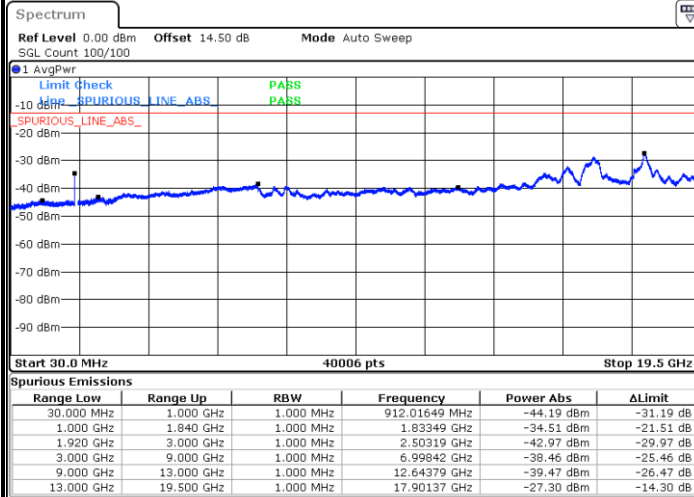




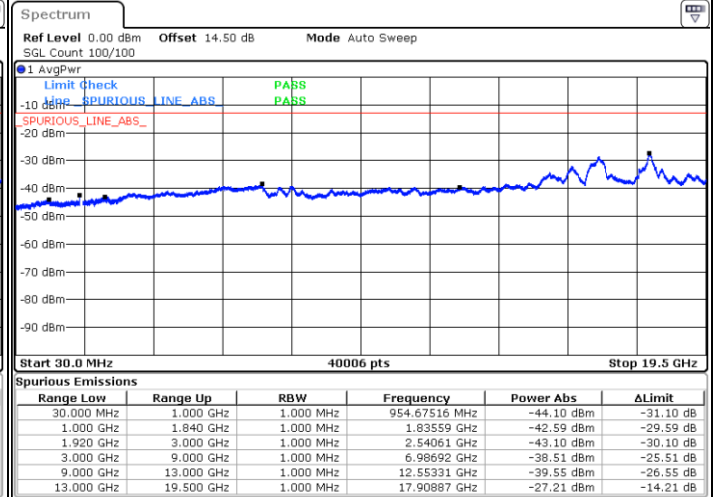
LTE Band 2 / 20MHz

Lowest Channel / QPSK



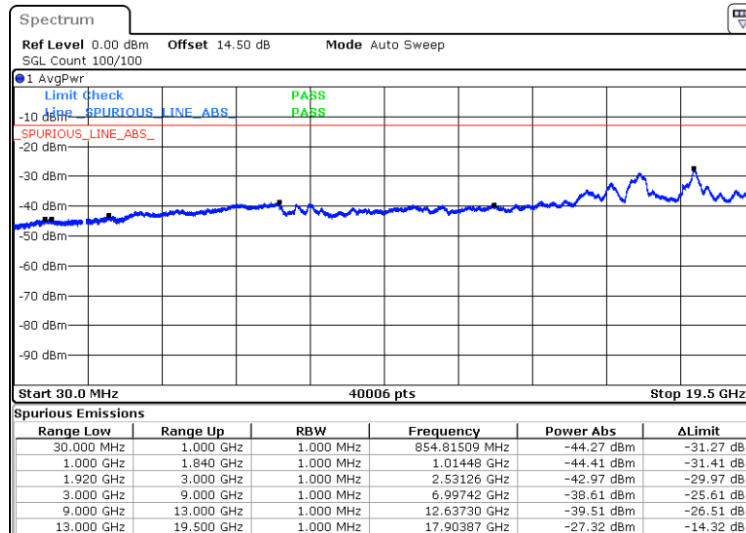
Date: 3.NOV.2023 13:17:42

Middle Channel / QPSK



Date: 3.NOV.2023 13:24:18

Highest Channel / QPSK



Date: 3.NOV.2023 13:23:19

**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	0.0002	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

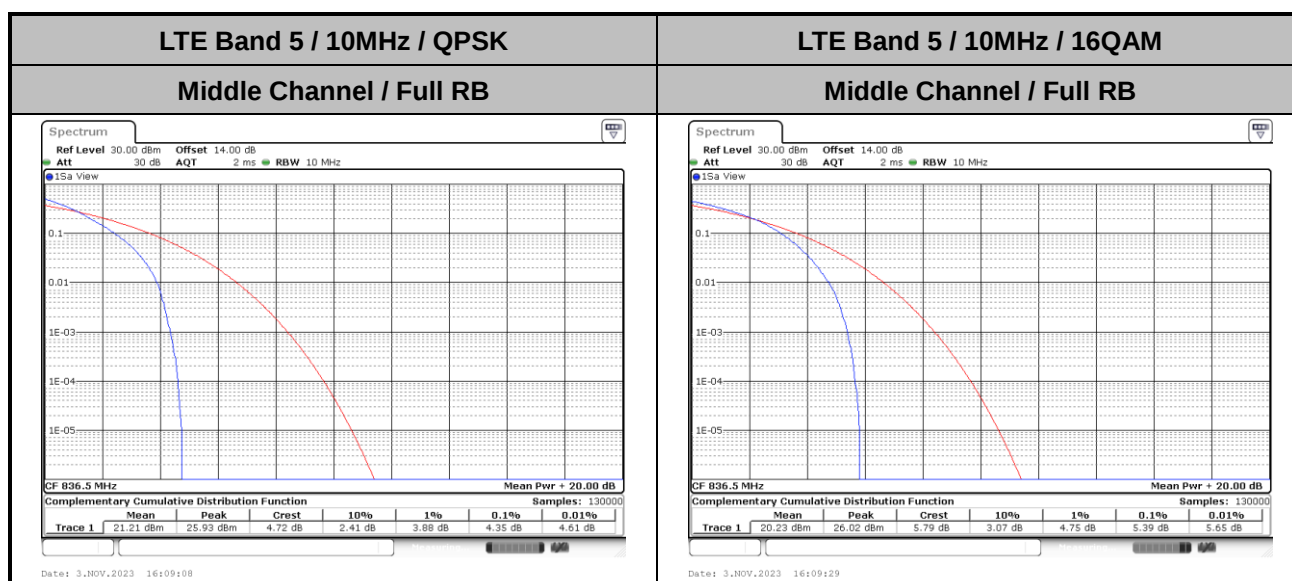
1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz			
Mod.	QPSK	16QAM	-	Limit: 13dB
RB Size	Full RB	Full RB	-	Result
Middle CH	4.35	5.39	-	PASS





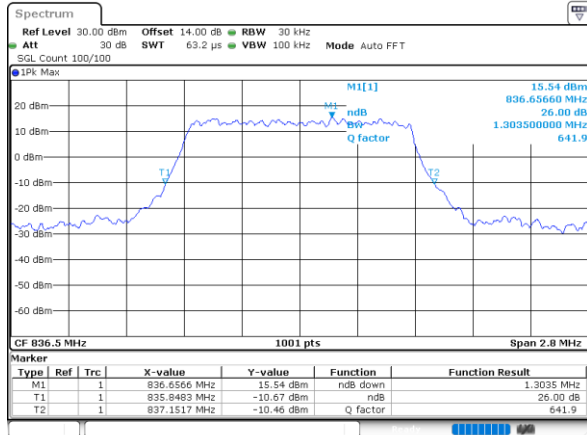
26dB Bandwidth

Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Middle CH	1.30	1.28	2.97	3.02	4.97	4.96	9.89	9.81				



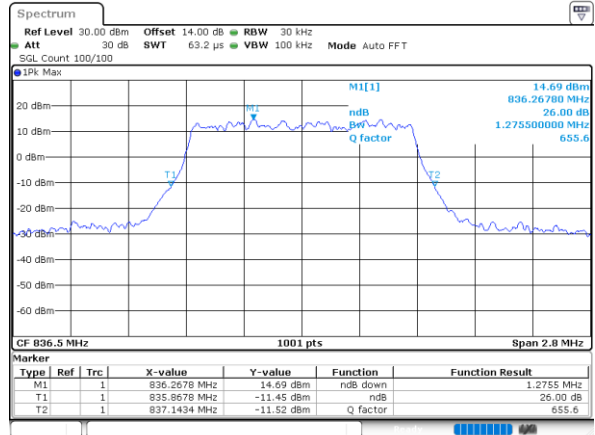
LTE Band 5

Middle Channel / 1.4MHz / QPSK



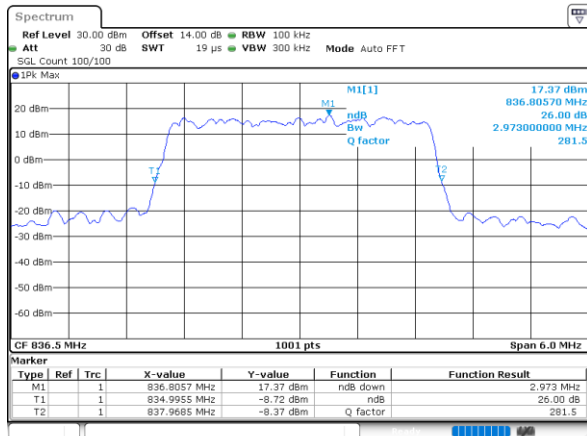
Date: 3,NOV,2023 15:24:08

Middle Channel / 1.4MHz / 16QAM



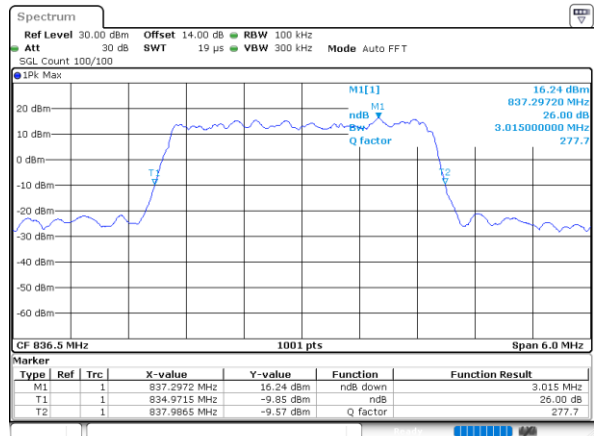
Date: 3,NOV,2023 15:24:40

Middle Channel / 3MHz / QPSK



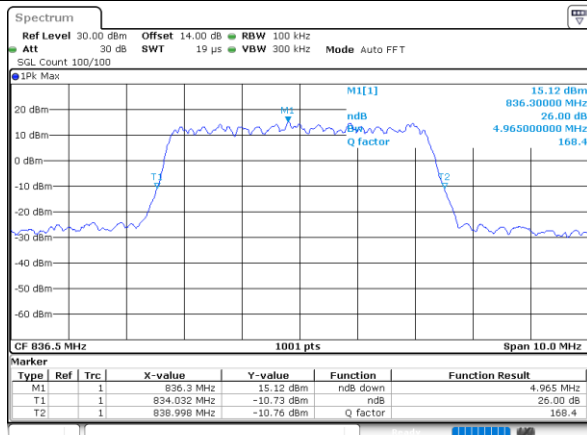
Date: 3,NOV,2023 15:41:08

Middle Channel / 3MHz / 16QAM



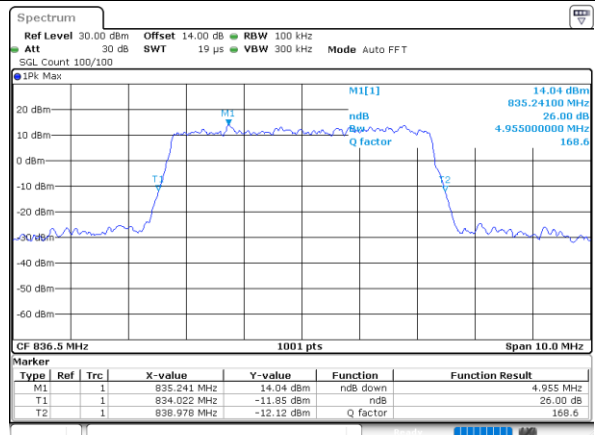
Date: 3,NOV,2023 15:42:38

Middle Channel / 5MHz / QPSK



Date: 3,NOV,2023 15:55:49

Middle Channel / 5MHz / 16QAM

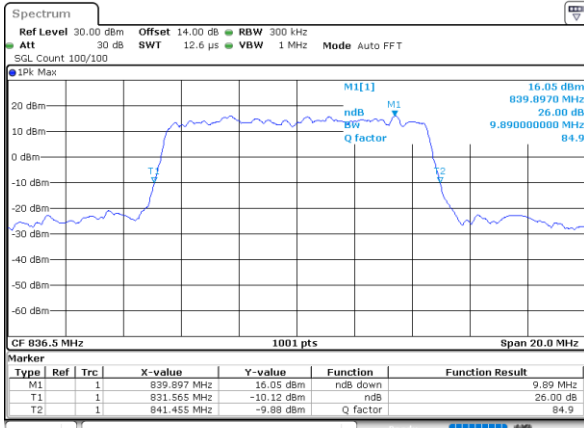


Date: 3,NOV,2023 15:56:44



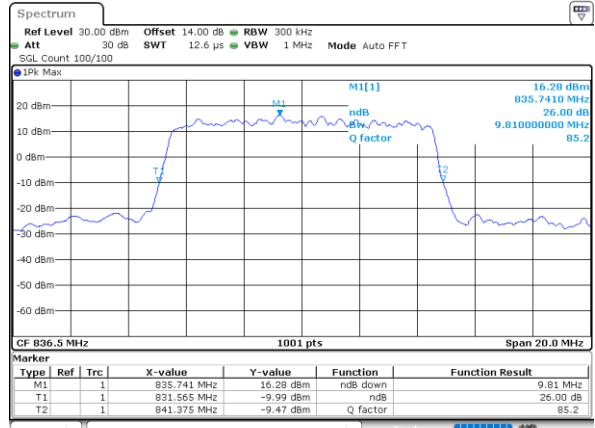
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 3.NOV.2023 16:07:42

Middle Channel / 10MHz / 16QAM



Date: 3.NOV.2023 16:08:22



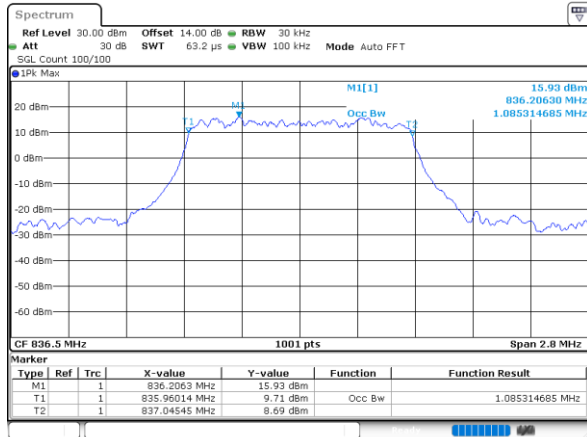
Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Middle CH	1.09	1.10	2.72	2.71	4.48	4.50	8.99	9.01				

