

1.753716 GHz 1.7532368 GHz 1.7543357 GHz

Y-value Function

Occ Bw

Function Result

1.098901099 MHz

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA

Type | Ref | Trc |

Page Number : A25 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

 X-value
 Y-value
 Function

 1.753936 GHz
 15.79 dBm

 1.7532168 GHz
 8.72 dBm
 Occ Bw

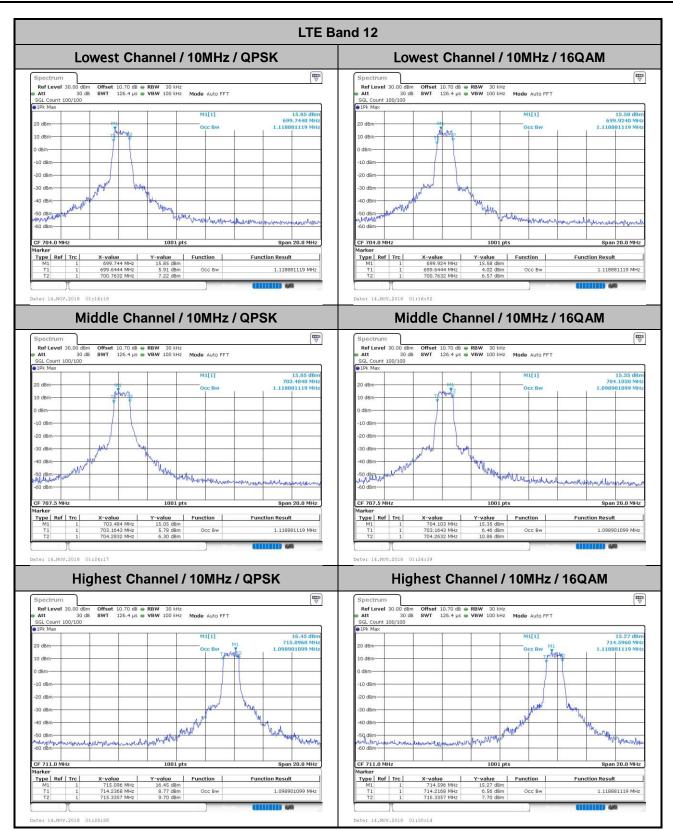
 1.7543357 GHz
 8.80 dBm

Type | Ref | Trc |

Report Template No.: BU5-FGLTE Version 2.0

**Function Result** 

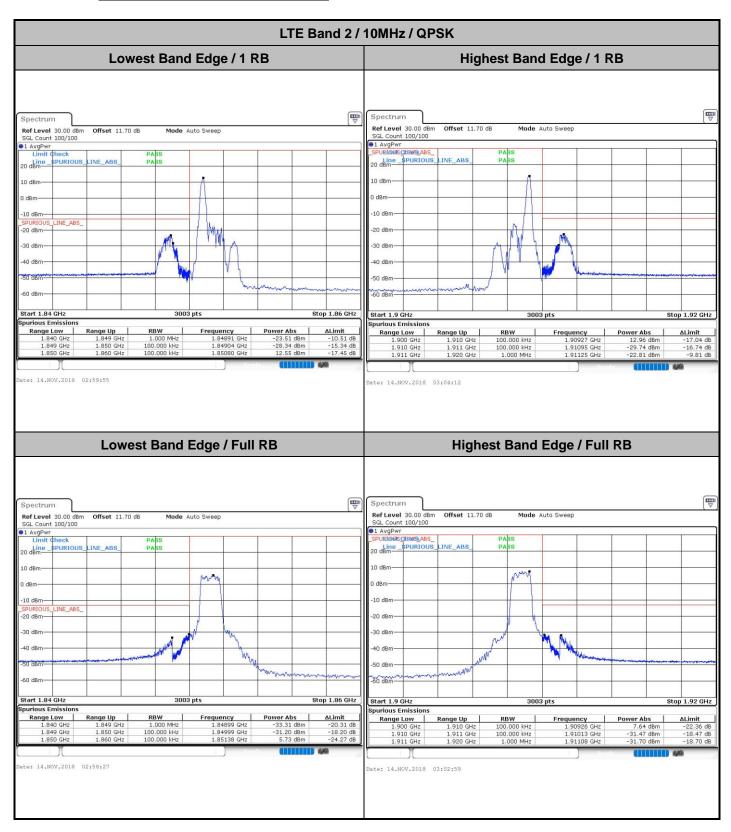
1.118881119 MHz



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A26 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

