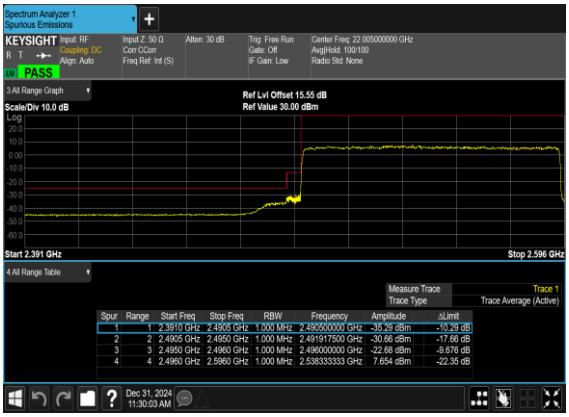
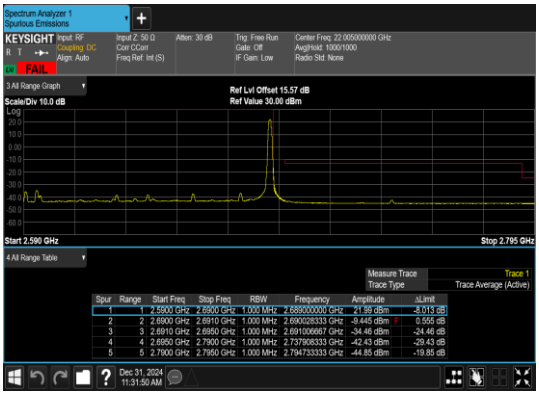
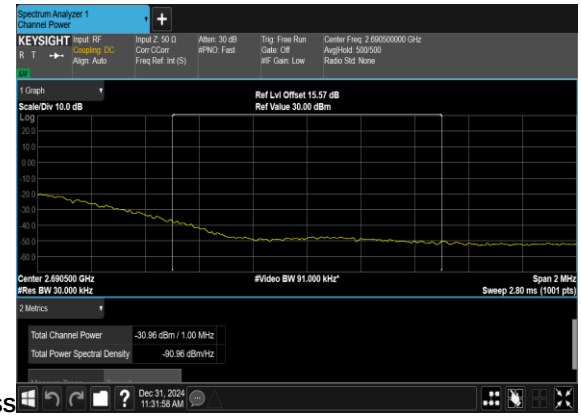
N41(100M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



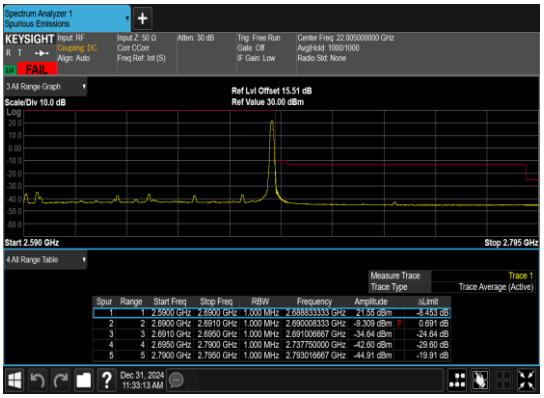
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



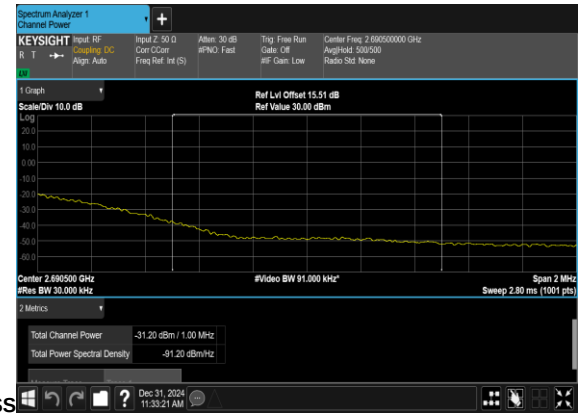
N41(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH_CHP_PASS



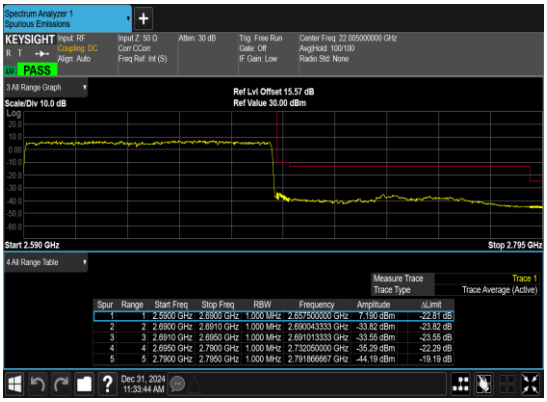
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



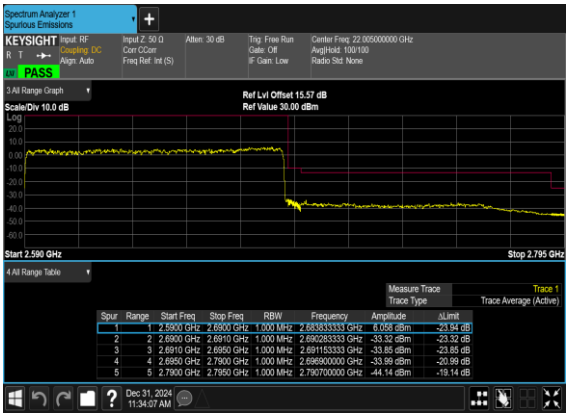
N41(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH_CHP_PASS



N41(100M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



N41(100M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



Software Version: 23.06.1602

FR1 N77

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-0.44dB

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	25@12	23.4	22.96	0.1977
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@1	23.4	22.96	0.1977
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@49	23.35	22.91	0.1954
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	25@12	22.55	22.11	0.1626
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	1@1	22.41	21.97	0.1574
77	30	20	647334	3710.01	DFT-s-OFDM 16 QAM	1@49	22.35	21.91	0.1552
77	30	20	656000	3840	DFT-s-OFDM QPSK	25@12	23.45	23.01	0.2000
77	30	20	656000	3840	DFT-s-OFDM QPSK	1@1	23.47	23.03	0.2009
77	30	20	656000	3840	DFT-s-OFDM QPSK	1@49	23.33	22.89	0.1945
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	25@12	22.4	21.96	0.1570
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.55	22.11	0.1626
77	30	20	656000	3840	DFT-s-OFDM 16 QAM	1@49	22.42	21.98	0.1578
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	25@12	23.18	22.74	0.1879
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@1	23.09	22.65	0.1841
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@49	23.15	22.71	0.1866
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	25@12	22.22	21.78	0.1507
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	1@1	22.13	21.69	0.1476
77	30	20	664666	3969.99	DFT-s-OFDM 16 QAM	1@49	22.22	21.78	0.1507
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	36@18	23.31	22.87	0.1936
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	1@1	23.31	22.87	0.1936
77	30	30	647668	3715.02	DFT-s-OFDM QPSK	1@76	23.22	22.78	0.1897
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	36@18	22.3	21.86	0.1535
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	1@1	22.34	21.9	0.1549
77	30	30	647668	3715.02	DFT-s-OFDM 16 QAM	1@76	22.26	21.82	0.1521
77	30	30	656000	3840	DFT-s-OFDM QPSK	36@18	23.35	22.91	0.1954
77	30	30	656000	3840	DFT-s-OFDM	1@1	23.45	23.01	0.2000

					QPSK				
77	30	30	656000	3840	DFT-s-OFDM QPSK	1@76	23.2	22.76	0.1888
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	36@18	22.34	21.9	0.1549
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.45	22.01	0.1589
77	30	30	656000	3840	DFT-s-OFDM 16 QAM	1@76	22.18	21.74	0.1493
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	36@18	22.92	22.48	0.1770
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	1@1	22.86	22.42	0.1746
77	30	30	664332	3964.98	DFT-s-OFDM QPSK	1@76	23.03	22.59	0.1816
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	36@18	21.96	21.52	0.1419
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	1@1	21.84	21.4	0.1380
77	30	30	664332	3964.98	DFT-s-OFDM 16 QAM	1@76	22	21.56	0.1432
77	30	40	648000	3720	DFT-s-OFDM QPSK	50@25	23.19	22.75	0.1884
77	30	40	648000	3720	DFT-s-OFDM QPSK	1@1	23.29	22.85	0.1928
77	30	40	648000	3720	DFT-s-OFDM QPSK	1@104	23.26	22.82	0.1914
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	50@25	22.31	21.87	0.1538
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	1@1	22.26	21.82	0.1521
77	30	40	648000	3720	DFT-s-OFDM 16 QAM	1@104	22.29	21.85	0.1531
77	30	40	656000	3840	DFT-s-OFDM QPSK	50@25	23.37	22.93	0.1963
77	30	40	656000	3840	DFT-s-OFDM QPSK	1@1	23.43	22.99	0.1991
77	30	40	656000	3840	DFT-s-OFDM QPSK	1@104	23.14	22.7	0.1862
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	50@25	22.41	21.97	0.1574
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.44	22	0.1585
77	30	40	656000	3840	DFT-s-OFDM 16 QAM	1@104	22.17	21.73	0.1489
77	30	40	664000	3960	DFT-s-OFDM QPSK	50@25	23.02	22.58	0.1811
77	30	40	664000	3960	DFT-s-OFDM QPSK	1@1	22.87	22.43	0.1750
77	30	40	664000	3960	DFT-s-OFDM QPSK	1@104	23.09	22.65	0.1841
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	50@25	22.02	21.58	0.1439
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	1@1	21.89	21.45	0.1396
77	30	40	664000	3960	DFT-s-OFDM 16 QAM	1@104	22.05	21.61	0.1449
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	81@40	23.26	22.82	0.1914
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@1	23.18	22.74	0.1879

