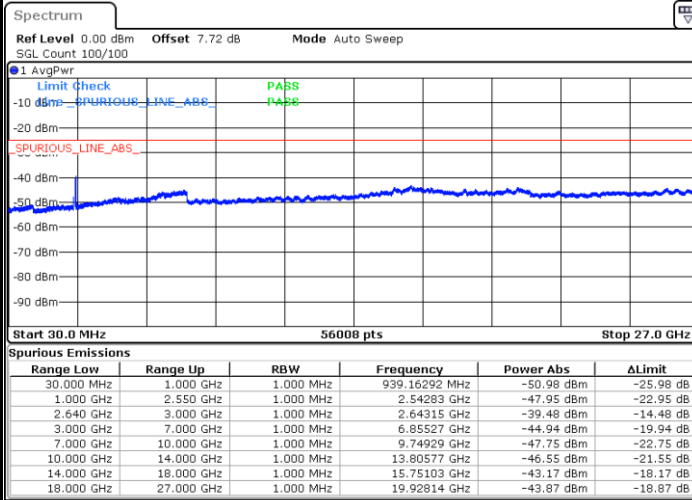




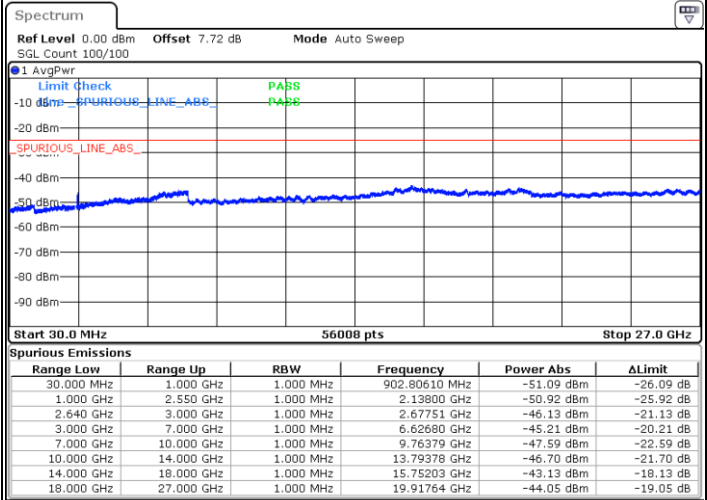
## LTE Band 38 / 20MHz

## Middle Channel / QPSK



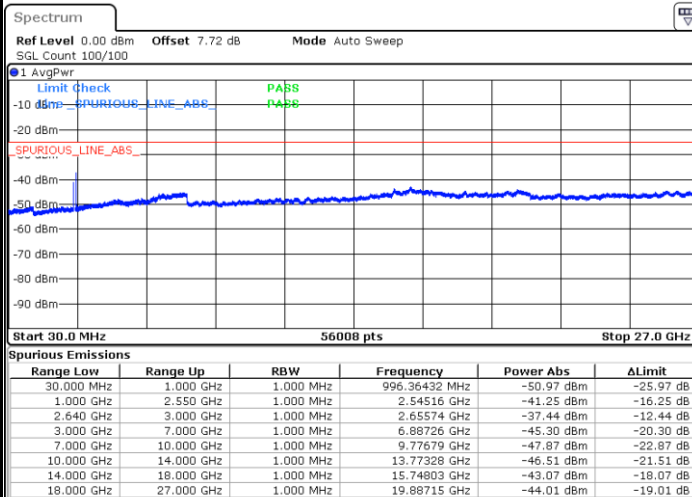
Date: 14 SEP 2017 22:53:51

## Middle Channel / 16QAM



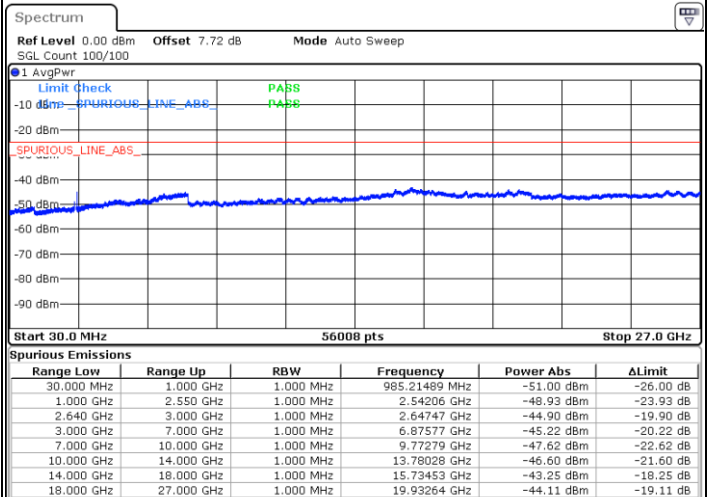
Date: 14 SEP 2017 19:16:16

## Highest Channel / QPSK



Date: 14 SEP 2017 19:17:11

## Highest Channel / 16QAM



Date: 14 SEP 2017 19:18:07

**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	0.0043	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0036	
0	Normal Voltage	0.0028	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0040	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0032	
20	Battery End Point	0.0037	

**Note:**

1. Normal Voltage =3.85 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 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0022	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0031	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0024	
20	Battery End Point	0.0005	

**Note:** Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.4 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	0.0003	PASS
40	Normal Voltage	0.0007	
30	Normal Voltage	0.0011	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0006	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0009	
20	Normal Voltage	0.0010	
20	Battery End Point	0.0001	

**Note:**

1. Normal Voltage =3.85 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	0.0024	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0027	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0018	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0022	

**Note:**

1. Normal Voltage =3.85 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.



