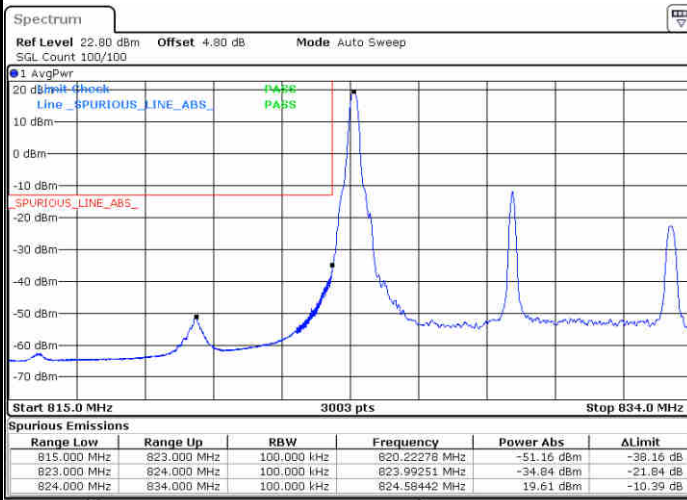




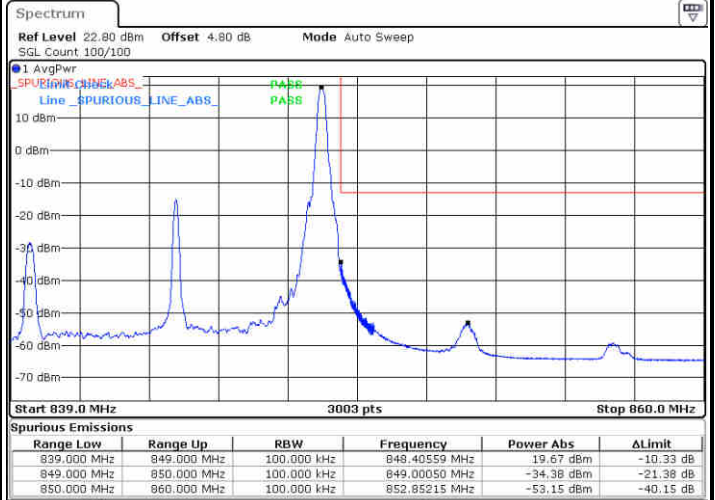
LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / 1 RB



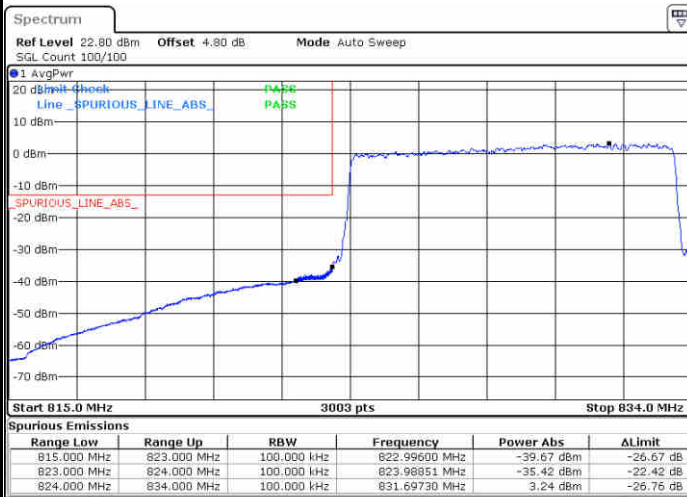
Date: 22_APR.2021 03:00:53

Highest Band Edge / 1 RB



Date: 22_APR.2021 03:17:38

Lowest Band Edge / Full RB



Date: 22_APR.2021 02:59:05

Highest Band Edge / Full RB

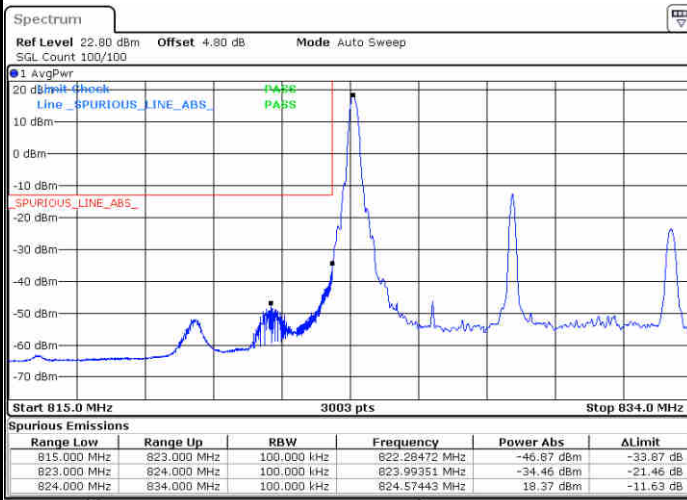


Date: 22_APR.2021 03:15:02



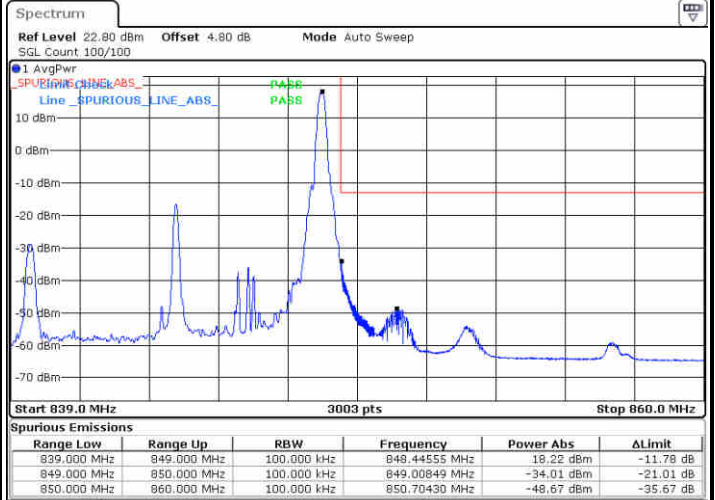
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