77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@160	23.23	22.79	0.1901
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	81@40	22.31	21.87	0.1538
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	1@1	22.17	21.73	0.1489
77	30	60	648668	3730.02	DFT-s-OFDM 16 QAM	1@160	22.24	21.8	0.1514
77	30	60	656000	3840	DFT-s-OFDM QPSK	81@40	23.37	22.93	0.1963
77	30	60	656000	3840	DFT-s-OFDM QPSK	1@1	23.36	22.92	0.1959
77	30	60	656000	3840	DFT-s-OFDM QPSK	1@160	22.96	22.52	0.1786
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	81@40	22.41	21.97	0.1574
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.38	21.94	0.1563
77	30	60	656000	3840	DFT-s-OFDM 16 QAM	1@160	21.96	21.52	0.1419
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	81@40	22.99	22.55	0.1799
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@1	22.76	22.32	0.1706
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@160	23.11	22.67	0.1849
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	81@40	22.07	21.63	0.1455
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	1@1	21.76	21.32	0.1355
77	30	60	663332	3949.98	DFT-s-OFDM 16 QAM	1@160	22.07	21.63	0.1455
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	108@54	23.33	22.89	0.1945
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	1@1	23.46	23.02	0.2004
77	30	80	649334	3740.01	DFT-s-OFDM QPSK	1@215	23.4	22.96	0.1977
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	108@54	22.37	21.93	0.1560
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	1@1	22.45	22.01	0.1589
77	30	80	649334	3740.01	DFT-s-OFDM 16 QAM	1@215	22.38	21.94	0.1563
77	30	80	656000	3840	DFT-s-OFDM QPSK	108@54	23.44	23	0.1995
77	30	80	656000	3840	DFT-s-OFDM QPSK	1@1	23.52	23.08	0.2032
77	30	80	656000	3840	DFT-s-OFDM QPSK	1@215	22.91	22.47	0.1766
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	108@54	22.42	21.98	0.1578
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.52	22.08	0.1614
77	30	80	656000	3840	DFT-s-OFDM 16 QAM	1@215	21.92	21.48	0.1406
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	108@54	22.98	22.54	0.1795
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	1@1	22.89	22.45	0.1758
77	30	80	662666	3939.99	DFT-s-OFDM QPSK	1@215	23.15	22.71	0.1866

77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	108@54	22.01	21.57	0.1435
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	1@1	21.94	21.5	0.1413
77	30	80	662666	3939.99	DFT-s-OFDM 16 QAM	1@215	22.15	21.71	0.1483
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	135@67	23.24	22.8	0.1905
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@1	23.51	23.07	0.2028
77	30	100	650000	3750	DFT-s-OFDM PI/2 BPSK	1@271	23.53	23.09	0.2037
77	30	100	650000	3750	DFT-s-OFDM QPSK	135@67	23.3	22.86	0.1932
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@1	23.49	23.05	0.2018
77	30	100	650000	3750	DFT-s-OFDM QPSK	1@271	23.54	23.1	0.2042
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	135@67	22.36	21.92	0.1556
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@1	22.61	22.17	0.1648
77	30	100	650000	3750	DFT-s-OFDM 16 QAM	1@271	22.57	22.13	0.1633
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	135@67	20.87	20.43	0.1104
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@1	20.83	20.39	0.1094
77	30	100	650000	3750	DFT-s-OFDM 64 QAM	1@271	20.98	20.54	0.1132
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	135@67	18.88	18.44	0.0698
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@1	18.7	18.26	0.0670
77	30	100	650000	3750	DFT-s-OFDM 256 QAM	1@271	18.84	18.4	0.0692
77	30	100	650000	3750	CP-OFDM QPSK	137@68	21.78	21.34	0.1361
77	30	100	650000	3750	CP-OFDM QPSK	1@1	21.94	21.5	0.1413
77	30	100	650000	3750	CP-OFDM QPSK	1@271	21.98	21.54	0.1426
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	135@67	23.3	22.86	0.1932
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@1	23.43	22.99	0.1991
77	30	100	656000	3840	DFT-s-OFDM PI/2 BPSK	1@271	22.74	22.3	0.1698
77	30	100	656000	3840	DFT-s-OFDM QPSK	135@67	23.36	22.92	0.1959
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@1	23.4	22.96	0.1977
77	30	100	656000	3840	DFT-s-OFDM QPSK	1@271	22.76	22.32	0.1706
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	135@67	22.41	21.97	0.1574
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@1	22.43	21.99	0.1581
77	30	100	656000	3840	DFT-s-OFDM 16 QAM	1@271	21.82	21.38	0.1374
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	135@67	21.03	20.59	0.1146
77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@1	20.85	20.41	0.1099

77	30	100	656000	3840	DFT-s-OFDM 64 QAM	1@271	20.29	19.85	0.0966
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	135@67	19.02	18.58	0.0721
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	1@1	18.74	18.3	0.0676
77	30	100	656000	3840	DFT-s-OFDM 256 QAM	1@271	18.22	17.78	0.0600
77	30	100	656000	3840	CP-OFDM QPSK	137@68	21.85	21.41	0.1384
77	30	100	656000	3840	CP-OFDM QPSK	1@1	21.84	21.4	0.1380
77	30	100	656000	3840	CP-OFDM QPSK	1@271	21.33	20.89	0.1227
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	135@67	22.87	22.43	0.1750
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@1	23.04	22.6	0.1820
77	30	100	662000	3930	DFT-s-OFDM PI/2 BPSK	1@271	23	22.56	0.1803
77	30	100	662000	3930	DFT-s-OFDM QPSK	135@67	22.92	22.48	0.1770
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@1	23.13	22.69	0.1858
77	30	100	662000	3930	DFT-s-OFDM QPSK	1@271	23.1	22.66	0.1845
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	135@67	21.9	21.46	0.1400
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@1	22.14	21.7	0.1479
77	30	100	662000	3930	DFT-s-OFDM 16 QAM	1@271	22.13	21.69	0.1476
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	135@67	20.54	20.1	0.1023
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@1	20.65	20.21	0.1050
77	30	100	662000	3930	DFT-s-OFDM 64 QAM	1@271	20.59	20.15	0.1035
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	135@67	18.56	18.12	0.0649
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@1	18.54	18.1	0.0646
77	30	100	662000	3930	DFT-s-OFDM 256 QAM	1@271	18.41	17.97	0.0627
77	30	100	662000	3930	CP-OFDM QPSK	137@68	21.35	20.91	0.1233
77	30	100	662000	3930	CP-OFDM QPSK	1@1	21.57	21.13	0.1297
77	30	100	662000	3930	CP-OFDM QPSK	1@271	21.53	21.09	0.1285

Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (Hz)	Verdict	Environment
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	15.6	**PASS**	NV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-15.1	**PASS**	LV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	12.1	**PASS**	HV
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	11.1	**PASS**	-30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-12.6	**PASS**	-20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	13.2	**PASS**	-10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-16.9	**PASS**	0℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	12.1	**PASS**	10℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	15.6	**PASS**	20℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	-12	**PASS**	30℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	11.1	**PASS**	40℃
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	14.5	**PASS**	50℃

|MAX(△f)| = 16.9 Hz

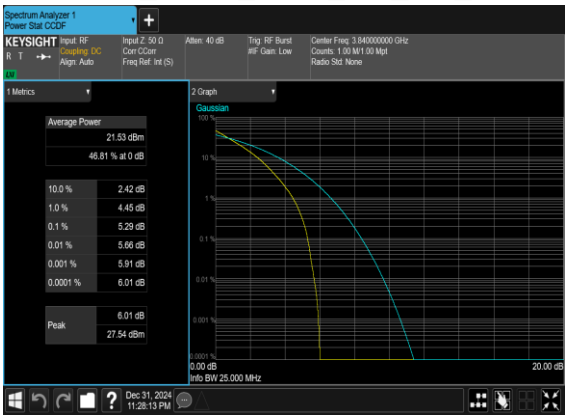
Frequency Stability	Frequency (MHz)	Limit Line	Result
f_L – |MAX(△f)|	3700.8591831	≧ 3700 MHz	PASS
f_H + |MAX(△f)|	3979.7013169	≦ 3980 MHz	

Peak to Average Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
77	30	20	656000	3840.0	DFT-s-OFDM PI/2 BPSK	50@0	4.21	13	**PASS**
77	30	20	656000	3840.0	DFT-s-OFDM QPSK	50@0	5.29	13	**PASS**

N77(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Mid_CH

N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH

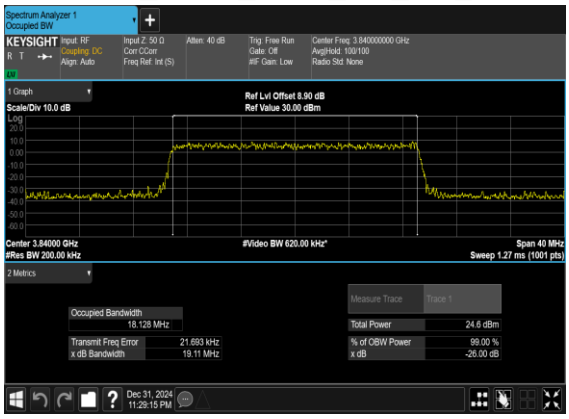


Occupied Bandwidth

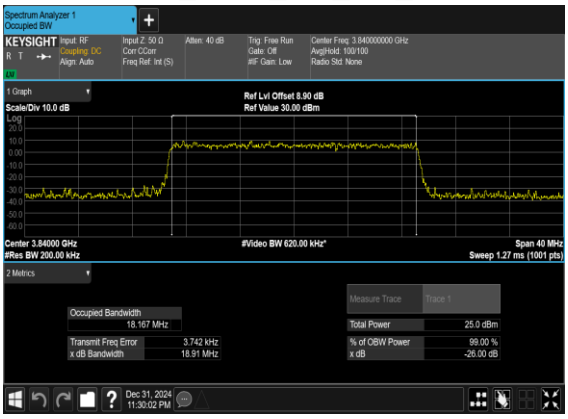
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
77	30	20	656000	3840.0	CP-OFDM QPSK	51@0	18.128	19.11
77	30	20	656000	3840.0	CP-OFDM 16 QAM	51@0	18.167	18.91
77	30	20	656000	3840.0	CP-OFDM 64 QAM	51@0	18.178	18.96
77	30	20	656000	3840.0	CP-OFDM 256 QAM	51@0	18.22	19.04
77	30	30	656000	3840.0	CP-OFDM QPSK	78@0	27.872	28.83
77	30	30	656000	3840.0	CP-OFDM 16 QAM	78@0	27.853	29.06
77	30	30	656000	3840.0	CP-OFDM 64 QAM	78@0	27.794	29.14
77	30	30	656000	3840.0	CP-OFDM 256 QAM	78@0	27.9	29.05
77	30	40	656000	3840.0	CP-OFDM QPSK	106@0	37.867	39.29
77	30	40	656000	3840.0	CP-OFDM 16 QAM	106@0	37.789	39.14
77	30	40	656000	3840.0	CP-OFDM 64 QAM	106@0	37.901	39.11
77	30	40	656000	3840.0	CP-OFDM 256 QAM	106@0	37.767	39.31
77	30	60	656000	3840.0	CP-OFDM QPSK	162@0	57.786	59.79
77	30	60	656000	3840.0	CP-OFDM 16 QAM	162@0	57.74	59.75
77	30	60	656000	3840.0	CP-OFDM 64 QAM	162@0	57.737	59.7
77	30	60	656000	3840.0	CP-OFDM 256 QAM	162@0	57.787	59.72
77	30	80	656000	3840.0	CP-OFDM QPSK	217@0	77.433	79.99
77	30	80	656000	3840.0	CP-OFDM 16 QAM	217@0	77.504	80.04
77	30	80	656000	3840.0	CP-OFDM 64 QAM	217@0	77.64	79.93
77	30	80	656000	3840.0	CP-OFDM 256 QAM	217@0	77.381	79.94
77	30	100	656000	3840.0	CP-OFDM QPSK	273@0	97.309	100.4
77	30	100	656000	3840.0	CP-OFDM 16 QAM	273@0	97.519	100.5

