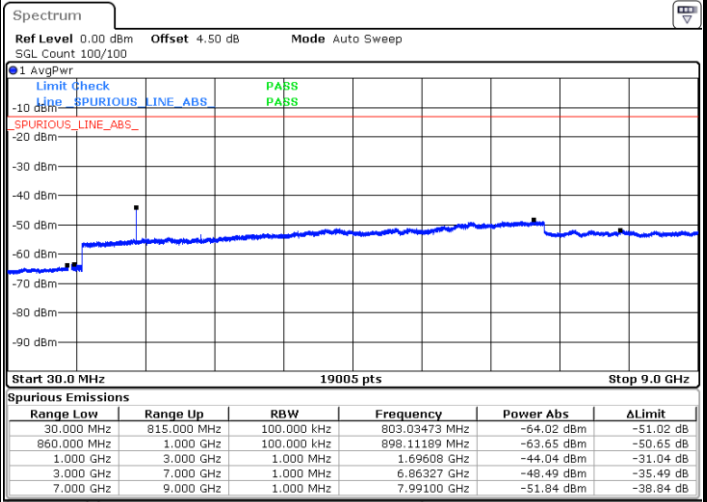
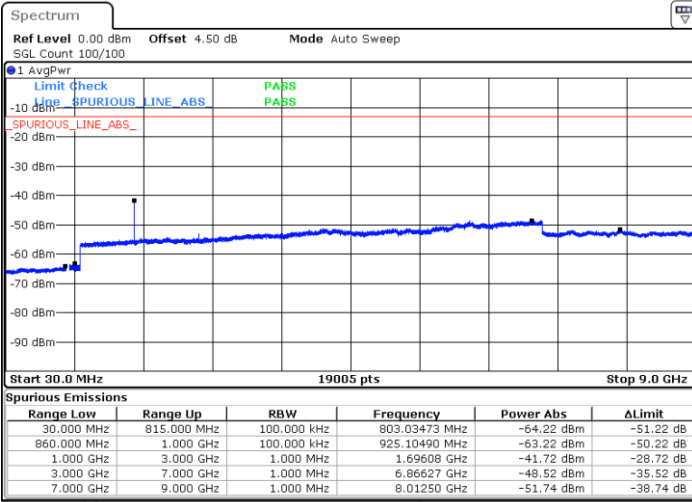




LTE Band 5 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



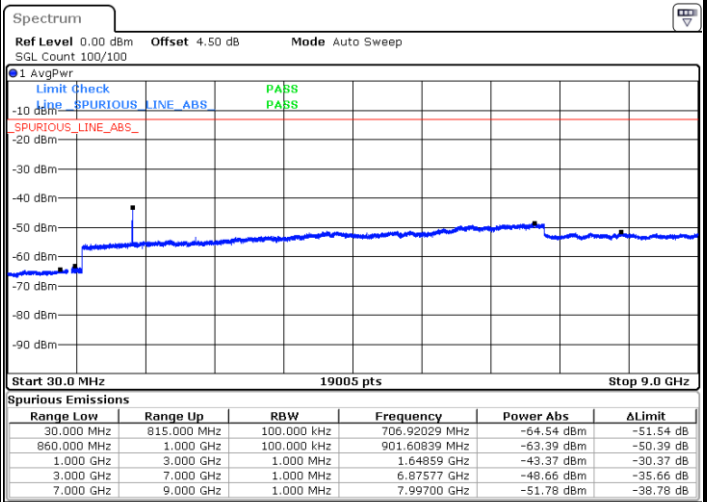
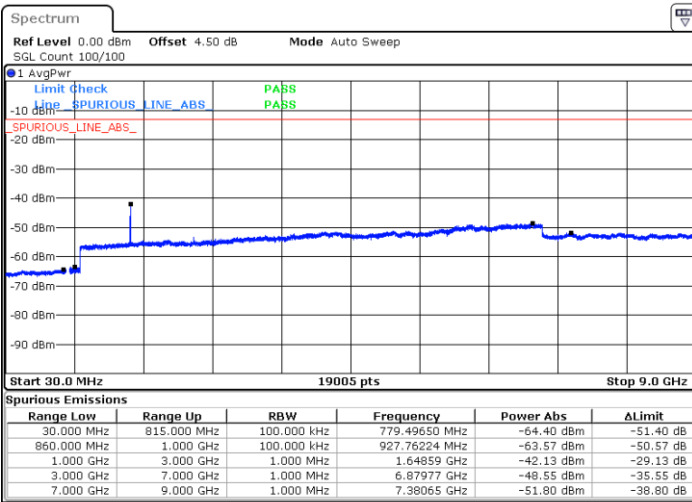
Date: 2 JUL 2017 21:47:12

Date: 2 JUL 2017 21:48:06

LTE Band 5 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 2 JUL 2017 21:56:10

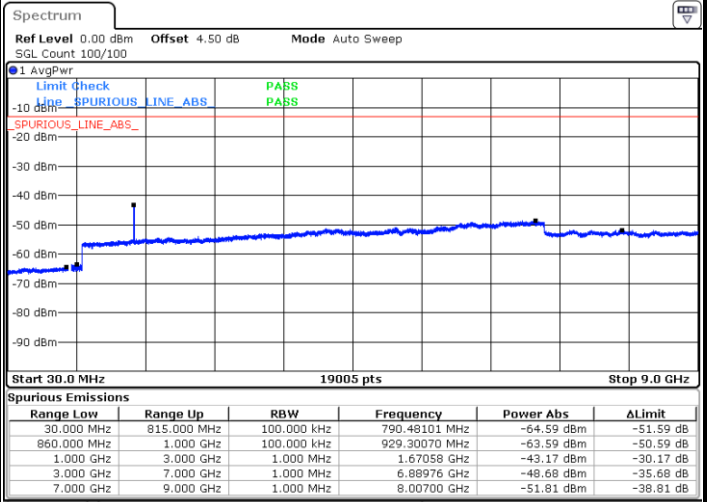
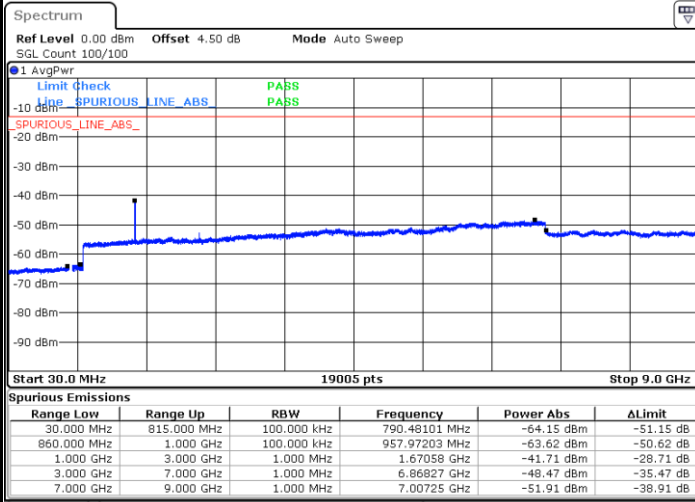
Date: 2 JUL 2017 21:57:04



LTE Band 5 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

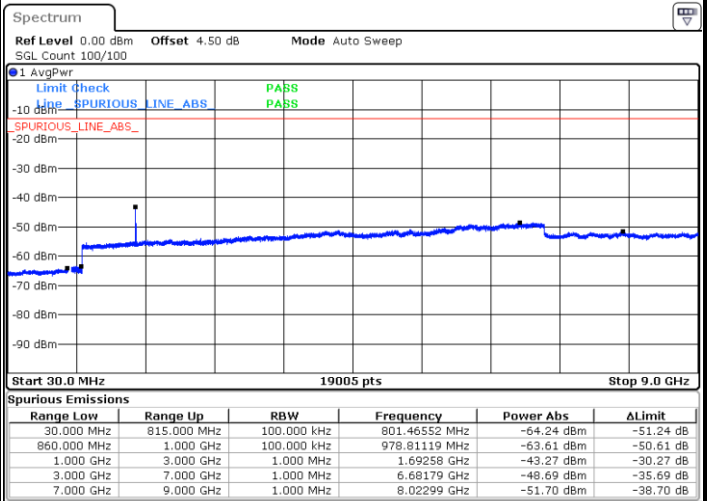
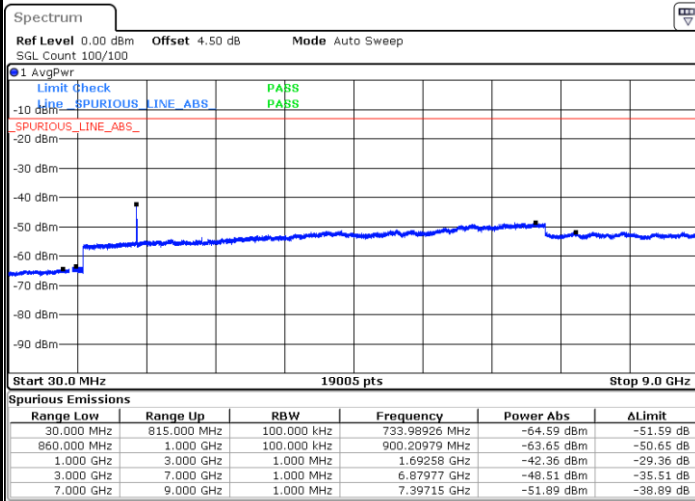


Date: 2 JUL 2017 21:58:38

Date: 2 JUL 2017 21:59:33

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 2 JUL 2017 22:07:36

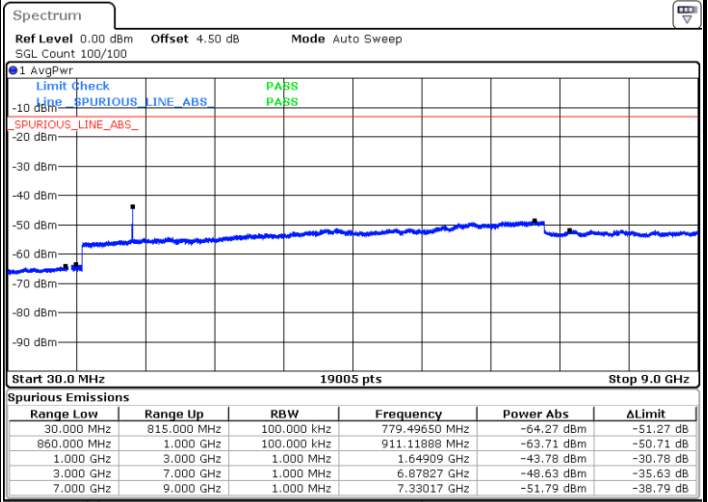
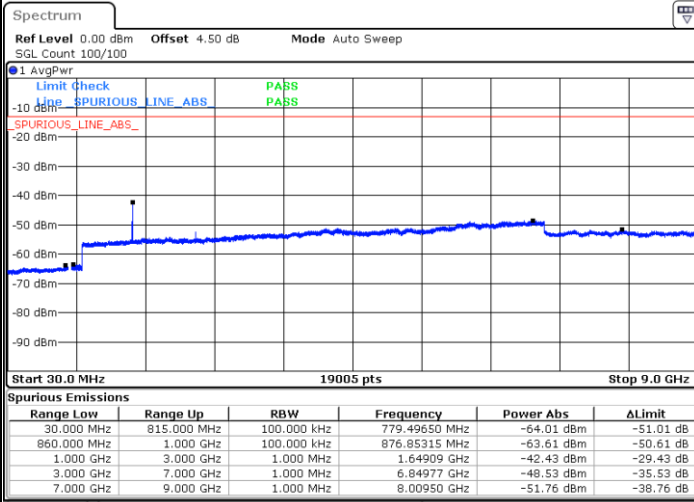
Date: 2 JUL 2017 22:08:31



