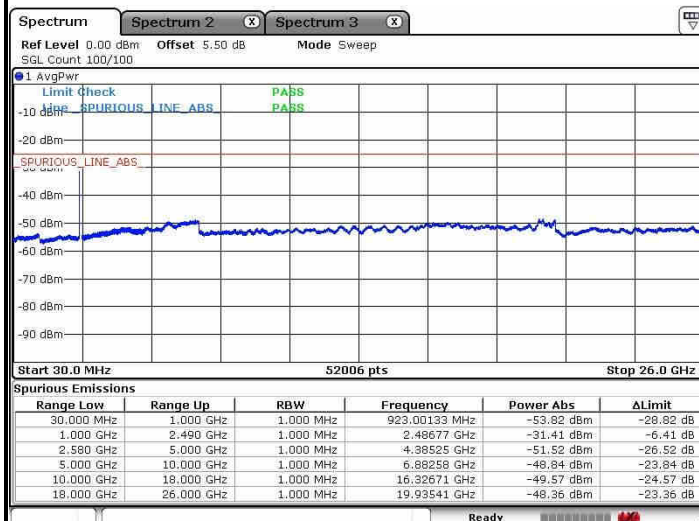




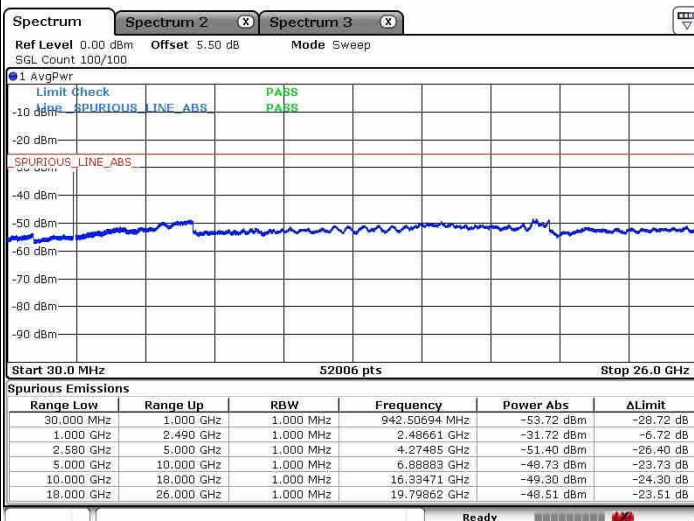
LTE Band 7 / 15MHz+10MHz

Lowest Channel / QPSK



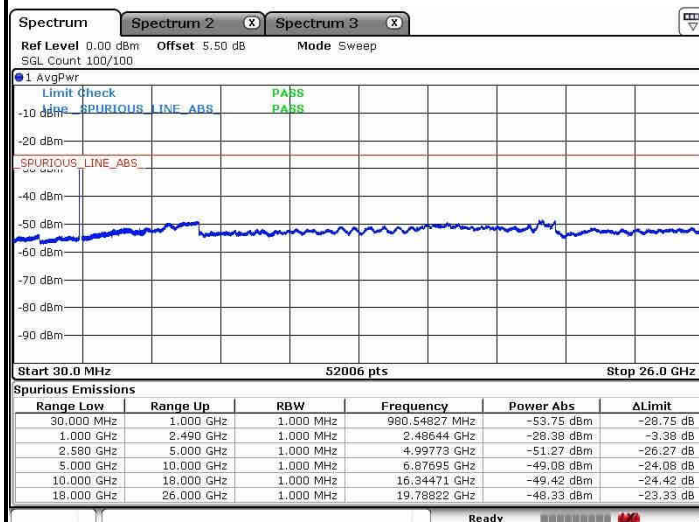
Date: 10 JAN 2019 17:32:43

Lowest Channel / 16QAM



Date: 10 JAN 2019 17:34:38

Lowest Channel / 64QAM

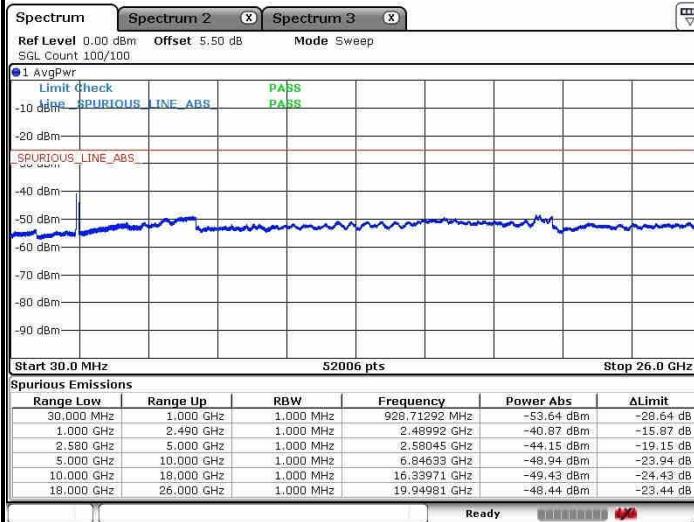


Date: 10 JAN 2019 17:35:31



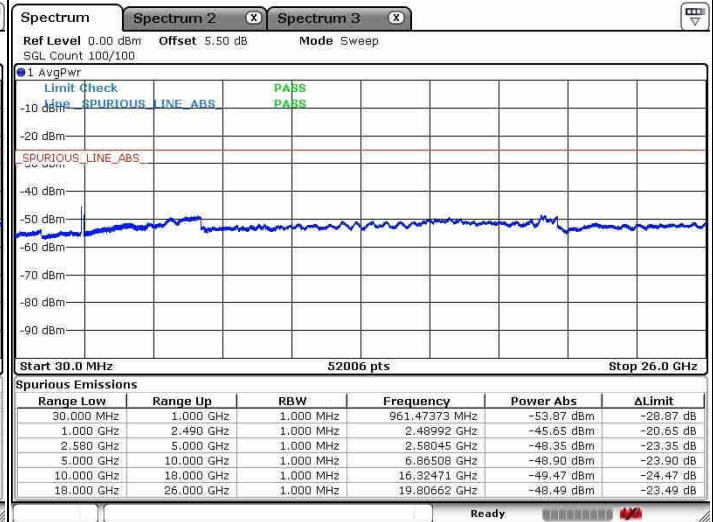
LTE Band 7 / 15MHz+10MHz

Middle Channel / QPSK



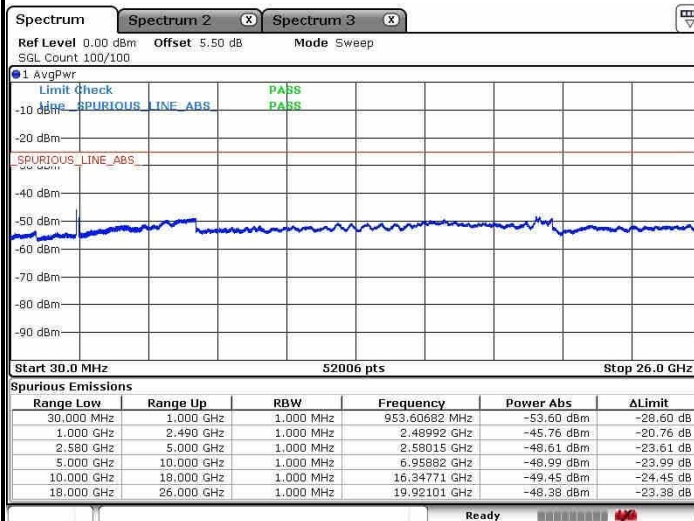
Date: 10 JAN 2019 17:43:38

Middle Channel / 16QAM



Date: 10 JAN 2019 17:42:42

Middle Channel / 64QAM

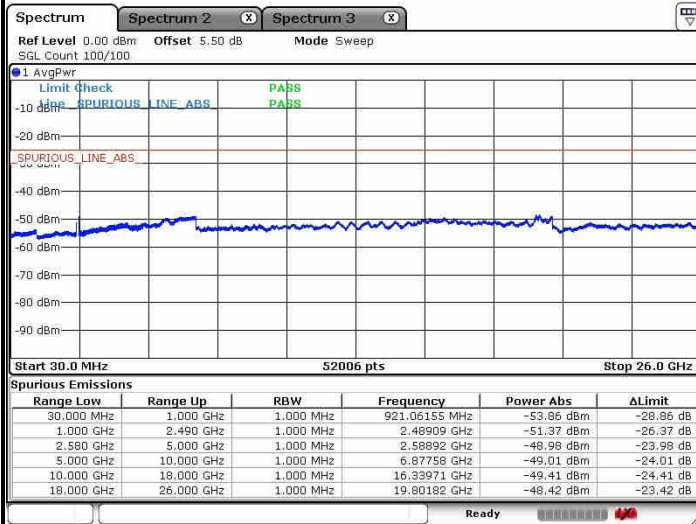


Date: 10 JAN 2019 17:41:46



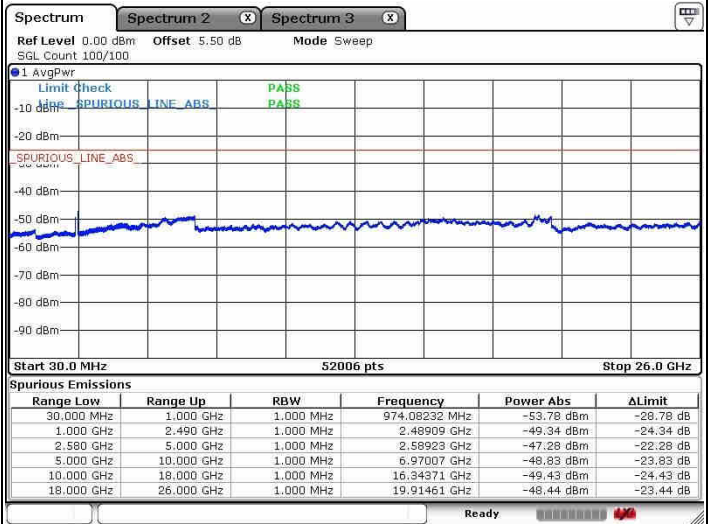
LTE Band 7 / 15MHz+10MHz

Highest Channel / QPSK



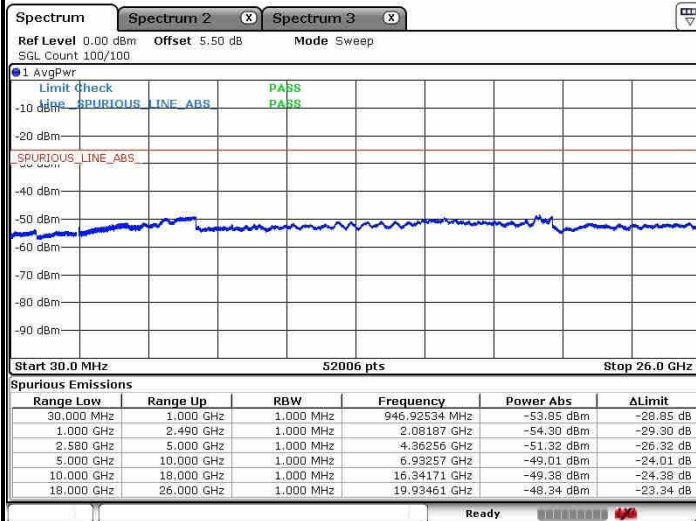
Date: 10 JAN 2019 17:45:32

Highest Channel / 16QAM



Date: 10 JAN 2019 17:46:31

Highest Channel / 64QAM

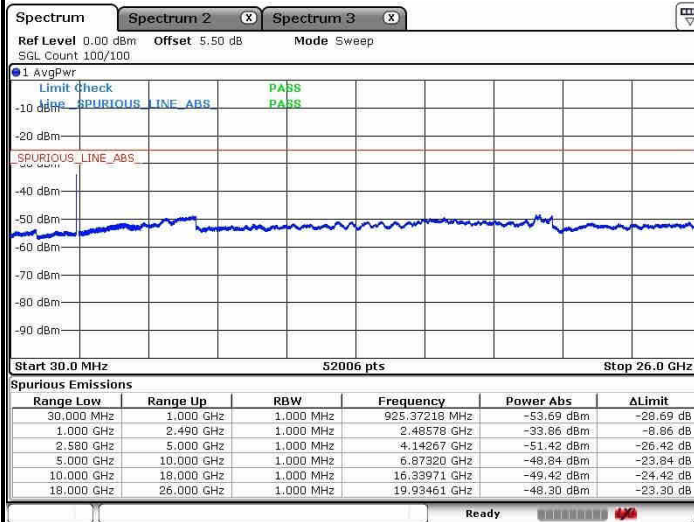


Date: 10 JAN 2019 18:17:51



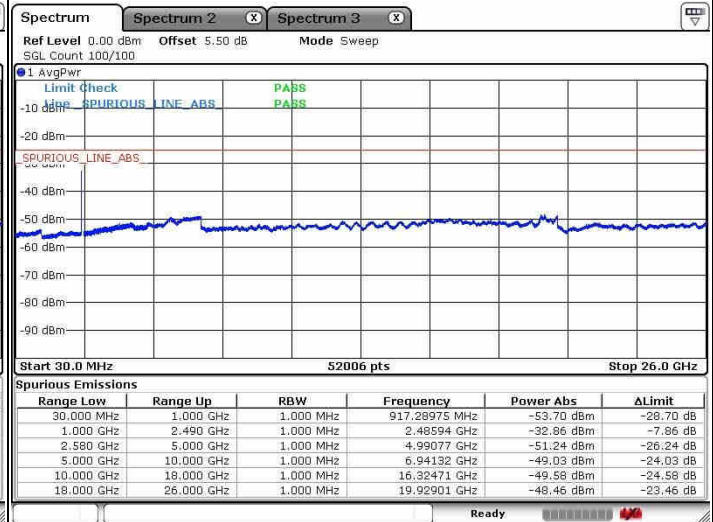
LTE Band 7 / 15MHz+15MHz

Lowest Channel / QPSK



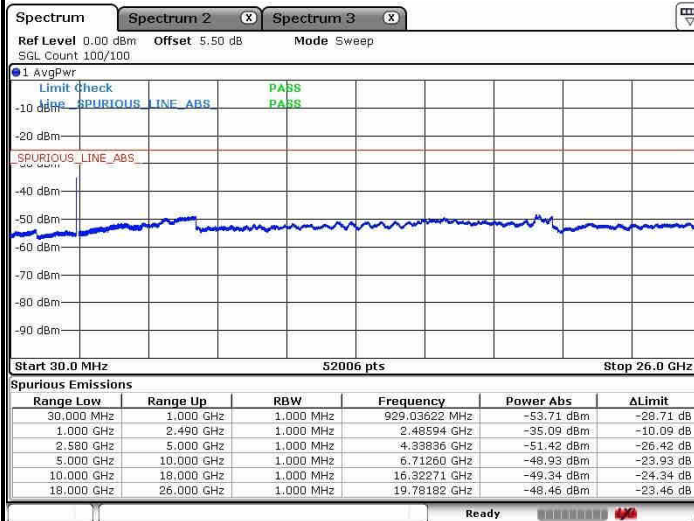
Date: 10 JAN 2019 18:47:44

Lowest Channel / 16QAM



Date: 10 JAN 2019 18:46:52

