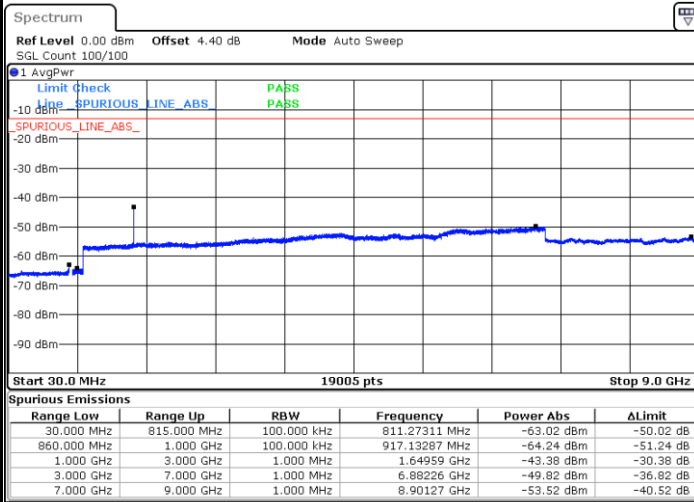




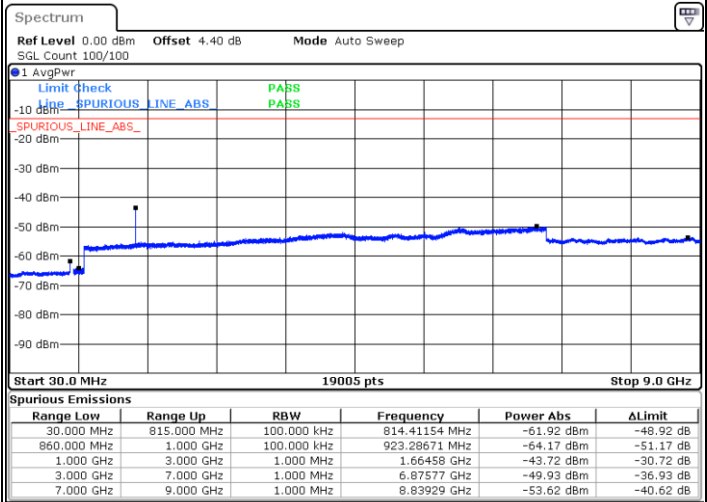
LTE Band 26 / 10MHz

Lowest Channel / 64QAM



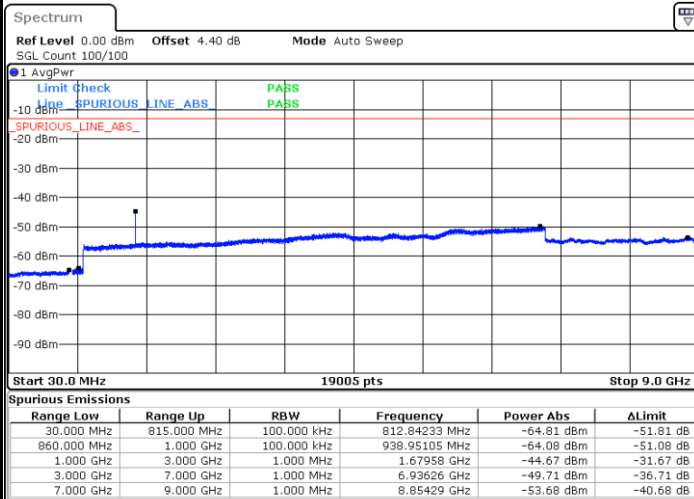
Date: 18 JAN 2018 15:50:06

Middle Channel / 64QAM



Date: 18 JAN 2018 15:50:40

Highest Channel / 64QAM

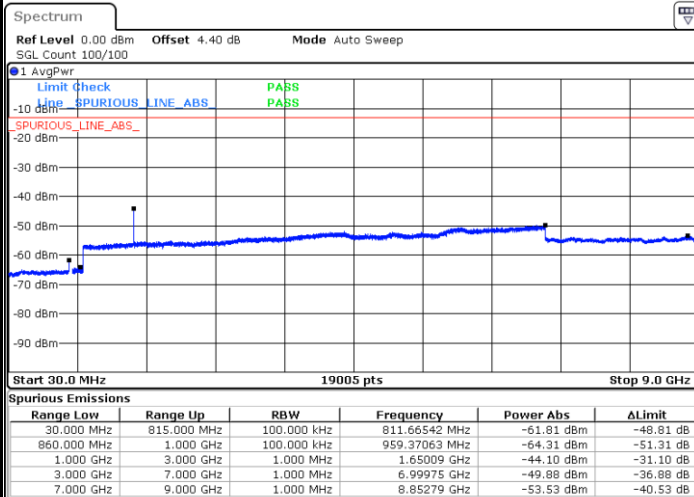


Date: 18 JAN 2018 15:53:36



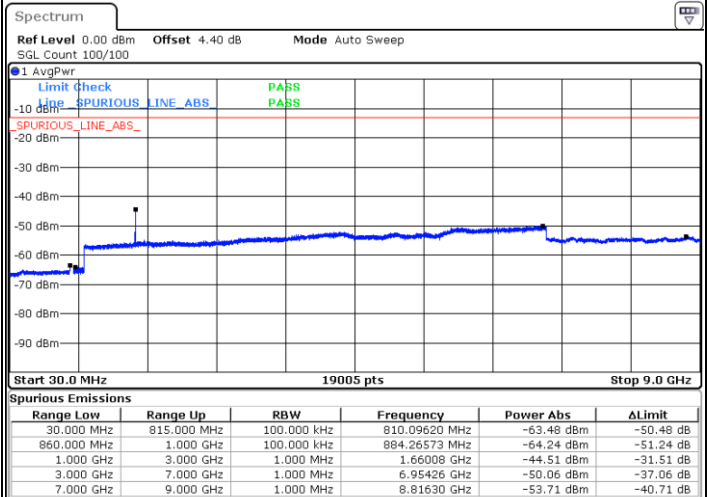
LTE Band 26 / 15MHz

Lowest Channel / 64QAM



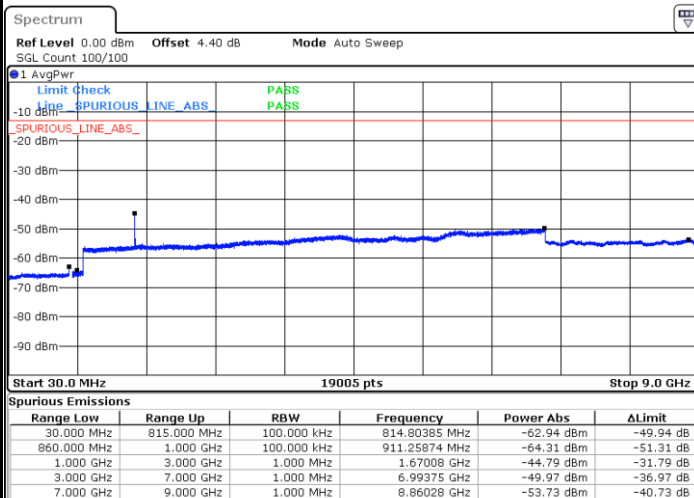
Date: 18 JAN 2018 15:44:25

Middle Channel / 64QAM



Date: 18 JAN 2018 15:44:53

Highest Channel / 64QAM

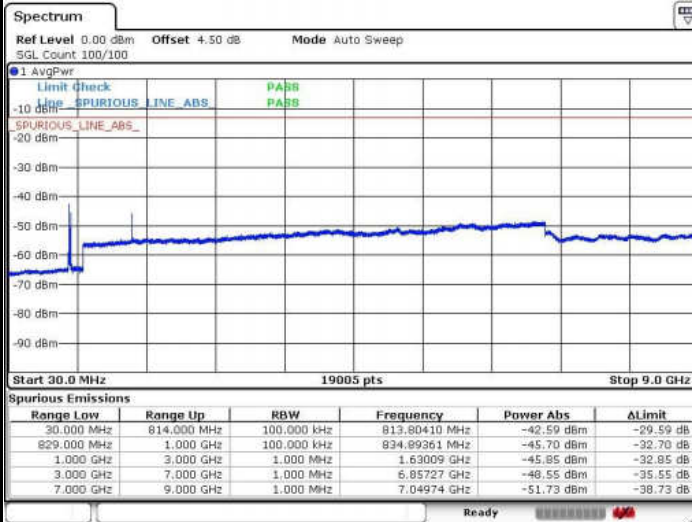


Date: 18 JAN 2018 15:47:14



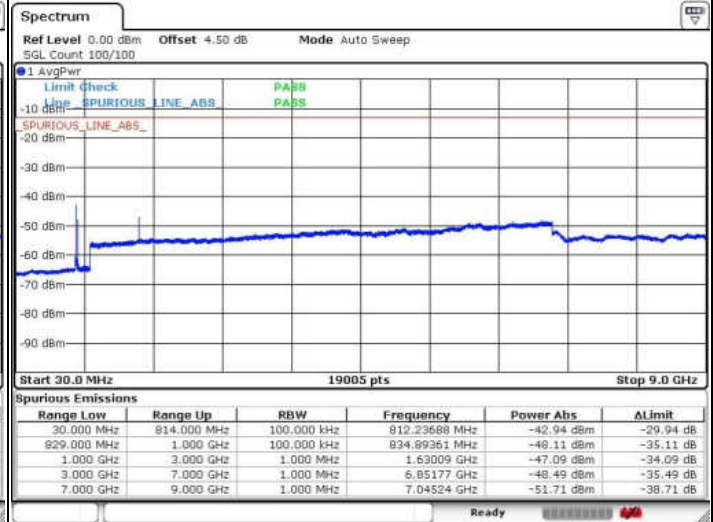
