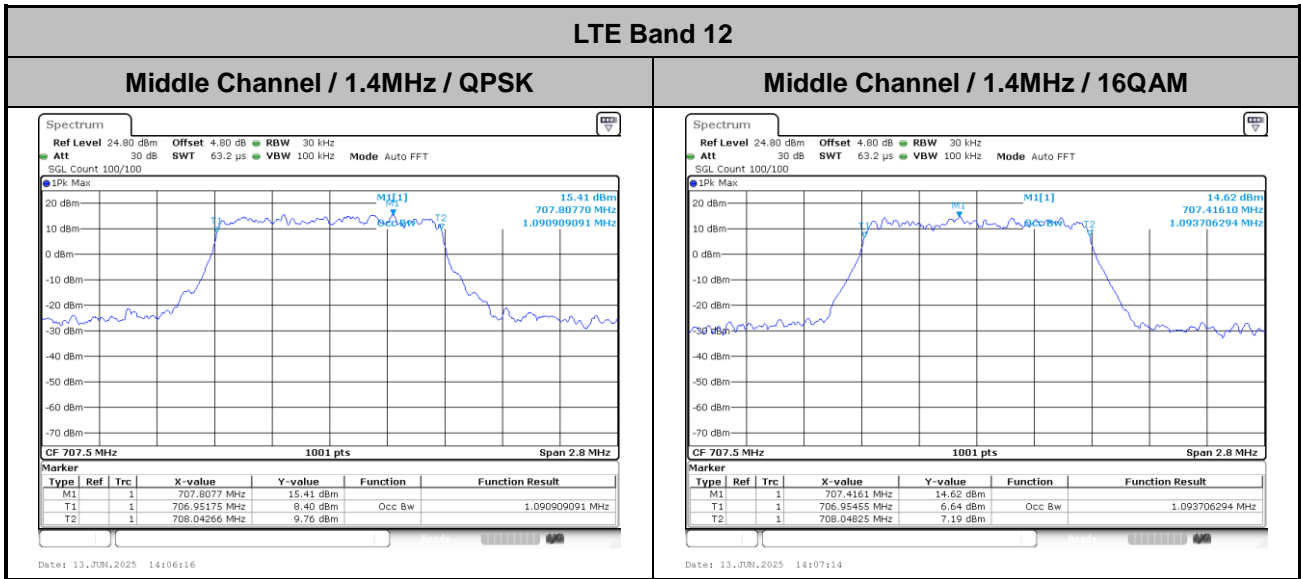




Occupied Bandwidth

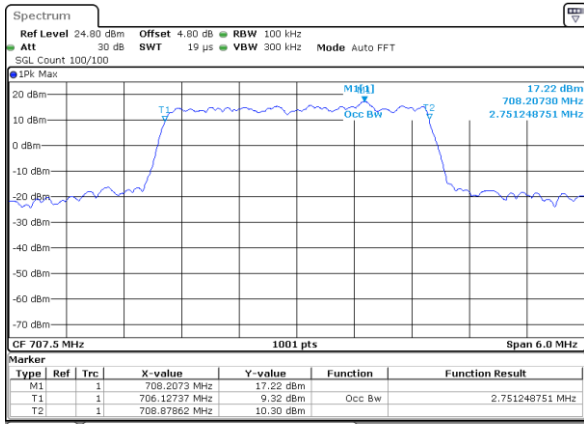
Mode	LTE Band 12 : 99%OBW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.09	1.09
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.75	2.72
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.49	4.50
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.13	5.11





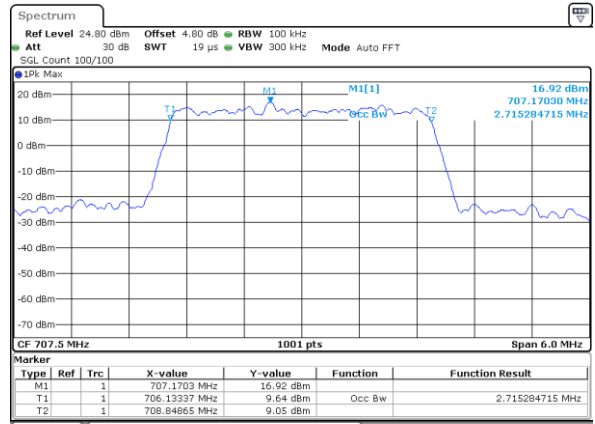
LTE Band 12

Middle Channel / 3MHz / QPSK



Date: 13 JUN 2025 14:49:22

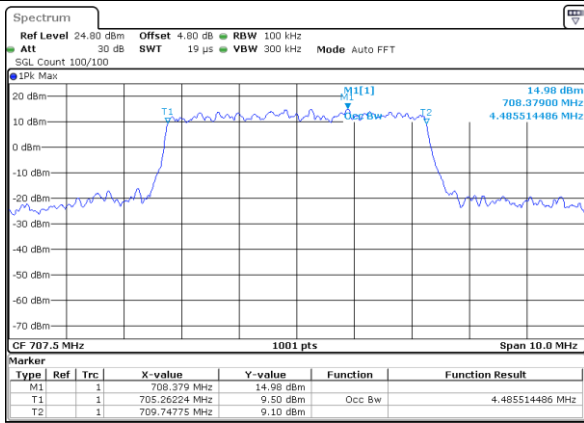
Middle Channel / 3MHz / 16QAM



Date: 13 JUN 2025 14:50:08

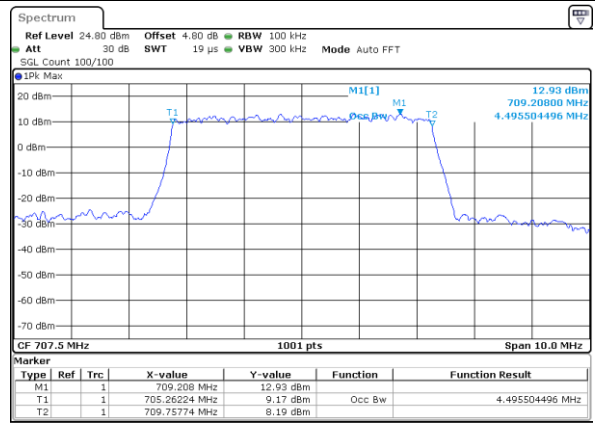
LTE Band 12

Middle Channel / 5MHz / QPSK



Date: 13 JUN 2025 15:04:11

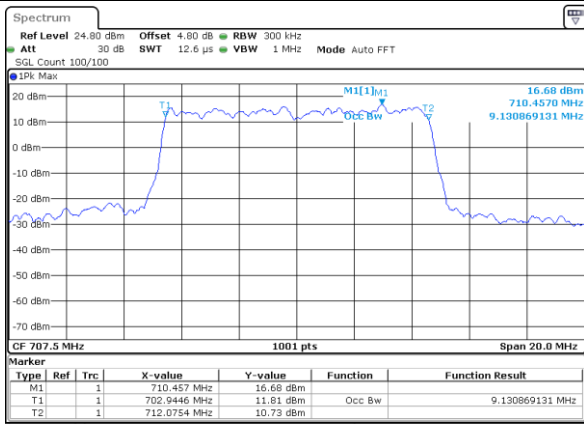
Middle Channel / 5MHz / 16QAM



Date: 13 JUN 2025 15:04:59

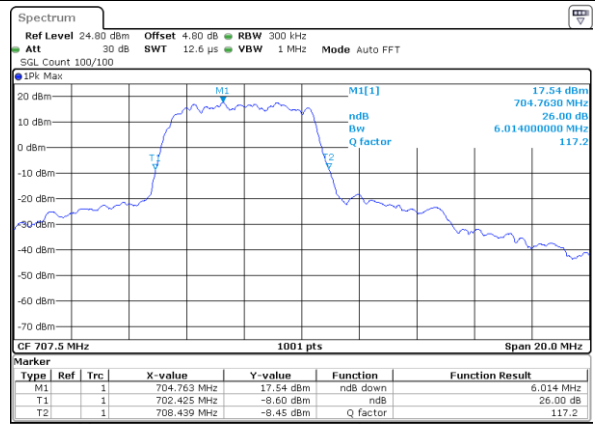
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 13 JUN 2025 15:22:58