LTE Band 5 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

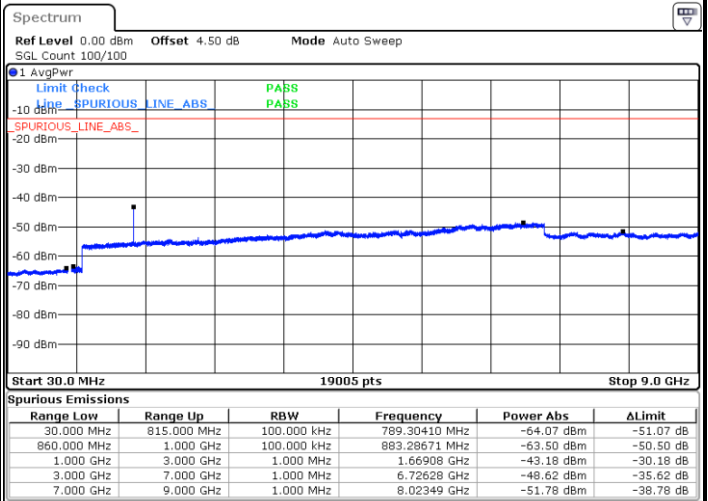
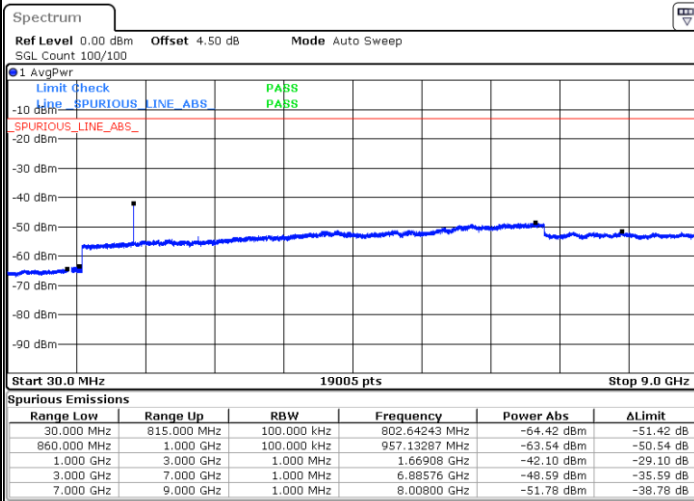


Date: 2 JUL 2017 22:16:35

Date: 2 JUL 2017 22:17:29

Middle Channel / QPSK

Middle Channel / 16QAM



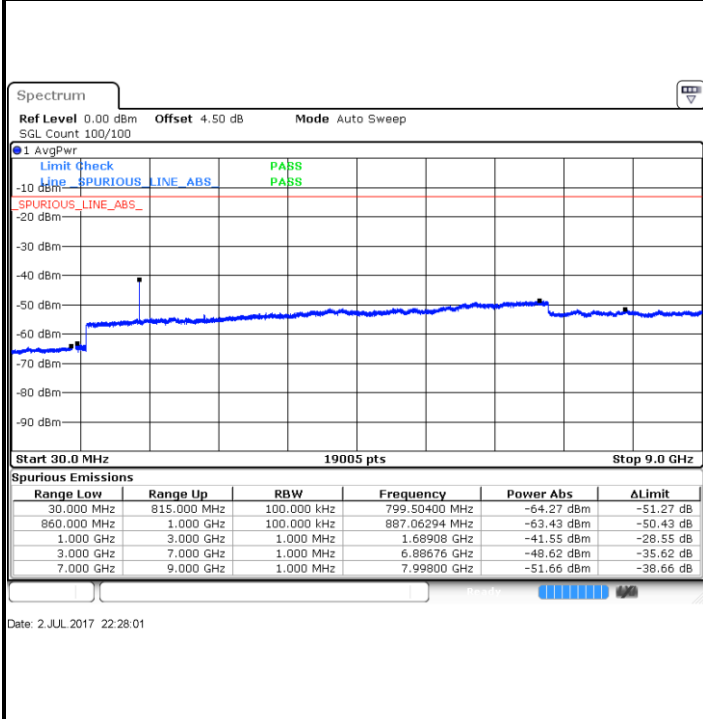
Date: 2 JUL 2017 22:19:03

Date: 2 JUL 2017 22:19:57

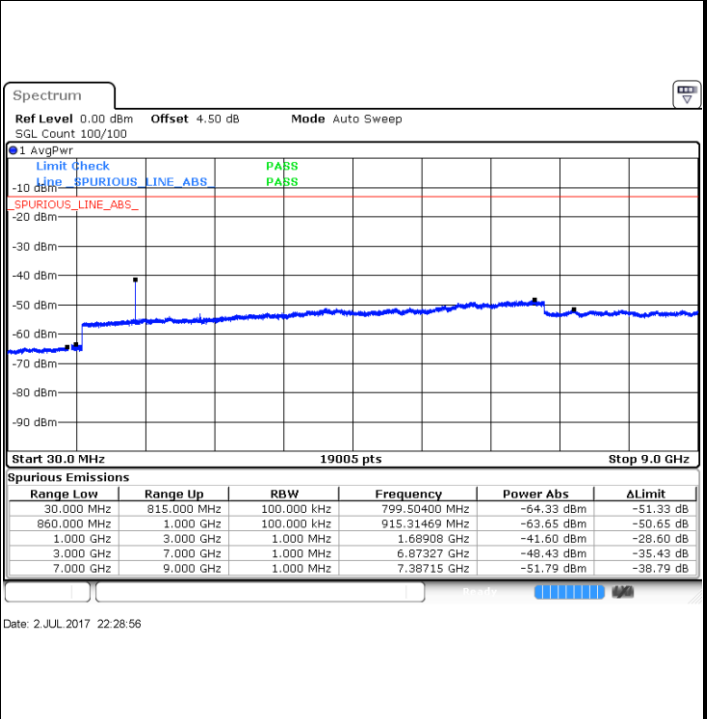


LTE Band 5 / 5MHz

Highest Channel / QPSK

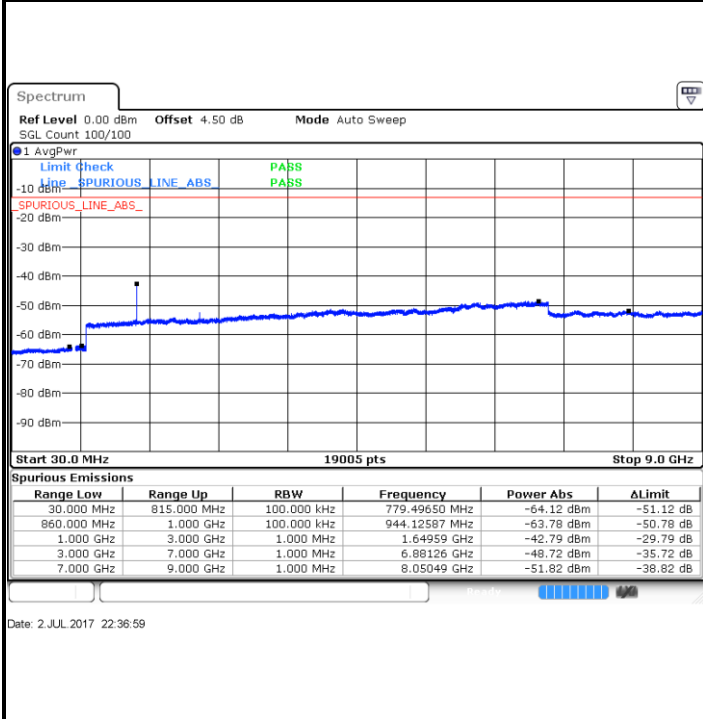


Highest Channel / 16QAM

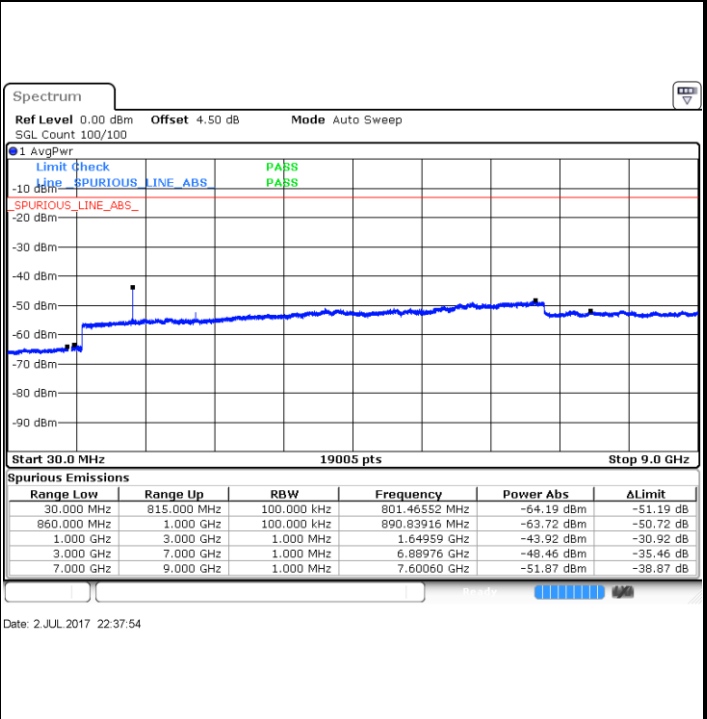


LTE Band 5 / 10MHz

Lowest Channel / QPSK



Lowest Channel / 16QAM

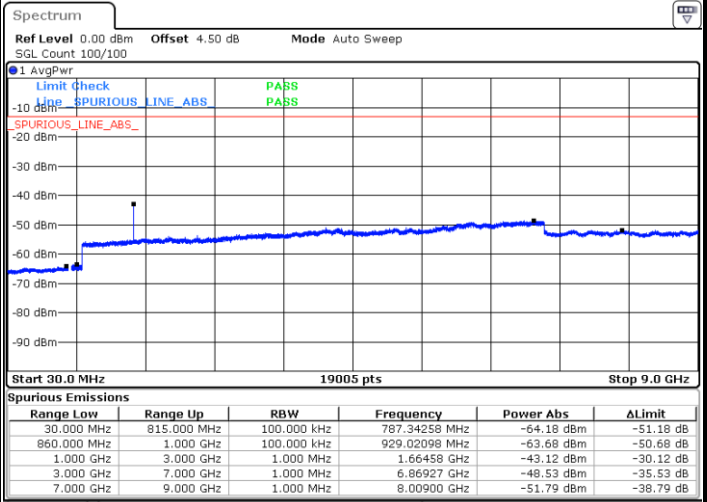
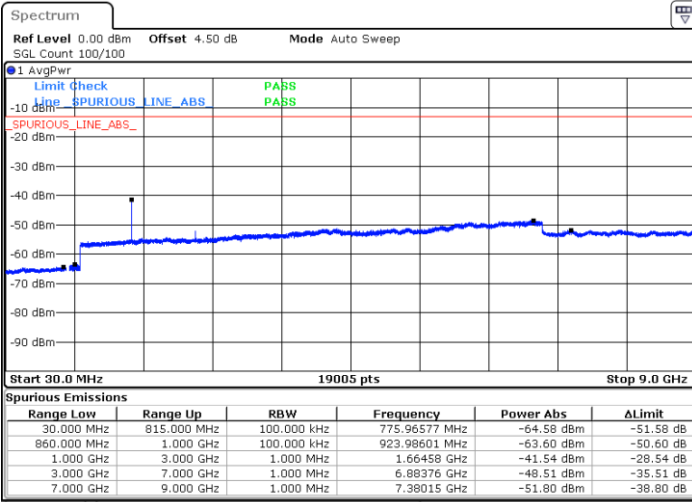




