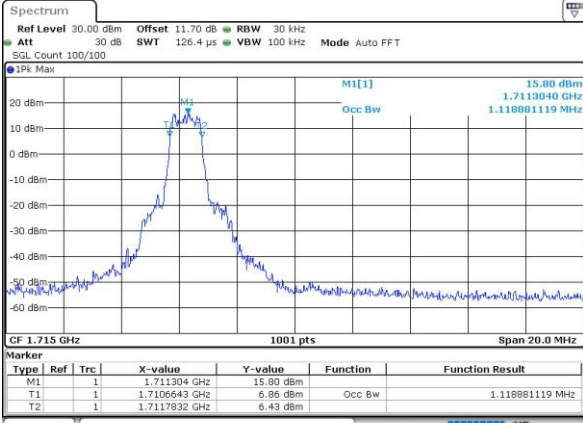




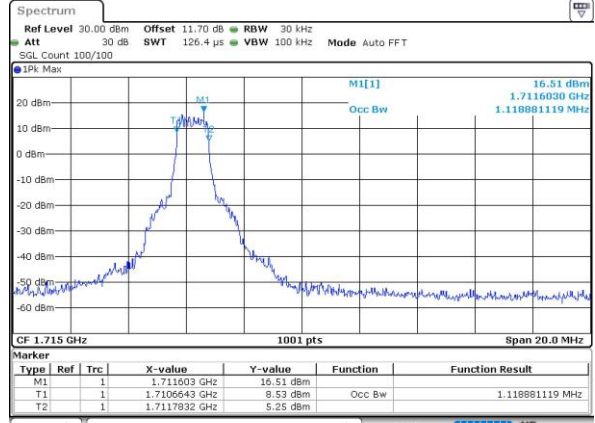
LTE Band 4

Lowest Channel / 10MHz / QPSK



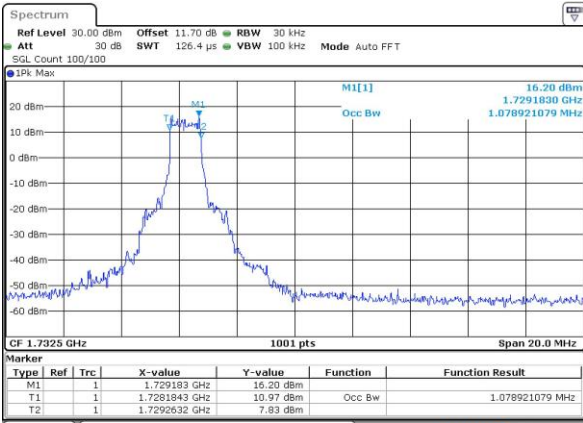
Date: 14.NOV.2018 04:03:28

Lowest Channel / 10MHz / 16QAM



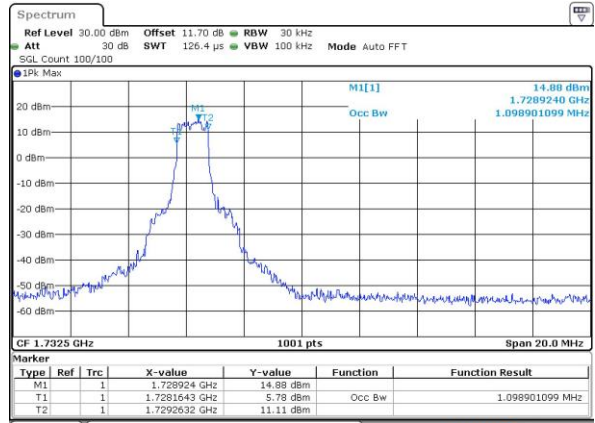
Date: 14.NOV.2018 04:02:42

Middle Channel / 10MHz / QPSK



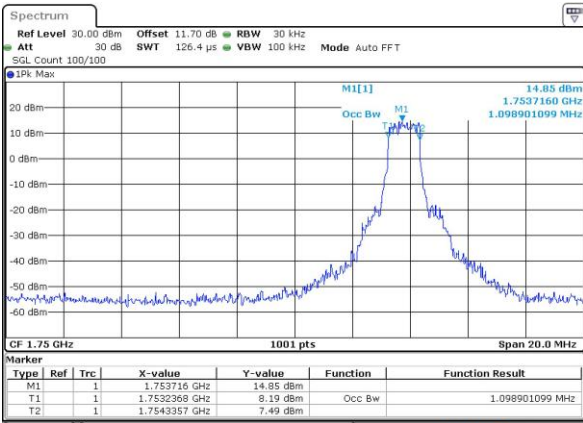
Date: 14.NOV.2018 03:57:18

Middle Channel / 10MHz / 16QAM



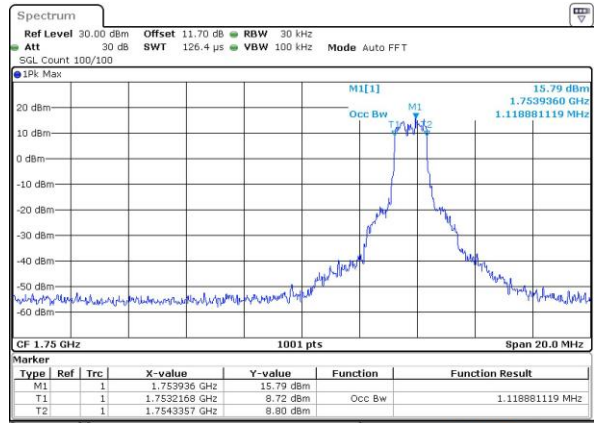
Date: 14.NOV.2018 03:57:44

Highest Channel / 10MHz / QPSK



Date: 14.NOV.2018 04:06:24

Highest Channel / 10MHz / 16QAM



Date: 14.NOV.2018 04:05:23



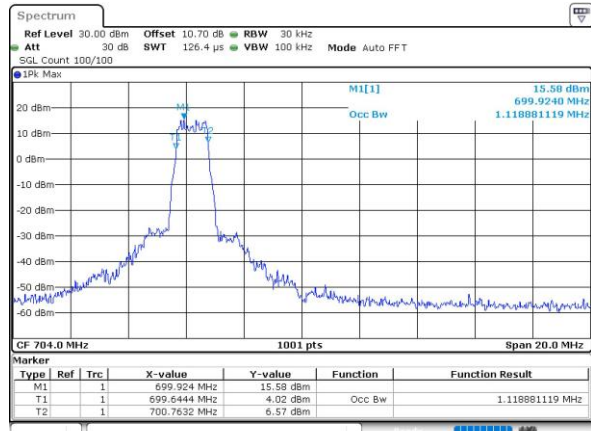
LTE Band 12

Lowest Channel / 10MHz / QPSK



