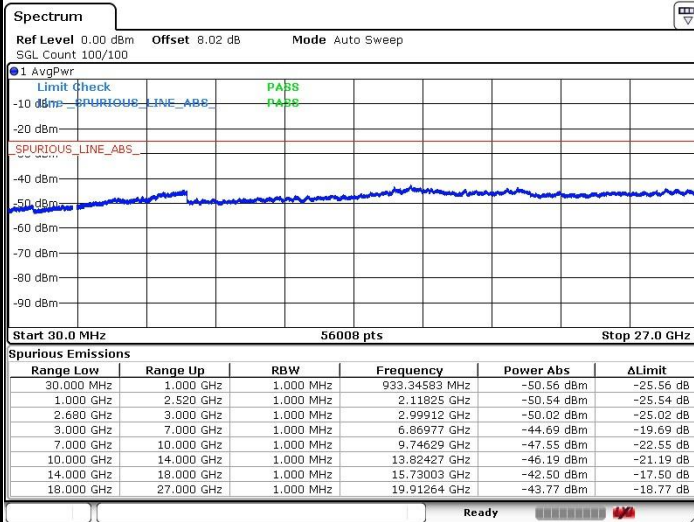




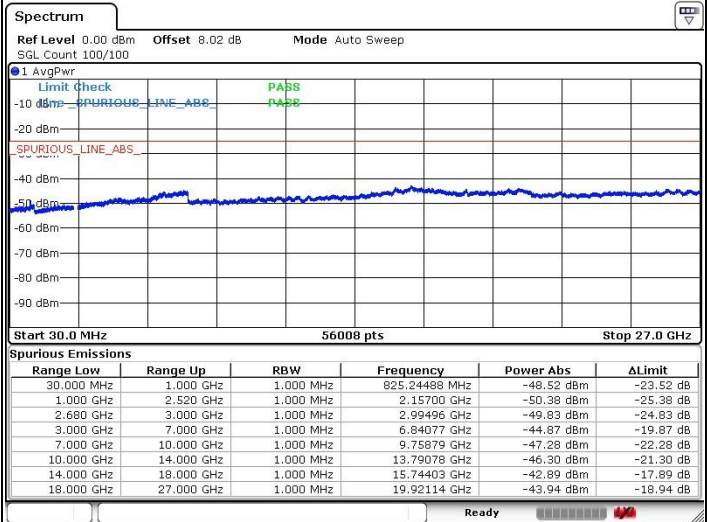
LTE Band 41 / 5MHz

Lowest Channel / 64QAM



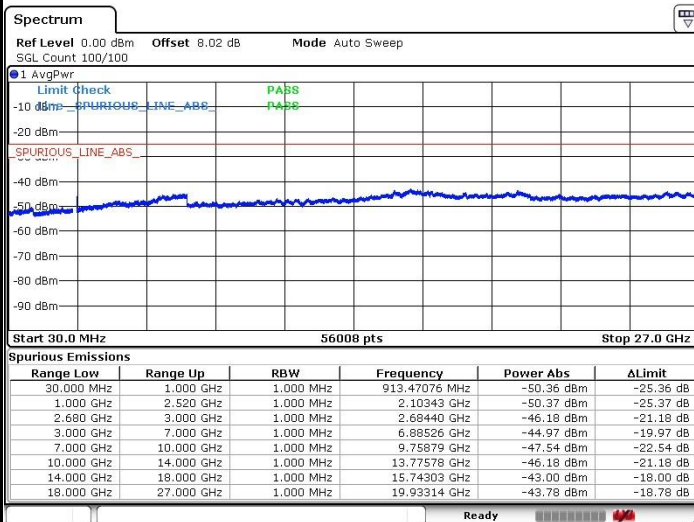
Date: 24.OCT.2018 14:01:48

Middle Channel / 64QAM



Date: 24.OCT.2018 14:02:41

