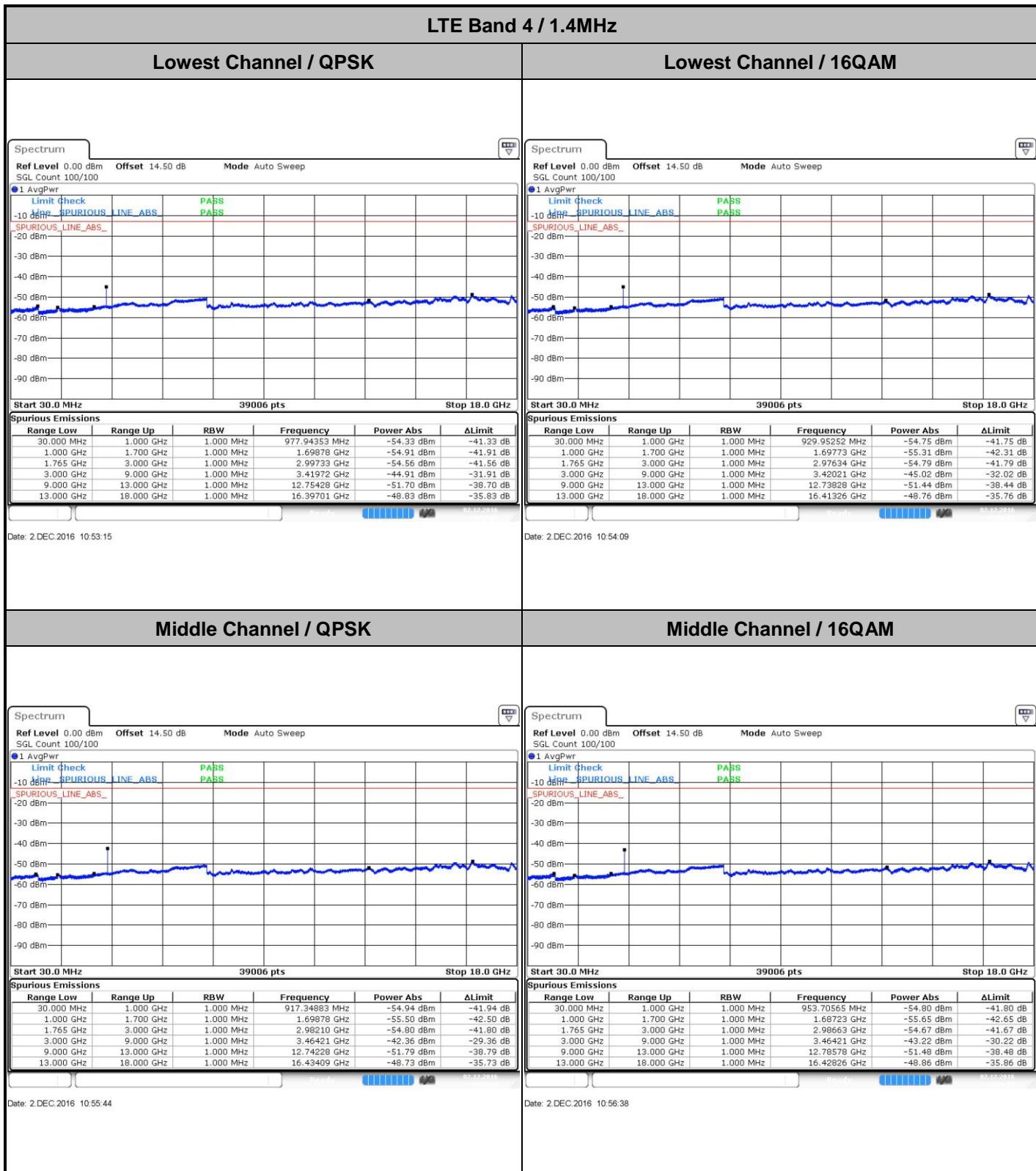




Conducted Spurious Emission

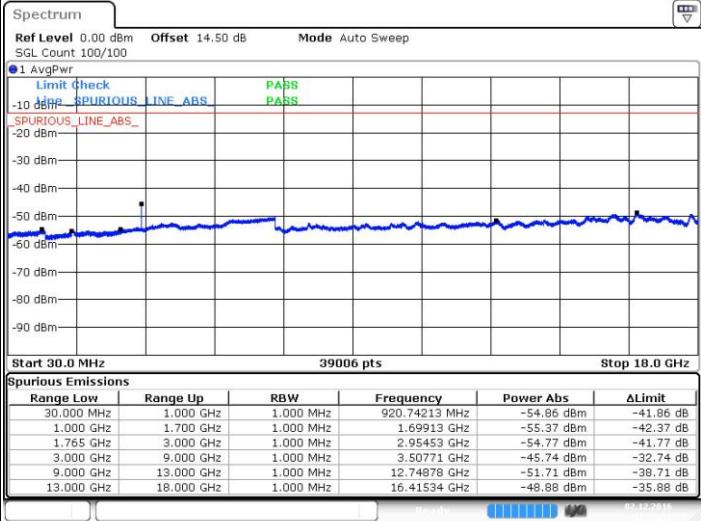
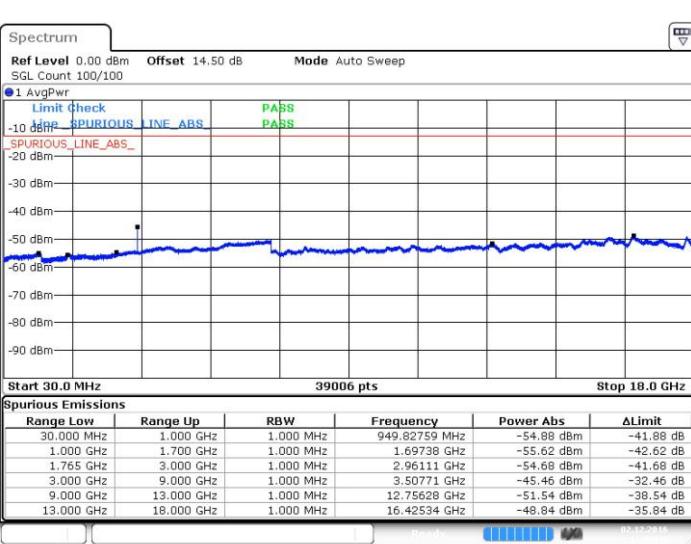




