

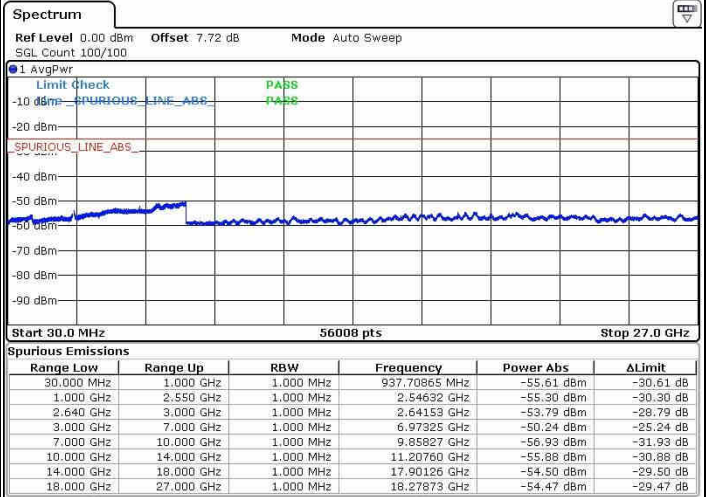
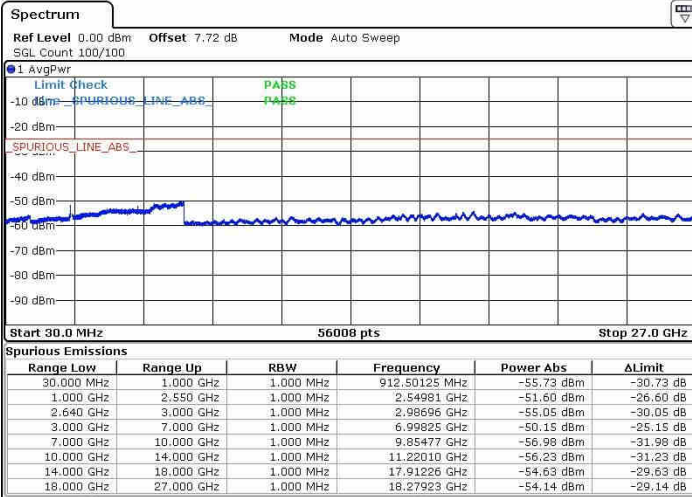


LTE Band 38 / 20MHz+20MHz

QPSK

Lowest Channel

Middle Channel

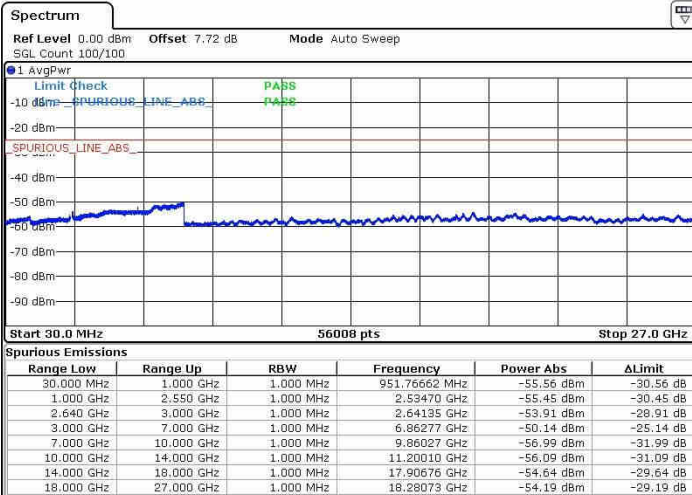


Date: 8 JAN 2019 09:22:40

Date: 8 JAN 2019 09:27:51

Highest Channel

N/A



Date: 8 JAN 2019 09:29:00

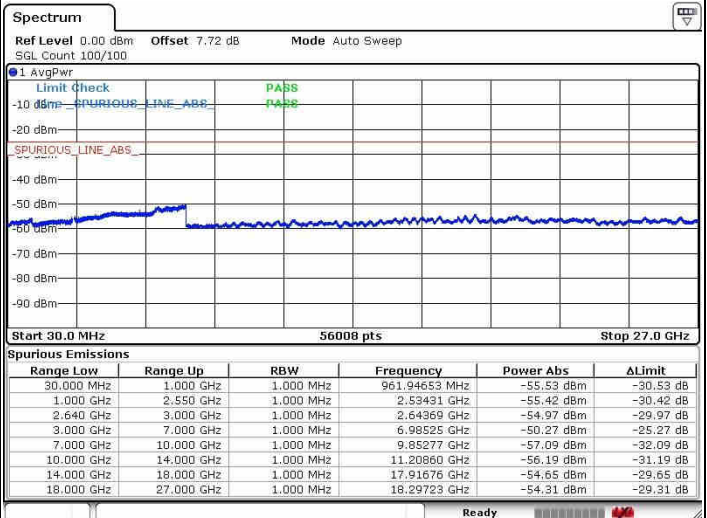
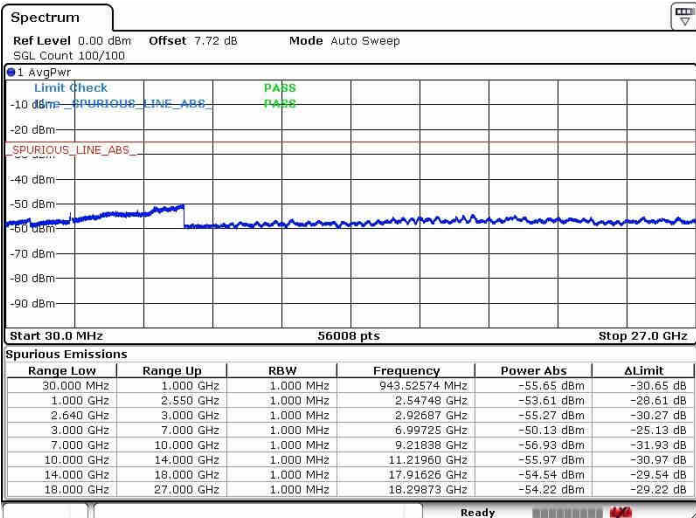


