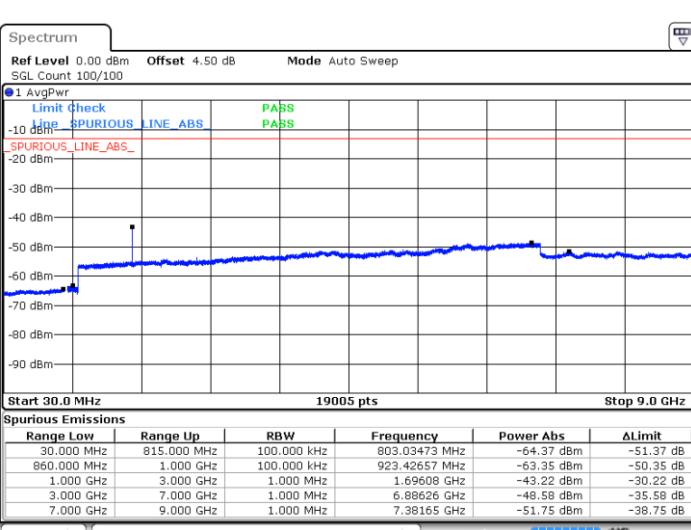




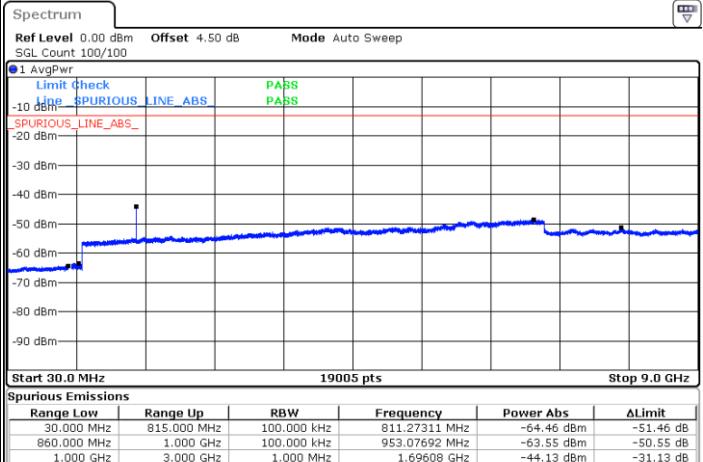
## LTE Band 5 / 1.4MHz

## Highest Channel / QPSK

## Highest Channel / 16QAM



Date: 20.APR.2018 14:24:38

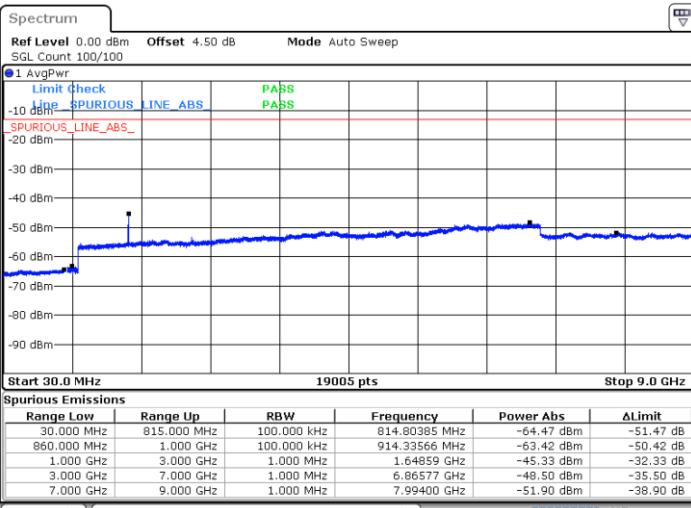


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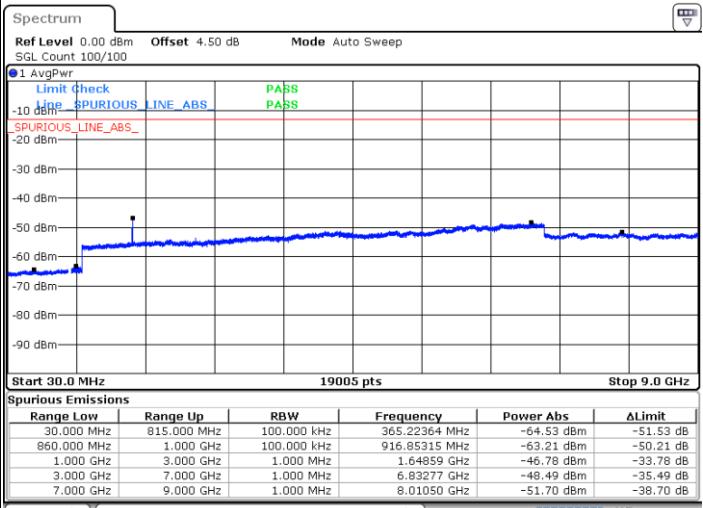
## LTE Band 5 / 3MHz

