

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

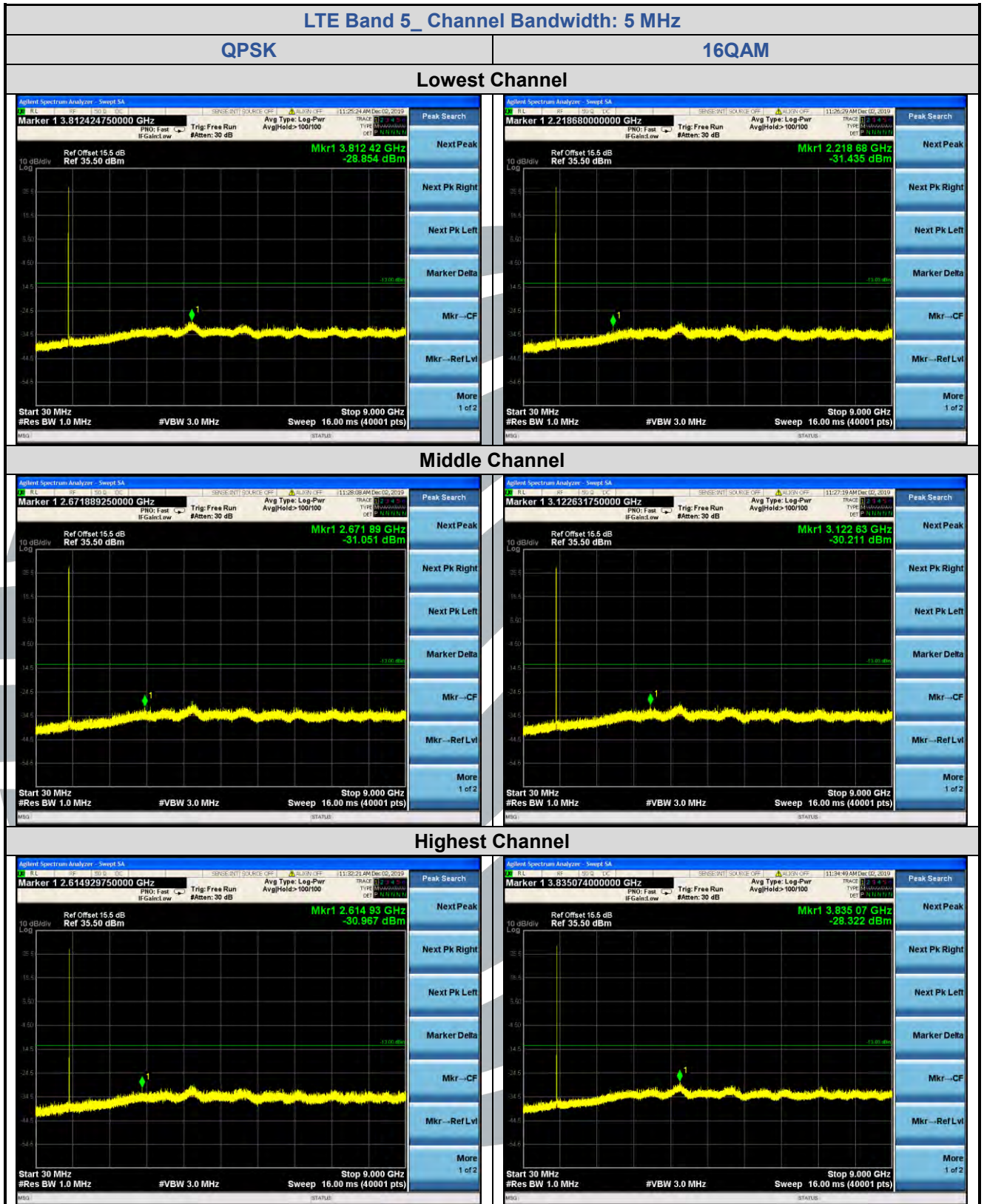
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UTTR-RF-FCC4G-V1.0