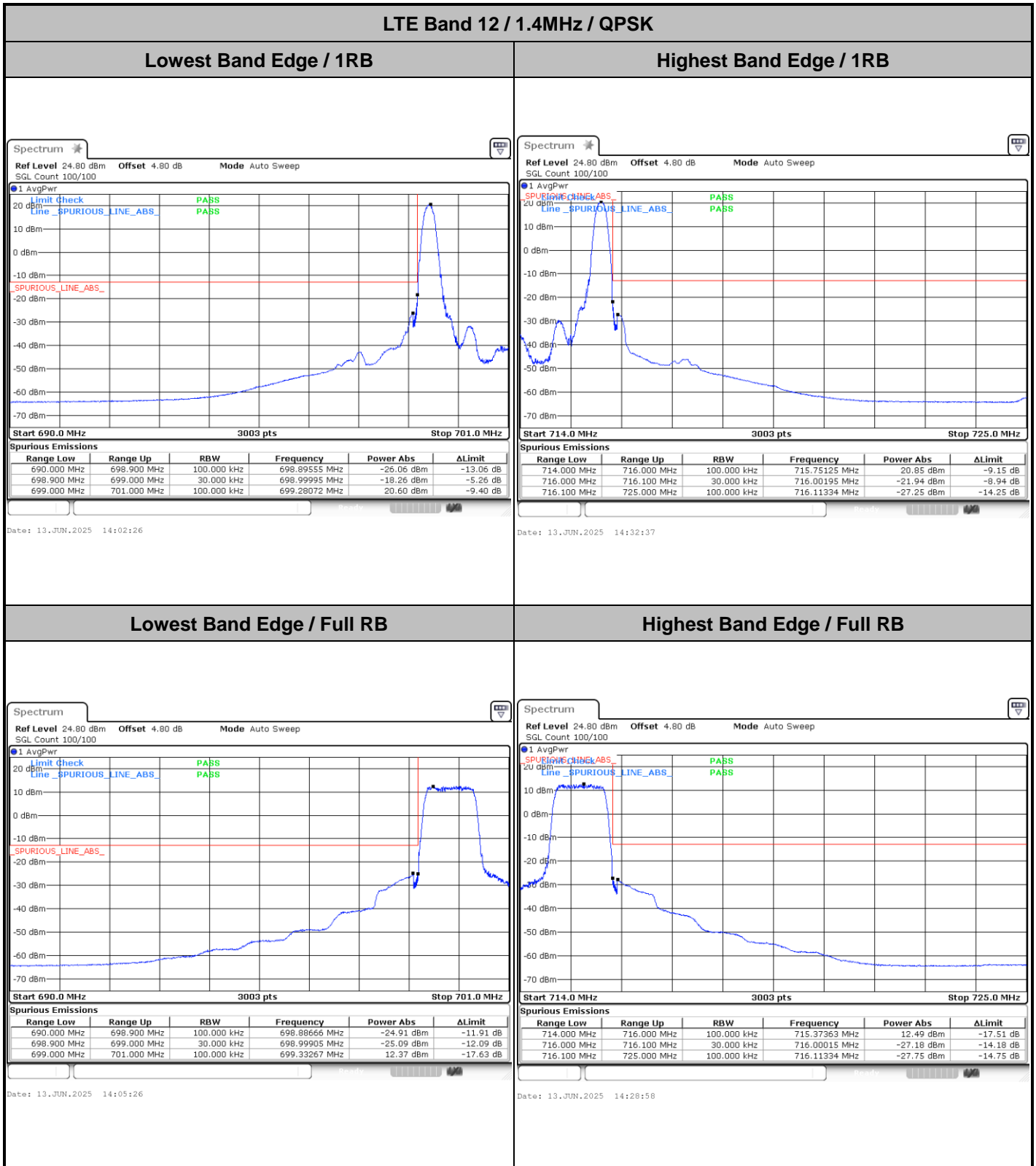
Middle Channel / 10MHz / 16QAM



Date: 13 JUN 2025 19:37:50



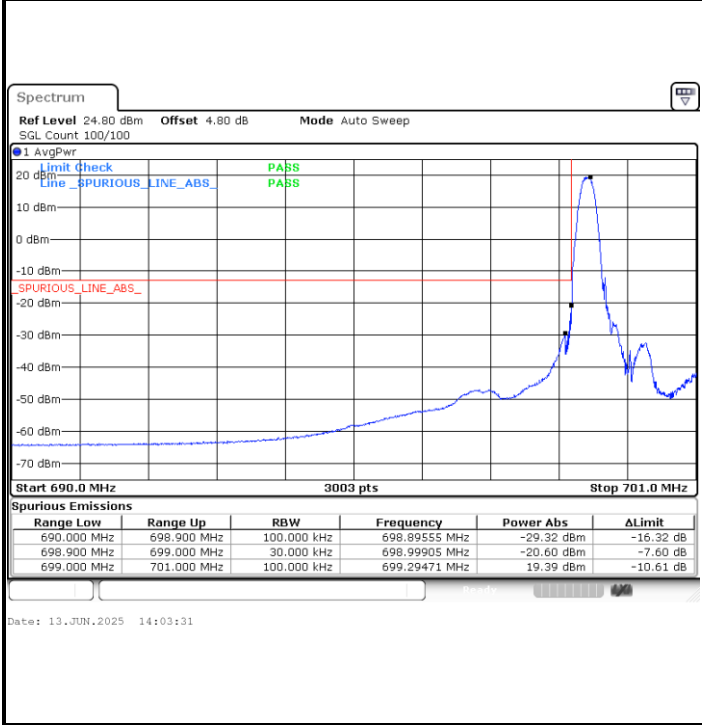
Conducted Band Edge



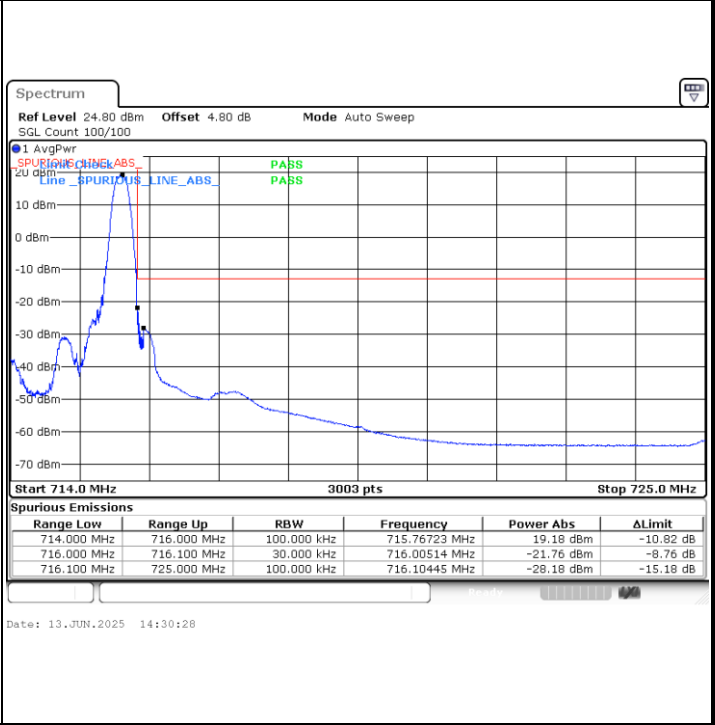


LTE Band 12 / 1.4MHz / 16QAM

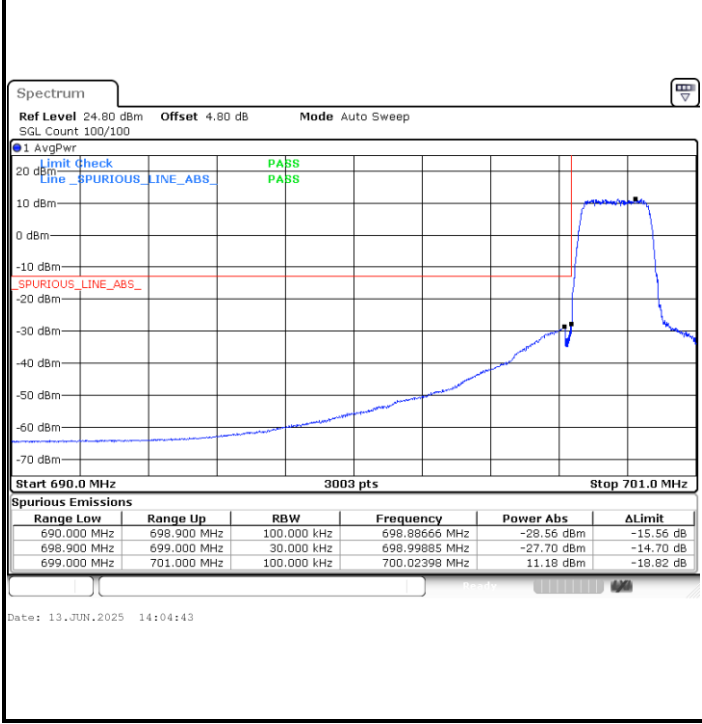
Lowest Band Edge / 1 RB



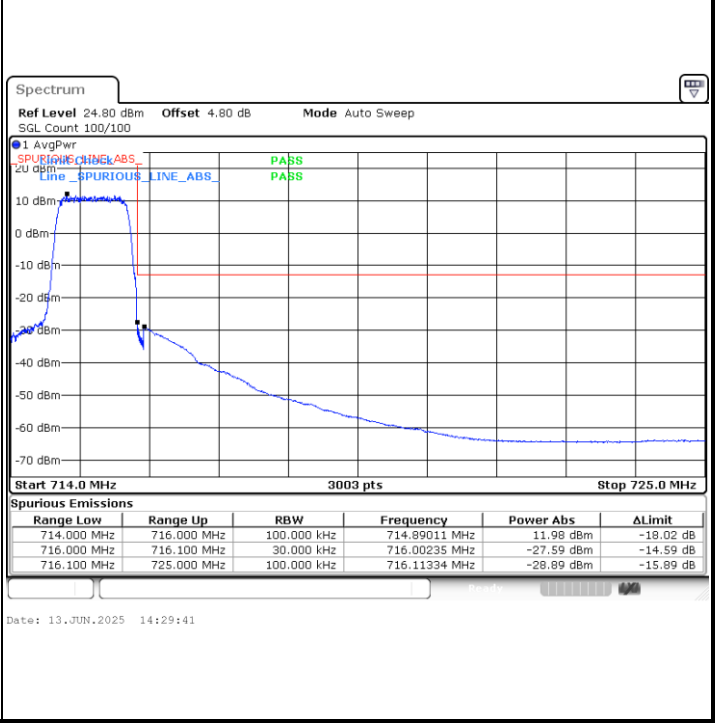
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



