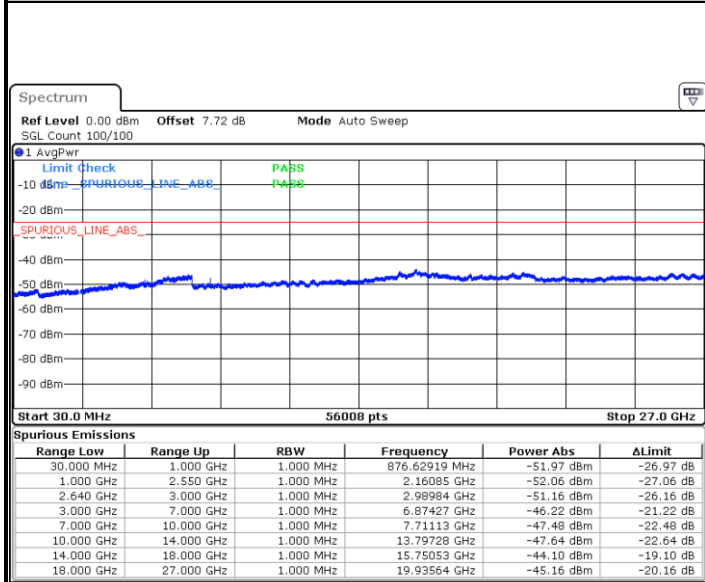




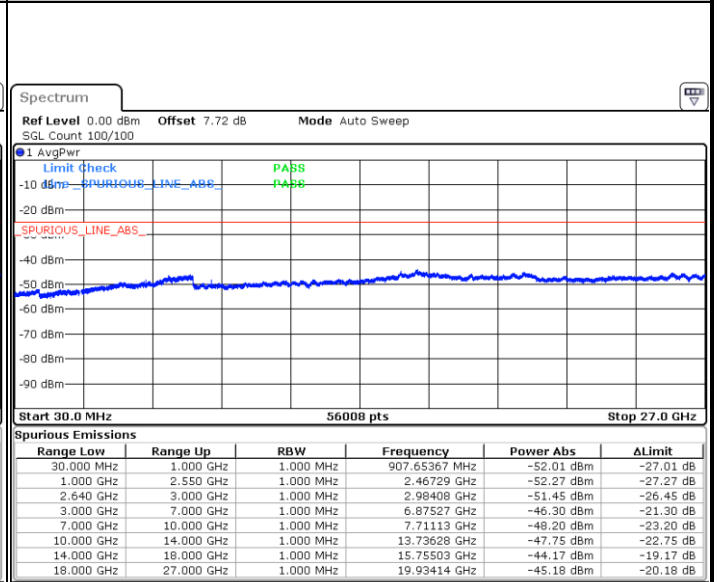
LTE Band 38 / 5MHz

Lowest Channel / QPSK



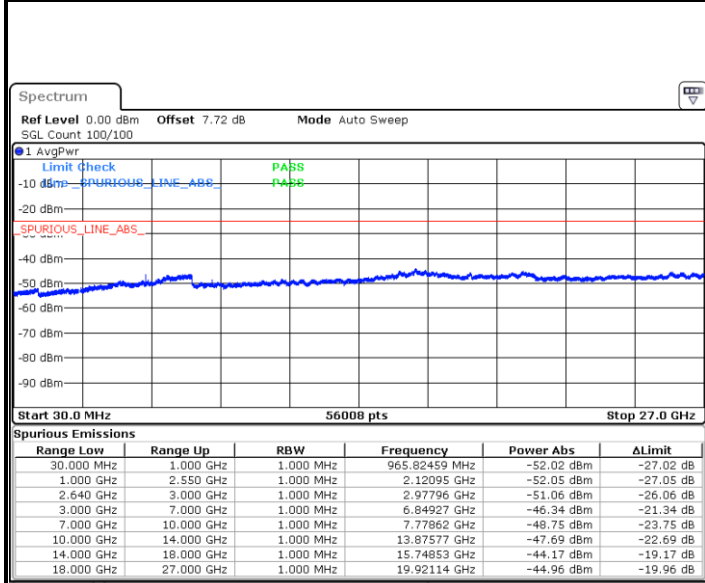
Date: 3.NOV.2017 10:36:03

Lowest Channel / 16QAM



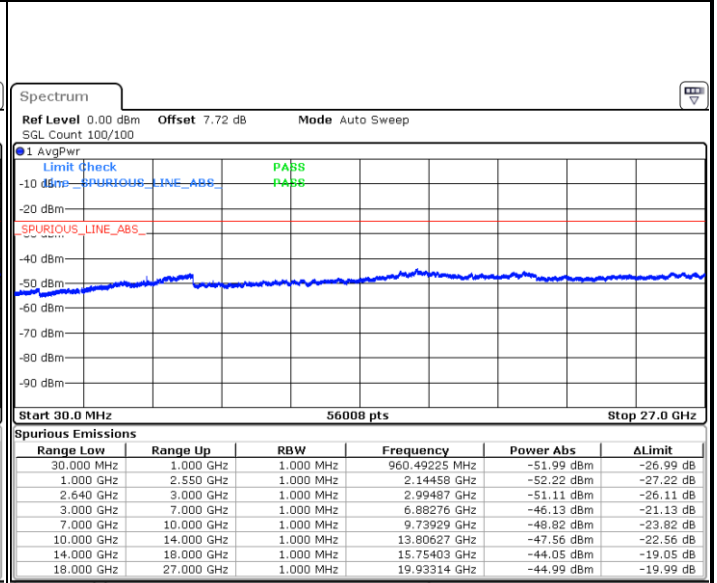
Date: 3.NOV.2017 10:36:58

