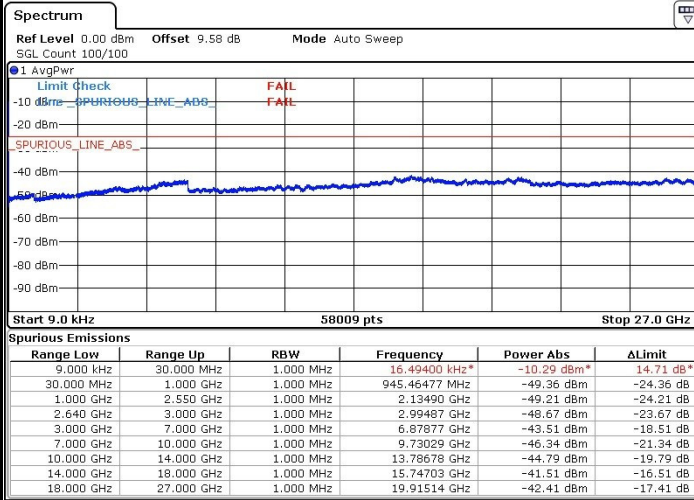




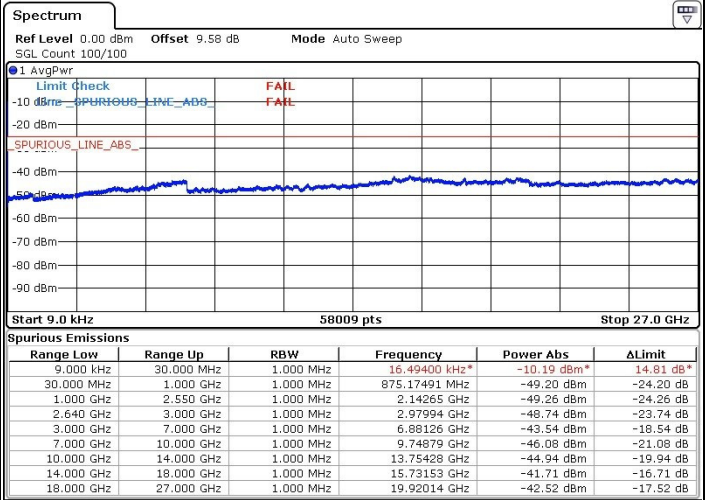
LTE Band 38 / 5MHz

Highest Channel / QPSK



Date: 11.MAR.2017 04:50:35

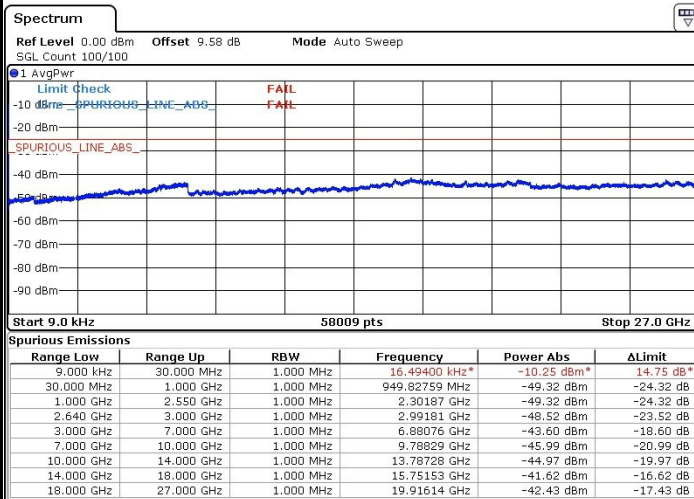
Highest Channel / 16QAM



Date: 11.MAR.2017 04:51:39

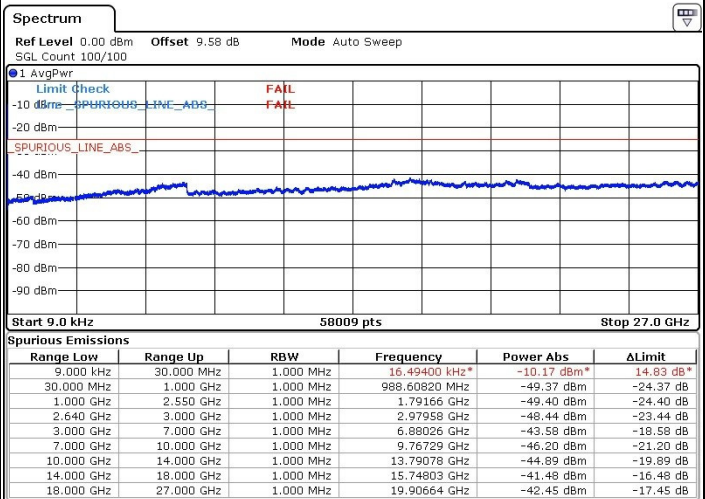