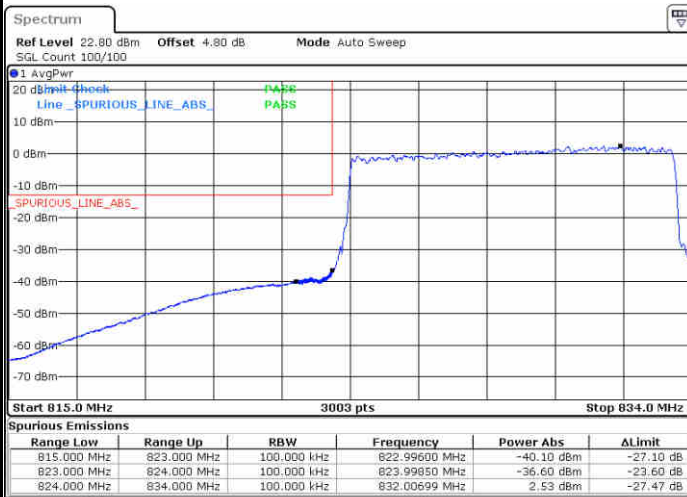
Date: 22_APR.2021 03:02:46

Highest Band Edge / 1 RB



Date: 22_APR.2021 03:16:47

Lowest Band Edge / Full RB



Date: 22_APR.2021 02:59:39

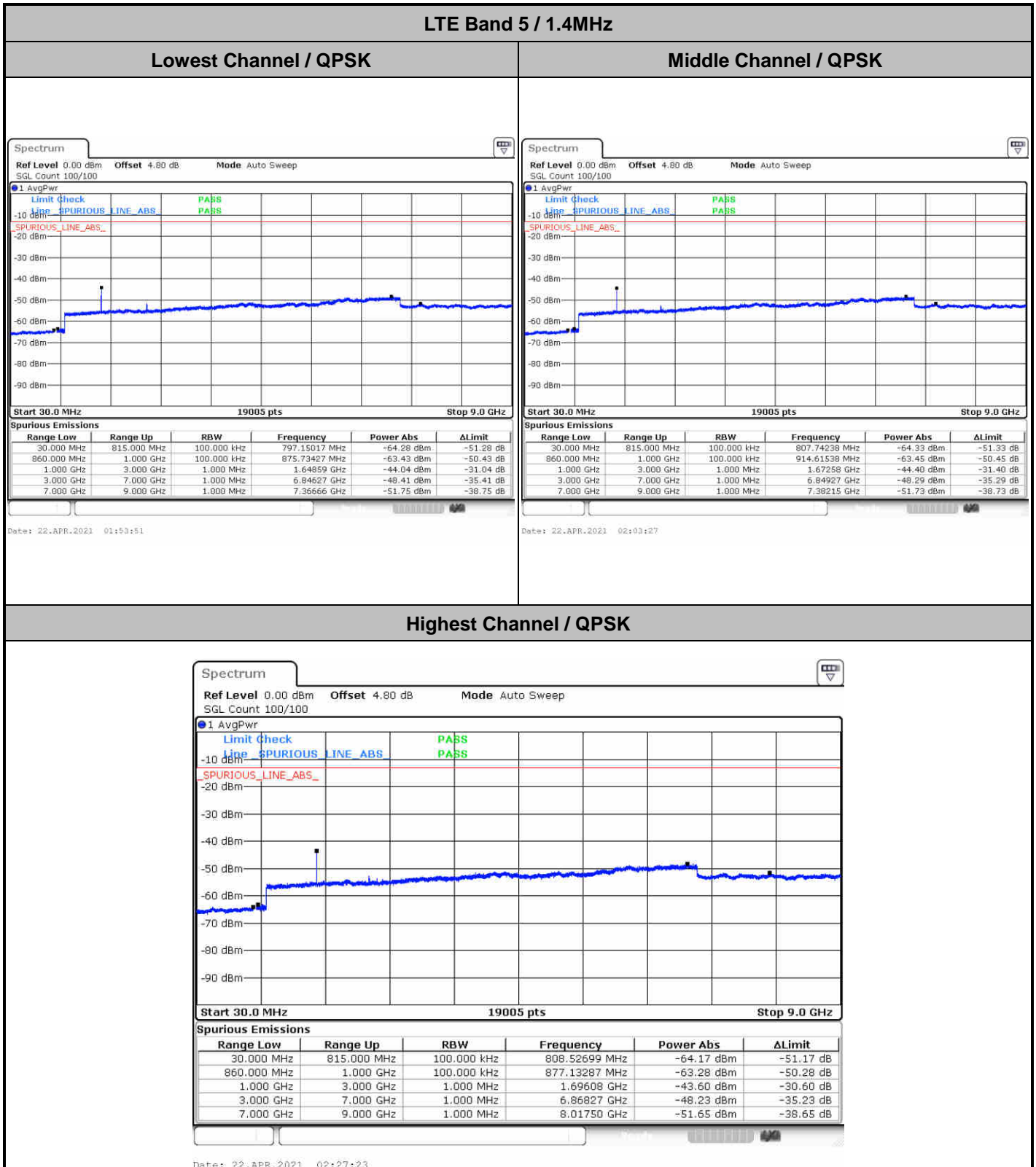
Highest Band Edge / Full RB



Date: 22_APR.2021 03:16:04



Conducted Spurious Emission

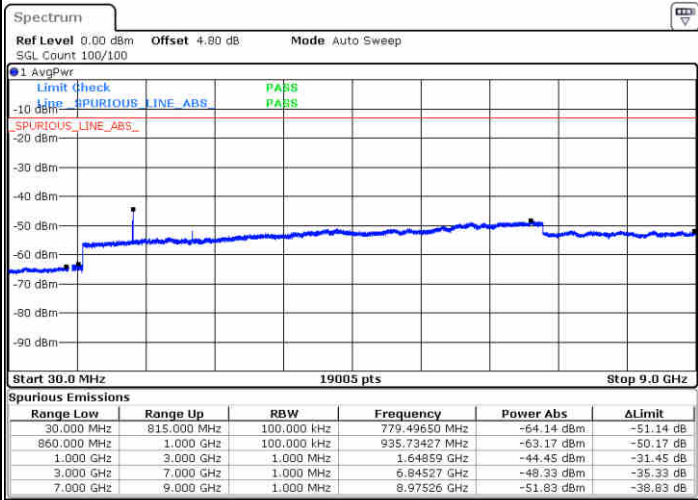




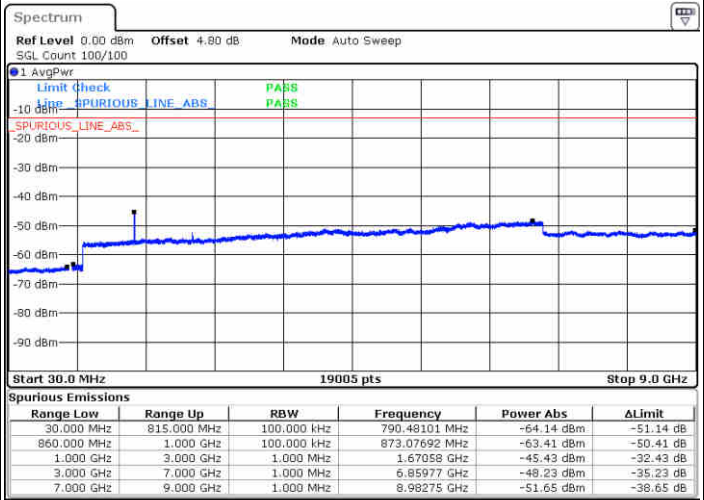
LTE Band 5 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

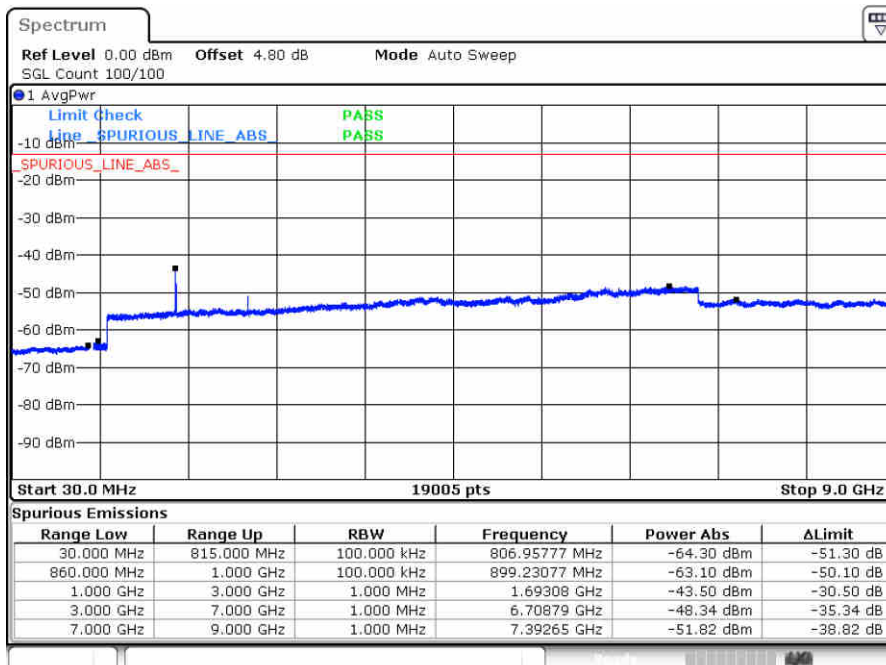


Date: 22.APR.2021 02:41:45



Date: 22.APR.2021 02:42:55

Highest Channel / QPSK

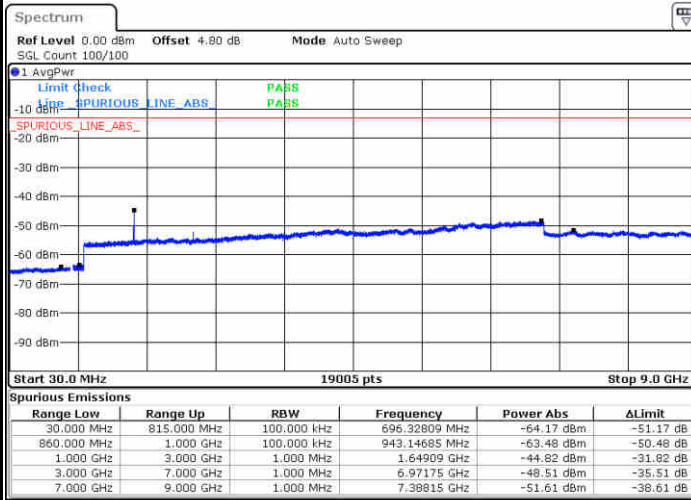


Date: 22.APR.2021 02:44:03



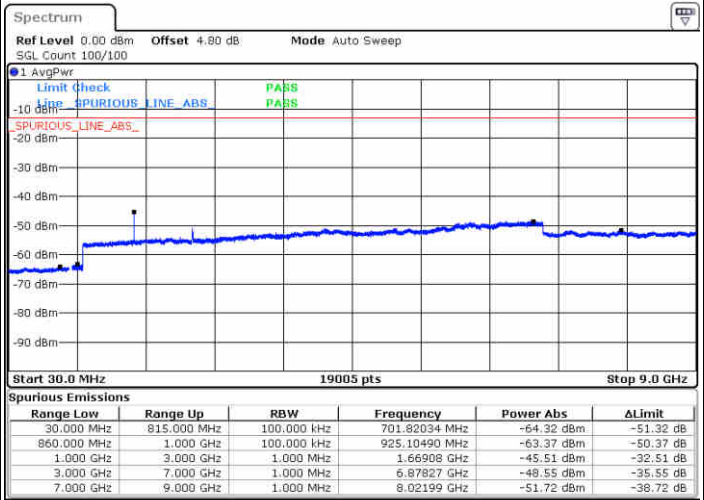
LTE Band 5 / 5MHz

Lowest Channel / QPSK



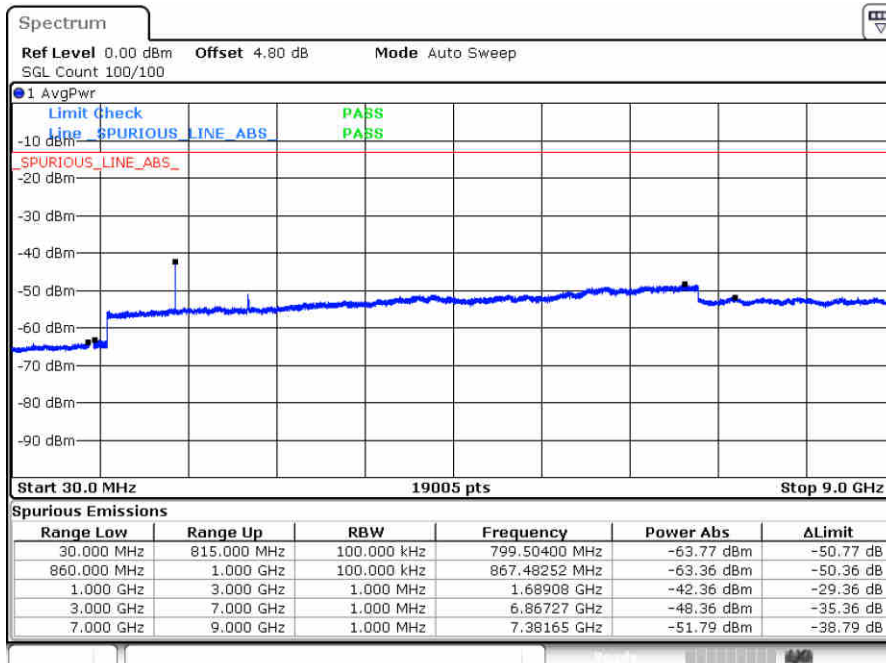
Date: 22.APR.2021 02:51:23

Middle Channel / QPSK



Date: 22.APR.2021 02:54:14

Highest Channel / QPSK



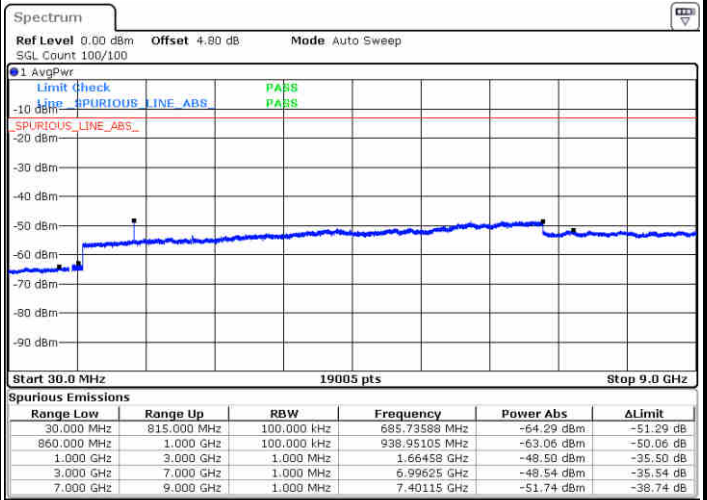
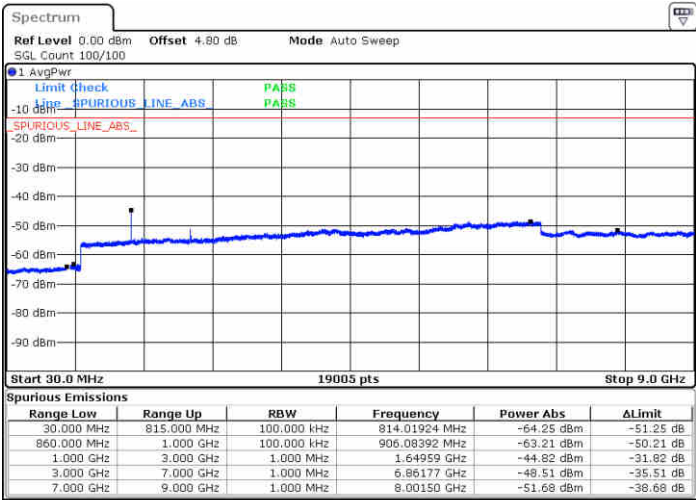
Date: 22.APR.2021 02:54:46



