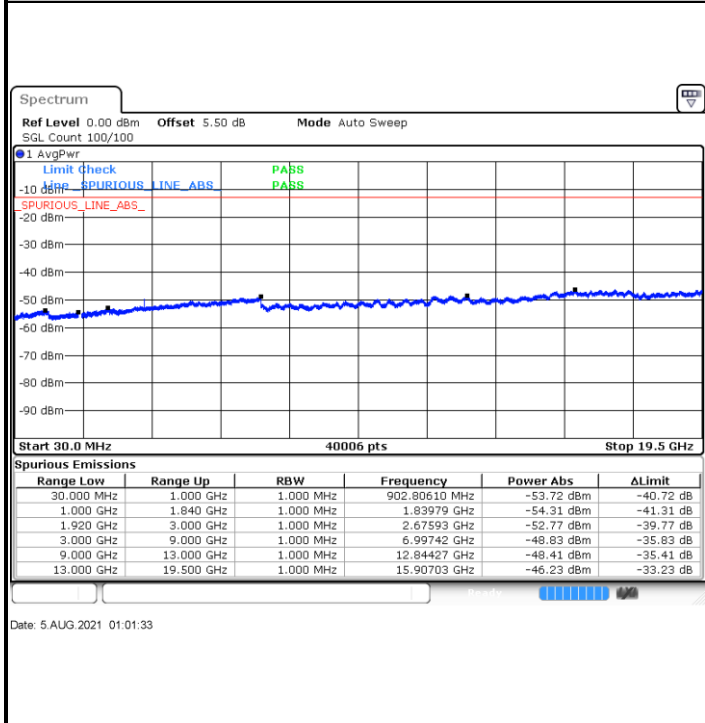


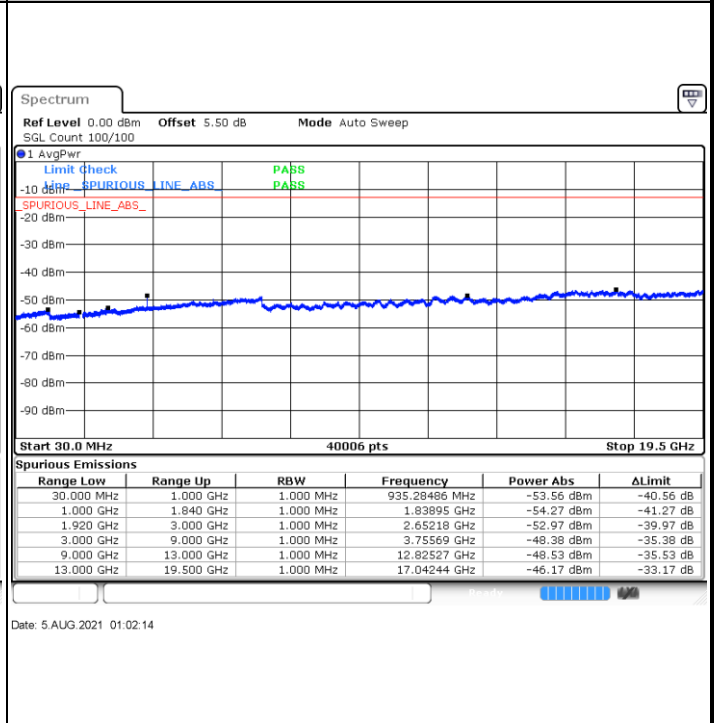


**LTE Band 2 / 5MHz**

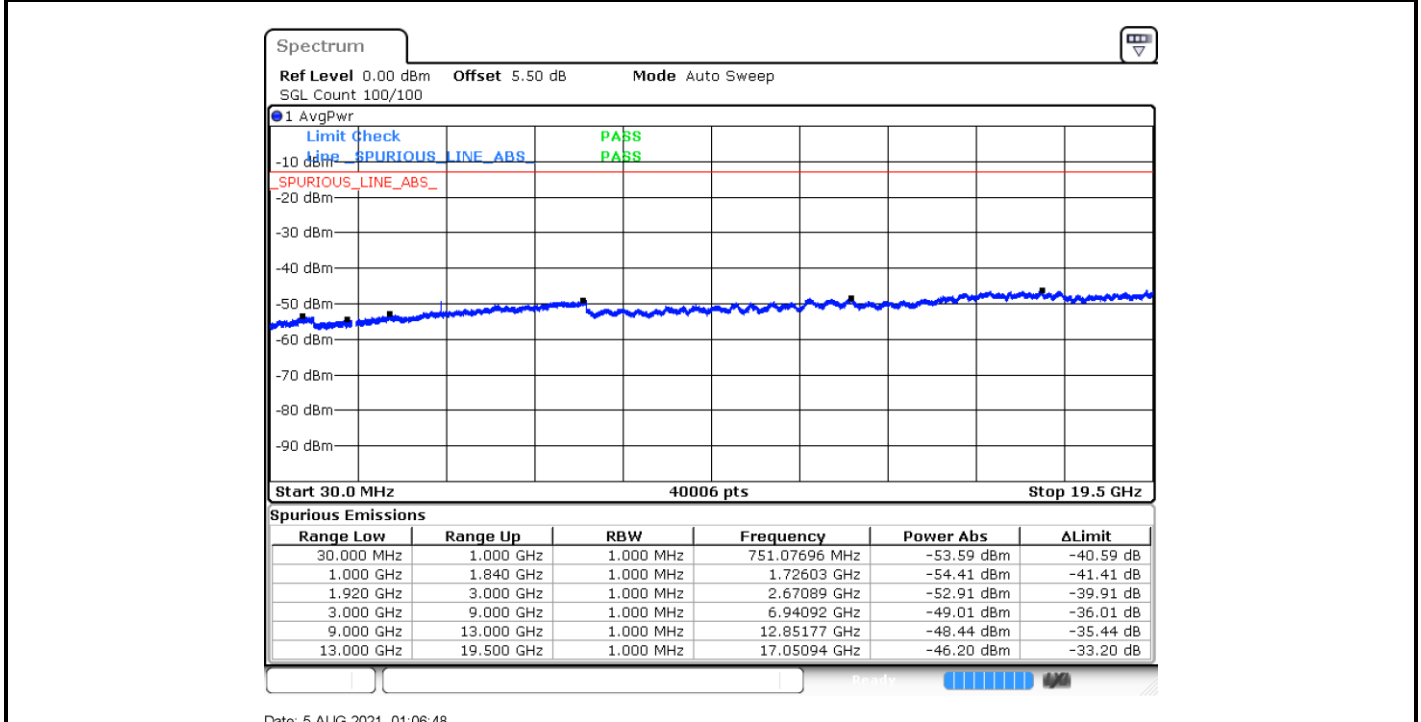
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



**Highest Channel / QPSK**

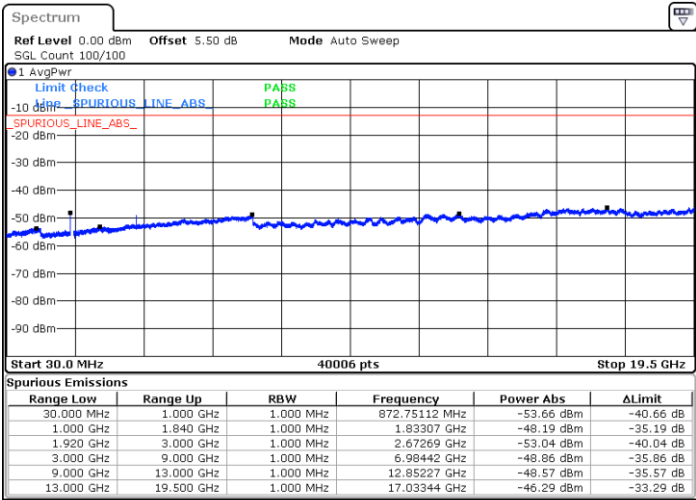




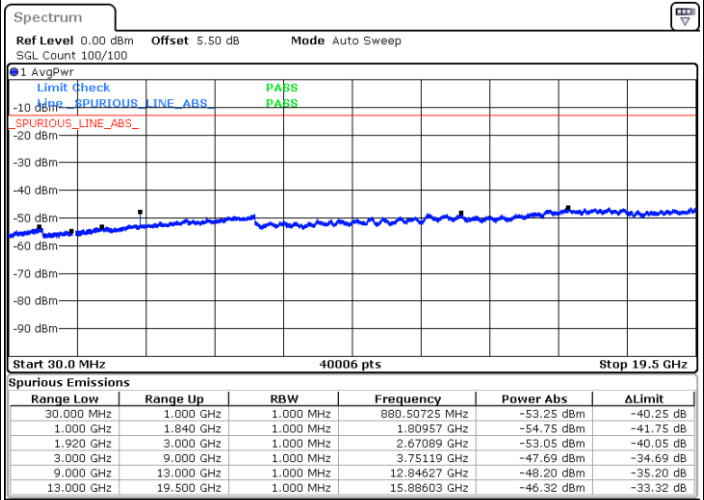
LTE Band 2 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

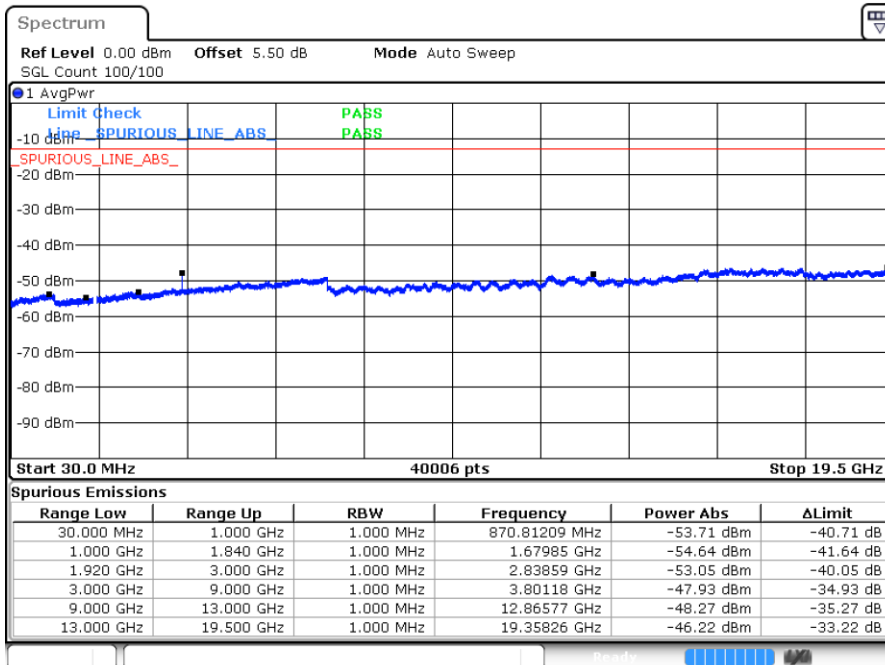


Date: 5 AUG 2021 01:16:31



Date: 5 AUG 2021 01:17:11

Highest Channel / QPSK



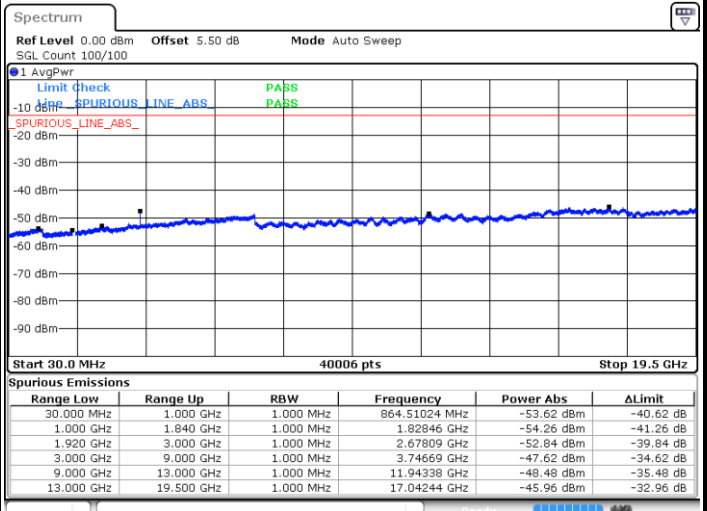
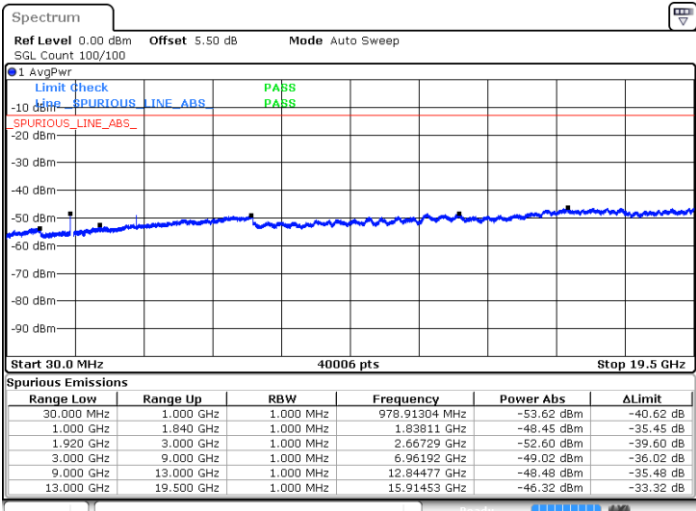
Date: 5 AUG 2021 01:21:45



