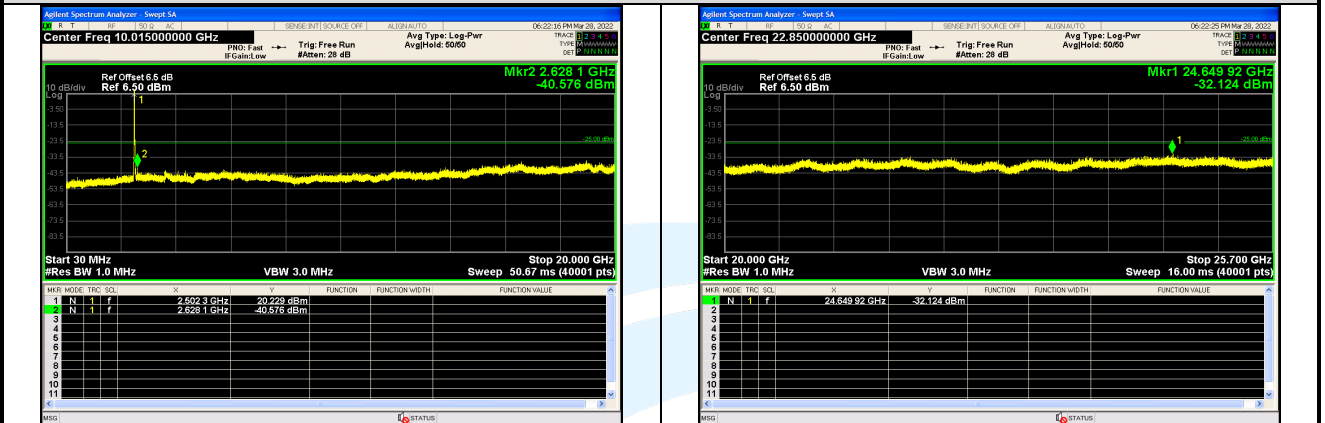
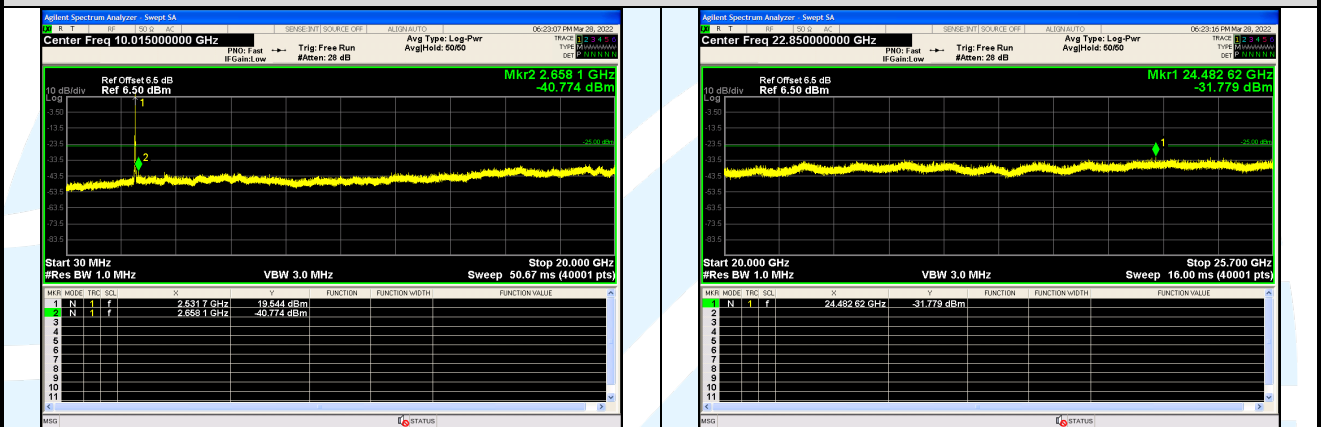


