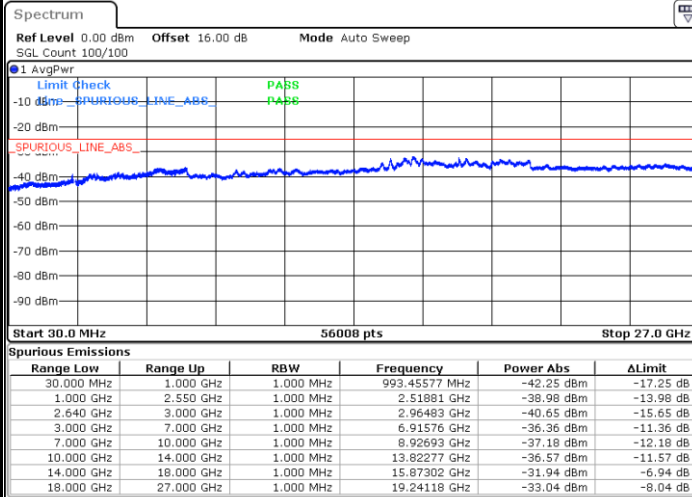




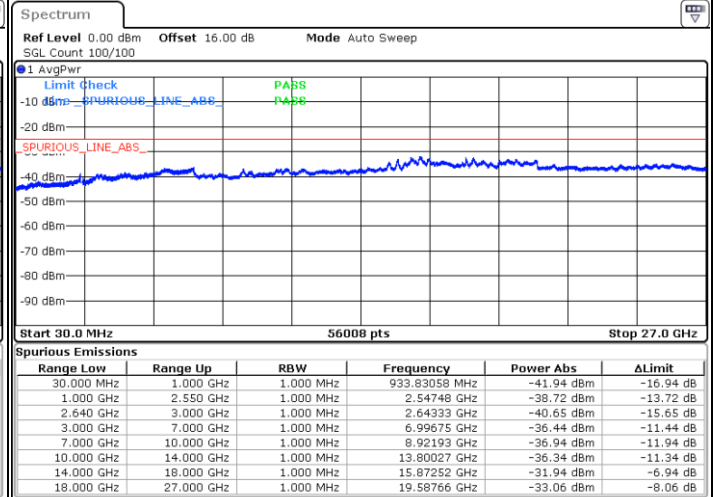
LTE Band 38 / 15MHz

Lowest Channel / QPSK



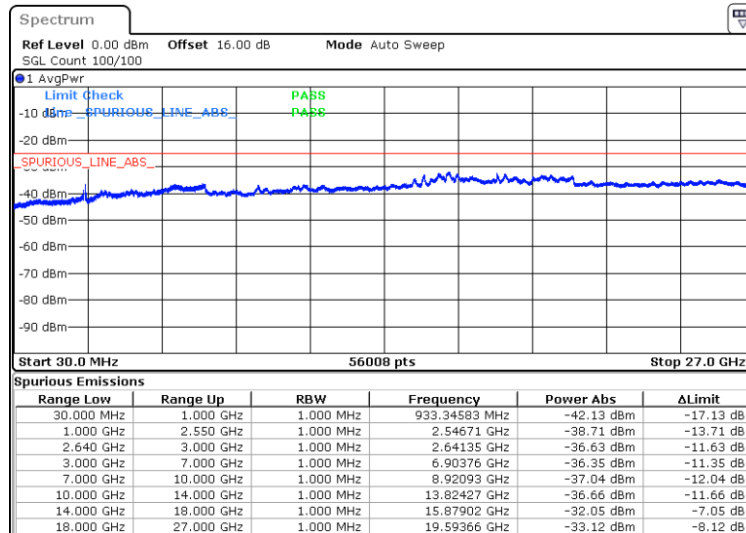
Date: 23.SEP.2021 15:06:58

Middle Channel / QPSK



Date: 23.SEP.2021 15:07:59

Highest Channel / QPSK

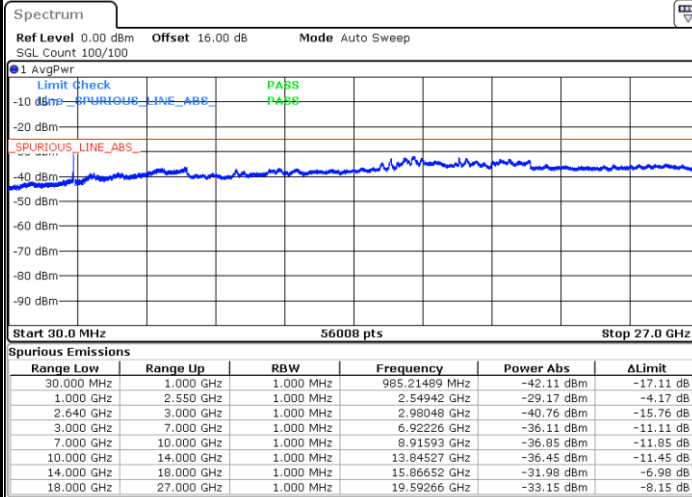


Date: 23.SEP.2021 15:09:00



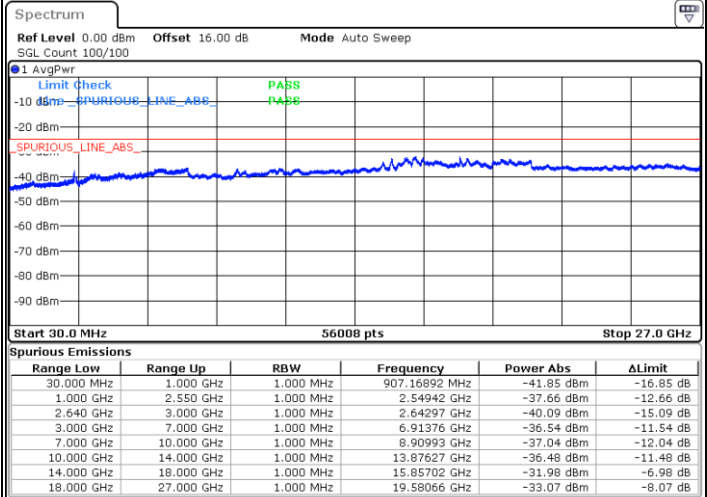
LTE Band 38 / 20MHz

Lowest Channel / QPSK



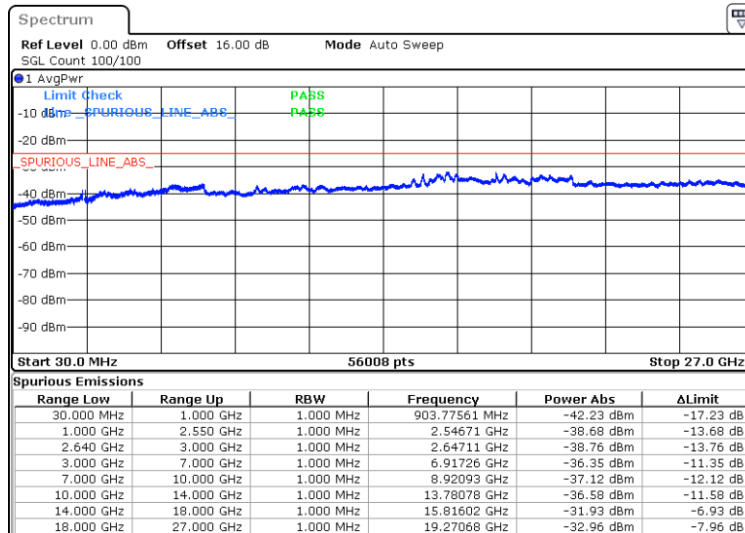
Date: 23.SEP.2021 15:10:01

Middle Channel / QPSK



Date: 23.SEP.2021 15:11:02

Highest Channel / QPSK



Date: 23.SEP.2021 15:12:03

Frequency Stability

Test Conditions		LTE Band 38 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0006	PASS
40	Normal Voltage	0.0057	
30	Normal Voltage	0.0064	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0049	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0059	
-20	Normal Voltage	0.0058	
-30	Normal Voltage	0.0047	
20	Maximum Voltage	0.0028	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0074	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