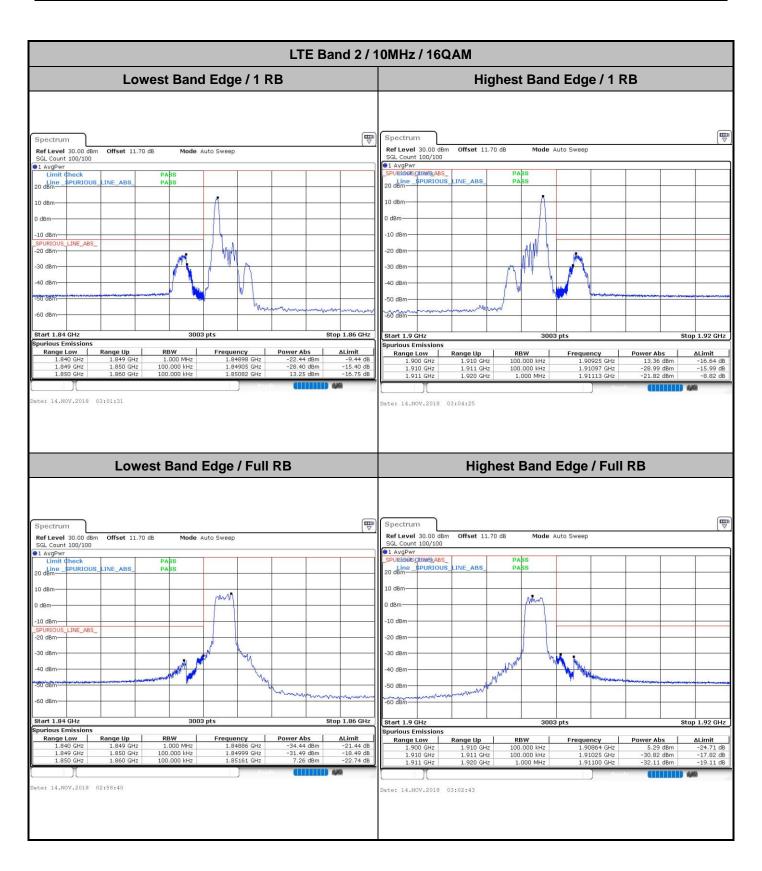
### **Conducted Band Edge**



Sporton International (Shenzhen) Inc.

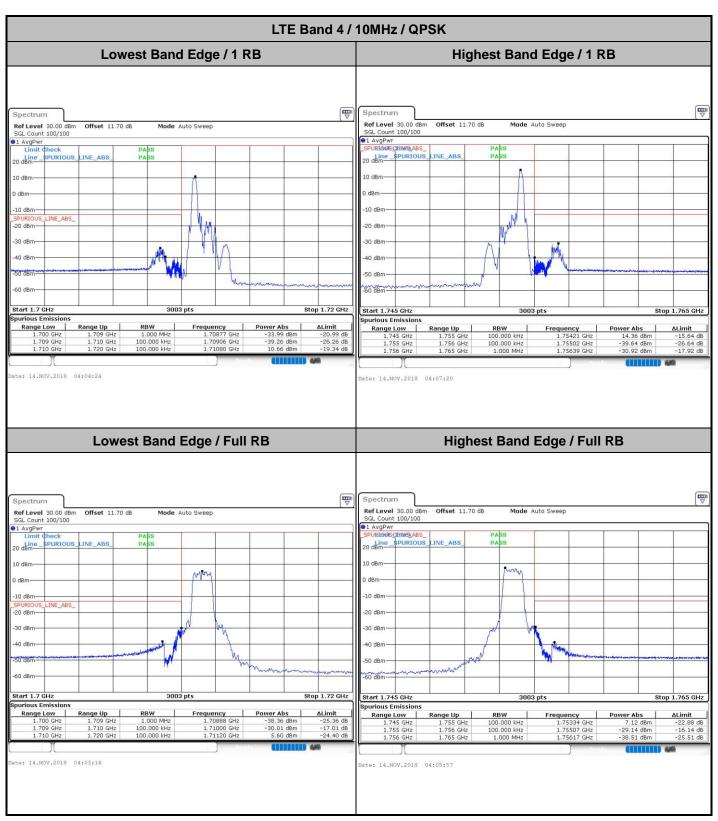
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A27 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



