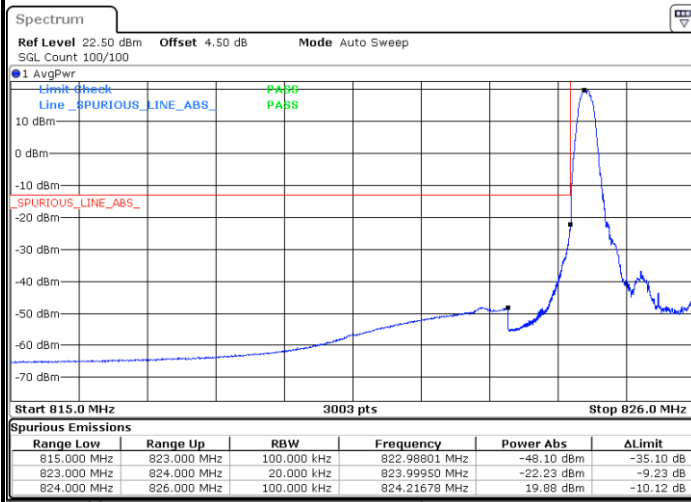


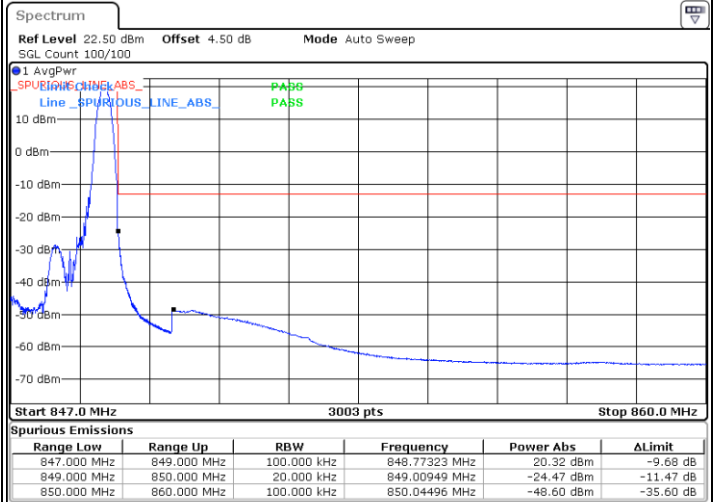


LTE Band 5 / 1.4MHz / 16QAM

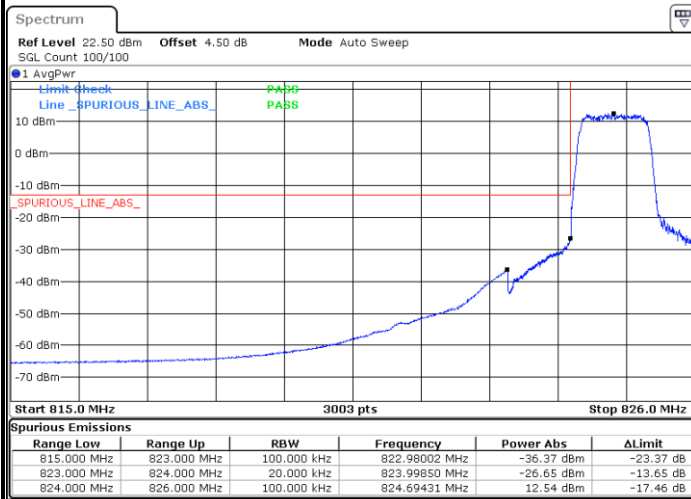
Lowest Band Edge / 1 RB



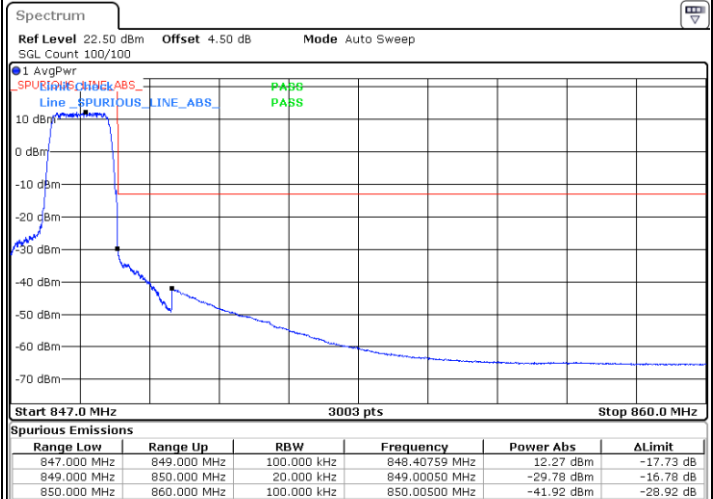
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



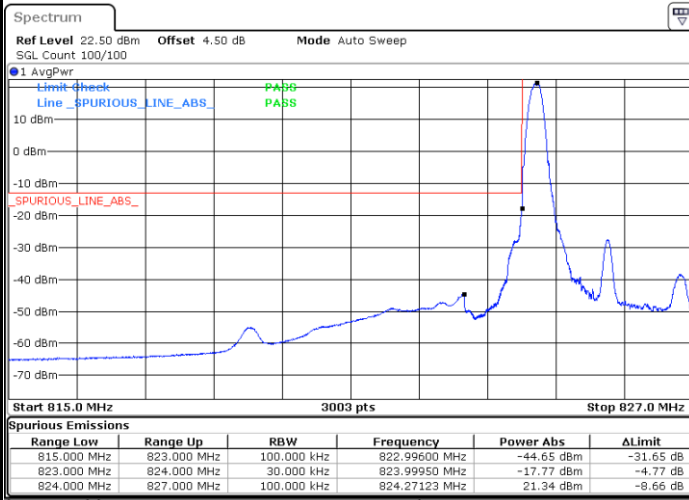
Highest Band Edge / Full RB



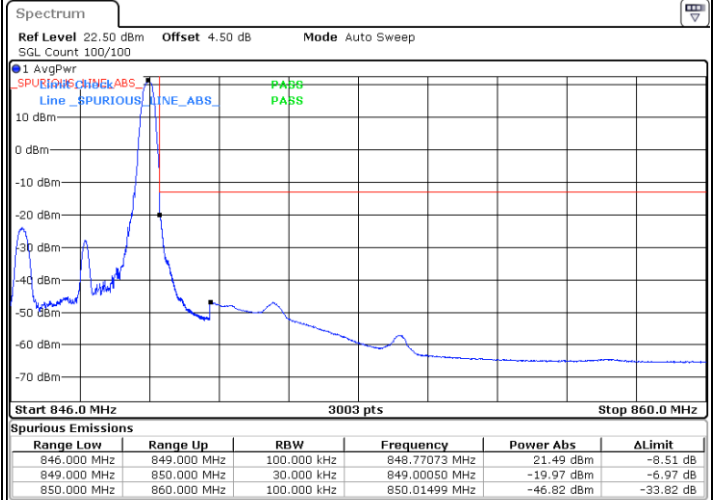


LTE Band 5 / 3MHz / QPSK

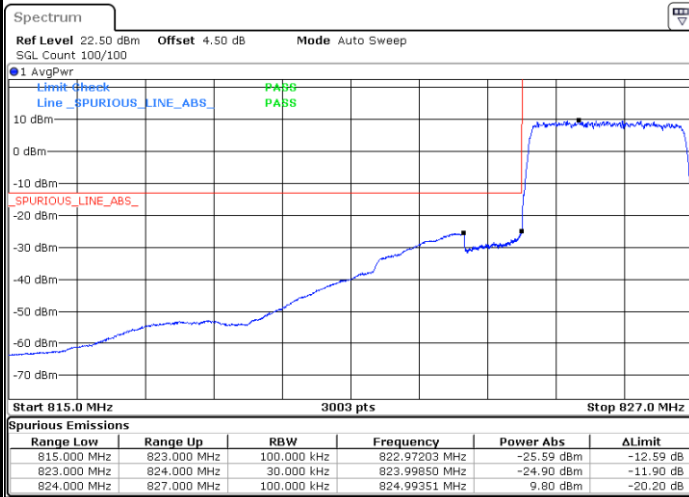
Lowest Band Edge / 1RB



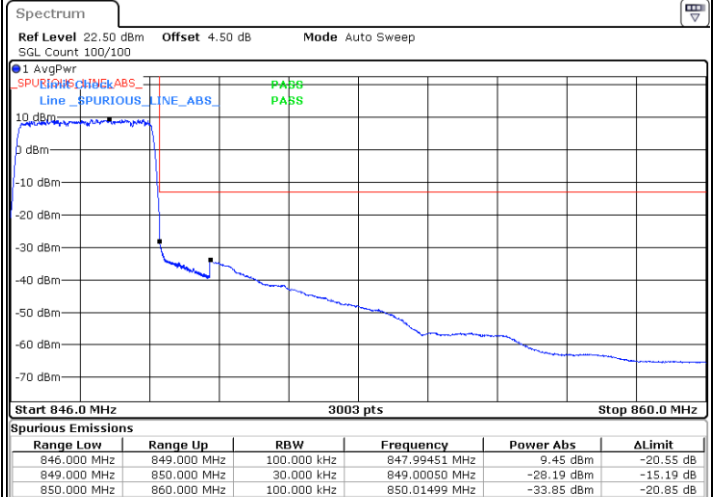
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



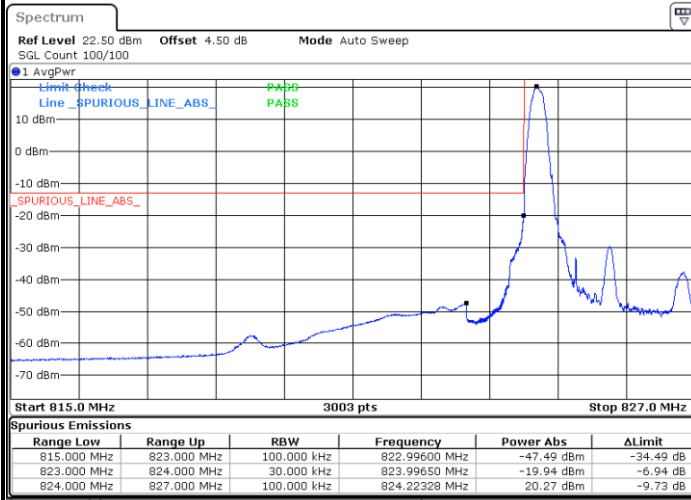
Highest Band Edge / Full RB



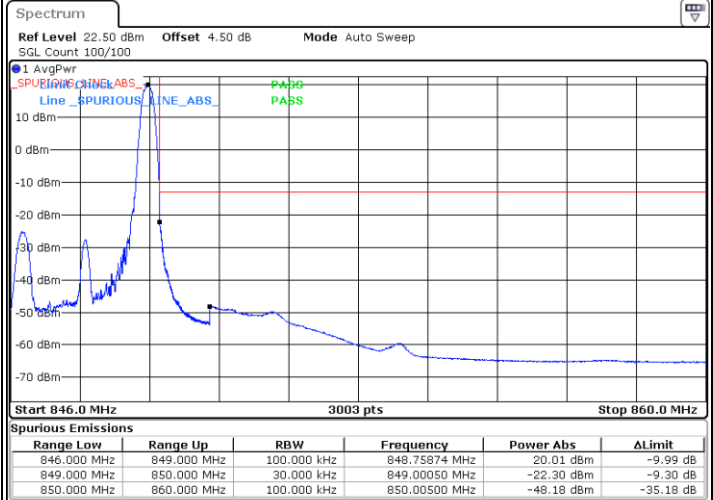


LTE Band 5 / 3MHz / 16QAM

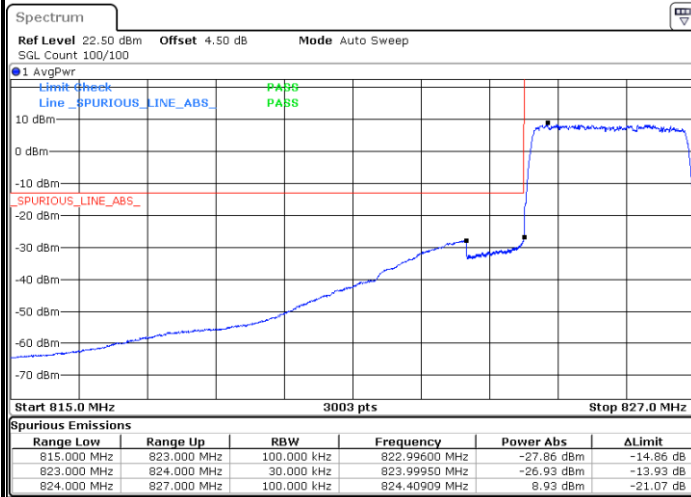
Lowest Band Edge / 1 RB



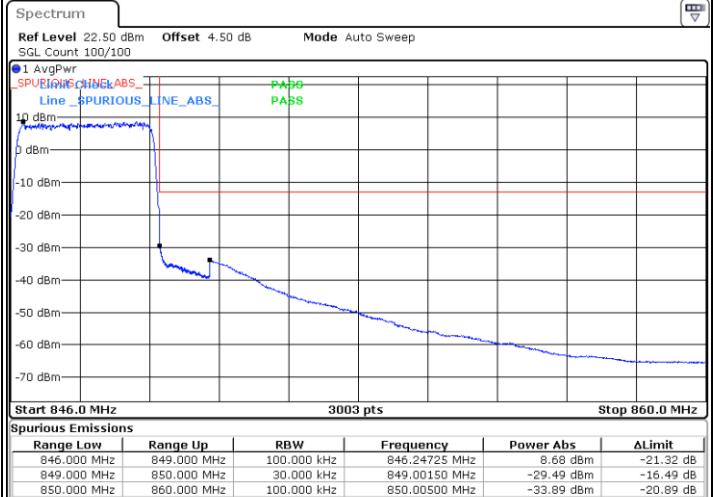
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