Highest Channel / 64QAM

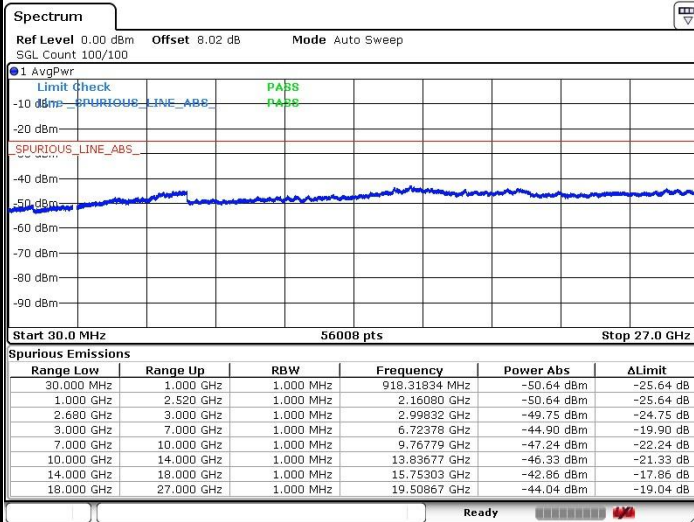


Date: 24.OCT.2018 14:07:08



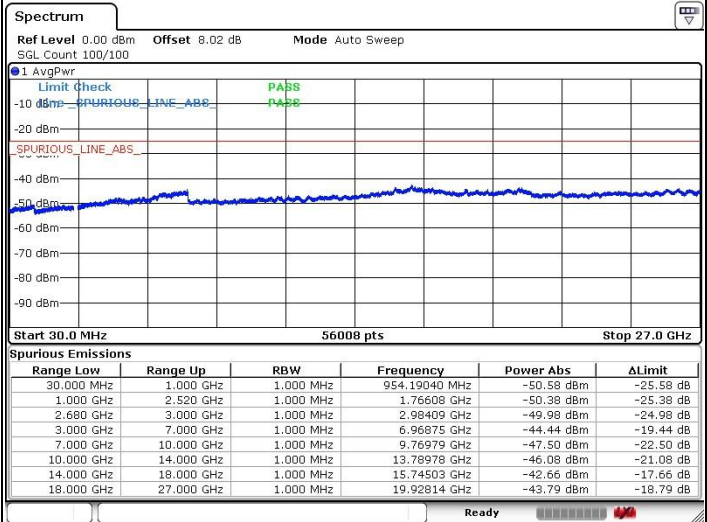
LTE Band 41 / 10MHz

Lowest Channel / 64QAM



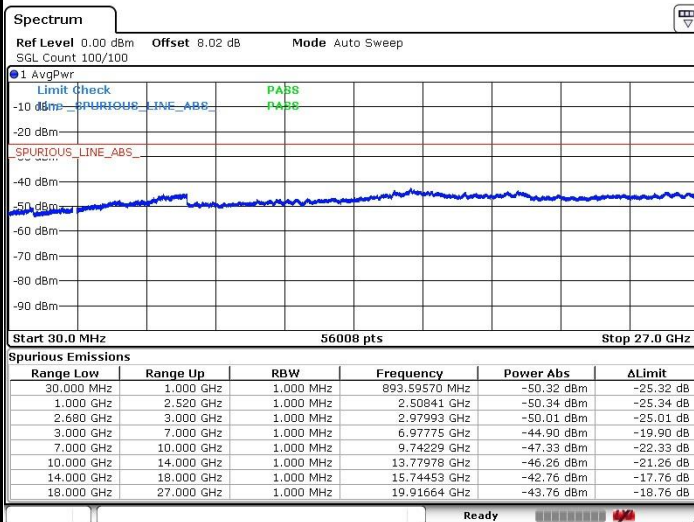
Date: 24.OCT.2018 14:10:08

Middle Channel / 64QAM



