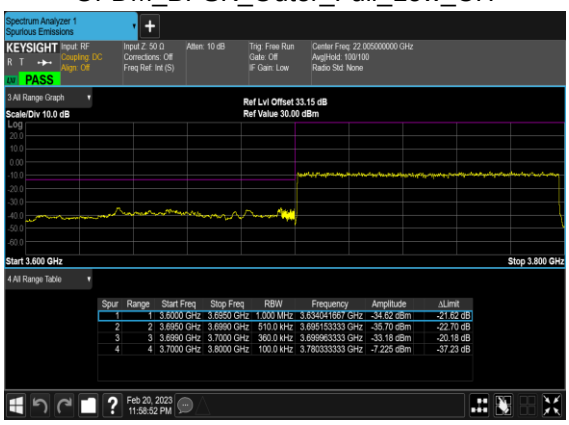
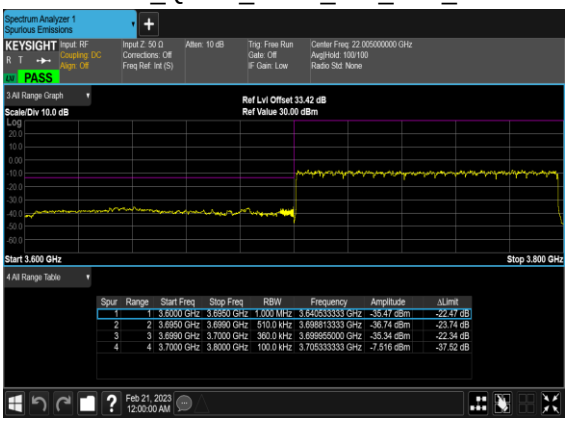
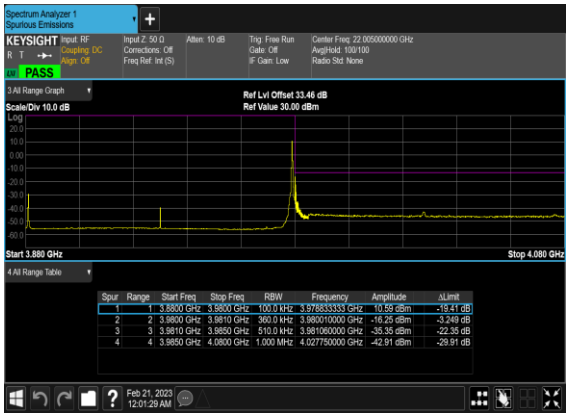
N77(100M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



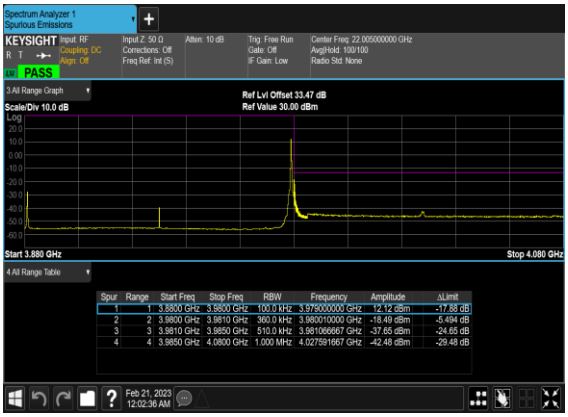
N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



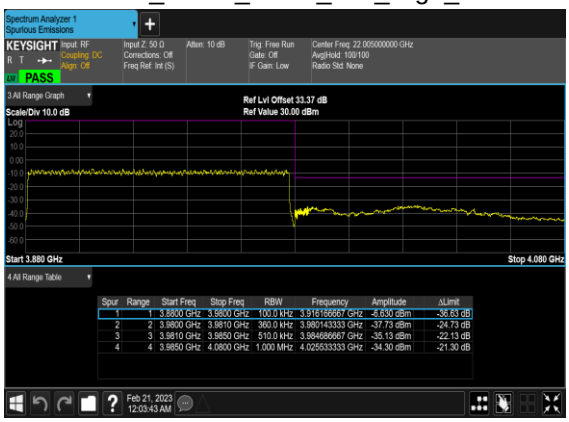
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



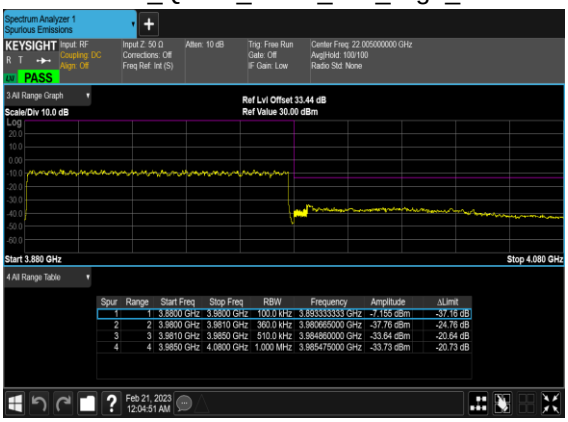
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N77(100M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



Software Version: 23.02.011001

FR1 N77 MIMO-ANT5+ANT1

Transmitter Conducted Output Power and EIRP, (G_T - L_C)=0.15dB

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	ANT8 Power(dBm)	ANT1 Power(dBm)	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
77	30	20	647334	3710.01	CP-OFDM QPSK	1@1	21.88	21.54	24.76	24.91	0.3097
77	30	20	647334	3710.01	CP-OFDM 16 QAM	1@1	21.63	21.05	24.37	24.52	0.2831
77	30	20	647334	3710.01	CP-OFDM 64 QAM	1@1	19.8	19.43	22.65	22.8	0.1905
77	30	20	656000	3840	CP-OFDM QPSK	1@1	22.08	22.02	25.07	25.22	0.3327
77	30	20	656000	3840	CP-OFDM 16 QAM	1@1	21.8	21.5	24.66	24.81	0.3027
77	30	20	656000	3840	CP-OFDM 64 QAM	1@1	19.9	20.04	22.99	23.14	0.2061
77	30	20	664666	3969.99	CP-OFDM QPSK	1@1	21.81	22	24.9	25.05	0.3199
77	30	20	664666	3969.99	CP-OFDM 16 QAM	1@1	21.47	21.46	24.51	24.66	0.2924
77	30	20	664666	3969.99	CP-OFDM 64 QAM	1@1	19.59	19.95	22.79	22.94	0.1968
77	30	30	647668	3715.02	CP-OFDM QPSK	1@1	21.98	21.72	24.86	25.01	0.3170
77	30	30	647668	3715.02	CP-OFDM 16 QAM	1@1	21.66	21.2	24.41	24.56	0.2858
77	30	30	647668	3715.02	CP-OFDM 64 QAM	1@1	19.89	19.55	22.73	22.88	0.1941
77	30	30	656000	3840	CP-OFDM QPSK	1@1	22.09	22.09	25.13	25.28	0.3373
77	30	30	656000	3840	CP-OFDM 16 QAM	1@1	21.76	21.39	24.65	24.8	0.3020
77	30	30	656000	3840	CP-OFDM 64 QAM	1@1	19.97	20.06	23	23.15	0.2065
77	30	30	664332	3964.98	CP-OFDM QPSK	1@1	21.91	22.02	24.94	25.09	0.3228
77	30	30	664332	3964.98	CP-OFDM 16 QAM	1@1	21.52	21.4	24.52	24.67	0.2931
77	30	30	664332	3964.98	CP-OFDM 64 QAM	1@1	19.69	19.98	22.89	23.04	0.2014
77	30	40	648000	3720	CP-OFDM QPSK	1@1	22.08	21.77	24.96	25.11	0.3243
77	30	40	648000	3720	CP-OFDM 16 QAM	1@1	21.8	21.22	24.51	24.66	0.2924
77	30	40	648000	3720	CP-OFDM 64 QAM	1@1	20.02	19.7	22.86	23.01	0.2000
77	30	40	656000	3840	CP-OFDM QPSK	1@1	21.83	21.78	24.83	24.98	0.3148
77	30	40	656000	3840	CP-OFDM 16 QAM	1@1	21.93	21.55	24.76	24.91	0.3097
77	30	40	656000	3840	CP-OFDM 64 QAM	1@1	20.17	20.14	23.13	23.28	0.2128
77	30	40	664000	3960	CP-OFDM QPSK	1@1	22.04	22.11	25.09	25.24	0.3342
77	30	40	664000	3960	CP-OFDM 16 QAM	1@1	21.73	21.56	24.68	24.83	0.3041
77	30	40	664000	3960	CP-OFDM 64 QAM	1@1	19.85	19.98	22.9	23.05	0.2018
77	30	50	648334	3725.01	CP-OFDM QPSK	1@1	21.83	21.55	24.68	24.83	0.3041

77	30	50	648334	3725.01	CP-OFDM 16 QAM	1@1	21.56	20.98	24.26	24.41	0.2761
77	30	50	648334	3725.01	CP-OFDM 64 QAM	1@1	19.69	19.45	22.58	22.73	0.1875
77	30	50	656000	3840	CP-OFDM QPSK	1@1	21.97	21.88	24.99	25.14	0.3266
77	30	50	656000	3840	CP-OFDM 16 QAM	1@1	21.6	21.27	24.48	24.63	0.2904
77	30	50	656000	3840	CP-OFDM 64 QAM	1@1	19.77	19.73	22.75	22.9	0.1950
77	30	50	663666	3954.99	CP-OFDM QPSK	1@1	21.77	21.84	24.81	24.96	0.3133
77	30	50	663666	3954.99	CP-OFDM 16 QAM	1@1	21.5	21.26	24.4	24.55	0.2851
77	30	50	663666	3954.99	CP-OFDM 64 QAM	1@1	19.59	19.81	22.69	22.84	0.1923
77	30	60	648668	3730.02	CP-OFDM QPSK	1@1	21.77	21.4	24.61	24.76	0.2992
77	30	60	648668	3730.02	CP-OFDM 16 QAM	1@1	21.44	20.85	24.17	24.32	0.2704
77	30	60	648668	3730.02	CP-OFDM 64 QAM	1@1	19.61	19.32	22.49	22.64	0.1837
77	30	60	656000	3840	CP-OFDM QPSK	1@1	21.94	21.82	24.93	25.08	0.3221
77	30	60	656000	3840	CP-OFDM 16 QAM	1@1	21.58	21.15	24.42	24.57	0.2864
77	30	60	656000	3840	CP-OFDM 64 QAM	1@1	19.71	19.74	22.71	22.86	0.1932
77	30	60	663332	3949.98	CP-OFDM QPSK	1@1	21.58	21.84	24.79	24.94	0.3119
77	30	60	663332	3949.98	CP-OFDM 16 QAM	1@1	21.29	21.24	24.27	24.42	0.2767
77	30	60	663332	3949.98	CP-OFDM 64 QAM	1@1	19.35	19.78	22.53	22.68	0.1854
77	30	70	649000	3735	CP-OFDM QPSK	1@1	21.71	21.21	24.43	24.58	0.2871
77	30	70	649000	3735	CP-OFDM 16 QAM	1@1	21.22	20.71	24	24.15	0.2600
77	30	70	649000	3735	CP-OFDM 64 QAM	1@1	19.48	19.27	22.38	22.53	0.1791
77	30	70	656000	3840	CP-OFDM QPSK	1@1	21.68	21.67	24.79	24.94	0.3119
77	30	70	656000	3840	CP-OFDM 16 QAM	1@1	21.48	21.2	24.33	24.48	0.2805
77	30	70	656000	3840	CP-OFDM 64 QAM	1@1	19.62	19.67	22.66	22.81	0.1910
77	30	70	663000	3945	CP-OFDM QPSK	1@1	21.4	21.77	24.65	24.8	0.3020
77	30	70	663000	3945	CP-OFDM 16 QAM	1@1	21.16	21.27	24.23	24.38	0.2742
77	30	70	663000	3945	CP-OFDM 64 QAM	1@1	19.38	19.77	22.58	22.73	0.1875
77	30	80	649334	3740.01	CP-OFDM QPSK	1@1	21.54	21.12	24.43	24.58	0.2871
77	30	80	649334	3740.01	CP-OFDM 16 QAM	1@1	21.28	20.63	23.94	24.09	0.2564
77	30	80	649334	3740.01	CP-OFDM 64 QAM	1@1	19.43	19.04	22.22	22.37	0.1726
77	30	80	656000	3840	CP-OFDM QPSK	1@1	21.84	21.7	24.72	24.87	0.3069
77	30	80	656000	3840	CP-OFDM 16 QAM	1@1	21.47	21.2	24.32	24.47	0.2799
77	30	80	656000	3840	CP-OFDM 64 QAM	1@1	19.68	19.72	22.65	22.8	0.1905
77	30	80	662666	3939.99	CP-OFDM QPSK	1@1	21.39	21.62	24.5	24.65	0.2917
77	30	80	662666	3939.99	CP-OFDM 16 QAM	1@1	20.96	21.11	24.06	24.21	0.2636