Middle Channel / QPSK



Date: 3.NOV.2017 10:37:52

Middle Channel / 16QAM

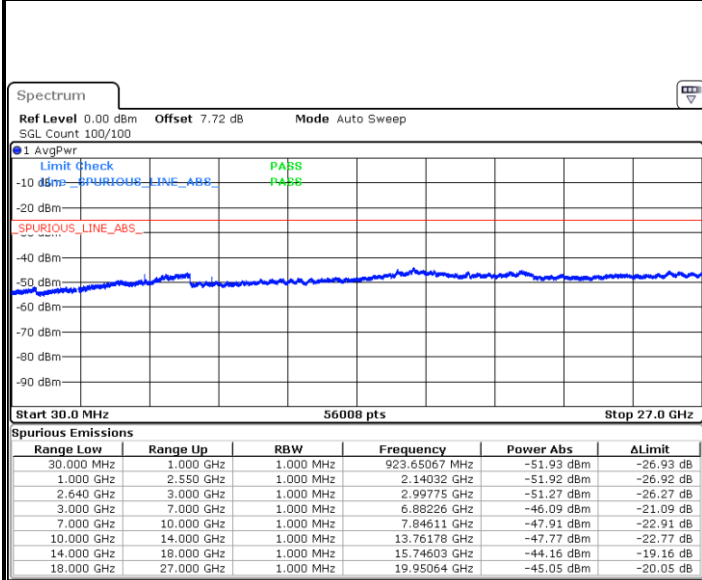


Date: 3.NOV.2017 10:38:47



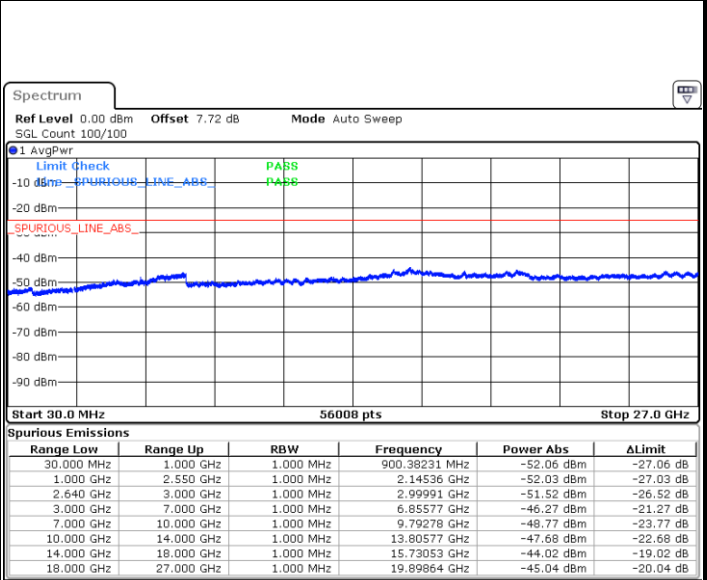
LTE Band 38 / 5MHz

Highest Channel / QPSK



Date: 3.NOV.2017 10:39:42

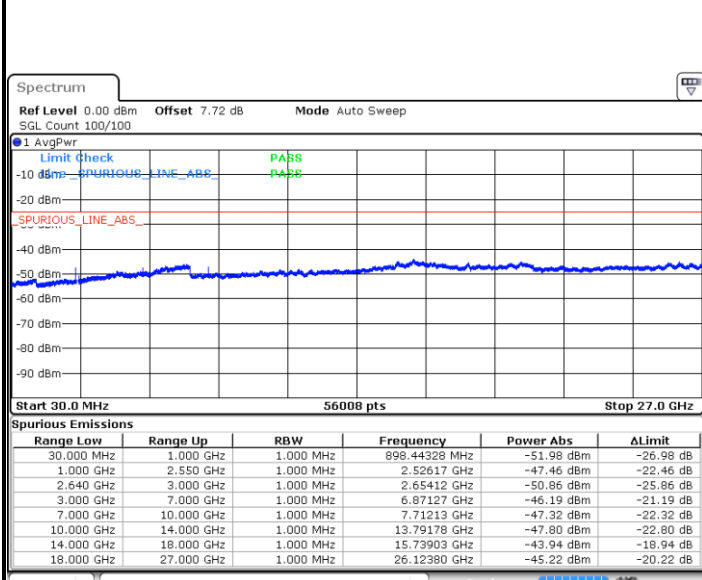
