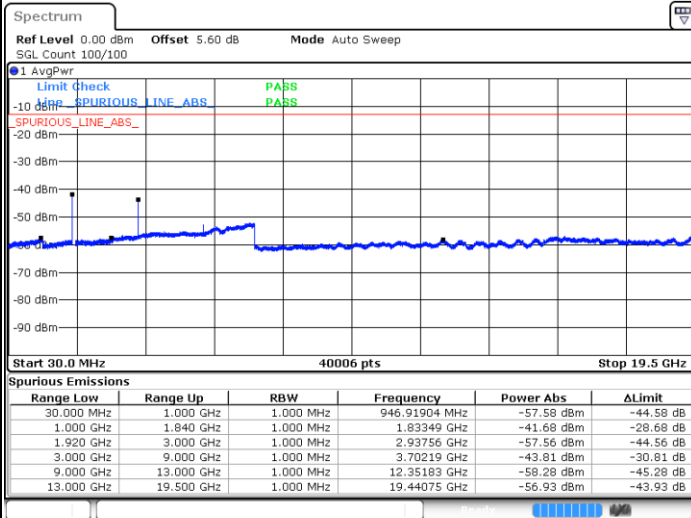




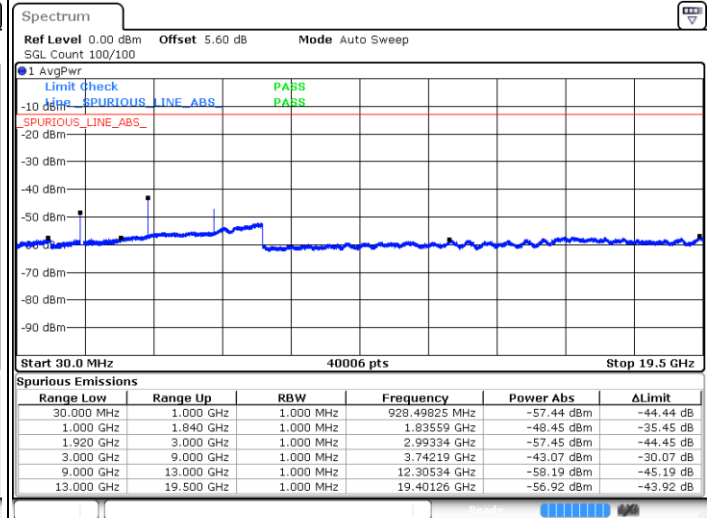
LTE Band 2 / 20MHz

Lowest Channel / QPSK

Middle Channel / QPSK

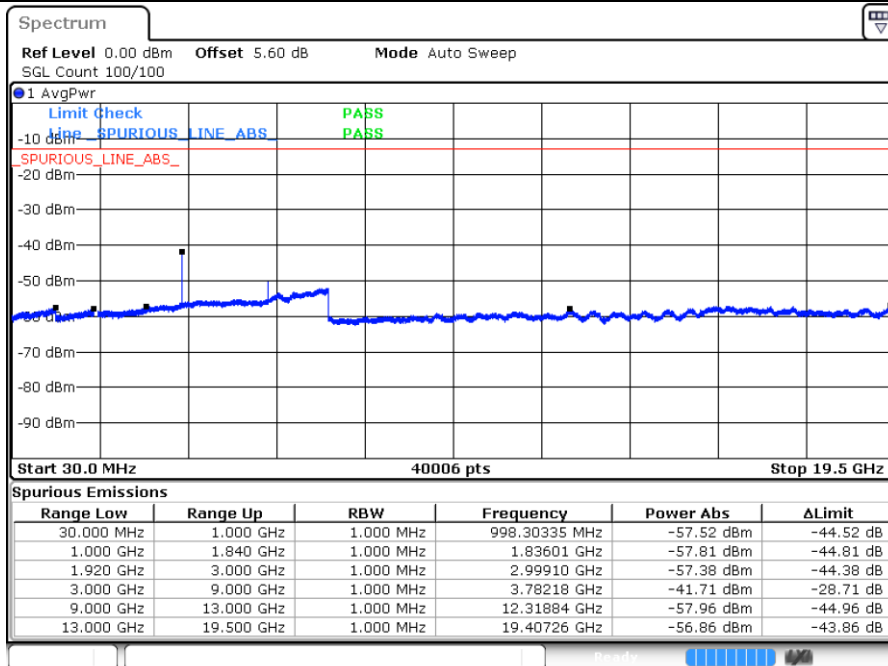


Date: 14 DEC 2023 22:50:06



Date: 14 DEC 2023 22:55:25

Highest Channel / QPSK



Date: 14 DEC 2023 22:56:45

**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	0.0012	PAS S
40	Normal Voltage	0.0037	
30	Normal Voltage	0.0048	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0041	
-10	Normal Voltage	0.0029	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0022	
20	Minimum Voltage	0.0045	

Note:

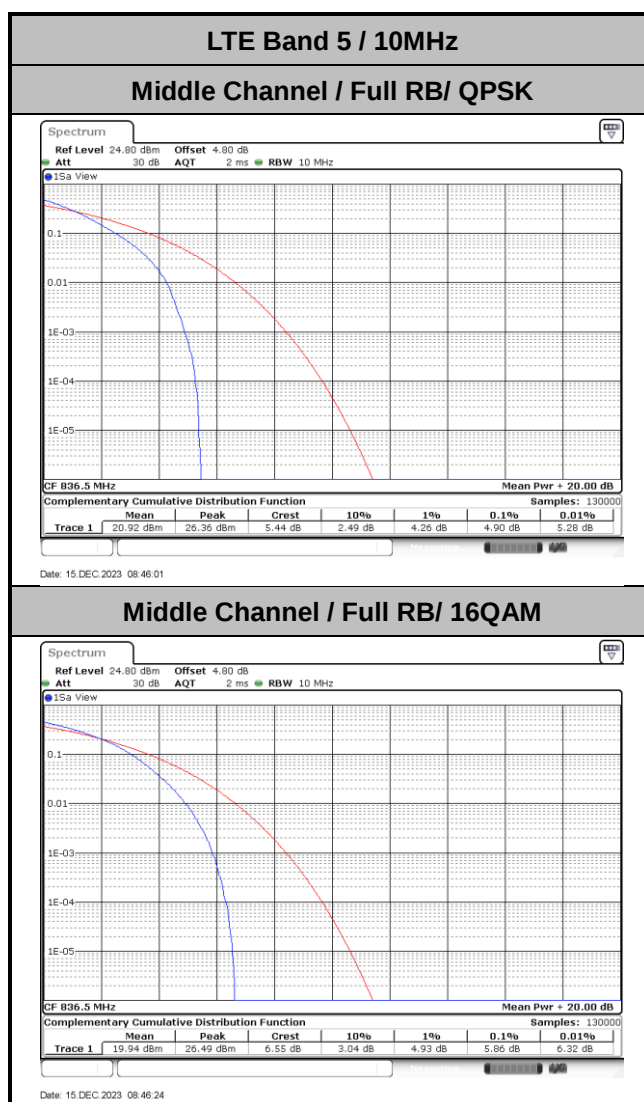
1. Normal Voltage = 13 V. ; Minimum Voltage =12 V. ; Maximum Voltage = 30 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

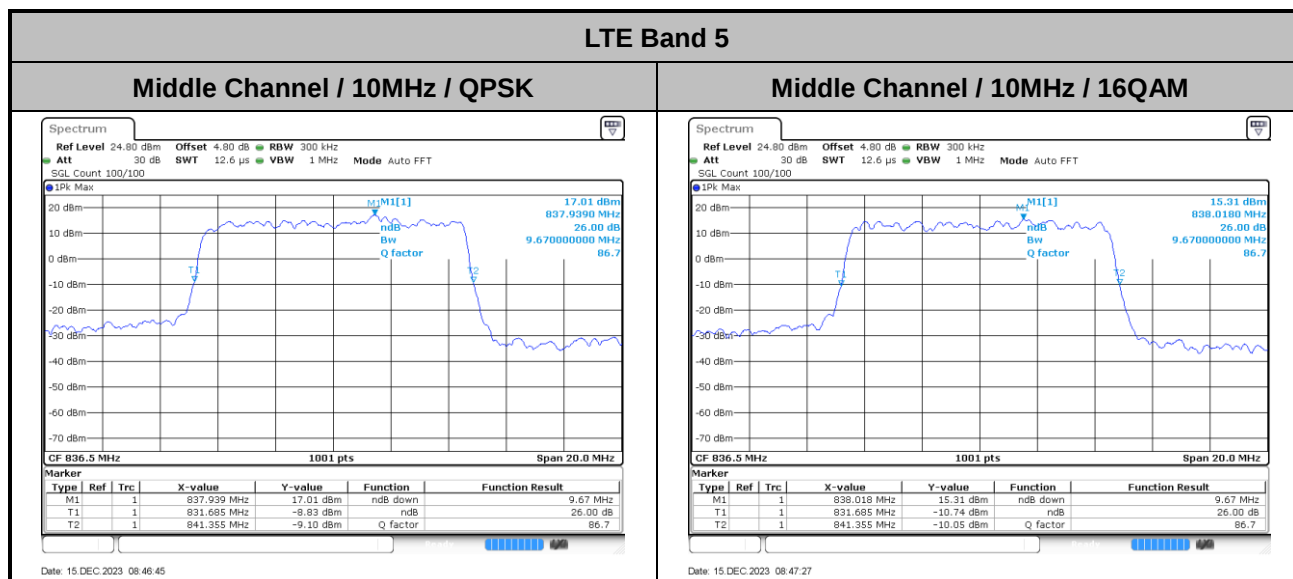
Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.90	5.86	PASS



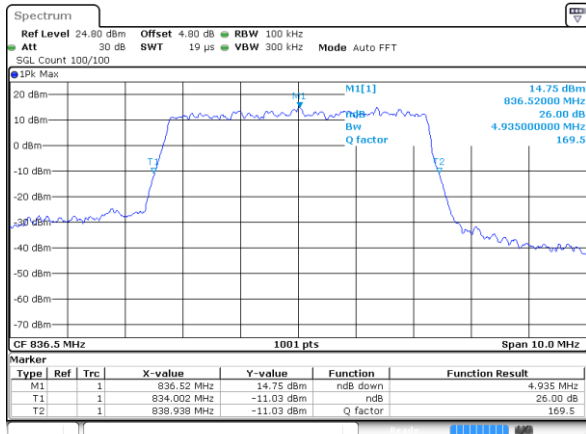
**26dB Bandwidth**

Mode	LTE Band 5 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.67	9.67
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.94	4.87
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	3.02	3.05
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.28	1.28