LTE Band 38 / 10MHz

Lowest Channel / QPSK



Date: 11.MAR.2017 05:15:17

Lowest Channel / 16QAM

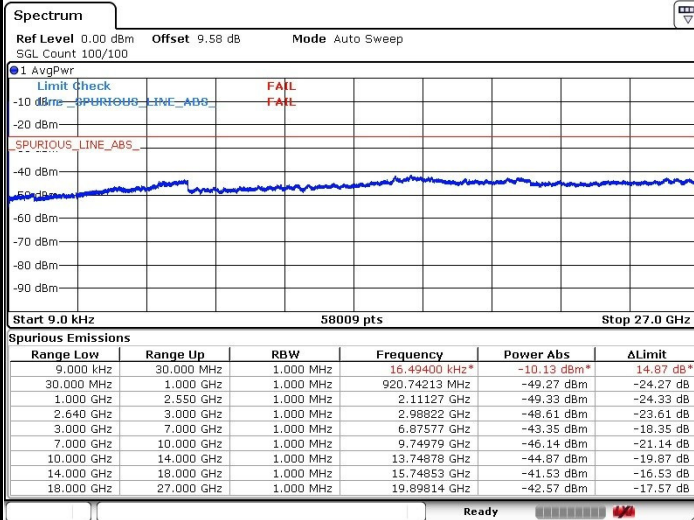


Date: 11.MAR.2017 05:16:13

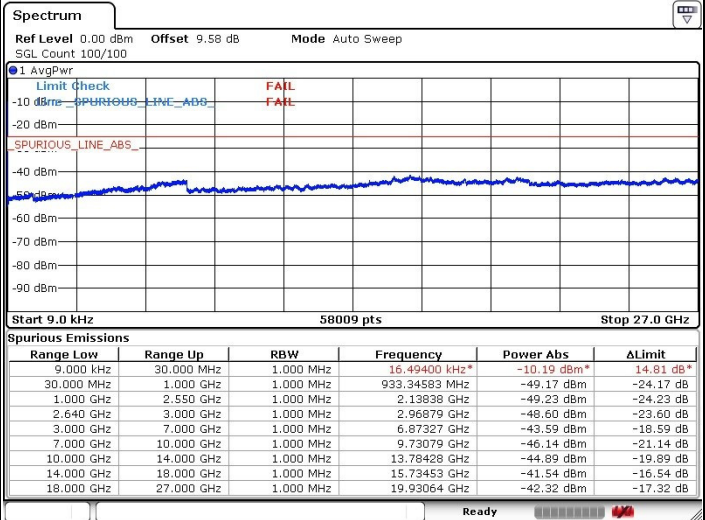


LTE Band 38 / 10MHz

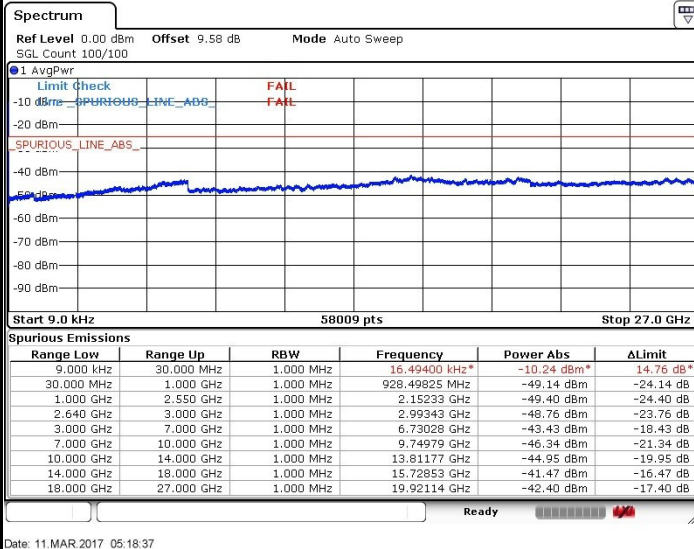
Middle Channel / QPSK