Date: 24.OCT.2018 14:11:04

Highest Channel / 64QAM



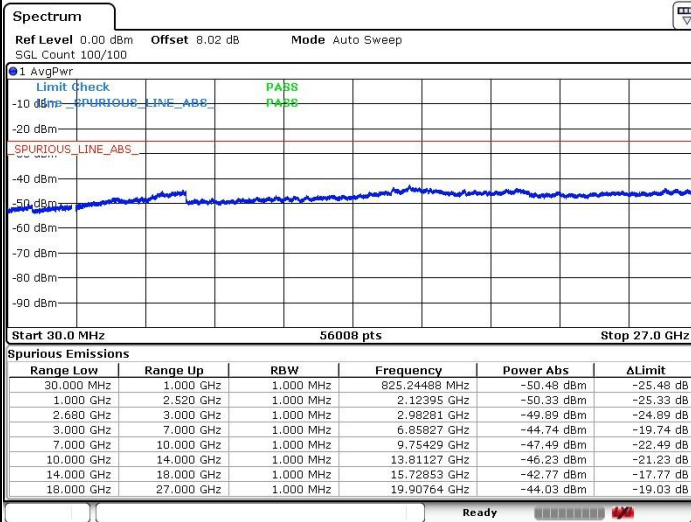
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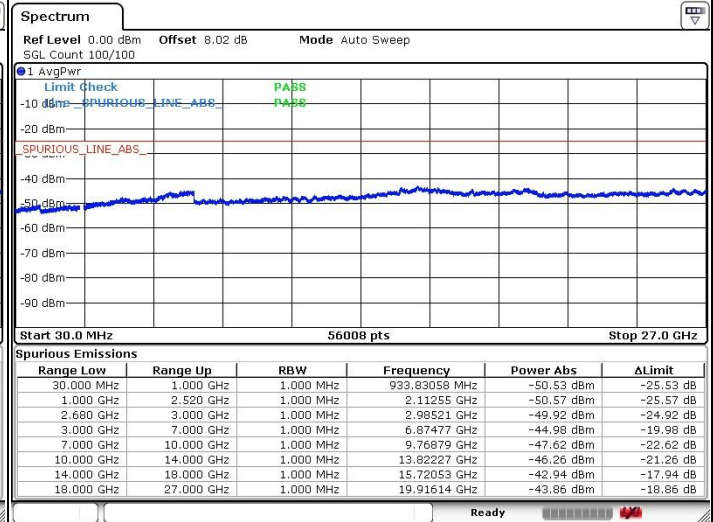
LTE Band 41 / 15MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