77	30	100	656000	3840.0	CP-OFDM 64 QAM	273@0	97.303	100.4
77	30	100	656000	3840.0	CP-OFDM 256 QAM	273@0	97.648	100.4

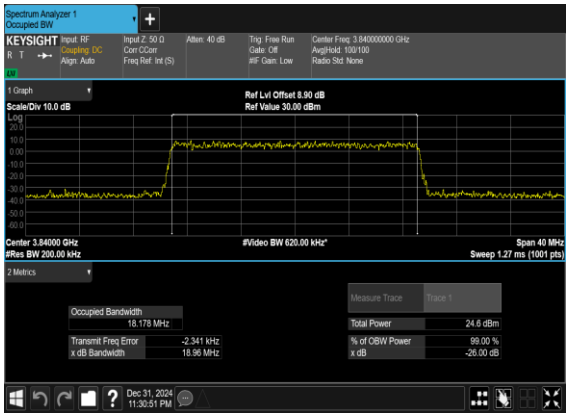
N77(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



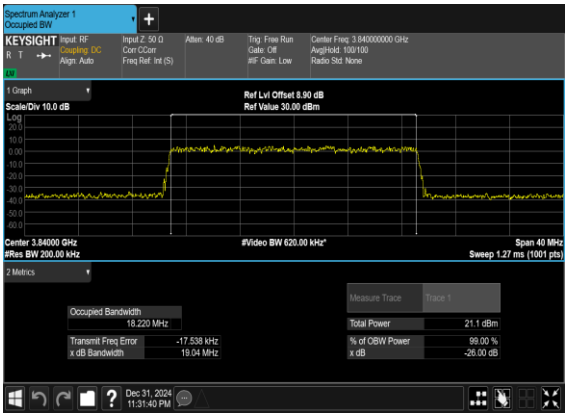
N77(20M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



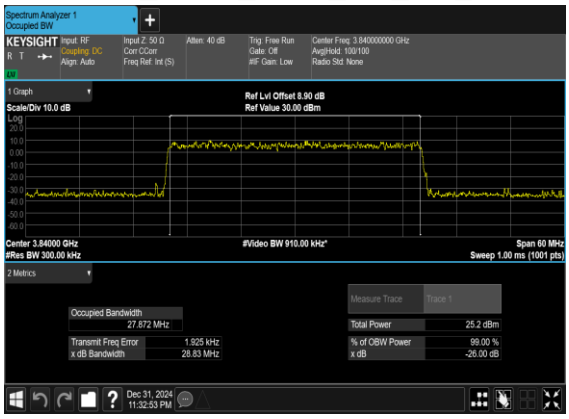
N77(20M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



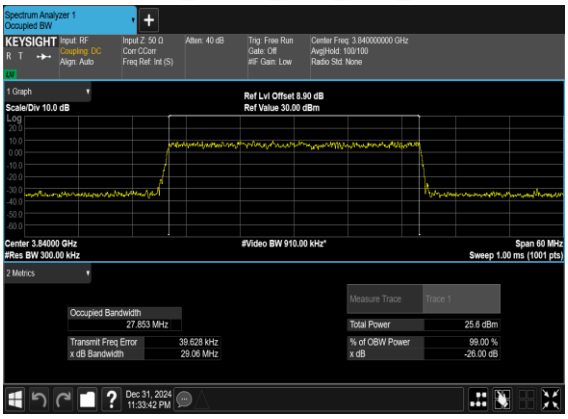
N77(20M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



N77(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

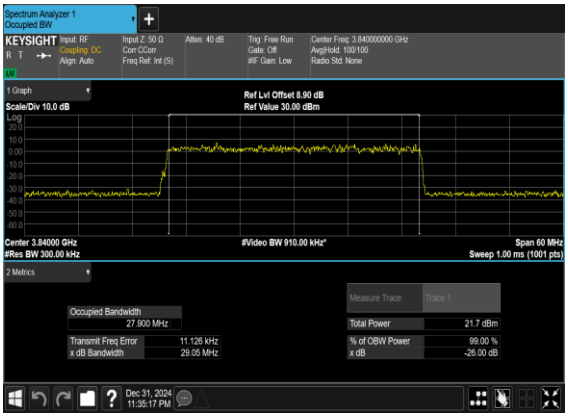


N77(30M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

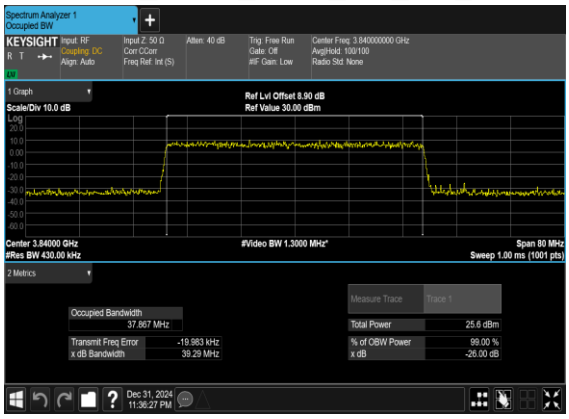


N77(30M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

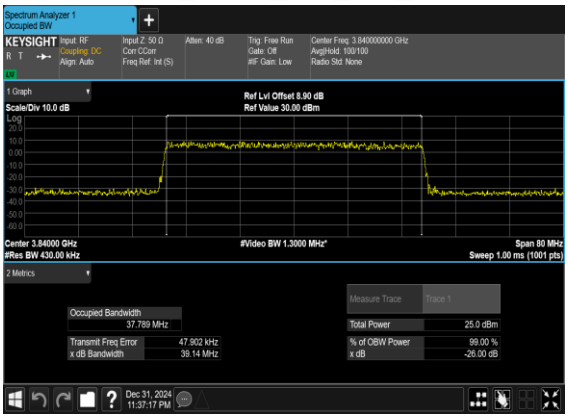
N77(30M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



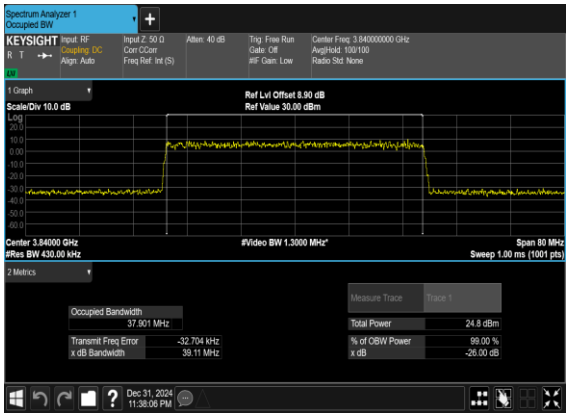
N77(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



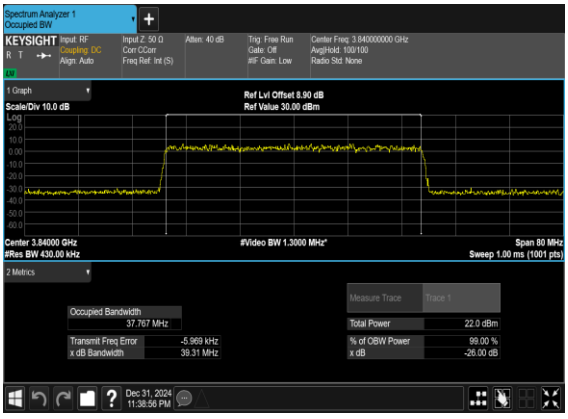
N77(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



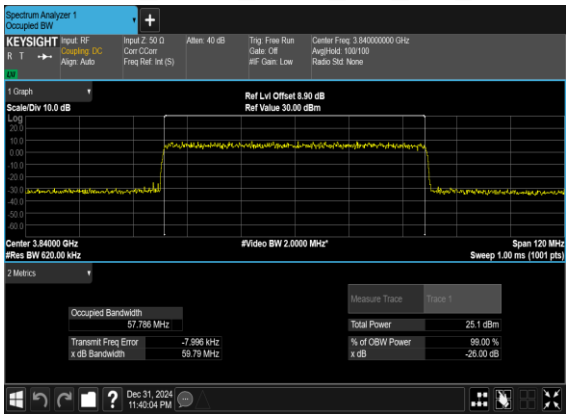
N77(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



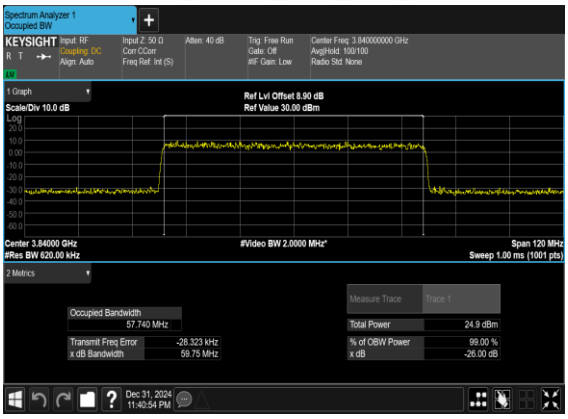
N77(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



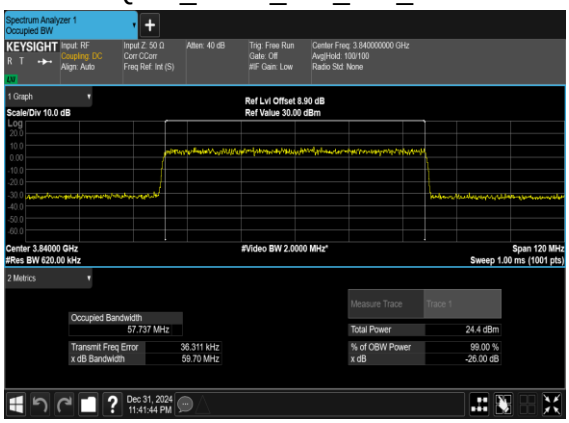
N77(60M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