LTE Band 38 / 20MHz+20MHz

16QAM

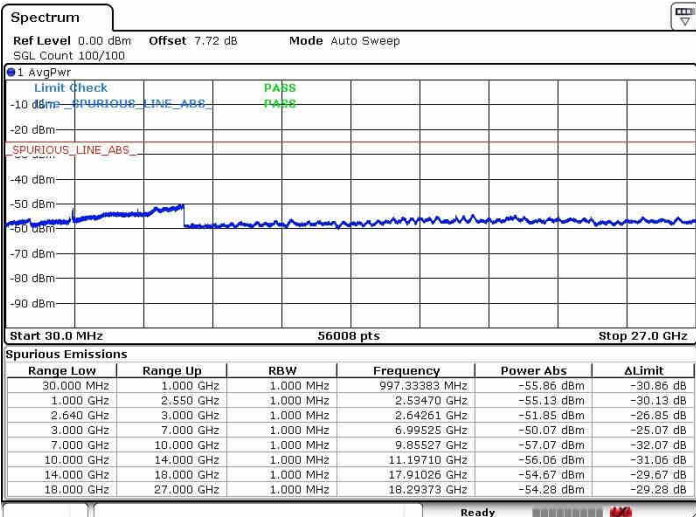
Lowest Channel

Middle Channel



Highest Channel

N/A



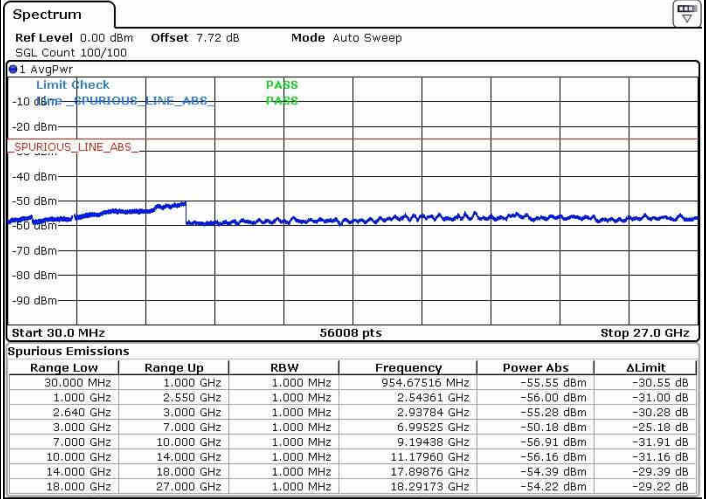
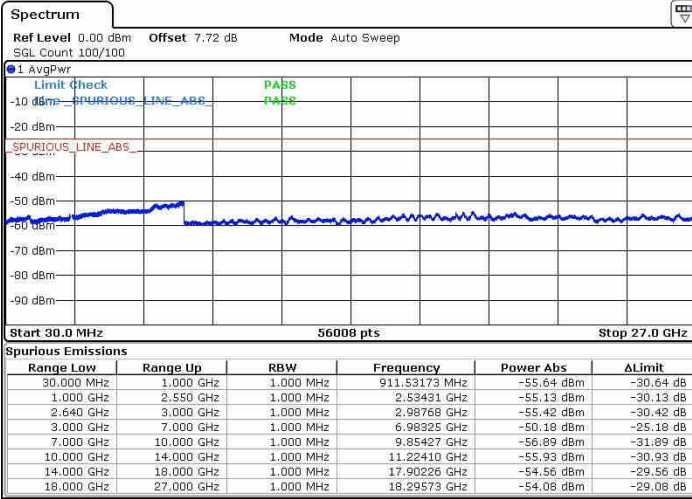


