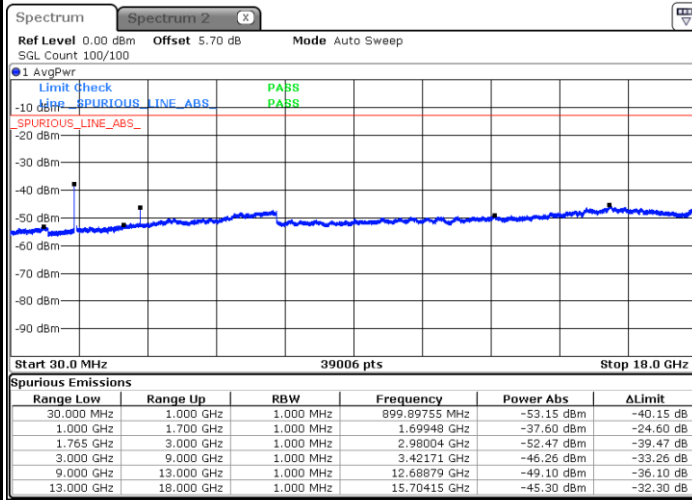




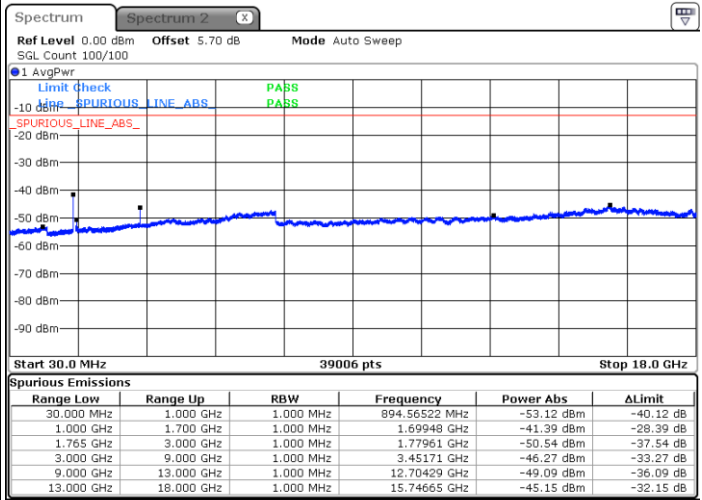
LTE Band 4 / 15MHz

Lowest Channel / QPSK



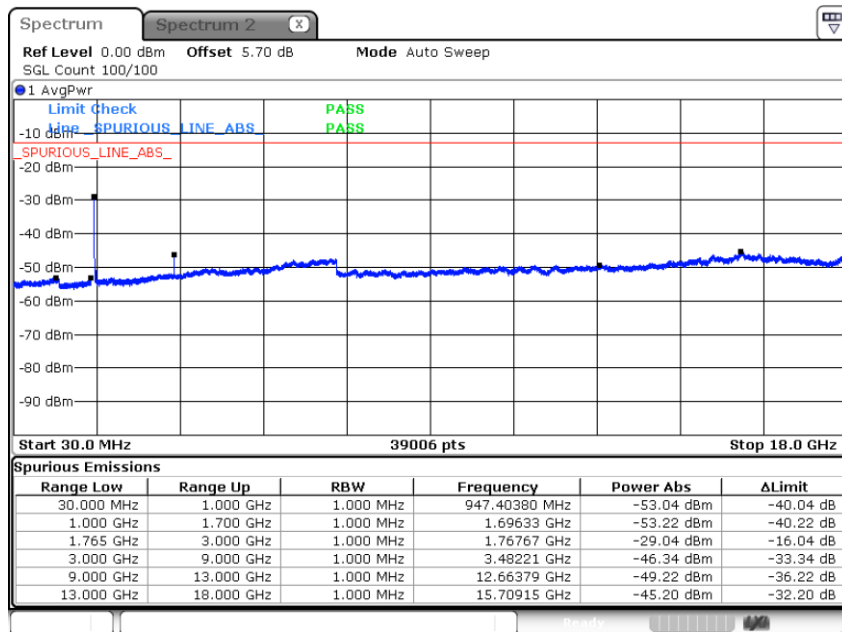
Date: 12.FEB.2021 16:19:36

Middle Channel / QPSK



Date: 12.FEB.2021 16:20:23

Highest Channel / QPSK

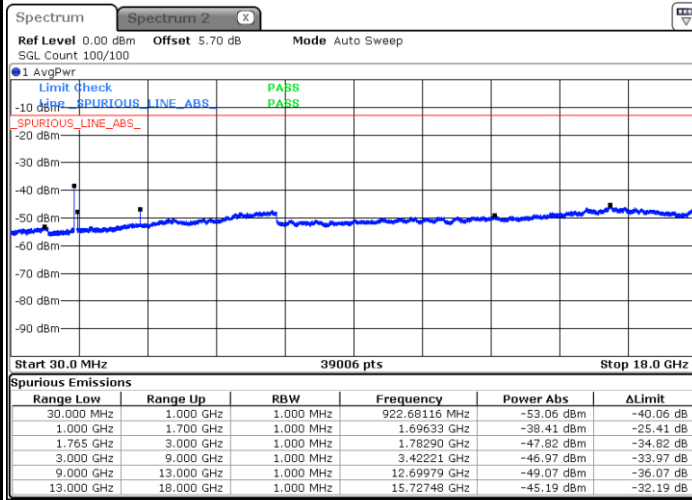


Date: 12.FEB.2021 16:21:20



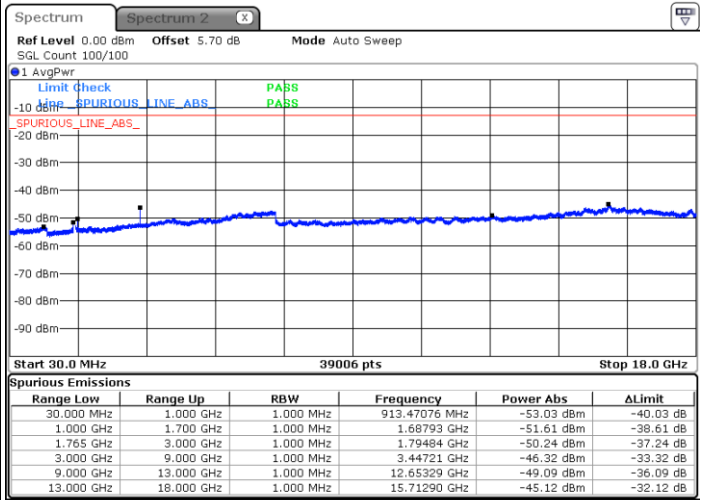
LTE Band 4 / 20MHz

Lowest Channel / QPSK



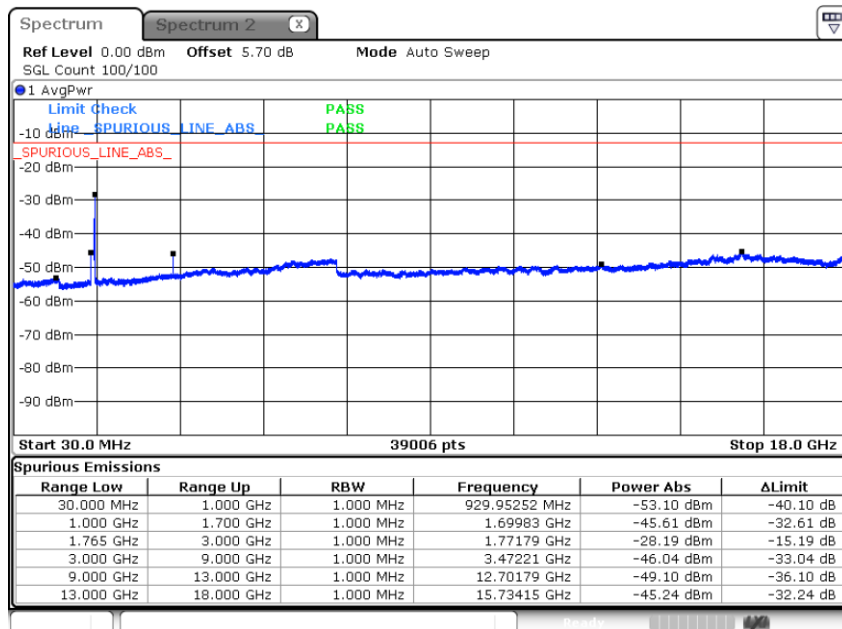
Date: 12.FEB.2021 16:23:38

Middle Channel / QPSK



Date: 12.FEB.2021 16:24:33

Highest Channel / QPSK



Date: 12.FEB.2021 16:25:42

Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0017	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0003	

Note:

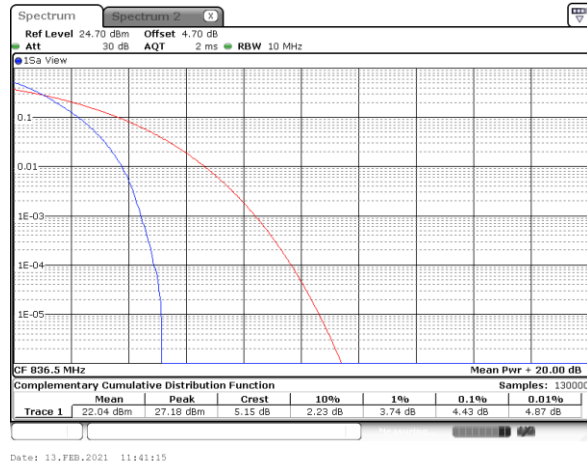
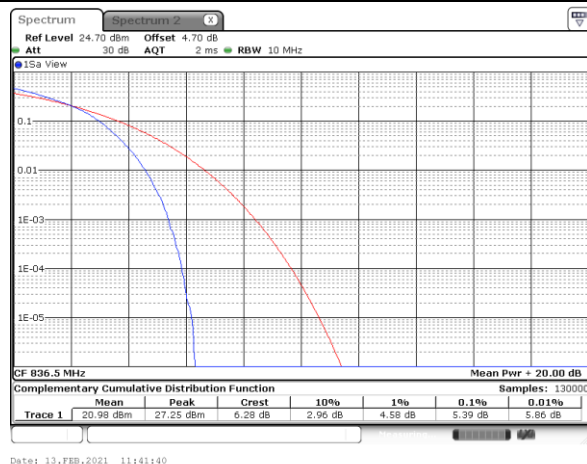
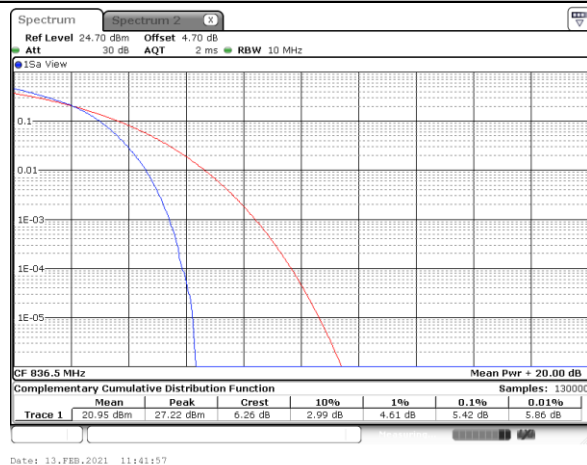
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

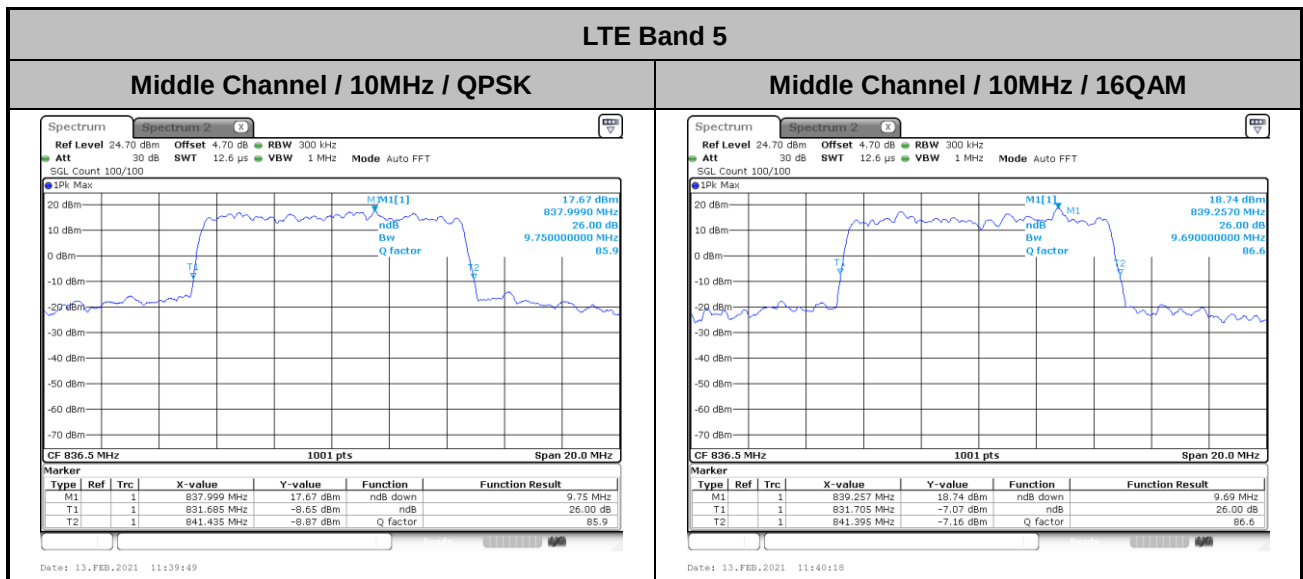
Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.43	5.39	5.42	PASS

