



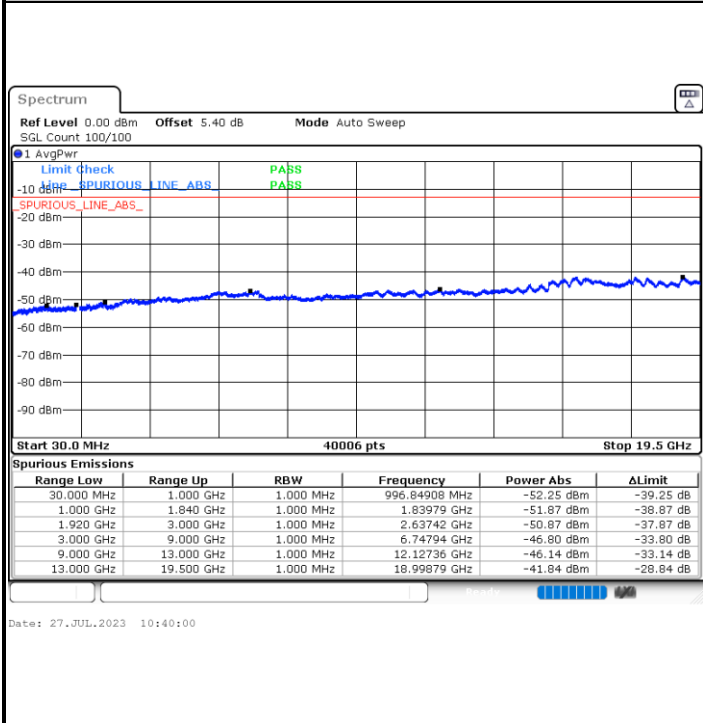
Conducted Spurious Emission



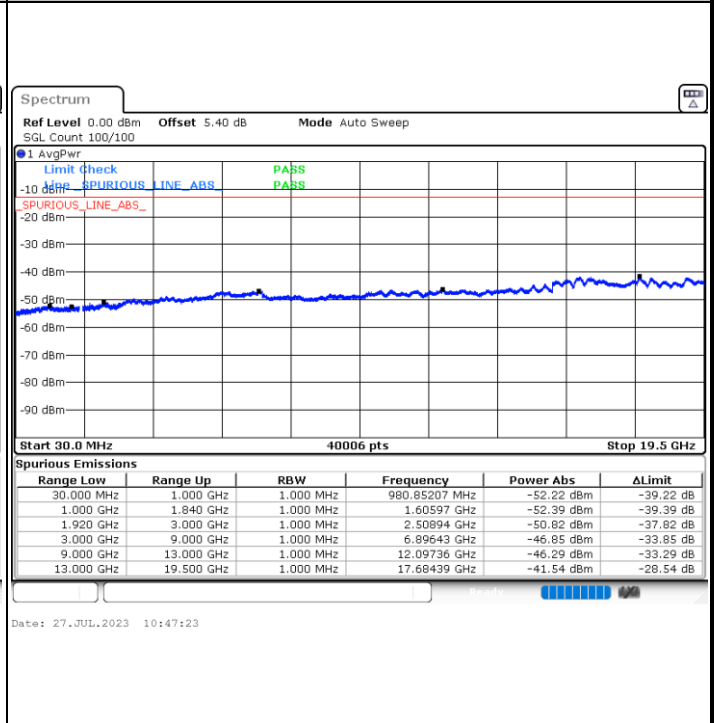


LTE Band 2 / 3MHz

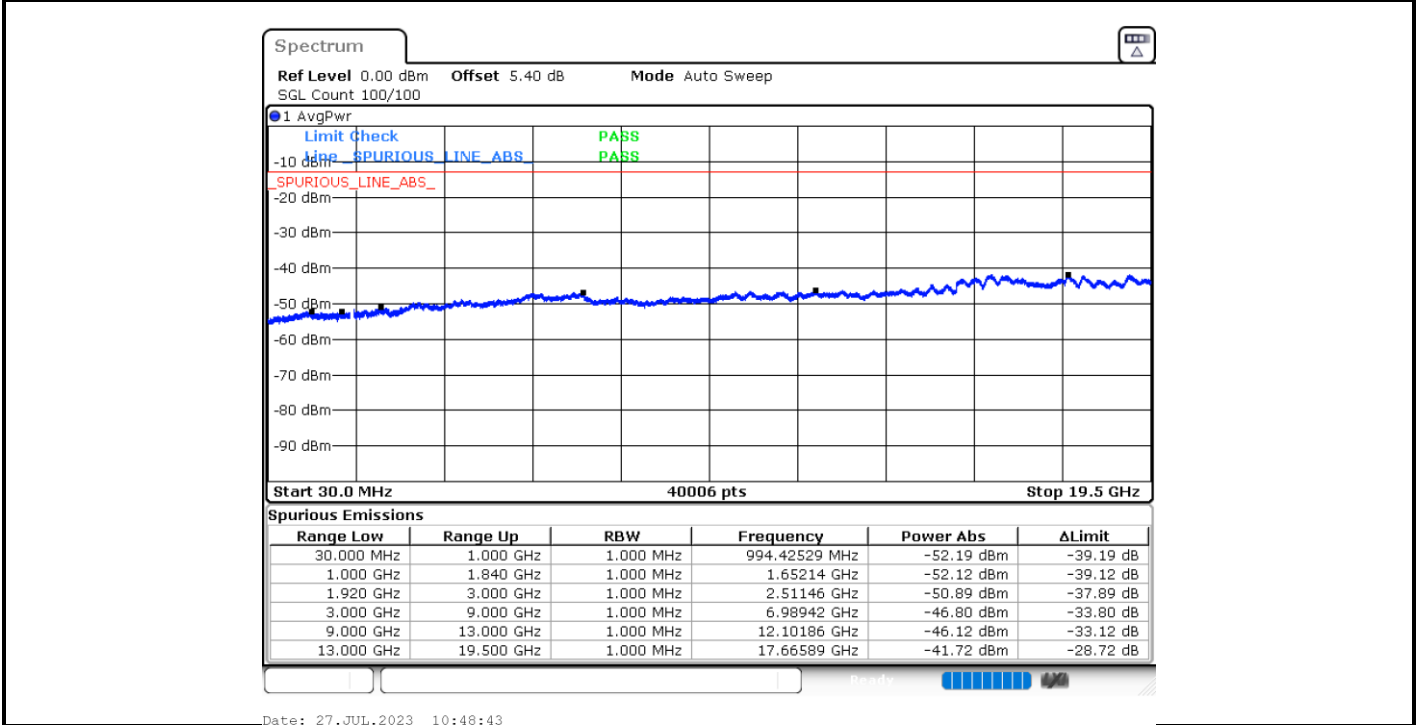
Lowest Channel / QPSK



Middle Channel / QPSK



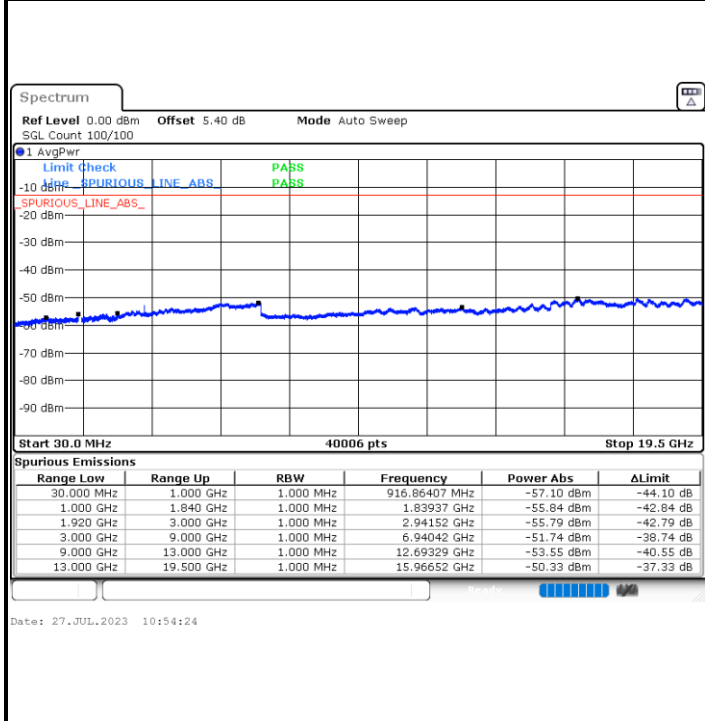
Highest Channel / QPSK



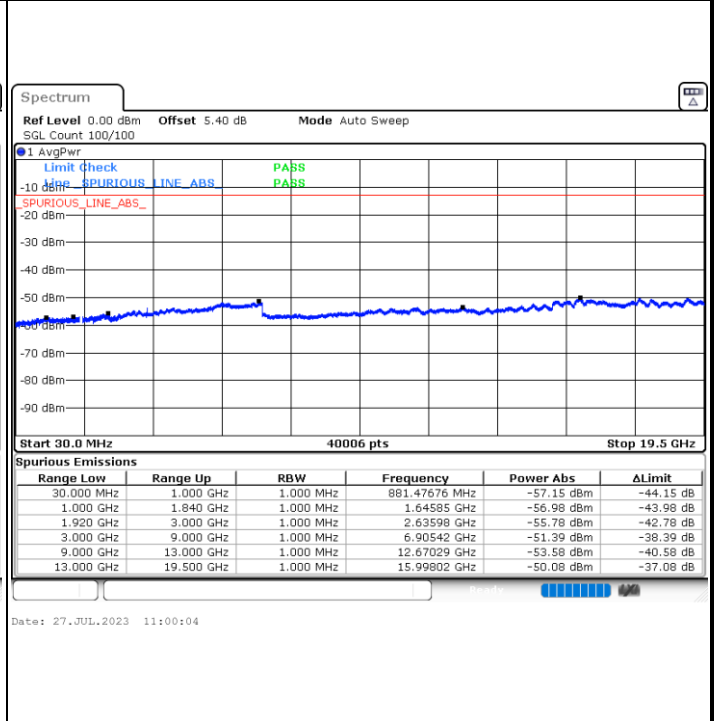


LTE Band 2 / 5MHz

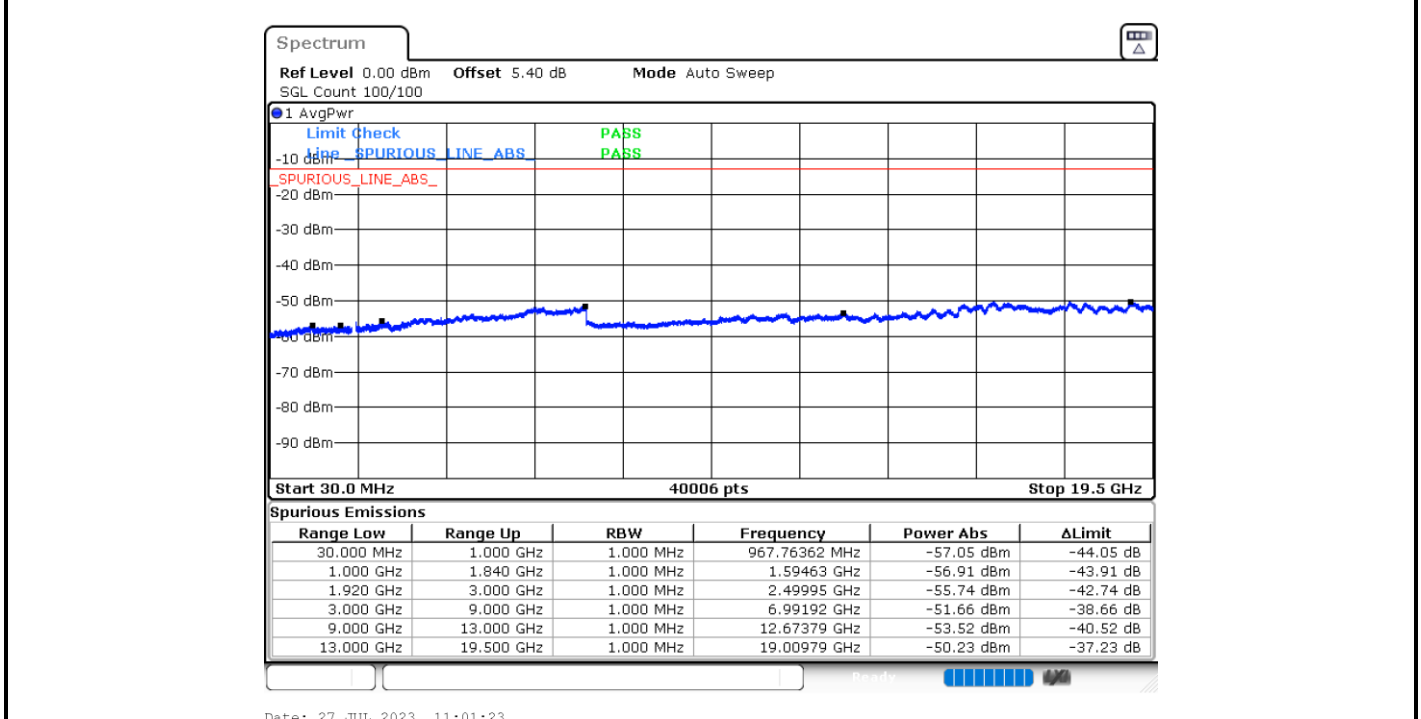
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK

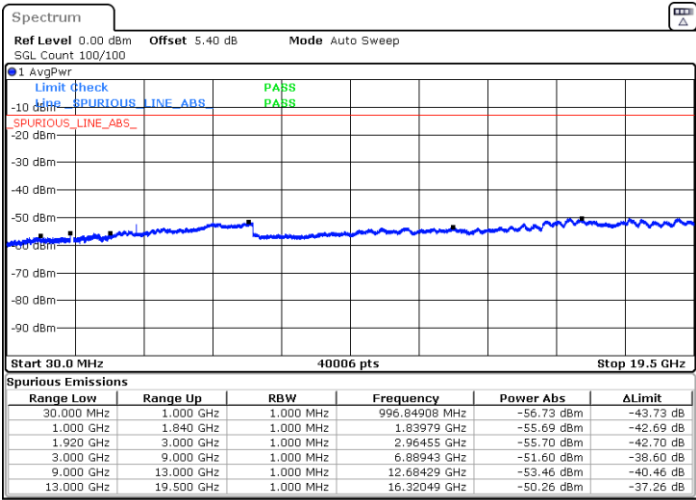




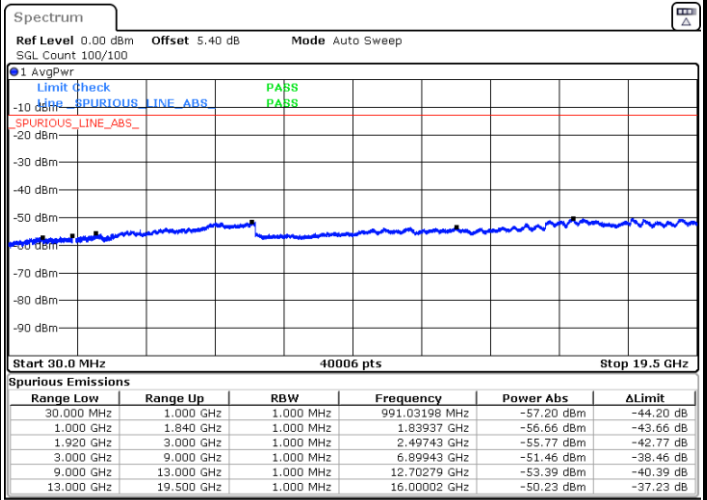
LTE Band 2 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