LTE Band 4 / 1.4MHz

Highest Channel / QPSK

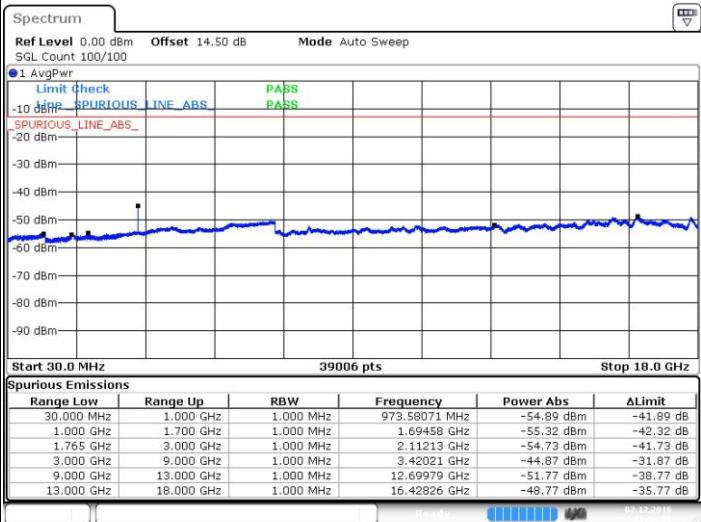
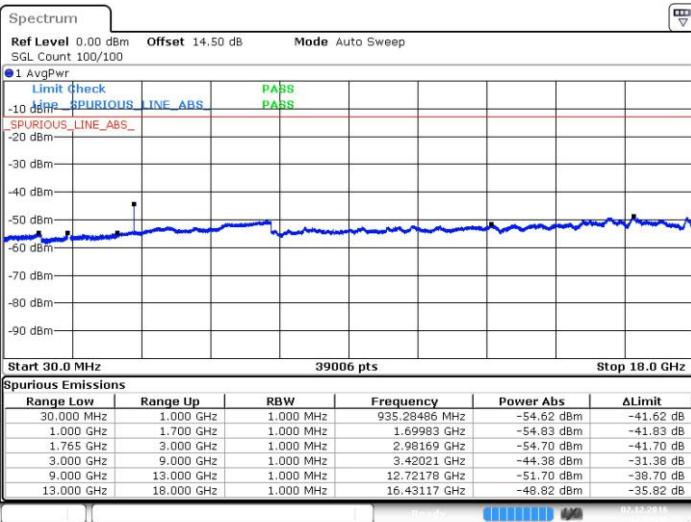
Highest Channel / 16QAM