## Lowest Channel / QPSK

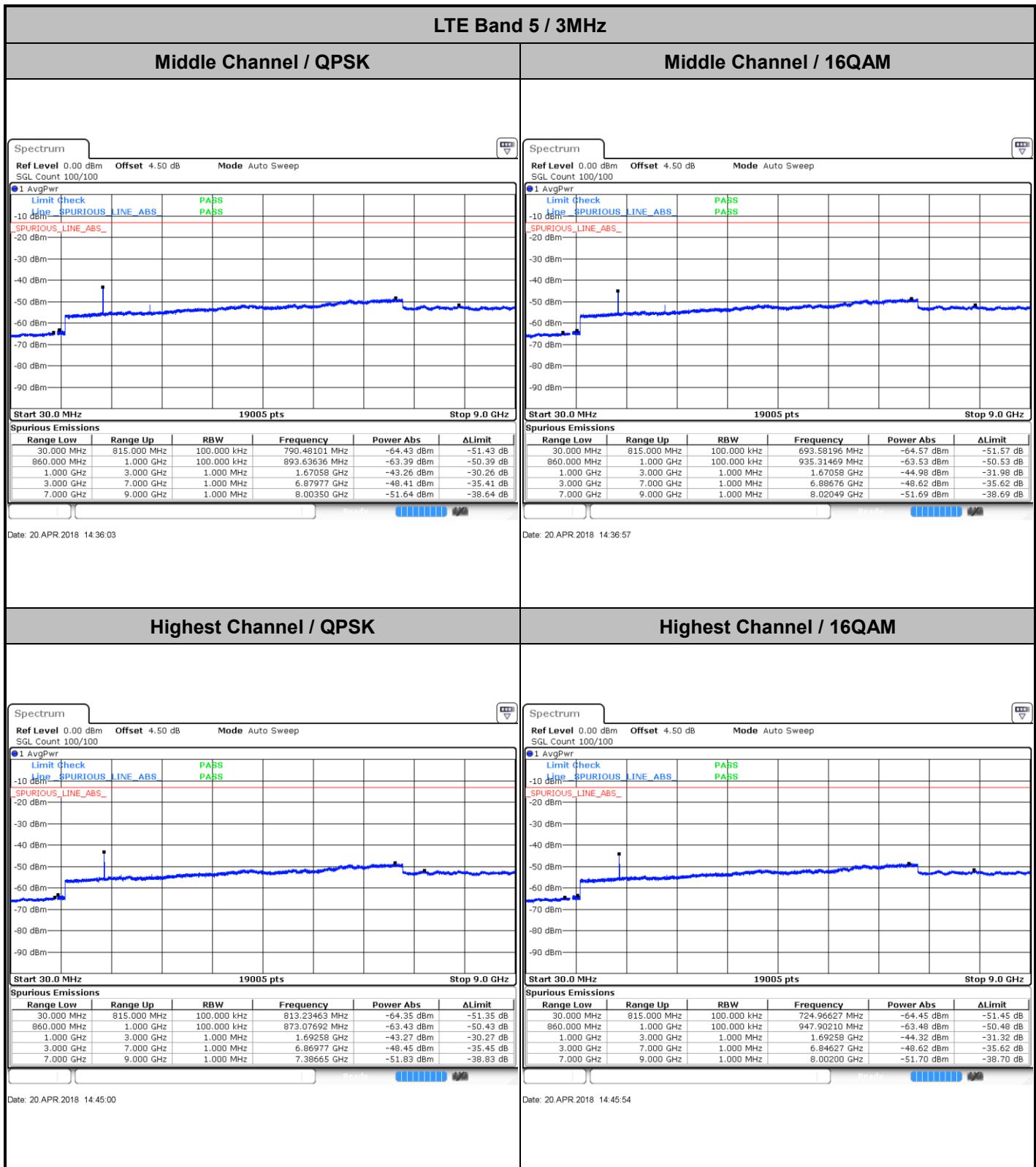
## Lowest Channel / 16QAM

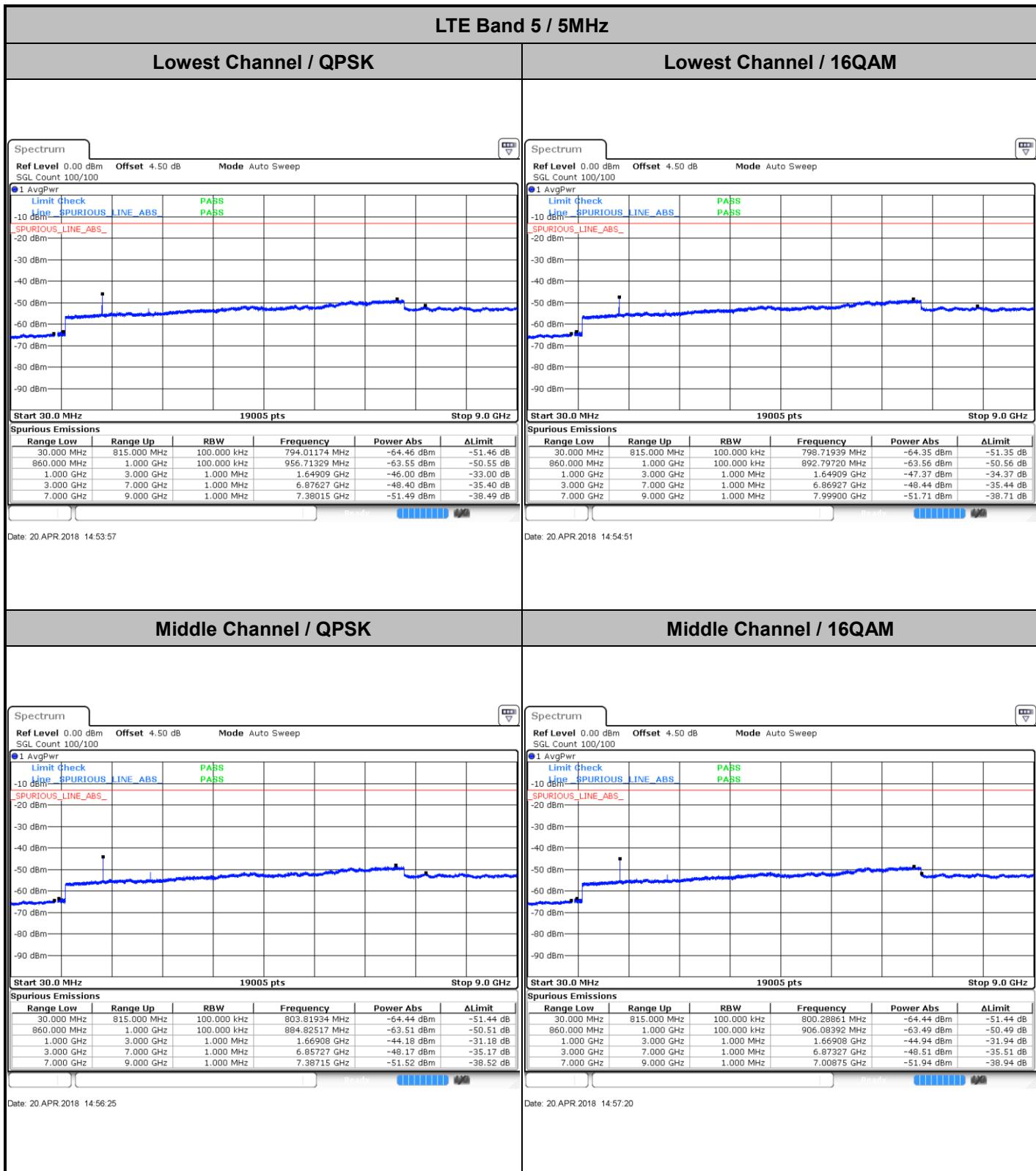


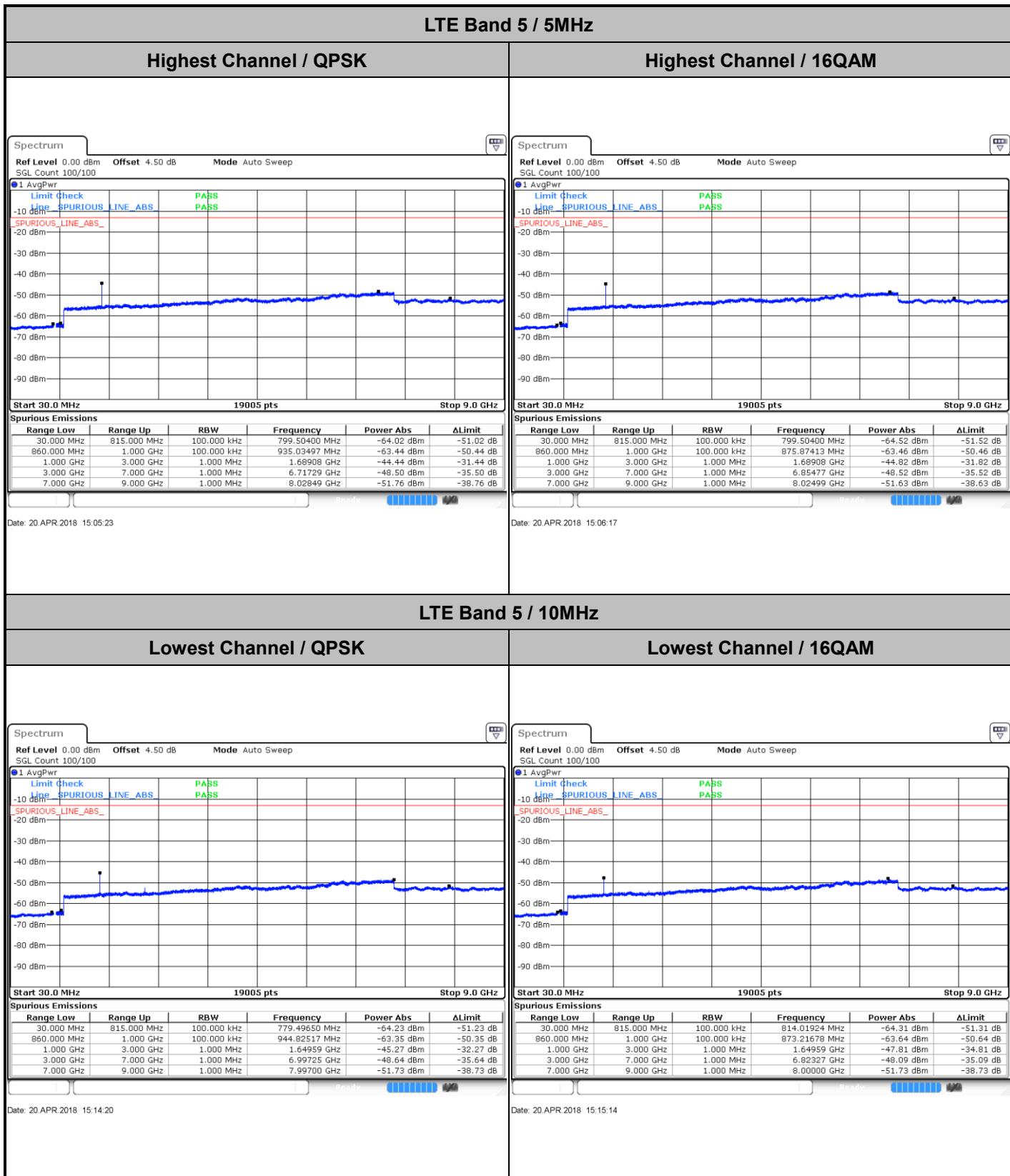
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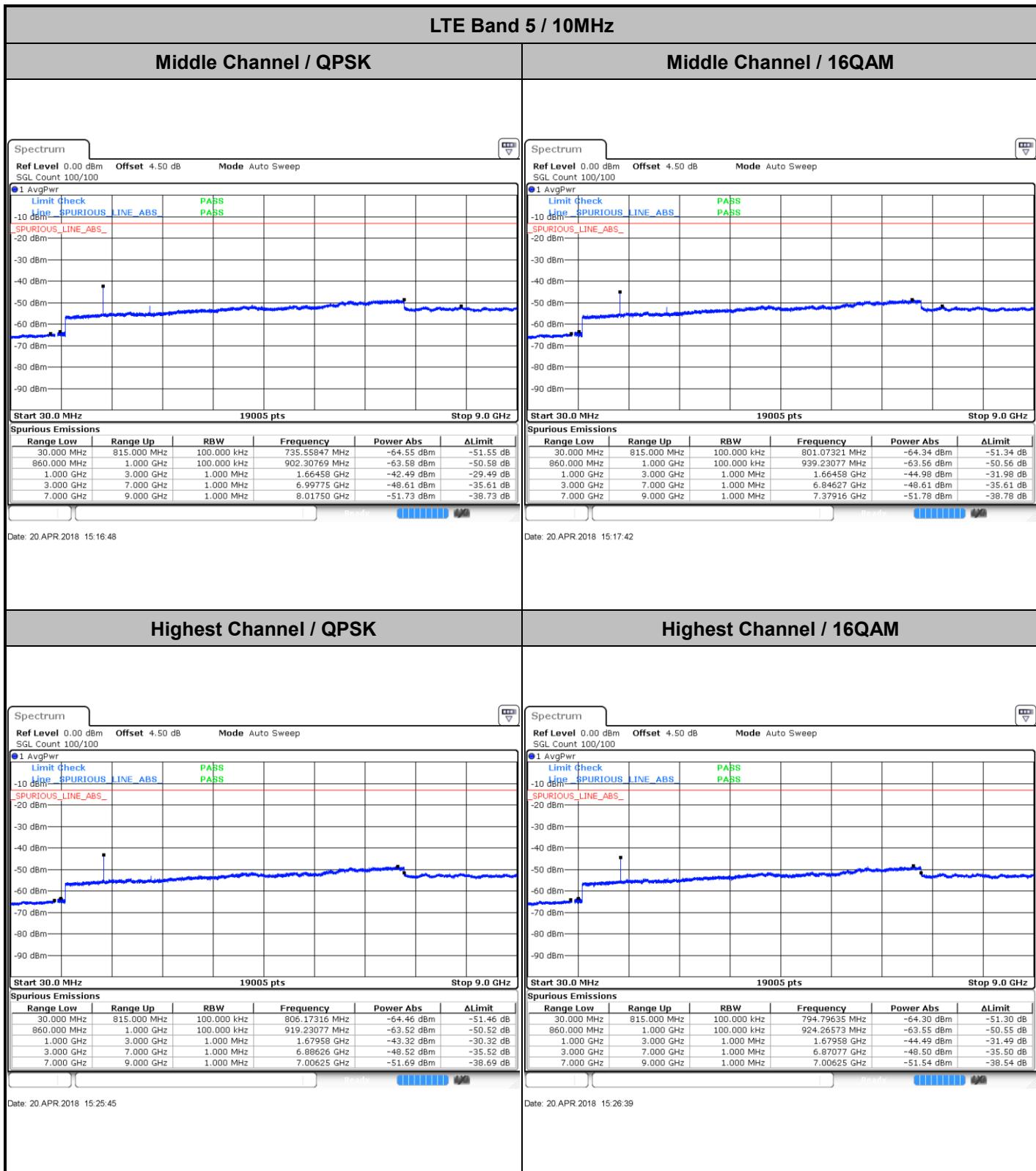