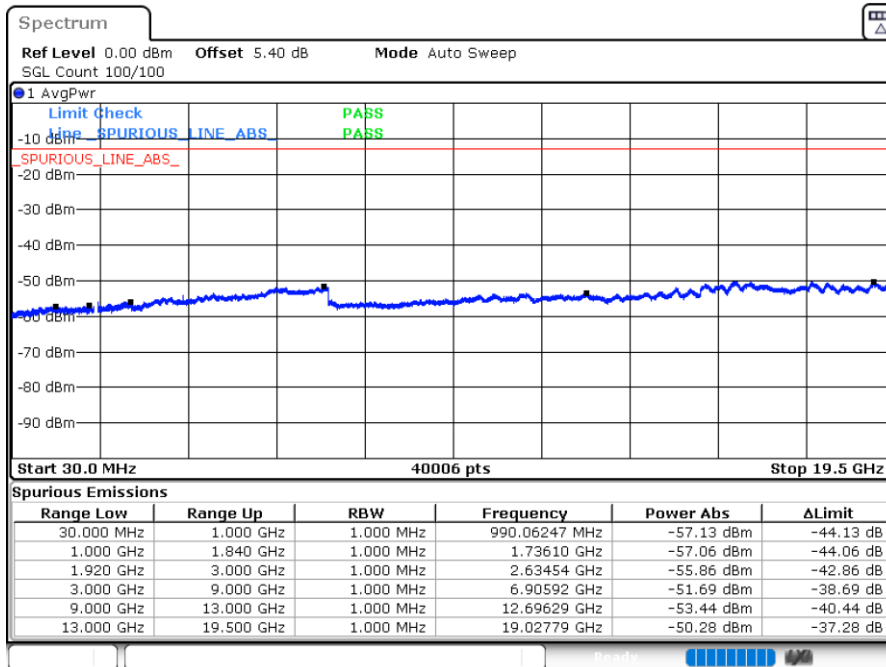


Date: 27.JUL.2023 11:07:04



Date: 27.JUL.2023 11:33:08

Highest Channel / QPSK



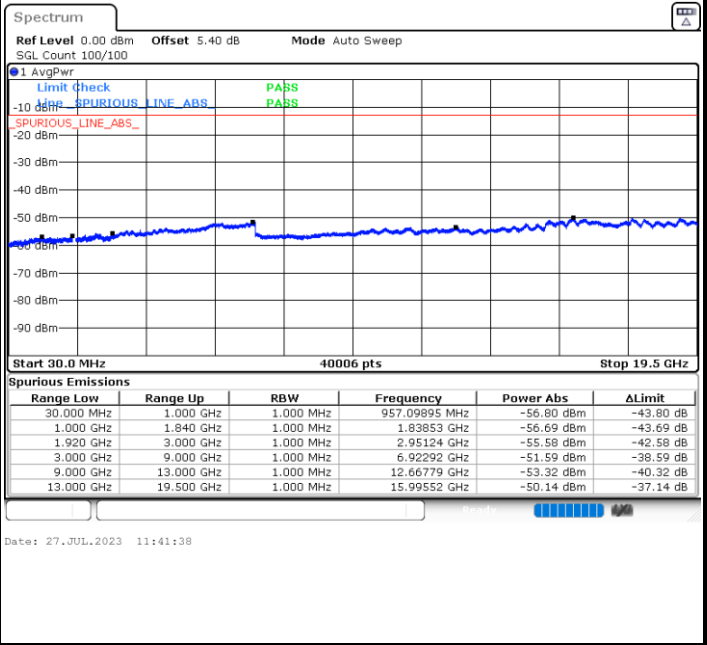
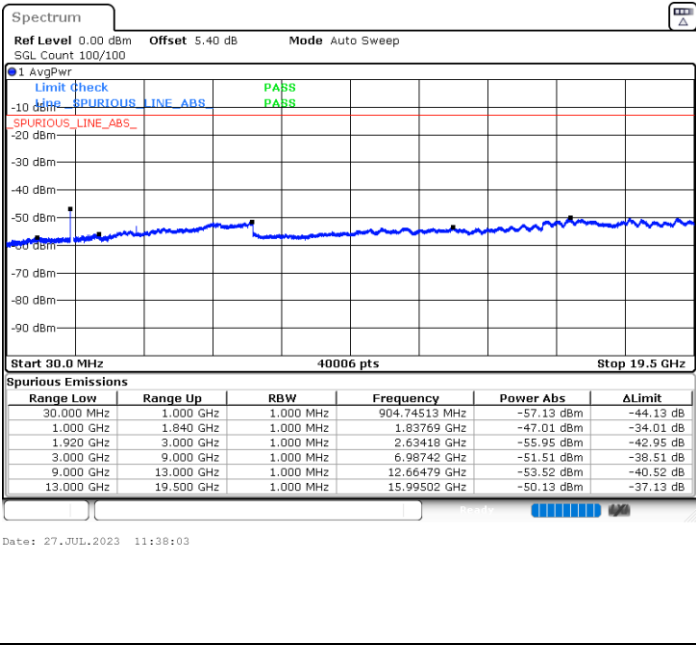
Date: 27.JUL.2023 11:34:28



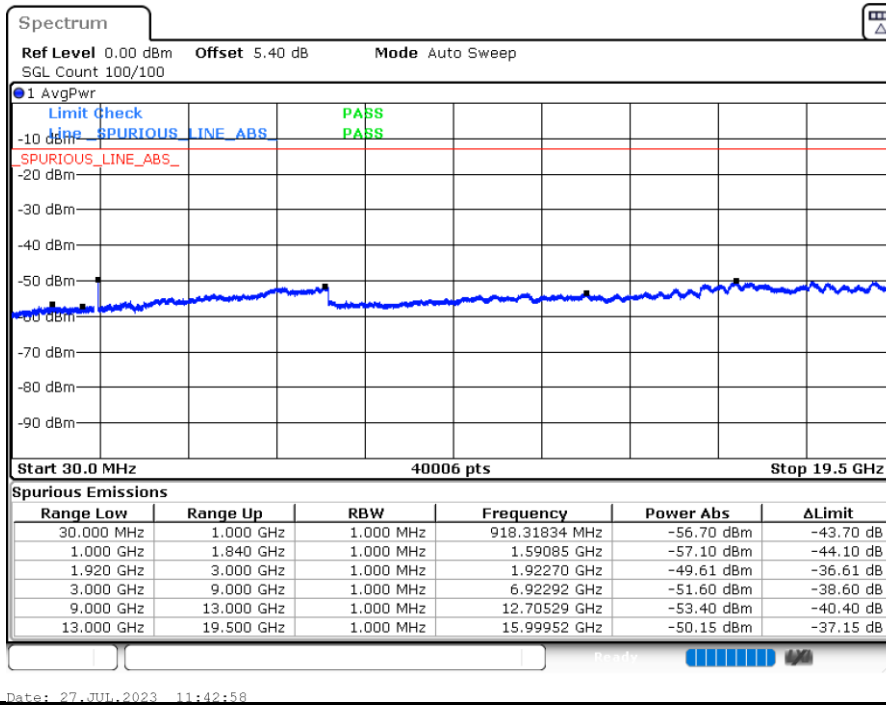
LTE Band 2 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK



Highest Channel / QPSK

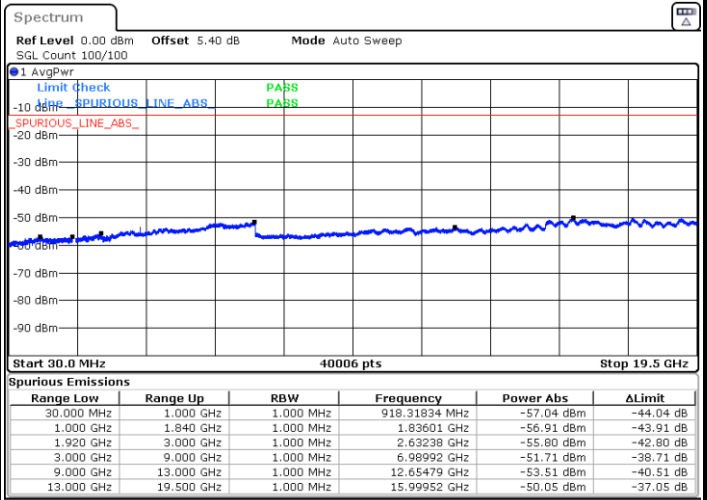
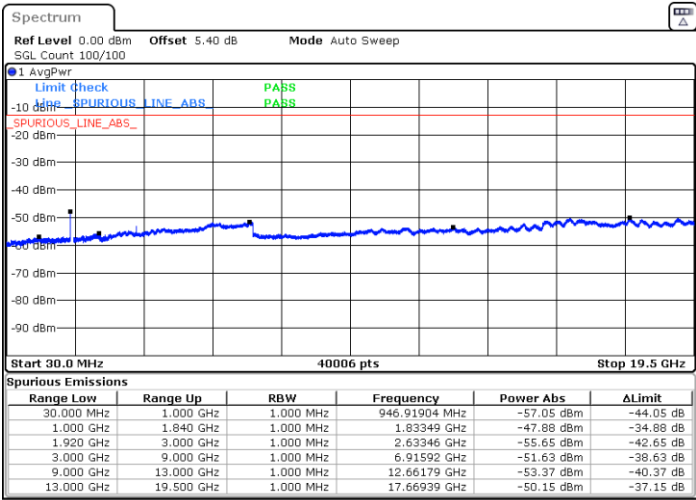




LTE Band 2 / 20MHz

Lowest Channel / QPSK

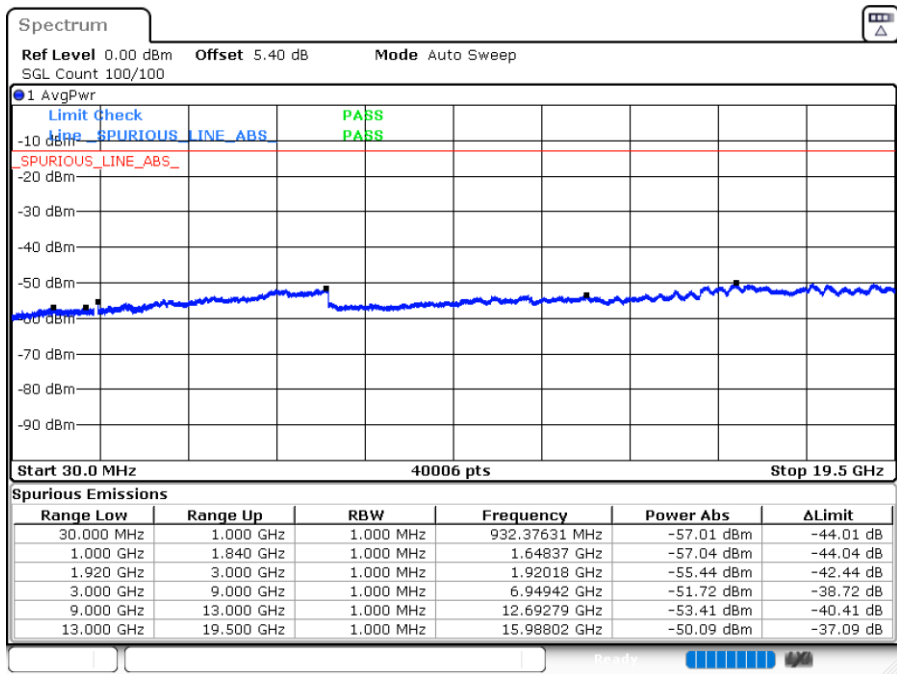
Middle Channel / QPSK



Date: 27.JUL.2023 11:46:33

Date: 27.JUL.2023 11:50:08

Highest Channel / QPSK



Date: 27.JUL.2023 11:51:27



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	0.0021	PASS
40	Normal Voltage	0.0043	
30	Normal Voltage	0.0038	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0019	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0003	
20	Minimum Voltage	0.0046	

Note:

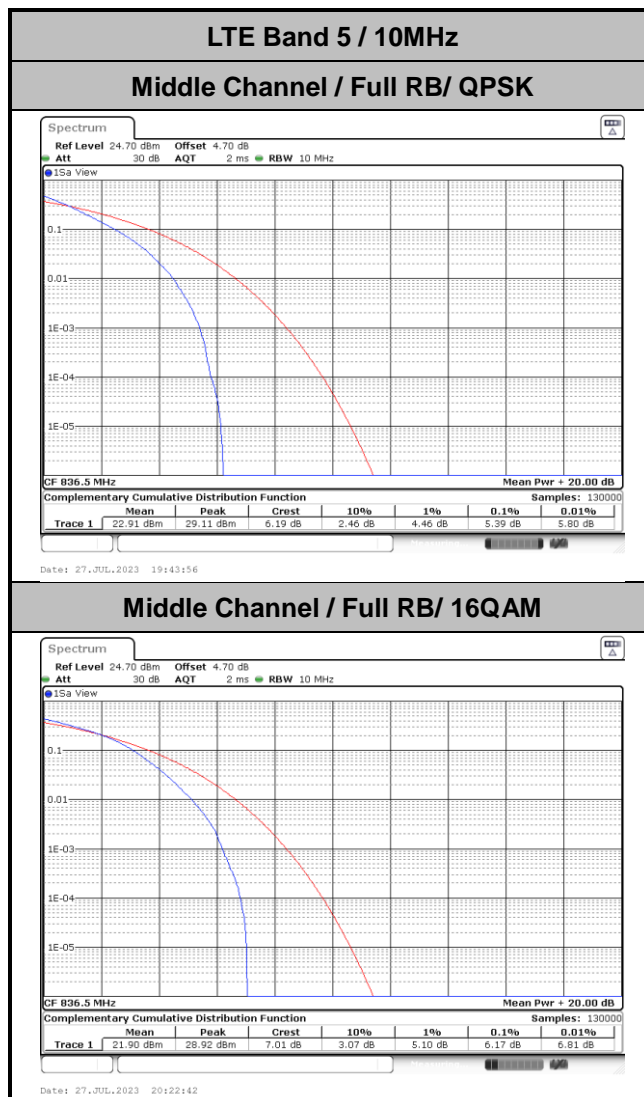
1. Normal Voltage = 3.8 V. ; Minimum Voltage =3.3 V. ; Maximum Voltage = 4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.39	6.17	PASS





26dB Bandwidth

Mode	LTE Band 5 : 26dB BW(MHz) Full RB	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.30	1.27
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	3.09	3.02
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	5.06	5.00
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	10.11	6.39

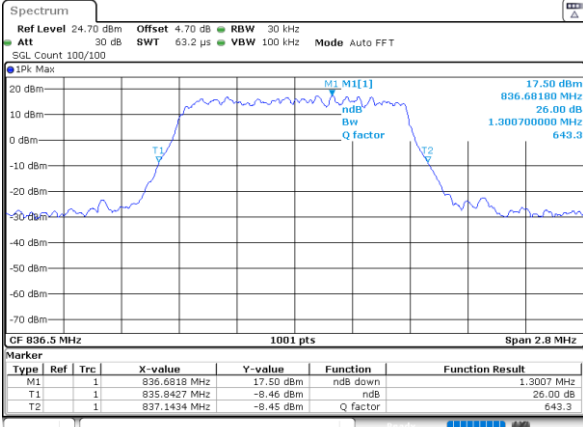
Mode	LTE Band 5 : 26dB BW(MHz) 1RB	
BW	3MHz	
Mod.	QPSK	16QAM
L CH 1RB	0.60	0.59
H CH 1RB	0.60	0.61
BW	5MHz	
Mod.	QPSK	16QAM
L CH 1RB	0.89	0.83
H CH 1RB	0.80	0.78
BW	10MHz	
Mod.	QPSK	16QAM
L CH 1RB	1.80	1.74
H CH 1RB	1.30	1.54



