

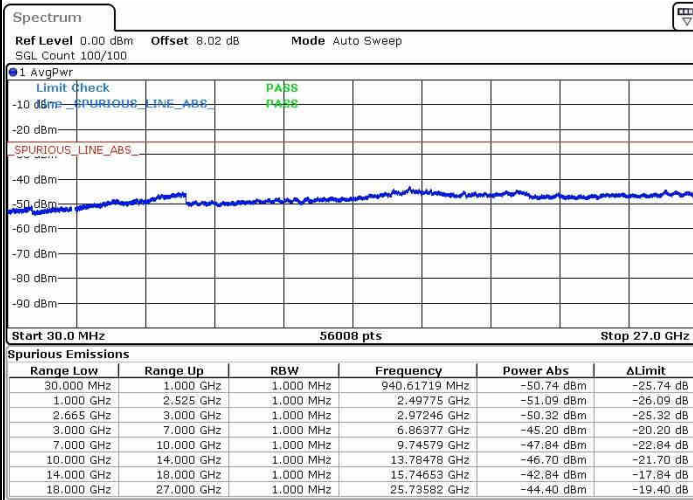


LTE Band 38 / 15MHz+15MHz

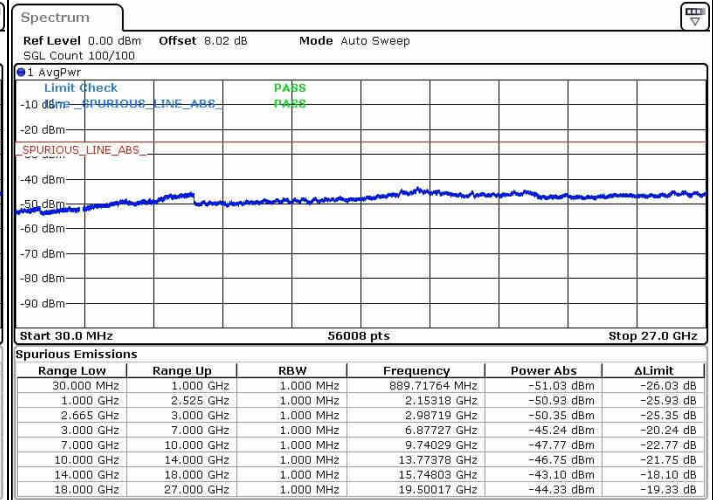
QPSK

Lowest Channel

Middle Channel



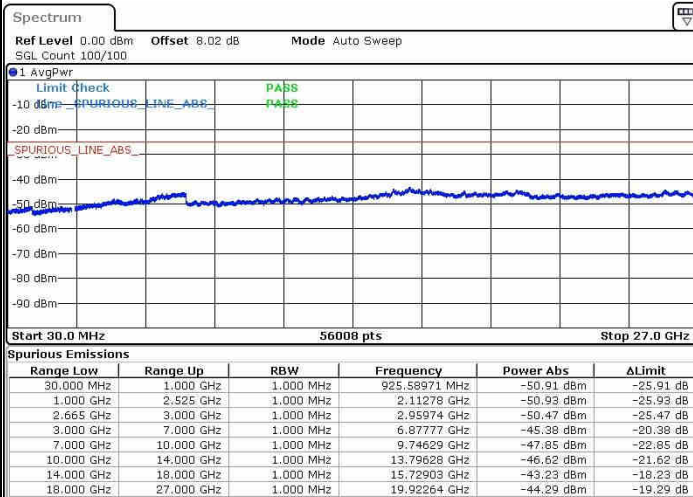
Date: 1.MAR.2019 15:46:45



Date: 1.MAR.2019 15:49:29

Highest Channel

N/A



Date: 1.MAR.2019 16:03:50

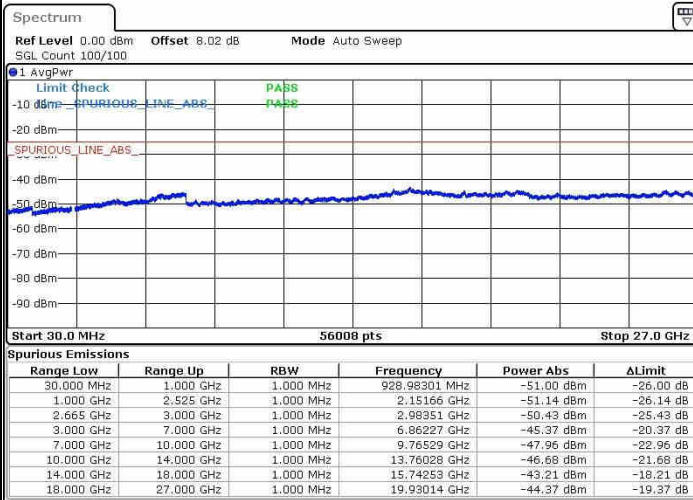


LTE Band 38 / 15MHz+15MHz

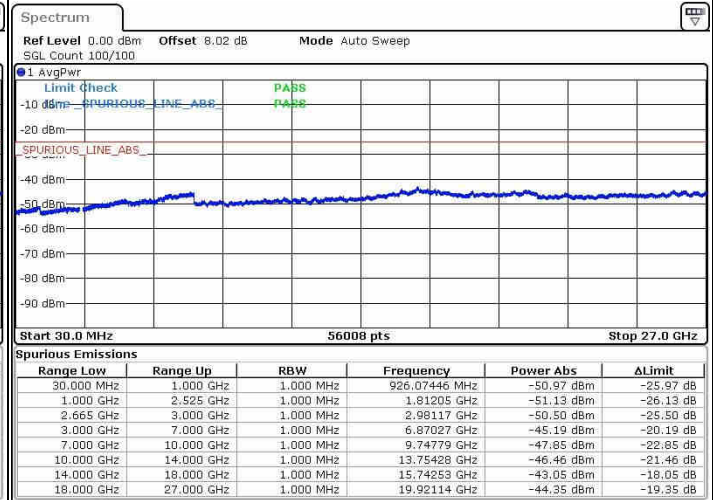
16QAM

Lowest Channel

Middle Channel



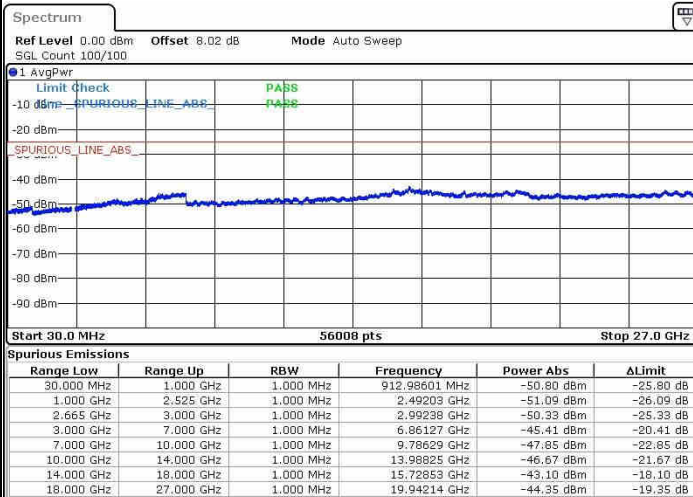
Date: 1.MAR.2019 15:45:42



Date: 1.MAR.2019 15:50:32

Highest Channel

N/A



Date: 1.MAR.2019 16:02:39

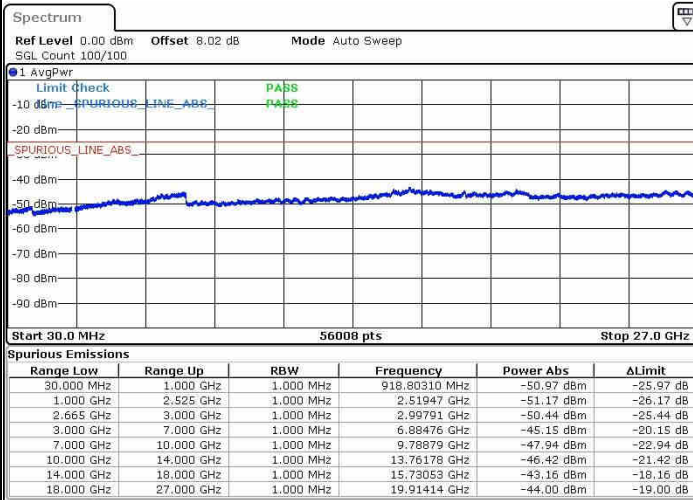


LTE Band 38 / 15MHz+15MHz

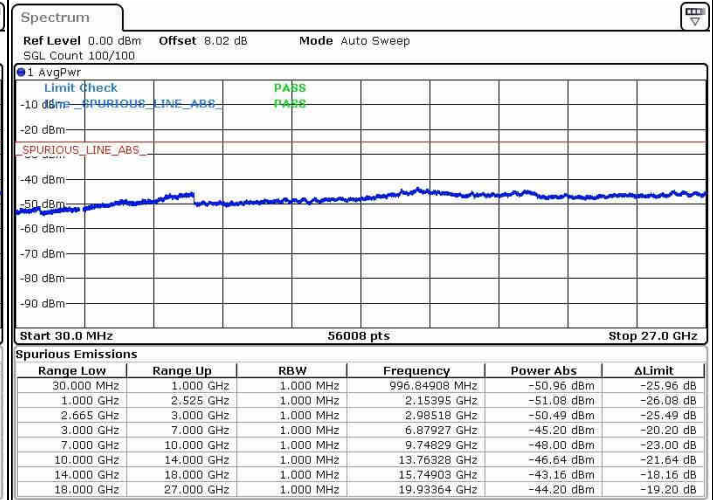
64QAM

Lowest Channel

Middle Channel



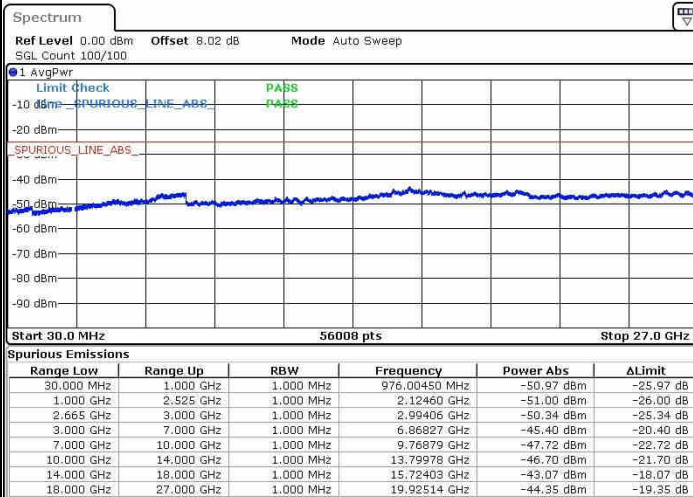
Date: 1.MAR.2019 15:44:15



Date: 1.MAR.2019 15:51:26

Highest Channel

N/A



Date: 1.MAR.2019 16:01:16