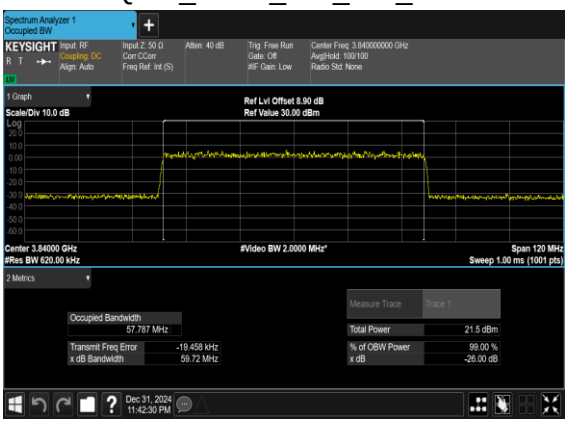
N77(60M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



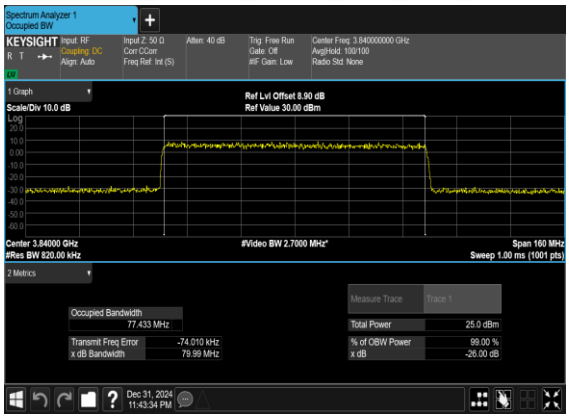
N77(60M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



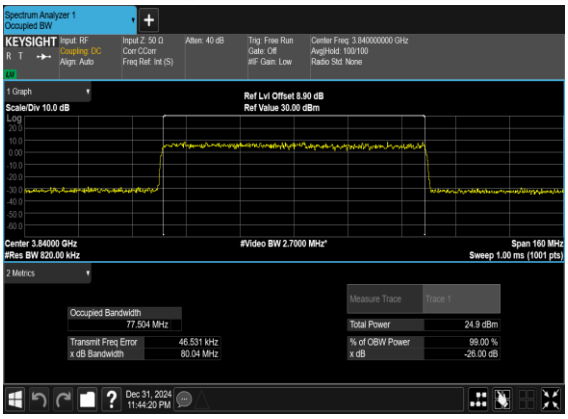
N77(60M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



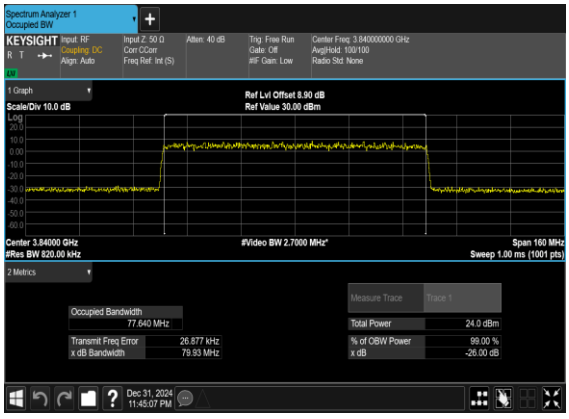
N77(80M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



N77(80M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH

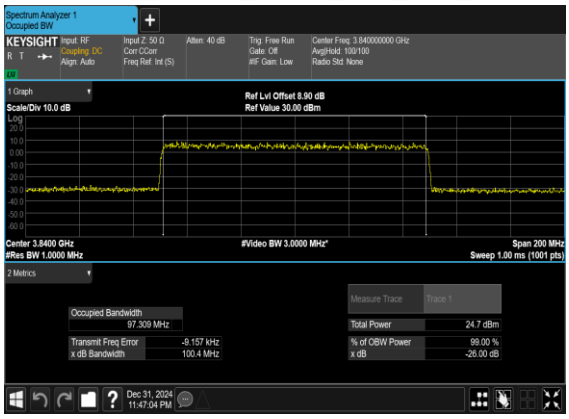


N77(80M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

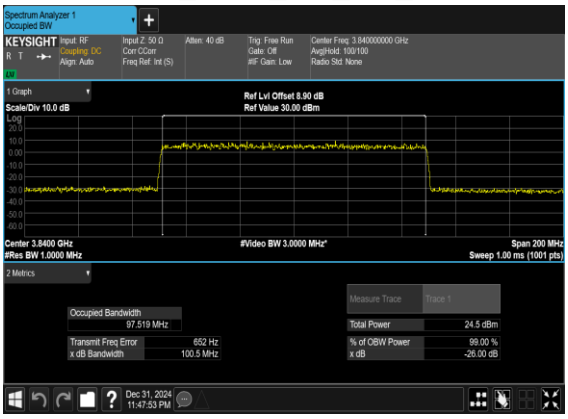


N77(80M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH

N77(100M)_CP-OFDM_QPSK_Outer_Full_Mid_CH

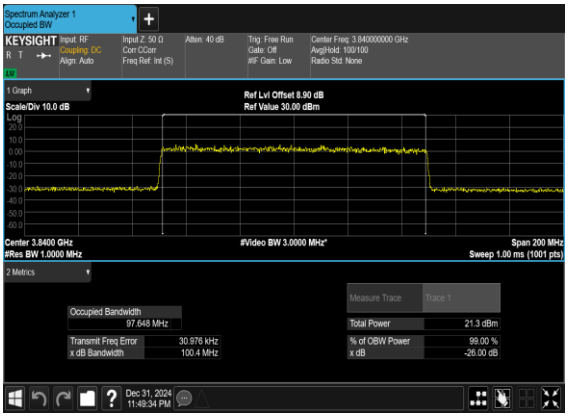


N77(100M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N77(100M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH

N77(100M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH



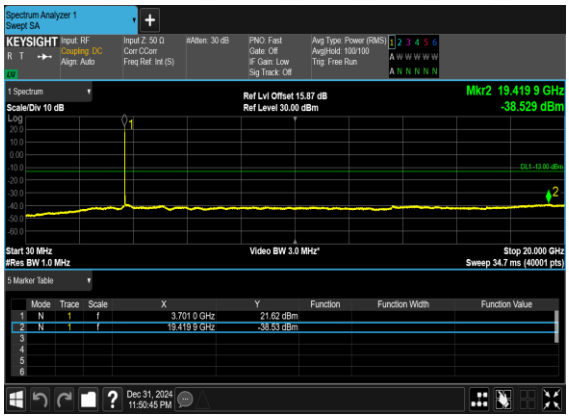
Conducted Spurious Emissions

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

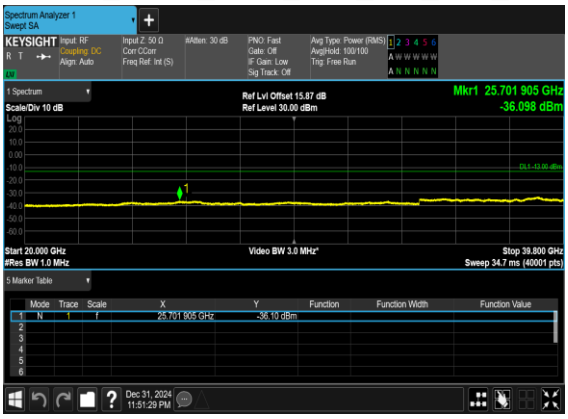
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	100	650000	3750.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

77	30	100	650000	3750.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	100	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	100	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	656000	3840.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@0	see graph	**---**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@0	see graph	**---**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**

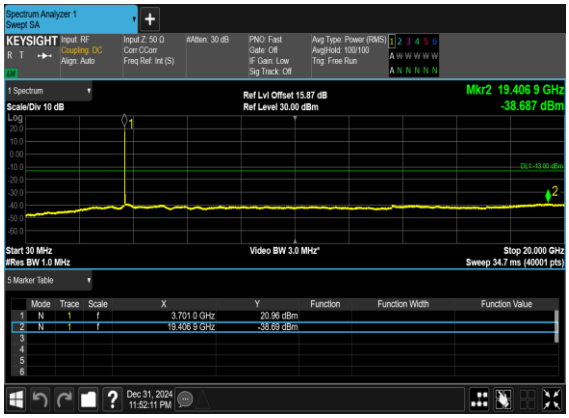
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



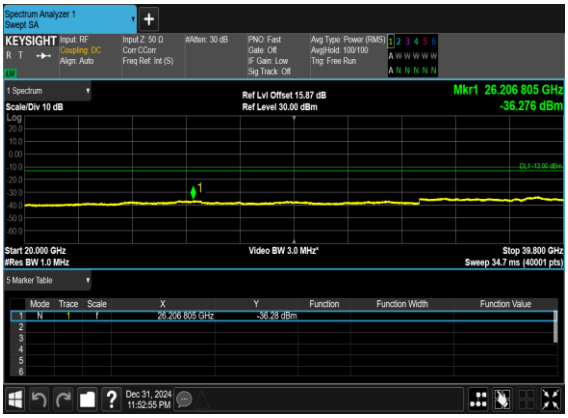
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



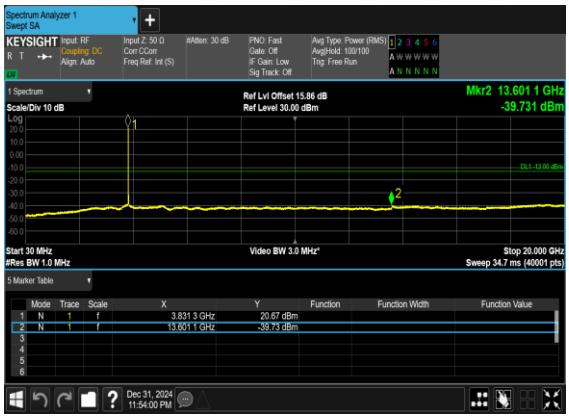
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



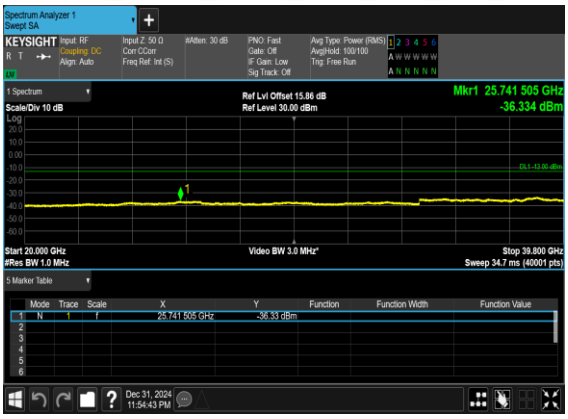
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



