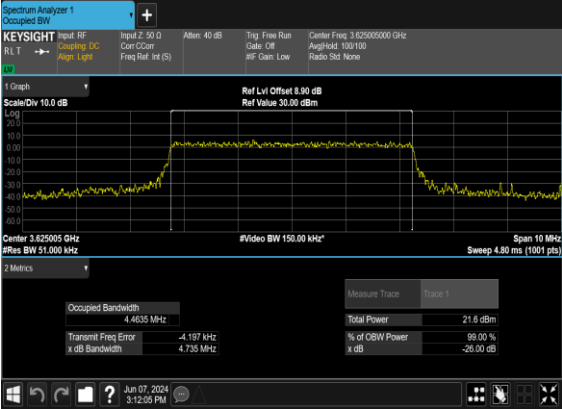


FR1 N48-SCS15K

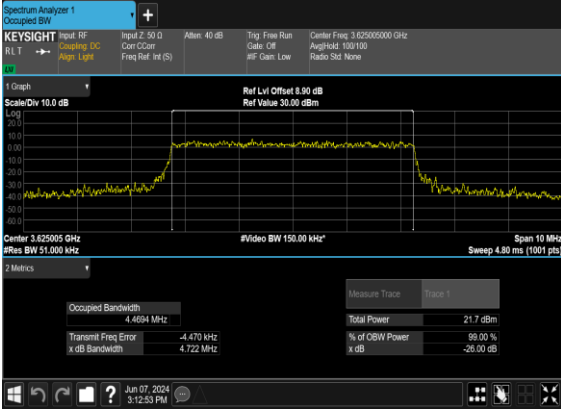
Occupied Bandwidth

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
48	15	5	641667	3625.01	CP-OFDM QPSK	25@0	4.4635	4.735
48	15	5	641667	3625.01	CP-OFDM 16 QAM	25@0	4.4694	4.722
48	15	5	641667	3625.01	CP-OFDM 64 QAM	25@0	4.4595	4.745
48	15	5	641667	3625.01	CP-OFDM 256 QAM	25@0	4.4623	4.753

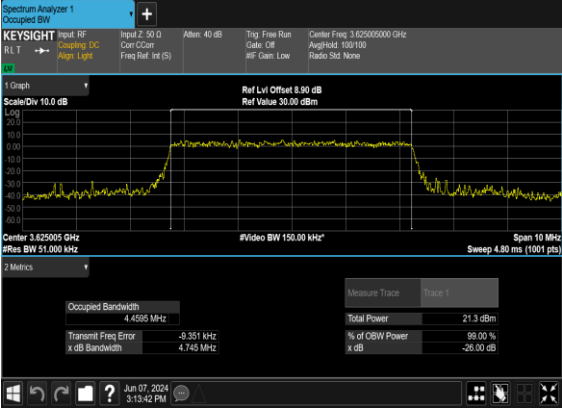
B2_N48(5M)_CP-OFDM QPSK Outer Full Mid CH



B2_N48(5M)_CP-OFDM_16 QAM Outer Full Mid CH



B2_N48(5M)_CP-OFDM_64 QAM Outer Full Mid CH



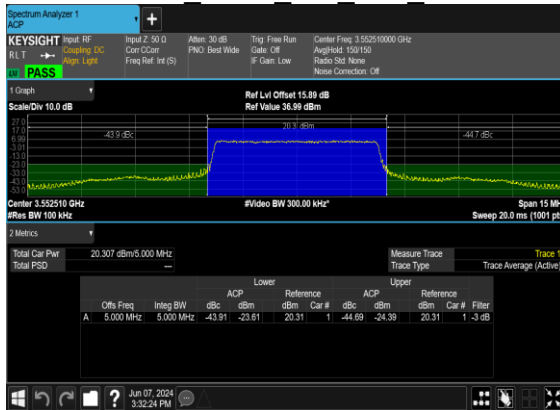
B2_N48(5M)_CP-OFDM_256 QAM Outer Full Mid CH



