.49	9.03	9.01	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.09	1.09	2.72	2.73	4.49	4.49	9.03	8.99	-	-	-	-





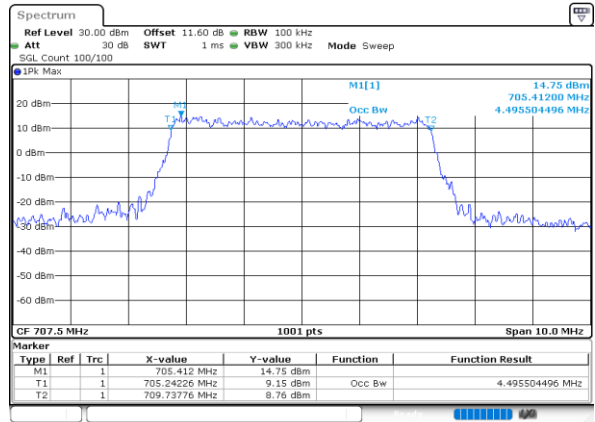
LTE Band 12

Middle Channel / 5MHz / QPSK



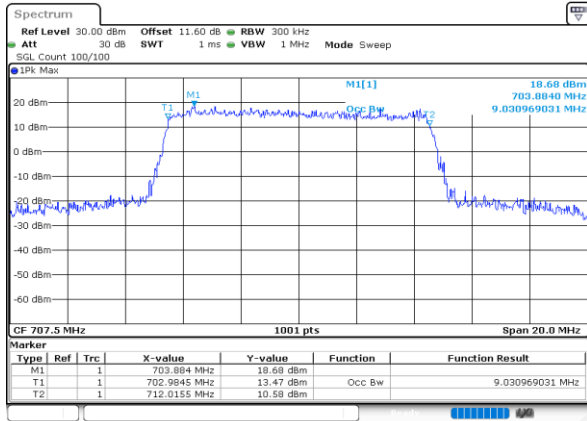
Date: 16.DEC.2023 16:07:14

Middle Channel / 5MHz / 16QAM



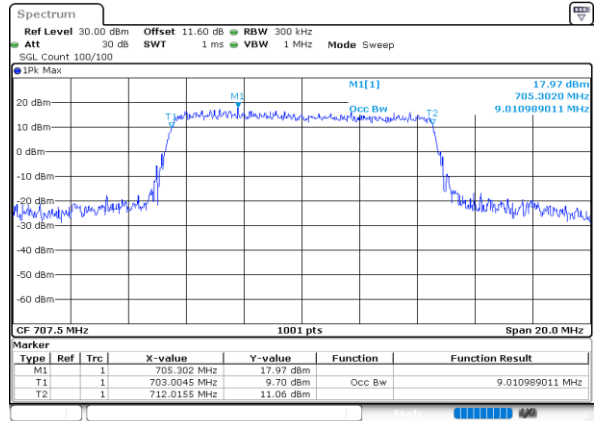
Date: 16.DEC.2023 16:06:52

Middle Channel / 10MHz / QPSK



Date: 16.DEC.2023 16:12:15

Middle Channel / 10MHz / 16QAM

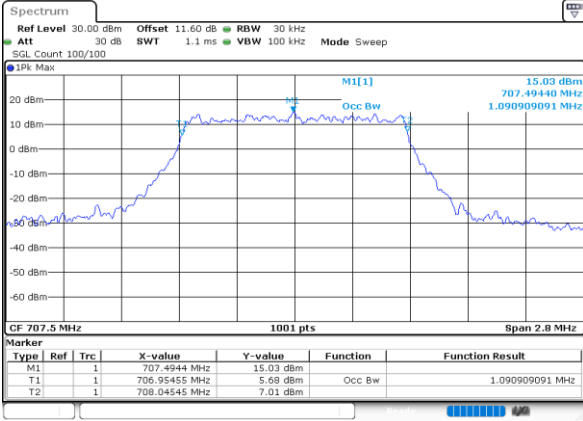


Date: 16.DEC.2023 16:11:52

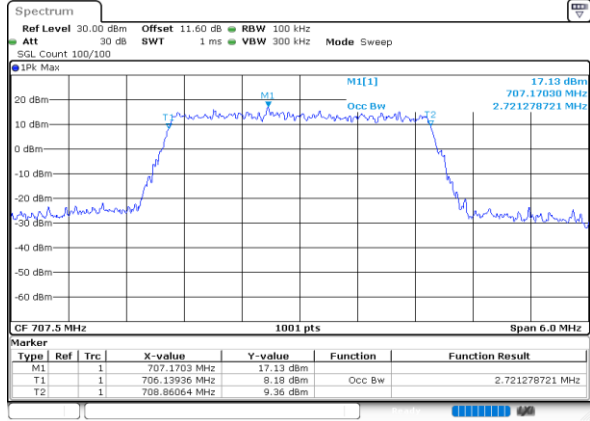


LTE Band 12

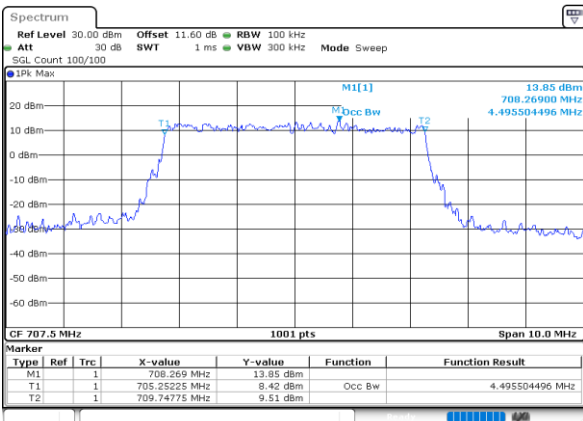
Middle Channel / 1.4MHz / 64QAM



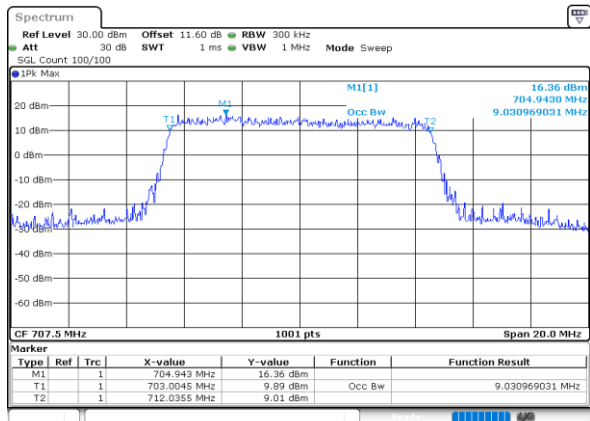
Middle Channel / 3MHz / 64QAM



Middle Channel / 5MHz / 64QAM



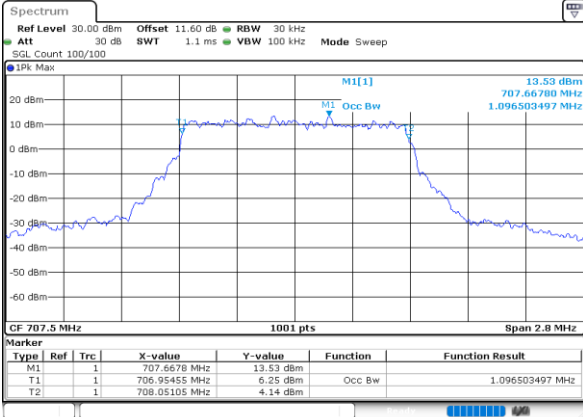
Middle Channel / 10MHz / 64QAM





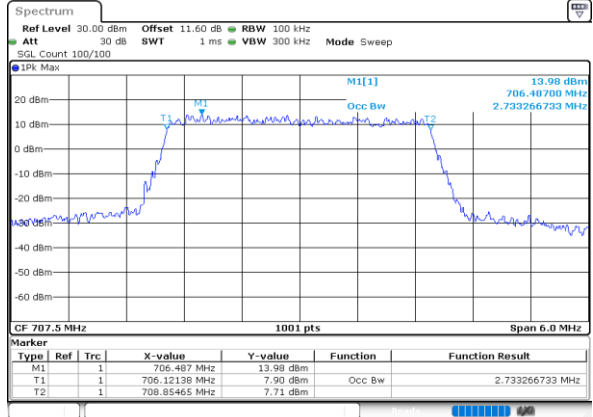
LTE Band 12

Middle Channel / 1.4MHz / 256QAM



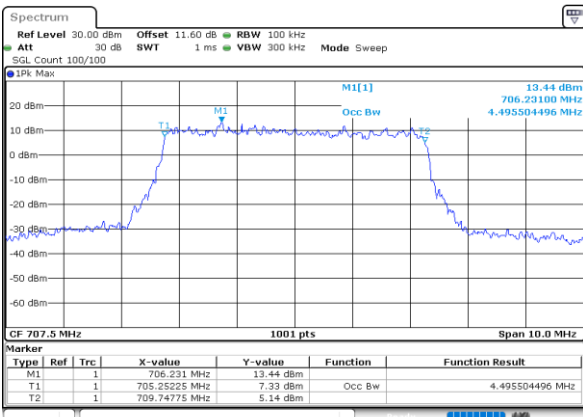
Date: 16.DEC.2023 16:22:31

Middle Channel / 3MHz / 256QAM



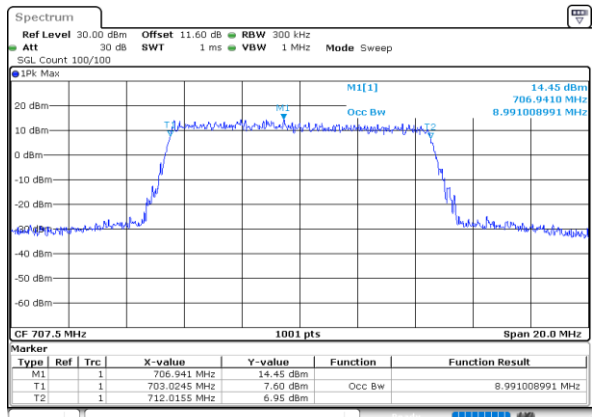
Date: 16.DEC.2023 16:29:38

Middle Channel / 5MHz / 256QAM



Date: 16.DEC.2023 16:35:20

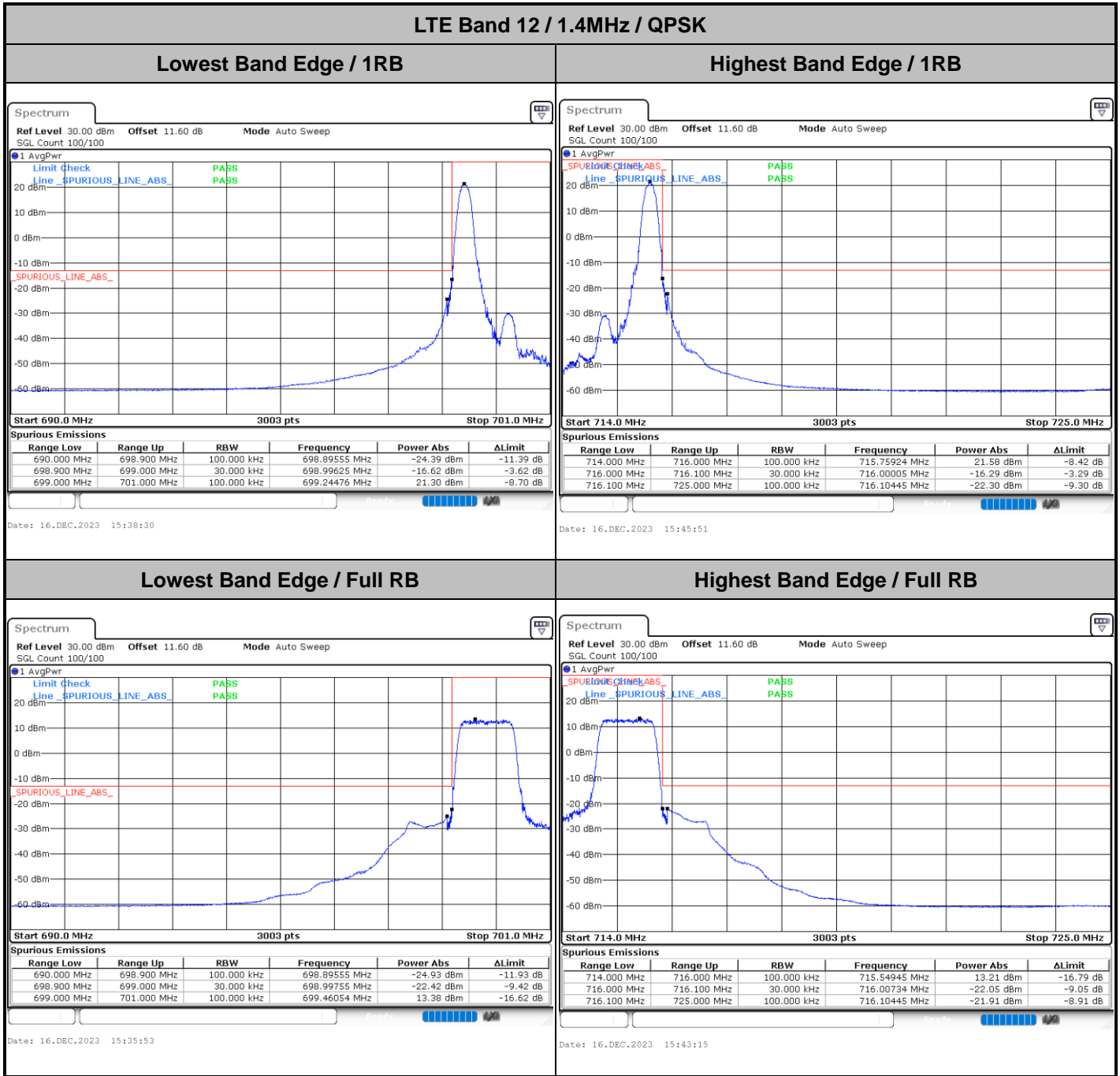
Middle Channel / 10MHz / 256QAM



Date: 16.DEC.2023 16:42:07



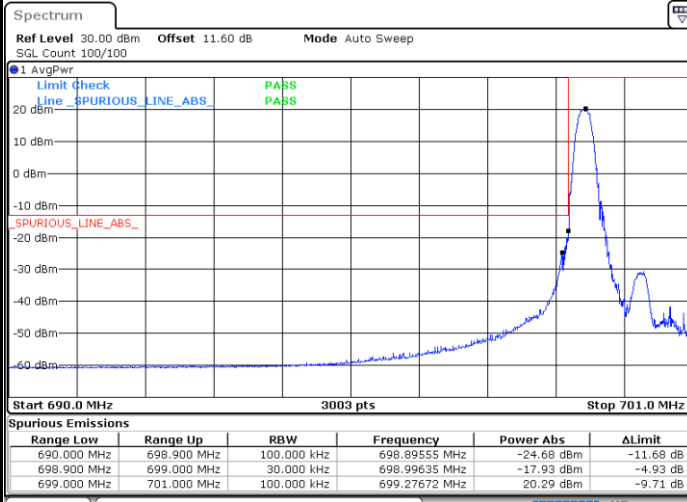
Conducted Band Edge