Highest Channel / 16QAM



Date: 3.NOV.2017 10:40:36

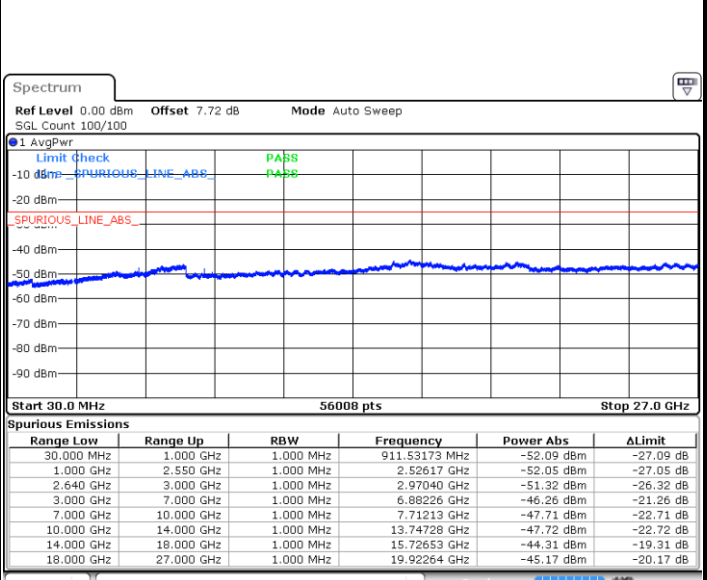
LTE Band 38 / 10MHz

Lowest Channel / QPSK



Date: 3.NOV.2017 10:41:31

Lowest Channel / 16QAM



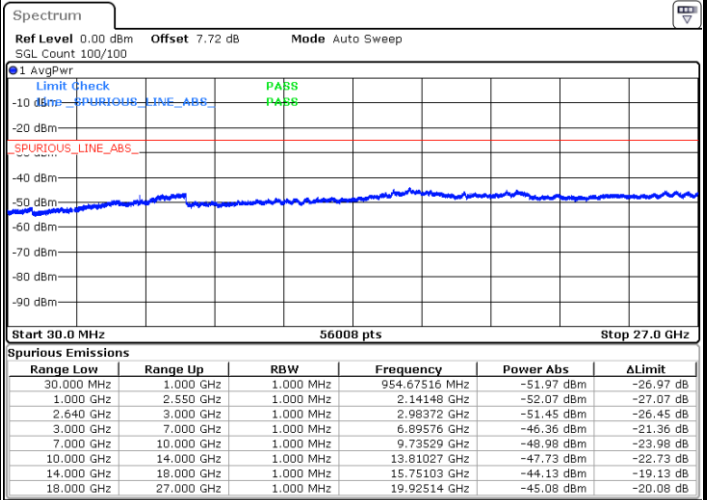
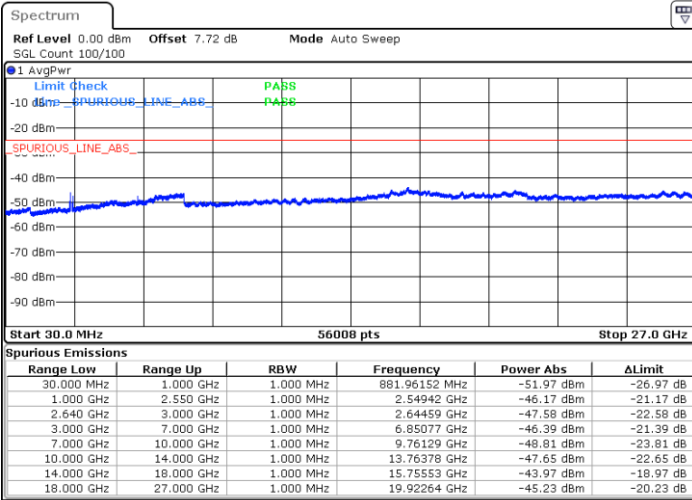
Date: 3.NOV.2017 10:42:25



