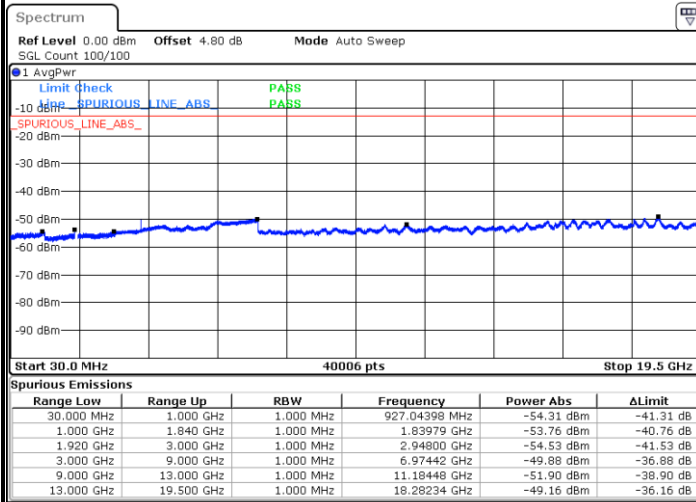




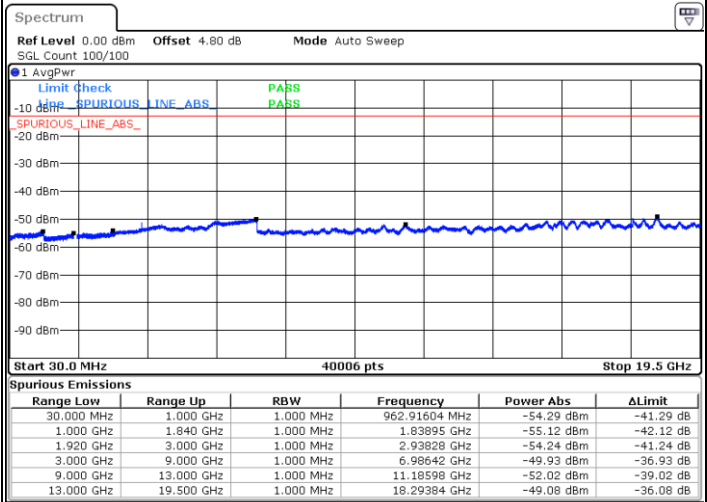
LTE Band 2 / 3MHz

Lowest Channel / QPSK



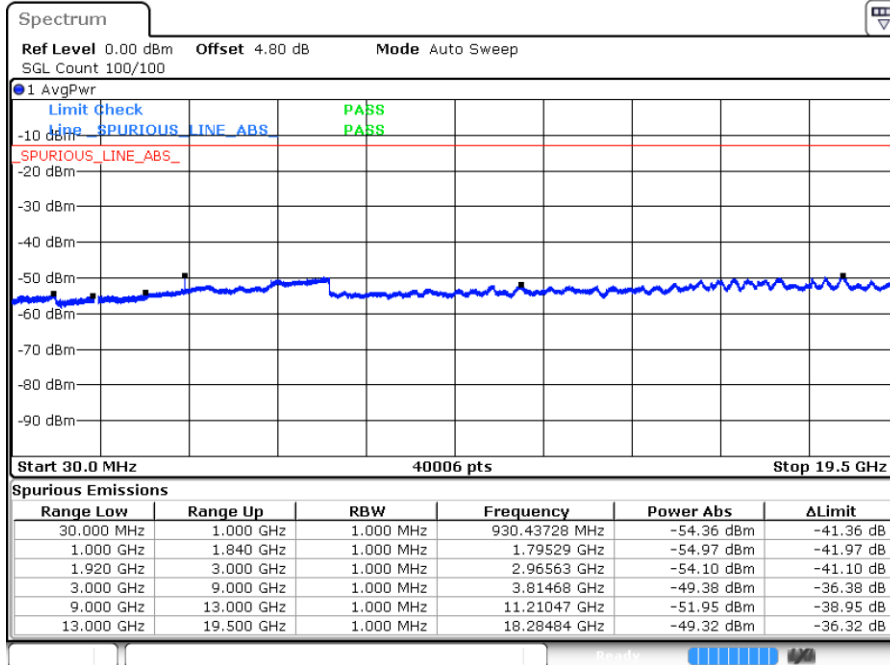
Date: 18 DEC 2020 04:06:53

Middle Channel / QPSK



Date: 18 DEC 2020 04:06:11

Highest Channel / QPSK

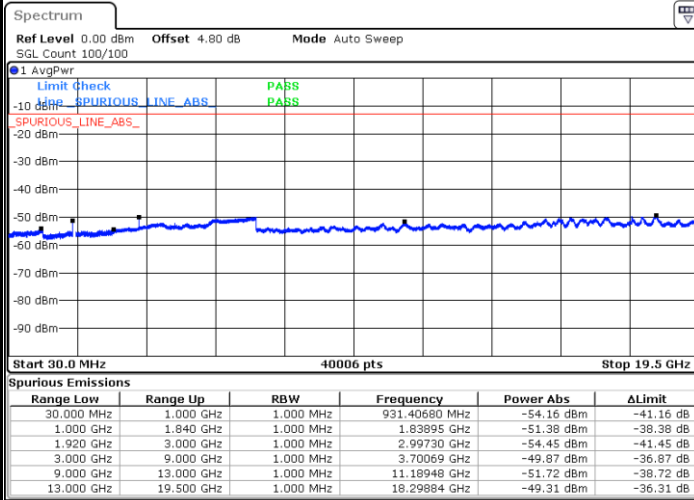


Date: 18 DEC 2020 04:05:27



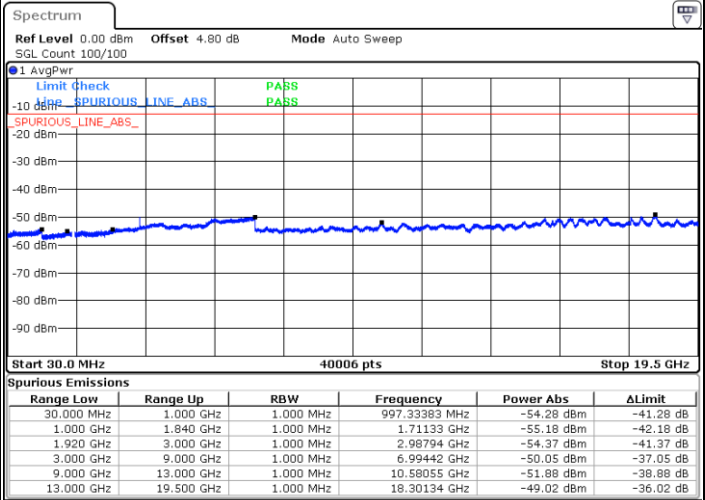
LTE Band 2 / 5MHz

Lowest Channel / QPSK



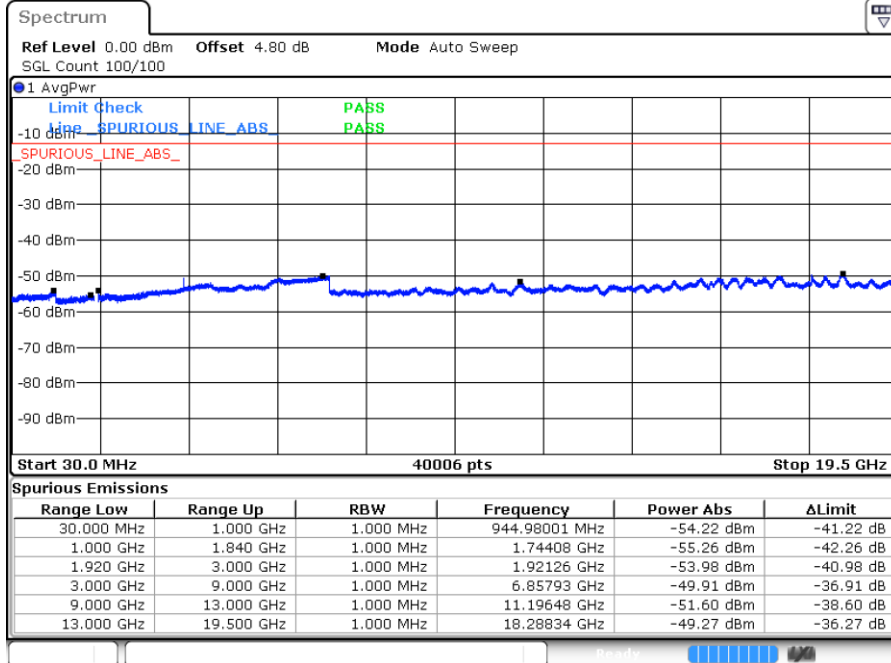
Date: 18 DEC 2020 04:07:47

Middle Channel / QPSK



Date: 18 DEC 2020 04:08:29

Highest Channel / QPSK

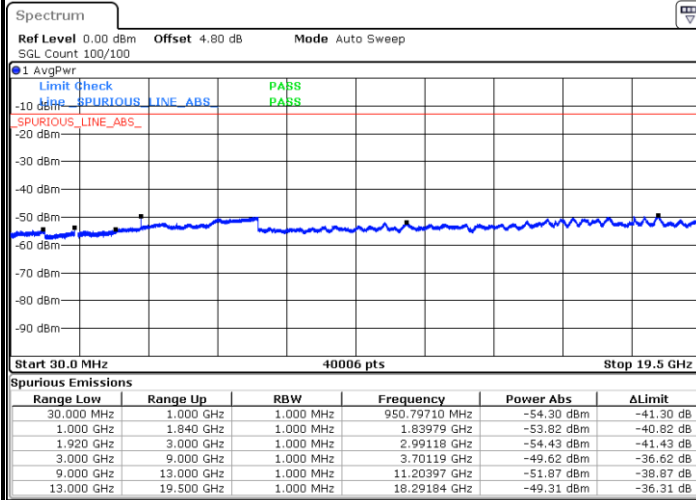


Date: 18 DEC 2020 04:09:11



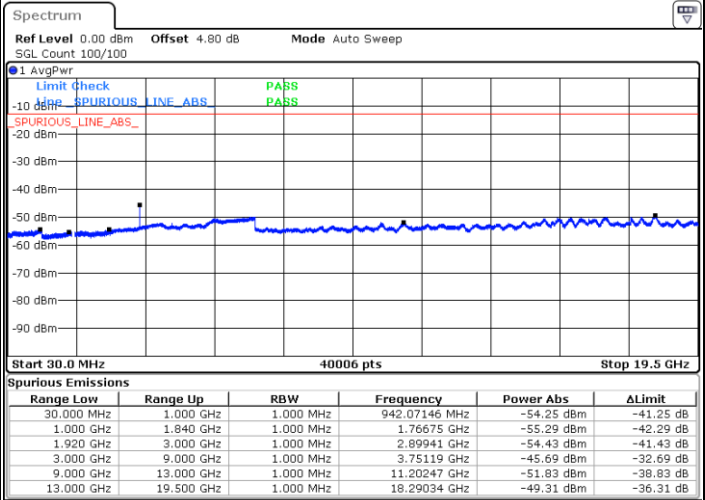
LTE Band 2 / 10MHz

Lowest Channel / QPSK



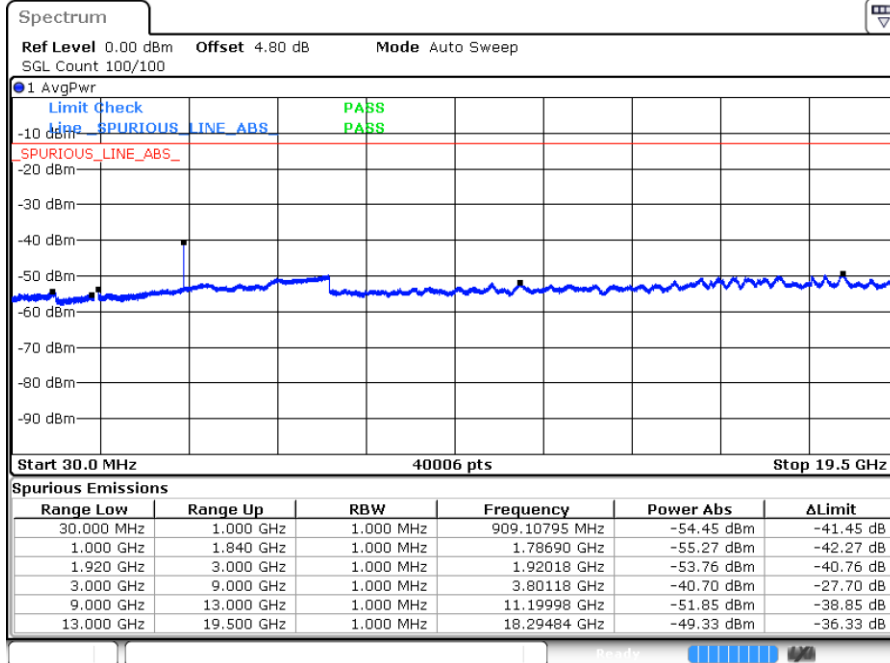
Date: 18 DEC 2020 04:23:09

Middle Channel / QPSK



Date: 18 DEC 2020 04:22:22

Highest Channel / QPSK

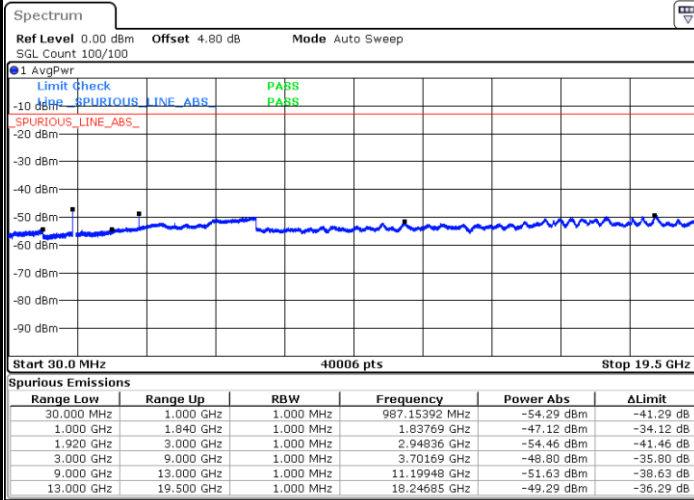


Date: 18 DEC 2020 04:21:34



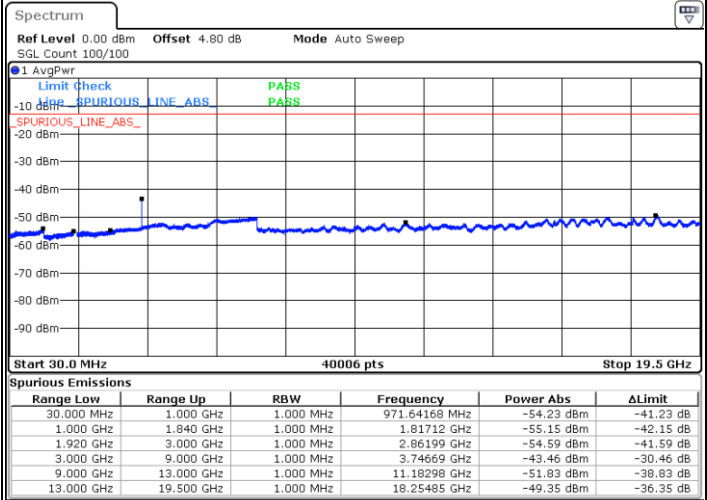
LTE Band 2 / 15MHz

Lowest Channel / QPSK



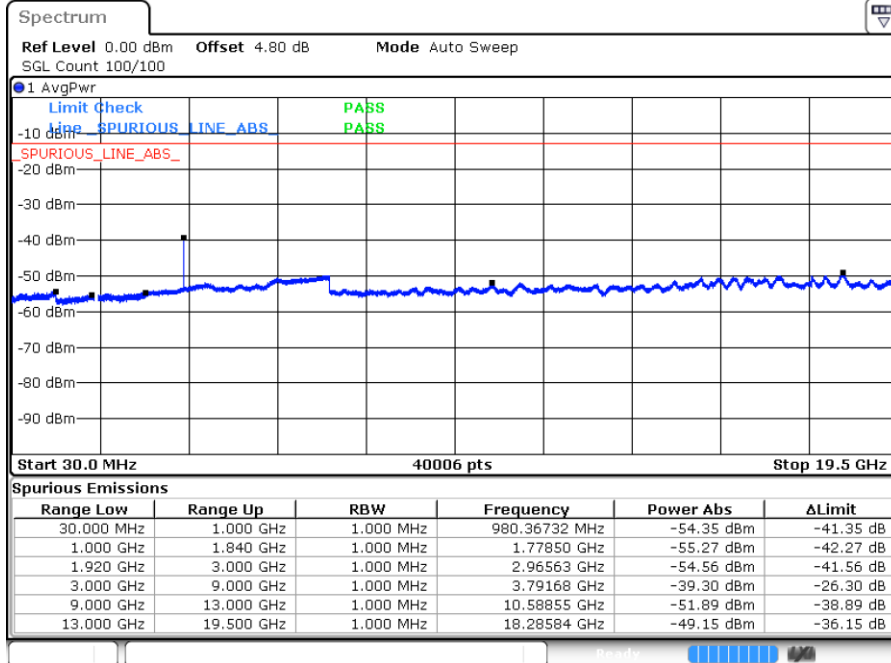
Date: 18 DEC 2020 04:24:16

Middle Channel / QPSK