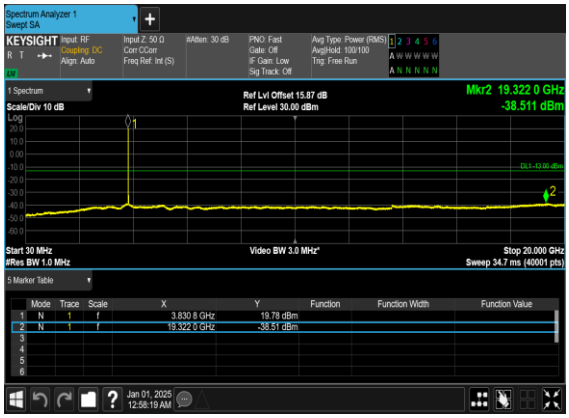
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



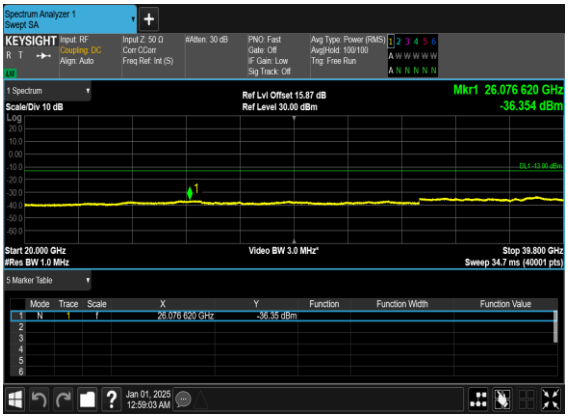
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



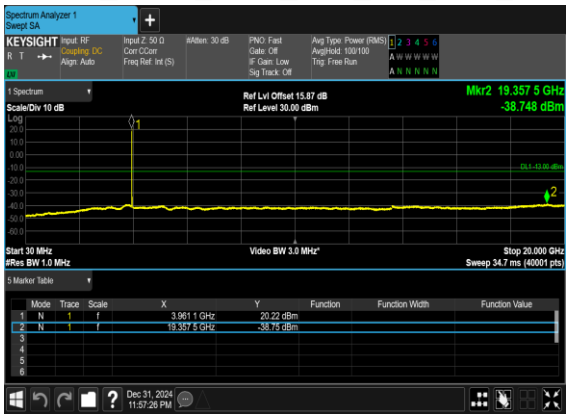
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



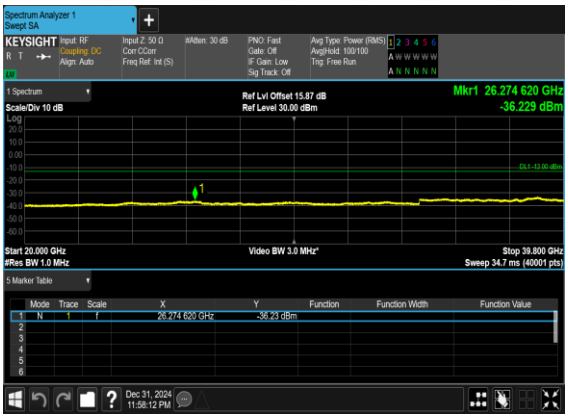
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



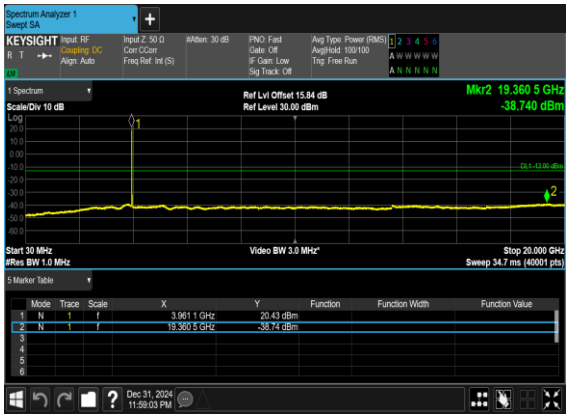
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



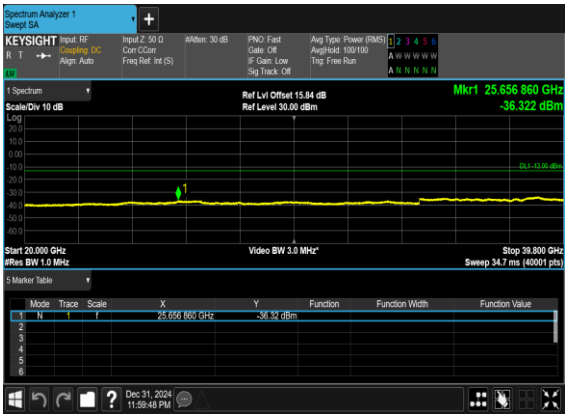
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



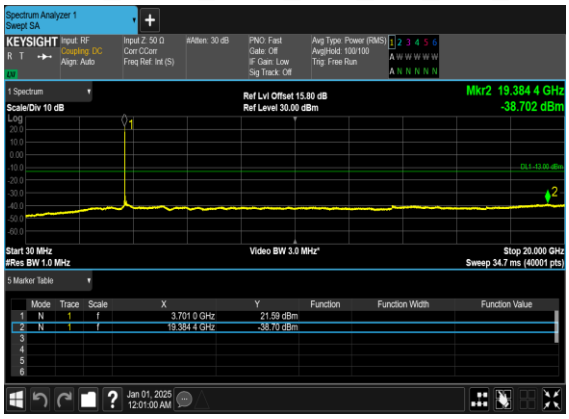
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



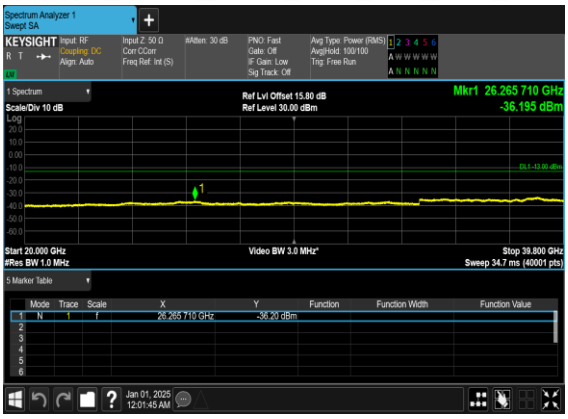
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



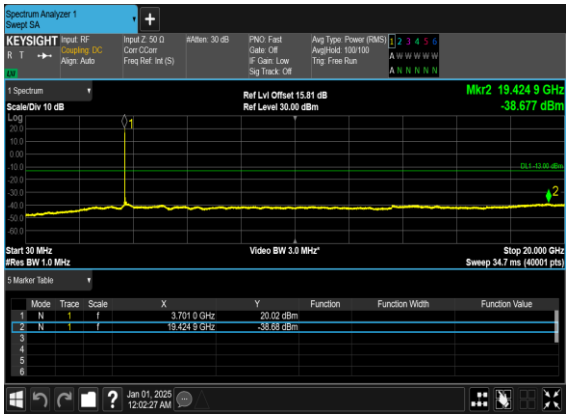
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



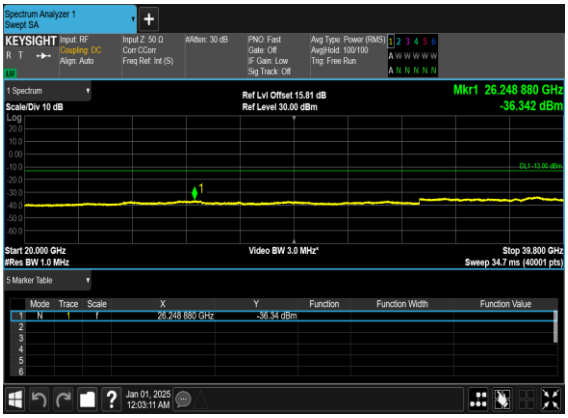
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



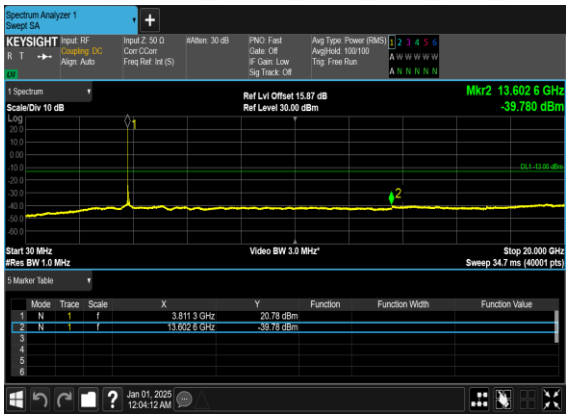
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



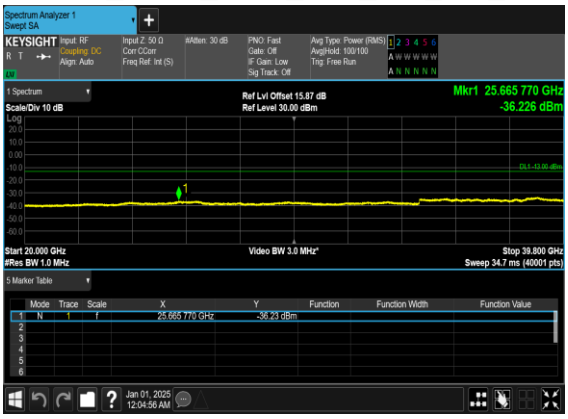
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



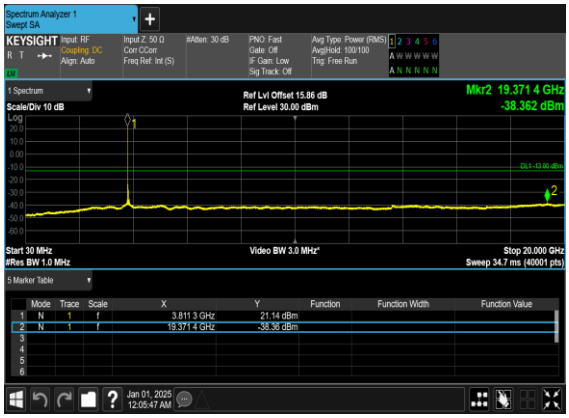
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



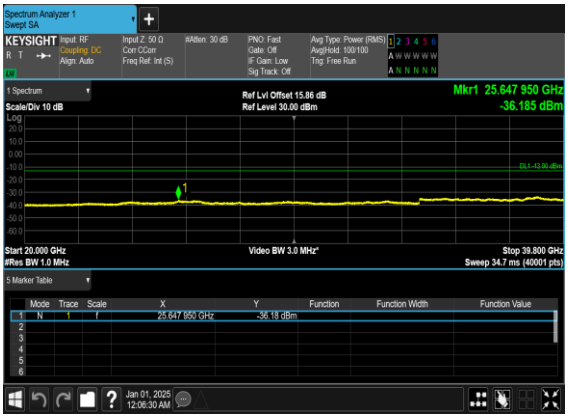
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



