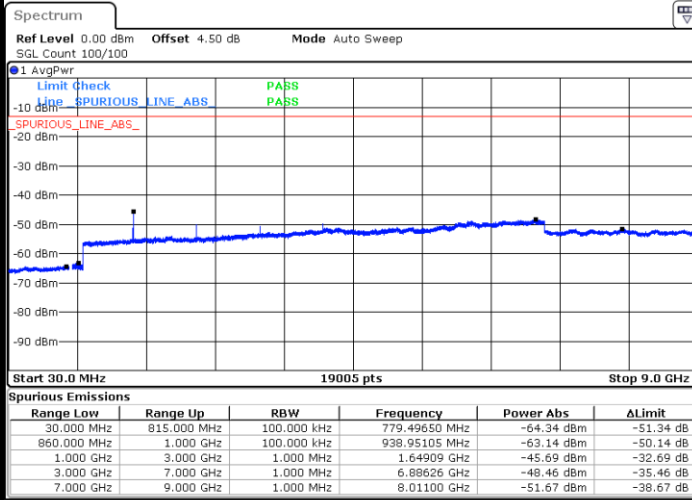




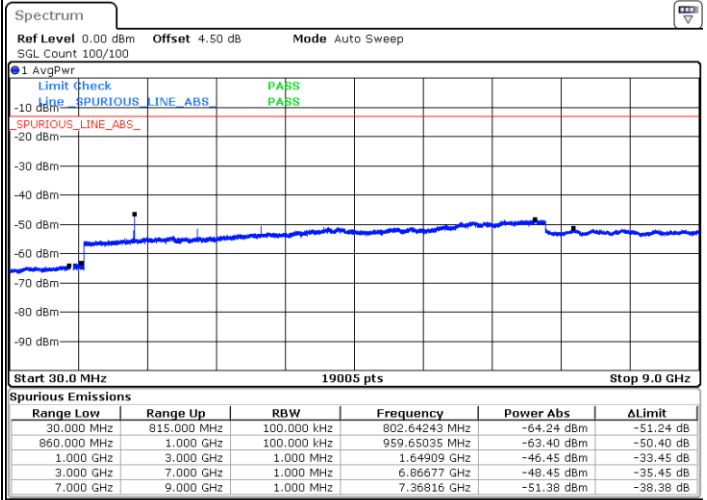
LTE Band 5 / 5MHz

Lowest Channel / QPSK



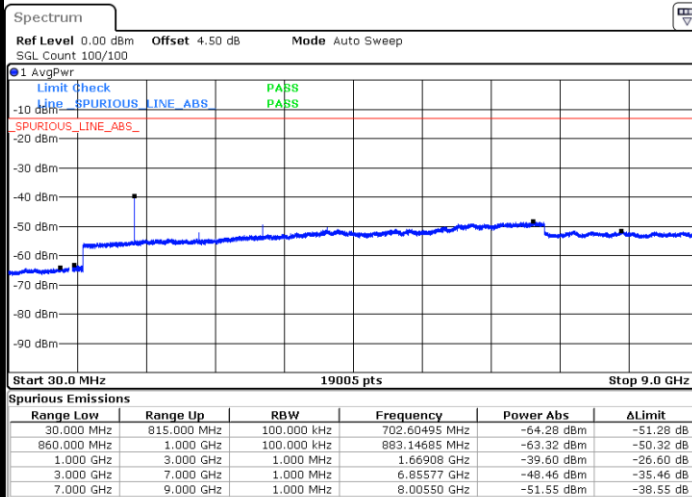
Date: 29 OCT 2018 20:40:48

Lowest Channel / 16QAM



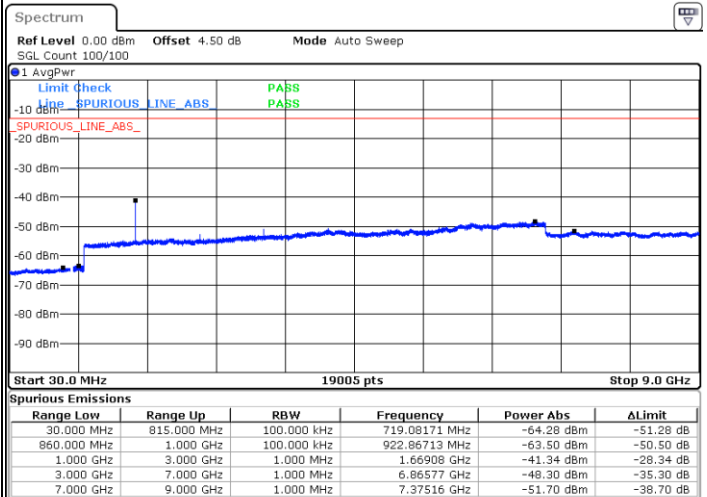
Date: 29 OCT 2018 20:41:42

Middle Channel / QPSK



Date: 29 OCT 2018 20:43:17

Middle Channel / 16QAM

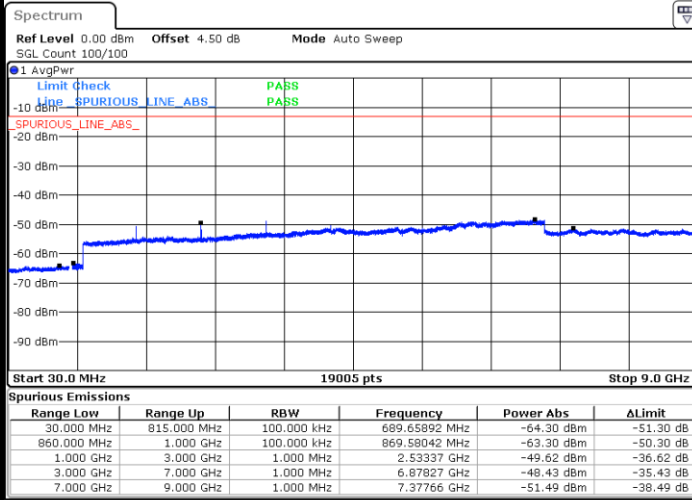


Date: 29 OCT 2018 20:44:11



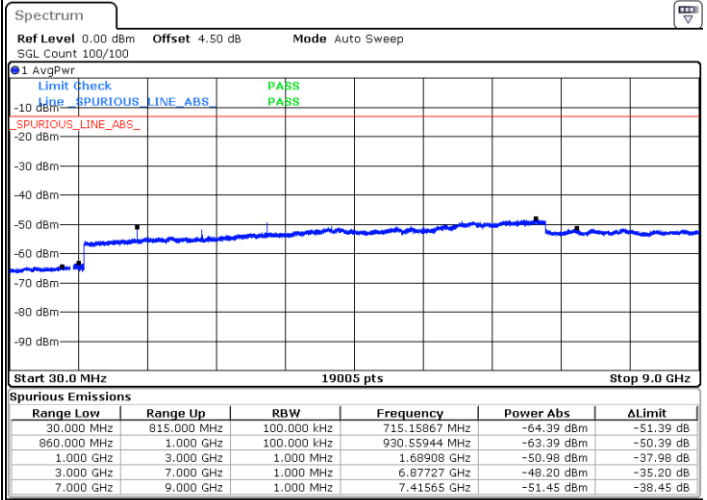
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 29 OCT 2018 20:49:51