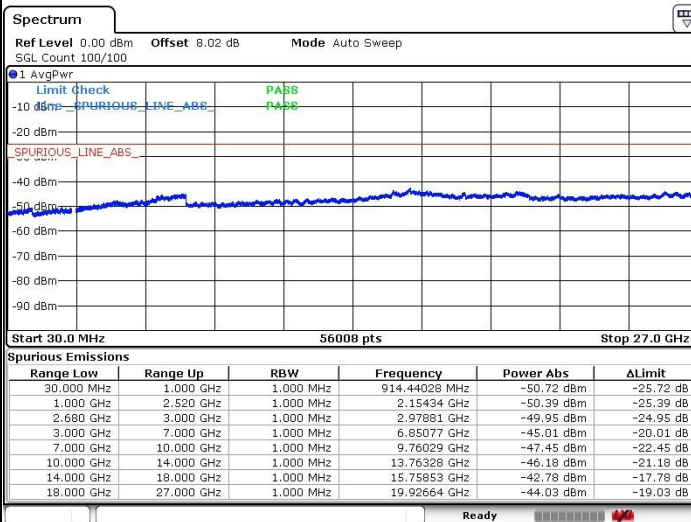


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Date: 24.OCT.2018 14:33:20

Highest Channel / 64QAM

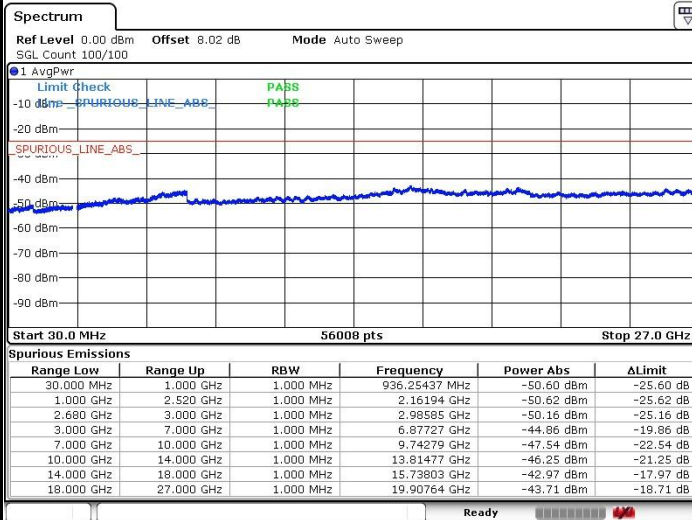


Date: 24.OCT.2018 14:38:43



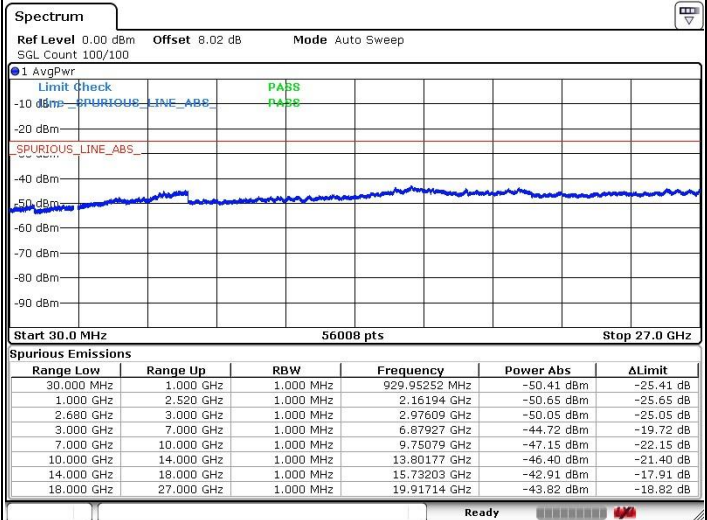
LTE Band 41 / 20MHz

Lowest Channel / 64QAM



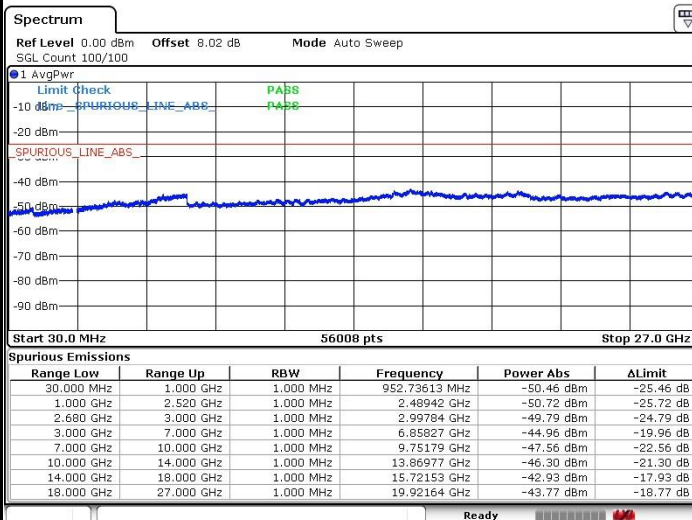
Date: 24.OCT.2018 14:41:58

Middle Channel / 64QAM



Date: 24.OCT.2018 14:42:54

Highest Channel / 64QAM



Date: 24.OCT.2018 14:47:38

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	0.0020	
30	Normal Voltage	0.0032	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0023	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 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	0.0001	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0033	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0028	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0035	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 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	0.0037	PASS
40	Normal Voltage	0.0044	
30	Normal Voltage	0.0024	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0036	
0	Normal Voltage	0.0062	
-10	Normal Voltage	0.0071	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0038	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0005	