LTE Band 7_ Channel Bandwidth: 15 MHz_ 16QAM

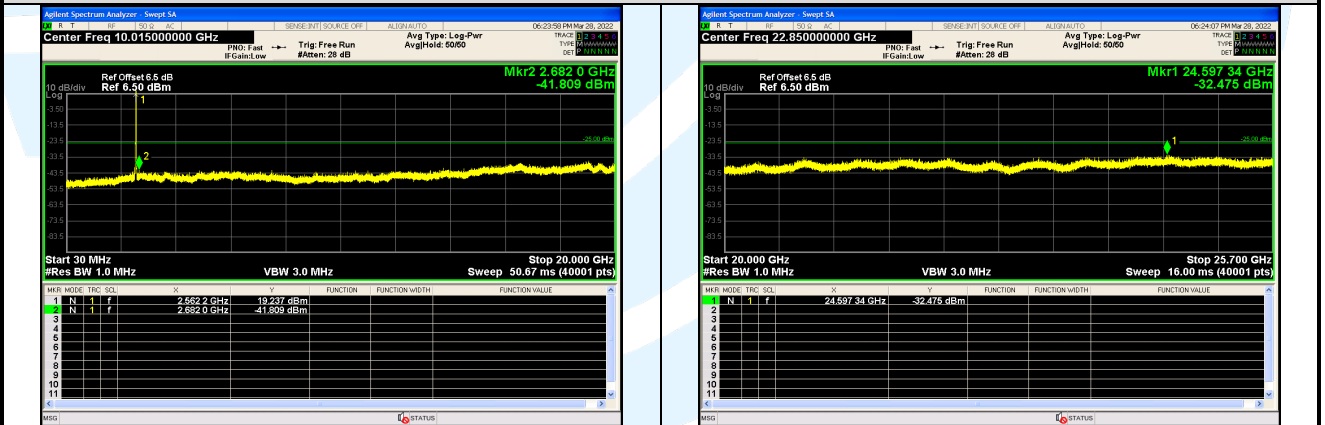
Lowest Channel



Middle Channel

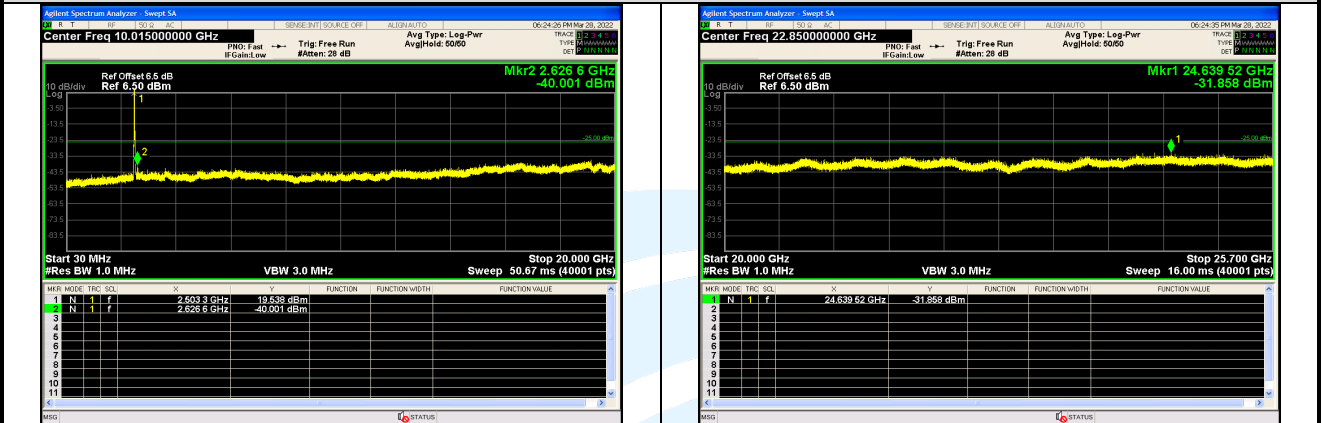


Highest Channel

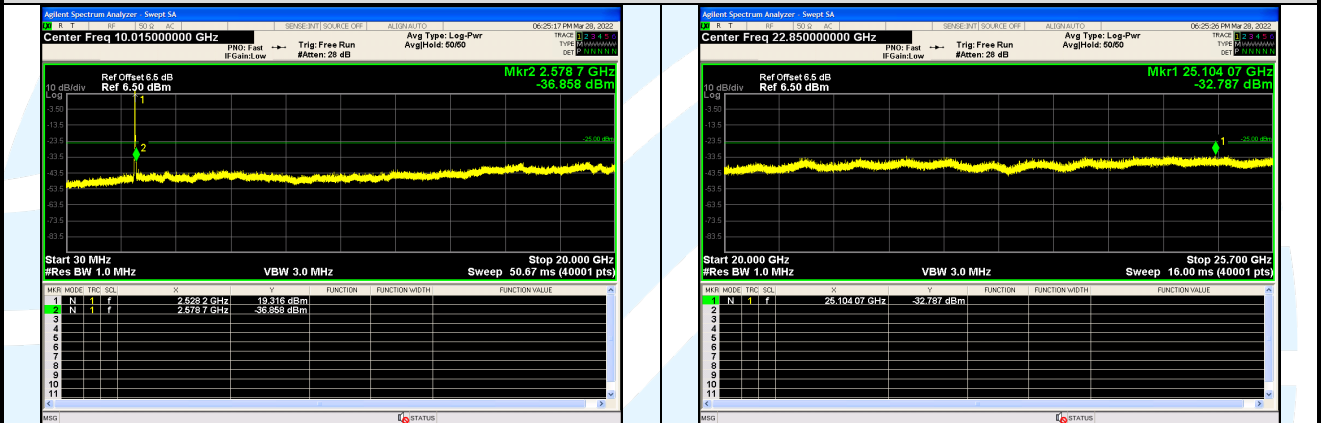


LTE Band 7_Channel Bandwidth: 20 MHz_QPSK