LTE Band 2 / 15MHz

Lowest Channel / QPSK

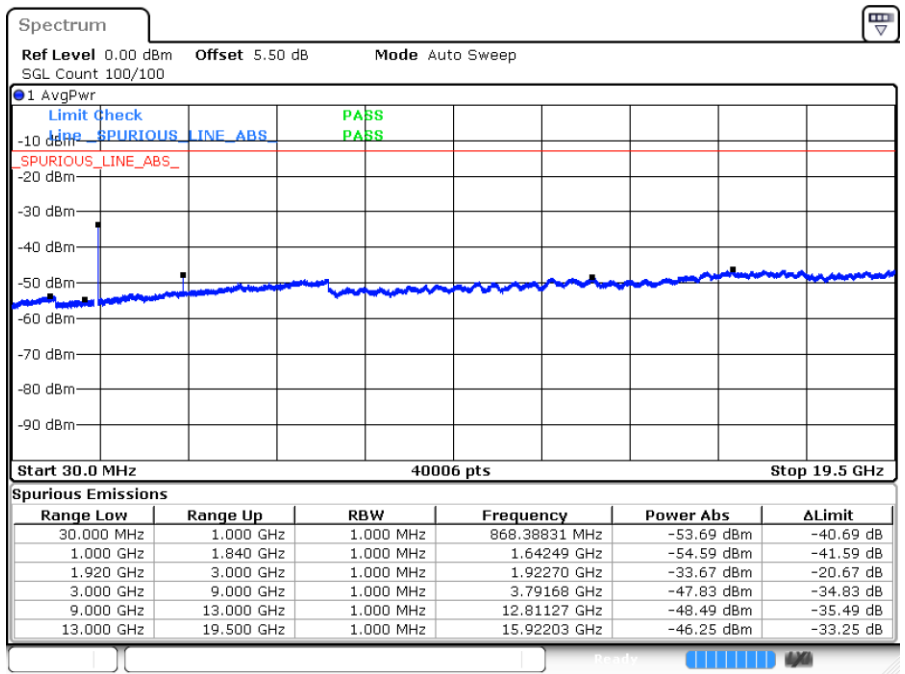
Middle Channel / QPSK



Date: 5 AUG 2021 01:27:21

Date: 5 AUG 2021 02:26:59

Highest Channel / QPSK

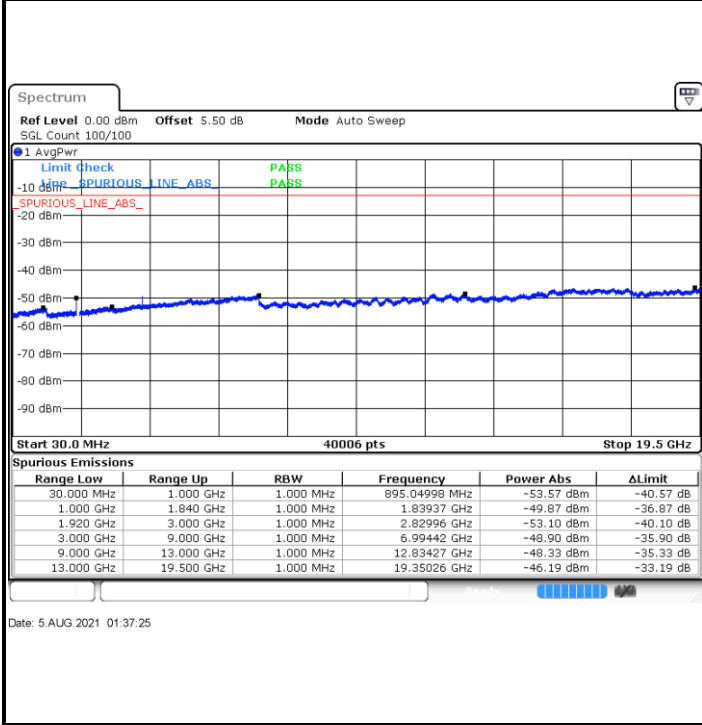


Date: 5 AUG 2021 01:32:36

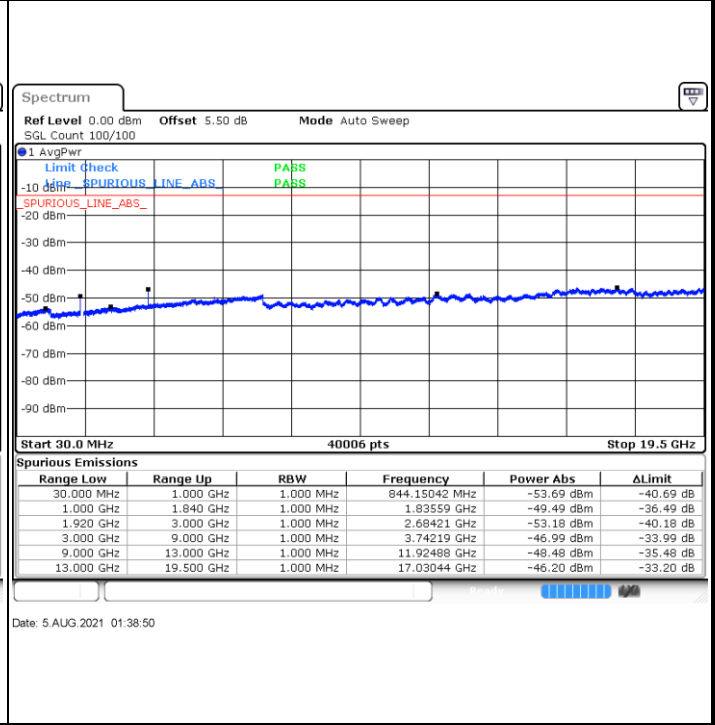


**LTE Band 2 / 20MHz**

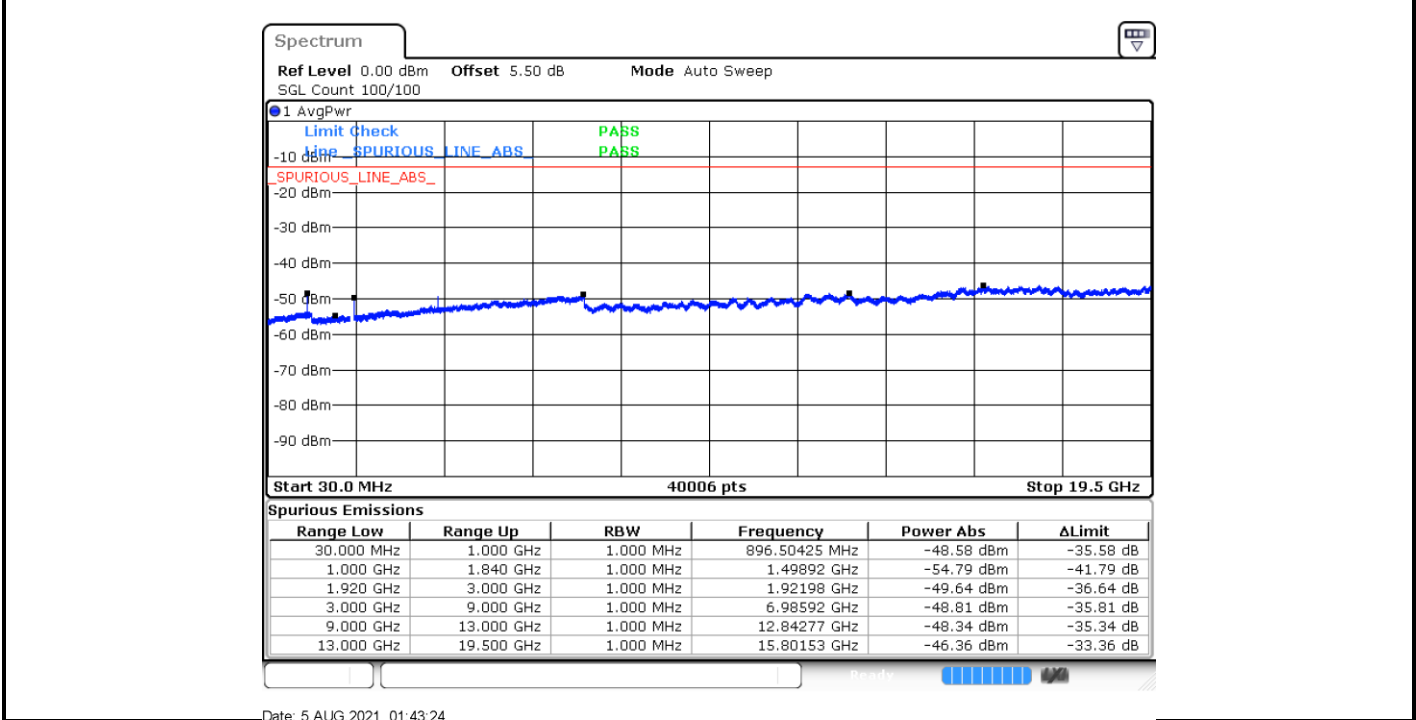
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



**Highest Channel / QPSK**





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	0.0007	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0010	
10	Normal Voltage	0.0025	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0023	
20	Normal Voltage	0.0002	
20	Battery End Point	0.0016	

Note:

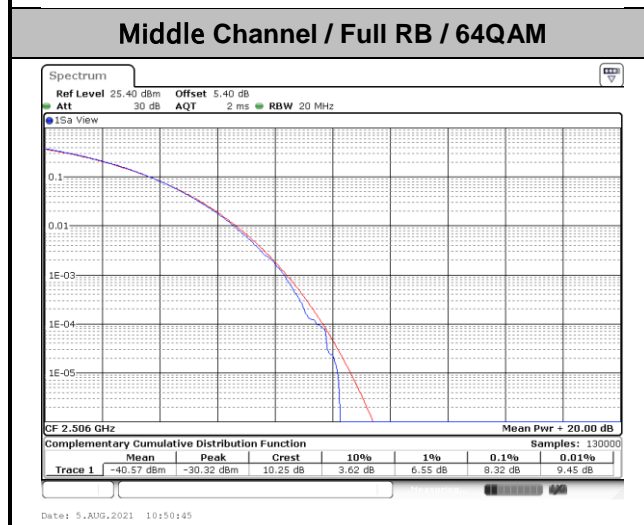
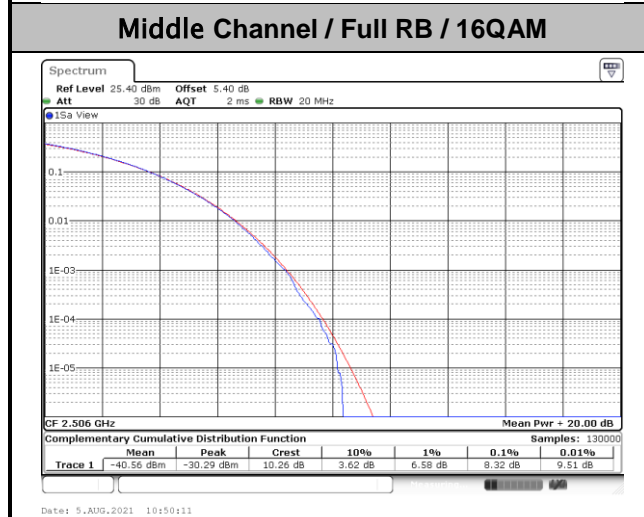
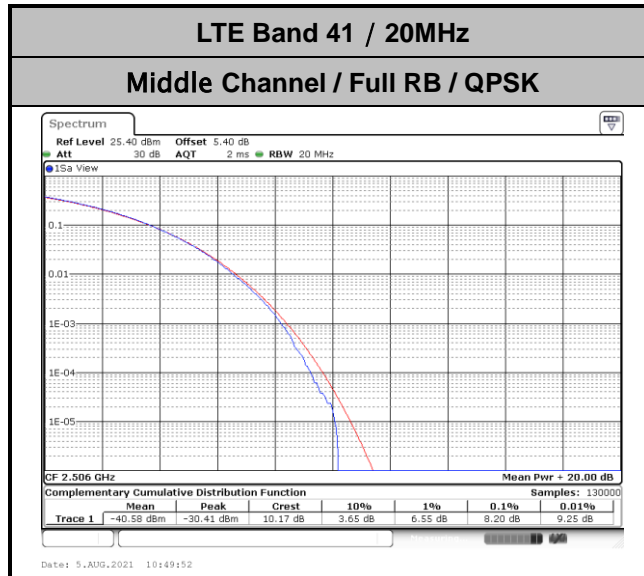
1. Normal Voltage =3.85V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 41

### Peak-to-Average Ratio

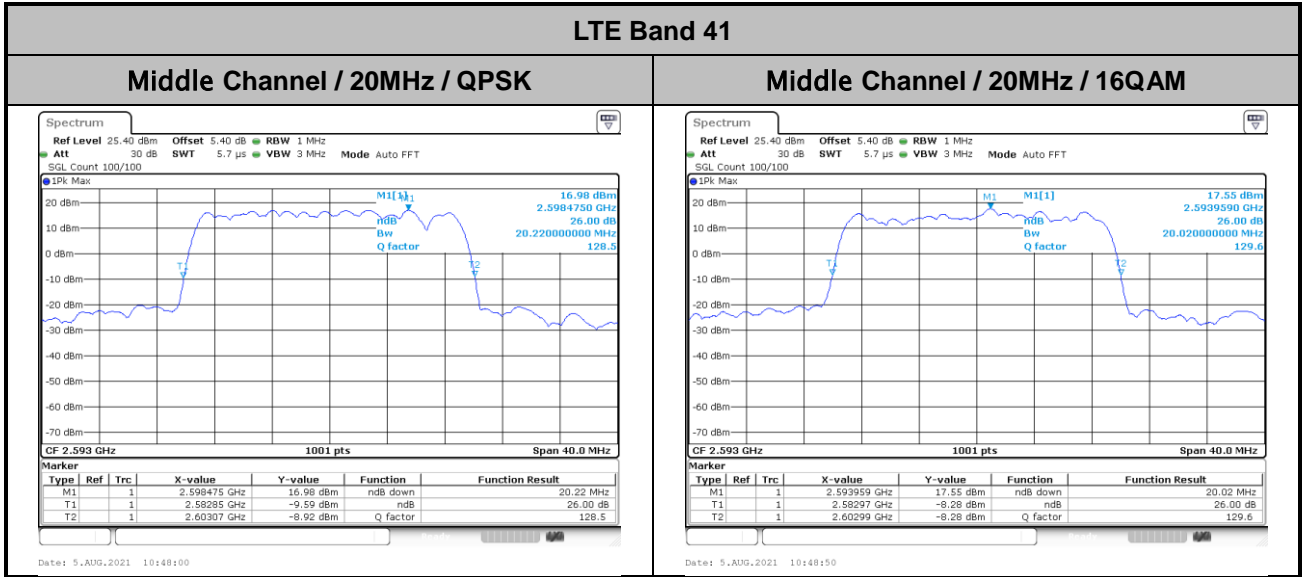
Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	8.20	8.32	8.32	<b>PASS</b>





