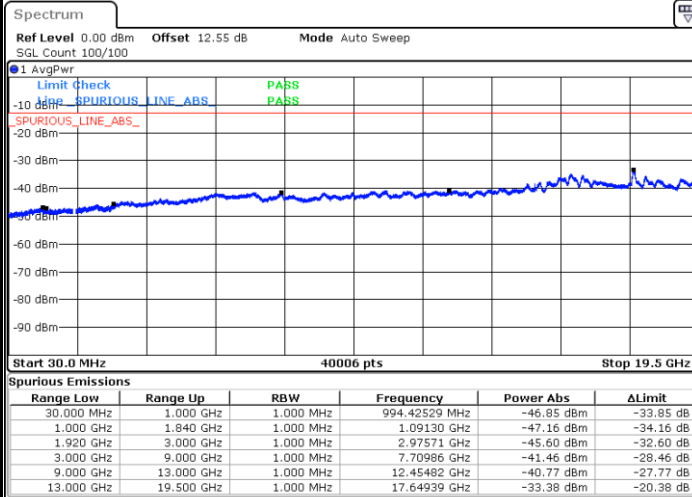




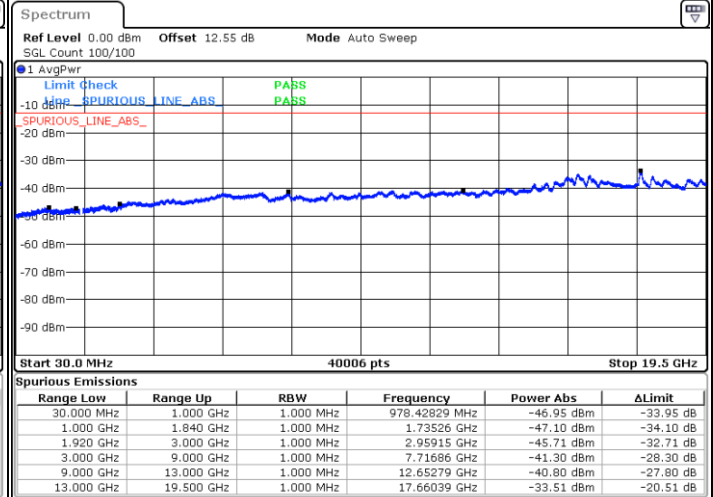
LTE Band 2 / 5MHz

Lowest Channel / QPSK



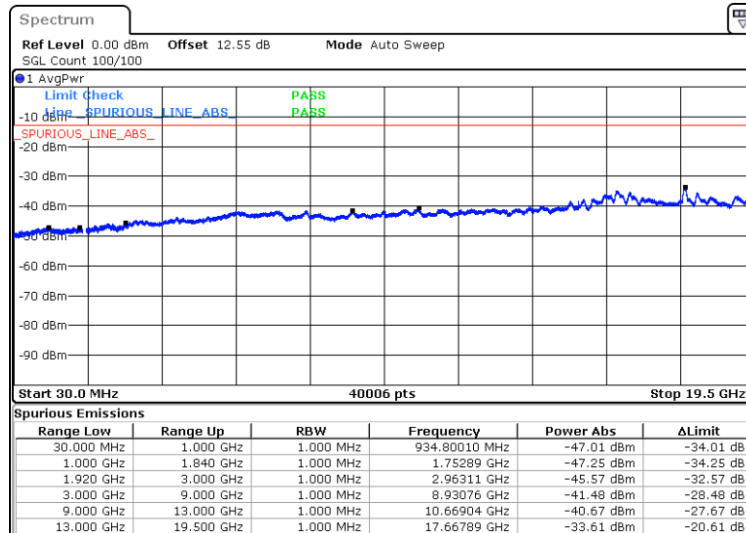
Date: 15.APR.2023 15:34:30

Middle Channel / QPSK



Date: 15.APR.2023 15:35:43

Highest Channel / QPSK

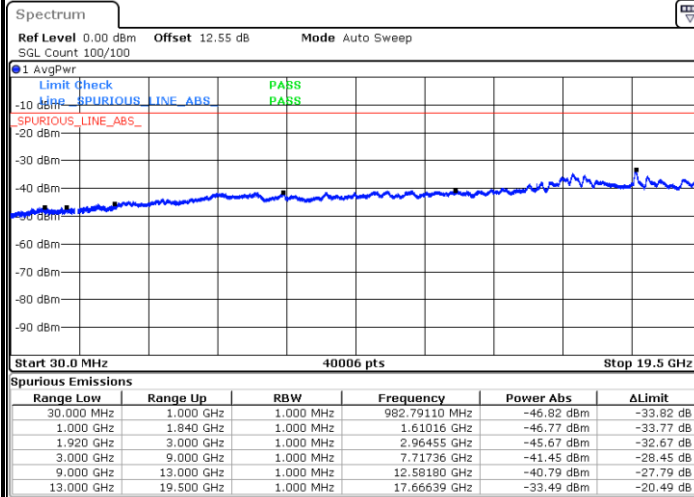


Date: 15.APR.2023 15:36:55



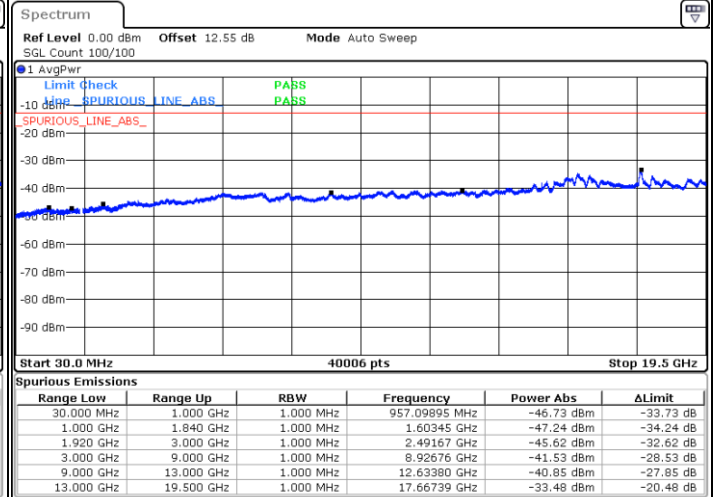
LTE Band 2 / 10MHz

Lowest Channel / QPSK



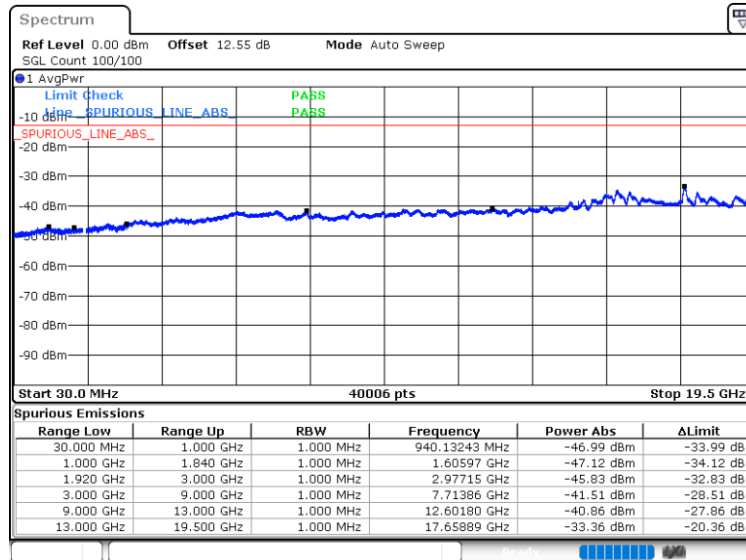
Date: 15.APR.2023 15:42:26

Middle Channel / QPSK



Date: 15.APR.2023 15:43:38

Highest Channel / QPSK

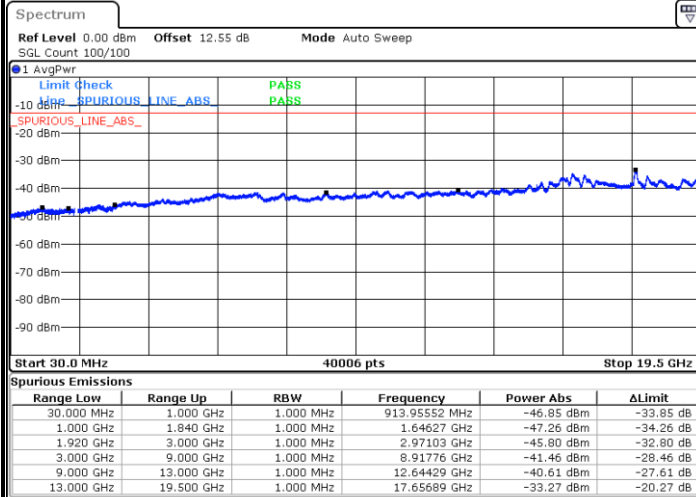


Date: 15.APR.2023 15:44:51



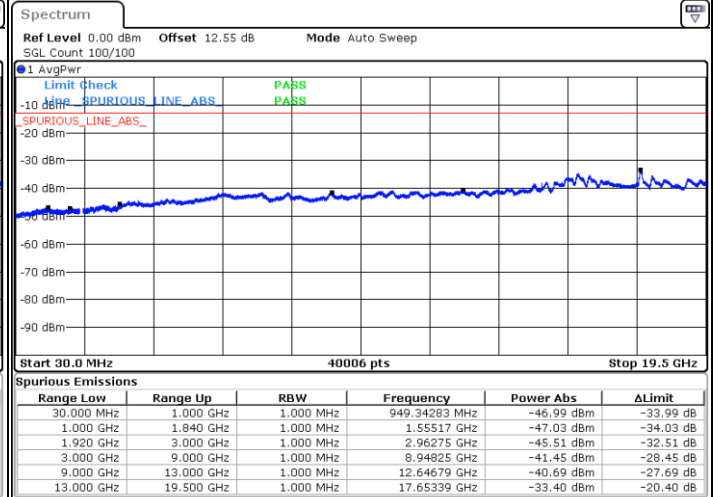
LTE Band 2 / 15MHz

Lowest Channel / QPSK



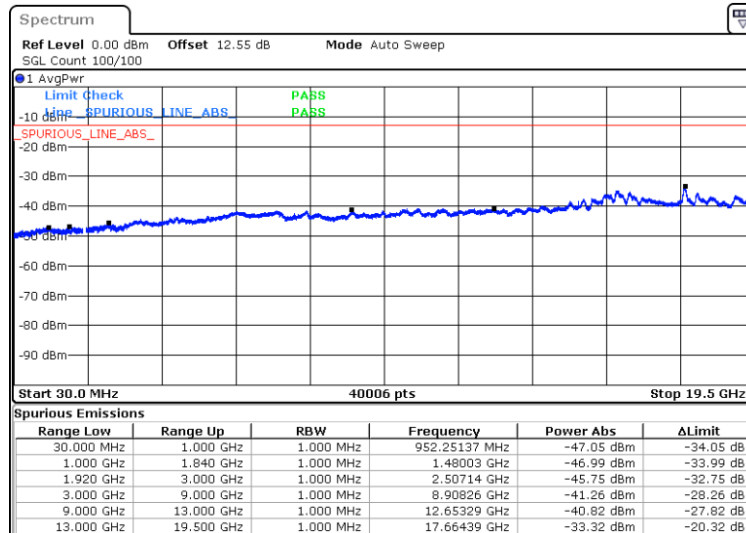
Date: 15.APR.2023 15:57:19

Middle Channel / QPSK



Date: 15.APR.2023 15:58:31

Highest Channel / QPSK

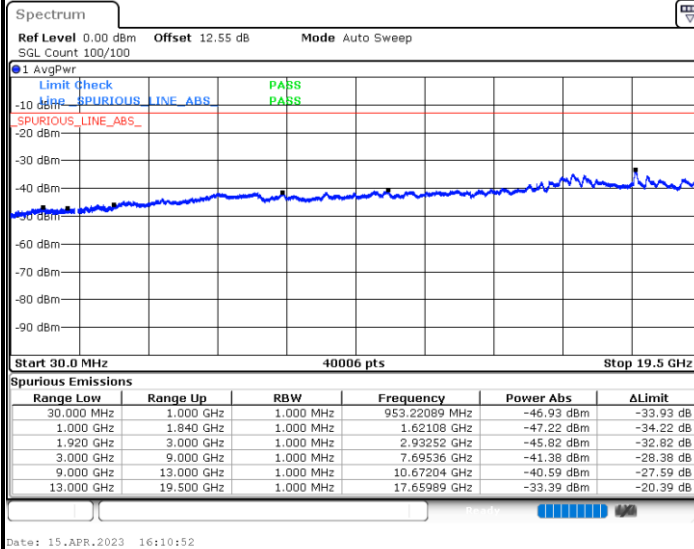


Date: 15.APR.2023 15:59:44

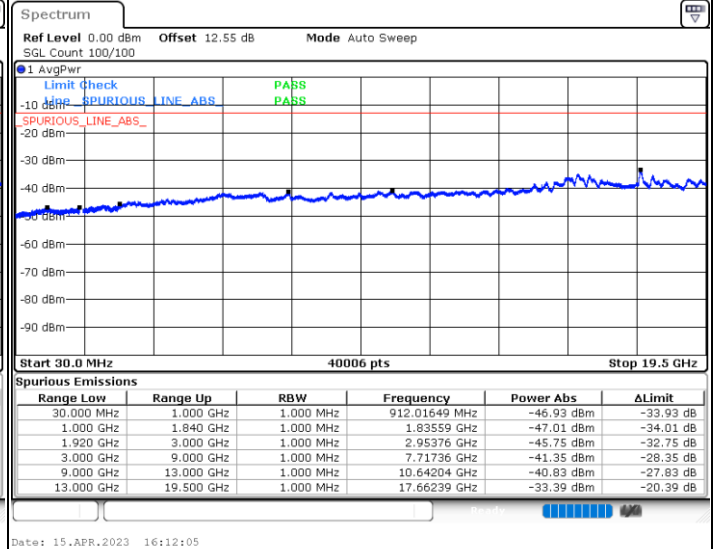


LTE Band 2 / 20MHz

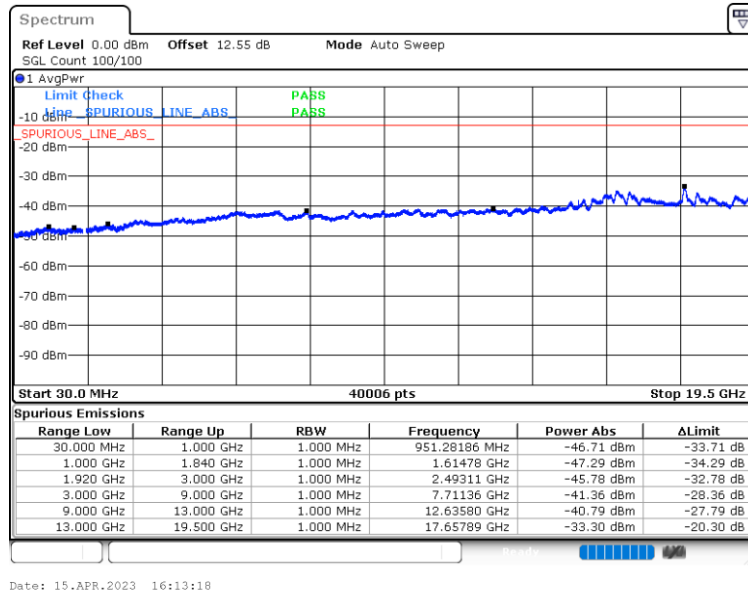
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK



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.