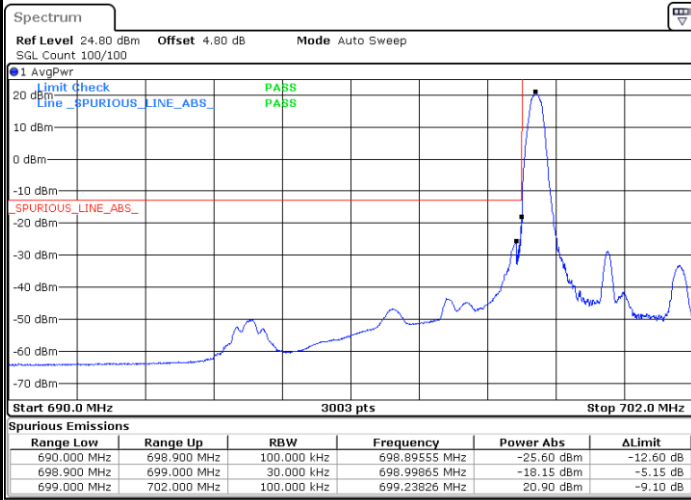
Highest Band Edge / Full RB





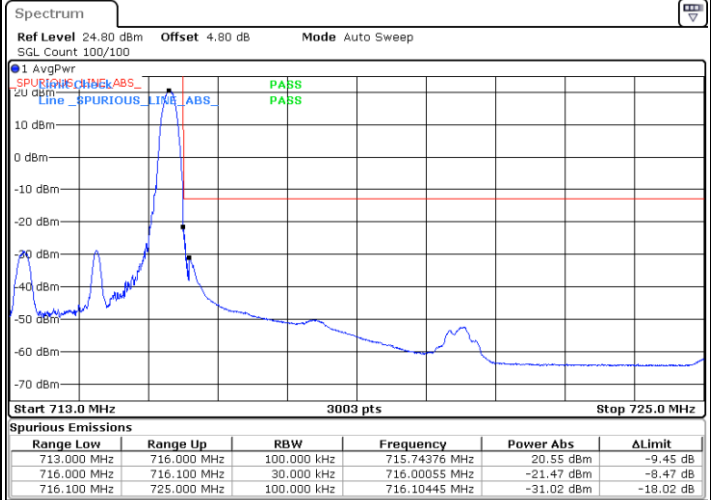
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



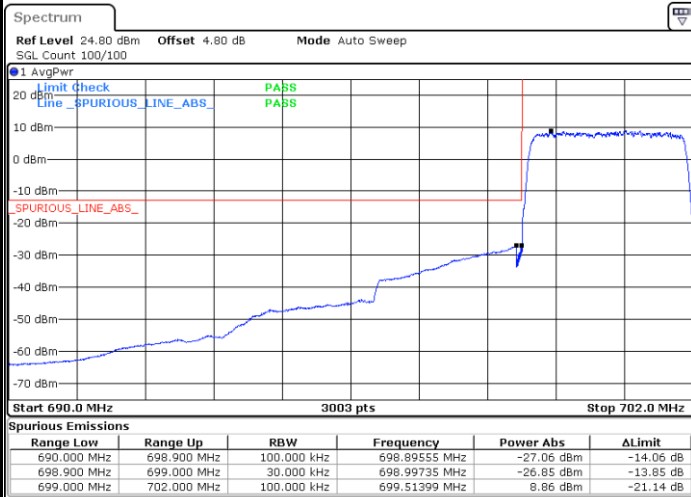
Date: 13.JUN.2025 14:46:23

Highest Band Edge / 1 RB



Date: 13.JUN.2025 14:55:59

Lowest Band Edge / Full RB



Date: 13.JUN.2025 14:48:44

Highest Band Edge / Full RB

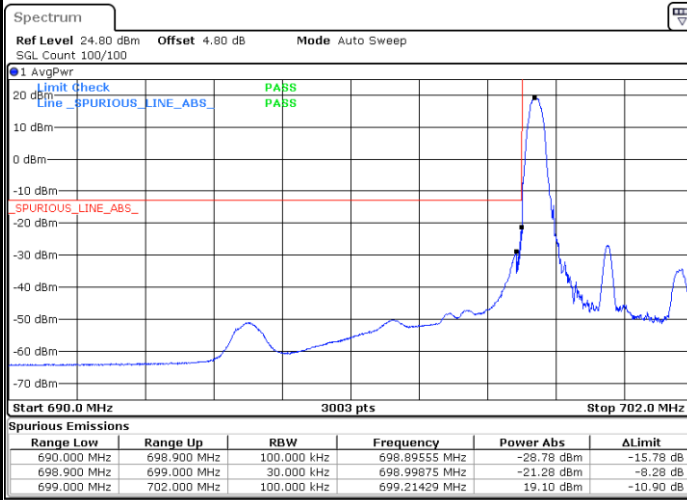


Date: 13.JUN.2025 14:59:09



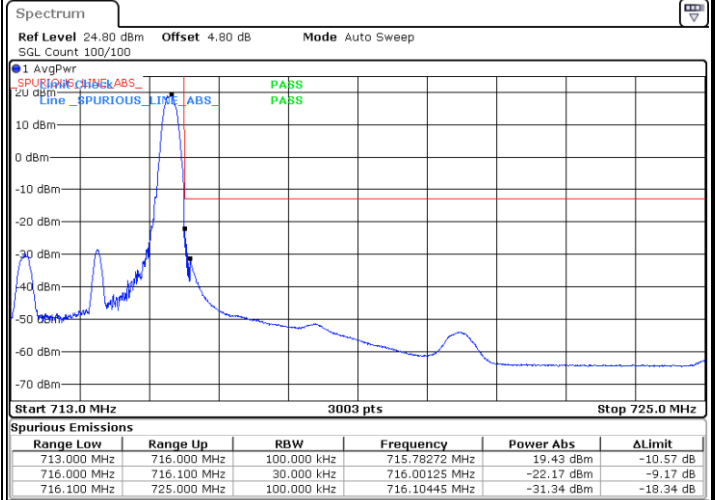
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