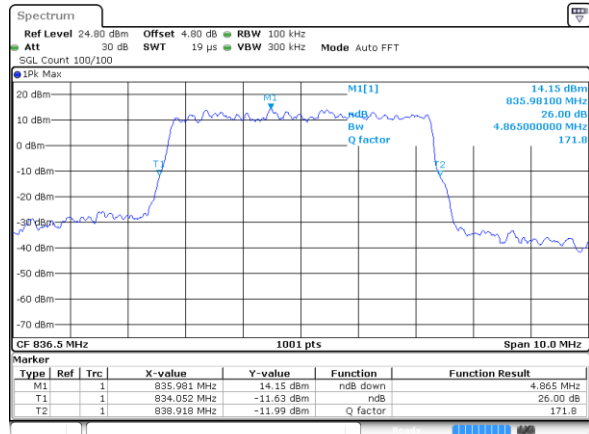


Middle Channel / 5MHz / QPSK



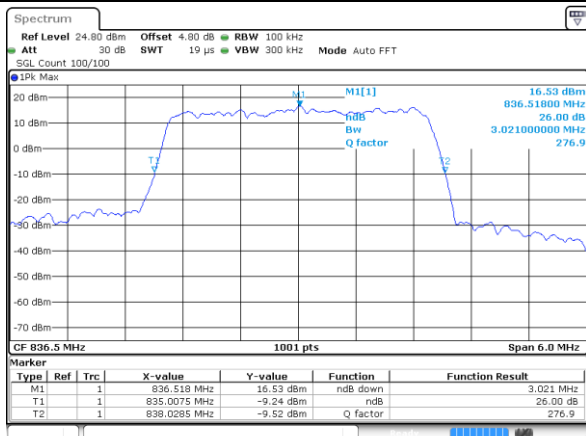
Date: 15 DEC 2023 08:48:31

Middle Channel / 5MHz / 16QAM



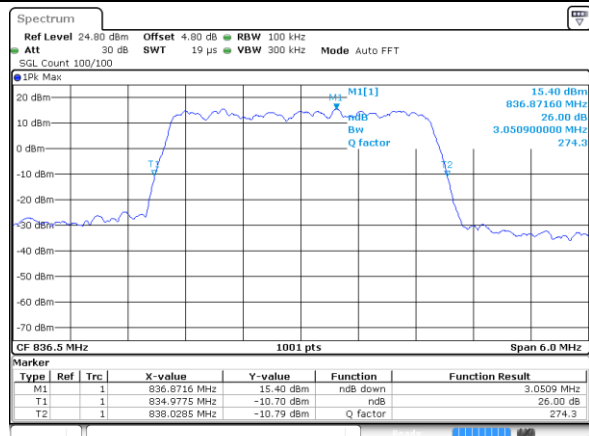
Date: 15 DEC 2023 08:48:52

Middle Channel / 3MHz / QPSK



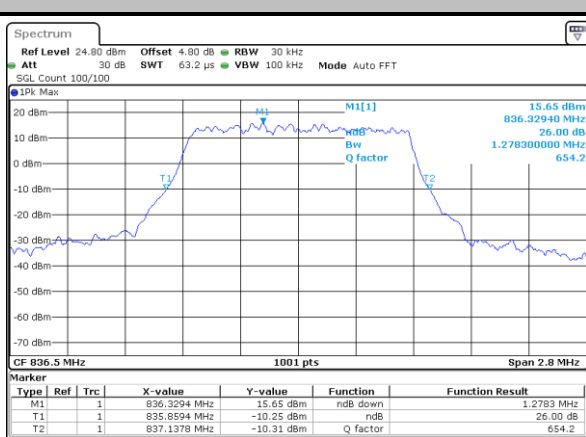
Date: 15 DEC 2023 08:49:55

Middle Channel / 3MHz / 16QAM



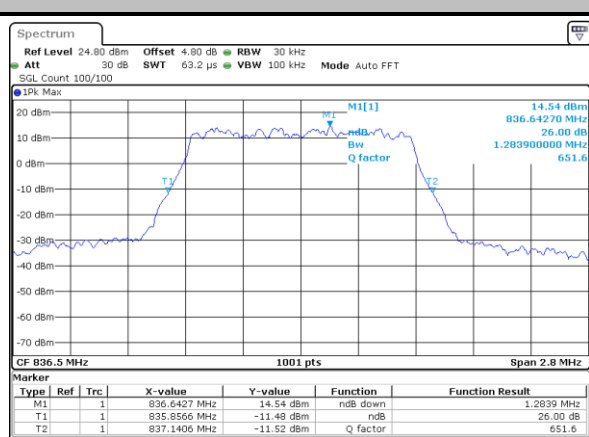
Date: 15 DEC 2023 08:50:16

Middle Channel / 1.4MHz / QPSK



Date: 15 DEC 2023 08:51:20

Middle Channel / 1.4MHz / 16QAM

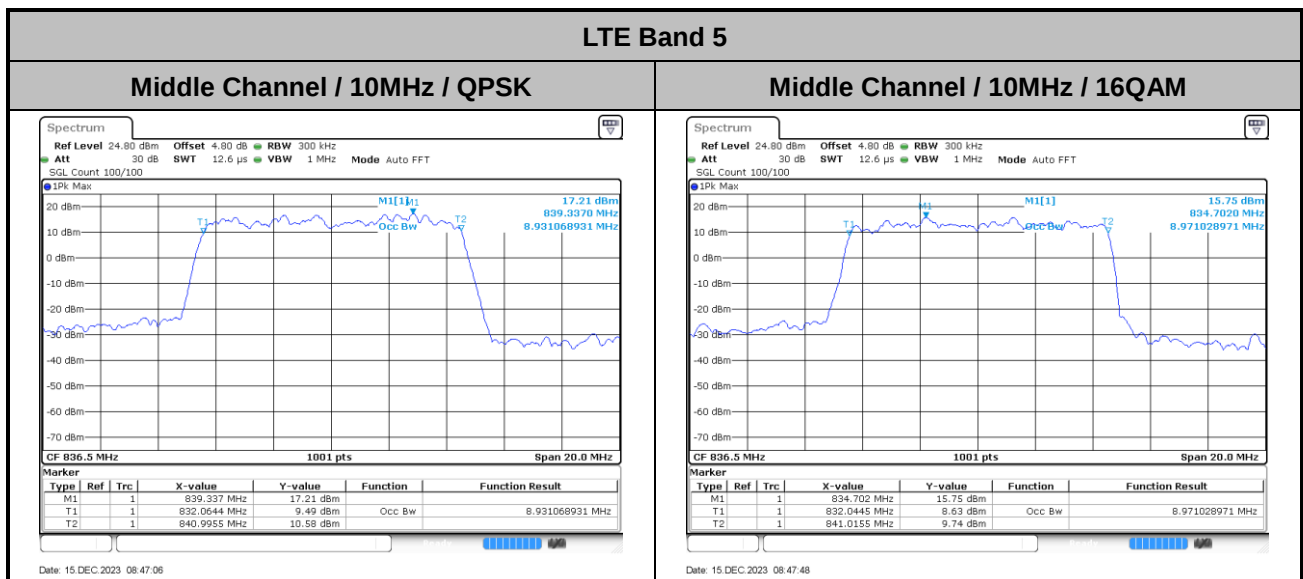


Date: 15 DEC 2023 08:51:41



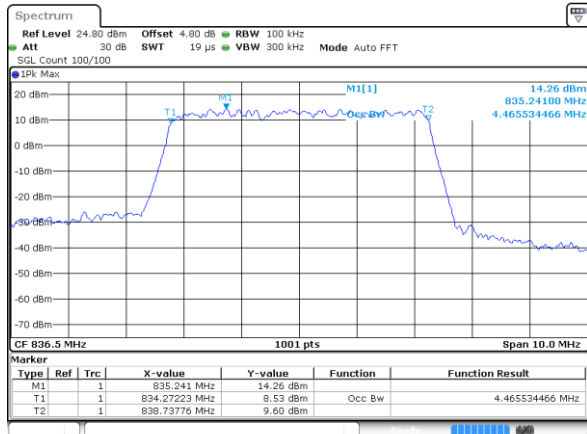
Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.93	8.97
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.47	4.50
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.71	2.72
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.09	1.10



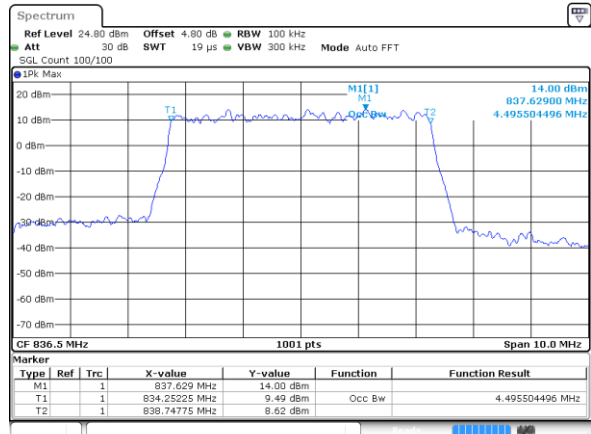


Middle Channel / 5MHz / QPSK



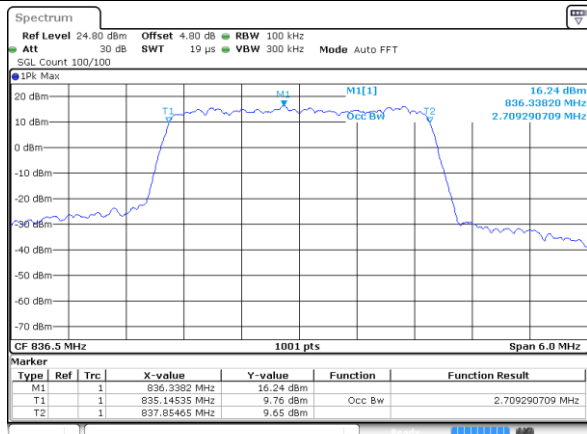
Date: 15 DEC 2023 08:48:10

Middle Channel / 5MHz / 16QAM



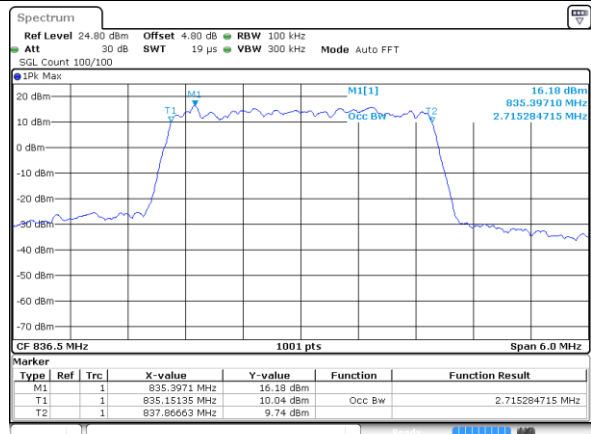
Date: 15 DEC 2023 08:49:13

Middle Channel / 3MHz / QPSK



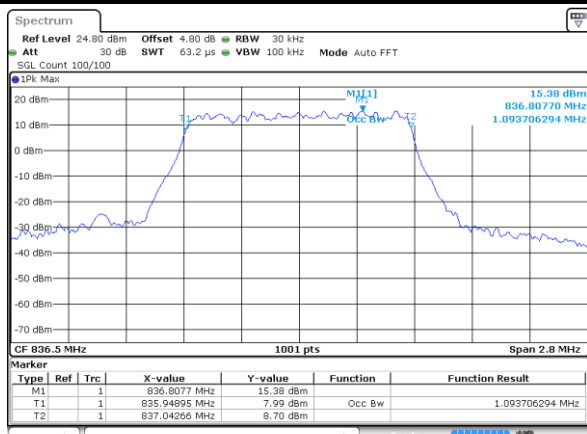
Date: 15 DEC 2023 08:49:34

Middle Channel / 3MHz / 16QAM



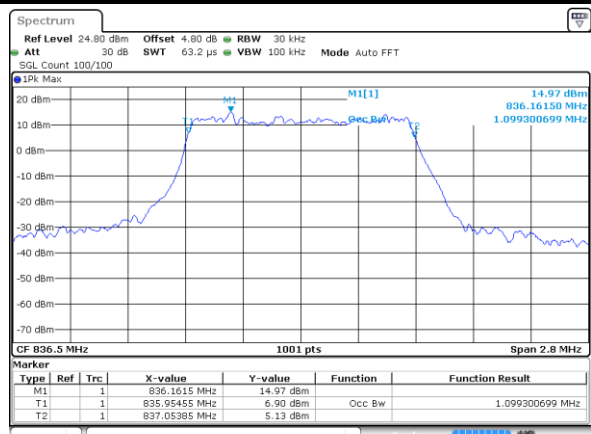
Date: 15 DEC 2023 08:50:37

Middle Channel / 1.4MHz / QPSK



Date: 15 DEC 2023 08:50:59

Middle Channel / 1.4MHz / 16QAM



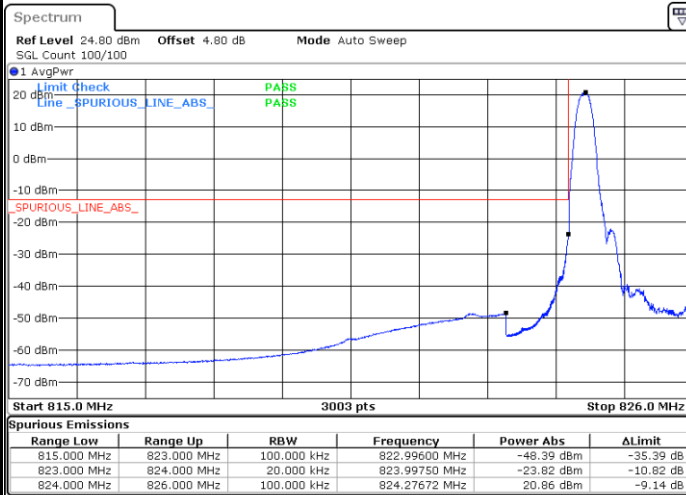
Date: 15 DEC 2023 08:52:02



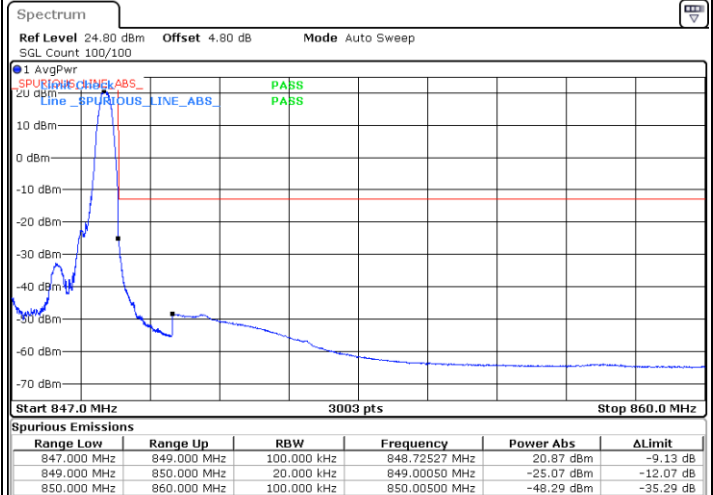
Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

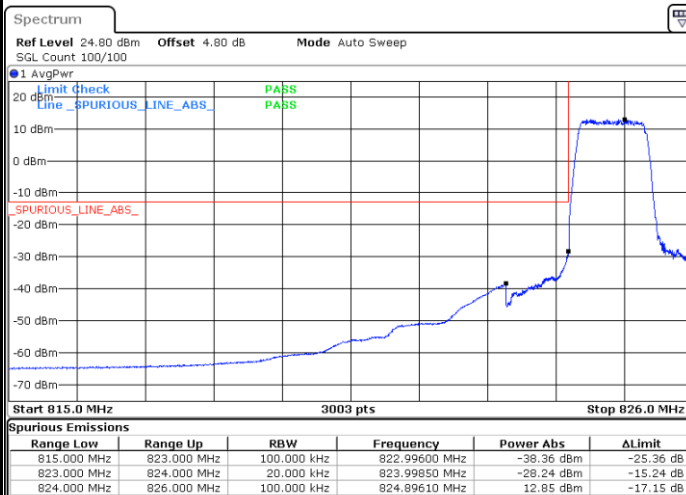
Lowest Band Edge / 1RB



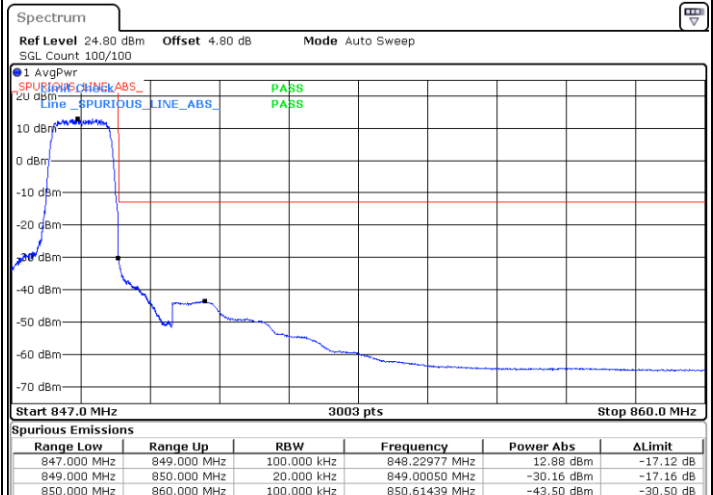
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



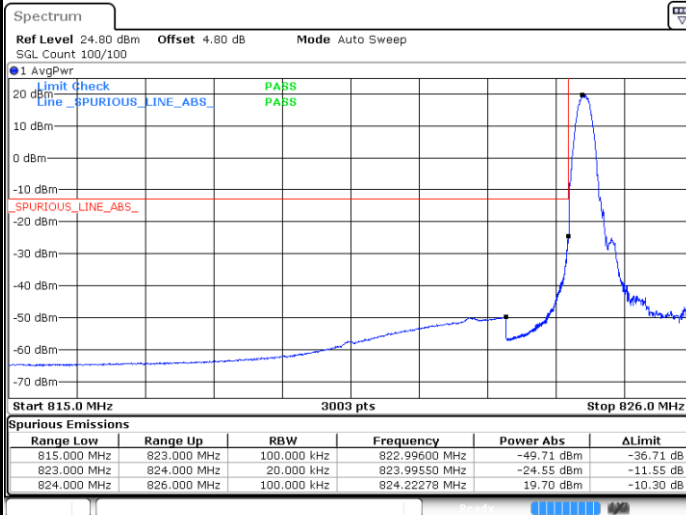
Highest Band Edge / Full RB



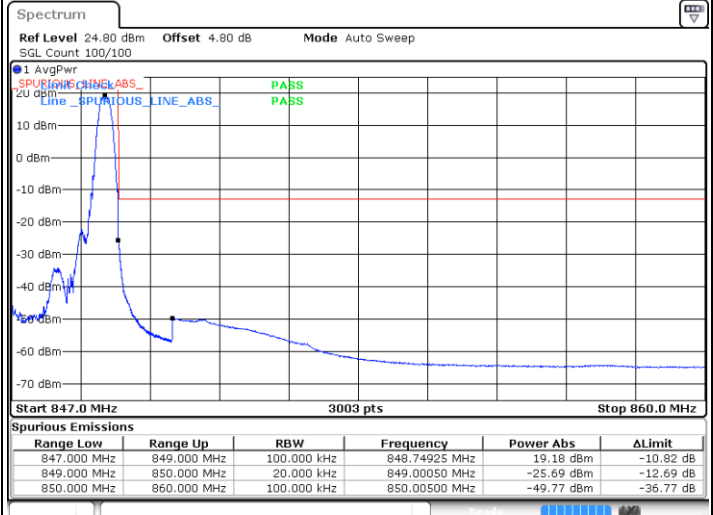


LTE Band 5 / 1.4MHz / 16QAM

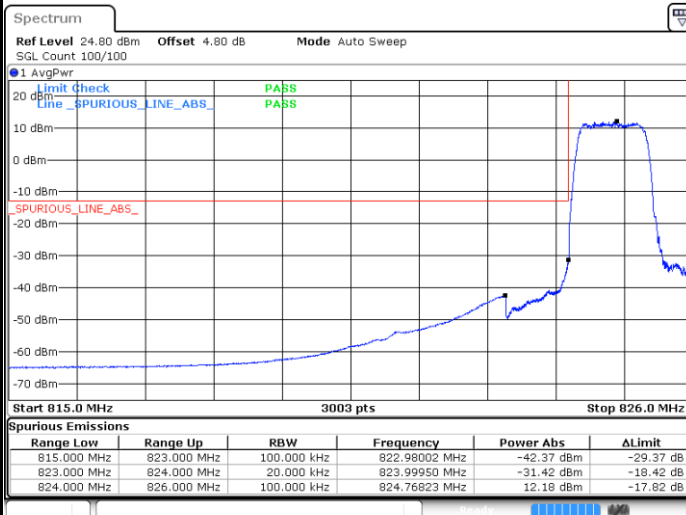
Lowest Band Edge / 1 RB



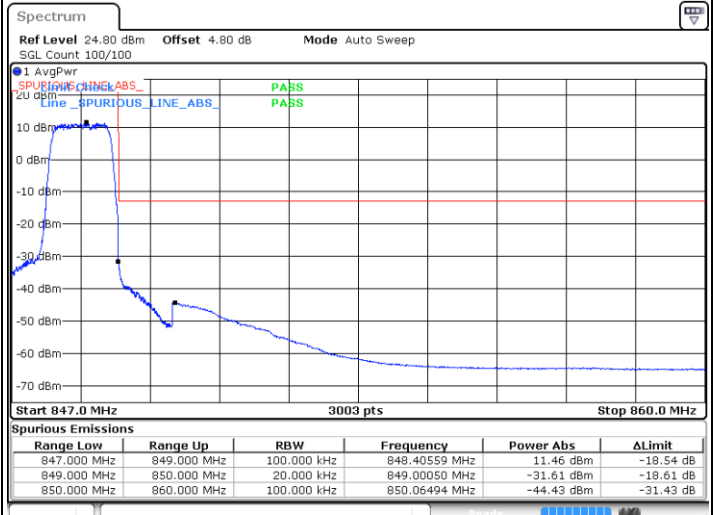
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



