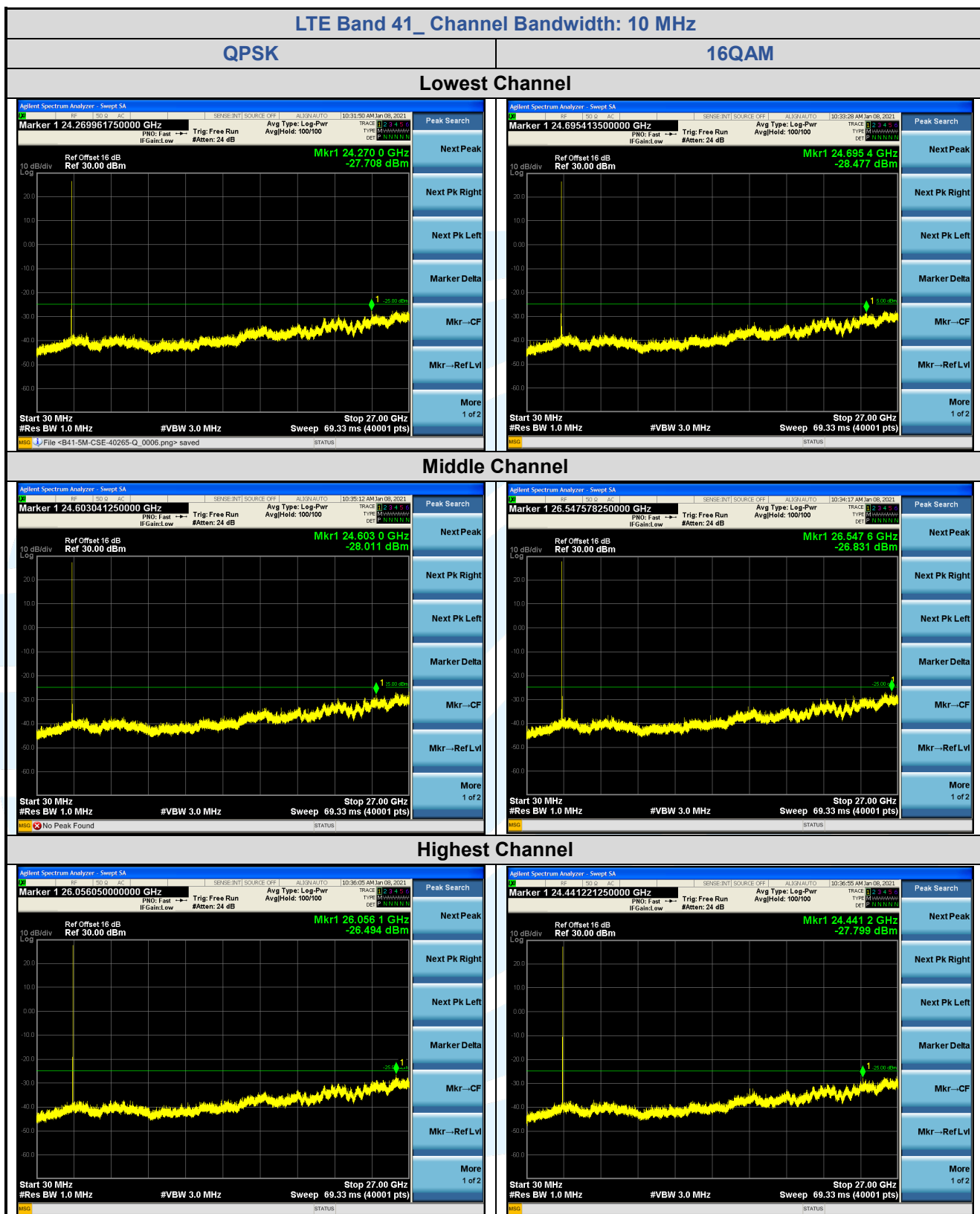
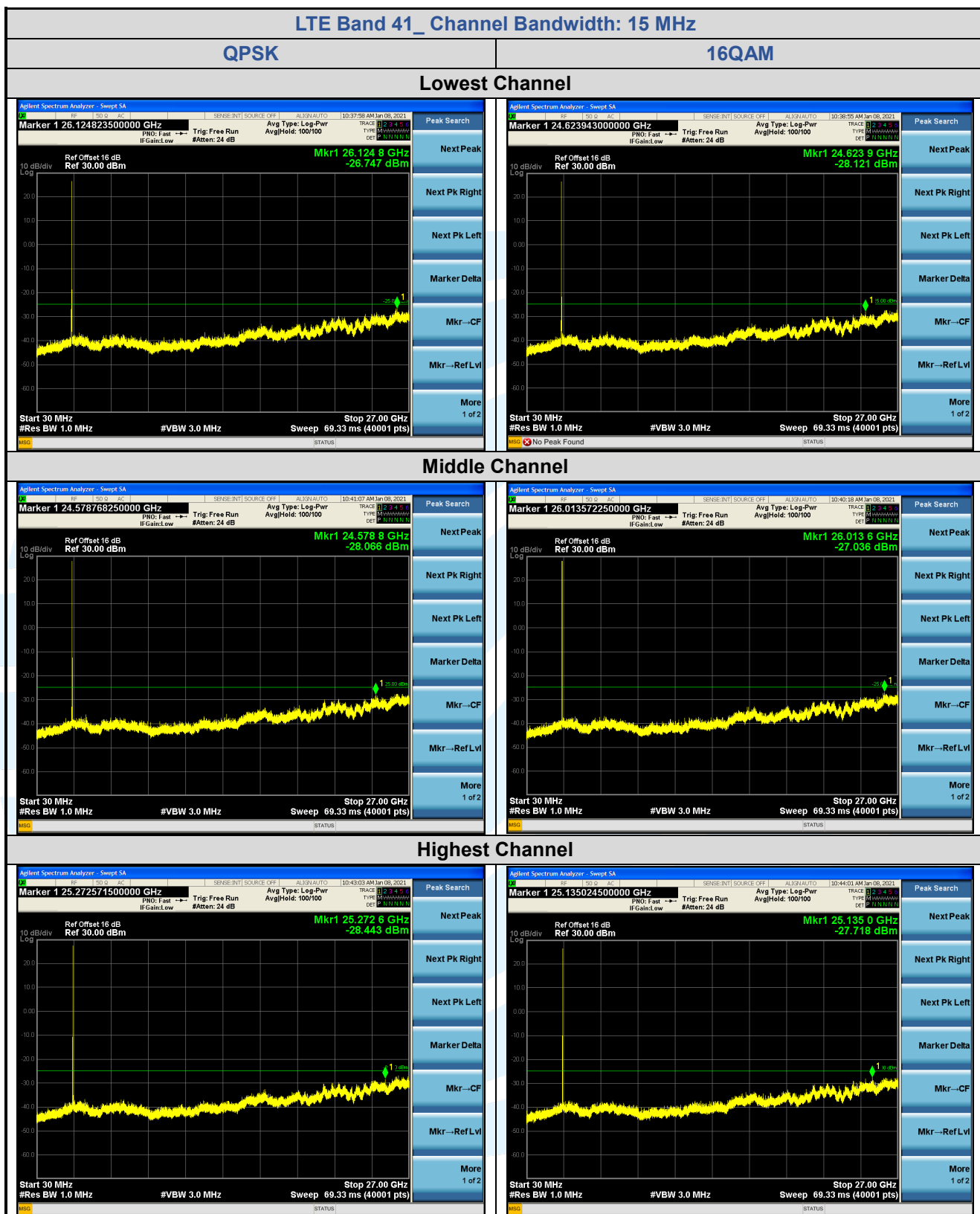
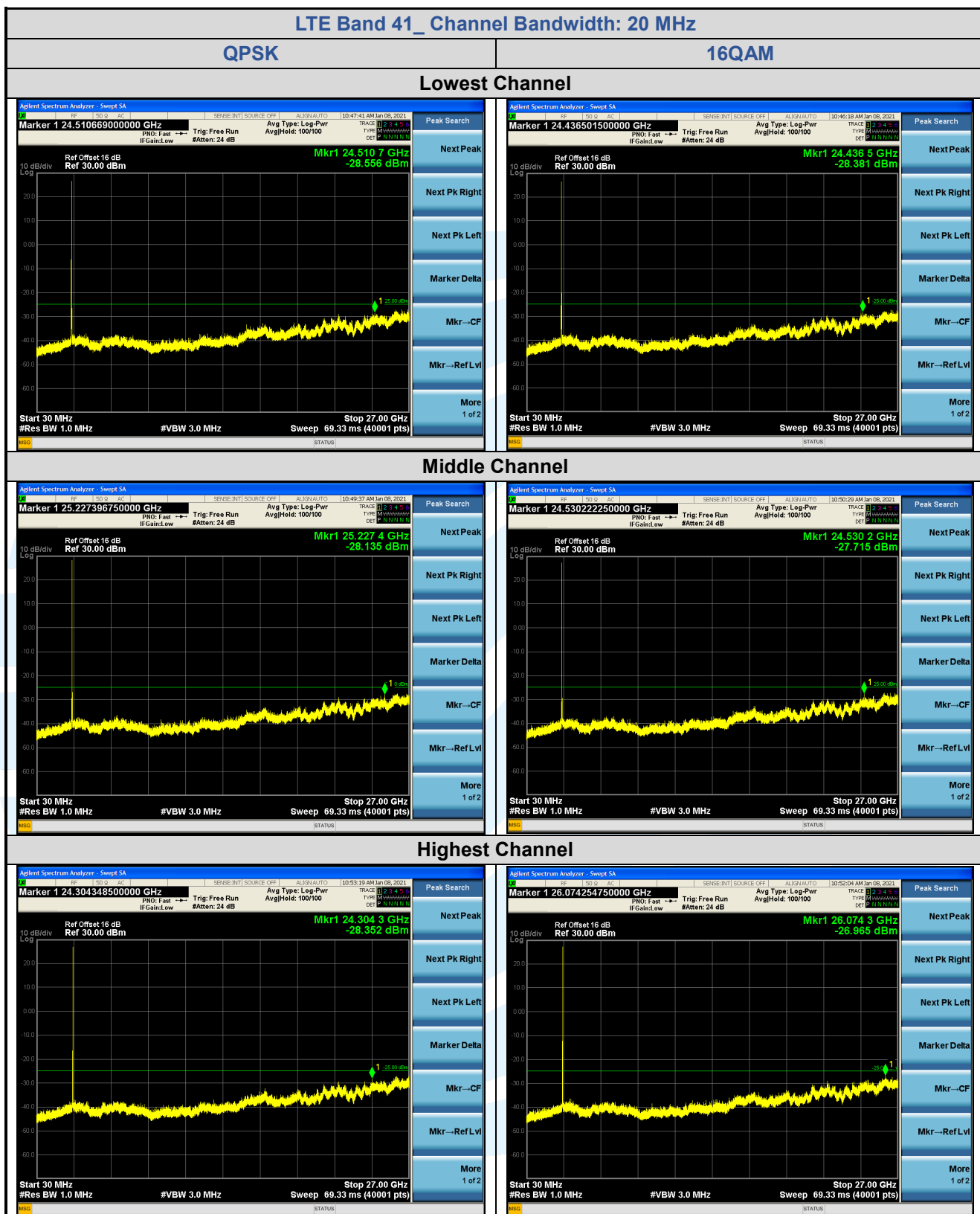
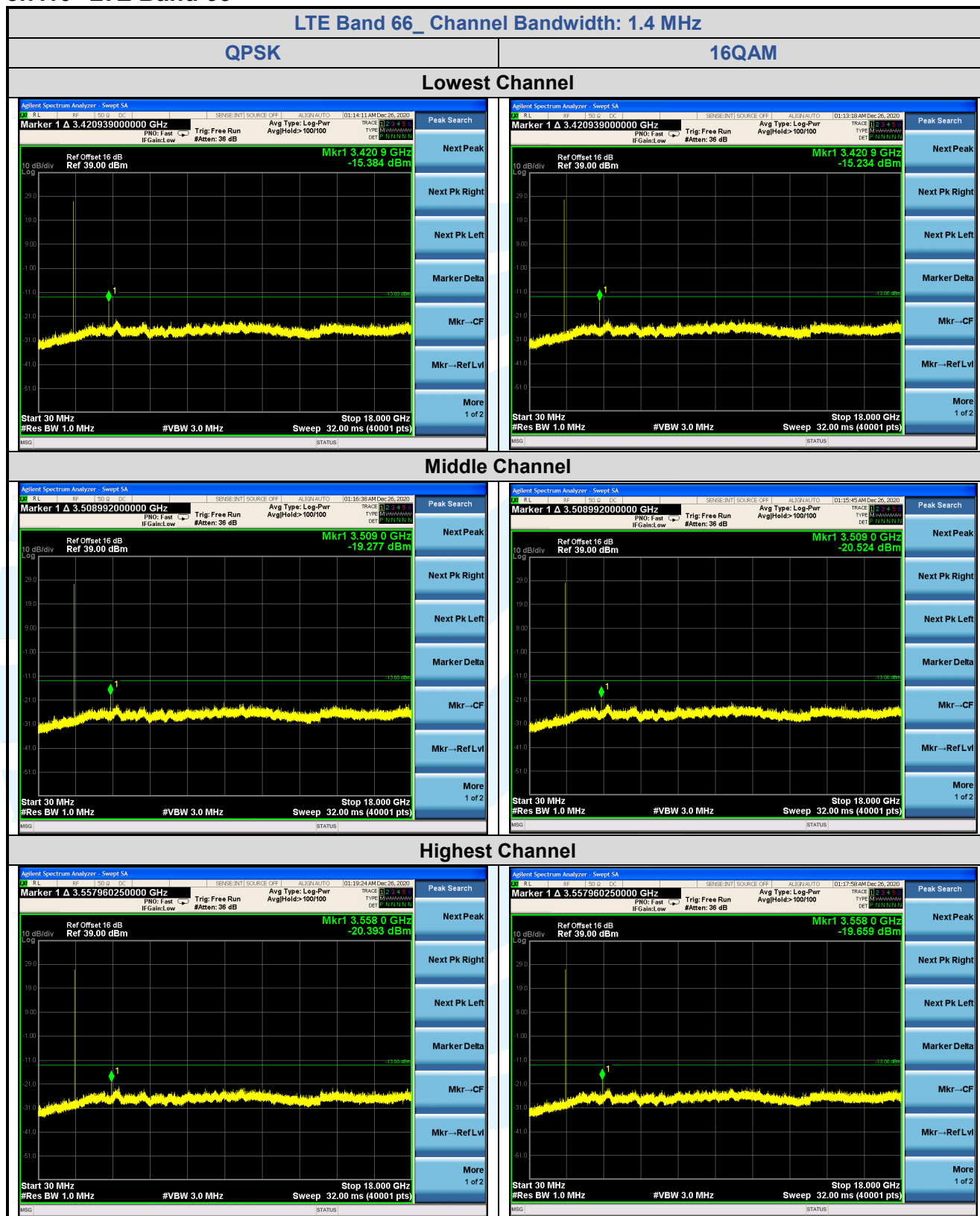


