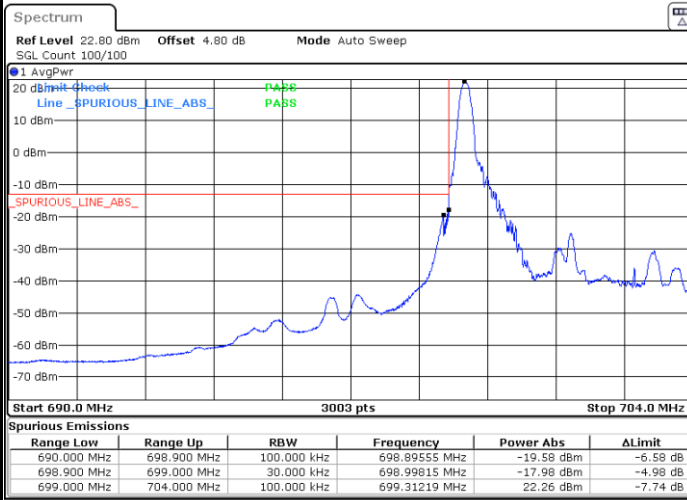




LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



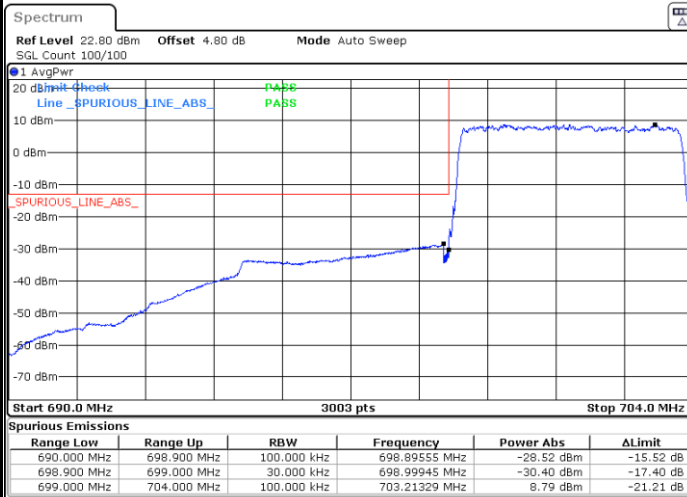
Date: 5.JAN.2022 07:27:08

Highest Band Edge / 1 RB



Date: 5.JAN.2022 07:39:30

Lowest Band Edge / Full RB



Date: 5.JAN.2022 07:23:14

Highest Band Edge / Full RB

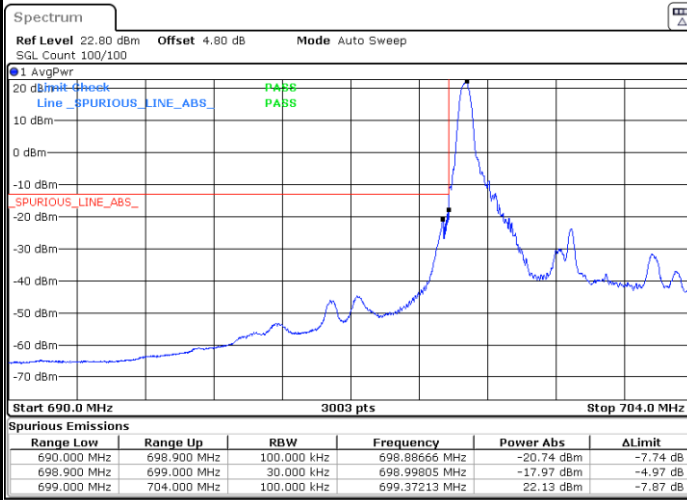


Date: 5.JAN.2022 07:35:18



LTE Band 12 / 5MHz / 16QAM

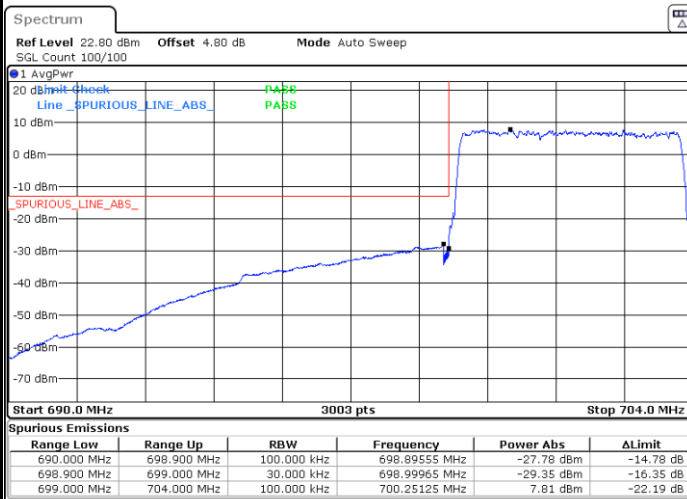
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



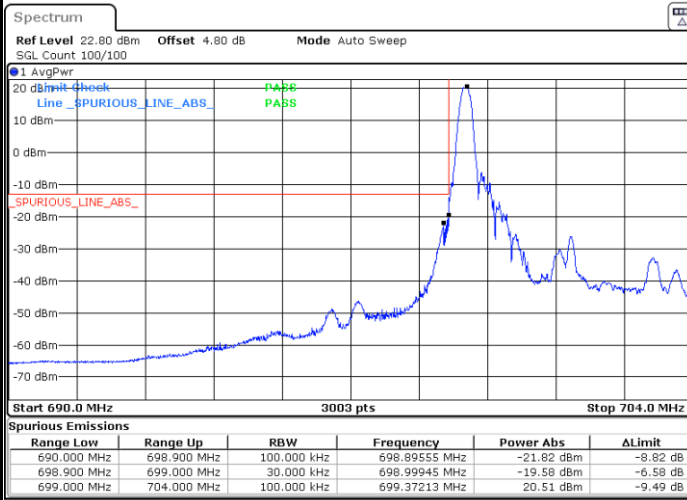
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