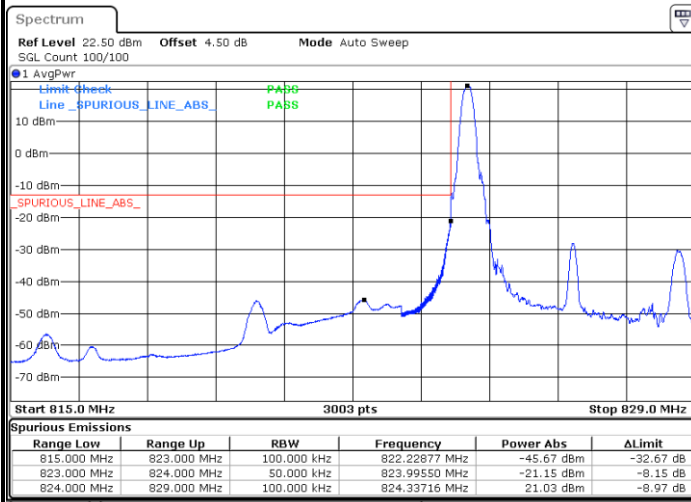
Highest Band Edge / Full RB



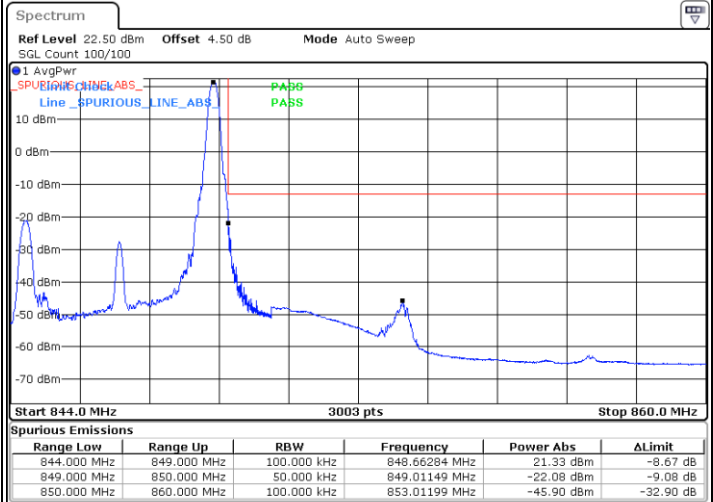


LTE Band 5 / 5MHz / QPSK

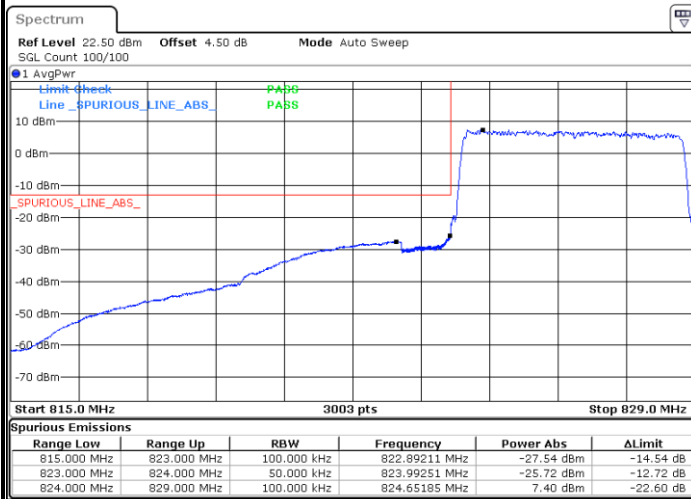
Lowest Band Edge / 1 RB



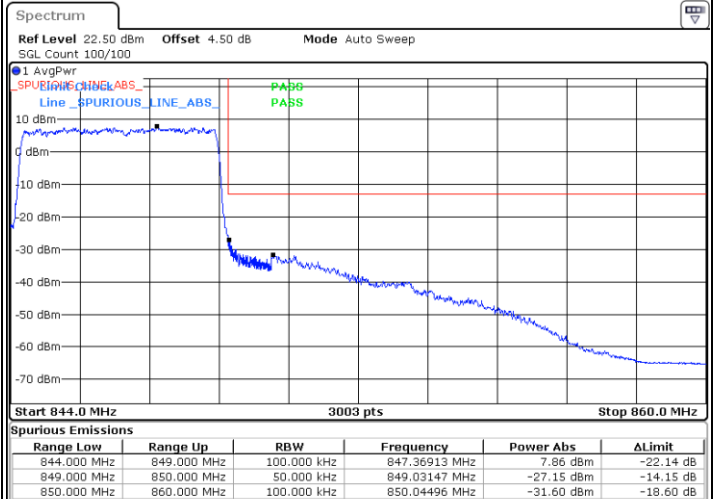
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



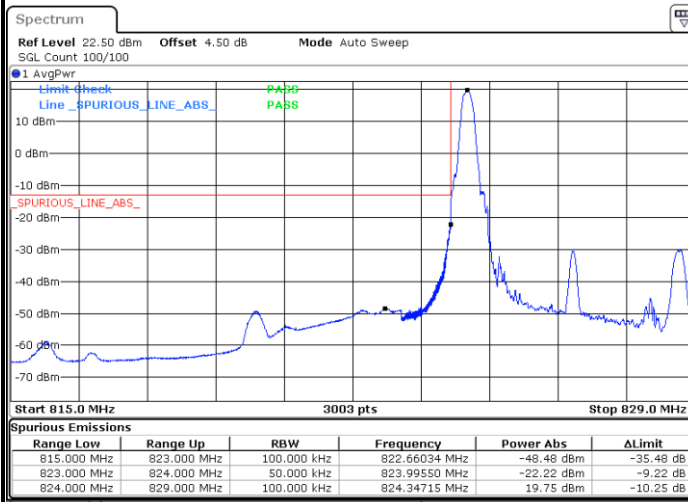
Highest Band Edge / Full RB



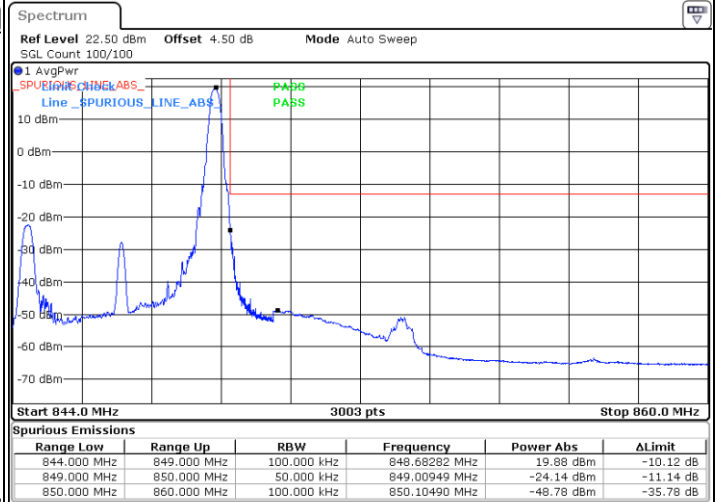


LTE Band 5 / 5MHz / 16QAM

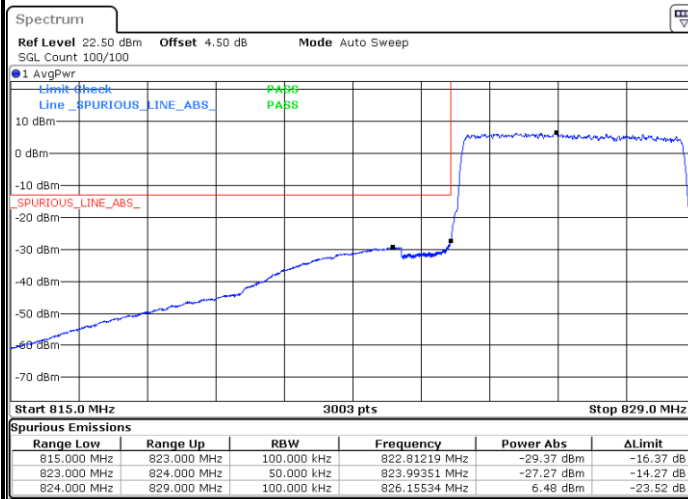
Lowest Band Edge / 1RB



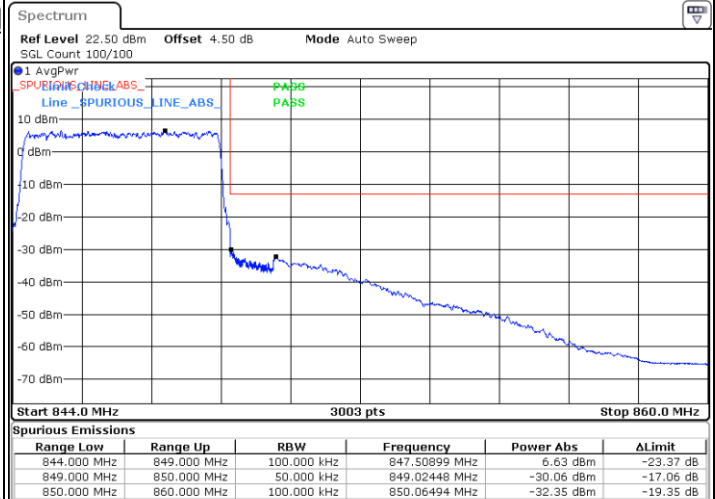
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



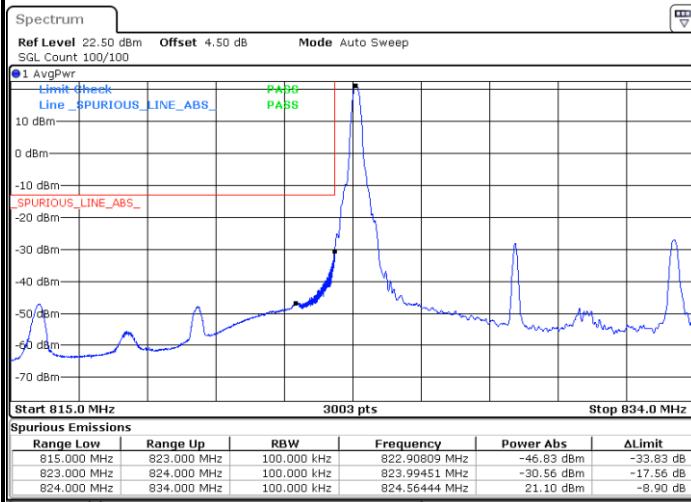
Highest Band Edge / Full RB



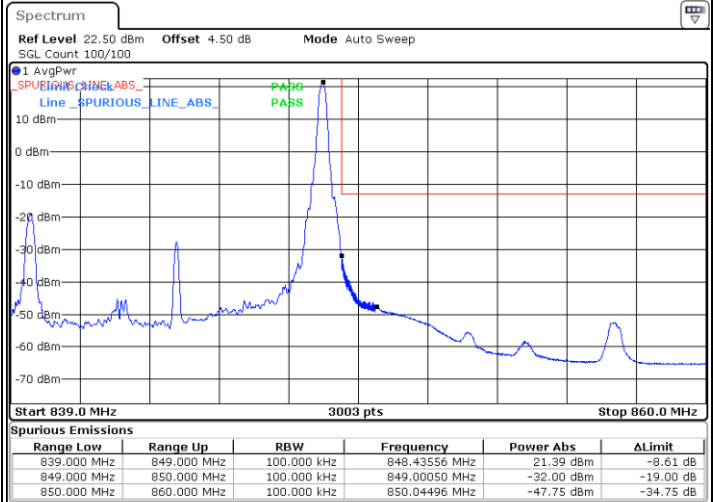


LTE Band 5 / 10MHz / QPSK

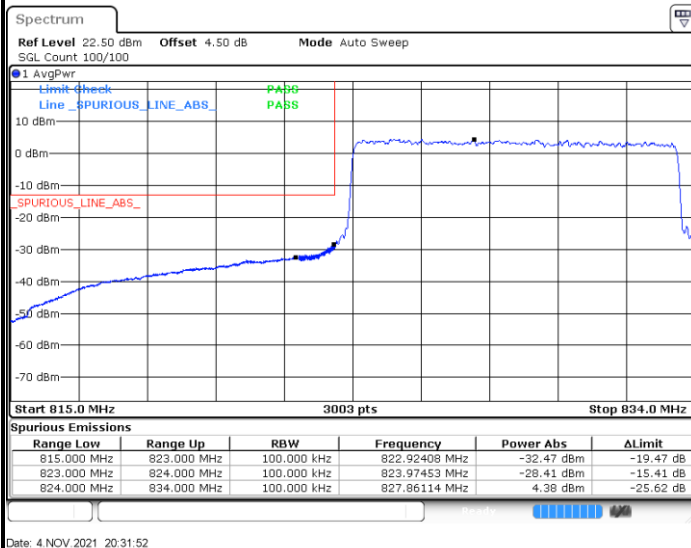
Lowest Band Edge / 1 RB



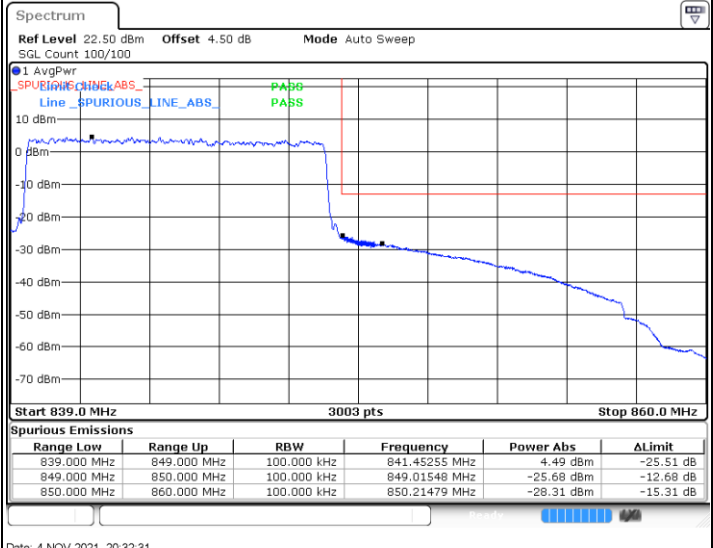
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