**26dB Bandwidth**

Mode	LTE Band 41 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.22	20.02

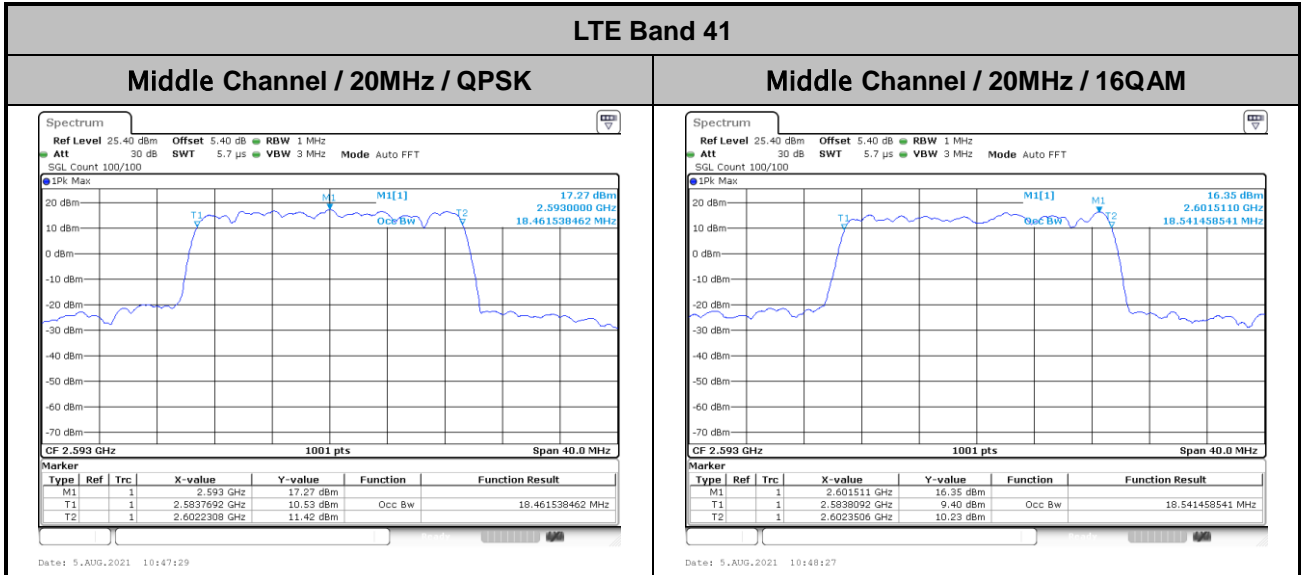






## Occupied Bandwidth

<b>Mode</b>	<b>LTE Band 41 : 99%OBW(MHz)</b>	
<b>BW</b>	<b>20MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	18.46	18.54



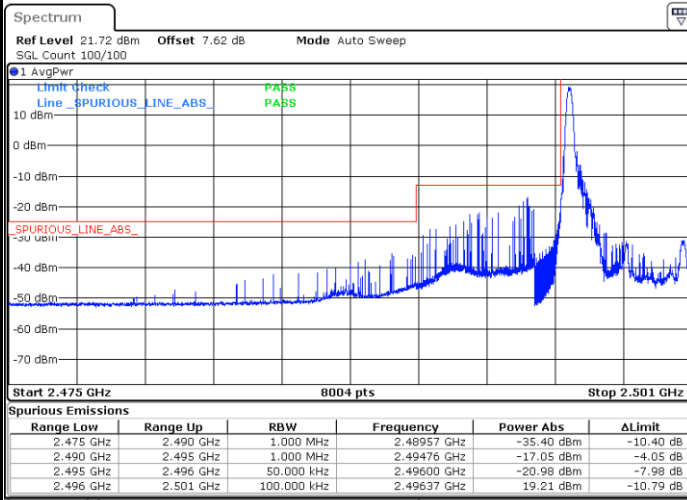


## **Conducted Band Edge**



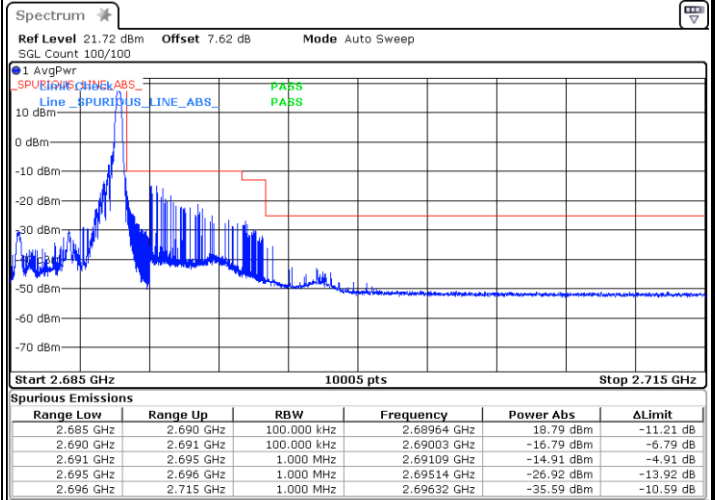
LTE Band 41 / 5MHz / QPSK

Lowest Band Edge / 1 RB



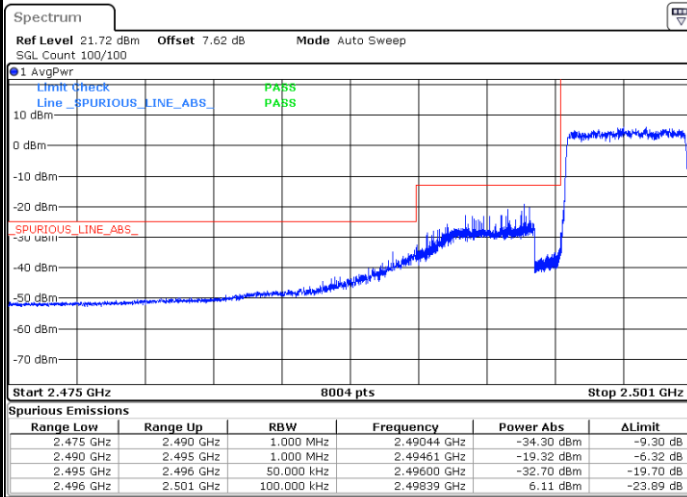
Date: 5.AUG.2021 09:17:50

Highest Band Edge / 1 RB



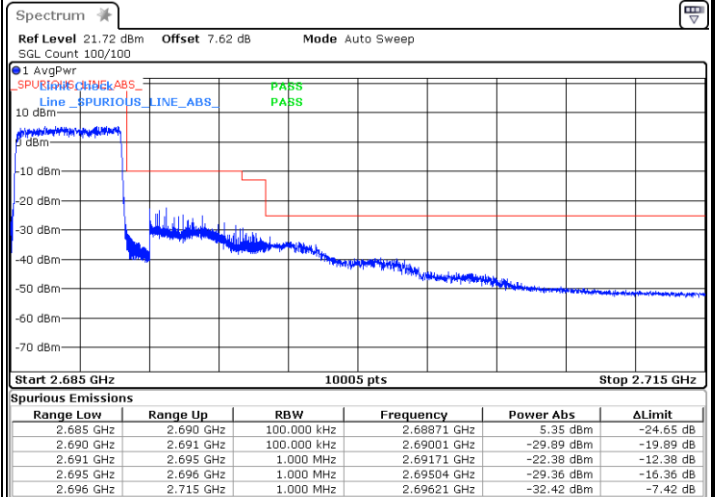
Date: 5.AUG.2021 11:27:28

Lowest Band Edge / Full RB



Date: 5.AUG.2021 09:21:33

Highest Band Edge / Full RB

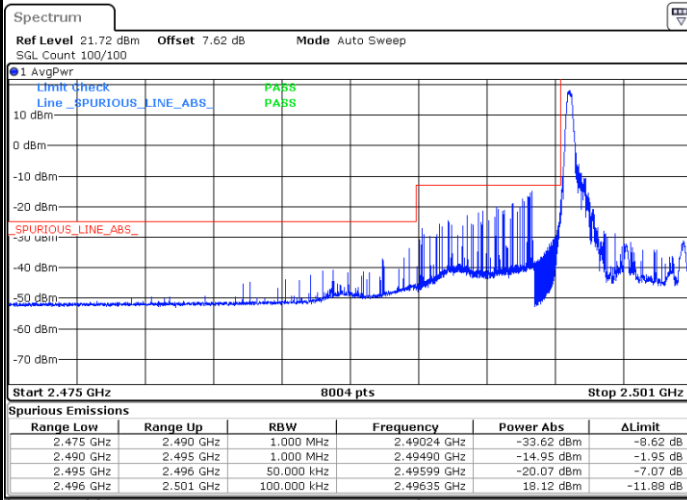


Date: 5.AUG.2021 11:29:43



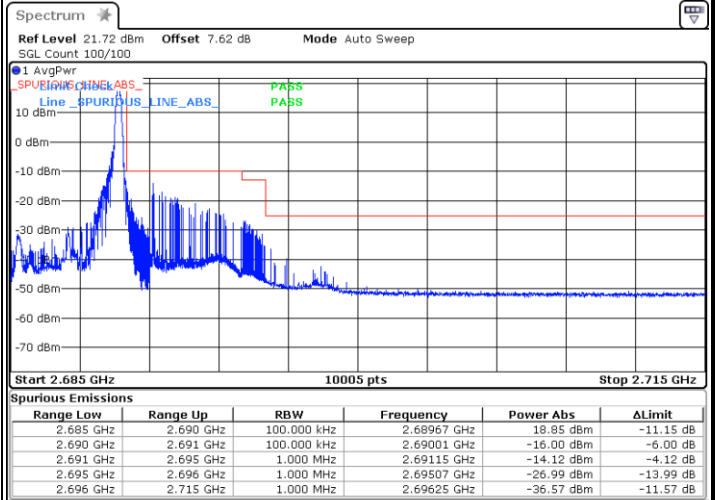
LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



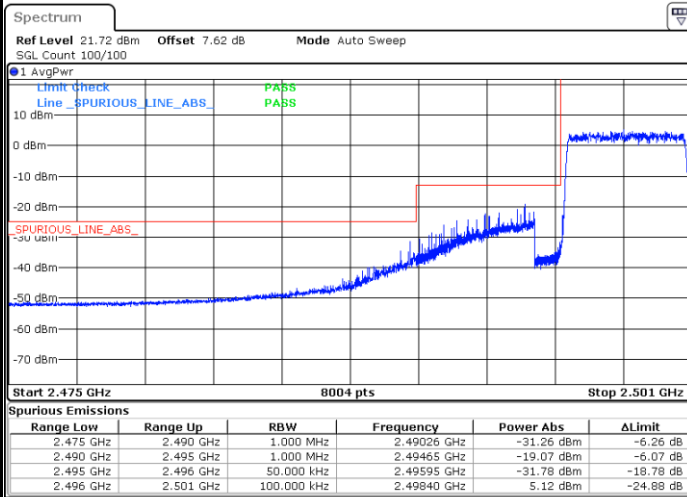
Date: 5.AUG.2021 09:18:24

Highest Band Edge / 1 RB



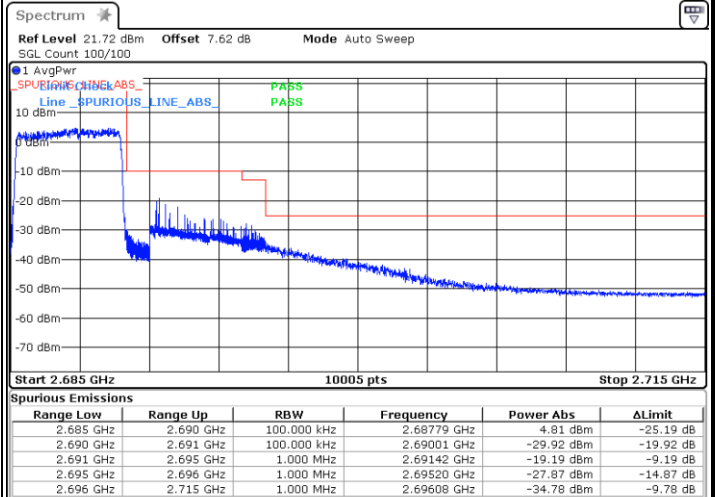
Date: 5.AUG.2021 11:27:51

Lowest Band Edge / Full RB



Date: 5.AUG.2021 09:22:21

Highest Band Edge / Full RB

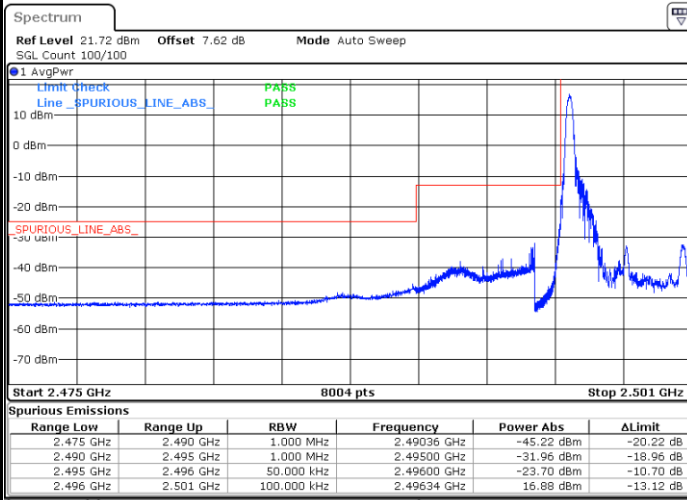


Date: 5.AUG.2021 11:29:20



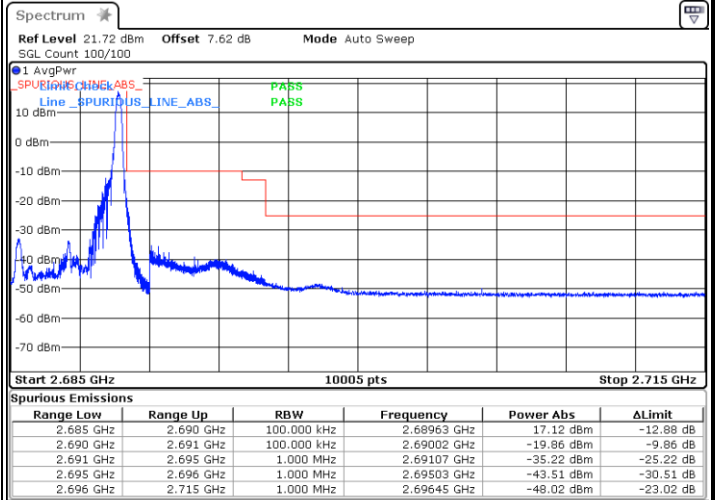
LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB



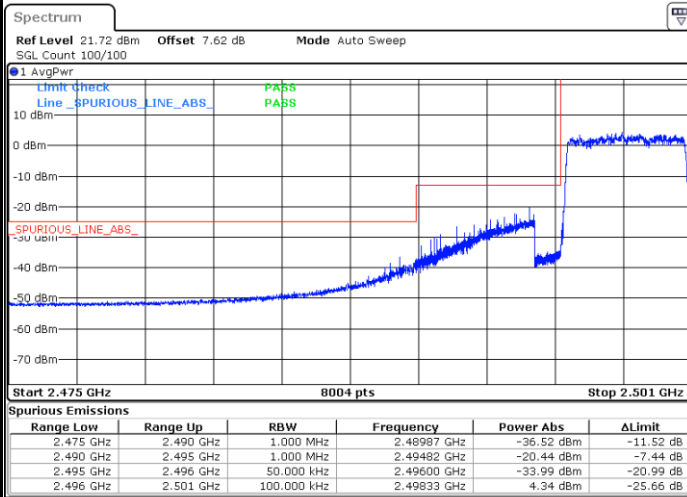
Date: 5.AUG.2021 09:19:35

Highest Band Edge / 1 RB



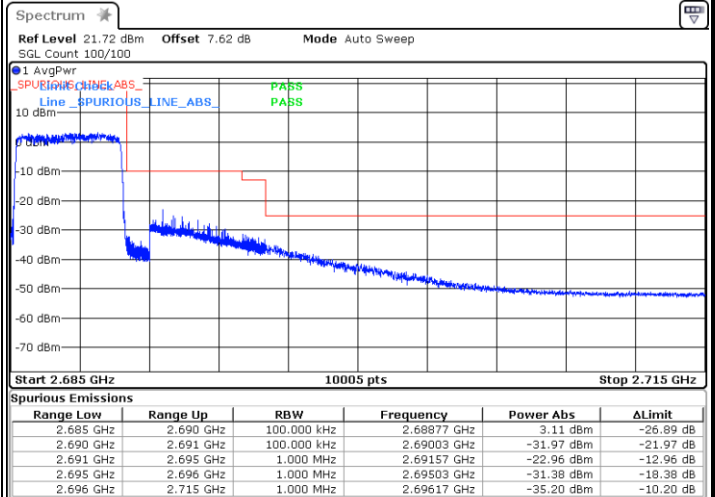
Date: 5.AUG.2021 11:28:21

Lowest Band Edge / Full RB



Date: 5.AUG.2021 09:23:57

Highest Band Edge / Full RB

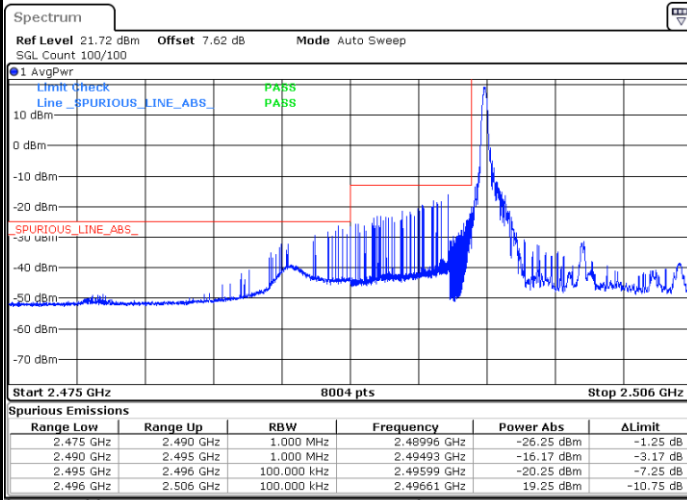


Date: 5.AUG.2021 11:28:56



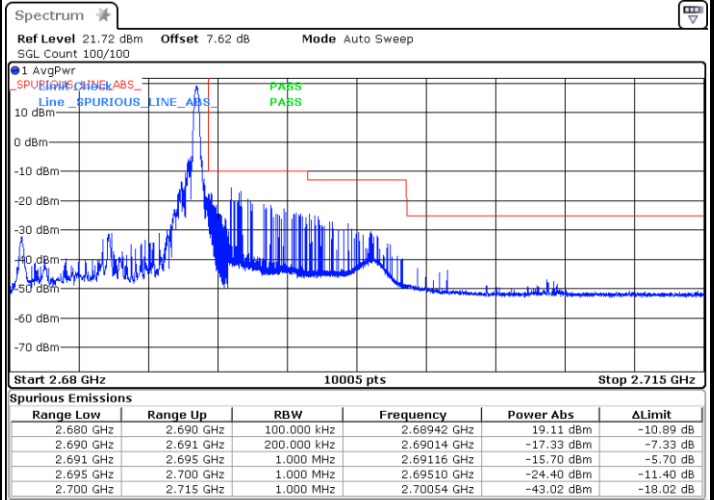
LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB



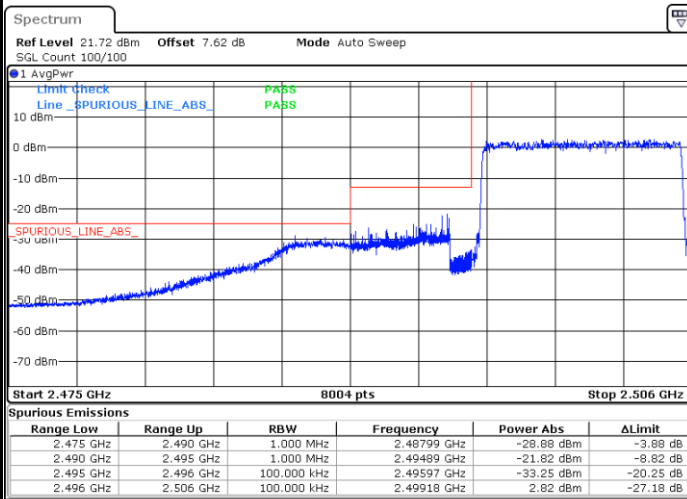
Date: 5.AUG.2021 09:39:12

Highest Band Edge / 1 RB



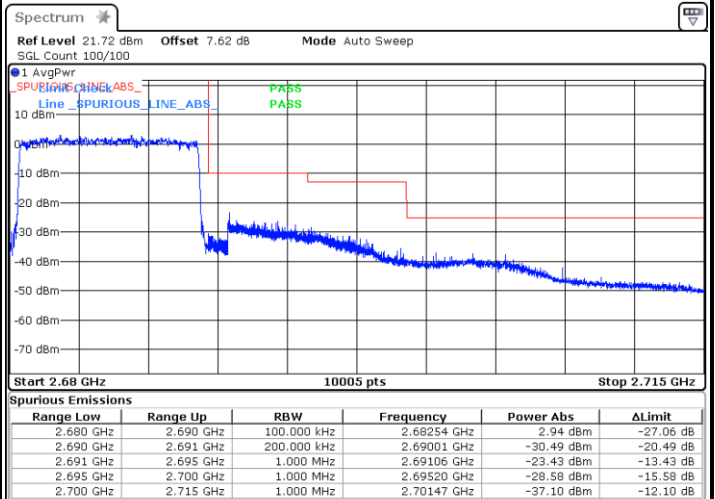
Date: 5.AUG.2021 11:32:36

Lowest Band Edge / Full RB



Date: 5.AUG.2021 09:41:52

Highest Band Edge / Full RB

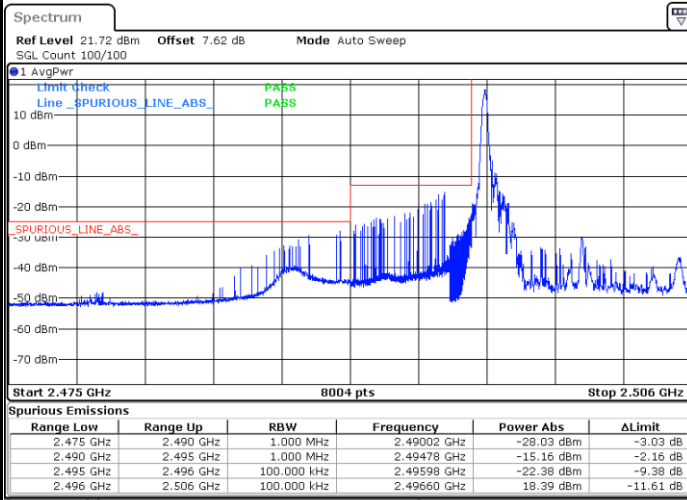


Date: 5.AUG.2021 11:30:21



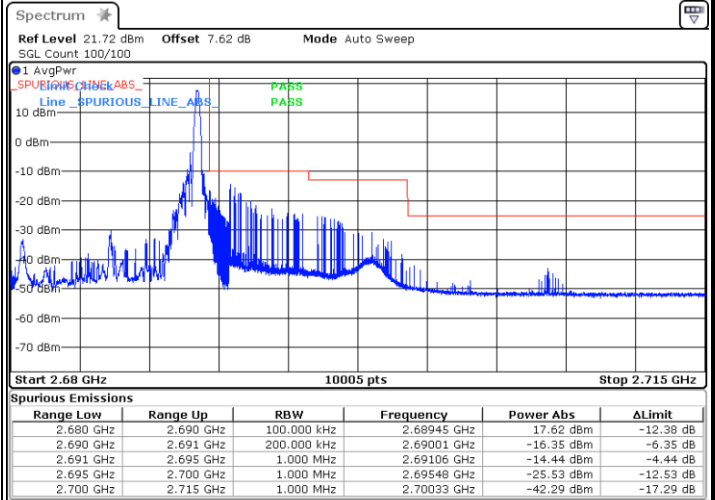
LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



