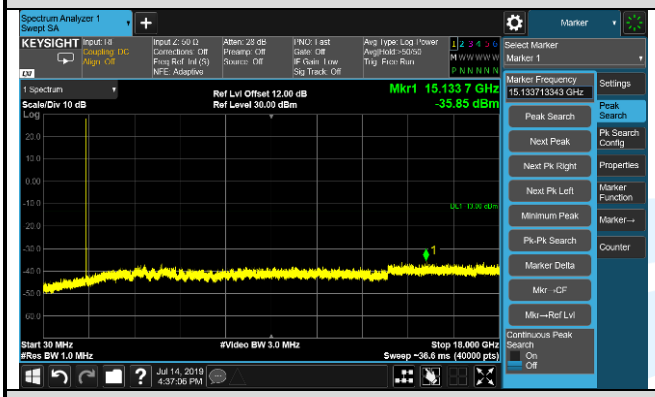
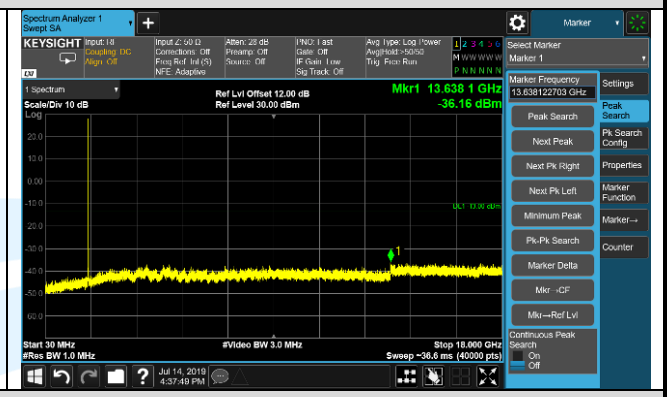
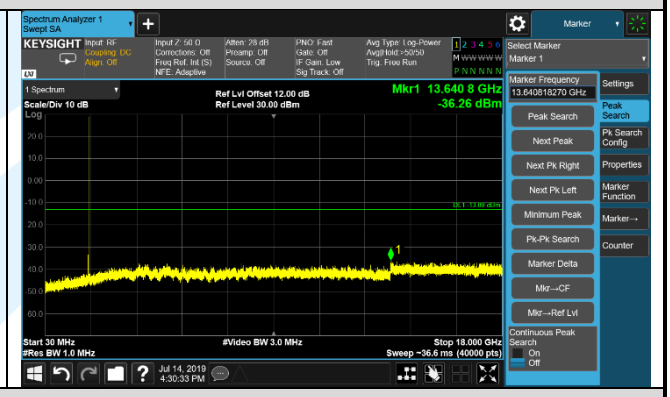
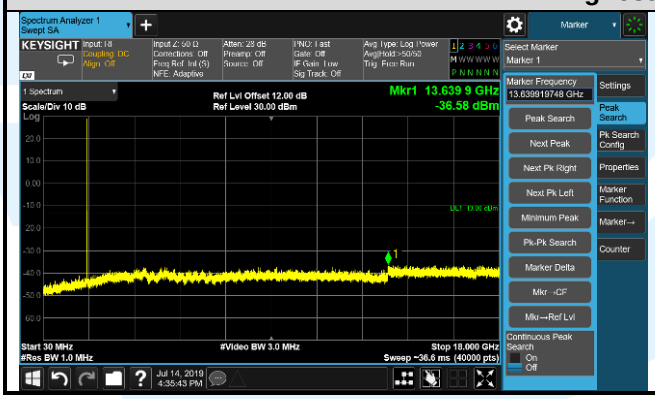
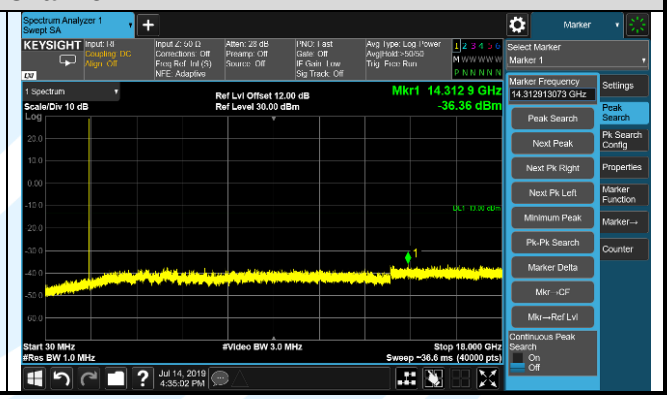
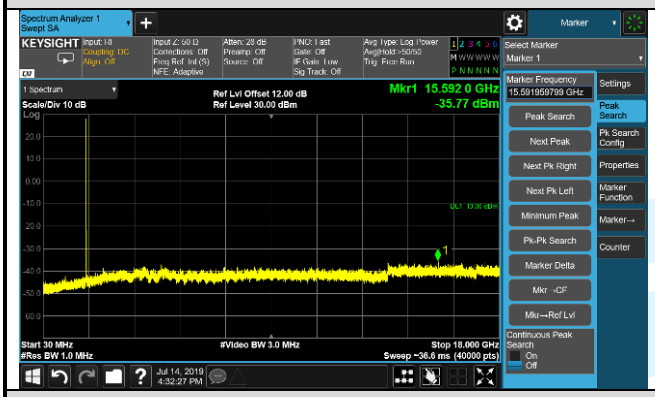
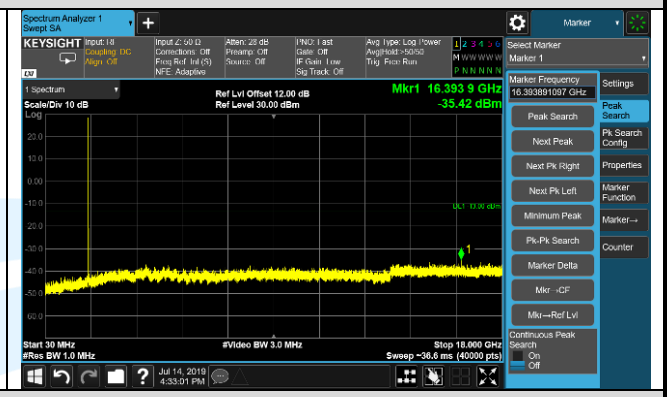
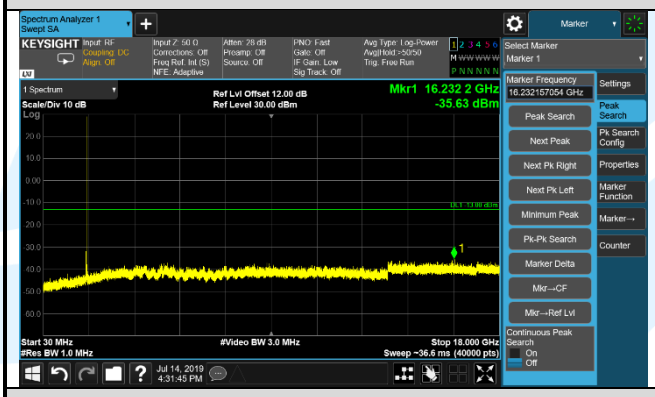
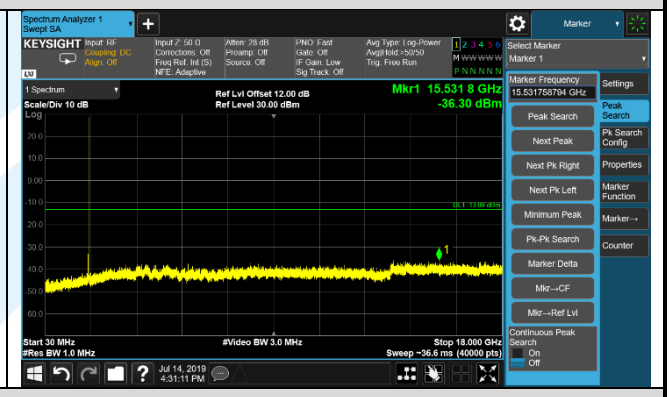
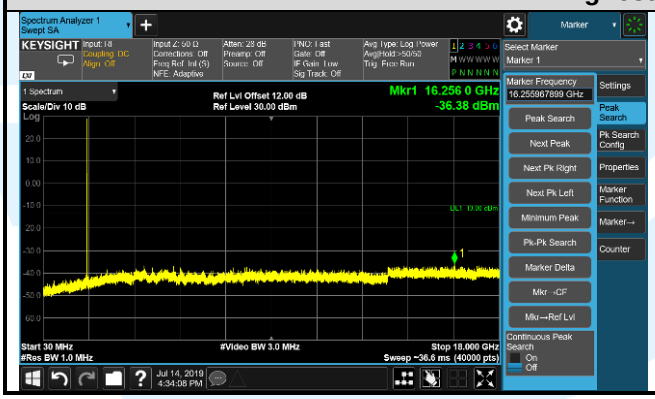
