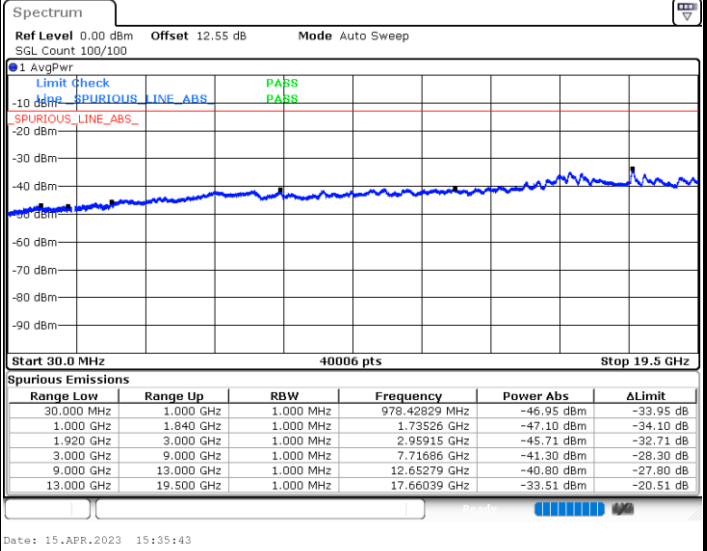
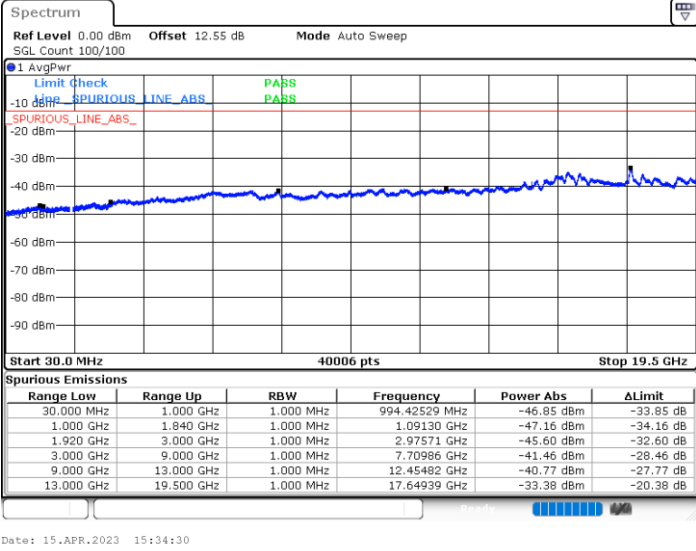




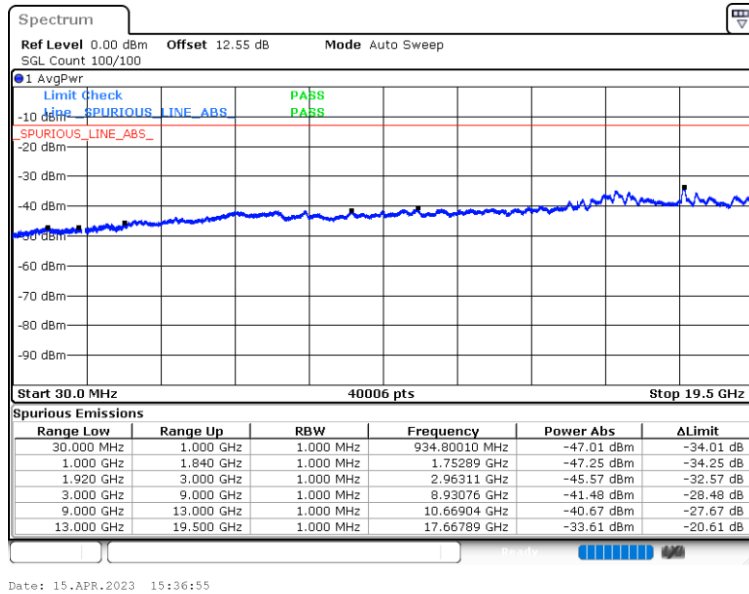
LTE Band 2 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

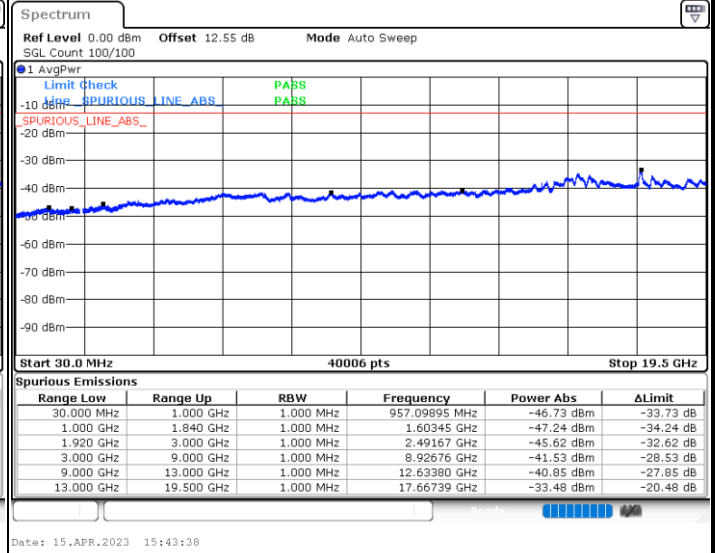
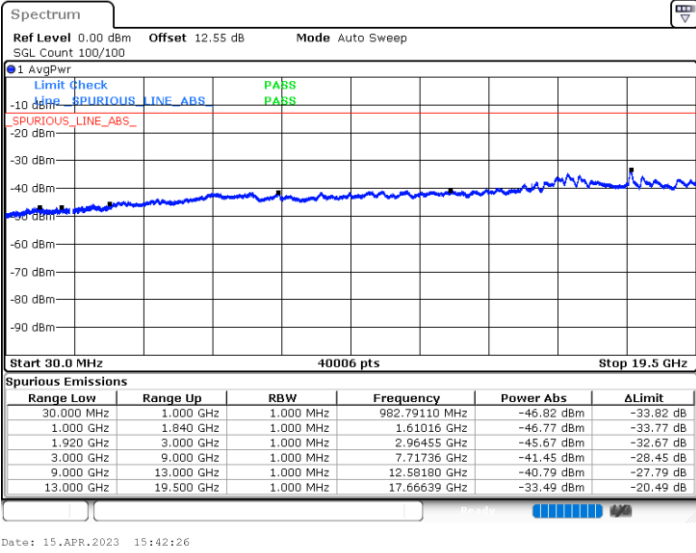




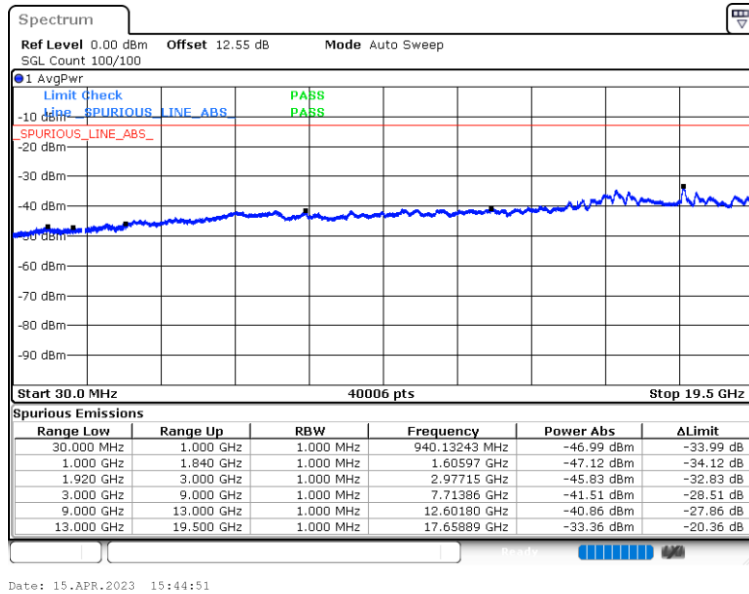
LTE Band 2 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

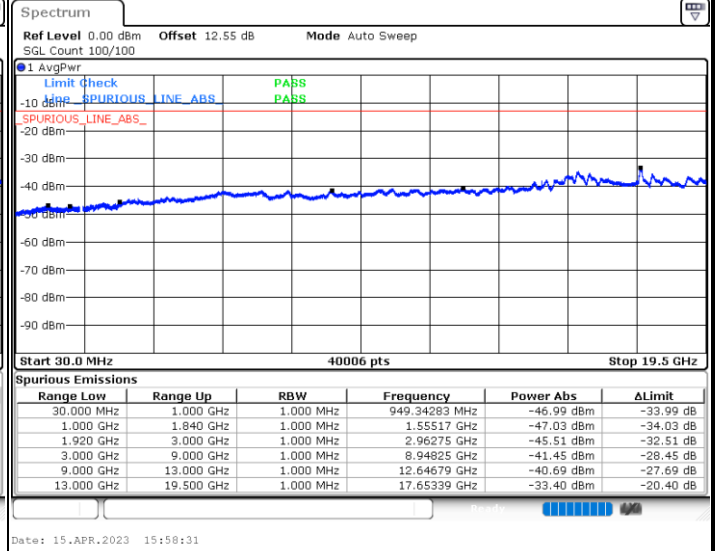
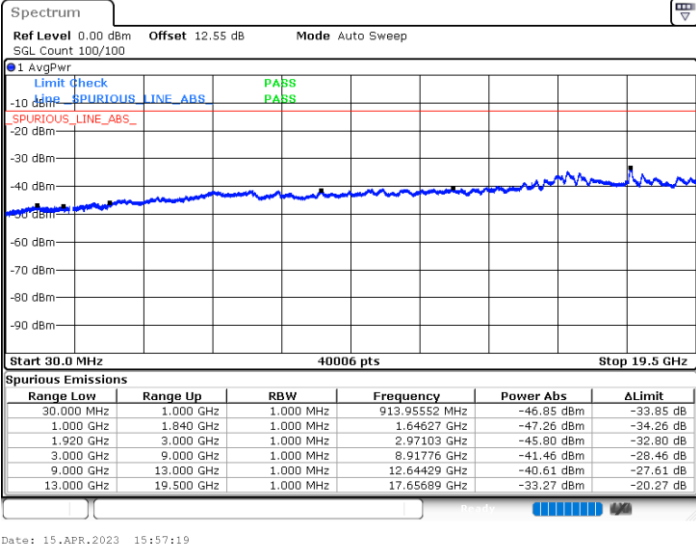




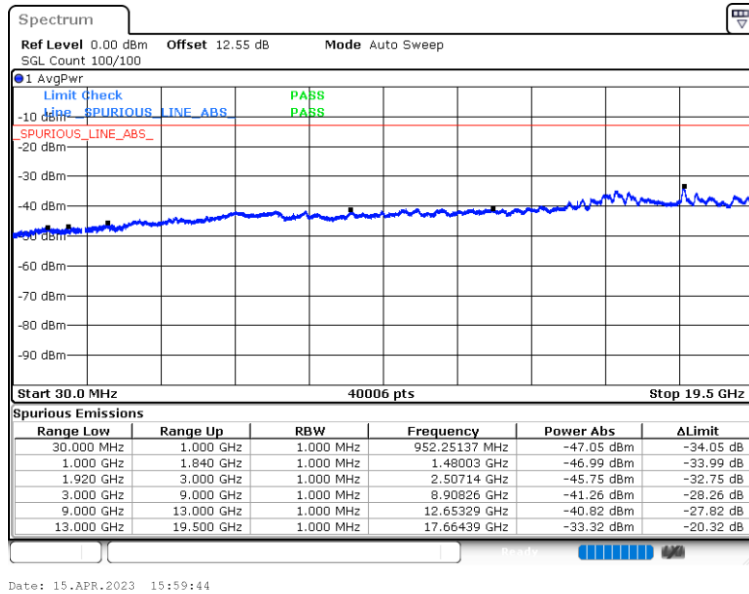
LTE Band 2 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

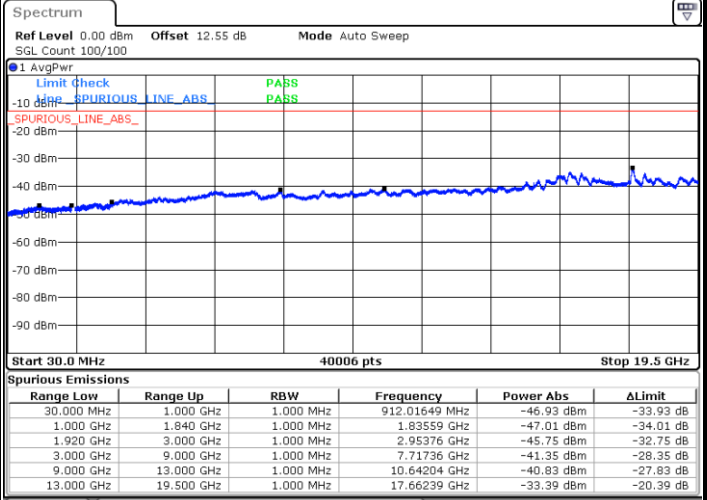
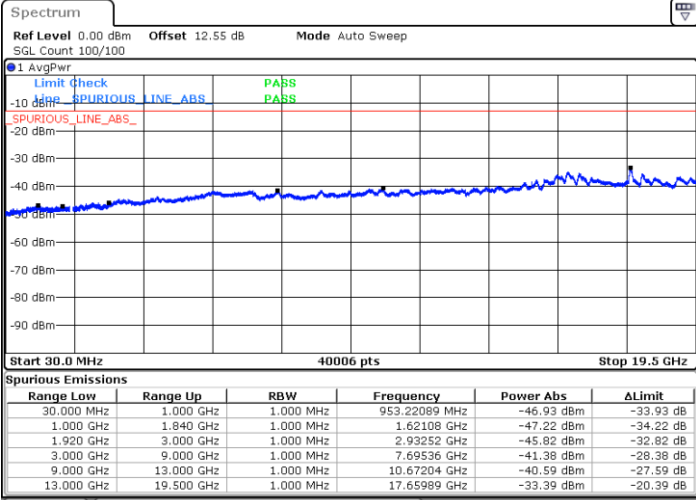




LTE Band 2 / 20MHz

Lowest Channel / QPSK

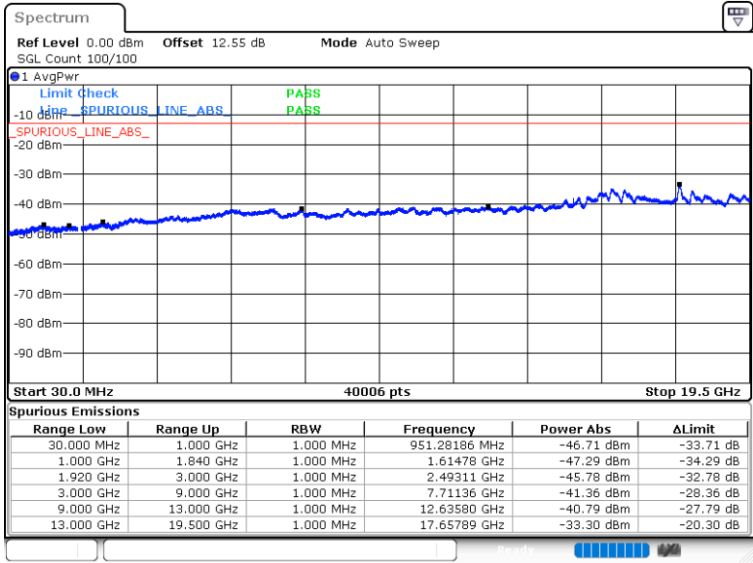
Middle Channel / QPSK



Date: 15.APR.2023 16:10:52

Date: 15.APR.2023 16:12:05

Highest Channel / QPSK



Date: 15.APR.2023 16:13:18



### Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0062	PASS
40	Normal Voltage	0.0055	
30	Normal Voltage	0.0028	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0062	
0	Normal Voltage	0.0064	
-10	Normal Voltage	0.0015	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0071	
20	Normal Voltage	0.0062	
20	Battery End Point	0.0036	