Date: 18 DEC 2020 04:24:58

Highest Channel / QPSK

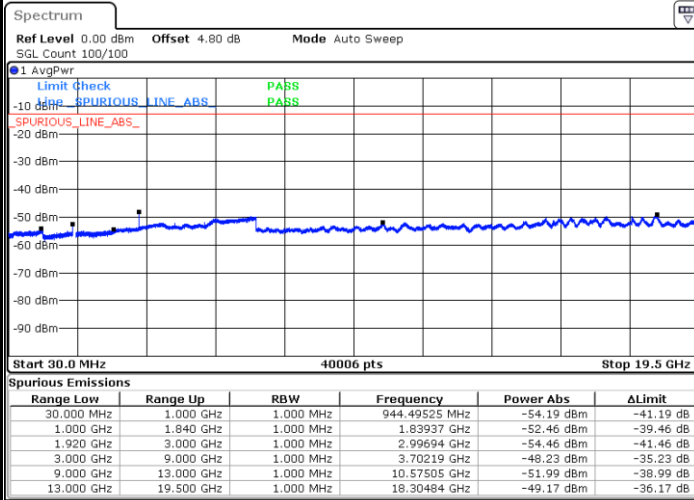


Date: 18 DEC 2020 04:25:44



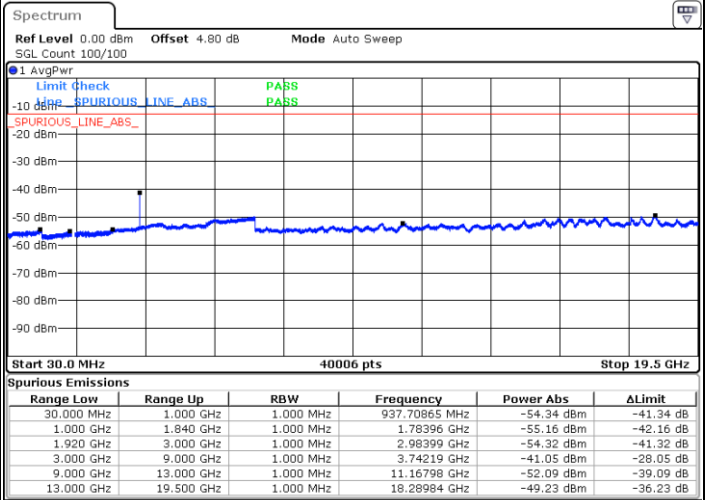
LTE Band 2 / 20MHz

Lowest Channel / QPSK



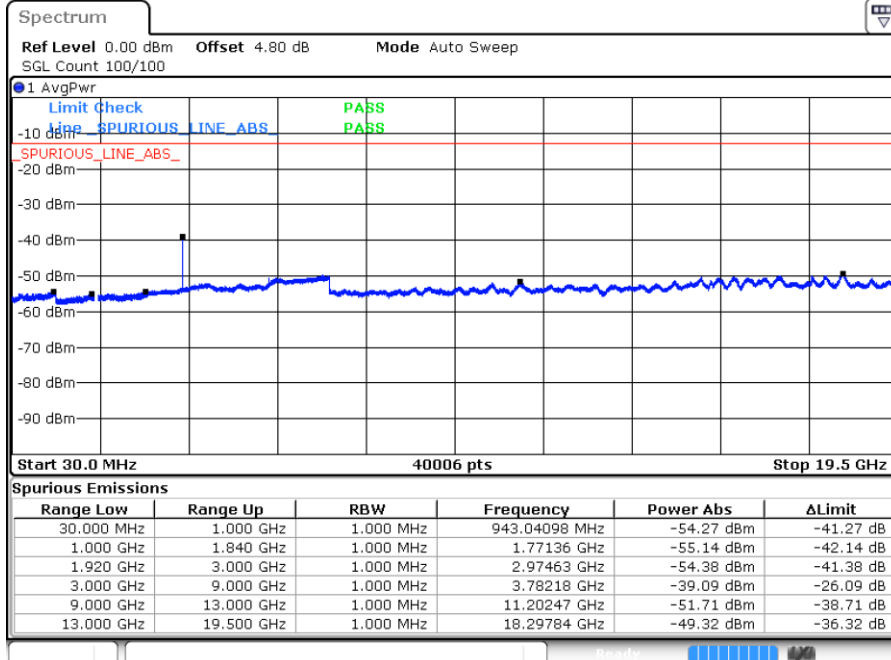
Date: 18 DEC 2020 04:37:01

Middle Channel / QPSK



Date: 18 DEC 2020 04:35:57

Highest Channel / QPSK



Date: 18 DEC 2020 04:35:13

Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0026	
-20	Normal Voltage	0.0034	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0022	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0032	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 5

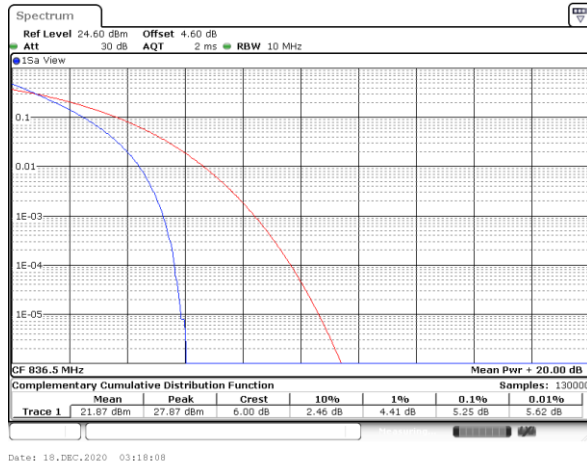
Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.25	6.32	6.29	PASS

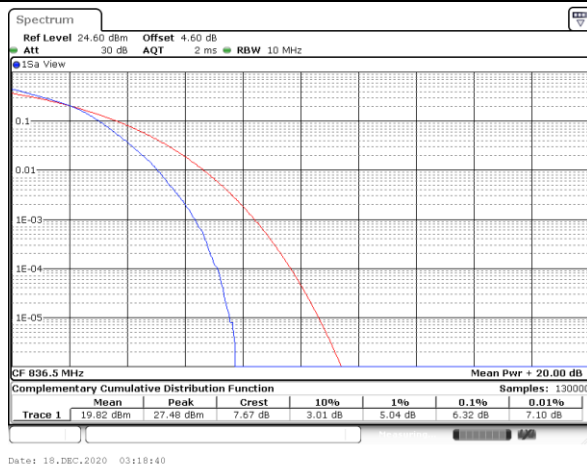


LTE Band 5 / 10MHz

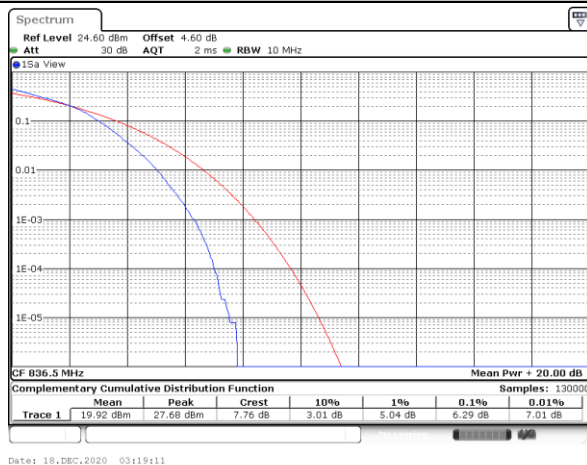
Middle Channel / Full RB/ QPSK



Middle Channel / Full RB/ 16QAM

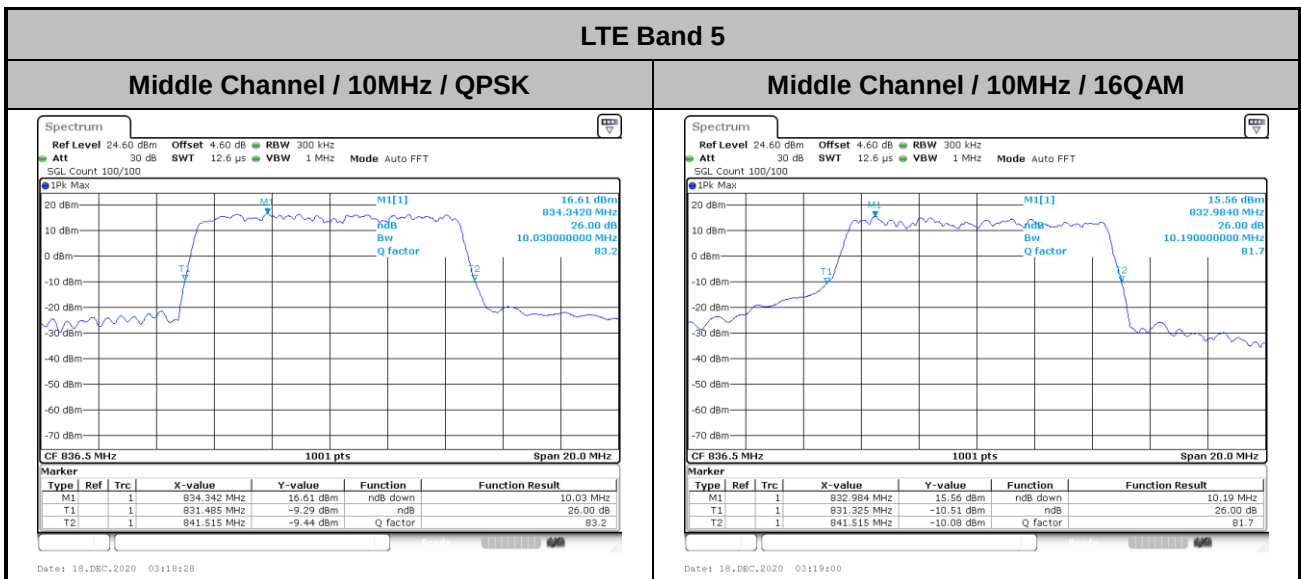


Middle Channel / Full RB/ 64QAM



**26dB Bandwidth**

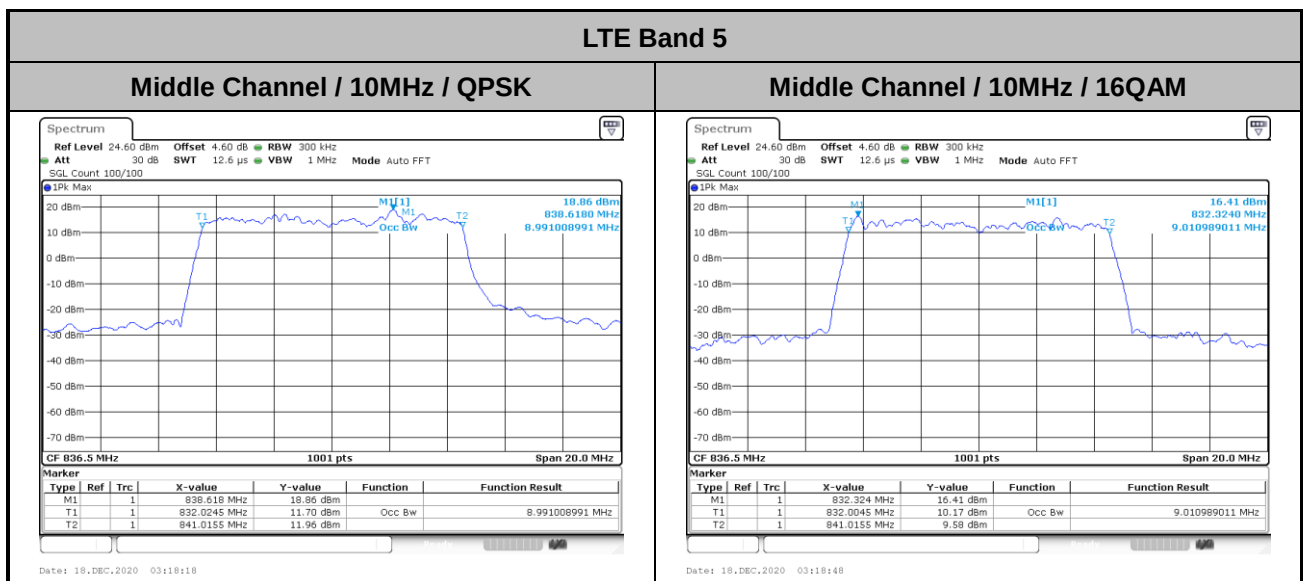
Mode	LTE Band 5 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	10.03	10.19