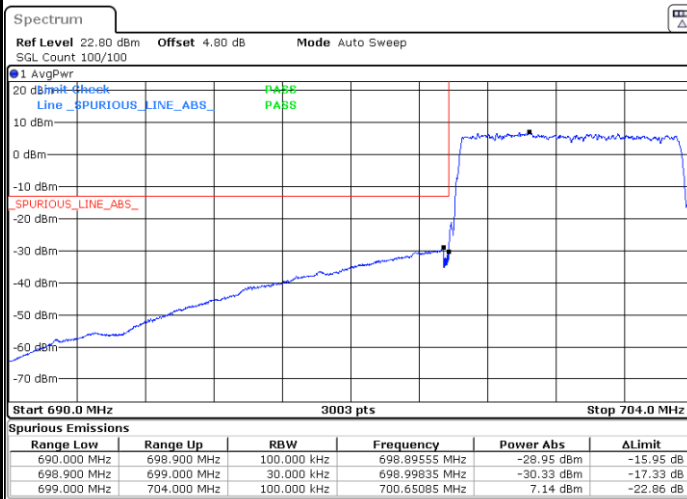
Date: 5.JAN.2022 07:25:59

Highest Band Edge / 1 RB



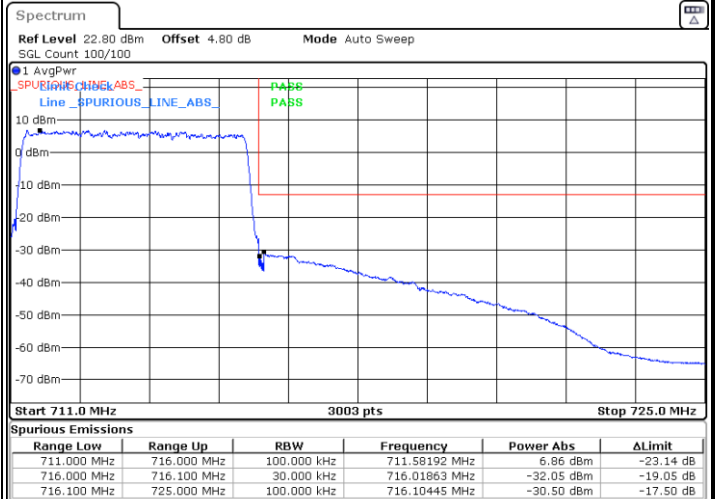
Date: 5.JAN.2022 07:38:21

Lowest Band Edge / Full RB



Date: 5.JAN.2022 07:24:53

Highest Band Edge / Full RB

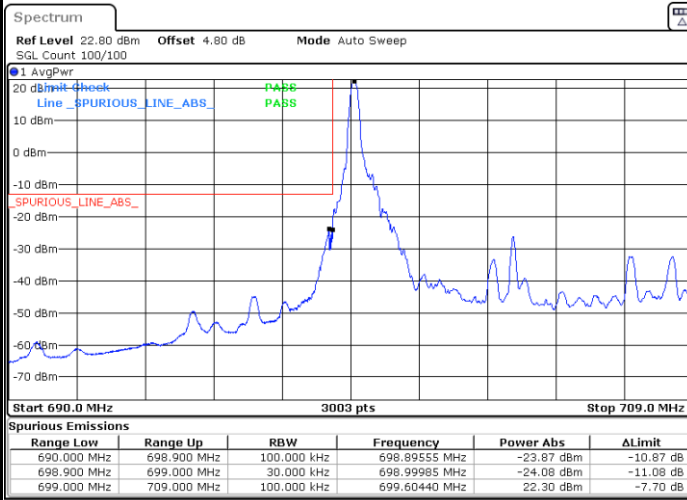


Date: 5.JAN.2022 07:37:18



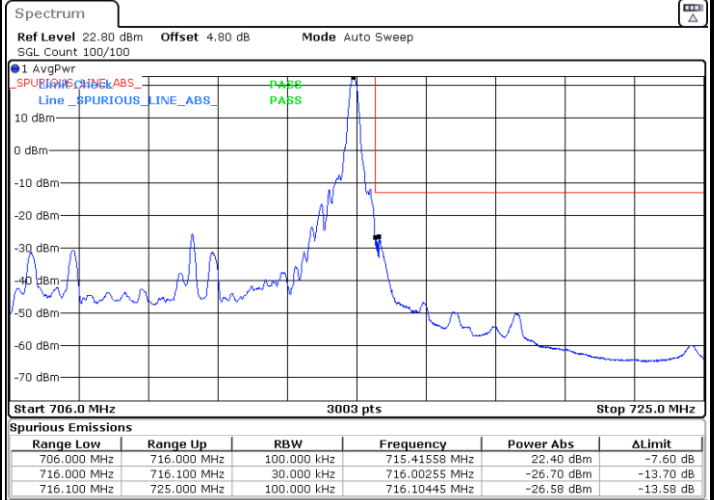
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