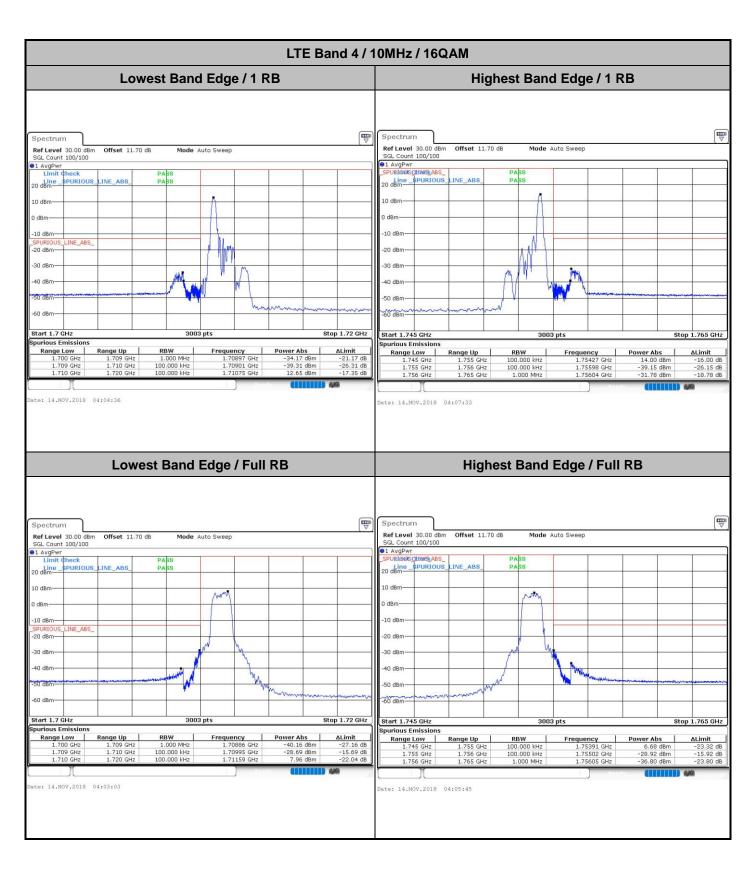
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A28 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



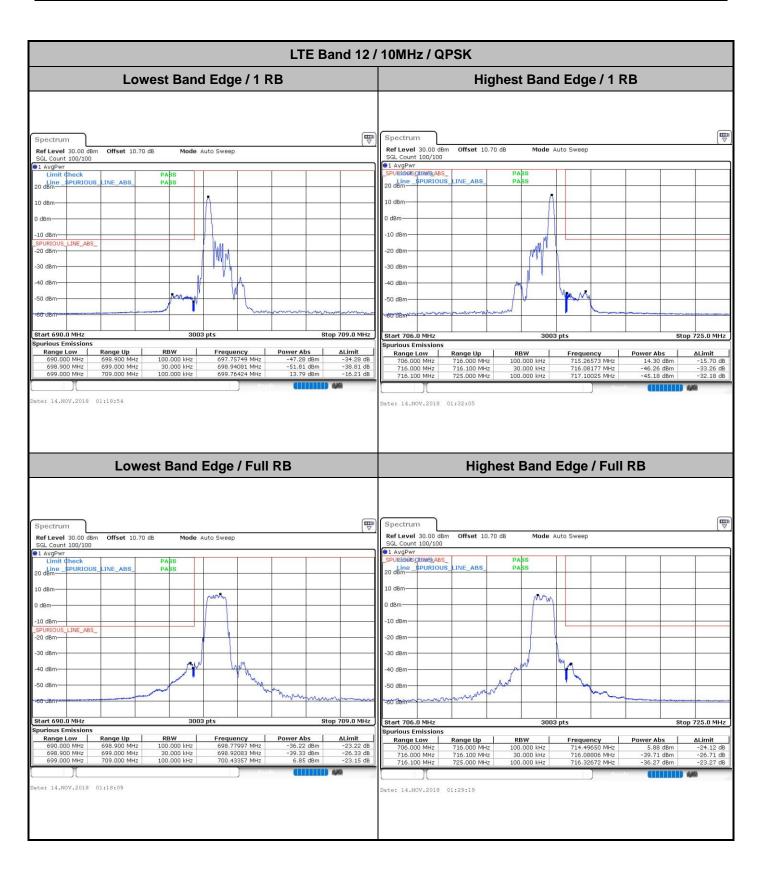
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A29 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