LTE Band 38 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

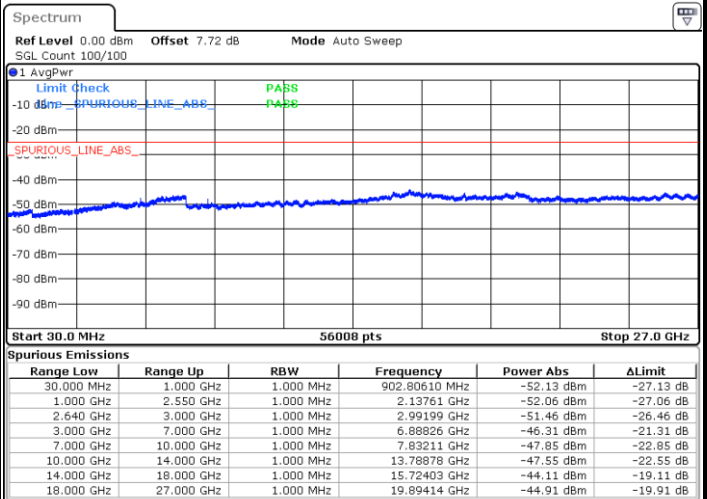
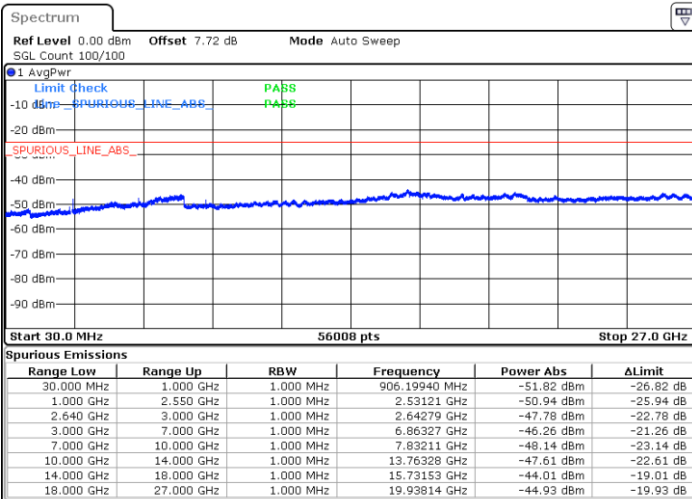


Date: 3.NOV.2017 10:43:20

Date: 3.NOV.2017 10:44:15

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 3.NOV.2017 10:45:09

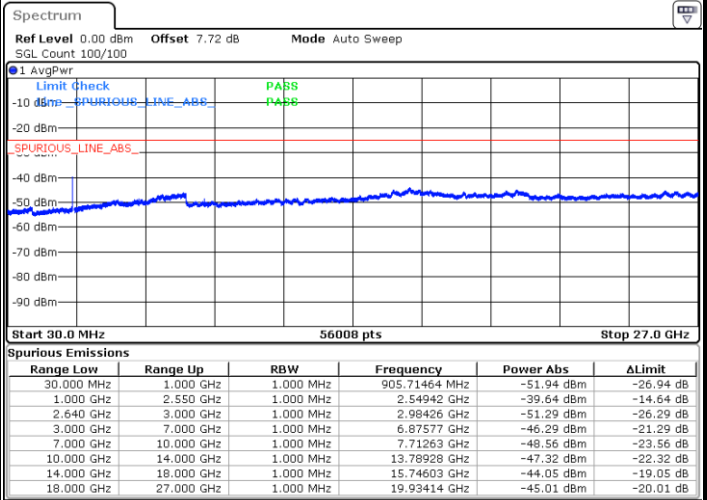
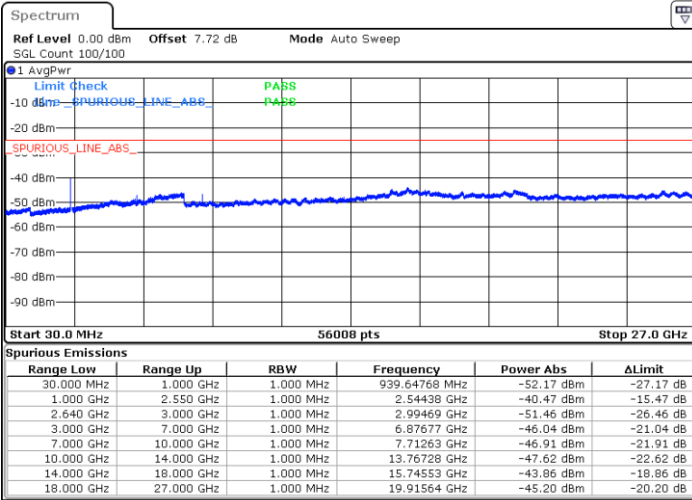
Date: 3.NOV.2017 10:46:04