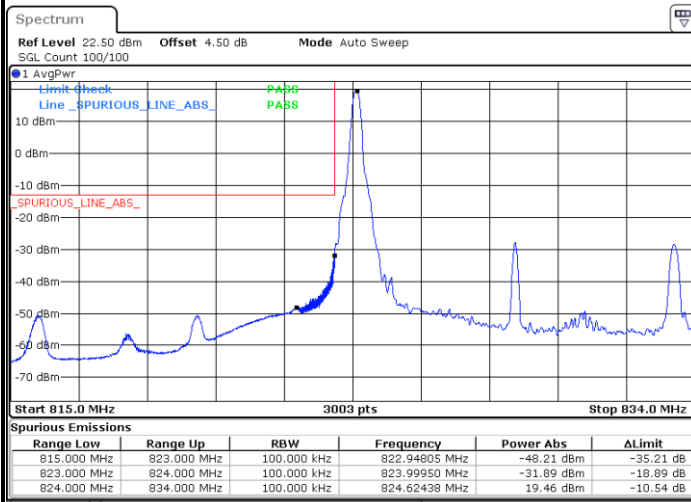
Highest Band Edge / Full RB



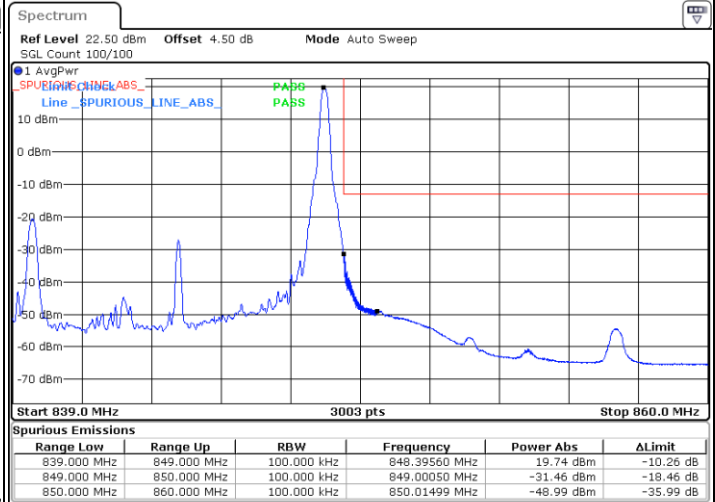


LTE Band 5 / 10MHz / 16QAM

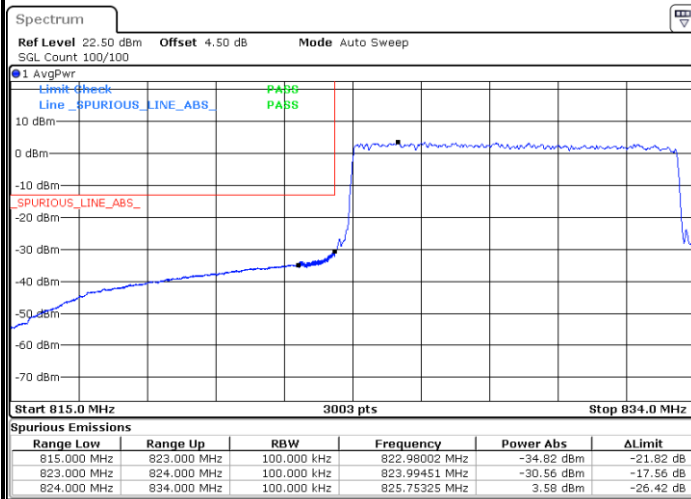
Lowest Band Edge / 1 RB



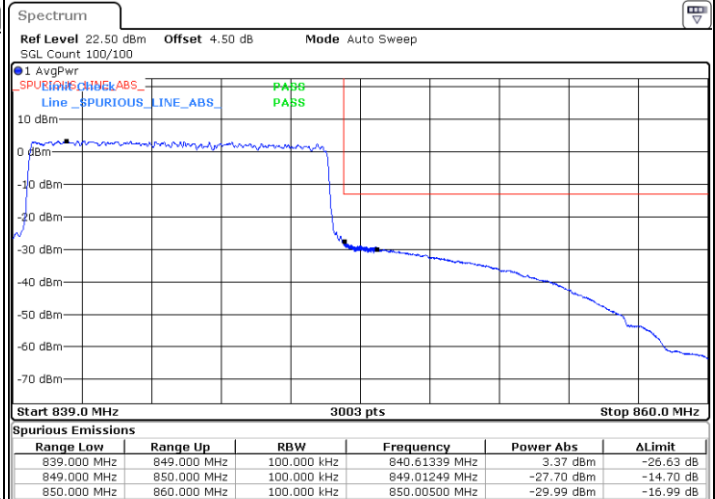
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

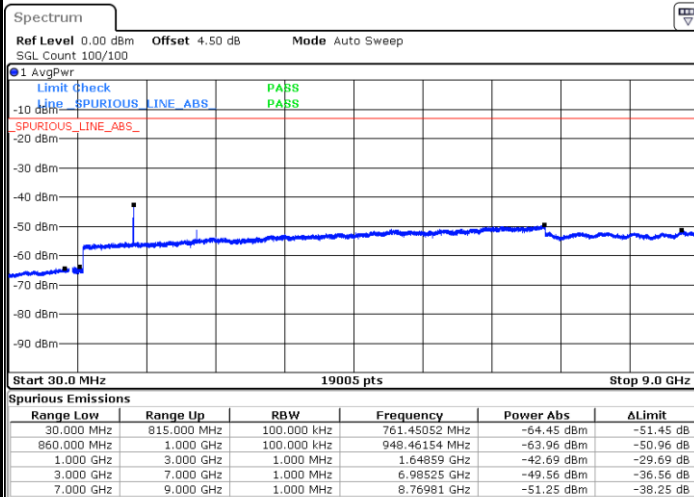




Conducted Spurious Emission

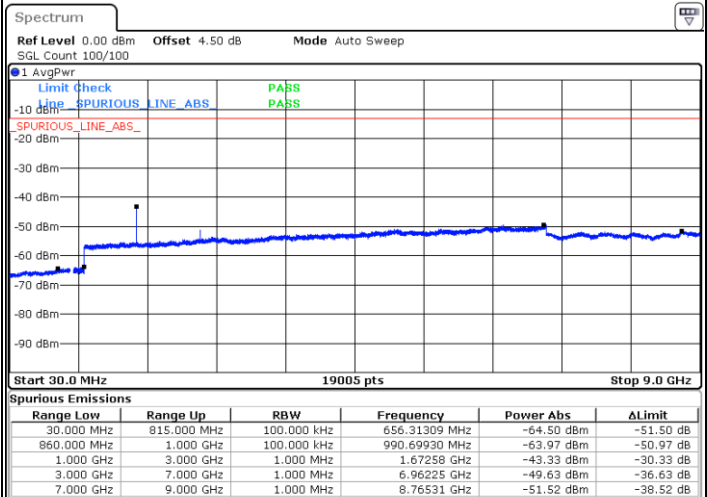
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