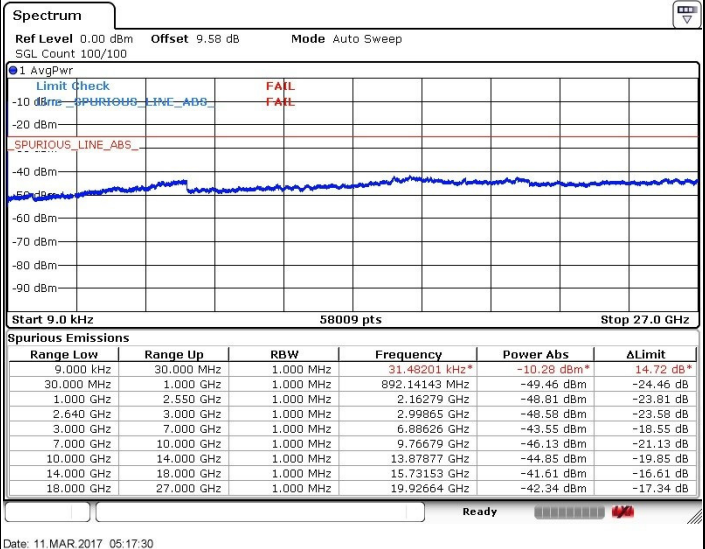
Middle Channel / 16QAM



Highest Channel / QPSK



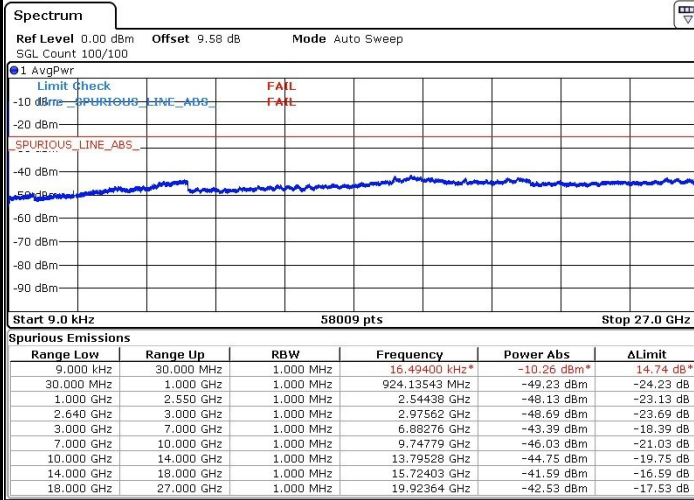
Highest Channel / 16QAM





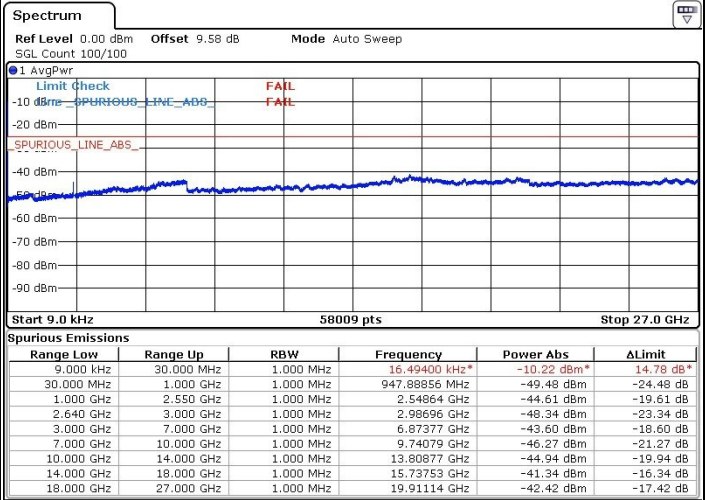
LTE Band 38 / 15MHz

Lowest Channel / QPSK



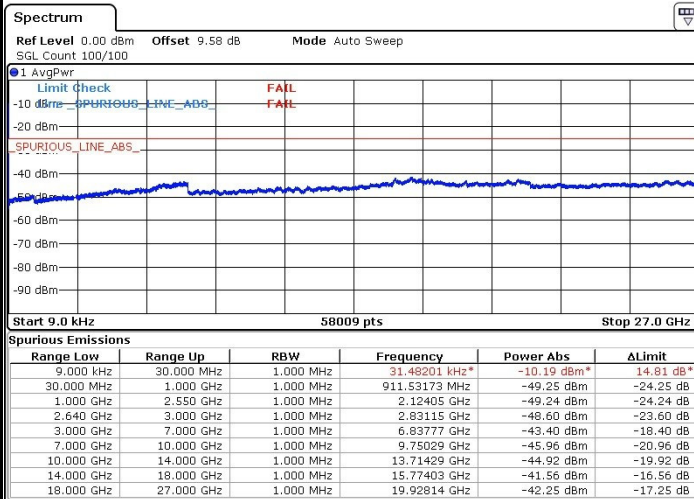