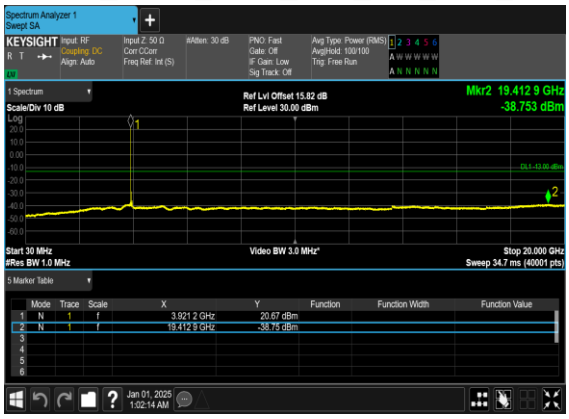
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



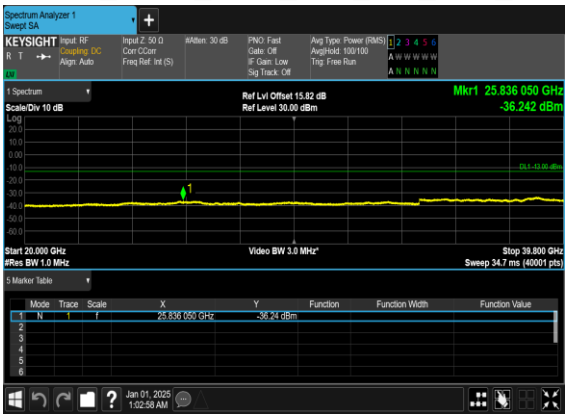
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



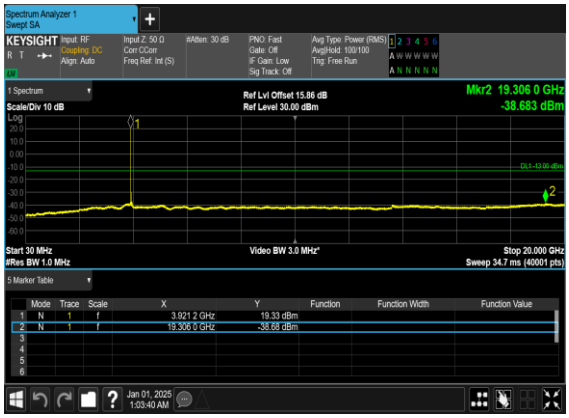
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



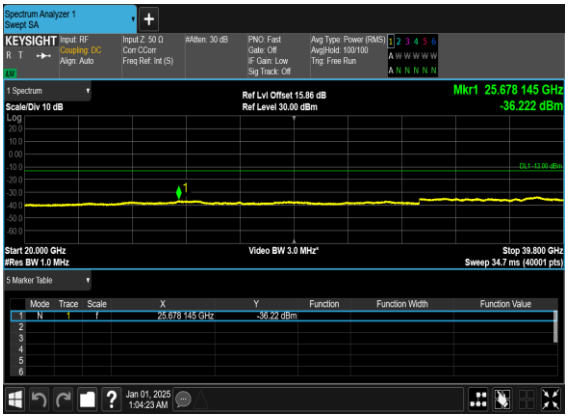
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



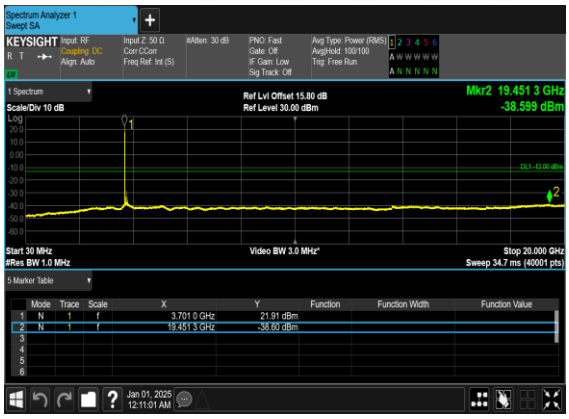
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



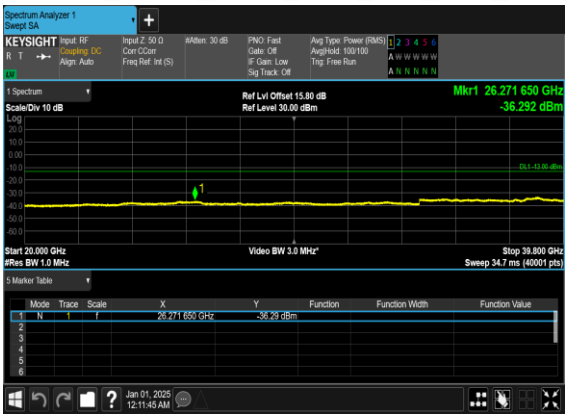
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



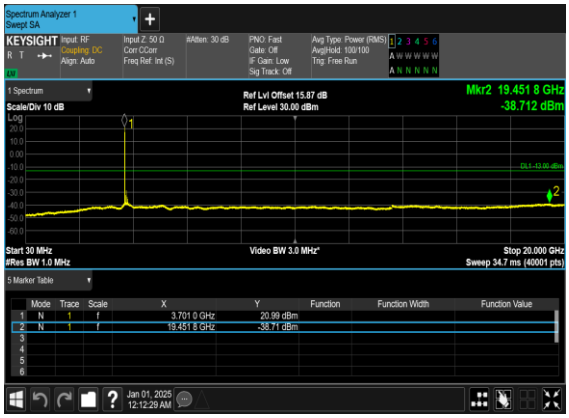
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



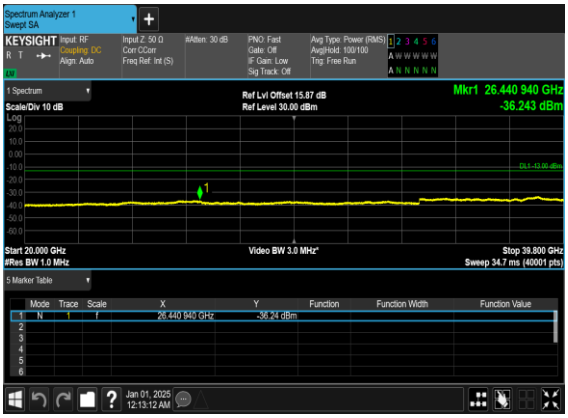
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



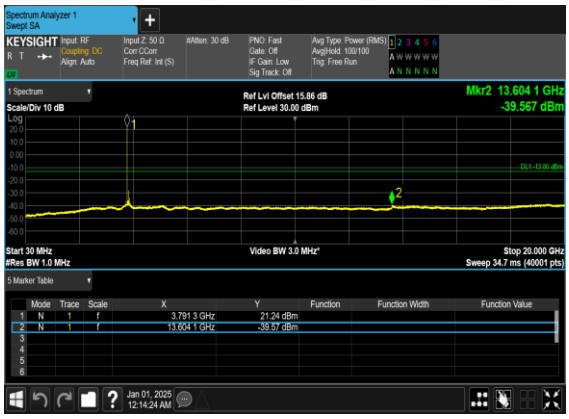
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



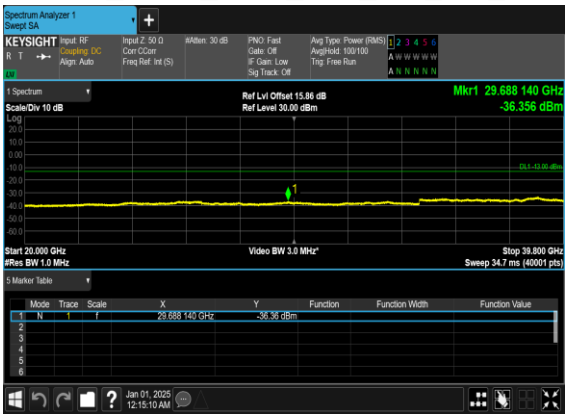
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



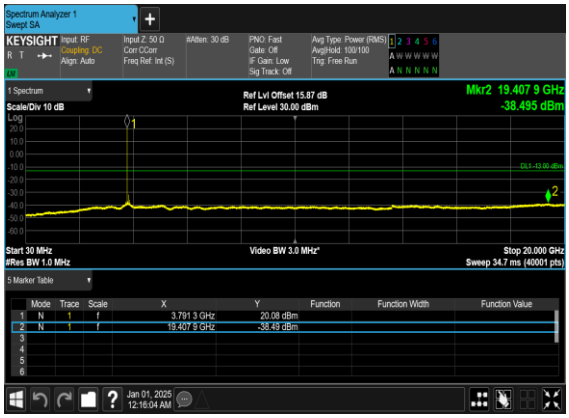
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



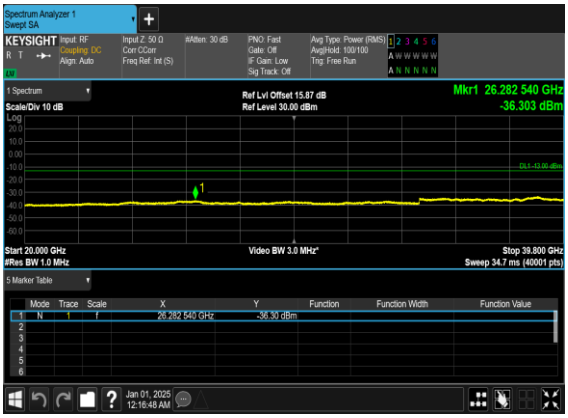
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



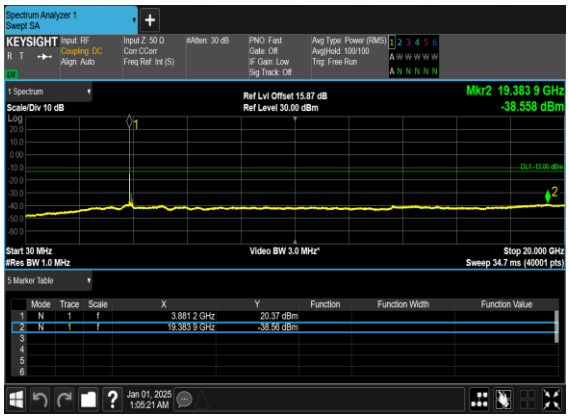
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