## Appendix B. Test Results of Radiated Test

### Radiated Spurious Emission

LTE Band 4 / 1.4MHz / 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	3465	-62.10	-13	-49.10	-70.38	-67.24	1.81	6.95	H
	5196	-58.80	-13	-45.80	-73.36	-65.87	2.23	9.30	H
	6927	-56.09	-13	-43.09	-75.44	-64.37	2.60	10.88	H
	3465	-64.47	-13	-51.47	-70.27	-69.61	1.81	6.95	V
	5196	-58.86	-13	-45.86	-73.16	-65.93	2.23	9.30	V
	6927	-56.14	-13	-43.14	-74.68	-64.42	2.6	10.88	V

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

LTE Band 4 / 3MHz / 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	3462	-61.91	-13	-48.91	-70.19	-67.05	1.81	6.95	H
	5194	-59.22	-13	-46.22	-73.78	-66.29	2.23	9.30	H
	6924	-55.73	-13	-42.73	-75.08	-64.01	2.60	10.88	H
	3462	-63.09	-13	-50.09	-68.89	-68.23	1.81	6.95	V
	5194	-59.59	-13	-46.59	-73.89	-66.66	2.23	9.30	V
	6924	-57.02	-13	-44.02	-75.56	-65.30	2.6	10.88	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	3462	-63.99	-13	-50.99	-72.27	-69.13	1.81	6.95	H
	5191	-59.19	-13	-46.19	-73.75	-66.26	2.23	9.30	H
	6921	-54.64	-13	-41.64	-73.99	-62.92	2.60	10.88	H
	3462	-65.87	-13	-52.87	-71.67	-71.01	1.81	6.95	V
	5191	-59.71	-13	-46.71	-74.01	-66.78	2.23	9.30	V
	6921	-56.67	-13	-43.67	-75.21	-64.95	2.6	10.88	V

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



LTE Band 4 / 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	3456	-62.41	-13	-49.41	-70.69	-67.55	1.81	6.95	H
	5184	-59.53	-13	-46.53	-74.09	-66.60	2.23	9.30	H
	6912	-56.27	-13	-43.27	-75.62	-64.55	2.60	10.88	H
	3456	-64.08	-13	-51.08	-69.88	-69.22	1.81	6.95	V
	5184	-59.67	-13	-46.67	-73.97	-66.74	2.23	9.30	V
	6912	-56.28	-13	-43.28	-74.82	-64.56	2.6	10.88	V