Lowest Channel / 64QAM

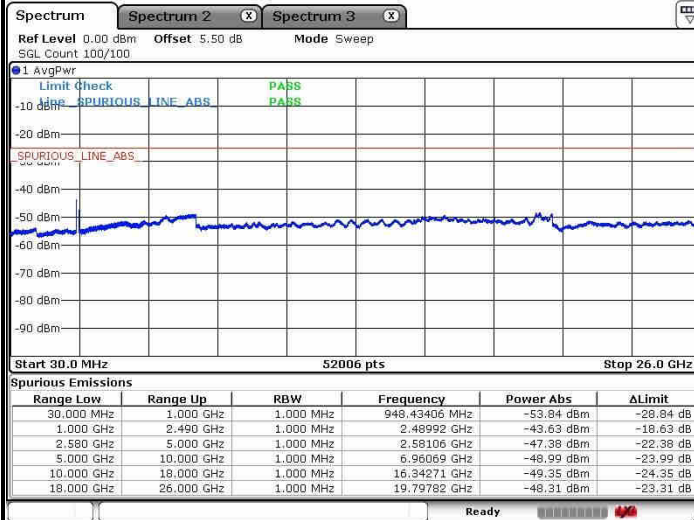


Date: 10 JAN 2019 18:45:52



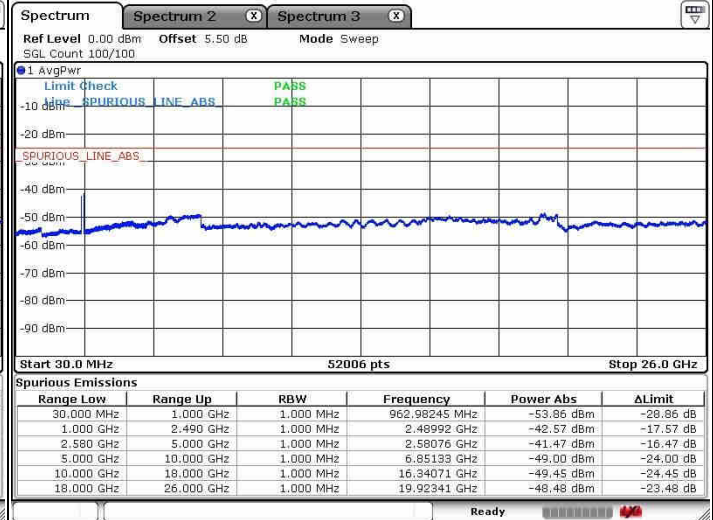
LTE Band 7 / 15MHz+15MHz

Middle Channel / QPSK



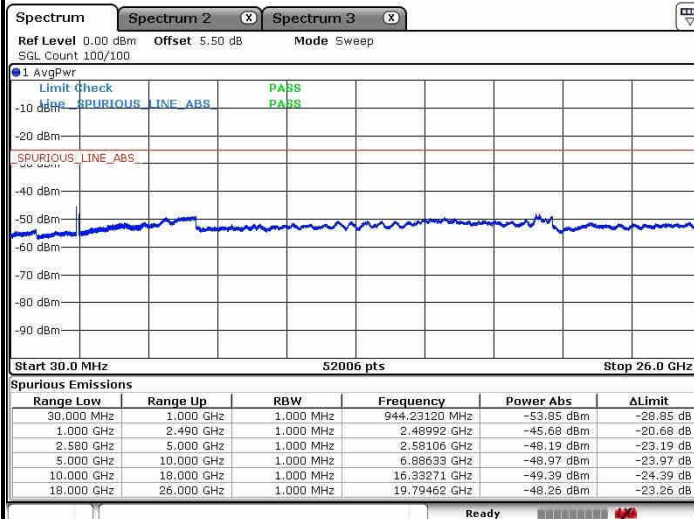
Date: 10 JAN 2019 18:49:01

Middle Channel / 16QAM



Date: 10 JAN 2019 18:50:09

Middle Channel / 64QAM

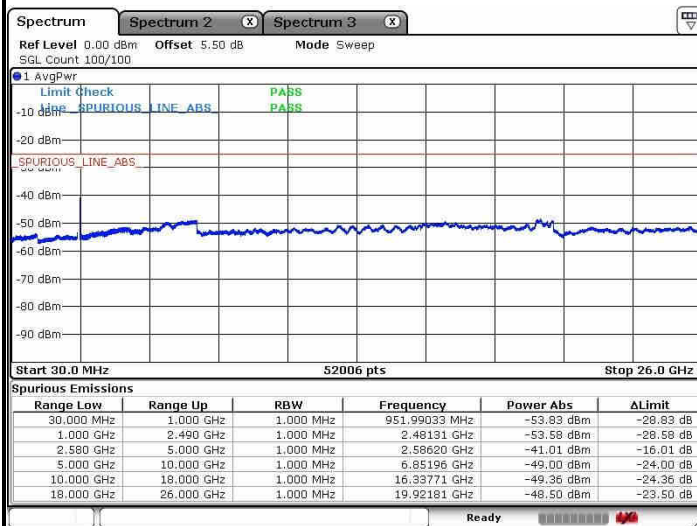


Date: 10 JAN 2019 18:51:42



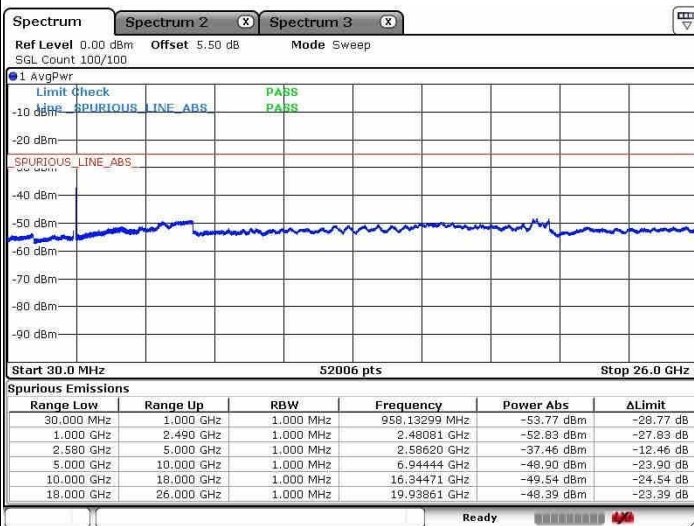
LTE Band 7 / 15MHz+15MHz

Highest Channel / QPSK



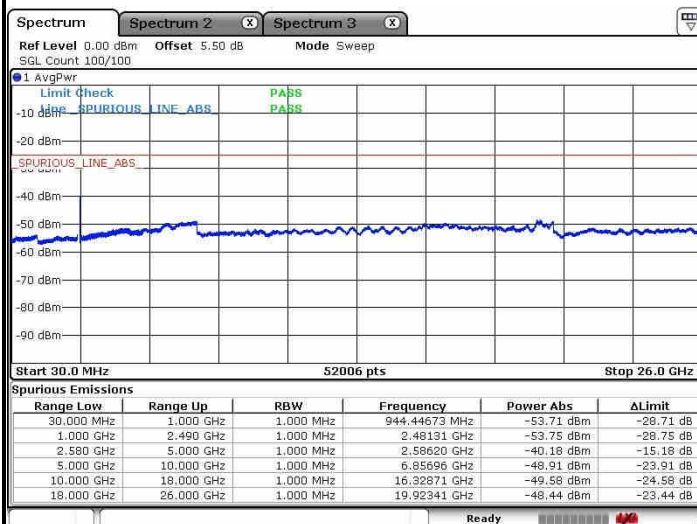
Date: 10 JAN 2019 19:00:18

Highest Channel / 16QAM



Date: 10 JAN 2019 18:59:10

Highest Channel / 64QAM

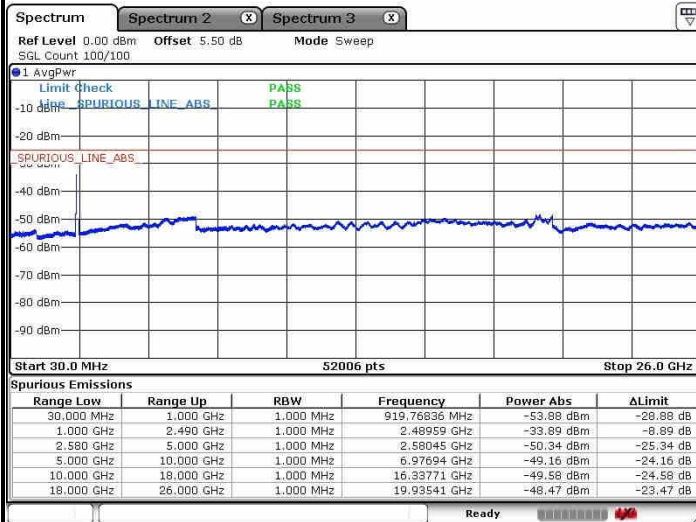


Date: 10 JAN 2019 18:58:10



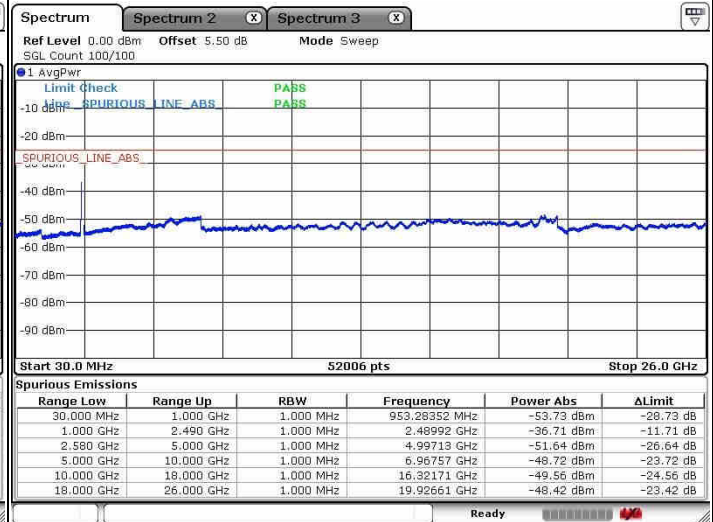
LTE Band 7 / 15MHz+20MHz

Lowest Channel / QPSK



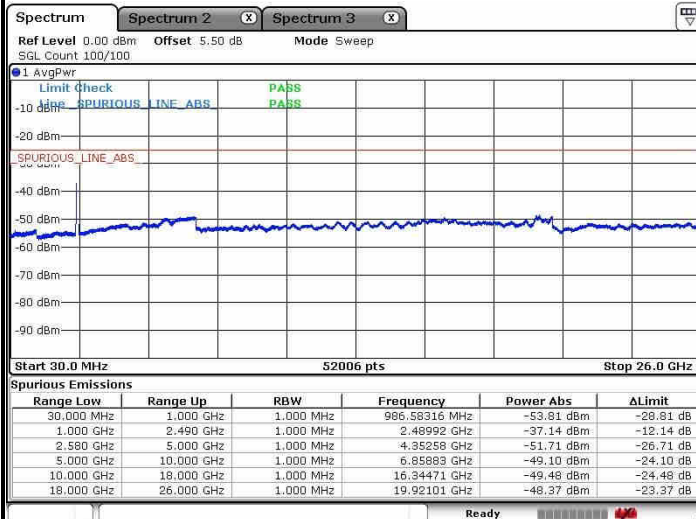
Date: 10 JAN 2019 21:04:39

Lowest Channel / 16QAM



Date: 10 JAN 2019 21:03:33

Lowest Channel / 64QAM

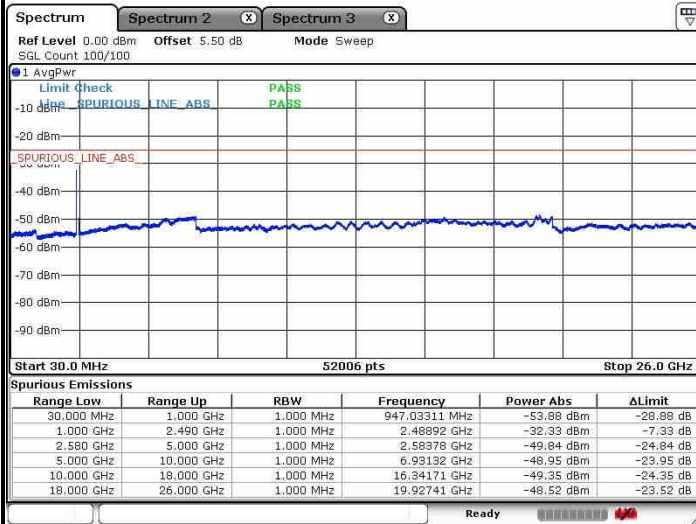


Date: 10 JAN 2019 21:02:04



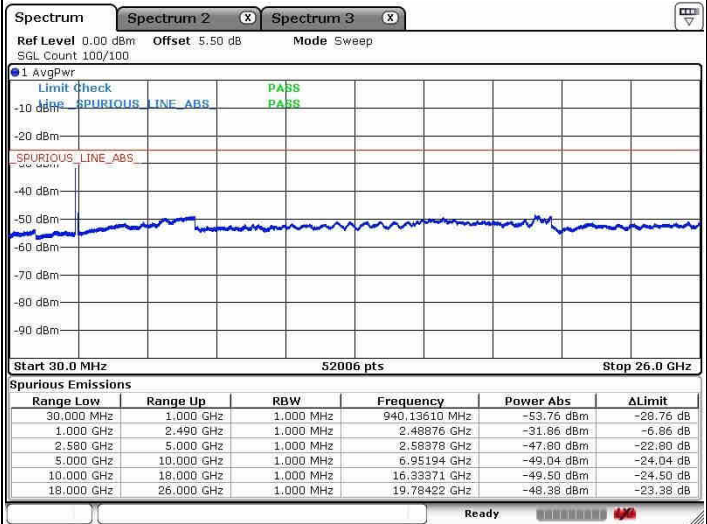
LTE Band 7 / 15MHz+20MHz

Middle Channel / QPSK



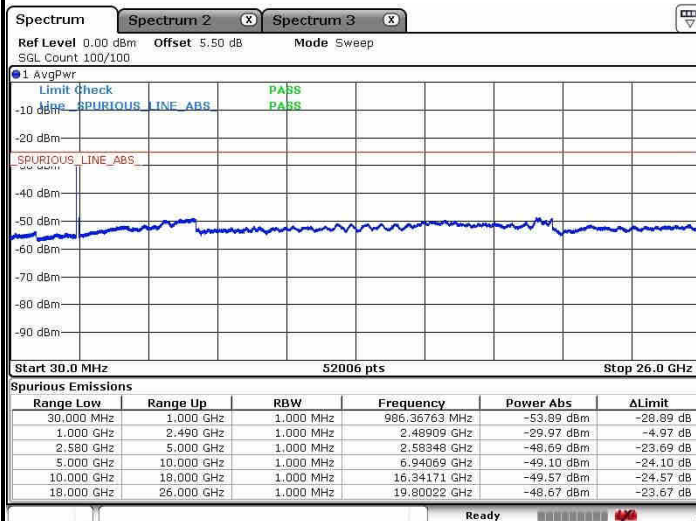
Date: 10 JAN 2019 21:10:12

