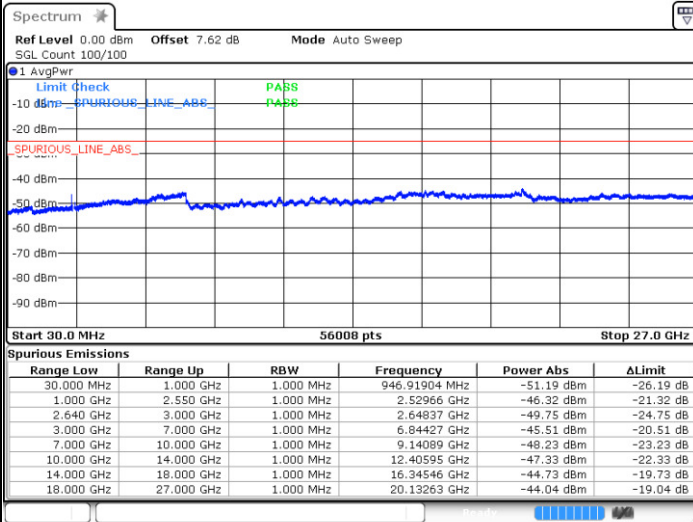




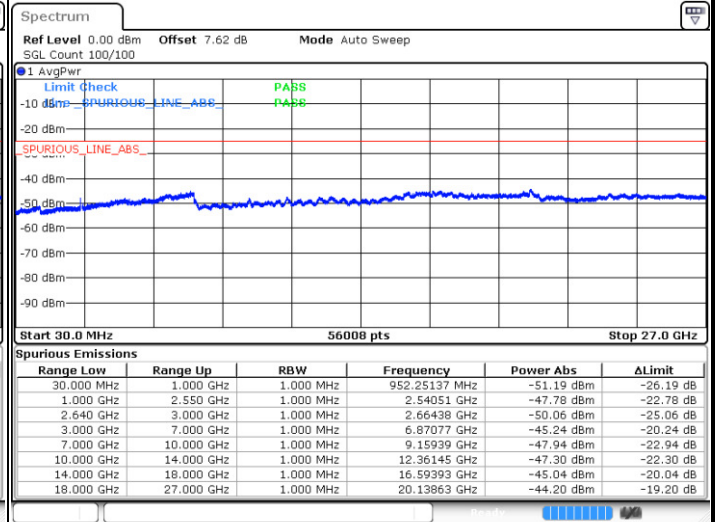
LTE Band 38 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