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

LTE Band 4 / 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	3453	-63.80	-13	-50.80	-72.08	-68.94	1.81	6.95	H
	5177	-59.49	-13	-46.49	-74.05	-66.56	2.23	9.30	H
	6903	-55.82	-13	-42.82	-75.17	-64.10	2.60	10.88	H
	3453	-65.57	-13	-52.57	-71.37	-70.71	1.81	6.95	V
	5177	-59.09	-13	-46.09	-73.39	-66.16	2.23	9.30	V
	6903	-56.38	-13	-43.38	-74.92	-64.66	2.6	10.88	V

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

LTE Band 4 / 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	3447	-61.50	-13	-48.50	-69.78	-66.64	1.81	6.95	H
	5171	-59.00	-13	-46.00	-73.56	-66.07	2.23	9.30	H
	6894	-56.25	-13	-43.25	-75.60	-64.53	2.60	10.88	H
	3447	-64.28	-13	-51.28	-70.08	-69.42	1.81	6.95	V
	5172	-59.46	-13	-46.46	-73.76	-66.53	2.23	9.30	V
	6894	-56.11	-13	-43.11	-74.65	-64.39	2.6	10.88	V

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



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	-66.17	-13	-53.17	-68.77	-68.49	1.33	5.80	H
	2508	-62.66	-13	-49.66	-72.01	-65.83	1.58	6.90	H
	3345	-58.40	-13	-45.40	-67.61	-61.90	1.85	7.50	H
	1672	-64.56	-13	-51.56	-66.43	-66.88	1.33	5.80	V
	2508	-64.88	-13	-51.88	-72.85	-68.05	1.58	6.90	V
	3345	-60.08	-13	-47.08	-69.10	-63.58	1.85	7.50	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	-66.97	-13	-53.97	-69.57	-69.29	1.33	5.80	H
	2506	-63.21	-13	-50.21	-72.56	-66.38	1.58	6.90	H
	3342	-61.04	-13	-48.04	-70.25	-64.54	1.85	7.50	H
	1670	-64.49	-13	-51.49	-66.36	-66.81	1.33	5.80	V
	2506	-64.23	-13	-51.23	-72.20	-67.40	1.58	6.90	V
	3342	-62.12	-13	-49.12	-71.14	-65.62	1.85	7.50	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	-67.80	-13	-54.80	-70.40	-70.12	1.33	5.80	H
	2504	-60.48	-13	-47.48	-69.83	-63.65	1.58	6.90	H
	3336	-61.08	-13	-48.08	-70.29	-64.58	1.85	7.50	H
	1668	-66.26	-13	-53.26	-68.13	-68.58	1.33	5.80	V
	2504	-64.56	-13	-51.56	-72.53	-67.73	1.58	6.90	V
	3336	-61.99	-13	-48.99	-71.01	-65.49	1.85	7.50	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	-67.72	-13	-54.72	-70.32	-70.04	1.33	5.80	H
	2496	-61.35	-13	-48.35	-70.70	-64.52	1.58	6.90	H
	3327	-55.44	-13	-42.44	-64.65	-58.94	1.85	7.50	H
	1664	-68.45	-13	-55.45	-70.32	-70.77	1.33	5.80	V
	2496	-64.26	-13	-51.26	-72.23	-67.43	1.58	6.90	V
	3327	-56.14	-13	-43.14	-65.16	-59.64	1.85	7.50	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	5066	-64.79	-25	-39.79	-50.23	-72.15	1.76	9.12	H
	7598	-62.49	-25	-37.49	-52.19	-72.46	2.16	12.13	H
	10130	-50.77	-25	-25.77	-46.01	-60.65	2.22	12.10	H
	5066	-63.66	-25	-38.66	-50.18	-71.02	1.76	9.12	V
	7598	-61.82	-25	-36.82	-49.81	-71.79	2.16	12.13	V
