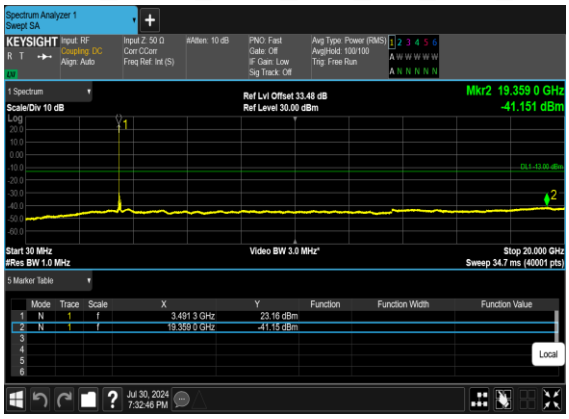
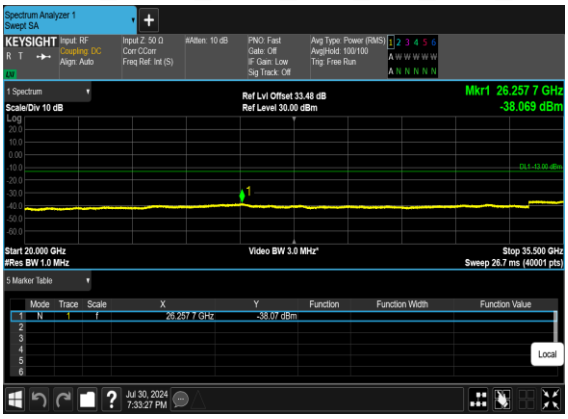
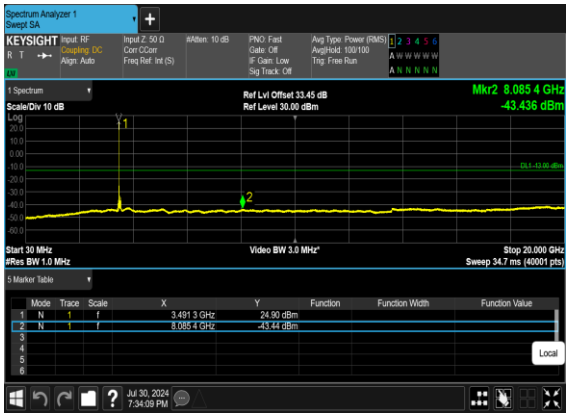
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



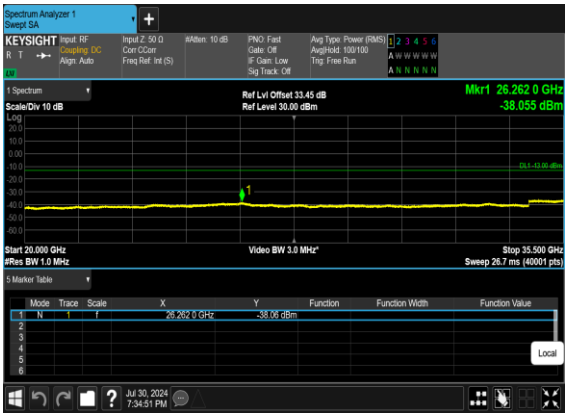
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



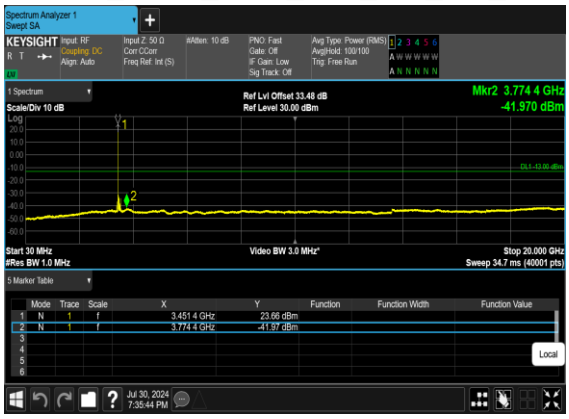
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