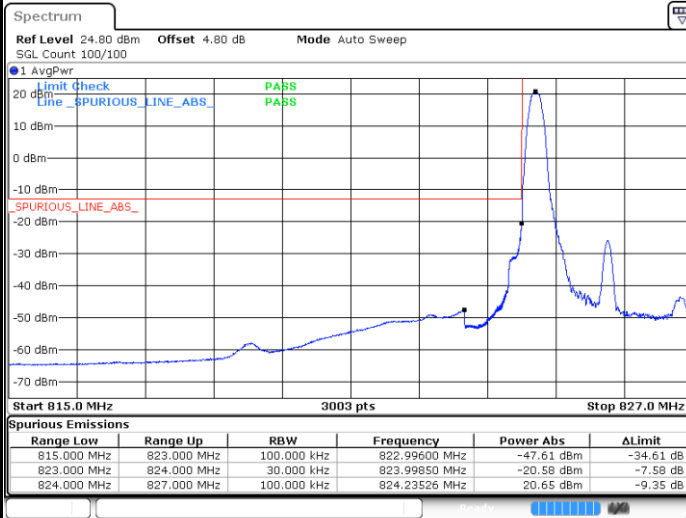
Highest Band Edge / Full RB



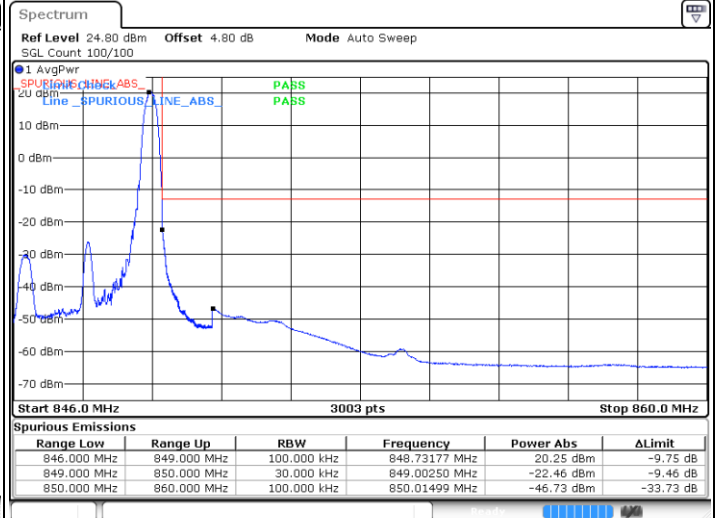


LTE Band 5 / 3MHz / QPSK

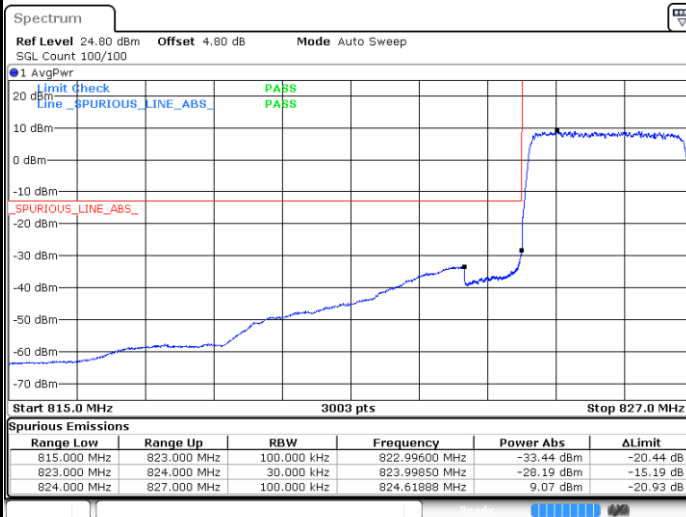
Lowest Band Edge / 1RB



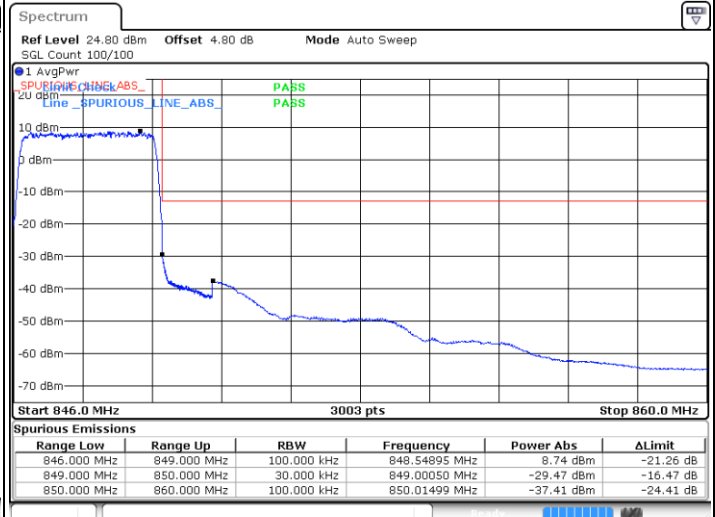
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



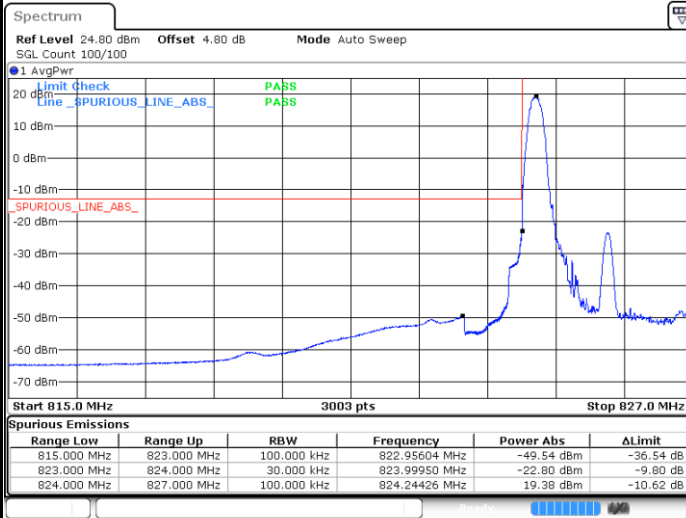
Highest Band Edge / Full RB



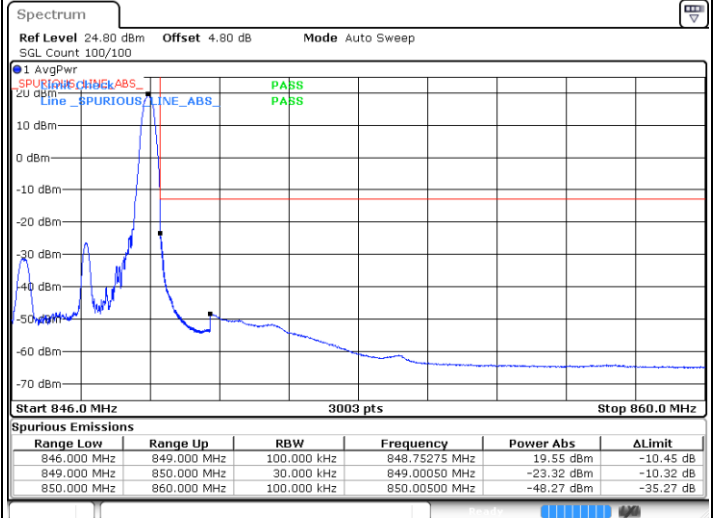


LTE Band 5 / 3MHz / 16QAM

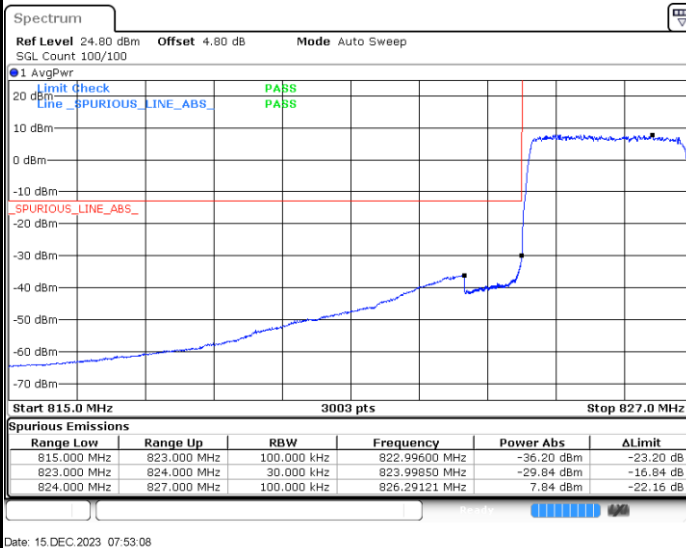
Lowest Band Edge / 1 RB



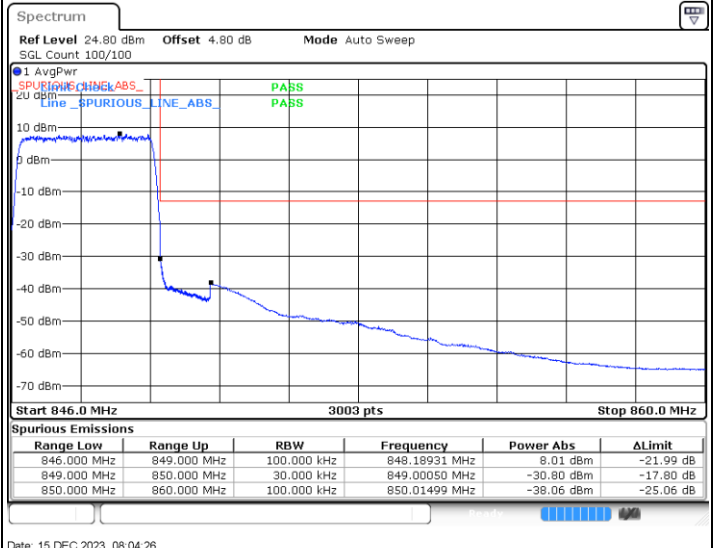
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



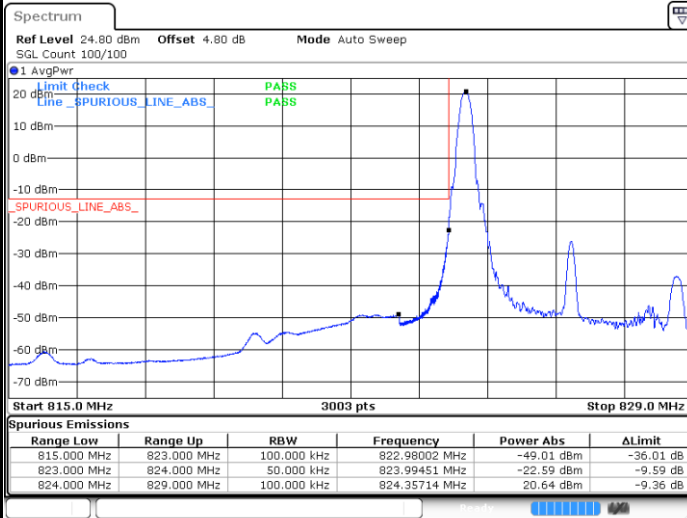
Highest Band Edge / Full RB



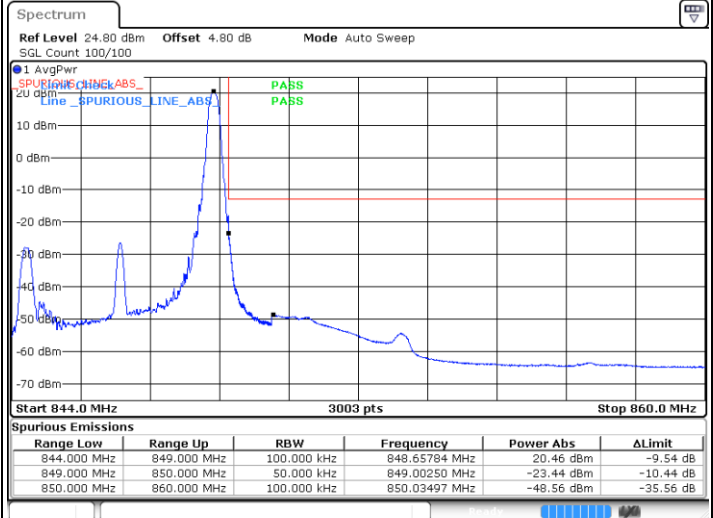


LTE Band 5 / 5MHz / QPSK

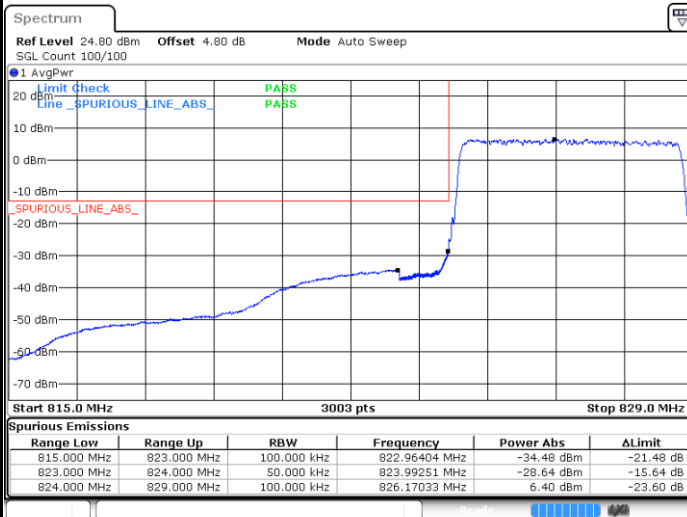
Lowest Band Edge / 1 RB



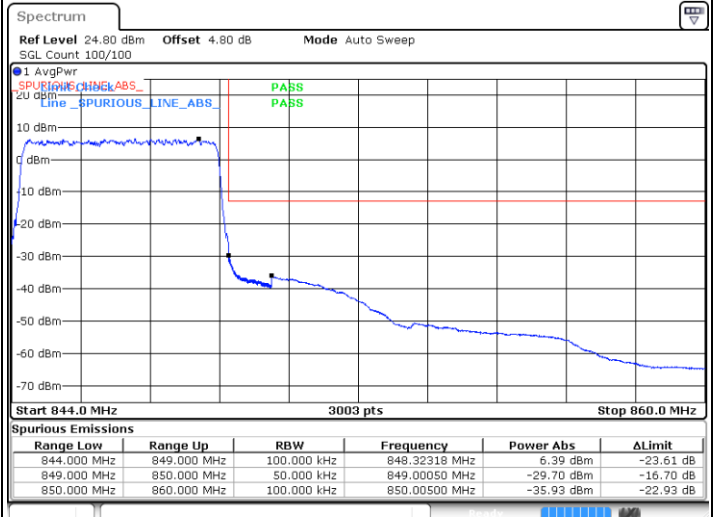
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