	10130	-49.56	-25	-24.56	-45.01	-59.44	2.22	12.10	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	-65.46	-25	-40.46	-50.90	-72.82	1.76	9.12	H
	7592	-62.39	-25	-37.39	-52.09	-72.36	2.16	12.13	H
	10120	-50.92	-25	-25.92	-46.16	-60.80	2.22	12.10	H
	5060	-63.77	-25	-38.77	-50.29	-71.13	1.76	9.12	V
	7592	-62.71	-25	-37.71	-50.7	-72.68	2.16	12.13	V
	10120	-49.61	-25	-24.61	-45.06	-59.49	2.22	12.10	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	5057	-65.54	-25	-40.54	-50.98	-72.90	1.76	9.12	H
	7586	-62.87	-25	-37.87	-52.57	-72.84	2.16	12.13	H
	10110	-49.29	-25	-24.29	-44.53	-59.17	2.22	12.10	H
	5057	-63.56	-25	-38.56	-50.08	-70.92	1.76	9.12	V
	7586	-64.35	-25	-39.35	-52.34	-74.32	2.16	12.13	V
	10110	-50.31	-25	-25.31	-45.76	-60.19	2.22	12.10	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	5051	-65.91	-25	-40.91	-51.35	-73.27	1.76	9.12	H
	7577	-60.72	-25	-35.72	-50.42	-70.69	2.16	12.13	H
	10100	-50.82	-25	-25.82	-46.06	-60.70	2.22	12.10	H
	5051	-63.18	-25	-38.18	-49.7	-70.54	1.76	9.12	V
	7577	-61.12	-25	-36.12	-49.11	-71.09	2.16	12.13	V
	10100	-50.48	-25	-25.48	-45.93	-60.36	2.22	12.10	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	5186	-63.45	-25	-38.45	-51.32	-70.00	2.56	9.12	H
	7778	-56.86	-25	-31.86	-51.18	-65.37	3.45	11.97	H
	10370	-49.33	-25	-24.33	-49.08	-57.81	3.62	12.10	H
	5186	-62.79	-25	-37.79	-50.79	-69.34	2.56	9.12	V
	7778	-60.11	-25	-35.11	-53.09	-68.62	3.45	11.97	V
	10370	-54.90	-25	-29.90	-55.15	-63.38	3.62	12.10	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	-63.26	-25	-38.26	-51.13	-69.81	2.56	9.12	H
	7772	-56.98	-25	-31.98	-51.30	-65.49	3.45	11.97	H
	10360	-48.19	-25	-23.19	-47.94	-56.67	3.62	12.10	H
	5180	-61.49	-25	-36.49	-49.49	-68.04	2.56	9.12	V
	7772	-59.37	-25	-34.37	-52.35	-67.88	3.45	11.97	V
	10360	-56.41	-25	-31.41	-56.66	-64.89	3.62	12.10	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	5177	-62.62	-25	-37.62	-50.49	-69.17	2.56	9.12	H
	7766	-56.88	-25	-31.88	-51.20	-65.39	3.45	11.97	H
	10350	-45.89	-25	-20.89	-45.64	-54.37	3.62	12.10	H
	5177	-62.80	-25	-37.80	-50.8	-69.35	2.56	9.12	V
	7766	-60.43	-25	-35.43	-53.41	-68.94	3.45	11.97	V
	10350	-52.27	-25	-27.27	-52.52	-60.75	3.62	12.10	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	5171	-62.95	-25	-37.95	-50.82	-69.50	2.56	9.12	H
	7757	-56.97	-25	-31.97	-51.29	-65.48	3.45	11.97	H
	10340	-46.47	-25	-21.47	-46.22	-54.95	3.62	12.10	H
	5171	-62.75	-25	-37.75	-50.75	-69.30	2.56	9.12	V
	7757	-59.80	-25	-34.80	-52.78	-68.31	3.45	11.97	V
	10340	-54.02	-25	-29.02	-54.27	-62.50	3.62	12.10	V

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