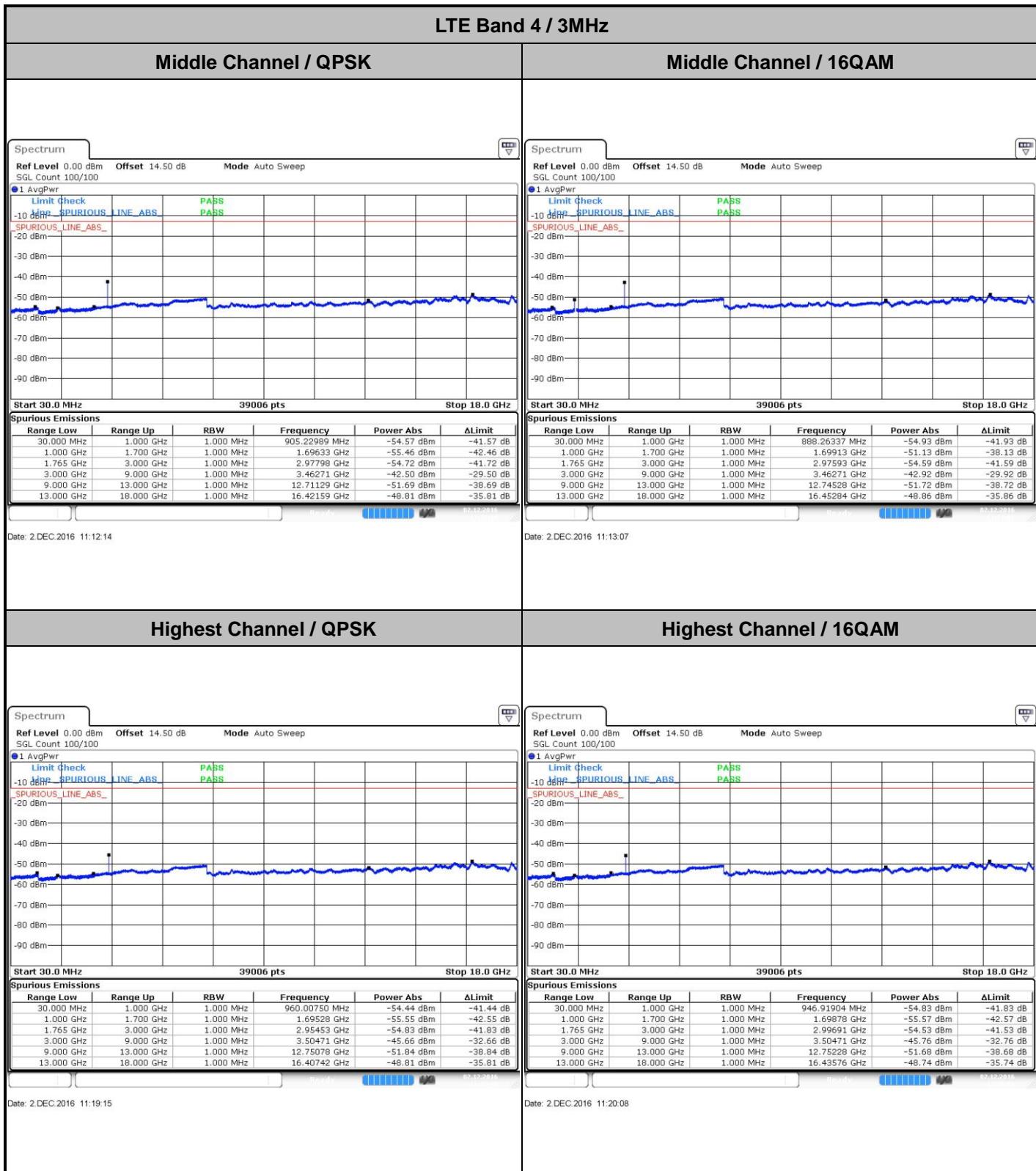


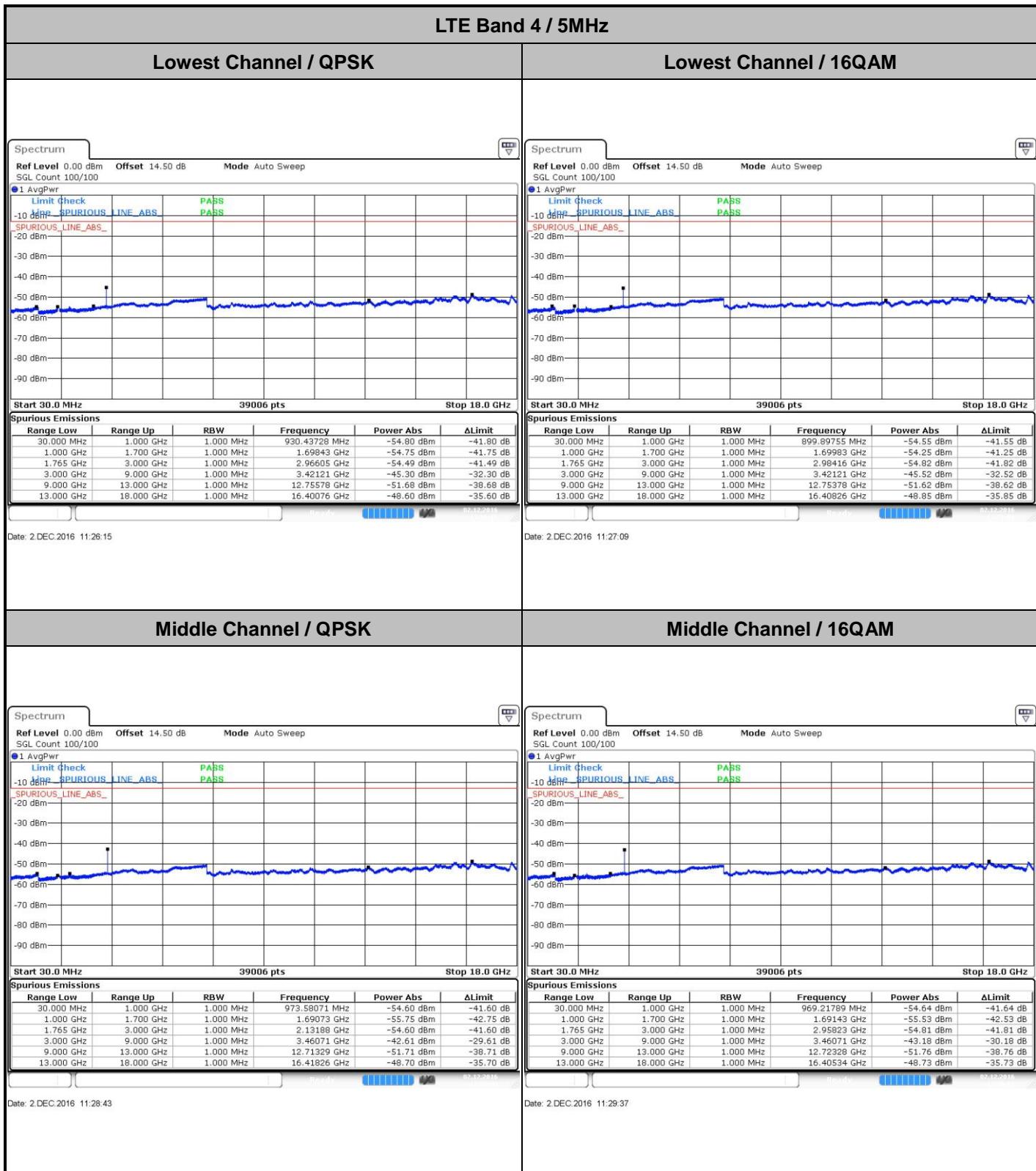
LTE Band 4 / 3MHz

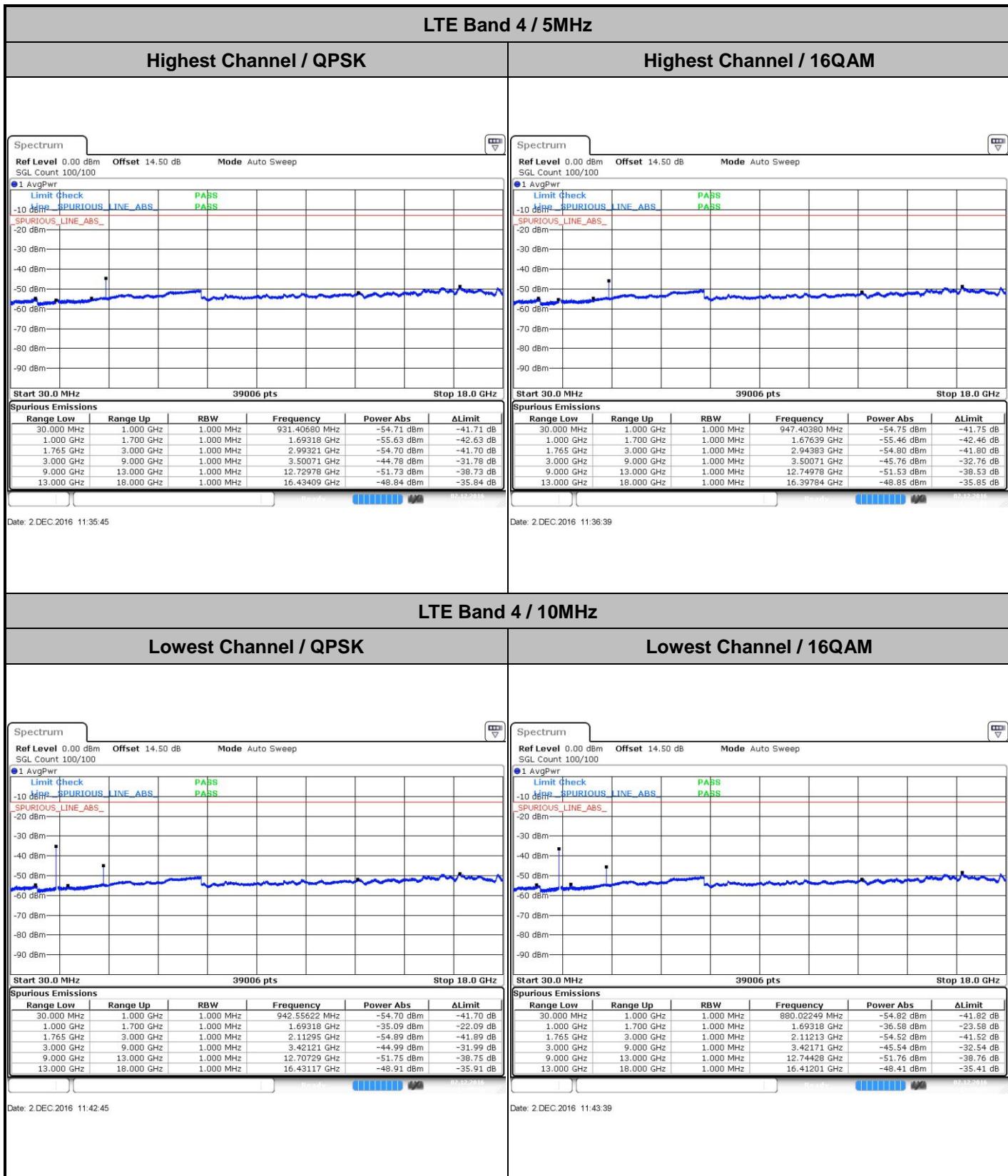