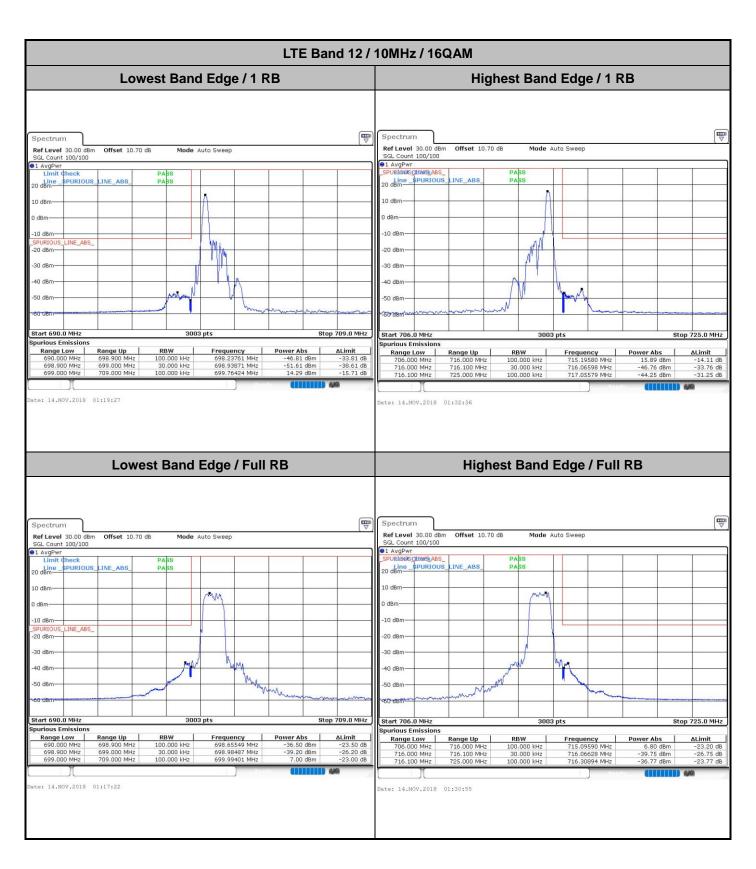
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A30 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A31 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

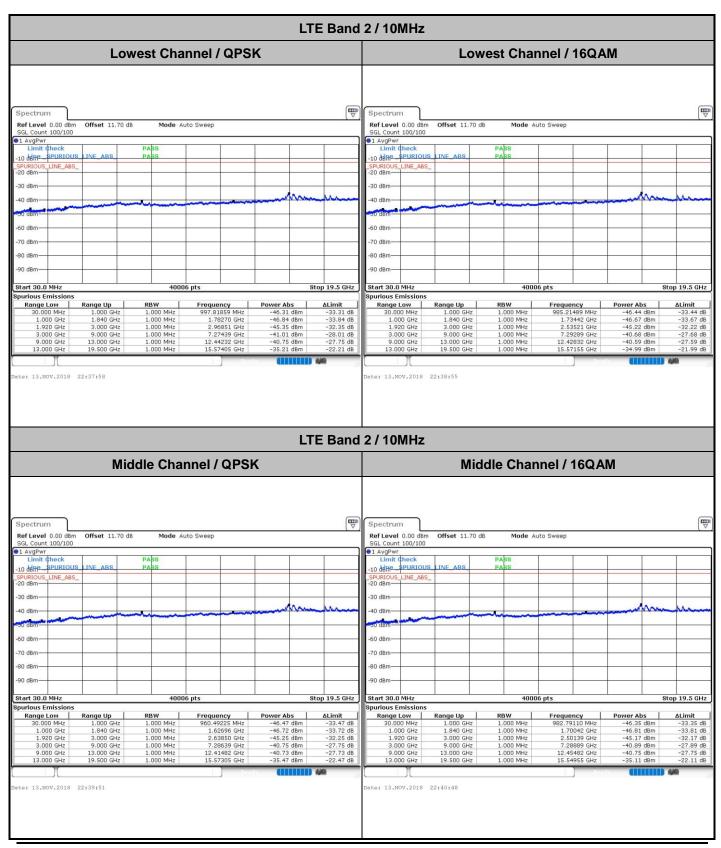
Report Template No.: BU5-FGLTE Version 2.0