Middle Channel / 16QAM



Date: 10 JAN 2019 21:11:10

Middle Channel / 64QAM

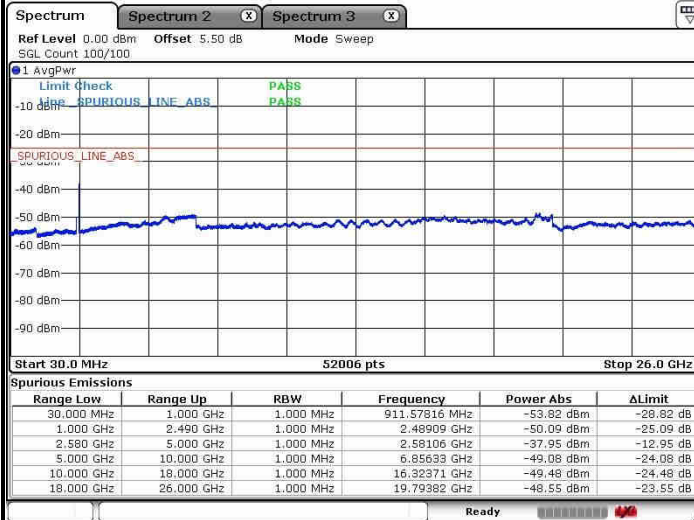


Date: 10 JAN 2019 21:12:01



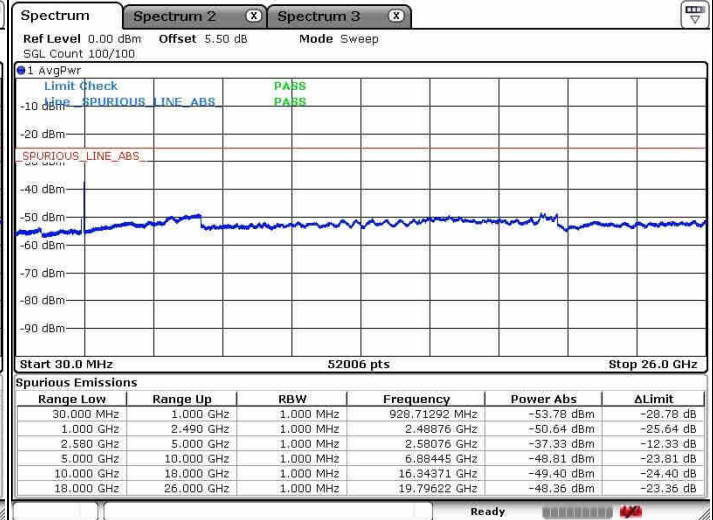
LTE Band 7 / 15MHz+20MHz

Highest Channel / QPSK



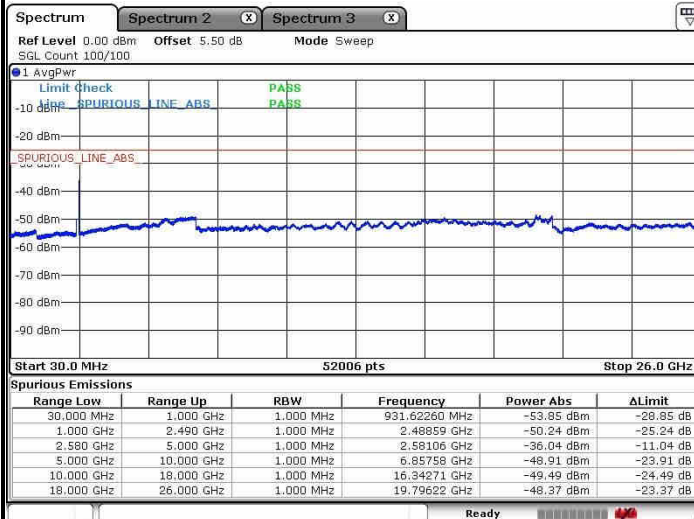
Date: 10 JAN 2019 21:15:03

Highest Channel / 16QAM



Date: 10 JAN 2019 21:14:08

Highest Channel / 64QAM

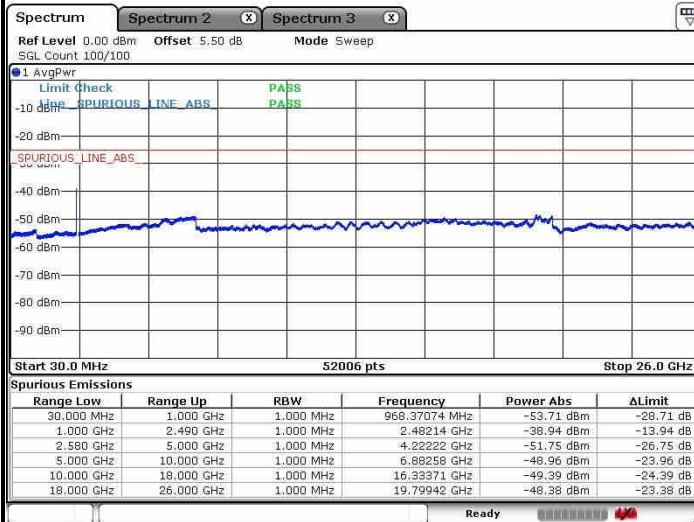


Date: 10 JAN 2019 21:13:15



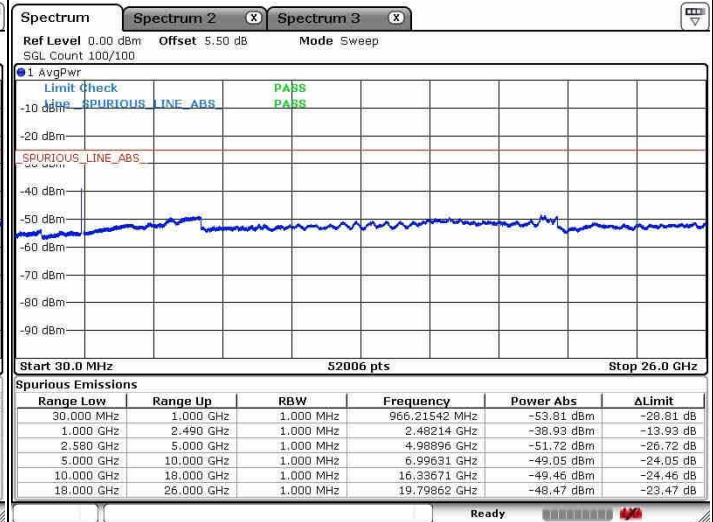
LTE Band 7 / 20MHz+10MHz

Lowest Channel / QPSK



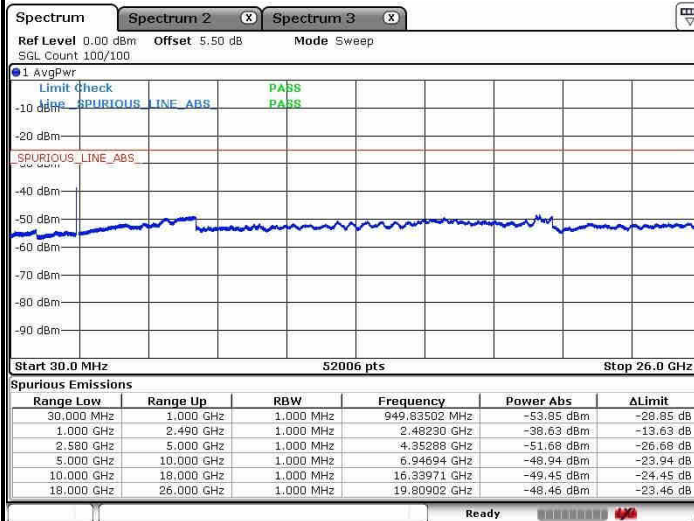
Date: 10 JAN 2019 19:30:35

Lowest Channel / 16QAM



Date: 10 JAN 2019 19:29:42

Lowest Channel / 64QAM

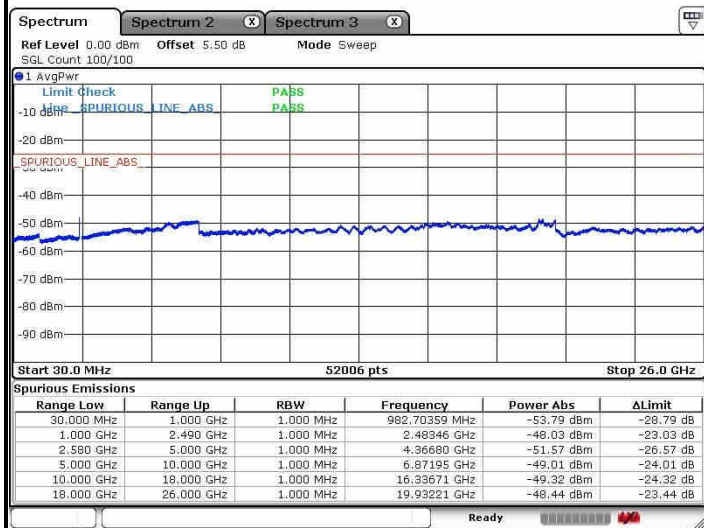


Date: 10 JAN 2019 19:28:36



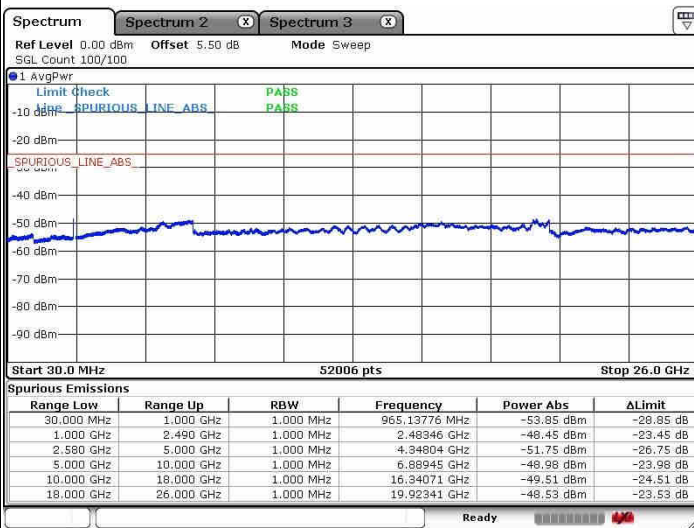
LTE Band 7 / 20MHz+10MHz

Middle Channel / QPSK



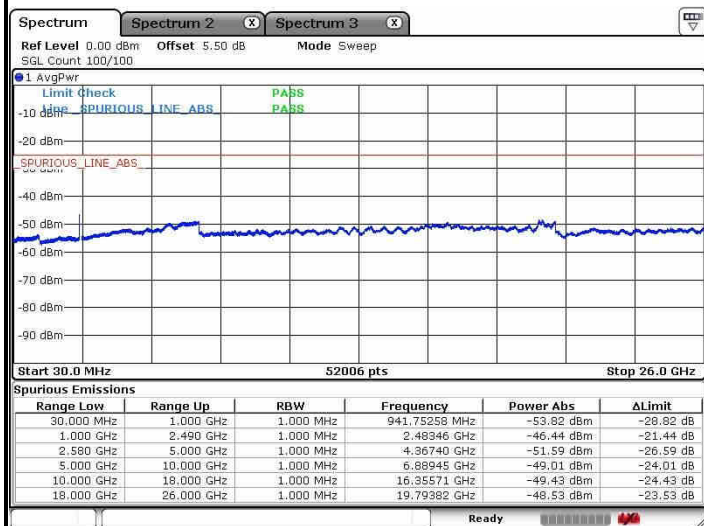
Date: 10 JAN 2019 19:32:25

Middle Channel / 16QAM



Date: 10 JAN 2019 19:33:27

Middle Channel / 64QAM

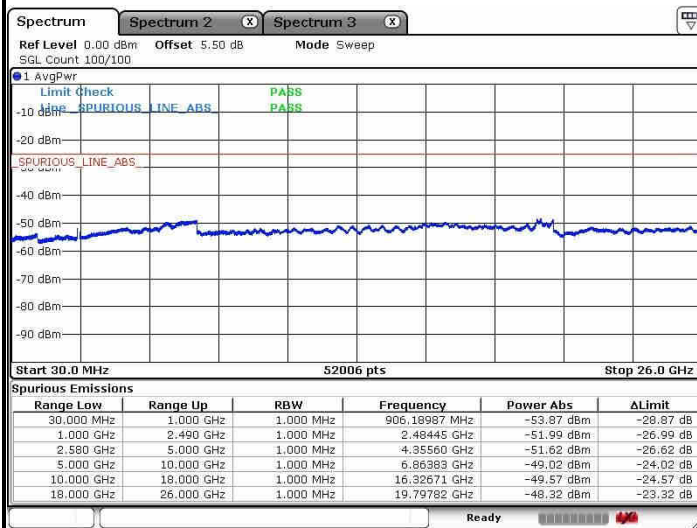


Date: 10 JAN 2019 19:34:22



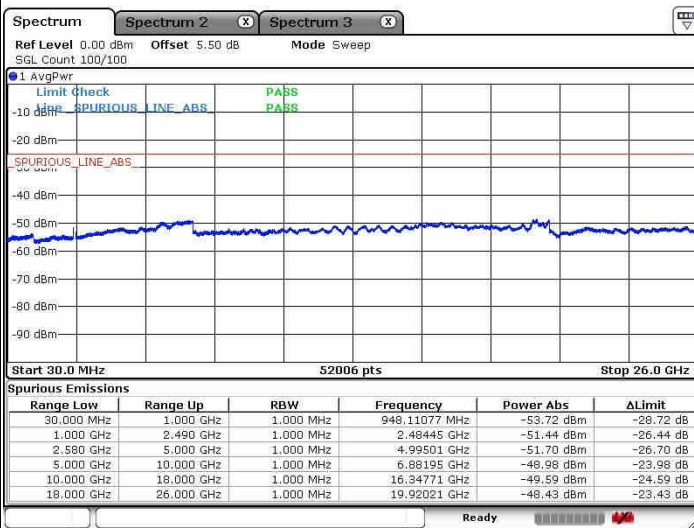
LTE Band 7 / 20MHz+10MHz

Highest Channel / QPSK