Date: 11.MAR.2017 05:23:02

Lowest Channel / 16QAM



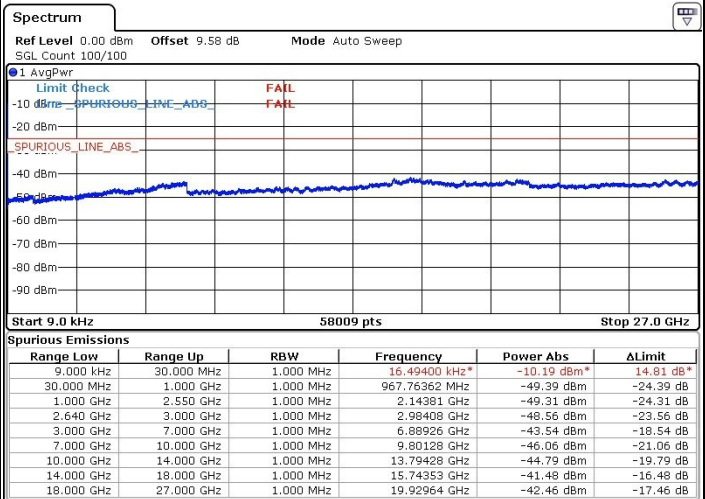
Date: 11.MAR.2017 05:22:01

Middle Channel / QPSK



Date: 11.MAR.2017 05:19:45

Middle Channel / 16QAM

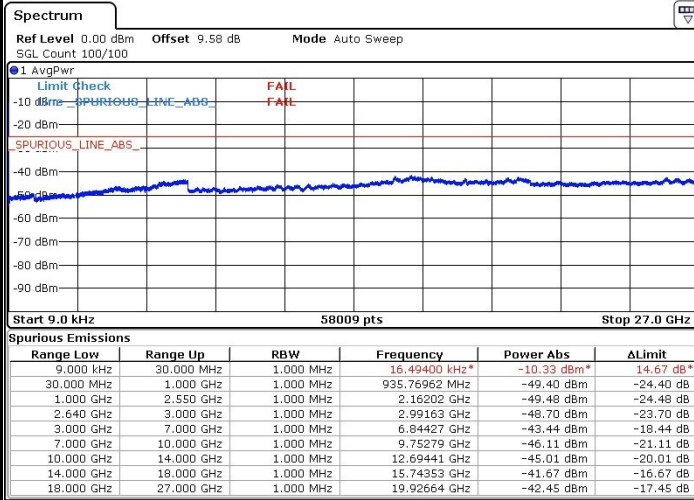


Date: 11.MAR.2017 05:20:55



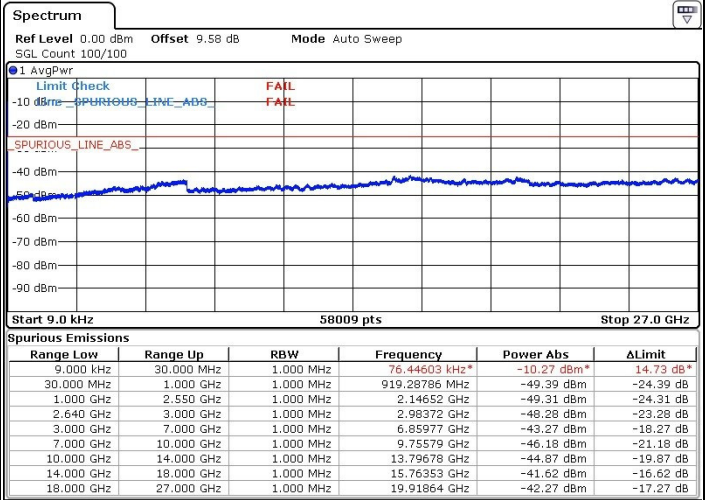
