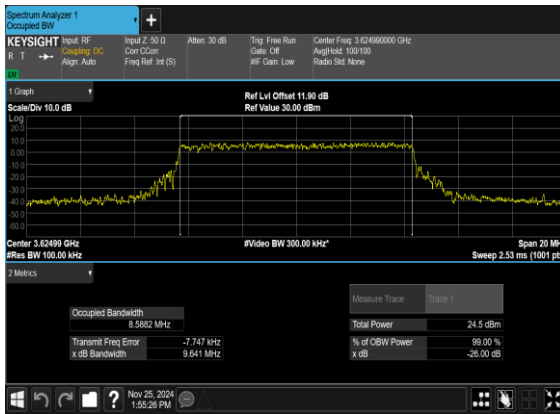
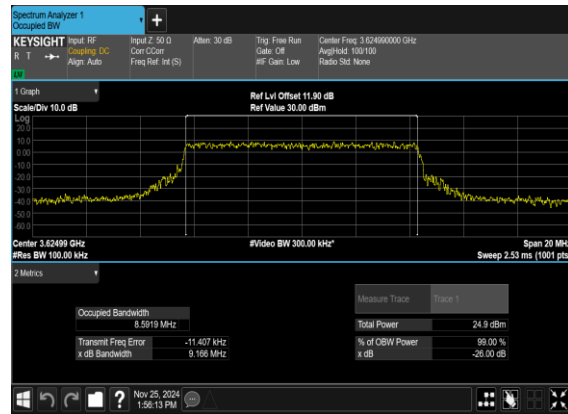




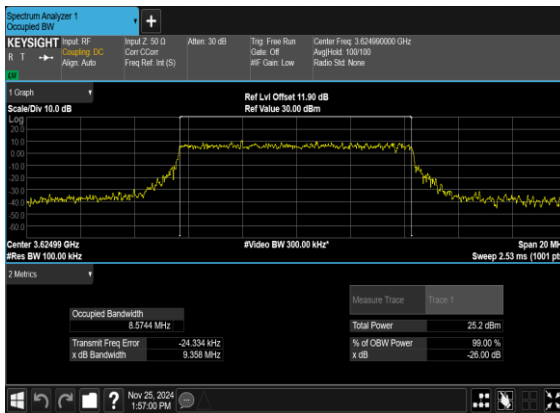
N48(10M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



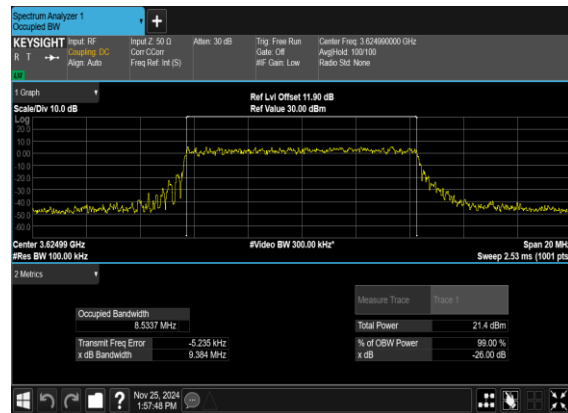
N48(10M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



N48(10M)_CP-OFDM_64QAM_Outer_Full_Mid_CH

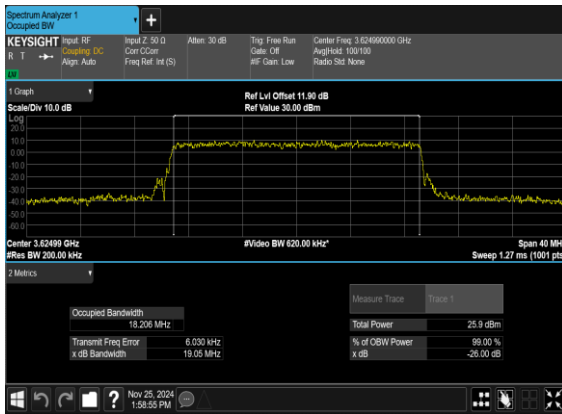


N48(10M)_CP-OFDM_256QAM_Outer_Full_Mid_CH

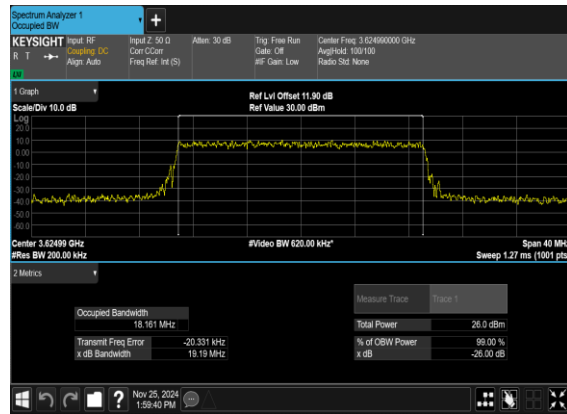




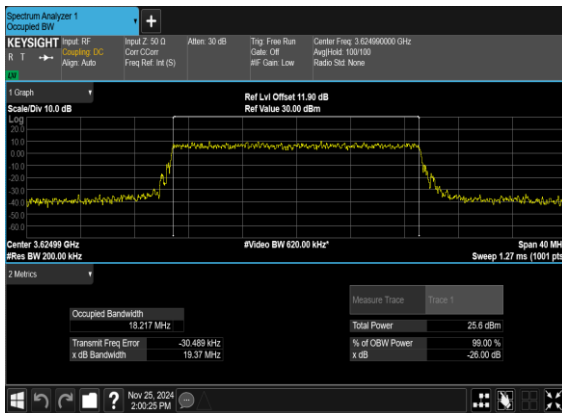
N48(20M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



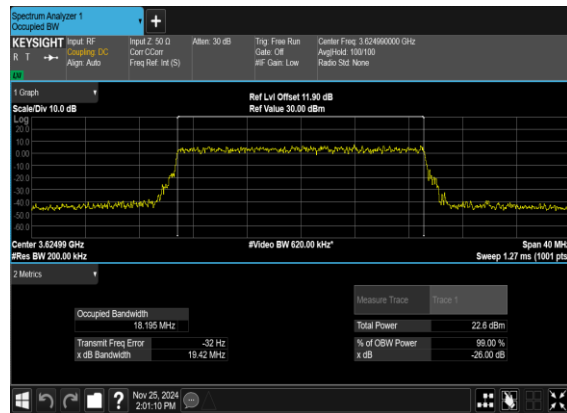
N48(20M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



N48(20M)_CP-OFDM_64QAM_Outer_Full_Mid_CH

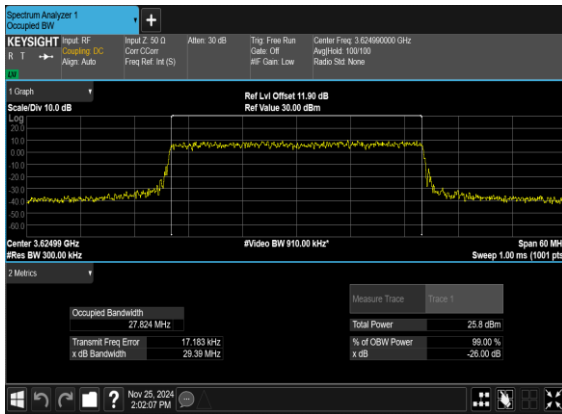


N48(20M)_CP-OFDM_256QAM_Outer_Full_Mid_CH

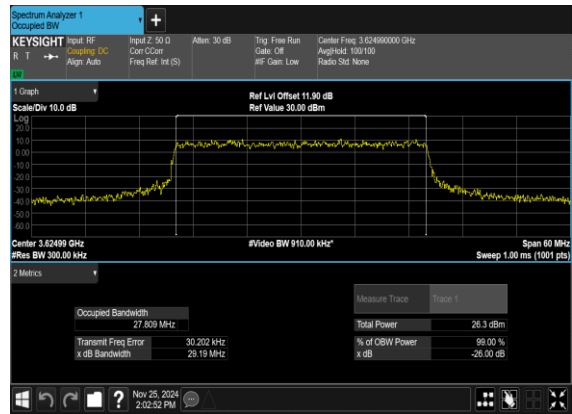




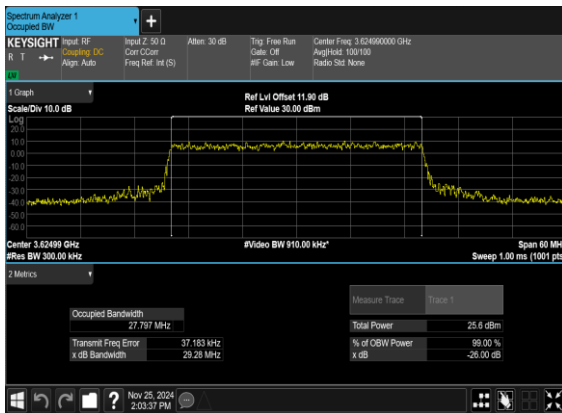
N48(30M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