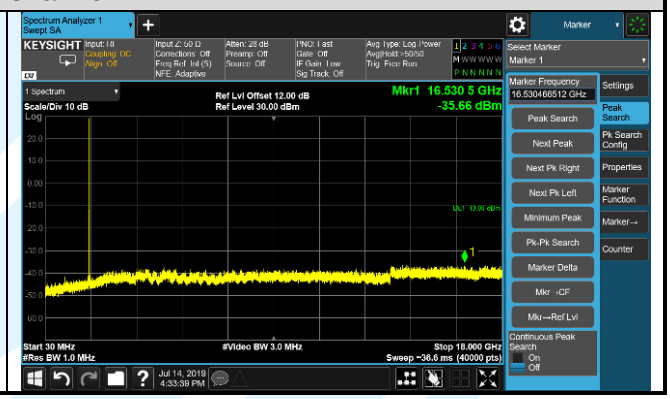
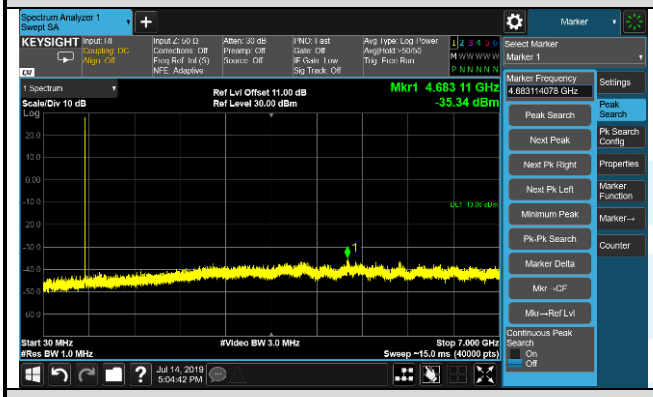
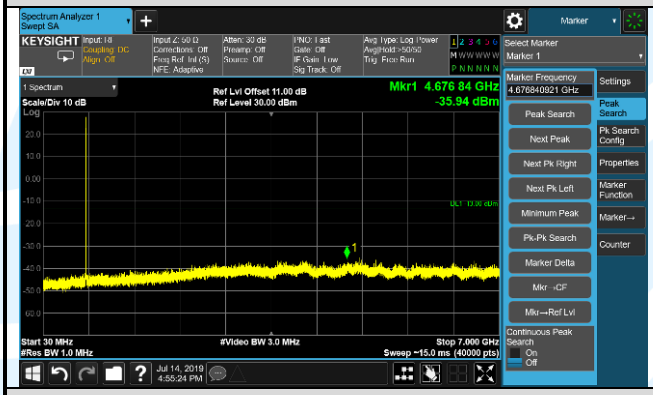
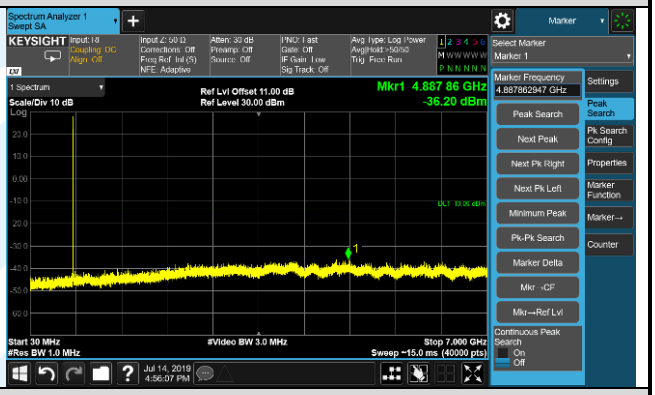
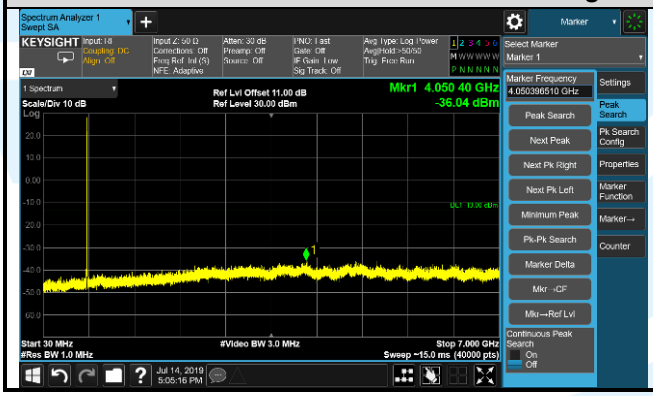
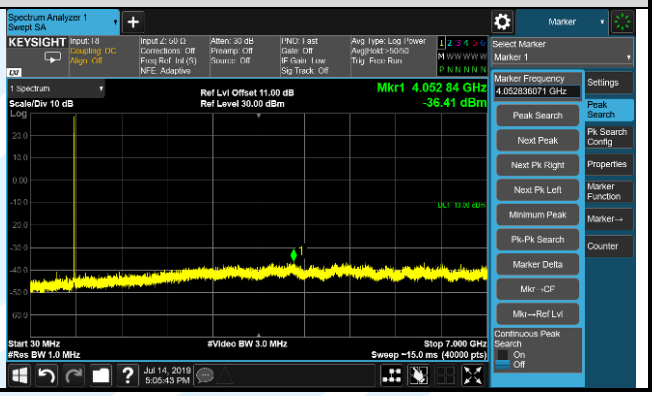
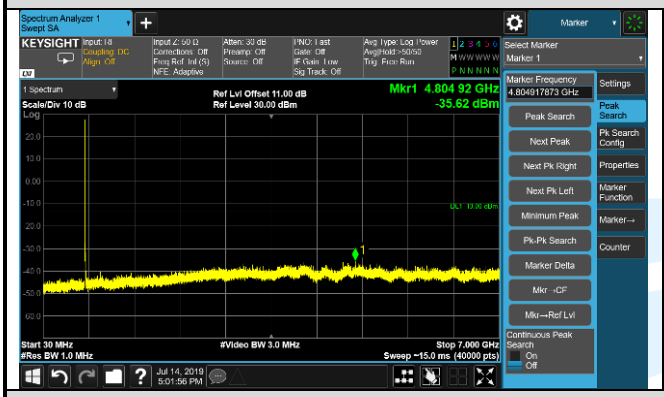
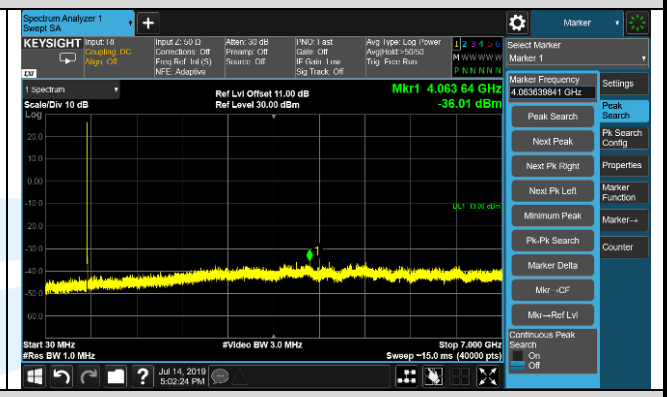
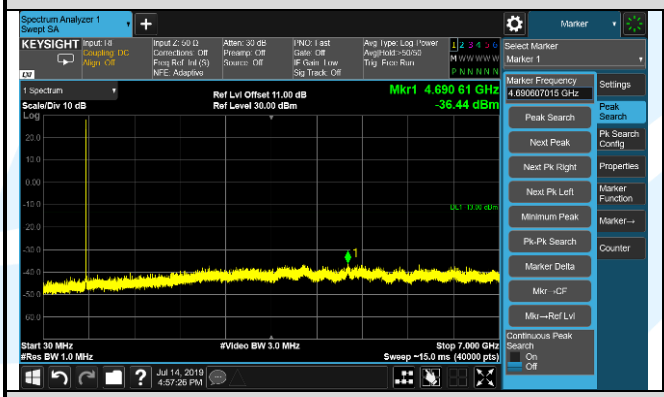
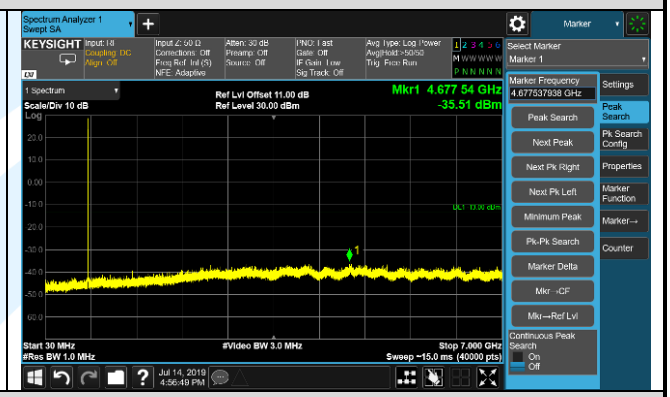