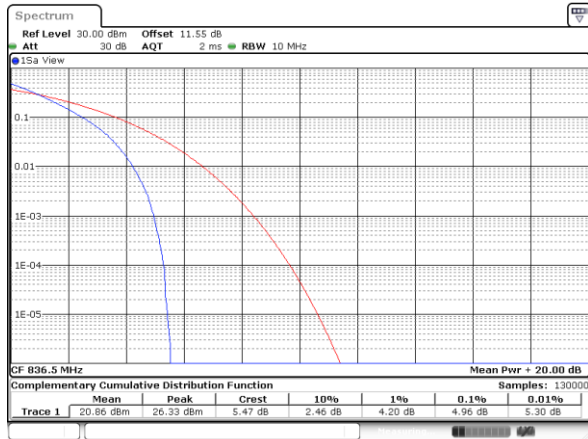
**LTE Band 5****Peak-to-Average Ratio**

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	PASS



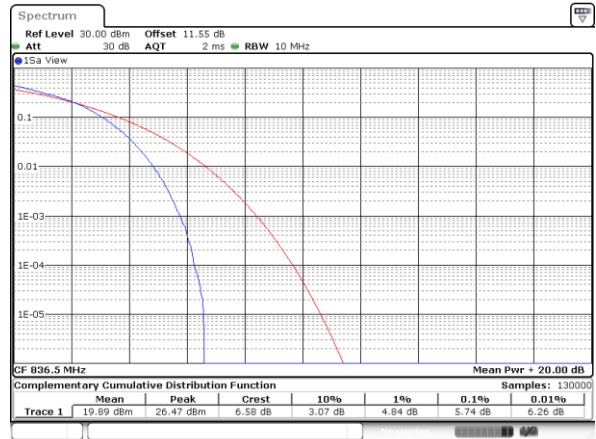
LTE Band 5 / 10MHz / QPSK

Middle Channel / Full RB



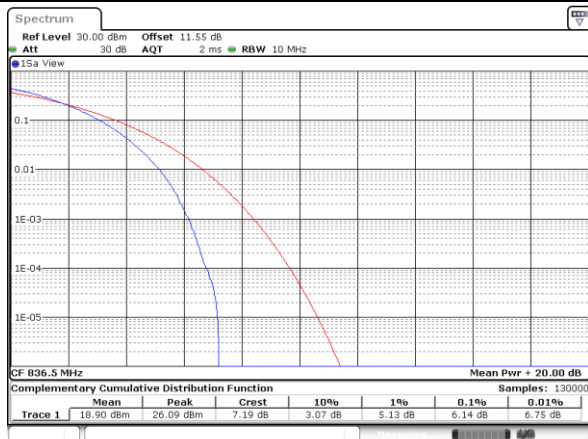
LTE Band 5 / 10MHz / 16QAM

Middle Channel / Full RB



LTE Band 5 / 10MHz / 64QAM

Middle Channel / Full RB



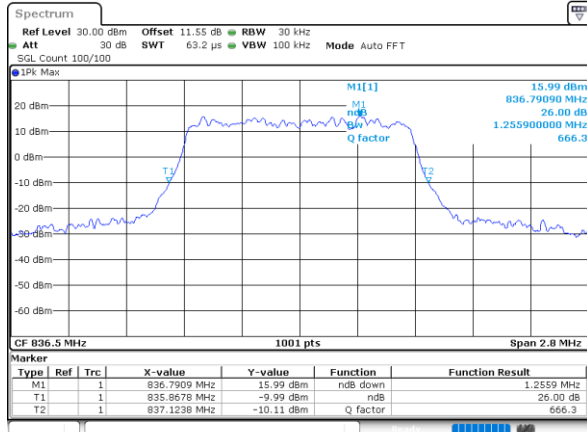
**26dB Bandwidth**

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	



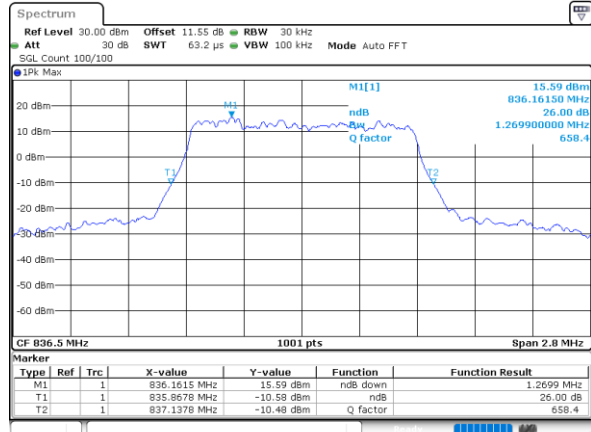
LTE Band 5

Middle Channel / 1.4MHz / QPSK



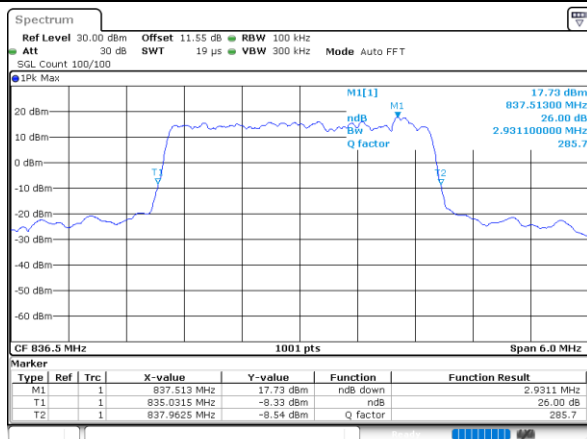
Date: 15.APR.2023 12:17:10

Middle Channel / 1.4MHz / 16QAM



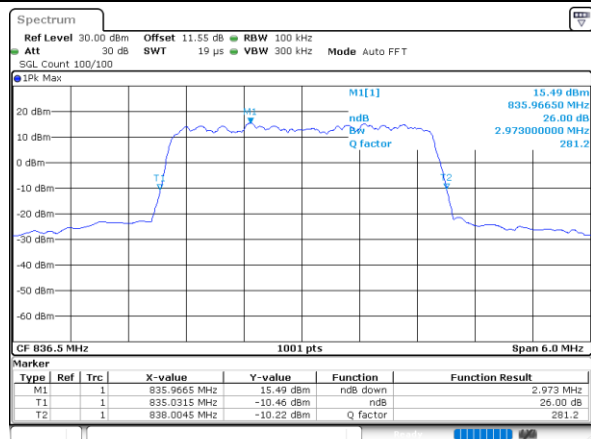
Date: 15.APR.2023 12:17:57

Middle Channel / 3MHz / QPSK



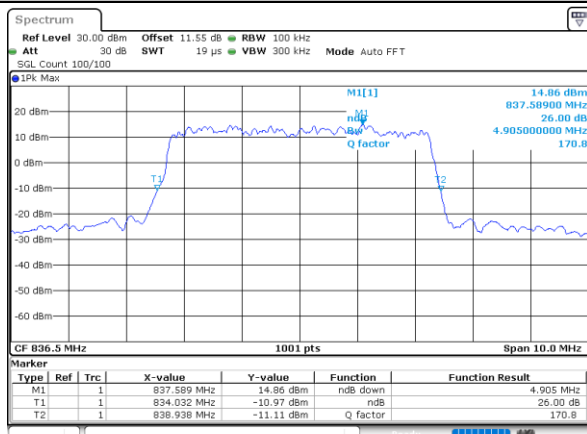
Date: 15.APR.2023 12:38:04

Middle Channel / 3MHz / 16QAM



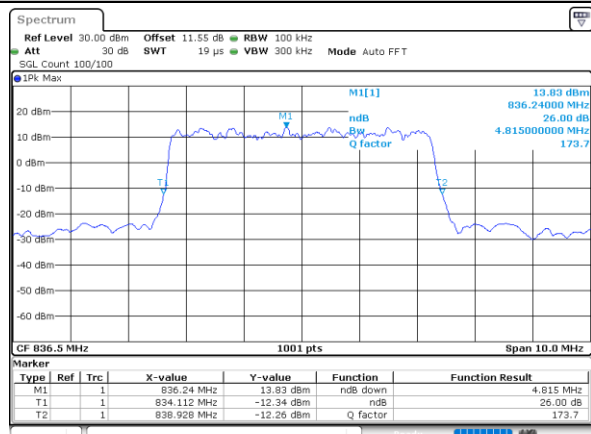
Date: 15.APR.2023 12:39:44

Middle Channel / 5MHz / QPSK



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

Middle Channel / 5MHz / 16QAM

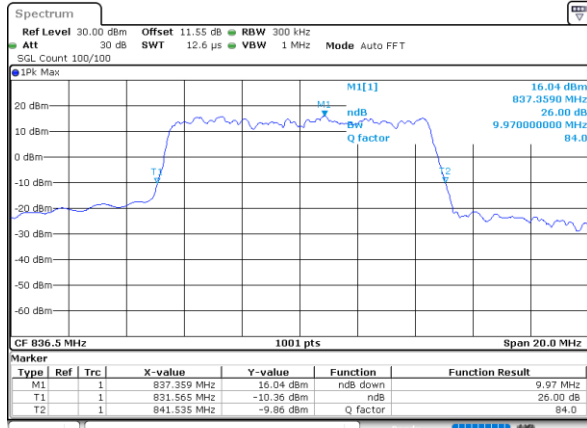


Date: 15.APR.2023 12:39:27



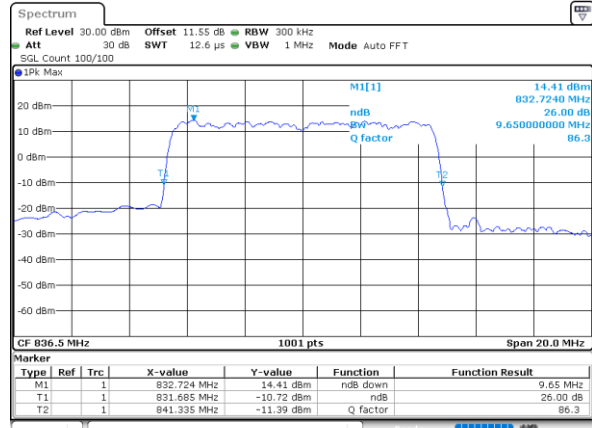
LTE Band 5

Middle Channel / 10MHz / QPSK



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

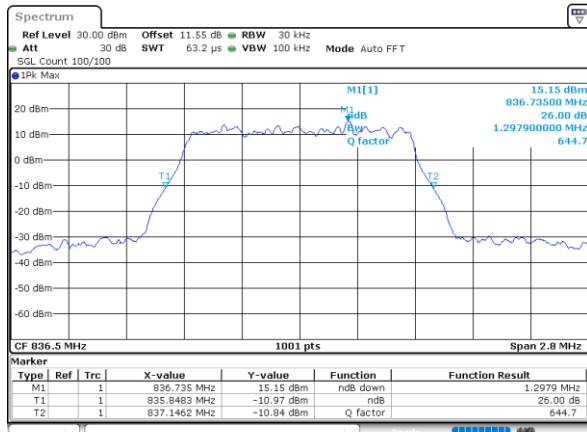
Middle Channel / 10MHz / 16QAM



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

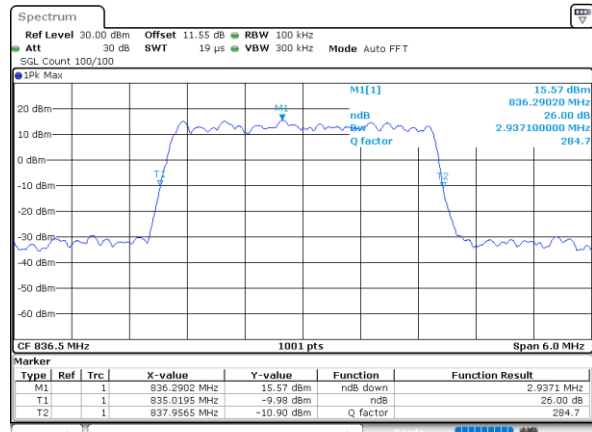
LTE Band 5

Middle Channel / 1.4MHz / 64QAM



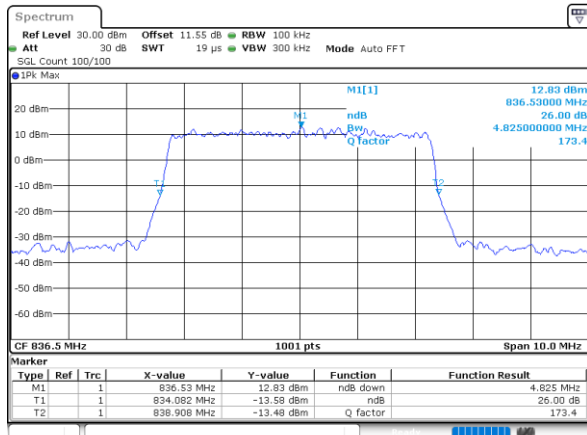
Date: 15.APR.2023 12:18:37

Middle Channel / 3MHz / 64QAM