LTE Band 38 / 15MHz

Highest Channel / QPSK



Date: 11.MAR.2017 05:24:09

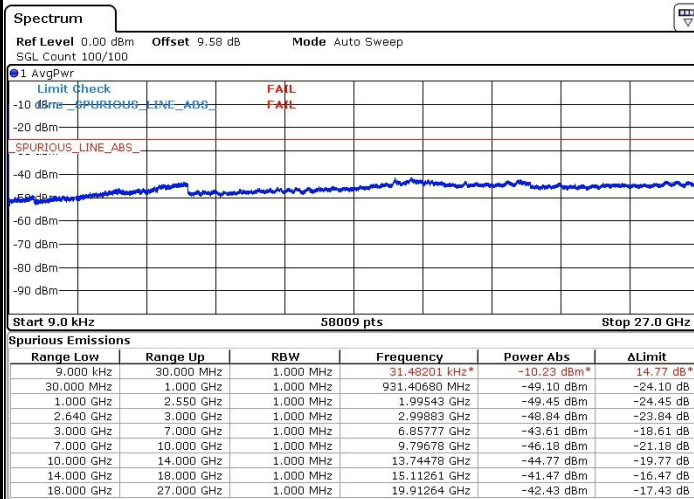
Highest Channel / 16QAM



Date: 11.MAR.2017 05:25:06

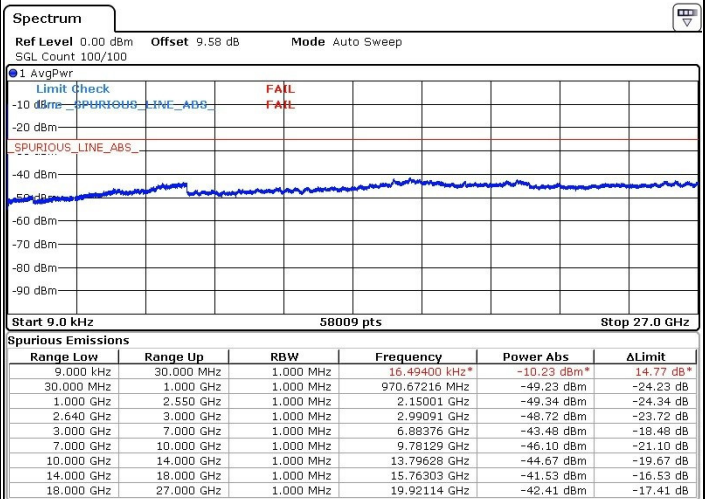
LTE Band 38 / 20MHz

Lowest Channel / QPSK



Date: 11.MAR.2017 05:28:26