LTE Band 5 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

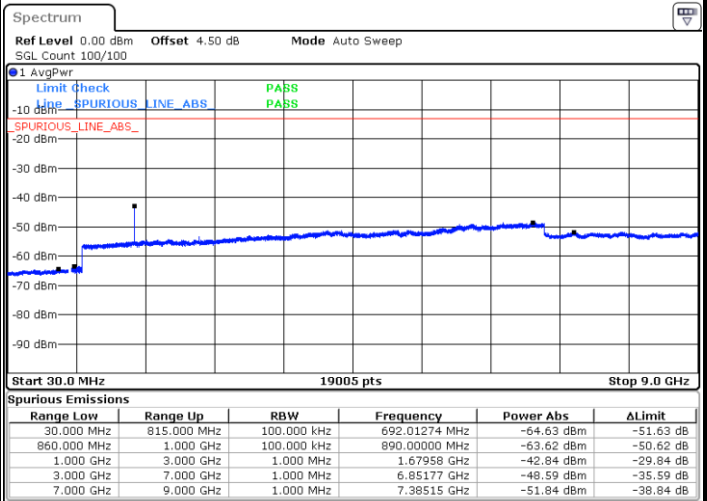
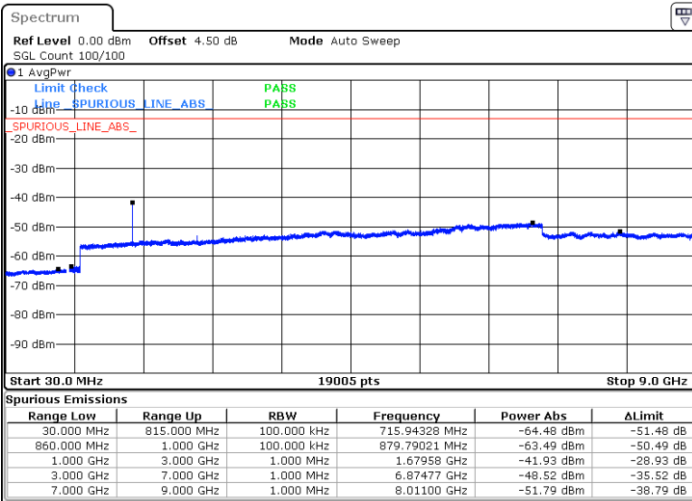


Date: 2 JUL 2017 22:39:28

Date: 2 JUL 2017 22:40:22

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 2 JUL 2017 22:48:26

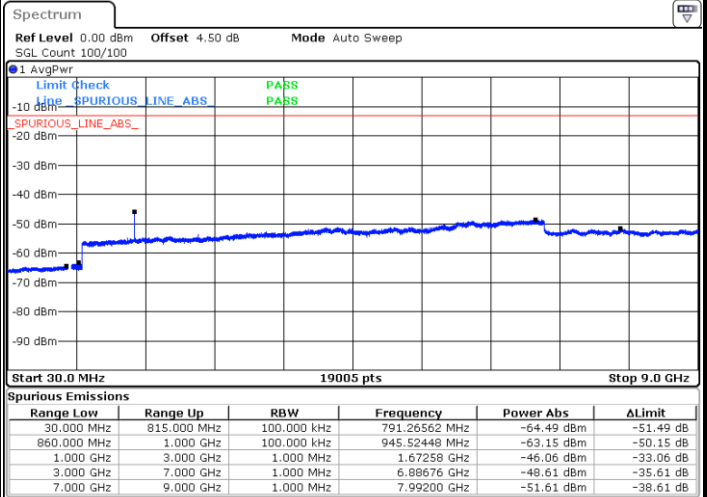
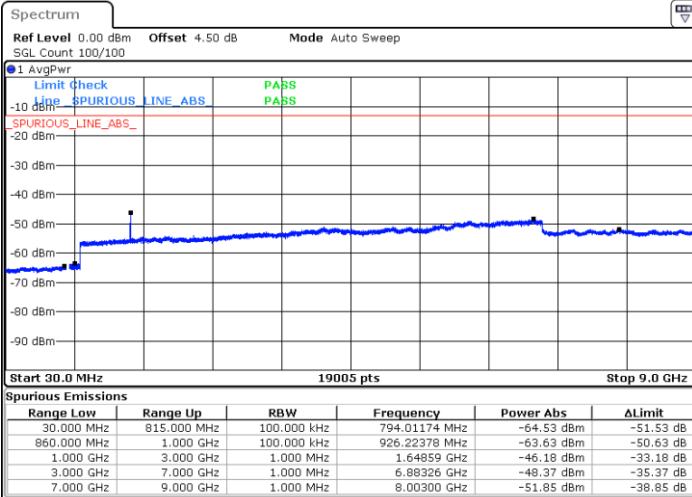
Date: 2 JUL 2017 22:49:20



LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM

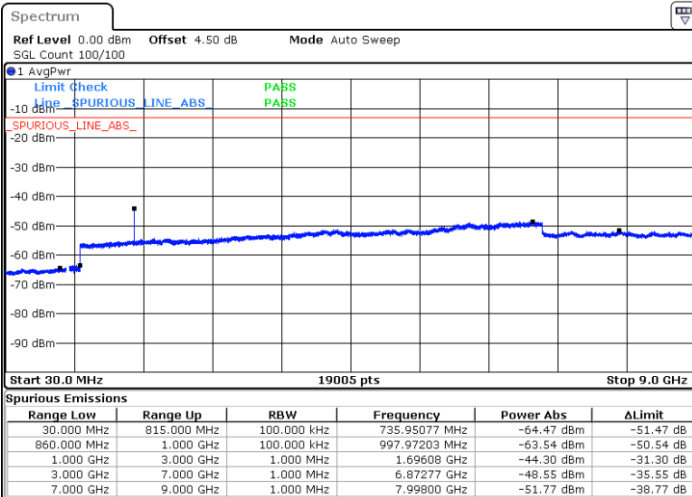
Middle Channel / 64QAM



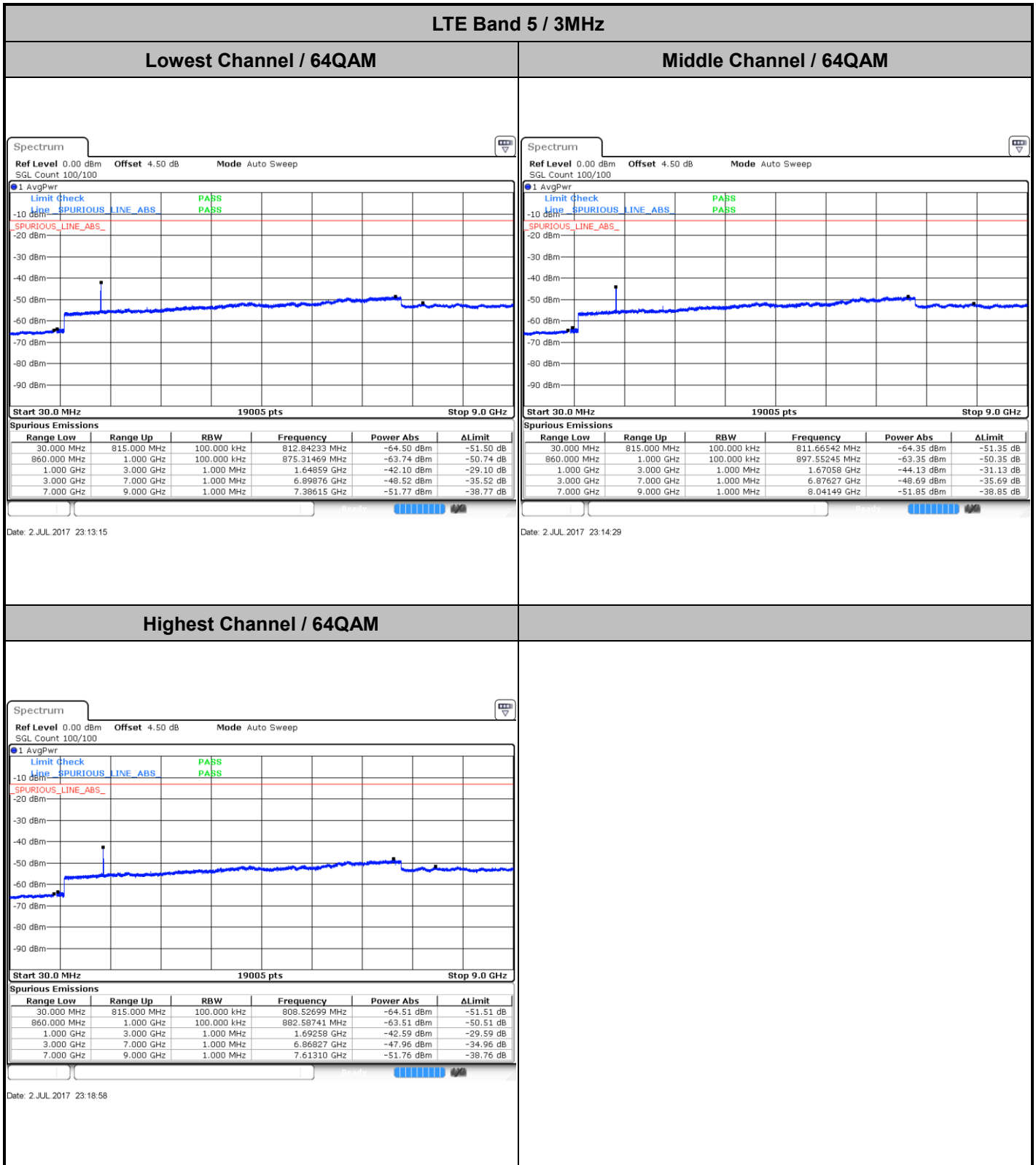
Date: 2 JUL 2017 23:03:03

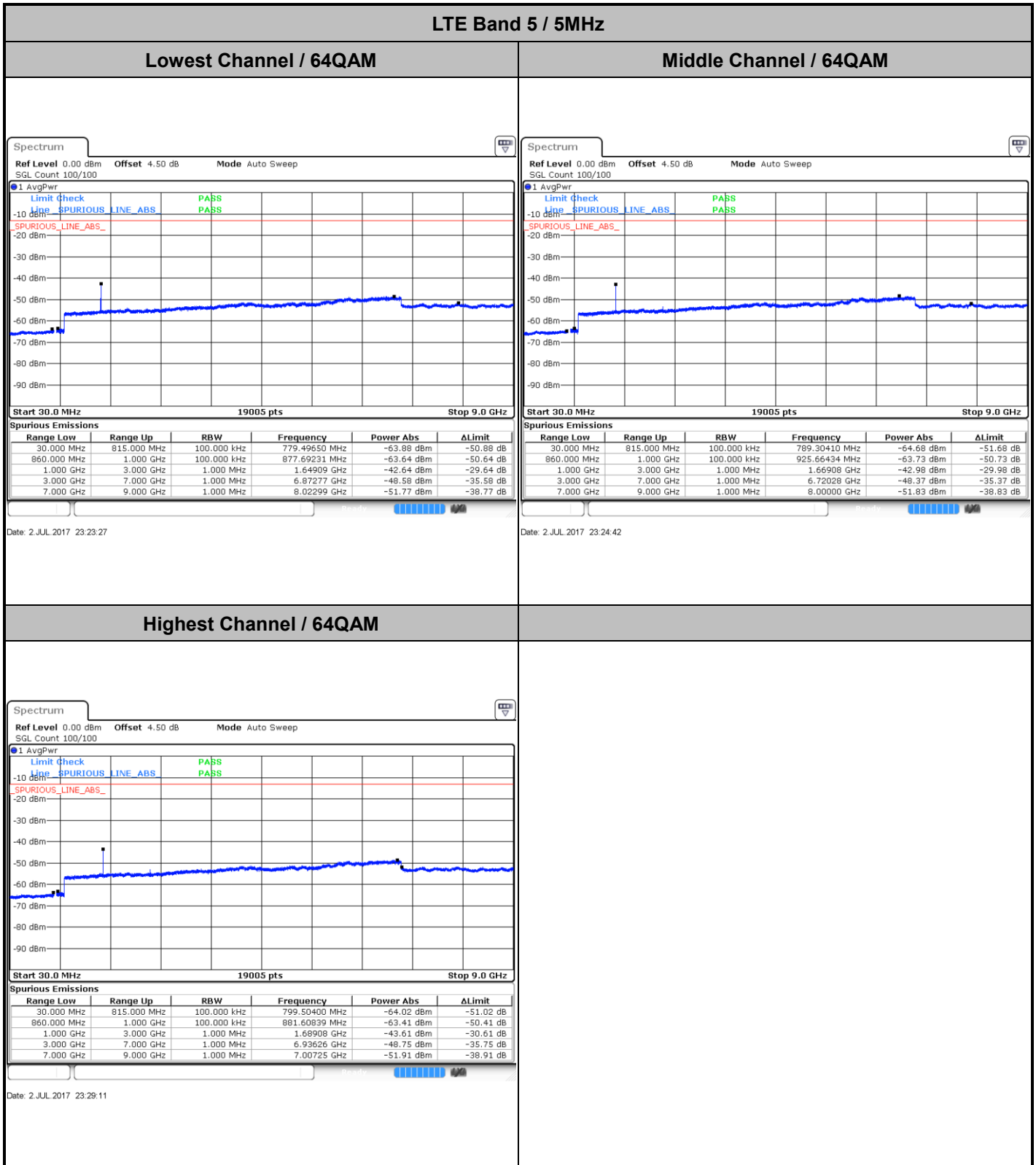
Date: 2 JUL 2017 23:04:17

Highest Channel / 64QAM



Date: 2 JUL 2017 23:08:46



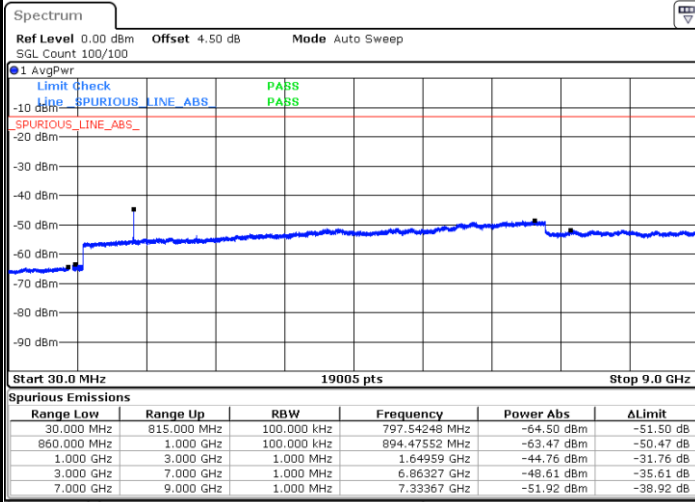




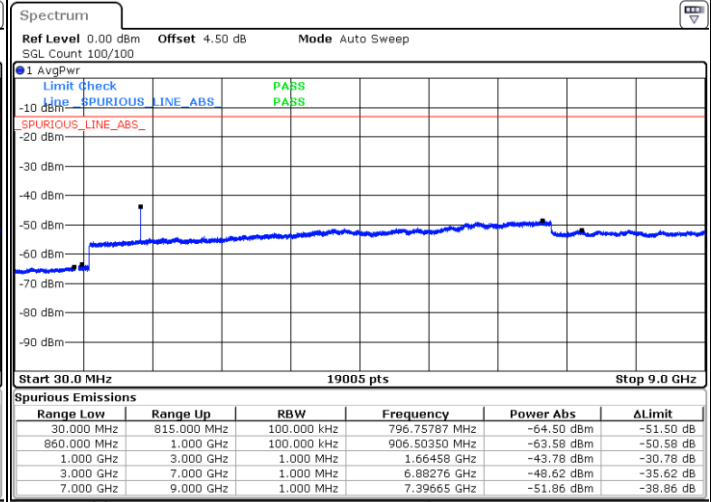
LTE Band 5 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

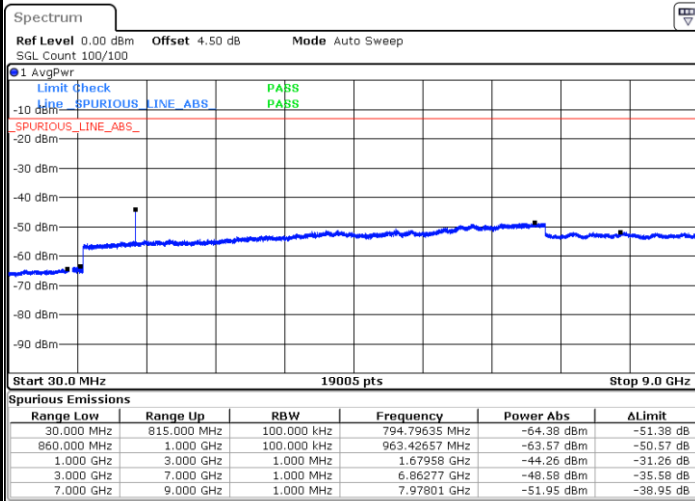


Date: 2 JUL 2017 23:33:40



Date: 2 JUL 2017 23:34:54

Highest Channel / 64QAM



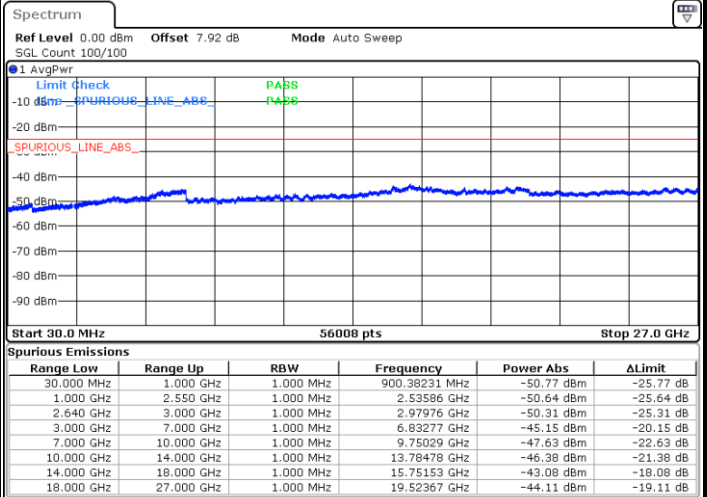
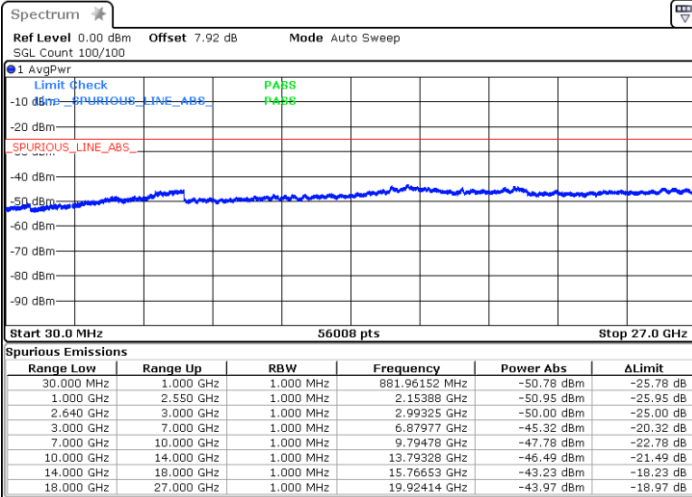
Date: 2 JUL 2017 23:39:23



LTE Band 38 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

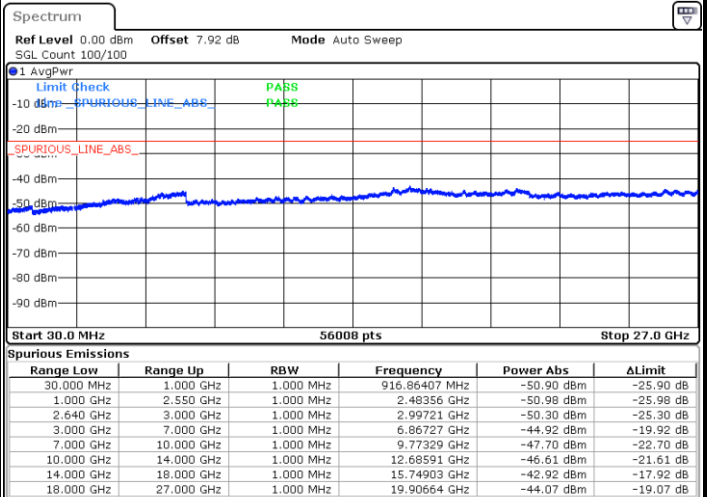
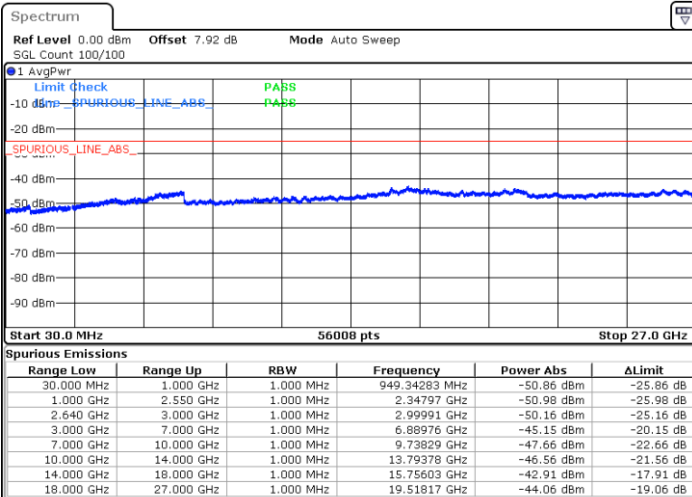