LTE Band 5 / 10MHz

Lowest Channel / QPSK

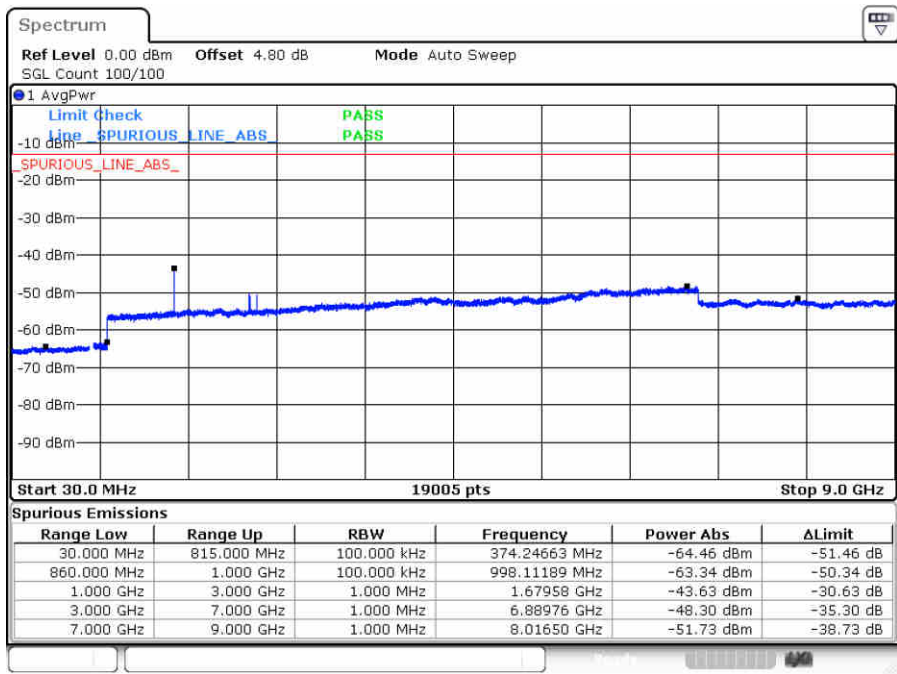
Middle Channel / QPSK



Date: 22.APR.2021 03:00:14

Date: 22.APR.2021 03:03:57

Highest Channel / QPSK



Date: 22.APR.2021 07:31:43



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	0.0001	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0002	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0050	
-30	Normal Voltage	0.0038	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0043	
20	Battery End Point	0.0003	

Note:

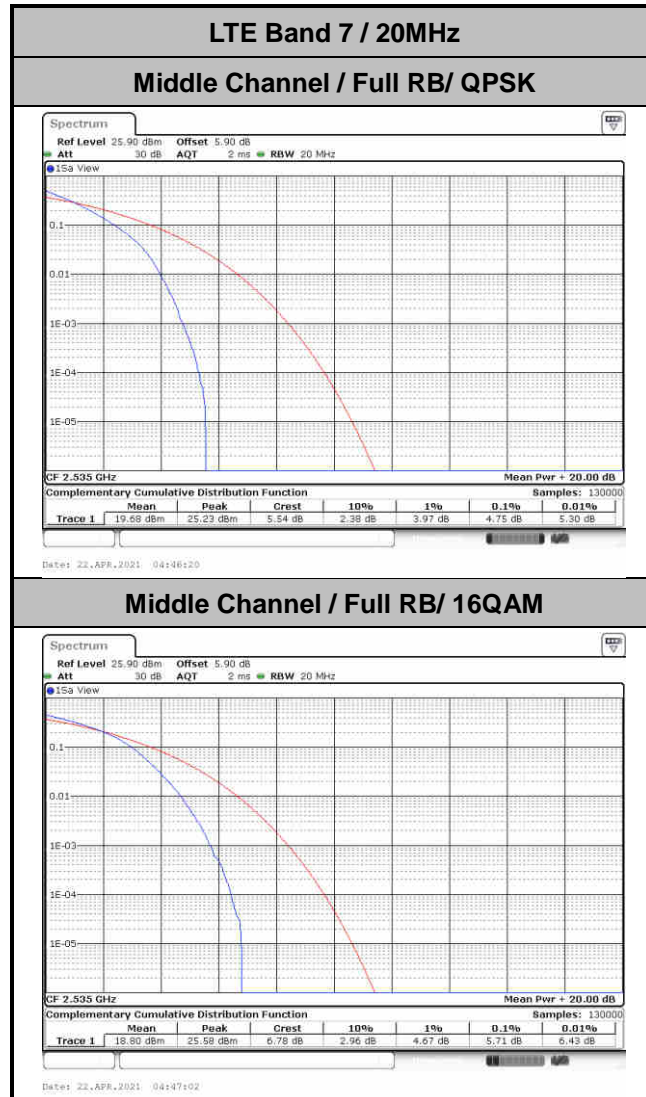
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 7

Peak-to-Average Ratio

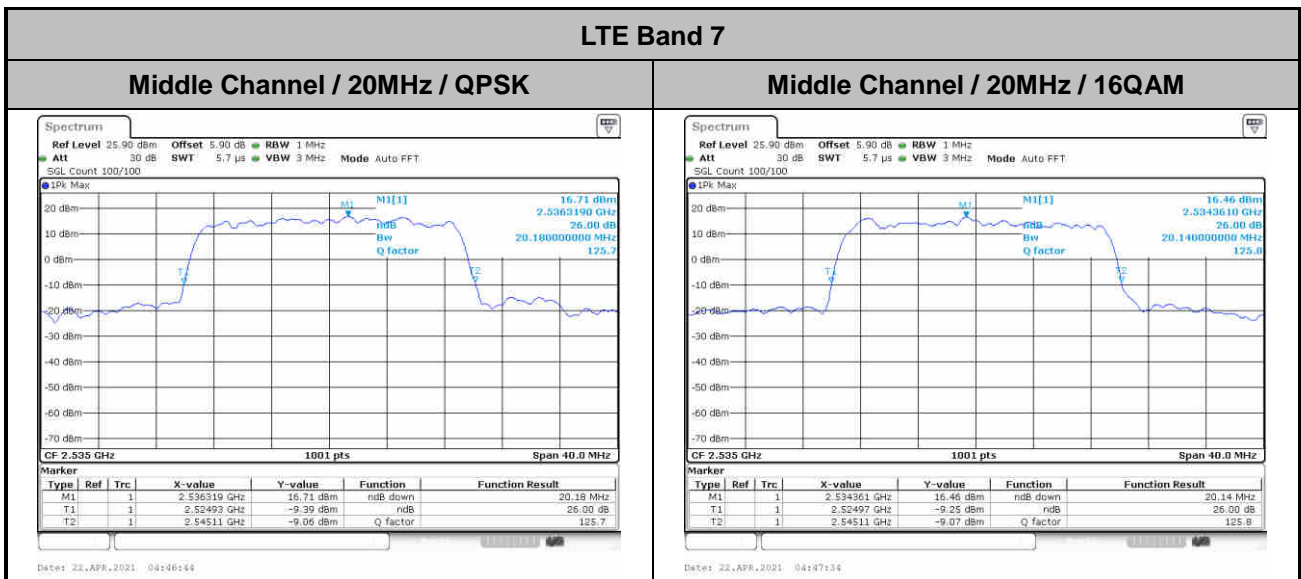
Mode	LTE Band 7 / 20MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.75	5.71	PASS





26dB Bandwidth

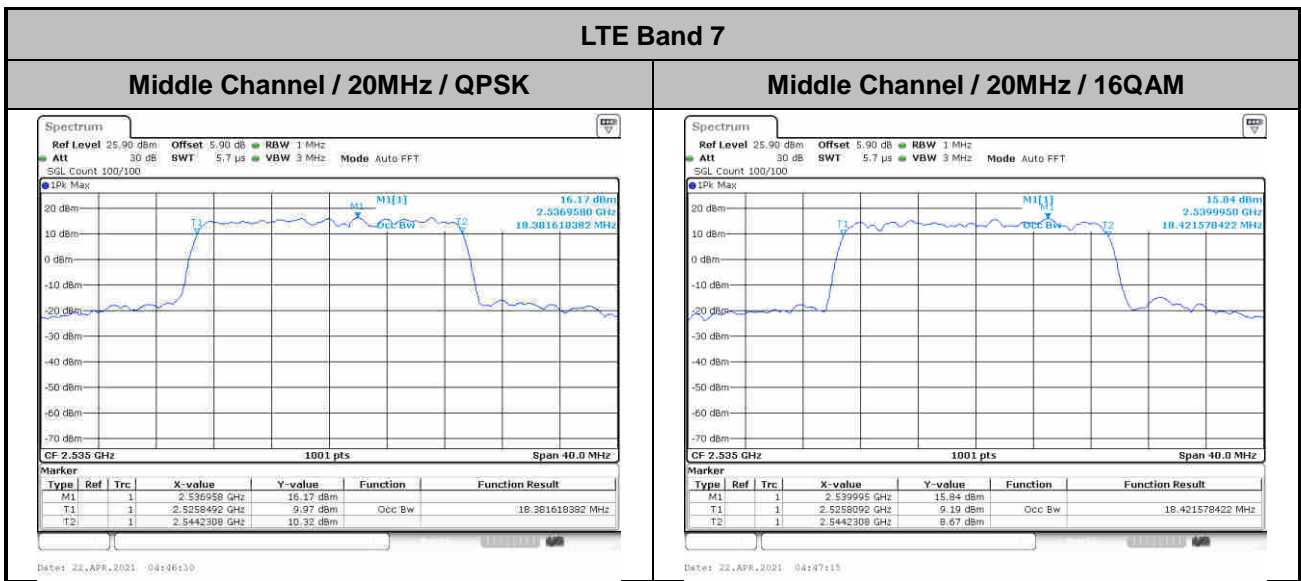
Mode	LTE Band 7 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.18	20.14