Lowest Channel / 16QAM

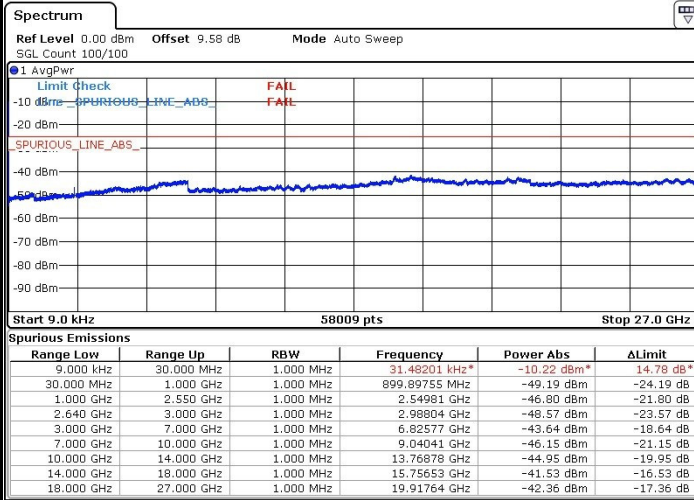


Date: 11.MAR.2017 05:29:39



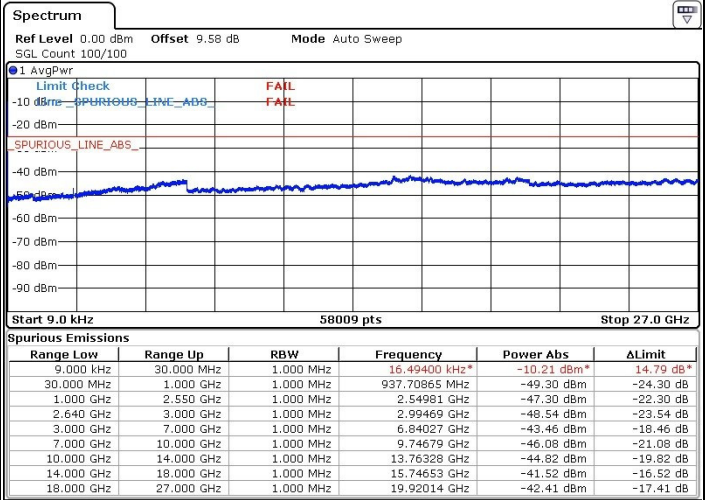
LTE Band 38 / 20MHz

Middle Channel / QPSK



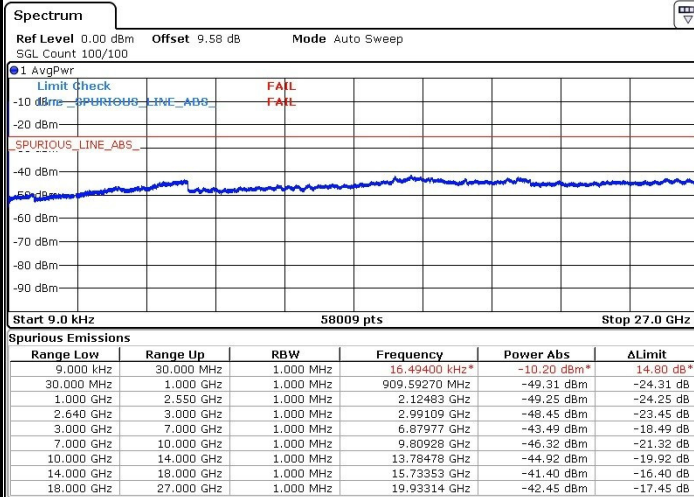
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Middle Channel / 16QAM



