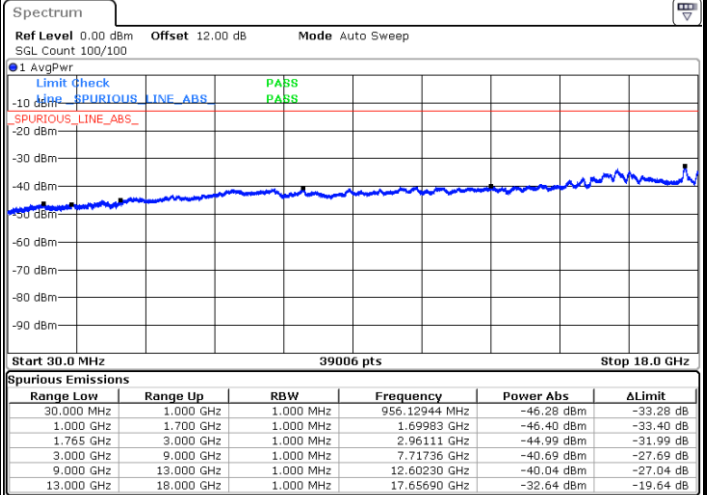
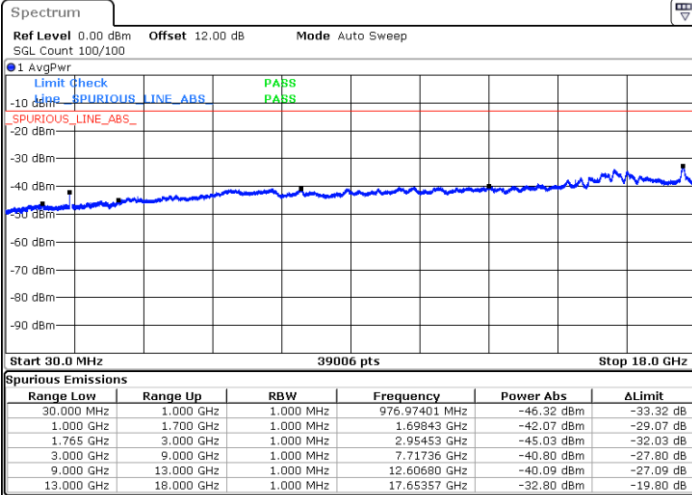




LTE Band 4 / 15MHz

Lowest Channel / QPSK

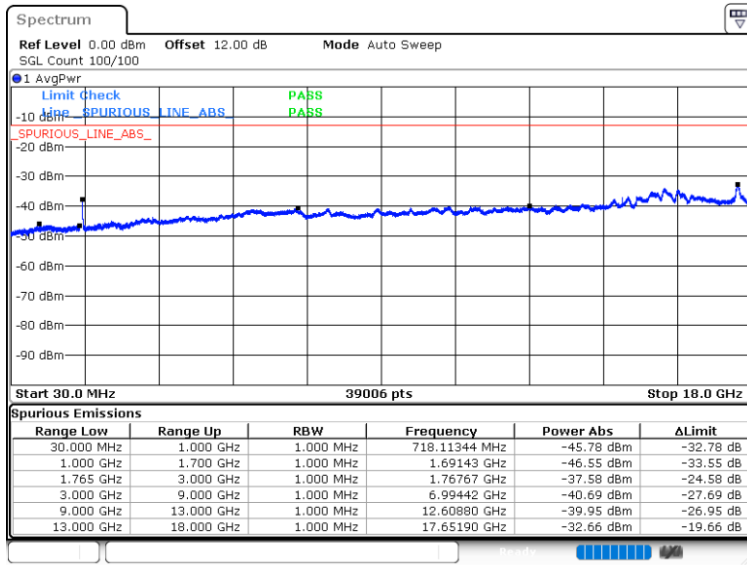
Middle Channel / QPSK



Date: 17.FEB.2023 21:05:08

Date: 17.FEB.2023 21:06:26

Highest Channel / QPSK



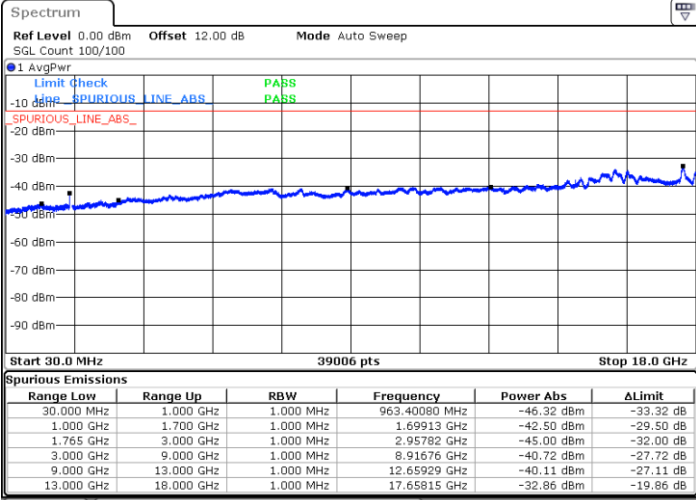
Date: 17.FEB.2023 21:07:44



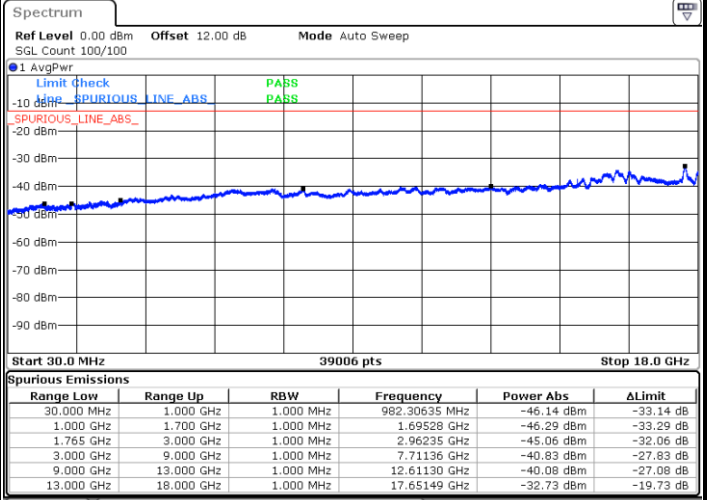
LTE Band 4 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

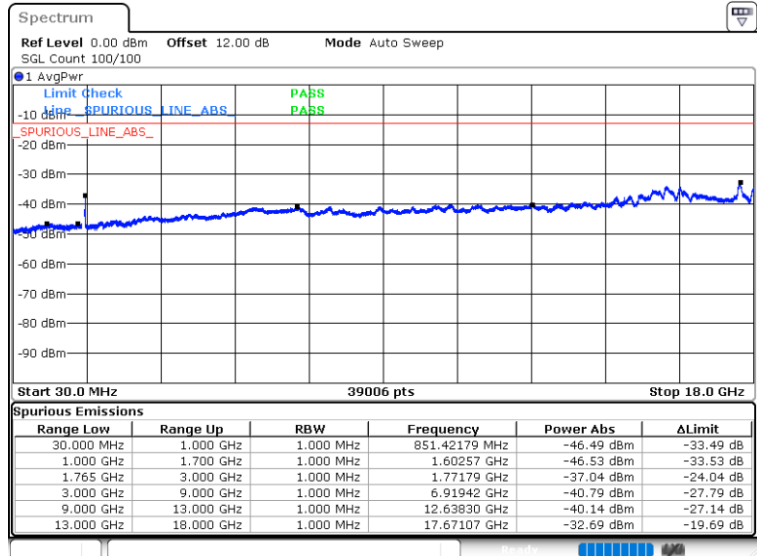


Date: 17.FEB.2023 21:17:51



Date: 17.FEB.2023 21:19:10

Highest Channel / QPSK



Date: 17.FEB.2023 21:20:28



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0040	PASS
40	Normal Voltage	0.0104	
30	Normal Voltage	0.0043	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0068	
0	Normal Voltage	0.0080	
-10	Normal Voltage	0.0098	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0024	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0083	

Note:

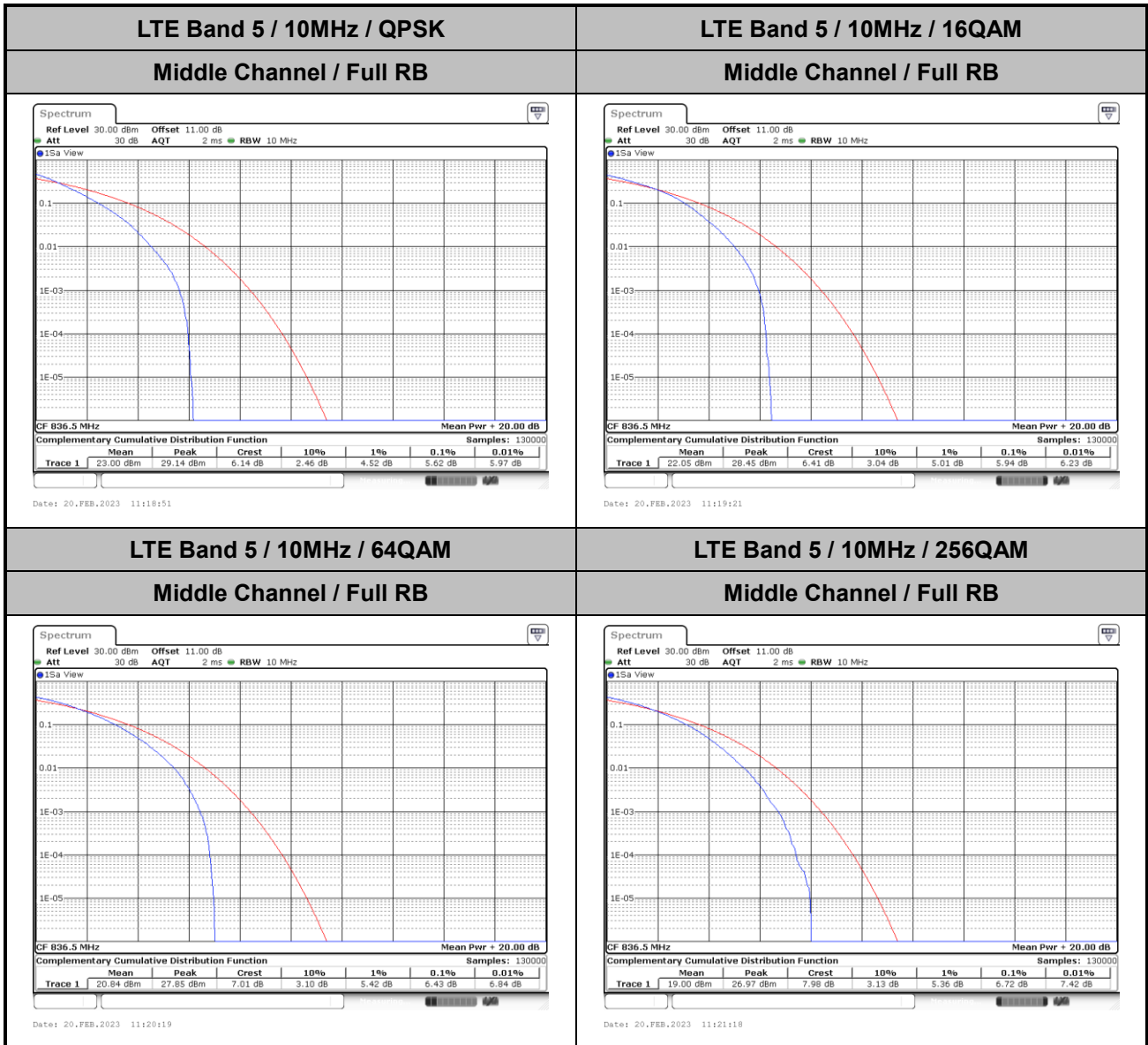
- 1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.62	5.94	6.43	6.72	PASS





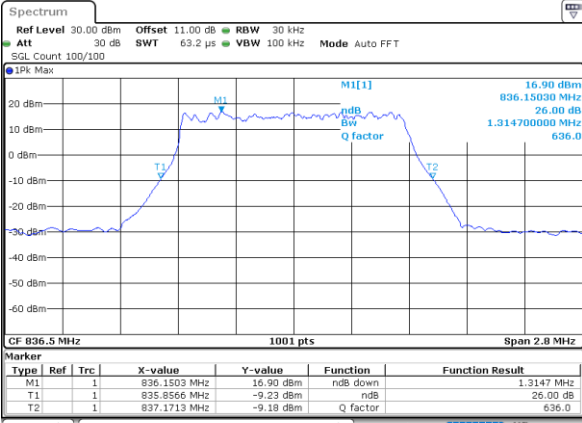
26dB Bandwidth

Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.31	1.25	3.13	3.07	5.17	5.09	10.25	10.29	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.28	1.29	3.04	3.08	5.22	5.08	9.89	10.35	-	-	-	-