LTE Band 5 / 10MHz
Middle Channel / Full RB/ QPSK

Middle Channel / Full RB/ 16QAM

Middle Channel / Full RB/ 64QAM


**26dB Bandwidth**

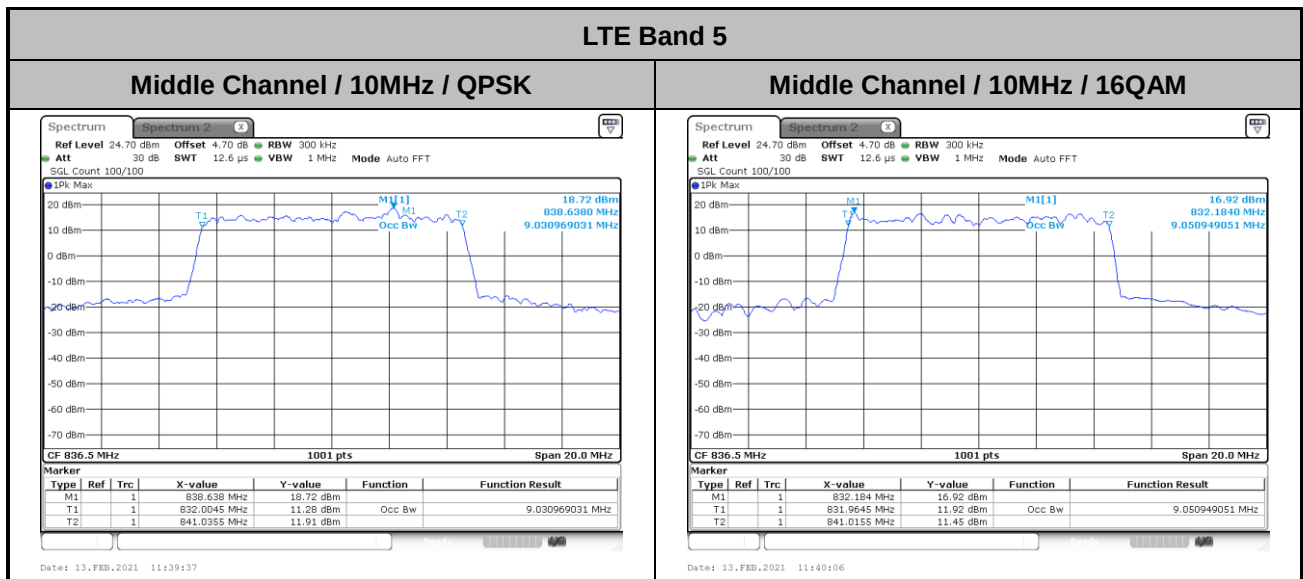
Mode	LTE Band 5 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.75	9.69





Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.03	9.05

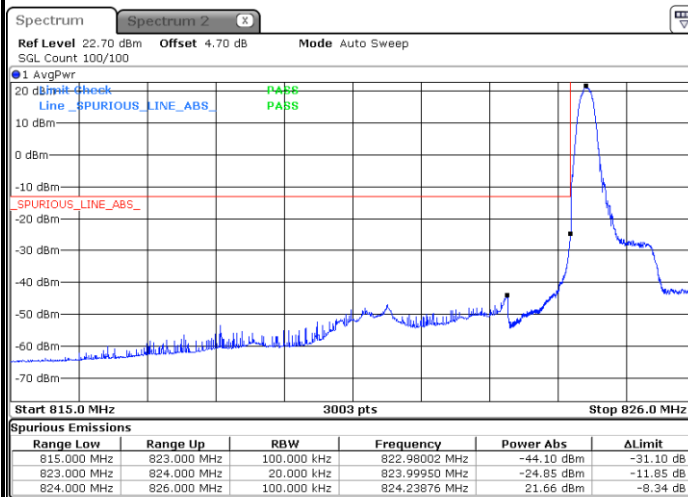




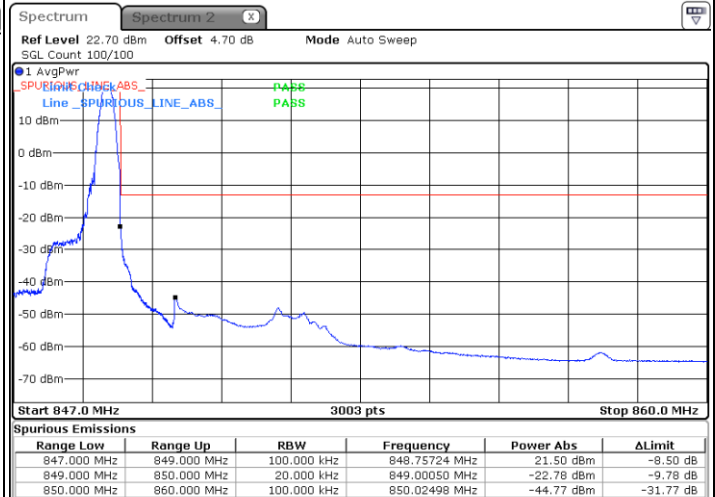
Conducted Band Edge

LTE Band 5 / 1.4MHz / QPSK

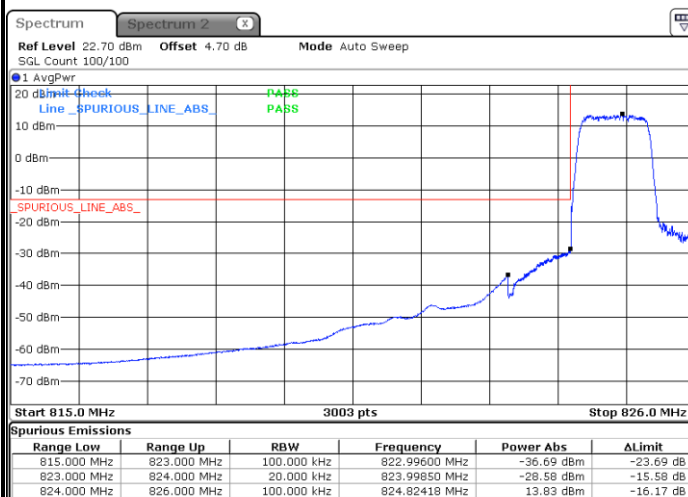
Lowest Band Edge / 1RB



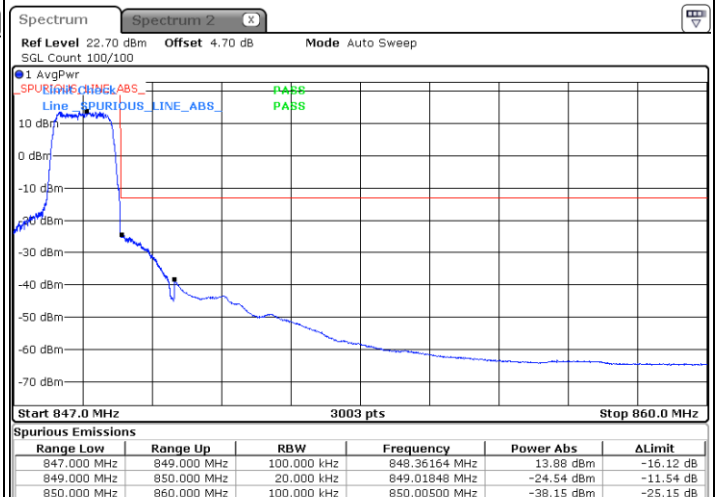
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



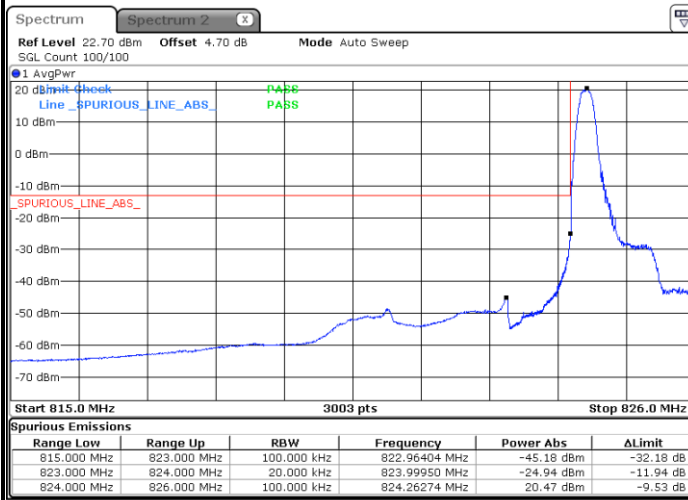
Highest Band Edge / Full RB



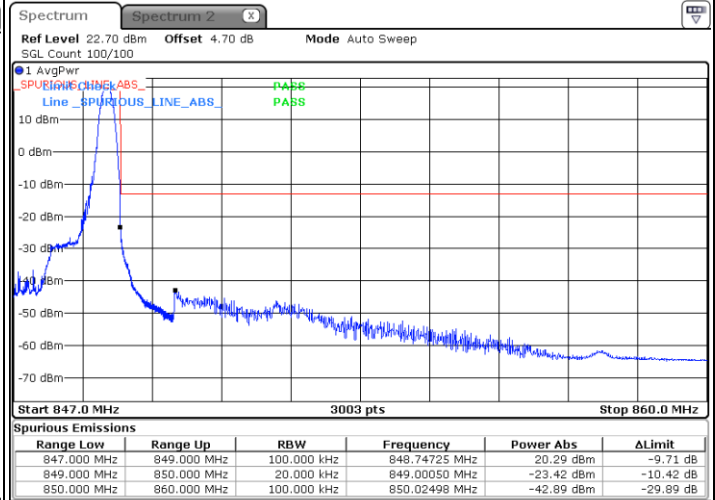


LTE Band 5 / 1.4MHz / 16QAM

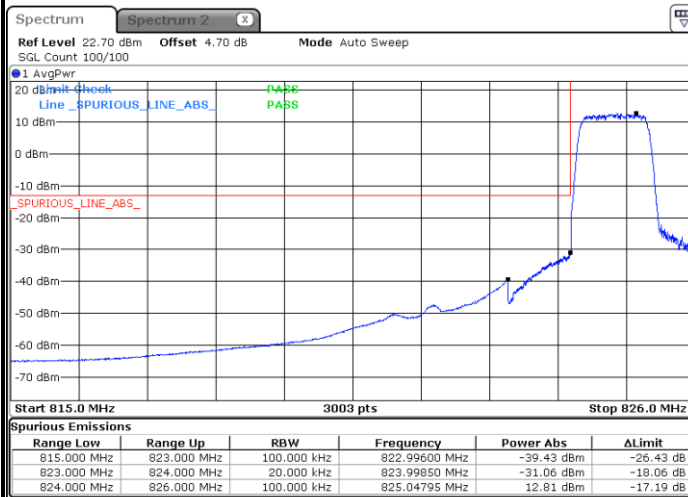
Lowest Band Edge / 1 RB



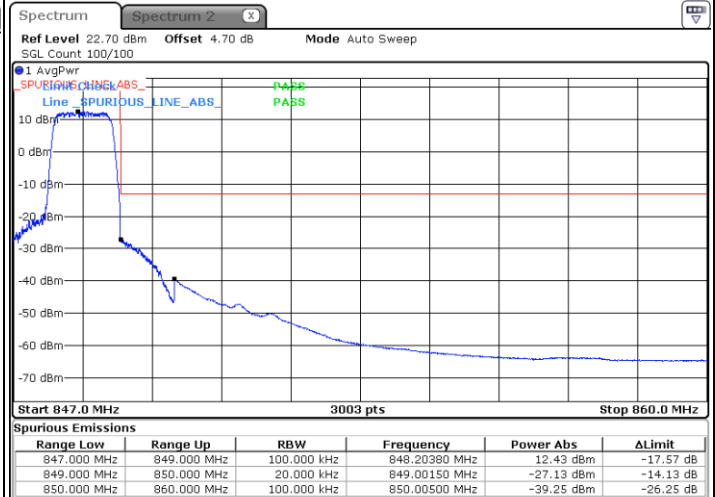
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



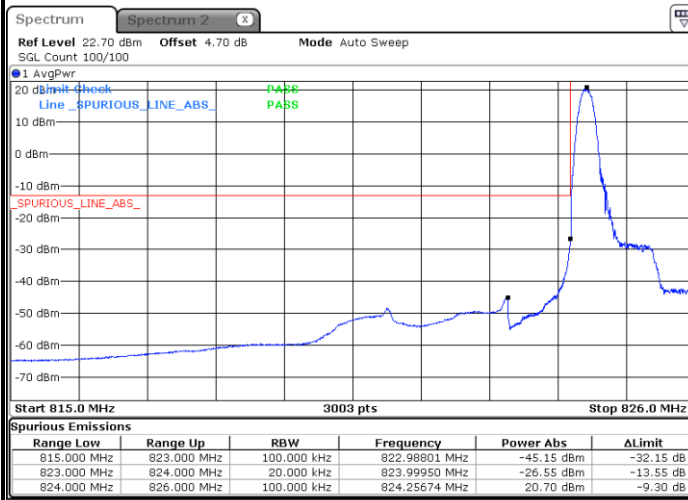
Highest Band Edge / Full RB



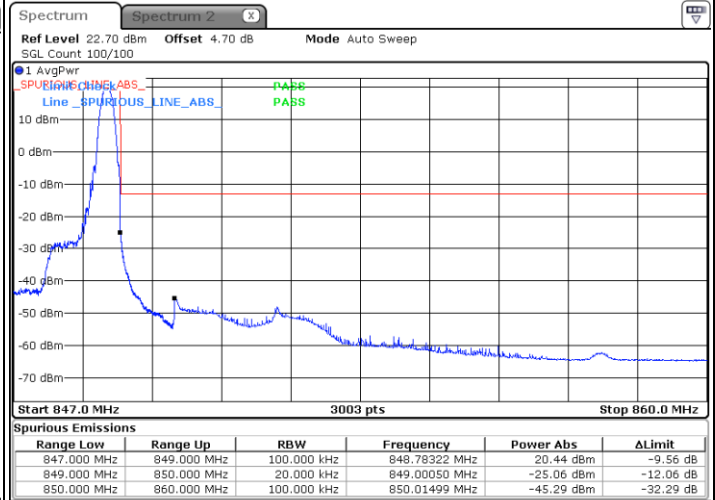


LTE Band 5 / 1.4MHz / 64QAM

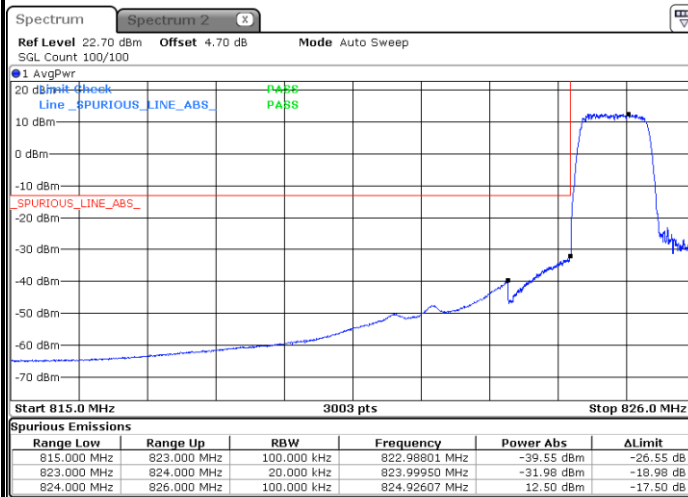
Lowest Band Edge / 1 RB



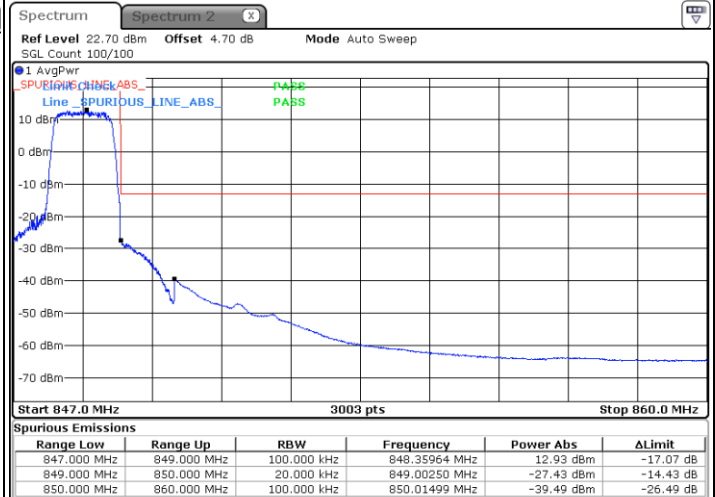
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