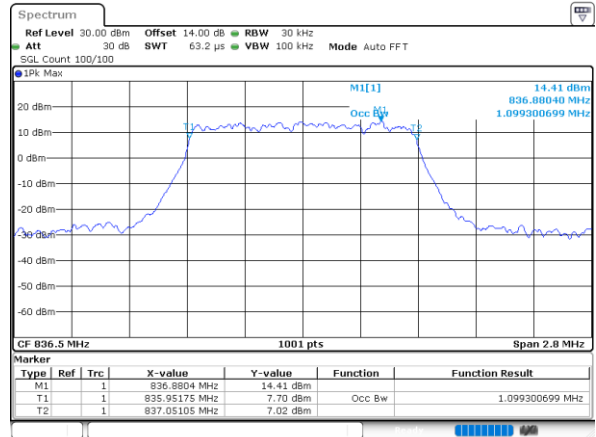


LTE Band 5

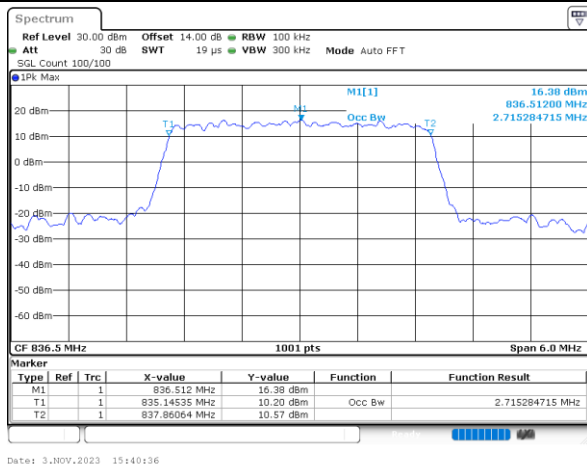
Middle Channel / 1.4MHz / QPSK



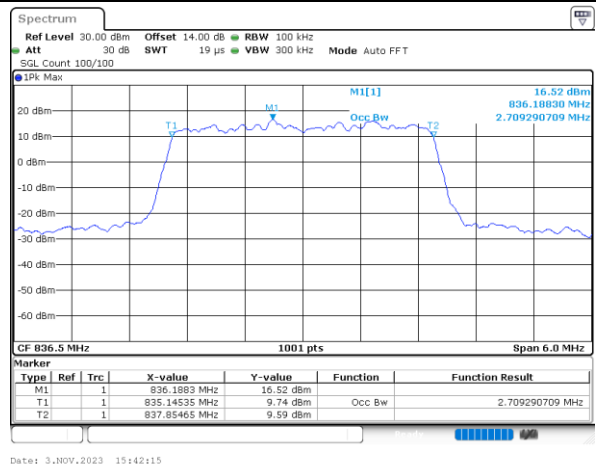
Middle Channel / 1.4MHz / 16QAM



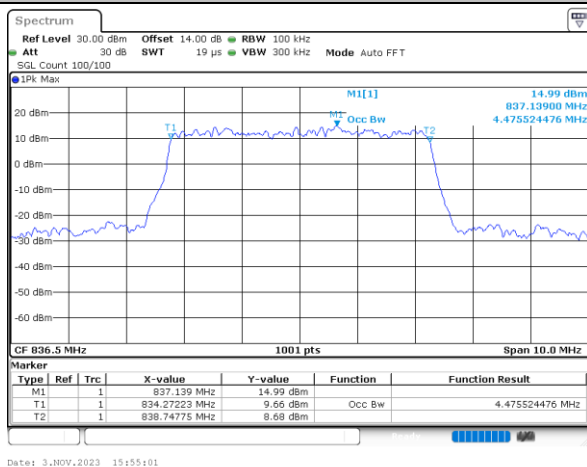
Middle Channel / 3MHz / QPSK



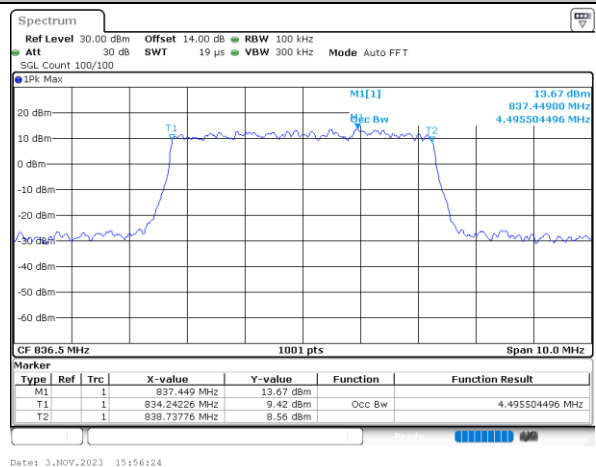
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



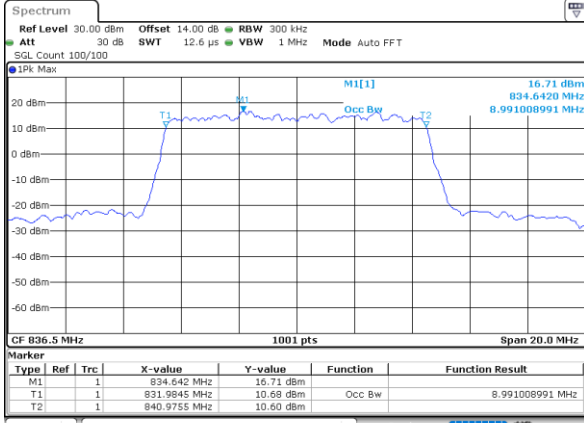
Middle Channel / 5MHz / 16QAM





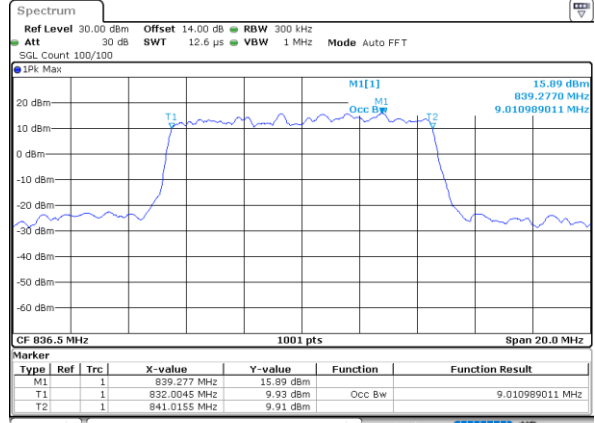
LTE Band 5

Middle Channel / 10MHz / QPSK



Date: 3.NOV.2023 16:07:28

Middle Channel / 10MHz / 16QAM



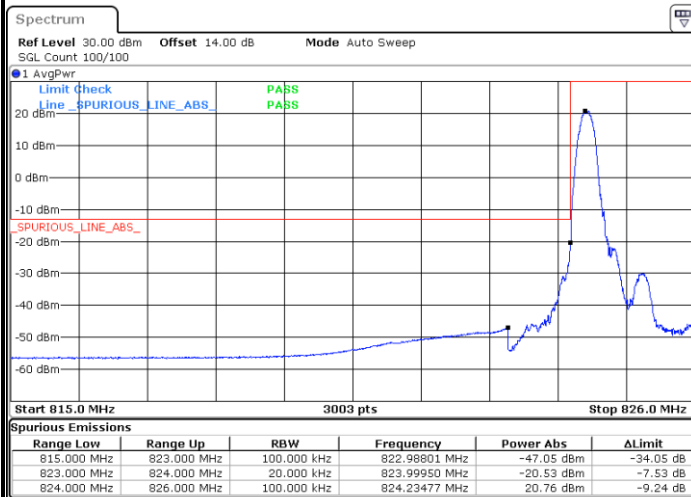
Date: 3.NOV.2023 16:08:08



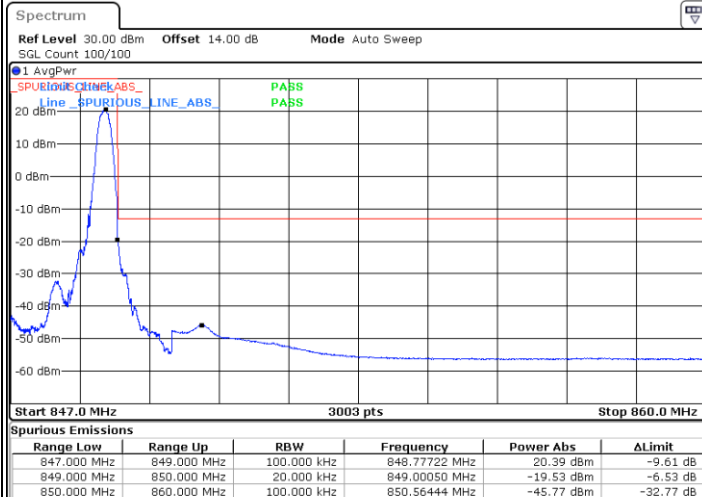
Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

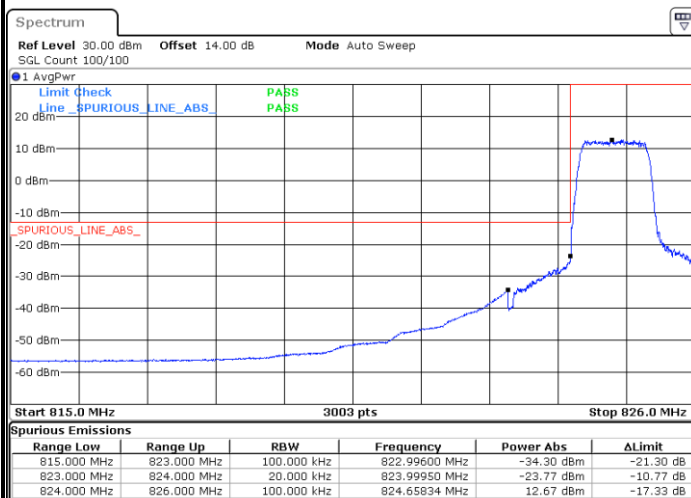
Lowest Band Edge / 1RB



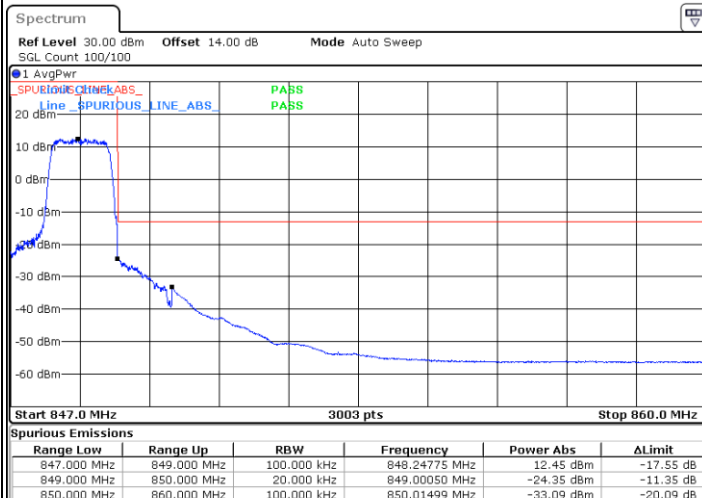
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



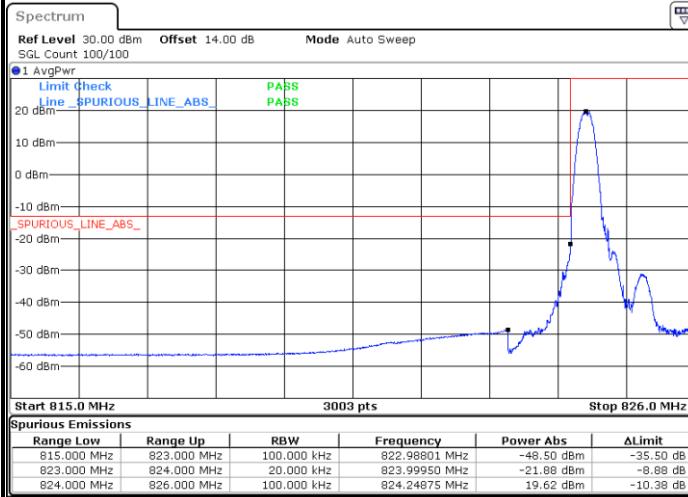
Highest Band Edge / Full RB



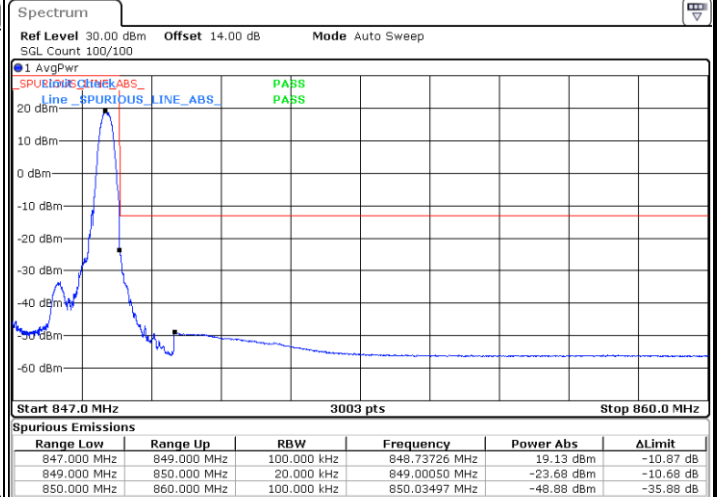


LTE Band 5 / 1.4MHz / 16QAM

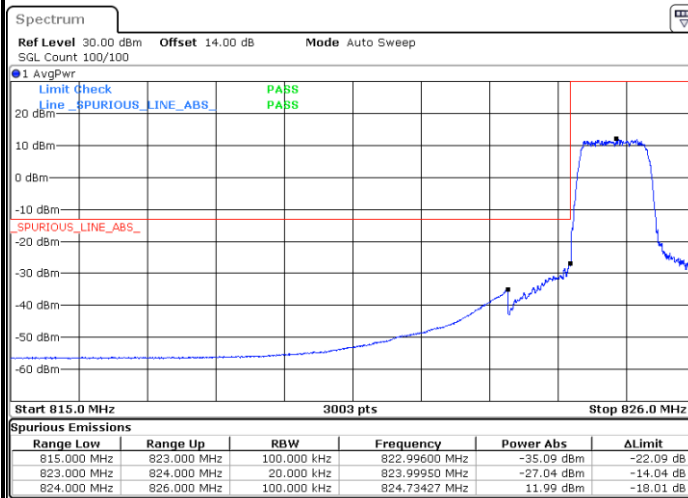
Lowest Band Edge / 1 RB



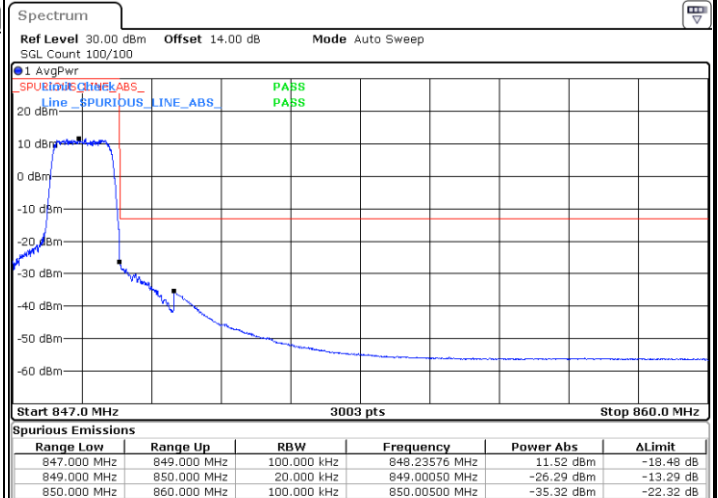
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