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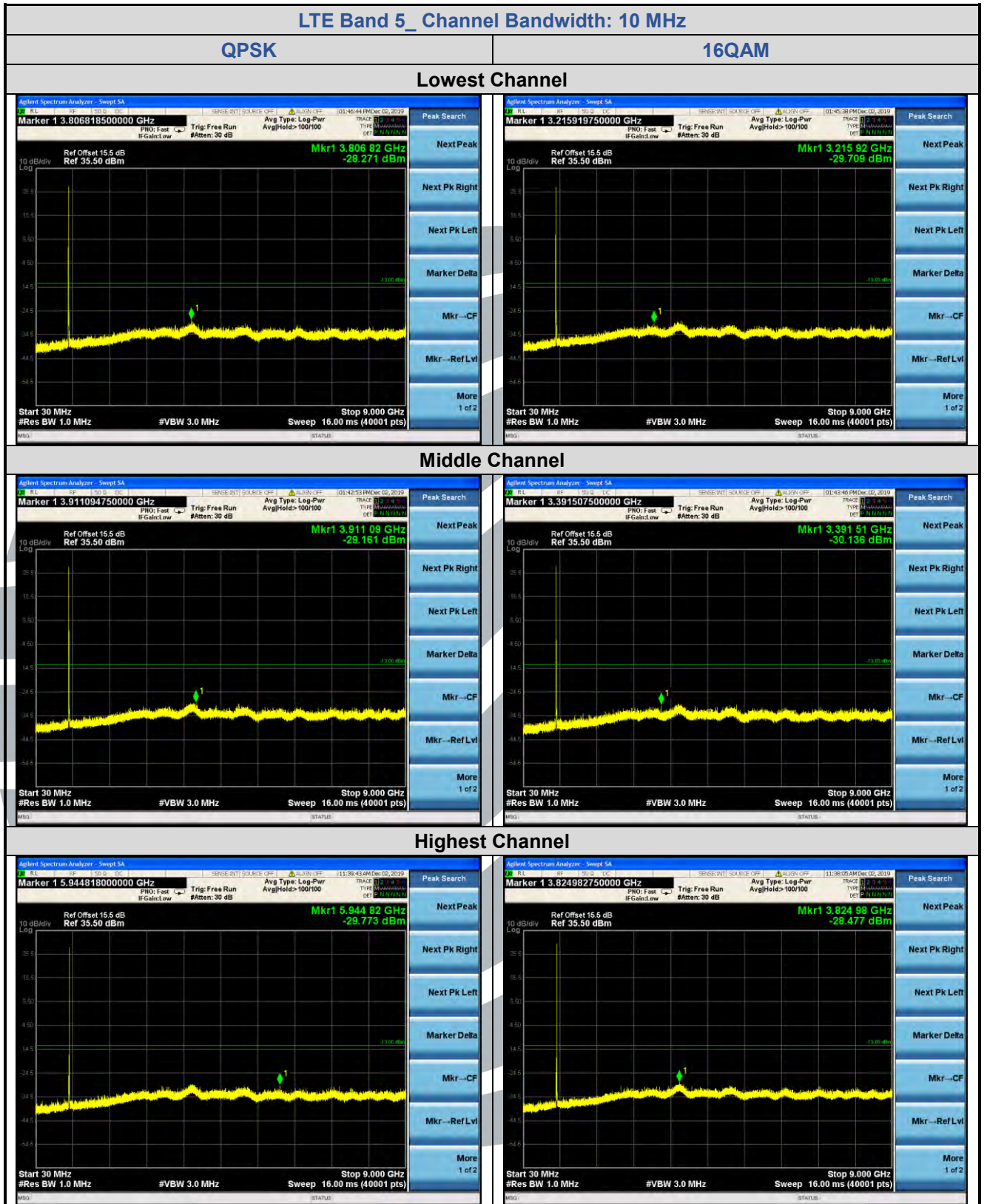
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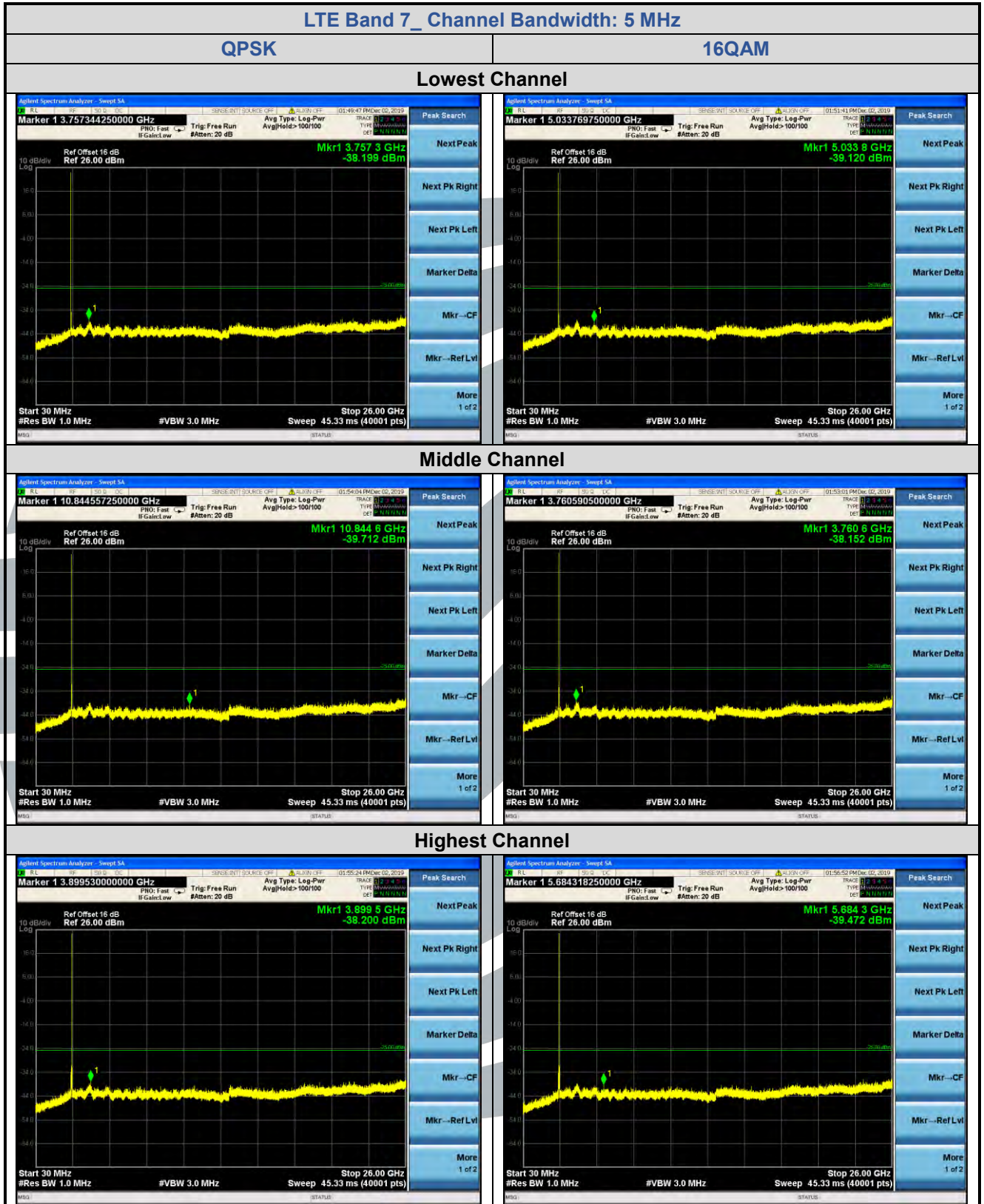
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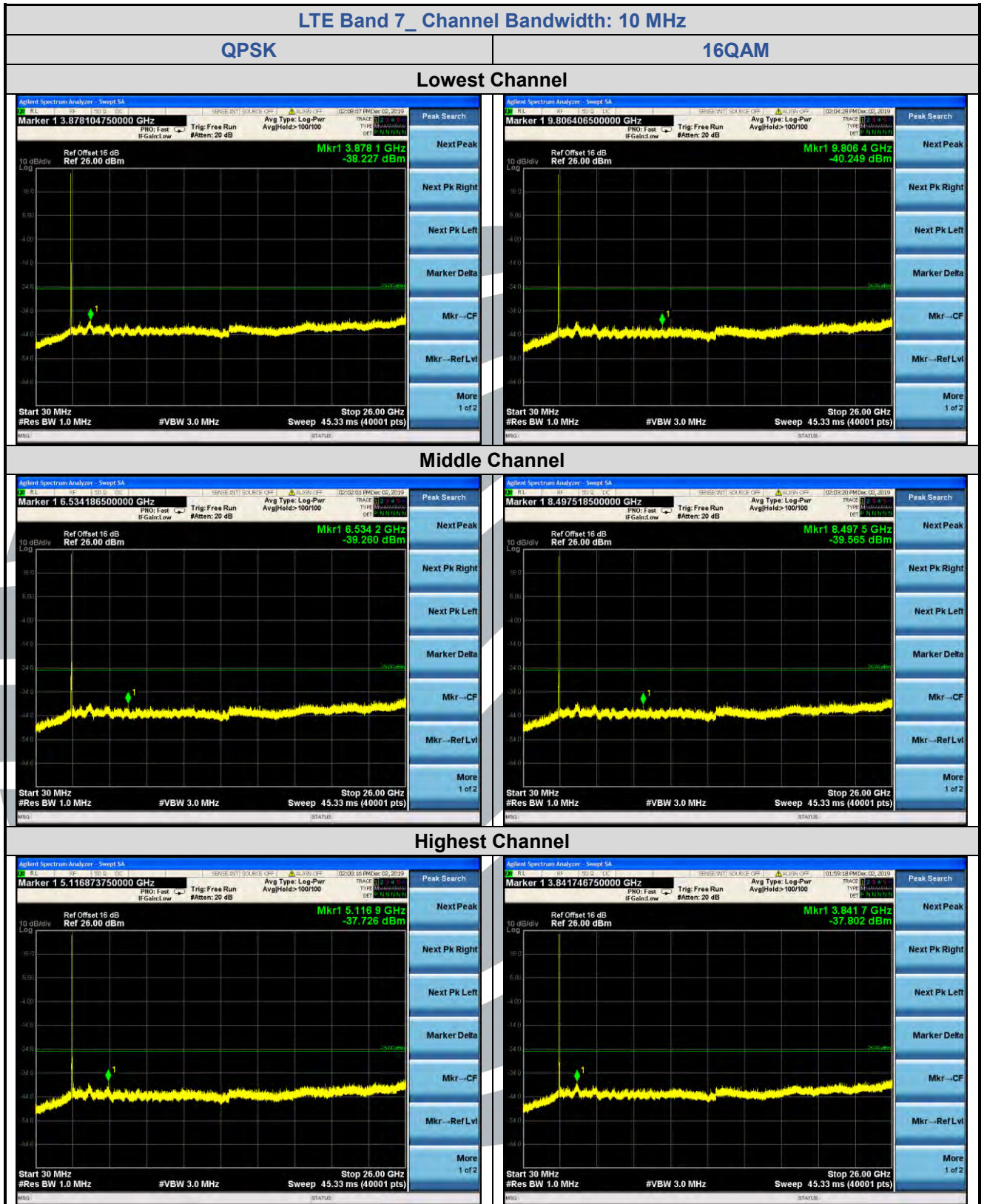
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5.7.4 LTE Band 7