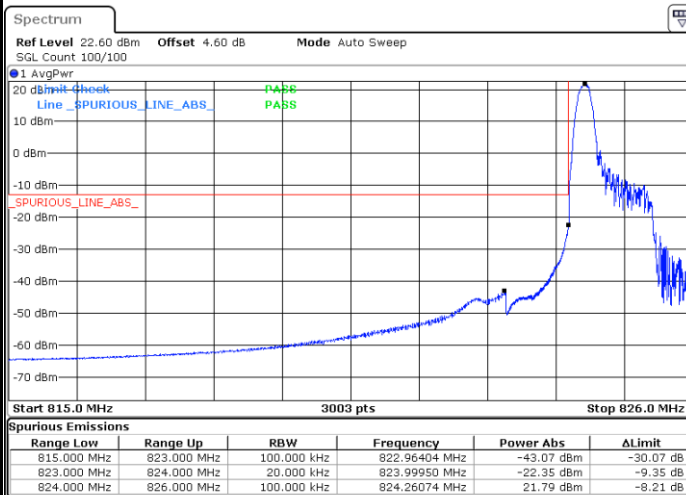
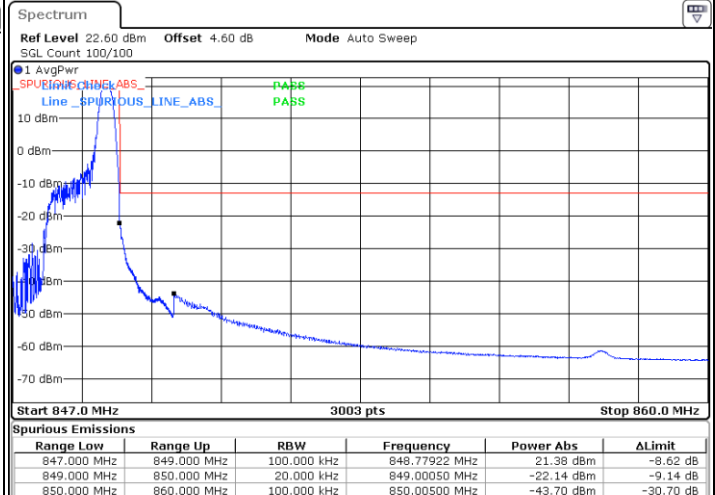
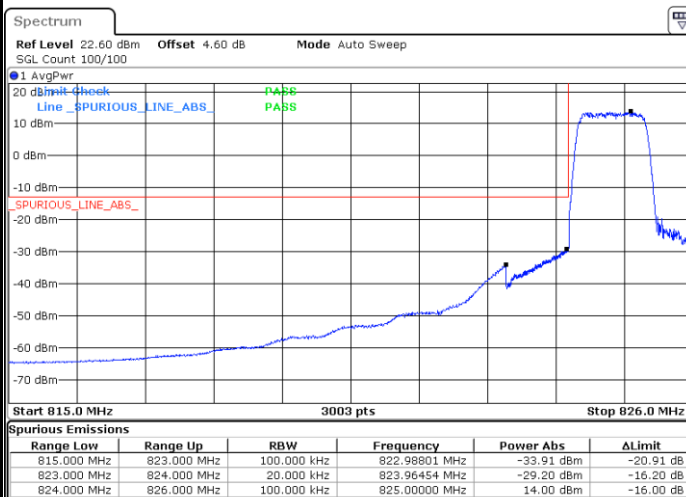
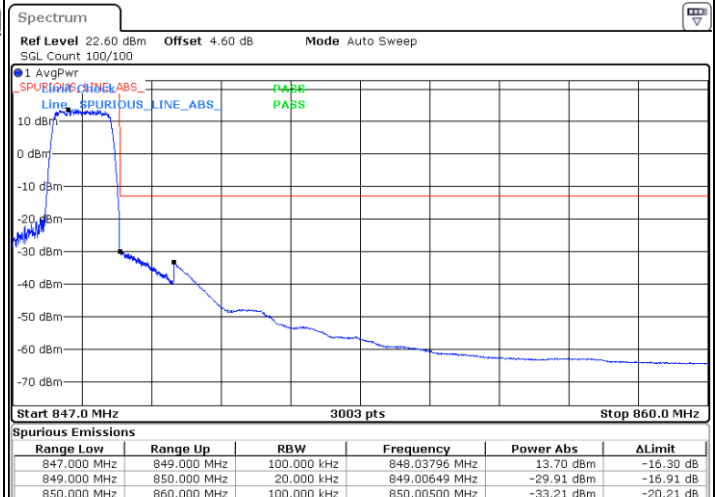




Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	8.99	9.01

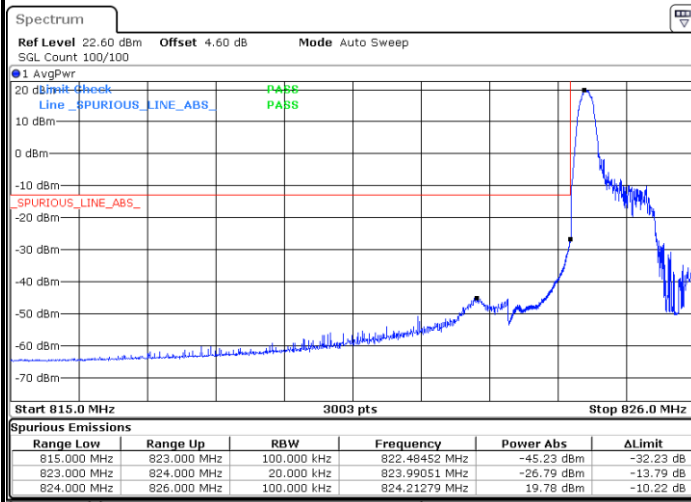


**Conducted Band Edge****LTE Band 5 / 1.4MHz / QPSK****Lowest Band Edge / 1RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

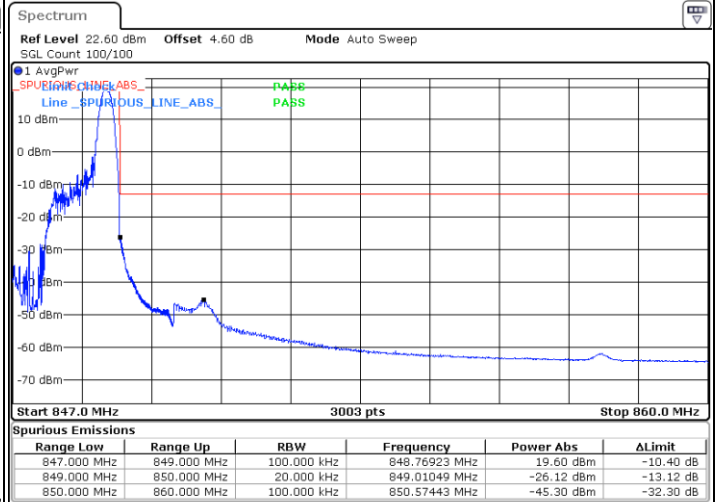


LTE Band 5 / 1.4MHz / 16QAM

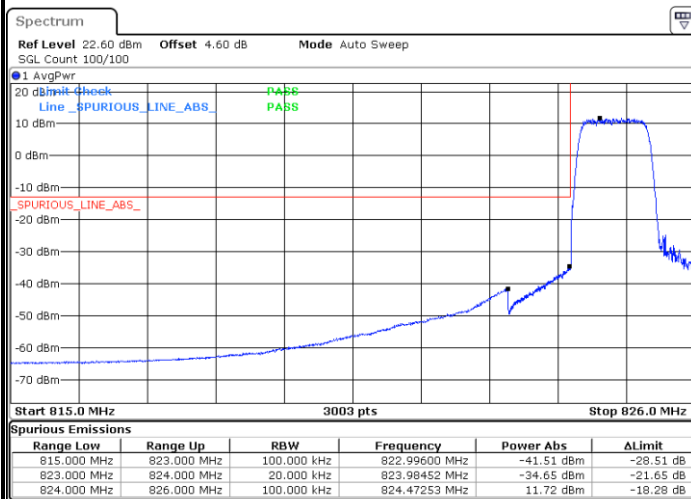
Lowest Band Edge / 1 RB



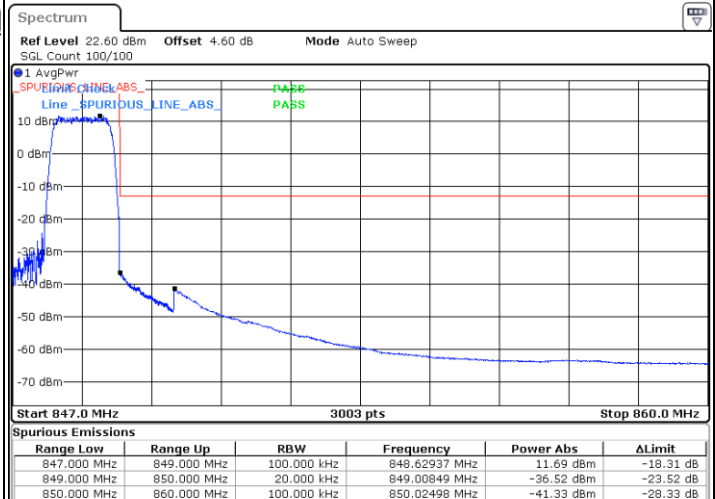
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



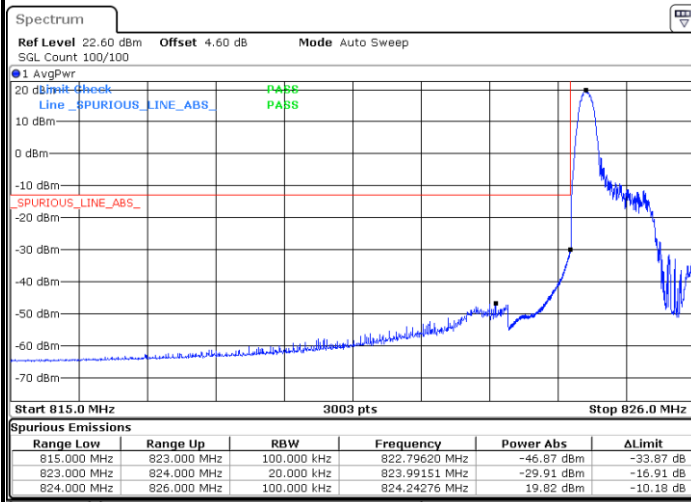
Highest Band Edge / Full RB



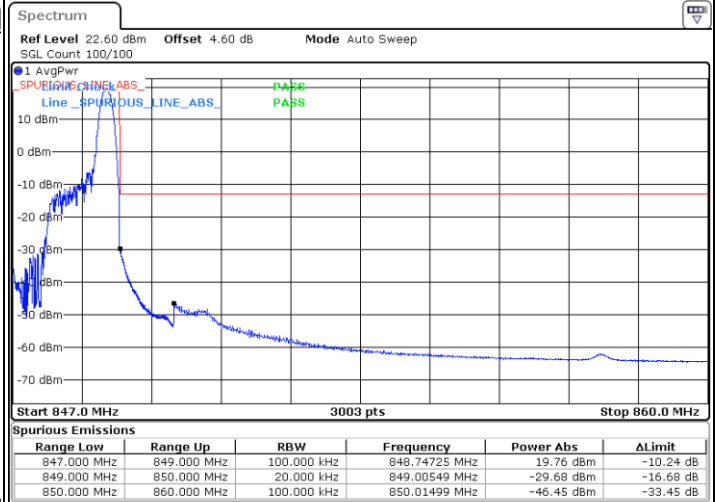


LTE Band 5 / 1.4MHz / 64QAM

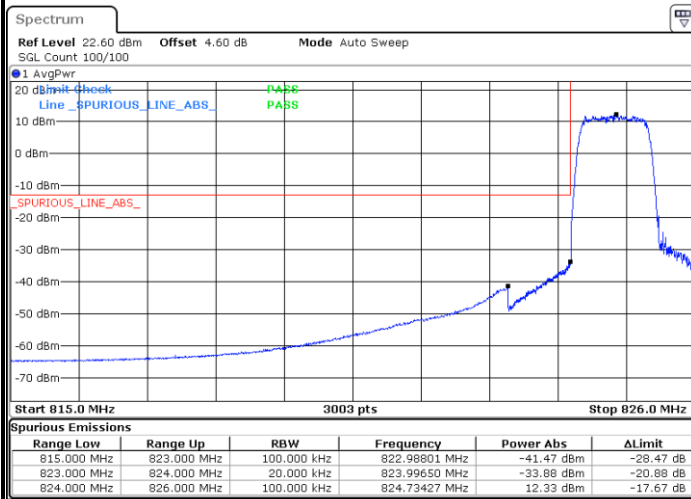
Lowest Band Edge / 1 RB



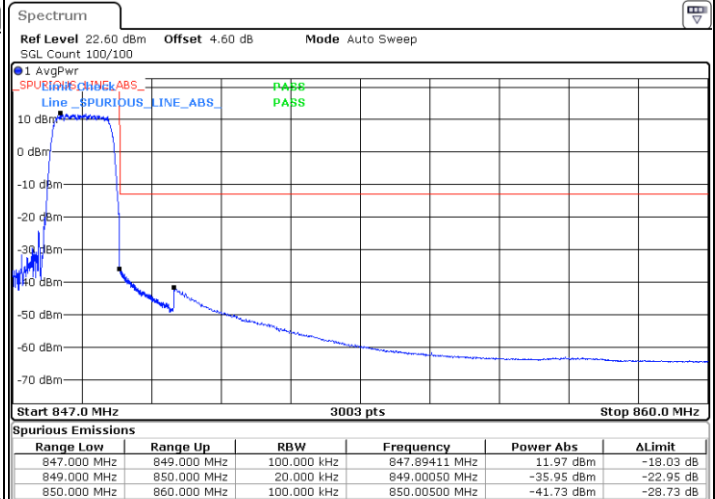
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB





LTE Band 5 / 3MHz / QPSK

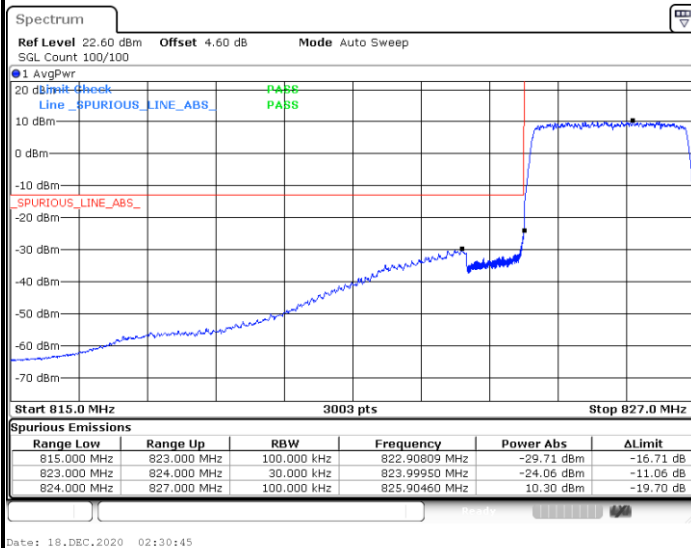
Lowest Band Edge / 1RB



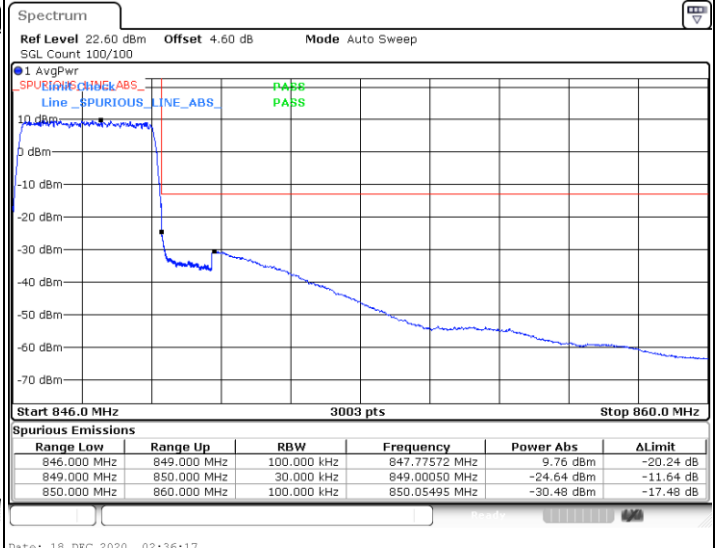
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