Full RB (Middle CH):

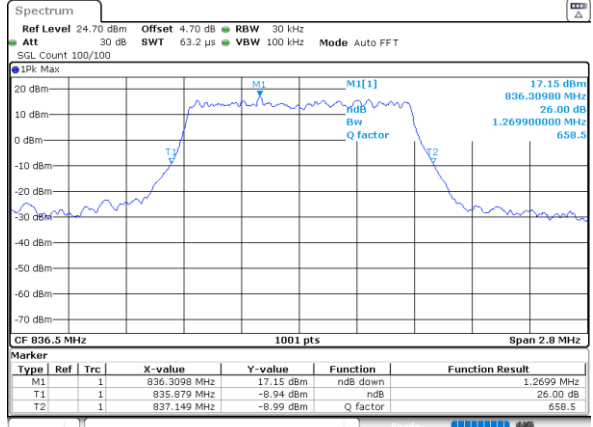
LTE Band 5

Middle Channel / 1.4MHz / QPSK



Date: 27_JUL_2023 19:48:11

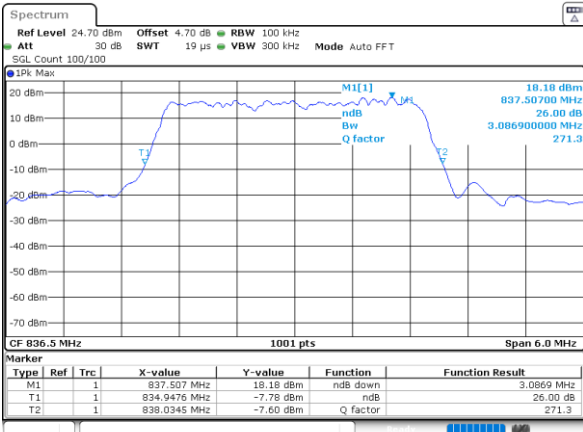
Middle Channel / 1.4MHz / 16QAM



Date: 27_JUL_2023 19:48:132

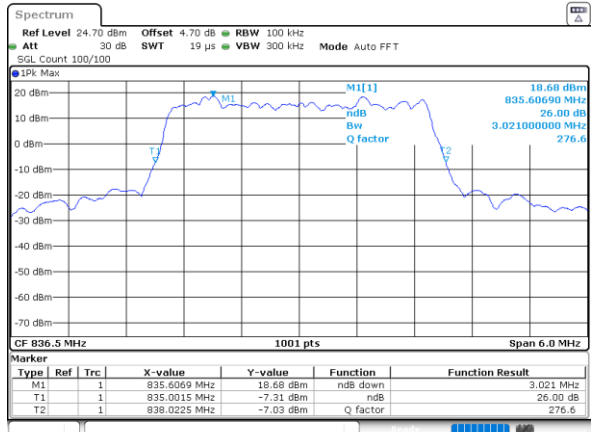
LTE Band 5

Middle Channel / 3MHz / QPSK



Date: 27_JUL_2023 19:46:45

Middle Channel / 3MHz / 16QAM

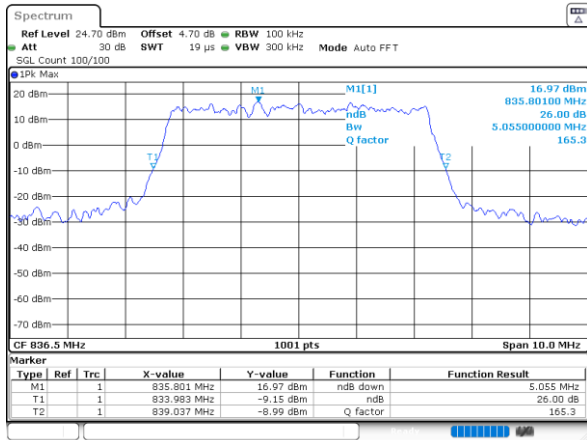


Date: 27_JUL_2023 19:47:06



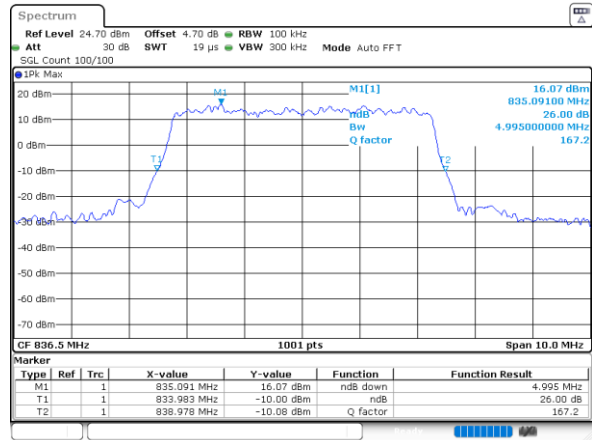
LTE Band 5

Middle Channel / 5MHz / QPSK



Date: 27_JUL_2023 19:45:21

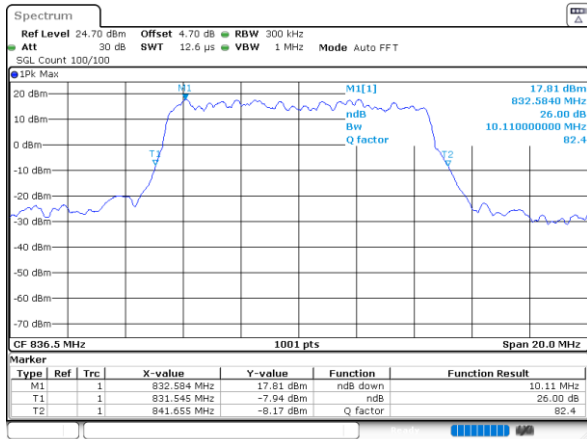
Middle Channel / 5MHz / 16QAM



Date: 27_JUL_2023 19:45:42

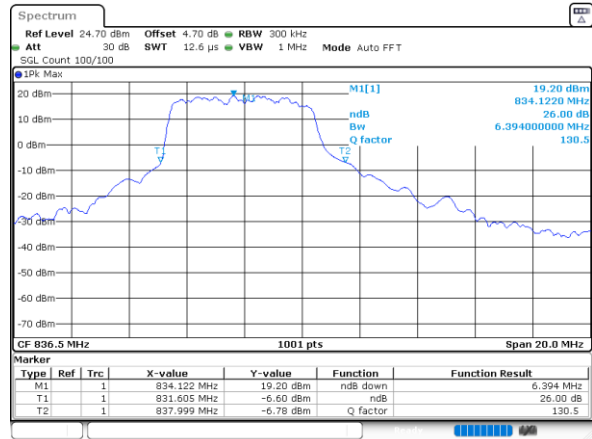
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 27_JUL_2023 19:44:18

Middle Channel / 10MHz / 16QAM



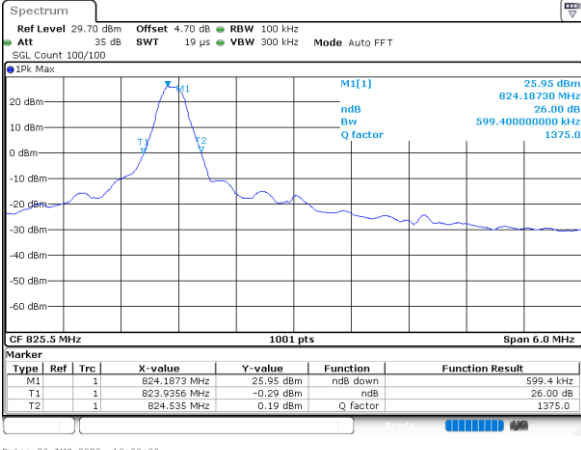
Date: 27_JUL_2023 20:22:10



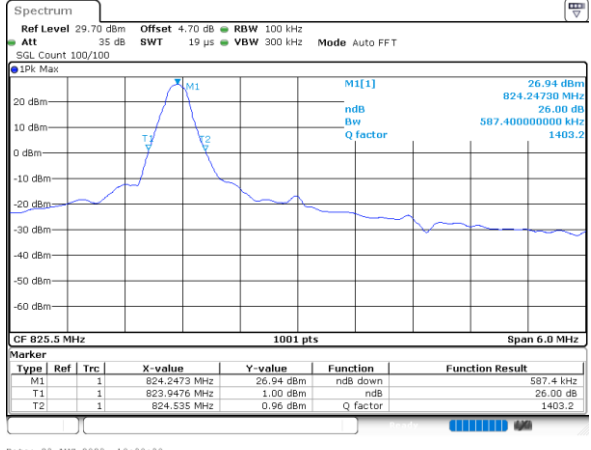
1 RB (Low/High CH):