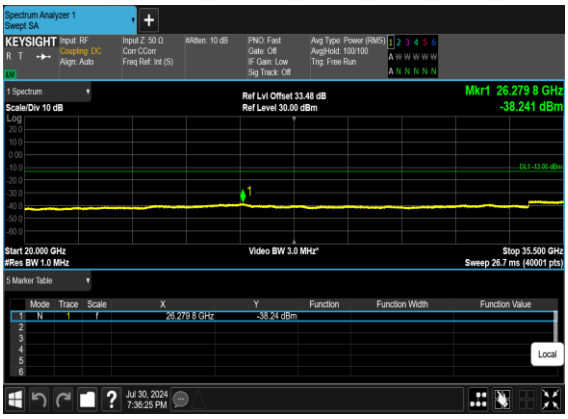
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



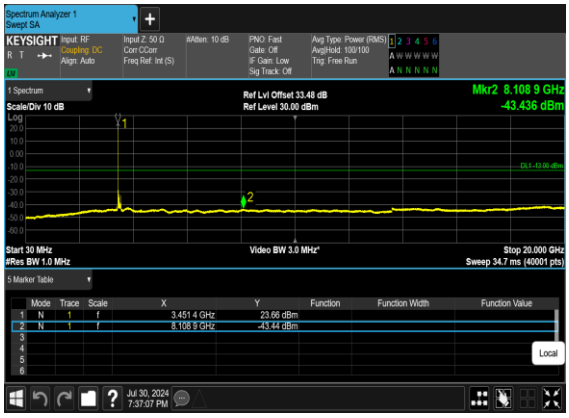
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



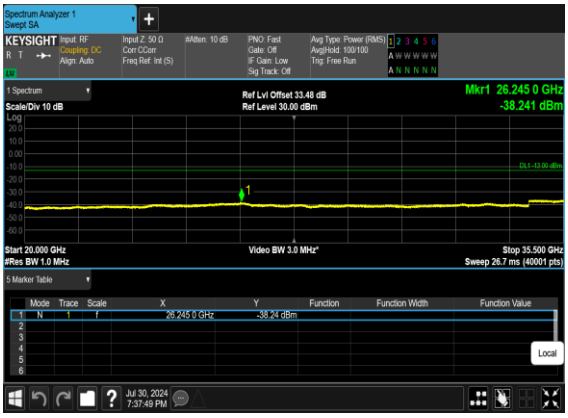
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH

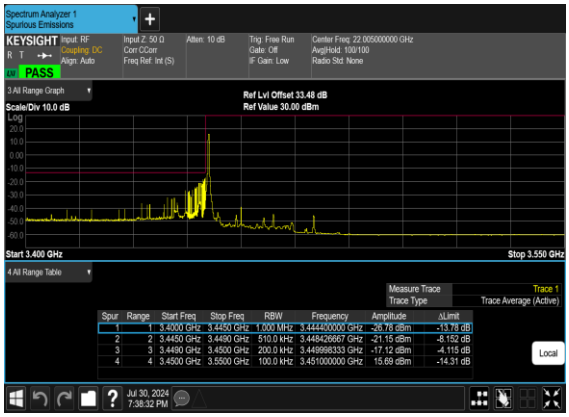


Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	20	630668	3460.02	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	1@50	see graph	**PASS**
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	1@50	see graph	**PASS**
77	30	20	636000	3540.0	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
77	30	20	636000	3540.0	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	60	632000	3480.0	DFT-s-OFDM BPSK	162@0	see graph	**PASS**
77	30	60	632000	3480.0	DFT-s-OFDM QPSK	162@0	see graph	**PASS**
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	1@161	see graph	**PASS**
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@161	see graph	**PASS**
77	30	60	634666	3519.99	DFT-s-OFDM BPSK	162@0	see graph	**PASS**
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	162@0	see graph	**PASS**
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	1@272	see graph	**PASS**

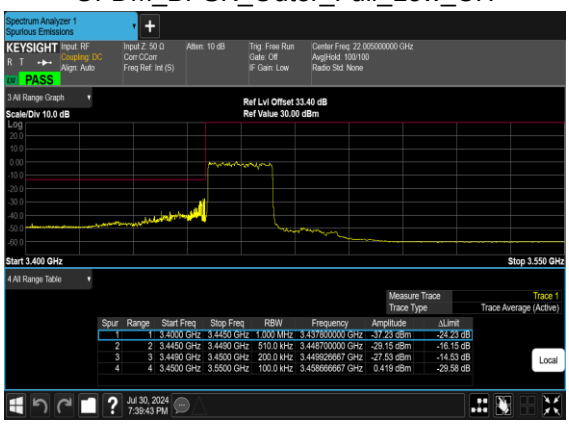
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@272	see graph	**PASS**
77	30	100	633334	3500.01	DFT-s-OFDM BPSK	270@0	see graph	**PASS**
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	270@0	see graph	**PASS**