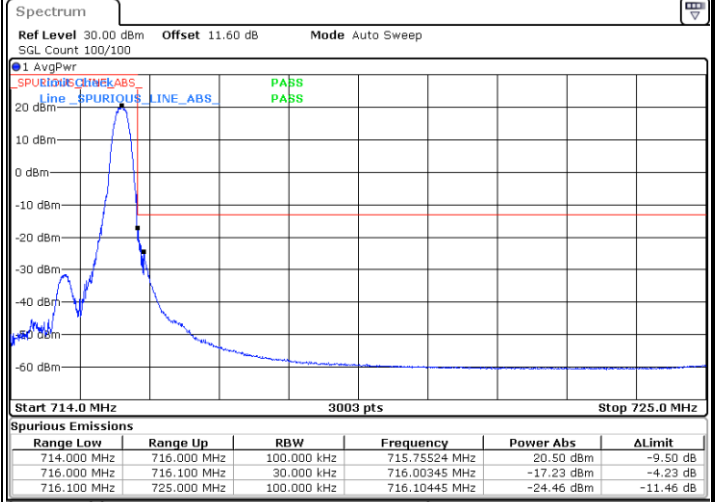
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 16.DEC.2023 15:37:38

Highest Band Edge / 1 RB



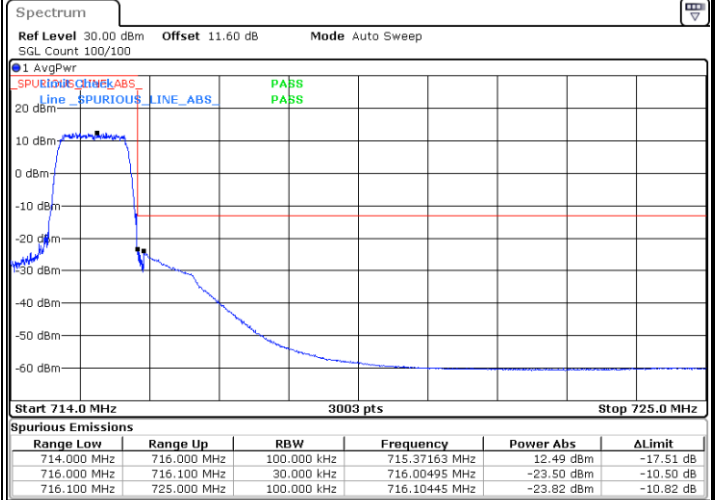
Date: 16.DEC.2023 15:44:59

Lowest Band Edge / Full RB



Date: 16.DEC.2023 15:36:46

Highest Band Edge / Full RB

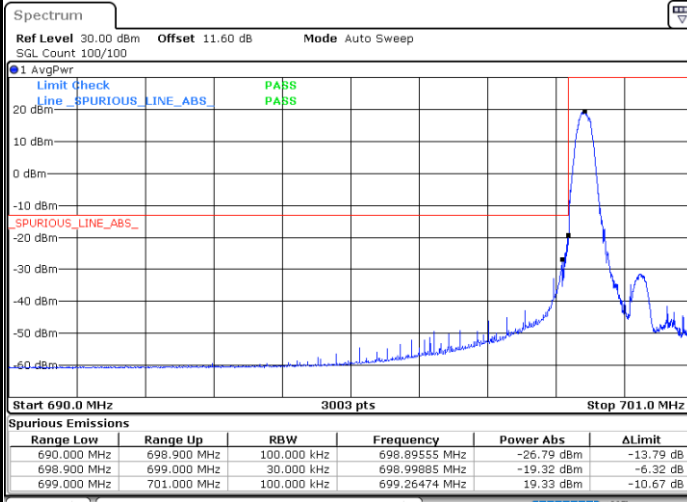


Date: 16.DEC.2023 15:44:07



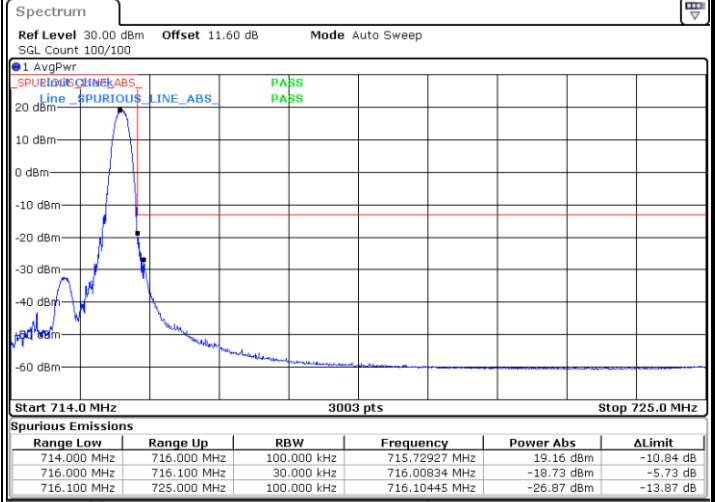
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



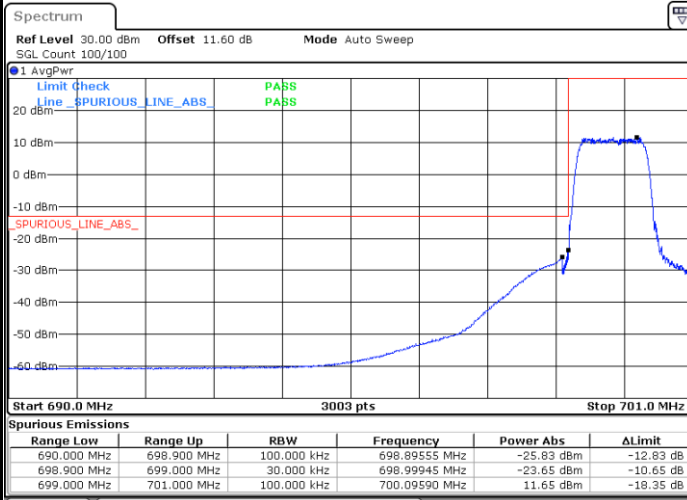
Date: 16.DEC.2023 15:51:52

Highest Band Edge / 1 RB



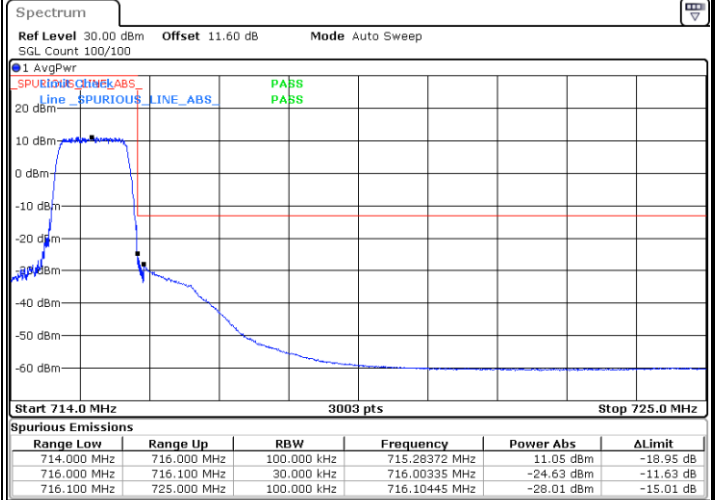
Date: 16.DEC.2023 15:54:22

Lowest Band Edge / Full RB



Date: 16.DEC.2023 15:50:59

Highest Band Edge / Full RB

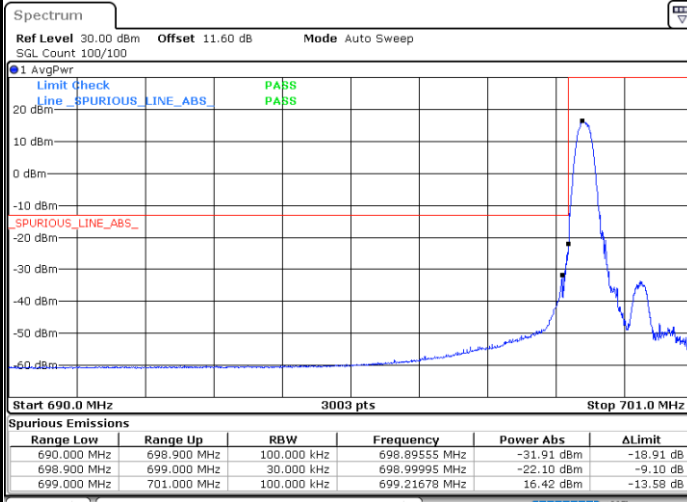


Date: 16.DEC.2023 15:53:29



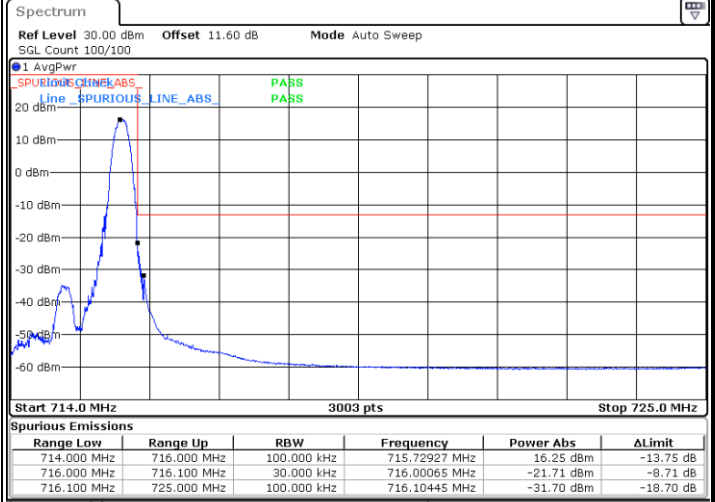
LTE Band 12 / 1.4MHz / 256QAM

Lowest Band Edge / 1 RB



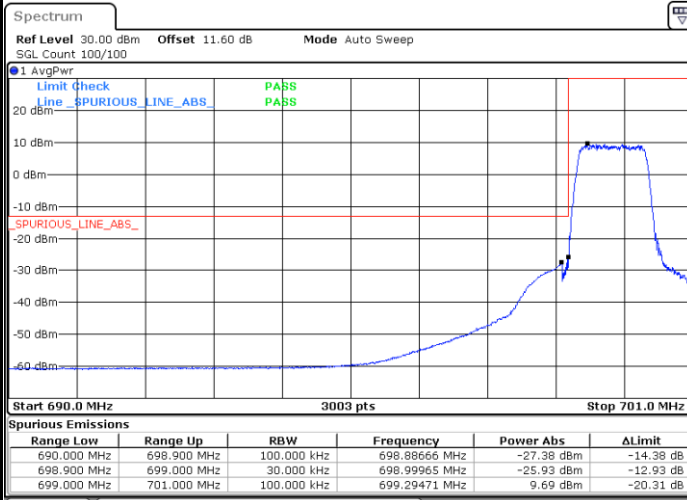
Date: 16.DEC.2023 16:21:50

Highest Band Edge / 1 RB



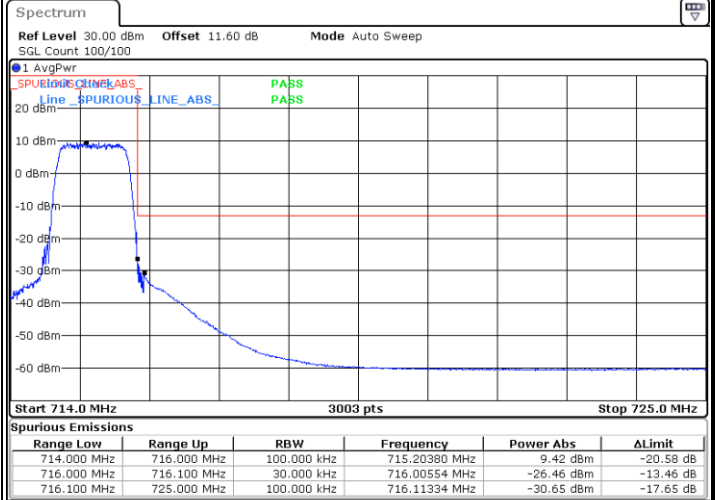
Date: 16.DEC.2023 16:25:27

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:20:55

Highest Band Edge / Full RB

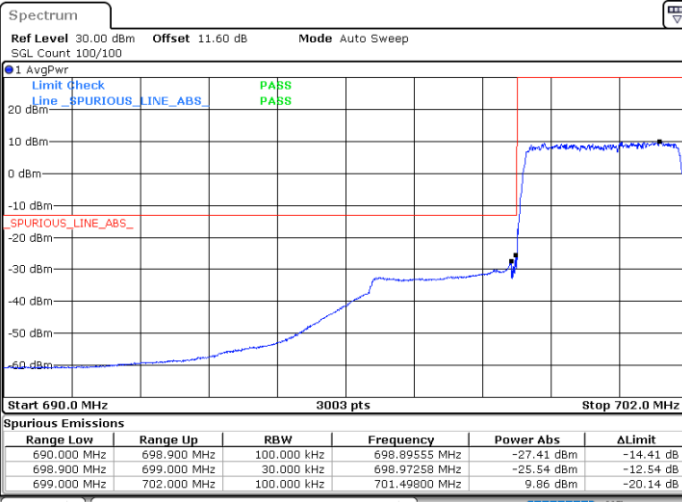


Date: 16.DEC.2023 16:24:32



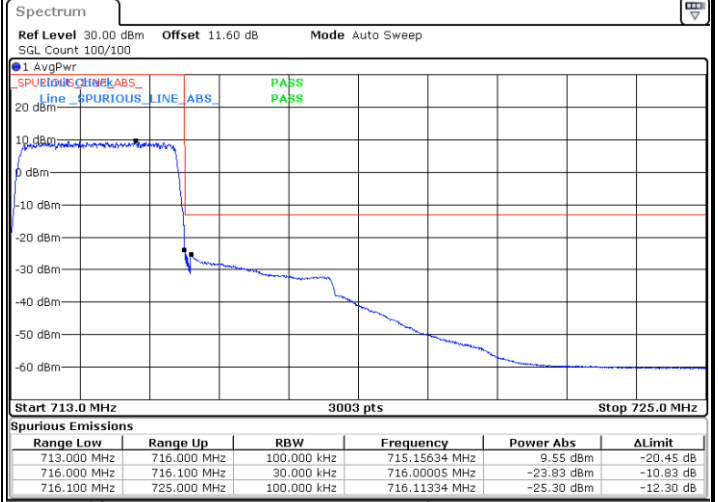
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / Full RB