Note: Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 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	0.0062	PASS
40	Normal Voltage	0.0056	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0050	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0065	
-20	Normal Voltage	0.0012	
-30	Normal Voltage	0.0006	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0010	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0099	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0082	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0034	
0	Normal Voltage	0.0090	
-10	Normal Voltage	0.0113	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0103	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0117	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 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	0.0018	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0003	
-20	Normal Voltage	0.0022	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0021	

Note:

1. Normal Voltage =3.85V. ; Battery End Point (BEP) =3.6 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 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)
Lowest	3702	-43.48	-13	-30.48	-46.98	3.60	7.10	H
	5553.27	-57.19	-13	-44.19	-63.17	4.42	10.40	H
	7404	-55.50	-13	-42.50	-62.31	5.13	11.94	H
	3702	-43.33	-13	-30.33	-46.83	3.60	7.10	V
	5553	-57.70	-13	-44.70	-63.68	4.42	10.40	V
	7404	-55.45	-13	-42.45	-62.26	5.13	11.94	V
Middle	3741	-45.49	-13	-32.49	-48.99	3.60	7.10	H
	5613	-55.33	-13	-42.33	-61.31	4.42	10.40	H
	7485	-55.51	-13	-42.51	-62.32	5.13	11.94	H
	3741	-45.57	-13	-32.57	-49.07	3.60	7.10	V
	5613	-57.66	-13	-44.66	-63.64	4.42	10.40	V
	7485	-55.65	-13	-42.65	-62.46	5.13	11.94	V
Highest	3783	-47.63	-13	-34.63	-51.13	3.60	7.10	H
	5673	-58.17	-13	-45.17	-64.15	4.42	10.40	H
	7563	-54.82	-13	-41.82	-61.63	5.13	11.94	H
	3783	-46.83	-13	-33.83	-50.33	3.60	7.10	V
	5673	-58.24	-13	-45.24	-64.22	4.42	10.40	V
	7563	-55.64	-13	-42.64	-62.45	5.13	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)
Lowest	3423	-54.67	-13	-41.67	-58.89	3.37	7.59	H
	5133	-55.78	-13	-42.78	-60.97	4.20	9.39	H
	6843	-55.62	-13	-42.62	-62.37	4.92	11.67	H
	3423	-54.67	-13	-41.67	-58.89	3.37	7.59	V
	5133	-55.91	-13	-42.91	-61.10	4.20	9.39	V
	6843	-56.21	-13	-43.21	-62.96	4.92	11.67	V
Middle	3447	-57.61	-13	-44.61	-61.83	3.37	7.59	H
	5172	-56.82	-13	-43.82	-62.01	4.20	9.39	H
	6894	-55.98	-13	-42.98	-62.73	4.92	11.67	H
	3447	-55.12	-13	-42.12	-59.34	3.37	7.59	V
	5172	-56.65	-13	-43.65	-61.84	4.20	9.39	V
	6894	-56.44	-13	-43.44	-63.19	4.92	11.67	V
Highest	3471	-58.50	-13	-45.50	-62.72	3.37	7.59	H
	5208	-56.93	-13	-43.93	-62.12	4.20	9.39	H
	6945	-55.95	-13	-42.95	-62.70	4.92	11.67	H
	3471	-56.72	-13	-43.72	-60.94	3.37	7.59	V
	5208	-55.80	-13	-42.80	-60.99	4.20	9.39	V
	6945	-56.34	-13	-43.34	-63.09	4.92	11.67	V