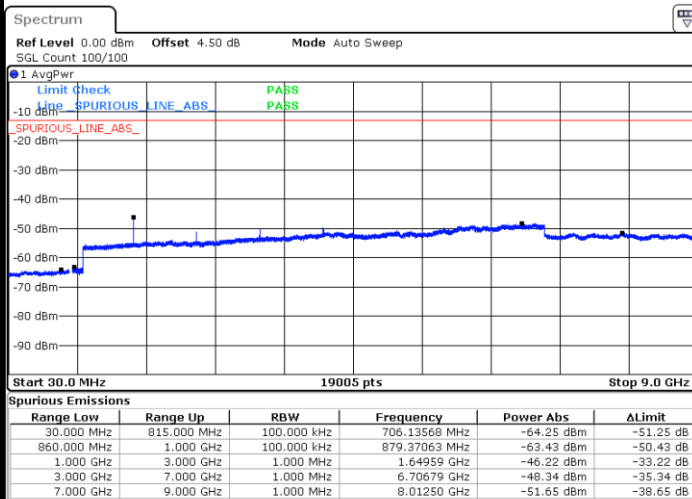
Highest Channel / 16QAM



Date: 29 OCT 2018 20:50:46

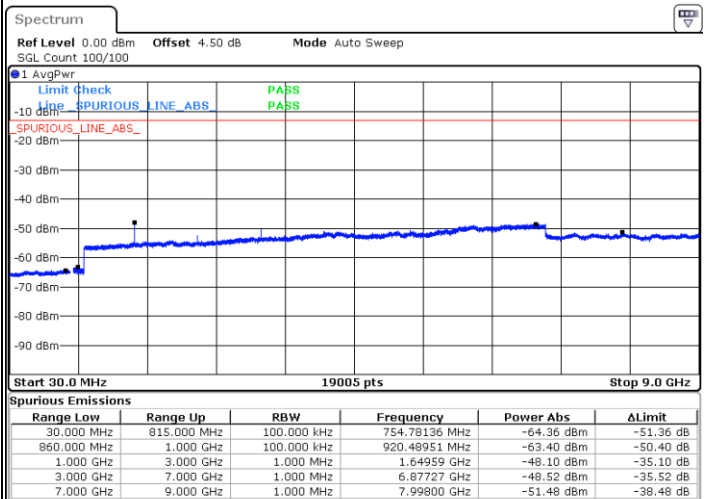
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 29 OCT 2018 20:52:21

Lowest Channel / 16QAM

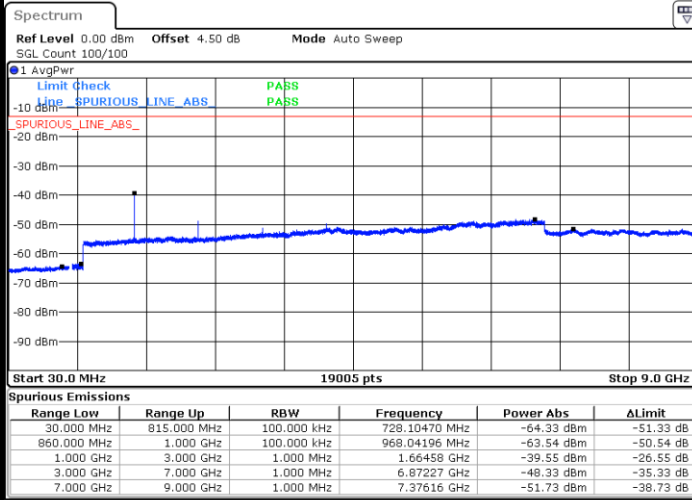


Date: 29 OCT 2018 20:53:15



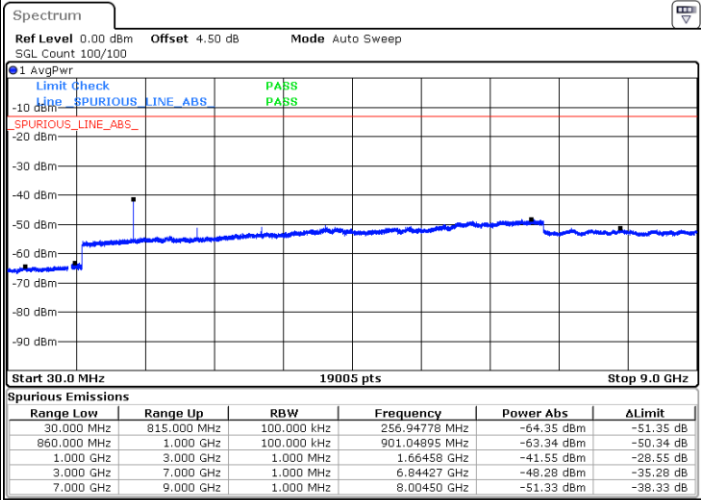
LTE Band 5 / 10MHz

Middle Channel / QPSK



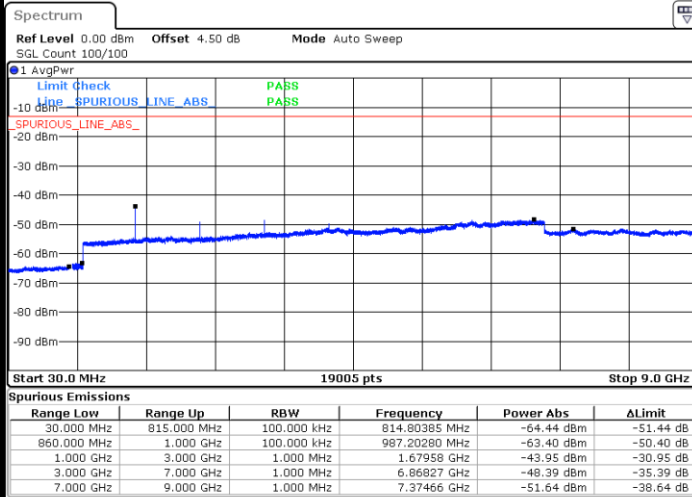
Date: 29 OCT 2018 20:54:49

Middle Channel / 16QAM



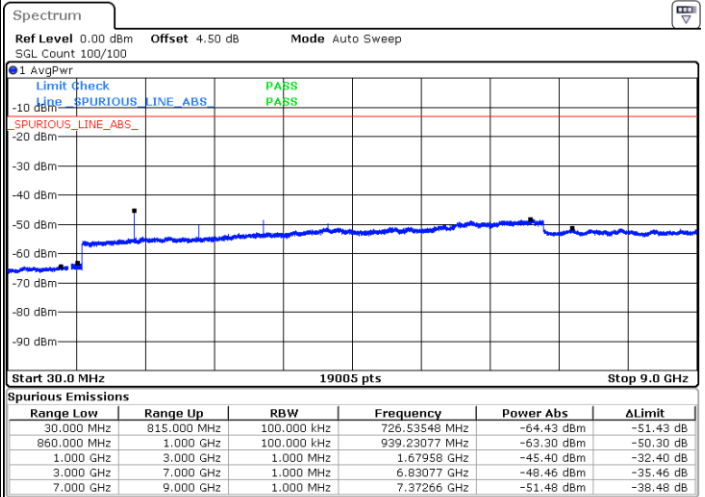
Date: 29 OCT 2018 20:55:44

Highest Channel / QPSK



Date: 29 OCT 2018 20:57:19

Highest Channel / 16QAM

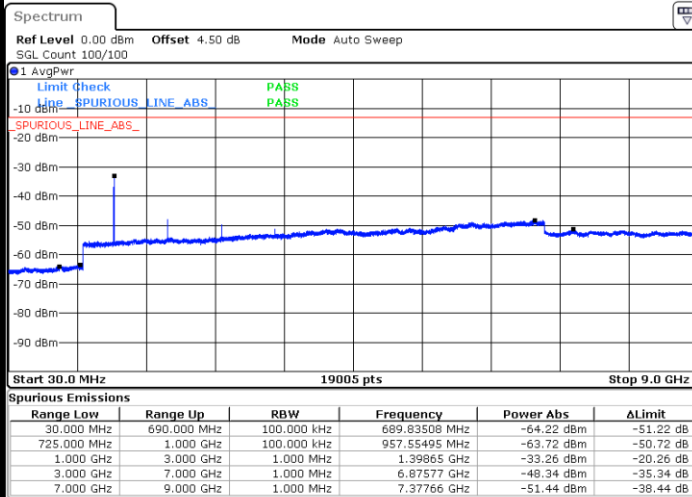


Date: 29 OCT 2018 20:58:13



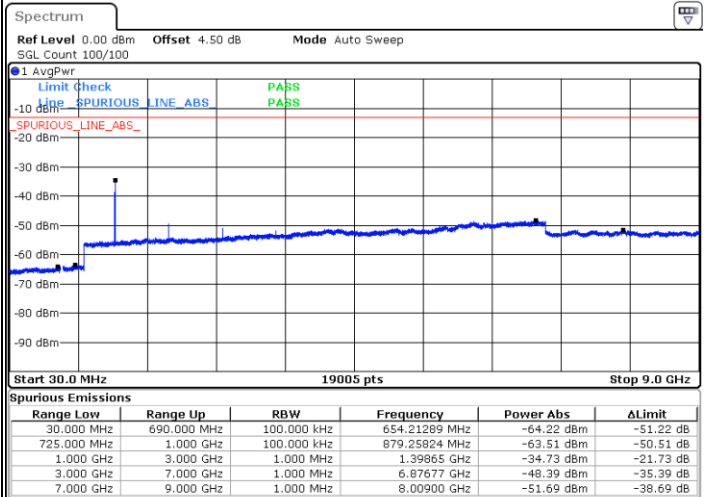
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



