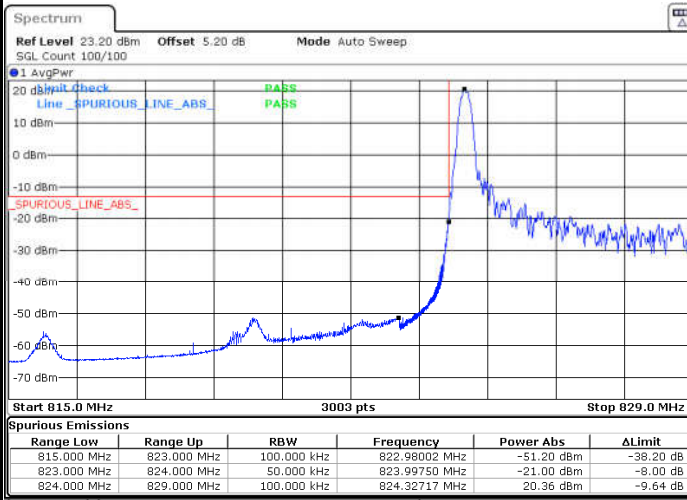




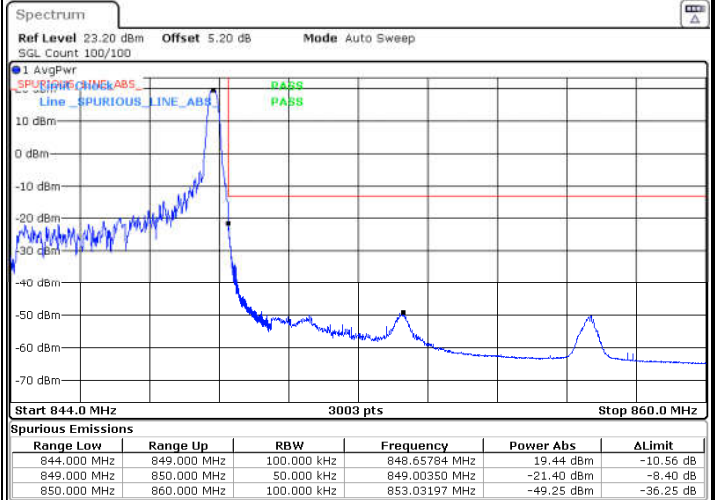
LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / 1RB



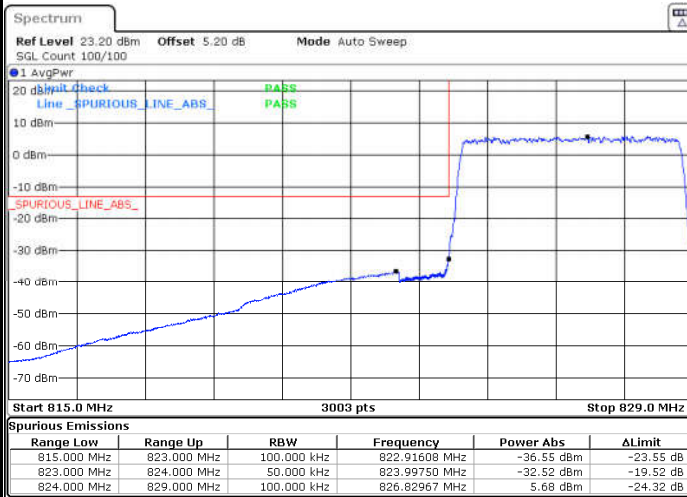
Date: 5.MAR.2021 05:52:57

Highest Band Edge / 1 RB



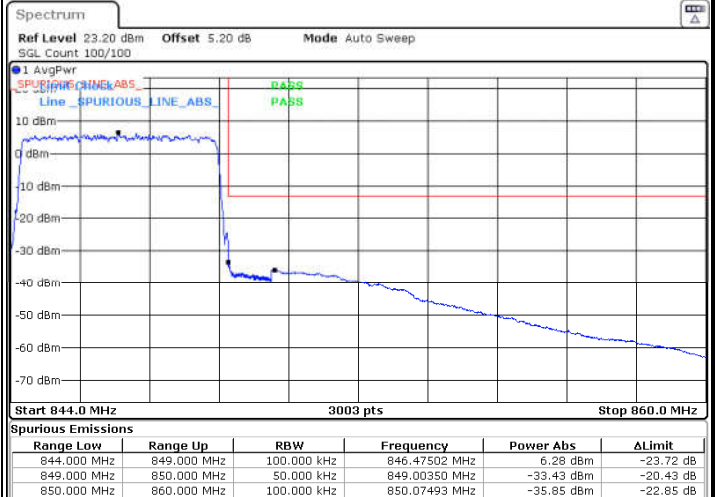
Date: 5.MAR.2021 06:01:15

Lowest Band Edge / Full RB



Date: 5.MAR.2021 05:56:12

Highest Band Edge / Full RB

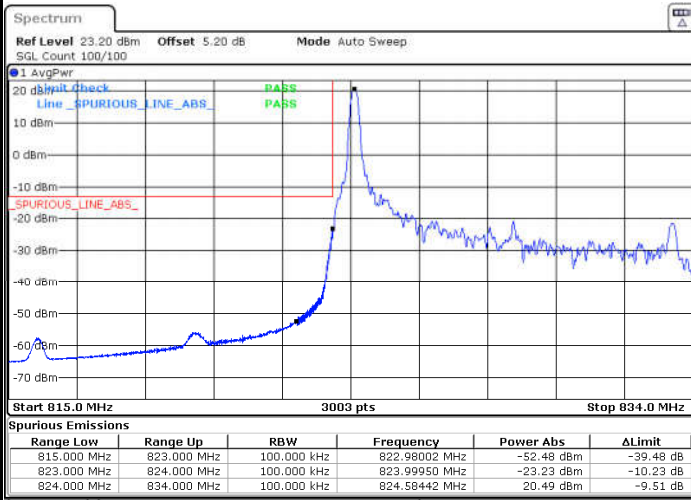


Date: 5.MAR.2021 06:04:30



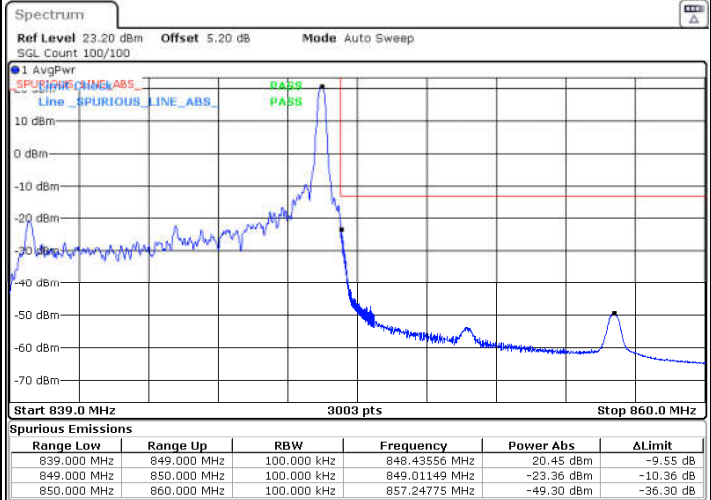
LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / 1 RB



Date: 5.MAR.2021 06:07:02

Highest Band Edge / 1 RB



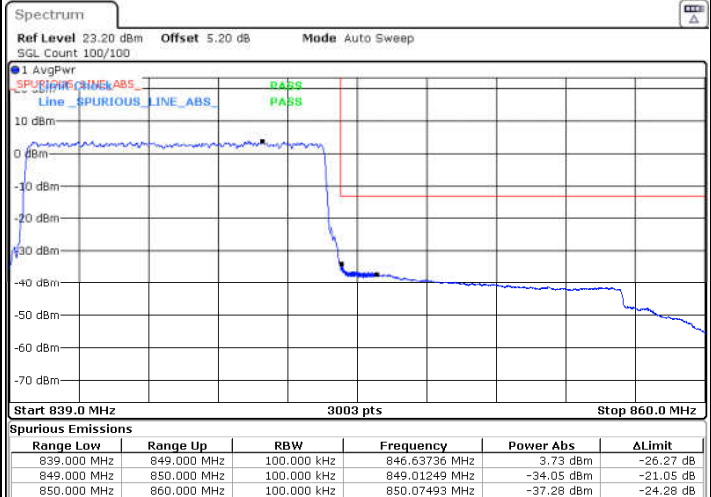
Date: 5.MAR.2021 06:15:20

Lowest Band Edge / Full RB



Date: 5.MAR.2021 06:10:17

Highest Band Edge / Full RB

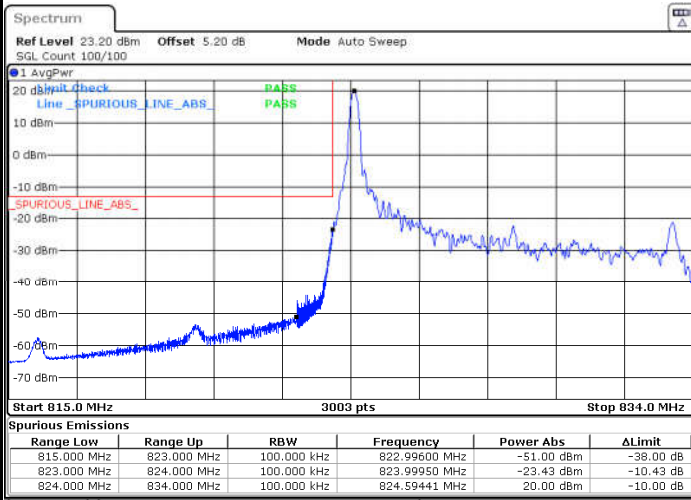


Date: 5.MAR.2021 06:18:35



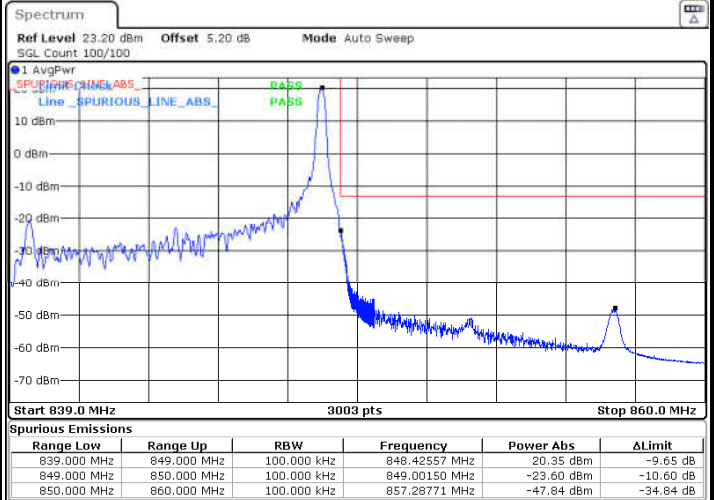
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