Lowest Channel / QPSK

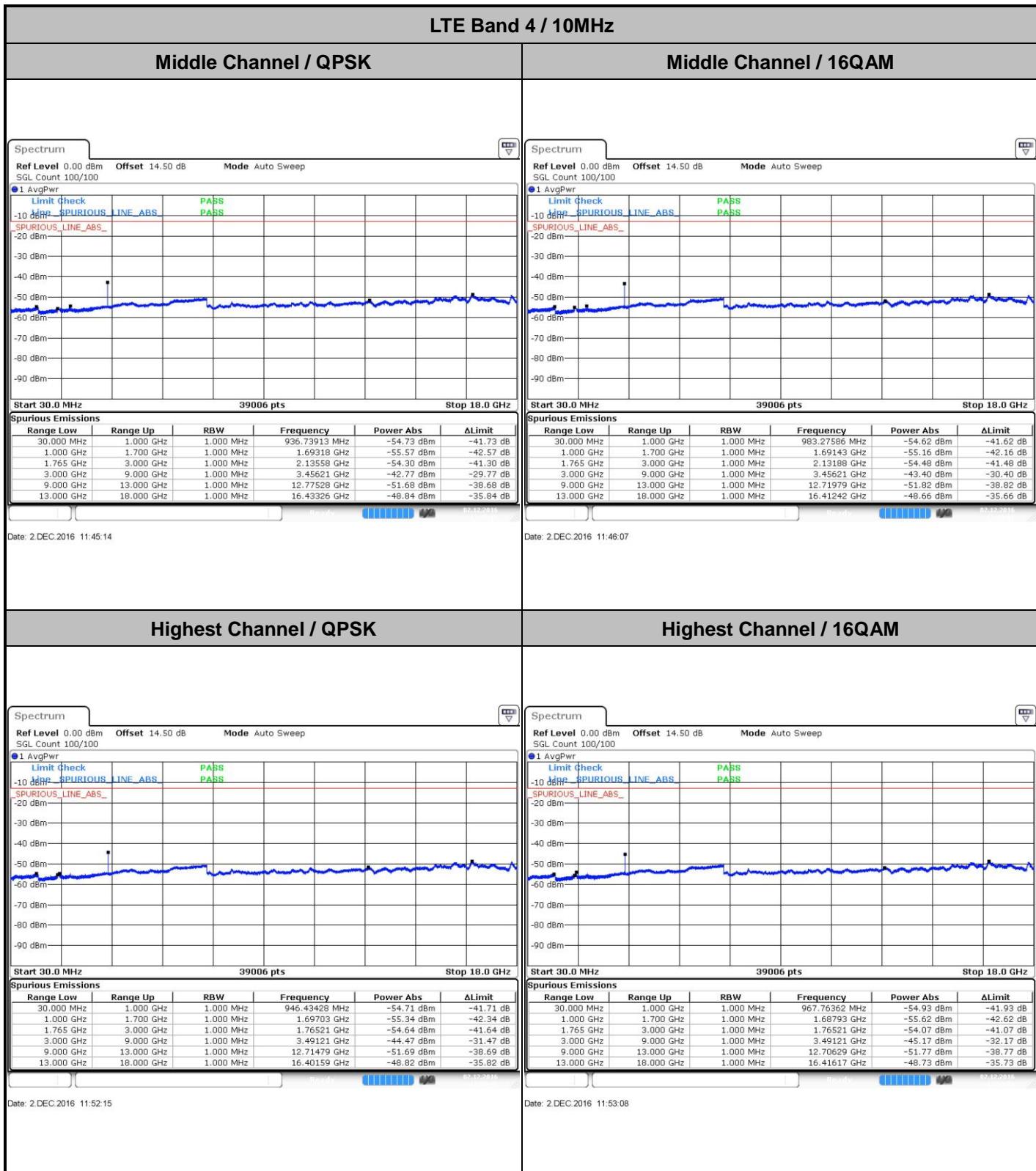
Lowest Channel / 16QAM

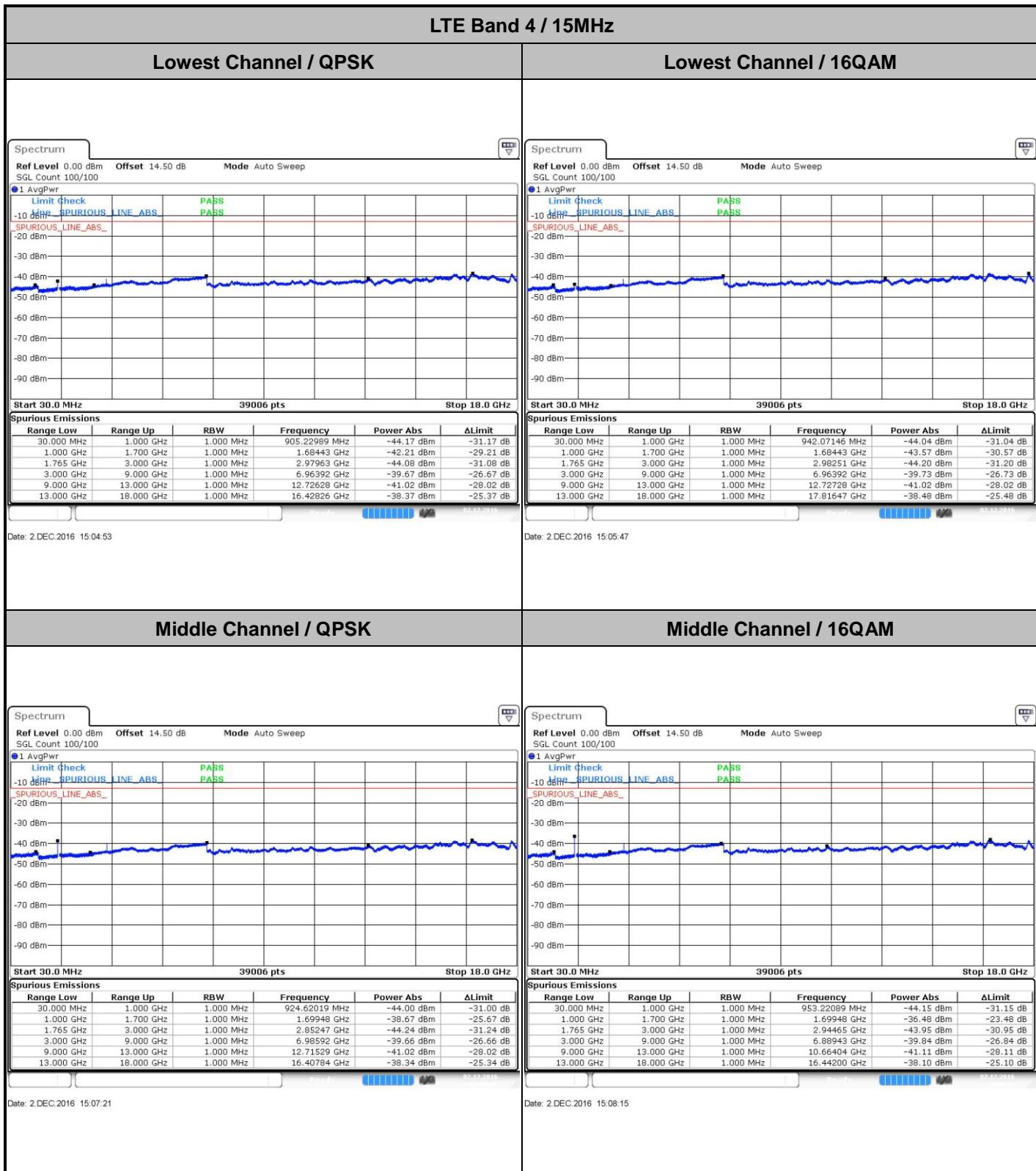