77	30	80	662666	3939.99	CP-OFDM 64 QAM	1@1	19.31	19.62	22.47	22.62	0.1828
77	30	90	649668	3745.02	CP-OFDM QPSK	1@1	21.67	21.17	24.36	24.51	0.2825
77	30	90	649668	3745.02	CP-OFDM 16 QAM	1@1	21.24	20.64	23.95	24.1	0.2570
77	30	90	649668	3745.02	CP-OFDM 64 QAM	1@1	19.48	19.17	22.31	22.46	0.1762
77	30	90	656000	3840	CP-OFDM QPSK	1@1	21.83	21.76	24.7	24.85	0.3055
77	30	90	656000	3840	CP-OFDM 16 QAM	1@1	21.5	21.13	24.35	24.5	0.2818
77	30	90	656000	3840	CP-OFDM 64 QAM	1@1	19.69	19.75	22.73	22.88	0.1941
77	30	90	662332	3934.98	CP-OFDM QPSK	1@1	21.35	21.65	24.55	24.7	0.2951
77	30	90	662332	3934.98	CP-OFDM 16 QAM	1@1	21.11	21.19	24.16	24.31	0.2698
77	30	90	662332	3934.98	CP-OFDM 64 QAM	1@1	19.11	19.64	22.4	22.55	0.1799
77	30	100	650000	3750	CP-OFDM QPSK	137 @68	21.59	21.39	24.51	24.66	0.2924
77	30	100	650000	3750	CP-OFDM QPSK	1@1	21.48	21.16	24.4	24.55	0.2851
77	30	100	650000	3750	CP-OFDM QPSK	1@2 71	21.75	21.75	24.76	24.91	0.3097
77	30	100	650000	3750	CP-OFDM 16 QAM	137 @68	21.18	20.95	24.08	24.23	0.2649
77	30	100	650000	3750	CP-OFDM 16 QAM	1@1	21.09	20.6	23.84	23.99	0.2506
77	30	100	650000	3750	CP-OFDM 16 QAM	1@2 71	21.37	21.02	24.18	24.33	0.2710
77	30	100	650000	3750	CP-OFDM 64 QAM	137 @68	19.68	19.41	22.54	22.69	0.1858
77	30	100	650000	3750	CP-OFDM 64 QAM	1@1	19.38	19.1	22.27	22.42	0.1746
77	30	100	650000	3750	CP-OFDM 64 QAM	1@2 71	19.66	19.59	22.64	22.79	0.1901
77	30	100	650000	3750	CP-OFDM 256 QAM	137 @68	16.74	16.42	19.58	19.73	0.0940
77	30	100	650000	3750	CP-OFDM 256 QAM	1@1	16.35	16.22	19.35	19.5	0.0891
77	30	100	650000	3750	CP-OFDM 256 QAM	1@2 71	16.62	16.63	19.69	19.84	0.0964
77	30	100	656000	3840	CP-OFDM QPSK	137 @68	21.7	21.69	24.73	24.88	0.3076
77	30	100	656000	3840	CP-OFDM QPSK	1@1	22.28	22.23	25.23	25.38	0.3451
77	30	100	656000	3840	CP-OFDM QPSK	1@2 71	21.71	21.61	24.66	24.81	0.3027
77	30	100	656000	3840	CP-OFDM 16 QAM	137 @68	21.19	21.23	24.29	24.44	0.2780
77	30	100	656000	3840	CP-OFDM 16 QAM	1@1	21.39	21.08	24.26	24.41	0.2761
77	30	100	656000	3840	CP-OFDM 16 QAM	1@2 71	21.14	21.13	24.11	24.26	0.2667
77	30	100	656000	3840	CP-OFDM 64 QAM	137 @68	19.68	19.6	22.66	22.81	0.1910
77	30	100	656000	3840	CP-OFDM 64 QAM	1@1	19.62	19.68	22.68	22.83	0.1919
77	30	100	656000	3840	CP-OFDM 64 QAM	1@2 71	19.42	19.69	22.53	22.68	0.1854
77	30	100	656000	3840	CP-OFDM 256 QAM	137 @68	16.65	16.64	19.64	19.79	0.0953
77	30	100	656000	3840	CP-OFDM 256 QAM	1@1	16.54	16.8	19.64	19.79	0.0953
77	30	100	656000	3840	CP-OFDM 256 QAM	1@2 71	16.23	16.69	19.48	19.63	0.0918

77	30	100	662000	3930	CP-OFDM QPSK	137 @68	21.44	21.65	24.61	24.76	0.2992
77	30	100	662000	3930	CP-OFDM QPSK	1@1	21.6	21.82	24.66	24.81	0.3027
77	30	100	662000	3930	CP-OFDM QPSK	1@2 71	21.32	21.63	24.5	24.65	0.2917
77	30	100	662000	3930	CP-OFDM 16 QAM	137 @68	21.02	21.1	24.11	24.26	0.2667
77	30	100	662000	3930	CP-OFDM 16 QAM	1@1	21.21	21.32	24.21	24.36	0.2729
77	30	100	662000	3930	CP-OFDM 16 QAM	1@2 71	20.97	21.14	24.07	24.22	0.2642
77	30	100	662000	3930	CP-OFDM 64 QAM	137 @68	19.55	19.57	22.58	22.73	0.1875
77	30	100	662000	3930	CP-OFDM 64 QAM	1@1	19.31	19.72	22.52	22.67	0.1849
77	30	100	662000	3930	CP-OFDM 64 QAM	1@2 71	19.22	19.63	22.43	22.58	0.1811
77	30	100	662000	3930	CP-OFDM 256 QAM	137 @68	16.54	16.58	19.58	19.73	0.0940
77	30	100	662000	3930	CP-OFDM 256 QAM	1@1	16.13	16.87	19.54	19.69	0.0931
77	30	100	662000	3930	CP-OFDM 256 QAM	1@2 71	16	16.64	19.38	19.53	0.0897

Frequency Stability

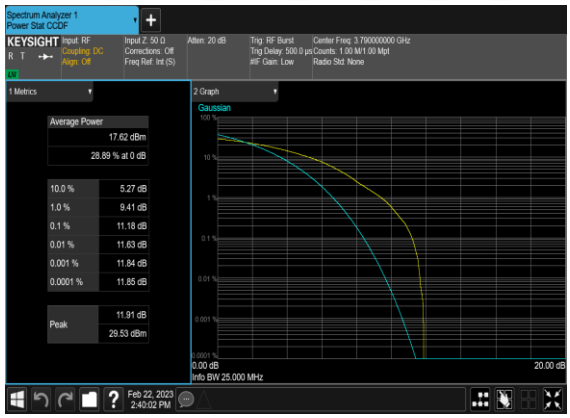
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0024	**PASS**	NV
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0021	**PASS**	LV
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0019	**PASS**	HV
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0009	**PASS**	-30℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0011	**PASS**	-20℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0019	**PASS**	-10℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0023	**PASS**	0℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0041	**PASS**	10℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0034	**PASS**	20℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0017	**PASS**	30℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0008	**PASS**	40℃
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	0.0016	**PASS**	50℃

Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	100	656000	3840.0	CP-OFDM QPSK	273@0	10.96	13	**PASS**
77	30	100	656000	3840.0	CP-OFDM QPSK	1@0	11.18	13	**PASS**
77	30	100	656000	3840.0	CP-OFDM 16 QAM	273@0	10.9	13	**PASS**
77	30	100	656000	3840.0	CP-OFDM 16 QAM	1@0	10.75	13	**PASS**

N77(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N77(100M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

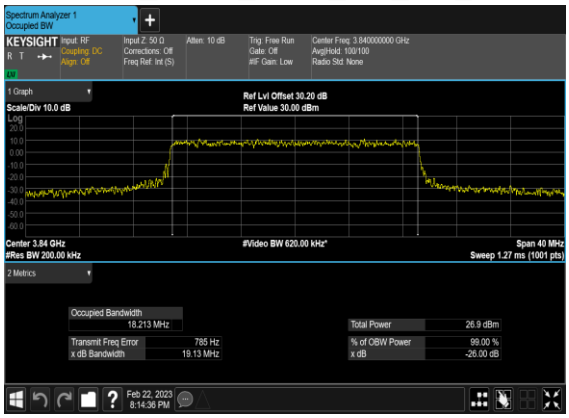
N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_Mid_CH

Occupied Bandwidth

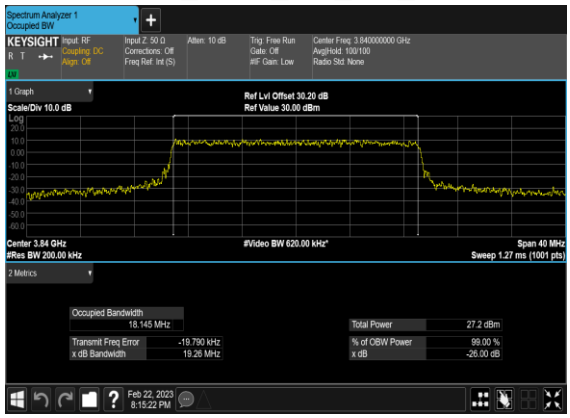
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	18.213	19.13
77	30	20	656000	3840.0	CP-OFDM 16 QAM	51@0	18.145	19.26
77	30	20	656000	3840.0	CP-OFDM 64 QAM	51@0	18.153	19.06
77	30	20	656000	3840.0	CP-OFDM 256 QAM	51@0	18.195	19.28
77	30	30	656000	3840.0	CP-OFDM QPSK	78@0	27.822	28.74
77	30	30	656000	3840.0	CP-OFDM 16 QAM	78@0	27.904	29.07
77	30	30	656000	3840.0	CP-OFDM 64 QAM	78@0	27.842	28.81
77	30	30	656000	3840.0	CP-OFDM 256 QAM	78@0	27.835	29.12
77	30	40	656000	3840.0	CP-OFDM QPSK	106@0	37.851	39.11
77	30	40	656000	3840.0	CP-OFDM 16 QAM	106@0	37.817	39.12
77	30	40	656000	3840.0	CP-OFDM 64 QAM	106@0	38.018	39.25
77	30	40	656000	3840.0	CP-OFDM 256 QAM	106@0	37.914	39.11
77	30	50	656000	3840.0	CP-OFDM QPSK	133@0	47.522	49.03
77	30	50	656000	3840.0	CP-OFDM 16 QAM	133@0	47.237	48.96
77	30	50	656000	3840.0	CP-OFDM 64 QAM	133@0	47.483	48.94
77	30	50	656000	3840.0	CP-OFDM 256 QAM	133@0	47.578	48.99
77	30	60	656000	3840.0	CP-OFDM QPSK	162@0	57.875	59.76
77	30	60	656000	3840.0	CP-OFDM 16 QAM	162@0	57.975	59.69
77	30	60	656000	3840.0	CP-OFDM 64 QAM	162@0	57.845	59.76
77	30	60	656000	3840.0	CP-OFDM 256 QAM	162@0	57.739	59.66
77	30	70	656000	3840.0	CP-OFDM QPSK	189@0	67.621	69.63
77	30	70	656000	3840.0	CP-OFDM 16 QAM	189@0	67.637	69.61
77	30	70	656000	3840.0	CP-OFDM 64 QAM	189@0	67.534	69.65
77	30	70	656000	3840.0	CP-OFDM 256 QAM	189@0	67.541	69.67
77	30	80	656000	3840.0	CP-OFDM QPSK	217@0	77.56	79.92
77	30	80	656000	3840.0	CP-OFDM 16 QAM	217@0	77.435	79.94

77	30	80	656000	3840.0	CP-OFDM 64 QAM	217@0	77.517	79.92
77	30	80	656000	3840.0	CP-OFDM 256 QAM	217@0	77.543	79.83
77	30	90	656000	3840.0	CP-OFDM QPSK	245@0	87.265	90.27
77	30	90	656000	3840.0	CP-OFDM 16 QAM	245@0	87.571	90.27
77	30	90	656000	3840.0	CP-OFDM 64 QAM	245@0	87.485	90.25
77	30	90	656000	3840.0	CP-OFDM 256 QAM	245@0	87.371	90.21
77	30	100	656000	3840.0	CP-OFDM QPSK	273@0	97.425	100.5
77	30	100	656000	3840.0	CP-OFDM 16 QAM	273@0	97.435	100.5
77	30	100	656000	3840.0	CP-OFDM 64 QAM	273@0	97.87	100.4
77	30	100	656000	3840.0	CP-OFDM 256 QAM	273@0	97.169	100.4

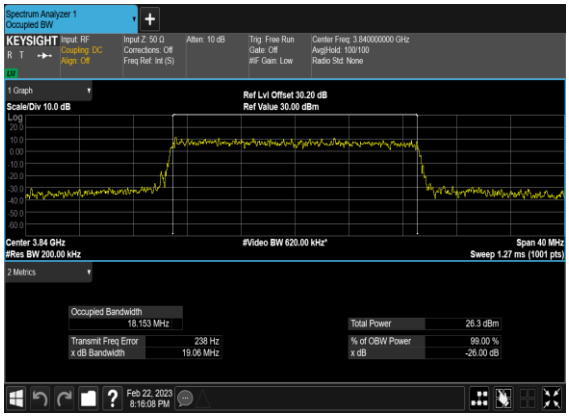
N77(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



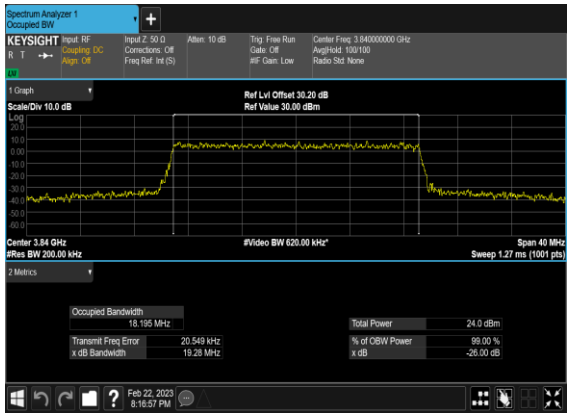
N77(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