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



LTE Band 5 / 20MHz / 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)
Lowest	1650	-27.44	-13	-14.44	-28.81	2.28	5.80	H
	2474	-43.02	-13	-30.02	-44.93	2.84	6.90	H
	3297	-47.40	-13	-34.40	-49.46	3.29	7.50	H
	4122	-50.99	-13	-37.99	-52.34	3.80	7.30	H
	4947	-53.52	-13	-40.52	-56.53	3.84	9.00	H
	5772	-50.73	-13	-37.73	-53.49	4.43	9.34	H
	6597	-48.07	-13	-35.07	-51.10	4.84	10.02	H
	1650	-24.98	-13	-11.98	-26.35	2.28	5.80	V
	2474	-39.78	-13	-26.78	-41.69	2.84	6.90	V
	3297	-45.56	-13	-32.56	-47.62	3.29	7.50	V
	4122	-48.31	-13	-35.31	-49.66	3.80	7.30	V
	4947	-52.41	-13	-39.41	-55.42	3.84	9.00	V
	5772	-52.59	-13	-39.59	-55.35	4.43	9.34	V
	6597	-52.57	-13	-39.57	-55.60	4.84	10.02	V
Middle	1664	-35.88	-13	-22.88	-37.25	2.28	5.80	H
	2496	-49.98	-13	-36.98	-51.89	2.84	6.90	H
	3327	-53.24	-13	-40.24	-55.30	3.29	7.50	H
	4161	-57.49	-13	-44.49	-58.84	3.80	7.30	H
	1664	-36.30	-13	-23.30	-37.67	2.28	5.80	V
	2496	-45.42	-13	-32.42	-47.33	2.84	6.90	V
	3327	-50.07	-13	-37.07	-52.13	3.29	7.50	V
	4161	-55.92	-13	-42.92	-57.27	3.80	7.30	V
Highest	1680	-40.10	-13	-27.10	-41.47	2.28	5.80	H
	2518	-51.40	-13	-38.40	-53.31	2.84	6.90	H
	3357	-54.29	-13	-41.29	-56.35	3.29	7.50	H
	4197	-59.25	-13	-46.25	-60.60	3.80	7.30	H
	1680	-39.38	-13	-26.38	-40.75	2.28	5.80	V
	2518	-49.42	-13	-36.42	-51.33	2.84	6.90	V
	3357	-52.36	-13	-39.36	-54.42	3.29	7.50	V
	4197	-56.74	-13	-43.74	-58.09	3.80	7.30	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)
Lowest	5000	-60.63	-25	-35.63	-65.60	3.85	8.82	H
	7505	-53.55	-25	-28.55	-60.39	5.09	11.93	H
	10008	-36.38	-25	-11.38	-42.30	6.08	12.01	H
	12505.45	-54.19	-25	-29.19	-59.78	6.99	12.58	H
	15006.54	-44.58	-25	-19.58	-49.39	7.88	12.69	H
	17507.63	-36.10	-25	-11.10	-41.26	8.97	14.13	H
	5000	-59.88	-25	-34.88	-64.85	3.85	8.82	V
	7503.27	-54.30	-25	-29.30	-61.14	5.09	11.93	V
	10008	-41.06	-25	-16.06	-46.98	6.08	12.01	V
	12505.45	-55.62	-25	-30.62	-61.21	6.99	12.58	V
	15006.54	-41.94	-25	-16.94	-46.75	7.88	12.69	V
	17507.63	-39.05	-25	-14.05	-44.21	8.97	14.13	V
Middle	5052	-60.28	-25	-35.28	-65.25	3.85	8.82	H
	7580	-54.20	-25	-29.20	-61.04	5.09	11.93	H
	10107	-38.33	-25	-13.33	-44.25	6.08	12.01	H
	12630.45	-55.15	-25	-30.15	-60.74	6.99	12.58	H
	15156.54	-45.09	-25	-20.09	-49.90	7.88	12.69	H
	17682.63	-36.76	-25	-11.76	-41.92	8.97	14.13	H
	5052	-60.79	-25	-35.79	-65.76	3.85	8.82	V
	7580	-55.53	-25	-30.53	-62.37	5.09	11.93	V
	10107	-42.19	-25	-17.19	-48.11	6.08	12.01	V
	12627	-57.51	-25	-32.51	-63.10	6.99	12.58	V
	15156	-43.04	-25	-18.04	-47.85	7.88	12.69	V
	17685	-41.18	-25	-16.18	-46.34	8.97	14.13	V
Highest	5104	-61.08	-25	-36.08	-66.05	3.85	8.82	H
	7653.27	-53.68	-25	-28.68	-60.52	5.09	11.93	H
	10206	-35.90	-25	-10.90	-41.82	6.08	12.01	H
	12755.45	-55.06	-25	-30.06	-60.65	6.99	12.58	H
	15306.54	-41.80	-25	-16.80	-46.61	7.88	12.69	H
	17857.63	-34.08	-25	-9.08	-39.24	8.97	14.13	H
	5104	-61.24	-25	-36.24	-66.21	3.85	8.82	V
	7653.27	-56.20	-25	-31.20	-63.04	5.09	11.93	V
	10206	-36.20	-25	-11.20	-42.12	6.08	12.01	V
	12753	-54.36	-25	-29.36	-59.95	6.99	12.58	V
	15309	-39.29	-25	-14.29	-44.10	7.88	12.69	V
	17856	-35.44	-25	-10.44	-40.60	8.97	14.13	V