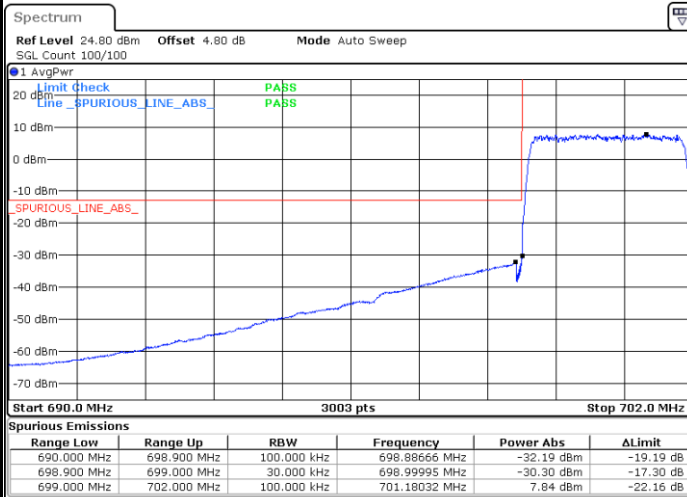
Date: 13.JUN.2025 14:47:05

Highest Band Edge / 1 RB



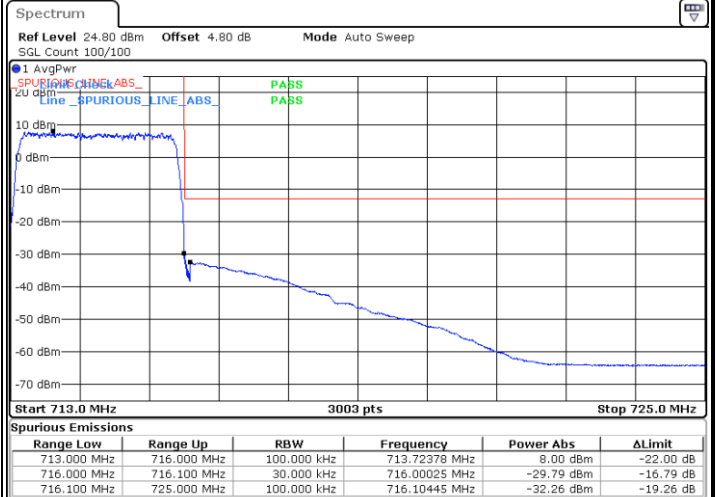
Date: 13.JUN.2025 14:56:49

Lowest Band Edge / Full RB



Date: 13.JUN.2025 14:48:02

Highest Band Edge / Full RB

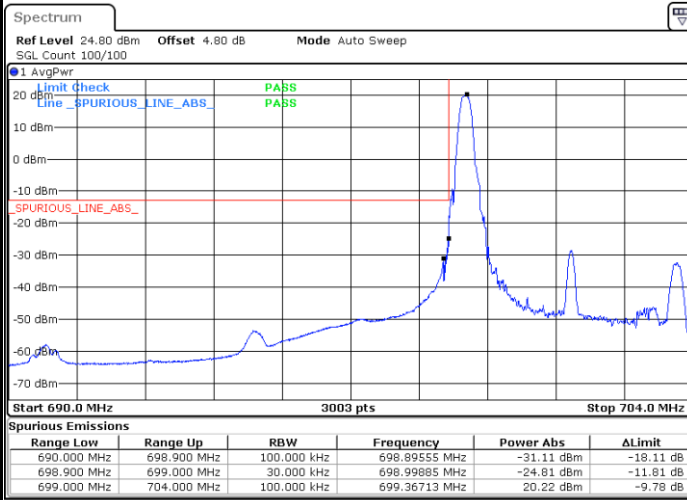


Date: 13.JUN.2025 14:57:35



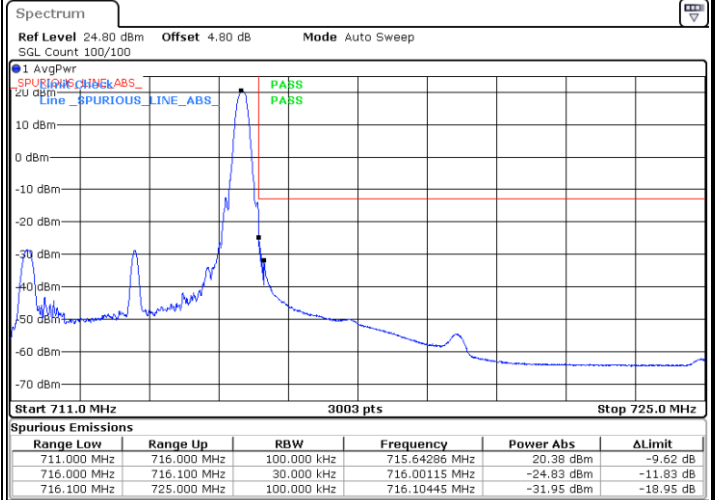
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



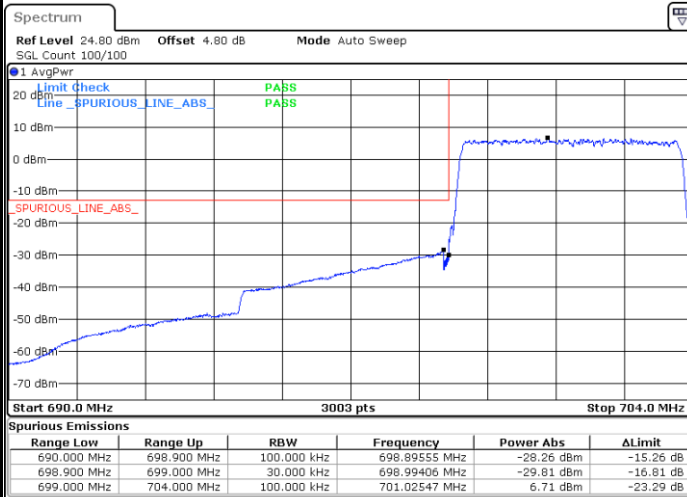
Date: 13.JUN.2025 15:00:21

Highest Band Edge / 1 RB



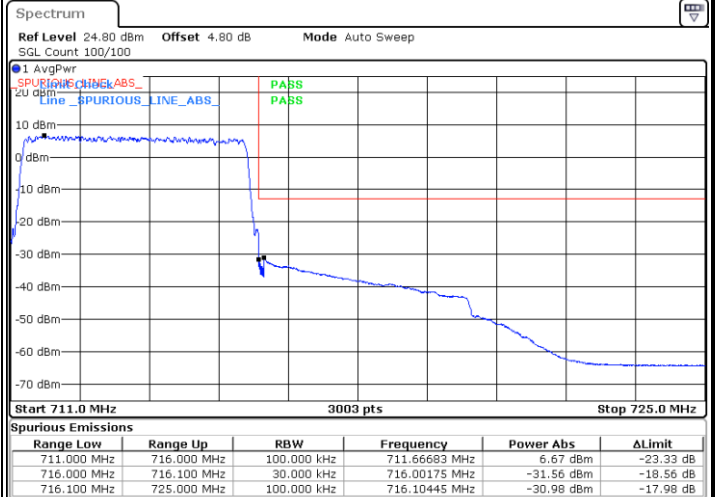
Date: 13.JUN.2025 15:08:29

Lowest Band Edge / Full RB



Date: 13.JUN.2025 15:02:45

Highest Band Edge / Full RB

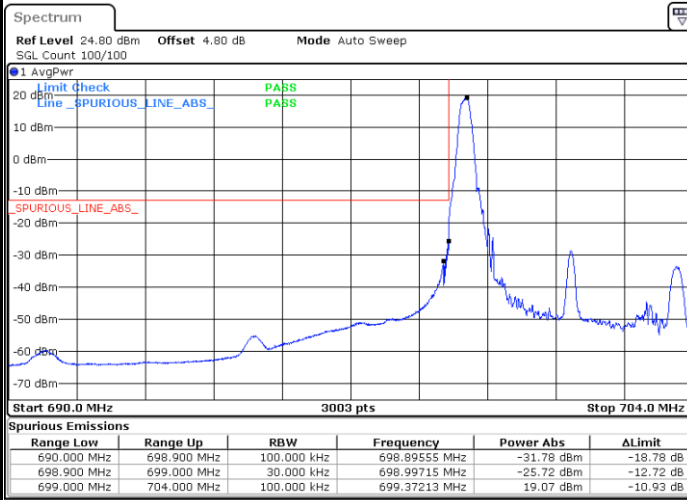


Date: 13.JUN.2025 15:11:31



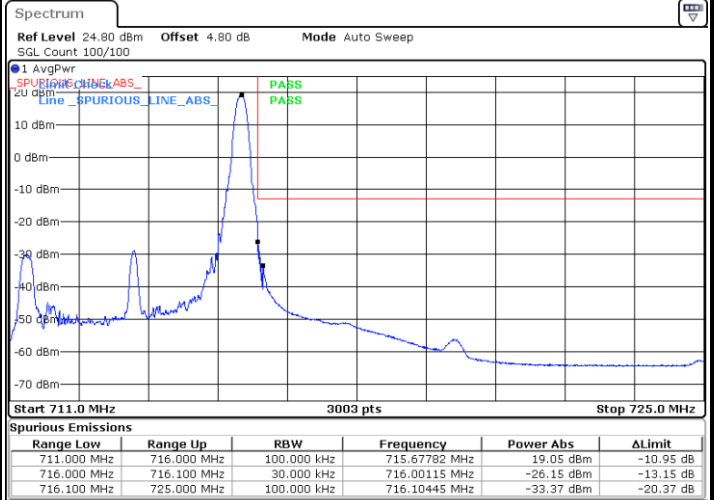
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