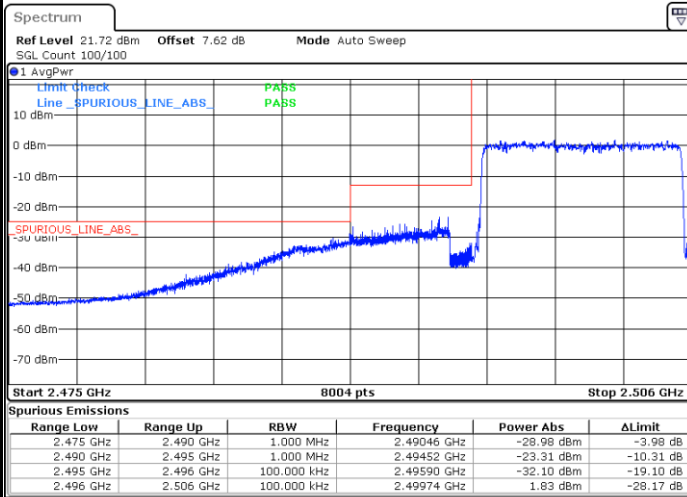
Date: 5.AUG.2021 09:38:52

Highest Band Edge / 1 RB



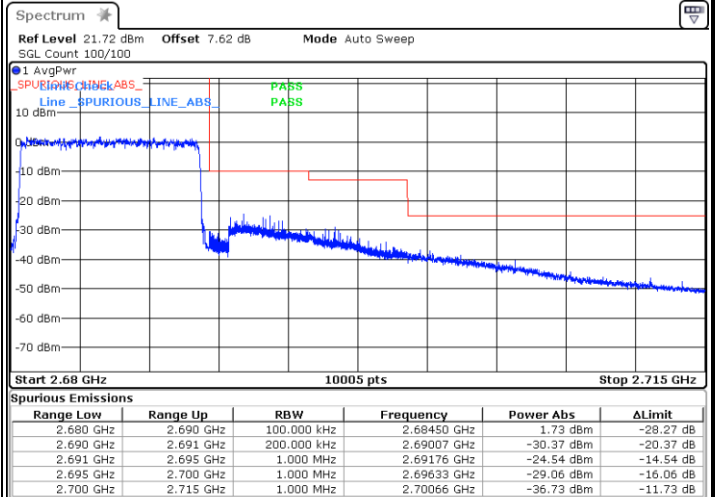
Date: 5.AUG.2021 11:32:14

Lowest Band Edge / Full RB



Date: 5.AUG.2021 09:42:14

Highest Band Edge / Full RB

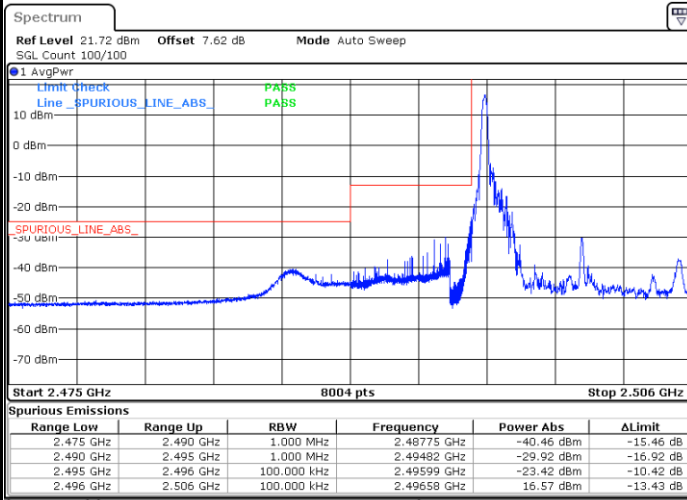


Date: 5.AUG.2021 11:30:42

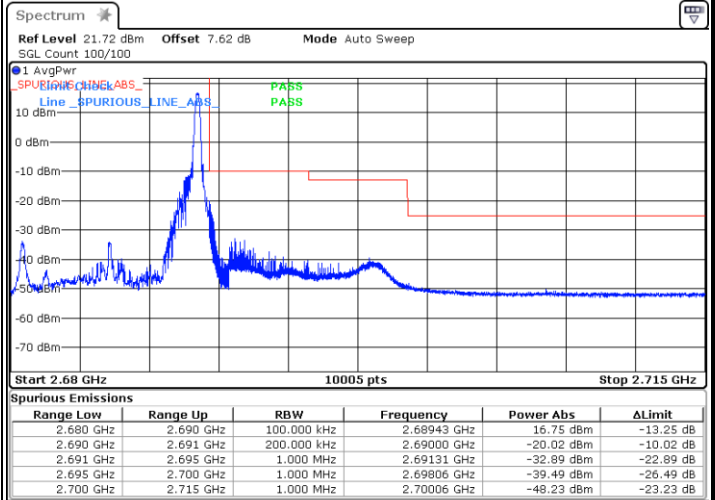


LTE Band 41 / 10MHz / 64QAM

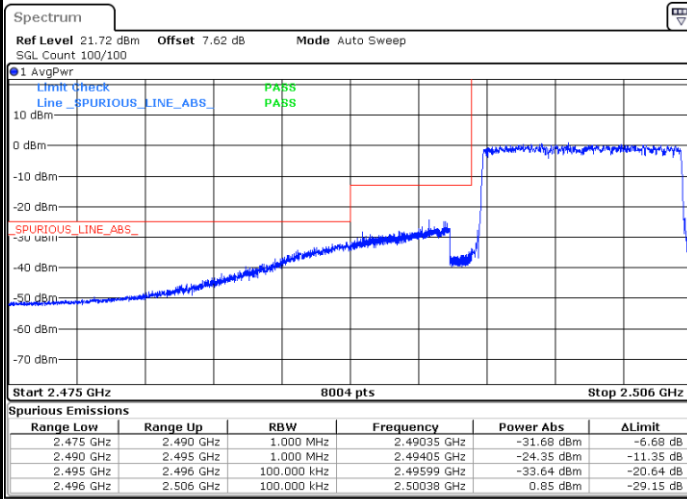
Lowest Band Edge / 1 RB



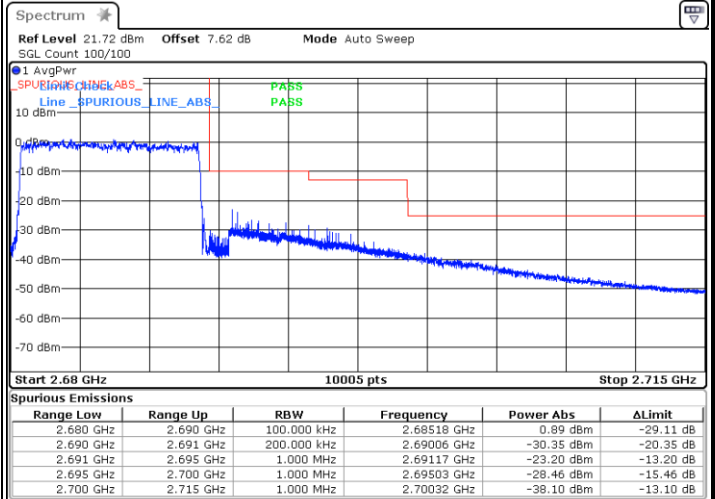
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

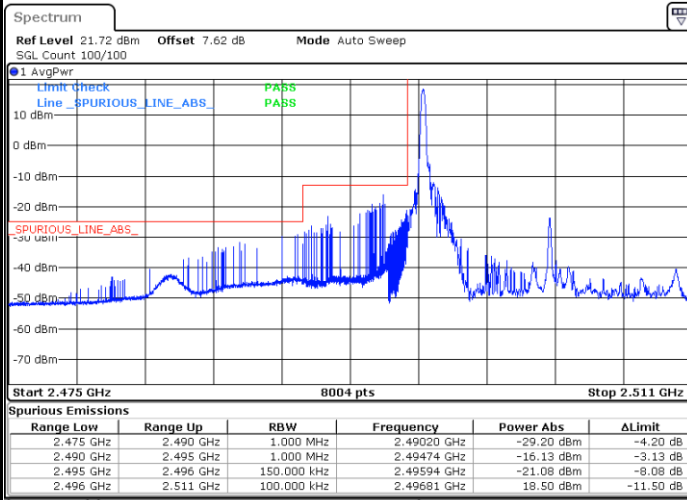






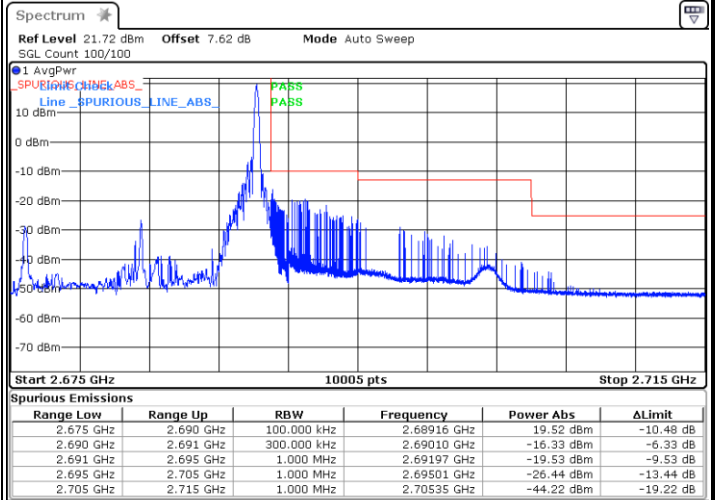
LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB



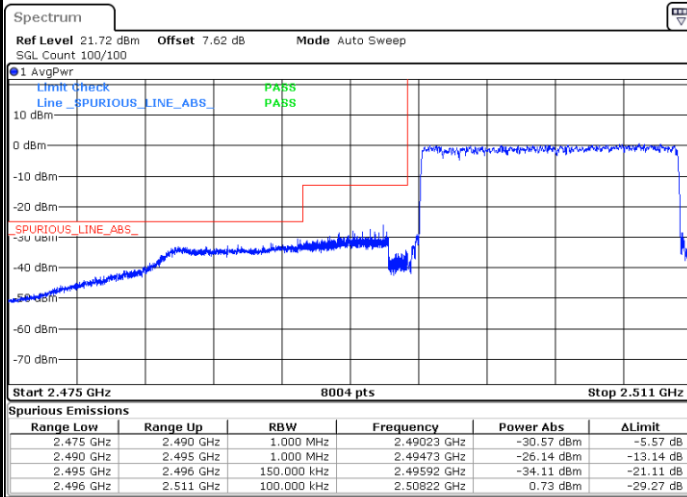
Date: 5.AUG.2021 09:51:20

Highest Band Edge / 1 RB



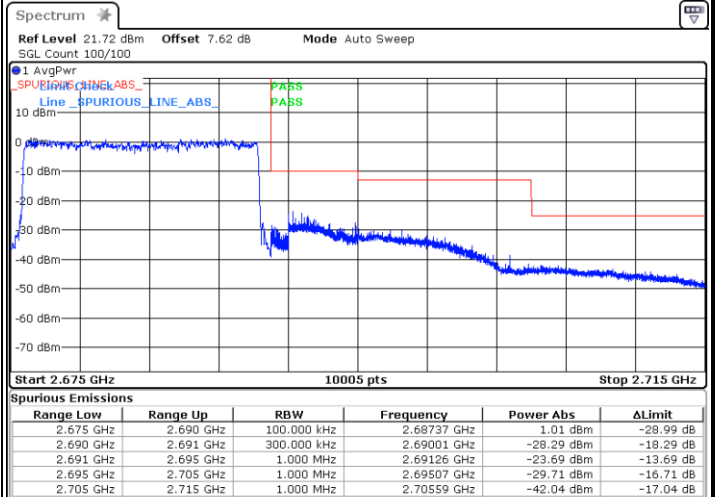
Date: 5.AUG.2021 11:33:13

Lowest Band Edge / Full RB



Date: 5.AUG.2021 10:11:24

Highest Band Edge / Full RB

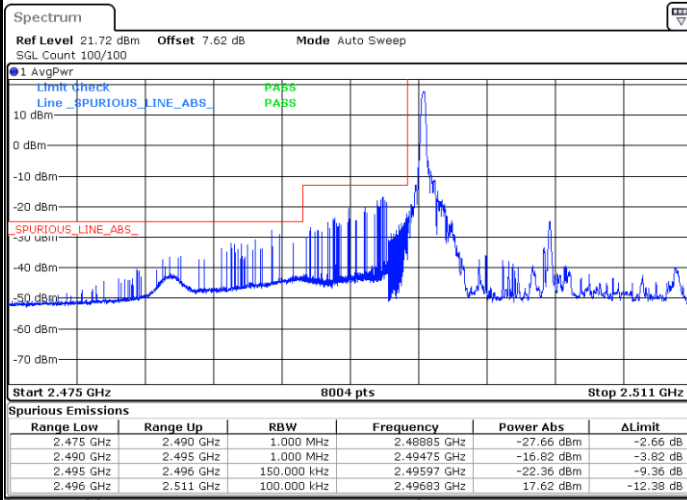


Date: 5.AUG.2021 11:35:10



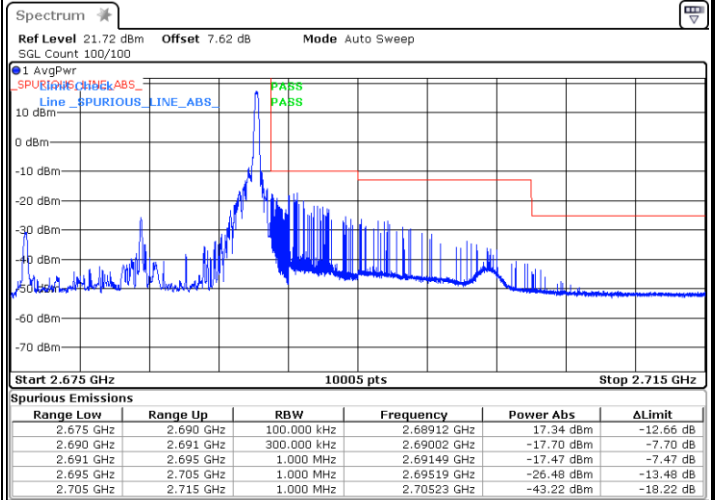
LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



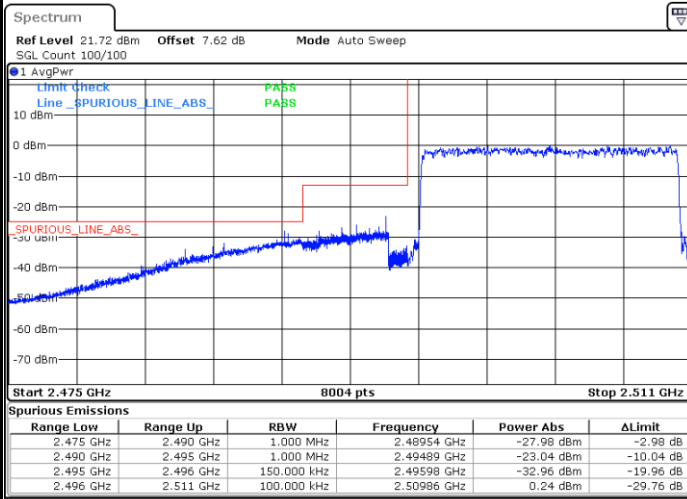
Date: 5.AUG.2021 09:51:43

Highest Band Edge / 1 RB



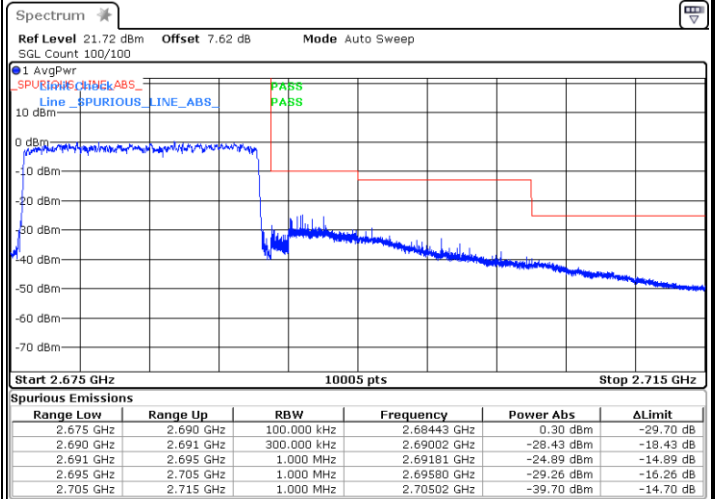
Date: 5.AUG.2021 11:33:35

Lowest Band Edge / Full RB



Date: 5.AUG.2021 10:10:51

Highest Band Edge / Full RB

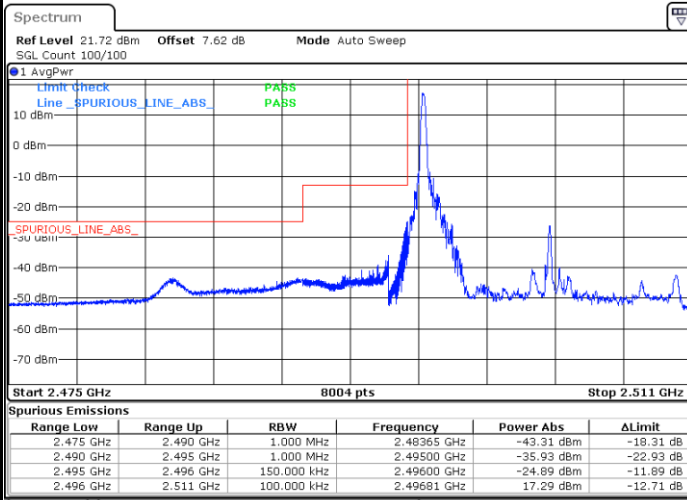


Date: 5.AUG.2021 11:34:44



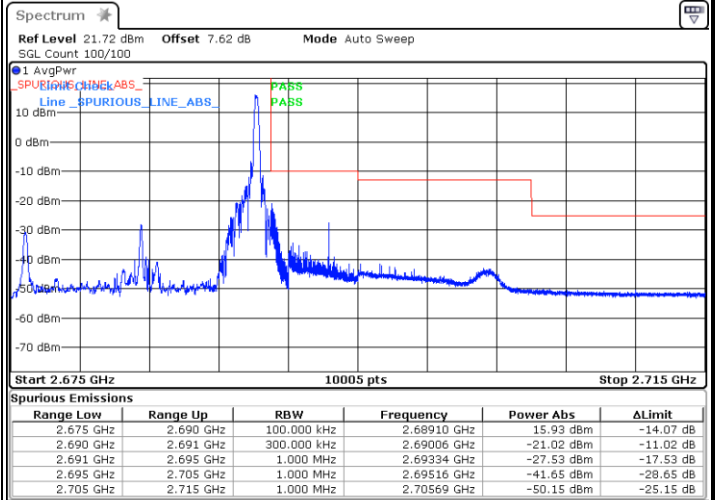
LTE Band 41 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