LTE Band 38 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

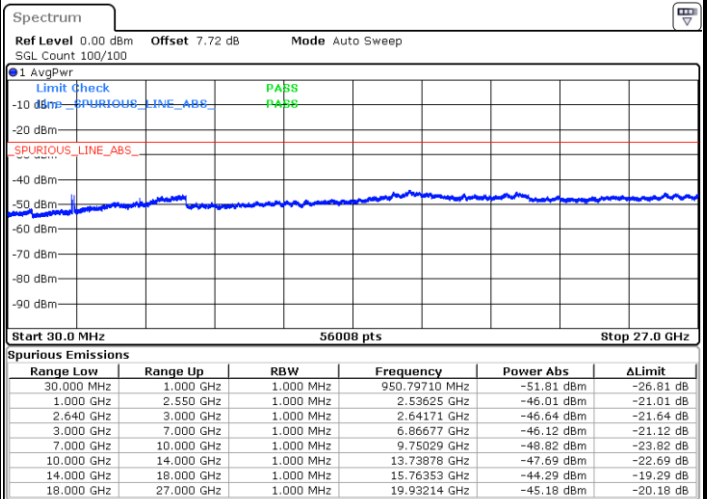
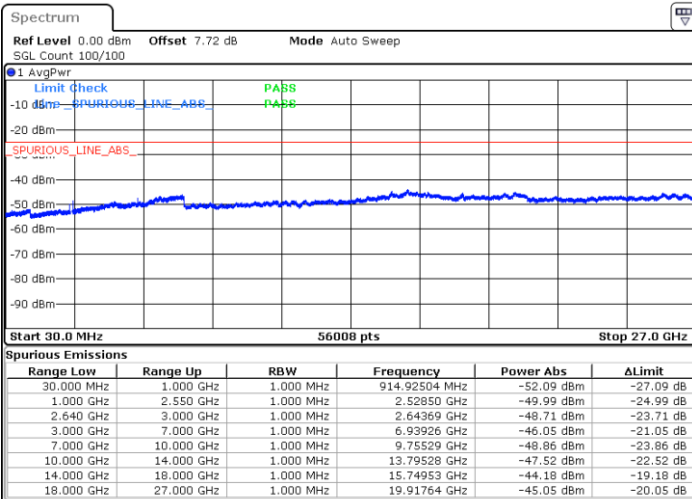