N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH

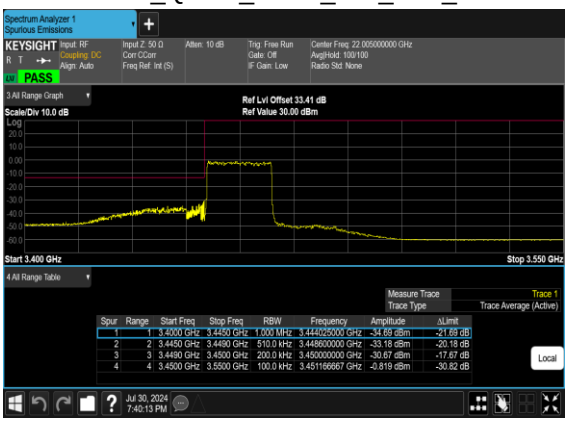


N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

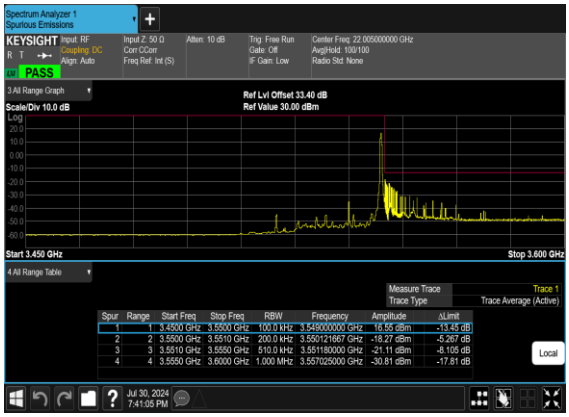
N77(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



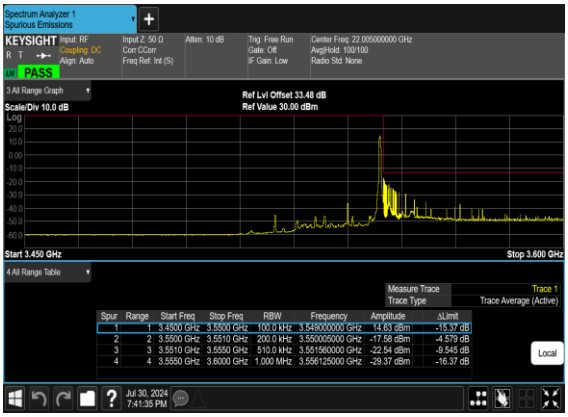
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



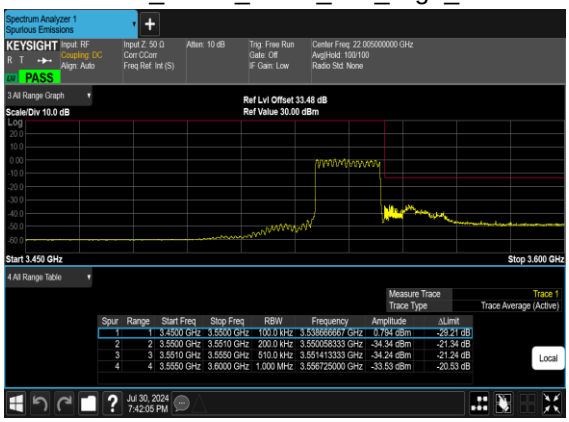
N77(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



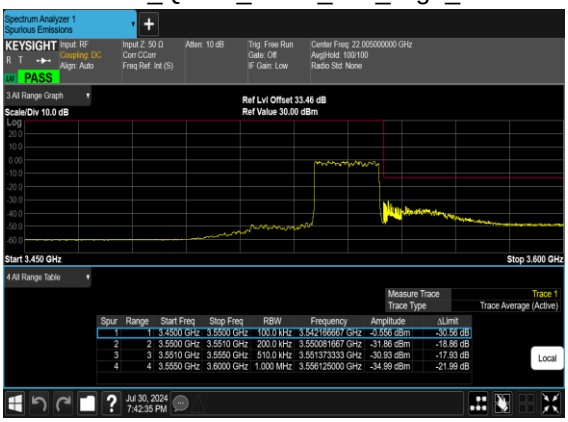
N77(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