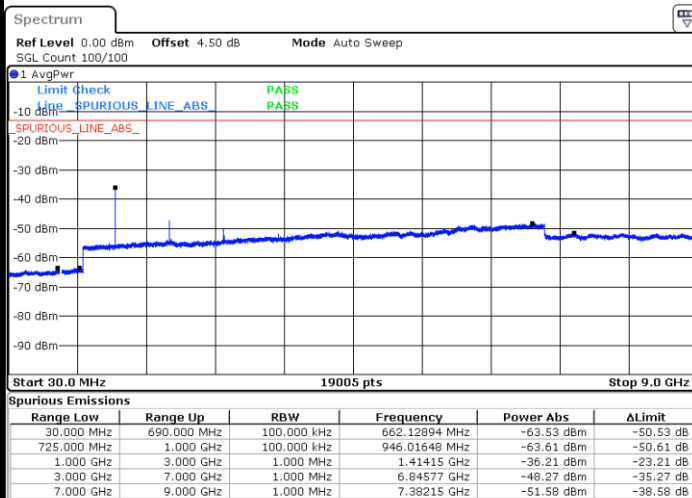
Date: 31.OCT.2018 23:11:20

Lowest Channel / 16QAM



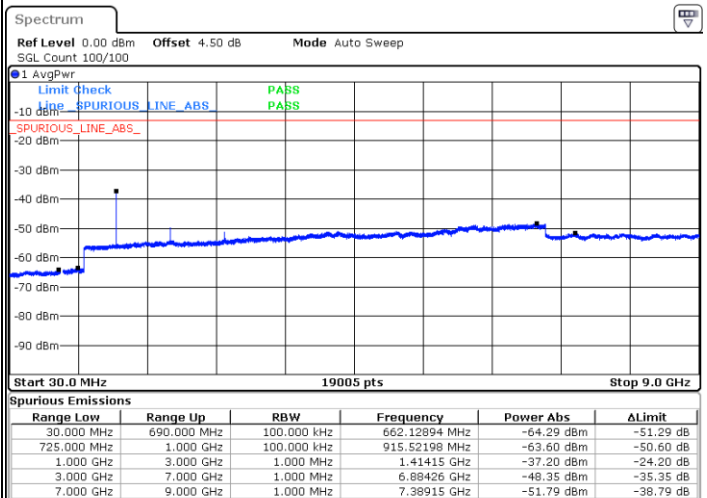
Date: 31.OCT.2018 23:12:15

Middle Channel / QPSK



Date: 31.OCT.2018 23:14:03

Middle Channel / 16QAM

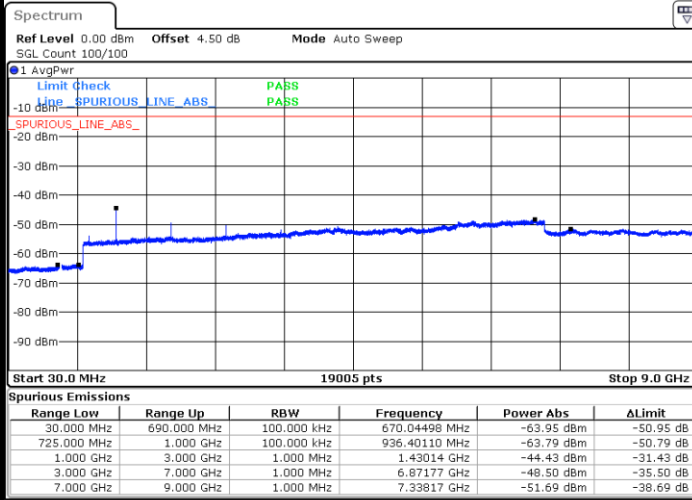


Date: 31.OCT.2018 23:13:09



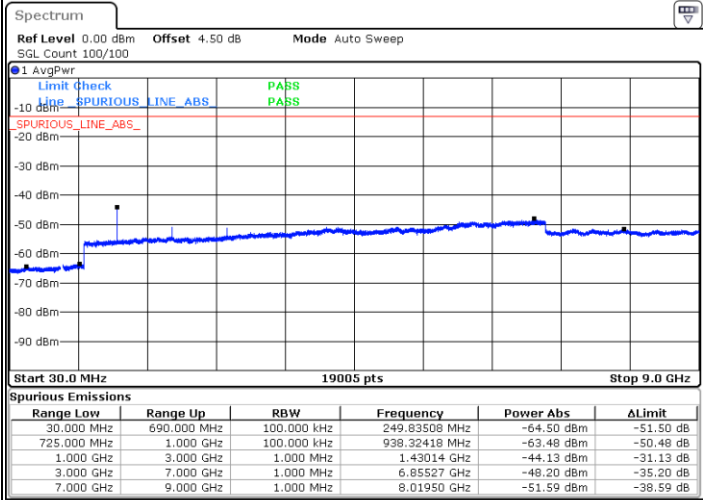
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 31.OCT.2018 23:14:58

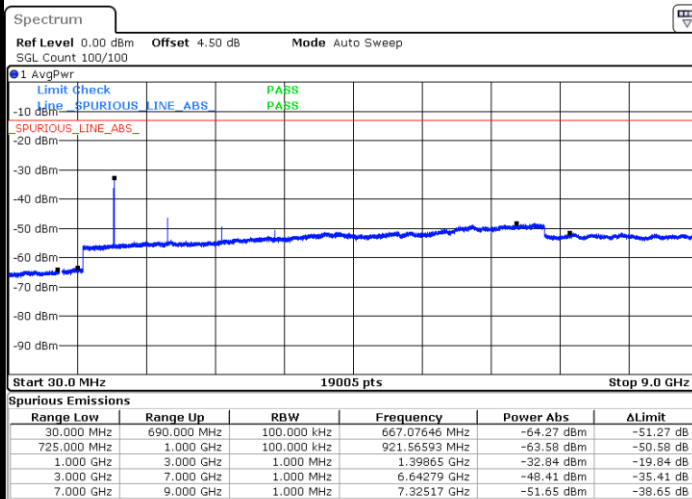
Highest Channel / 16QAM



Date: 31.OCT.2018 23:15:52

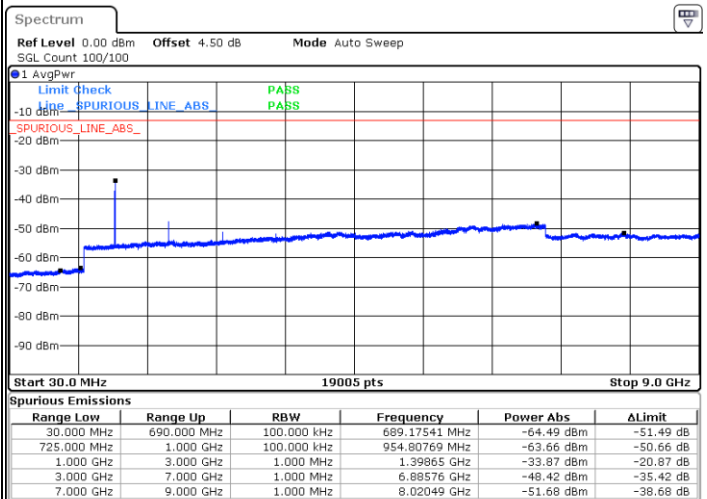
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 31.OCT.2018 23:27:47