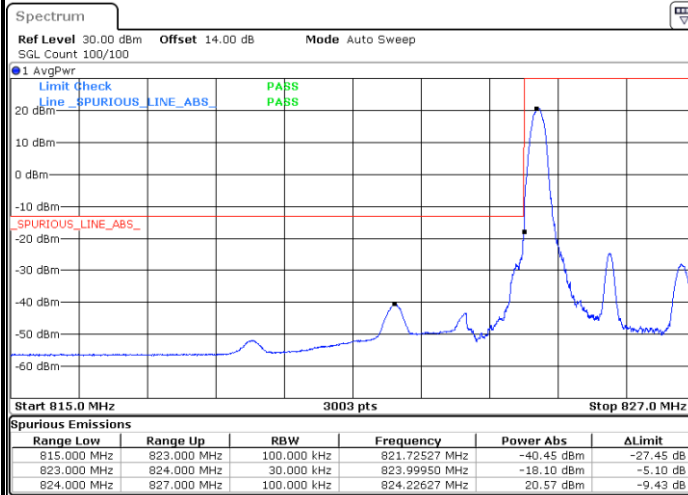
Highest Band Edge / Full RB



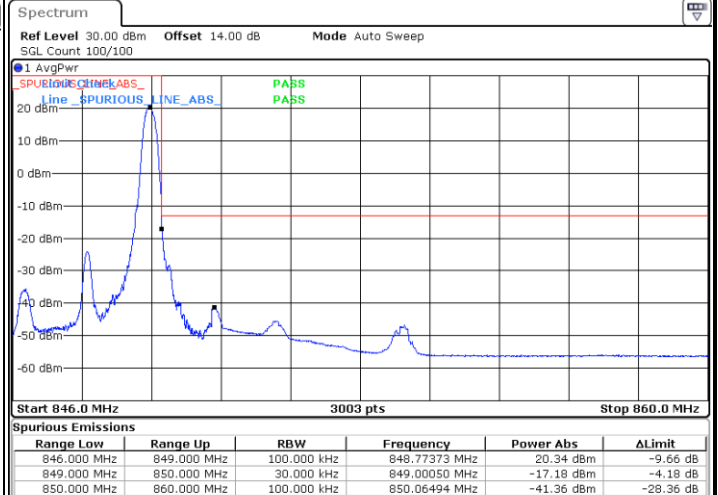


LTE Band 5 / 3MHz / QPSK

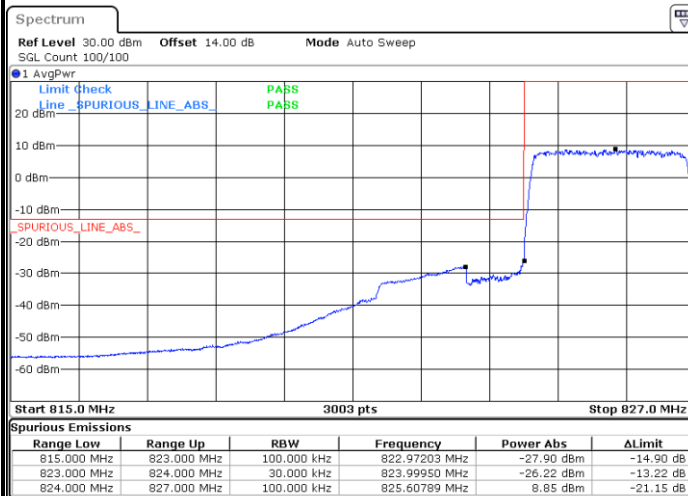
Lowest Band Edge / 1RB



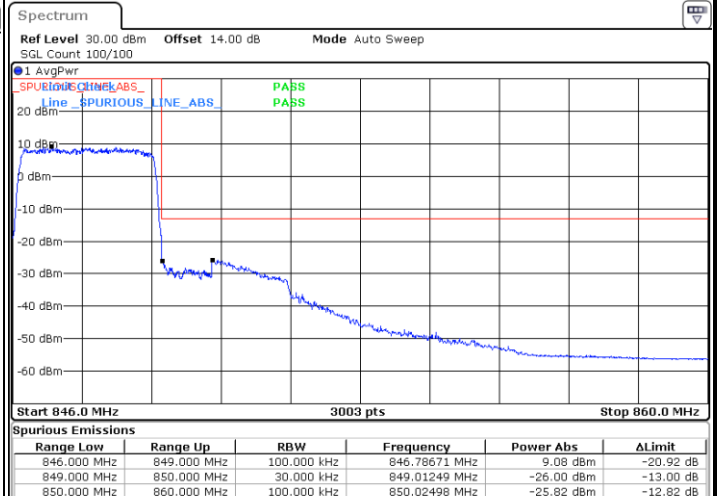
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



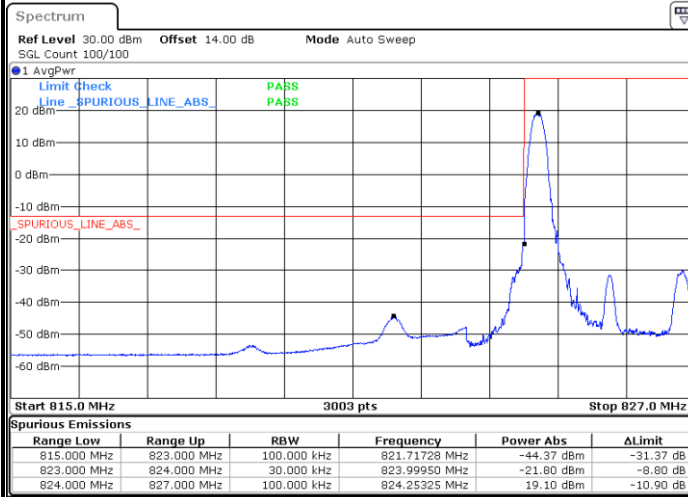
Highest Band Edge / Full RB



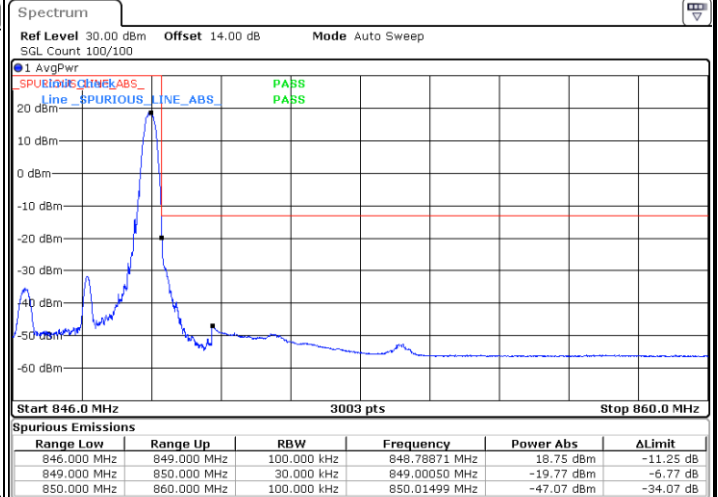


LTE Band 5 / 3MHz / 16QAM

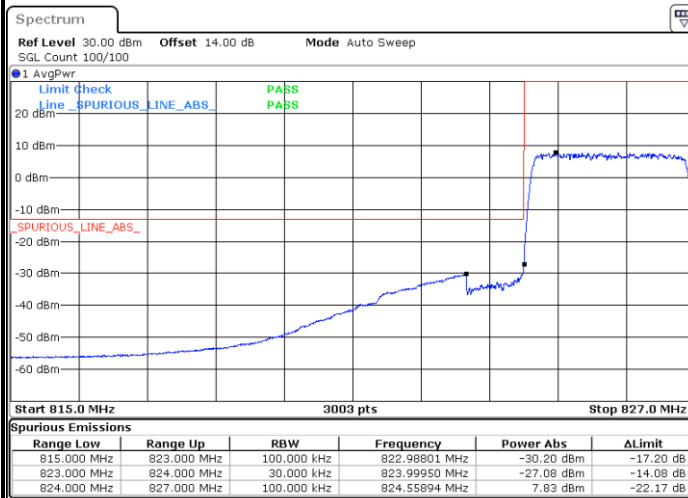
Lowest Band Edge / 1 RB



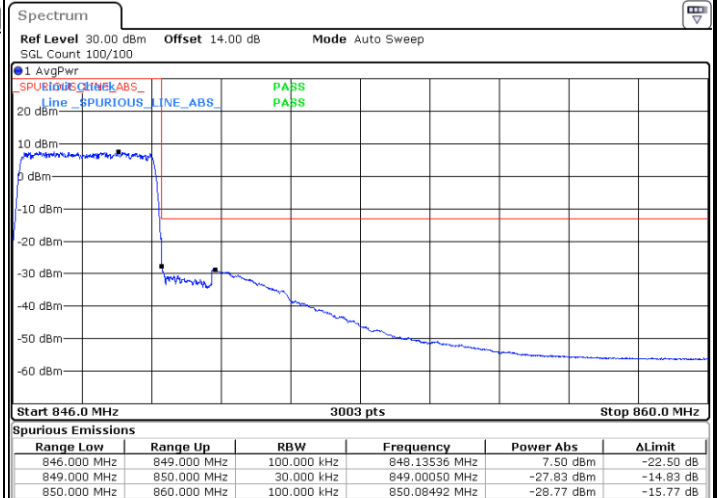
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



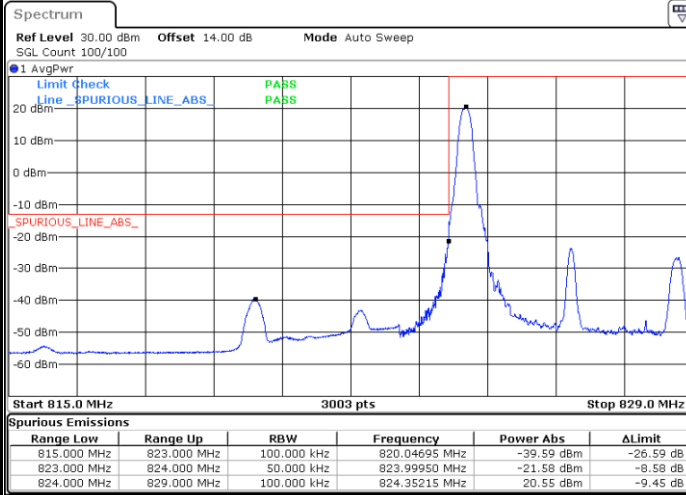
Highest Band Edge / Full RB



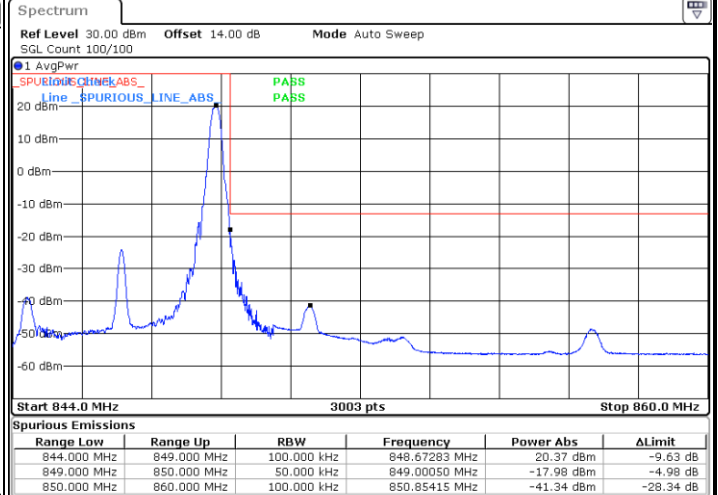


LTE Band 5 / 5MHz / QPSK

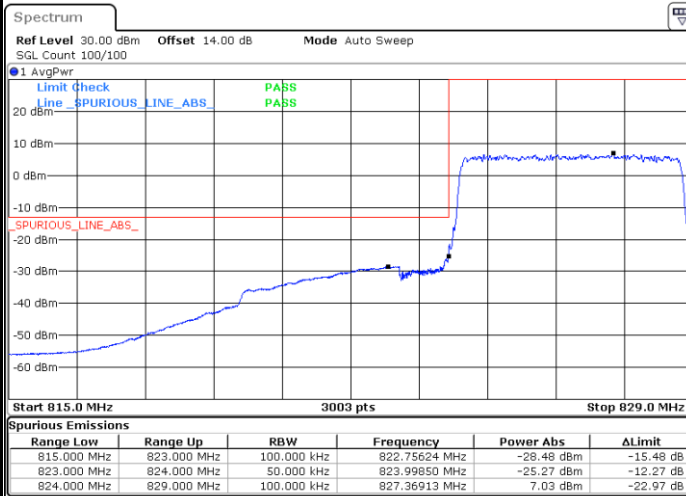
Lowest Band Edge / 1RB



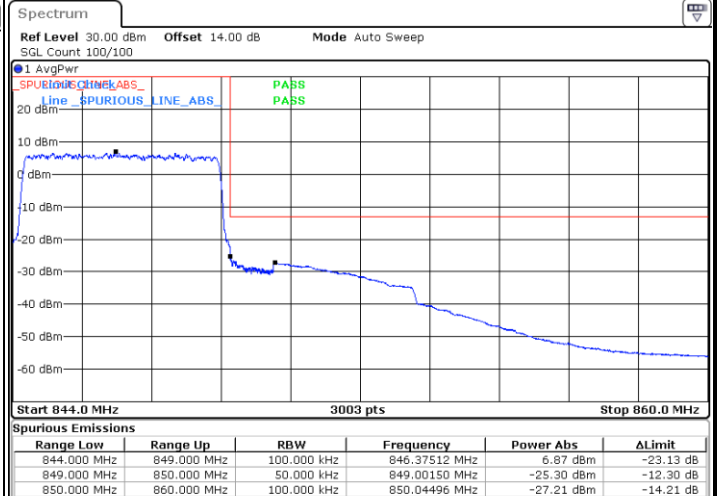
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