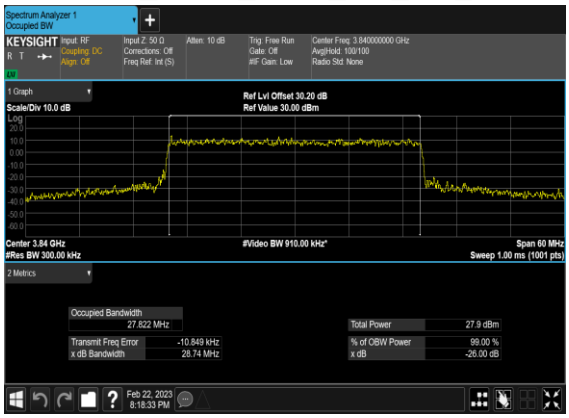
N77(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



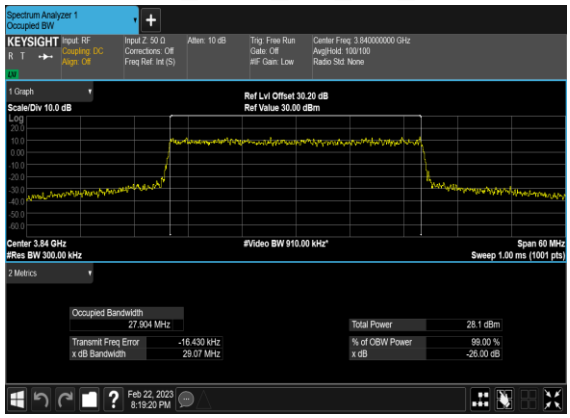
N77(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



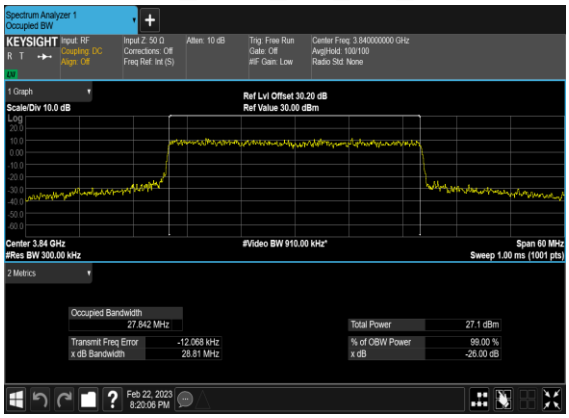
N77(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



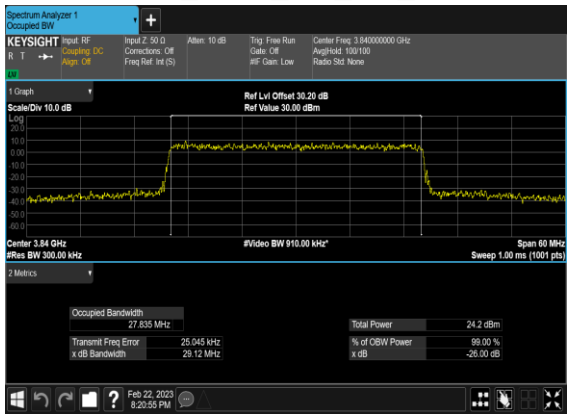
N77(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



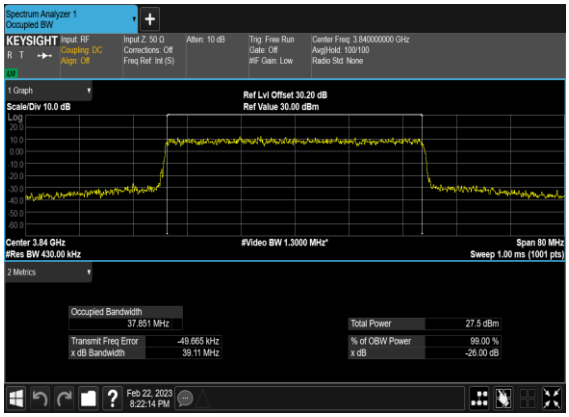
N77(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



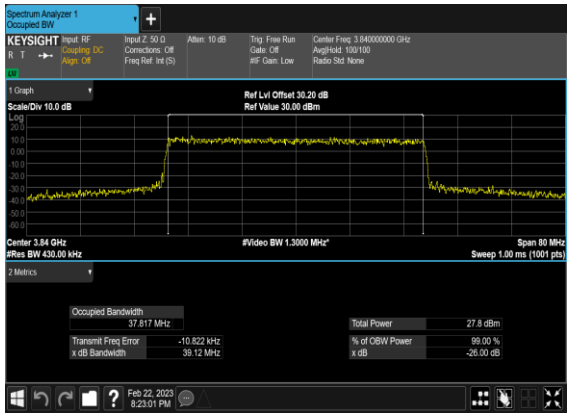
N77(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



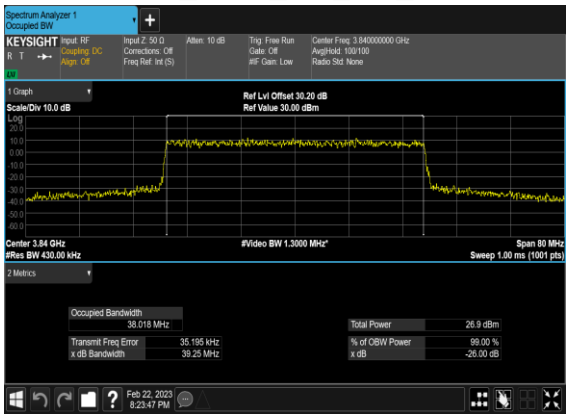
N77(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



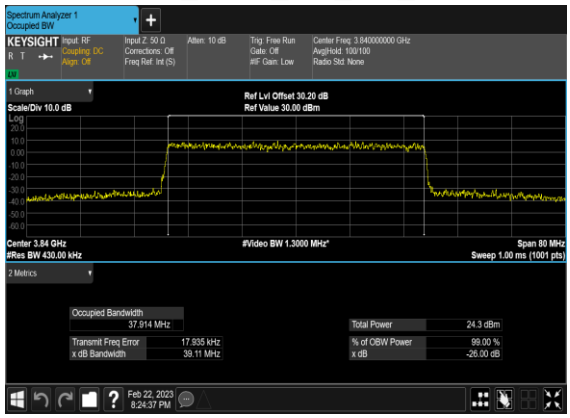
N77(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



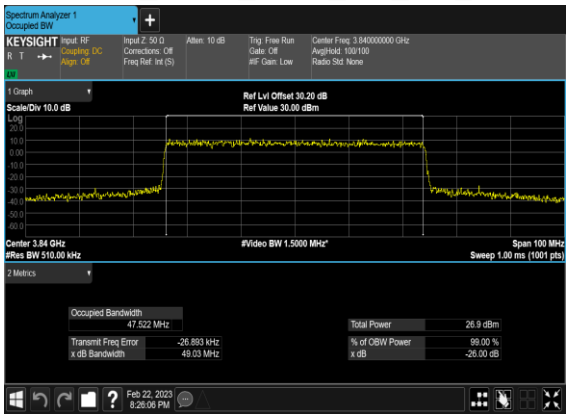
N77(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



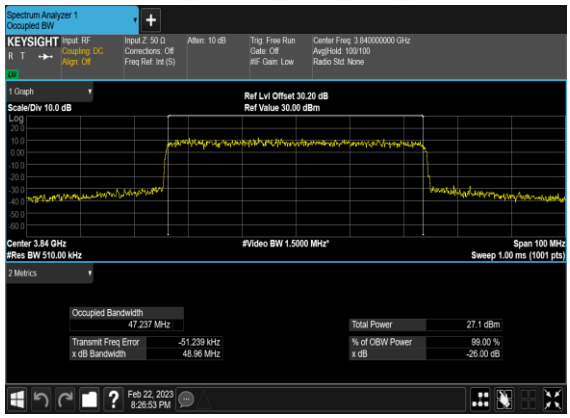
N77(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



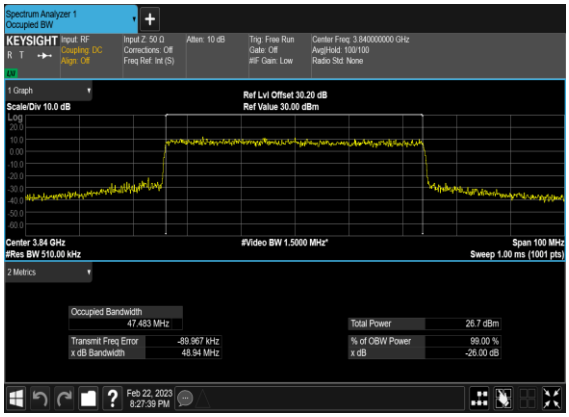
N77(50M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



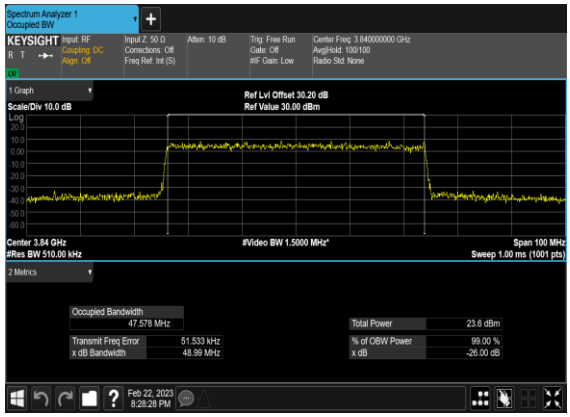
N77(50M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



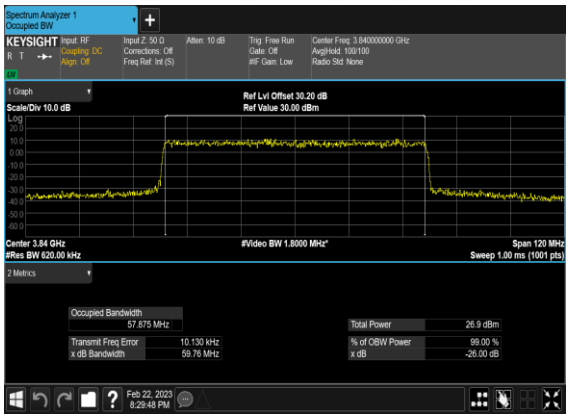
N77(50M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



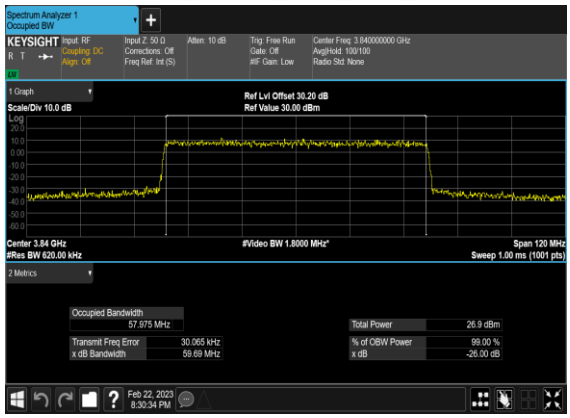
N77(50M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



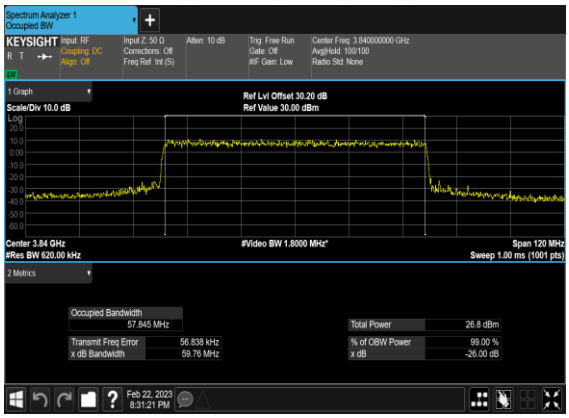
N77(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



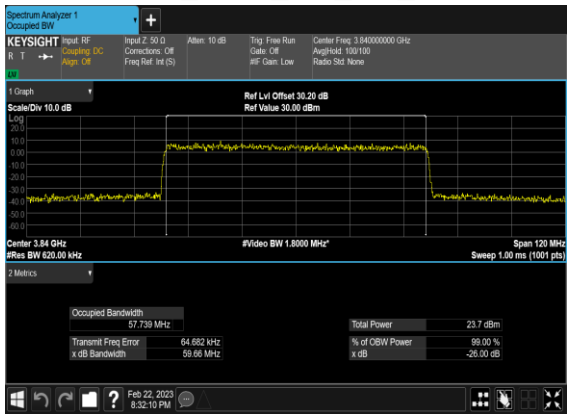
N77(60M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



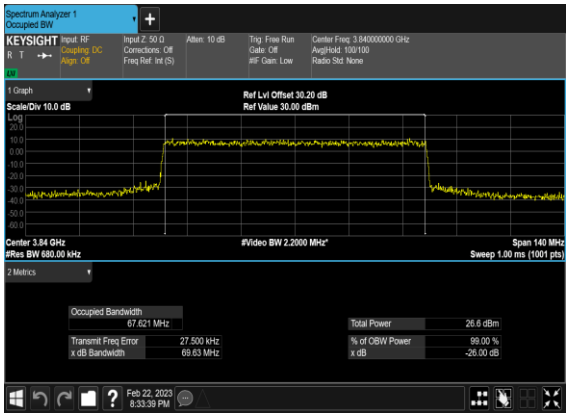
N77(60M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