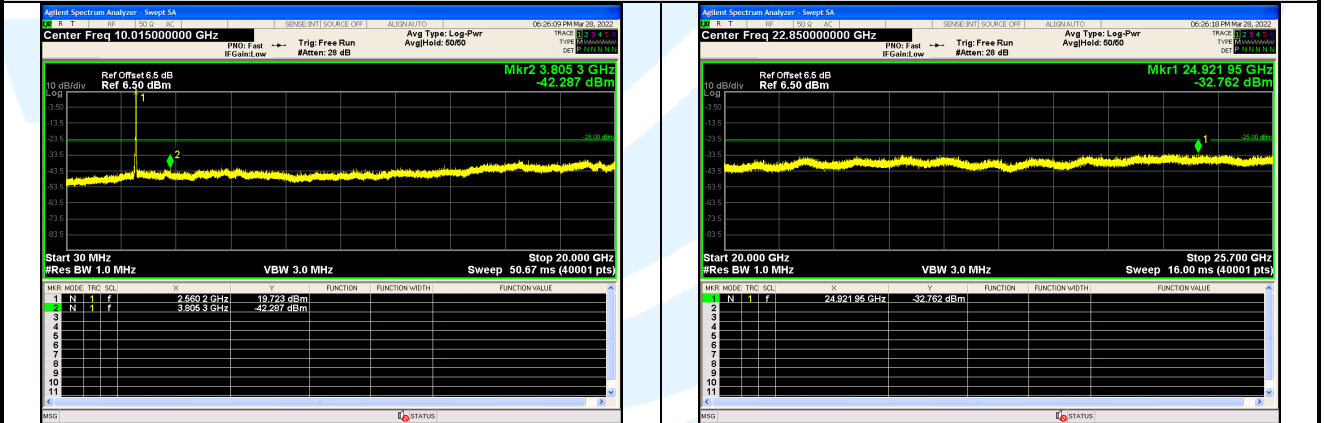
Lowest Channel



Middle Channel

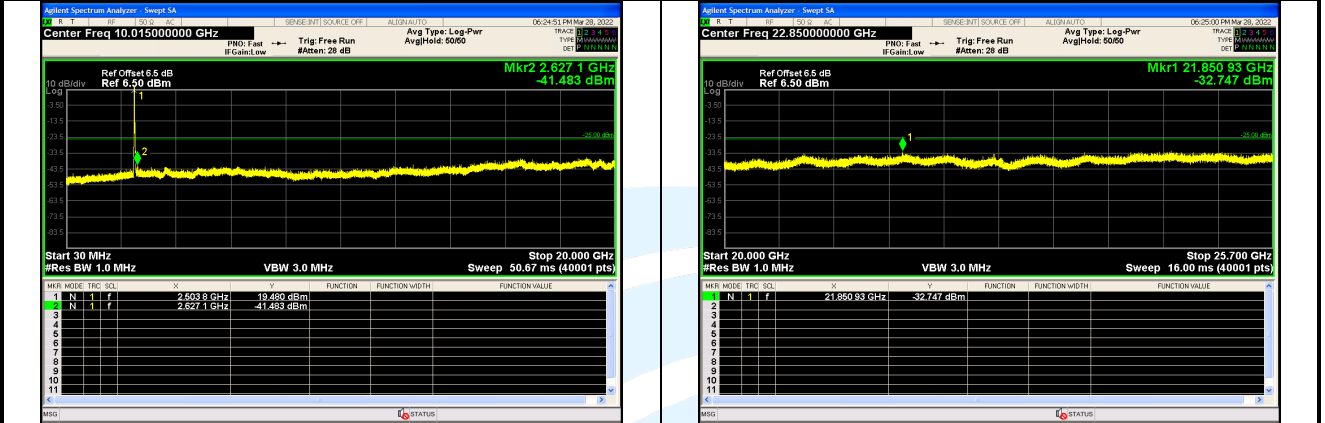


Highest Channel

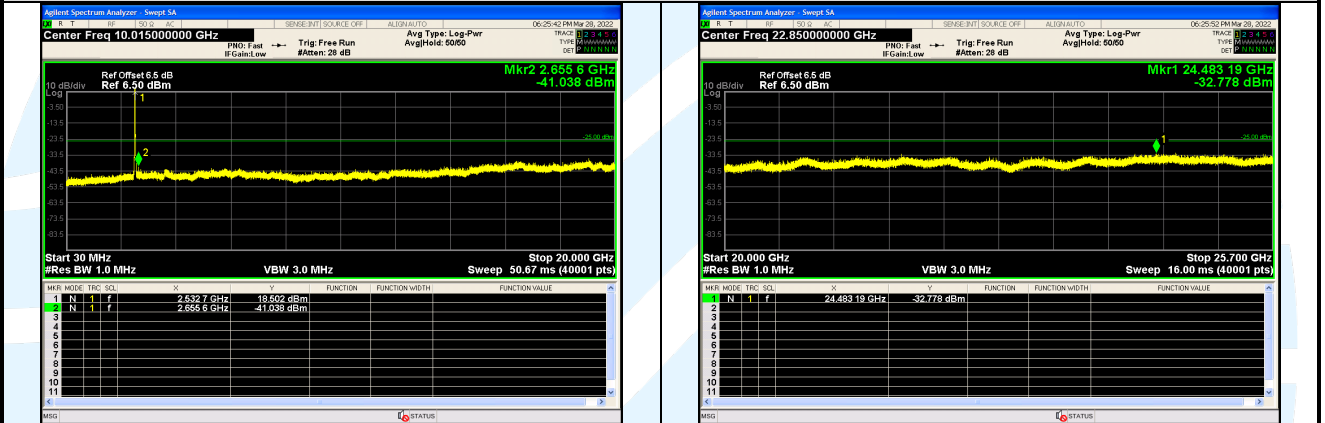


LTE Band 7_ Channel Bandwidth: 20 MHz_ 16QAM

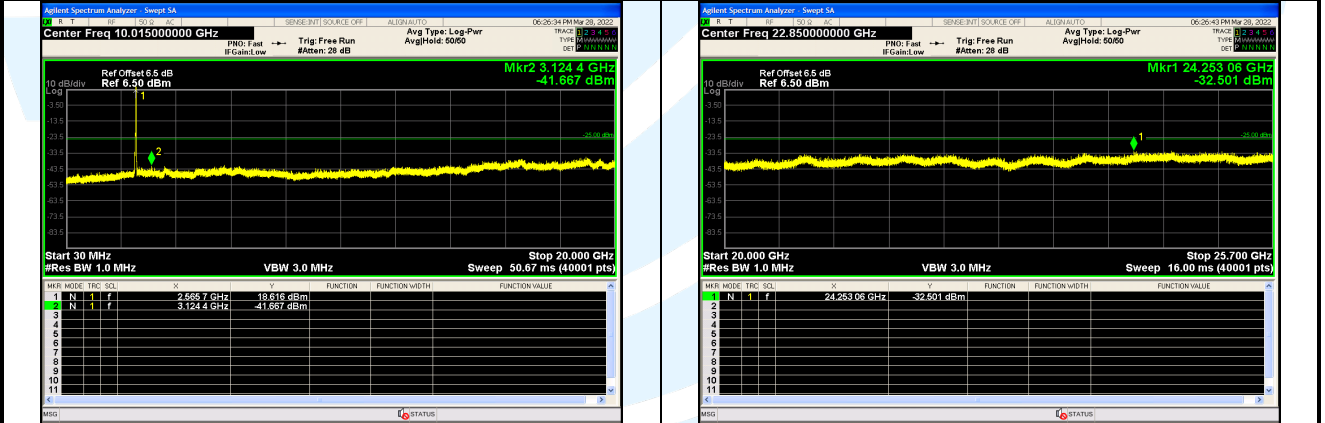