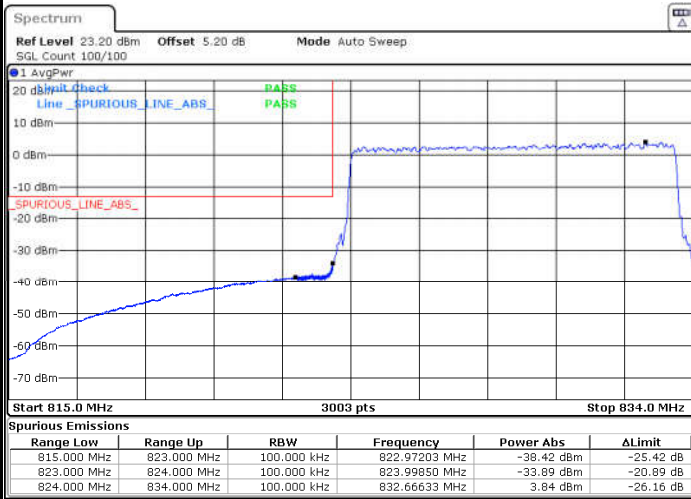
Date: 5.MAR.2021 06:08:39

Highest Band Edge / 1 RB



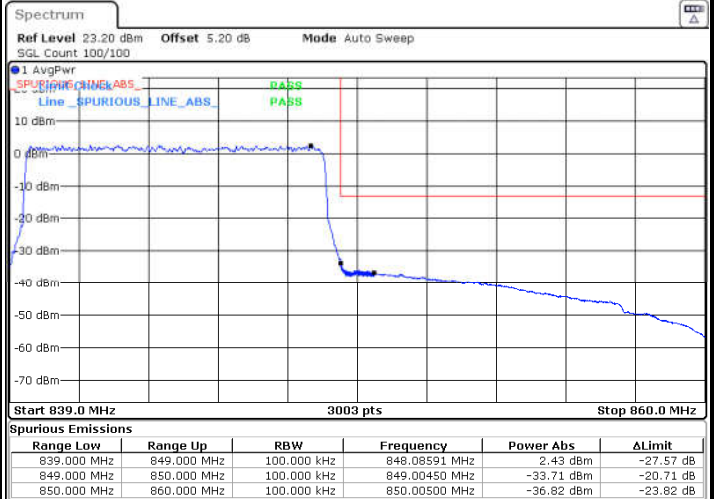
Date: 5.MAR.2021 06:16:57

Lowest Band Edge / Full RB



Date: 5.MAR.2021 06:11:54

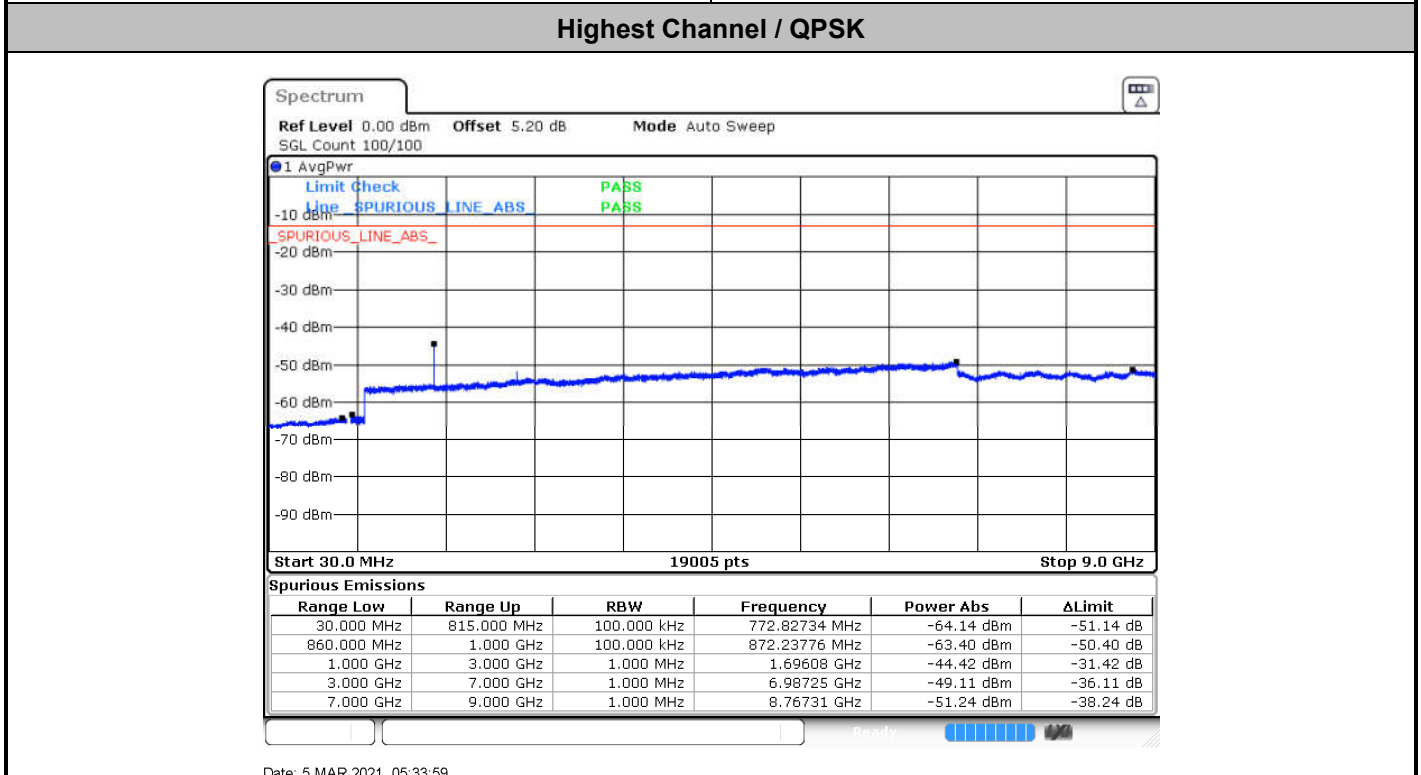
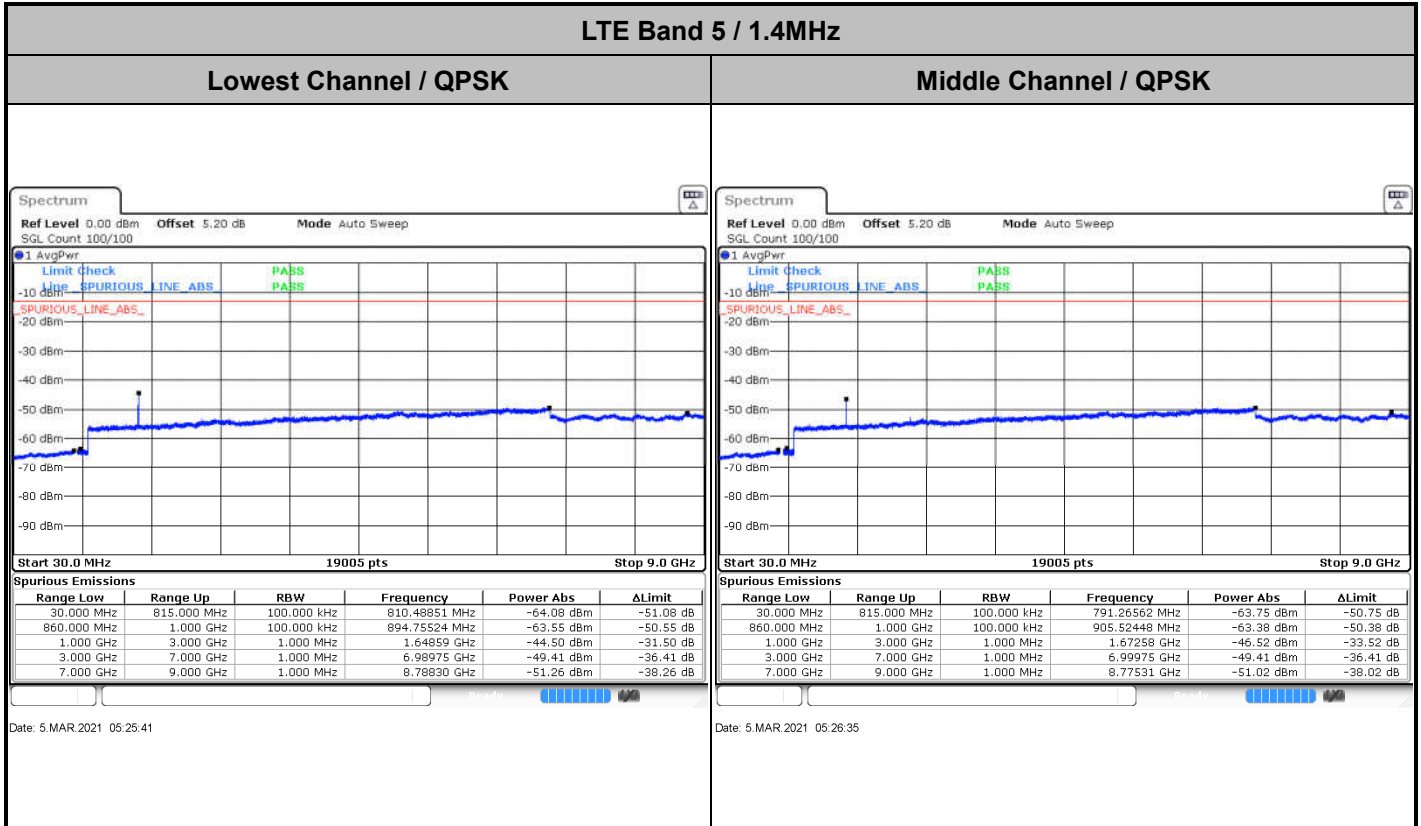
Highest Band Edge / Full RB



Date: 5.MAR.2021 06:20:12



Conducted Spurious Emission



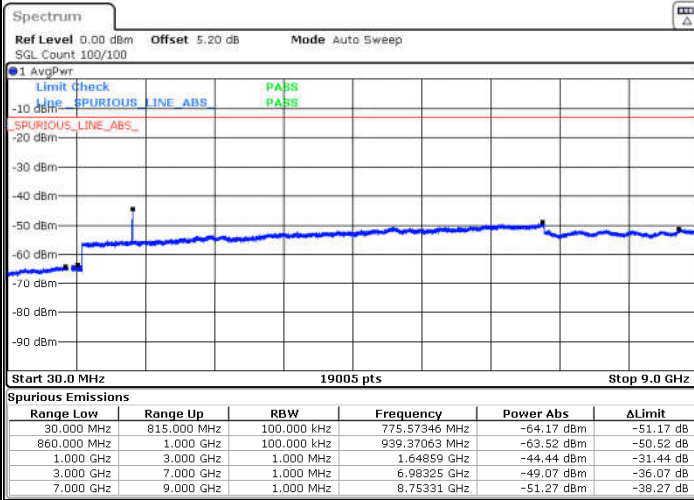




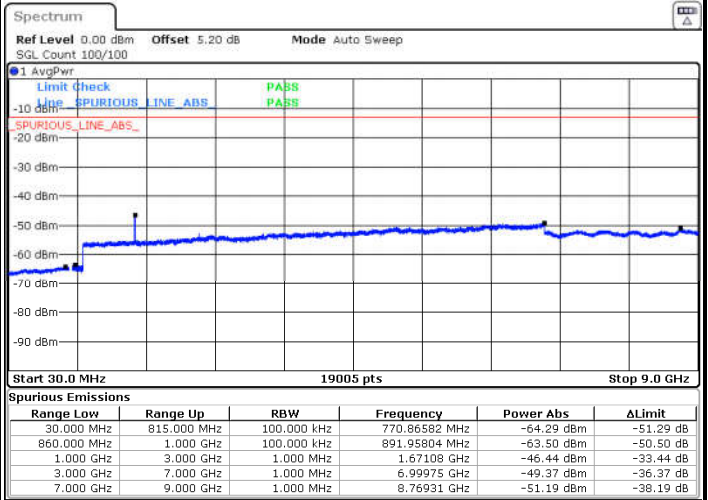
LTE Band 5 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

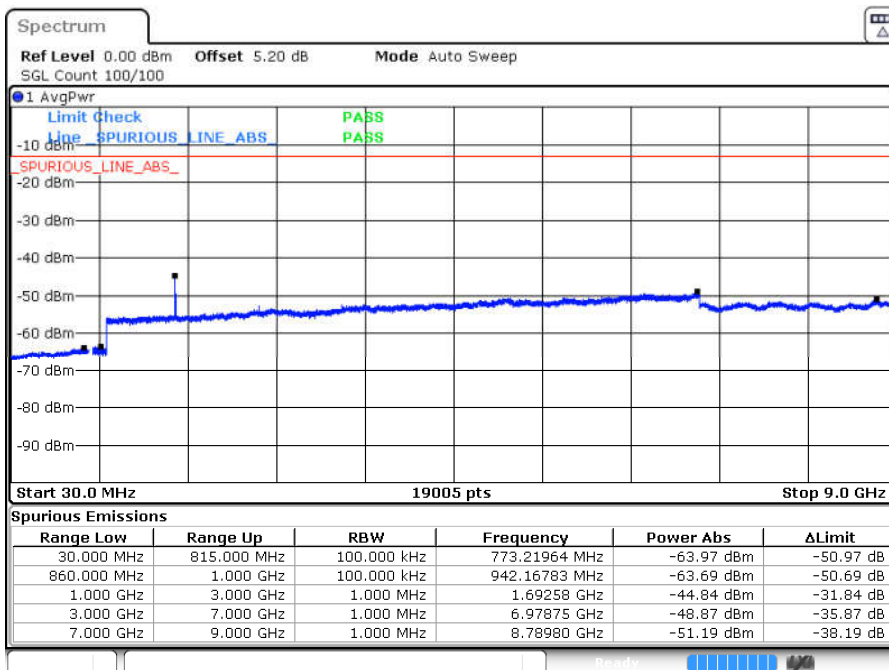


Date: 5 MAR 2021 05:41:23



Date: 5 MAR 2021 05:42:17

Highest Channel / QPSK



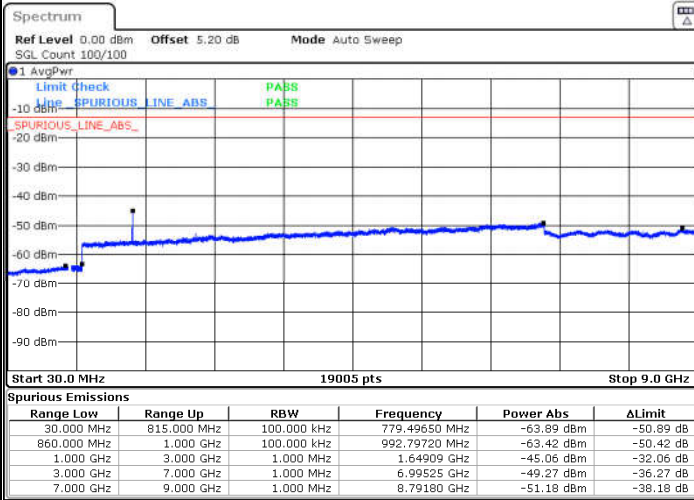
Date: 5 MAR 2021 05:49:41



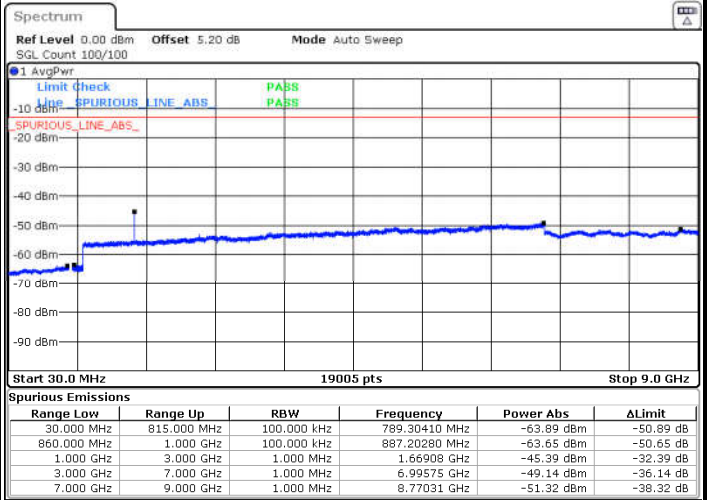
LTE Band 5 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