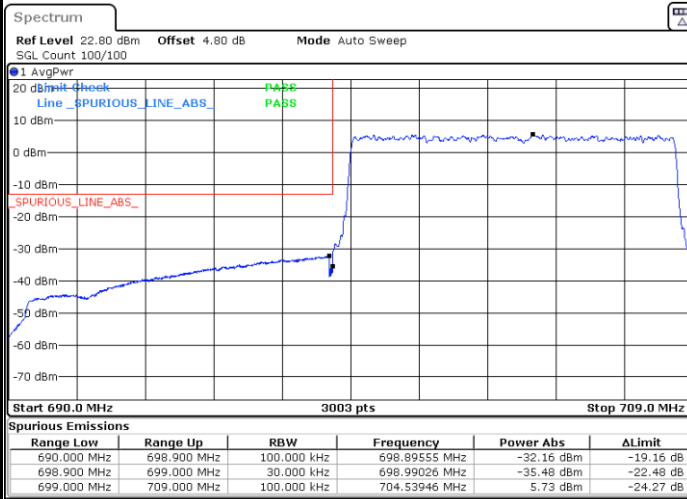
Date: 5.JAN.2022 07:44:18

Highest Band Edge / 1 RB



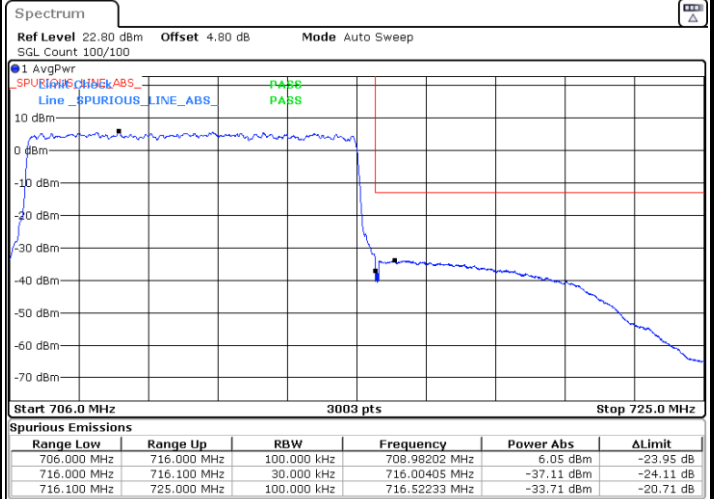
Date: 5.JAN.2022 07:50:39

Lowest Band Edge / Full RB



Date: 5.JAN.2022 07:40:49

Highest Band Edge / Full RB

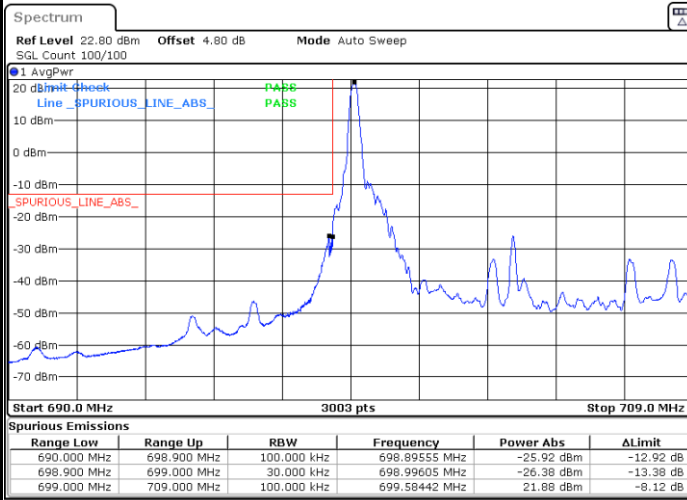


Date: 5.JAN.2022 07:46:33



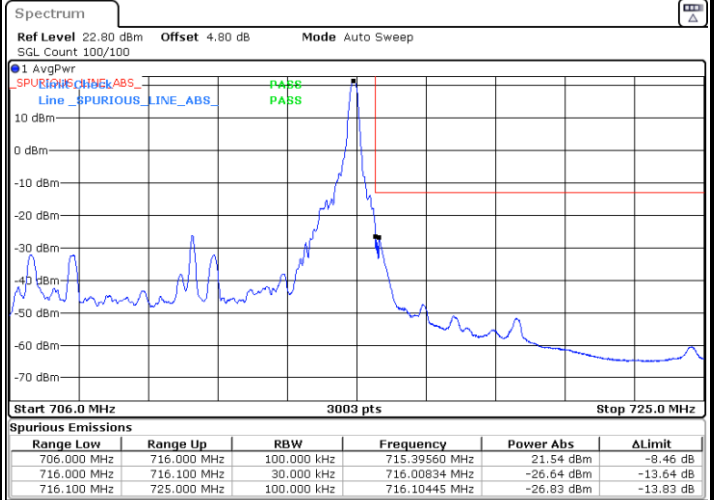
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