LTE Band 5

L CH / 3MHz / QPSK

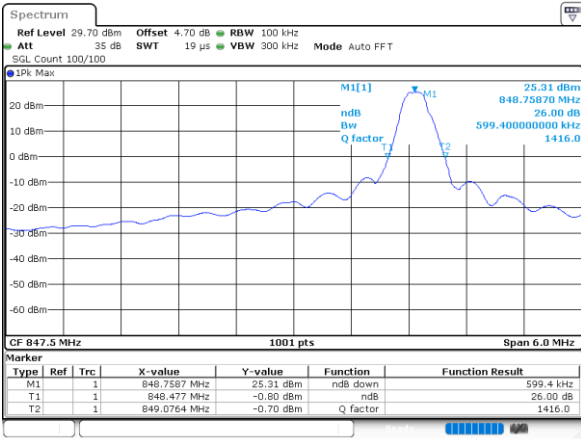


L CH / 3MHz / 16QAM

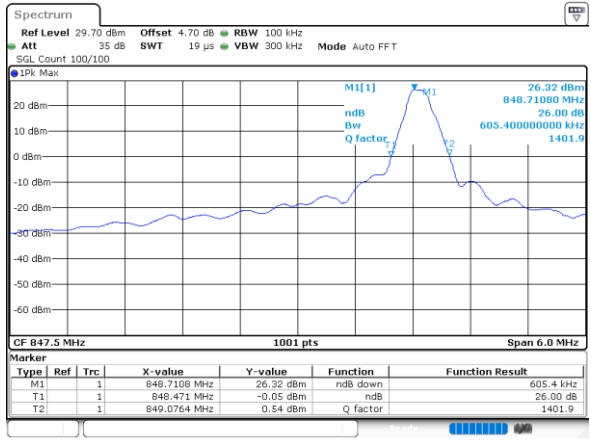


LTE Band 5

H CH / 3MHz / QPSK



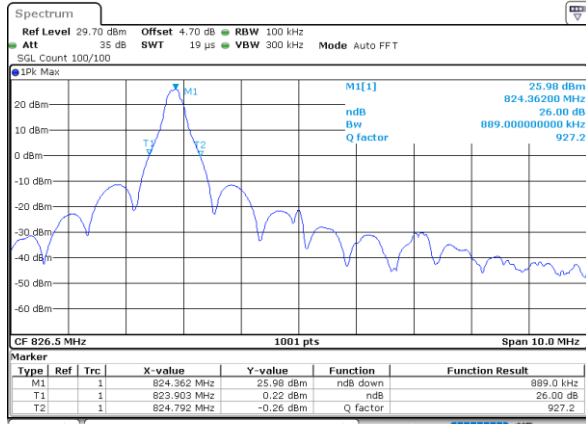
H CH / 3MHz / 16QAM





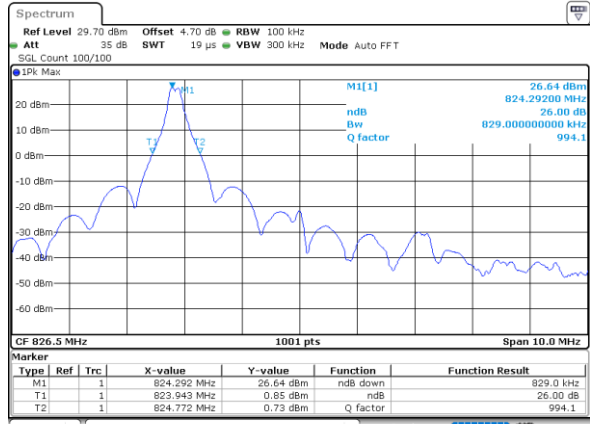
LTE Band 5

L CH / 5MHz / QPSK



Date: 23_AUG_2023 10:32:04

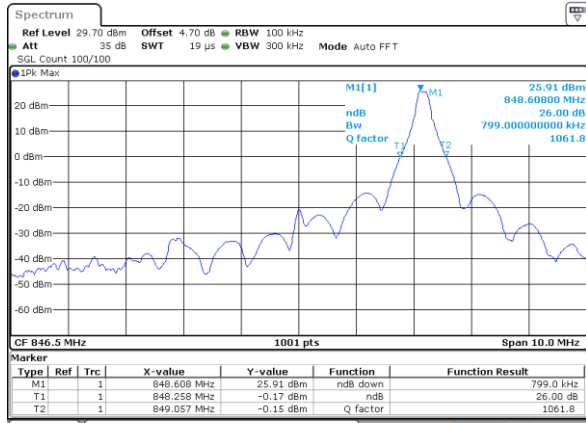
L CH / 5MHz / 16QAM



Date: 23_AUG_2023 10:32:27

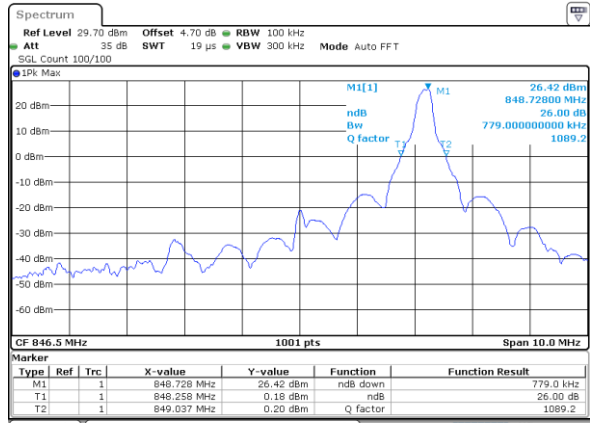
LTE Band 5

H CH / 5MHz / QPSK



Date: 23_AUG_2023 10:33:15

H CH / 5MHz / 16QAM

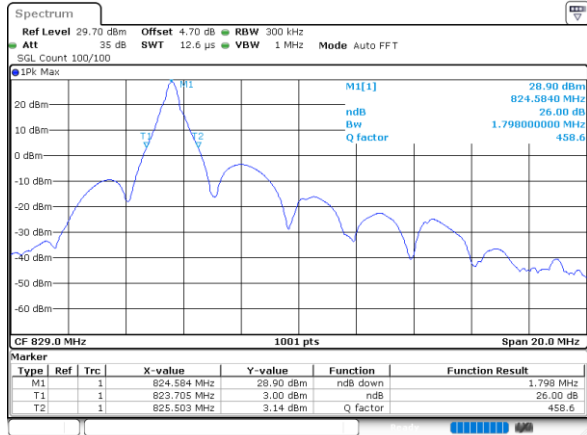


Date: 23_AUG_2023 10:32:52



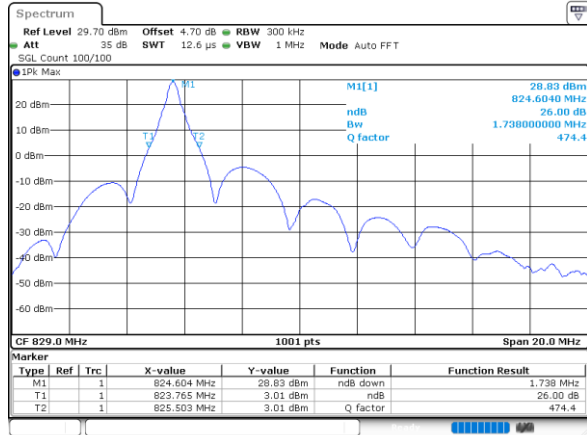
LTE Band 5

L CH / 10MHz / QPSK



Date: 23.AUG.2023 10:33:40

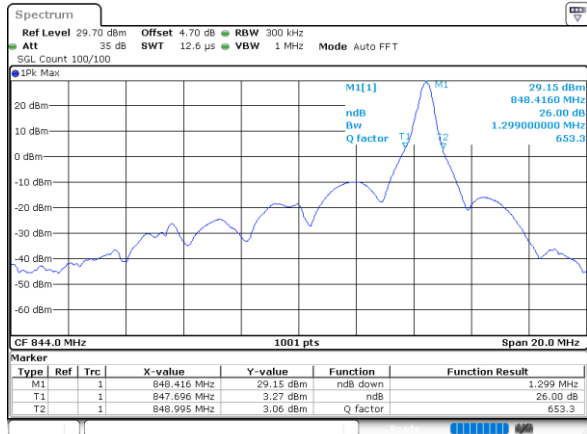
L CH / 10MHz / 16QAM



Date: 23.AUG.2023 10:35:57

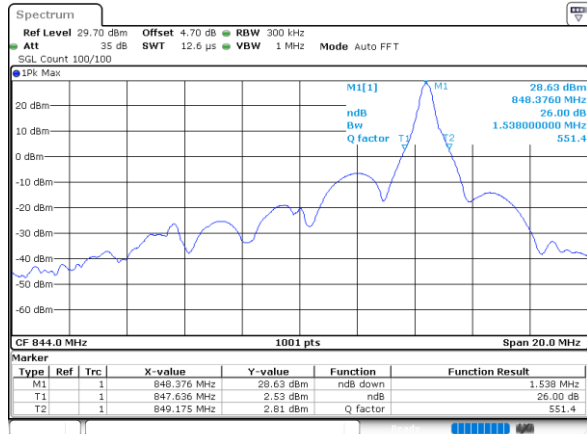
LTE Band 5

H CH / 10MHz / QPSK



Date: 23.AUG.2023 10:35:02

H CH / 10MHz / 16QAM

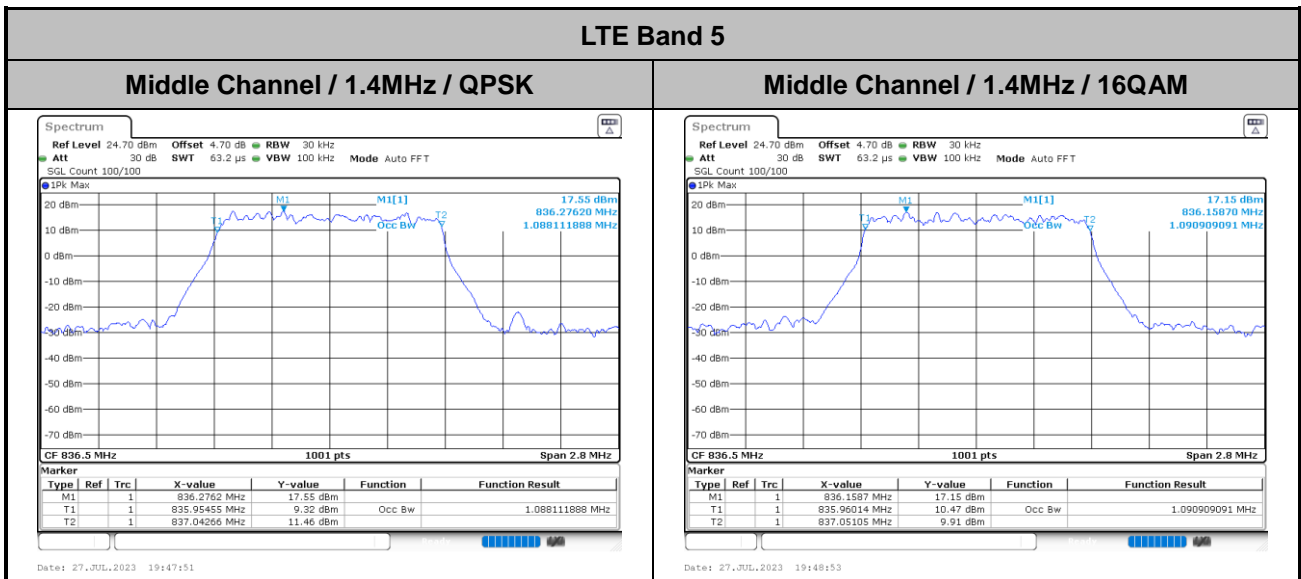


Date: 23.AUG.2023 10:34:38



Occupied Bandwidth

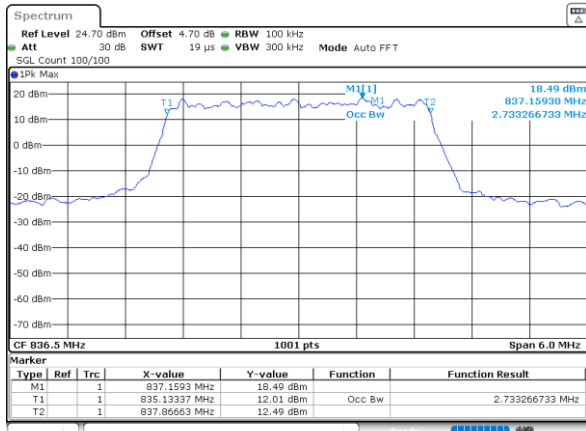
Mode	LTE Band 5 : 99%OBW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.09	1.09
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.73	2.74
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.48	4.49
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.11	5.03





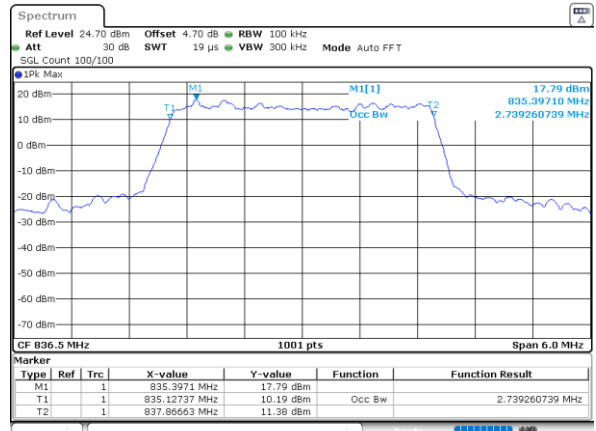
LTE Band 5

Middle Channel / 3MHz / QPSK



Date: 27_JUL_2023 19:46:24

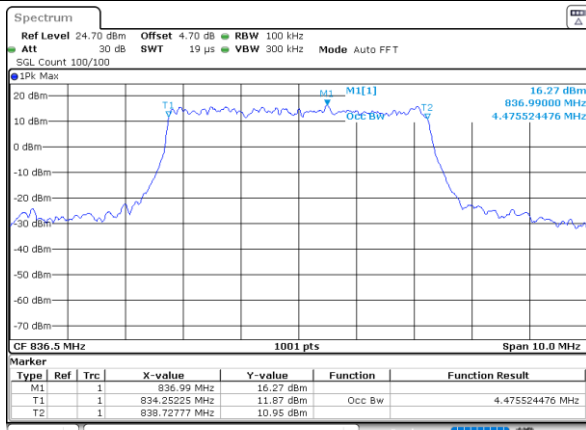
Middle Channel / 3MHz / 16QAM



Date: 27_JUL_2023 19:47:126

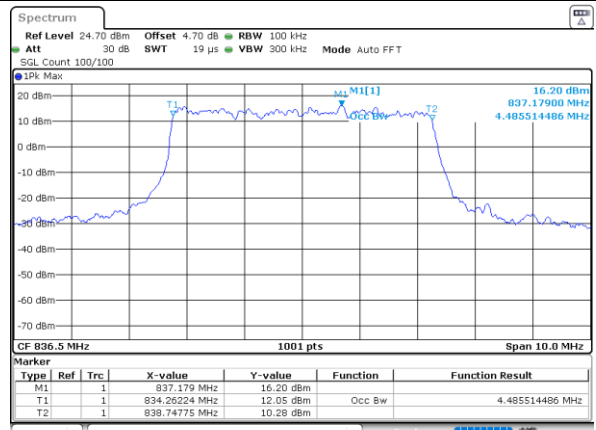
LTE Band 5

Middle Channel / 5MHz / QPSK



Date: 27_JUL_2023 19:45:00

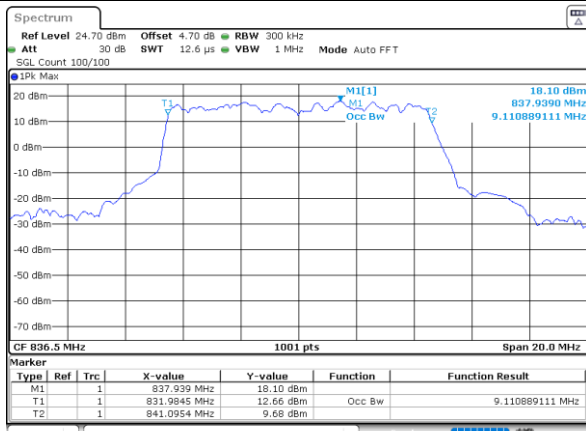
Middle Channel / 5MHz / 16QAM



Date: 27_JUL_2023 19:46:102

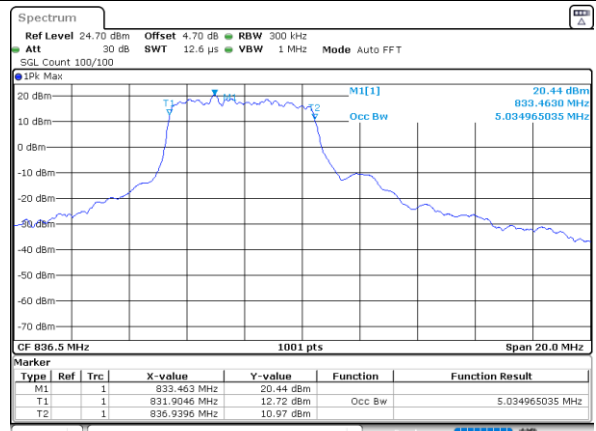
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 27_JUL_2023 19:44:38

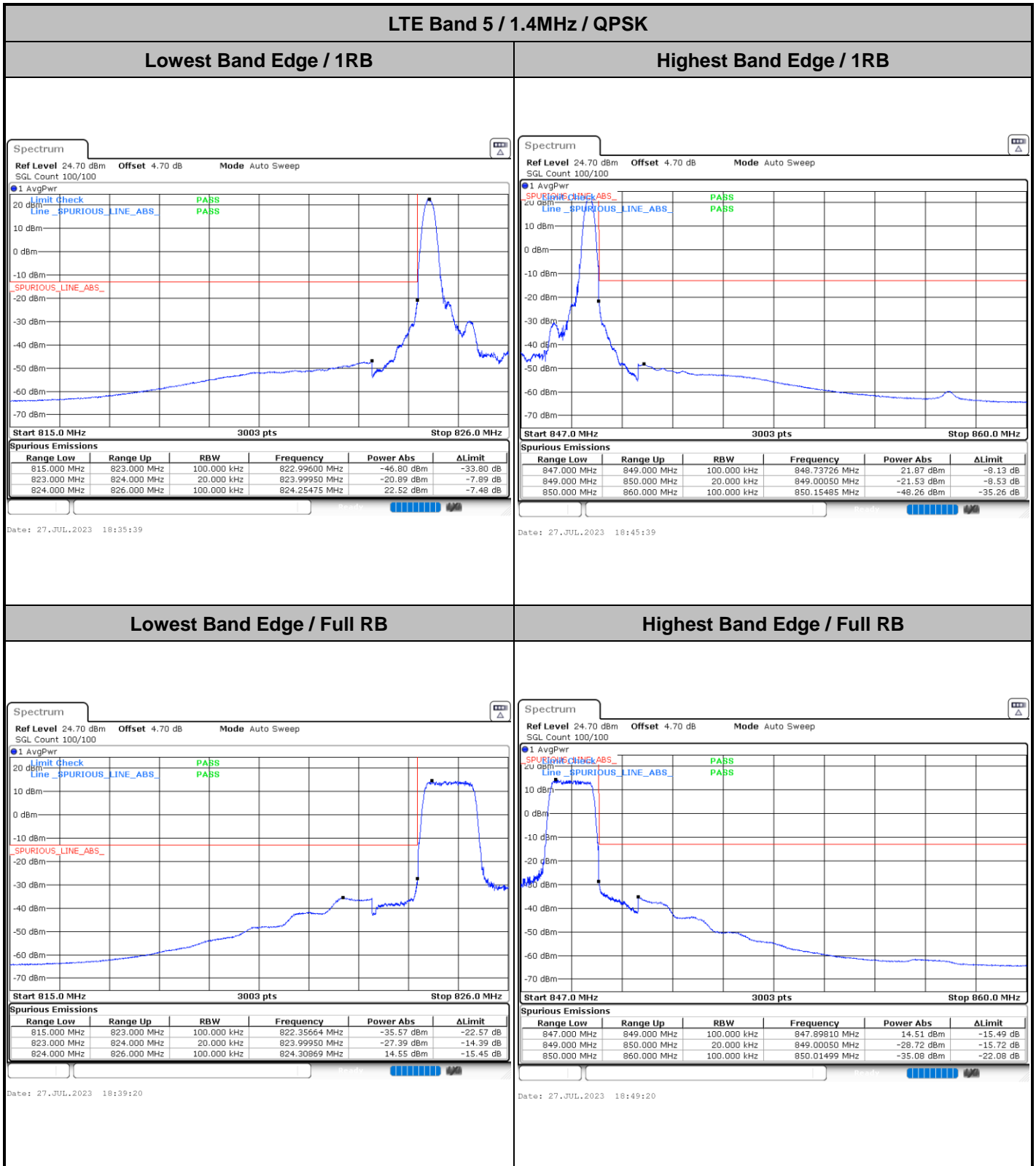
Middle Channel / 10MHz / 16QAM



Date: 27_JUL_2023 20:21:131



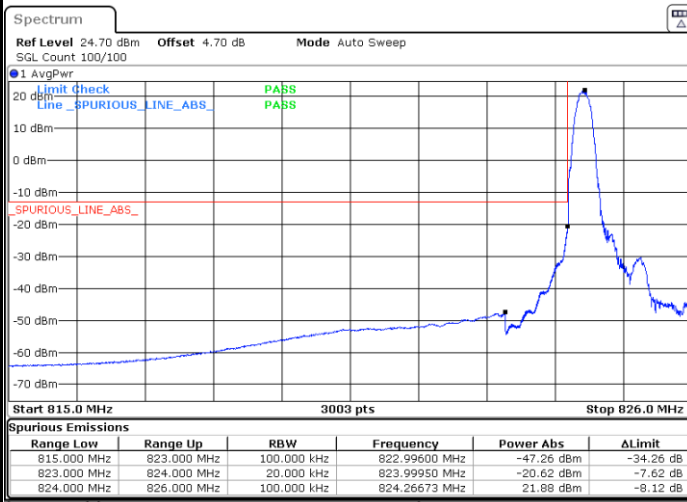
Conducted Band Edge





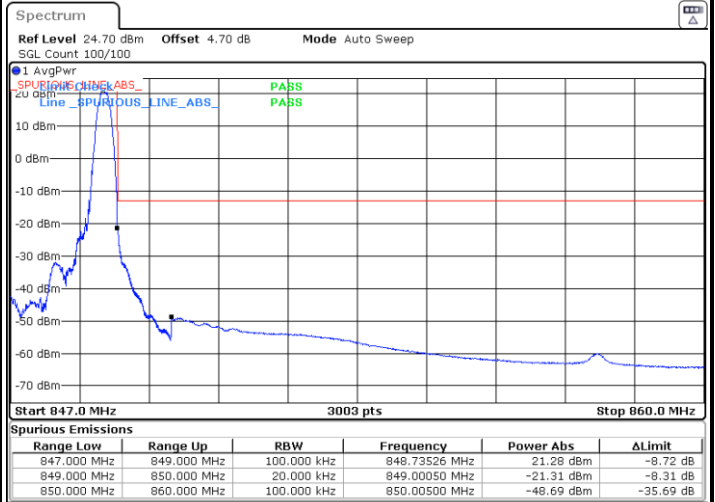
LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