Lowest Channel



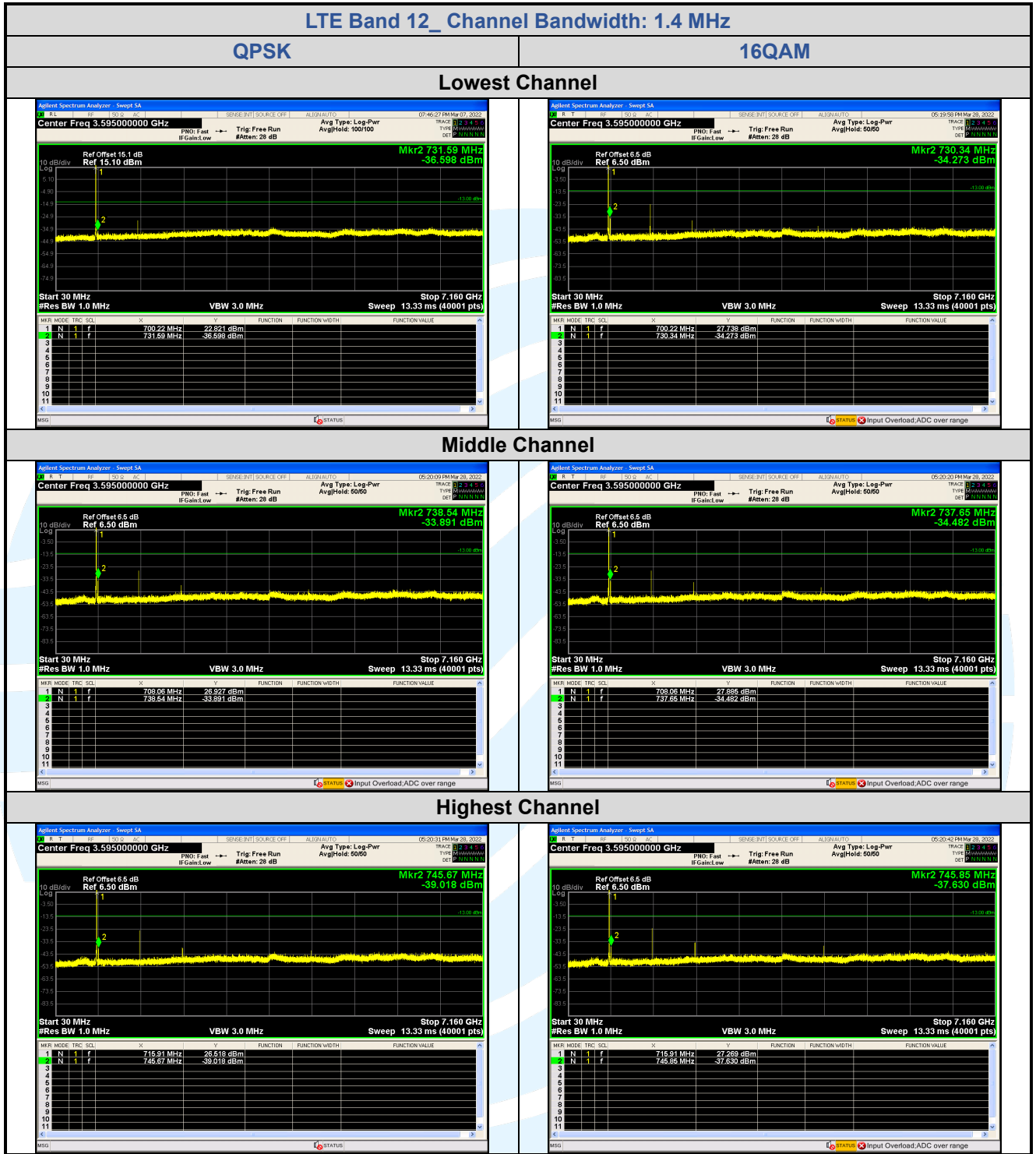
Middle Channel

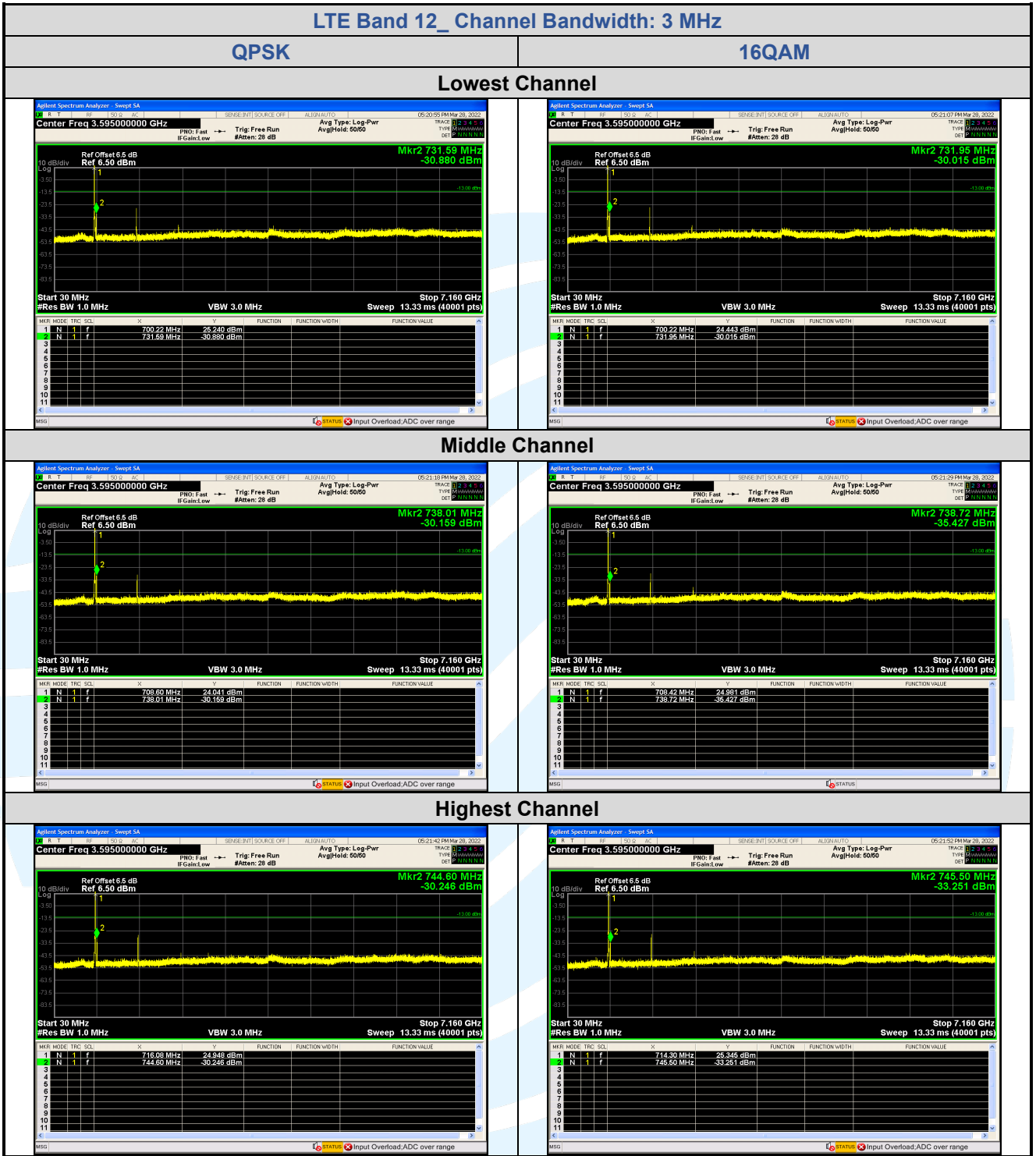


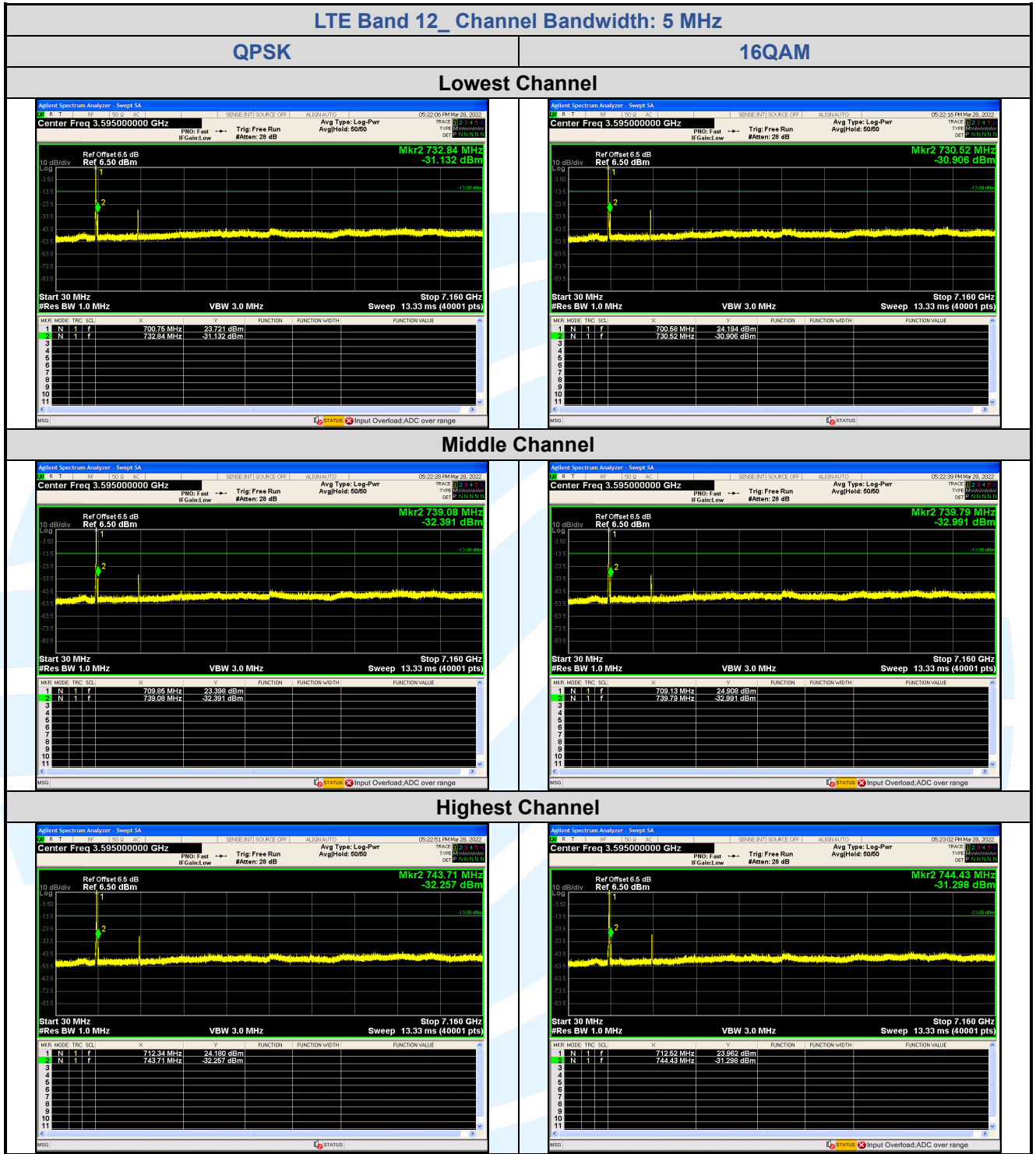
Highest Channel

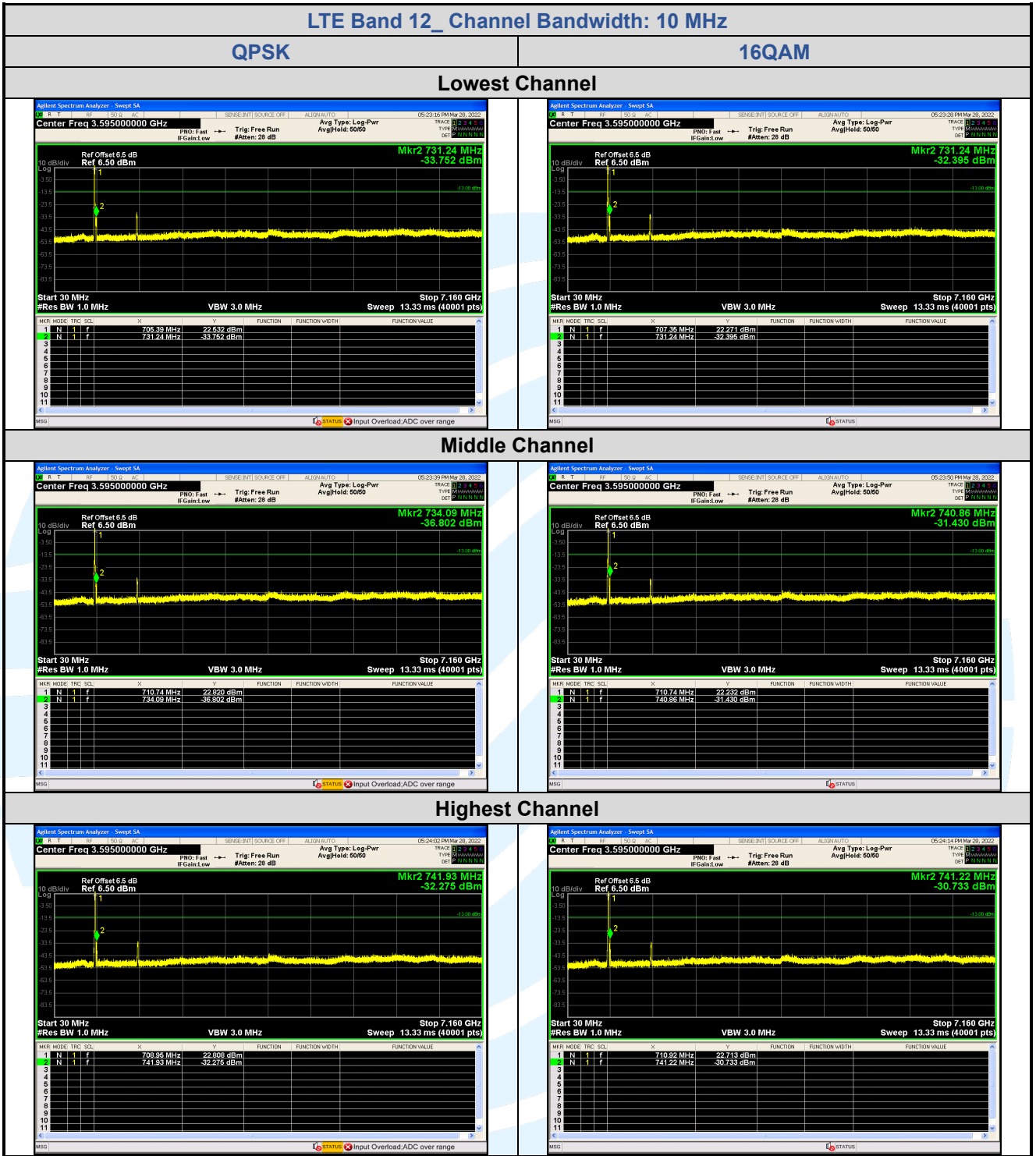


5.7.5 LTE Band 12

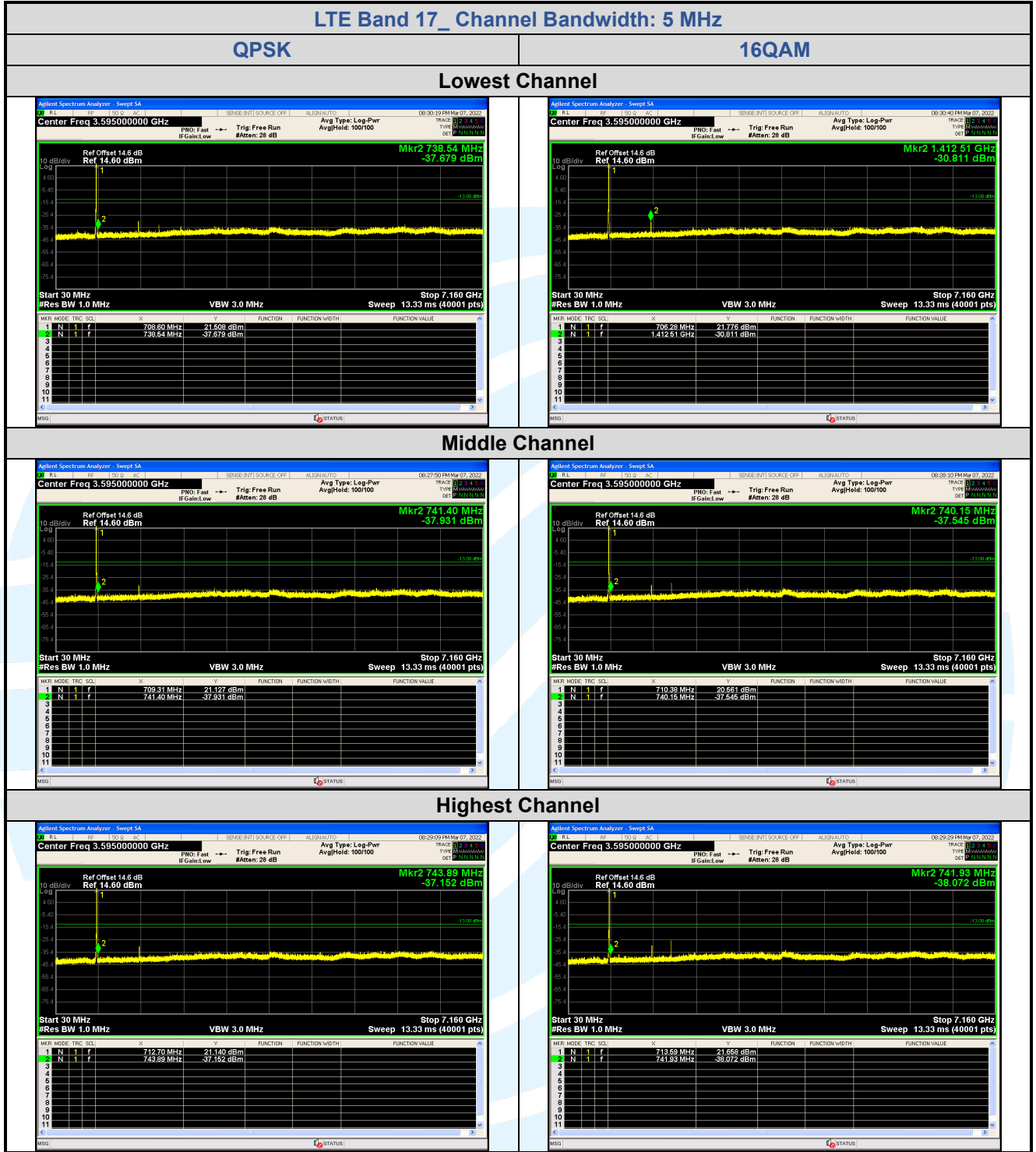








5.7.6 LTE Band 17





5.7.7 LTE Band 66













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: FCC 47 CFR Part 27.53(m)(4)
 LTE Band 12 & Band 17: FCC 47 CFR Part 27.53(g)

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):

