





























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	0.0008	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0031	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4V.
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	0.0029	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0031	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0026	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.85V. ; Battery End Point (BEP) =3.6V. ; Maximum Voltage =4.4V.
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	0.0003	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0030	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0031	
20	Battery End Point	0.0025	

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	0.0027	PASS
40	Normal Voltage	0.0035	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0029	
0	Normal Voltage	0.0032	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0030	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0027	

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	0.0018	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0034	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0028	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0016	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0024	

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 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	-59.75	-13	-46.75	-72.01	2.641	14.90	H
	5613	-56.48	-13	-43.48	-68.34	2.94	14.80	H
	7488	-52.07	-13	-39.07	-61.84	3.39	13.16	H
	3741	-59.11	-13	-46.11	-71.37	2.64	14.90	V
	5613	-53.42	-13	-40.42	-65.28	2.94	14.80	V
	7488	-51.64	-13	-38.64	-61.41	3.39	13.16	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	-55.37	-13	-42.37	-66.11	2.604	13.34	H
	5172	-59.17	-13	-46.17	-69.68	3.011	13.52	H
	6900	-54.63	-13	-41.63	-64.83	3.271	13.47	H
	3447	-56.89	-13	-43.89	-67.63	2.604	13.34	V
	5172	-59.08	-13	-46.08	-69.59	3.011	13.52	V
	6900	-54.57	-13	-41.57	-64.77	3.271	13.47	V

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

LTE Band 5 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-69.16	-13	-56.16	-76.13	1.58	10.70	H
	2496	-62.99	-13	-49.99	-71.24	2.102	12.50	H
	3330	-56.69	-13	-43.69	-65.58	2.856	13.90	H
	1664	-69.46	-13	-56.46	-76.43	1.58	10.70	V
	2496	-64.62	-13	-51.62	-72.87	2.10	12.50	V
	3330	-60.91	-13	-47.91	-69.80	2.86	13.90	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	-64.86	-25	-39.86	-75.07	3.03	13.24	H
	7580	-61.05	-25	-36.05	-70.50	3.56	13.01	H
	10100	-57.93	-25	-32.93	-67.45	3.92	13.44	H
	5052	-64.81	-25	-39.81	-75.02	3.03	13.24	V
	7580	-60.21	-25	-35.21	-69.66	3.56	13.01	V
	10100	-58.46	-25	-33.46	-67.98	3.92	13.44	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	-66.03	-25	-41.03	-76.24	3.03	13.24	H
	7760	-60.38	-25	-35.38	-69.83	3.56	13.01	H
	10340	-58.54	-25	-33.54	-68.06	3.92	13.44	H
	5172	-65.44	-25	-40.44	-75.65	3.03	13.24	V
	7760	-58.96	-25	-33.96	-68.41	3.56	13.01	V
	10340	-58.95	-25	-33.95	-68.47	3.92	13.44	V

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



For CA:

LTE Band 7C_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	5032	-63.06	-25	-38.06	-73.27	3.03	13.24	H
	7548	-58.35	-25	-33.35	-67.80	3.56	13.01	H
	10060	-57.52	-25	-32.52	-67.04	3.92	13.44	H
	5032	-65.72	-25	-40.72	-75.93	3.03	13.24	V
	7548	-54.86	-25	-29.86	-64.31	3.56	13.01	V
	10060	-58.31	-25	-33.31	-67.83	3.92	13.44	V

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

LTE Band 38C_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	5152	-66.27	-25	-41.27	-76.48	3.03	13.24	H
	7728	-60.89	-25	-35.89	-70.34	3.56	13.01	H
	10300	-57.40	-25	-32.40	-66.92	3.92	13.44	H
	5152	-66.24	-25	-41.24	-76.45	3.03	13.24	V
	7728	-57.41	-25	-32.41	-66.86	3.56	13.01	V
	10300	-57.96	-25	-32.96	-67.48	3.92	13.44	V

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