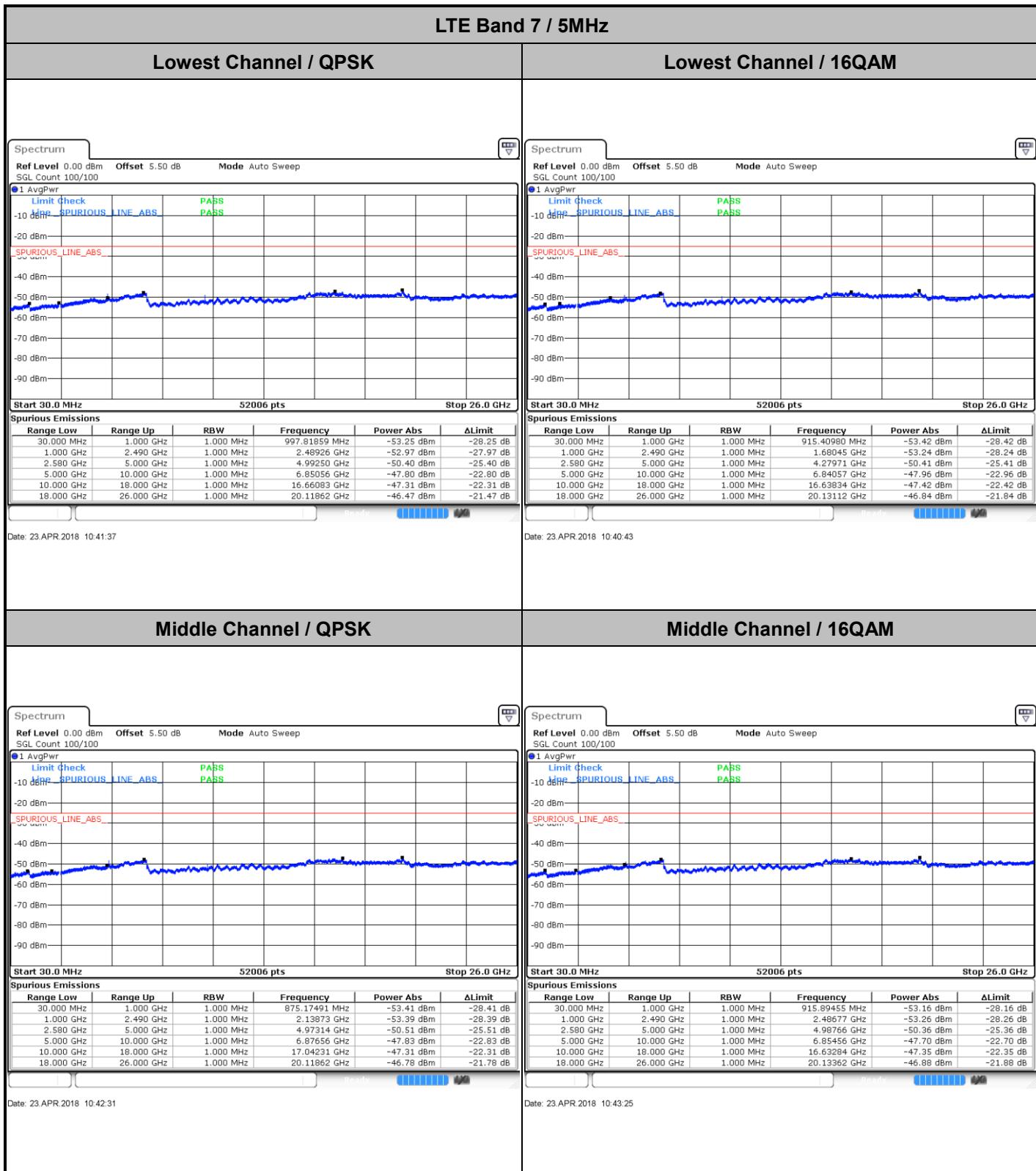
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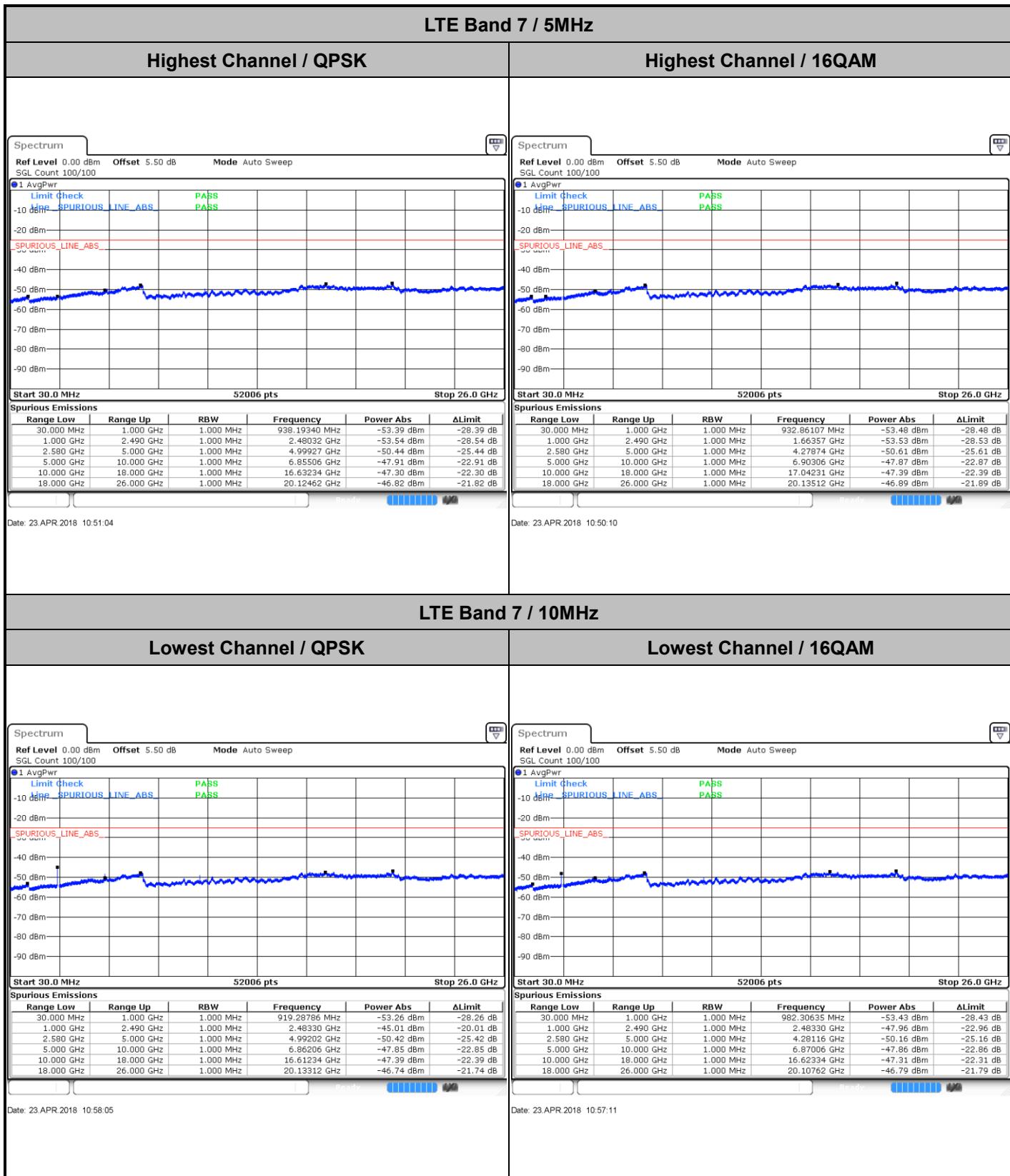