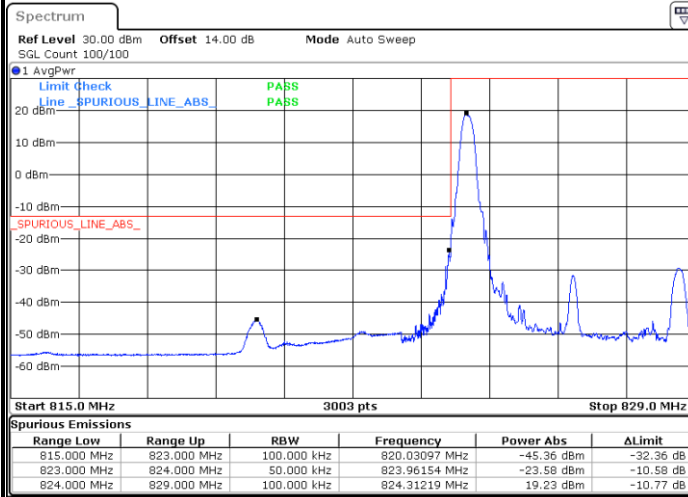
Highest Band Edge / Full RB



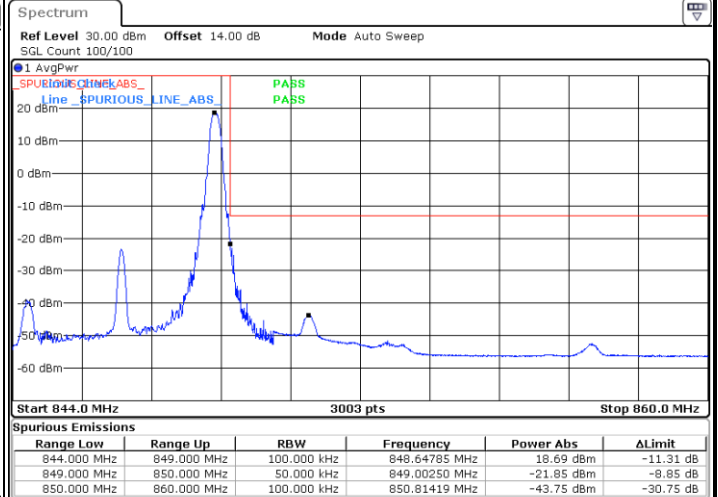


LTE Band 5 / 5MHz / 16QAM

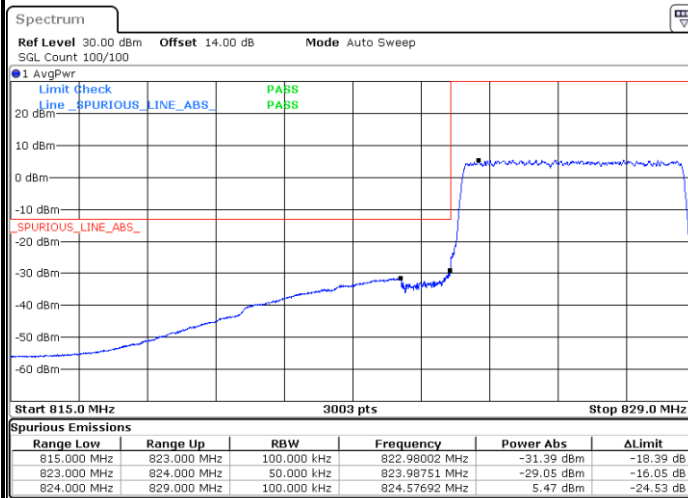
Lowest Band Edge / 1 RB



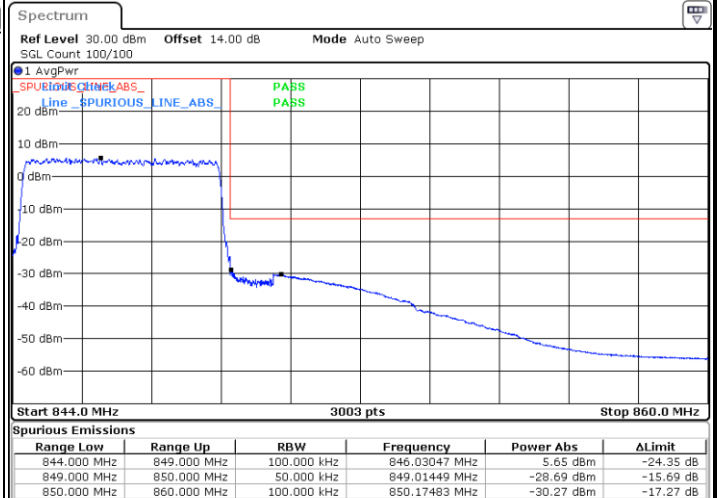
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



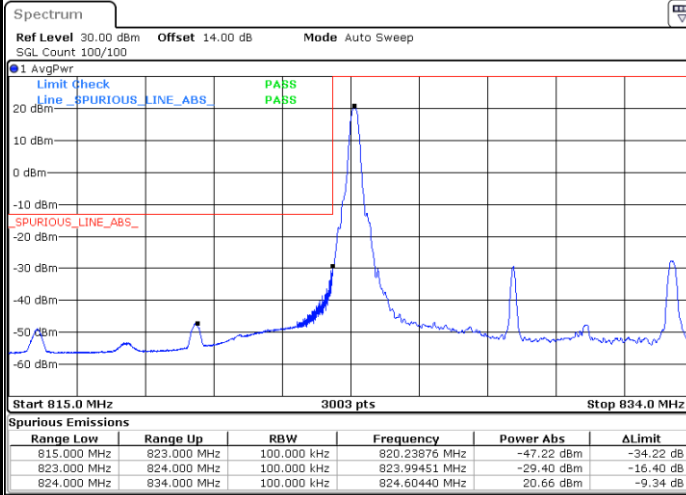
Highest Band Edge / Full RB



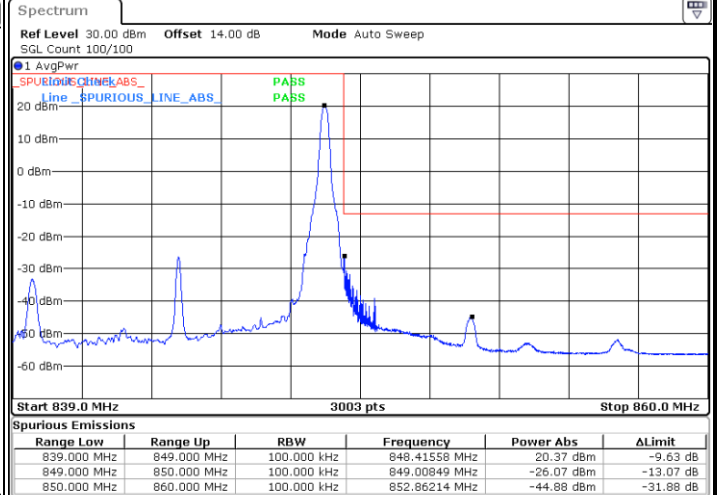


LTE Band 5 / 10MHz / QPSK

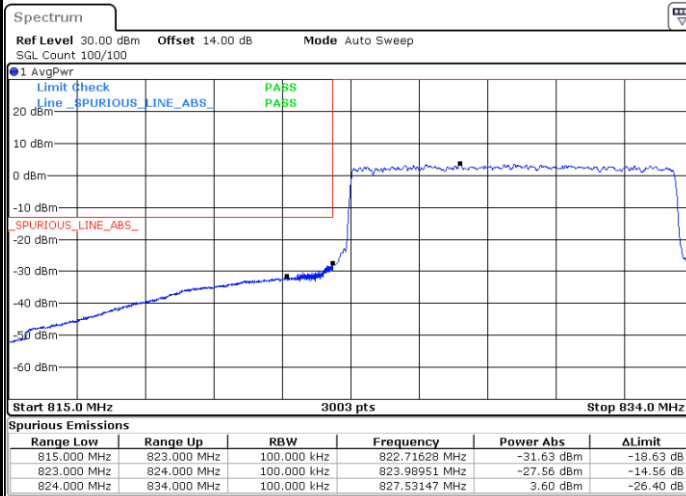
Lowest Band Edge / 1RB



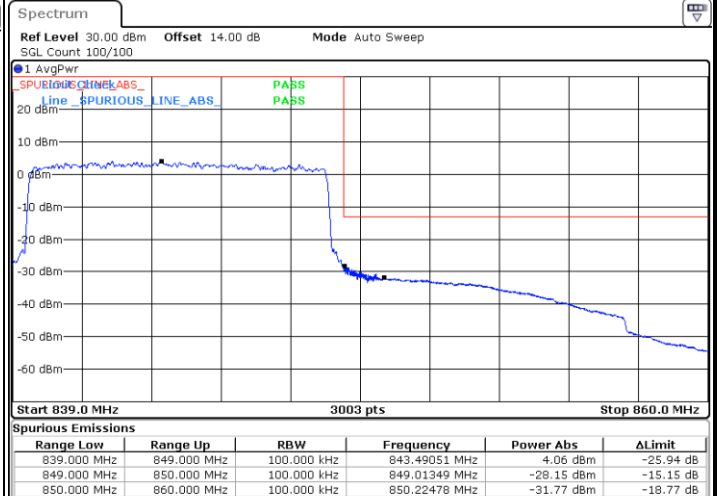
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



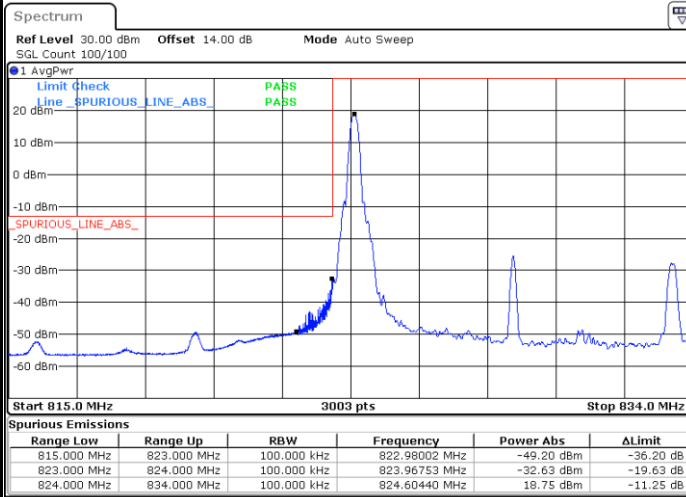
Highest Band Edge / Full RB



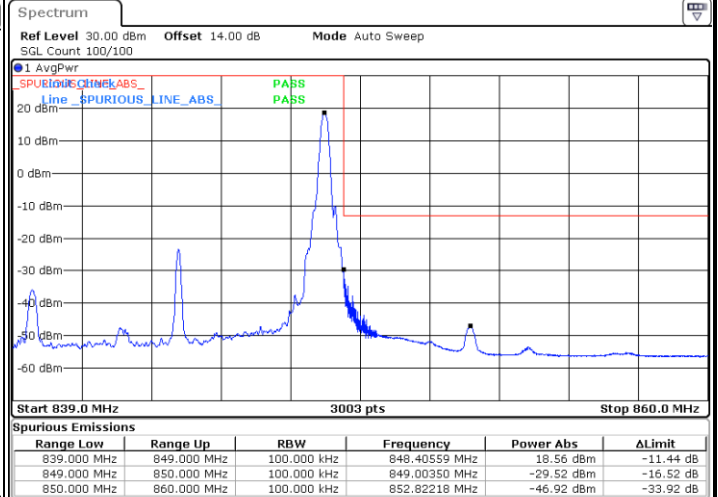


LTE Band 5 / 10MHz / 16QAM

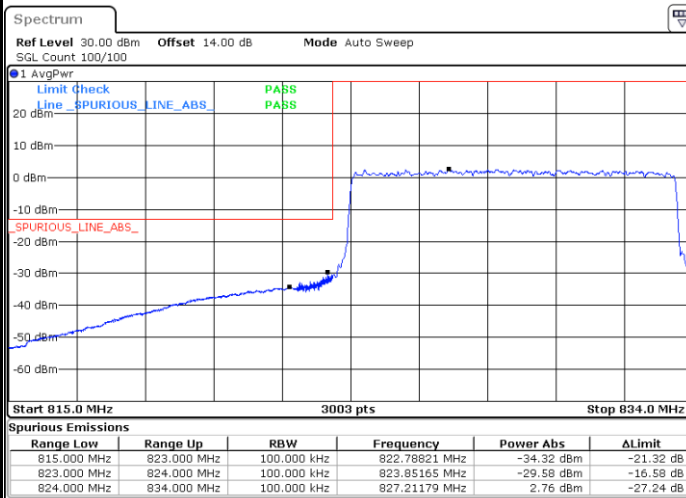
Lowest Band Edge / 1 RB



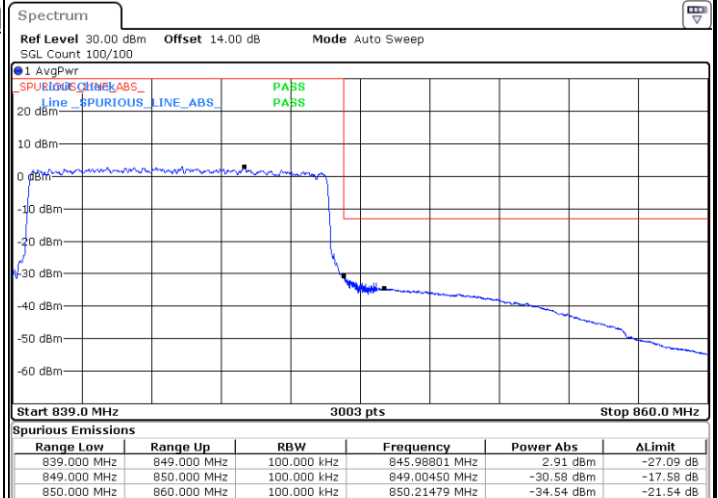
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

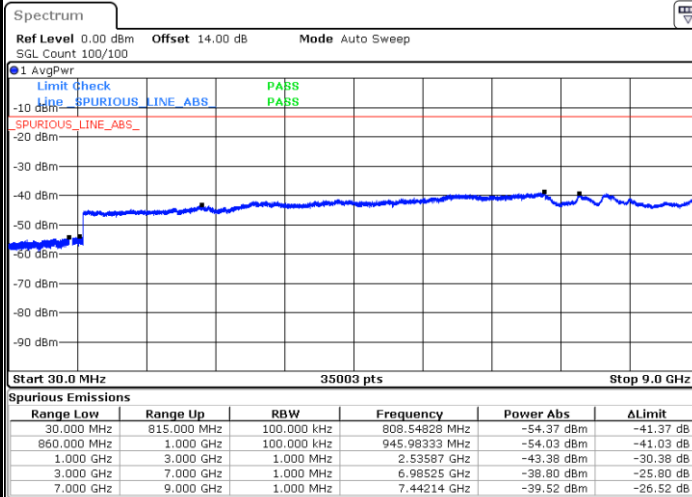




Conducted Spurious Emission

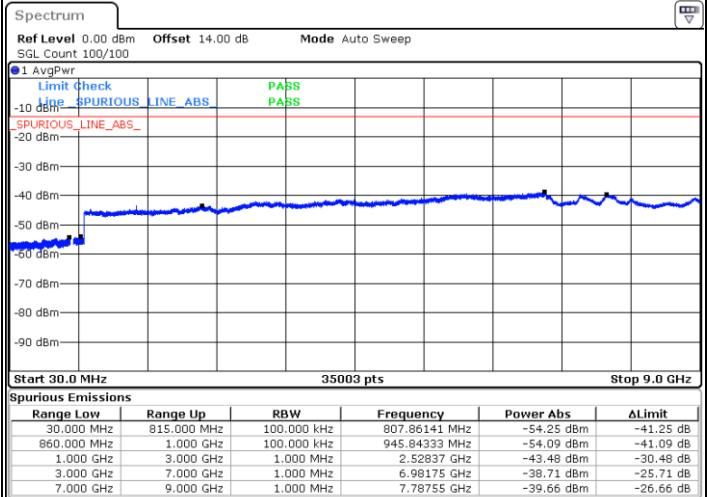
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