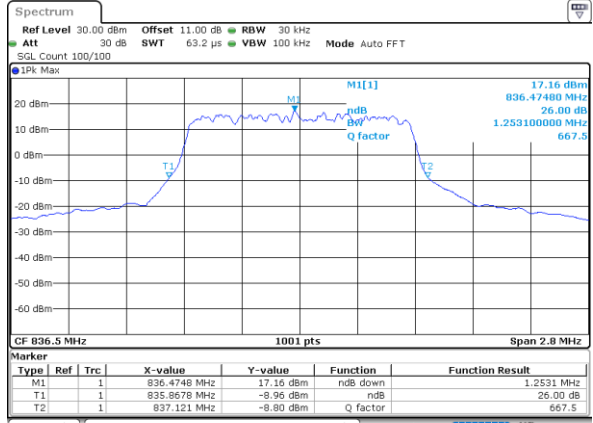
LTE Band 5

Middle Channel / 1.4MHz / QPSK



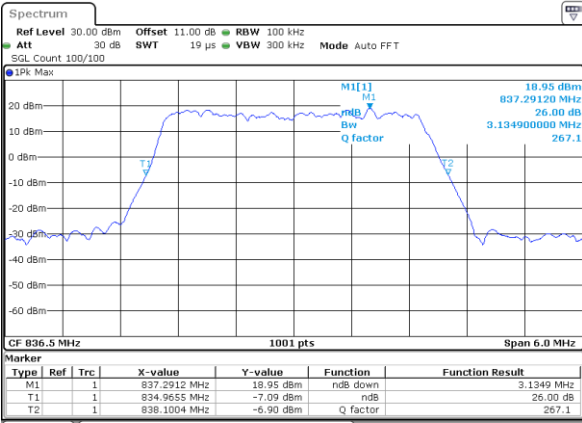
Date: 20.FEB.2023 10:32:14

Middle Channel / 1.4MHz / 16QAM



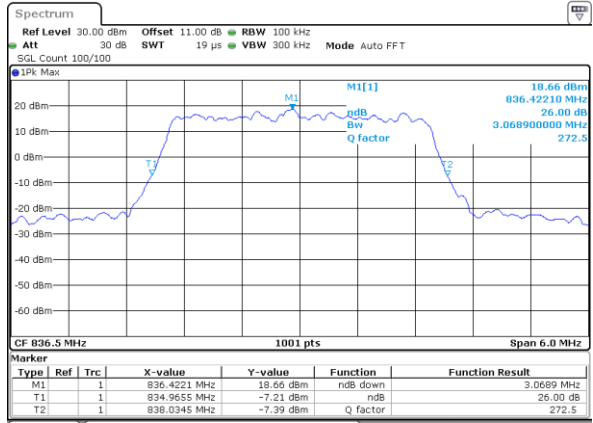
Date: 20.FEB.2023 10:32:57

Middle Channel / 3MHz / QPSK



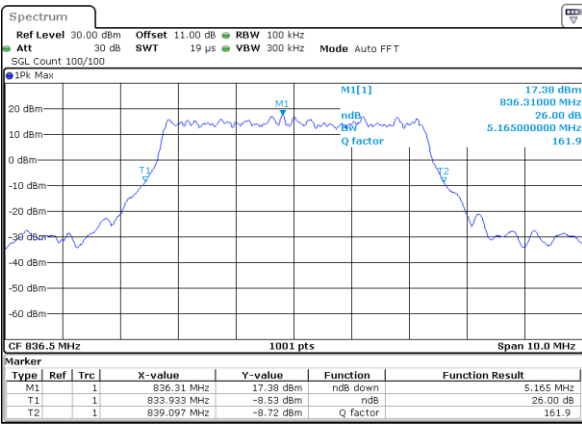
Date: 20.FEB.2023 10:53:07

Middle Channel / 3MHz / 16QAM



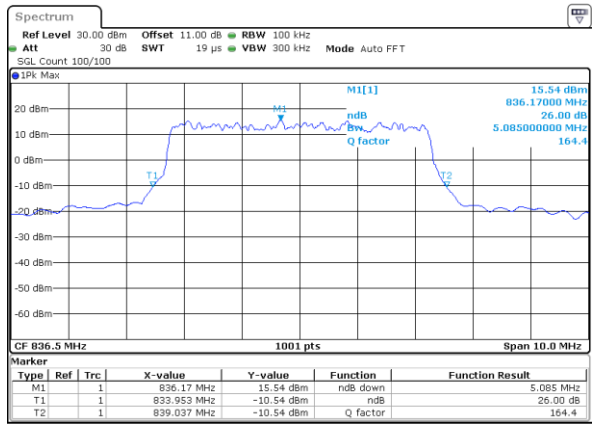
Date: 20.FEB.2023 10:53:50

Middle Channel / 5MHz / QPSK



Date: 20.FEB.2023 11:05:51

Middle Channel / 5MHz / 16QAM

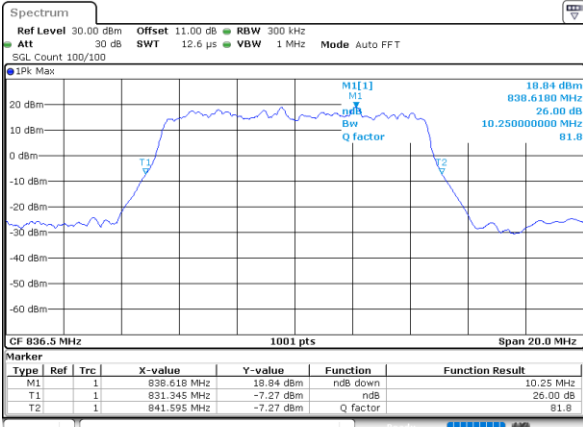


Date: 20.FEB.2023 11:06:34



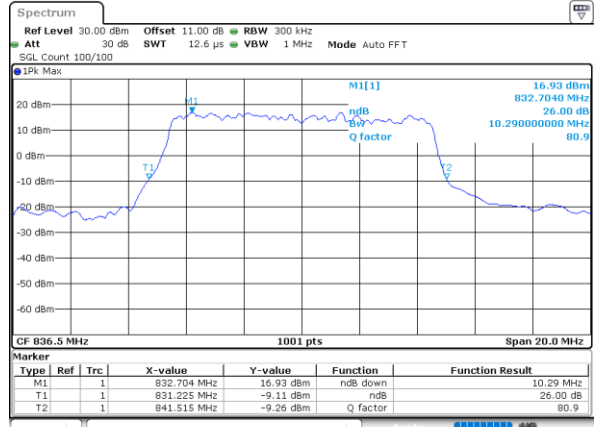
LTE Band 5

Middle Channel / 10MHz / QPSK



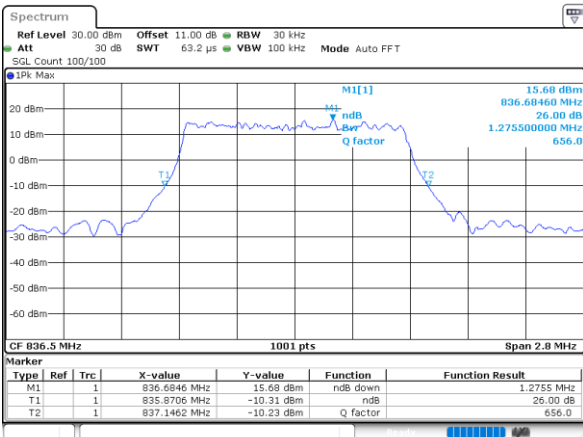
Date: 20.FEB.2023 11:18:35

Middle Channel / 10MHz / 16QAM



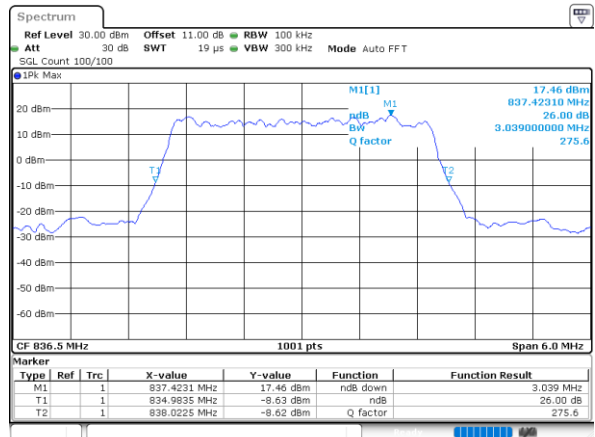
Date: 20.FEB.2023 11:19:49

Middle Channel / 1.4MHz / 64QAM



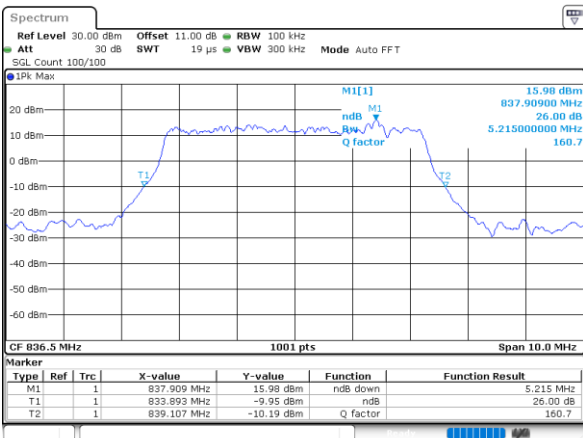
Date: 20.FEB.2023 10:33:40

Middle Channel / 3MHz / 64QAM



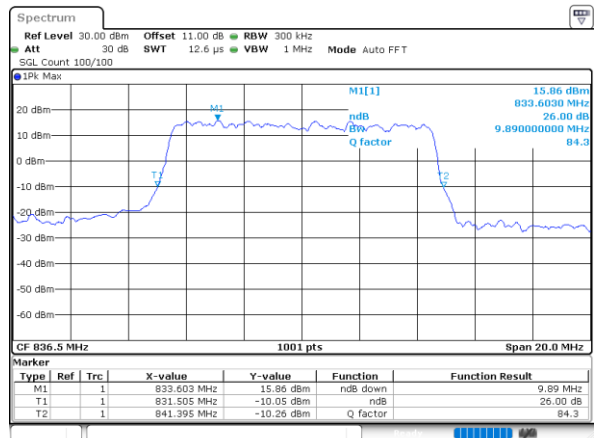
Date: 20.FEB.2023 10:54:33

Middle Channel / 5MHz / 64QAM



Date: 20.FEB.2023 11:07:18

Middle Channel / 10MHz / 64QAM

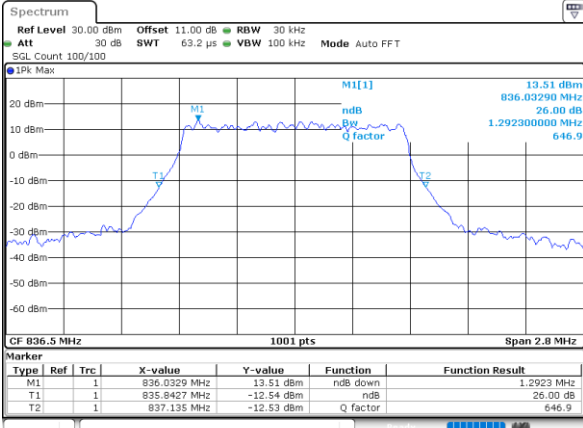


Date: 20.FEB.2023 11:20:47



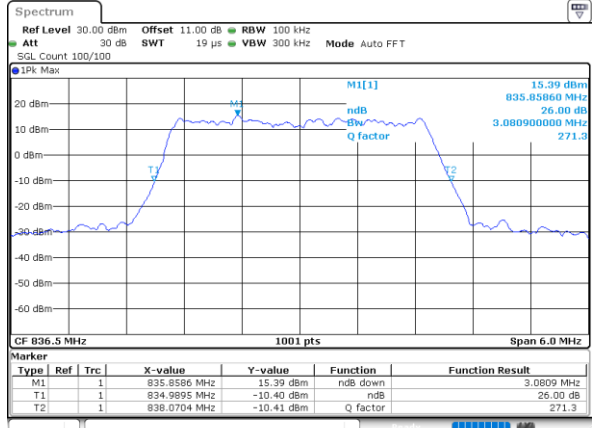
LTE Band 5

Middle Channel / 1.4MHz / 256QAM



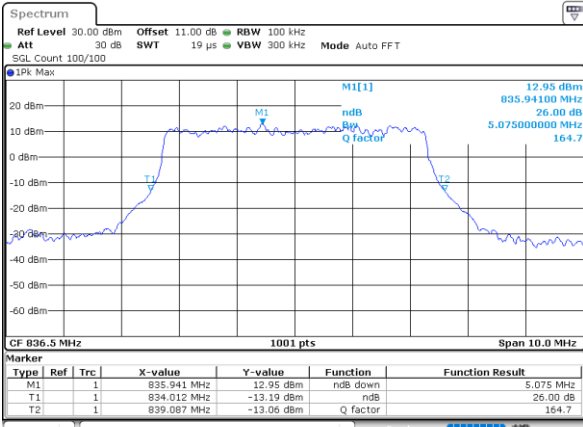
Date: 20.FEB.2023 10:34:23

Middle Channel / 3MHz / 256QAM



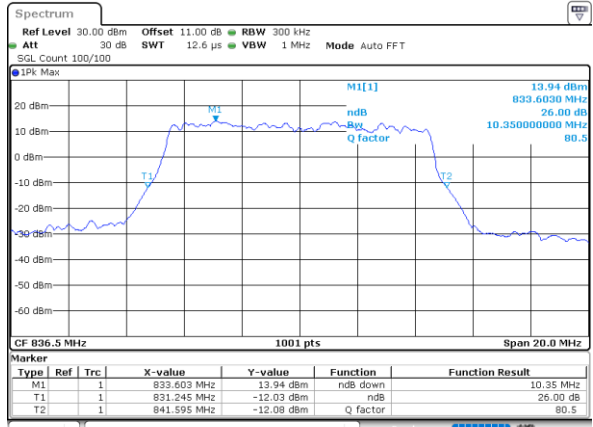
Date: 20.FEB.2023 10:55:16

Middle Channel / 5MHz / 256QAM



Date: 20.FEB.2023 11:08:01

Middle Channel / 10MHz / 256QAM



Date: 20.FEB.2023 11:21:46



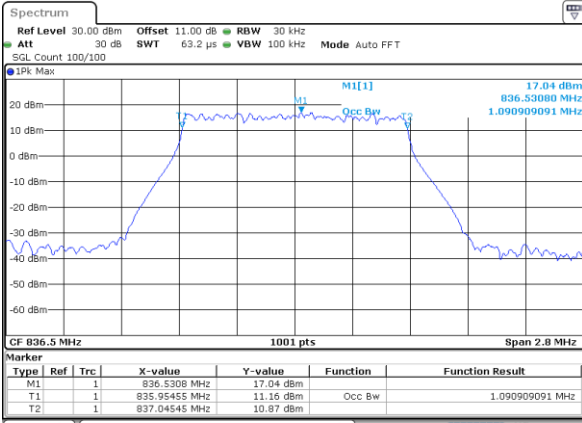
Occupied Bandwidth

Mode	LTE Band 5 : 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	2.73	4.52	4.53	9.05	9.03	-	-	-	-
Mode	LTE Band 5 : 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	1.10	1.09	2.73	2.72	4.49	4.48	9.03	9.09	-	-	-	-