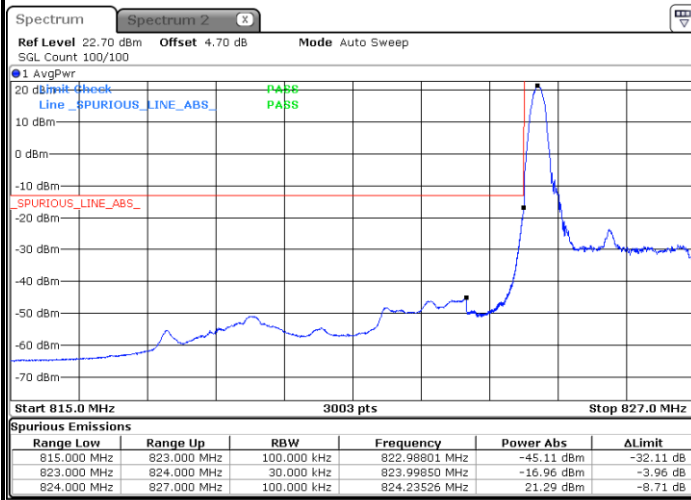
Highest Band Edge / Full RB





LTE Band 5 / 3MHz / QPSK

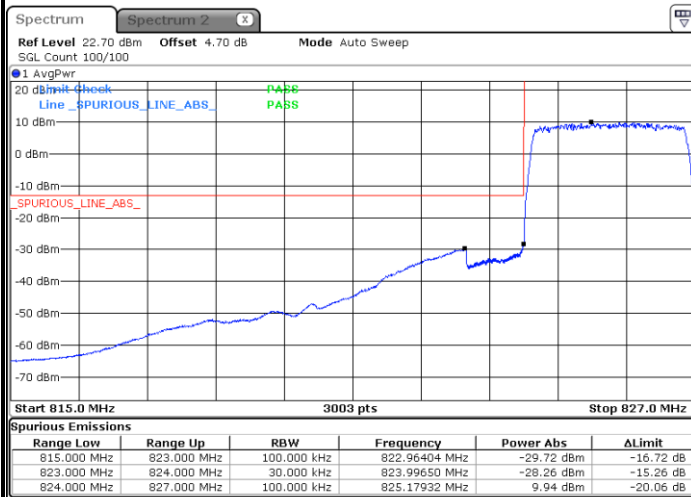
Lowest Band Edge / 1RB



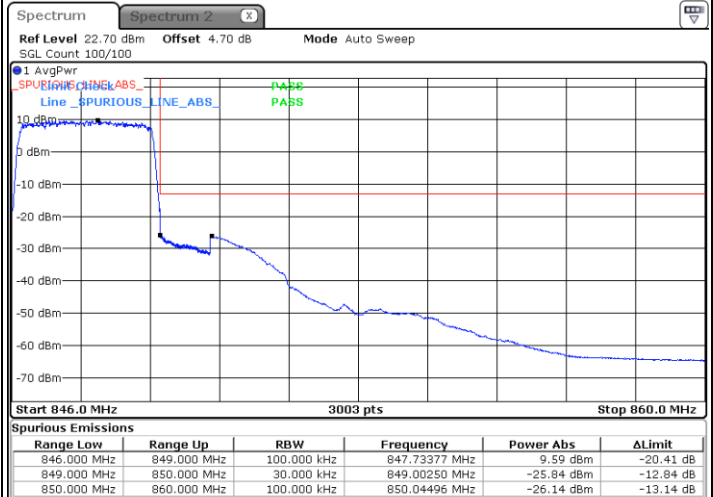
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



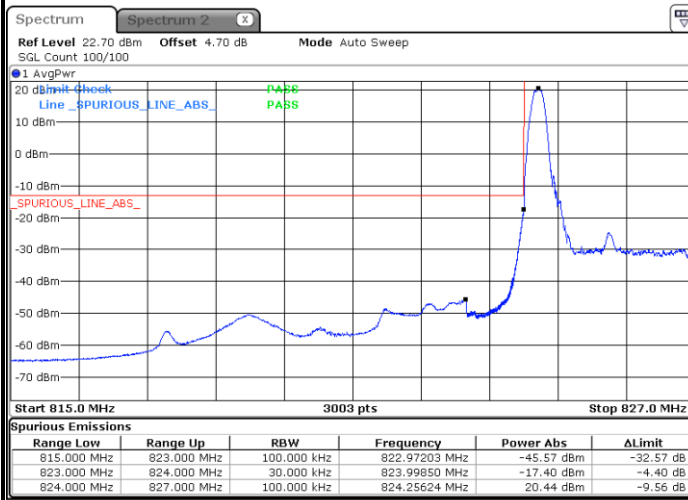
Highest Band Edge / Full RB





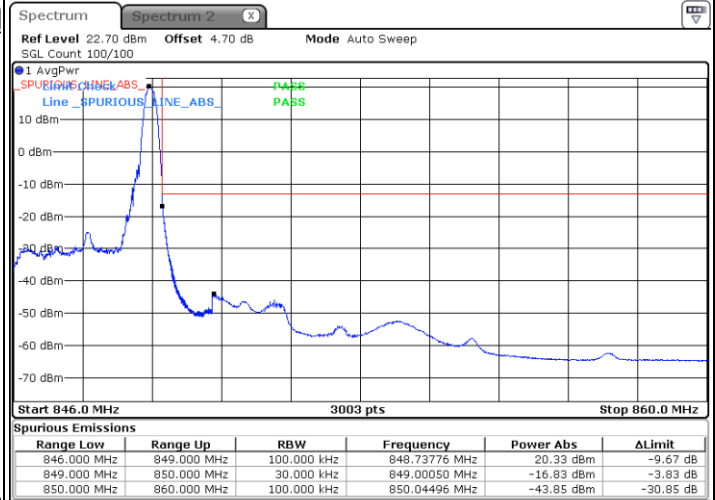
LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



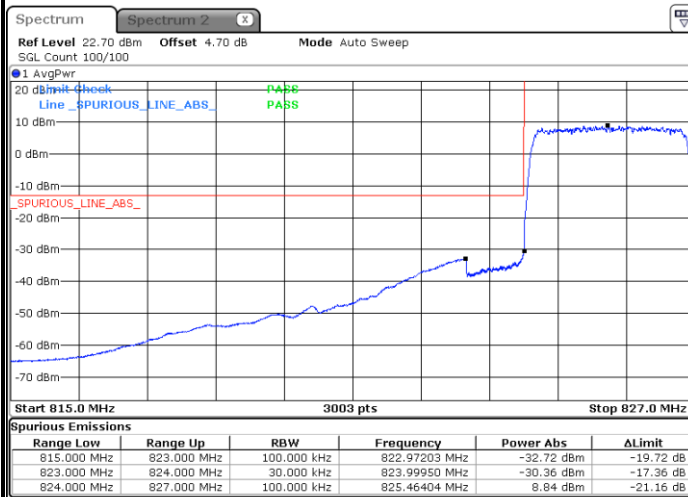
Date: 13.FEB.2021 09:53:12

Highest Band Edge / 1 RB



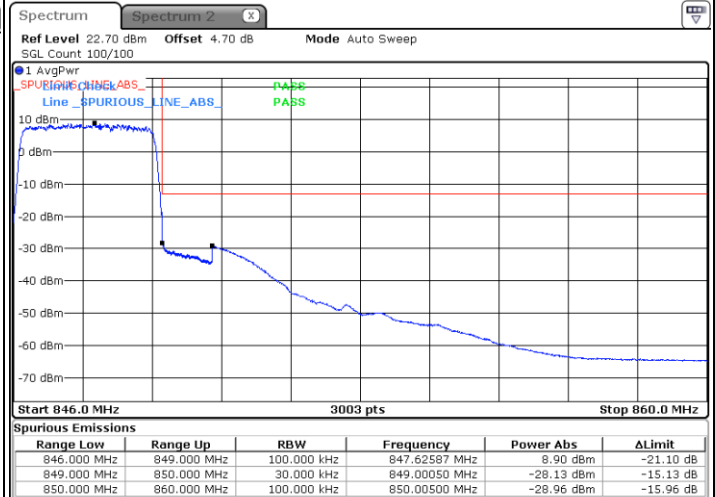
Date: 13.FEB.2021 09:59:42

Lowest Band Edge / Full RB



Date: 13.FEB.2021 09:56:27

Highest Band Edge / Full RB

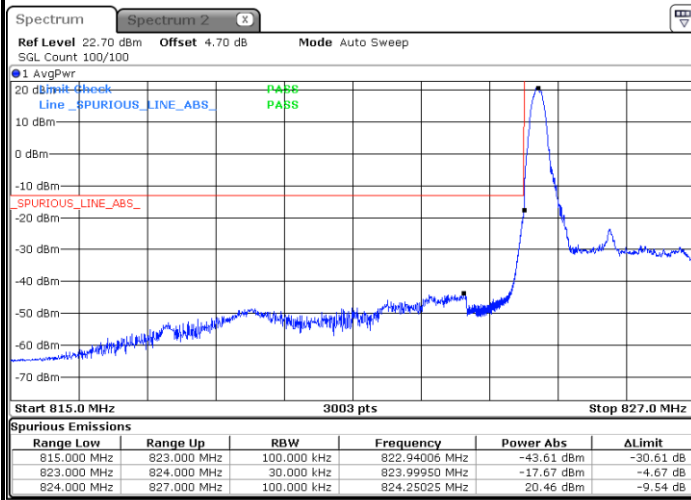


Date: 13.FEB.2021 10:02:57

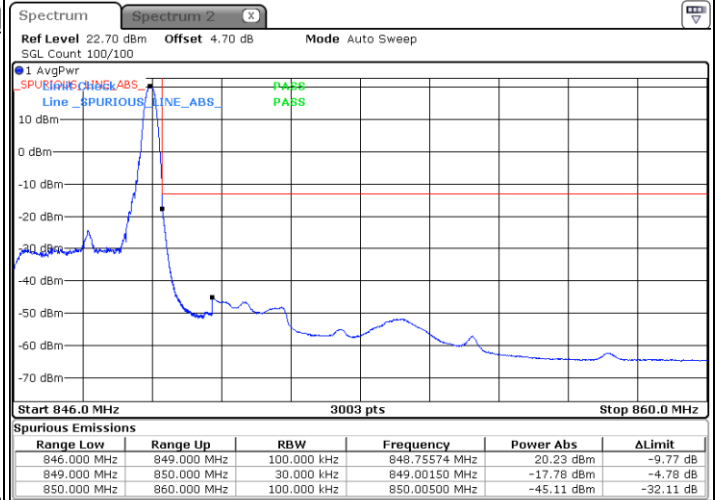


LTE Band 5 / 3MHz / 64QAM

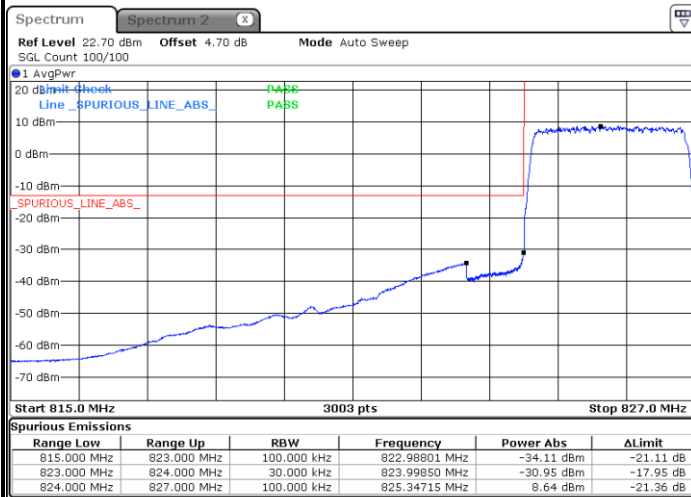
Lowest Band Edge / 1 RB



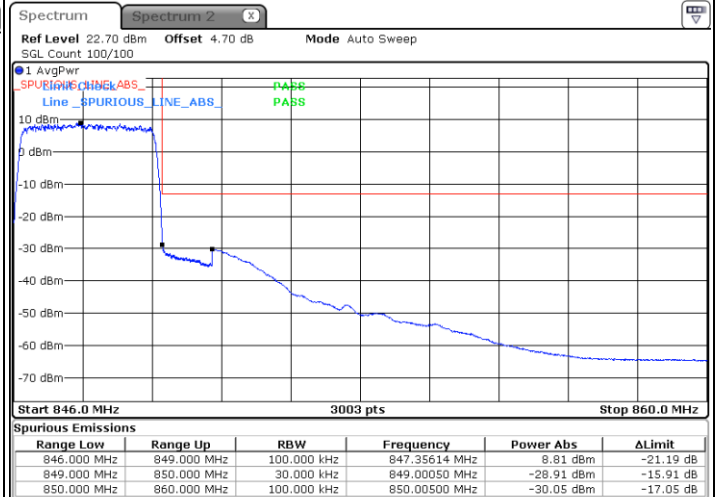
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