LTE Band 26 / 15MHz

CH26765 / QPSK



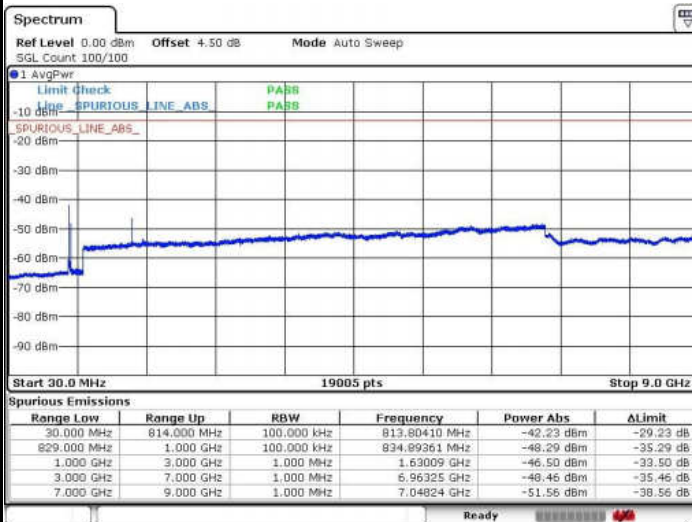
Date: 24 JAN 2018 17:46:02

CH26765 / 64QAM



Date: 24 JAN 2018 17:44:54

CH26765 / 16QAM

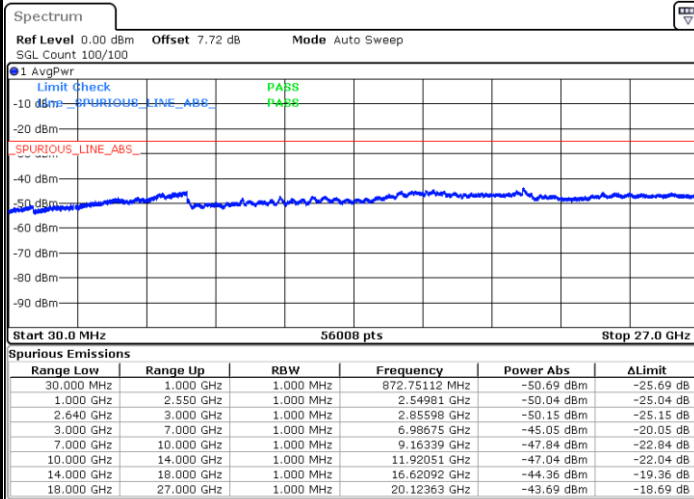


Date: 24 JAN 2018 17:45:34



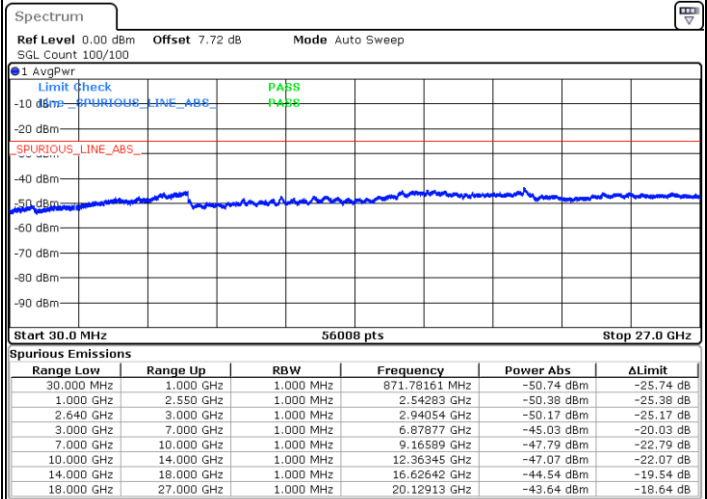
LTE Band 38 / 5MHz

Lowest Channel / QPSK



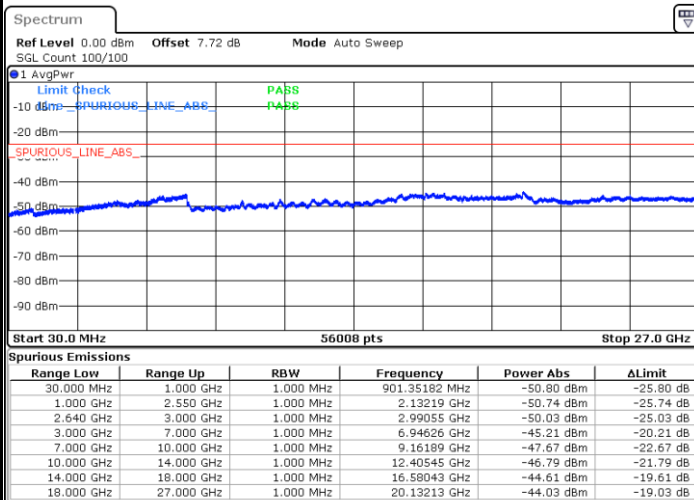
Date: 16 JAN 2018 20:52:50

Lowest Channel / 16QAM



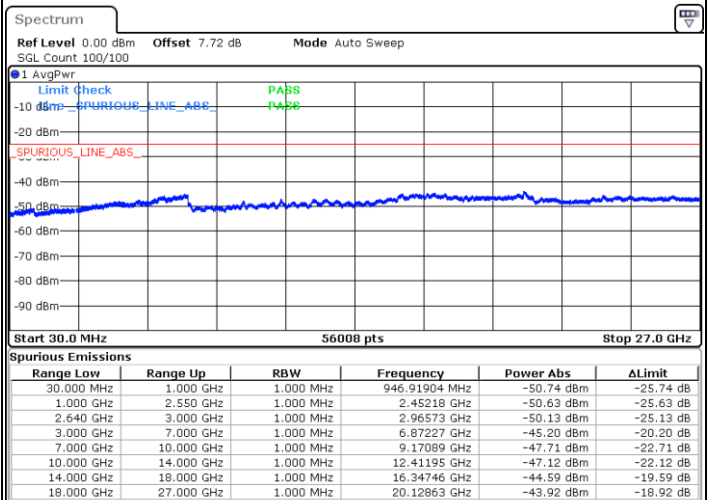
Date: 16 JAN 2018 20:53:46

Middle Channel / QPSK



Date: 16 JAN 2018 20:54:42

Middle Channel / 16QAM

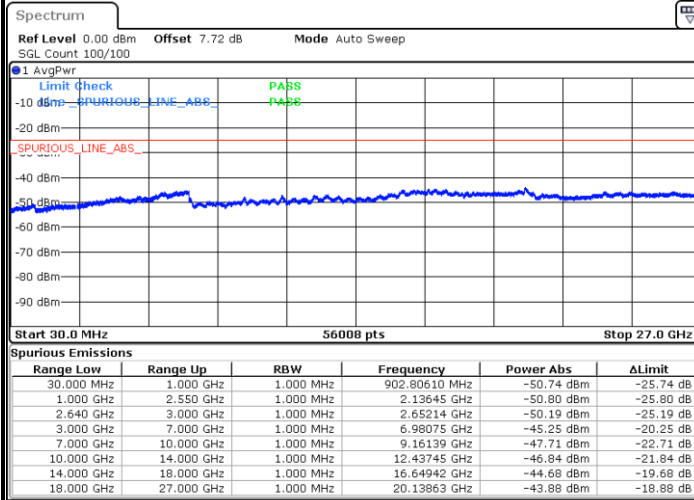


Date: 16 JAN 2018 20:55:38



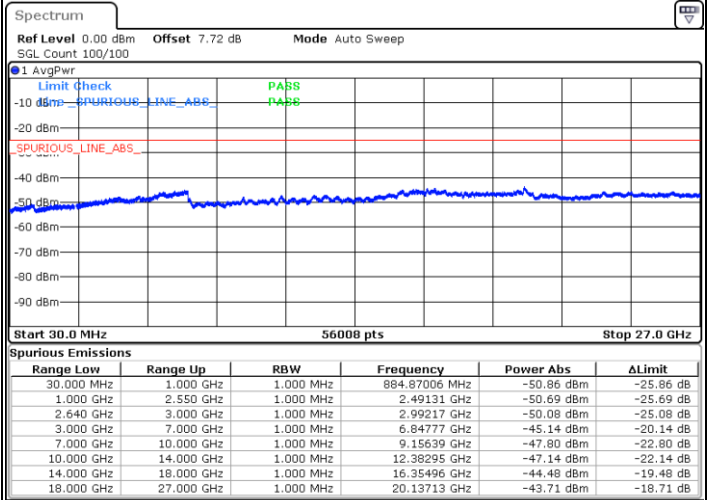