Date: 3.NOV.2017 10:46:58

Date: 3.NOV.2017 10:47:53

Middle Channel / QPSK

Middle Channel / 16QAM



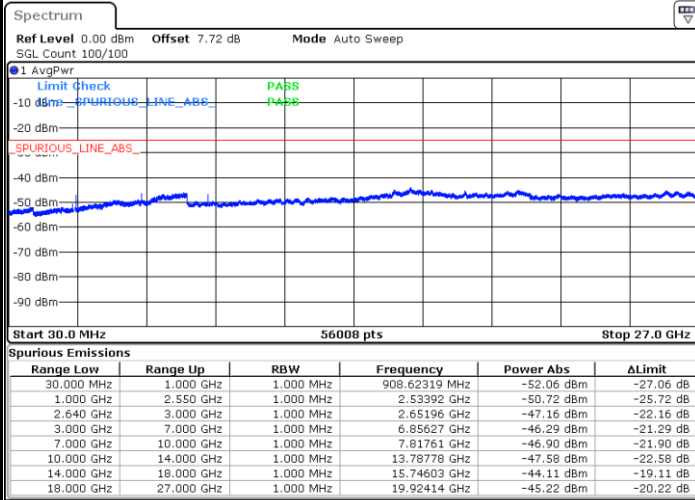
Date: 3.NOV.2017 10:48:48

Date: 3.NOV.2017 10:49:42



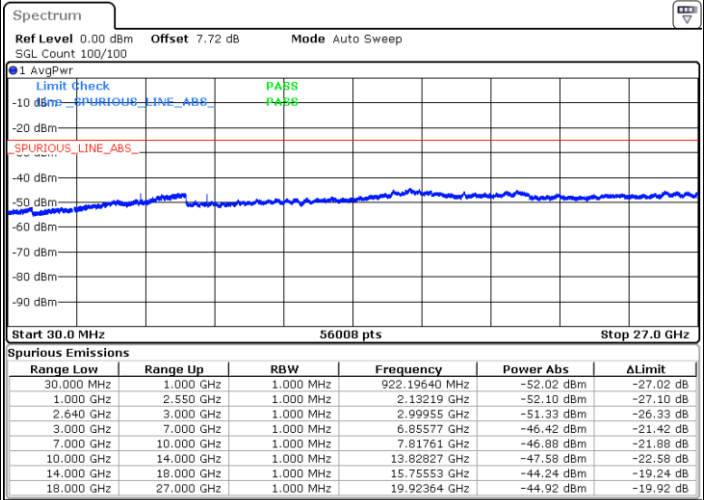
LTE Band 38 / 15MHz

Highest Channel / QPSK



Date: 3.NOV.2017 10:50:37

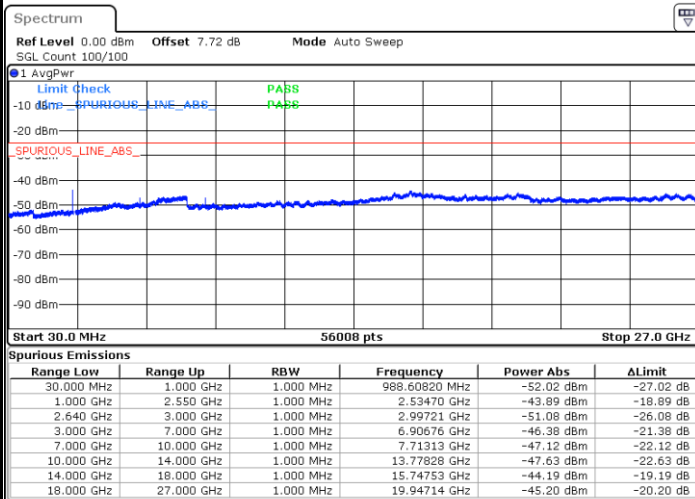
Highest Channel / 16QAM



Date: 3.NOV.2017 10:51:31

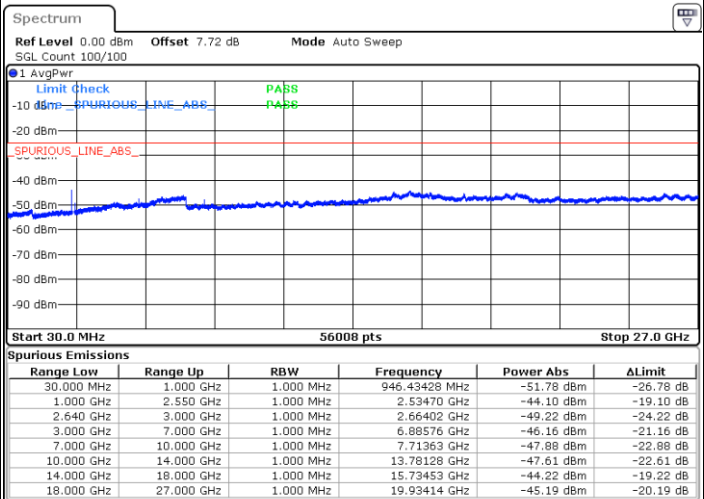
LTE Band 38 / 20MHz

Lowest Channel / QPSK



Date: 3.NOV.2017 10:52:26

Lowest Channel / 16QAM



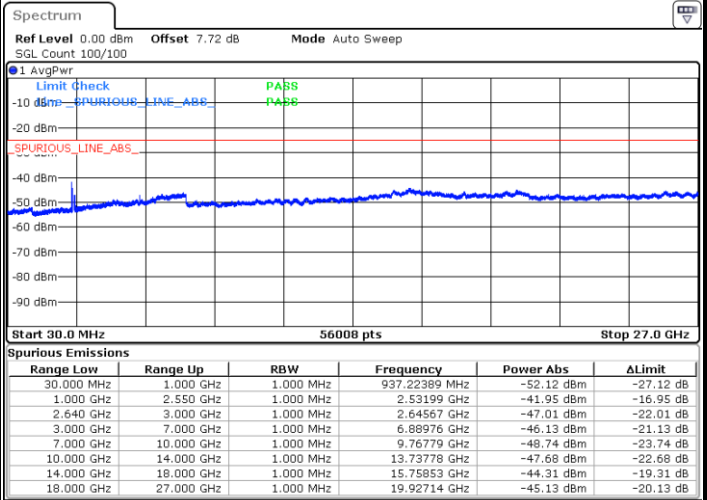
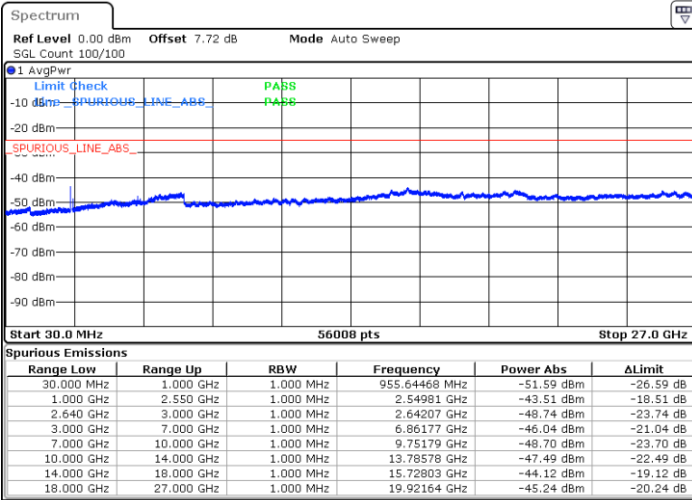
Date: 3.NOV.2017 10:53:21