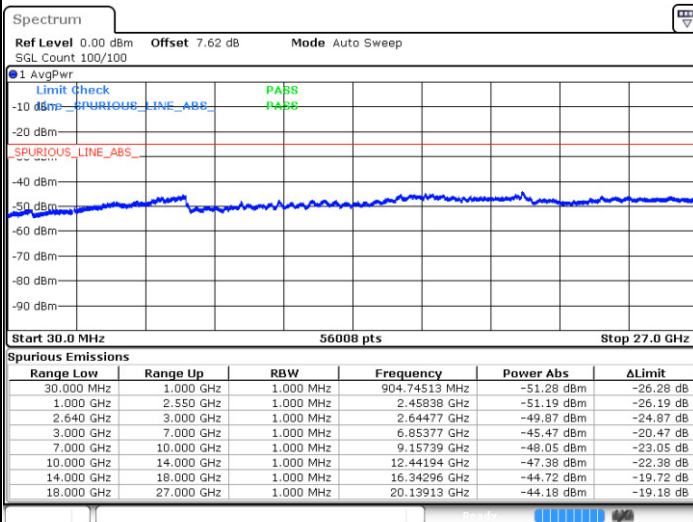


Date: 3 JAN 2018 09:19:34



Date: 3 JAN 2018 09:20:42

Highest Channel / 64QAM

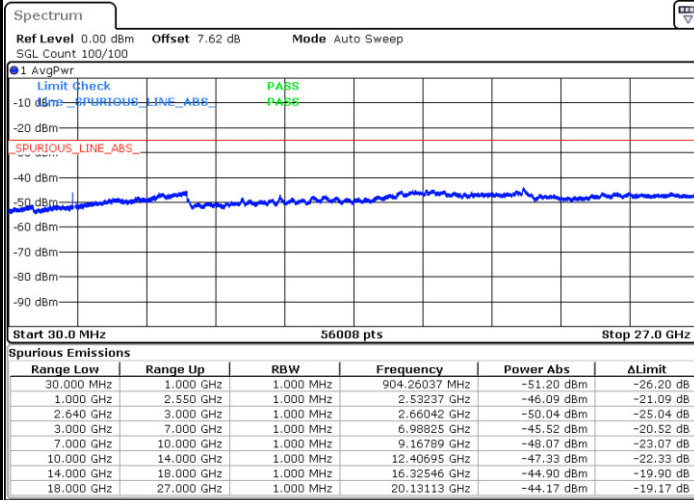


Date: 3 JAN 2018 09:21:40



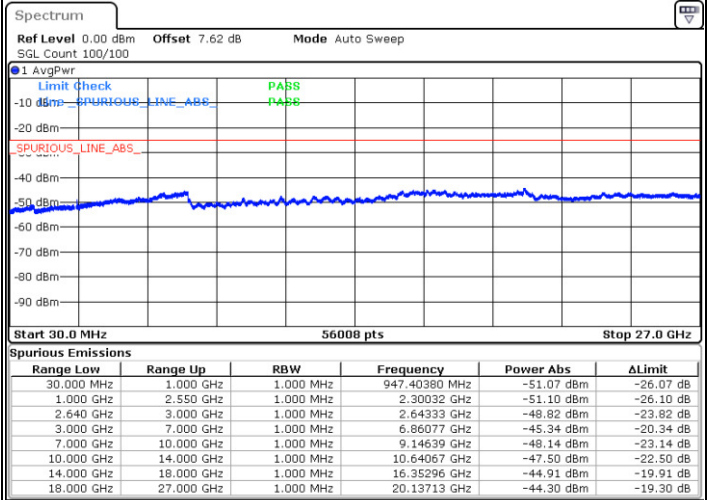
LTE Band 38 / 20MHz

Lowest Channel / 64QAM



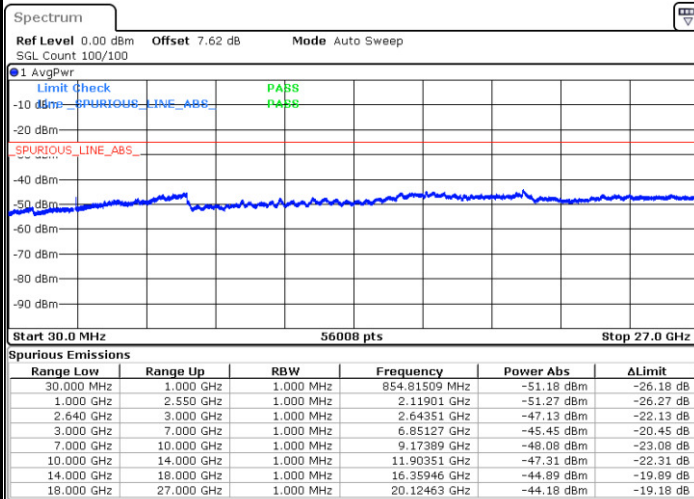
Date: 3.JAN.2018 09:27:37

Middle Channel / 64QAM



Date: 3.JAN.2018 09:29:11

Highest Channel / 64QAM



Date: 3.JAN.2018 09:31:02

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	0.0023	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0000	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0012	
20	Battery End Point	0.0002	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 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	0.0015	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0017	
-30	Normal Voltage	0.0011	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0009	
20	Battery End Point	0.0006	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 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 / 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	3741	-63.40	-13	-50.40	-70.78	-68.57	1.83	7.00	H
	5613	-60.70	-13	-47.70	-72.87	-68.32	2.18	9.80	H
	7485	-56.93	-13	-43.93	-74.16	-66.60	2.53	12.20	H
	3741	-60.97	-13	-47.97	-69.82	-66.14	1.83	7.00	V
	5613	-58.11	-13	-45.11	-72.28	-65.73	2.18	9.80	V
	7485	-53.03	-13	-40.03	-74.13	-62.70	2.53	12.20	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	-41.24	-13	-28.24	-44.61	-43.15	1.14	5.20	H
	2496	-57.25	-13	-44.25	-61.55	-59.88	1.12	5.90	H
	3327	-62.10	-13	-49.10	-66.22	-65.31	1.34	6.70	H
	1664	-47.08	-13	-34.08	-48.51	-48.99	1.14	5.20	V
	2496	-57.56	-13	-44.56	-60.63	-60.19	1.12	5.90	V
	3327	-61.27	-13	-48.27	-66.41	-64.48	1.34	6.70	V

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



Tips: Antenna #2 and Antenna #3 support LTE Band 7/38/, the two antenna could switch Main Antenna and Diversity Antenna for each other.