Date: 16.DEC.2023 15:55:15

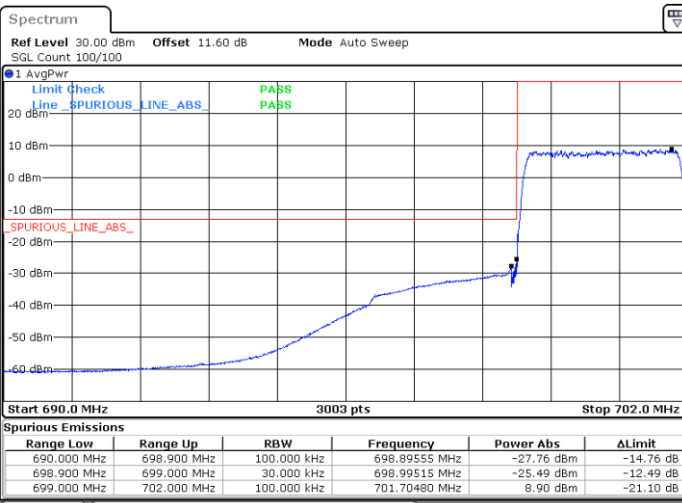
Highest Band Edge / Full RB



Date: 16.DEC.2023 15:58:30

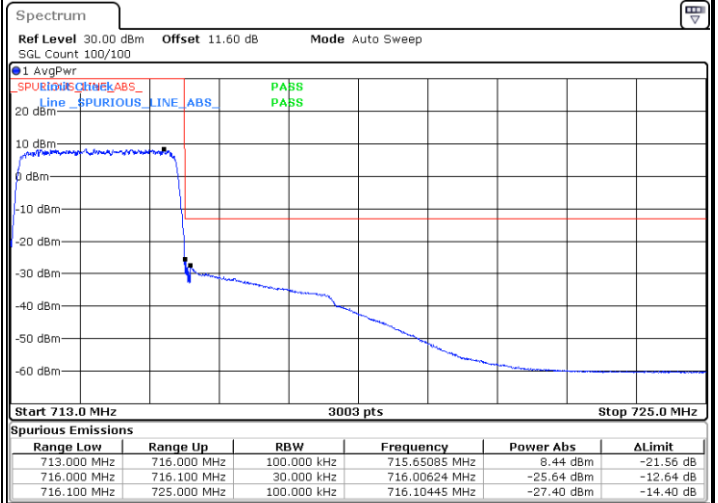
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 15:56:07

Highest Band Edge / Full RB

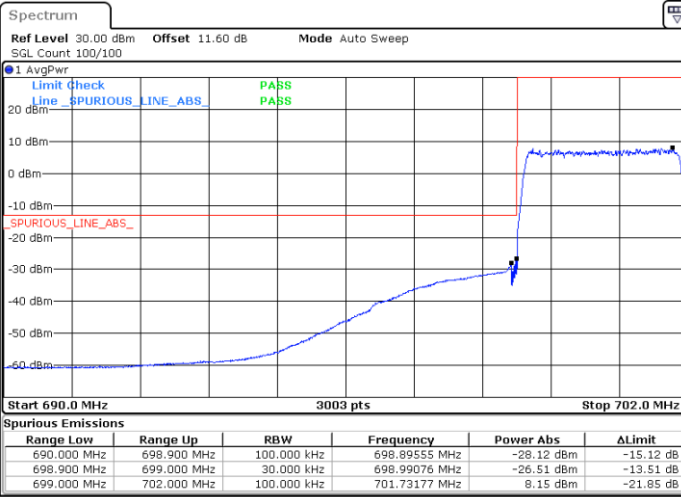


Date: 16.DEC.2023 15:59:22



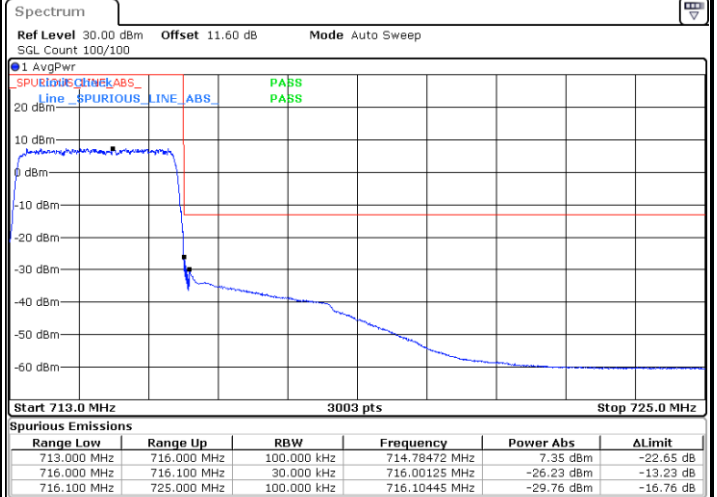
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:00:14

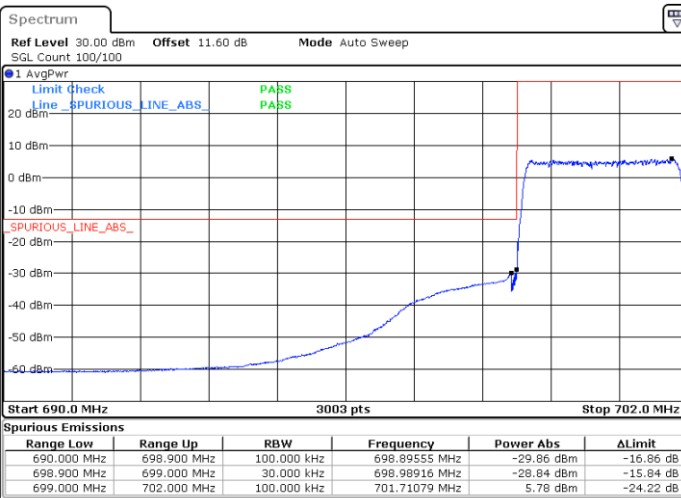
Highest Band Edge / Full RB



Date: 16.DEC.2023 16:01:51

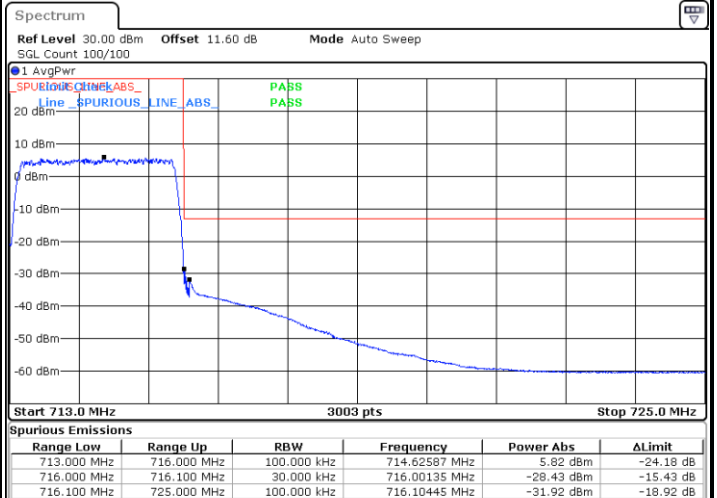
LTE Band 12 / 3MHz / 256QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:28:58

Highest Band Edge / Full RB

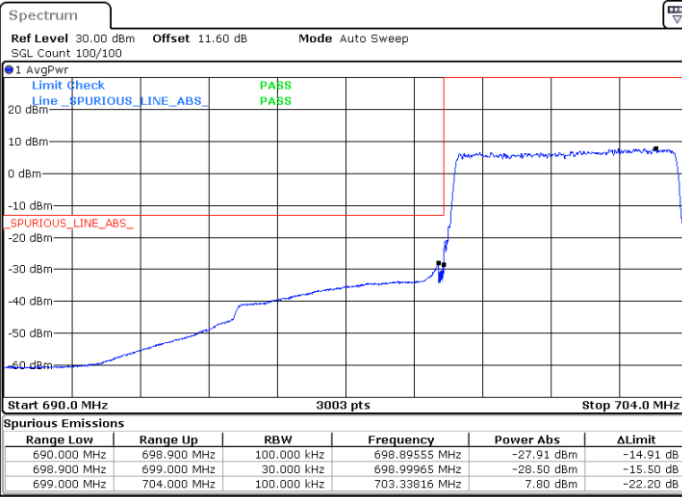


Date: 16.DEC.2023 16:31:39



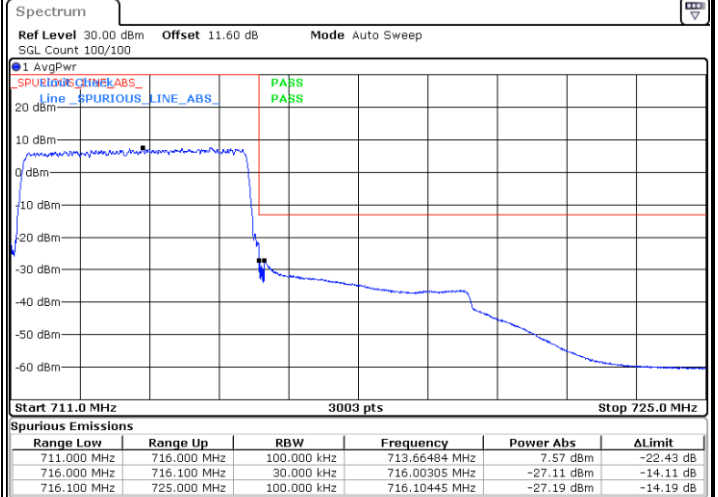
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:05:36

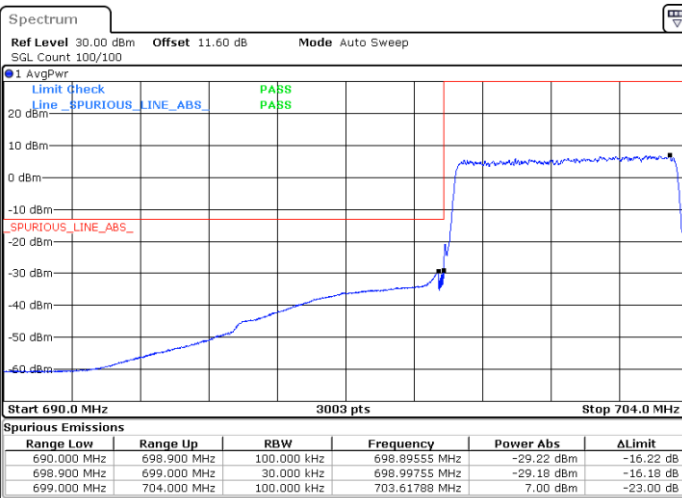
Highest Band Edge / Full RB



Date: 16.DEC.2023 16:08:51

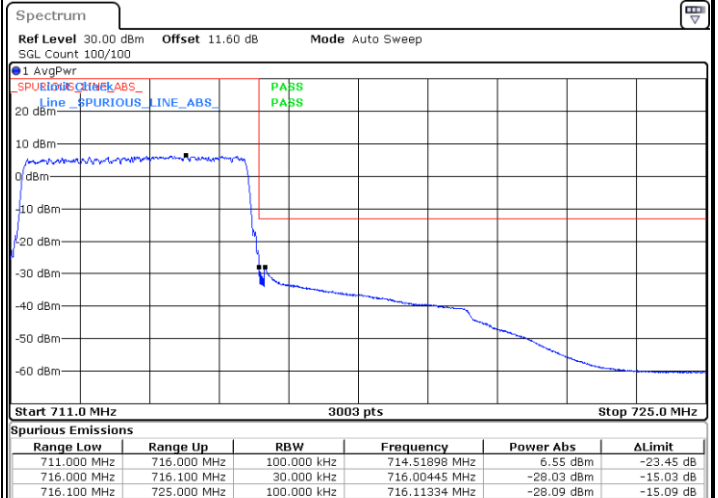
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:06:28