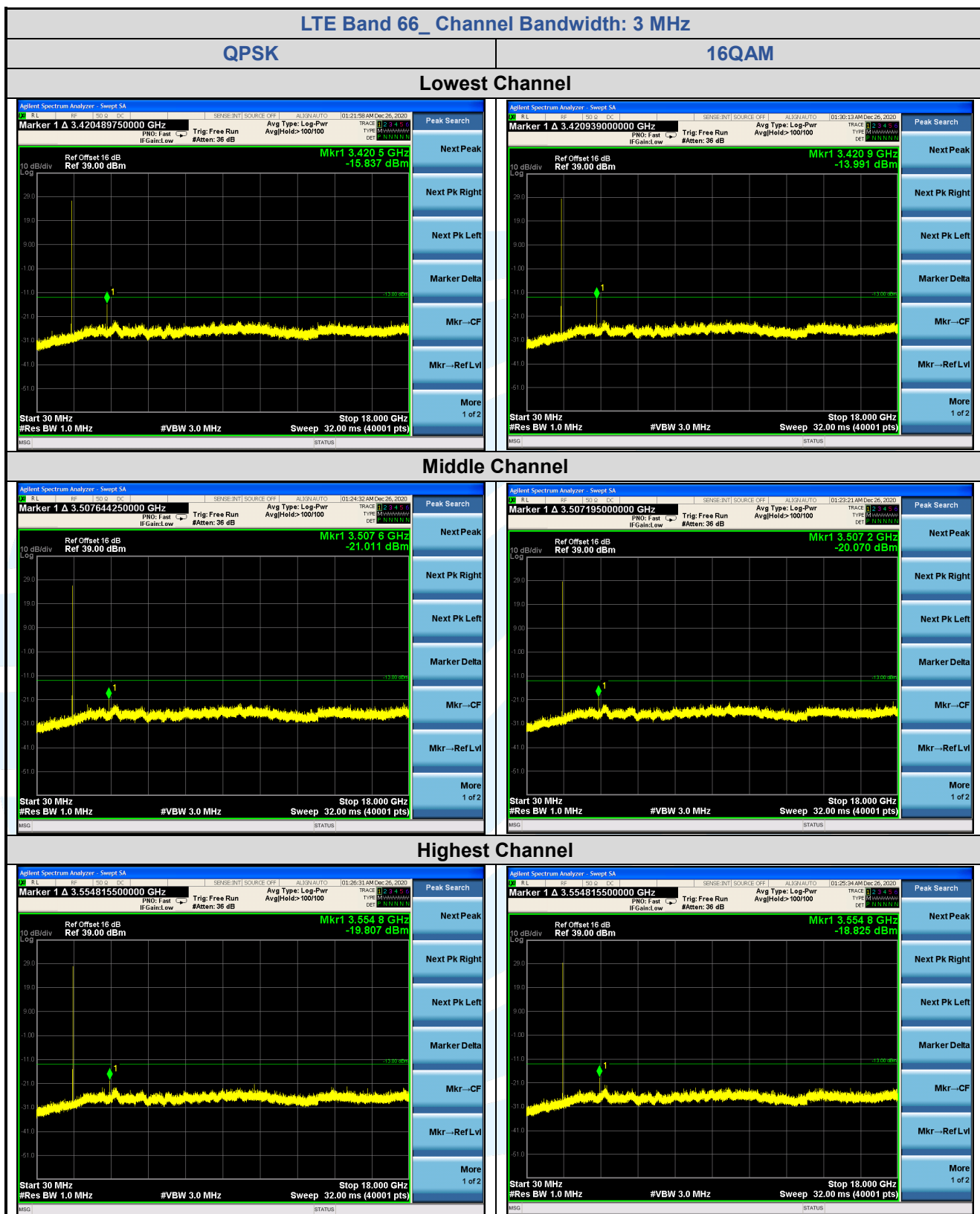


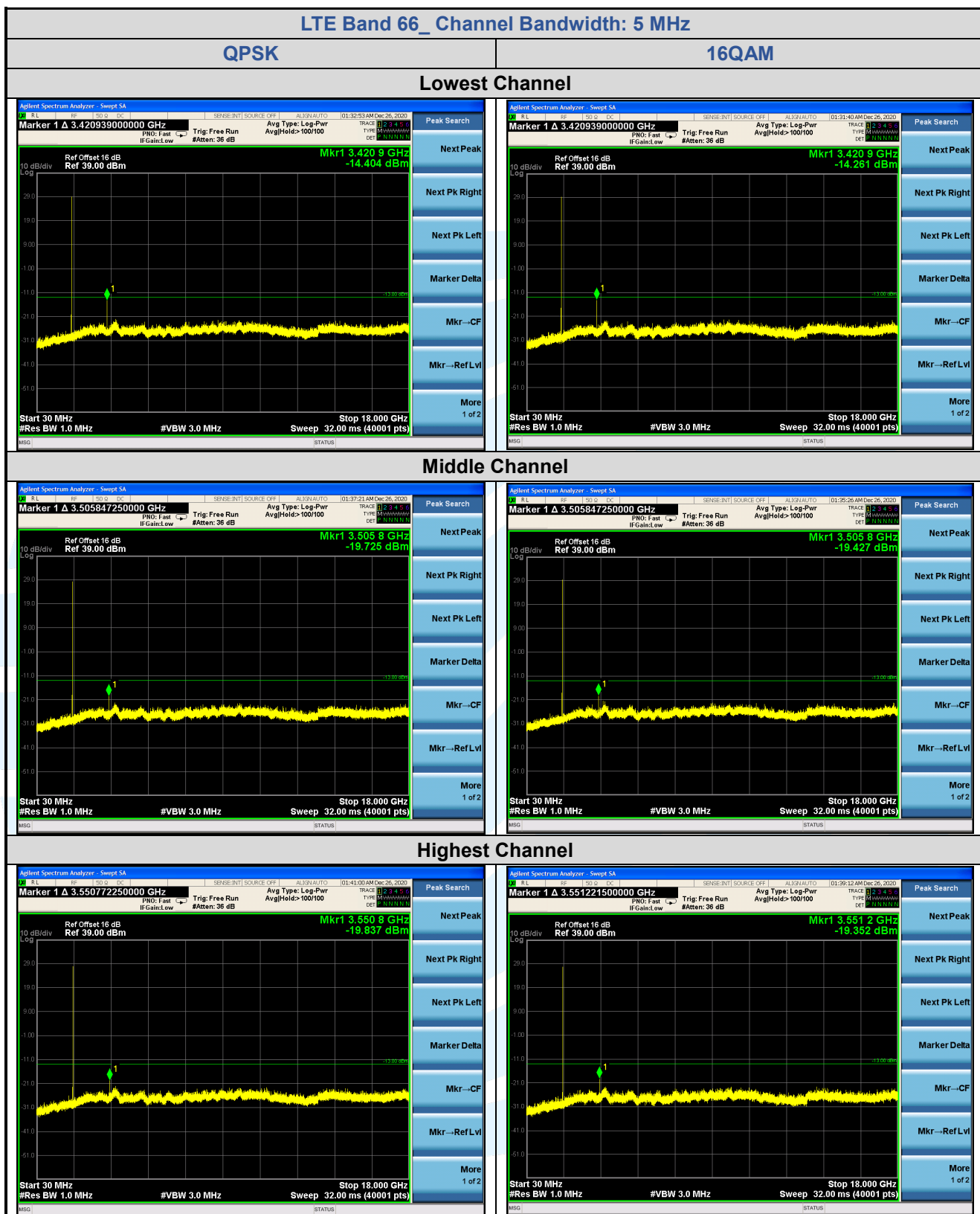


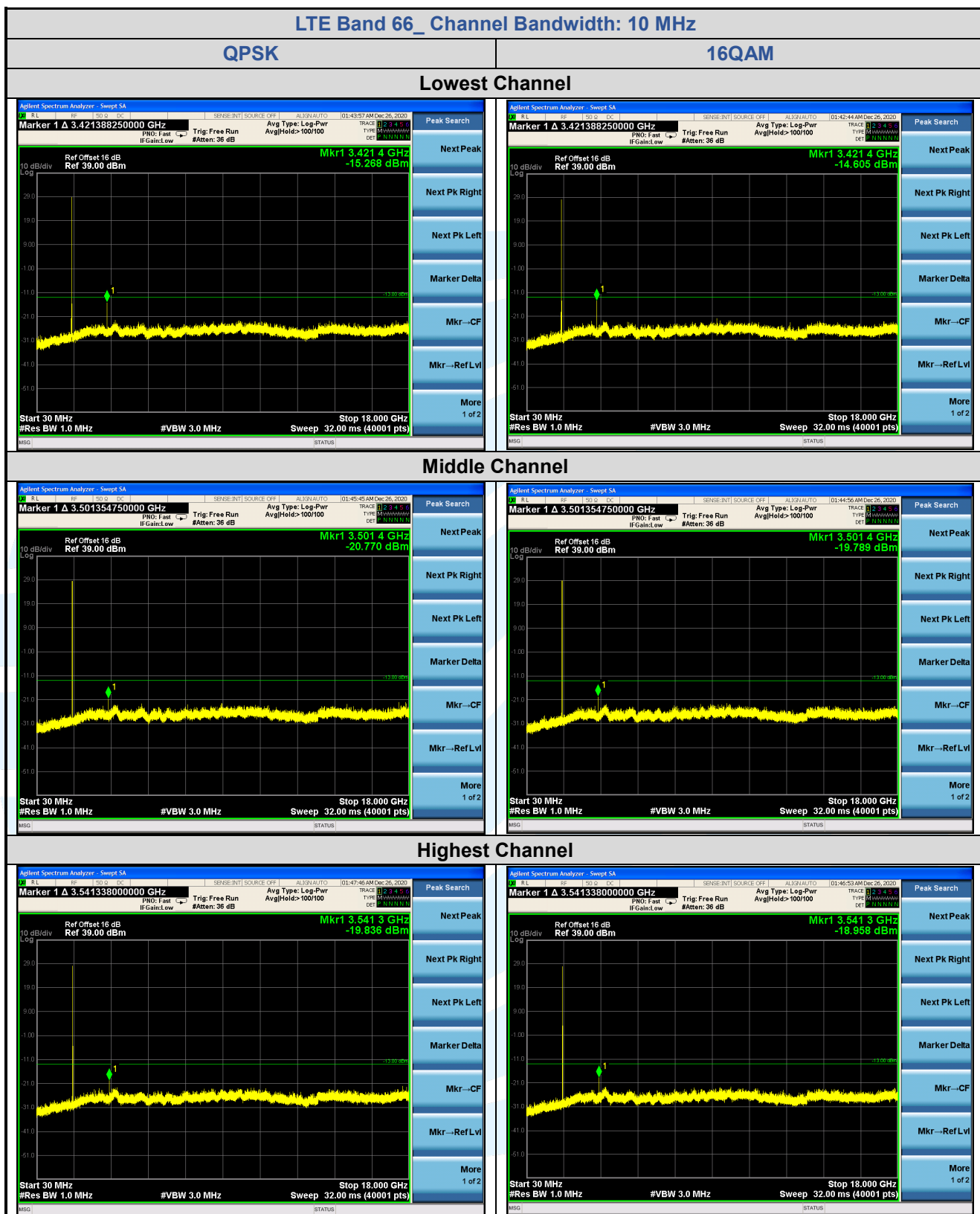


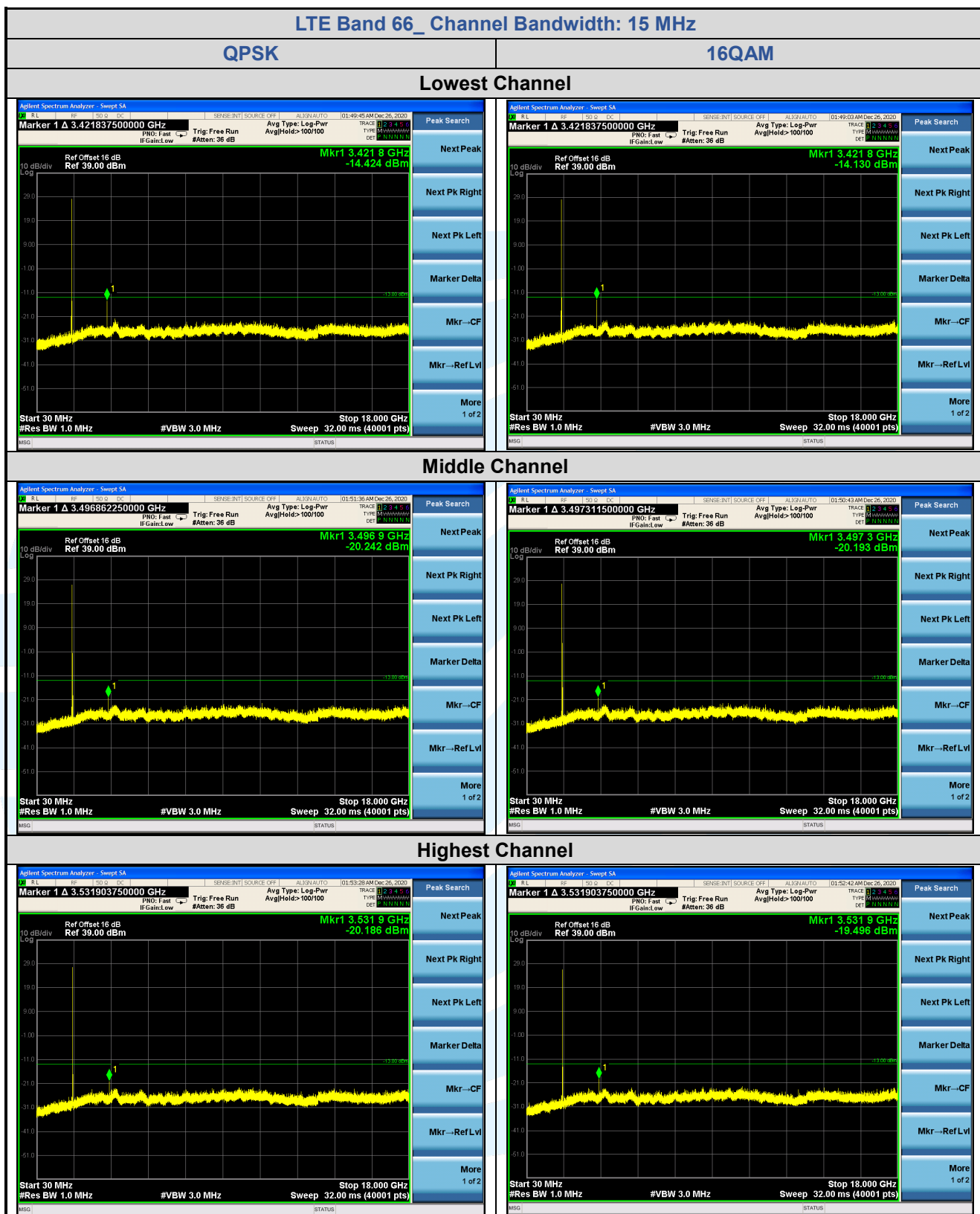