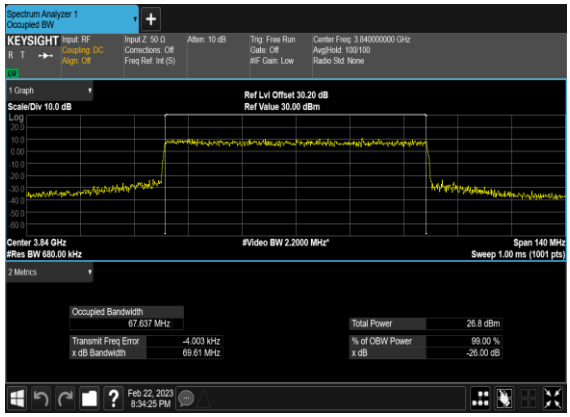
N77(60M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N77(70M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

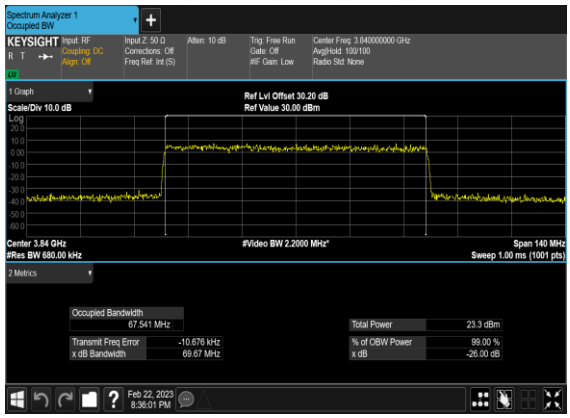


N77(70M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

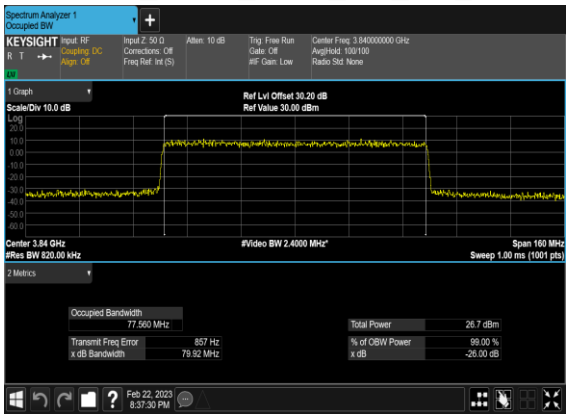


N77(70M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

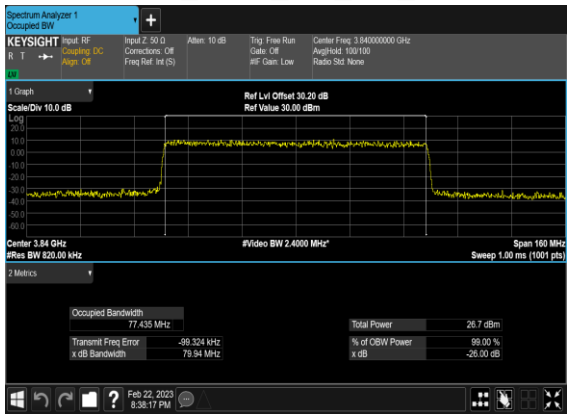
N77(70M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N77(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

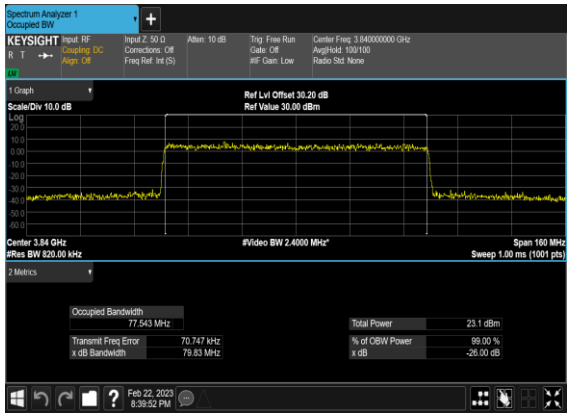


N77(80M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

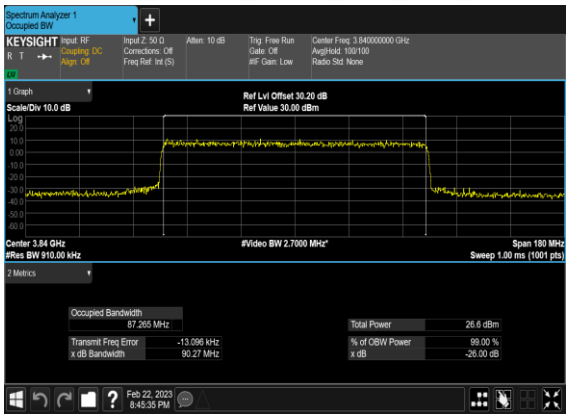


N77(80M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

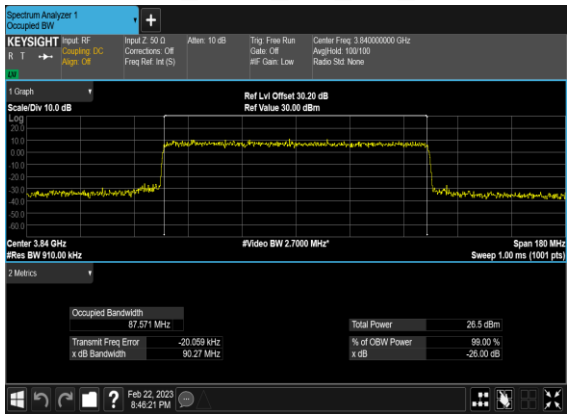
N77(80M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



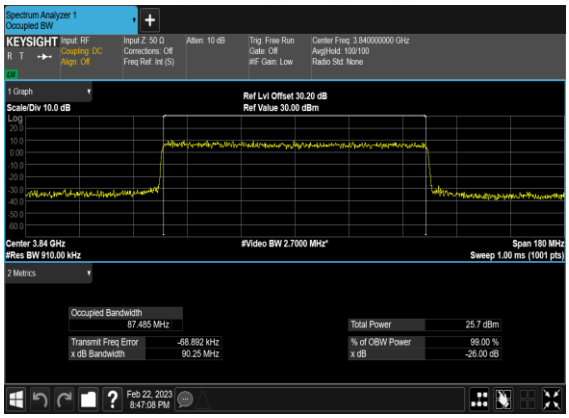
N77(90M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



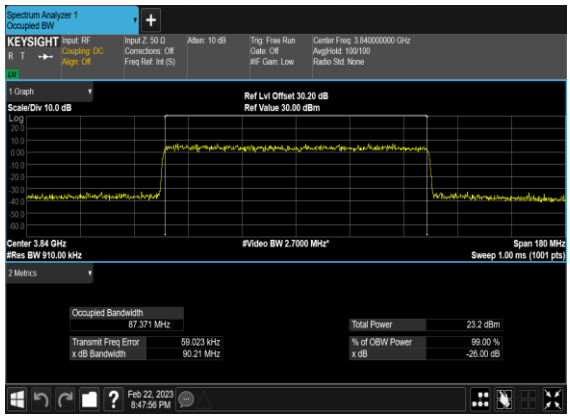
N77(90M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



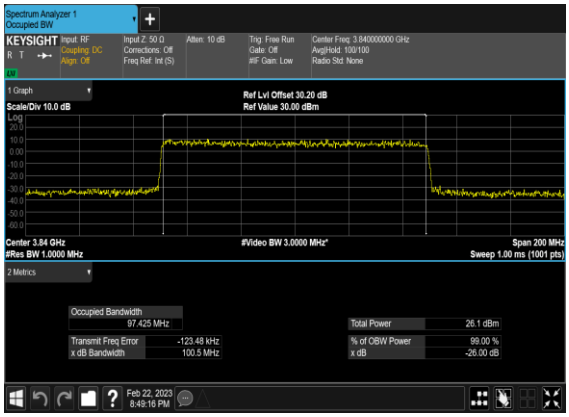
N77(90M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



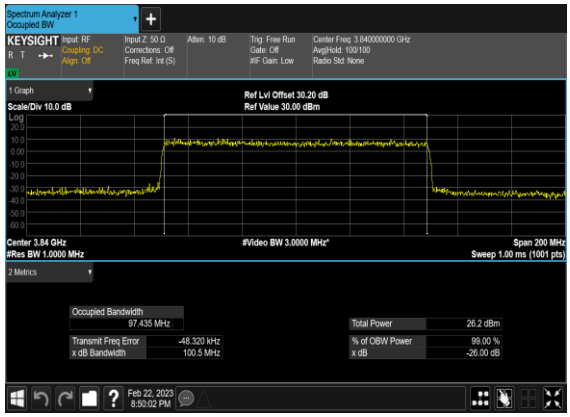
N77(90M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



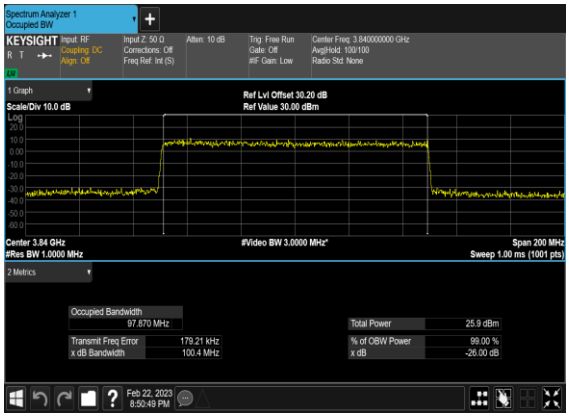
N77(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



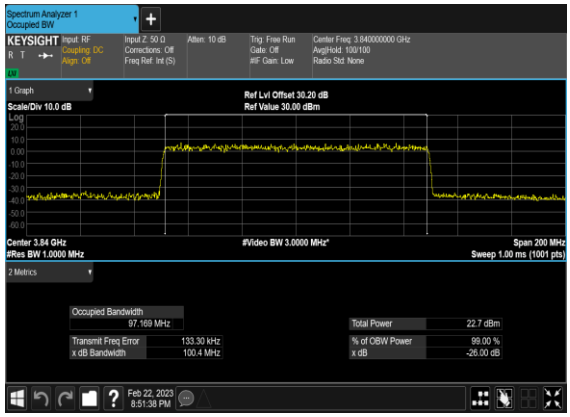
N77(100M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



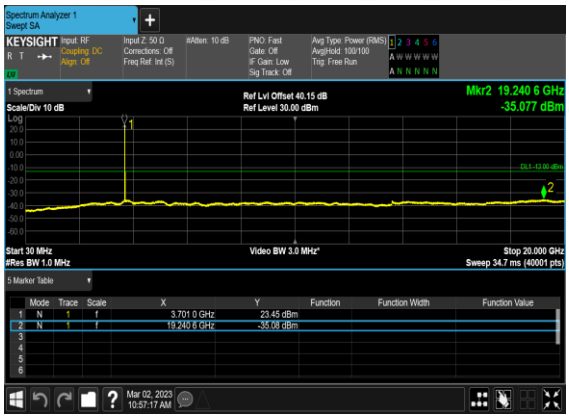
Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	647334	3710.01	CP-OFDM QPSK	1@0	see graph	**---**
77	30	20	647334	3710.01	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	20	647334	3710.01	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	20	647334	3710.01	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	20	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**---**
77	30	20	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	20	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	20	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM QPSK	1@0	see graph	**---**
77	30	20	664666	3969.99	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	20	664666	3969.99	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	60	648668	3730.02	CP-OFDM QPSK	1@0	see graph	**---**
77	30	60	648668	3730.02	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	60	648668	3730.02	CP-OFDM 16 QAM	1@0	see graph	**PASS**

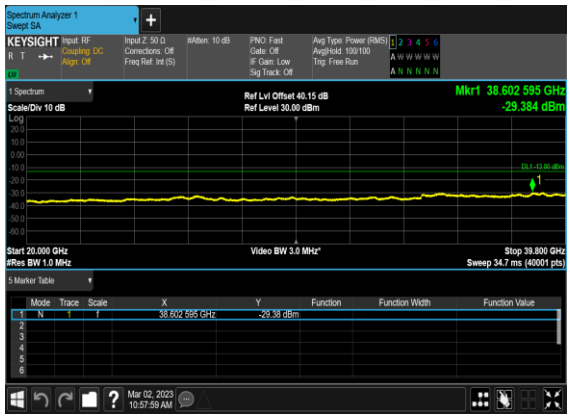
77	30	60	648668	3730.02	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	60	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**---**
77	30	60	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	60	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	60	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM QPSK	1@0	see graph	**---**
77	30	60	663332	3949.98	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	60	663332	3949.98	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM QPSK	1@0	see graph	**---**
77	30	100	650000	3750.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	100	650000	3750.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	100	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**---**
77	30	100	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	100	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	100	656000	3840.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**

77	30	100	662000	3930.0	CP-OFDM QPSK	1@0	see graph	**---**
77	30	100	662000	3930.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	CP-OFDM 16 QAM	1@0	see graph	**---**
77	30	100	662000	3930.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	100	662000	3930.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**

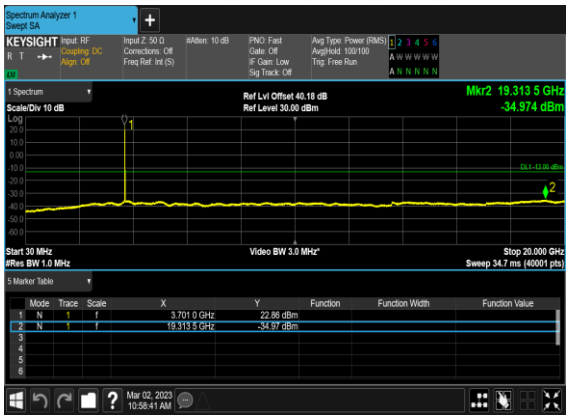
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH



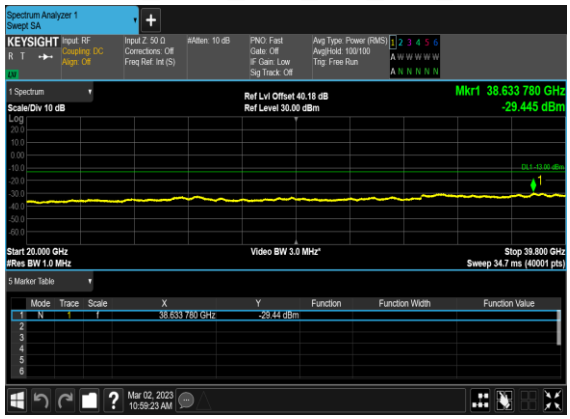
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH



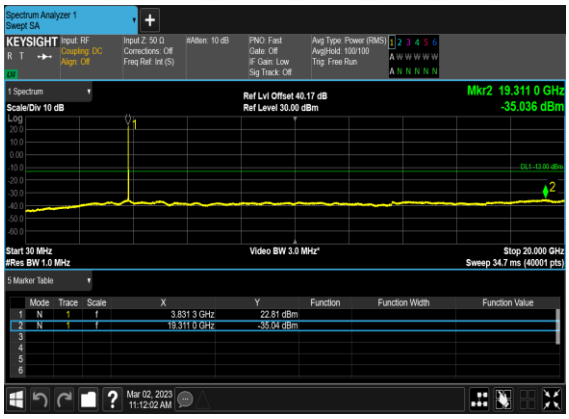
N77(20M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH



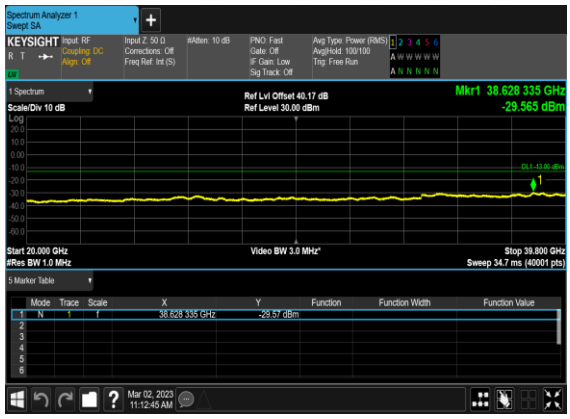
N77(20M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH



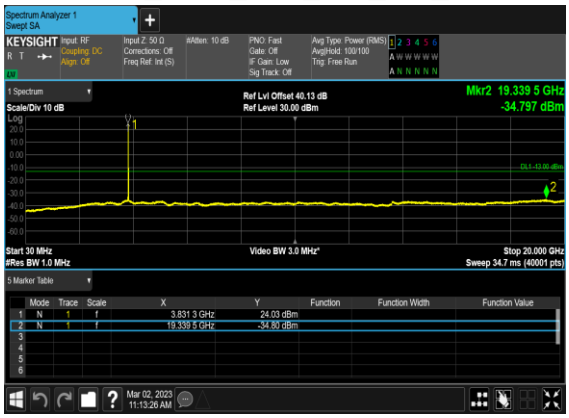
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Left_Mid_CH



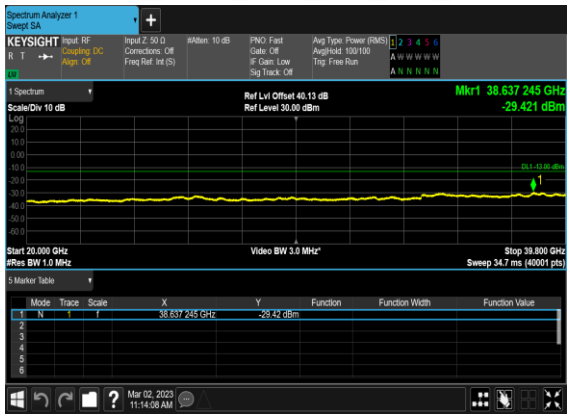
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Left_Mid_CH



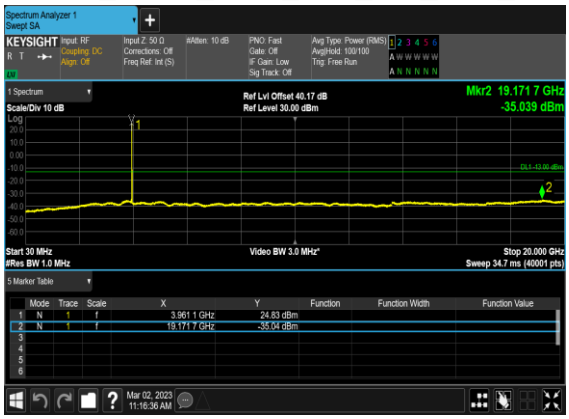
N77(20M)_CP-OFDM_16 QAM_Edge_1RB_Left_Mid_CH



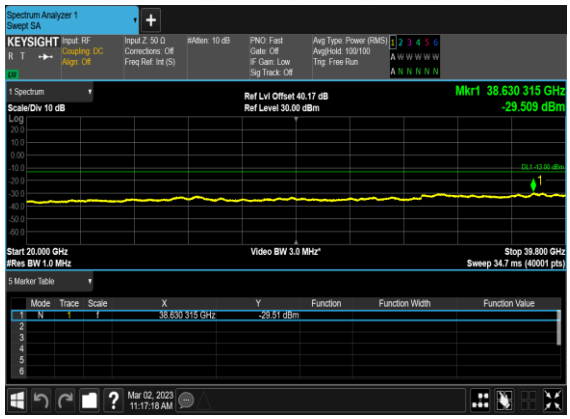
N77(20M)_CP-OFDM_16 QAM_Edge_1RB_Left_Mid_CH



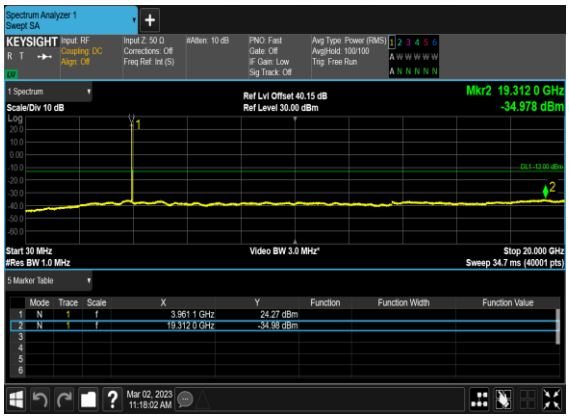
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Left_High_CH



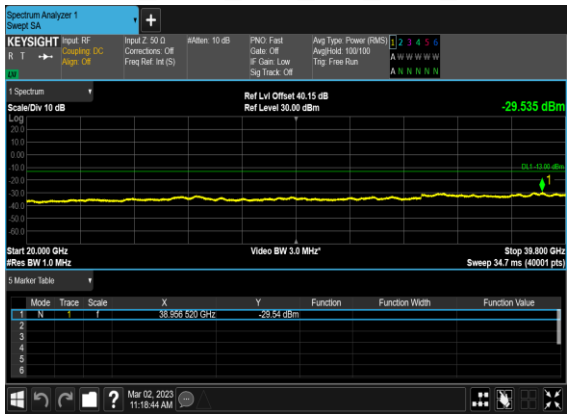
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Left_High_CH



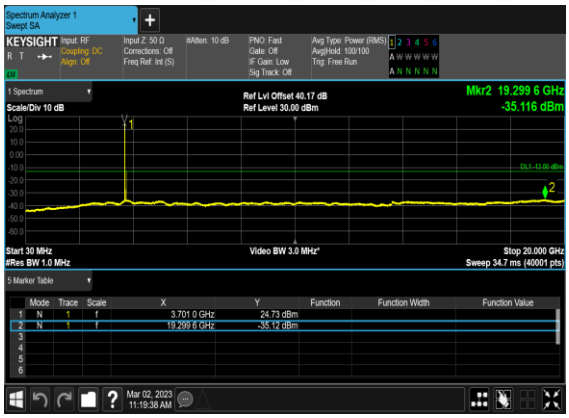
N77(20M)_CP-OFDM_16 QAM_Edge_1RB_Left_High_CH



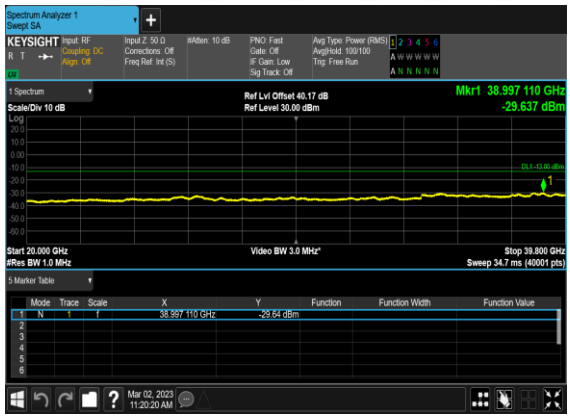
N77(20M)_CP-OFDM_16 QAM_Edge_1RB_Left_High_CH



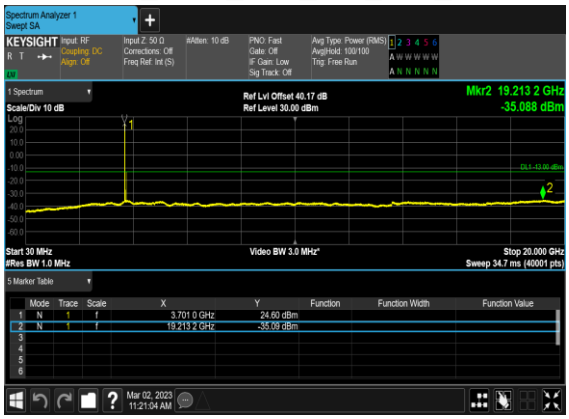
N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH



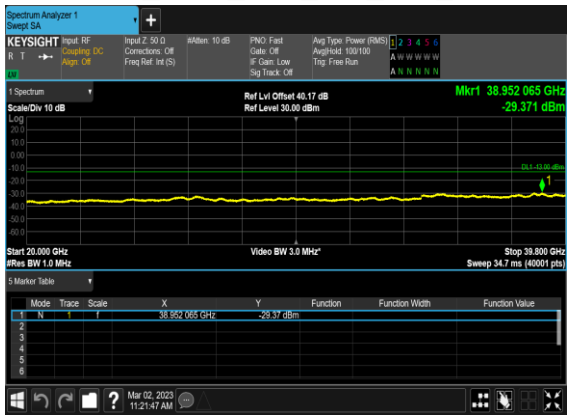
N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH



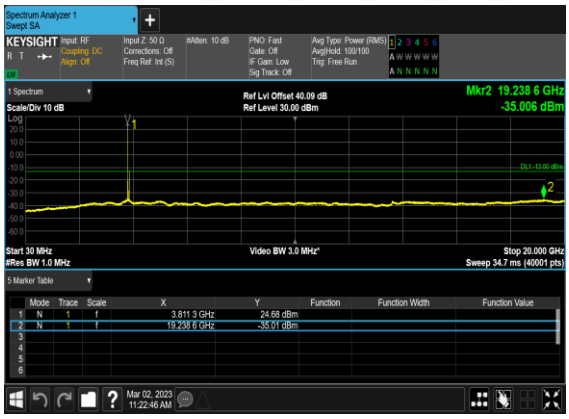
N77(60M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH



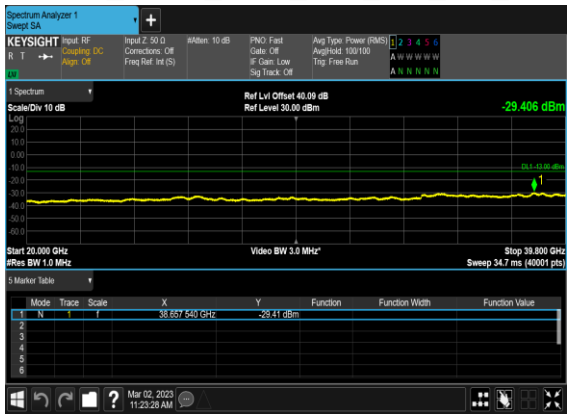
N77(60M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH



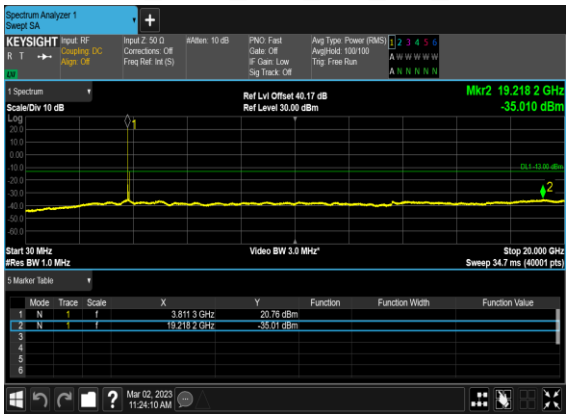
N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_Mid_CH



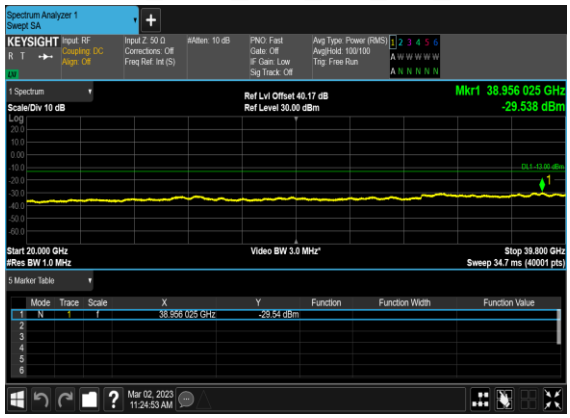
N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_Mid_CH