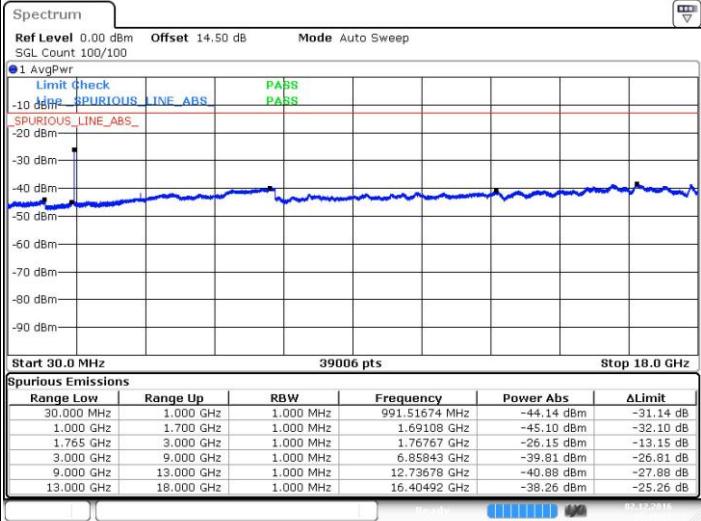
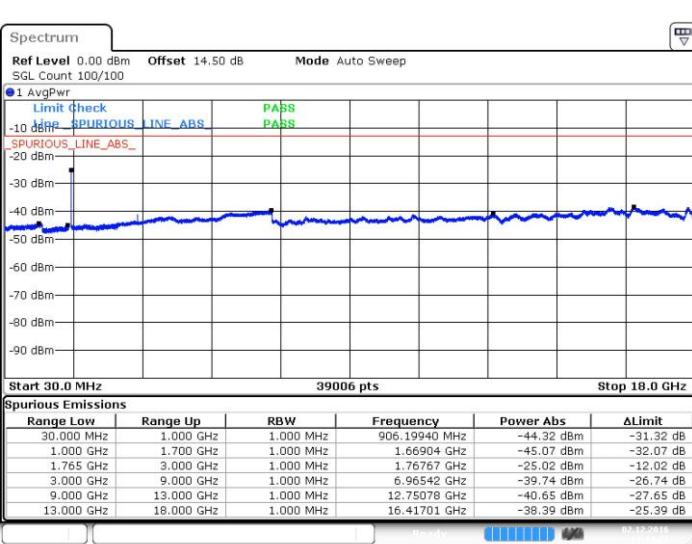




LTE Band 4 / 15MHz