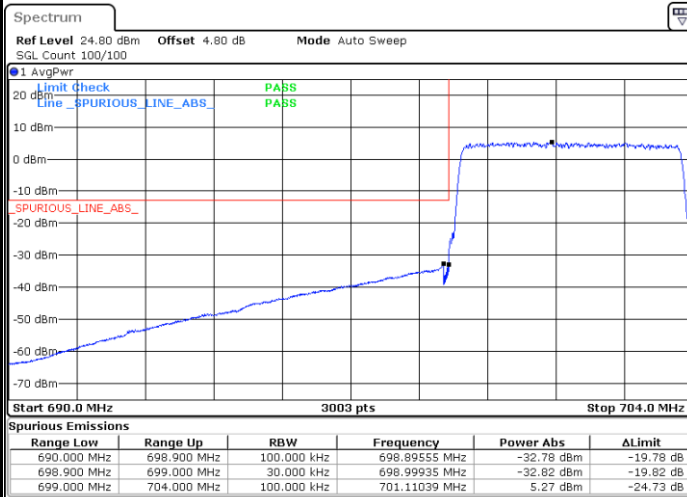
Date: 13.JUN.2025 15:01:09

Highest Band Edge / 1 RB



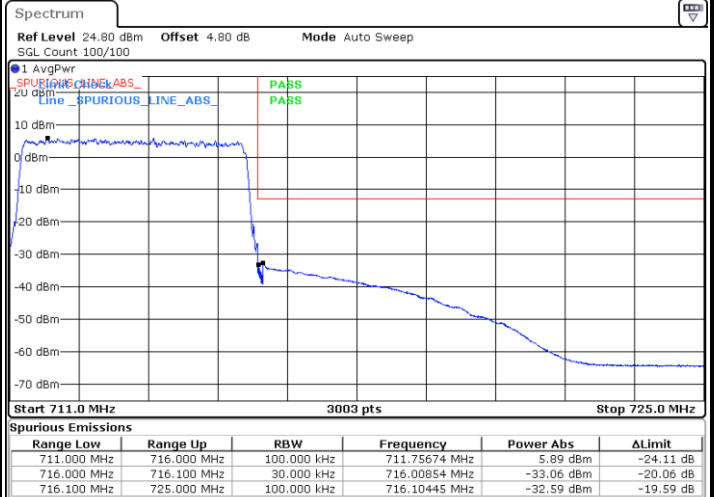
Date: 13.JUN.2025 15:09:41

Lowest Band Edge / Full RB



Date: 13.JUN.2025 15:03:28

Highest Band Edge / Full RB



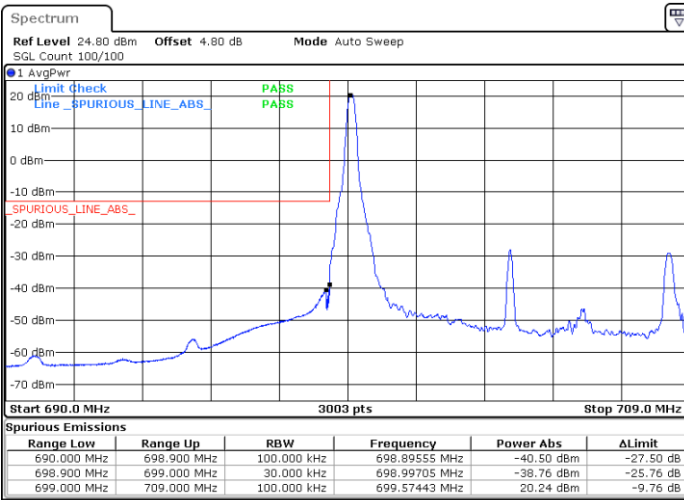
Date: 13.JUN.2025 15:10:47



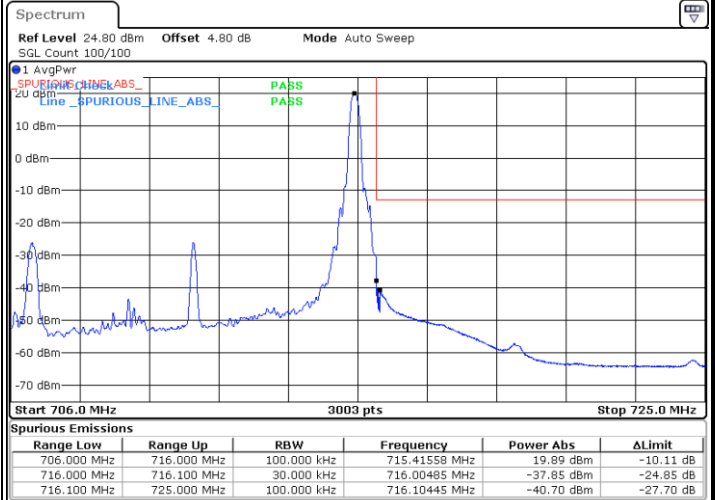
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



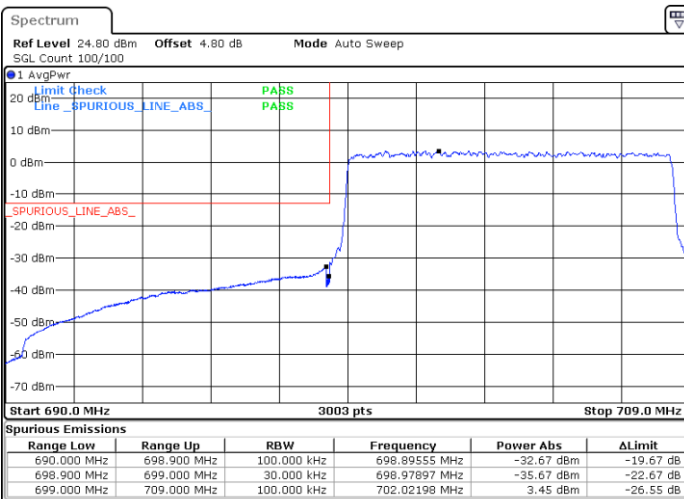
Date: 13.JUN.2025 15:17:04



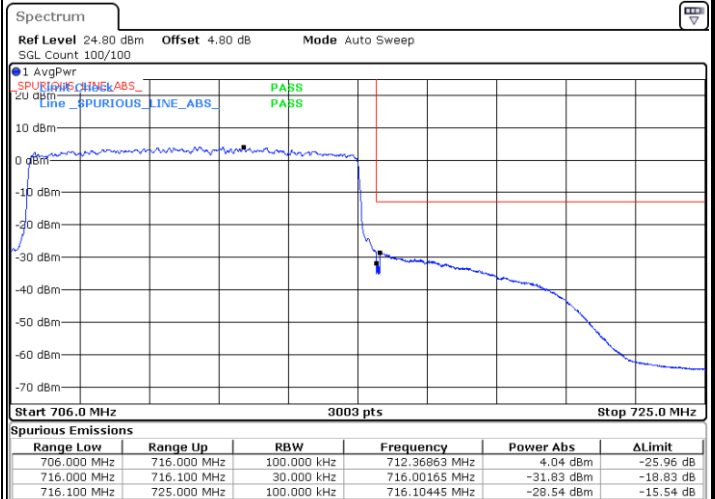
Date: 13.JUN.2025 15:29:18

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 13.JUN.2025 15:20:32

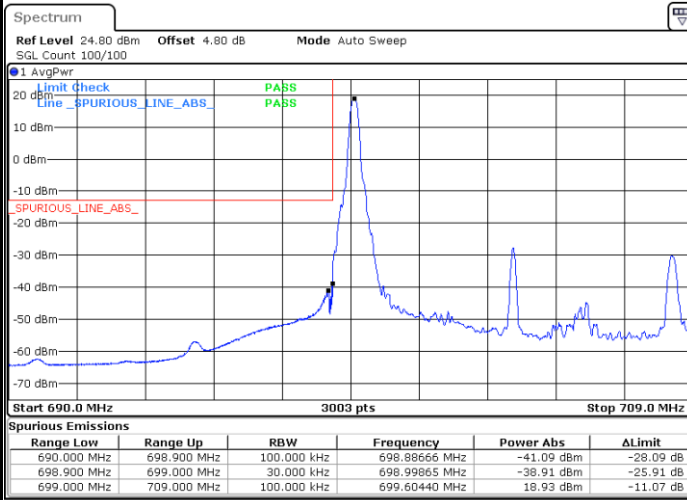


Date: 13.JUN.2025 15:25:42



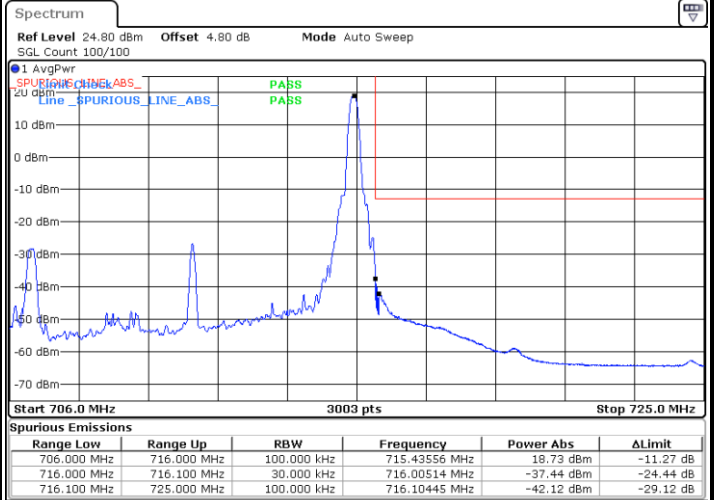
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