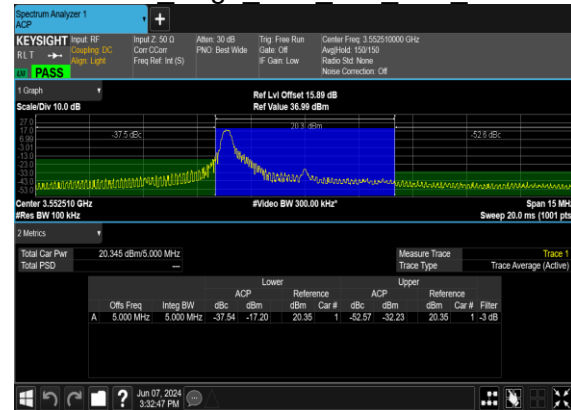
Adjacent Channel Leakage Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Lower Margin	Upper Margin	Result	Verdict
48	15	5	636834	3552.51	DFT-s-OFDM PI/2 BPSK	25@0	-13.91	-14.69	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM PI/2 BPSK	1@0	-7.54	-22.57	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM PI/2 BPSK	1@24	-22.18	-9.44	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	25@0	-12.0	-12.52	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	1@0	-9.27	-23.08	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	1@24	-22.82	-9.7	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM PI/2 BPSK	25@0	-13.46	-14.84	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM PI/2 BPSK	1@0	-6.9	-21.99	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM PI/2 BPSK	1@24	-21.84	-9.18	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	25@0	-11.88	-11.66	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	1@0	-9.71	-23.05	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	1@24	-20.74	-9.22	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM PI/2 BPSK	25@0	-12.82	-13.47	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM PI/2 BPSK	1@0	-7.85	-21.1	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM PI/2 BPSK	1@24	-20.73	-8.81	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	25@0	-11.1	-11.48	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	1@0	-8.39	-21.58	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	1@24	-21.65	-9.66	see graph	PASS

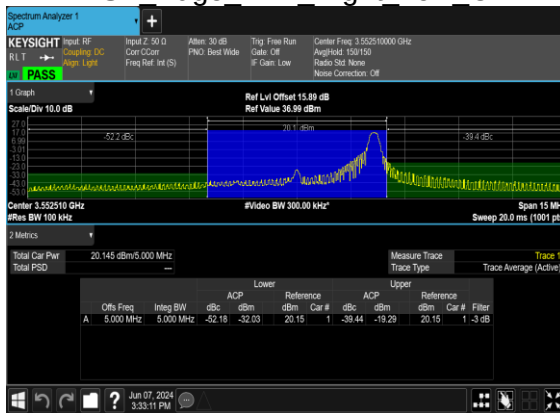
B2_N48(5M)_DFT-s-OFDM_PI_2-
BPSK Outer Full Low CH



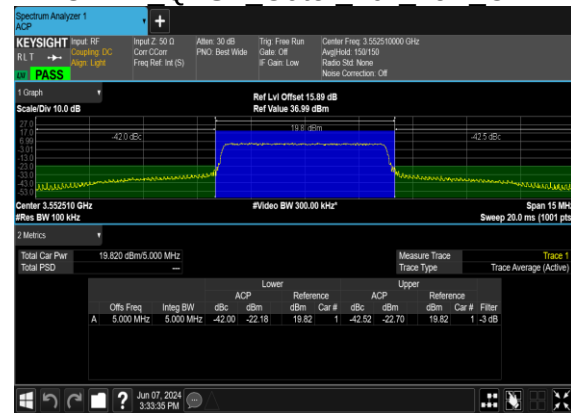
B2_N48(5M)_DFT-s-OFDM_PI_2-
BPSK Edge 1RB Left Low CH



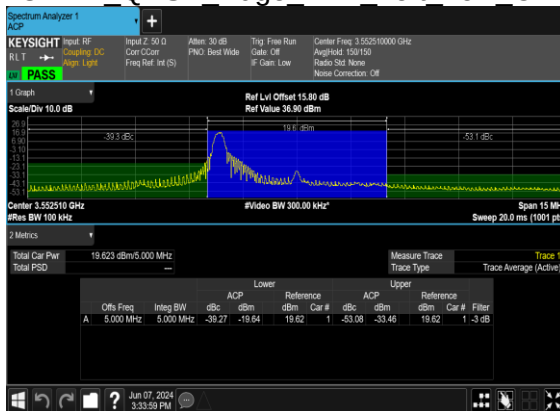
B2_N48(5M)_DFT-s-OFDM_PI_2-
BPSK Edge 1RB Right Low CH



B2_N48(5M)_DFT-s-
OFDM QPSK Outer Full Low CH



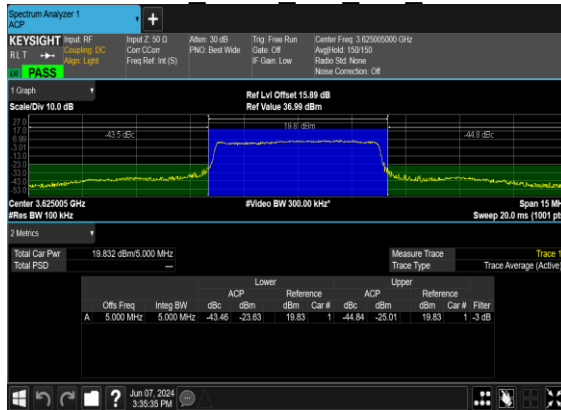
B2_N48(5M)_DFT-s-
OFDM QPSK Edge 1RB Left Low CH