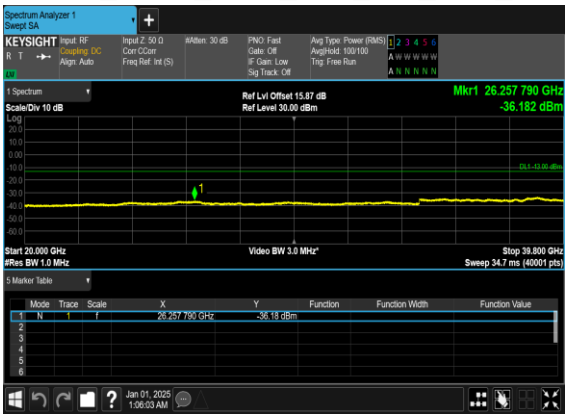
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



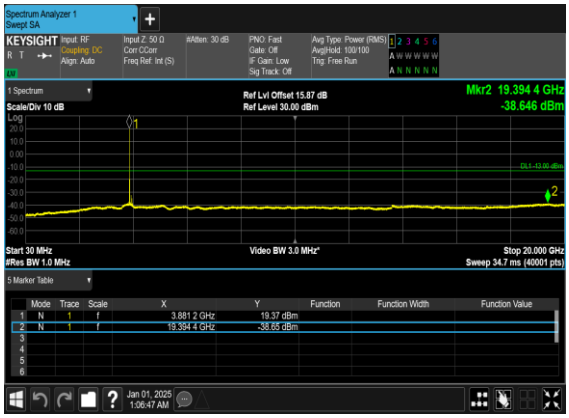
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



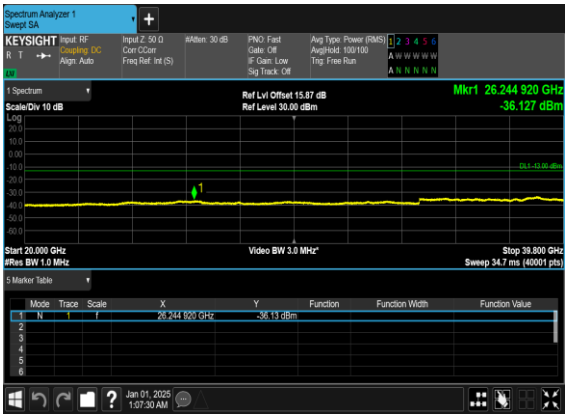
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



Conducted Band Edge

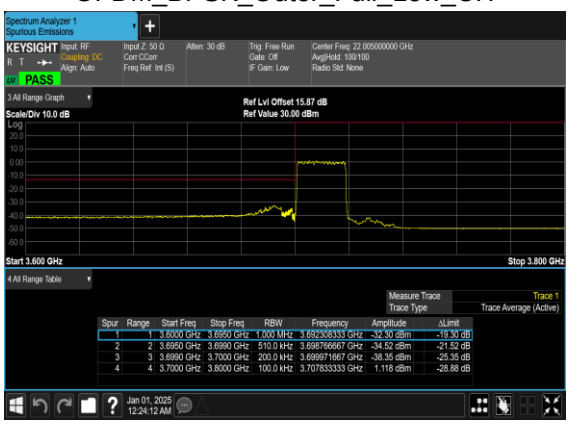
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	647334	3710.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	30	20	647334	3710.01	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM BPSK	1@50	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	1@50	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	30	20	664666	3969.99	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM BPSK	162@0	see graph	**PASS**
77	30	60	648668	3730.02	DFT-s-OFDM QPSK	162@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	1@161	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	1@161	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM BPSK	162@0	see graph	**PASS**
77	30	60	663332	3949.98	DFT-s-OFDM QPSK	162@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
77	30	100	650000	3750.0	DFT-s-OFDM	270@0	see graph	**PASS**

					QPSK			
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	1@272	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	1@272	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
77	30	100	662000	3930.0	DFT-s-OFDM QPSK	270@0	see graph	**PASS**

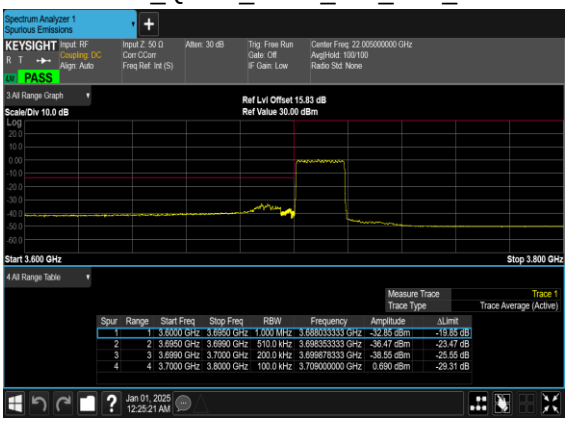
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

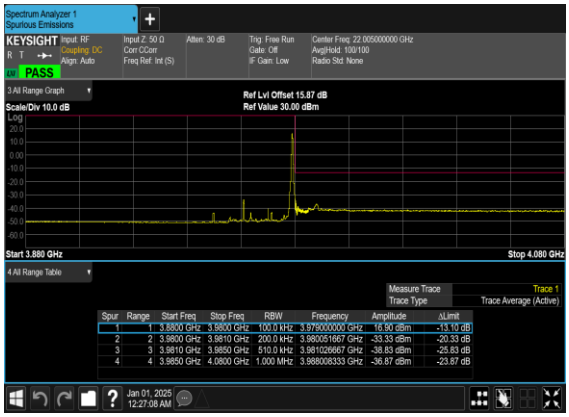
N77(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

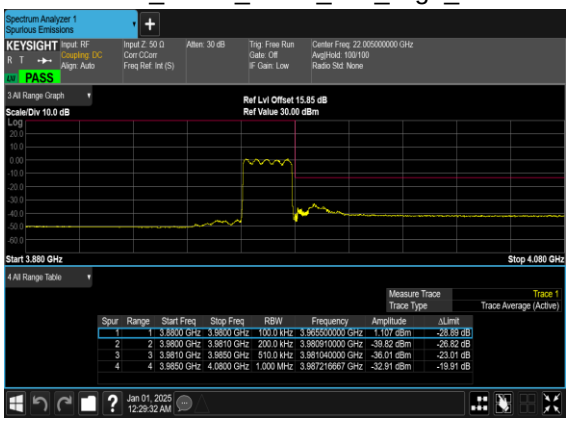


N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

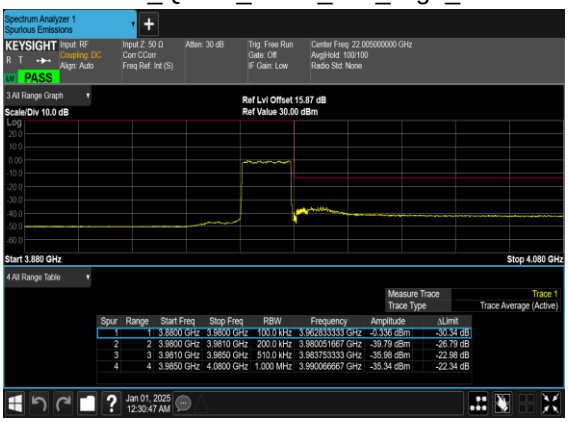


N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

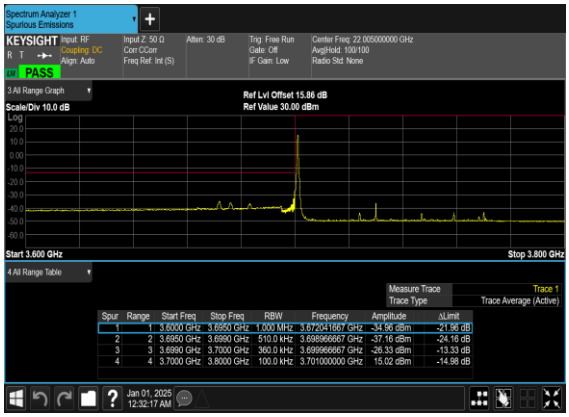
N77(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH

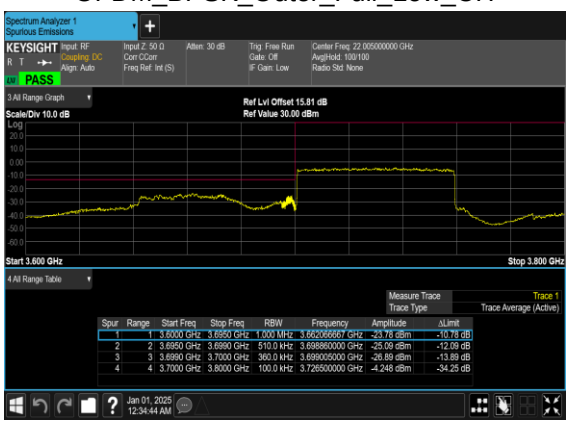


N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

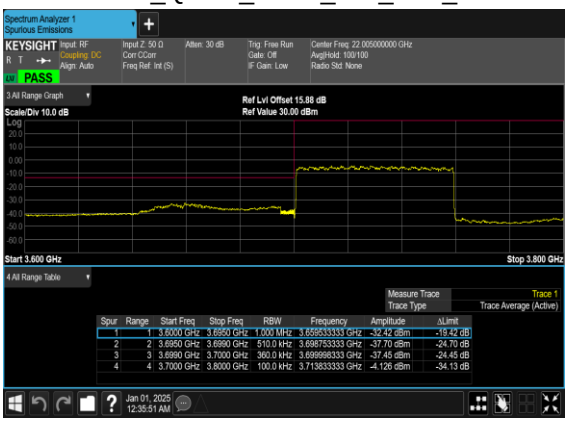


N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

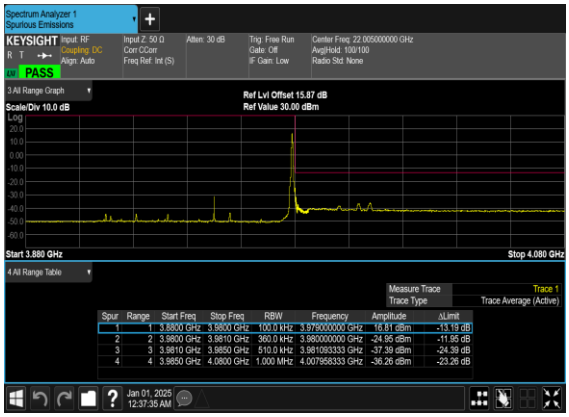
N77(60M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH