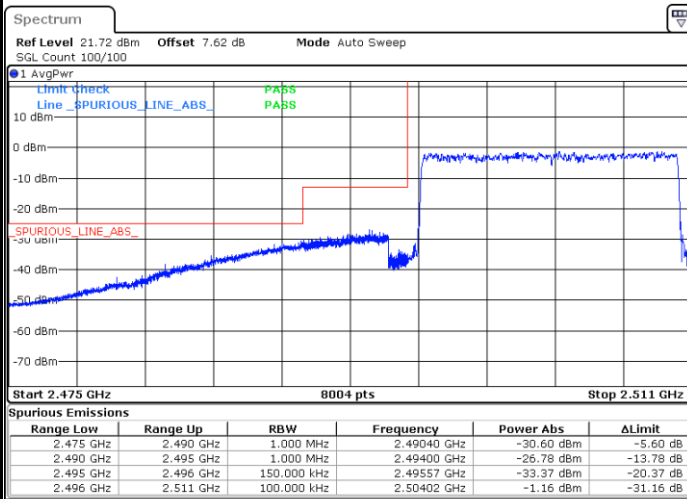
Date: 5.AUG.2021 09:53:03

Highest Band Edge / 1 RB



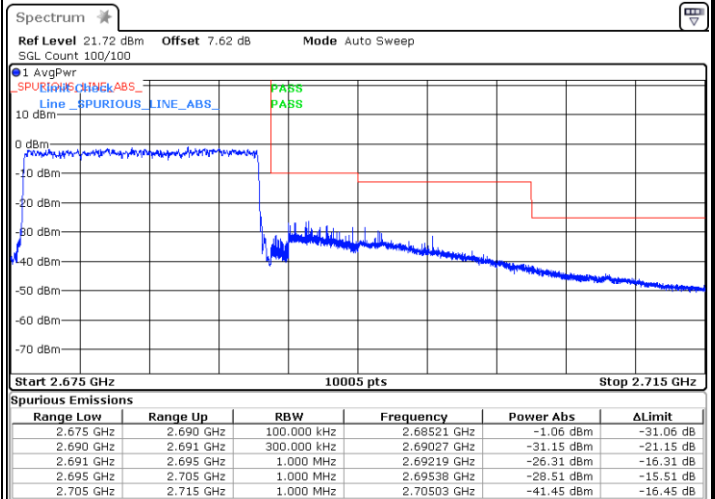
Date: 5.AUG.2021 11:33:55

Lowest Band Edge / Full RB



Date: 5.AUG.2021 09:53:30

Highest Band Edge / Full RB

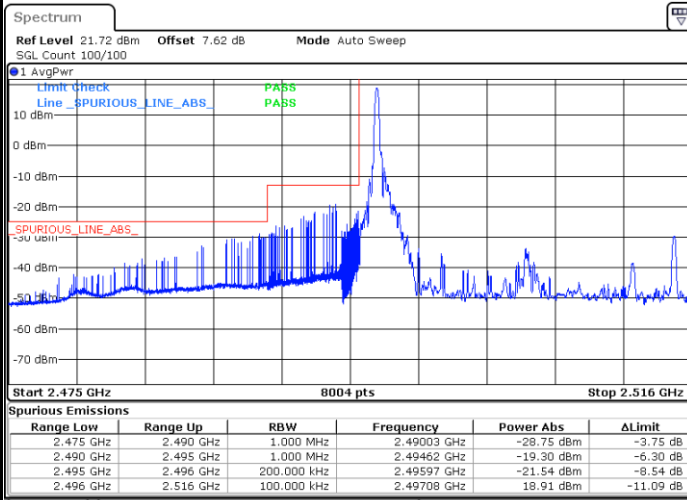


Date: 5.AUG.2021 11:34:24



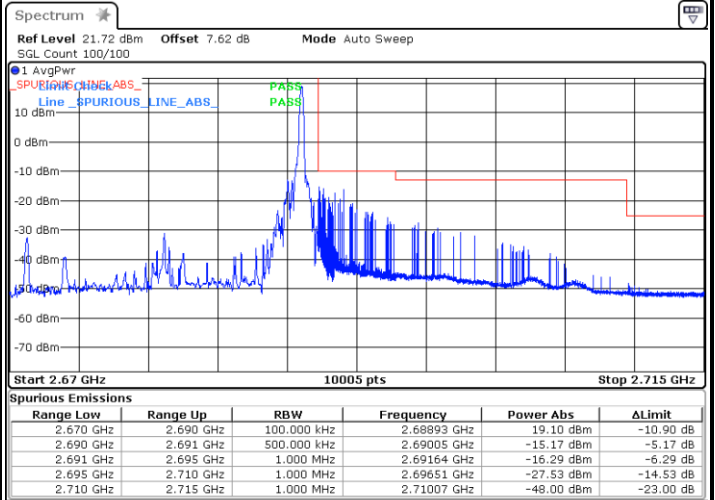
LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB



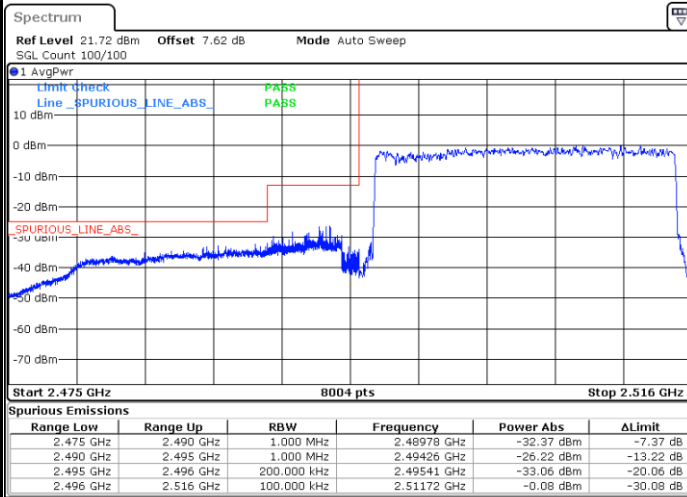
Date: 5.AUG.2021 10:27:16

Highest Band Edge / 1 RB



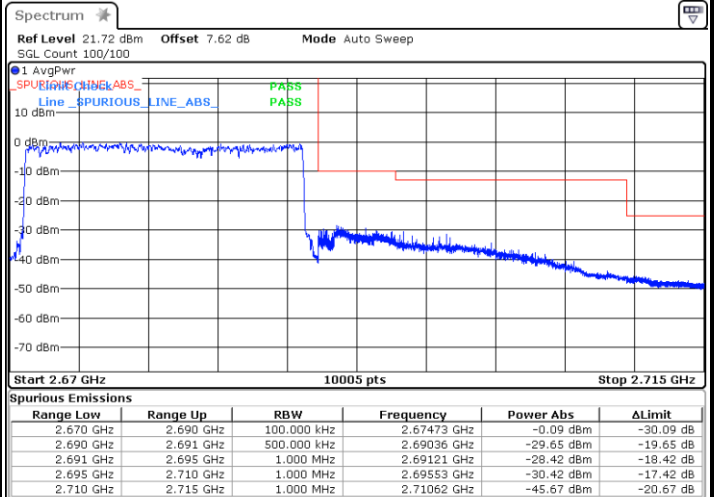
Date: 5.AUG.2021 11:46:47

Lowest Band Edge / Full RB



Date: 5.AUG.2021 10:29:33

Highest Band Edge / Full RB

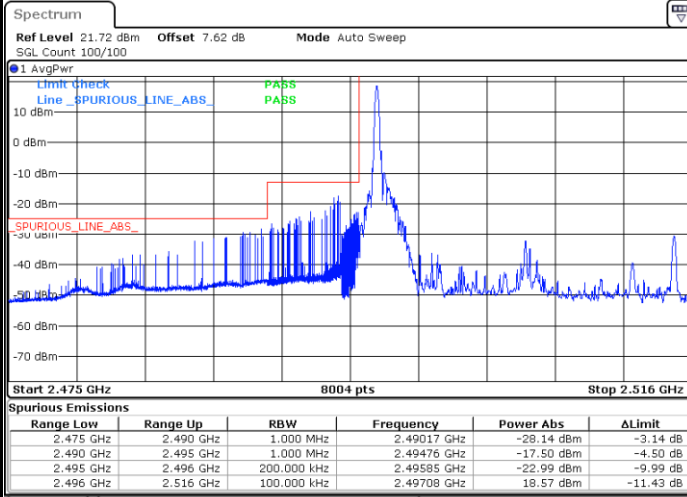


Date: 5.AUG.2021 11:44:54



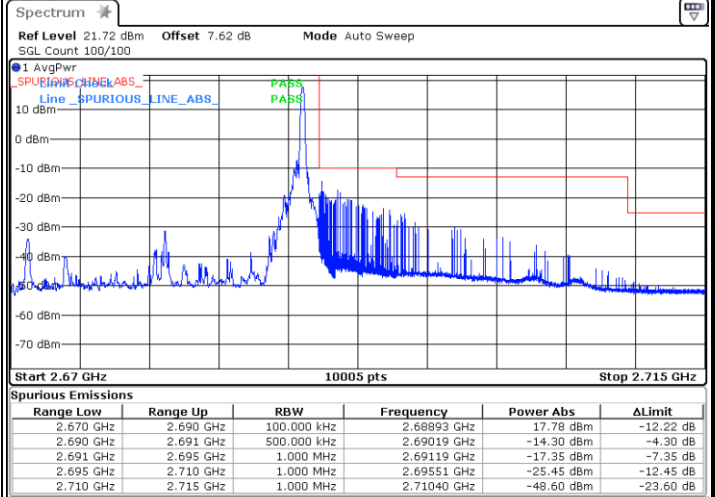
LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