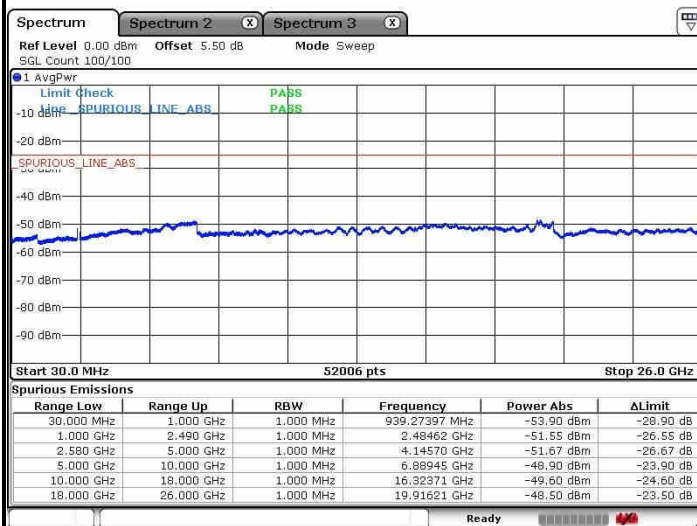
Date: 10 JAN 2019 18:42:10

Highest Channel / 16QAM



Date: 10 JAN 2019 18:41:15

Highest Channel / 64QAM

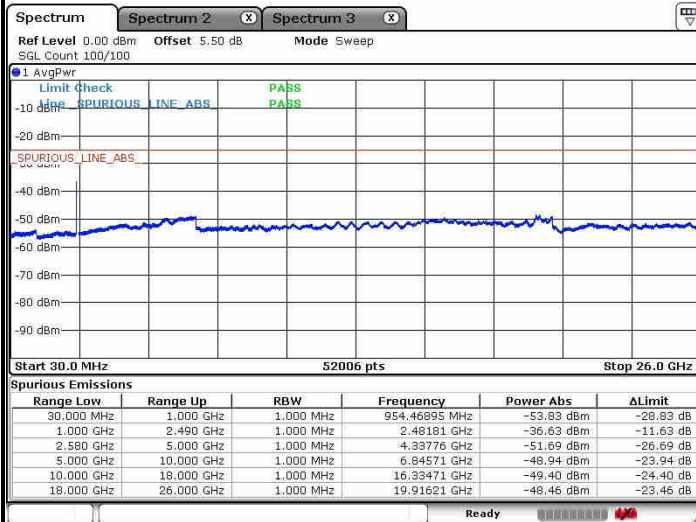


Date: 10 JAN 2019 18:40:16



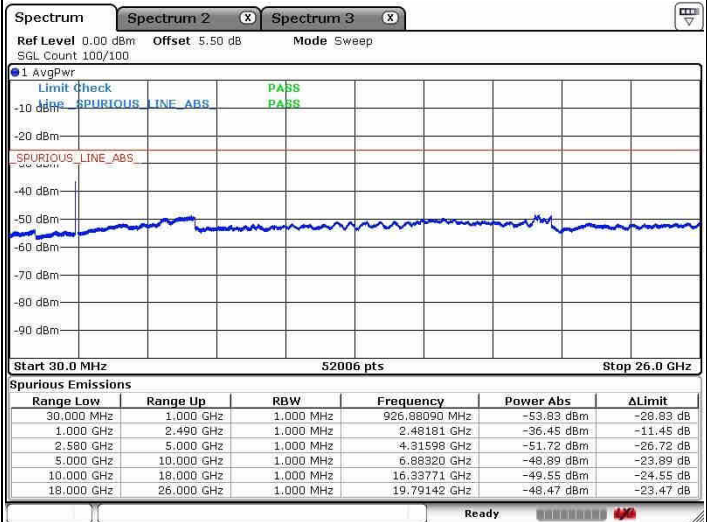
LTE Band 7 / 20MHz+15MHz

Lowest Channel / QPSK



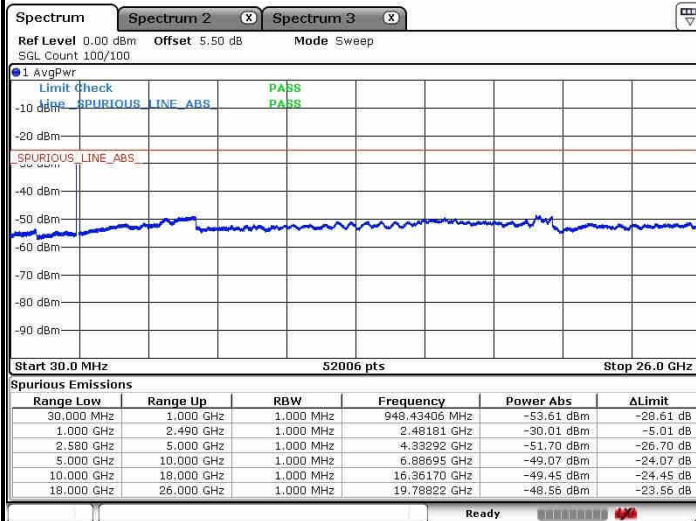
Date: 10 JAN 2019 19:43:46

Lowest Channel / 16QAM



Date: 10 JAN 2019 19:44:44

Lowest Channel / 64QAM

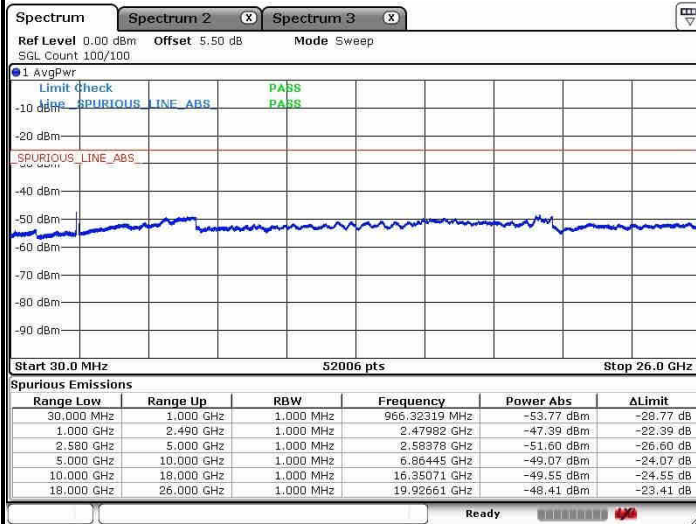


Date: 10 JAN 2019 19:45:35



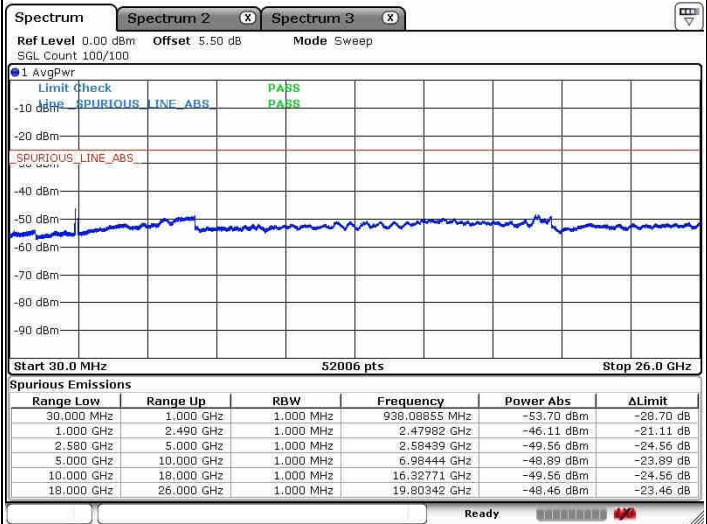
LTE Band 7 / 20MHz+15MHz

Middle Channel / QPSK



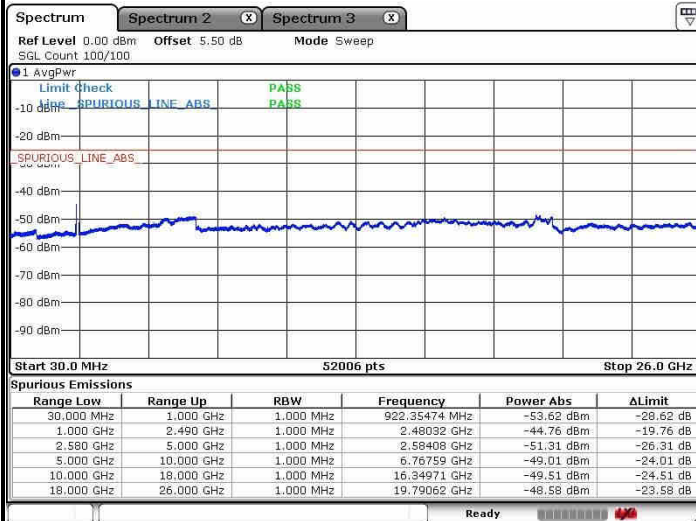
Date: 10 JAN 2019 19:54:14

Middle Channel / 16QAM



Date: 10 JAN 2019 19:53:18

Middle Channel / 64QAM

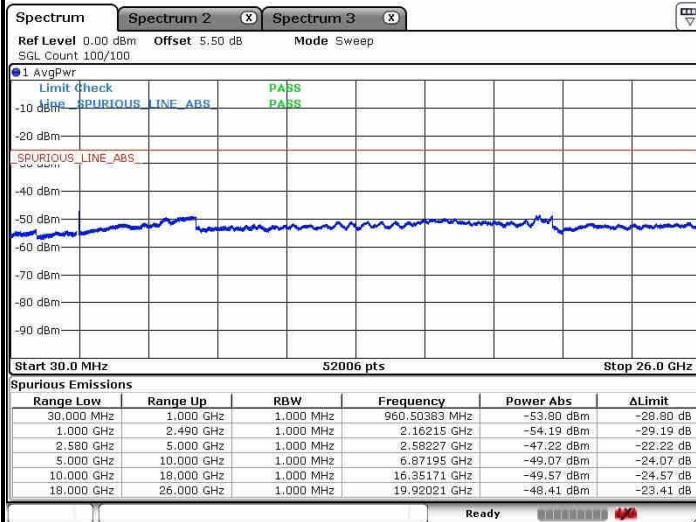


Date: 10 JAN 2019 19:52:17



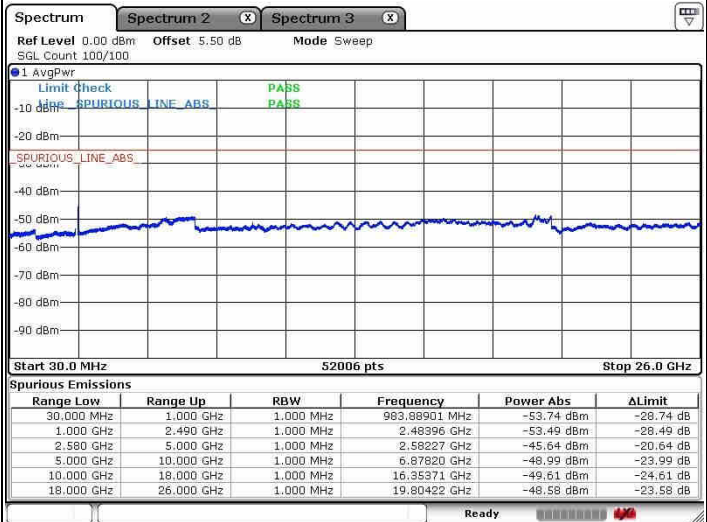
LTE Band 7 / 20MHz+15MHz

Highest Channel / QPSK



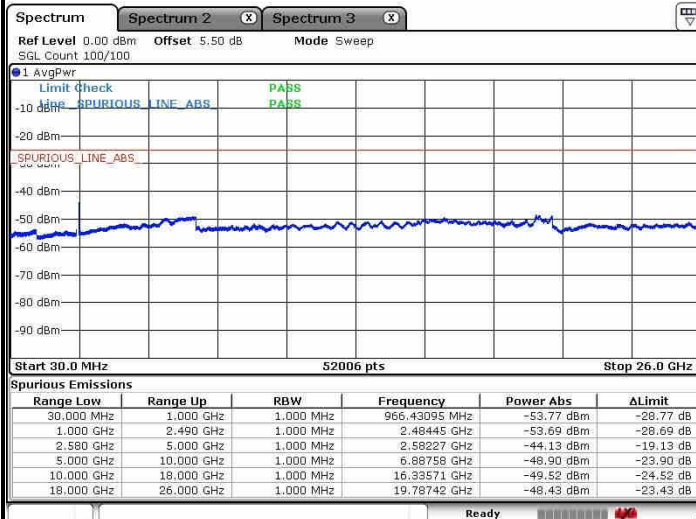
Date: 10 JAN 2019 19:55:43

Highest Channel / 16QAM



Date: 10 JAN 2019 19:56:48

Highest Channel / 64QAM

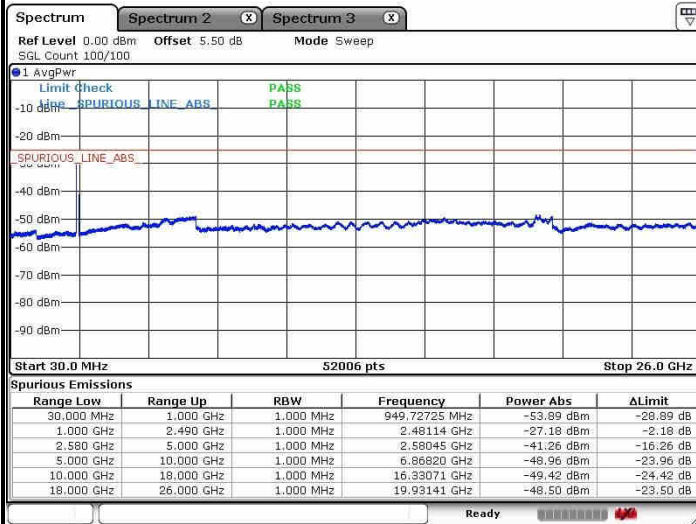


Date: 10 JAN 2019 19:57:45



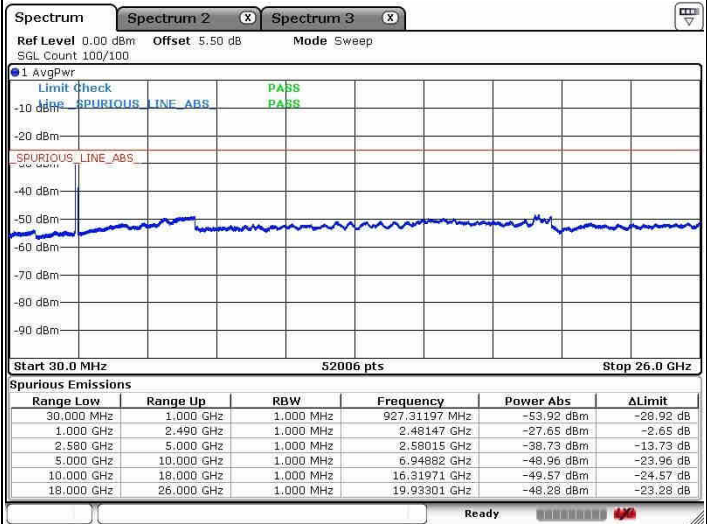