Occupied Bandwidth

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

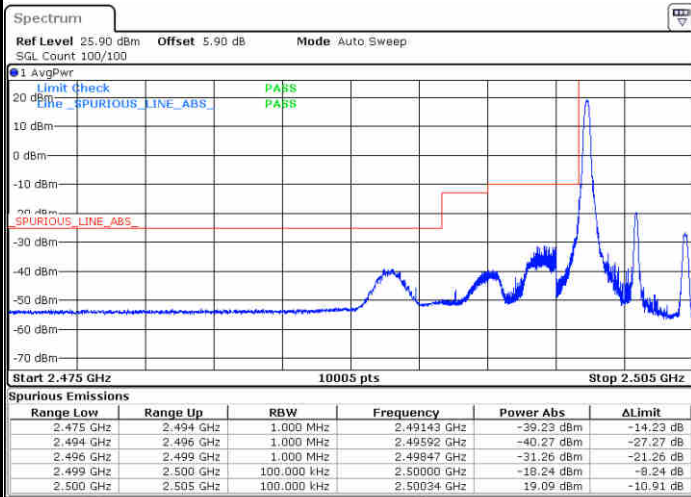




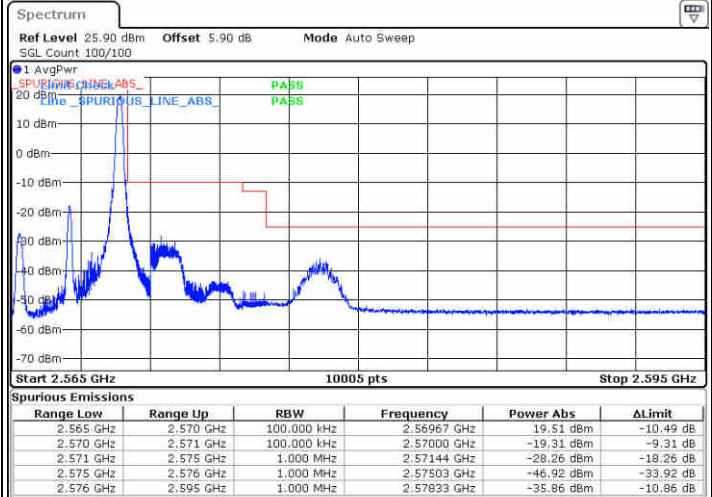
Conducted Band Edge

LTE Band 7 / 5MHz / QPSK

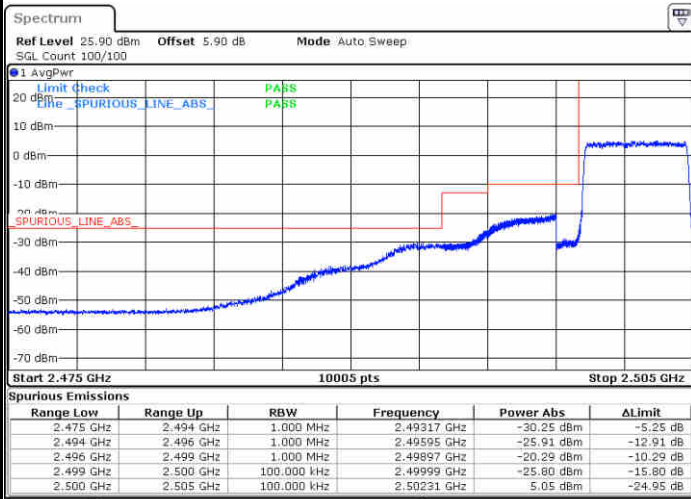
Lowest Band Edge / 1 RB



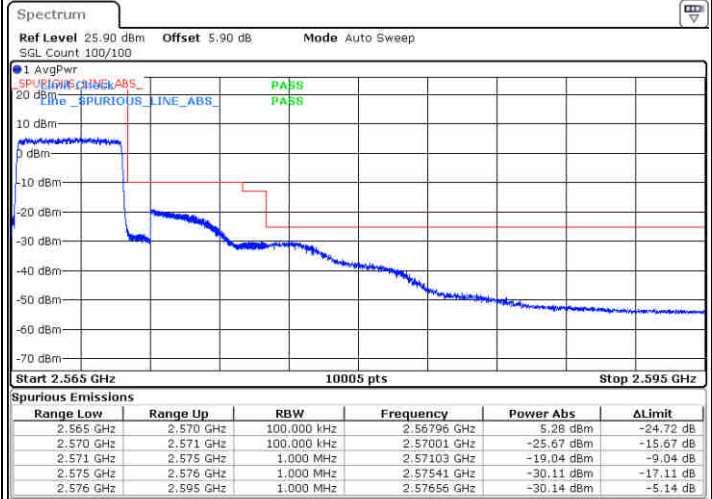
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



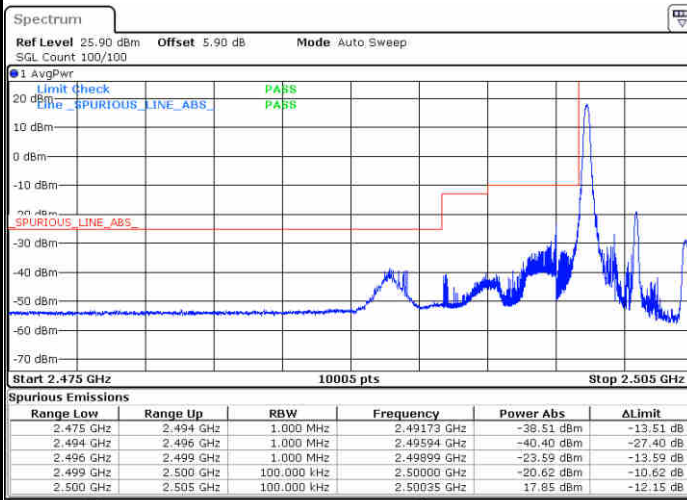
Highest Band Edge / Full RB





LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB



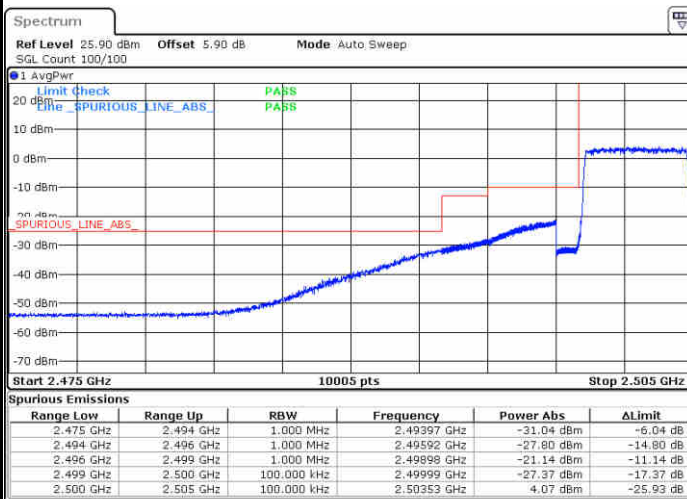
Date: 22.APR.2021 04:22:47

Highest Band Edge / 1 RB



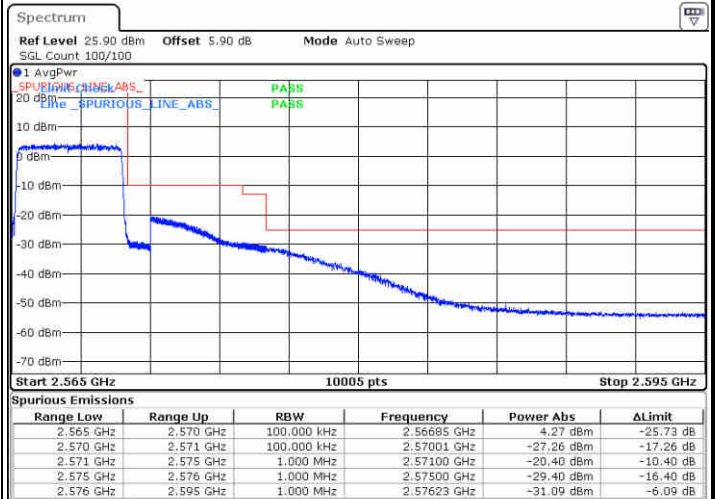
Date: 22.APR.2021 04:29:41

Lowest Band Edge / Full RB



Date: 22.APR.2021 04:25:41

Highest Band Edge / Full RB



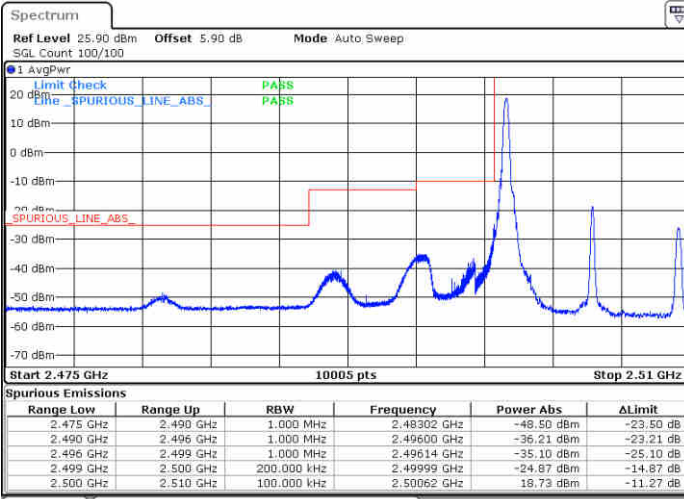
Date: 22.APR.2021 04:30:15



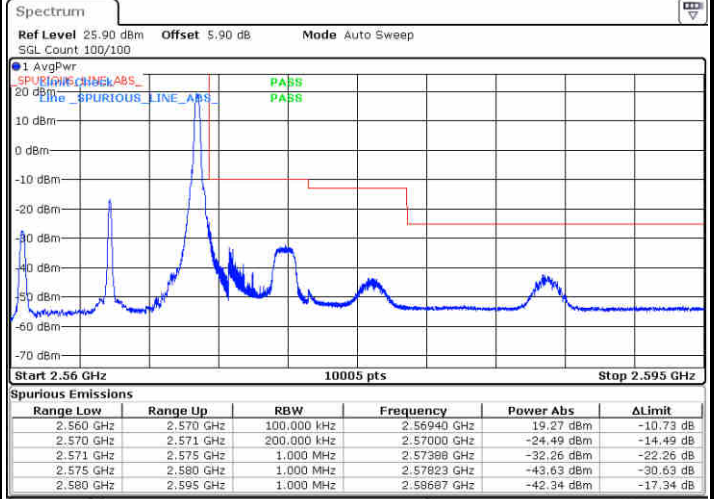
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



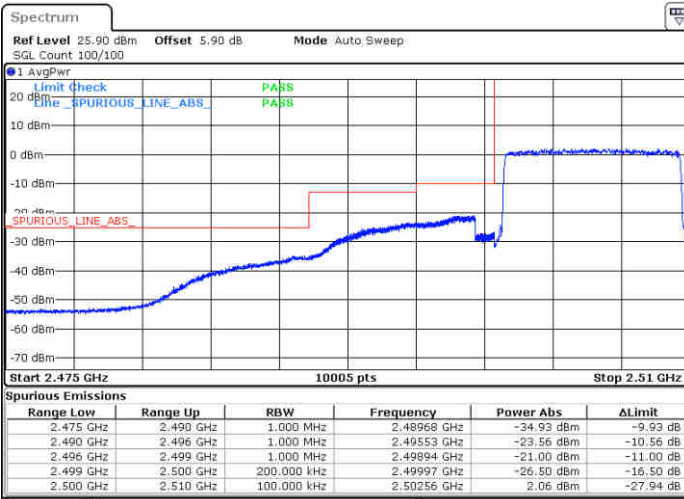
Date: 22.APR.2021 04:32:06



Date: 22.APR.2021 04:35:32

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 22.APR.2021 04:30:52

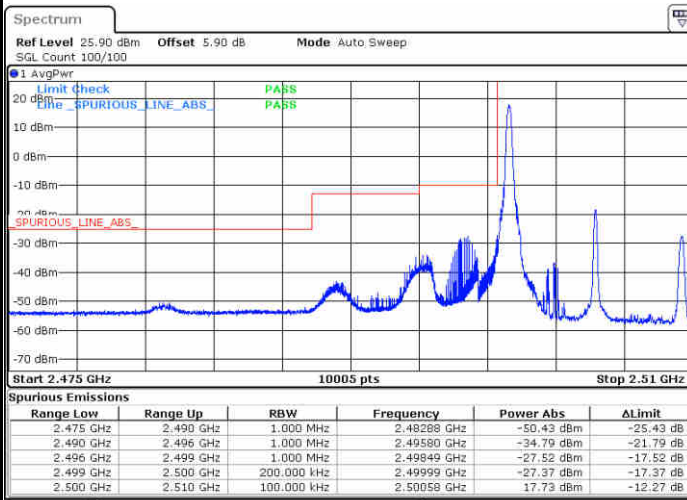


Date: 22.APR.2021 04:36:24



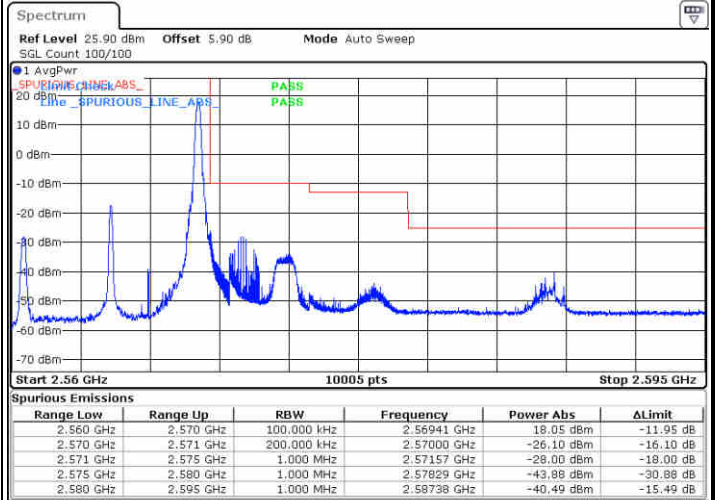
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