Highest Channel / QPSK

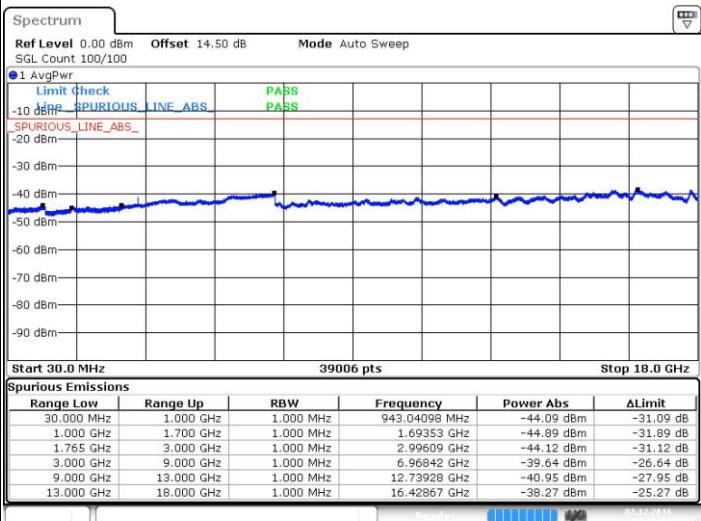
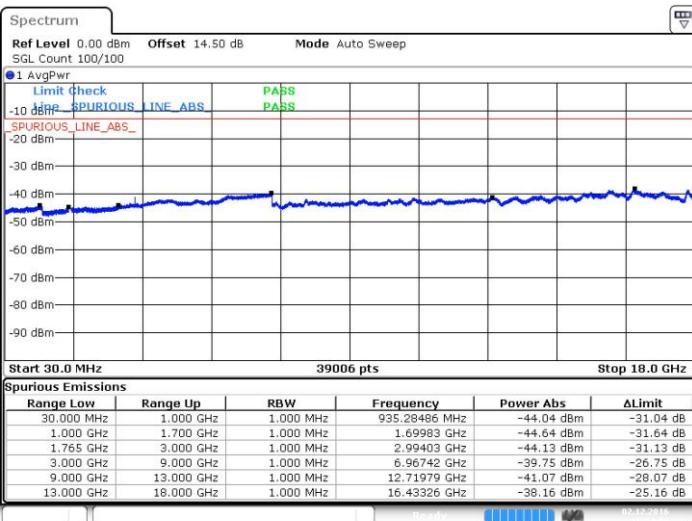
Highest Channel / 16QAM