B2_N48(5M)_DFT-s-
OFDM QPSK Edge 1RB Right Low CH



B2_N48(5M)_DFT-s-OFDM_PI_2-
BPSK Outer Full Mid CH



B2_N48(5M)_DFT-s-OFDM_PI_2-
BPSK Edge 1RB Left Mid CH



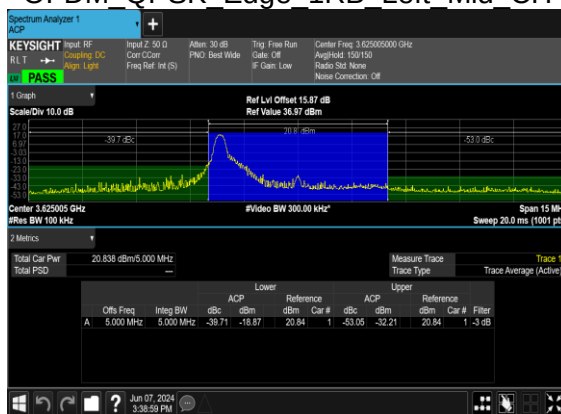
B2_N48(5M)_DFT-s-OFDM_PI_2-
BPSK Edge 1RB Right Mid CH



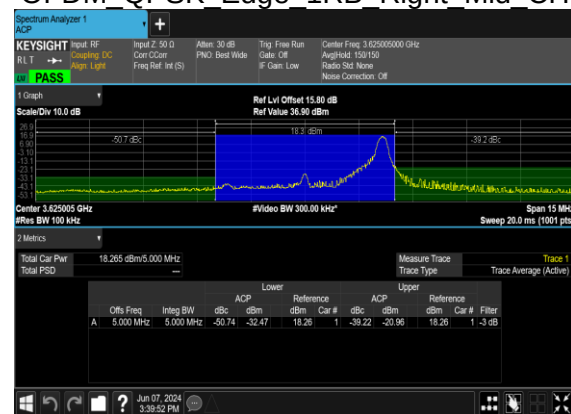
B2_N48(5M)_DFT-s-
OFDM QPSK Outer Full Mid CH



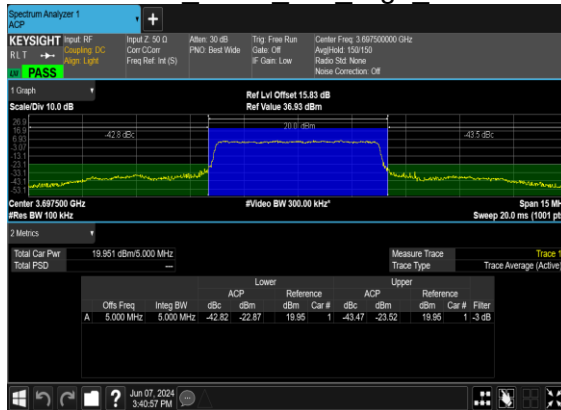
B2_N48(5M)_DFT-s-
OFDM QPSK Edge 1RB Left Mid CH



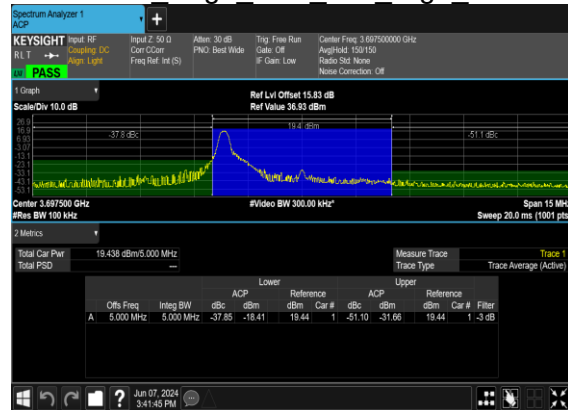
B2_N48(5M)_DFT-s-
OFDM QPSK Edge 1RB Right Mid CH



B2_N48(5M)_DFT-s-OFDM_PI_2-BPSK Outer Full High CH



B2_N48(5M)_DFT-s-OFDM_PI_2-BPSK Edge 1RB Left High CH



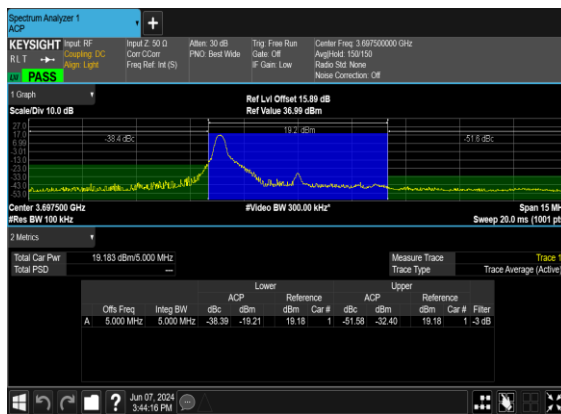
B2_N48(5M)_DFT-s-OFDM_PI_2-BPSK Edge 1RB Right High CH