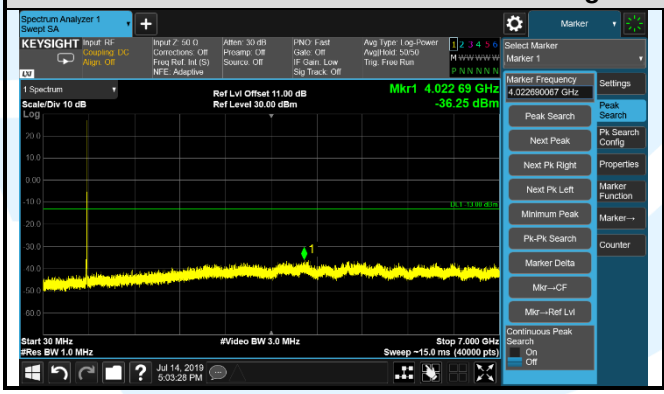
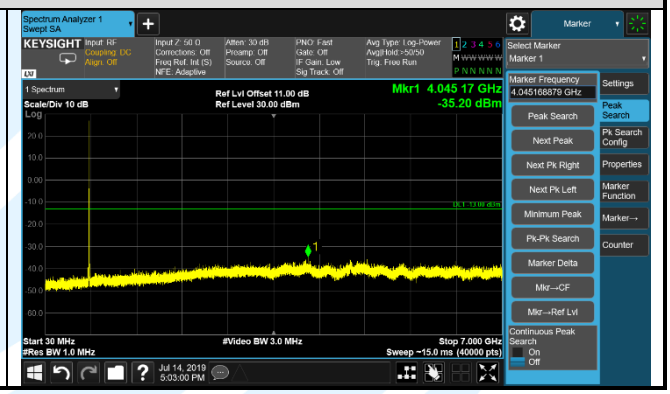
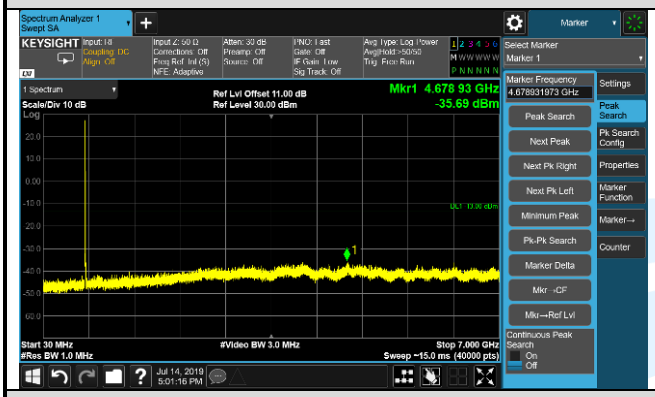
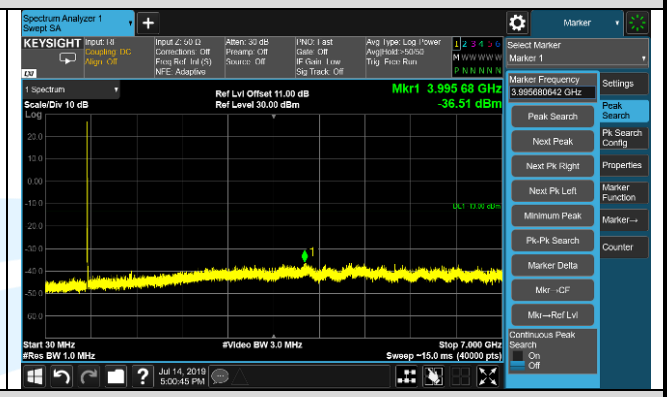
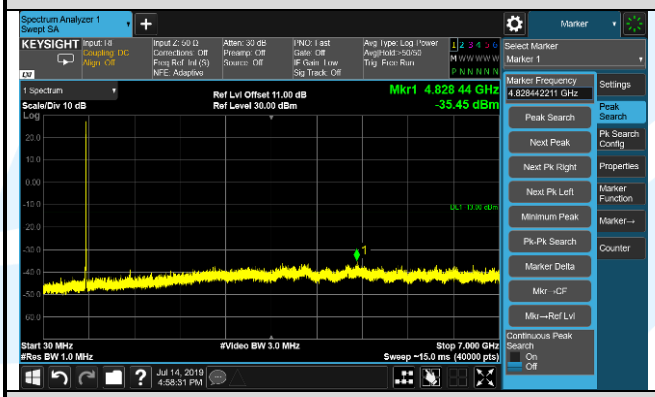
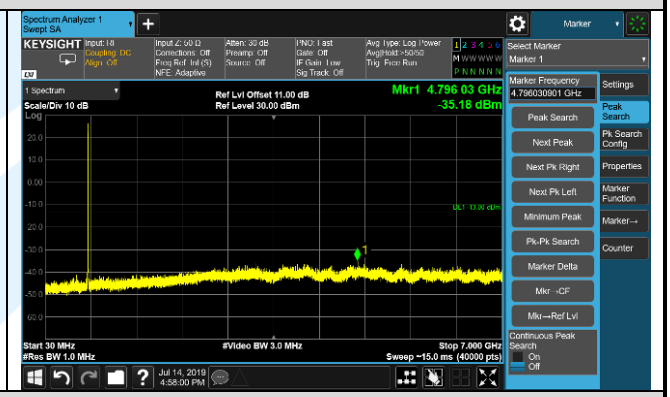
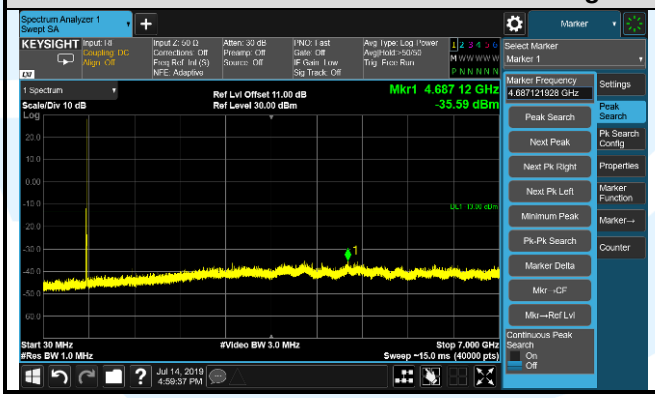
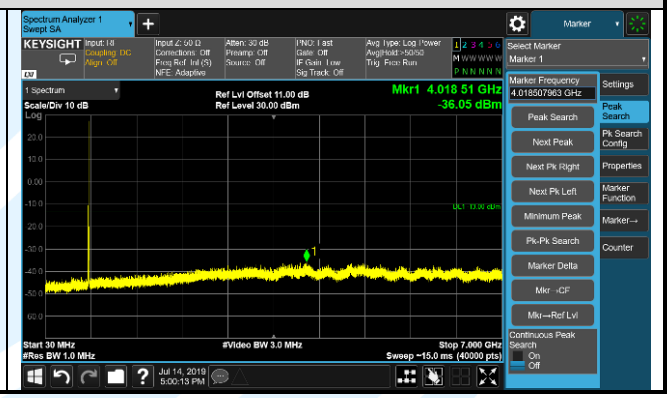
LTE Band 66_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