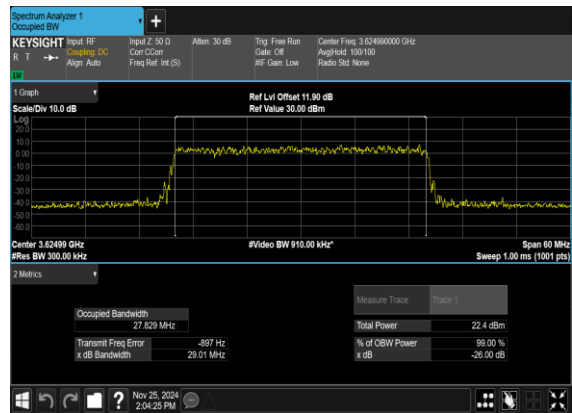
N48(30M)_CP-OFDM_16QAM_Outer_Full_Mid_CH



N48(30M)_CP-OFDM_64QAM_Outer_Full_Mid_CH

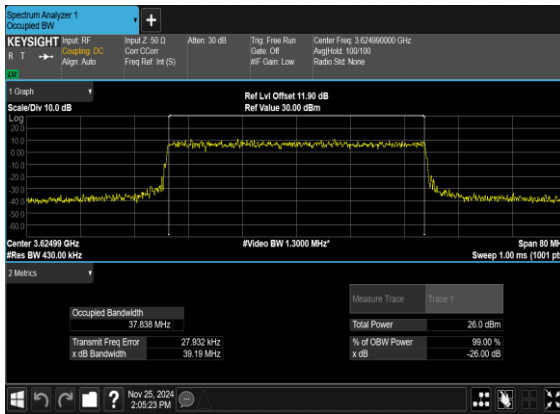


N48(30M)_CP-OFDM_256QAM_Outer_Full_Mid_CH

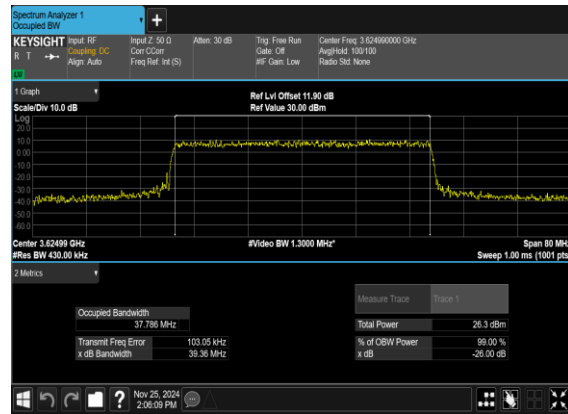




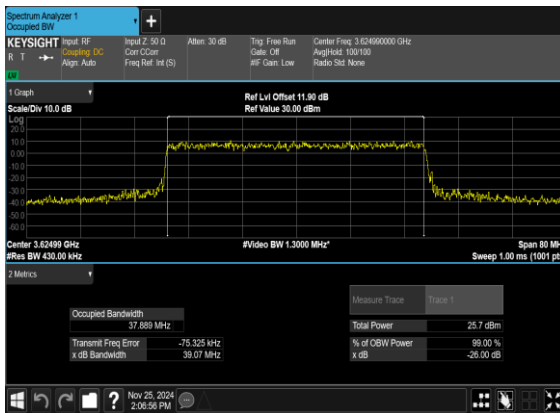
N48(40M)_CP-OFDM_QPSK_Outer_Full_Mid_CH



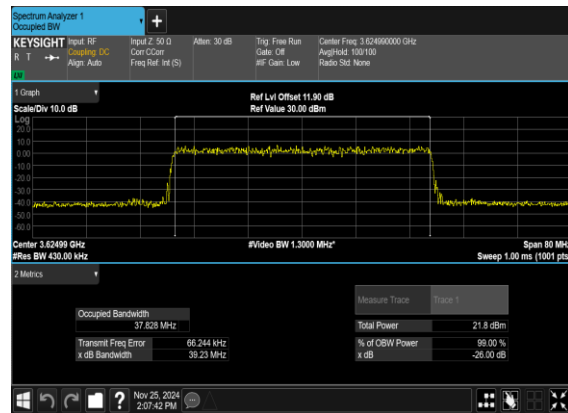
N48(40M)_CP-OFDM_16 QAM_Outer_Full_Mid_CH



N48(40M)_CP-OFDM_64 QAM_Outer_Full_Mid_CH



N48(40M)_CP-OFDM_256 QAM_Outer_Full_Mid_CH





Adjacent Channel Leakage Ratio

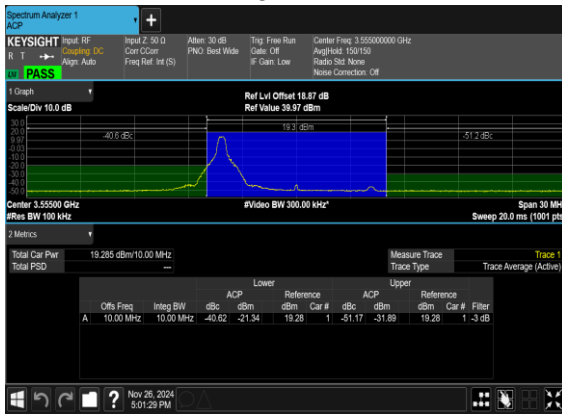
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Lower Margin	Upper Margin	Result	Verdict
48	30	10	637000	3555.0	CP-OFDM QPSK	1@0	-10.62	-21.17	see graph	PASS
48	30	10	637000	3555.0	CP-OFDM QPSK	1@23	-20.98	-12.39	see graph	PASS
48	30	10	637000	3555.0	CP-OFDM QPSK	24@0	-13.03	-13.34	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	1@0	-9.77	-18.3	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	1@23	-17.47	-11.59	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	24@0	-11.59	-13.4	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	1@0	-10.4	-16.79	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	1@23	-16.55	-11.64	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	24@0	-12.13	-12.83	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	1@0	-11.59	-17.38	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	1@50	-18.97	-12.84	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	51@0	-14.54	-15.07	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	1@50	-14.57	-11.3	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	1@50	-11.44	-8.44	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	51@0	-12.84	-12.7	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	1@0	-10.54	-14.38	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	1@50	-14.55	-11.39	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	51@0	-12.19	-12.07	see graph	PASS
48	30	40	638000	3570.0	CP-OFDM QPSK	1@0	-10.75	-11.94	see graph	PASS
48	30	40	638000	3570.0	CP-OFDM QPSK	1@105	-12.76	-11.01	see graph	PASS



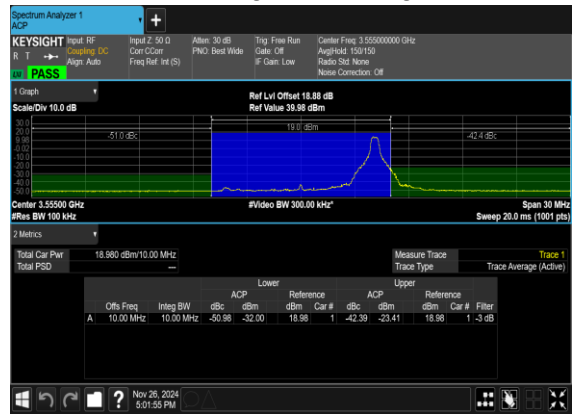
48	30	40	638000	3570.0	CP-OFDM QPSK	106@0	-10.9	-10.64	see graph	PASS
48	30	40	641666	3624.99	CP-OFDM QPSK	1@0	-10.62	-11.35	see graph	PASS
48	30	40	641666	3624.99	CP-OFDM QPSK	1@105	-13.23	-10.86	see graph	PASS
48	30	40	641666	3624.99	CP-OFDM QPSK	106@0	-10.64	-10.04	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	1@0	-10.2	-10.81	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	1@105	-11.49	-9.6	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	106@0	-10.35	-9.59	see graph	PASS