Lowest Channel / 16QAM

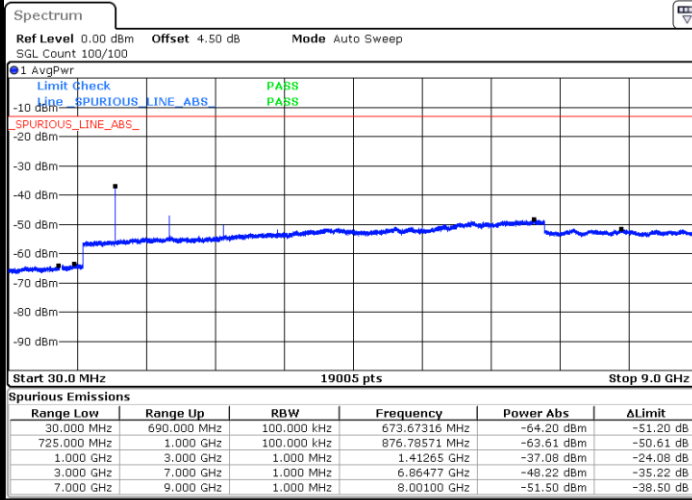


Date: 31.OCT.2018 23:28:42



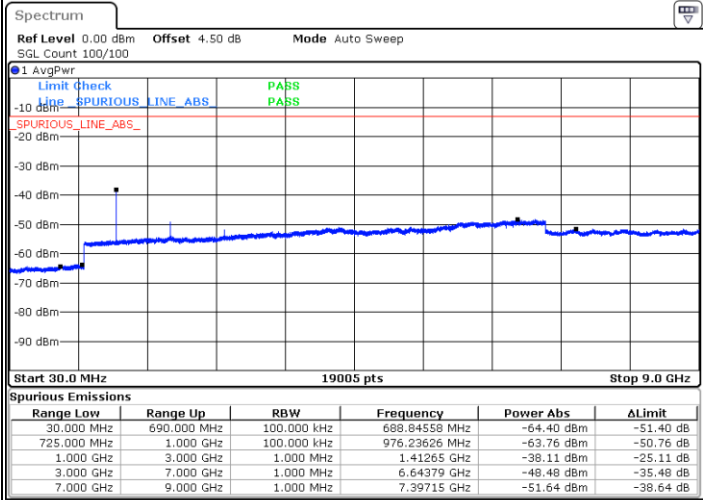
LTE Band 12 / 3MHz

Middle Channel / QPSK



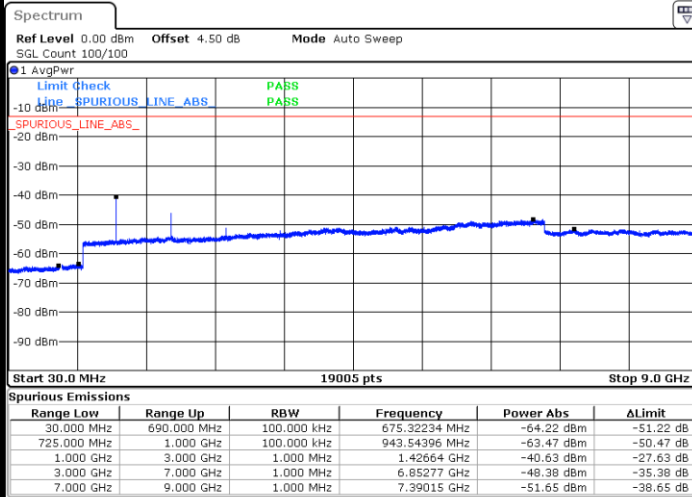
Date: 31.OCT.2018 23:30:31

Middle Channel / 16QAM



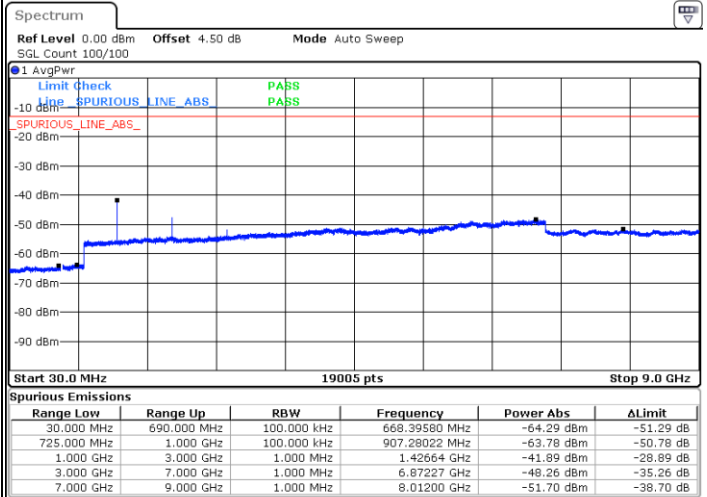
Date: 31.OCT.2018 23:29:36

Highest Channel / QPSK



Date: 31.OCT.2018 23:31:25

Highest Channel / 16QAM

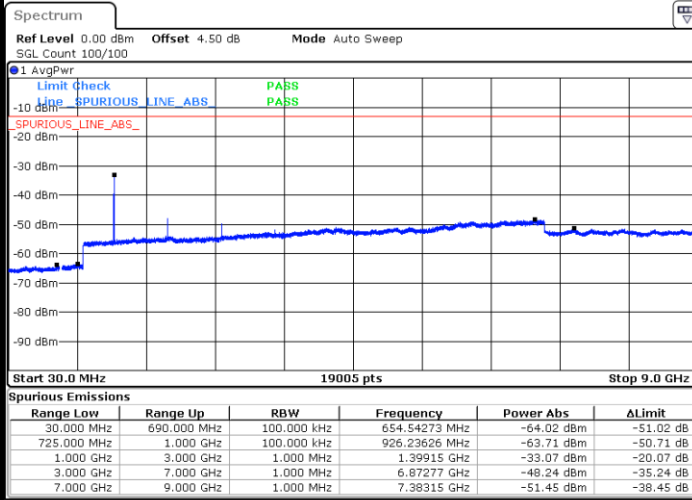


Date: 31.OCT.2018 23:32:19



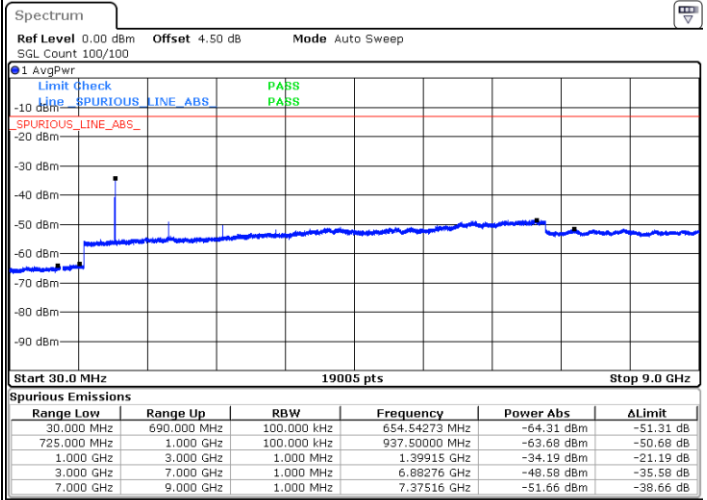
LTE Band 12 / 5MHz

Lowest Channel / QPSK



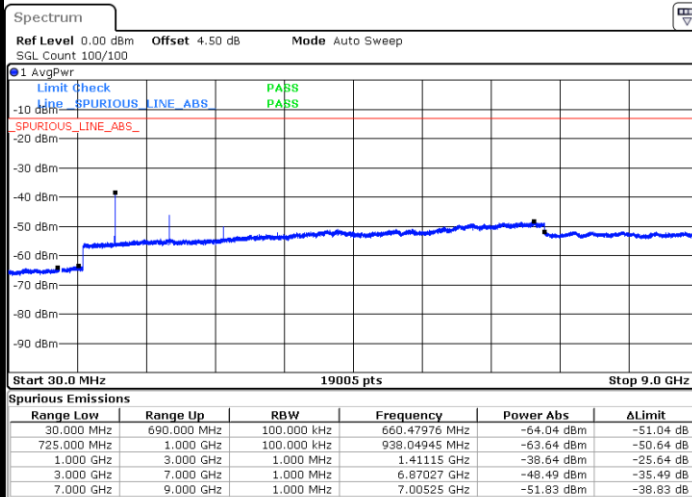