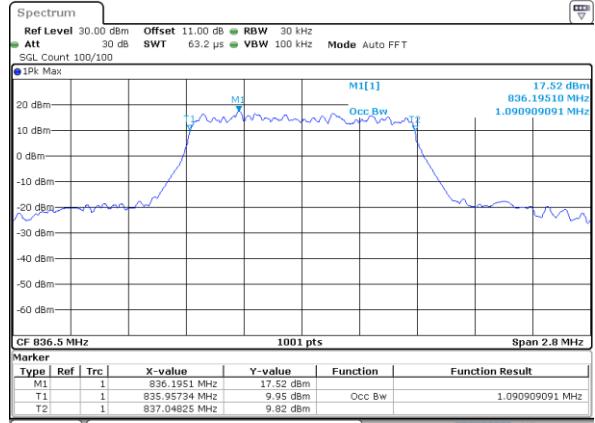
LTE Band 5

Middle Channel / 1.4MHz / QPSK



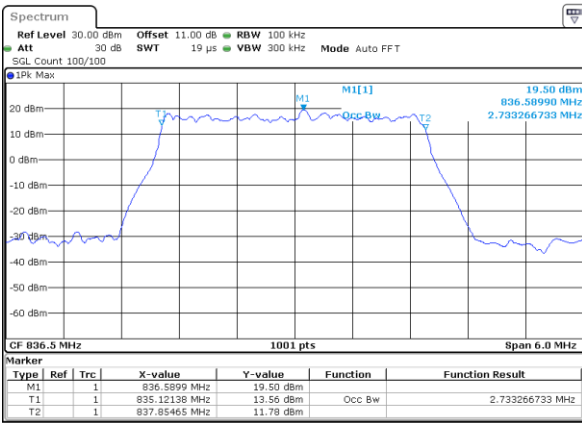
Date: 20.FEB.2023 10:32:00

Middle Channel / 1.4MHz / 16QAM



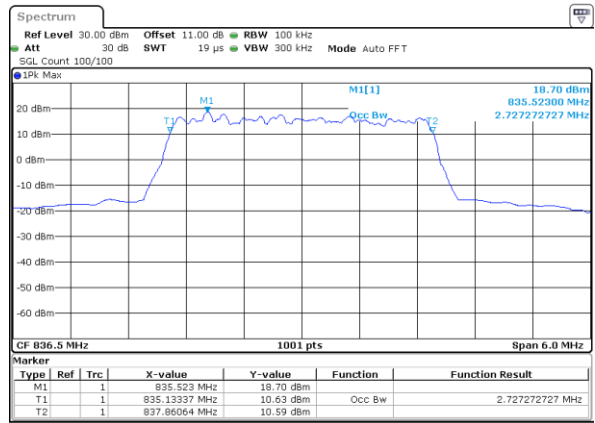
Date: 20.FEB.2023 10:32:43

Middle Channel / 3MHz / QPSK



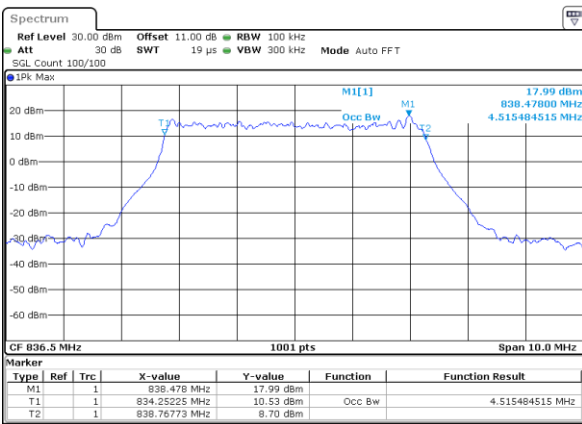
Date: 20.FEB.2023 10:52:53

Middle Channel / 3MHz / 16QAM



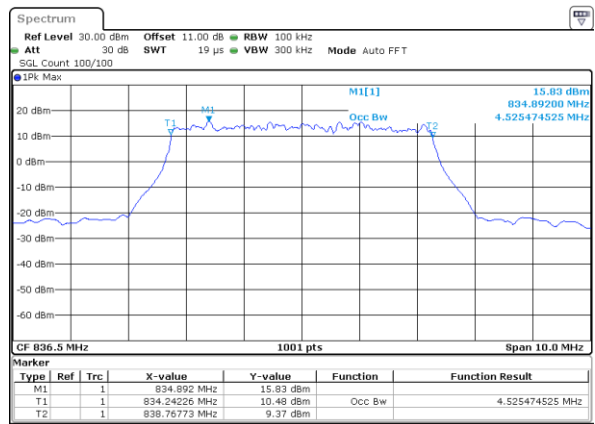
Date: 20.FEB.2023 10:53:36

Middle Channel / 5MHz / QPSK



Date: 20.FEB.2023 11:05:37

Middle Channel / 5MHz / 16QAM

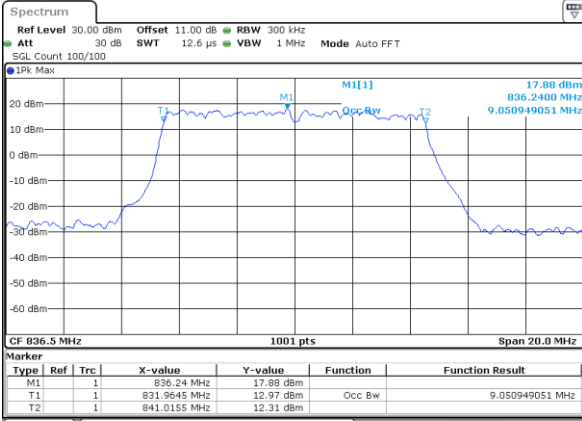


Date: 20.FEB.2023 11:06:20



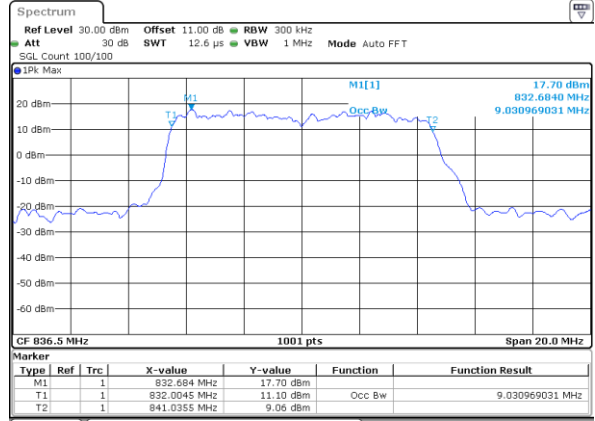
LTE Band 5

Middle Channel / 10MHz / QPSK



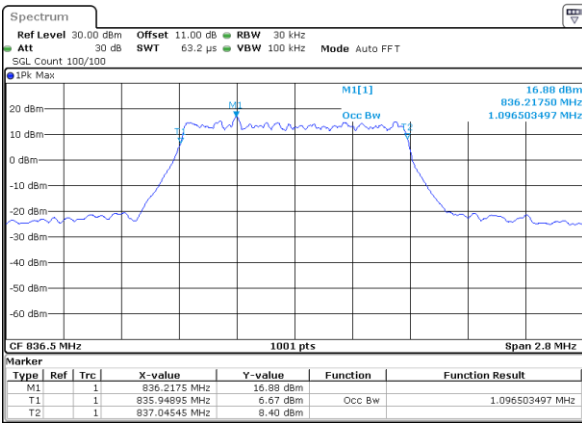
Date: 20.FEB.2023 11:18:21

Middle Channel / 10MHz / 16QAM



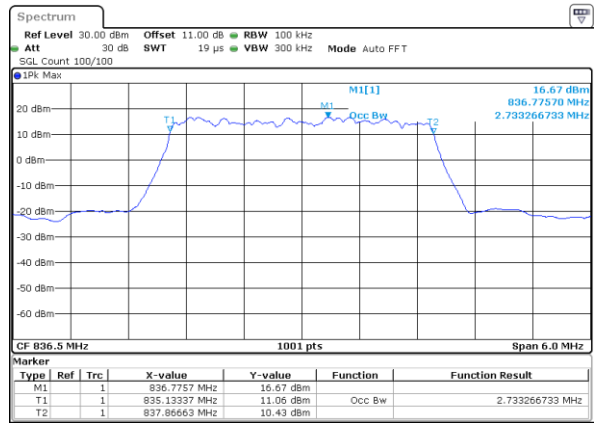
Date: 20.FEB.2023 11:19:35

Middle Channel / 1.4MHz / 64QAM



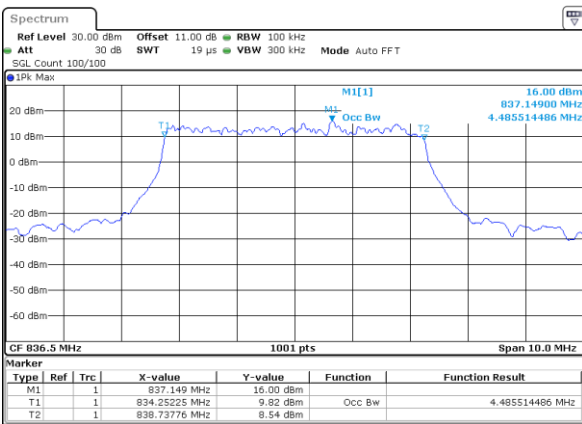
Date: 20.FEB.2023 10:33:26

Middle Channel / 3MHz / 64QAM



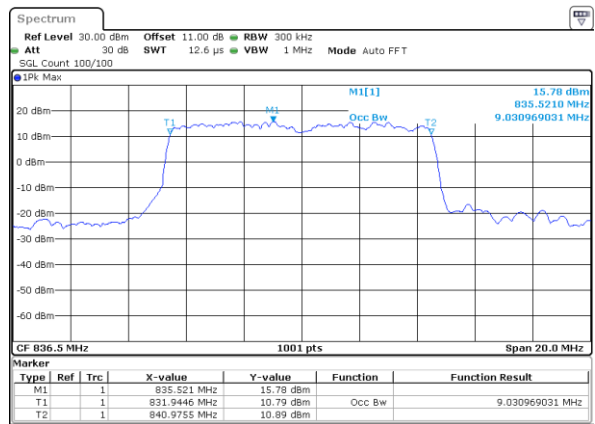
Date: 20.FEB.2023 10:54:19

Middle Channel / 5MHz / 64QAM



Date: 20.FEB.2023 11:07:04

Middle Channel / 10MHz / 64QAM

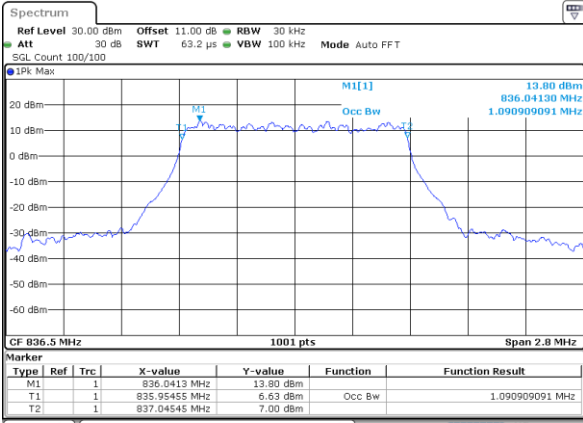


Date: 20.FEB.2023 11:20:33



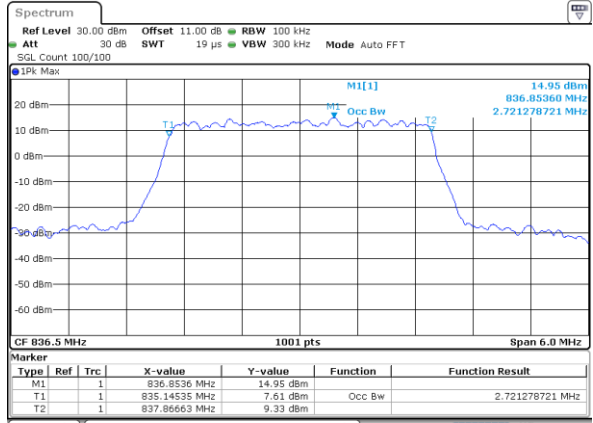
LTE Band 5

Middle Channel / 1.4MHz / 256QAM



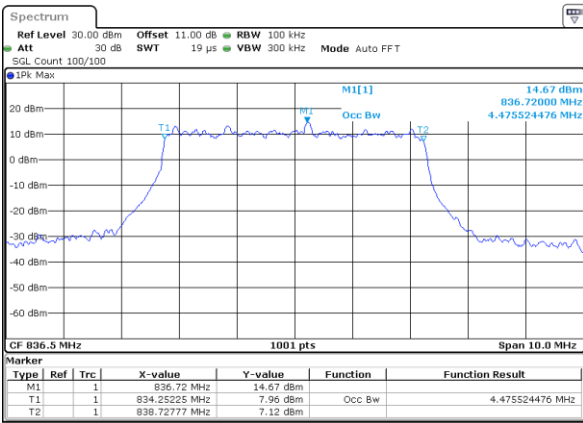
Date: 20.FEB.2023 10:24:09

Middle Channel / 3MHz / 256QAM



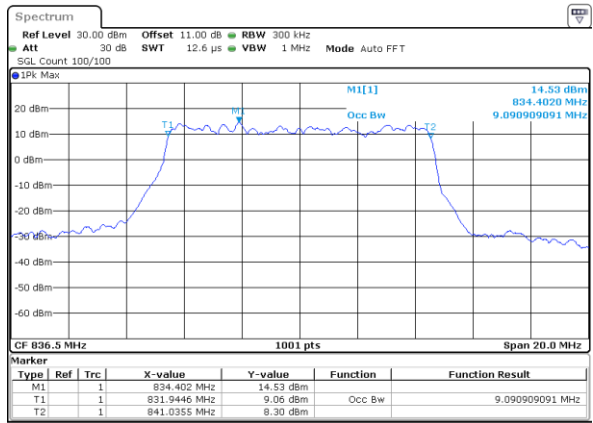
Date: 20.FEB.2023 10:55:02

Middle Channel / 5MHz / 256QAM