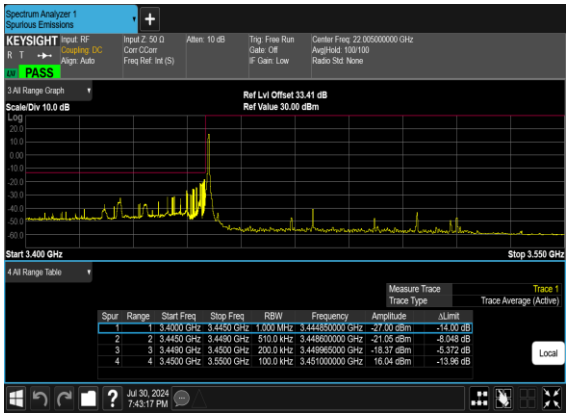
N77(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



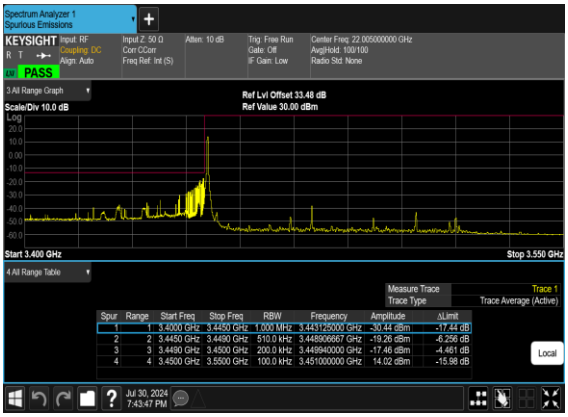
N77(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



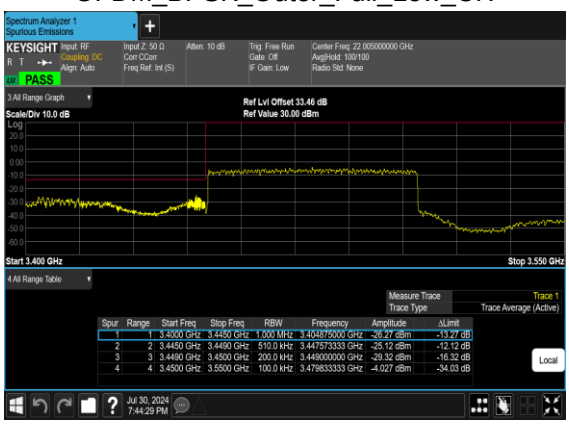
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



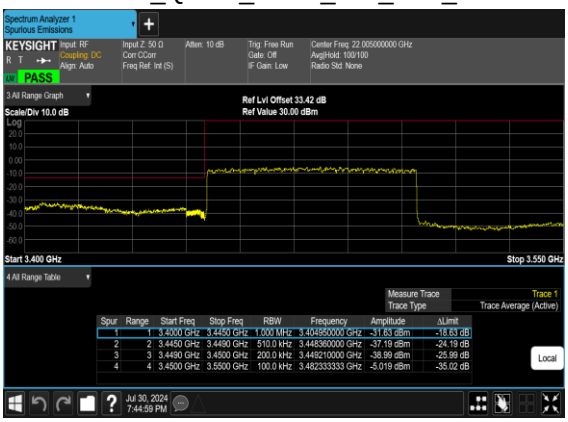
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



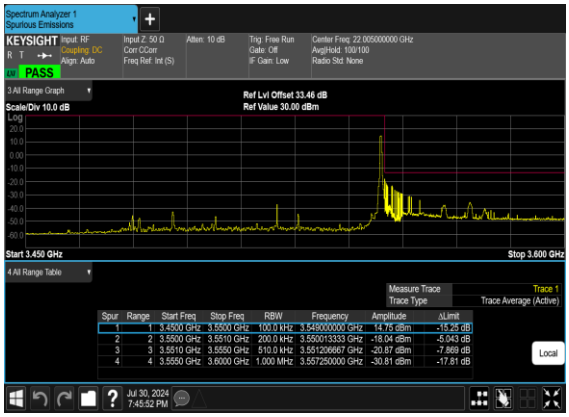
N77(60M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