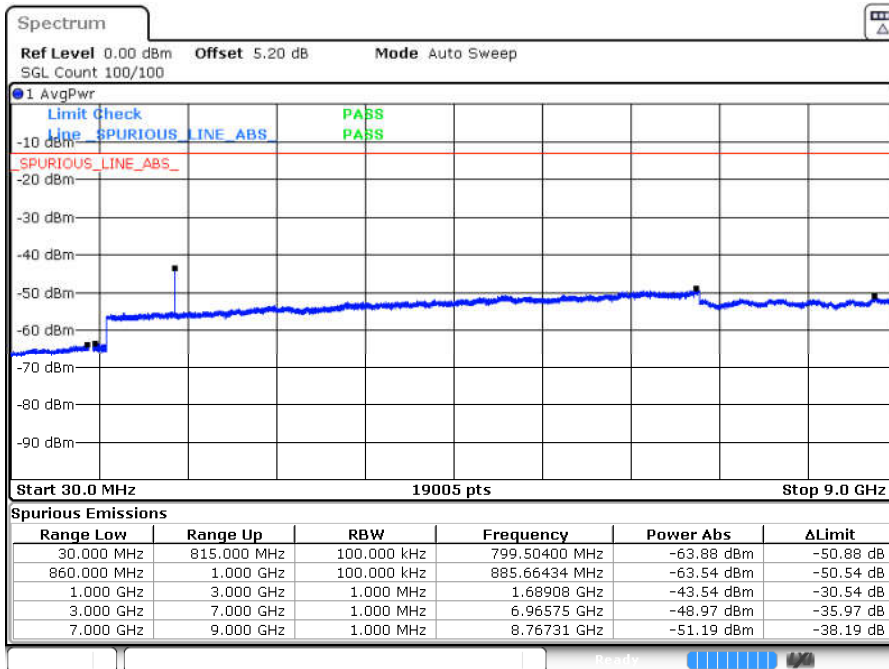


Date: 5 MAR 2021 05:57:05



Date: 5 MAR 2021 05:57:59

Highest Channel / QPSK



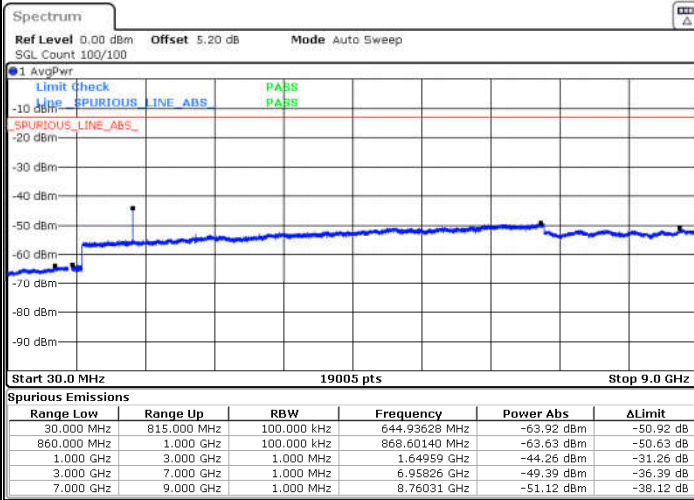
Date: 5 MAR 2021 06:05:23



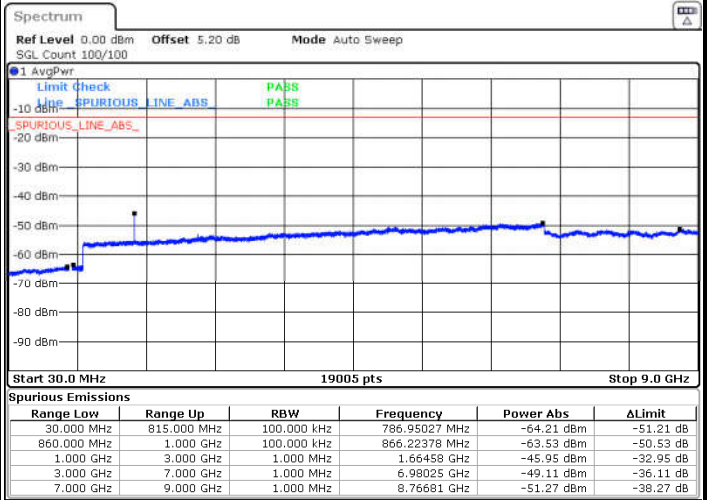
LTE Band 5 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

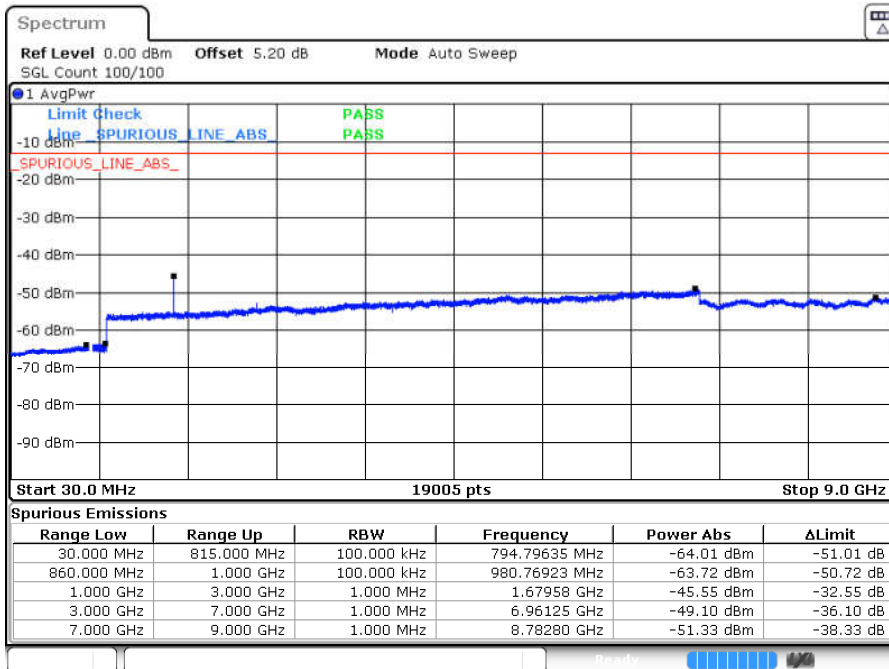


Date: 5.MAR.2021 06:12:47



Date: 5.MAR.2021 06:13:42

Highest Channel / QPSK



Date: 5.MAR.2021 06:21:06



Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0001	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0016	
20	Battery End Point	0.0012	

Note:

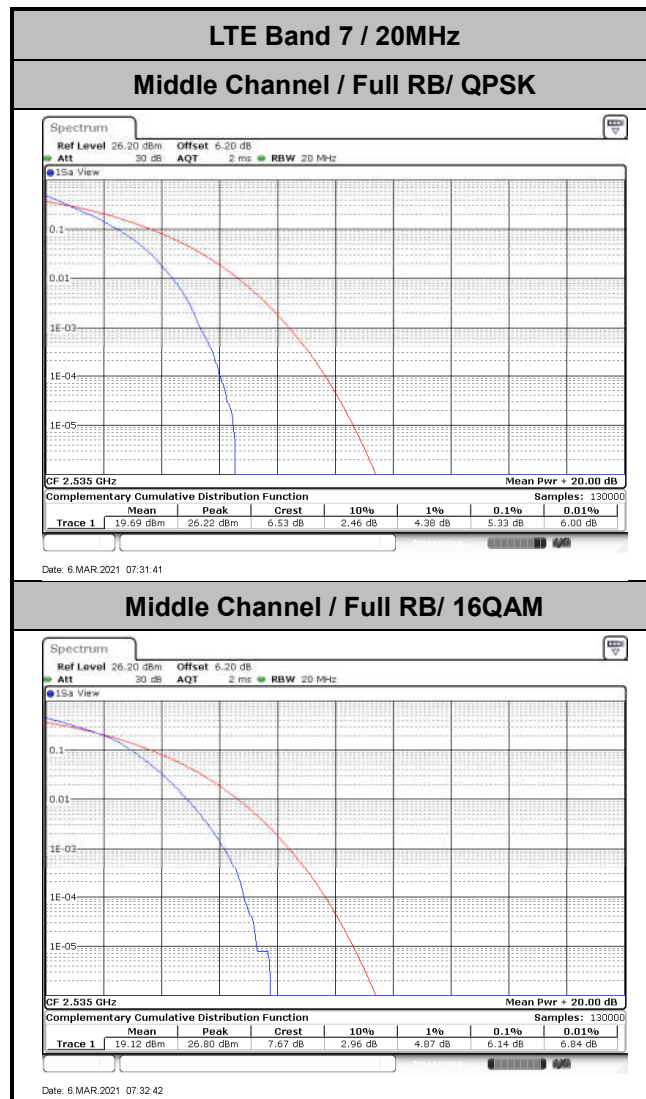
1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 7

Peak-to-Average Ratio

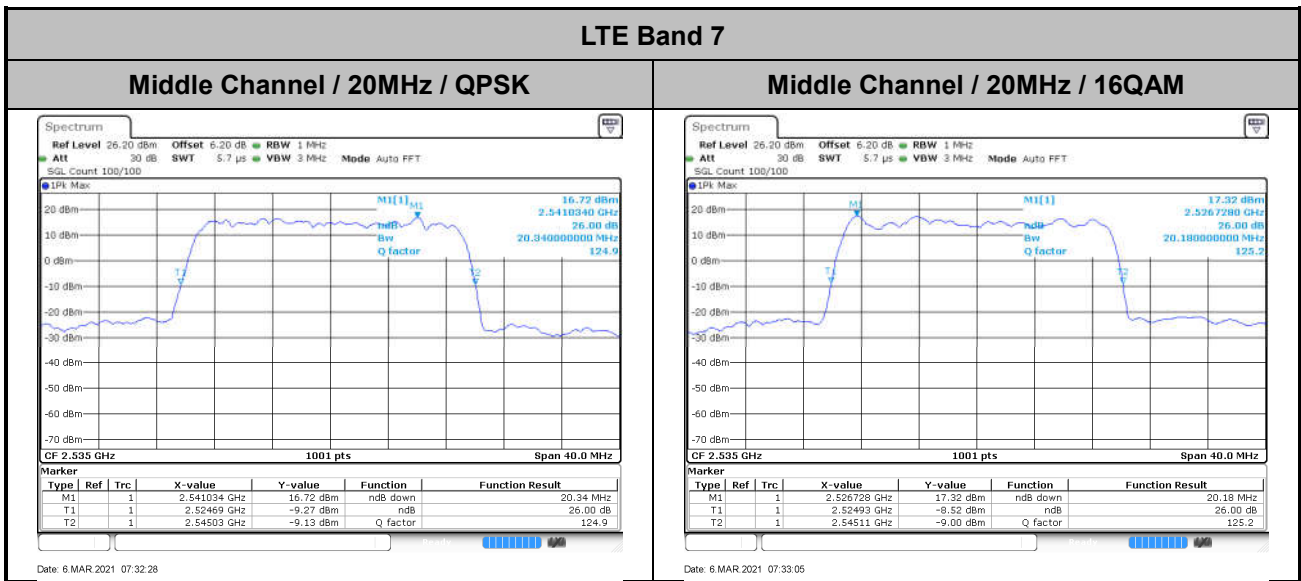
Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM		Limit: 13dB
RB Size	Full RB	Full RB		Result
Middle CH	5.33	6.14		PASS