Date: 20.FEB.2023 11:07:47

Middle Channel / 10MHz / 256QAM



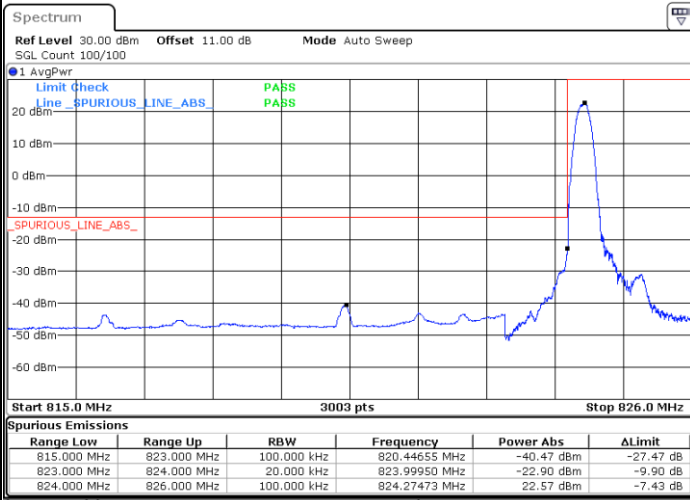
Date: 20.FEB.2023 11:21:32



Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



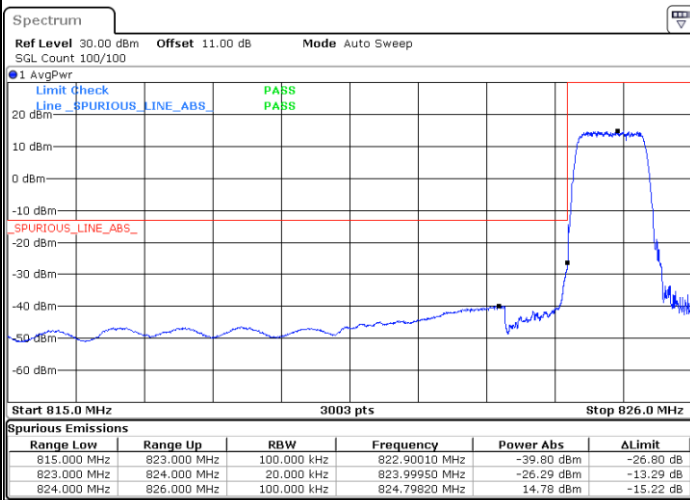
Date: 20.FEB.2023 10:22:01

Highest Band Edge / 1RB



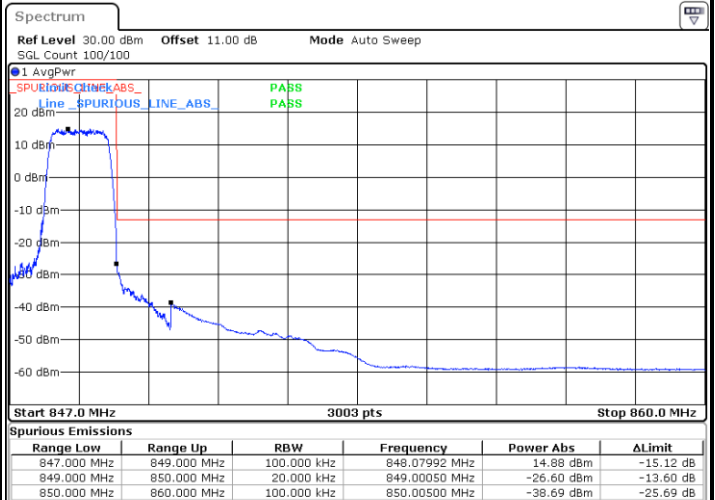
Date: 20.FEB.2023 10:39:16

Lowest Band Edge / Full RB



Date: 20.FEB.2023 10:27:14

Highest Band Edge / Full RB

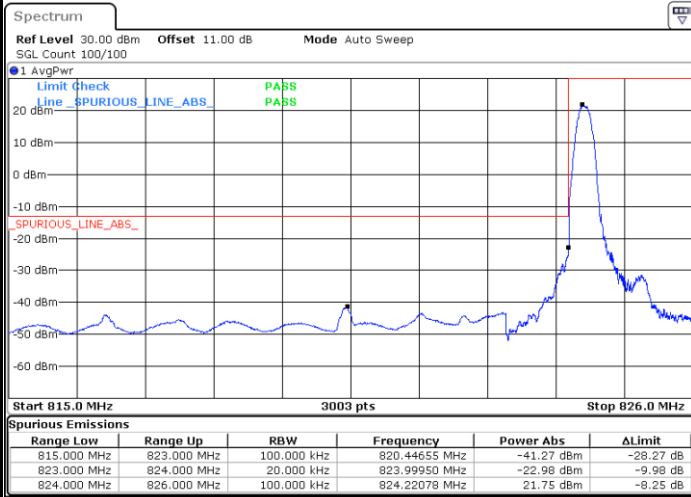


Date: 20.FEB.2023 10:35:21



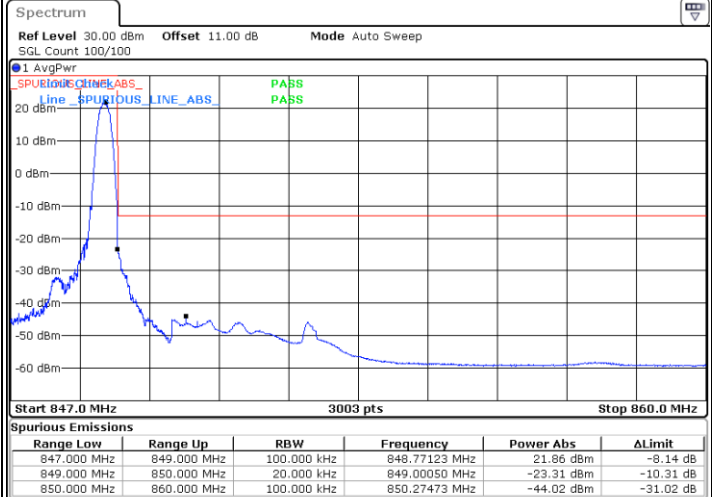
LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



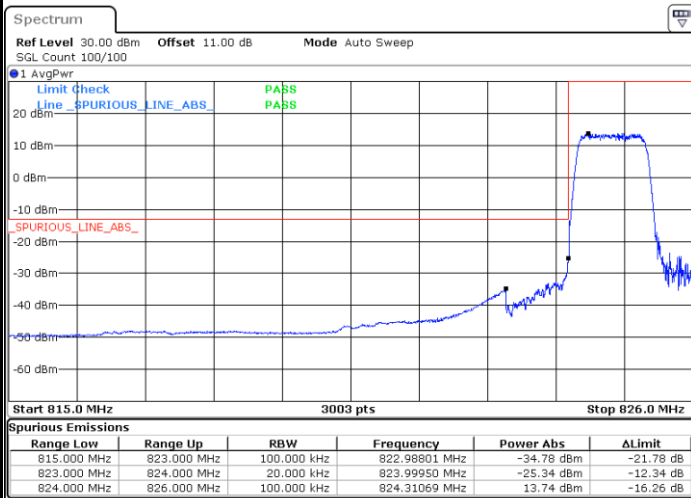
Date: 20.FEB.2023 10:23:00

Highest Band Edge / 1 RB



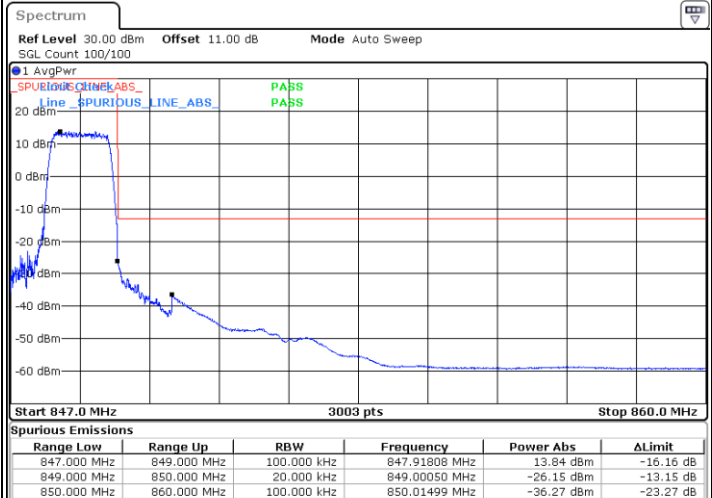
Date: 20.FEB.2023 10:40:15

Lowest Band Edge / Full RB



Date: 20.FEB.2023 10:28:13

Highest Band Edge / Full RB

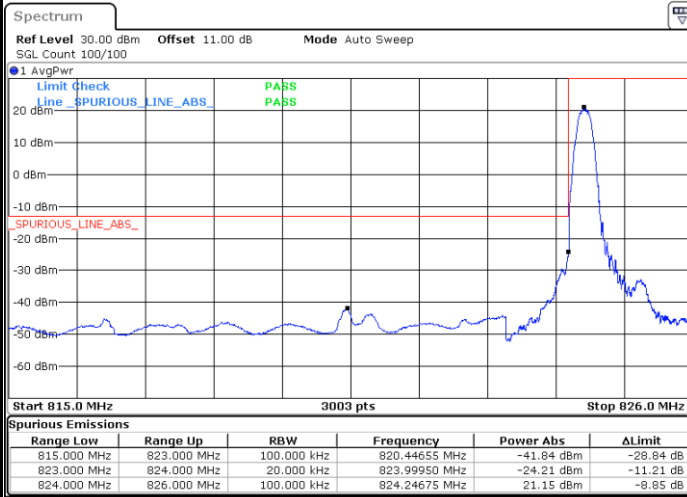


Date: 20.FEB.2023 10:36:20



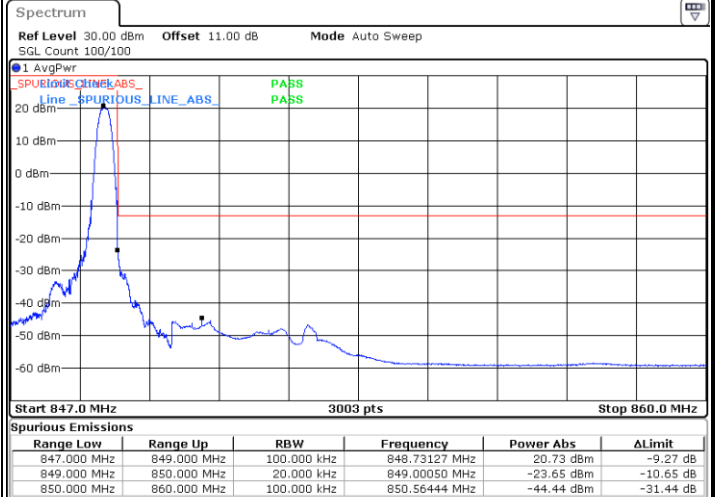
LTE Band 5 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



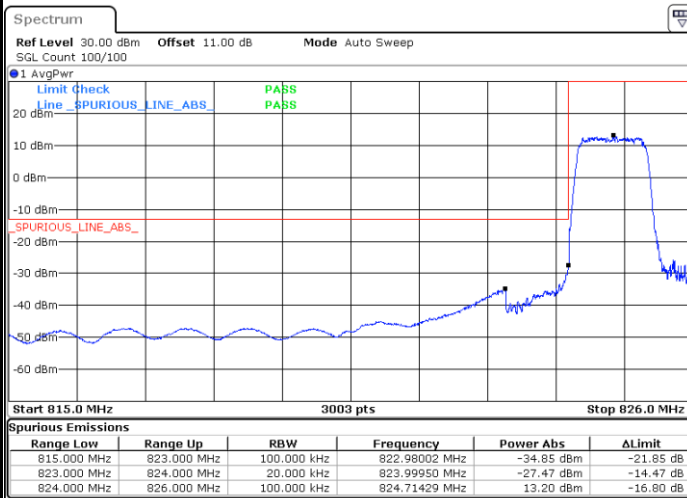
Date: 20.FEB.2023 10:23:58

Highest Band Edge / 1 RB



Date: 20.FEB.2023 10:41:14

Lowest Band Edge / Full RB



Date: 20.FEB.2023 10:29:13

Highest Band Edge / Full RB

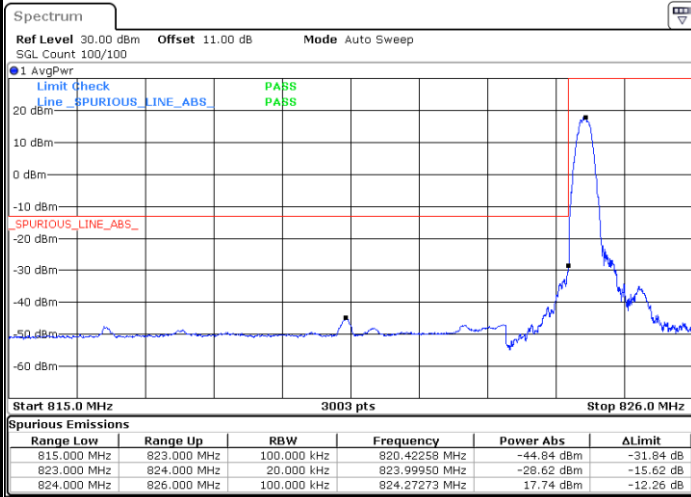


Date: 20.FEB.2023 10:37:19

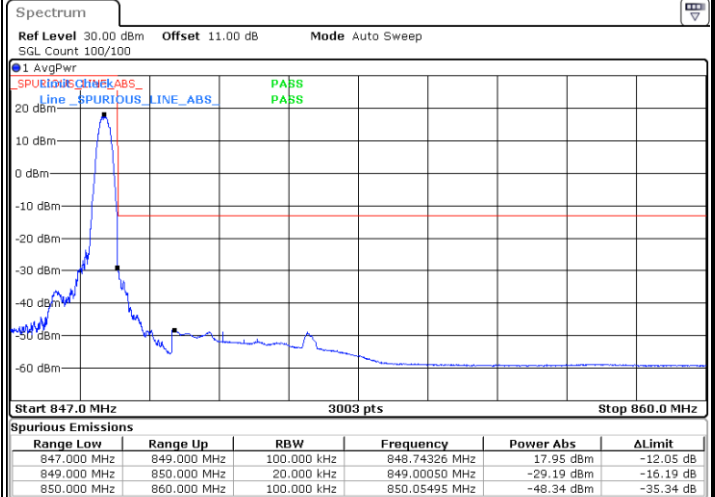


LTE Band 5 / 1.4MHz / 256QAM

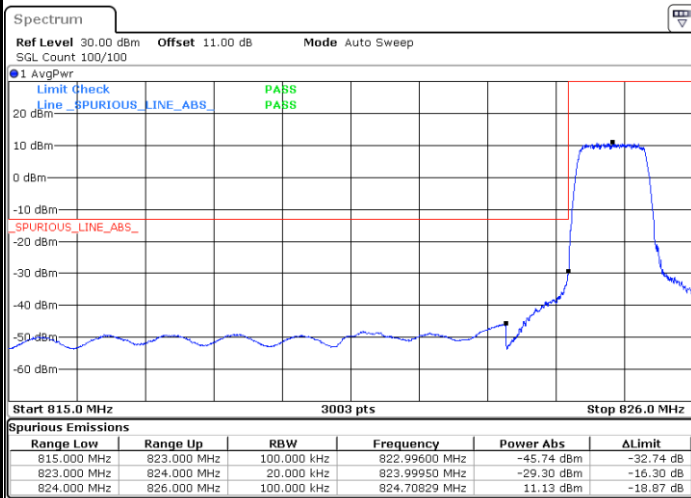
Lowest Band Edge / 1 RB



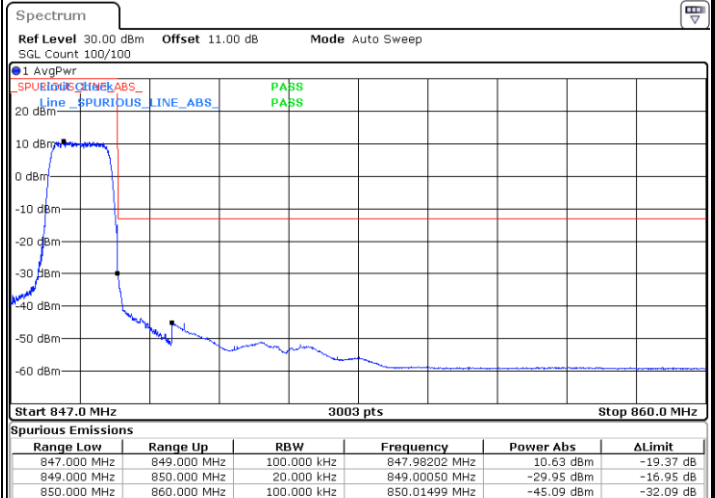
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