Date: 4 JUL 2017 19:15:36

Date: 4 JUL 2017 19:16:32

Middle Channel / QPSK

Middle Channel / 16QAM



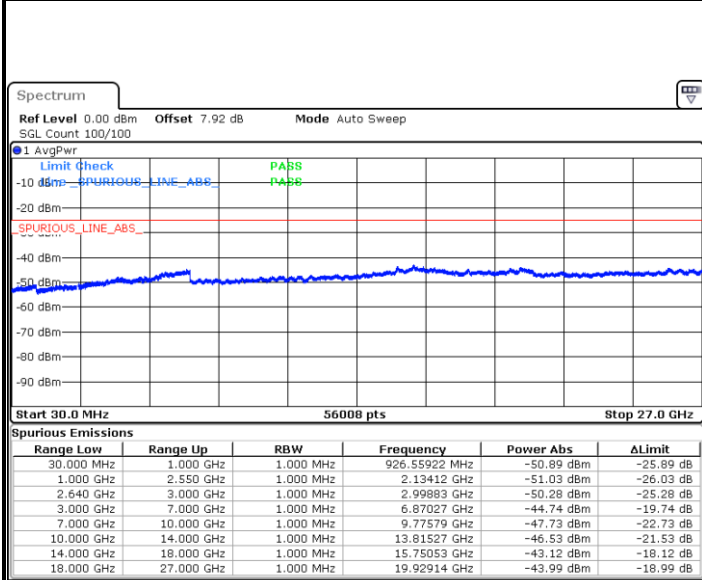
Date: 4 JUL 2017 19:20:43

Date: 4 JUL 2017 19:19:33



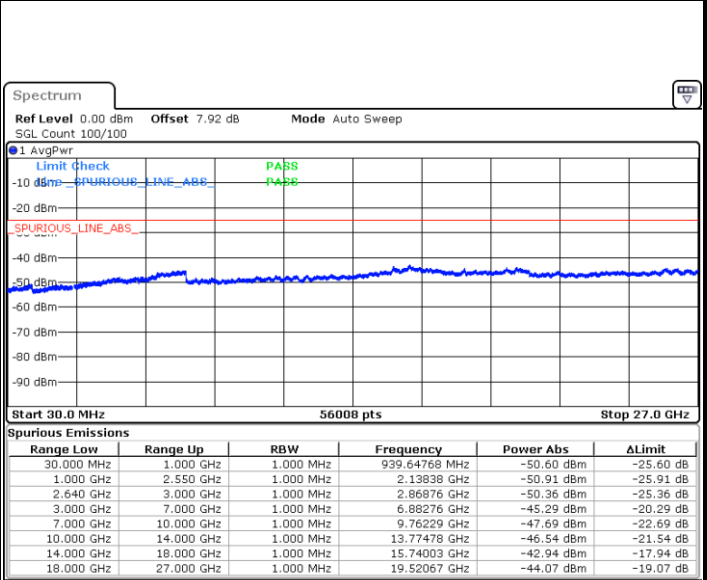
LTE Band 38 / 5MHz

Highest Channel / QPSK



Date: 4 JUL 2017 19:21:55

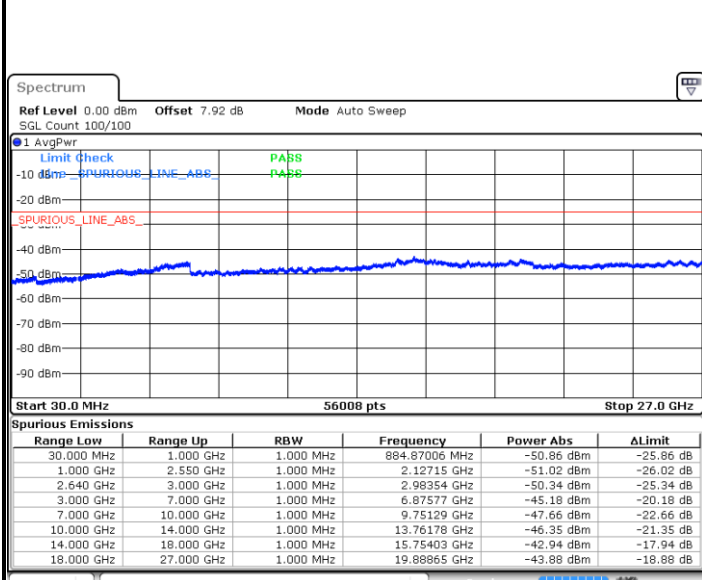
Highest Channel / 16QAM



Date: 4 JUL 2017 19:22:53

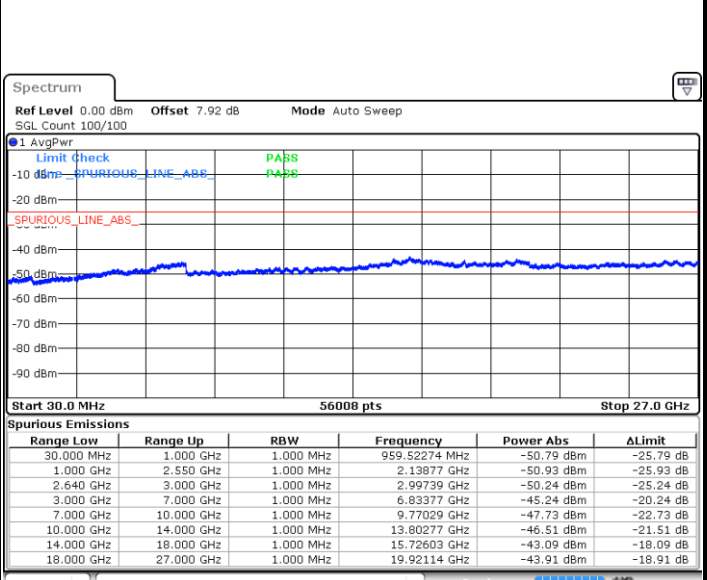
LTE Band 38 / 10MHz

Lowest Channel / QPSK



Date: 4 JUL 2017 19:25:26

Lowest Channel / 16QAM



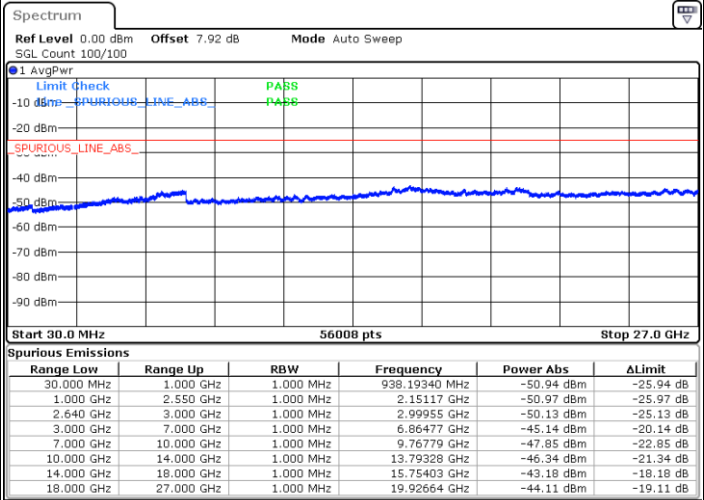
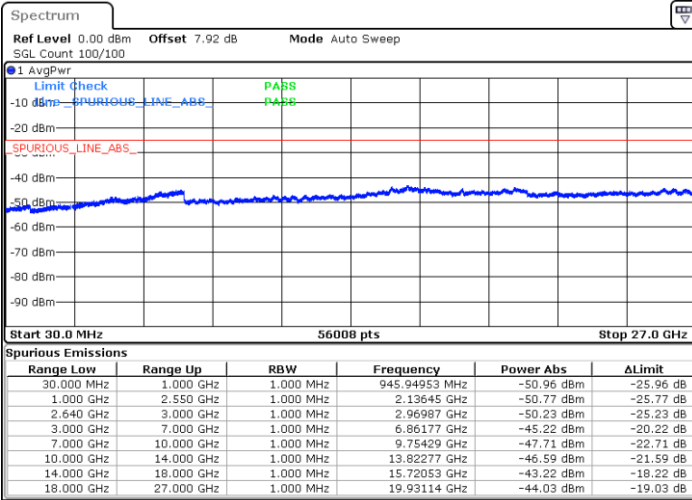
Date: 4 JUL 2017 19:26:37



LTE Band 38 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

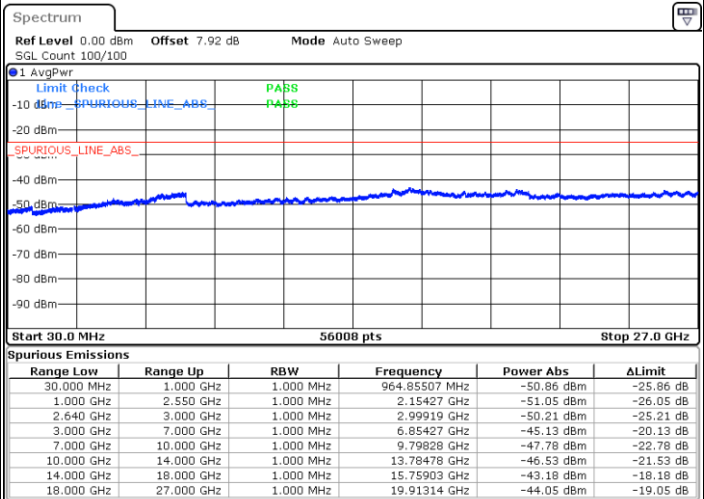
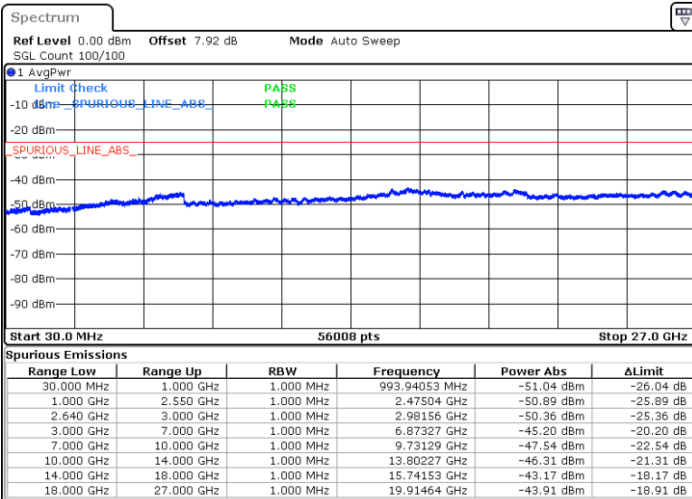


Date: 4 JUL 2017 19:30:17

Date: 4 JUL 2017 19:29:28

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 4 JUL 2017 19:31:14

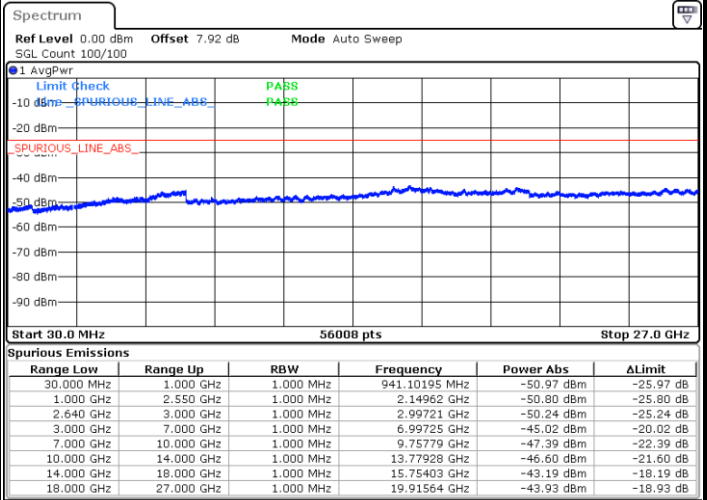
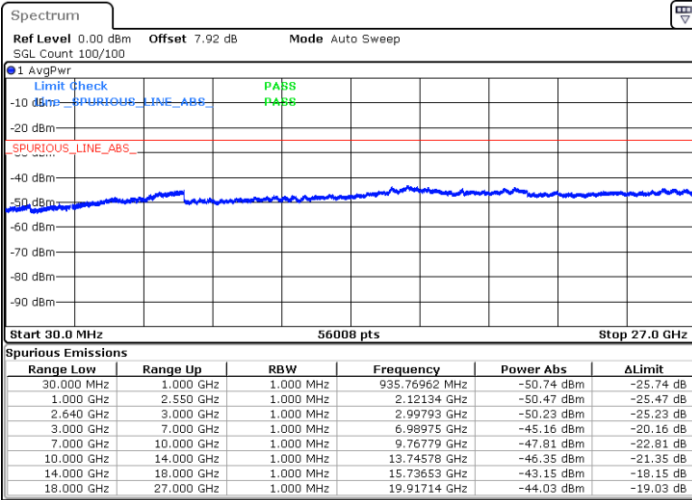
Date: 4 JUL 2017 19:32:20