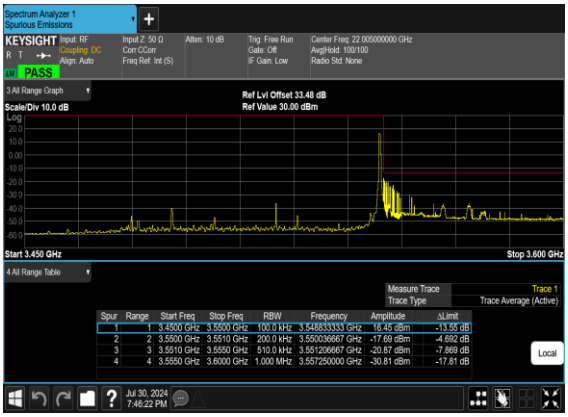
N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



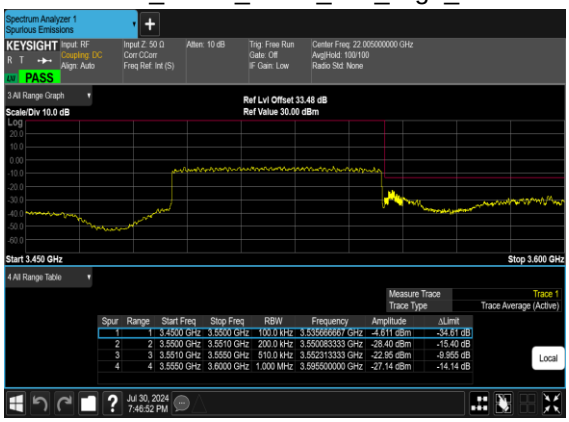
N77(60M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



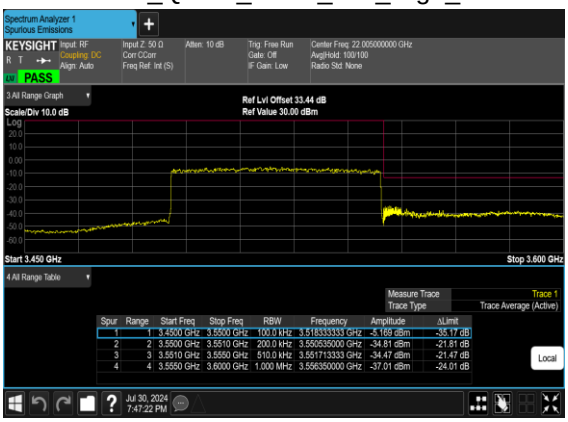
N77(60M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



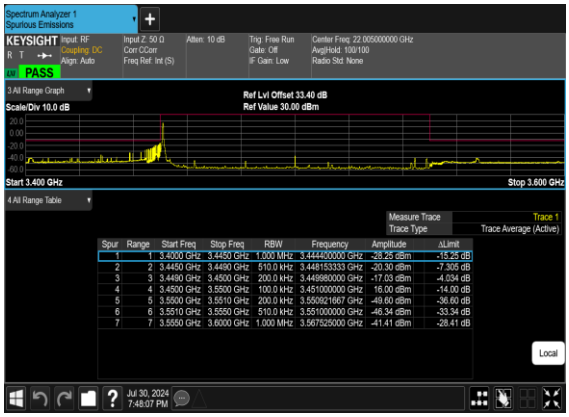
N77(60M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



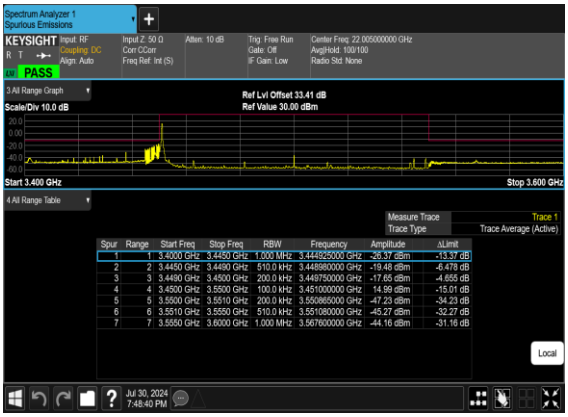
N77(60M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