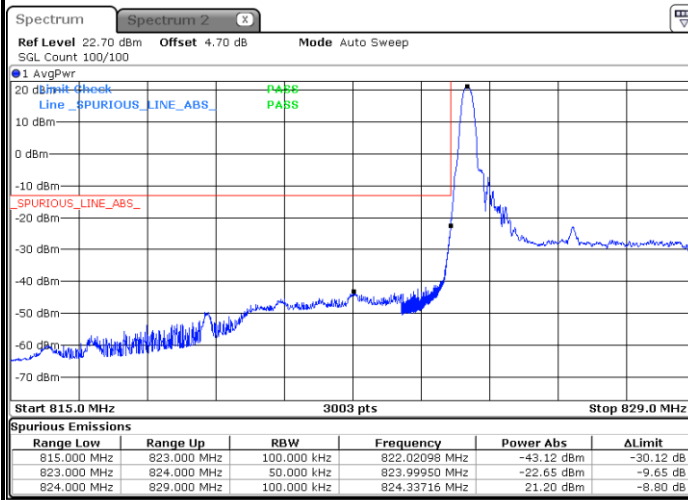
Highest Band Edge / Full RB



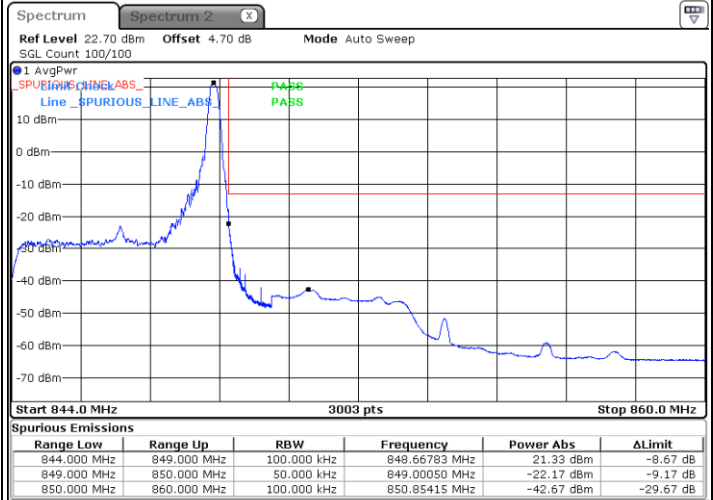


LTE Band 5 / 5MHz / QPSK

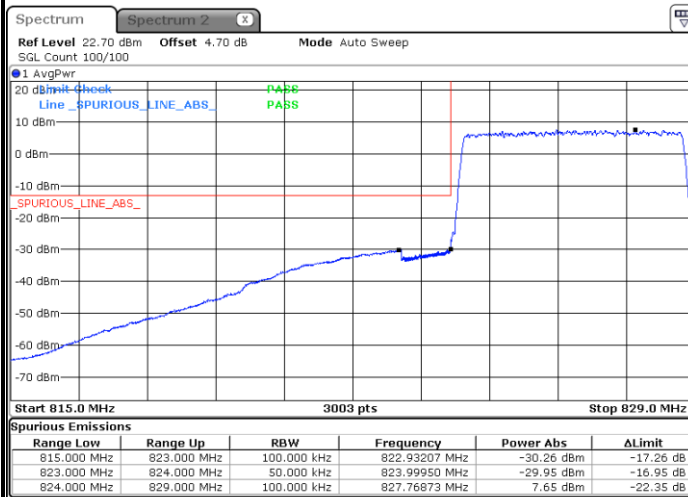
Lowest Band Edge / 1 RB



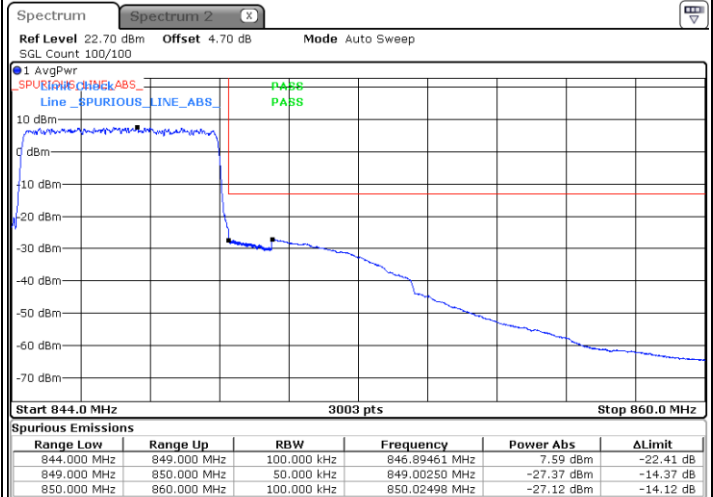
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



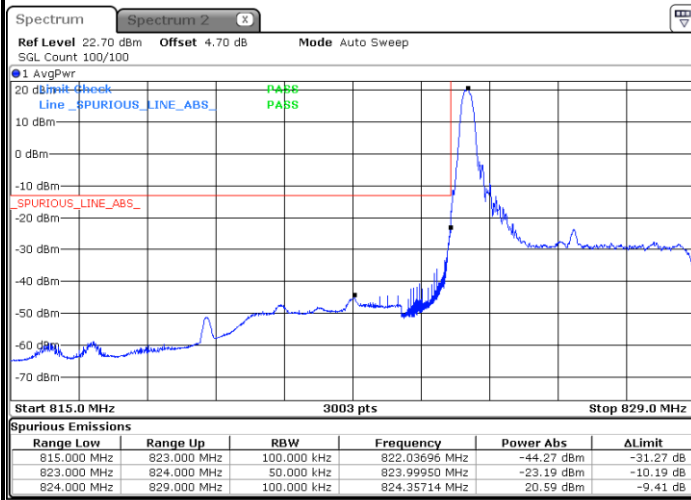
Highest Band Edge / Full RB



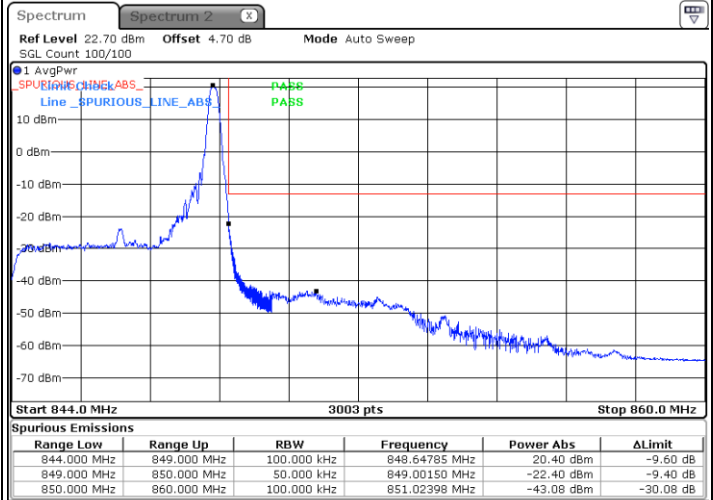


LTE Band 5 / 5MHz / 16QAM

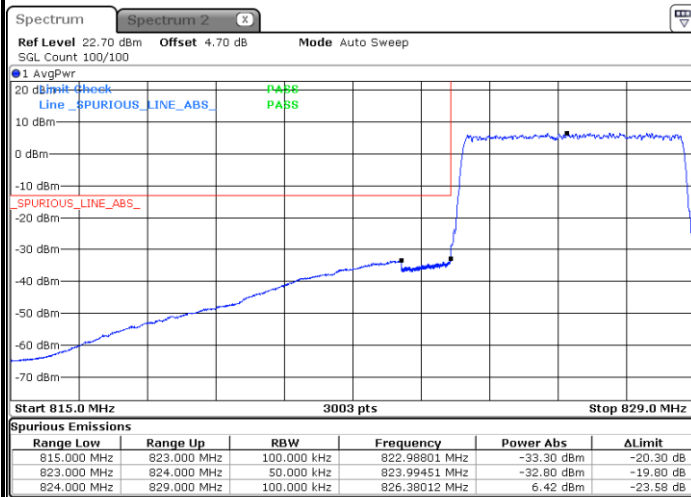
Lowest Band Edge / 1RB



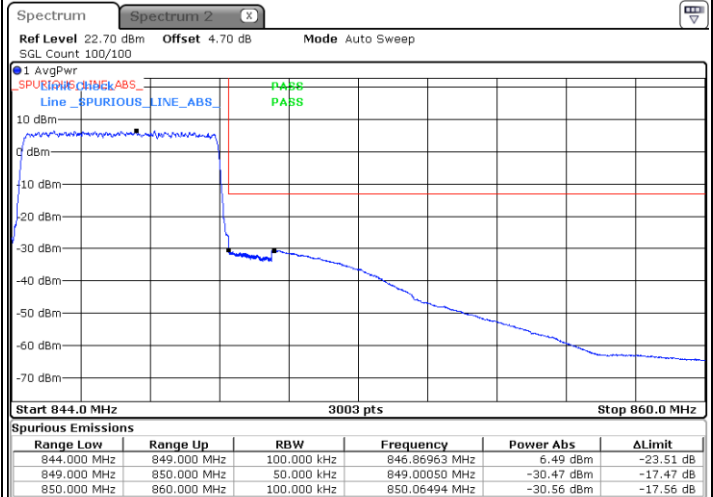
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



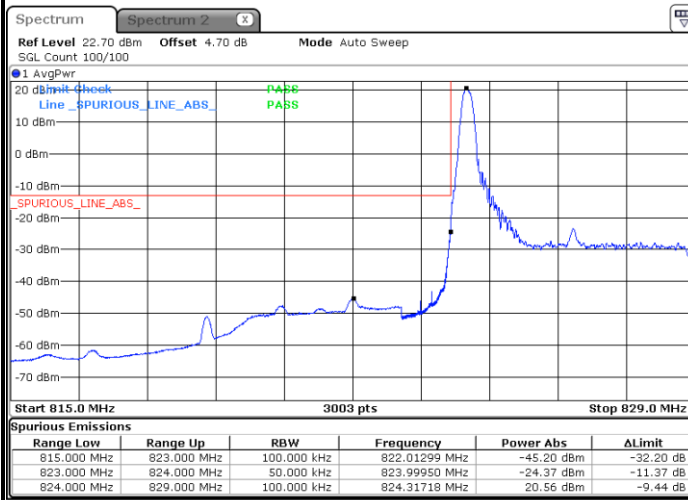
Highest Band Edge / Full RB



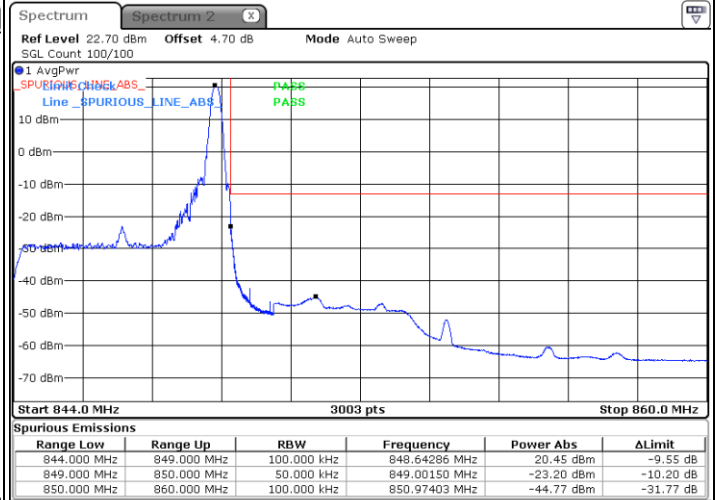


LTE Band 5 / 5MHz / 64QAM

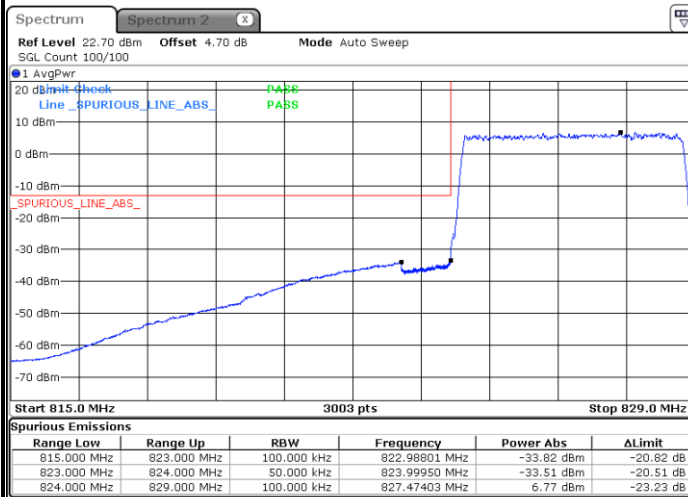
Lowest Band Edge / 1RB



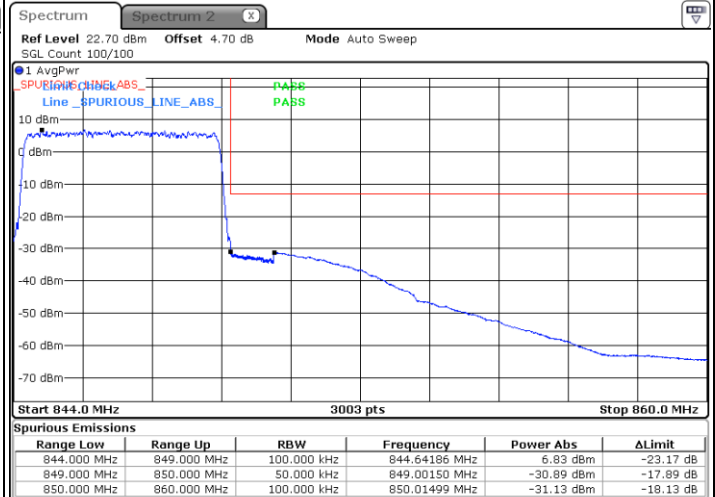
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