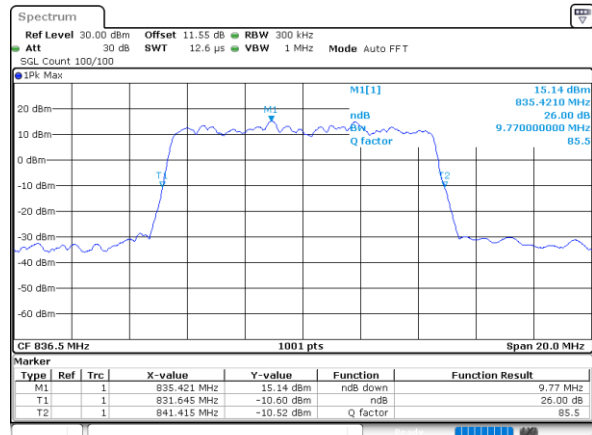
Date: 15.APR.2023 12:31:24

Middle Channel / 5MHz / 64QAM



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

Middle Channel / 10MHz / 64QAM



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

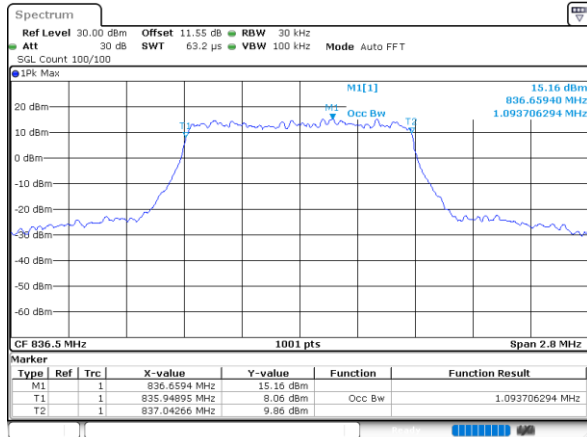
**Occupied Bandwidth**

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	

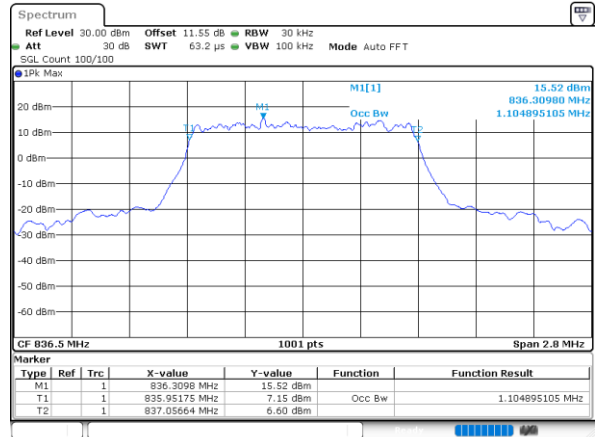


LTE Band 5

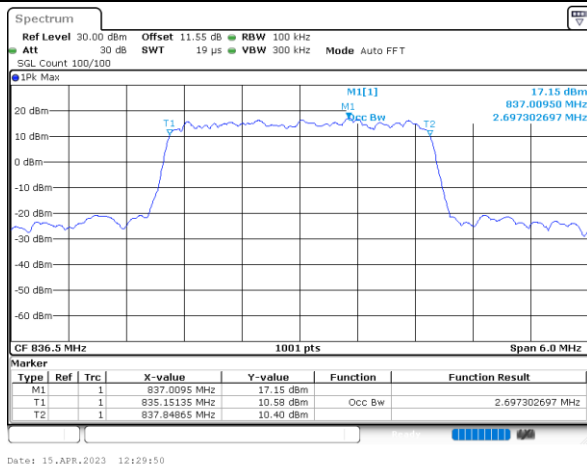
Middle Channel / 1.4MHz / QPSK



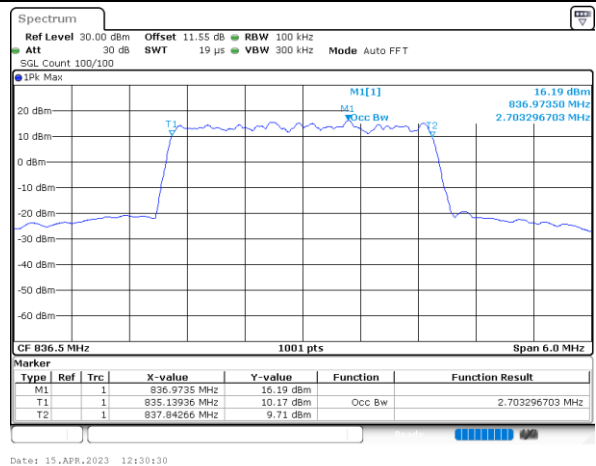
Middle Channel / 1.4MHz / 16QAM



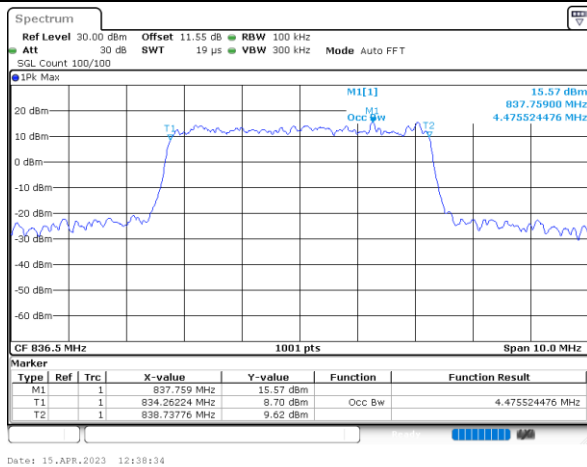
Middle Channel / 3MHz / QPSK



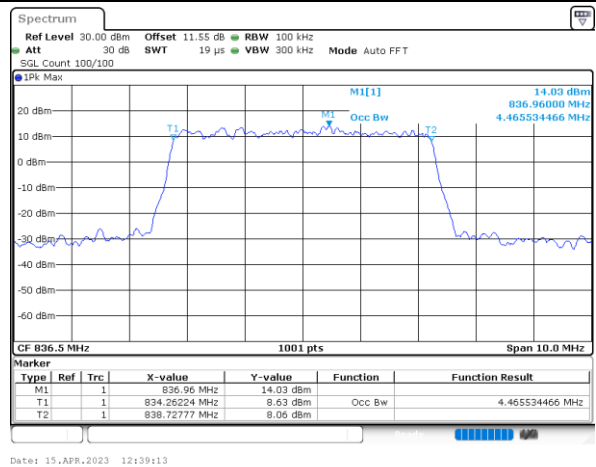
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



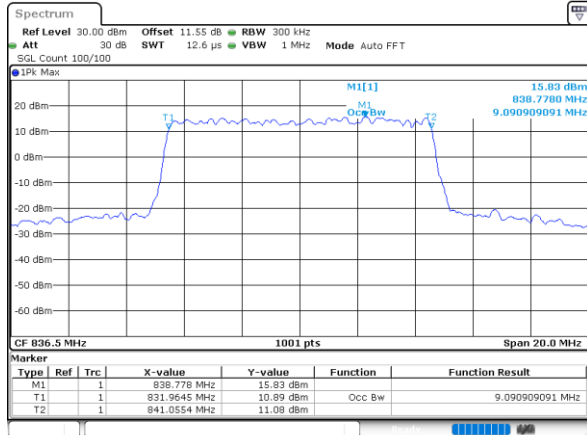
Middle Channel / 5MHz / 16QAM





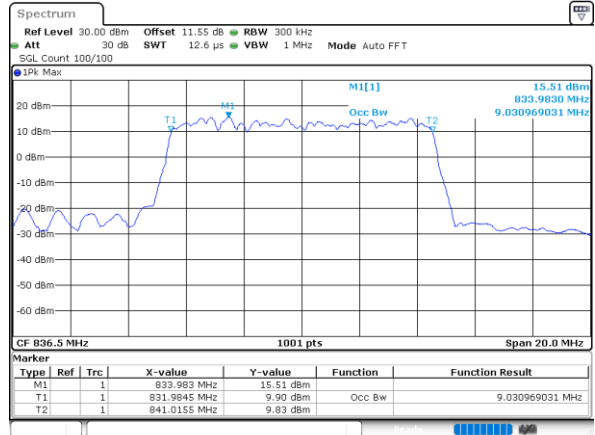
LTE Band 5

Middle Channel / 10MHz / QPSK



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

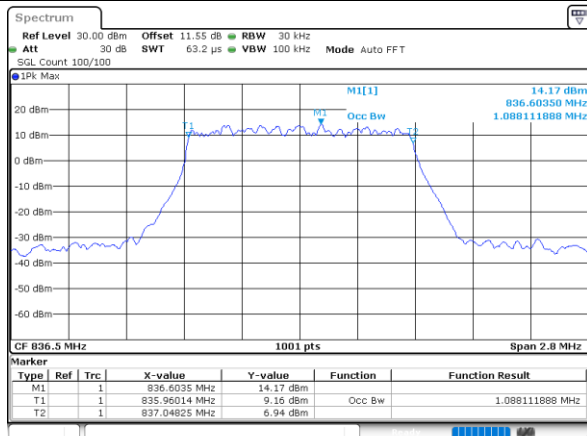
Middle Channel / 10MHz / 16QAM



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

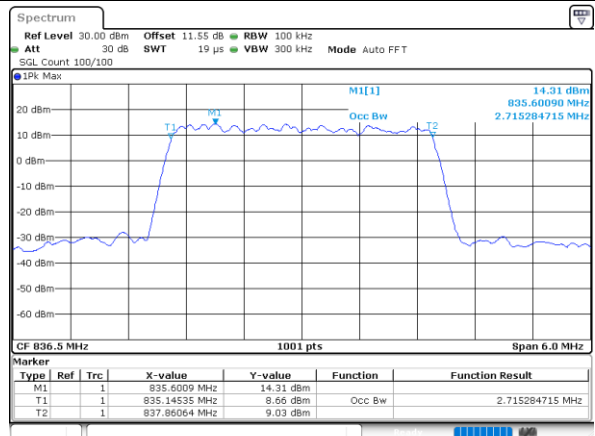
LTE Band 5

Middle Channel / 1.4MHz / 64QAM



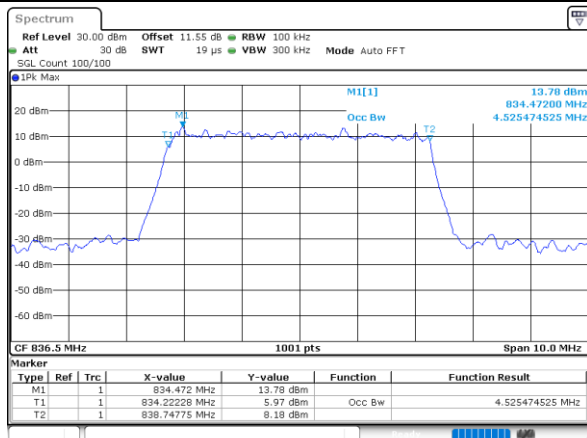
Date: 15.APR.2023 12:18:23

Middle Channel / 3MHz / 64QAM



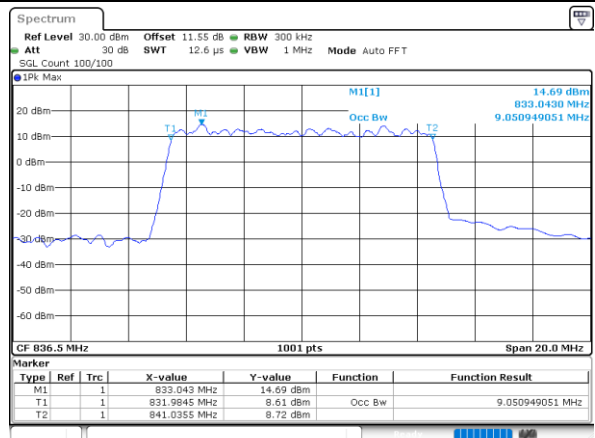
Date: 15.APR.2023 12:13:10

Middle Channel / 5MHz / 64QAM



Date: 15.APR.2023 12:39:53

Middle Channel / 10MHz / 64QAM



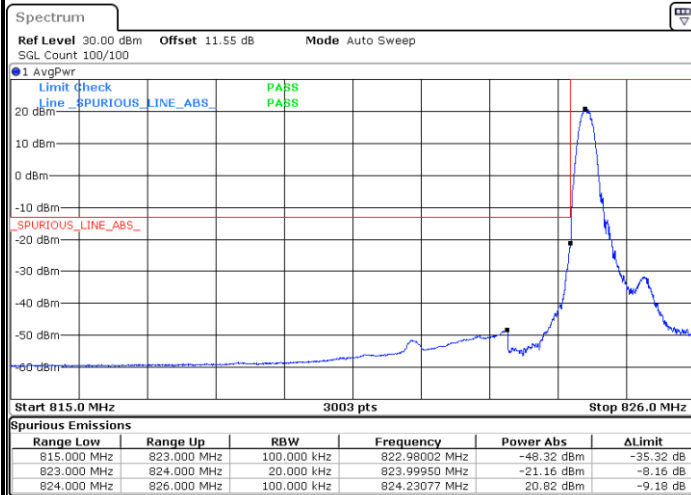
Date: 15.APR.2023 12:49:48



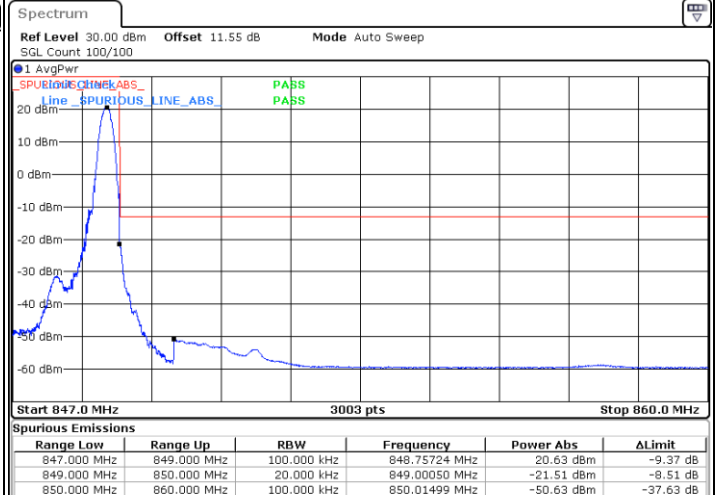
Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