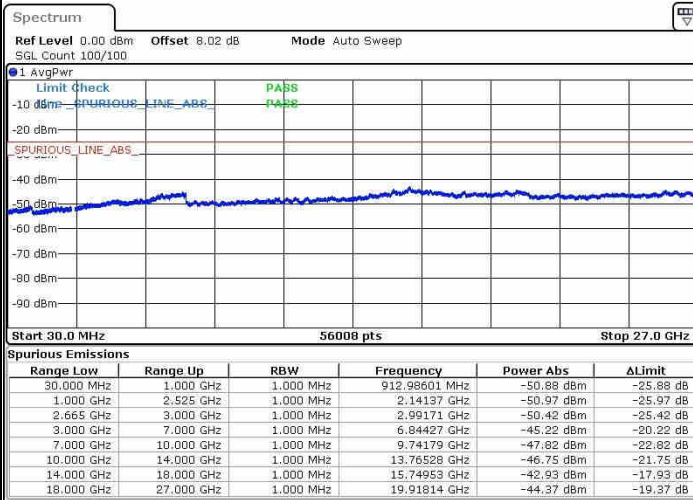


LTE Band 38 / 20MHz+20MHz

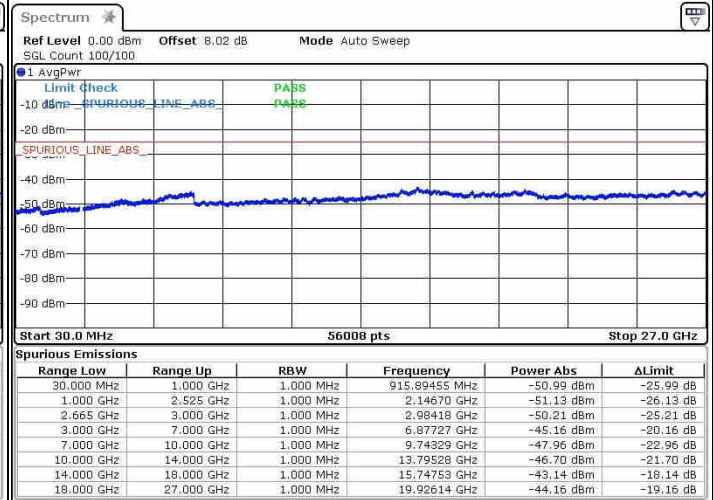
QPSK

Lowest Channel

Middle Channel



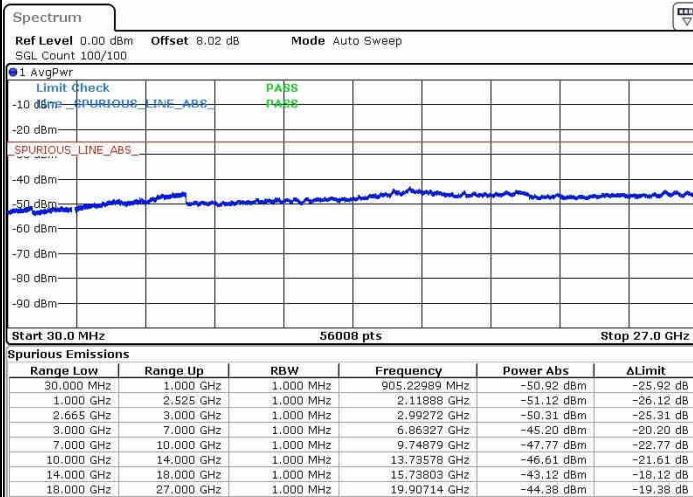
Date: 1.MAR.2019 16:29:00



Date: 1.MAR.2019 16:23:32

Highest Channel

N/A



Date: 1.MAR.2019 16:21:50

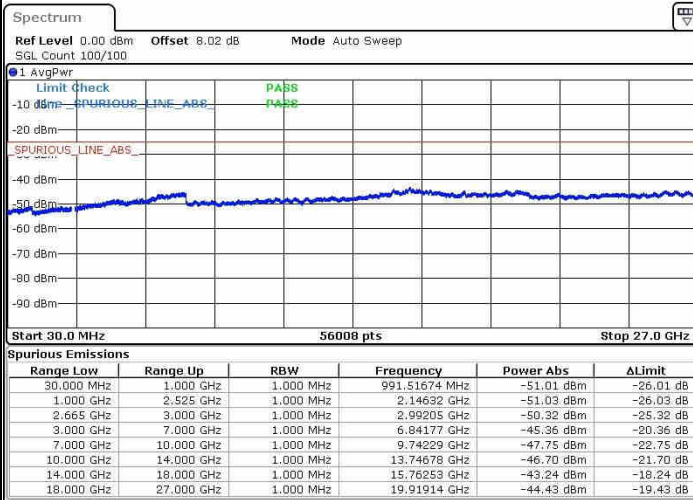


LTE Band 38 / 20MHz+20MHz

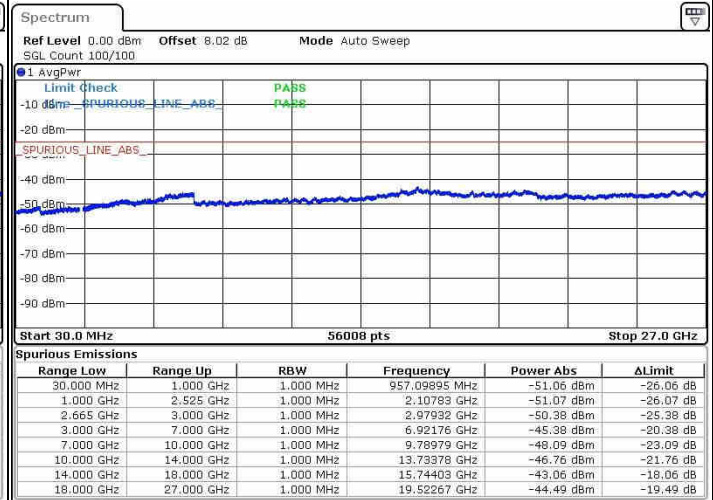
16QAM

Lowest Channel

Middle Channel



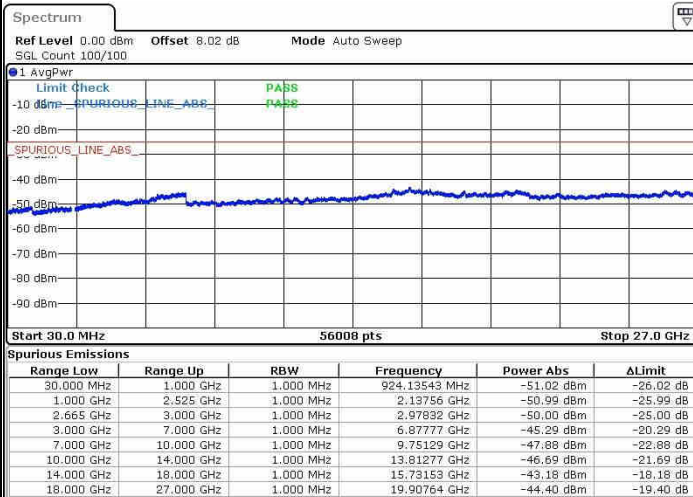
Date: 1.MAR.2019 16:28:08



Date: 1.MAR.2019 16:24:31

Highest Channel

N/A



Date: 1.MAR.2019 16:19:47

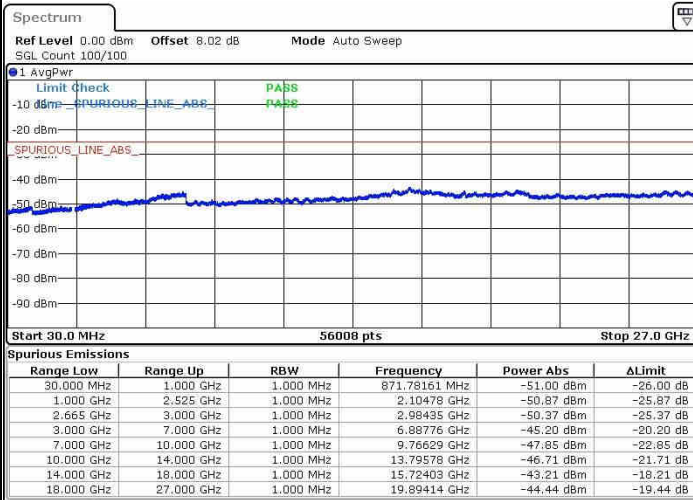


LTE Band 38 / 20MHz+20MHz

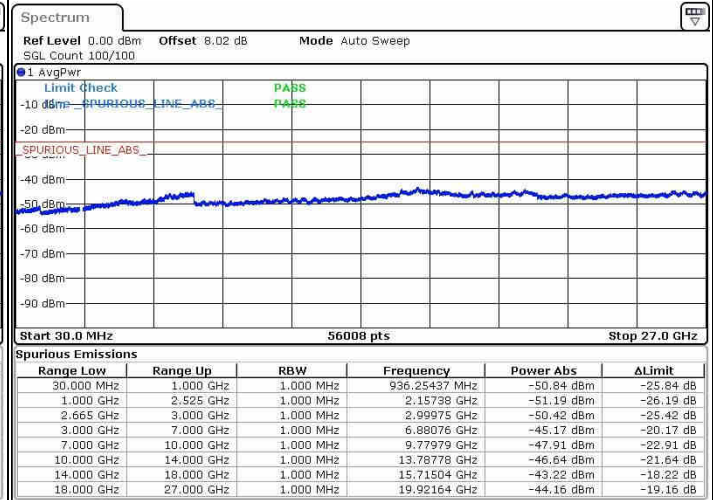
64QAM

Lowest Channel

Middle Channel



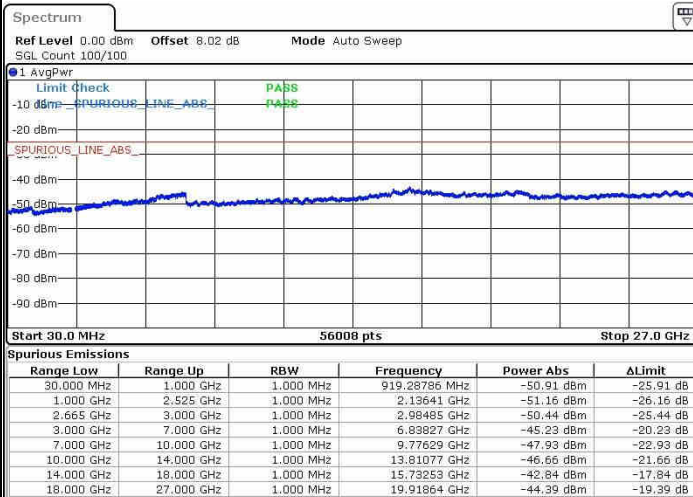
Date: 1.MAR.2019 16:27:13



Date: 1.MAR.2019 16:25:27

Highest Channel

N/A



Date: 1.MAR.2019 16:18:55