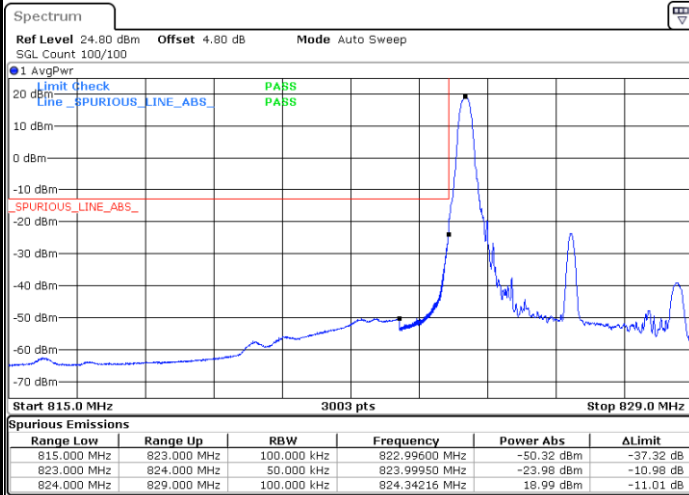
Highest Band Edge / Full RB



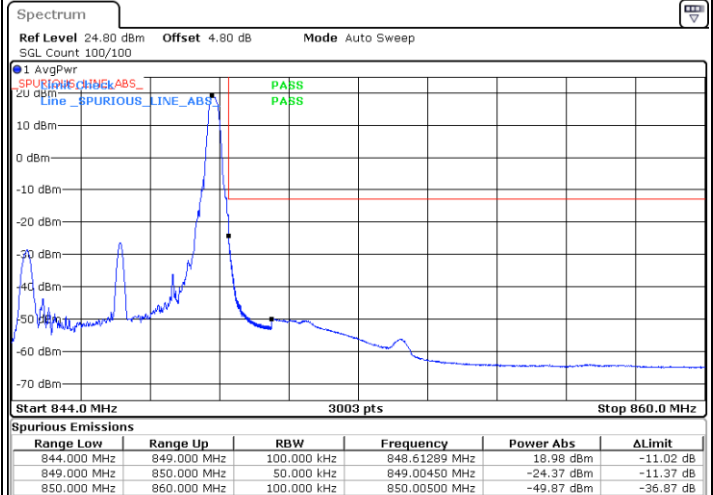


LTE Band 5 / 5MHz / 16QAM

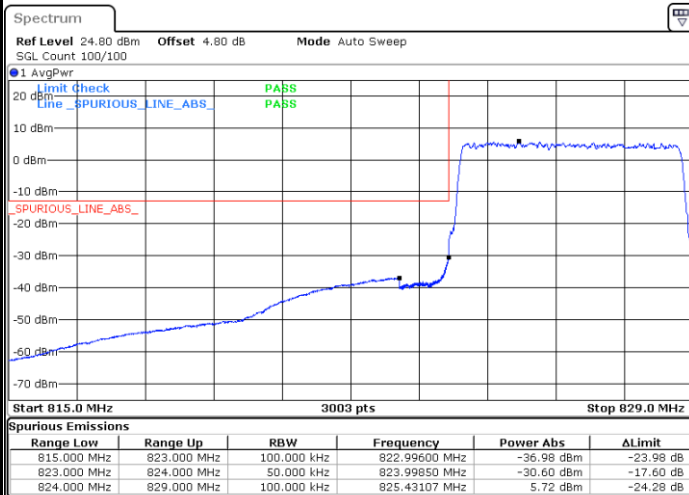
Lowest Band Edge / 1RB



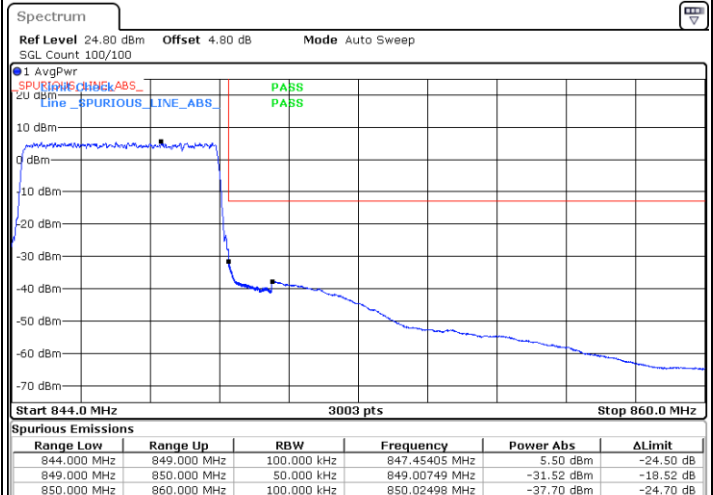
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



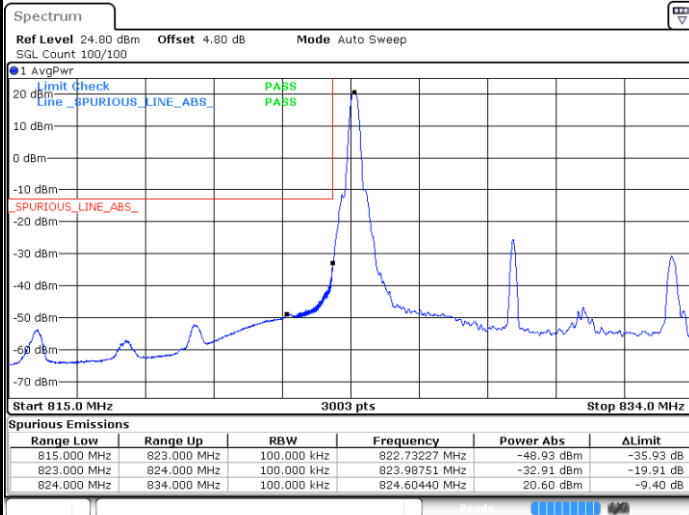
Highest Band Edge / Full RB



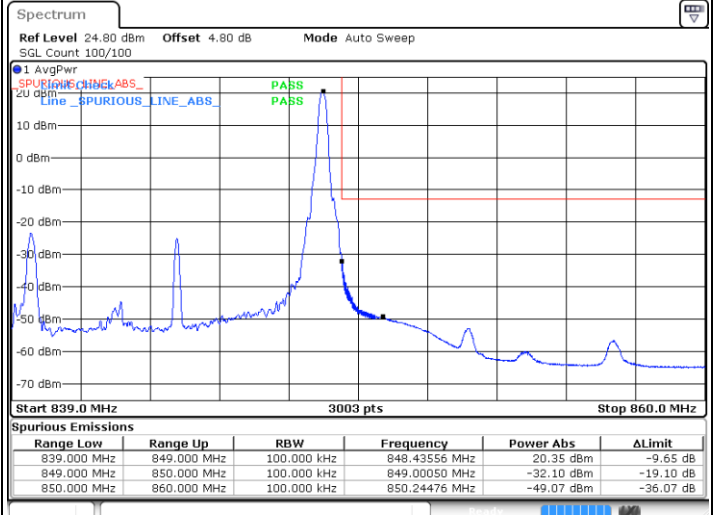


LTE Band 5 / 10MHz / QPSK

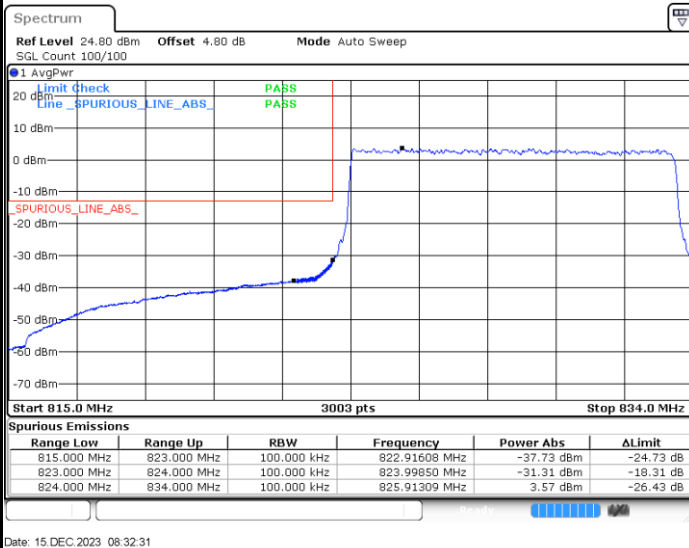
Lowest Band Edge / 1 RB



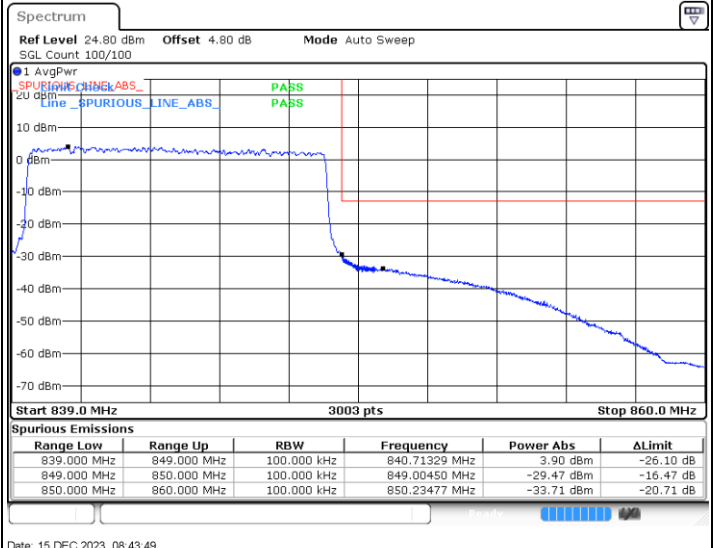
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



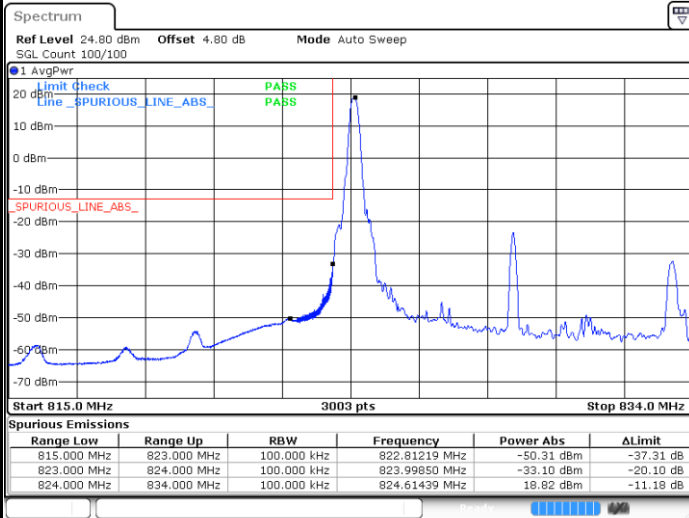
Highest Band Edge / Full RB



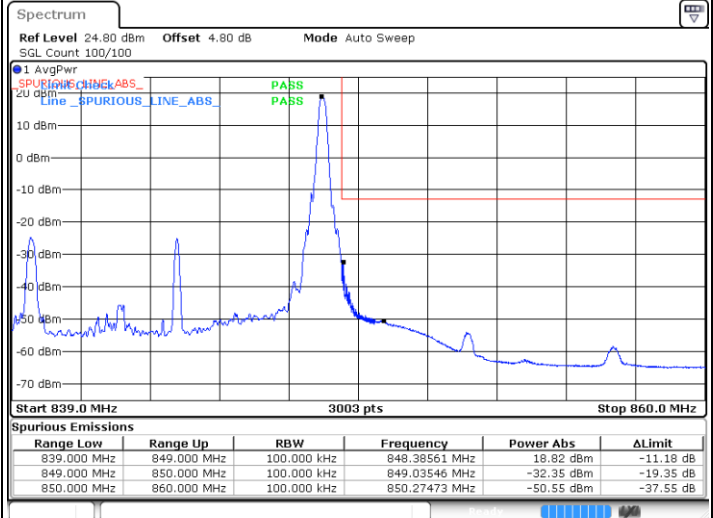


LTE Band 5 / 10MHz / 16QAM

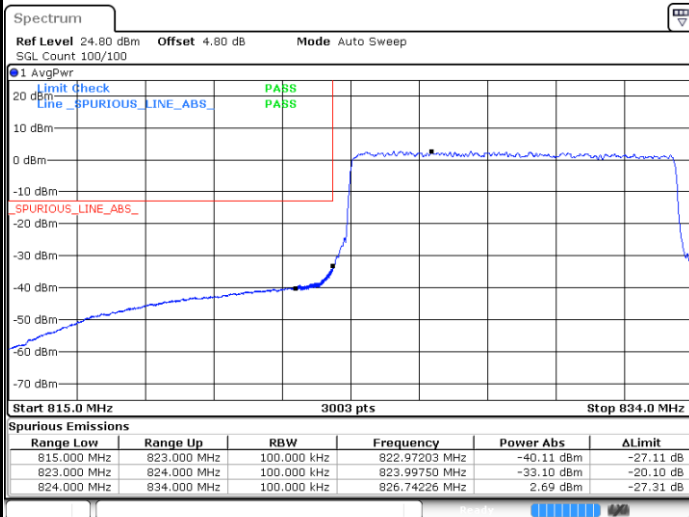
Lowest Band Edge / 1 RB



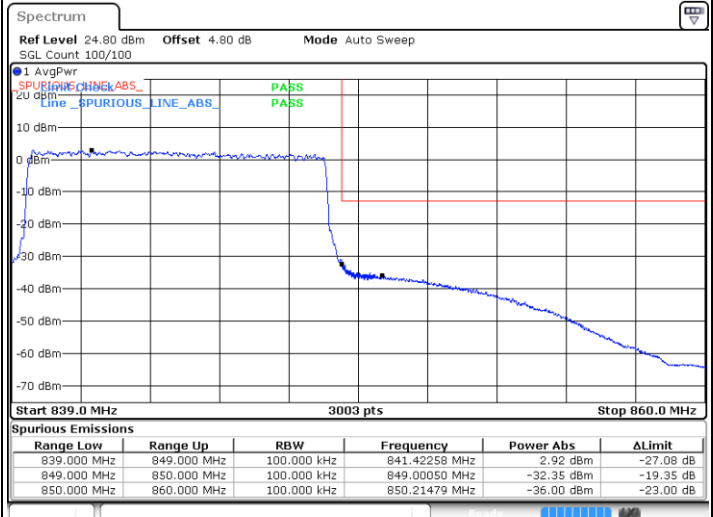
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

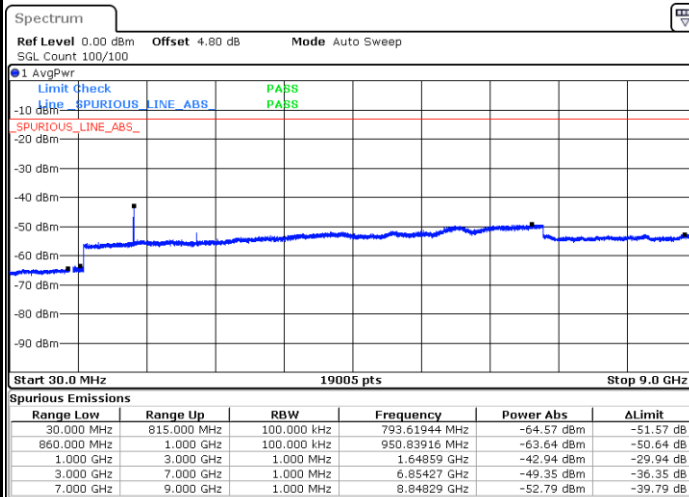




Conducted Spurious Emission

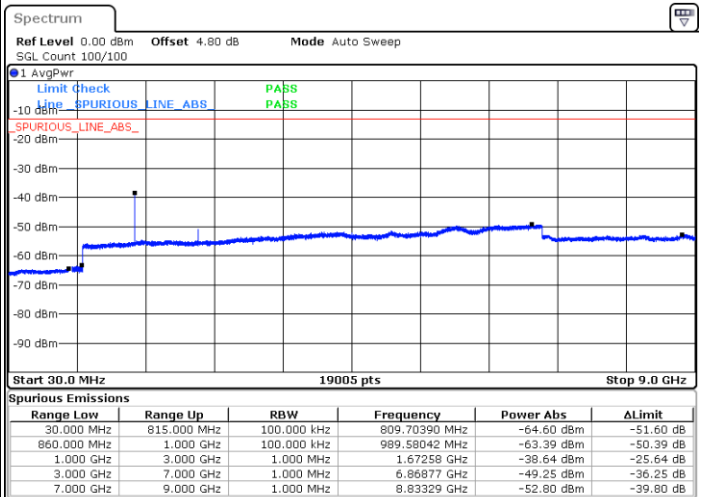
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