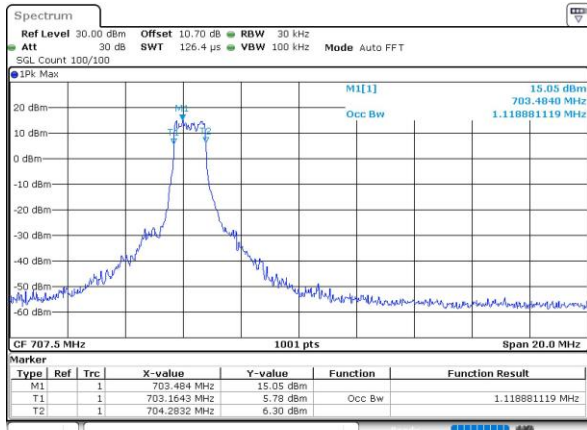
Date: 14.NOV.2018 01:16:10

Lowest Channel / 10MHz / 16QAM



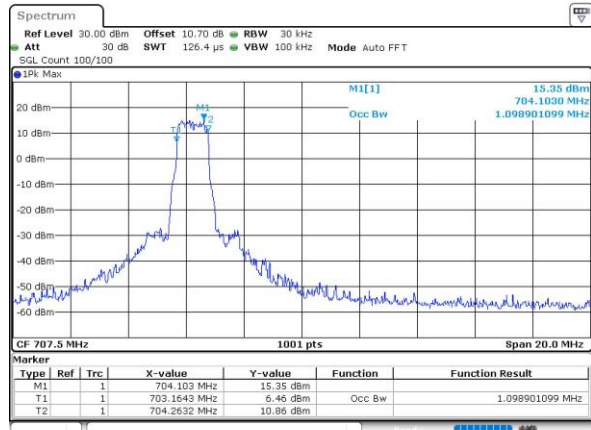
Date: 14.NOV.2018 01:16:52

Middle Channel / 10MHz / QPSK



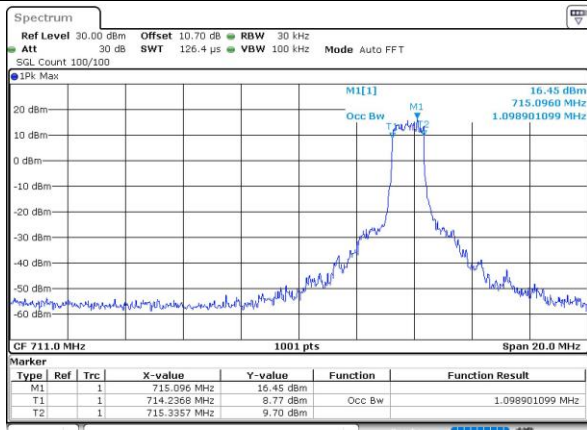
Date: 14.NOV.2018 01:24:17

Middle Channel / 10MHz / 16QAM



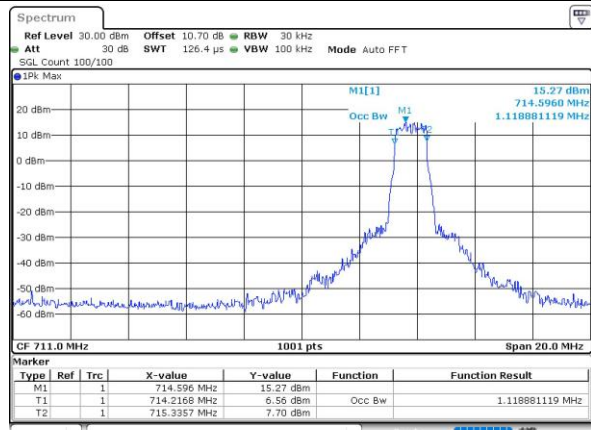
Date: 14.NOV.2018 01:24:39

Highest Channel / 10MHz / QPSK



Date: 14.NOV.2018 01:28:20

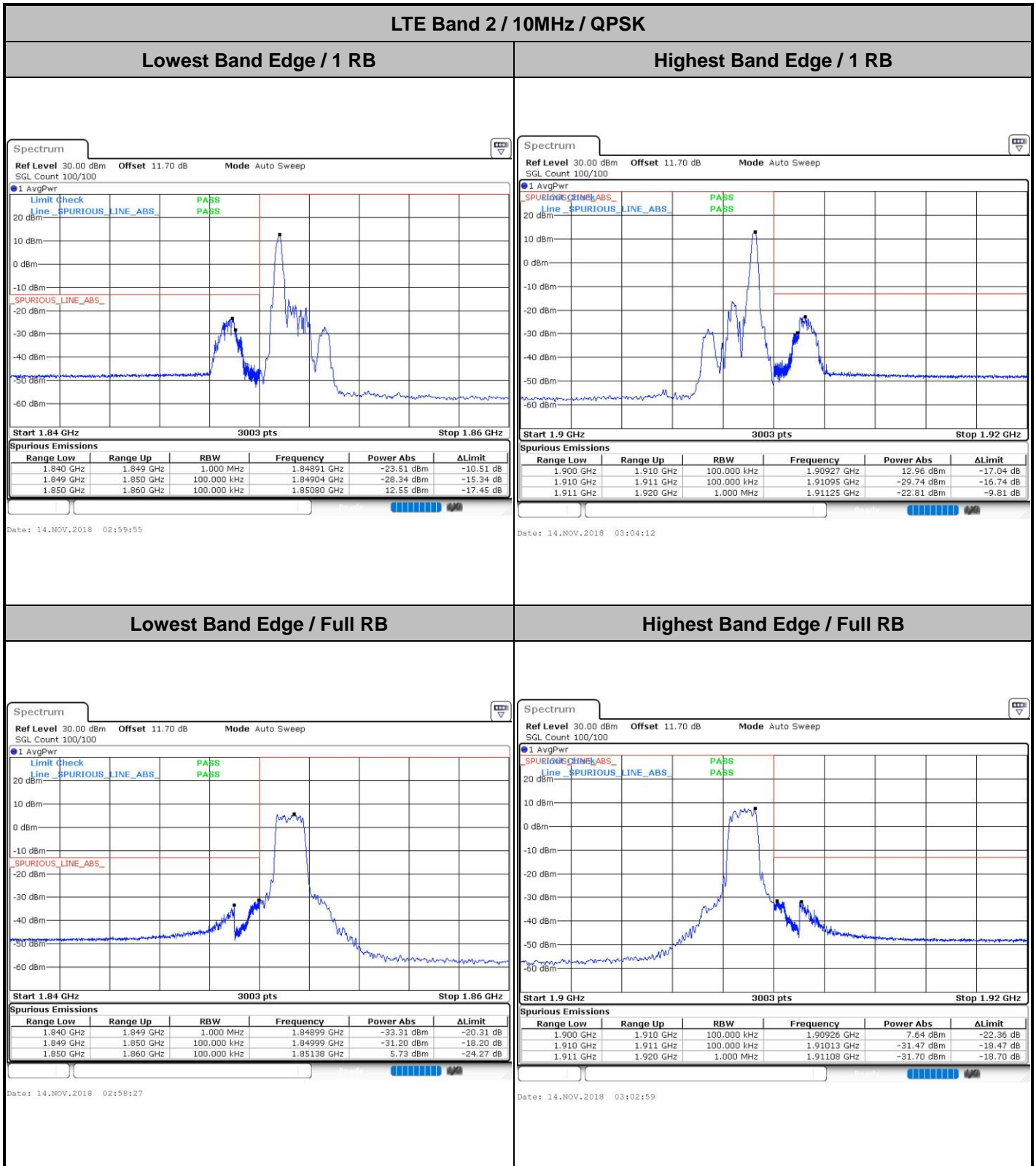
Highest Channel / 10MHz / 16QAM



Date: 14.NOV.2018 01:30:14



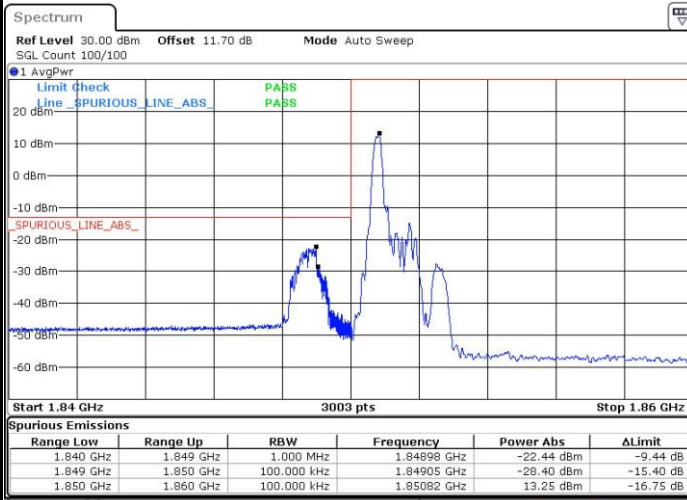
# Conducted Band Edge





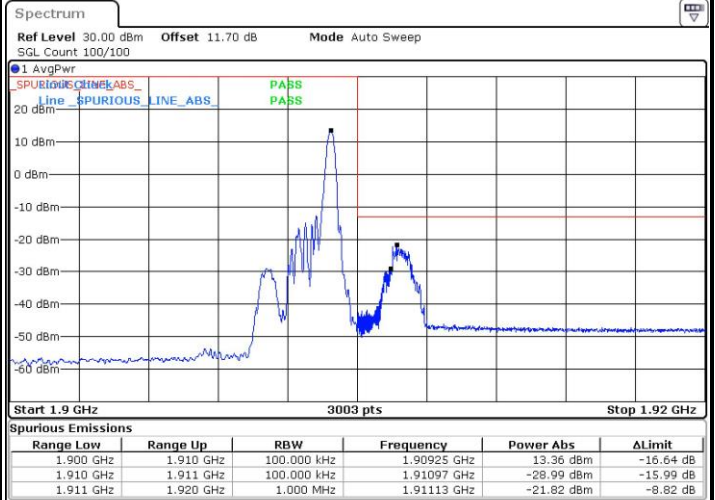
LTE Band 2 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