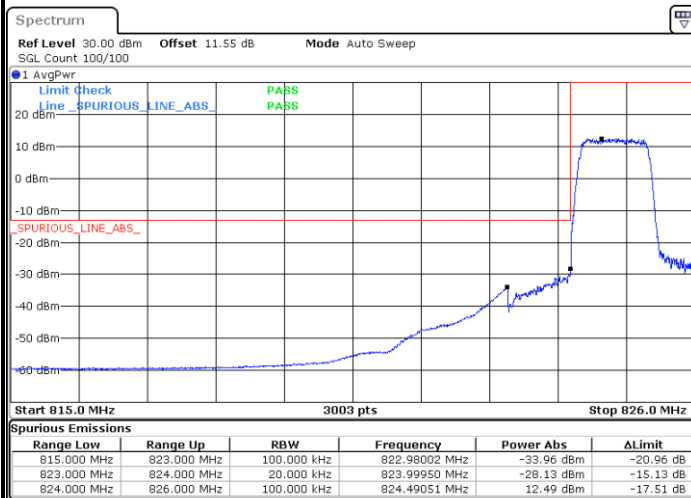
Lowest Band Edge / 1RB



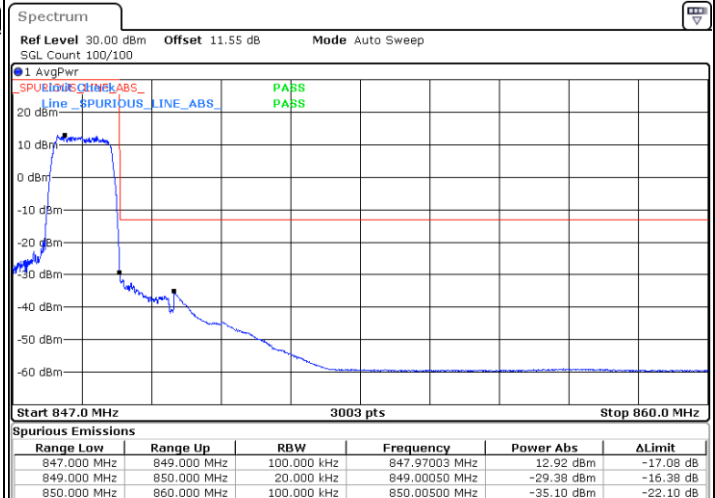
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



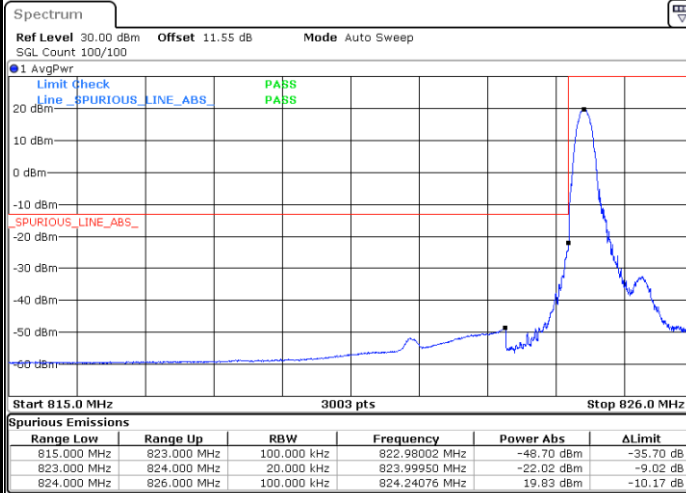
Highest Band Edge / Full RB



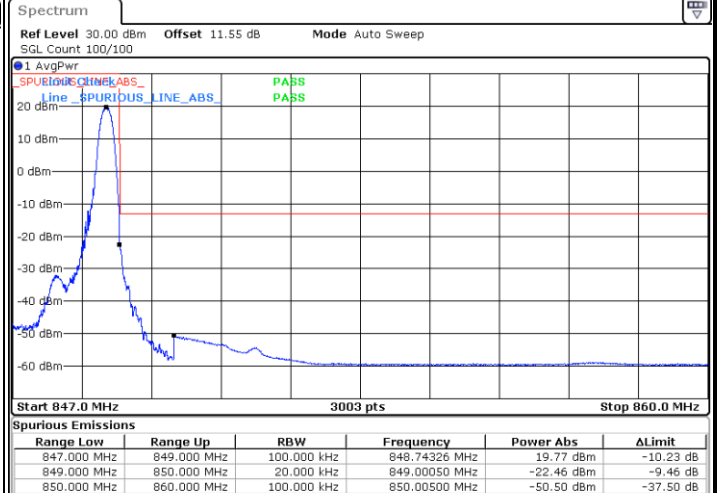


LTE Band 5 / 1.4MHz / 16QAM

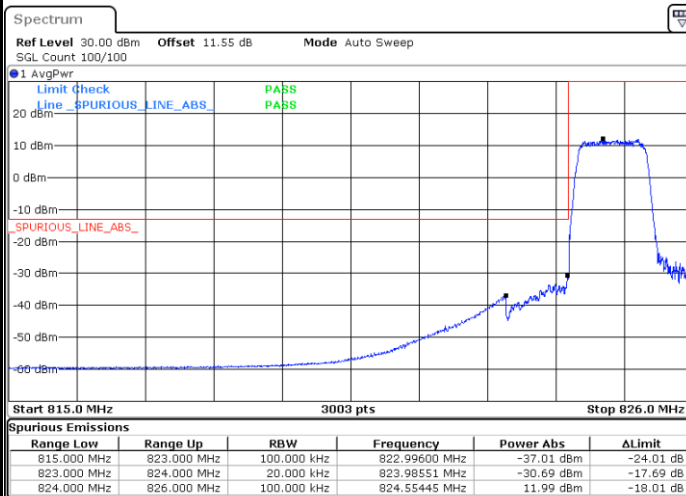
Lowest Band Edge / 1 RB



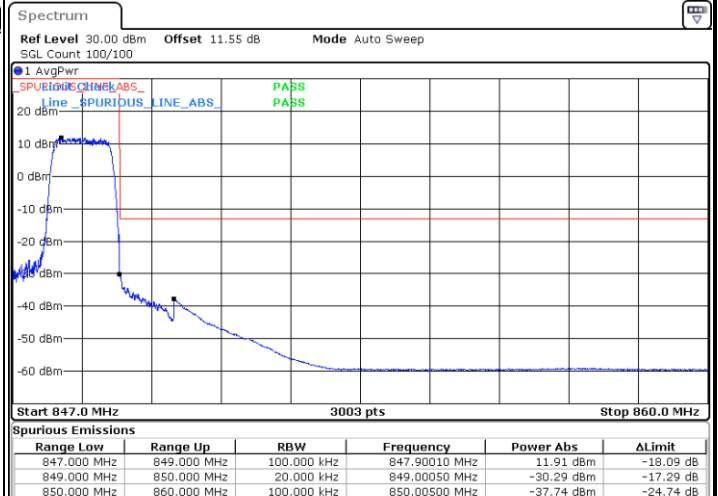
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



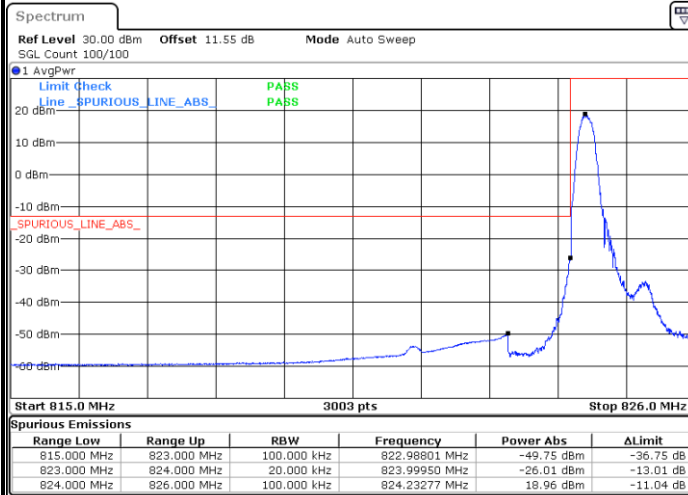
Highest Band Edge / Full RB



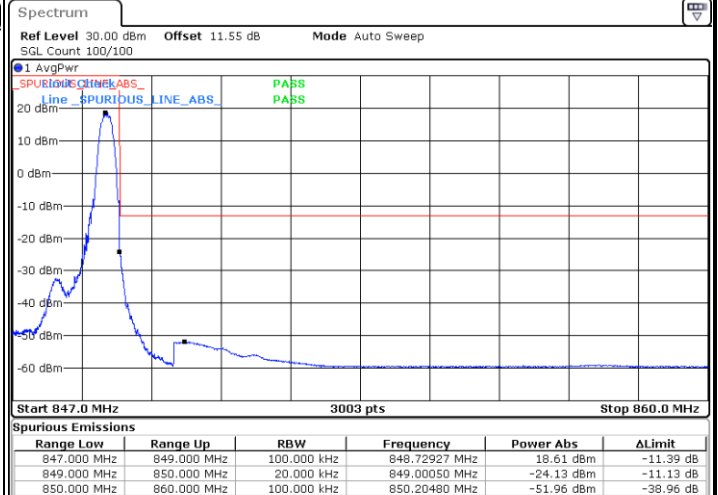


LTE Band 5 / 1.4MHz / 64QAM

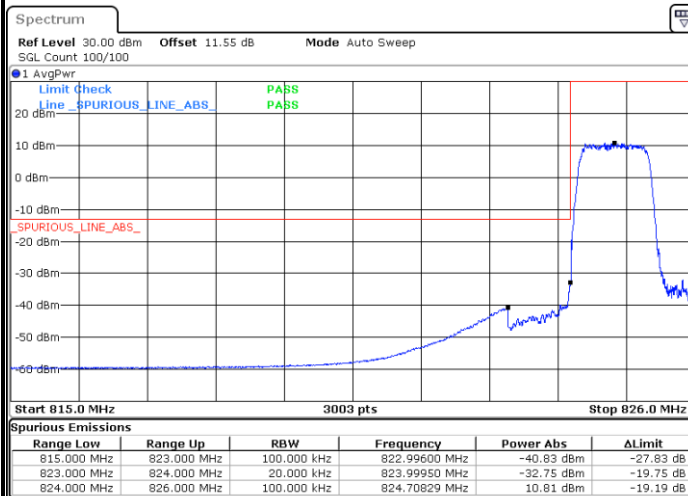
Lowest Band Edge / 1 RB



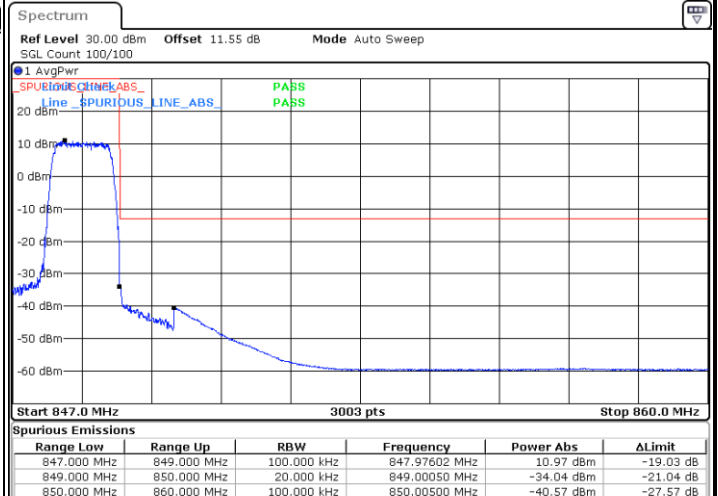
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