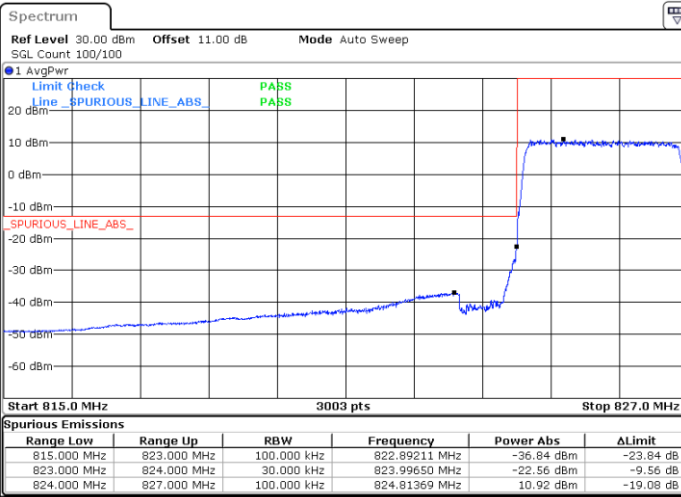
Highest Band Edge / Full RB





LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / Full RB



Date: 20.FEB.2023 10:49:27

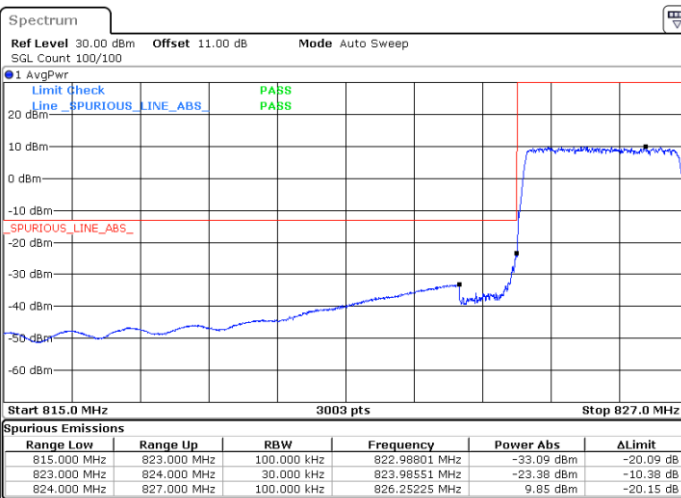
Highest Band Edge / Full RB



Date: 20.FEB.2023 10:56:14

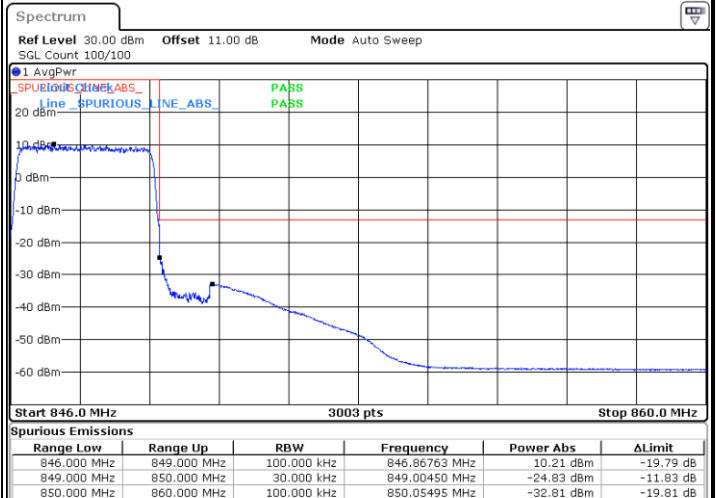
LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / Full RB



Date: 20.FEB.2023 10:50:26

Highest Band Edge / Full RB

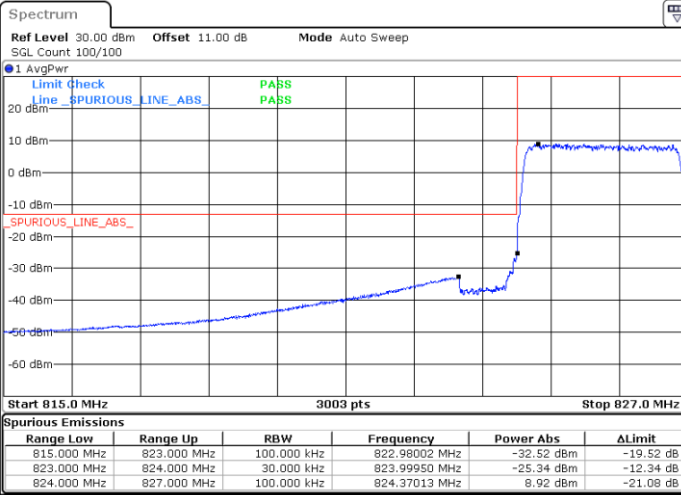


Date: 20.FEB.2023 10:57:13



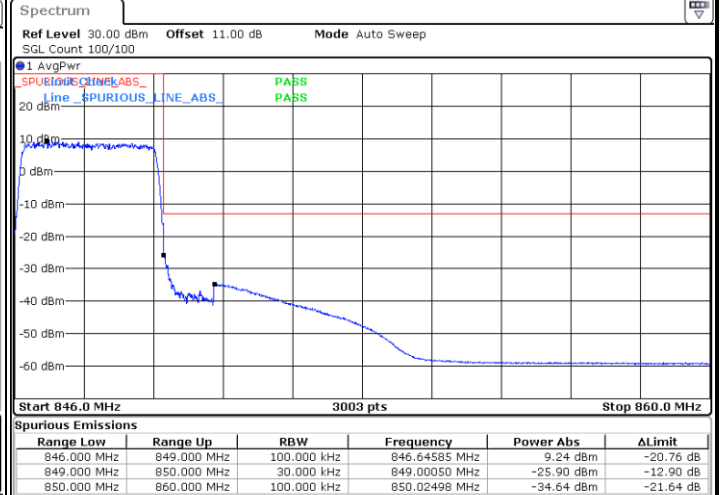
LTE Band 5 / 3MHz / 64QAM

Lowest Band Edge / Full RB



Date: 20.FEB.2023 10:51:25

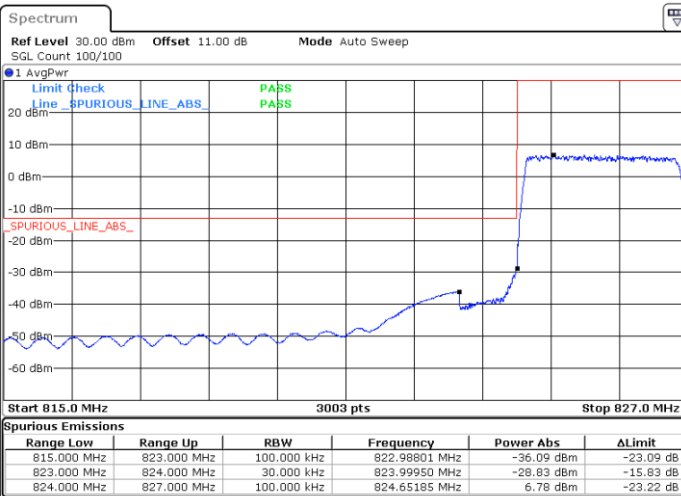
Highest Band Edge / Full RB



Date: 20.FEB.2023 10:58:12

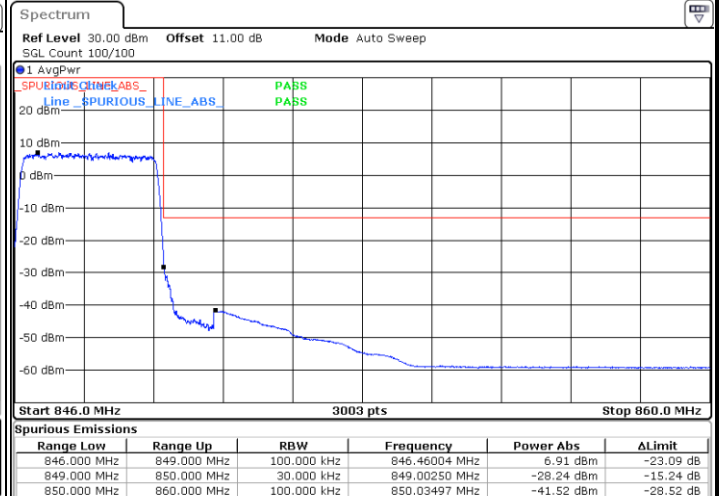
LTE Band 5 / 3MHz / 256QAM

Lowest Band Edge / Full RB



Date: 20.FEB.2023 10:52:24

Highest Band Edge / Full RB

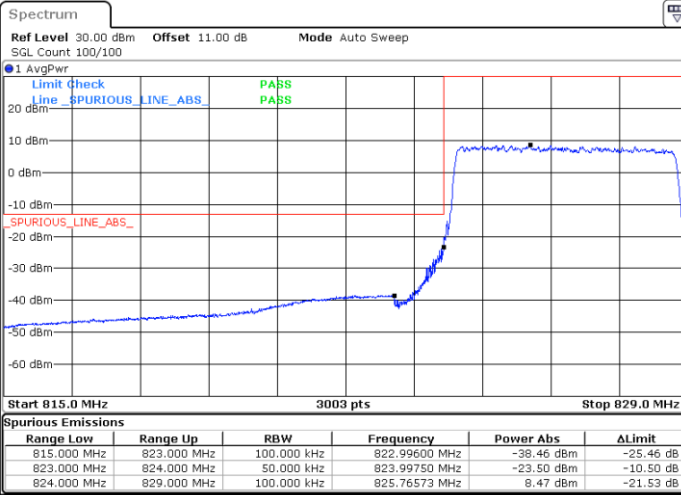


Date: 20.FEB.2023 10:59:11



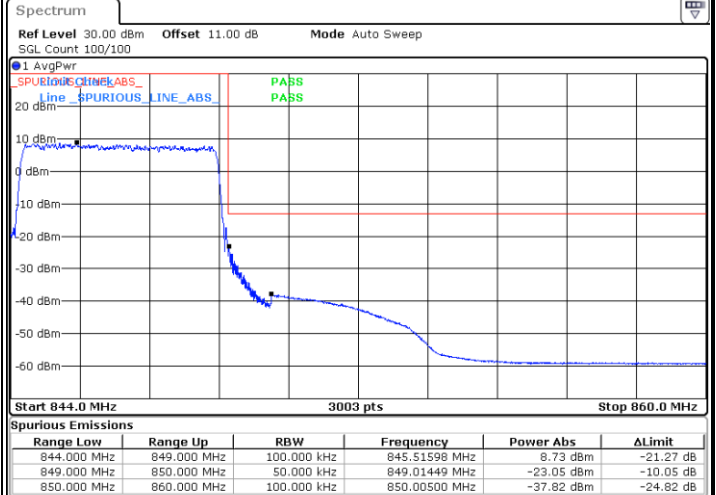
LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / Full RB



Date: 20.FEB.2023 11:02:11

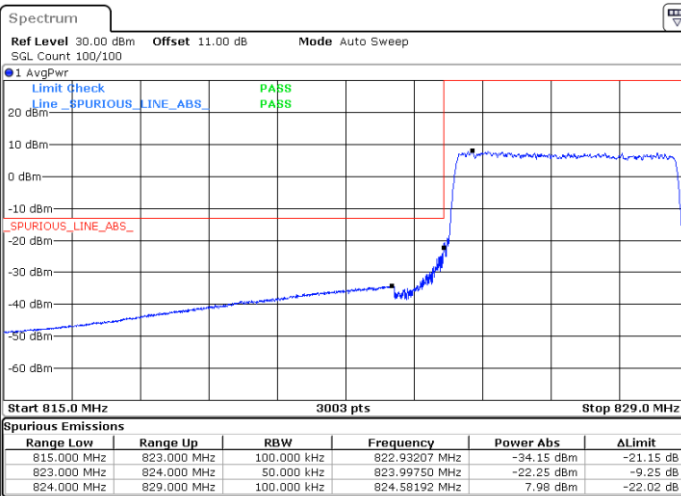
Highest Band Edge / Full RB



Date: 20.FEB.2023 11:08:59

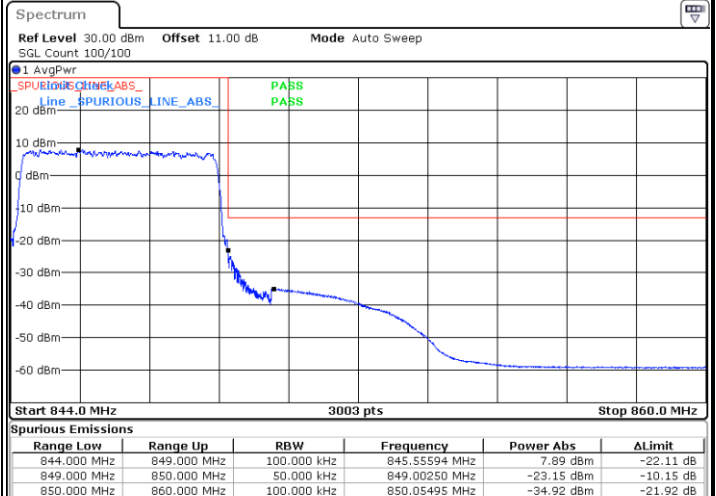
LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / Full RB