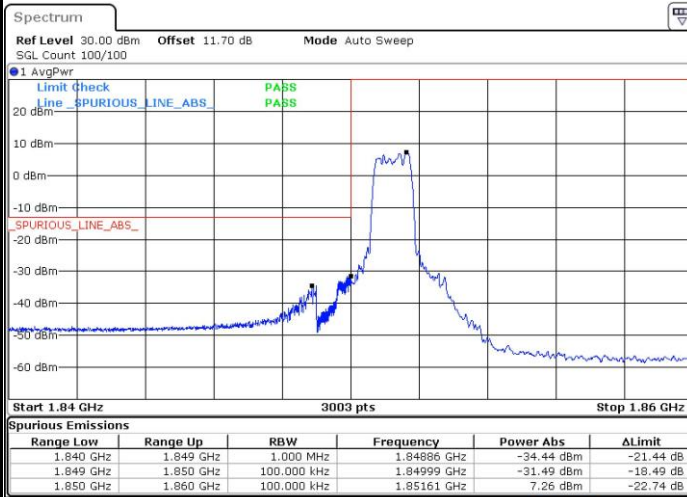
Date: 14.NOV.2018 03:01:31

Highest Band Edge / 1 RB



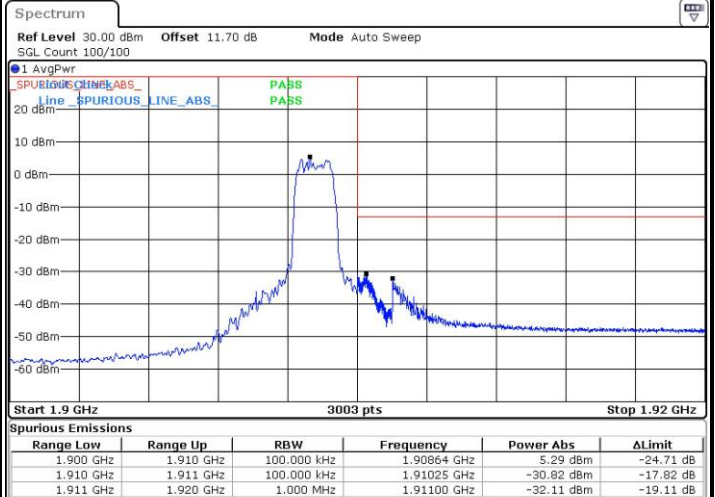
Date: 14.NOV.2018 03:04:25

Lowest Band Edge / Full RB



Date: 14.NOV.2018 02:58:40

Highest Band Edge / Full RB



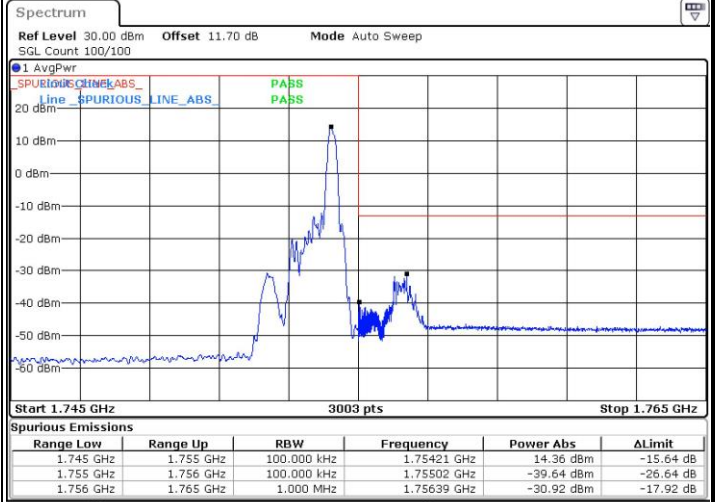
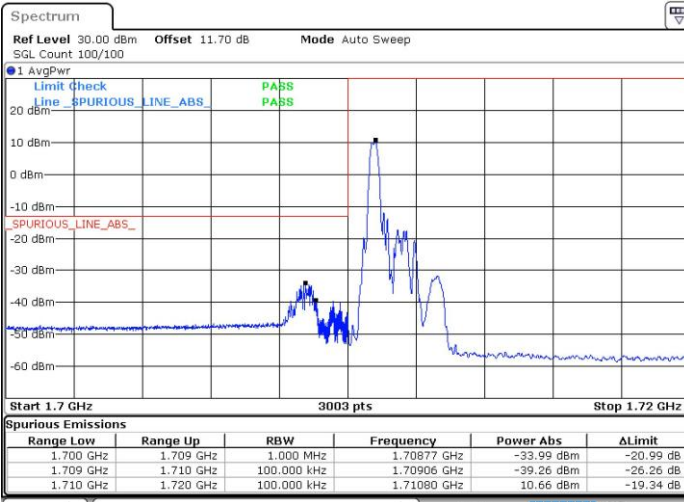
Date: 14.NOV.2018 03:02:43



LTE Band 4 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

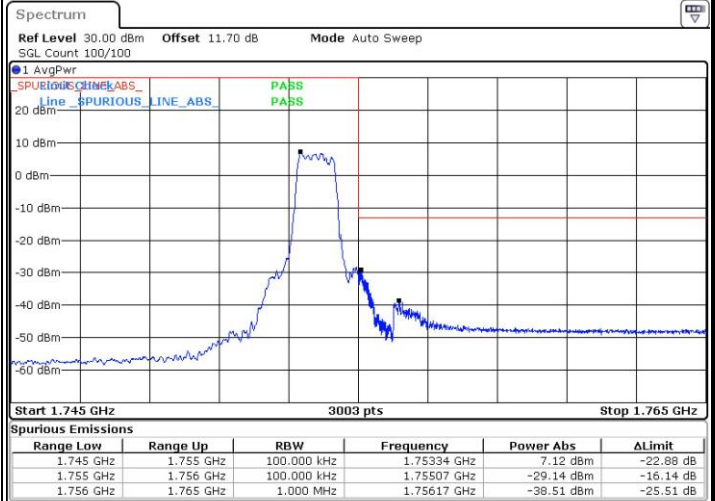
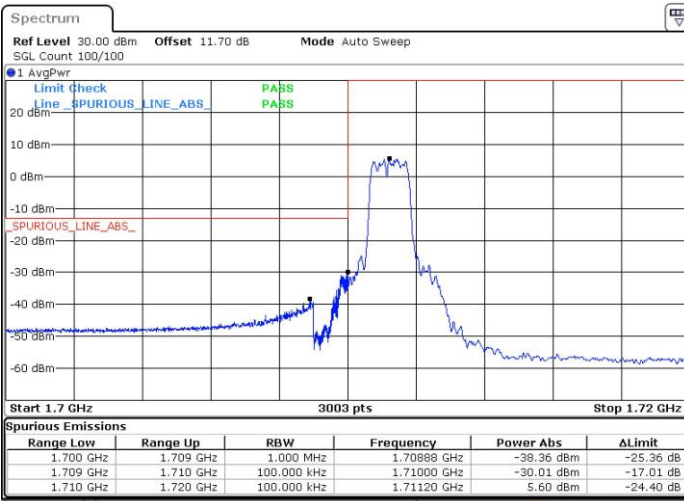


Date: 14.NOV.2018 04:04:24

Date: 14.NOV.2018 04:07:20

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



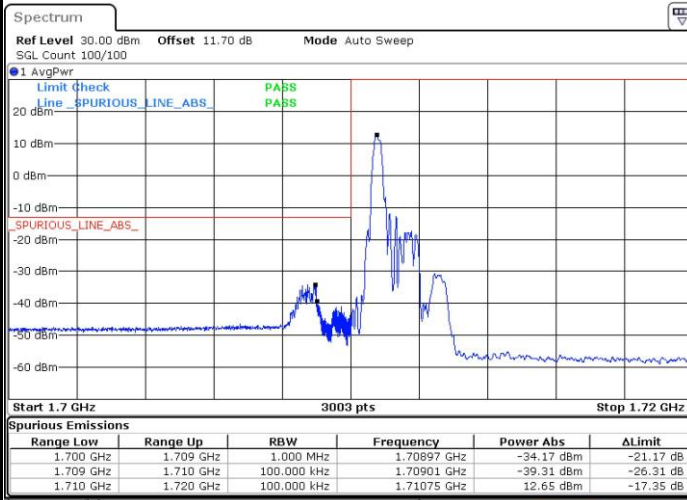
Date: 14.NOV.2018 04:03:16

Date: 14.NOV.2018 04:05:57



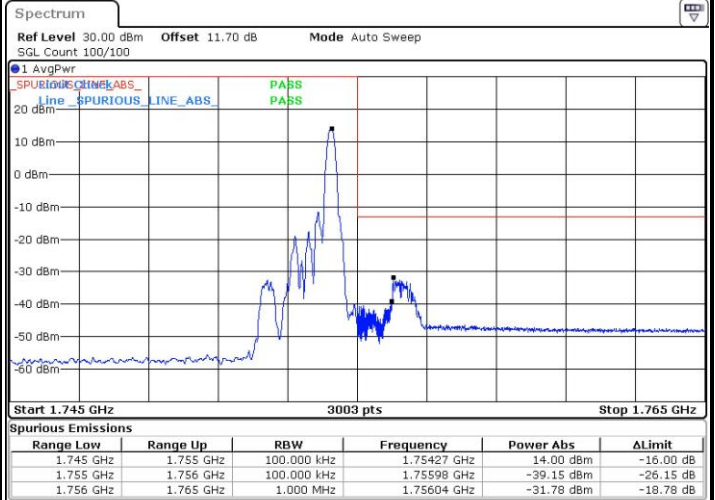
LTE Band 4 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