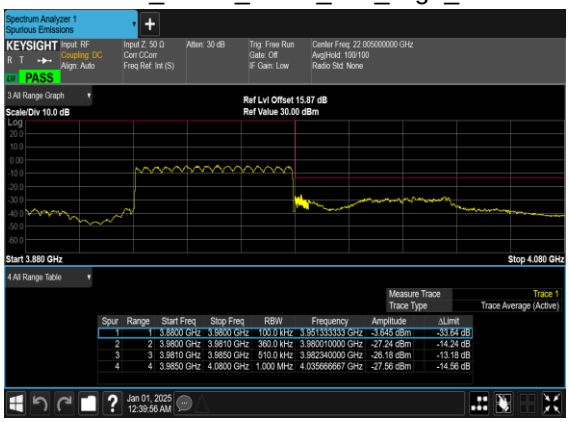


N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

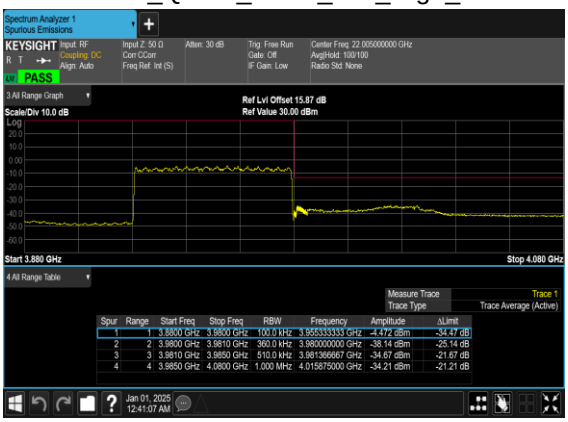


N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH

N77(60M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



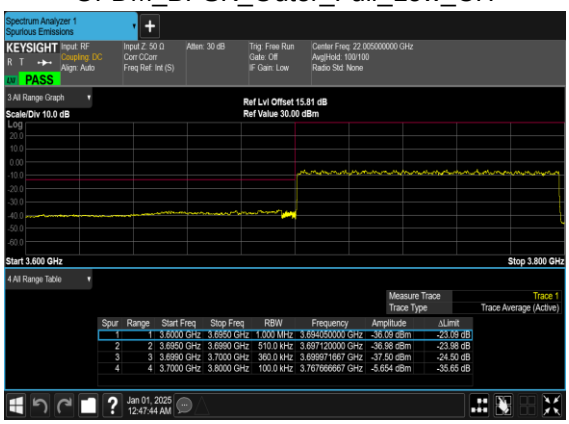
N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



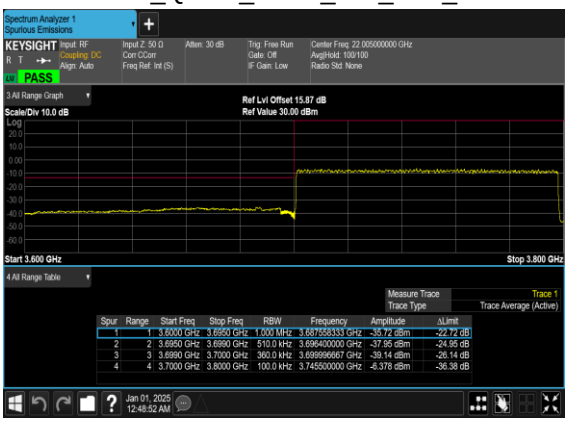
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

N77(100M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



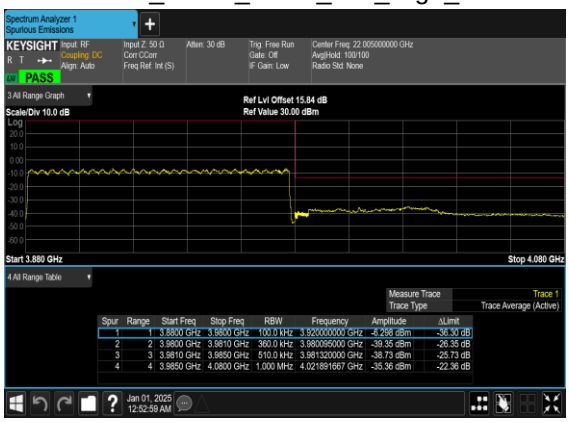
N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



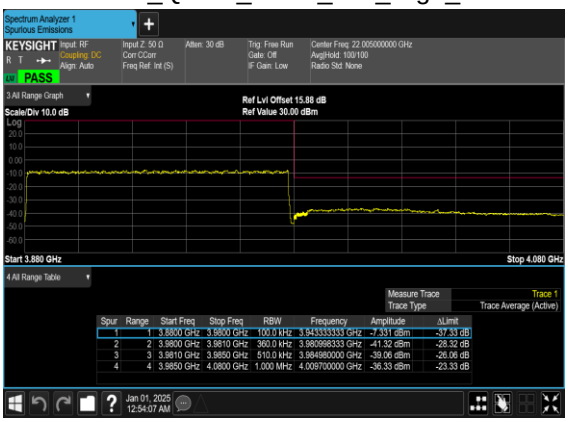
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH

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



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	PingZhou Liang	Temperature :	22~25℃
		Relative Humidity :	48~52%

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

n7 SA / NR 20MHz / QPSK(ANT4)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5089.00	-57.41	-25	-32.41	-81.69	-62.97	7.14	12.70	H
	7633.50	-55.40	-25	-30.40	-81.94	-58.70	8.30	11.60	H
	10178.00	-52.51	-25	-27.51	-83.53	-54.03	10.48	12.00	H
	5089.00	-56.41	-25	-31.41	-81.67	-61.97	7.14	12.70	V
	7633.50	-54.53	-25	-29.53	-81.75	-57.83	8.30	11.60	V
	10178.00	-51.00	-25	-26.00	-83.24	-52.52	10.48	12.00	V

EN-DC_66A_n7A / LTE 10MHz + NR 20MHz / QPSK (ANT1+4)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
NR n7 Middle	5051.60	-60.82	-25	-35.82	-82.83	-66.38	7.14	12.70	H
	7577.40	-54.70	-25	-29.70	-81.35	-58.00	8.30	11.60	H
	10103.20	-50.50	-25	-25.50	-81.91	-52.02	10.48	12.00	H
	5051.60	-60.49	-25	-35.49	-82.62	-66.05	7.14	12.70	V
	7577.40	-54.62	-25	-29.62	-81.23	-57.92	8.30	11.60	V
	10103.20	-52.03	-25	-27.03	-82	-53.55	10.48	12.00	V
LTE Band66 Middle	3481	-61.75	-13	-48.75	-78.79	-68.60	5.65	12.50	H
	5221.5	-60.98	-13	-47.98	-82.72	-66.65	7.13	12.80	H
	6962	-56.43	-13	-43.43	-82.47	-59.83	8.40	11.80	H
	3481	-61.74	-13	-48.74	-78.77	-68.59	5.65	12.50	V
	5221.5	-60.62	-13	-47.62	-82.61	-66.29	7.13	12.80	V
	6962	-55.75	-13	-42.75	-82.25	-59.15	8.40	11.80	V

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

N41 SA / NR 100MHz / QPSK(ANT4)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5094.00	-61.10	-25	-36.10	-83.03	-66.66	7.14	12.70	H
	7641.00	-55.21	-25	-30.21	-81.88	-58.51	8.30	11.60	H
	10188.00	-50.72	-25	-25.72	-82.02	-52.24	10.48	12.00	H
	5094.00	-60.88	-25	-35.88	-82.99	-66.44	7.14	12.70	V
	7641.00	-55.15	-25	-30.15	-81.74	-58.45	8.30	11.60	V
	10188.00	-51.96	-25	-26.96	-82.01	-53.48	10.48	12.00	V

EN-DC_66A_n41A / LTE 10MHz + NR 100MHz / QPSK (ANT4+4)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
NR n41 Middle	5094.00	-60.41	-25	-35.41	-82.34	-65.97	7.14	12.70	H
	7641.00	-54.80	-25	-29.80	-81.47	-58.10	8.30	11.60	H
	10188.00	-50.53	-25	-25.53	-81.83	-52.05	10.48	12.00	H
	5094.00	-60.38	-25	-35.38	-82.49	-65.94	7.14	12.70	V
	7641.00	-54.84	-25	-29.84	-81.43	-58.14	8.30	11.60	V
	10188.00	-51.59	-25	-26.59	-81.64	-53.11	10.48	12.00	V
LTE Band66 Middle	3481	-62.04	-13	-49.04	-79.08	-68.89	5.65	12.50	H
	5221.5	-60.78	-13	-47.78	-82.52	-66.45	7.13	12.80	H
	6962	-56.17	-13	-43.17	-82.21	-59.57	8.40	11.80	H
	3481	-61.92	-13	-48.92	-78.95	-68.77	5.65	12.50	V
	5221.5	-60.74	-13	-47.74	-82.73	-66.41	7.13	12.80	V
	6962	-55.78	-13	-42.78	-82.28	-59.18	8.40	11.80	V

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

N77 SA / NR 100MHz / QPSK(ANT7)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7588	-59.38	-13	-46.38	-58.02	-62.68	8.30	11.60	H
	11382	-54.83	-13	-41.83	-60.59	-56.35	10.48	12.00	H
	15176	-50.18	-13	-37.18	-60.23	-51.88	11.80	13.50	H
	7588	-59.30	-13	-46.3	-57.89	-62.60	8.30	11.60	V
	11382	-54.51	-13	-41.51	-60	-56.03	10.48	12.00	V
	15176	-50.62	-13	-37.62	-60	-52.32	11.80	13.50	V

EN-DC_41A_n77A / LTE 10MHz + NR 100MHz / QPSK (ANT4+7)									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
NR n77 Middle	7588	-59.27	-13	-46.27	-57.91	-62.57	8.30	11.60	H
	11382	-55.00	-13	-42.00	-60.76	-56.52	10.48	12.00	H
	15176	-50.64	-13	-37.64	-60.69	-52.34	11.80	13.50	H
	7588	-59.50	-13	-46.50	-58.09	-62.80	8.30	11.60	V
	11382	-55.35	-13	-42.35	-60.84	-56.87	10.48	12.00	V
	15176	-51.37	-13	-38.37	-60.75	-53.07	11.80	13.50	V
LTE Band41 Middle	5177.00	-59.98	-25	-34.98	-81.77	-65.54	7.14	12.70	H
	7765.50	-59.05	-25	-34.05	-58.14	-62.35	8.30	11.60	H
	10354.00	-55.91	-25	-30.91	-58.69	-57.43	10.48	12.00	H
	5177.00	-59.75	-25	-34.75	-81.83	-65.31	7.14	12.70	V
	7765.50	-59.30	-25	-34.30	-58.23	-62.60	8.30	11.60	V
	10354.00	-56.88	-25	-31.88	-58.79	-58.40	10.48	12.00	V

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