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A32 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

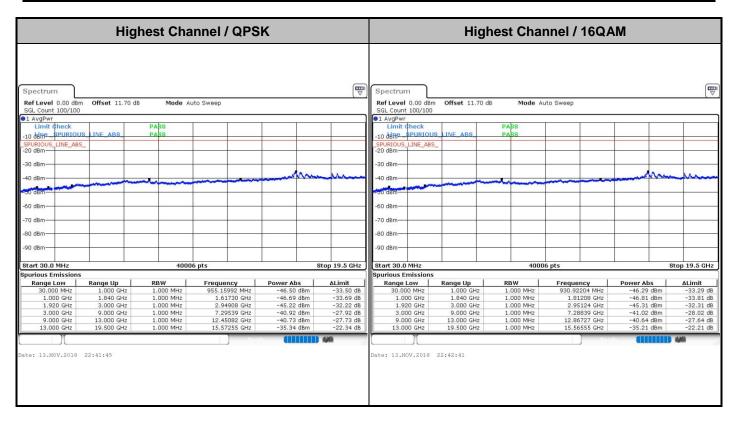
### **Conducted Spurious Emission**



Sporton International (Shenzhen) Inc.

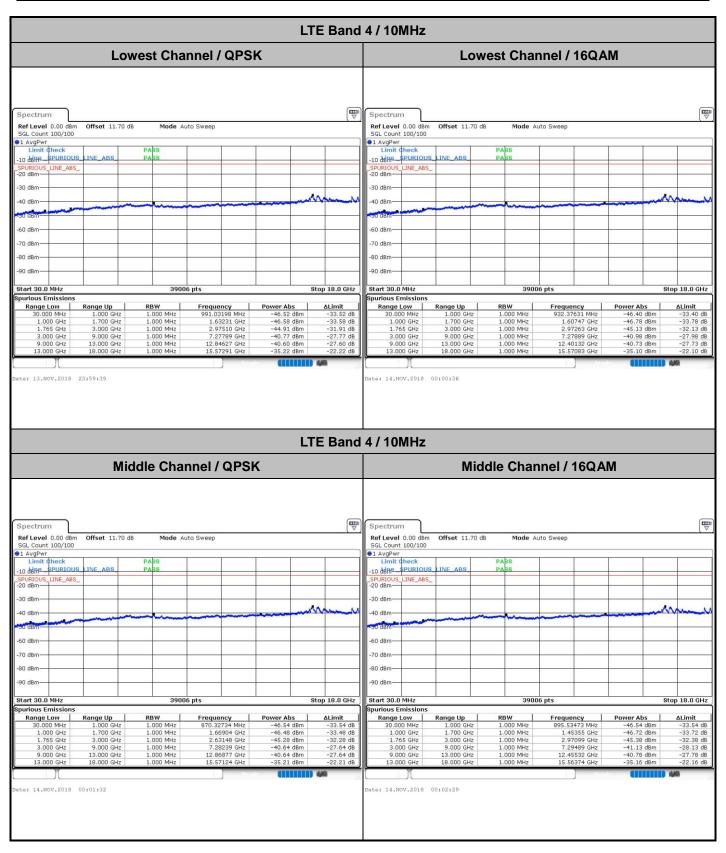
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A33 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