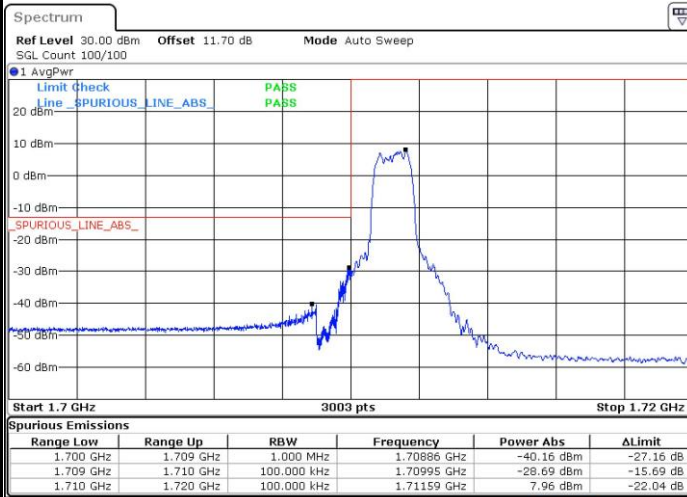
Date: 14.NOV.2018 04:04:36

Highest Band Edge / 1 RB



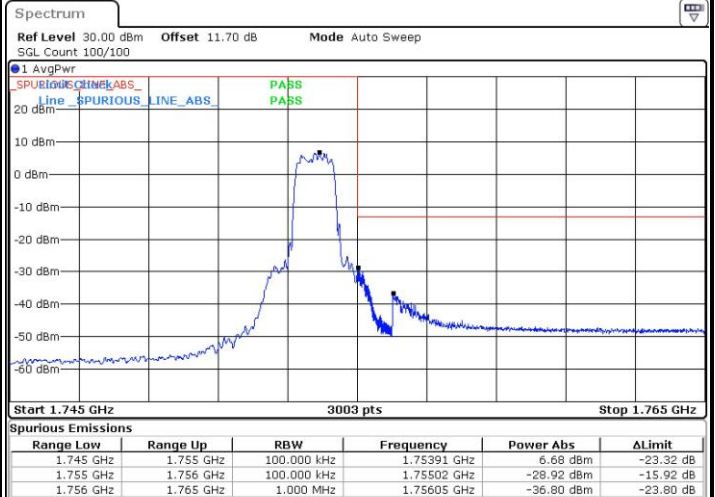
Date: 14.NOV.2018 04:07:33

Lowest Band Edge / Full RB



Date: 14.NOV.2018 04:03:03

Highest Band Edge / Full RB

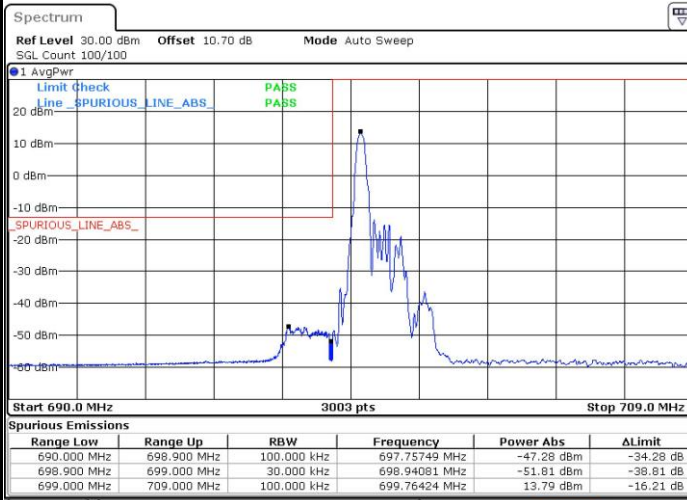


Date: 14.NOV.2018 04:05:45



LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



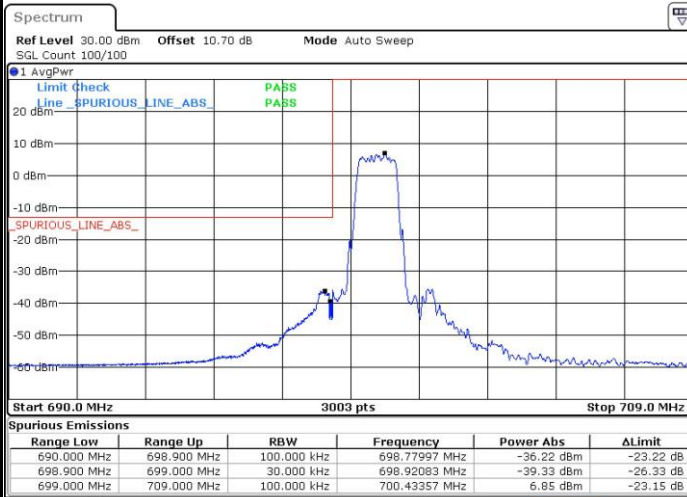
Date: 14.NOV.2018 01:18:54

Highest Band Edge / 1 RB



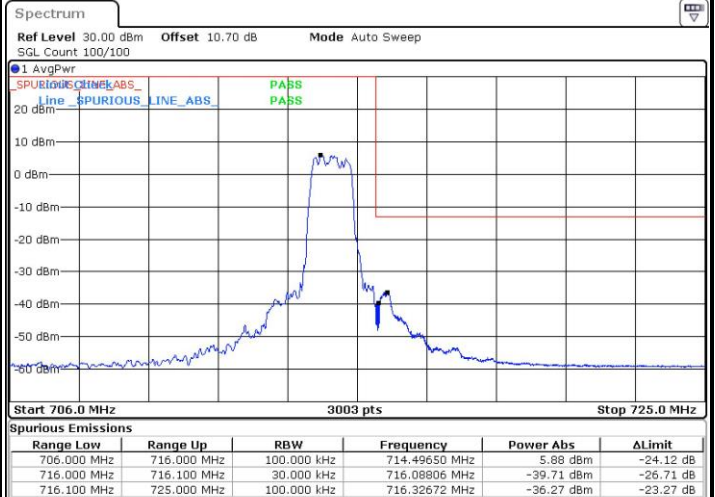
Date: 14.NOV.2018 01:32:05