< Antenna #2>

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	-64.76	-25	-39.76	-48.29	-71.48	2.40	9.12	H
	7584	-48.40	-25	-23.40	-40.74	-58.02	2.87	12.50	H
	10116	-56.25	-25	-31.25	-50.49	-65.17	3.18	12.10	H
	12642	-59.78	-25	-34.78	-58.33	-68.82	3.79	12.83	H
	15165	-53.58	-25	-28.58	-51.78	-62.01	4.34	12.77	H
	5056	-69.63	-25	-44.63	-49.65	-76.34	2.40	9.12	V
	7584	-56.30	-25	-31.30	-46.3	-65.92	2.87	12.50	V
	10116	-57.71	-25	-32.71	-52.39	-66.63	3.18	12.10	V
	12642	-59.13	-25	-34.13	-56.26	-68.17	3.79	12.83	V
	15165	-50.81	-25	-25.81	-51.79	-59.24	4.34	12.77	V

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

< Antenna #3>

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	-67.91	-25	-42.91	-51.44	-74.63	2.40	9.12	H
	7584	-59.10	-25	-34.10	-51.44	-68.72	2.87	12.50	H
	10116	-62.62	-25	-37.62	-56.86	-71.54	3.18	12.10	H
	12645	-62.11	-25	-37.11	-60.66	-71.15	3.79	12.83	H
	15165	-58.41	-25	-33.41	-56.61	-66.84	4.34	12.77	H
	5056	-71.91	-25	-46.91	-51.93	-78.62	2.40	9.12	V
	7584	-50.71	-25	-25.71	-41.89	-60.33	2.87	12.50	V
	10116	-60.03	-25	-35.03	-54.71	-68.95	3.18	12.10	V
	12645	-63.13	-25	-38.13	-60.26	-72.17	3.79	12.83	V
	15165	-47.55	-25	-22.55	-48.53	-55.98	4.34	12.77	V

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



LTE Band 26 / 15MHz / 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	1660	-40.85	-13	-27.85	-44.24	-42.76	1.14	5.20	H
	2490	-57.40	-13	-44.40	-61.70	-60.03	1.12	5.90	H
	3318	-61.65	-13	-48.65	-65.77	-64.86	1.34	6.70	H
	1660	-47.86	-13	-34.86	-49.12	-49.77	1.14	5.20	V
	2490	-59.05	-13	-46.05	-62.12	-61.68	1.12	5.90	V
	3318	-61.35	-13	-48.35	-66.49	-64.56	1.34	6.70	V

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



< Antenna #2>

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	-60.96	-25	-35.96	-47.55	-67.79	2.46	9.29	H
	7764	-43.74	-25	-18.74	-40.33	-52.93	3.01	12.20	H
	10350	-51.23	-25	-26.23	-48.10	-59.96	3.52	12.25	H
	12942	-54.45	-25	-29.45	-57.90	-63.64	3.82	13.01	H
	15525	-41.56	-25	-16.56	-44.58	-50.63	4.30	13.37	H
	5176	-62.75	-25	-37.75	-47.52	-69.58	2.46	9.29	V
	7764	-60.29	-25	-35.29	-48.21	-69.48	3.01	12.20	V
	10350	-52.43	-25	-27.43	-48.78	-61.16	3.52	12.25	V
	12942	-56.00	-25	-31.00	-59.44	-65.19	3.82	13.01	V
	15525	-43.58	-25	-18.58	-45.9	-52.65	4.30	13.37	V

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

< Antenna #3>

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	-61.20	-25	-36.20	-47.79	-68.03	2.46	9.29	H
	7764	-54.04	-25	-29.04	-50.52	-63.23	3.01	12.20	H
	10350	-54.75	-25	-29.75	-51.62	-63.48	3.52	12.25	H
	12942	-57.64	-25	-32.64	-61.09	-66.83	3.82	13.01	H
	15525	-44.50	-25	-19.50	-47.25	-53.57	4.30	13.37	H
	5176	-66.71	-25	-41.71	-51.48	-73.54	2.46	9.29	V
	7764	-57.69	-25	-32.69	-45.61	-66.88	3.01	12.20	V
	10350	-58.80	-25	-33.80	-55.15	-67.53	3.52	12.25	V
	12942	-58.20	-25	-33.20	-61.64	-67.39	3.82	13.01	V
	15525	-41.67	-25	-16.67	-44.16	-50.74	4.30	13.37	V

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



Appendix D. Reference Report

Please refer to Sporton report number FG7D2507B which is issued separately.