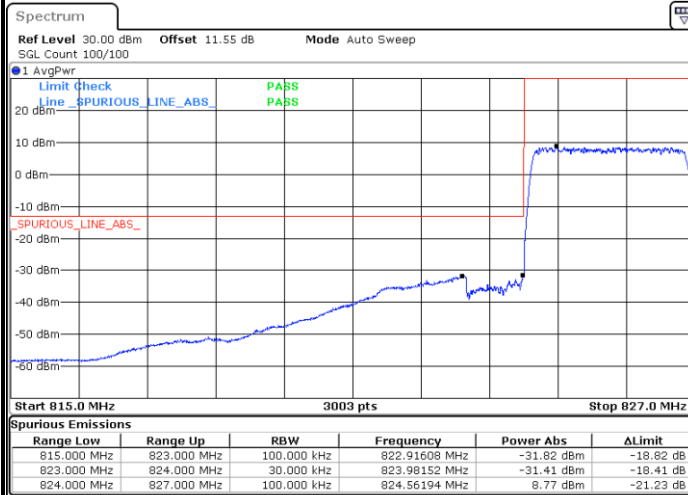
Highest Band Edge / Full RB



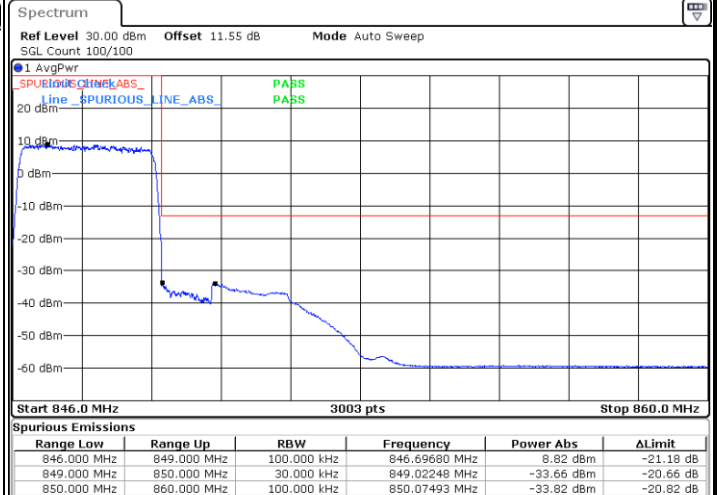


LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / Full RB

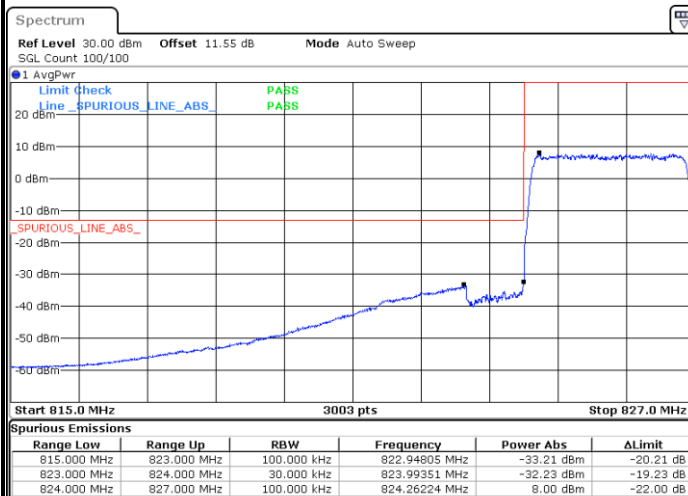


Highest Band Edge / Full RB

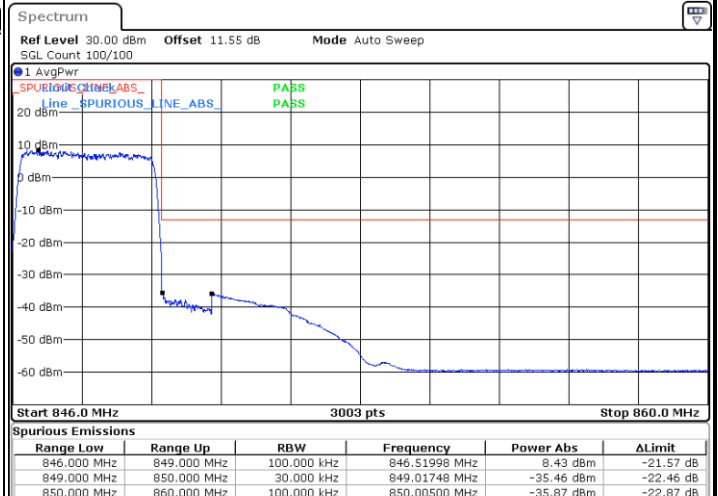


LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

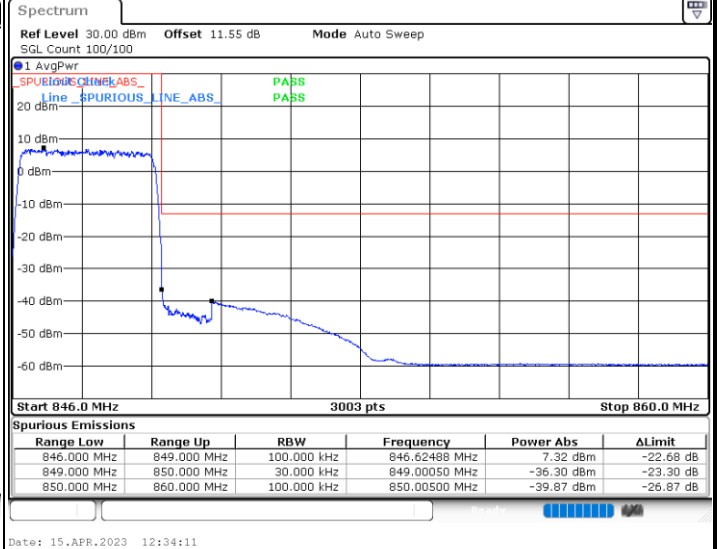
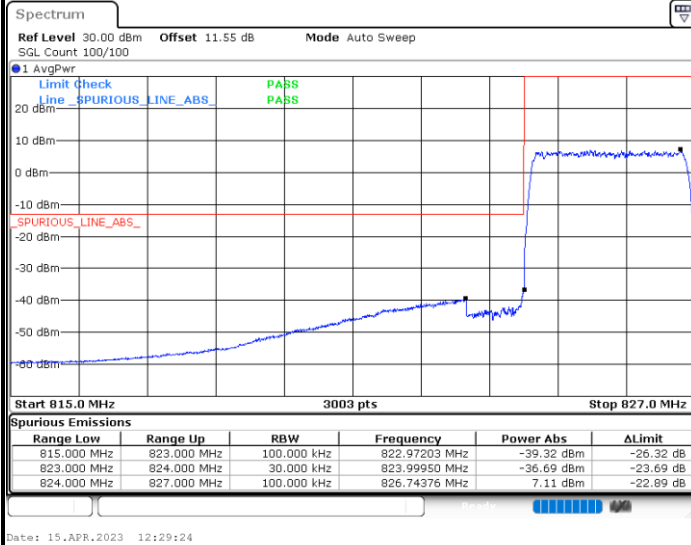




LTE Band 5 / 3MHz / 64QAM

Lowest Band Edge / Full RB

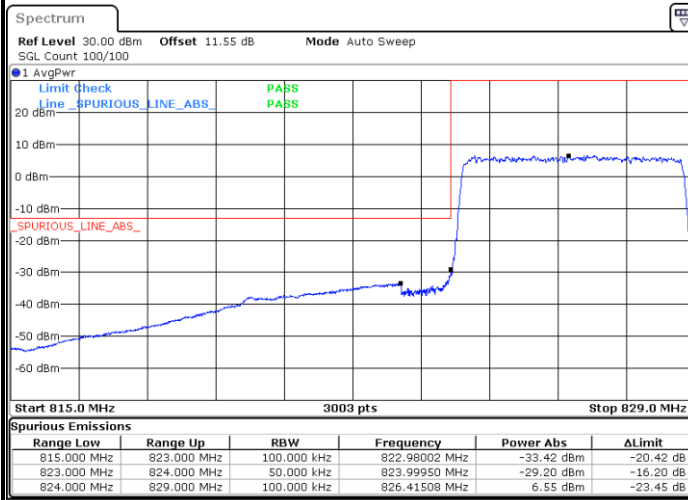
Highest Band Edge / Full RB



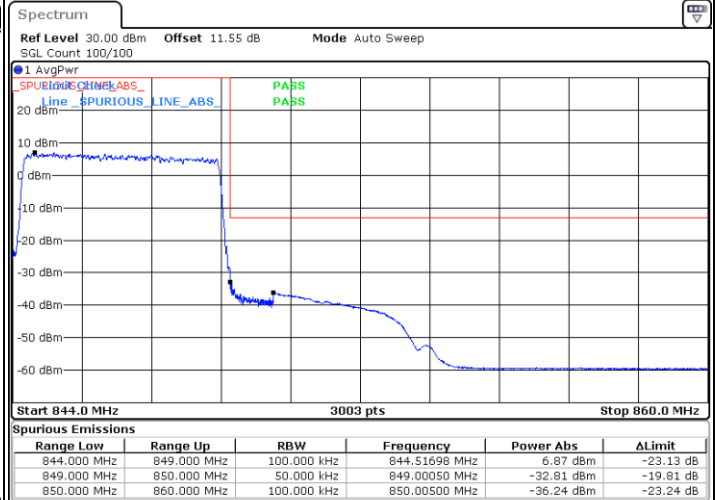


LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / Full RB

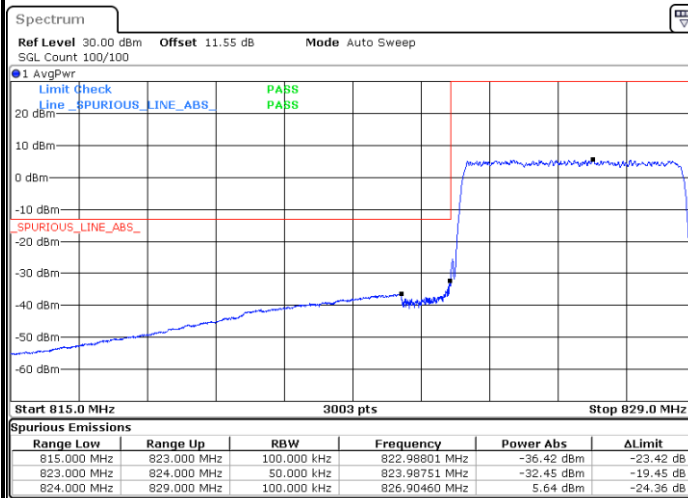


Highest Band Edge / Full RB

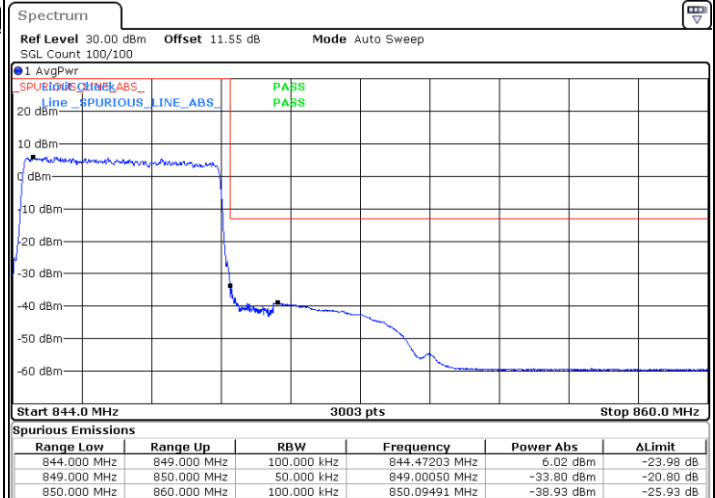


LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

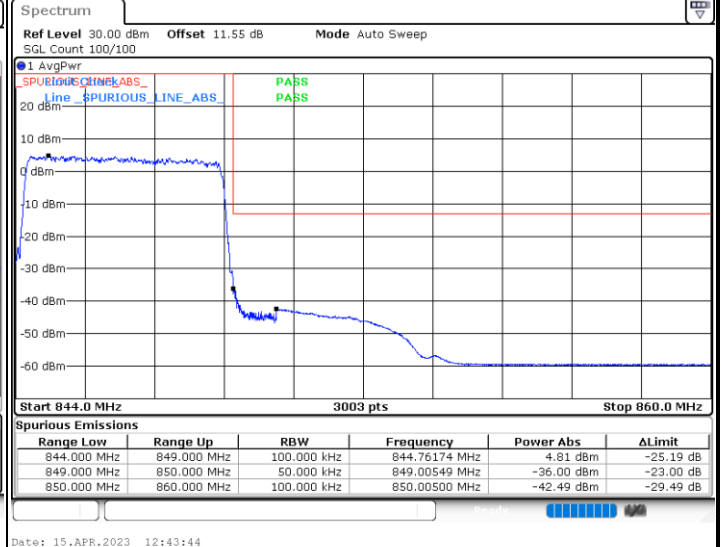
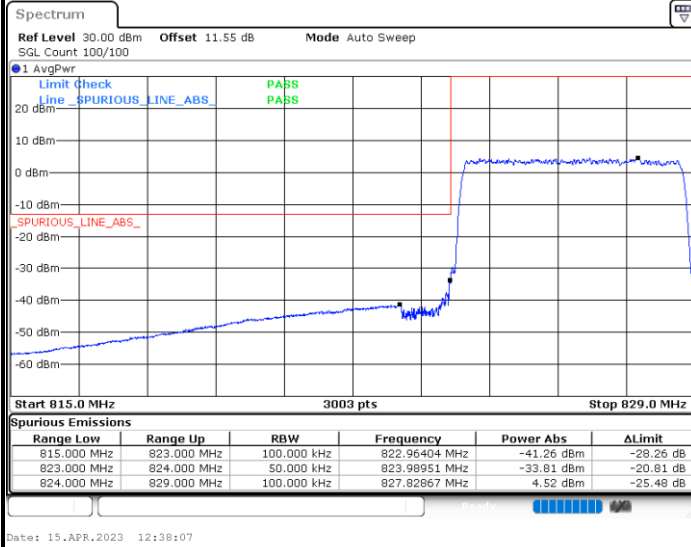