Lowest Band Edge / Full RB



Date: 14.NOV.2018 01:18:09

Highest Band Edge / Full RB

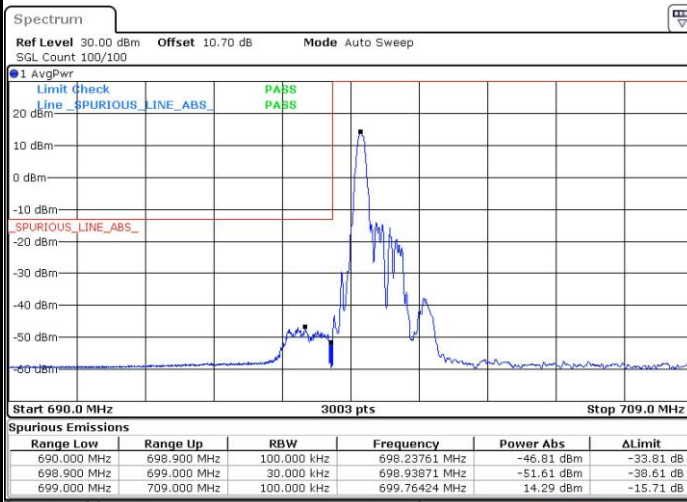


Date: 14.NOV.2018 01:29:19



LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



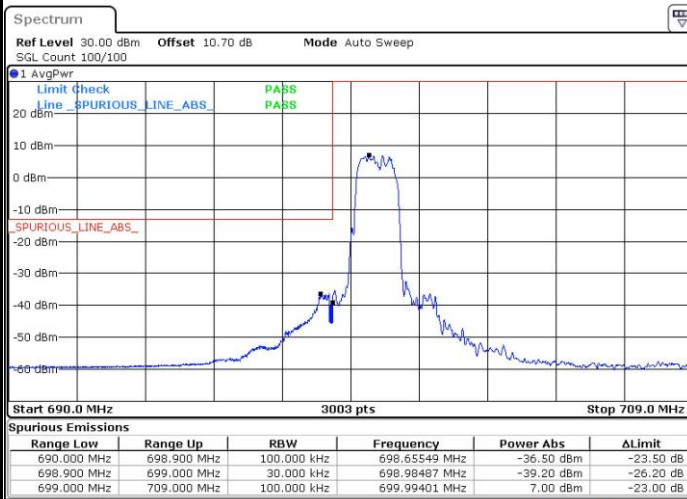
Date: 14.NOV.2018 01:19:27

Highest Band Edge / 1 RB



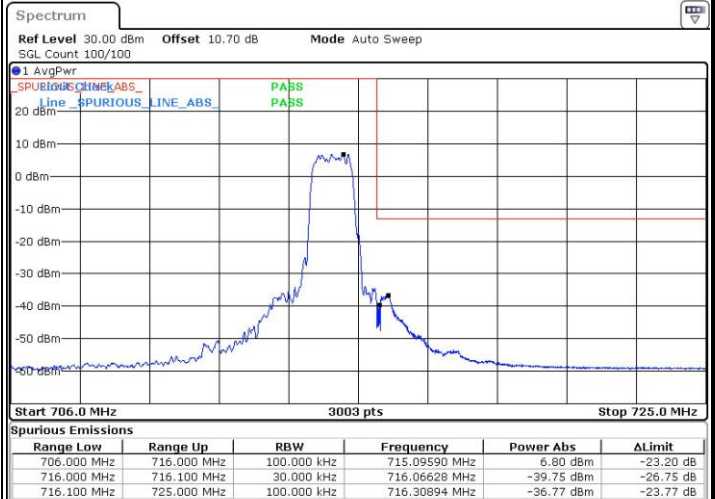
Date: 14.NOV.2018 01:32:36

Lowest Band Edge / Full RB



Date: 14.NOV.2018 01:17:22

Highest Band Edge / Full RB

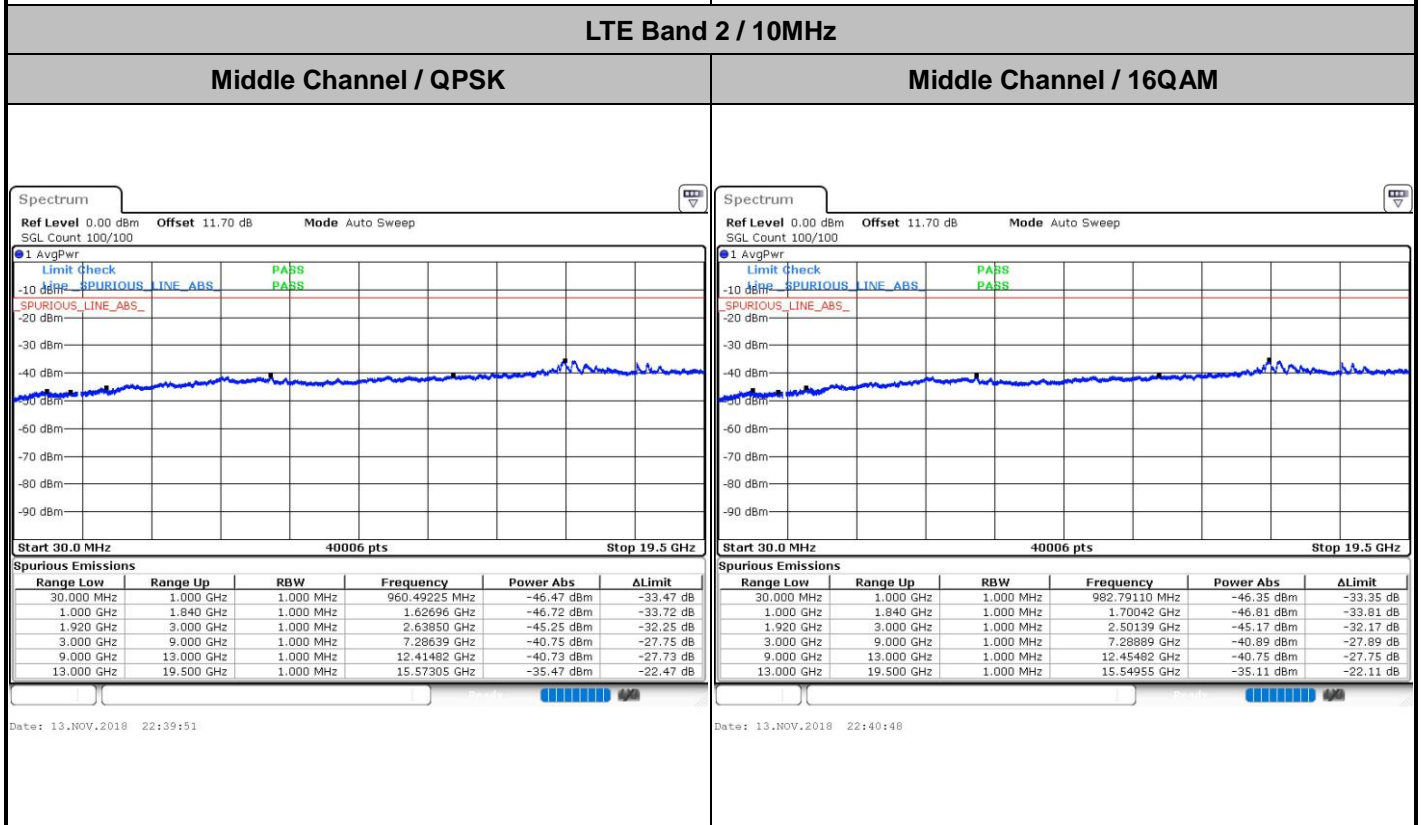
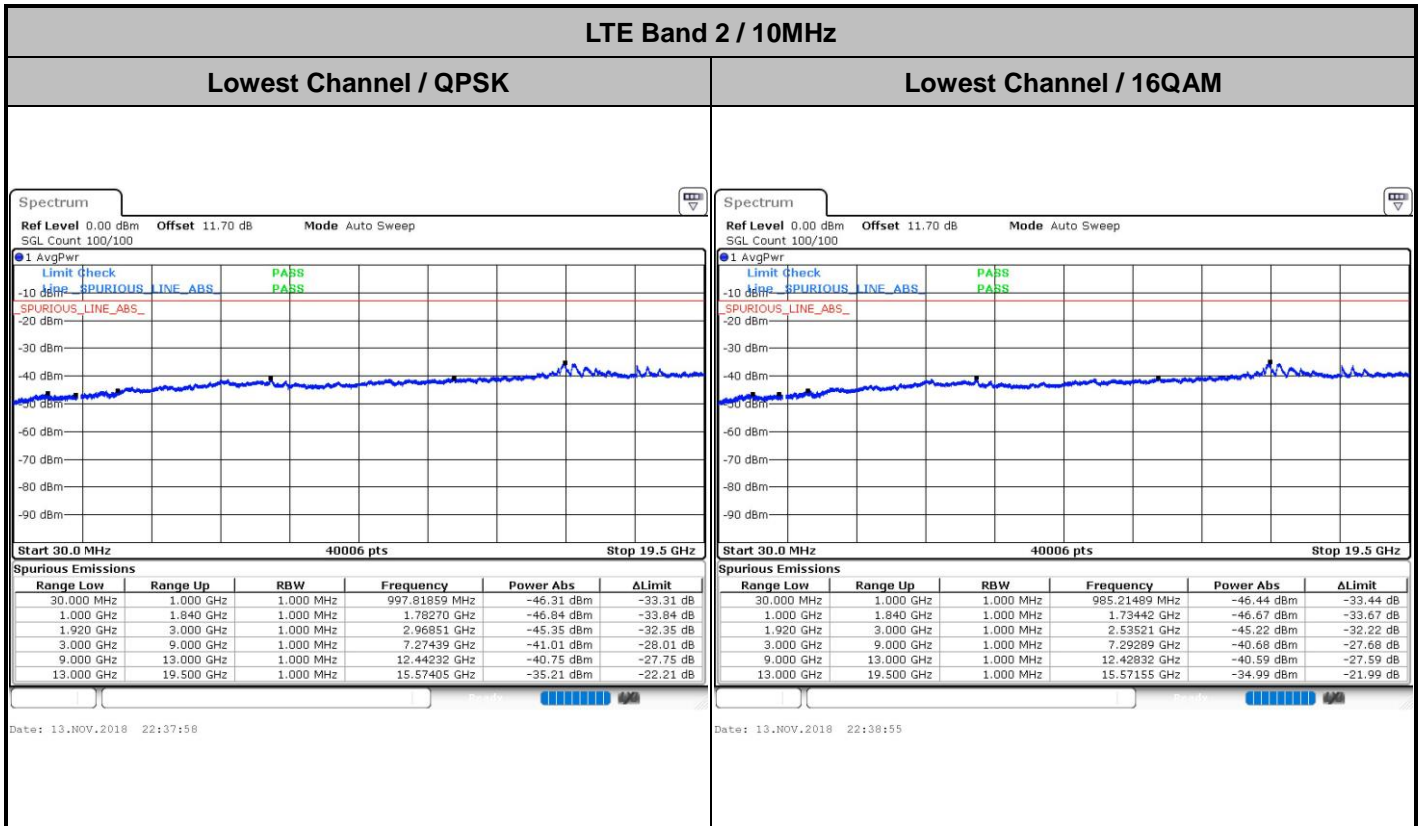