**Note:**

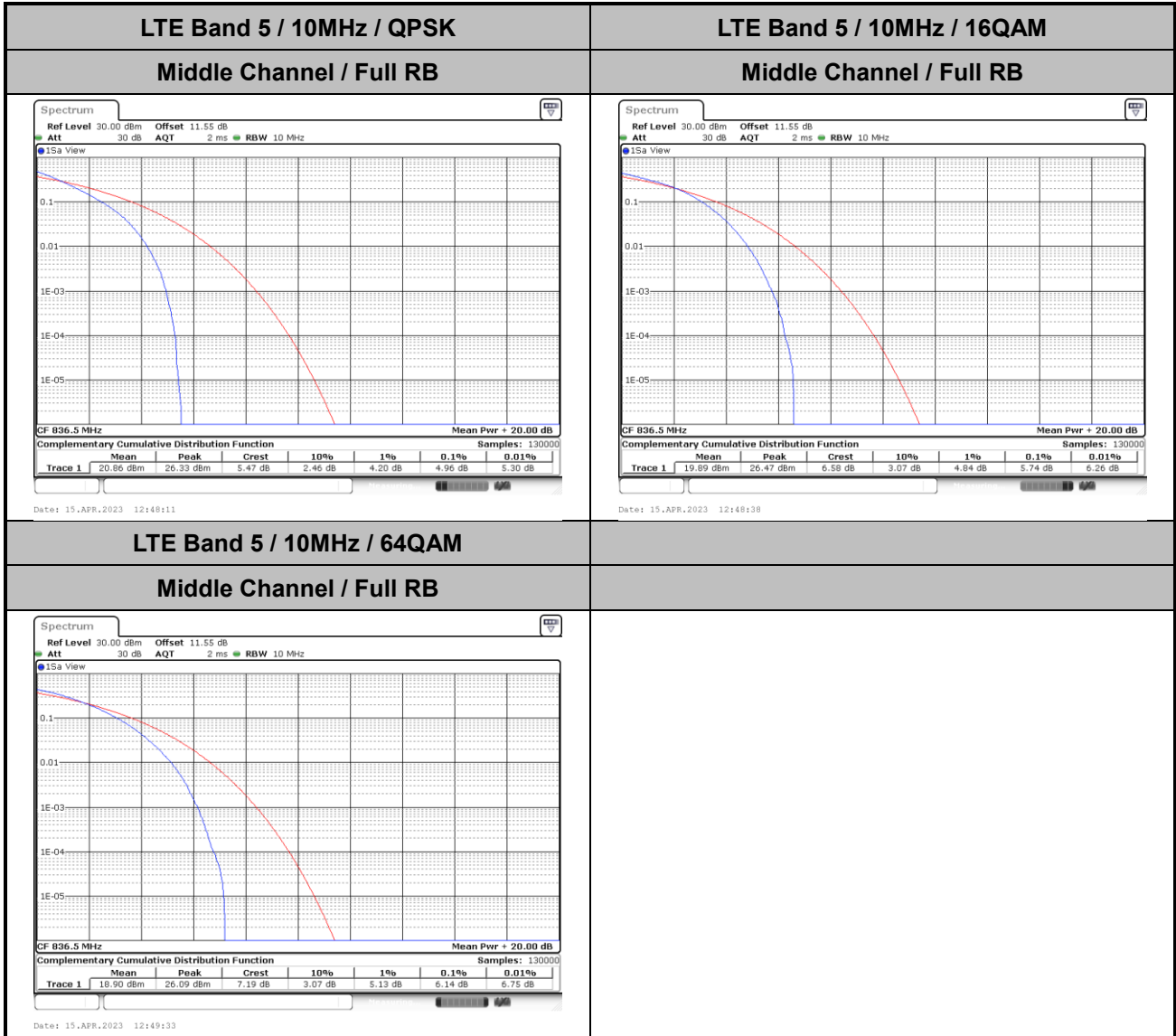
- 1. Normal Voltage = 3.87 V. ; Battery End Point (BEP) = 3.60 V. ; Maximum Voltage = 4.2 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 5

### Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.96	5.74	6.14	<b>PASS</b>





### 26dB Bandwidth

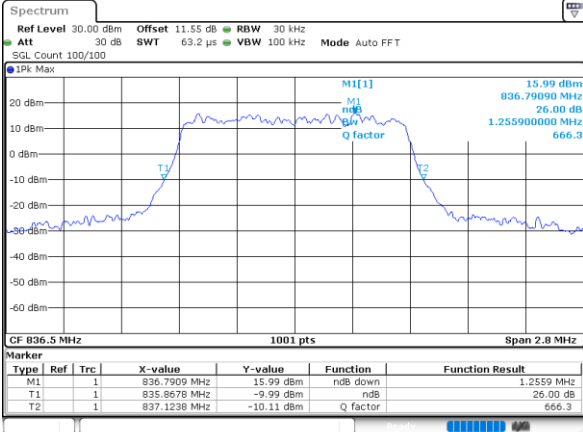
Mode	LTE Band 5 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.26	1.27	2.93	2.97	4.91	4.82	9.97	9.65
Mode	LTE Band 5 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Middle CH	1.30		2.94		4.83		9.77	





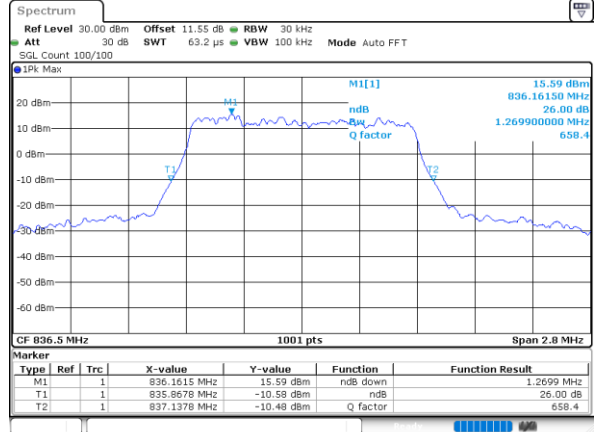
LTE Band 5

Middle Channel / 1.4MHz / QPSK



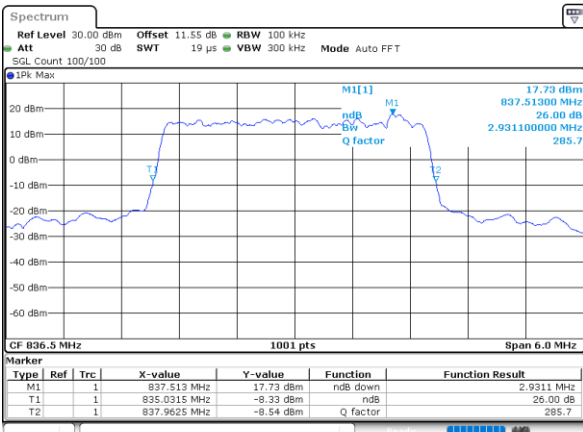
Date: 15.APR.2023 12:17:10

Middle Channel / 1.4MHz / 16QAM



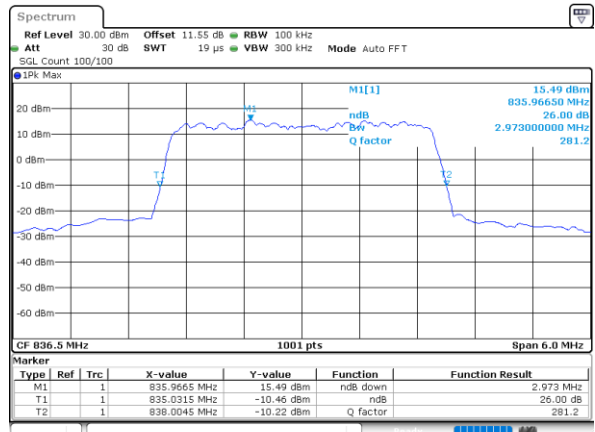
Date: 15.APR.2023 12:17:57

Middle Channel / 3MHz / QPSK



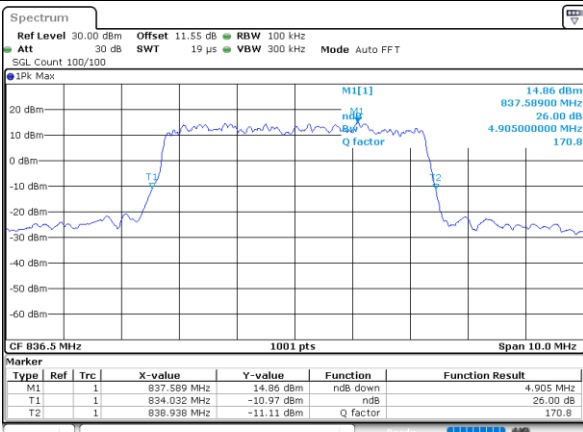
Date: 15.APR.2023 12:30:04

Middle Channel / 3MHz / 16QAM



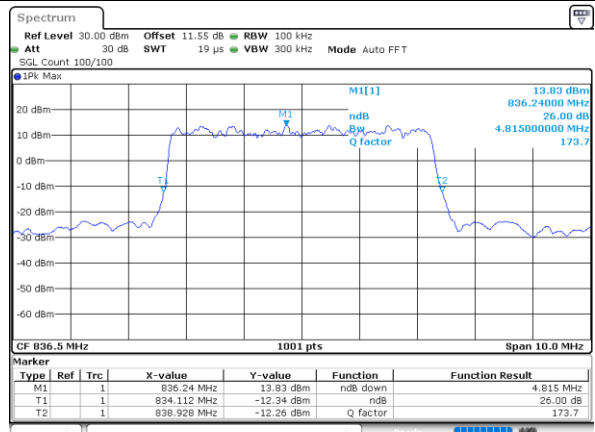
Date: 15.APR.2023 12:30:44

Middle Channel / 5MHz / QPSK



Date: 15.APR.2023 12:38:48

Middle Channel / 5MHz / 16QAM

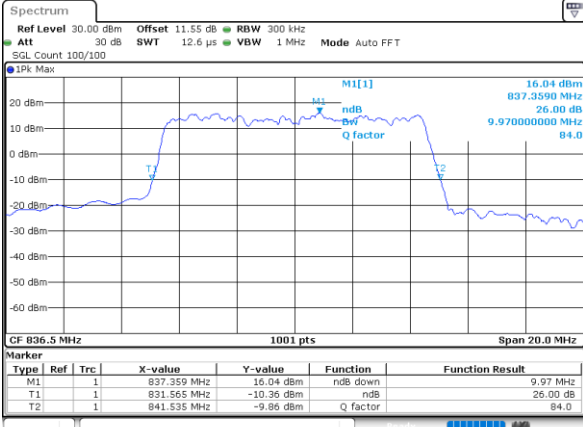


Date: 15.APR.2023 12:39:27



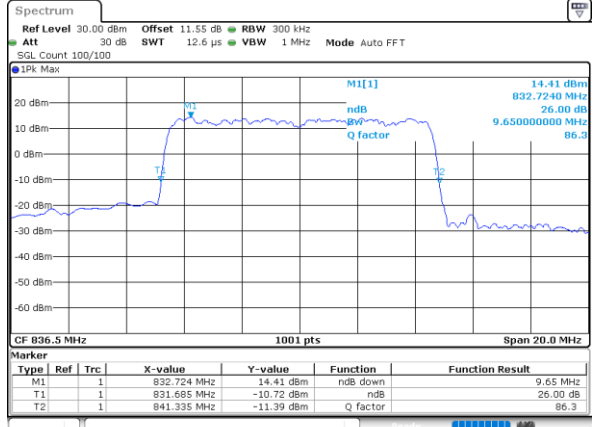
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 15.APR.2023 12:47:56

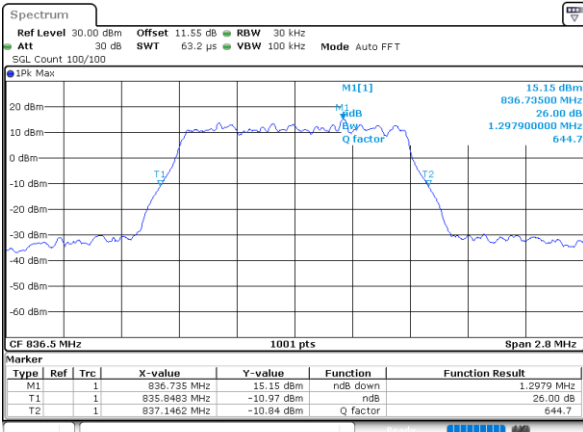
Middle Channel / 10MHz / 16QAM



Date: 15.APR.2023 12:49:07

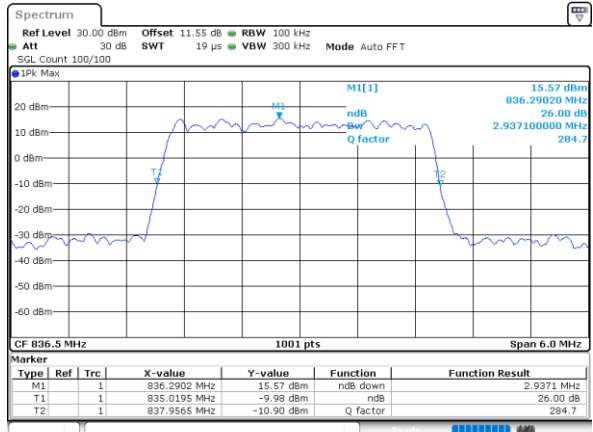
LTE Band 5

Middle Channel / 1.4MHz / 64QAM



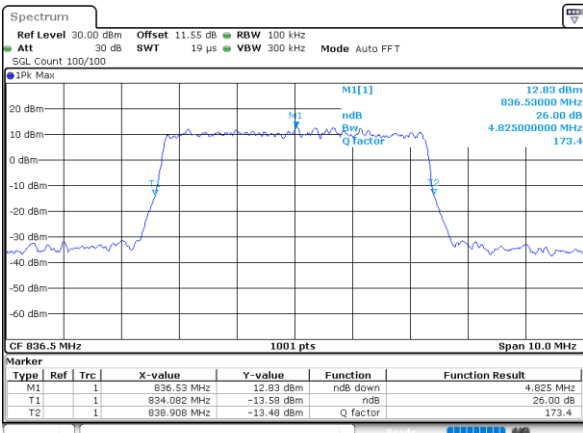
Date: 15.APR.2023 12:18:37

Middle Channel / 3MHz / 64QAM



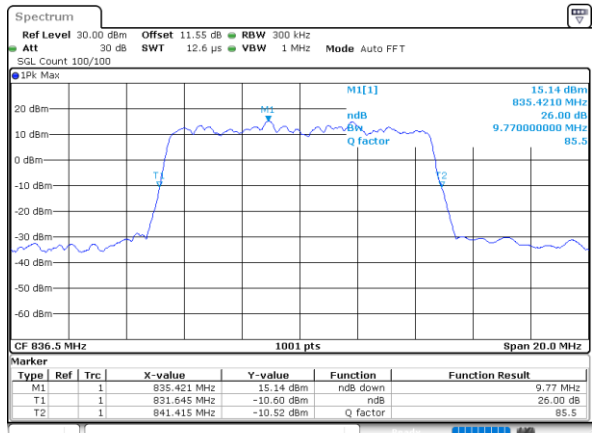
Date: 15.APR.2023 12:31:24

Middle Channel / 5MHz / 64QAM



Date: 15.APR.2023 12:40:57

Middle Channel / 10MHz / 64QAM



Date: 15.APR.2023 12:50:02



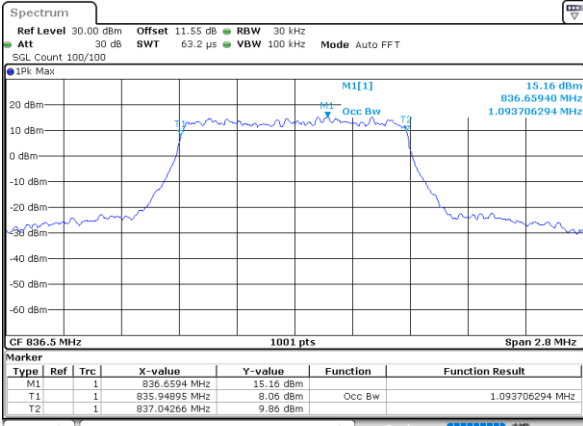
## Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.10	2.70	2.70	4.48	4.47	9.09	9.03
Mode	LTE Band 5 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Middle CH	1.09		2.72		4.53		9.05	



