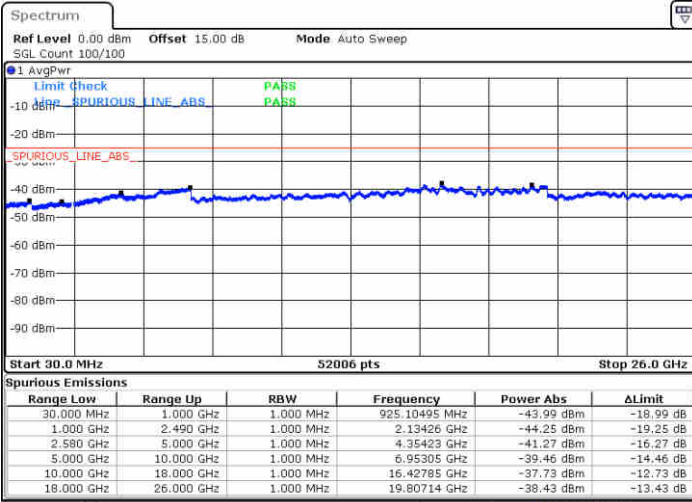




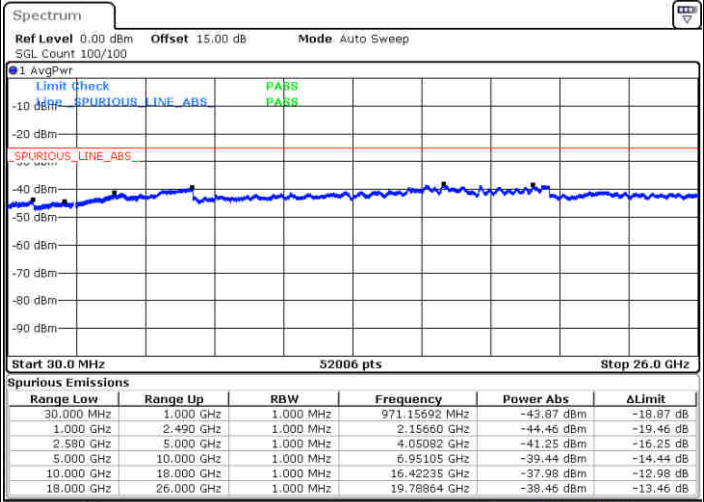
LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM



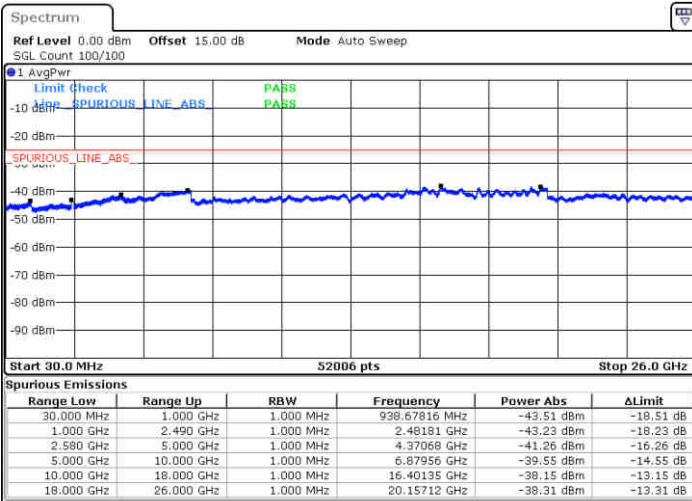
Date: 14.JUL.2018 12:04:04



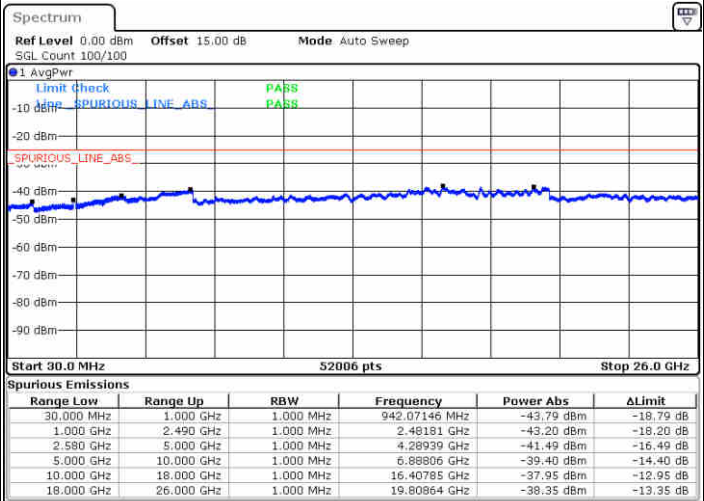
Date: 14.JUL.2018 12:04:56

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 14.JUL.2018 12:11:01



Date: 14.JUL.2018 12:11:54



Frequency Stability

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	0.0015	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0025	
0	Normal Voltage	0.0043	
-10	Normal Voltage	0.0045	
-20	Normal Voltage	0.0016	
-30	Normal Voltage	0.0125	
20	Maximum Voltage	0.0043	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0027	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 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	0.0069	PASS
40	Normal Voltage	0.0100	
30	Normal Voltage	0.0151	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0086	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0117	
-20	Normal Voltage	0.0044	
-30	Normal Voltage	0.0082	
20	Maximum Voltage	0.0069	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0025	