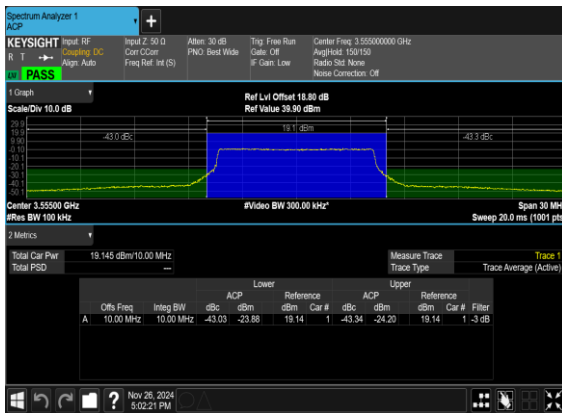
N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



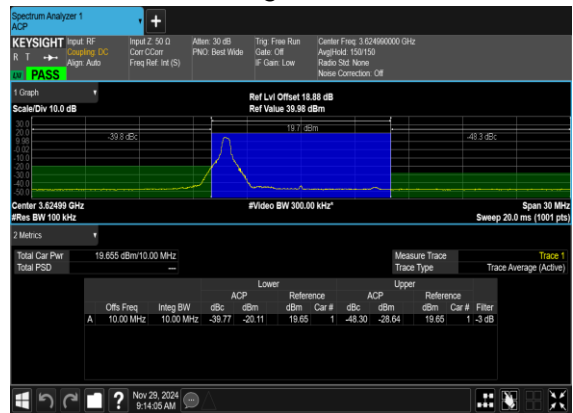
N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Right_Low_CH



N48(10M)_CP-
OFDM_QPSK_Outer_Full_Low_CH

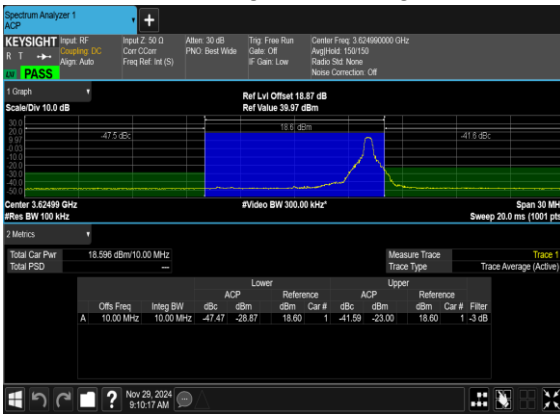


N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH





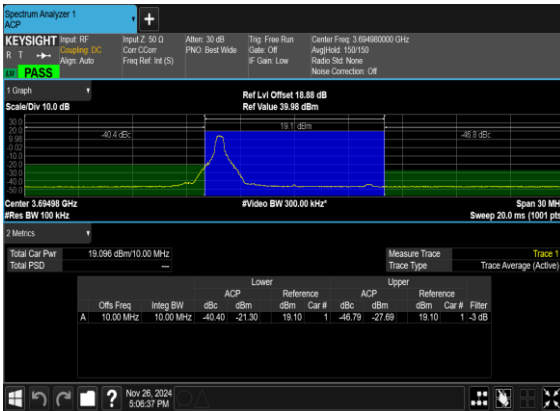
N48(10M)_CP- OFDM_QPSK_Edge_1RB_Right_Mid_CH



N48(10M)_CP- OFDM_QPSK_Outer_Full_Mid_CH



N48(10M)_CP- OFDM_QPSK_Edge_1RB_Left_High_CH

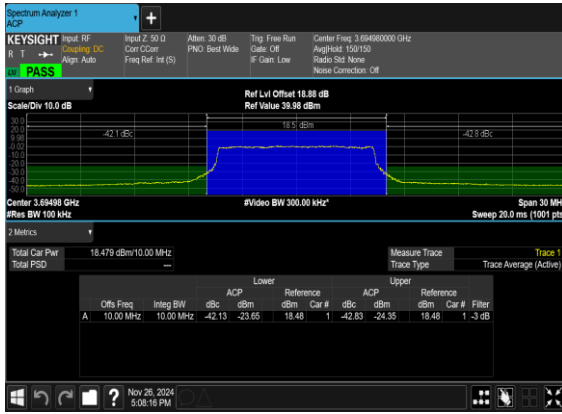


N48(10M)_CP-OFDM_QPSK _Edge_1RB_Right_High_CH

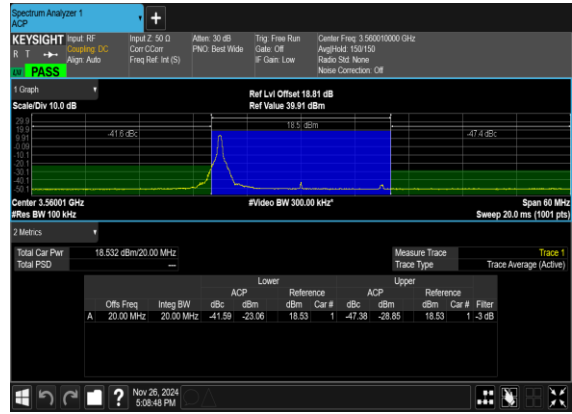




N48(10M)_CP-
OFDM_QPSK_Outer_Full_High_CH



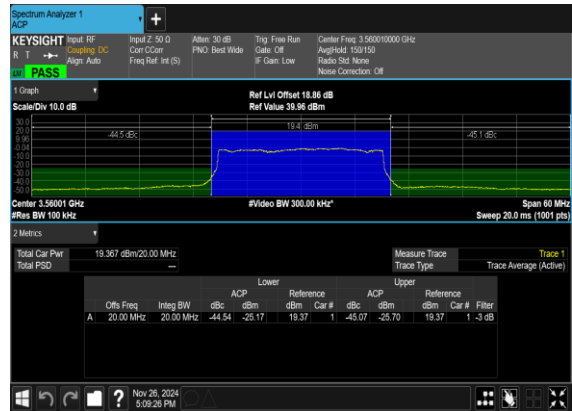
N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Right_Low_CH

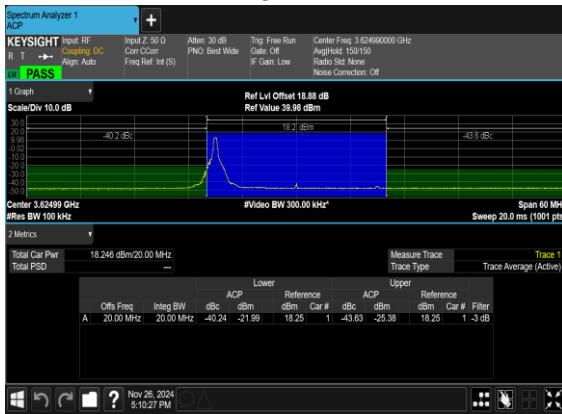


N48(20M)_CP-
OFDM_QPSK_Outer_Full_Low_CH

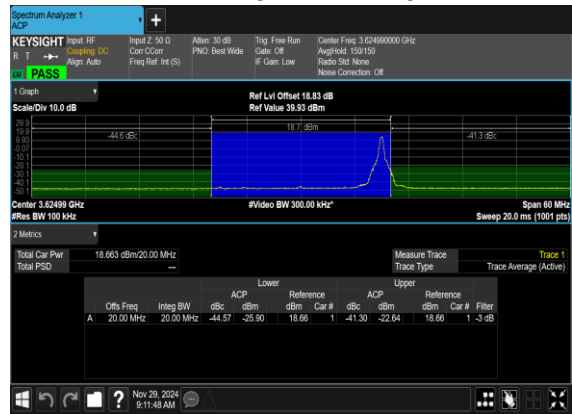




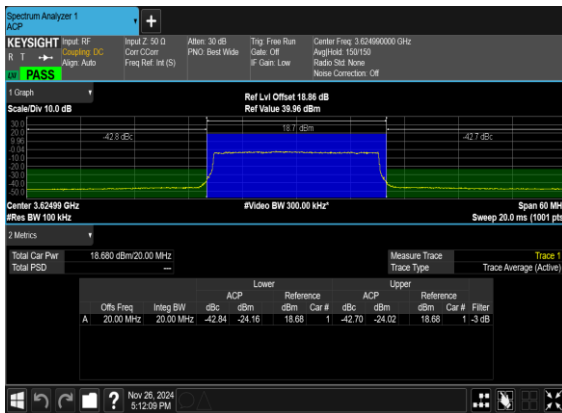
N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