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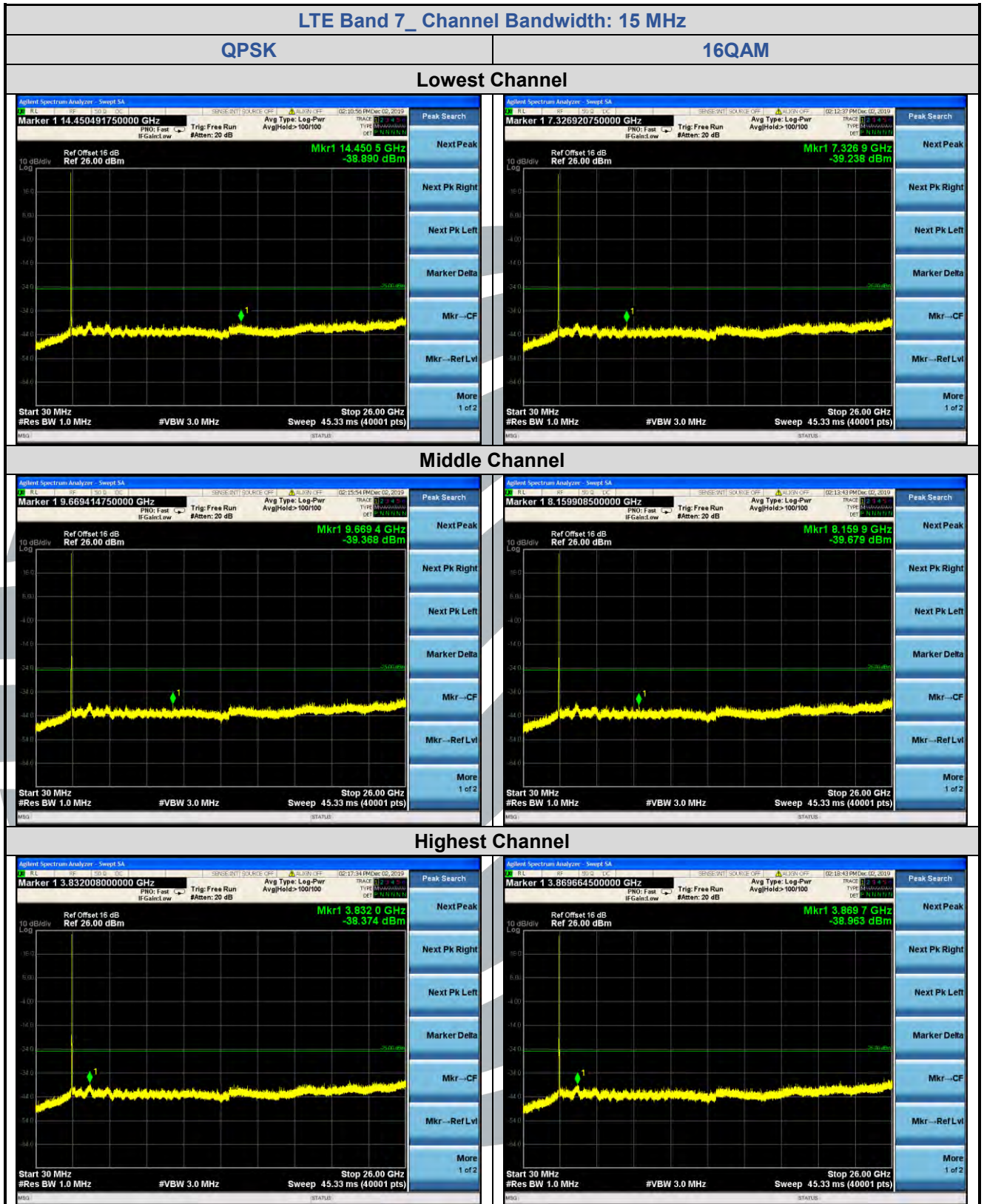
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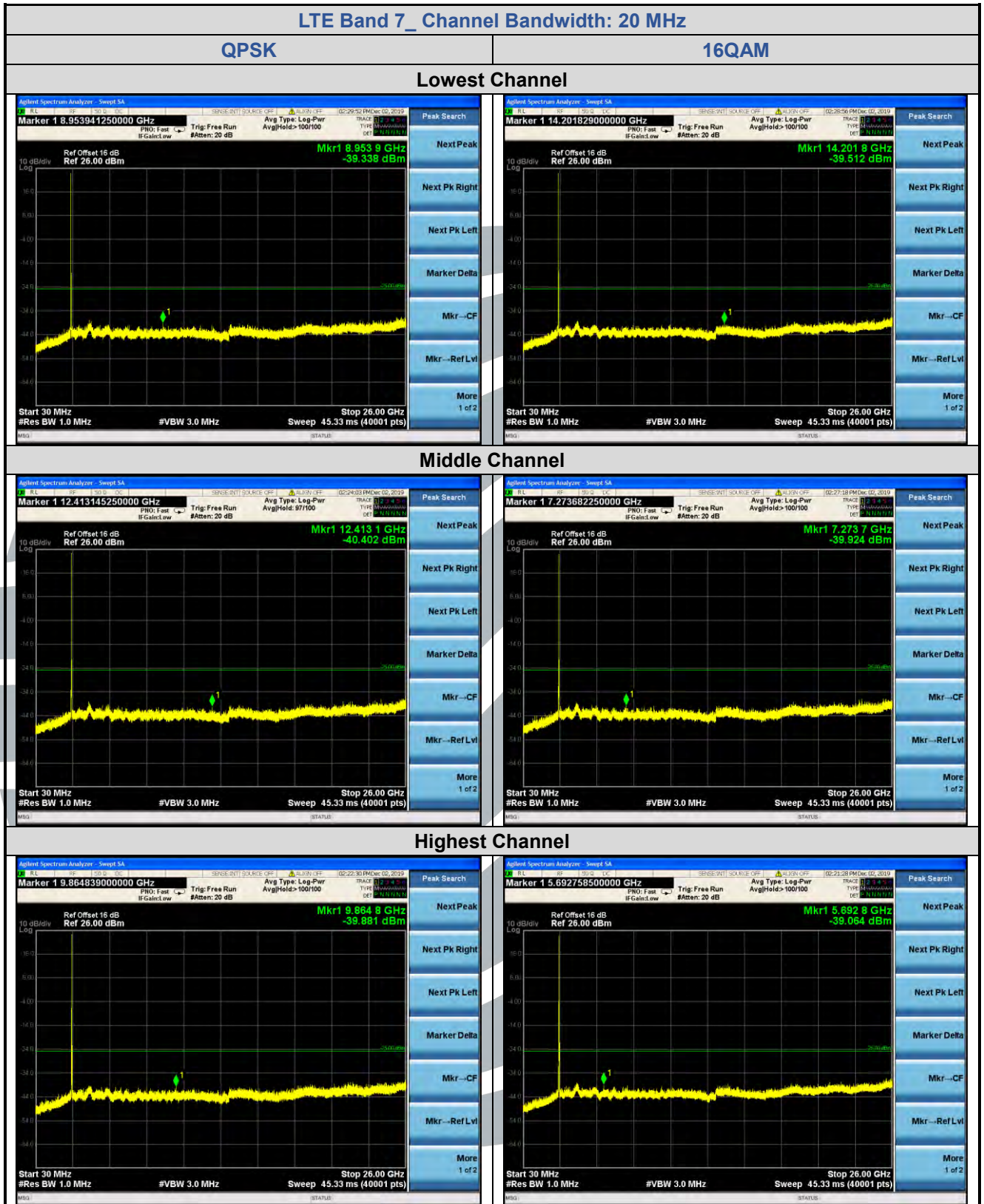
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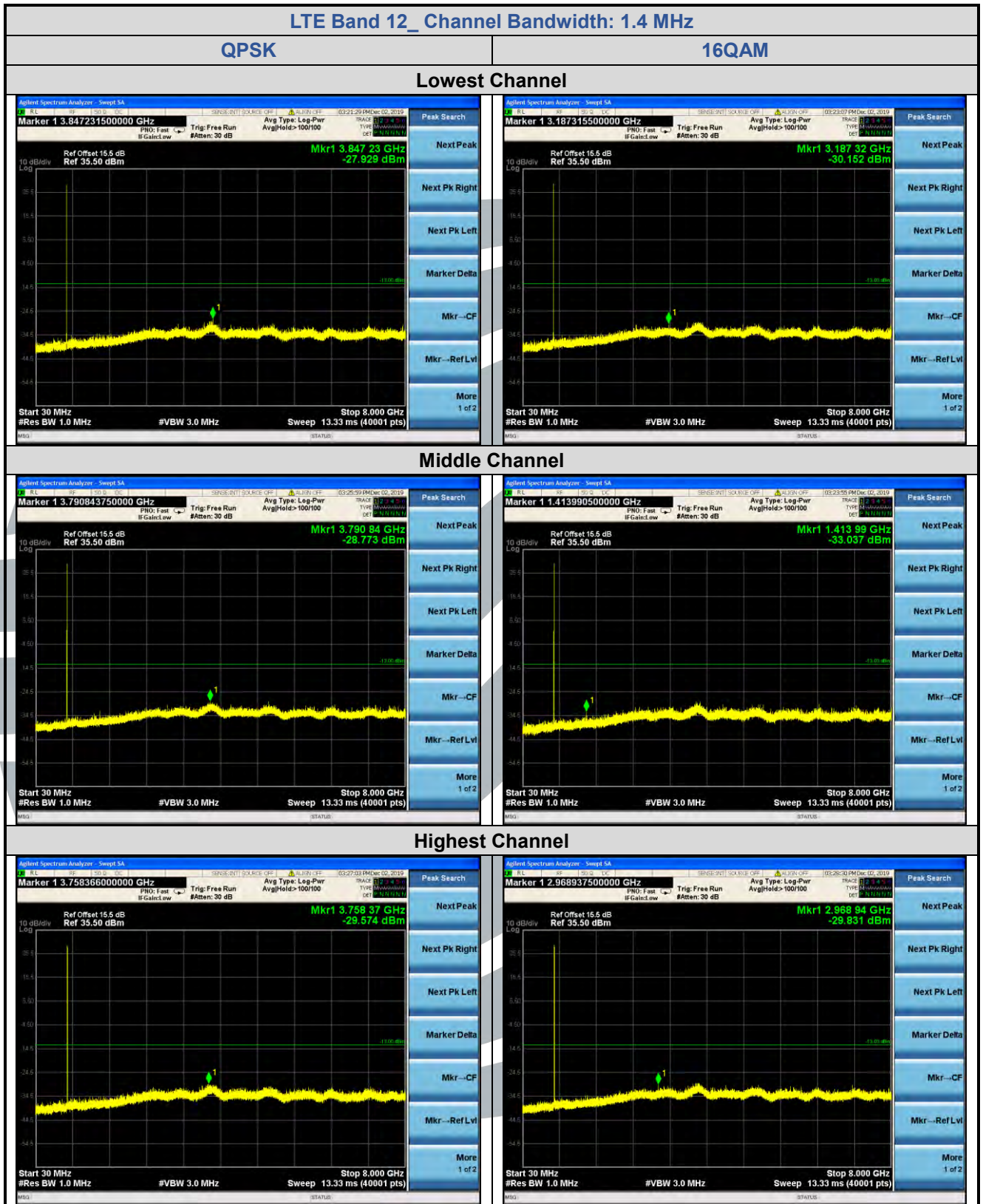
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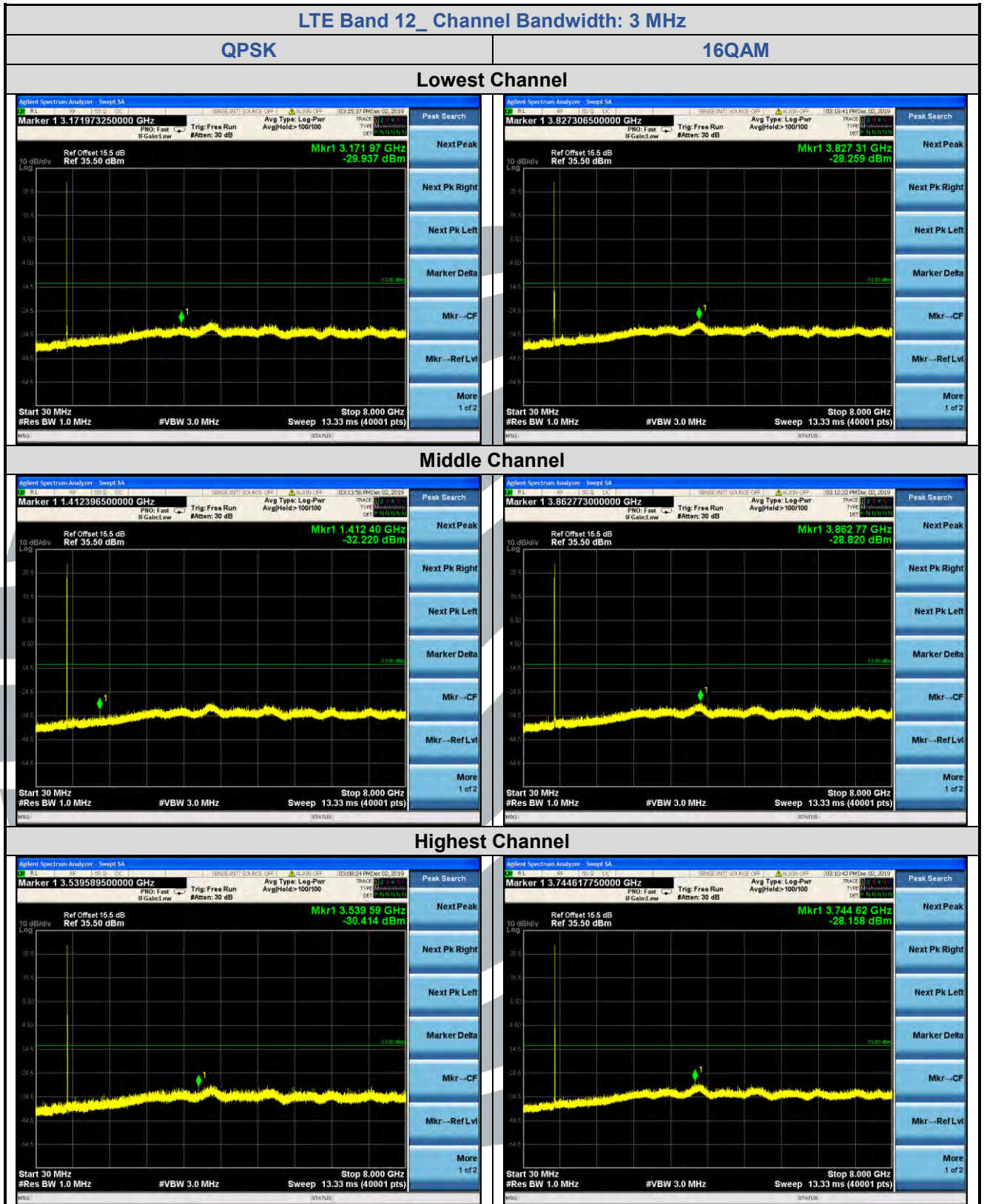
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5.7.5 LTE Band 12