LTE Band 5 / 5MHz / 64QAM

Lowest Band Edge / Full RB

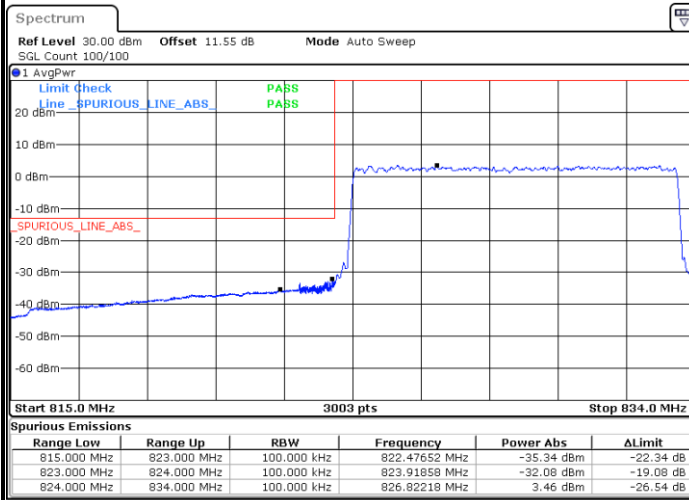
Highest Band Edge / Full RB



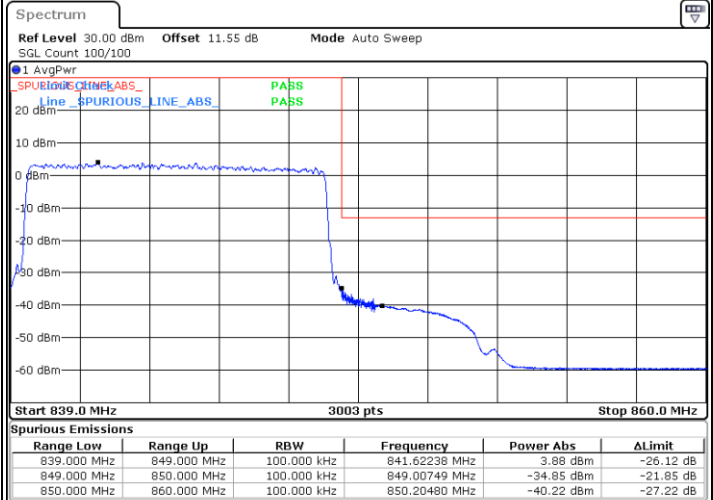


LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / Full RB

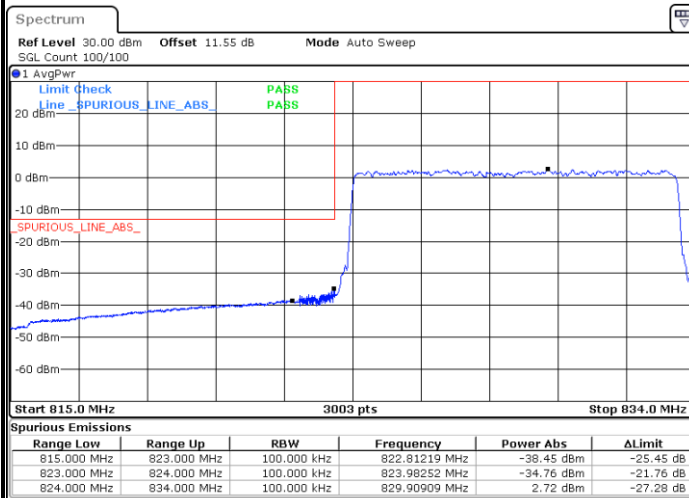


Highest Band Edge / Full RB

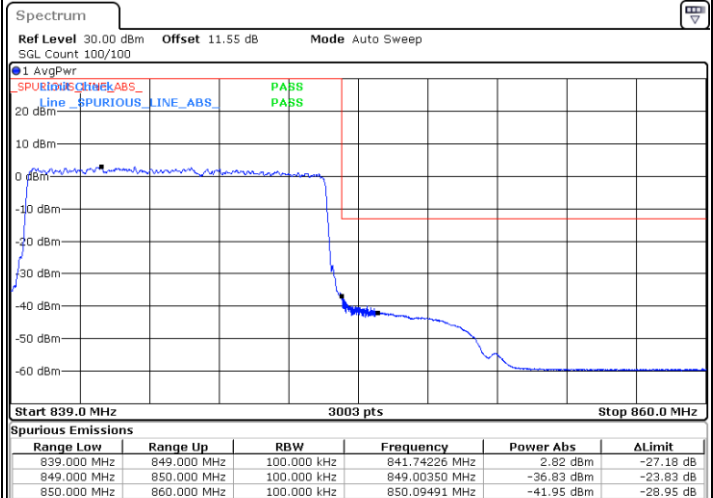


LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

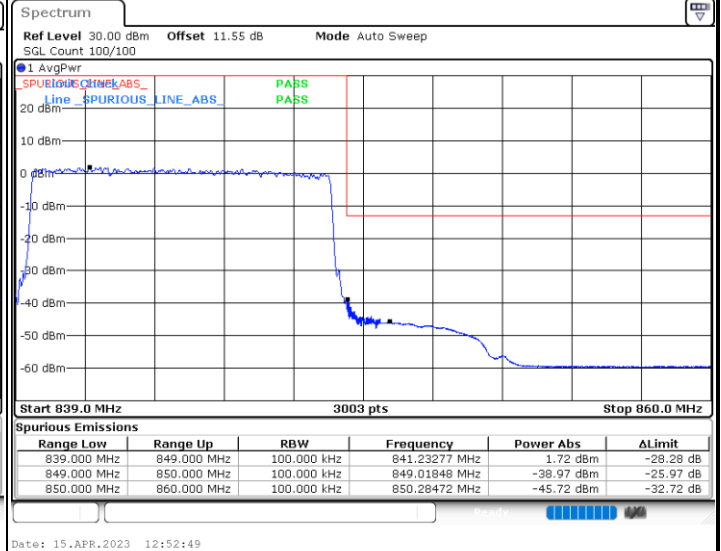
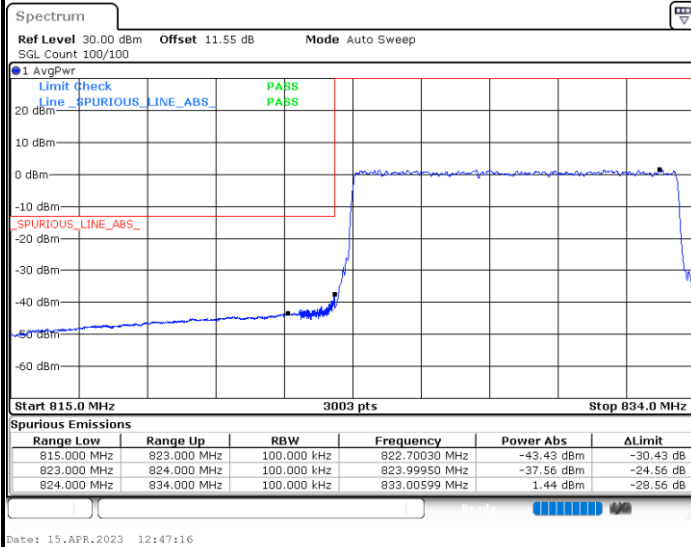




LTE Band 5 / 10MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

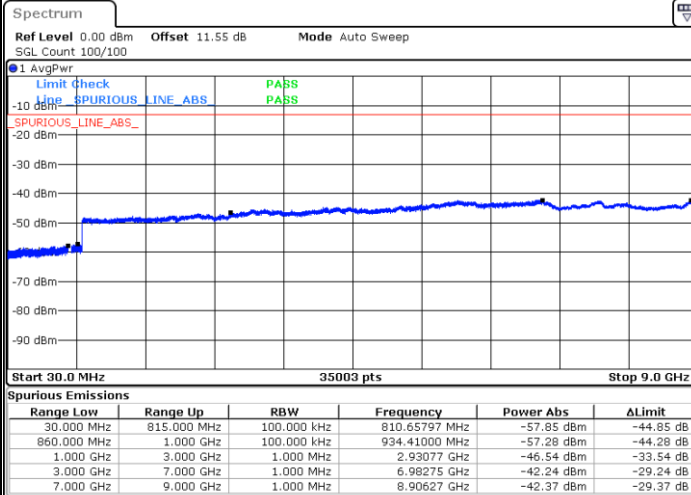




Conducted Spurious Emission

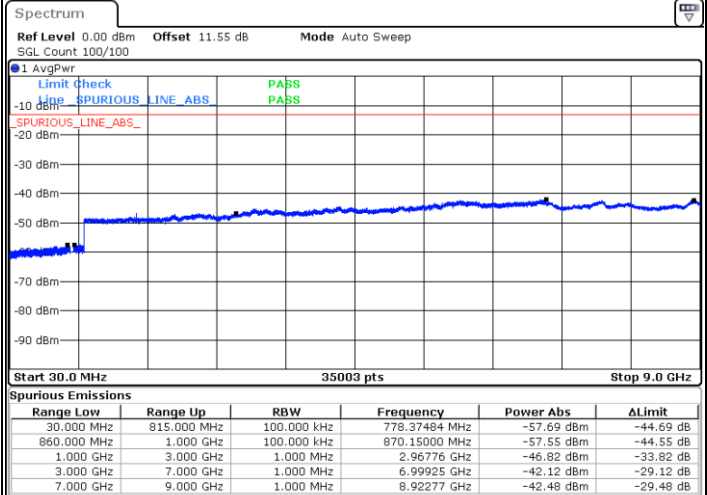
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