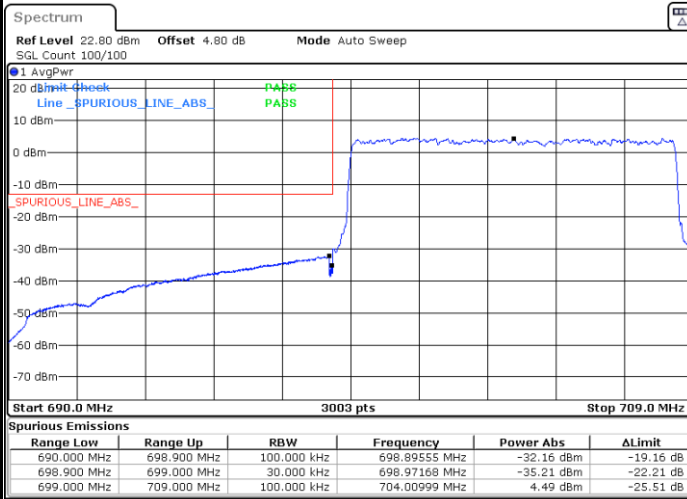
Date: 5.JAN.2022 07:43:31

Highest Band Edge / 1 RB



Date: 5.JAN.2022 07:50:02

Lowest Band Edge / Full RB



Date: 5.JAN.2022 07:41:30

Highest Band Edge / Full RB

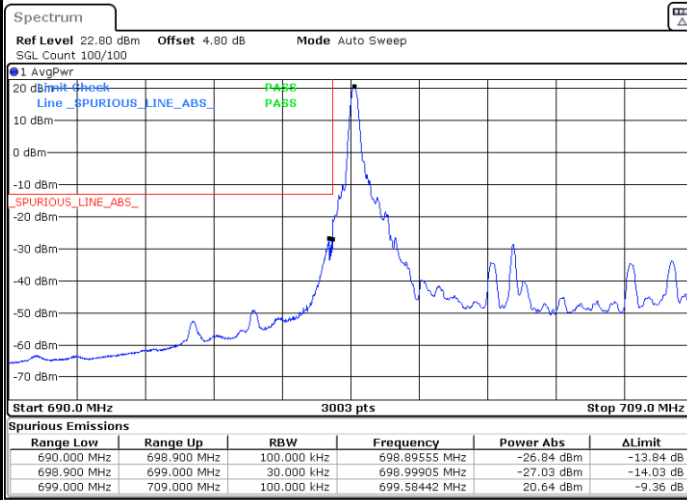


Date: 5.JAN.2022 07:47:08



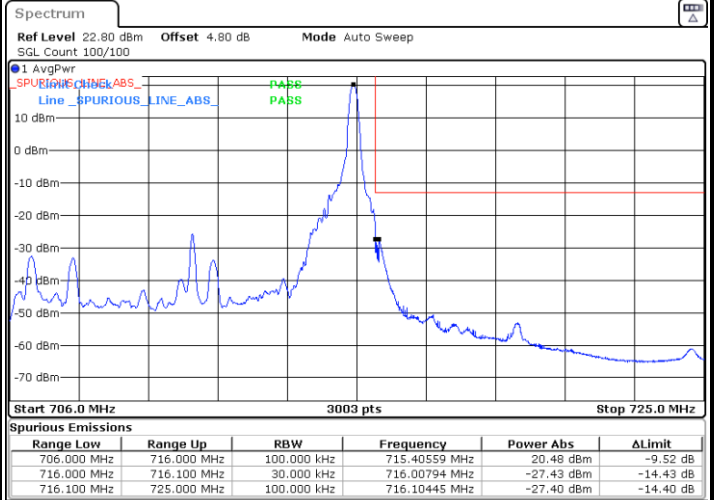
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