5.7.10 LTE Band 66

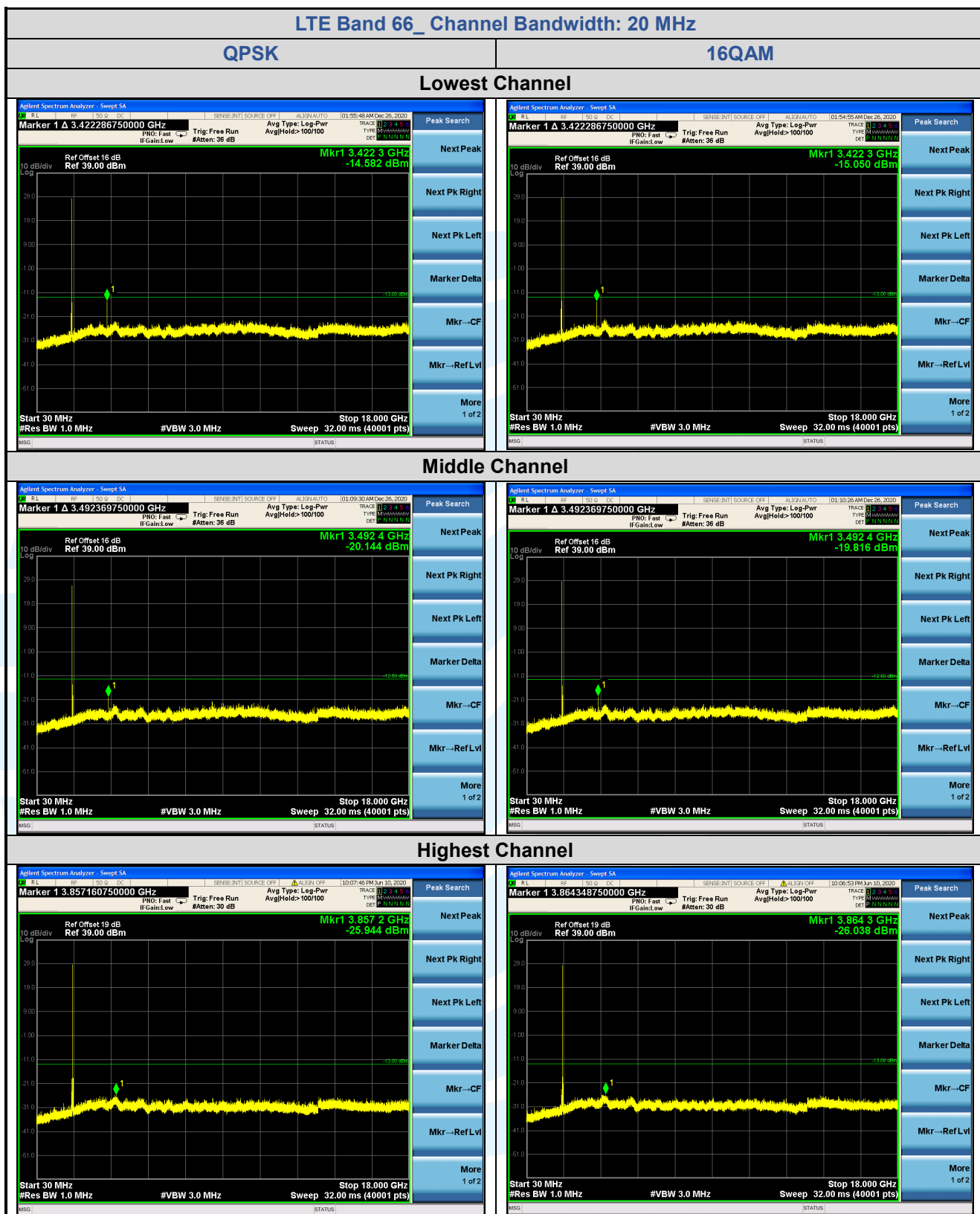












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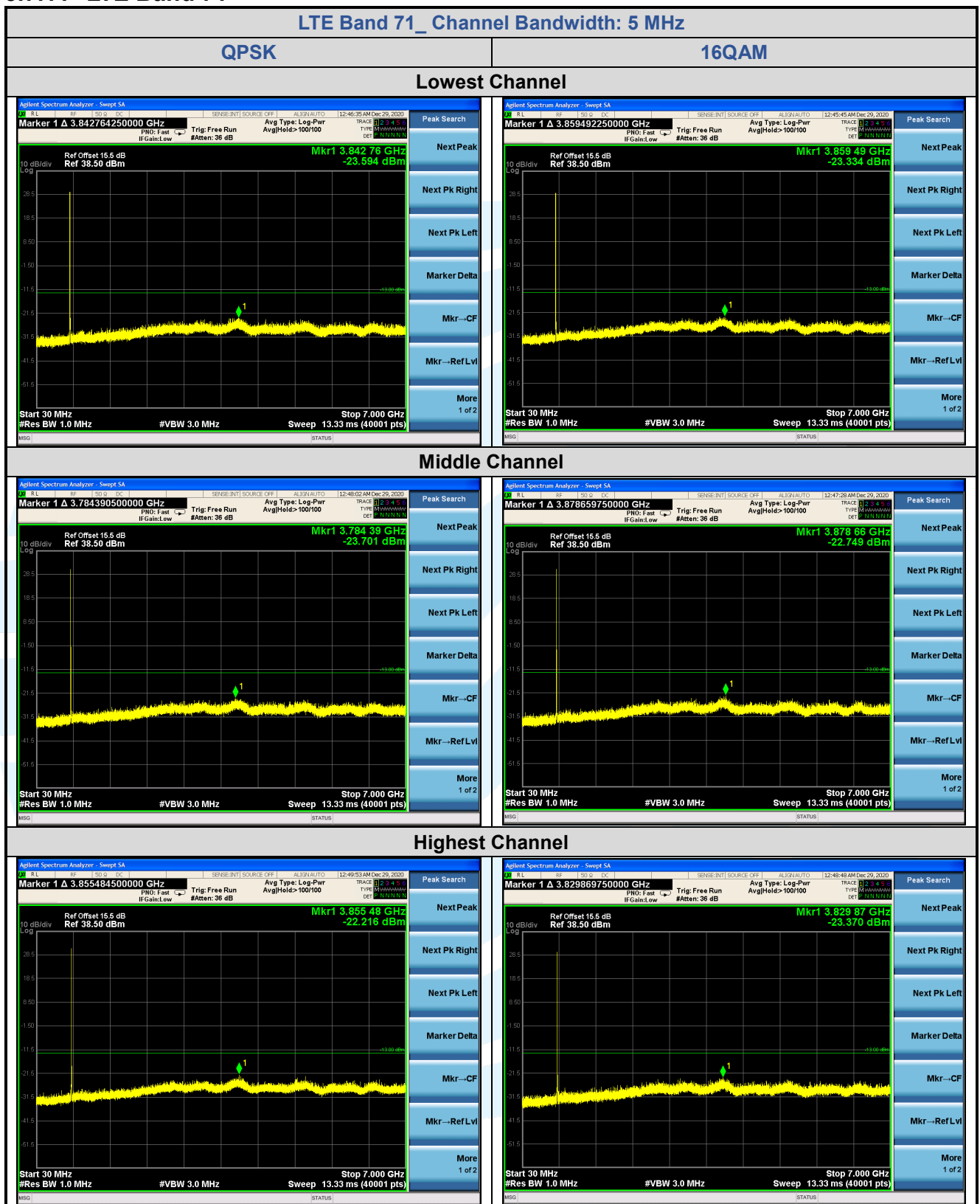