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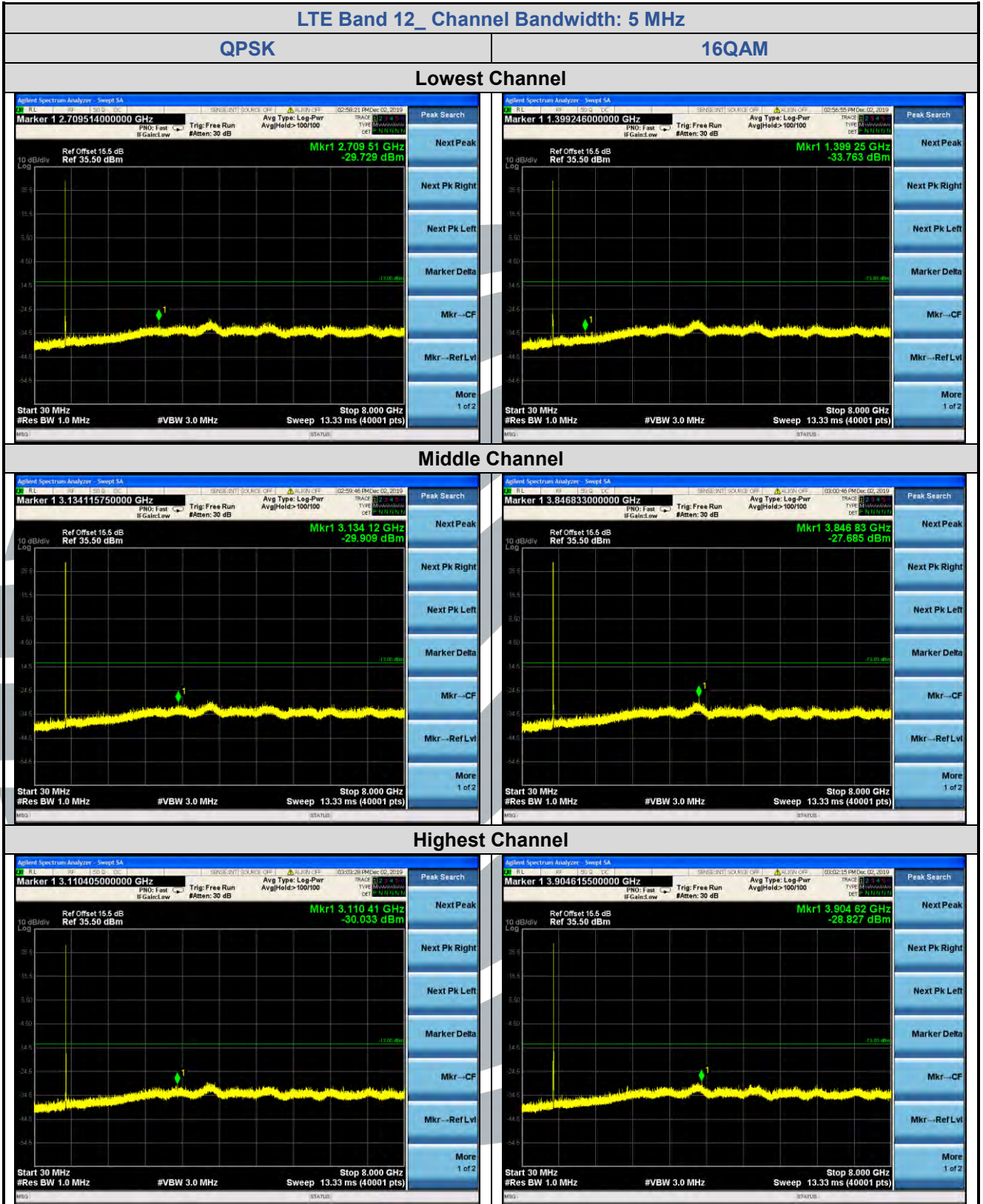
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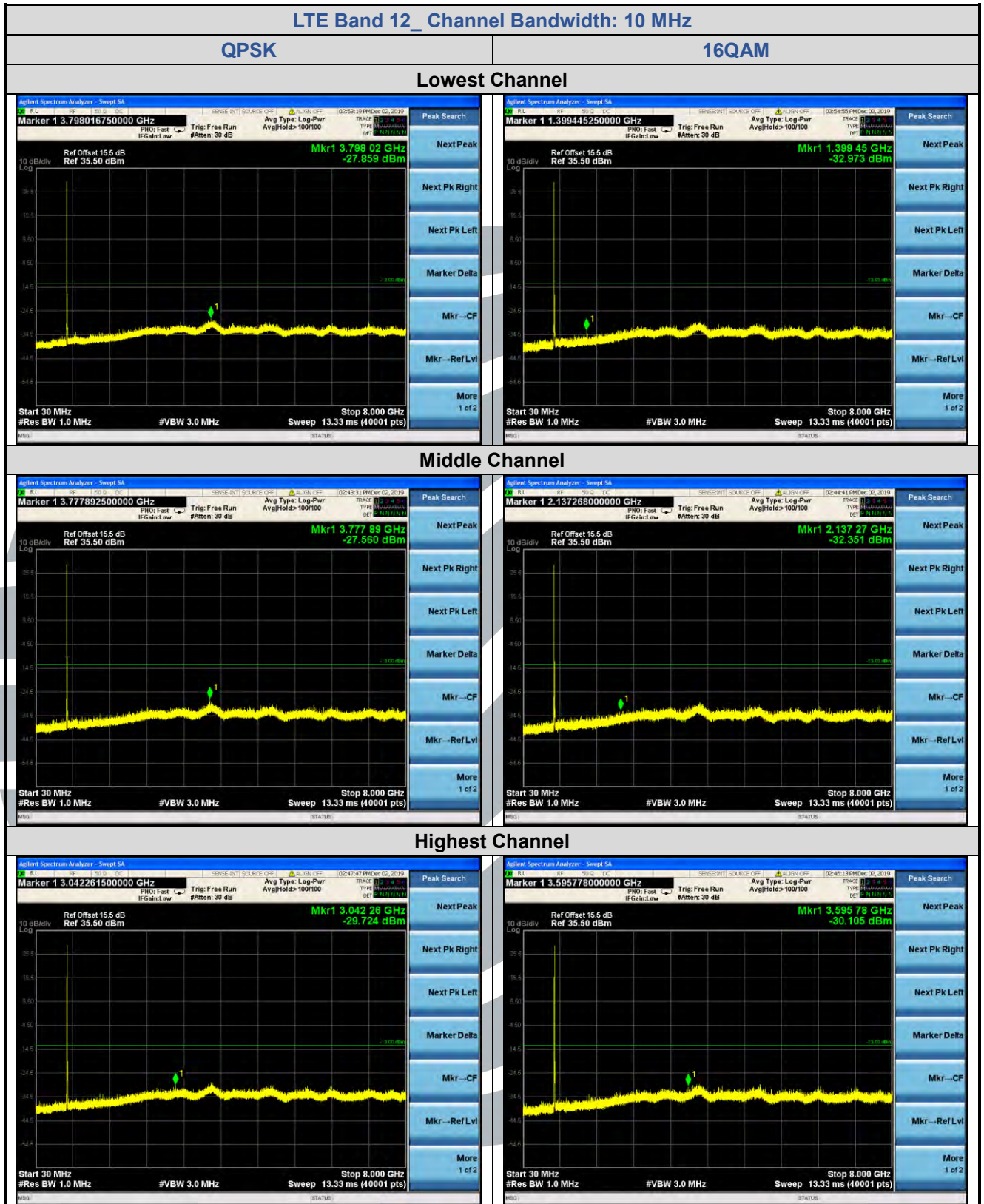
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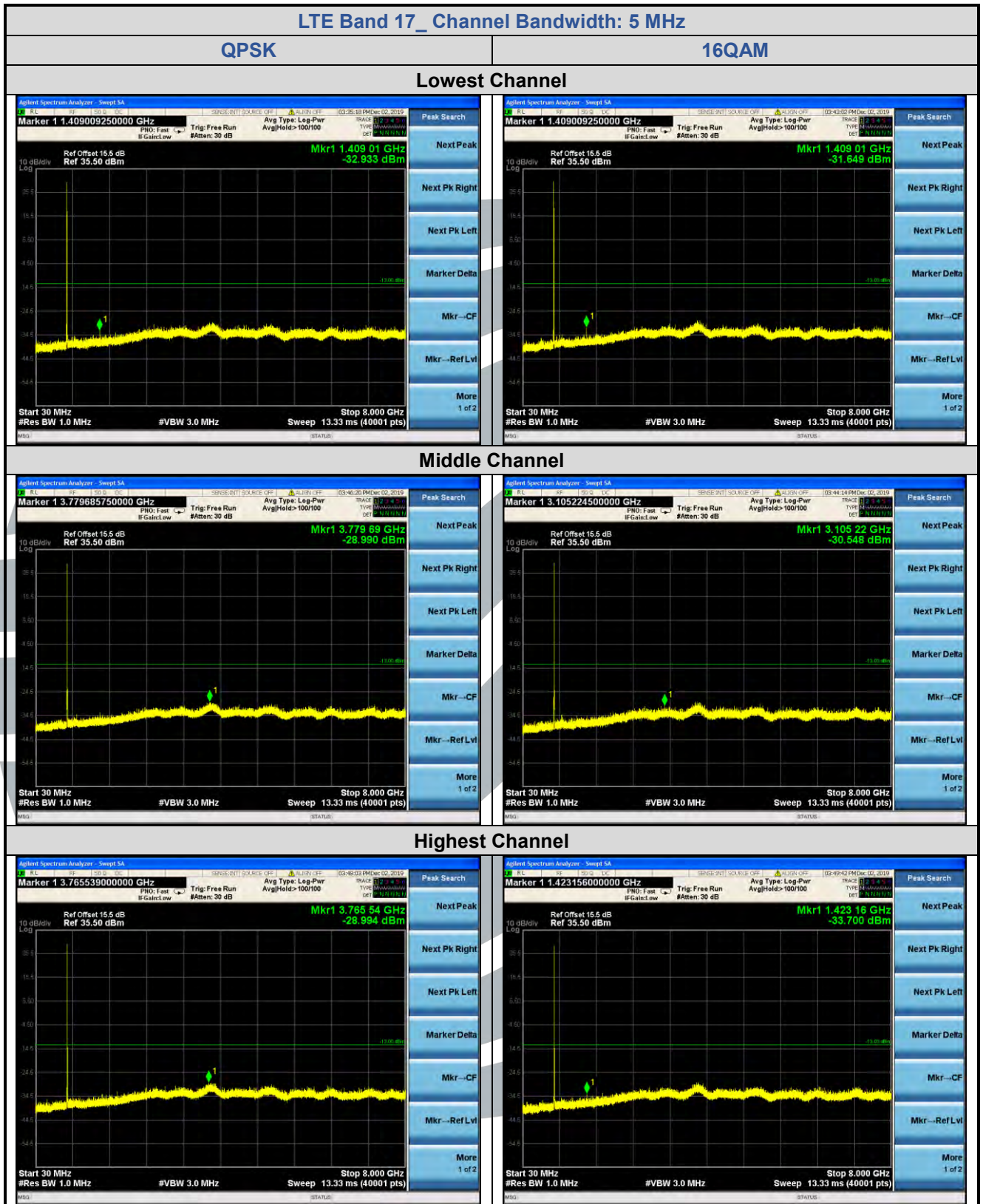
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5.7.6 LTE Band 17