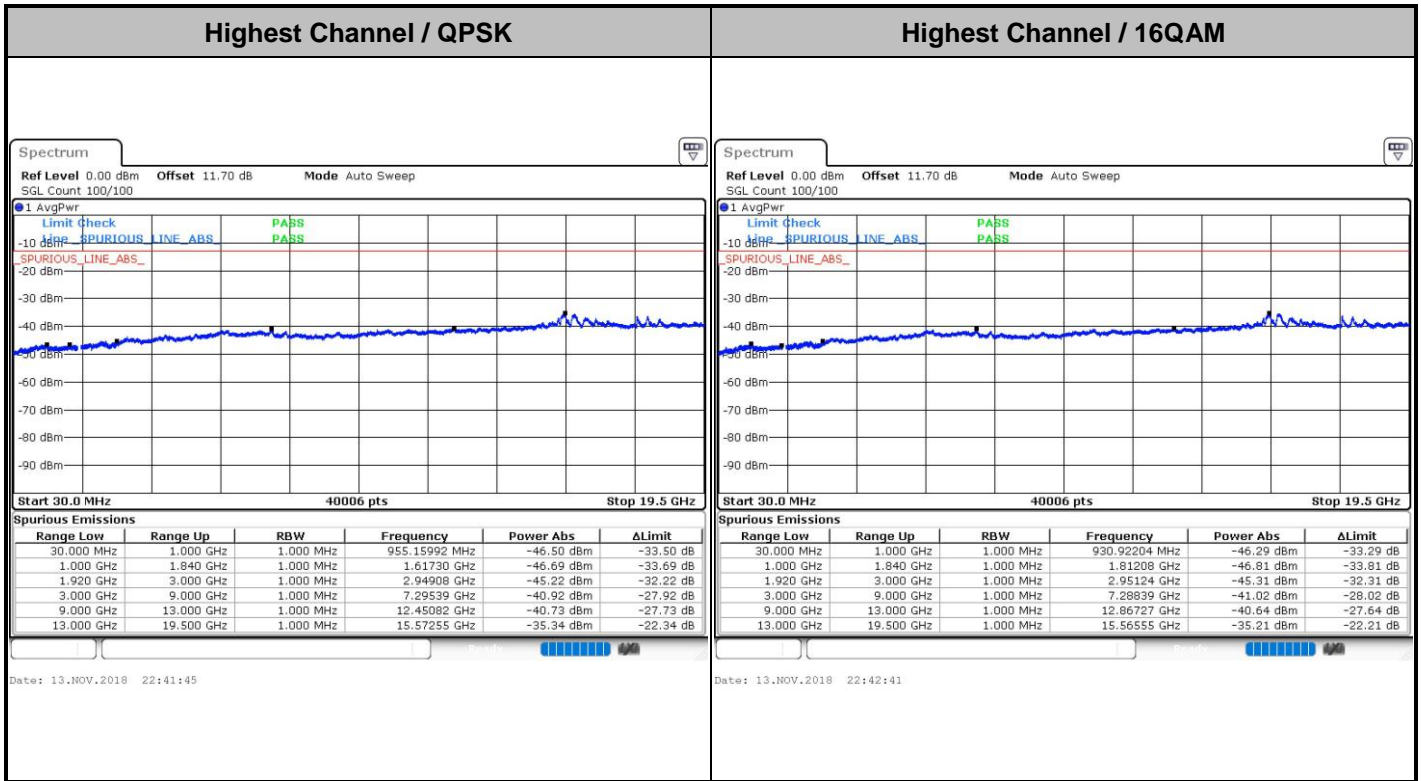
Date: 14.NOV.2018 01:30:55





# Conducted Spurious Emission



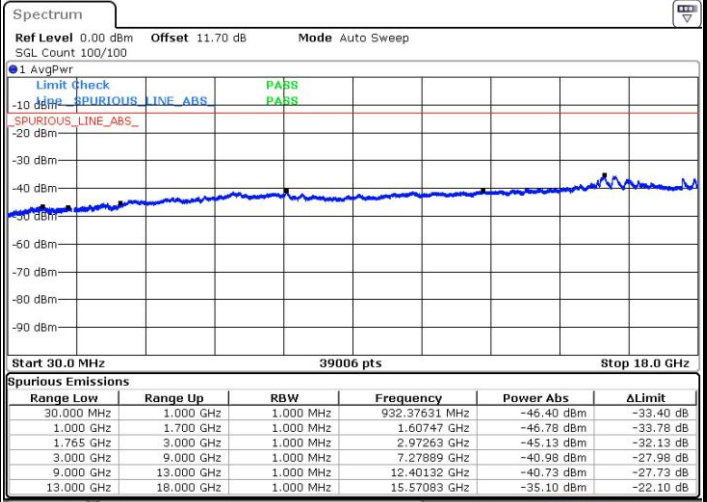
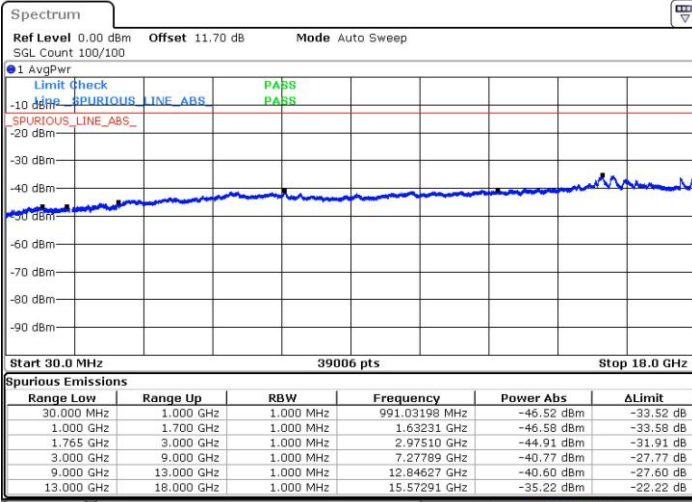




LTE Band 4 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



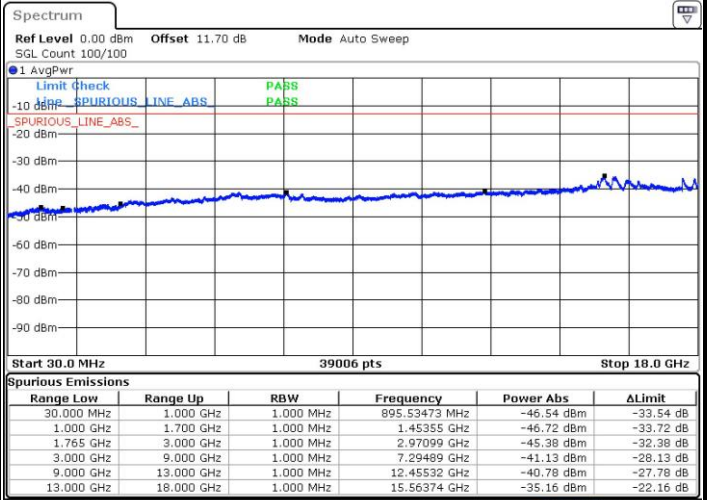
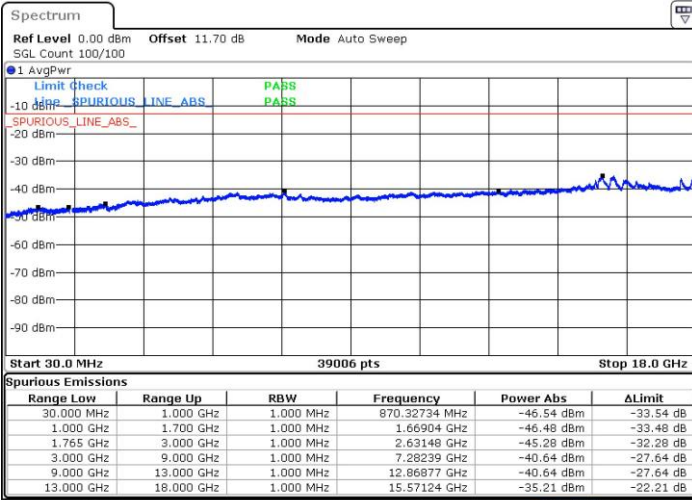
Date: 13.NOV.2018 23:59:39