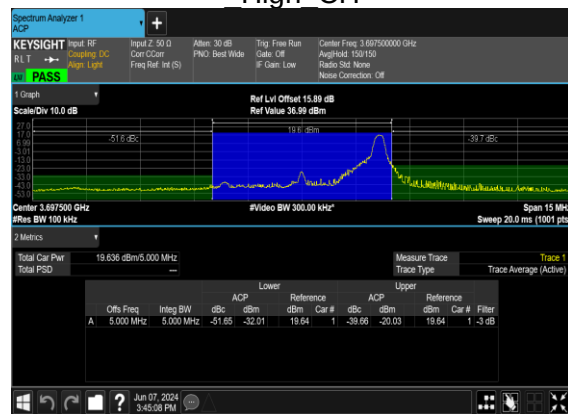
B2_N48(5M)_DFT-s-OFDM_QPSK Outer Full High CH



B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



Conducted Spurious Emissions

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
48	15	5	636834	3552.51	DFT-s-OFDM BPSK	1@0	see graph	---
48	15	5	636834	3552.51	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	1@0	see graph	---
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM BPSK	1@0	see graph	---
48	15	5	641667	3625.005	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	1@0	see graph	---
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM BPSK	1@0	see graph	---
48	15	5	646500	3697.5	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	1@0	see graph	---
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	1@0	see graph	PASS

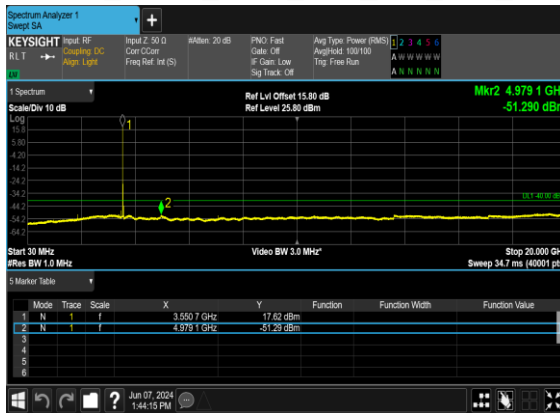
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



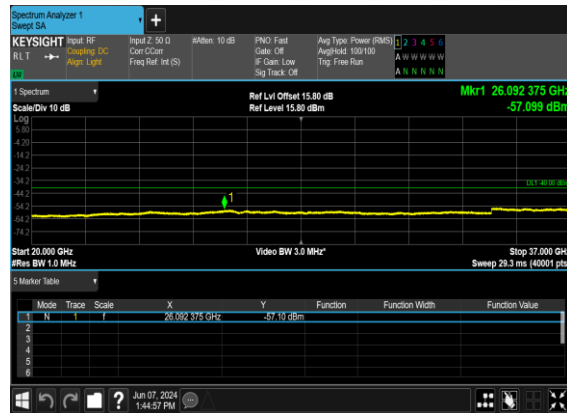
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



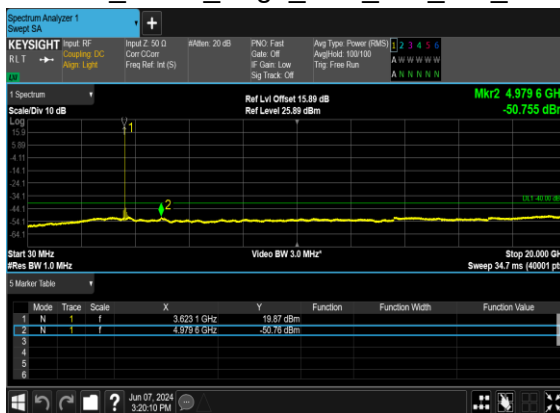
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



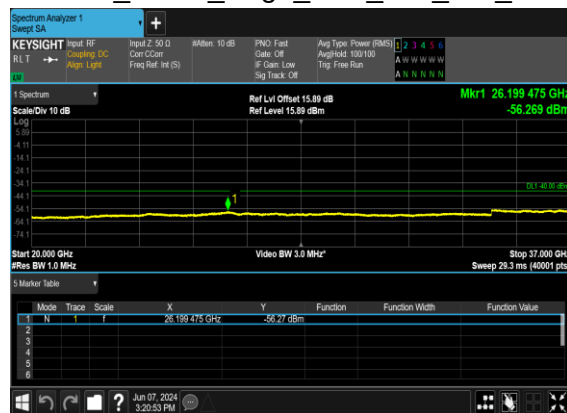
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