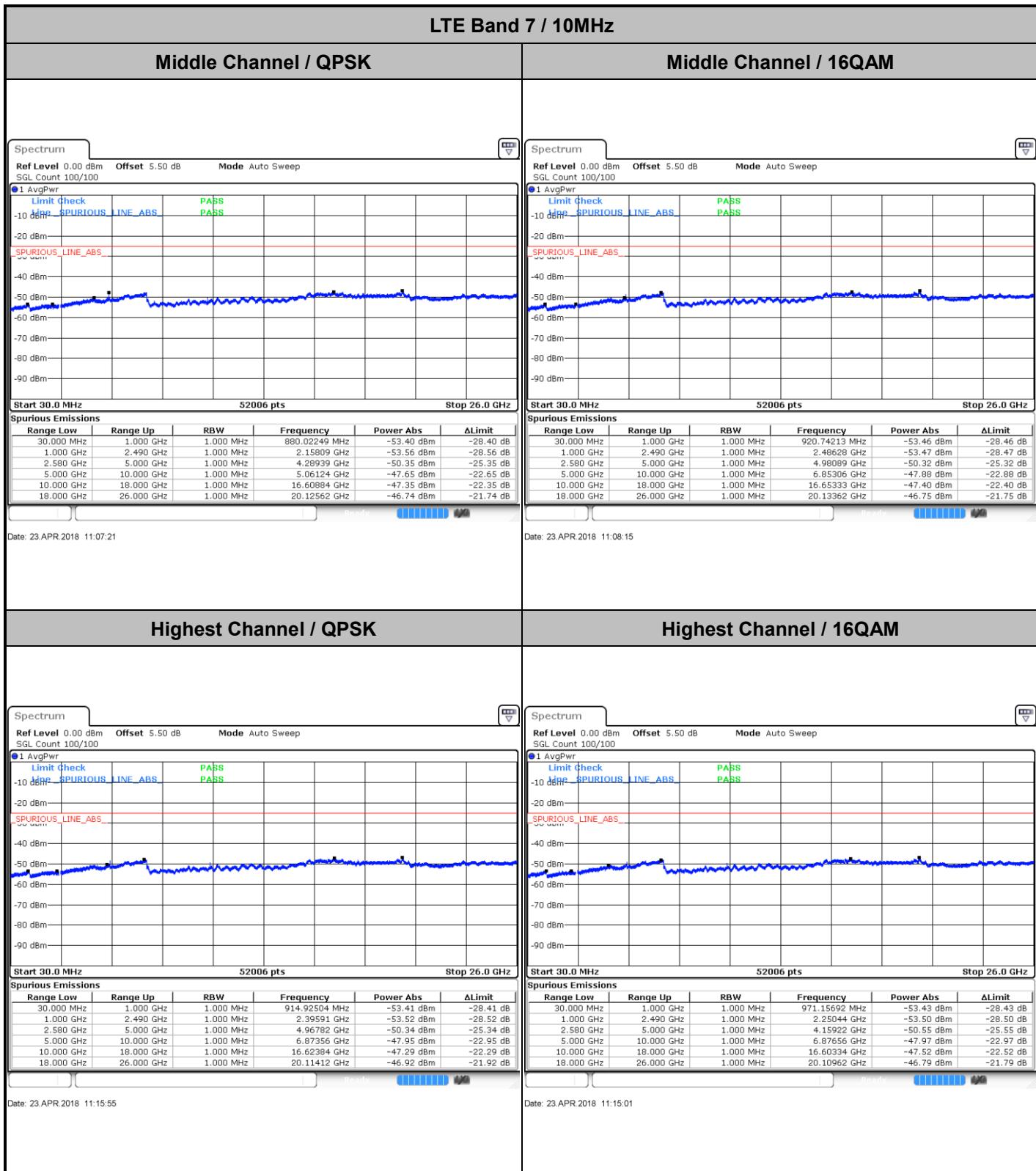


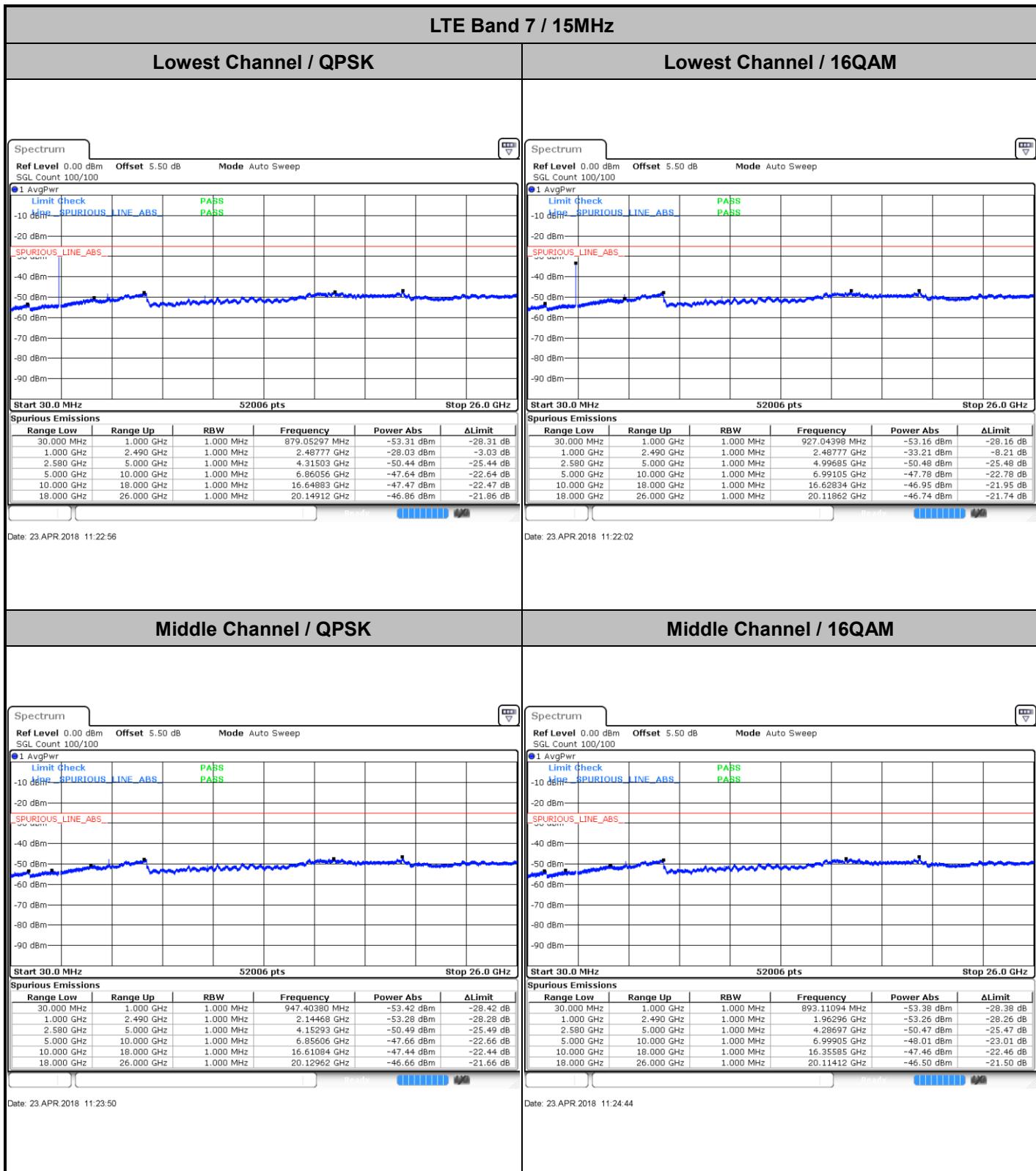


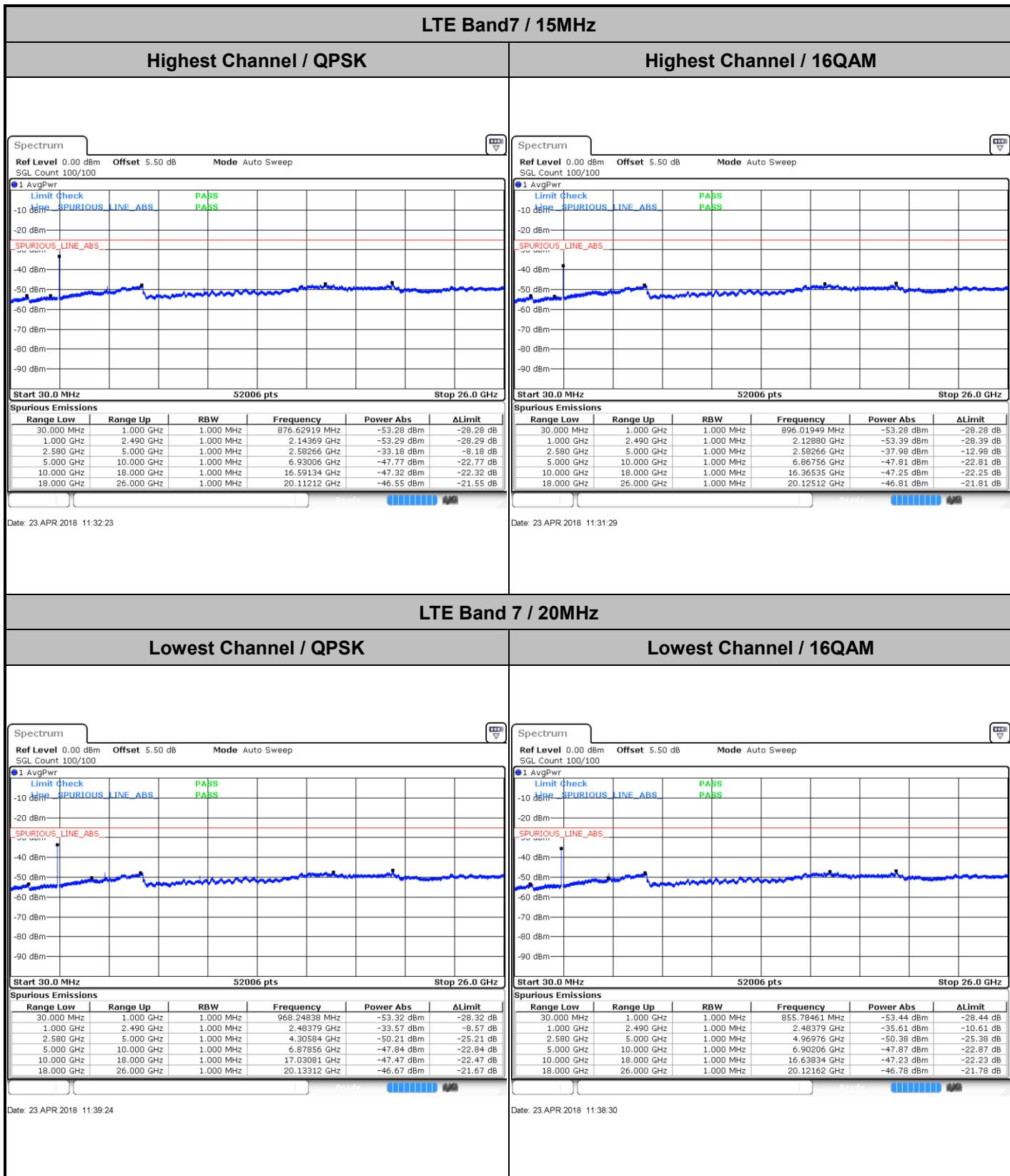


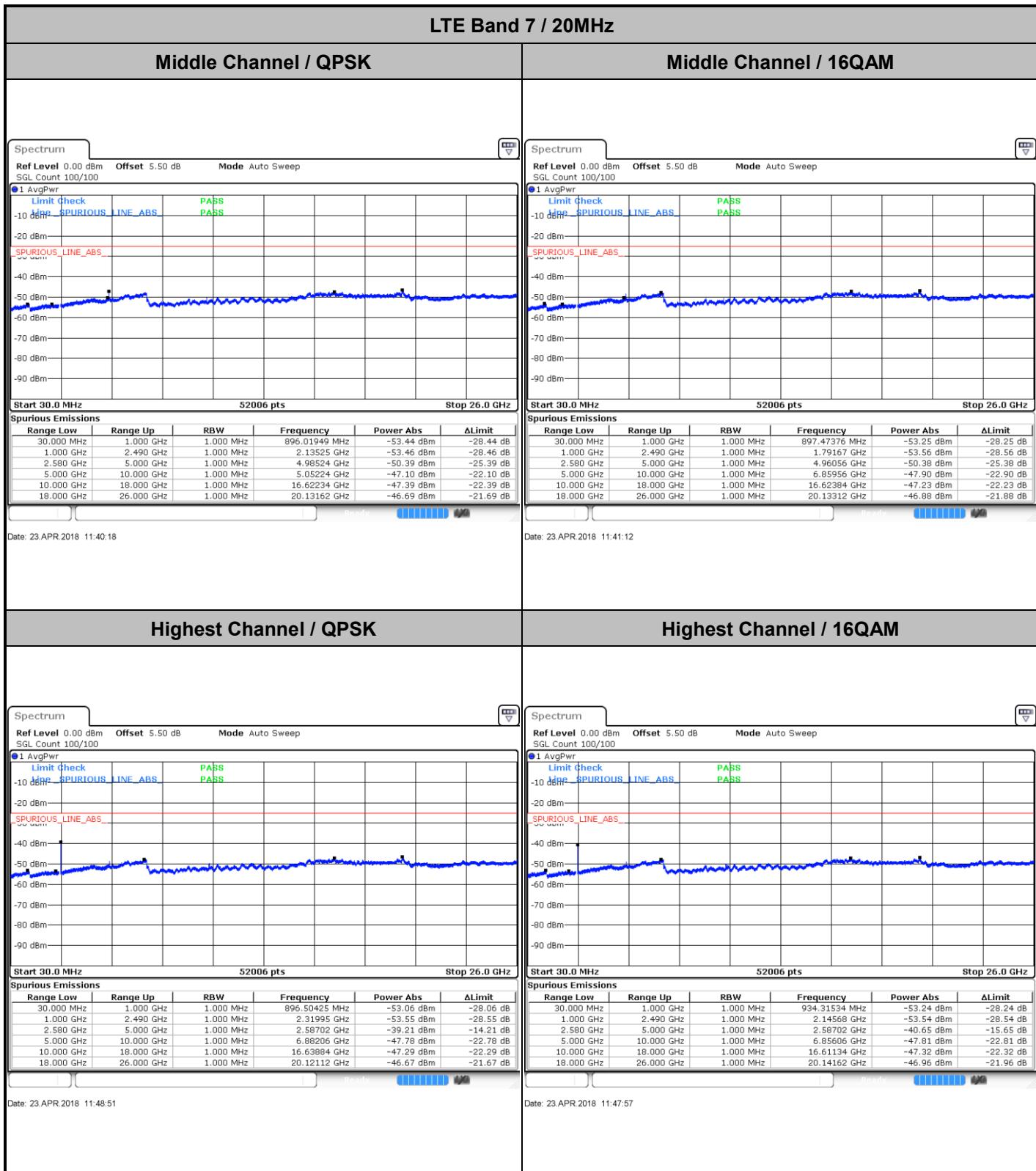