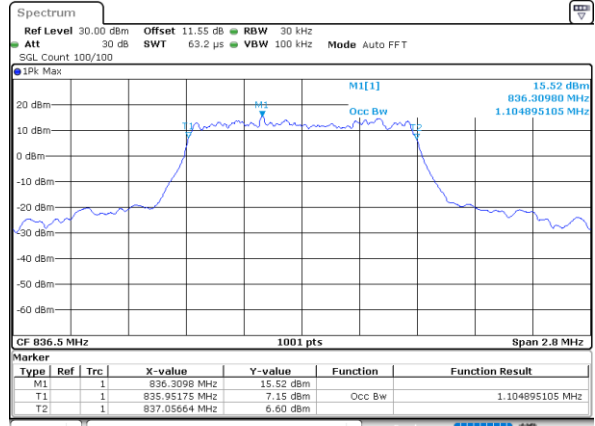
LTE Band 5

Middle Channel / 1.4MHz / QPSK



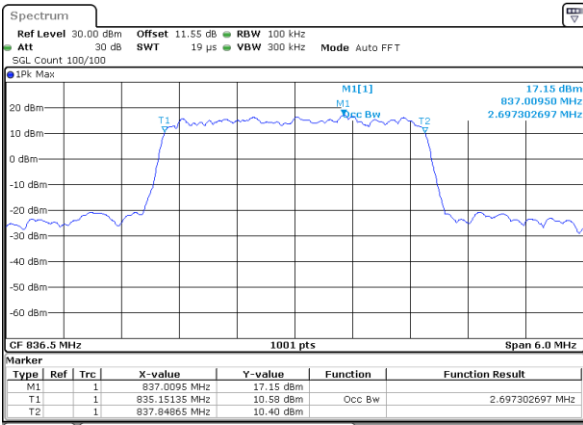
Date: 15.APR.2023 12:17:04

Middle Channel / 1.4MHz / 16QAM



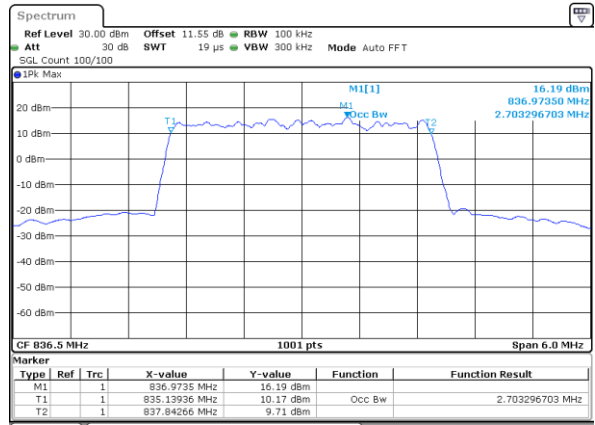
Date: 15.APR.2023 12:17:43

Middle Channel / 3MHz / QPSK



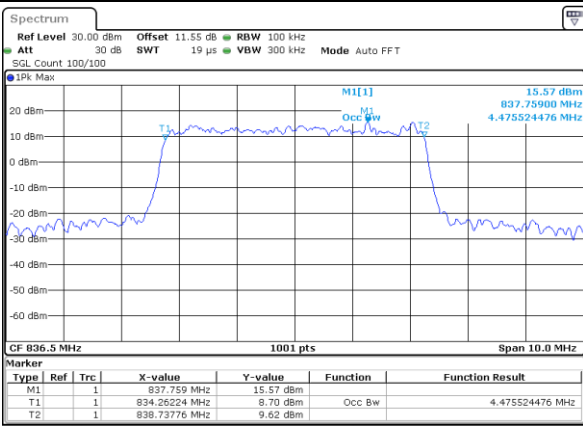
Date: 15.APR.2023 12:29:50

Middle Channel / 3MHz / 16QAM



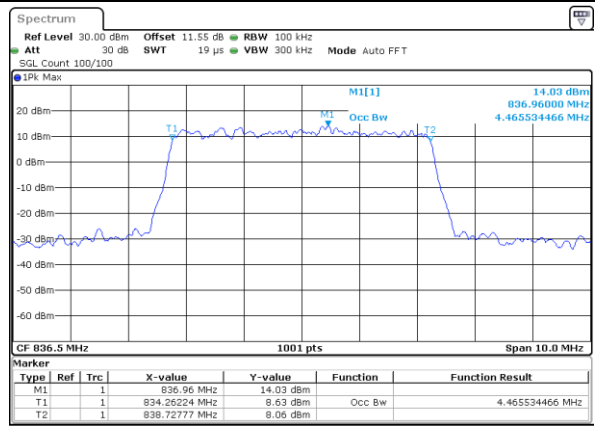
Date: 15.APR.2023 12:30:30

Middle Channel / 5MHz / QPSK



Date: 15.APR.2023 12:38:34

Middle Channel / 5MHz / 16QAM

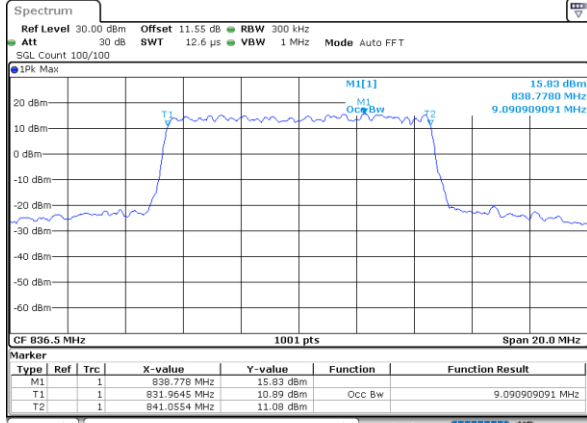


Date: 15.APR.2023 12:39:13



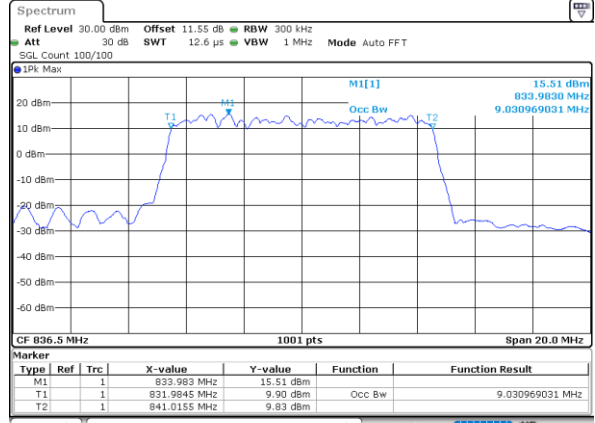
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 15.APR.2023 12:47:42