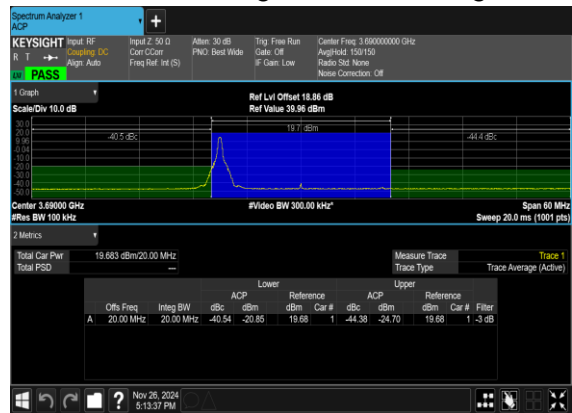
N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Right_Mid_CH



N48(20M)_CP-
OFDM_QPSK_Outer_Full_Mid_CH



N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH

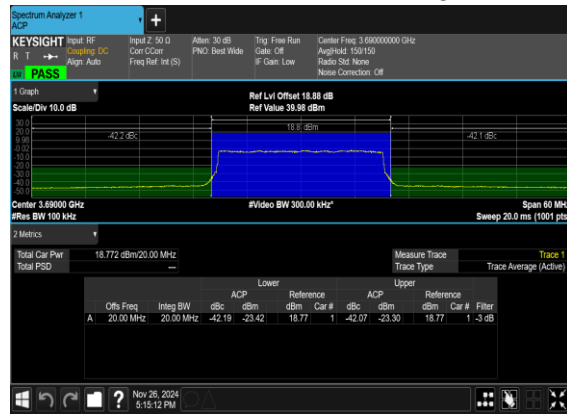




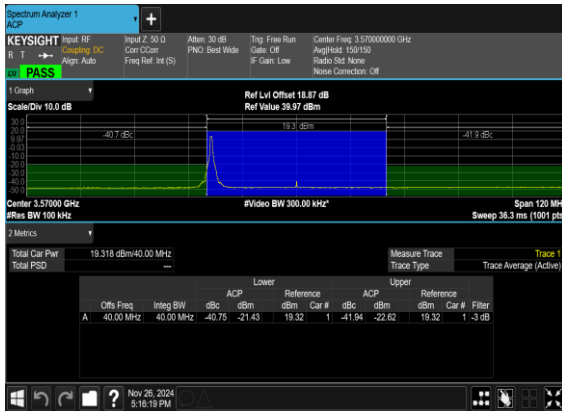
N48(20M)_CP-OFDM_QPSK_Edge_1RB_Right_High_CH



N48(20M)_CP-OFDM_QPSK_Outer_Full_High_CH



N48(40M)_CP-OFDM_QPSK_Edge_1RB_Left_Low_CH

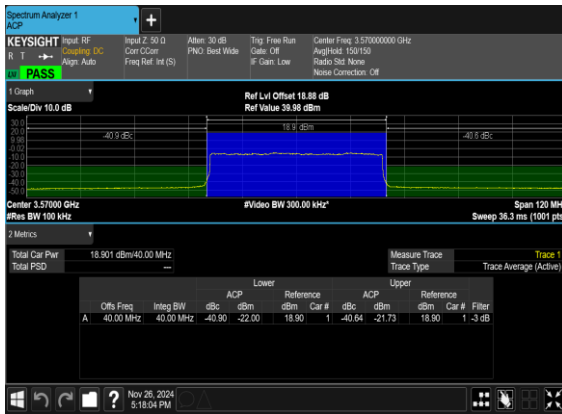


N48(40M)_CP-OFDM_QPSK_Edge_1RB_Right_Low_CH

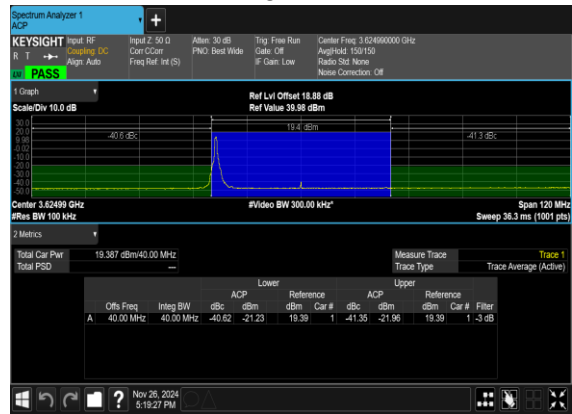




N48(40M)_CP-
OFDM_QPSK_Outer_Full_Low_CH



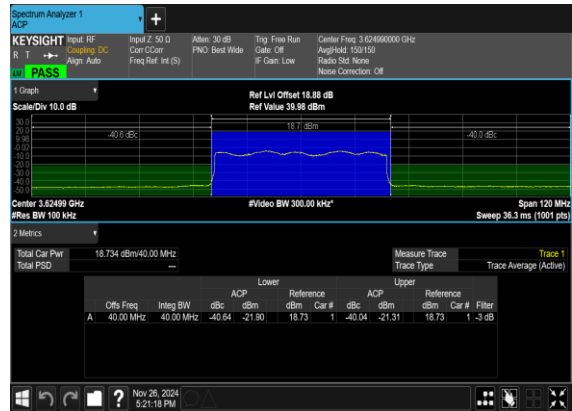
N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Right_Mid_CH



N48(40M)_CP-
OFDM_QPSK_Outer_Full_Mid_CH





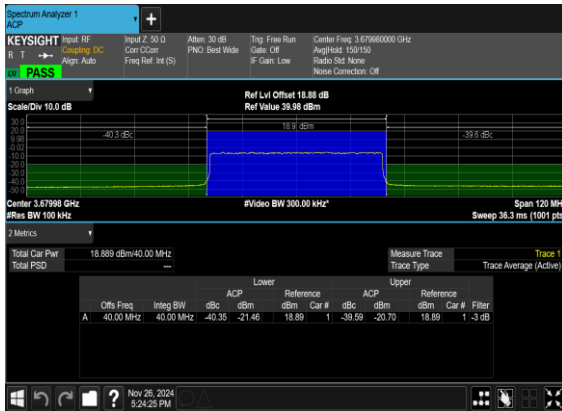
N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH



N48(40M)_CP-OFDM_QPSK
_Edge_1RB_Right_High_CH



N48(40M)_CP-
OFDM_QPSK_Outer_Full_High_CH





Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
48	30	10	637000	3555.0	CP-OFDM QPSK	1@0	see graph	---
48	30	10	637000	3555.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	637000	3555.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	1@0	see graph	---
48	30	10	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	1@0	see graph	---
48	30	10	646332	3694.98	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	1@0	see graph	---
48	30	20	637334	3560.01	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	1@0	see graph	---
48	30	20	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	1@0	see graph	---
48	30	20	646000	3690.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	638000	3570.0	CP-OFDM QPSK	1@0	see graph	---
48	30	40	638000	3570.0	CP-OFDM QPSK	1@0	see graph	PASS



48	30	40	638000	3570.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	641666	3624.99	CP-OFDM QPSK	1@0	see graph	---
48	30	40	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	1@0	see graph	---
48	30	40	645332	3679.98	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	1@0	see graph	PASS