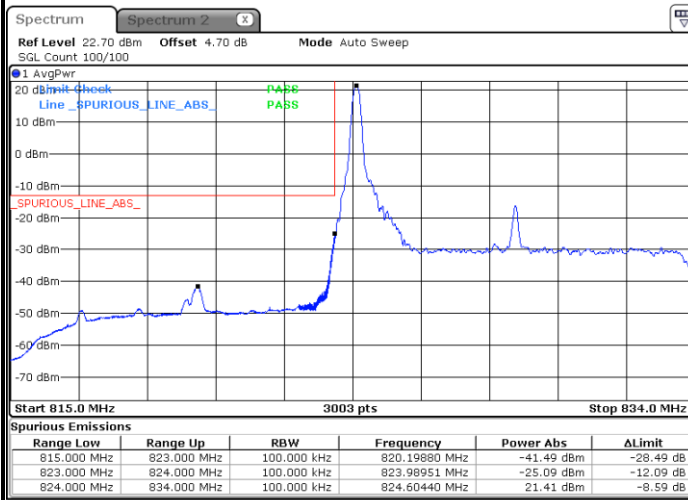
Highest Band Edge / Full RB



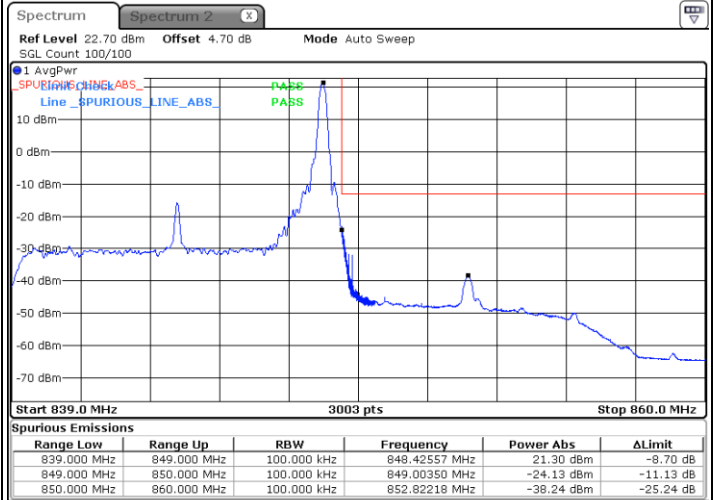


LTE Band 5 / 10MHz / QPSK

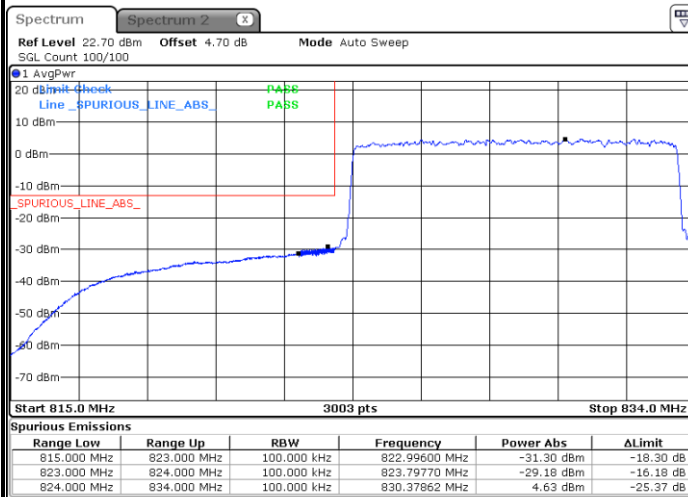
Lowest Band Edge / 1 RB



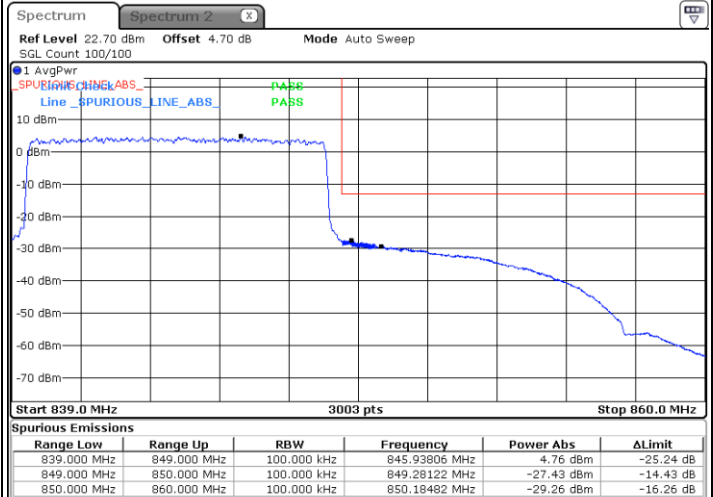
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



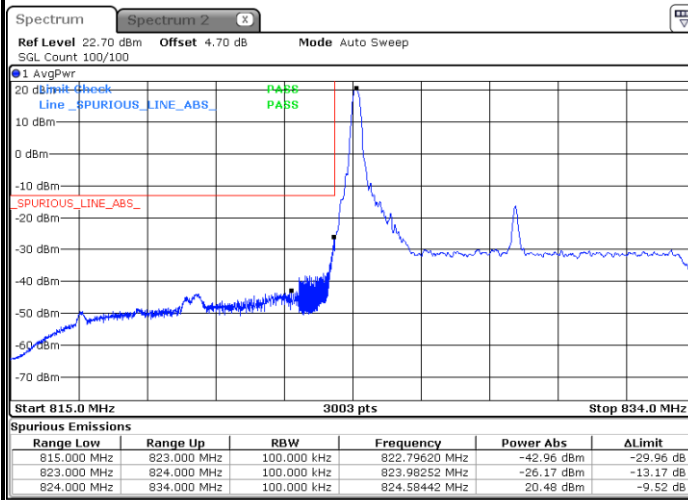
Highest Band Edge / Full RB



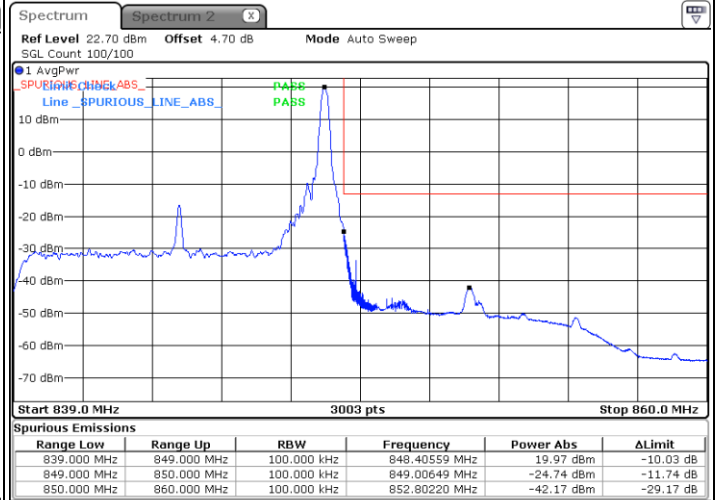


LTE Band 5 / 10MHz / 16QAM

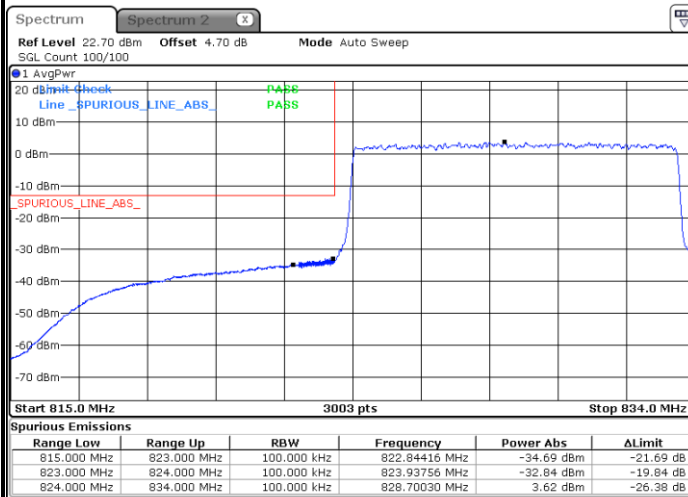
Lowest Band Edge / 1 RB



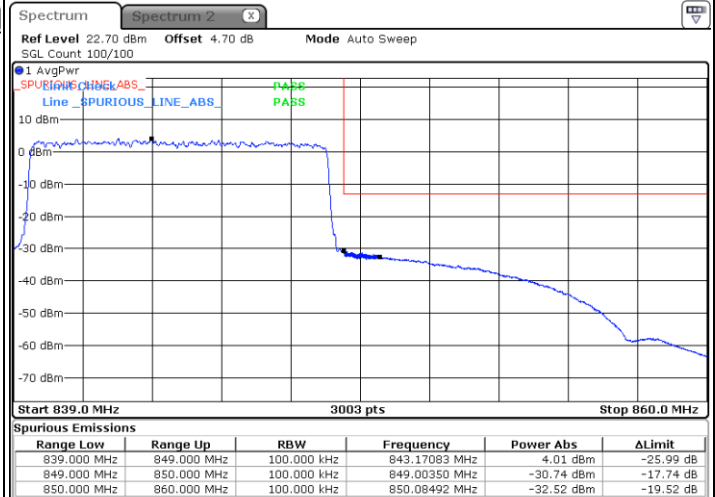
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



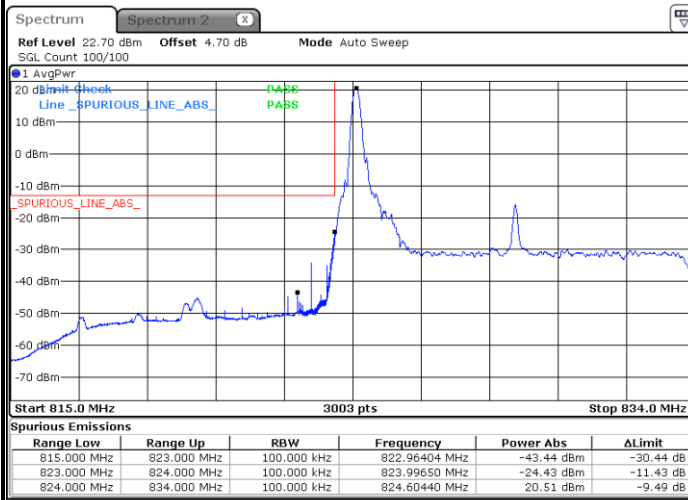
Highest Band Edge / Full RB



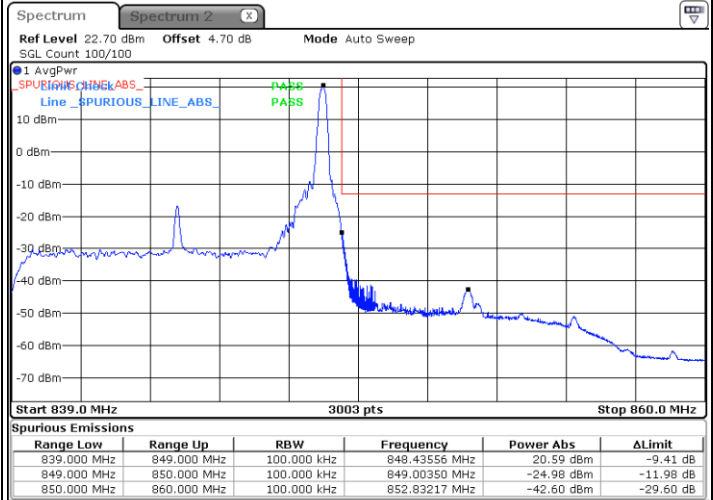


LTE Band 5 / 10MHz / 64QAM

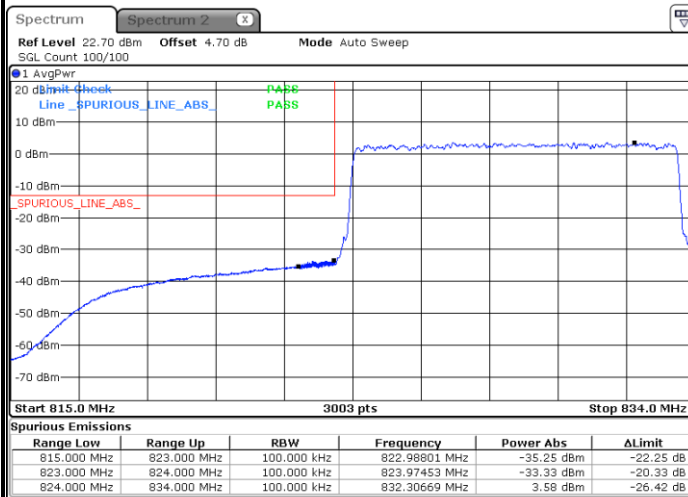
Lowest Band Edge / 1 RB



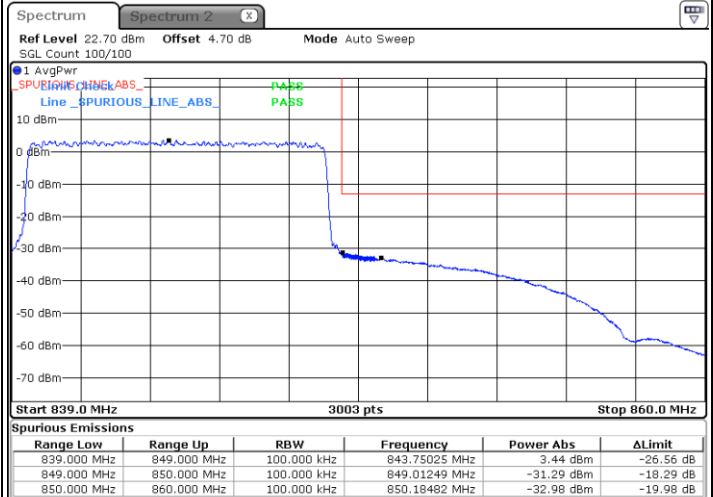
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

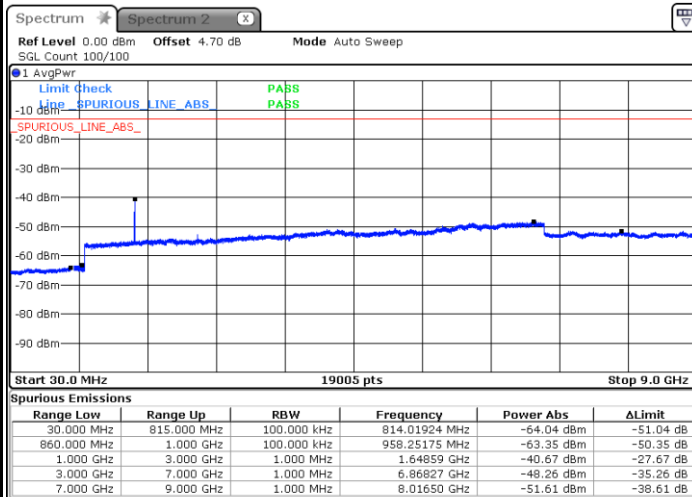




Conducted Spurious Emission

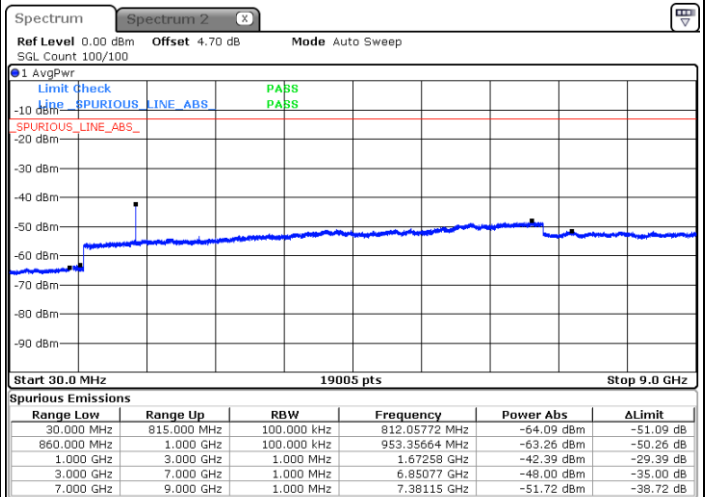
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