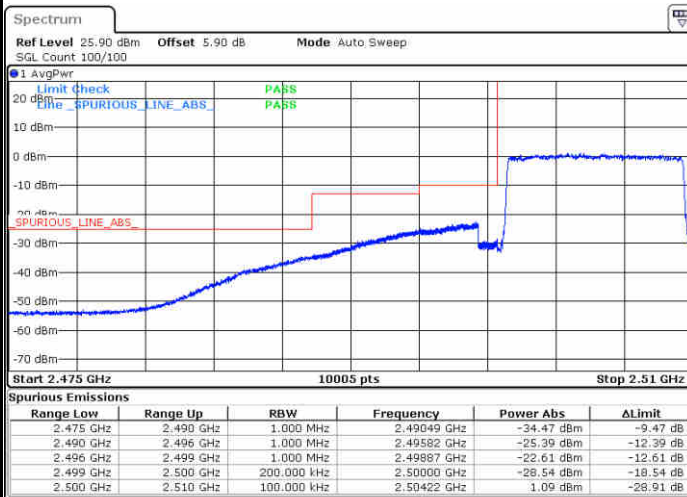
Date: 22.APR.2021 04:31:43

Highest Band Edge / 1 RB



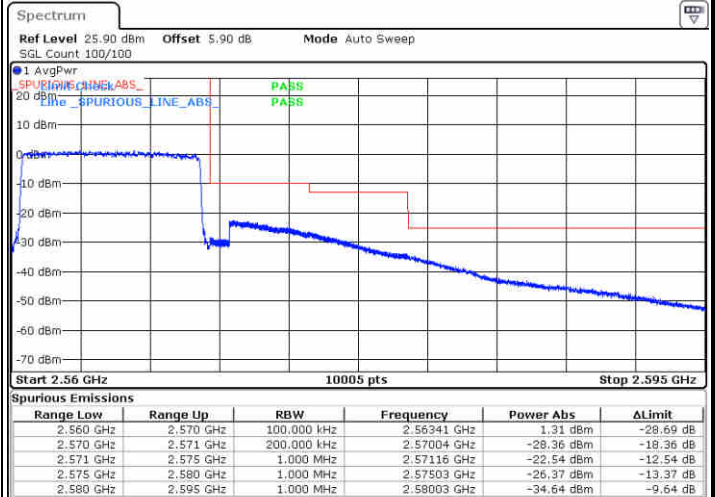
Date: 22.APR.2021 04:35:50

Lowest Band Edge / Full RB



Date: 22.APR.2021 04:31:21

Highest Band Edge / Full RB

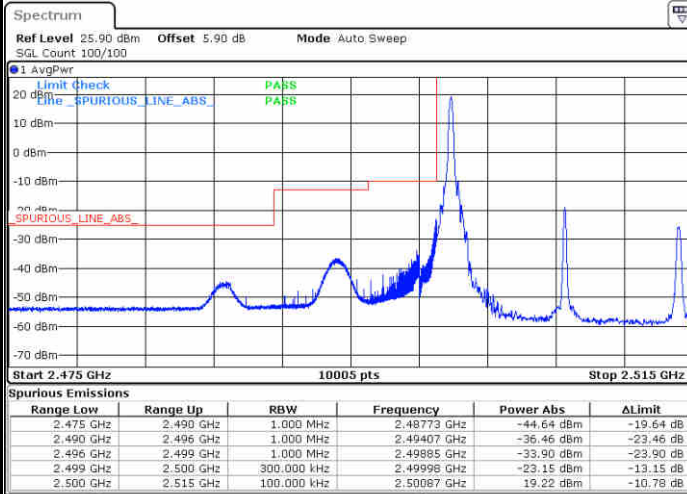


Date: 22.APR.2021 04:36:08



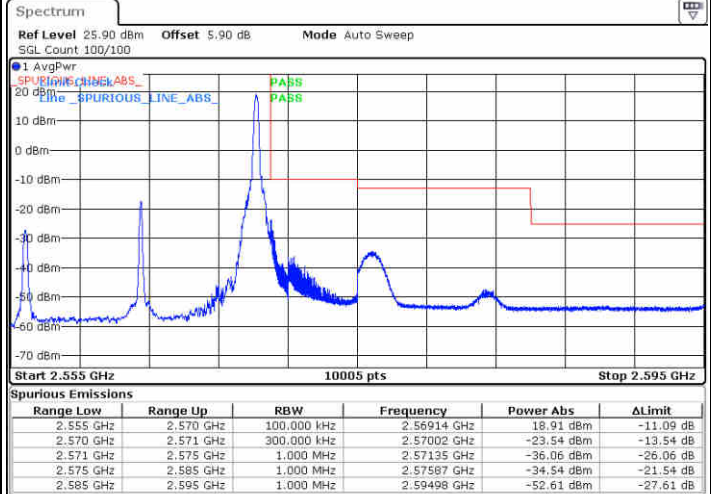
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



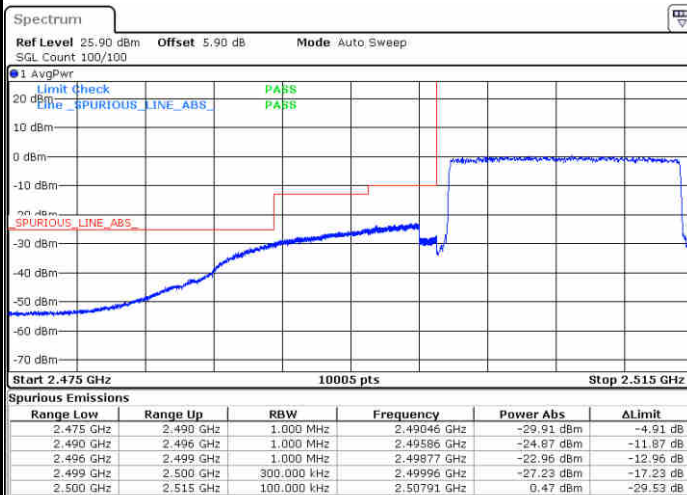
Date: 22.APR.2021 04:37:41

Highest Band Edge / 1 RB



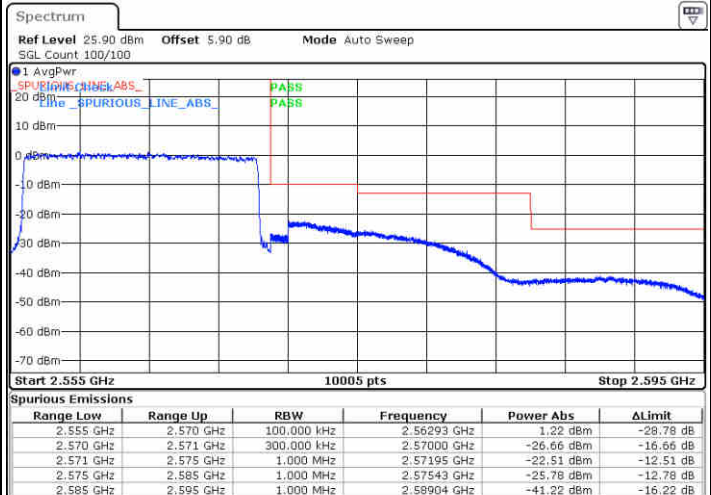
Date: 22.APR.2021 04:41:26

Lowest Band Edge / Full RB



Date: 22.APR.2021 04:39:13

Highest Band Edge / Full RB

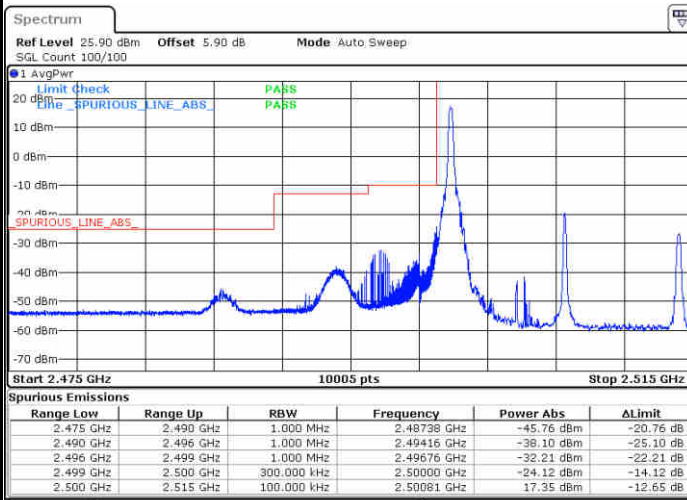


Date: 22.APR.2021 04:42:14



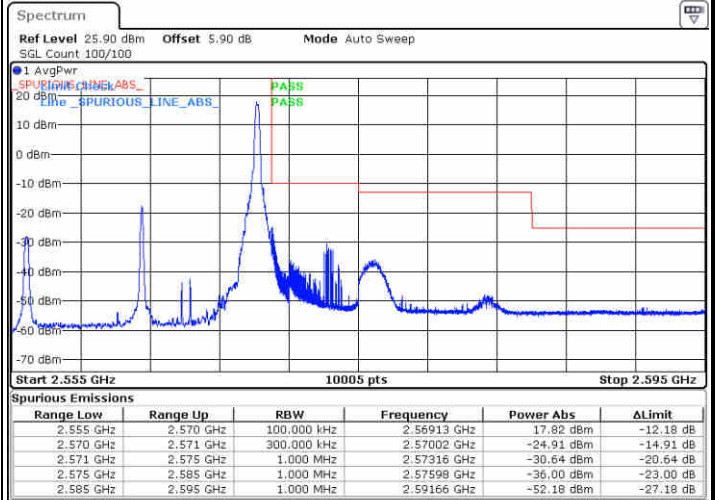
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