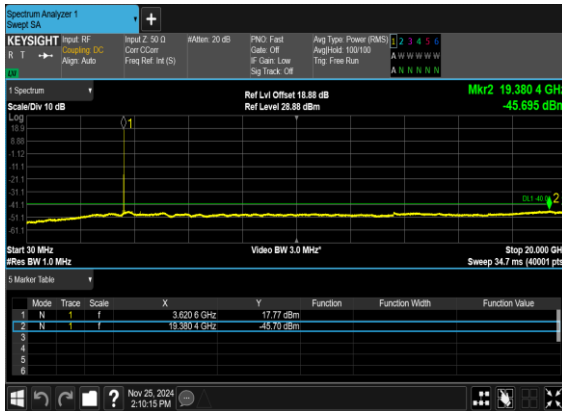
N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH





N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH



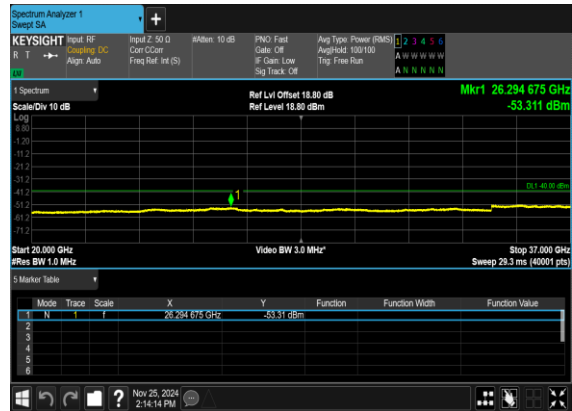
N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH



N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH

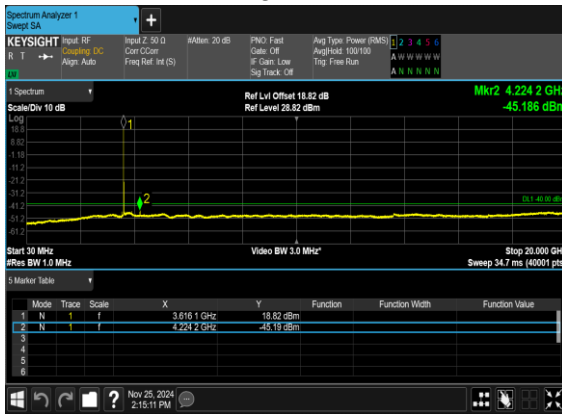


N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH





N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH

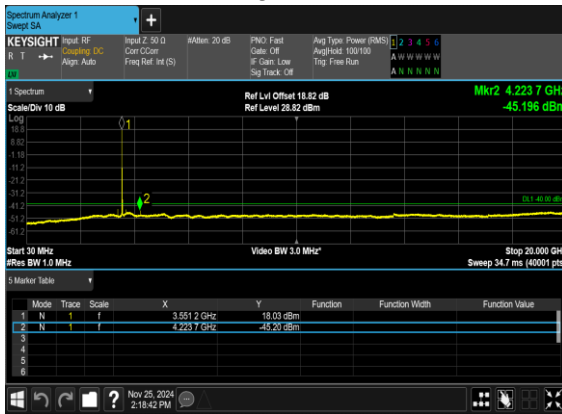


N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH

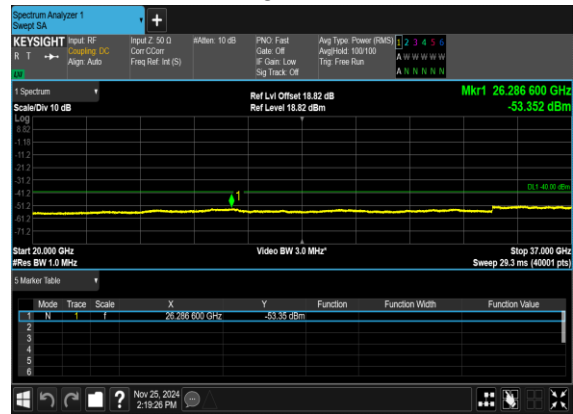




N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



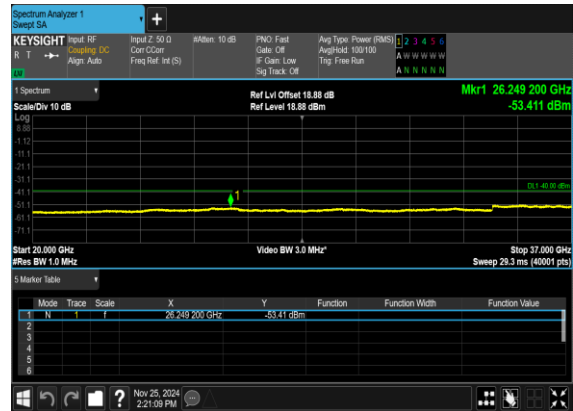
N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH

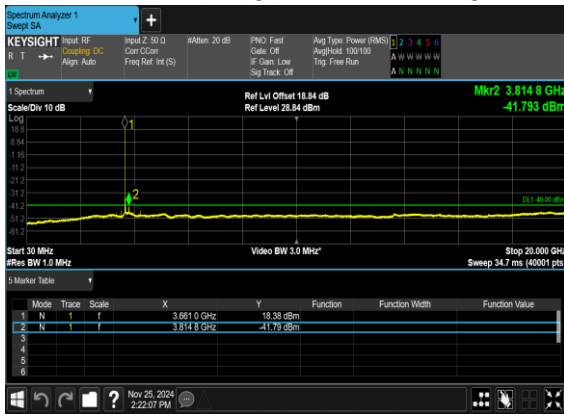


N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH

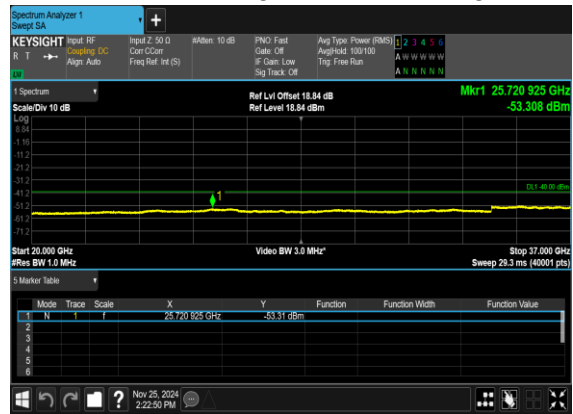




N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH



N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH





Conducted Band Edge

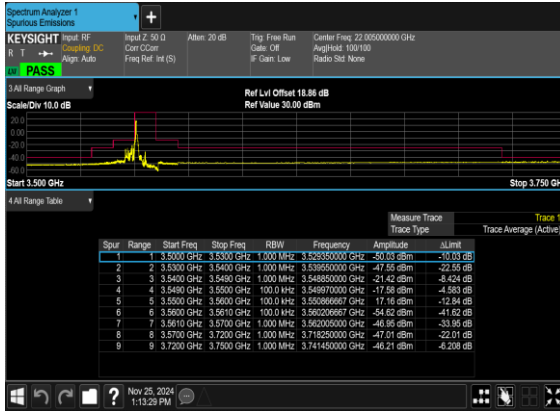
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
48	30	10	637000	3750.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	637000	3555.0	CP-OFDM QPSK	1@23	see graph	PASS
48	30	10	637000	3555.0	CP-OFDM QPSK	24@0	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	1@23	see graph	PASS
48	30	10	641666	3624.99	CP-OFDM QPSK	24@0	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	1@0	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	1@23	see graph	PASS
48	30	10	646332	3694.98	CP-OFDM QPSK	24@0	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	1@50	see graph	PASS
48	30	20	637334	3560.01	CP-OFDM QPSK	51@0	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	1@50	see graph	PASS
48	30	20	641666	3624.99	CP-OFDM QPSK	51@0	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	1@50	see graph	PASS
48	30	20	646000	3690.0	CP-OFDM QPSK	51@0	see graph	PASS
48	30	40	638000	3570.0	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	638000	3570.0	CP-OFDM QPSK	1@105	see graph	PASS
48	30	40	638000	3570.0	CP-OFDM QPSK	106@0	see graph	PASS
48	30	40	641666	3624.99	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	641666	3624.99	CP-OFDM QPSK	1@105	see graph	PASS