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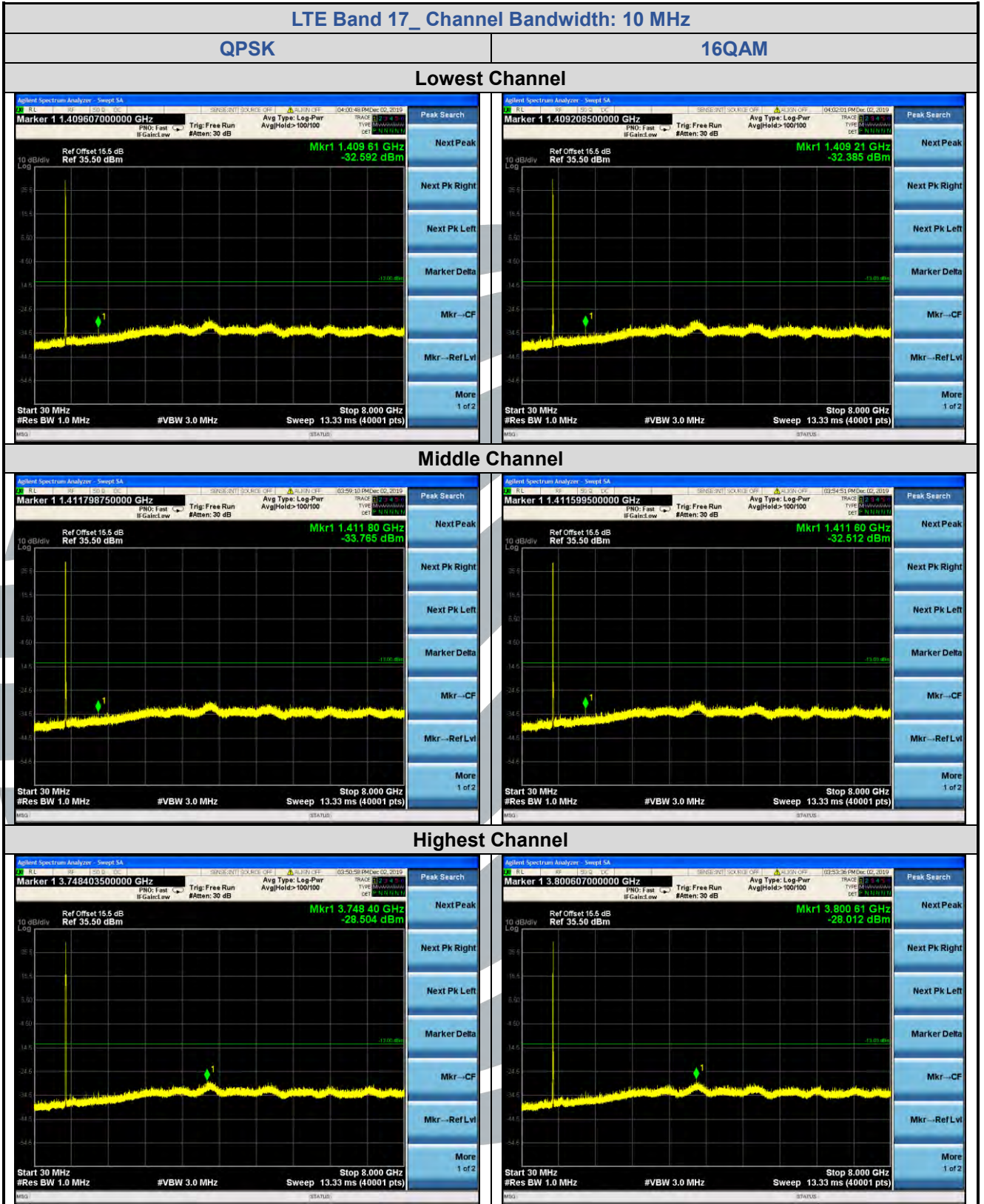
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5.8 FIELD STRENGTH OF SPURIOUS RADIATION