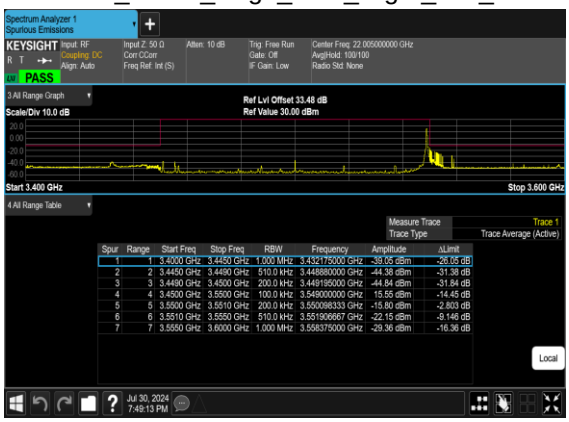
N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



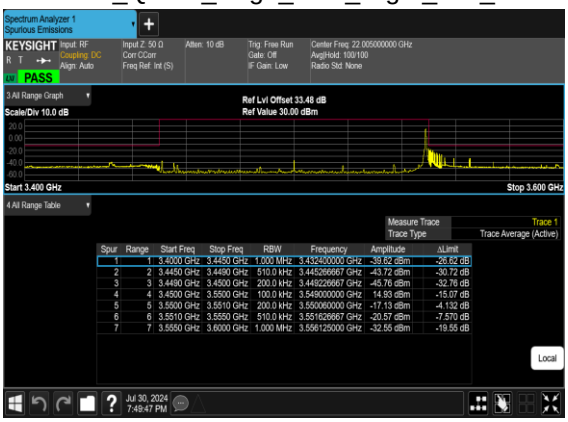
N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



N77(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Mid_CH

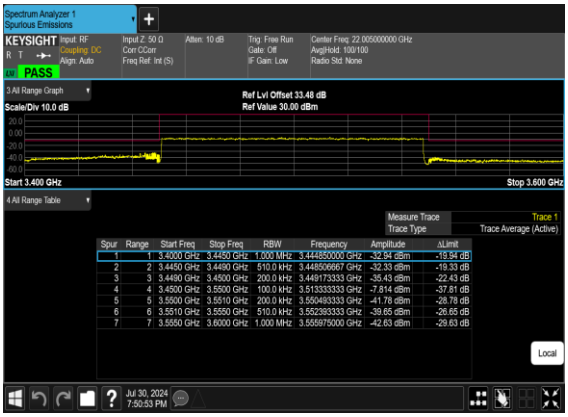


N77(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Mid_CH



N77(100M)_DFT-s-OFDM_BPSK_Outer_Full_Mid_CH

N77(100M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



FR1 N78-SCS 30k

Transmitter Conducted Output Power And EIRP, (G_T - L_C)=-2.7dBi

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	24.99	22.29	0.1694
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	25.13	22.43	0.1750
78	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	24.13	21.43	0.1390
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.07	22.37	0.1726
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.12	22.42	0.1746
78	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.1	21.4	0.1380
78	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@1	24.98	22.28	0.1690
78	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	25.06	22.36	0.1722
78	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	24.08	21.38	0.1374
78	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@1	24.9	22.2	0.1660
78	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	25.04	22.34	0.1714
78	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	24.02	21.32	0.1355
78	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	24.89	22.19	0.1656
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	25	22.3	0.1698
78	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	23.97	21.27	0.1340
78	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@1	24.98	22.28	0.1690
78	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	25.08	22.38	0.1730
78	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	24.01	21.31	0.1352
78	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	24.9	22.2	0.1660
78	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	24.99	22.29	0.1694
78	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	24.03	21.33	0.1358
78	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	24.88	22.18	0.1652
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	24.95	22.25	0.1679
78	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	23.92	21.22	0.1324
78	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	25.05	22.35	0.1718
78	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	25.14	22.44	0.1754
78	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	24.13	21.43	0.1390
78	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@1	24.84	22.14	0.1637
78	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	24.94	22.24	0.1675
78	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	23.87	21.17	0.1309
78	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	24.77	22.07	0.1611
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	24.87	22.17	0.1648
78	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	23.85	21.15	0.1303
78	30	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@1	24.94	22.24	0.1675
78	30	50	635000	3525	DFT-s-OFDM QPSK	1@1	25.04	22.34	0.1714