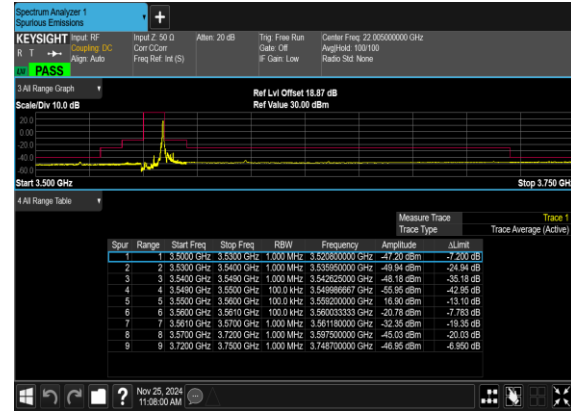
48	30	40	641666	3624.99	CP-OFDM QPSK	106@0	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	1@0	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	1@105	see graph	PASS
48	30	40	645332	3679.98	CP-OFDM QPSK	106@0	see graph	PASS



N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



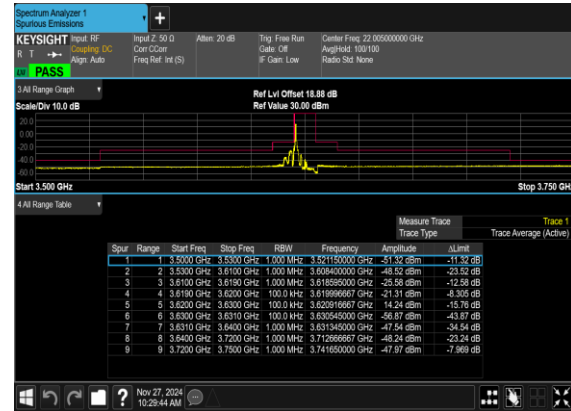
N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Right_Low_CH



N48(10M)_CP-
OFDM_QPSK_Outer_Full_Low_CH

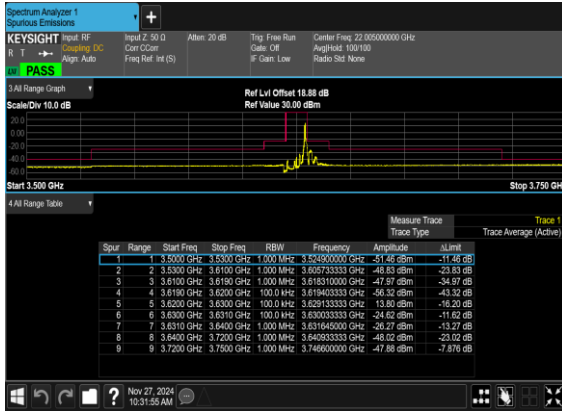


N48(10M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH

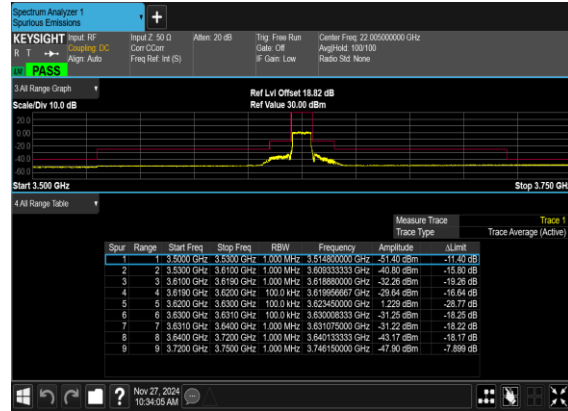




N48(10M)_CP- OFDM_QPSK_Edge_1RB_Right_Mid_CH



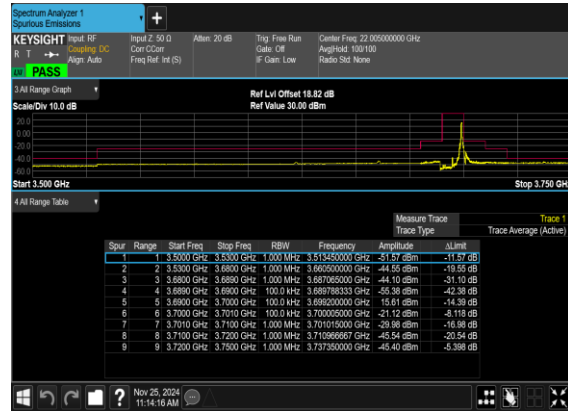
N48(10M)_CP- OFDM_QPSK_Outer_Full_Mid_CH



N48(10M)_CP- OFDM_QPSK_Edge_1RB_Left_High_CH

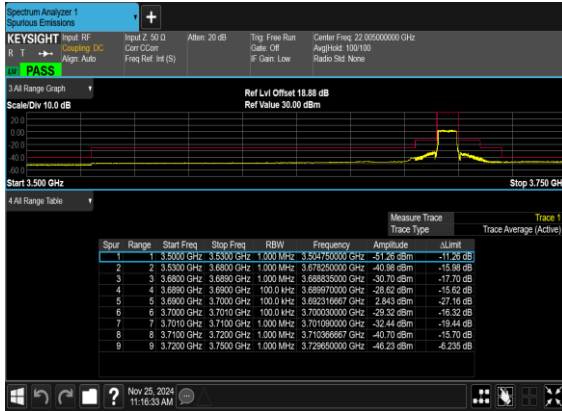


N48(10M)_CP- OFDM_QPSK_Edge_1RB_Right_High_CH

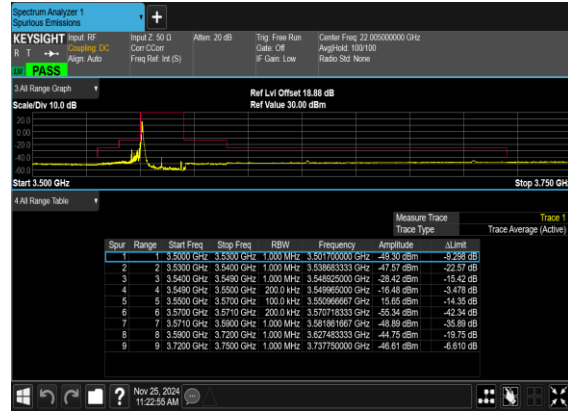




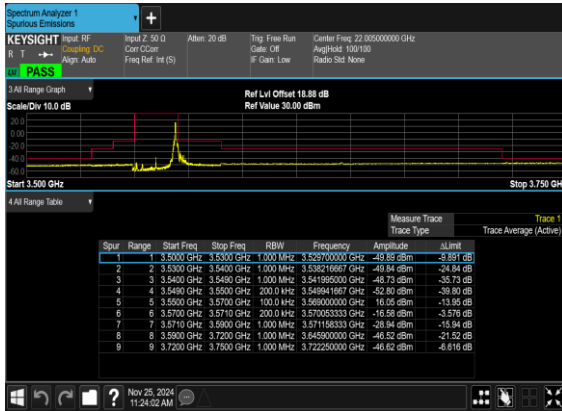
N48(10M)_CP-
OFDM_QPSK_Outer_Full_High_CH



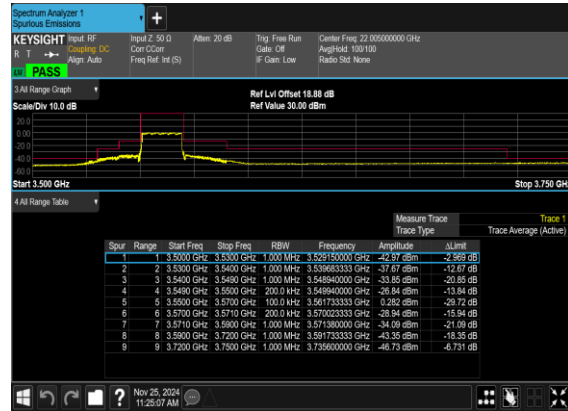
N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Low_CH