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5.7.11 LTE Band 71



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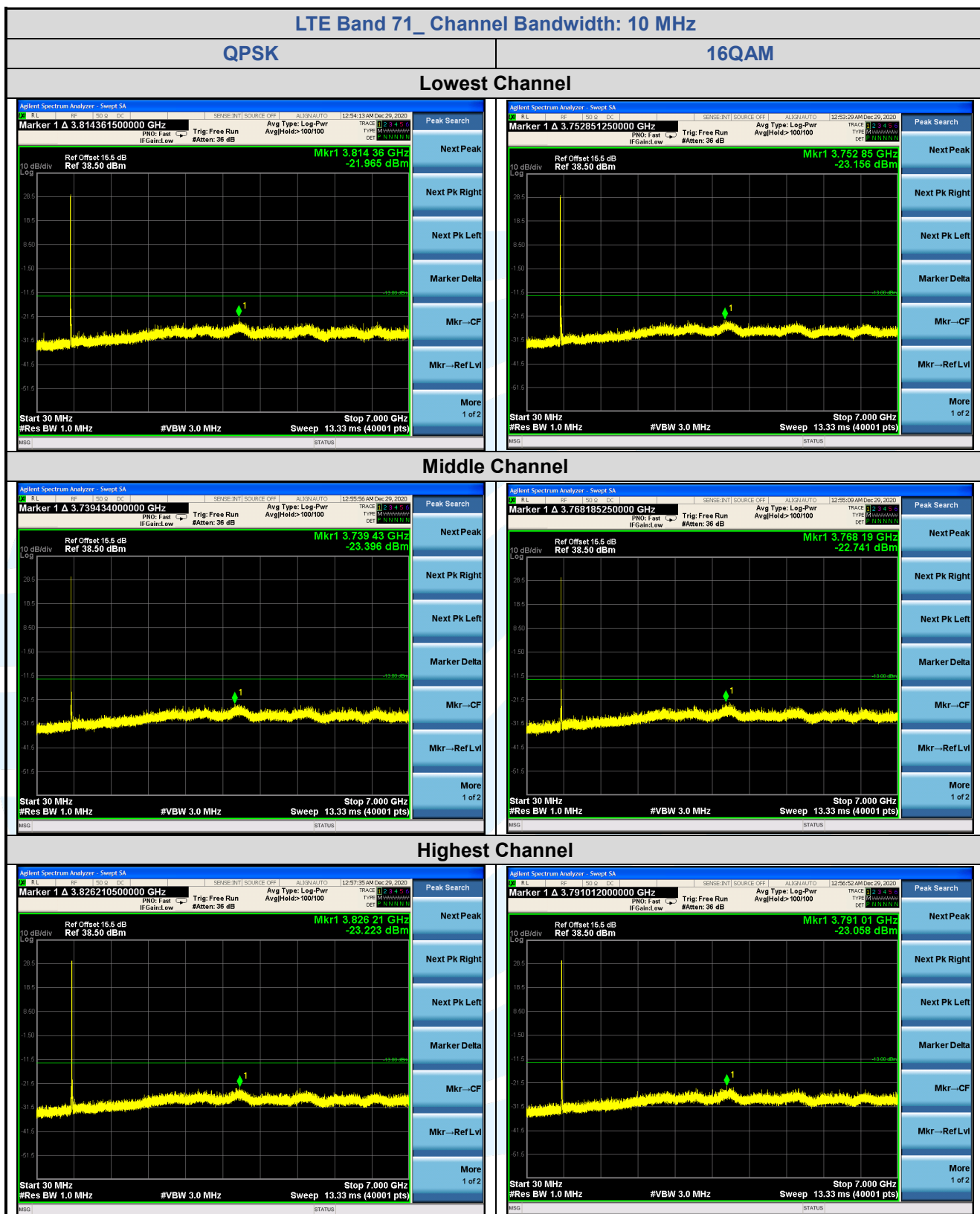
Tel: +86-755-28230888