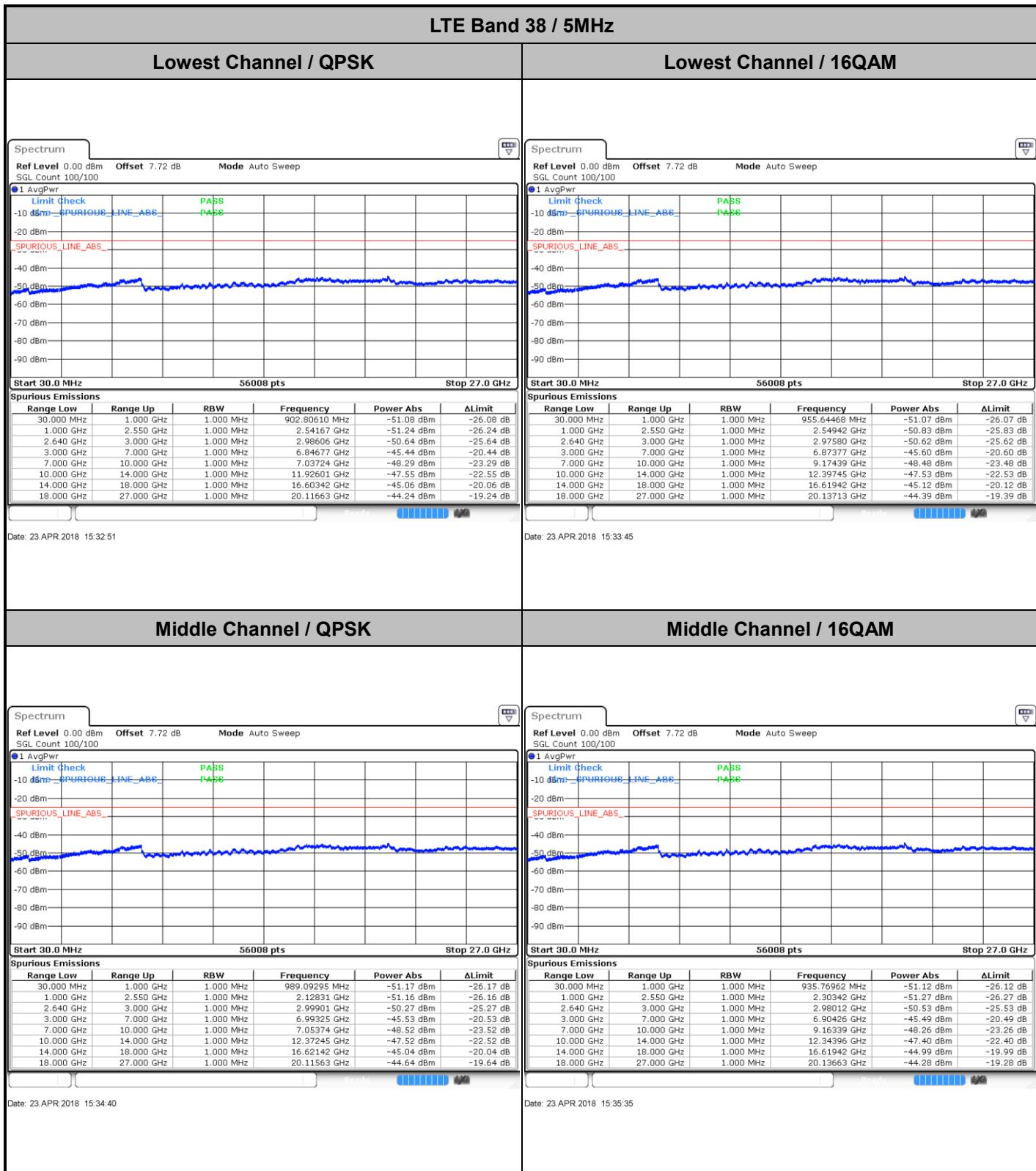










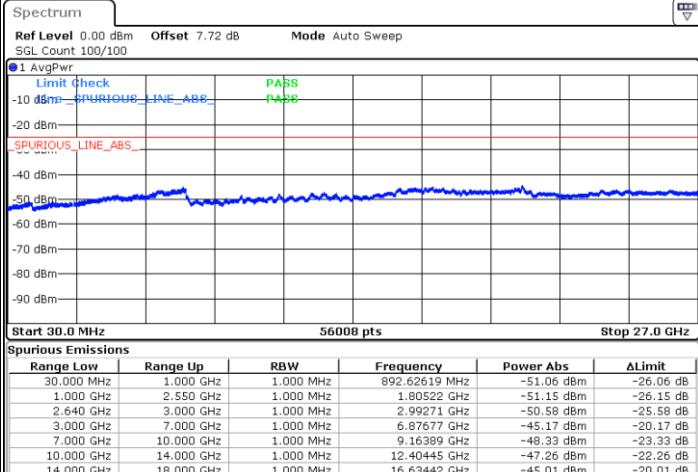
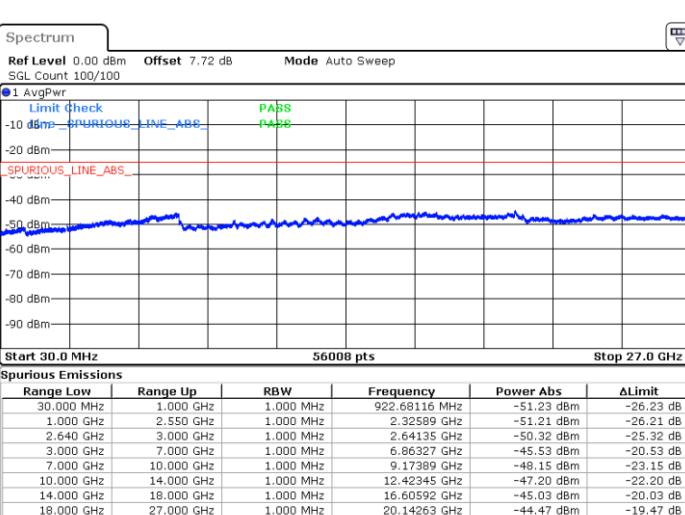