N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Right_Low_CH

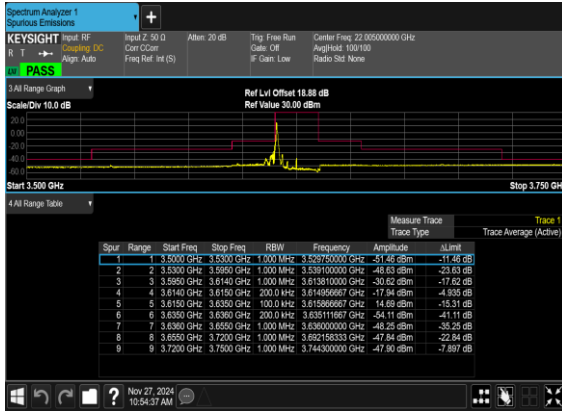


N48(20M)_CP-
OFDM_QPSK_Outer_Full_Low_CH

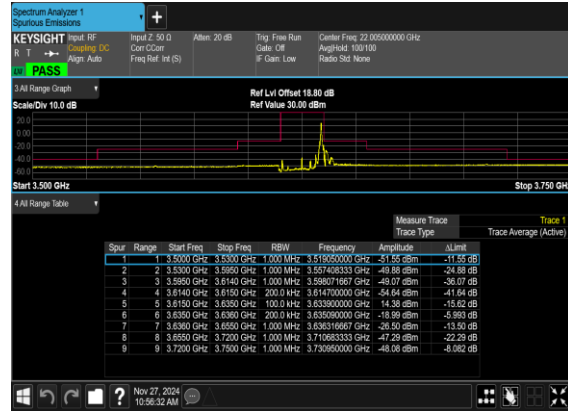




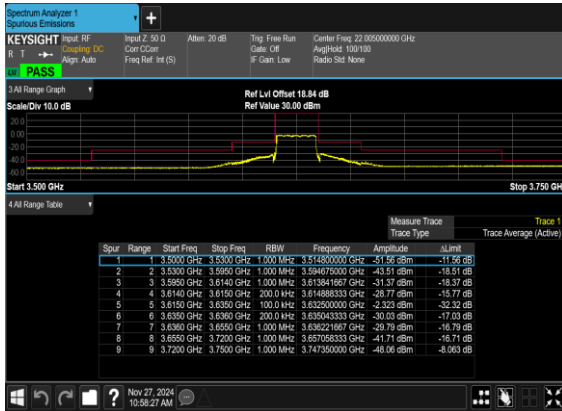
N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



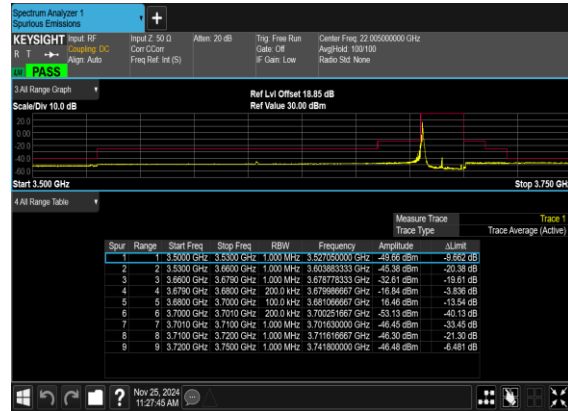
N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Right_Mid_CH



N48(20M)_CP-
OFDM_QPSK_Outer_Full_Mid_CH

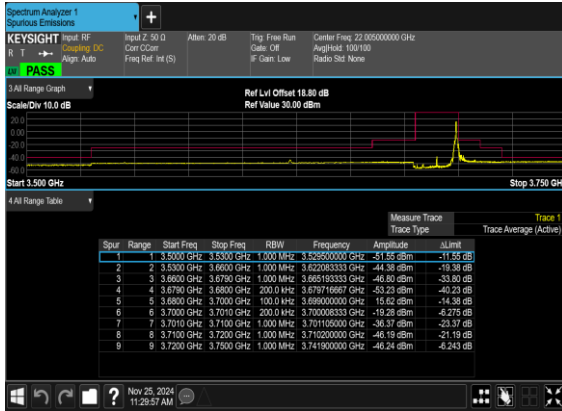


N48(20M)_CP-
OFDM_QPSK_Edge_1RB_Left_High_CH

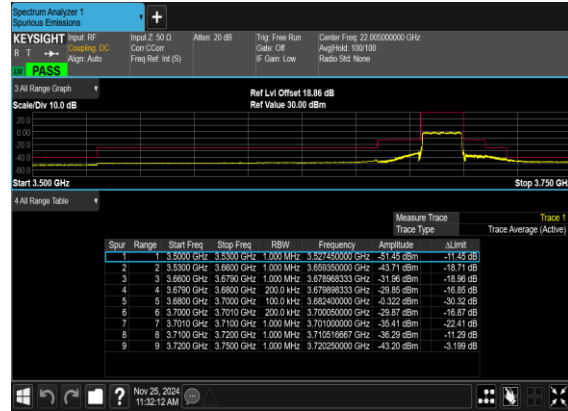




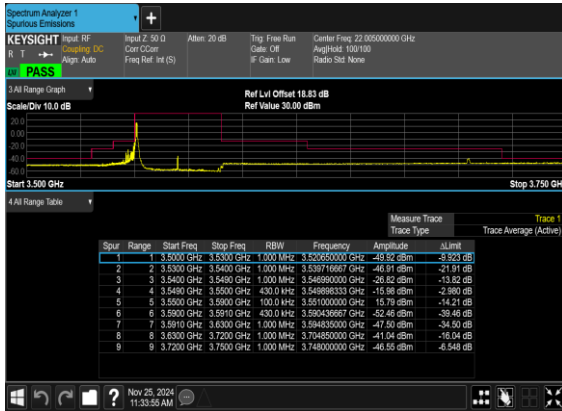
N48(20M)_CP- OFDM_QPSK_Edge_1RB_Right_High_CH



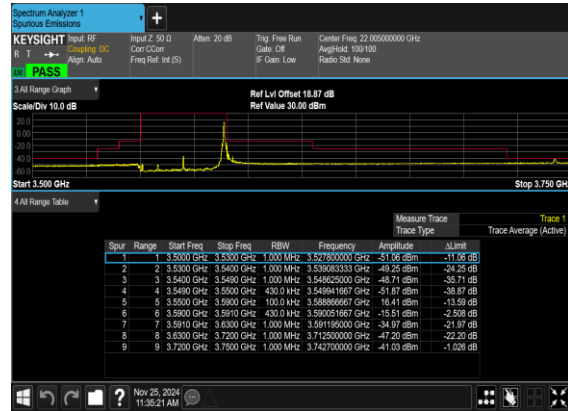
N48(20M)_CP- OFDM_QPSK_Outer_Full_High_CH



N48(40M)_CP- OFDM_QPSK_Edge_1RB_Left_Low_CH

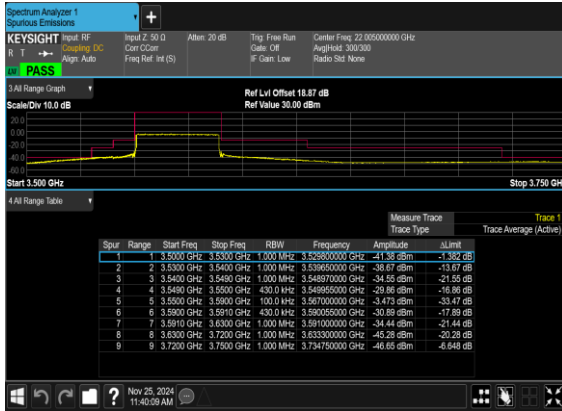


N48(40M)_CP- OFDM_QPSK_Edge_1RB_Right_Low_CH

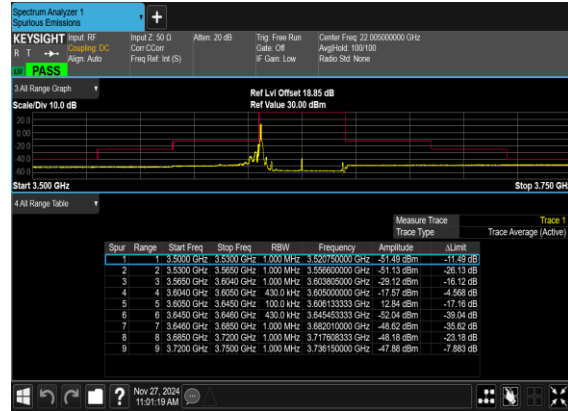




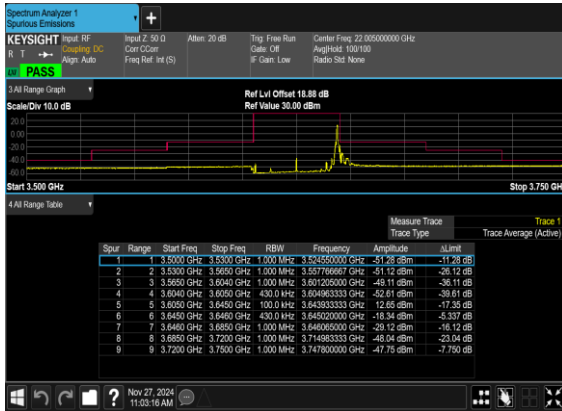
N48(40M)_CP-
OFDM_QPSK_Outer_Full_Low_CH



