

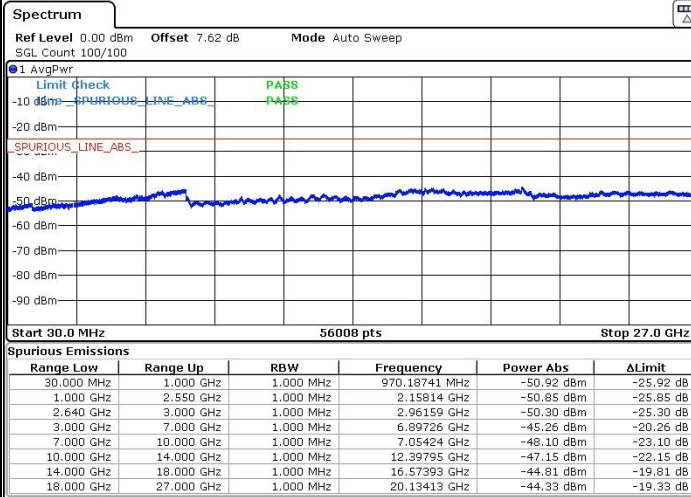


## LTE Band 38 / 15MHz+15MHz

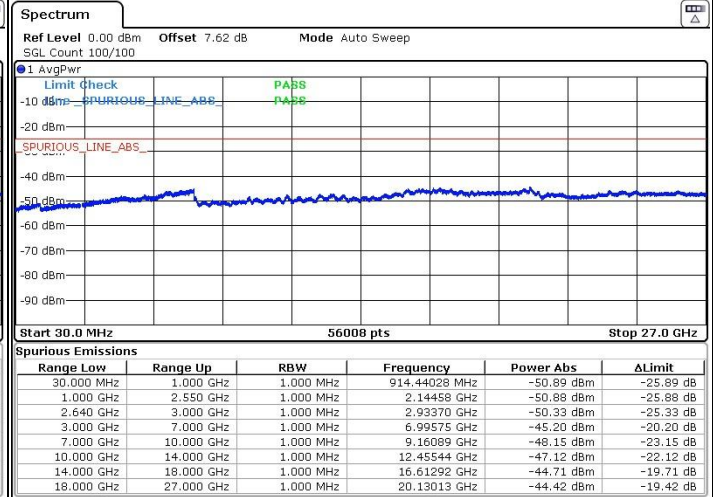
## QPSK

## Lowest Channel

## Middle Channel

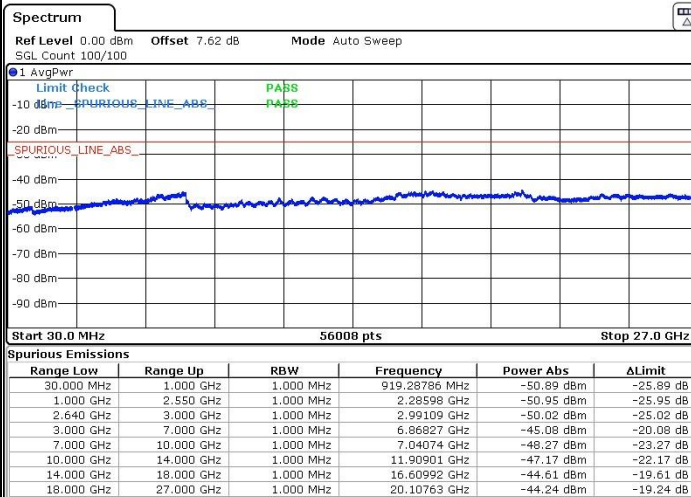


Date: 5 JUL 2018 10:41:55



Date: 5 JUL 2018 10:48:08

## Highest Channel



Date: 5 JUL 2018 10:49:47

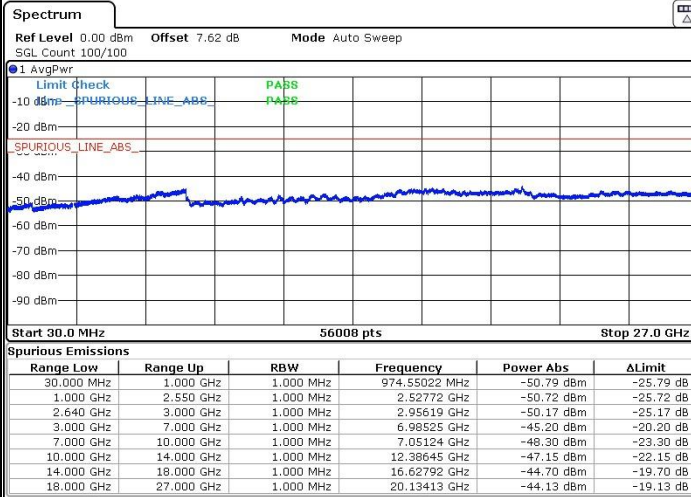


## LTE Band 38 / 15MHz+15MHz

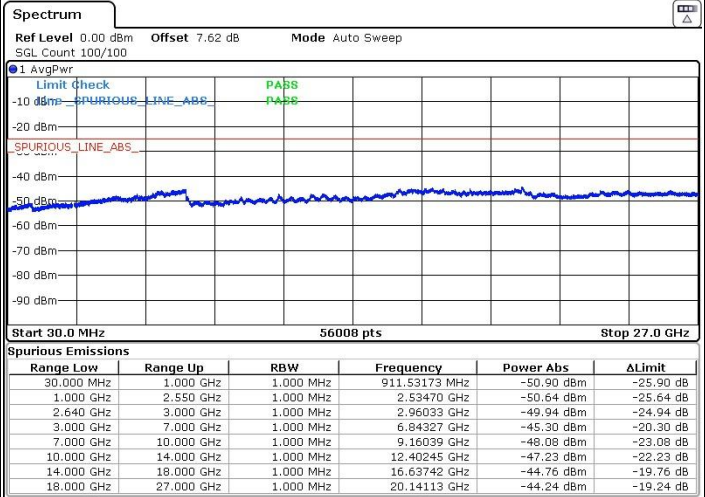
## 16QAM

## Lowest Channel

## Middle Channel

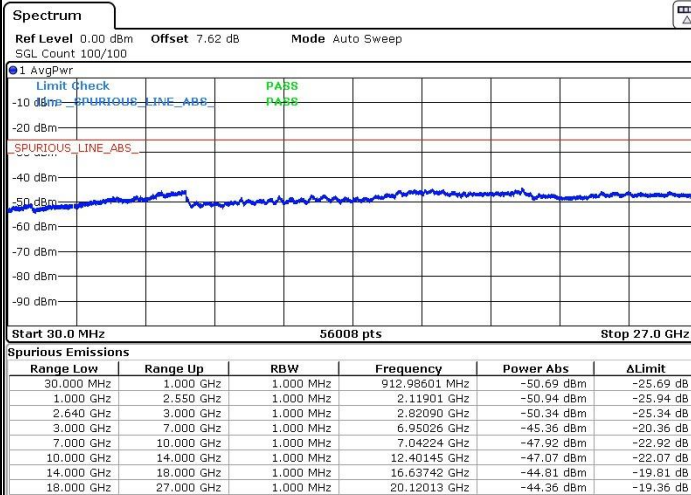


Date: 5 JUL 2018 10:43:02



Date: 5 JUL 2018 10:47:12

## Highest Channel



Date: 5 JUL 2018 10:50:43

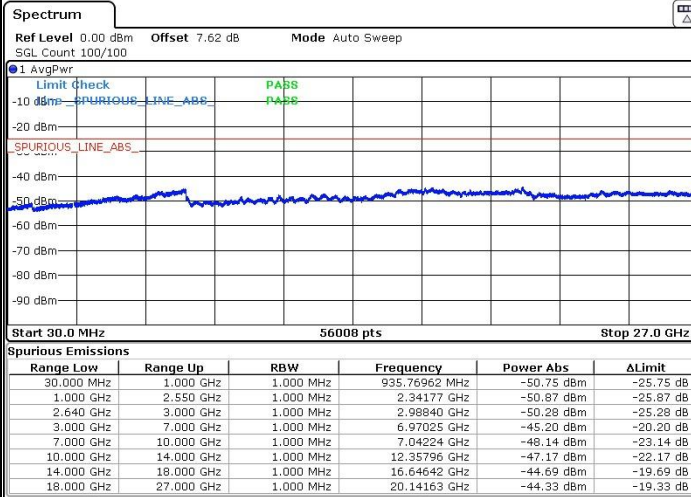


## LTE Band 38 / 15MHz+15MHz

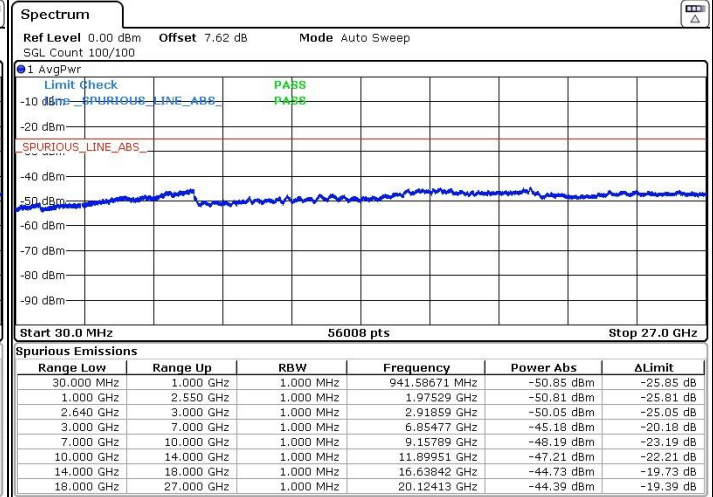
## 64QAM

## Lowest Channel

## Middle Channel

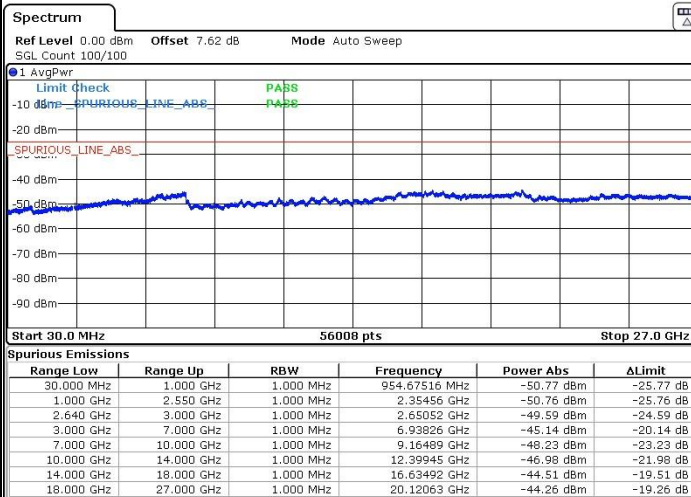


Date: 5 JUL 2018 10:43:58



Date: 5 JUL 2018 10:46:14