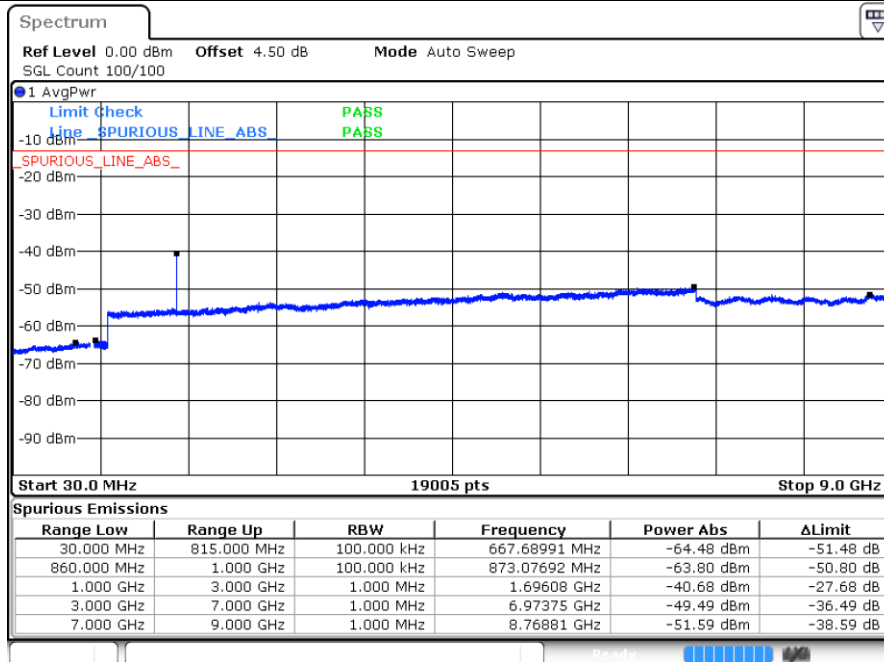
Date: 4.NOV.2021 20:59:30

Middle Channel / QPSK



Date: 4.NOV.2021 20:58:25

Highest Channel / QPSK

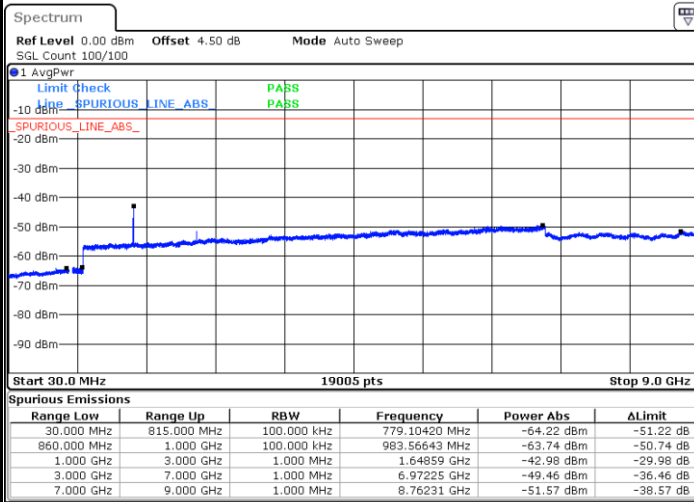


Date: 4.NOV.2021 21:06:17



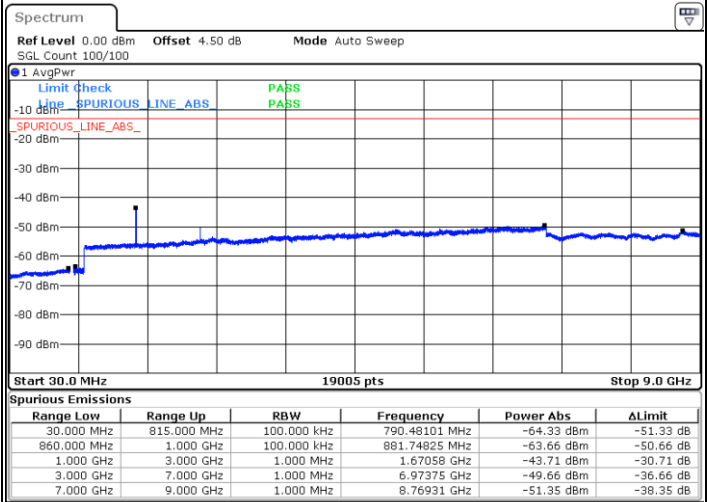
LTE Band 5 / 3MHz

Lowest Channel / QPSK



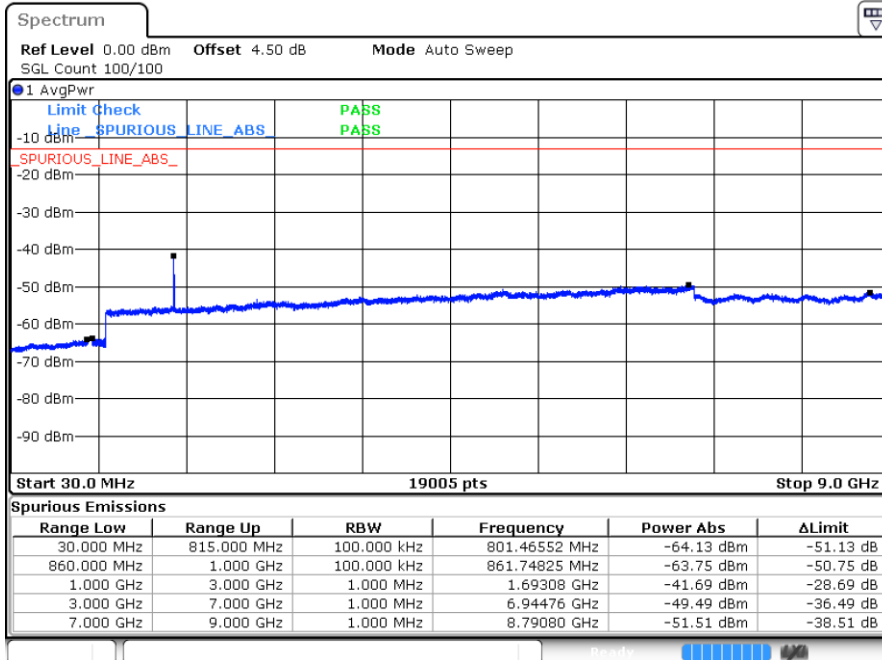
Date: 4 NOV. 2021 20:47:31

Middle Channel / QPSK



Date: 4 NOV. 2021 20:48:20

Highest Channel / QPSK

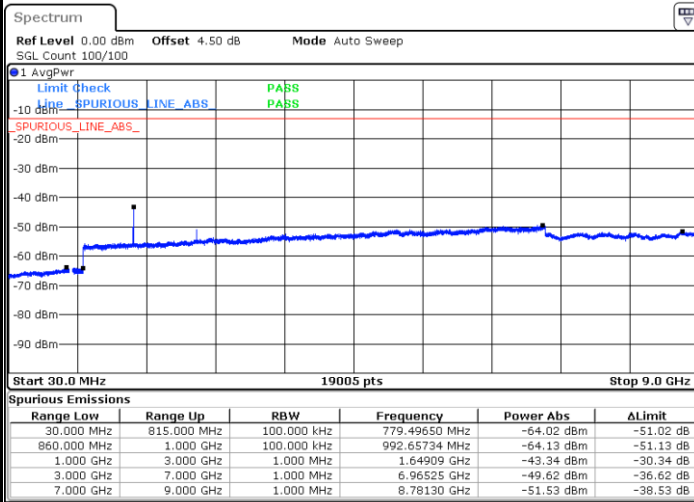


Date: 4 NOV. 2021 20:52:38



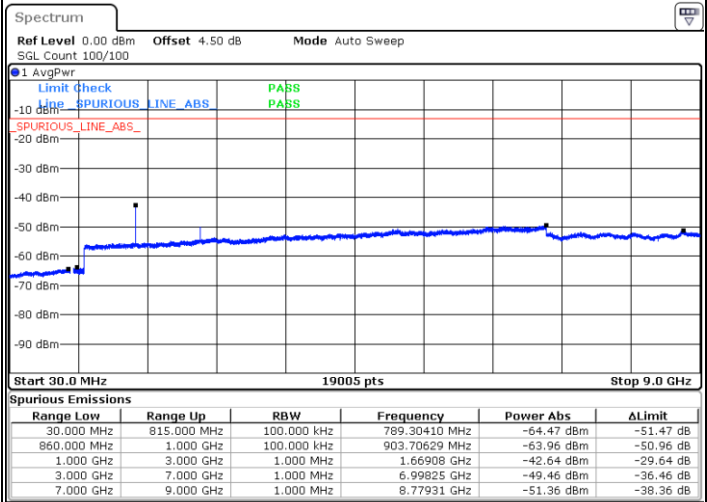
LTE Band 5 / 5MHz

Lowest Channel / QPSK



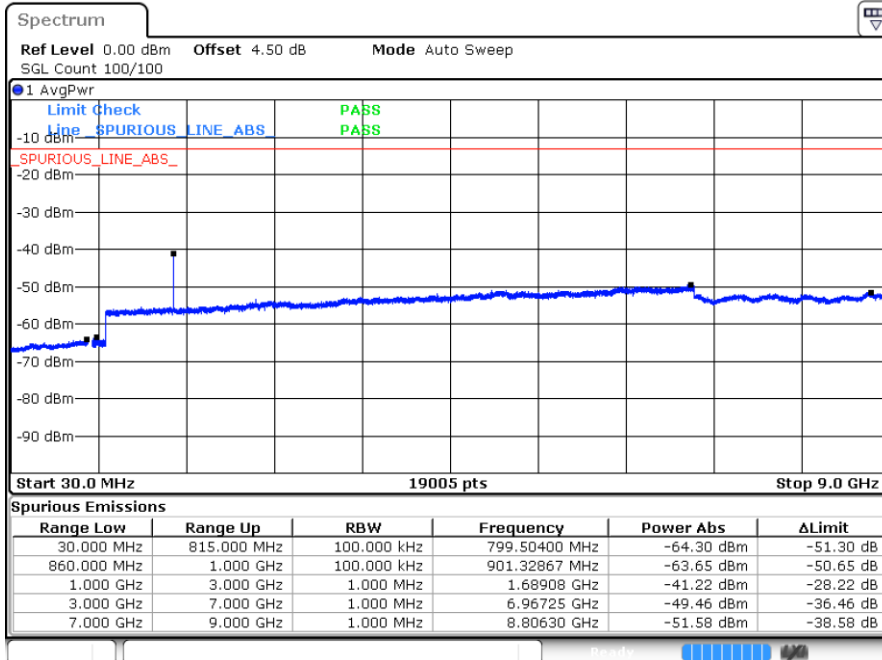
Date: 4 NOV. 2021 20:37:49

Middle Channel / QPSK



Date: 4 NOV. 2021 20:36:41

Highest Channel / QPSK

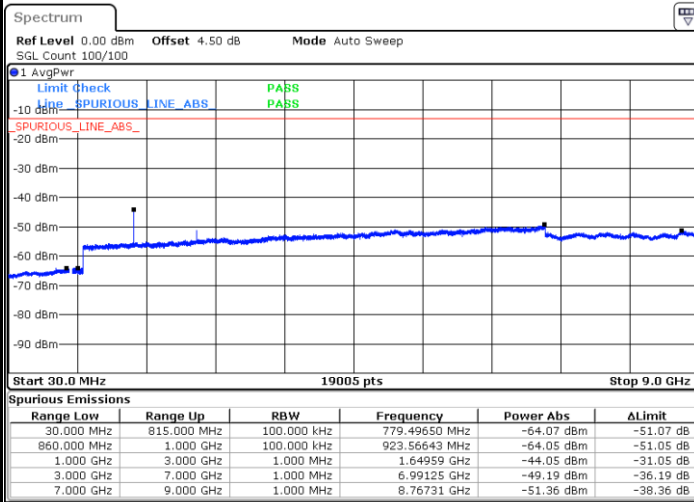


Date: 4 NOV. 2021 20:41:55



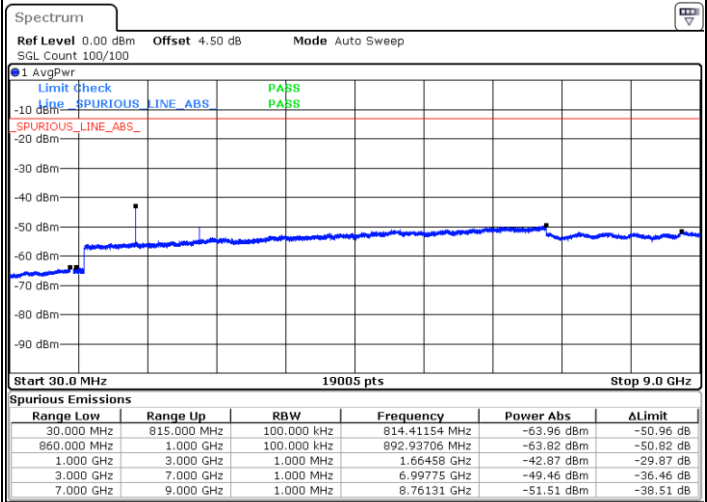
LTE Band 5 / 10MHz

Lowest Channel / QPSK



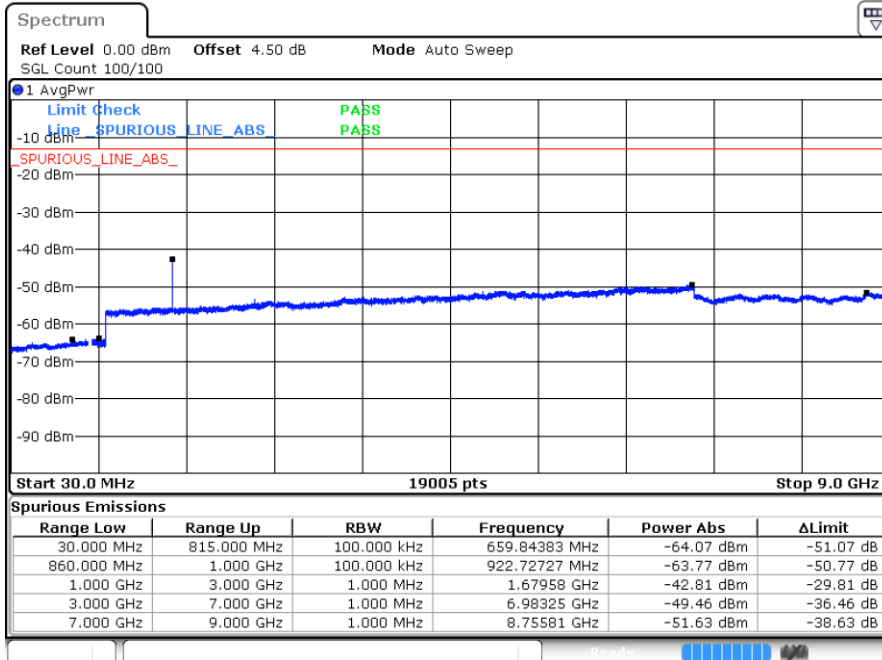
Date: 4 NOV. 2021 20:28:20

Middle Channel / QPSK



Date: 4 NOV. 2021 20:25:05

Highest Channel / QPSK



Date: 4 NOV. 2021 20:35:34

**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	0.0006	PASS
40	Normal Voltage	0.0017	
30	Normal Voltage	0.0033	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0020	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0039	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0020	
20	End Point	0.0032	

Note:

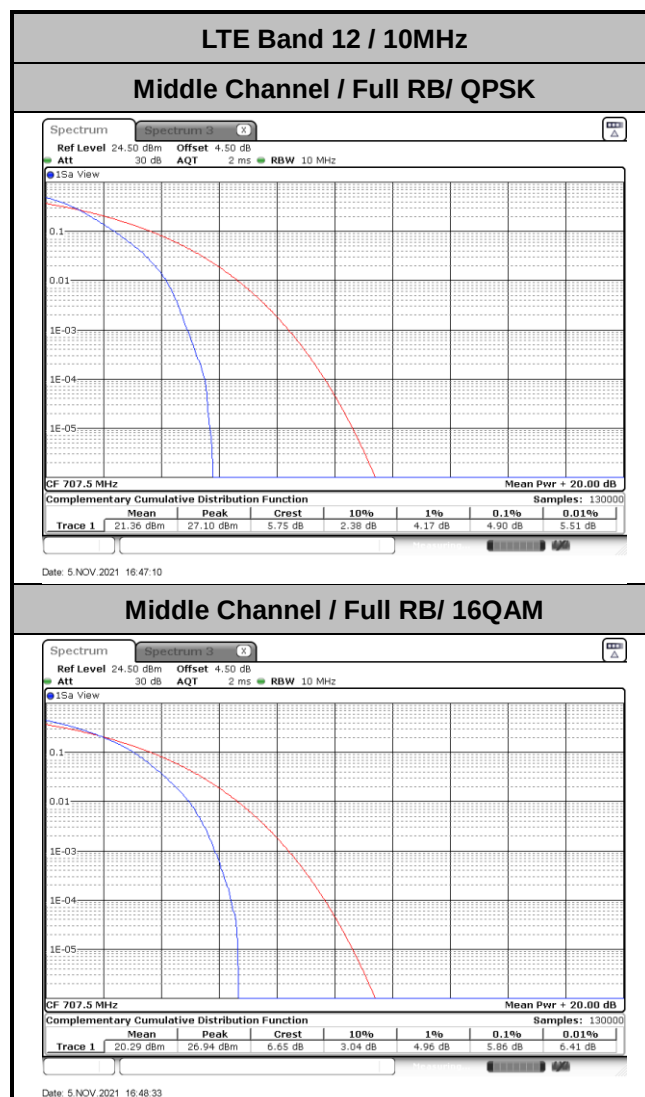
1. Normal Voltage =13 V. ; End Point (BEP) =12 V. ; Maximum Voltage =20 V.



LTE Band 12

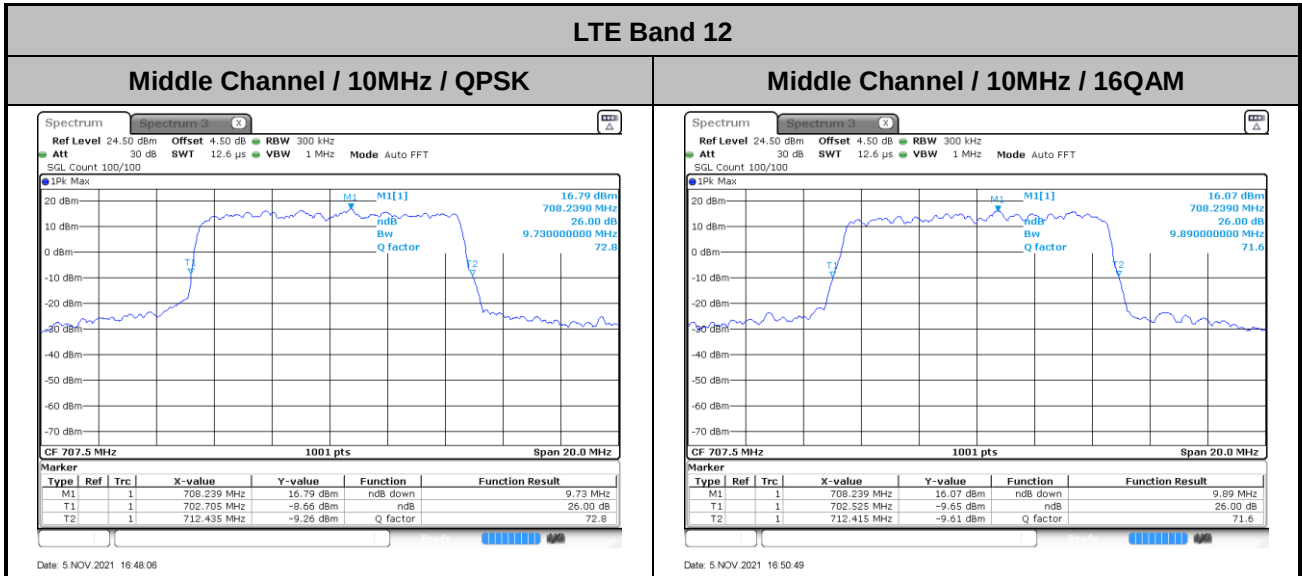
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.90	5.86	PASS



**26dB Bandwidth**

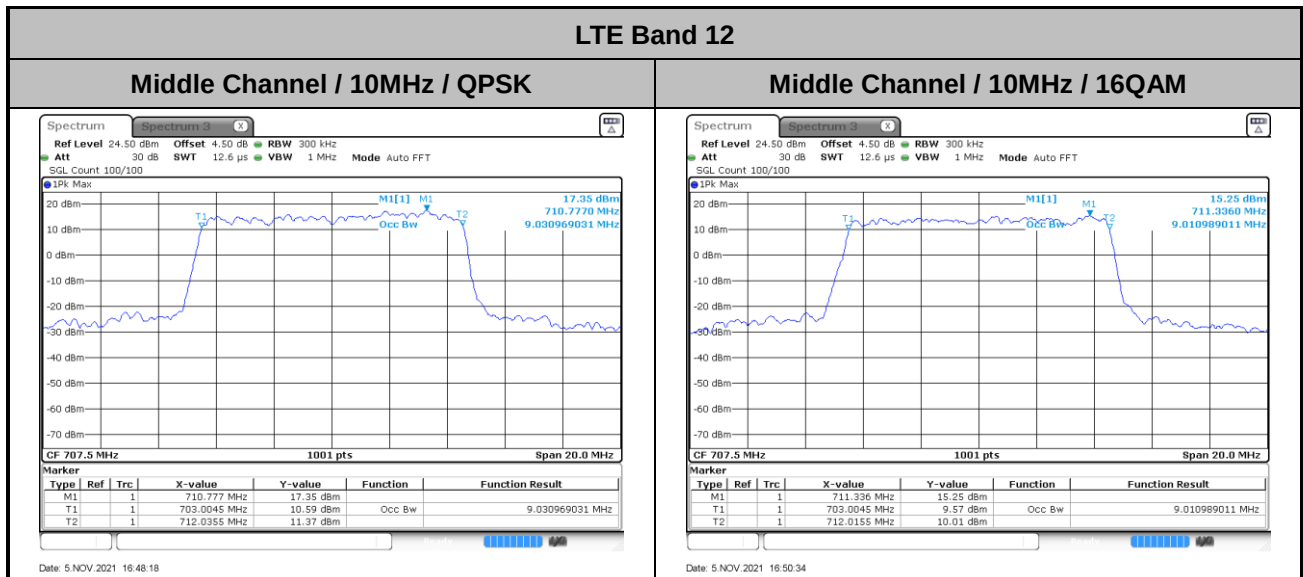
Mode	LTE Band 12 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.73	9.89





Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.03	9.01

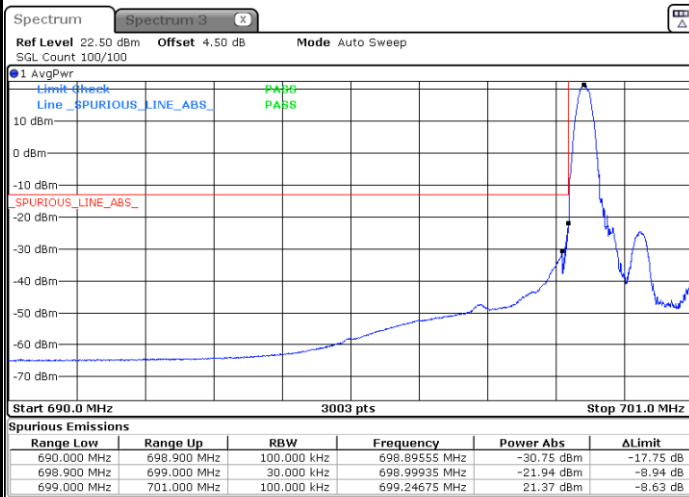




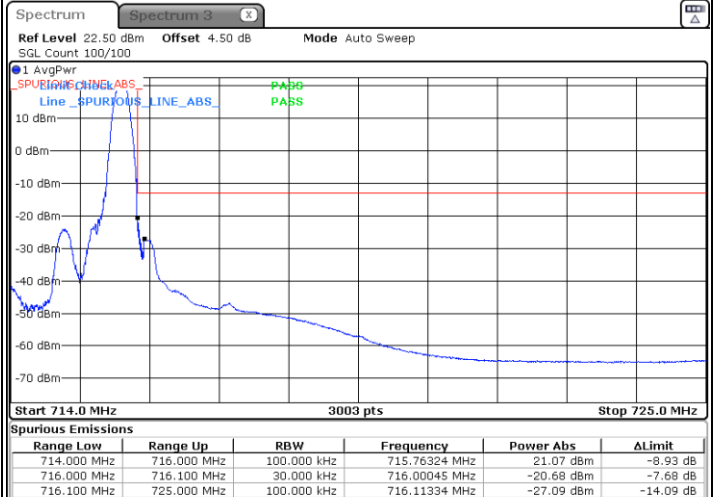
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