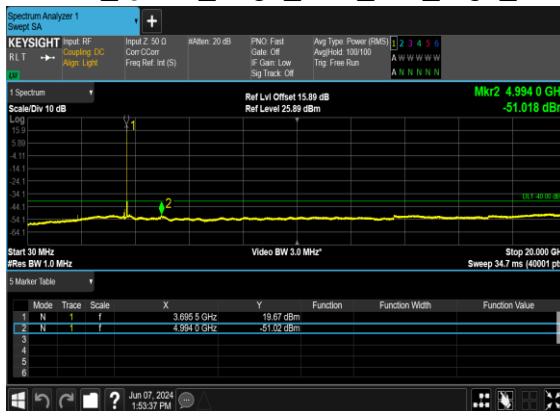
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



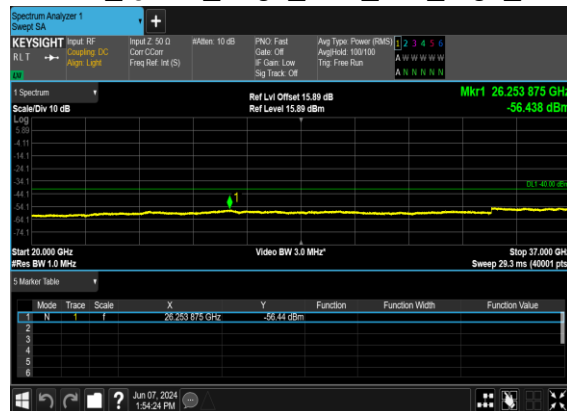
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



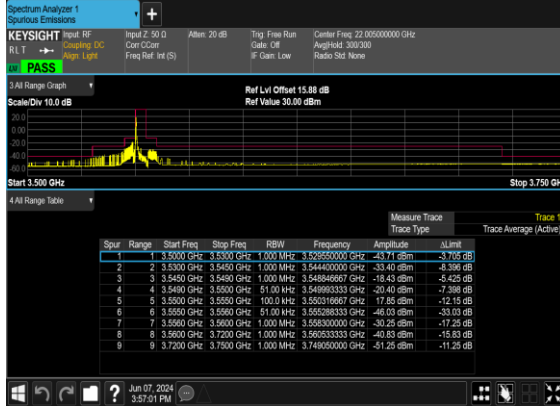
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



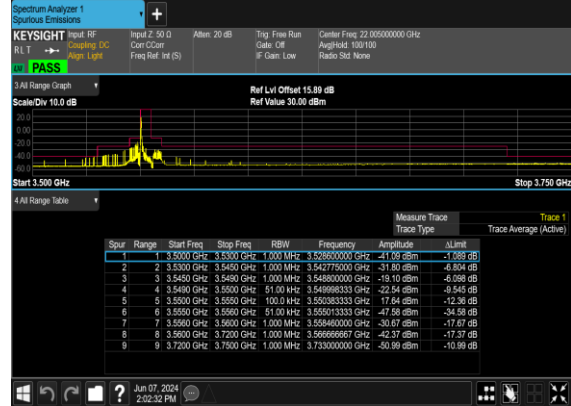
Conducted Band Edge

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
48	15	5	636834	3552.51	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM BPSK	1@24	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	1@24	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM BPSK	25@0	see graph	PASS
48	15	5	636834	3552.51	DFT-s-OFDM QPSK	25@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM BPSK	1@24	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	1@24	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM BPSK	25@0	see graph	PASS
48	15	5	641667	3625.005	DFT-s-OFDM QPSK	25@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM BPSK	1@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	1@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM BPSK	1@24	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	1@24	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM BPSK	25@0	see graph	PASS
48	15	5	646500	3697.5	DFT-s-OFDM QPSK	25@0	see graph	PASS

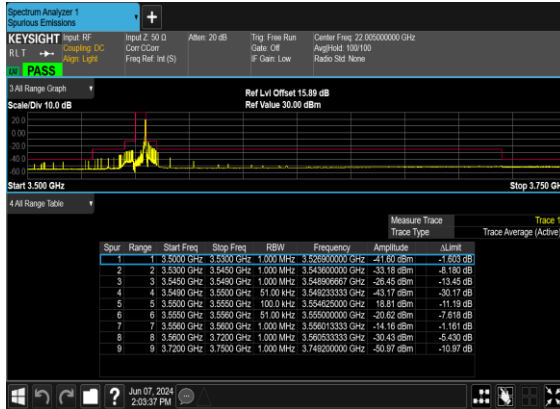
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