Highest Band Edge / Full RB

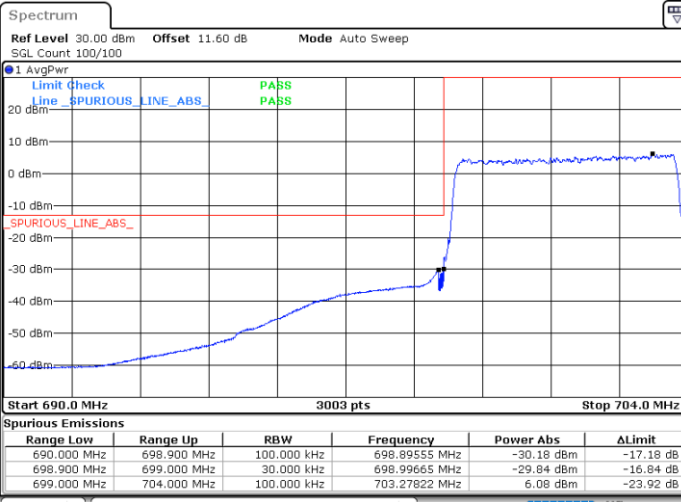


Date: 16.DEC.2023 16:09:43



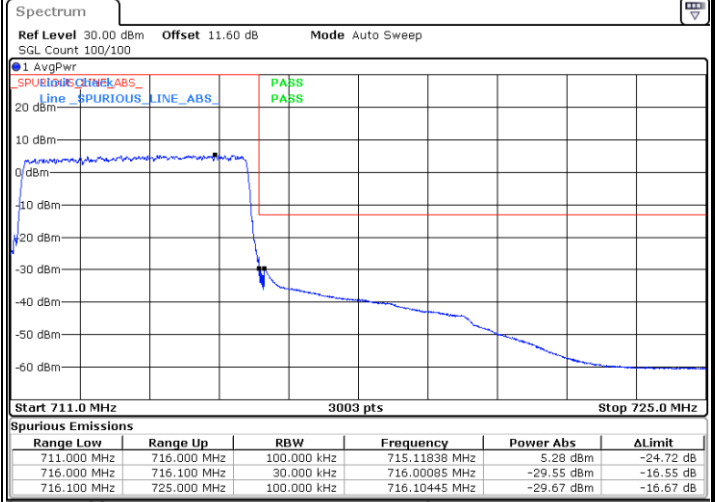
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:03:07

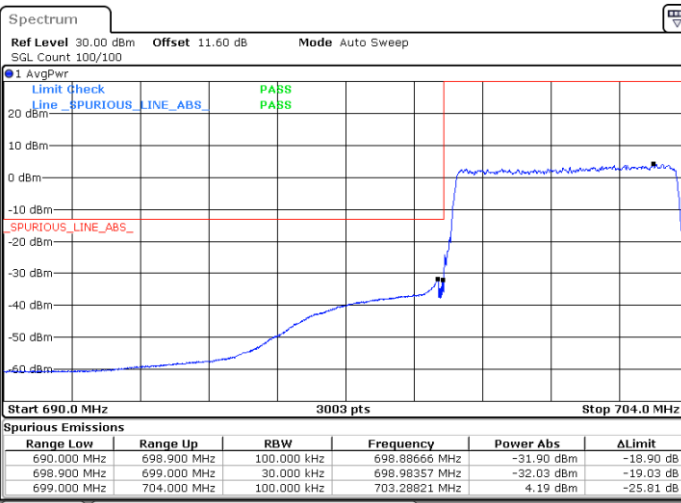
Highest Band Edge / Full RB



Date: 16.DEC.2023 16:04:44

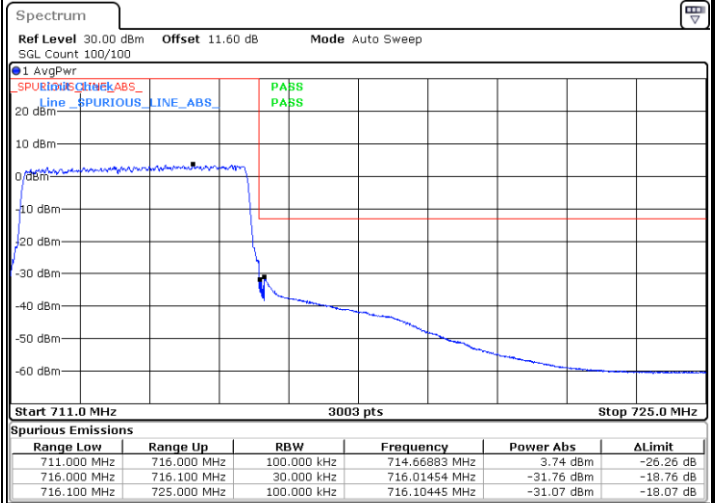
LTE Band 12 / 5MHz / 256QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:34:47

Highest Band Edge / Full RB

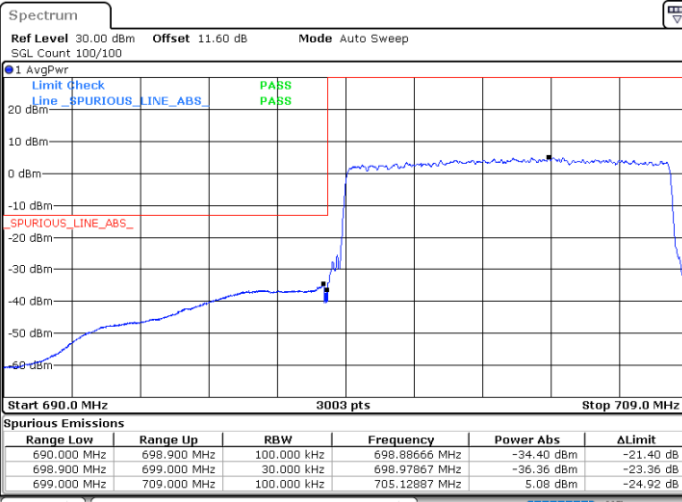


Date: 16.DEC.2023 16:37:28



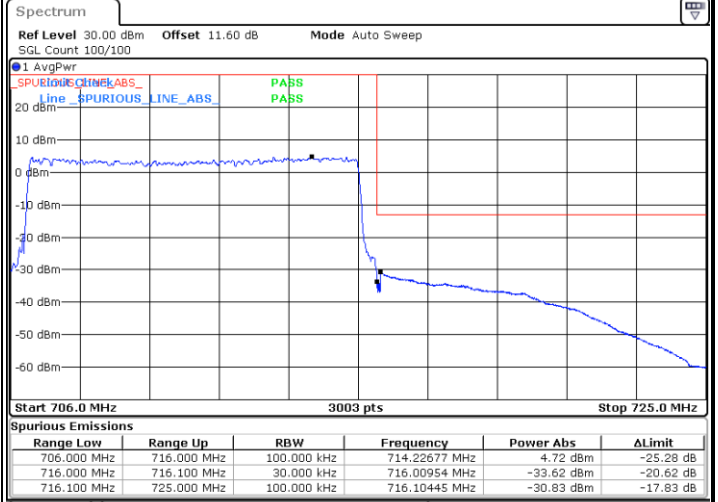
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:10:36

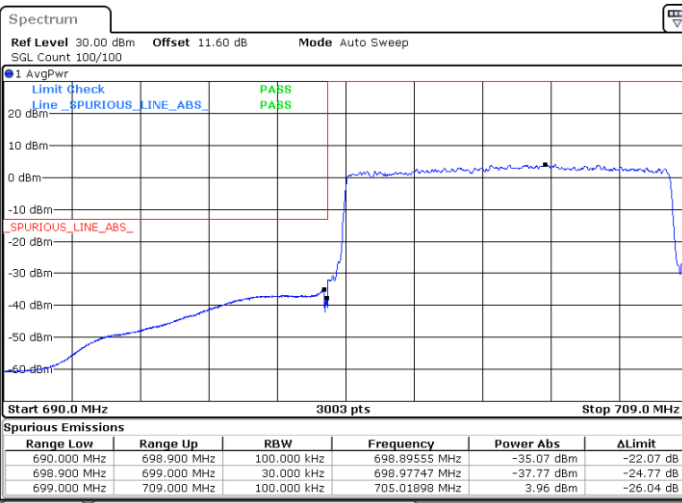
Highest Band Edge / Full RB



Date: 16.DEC.2023 16:13:51

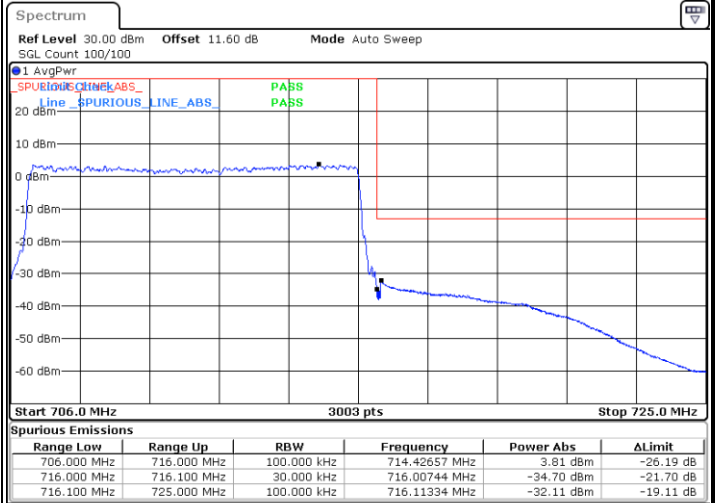
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:11:29

Highest Band Edge / Full RB

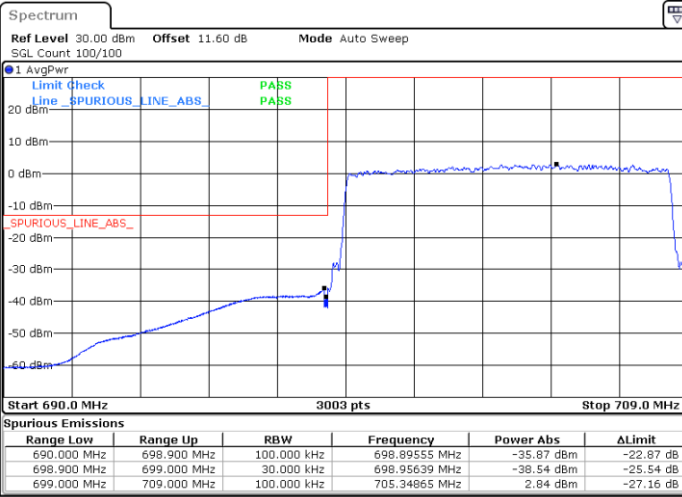


Date: 16.DEC.2023 16:14:43



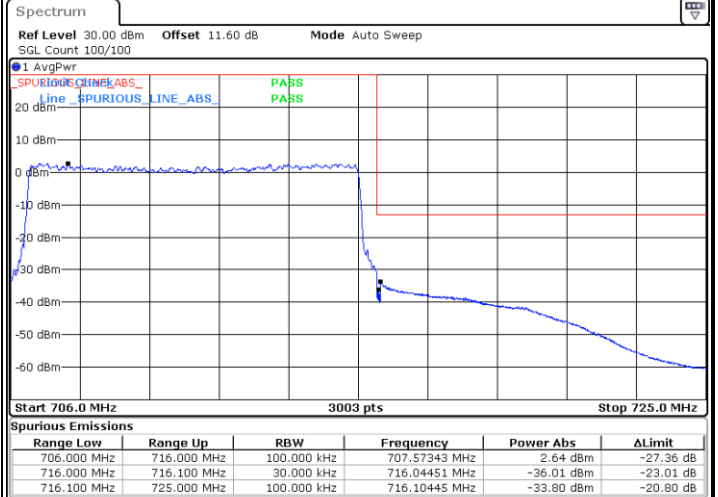
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:15:36

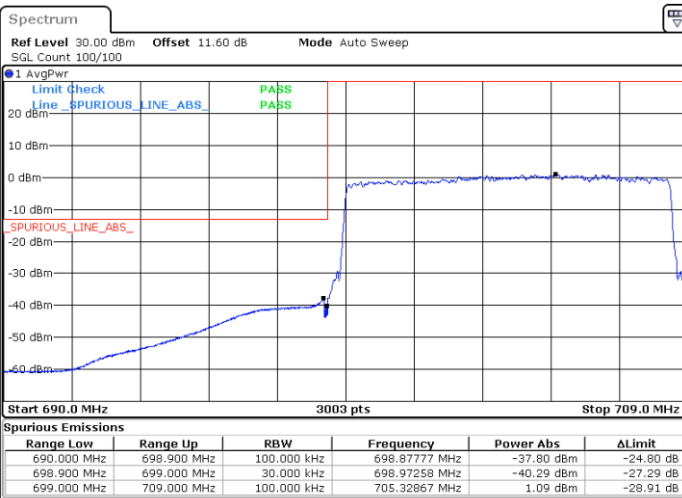
Highest Band Edge / Full RB



Date: 16.DEC.2023 16:17:13

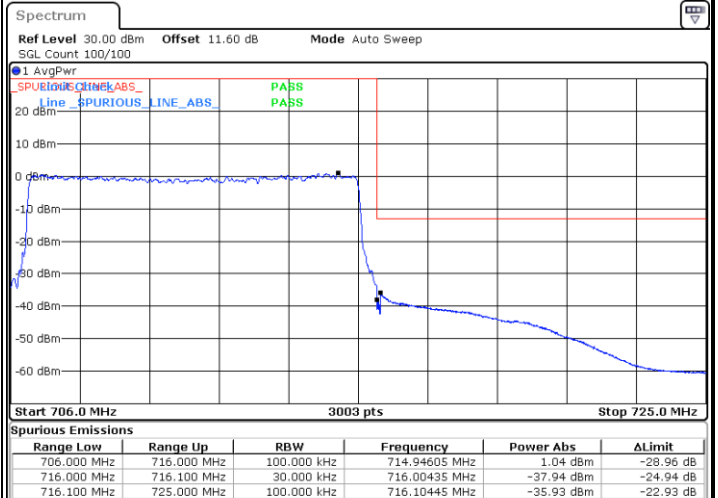
LTE Band 12 / 10MHz / 256QAM

Lowest Band Edge / Full RB



Date: 16.DEC.2023 16:41:26

Highest Band Edge / Full RB



Date: 16.DEC.2023 16:44:07

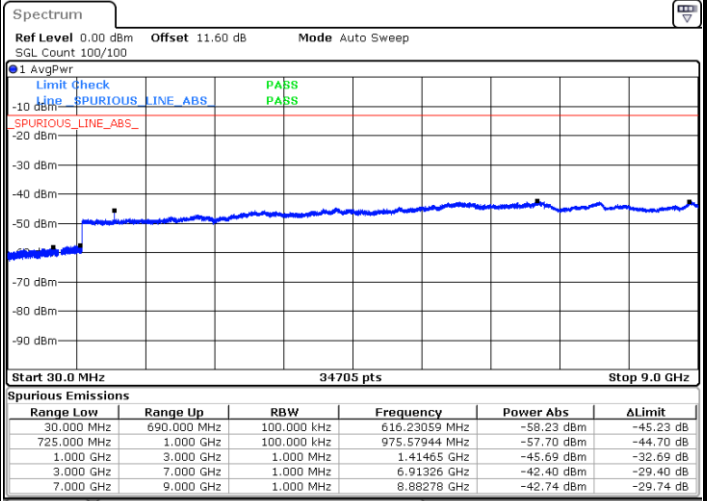
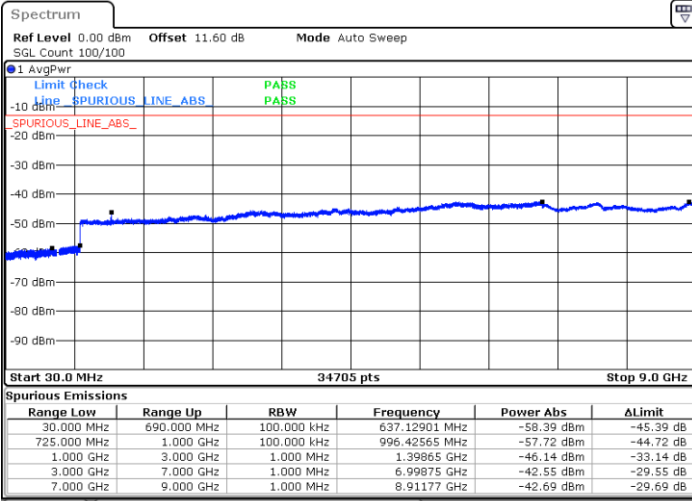