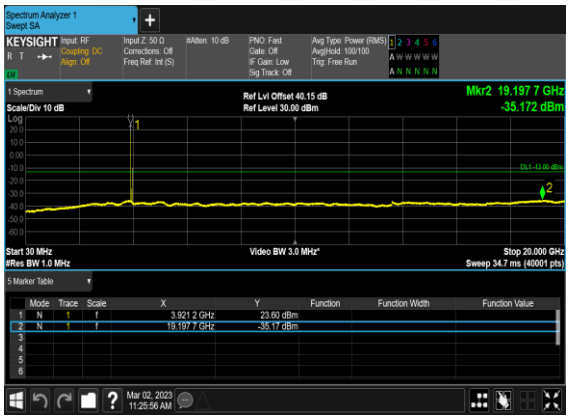
N77(60M)_CP-OFDM_16 QAM_Edge_1RB_Left_Mid_CH



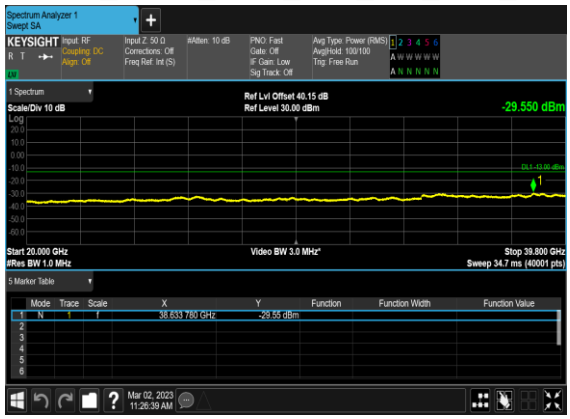
N77(60M)_CP-OFDM_16 QAM_Edge_1RB_Left_Mid_CH



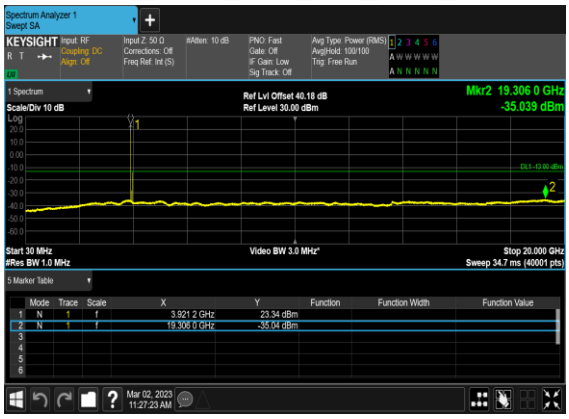
N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_High_CH



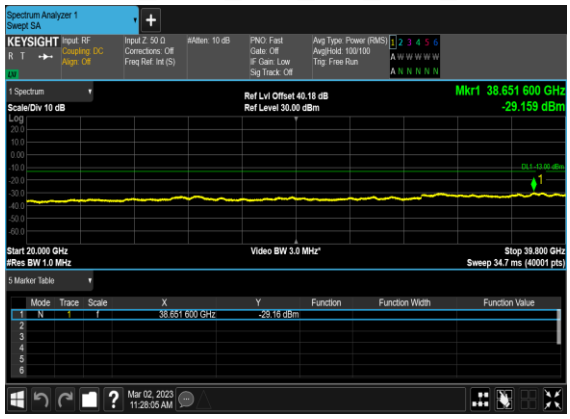
N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_High_CH



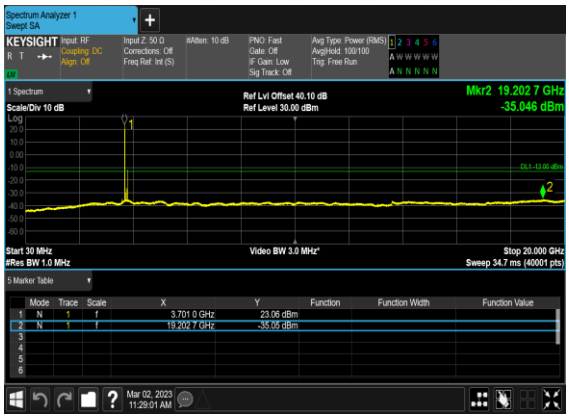
N77(60M)_CP-OFDM_16 QAM_Edge_1RB_Left_High_CH



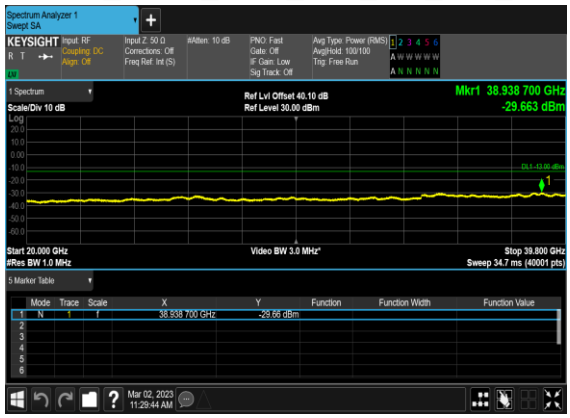
N77(60M)_CP-OFDM_16 QAM_Edge_1RB_Left_High_CH



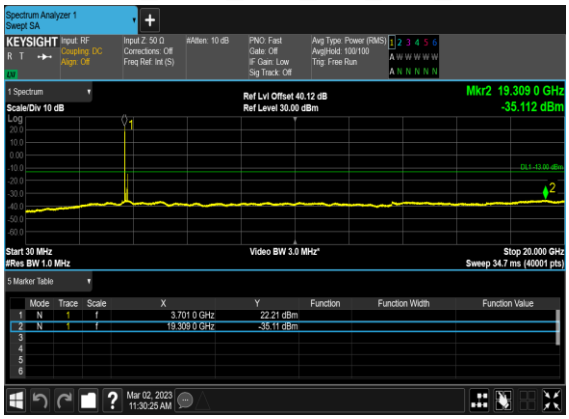
N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH



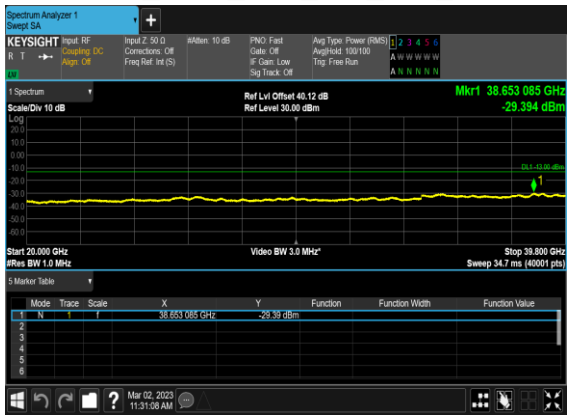
N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH



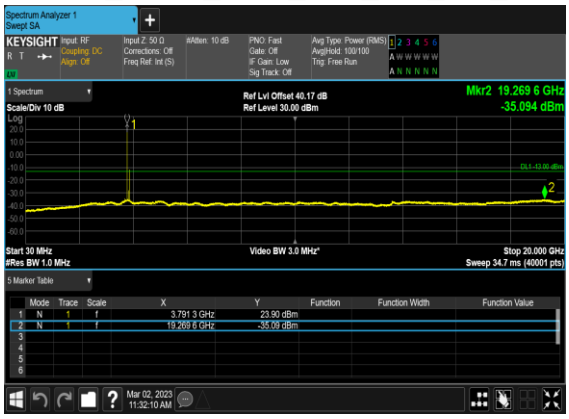
N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH



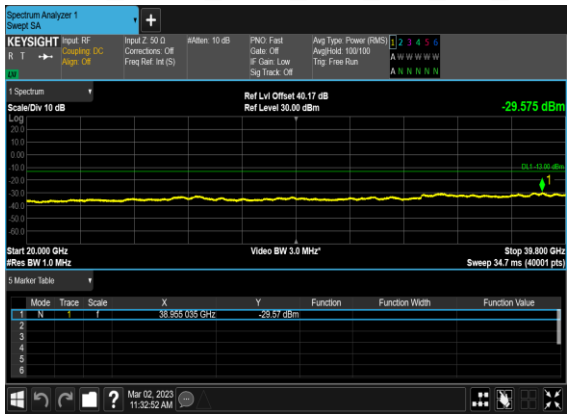
N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH



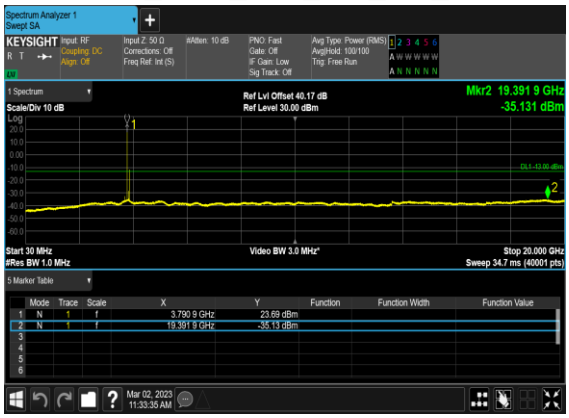
N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_Mid_CH



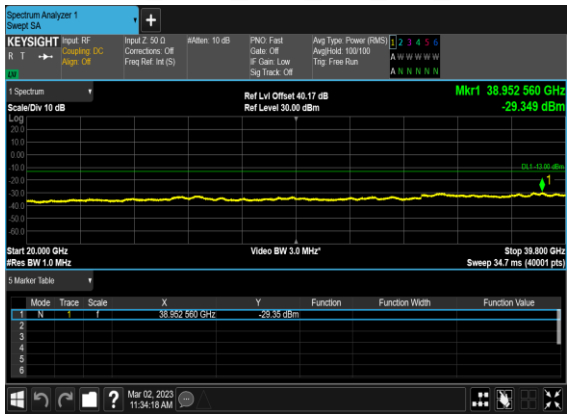
N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_Mid_CH



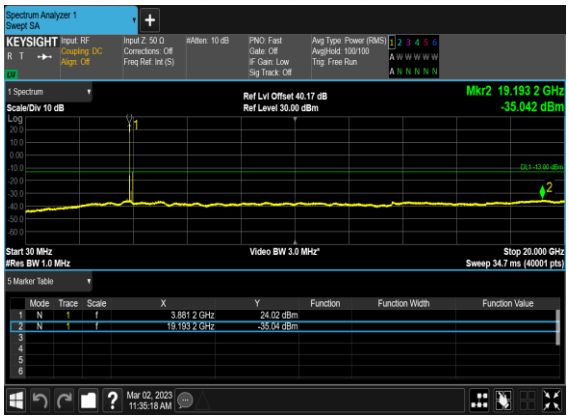
N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_Mid_CH



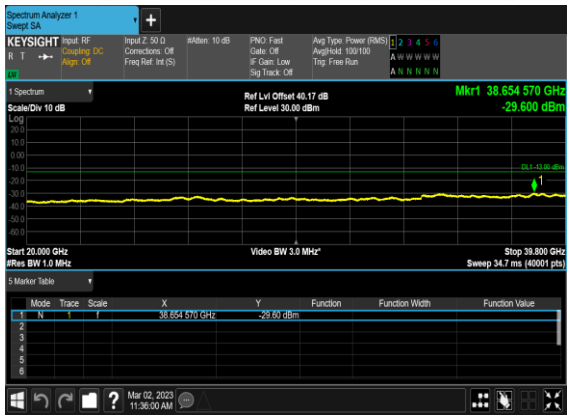
N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_Mid_CH



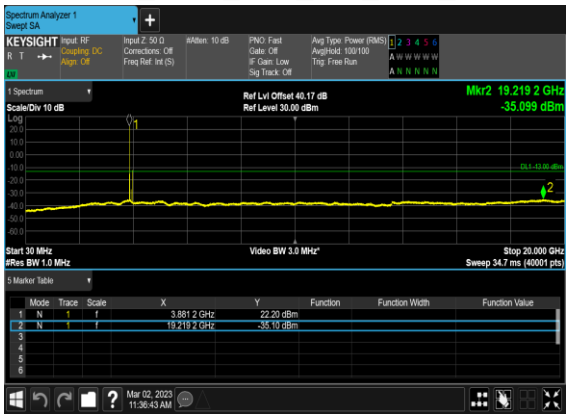
N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_High_CH



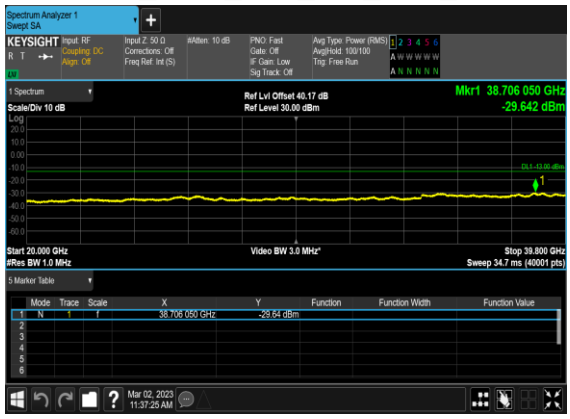
N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_High_CH