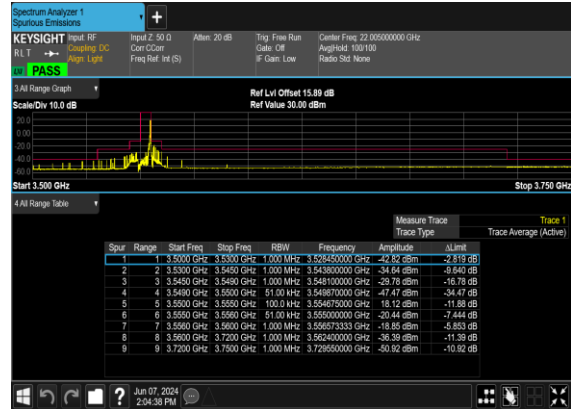
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



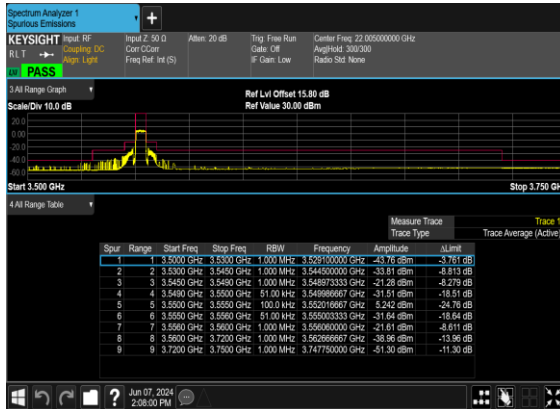
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Low_CH



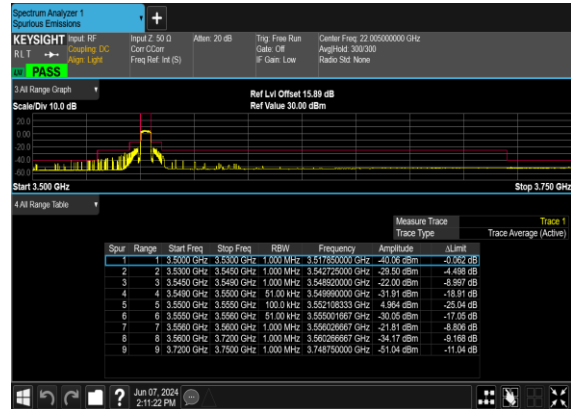
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Low_CH



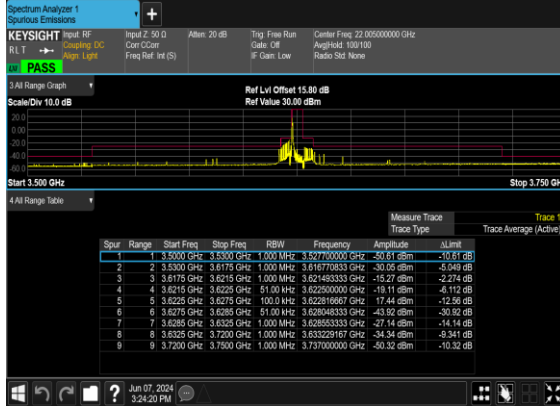
B2_N48(5M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



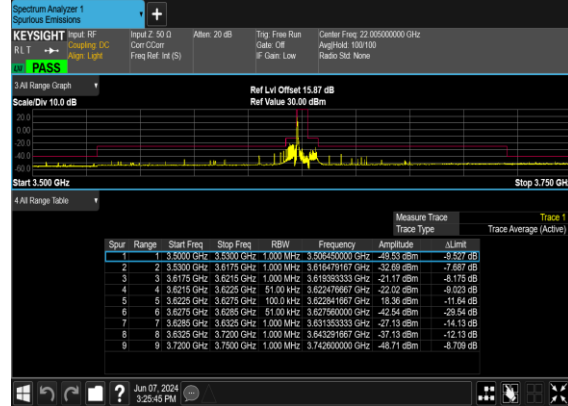
B2_N48(5M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



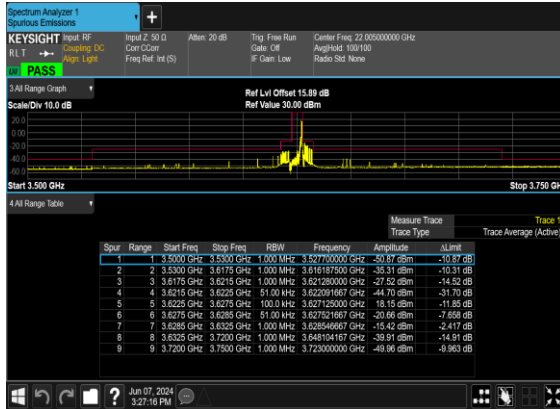
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