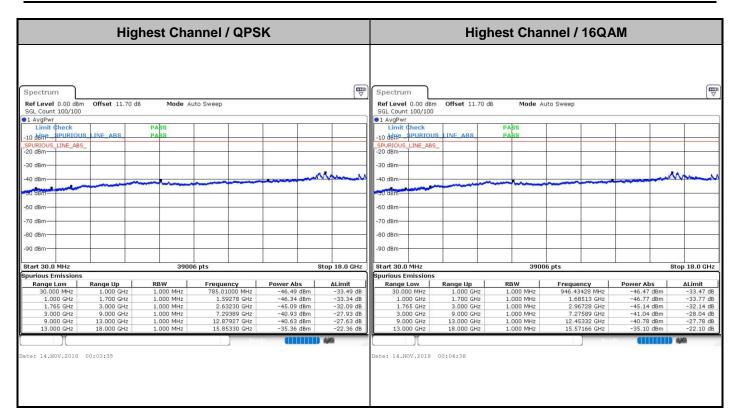
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A34 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



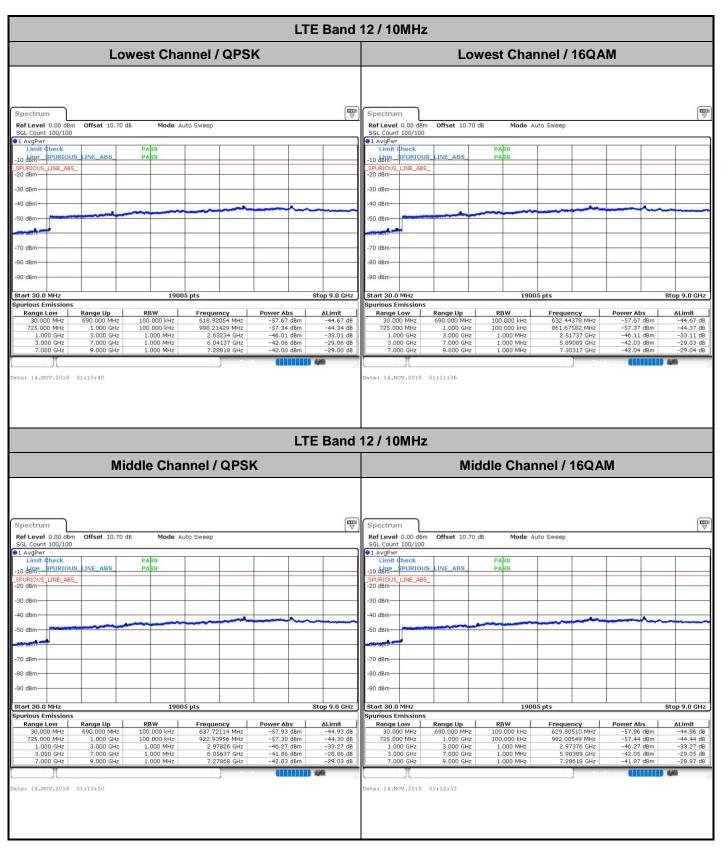
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A35 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



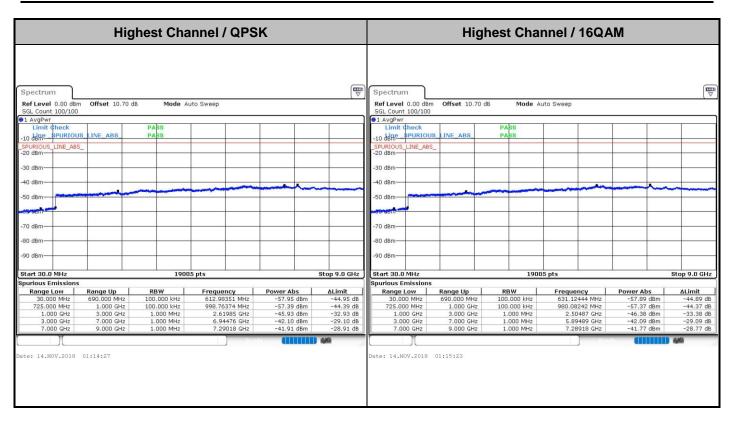
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A36 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A37 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A38 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

# Frequency Stability

Test (	Conditions	LTE Band 2 (QPSK) / Middle Channel			
_		BW 10MHz	Note 2.		
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result		
50	Normal Voltage	0.0027			
40	Normal Voltage	0.0043			
30	Normal Voltage	0.0098			
20(Ref.)	Normal Voltage	0.0000			
10	Normal Voltage	0.0009			
0	Normal Voltage	0.0007			
-10	Normal Voltage	0.0021	PASS		
-20	Normal Voltage	0.0077			
-30	Normal Voltage	0.0039			
20	Maximum Voltage	0.0107			
20	Normal Voltage	0.0000			
20	Battery End Point	0.0102			