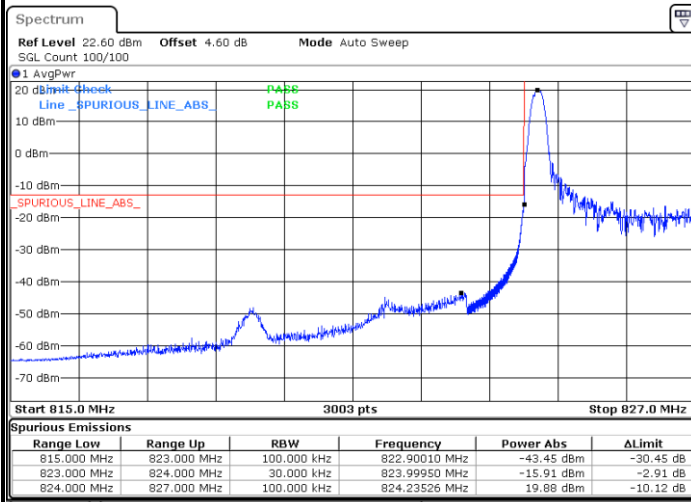
Highest Band Edge / Full RB



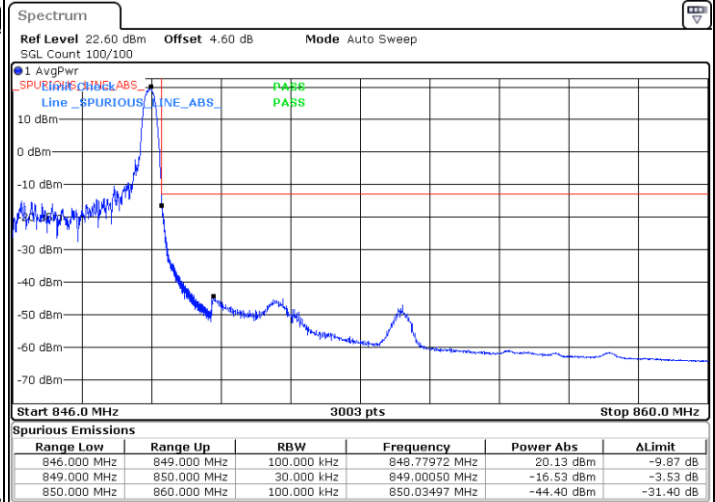


LTE Band 5 / 3MHz / 16QAM

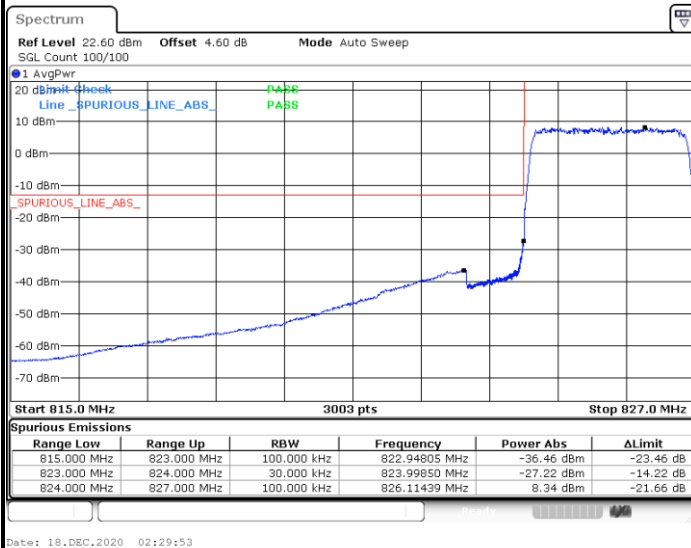
Lowest Band Edge / 1 RB



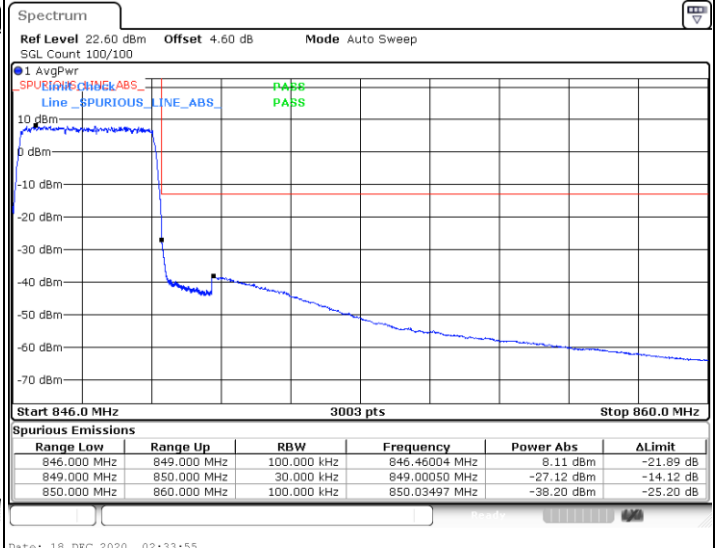
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



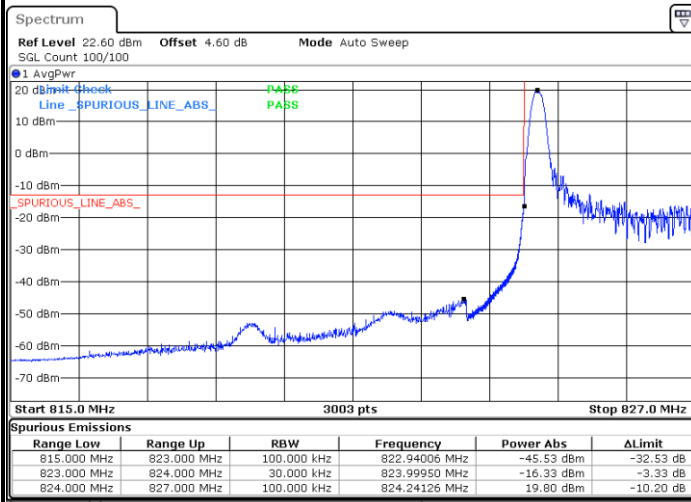
Highest Band Edge / Full RB



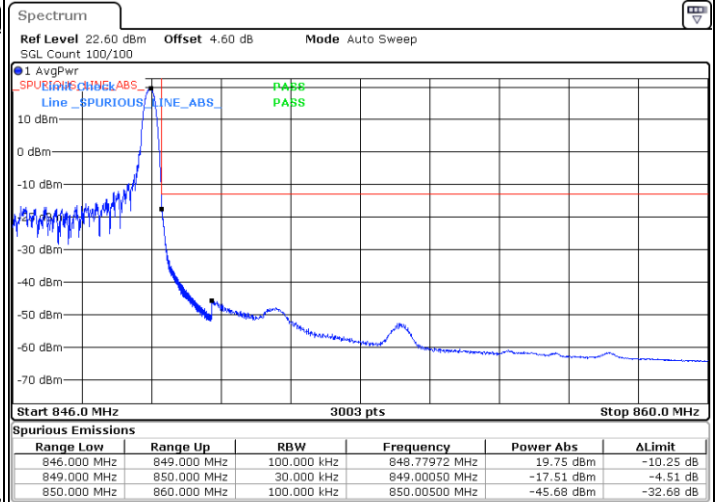


LTE Band 5 / 3MHz / 64QAM

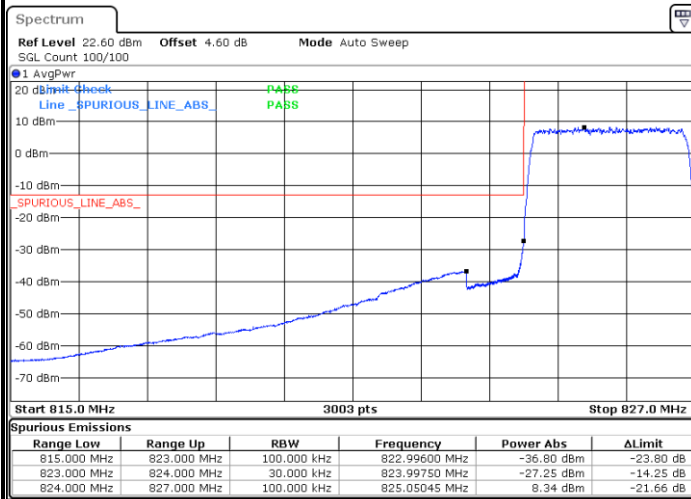
Lowest Band Edge / 1 RB



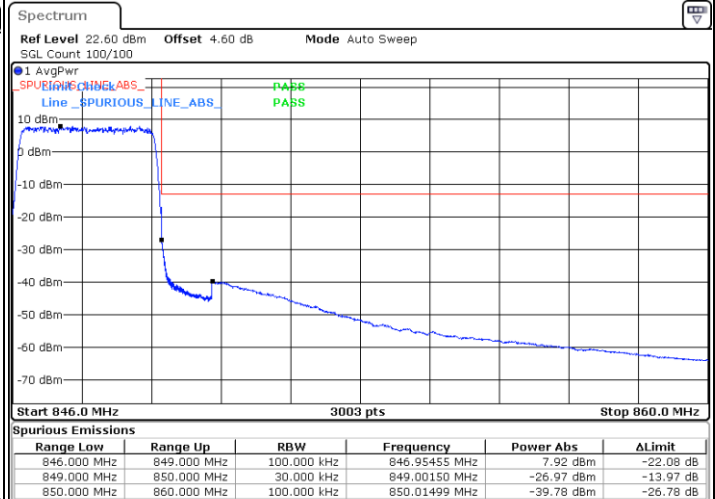
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



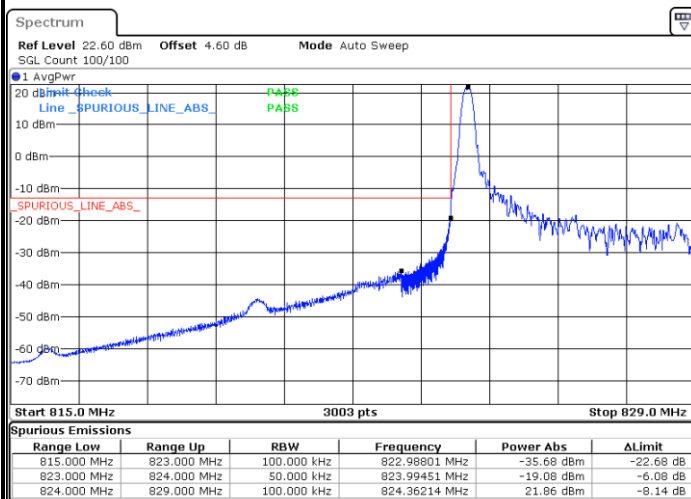
Highest Band Edge / Full RB



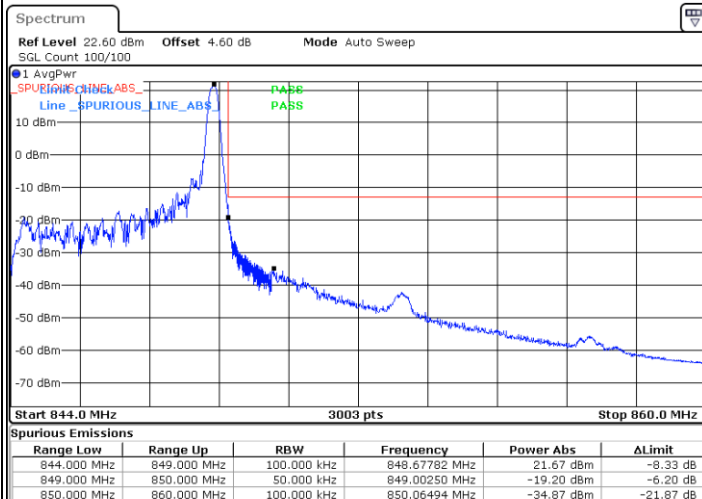


LTE Band 5 / 5MHz / QPSK

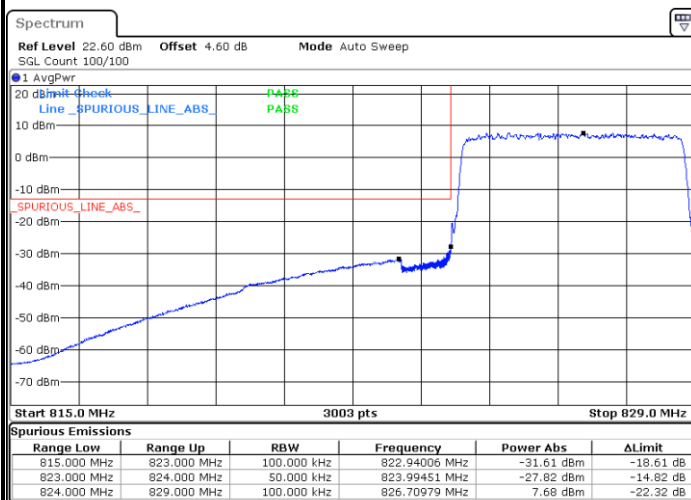
Lowest Band Edge / 1 RB



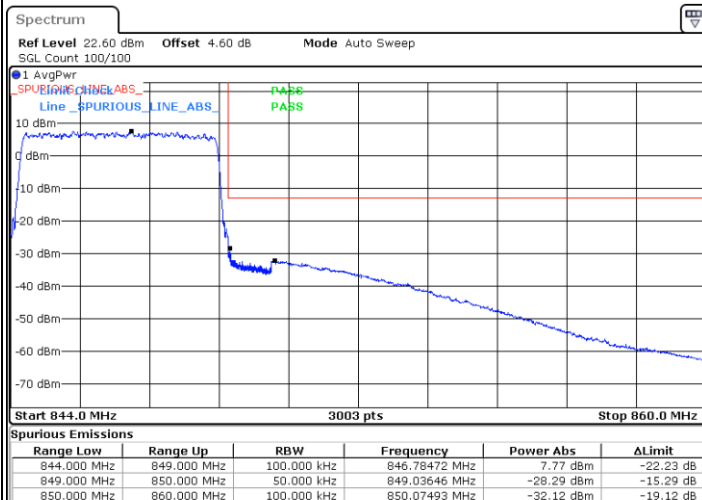
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