Conducted Spurious Emission

LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

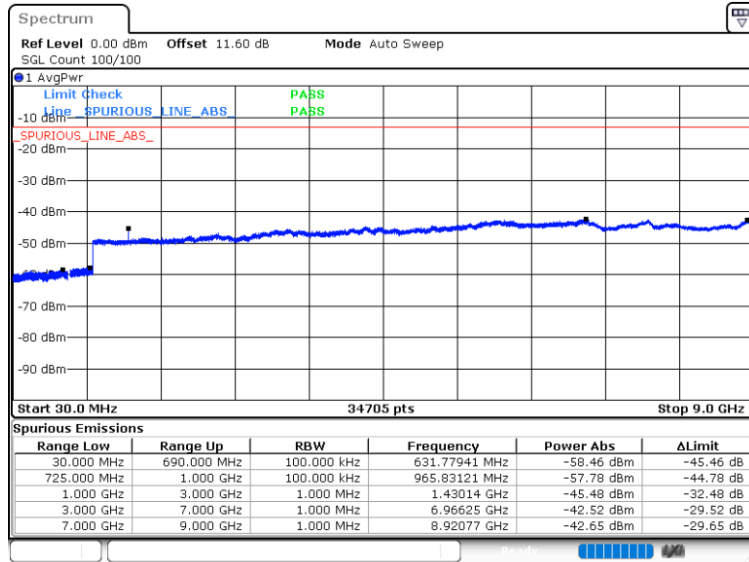
Middle Channel / QPSK



Date: 16.DEC.2023 15:39:42

Date: 16.DEC.2023 15:42:23

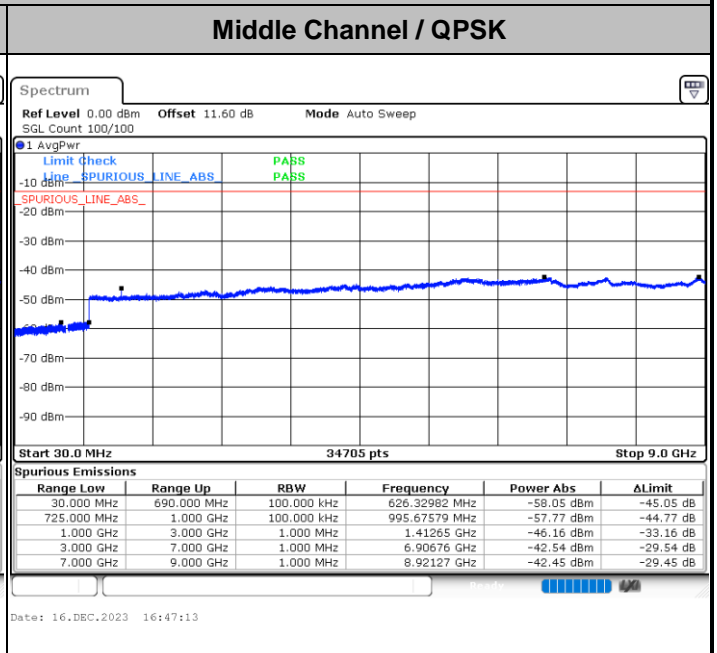
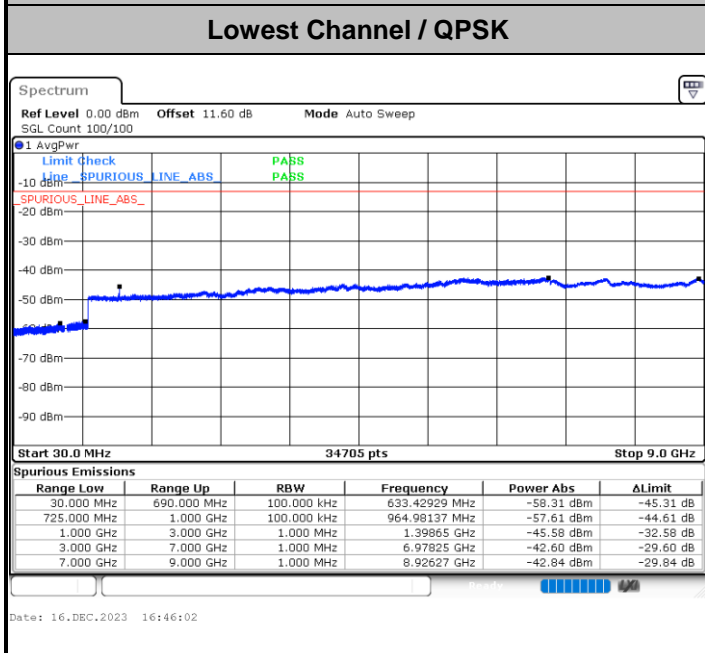
Highest Channel / QPSK



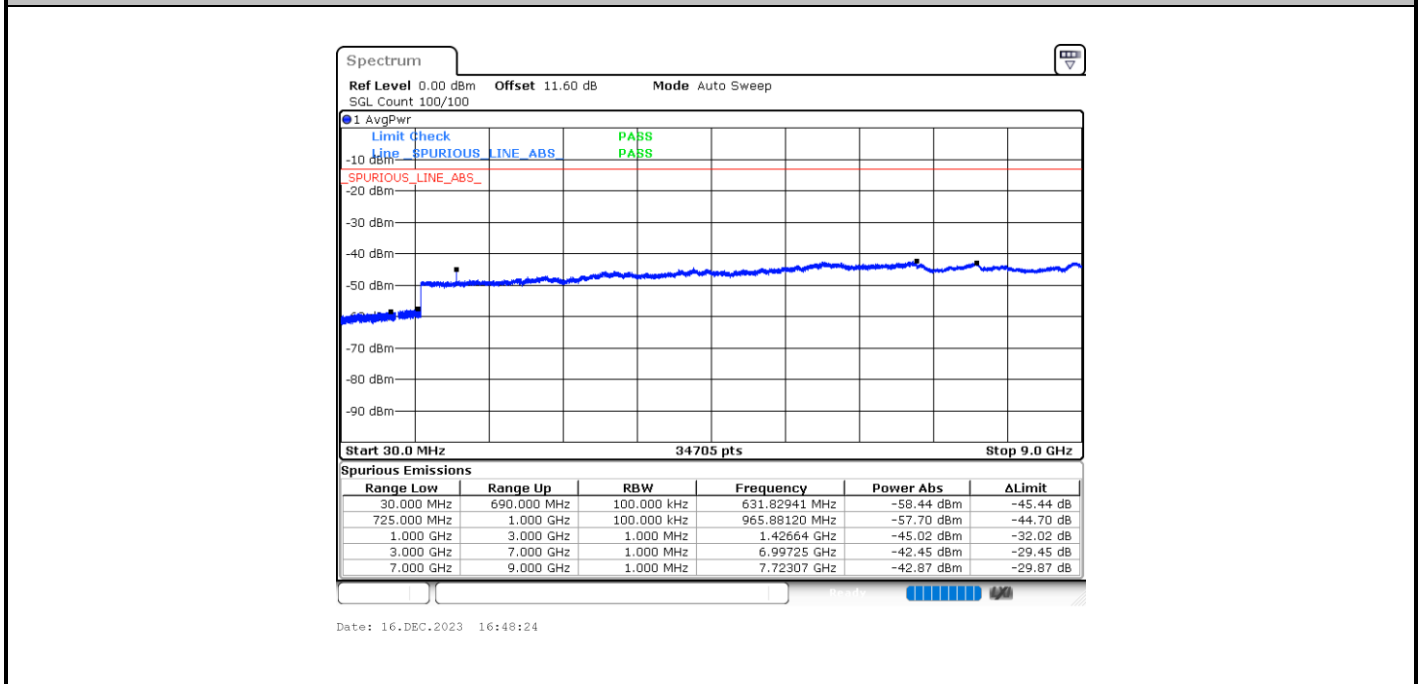
Date: 16.DEC.2023 15:50:07



LTE Band 12 / 3MHz



Highest Channel / QPSK

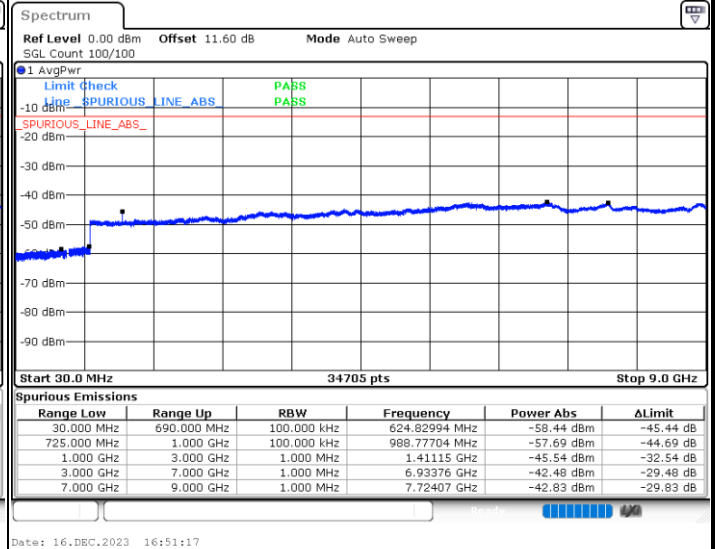
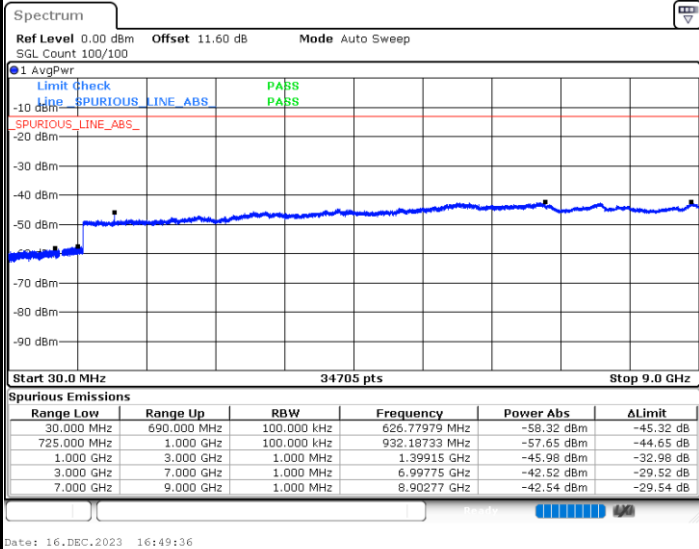




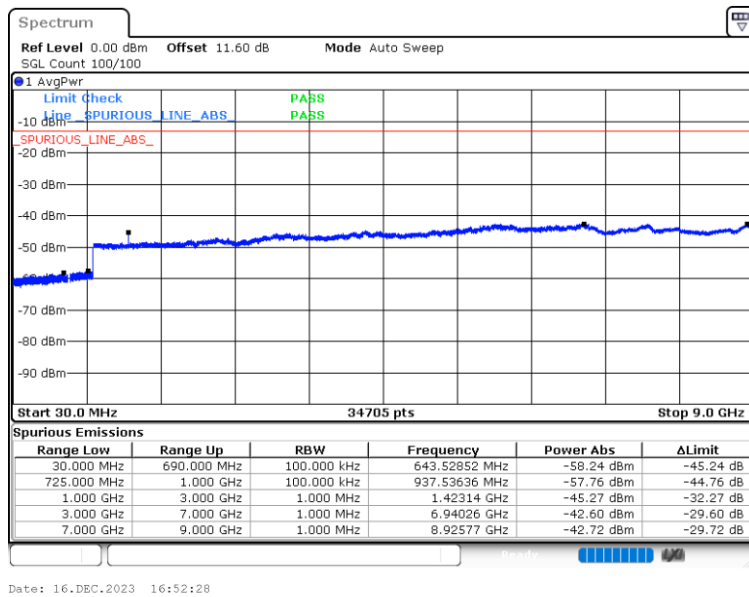
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