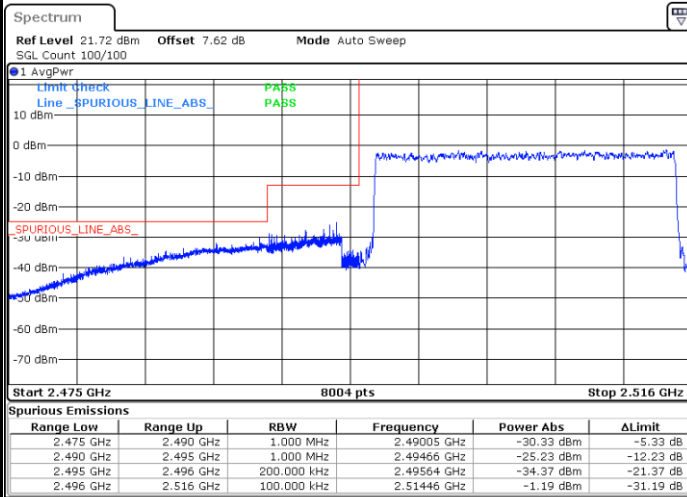
Date: 5.AUG.2021 10:27:38

Highest Band Edge / 1 RB



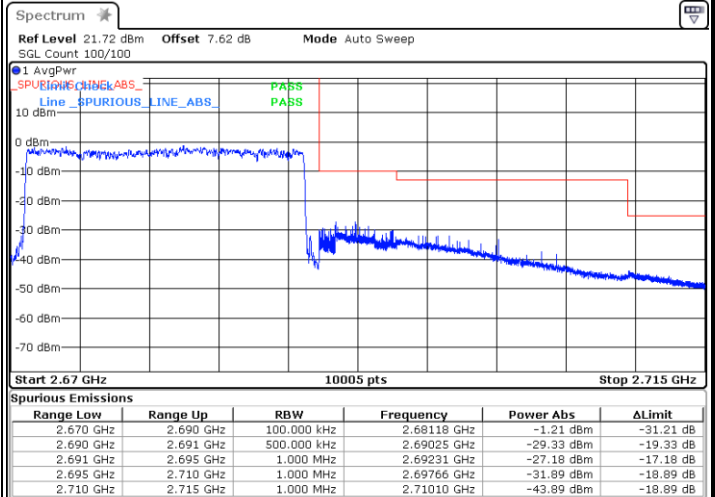
Date: 5.AUG.2021 11:46:25

Lowest Band Edge / Full RB



Date: 5.AUG.2021 10:29:10

Highest Band Edge / Full RB

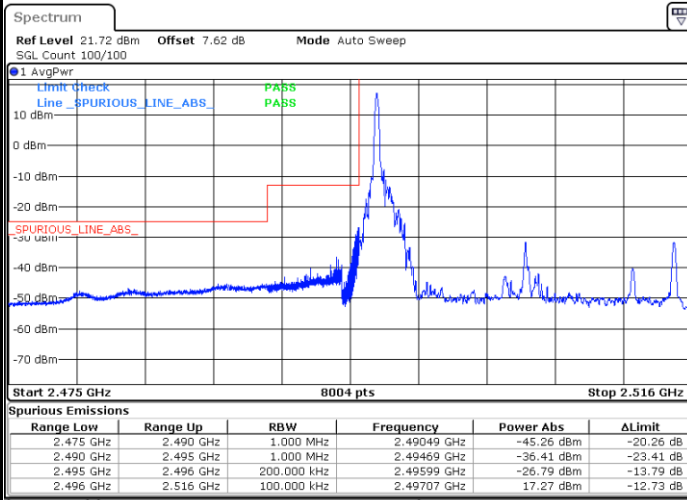


Date: 5.AUG.2021 11:45:16



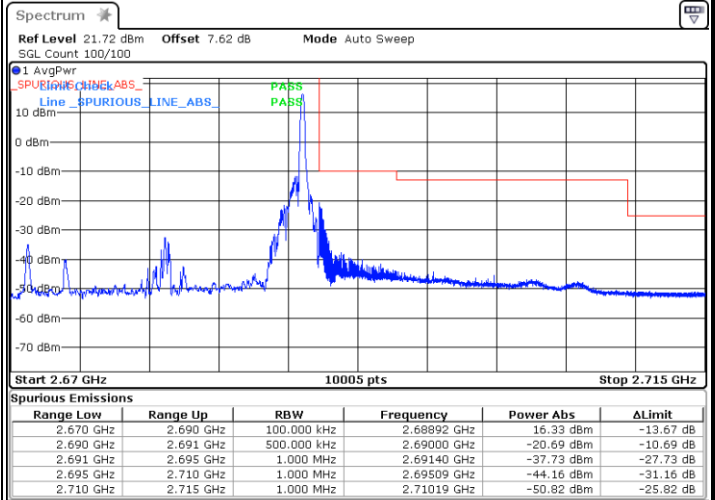
LTE Band 41 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



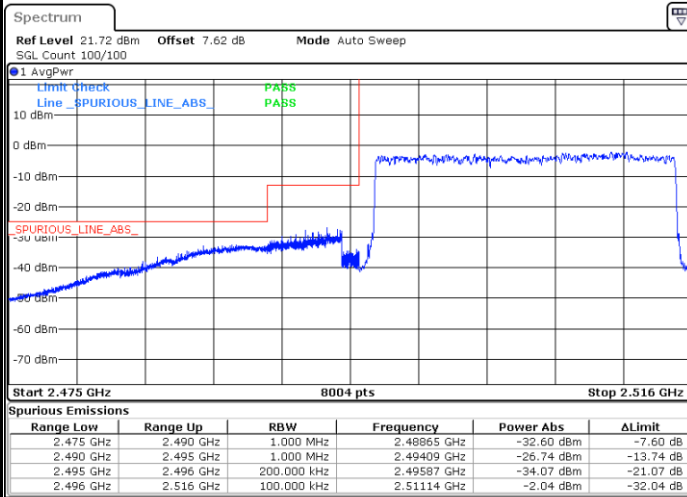
Date: 5.AUG.2021 10:28:05

Highest Band Edge / 1 RB



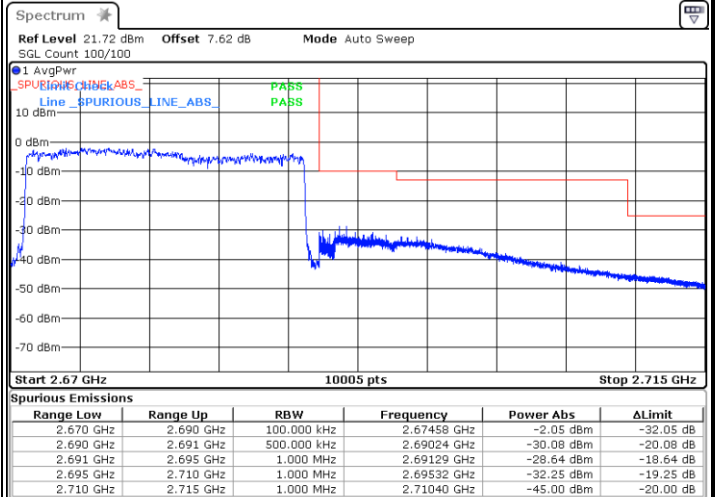
Date: 5.AUG.2021 11:46:01

Lowest Band Edge / Full RB



Date: 5.AUG.2021 10:28:48

Highest Band Edge / Full RB



Date: 5.AUG.2021 11:45:36



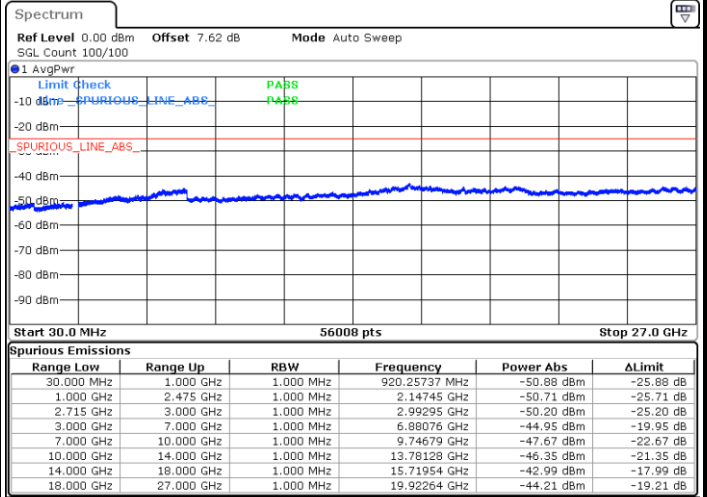
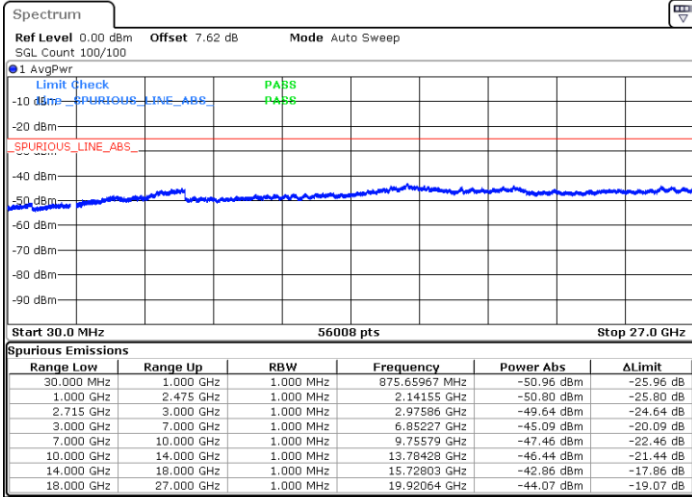
**Conducted Spurious Emission**



LTE Band 41 / 5MHz

Lowest Channel / QPSK

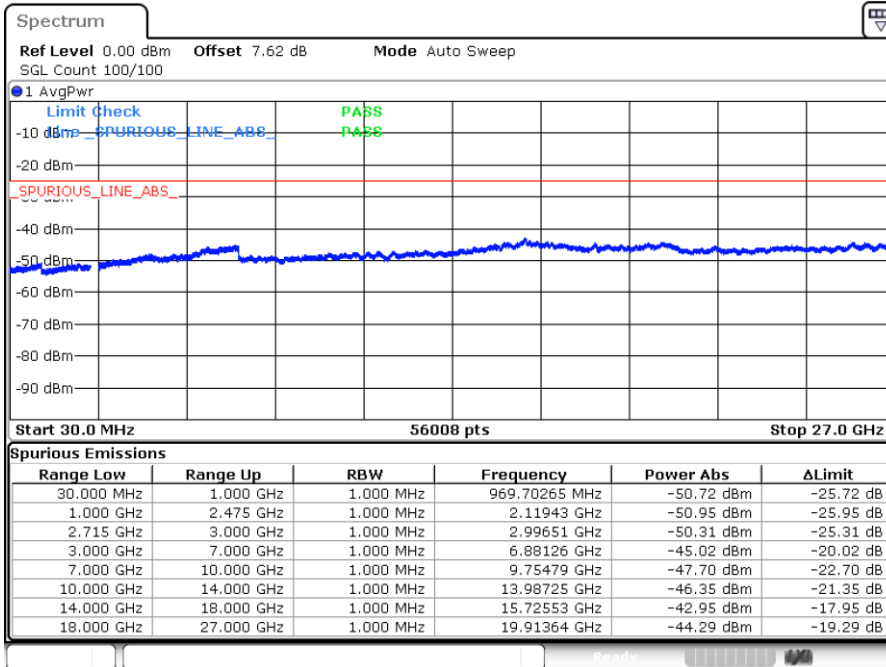
Middle Channel / QPSK



Date: 5.AUG.2021 09:28:27

Date: 5.AUG.2021 09:30:34

Highest Channel / QPSK



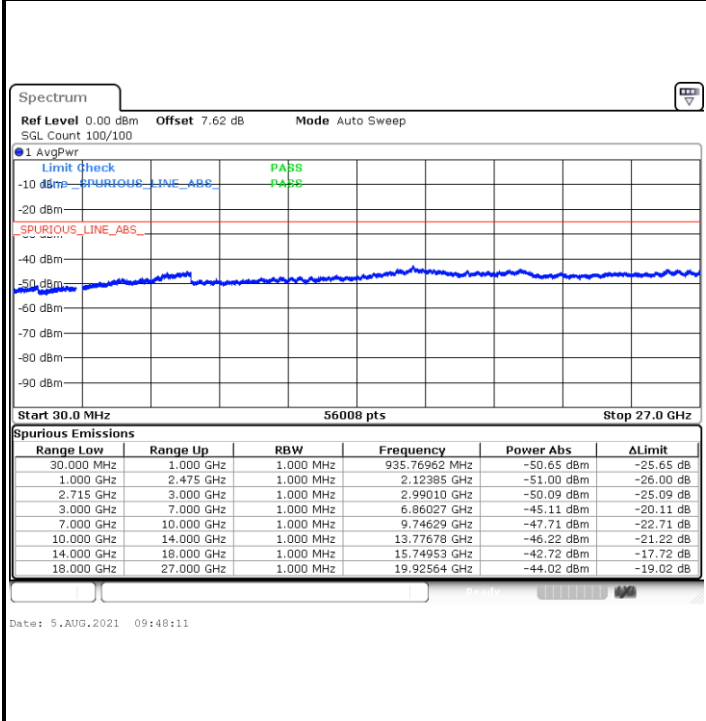
Date: 5.AUG.2021 09:32:13



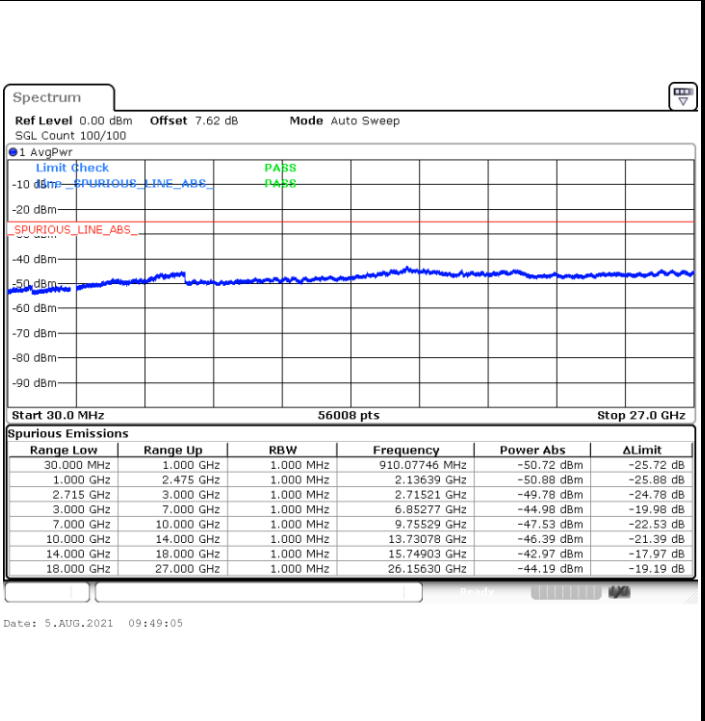


**LTE Band 41 / 10MHz**

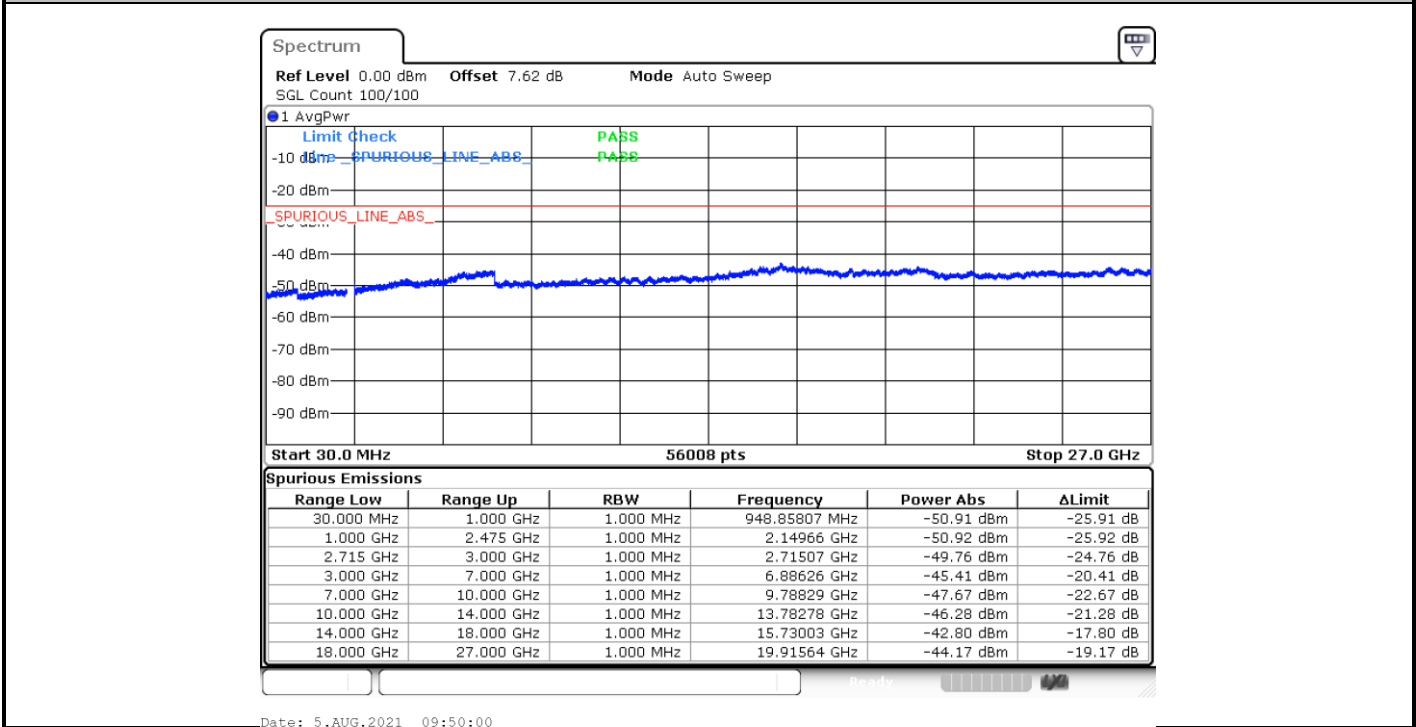
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