Date: 14.NOV.2018 00:00:36

LTE Band 4 / 10MHz

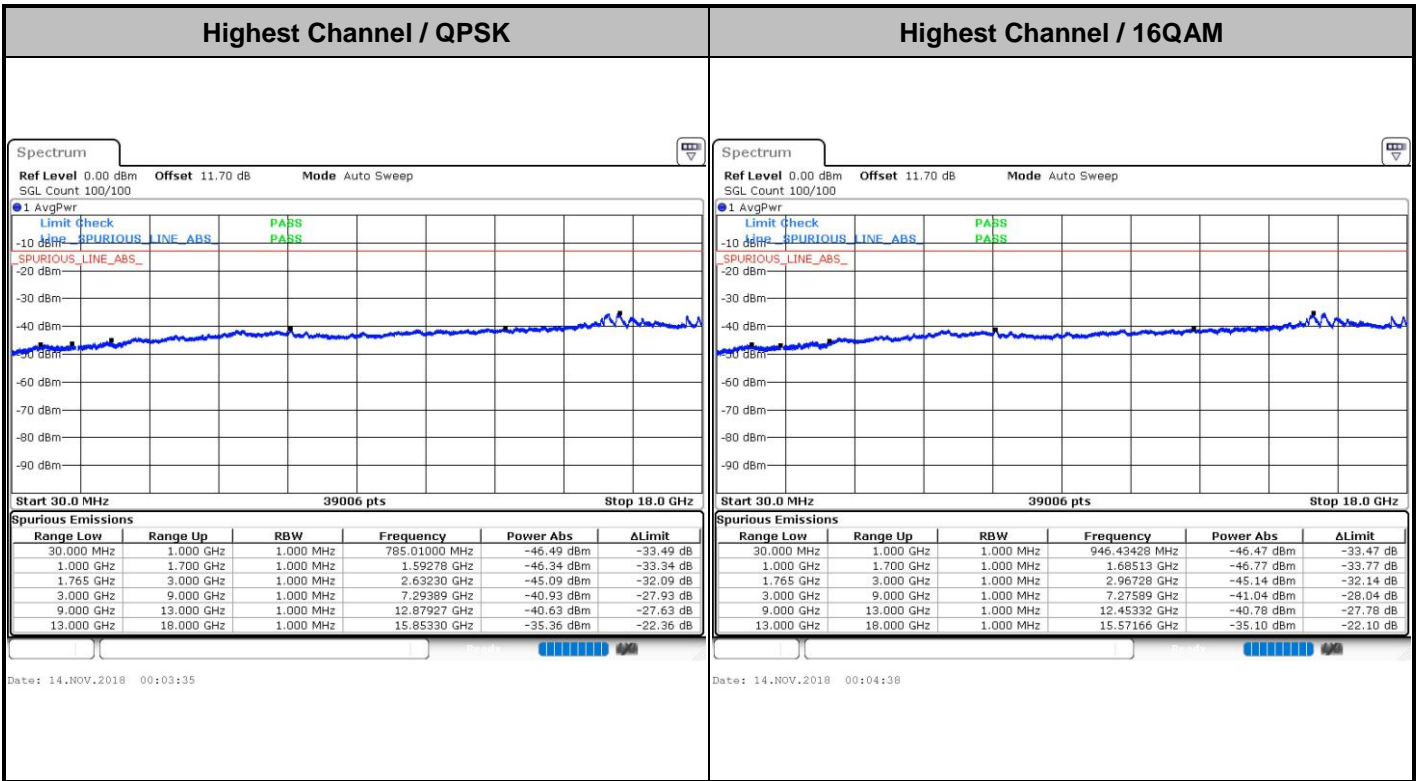
Middle Channel / QPSK

Middle Channel / 16QAM



Date: 14.NOV.2018 00:01:32

Date: 14.NOV.2018 00:02:29

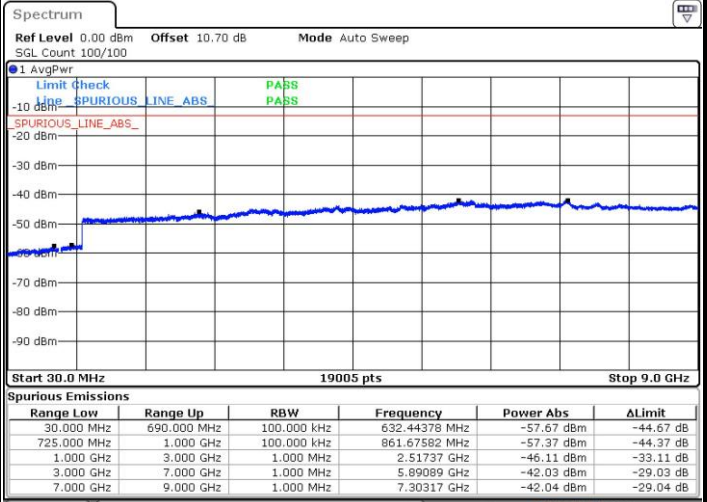
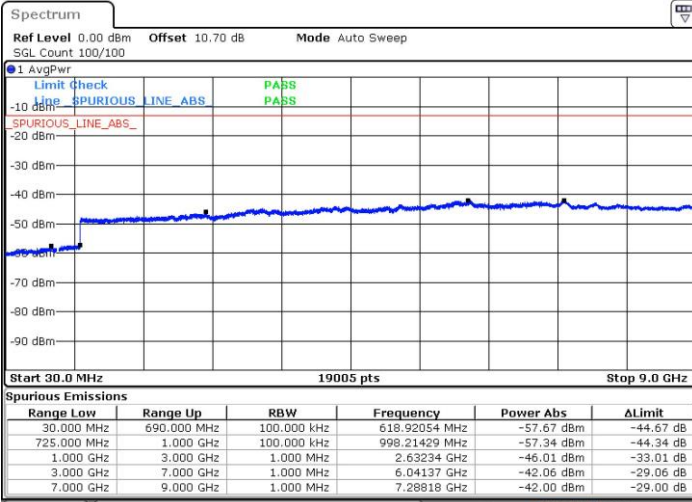