LTE Band 38 / 20MHz+20MHz

64QAM

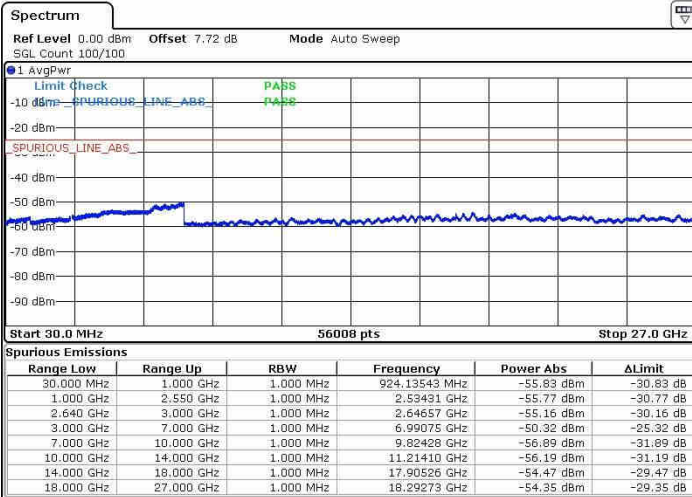
Lowest Channel

Middle Channel



Highest Channel

N/A





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	0.0003	PASS
40	Normal Voltage	0.0028	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0033	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0030	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0001	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 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	0.0032	PASS
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0021	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0023	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.4 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	0.0084	PASS
40	Normal Voltage	0.0075	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0071	
0	Normal Voltage	0.0085	
-10	Normal Voltage	0.0096	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0082	
20	Maximum Voltage	0.0031	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0066	

Note: Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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	0.0011	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0020	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0013	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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	0.0002	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0019	
-10	Normal Voltage	0.0020	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0018	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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 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	-63.70	-13	-50.70	-68.57	3.55	8.42	H
	5613	-59.87	-13	-46.87	-66.21	4.34	10.68	H
	7485	-54.55	-13	-41.55	-61.35	5.14	11.94	H
	3741	-63.42	-13	-50.42	-68.29	3.55	8.42	V
	5613	-60.46	-13	-47.46	-66.80	4.34	10.68	V
	7485	-54.37	-13	-41.37	-61.17	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)
Middle	3447	-63.14	-13	-50.14	-67.86	3.41	8.13	H
	5172	-59.90	-13	-46.90	-65.91	4.195	10.20	H
	6894	-56.08	-13	-43.08	-62.53	4.91	11.36	H
	3447	-64.12	-13	-51.12	-68.84	3.413	8.13	V
	5172	-59.12	-13	-46.12	-65.13	4.195	10.20	V
	6894	-56.21	-13	-43.21	-62.66	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)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-44.01	-13	-31.01	-45.22	2.32	5.68	H
	2496	-59.76	-13	-46.76	-60.39	3.02	5.80	H
	3327	-61.73	-13	-48.73	-64.19	3.27	7.88	H
	1664	-43.48	-13	-30.48	-44.69	2.32	5.68	V
	2496	-58.93	-13	-45.93	-59.56	3.02	5.80	V
	3327	-61.40	-13	-48.40	-63.86	3.27	7.88	V

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

LTE Band 7 / 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	5052	-67.91	-25	-42.91	-73.92	4.20	10.21	H
	7580	-57.58	-25	-32.58	-64.44	5.12	11.98	H
	10104	-57.88	-25	-32.88	-64.92	5.86	12.90	H
	5052	-67.82	-25	-42.82	-73.83	4.20	10.21	V
	7580	-50.40	-25	-25.40	-57.26	5.12	11.98	V
	10104	-59.12	-25	-34.12	-66.16	5.86	12.90	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	-67.04	-25	-42.04	-75.07	2.18	10.21	H
	7760	-58.49	-25	-33.49	-67.80	2.69	12.00	H
	10344	-58.55	-25	-33.55	-68.26	3.19	12.90	H
	5172	-67.41	-25	-42.41	-75.44	2.18	10.21	V
	7760	-52.76	-25	-27.76	-62.07	2.69	12.00	V
	10344	-58.68	-25	-33.68	-68.39	3.19	12.90	V

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



For CA

LTE Band 7 CA / 20M+10M / 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	5080	-66.43	-25	-41.43	-72.44	4.20	10.21	H
	7616	-62.13	-25	-37.13	-68.99	5.12	11.98	H
	10160	-59.00	-25	-34.00	-66.04	5.86	12.90	H
	5080	-66.08	-25	-41.08	-72.09	4.20	10.21	V
	7616	-60.73	-25	-35.73	-67.59	5.12	11.98	V
	10160	-60.32	-25	-35.32	-67.36	5.86	12.90	V

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

LTE Band 38 CA / 15M+15M / 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	5192	-66.21	-25	-41.21	-74.24	2.18	10.21	H
	7788	-61.78	-25	-36.78	-71.09	2.69	12.00	H
	10384	-59.20	-25	-34.20	-68.91	3.19	12.90	H
	5192	-65.40	-25	-40.40	-73.43	2.18	10.21	V
	7784	-56.20	-25	-31.20	-65.51	2.69	12.00	V
	10384	-59.63	-25	-34.63	-69.34	3.19	12.90	V

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