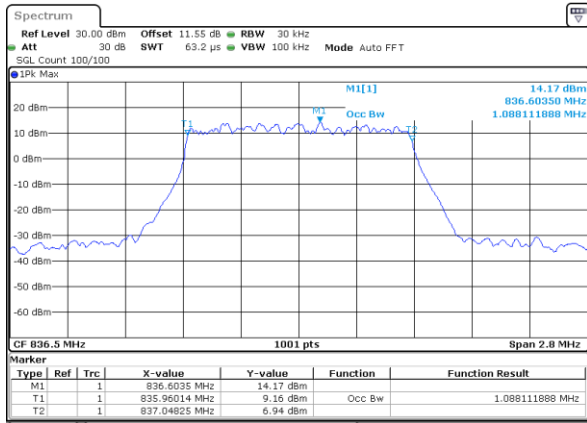
Middle Channel / 10MHz / 16QAM



Date: 15.APR.2023 12:48:52

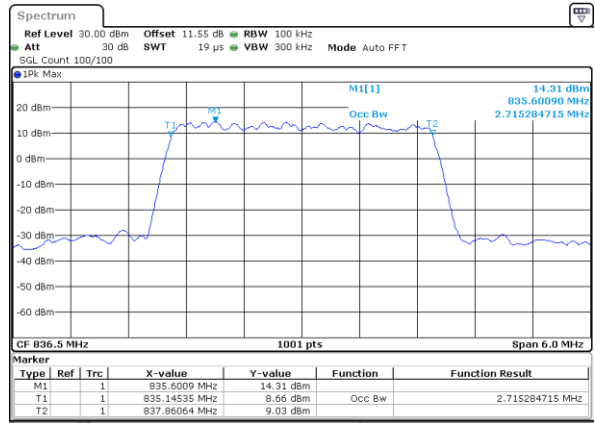
LTE Band 5

Middle Channel / 1.4MHz / 64QAM



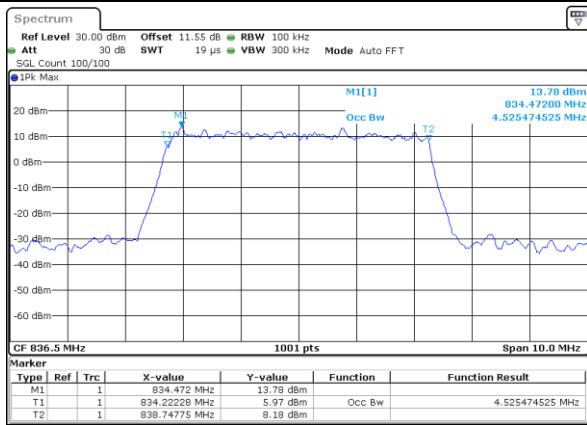
Date: 15.APR.2023 12:18:23

Middle Channel / 3MHz / 64QAM



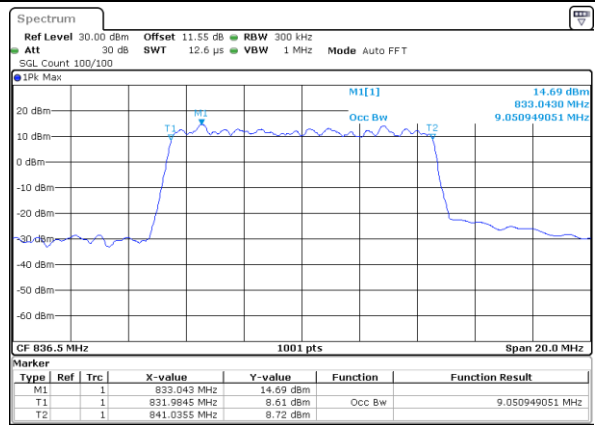
Date: 15.APR.2023 12:13:110

Middle Channel / 5MHz / 64QAM



Date: 15.APR.2023 12:19:53

Middle Channel / 10MHz / 64QAM



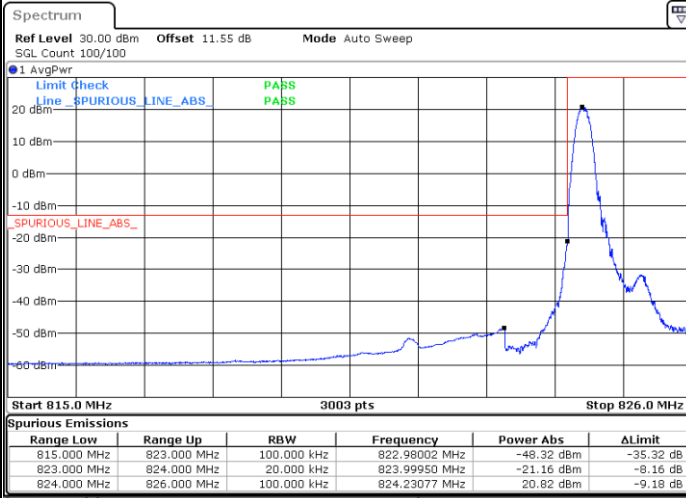
Date: 15.APR.2023 12:14:148



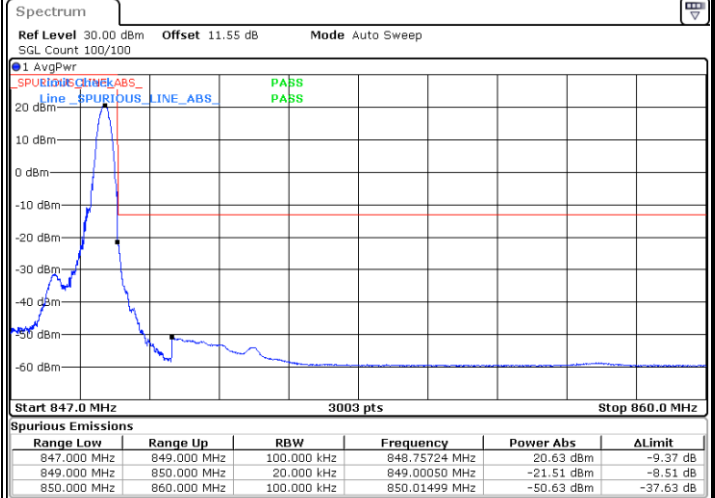
# Conducted Band Edge

## LTE Band 5 / 1.4MHz / QPSK

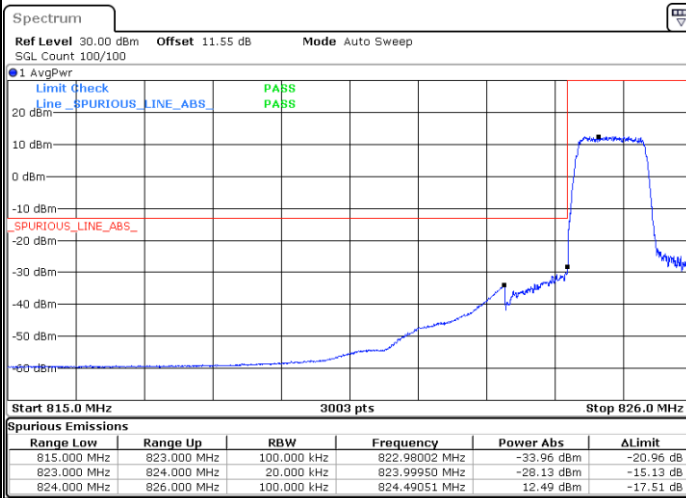
### Lowest Band Edge / 1RB



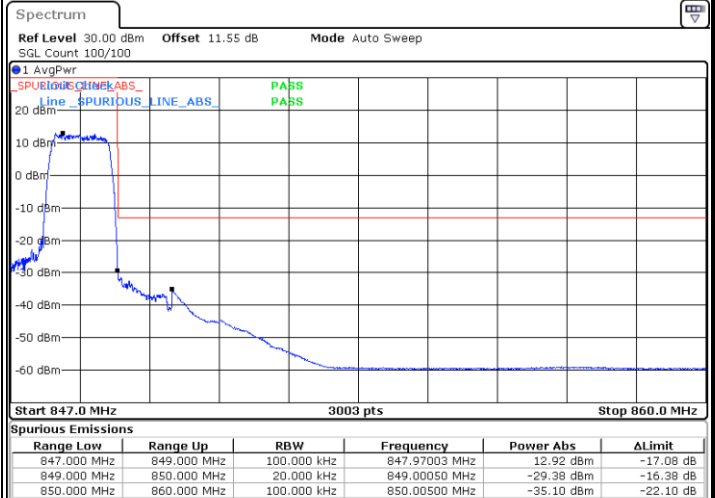
### Highest Band Edge / 1RB



### Lowest Band Edge / Full RB



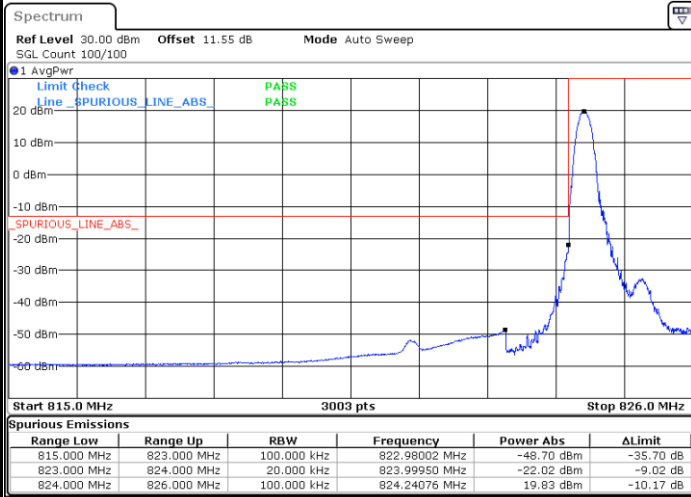
### Highest Band Edge / Full RB



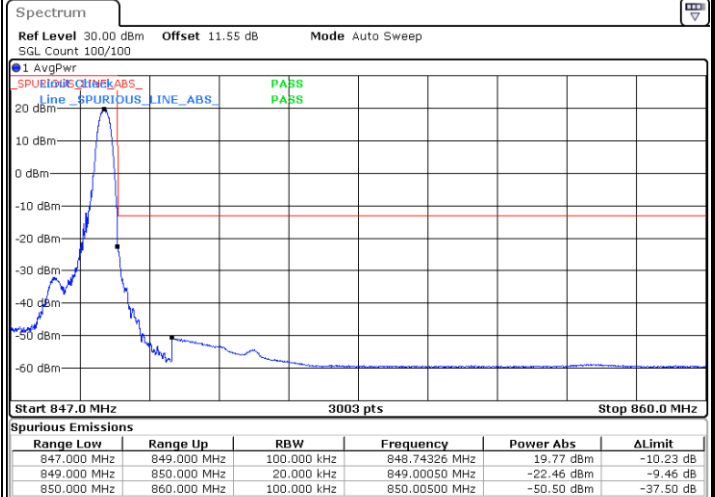


LTE Band 5 / 1.4MHz / 16QAM

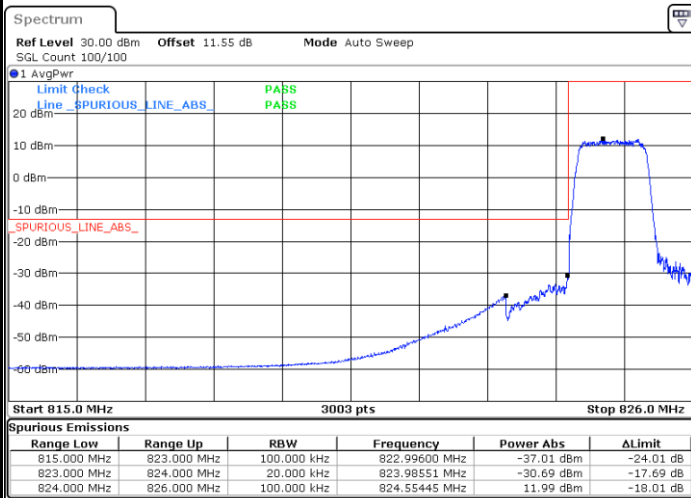
Lowest Band Edge / 1 RB



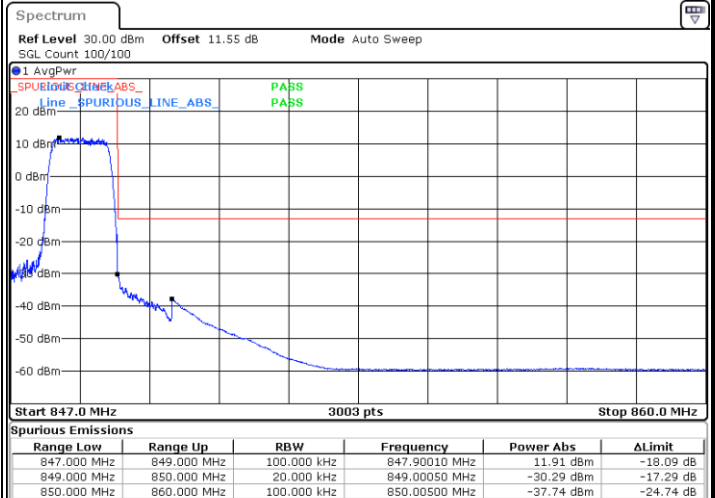
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



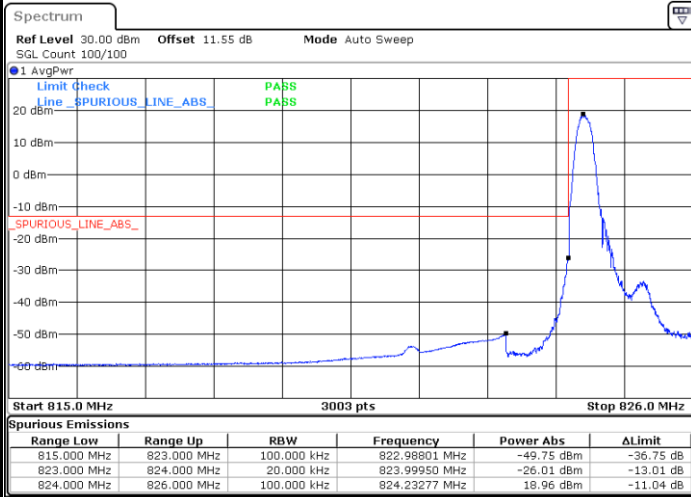
Highest Band Edge / Full RB





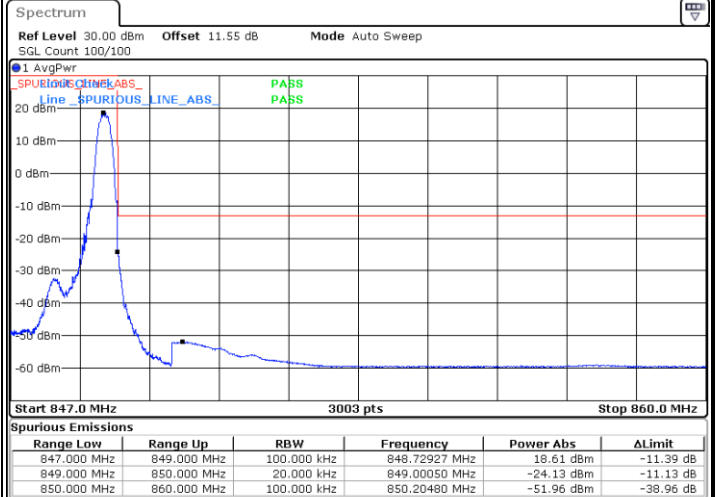
LTE Band 5 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



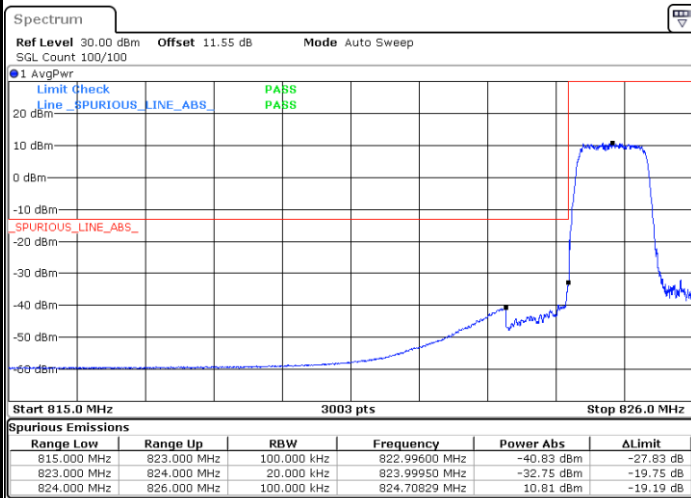
Date: 15.APR.2023 12:11:19

Highest Band Edge / 1 RB



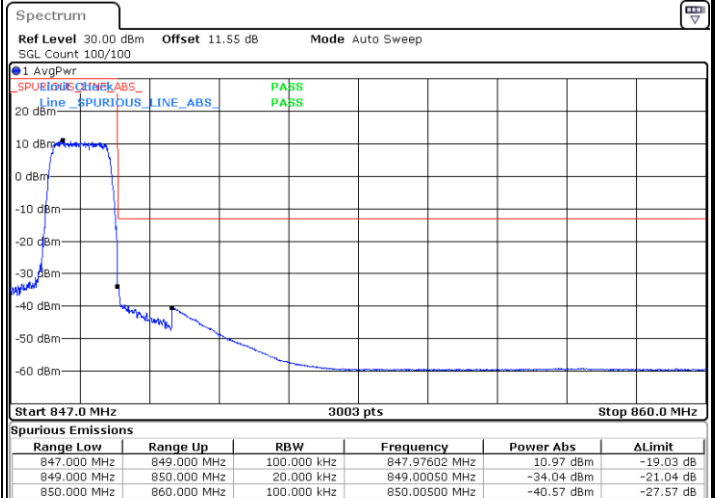
Date: 15.APR.2023 12:24:12

Lowest Band Edge / Full RB



Date: 15.APR.2023 12:15:22

Highest Band Edge / Full RB



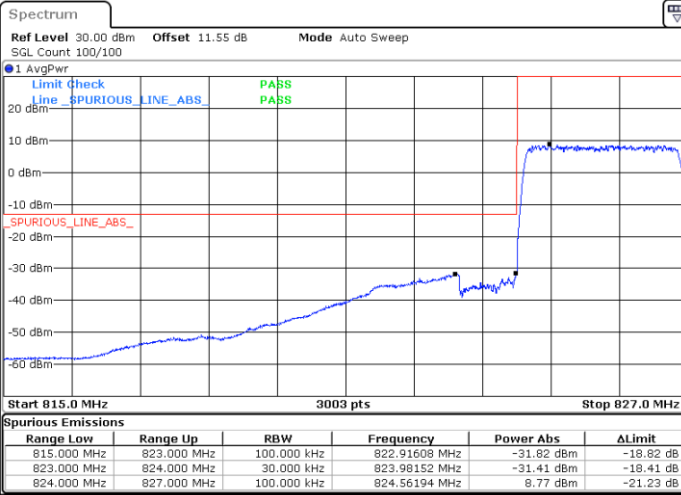
Date: 15.APR.2023 12:21:24





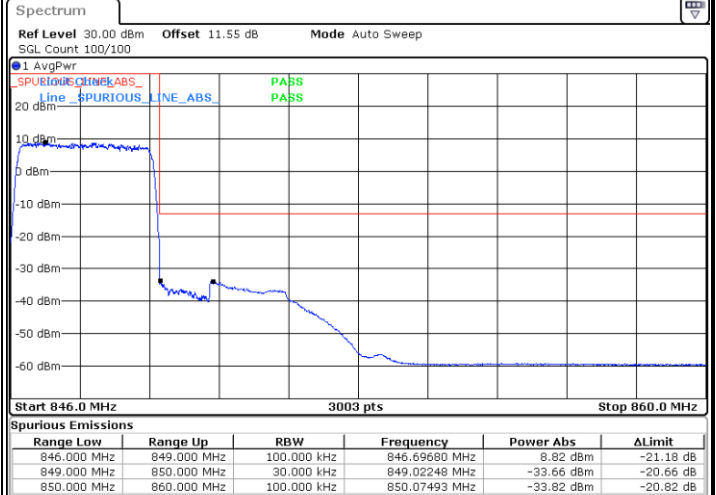
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / Full RB



Date: 15.APR.2023 12:27:32

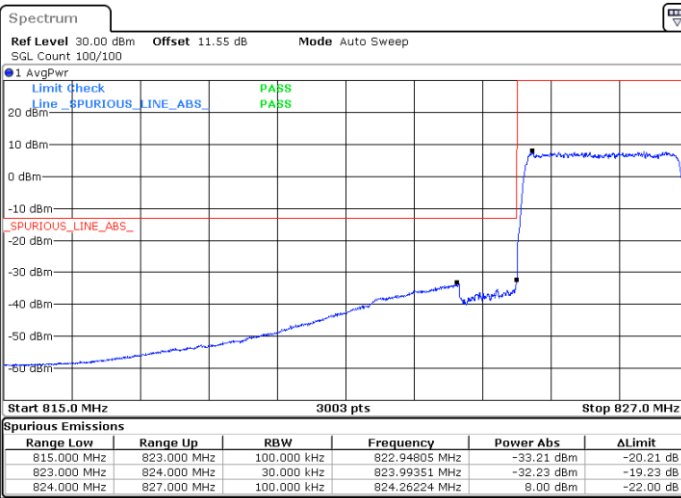
Highest Band Edge / Full RB



Date: 15.APR.2023 12:32:18

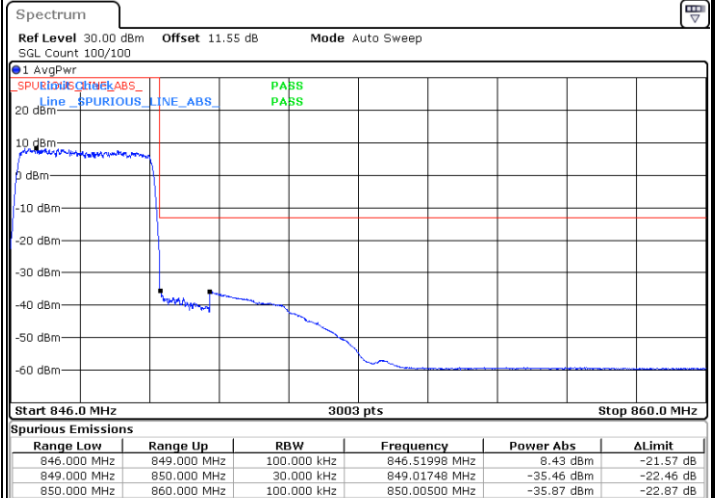
LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / Full RB