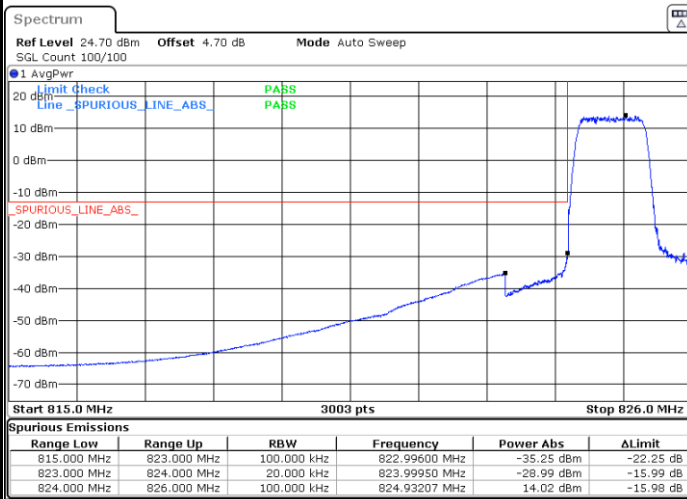
Date: 27.JUL.2023 18:37:29

Highest Band Edge / 1 RB



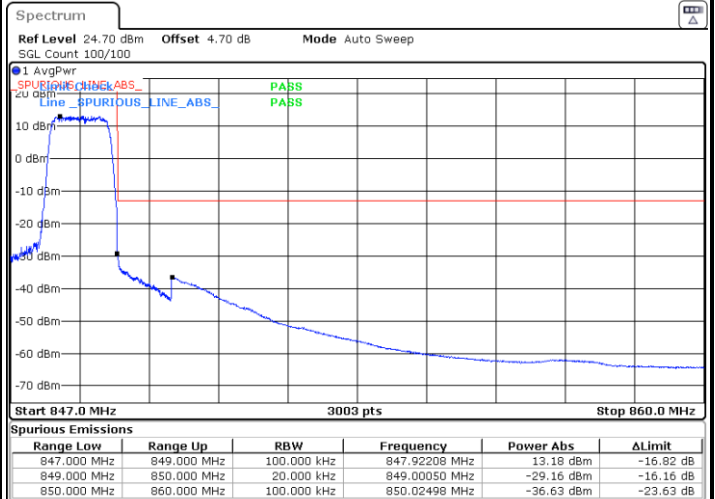
Date: 27.JUL.2023 18:47:30

Lowest Band Edge / Full RB



Date: 27.JUL.2023 18:41:10

Highest Band Edge / Full RB

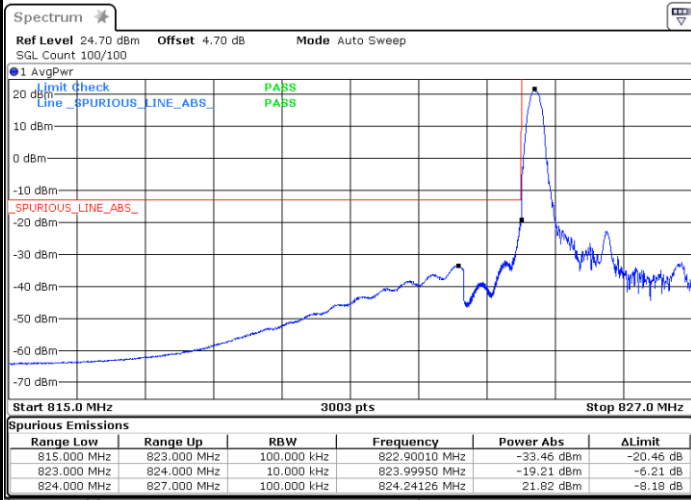


Date: 27.JUL.2023 18:51:10



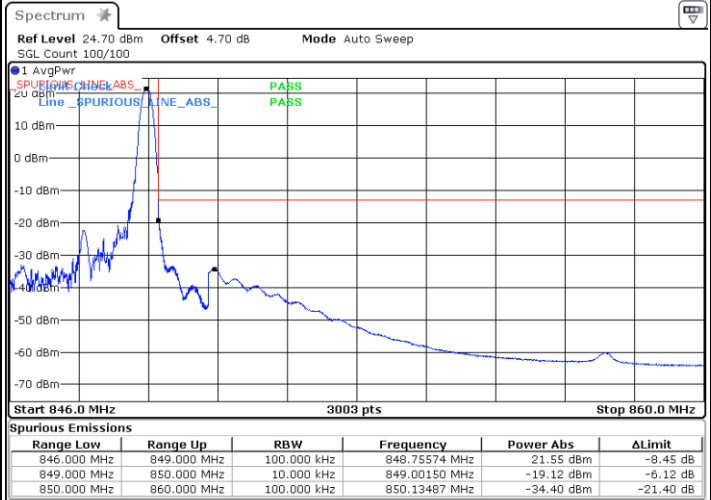
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



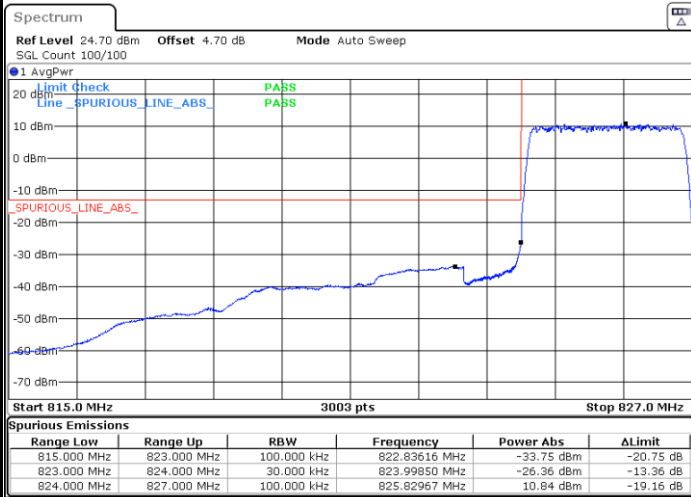
Date: 23.AUG.2023 13:11:51

Highest Band Edge / 1 RB



Date: 23.AUG.2023 13:16:46

Lowest Band Edge / Full RB



Date: 27.JUL.2023 18:58:01

Highest Band Edge / Full RB



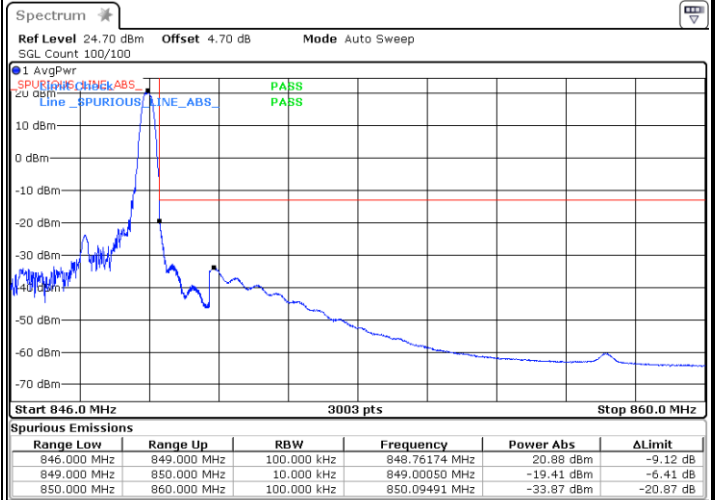
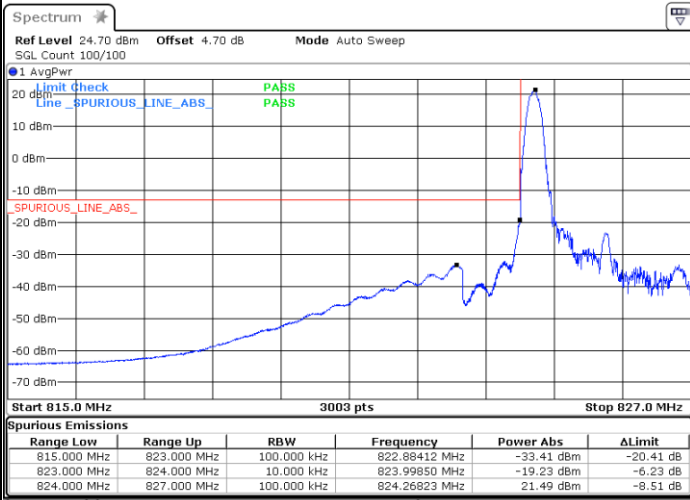
Date: 27.JUL.2023 19:08:02



LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

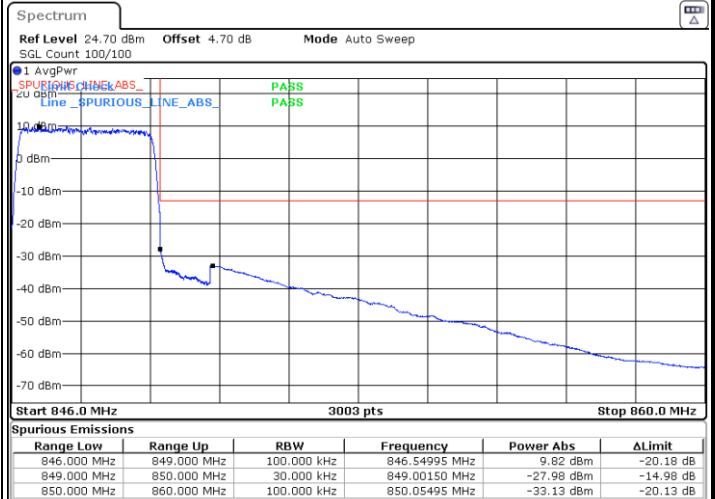
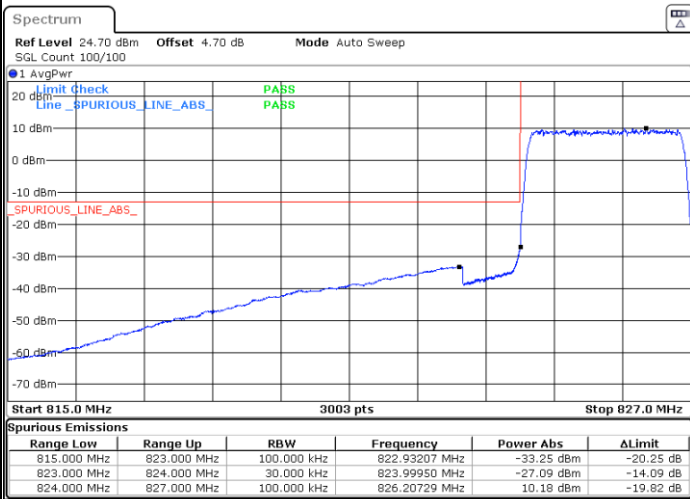