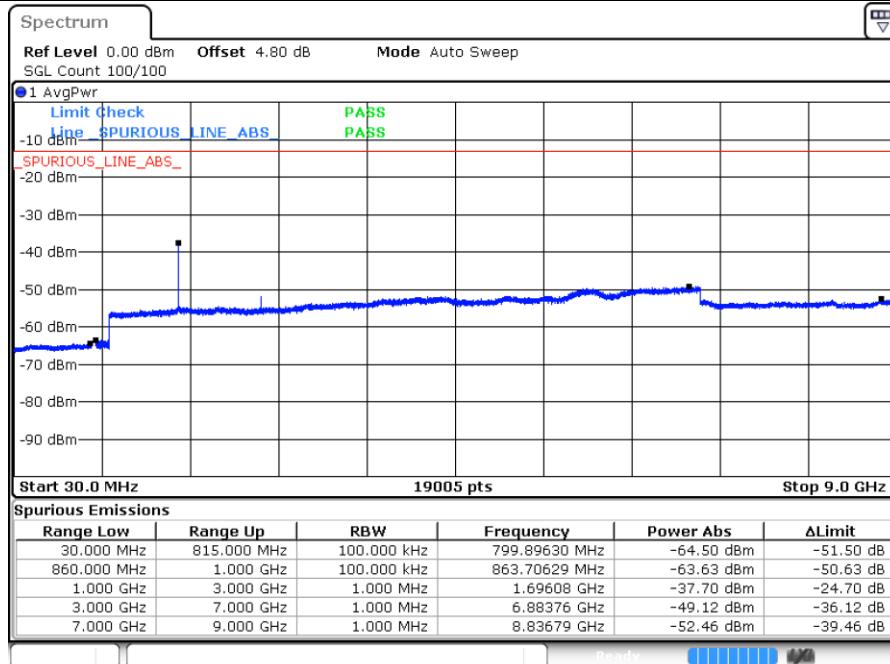
Date: 15 DEC 2023 07:25:13

Middle Channel / QPSK



Date: 15 DEC 2023 07:34:31

Highest Channel / QPSK



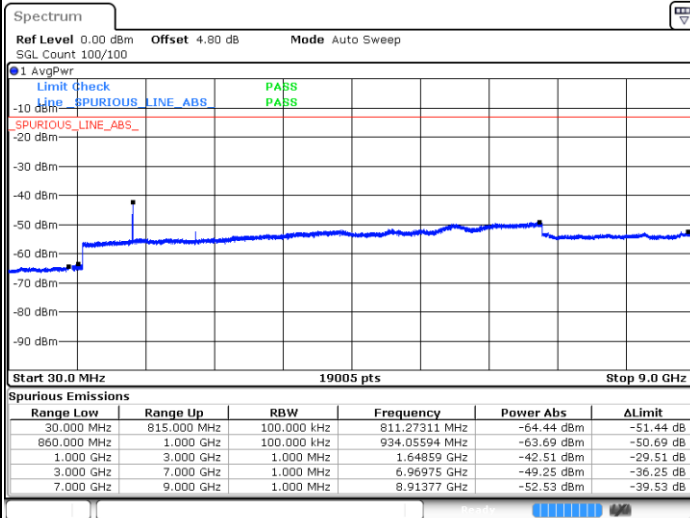
Date: 15 DEC 2023 07:36:31



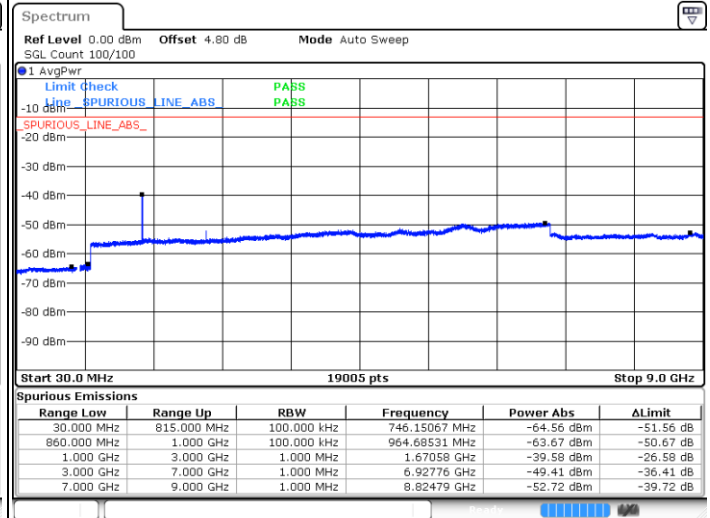
LTE Band 5 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

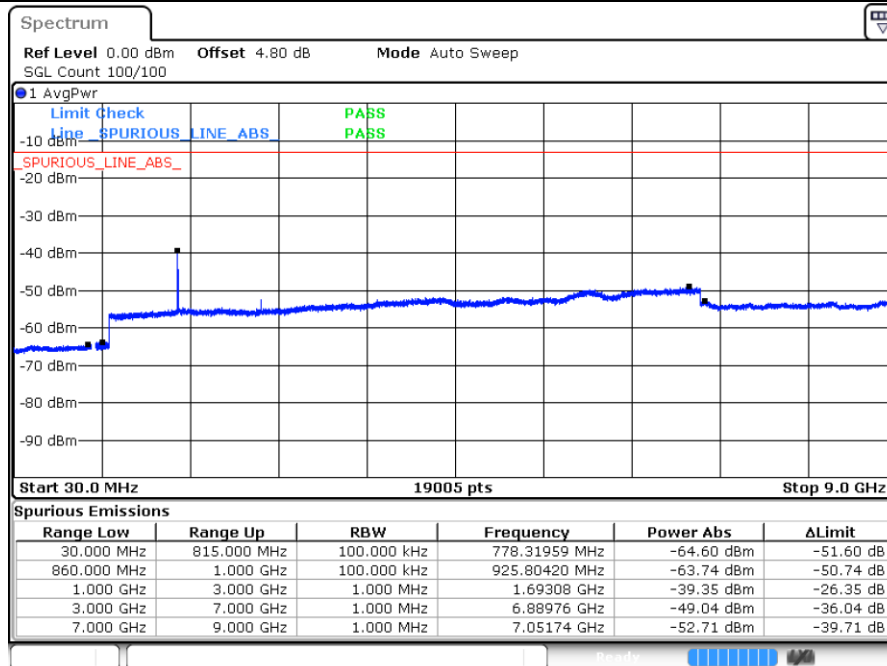


Date: 15 DEC.2023 07:45:49



Date: 15 DEC.2023 07:55:07

Highest Channel / QPSK



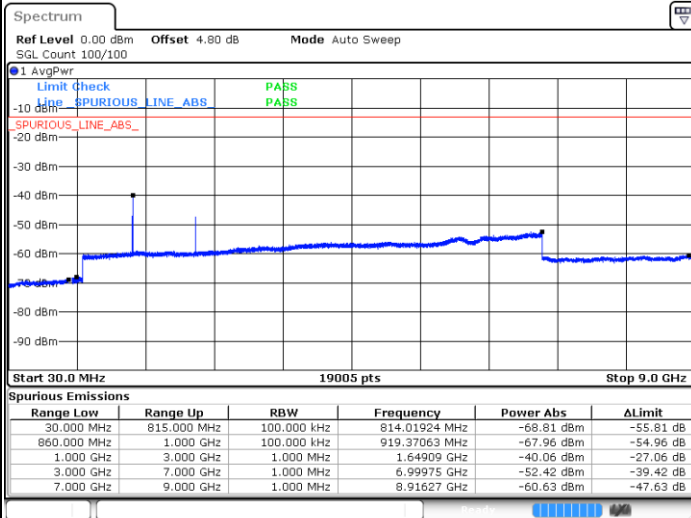
Date: 15 DEC.2023 07:57:07



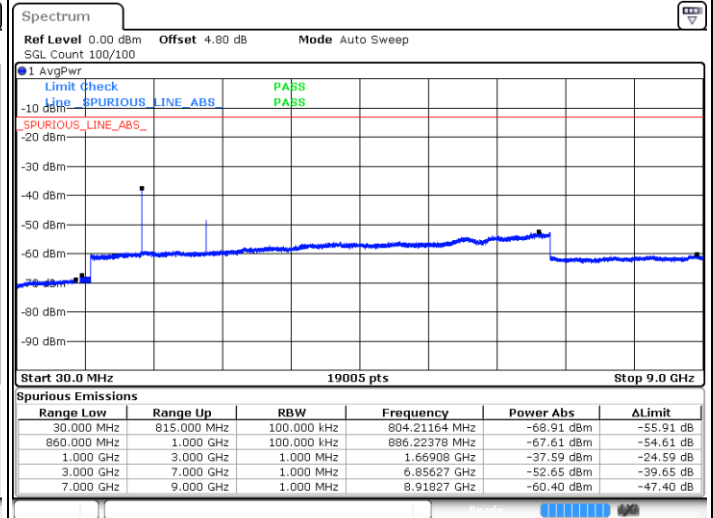
LTE Band 5 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

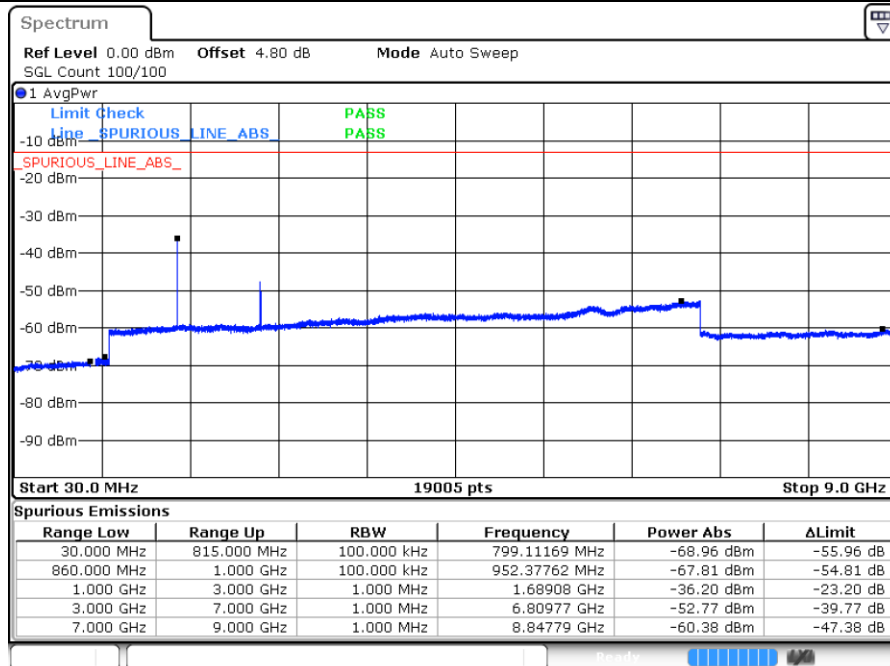


Date: 15 DEC 2023 08:06:26



Date: 15 DEC 2023 08:15:44

Highest Channel / QPSK



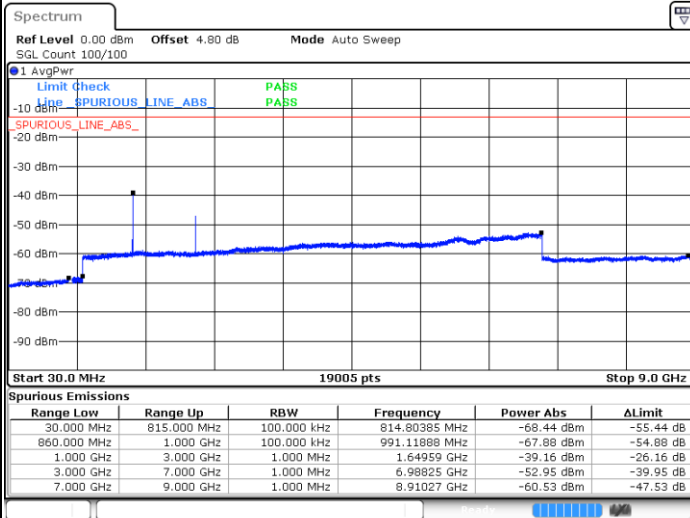
Date: 15 DEC 2023 08:17:44



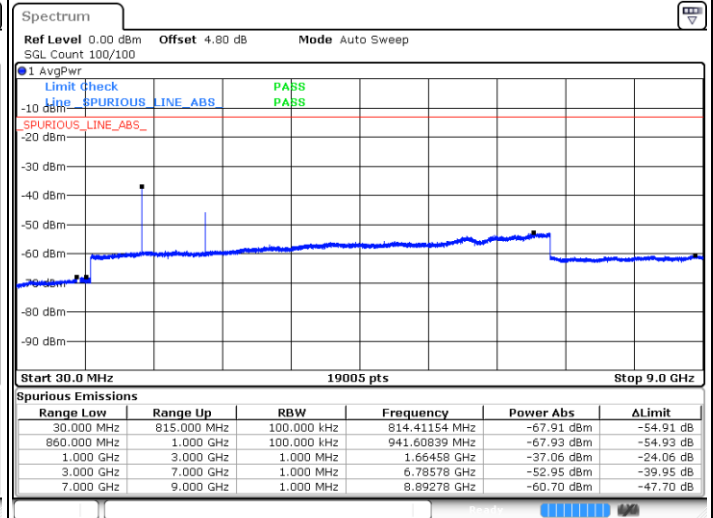
LTE Band 5 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

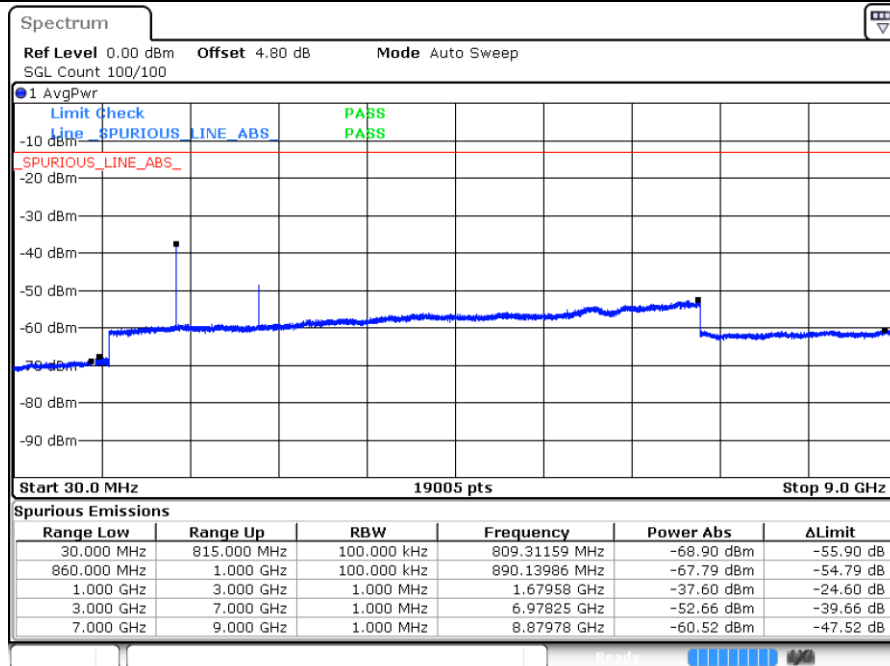


Date: 15 DEC 2023 08:27:03



Date: 15 DEC 2023 08:36:20

Highest Channel / QPSK



Date: 15 DEC 2023 08:38:20

**Frequency Stability**

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0019	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0032	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0055	
0	Normal Voltage	0.0061	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0044	
20	Minimum Voltage	0.0035	