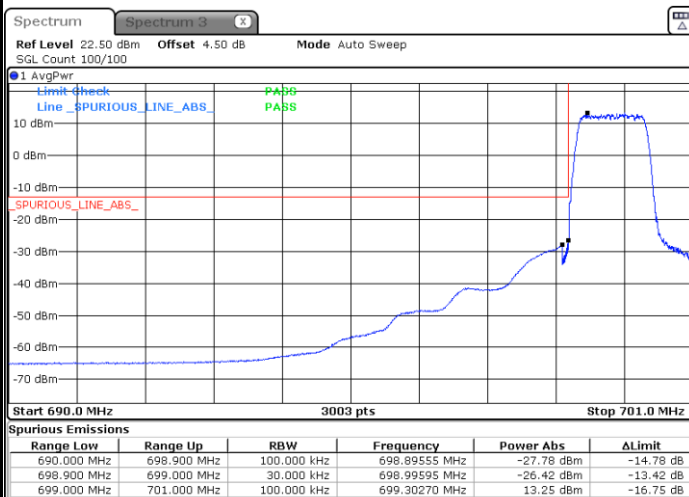
Lowest Band Edge / 1RB



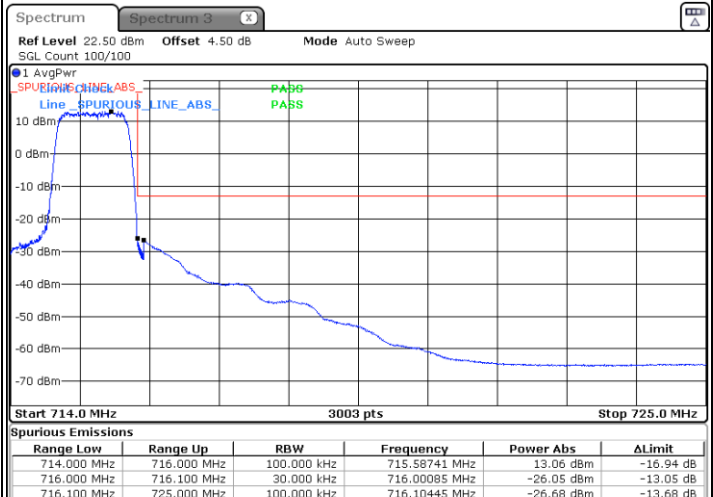
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



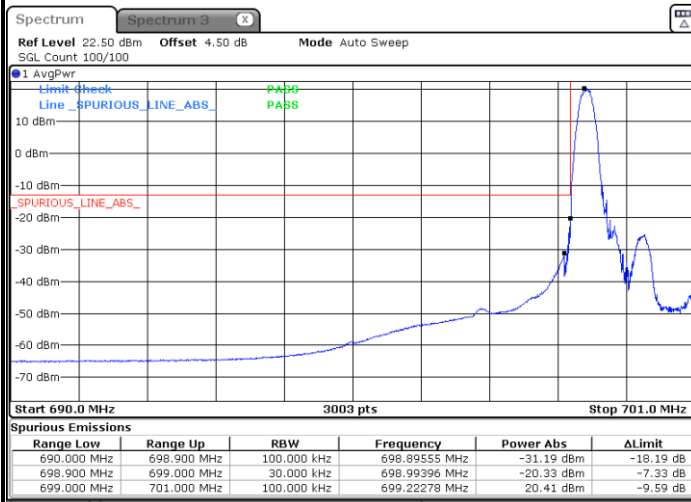
Highest Band Edge / Full RB



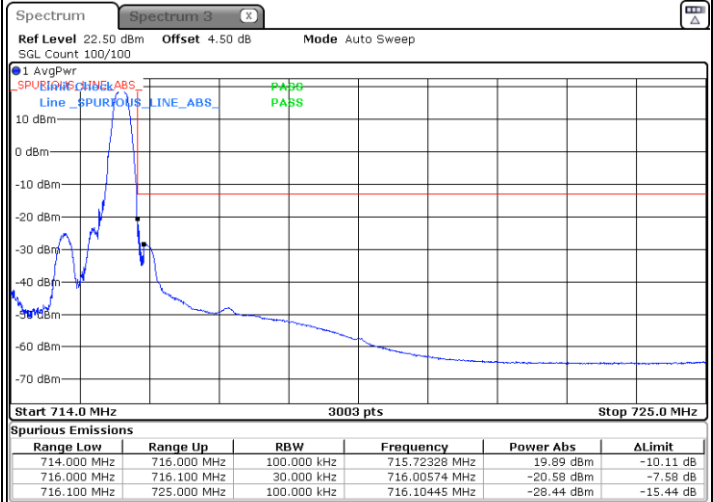


LTE Band 12 / 1.4MHz / 16QAM

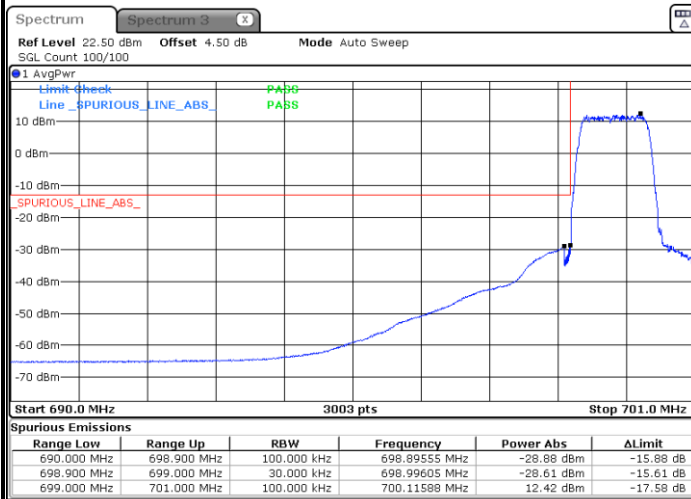
Lowest Band Edge / 1 RB



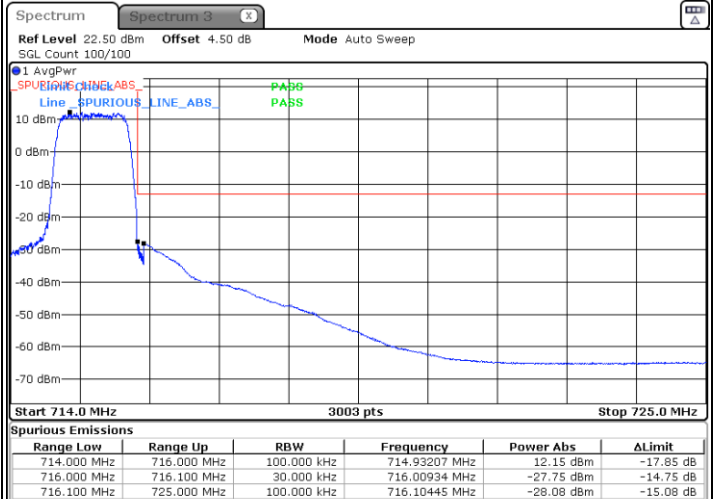
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



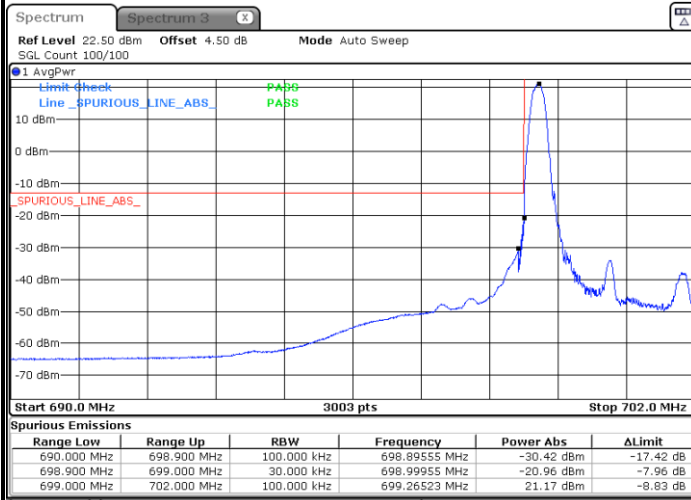
Highest Band Edge / Full RB



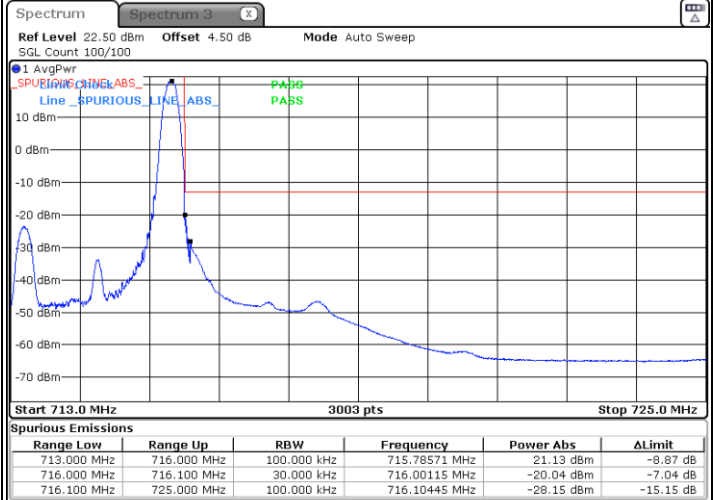


LTE Band 12 / 3MHz / QPSK

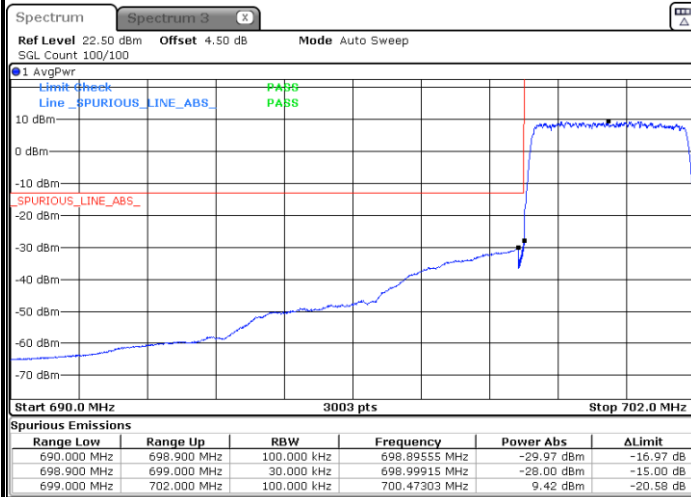
Lowest Band Edge / 1RB



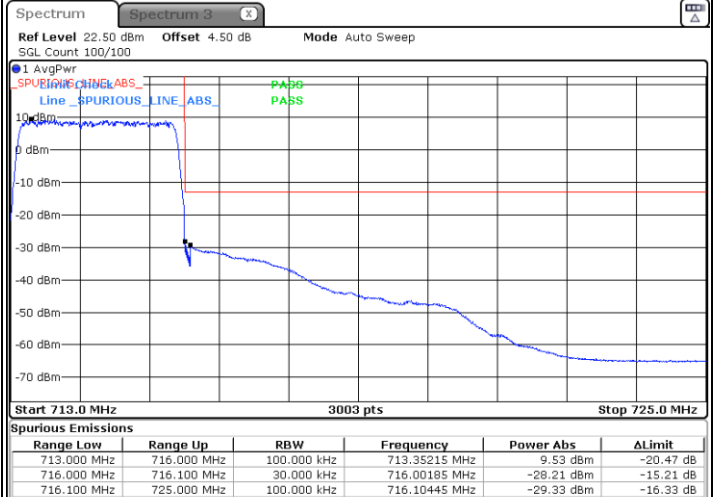
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