Date: 23.AUG.2023 13:14:58

Date: 23.AUG.2023 13:18:58

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



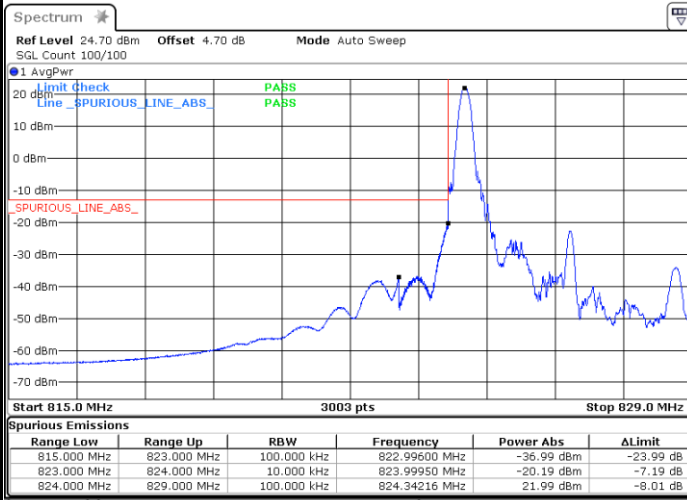
Date: 27.JUL.2023 18:59:51

Date: 27.JUL.2023 19:09:52



LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / 1 RB



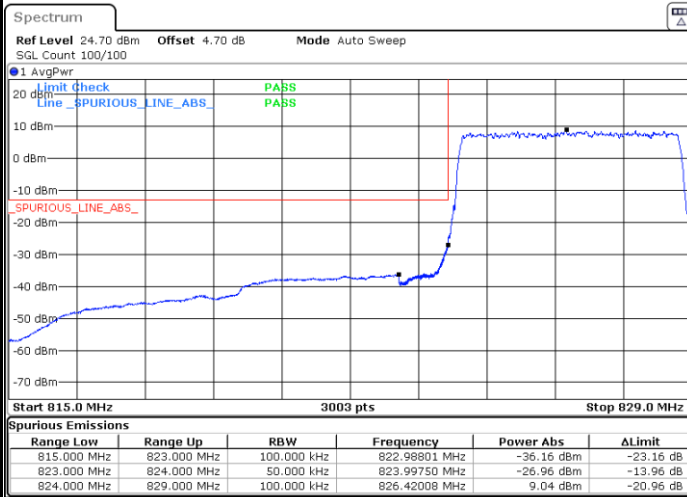
Date: 23.AUG.2023 13:20:18

Highest Band Edge / 1 RB



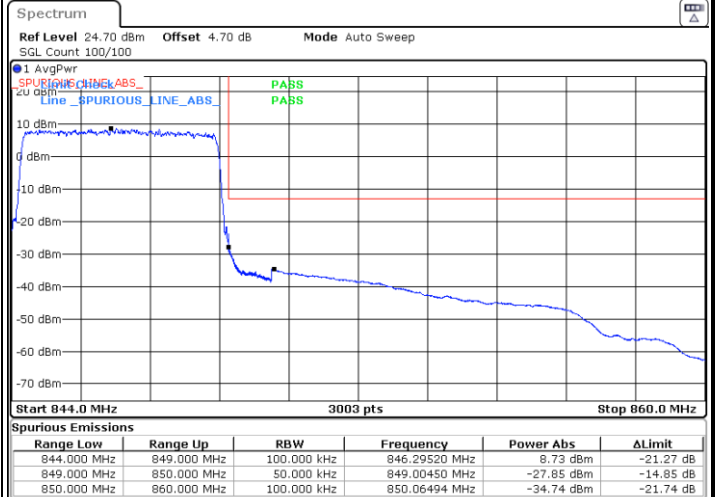
Date: 23.AUG.2023 13:24:09

Lowest Band Edge / Full RB



Date: 27.JUL.2023 19:16:43

Highest Band Edge / Full RB

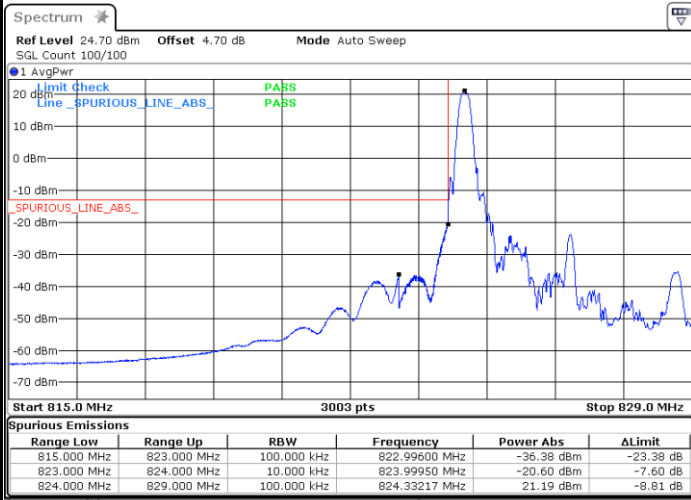


Date: 27.JUL.2023 19:26:43



LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / 1RB



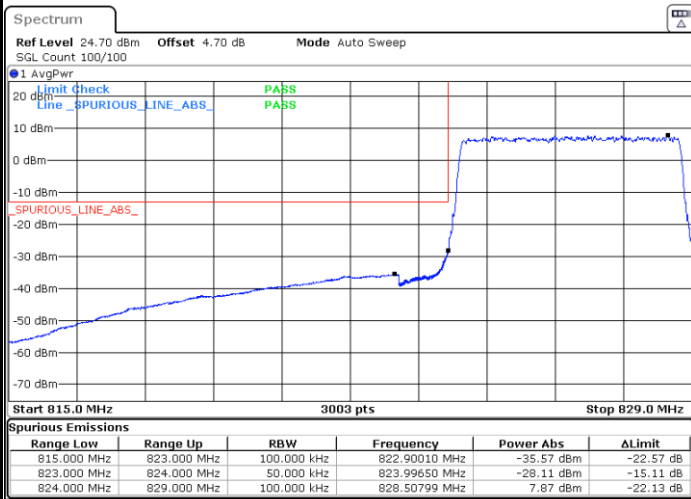
Date: 23.AUG.2023 13:22:05

Highest Band Edge / 1 RB



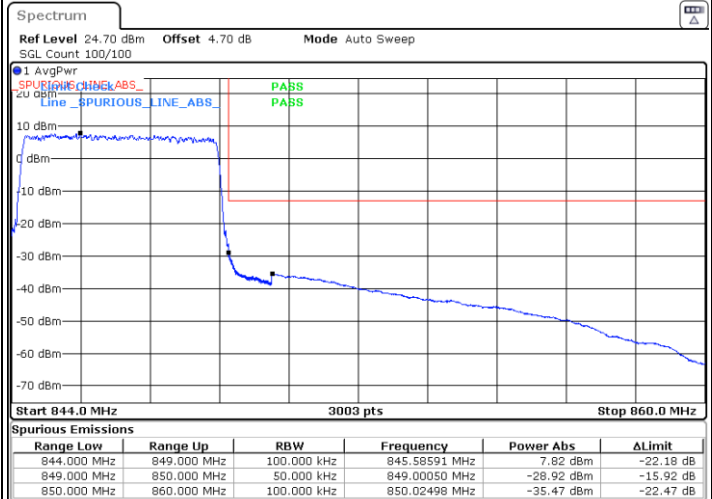
Date: 23.AUG.2023 13:25:18

Lowest Band Edge / Full RB



Date: 27.JUL.2023 19:18:33

Highest Band Edge / Full RB

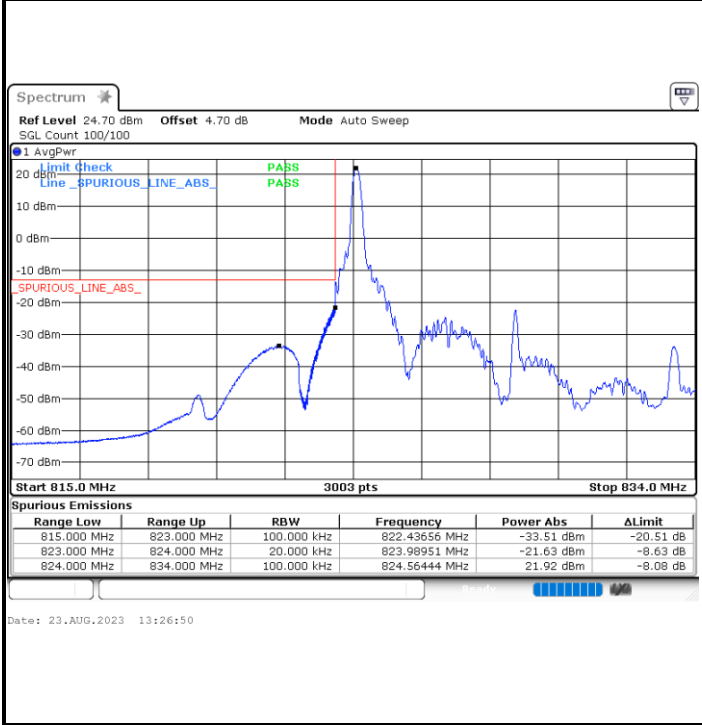


Date: 27.JUL.2023 19:28:33

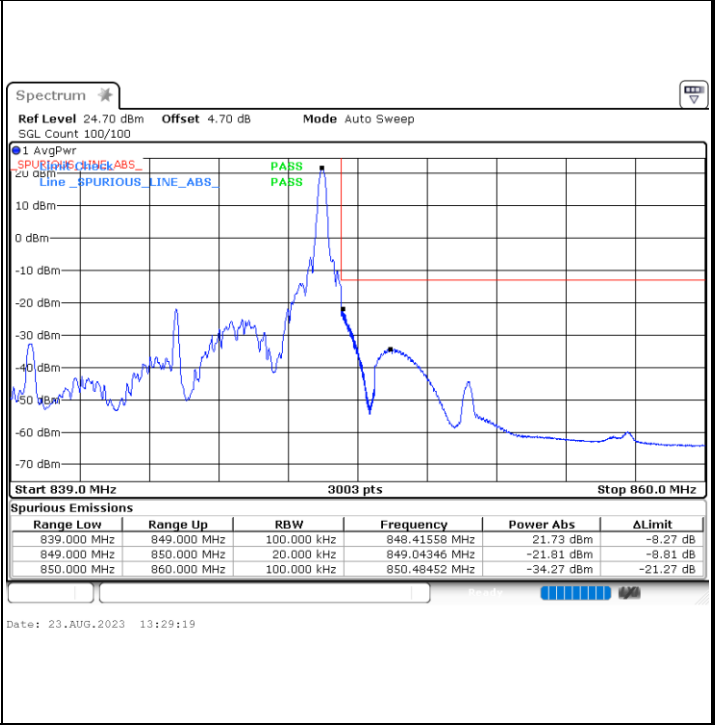


LTE Band 5 / 10MHz / QPSK

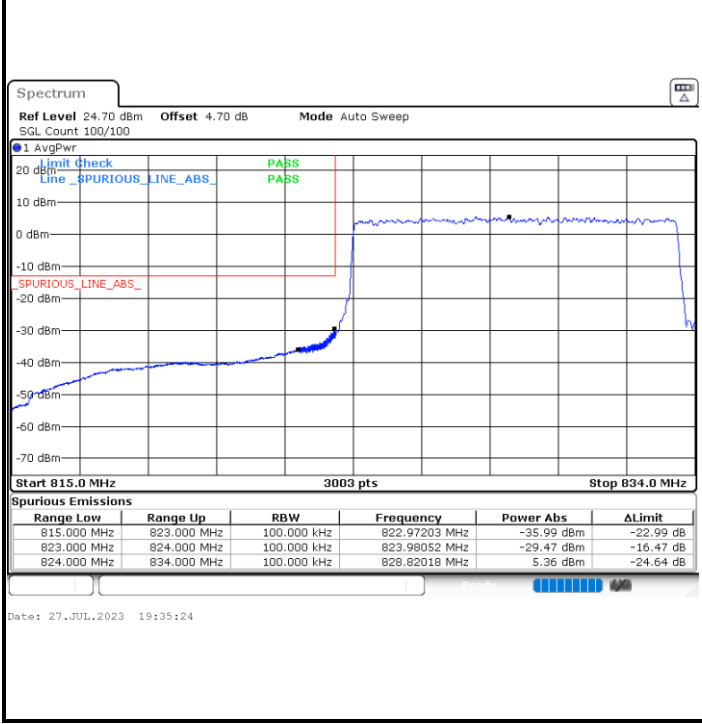
Lowest Band Edge / 1 RB



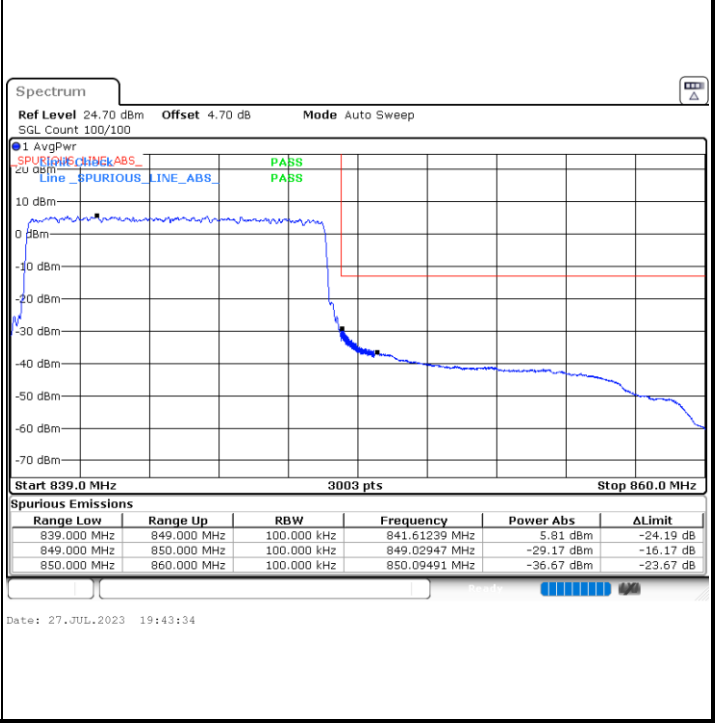
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

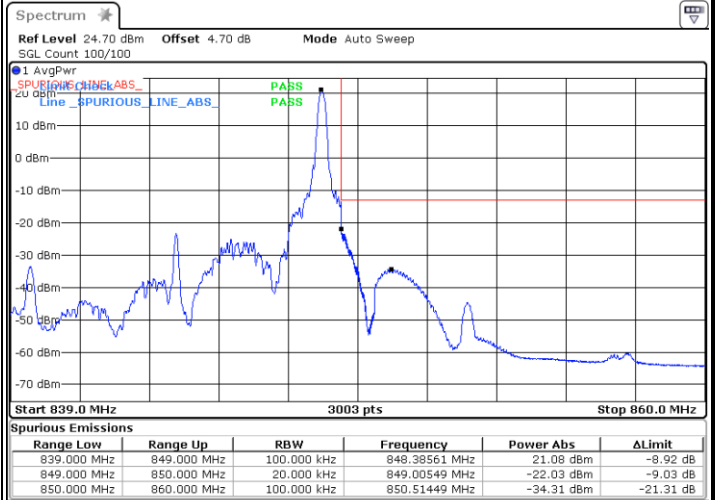
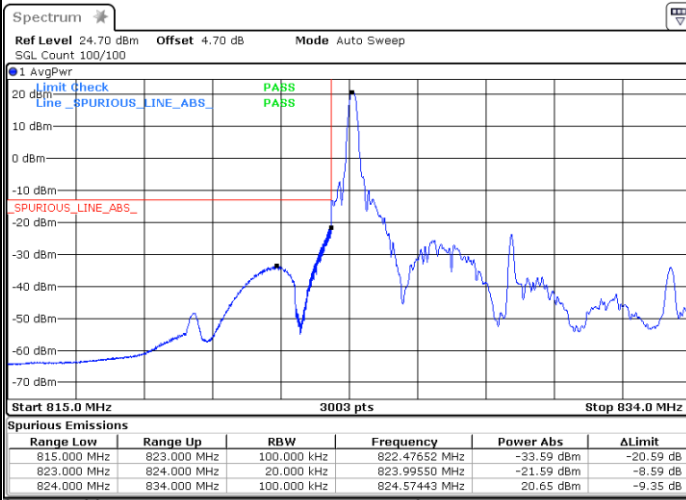




LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

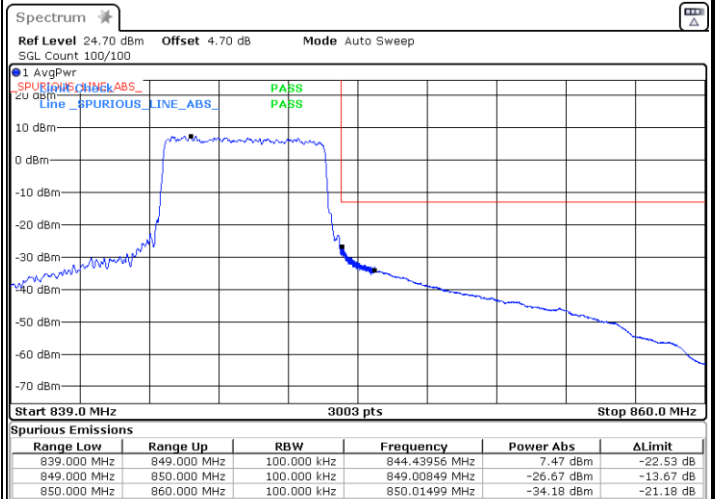
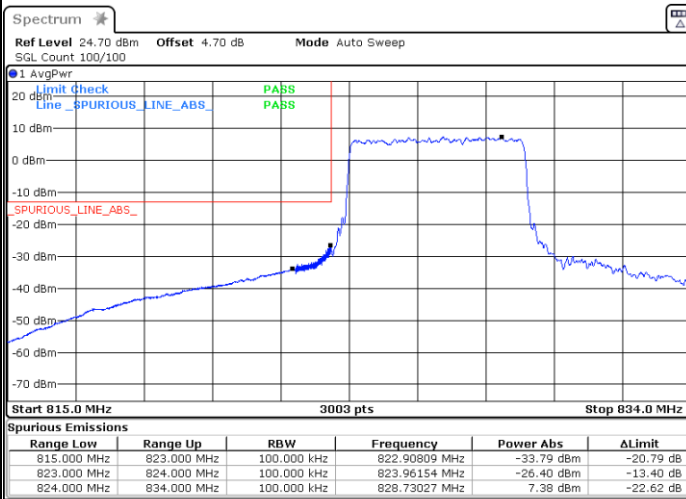