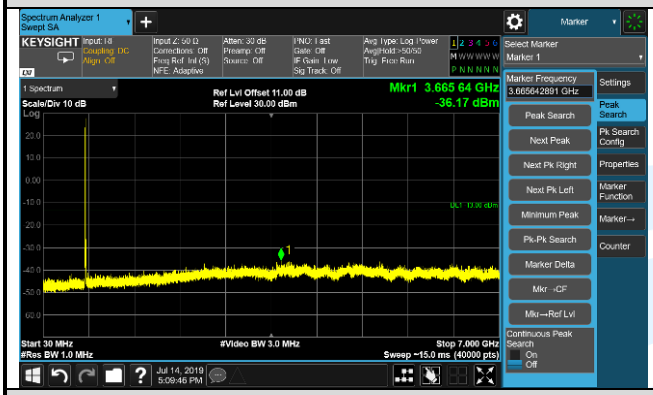
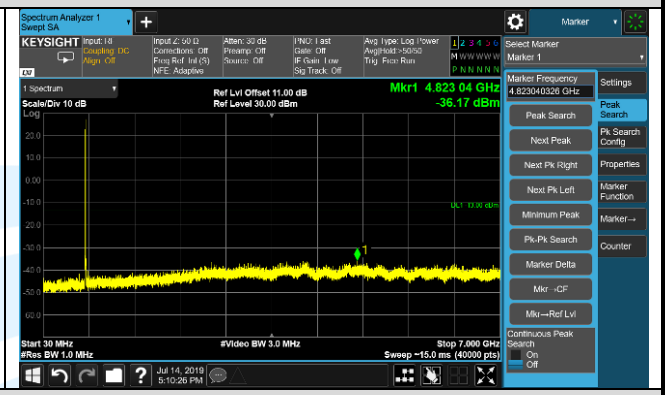
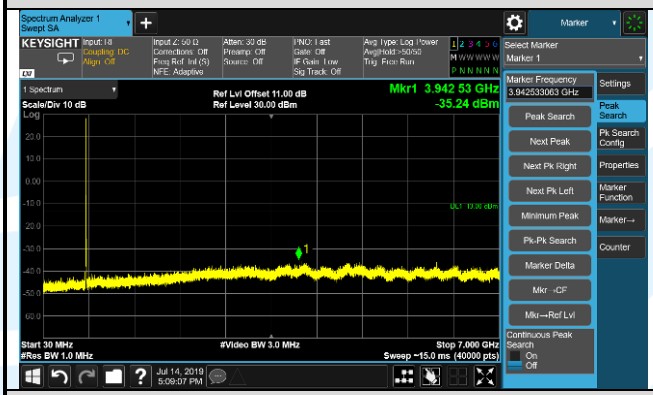
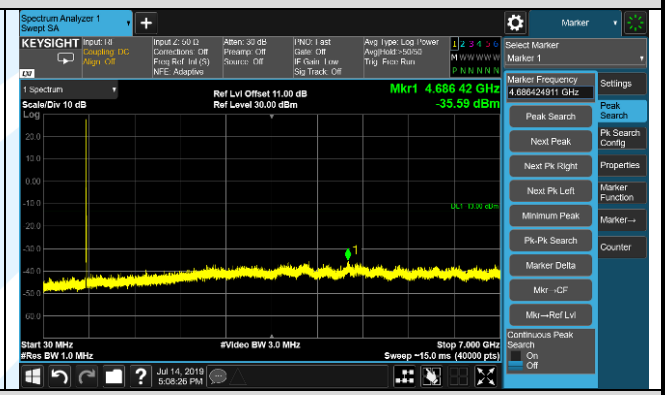
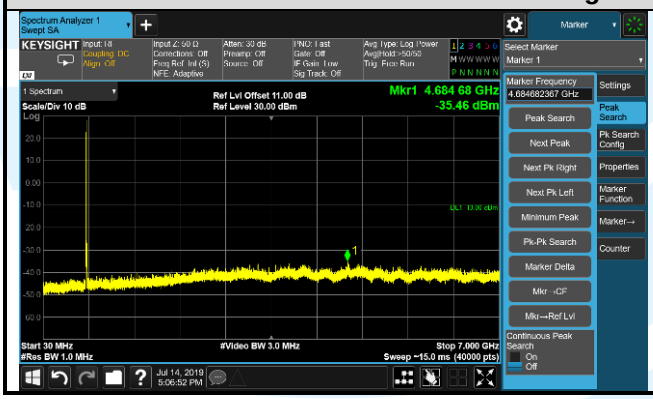
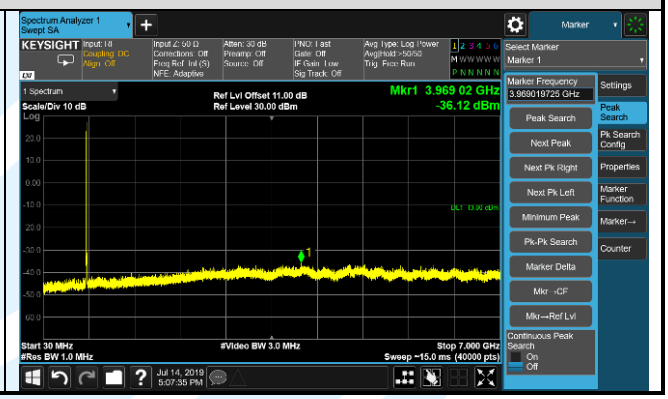
LTE Band 66_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