LTE Band 38 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

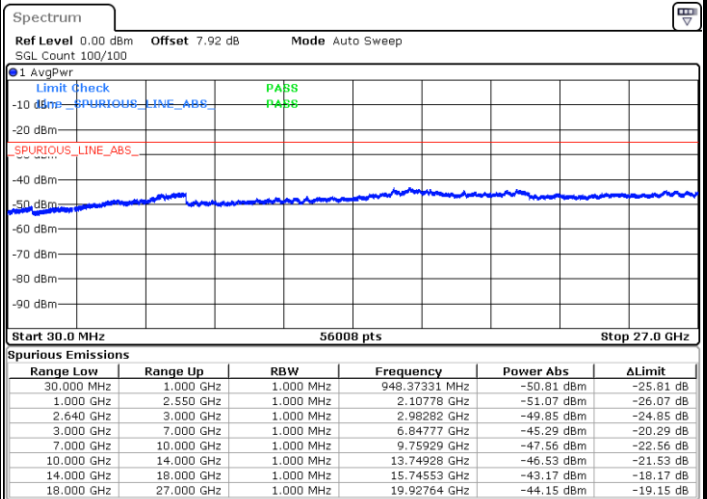
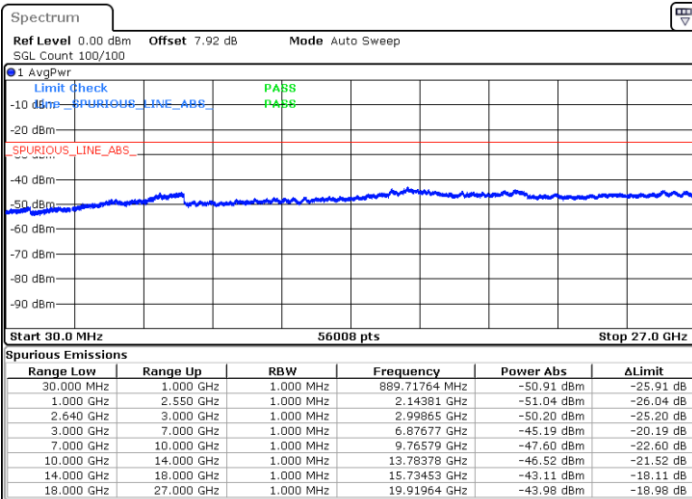


Date: 4 JUL 2017 19:36:46

Date: 4 JUL 2017 19:35:53

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 4 JUL 2017 19:37:43

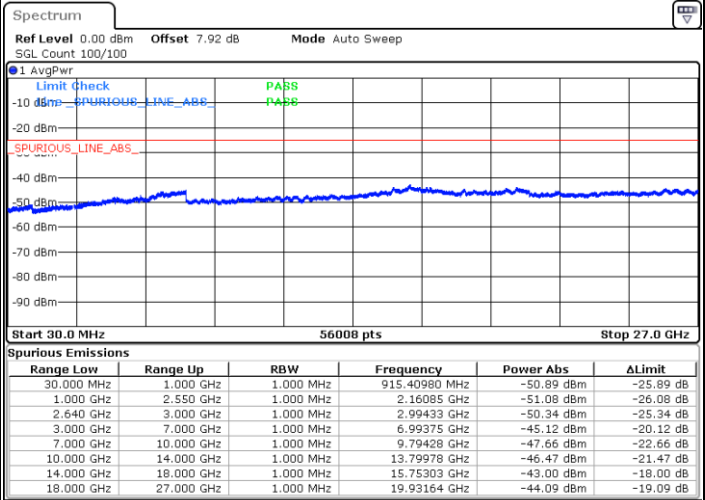
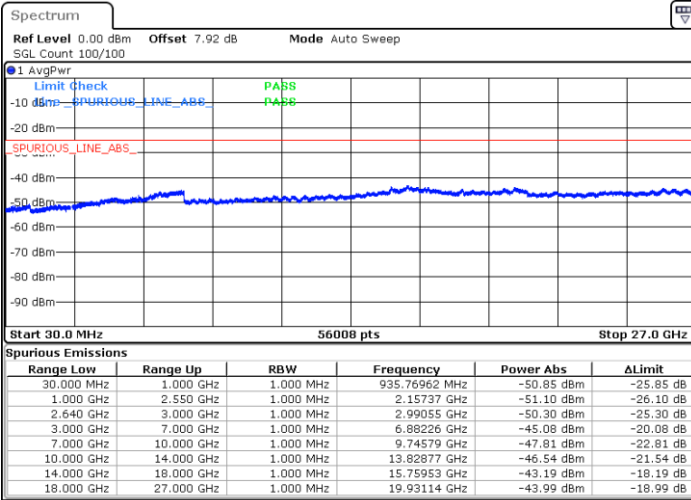
Date: 4 JUL 2017 19:38:49



LTE Band 38 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



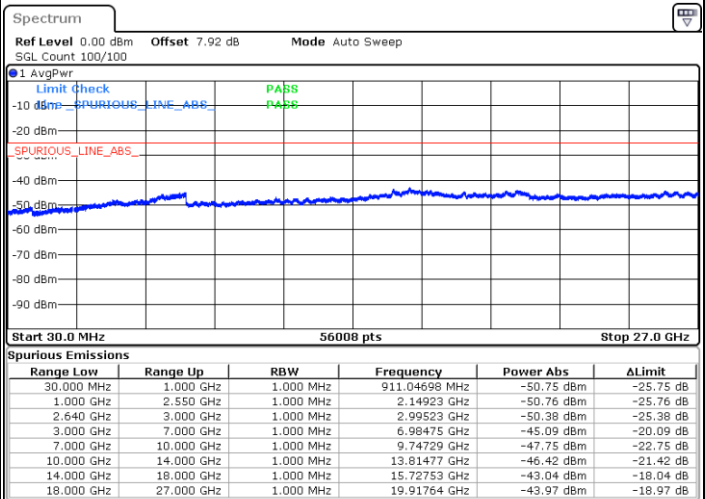
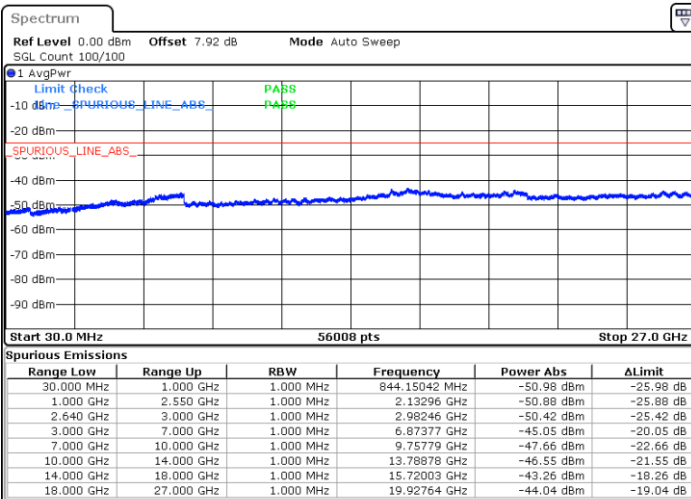
Date: 4 JUL 2017 19:43:06

Date: 4 JUL 2017 19:42:08

LTE Band 38 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 4 JUL 2017 19:44:36

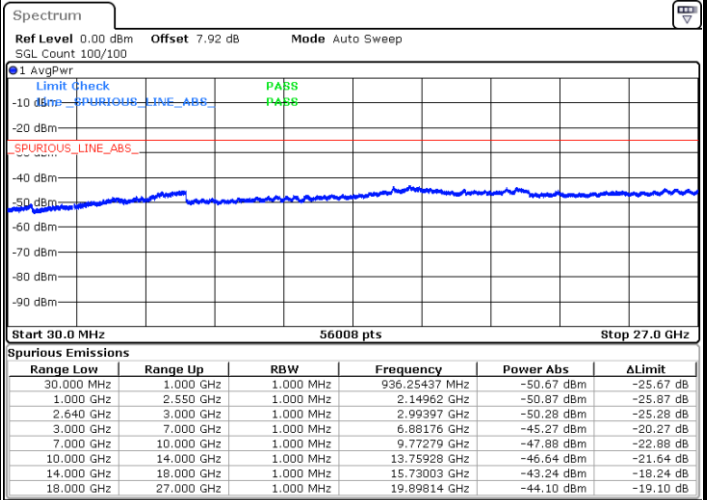
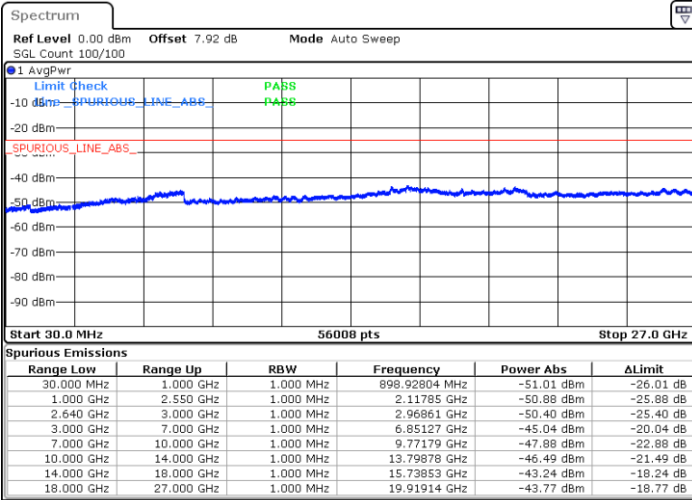
Date: 4 JUL 2017 19:45:35



LTE Band 38 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

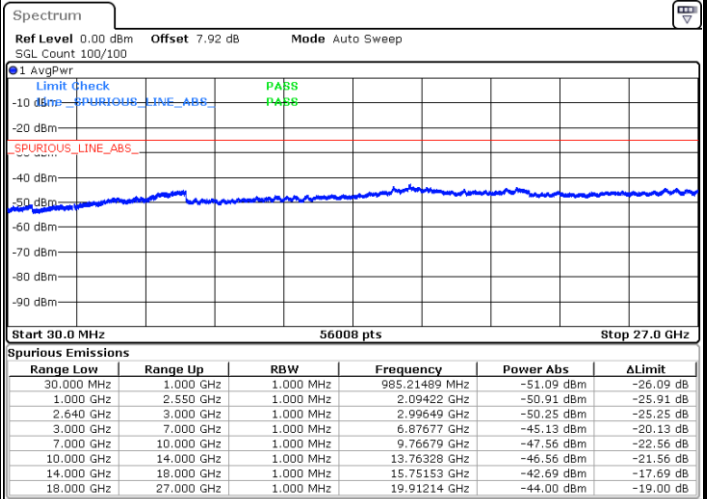
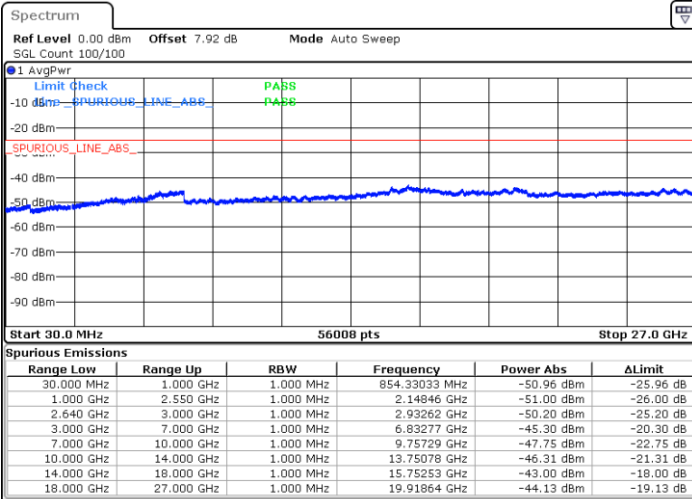