LTE Band 2

LTE Band 2 / 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)
Lowest	3700	-57.53	-13	-44.53	-78.4	-64.1	1.67	8.24	H
	5550	-55.58	-13	-42.58	-81.11	-62.65	2.65	9.72	H
	7404	-53.05	-13	-40.05	-80.17	-62.2	2.46	11.61	H
									H
									H
									H
									H
	3700	-57.66	-13	-44.66	-78.52	-64.23	1.67	8.24	V
	5550	-54.85	-13	-41.85	-80.35	-61.92	2.65	9.72	V
	7404	-52.56	-13	-39.56	-79.89	-61.71	2.46	11.61	V
									V
									V
									V
									V
Middle	3740	-57.17	-13	-44.17	-78.03	-63.78	1.68	8.29	H
	5610	-55.26	-13	-42.26	-80.88	-62.32	2.69	9.74	H
	7482	-52.58	-13	-39.58	-79.74	-61.91	2.44	11.76	H
									H
									H
									H
									H
	3740	-57.35	-13	-44.35	-78.22	-63.96	1.68	8.29	V
	5610	-53.26	-13	-40.26	-78.91	-60.32	2.69	9.74	V
	7482	-52.54	-13	-39.54	-79.93	-61.87	2.44	11.76	V
									V
									V
									V
									V



LTE Band 2 / 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)
Highest	3780	-57.57	-13	-44.57	-78.4	-64.21	1.69	8.34	H
	5670	-54.68	-13	-41.68	-80.53	-61.73	2.72	9.77	H
	7560	-53.69	-13	-40.69	-81.04	-63.12	2.41	11.84	H
									H
									H
									H
									H
	3780	-57.51	-13	-44.51	-78.38	-64.15	1.69	8.34	V
	5670	-55.14	-13	-42.14	-80.98	-62.19	2.72	9.77	V
	7560	-53.16	-13	-40.16	-80.77	-62.59	2.41	11.84	V
									V
									V
									V
									V

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

**LTE Band 5**

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)
Lowest	1648	-63.85	-13	-50.85	-75.79	-65.61	0.98	4.89	H
	2472	-58.74	-13	-45.74	-75.95	-60.62	1.28	5.32	H
	3296	-58.48	-13	-45.48	-77.82	-61.89	1.54	7.10	H
									H
									H
									H
									H
	1648	-63.26	-13	-50.26	-75.61	-65.02	0.98	4.89	V
	2472	-59.24	-13	-46.24	-76.92	-61.12	1.28	5.32	V
	3296	-57.62	-13	-44.62	-77.29	-61.03	1.54	7.10	V
									V
									V
									V
									V
Middle	1664	-63.52	-13	-50.52	-75.54	-65.23	0.98	4.84	H
	2496	-52.84	-13	-39.84	-70.03	-54.79	1.29	5.39	H
	3328	-58.03	-13	-45.03	-77.58	-61.57	1.55	7.24	H
									H
									H
									H
									H
	1664	-63.11	-13	-50.11	-75.66	-64.82	0.98	4.84	V
	2496	-55.63	-13	-42.63	-73.27	-57.58	1.29	5.39	V
	3328	-57.89	-13	-44.89	-77.6	-61.43	1.55	7.24	V
									V
									V
									V
									V
									V



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)
Highest	1680	-63.96	-13	-50.96	-76.17	-65.61	0.99	4.80	H
	2520	-56.79	-13	-43.79	-73.92	-58.76	1.30	5.42	H
	3352	-58.41	-13	-45.41	-78.05	-62.05	1.56	7.35	H
									H
									H
									H
									H
	1680	-63.19	-13	-50.19	-75.83	-64.84	0.99	4.80	V
	2520	-55.38	-13	-42.38	-73.05	-57.35	1.30	5.42	V
	3352	-58.38	-13	-45.38	-78.15	-62.02	1.56	7.35	V
									V
									V
									V
									V
									V
									V