Note: Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 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	0.0014	PASS
40	Normal Voltage	0.0041	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0026	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0009	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0014	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 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 4 / 1.4MHz / QPSK									
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	3463.74	-59.43	-13	-46.43	-73.13	-67.40	4.63	12.60	H
	5195.61	-61.12	-13	-48.12	-79.05	-67.57	6.25	12.70	H
	6927.48	-59.25	-13	-46.25	-78.87	-64.02	8.23	13.00	H
	3463.74	-62.00	-13	-49.00	-73.41	-69.97	4.63	12.6	V
	5195.61	-65.64	-13	-52.64	-79.25	-72.09	6.25	12.7	V
	6927.48	-59.31	-13	-46.31	-78.43	-64.08	8.23	13	V

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

LTE Band 4 / 3MHz / QPSK									
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	3462.48	-61.42	-13	-48.42	-75.12	-69.39	4.63	12.60	H
	5193.72	-61.35	-13	-48.35	-79.28	-67.80	6.25	12.70	H
	6924.96	-59.92	-13	-46.92	-79.54	-64.69	8.23	13.00	H
	3462.48	-62.75	-13	-49.75	-74.16	-70.72	4.63	12.6	V
	5193.72	-65.71	-13	-52.71	-79.32	-72.16	6.25	12.7	V
	6924.96	-60.33	-13	-47.33	-79.45	-65.10	8.23	13	V

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



LTE Band 4 / 5MHz / QPSK									
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	3460.68	-60.12	-13	-47.12	-73.82	-68.09	4.63	12.60	H
	5191.02	-61.12	-13	-48.12	-79.05	-67.57	6.25	12.70	H
	6921.36	-59.39	-13	-46.39	-79.01	-64.16	8.23	13.00	H
	3460.68	-62.26	-13	-49.26	-73.67	-70.23	4.63	12.6	V
	5191.02	-65.70	-13	-52.70	-79.31	-72.15	6.25	12.7	V
	6921.36	-59.78	-13	-46.78	-78.9	-64.55	8.23	13	V

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

LTE Band 4 / 10MHz / QPSK									
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	3456.18	-61.90	-13	-48.90	-75.60	-69.87	4.63	12.60	H
	5184.27	-61.25	-13	-48.25	-79.18	-67.70	6.25	12.70	H
	6912.36	-59.61	-13	-46.61	-79.23	-64.38	8.23	13.00	H
	3456.18	-62.73	-13	-49.73	-74.14	-70.70	4.63	12.6	V
	5184.27	-65.54	-13	-52.54	-79.15	-71.99	6.25	12.7	V
	6912.36	-60.46	-13	-47.46	-79.58	-65.23	8.23	13	V

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



LTE Band 4 / 15MHz / QPSK									
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	3451.68	-61.67	-13	-48.67	-75.37	-69.64	4.63	12.60	H
	5177.52	-61.04	-13	-48.04	-78.97	-67.49	6.25	12.70	H
	6903.36	-59.46	-13	-46.46	-79.08	-64.23	8.23	13.00	H
	3451.68	-62.46	-13	-49.46	-73.87	-70.43	4.63	12.6	V
	5177.52	-65.41	-13	-52.41	-79.02	-71.86	6.25	12.7	V
	6903.36	-60.09	-13	-47.09	-79.21	-64.86	8.23	13	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3447.18	-62.20	-13	-49.20	-75.90	-70.17	4.63	12.60	H
	5170.77	-61.00	-13	-48.00	-78.93	-67.45	6.25	12.70	H
	6894.36	-59.02	-13	-46.02	-78.64	-63.79	8.23	13.00	H
	3447.18	-62.27	-13	-49.27	-73.68	-70.24	4.63	12.60	V
	5170.77	-65.00	-13	-52.00	-78.61	-71.45	6.25	12.70	V
	6894.36	-59.54	-13	-46.54	-78.66	-64.31	8.23	13.00	V

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



LTE Band 5 / 1.4MHz / QPSK									
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	1671.74	-72.03	-13	-59.03	-77.59	-76.42	2.86	9.40	H
	2507.61	-67.41	-13	-54.41	-77.83	-72.12	3.74	10.60	H
	3343.48	-53.52	-13	-40.52	-68.28	-59.52	4.45	12.60	H
	1671.74	-73.88	-13	-60.88	-78.59	-78.27	2.86	9.40	V
	2507.61	-69.47	-13	-56.47	-79.30	-74.18	3.74	10.60	V
	3343.48	-61.63	-13	-48.63	-75.20	-67.63	4.45	12.60	V