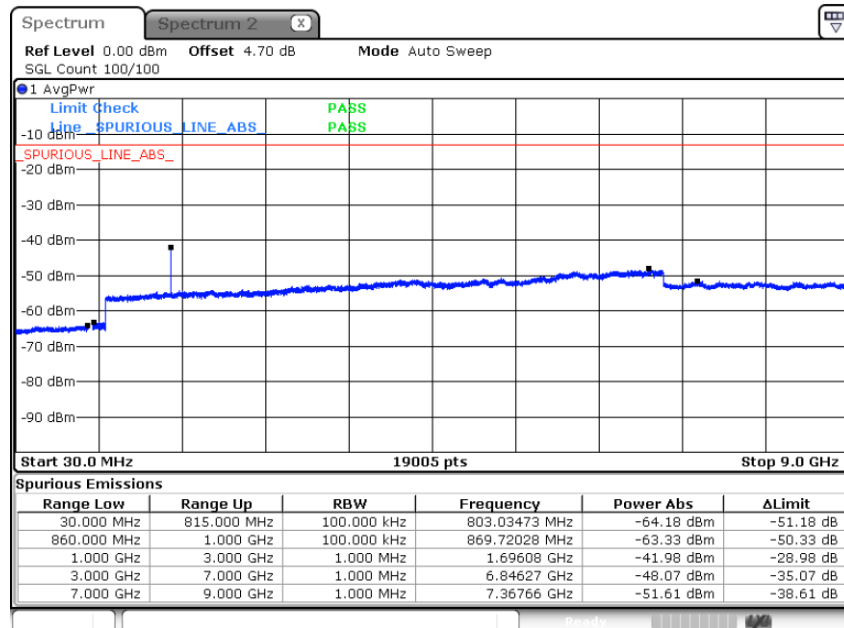
Date: 13.FEB.2021 11:30:12

Middle Channel / QPSK



Date: 13.FEB.2021 11:30:51

Highest Channel / QPSK

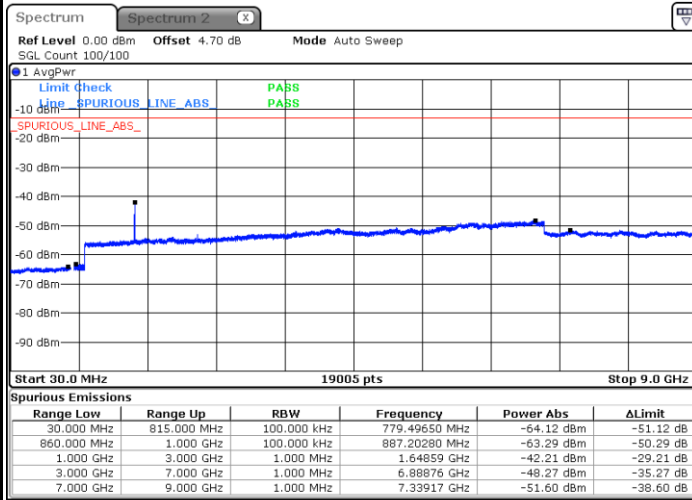


Date: 13.FEB.2021 11:31:29



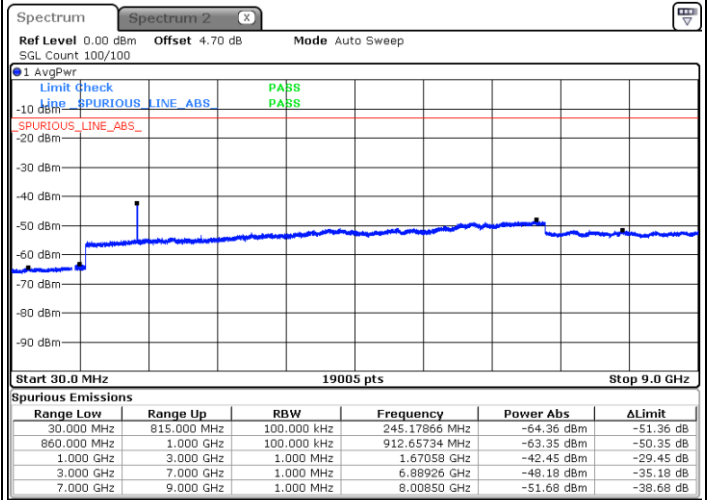
LTE Band 5 / 3MHz

Lowest Channel / QPSK



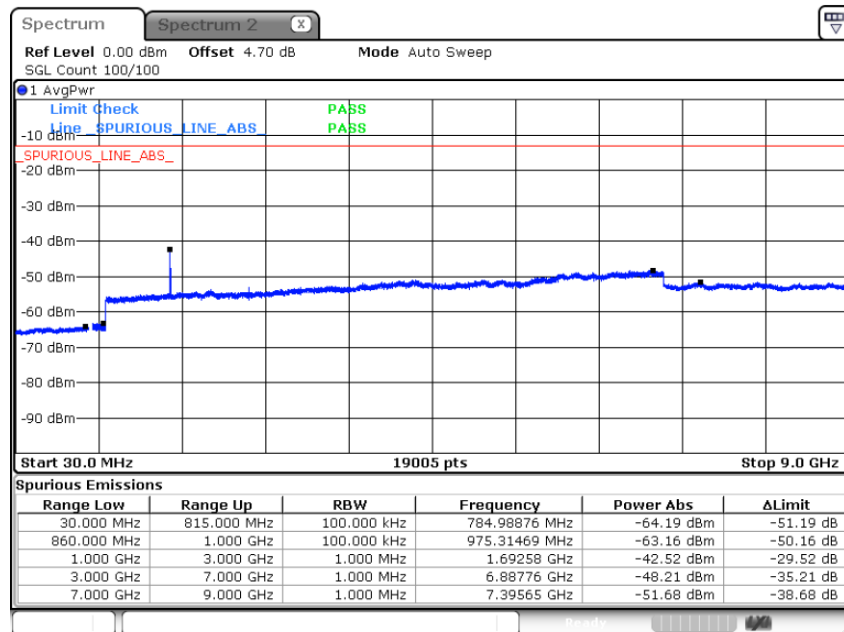
Date: 13.FEB.2021 11:32:16

Middle Channel / QPSK



Date: 13.FEB.2021 11:32:47

Highest Channel / QPSK

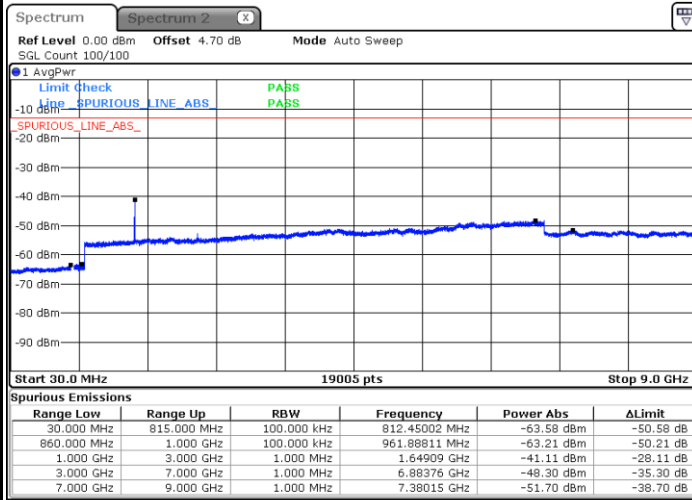


Date: 13.FEB.2021 11:33:41



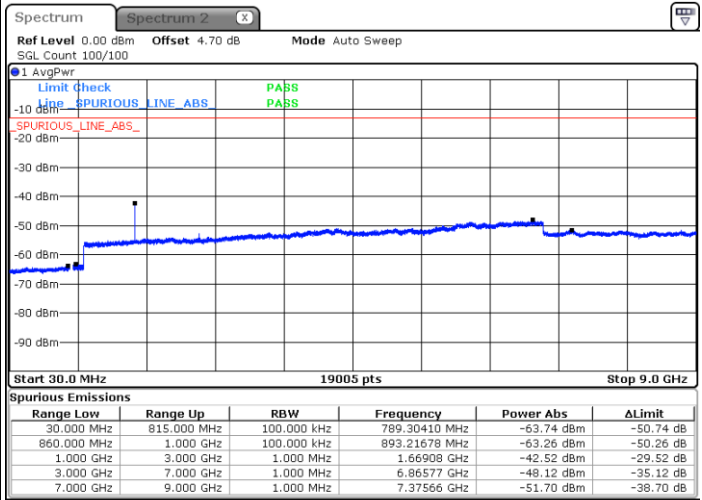
LTE Band 5 / 5MHz

Lowest Channel / QPSK



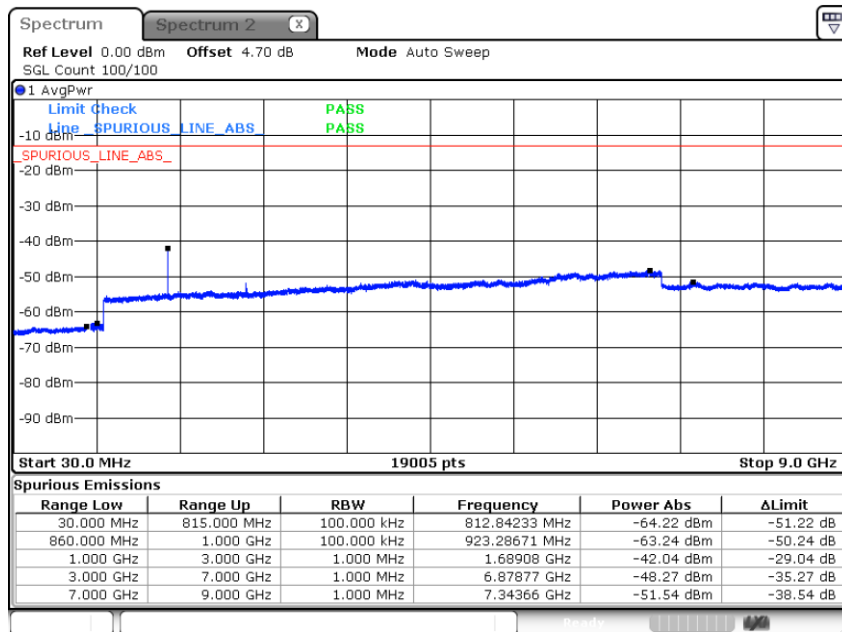
Date: 13.FEB.2021 11:34:19

Middle Channel / QPSK



Date: 13.FEB.2021 11:34:51

Highest Channel / QPSK

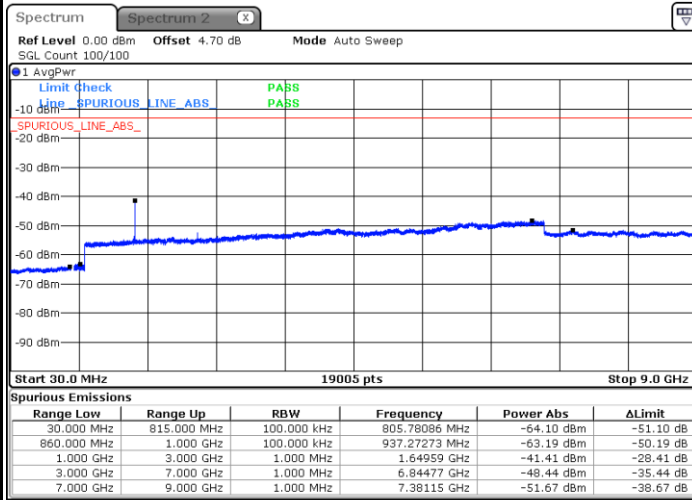


Date: 13.FEB.2021 11:35:37



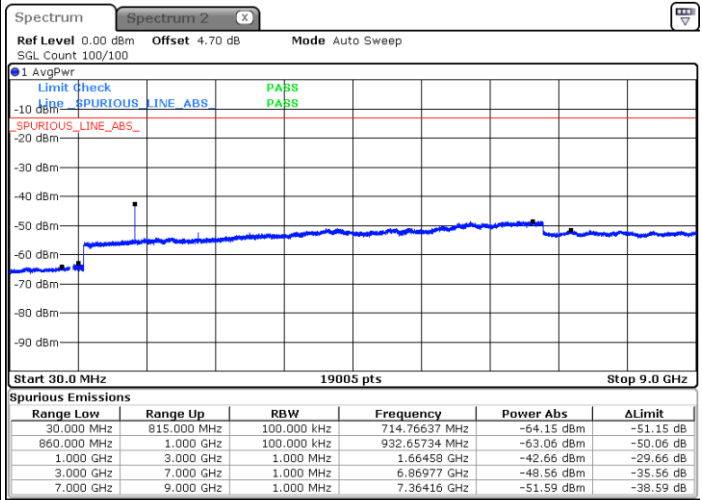
LTE Band 5 / 10MHz

Lowest Channel / QPSK



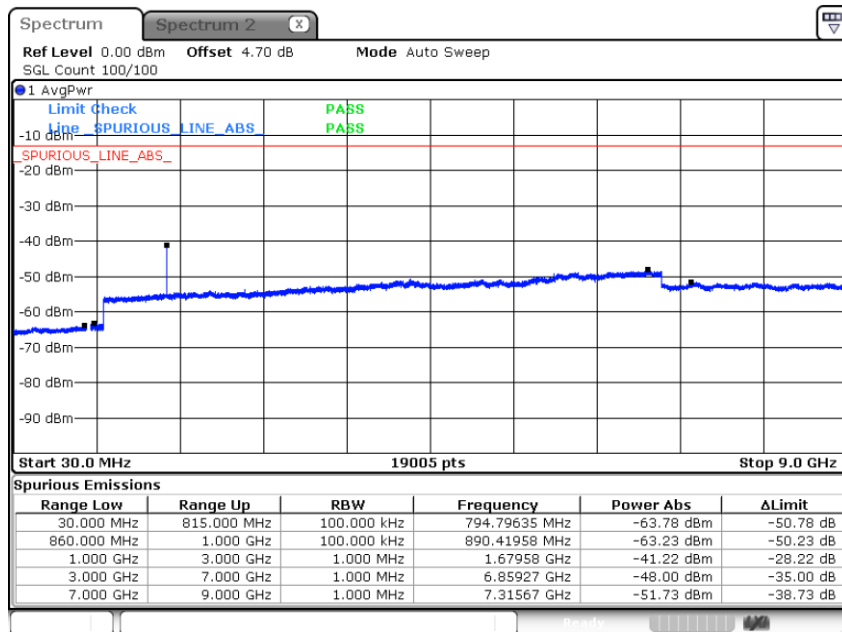
Date: 13.FEB.2021 11:36:35

Middle Channel / QPSK



Date: 13.FEB.2021 11:37:28

Highest Channel / QPSK



Date: 13.FEB.2021 11:38:02

**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	0.0017	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0022	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0037	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0004	

Note: Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.