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	660.602	-80.95	10.15	-70.80	-13.00	-57.80	Horizontal
2	787.475	-80.69	11.77	-68.92	-13.00	-55.92	Horizontal
3	938.714	-82.36	14.16	-68.20	-13.00	-55.20	Horizontal
4	3720.000	-66.08	7.65	-58.43	-13.00	-45.43	Horizontal
5	5580.000	-66.01	11.70	-54.31	-13.00	-41.31	Horizontal
6	33.807	-80.53	4.64	-75.89	-13.00	-62.89	Vertical
7	590.351	-80.36	8.51	-71.85	-13.00	-58.85	Vertical
8	868.886	-81.35	13.20	-68.15	-13.00	-55.15	Vertical
9	3720.000	-66.89	7.65	-59.24	-13.00	-46.24	Vertical
10	5580.000	-65.63	11.70	-53.93	-13.00	-40.93	Vertical
Middle Channel							
1	36.014	-80.09	4.16	-75.93	-13.00	-62.93	Horizontal
2	50.461	-72.17	-5.14	-77.31	-13.00	-64.31	Horizontal
3	992.997	-82.67	14.78	-67.89	-13.00	-54.89	Horizontal
4	3760.000	-65.75	7.79	-57.96	-13.00	-44.96	Horizontal
5	5640.000	-64.86	11.56	-53.30	-13.00	-40.30	Horizontal
6	624.490	-80.98	9.33	-71.65	-13.00	-58.65	Vertical
7	776.485	-81.15	11.55	-69.60	-13.00	-56.60	Vertical
8	925.613	-82.43	14.06	-68.37	-13.00	-55.37	Vertical
9	3760.000	-62.82	7.79	-55.03	-13.00	-42.03	Vertical
10	5640.000	-63.93	11.56	-52.37	-13.00	-39.37	Vertical
Highest Channel							
1	509.356	-80.55	7.15	-73.40	-13.00	-60.40	Horizontal
2	607.181	-80.28	8.93	-71.35	-13.00	-58.35	Horizontal
3	925.613	-82.20	14.06	-68.14	-13.00	-55.14	Horizontal
4	3800.000	-63.69	7.93	-55.76	-13.00	-42.76	Horizontal
5	5700.000	-68.08	11.43	-56.65	-13.00	-43.65	Horizontal
6	31.513	-80.88	4.94	-75.94	-13.00	-62.94	Vertical
7	353.447	-81.58	4.65	-76.93	-13.00	-63.93	Vertical
8	925.613	-82.08	14.06	-68.02	-13.00	-55.02	Vertical
9	3800.000	-66.31	7.93	-58.38	-13.00	-45.38	Vertical
10	5700.000	-70.87	11.43	-59.44	-13.00	-46.44	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	47.703	-72.46	-3.45	-75.91	-13.00	-62.91	Horizontal
2	698.804	-81.09	10.98	-70.11	-13.00	-57.11	Horizontal
3	932.141	-81.80	14.11	-67.69	-13.00	-54.69	Horizontal
4	3440.000	-66.59	6.53	-60.06	-13.00	-47.06	Horizontal
5	5160.000	-65.49	10.10	-55.39	-13.00	-42.39	Horizontal
6	31.959	-79.93	4.86	-75.07	-13.00	-62.07	Vertical
7	54.135	-71.91	-7.12	-79.03	-13.00	-66.03	Vertical
8	952.000	-82.81	14.25	-68.56	-13.00	-55.56	Vertical
9	3440.000	-67.46	6.53	-60.93	-13.00	-47.93	Vertical
10	5160.000	-66.29	10.10	-56.19	-13.00	-43.19	Vertical
Middle Channel							
1	30.639	-80.61	5.09	-75.52	-13.00	-62.52	Horizontal
2	51.176	-71.74	-5.54	-77.28	-13.00	-64.28	Horizontal
3	739.214	-81.48	11.59	-69.89	-13.00	-56.89	Horizontal
4	3465.000	-67.75	6.62	-61.13	-13.00	-48.13	Horizontal
5	5197.500	-65.52	10.25	-55.27	-13.00	-42.27	Horizontal
6	31.073	-80.34	5.02	-75.32	-13.00	-62.32	Vertical
7	53.379	-71.62	-6.95	-78.57	-13.00	-65.57	Vertical
8	734.037	-81.12	11.36	-69.76	-13.00	-56.76	Vertical
9	3465.000	-67.55	6.62	-60.93	-13.00	-47.93	Vertical
10	5197.500	-65.65	10.25	-55.40	-13.00	-42.40	Vertical
Highest Channel							
1	35.016	-80.78	5.31	-75.47	-13.00	-62.47	Horizontal
2	47.703	-73.61	-3.45	-77.06	-13.00	-64.06	Horizontal
3	850.760	-81.66	12.97	-68.69	-13.00	-55.69	Horizontal
4	3490.000	-65.27	6.71	-58.56	-13.00	-45.56	Horizontal
5	5235.000	-66.86	10.44	-56.42	-13.00	-43.42	Horizontal
6	35.263	-80.84	5.02	-75.82	-13.00	-62.82	Vertical
7	684.226	-81.01	10.62	-70.39	-13.00	-57.39	Vertical
8	844.803	-81.85	12.71	-69.14	-13.00	-56.14	Vertical
9	3490.000	-65.48	6.71	-58.77	-13.00	-45.77	Vertical
10	5235.000	-61.81	10.44	-51.37	-13.00	-38.37	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	186.468	-87.23	27.58	-59.65	-13.00	-46.65	Horizontal
2	624.490	-87.75	38.76	-48.99	-13.00	-35.99	Horizontal
3	992.997	-87.40	43.41	-43.99	-13.00	-30.99	Horizontal
4	1658.000	-55.79	0.27	-55.52	-13.00	-42.52	Horizontal
5	2487.000	-66.80	3.64	-63.16	-13.00	-50.16	Horizontal
6	343.651	-88.92	32.44	-56.48	-13.00	-43.48	Vertical
7	558.079	-89.04	37.15	-51.89	-13.00	-38.89	Vertical
8	793.028	-88.74	41.01	-47.73	-13.00	-34.73	Vertical
9	1658.000	-60.72	0.27	-60.45	-13.00	-47.45	Vertical
10	2487.000	-55.55	3.64	-51.91	-13.00	-38.91	Vertical
Middle Channel							
1	33.570	-92.21	33.49	-58.72	-13.00	-45.72	Horizontal
2	646.822	-88.16	39.37	-48.79	-13.00	-35.79	Horizontal
3	713.692	-88.87	40.54	-48.33	-13.00	-35.33	Horizontal
4	1673.000	-59.23	0.36	-58.87	-13.00	-45.87	Horizontal
5	2509.500	-64.44	3.71	-60.73	-13.00	-47.73	Horizontal
6	376.523	-89.26	32.82	-56.44	-13.00	-43.44	Vertical
7	749.676	-88.59	40.76	-47.83	-13.00	-34.83	Vertical
8	938.714	-87.77	42.94	-44.83	-13.00	-31.83	Vertical
9	1673.000	-61.11	0.36	-60.75	-13.00	-47.75	Vertical
10	2509.500	-61.04	3.71	-57.33	-13.00	-44.33	Vertical
Highest Channel							
1	520.208	-89.26	36.39	-52.87	-13.00	-39.87	Horizontal
2	787.475	-87.48	40.98	-46.50	-13.00	-33.50	Horizontal
3	938.714	-87.45	42.94	-44.51	-13.00	-31.51	Horizontal
4	1688.000	-59.42	0.46	-58.96	-13.00	-45.96	Horizontal
5	2532.000	-68.08	3.76	-64.32	-13.00	-51.32	Horizontal
6	35.263	-92.02	33.83	-58.19	-13.00	-45.19	Vertical
7	538.811	-88.41	37.03	-51.38	-13.00	-38.38	Vertical
8	698.804	-88.69	40.36	-48.33	-13.00	-35.33	Vertical
9	1688.000	-60.57	0.46	-60.11	-13.00	-47.11	Vertical
10	2532.000	-65.11	3.76	-61.35	-13.00	-48.35	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	33.335	-80.60	4.72	-75.88	-25.00	-50.88	Horizontal
2	723.793	-81.66	11.38	-70.28	-25.00	-45.28	Horizontal
3	992.997	-82.98	14.78	-68.20	-25.00	-43.20	Horizontal
4	5020.000	-67.81	9.58	-58.23	-25.00	-33.23	Horizontal
5	7530.000	-66.12	13.67	-52.45	-25.00	-27.45	Horizontal
6	30.212	-81.52	5.17	-76.35	-25.00	-51.35	Vertical
7	395.507	-80.67	4.99	-75.68	-25.00	-50.68	Vertical
8	893.656	-81.70	13.85	-67.85	-25.00	-42.85	Vertical
9	5020.000	-69.34	9.58	-59.76	-25.00	-34.76	Vertical
10	7530.000	-67.52	13.67	-53.85	-25.00	-28.85	Vertical
Middle Channel							
1	30.212	-80.46	5.17	-75.29	-25.00	-50.29	Horizontal
2	33.335	-80.02	4.72	-75.30	-25.00	-50.30	Horizontal
3	932.141	-81.89	14.11	-67.78	-25.00	-42.78	Horizontal
4	5070.000	-65.07	9.77	-55.30	-25.00	-30.30	Horizontal
5	7605.000	-66.56	13.78	-52.78	-25.00	-27.78	Horizontal
6	35.263	-80.55	5.02	-75.53	-25.00	-50.53	Vertical
7	54.135	-69.73	-7.12	-76.85	-25.00	-51.85	Vertical
8	850.760	-82.02	12.97	-69.05	-25.00	-44.05	Vertical
9	5070.000	-64.81	9.77	-55.04	-25.00	-30.04	Vertical
10	7605.000	-69.66	13.78	-55.88	-25.00	-30.88	Vertical
Highest Channel							
1	33.101	-80.19	4.76	-75.43	-25.00	-50.43	Horizontal
2	43.845	-76.26	-0.81	-77.07	-25.00	-52.07	Horizontal
3	776.485	-81.09	11.55	-69.54	-25.00	-44.54	Horizontal
4	5120.000	-67.04	9.95	-57.09	-25.00	-32.09	Horizontal
5	7680.000	-67.73	13.86	-53.87	-25.00	-28.87	Horizontal
6	33.101	-81.17	4.76	-76.41	-25.00	-51.41	Vertical
7	651.383	-80.98	9.96	-71.02	-25.00	-46.02	Vertical
8	992.997	-82.23	14.78	-67.45	-25.00	-42.45	Vertical
9	5120.000	-66.10	9.95	-56.15	-25.00	-31.15	Vertical
10	7680.000	-67.91	13.86	-54.05	-25.00	-29.05	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	284.261	-88.92	30.40	-58.52	-13.00	-45.52	Horizontal
2	527.571	-89.23	36.51	-52.72	-13.00	-39.72	Horizontal
3	665.261	-89.07	39.81	-49.26	-13.00	-36.26	Horizontal
4	1401.000	-46.34	-0.90	-47.24	-13.00	-34.24	Horizontal
5	2101.500	-61.51	2.40	-59.11	-13.00	-46.11	Horizontal
6	409.651	-89.12	33.91	-55.21	-13.00	-42.21	Vertical
7	516.565	-89.33	36.45	-52.88	-13.00	-39.88	Vertical
8	615.774	-88.97	38.58	-50.39	-13.00	-37.39	Vertical
9	1401.000	-49.41	-0.90	-50.31	-13.00	-37.31	Vertical
10	2101.500	-62.27	2.40	-59.87	-13.00	-46.87	Vertical
Middle Channel							
1	418.378	-89.42	33.95	-55.47	-13.00	-42.47	Horizontal
2	578.036	-89.49	37.45	-52.04	-13.00	-39.04	Horizontal
3	938.714	-88.09	42.94	-45.15	-13.00	-32.15	Horizontal
4	1415.000	-44.45	-0.85	-45.30	-13.00	-32.30	Horizontal
5	2122.500	-66.04	2.45	-63.59	-13.00	-50.59	Horizontal
6	424.300	-89.65	34.10	-55.55	-13.00	-42.55	Vertical
7	620.117	-88.95	38.58	-50.37	-13.00	-37.37	Vertical
8	827.179	-87.31	41.56	-45.75	-13.00	-32.75	Vertical
9	1415.000	-54.36	-0.85	-55.21	-13.00	-42.21	Vertical
10	2122.500	-67.39	2.45	-64.94	-13.00	-51.94	Vertical
Highest Channel							
1	478.139	-89.60	35.31	-54.29	-13.00	-41.29	Horizontal
2	611.462	-88.75	38.43	-50.32	-13.00	-37.32	Horizontal
3	945.334	-86.96	42.96	-44.00	-13.00	-31.00	Horizontal
4	1429.000	-56.95	-0.80	-57.75	-13.00	-44.75	Horizontal
5	2143.500	-65.74	2.48	-63.26	-13.00	-50.26	Horizontal
6	509.356	-89.03	36.46	-52.57	-13.00	-39.57	Vertical
7	558.079	-88.40	37.15	-51.25	-13.00	-38.25	Vertical
8	919.132	-86.69	42.85	-43.84	-13.00	-30.84	Vertical
9	1429.000	-55.78	-0.80	-56.58	-13.00	-43.58	Vertical
10	2143.500	-63.37	2.48	-60.89	-13.00	-47.89	Vertical