Date: 31.OCT.2018 23:44:14

Lowest Channel / 16QAM



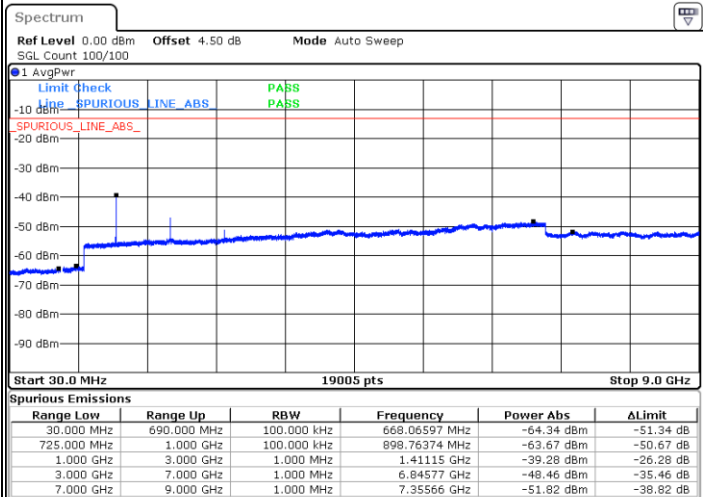
Date: 31.OCT.2018 23:45:08

Middle Channel / QPSK



Date: 31.OCT.2018 23:46:57

Middle Channel / 16QAM

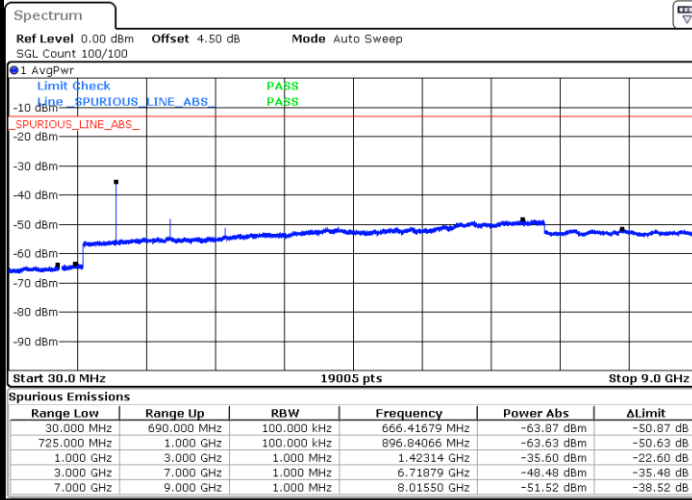


Date: 31.OCT.2018 23:46:03



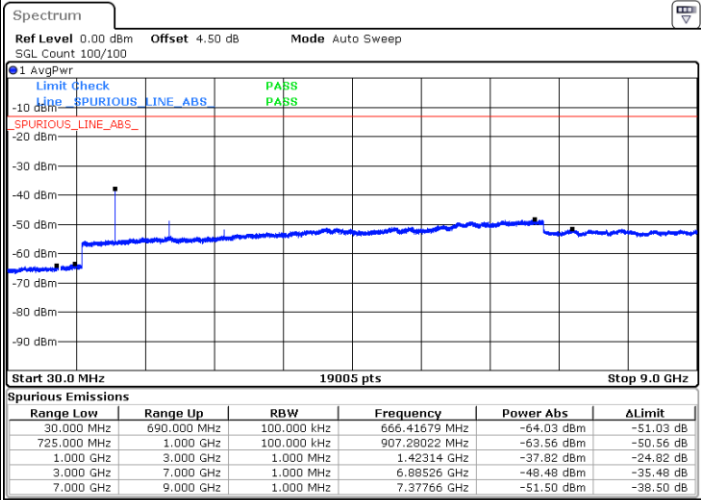
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 31.OCT.2018 23:47:52

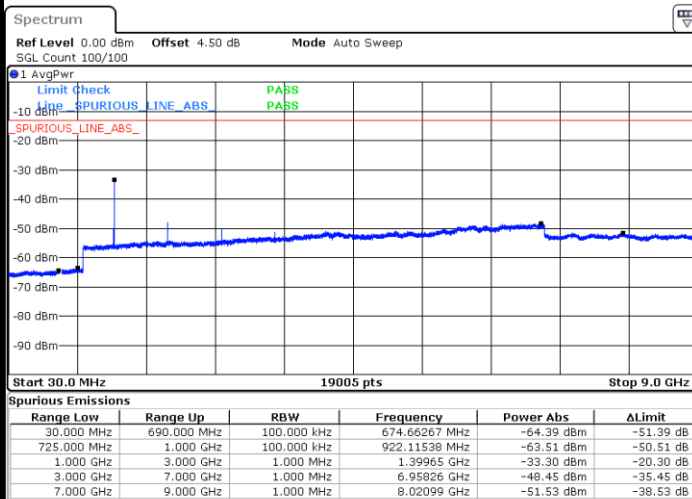
Highest Channel / 16QAM



Date: 31.OCT.2018 23:48:46

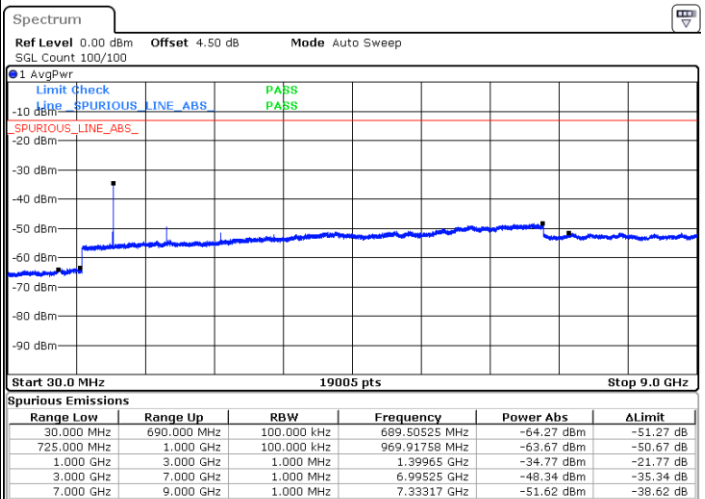
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 1.NOV.2018 00:00:41