## LTE Band 38 / 5MHz

## Highest Channel / QPSK

## Highest Channel / 16QAM



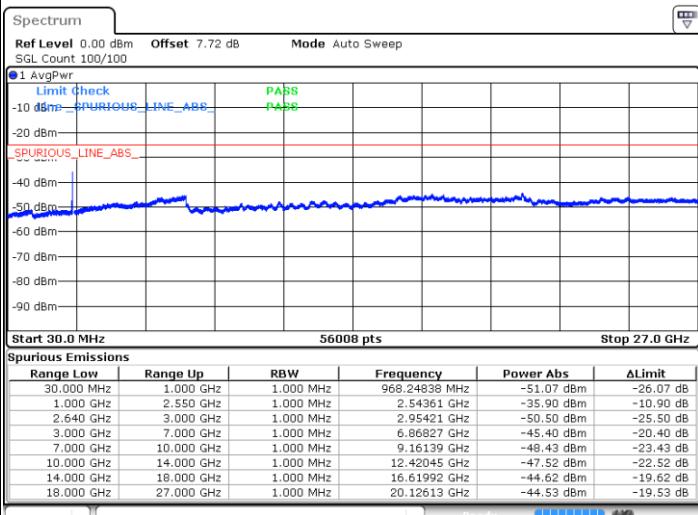
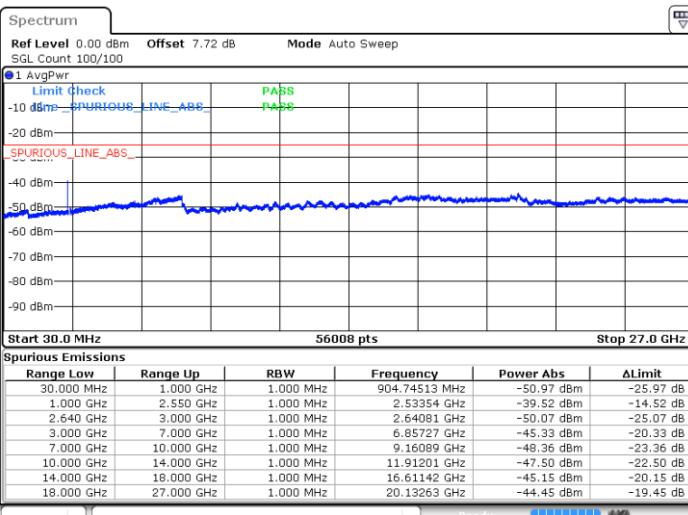
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Date: 23.APR.2018 15:37:24

## LTE Band 38 / 10MHz

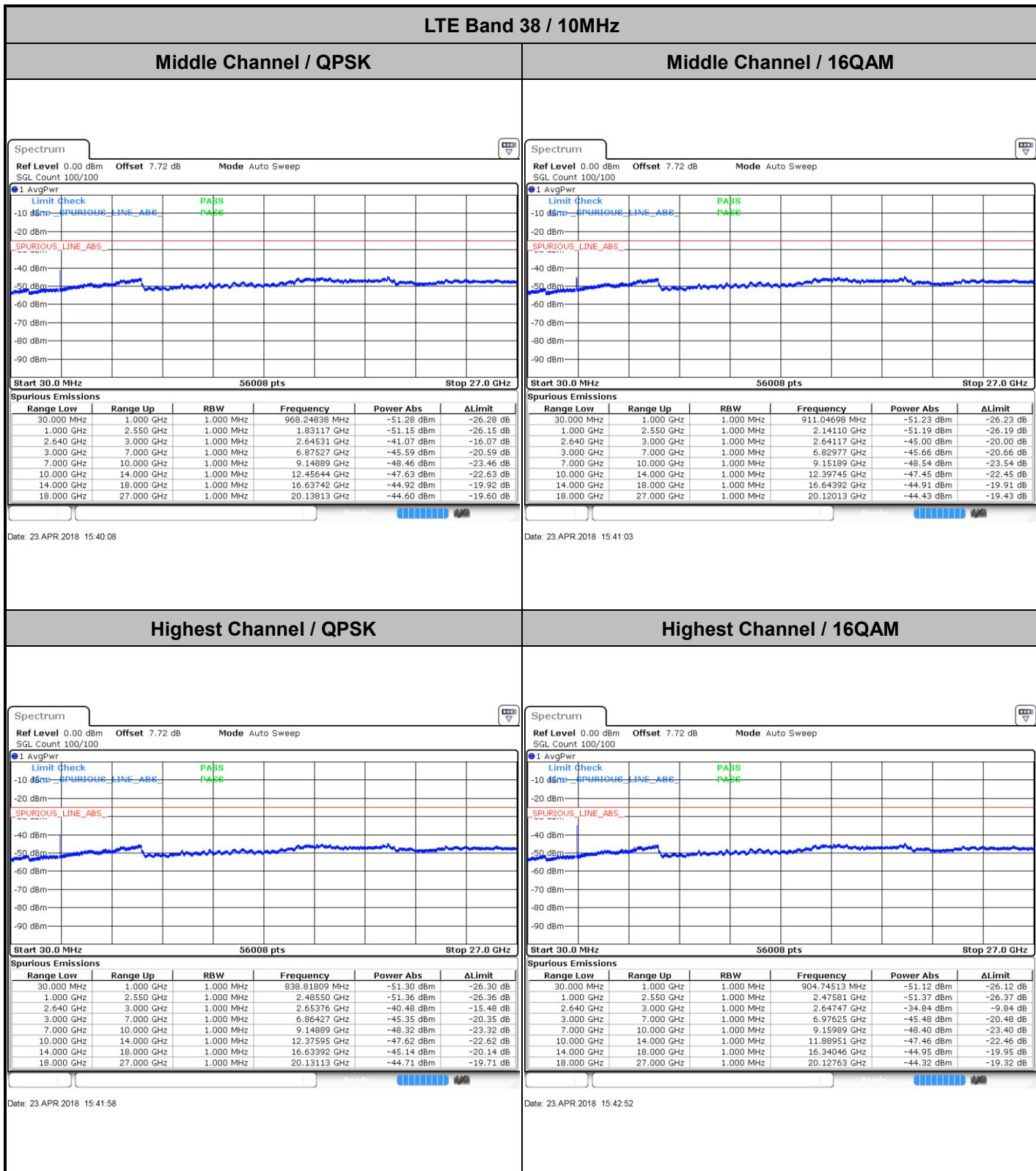
## Lowest Channel / QPSK

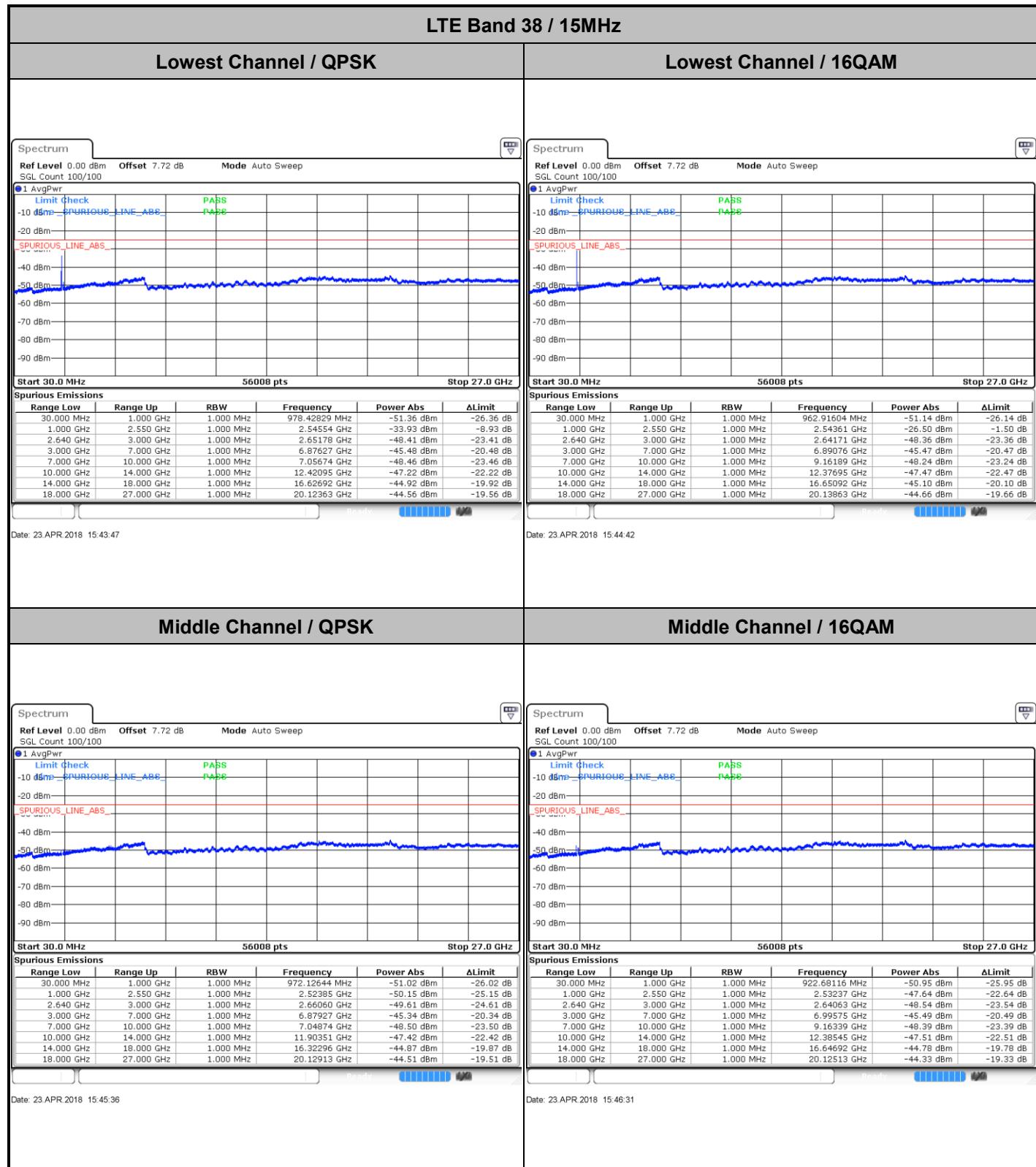
## Lowest Channel / 16QAM



Date: 23.APR.2018 15:38:19

Date: 23.APR.2018 15:39:14



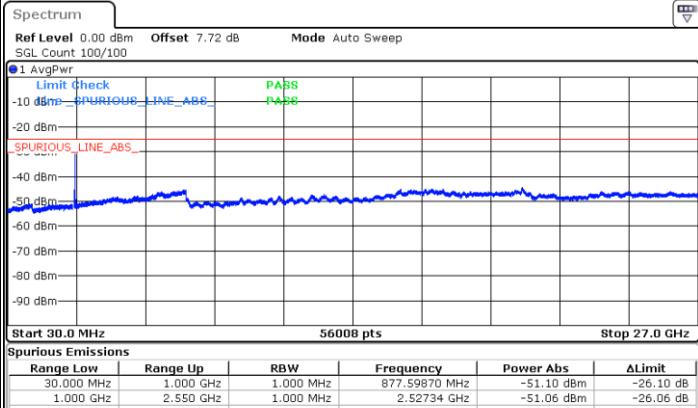
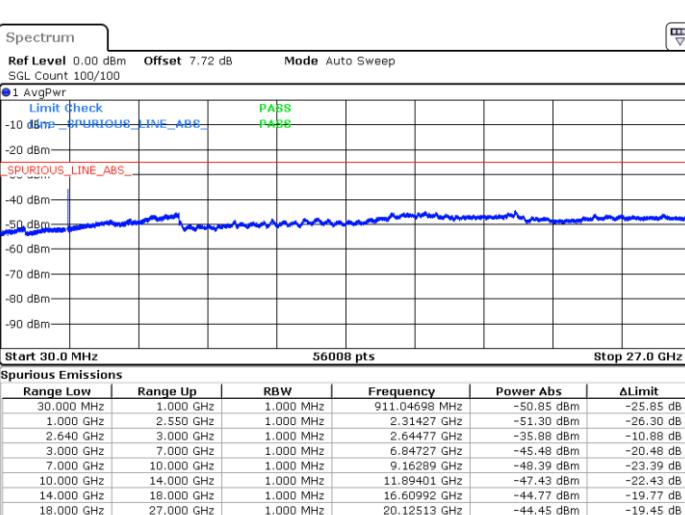