Note:

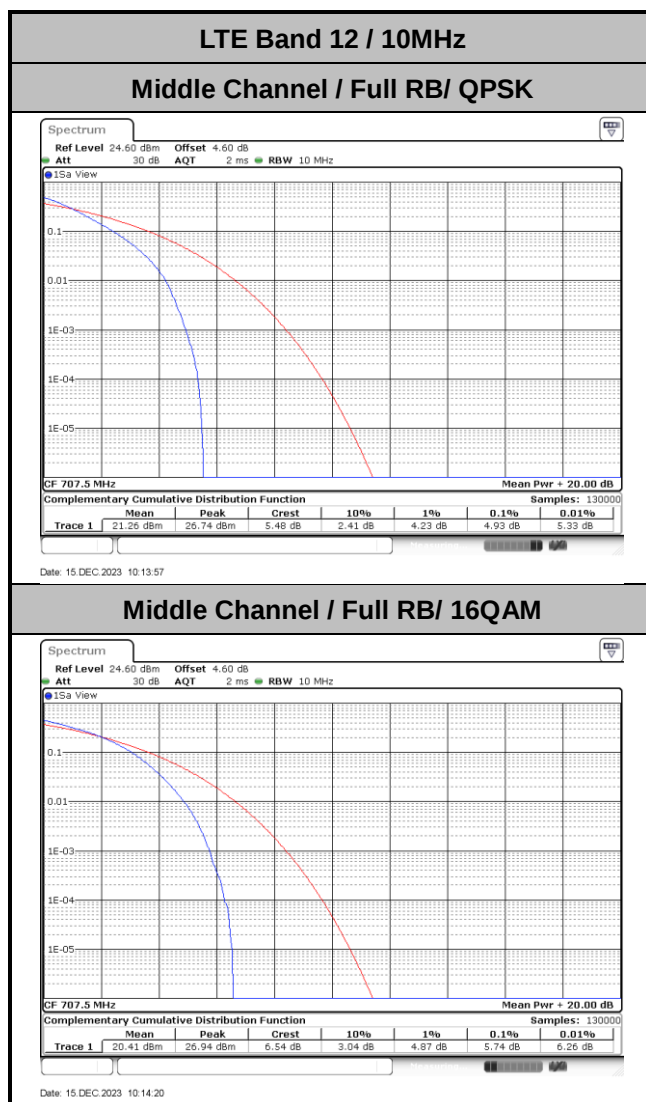
1. Normal Voltage =13 V. ; Minimum Voltage =12 V. ; Maximum Voltage =30 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

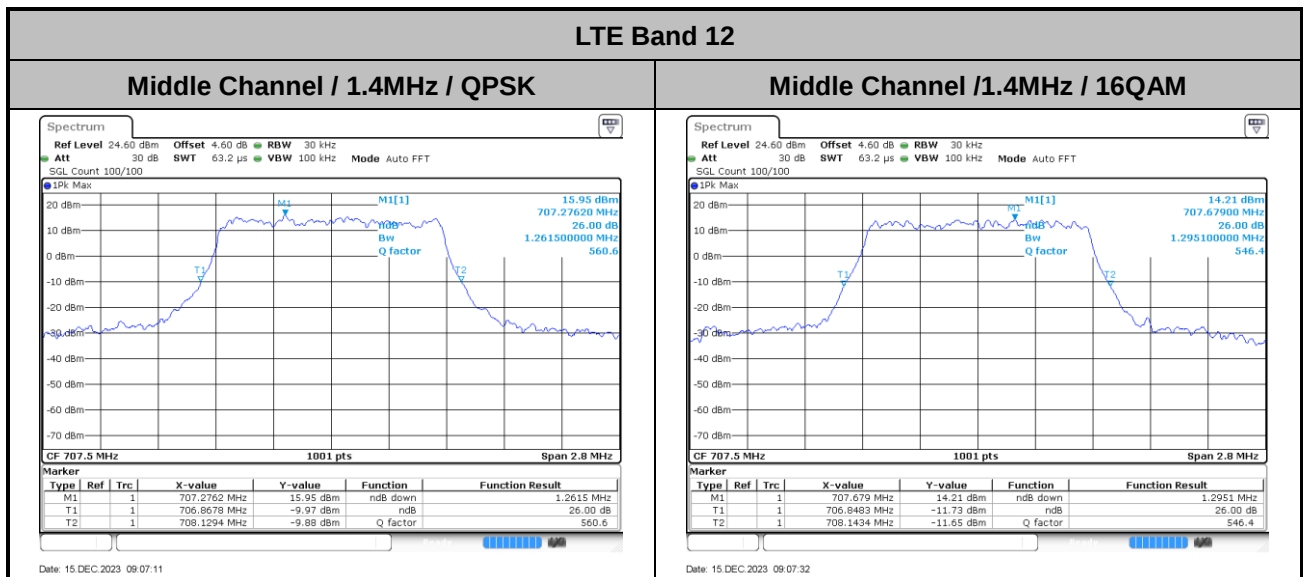
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.93	5.74	PASS



**26dB Bandwidth**

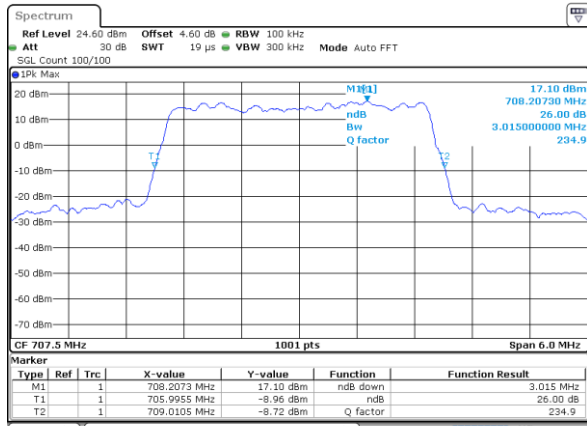
Mode	LTE Band 12 : 26dB BW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.26	1.30
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	3.02	3.03
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.94	4.94
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.69	9.83





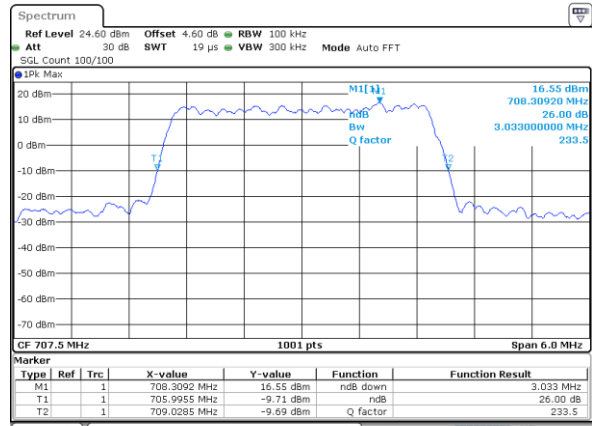
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 15 DEC 2023 09:25:52

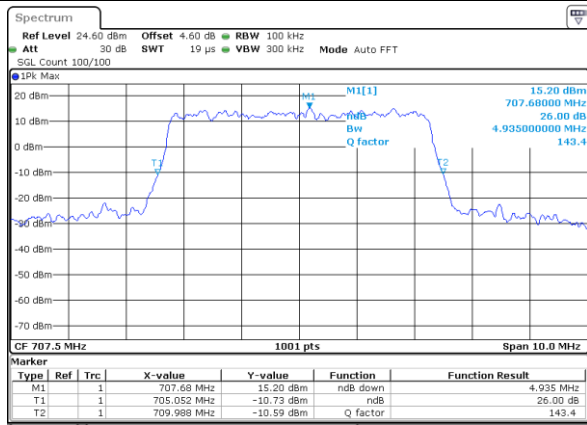
Middle Channel / 3MHz / 16QAM



Date: 15 DEC 2023 09:26:13

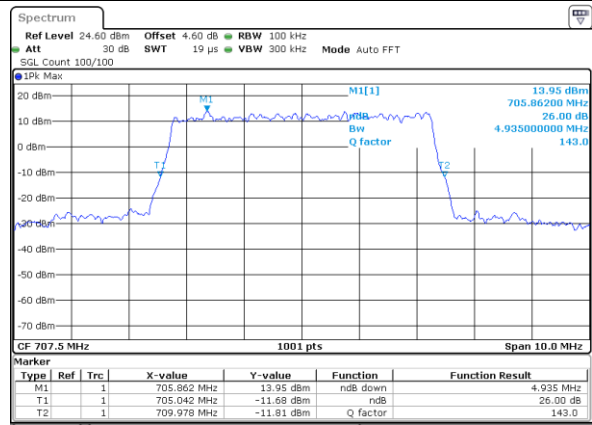
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 15 DEC 2023 09:44:34

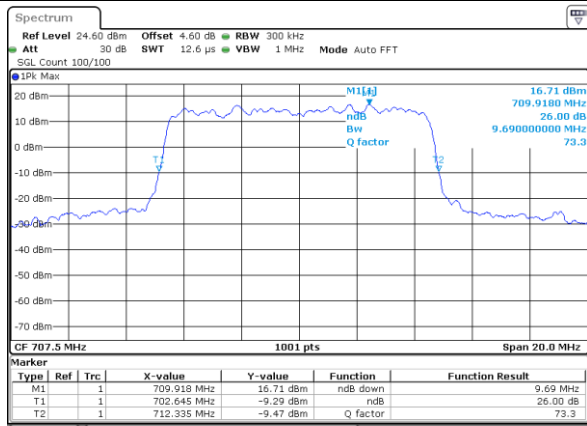
Middle Channel / 5MHz / 16QAM



Date: 15 DEC 2023 09:44:55

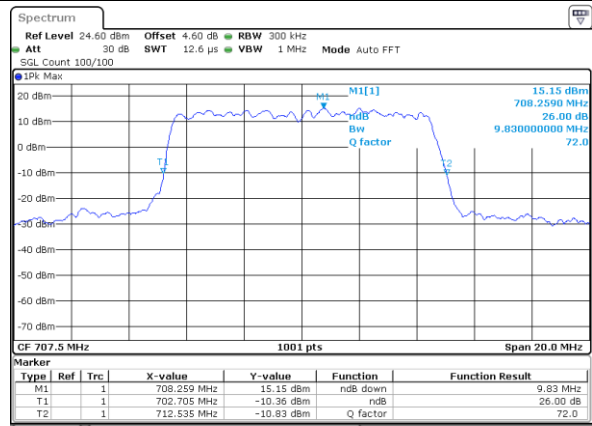
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 15 DEC 2023 10:13:14

Middle Channel / 10MHz / 16QAM

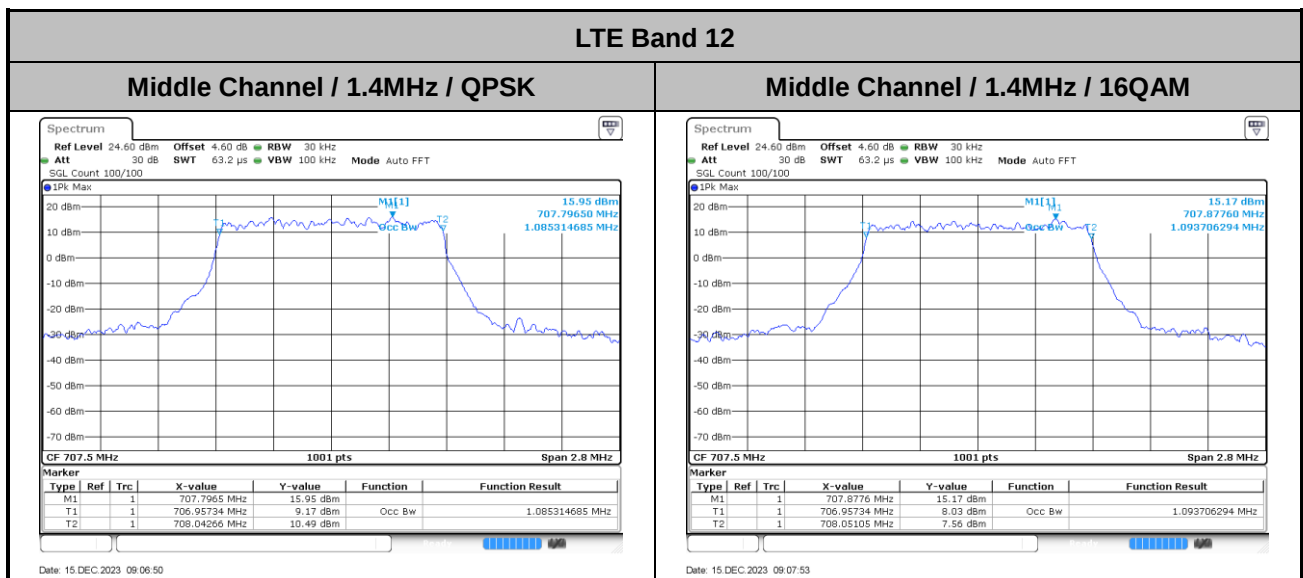


Date: 15 DEC 2023 10:13:35



Occupied Bandwidth

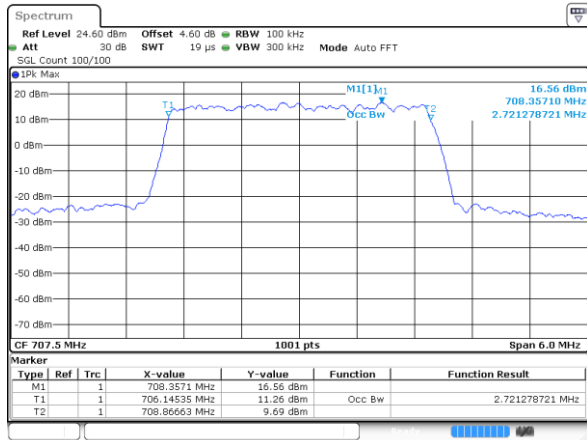
Mode	LTE Band 12 : 99%OBW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.09	1.09
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.72	2.75
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.50	4.51
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.05	8.99