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

**LTE Band 7**

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)
Lowest	4998	-56.28	-25	-31.28	-80.02	-63.64	2.34	9.70	H
	7506	-51.24	-25	-26.24	-78.35	-60.62	2.43	11.80	H
	10008	-50.91	-25	-25.91	-82.34	-60.42	2.70	12.20	H
									H
									H
									H
									H
	4998	-56.73	-25	-31.73	-80.31	-64.09	2.34	9.70	V
	7506	-52.31	-25	-27.31	-79.74	-61.69	2.43	11.80	V
	10008	-51.22	-25	-26.22	-82.56	-60.73	2.70	12.20	V
									V
									V
									V
									V
Middle	5052	-56.49	-25	-31.49	-80.41	-63.82	2.37	9.70	H
	7572	-53.61	-25	-28.61	-81.01	-63.05	2.41	11.84	H
	10098	-51.04	-25	-26.04	-82.77	-60.58	2.70	12.24	H
									H
									H
									H
									H
	5052	-56.69	-25	-31.69	-80.4	-64.02	2.37	9.70	V
	7572	-53.57	-25	-28.57	-81.2	-63.01	2.41	11.84	V
	10098	-51.05	-25	-26.05	-82.74	-60.59	2.70	12.24	V
									V
									V
									V
									V



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)
Highest	5100	-56.32	-25	-31.32	-80.33	-63.63	2.39	9.70	H
	7656	-50.91	-25	-25.91	-78.47	-60.42	2.38	11.89	H
	10206	-50.66	-25	-25.66	-82.63	-60.25	2.70	12.28	H
									H
									H
									H
									H
	5100	-56.31	-25	-31.31	-80.24	-63.62	2.39	9.70	V
	7656	-53.32	-25	-28.32	-81.05	-62.83	2.38	11.89	V
	10206	-51.22	-25	-26.22	-83.1	-60.81	2.70	12.28	V
									V
									V
									V
									V

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

**LTE Band 12**

LTE Band 12 / 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)
Lowest	1400	-64.68	-13	-51.68	-74.82	-66.34	0.87	4.68	H
	2096	-61.15	-13	-48.15	-76.50	-62.02	1.16	4.19	H
	2792	-59.69	-13	-46.69	-77.32	-61.79	1.38	5.63	H
									H
									H
									H
									H
	1400	-64.16	-13	-51.16	-74.83	-65.82	0.87	4.68	V
	2096	-58.91	-13	-45.91	-74.71	-59.78	1.16	4.19	V
	2792	-58.92	-13	-45.92	-77.18	-61.02	1.38	5.63	V
									V
									V
									V
									V
Middle	1408	-64.55	-13	-51.55	-74.74	-66.26	0.87	4.73	H
	2104	-61.27	-13	-48.27	-76.75	-62.17	1.17	4.21	H
	2808	-59.57	-13	-46.57	-77.14	-61.68	1.39	5.65	H
									H
									H
									H
									H
	1408	-64.11	-13	-51.11	-74.76	-65.82	0.87	4.73	V
	2104	-60.77	-13	-47.77	-76.57	-61.67	1.17	4.21	V
	2808	-58.78	-13	-45.78	-76.95	-60.89	1.39	5.65	V
									V
									V
									V
									V
									V



LTE Band 12 / 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)
Highest	1416	-64.48	-13.00	-51.48	-74.65	-66.23	0.87	4.78	H
	2120	-60.51	-13.00	-47.51	-75.99	-61.45	1.17	4.26	H
	2824	-59.91	-13.00	-46.91	-77.39	-62.03	1.39	5.66	H
									H
									H
									H
									H
	1416	-63.87	-13.00	-50.87	-74.62	-65.62	0.87	4.78	V
	2120	-58.89	-13.00	-45.89	-74.73	-59.83	1.17	4.26	V
	2824	-58.73	-13.00	-45.73	-77.16	-60.85	1.39	5.66	V
									V
									V
									V
									V