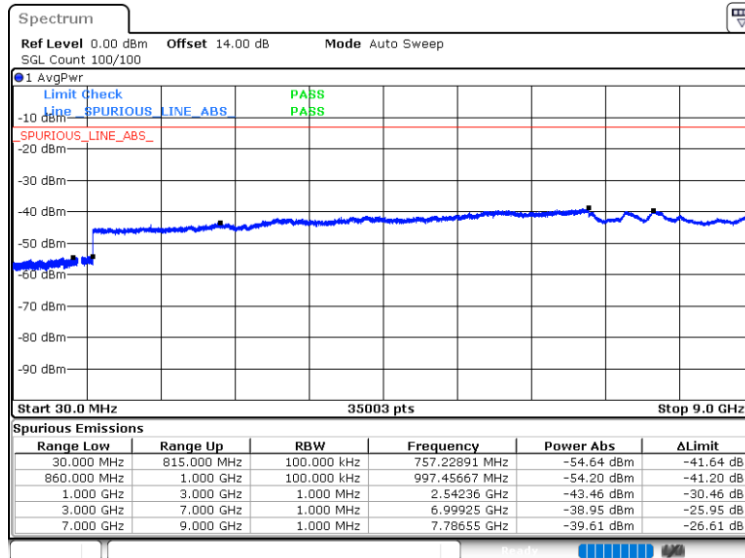
Date: 3.NOV.2023 14:57:39

Middle Channel / QPSK



Date: 3.NOV.2023 15:22:56

Highest Channel / QPSK

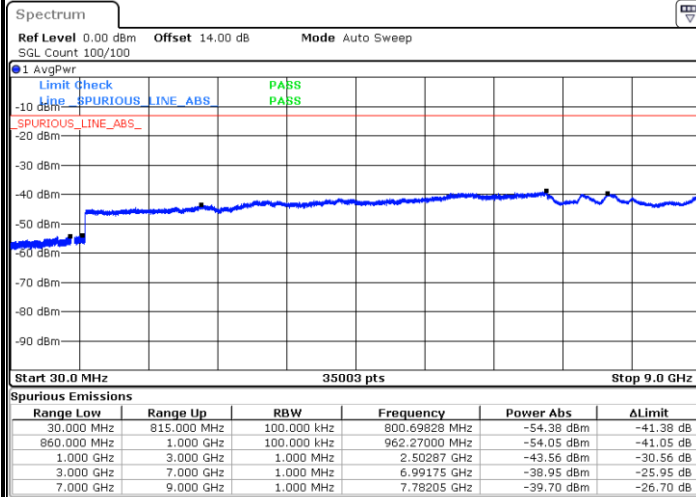


Date: 3.NOV.2023 15:21:46



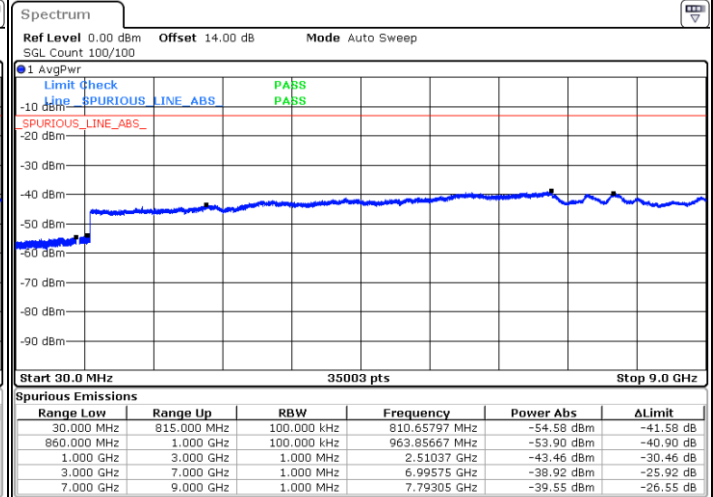
LTE Band 5 / 3MHz

Lowest Channel / QPSK



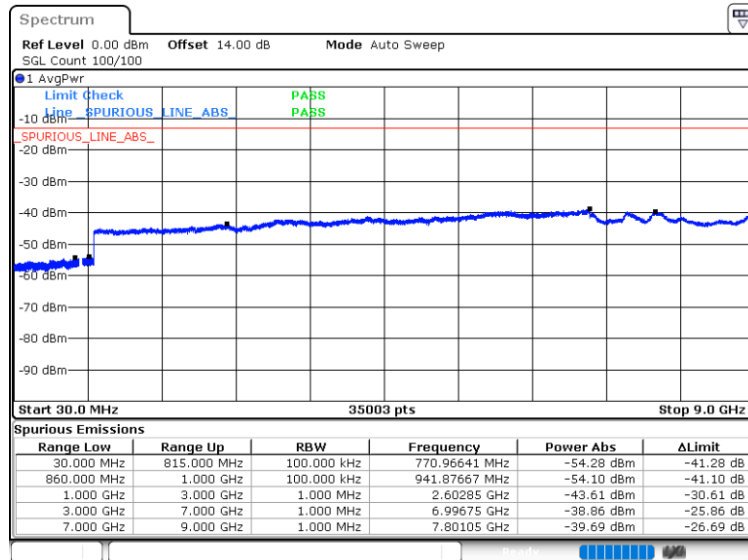
Date: 3.NOV.2023 15:26:27

Middle Channel / QPSK



Date: 3.NOV.2023 15:39:34

Highest Channel / QPSK

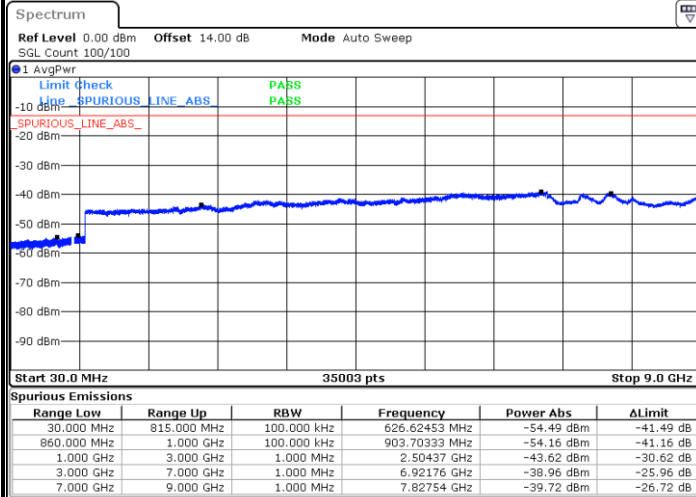


Date: 3.NOV.2023 15:35:35



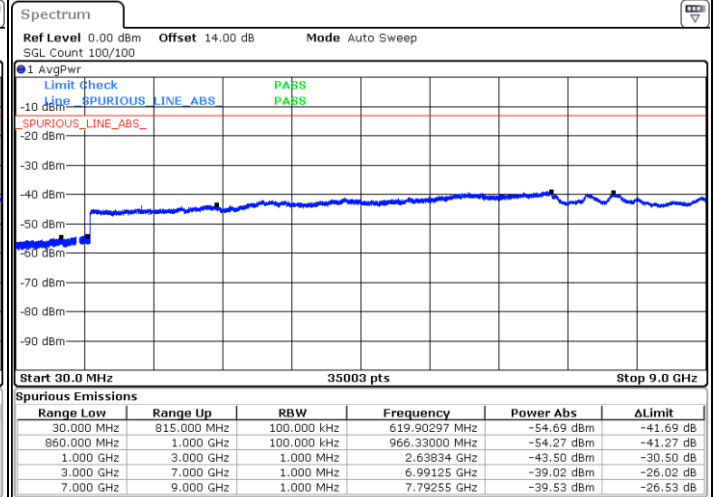
LTE Band 5 / 5MHz

Lowest Channel / QPSK



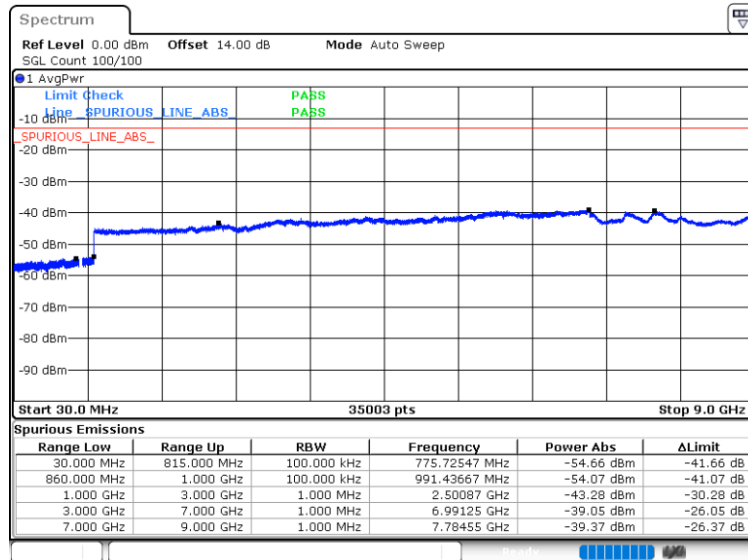
Date: 3.NOV.2023 15:45:23

Middle Channel / QPSK



Date: 3.NOV.2023 15:54:35

Highest Channel / QPSK

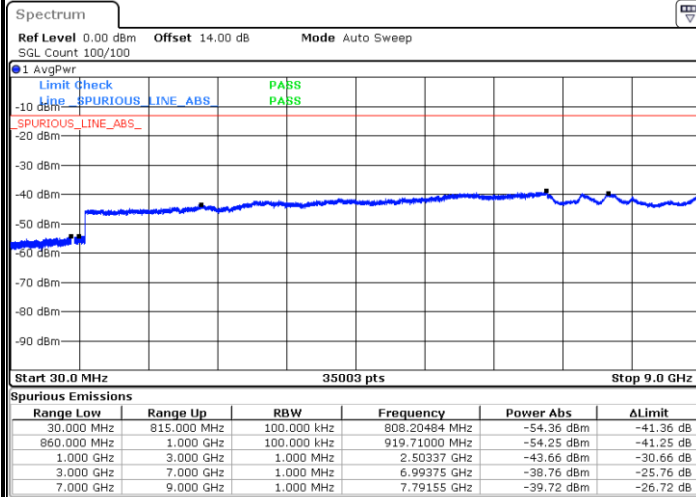


Date: 3.NOV.2023 15:53:47



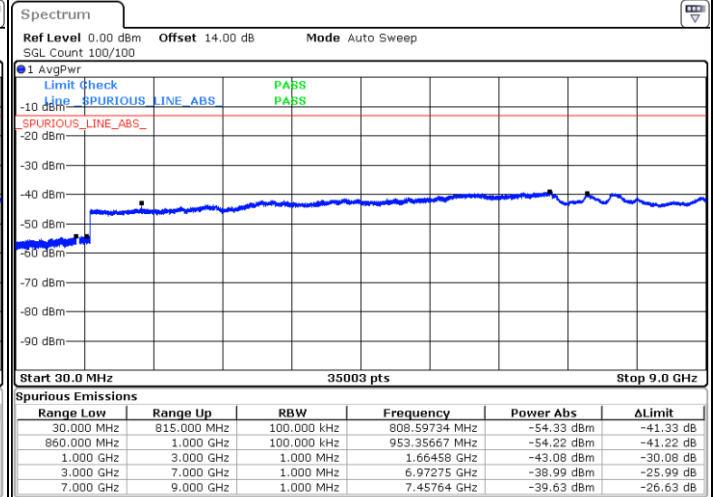
LTE Band 5 / 10MHz

Lowest Channel / QPSK



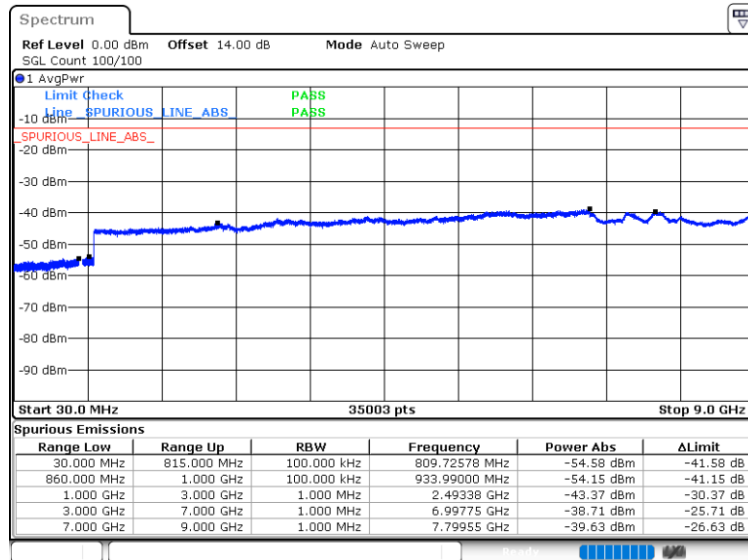
Date: 3.NOV.2023 15:59:02

Middle Channel / QPSK



Date: 3.NOV.2023 16:06:57

Highest Channel / QPSK



Date: 3.NOV.2023 16:06:11

**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	0.0029	PASS
40	Normal Voltage	0.0035	
30	Normal Voltage	0.0037	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0036	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0012	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0038	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0010	

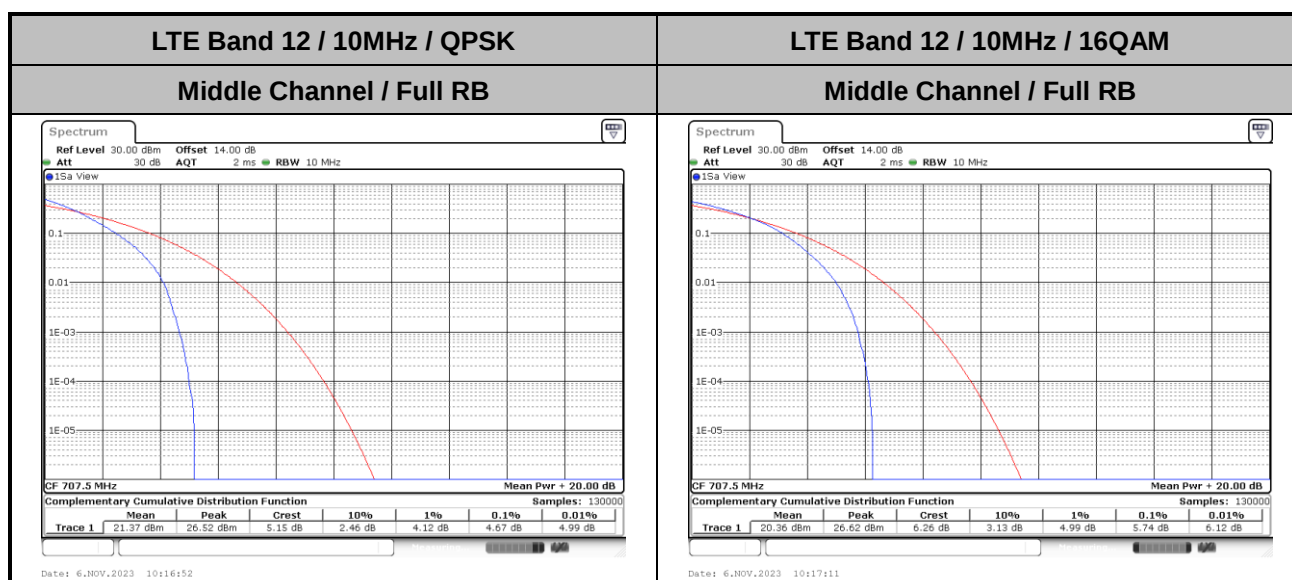
Note: Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage = 4.35 V.