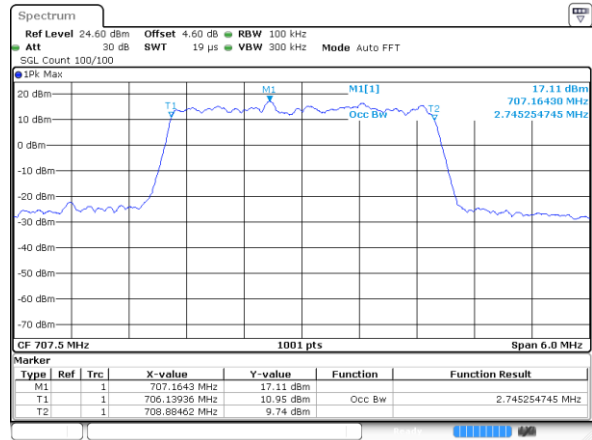


LTE Band 12

Middle Channel / 3MHz / QPSK

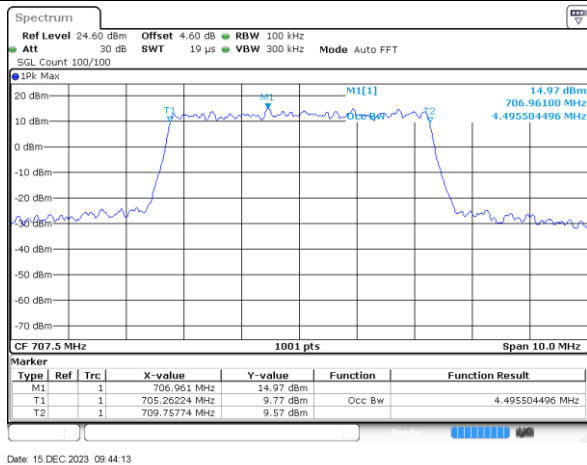


Middle Channel / 3MHz / 16QAM

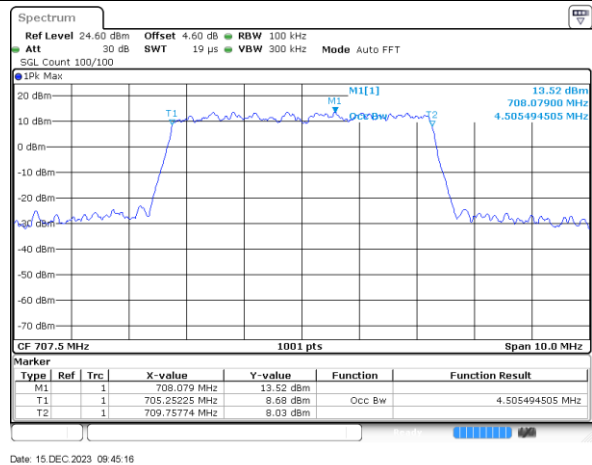


LTE Band 12

Middle Channel / 5MHz / QPSK

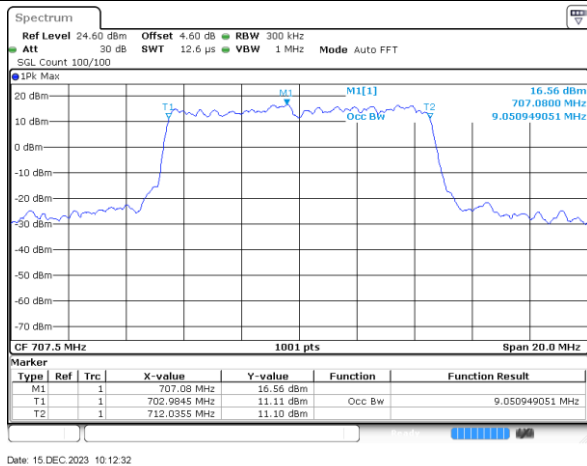


Middle Channel / 5MHz / 16QAM

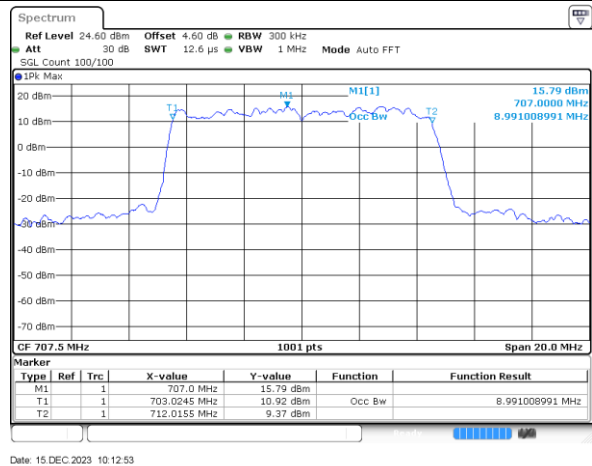


LTE Band 12

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

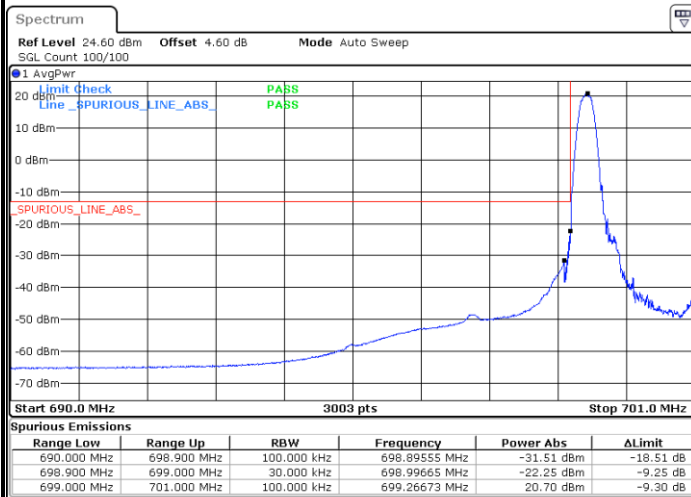




Conducted Band Edge

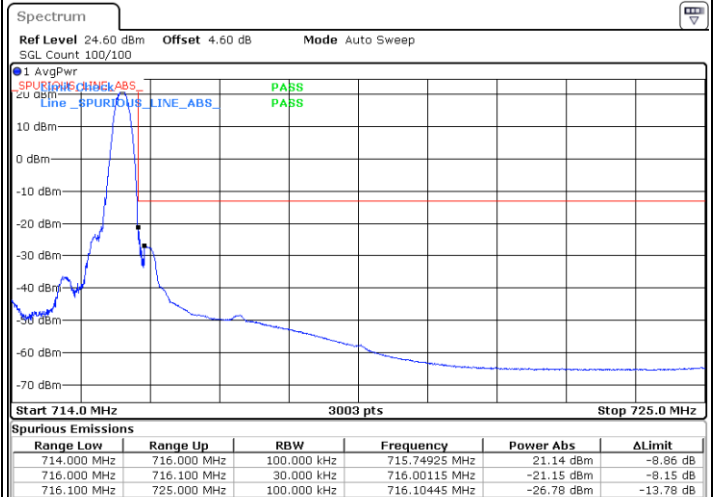
LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



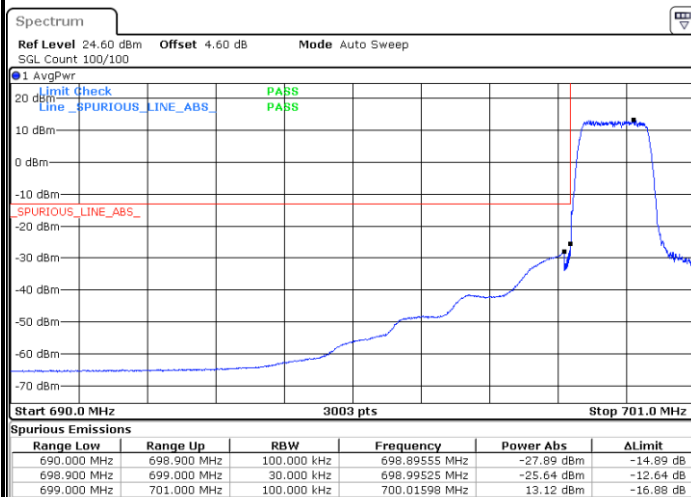
Date: 15 DEC 2023 09:02:15

Highest Band Edge / 1RB



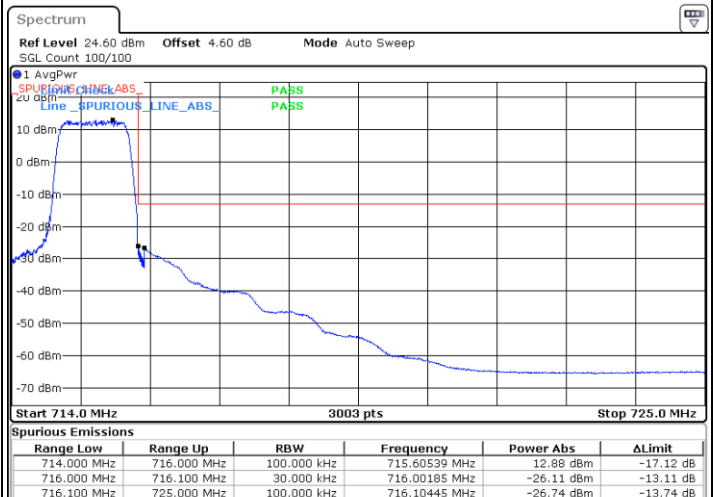
Date: 15 DEC 2023 09:13:16

Lowest Band Edge / Full RB



Date: 15 DEC 2023 09:06:29

Highest Band Edge / Full RB

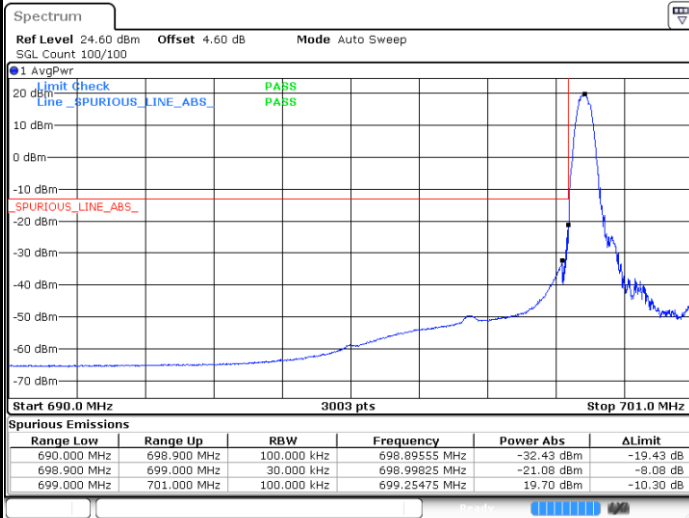


Date: 15 DEC 2023 09:17:30

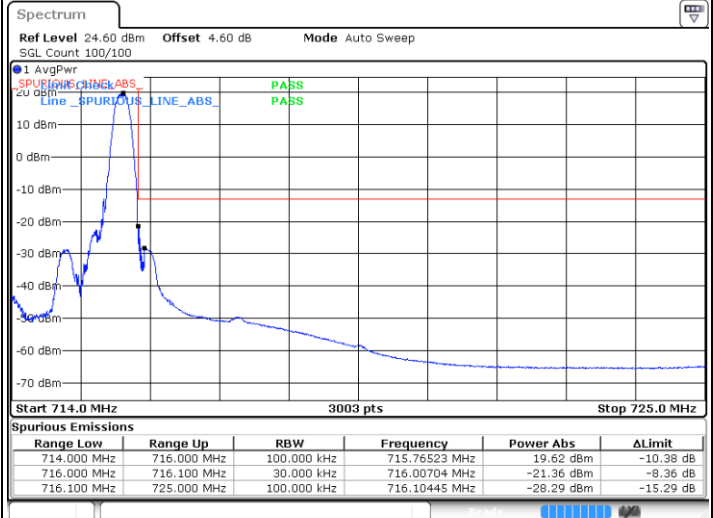


LTE Band 12 / 1.4MHz / 16QAM

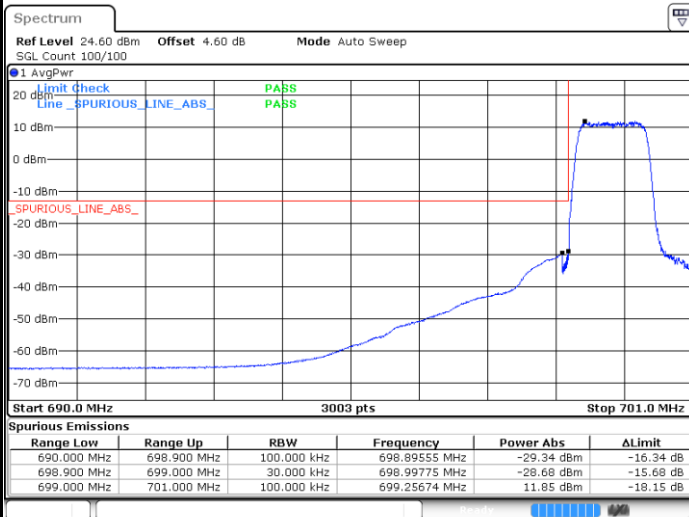
Lowest Band Edge / 1 RB



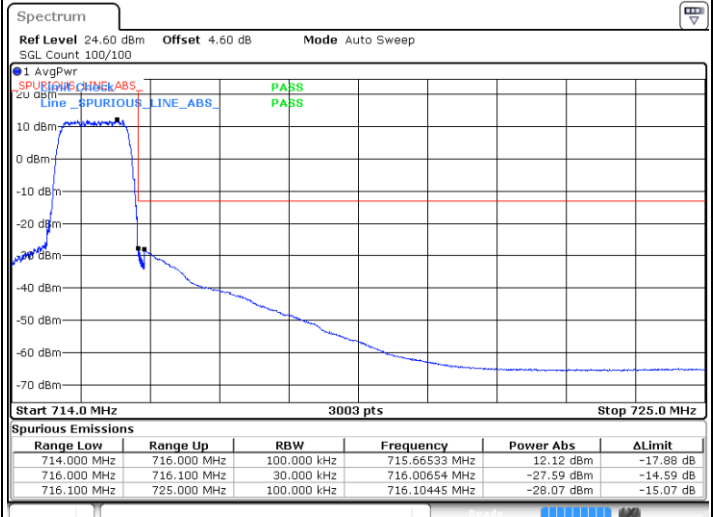
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



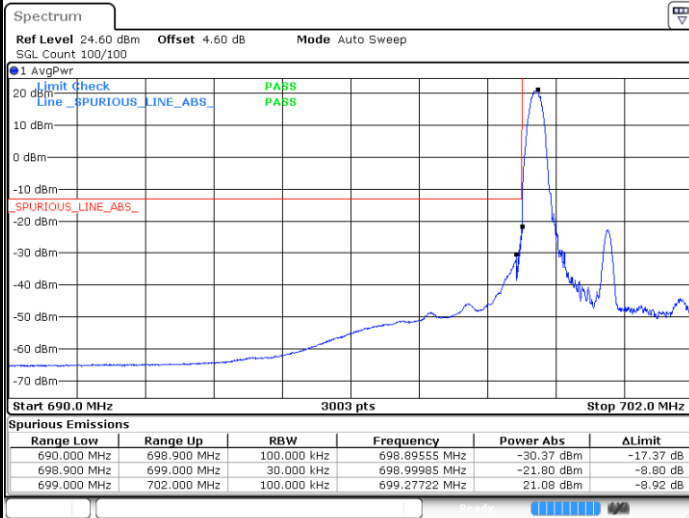
Highest Band Edge / Full RB



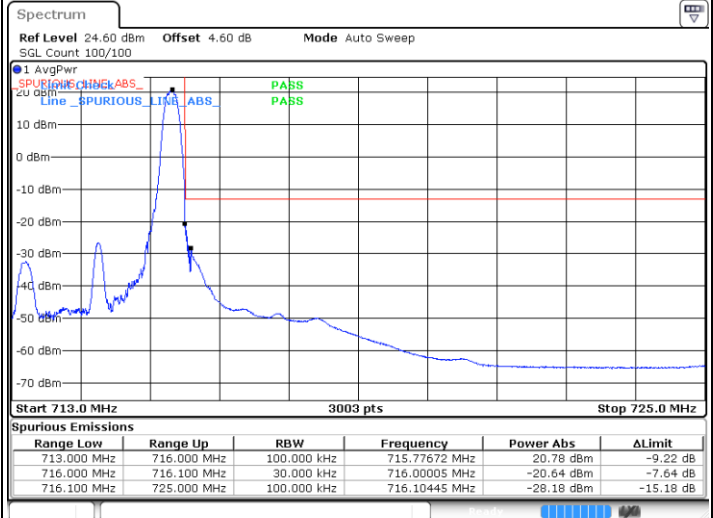


LTE Band 12 / 3MHz / QPSK

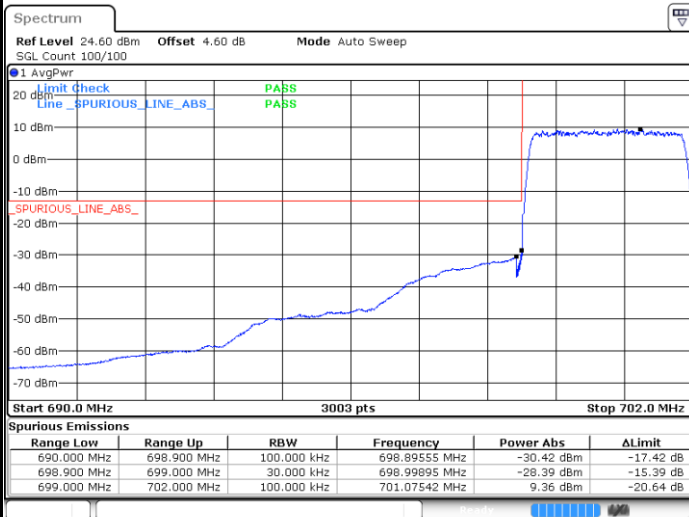
Lowest Band Edge / 1RB



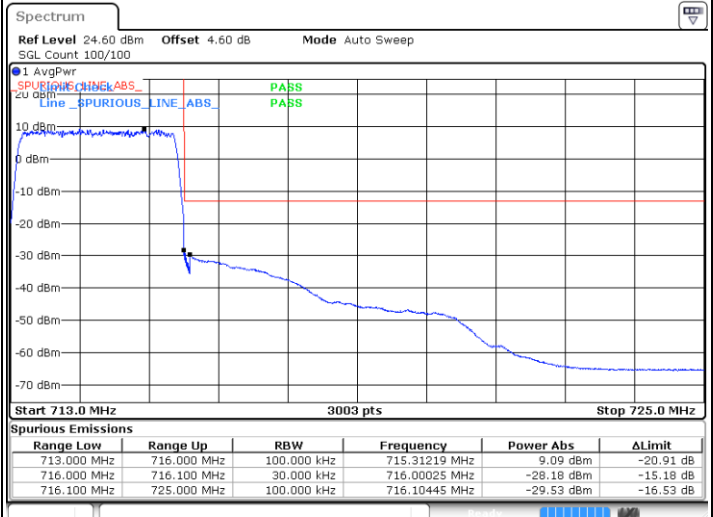
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