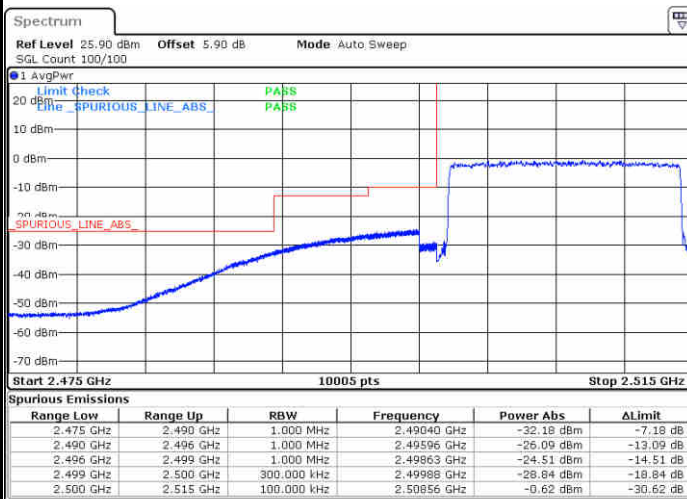
Date: 22.APR.2021 04:38:26

Highest Band Edge / 1 RB



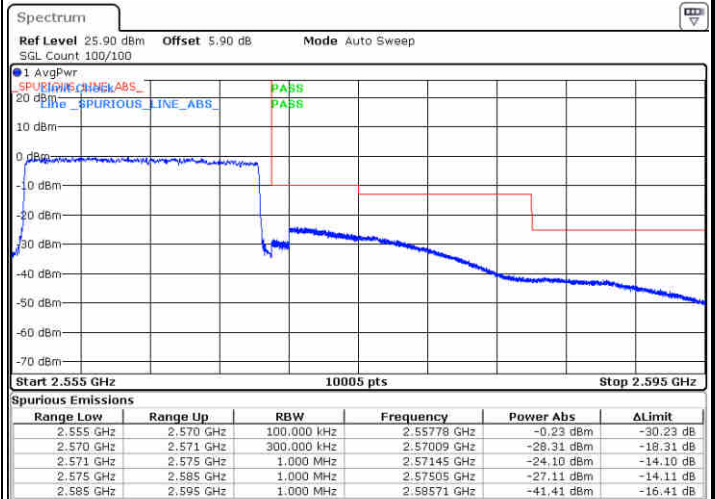
Date: 22.APR.2021 04:41:40

Lowest Band Edge / Full RB



Date: 22.APR.2021 04:38:45

Highest Band Edge / Full RB

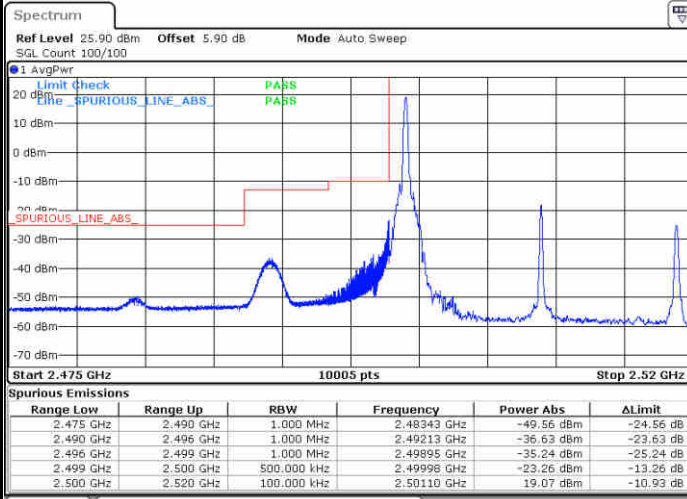


Date: 22.APR.2021 04:41:58



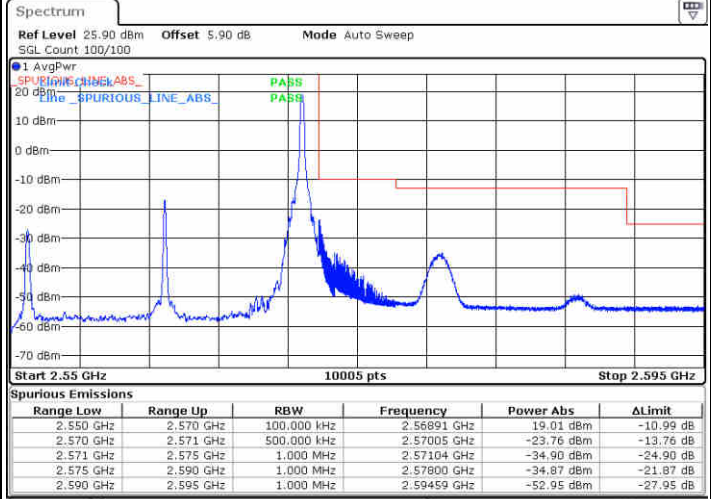
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



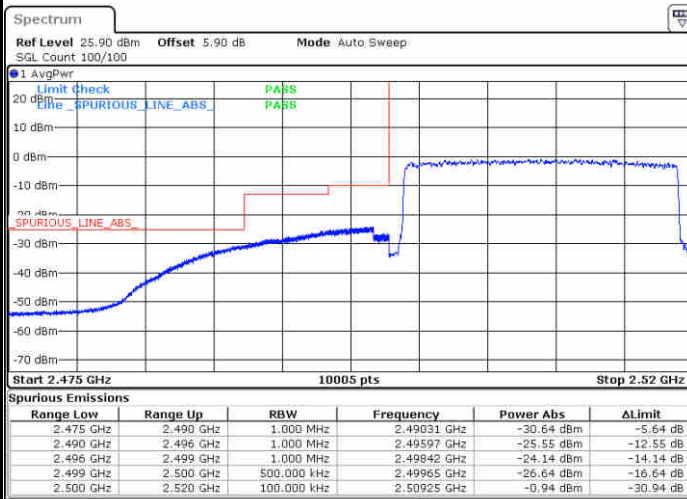
Date: 22.APR.2021 04:43:51

Highest Band Edge / 1 RB



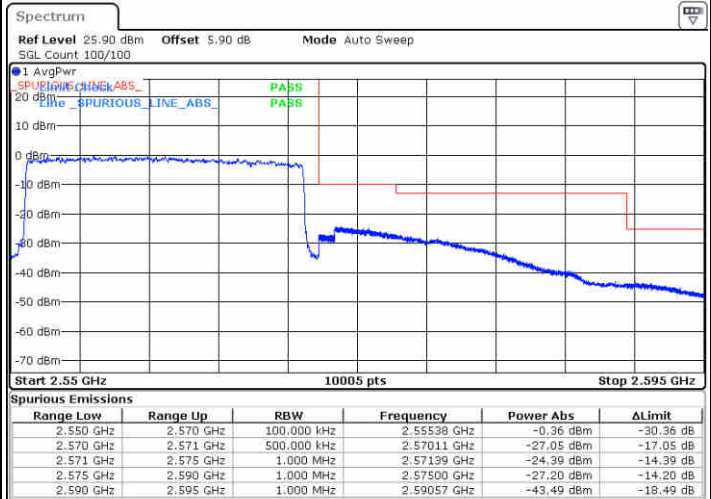
Date: 22.APR.2021 04:48:29

Lowest Band Edge / Full RB



Date: 22.APR.2021 04:45:04

Highest Band Edge / Full RB



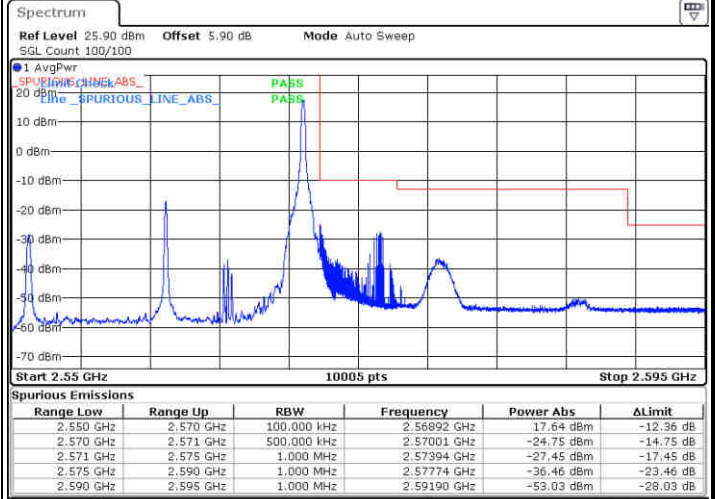
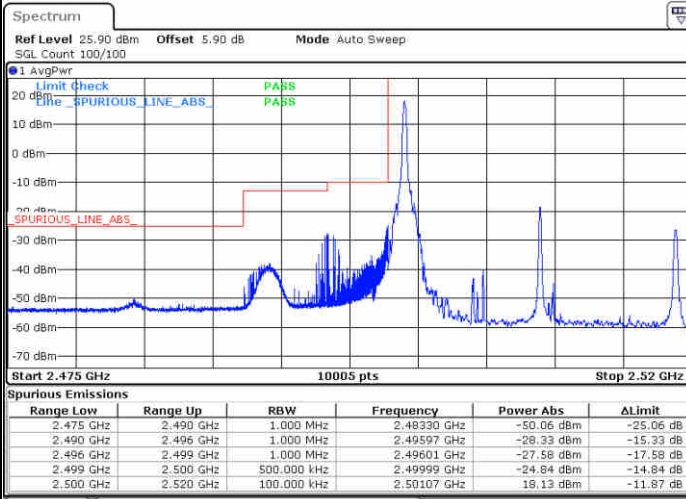
Date: 22.APR.2021 04:49:35



LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

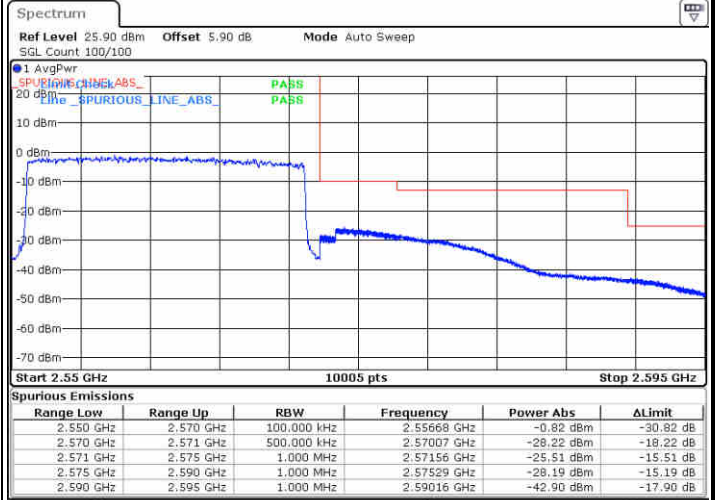
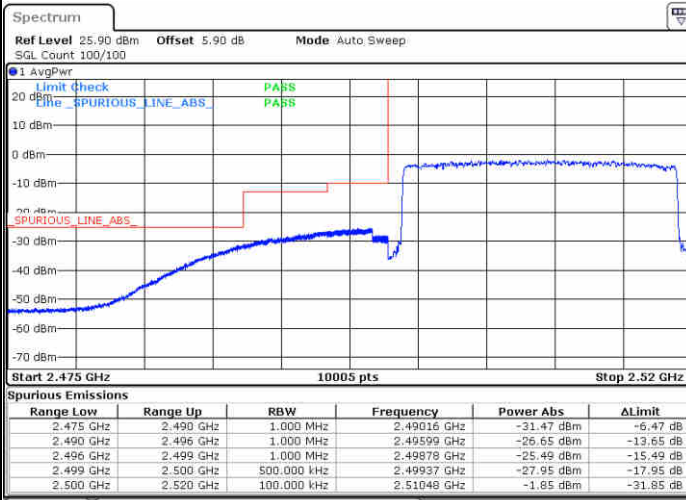