Test Requirement: LTE Band 2: FCC 47 CFR Part 24.238(a)
 LTE Band 4: FCC 47 CFR Part 27.53(h)
 LTE Band 5: FCC 47 CFR Part 22.917(a)
 LTE Band 7: FCC 47 CFR Part 27.53(m)(4)
 LTE Band 12: FCC 47 CFR Part 27.53(g)
 LTE Band 17: FCC 47 CFR Part 27.53

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009 MHz-30 MHz	Peak	10 kHz	30 KHz	Peak
30 MHz-1 GHz	Quasi-peak	100 kHz	300 KHz	Peak
Above 1 GHz	Peak	1 MHz	3 MHz	Peak

Limits:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a), 27.53(g), 27.53(c)(2), 90.691:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25 dBm.

FCC 47 CFR Part 27.53:

(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40dBm/MHz).

Test Setup: Refer to section 4.2.1 for details.

Test Procedures: KDB 971168 D01v03r01 Section 7

Equipment Used: Refer to section 3 for details.

Test Result: Pass

The measurement data as follows:

Radiated Emission Test Data (30 MHz to 1 GHz)

5.8.1 LTE Band 2

LTE Band 2_ 20 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	47.703	-72.61	-3.49	-76.10	-13.00	-63.10	Horizontal
2	66.371	-72.72	-4.43	-77.15	-13.00	-64.15	Horizontal
3	972.283	-81.29	15.70	-65.59	-13.00	-52.59	Horizontal
4	39.459	-77.11	-0.50	-77.61	-13.00	-64.61	Vertical
5	223.848	-80.48	-0.10	-80.58	-13.00	-67.58	Vertical
6	972.283	-81.29	15.70	-65.59	-13.00	-52.59	Vertical
Middle Channel							
1	50.461	-71.98	-3.82	-75.80	-13.00	-62.80	Horizontal
2	66.371	-72.88	-4.43	-77.31	-13.00	-64.31	Horizontal
3	520.208	-79.17	6.32	-72.85	-13.00	-59.85	Horizontal
4	45.095	-75.86	-2.83	-78.69	-13.00	-65.69	Vertical
5	442.572	-80.23	5.18	-75.05	-13.00	-62.05	Vertical
6	1000.000	-83.89	17.01	-66.88	-13.00	-53.88	Vertical
Highest Channel							
1	47.703	-71.80	-3.49	-75.29	-13.00	-62.29	Horizontal
2	101.893	-75.70	-2.18	-77.88	-13.00	-64.88	Horizontal
3	958.714	-82.11	15.28	-66.83	-13.00	-53.83	Horizontal
4	43.845	-76.18	-2.36	-78.54	-13.00	-65.54	Vertical
5	50.461	-75.66	-3.82	-79.48	-13.00	-66.48	Vertical
6	932.141	-82.32	14.26	-68.06	-13.00	-55.06	Vertical

5.8.2 LTE Band 4

LTE Band 4_20 MHz_QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	48.378	-71.85	-3.60	-75.45	-13.00	-62.45	Horizontal
2	66.371	-73.62	-4.43	-78.05	-13.00	-65.05	Horizontal
3	979.139	-80.96	16.01	-64.95	-13.00	-51.95	Horizontal
4	30.639	-80.81	5.16	-75.65	-13.00	-62.65	Vertical
5	282.270	-80.25	2.28	-77.97	-13.00	-64.97	Vertical
6	821.387	-80.90	11.10	-69.80	-13.00	-56.80	Vertical
Middle Channel							
1	50.461	-71.55	-3.82	-75.37	-13.00	-62.37	Horizontal
2	101.893	-76.19	-2.18	-78.37	-13.00	-65.37	Horizontal
3	938.714	-80.80	14.55	-66.25	-13.00	-53.25	Horizontal
4	38.096	-79.26	0.15	-79.11	-13.00	-66.11	Vertical
5	403.934	-80.06	4.64	-75.42	-13.00	-62.42	Vertical
6	992.997	-82.45	16.77	-65.68	-13.00	-52.68	Vertical
Highest Channel							
1	47.703	-72.27	-3.49	-75.76	-13.00	-62.76	Horizontal
2	69.230	-72.79	-4.14	-76.93	-13.00	-63.93	Horizontal
3	986.044	-82.50	16.43	-66.07	-13.00	-53.07	Horizontal
4	34.045	-79.24	2.42	-76.82	-13.00	-63.82	Vertical
5	156.426	-79.30	-1.09	-80.39	-13.00	-67.39	Vertical
6	958.714	-82.80	15.28	-67.52	-13.00	-54.52	Vertical