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

LTE Band 5 / 3MHz / QPSK									
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	1670.3	-71.59	-13	-58.59	-77.15	-75.98	2.86	9.40	H
	2505.45	-66.61	-13	-53.61	-77.03	-71.32	3.74	10.60	H
	3340.6	-54.83	-13	-41.83	-69.59	-60.83	4.45	12.60	H
	1670.3	-73.41	-13	-60.41	-78.12	-77.80	2.86	9.40	V
	2505.45	-69.52	-13	-56.52	-79.35	-74.23	3.74	10.60	V
	3340.6	-61.20	-13	-48.20	-74.77	-67.20	4.45	12.60	V

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



LTE Band 5 / 5MHz / QPSK									
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	1668.5	-70.86	-13	-57.86	-76.42	-75.25	2.86	9.40	H
	2502.75	-65.85	-13	-52.85	-76.27	-70.56	3.74	10.60	H
	3337	-53.16	-13	-40.16	-67.92	-59.16	4.45	12.60	H
	1668.5	-73.42	-13	-60.42	-78.13	-77.81	2.86	9.40	V
	2502.75	-69.37	-13	-56.37	-79.20	-74.08	3.74	10.60	V
	3337	-60.14	-13	-47.14	-73.71	-66.14	4.45	12.60	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1664	-68.23	-13	-55.23	-73.79	-72.62	2.86	9.40	H
	2496	-63.16	-13	-50.16	-73.58	-67.87	3.74	10.60	H
	3328	-53.21	-13	-40.21	-67.97	-59.21	4.45	12.60	H
	1664	-73.24	-13	-60.24	-77.95	-77.63	2.86	9.40	V
	2496	-69.22	-13	-56.22	-79.05	-73.93	3.74	10.60	V
	3328	-60.73	-13	-47.73	-74.30	-66.73	4.45	12.60	V

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



LTE Band 7 / 5MHz / QPSK									
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	5065.68	-51.73	-25	-26.73	-68.80	-58.58	6.25	13.10	H
	7598.52	-56.17	-25	-31.17	-77.04	-59.74	7.73	11.30	H
	10131.36	-54.34	-25	-29.34	-80.44	-58.00	8.44	12.10	H
	12662.5	-45.68	-25	-20.68	-74.70	-50.30	8.98	13.60	H
	5065.68	-51.84	-25	-26.84	-68.58	-58.69	6.25	13.10	V
	7598.52	-56.12	-25	-31.12	-76.66	-59.69	7.73	11.30	V
	10131.36	-56.17	-25	-31.17	-80.46	-59.83	8.44	12.10	V
	12662.5	-43.27	-25	-18.27	-72.43	-47.89	8.98	13.60	V

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

LTE Band 7 / 10MHz / QPSK									
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	5061.18	-51.72	-25	-26.72	-68.79	-58.57	6.25	13.10	H
	7591.77	-57.23	-25	-32.23	-78.10	-60.80	7.73	11.30	H
	10122.36	-54.43	-25	-29.43	-80.53	-58.09	8.44	12.10	H
	12652.95	-47.03	-25	-22.03	-76.05	-51.65	8.98	13.60	H
	5061.18	-51.51	-25	-26.51	-68.25	-58.3556	6.25	13.10	V
	7591.77	-55.50	-25	-30.50	-76.04	-59.0656	7.73	11.30	V
	10122.36	-56.08	-25	-31.08	-80.37	-59.7356	8.44	12.10	V
	12652.95	-44.12	-25	-19.12	-73.28	-48.74	8.98	13.60	V

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



LTE Band 7 / 15MHz / QPSK									
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	5056.68	-53.32	-25	-28.32	-70.39	-60.17	6.25	13.10	H
	7585.02	-57.72	-25	-32.72	-78.59	-61.29	7.73	11.30	H
	10113.36	-54.55	-25	-29.55	-80.65	-58.21	8.44	12.10	H
	12641.7	-47.37	-25	-22.37	-76.39	-51.99	8.98	13.60	H
	5056.68	-51.78	-25	-26.78	-68.52	-58.6256	6.25	13.10	V
	7585.02	-56.17	-25	-31.17	-76.71	-59.7356	7.73	11.30	V
	10113.36	-55.95	-25	-30.95	-80.24	-59.6056	8.44	12.10	V
	12641.7	-45.95	-25	-20.95	-75.11	-50.57	8.98	13.60	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)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5052.18	-51.84	-25	-26.84	-68.91	-58.69	6.25	13.10	H
	7578.27	-56.48	-25	-31.48	-77.35	-60.05	7.73	11.30	H
	10104.36	-54.73	-25	-29.73	-80.83	-58.39	8.44	12.10	H
	12630.45	-47.71	-25	-22.71	-76.73	-52.33	8.98	13.60	H
	5052.18	-52.54	-25	-27.54	-69.28	-59.3856	6.25	13.10	V
	7578.27	-54.73	-25	-29.73	-75.27	-58.2956	7.73	11.30	V
	10104.36	-56.36	-25	-31.36	-80.65	-60.0156	8.44	12.10	V
	12630.45	-46.14	-25	-21.14	-75.30	-50.76	8.98	13.60	V

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