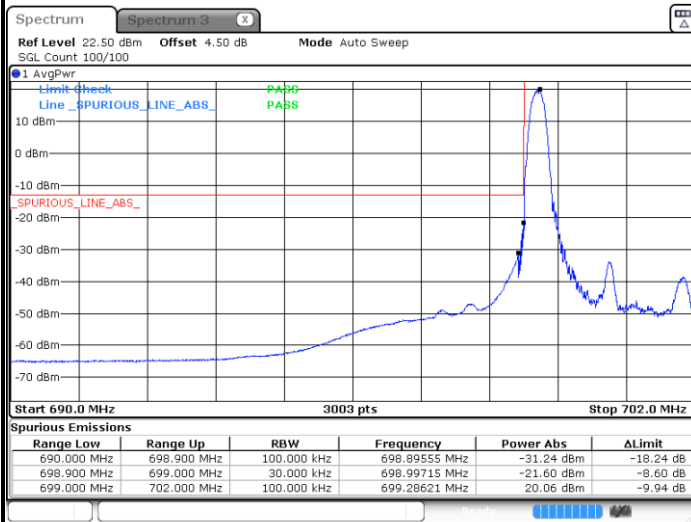
Highest Band Edge / Full RB



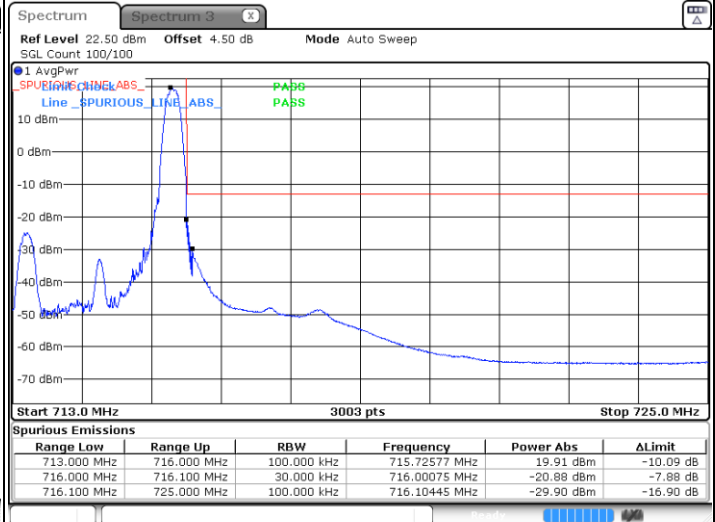


LTE Band 12 / 3MHz / 16QAM

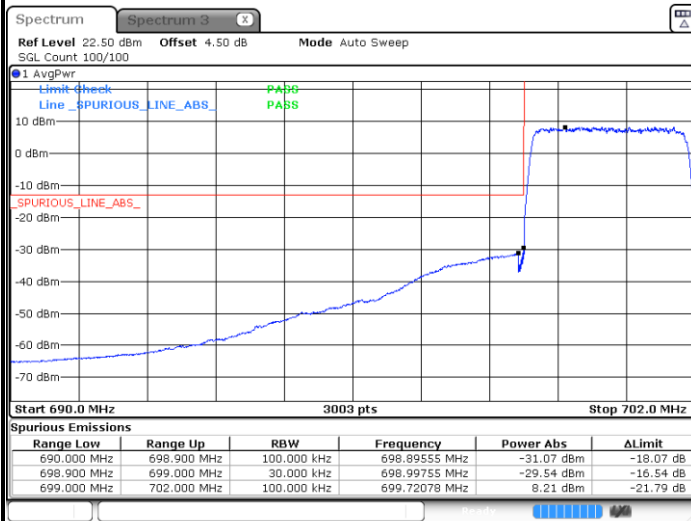
Lowest Band Edge / 1 RB



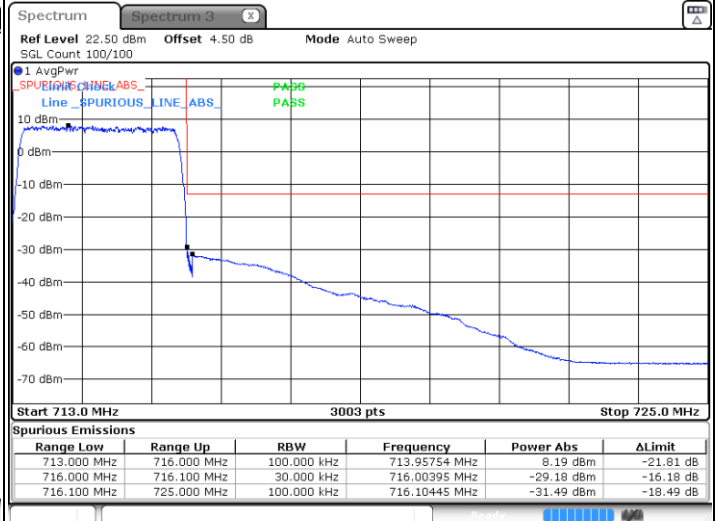
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



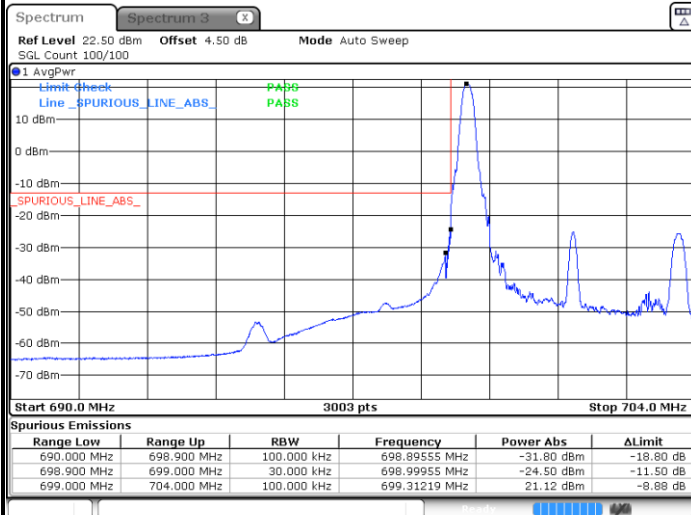
Highest Band Edge / Full RB



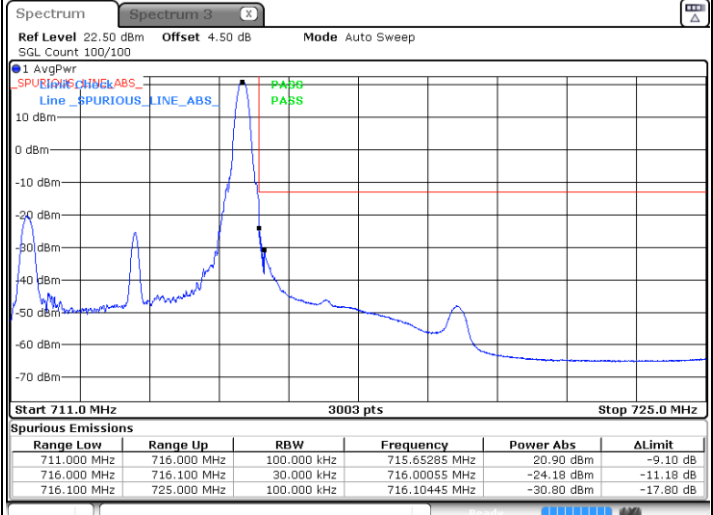


LTE Band 12 / 5MHz / QPSK

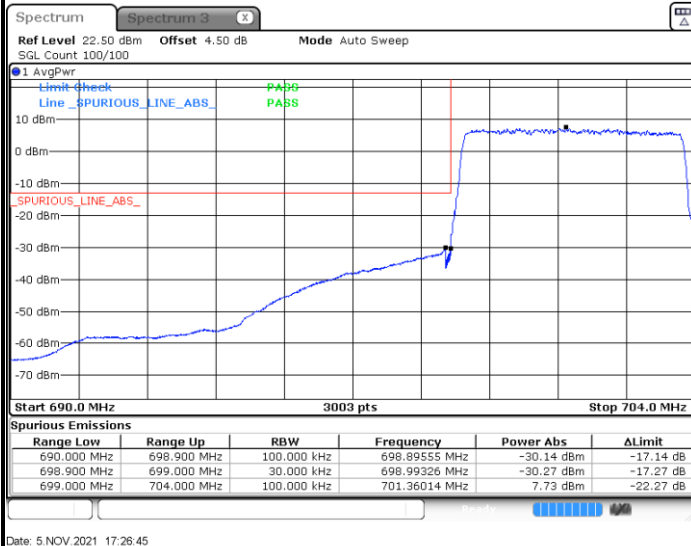
Lowest Band Edge / 1 RB



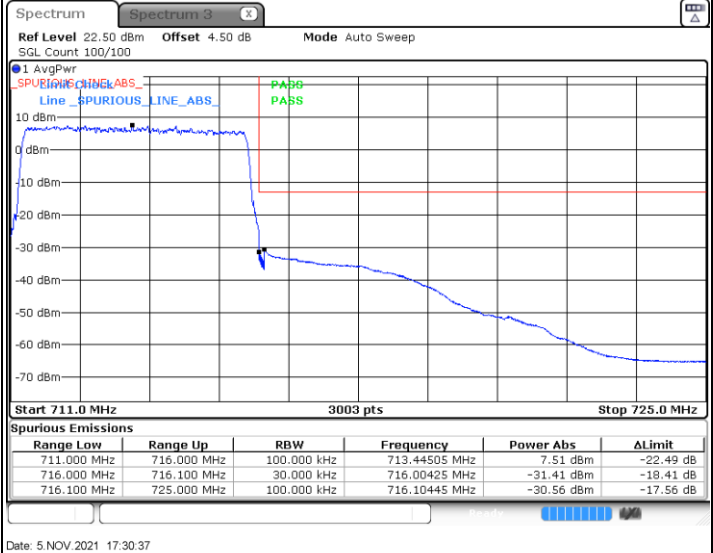
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



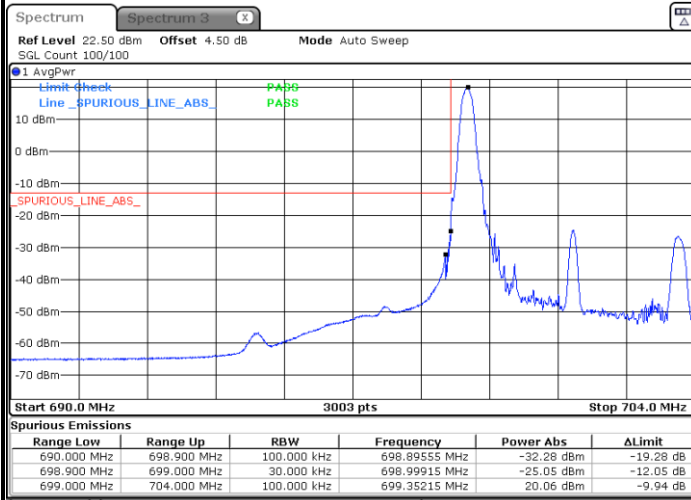
Highest Band Edge / Full RB



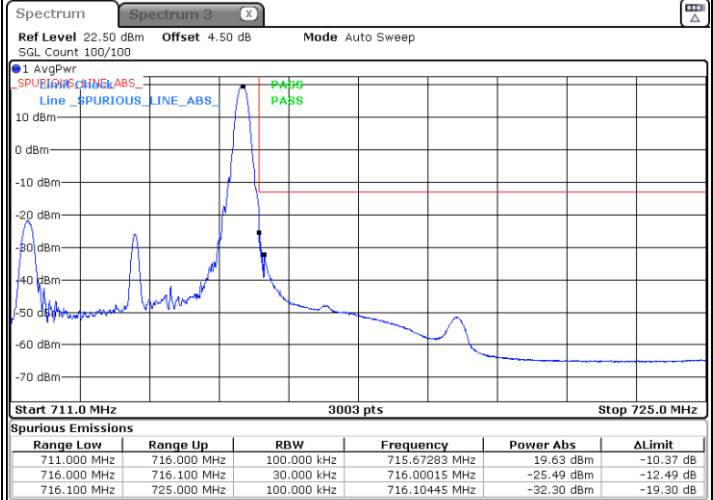


LTE Band 12 / 5MHz / 16QAM

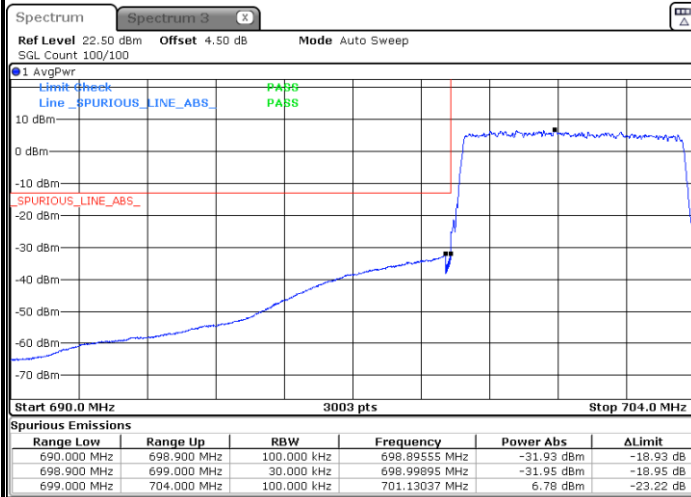
Lowest Band Edge / 1RB



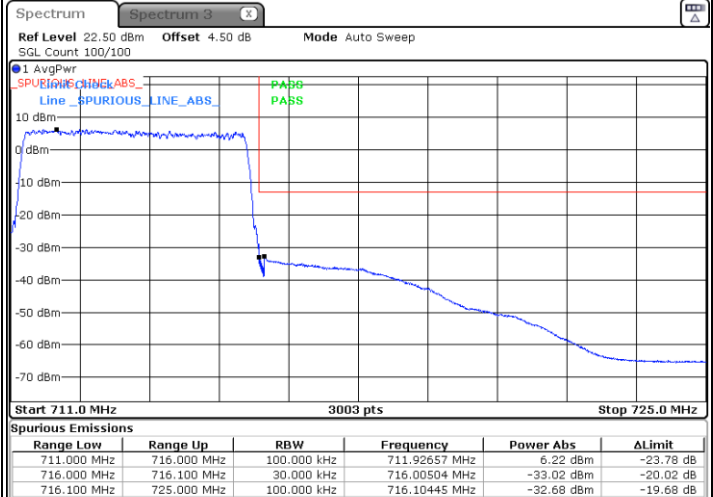
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