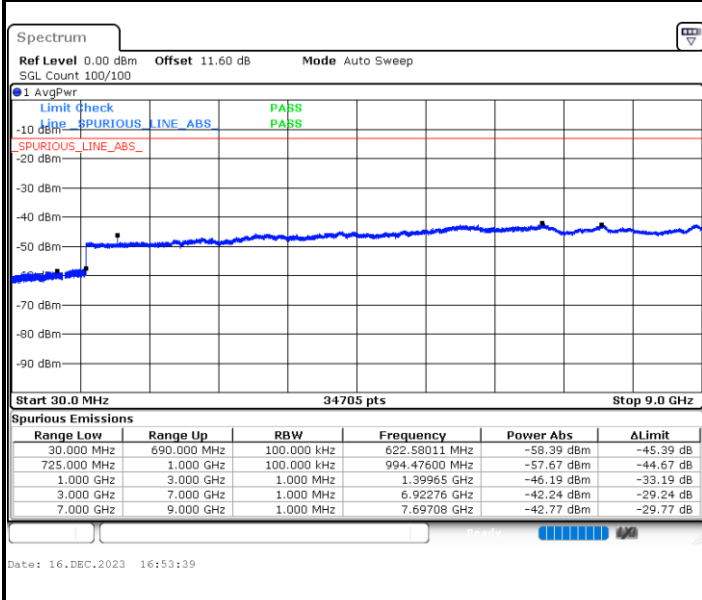
Highest Channel / QPSK



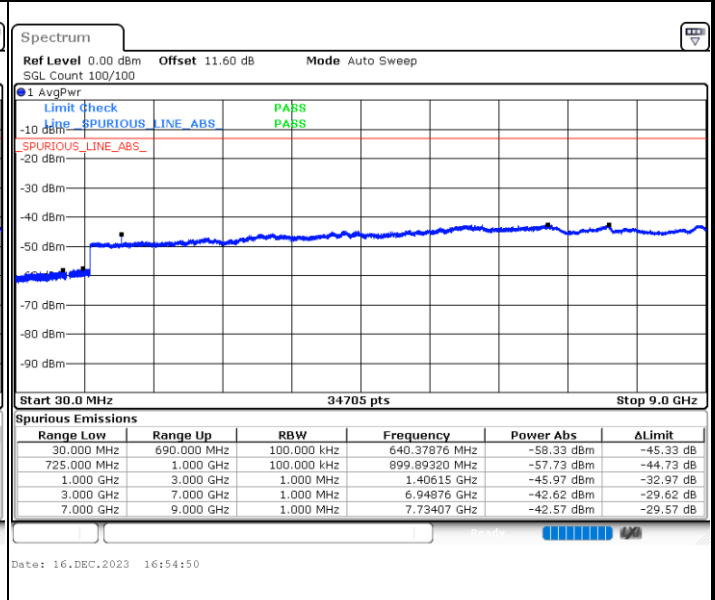


LTE Band 12 / 10MHz

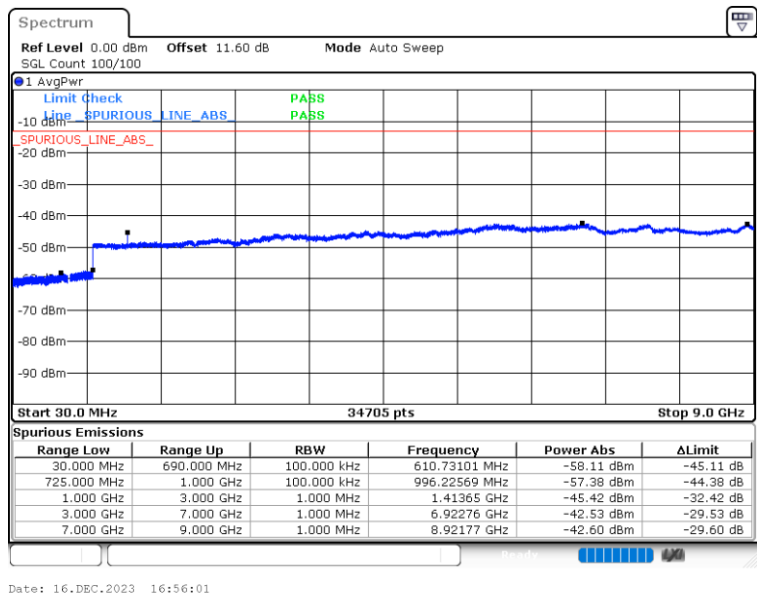
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0047	
30	Normal Voltage	0.0057	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0061	
-10	Normal Voltage	0.0119	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0175	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0137	

Note:

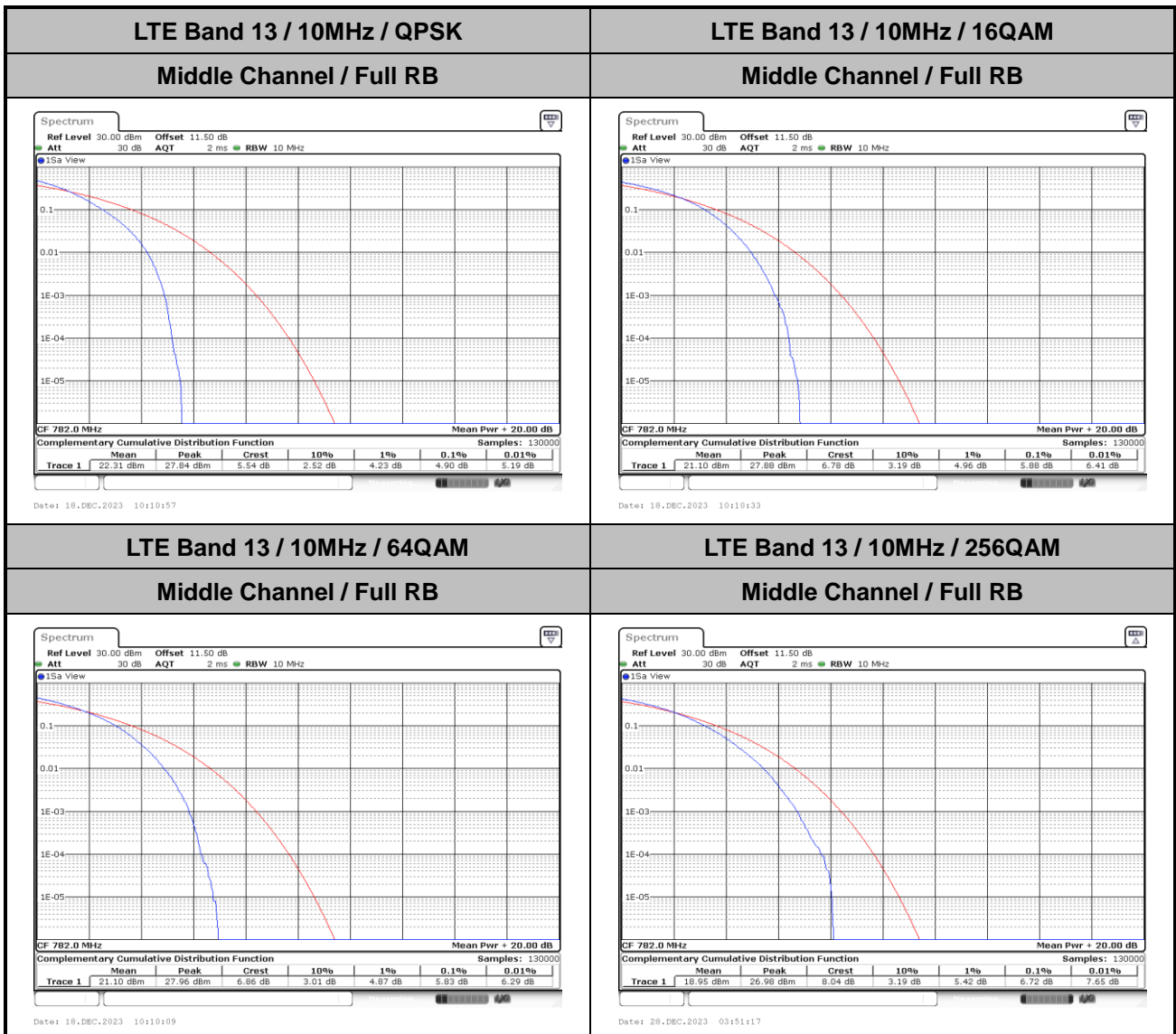
1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

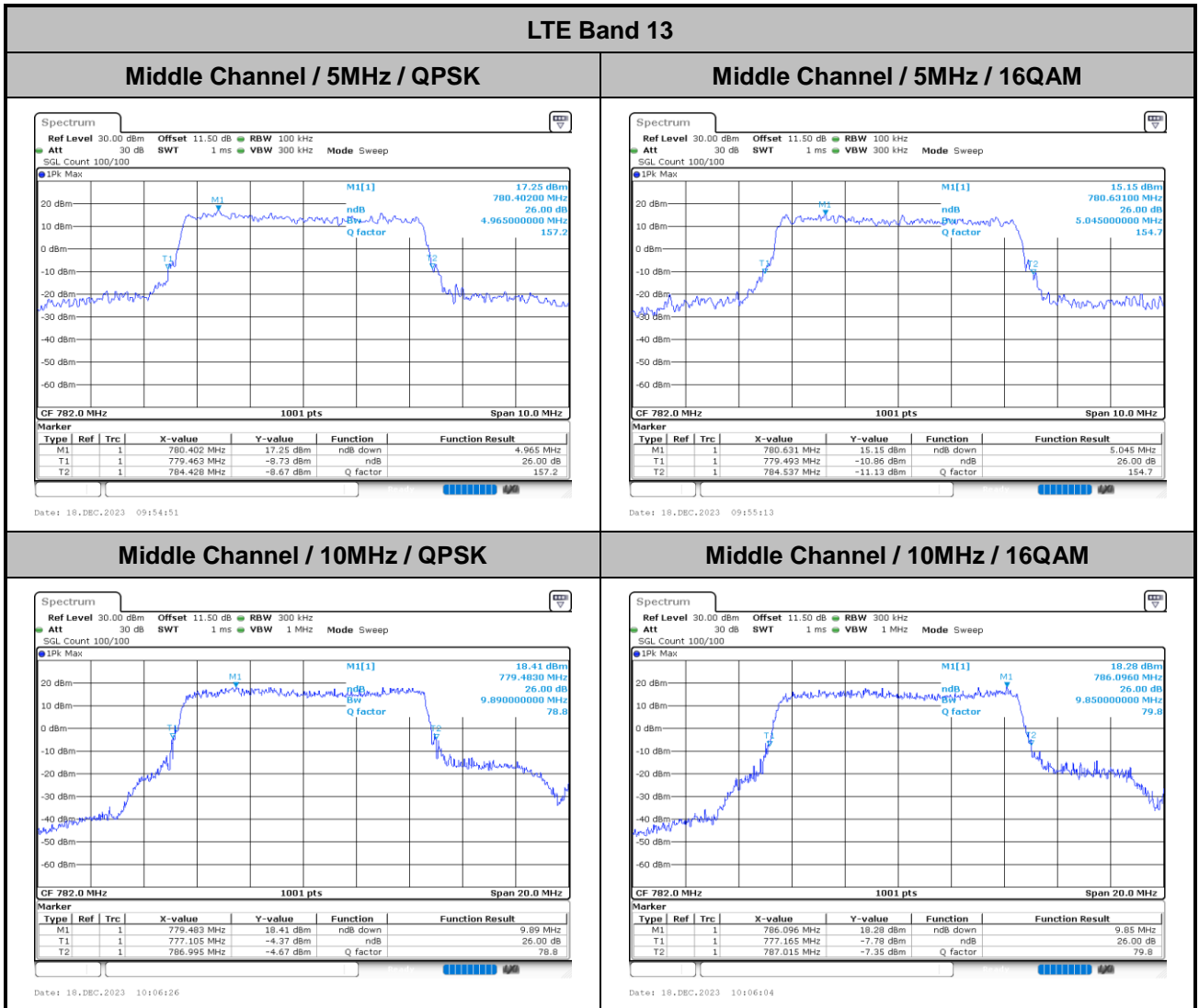
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.90	5.88	5.83	6.72	PASS





26dB Bandwidth

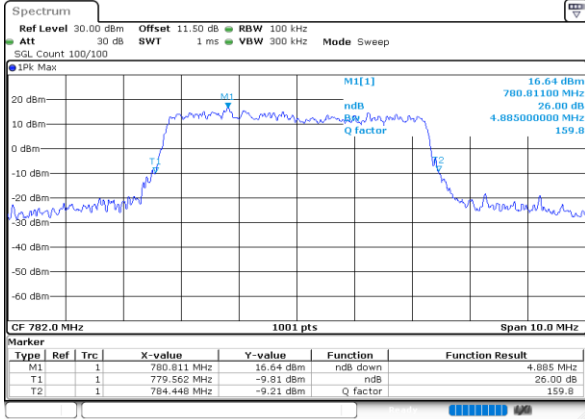
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.96	5.04	9.89	9.84	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.88	5.00	9.71	9.94	-	-	-	-