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

**LTE Band 17**

LTE Band 17 / 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)
Lowest	1408	-64.32	-13	-51.32	-74.54	-66.03	0.87	4.73	H
	2112	-59.91	-13	-46.91	-75.36	-60.83	1.17	4.24	H
	2816	-59.74	-13	-46.74	-77.31	-61.85	1.39	5.65	H
									H
									H
									H
									H
	1408	-64.94	-13	-51.94	-74.48	-66.65	0.87	4.73	V
	2112	-58.75	-13	-45.75	-74.48	-59.67	1.17	4.24	V
	2816	-59.12	-13	-46.12	-77.44	-61.23	1.39	5.65	V
									V
									V
									V
									V
Middle	1408	-63.52	-13	-50.52	-73.72	-65.23	0.87	4.73	H
	2120	-59.47	-13	-46.47	-74.96	-60.41	1.17	4.26	H
	2824	-59.77	-13	-46.77	-77.29	-61.89	1.39	5.66	H
									H
									H
									H
									H
	1408	-64.17	-13	-51.17	-74.83	-65.88	0.87	4.73	V
	2120	-58.07	-13	-45.07	-73.90	-59.01	1.17	4.26	V
	2824	-58.91	-13	-45.91	-77.26	-61.03	1.39	5.66	V
									V
									V
									V
									V
									V



LTE Band 17 / 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)
Highest	1416	-64.61	-13	-51.61	-74.79	-66.36	0.87	4.78	H
	2120	-58.11	-13	-45.11	-73.66	-59.05	1.17	4.26	H
	2824	-59.72	-13	-46.72	-77.23	-61.84	1.39	5.66	H
									H
									H
									H
									H
	1416	-64.28	-13	-51.28	-74.95	-66.03	0.87	4.78	V
	2120	-56.11	-13	-43.11	-71.96	-57.05	1.17	4.26	V
	2824	-59.11	-13	-46.11	-77.42	-61.23	1.39	5.66	V
									V
									V
									V
									V

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

**LTE Band 38**

LTE Band 38 / 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)
Lowest	5142	-55.58	-25	-30.58	-79.95	-62.86	2.42	9.70	H
	7710	-53.38	-25	-28.38	-81.1	-62.94	2.36	11.93	H
	10278	-50.27	-25	-25.27	-82.45	-59.89	2.69	12.31	H
									H
									H
									H
									H
	5142	-56.44	-25	-31.44	-80.56	-63.72	2.42	9.70	V
	7710	-53.25	-25	-28.25	-81.2	-62.81	2.36	11.93	V
	10278	-50.41	-25	-25.41	-82.47	-60.03	2.69	12.31	V
									V
									V
									V
									V
Middle	5172	-55.97	-25	-30.97	-80.33	-63.23	2.44	9.70	H
	7752	-53.85	-25	-28.85	-81.59	-63.45	2.35	11.95	H
	10332	-50.04	-25	-25.04	-82.44	-59.68	2.69	12.33	H
									H
									H
									H
									H
	5172	-56.27	-25	-31.27	-80.43	-63.53	2.44	9.70	V
	7752	-53.41	-25	-28.41	-81.45	-63.01	2.35	11.95	V
	10332	-50.38	-25	-25.38	-82.55	-60.02	2.69	12.33	V
									V
									V
									V
									V
									V



LTE Band 38 / 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)
Highest	5202	-56.14	-25	-31.14	-80.64	-63.39	2.45	9.70	H
	7800	-53.87	-25	-28.87	-81.68	-63.52	2.33	11.98	H
	10404	-49.15	-25	-24.15	-81.63	-58.82	2.69	12.36	H
									H
									H
									H
									H
	5202	-55.94	-25	-30.94	-80.29	-63.19	2.45	9.70	V
	7800	-53.16	-25	-28.16	-81.39	-62.81	2.33	11.98	V
	10404	-50.15	-25	-25.15	-82.46	-59.82	2.69	12.36	V
									V
									V
									V
									V

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