LTE Band 12 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



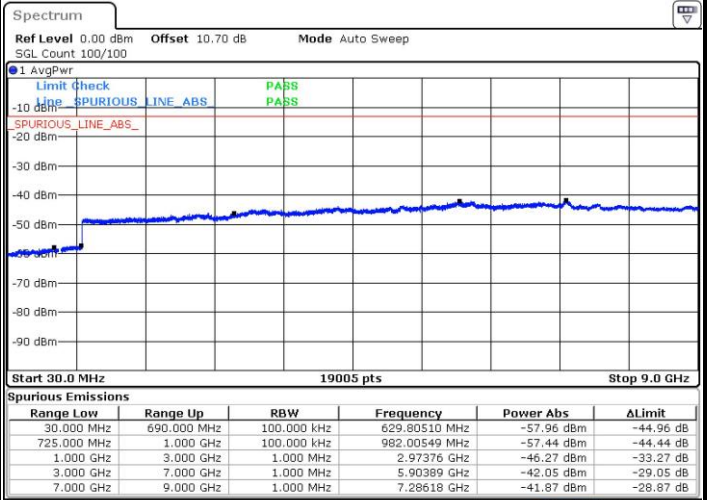
Date: 14.NOV.2018 01:10:40

Date: 14.NOV.2018 01:11:36

LTE Band 12 / 10MHz

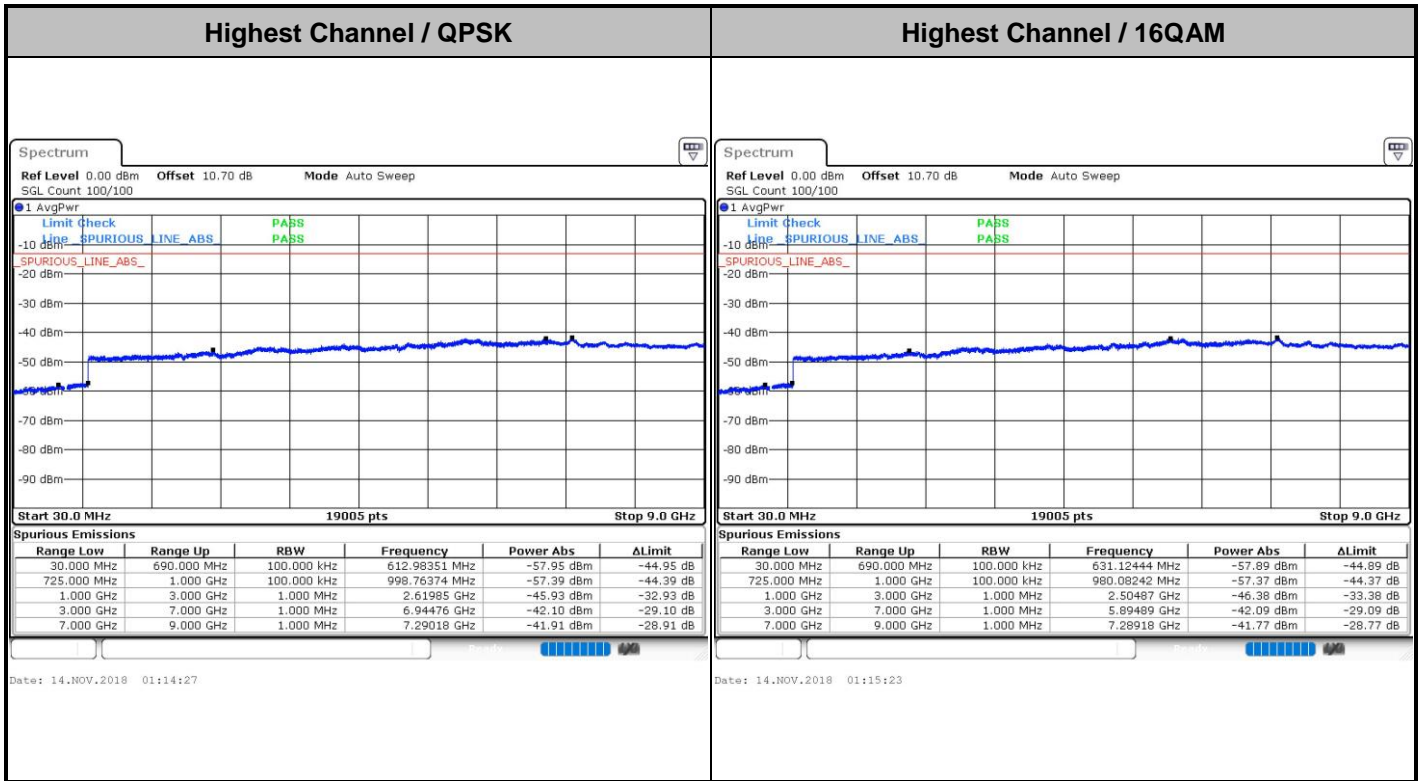
Middle Channel / QPSK

Middle Channel / 16QAM



Date: 14.NOV.2018 01:13:30

Date: 14.NOV.2018 01:12:33





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	0.0027	PASS
40	Normal Voltage	0.0043	
30	Normal Voltage	0.0098	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0077	
-30	Normal Voltage	0.0039	
20	Maximum Voltage	0.0107	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0102	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0043	PASS
40	Normal Voltage	0.0042	
30	Normal Voltage	0.0009	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0046	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0100	
20	Maximum Voltage	0.0102	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0128	

**Note:**

- 3. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.25 V.
- 4. Note: The frequency fundamental emissions stay within the authorized frequency block.





Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0066	PASS
40	Normal Voltage	0.0106	
30	Normal Voltage	0.0120	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0045	
-10	Normal Voltage	0.0028	
-20	Normal Voltage	0.0041	
-30	Normal Voltage	0.0047	
20	Maximum Voltage	0.0276	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0052	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.25 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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702.18	-60.99	-13	-47.99	-79.41	-67.75	5.82	12.58	H
	5553.27	-58.29	-13	-45.29	-80.70	-64.01	7.28	13.00	H
	7404.36	-53.47	-13	-40.47	-81.79	-56.63	8.32	11.48	H
	3702.18	-61.20	-13	-48.20	-79.65	-67.96	5.82	12.58	V
	5553.27	-59.24	-13	-46.24	-81.85	-64.96	7.28	13.00	V
	7404.36	-53.89	-13	-40.89	-81.89	-57.05	8.32	11.48	V
Middle	3742.18	-61.76	-13	-48.76	-80.22	-68.51	5.85	12.60	H
	5613.27	-59.60	-13	-46.60	-82.13	-65.40	7.30	13.10	H
	7484.36	-54.57	-13	-41.57	-82.55	-57.72	8.35	11.50	H
	3742.18	-57.81	-13	-44.81	-76.31	-64.56	5.85	12.60	V
	5613.27	-58.75	-13	-45.75	-81.43	-64.55	7.30	13.10	V
	7484.36	-54.70	-13	-41.70	-82.43	-57.85	8.35	11.50	V
Highest	3782.18	-48.05	-13	-35.05	-66.61	-54.79	5.88	12.62	H
	5673.27	-51.61	-13	-38.61	-73.91	-57.42	7.32	13.13	H
	7564.36	-52.30	-13	-39.30	-79.93	-55.46	8.38	11.54	H
	3782.18	-49.00	-13	-36.00	-67.6	-55.74	5.88	12.62	V
	5673.27	-53.57	-13	-40.57	-76.25	-59.38	7.32	13.13	V
	7564.36	-52.55	-13	-39.55	-80.02	-55.71	8.38	11.54	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3422.18	-63.47	-13	-50.47	-80.14	-70.35	5.60	12.48	H
	5133.27	-60.82	-13	-47.82	-82.41	-66.50	7.10	12.78	H
	6844.36	-56.43	-13	-43.43	-82.82	-59.82	8.38	11.77	H
	3422.18	-63.60	-13	-50.60	-80.31	-70.48	5.60	12.48	V
	5133.27	-60.17	-13	-47.17	-82.19	-65.85	7.10	12.78	V
	6844.36	-55.96	-13	-42.96	-82.58	-59.35	8.38	11.77	V
Middle	3447.18	-63.58	-13	-50.58	-80.55	-70.43	5.65	12.50	H
	5170.77	-61.25	-13	-48.25	-82.88	-66.92	7.13	12.80	H
	6894.36	-56.38	-13	-43.38	-83.01	-59.78	8.40	11.80	H
	3447.18	-63.51	-13	-50.51	-80.51	-70.36	5.65	12.50	V
	5170.77	-60.73	-13	-47.73	-82.81	-66.40	7.13	12.80	V
	6894.36	-56.14	-13	-43.14	-82.93	-59.54	8.40	11.80	V
Highest	3472.18	-63.41	-13	-50.41	-80.53	-70.25	5.68	12.52	H
	5208.27	-53.40	-13	-40.40	-74.89	-59.07	7.15	12.82	H
	6944.36	-55.76	-13	-42.76	-82.63	-59.19	8.42	11.85	H
	3472.18	-63.36	-13	-50.36	-80.51	-70.20	5.68	12.52	V
	5208.27	-53.15	-13	-40.15	-74.94	-58.82	7.15	12.82	V
	6944.36	-55.78	-13	-42.78	-82.74	-59.21	8.42	11.85	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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1399	-43.21	-13	-30.21	-54.18	-46.44	3.98	9.36	H
	2098.5	-52.65	-13	-39.65	-66.86	-56.20	4.85	10.55	H
	2798	-64.31	-13	-51.31	-79.56	-69.24	5.50	12.58	H
	1399	-43.90	-13	-30.90	-54.79	-47.13	3.98	9.36	V
	2098.5	-48.72	-13	-35.72	-62.86	-52.27	4.85	10.55	V
	2798	-63.16	-13	-50.16	-79.12	-68.09	5.50	12.58	V
Middle	1406	-40.87	-13	-27.87	-51.88	-44.12	4.00	9.40	H
	2109	-63.30	-13	-50.30	-77.53	-66.87	4.88	10.60	H
	2812	-64.13	-13	-51.13	-79.54	-69.06	5.52	12.60	H
	1406	-39.07	-13	-26.07	-50.04	-42.32	4.00	9.40	V
	2109	-56.38	-13	-43.38	-70.54	-59.95	4.88	10.60	V
	2812	-63.61	-13	-50.61	-79.63	-68.54	5.52	12.60	V
Highest	1413	-41.13	-13	-28.13	-52.14	-44.30	4.10	9.42	H
	2119.5	-54.70	-13	-41.70	-69.16	-58.28	4.90	10.63	H
	2826	-63.82	-13	-50.82	-79.23	-68.74	5.55	12.62	H
	1413	-40.16	-13	-27.16	-51.13	-43.33	4.10	9.42	V
	2119.5	-55.22	-13	-42.22	-69.59	-58.80	4.90	10.63	V
	2826	-63.40	-13	-50.40	-79.42	-68.32	5.55	12.62	V

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