5.8.6 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	445.693	-89.35	34.27	-55.08	-13.00	-42.08	Horizontal
2	535.038	-88.52	37.02	-51.50	-13.00	-38.50	Horizontal
3	932.141	-87.78	42.91	-44.87	-13.00	-31.87	Horizontal
4	1418.000	-44.72	-0.84	-45.56	-13.00	-32.56	Horizontal
5	2127.000	-67.38	2.45	-64.93	-13.00	-51.93	Horizontal
6	350.972	-89.81	32.83	-56.98	-13.00	-43.98	Vertical
7	550.290	-88.39	37.07	-51.32	-13.00	-38.32	Vertical
8	887.398	-87.87	42.64	-45.23	-13.00	-32.23	Vertical
9	1418.000	-54.21	-0.84	-55.05	-13.00	-42.05	Vertical
10	2127.000	-66.35	2.45	-63.90	-13.00	-50.90	Vertical
Middle Channel							
1	334.126	-89.72	32.11	-57.61	-13.00	-44.61	Horizontal
2	468.165	-89.83	35.10	-54.73	-13.00	-41.73	Horizontal
3	642.292	-89.57	39.29	-50.28	-13.00	-37.28	Horizontal
4	1420.000	-44.63	-0.83	-45.46	-13.00	-32.46	Horizontal
5	2130.000	-66.95	2.45	-64.50	-13.00	-51.50	Horizontal
6	505.789	-88.52	36.38	-52.14	-13.00	-39.14	Vertical
7	655.977	-88.58	39.52	-49.06	-13.00	-36.06	Vertical
8	972.283	-86.78	43.08	-43.70	-13.00	-30.70	Vertical
9	1420.000	-55.44	-0.83	-56.27	-13.00	-43.27	Vertical
10	2130.000	-62.24	2.45	-59.79	-13.00	-46.79	Vertical
Highest Channel							
1	401.105	-89.39	33.81	-55.58	-13.00	-42.58	Horizontal
2	527.571	-89.18	36.51	-52.67	-13.00	-39.67	Horizontal
3	952.000	-87.25	42.99	-44.26	-13.00	-31.26	Horizontal
4	1422.000	-54.95	-0.83	-55.78	-13.00	-42.78	Horizontal
5	2133.000	-65.74	2.46	-63.28	-13.00	-50.28	Horizontal
6	329.462	-89.23	32.01	-57.22	-13.00	-44.22	Vertical
7	527.571	-89.16	36.51	-52.65	-13.00	-39.65	Vertical
8	972.283	-87.82	43.08	-44.74	-13.00	-31.74	Vertical
9	1422.000	-54.95	-0.83	-55.78	-13.00	-42.78	Vertical
10	2133.000	-65.74	2.46	-63.28	-13.00	-50.28	Vertical