## Highest Channel



Date: 5 JUL 2018 10:51:42

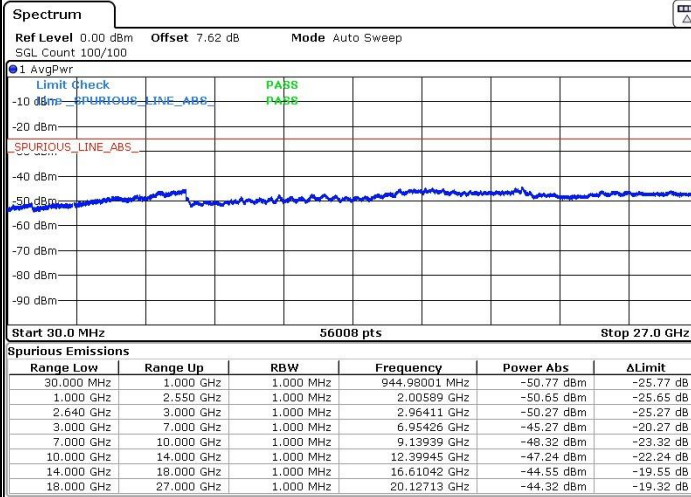


## LTE Band 38 / 20MHz+20MHz

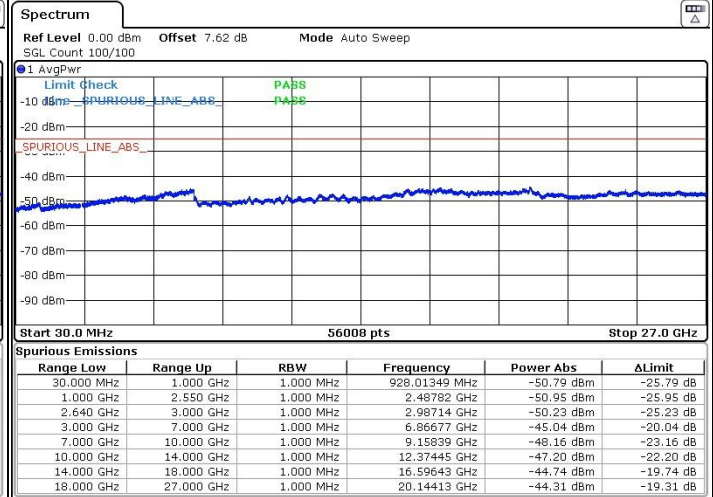
## QPSK

## Lowest Channel

## Middle Channel

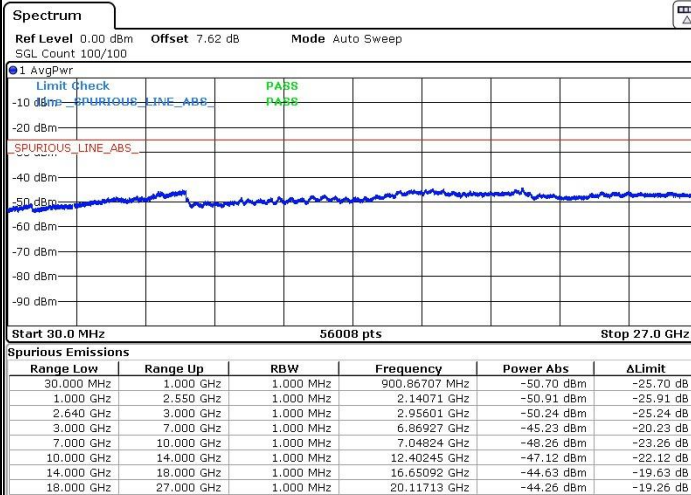


Date: 5 JUL 2018 10:56:41



Date: 5 JUL 2018 10:58:23

## Highest Channel



Date: 5 JUL 2018 11:04:16

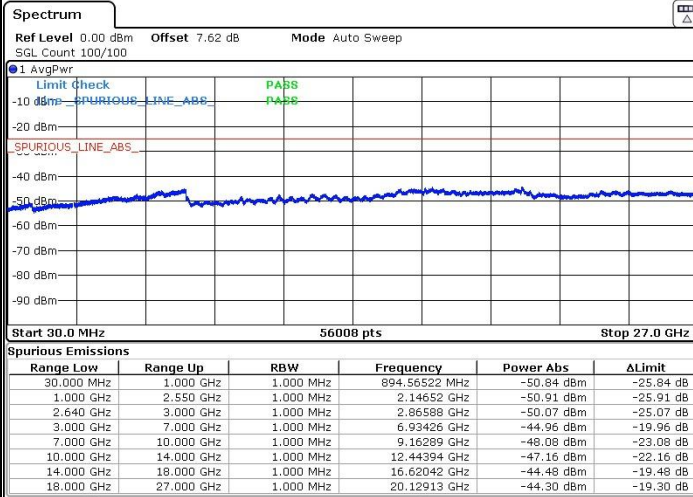


## LTE Band 38 / 20MHz+20MHz

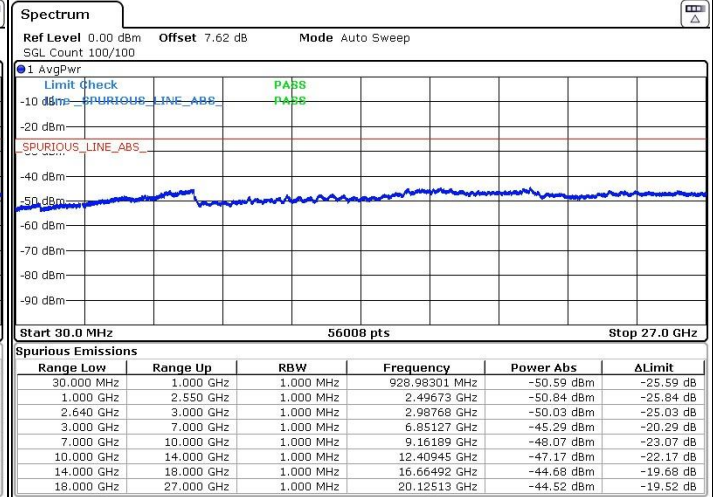
## 16QAM

## Lowest Channel

## Middle Channel

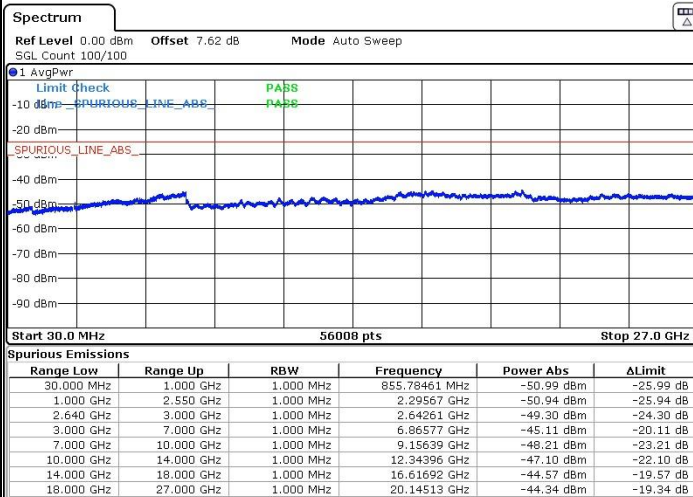


Date: 5 JUL 2018 10:55:40



Date: 5 JUL 2018 10:59:19

## Highest Channel



Date: 5 JUL 2018 11:03:18

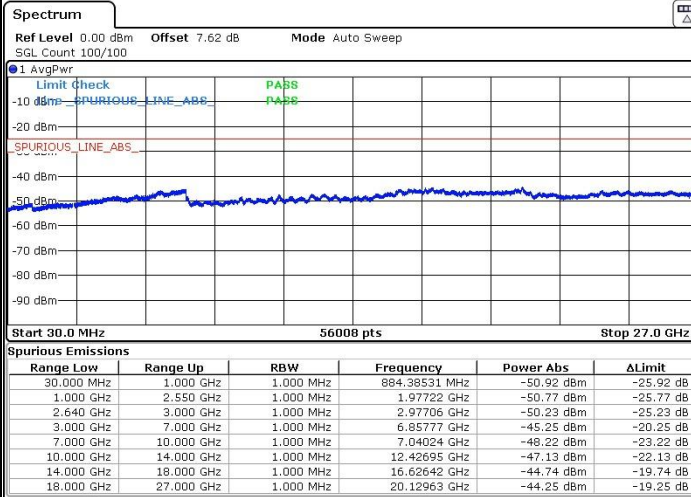


## LTE Band 38 / 20MHz+20MHz

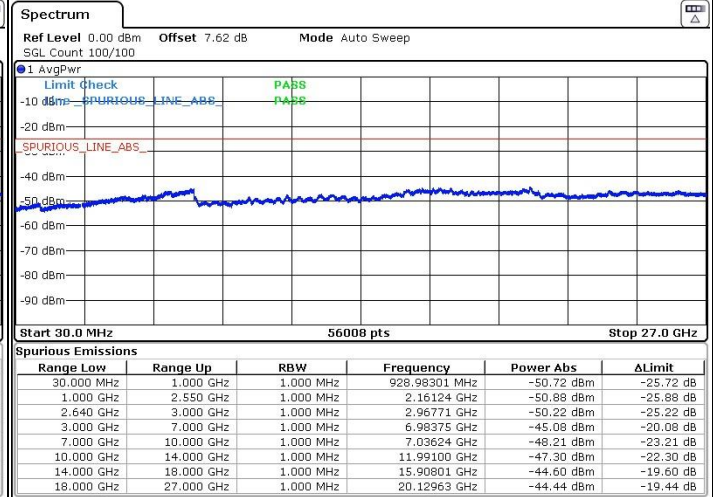
## 64QAM

## Lowest Channel

## Middle Channel

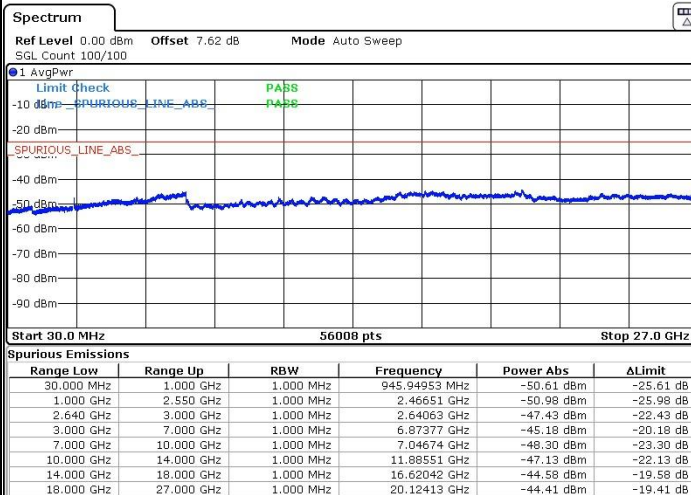


Date: 5 JUL 2018 10:54:24



Date: 5 JUL 2018 11:00:17