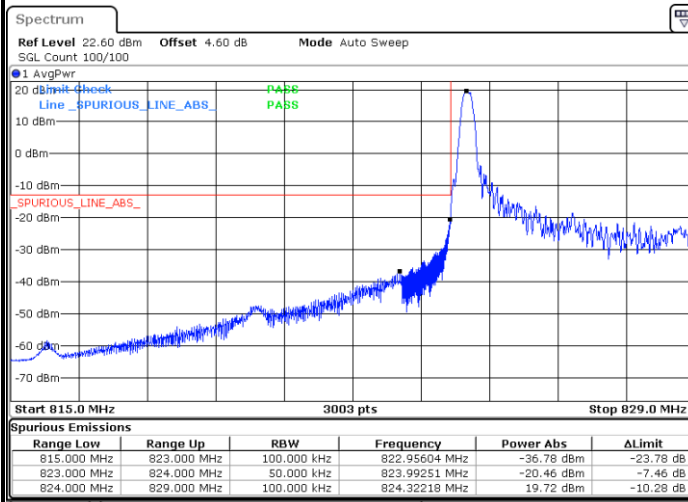
Highest Band Edge / Full RB



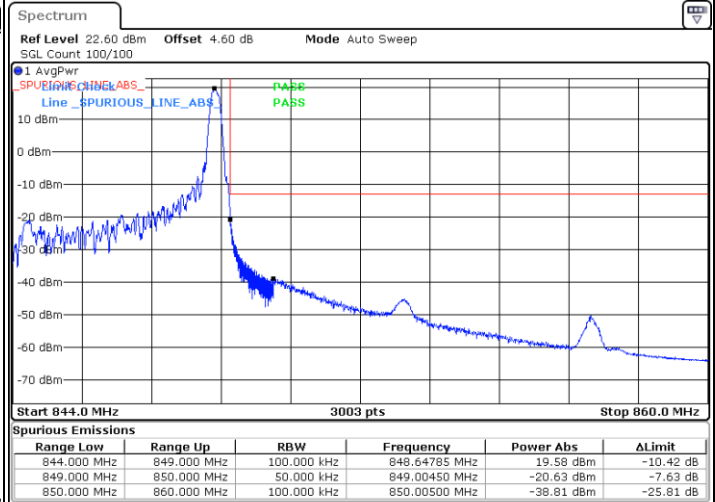


LTE Band 5 / 5MHz / 16QAM

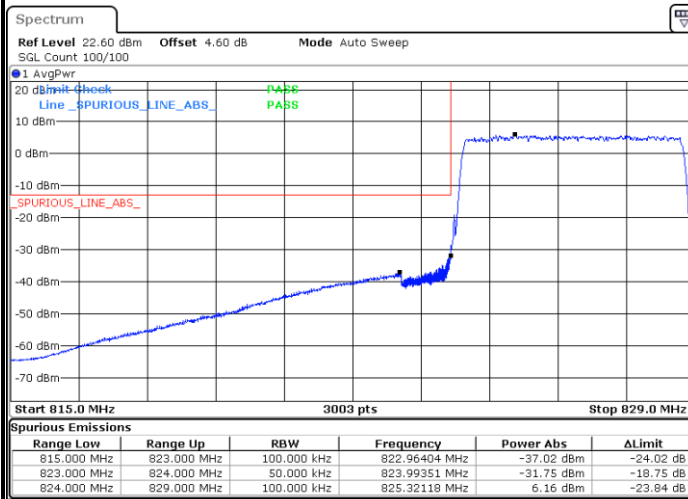
Lowest Band Edge / 1RB



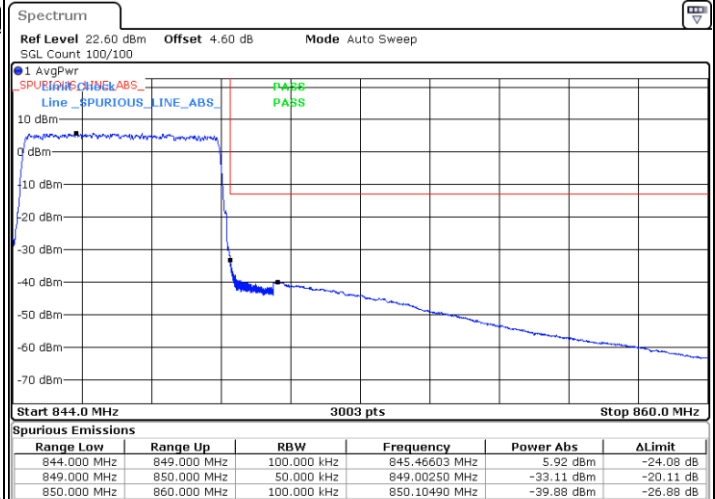
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



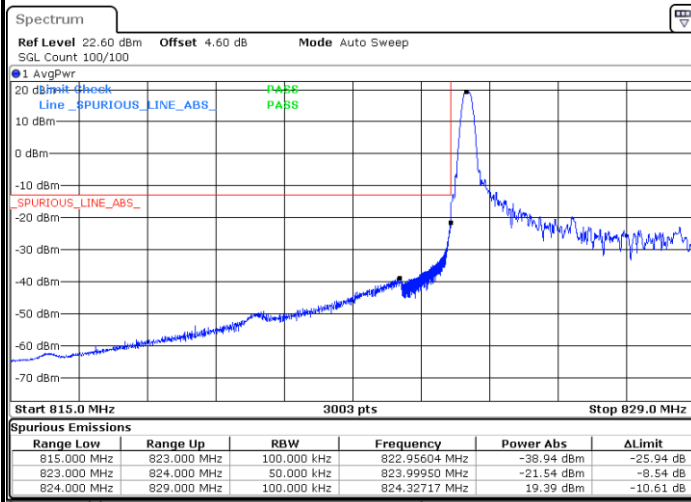
Highest Band Edge / Full RB



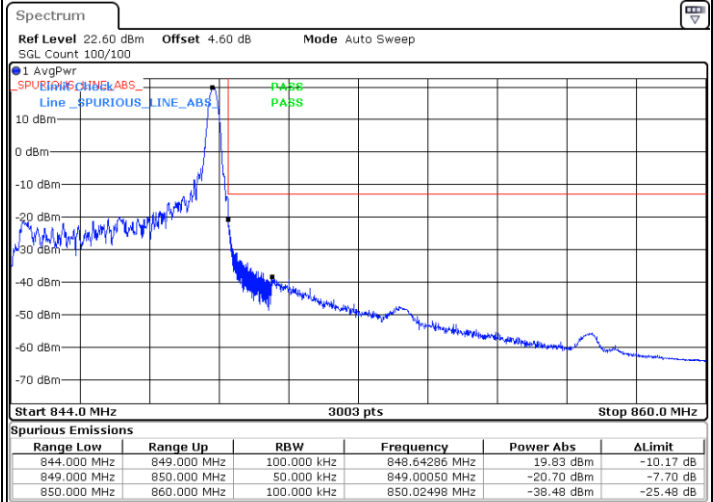


LTE Band 5 / 5MHz / 64QAM

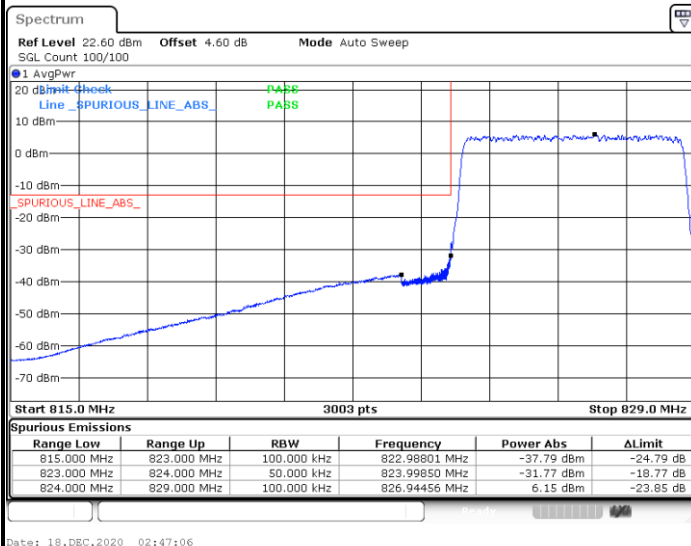
Lowest Band Edge / 1RB



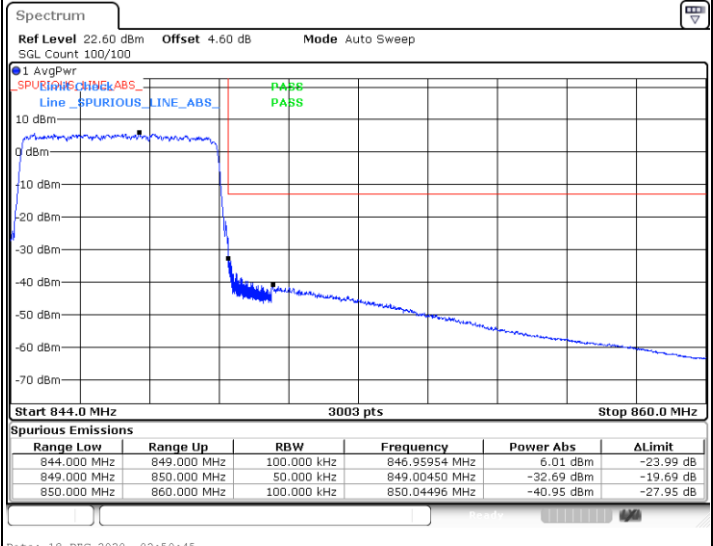
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



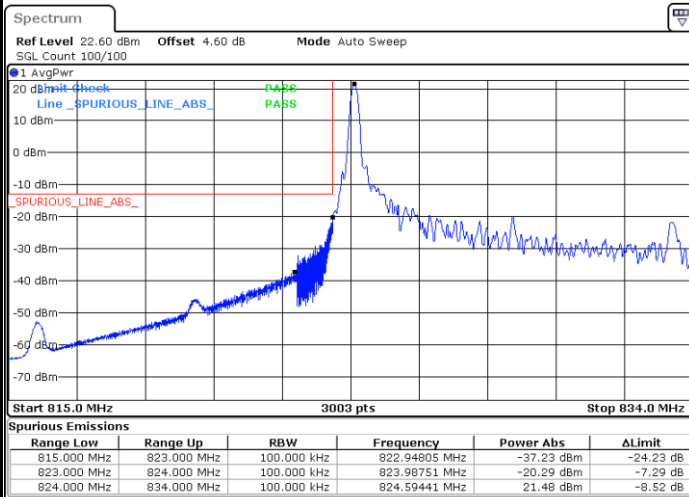
Highest Band Edge / Full RB



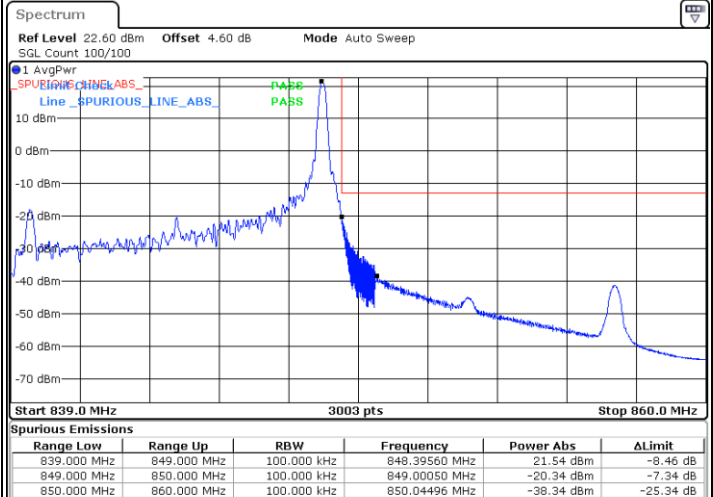


LTE Band 5 / 10MHz / QPSK

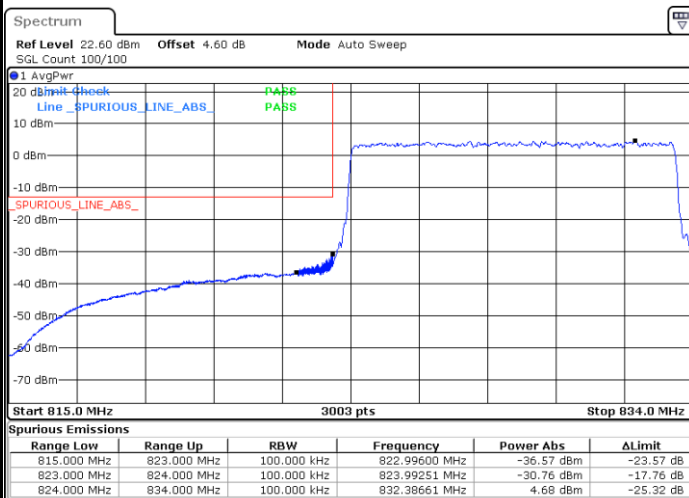
Lowest Band Edge / 1 RB



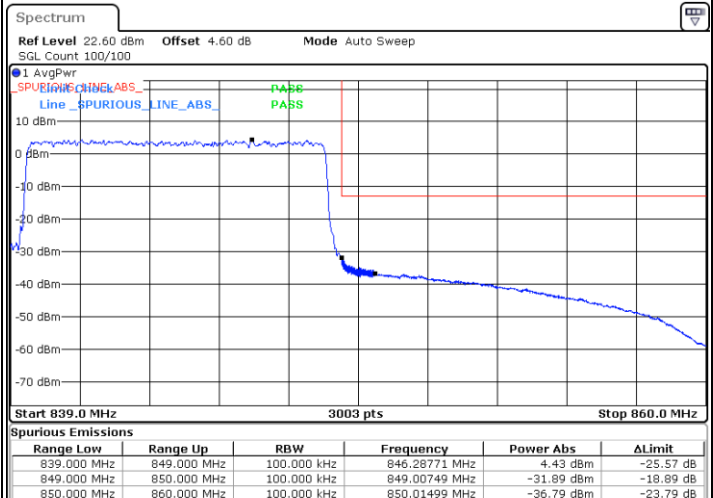
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