26dB Bandwidth

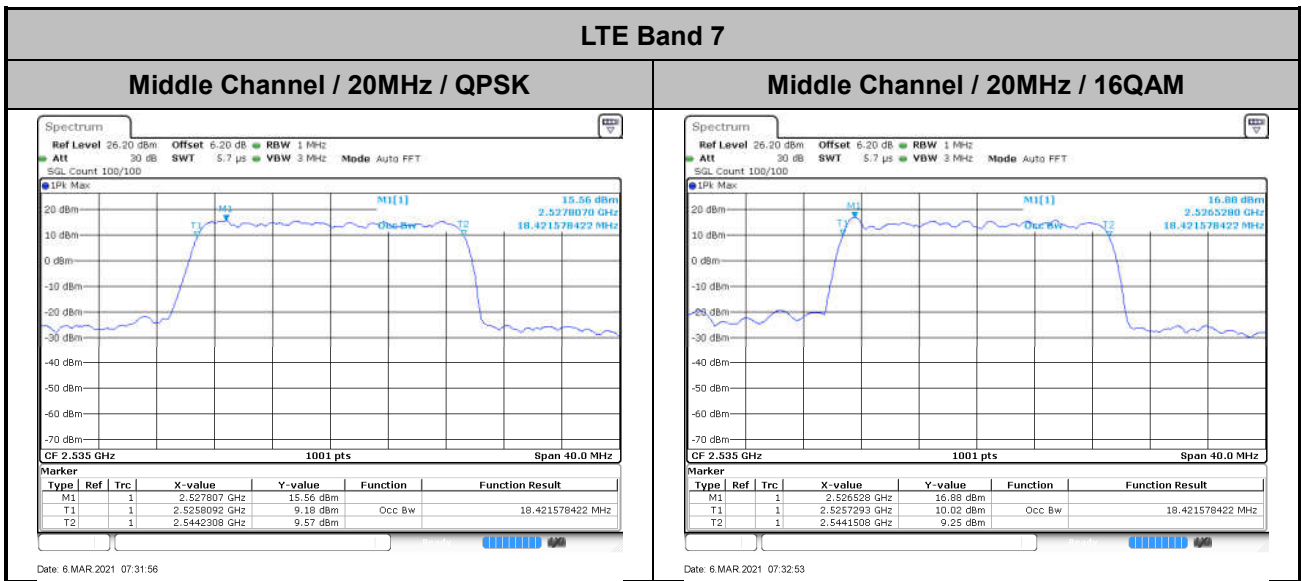
Mode	LTE Band 7 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.34	20.18





Occupied Bandwidth

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

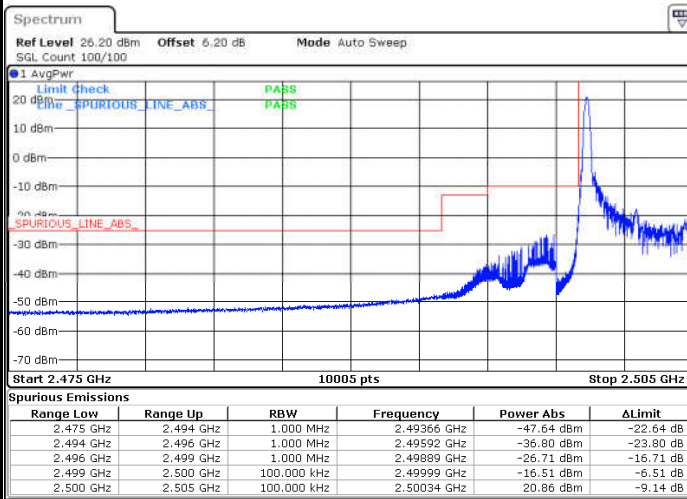




Conducted Band Edge

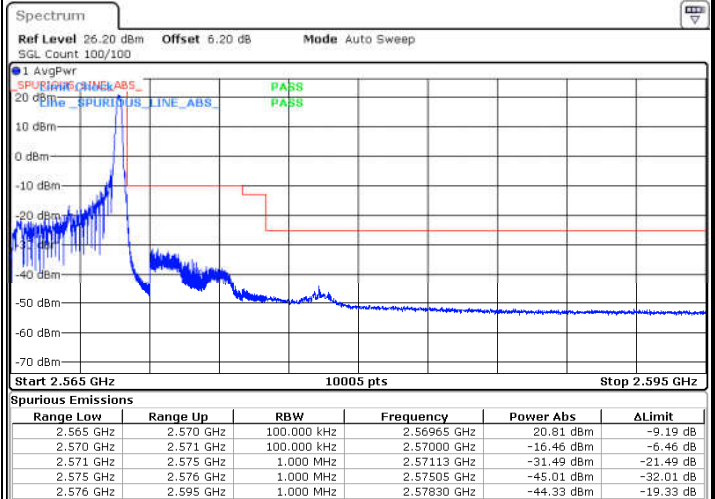
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



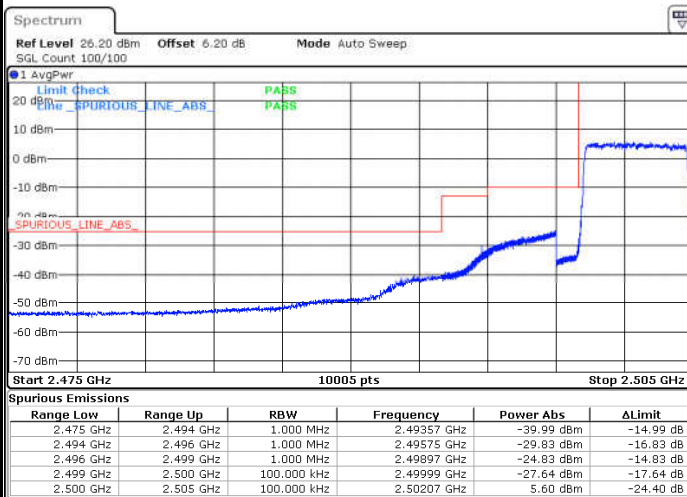
Date: 6 MAR 2021 06:53:38

Highest Band Edge / 1 RB



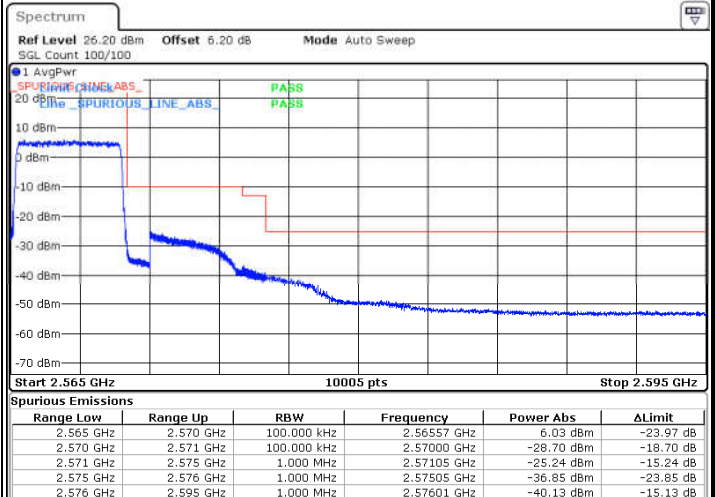
Date: 6 MAR 2021 06:56:31

Lowest Band Edge / Full RB



Date: 6 MAR 2021 06:54:01

Highest Band Edge / Full RB

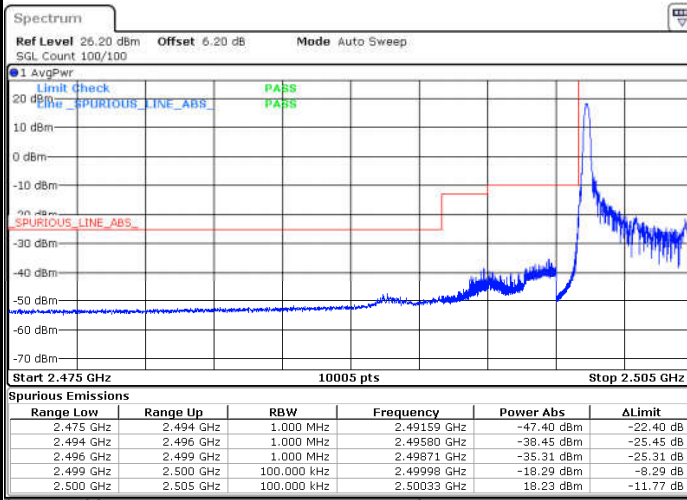


Date: 6 MAR 2021 06:54:20



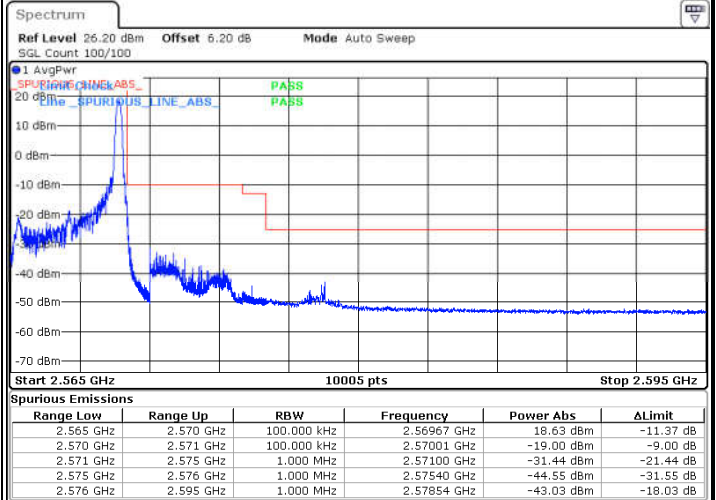
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB



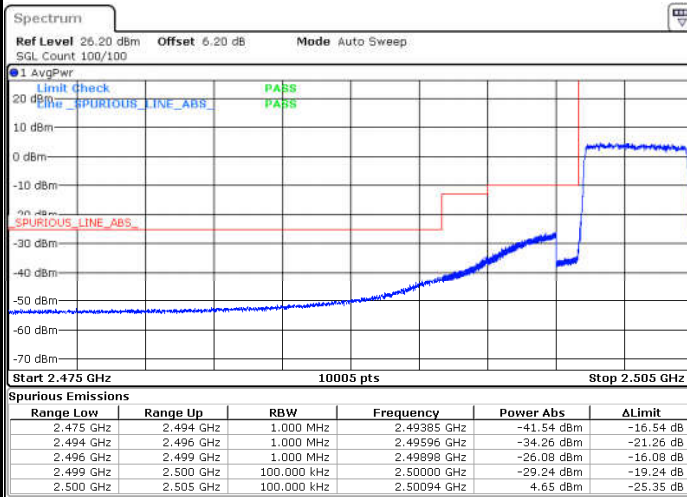
Date: 6.MAR.2021 06:58:29

Highest Band Edge / 1 RB



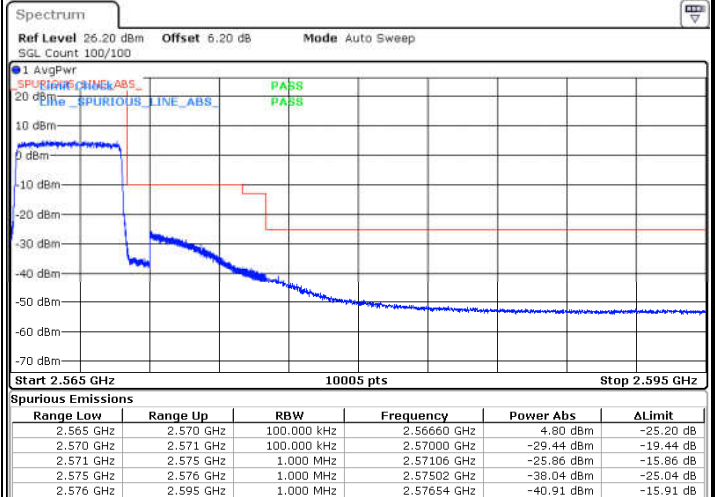
Date: 6.MAR.2021 06:56:53

Lowest Band Edge / Full RB



Date: 6.MAR.2021 06:58:50

Highest Band Edge / Full RB



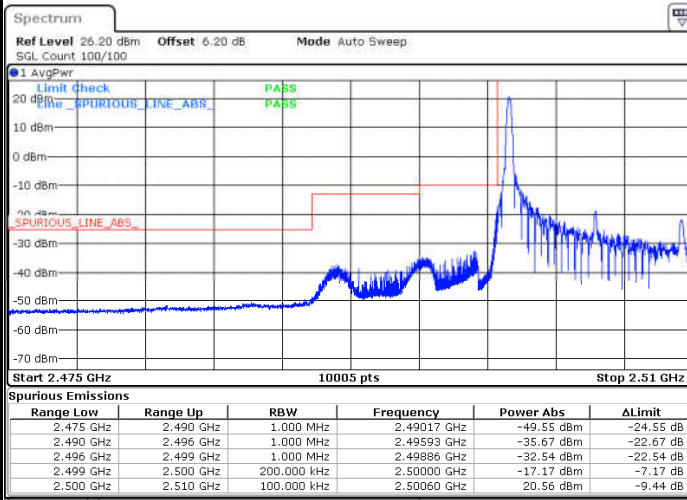
Date: 6.MAR.2021 06:54:48



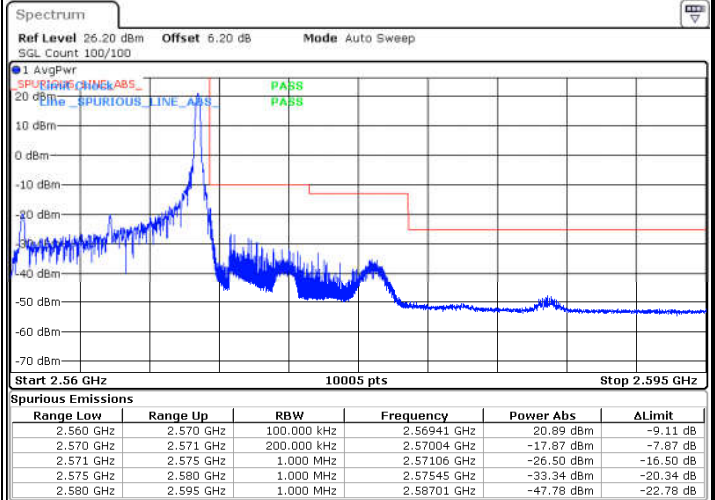
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