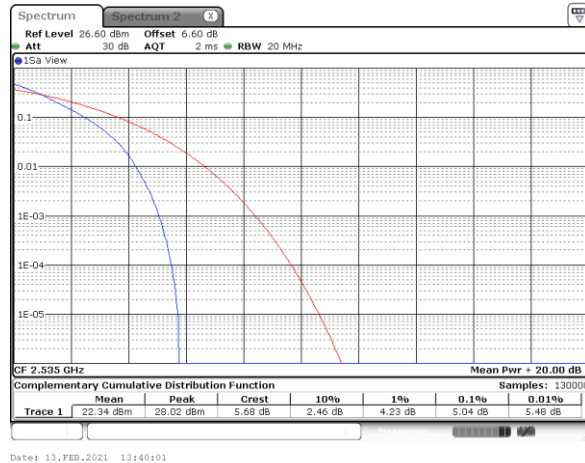
LTE Band 7

Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.04	5.94	6.03	PASS

LTE Band 7 / 20MHz

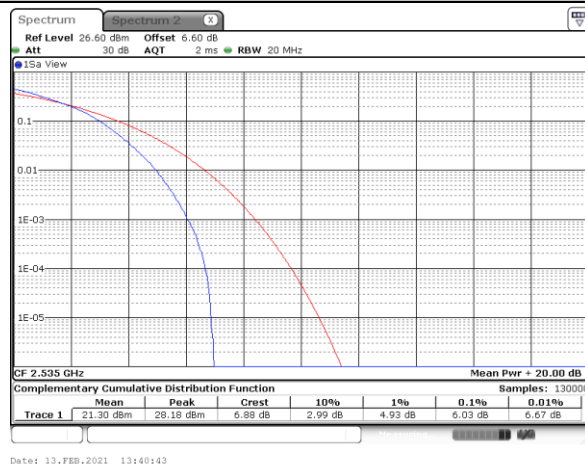
Middle Channel / Full RB/ QPSK



Middle Channel / Full RB/ 16QAM

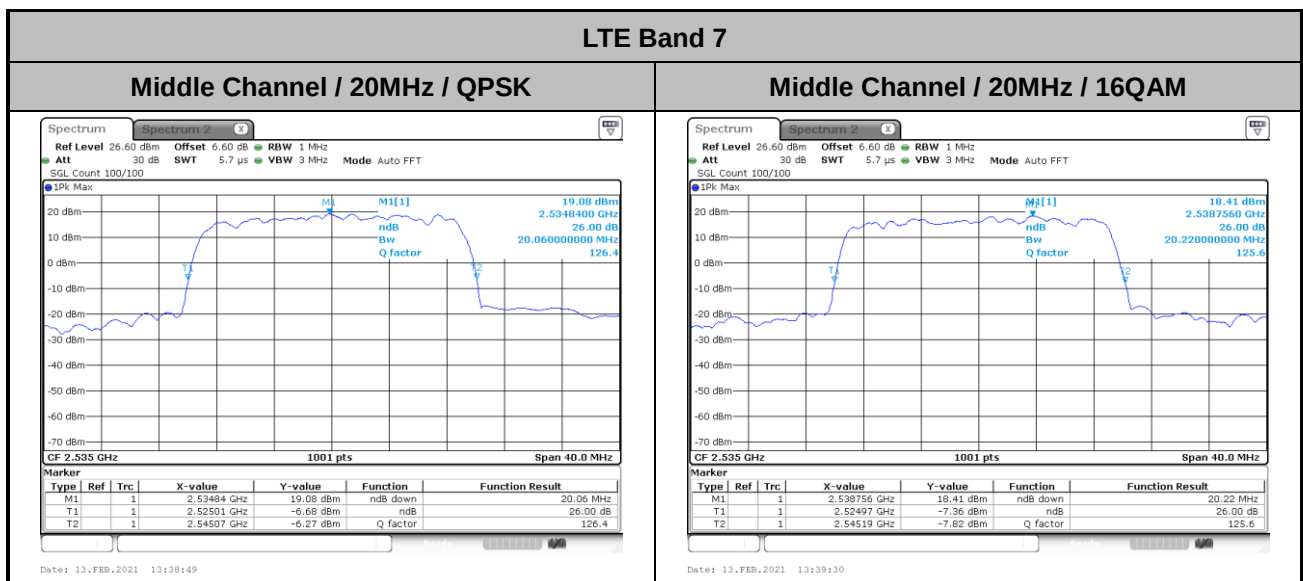


Middle Channel / Full RB/ 64QAM



**26dB Bandwidth**

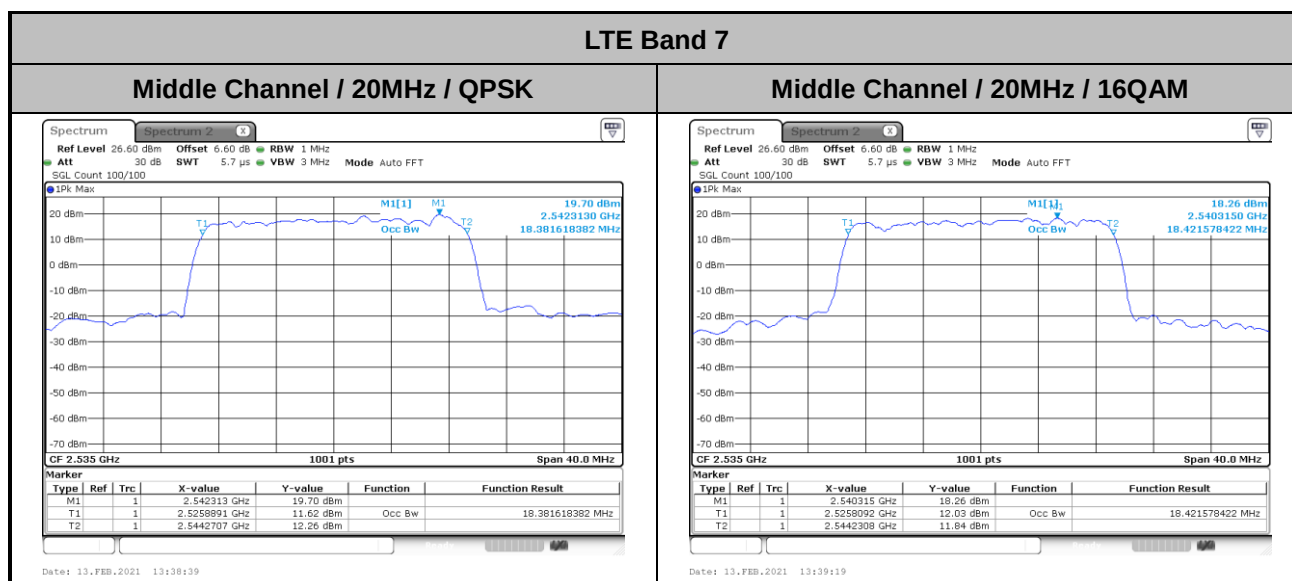
Mode	LTE Band 7 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.06	20.22





Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.38	18.42

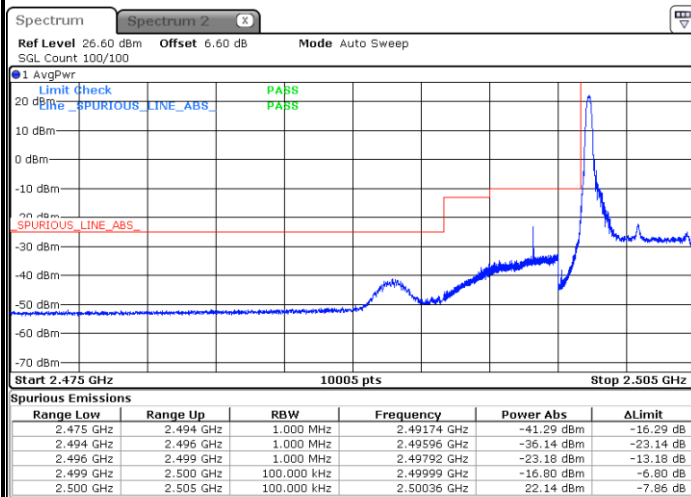




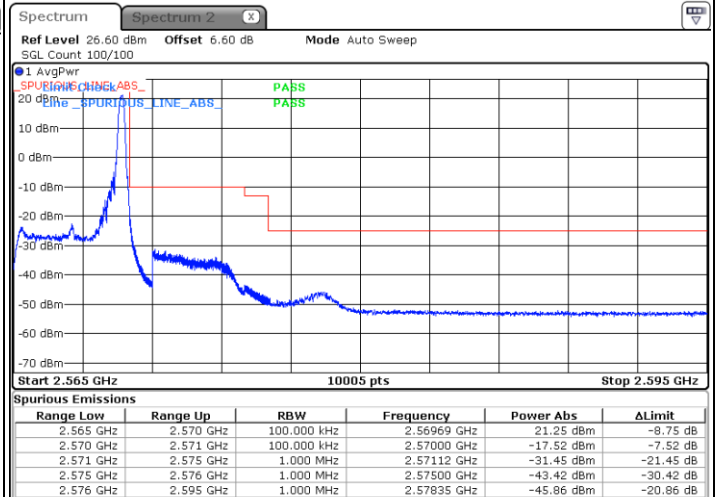
Conducted Band Edge

LTE Band 7 / 5MHz / QPSK

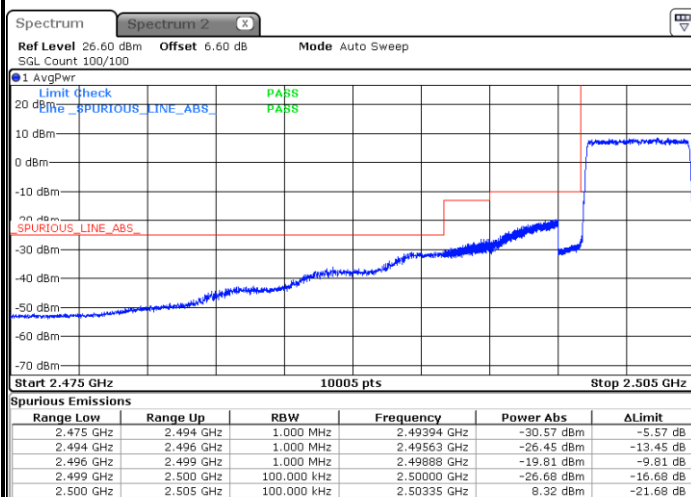
Lowest Band Edge / 1 RB



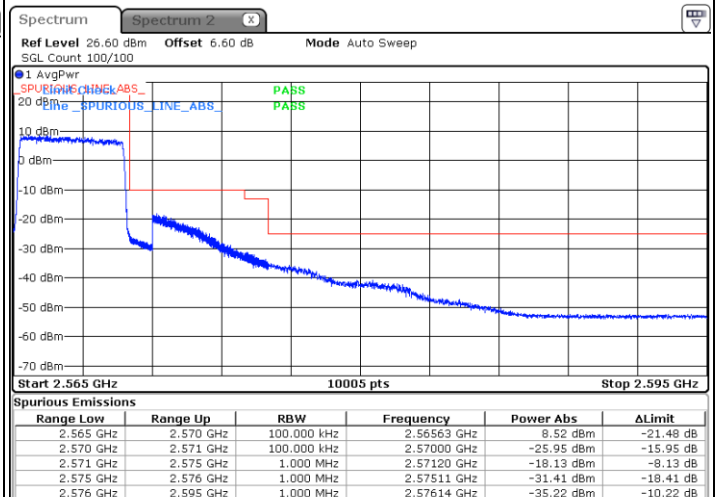
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



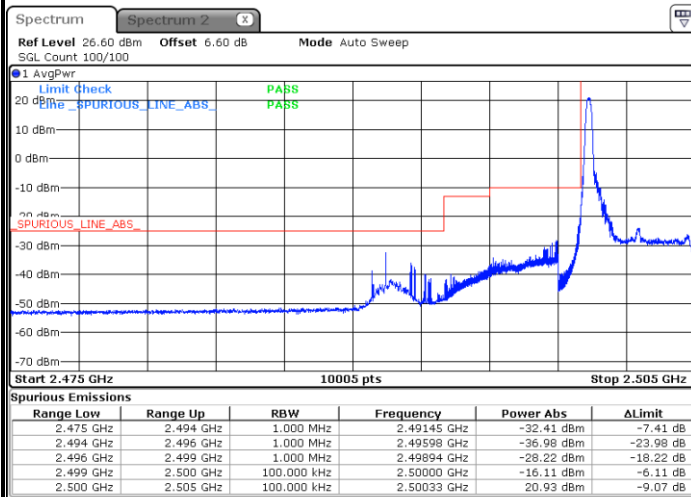
Highest Band Edge / Full RB



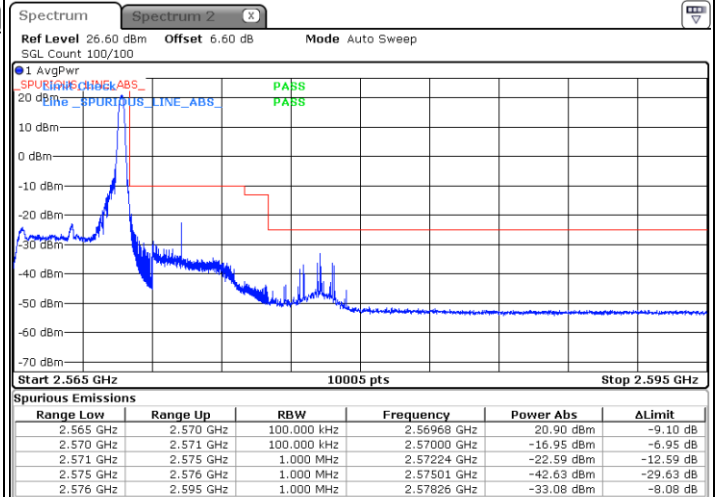


LTE Band 7 / 5MHz / 16QAM

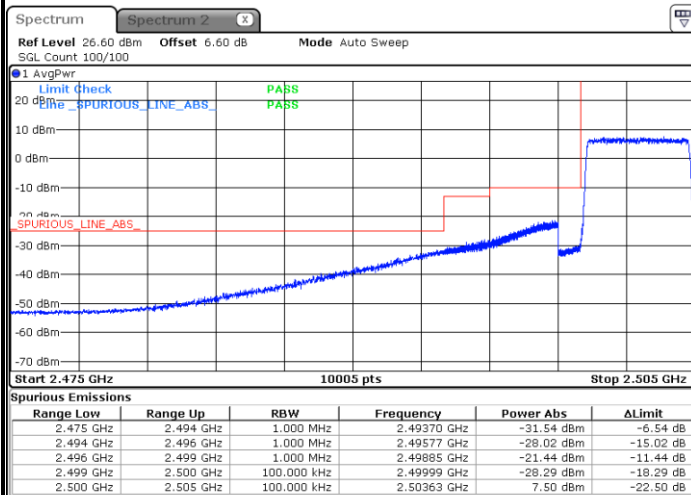
Lowest Band Edge / 1RB



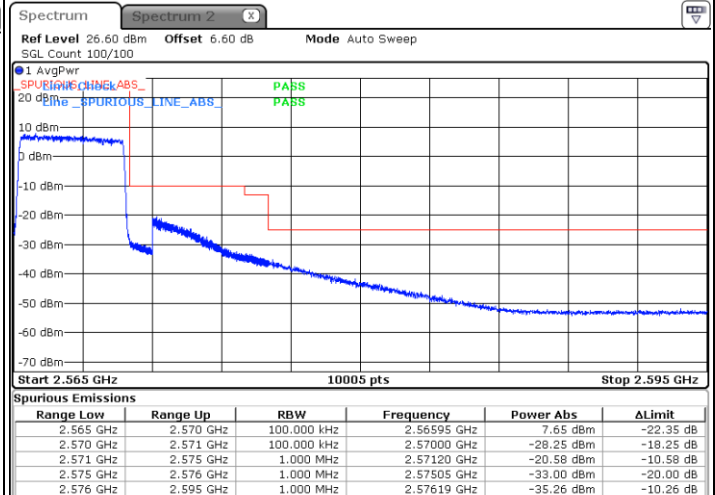
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