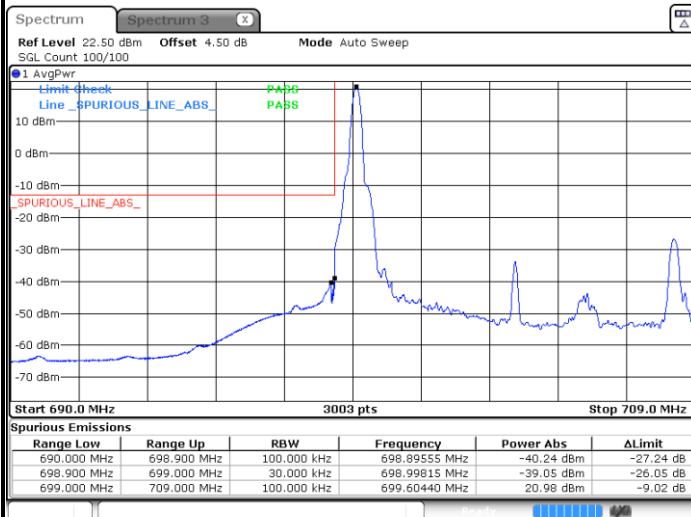
Highest Band Edge / Full RB



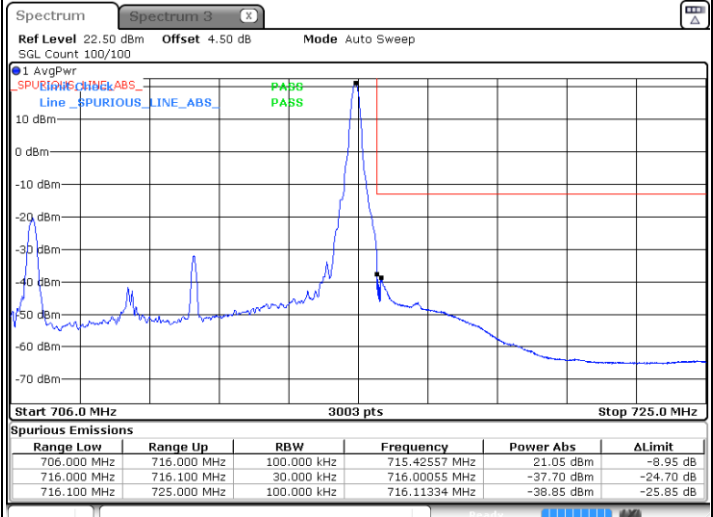


LTE Band 12 / 10MHz / QPSK

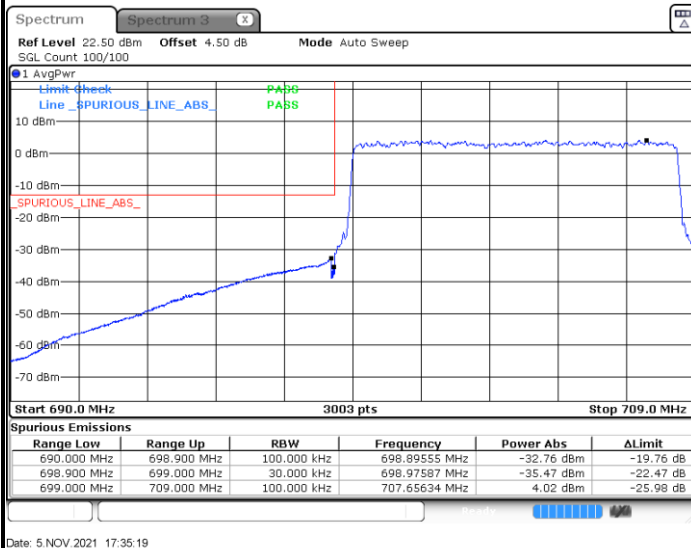
Lowest Band Edge / 1 RB



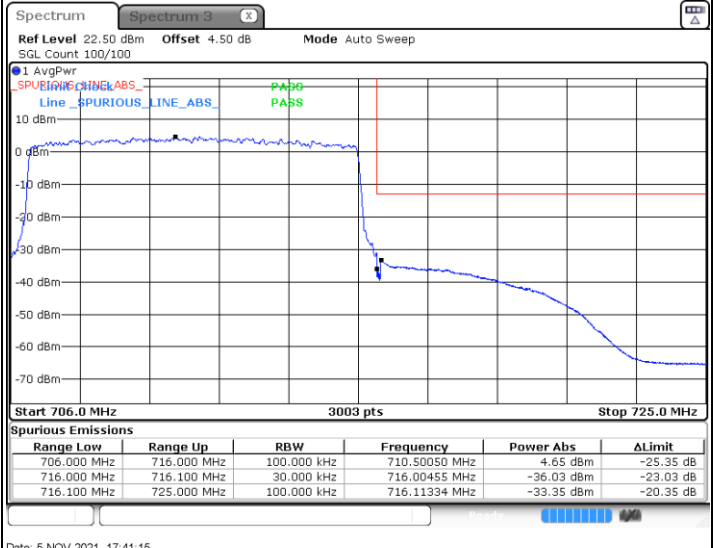
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



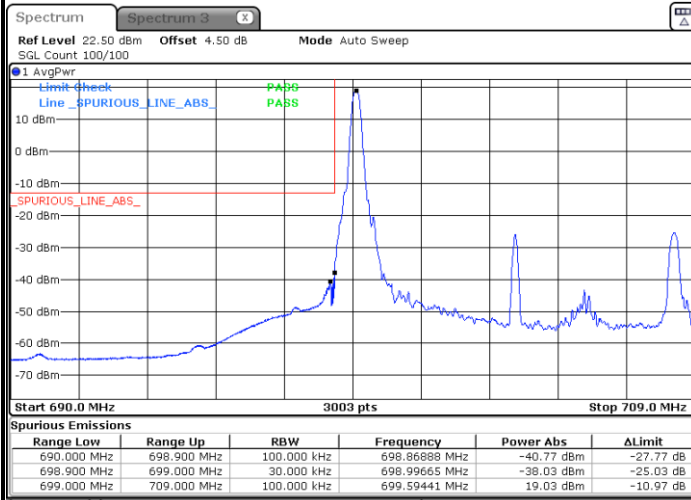
Highest Band Edge / Full RB



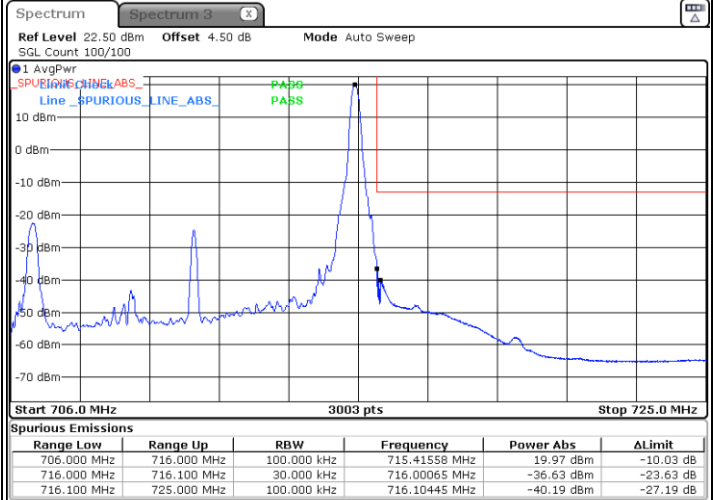


LTE Band 12 / 10MHz / 16QAM

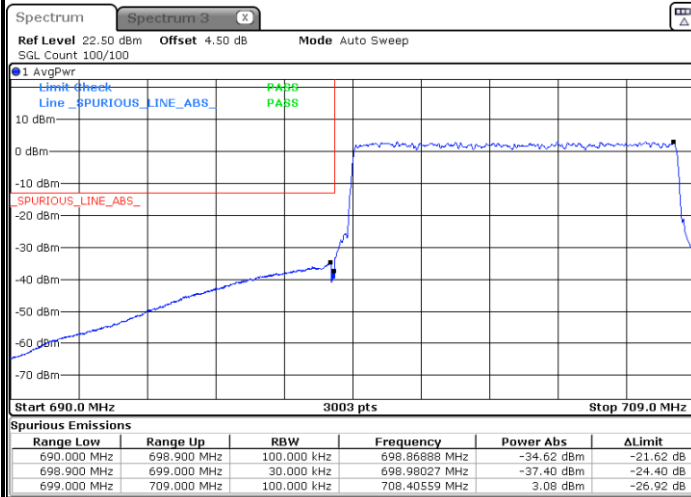
Lowest Band Edge / 1 RB



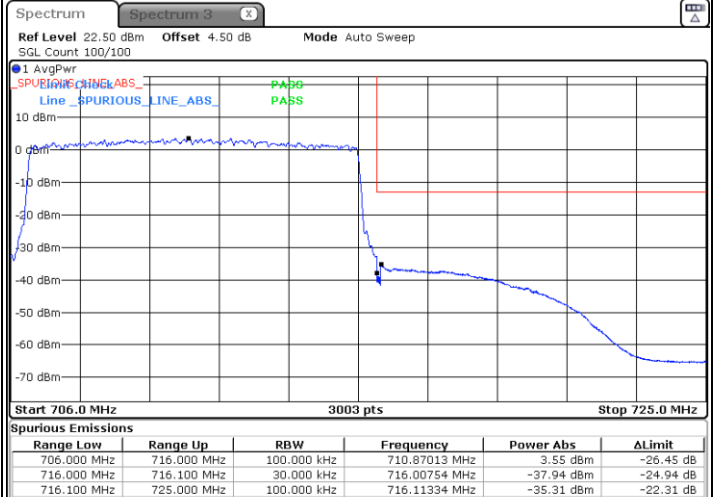
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

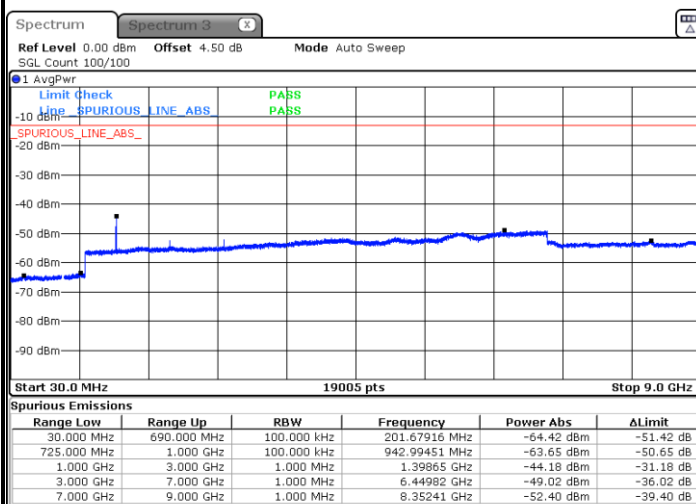




Conducted Spurious Emission

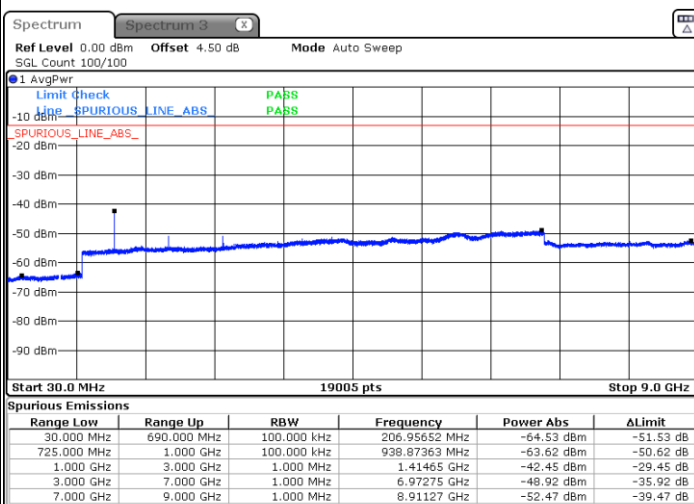
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