LTE Band 7 / 20MHz+20MHz

Lowest Channel / QPSK



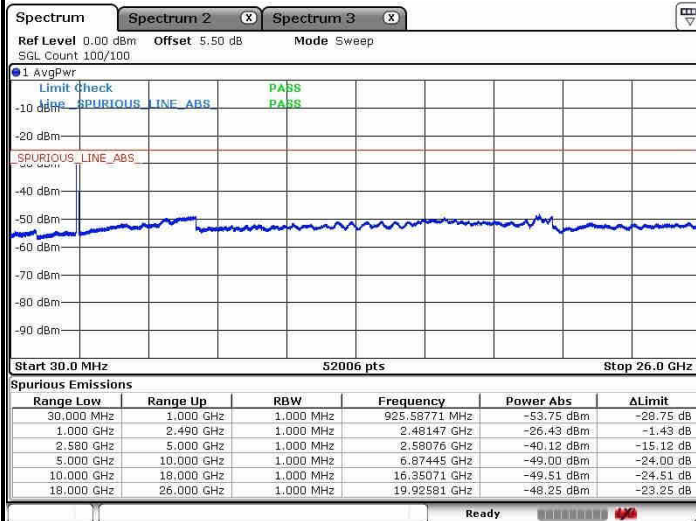
Date: 10 JAN 2019 20:07:12

Lowest Channel / 16QAM



Date: 10 JAN 2019 20:06:18

Lowest Channel / 64QAM

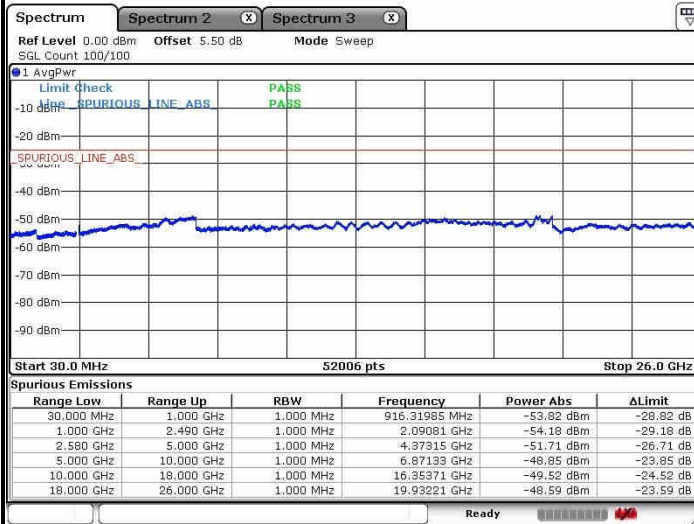


Date: 10 JAN 2019 20:05:22



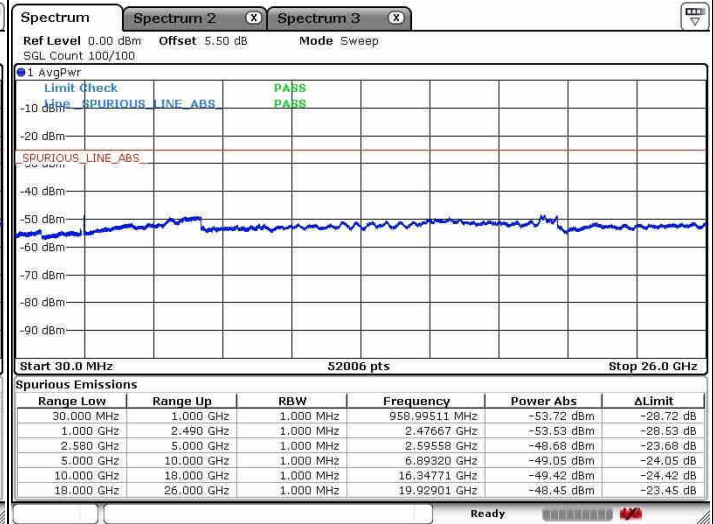
LTE Band 7 / 20MHz+20MHz

Middle Channel / QPSK



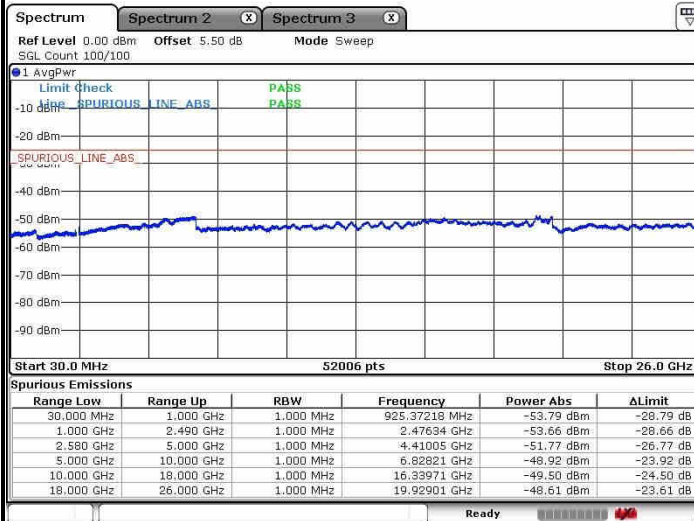
Date: 10 JAN 2019 20:08:33

Middle Channel / 16QAM



Date: 10 JAN 2019 20:09:29

Middle Channel / 64QAM

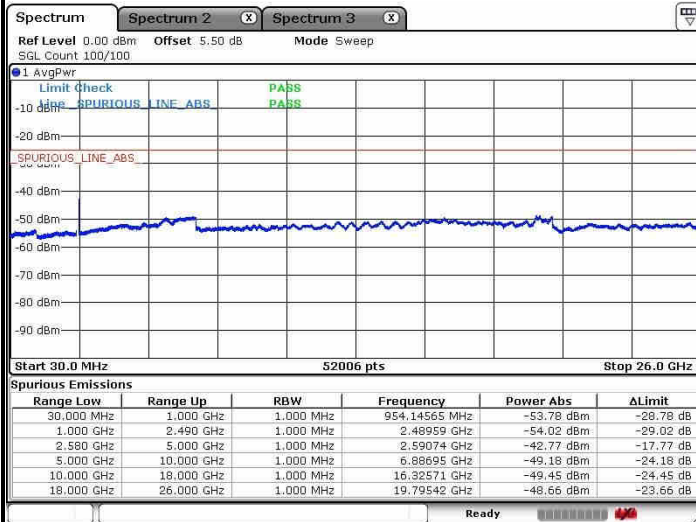


Date: 10 JAN 2019 20:10:25



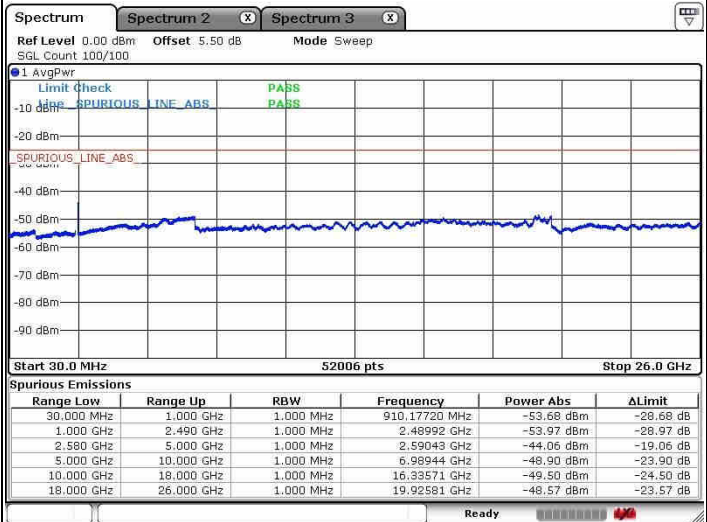
LTE Band 7 / 20MHz+20MHz

Highest Channel / QPSK



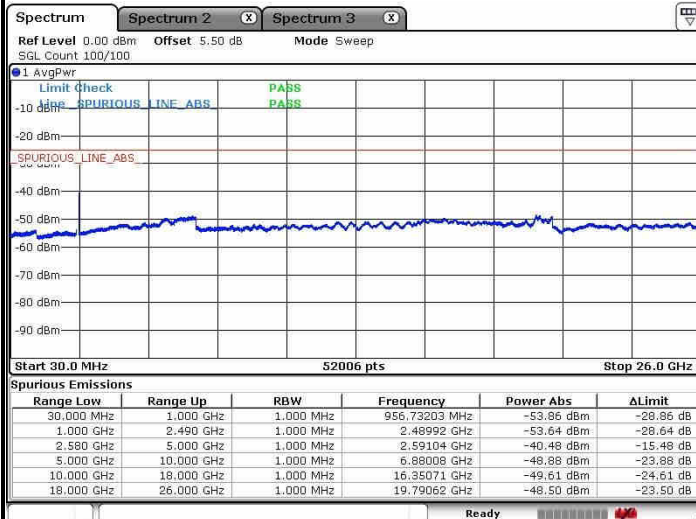
Date: 10 JAN 2019 20:17:48

Highest Channel / 16QAM



Date: 10 JAN 2019 20:16:43

Highest Channel / 64QAM



Date: 10 JAN 2019 20:15:48

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	0.0004	PASS
40	Normal Voltage	0.0034	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0038	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0031	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0003	