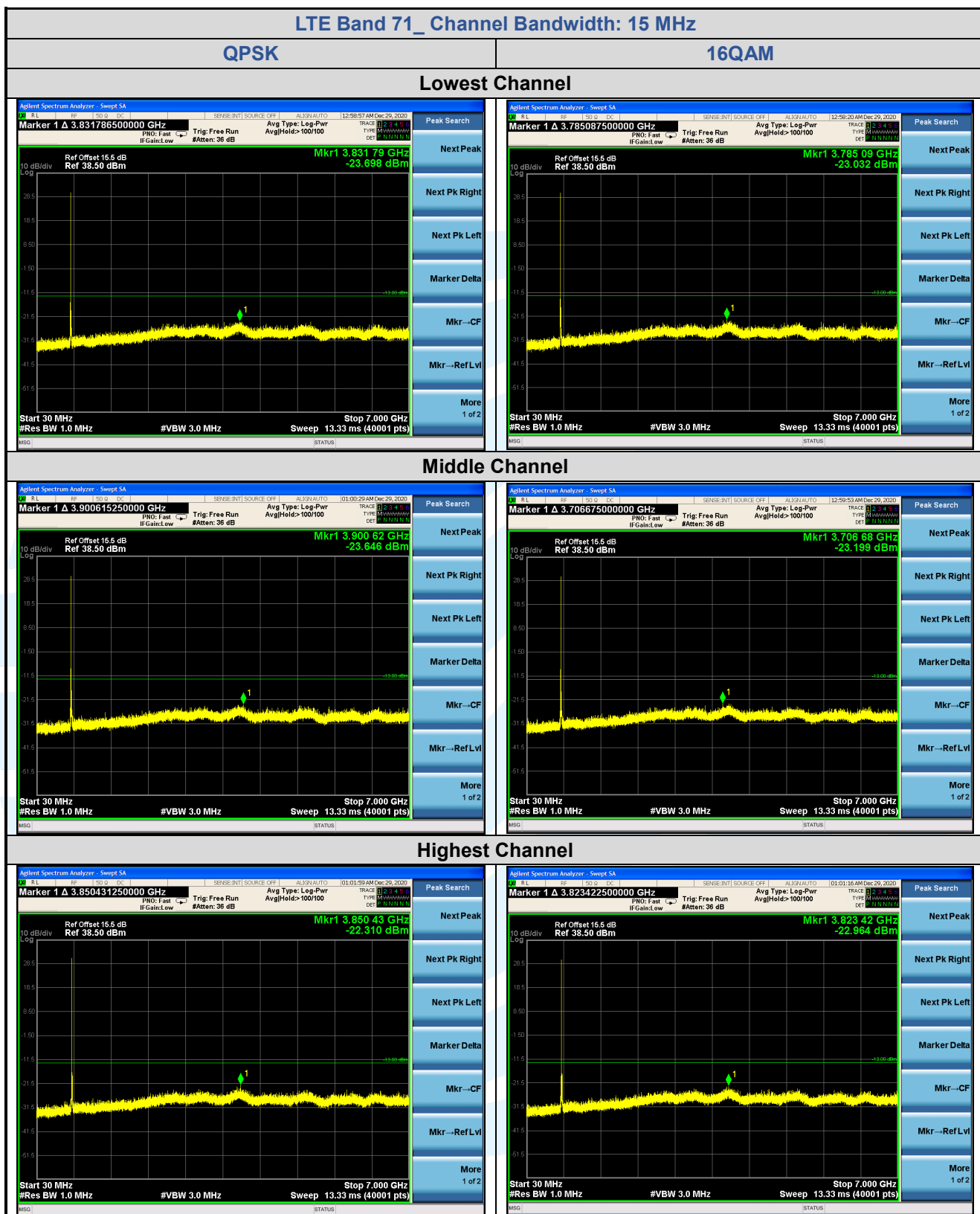
Fax: +86-755-28230886

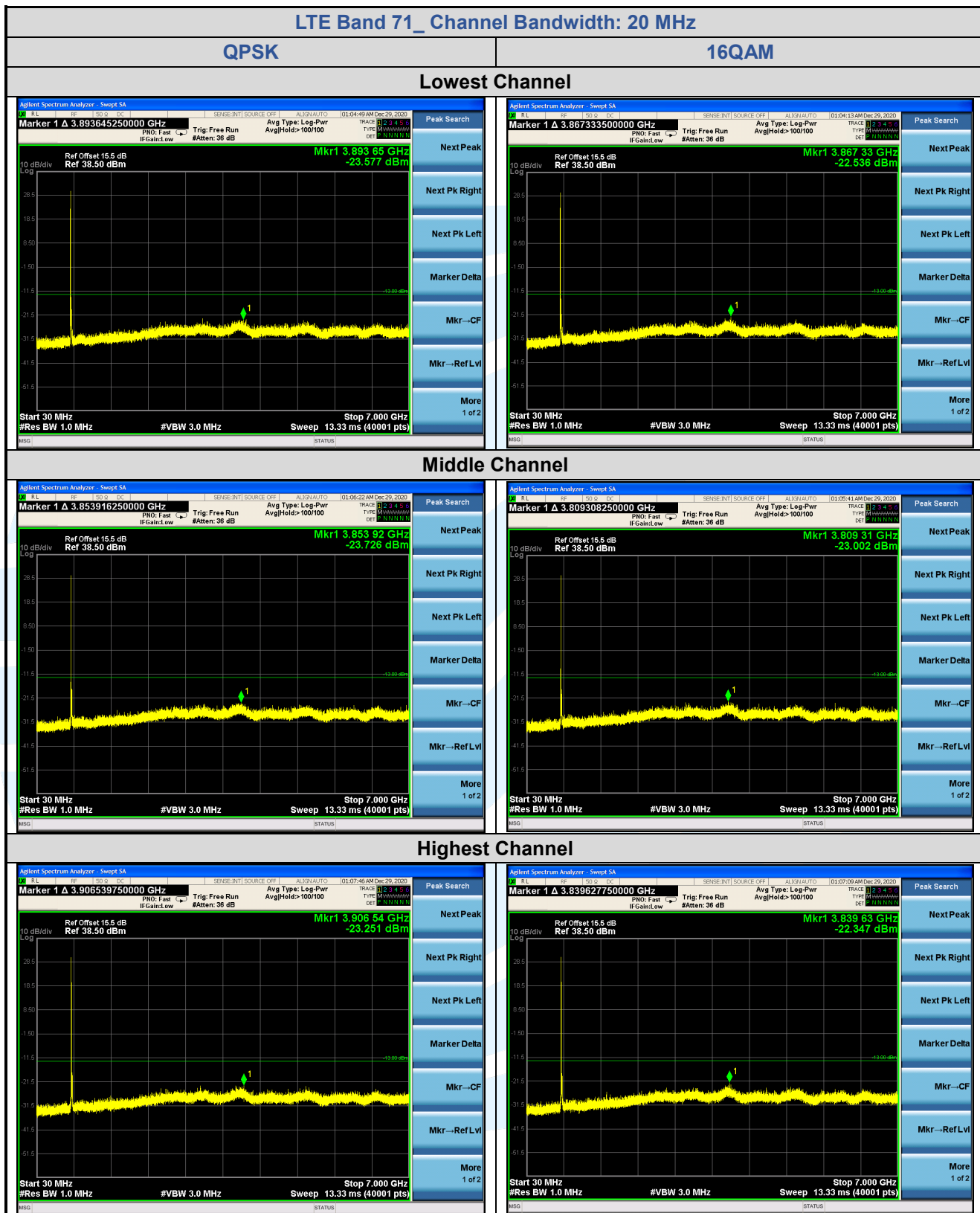
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5.8 FIELD STRENGTH OF SPURIOUS RADIATION

Test Requirement: LTE Band 2: FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)
LTE Band 5: FCC 47 CFR Part 22.917(a)
LTE Band 7 & Band 38 & Band 41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & Band 71: FCC 47 CFR Part 27.53(g)
LTE Band 13: 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):

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:

5.8.1 LTE Band 2

LTE Band 2_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	94.979	-63.41	-3.56	-66.97	-13.00	-53.97	Horizontal
2	771.047	-74.88	11.40	-63.48	-13.00	-50.48	Horizontal
3	965.474	-78.32	14.34	-63.98	-13.00	-50.98	Horizontal
4	3720.000	-57.47	6.82	-50.65	-13.00	-37.65	Horizontal
5	5580.000	-45.59	10.86	-34.73	-13.00	-21.73	Horizontal
6	38.908	-56.01	-1.41	-57.42	-13.00	-44.42	Vertical
7	92.997	-51.44	-3.72	-55.16	-13.00	-42.16	Vertical
8	965.474	-65.48	13.21	-52.27	-13.00	-39.27	Vertical
9	3720.000	-55.86	6.81	-49.05	-13.00	-36.05	Vertical
10	5580.000	-44.79	11.34	-33.45	-13.00	-20.45	Vertical
Middle Channel							
1	38.096	-68.34	-0.15	-68.49	-13.00	-55.49	Horizontal
2	94.979	-64.69	-3.56	-68.25	-13.00	-55.25	Horizontal
3	965.474	-79.35	14.34	-65.01	-13.00	-52.01	Horizontal
4	3760.000	-58.68	6.93	-51.75	-13.00	-38.75	Horizontal
5	5640.000	-48.03	10.84	-37.19	-13.00	-24.19	Horizontal
6	37.830	-56.51	-0.74	-57.25	-13.00	-44.25	Vertical
7	92.346	-52.01	-3.77	-55.78	-13.00	-42.78	Vertical
8	965.474	-65.31	13.21	-52.10	-13.00	-39.10	Vertical
9	3760.000	-57.30	6.93	-50.37	-13.00	-37.37	Vertical
10	5640.000	-44.42	11.32	-33.10	-13.00	-20.10	Vertical
Highest Channel							
1	37.302	-68.53	0.24	-68.29	-13.00	-55.29	Horizontal
2	91.700	-65.03	-3.81	-68.84	-13.00	-55.84	Horizontal
3	965.474	-72.46	14.34	-58.12	-13.00	-45.12	Horizontal
4	3800.000	-57.21	7.03	-50.18	-13.00	-37.18	Horizontal
5	5700.000	-46.22	10.83	-35.39	-13.00	-22.39	Horizontal
6	37.565	-56.05	-0.56	-56.61	-13.00	-43.61	Vertical
7	93.653	-50.10	-3.65	-53.75	-13.00	-40.75	Vertical
8	965.474	-69.30	13.21	-56.09	-13.00	-43.09	Vertical
9	3800.000	-55.60	7.05	-48.55	-13.00	-35.55	Vertical
10	5700.000	-46.54	11.29	-35.25	-13.00	-22.25	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	38.096	-66.68	-0.15	-66.83	-13.00	-53.83	Horizontal
2	214.606	-70.34	-0.27	-70.61	-13.00	-57.61	Horizontal
3	965.474	-72.48	14.34	-58.14	-13.00	-45.14	Horizontal
4	3440.000	-29.43	5.94	-23.49	-13.00	-10.49	Horizontal
5	5160.000	-64.48	9.17	-55.31	-13.00	-42.31	Horizontal
6	38.096	-56.12	-0.90	-57.02	-13.00	-44.02	Vertical
7	92.346	-51.04	-3.77	-54.81	-13.00	-41.81	Vertical
8	965.474	-69.56	13.21	-56.35	-13.00	-43.35	Vertical
9	3440.000	-40.89	5.75	-35.14	-13.00	-22.14	Vertical
10	5160.000	-53.20	9.53	-43.67	-13.00	-30.67	Vertical
Middle Channel							
1	37.830	-68.30	-0.02	-68.32	-13.00	-55.32	Horizontal
2	145.811	-68.33	-2.60	-70.93	-13.00	-57.93	Horizontal
3	965.474	-71.94	14.34	-57.60	-13.00	-44.60	Horizontal
4	3465.000	-30.91	6.02	-24.89	-13.00	-11.89	Horizontal
5	5197.500	-64.13	9.31	-54.82	-13.00	-41.82	Horizontal
6	38.096	-55.16	-0.90	-56.06	-13.00	-43.06	Vertical
7	93.653	-50.78	-3.65	-54.43	-13.00	-41.43	Vertical
8	965.474	-69.35	13.21	-56.14	-13.00	-43.14	Vertical
9	3465.000	-40.32	5.87	-34.45	-13.00	-21.45	Vertical
10	5197.500	-56.36	9.69	-46.67	-13.00	-33.67	Vertical
Highest Channel							
1	38.365	-67.50	-0.28	-67.78	-13.00	-54.78	Horizontal
2	54.135	-63.53	-5.31	-68.84	-13.00	-55.84	Horizontal
3	965.474	-72.62	14.34	-58.28	-13.00	-45.28	Horizontal
4	3490.000	-38.71	6.11	-32.60	-13.00	-19.60	Horizontal
5	5235.000	-64.98	9.50	-55.48	-13.00	-42.48	Horizontal
6	38.365	-55.48	-1.07	-56.55	-13.00	-43.55	Vertical
7	93.653	-51.64	-3.65	-55.29	-13.00	-42.29	Vertical
8	965.474	-69.38	13.21	-56.17	-13.00	-43.17	Vertical
9	3490.000	-51.12	5.99	-45.13	-13.00	-32.13	Vertical
10	5235.000	-64.90	9.89	-55.01	-13.00	-42.01	Vertical