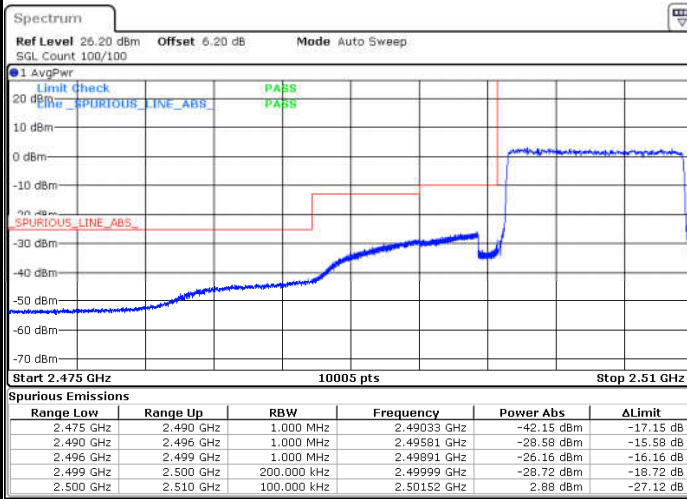
Date: 6.MAR.2021 07:01:20



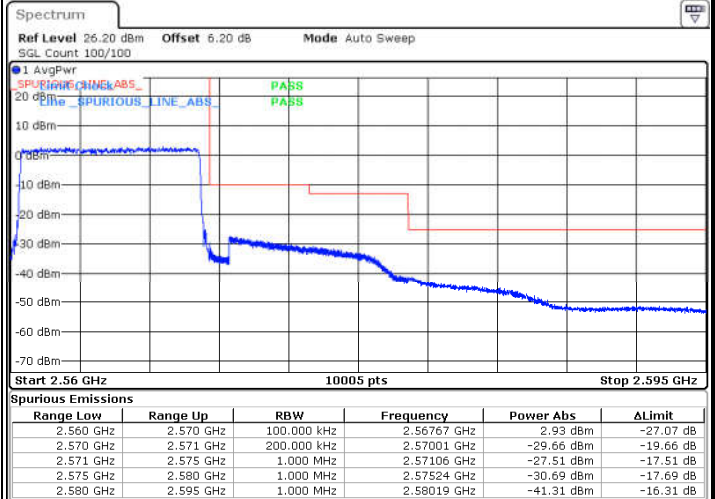
Date: 6.MAR.2021 07:04:21

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 6.MAR.2021 07:03:15

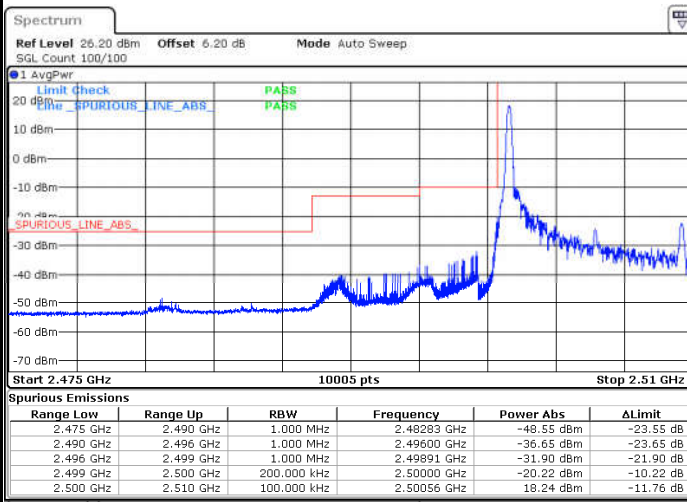


Date: 6.MAR.2021 07:05:58



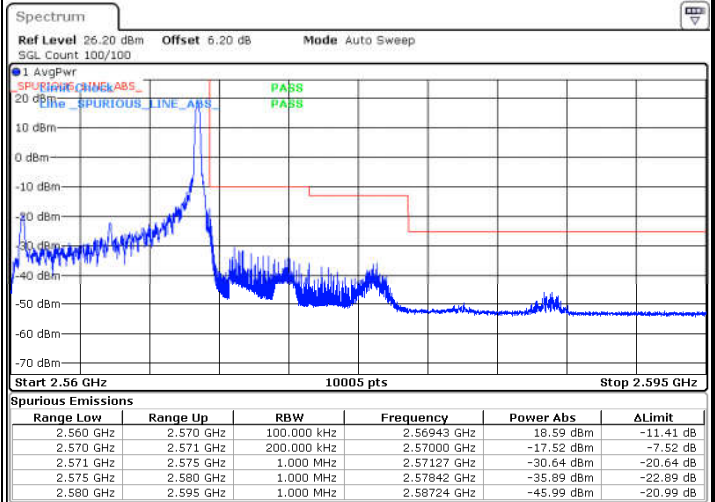
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



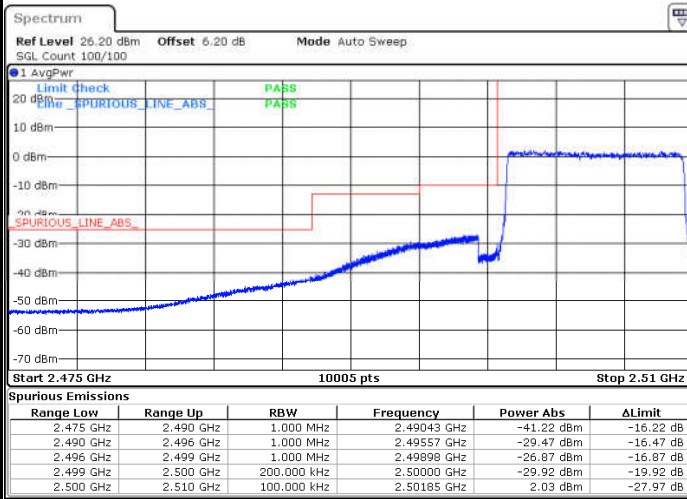
Date: 6.MAR.2021 07:01:55

Highest Band Edge / 1 RB



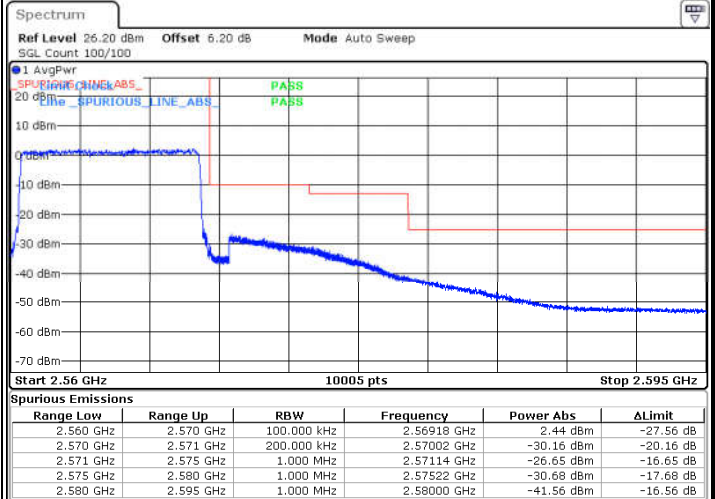
Date: 6.MAR.2021 07:04:45

Lowest Band Edge / Full RB



Date: 6.MAR.2021 07:02:59

Highest Band Edge / Full RB

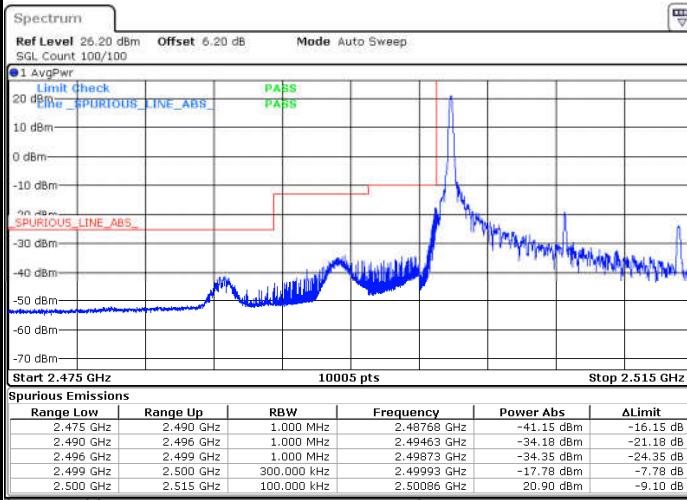


Date: 6.MAR.2021 07:05:40



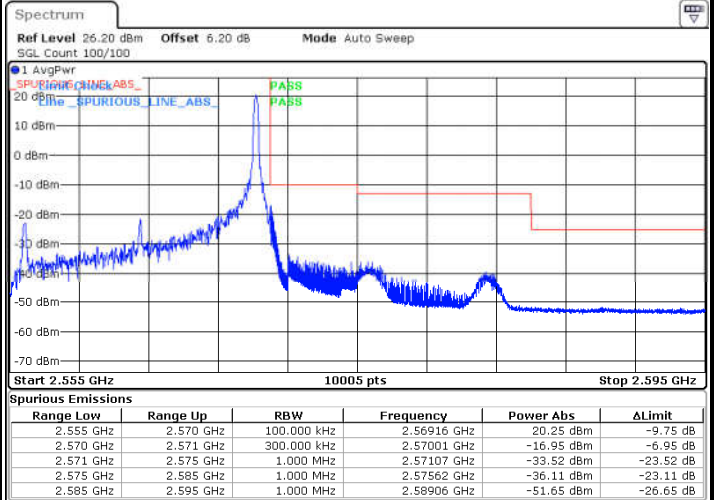
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