## LTE Band 38 / 15MHz

## Highest Channel / QPSK

## Highest Channel / 16QAM



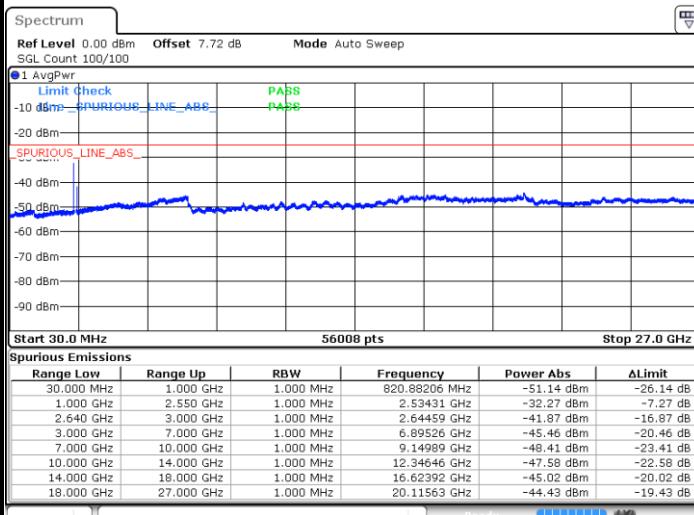
Date: 23.APR.2018 15:47:26

Date: 23.APR.2018 15:48:20

## LTE Band 38 / 20MHz

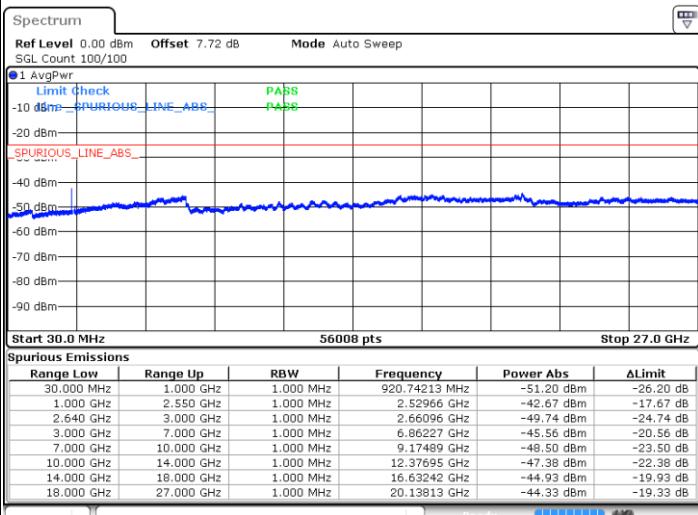
## Lowest Channel / QPSK

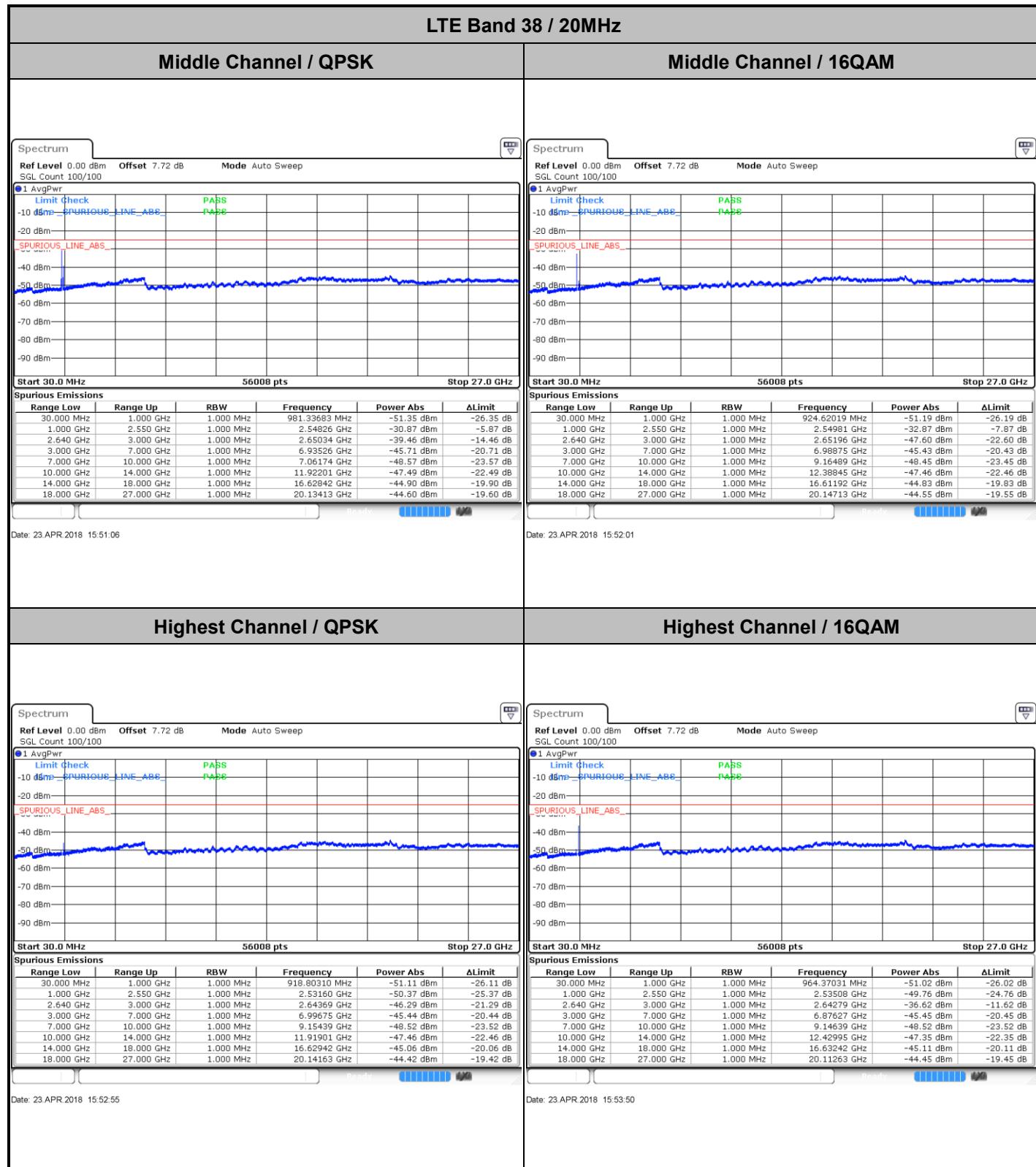
## Lowest Channel / 16QAM



Date: 23.APR.2018 15:49:16

Date: 23.APR.2018 15:50:11







## 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	0.0029	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0031	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0010	
20	Normal Voltage	0.0026	
20	Battery End Point	0.0005	

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.35 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	0.0001	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0050	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0056	
0	Normal Voltage	0.0059	
-10	Normal Voltage	0.0051	
-20	Normal Voltage	0.0023	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0051	
20	Normal Voltage	0.0060	
20	Battery End Point	0.0012	

**Note:** Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.35 V.



Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0012	
30	Normal Voltage	0.0099	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0091	
0	Normal Voltage	0.0138	
-10	Normal Voltage	0.0032	
-20	Normal Voltage	0.0110	
-30	Normal Voltage	0.0150	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0016	
20	Battery End Point	0.0126	

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.35 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	0.0039	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0092	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0027	
0	Normal Voltage	0.0135	
-10	Normal Voltage	0.0143	
-20	Normal Voltage	0.0042	
-30	Normal Voltage	0.0150	
20	Maximum Voltage	0.0012	
20	Normal Voltage	0.0046	
20	Battery End Point	0.0112	

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 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