LTE Band 38 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

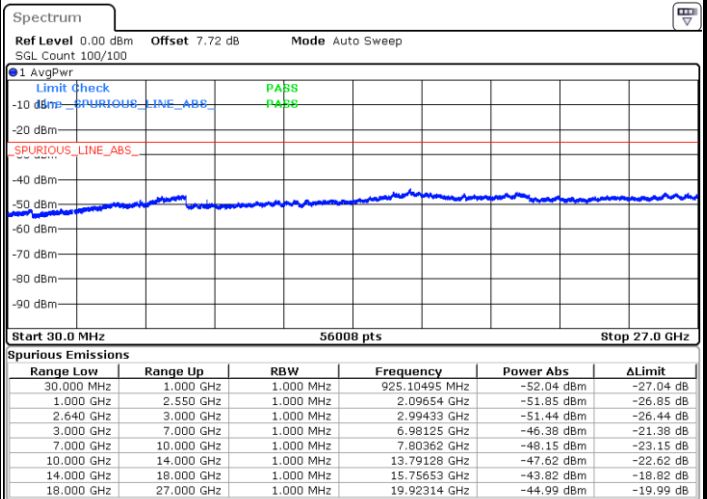
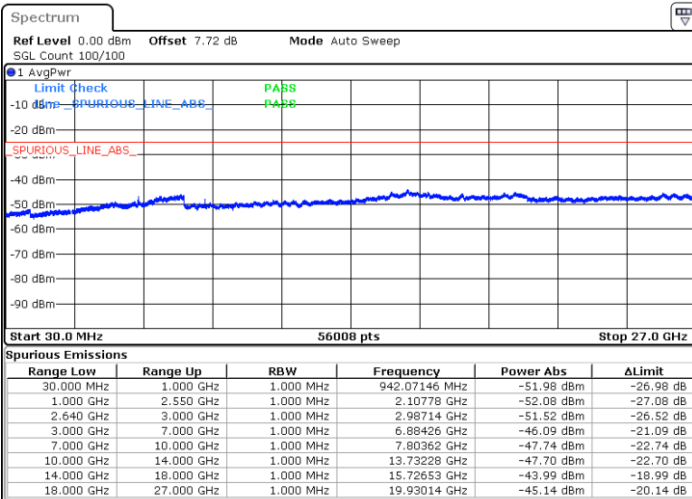


Date: 3.NOV.2017 10:54:15

Date: 3.NOV.2017 10:55:10

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 3.NOV.2017 10:56:04

Date: 3.NOV.2017 10:56:59



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	0.0006	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0044	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0033	
0	Normal Voltage	0.0045	
-10	Normal Voltage	0.0037	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0026	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0032	
20	Battery End Point	0.0010	

Note: Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 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	0.0006	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0015	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0002	
20	Battery End Point	0.0009	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: 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	0.0005	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0002	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 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 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	1671.92	-63.68	-13	-50.68	-75.05	-70.37	0.56	9.40	H
	2507.88	-54.27	-13	-41.27	-70.01	-61.98	0.74	10.60	H
	3343.84	-59.50	-13	-46.50	-76.88	-69.10	0.85	12.60	H
	1671.92	-63.60	-13	-50.60	-74.97	-70.29	0.56	9.40	V
	2507.88	-52.75	-13	-39.75	-68.09	-60.46	0.74	10.60	V
	3343.84	-59.20	-13	-46.20	-76.81	-68.80	0.85	12.60	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	1670.48	-63.64	-13	-50.64	-75.13	-70.33	0.56	9.40	H
	2505.72	-54.50	-13	-41.50	-70.24	-62.21	0.74	10.60	H
	3340.96	-59.41	-13	-46.41	-76.79	-69.01	0.85	12.60	H
	1670.48	-63.53	-13	-50.53	-75.04	-70.22	0.56	9.40	V
	2505.72	-52.22	-13	-39.22	-67.56	-59.93	0.74	10.60	V
	3340.96	-58.93	-13	-45.93	-76.54	-68.53	0.85	12.60	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	1668.68	-63.73	-13	-50.73	-75.22	-70.42	0.56	9.40	H
	2503.02	-55.81	-13	-42.81	-71.59	-63.52	0.74	10.60	H
	3337.36	-59.39	-13	-46.39	-76.83	-68.99	0.85	12.60	H
	1668.68	-63.50	-13	-50.50	-75.01	-70.19	0.56	9.40	V
	2503.02	-53.69	-13	-40.69	-69.07	-61.40	0.74	10.60	V
	3337.36	-59.08	-13	-46.08	-76.73	-68.68	0.85	12.60	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	1664.18	-63.88	-13	-50.88	-75.37	-70.57	0.56	9.40	H
	2496.27	-56.87	-13	-43.87	-72.65	-64.58	0.74	10.60	H
	3328.36	-59.27	-13	-46.27	-76.71	-68.87	0.85	12.60	H
	1664.18	-62.91	-13	-49.91	-74.42	-69.60	0.56	9.40	V
	2496.27	-54.98	-13	-41.98	-70.36	-62.69	0.74	10.60	V
	3328.36	-59.00	-13	-46.00	-76.65	-68.60	0.85	12.60	V