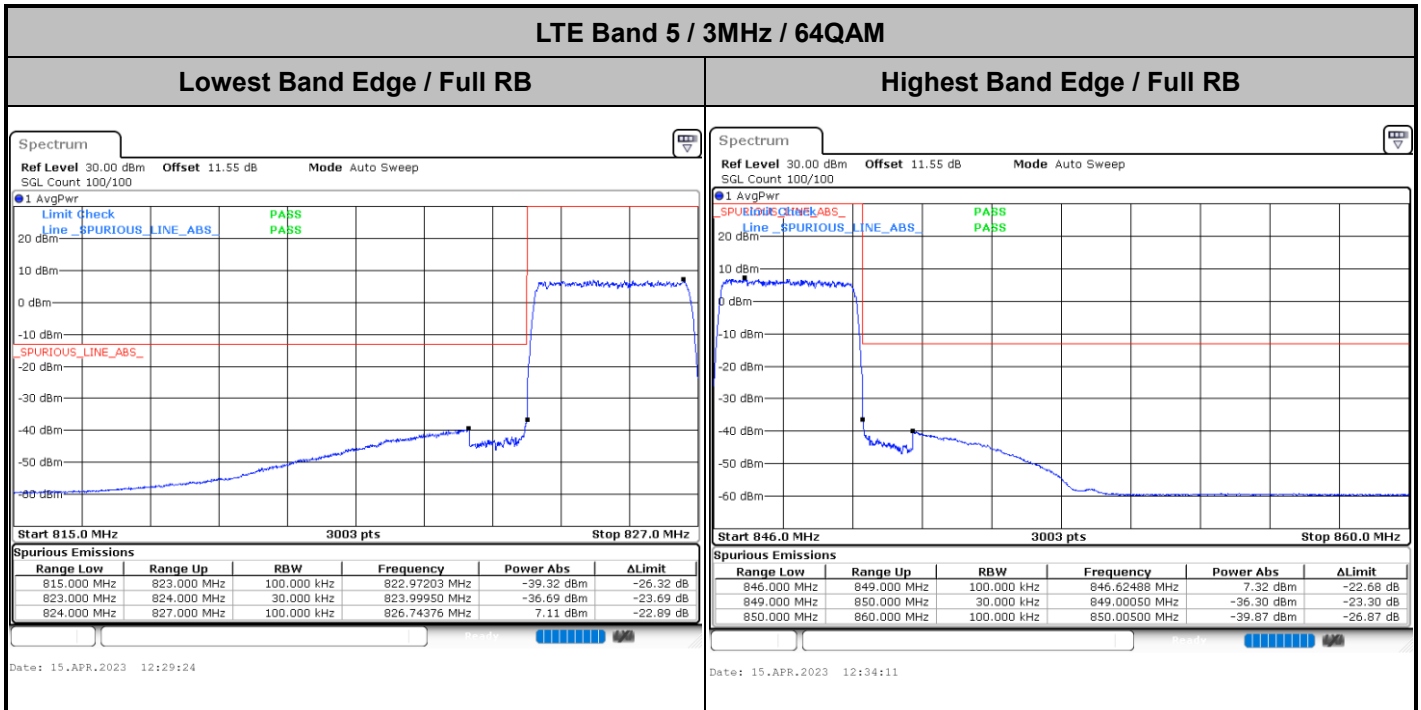


Date: 15.APR.2023 12:28:28

Highest Band Edge / Full RB



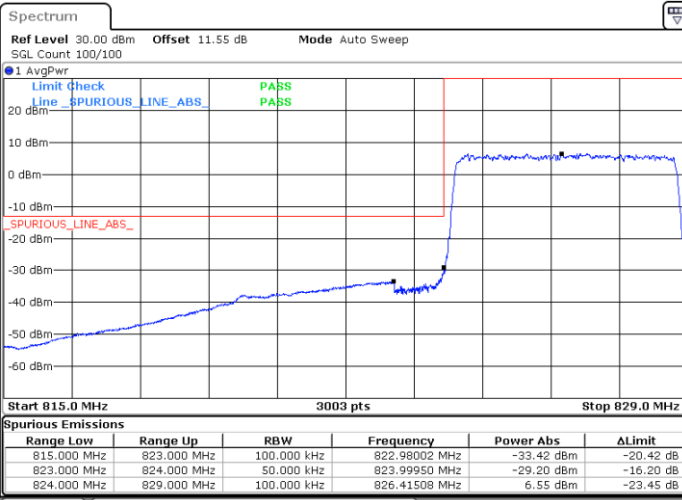
Date: 15.APR.2023 12:33:15





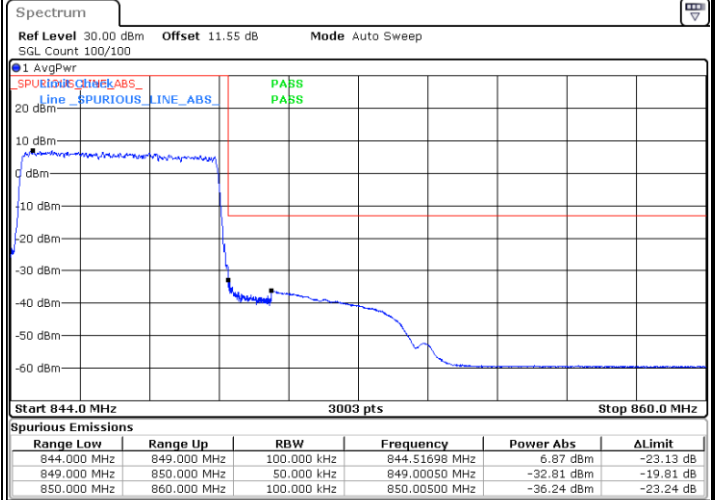
LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / Full RB



Date: 15.APR.2023 12:36:15

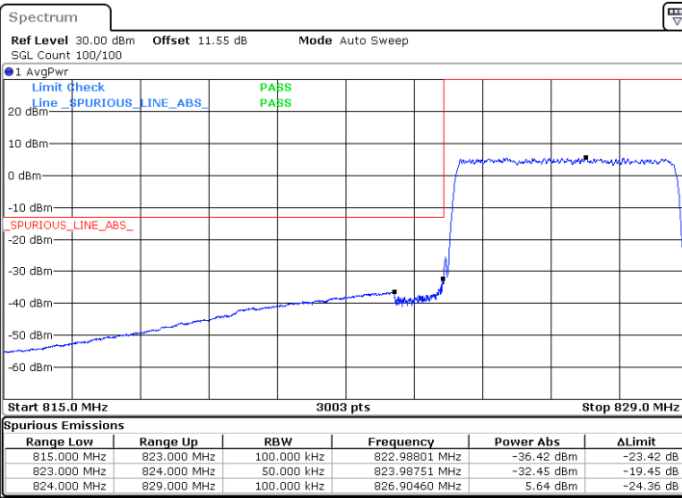
Highest Band Edge / Full RB



Date: 15.APR.2023 12:41:52

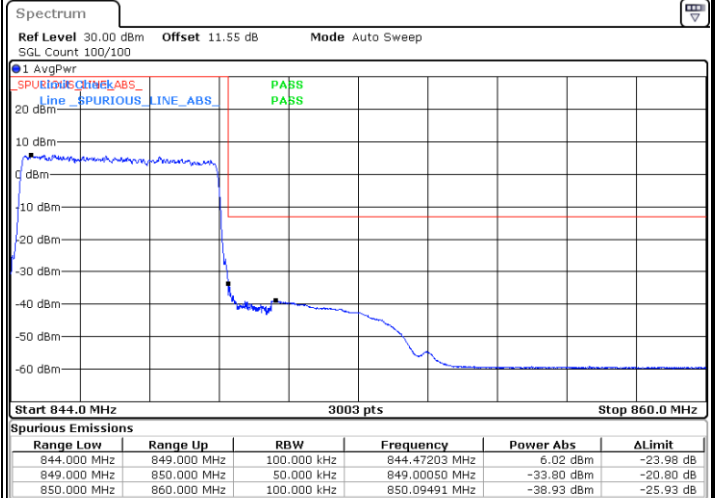
LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Date: 15.APR.2023 12:37:11

Highest Band Edge / Full RB



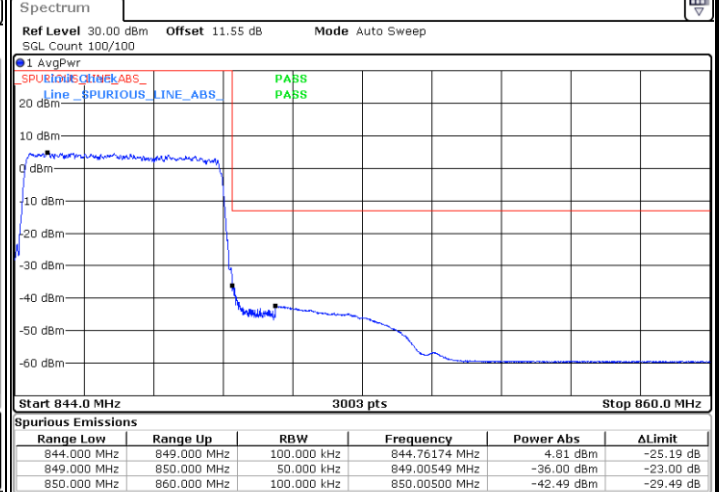
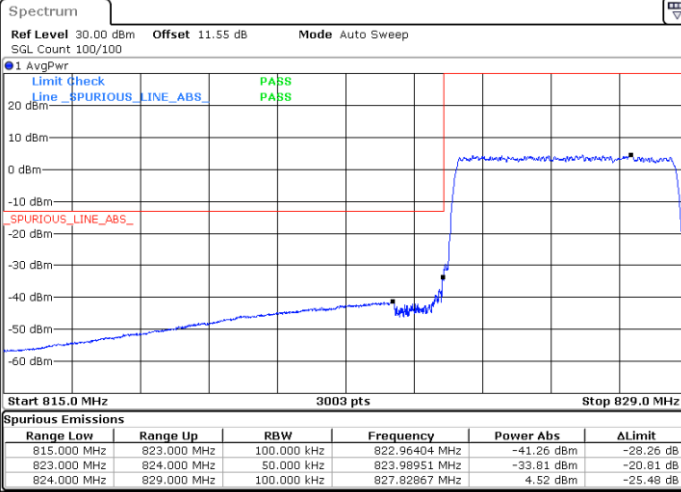
Date: 15.APR.2023 12:42:48



LTE Band 5 / 5MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



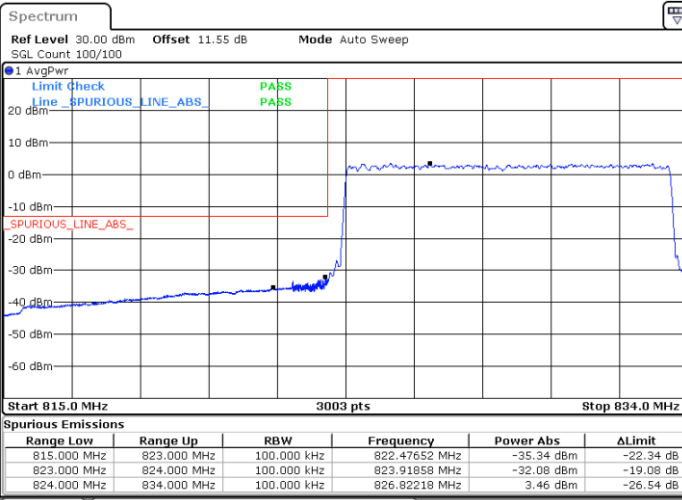
Date: 15.APR.2023 12:38:07

Date: 15.APR.2023 12:43:44



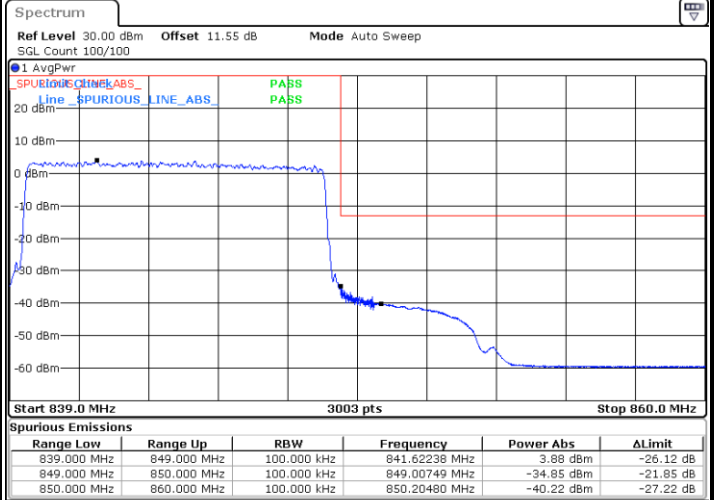
LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / Full RB



Date: 15.APR.2023 12:45:23

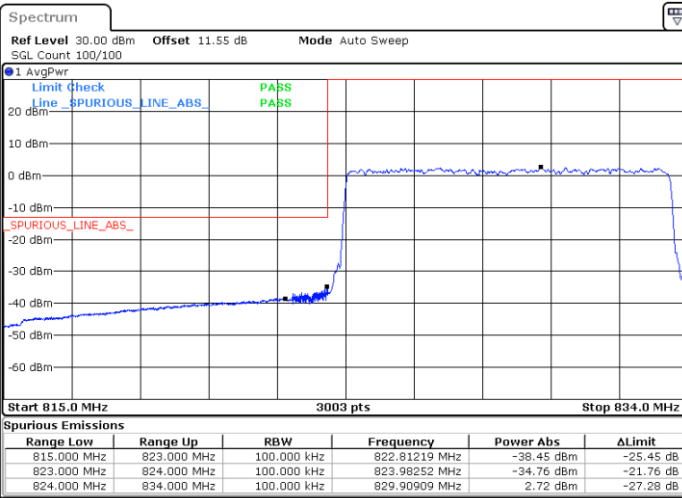
Highest Band Edge / Full RB



Date: 15.APR.2023 12:50:57

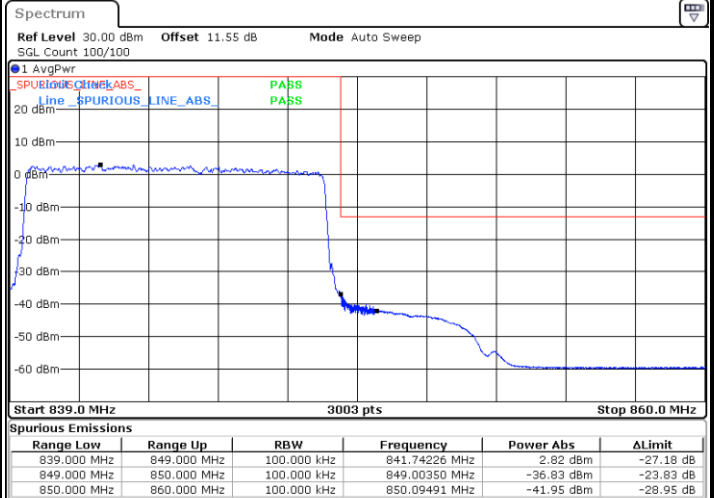
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / Full RB