LTE Band 38 / 5MHz

Highest Channel / QPSK



Date: 16 JAN 2018 20:56:33

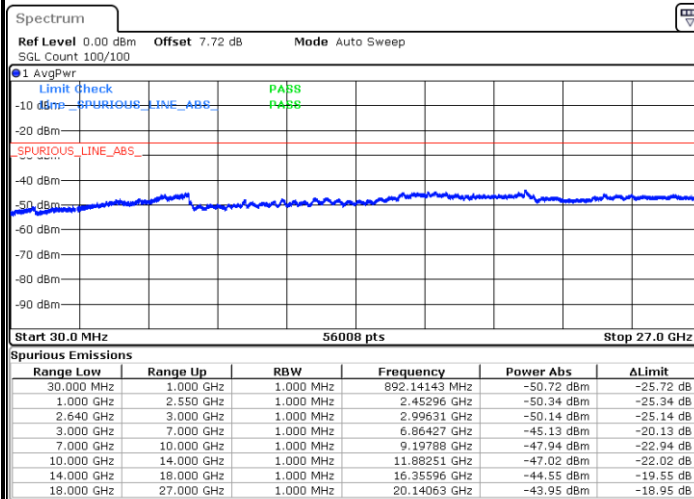
Highest Channel / 16QAM



Date: 16 JAN 2018 20:57:29

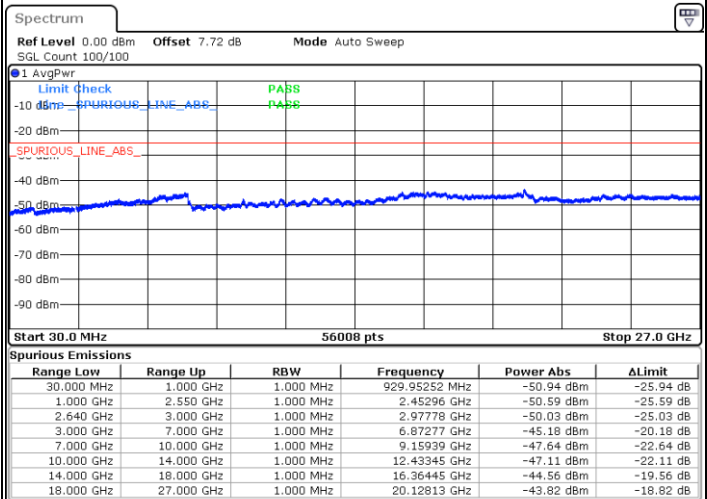
LTE Band 38 / 10MHz

Lowest Channel / QPSK



Date: 16 JAN 2018 20:58:25

Lowest Channel / 16QAM

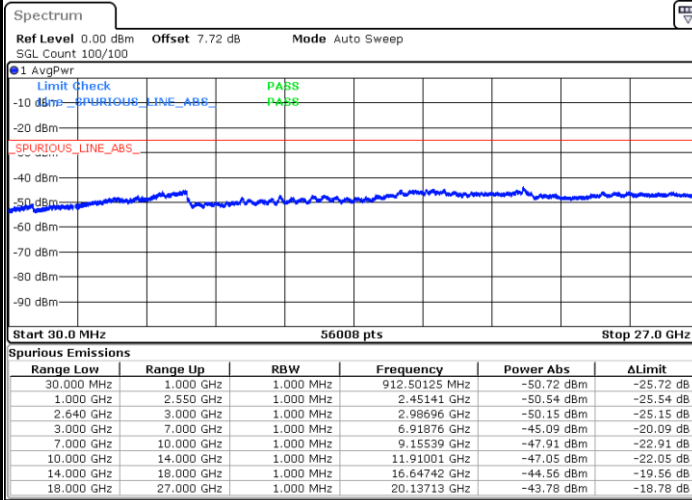


Date: 16 JAN 2018 20:59:21



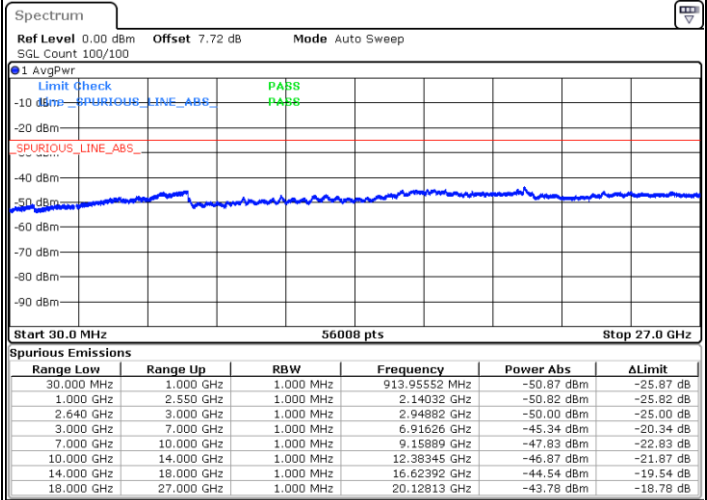
LTE Band 38 / 10MHz

Middle Channel / QPSK



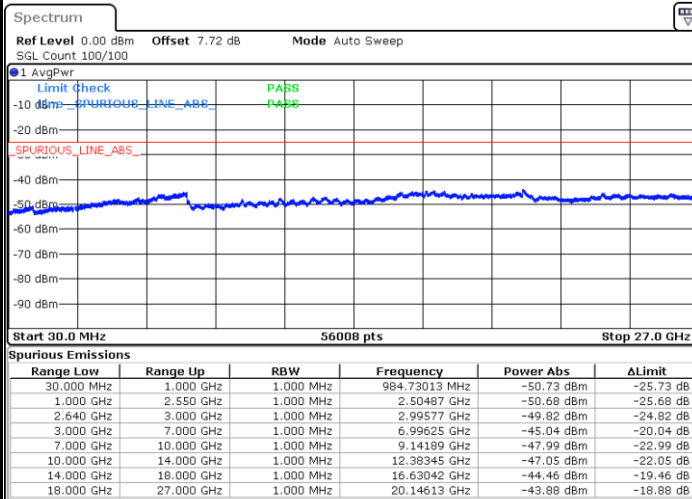
Date: 16 JAN 2018 21:00:16

Middle Channel / 16QAM



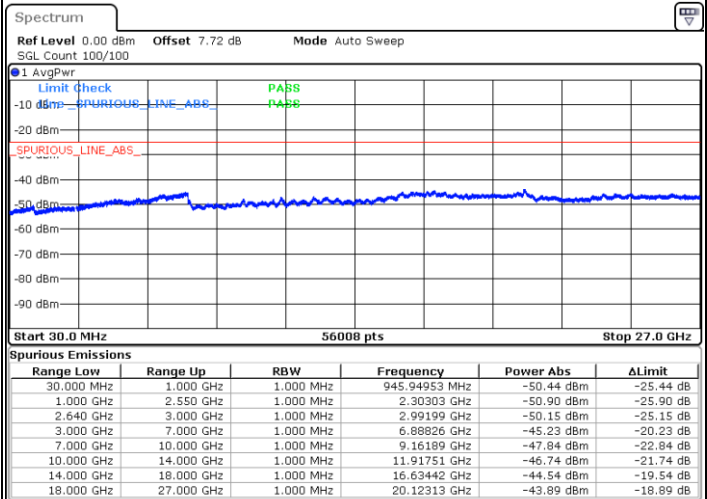
Date: 16 JAN 2018 21:01:12

Highest Channel / QPSK



Date: 16 JAN 2018 21:02:07