#### Note:

- 1. Normal Voltage =3.8 V.; Battery End Point (BEP) =3.6 V.; Maximum Voltage =4.25 V.
- 2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A39 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report No.: FG882223

Report Template No.: BU5-FGLTE Version 2.0

Test (	Conditions	LTE Band 4 (QPSK) / Middle Channel			
T	Valla va	BW 10MHz	Note 2.		
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result		
50	Normal Voltage	0.0043			
40	Normal Voltage	0.0042			
30	Normal Voltage	0.0009			
20(Ref.)	Normal Voltage	0.0000			
10	Normal Voltage	0.0046			
0	Normal Voltage	0.0006			
-10	Normal Voltage	0.0000	PASS		
-20	Normal Voltage	0.0043			
-30	Normal Voltage	0.0100			
20	Maximum Voltage	0.0102			
20	Normal Voltage	0.0000			
20	Battery End Point	0.0128			

### Note:

- 3. Normal Voltage =3.8 V.; Battery End Point (BEP) =3.6 V.; Maximum Voltage =4.25 V.
- 4. Note: The frequency fundamental emissions stay within the authorized frequency block.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A40 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report No.: FG882223

Report Template No.: BU5-FGLTE Version 2.0

Test (	Conditions	LTE Band 12 (QPSK) / Middle Channel			
T	Valla va	BW 10MHz	Note 2.		
Temperature (°C)	Voltage (Volt)	Deviation (ppm)	Result		
50	Normal Voltage	0.0066			
40	Normal Voltage	0.0106			
30	Normal Voltage	0.0120			
20(Ref.)	Normal Voltage	0.0000			
10	Normal Voltage	0.0023			
0	Normal Voltage	0.0045			
-10	Normal Voltage	0.0028	PASS		
-20	Normal Voltage	0.0041			
-30	Normal Voltage	0.0047			
20	Maximum Voltage	0.0276	]		
20	Normal Voltage	0.0000			
20	Battery End Point	0.0052			

### Note:

- 1. Normal Voltage =3.8 V.; Battery End Point (BEP) =3.6 V.; Maximum Voltage =4.25 V.
- 2. Note: The frequency fundamental emissions stay within the authorized frequency block.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : A41 of A41
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report No.: FG882223

Report Template No.: BU5-FGLTE Version 2.0

# **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 )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)	
	3702.18	-60.99	-13	-47.99	-79.41	-67.75	5.82	12.58	Н	
	5553.27	-58.29	-13	-45.29	-80.70	-64.01	7.28	13.00	Н	
Laurant	7404.36	-53.47	-13	-40.47	-81.79	-56.63	8.32	11.48	Н	
Lowest	3702.18	-61.20	-13	-48.20	-79.65	-67.96	5.82	12.58	V	
	5553.27	-59.24	-13	-46.24	-81.85	-64.96	7.28	13.00	V	
	7404.36	-53.89	-13	-40.89	-81.89	-57.05	8.32	11.48	V	
	3742.18	-61.76	-13	-48.76	-80.22	-68.51	5.85	12.60	Н	
	5613.27	-59.60	-13	-46.60	-82.13	-65.40	7.30	13.10	Н	
N AC all all a	7484.36	-54.57	-13	-41.57	-82.55	-57.72	8.35	11.50	Н	
Middle	3742.18	-57.81	-13	-44.81	-76.31	-64.56	5.85	12.60	V	
	5613.27	-58.75	-13	-45.75	-81.43	-64.55	7.30	13.10	V	
	7484.36	-54.70	-13	-41.70	-82.43	-57.85	8.35	11.50	V	
	3782.18	-48.05	-13	-35.05	-66.61	-54.79	5.88	12.62	Н	
Highest	5673.27	-51.61	-13	-38.61	-73.91	-57.42	7.32	13.13	Н	
	7564.36	-52.30	-13	-39.30	-79.93	-55.46	8.38	11.54	Н	
	3782.18	-49.00	-13	-36.00	-67.6	-55.74	5.88	12.62	V	
	5673.27	-53.57	-13	-40.57	-76.25	-59.38	7.32	13.13	V	
	7564.36	-52.55	-13	-39.55	-80.02	-55.71	8.38	11.54	V	