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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	280.294	-88.14	30.61	-57.53	-13.00	-44.53	Horizontal
2	509.356	-87.79	36.71	-51.08	-13.00	-38.08	Horizontal
3	744.427	-87.37	40.32	-47.05	-13.00	-34.05	Horizontal
4	1658.000	-65.75	0.11	-65.64	-13.00	-52.64	Horizontal
5	2487.000	-64.90	2.76	-62.14	-13.00	-49.14	Horizontal
6	96.323	-81.97	25.37	-56.60	-13.00	-43.60	Vertical
7	505.789	-87.06	36.97	-50.09	-13.00	-37.09	Vertical
8	723.793	-86.87	39.41	-47.46	-13.00	-34.46	Vertical
9	1658.000	-66.11	-0.66	-66.77	-13.00	-53.77	Vertical
10	2487.000	-65.65	2.36	-63.29	-13.00	-50.29	Vertical
Middle Channel							
1	360.977	-88.00	33.10	-54.90	-13.00	-41.90	Horizontal
2	481.511	-87.76	36.14	-51.62	-13.00	-38.62	Horizontal
3	781.961	-86.77	41.05	-45.72	-13.00	-32.72	Horizontal
4	1673.000	-65.23	0.19	-65.04	-13.00	-52.04	Horizontal
5	2509.500	-66.35	2.82	-63.53	-13.00	-50.53	Horizontal
6	91.057	-81.63	24.97	-56.66	-13.00	-43.66	Vertical
7	350.972	-87.82	33.16	-54.66	-13.00	-41.66	Vertical
8	679.435	-87.12	38.56	-48.56	-13.00	-35.56	Vertical
9	1673.000	-65.42	-0.57	-65.99	-13.00	-52.99	Vertical
10	2509.500	-65.02	2.41	-62.61	-13.00	-49.61	Vertical
Highest Channel							
1	95.649	-86.75	25.33	-61.42	-13.00	-48.42	Horizontal
2	527.571	-88.15	37.49	-50.66	-13.00	-37.66	Horizontal
3	693.910	-87.29	40.62	-46.67	-13.00	-33.67	Horizontal
4	1688.000	-64.02	0.28	-63.74	-13.00	-50.74	Horizontal
5	2532.000	-65.58	2.89	-62.69	-13.00	-49.69	Horizontal
6	94.314	-81.34	25.22	-56.12	-13.00	-43.12	Vertical
7	491.770	-87.70	36.63	-51.07	-13.00	-38.07	Vertical
8	728.897	-87.38	39.32	-48.06	-13.00	-35.06	Vertical
9	1688.000	-64.02	-0.47	-64.49	-13.00	-51.49	Vertical
10	2532.000	-65.58	2.47	-63.11	-13.00	-50.11	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	36.781	-68.38	0.51	-67.87	-25.00	-42.87	Horizontal
2	56.071	-63.89	-5.46	-69.35	-25.00	-44.35	Horizontal
3	965.474	-72.24	14.34	-57.90	-25.00	-32.90	Horizontal
4	5020.000	-59.58	8.68	-50.90	-25.00	-25.90	Horizontal
5	7530.000	-65.40	13.00	-52.40	-25.00	-27.40	Horizontal
6	38.636	-55.26	-1.25	-56.51	-13.00	-43.51	Vertical
7	91.057	-51.67	-3.87	-55.54	-13.00	-42.54	Vertical
8	965.474	-69.28	13.21	-56.07	-13.00	-43.07	Vertical
9	5020.000	-59.85	8.98	-50.87	-25.00	-25.87	Vertical
10	7530.000	-65.25	13.10	-52.15	-25.00	-27.15	Vertical
Middle Channel							
1	38.636	-67.41	-0.43	-67.84	-25.00	-42.84	Horizontal
2	57.669	-63.43	-5.57	-69.00	-25.00	-44.00	Horizontal
3	965.474	-72.67	14.34	-58.33	-25.00	-33.33	Horizontal
4	5070.000	-60.44	8.86	-51.58	-25.00	-26.58	Horizontal
5	7605.000	-63.48	13.16	-50.32	-25.00	-25.32	Horizontal
6	37.830	-55.43	-0.74	-56.17	-25.00	-31.17	Vertical
7	92.346	-50.72	-3.77	-54.49	-25.00	-29.49	Vertical
8	965.474	-69.03	13.21	-55.82	-25.00	-30.82	Vertical
9	5070.000	-60.84	9.18	-51.66	-25.00	-26.66	Vertical
10	7605.000	-65.86	13.26	-52.60	-25.00	-27.60	Vertical
Highest Channel							
1	37.830	-67.28	-0.02	-67.30	-25.00	-42.30	Horizontal
2	56.071	-63.69	-5.46	-69.15	-25.00	-44.15	Horizontal
3	965.474	-72.52	14.34	-58.18	-25.00	-33.18	Horizontal
4	5120.000	-60.51	9.03	-51.48	-25.00	-26.48	Horizontal
5	7680.000	-63.28	13.31	-49.97	-25.00	-24.97	Horizontal
6	38.096	-54.66	-0.90	-55.56	-25.00	-30.56	Vertical
7	94.979	-49.89	-3.56	-53.45	-25.00	-28.45	Vertical
8	965.474	-68.86	13.21	-55.65	-25.00	-30.65	Vertical
9	5120.000	-60.99	9.37	-51.62	-25.00	-26.62	Vertical
10	7680.000	-64.66	13.41	-51.25	-25.00	-26.25	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	341.244	-87.86	32.72	-55.14	-13.00	-42.14	Horizontal
2	562.014	-86.80	37.42	-49.38	-13.00	-36.38	Horizontal
3	674.677	-86.96	40.21	-46.75	-13.00	-33.75	Horizontal
4	1408.000	-62.53	-0.43	-62.96	-13.00	-49.96	Horizontal
5	2112.000	-63.86	2.00	-61.86	-13.00	-48.86	Horizontal
6	90.420	-80.66	24.93	-55.73	-13.00	-42.73	Vertical
7	353.447	-87.78	33.14	-54.64	-13.00	-41.64	Vertical
8	481.511	-87.02	36.37	-50.65	-13.00	-37.65	Vertical
9	1408.000	-60.44	-1.20	-61.64	-13.00	-48.64	Vertical
10	2112.000	-62.15	1.52	-60.63	-13.00	-47.63	Vertical
Middle Channel							
1	346.074	-88.11	32.97	-55.14	-13.00	-42.14	Horizontal
2	403.934	-88.12	35.06	-53.06	-13.00	-40.06	Horizontal
3	615.774	-87.87	39.12	-48.75	-13.00	-35.75	Horizontal
4	1415.000	-62.30	-0.44	-62.74	-13.00	-49.74	Horizontal
5	2122.500	-63.07	2.00	-61.07	-13.00	-48.07	Horizontal
6	92.346	-80.46	25.07	-55.39	-13.00	-42.39	Vertical
7	471.467	-87.13	36.03	-51.10	-13.00	-38.10	Vertical
8	573.988	-87.98	38.38	-49.60	-13.00	-36.60	Vertical
9	1415.000	-61.60	-1.22	-62.82	-13.00	-49.82	Vertical
10	2122.500	-63.08	1.53	-61.55	-13.00	-48.55	Vertical
Highest Channel							
1	363.523	-88.08	33.09	-54.99	-13.00	-41.99	Horizontal
2	520.208	-87.52	37.25	-50.27	-13.00	-37.27	Horizontal
3	679.435	-86.07	40.32	-45.75	-13.00	-32.75	Horizontal
4	1422.000	-62.14	-0.45	-62.59	-13.00	-49.59	Horizontal
5	2133.000	-62.91	2.01	-60.90	-13.00	-47.90	Horizontal
6	97.002	-80.20	25.42	-54.78	-13.00	-41.78	Vertical
7	421.329	-87.38	35.33	-52.05	-13.00	-39.05	Vertical
8	520.208	-87.21	37.28	-49.93	-13.00	-36.93	Vertical
9	1422.000	-63.41	-1.24	-64.65	-13.00	-51.65	Vertical
10	2133.000	-64.36	1.53	-62.83	-13.00	-49.83	Vertical