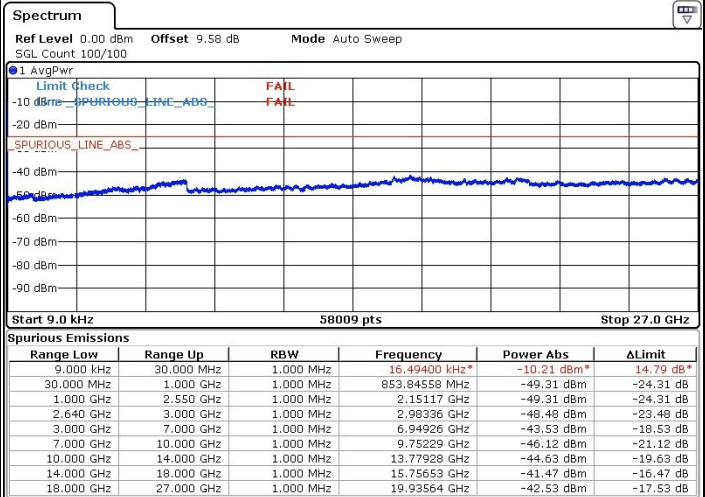
Date: 11.MAR.2017 05:26:23

Highest Channel / QPSK



Date: 11.MAR.2017 05:31:49

Highest Channel / 16QAM



Date: 11.MAR.2017 05:30:43

**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	0.0013	PASS
40	Normal Voltage	0.0059	
30	Normal Voltage	0.0039	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0010	
0	Normal Voltage	0.0043	
-10	Normal Voltage	0.0053	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0048	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0012	
20	Battery End Point	0.0047	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 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	0.0007	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0017	
20	Maximum Voltage	0.0002	
20	Normal Voltage	0.0005	
20	Battery End Point	0.0014	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 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	0.0007	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0008	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 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	1672	-63.82	-13	-50.82	-66.42	-66.14	1.33	5.80	H
	2508	-40.28	-13	-27.28	-52.63	-43.45	1.58	6.90	H
	3345	-63.13	-13	-50.13	-72.34	-66.63	1.85	7.50	H
	4179	-61.23	-13	-48.23	-71.15	-64.27	2.11	7.30	H
	1672	-67.64	-13	-54.64	-69.51	-69.96	1.33	5.80	V
	2508	-47.24	-13	-34.24	-57.58	-50.41	1.58	6.90	V
	3345	-66.09	-13	-53.09	-75.11	-69.59	1.85	7.50	V
	4179	-64.76	-13	-51.76	-73.29	-67.80	2.11	7.30	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	-64.89	-13	-51.89	-67.49	-67.21	1.33	5.80	H
	2506	-41.52	-13	-28.52	-53.72	-44.69	1.58	6.90	H
	3342	-63.39	-13	-50.39	-72.60	-66.89	1.85	7.50	H
	4176	-59.94	-13	-46.94	-69.86	-62.98	2.11	7.30	H
	1670	-67.03	-13	-54.03	-68.90	-69.35	1.33	5.80	V
	2506	-48.57	-13	-35.57	-58.47	-51.74	1.58	6.90	V
	3342	-66.51	-13	-53.51	-75.53	-70.01	1.85	7.50	V
	4176	-64.48	-13	-51.48	-73.01	-67.52	2.11	7.30	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	-65.44	-13	-52.44	-68.04	-67.76	1.33	5.80	H
	2502	-39.80	-13	-26.80	-52.19	-42.97	1.58	6.90	H
	3336	-60.56	-13	-47.56	-69.77	-64.06	1.85	7.50	H
	4170	-60.12	-13	-47.12	-70.04	-63.16	2.11	7.30	H
	1668	-67.48	-13	-54.48	-69.35	-69.80	1.33	5.80	V
	2502	-48.61	-13	-35.61	-58.49	-51.78	1.58	6.90	V
	3336	-65.00	-13	-52.00	-74.02	-68.50	1.85	7.50	V
	4172	-66.04	-13	-53.04	-74.57	-69.08	2.11	7.30	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	-66.50	-13	-53.50	-69.10	-68.82	1.33	5.80	H
	2496	-39.77	-13	-26.77	-52.16	-42.94	1.58	6.90	H
	3327	-61.27	-13	-48.27	-70.48	-64.77	1.85	7.50	H
	4161	-61.54	-13	-48.54	-71.46	-64.58	2.11	7.30	H
	1664	-68.05	-13	-55.05	-69.92	-70.37	1.33	5.80	V
	2496	-46.03	-13	-33.03	-56.72	-49.20	1.58	6.90	V
	3327	-66.09	-13	-53.09	-75.11	-69.59	1.85	7.50	V
	4160	-64.88	-13	-51.88	-73.41	-67.92	2.11	7.30	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	5064	-58.42	-25	-33.42	-67.64	-64.98	2.41	8.97	H