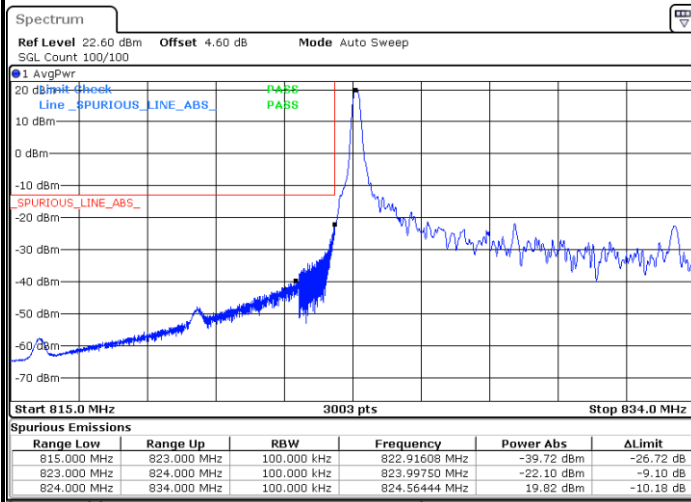
Highest Band Edge / Full RB



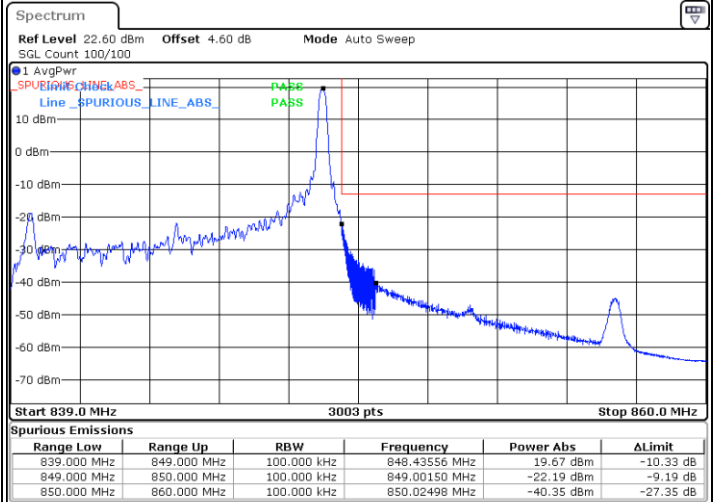


LTE Band 5 / 10MHz / 16QAM

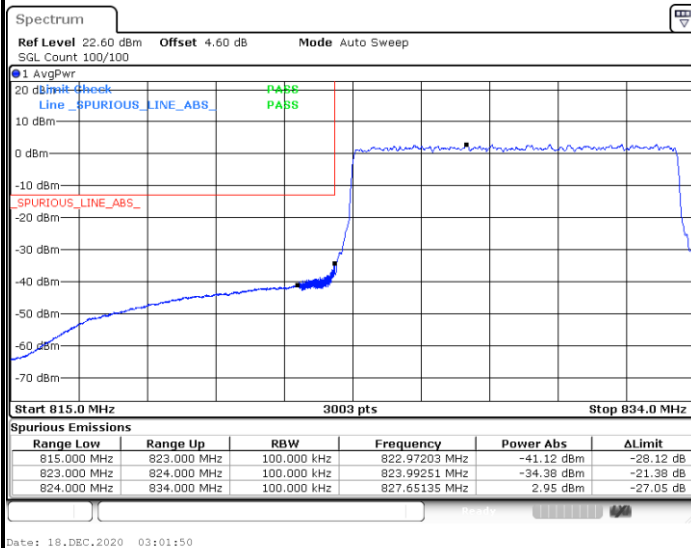
Lowest Band Edge / 1 RB



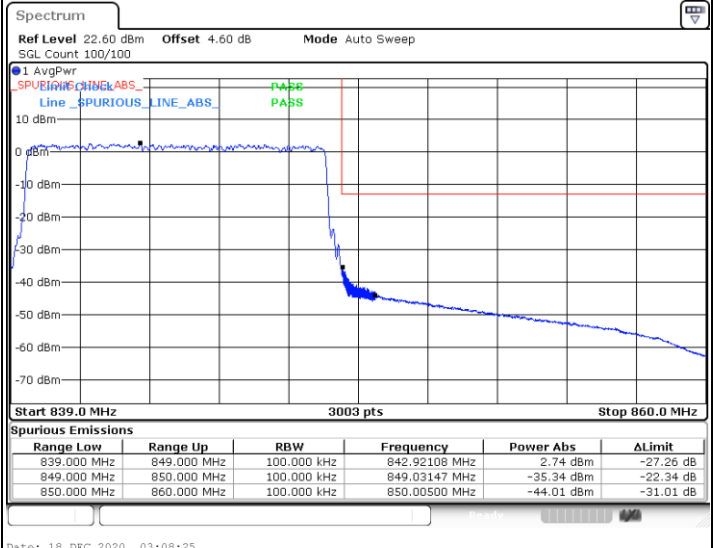
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



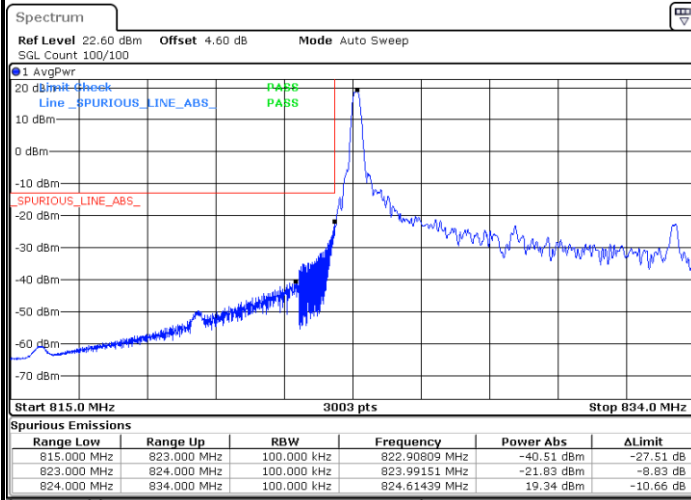
Highest Band Edge / Full RB



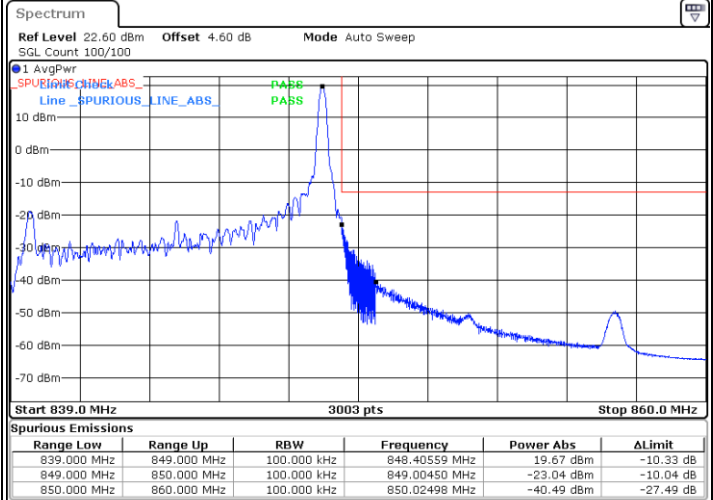


LTE Band 5 / 10MHz / 64QAM

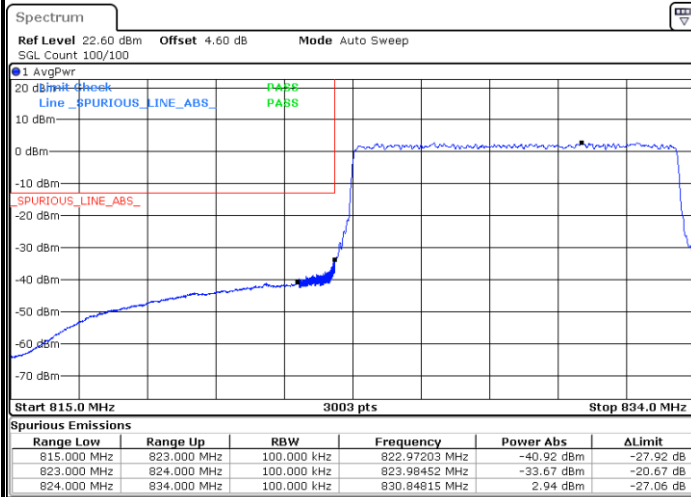
Lowest Band Edge / 1 RB



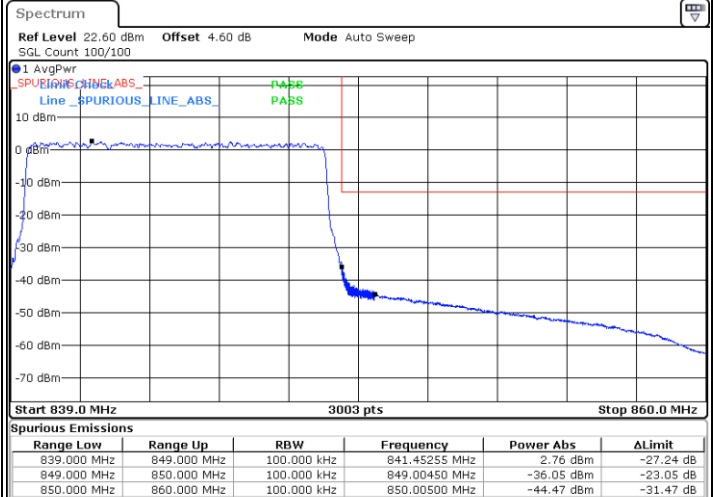
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

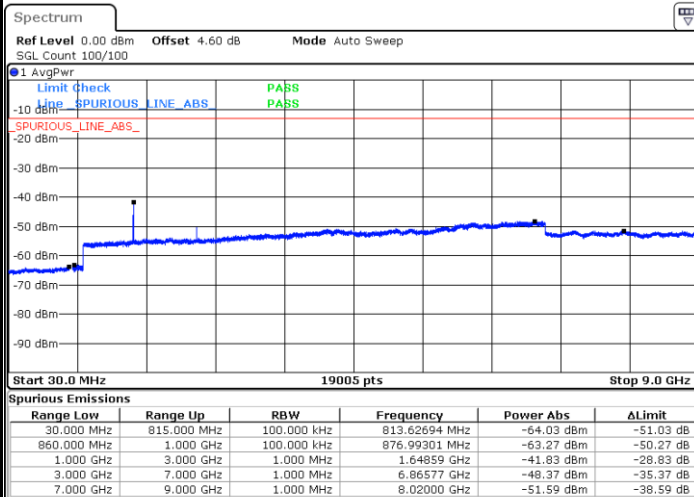




Conducted Spurious Emission

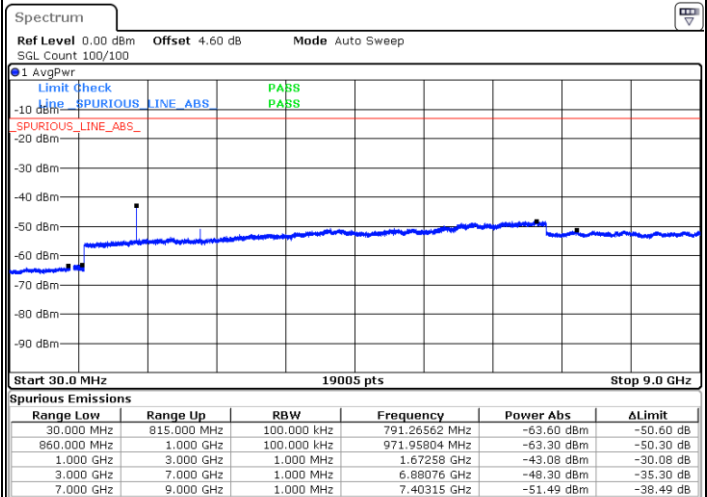
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