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5.8.6 LTE Band 13

LTE Band 13_ 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	412.539	-88.48	35.00	-53.48	-13.00	-40.48	Horizontal
2	488.326	-88.00	36.17	-51.83	-13.00	-38.83	Horizontal
3	713.692	-88.16	40.45	-47.71	-13.00	-34.71	Horizontal
4	1564.000	-65.73	-0.41	-66.14	-13.00	-53.14	Horizontal
5	2346.000	-62.33	2.41	-59.92	-13.00	-46.92	Horizontal
6	91.700	-80.37	25.03	-55.34	-13.00	-42.34	Vertical
7	468.165	-87.40	35.89	-51.51	-13.00	-38.51	Vertical
8	578.036	-87.53	38.30	-49.23	-13.00	-36.23	Vertical
9	1564.000	-65.60	-1.26	-66.86	-13.00	-53.86	Vertical
10	2346.000	-64.21	1.98	-62.23	-13.00	-49.23	Vertical

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5.8.7 LTE Band 17

LTE Band 17_ 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	42.931	-84.65	26.71	-57.94	-13.00	-44.94	Horizontal
2	478.139	-88.12	36.12	-52.00	-13.00	-39.00	Horizontal
3	602.929	-87.70	38.90	-48.80	-13.00	-35.80	Horizontal
4	1418.000	-64.22	-0.46	-64.68	-13.00	-51.68	Horizontal
5	2127.000	-64.97	2.00	-62.97	-13.00	-49.97	Horizontal
6	92.346	-80.32	25.07	-55.25	-13.00	-42.25	Vertical
7	481.511	-87.22	36.37	-50.85	-13.00	-37.85	Vertical
8	628.894	-87.10	37.85	-49.25	-13.00	-36.25	Vertical
9	1418.000	-64.50	-1.24	-65.74	-13.00	-52.74	Vertical
10	2127.000	-65.56	1.52	-64.04	-13.00	-51.04	Vertical
Middle Channel							
1	276.382	-87.55	30.52	-57.03	-13.00	-44.03	Horizontal
2	542.610	-87.21	37.46	-49.75	-13.00	-36.75	Horizontal
3	637.795	-87.69	39.29	-48.40	-13.00	-35.40	Horizontal
4	1420.000	-64.03	-0.45	-64.48	-13.00	-51.48	Horizontal
5	2130.000	-65.26	2.00	-63.26	-13.00	-50.26	Horizontal
6	91.700	-79.33	25.03	-54.30	-13.00	-41.30	Vertical
7	427.292	-88.09	35.47	-52.62	-13.00	-39.62	Vertical
8	624.490	-87.33	37.87	-49.46	-13.00	-36.46	Vertical
9	1420.000	-63.40	-1.24	-64.64	-13.00	-51.64	Vertical
10	2130.000	-64.17	1.53	-62.64	-13.00	-49.64	Vertical
Highest Channel							
1	266.839	-88.61	30.31	-58.30	-13.00	-45.30	Horizontal
2	406.782	-88.53	35.04	-53.49	-13.00	-40.49	Horizontal
3	542.610	-87.10	37.46	-49.64	-13.00	-36.64	Horizontal
4	1422.000	-63.00	-0.45	-63.45	-13.00	-50.45	Horizontal
5	2133.000	-66.78	2.01	-64.77	-13.00	-51.77	Horizontal
6	92.346	-79.13	25.07	-54.06	-13.00	-41.06	Vertical
7	401.105	-86.96	34.33	-52.63	-13.00	-39.63	Vertical
8	558.079	-86.84	38.02	-48.82	-13.00	-35.82	Vertical
9	1422.000	-63.83	-1.24	-65.07	-13.00	-52.07	Vertical
10	2133.000	-65.34	1.53	-63.81	-13.00	-50.81	Vertical

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5.8.8 LTE Band 38

LTE Band 38_ 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	38.096	-67.25	-0.15	-67.40	-25.00	-42.40	Horizontal
2	384.545	-69.45	5.12	-64.33	-25.00	-39.33	Horizontal
3	965.474	-71.95	14.34	-57.61	-25.00	-32.61	Horizontal
4	5160.000	-58.31	9.17	-49.14	-25.00	-24.14	Horizontal
5	7740.000	-63.37	13.43	-49.94	-25.00	-24.94	Horizontal
6	37.830	-56.72	-0.74	-57.46	-25.00	-32.46	Vertical
7	91.057	-51.99	-3.87	-55.86	-25.00	-30.86	Vertical
8	965.474	-69.64	13.21	-56.43	-25.00	-31.43	Vertical
9	5160.000	-54.50	9.53	-44.97	-25.00	-19.97	Vertical
10	7740.000	-62.31	13.53	-48.78	-25.00	-23.78	Vertical
Middle Channel							
1	38.908	-68.67	-0.55	-69.22	-25.00	-44.22	Horizontal
2	143.776	-67.95	-2.79	-70.74	-25.00	-45.74	Horizontal
3	965.474	-72.41	14.34	-58.07	-25.00	-33.07	Horizontal
4	5190.000	-60.28	9.27	-51.01	-25.00	-26.01	Horizontal
5	7785.000	-62.87	13.51	-49.36	-25.00	-24.36	Horizontal
6	37.830	-55.87	-0.74	-56.61	-25.00	-31.61	Vertical
7	91.057	-50.15	-3.87	-54.02	-25.00	-29.02	Vertical
8	965.474	-69.42	13.21	-56.21	-25.00	-31.21	Vertical
9	5190.000	-61.02	9.65	-51.37	-25.00	-26.37	Vertical
10	7785.000	-62.93	13.61	-49.32	-25.00	-24.32	Vertical
Highest Channel							
1	38.365	-67.22	-0.28	-67.50	-25.00	-42.50	Horizontal
2	56.466	-62.35	-5.49	-67.84	-25.00	-42.84	Horizontal
3	965.474	-72.05	14.34	-57.71	-25.00	-32.71	Horizontal
4	5220.000	-58.79	9.42	-49.37	-25.00	-24.37	Horizontal
5	7830.000	-62.68	13.61	-49.07	-25.00	-24.07	Horizontal
6	38.365	-55.08	-1.07	-56.15	-25.00	-31.15	Vertical
7	92.997	-49.83	-3.72	-53.55	-25.00	-28.55	Vertical
8	965.474	-68.56	13.21	-55.35	-25.00	-30.35	Vertical
9	5220.000	-58.49	9.80	-48.69	-25.00	-23.69	Vertical
10	7830.000	-64.94	13.71	-51.23	-25.00	-26.23	Vertical

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5.8.9 LTE Band 41

LTE Band 41_ 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	37.302	-68.88	0.24	-68.64	-25.00	-43.64	Horizontal
2	56.071	-64.72	-5.46	-70.18	-25.00	-45.18	Horizontal
3	965.474	-72.20	14.34	-57.86	-25.00	-32.86	Horizontal
4	5012.000	-61.69	8.65	-53.04	-25.00	-28.04	Horizontal
5	7518.000	-62.97	12.97	-50.00	-25.00	-25.00	Horizontal
6	37.830	-56.26	-0.74	-57.00	-25.00	-32.00	Vertical
7	93.653	-50.99	-3.65	-54.64	-25.00	-29.64	Vertical
8	965.474	-69.37	13.21	-56.16	-25.00	-31.16	Vertical
9	5012.000	-58.18	8.95	-49.23	-25.00	-24.23	Vertical
10	7518.000	-63.10	13.07	-50.03	-25.00	-25.03	Vertical
Middle Channel							
1	55.678	-64.43	-5.42	-69.85	-25.00	-44.85	Horizontal
2	191.784	-70.62	-1.31	-71.93	-25.00	-46.93	Horizontal
3	965.474	-73.06	14.34	-58.72	-25.00	-33.72	Horizontal
4	5186.000	-58.16	9.26	-48.90	-25.00	-23.90	Horizontal
5	7779.000	-63.75	13.50	-50.25	-25.00	-25.25	Horizontal
6	38.096	-55.91	-0.90	-56.81	-25.00	-31.81	Vertical
7	92.997	-50.75	-3.72	-54.47	-25.00	-29.47	Vertical
8	965.474	-69.23	13.21	-56.02	-25.00	-31.02	Vertical
9	5186.000	-57.34	9.63	-47.71	-25.00	-22.71	Vertical
10	7779.000	-60.42	13.60	-46.82	-25.00	-21.82	Vertical
Highest Channel							
1	38.096	-69.70	-0.15	-69.85	-25.00	-44.85	Horizontal
2	214.606	-69.83	-0.27	-70.10	-25.00	-45.10	Horizontal
3	965.474	-72.15	14.34	-57.81	-25.00	-32.81	Horizontal
4	5360.000	-61.49	10.15	-51.34	-25.00	-26.34	Horizontal
5	8040.000	-65.19	14.01	-51.18	-25.00	-26.18	Horizontal
6	38.365	-55.72	-1.07	-56.79	-25.00	-31.79	Vertical
7	92.997	-50.97	-3.72	-54.69	-25.00	-29.69	Vertical
8	965.474	-69.04	13.21	-55.83	-25.00	-30.83	Vertical
9	5360.000	-64.12	10.59	-53.53	-25.00	-28.53	Vertical
10	8040.000	-64.54	14.10	-50.44	-25.00	-25.44	Vertical

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5.8.10 LTE Band 66

LTE Band 66_ 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	37.302	-68.72	0.24	-68.48	-13.00	-55.48	Horizontal
2	54.135	-63.99	-5.31	-69.30	-13.00	-56.30	Horizontal
3	965.474	-72.47	14.34	-58.13	-13.00	-45.13	Horizontal
4	3440.000	-32.88	5.94	-26.94	-13.00	-13.94	Horizontal
5	5160.000	-62.85	9.17	-53.68	-13.00	-40.68	Horizontal
6	38.096	-56.28	-0.90	-57.18	-13.00	-44.18	Vertical
7	90.420	-51.24	-3.92	-55.16	-13.00	-42.16	Vertical
8	965.474	-69.14	13.21	-55.93	-13.00	-42.93	Vertical
9	3440.000	-37.67	5.75	-31.92	-13.00	-18.92	Vertical
10	5160.000	-55.13	9.53	-45.60	-13.00	-32.60	Vertical
Middle Channel							
1	38.096	-67.21	-0.15	-67.36	-13.00	-54.36	Horizontal
2	771.047	-64.29	11.40	-52.89	-13.00	-39.89	Horizontal
3	965.474	-72.11	14.34	-57.77	-13.00	-44.77	Horizontal
4	3490.000	-41.35	6.11	-35.24	-13.00	-22.24	Horizontal
5	5235.000	-57.75	9.50	-48.25	-13.00	-35.25	Horizontal
6	37.830	-56.33	-0.74	-57.07	-13.00	-44.07	Vertical
7	93.653	-50.84	-3.65	-54.49	-13.00	-41.49	Vertical
8	965.474	-69.15	13.21	-55.94	-13.00	-42.94	Vertical
9	3490.000	-47.33	5.99	-41.34	-13.00	-28.34	Vertical
10	5235.000	-59.68	9.89	-49.79	-13.00	-36.79	Vertical
Highest Channel							
1	144.790	-68.04	-2.69	-70.73	-13.00	-57.73	Horizontal
2	214.606	-69.99	-0.27	-70.26	-13.00	-57.26	Horizontal
3	965.474	-72.59	14.34	-58.25	-13.00	-45.25	Horizontal
4	3540.000	-39.01	6.27	-32.74	-13.00	-19.74	Horizontal
5	5310.000	-64.47	9.89	-54.58	-13.00	-41.58	Horizontal
6	38.636	-55.50	-1.25	-56.75	-13.00	-43.75	Vertical
7	93.653	-50.78	-3.65	-54.43	-13.00	-41.43	Vertical
8	965.474	-69.31	13.21	-56.10	-13.00	-43.10	Vertical
9	3540.000	-43.35	6.19	-37.16	-13.00	-24.16	Vertical
10	5310.000	-61.00	10.31	-50.69	-13.00	-37.69	Vertical