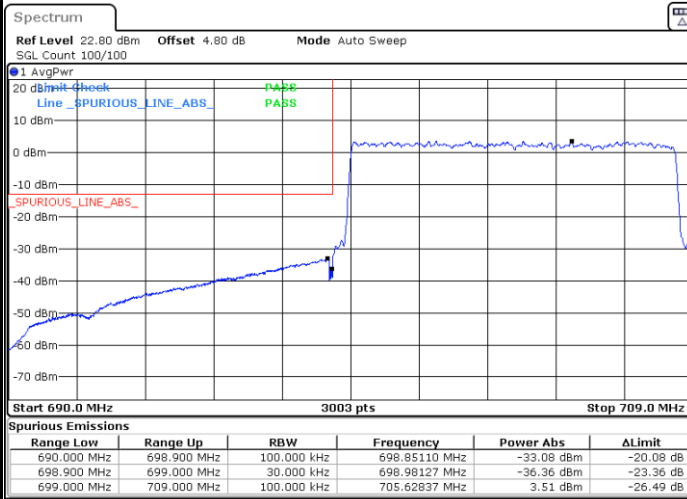
Date: 5.JAN.2022 07:42:44

Highest Band Edge / 1 RB



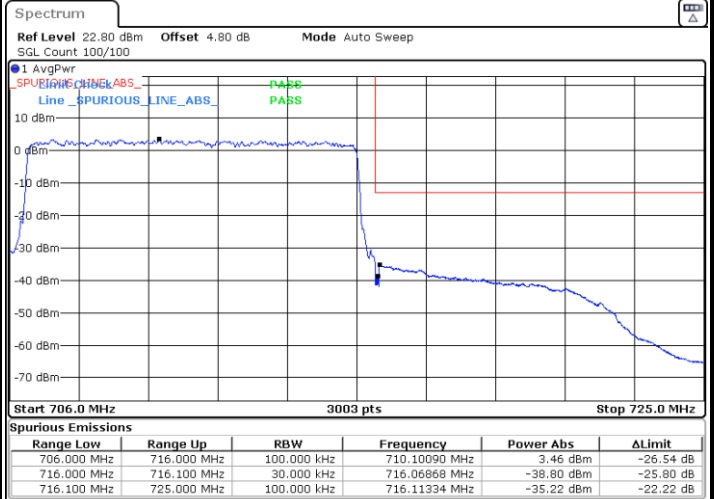
Date: 5.JAN.2022 07:49:24

Lowest Band Edge / Full RB



Date: 5.JAN.2022 07:42:03

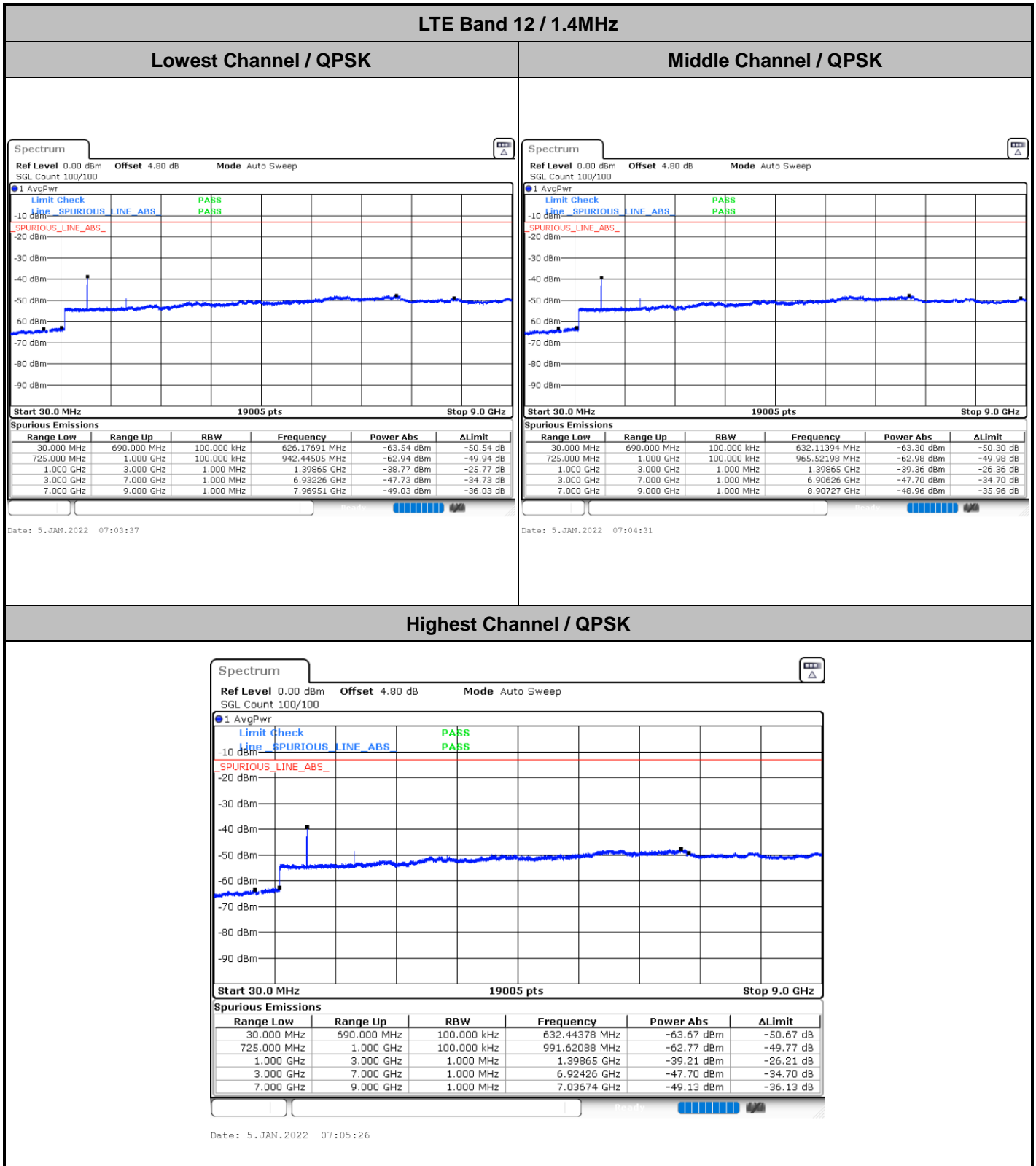
Highest Band Edge / Full RB



Date: 5.JAN.2022 07:48:28



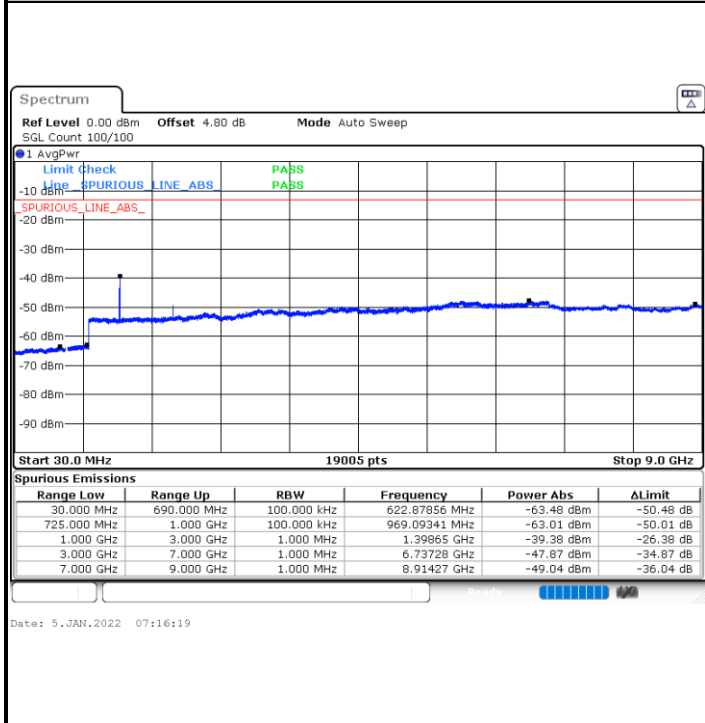