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	0.0026	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0009	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0029	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.7 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	0.0021	PASS
40	Normal Voltage	0.0016	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0012	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0031	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.7 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	0.0017	PASS
40	Normal Voltage	0.0061	
30	Normal Voltage	0.0080	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0072	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0057	
-30	Normal Voltage	0.0085	
20	Maximum Voltage	0.0054	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note: Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.35 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	0.0004	
30	Normal Voltage	0.0022	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0000	
-20	Normal Voltage	0.0023	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0018	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.7 V. ; Maximum Voltage =4.35 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	-56.81	-13	-43.81	-63.38	1.848	8.42	H
	5613.27	-53.65	-13	-40.65	-62.01	2.32	10.68	H
	7488	-51.15	-13	-38.15	-60.48	2.61	11.94	H
	3742.18	-57.06	-13	-44.06	-63.63	1.85	8.42	V
	5613	-54.75	-13	-41.75	-63.11	2.32	10.68	V
	7488	-51.94	-13	-38.94	-61.27	2.61	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	-56.69	-13	-43.69	-63.01	1.81	8.13	H
	5170.77	-55.61	-13	-42.61	-63.59	2.222	10.20	H
	6894	-53.45	-13	-40.45	-62.27	2.54	11.36	H
	3447.18	-55.44	-13	-42.44	-61.76	1.81	8.13	V
	5172	-56.10	-13	-43.10	-64.08	2.222	10.20	V