Date: 4 JUL 2017 19:49:49

Date: 4 JUL 2017 19:48:53

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 4 JUL 2017 19:51:07

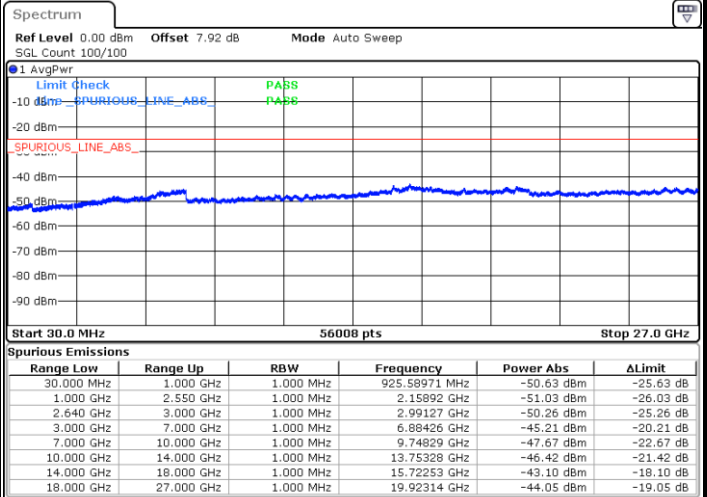
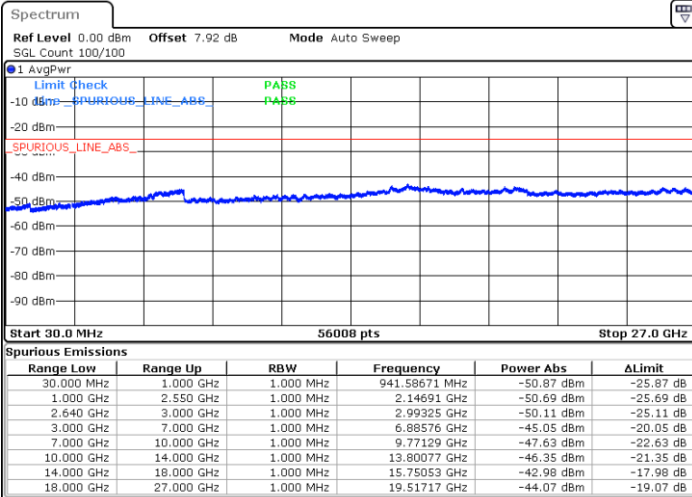
Date: 4 JUL 2017 19:52:07



LTE Band 38 / 5MHz

Lowest Channel / 64QAM

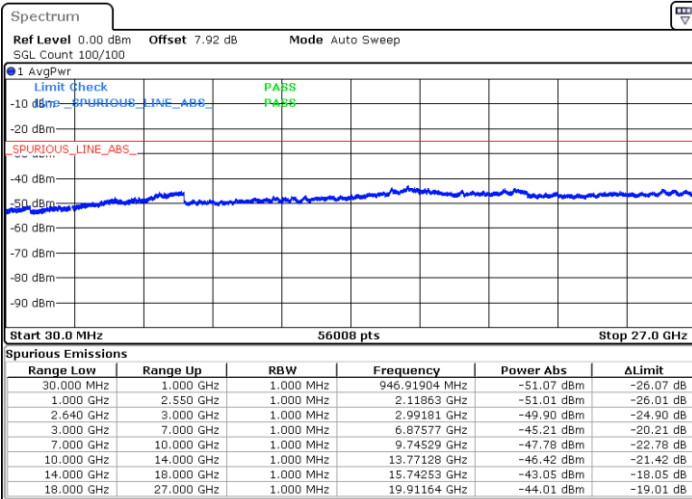
Middle Channel / 64QAM



Date: 4 JUL 2017 19:17:31

Date: 4 JUL 2017 19:18:36

Highest Channel / 64QAM



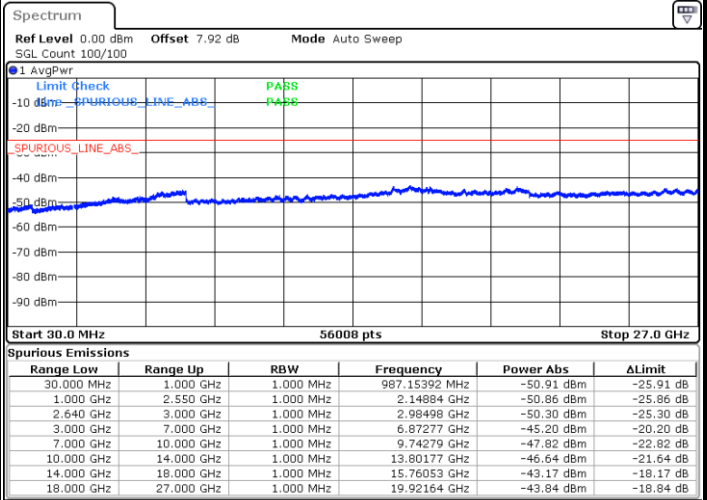
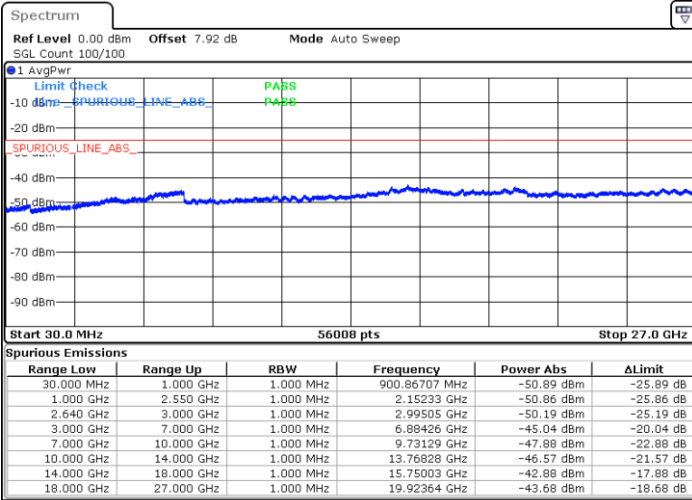
Date: 4 JUL 2017 19:23:51



LTE Band 38 / 10MHz

Lowest Channel / 64QAM

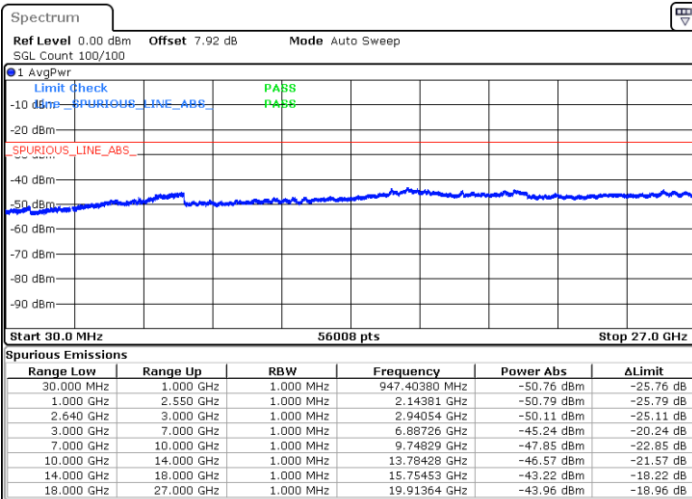
Middle Channel / 64QAM



Date: 4 JUL 2017 19:27:33

Date: 4 JUL 2017 19:28:32

Highest Channel / 64QAM



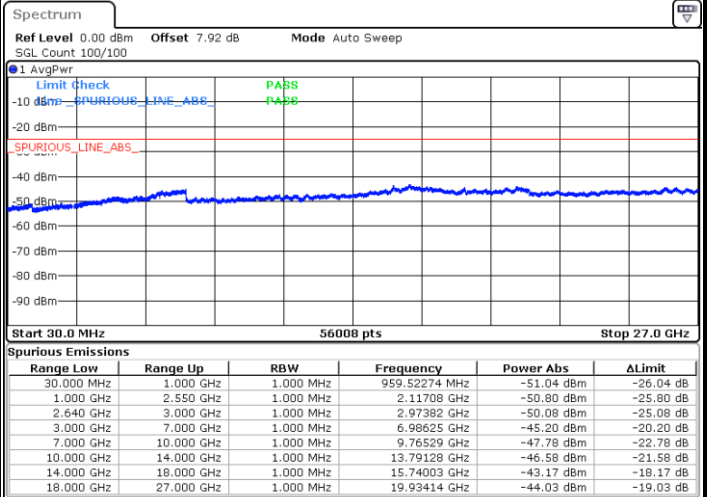
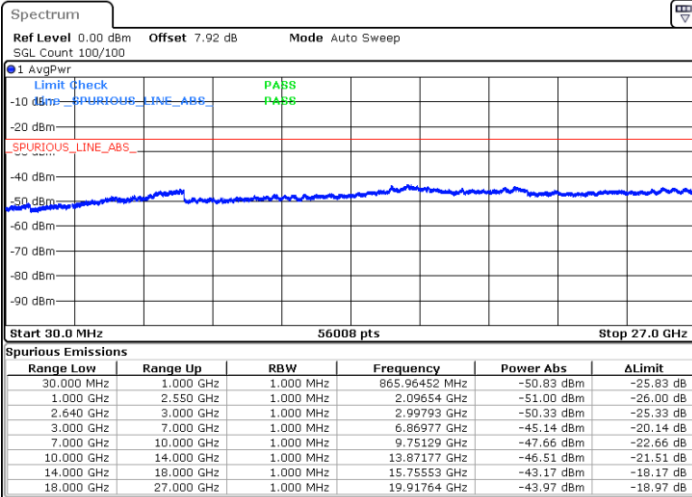
Date: 4 JUL 2017 19:33:14