Highest Channel / 16QAM

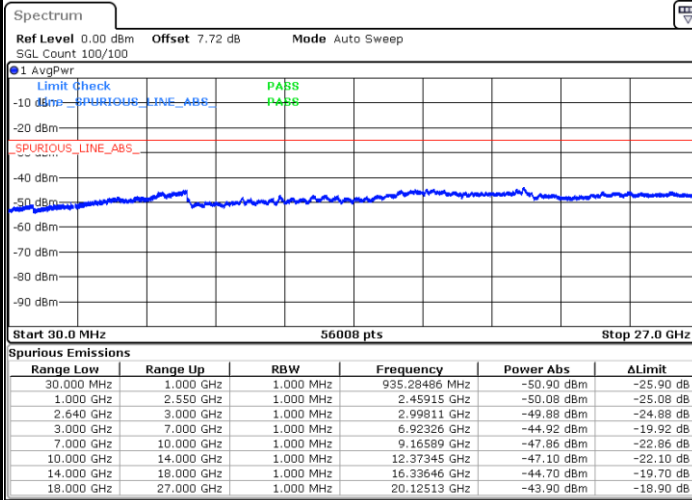


Date: 16 JAN 2018 21:03:03



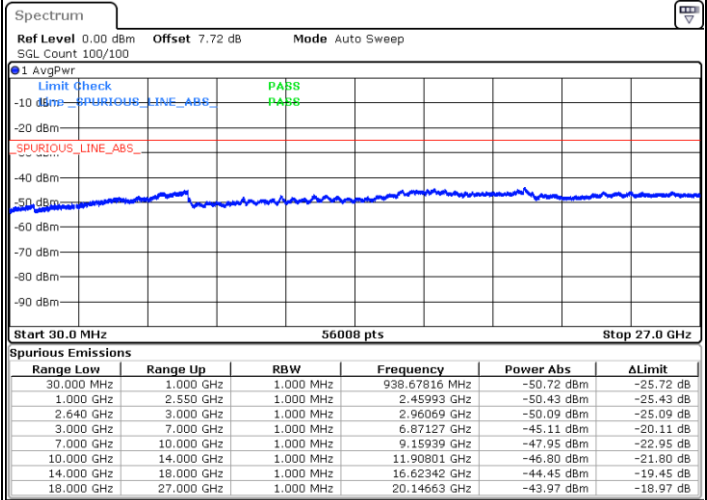
LTE Band 38 / 15MHz

Lowest Channel / QPSK



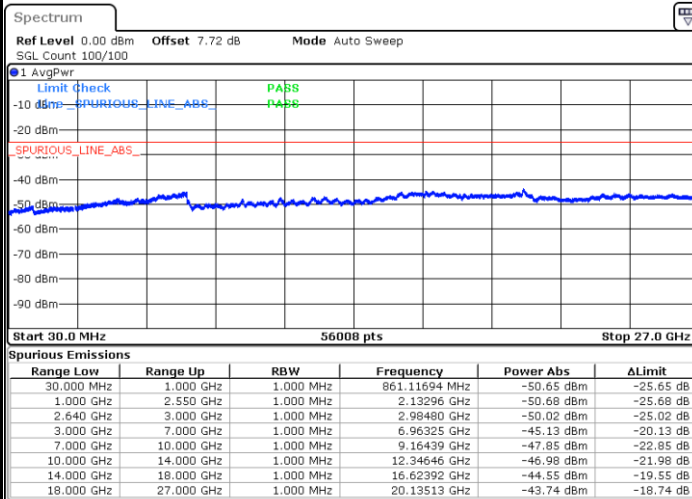
Date: 16 JAN 2018 21:03:58

Lowest Channel / 16QAM



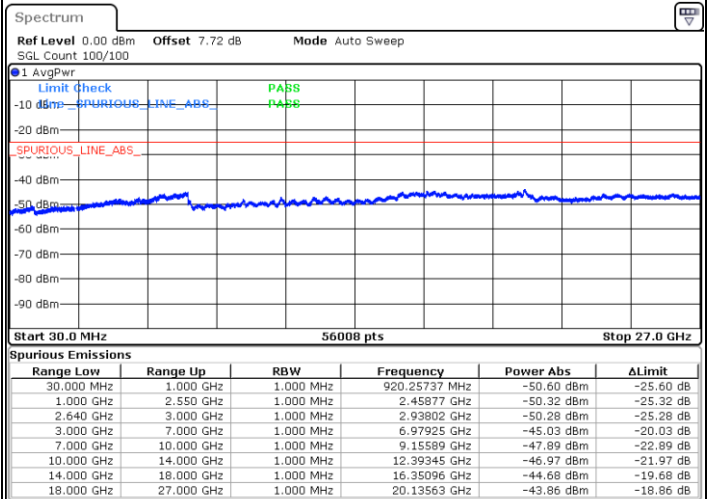
Date: 16 JAN 2018 21:04:54

Middle Channel / QPSK



Date: 16 JAN 2018 21:05:50

Middle Channel / 16QAM

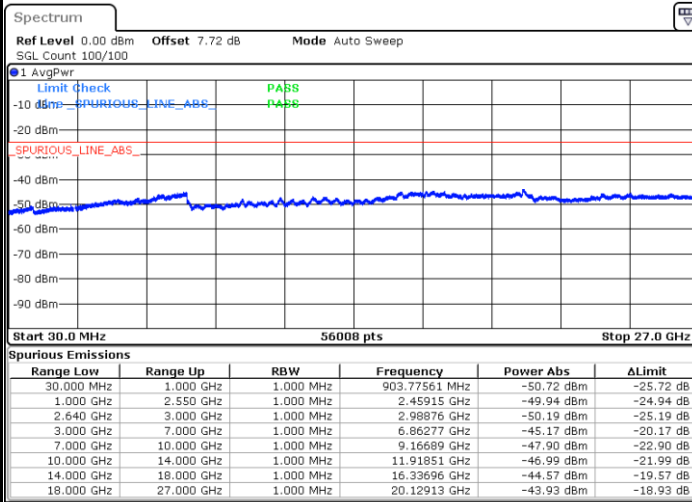


Date: 16 JAN 2018 21:06:45



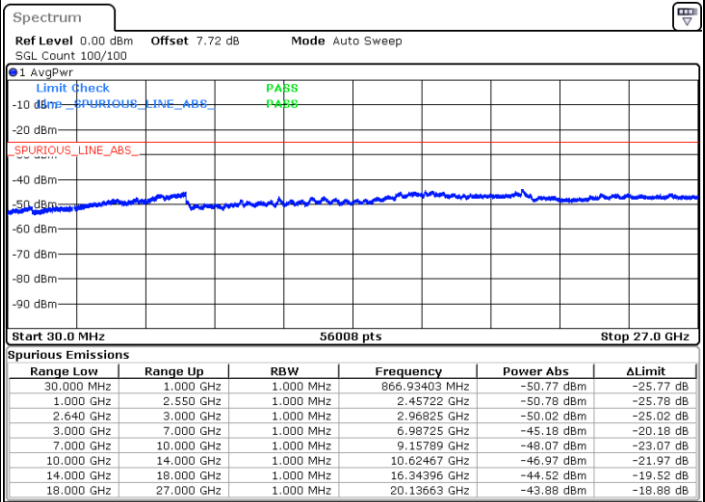
LTE Band 38 / 15MHz

Highest Channel / QPSK



Date: 16 JAN 2018 21:07:41

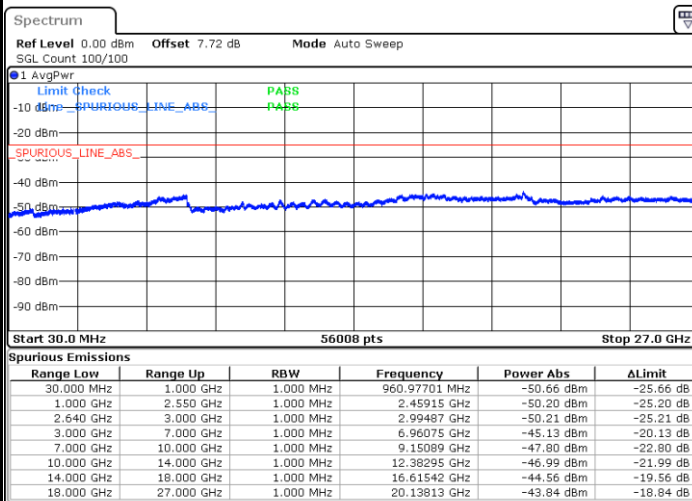
Highest Channel / 16QAM