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

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : B1 of B3
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

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)	
	3422.18	-63.47	-13	-50.47	-80.14	-70.35	5.60	12.48	Н	
	5133.27	-60.82	-13	-47.82	-82.41	-66.50	7.10	12.78	Н	
	6844.36	-56.43	-13	-43.43	-82.82	-59.82	8.38	11.77	Н	
Lowest	3422.18	-63.60	-13	-50.60	-80.31	-70.48	5.60	12.48	V	
	5133.27	-60.17	-13	-47.17	-82.19	-65.85	7.10	12.78	V	
	6844.36	-55.96	-13	-42.96	-82.58	-59.35	8.38	11.77	V	
	3447.18	-63.58	-13	-50.58	-80.55	-70.43	5.65	12.50	Н	
	5170.77	-61.25	-13	-48.25	-82.88	-66.92	7.13	12.80	Н	
Middle	6894.36	-56.38	-13	-43.38	-83.01	-59.78	8.40	11.80	Н	
ivildale	3447.18	-63.51	-13	-50.51	-80.51	-70.36	5.65	12.50	V	
	5170.77	-60.73	-13	-47.73	-82.81	-66.40	7.13	12.80	V	
	6894.36	-56.14	-13	-43.14	-82.93	-59.54	8.40	11.80	V	
	3472.18	-63.41	-13	-50.41	-80.53	-70.25	5.68	12.52	Н	
Highest	5208.27	-53.40	-13	-40.40	-74.89	-59.07	7.15	12.82	Н	
	6944.36	-55.76	-13	-42.76	-82.63	-59.19	8.42	11.85	Н	
	3472.18	-63.36	-13	-50.36	-80.51	-70.20	5.68	12.52	V	
	5208.27	-53.15	-13	-40.15	-74.94	-58.82	7.15	12.82	V	
	6944.36	-55.78	-13	-42.78	-82.74	-59.21	8.42	11.85	V	

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

Sporton International (Shenzhen) Inc.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : B2 of B3
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0

LTE Band 12 / 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)	
	1399	-43.21	-13	-30.21	-54.18	-46.44	3.98	9.36	Н	
	2098.5	-52.65	-13	-39.65	-66.86	-56.20	4.85	10.55	Н	
Laurant	2798	-64.31	-13	-51.31	-79.56	-69.24	5.50	12.58	Н	
Lowest	1399	-43.90	-13	-30.90	-54.79	-47.13	3.98	9.36	V	
	2098.5	-48.72	-13	-35.72	-62.86	-52.27	4.85	10.55	V	
	2798	-63.16	-13	-50.16	-79.12	-68.09	5.50	12.58	V	
	1406	-40.87	-13	-27.87	-51.88	-44.12	4.00	9.40	Н	
	2109	-63.30	-13	-50.30	-77.53	-66.87	4.88	10.60	Н	
N 42 1 11	2812	-64.13	-13	-51.13	-79.54	-69.06	5.52	12.60	Н	
Middle	1406	-39.07	-13	-26.07	-50.04	-42.32	4.00	9.40	V	
	2109	-56.38	-13	-43.38	-70.54	-59.95	4.88	10.60	V	
	2812	-63.61	-13	-50.61	-79.63	-68.54	5.52	12.60	V	
	1413	-41.13	-13	-28.13	-52.14	-44.30	4.10	9.42	Н	
	2119.5	-54.70	-13	-41.70	-69.16	-58.28	4.90	10.63	Н	
Highest	2826	-63.82	-13	-50.82	-79.23	-68.74	5.55	12.62	Н	
	1413	-40.16	-13	-27.16	-51.13	-43.33	4.10	9.42	V	
	2119.5	-55.22	-13	-42.22	-69.59	-58.80	4.90	10.63	V	
	2826	-63.40	-13	-50.40	-79.42	-68.32	5.55	12.62	V	

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

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: V5P-D2204GMA Page Number : B3 of B3
Report Issued Date : Dec. 06, 2018
Report Version : Rev. 01

Report Template No.: BU5-FGLTE Version 2.0