Conducted Spurious Emission



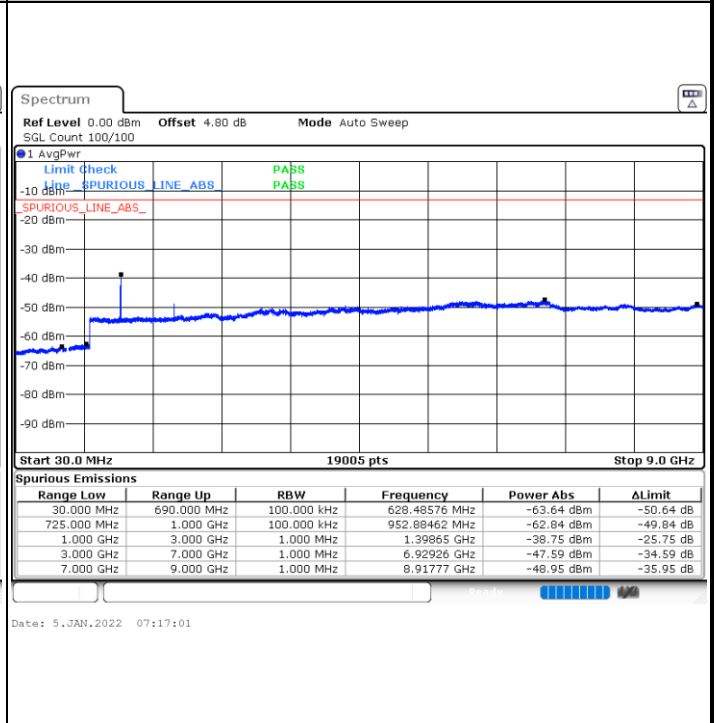


LTE Band 12 / 3MHz

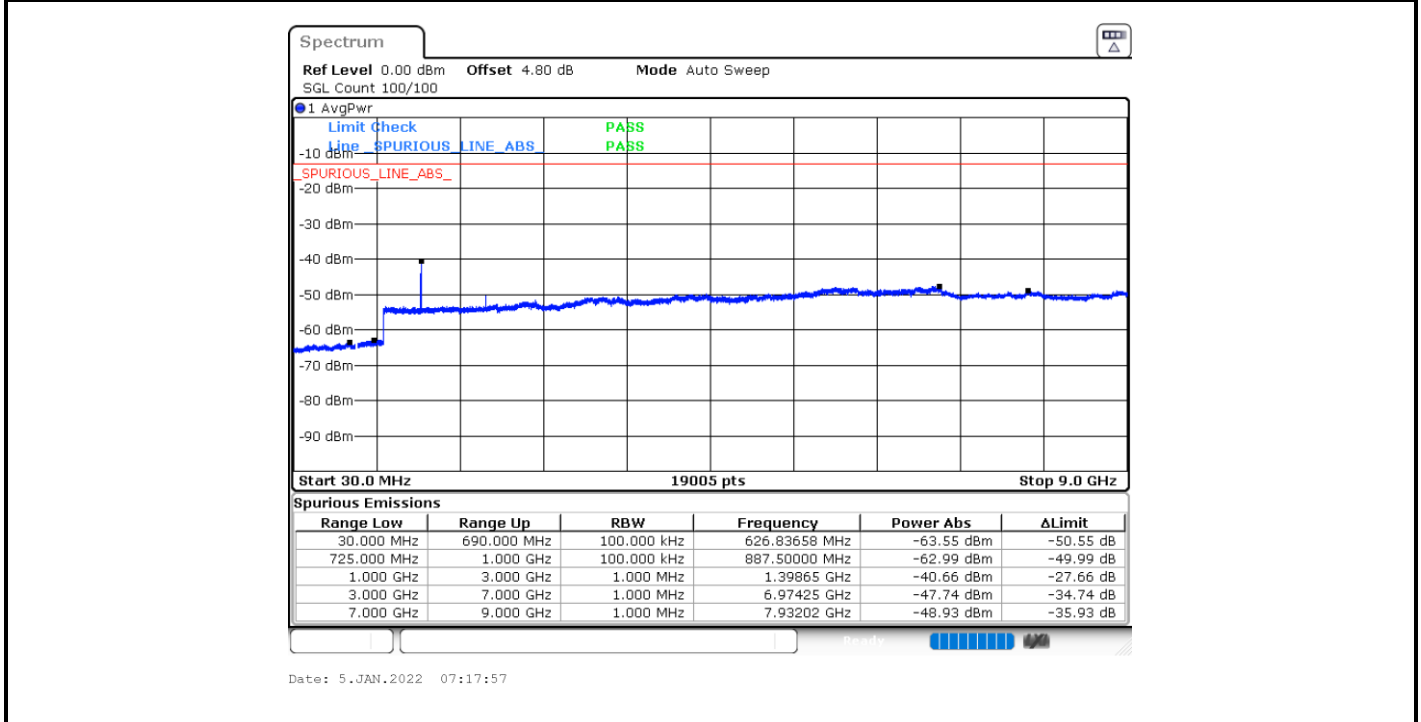
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK

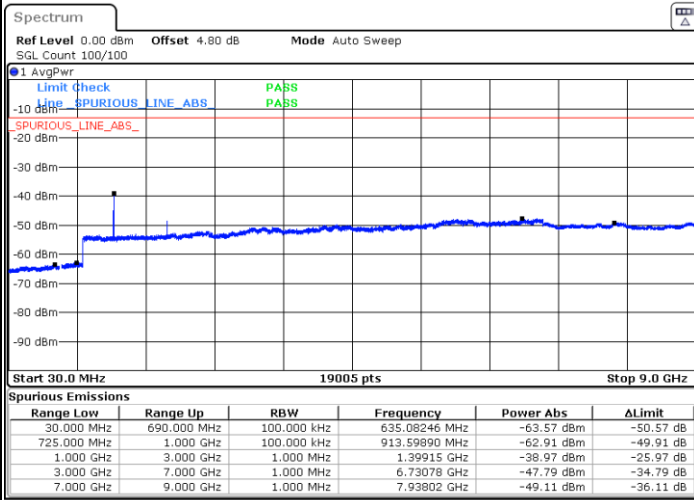




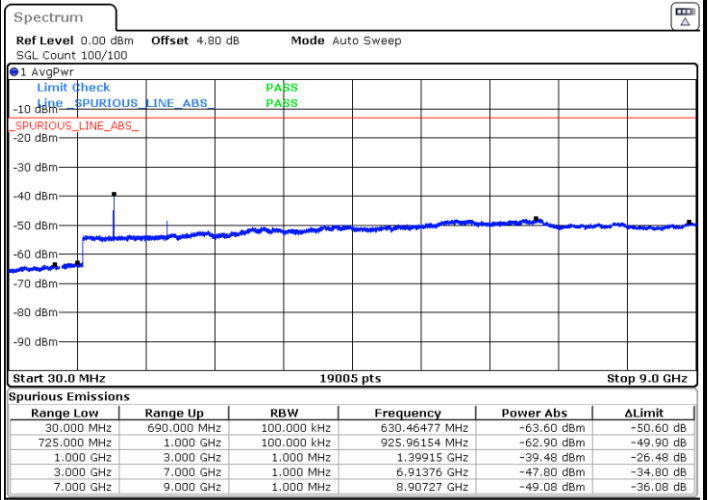
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Middle Channel / QPSK