Date: 22.APR.2021 04:44:29

Date: 22.APR.2021 04:49:01

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

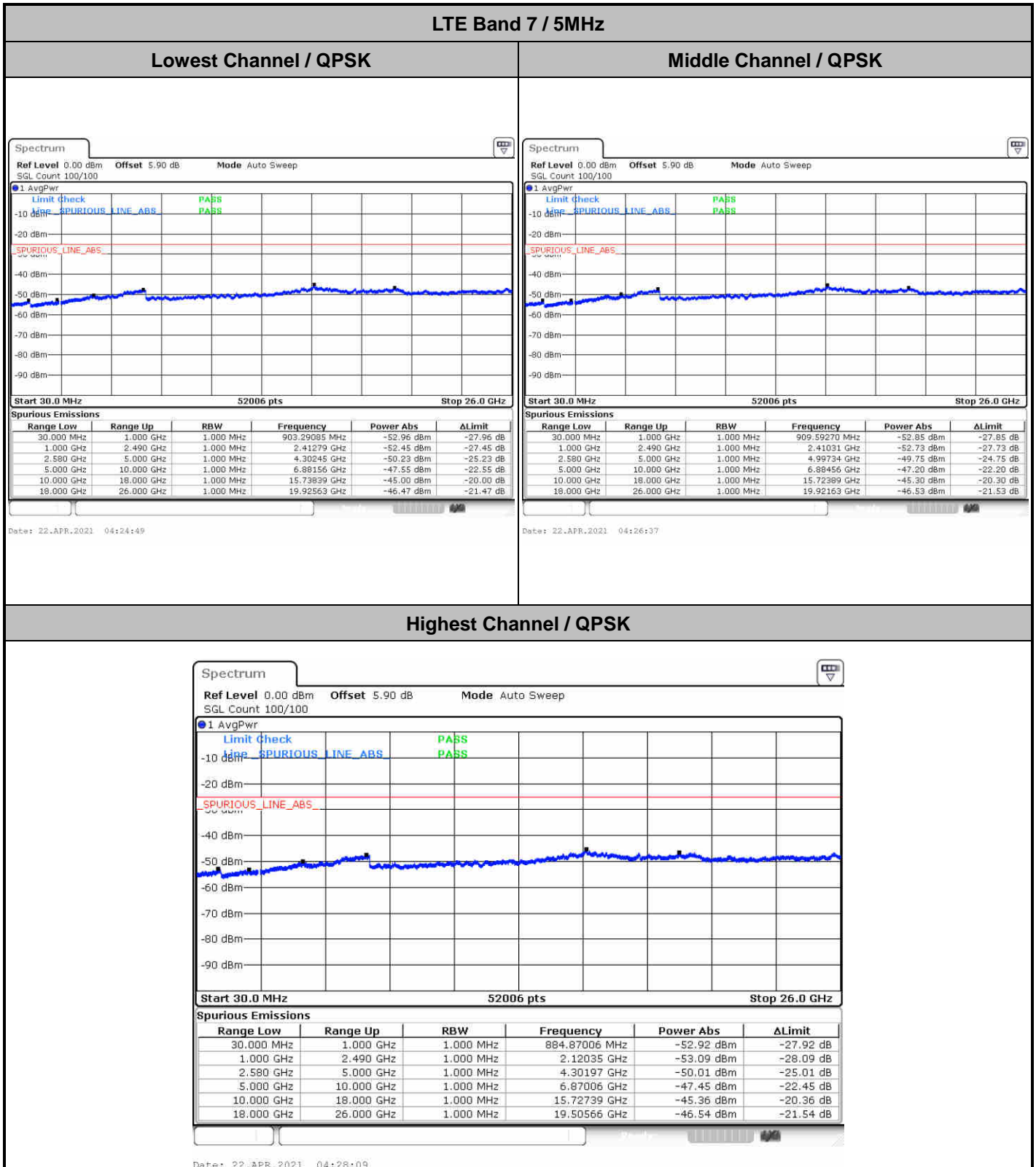


Date: 22.APR.2021 04:44:49

Date: 22.APR.2021 04:49:18



Conducted Spurious Emission

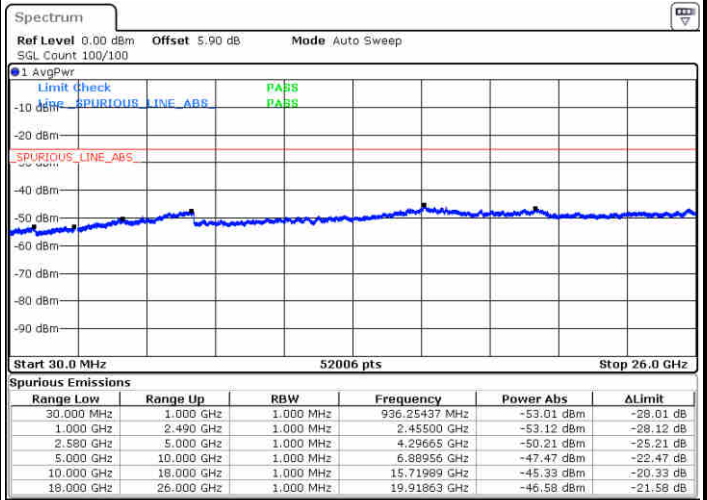
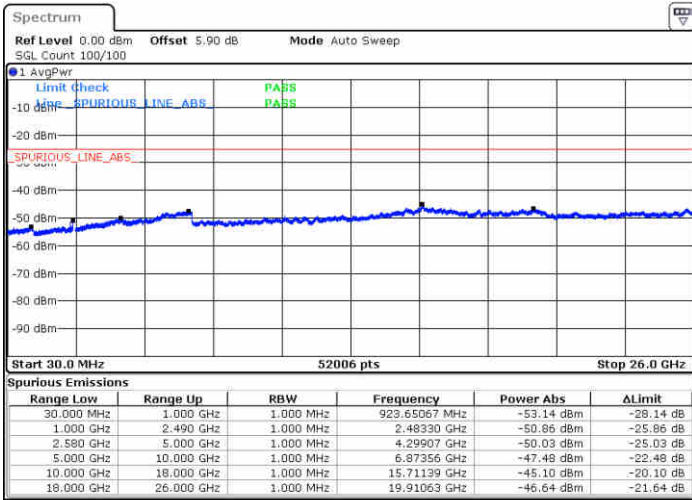




LTE Band 7 / 10MHz

Lowest Channel / QPSK

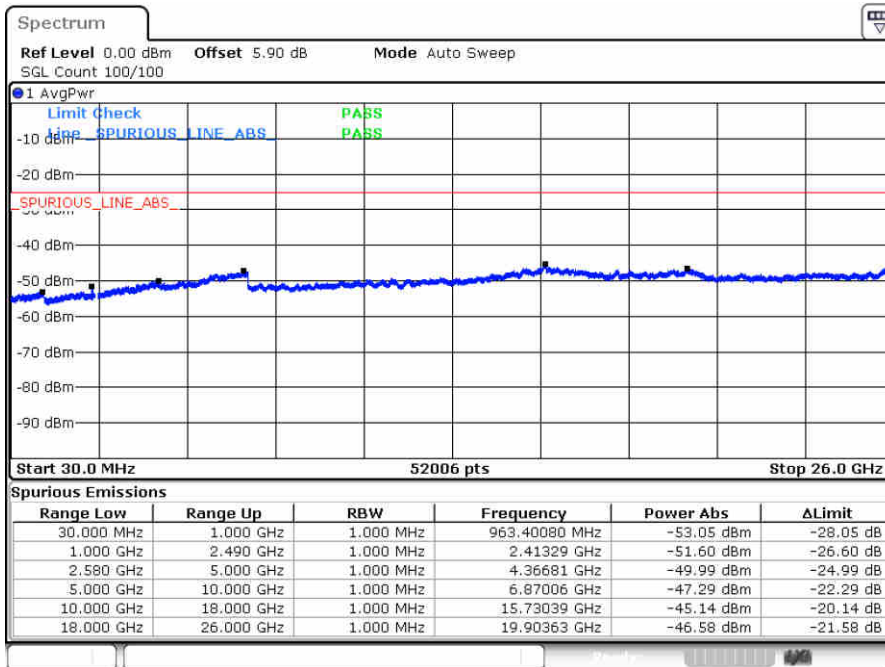
Middle Channel / QPSK



Date: 22.APR.2021 04:33:24

Date: 22.APR.2021 04:34:19

Highest Channel / QPSK



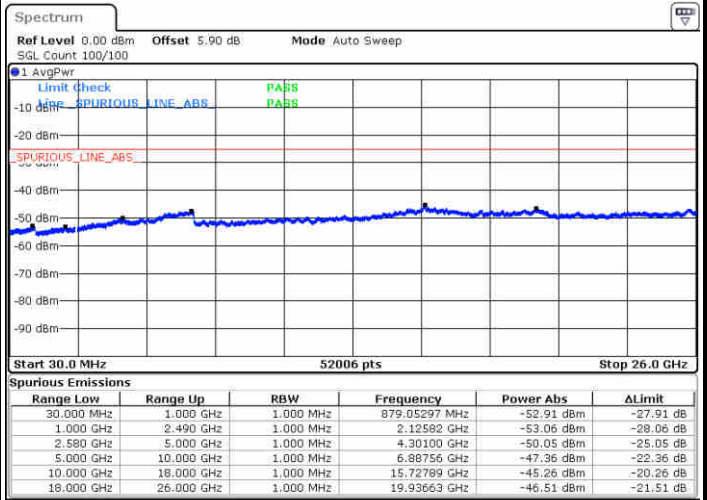
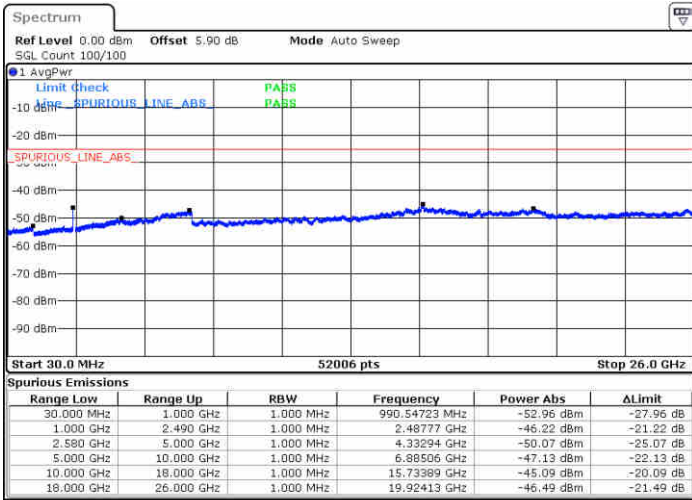
Date: 22.APR.2021 04:35:17