5.8.7 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	35.263	-81.10	5.02	-76.08	-13.00	-63.08	Horizontal
2	50.461	-71.99	-5.14	-77.13	-13.00	-64.13	Horizontal
3	979.139	-81.38	14.44	-66.94	-13.00	-53.94	Horizontal
4	3440.000	-67.90	6.53	-61.37	-13.00	-48.37	Horizontal
5	5160.000	-71.89	10.10	-61.79	-13.00	-48.79	Horizontal
6	32.411	-79.72	4.82	-74.90	-13.00	-61.90	Vertical
7	53.379	-70.09	-6.95	-77.04	-13.00	-64.04	Vertical
8	925.613	-81.86	14.06	-67.80	-13.00	-54.80	Vertical
9	3440.000	-66.18	6.53	-59.65	-13.00	-46.65	Vertical
10	5160.000	-67.27	10.10	-57.17	-13.00	-44.17	Vertical
Middle Channel							
1	30.425	-79.63	5.13	-74.50	-13.00	-61.50	Horizontal
2	868.886	-81.20	13.20	-68.00	-13.00	-55.00	Horizontal
3	972.283	-81.97	14.39	-67.58	-13.00	-54.58	Horizontal
4	3490.000	-65.35	6.71	-58.64	-13.00	-45.64	Horizontal
5	5235.000	-68.10	10.44	-57.66	-13.00	-44.66	Horizontal
6	34.285	-80.58	4.81	-75.77	-13.00	-62.77	Vertical
7	54.135	-70.17	-7.12	-77.29	-13.00	-64.29	Vertical
8	958.714	-81.93	14.29	-67.64	-13.00	-54.64	Vertical
9	3490.000	-65.58	6.71	-58.87	-13.00	-45.87	Vertical
10	5235.000	-67.82	10.44	-57.38	-13.00	-44.38	Vertical
Highest Channel							
1	34.527	-80.34	4.99	-75.35	-13.00	-62.35	Horizontal
2	45.733	-75.23	-2.11	-77.34	-13.00	-64.34	Horizontal
3	887.398	-82.16	13.71	-68.45	-13.00	-55.45	Horizontal
4	3540.000	-66.93	6.91	-60.02	-13.00	-47.02	Horizontal
5	5310.000	-66.09	10.85	-55.24	-13.00	-42.24	Horizontal
6	30.639	-81.16	5.09	-76.07	-13.00	-63.07	Vertical
7	54.135	-72.08	-7.12	-79.20	-13.00	-66.20	Vertical
8	862.802	-81.12	13.09	-68.03	-13.00	-55.03	Vertical
9	3540.000	-67.03	6.91	-60.12	-13.00	-47.12	Vertical
10	5310.000	-71.73	10.85	-60.88	-13.00	-47.88	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

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, 3.5 Vdc, Normal, 3.85 Vdc and High voltage, 4.45 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 (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	-28.27	-0.0150	N/A	Pass
		VN		-25.22	-0.0134		Pass
		VH		-31.53	-0.0168		Pass
		VN	50	-39.35	-0.0209		Pass
			40	-32.27	-0.0172		Pass
			30	-26.99	-0.0144		Pass
			20	-27.52	-0.0146		Pass
			10	-25.19	-0.0134		Pass
			0	-31.2	-0.0166		Pass
			-10	-38.96	-0.0207		Pass
			-20	-31.61	-0.0168		Pass
			-30	-26.15	-0.0139		Pass

5.9.2 LTE Band 4

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
QPSK	20175 / 1732.5	VL	TN	-22.62	-0.0131	N/A	Pass
		VN		-29.47	-0.0170		Pass
		VH		-21.37	-0.0123		Pass
		VN	50	-27.68	-0.0160		Pass
			40	-15.23	-0.0088		Pass
			30	-14.06	-0.0081		Pass
			20	-23.40	-0.0135		Pass
			10	-29.74	-0.0172		Pass
			0	-20.47	-0.0118		Pass
			-10	-28.31	-0.0163		Pass
			-20	-15.68	-0.0091		Pass
			-30	-14.63	-0.0084		Pass

5.9.3 LTE Band 5

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
QPSK	20525 / 836.5	VL	TN	-11.23	-0.0134	± 2.5	Pass
		VN		-15.12	-0.0181	± 2.5	Pass
		VH		-17.67	-0.0211	± 2.5	Pass
		VN	50	-33.45	-0.0400	± 2.5	Pass
			40	-34.42	-0.0411	± 2.5	Pass
			30	-29.40	-0.0351	± 2.5	Pass
			20	-11.23	-0.0134	± 2.5	Pass
			10	-15.87	-0.0190	± 2.5	Pass
			0	-18.12	-0.0217	± 2.5	Pass
			-10	-33.33	-0.0398	± 2.5	Pass
			-20	-35.23	-0.0421	± 2.5	Pass
			-30	-29.13	-0.0348	± 2.5	Pass

5.9.4 LTE Band 7

Modulation	Channel/ Frequency	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
	(MHz)						
LTE Band 7 / 20MHz / Full RB							
QPSK	21100 / 2535	VL	TN	-26.75	-0.0106	N/A	Pass
		VN		-30.41	-0.0120		Pass
		VH		-23.49	-0.0093		Pass
		VN	50	-28.97	-0.0114		Pass
			40	-26.91	-0.0106		Pass
			30	-37.65	-0.0149		Pass
			20	-27.59	-0.0109		Pass
			10	-29.99	-0.0118		Pass
			0	-23.49	-0.0093		Pass
			-10	-28.85	-0.0114		Pass
			-20	-26.22	-0.0103		Pass
			-30	-37.59	-0.0148		Pass

5.9.5 LTE Band 12

Modulation	Channel/ Frequency	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
	(MHz)						
LTE Band 12 / 10MHz / Full RB							
QPSK	23095 / 707.5	VL	TN	-30.25	-0.0428	N/A	Pass
		VN		-24.50	-0.0346		Pass
		VH		-30.32	-0.0429		Pass
		VN	50	-29.43	-0.0416		Pass
			40	-26.34	-0.0372		Pass
			30	-23.44	-0.0331		Pass
			20	-32.23	-0.0456		Pass
			10	-25.01	-0.0353		Pass
			0	-30.99	-0.0438		Pass
			-10	-40.10	-0.0567		Pass
			-20	-31.85	-0.0450		Pass
			-30	-27.11	-0.0383		Pass

5.9.6 LTE Band 17

Modulation	Channel/ Frequency	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
	(MHz)						
LTE Band 17 / 10MHz / Full RB							
QPSK	23790 / 710	VL	TN	-23.33	-0.0298	N/A	Pass
		VN		-24.23	-0.0310		Pass
		VH		-26.34	-0.0337		Pass
		VN	50	-30.33	-0.0388		Pass
			40	-32.54	-0.0416		Pass
			30	-28.34	-0.0362		Pass
			20	-27.58	-0.0353		Pass
			10	-24.32	-0.0311		Pass
			0	-31.98	-0.0409		Pass
			-10	-38.99	-0.0499		Pass
			-20	-32.84	-0.0420		Pass
			-30	-27.74	-0.0355		Pass

5.9.7 LTE Band 66

Modulation	Channel/ Frequency (MHz)	Voltage	Temperature	Deviation	Deviation	Limit	Result
		(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	
LTE Band 66 / 20MHz / Full RB							
QPSK	132322 / 1745	VL	TN	-24.39	-0.0140	N/A	Pass
		VN		-16.85	-0.0097		Pass
		VH		-24.1	-0.0138		Pass
		VN	50	-28.72	-0.0165		Pass
			40	-30.73	-0.0176		Pass
			30	-20.37	-0.0117		Pass
			20	-24.45	-0.0140		Pass
			10	-16.82	-0.0096		Pass
			0	-23.32	-0.0134		Pass
			-10	-29.14	-0.0167		Pass
			-20	-30.34	-0.0174		Pass
			-30	-20.01	-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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