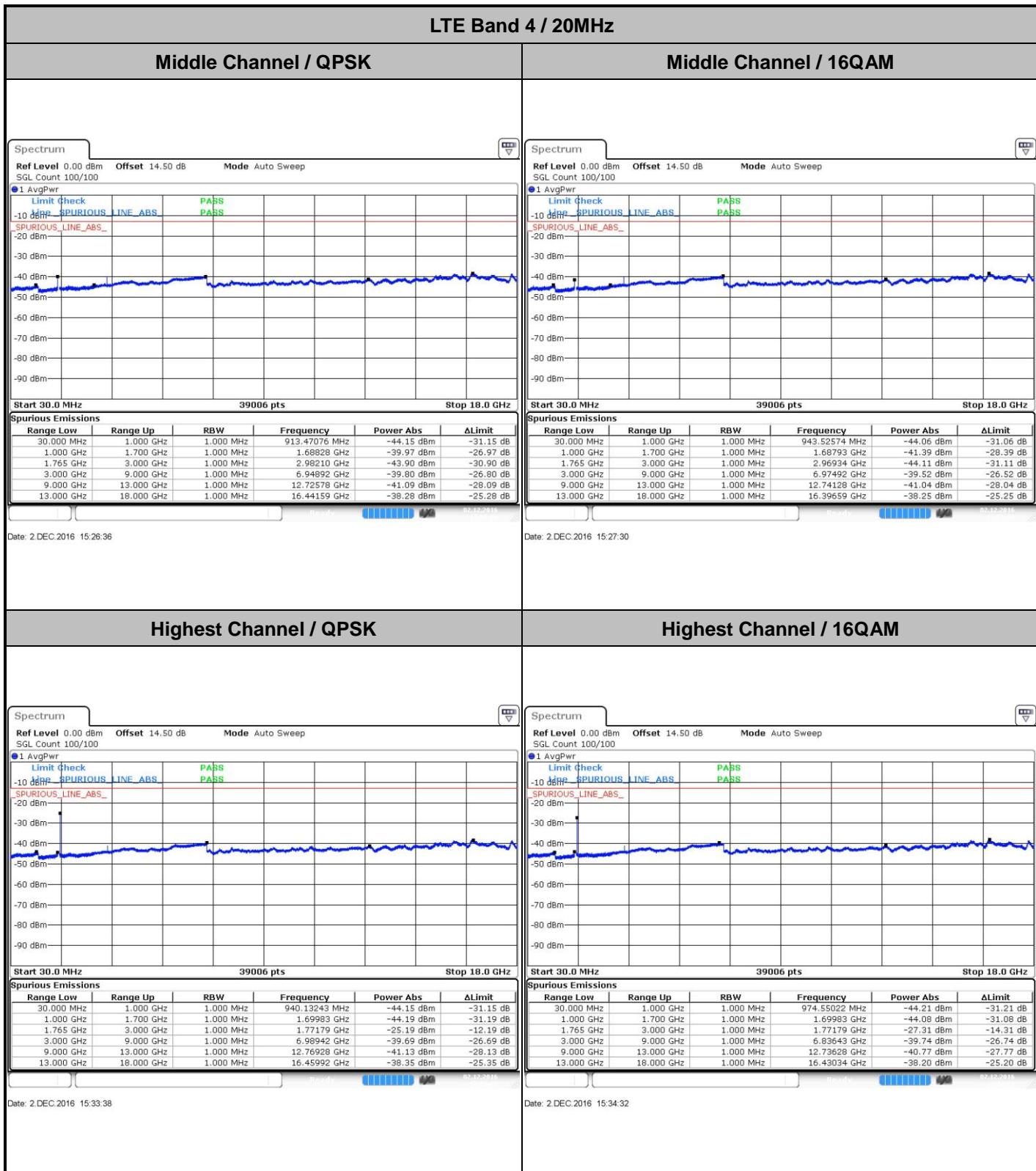


LTE Band 4 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM







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	0.0058	PASS
40	Normal Voltage	0.0069	
30	Normal Voltage	0.0046	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0035	
0	Normal Voltage	0.0081	
-10	Normal Voltage	0.0144	
-20	Normal Voltage	0.0179	
-30	Normal Voltage	0.0219	
20	Maximum Voltage	0.0092	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0069	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