Lowest Channel / 16QAM

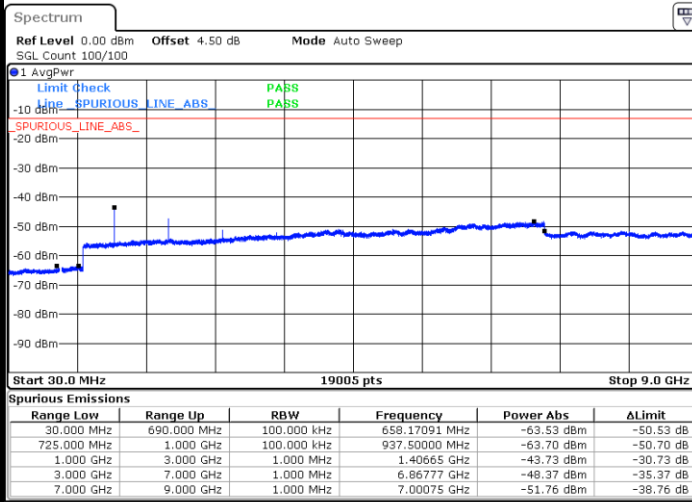


Date: 1.NOV.2018 00:01:35



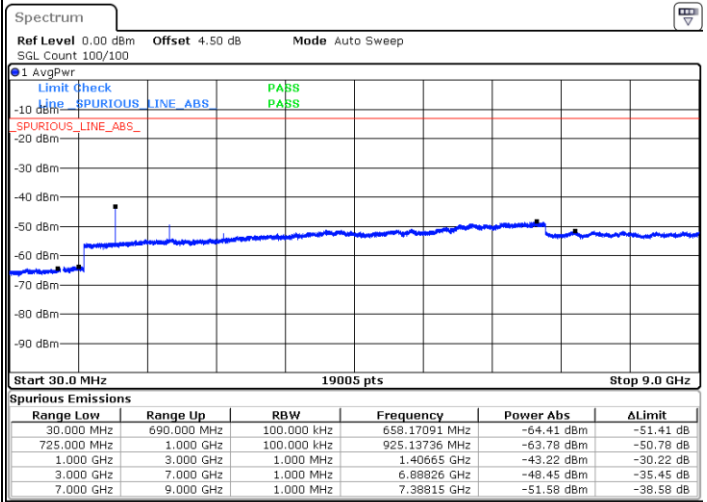
LTE Band 12 / 10MHz

Middle Channel / QPSK



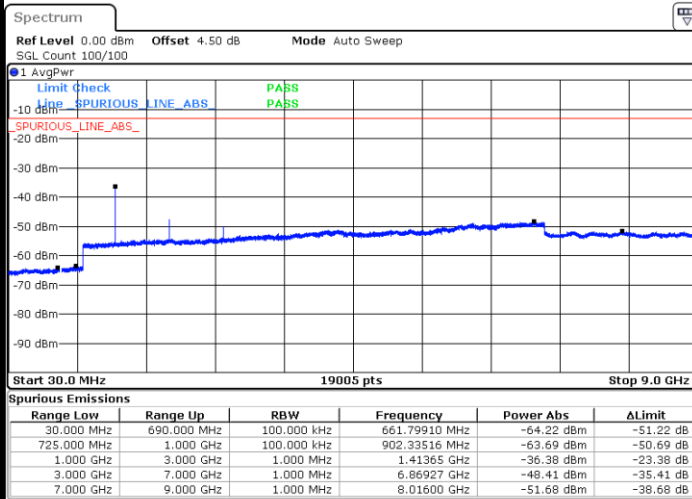
Date: 1.NOV.2018 00:03:24

Middle Channel / 16QAM



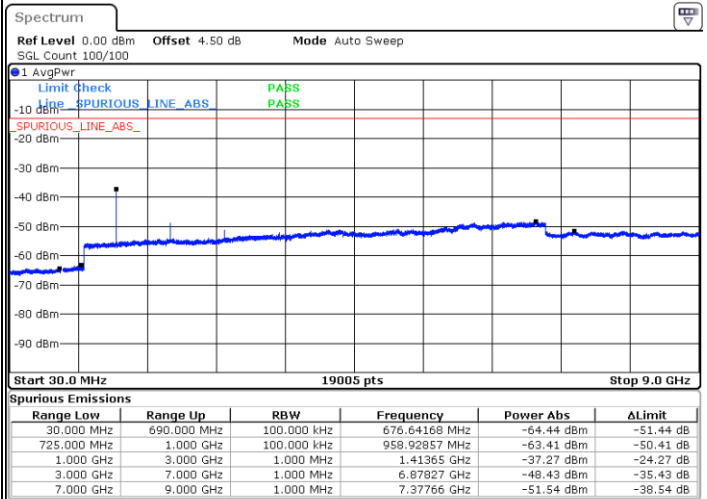
Date: 1.NOV.2018 00:02:30

Highest Channel / QPSK



Date: 1.NOV.2018 00:04:19

Highest Channel / 16QAM

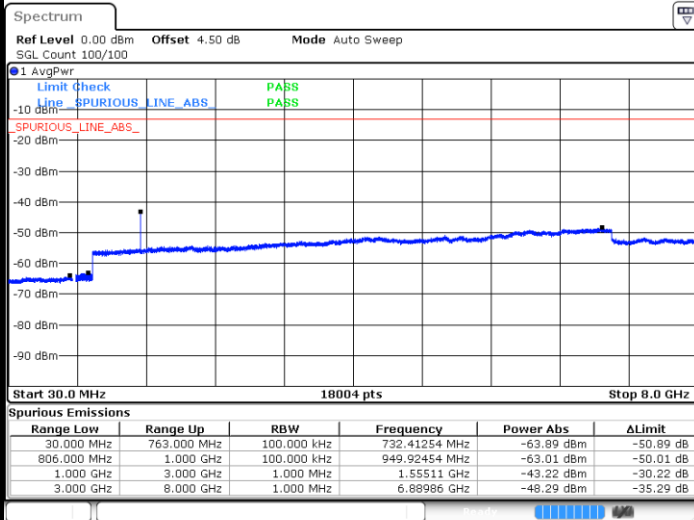


Date: 1.NOV.2018 00:05:13



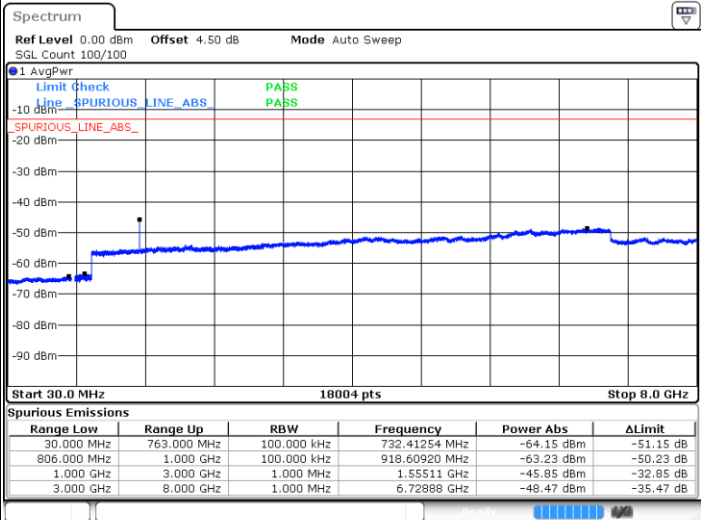
LTE Band 13 / 5MHz

Lowest Channel / QPSK



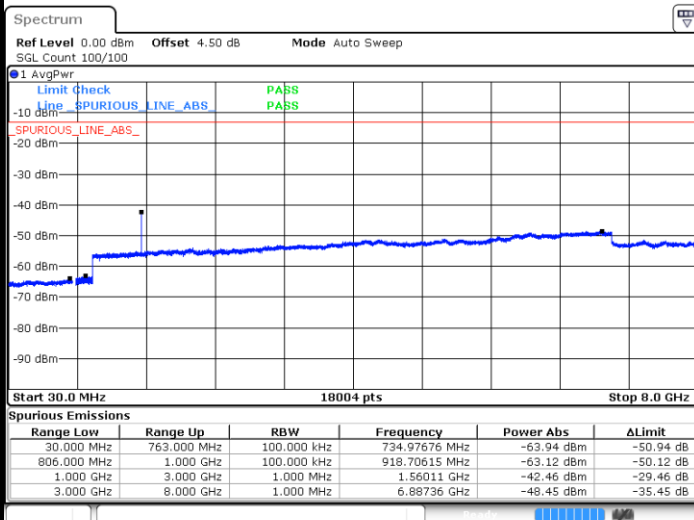
Date: 31.OCT.2018 22:06:18

Lowest Channel / 16QAM



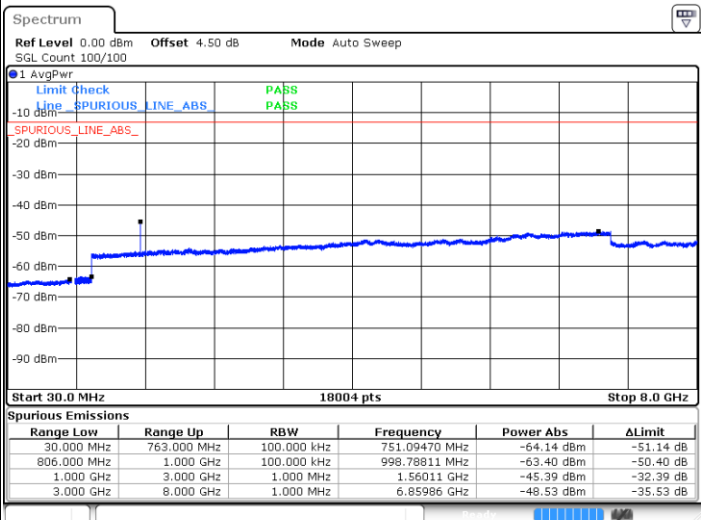
Date: 31.OCT.2018 22:05:24

Middle Channel / QPSK



Date: 31.OCT.2018 22:07:52

Middle Channel / 16QAM

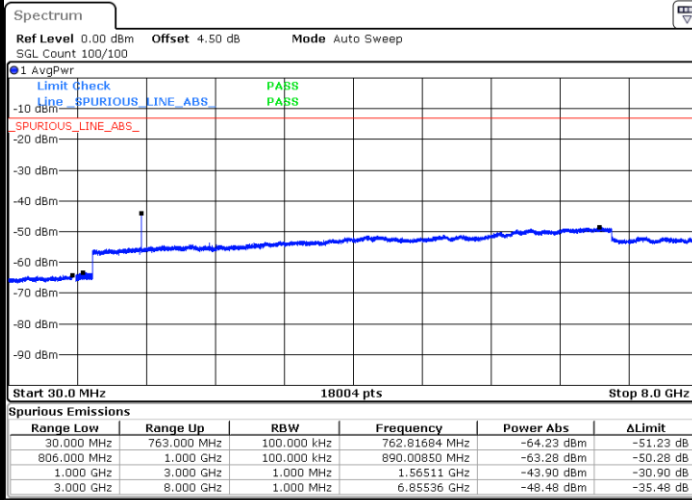


Date: 31.OCT.2018 22:08:46



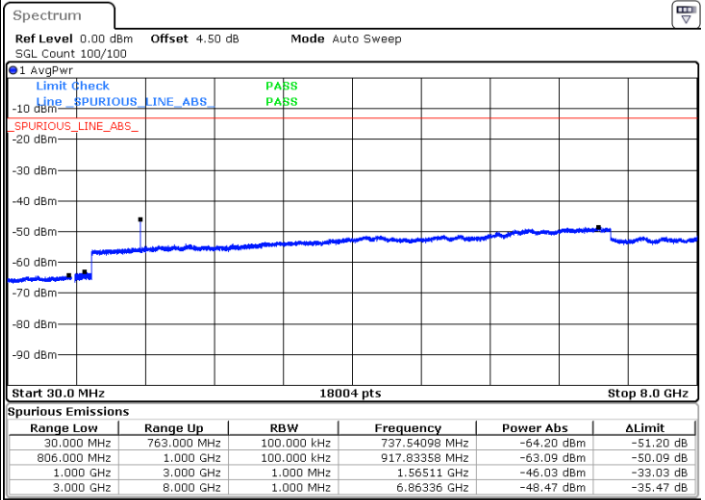
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 31.OCT.2018 22:17:44