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	4.67	5.74	-	PASS





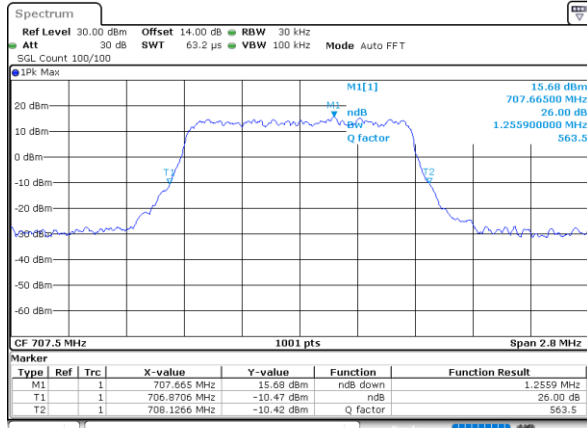
26dB Bandwidth

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Middle CH	1.26	1.29	3.00	3.01	4.90	4.84	9.63	9.65				

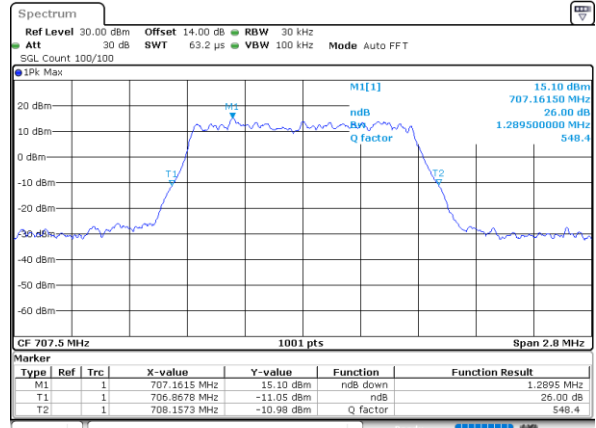


LTE Band 12

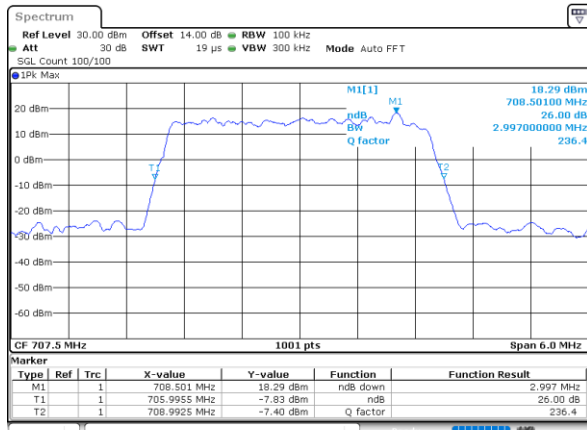
Middle Channel / 1.4MHz / QPSK



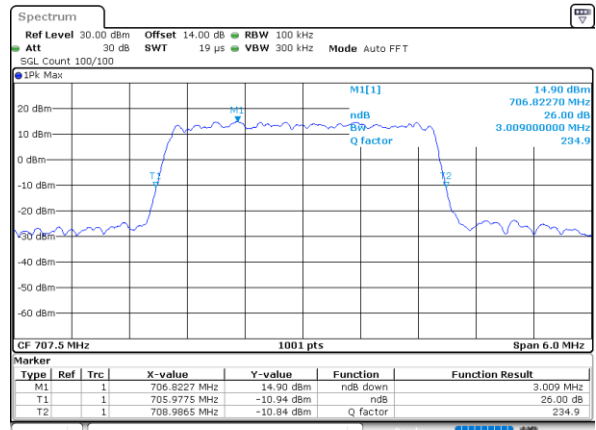
Middle Channel / 1.4MHz / 16QAM



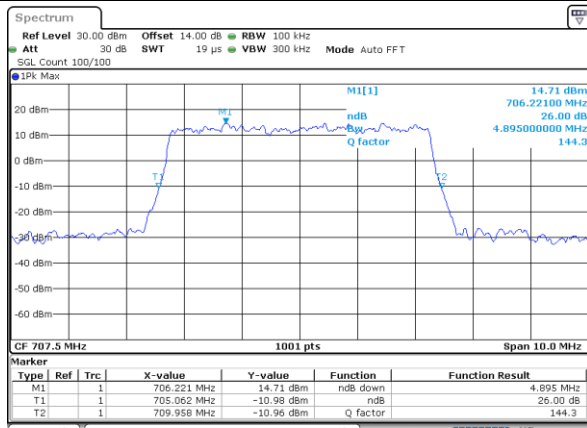
Middle Channel / 3MHz / QPSK



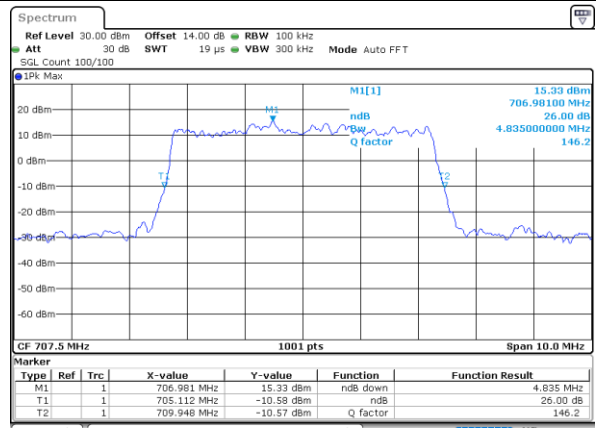
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



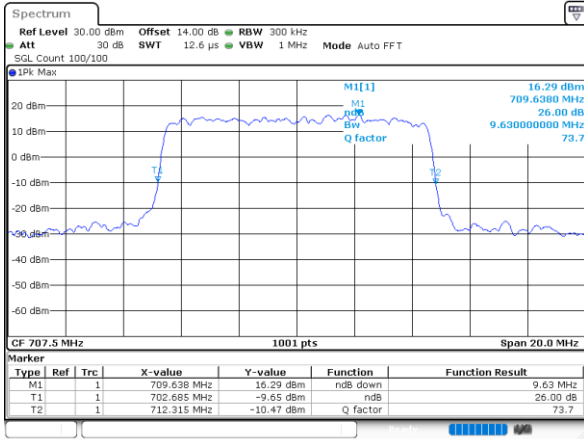
Middle Channel / 5MHz / 16QAM





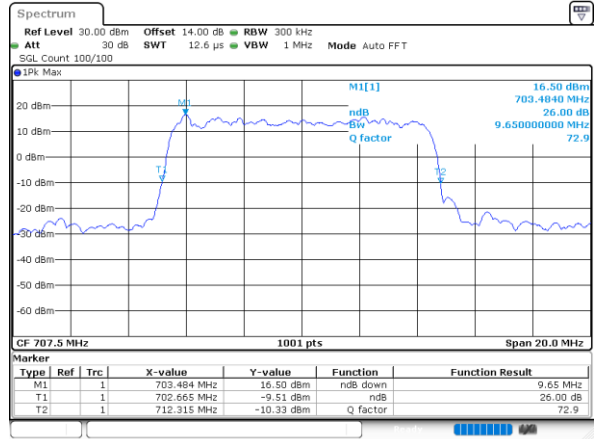
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 6.NOV.2023 10:13:45

Middle Channel / 10MHz / 16QAM



Date: 6.NOV.2023 10:14:22



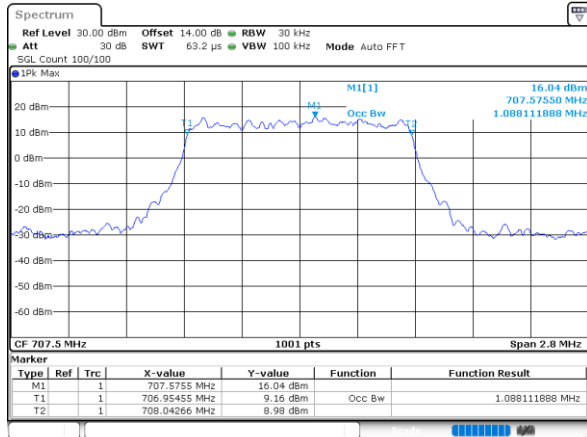
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Middle CH	1.09	1.09	2.71	2.71	4.51	4.49	8.95	8.97				

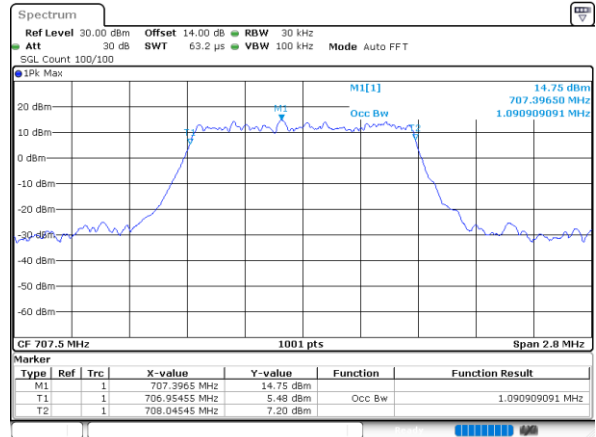


LTE Band 12

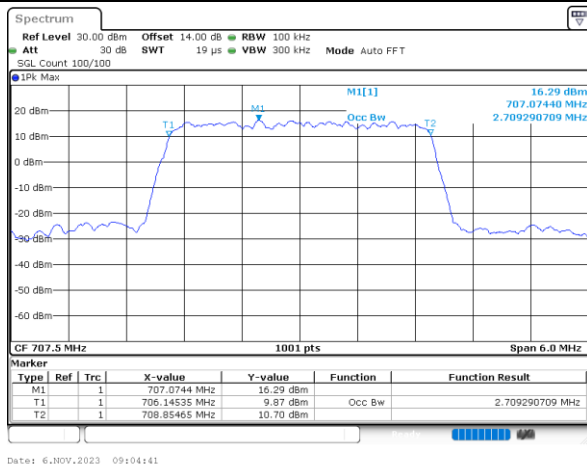
Middle Channel / 1.4MHz / QPSK



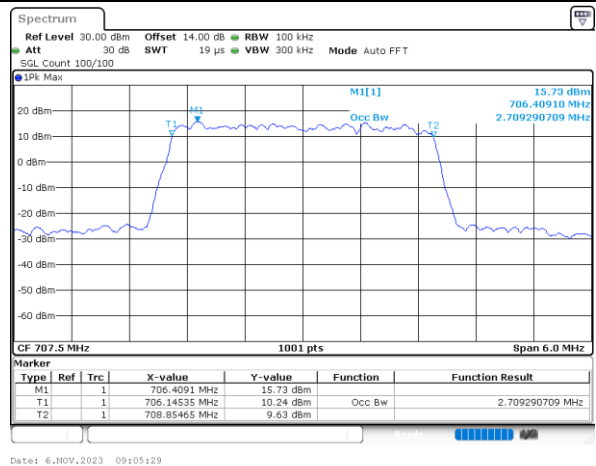
Middle Channel / 1.4MHz / 16QAM



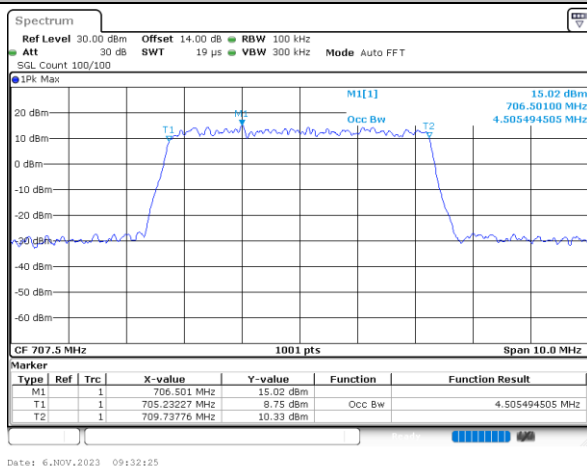
Middle Channel / 3MHz / QPSK



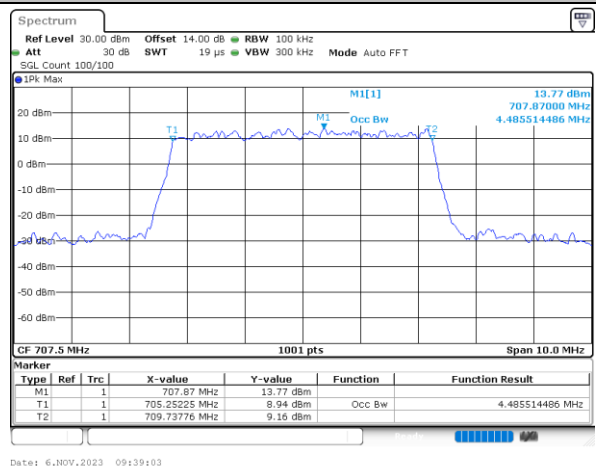
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



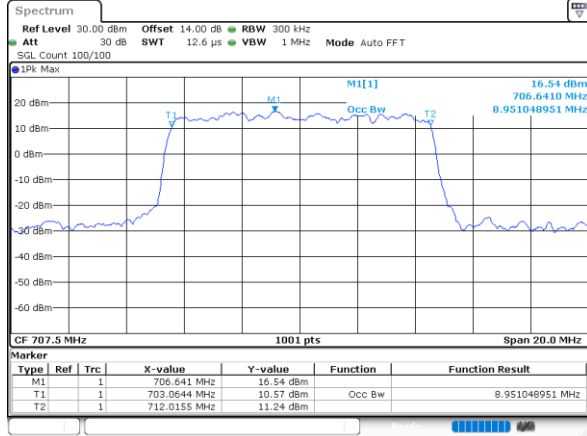
Middle Channel / 5MHz / 16QAM





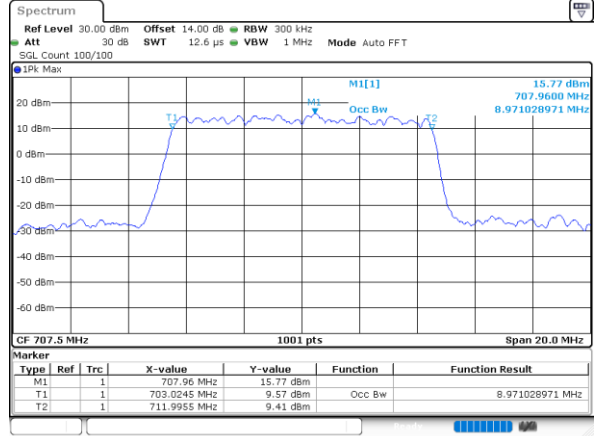
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 6.NOV.2023 10:13:27