20	Battery End Point	0.0029	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.50 V. ; Maximum Voltage =4.35 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	0.0004	PASS
40	Normal Voltage	0.0039	
30	Normal Voltage	0.0032	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0041	
0	Normal Voltage	0.0046	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0037	
-30	Normal Voltage	0.0009	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0049	
20	Battery End Point	0.0015	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.50 V. ; Maximum Voltage =4.35 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	0.0008	PASS
40	Normal Voltage	0.0051	
30	Normal Voltage	0.0063	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0049	
-10	Normal Voltage	0.0055	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0072	
20	Battery End Point	0.0043	

Note: Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.50 V. ; Maximum Voltage =4.35V.

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0028	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0020	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0026	
20	Battery End Point	0.0021	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.50 V. ; Maximum Voltage =4.35 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	0.0008	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0026	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0025	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.50 V. ; Maximum Voltage =4.35V.
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)
Middle	3741	-60.71	-13	-47.71	-64.21	3.60	7.10	H
	5613	-54.36	-13	-41.36	-60.34	4.42	10.40	H
	7485	-55.52	-13	-42.52	-62.33	5.13	11.94	H
	3741	-60.64	-13	-47.64	-64.14	3.60	7.10	V
	5613	-56.42	-13	-43.42	-62.40	4.42	10.40	V
	7485	-56.23	-13	-43.23	-63.04	5.13	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)
Middle	3447	-62.99	-13	-49.99	-67.21	3.37	7.59	H
	5169	-60.30	-13	-47.30	-65.49	4.20	9.39	H
	6891	-59.06	-13	-46.06	-65.81	4.92	11.67	H
	3447	-62.63	-13	-49.63	-66.85	3.37	7.59	V
	5169	-61.66	-13	-48.66	-66.85	4.20	9.39	V
	6891	-59.38	-13	-46.38	-66.13	4.92	11.67	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-68.23	-13	-55.23	-69.60	2.28	5.80	H
	2496	-57.69	-13	-44.69	-59.60	2.84	6.90	H
	3327	-63.80	-13	-50.80	-65.86	3.29	7.50	H
	1664	-65.07	-13	-52.07	-66.44	2.28	5.80	V
	2496	-54.22	-13	-41.22	-56.13	2.84	6.90	V
	3327	-62.78	-13	-49.78	-64.84	3.29	7.50	V

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