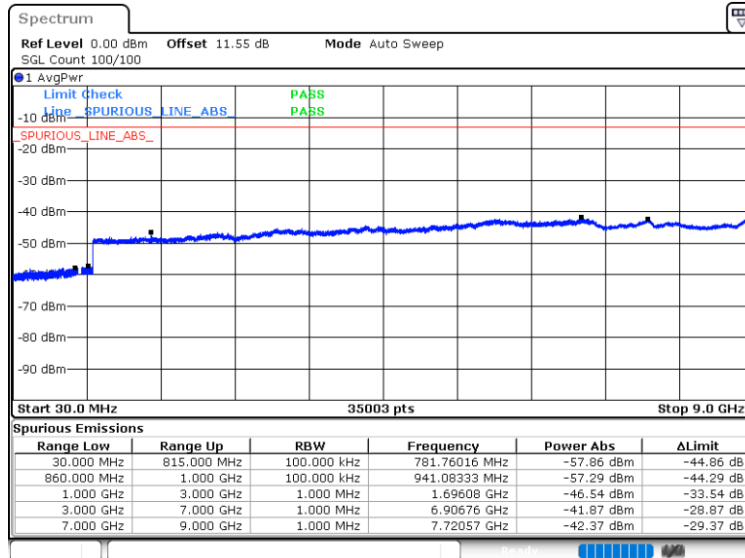
Date: 15.APR.2023 12:12:35

Middle Channel / QPSK



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

Highest Channel / QPSK

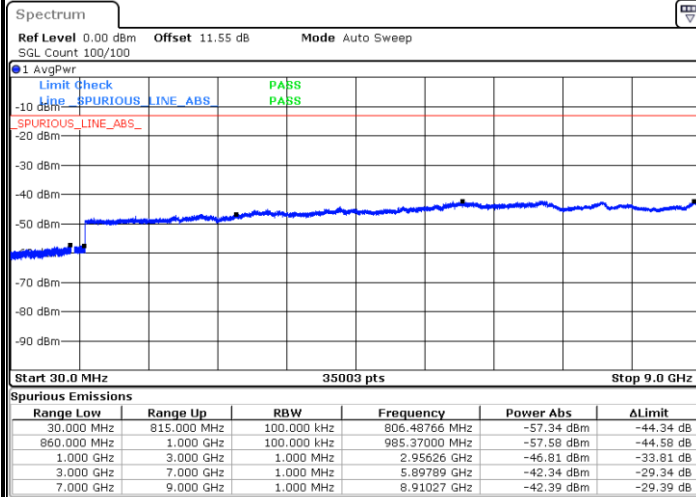


Date: 15.APR.2023 12:25:28



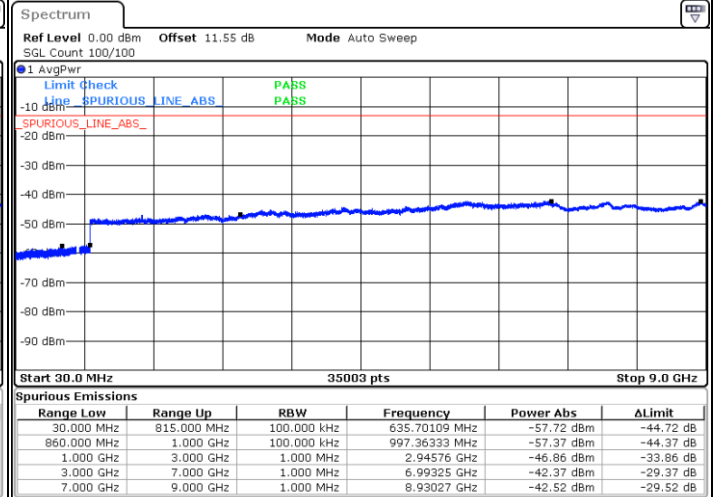
LTE Band 5 / 3MHz

Lowest Channel / QPSK



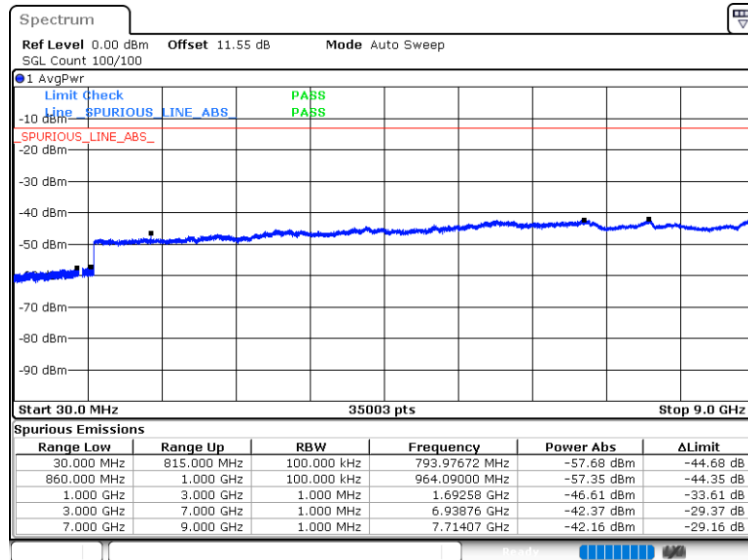
Date: 15.APR.2023 12:54:48

Middle Channel / QPSK



Date: 15.APR.2023 12:56:02

Highest Channel / QPSK

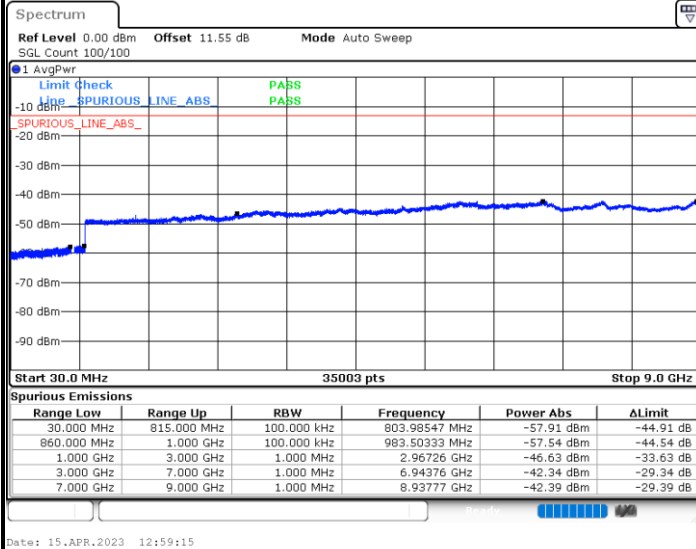


Date: 15.APR.2023 12:57:17

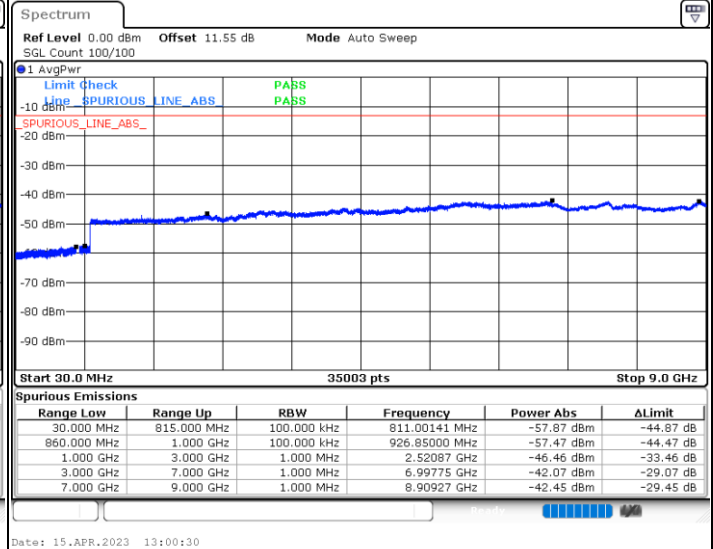


LTE Band 5 / 5MHz

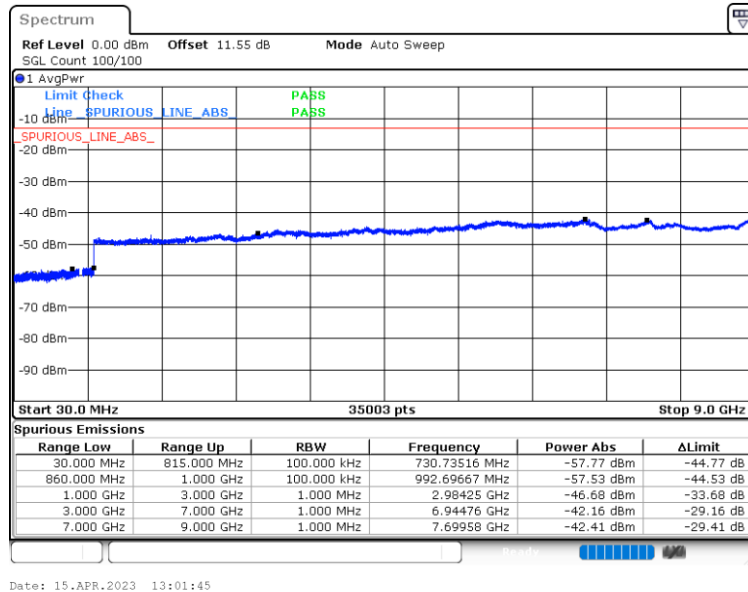
Lowest Channel / QPSK



Middle Channel / QPSK



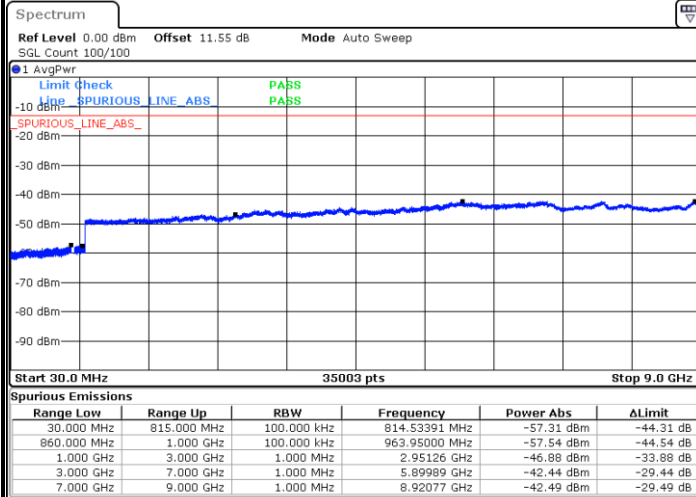
Highest Channel / QPSK





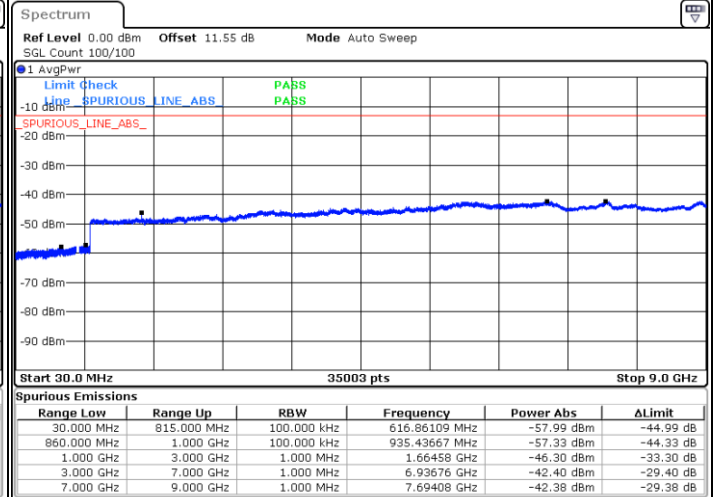
LTE Band 5 / 10MHz

Lowest Channel / QPSK



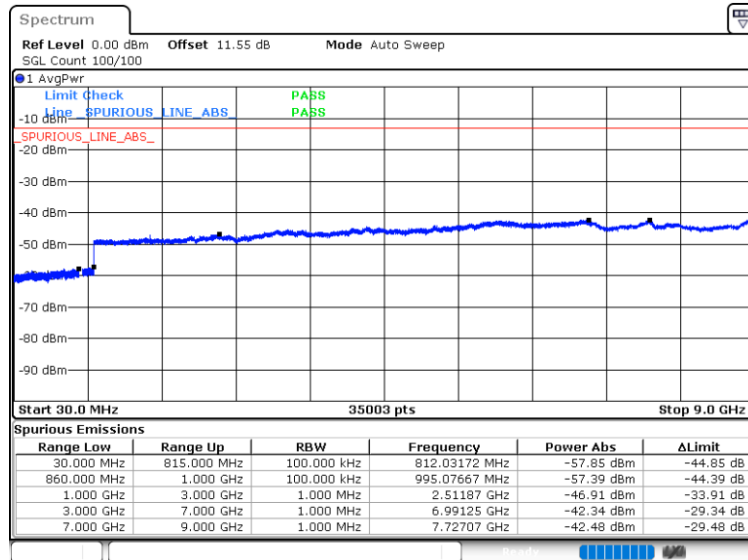
Date: 15.APR.2023 13:03:43

Middle Channel / QPSK



Date: 15.APR.2023 13:04:57

Highest Channel / QPSK



Date: 15.APR.2023 13:06:12

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

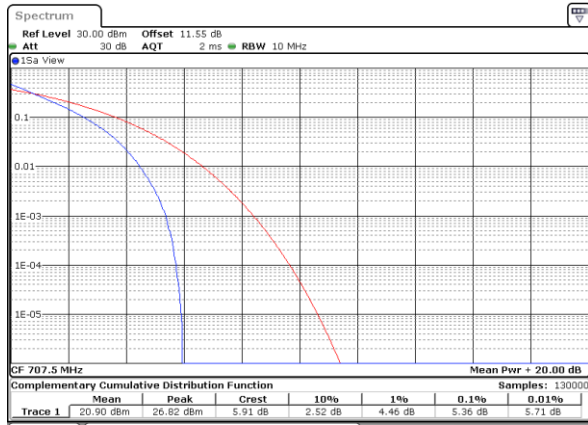
Peak-to-Average Ratio

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	PASS



LTE Band 12 / 10MHz / QPSK

Middle Channel / Full RB



Date: 15.APR.2023 13:58:05

LTE Band 12 / 10MHz / 16QAM

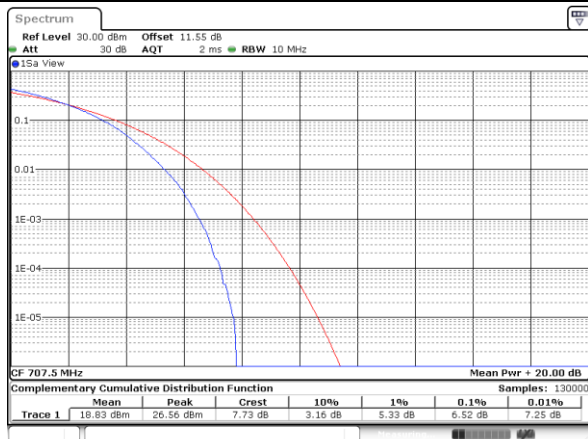
Middle Channel / Full RB



Date: 15.APR.2023 13:57:39

LTE Band 12 / 10MHz / 64QAM

Middle Channel / Full RB



Date: 15.APR.2023 13:57:12

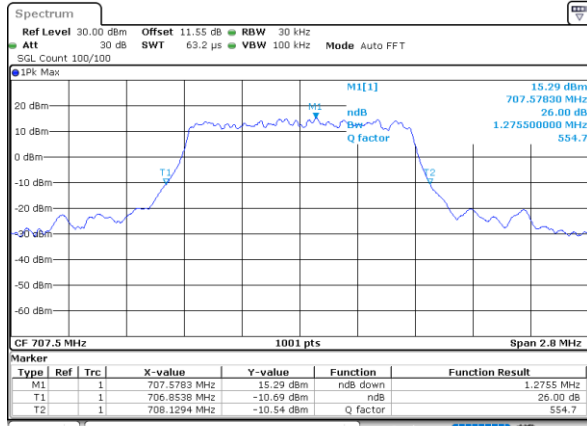
**26dB Bandwidth**

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	



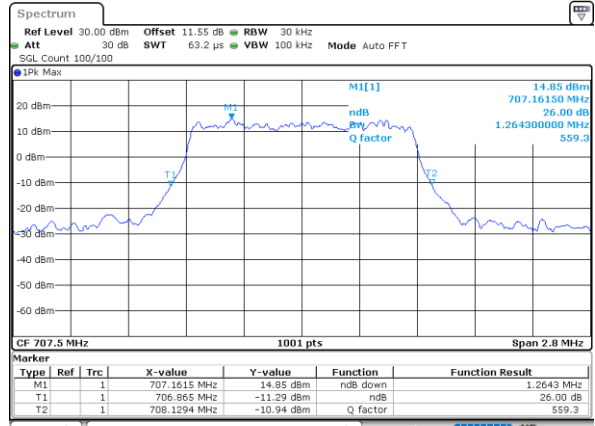
LTE Band 12

Middle Channel / 1.4MHz / QPSK



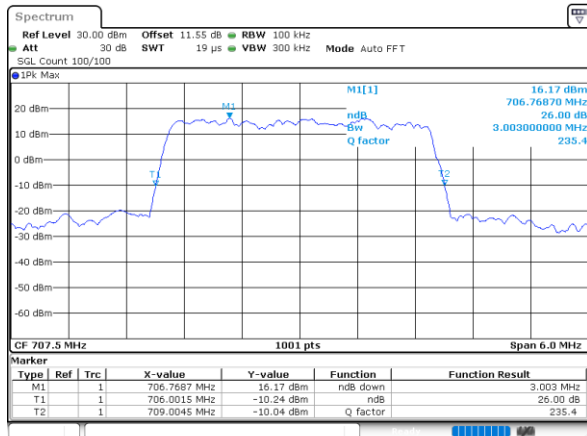
Date: 15.APR.2023 13:19:45

Middle Channel / 1.4MHz / 16QAM



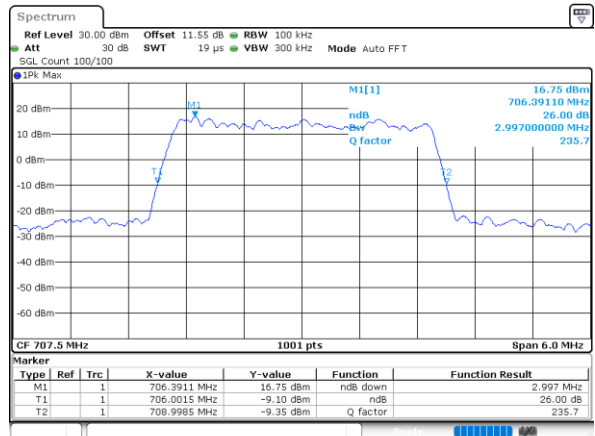
Date: 15.APR.2023 13:20:11

Middle Channel / 3MHz / QPSK



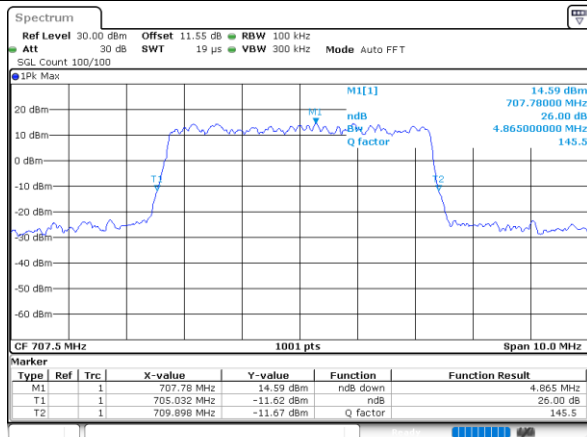