5.8.3 LTE Band 5

LTE Band 5_ 10 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	30.425	-92.95	34.16	-58.79	-13.00	-45.79	Horizontal
2	760.287	-88.87	39.97	-48.90	-13.00	-35.90	Horizontal
3	965.474	-87.41	44.29	-43.12	-13.00	-30.12	Horizontal
4	32.184	-90.97	32.91	-58.06	-13.00	-45.06	Vertical
5	178.770	-89.31	27.89	-61.42	-13.00	-48.42	Vertical
6	972.283	-87.25	44.47	-42.78	-13.00	-29.78	Vertical
Middle Channel							
1	31.735	-91.94	33.26	-58.68	-13.00	-45.68	Horizontal
2	684.226	-88.19	38.80	-49.39	-13.00	-36.39	Horizontal
3	972.283	-87.87	44.47	-43.40	-13.00	-30.40	Horizontal
4	31.073	-92.26	33.71	-58.55	-13.00	-45.55	Vertical
5	266.839	-88.76	29.96	-58.80	-13.00	-45.80	Vertical
6	958.714	-86.45	44.08	-42.37	-13.00	-29.37	Vertical
Highest Channel							
1	31.735	-92.07	33.26	-58.81	-13.00	-45.81	Horizontal
2	728.897	-87.61	39.22	-48.39	-13.00	-35.39	Horizontal
3	965.474	-87.22	44.29	-42.93	-13.00	-29.93	Horizontal
4	30.639	-93.42	34.01	-59.41	-13.00	-46.41	Vertical
5	436.396	-89.61	34.08	-55.53	-13.00	-42.53	Vertical
6	979.139	-88.15	44.76	-43.39	-13.00	-30.39	Vertical

5.8.4 LTE Band 7

LTE Band 7_20 MHz_QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	43.845	-73.09	-3.80	-76.89	-25.00	-51.89	Horizontal
2	69.230	-72.60	-3.95	-76.55	-25.00	-51.55	Horizontal
3	713.692	-79.93	11.38	-68.55	-25.00	-43.55	Horizontal
4	51.900	-74.86	-5.76	-80.62	-25.00	-55.62	Vertical
5	104.798	-78.30	-2.19	-80.49	-25.00	-55.49	Vertical
6	233.488	-71.32	0.47	-70.85	-25.00	-45.85	Vertical
Middle Channel							
1	47.703	-69.95	-5.76	-75.71	-25.00	-50.71	Horizontal
2	69.230	-72.03	-3.95	-75.98	-25.00	-50.98	Horizontal
3	101.893	-75.47	-2.32	-77.79	-25.00	-52.79	Horizontal
4	30.212	-79.24	4.46	-74.78	-25.00	-49.78	Vertical
5	51.900	-73.73	-5.76	-79.49	-25.00	-54.49	Vertical
6	233.488	-75.01	0.47	-74.54	-25.00	-49.54	Vertical
Highest Channel							
1	30.000	-77.80	4.78	-73.02	-25.00	-48.02	Horizontal
2	69.230	-72.84	-3.95	-76.79	-25.00	-51.79	Horizontal
3	233.488	-75.01	0.47	-74.54	-25.00	-49.54	Horizontal
4	35.762	-77.05	0.24	-76.81	-25.00	-51.81	Vertical
5	91.700	-77.06	-3.04	-80.10	-25.00	-55.10	Vertical
6	233.488	-75.01	0.47	-74.54	-25.00	-49.54	Vertical

5.8.5 LTE Band 12

LTE Band 12_ 10 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	31.959	-92.25	33.10	-59.15	-13.00	-46.15	Horizontal
2	430.305	-88.39	34.00	-54.39	-13.00	-41.39	Horizontal
3	952.000	-86.93	43.61	-43.32	-13.00	-30.32	Horizontal
4	31.513	-92.01	33.41	-58.60	-13.00	-45.60	Vertical
5	298.593	-88.56	30.43	-58.13	-13.00	-45.13	Vertical
6	992.997	-86.89	45.49	-41.40	-13.00	-28.40	Vertical
Middle Channel							
1	32.870	-92.17	32.30	-59.87	-13.00	-46.87	Horizontal
2	286.265	-89.03	30.38	-58.65	-13.00	-45.65	Horizontal
3	986.044	-88.20	45.16	-43.04	-13.00	-30.04	Horizontal
4	30.639	-91.83	34.01	-57.82	-13.00	-44.82	Vertical
5	166.639	-89.21	27.53	-61.68	-13.00	-48.68	Vertical
6	945.334	-87.12	43.46	-43.66	-13.00	-30.66	Vertical
Highest Channel							
1	32.184	-91.76	32.91	-58.85	-13.00	-45.85	Horizontal
2	144.790	-88.73	27.07	-61.66	-13.00	-48.66	Horizontal
3	992.997	-87.72	45.49	-42.23	-13.00	-29.23	Horizontal
4	31.073	-91.78	33.71	-58.07	-13.00	-45.07	Vertical
5	531.291	-88.26	35.88	-52.38	-13.00	-39.38	Vertical
6	952.000	-87.07	43.61	-43.46	-13.00	-30.46	Vertical

5.8.6 LTE Band 17

LTE Band 17_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Middle Channel							
1	32.184	-91.55	32.91	-58.64	-13.00	-45.64	Horizontal
2	198.642	-87.20	27.74	-59.46	-13.00	-46.46	Horizontal
3	669.952	-87.91	38.46	-49.45	-13.00	-36.45	Horizontal
4	51.900	-90.45	25.08	-65.37	-13.00	-52.37	Vertical
5	162.020	-88.60	27.60	-61.00	-13.00	-48.00	Vertical
6	562.014	-88.62	36.15	-52.47	-13.00	-39.47	Vertical

Remark:

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Result = Reading + Correct Factor.
3. Margin = Result - Limit

Radiated Emission Test Data (Above 1 GHz)

5.8.7 LTE Band 2

LTE Band 2_ 20 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	3800.000	-69.84	13.95	-55.89	-13.00	-42.89	Horizontal
2	5700.000	-69.87	16.28	-53.59	-13.00	-40.59	Horizontal
3	3800.000	-70.01	15.39	-54.62	-13.00	-41.62	Vertical
4	5700.000	-69.13	17.14	-51.99	-13.00	-38.99	Vertical
Middle Channel							
1	3720.000	-72.04	13.80	-58.24	-13.00	-45.24	Horizontal
2	5580.000	-70.08	15.98	-54.10	-13.00	-41.10	Horizontal
3	3720.000	-68.88	15.18	-53.70	-13.00	-40.70	Vertical
4	5580.000	-69.32	16.87	-52.45	-13.00	-39.45	Vertical
Highest Channel							
1	3760.000	-71.07	13.87	-57.20	-13.00	-44.20	Horizontal
2	5640.000	-70.36	16.10	-54.26	-13.00	-41.26	Horizontal
3	3760.000	-71.97	15.28	-56.69	-13.00	-43.69	Vertical
4	5640.000	-69.42	16.97	-52.45	-13.00	-39.45	Vertical

5.8.8 LTE Band 4

LTE Band 4_20 MHz_QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	3440.000	-72.92	12.56	-60.36	-13.00	-47.36	Horizontal
2	5160.000	-69.35	16.14	-53.21	-13.00	-40.21	Horizontal
3	3440.000	-73.29	13.80	-59.49	-13.00	-46.49	Vertical
4	5160.000	-69.30	17.11	-52.19	-13.00	-39.19	Vertical
Middle Channel							
1	3465.000	-72.81	12.74	-60.07	-13.00	-47.07	Horizontal
2	5197.500	-68.30	16.21	-52.09	-13.00	-39.09	Horizontal
3	3465.000	-73.31	13.97	-59.34	-13.00	-46.34	Vertical
4	5197.500	-69.26	17.17	-52.09	-13.00	-39.09	Vertical
Highest Channel							
1	3490.000	-70.51	12.93	-57.58	-13.00	-44.58	Horizontal
2	5235.000	-67.87	16.20	-51.67	-13.00	-38.67	Horizontal
3	3490.000	-71.70	14.14	-57.56	-13.00	-44.56	Vertical
4	5235.000	-67.02	17.16	-49.86	-13.00	-36.86	Vertical