Date: 16 JAN 2018 21:08:36

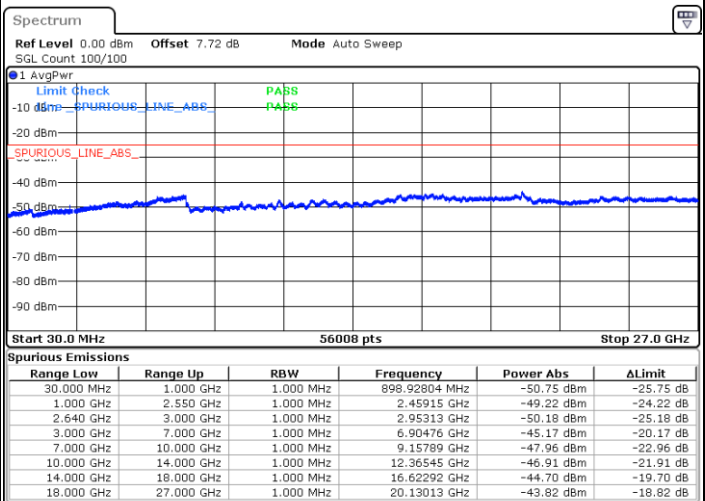
LTE Band 38 / 20MHz

Lowest Channel / QPSK



Date: 16 JAN 2018 21:09:32

Lowest Channel / 16QAM

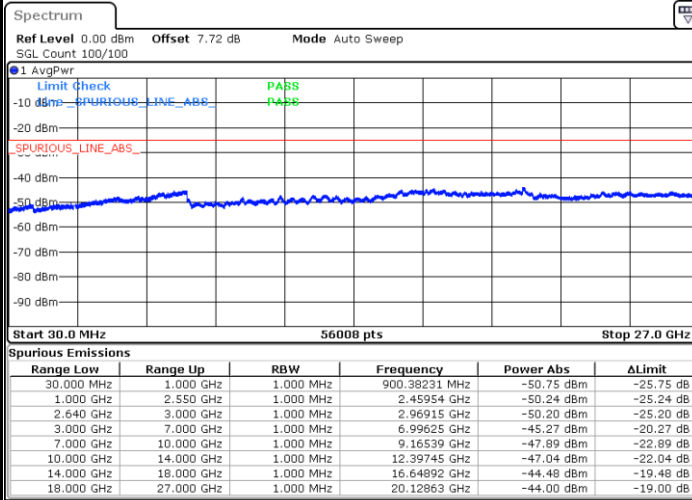


Date: 16 JAN 2018 21:10:27



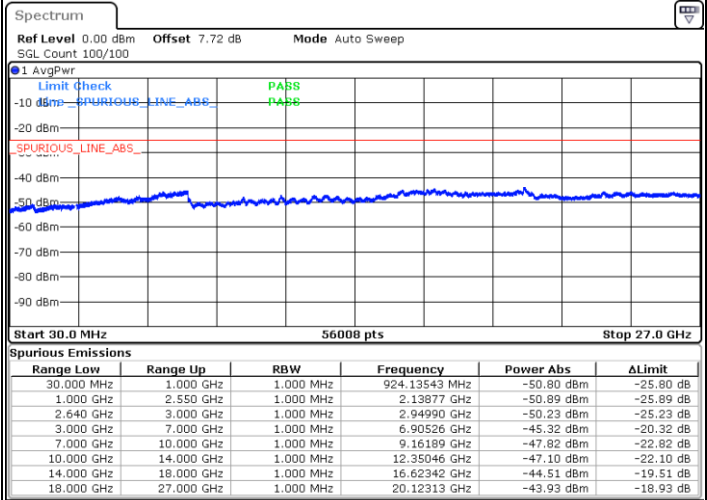
LTE Band 38 / 20MHz

Middle Channel / QPSK



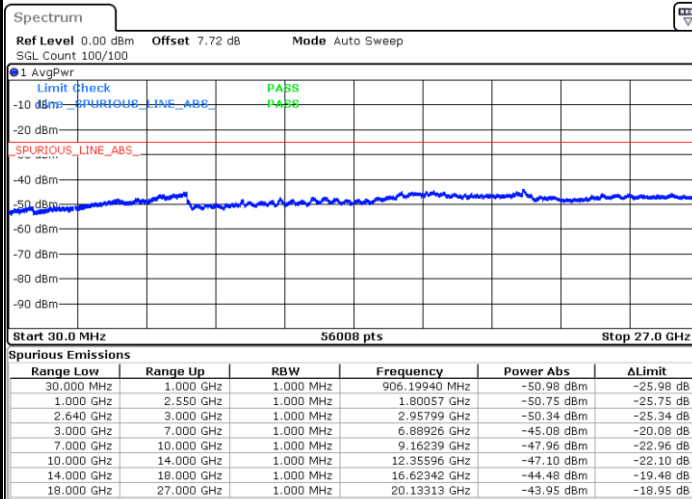
Date: 16 JAN 2018 21:11:23

Middle Channel / 16QAM



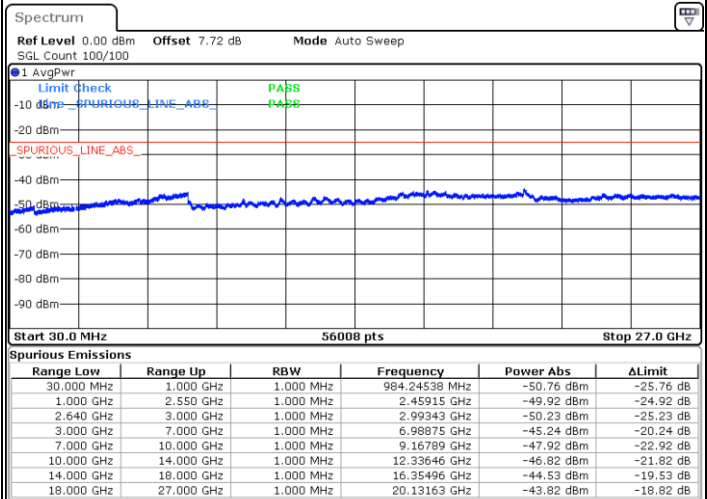
Date: 16 JAN 2018 21:12:18

Highest Channel / QPSK



Date: 16 JAN 2018 21:13:14

Highest Channel / 16QAM

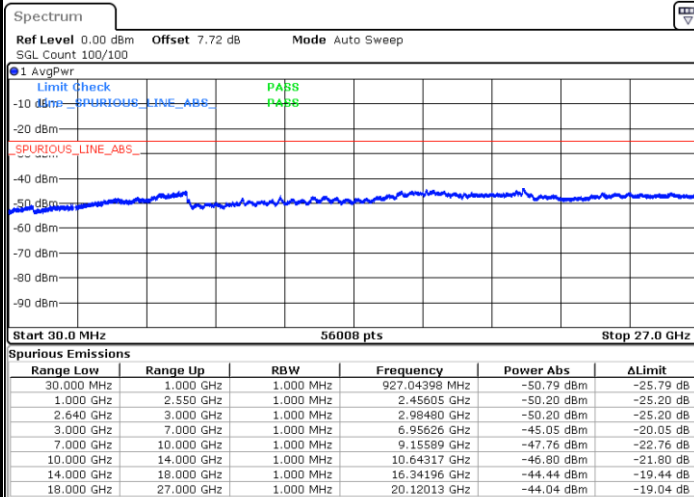


Date: 16 JAN 2018 21:14:09



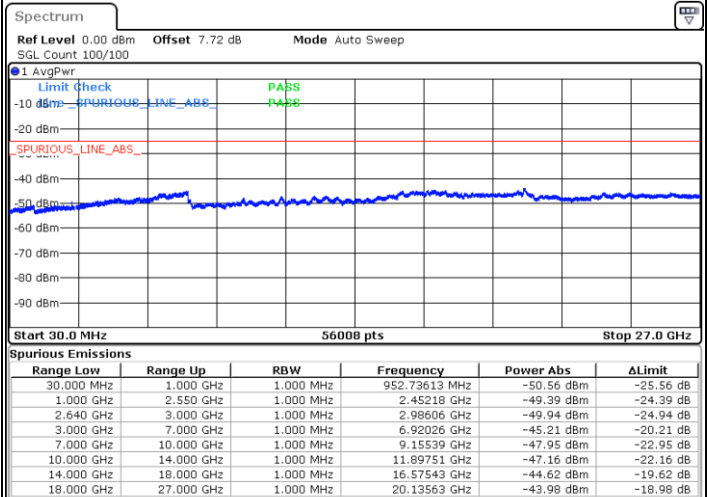