Date: 23.AUG.2023 13:28:00

Date: 23.AUG.2023 13:30:20

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

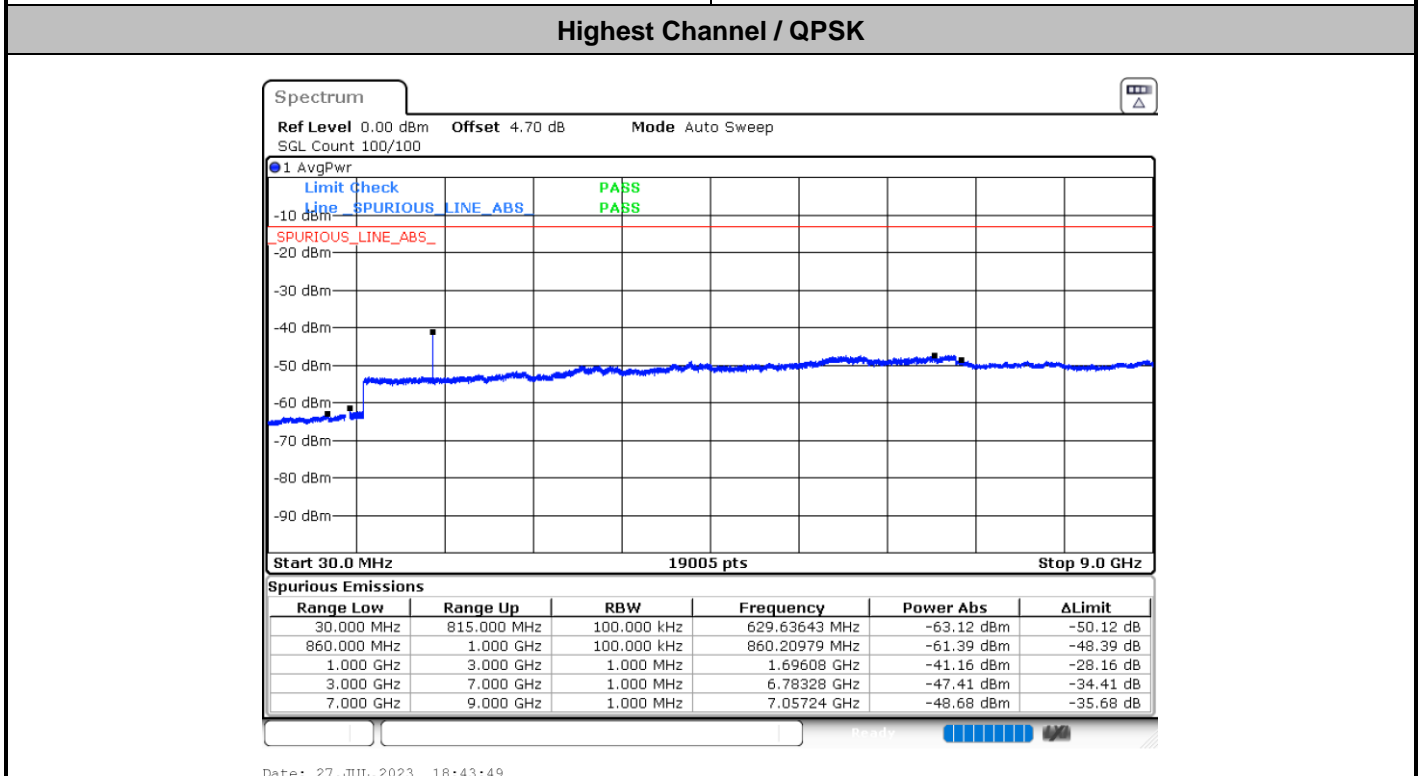
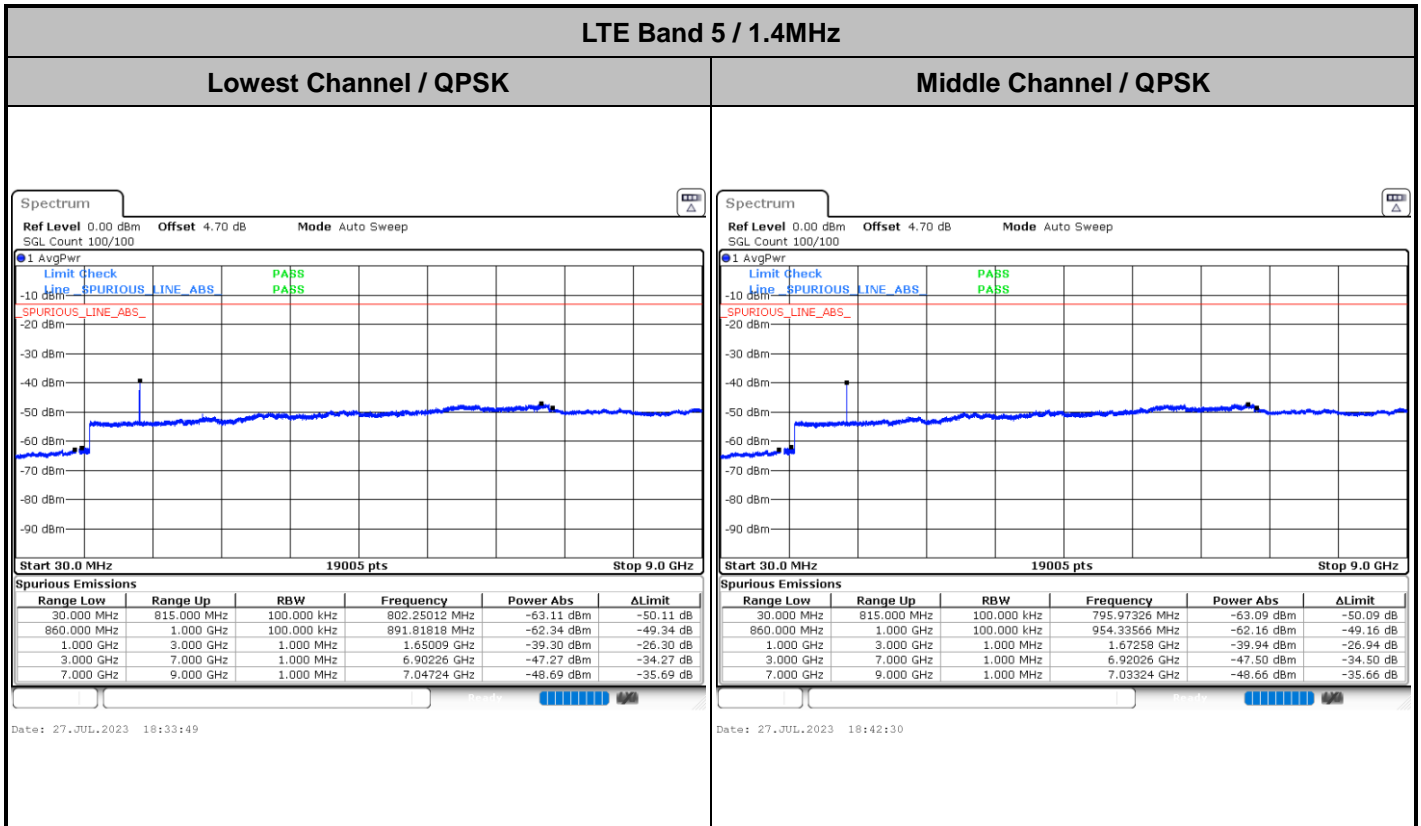


Date: 27.JUL.2023 20:12:35

Date: 27.JUL.2023 20:20:17



Conducted Spurious Emission

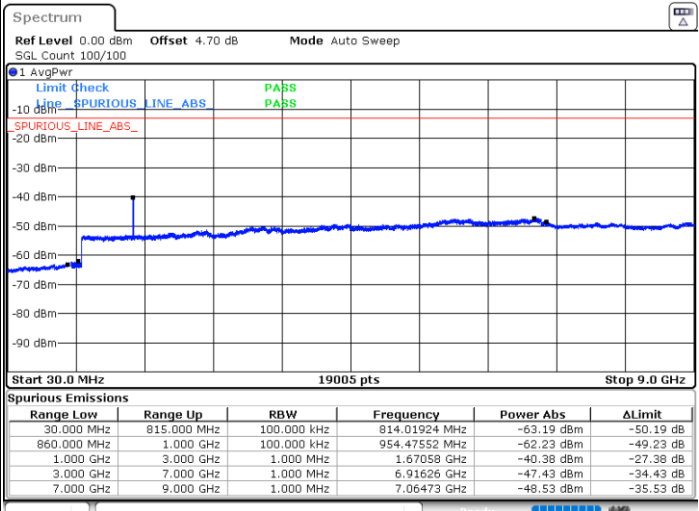
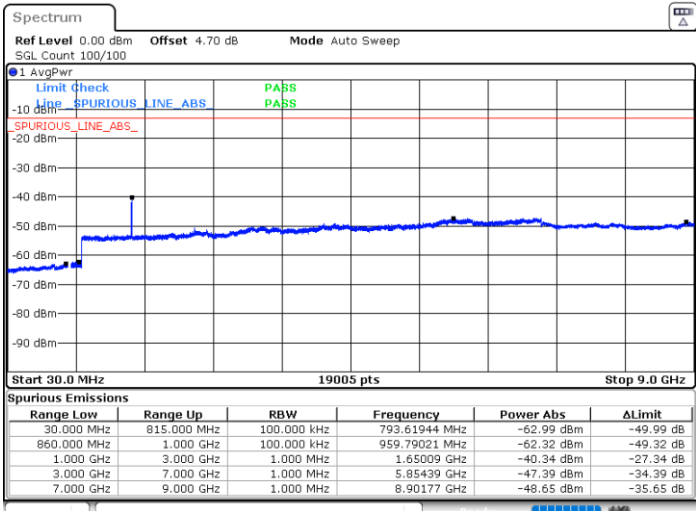




LTE Band 5 / 3MHz

Lowest Channel / QPSK

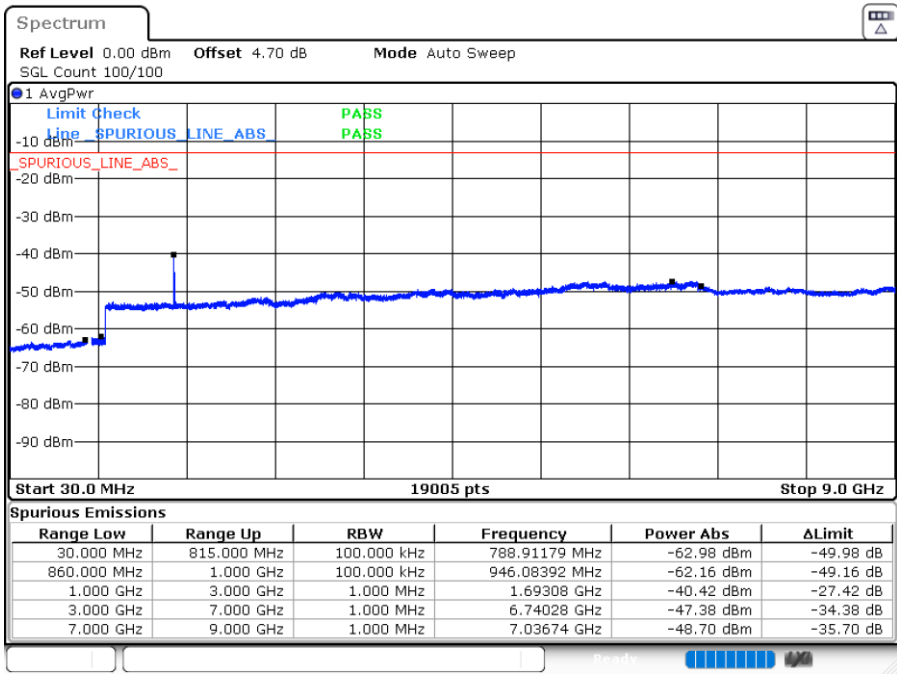
Middle Channel / QPSK



Date: 27.JUL.2023 18:52:30

Date: 27.JUL.2023 19:01:11

Highest Channel / QPSK



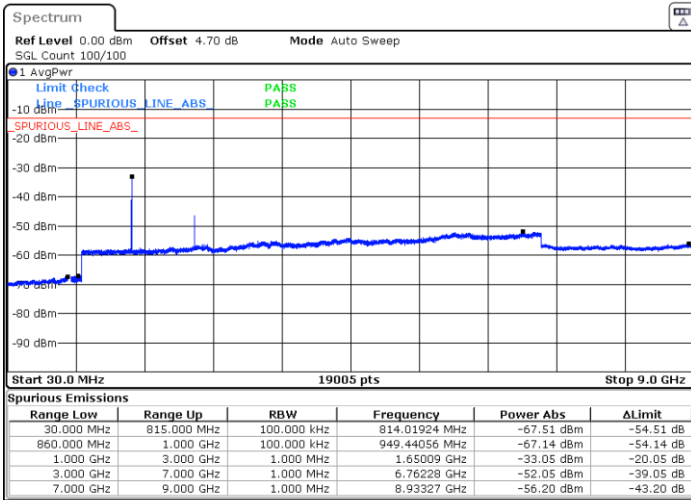
Date: 27.JUL.2023 19:02:31



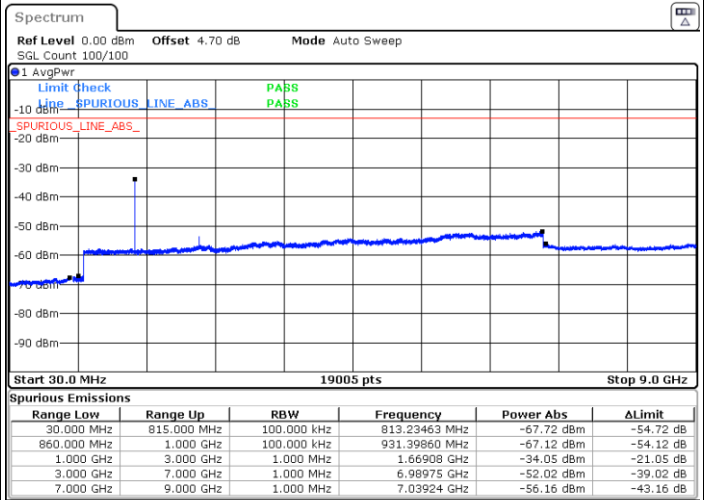
LTE Band 5 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