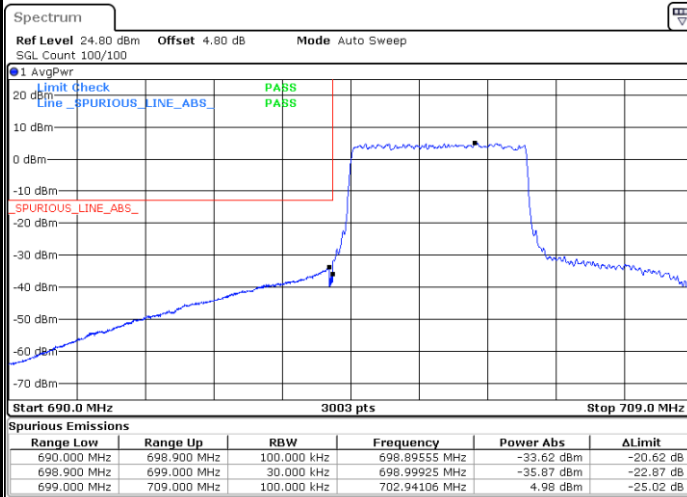
Date: 13.JUN.2025 15:17:52

Highest Band Edge / 1 RB



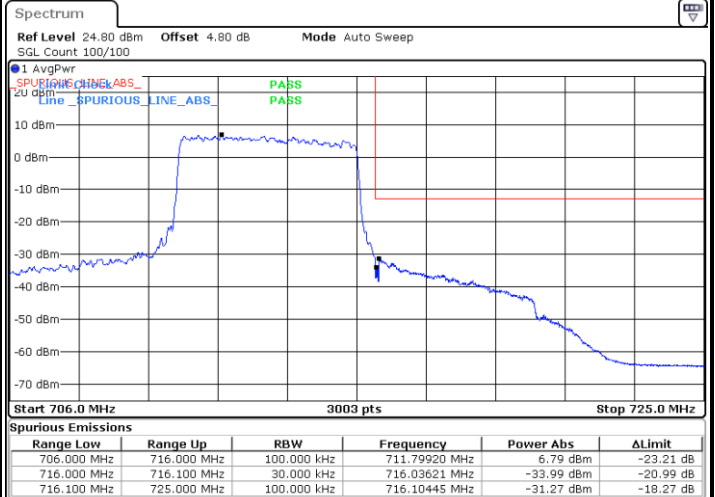
Date: 13.JUN.2025 15:30:08

Lowest Band Edge / 27 RB



Date: 13.JUN.2025 15:19:41

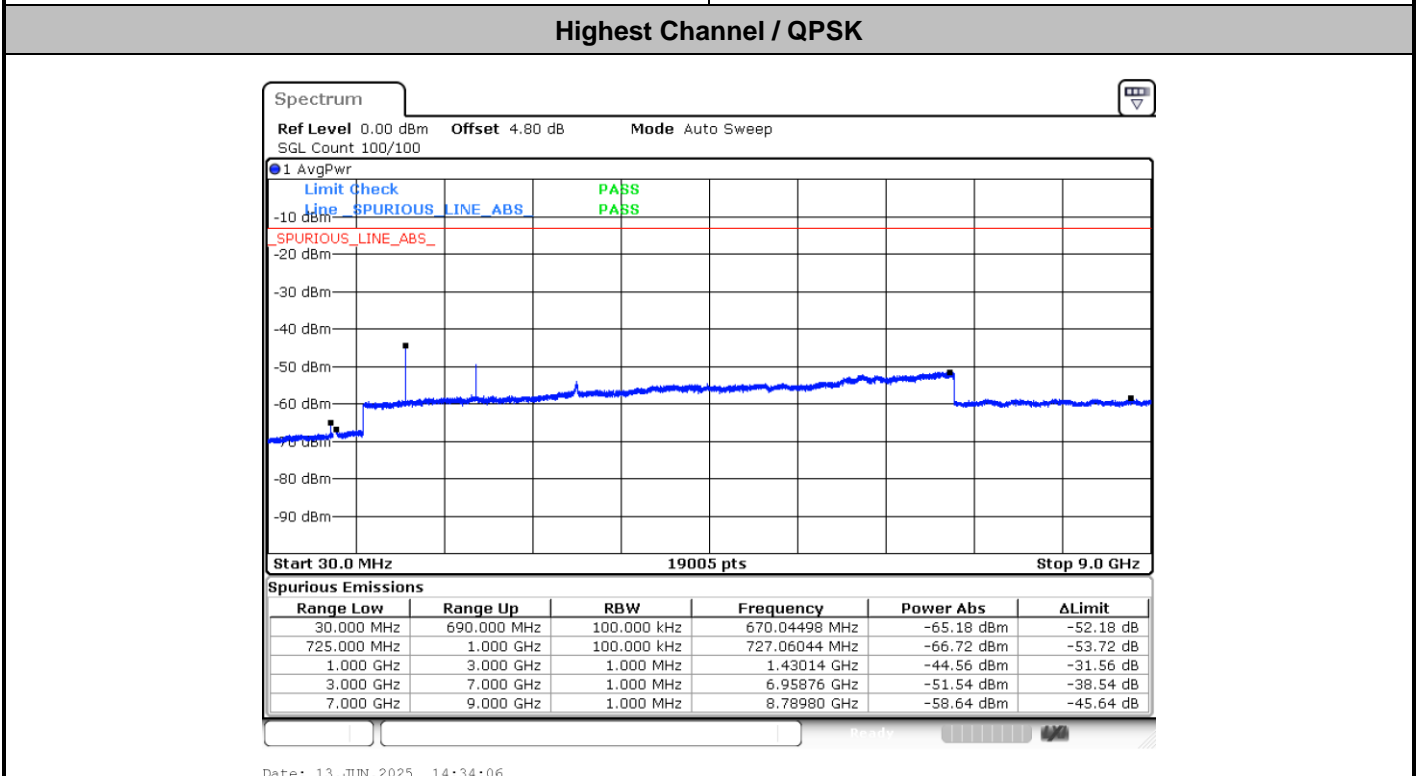
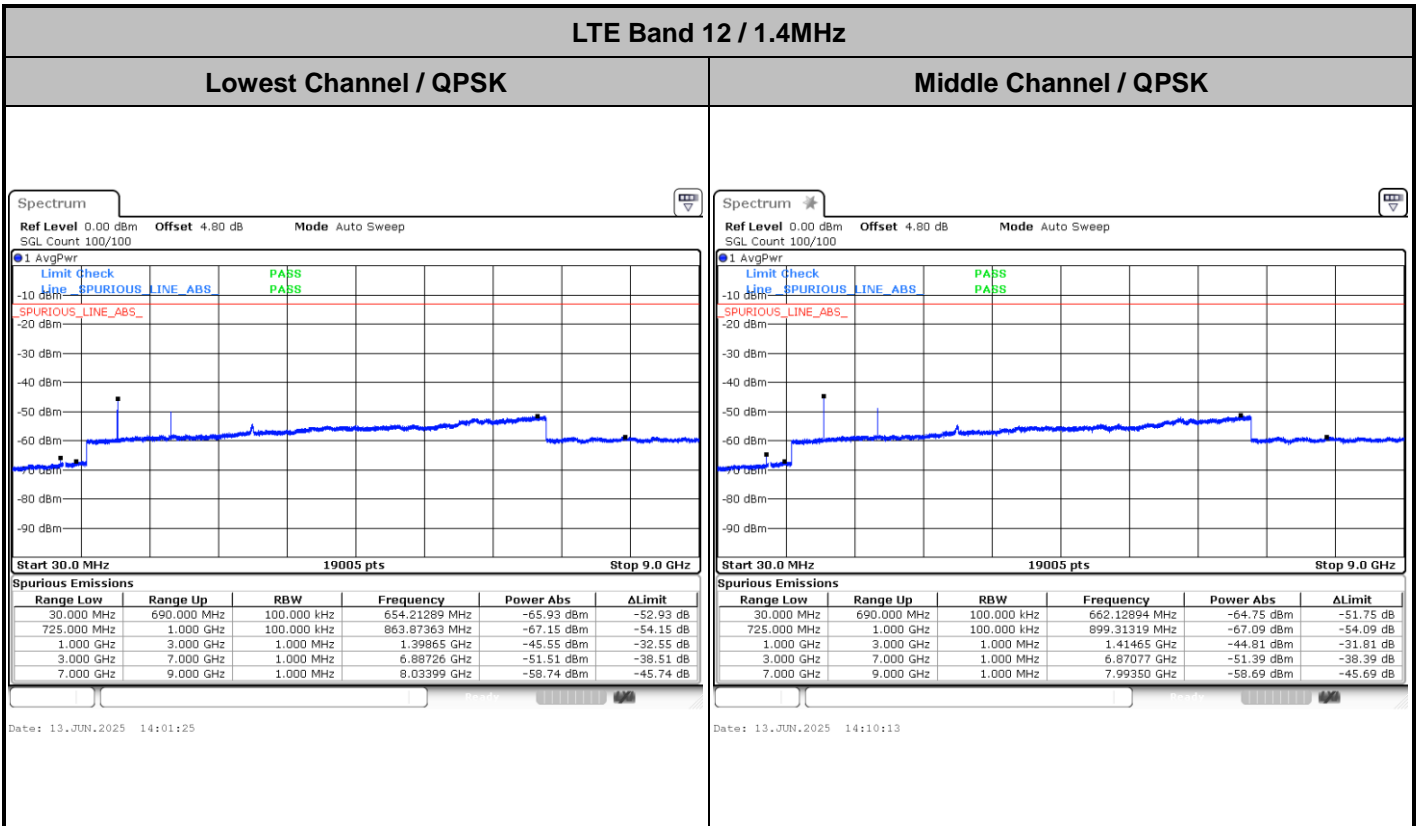
Highest Band Edge / 27 RB23