LTE Band 38 / 5MHz

Lowest Channel / 64QAM



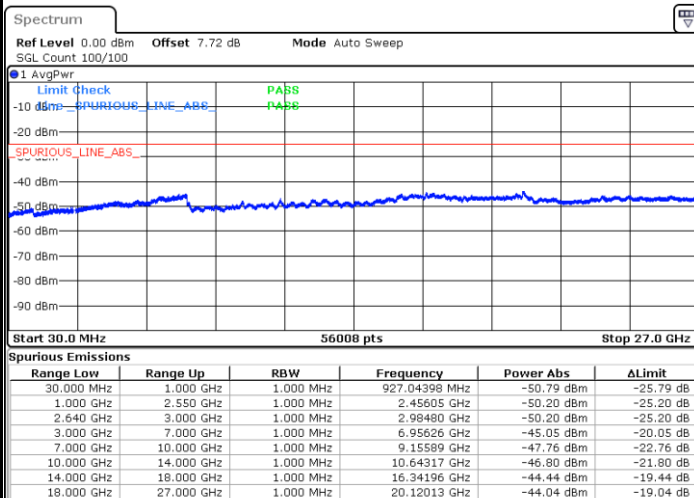
Date: 16 JAN 2018 21:40:24

Middle Channel / 64QAM



Date: 16 JAN 2018 21:43:11

Highest Channel / 64QAM

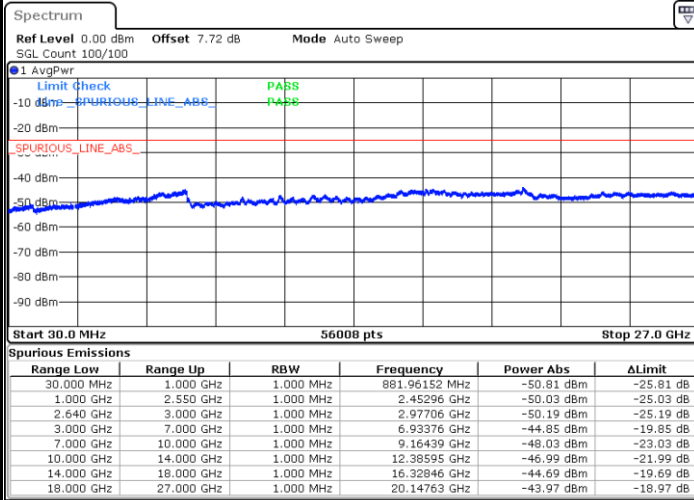


Date: 16 JAN 2018 21:40:24



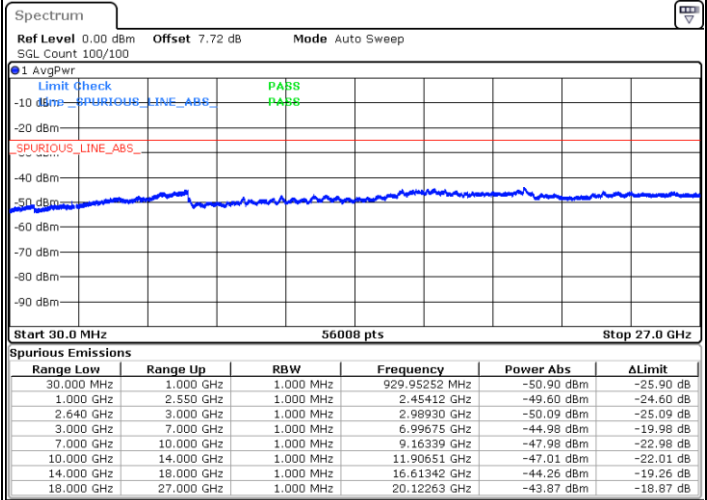
LTE Band 38 / 10MHz

Lowest Channel / 64QAM



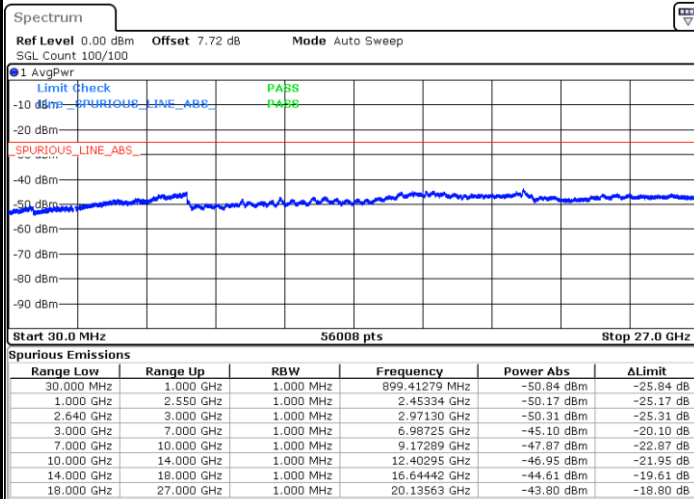
Date: 16 JAN 2018 21:21:32

Middle Channel / 64QAM



Date: 16 JAN 2018 21:22:27

Highest Channel / 64QAM



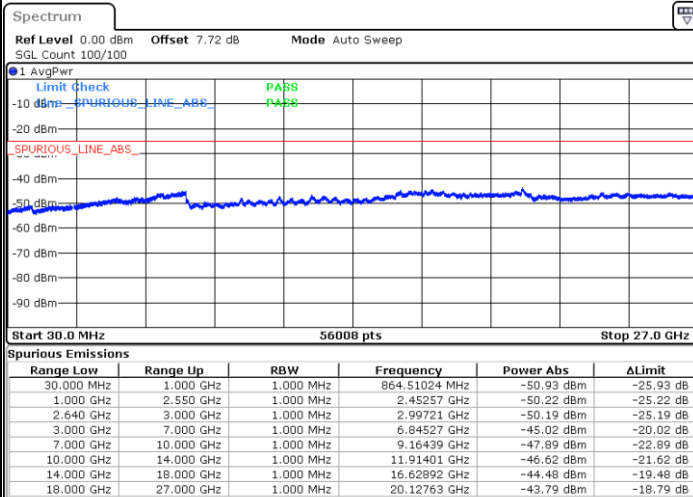
Date: 16 JAN 2018 21:37:25



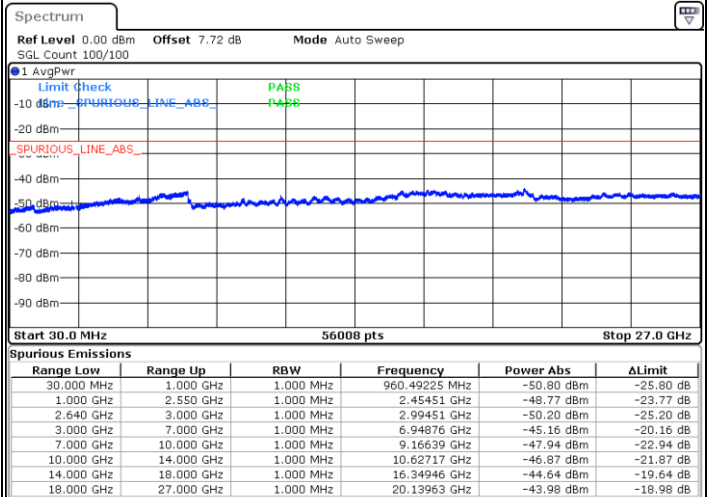
LTE Band 38 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