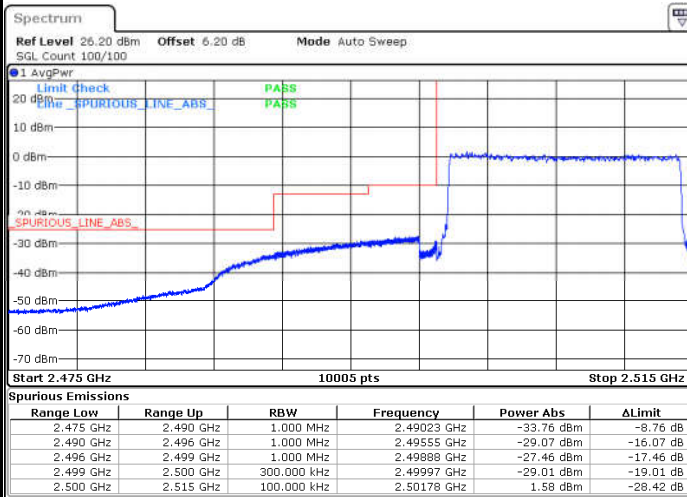
Date: 6.MAR.2021 07:12:44

Highest Band Edge / 1 RB



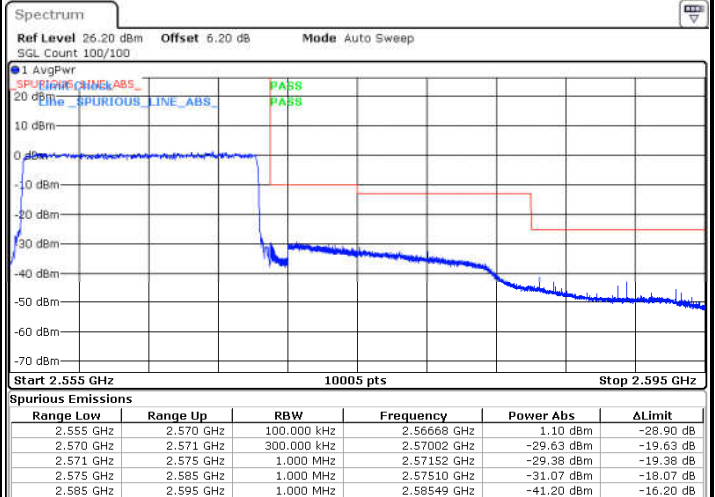
Date: 6.MAR.2021 07:09:04

Lowest Band Edge / Full RB



Date: 6.MAR.2021 07:11:17

Highest Band Edge / Full RB

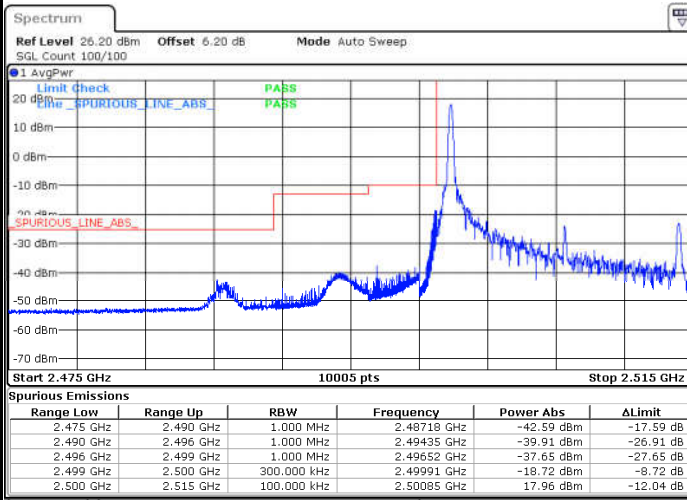


Date: 6.MAR.2021 07:10:58



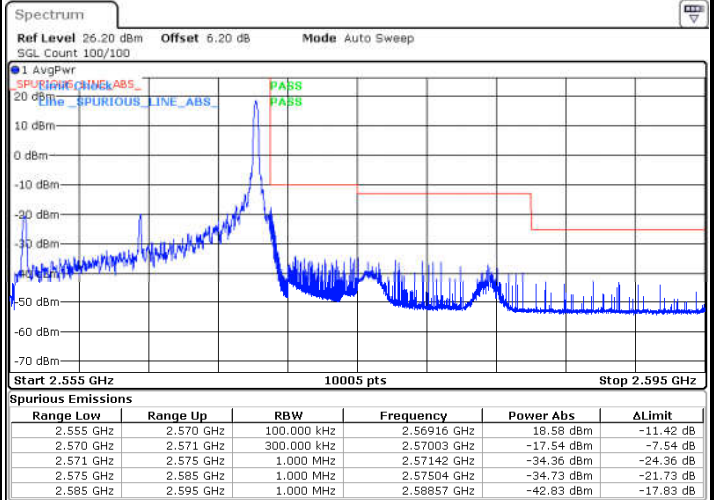
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



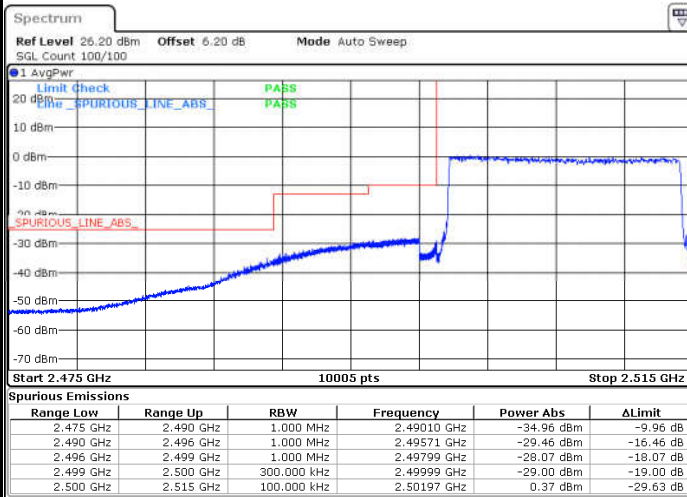
Date: 6.MAR.2021 07:12:28

Highest Band Edge / 1 RB



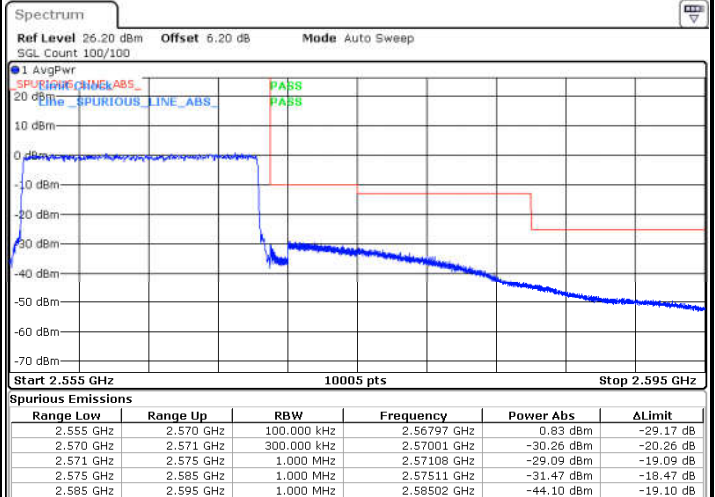
Date: 6.MAR.2021 07:09:44

Lowest Band Edge / Full RB



Date: 6.MAR.2021 07:11:33

Highest Band Edge / Full RB

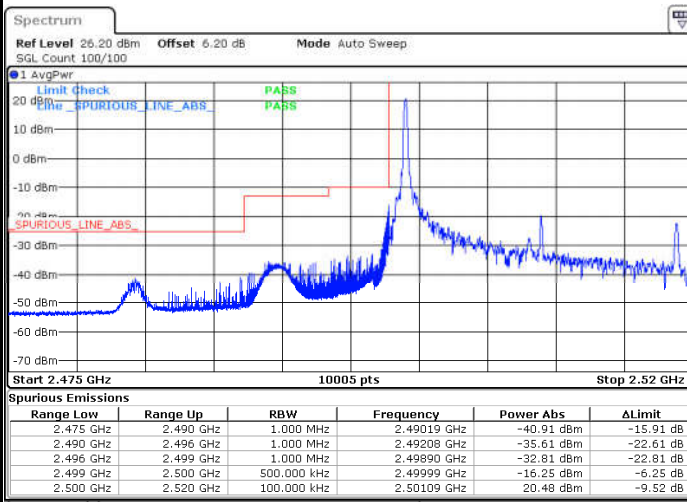


Date: 6.MAR.2021 07:10:42



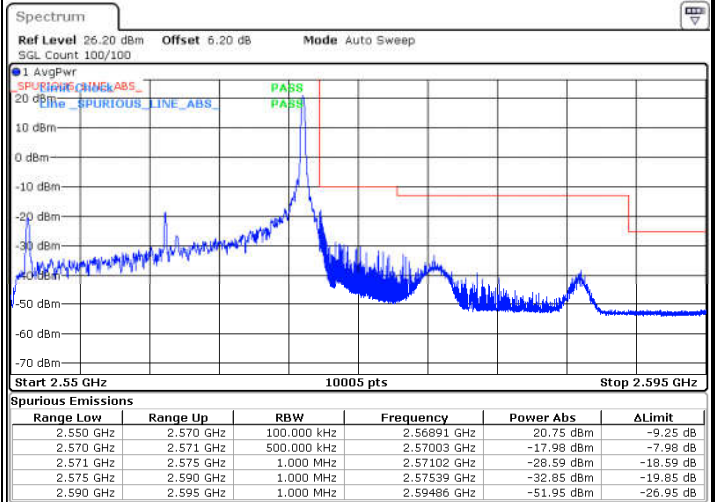
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



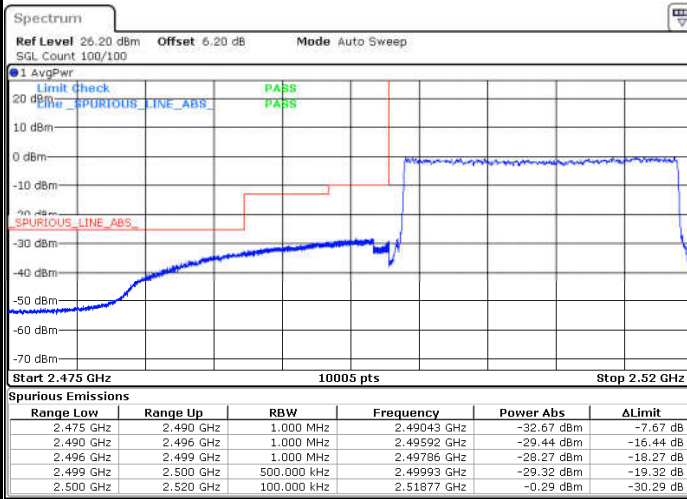
Date: 6.MAR.2021 07:14:47

Highest Band Edge / 1 RB



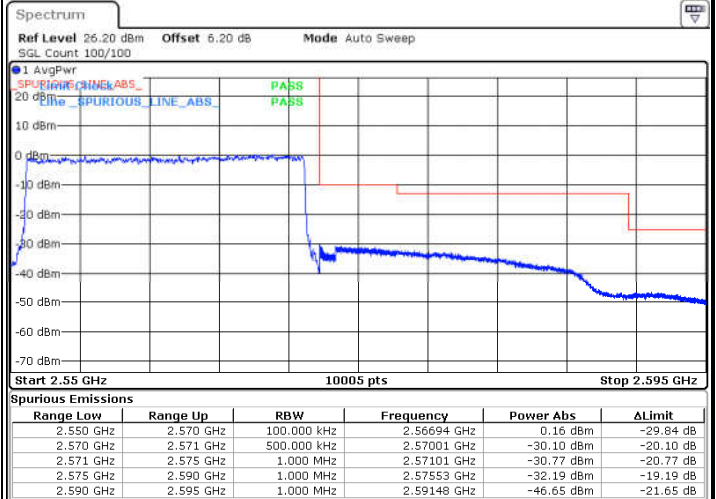
Date: 6.MAR.2021 07:21:21

Lowest Band Edge / Full RB



Date: 6.MAR.2021 07:16:14

Highest Band Edge / Full RB

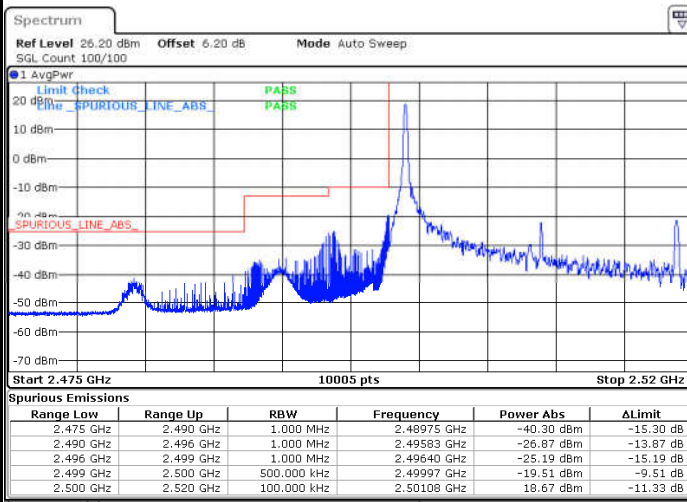


Date: 6.MAR.2021 07:20:20



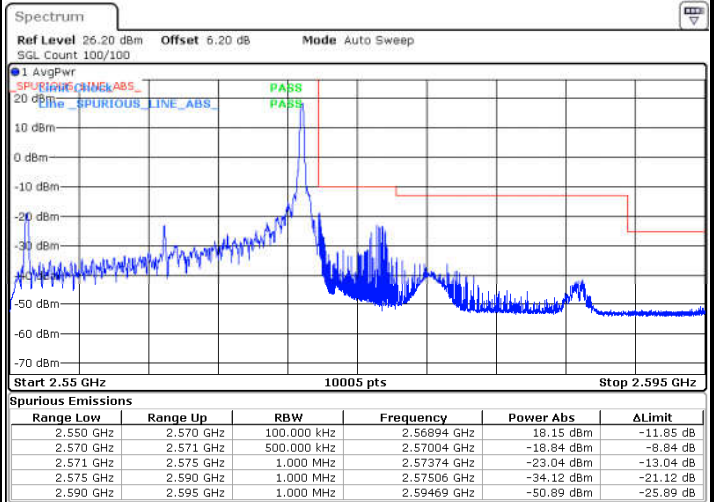
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