Middle Channel / 10MHz / 16QAM



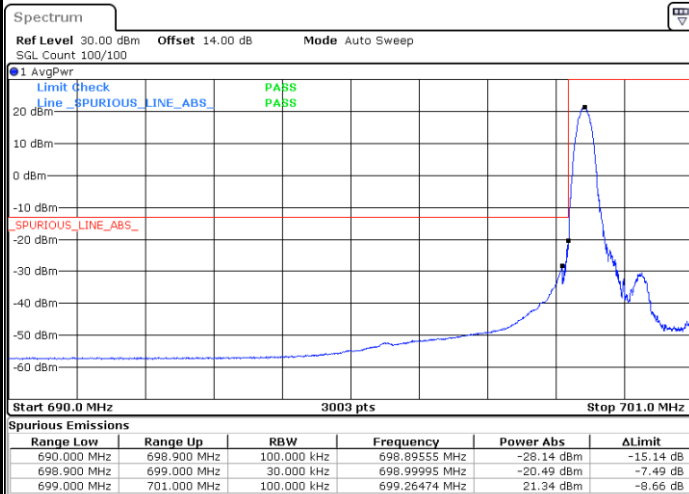
Date: 6.NOV.2023 10:14:11



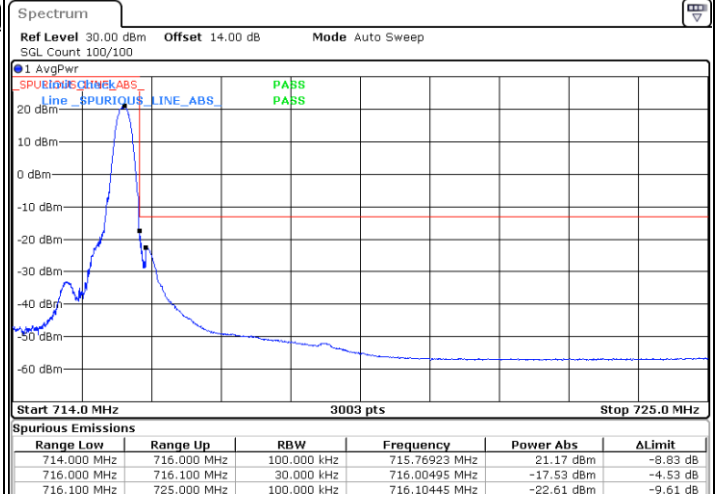
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

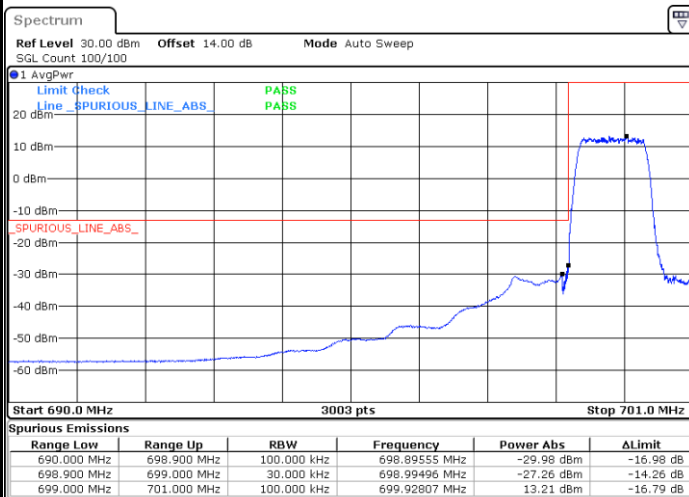
Lowest Band Edge / 1RB



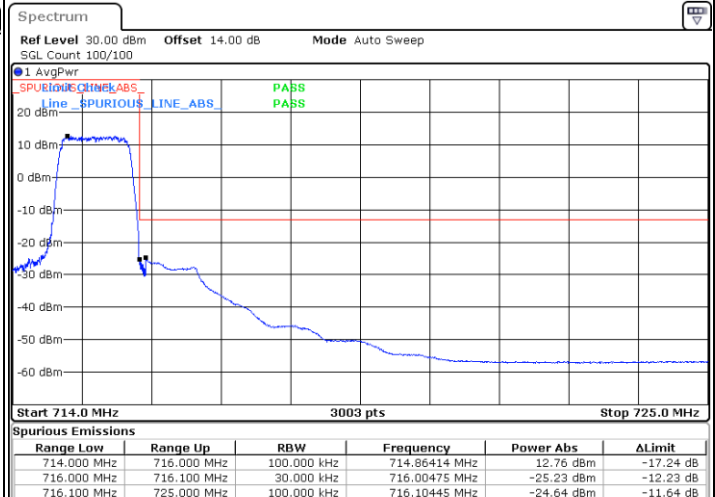
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



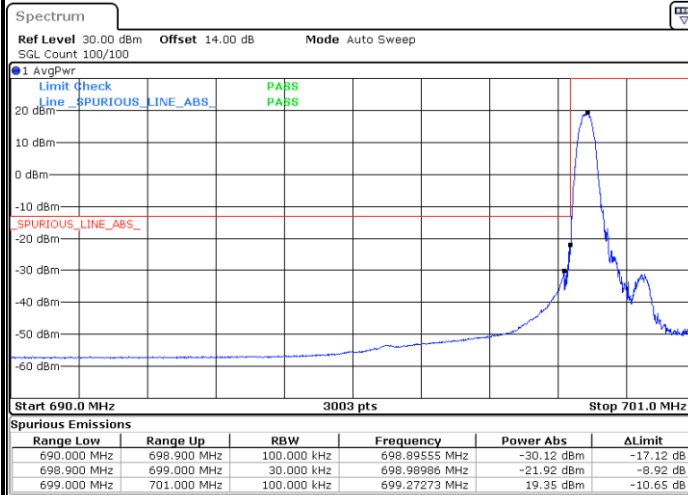
Highest Band Edge / Full RB



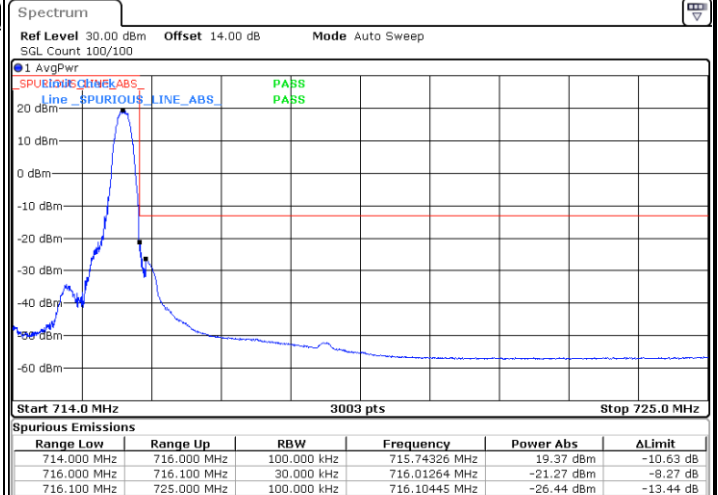


LTE Band 12 / 1.4MHz / 16QAM

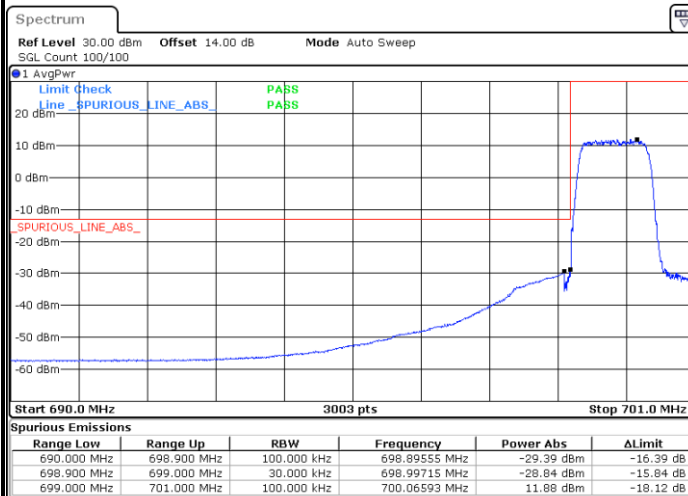
Lowest Band Edge / 1 RB



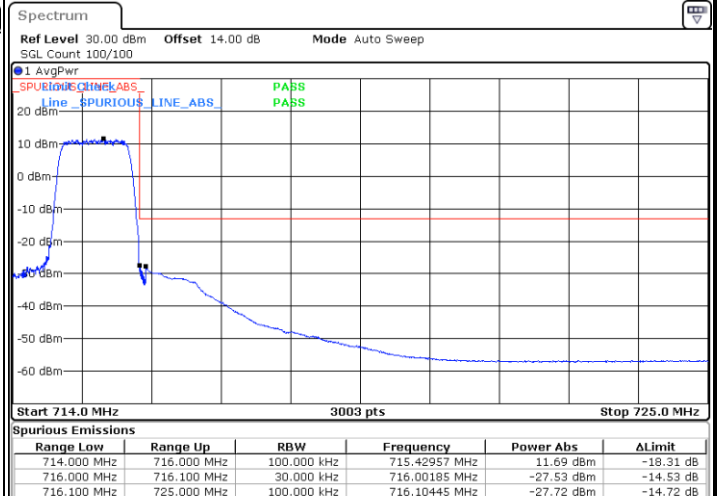
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



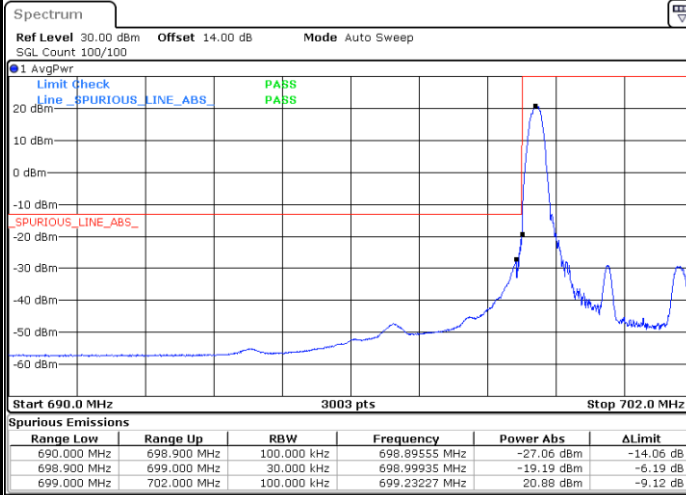
Highest Band Edge / Full RB



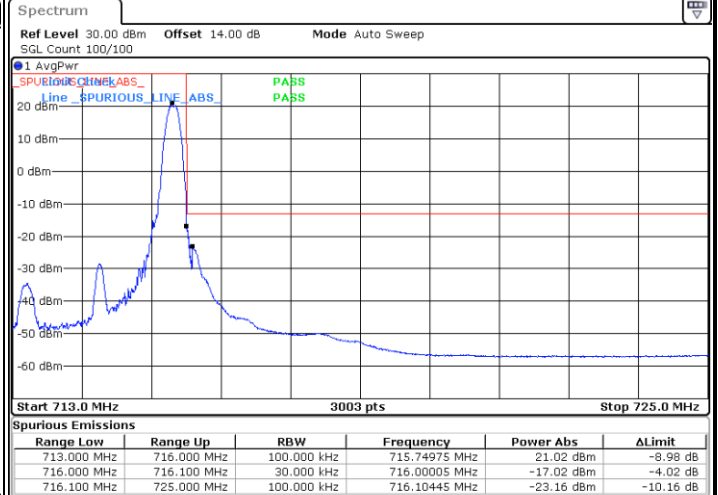


LTE Band 12 / 3MHz / QPSK

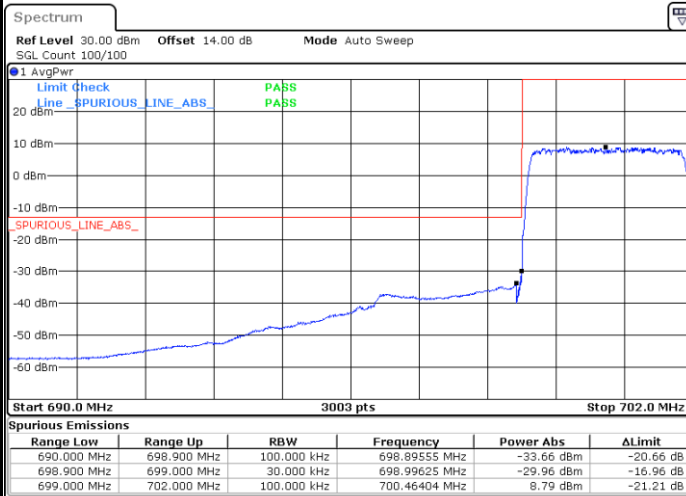
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



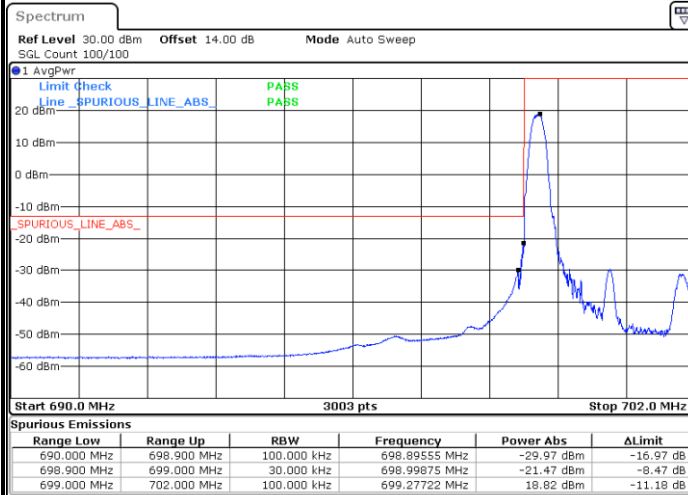
Highest Band Edge / Full RB



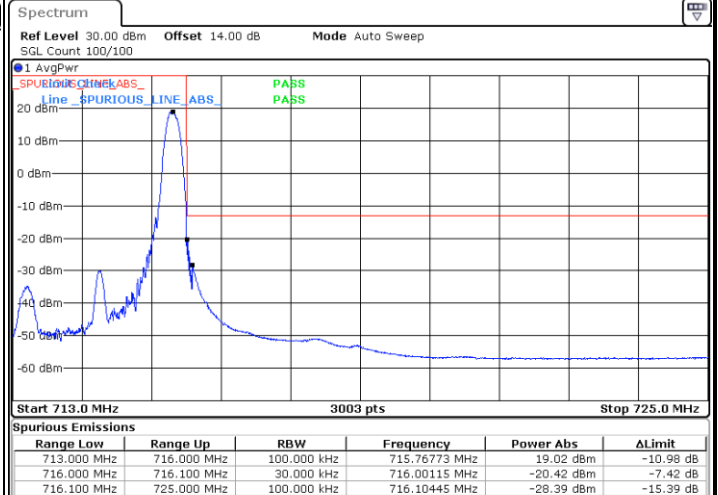


LTE Band 12 / 3MHz / 16QAM

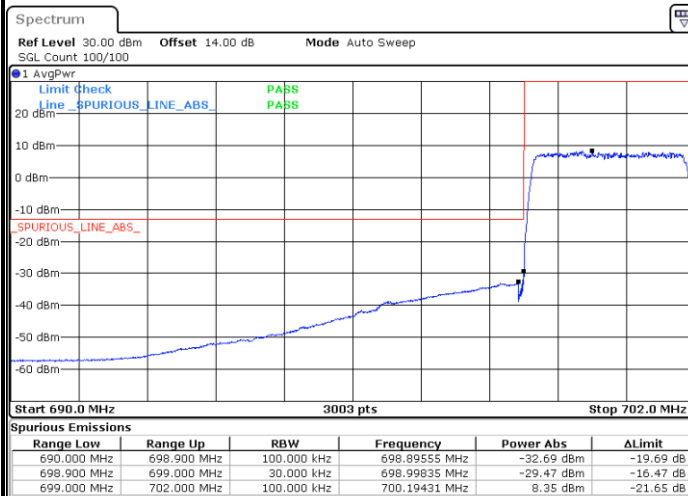
Lowest Band Edge / 1 RB



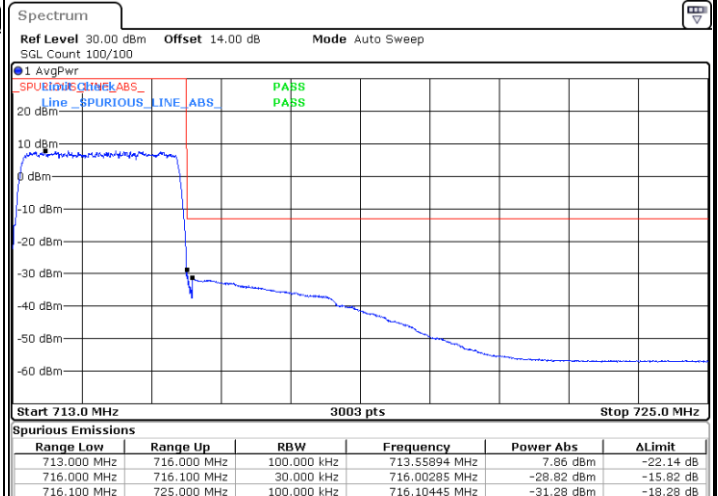
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