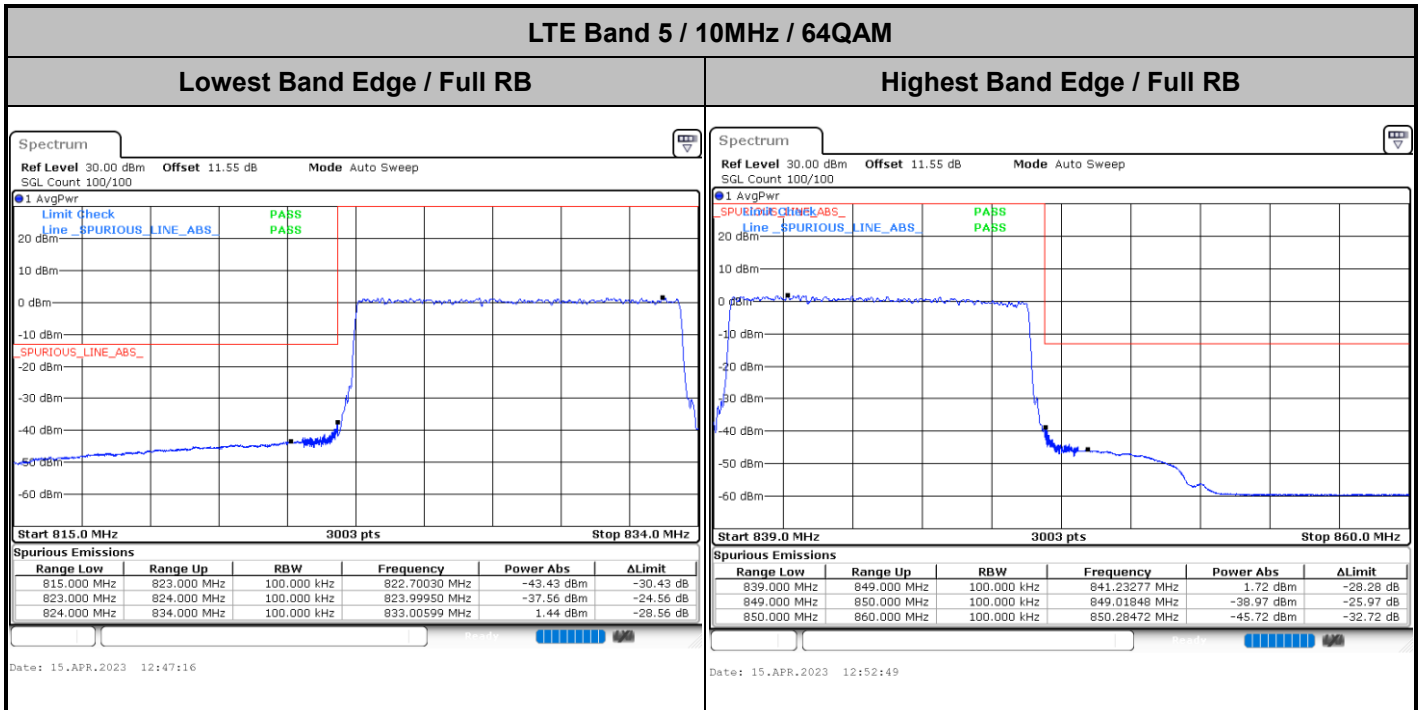


Date: 15.APR.2023 12:46:20

Highest Band Edge / Full RB



Date: 15.APR.2023 12:51:53



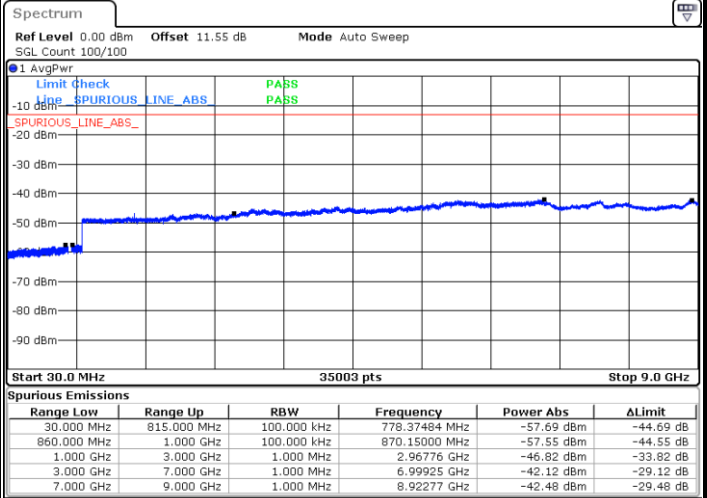
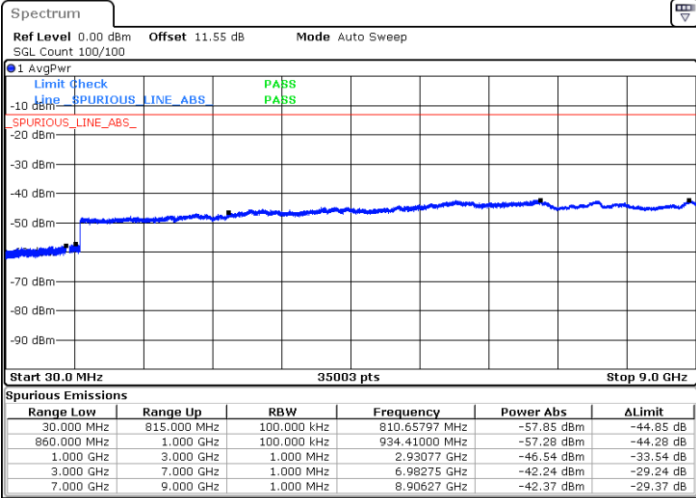


# Conducted Spurious Emission

## LTE Band 5 / 1.4MHz

### Lowest Channel / QPSK

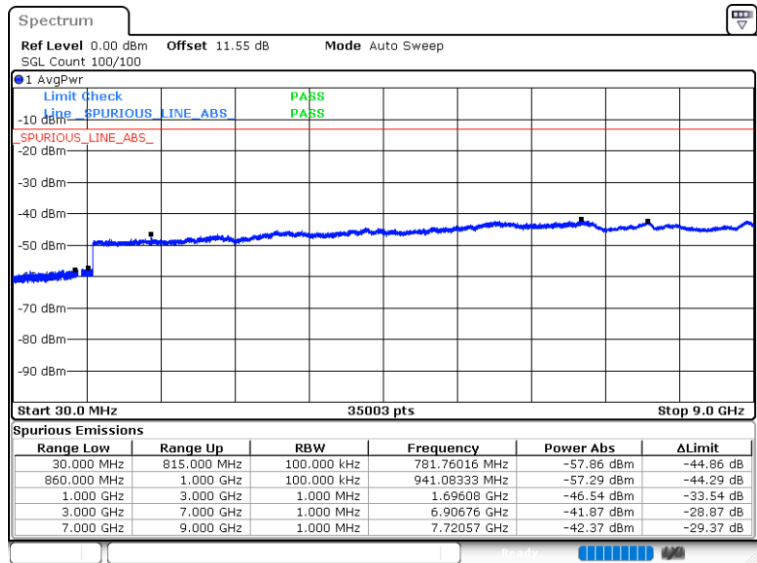
### Middle Channel / QPSK



Date: 15.APR.2023 12:12:35

Date: 15.APR.2023 12:16:38

### Highest Channel / QPSK



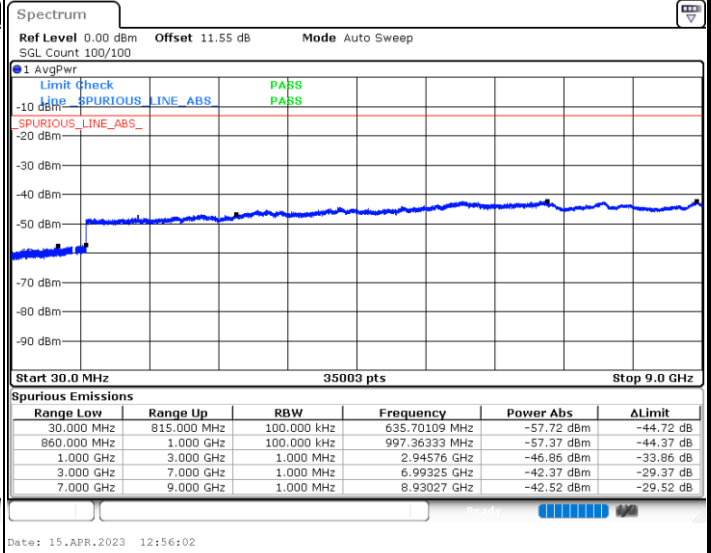
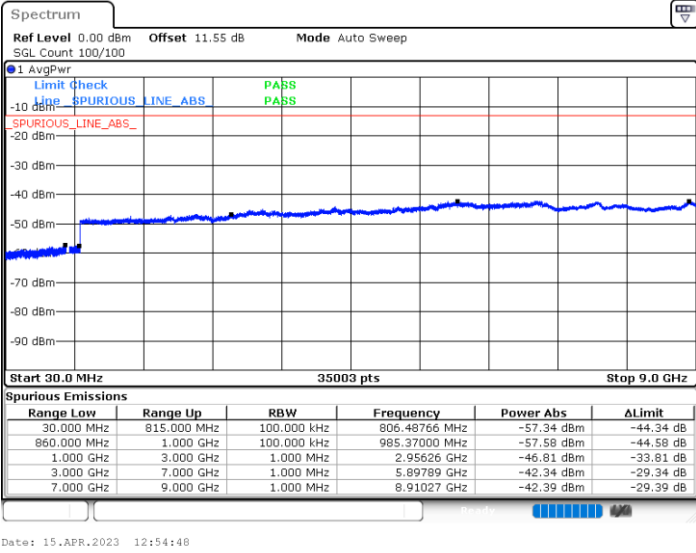
Date: 15.APR.2023 12:25:28



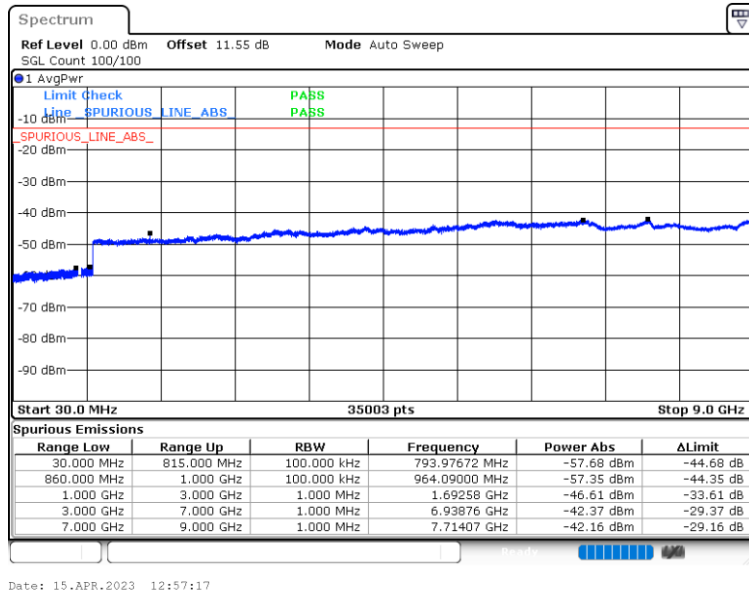
LTE Band 5 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK



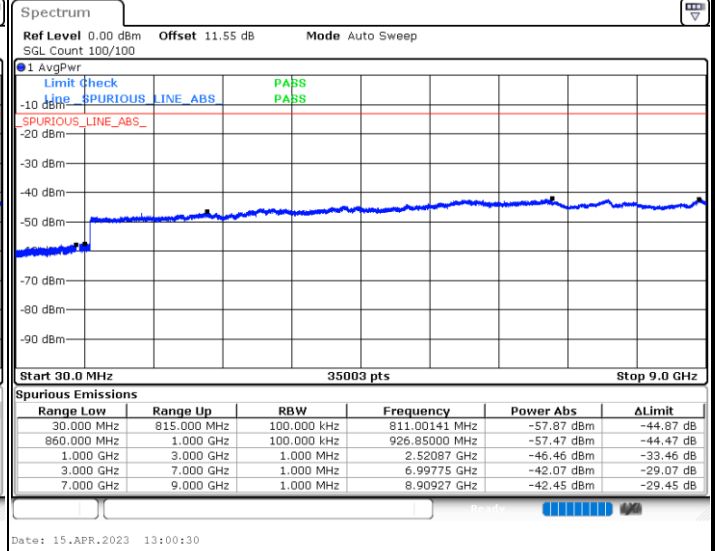
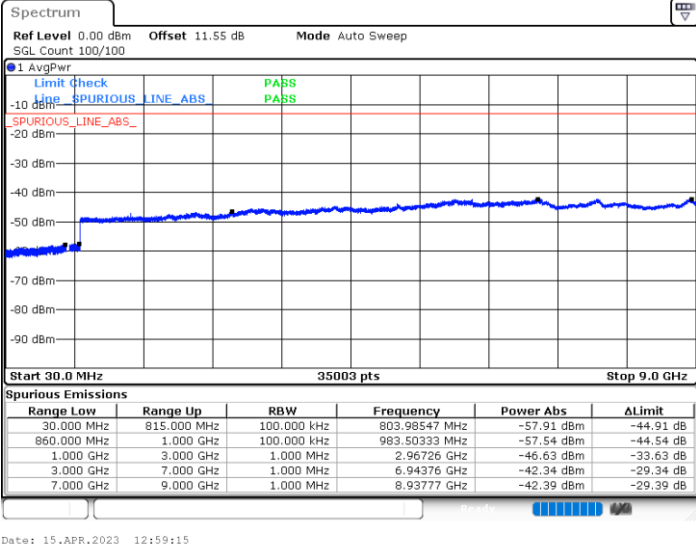




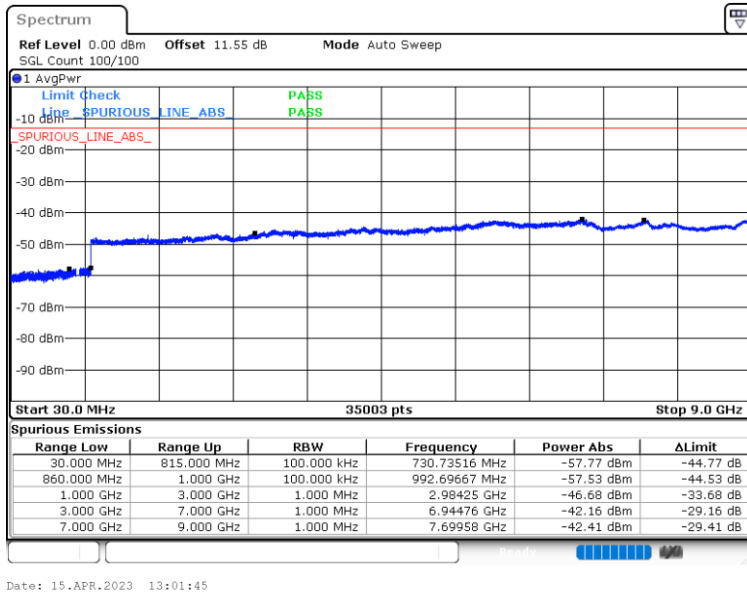
LTE Band 5 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