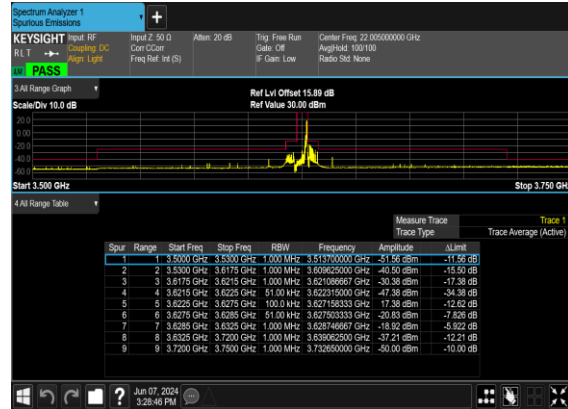
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



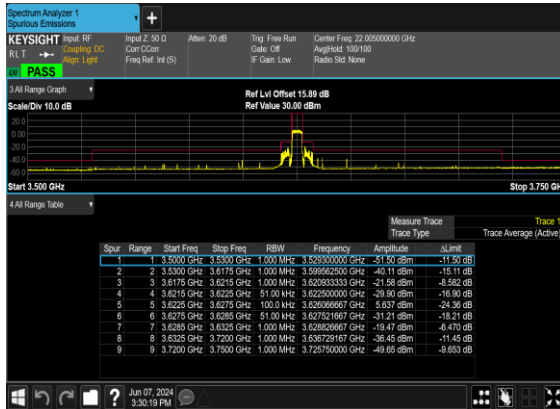
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Mid_CH



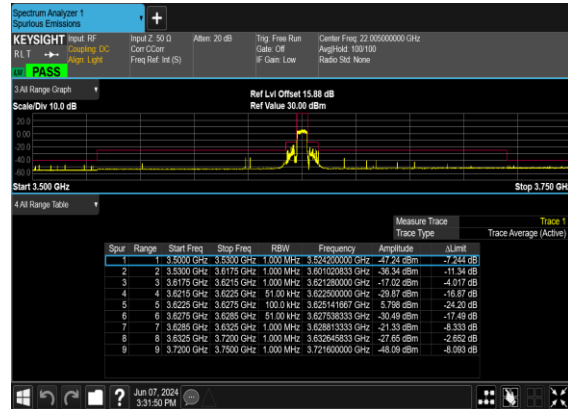
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Mid_CH



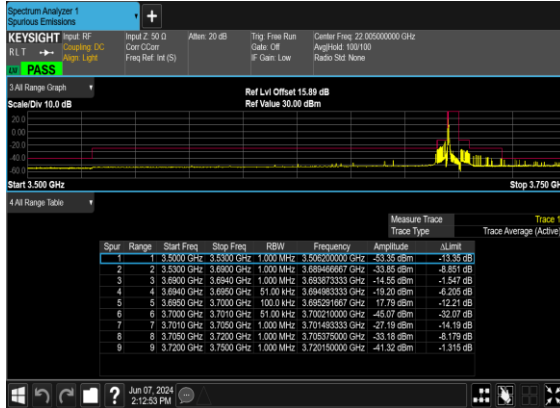
B2_N48(5M)_DFT-s-OFDM_BPSK_Outer_Full_Mid_CH



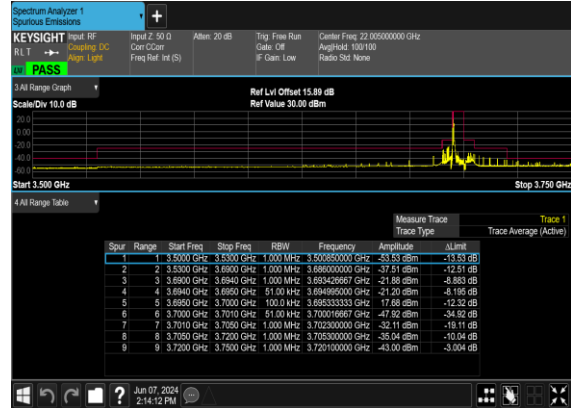
B2_N48(5M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