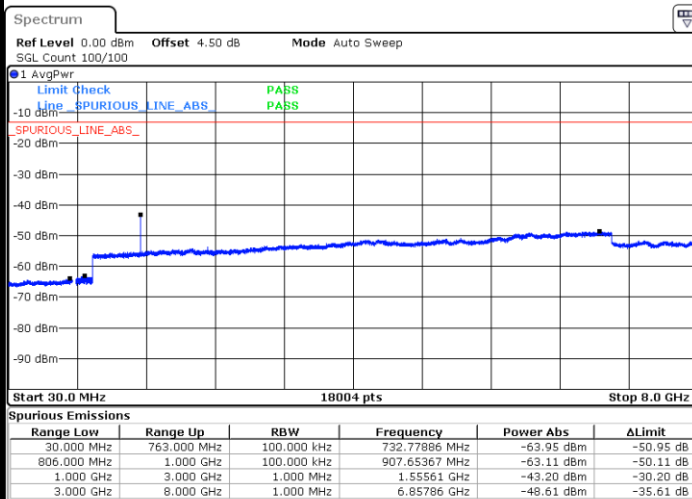
Highest Channel / 16QAM



Date: 31.OCT.2018 22:16:50

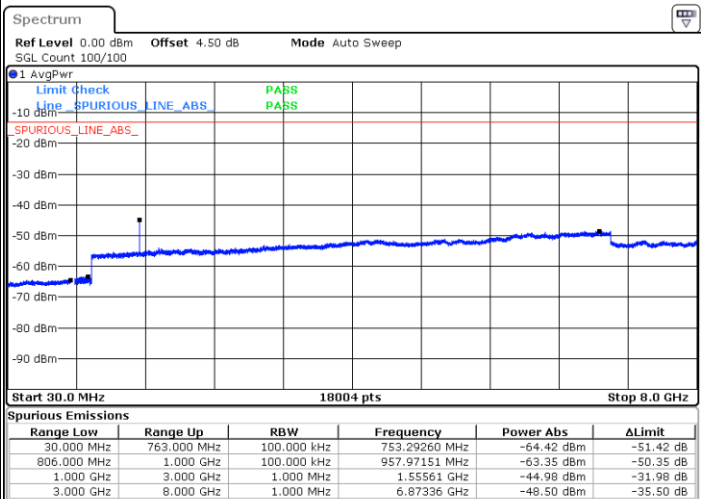
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 31.OCT.2018 22:18:39

Middle Channel / 16QAM



Date: 31.OCT.2018 22:19:33

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	0.0002	PASS
40	Normal Voltage	0.0032	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0034	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0025	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 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	0.0021	PASS
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0033	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0030	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0050	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0056	
0	Normal Voltage	0.0061	
-10	Normal Voltage	0.0054	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0062	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0016	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.



Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0064	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0055	
0	Normal Voltage	0.0076	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0052	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0020	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0079	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0074	
-10	Normal Voltage	0.0069	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0058	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 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)
Lowest	3702	-62.02	-13	-49.02	-66.89	3.55	8.42	H
	5553	-52.73	-13	-39.73	-59.07	4.34	10.68	H
	7404	-55.01	-13	-42.01	-61.81	5.14	11.94	H
	3702	-58.92	-13	-45.92	-63.79	3.55	8.42	V
	5553	-50.57	-13	-37.57	-56.91	4.34	10.68	V
	7404	-54.51	-13	-41.51	-61.31	5.14	11.94	V
Middle	3741	-60.35	-13	-47.35	-65.22	3.55	8.42	H
	5613	-54.37	-13	-41.37	-60.71	4.34	10.68	H
	7485	-54.69	-13	-41.69	-61.49	5.14	11.94	H
	3741	-58.33	-13	-45.33	-63.20	3.55	8.42	V
	5613	-51.24	-13	-38.24	-57.58	4.34	10.68	V
	7485	-54.43	-13	-41.43	-61.23	5.14	11.94	V
Highest	3783	-61.50	-13	-48.50	-66.37	3.55	8.42	H
	5673	-49.59	-13	-36.59	-55.93	4.34	10.68	H
	7563	-54.59	-13	-41.59	-61.39	5.14	11.94	H
	3783	-59.00	-13	-46.00	-63.87	3.55	8.42	V
	5673	-44.92	-13	-31.92	-51.26	4.34	10.68	V
	7563	-53.64	-13	-40.64	-60.44	5.14	11.94	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	3423	-63.52	-13	-50.52	-68.24	3.41	8.13	H
	5133	-49.40	-13	-36.40	-55.41	4.195	10.20	H
	6843	-57.10	-13	-44.10	-63.55	4.91	11.36	H
	3423	-61.21	-13	-48.21	-65.93	3.413	8.13	V
	5133	-50.40	-13	-37.40	-56.41	4.195	10.20	V
	6843	-56.88	-13	-43.88	-63.33	4.911	11.36	V
Middle	3447	-63.47	-13	-50.47	-68.19	3.41	8.13	H
	5172	-48.93	-13	-35.93	-54.94	4.195	10.20	H
	6894	-57.18	-13	-44.18	-63.63	4.91	11.36	H
	3447	-61.43	-13	-48.43	-66.15	3.413	8.13	V
	5172	-50.84	-13	-37.84	-56.85	4.195	10.20	V
	6894	-56.50	-13	-43.50	-62.95	4.911	11.36	V
Highest	3471	-63.00	-13	-50.00	-67.72	3.41	8.13	H
	5208	-50.31	-13	-37.31	-56.32	4.195	10.20	H
	6945	-56.83	-13	-43.83	-63.28	4.91	11.36	H
	3471	-62.74	-13	-49.74	-67.46	3.413	8.13	V
	5208	-56.23	-13	-43.23	-62.24	4.195	10.20	V
	6945	-57.31	-13	-44.31	-63.76	4.911	11.36	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)
Lowest	1648	-47.72	-13	-34.72	-48.93	2.319	5.68	H
	2474	-54.22	-13	-41.22	-54.85	3.02	5.80	H
	3297	-54.59	-13	-41.59	-57.05	3.27	7.88	H
	4122	-54.53	-13	-41.53	-57.91	3.73	9.25	H
	1650	-48.06	-13	-35.06	-49.27	2.32	5.68	V
	2474	-60.17	-13	-47.17	-60.80	3.02	5.80	V
	3297	-61.51	-13	-48.51	-63.97	3.27	7.88	V
	4122	-56.58	-13	-43.58	-59.96	3.73	9.25	V
Middle	1664	-49.14	-13	-36.14	-50.35	2.319	5.68	H
	2496	-55.79	-13	-42.79	-56.42	3.02	5.80	H
	3327	-58.15	-13	-45.15	-60.61	3.27	7.88	H
	4161	-57.03	-13	-44.03	-60.41	3.73	9.25	H
	1664	-51.75	-13	-38.75	-52.96	2.32	5.68	V
	2496	-61.18	-13	-48.18	-61.81	3.02	5.80	V
	3327	-64.10	-13	-51.10	-66.56	3.27	7.88	V
	4161	-60.48	-13	-47.48	-63.86	3.73	9.25	V
Highest	1680	-51.40	-13	-38.40	-52.61	2.319	5.68	H
	2518	-55.50	-13	-42.50	-56.13	3.02	5.80	H
	3357	-56.17	-13	-43.17	-58.63	3.27	7.88	H
	4197	-54.89	-13	-41.89	-58.27	3.73	9.25	H
	1680	-52.27	-13	-39.27	-53.48	2.32	5.68	V
	2518	-58.14	-13	-45.14	-58.77	3.02	5.80	V
	3357	-60.41	-13	-47.41	-62.87	3.27	7.88	V
	4197	-57.20	-13	-44.20	-60.58	3.73	9.25	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)
Lowest	1398	-44.21	-13	-31.21	-45.42	2.319	5.68	H
	2098	-56.79	-13	-43.79	-57.42	3.02	5.80	H
	2798	-58.91	-13	-45.91	-61.37	3.27	7.88	H
	3498	-61.20	-13	-48.20	-64.58	3.73	9.25	H
	1398	-48.93	-13	-35.93	-50.14	2.32	5.68	V
	2098	-58.42	-13	-45.42	-59.05	3.02	5.80	V
	2798	-62.76	-13	-49.76	-65.22	3.27	7.88	V
	3498	-63.44	-13	-50.44	-66.82	3.73	9.25	V
Middle	1406	-43.87	-13	-30.87	-45.08	2.319	5.68	H
	2110	-57.01	-13	-44.01	-57.64	3.02	5.80	H
	2812	-56.10	-13	-43.10	-58.56	3.27	7.88	H
	3516	-59.50	-13	-46.50	-62.88	3.73	9.25	H
	4218	-61.16	-13	-48.16	-65.02	4.20	10.20	H
	4920	-59.38	-13	-46.38	-63.40	4.52	10.69	H
	1406	-47.20	-13	-34.20	-48.41	2.32	5.68	V
	2110	-58.10	-13	-45.10	-58.73	3.02	5.80	V
	2812	-59.46	-13	-46.46	-61.92	3.27	7.88	V
	3516	-61.40	-13	-48.40	-64.78	3.73	9.25	V
	4218	-61.78	-13	-48.78	-65.64	4.20	10.20	V
	4923	-60.94	-13	-47.94	-64.96	4.52	10.69	V
Highest	1414	-44.00	-13	-31.00	-45.21	2.319	5.68	H
	2120	-55.31	-13	-42.31	-55.94	3.02	5.80	H
	2826	-55.85	-13	-42.85	-58.31	3.27	7.88	H
	3534	-59.94	-13	-46.94	-63.32	3.73	9.25	H
	1414	-46.98	-13	-33.98	-48.19	2.32	5.68	V
	2120	-56.38	-13	-43.38	-57.01	3.02	5.80	V
	2826	-59.60	-13	-46.60	-62.06	3.27	7.88	V
	3534	-62.02	-13	-49.02	-65.40	3.73	9.25	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)
Lowest	1554	-64.91	-13	-51.91	-66.62	2.23	6.09	H
	2332.02	-65.53	-13	-52.53	-66.06	2.83	5.51	H
	3108	-64.19	-13	-51.19	-66.13	3.21	7.30	H
	1554	-65.23	-13	-52.23	-66.94	2.23	6.09	V
	2332.02	-65.49	-13	-52.49	-66.02	2.83	5.51	V
	3108	-64.01	-13	-51.01	-65.95	3.21	7.30	V
Middle	1560	-62.22	-40	-22.22	-66.08	2.23	6.09	H
	2340	-65.46	-13	-52.46	-65.99	2.83	5.51	H
	3120	-64.43	-13	-51.43	-66.37	3.21	7.30	H
	1560	-60.92	-40	-20.92	-64.78	2.23	6.09	V
	2340	-64.00	-13	-51.00	-64.53	2.83	5.51	V
	3120	-64.19	-13	-51.19	-66.13	3.21	7.30	V
Highest	1564	-64.16	-40	-24.16	-68.02	2.23	6.09	H
	2347.02	-65.14	-13	-52.14	-65.67	2.83	5.51	H
	3129	-64.33	-13	-51.33	-66.27	3.21	7.30	H
	1564	-63.07	-40	-23.07	-66.93	2.23	6.09	V
	2348	-63.60	-13	-50.60	-64.13	2.83	5.51	V
	3129	-64.64	-13	-51.64	-66.58	3.21	7.30	V

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	1556	-62.59	-13	-49.59	-64.30	2.23	6.09	H
	2332	-61.46	-13	-48.46	-61.99	2.83	5.51	H
	3111	-64.23	-13	-51.23	-66.17	3.21	7.30	H
	1556	-63.05	-13	-50.05	-64.76	2.23	6.09	V
	2332	-56.82	-13	-43.82	-57.35	2.83	5.51	V
	3111	-64.13	-13	-51.13	-66.07	3.21	7.30	V

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