Date: 20.FEB.2023 11:03:10

Highest Band Edge / Full RB

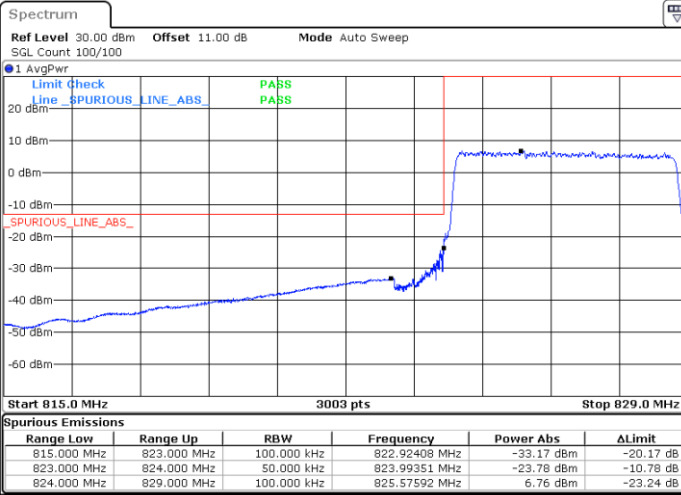


Date: 20.FEB.2023 11:09:58



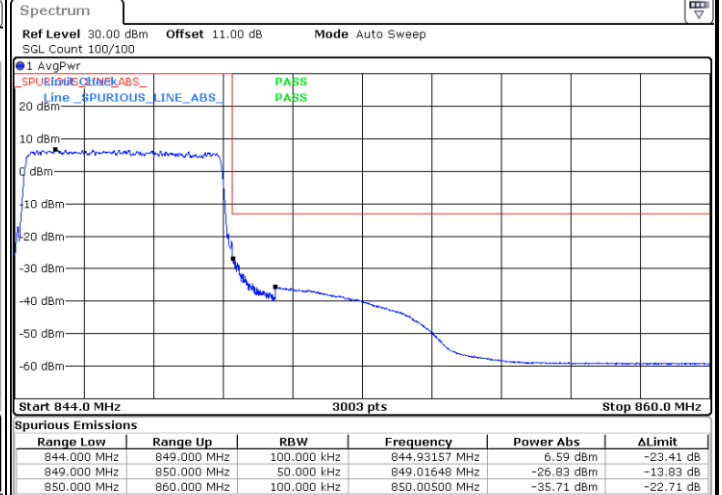
LTE Band 5 / 5MHz / 64QAM

Lowest Band Edge / Full RB



Date: 20.FEB.2023 11:04:09

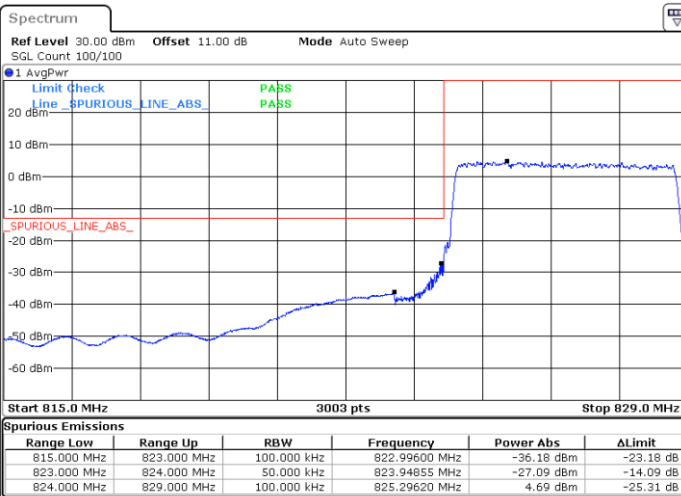
Highest Band Edge / Full RB



Date: 20.FEB.2023 11:10:57

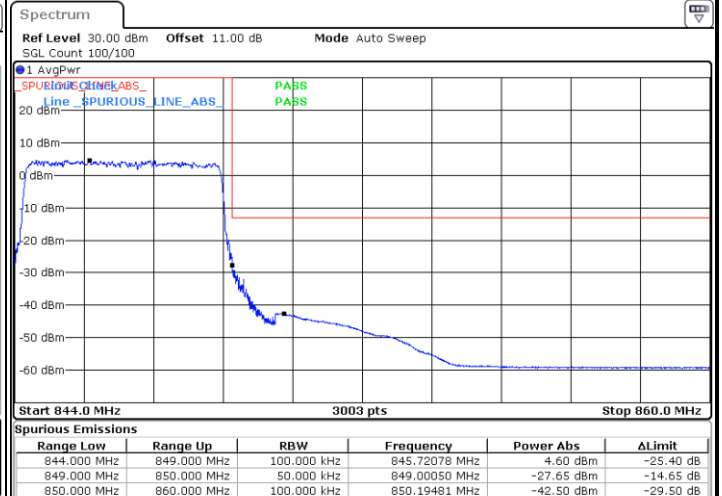
LTE Band 5 / 5MHz / 256QAM

Lowest Band Edge / Full RB



Date: 20.FEB.2023 11:05:07

Highest Band Edge / Full RB



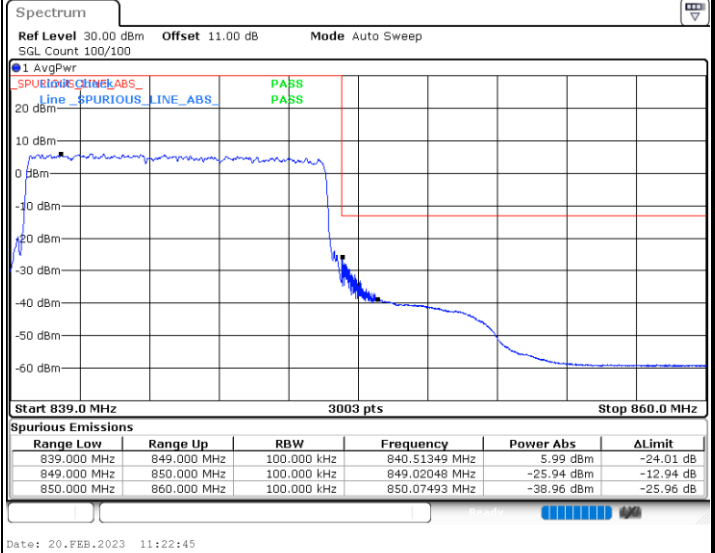
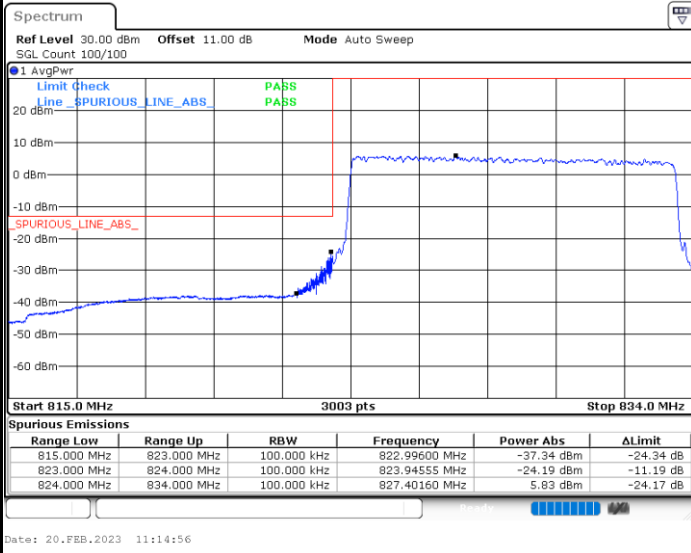
Date: 20.FEB.2023 11:11:56



LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / Full RB

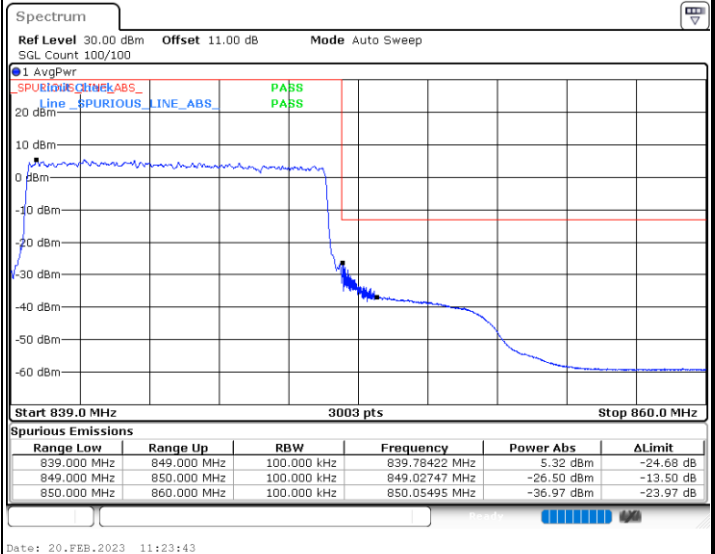
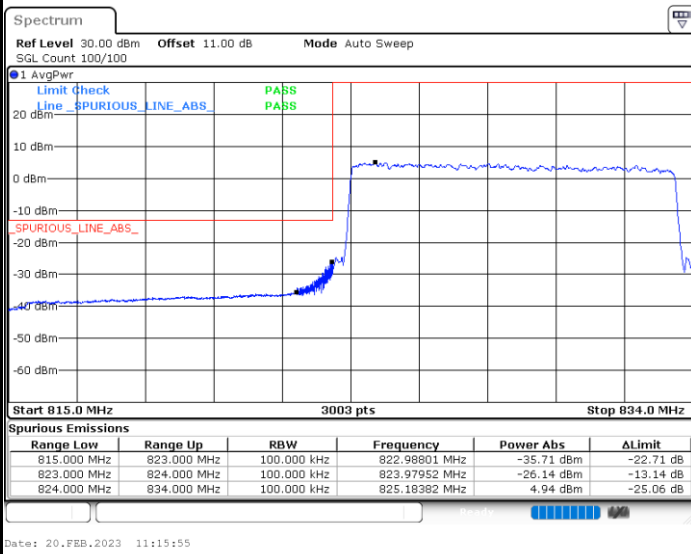
Highest Band Edge / Full RB



LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

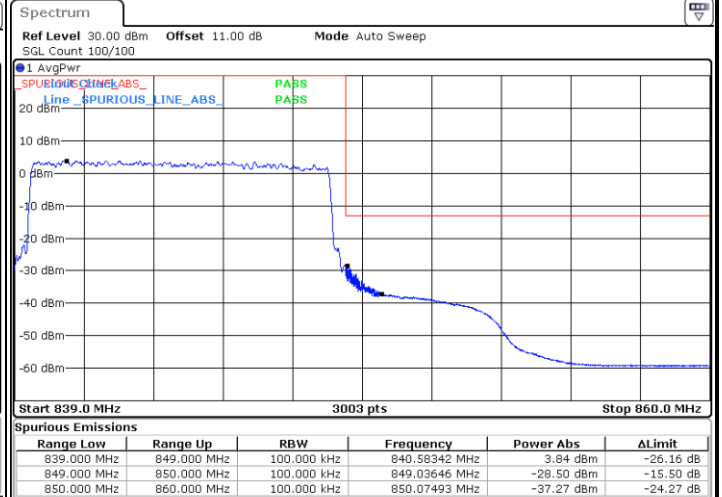
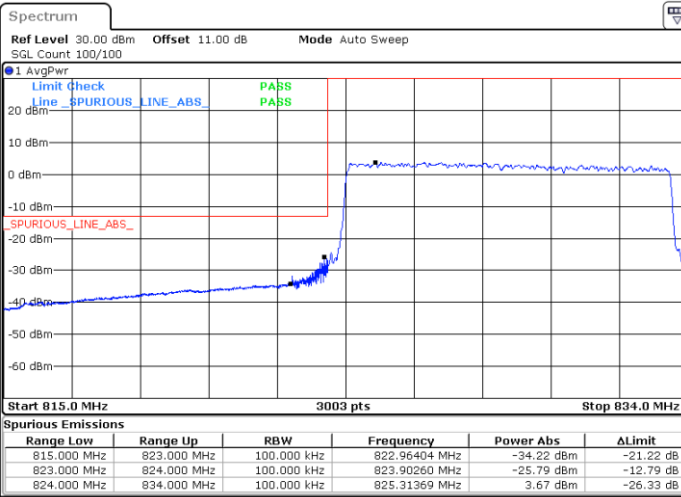




LTE Band 5 / 10MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



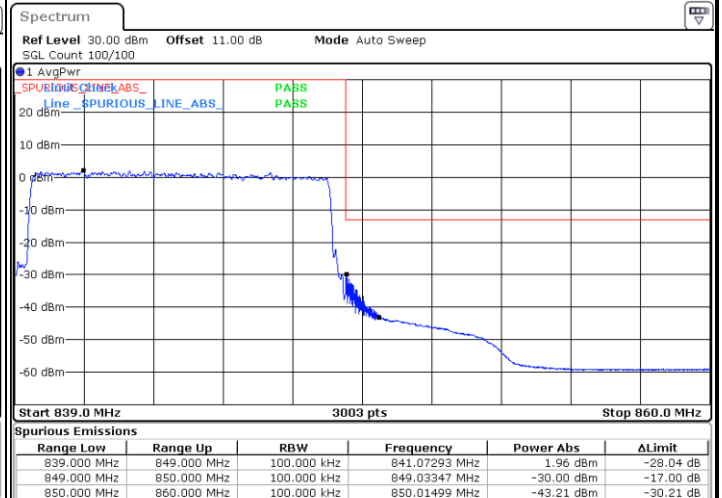
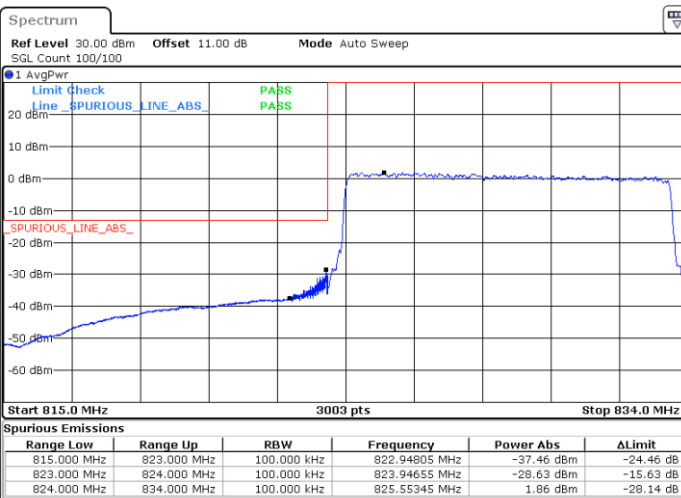
Date: 20.FEB.2023 11:16:54

Date: 20.FEB.2023 11:24:42

LTE Band 5 / 10MHz / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 20.FEB.2023 11:17:52

Date: 20.FEB.2023 11:25:41

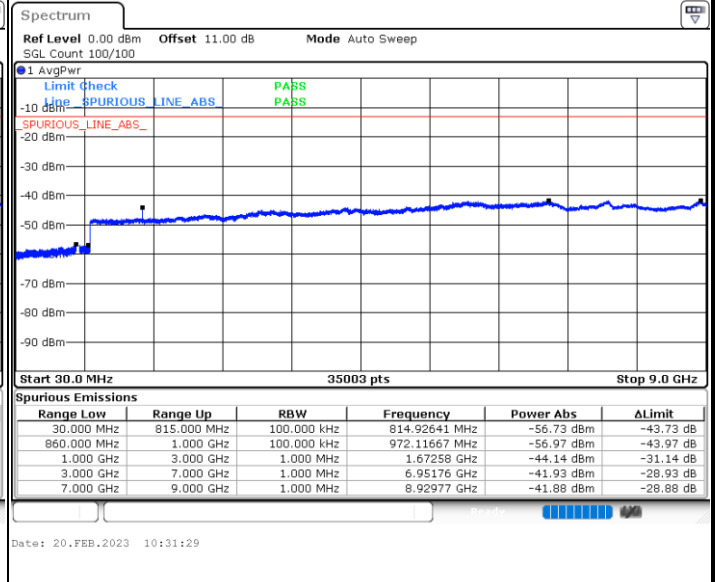
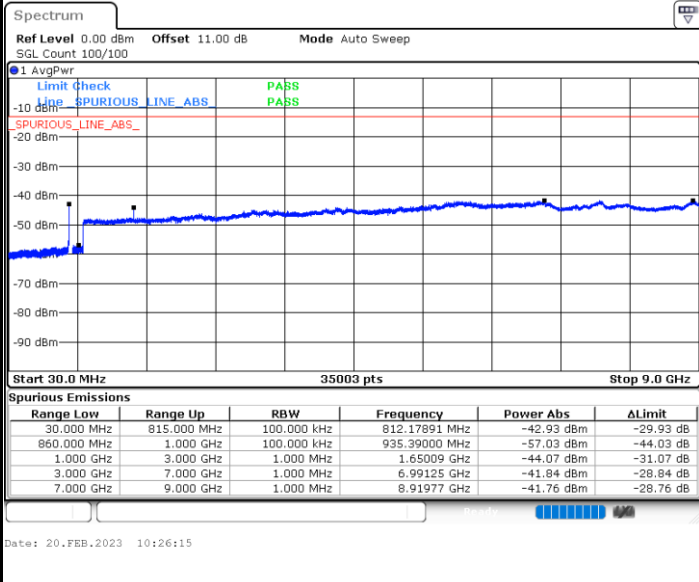