	7596	-55.74	-25	-30.74	-69.44	-64.74	2.86	11.86	H
	10134	-57.35	-25	-32.35	-75.70	-66.25	3.21	12.11	H
	5064	-59.32	-25	-34.32	-68.03	-65.88	2.41	8.97	V
	7600	-55.59	-25	-30.59	-70.22	-64.59	2.86	11.86	V
	10134	-56.59	-25	-31.59	-75.99	-65.49	3.21	12.11	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	5060	-58.96	-25	-33.96	-68.18	-65.52	2.41	8.97	H
	7592	-50.47	-25	-25.47	-64.17	-59.47	2.86	11.86	H
	10125	-57.30	-25	-32.30	-75.65	-66.20	3.21	12.11	H
	5060	-59.37	-25	-34.37	-68.08	-65.93	2.41	8.97	V
	7592	-52.03	-25	-27.03	-66.66	-61.03	2.86	11.86	V
	10125	-56.08	-25	-31.08	-75.48	-64.98	3.21	12.11	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	-57.98	-25	-32.98	-67.20	-64.54	2.41	8.97	H
	7584	-51.88	-25	-26.88	-65.58	-60.88	2.86	11.86	H
	10116	-57.05	-25	-32.05	-75.40	-65.95	3.21	12.11	H
	5056	-59.71	-25	-34.71	-68.42	-66.27	2.41	8.97	V
	7584	-54.20	-25	-29.20	-68.83	-63.20	2.86	11.86	V
	10116	-56.17	-25	-31.17	-75.57	-65.07	3.21	12.11	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	-59.76	-25	-34.76	-68.98	-66.32	2.41	8.97	H
	7576	-52.69	-25	-27.69	-66.39	-61.69	2.86	11.86	H
	10107	-56.88	-25	-31.88	-75.23	-65.78	3.21	12.11	H
	5052	-59.42	-25	-34.42	-68.13	-65.98	2.41	8.97	V
	7576	-53.75	-25	-28.75	-68.38	-62.75	2.86	11.86	V
	10107	-56.08	-25	-31.08	-75.48	-64.98	3.21	12.11	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	5184	-61.54	-25	-36.54	-70.76	-68.10	2.41	8.97	H
	7780	-55.95	-25	-30.95	-69.65	-64.95	2.86	11.86	H
	10368	-57.27	-25	-32.27	-75.62	-66.17	3.21	12.11	H
	5184	-60.30	-25	-35.30	-69.01	-66.86	2.41	8.97	V
	7778	-59.94	-25	-34.94	-74.57	-68.94	2.86	11.86	V
	10368	-55.60	-25	-30.60	-75	-64.50	3.21	12.11	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	5180	-60.83	-25	-35.83	-70.05	-67.39	2.41	8.97	H
	7772	-55.91	-25	-30.91	-69.61	-64.91	2.86	11.86	H
	10359	-56.74	-25	-31.74	-75.09	-65.64	3.21	12.11	H
	5180	-60.17	-25	-35.17	-68.88	-66.73	2.41	8.97	V
	7772	-57.89	-25	-32.89	-72.52	-66.89	2.86	11.86	V
	10359	-56.32	-25	-31.32	-75.72	-65.22	3.21	12.11	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	-59.21	-25	-34.21	-68.43	-65.77	2.41	8.97	H
	7764	-55.24	-25	-30.24	-68.94	-64.24	2.86	11.86	H
	10350	-57.01	-25	-32.01	-75.36	-65.91	3.21	12.11	H
	5176	-58.94	-25	-33.94	-67.65	-65.50	2.41	8.97	V
	7765	-57.73	-25	-32.73	-72.36	-66.73	2.86	11.86	V
	10350	-56.13	-25	-31.13	-75.53	-65.03	3.21	12.11	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	-59.40	-25	-34.40	-68.62	-65.96	2.41	8.97	H
	7756	-56.72	-25	-31.72	-70.42	-65.72	2.86	11.86	H
	10341	-56.72	-25	-31.72	-75.07	-65.62	3.21	12.11	H
	5172	-59.61	-25	-34.61	-68.32	-66.17	2.41	8.97	V
	7758	-58.69	-25	-33.69	-73.32	-67.69	2.86	11.86	V
	10341	-56.52	-25	-31.52	-75.92	-65.42	3.21	12.11	V

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