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



LTE Band 12 / 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)
Lowest	1400	-25.47	-13	-12.47	-25.82	2.08	4.58	H
	2098	-40.86	-13	-27.86	-42.25	2.57	6.10	H
	2798	-49.28	-13	-36.28	-51.18	2.98	7.03	H
	3498	-48.18	-13	-35.18	-50.14	3.37	7.48	H
	4197	-52.02	-13	-39.02	-53.33	3.80	7.26	H
	4896	-52.52	-13	-39.52	-54.65	4.23	8.51	H
	5598	-52.39	-13	-39.39	-54.77	4.65	9.19	H
	6297	-53.51	-13	-40.51	-56.14	5.08	9.86	H
	1398	-28.26	-13	-15.26	-28.61	2.08	4.58	V
	2098	-38.20	-13	-25.20	-39.59	2.57	6.10	V
	2798	-45.24	-13	-32.24	-47.14	2.98	7.03	V
	3498	-47.14	-13	-34.14	-49.10	3.37	7.48	V
	4197	-47.15	-13	-34.15	-48.46	3.80	7.26	V
	4896	-51.76	-13	-38.76	-53.89	4.23	8.51	V
Middle	1406	-25.61	-13	-12.61	-25.96	2.08	4.58	H
	2110	-43.09	-13	-30.09	-44.48	2.57	6.10	H
	2812	-48.15	-13	-35.15	-50.05	2.98	7.03	H
	3516	-47.94	-13	-34.94	-49.90	3.37	7.48	H
	4218	-49.00	-13	-36.00	-50.31	3.80	7.26	H
	4920	-51.66	-13	-38.66	-53.79	4.23	8.51	H
	5625	-50.86	-13	-37.86	-53.24	4.65	9.19	H
	6327	-52.81	-13	-39.81	-55.44	5.08	9.86	H
	1406	-25.98	-13	-12.98	-26.33	2.08	4.58	V
	2110	-38.58	-13	-25.58	-39.97	2.57	6.10	V
	2812	-44.49	-13	-31.49	-46.39	2.98	7.03	V
	3516	-46.28	-13	-33.28	-48.24	3.37	7.48	V
	4218	-46.44	-13	-33.44	-47.75	3.80	7.26	V
	4920	-51.15	-13	-38.15	-53.28	4.23	8.51	V
	5625	-50.99	-13	-37.99	-53.37	4.65	9.19	V
	6327	-52.88	-13	-39.88	-55.51	5.08	9.86	V
Highest	1412	-25.86	-13	-12.86	-26.21	2.08	4.58	H
	2120	-42.05	-13	-29.05	-43.44	2.57	6.10	H
	2826	-47.86	-13	-34.86	-49.76	2.98	7.03	H
	3534	-48.87	-13	-35.87	-50.83	3.37	7.48	H
	4239	-49.74	-13	-36.74	-51.05	3.80	7.26	H
	4947	-49.60	-13	-36.60	-51.73	4.23	8.51	H
	5652	-52.35	-13	-39.35	-54.73	4.65	9.19	H
	6360	-52.02	-13	-39.02	-54.65	5.08	9.86	H
	1412	-26.47	-13	-13.47	-26.82	2.08	4.58	V