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5.8.11 LTE Band 71

LTE Band 71_ 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	261.273	-87.77	30.18	-57.59	-13.00	-44.59	Horizontal
2	392.738	-87.96	34.49	-53.47	-13.00	-40.47	Horizontal
3	611.462	-87.36	39.04	-48.32	-13.00	-35.32	Horizontal
4	1346.000	-60.77	-0.24	-61.01	-13.00	-48.01	Horizontal
5	2019.000	-65.12	1.90	-63.22	-13.00	-50.22	Horizontal
6	37.830	-83.95	28.25	-55.70	-13.00	-42.70	Vertical
7	92.346	-78.46	25.07	-53.39	-13.00	-40.39	Vertical
8	505.789	-85.46	36.97	-48.49	-13.00	-35.49	Vertical
9	1346.000	-62.78	-0.93	-63.71	-13.00	-50.71	Vertical
10	2019.000	-65.68	1.40	-64.28	-13.00	-51.28	Vertical
Middle Channel							
1	327.155	-88.27	32.01	-56.26	-13.00	-43.26	Horizontal
2	401.105	-88.47	35.07	-53.40	-13.00	-40.40	Horizontal
3	573.988	-87.47	37.40	-50.07	-13.00	-37.07	Horizontal
4	1361.000	-61.42	-0.28	-61.70	-13.00	-48.70	Horizontal
5	2041.500	-64.97	1.92	-63.05	-13.00	-50.05	Horizontal
6	38.096	-85.31	28.09	-57.22	-13.00	-44.22	Vertical
7	94.314	-80.19	25.22	-54.97	-13.00	-41.97	Vertical
8	569.969	-87.46	38.29	-49.17	-13.00	-36.17	Vertical
9	1361.000	-62.90	-0.99	-63.89	-13.00	-50.89	Vertical
10	2041.500	-66.01	1.43	-64.58	-13.00	-51.58	Vertical
Highest Channel							
1	336.482	-88.55	32.48	-56.07	-13.00	-43.07	Horizontal
2	430.305	-88.14	34.99	-53.15	-13.00	-40.15	Horizontal
3	611.462	-88.35	39.04	-49.31	-13.00	-36.31	Horizontal
4	1381.000	-62.76	-0.34	-63.10	-13.00	-50.10	Horizontal
5	2071.500	-64.20	1.95	-62.25	-13.00	-49.25	Horizontal
6	92.346	-80.47	25.07	-55.40	-13.00	-42.40	Vertical
7	355.940	-87.11	33.13	-53.98	-13.00	-40.98	Vertical
8	538.811	-87.34	37.64	-49.70	-13.00	-36.70	Vertical
9	1381.000	-62.83	-1.08	-63.91	-13.00	-50.91	Vertical
10	2071.500	-65.27	1.46	-63.81	-13.00	-50.81	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

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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

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 with Frequency Error measurement capability.

a) Temp. = -30° to $+50^{\circ}\text{C}$

b) Voltage = low voltage, 102 Vdc, Normal, 120 Vdc and High voltage, 138 Vdc.

2) Frequency Stability vs Temperature:

The EUT is placed 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	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 2 / 20MHz / Full RB							
QPSK	18900 / 1880.0	VL	TN	47	0.0250	N/A	Pass
		VN		42	0.0223		Pass
		VH		41	0.0218		Pass
		VN	50	42	0.0223		Pass
			40	43	0.0229		Pass
			30	53	0.0282		Pass
			20	42	0.0223		Pass
			10	45	0.0239		Pass
			0	47	0.0250		Pass
			-10	46	0.0245		Pass
			-20	52	0.0277		Pass
			-30	49	0.0261		Pass

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5.9.2 LTE Band 4

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 4 / 20MHz / Full RB							
QPSK	20175 / 1732.5	VL	TN	29	0.0167	N/A	Pass
		VN		26	0.0150		Pass
		VH		22	0.0127		Pass
		VN	50	27	0.0156		Pass
			40	26	0.0150		Pass
			30	33	0.0190		Pass
			20	26	0.0150		Pass
			10	25	0.0144		Pass
			0	38	0.0219		Pass
			-10	31	0.0179		Pass
			-20	35	0.0202		Pass
			-30	29	0.0167		Pass

5.9.3 LTE Band 5

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 5 / 10MHz / Full RB							
QPSK	20525 / 836.5	VL	TN	-23	-0.0275	N/A	Pass
		VN		-25	-0.0299		Pass
		VH		-25	-0.0299		Pass
		VN	50	-20	-0.0239		Pass
			40	-21	-0.0251		Pass
			30	-15	-0.0179		Pass
			20	-27	-0.0323		Pass
			10	-22	-0.0263		Pass
			0	-15	-0.0179		Pass
			-10	-23	-0.0275		Pass
			-20	-18	-0.0215		Pass
			-30	-15	-0.0179		Pass

5.9.4 LTE Band 7

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 7 / 20MHz / Full RB							
QPSK	21100 / 2535	VL	TN	23	0.0091	N/A	Pass
		VN		19	0.0075		Pass
		VH		18	0.0071		Pass
		VN	50	26	0.0103		Pass
			40	20	0.0079		Pass
			30	29	0.0114		Pass
			20	19	0.0075		Pass
			10	18	0.0071		Pass
			0	21	0.0083		Pass
			-10	24	0.0095		Pass
			-20	25	0.0099		Pass
			-30	23	0.0091		Pass

5.9.5 LTE Band 12

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 12 / 10MHz / Full RB							
QPSK	23095 / 707.5	VL	TN	-25	-0.0353	N/A	Pass
		VN		-27	-0.0382		Pass
		VH		-29	-0.0410		Pass
		VN	50	-28	-0.0396		Pass
			40	-23	-0.0325		Pass
			30	-20	-0.0283		Pass
			20	-30	-0.0424		Pass
			10	-26	-0.0367		Pass
			0	-26	-0.0367		Pass
			-10	-24	-0.0339		Pass
			-20	-19	-0.0269		Pass
			-30	-22	-0.0311		Pass

5.9.6 LTE Band 13

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 13 / 10MHz / Full RB							
QPSK	23230 / 782	VL	TN	-21	-0.0269	N/A	Pass
		VN		-24	-0.0307		Pass
		VH		-24	-0.0307		Pass
		VN	50	-22	-0.0281		Pass
			40	-19	-0.0243		Pass
			30	-13	-0.0166		Pass
			20	-24	-0.0307		Pass
			10	-21	-0.0269		Pass
			0	-22	-0.0281		Pass
			-10	-22	-0.0281		Pass
			-20	-16	-0.0205		Pass
			-30	-23	-0.0294		Pass

5.9.7 LTE Band 17

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 17 / 10MHz / Full RB							
QPSK	23790 / 710	VL	TN	21	0.0296	N/A	Pass
		VN		18	0.0254		Pass
		VH		17	0.0239		Pass
		VN	50	24	0.0338		Pass
			40	16	0.0225		Pass
			30	28	0.0394		Pass
			20	17	0.0239		Pass
			10	19	0.0268		Pass
			0	19	0.0268		Pass
			-10	21	0.0296		Pass
			-20	25	0.0352		Pass
			-30	21	0.0296		Pass

5.9.8 LTE Band 38

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 38 / 20MHz / Full RB							
QPSK	38000 /2595	VL	TN	42	0.0162	N/A	Pass
		VN		38	0.0146		Pass
		VH		36	0.0139		Pass
		VN	50	40	0.0154		Pass
			40	41	0.0158		Pass
			30	48	0.0185		Pass
			20	36	0.0139		Pass
			10	41	0.0158		Pass
			0	42	0.0162		Pass
			-10	39	0.0150		Pass
			-20	47	0.0181		Pass
			-30	41	0.0158		Pass

5.9.9 LTE Band 41

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 41 / 20MHz / Full RB							
QPSK	40620 / 2593	VL	TN	27	0.0104	N/A	Pass
		VN		29	0.0112		Pass
		VH		28	0.0108		Pass
		VN	50	32	0.0123		Pass
			40	30	0.0116		Pass
			30	40	0.0154		Pass
			20	28	0.0108		Pass
			10	32	0.0123		Pass
			0	37	0.0143		Pass
			-10	31	0.0120		Pass
			-20	35	0.0135		Pass
			-30	33	0.0127		Pass

5.9.10 LTE Band 66

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 66 / 20MHz / Full RB							
QPSK	132322 / 1745	VL	TN	31	0.0123	N/A	Pass
		VN		27	0.0107		Pass
		VH		27	0.0107		Pass
		VN	50	33	0.0131		Pass
			40	25	0.0099		Pass
			30	33	0.0131		Pass
			20	23	0.0091		Pass
			10	27	0.0107		Pass
			0	32	0.0127		Pass
			-10	28	0.0111		Pass
			-20	33	0.0131		Pass
			-30	38	0.0150		Pass

5.9.11 LTE Band 71

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation		Limit	Pass/ Fail
	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 71 / 20MHz / Full RB							
QPSK	133322 / 683	VL	TN	-27	-0.0104	N/A	Pass
		VN		-26	-0.0101		Pass
		VH		-27	-0.0104		Pass
		VN	50	-18	-0.0070		Pass
			40	-23	-0.0089		Pass
			30	-12	-0.0046		Pass
			20	-28	-0.0108		Pass
			10	-24	-0.0093		Pass
			0	-25	-0.0097		Pass
			-10	-20	-0.0077		Pass
			-20	-18	-0.0070		Pass
			-30	-15	-0.0058		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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