5.7.13 LTE Band 71

LTE Band 71_ Channel Bandwidth: 5 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 71_ Channel Bandwidth: 10 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 71_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 71_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

5.8 FIELD STRENGTH OF SPURIOUS RADIATION

Test Requirement: **LTE Band 2 & LTE Band 25:** FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)
LTE Band 5 & LTE Band 26: 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
LTE Band 26: FCC 47 CFR Part 90.691

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:

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	3720.000	-67.54	13.80	-53.74	-13.00	-40.74	Horizontal
2	5580.000	-48.31	15.98	-32.33	-13.00	-19.33	Horizontal
3	7440.000	-65.77	18.97	-46.80	-13.00	-33.80	Horizontal
4	3720.000	-66.42	15.18	-51.24	-13.00	-38.24	Vertical
5	5580.000	-48.44	16.87	-31.57	-13.00	-18.57	Vertical
6	7440.000	-64.41	18.41	-46.00	-13.00	-33.00	Vertical
Middle Channel							
1	3760.000	-66.50	13.87	-52.63	-13.00	-39.63	Horizontal
2	5640.000	-47.58	16.10	-31.48	-13.00	-18.48	Horizontal
3	7520.000	-64.18	19.09	-45.09	-13.00	-32.09	Horizontal
4	3760.000	-66.15	15.28	-50.87	-13.00	-37.87	Vertical
5	5640.000	-50.45	16.97	-33.48	-13.00	-20.48	Vertical
6	7520.000	-65.06	18.48	-46.58	-13.00	-33.58	Vertical
Highest Channel							
1	3800.000	-64.96	15.39	-49.57	-13.00	-36.57	Horizontal
2	5700.000	-52.57	17.14	-35.43	-13.00	-22.43	Horizontal
3	7600.000	-65.22	18.47	-46.75	-13.00	-33.75	Horizontal
4	3800.000	-64.62	13.95	-50.67	-13.00	-37.67	Vertical
5	5700.000	-54.27	16.28	-37.99	-13.00	-24.99	Vertical
6	7600.000	-63.77	19.09	-44.68	-13.00	-31.68	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	3440.000	-65.44	13.80	-51.64	-13.00	-38.64	Horizontal
2	5160.000	-54.89	17.11	-37.78	-13.00	-24.78	Horizontal
3	6880.000	-64.48	18.25	-46.23	-13.00	-33.23	Horizontal
4	3440.000	-64.73	12.56	-52.17	-13.00	-39.17	Vertical
5	5160.000	-60.78	16.14	-44.64	-13.00	-31.64	Vertical
6	6880.000	-64.01	18.43	-45.58	-13.00	-32.58	Vertical
Middle Channel							
1	3465.000	-64.75	13.97	-50.78	-13.00	-37.78	Horizontal
2	5197.500	-56.46	17.17	-39.29	-13.00	-26.29	Horizontal
3	6930.000	-64.94	18.10	-46.84	-13.00	-33.84	Horizontal
4	3465.000	-64.95	12.74	-52.21	-13.00	-39.21	Vertical
5	5197.500	-62.15	16.21	-45.94	-13.00	-32.94	Vertical
6	6930.000	-63.84	18.33	-45.51	-13.00	-32.51	Vertical
Highest Channel							
1	3490.000	-64.09	14.14	-49.95	-13.00	-36.95	Horizontal
2	5235.000	-56.99	17.16	-39.83	-13.00	-26.83	Horizontal
3	6980.000	-64.35	17.94	-46.41	-13.00	-33.41	Horizontal
4	3490.000	-65.15	12.93	-52.22	-13.00	-39.22	Vertical
5	5235.000	-56.40	16.20	-40.20	-13.00	-27.20	Vertical
6	6980.000	-64.54	18.22	-46.32	-13.00	-33.32	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	1658.000	-62.64	2.47	-60.17	-13.00	-47.17	Horizontal
2	2487.000	-65.85	9.16	-56.69	-13.00	-43.69	Horizontal
3	3316.000	-66.58	11.97	-54.61	-13.00	-41.61	Horizontal
4	1658.000	-63.88	4.14	-59.74	-13.00	-46.74	Vertical
5	2487.000	-66.44	11.48	-54.96	-13.00	-41.96	Vertical
6	3316.000	-66.37	13.28	-53.09	-13.00	-40.09	Vertical
Middle Channel							
1	1673.000	-62.35	2.59	-59.76	-13.00	-46.76	Horizontal
2	2509.500	-66.05	9.17	-56.88	-13.00	-43.88	Horizontal
3	3346.000	-65.98	12.08	-53.90	-13.00	-40.90	Horizontal
4	1673.000	-62.35	4.31	-58.04	-13.00	-45.04	Vertical
5	2509.500	-65.34	11.46	-53.88	-13.00	-40.88	Vertical
6	3341.741	-65.85	13.36	-52.49	-13.00	-39.49	Vertical
Highest Channel							
1	1688.000	-63.49	2.71	-60.78	-13.00	-47.78	Horizontal
2	2532.000	-65.87	9.21	-56.66	-13.00	-43.66	Horizontal
3	3376.000	-65.82	12.19	-53.63	-13.00	-40.63	Horizontal
4	1688.000	-63.35	4.49	-58.86	-13.00	-45.86	Vertical
5	2532.000	-65.72	11.46	-54.26	-13.00	-41.26	Vertical
6	3376.000	-66.31	13.46	-52.85	-13.00	-39.85	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	5020.000	-64.78	16.89	-47.89	-25.00	-22.89	Horizontal
2	7530.000	-64.28	18.48	-45.80	-25.00	-20.80	Horizontal
3	10040.000	-66.29	21.18	-45.11	-25.00	-20.11	Horizontal
4	5020.000	-65.10	15.89	-49.21	-25.00	-24.21	Vertical
5	7530.000	-60.47	19.08	-41.39	-25.00	-16.39	Vertical
6	10040.000	-66.43	22.26	-44.17	-25.00	-19.17	Vertical
Middle Channel							
1	5070.000	-64.21	16.97	-47.24	-25.00	-22.24	Horizontal
2	7605.000	-64.46	18.47	-45.99	-25.00	-20.99	Horizontal
3	10140.000	-65.13	21.13	-44.00	-25.00	-19.00	Horizontal
4	5070.000	-63.94	15.98	-47.96	-25.00	-22.96	Vertical
5	7605.000	-64.37	19.09	-45.28	-25.00	-20.28	Vertical
6	10140.000	-65.64	22.41	-43.23	-25.00	-18.23	Vertical
Highest Channel							
1	5120.000	-64.81	17.05	-47.76	-25.00	-22.76	Horizontal
2	7680.000	-64.02	18.47	-45.55	-25.00	-20.55	Horizontal
3	10240.000	-63.99	21.12	-42.87	-25.00	-17.87	Horizontal
4	5120.000	-64.04	16.07	-47.97	-25.00	-22.97	Vertical
5	7680.000	-64.52	19.10	-45.42	-25.00	-20.42	Vertical
6	10240.000	-64.82	22.60	-42.22	-25.00	-17.22	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	1408.000	-61.67	0.94	-60.73	-13.00	-47.73	Horizontal
2	2112.000	-64.16	5.78	-58.38	-13.00	-45.38	Horizontal
3	2816.000	-64.84	9.93	-54.91	-13.00	-41.91	Horizontal
4	1408.000	-61.53	1.96	-59.57	-13.00	-46.57	Vertical
5	2112.000	-63.48	8.54	-54.94	-13.00	-41.94	Vertical
6	2816.000	-65.05	11.72	-53.33	-13.00	-40.33	Vertical
Middle Channel							
1	1415.000	-62.47	0.96	-61.51	-13.00	-48.51	Horizontal
2	2122.500	-64.81	5.83	-58.98	-13.00	-45.98	Horizontal
3	2830.000	-65.03	9.98	-55.05	-13.00	-42.05	Horizontal
4	1415.000	-61.36	1.99	-59.37	-13.00	-46.37	Vertical
5	2122.500	-64.04	8.58	-55.46	-13.00	-42.46	Vertical
6	2830.000	-64.66	11.75	-52.91	-13.00	-39.91	Vertical
Highest Channel							
1	1422.000	-62.46	0.99	-61.47	-13.00	-48.47	Horizontal
2	2133.000	-62.95	5.89	-57.06	-13.00	-44.06	Horizontal
3	2844.000	-64.91	10.03	-54.88	-13.00	-41.88	Horizontal
4	1422.000	-61.71	2.02	-59.69	-13.00	-46.69	Vertical
5	2133.000	-63.29	8.63	-54.66	-13.00	-41.66	Vertical
6	2844.000	-63.84	11.78	-52.06	-13.00	-39.06	Vertical