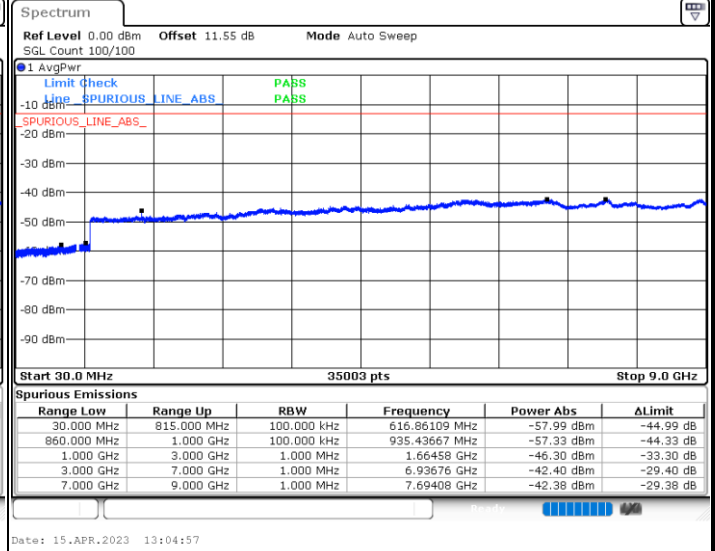
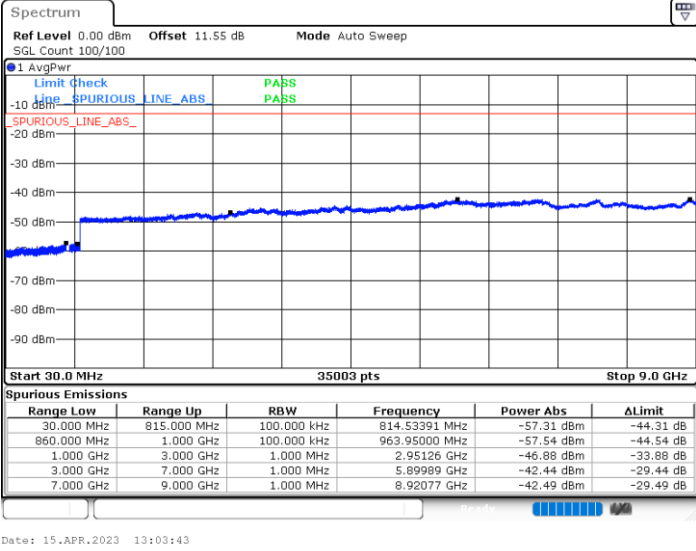




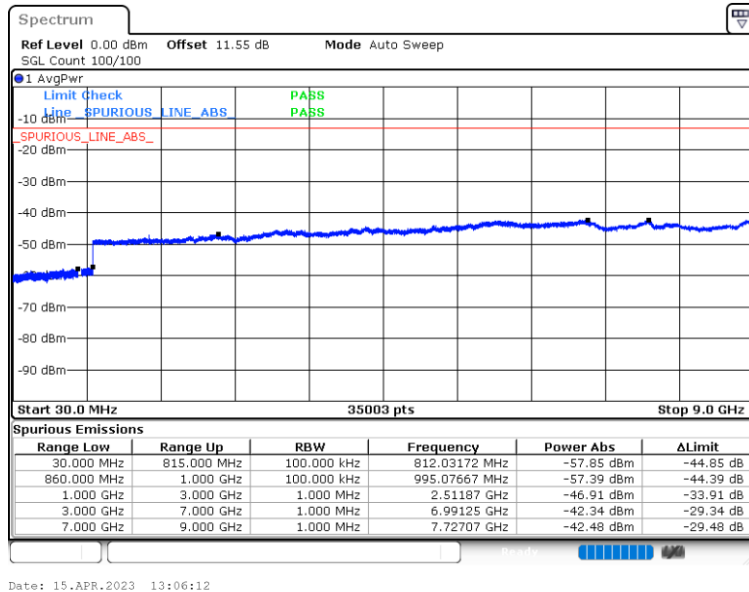
LTE Band 5 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK





**Frequency Stability**

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0060	PASS
40	Normal Voltage	0.0126	
30	Normal Voltage	0.0000	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0060	
0	Normal Voltage	0.0059	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0093	
-30	Normal Voltage	0.0047	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0060	
20	Battery End Point	0.0109	

**Note:**

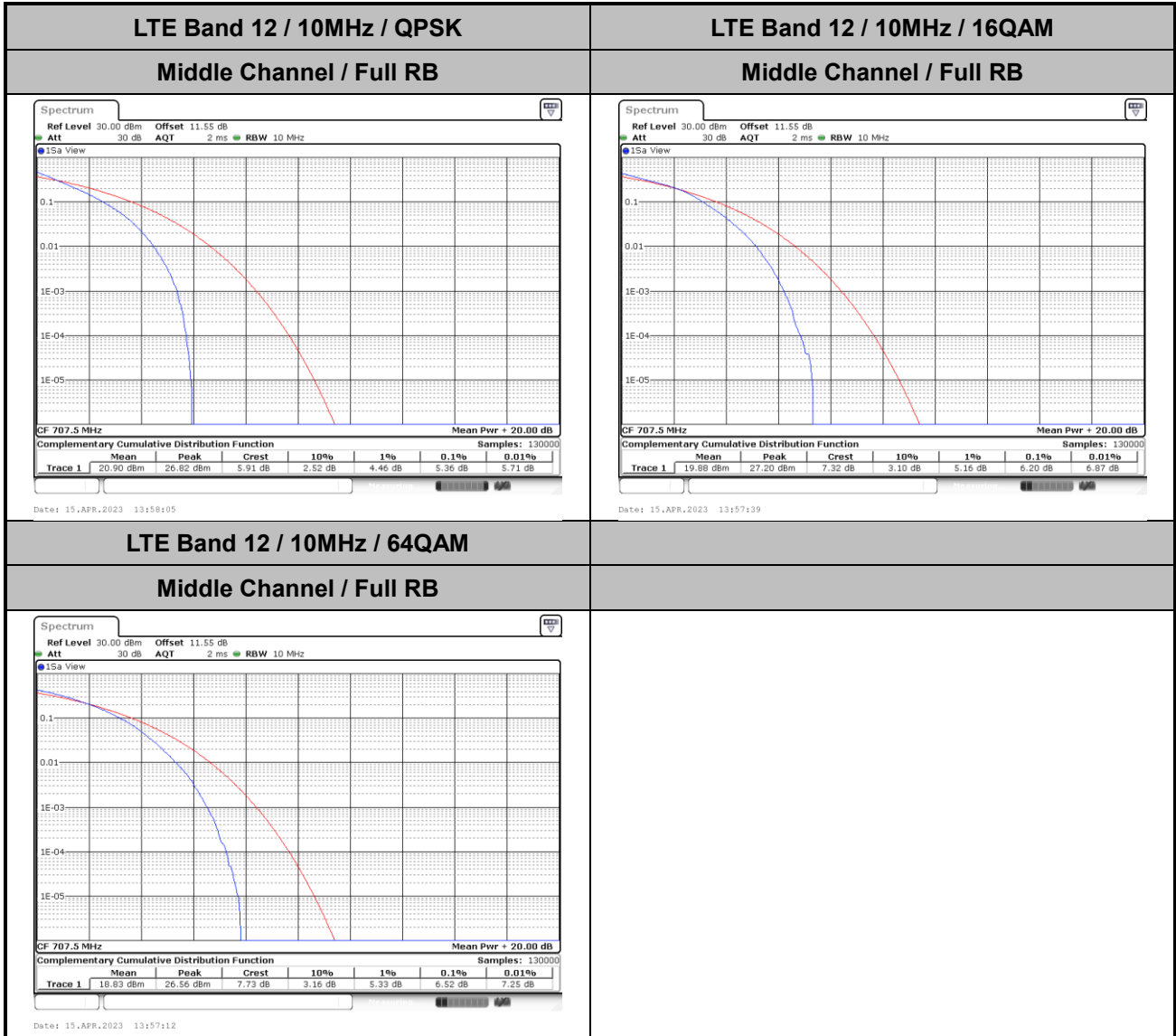
1. Normal Voltage = 3.87 V. ; Battery End Point (BEP) = 3.60 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 12

### Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.36	6.20	6.52	<b>PASS</b>





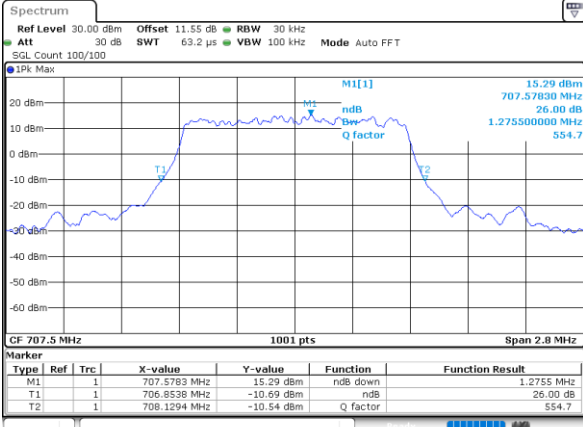
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.28	1.26	3.00	3.00	4.87	4.90	9.81	9.75
Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Middle CH	1.29		2.96		4.87		9.79	



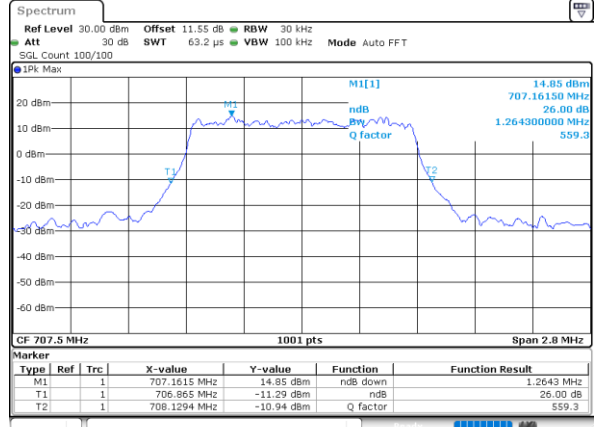
LTE Band 12

Middle Channel / 1.4MHz / QPSK



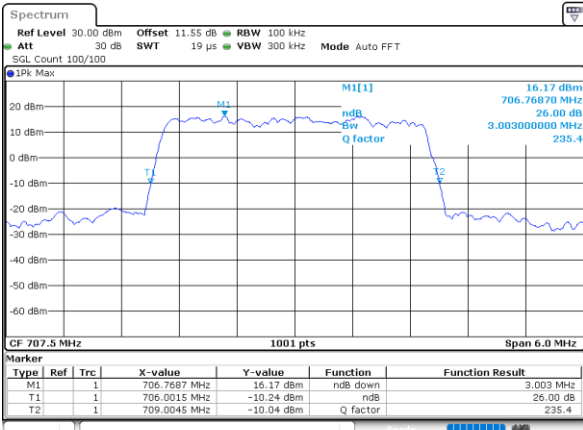
Date: 15.APR.2023 13:19:45

Middle Channel / 1.4MHz / 16QAM



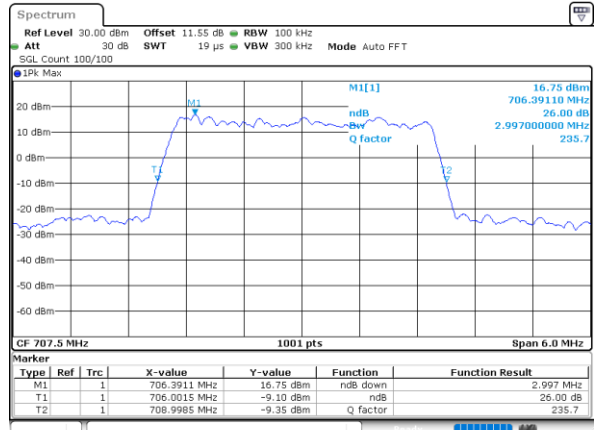
Date: 15.APR.2023 13:20:11

Middle Channel / 3MHz / QPSK



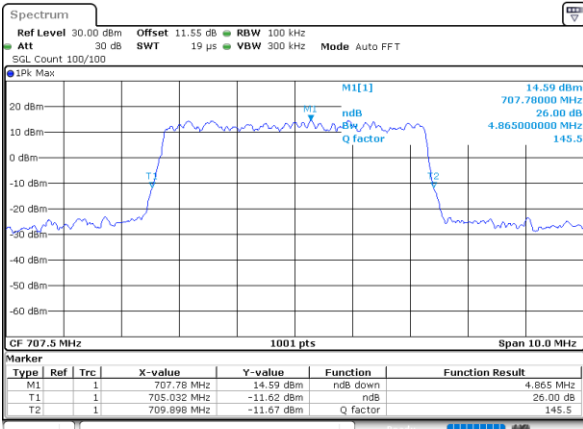
Date: 15.APR.2023 13:34:30

Middle Channel / 3MHz / 16QAM



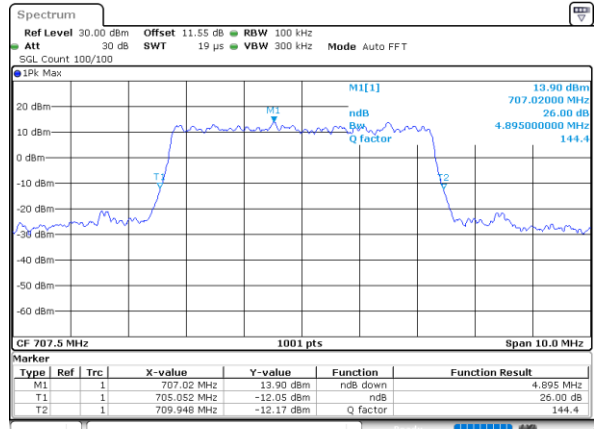
Date: 15.APR.2023 13:34:56

Middle Channel / 5MHz / QPSK



Date: 15.APR.2023 13:45:57

Middle Channel / 5MHz / 16QAM

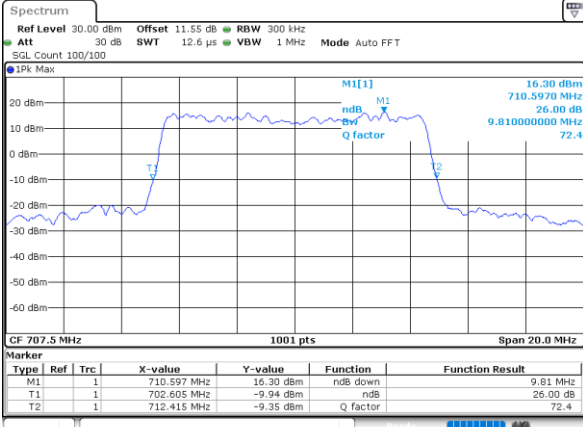


Date: 15.APR.2023 13:46:22



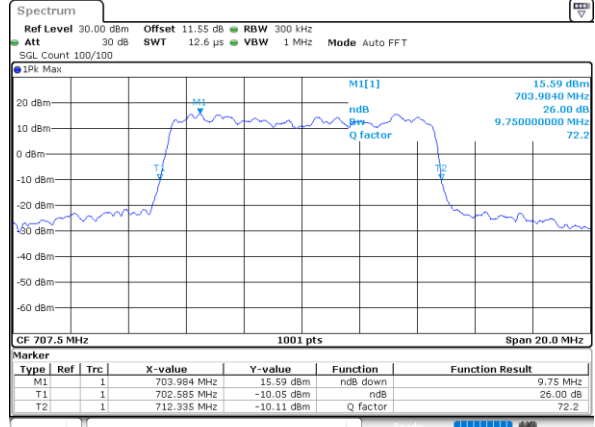
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 15.APR.2023 13:51:55