LTE Band 7 / 15MHz

Lowest Channel / QPSK

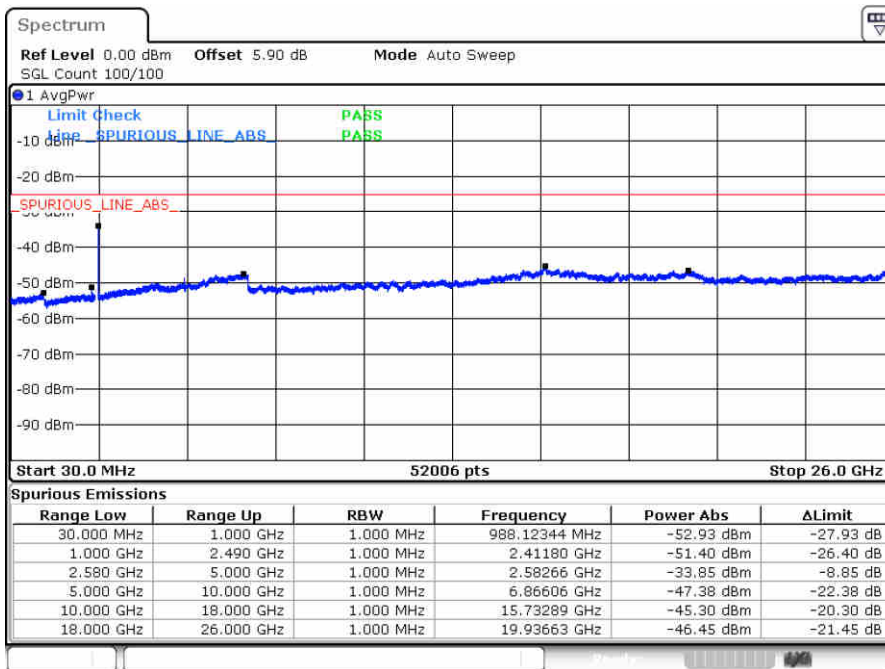
Middle Channel / QPSK



Date: 22.APR.2021 04:37:21

Date: 22.APR.2021 04:40:10

Highest Channel / QPSK

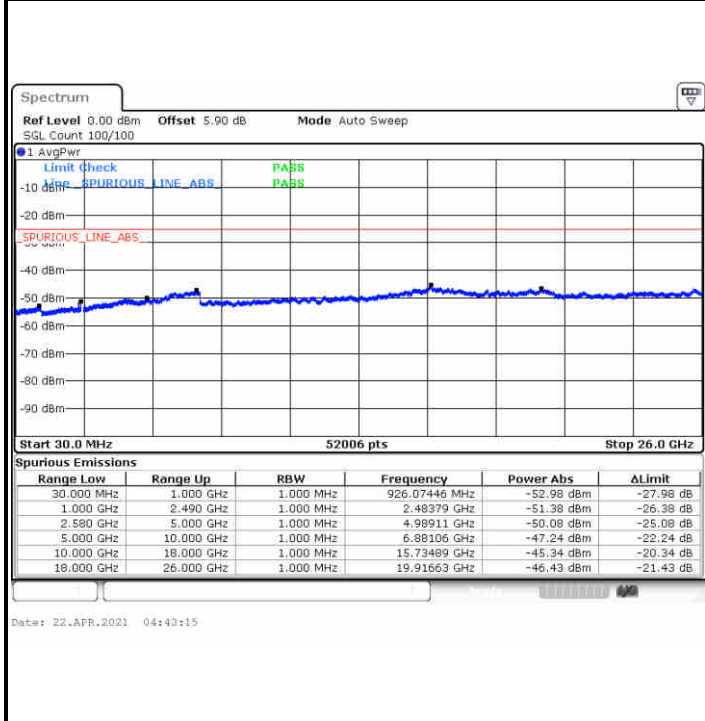


Date: 22.APR.2021 04:41:03

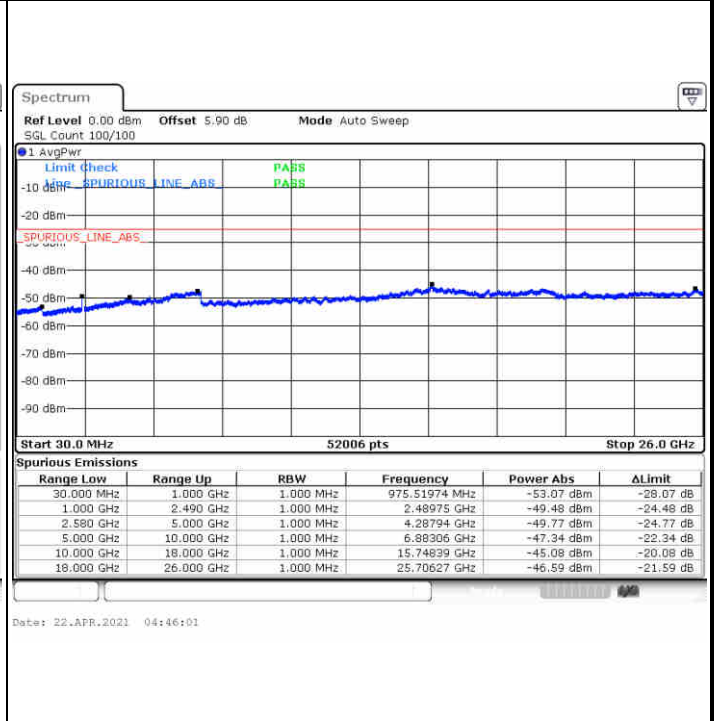


LTE Band 7 / 20MHz

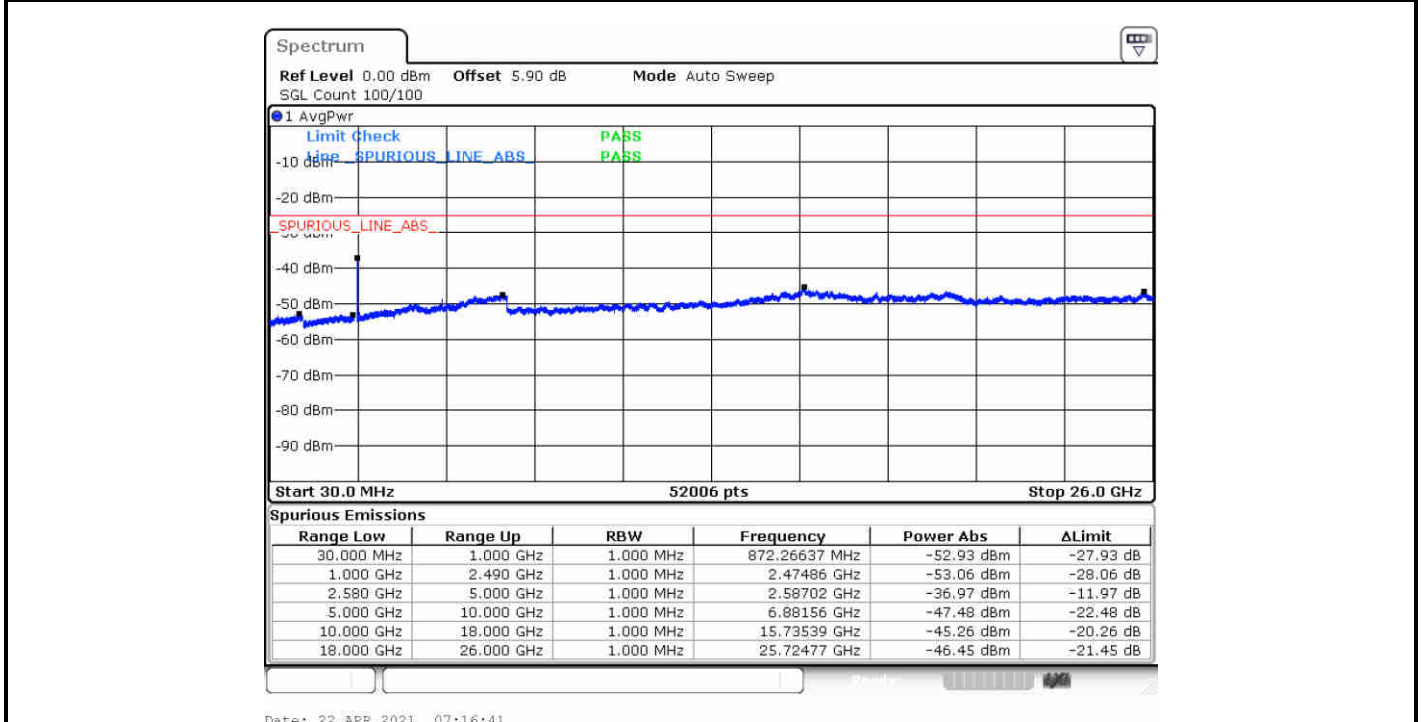
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0016	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.00001	
10	Normal Voltage	0.0000	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0031	
-20	Normal Voltage	0.0041	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 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 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	-34.50	-13	-21.50	-45.24	2.604	13.34	H
	5169	-48.38	-13	-35.38	-58.89	3.011	13.52	H
	6900	-53.43	-13	-40.43	-63.63	3.271	13.47	H
	3447	-43.25	-13	-30.25	-53.99	2.604	13.34	V
	5169	-47.26	-13	-34.26	-57.77	3.011	13.52	V
	6888	-50.55	-13	-37.55	-60.75	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	-52.04	-13	-39.04	-59.01	1.58	10.70	H
	2496	-55.79	-13	-42.79	-64.04	2.10	12.50	H
	3330	-60.43	-13	-47.43	-69.32	2.86	13.90	H
	4158	-58.91	-13	-45.91	-67.37	2.69	13.30	H
	4992	-51.98	-13	-38.98	-59.74	3.09	13.00	H
	5826	-53.48	-13	-40.48	-62.25	3.18	14.10	H
	1664	-60.03	-13	-47.03	-67.00	1.58	10.70	V
	2496	-57.56	-13	-44.56	-65.81	2.10	12.50	V
	3330	-60.62	-13	-47.62	-69.51	2.86	13.90	V
	4158	-58.36	-13	-45.36	-66.82	2.69	13.30	V
	4992	-47.32	-13	-34.32	-55.08	3.09	13.00	V
	5826	-50.49	-13	-37.49	-59.26	3.18	14.10	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	-46.94	-25	-21.94	-57.15	3.03	13.24	H
	7580	-40.55	-25	-15.55	-50.00	3.56	13.01	H
	10100	-55.31	-25	-30.31	-64.83	3.92	13.44	H
	12630	-52.19	-25	-27.19	-62.11	4.44	14.36	H
	5052	-47.76	-25	-22.76	-57.97	3.03	13.24	V
	7580	-40.42	-25	-15.42	-49.87	3.56	13.01	V
	10100	-50.57	-25	-25.57	-60.09	3.92	13.44	V
	12630	-57.19	-25	-32.19	-67.11	4.44	14.36	V

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