5.8.6 LTE Band 13

LTE Band 13_ 10 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Middle Channel							
1	1564.000	-62.46	1.74	-60.72	-13.00	-47.72	Horizontal
2	2346.000	-64.16	8.36	-55.80	-13.00	-42.80	Horizontal
3	3128.000	-65.11	11.19	-53.92	-13.00	-40.92	Horizontal
4	1564.000	-62.52	3.07	-59.45	-13.00	-46.45	Vertical
5	2346.000	-63.97	10.84	-53.13	-13.00	-40.13	Vertical
6	3128.000	-64.38	12.61	-51.77	-13.00	-38.77	Vertical

5.8.7 LTE Band 25

LTE Band 25_ 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	3720.000	-61.55	15.18	-46.37	-13.00	-33.37	Horizontal
2	5580.000	-48.81	16.87	-31.94	-13.00	-18.94	Horizontal
3	7440.000	-63.65	18.41	-45.24	-13.00	-32.24	Horizontal
4	3720.000	-63.21	13.80	-49.41	-13.00	-36.41	Vertical
5	5580.000	-41.20	15.98	-25.22	-13.00	-12.22	Vertical
6	7440.000	-64.09	18.97	-45.12	-13.00	-32.12	Vertical
Middle Channel							
1	3760.000	-61.57	15.28	-46.29	-13.00	-33.29	Horizontal
2	5640.000	-54.76	16.97	-37.79	-13.00	-24.79	Horizontal
3	7520.000	-63.30	18.48	-44.82	-13.00	-31.82	Horizontal
4	3760.000	-64.33	13.87	-50.46	-13.00	-37.46	Vertical
5	5640.000	-42.41	16.10	-26.31	-13.00	-13.31	Vertical
6	7520.000	-62.36	19.09	-43.27	-13.00	-30.27	Vertical
Highest Channel							
1	3810.000	-61.65	15.41	-46.24	-13.00	-33.24	Horizontal
2	5715.000	-51.29	17.19	-34.10	-13.00	-21.10	Horizontal
3	7620.000	-63.96	18.47	-45.49	-13.00	-32.49	Horizontal
4	3810.000	-63.21	13.96	-49.25	-13.00	-36.25	Vertical
5	5715.000	-48.96	16.33	-32.63	-13.00	-19.63	Vertical
6	7620.000	-64.65	19.10	-45.55	-13.00	-32.55	Vertical

5.8.8 LTE Band 26

LTE Band 26_ 15 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	1629.400	-62.81	2.25	-60.56	-13.00	-47.56	Horizontal
2	2444.100	-63.98	9.15	-54.83	-13.00	-41.83	Horizontal
3	3258.800	-65.01	11.77	-53.24	-13.00	-40.24	Horizontal
4	1629.400	-62.62	3.82	-58.80	-13.00	-45.80	Vertical
5	2444.100	-64.61	11.52	-53.09	-13.00	-40.09	Vertical
6	3258.800	-65.10	13.11	-51.99	-13.00	-38.99	Vertical
Middle Channel							
1	1638.000	-62.58	2.32	-60.26	-13.00	-47.26	Horizontal
2	2457.000	-64.28	9.15	-55.13	-13.00	-42.13	Horizontal
3	3276.000	-64.26	11.83	-52.43	-13.00	-39.43	Horizontal
4	1638.000	-62.66	3.92	-58.74	-13.00	-45.74	Vertical
5	2457.000	-64.28	11.50	-52.78	-13.00	-39.78	Vertical
6	3276.000	-64.76	13.16	-51.60	-13.00	-38.60	Vertical
Highest Channel							
1	1643.000	-58.34	2.36	-55.98	-13.00	-42.98	Horizontal
2	2464.500	-63.94	9.16	-54.78	-13.00	-41.78	Horizontal
3	3286.000	-63.77	11.86	-51.91	-13.00	-38.91	Horizontal
4	1643.000	-61.38	3.97	-57.41	-13.00	-44.41	Vertical
5	2464.500	-63.99	11.51	-52.48	-13.00	-39.48	Vertical
6	3286.000	-62.36	13.18	-49.18	-13.00	-36.18	Vertical

5.8.9 LTE Band 26 (Part 90S)

LTE Band 26_ 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	1663.000	-62.77	2.51	-60.26	-13.00	-47.26	Horizontal
2	2494.500	-65.04	9.16	-55.88	-13.00	-42.88	Horizontal
3	3326.000	-64.90	12.01	-52.89	-13.00	-39.89	Horizontal
4	1663.000	-61.88	4.20	-57.68	-13.00	-44.68	Vertical
5	2494.500	-63.74	11.47	-52.27	-13.00	-39.27	Vertical
6	3326.000	-63.74	13.31	-50.43	-13.00	-37.43	Vertical
Middle Channel							
1	1673.000	-63.34	2.59	-60.75	-13.00	-47.75	Horizontal
2	2509.500	-63.61	9.17	-54.44	-13.00	-41.44	Horizontal
3	3346.000	-64.69	12.08	-52.61	-13.00	-39.61	Horizontal
4	1673.000	-62.39	4.31	-58.08	-13.00	-45.08	Vertical
5	2509.500	-63.88	11.46	-52.42	-13.00	-39.42	Vertical
6	3346.000	-64.20	13.37	-50.83	-13.00	-37.83	Vertical
Highest Channel							
1	1683.000	-62.96	2.66	-60.30	-13.00	-47.30	Horizontal
2	2524.500	-63.41	9.20	-54.21	-13.00	-41.21	Horizontal
3	3366.000	-64.90	12.15	-52.75	-13.00	-39.75	Horizontal
4	1683.000	-62.19	4.42	-57.77	-13.00	-44.77	Vertical
5	2524.500	-63.95	11.46	-52.49	-13.00	-39.49	Vertical
6	3366.000	-63.62	13.43	-50.19	-13.00	-37.19	Vertical