N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_High_CH



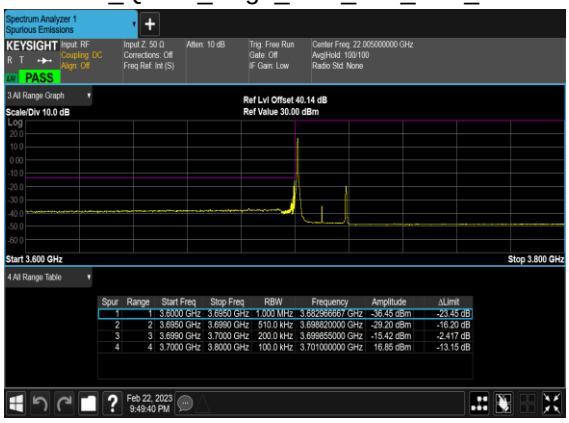
N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_High_CH



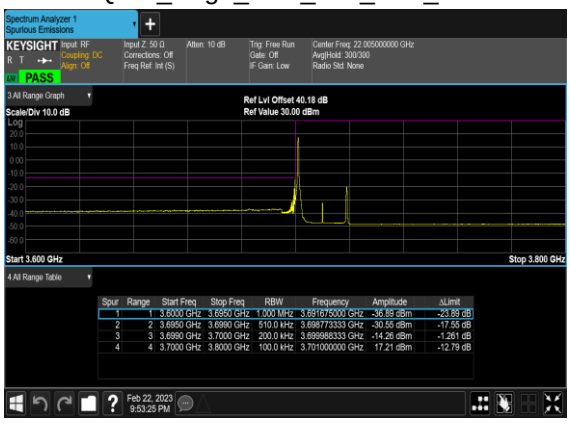
Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	647334	3710.01	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	20	647334	3710.01	CP-OFDM QPSK	51@0	see graph	**PASS**
77	30	20	647334	3710.01	CP-OFDM 16 QAM	51@0	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM QPSK	1@50	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM 16 QAM	1@50	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM QPSK	51@0	see graph	**PASS**
77	30	20	664666	3969.99	CP-OFDM 16 QAM	51@0	see graph	**PASS**
77	30	60	648668	3730.02	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	60	648668	3730.02	CP-OFDM QPSK	162@0	see graph	**PASS**
77	30	60	648668	3730.02	CP-OFDM 16 QAM	162@0	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM QPSK	1@161	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM 16 QAM	1@161	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM QPSK	162@0	see graph	**PASS**
77	30	60	663332	3949.98	CP-OFDM 16 QAM	162@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM 16 QAM	1@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM QPSK	273@0	see graph	**PASS**
77	30	100	650000	3750.0	CP-OFDM 16 QAM	273@0	see graph	**PASS**
77	30	100	662000	3930.0	CP-OFDM QPSK	1@272	see graph	**PASS**
77	30	100	662000	3930.0	CP-OFDM 16 QAM	1@272	see graph	**PASS**
77	30	100	662000	3930.0	CP-OFDM QPSK	273@0	see graph	**PASS**
77	30	100	662000	3930.0	CP-OFDM 16 QAM	273@0	see graph	**PASS**

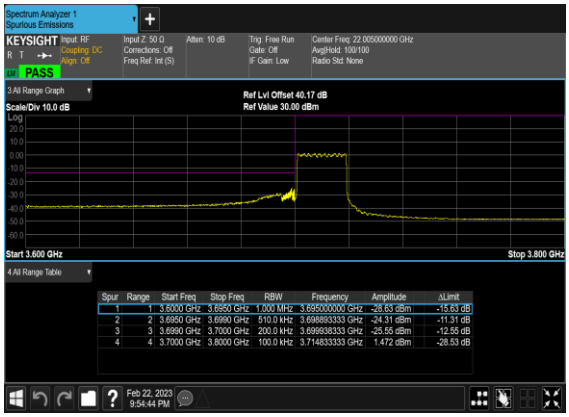
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH



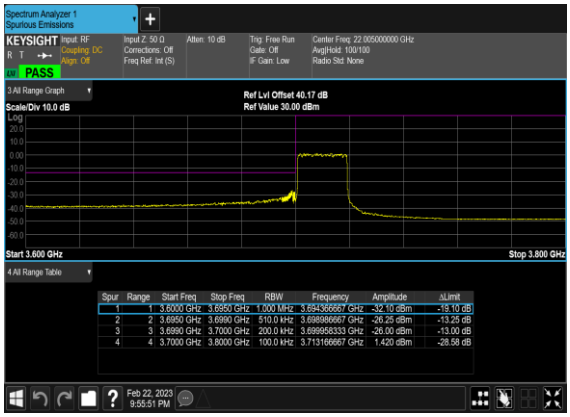
N77(20M)_CP-OFDM_16QAM_Edge_1RB_Left_Low_CH



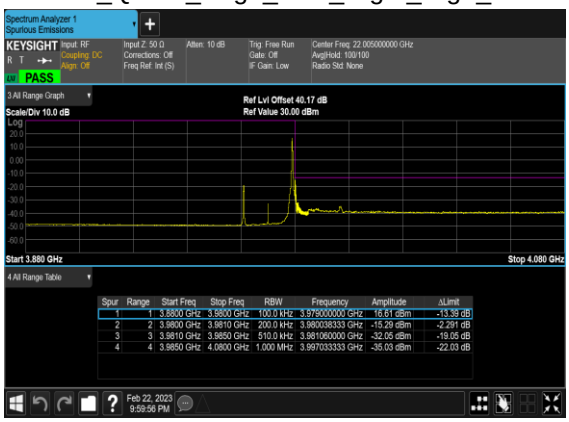
N77(20M)_CP-OFDM_QPSK_Outer_Full_Low_CH



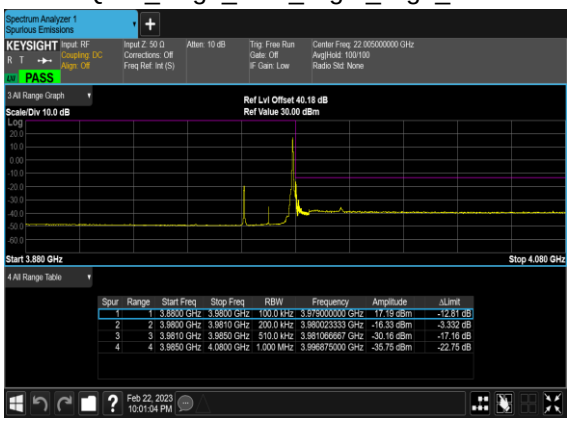
N77(20M)_CP-OFDM_16QAM_Outer_Full_Low_CH



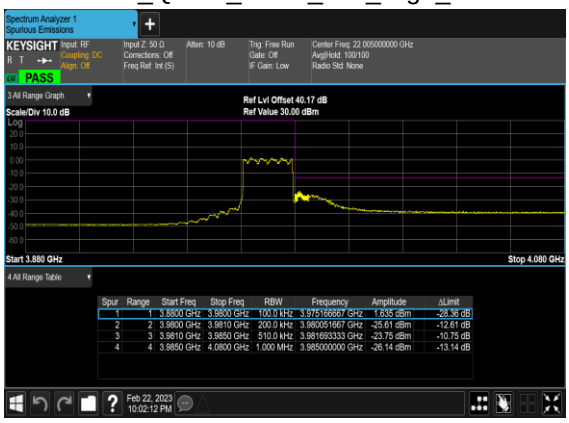
N77(20M)_CP-OFDM_QPSK_Edge_1RB_Right_High_CH



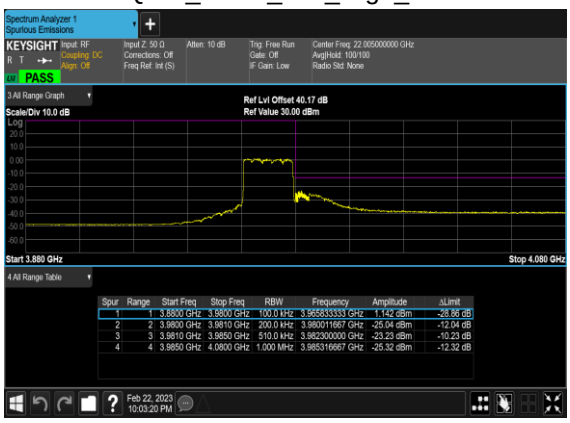
N77(20M)_CP-OFDM_16QAM_Edge_1RB_Right_High_CH



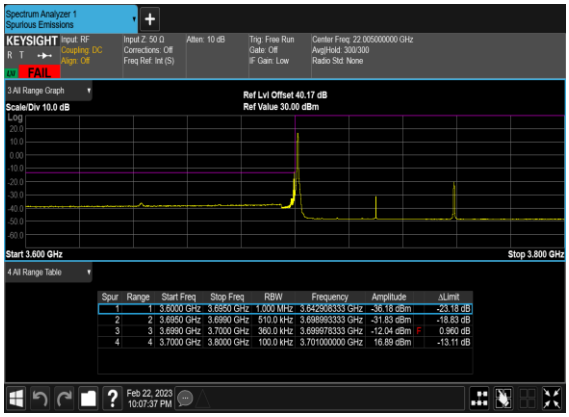
N77(20M)_CP-OFDM_QPSK_Outer_Full_High_CH



N77(20M)_CP-OFDM_16QAM_Outer_Full_High_CH

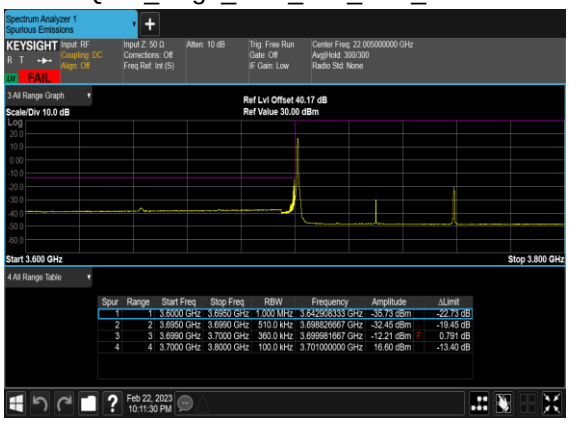


N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH

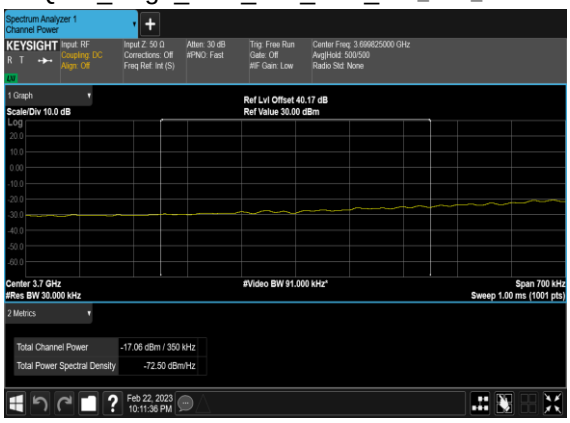


N77(60M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH_**CHP_PASS**

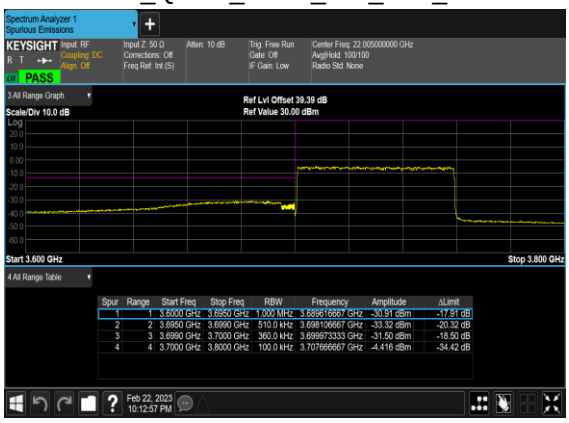
N77(60M)_CP-OFDM_16QAM_Edge_1RB_Left_Low_CH



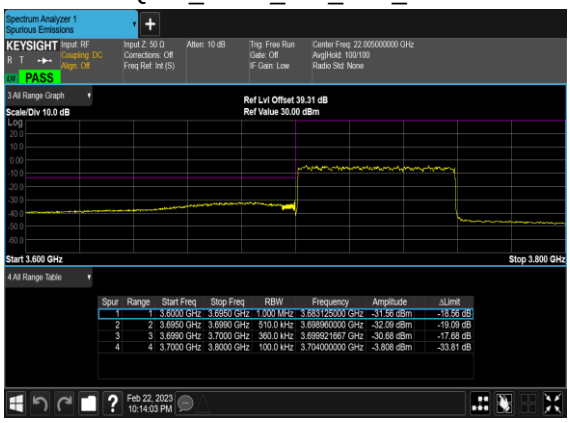
N77(60M)_CP-OFDM_16QAM_Edge_1RB_Left_Low_CH_**CHP_PASS**



N77(60M)_CP-OFDM_QPSK_Outer_Full_Low_CH



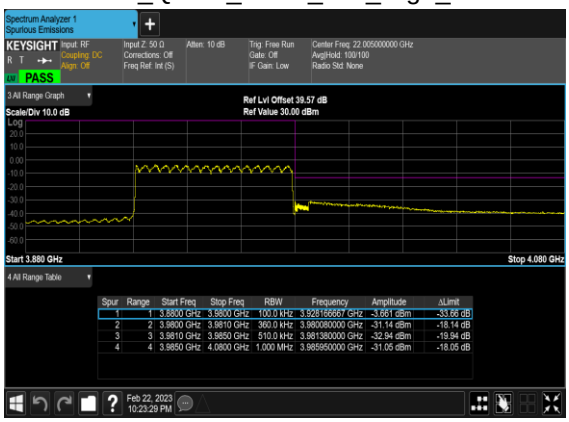
N77(60M)_CP-OFDM_16QAM_Outer_Full_Low_CH