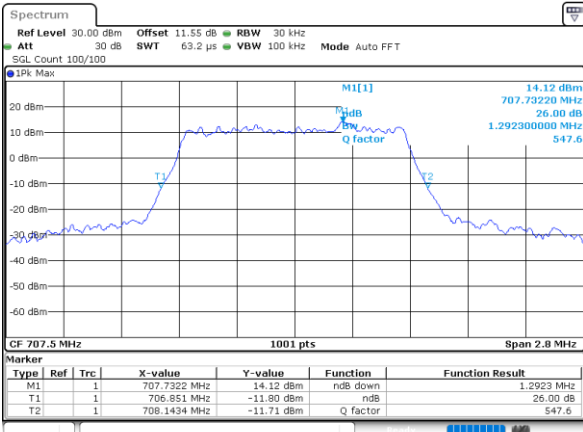
Middle Channel / 10MHz / 16QAM



Date: 15.APR.2023 13:52:12

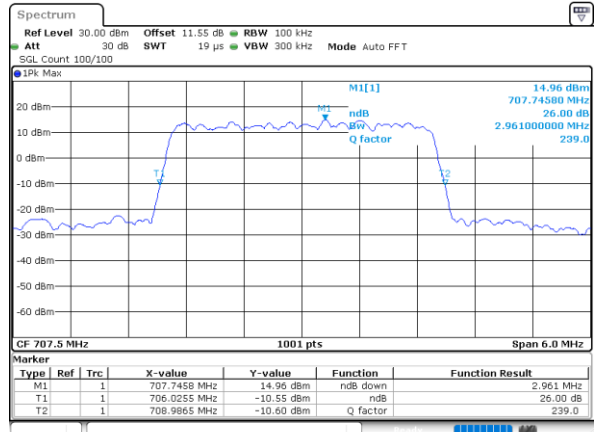
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



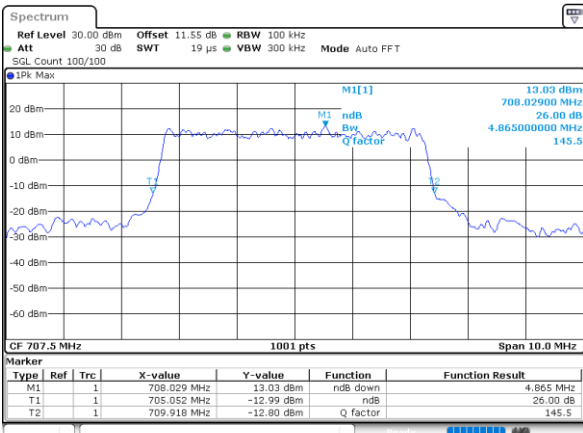
Date: 15.APR.2023 13:28:57

Middle Channel / 3MHz / 64QAM



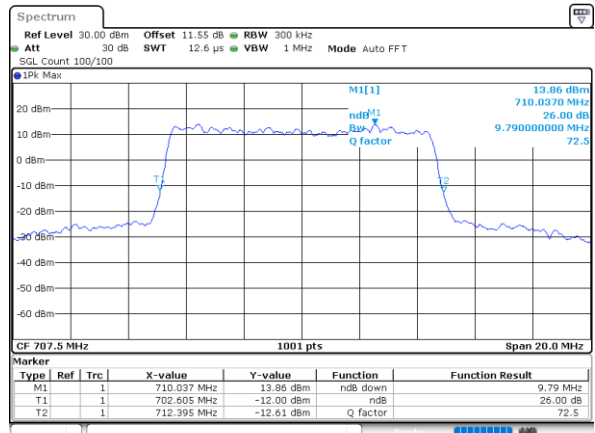
Date: 15.APR.2023 13:38:23

Middle Channel / 5MHz / 64QAM



Date: 15.APR.2023 13:42:03

Middle Channel / 10MHz / 64QAM



Date: 15.APR.2023 13:55:49





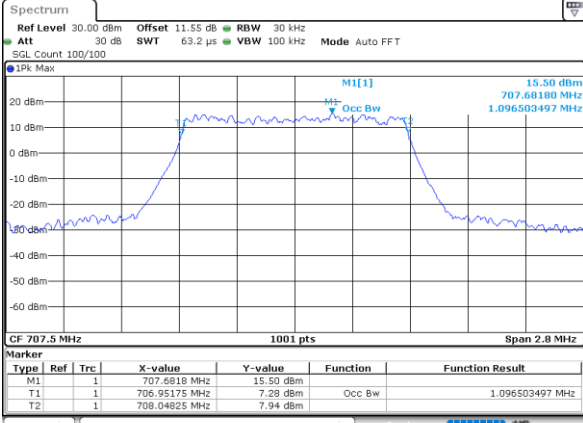
### Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.10	1.09	2.71	2.71	4.49	4.49	9.09	9.03
Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	64QAM		64QAM		64QAM		64QAM	
Middle CH	1.09		2.70		4.47		9.07	



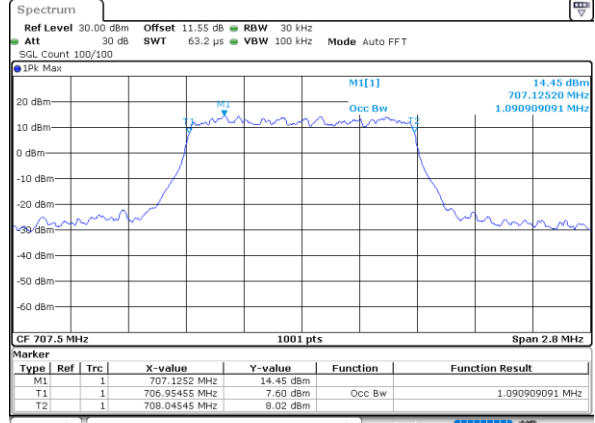
LTE Band 12

Middle Channel / 1.4MHz / QPSK



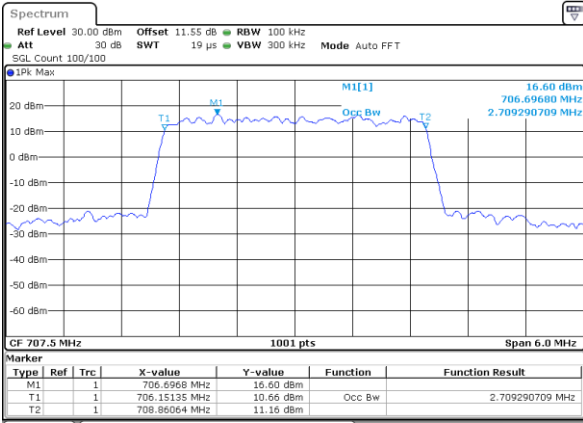
Date: 15.APR.2023 13:19:31

Middle Channel / 1.4MHz / 16QAM



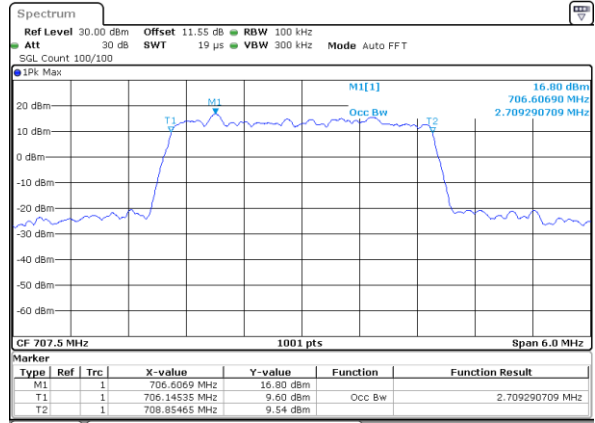
Date: 15.APR.2023 13:19:05

Middle Channel / 3MHz / QPSK



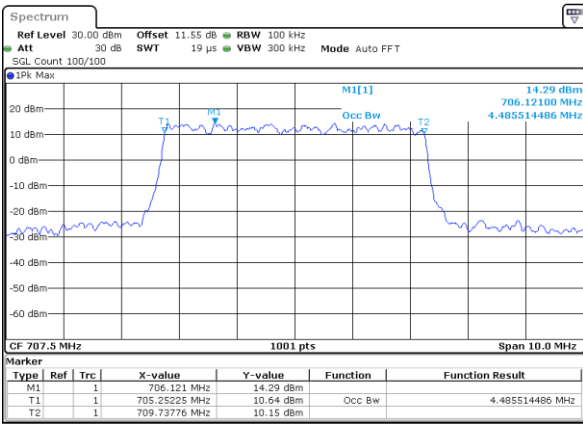
Date: 15.APR.2023 13:34:16

Middle Channel / 3MHz / 16QAM



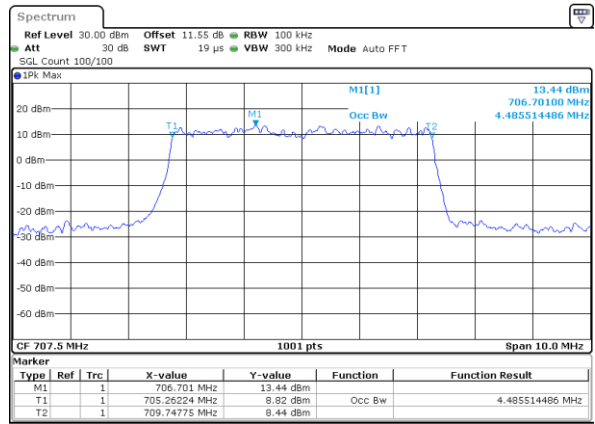
Date: 15.APR.2023 13:33:50

Middle Channel / 5MHz / QPSK



Date: 15.APR.2023 13:45:43

Middle Channel / 5MHz / 16QAM

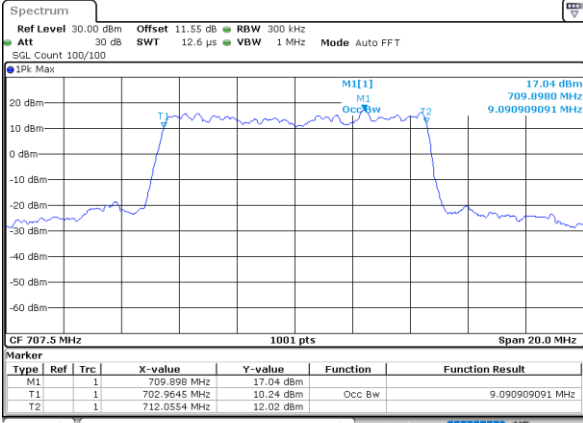


Date: 15.APR.2023 13:45:17



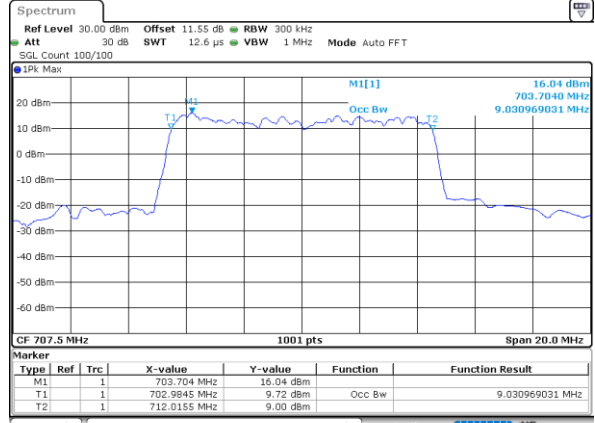
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 15.APR.2023 13:51:41

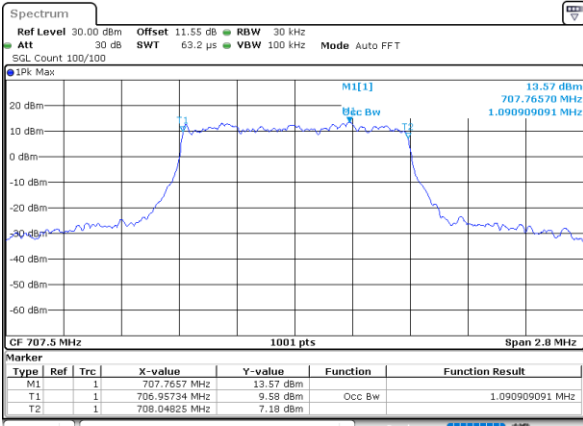
Middle Channel / 10MHz / 16QAM



Date: 15.APR.2023 13:51:16

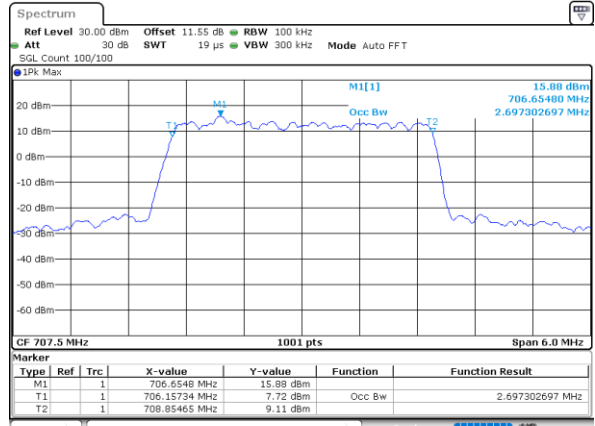
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



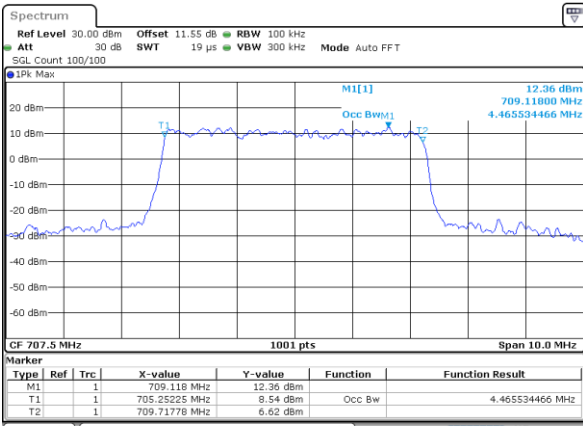
Date: 15.APR.2023 13:28:43

Middle Channel / 3MHz / 64QAM



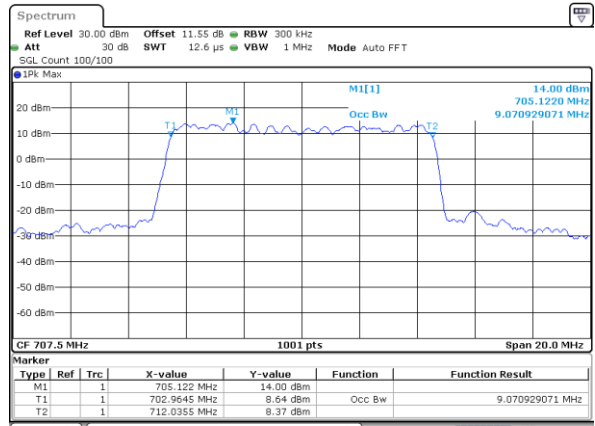
Date: 15.APR.2023 13:38:09

Middle Channel / 5MHz / 64QAM



Date: 15.APR.2023 13:41:49

Middle Channel / 10MHz / 64QAM



Date: 15.APR.2023 13:55:35