Date: 13.JUN.2025 15:28:17



Conducted Spurious Emission

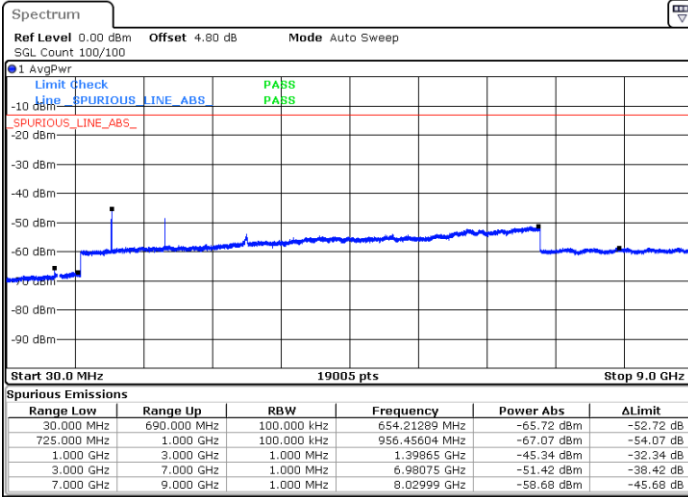




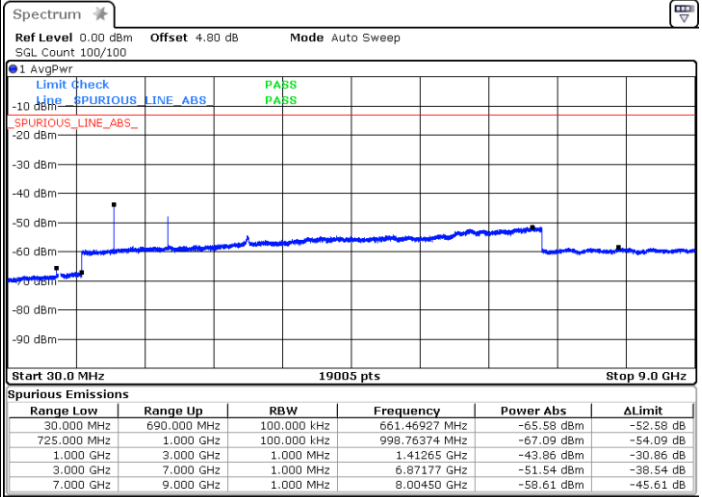
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Middle Channel / QPSK

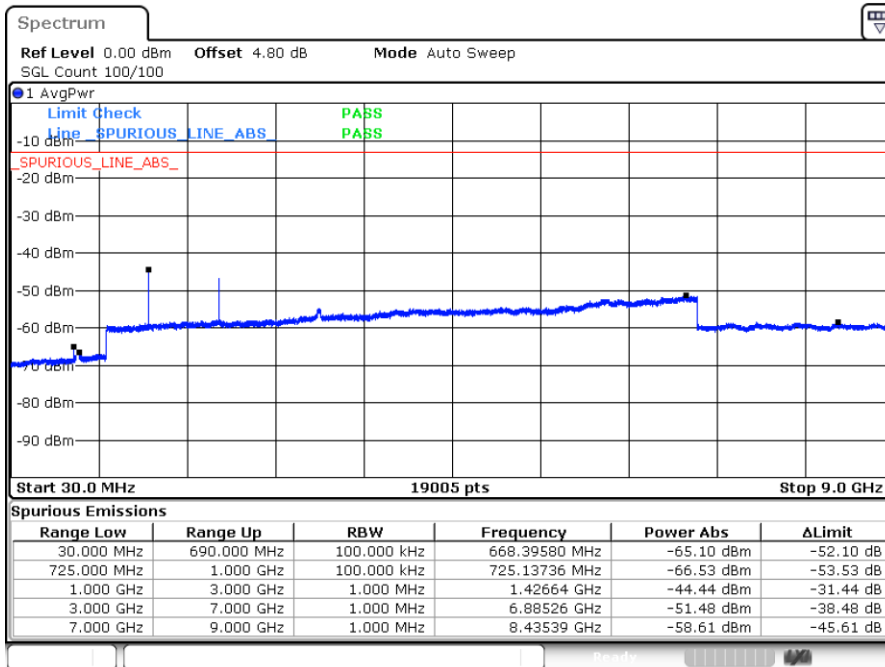


Date: 13 JUN 2025 14:35:49



Date: 13 JUN 2025 14:52:40

Highest Channel / QPSK



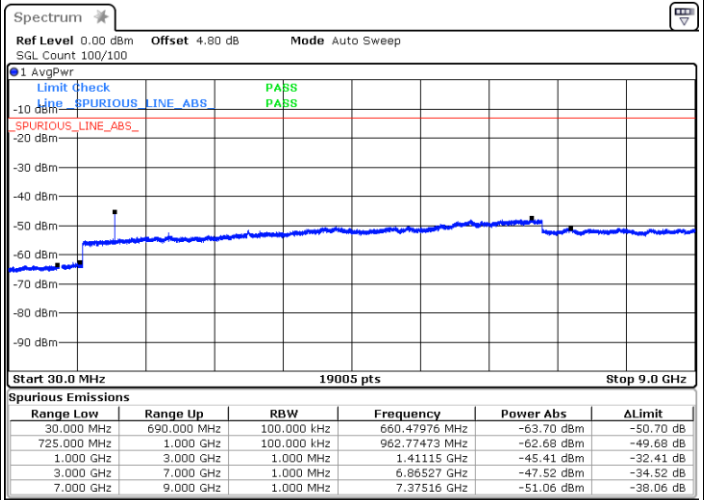
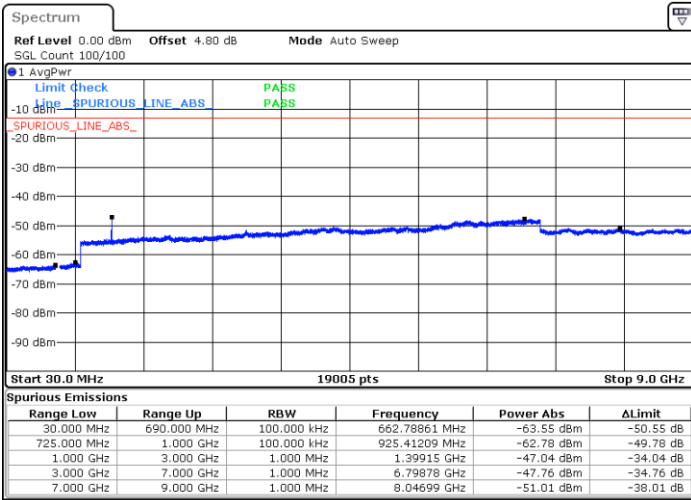
Date: 13 JUN 2025 14:54:03