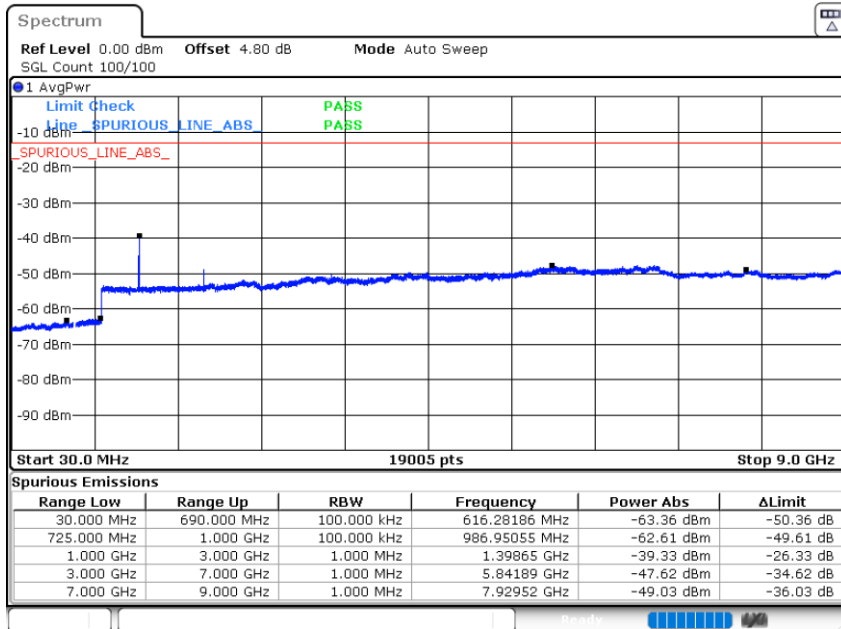


Date: 5.JAN.2022 07:27:47



Date: 5.JAN.2022 07:28:15

Highest Channel / QPSK

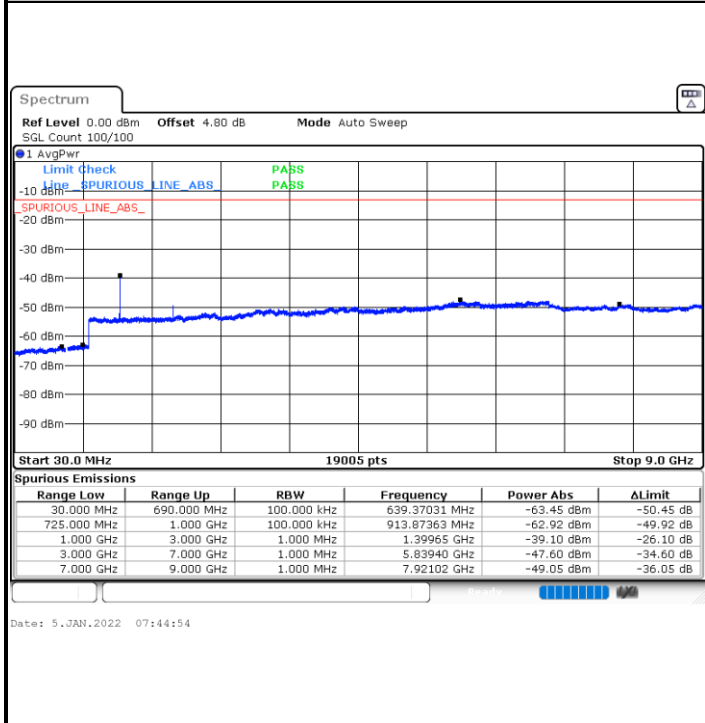


Date: 5.JAN.2022 07:29:12

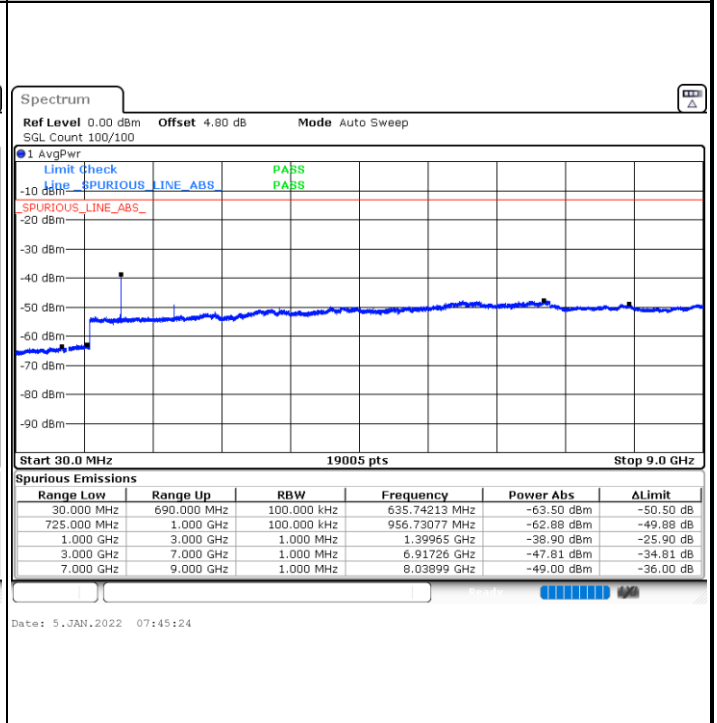


LTE Band 12 / 10MHz

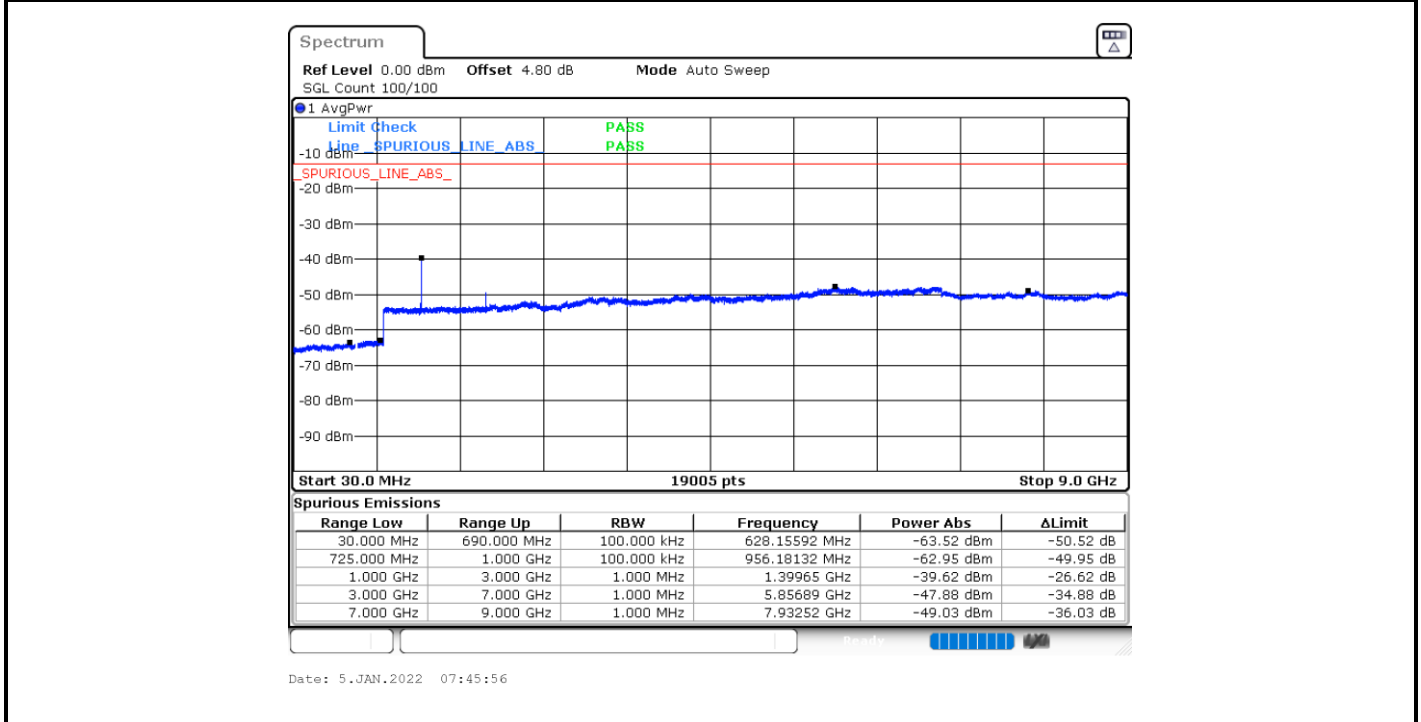
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	.0.0009	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0017	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0004	

Note:

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



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Levi Zhuo	Temperature :	22~23°C
		Relative Humidity :	41~42%

Note: Pre-scanned harmonic for the different antenna, we choose the worst antenna mode to test.

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	-56.89	-13	-43.89	-69.15	2.64	14.90	H
	5613	-41.79	-13	-28.79	-53.65	2.94	14.80	H
	7488	-50.34	-13	-37.34	-60.11	3.39	13.16	H
	3741	-55.56	-13	-42.56	-67.82	2.64	14.90	V
	5613	-46.51	-13	-33.51	-58.37	2.94	14.80	V
	7488	-46.40	-13	-33.40	-56.17	3.39	13.16	V

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

LTE Band 5 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-61.28	-13	-48.28	-68.25	1.58	10.70	H
	2496	-50.56	-13	-37.56	-58.81	2.102	12.50	H
	3328	-60.20	-13	-47.20	-69.09	2.856	13.90	H
	1664	-63.07	-13	-50.07	-70.04	1.58	10.70	V
	2496	-51.03	-13	-38.03	-59.28	2.10	12.50	V
	3328	-60.67	-13	-47.67	-69.56	2.86	13.90	V

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



LTE Band 12 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1406	-67.21	-13	-54.21	-74.18	1.58	10.70	H
	2108	-58.86	-13	-45.86	-67.11	2.102	12.50	H
	2812	-59.82	-13	-46.82	-68.71	2.856	13.90	H
	3516	-59.44	-13	-46.44	-67.90	2.689	13.30	H
	1406	-66.59	-13	-53.59	-73.56	1.58	10.70	V
	2108	-56.37	-13	-43.37	-64.62	2.10	12.50	V