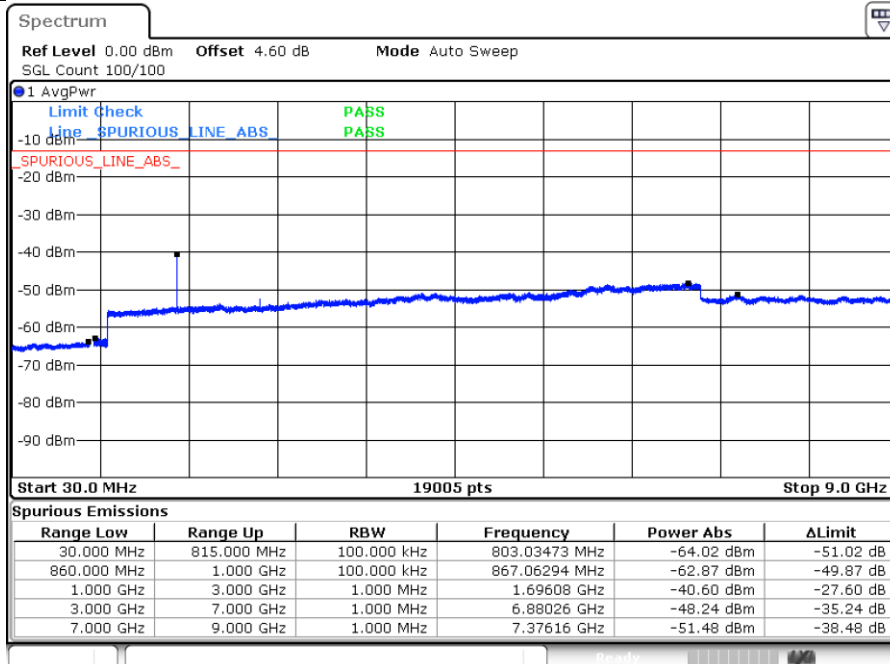
Date: 18.DEC.2020 02:20:20

Middle Channel / QPSK



Date: 18.DEC.2020 02:19:50

Highest Channel / QPSK

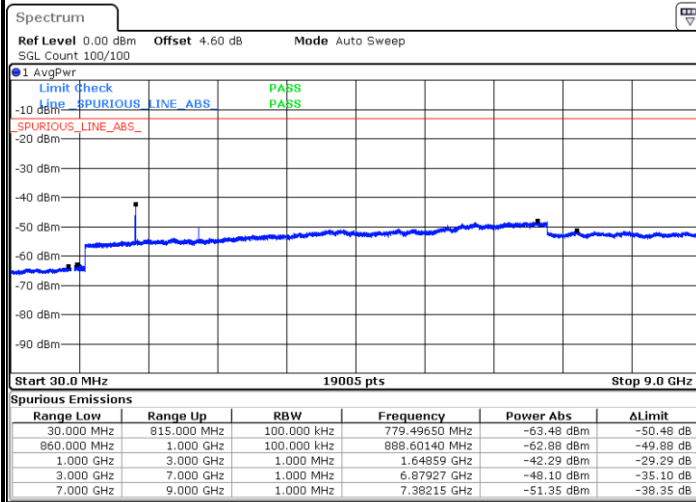


Date: 18.DEC.2020 02:19:20



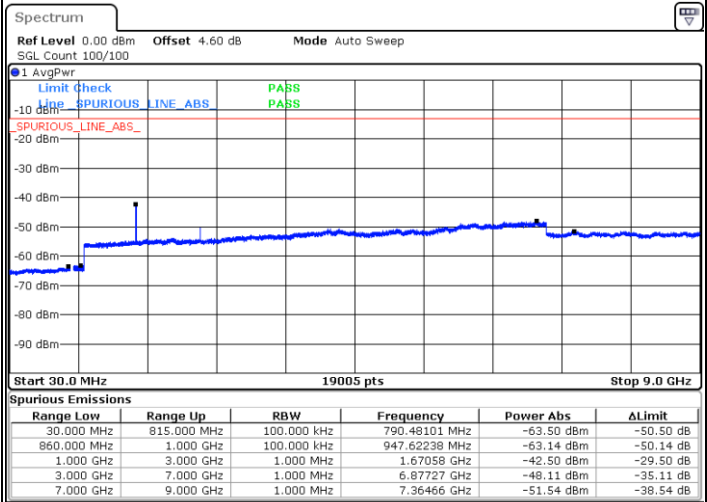
LTE Band 5 / 3MHz

Lowest Channel / QPSK



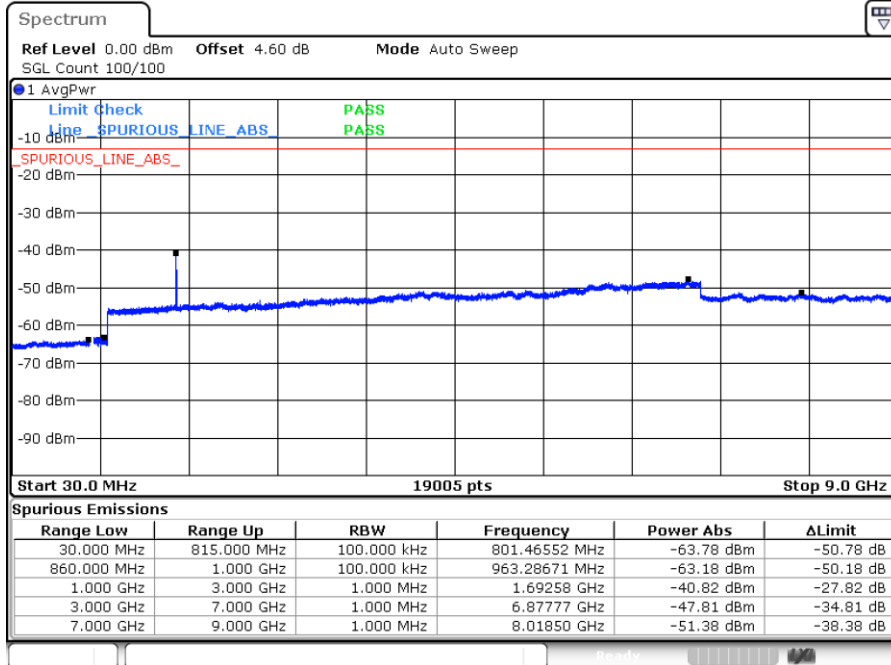
Date: 18.DEC.2020 02:21:21

Middle Channel / QPSK



Date: 18.DEC.2020 02:40:39

Highest Channel / QPSK

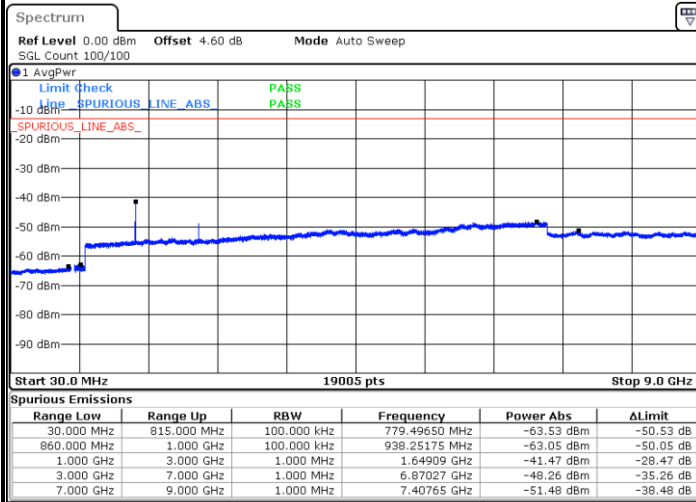


Date: 18.DEC.2020 02:40:12



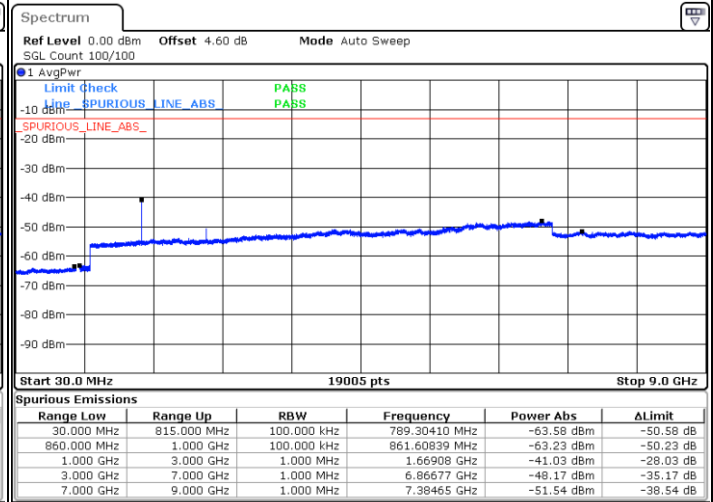
LTE Band 5 / 5MHz

Lowest Channel / QPSK



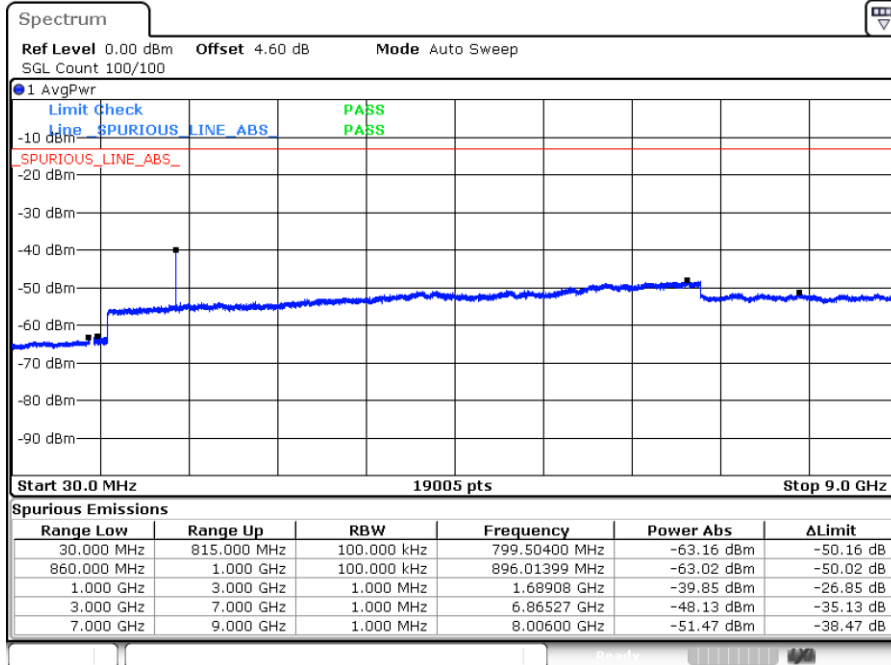
Date: 18.DEC.2020 02:41:23

Middle Channel / QPSK



Date: 18.DEC.2020 02:41:50

Highest Channel / QPSK

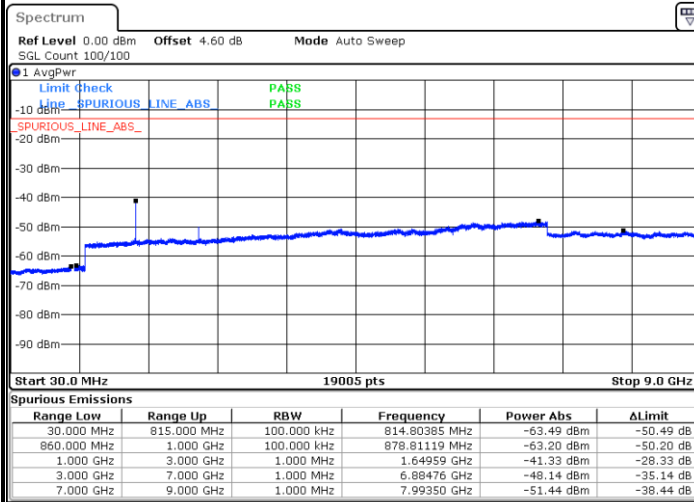


Date: 18.DEC.2020 02:42:25



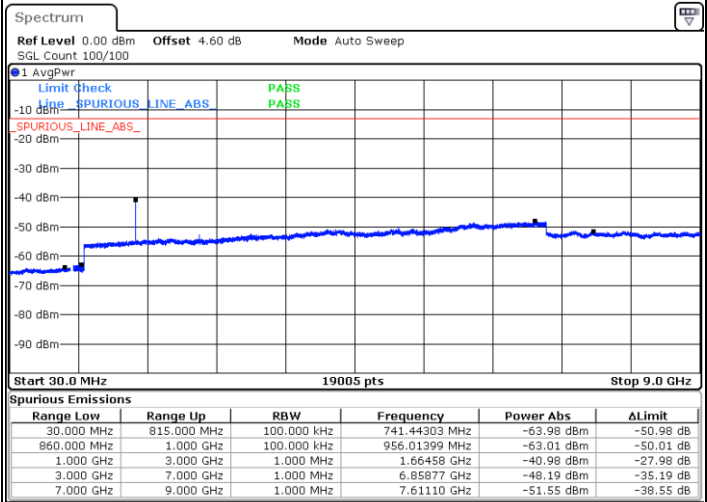
LTE Band 5 / 10MHz

Lowest Channel / QPSK



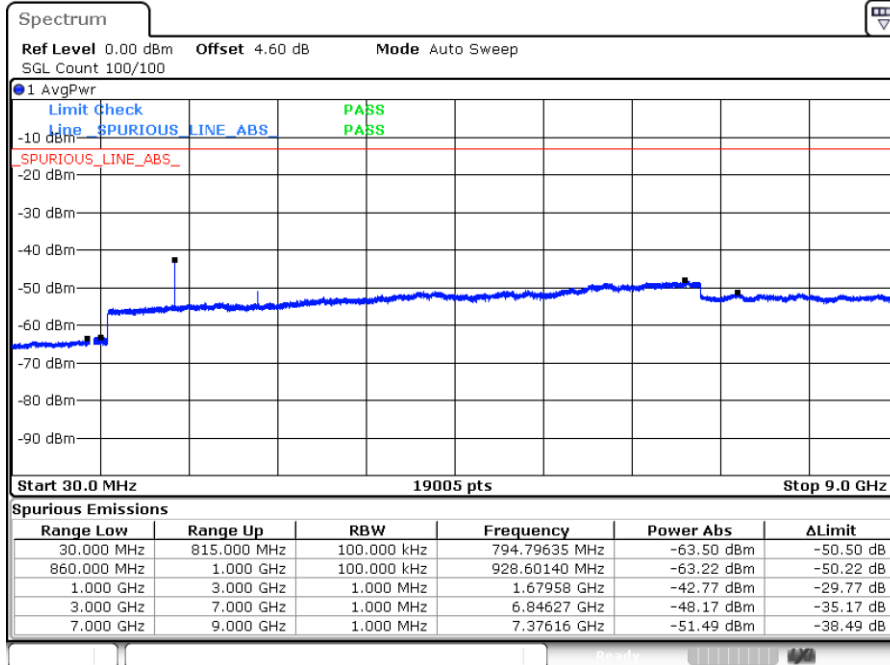
Date: 18.DEC.2020 03:16:26

Middle Channel / QPSK



Date: 18.DEC.2020 03:16:52

Highest Channel / QPSK



Date: 18.DEC.2020 03:17:49

**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	0.0001	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0056	
0	Normal Voltage	0.0059	
-10	Normal Voltage	0.0051	
-20	Normal Voltage	0.0023	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0051	
20	Normal Voltage	0.0060	
20	Battery End Point	0.0012	

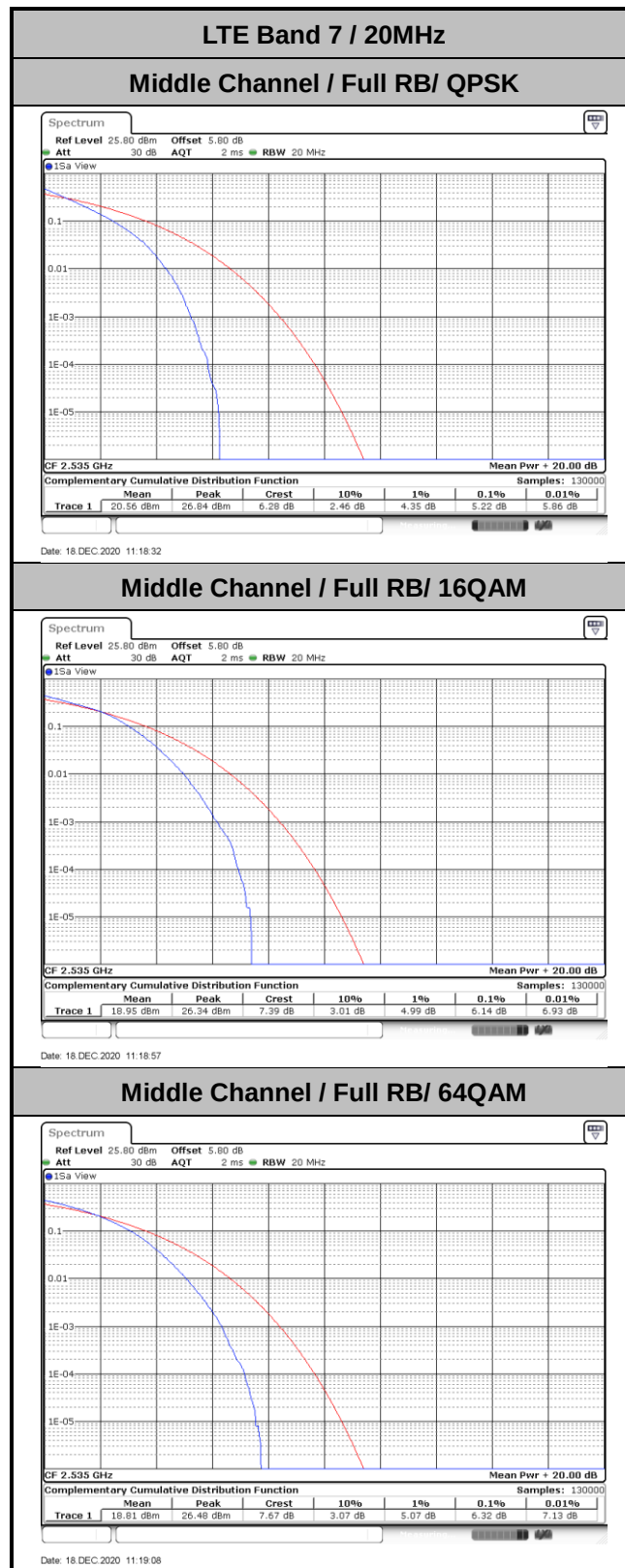
Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.



LTE Band 7

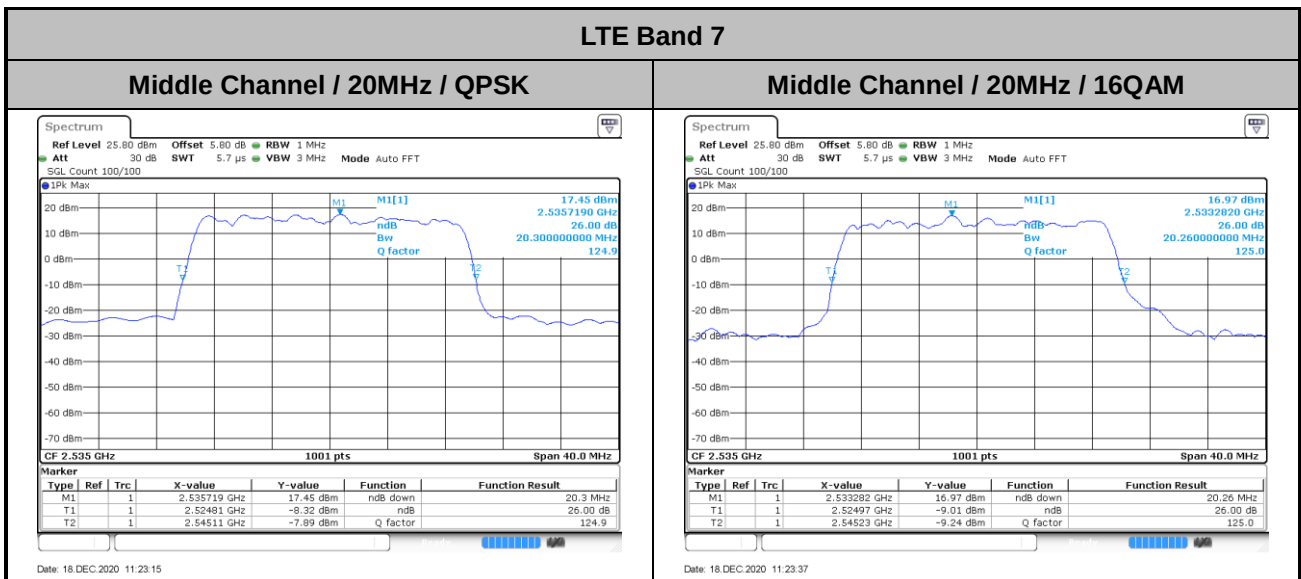
Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.22	6.14	6.32	PASS