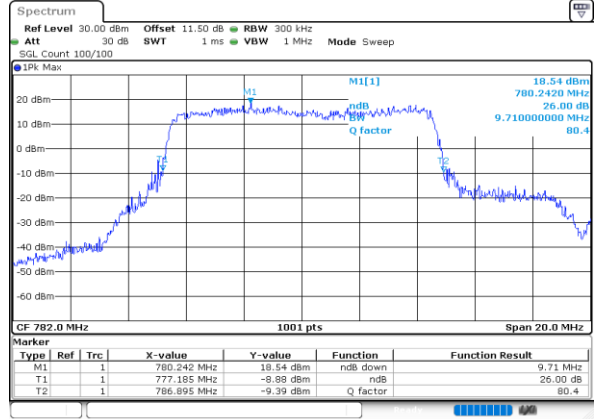
LTE Band 13

Middle Channel / 5MHz / 64QAM



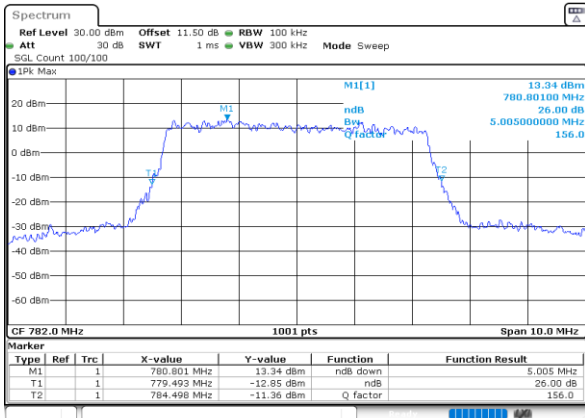
Date: 18 DEC.2023 10:02:48

Middle Channel / 10MHz / 64QAM



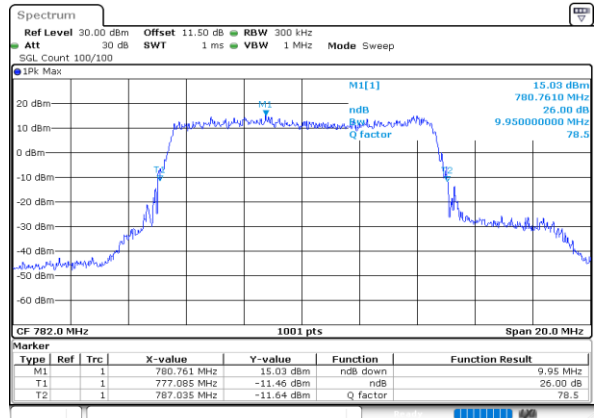
Date: 18 DEC.2023 10:08:54

Middle Channel / 5MHz / 256QAM



Date: 28 DEC.2023 03:47:57

Middle Channel / 10MHz / 256QAM

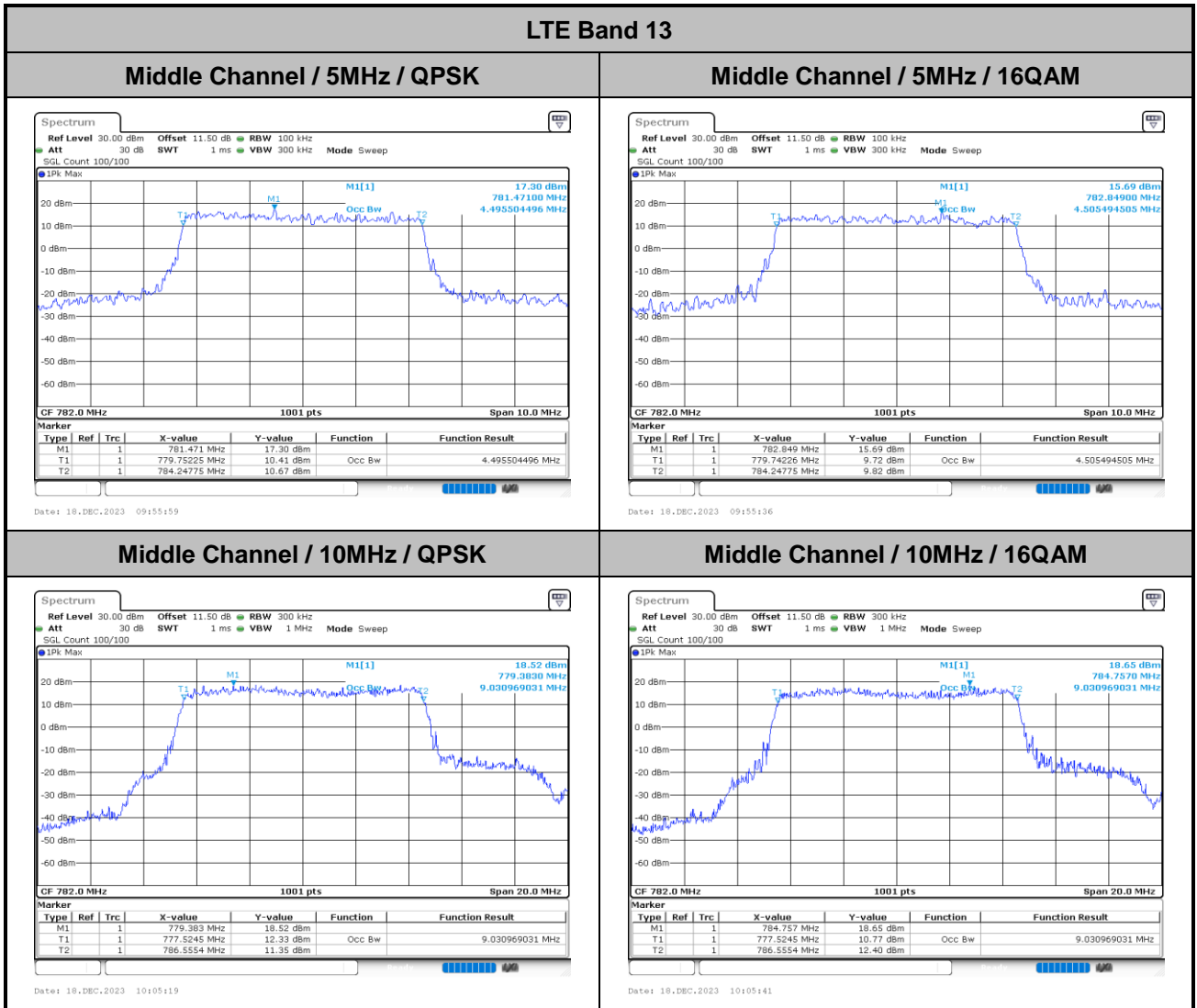


Date: 18 DEC.2023 10:38:51



Occupied Bandwidth

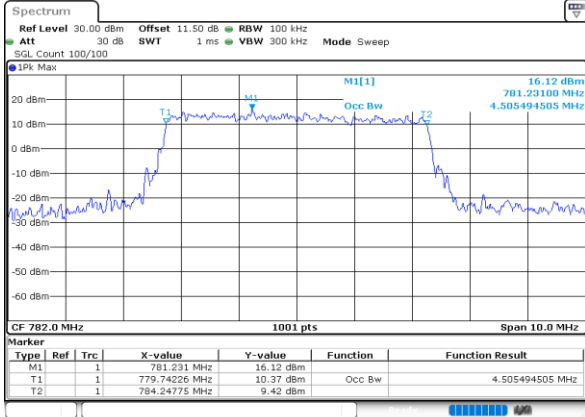
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.50	9.03	9.03	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.50	4.50	9.05	9.03	-	-	-	-





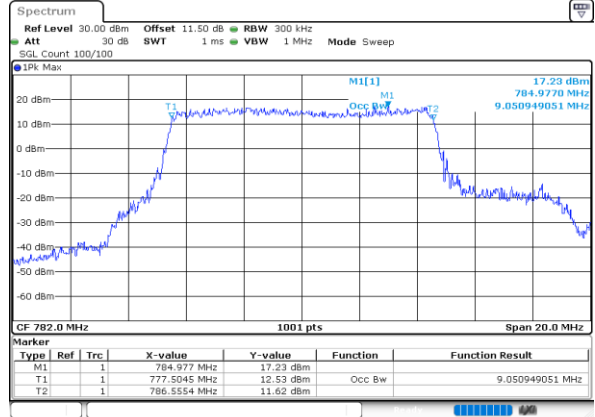
LTE Band 13

Middle Channel / 5MHz / 64QAM



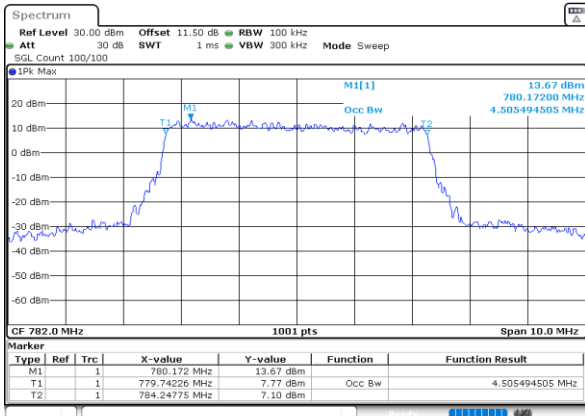
Date: 18 DEC.2023 10:03:11

Middle Channel / 10MHz / 64QAM



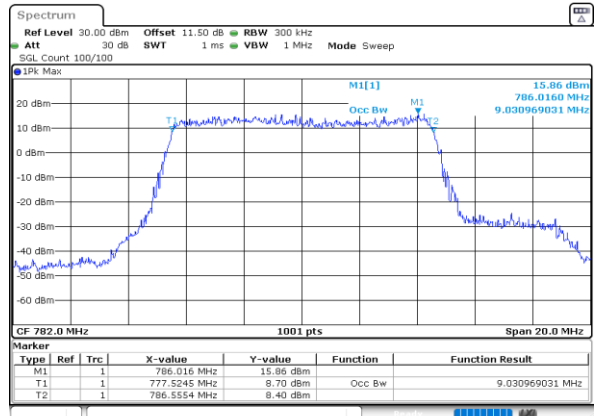
Date: 18 DEC.2023 10:08:32

Middle Channel / 5MHz / 256QAM



Date: 28 DEC.2023 03:48:54

Middle Channel / 10MHz / 256QAM



Date: 28 DEC.2023 03:50:47

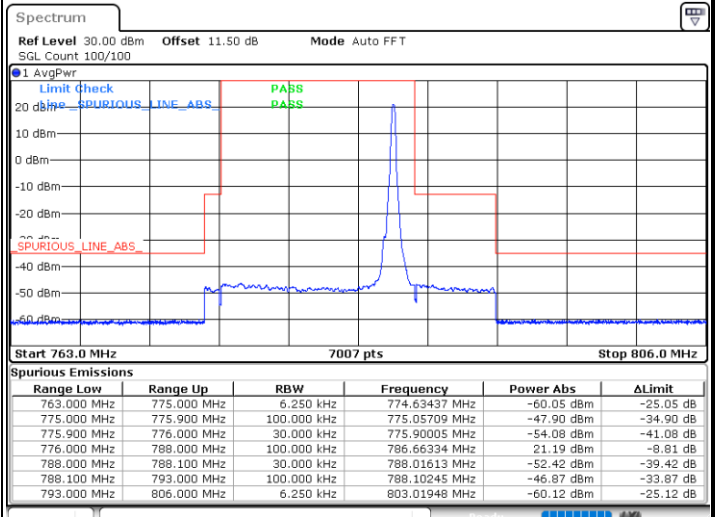
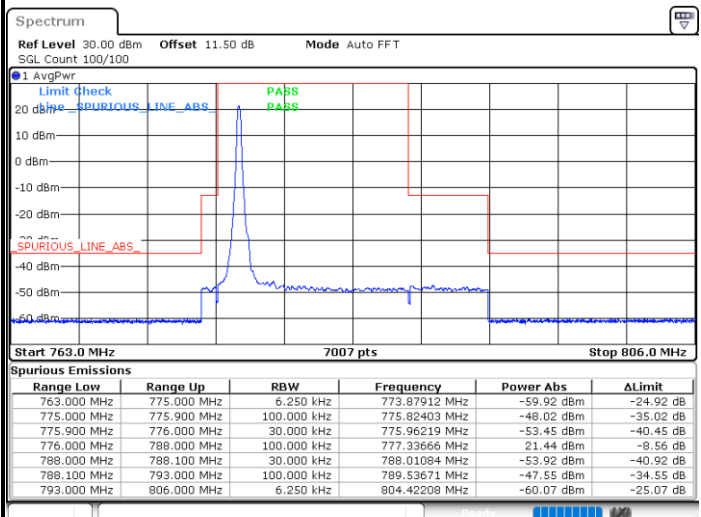


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

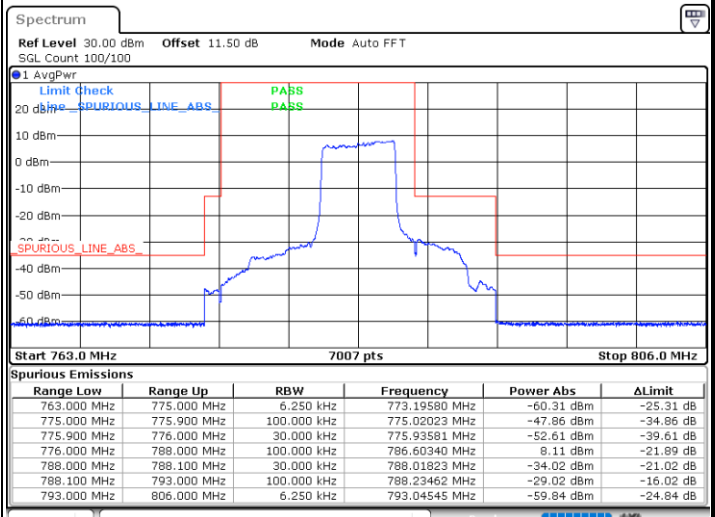
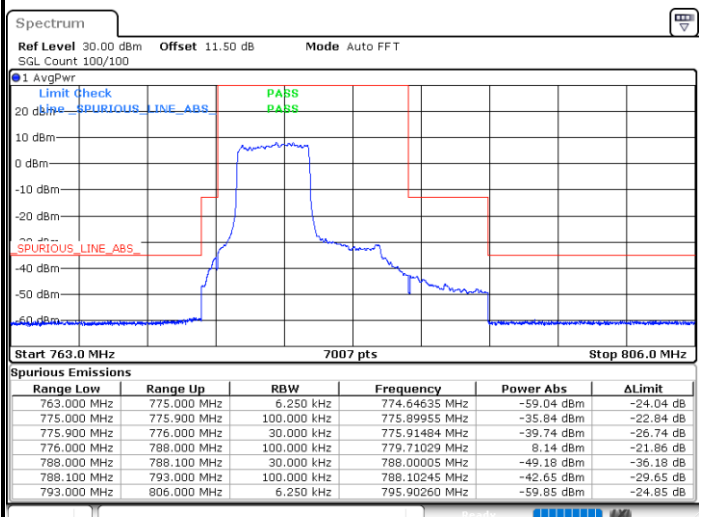