5.8.10 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	5160.000	-63.92	17.11	-46.81	-25.00	-21.81	Horizontal
2	7740.000	-63.48	18.47	-45.01	-25.00	-20.01	Horizontal
3	10320.000	-64.84	21.14	-43.70	-25.00	-18.70	Horizontal
4	5160.000	-63.54	16.14	-47.40	-25.00	-22.40	Vertical
5	7740.000	-60.81	19.12	-41.69	-25.00	-16.69	Vertical
6	10320.000	-65.02	22.78	-42.24	-25.00	-17.24	Vertical
Middle Channel							
1	5190.000	-64.10	17.15	-46.95	-25.00	-21.95	Horizontal
2	7785.000	-63.18	18.47	-44.71	-25.00	-19.71	Horizontal
3	10380.000	-64.67	21.18	-43.49	-25.00	-18.49	Horizontal
4	5190.000	-63.79	16.19	-47.60	-25.00	-22.60	Vertical
5	7785.000	-63.25	19.12	-44.13	-25.00	-19.13	Vertical
6	10380.000	-64.92	22.94	-41.98	-25.00	-16.98	Vertical
Highest Channel							
1	5220.000	-62.87	17.16	-45.71	-25.00	-20.71	Horizontal
2	7830.000	-63.14	18.44	-44.70	-25.00	-19.70	Horizontal
3	10320.000	-63.19	21.14	-42.05	-25.00	-17.05	Horizontal
4	5220.000	-63.92	16.20	-47.72	-25.00	-22.72	Vertical
5	7830.000	-57.10	19.10	-38.00	-25.00	-13.00	Vertical
6	10320.000	-64.51	22.78	-41.73	-25.00	-16.73	Vertical

5.8.11 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	5012.000	-62.91	16.88	-46.03	-25.00	-21.03	Horizontal
2	7518.000	-61.97	18.48	-43.49	-25.00	-18.49	Horizontal
3	10024.000	-64.82	21.17	-43.65	-25.00	-18.65	Horizontal
4	5012.000	-61.47	15.88	-45.59	-25.00	-20.59	Vertical
5	7518.000	-63.28	19.09	-44.19	-25.00	-19.19	Vertical
6	10024.000	-65.66	22.22	-43.44	-25.00	-18.44	Vertical
Middle Channel							
1	5186.000	-63.32	17.15	-46.17	-25.00	-21.17	Horizontal
2	7779.000	-63.62	18.46	-45.16	-25.00	-20.16	Horizontal
3	10372.000	-64.51	21.16	-43.35	-25.00	-18.35	Horizontal
4	5186.000	-64.44	16.19	-48.25	-25.00	-23.25	Vertical
5	7779.000	-60.60	19.11	-41.49	-25.00	-16.49	Vertical
6	10372.000	-65.62	22.91	-42.71	-25.00	-17.71	Vertical
Highest Channel							
1	5360.000	-63.18	17.11	-46.07	-25.00	-21.07	Horizontal
2	8040.000	-64.80	18.33	-46.47	-25.00	-21.47	Horizontal
3	10720.000	-65.02	21.04	-43.98	-25.00	-18.98	Horizontal
4	5360.000	-65.94	16.18	-49.76	-25.00	-24.76	Vertical
5	8040.000	-64.52	19.03	-45.49	-25.00	-20.49	Vertical
6	10720.000	-64.25	22.95	-41.30	-25.00	-16.30	Vertical

5.8.12 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	3440.000	-66.14	13.80	-52.34	-13.00	-39.34	Horizontal
2	5160.000	-66.12	17.11	-49.01	-13.00	-36.01	Horizontal
3	6881.560	-54.01	18.25	-35.76	-13.00	-22.76	Horizontal
4	3440.000	-66.75	12.56	-54.19	-13.00	-41.19	Vertical
5	5160.000	-67.97	16.14	-51.83	-13.00	-38.83	Vertical
6	6881.560	-55.00	18.43	-36.57	-13.00	-23.57	Vertical
Middle Channel							
1	3490.000	-63.48	14.14	-49.34	-13.00	-36.34	Horizontal
2	5235.000	-62.91	17.16	-45.75	-13.00	-32.75	Horizontal
3	6980.000	-52.11	17.94	-34.17	-13.00	-21.17	Horizontal
4	3490.000	-63.46	12.93	-50.53	-13.00	-37.53	Vertical
5	5235.000	-69.31	16.20	-53.11	-13.00	-40.11	Vertical
6	6980.000	-56.18	18.22	-37.96	-13.00	-24.96	Vertical
Highest Channel							
1	3540.000	-65.89	14.47	-51.42	-13.00	-38.42	Horizontal
2	5310.000	-65.08	17.13	-47.95	-13.00	-34.95	Horizontal
3	7080.000	-57.65	17.97	-39.68	-13.00	-26.68	Horizontal
4	3540.000	-67.02	13.24	-53.78	-13.00	-40.78	Vertical
5	5310.000	-66.38	16.19	-50.19	-13.00	-37.19	Vertical
6	7080.000	-59.67	18.31	-41.36	-13.00	-28.36	Vertical

5.8.13 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	1346.000	-60.70	0.75	-59.95	-13.00	-46.95	Horizontal
2	2019.000	-64.04	5.31	-58.73	-13.00	-45.73	Horizontal
3	2692.000	-64.80	9.56	-55.24	-13.00	-42.24	Horizontal
4	1346.000	-61.26	1.73	-59.53	-13.00	-46.53	Vertical
5	2019.000	-63.23	8.18	-55.05	-13.00	-42.05	Vertical
6	2692.000	-63.15	11.55	-51.60	-13.00	-38.60	Vertical
Middle Channel							
1	1361.000	-60.52	0.80	-59.72	-13.00	-46.72	Horizontal
2	2041.500	-63.14	5.41	-57.73	-13.00	-44.73	Horizontal
3	2717.029	-65.22	9.63	-55.59	-13.00	-42.59	Horizontal
4	1361.000	-61.19	1.79	-59.40	-13.00	-46.40	Vertical
5	2041.500	-63.44	8.26	-55.18	-13.00	-42.18	Vertical
6	2717.029	-64.16	11.58	-52.58	-13.00	-39.58	Vertical
Highest Channel							
1	1381.000	-60.04	0.86	-59.18	-13.00	-46.18	Horizontal
2	2071.500	-62.90	5.57	-57.33	-13.00	-44.33	Horizontal
3	2762.000	-62.69	9.77	-52.92	-13.00	-39.92	Horizontal
4	1381.000	-61.60	1.87	-59.73	-13.00	-46.73	Vertical
5	2071.500	-62.24	8.39	-53.85	-13.00	-40.85	Vertical
6	2762.000	-64.69	11.65	-53.04	-13.00	-40.04	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

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°C
   b) Voltage =low voltage, 3.5 Vdc, Normal, 3.7 Vdc and High voltage, 4.2 Vdc.
2) Frequency Stability vs Temperature:

The EUT is place inside a temperature chamber. The temperature is set to 20ºC 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 +50ºC 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 (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 2 / 20MHz / Full RB							
QPSK	18900 / 1880.0	VL	TN	2	0.0011	N/A	Pass
		VN		3	0.0016		Pass
		VH		5	0.0027		Pass
		VN	50	-3	-0.0016		Pass
			40	-6	-0.0032		Pass
			30	7	0.0037		Pass
			20	4	0.0021		Pass
			10	6	0.0032		Pass
			0	3	0.0016		Pass
			-10	4	0.0021		Pass
			-20	3	0.0016		Pass
			-30	6	0.0032		Pass