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

LTE Band 7 / 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	5065.68	-45.18	-25	-20.18	-68.32	-56.94	0.94	12.70	H
	7598.52	-46.37	-25	-21.37	-72.81	-56.38	1.69	11.70	H
	10131.36	-46.97	-25	-21.97	-78.44	-57.63	1.44	12.10	H
	5065.68	-37.99	-25	-12.99	-61.92	-49.75	0.94	12.70	V
	7598.52	-43.92	-25	-18.92	-70.49	-53.93	1.69	11.70	V
	10131.36	-47.12	-25	-22.12	-78.36	-57.78	1.44	12.10	V

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

LTE Band 7 / 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	5061.18	-45.53	-25	-20.53	-68.67	-57.29	0.94	12.70	H
	7591.77	-48.49	-25	-23.49	-74.93	-58.50	1.69	11.70	H
	10122.36	-47.34	-25	-22.34	-78.81	-58.00	1.44	12.10	H
	5061.18	-40.14	-25	-15.14	-64.07	-51.90	0.94	12.70	V
	7591.77	-44.55	-25	-19.55	-71.12	-54.56	1.69	11.70	V
	10122.36	-47.55	-25	-22.55	-78.79	-58.21	1.44	12.10	V

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



LTE Band 7 / 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	5056.68	-44.69	-25	-19.69	-67.83	-56.45	0.94	12.70	H
	7585.02	-48.81	-25	-23.81	-75.37	-58.82	1.69	11.70	H
	10113.36	-47.77	-25	-22.77	-79.27	-58.43	1.44	12.10	H
	5056.68	-39.00	-25	-14.00	-62.93	-50.76	0.94	12.70	V
	7585.02	-45.75	-25	-20.75	-72.42	-55.76	1.69	11.70	V
	10113.36	-47.79	-25	-22.79	-79.03	-58.45	1.44	12.10	V

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

LTE Band 7 / 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	5052.18	-45.65	-25	-20.65	-68.78	-57.41	0.94	12.70	H
	7578.27	-49.92	-25	-24.92	-76.48	-59.93	1.69	11.70	H
	10104.36	-47.37	-25	-22.37	-78.87	-58.03	1.44	12.10	H
	5052.18	-39.41	-25	-14.41	-63.35	-51.17	0.94	12.70	V
	7578.27	-46.87	-25	-21.87	-73.54	-56.88	1.69	11.70	V
	10104.36	-47.65	-25	-22.65	-78.89	-58.31	1.44	12.10	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	5185.50	-44.10	-25	-19.10	-67.26	-55.86	0.94	12.70	H
	7778.25	-44.97	-25	-19.97	-71.62	-54.98	1.69	11.70	H
	10371.00	-48.26	-25	-23.26	-79.45	-58.92	1.44	12.10	H
	5185.50	-35.68	-25	-10.68	-59.52	-47.44	0.94	12.70	V
	7778.25	-41.80	-25	-16.80	-68.58	-51.81	1.69	11.70	V
	10371.00	-48.37	-25	-23.37	-79.69	-59.03	1.44	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	5181.00	-43.16	-25	-18.16	-66.32	-54.92	0.94	12.70	H
	7771.50	-45.43	-25	-20.43	-72.05	-55.44	1.69	11.70	H
	10362.00	-47.82	-25	-22.82	-79.01	-58.48	1.44	12.10	H
	5181.00	-35.53	-25	-10.53	-59.37	-47.29	0.94	12.70	V
	7771.50	-43.46	-25	-18.46	-70.22	-53.47	1.69	11.70	V
	10362.00	-48.05	-25	-23.05	-79.37	-58.71	1.44	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	5176.50	-44.56	-25	-19.56	-67.72	-56.32	0.94	12.70	H
	7764.75	-45.83	-25	-20.83	-72.46	-55.84	1.69	11.70	H
	10353.00	-48.28	-25	-23.28	-79.49	-58.94	1.44	12.10	H
	5176.50	-36.90	-25	-11.90	-60.74	-48.66	0.94	12.70	V
	7764.75	-42.03	-25	-17.03	-68.8	-52.04	1.69	11.70	V
	10353.00	-47.80	-25	-22.80	-79.11	-58.46	1.44	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	5172.00	-44.17	-25	-19.17	-67.32	-55.93	0.94	12.70	H
	7758.00	-46.82	-25	-21.82	-73.45	-56.83	1.69	11.70	H
	10344.00	-48.44	-25	-23.44	-79.65	-59.10	1.44	12.10	H
	5172.00	-36.27	-25	-11.27	-60.12	-48.03	0.94	12.70	V
	7758.00	-44.29	-25	-19.29	-71.06	-54.30	1.69	11.70	V
	10344.00	-48.29	-25	-23.29	-79.6	-58.95	1.44	12.10	V

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