Date: 15.APR.2023 13:34:30

Middle Channel / 3MHz / 16QAM



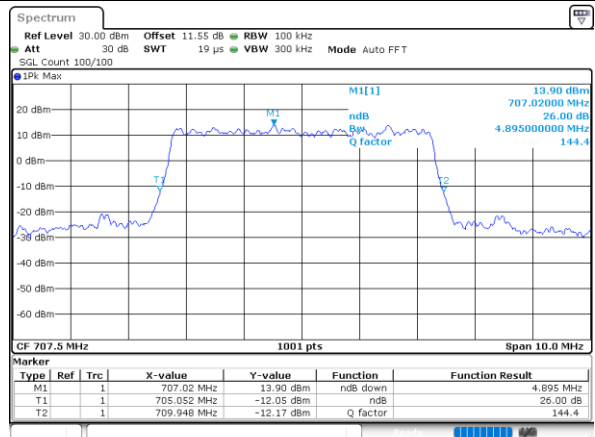
Date: 15.APR.2023 13:34:56

Middle Channel / 5MHz / QPSK



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

Middle Channel / 5MHz / 16QAM

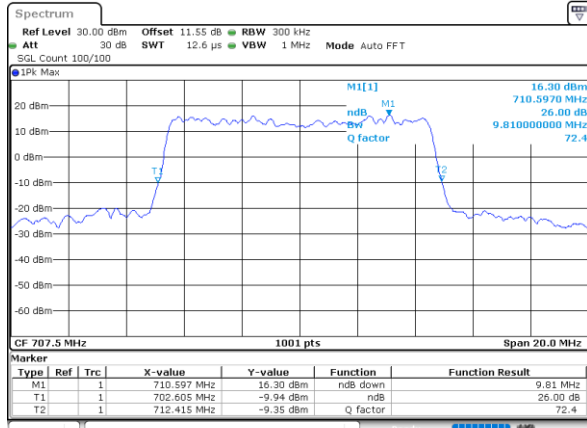


Date: 15.APR.2023 13:46:22



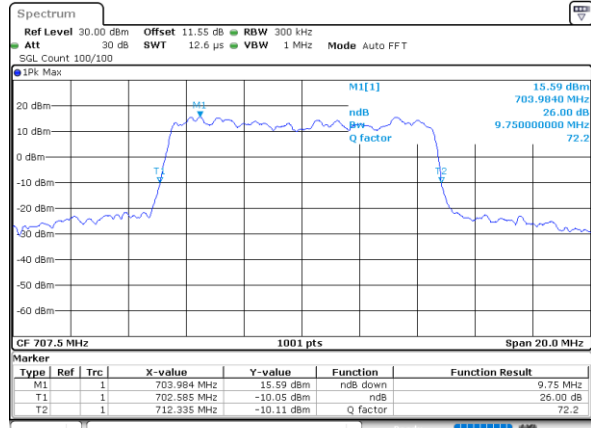
LTE Band 12

Middle Channel / 10MHz / QPSK



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

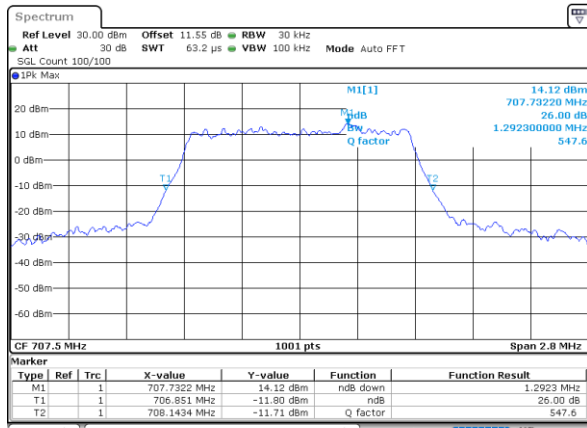
Middle Channel / 10MHz / 16QAM



Date: 15.APR.2023 13:52:21

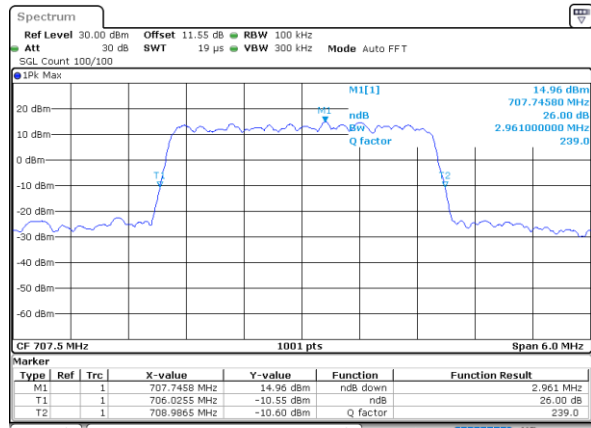
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



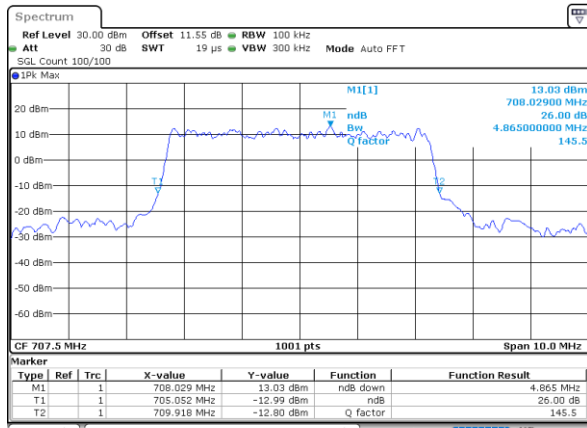
Date: 15.APR.2023 13:28:57

Middle Channel / 3MHz / 64QAM



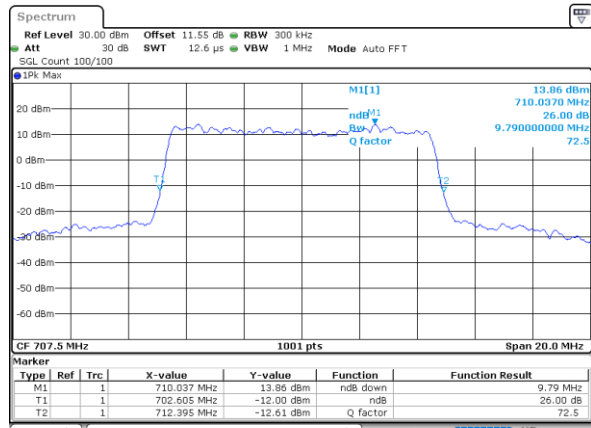
Date: 15.APR.2023 13:38:23

Middle Channel / 5MHz / 64QAM



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

Middle Channel / 10MHz / 64QAM



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

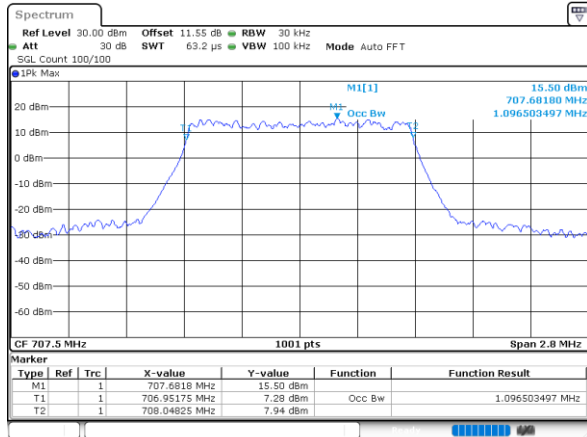
**Occupied Bandwidth**

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	

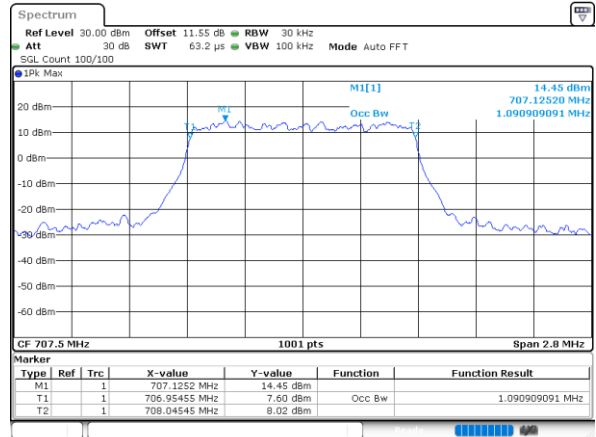


LTE Band 12

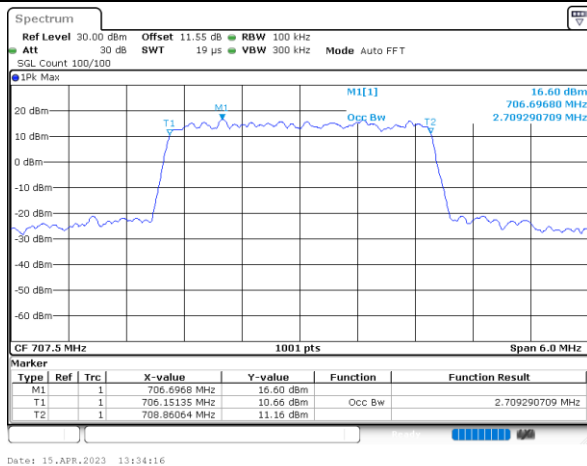
Middle Channel / 1.4MHz / QPSK



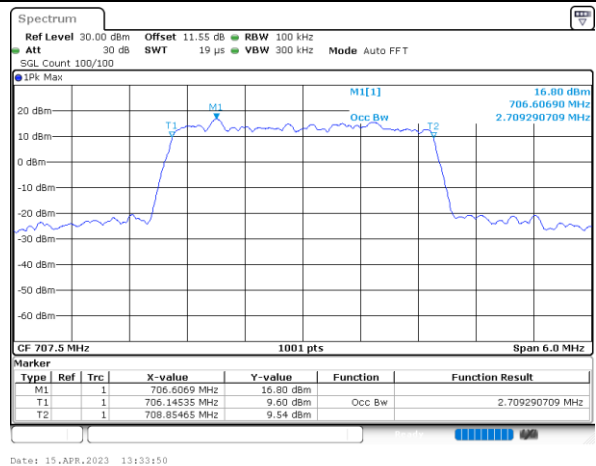
Middle Channel / 1.4MHz / 16QAM



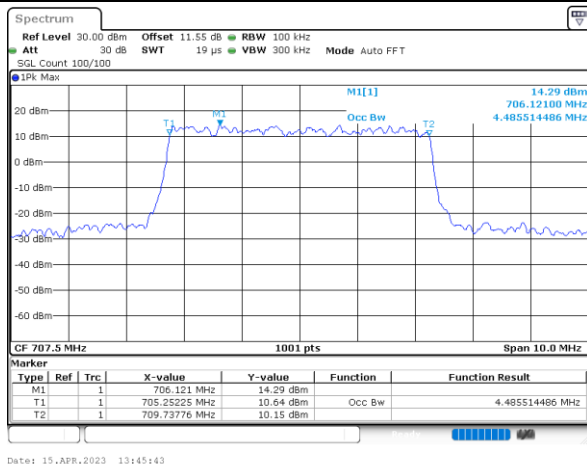
Middle Channel / 3MHz / QPSK



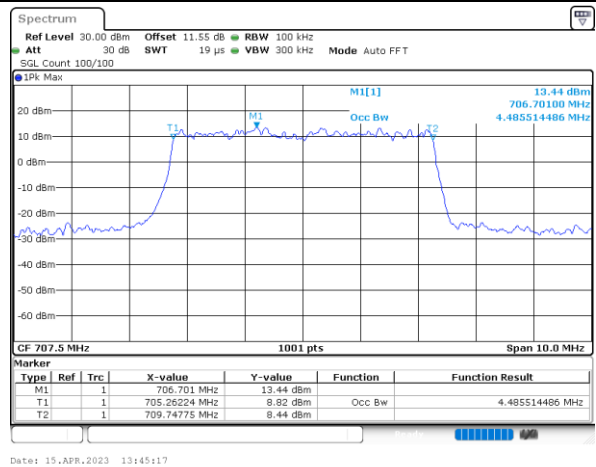
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



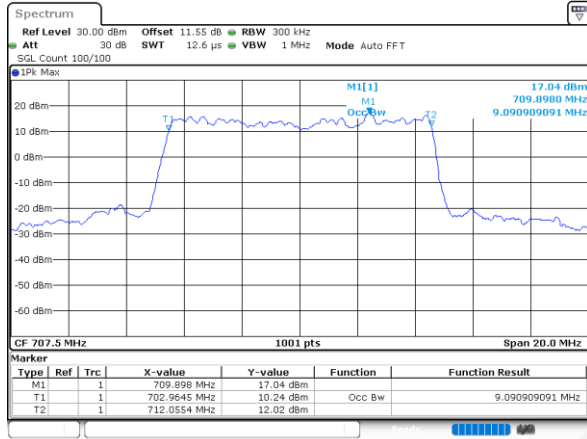
Middle Channel / 5MHz / 16QAM



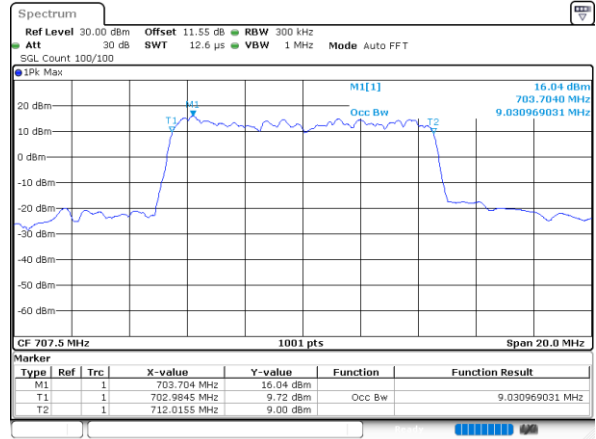


LTE Band 12

Middle Channel / 10MHz / QPSK

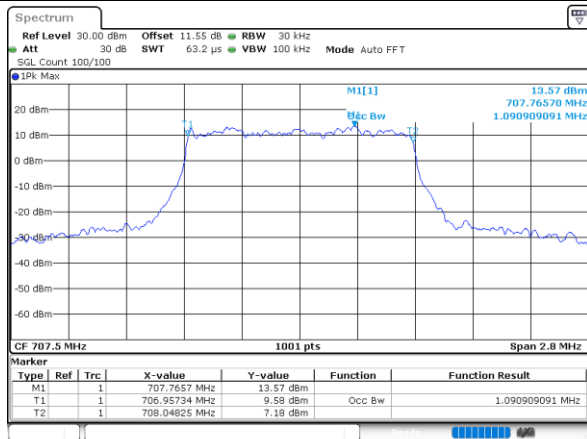


Middle Channel / 10MHz / 16QAM

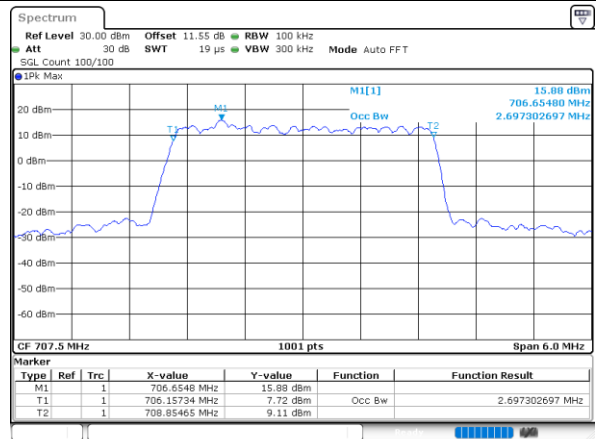


LTE Band 12

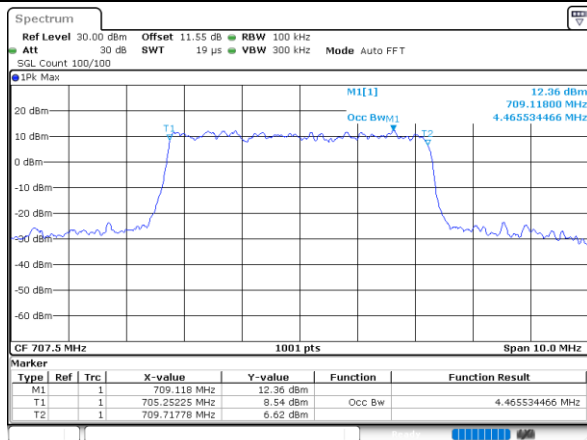
Middle Channel / 1.4MHz / 64QAM



Middle Channel / 3MHz / 64QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