Conducted Spurious Emission

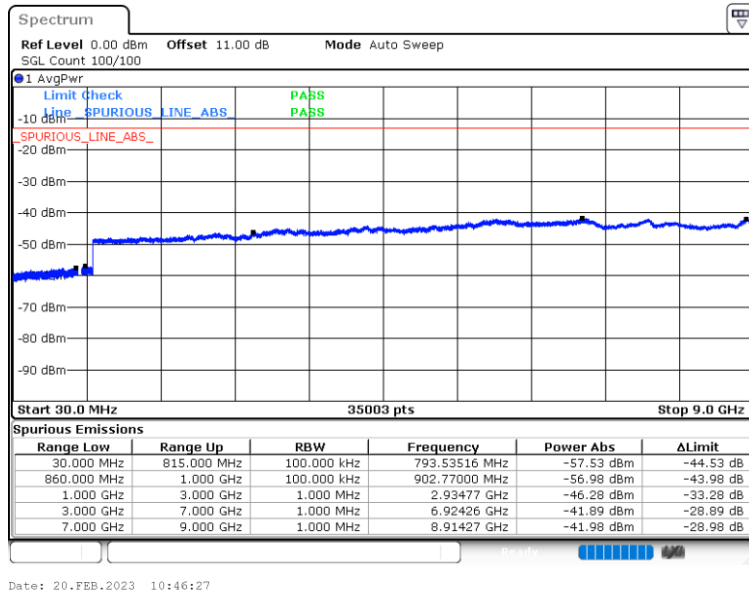
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK

Middle Channel / QPSK



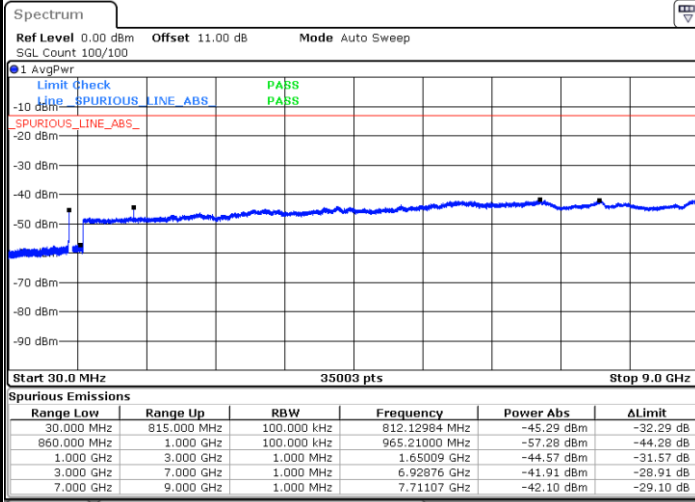
Highest Channel / QPSK





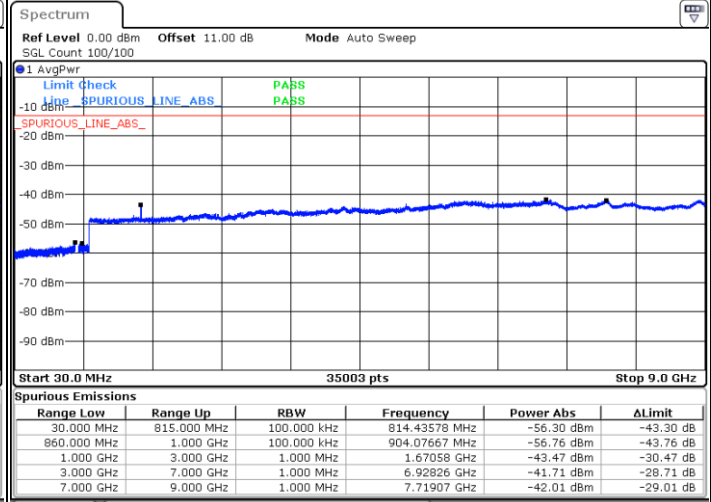
LTE Band 5 / 3MHz

Lowest Channel / QPSK



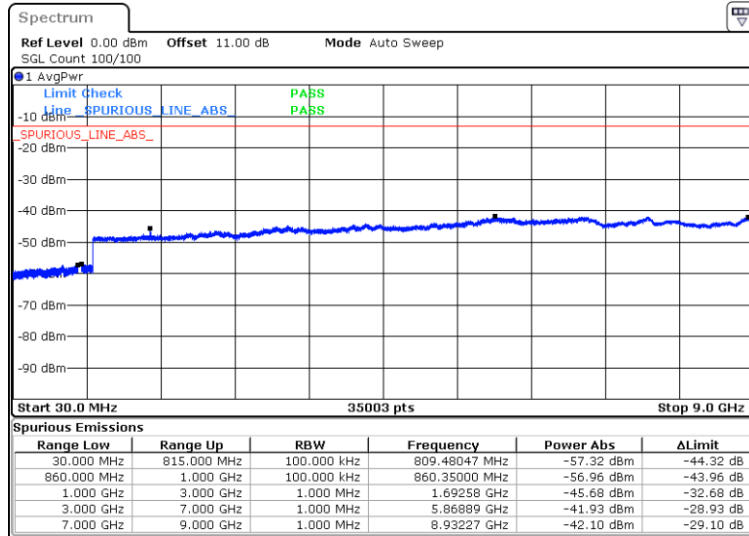
Date: 20.FEB.2023 11:27:04

Middle Channel / QPSK



Date: 20.FEB.2023 11:28:22

Highest Channel / QPSK



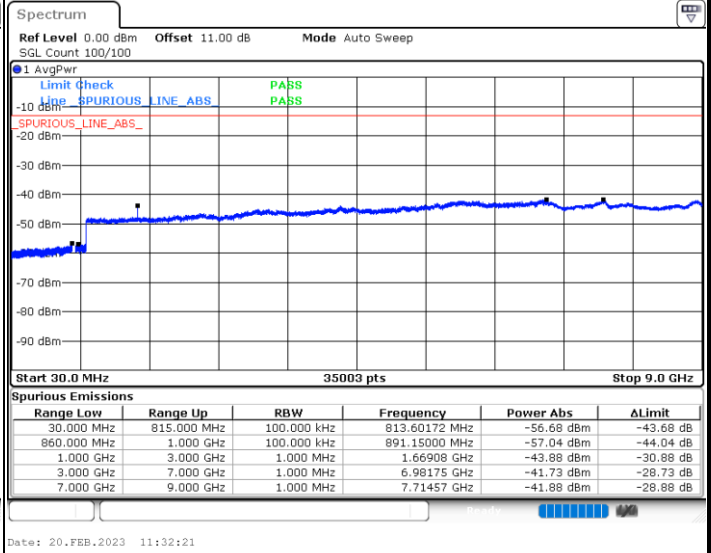
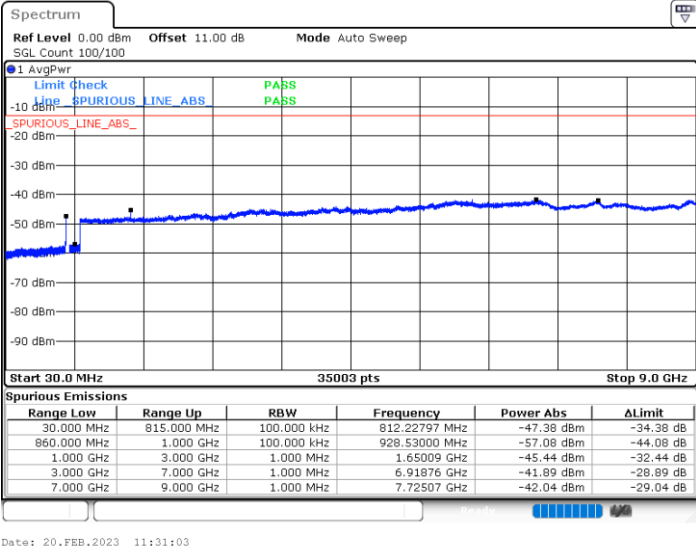
Date: 20.FEB.2023 11:29:40



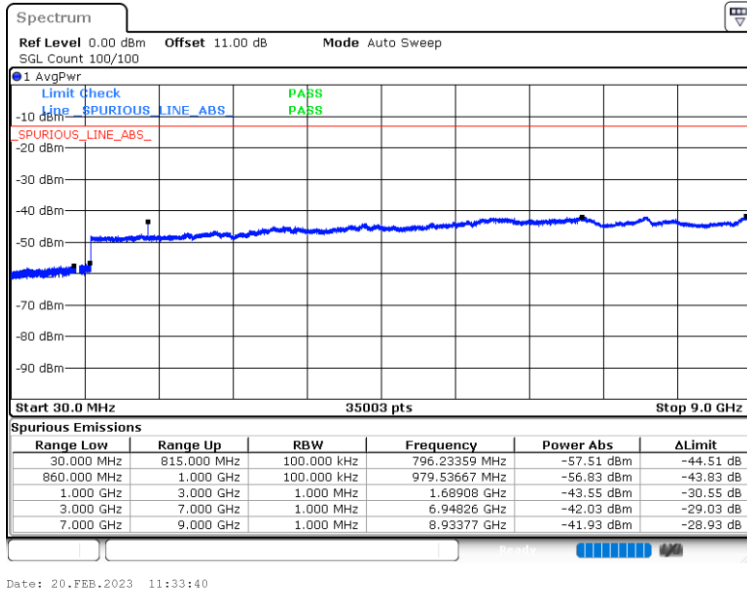
LTE Band 5 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

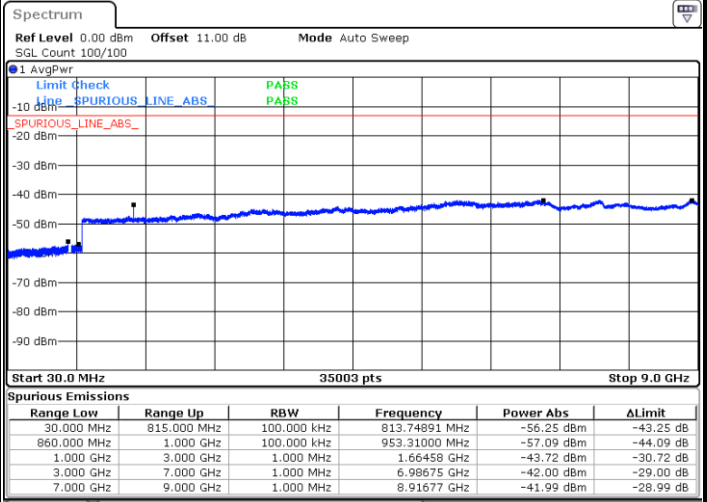
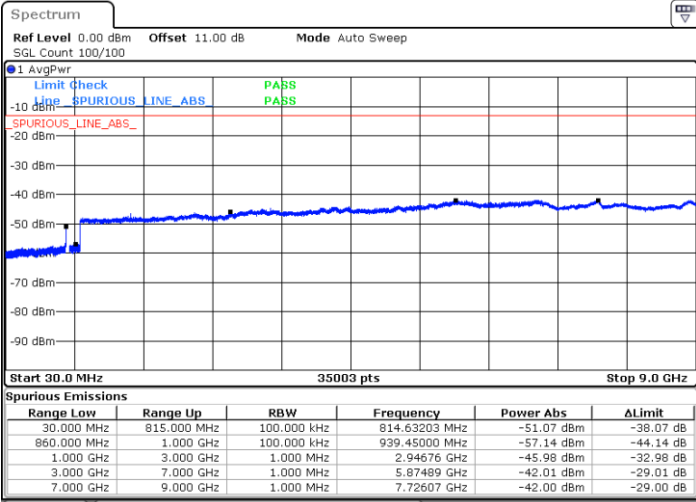




LTE Band 5 / 10MHz

Lowest Channel / QPSK

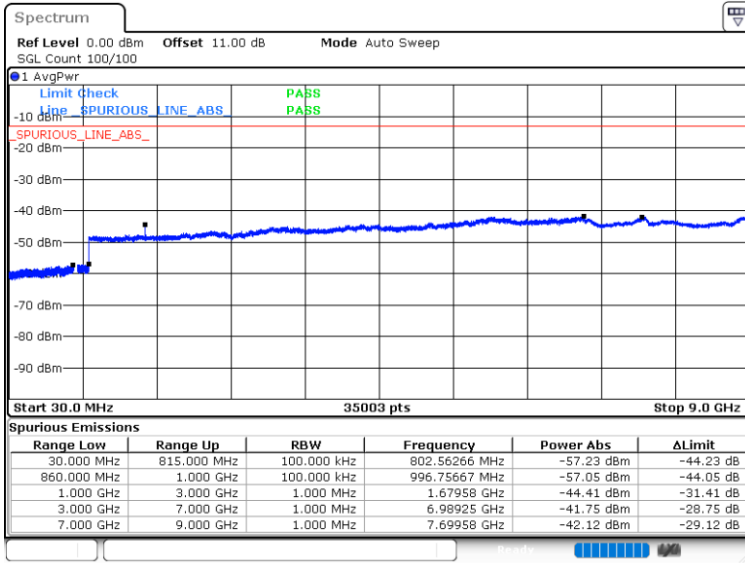
Middle Channel / QPSK



Date: 20.FEB.2023 11:35:03

Date: 20.FEB.2023 11:36:22

Highest Channel / QPSK



Date: 20.FEB.2023 11:37:41



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	0.0115	PASS
40	Normal Voltage	0.0068	
30	Normal Voltage	0.0053	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0080	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0053	
-20	Normal Voltage	0.0029	
-30	Normal Voltage	0.0146	
20	Maximum Voltage	0.0056	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0038	

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 5B

26dB Bandwidth

Mode	LTE Band 5B : 26dB BW(MHz)		
QPSK			
BW	3MHz+5MHz	5MHz+3MHz	5MHz+10MHz
Middle CH	8.10	8.39	14.69
BW	10MHz+5MHz	10MHz+10MHz	N/A
Middle CH	14.99	19.74	-

Mode	LTE Band 5B : 26dB BW(MHz)		
16QAM			
BW	3MHz+5MHz	5MHz+3MHz	5MHz+10MHz
Middle CH	8.09	8.42	14.57
BW	10MHz+5MHz	10MHz+10MHz	N/A
Middle CH	14.84	19.50	-