EIRP

LTE Band 4 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	3	22.38	0.1730	22.57	0.1807
Middle		3	3	22.19	0.1656	22.29	0.1694
Highest		3	3	22.13	0.1633	22.06	0.1607
Lowest	16QAM	1	0	21.70	0.1479	21.77	0.1503
Middle		1	0	21.32	0.1355	21.38	0.1374
Highest		1	0	21.35	0.1365	21.16	0.1306
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	22.42	0.1746	22.63	0.1832
Middle		1	0	22.13	0.1633	22.25	0.1679
Highest		1	0	22.00	0.1585	21.96	0.1570
Lowest	16QAM	1	0	21.76	0.1500	21.84	0.1528
Middle		1	0	21.37	0.1371	21.29	0.1346
Highest		1	0	21.44	0.1393	21.25	0.1334
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	22.39	0.1734	22.57	0.1807
Middle		1	12	22.14	0.1637	22.26	0.1683
Highest		1	12	21.95	0.1567	21.93	0.1560
Lowest	16QAM	1	12	21.92	0.1556	21.94	0.1563
Middle		1	12	21.41	0.1384	21.44	0.1393
Highest		1	12	21.65	0.1462	21.46	0.1400
Limit	EIRP < 1W			Result		PASS	

LTE Band 4/ 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	22.35	0.1718	22.54	0.1795
Middle		1	0	22.15	0.1641	22.23	0.1671
Highest		1	0	21.94	0.1563	21.96	0.1570
Lowest	16QAM	1	0	21.89	0.1545	21.95	0.1567
Middle		1	25	21.75	0.1496	21.76	0.1500
Highest		1	0	21.39	0.1377	21.29	0.1346
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	22.67	0.1849	22.76	0.1888
Middle		1	0	22.60	0.1820	22.51	0.1782
Highest		1	0	22.45	0.1758	22.41	0.1742
Lowest	16QAM	1	0	21.78	0.1507	21.85	0.1531
Middle		1	0	21.67	0.1469	21.63	0.1455
Highest		1	0	21.53	0.1422	21.48	0.1406
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	0	22.69	0.1858	22.76	0.1888
Middle		1	0	22.54	0.1795	22.59	0.1816
Highest		1	0	22.55	0.1799	22.54	0.1795
Lowest	16QAM	1	0	21.93	0.1560	22.03	0.1596
Middle		1	0	21.77	0.1503	21.84	0.1528
Highest		1	0	21.66	0.1466	21.65	0.1462
Limit	EIRP < 1W			Result		PASS	



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	3463.74	-55.96	-13	-42.96	-67.04	-62.38	6.18	12.60	H
	5195.61	-46.50	-13	-33.50	-65.46	-51.46	7.74	12.70	H
	6927.48	-49.60	-13	-36.60	-73.22	-52.30	9.00	11.70	H
	3463.74	-52.30	-13	-39.30	-65.16	-58.72	6.18	12.60	V
	5195.61	-49.23	-13	-36.23	-68.63	-54.19	7.74	12.70	V
	6927.48	-49.74	-13	-36.74	-73.07	-52.44	9.00	11.70	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	3462.48	-52.62	-13	-39.62	-63.70	-59.04	6.18	12.60	H
	5193.72	-44.36	-13	-31.36	-63.32	-49.32	7.74	12.70	H
	6924.96	-49.64	-13	-36.64	-73.26	-52.34	9.00	11.70	H
	3462.48	-55.22	-13	-42.22	-68.08	-61.64	6.18	12.60	V
	5193.72	-47.99	-13	-34.99	-67.39	-52.95	7.74	12.70	V
	6924.96	-49.60	-13	-36.60	-72.93	-52.30	9.00	11.70	V

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



LTE Band 4 / 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	3460.68	-54.87	-13	-41.87	-65.95	-61.29	6.18	12.60	H
	5191.02	-48.66	-13	-35.66	-67.62	-53.62	7.74	12.70	H
	6921.36	-50.16	-13	-37.16	-73.78	-52.86	9.00	11.70	H
	3460.68	-54.18	-13	-41.18	-67.04	-60.60	6.18	12.60	V
	5191.02	-48.31	-13	-35.31	-67.71	-53.27	7.74	12.70	V
	6921.36	-50.16	-13	-37.16	-73.49	-52.86	9.00	11.70	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	3456.18	-53.85	-13	-40.85	-64.93	-60.27	6.18	12.60	H
	5184.27	-45.14	-13	-32.14	-64.10	-50.10	7.74	12.70	H
	6912.36	-49.50	-13	-36.50	-73.12	-52.20	9.00	11.70	H
	3456.18	-54.94	-13	-41.94	-67.8	-61.36	6.18	12.60	V
	5184.27	-50.92	-13	-37.92	-70.32	-55.88	7.74	12.70	V
	6912.36	-49.56	-13	-36.56	-72.89	-52.26	9.00	11.70	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	3451.68	-55.35	-13	-42.35	-66.43	-61.77	6.18	12.60	H
	5177.52	-48.70	-13	-35.70	-67.66	-53.66	7.74	12.70	H
	6903.36	-49.64	-13	-36.64	-73.26	-52.34	9.00	11.70	H
	3451.68	-52.25	-13	-39.25	-65.11	-58.67	6.18	12.60	V
	5177.52	-50.38	-13	-37.38	-69.78	-55.34	7.74	12.70	V
	6903.36	-49.68	-13	-36.68	-73.01	-52.38	9.00	11.70	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	3447.18	-54.87	-13	-41.87	-65.95	-61.29	6.18	12.60	H
	5170.77	-46.07	-13	-33.07	-65.03	-51.03	7.74	12.70	H
	6894.36	-49.83	-13	-36.83	-73.45	-52.53	9.00	11.70	H
	3447.18	-50.16	-13	-37.16	-63.02	-56.58	6.18	12.60	V
	5170.77	-43.10	-13	-30.10	-62.5	-48.06	7.74	12.70	V
	6894.36	-50.06	-13	-37.06	-73.39	-52.76	9.00	11.70	V

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