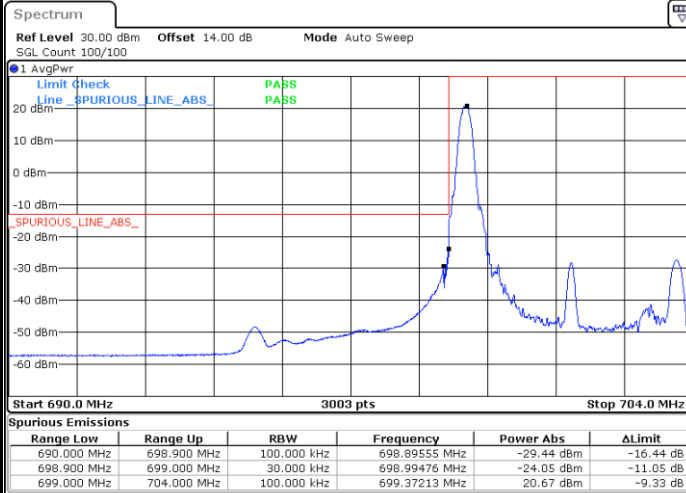
Highest Band Edge / Full RB



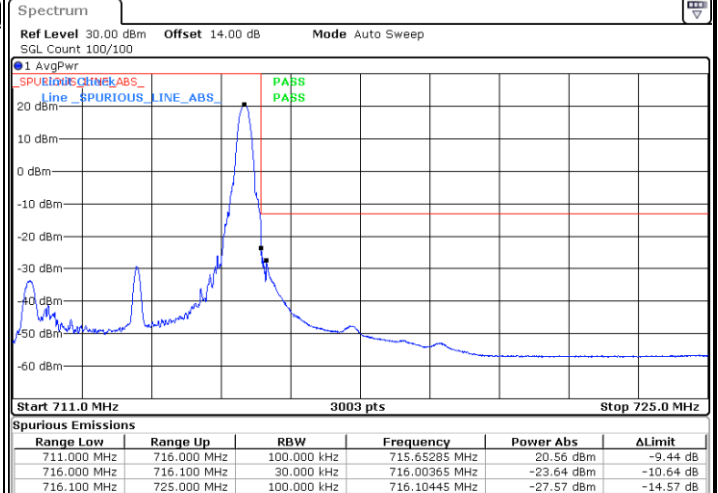


LTE Band 12 / 5MHz / QPSK

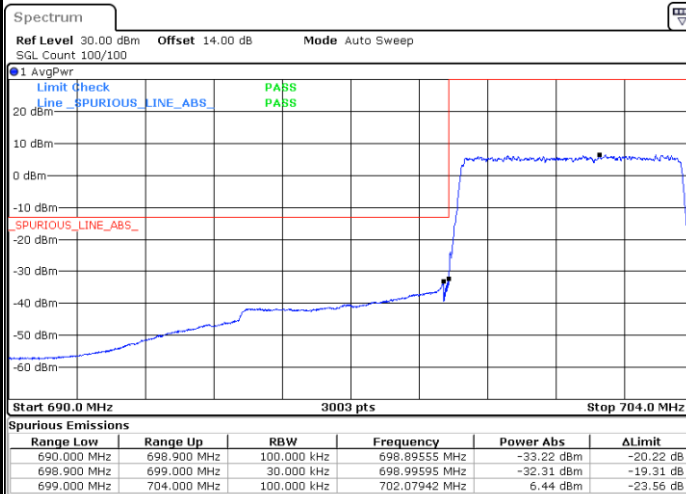
Lowest Band Edge / 1RB



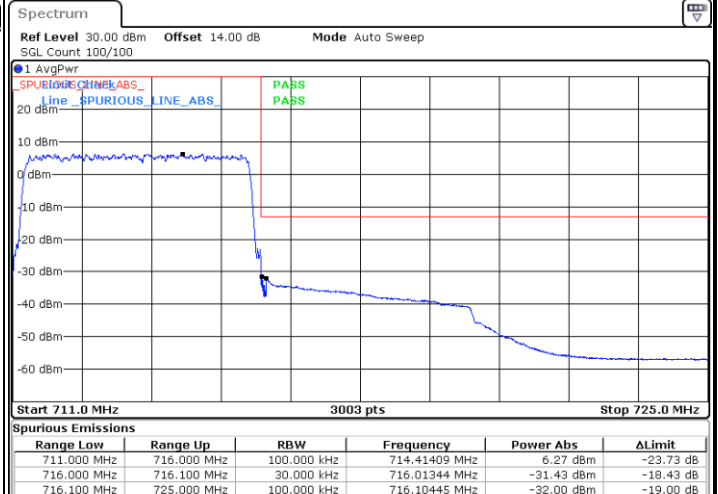
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



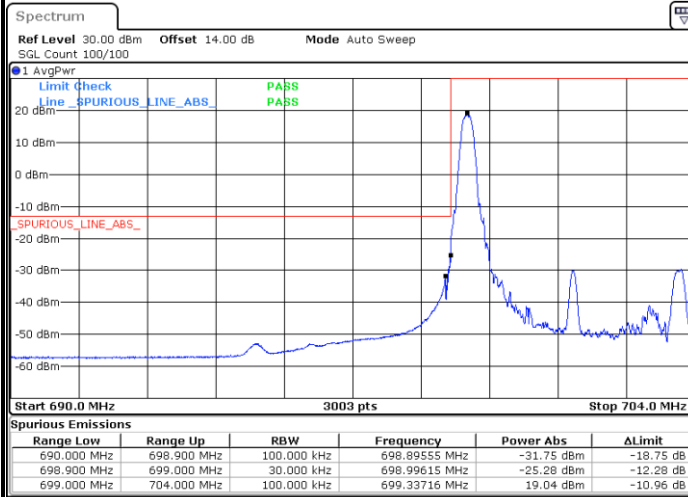
Highest Band Edge / Full RB



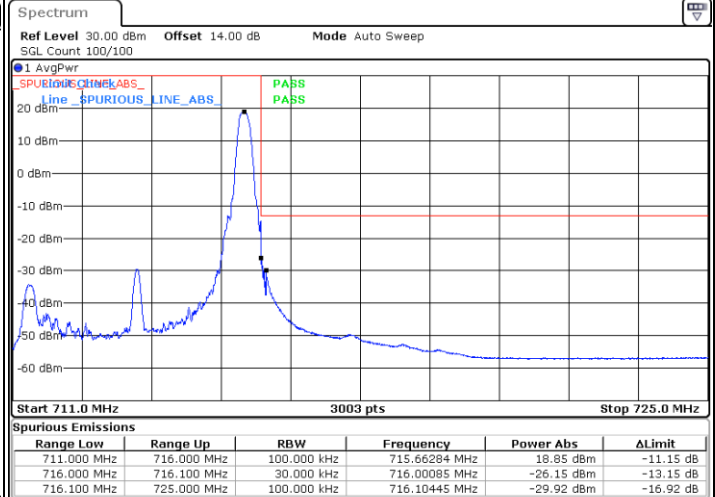


LTE Band 12 / 5MHz / 16QAM

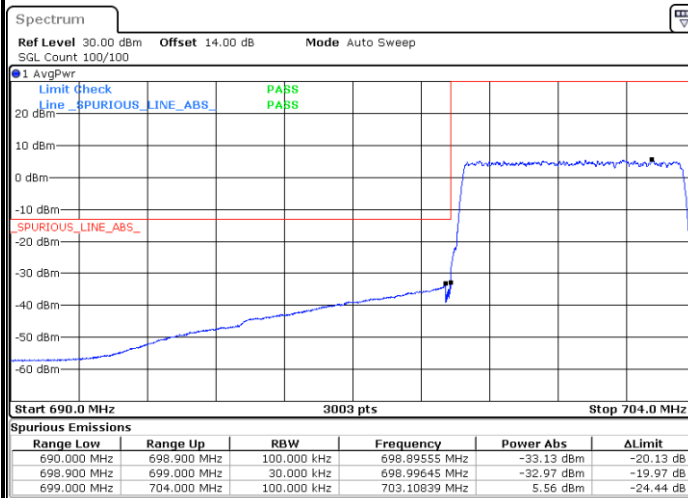
Lowest Band Edge / 1 RB



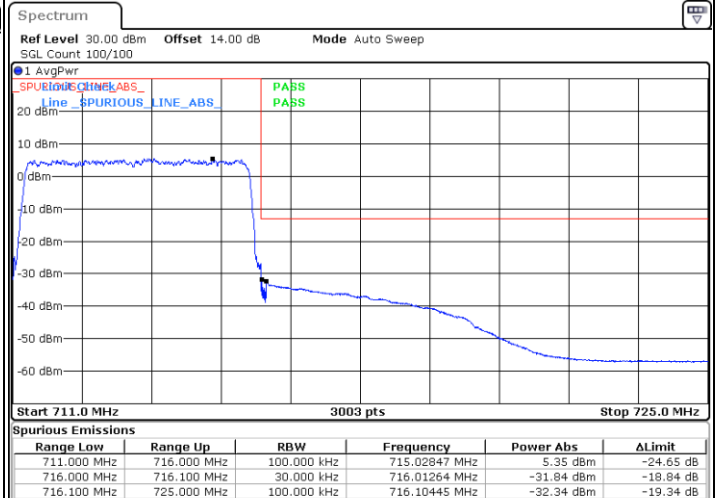
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



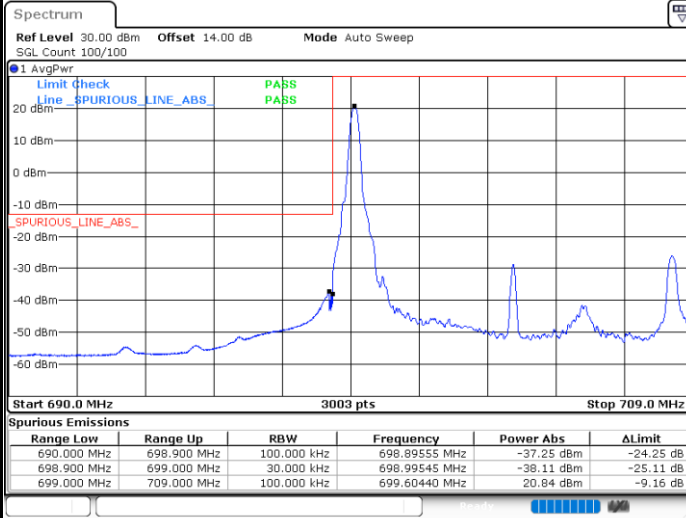
Highest Band Edge / Full RB



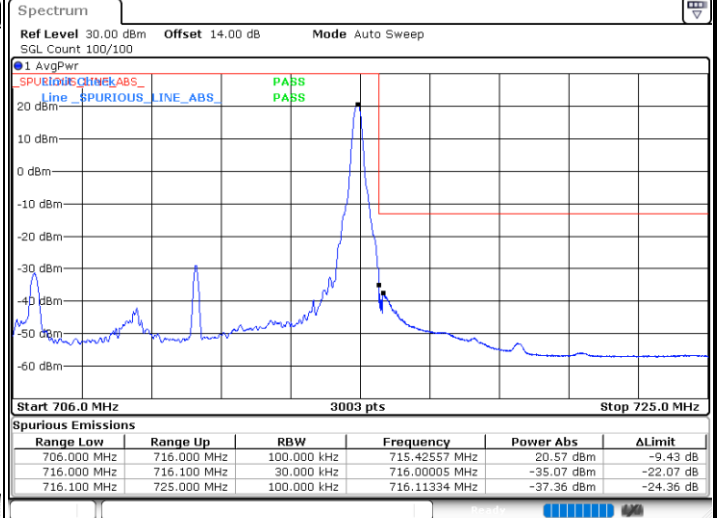


LTE Band 12 / 10MHz / QPSK

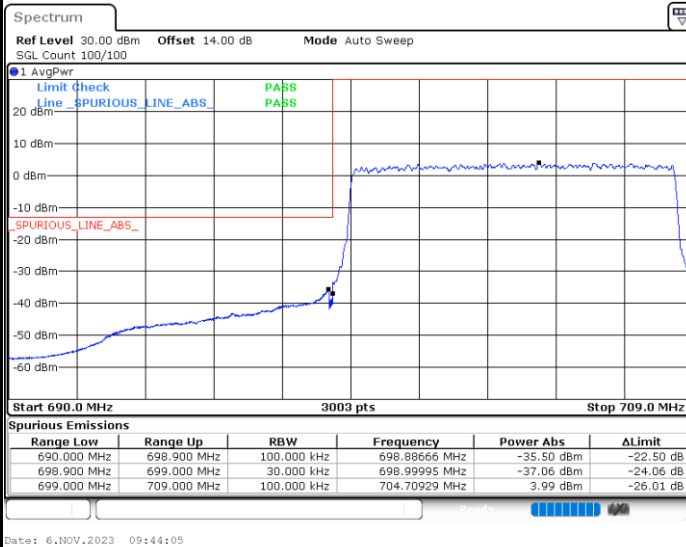
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