	2120	-37.91	-13	-24.91	-39.30	2.57	6.10	V
	2826	-42.95	-13	-29.95	-44.85	2.98	7.03	V
	3534	-46.80	-13	-33.80	-48.76	3.37	7.48	V
	4239	-45.54	-13	-32.54	-46.85	3.80	7.26	V
	4947	-49.87	-13	-36.87	-52.00	4.23	8.51	V
	5652	-49.69	-13	-36.69	-52.07	4.65	9.19	V
	6360	-53.07	-13	-40.07	-55.70	5.08	9.86	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)
Lowest	5092	-58.63	-25	-33.63	-63.75	3.99	9.11	H
	7640	-52.75	-25	-27.75	-59.93	5.15	12.33	H
	10184	-34.26	-25	-9.26	-40.12	6.17	12.02	H
	12732	-52.28	-25	-27.28	-57.99	7.14	12.85	H
	15276	-41.99	-25	-16.99	-48.07	8.23	14.30	H
	17820	-33.75	-25	-8.75	-39.87	9.27	15.40	H
	5092	-58.46	-25	-33.46	-63.58	3.99	9.11	V
	7636	-51.50	-25	-26.50	-58.68	5.15	12.33	V
	10184	-37.64	-25	-12.64	-43.50	6.17	12.02	V
	12732	-55.68	-25	-30.68	-61.39	7.14	12.85	V
	15276	-45.53	-25	-20.53	-51.61	8.23	14.30	V
	17820	-41.24	-25	-16.24	-47.36	9.27	15.40	V
Middle	5172	-61.60	-25	-36.60	-66.72	3.99	9.11	H
	7760	-54.48	-25	-29.48	-61.66	5.15	12.33	H
	10344	-32.92	-25	-7.92	-38.78	6.17	12.02	H
	12930	-51.55	-25	-26.55	-57.26	7.14	12.85	H
	15516	-40.68	-25	-15.68	-46.76	8.23	14.30	H
	5172	-58.72	-25	-33.72	-63.84	3.99	9.11	V
	7760	-52.00	-25	-27.00	-59.18	5.15	12.33	V
	10344	-34.48	-25	-9.48	-40.34	6.17	12.02	V
	12930	-52.87	-25	-27.87	-58.58	7.14	12.85	V
	15516	-42.03	-25	-17.03	-48.11	8.23	14.30	V
Highest	5272	-61.61	-25	-36.61	-66.73	3.99	9.11	H
	7908	-54.69	-25	-29.69	-61.87	5.15	12.33	H
	10544	-30.08	-25	-5.08	-35.94	6.17	12.02	H
	13182	-47.78	-25	-22.78	-53.49	7.14	12.85	H
	15816	-38.51	-25	-13.51	-44.59	8.23	14.30	H
	5272	-58.16	-25	-33.16	-63.28	3.99	9.11	V
	7908	-52.03	-25	-27.03	-59.21	5.15	12.33	V
	10544	-29.36	-25	-4.36	-35.22	6.17	12.02	V
	13182	-51.12	-25	-26.12	-56.83	7.14	12.85	V
	15816	-39.63	-25	-14.63	-45.71	8.23	14.30	V

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