## Highest Channel



Date: 5 JUL 2018 11:02:11

## 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	0.0040	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0022	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0035	
-20	Normal Voltage	0.0038	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0006	
20	Battery End Point	0.0001	

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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	0.0017	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0036	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0044	
0	Normal Voltage	0.0049	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0050	
-30	Normal Voltage	0.0060	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0004	
20	Battery End Point	0.0041	

**Note:** Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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	0.0007	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0015	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0024	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0003	
20	Battery End Point	0.0017	

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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	0.0007	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0015	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0017	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0013	

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 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

Note: Antenna 1 is Bottom Antenna, Antenna 2 is Top Antenna.

LTE Band 4 / 20MHz / QPSK for Ant 1								
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)
Middle	3447	-56.80	-13	-43.80	-60.77	4.87	8.84	H
	5172	-48.48	-13	-35.48	-49.92	7.70	9.14	H
	6894	-51.80	-13	-38.80	-53.49	8.98	10.66	H
	3447	-55.09	-13	-42.09	-59.06	4.87	8.84	V
	5172	-52.05	-13	-39.05	-53.49	7.70	9.14	V
	6894	-51.80	-13	-38.80	-53.49	8.98	10.66	V

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

LTE Band 4 / 20MHz / QPSK for Ant 2								
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)
Middle	3447	-57.26	-13	-44.26	-61.23	4.87	8.84	H
	5172	-49.29	-13	-36.29	-50.73	7.70	9.14	H
	6894	-51.92	-13	-38.92	-53.61	8.98	10.66	H
	3447	-56.70	-13	-43.70	-60.67	4.87	8.84	V
	5172	-51.79	-13	-38.79	-53.23	7.70	9.14	V
	6894	-51.79	-13	-38.79	-53.48	8.98	10.66	V

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



LTE Band 5 / 10MHz / QPSK for Ant 1								
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)
Middle	1670	-60.86	-13	-47.86	-62.77	1.14	5.20	H
	2506	-49.39	-13	-36.39	-52.02	1.12	5.90	H
	3342	-52.22	-13	-39.22	-55.43	1.34	6.70	H
	1670	-60.84	-13	-47.84	-62.75	1.14	5.20	V
	2506	-52.92	-13	-39.92	-55.55	1.12	5.90	V
	3342	-53.77	-13	-40.77	-56.98	1.34	6.70	V

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

LTE Band 5 / 10MHz / QPSK for Ant 2								
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)
Middle	1670	-51.38	-13	-38.38	-53.29	1.14	5.20	H
	2506	-60.47	-13	-47.47	-63.10	1.12	5.90	H
	3342	-56.09	-13	-43.09	-59.30	1.34	6.70	H
	1670	-53.86	-13	-40.86	-55.77	1.14	5.20	V
	2506	-60.09	-13	-47.09	-62.72	1.12	5.90	V
	3342	-54.96	-13	-41.96	-58.17	1.34	6.70	V

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



LTE Band 7 / 20MHz / QPSK for Ant 1								
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)
Middle	5052	-62.71	-25	-37.71	-70.07	1.76	9.12	H
	7576	-61.70	-25	-36.70	-71.67	2.16	12.13	H
	10107	-60.73	-25	-35.73	-70.61	2.22	12.10	H
	5052	-63.44	-25	-38.44	-70.80	1.76	9.12	V
	7576	-60.91	-25	-35.91	-70.88	2.16	12.13	V
	10107	-60.88	-25	-35.88	-70.76	2.22	12.10	V