Date: 18.DEC.2023 09:52:05

Date: 18.DEC.2023 09:59:27

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18.DEC.2023 09:49:28

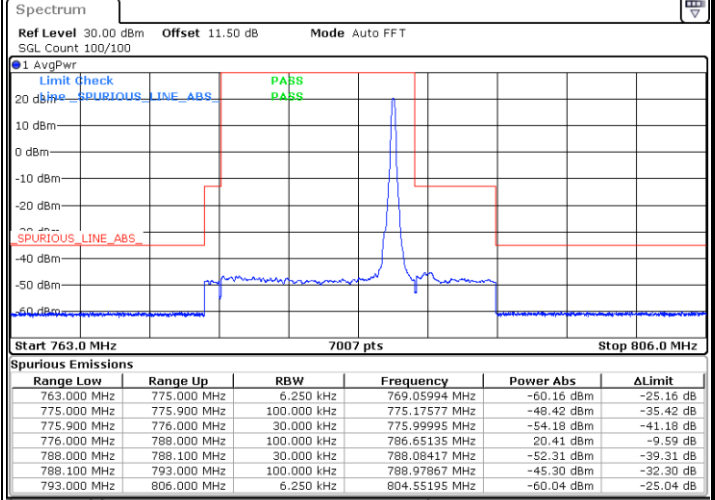
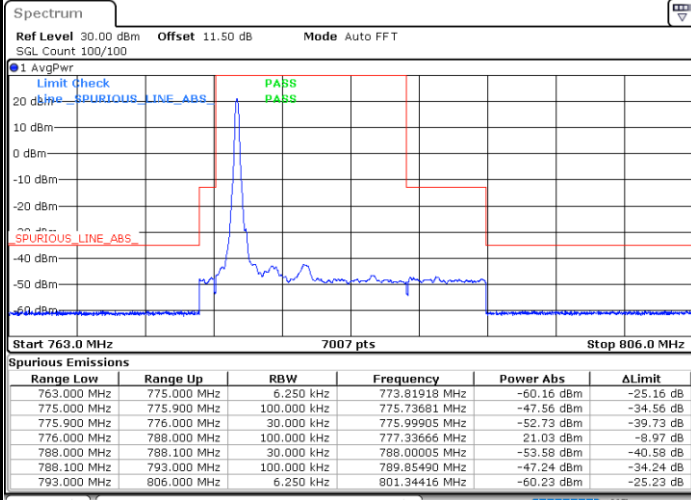
Date: 18.DEC.2023 09:56:50



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

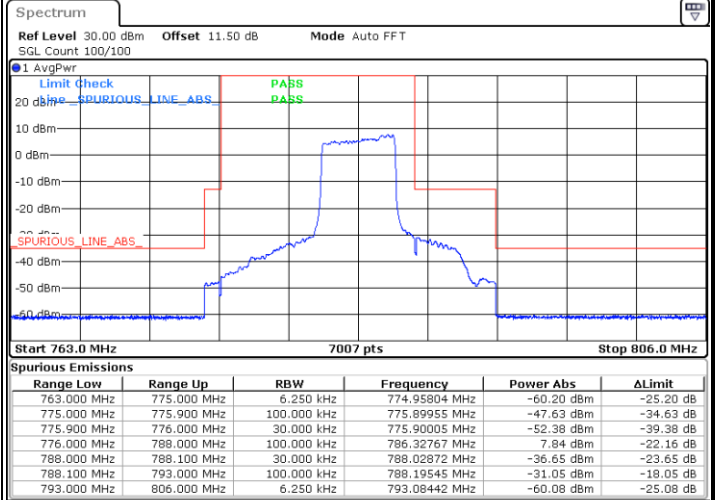
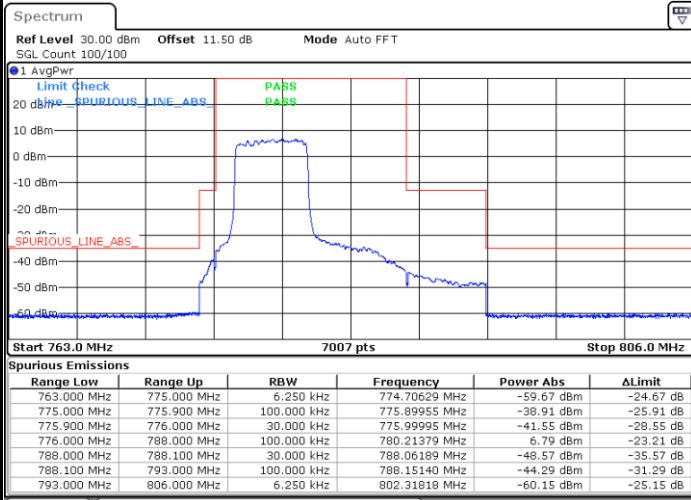


Date: 18.DEC.2023 09:51:13

Date: 18.DEC.2023 09:58:35

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



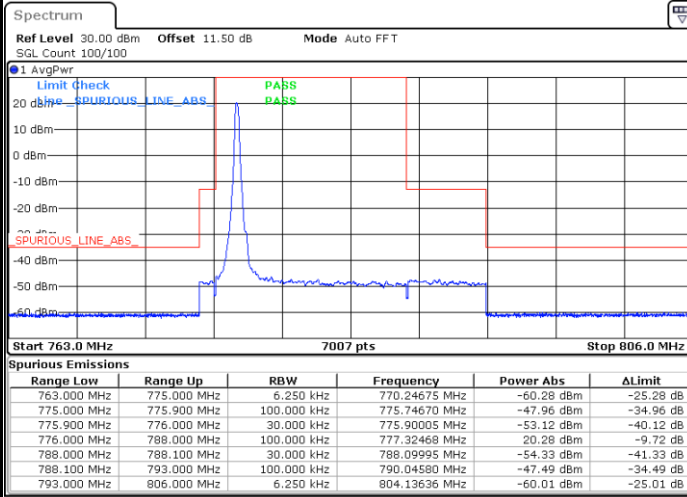
Date: 18.DEC.2023 09:50:21

Date: 18.DEC.2023 09:57:42



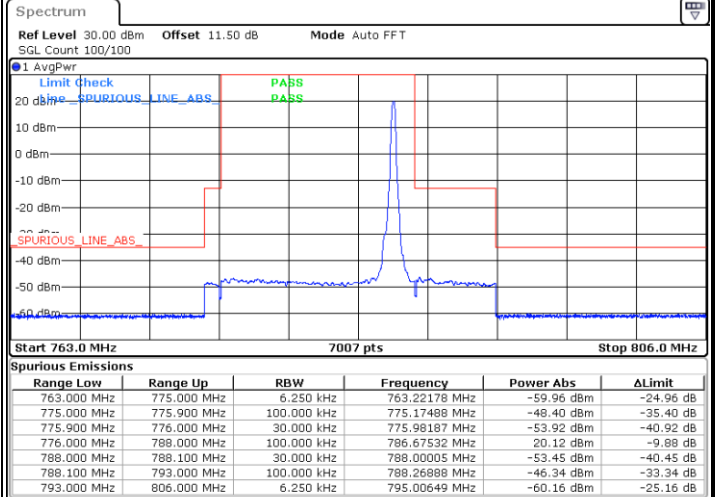
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



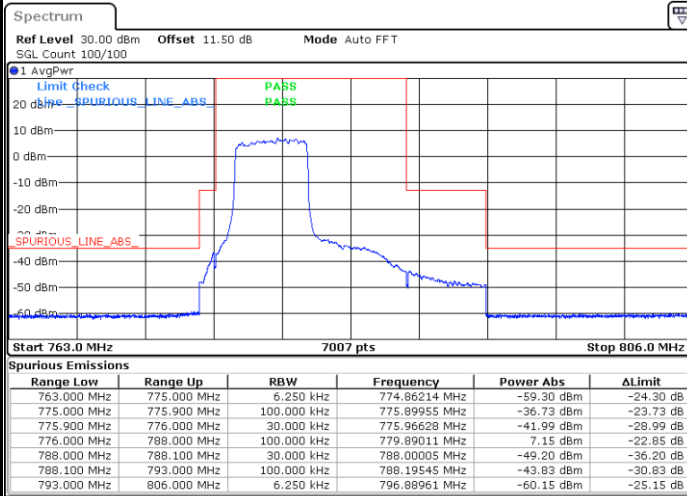
Date: 18.DEC.2023 10:02:24

Highest Band Edge / 1 RB



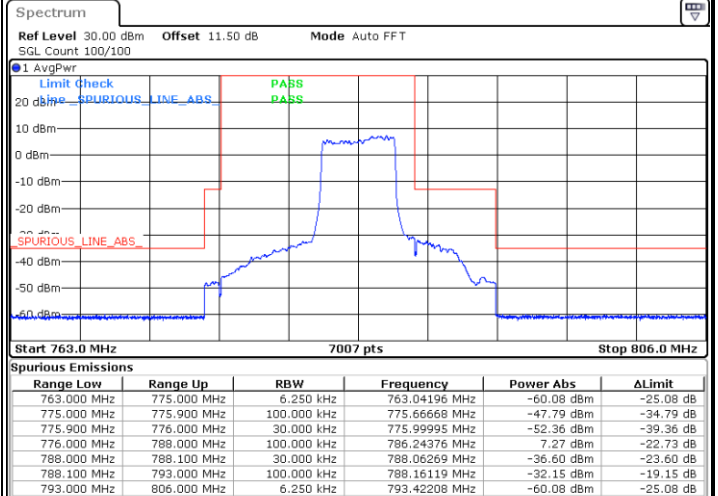
Date: 18.DEC.2023 10:04:55

Lowest Band Edge / Full RB



Date: 18.DEC.2023 10:01:32

Highest Band Edge / Full RB



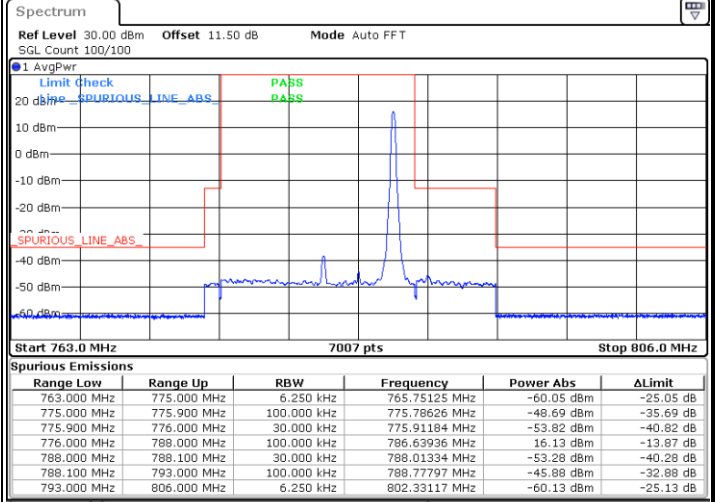
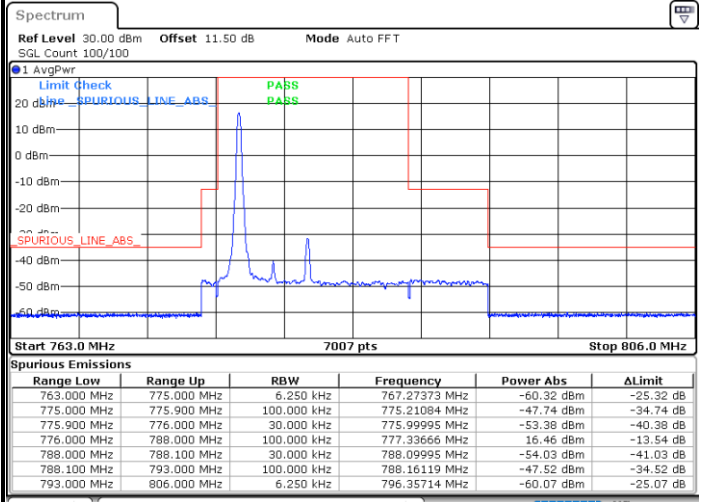
Date: 18.DEC.2023 10:04:02



LTE Band 13 / 5MHz / 256QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

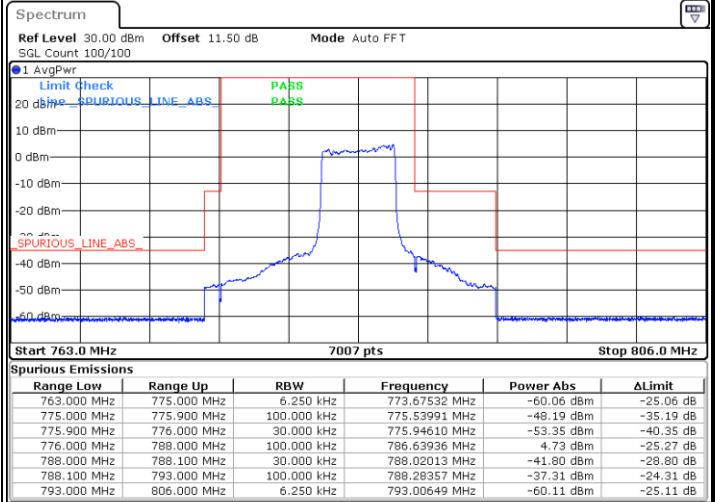
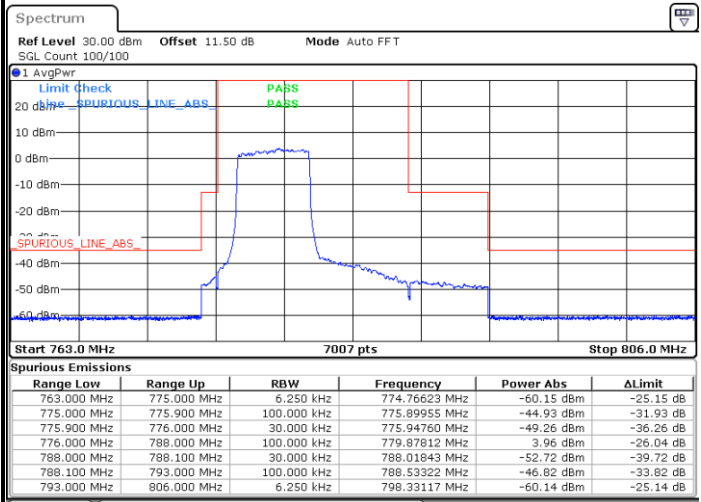


Date: 18.DEC.2023 10:12:45

Date: 18.DEC.2023 10:36:48

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18.DEC.2023 10:11:49

Date: 18.DEC.2023 10:34:18