Mode	LTE Band 5B : 26dB BW(MHz)		
64QAM			
BW	3MHz+5MHz	5MHz+3MHz	5MHz+10MHz
Middle CH	8.15	8.36	14.87
BW	10MHz+5MHz	10MHz+10MHz	N/A
Middle CH	14.93	19.54	-

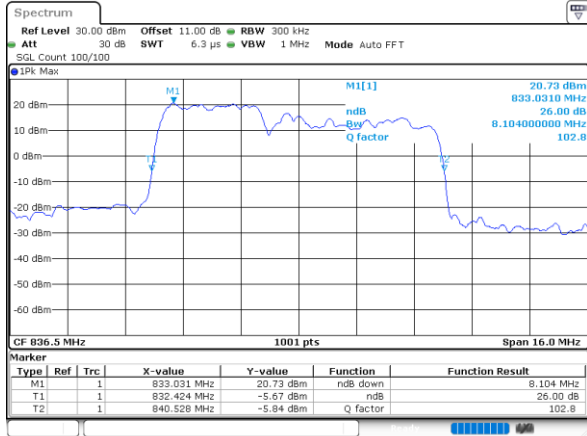
Mode	LTE Band 5B : 26dB BW(MHz)		
256QAM			
BW	3MHz+5MHz	5MHz+3MHz	5MHz+10MHz
Middle CH	8.06	8.41	14.81
BW	10MHz+5MHz	10MHz+10MHz	N/A
Middle CH	14.87	19.50	-



LTE Band 5B

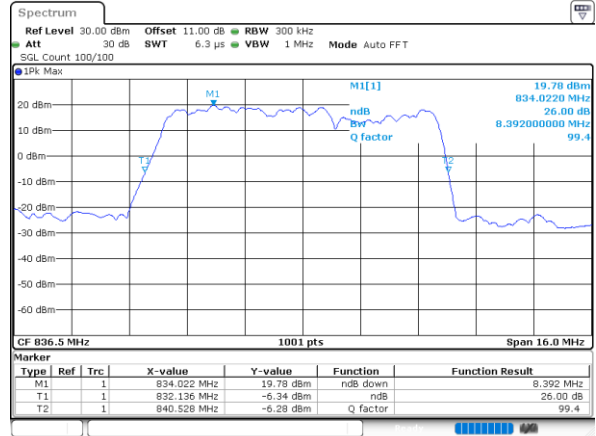
QPSK

Middle Channel / 3MHz+5MHz



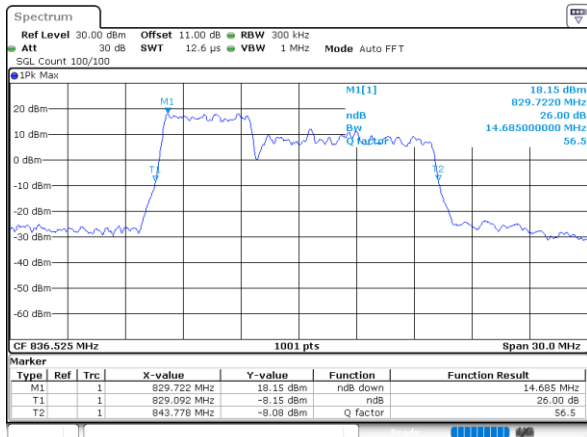
Date: 21.FEB.2023 01:19:44

Middle Channel / 5MHz+3MHz



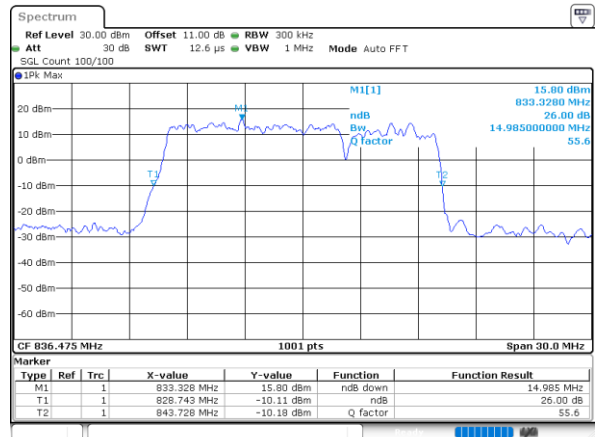
Date: 21.FEB.2023 01:53:23

Middle Channel / 5MHz+10MHz



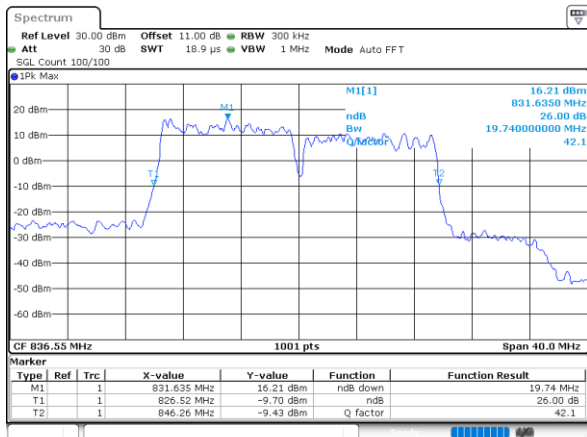
Date: 21.FEB.2023 02:27:14

Middle Channel / 10MHz+5MHz



Date: 21.FEB.2023 03:00:31

Middle Channel / 10MHz+10MHz



Date: 21.FEB.2023 03:32:55

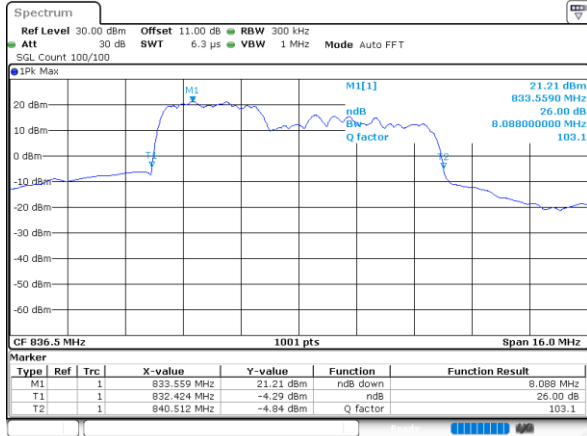
N/A



LTE Band 5B

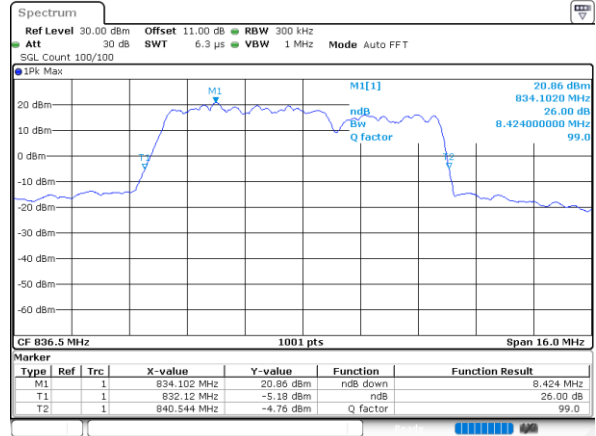
16QAM

Middle Channel / 3MHz+5MHz



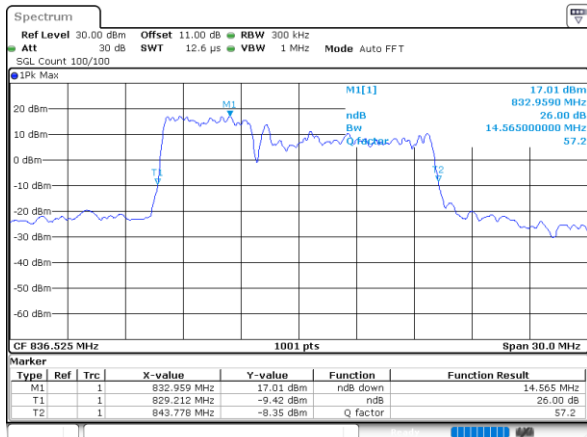
Date: 21.FEB.2023 01:19:08

Middle Channel / 5MHz+3MHz



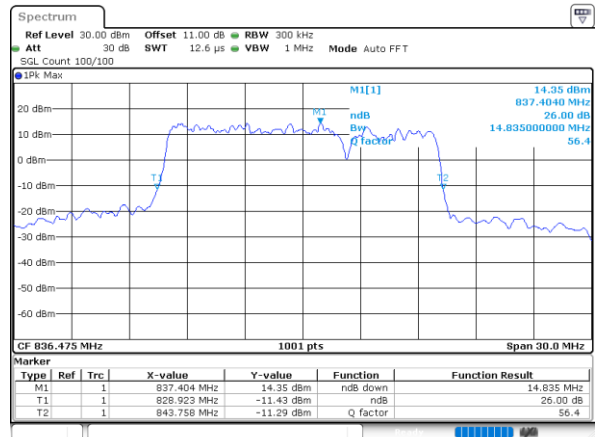
Date: 21.FEB.2023 01:52:45

Middle Channel / 5MHz+10MHz



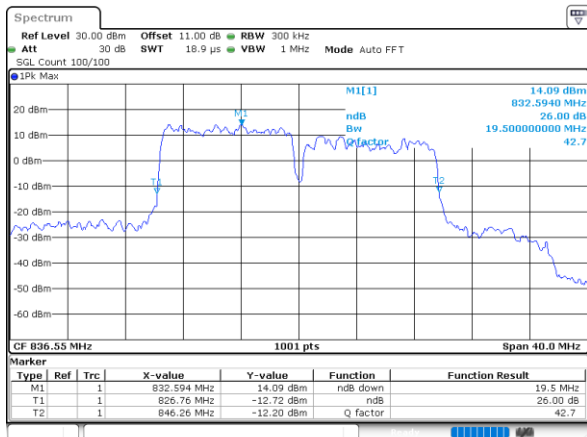
Date: 21.FEB.2023 02:26:36

Middle Channel / 10MHz+5MHz



Date: 21.FEB.2023 02:59:55

Middle Channel / 10MHz+10MHz



Date: 21.FEB.2023 03:30:59

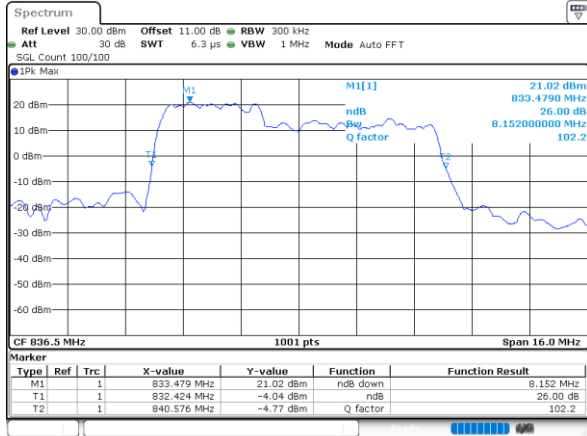
N/A



LTE Band 5B

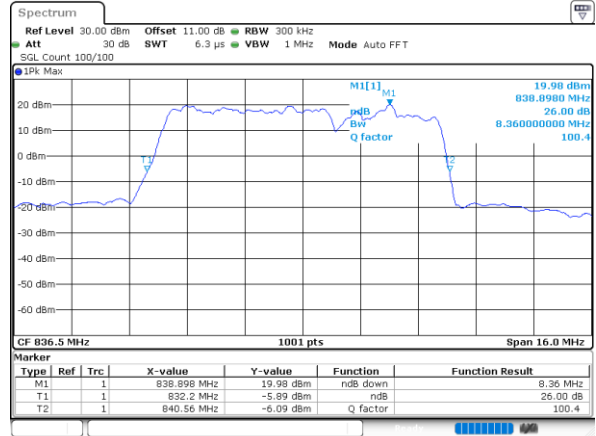
64QAM

Middle Channel / 3MHz+5MHz



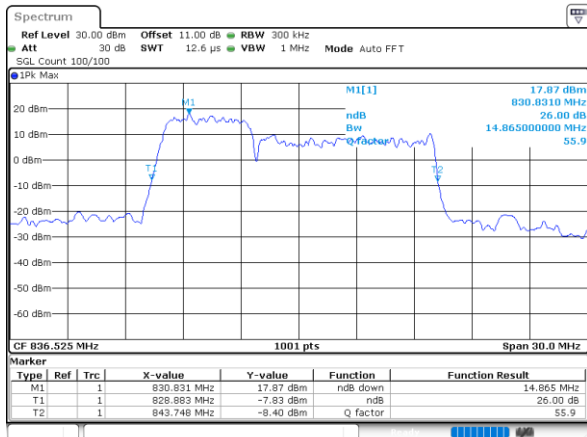
Date: 21.FEB.2023 01:18:33

Middle Channel / 5MHz+3MHz



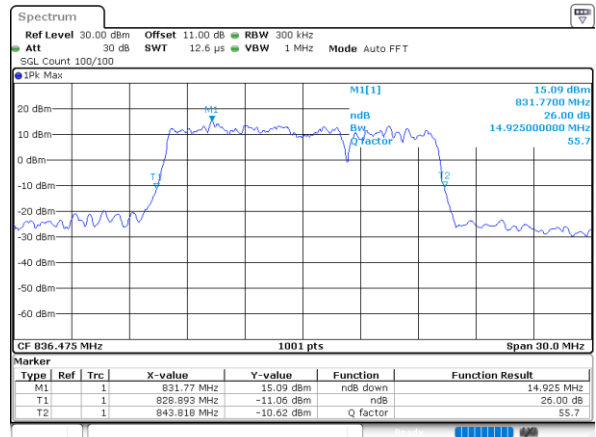
Date: 21.FEB.2023 01:52:08

Middle Channel / 5MHz+10MHz



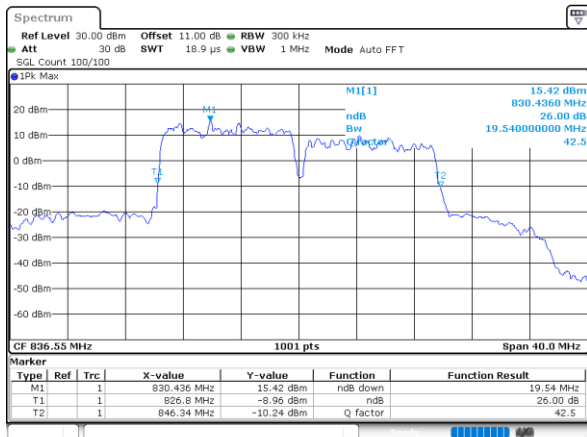
Date: 21.FEB.2023 02:26:00

Middle Channel / 10MHz+5MHz



Date: 21.FEB.2023 02:59:18

Middle Channel / 10MHz+10MHz



Date: 21.FEB.2023 09:41:05

N/A