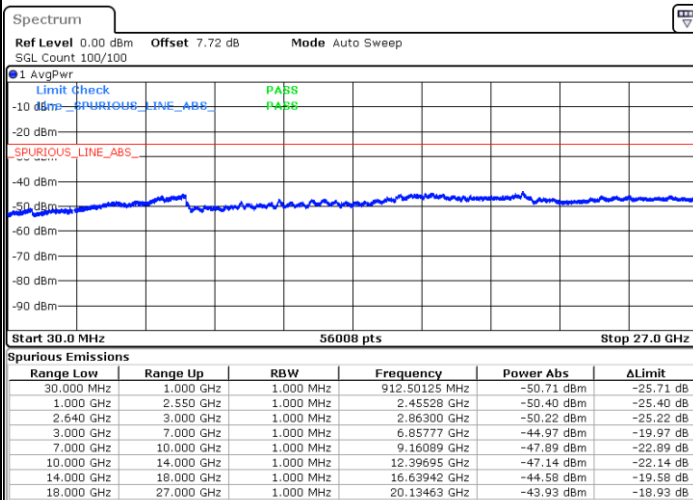


Date: 16 JAN 2018 21:44:43



Date: 16 JAN 2018 21:45:51

Highest Channel / 64QAM

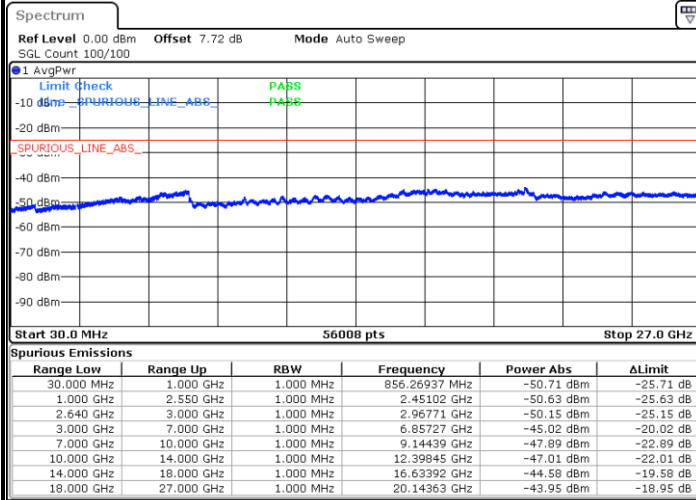


Date: 16 JAN 2018 21:46:42



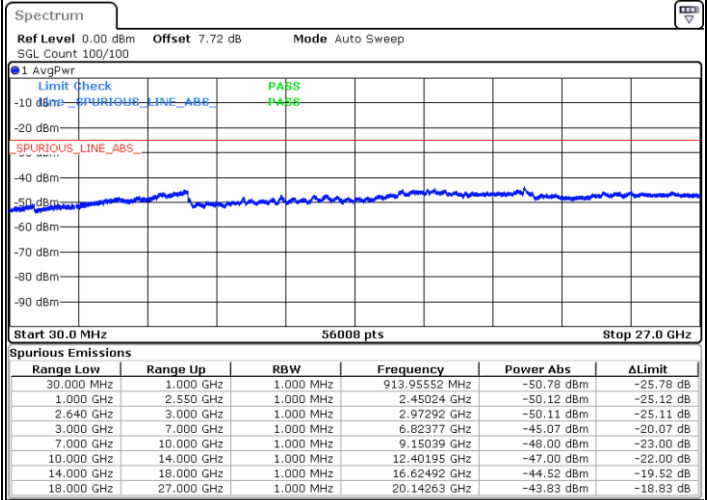
LTE Band 38 / 20MHz

Lowest Channel / 64QAM



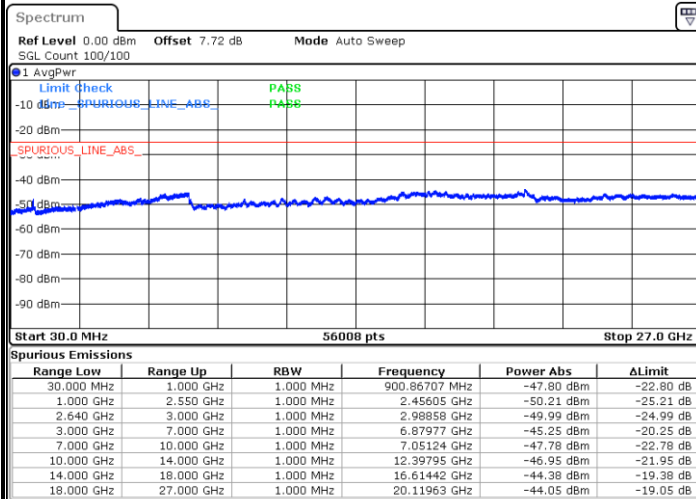
Date: 16 JAN 2018 21:19:36

Middle Channel / 64QAM



Date: 16 JAN 2018 21:18:37

Highest Channel / 64QAM



Date: 16 JAN 2018 21:17:26

**Frequency Stability**

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0036	
30	Normal Voltage	0.0051	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0042	
-10	Normal Voltage	0.0049	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0054	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0002	
20	Battery End Point	0.0027	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.



Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0023	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0032	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0027	

Note:

1. Normal Voltage =3.8V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0081	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0086	
0	Normal Voltage	0.0072	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0073	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0004	
20	Battery End Point	0.0077	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.



Test Conditions		LTE Band 38 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0022	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0023	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0020	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. 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	3721	-55.90	-13	-42.90	-71.3	-66.18	1.98	12.27	H
	5583	-57.83	-13	-44.83	-75.64	-68.01	2.14	12.32	H
	7438	-54.42	-13	-41.42	-74.72	-62.38	2.15	10.11	H
	3721	-53.49	-13	-40.49	-68.42	-63.77	1.98	12.27	V
	5583	-56.78	-13	-43.78	-74.58	-66.96	2.14	12.32	V
	7438	-54.36	-13	-41.36	-74.74	-62.32	2.15	10.11	V
Middle	3756	-55.07	-13	-42.07	-70.5	-65.31	2.00	12.25	H
	5639	-57.72	-13	-44.72	-75.63	-67.99	2.12	12.39	H
	7522	-53.74	-13	-40.74	-74.15	-61.70	2.11	10.08	H
	3756	-51.55	-13	-38.55	-66.48	-61.79	2.00	12.25	V
	5639	-57.89	-13	-44.89	-75.77	-68.16	2.12	12.39	V
	7522	-53.74	-13	-40.74	-74.33	-61.70	2.11	10.08	V
Highest	3798	-57.22	-13	-44.22	-72.72	-67.42	2.02	12.22	H
	5702	-57.76	-13	-44.76	-75.95	-68.13	2.11	12.48	H
	7599	-54.16	-13	-41.16	-74.79	-62.40	2.11	10.36	H
	3798	-54.19	-13	-41.19	-69.14	-64.39	2.02	12.22	V
	5702	-57.24	-13	-44.24	-75.4	-67.61	2.11	12.48	V
	7599	-54.06	-13	-41.06	-74.51	-62.30	2.11	10.36	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1658	-64.60	-13	-51.60	-73.92	-70.02	1.23	8.80	H
	2488	-40.69	-13	-27.69	-53.11	-47.59	1.44	10.49	H
	3316	-59.88	-13	-46.88	-74.45	-67.86	1.72	11.85	H
	1658	-65.20	-13	-52.20	-73.69	-70.62	1.23	8.80	V
	2488	-50.31	-13	-37.31	-62.37	-57.21	1.44	10.49	V
	3316	-59.95	-13	-46.95	-74.32	-67.93	1.72	11.85	V
Middle	1672	-64.48	-13	-51.48	-73.7	-69.95	1.24	8.85	H
	2509	-39.22	-13	-26.22	-51.67	-46.14	1.44	10.51	H
	3346	-59.55	-13	-46.55	-74.01	-67.59	1.74	11.94	H
	1672	-65.31	-13	-52.31	-73.84	-70.78	1.24	8.85	V
	2509	-44.58	-13	-31.58	-56.72	-51.50	1.44	10.51	V
	3346	-60.15	-13	-47.15	-74.42	-68.19	1.74	11.94	V
Highest	1688	-64.28	-13	-51.28	-73.53	-69.80	1.24	8.91	H
	2532	-51.61	-13	-38.61	-64.08	-58.54	1.44	10.53	H
	3376	-59.98	-13	-46.98	-74.31	-68.09	1.77	12.03	H
	1688	-65.15	-13	-52.15	-73.71	-70.67	1.24	8.91	V
	2532	-55.37	-13	-42.37	-67.57	-62.30	1.44	10.53	V
	3376	-60.06	-13	-47.06	-74.22	-68.17	1.77	12.03	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1663	-64.44	-13	-51.44	-73.76	-69.88	1.23	8.82	H
	2496	-58.00	-13	-45.00	-70.43	-64.91	1.44	10.50	H
	3326	-59.86	-13	-46.86	-74.37	-67.86	1.73	11.88	H
	1663	-65.15	-13	-52.15	-73.64	-70.59	1.23	8.82	V
	2496	-59.04	-13	-46.04	-71.11	-65.95	1.44	10.50	V
	3326	-60.26	-13	-47.26	-74.58	-68.26	1.73	11.88	V
Middle	1673	-64.57	-13	-51.57	-73.79	-70.04	1.24	8.86	H
	2509	-41.58	-13	-28.58	-54.03	-48.50	1.44	10.51	H
	3346	-59.78	-13	-46.78	-74.24	-67.82	1.74	11.94	H
	1673	-65.28	-13	-52.28	-73.81	-70.75	1.24	8.86	V
	2509	-45.63	-13	-32.63	-57.77	-52.55	1.44	10.51	V
	3346	-59.91	-13	-46.91	-74.18	-67.95	1.74	11.94	V
Highest	1683	-64.49	-13	-51.49	-73.74	-70.00	1.24	8.90	H
	2524	-44.50	-13	-31.50	-56.95	-51.43	1.44	10.52	H
	3366	-59.99	-13	-46.99	-74.38	-68.08	1.76	12.00	H
	1683	-65.29	-13	-52.29	-73.85	-70.80	1.24	8.90	V
	2524	-46.03	-13	-33.03	-58.17	-52.96	1.44	10.52	V
	3366	-60.13	-13	-47.13	-74.34	-68.22	1.76	12.00	V