### 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	-61.50	-13	-48.50	-75.20	-69.44	4.66	12.60	H
	5195.61	-56.03	-13	-43.03	-73.96	-62.42	6.31	12.70	H
	6927.48	-59.42	-13	-46.42	-79.04	-64.07	8.35	13.00	H
	3463.74	-63.26	-13	-50.26	-74.67	-71.20	4.66	12.60	V
	5195.61	-65.02	-13	-52.02	-78.63	-71.41	6.31	12.70	V
	6927.48	-60.40	-13	-47.40	-79.52	-65.05	8.35	13.00	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	-60.71	-13	-47.71	-74.41	-68.65	4.66	12.60	H
	5193.72	-53.28	-13	-40.28	-71.21	-59.67	6.31	12.70	H
	6924.96	-59.77	-13	-46.77	-79.39	-64.42	8.35	13.00	H
	3462.48	-62.45	-13	-49.45	-73.86	-70.39	4.66	12.60	V
	5193.72	-63.20	-13	-50.20	-76.81	-69.59	6.31	12.70	V
	6924.96	-60.52	-13	-47.52	-79.64	-65.17	8.35	13.00	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	3460.68	-60.71	-13	-47.71	-74.41	-68.65	4.66	12.60	H
	5191.02	-53.34	-13	-40.34	-71.27	-59.73	6.31	12.70	H
	6921.36	-59.70	-13	-46.70	-79.32	-64.35	8.35	13.00	H
	3460.68	-62.29	-13	-49.29	-73.7	-70.23	4.66	12.60	V
	5191.02	-62.24	-13	-49.24	-75.85	-68.63	6.31	12.70	V
	6921.36	-60.40	-13	-47.40	-79.52	-65.05	8.35	13.00	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	-60.56	-13	-47.56	-74.26	-68.50	4.66	12.60	H
	5184.27	-53.38	-13	-40.38	-71.31	-59.77	6.31	12.70	H
	6912.36	-59.53	-13	-46.53	-79.15	-64.18	8.35	13.00	H
	3456.18	-62.32	-13	-49.32	-73.73	-70.26	4.66	12.60	V
	5184.27	-62.81	-13	-49.81	-76.42	-69.20	6.31	12.70	V
	6912.36	-59.90	-13	-46.90	-79.02	-64.55	8.35	13.00	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 ( mz )	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	-60.93	-13	-47.93	-74.63	-68.87	4.66	12.60	H
	5177.52	-58.43	-13	-45.43	-76.36	-64.82	6.31	12.70	H
	6903.36	-59.58	-13	-46.58	-79.20	-64.23	8.35	13.00	H
	3451.68	-63.22	-13	-50.22	-74.63	-71.16	4.66	12.60	V
	5177.52	-64.83	-13	-51.83	-78.44	-71.22	6.31	12.70	V
	6903.36	-60.47	-13	-47.47	-79.59	-65.12	8.35	13.00	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 ( mz )	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	-60.15	-13	-47.15	-73.85	-68.09	4.66	12.60	H
	5170.77	-55.54	-13	-42.54	-73.47	-61.93	6.31	12.70	H
	6894.36	-60.04	-13	-47.04	-79.66	-64.69	8.35	13.00	H
	3447.18	-62.94	-13	-49.94	-74.35	-70.88	4.66	12.60	V
	5170.77	-63.44	-13	-50.44	-77.05	-69.83	6.31	12.70	V
	6894.36	-60.40	-13	-47.40	-79.52	-65.05	8.35	13.00	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	1671.92	-71.09	-13	-58.09	-72.80	-75.46	2.88	9.40	H
	2507.88	-51.27	-13	-38.27	-57.95	-57.22	2.5	10.60	H
	3343.84	-69.30	-13	-56.30	-77.30	-75.12	4.63	12.60	H
	1671.92	-73.25	-13	-60.25	-75.09	-77.62	2.88	9.40	V
	2507.88	-61.07	-13	-48.07	-67.02	-67.02	2.50	10.60	V
	3343.84	-69.28	-13	-56.28	-77.31	-75.10	4.63	12.60	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 ( mz )	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	1670.48	-67.80	-13	-54.80	-69.51	-72.17	2.88	9.40	H
	2505.72	-44.55	-13	-31.55	-53.59	-50.50	2.5	10.60	H
	3340.96	-69.43	-13	-56.43	-77.43	-75.25	4.63	12.60	H
	1670.48	-71.92	-13	-58.92	-73.76	-76.29	2.88	9.40	V
	2505.72	-56.40	-13	-43.40	-62.35	-62.35	2.50	10.60	V
	3340.96	-69.35	-13	-56.35	-77.38	-75.17	4.63	12.60	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 ( mz )	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	1668.68	-68.52	-13	-55.52	-70.23	-72.89	2.88	9.40	H
	2503.02	-55.73	-13	-42.73	-61.79	-61.68	2.5	10.60	H
	3337.36	-69.23	-13	-56.23	-77.23	-75.05	4.63	12.60	H
	1668.68	-73.27	-13	-60.27	-75.11	-77.64	2.88	9.40	V
	2503.02	-64.20	-13	-51.20	-70.15	-70.15	2.50	10.60	V
	3337.36	-69.32	-13	-56.32	-77.35	-75.14	4.63	12.60	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 ( mz )	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	1664.18	-58.96	-13	-45.96	-60.67	-63.33	2.88	9.40	H
	2496.27	-57.64	-13	-44.64	-63.70	-63.59	2.5	10.60	H
	3328.36	-69.41	-13	-56.41	-77.41	-75.23	4.63	12.60	H
	1664.18	-71.50	-13	-58.50	-73.34	-75.87	2.88	9.40	V
	2496.27	-65.90	-13	-52.90	-71.85	-71.85	2.50	10.60	V
	3328.36	-69.41	-13	-56.41	-77.44	-75.23	4.63	12.60	V

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



LTE Band 7 / 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	5065.68	-55.89	-25	-30.89	-79.22	-63.65	4.94	12.70	H
	7598.52	-47.82	-25	-22.82	-77.43	-52.96	6.56	11.70	H
	10131.36	-53.98	-25	-28.98	-83.21	-58.42	7.66	12.10	H
	5065.68	-59.85	-25	-34.85	-81.89	-67.61	4.94	12.70	V
	7598.52	-48.65	-25	-23.65	-77.59	-53.79	6.56	11.70	V
	10131.36	-56.16	-25	-31.16	-83.22	-60.60	7.66	12.10	V

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

LTE Band 7 / 10MHz / QPSK									
Channel	Frequency ( mz )	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	5061.18	-58.31	-25	-33.31	-81.64	-66.07	4.94	12.70	H
	7591.77	-50.47	-25	-25.47	-80.08	-55.61	6.56	11.70	H
	10122.36	-54.07	-25	-29.07	-83.30	-58.51	7.66	12.10	H
	5061.18	-56.04	-25	-31.04	-78.08	-63.80	4.94	12.70	V
	7591.77	-38.27	-25	-13.27	-67.21	-43.41	6.56	11.70	V
	10122.36	-56.28	-25	-31.28	-83.34	-60.72	7.66	12.10	V

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

LTE Band 7 / 15MHz / QPSK									
Channel	Frequency ( mz )	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	5056.68	-55.46	-25	-30.46	-78.79	-63.22	4.94	12.70	H
	7585.02	-48.70	-25	-23.70	-78.31	-53.84	6.56	11.70	H
	10113.36	-53.99	-25	-28.99	-83.22	-58.43	7.66	12.10	H
	5056.68	-59.74	-25	-34.74	-81.78	-67.50	4.94	12.70	V
	7585.02	-48.20	-25	-23.20	-77.14	-53.34	6.56	11.70	V
	10113.36	-56.03	-25	-31.03	-83.09	-60.47	7.66	12.10	V

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

LTE Band 7 / 20MHz / QPSK									
Channel	Frequency ( mz )	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	5052.18	-54.60	-25	-29.60	-77.93	-62.36	4.94	12.70	H
	7578.27	-46.85	-25	-21.85	-76.46	-51.99	6.56	11.70	H
	10104.36	-54.56	-25	-29.56	-83.79	-59.00	7.66	12.10	H
	5052.18	-59.40	-25	-34.40	-81.44	-67.16	4.94	12.70	V
	7578.27	-47.74	-25	-22.74	-76.68	-52.88	6.56	11.70	V
	10104.36	-56.83	-25	-31.83	-83.89	-61.27	7.66	12.10	V

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



LTE Band 38 / 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	5185.50	-51.44	-25	-26.44	-78.56	-57.00	7.14	12.70	H
	7778.25	-46.89	-25	-21.89	-77.91	-50.19	8.30	11.60	H
	10371.00	-43.14	-25	-18.14	-78.35	-44.66	10.48	12.00	H
	5185.50	-52.55	-25	-27.55	-78.67	-58.11	7.14	12.70	V
	7778.25	-47.64	-25	-22.64	-78.11	-50.94	8.30	11.60	V
	10371.00	-42.84	-25	-17.84	-78.53	-44.36	10.48	12.00	V

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

LTE Band 38 / 10MHz / QPSK									
Channel	Frequency ( mz )	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	5181.00	-51.42	-25	-26.42	-78.54	-56.98	7.14	12.70	H
	7771.50	-46.96	-25	-21.96	-77.94	-50.26	8.30	11.60	H
	10362.00	-43.34	-25	-18.34	-78.55	-44.86	10.48	12.00	H
	5181.00	-52.77	-25	-27.77	-78.89	-58.33	7.14	12.70	V
	7771.50	-47.44	-25	-22.44	-77.88	-50.74	8.30	11.60	V
	10362.00	-42.79	-25	-17.79	-78.48	-44.31	10.48	12.00	V

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

LTE Band 38 / 15MHz / QPSK									
Channel	Frequency ( mz )	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	5176.50	-51.51	-25	-26.51	-78.63	-57.07	7.14	12.70	H
	7764.75	-47.02	-25	-22.02	-78.00	-50.32	8.30	11.60	H
	10353.00	-43.36	-25	-18.36	-78.51	-44.88	10.48	12.00	H
	5176.50	-52.66	-25	-27.66	-78.78	-58.22	7.14	12.70	V
	7764.75	-47.46	-25	-22.46	-77.9	-50.76	8.30	11.60	V
	10353.00	-42.73	-25	-17.73	-78.41	-44.25	10.48	12.00	V

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

LTE Band 38 / 20MHz / QPSK									
Channel	Frequency ( mz )	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	5172.00	-51.54	-25	-26.54	-78.63	-57.10	7.14	12.70	H
	7758.00	-46.80	-25	-21.80	-77.78	-50.10	8.30	11.60	H
	10344.00	-43.36	-25	-18.36	-78.50	-44.88	10.48	12.00	H
	5172.00	-52.49	-25	-27.49	-78.65	-58.05	7.14	12.70	V
	7758.00	-47.57	-25	-22.57	-78.01	-50.87	8.30	11.60	V
	10344.00	-42.69	-25	-17.69	-78.36	-44.21	10.48	12.00	V

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