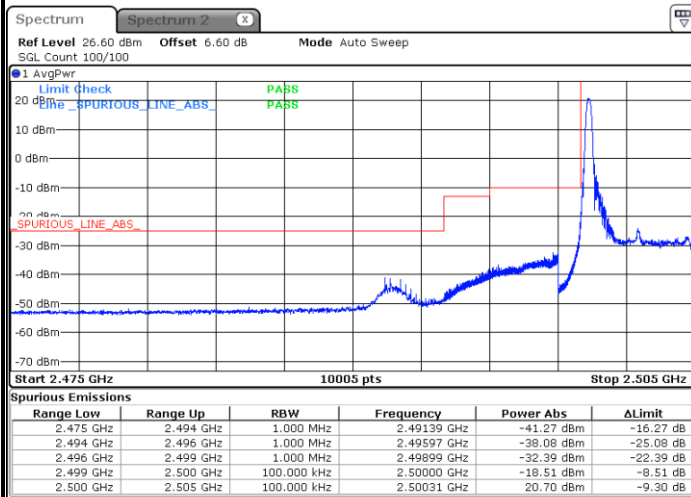
Highest Band Edge / Full RB



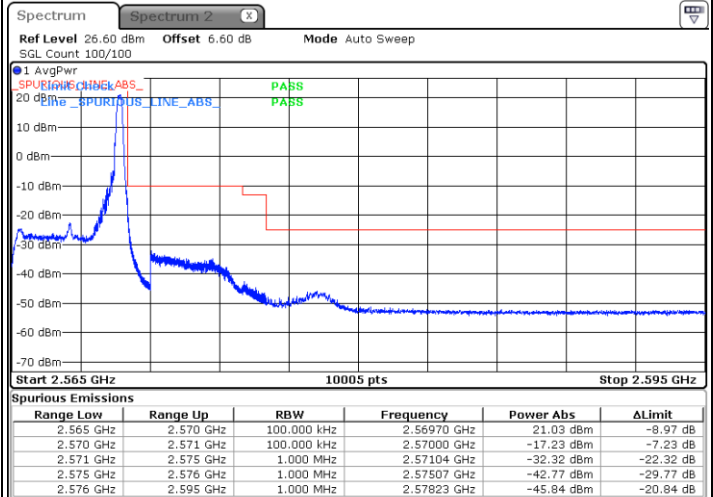


LTE Band 7 / 5MHz / 64QAM

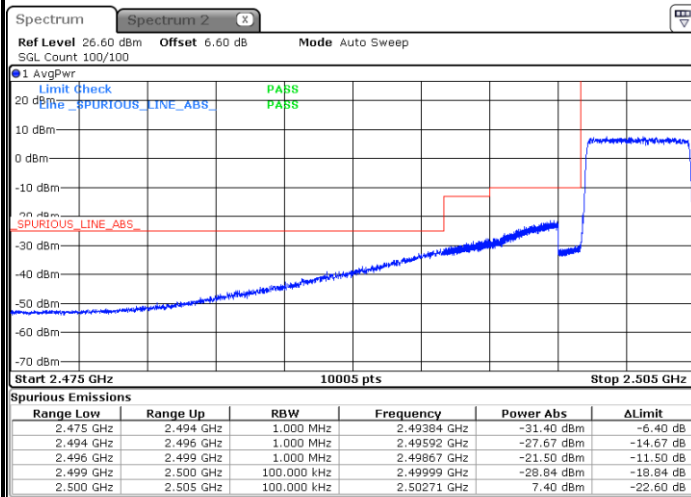
Lowest Band Edge / 1RB



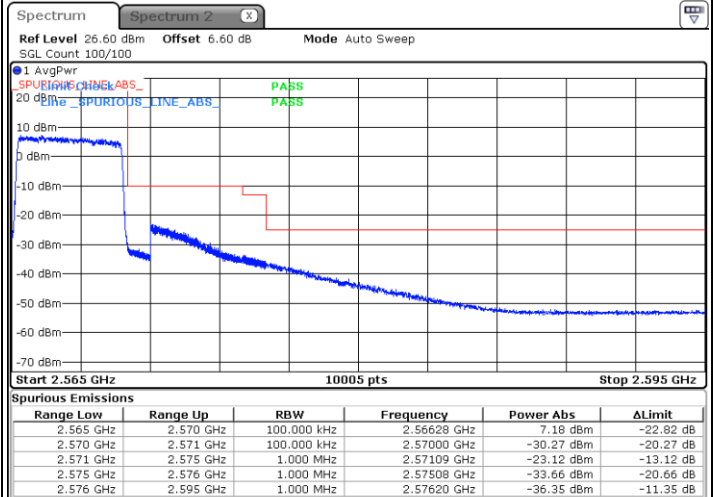
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



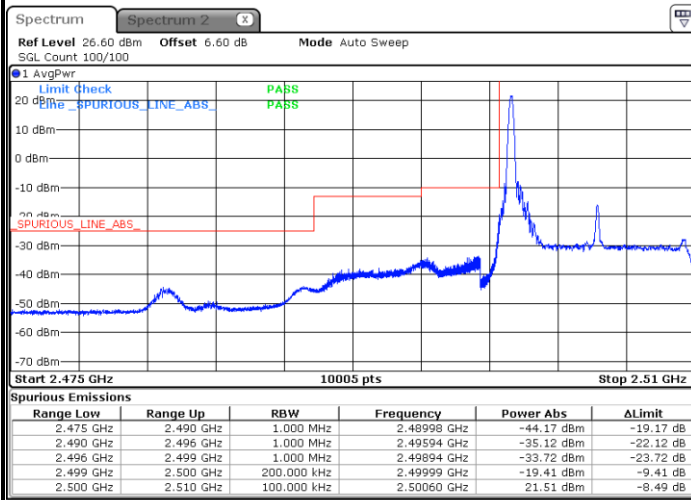
Highest Band Edge / Full RB



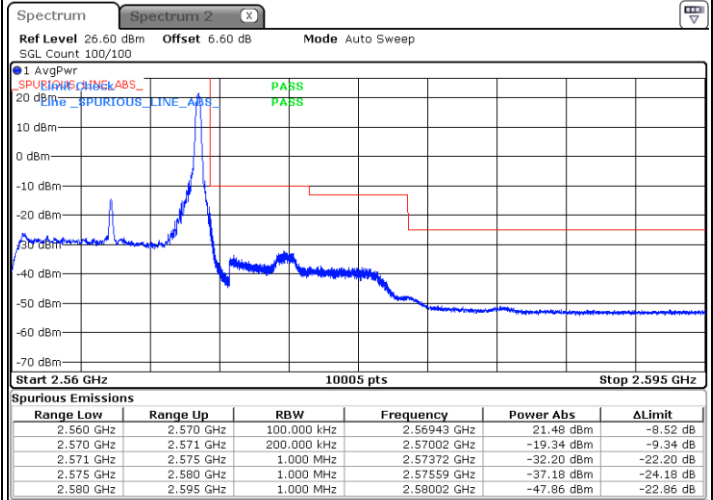


LTE Band 7 / 10MHz / QPSK

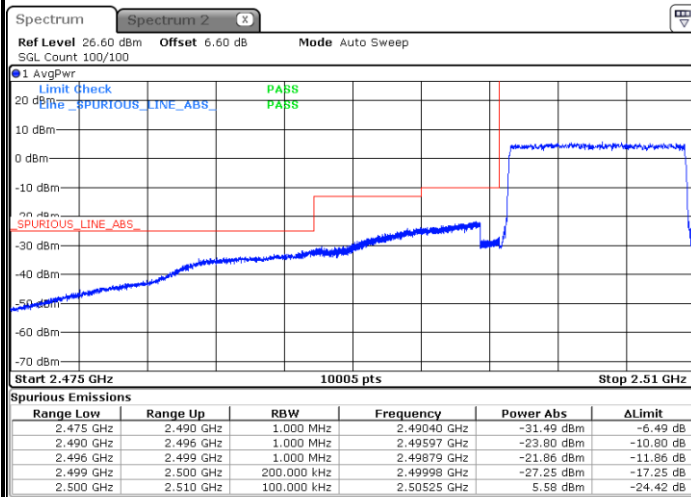
Lowest Band Edge / 1 RB



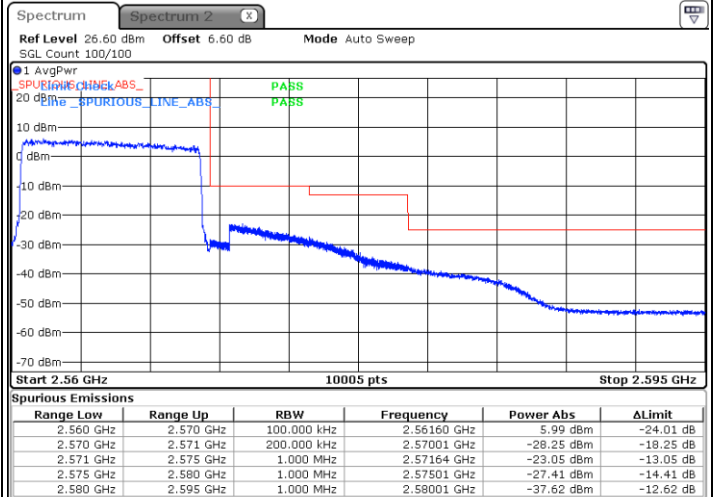
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



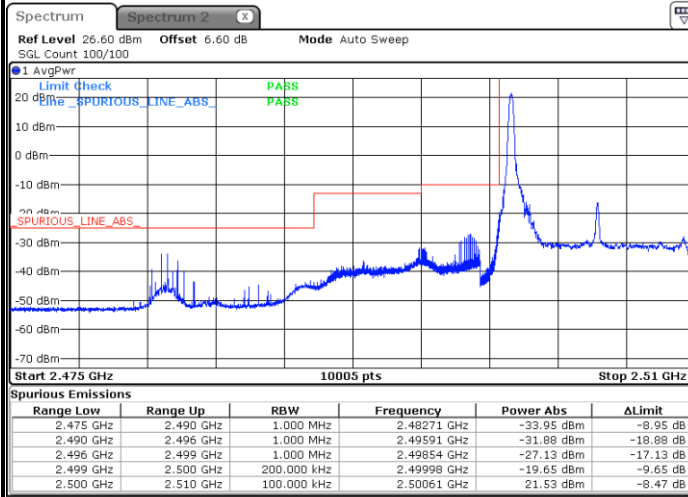
Highest Band Edge / Full RB



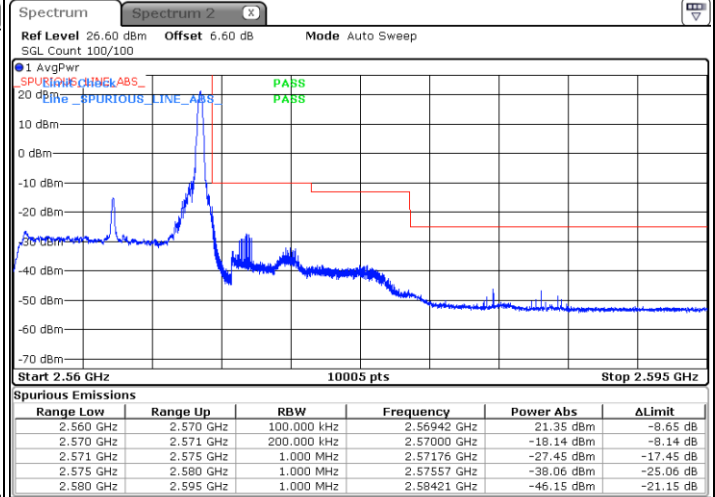


LTE Band 7 / 10MHz / 16QAM

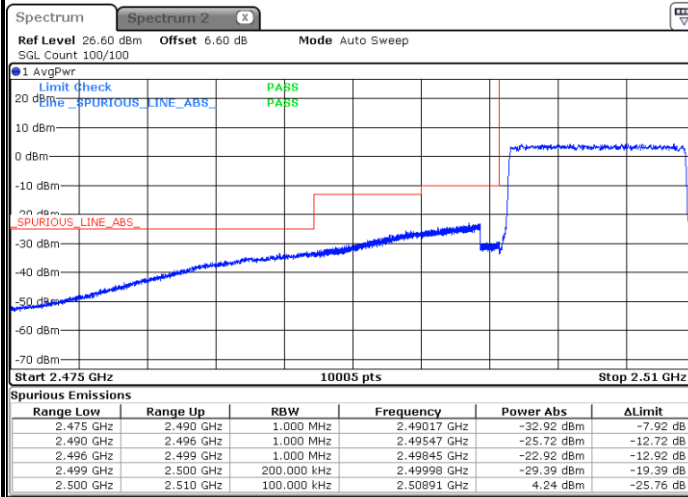
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