	6894	-54.18	-13	-41.18	-63.00	2.54	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)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-63.01	-13	-50.01	-69.98	1.58	10.70	H
	2495.79	-63.79	-13	-50.79	-72.04	2.102	12.50	H
	3330	-64.66	-13	-51.66	-73.55	2.856	13.90	H
	1664	-61.80	-13	-48.80	-68.77	1.58	10.70	V
	2496	-63.37	-13	-50.37	-71.62	2.10	12.50	V
	3330	-64.19	-13	-51.19	-73.08	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	-66.27	-25	-41.27	-76.48	3.03	13.24	H
	7576	-60.43	-25	-35.43	-69.88	3.56	13.01	H
	10100	-57.44	-25	-32.44	-66.96	3.92	13.44	H
	5052	-65.59	-25	-40.59	-75.80	3.03	13.24	V
	7576	-58.90	-25	-33.90	-68.35	3.56	13.01	V
	10100	-57.84	-25	-32.84	-67.36	3.92	13.44	V

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

LTE Band 41 / 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	5168	-64.31	-25	-39.31	-72.34	2.18	10.21	H
	7752	-58.41	-25	-33.41	-67.72	2.69	12.00	H
	10332	-50.18	-25	-25.18	-59.89	3.19	12.90	H
	5168	-64.34	-25	-39.34	-72.37	2.18	10.21	V
	7752	-55.55	-25	-30.55	-64.86	2.69	12.00	V
	10332	-50.18	-25	-25.18	-59.89	3.19	12.90	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	-65.55	-25	-40.55	-73.58	2.18	10.21	H
	7548	-60.60	-25	-35.60	-69.91	2.69	12.00	H
	10060	-58.10	-25	-33.10	-67.81	3.19	12.90	H
	5032	-65.31	-25	-40.31	-73.34	2.18	10.21	V
	7548	-59.01	-25	-34.01	-68.32	2.69	12.00	V
	10060	-59.11	-25	-34.11	-68.82	3.19	12.90	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	5192	-66.14	-25	-41.14	-74.17	2.18	10.21	H
	7784	-55.02	-25	-30.02	-64.33	2.69	12.00	H
	10380	-57.10	-25	-32.10	-66.81	3.19	12.90	H
	5192	-66.52	-25	-41.52	-74.55	2.18	10.21	V
	7784	-54.72	-25	-29.72	-64.03	2.69	12.00	V
	10380	-59.17	-25	-34.17	-68.88	3.19	12.90	V

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