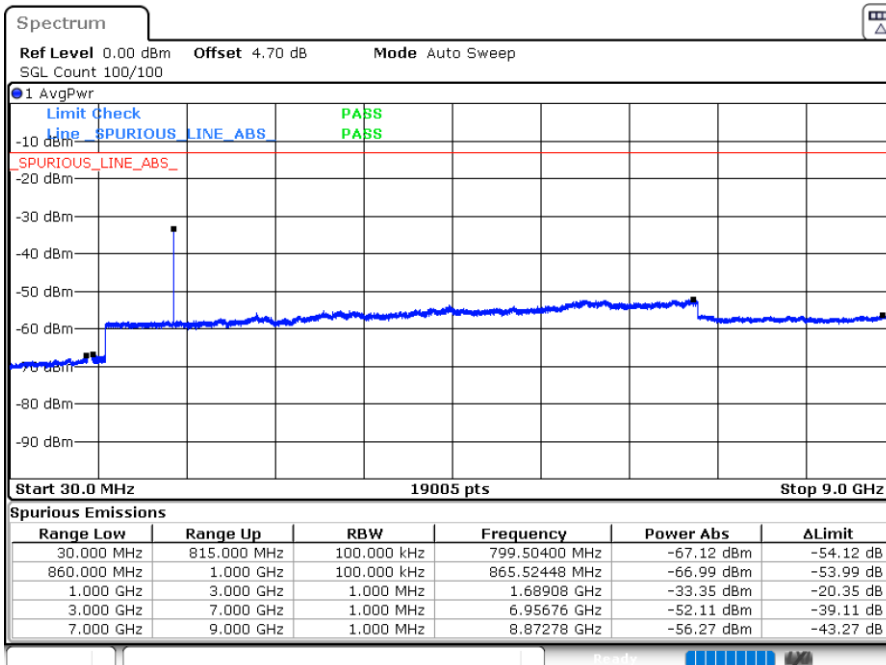


Date: 27.JUL.2023 19:11:12



Date: 27.JUL.2023 19:19:53

Highest Channel / QPSK



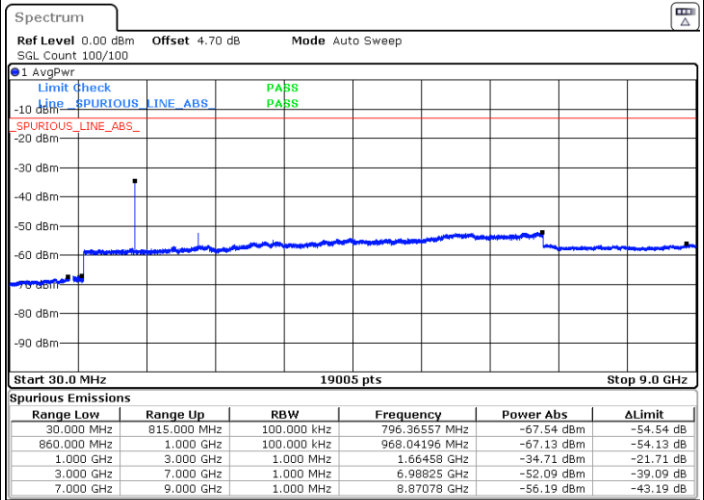
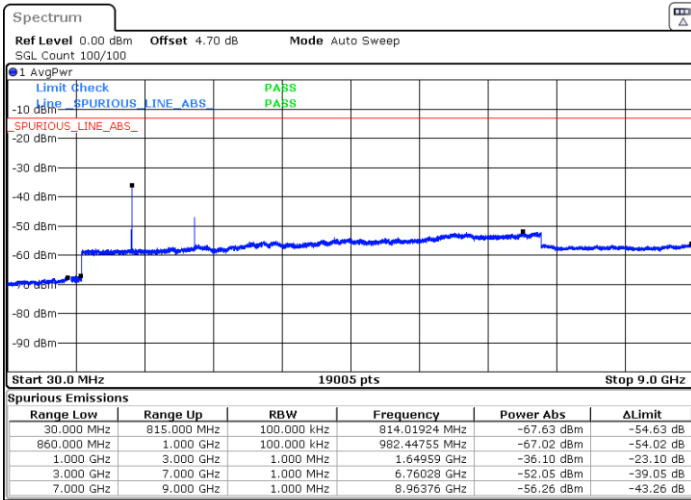
Date: 27.JUL.2023 19:21:13



LTE Band 5 / 10MHz

Lowest Channel / QPSK

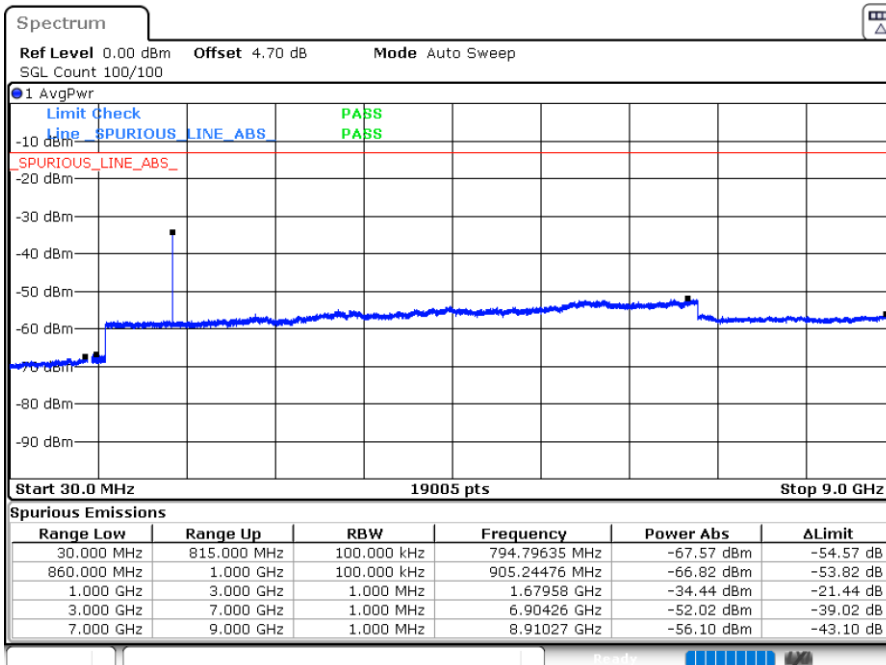
Middle Channel / QPSK



Date: 27.JUL.2023 19:29:54

Date: 27.JUL.2023 19:36:44

Highest Channel / QPSK



Date: 27.JUL.2023 19:38:04



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	0.0029	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0035	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0029	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0022	
20	Minimum Voltage	0.0015	

Note:

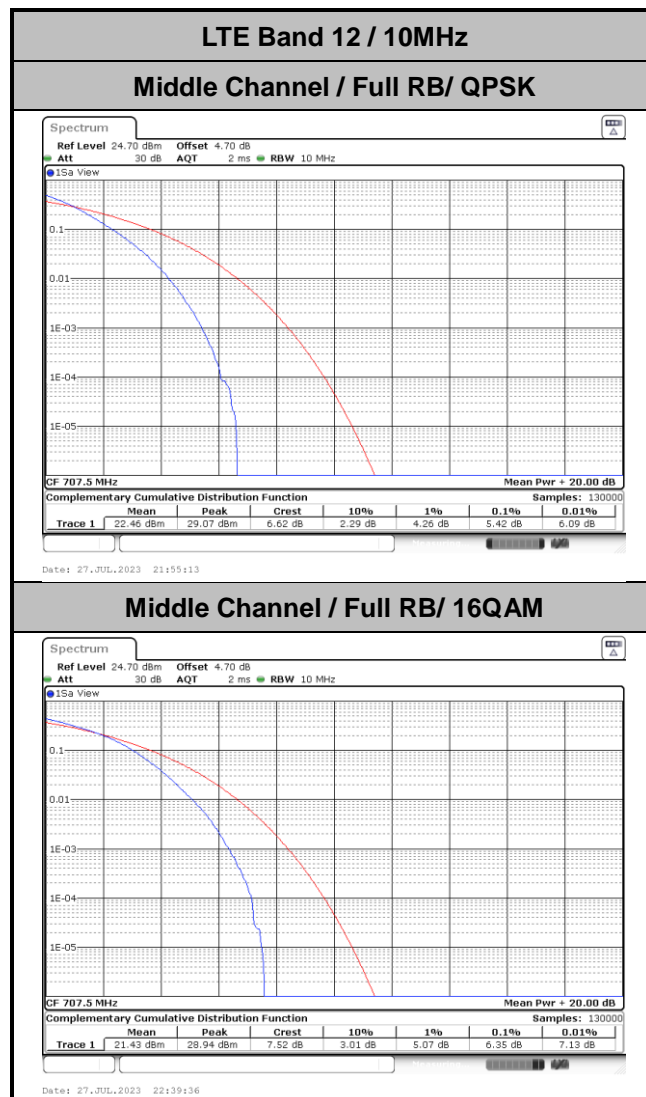
1. Normal Voltage =3.8 V. ; Minimum Voltage =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

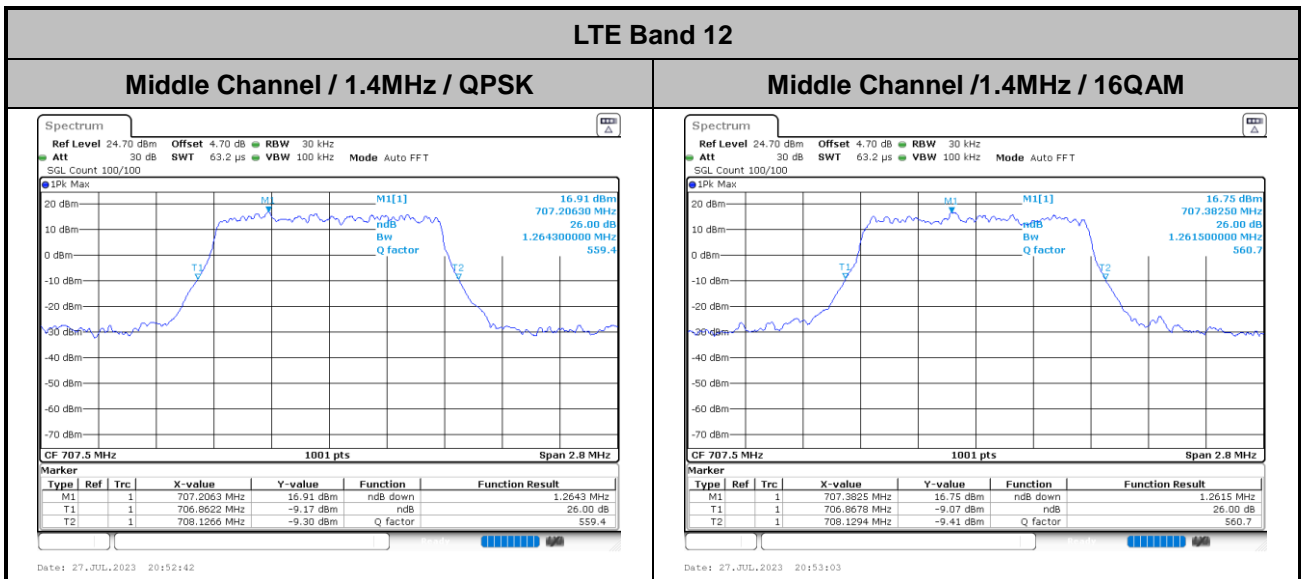
Mode	LTE Band 12 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	5.42	6.35	PASS





26dB Bandwidth

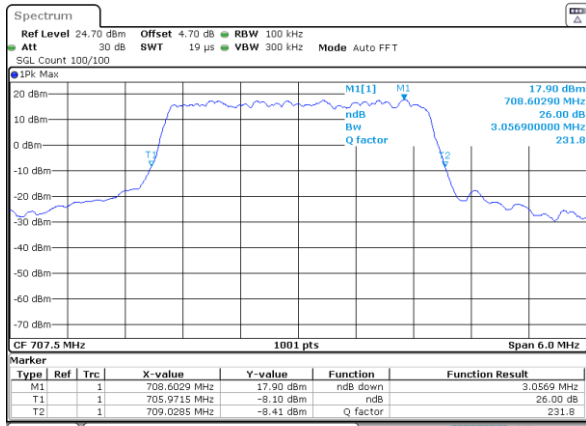
Mode	LTE Band 12 : 26dB BW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.26	1.26
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	3.06	3.06
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	5.05	4.94
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	10.17	5.79





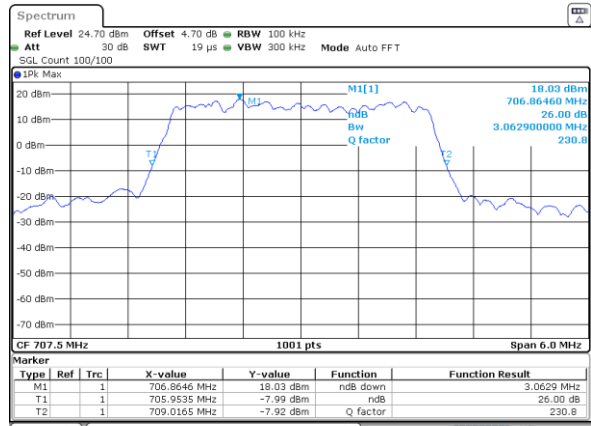
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 27_JUL_2023 21:11:25

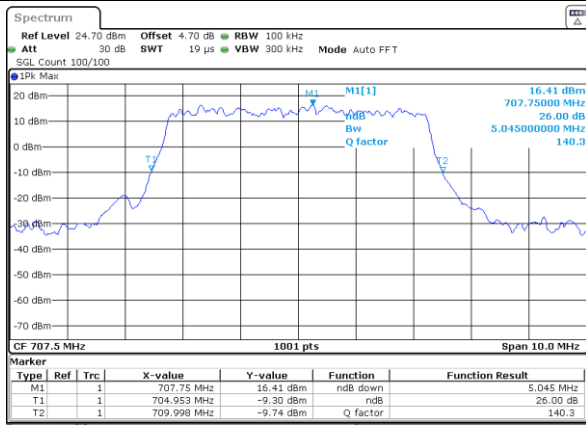
Middle Channel / 3MHz / 16QAM



Date: 27_JUL_2023 21:11:46

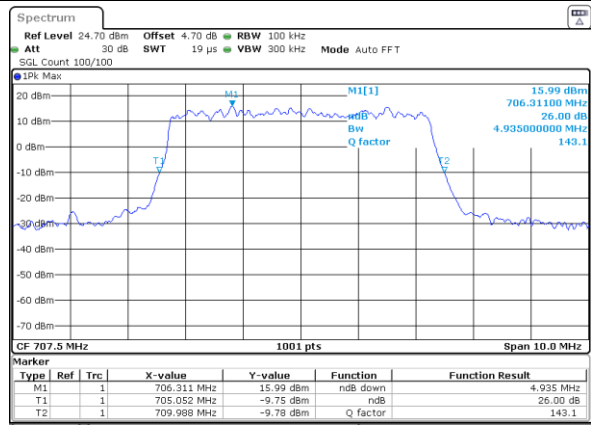
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 27_JUL_2023 21:30:09

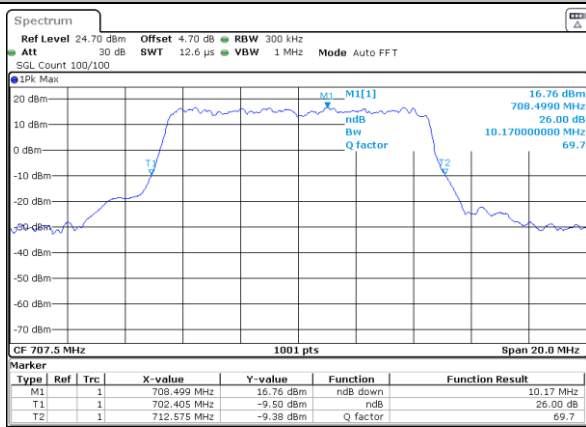
Middle Channel / 5MHz / 16QAM



Date: 27_JUL_2023 21:30:10

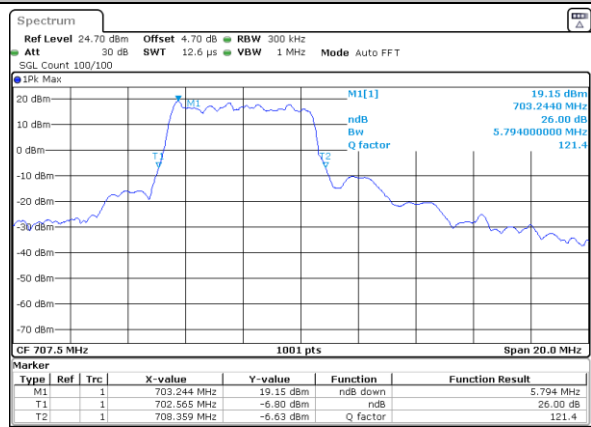
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 27_JUL_2023 21:54:51

Middle Channel / 10MHz / 16QAM



Date: 27_JUL_2023 22:17:27



Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.09	1.10
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.70	2.72
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.49	4.48
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.97	5.03