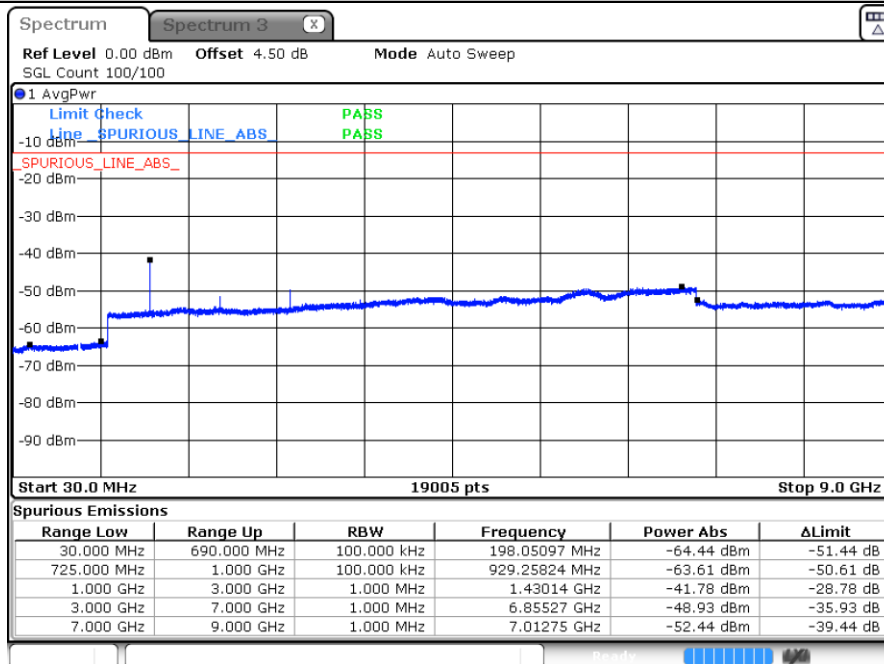
Date: 5.NOV.2021 18:11:07

Middle Channel / QPSK



Date: 5.NOV.2021 18:10:32

Highest Channel / QPSK

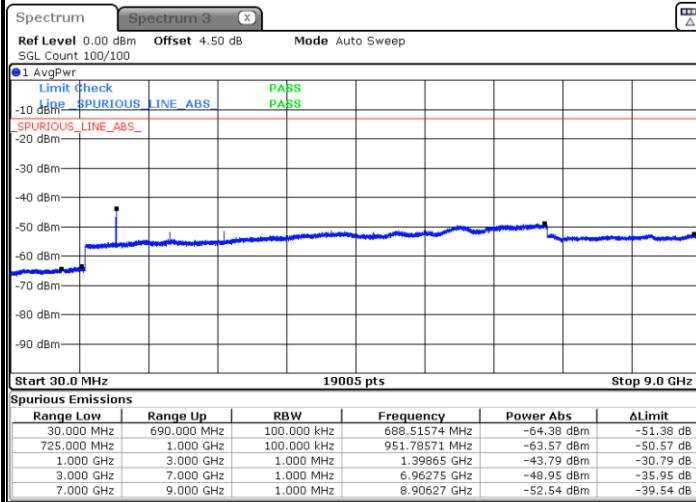


Date: 5.NOV.2021 18:12:35



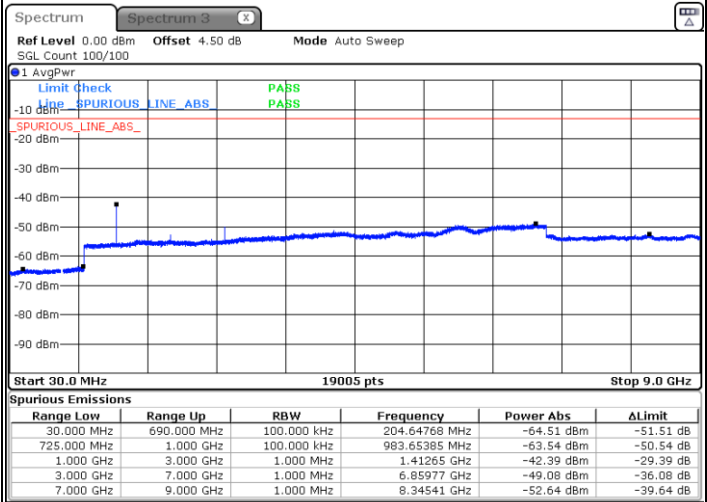
LTE Band 12 / 3MHz

Lowest Channel / QPSK



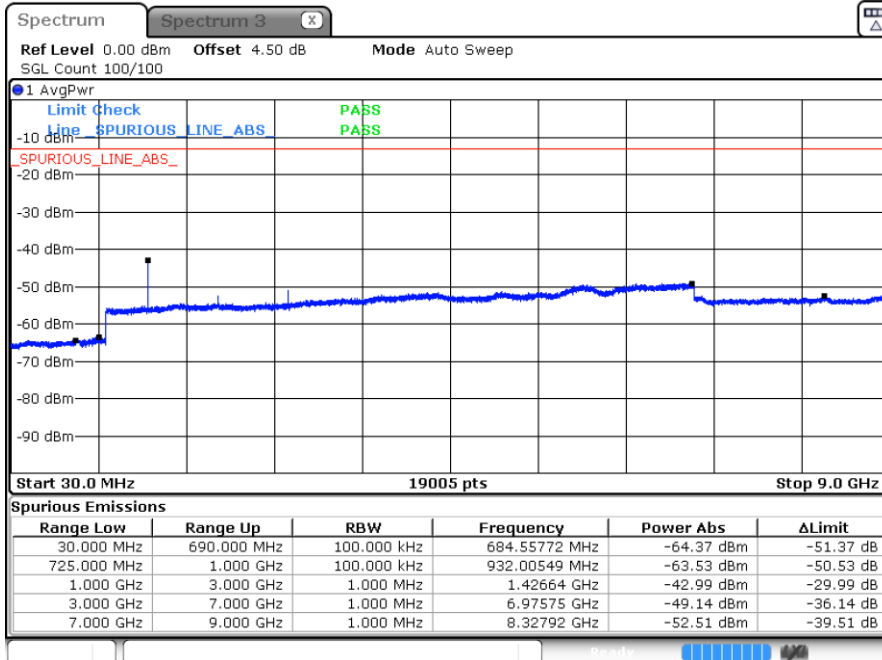
Date: 5.NOV.2021 18:07:28

Middle Channel / QPSK



Date: 5.NOV.2021 18:06:53

Highest Channel / QPSK

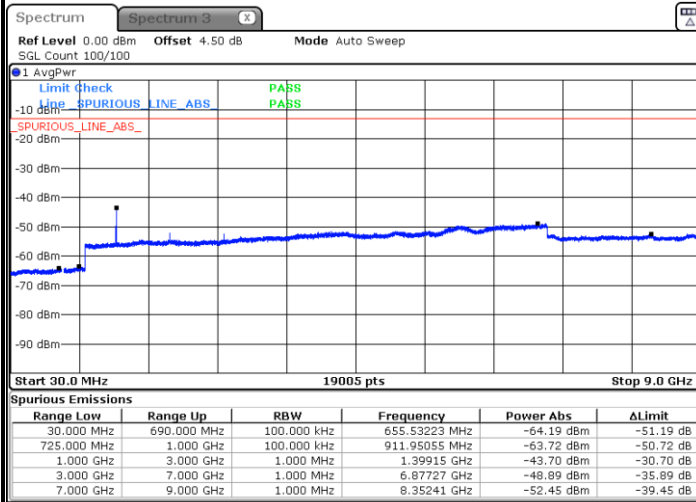


Date: 5.NOV.2021 18:08:48



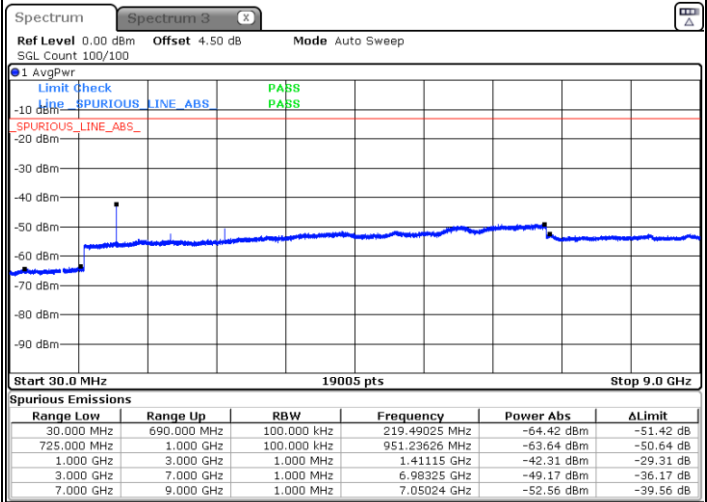
LTE Band 12 / 5MHz

Lowest Channel / QPSK



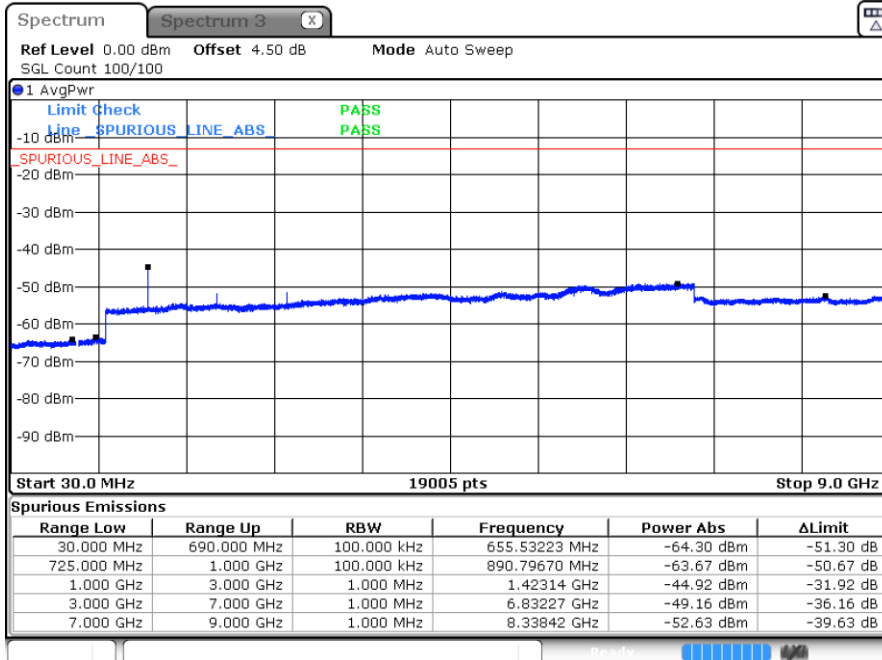
Date: 5.NOV.2021 18:02:30

Middle Channel / QPSK



Date: 5.NOV.2021 18:01:55

Highest Channel / QPSK

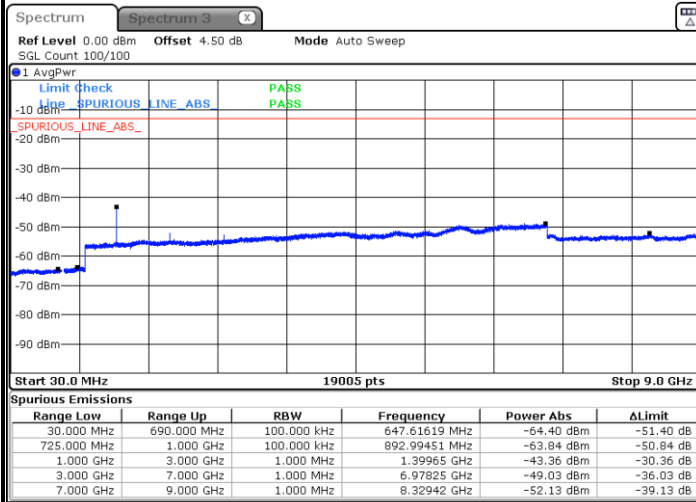


Date: 5.NOV.2021 18:05:47



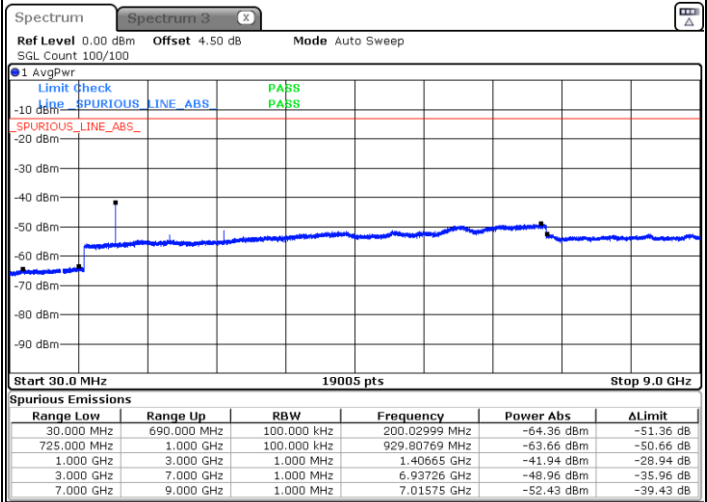
LTE Band 12 / 10MHz

Lowest Channel / QPSK



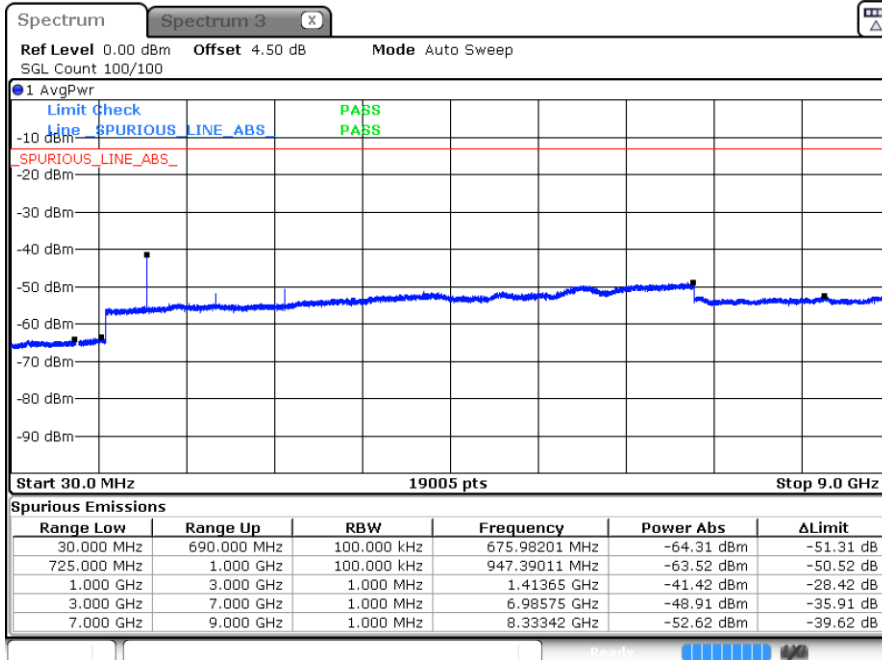
Date: 5.NOV.2021 17:01:16

Middle Channel / QPSK



Date: 5.NOV.2021 16:55:35

Highest Channel / QPSK



Date: 5.NOV.2021 17:59:22

**Frequency Stability**

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0010	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0021	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0007	
20	End Point	0.0006	

Note:

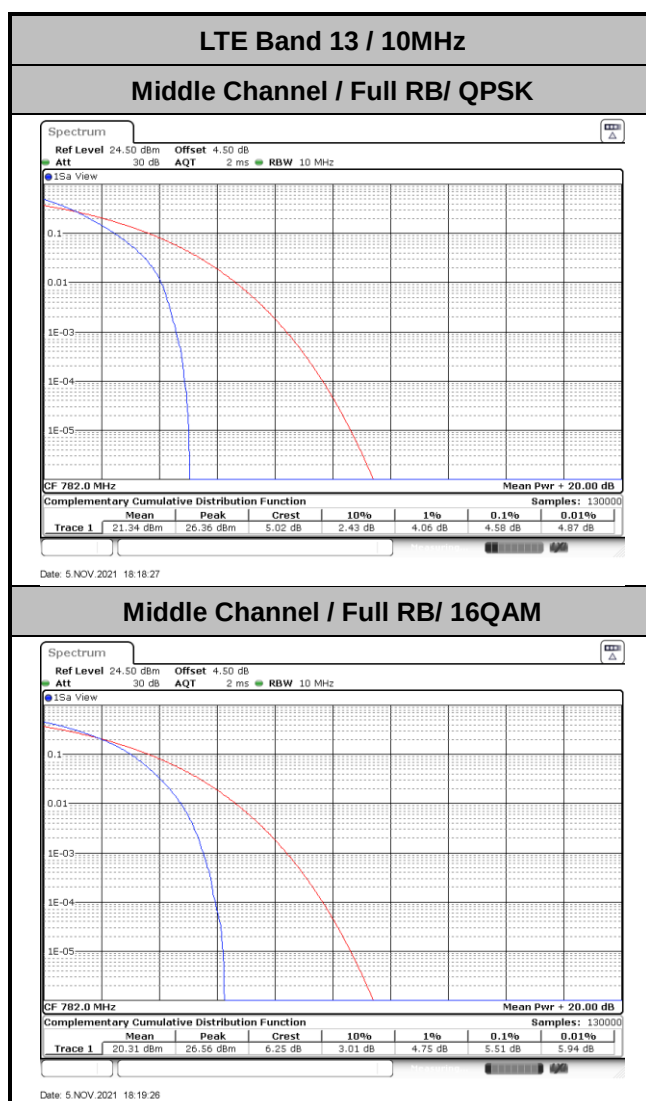
1. Normal Voltage =13 V. ; End Point (BEP) =12 V. ; Maximum Voltage =20 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

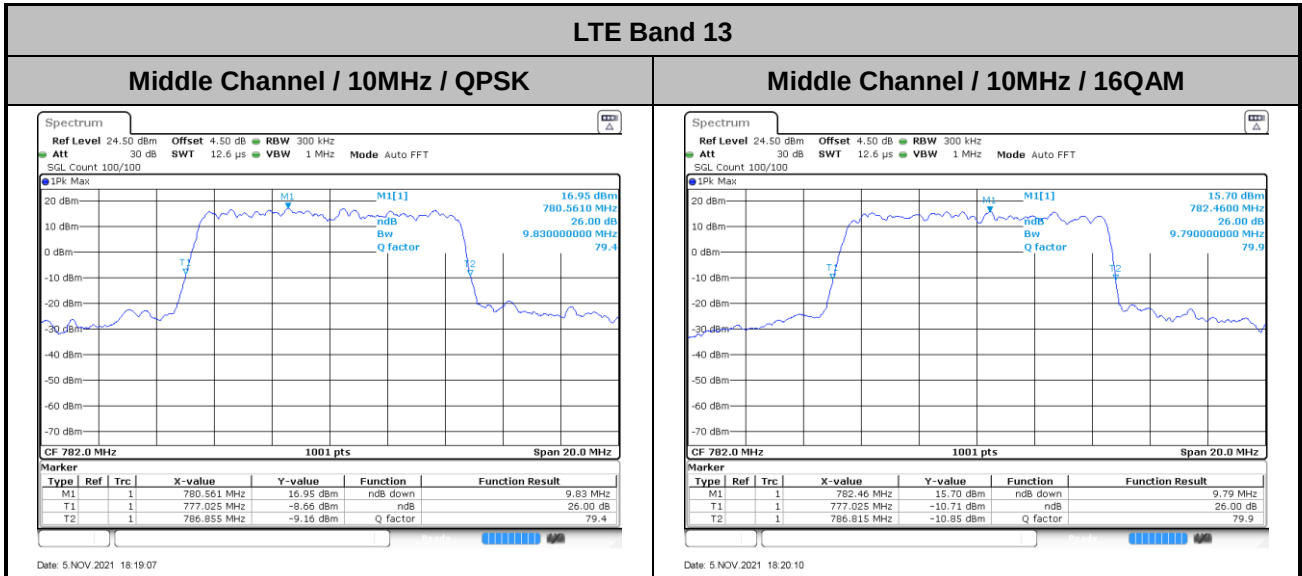
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.58	5.51	PASS



**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.83	9.79





Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.01	8.99