LTE Band 12 / 5MHz

Lowest Channel / QPSK

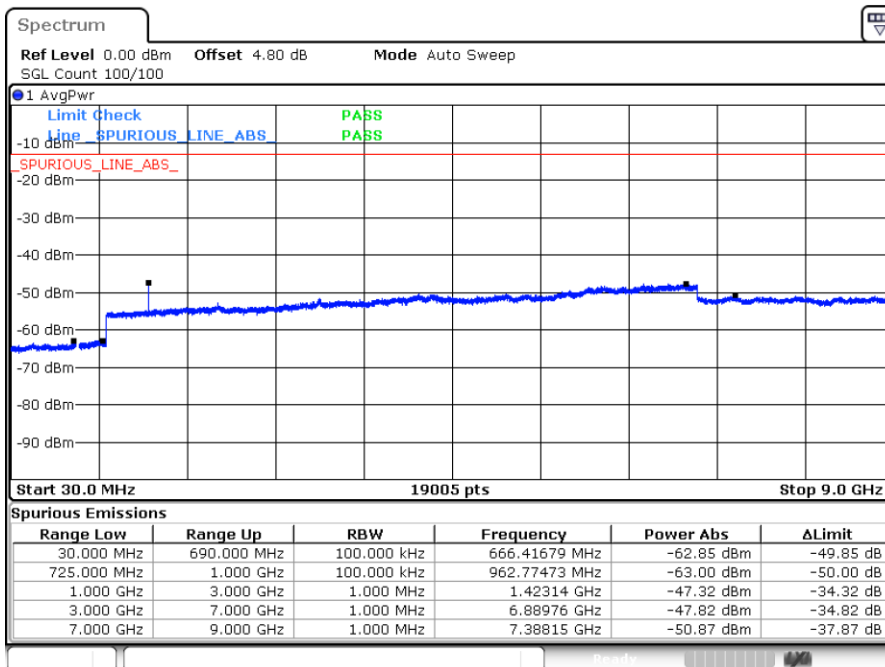
Middle Channel / QPSK



Date: 13 JUN 2025 15:01:53

Date: 13 JUN 2025 15:06:33

Highest Channel / QPSK



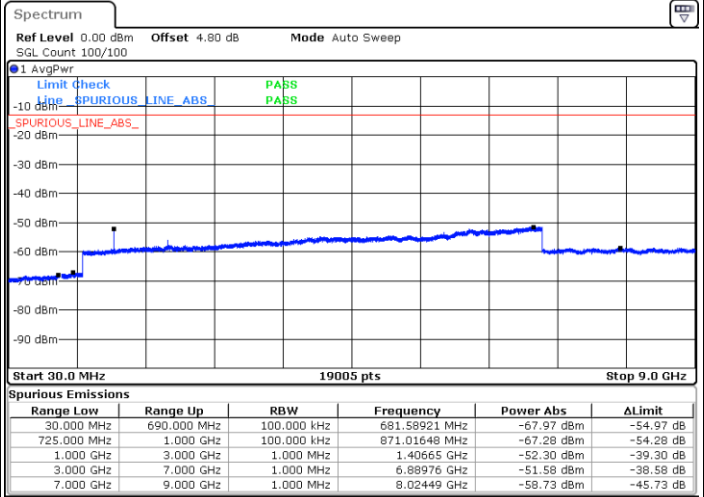
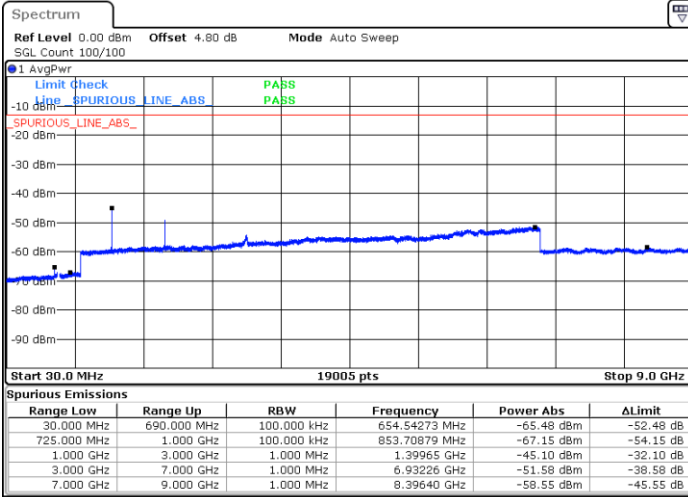
Date: 13 JUN 2025 15:07:33



LTE Band 12 / 10MHz

Lowest Channel / QPSK

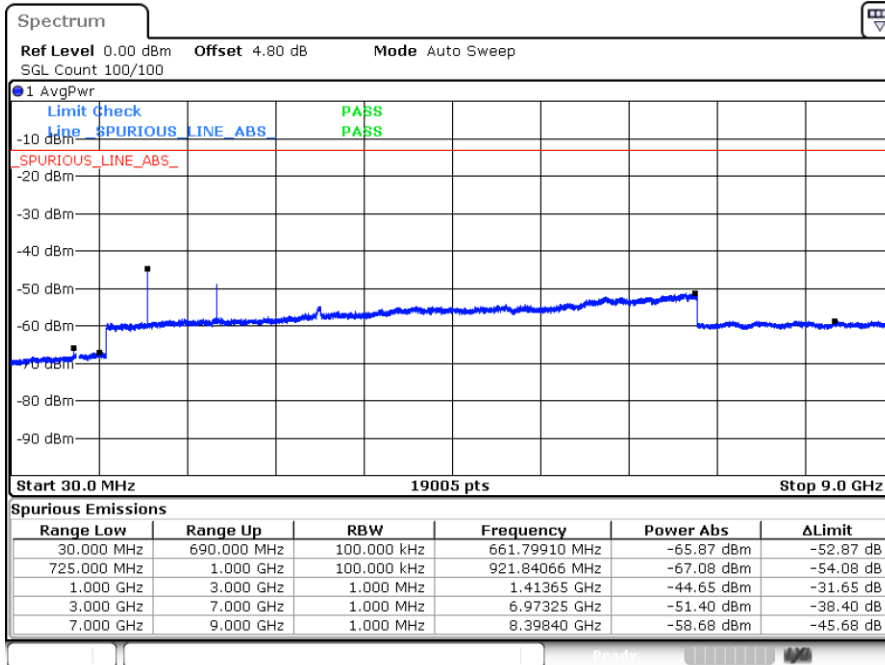
Middle Channel / QPSK



Date: 13 JUN 2025 15:13:01

Date: 13 JUN 2025 15:21:57

Highest Channel / QPSK



Date: 13 JUN 2025 15:31:39



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	0.0022	PASS
40	Normal Voltage	0.0031	
30	Normal Voltage	0.0044	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0027	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0015	
-20	Normal Voltage	0.0036	
-30	Normal Voltage	0.0025	
20	Normal Voltage	0.0014	

Note:

1. Normal Voltage = 3.8V
2. The low voltage and high voltage condition test result are leveraged from module RF report.
3. The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Chris	Temperature :	21~25°C
		Relative Humidity :	51~53%

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)
Lowest	3705	-49.69	-13	-36.69	-61.95	2.64	14.90	H
	5610	-54.22	-13	-41.22	-66.08	2.94	14.80	H
	7485	-51.23	-13	-38.23	-61.00	3.39	13.16	H
	3705	-44.42	-13	-31.42	-56.68	2.64	14.90	V
	5610	-54.58	-13	-41.58	-64.35	3.39	13.16	V
	7485	-51.17	-13	-38.17	-63.03	2.94	14.80	V
Middle	3735	-49.92	-13	-36.92	-62.18	2.64	14.90	H
	5610	-52.90	-13	-39.90	-64.76	2.94	14.80	H
	7485	-50.84	-13	-37.84	-60.61	3.39	13.16	H
	3735	-40.92	-13	-27.92	-53.18	2.64	14.90	V
	5610	-53.19	-13	-40.19	-62.96	3.39	13.16	V
	7485	-51.13	-13	-38.13	-62.99	2.94	14.80	V
Highest	3780	-46.17	-13	-33.17	-58.43	2.64	14.90	H
	5670	-52.11	-13	-39.11	-63.97	2.94	14.80	H
	7560	-51.23	-13	-38.23	-61.00	3.39	13.16	H
	3780	-44.30	-13	-31.30	-56.56	2.64	14.90	V
	5670	-53.92	-13	-40.92	-63.69	3.39	13.16	V
	7560	-51.09	-13	-38.09	-62.95	2.94	14.80	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)
Lowest	3420	-49.46	-13	-36.46	-60.20	2.604	13.34	H
	5130	-53.46	-13	-40.46	-63.97	3.011	13.52	H
	6840	-53.73	-13	-40.73	-63.93	3.271	13.47	H
	3420	-47.03	-13	-34.03	-57.77	2.604	13.34	V
	5130	-53.48	-13	-40.48	-63.99	3.011	13.52	V
	6840	-53.61	-13	-40.61	-63.81	3.271	13.47	V
Middle	3450	-45.45	-13	-32.45	-56.19	2.604	13.34	H
	5175	-53.54	-13	-40.54	-64.05	3.011	13.52	H
	6900	-52.84	-13	-39.84	-63.04	3.271	13.47	H
	3450	-41.39	-13	-28.39	-52.13	2.604	13.34	V
	5175	-52.35	-13	-39.35	-62.86	3.011	13.52	V
	6900	-53.38	-13	-40.38	-63.58	3.271	13.47	V
Highest	3465	-43.00	-13	-30.00	-53.74	2.604	13.34	H
	5205	-52.32	-13	-39.32	-62.83	3.011	13.52	H
	6945	-52.96	-13	-39.96	-63.16	3.271	13.47	H
	3465	-40.67	-13	-27.67	-51.41	2.604	13.34	V
	5205	-51.94	-13	-38.94	-62.45	3.011	13.52	V
	6945	-52.87	-13	-39.87	-63.07	3.271	13.47	V

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

LTE Band 12 / 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)
Lowest	1400	-58.94	-13	-45.94	-65.91	1.58	10.70	H
	2096	-59.05	-13	-46.05	-67.30	2.102	12.50	H
	2800	-58.31	-13	-45.31	-67.20	2.856	13.90	H
	1400	-63.09	-13	-50.09	-70.06	1.58	10.70	V
	2096	-58.20	-13	-45.20	-66.45	2.10	12.50	V
	2800	-57.65	-13	-44.65	-66.54	2.86	13.90	V
Middle	1408	-56.95	-13	-43.95	-63.92	1.58	10.70	H
	2112	-56.87	-13	-43.87	-65.12	2.102	12.50	H
	2808	-57.71	-13	-44.71	-66.60	2.856	13.90	H
	1408	-61.17	-13	-48.17	-68.14	1.58	10.70	V
	2112	-53.71	-13	-40.71	-61.96	2.10	12.50	V
	2808	-56.97	-13	-43.97	-65.86	2.86	13.90	V
Highest	1416	-49.76	-13	-36.76	-56.73	1.58	10.70	H
	2120	-53.25	-13	-40.25	-61.50	2.102	12.50	H
	2824	-58.71	-13	-45.71	-67.60	2.856	13.90	H
	1416	-57.84	-13	-44.84	-64.81	1.58	10.70	V
	2120	-51.29	-13	-38.29	-59.54	2.10	12.50	V
	2826	-58.18	-13	-45.18	-67.07	2.86	13.90	V

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