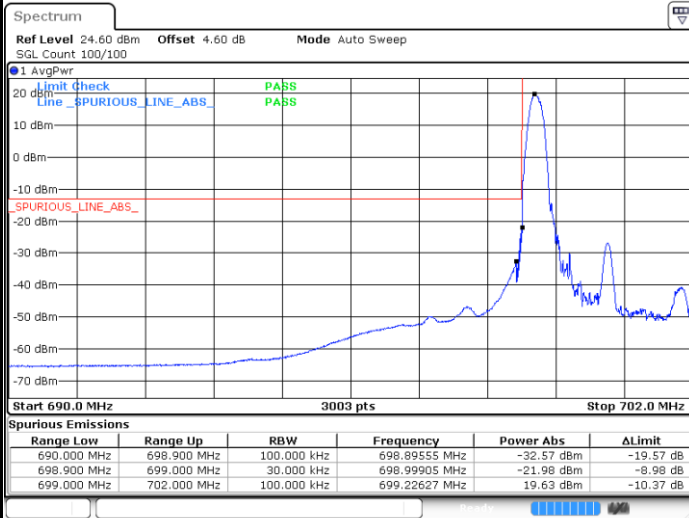
Highest Band Edge / Full RB



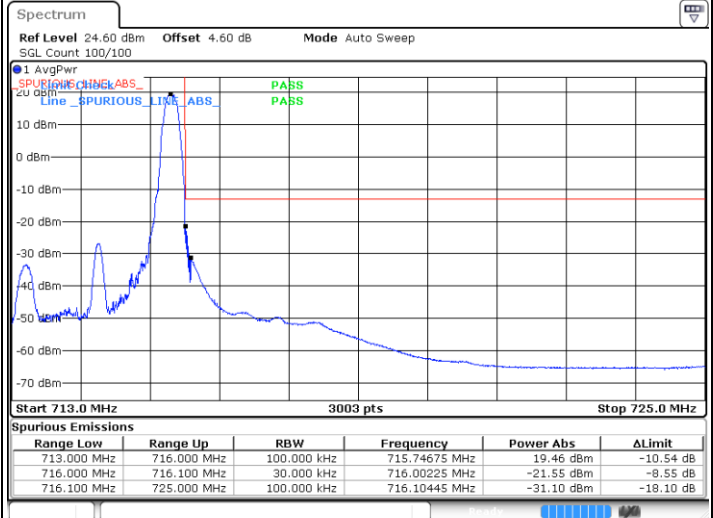


LTE Band 12 / 3MHz / 16QAM

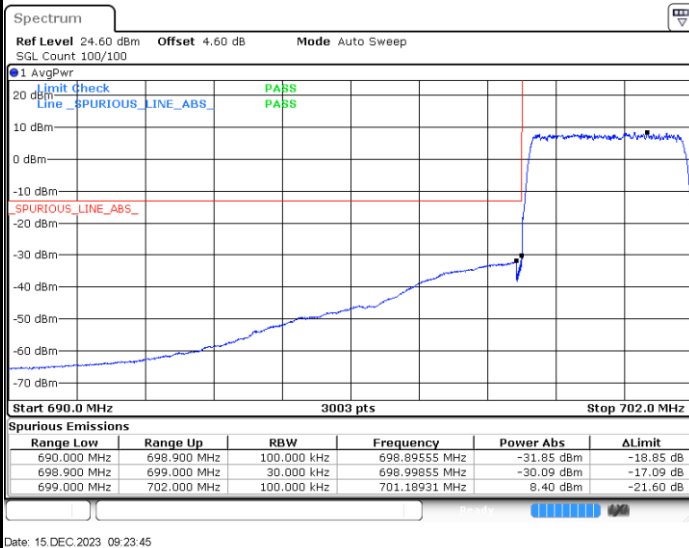
Lowest Band Edge / 1 RB



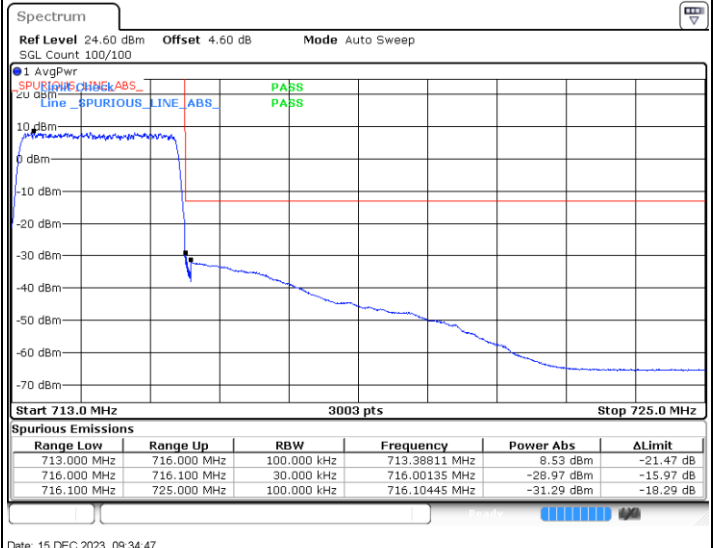
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



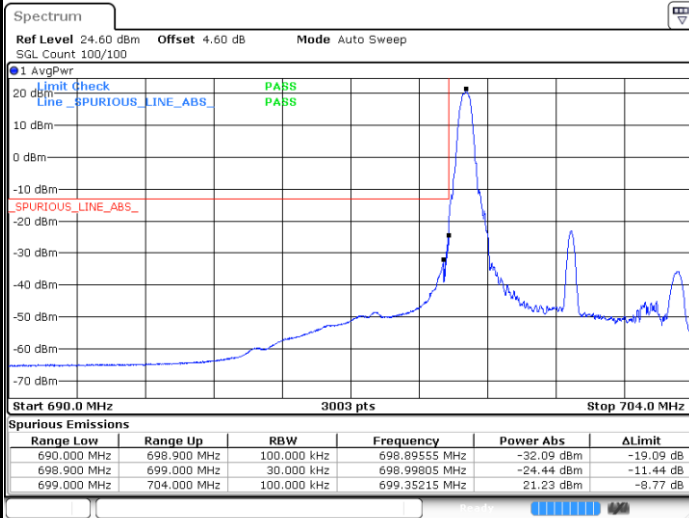
Highest Band Edge / Full RB



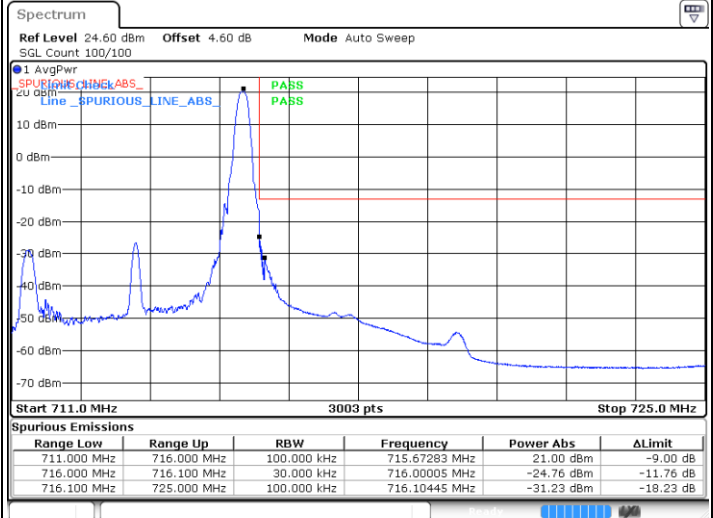


LTE Band 12 / 5MHz / QPSK

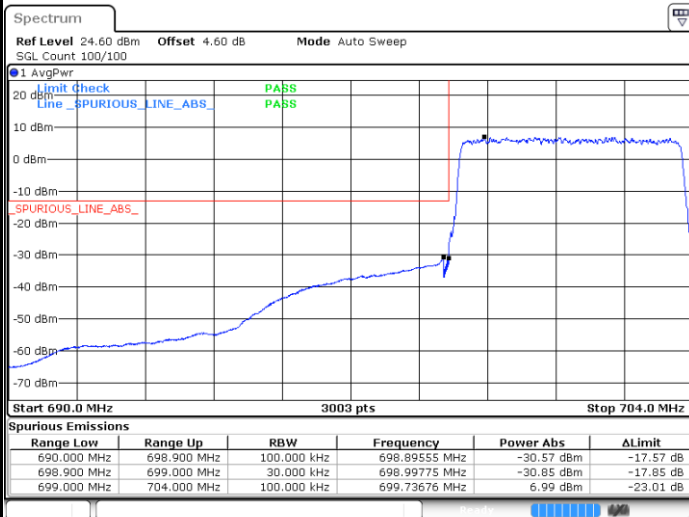
Lowest Band Edge / 1 RB



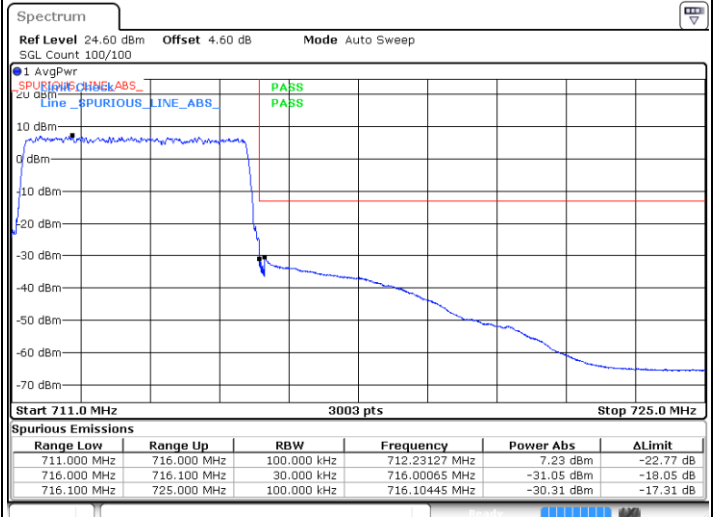
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



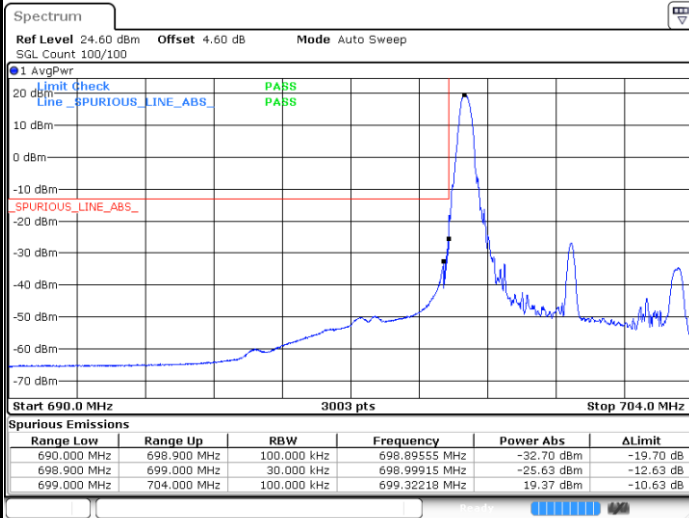
Highest Band Edge / Full RB



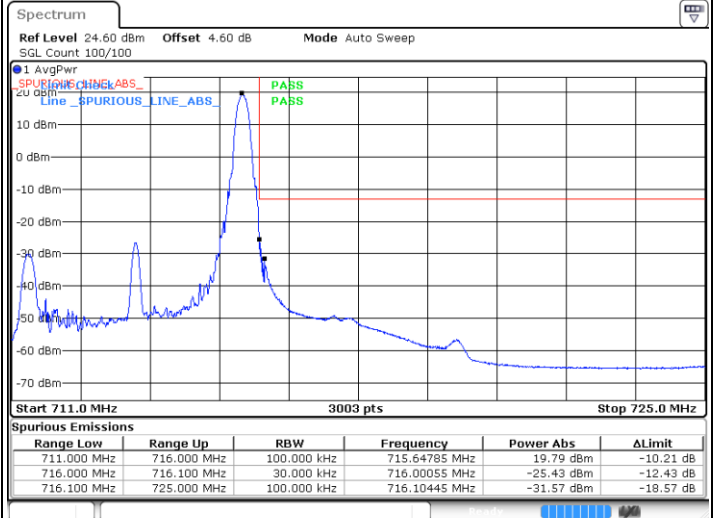


LTE Band 12 / 5MHz / 16QAM

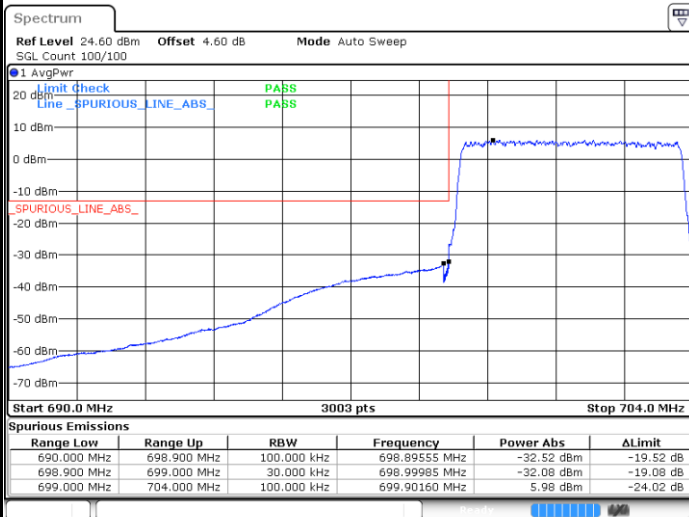
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