78	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	24.01	21.31	0.1352
78	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	1@1	24.95	22.25	0.1679
78	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	25.08	22.38	0.1730
78	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	24.07	21.37	0.1371
78	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	24.85	22.15	0.1641
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	24.99	22.29	0.1694
78	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.02	21.32	0.1355
78	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@1	24.98	22.28	0.1690
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	25.07	22.37	0.1726
78	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	24.16	21.46	0.1400
78	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	25.08	22.38	0.1730
78	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	25.19	22.49	0.1774
78	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	24.18	21.48	0.1406
78	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.03	22.33	0.1710
78	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.14	22.44	0.1754
78	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.13	21.43	0.1390
78	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	1@1	25.1	22.4	0.1738
78	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	25.14	22.44	0.1754
78	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	24.23	21.53	0.1422
78	30	90	633000	3495	DFT-s-OFDM PI/2 BPSK	1@1	25.06	22.36	0.1722
78	30	90	633000	3495	DFT-s-OFDM QPSK	1@1	25.17	22.47	0.1766
78	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@1	24.1	21.4	0.1380
78	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25	22.3	0.1698
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.13	22.43	0.1750
78	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.12	21.42	0.1387
78	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@1	25.03	22.33	0.1710
78	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	25.15	22.45	0.1758
78	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	24.16	21.46	0.1400
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	25.05	22.35	0.1718
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.05	22.35	0.1718
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	24.75	22.05	0.1603
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	25.06	22.36	0.1722
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.18	22.48	0.1770
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	24.82	22.12	0.1629
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	24.15	21.45	0.1396
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.19	21.49	0.1409
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	23.82	21.12	0.1294
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	22.58	19.88	0.0973
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.59	19.89	0.0975
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	22.19	19.49	0.0889
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	20.57	17.87	0.0612

78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.47	17.77	0.0598
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	19.99	17.29	0.0536
78	30	100	633334	3500.01	CP-OFDM QPSK	137@68	23.52	20.82	0.1208
78	30	100	633334	3500.01	CP-OFDM QPSK	1@1	23.75	21.05	0.1274
78	30	100	633334	3500.01	CP-OFDM QPSK	1@271	23.34	20.64	0.1159

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

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

RSE pre-scanned harmonic for different antennas, choose the worst antenna perform final test and record in the report.

SA n77 / NR 100MHz / QPSK / ANT6									
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	6902.42	-57.98	-13	-44.98	-65.44	-61.28	8.30	11.60	H
	10353.63	-56.29	-13	-43.29	-68.31	-57.81	10.48	12.00	H
	13804.84	-53.74	-13	-40.74	-69.59	-55.44	11.80	13.50	H
	6902.42	-56.52	-13	-43.52	-65.26	-59.82	8.30	11.60	V
	10353.63	-54.64	-13	-41.64	-68.46	-56.16	10.48	12.00	V
	13804.84	-55.40	-13	-42.40	-70.06	-57.10	11.80	13.50	V

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

EN-DC_41A_n77A / LTE 10MHz + NR 100MHz / QPSK / ANT2 (LTE) & ANT6(NR)									
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	6902.42	-57.78	-13	-44.78	-65.24	-61.08	8.30	11.60	H
	10353.63	-56.50	-13	-43.50	-68.52	-58.02	10.48	12.00	H
	13804.84	-54.64	-13	-41.64	-70.49	-56.34	11.80	13.50	H
	6902.42	-56.73	-13	-43.73	-65.47	-60.03	8.30	11.60	V
	10353.63	-54.73	-13	-41.73	-68.55	-56.25	10.48	12.00	V
	13804.84	-55.78	-13	-42.78	-70.44	-57.48	11.80	13.50	V
LTE Band41 Middle	5177.00	-60.92	-25	-35.92	-65.96	-66.48	7.14	12.70	H
	7765.50	-57.90	-25	-32.90	-65.74	-61.20	8.30	11.60	H
	10354.00	-56.51	-25	-31.51	-68.53	-58.03	10.48	12.00	H
	5177.00	-60.50	-25	-35.50	-65.93	-66.06	7.14	12.70	V
	7765.50	-53.75	-25	-28.75	-65.02	-57.05	8.30	11.60	V
	10354.00	-54.94	-25	-29.94	-68.76	-56.46	10.48	12.00	V

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