**26dB Bandwidth**

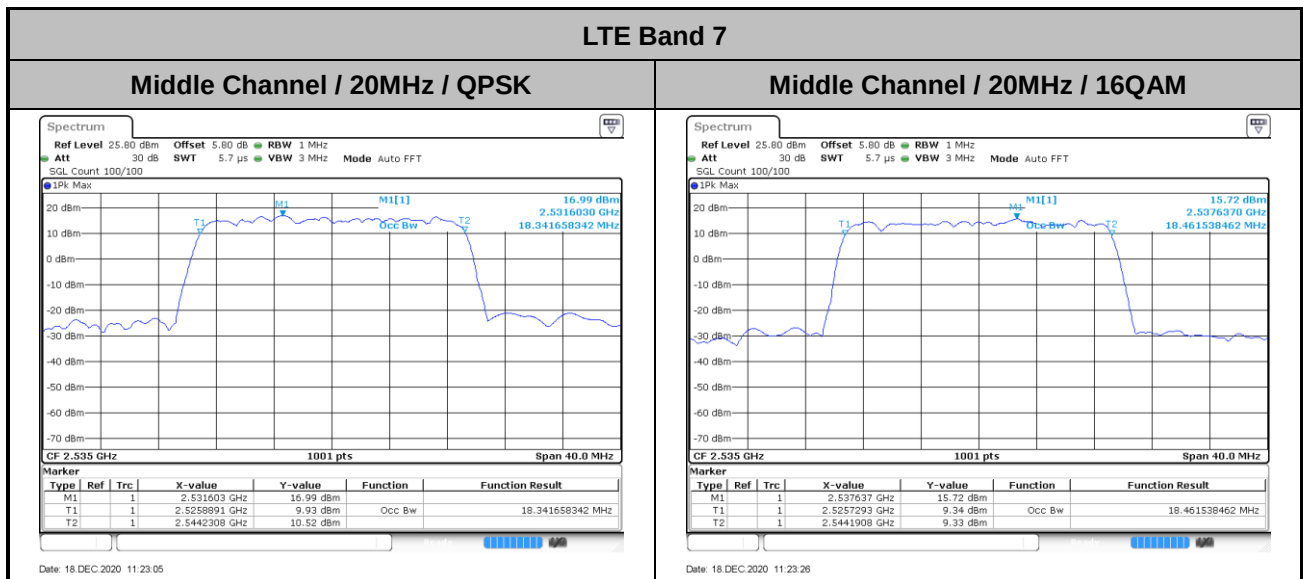
Mode	LTE Band 7 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.30	20.26





Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.34	18.46

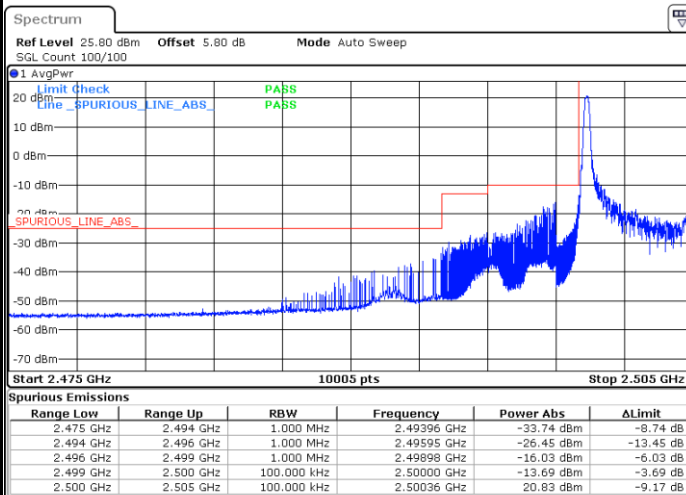




Conducted Band Edge

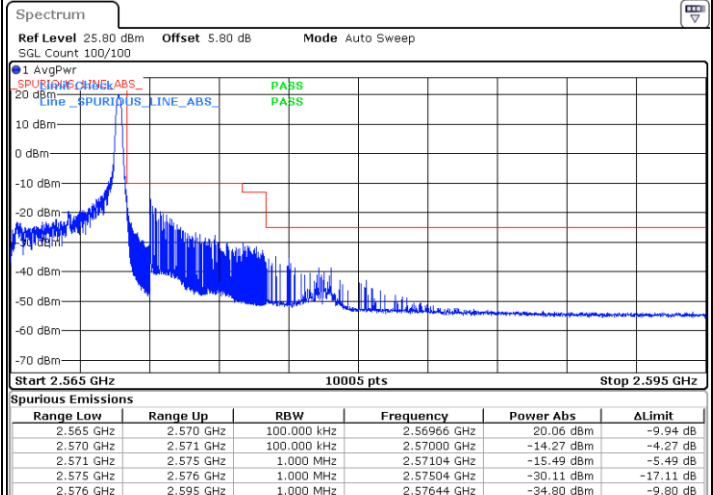
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



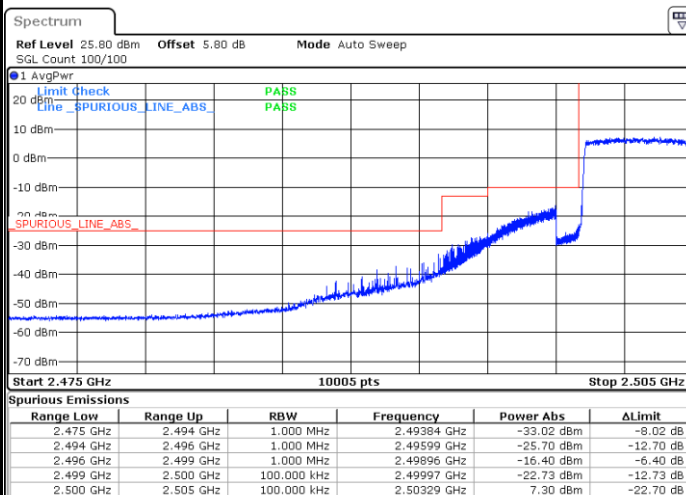
Date: 18 DEC 2020 09:21:44

Highest Band Edge / 1 RB



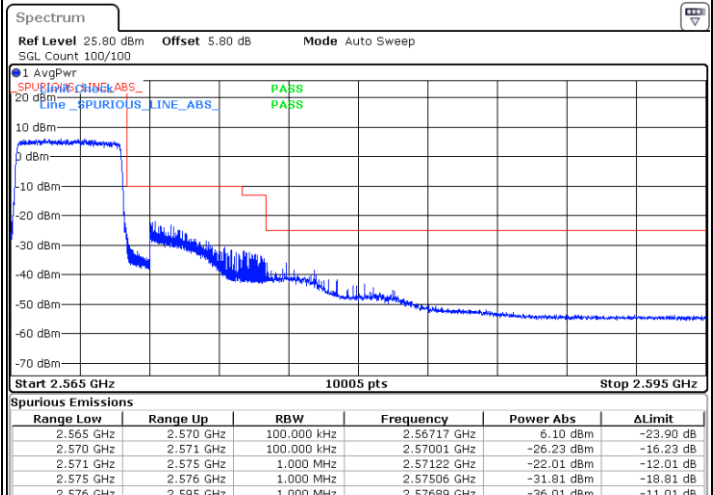
Date: 18 DEC 2020 09:29:49

Lowest Band Edge / Full RB



Date: 18 DEC 2020 09:25:12

Highest Band Edge / Full RB

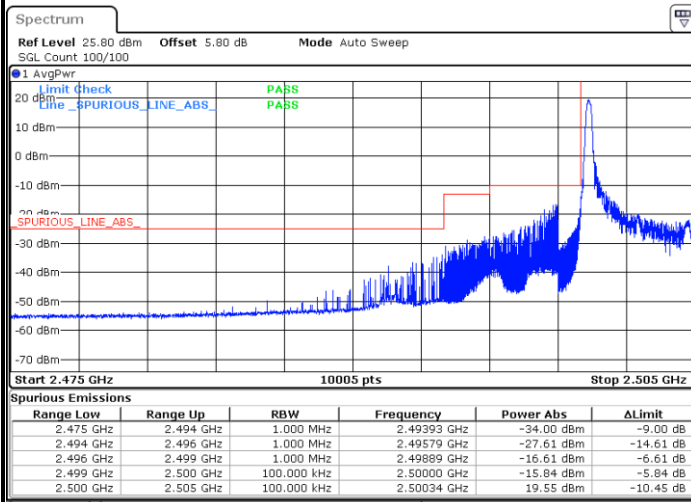


Date: 18 DEC 2020 09:26:21

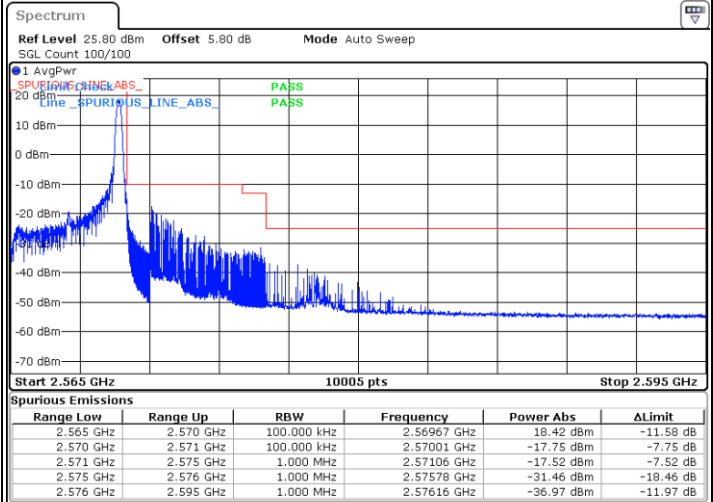


LTE Band 7 / 5MHz / 16QAM

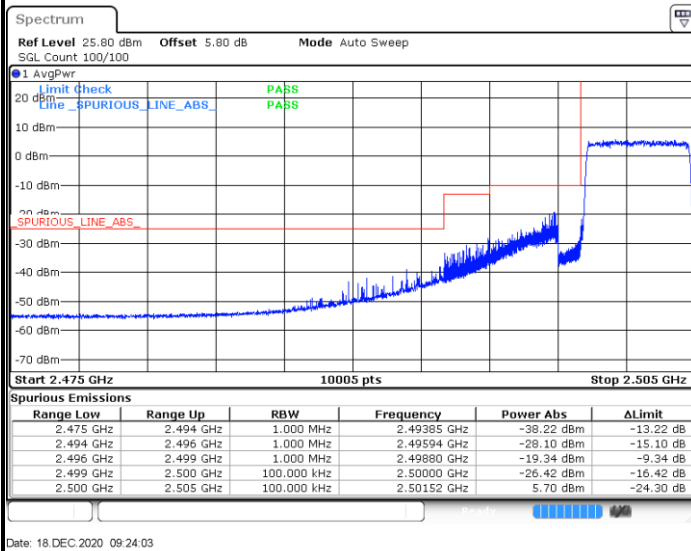
Lowest Band Edge / 1 RB



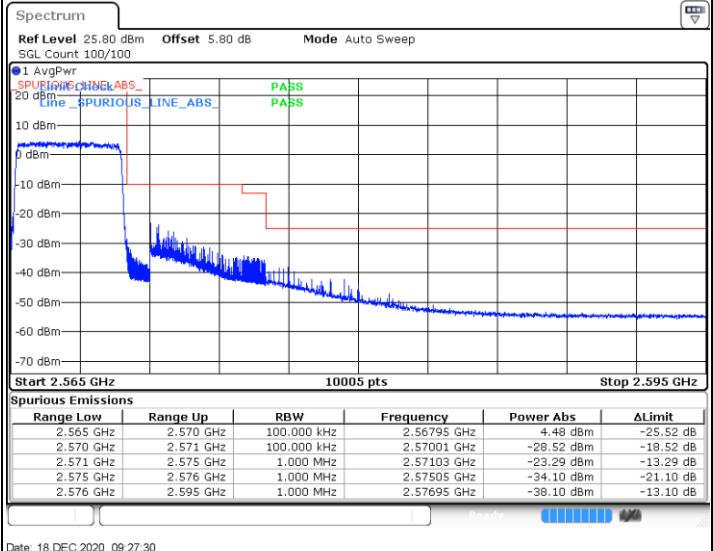
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



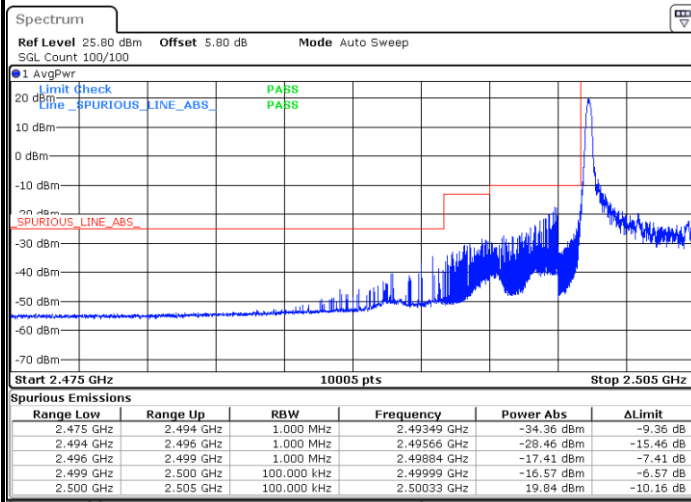
Highest Band Edge / Full RB



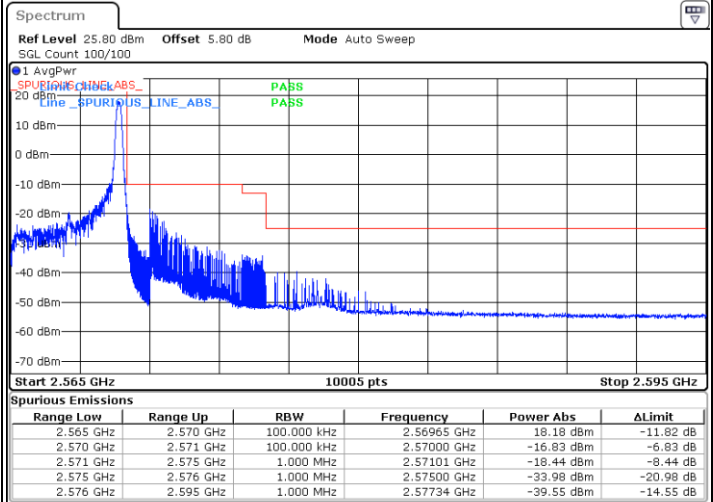


LTE Band 7 / 5MHz / 64QAM

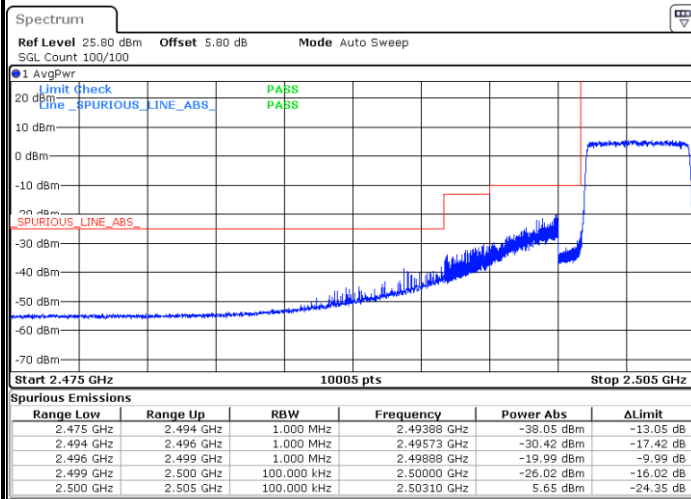
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