LTE Band 7 / 5MHz / 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)
Middle	5064	-65.85	-25	-40.85	-70.82	3.85	8.82	H
	7600	-57.45	-25	-32.45	-64.29	5.09	11.93	H
	10132	-62.76	-25	-37.76	-68.68	6.08	12.01	H
	5064	-61.82	-25	-36.82	-66.79	3.85	8.82	V
	7600	-54.39	-25	-29.39	-61.23	5.09	11.93	V
	10132	-64.49	-25	-39.49	-70.41	6.08	12.01	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)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5172	-68.19	-25	-43.19	-73.31	3.99	9.11	H
	7760	-64.42	-25	-39.42	-71.60	5.15	12.33	H
	10344	-62.54	-25	-37.54	-68.40	6.17	12.02	H
	5172	-67.63	-25	-42.63	-72.75	3.99	9.11	V
	7760	-64.92	-25	-39.92	-72.10	5.15	12.33	V
	10344	-64.28	-25	-39.28	-70.14	6.17	12.02	V

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

**For CA**

LTE Band 7 CA / 20M+20M / 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)
Middle	5030	-66.14	-25	-41.14	-71.11	3.85	8.82	H
	7550	-61.61	-25	-36.61	-68.45	5.09	11.93	H
	10065	-58.15	-25	-33.15	-64.07	6.08	12.01	H
	5030	-67.31	-25	-42.31	-72.28	3.85	8.82	V
	7550	-60.42	-25	-35.42	-67.26	5.09	11.93	V
	10065	-59.67	-25	-34.67	-65.59	6.08	12.01	V

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