	2812	-59.38	-13	-46.38	-68.27	2.86	13.90	V
	3516	-59.94	-13	-46.94	-68.40	2.69	13.30	V

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

LTE Band 13 / 5MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1560	-65.81	-42.15	-23.66	-68.44	1.09	5.87	H
	2336	-37.38	-13	-24.38	-39.78	1.37	5.92	H
	3120	-59.62	-13	-46.62	-63.51	1.64	7.68	H
	1560	-65.42	-42.15	-23.27	-68.05	1.09	5.87	V
	2336	-42.58	-13	-29.58	-44.98	1.37	5.92	V
	3120	-59.65	-13	-46.65	-63.54	1.64	7.68	V

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

LTE Band 13 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1552	-66.23	-13	-53.23	-68.86	1.09	5.87	H
	2336	-49.85	-13	-36.85	-52.25	1.37	5.92	H
	3112	-59.60	-13	-46.60	-63.49	1.64	7.68	H
	1552	-65.77	-13	-52.77	-68.40	1.09	5.87	V
	2336	-56.86	-13	-43.86	-59.26	1.37	5.92	V
	3112	-59.43	-13	-46.43	-63.32	1.64	7.68	V

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



LTE Band 26 / 15MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1648	-60.43	-13	-47.43	-67.40	1.58	10.70	H
	2472	-48.65	-13	-35.65	-56.90	2.102	12.50	H
	3296	-59.62	-13	-46.62	-68.51	2.856	13.90	H
	1648	-58.82	-13	-45.82	-65.79	1.58	10.70	V
	2472	-46.54	-13	-33.54	-54.79	2.10	12.50	V
	3296	-60.19	-13	-47.19	-69.08	2.86	13.90	V

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

LTE Band 66 / 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	3471	-58.16	-13	-45.16	-68.90	2.604	13.34	H
	5208	-55.44	-13	-42.44	-65.95	3.011	13.52	H
	6948	-54.55	-13	-41.55	-64.75	3.271	13.47	H
	3471	-58.53	-13	-45.53	-69.27	2.604	13.34	V
	5208	-54.98	-13	-41.98	-65.49	3.011	13.52	V
	6948	-54.54	-13	-41.54	-64.74	3.271	13.47	V

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



Appendix D. Reference Report

Please refer to Sporton report number FG180507B which is issued separately.