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



Tips: Antenna #2 and Antenna #3 support LTE Band 7/38, the two antenna could switch Main Antenna and Diversity Antenna for each other.

< Antenna #2>

LTE Band 7 / 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	5040	-58.45	-25	-33.45	-76.26	-68.21	2.34	12.11	H
	7554	-53.36	-25	-28.36	-73.88	-61.44	2.11	10.19	H
	10080	-47.89	-25	-22.89	-74.07	-57.80	1.93	11.83	H
	5040	-56.81	-25	-31.81	-74.81	-66.57	2.34	12.11	V
	7554	-53.08	-25	-28.08	-73.6	-61.16	2.11	10.19	V
	10080	-48.89	-25	-23.89	-74.5	-58.80	1.93	11.83	V
Middle	5088	-58.36	-25	-33.36	-76.07	-68.15	2.32	12.12	H
	7632	-53.51	-25	-28.51	-74.22	-61.87	2.11	10.48	H
	10179	-48.28	-25	-23.28	-74.42	-58.07	2.08	11.87	H
	5088	-56.25	-25	-31.25	-74.16	-66.04	2.32	12.12	V
	7632	-52.42	-25	-27.42	-73.03	-60.78	2.11	10.48	V
	10179	-48.64	-25	-23.64	-74.43	-58.43	2.08	11.87	V
Highest	5136	-58.22	-25	-33.22	-75.76	-68.04	2.30	12.13	H
	7704	-51.24	-25	-26.24	-72.09	-59.86	2.11	10.73	H
	10278	-48.42	-25	-23.42	-74.54	-58.09	2.24	11.91	H
	5136	-55.85	-25	-30.85	-73.61	-65.67	2.30	12.13	V
	7704	-51.38	-25	-26.38	-72.27	-60.00	2.11	10.73	V
	10278	-48.43	-25	-23.43	-74.43	-58.10	2.24	11.91	V

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



LTE Band 38 / 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	5142	-57.64	-25	-32.64	-75.13	-67.47	2.30	12.13	H
	7716	-53.40	-25	-28.40	-74.29	-62.06	2.11	10.78	H
	15426	-43.23	-25	-18.23	-72.8	-56.03	2.43	15.23	H
	5142	-55.72	-25	-30.72	-73.43	-65.55	2.30	12.13	V
	7716	-53.48	-25	-28.48	-74.45	-62.14	2.11	10.78	V
	15426	-43.17	-25	-18.17	-71.98	-55.97	2.43	15.23	V
Middle	5172	-58.14	-25	-33.14	-75.56	-67.98	2.29	12.13	H
	7758	-52.88	-25	-27.88	-73.89	-61.70	2.11	10.93	H
	15516	-42.26	-25	-17.26	-72.23	-55.52	2.40	15.65	H
	5172	-54.53	-25	-29.53	-72.18	-64.37	2.29	12.13	V
	7758	-52.77	-25	-27.77	-73.96	-61.59	2.11	10.93	V
	15516	-41.90	-25	-16.90	-70.49	-55.16	2.40	15.65	V
Highest	5202	-57.75	-25	-32.75	-75.07	-67.61	2.28	12.14	H
	7806	-52.70	-25	-27.70	-73.78	-61.69	2.11	11.10	H
	15606	-42.15	-25	-17.15	-72.34	-52.37	2.13	12.35	H
	5202	-55.39	-25	-30.39	-72.95	-65.25	2.28	12.14	V
	7806	-52.73	-25	-27.73	-74.07	-61.72	2.11	11.10	V
	15606	-41.18	-25	-16.18	-69.69	-54.71	2.43	15.96	V

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



< Antenna #3>

LTE Band 7 / 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	5040	-58.28	-25	-33.28	-76.09	-68.04	2.34	12.11	H
	7560	-53.99	-25	-28.99	-74.51	-62.09	2.11	10.22	H
	10080	-48.11	-25	-23.11	-74.29	-58.02	1.93	11.83	H
	5040	-57.81	-25	-32.81	-75.81	-67.57	2.34	12.11	V
	7560	-54.14	-25	-29.14	-74.66	-62.24	2.11	10.22	V
	10080	-48.67	-25	-23.67	-74.28	-58.58	1.93	11.83	V
Middle	5088	-58.75	-25	-33.75	-76.46	-68.54	2.32	12.12	H
	7632	-54.00	-25	-29.00	-74.71	-62.36	2.11	10.48	H
	10179	-48.26	-25	-23.26	-74.4	-58.05	2.08	11.87	H
	5088	-58.12	-25	-33.12	-76.03	-67.91	2.32	12.12	V
	7632	-53.55	-25	-28.55	-74.16	-61.91	2.11	10.48	V
	10179	-48.46	-25	-23.46	-74.25	-58.25	2.08	11.87	V
Highest	5136	-58.08	-25	-33.08	-75.62	-67.90	2.30	12.13	H
	7704	-53.67	-25	-28.67	-74.52	-62.29	2.11	10.73	H
	10278	-48.37	-25	-23.37	-74.49	-58.04	2.24	11.91	H
	5136	-57.70	-25	-32.70	-75.46	-67.52	2.30	12.13	V
	7704	-52.79	-25	-27.79	-73.68	-61.41	2.11	10.73	V
	10278	-48.28	-25	-23.28	-74.28	-57.95	2.24	11.91	V

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



LTE Band 38 / 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	5142	-57.41	-25	-32.41	-74.9	-67.24	2.30	12.13	H
	7716	-52.74	-25	-27.74	-73.63	-61.40	2.11	10.78	H
	15426	-42.79	-25	-17.79	-72.36	-55.59	2.43	15.23	H
	5142	-55.53	-25	-30.53	-73.24	-65.36	2.30	12.13	V
	7716	-53.41	-25	-28.41	-74.38	-62.07	2.11	10.78	V
	15426	-41.73	-25	-16.73	-70.54	-54.53	2.43	15.23	V
Middle	5172	-57.44	-25	-32.44	-74.86	-67.28	2.29	12.13	H
	7758	-51.46	-25	-26.46	-72.47	-60.28	2.11	10.93	H
	15516	-42.10	-25	-17.10	-72.07	-55.36	2.40	15.65	H
	5172	-54.02	-25	-29.02	-71.67	-63.86	2.29	12.13	V
	7758	-53.03	-25	-28.03	-74.22	-61.85	2.11	10.93	V
	15516	-41.64	-25	-16.64	-70.23	-54.90	2.40	15.65	V
Highest	5202	-57.89	-25	-32.89	-75.21	-67.75	2.28	12.14	H
	7806	-53.19	-25	-28.19	-74.27	-62.18	2.11	11.10	H
	15606	-42.09	-25	-17.09	-72.28	-55.62	2.43	15.96	H
	5202	-54.78	-25	-29.78	-72.34	-64.64	2.28	12.14	V
	7806	-51.99	-25	-26.99	-73.33	-60.98	2.11	11.10	V
	15606	-42.06	-25	-17.06	-70.57	-55.59	2.43	15.96	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 FG7D2702B which is issued separately.