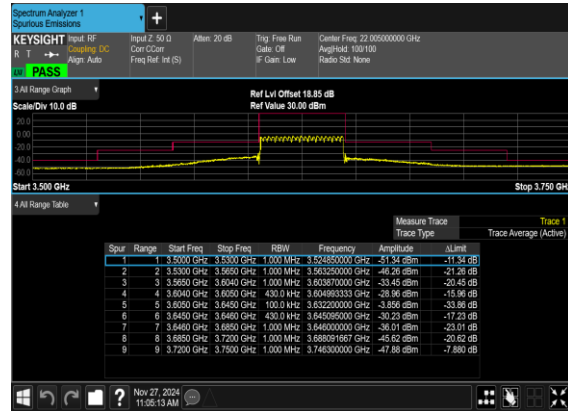
N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



N48(40M)_CP-
OFDM_QPSK_Edge_1RB_Right_Mid_CH

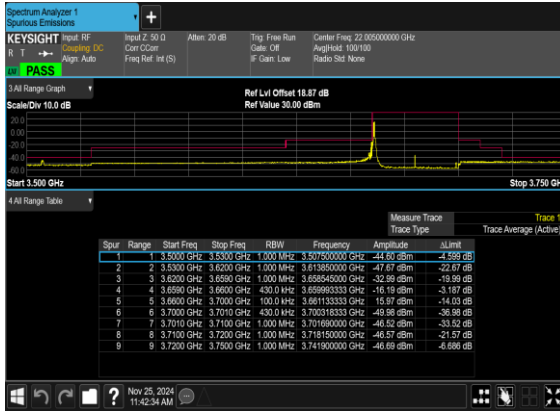


N48(40M)_CP-
OFDM_QPSK_Outer_Full_Mid_CH

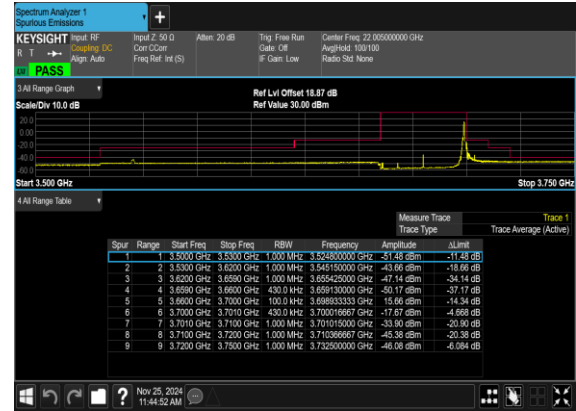




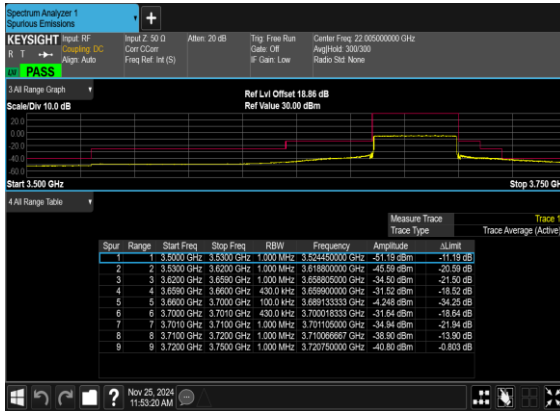
N48(40M)_CP- OFDM_QPSK_Edge_1RB_Left_High_CH



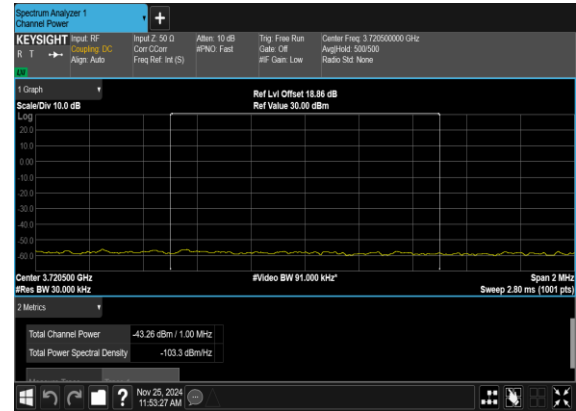
N48(40M)_CP- OFDM_QPSK_Edge_1RB_Right_High_CH



N48(40M)_CP- OFDM_QPSK_Outer_Full_High_CH



N48(40M)_CP- OFDM_QPSK_Outer_Full_High_CH_CHP_PASS





Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Bruce	Temperature :	23~25°C
		Relative Humidity :	41~42%

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

N48 SA / NR 40MHz / QPSK (Ant.9)								
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	7104	-44.33	-40	-4.33	-55.79	2.84	14.30	H
	10656	-44.06	-40	-4.06	-54.00	3.49	13.43	H
	14208	-59.78	-40	-19.78	-70.02	3.85	14.09	H
	7104	-43.30	-40	-3.30	-54.76	2.84	14.30	V
	10656	-47.84	-40	-7.84	-57.78	3.49	13.43	V
	14208	-59.47	-40	-19.47	-69.71	3.85	14.09	V
Middle	7212	-51.19	-40	-11.19	-62.65	2.84	14.30	H
	10824	-43.49	-40	-3.49	-53.43	3.49	13.43	H
	14424	-59.44	-40	-19.44	-69.68	3.85	14.09	H
	7212	-51.15	-40	-11.15	-62.61	2.84	14.30	V
	10824	-43.16	-40	-3.16	-53.10	3.49	13.43	V
	14424	-59.71	-40	-19.71	-69.95	3.85	14.09	V
Highest	7320	-50.88	-40	-10.88	-62.34	2.84	14.30	H
	10980	-43.51	-40	-3.51	-53.45	3.49	13.43	H
	14652	-59.91	-40	-19.91	-70.15	3.85	14.09	H
	7320	-50.58	-40	-10.58	-62.04	2.84	14.30	V
	10980	-43.53	-40	-3.53	-53.47	3.49	13.43	V
	14652	-60.00	-40	-20.00	-70.24	3.85	14.09	V

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



N48 UL MIMO / NR 40MHz / QPSK(Ant.7+4)								
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	7104	-60.82	-40	-20.82	-72.28	2.84	14.30	H
	10656	-54.65	-40	-14.65	-64.59	3.49	13.43	H
	14208	-59.56	-40	-19.56	-69.80	3.85	14.09	H
	7104	-57.45	-40	-17.45	-68.91	2.84	14.30	V
	10656	-57.04	-40	-17.04	-66.98	3.49	13.43	V
	14208	-59.72	-40	-19.72	-69.96	3.85	14.09	V
Middle	7212	-59.96	-40	-19.96	-71.42	2.84	14.30	H
	10824	-52.09	-40	-12.09	-62.03	3.49	13.43	H
	14424	-59.95	-40	-19.95	-70.19	3.85	14.09	H
	7212	-59.94	-40	-19.94	-71.40	2.84	14.30	V
	10824	-53.99	-40	-13.99	-63.93	3.49	13.43	V
	14424	-59.98	-40	-19.98	-70.22	3.85	14.09	V
Highest	7320	-57.46	-40	-17.46	-68.92	2.84	14.30	H
	10980	-50.94	-40	-10.94	-60.88	3.49	13.43	H
	14652	-59.89	-40	-19.89	-70.13	3.85	14.09	H
	7320	-58.31	-40	-18.31	-69.77	2.84	14.30	V
	10980	-50.89	-40	-10.89	-60.83	3.49	13.43	V
	14652	-60.17	-40	-20.17	-70.41	3.85	14.09	V

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