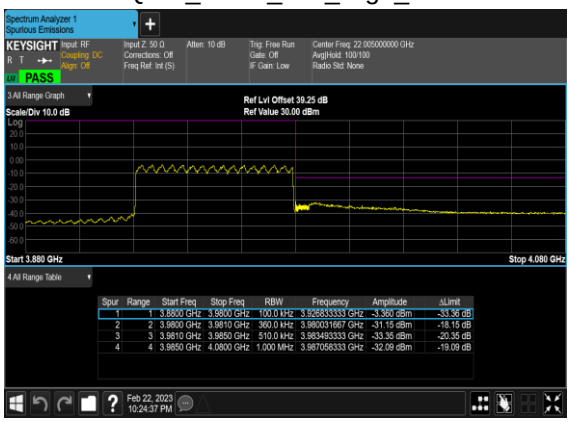
N77(60M)_CP-OFDM_QPSK_Edge_1RB_Right_High_CH

N77(60M)_CP-OFDM_16QAM_Edge_1RB_Right_High_CH

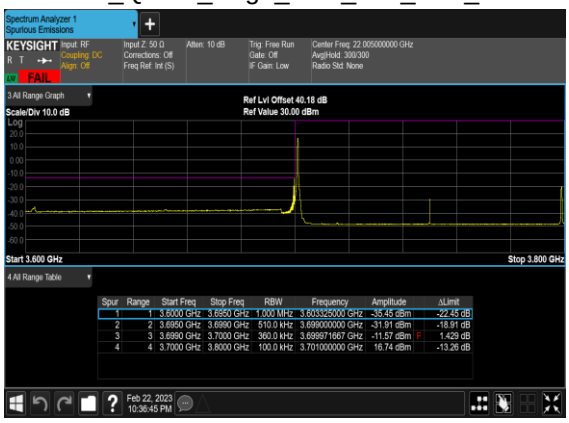
N77(60M)_CP-OFDM_QPSK_Outer_Full_High_CH



N77(60M)_CP-OFDM_16QAM_Outer_Full_High_CH



N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH

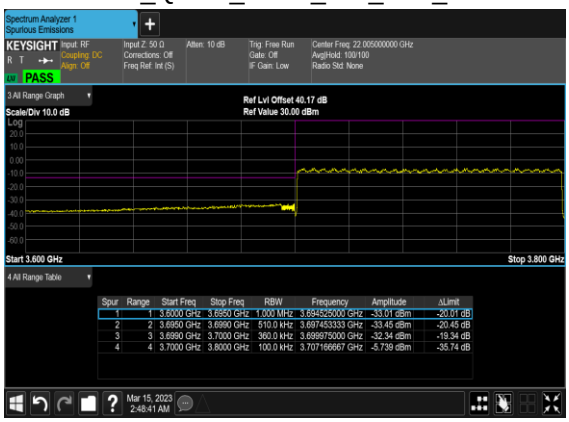


N77(100M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH_**CHP_PASS**

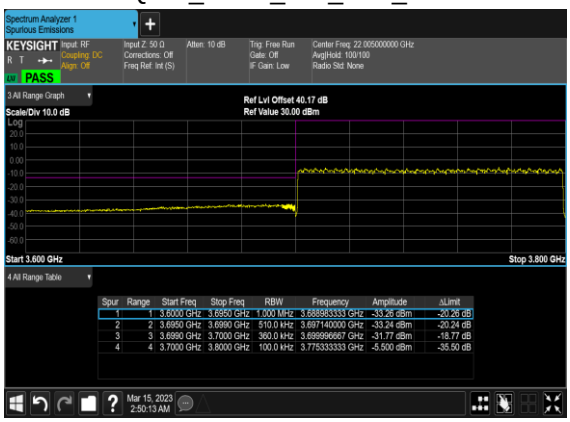
N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH

N77(100M)_CP-OFDM_16 QAM_Edge_1RB_Left_Low_CH_**CHP_PASS**

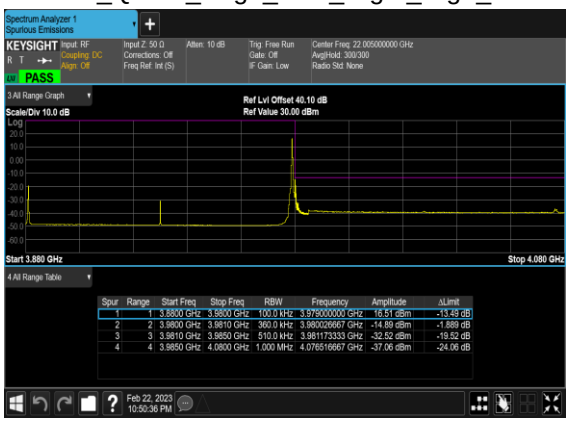
N77(100M)_CP-OFDM_QPSK_Outer_Full_Low_CH



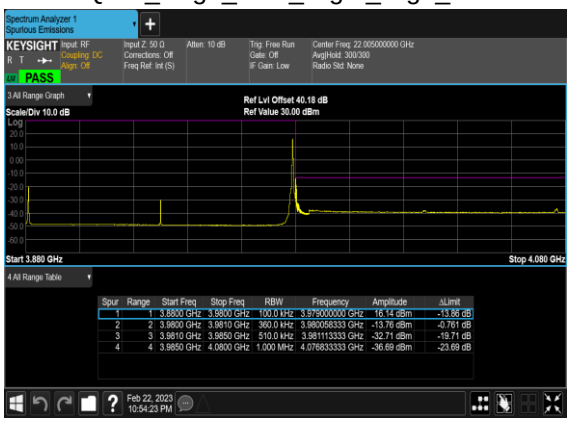
N77(100M)_CP-OFDM_16 QAM_Outer_Full_Low_CH



N77(100M)_CP-OFDM_QPSK_Edge_1RB_Right_High_CH



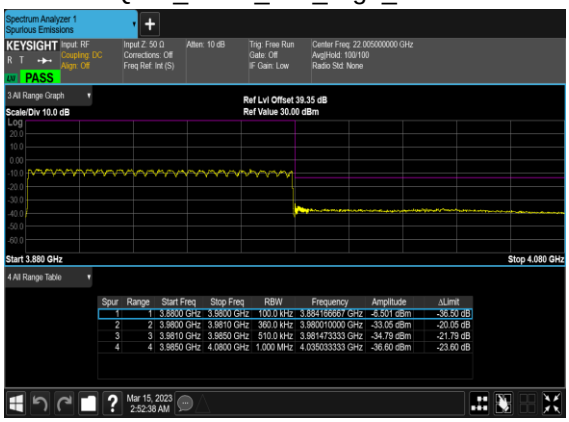
N77(100M)_CP-OFDM_16QAM_Edge_1RB_Right_High_CH



N77(100M)_CP-OFDM_16QAM_Edge_1RB_Right_High_CH_**CHP_PASS**

N77(100M)_CP-OFDM_QPSK_Outer_Full_High_CH

N77(100M)_CP-OFDM_16QAM_Outer_Full_High_CH



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Carry Xu	Temperature :	23~25℃
		Relative Humidity :	41~42%

Note: Pre-scanned harmonic for the different antenna combinations, we choose the worst antenna mode to perform final test.

Sample 1 :

n77 SA / NR 100MHz / QPSK / ANT5								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7404	-62.29	-13	-49.29	-72.50	3.03	13.24	H
	11112	-59.29	-13	-46.29	-68.74	3.56	13.01	H
	14820	-58.29	-13	-45.29	-67.81	3.92	13.44	H
	7404	-59.24	-13	-46.24	-69.45	3.03	13.24	V
	11112	-59.62	-13	-46.62	-69.07	3.56	13.01	V
	14820	-57.76	-13	-44.76	-67.28	3.92	13.44	V
Middle	7590	-61.85	-13	-48.85	-72.06	3.03	13.24	H
	11388	-60.95	-13	-47.95	-70.40	3.56	13.01	H
	15180	-57.56	-13	-44.56	-67.08	3.92	13.44	H
	7590	-61.54	-13	-48.54	-71.75	3.03	13.24	V
	11388	-60.59	-13	-47.59	-70.04	3.56	13.01	V
	15180	-57.84	-13	-44.84	-67.36	3.92	13.44	V
Highest	7770	-61.60	-13	-48.60	-71.81	3.03	13.24	H
	11652	-59.55	-13	-46.55	-69.00	3.56	13.01	H
	15540	-57.99	-13	-44.99	-67.51	3.92	13.44	H
	7770	-61.58	-13	-48.58	-71.79	3.03	13.24	V
	11652	-59.74	-13	-46.74	-69.19	3.56	13.01	V
	15540	-57.75	-13	-44.75	-67.27	3.92	13.44	V

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

EN-DC_13A_n77A / LTE 10MHz + NR 100MHz / QPSK / ANT0(LTE) & ANT5(NR)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7416	-62.47	-13	-49.47	-72.68	3.03	13.24	H
	11112	-60.88	-13	-47.88	-70.33	3.56	13.01	H
	14820	-58.73	-13	-45.73	-68.25	3.92	13.44	H
	7416	-62.26	-13	-49.26	-72.47	3.03	13.24	V
	11112	-60.47	-13	-47.47	-69.92	3.56	13.01	V
	14820	-58.92	-13	-45.92	-68.44	3.92	13.44	V
Middle	7584	-62.37	-13	-49.37	-72.58	3.03	13.24	H
	11388	-60.20	-13	-47.20	-69.65	3.56	13.01	H
	15180	-58.42	-13	-45.42	-67.94	3.92	13.44	H
	7584	-62.48	-13	-49.48	-72.69	3.03	13.24	V
	11388	-60.33	-13	-47.33	-69.78	3.56	13.01	V
	15180	-58.80	-13	-45.80	-68.32	3.92	13.44	V
Highest	7776	-62.56	-13	-49.56	-72.77	3.03	13.24	H
	11652	-59.86	-13	-46.86	-69.31	3.56	13.01	H
	15540	-58.74	-13	-45.74	-68.26	3.92	13.44	H
	7776	-62.20	-13	-49.20	-72.41	3.03	13.24	V
	11652	-59.83	-13	-46.83	-69.28	3.56	13.01	V
	15540	-58.59	-13	-45.59	-68.11	3.92	13.44	V

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

n77 UL MIMO / NR 100+100MHz / QPSK / ANT5+1								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7410	-61.90	-13	-48.90	-72.11	3.03	13.24	H
	11112	-59.23	-13	-46.23	-68.68	3.56	13.01	H
	14820	-57.90	-13	-44.90	-67.42	3.92	13.44	H
	7410	-61.97	-13	-48.97	-72.18	3.03	13.24	V
	11112	-59.62	-13	-46.62	-69.07	3.56	13.01	V
	14820	-57.95	-13	-44.95	-67.47	3.92	13.44	V
Middle	7590	-61.88	-13	-48.88	-72.09	3.03	13.24	H
	11388	-60.84	-13	-47.84	-70.29	3.56	13.01	H
	15180	-57.50	-13	-44.50	-67.02	3.92	13.44	H
	7590	-62.78	-13	-49.78	-72.99	3.03	13.24	V
	11388	-61.63	-13	-48.63	-71.08	3.56	13.01	V
	15180	-57.77	-13	-44.77	-67.29	3.92	13.44	V
Highest	7770	-60.86	-13	-47.86	-71.07	3.03	13.24	H
	11652	-59.53	-13	-46.53	-68.98	3.56	13.01	H
	15540	-58.04	-13	-45.04	-67.56	3.92	13.44	H
	7770	-61.16	-13	-48.16	-71.37	3.03	13.24	V
	11652	-59.67	-13	-46.67	-69.12	3.56	13.01	V
	15540	-57.94	-13	-44.94	-67.46	3.92	13.44	V

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

Sample 2:

n77 UL MIMO / NR 100+100MHz / QPSK / ANT5+1								
Channel	**Frequency (MHz)**	**EIRP (dBm)**	**Limit (dBm)**	**Over Limit (dB)**	**S.G. Power (dBm)**	**TX Cable loss (dB)**	**TX Antenna Gain (dBi)**	**Polarization (H/V)**
Lowest	7416	-63.55	-13	-50.55	-73.76	3.03	13.24	H
	11112	-61.27	-13	-48.27	-70.72	3.56	13.01	H
	14820	-59.67	-13	-46.67	-69.19	3.92	13.44	H
	7416	-63.36	-13	-50.36	-73.57	3.03	13.24	V
	11112	-60.94	-13	-47.94	-70.39	3.56	13.01	V
	14820	-59.09	-13	-46.09	-68.61	3.92	13.44	V
Middle	7596	-63.26	-13	-50.26	-73.47	3.03	13.24	H
	11388	-61.05	-13	-48.05	-70.50	3.56	13.01	H
	15180	-58.87	-13	-45.87	-68.39	3.92	13.44	H
	7596	-63.08	-13	-50.08	-73.29	3.03	13.24	V
	11388	-61.01	-13	-48.01	-70.46	3.56	13.01	V
	15180	-58.92	-13	-45.92	-68.44	3.92	13.44	V
Highest	7776	-62.81	-13	-49.81	-73.02	3.03	13.24	H
	11652	-60.21	-13	-47.21	-69.66	3.56	13.01	H
	15540	-58.56	-13	-45.56	-68.08	3.92	13.44	H
	7776	-62.82	-13	-49.82	-73.03	3.03	13.24	V
	11652	-59.99	-13	-46.99	-69.44	3.56	13.01	V
	15540	-58.60	-13	-45.60	-68.12	3.92	13.44	V

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