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

LTE Band 7 / 20MHz / QPSK for Ant 2								
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)
Middle	5052	-64.74	-25	-39.74	-72.10	1.76	9.12	H
	7580	-61.72	-25	-36.72	-71.69	2.16	12.13	H
	10107	-60.54	-25	-35.54	-70.42	2.22	12.10	H
	5052	-64.57	-25	-39.57	-71.93	1.76	9.12	V
	7580	-61.83	-25	-36.83	-71.80	2.16	12.13	V
	10107	-60.20	-25	-35.20	-70.08	2.22	12.10	V

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



LTE Band 38 / 20MHz / QPSK for Ant 1								
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)
Middle	5172	-62.74	-25	-37.74	-70.10	1.76	9.12	H
	7760	-57.77	-25	-32.77	-67.74	2.16	12.13	H
	10341	-61.44	-25	-36.44	-71.32	2.22	12.10	H
	5172	-63.01	-25	-38.01	-70.37	1.76	9.12	V
	7760	-61.45	-25	-36.45	-71.42	2.16	12.13	V
	10341	-61.12	-25	-36.12	-71.00	2.22	12.10	V

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

LTE Band 38 / 20MHz / QPSK for Ant 2								
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)
Middle	5172	-61.86	-25	-36.86	-69.22	1.76	9.12	H
	7760	-53.27	-25	-28.27	-63.24	2.16	12.13	H
	10341	-61.57	-25	-36.57	-71.45	2.22	12.10	H
	5172	-59.53	-25	-34.53	-66.89	1.76	9.12	V
	7760	-56.66	-25	-31.66	-66.63	2.16	12.13	V
	10341	-61.27	-25	-36.27	-71.15	2.22	12.10	V

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

**For CA**

LTE Band 7 CA / 20M+20M / QPSK for Ant 1								
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)
Middle	5032	-63.68	-25	-38.68	-71.04	1.76	9.12	H
	7548	-61.44	-25	-36.44	-71.41	2.16	12.13	H
	10062	-60.26	-25	-35.26	-70.14	2.22	12.10	H
	5032	-62.46	-25	-37.46	-69.82	1.76	9.12	V
	7548	-60.89	-25	-35.89	-70.86	2.16	12.13	V
	10062	-60.07	-25	-35.07	-69.95	2.22	12.10	V

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

LTE Band 7 CA / 20M+20M / QPSK for Ant 2								
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)
Middle	5032	-62.34	-25	-37.34	-69.70	1.76	9.12	H
	7548	-55.77	-25	-30.77	-65.74	2.16	12.13	H
	10062	-60.26	-25	-35.26	-70.14	2.22	12.10	H
	5032	-60.63	-25	-35.63	-67.99	1.76	9.12	V
	7548	-57.10	-25	-32.10	-67.07	2.16	12.13	V
	10062	-59.94	-25	-34.94	-69.82	2.22	12.10	V

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





LTE Band 38 CA / 20M+20M / QPSK for Ant 1								
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)
Middle	5152	-60.31	-25	-35.31	-67.29	2.40	9.38	H
	7728	-55.64	-25	-30.64	-65.19	2.97	12.51	H
	10305	-60.83	-25	-35.83	-69.44	3.49	12.10	H
	5152	-60.23	-25	-35.23	-67.21	2.40	9.38	V
	7728	-56.11	-25	-31.11	-65.66	2.97	12.51	V
	10305	-60.53	-25	-35.53	-69.14	3.49	12.10	V

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

LTE Band 38 CA / 20M+20M / QPSK for Ant 2								
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)
Middle	5152	-62.49	-25	-37.49	-69.47	2.40	9.38	H
	7728	-55.40	-25	-30.40	-64.95	2.97	12.51	H
	10305	-60.61	-25	-35.61	-69.22	3.49	12.10	H
	5152	-61.36	-25	-36.36	-68.34	2.40	9.38	V
	7728	-56.96	-25	-31.96	-66.51	2.97	12.51	V
	10305	-60.29	-25	-35.29	-68.90	3.49	12.10	V

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