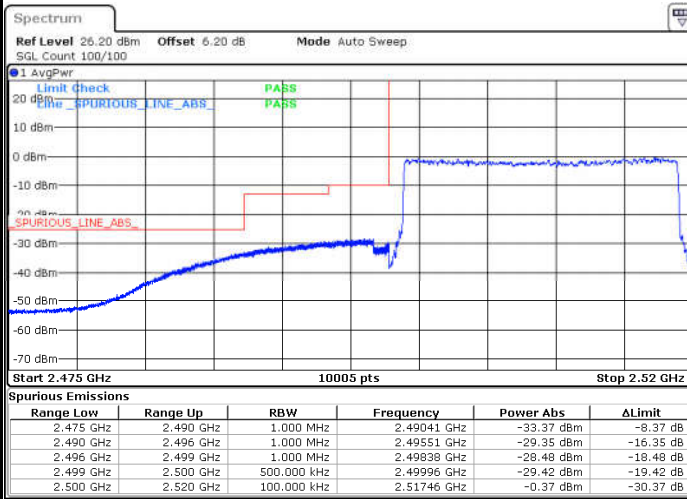
Date: 6.MAR.2021 07:15:07

Highest Band Edge / 1 RB



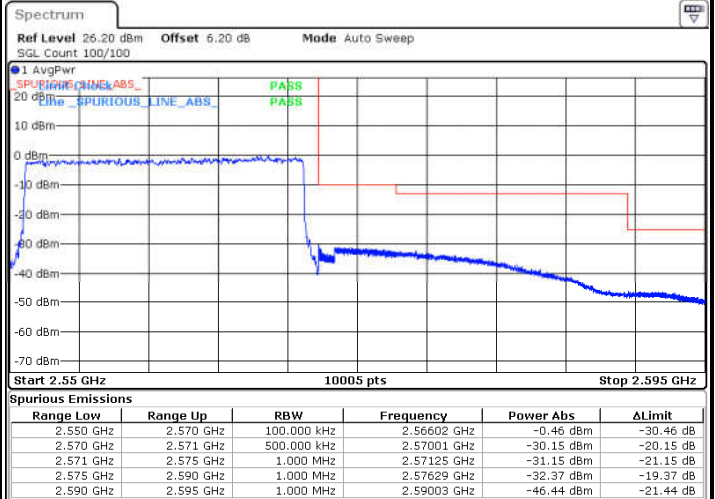
Date: 6.MAR.2021 07:21:03

Lowest Band Edge / Full RB



Date: 6.MAR.2021 07:15:57

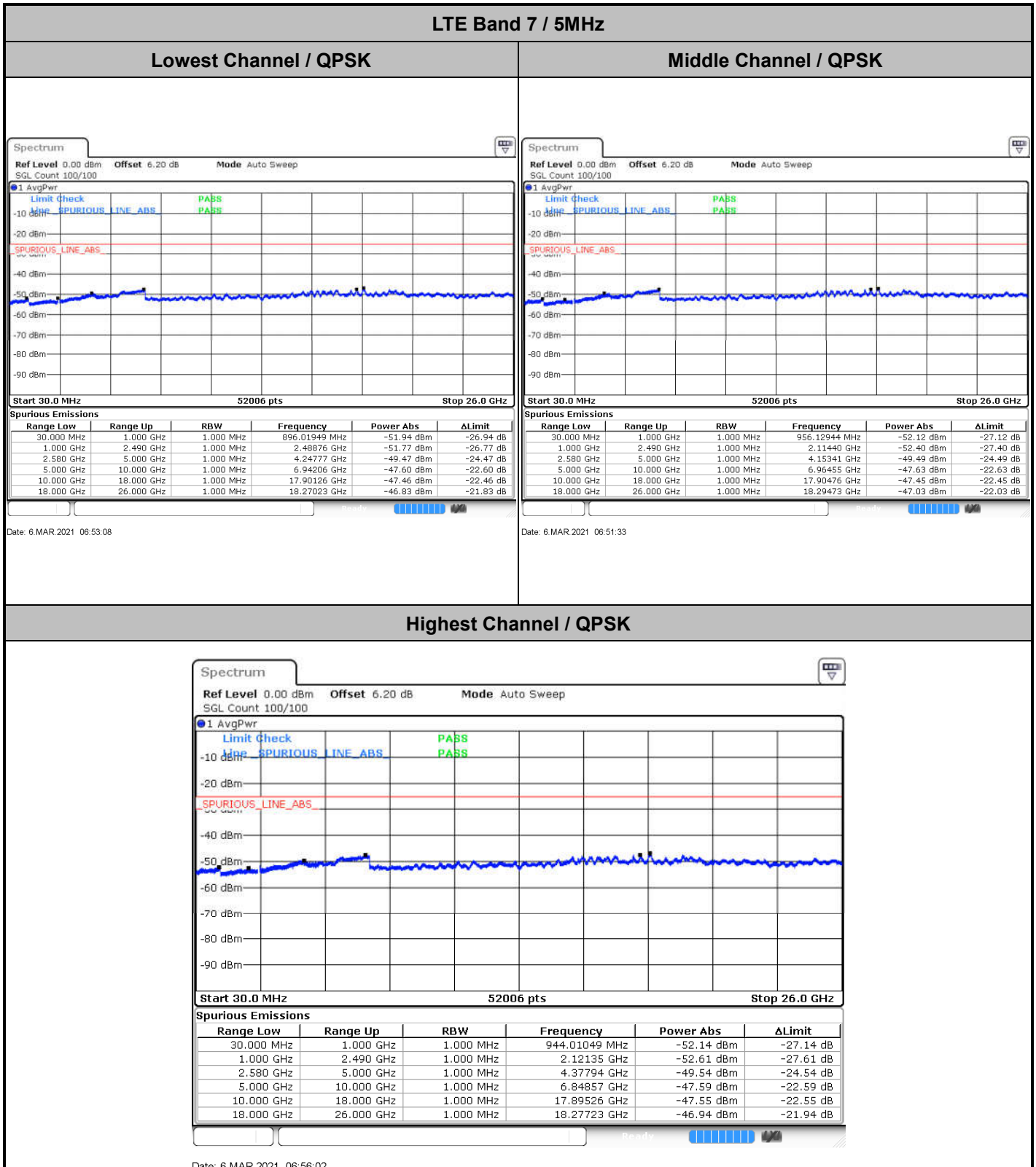
Highest Band Edge / Full RB



Date: 6.MAR.2021 07:20:04



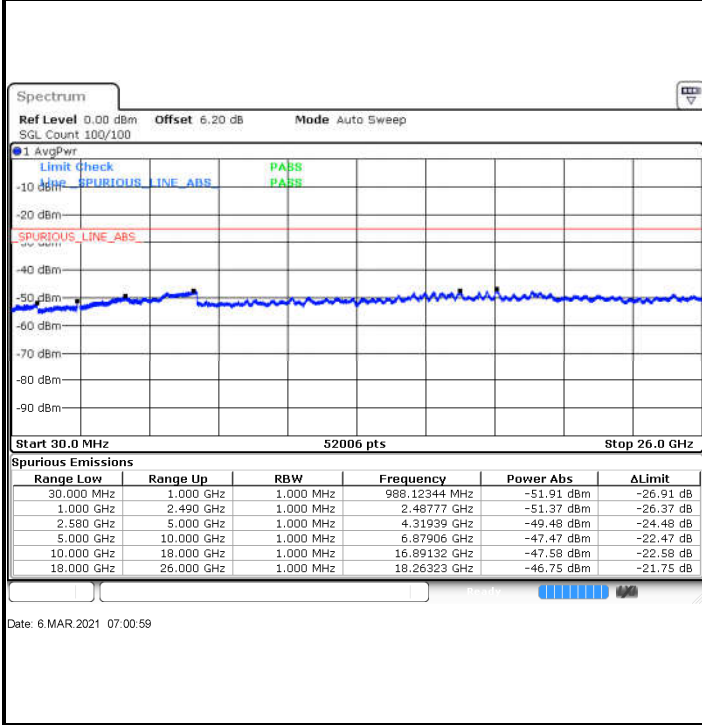
Conducted Spurious Emission



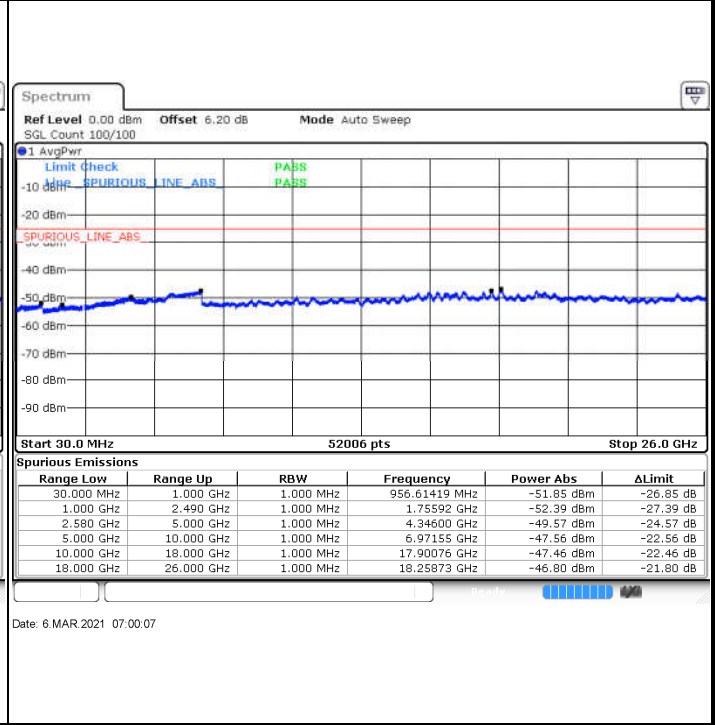


LTE Band 7 / 10MHz

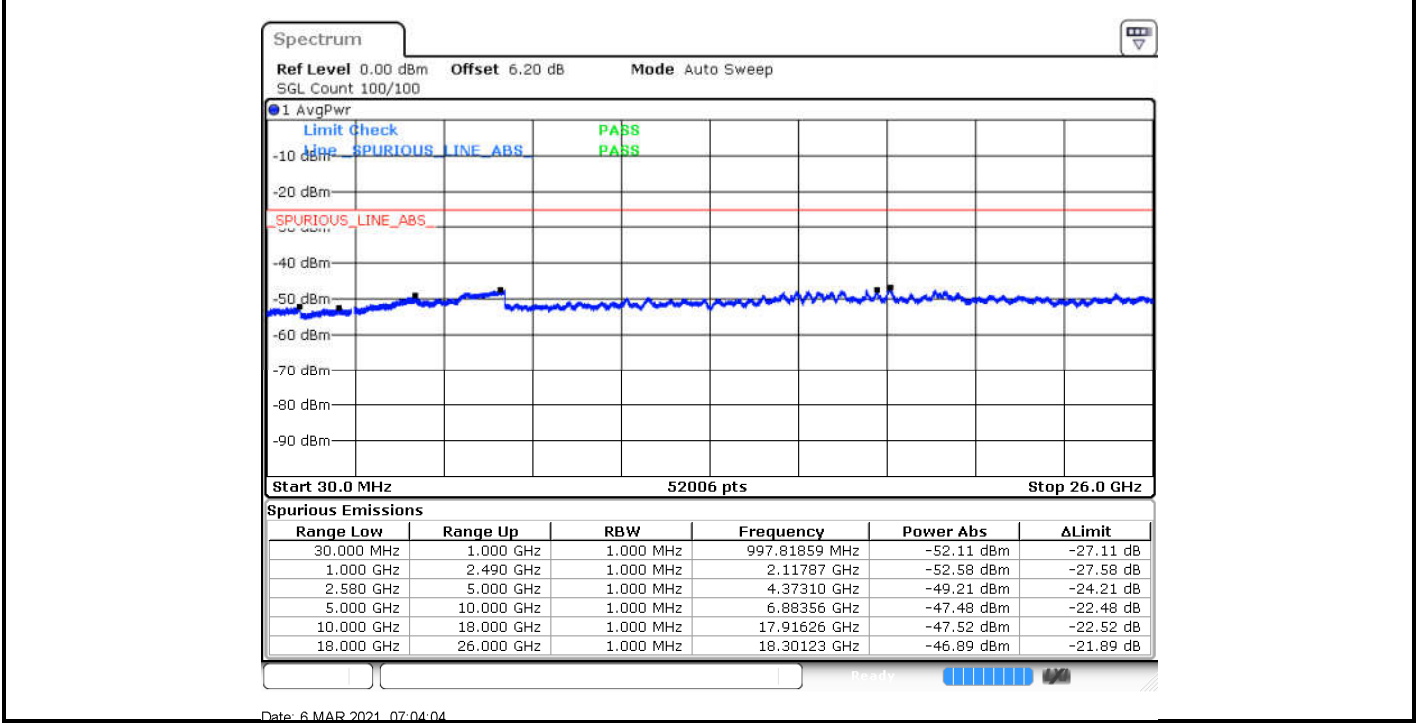
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK

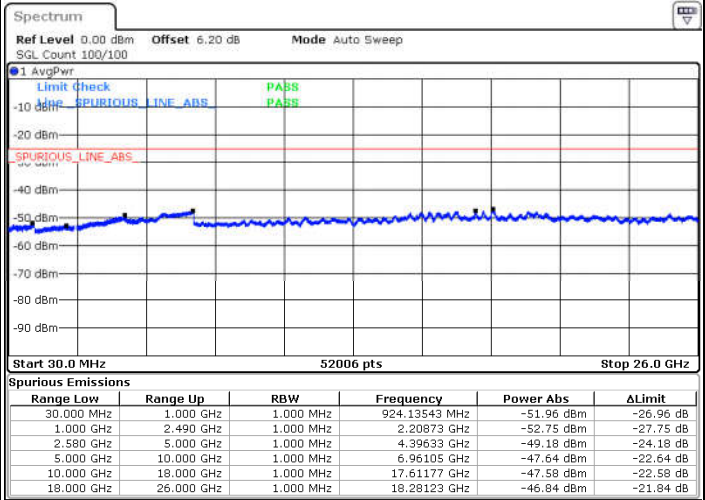
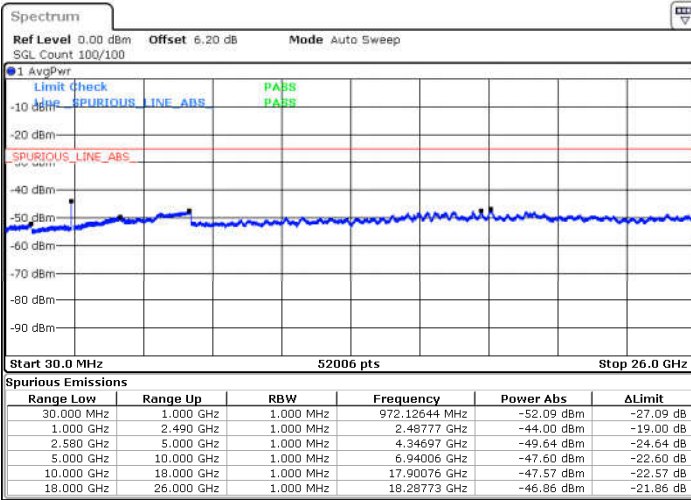




LTE Band 7 / 15MHz

Lowest Channel / QPSK

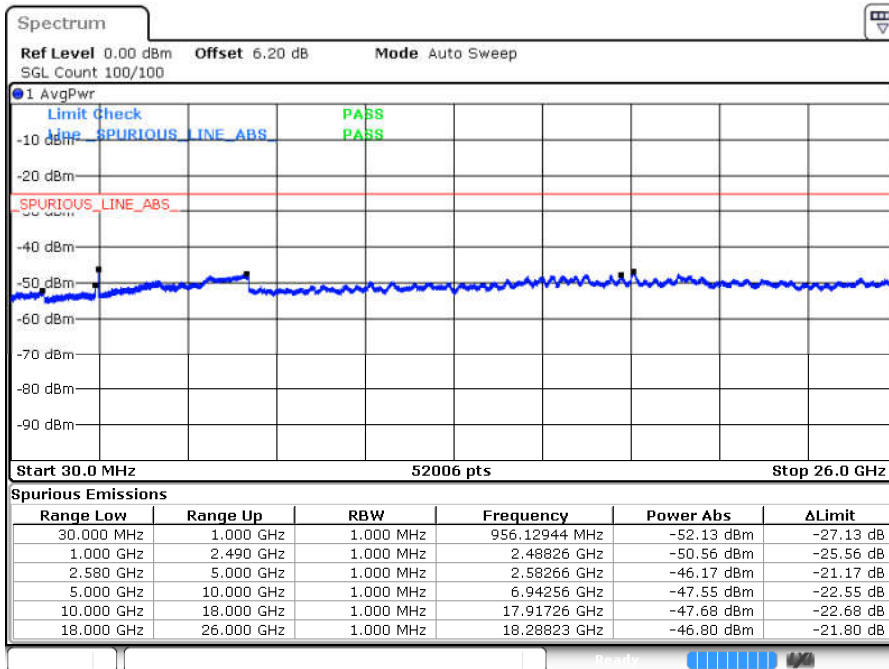
Middle Channel / QPSK



Date: 6 MAR 2021 07:07:42

Date: 6 MAR 2021 07:06:53

Highest Channel / QPSK

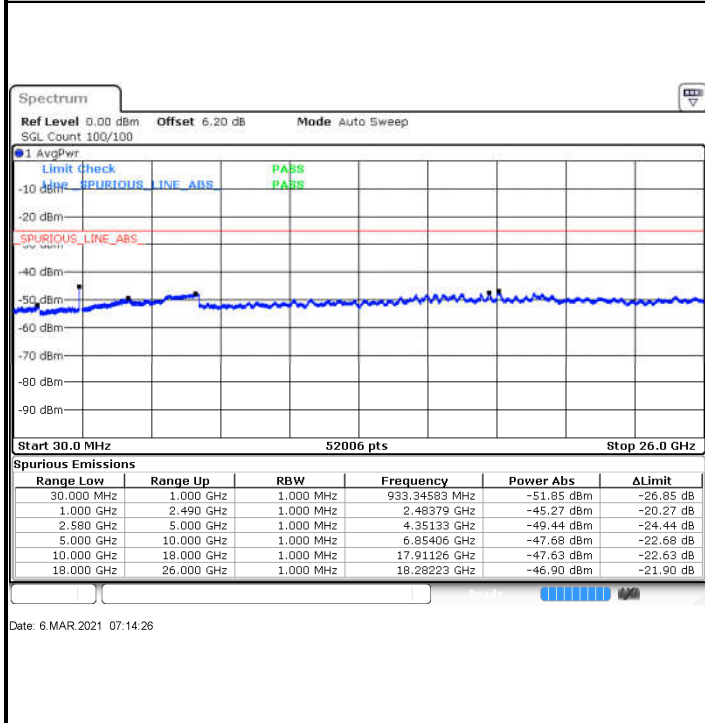


Date: 6 MAR 2021 07:08:31

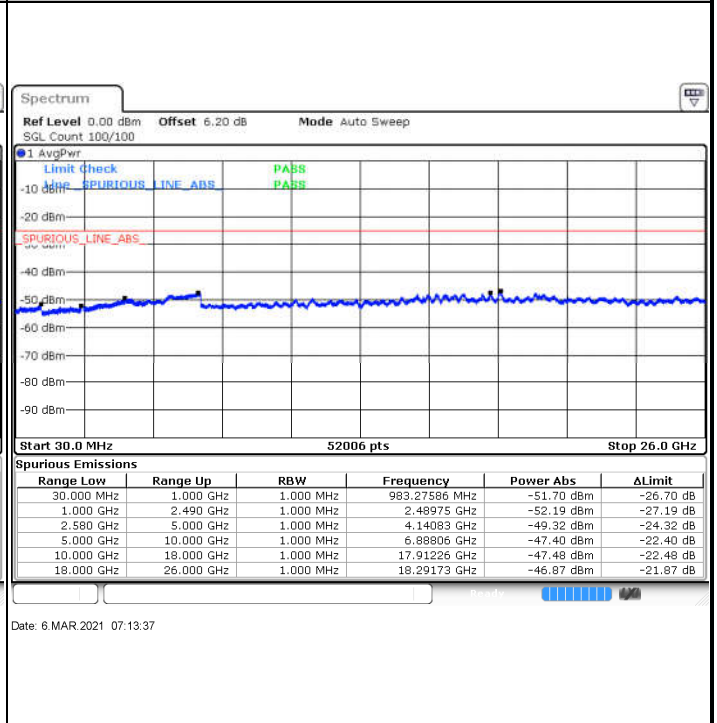


LTE Band 7 / 20MHz

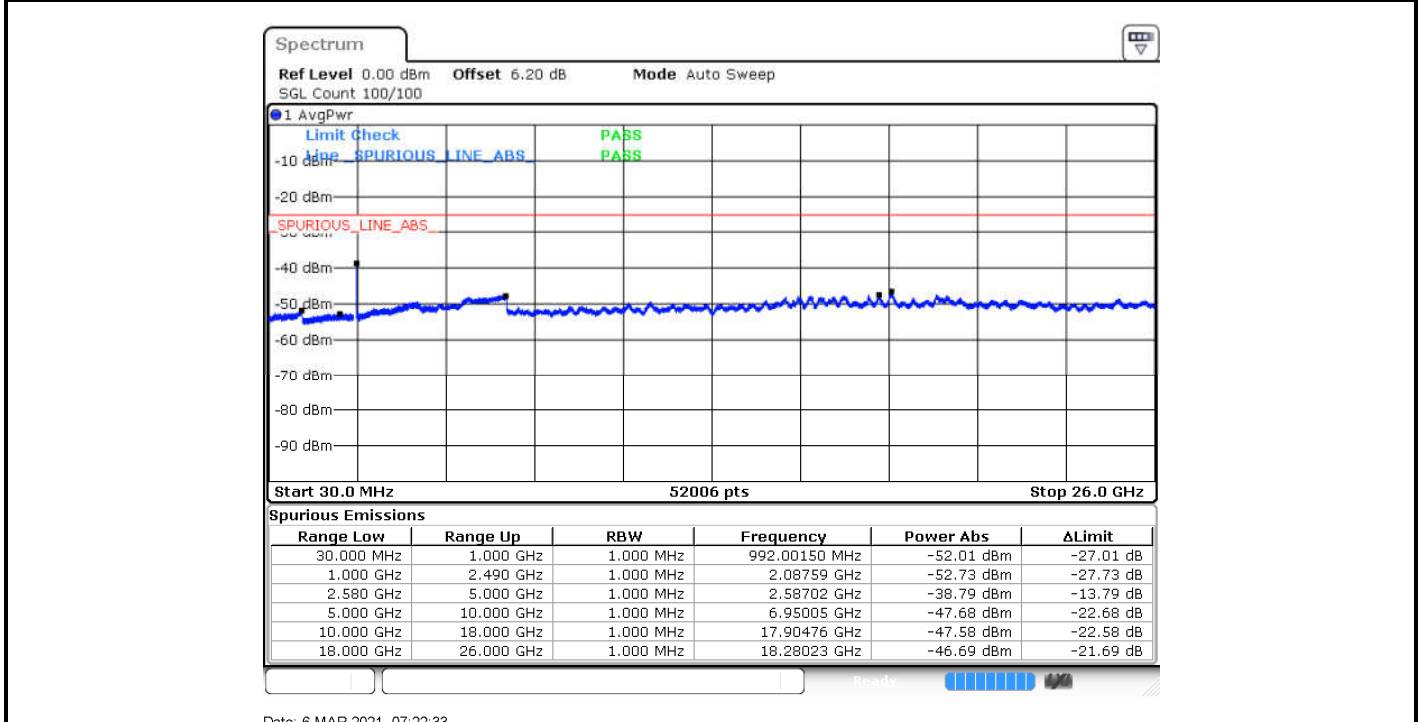
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0021	PASS
40	Normal Voltage	0.0023	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0022	
20	Battery End Point	0.0020	

Note:

1. Normal Voltage =3.9 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 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	-53.93	-13	-40.93	-66.19	2.64	14.90	H
	5613	-52.16	-13	-39.16	-64.02	2.94	14.80	H
	7488	-48.77	-13	-35.77	-58.54	3.39	13.16	H
	3741	-48.55	-13	-35.55	-60.81	2.64	14.90	V
	5613	-53.71	-13	-40.71	-65.57	2.94	14.80	V
	7488	-53.08	-13	-40.08	-62.85	3.39	13.16	V

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

LTE Band 4 / 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	3447	-52.63	-13	-39.63	-63.37	2.604	13.34	H
	5172	-55.17	-13	-42.17	-65.68	3.011	13.52	H
	6900	-54.83	-13	-41.83	-65.03	3.271	13.47	H
	3447	-53.87	-13	-40.87	-64.61	2.604	13.34	V
	5172	-55.35	-13	-42.35	-65.86	3.011	13.52	V
	6900	-54.88	-13	-41.88	-65.08	3.271	13.47	V

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



LTE Band 5 / 10MHz / 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	1664	-62.80	-13	-49.80	-69.77	1.58	10.70	H
	2496	-57.13	-13	-44.13	-65.38	2.102	12.50	H
	3330	-59.71	-13	-46.71	-68.60	2.856	13.90	H
	1664	-62.11	-13	-49.11	-69.08	1.58	10.70	V
	2496	-58.84	-13	-45.84	-67.09	2.10	12.50	V
	3330	-60.99	-13	-47.99	-69.88	2.86	13.90	V

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

LTE Band 7 / 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	5052	-48.06	-25	-23.06	-58.27	3.03	13.24	H
	7580	-45.38	-25	-20.38	-54.83	3.56	13.01	H
	10100	-53.27	-25	-28.27	-62.79	3.92	13.44	H
	12630	-47.95	-25	-22.95	-57.87	4.44	14.36	H
	5052	-55.74	-25	-30.74	-65.95	3.03	13.24	V
	7580	-45.02	-25	-20.02	-54.47	3.56	13.01	V
	10100	-58.34	-25	-33.34	-67.86	3.92	13.44	V
	12630	-49.66	-25	-24.66	-59.58	4.44	14.36	V

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