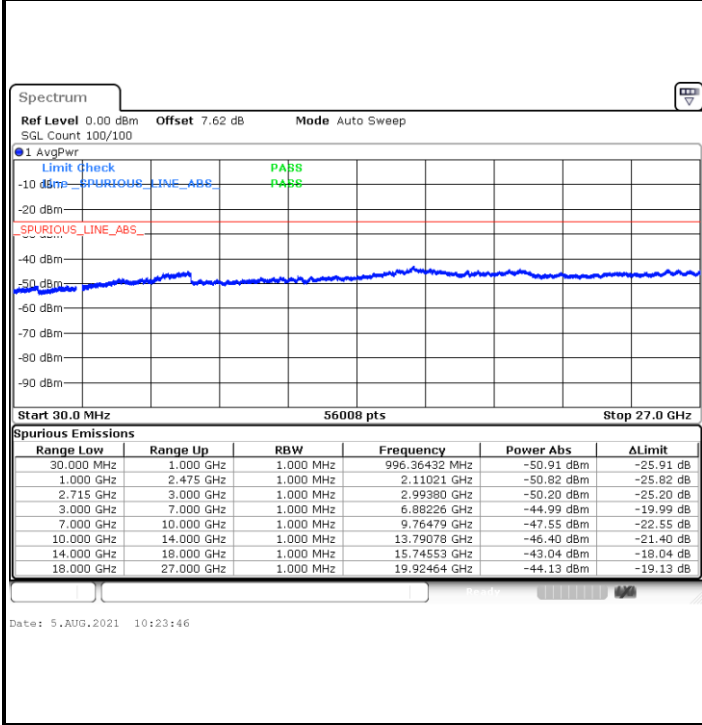
**Highest Channel / QPSK**



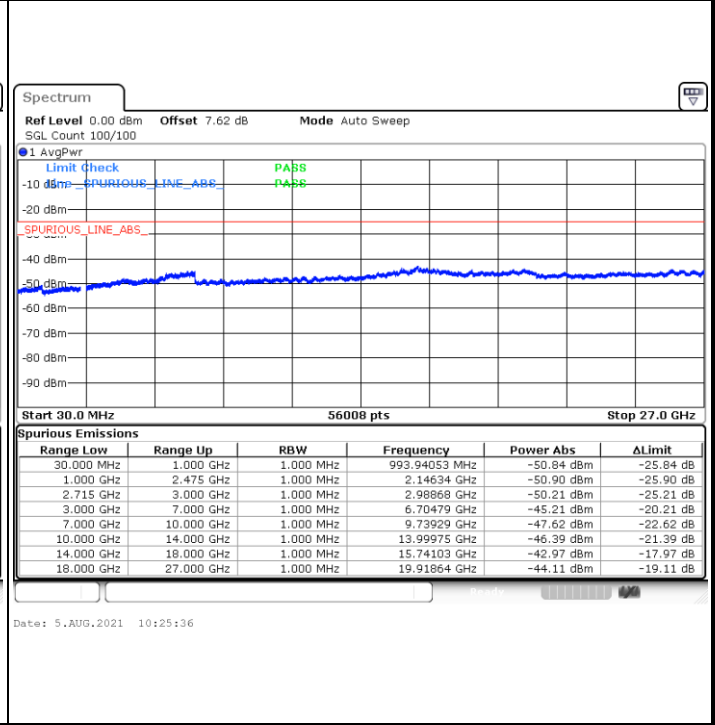


**LTE Band 41 / 15MHz**

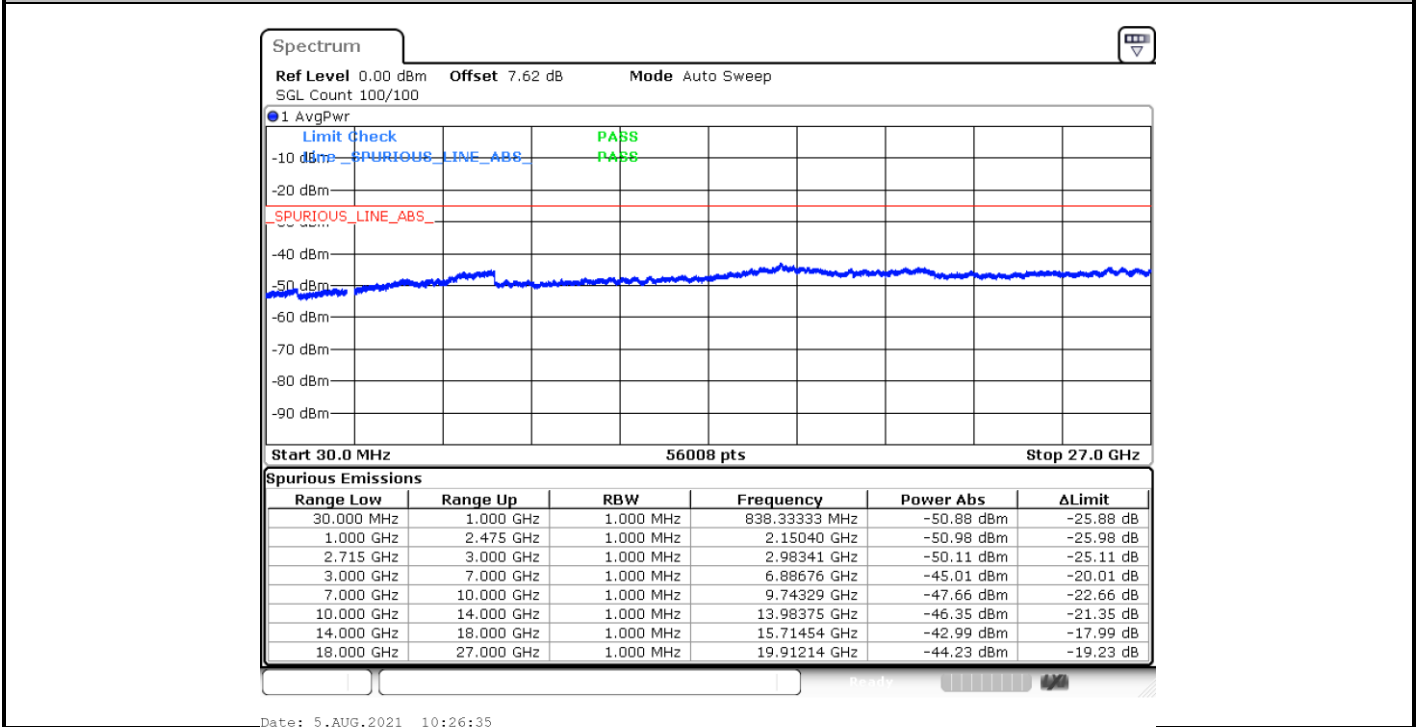
**Lowest Channel / QPSK**



**Middle Channel / QPSK**



**Highest Channel / QPSK**

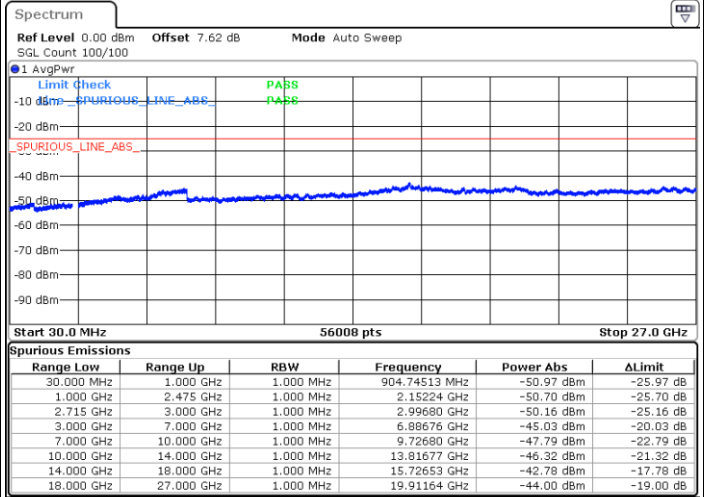
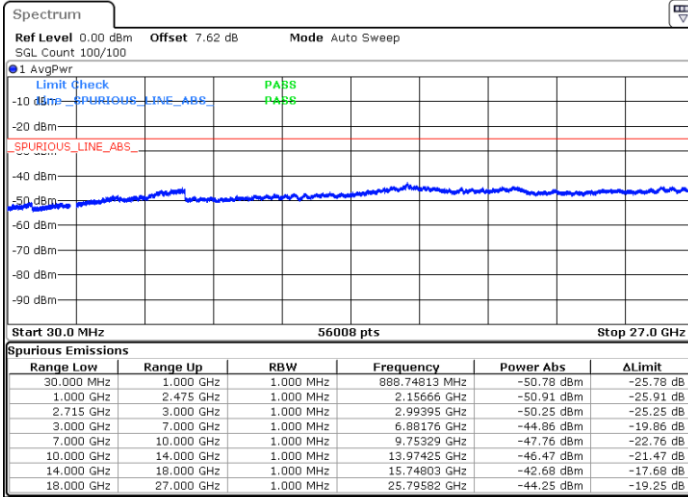




LTE Band 41 / 20MHz

Lowest Channel / QPSK

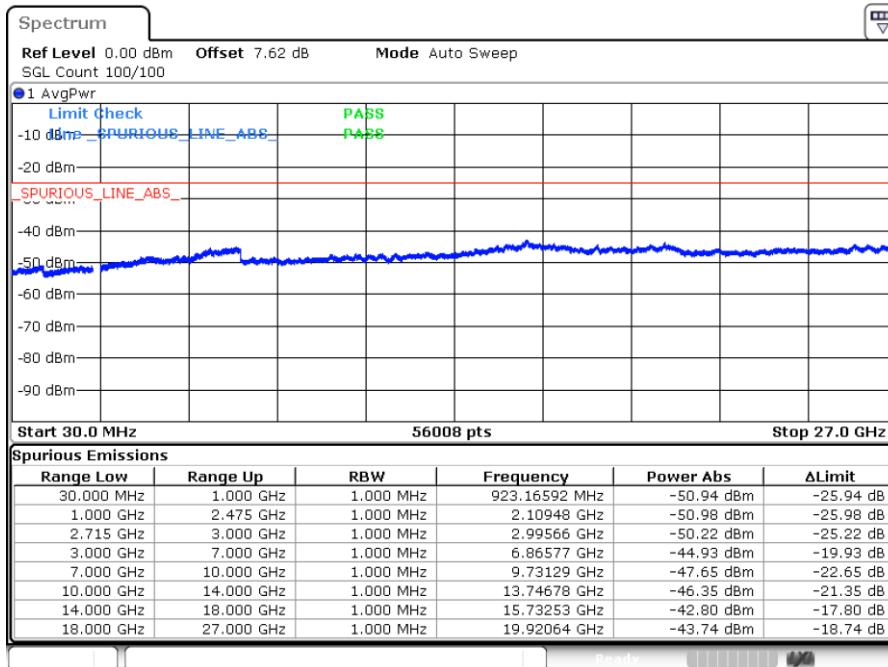
Middle Channel / QPSK



Date: 5.AUG.2021 11:02:40

Date: 5.AUG.2021 11:03:34

Highest Channel / QPSK



Date: 5.AUG.2021 11:04:34



Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0009	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0010	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

LTE Band 2 / 20MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3741	-56.74	-13	-43.74	-69.00	2.64	14.90	H
	5613	-55.14	-13	-42.14	-67.00	2.94	14.80	H
	7488	-53.00	-13	-40.00	-62.77	3.39	13.16	H
	3741	-56.50	-13	-43.50	-68.76	2.64	14.90	V
	5613	-55.58	-13	-42.58	-67.44	2.94	14.80	V
	7488	-52.57	-13	-39.57	-62.34	3.39	13.16	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 41 / 20MHz / QPSK								
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5168	-59.64	-25	-34.64	-69.85	3.03	13.24	H
	7752	-61.64	-25	-36.64	-71.09	3.56	13.01	H
	10340	-58.87	-25	-33.87	-68.39	3.92	13.44	H
	5168	-60.39	-25	-35.39	-70.60	3.03	13.24	V
	7752	-61.73	-25	-36.73	-71.18	3.56	13.01	V
	10340	-59.71	-25	-34.71	-69.23	3.92	13.44	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.