5.8.9 LTE Band 5

LTE Band 5_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	1658.000	-67.83	2.47	-65.36	-13.00	-52.36	Horizontal
2	2487.000	-69.74	9.16	-60.58	-13.00	-47.58	Horizontal
3	1658.000	-68.23	4.14	-64.09	-13.00	-51.09	Vertical
4	2487.000	-68.48	11.48	-57.00	-13.00	-44.00	Vertical
Middle Channel							
1	1673.000	-68.30	2.59	-65.71	-13.00	-52.71	Horizontal
2	2509.500	-70.16	9.17	-60.99	-13.00	-47.99	Horizontal
3	1673.000	-68.27	4.31	-63.96	-13.00	-50.96	Vertical
4	2509.500	-70.73	11.46	-59.27	-13.00	-46.27	Vertical
Highest Channel							
1	1688.000	-69.20	2.71	-66.49	-13.00	-53.49	Horizontal
2	2532.000	-64.88	9.21	-55.67	-13.00	-42.67	Horizontal
3	1688.000	-69.40	4.49	-64.91	-13.00	-51.91	Vertical
4	2532.000	-62.88	11.46	-51.42	-13.00	-38.42	Vertical

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UTTR-RF-FCC4G-V1.0

5.8.10 LTE Band 7

LTE Band 7_20 MHz_QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	5020.000	-66.88	15.89	-50.99	-25.00	-25.99	Horizontal
2	7530.000	-65.44	19.08	-46.36	-25.00	-21.36	Horizontal
3	5020.000	-66.54	16.89	-49.65	-25.00	-24.65	Vertical
4	7530.000	-65.04	18.48	-46.56	-25.00	-21.56	Vertical
Middle Channel							
1	5070.000	-66.16	15.98	-50.18	-25.00	-25.18	Horizontal
2	7605.000	-64.57	19.09	-45.48	-25.00	-20.48	Horizontal
3	5070.000	-65.69	16.97	-48.72	-25.00	-23.72	Vertical
4	7605.000	-65.08	18.47	-46.61	-25.00	-21.61	Vertical
Highest Channel							
1	5120.000	-65.65	16.07	-49.58	-25.00	-24.58	Horizontal
2	7680.000	-65.49	19.10	-46.39	-25.00	-21.39	Horizontal
3	5120.000	-66.62	17.05	-49.57	-25.00	-24.57	Vertical
4	7680.000	-64.51	18.47	-46.04	-25.00	-21.04	Vertical

5.8.11 LTE Band 12

LTE Band 12_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	1408.000	-62.13	0.94	-61.19	-13.00	-48.19	Horizontal
2	2112.000	-69.40	5.78	-63.62	-13.00	-50.62	Horizontal
3	1408.000	-66.54	1.96	-64.58	-13.00	-51.58	Vertical
4	2112.000	-65.89	8.54	-57.35	-13.00	-44.35	Vertical
Middle Channel							
1	1415.000	-63.07	0.96	-62.11	-13.00	-49.11	Horizontal
2	2122.500	-68.38	5.83	-62.55	-13.00	-49.55	Horizontal
3	1415.000	-65.82	1.99	-63.83	-13.00	-50.83	Vertical
4	2122.500	-67.24	8.58	-58.66	-13.00	-45.66	Vertical
Highest Channel							
1	1422.000	-64.96	0.99	-63.97	-13.00	-50.97	Horizontal
2	2133.000	-71.42	5.89	-65.53	-13.00	-52.53	Horizontal
3	1422.000	-66.21	2.02	-64.19	-13.00	-51.19	Vertical
4	2133.000	-71.40	8.63	-62.77	-13.00	-49.77	Vertical

5.8.12 LTE Band 17

LTE Band 17_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Middle Channel							
1	1564.000	-69.74	0.98	-68.76	-13.00	-55.76	Horizontal
2	2346.000	-75.92	5.86	-70.06	-13.00	-57.06	Horizontal
3	1564.000	-69.02	2.01	-67.01	-13.00	-54.01	Vertical
4	2346.000	-74.83	8.60	-66.23	-13.00	-53.23	Vertical

5.9 FREQUENCY STABILITY

Test Requirement: FCC 47 CFR Part 2.1055 &
 FCC 47 CFR Part 22.355 &
 FCC 47 CFR Part 24.235 &
 FCC 47 CFR Part 27.54,
Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limits:
FCC 47 CFR Part 22.355, FCC 47 CFR Par 90.213
 The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

FCC 47 CFR Part 24.235, FCC 47 CFR Part 27.54
 The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Setup: Refer to section 4.2.2 for details.

Test Procedures:

- 1) Use CMW 500 or CMU 200 with Frequency Error measurement capability.
 - a) Temp. = -30° to $+50^{\circ}\text{C}$
 - b) Voltage = low voltage, 3.45 Vdc, Normal, 3.85 Vdc and High voltage, 4.35 Vdc.

2) Frequency Stability vs Temperature:

The EUT is place inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

3) Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

Equipment Used: Refer to section 3 for details.

Test Result: Pass

5.9.1 LTE Band 2

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature ($^{\circ}\text{C}$)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 2 / 20MHz / Full RB							
QPSK	18900 / 1880.0	VL	TN	-6	-0.0032	N/A	Pass
		VN		9	0.0048		Pass
		VH		11	0.0059		Pass
		VN	50	7	0.0037		Pass
			40	-6	-0.0032		Pass
			30	8	0.0043		Pass
			20	13	0.0069		Pass
			10	-10	-0.0053		Pass
			0	12	0.0064		Pass
			-10	8	0.0043		Pass
			-20	7	0.0037		Pass
			-30	7	0.0037		Pass

5.9.2 LTE Band 4

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 4 / 20MHz / Full RB							
QPSK	20175 / 1732.5	VL	TN	11	0.0063	N/A	Pass
		VN		-9	-0.0052		Pass
		VH		7	0.0040		Pass
		VN	50	7	0.0040		Pass
			40	12	0.0069		Pass
			30	9	0.0052		Pass
			20	9	0.0052		Pass
			10	11	0.0063		Pass
			0	-13	-0.0075		Pass
			-10	-12	-0.0069		Pass
			-20	9	0.0052		Pass
			-30	-9	-0.0052		Pass

5.9.3 LTE Band 5

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 5 / 10MHz / Full RB							
QPSK	20525 / 836.5	VL	TN	5	0.0060	± 2.5	Pass
		VN		10	0.0120	± 2.5	Pass
		VH		-7	-0.0084	± 2.5	Pass
		VN	50	-8	-0.0096	± 2.5	Pass
			40	15	0.0179	± 2.5	Pass
			30	-10	-0.0120	± 2.5	Pass
			20	11	0.0132	± 2.5	Pass
			10	7	0.0084	± 2.5	Pass
			0	9	0.0108	± 2.5	Pass
			-10	6	0.0072	± 2.5	Pass
			-20	18	0.0215	± 2.5	Pass
			-30	-7	-0.0084	± 2.5	Pass

5.9.4 LTE Band 7

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 7 / 20MHz / Full RB							
QPSK	21100 / 2535	VL	TN	-11	-0.0043	N/A	Pass
		VN		10	0.0039		Pass
		VH		9	0.0036		Pass
		VN	50	7	0.0028		Pass
			40	-8	-0.0032		Pass
			30	12	0.0047		Pass
			20	9	0.0036		Pass
			10	-16	-0.0063		Pass
			0	15	0.0059		Pass
			-10	14	0.0055		Pass
			-20	-7	-0.0028		Pass
			-30	6	0.0024		Pass

5.9.5 LTE Band 12

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 12 / 10MHz / Full RB							
QPSK	23095 / 707.5	VL	TN	-11	-0.0155	N/A	Pass
		VN		16	0.0226		Pass
		VH		-7	-0.0099		Pass
		VN	50	-9	-0.0127		Pass
			40	16	0.0226		Pass
			30	14	0.0198		Pass
			20	-9	-0.0127		Pass
			10	17	0.0240		Pass
			0	-10	-0.0141		Pass
			-10	11	0.0155		Pass
			-20	12	0.0170		Pass
			-30	10	0.0141		Pass

5.9.6 LTE Band 17

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 17 / 10MHz / Full RB							
QPSK	23230 / 782	VL	TN	-16	-0.0205	N/A	Pass
		VN		-12	-0.0153		Pass
		VH		14	0.0179		Pass
		VN	50	9	0.0115		Pass
			40	-8	-0.0102		Pass
			30	13	0.0166		Pass
			20	-7	-0.0090		Pass
			10	-9	-0.0115		Pass
			0	6	0.0077		Pass
			-10	11	0.0141		Pass
			-20	13	0.0166		Pass
			-30	-9	-0.0115		Pass

APPENDIX 1 PHOTOS OF TEST SETUP

See test photos attached in Appendix 1 for the actual connections between Product and support equipment.

APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

*** End of Report ***

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