5.9.2 LTE Band 4

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 4 / 20MHz / Full RB							
QPSK	20175 / 1732.5	VL	TN	6	0.0035	N/A	Pass
		VN		7	0.0040		Pass
		VH		9	0.0052		Pass
		VN	50	4	0.0023		Pass
			40	6	0.0035		Pass
			30	3	0.0017		Pass
			20	7	0.0040		Pass
			10	8	0.0046		Pass
			0	4	0.0023		Pass
			-10	3	0.0017		Pass
			-20	5	0.0029		Pass
			-30	7	0.0040		Pass

5.9.3 LTE Band 5

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 5 / 10MHz / Full RB							
QPSK	20525 / 836.5	VL	TN	-7	-0.0084	± 2.5	Pass
		VN		-12	-0.0143	± 2.5	Pass
		VH		-10	-0.0120	± 2.5	Pass
		VN	50	-14	-0.0167	± 2.5	Pass
			40	-15	-0.0179	± 2.5	Pass
			30	-12	-0.0143	± 2.5	Pass
			20	-11	-0.0132	± 2.5	Pass
			10	-9	-0.0108	± 2.5	Pass
			0	-7	-0.0084	± 2.5	Pass
			-10	-6	-0.0072	± 2.5	Pass
			-20	-12	-0.0143	± 2.5	Pass
			-30	-14	-0.0167	± 2.5	Pass

5.9.4 LTE Band 7

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 7 / 20MHz / Full RB							
QPSK	21100 / 2535	VL	TN	-5	-0.0020	N/A	Pass
		VN		-4	-0.0016		Pass
		VH		-8	-0.0032		Pass
		VN	50	-3	-0.0012		Pass
			40	-5	-0.0020		Pass
			30	-4	-0.0016		Pass
			20	-7	-0.0028		Pass
			10	-5	-0.0020		Pass
			0	-8	-0.0032		Pass
			-10	-4	-0.0016		Pass
			-20	-7	-0.0028		Pass
			-30	-9	-0.0036		Pass

5.9.5 LTE Band 12

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 12 / 10MHz / Full RB							
QPSK	23095 / 707.5	VL	TN	-7	-0.0099	N/A	Pass
		VN		-13	-0.0184		Pass
		VH		-12	-0.0170		Pass
		VN	50	-9	-0.0127		Pass
			40	-12	-0.0170		Pass
			30	-13	-0.0184		Pass
			20	-10	-0.0141		Pass
			10	-12	-0.0170		Pass
			0	-17	-0.0240		Pass
			-10	-16	-0.0226		Pass
			-20	-13	-0.0184		Pass
			-30	-17	-0.0240		Pass

5.9.6 LTE Band 13

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 13 / 10MHz / Full RB							
QPSK	23230 / 782	VL	TN	-5	-0.0064	N/A	Pass
		VN		-4	-0.0051		Pass
		VH		-8	-0.0102		Pass
		VN	50	-12	-0.0153		Pass
			40	-9	-0.0115		Pass
			30	-11	-0.0141		Pass
			20	-10	-0.0128		Pass
			10	-6	-0.0077		Pass
			0	-8	-0.0102		Pass
			-10	-13	-0.0166		Pass
			-20	-12	-0.0153		Pass
			-30	-10	-0.0128		Pass

5.9.7 LTE Band 25

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 25 / 20MHz / Full RB							
QPSK	26340 / 1880.0	VL	TN	7	0.0037	N/A	Pass
		VN		4	0.0021		Pass
		VH		8	0.0043		Pass
		VN	50	3	0.0016		Pass
			40	4	0.0021		Pass
			30	5	0.0027		Pass
			20	5	0.0027		Pass
			10	2	0.0011		Pass
			0	3	0.0016		Pass
			-10	7	0.0037		Pass
			-20	4	0.0021		Pass
			-30	9	0.0048		Pass

5.9.8 LTE Band 26

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 26 / 15MHz / Full RB							
QPSK	26915 / 836.5	VL	TN	-9	-0.0108	± 2.5	Pass
		VN		-11	-0.0132	± 2.5	Pass
		VH		-12	-0.0143	± 2.5	Pass
		VN	50	-8	-0.0096	± 2.5	Pass
			40	-13	-0.0155	± 2.5	Pass
			30	-13	-0.0155	± 2.5	Pass
			20	-19	-0.0227	± 2.5	Pass
			10	-13	-0.0155	± 2.5	Pass
			0	-8	-0.0096	± 2.5	Pass
			-10	-11	-0.0132	± 2.5	Pass
			-20	-15	-0.0179	± 2.5	Pass
			-30	-14	-0.0167	± 2.5	Pass

5.9.9 LTE Band 26 (Part 90S)

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 26 / 10MHz / Full RB							
QPSK	26740 / 819	VL	TN	-11	-0.0134	± 2.5	Pass
		VN		-15	-0.0183	± 2.5	Pass
		VH		-13	-0.0159	± 2.5	Pass
		VN	50	-9	-0.0110	± 2.5	Pass
			40	-10	-0.0122	± 2.5	Pass
			30	-11	-0.0134	± 2.5	Pass
			20	-15	-0.0183	± 2.5	Pass
			10	-14	-0.0171	± 2.5	Pass
			0	-18	-0.0220	± 2.5	Pass
			-10	-15	-0.0183	± 2.5	Pass
			-20	-16	-0.0195	± 2.5	Pass
			-30	-12	-0.0147	± 2.5	Pass

5.9.10 LTE Band 38

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 38 / 20MHz / Full RB							
QPSK	38000 /2595	VL	TN	-10	-0.0039	N/A	Pass
		VN		-8	-0.0031		Pass
		VH		-7	-0.0027		Pass
		VN	50	-5	-0.0019		Pass
			40	-7	-0.0027		Pass
			30	-4	-0.0015		Pass
			20	-12	-0.0046		Pass
			10	-9	-0.0035		Pass
			0	-7	-0.0027		Pass
			-10	-6	-0.0023		Pass
			-20	-8	-0.0031		Pass
			-30	-10	-0.0039		Pass

5.9.11 LTE Band 41

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 41 / 20MHz / Full RB							
QPSK	40620 / 2593	VL	TN	8	0.0031	N/A	Pass
		VN		4	0.0015		Pass
		VH		6	0.0023		Pass
		VN	50	4	0.0015		Pass
			40	5	0.0019		Pass
			30	7	0.0027		Pass
			20	9	0.0035		Pass
			10	7	0.0027		Pass
			0	6	0.0023		Pass
			-10	5	0.0019		Pass
			-20	10	0.0039		Pass
			-30	9	0.0035		Pass

5.9.12 LTE Band 66

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 66 / 20MHz / Full RB							
QPSK	132322 / 1745	VL	TN	-14	-0.0080	N/A	Pass
		VN		-7	-0.0040		Pass
		VH		-8	-0.0046		Pass
		VN	50	-11	-0.0063		Pass
			40	-13	-0.0074		Pass
			30	-9	-0.0052		Pass
			20	-4	-0.0023		Pass
			10	-7	-0.0040		Pass
			0	-8	-0.0046		Pass
			-10	-12	-0.0069		Pass
			-20	-14	-0.0080		Pass
			-30	-7	-0.0040		Pass

5.9.13 LTE Band 71

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 71 / 20MHz / Full RB							
QPSK	133322 / 683	VL	TN	-13	-0.0190	N/A	Pass
		VN		-11	-0.0161		Pass
		VH		-12	-0.0176		Pass
		VN	50	-9	-0.0132		Pass
			40	-5	-0.0073		Pass
			30	-4	-0.0059		Pass
			20	-3	-0.0044		Pass
			10	-3	-0.0044		Pass
			0	-5	-0.0073		Pass
			-10	-7	-0.0102		Pass
			-20	-3	-0.0044		Pass
			-30	-6	-0.0088		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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