LTE Band 38 / 15MHz

Lowest Channel / 64QAM

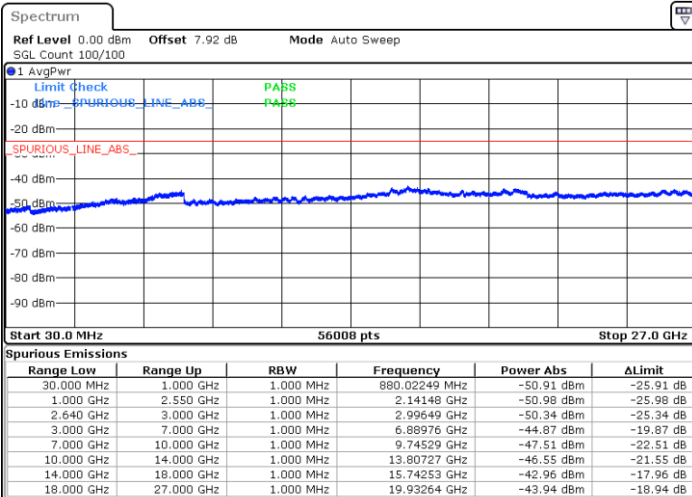
Middle Channel / 64QAM



Date: 4 JUL 2017 19:35:00

Date: 4 JUL 2017 19:39:50

Highest Channel / 64QAM

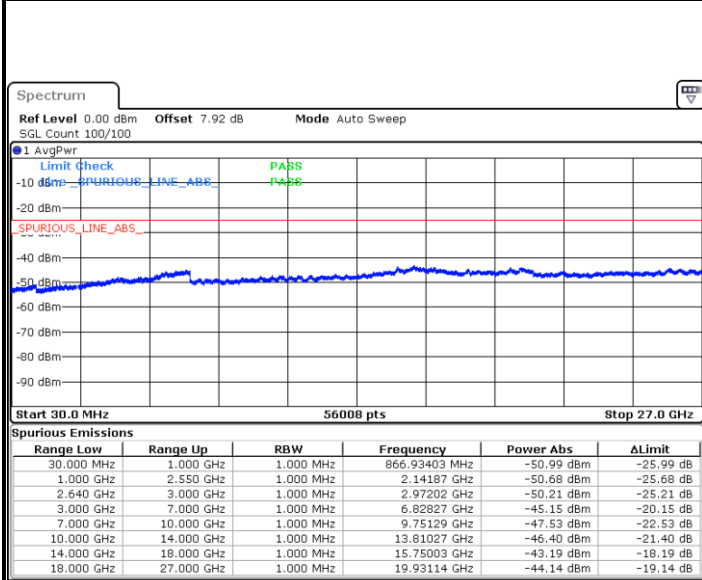


Date: 4 JUL 2017 19:40:48



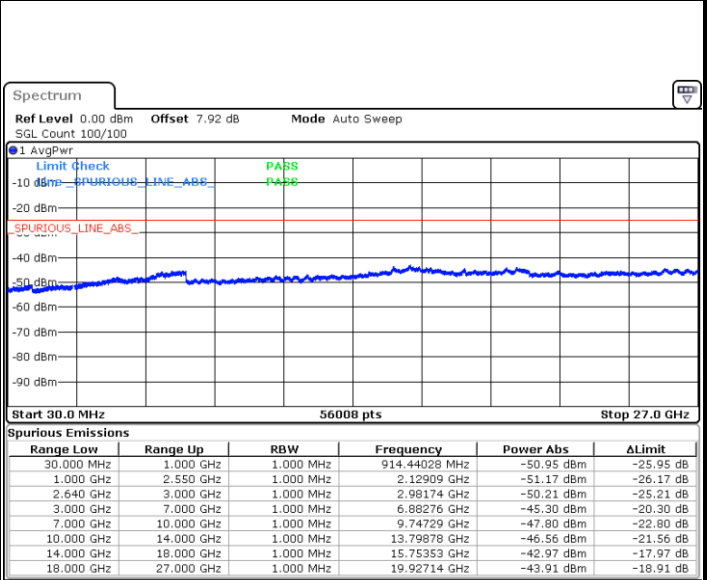
LTE Band 38 / 20MHz

Lowest Channel / 64QAM



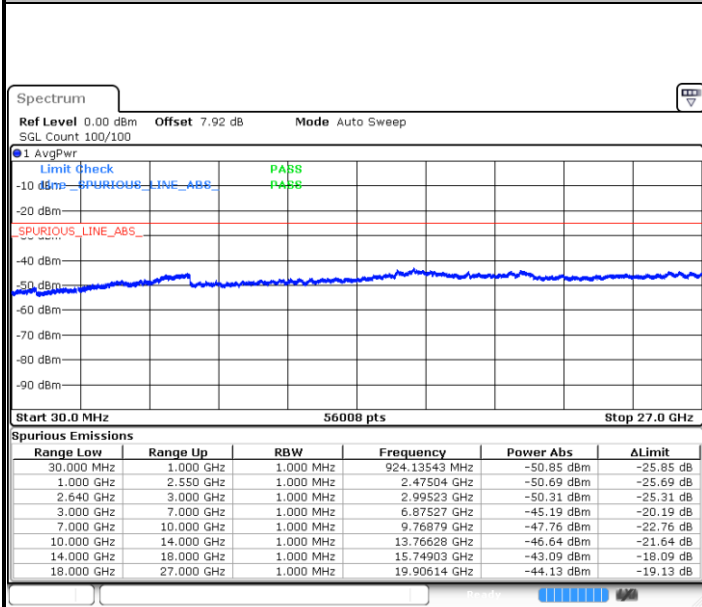
Date: 4 JUL 2017 19:46:50

Middle Channel / 64QAM



Date: 4 JUL 2017 19:47:55

Highest Channel / 64QAM



Date: 4 JUL 2017 19:53:03



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0027	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0035	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0038	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0028	
20	Battery End Point	0.0025	

Note:

1. Normal Voltage =3.82 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 V.
2. 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	0.0035	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0031	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0043	
-30	Normal Voltage	0.0050	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0037	

Note:

1. Normal Voltage =3.82 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 38 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0017	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0013	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.82 V. ; Battery End Point (BEP) =3.65 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 4 / 1.4MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3465	-59.57	-13	-46.57	-68.47	-63.54	4.87	8.84	H
	5196	-49.54	-13	-36.54	-63.18	-50.99	7.70	9.14	H
	6927	-57.34	-13	-44.34	-75.81	-59.02	8.98	10.66	H
	3465	-53.31	-13	-40.31	-64.93	-57.28	4.87	8.84	V
	5196	-52.41	-13	-39.41	-66.46	-53.85	7.70	9.14	V
	6927	-57.58	-13	-44.58	-75.6	-59.26	8.98	10.66	V

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

LTE Band 4 / 3MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3462	-54.17	-13	-41.17	-63.07	-58.14	4.87	8.84	H
	5193	-43.79	-13	-30.79	-60.63	-45.23	7.70	9.14	H
	6924	-58.05	-13	-45.05	-76.52	-59.73	8.98	10.66	H
	3462	-49.58	-13	-36.58	-62.86	-53.55	4.87	8.84	V
	5193	-50.62	-13	-37.62	-64.67	-52.06	7.70	9.14	V
	6924	-58.25	-13	-45.25	-76.27	-59.93	8.98	10.66	V

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



LTE Band 4 / 5MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3459	-58.24	-13	-45.24	-67.14	-62.21	4.87	8.84	H
	5190	-56.95	-13	-43.95	-67.88	-58.39	7.70	9.14	H
	6921	-58.39	-13	-45.39	-76.86	-60.07	8.98	10.66	H
	3459	-51.81	-13	-38.81	-63.79	-55.78	4.87	8.84	V
	5190	-56.73	-13	-43.73	-70.78	-58.17	7.70	9.14	V
	6921	-58.09	-13	-45.09	-76.11	-59.77	8.98	10.66	V

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

LTE Band 4 / 10MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3456	-57.71	-13	-44.71	-66.61	-61.68	4.87	8.84	H
	5184	-45.09	-13	-32.09	-61.12	-46.53	7.70	9.14	H
	6912	-58.25	-13	-45.25	-76.72	-59.93	8.98	10.66	H
	3456	-54.10	-13	-41.10	-65.72	-58.07	4.87	8.84	V
	5184	-50.99	-13	-37.99	-65.04	-52.43	7.70	9.14	V
	6912	-58.36	-13	-45.36	-76.38	-60.04	8.98	10.66	V

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



LTE Band 4 / 15MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3453	-60.61	-13	-47.61	-69.51	-64.58	4.87	8.84	H
	5178	-49.62	-13	-36.62	-63.25	-51.06	7.70	9.14	H
	6903	-59.00	-13	-46.00	-77.47	-60.68	8.98	10.66	H
	3450	-53.84	-13	-40.84	-65.46	-57.81	4.87	8.84	V
	5178	-41.40	-13	-28.40	-58.91	-42.84	7.70	9.14	V
	6903	-58.96	-13	-45.96	-76.98	-60.64	8.98	10.66	V

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

LTE Band 4 / 20MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	3447	-57.21	-13	-44.21	-66.11	-61.18	4.87	8.84	H
	5172	-54.39	-13	-41.39	-65.32	-55.83	7.70	9.14	H
	6894	-56.98	-13	-43.98	-75.45	-58.66	8.98	10.66	H
	3447	-54.34	-13	-41.34	-65.96	-58.31	4.87	8.84	V
	5172	-51.38	-13	-38.38	-65.43	-52.82	7.70	9.14	V
	6894	-58.34	-13	-45.34	-76.36	-60.02	8.98	10.66	V

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



LTE Band 5 / 1.4MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	1672	-64.17	-13	-51.17	-66.77	-66.49	1.33	5.80	H
	2508	-40.66	-13	-27.66	-52.99	-43.83	1.58	6.90	H
	3345	-66.55	-13	-53.55	-75.76	-70.05	1.85	7.50	H
	1672	-66.19	-13	-53.19	-68.06	-68.51	1.33	5.80	V
	2508	-45.54	-13	-32.54	-56.36	-48.71	1.58	6.90	V
	3345	-66.79	-13	-53.79	-75.81	-70.29	1.85	7.50	V

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

LTE Band 5 / 3MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	1670	-62.37	-13	-49.37	-64.97	-64.69	1.33	5.80	H
	2506	-44.11	-13	-31.11	-55.86	-47.28	1.58	6.90	H
	3342	-66.73	-13	-53.73	-75.94	-70.23	1.85	7.50	H
	1670	-65.85	-13	-52.85	-67.72	-68.17	1.33	5.80	V
	2506	-45.21	-13	-32.21	-56.12	-48.38	1.58	6.90	V
	3342	-66.11	-13	-53.11	-75.13	-69.61	1.85	7.50	V

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



LTE Band 5 / 5MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	1668	-64.72	-13	-51.72	-67.32	-67.04	1.33	5.80	H
	2502	-42.06	-13	-29.06	-54.14	-45.23	1.58	6.90	H
	3336	-66.38	-13	-53.38	-75.59	-69.88	1.85	7.50	H
	1668	-66.30	-13	-53.30	-68.17	-68.62	1.33	5.80	V
	2502	-45.89	-13	-32.89	-56.62	-49.06	1.58	6.90	V
	3336	-67.13	-13	-54.13	-76.15	-70.63	1.85	7.50	V

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

LTE Band 5 / 10MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	1664	-63.42	-13	-50.42	-66.02	-65.74	1.33	5.80	H
	2496	-42.13	-13	-29.13	-54.19	-45.30	1.58	6.90	H
	3327	-66.36	-13	-53.36	-75.57	-69.86	1.85	7.50	H
	1664	-65.03	-13	-52.03	-66.90	-67.35	1.33	5.80	V
	2496	-43.75	-13	-30.75	-54.87	-46.92	1.58	6.90	V
	3327	-67.31	-13	-54.31	-76.33	-70.81	1.85	7.50	V

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



LTE Band 38 / 5MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5186	-67.78	-25	-42.78	-55.65	-74.33	2.56	9.12	H
	7778	-64.28	-25	-39.28	-58.60	-72.79	3.45	11.97	H
	10370	-61.36	-25	-36.36	-61.11	-69.84	3.62	12.10	H
	5186	-67.43	-25	-42.43	-55.43	-73.98	2.56	9.12	V
	7778.52	-65.51	-25	-40.51	-58.49	-74.02	3.45	11.97	V
	10370	-58.57	-25	-33.57	-58.82	-67.05	3.62	12.10	V

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

LTE Band 38 / 10MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5180	-67.23	-25	-42.23	-55.10	-73.78	2.56	9.12	H
	7772	-63.56	-25	-38.56	-57.88	-72.07	3.45	11.97	H
	10360	-61.64	-25	-36.64	-61.39	-70.12	3.62	12.10	H
	5180	-67.52	-25	-42.52	-55.52	-74.07	2.56	9.12	V
	7772	-64.22	-25	-39.22	-57.2	-72.73	3.45	11.97	V
	10360	-60.36	-25	-35.36	-60.61	-68.84	3.62	12.10	V

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



LTE Band 38 / 15MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5177	-67.89	-25	-42.89	-55.76	-74.44	2.56	9.12	H
	7766	-62.76	-25	-37.76	-57.08	-71.27	3.45	11.97	H
	10350	-61.89	-25	-36.89	-61.64	-70.37	3.62	12.10	H
	5177	-67.01	-25	-42.01	-55.01	-73.56	2.56	9.12	V
	7766	-65.09	-25	-40.09	-58.07	-73.60	3.45	11.97	V
	10350	-60.07	-25	-35.07	-60.32	-68.55	3.62	12.10	V

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

LTE Band 38 / 20MHz / QPSK / RB Size 1 Offset 0									
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)
Middle	5171	-68.29	-25	-43.29	-56.16	-74.84	2.56	9.12	H
	7757	-63.09	-25	-38.09	-57.41	-71.60	3.45	11.97	H
	10340	-62.35	-25	-37.35	-62.10	-70.83	3.62	12.10	H
	5171	-67.87	-25	-42.87	-55.87	-74.42	2.56	9.12	V
	7757	-64.42	-25	-39.42	-57.4	-72.93	3.45	11.97	V
	10340	-60.25	-25	-35.25	-60.5	-68.73	3.62	12.10	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 FG761702-01B which is issued separately.