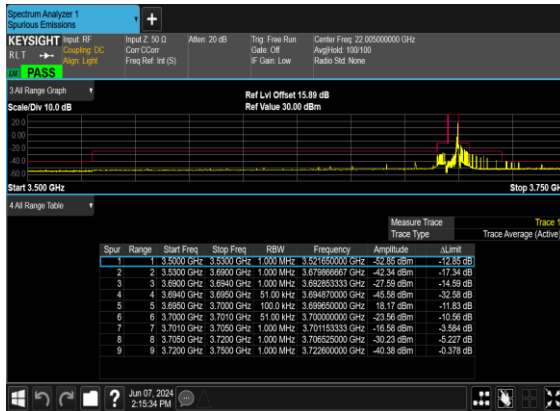
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



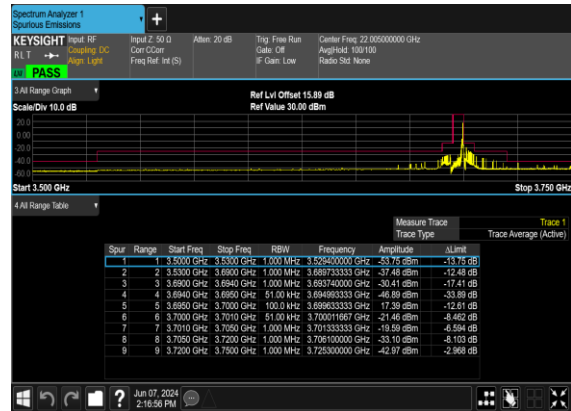
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



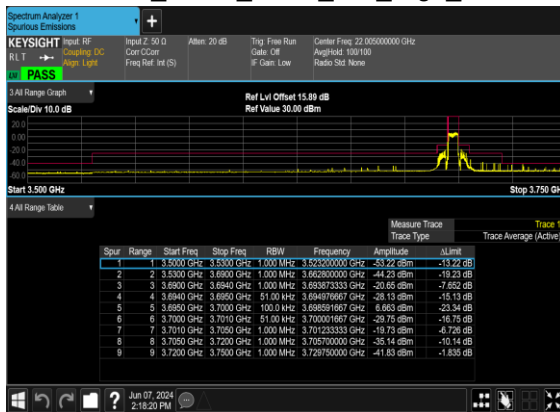
B2_N48(5M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



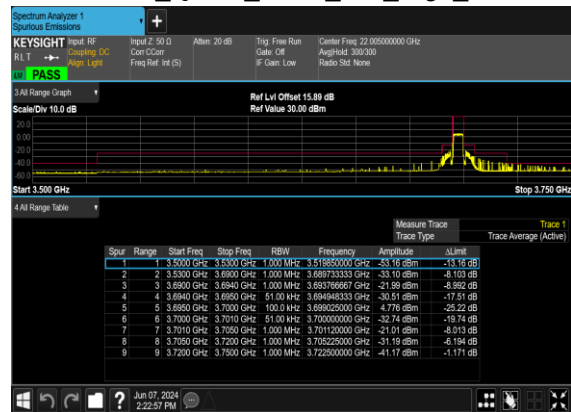
B2_N48(5M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



B2_N48(5M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



B2_N48(5M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Carl NiZhaohui Liang	Temperature :	22~25°C
		Relative Humidity :	48~52%

SA n48 / 40MHz / QPSK / Sample 1 & Monopole Antenna									
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)
Lowest	7102.37	-57.20	-40	-17.20	-65.39	-60.53	8.25	11.58	H
	10653.55	-54.43	-40	-14.43	-67.31	-55.98	10.45	12.00	H
	14204.74	-53.85	-40	-13.85	-69.73	-55.56	11.74	13.45	H
	7102.37	-55.59	-40	-15.59	-64.94	-58.92	8.25	11.58	V
	10653.55	-52.59	-40	-12.59	-67.93	-54.14	10.45	12.00	V
	14204.74	-54.35	-40	-14.35	-69.62	-56.06	11.74	13.45	V
Middle	7152.35	-56.93	-40	-16.93	-65.33	-60.23	8.30	11.60	H
	10728.52	-54.41	-40	-14.41	-67.59	-55.93	10.48	12.00	H
	14304.70	-53.12	-40	-13.12	-69.14	-54.82	11.80	13.50	H
	7152.35	-55.18	-40	-15.18	-65.22	-58.48	8.30	11.60	V
	10728.52	-51.67	-40	-11.67	-67.37	-53.19	10.48	12.00	V
	14304.70	-53.78	-40	-13.78	-69.27	-55.48	11.80	13.50	V
Highest	7202.33	-57.68	-40	-17.68	-66.29	-60.98	8.32	11.62	H
	10803.49	-54.36	-40	-14.36	-67.92	-56.04	10.52	12.20	H
	14404.66	-53.37	-40	-13.37	-69.53	-55.07	11.85	13.55	H
	7202.33	-55.30	-40	-15.30	-66.04	-58.60	8.32	11.62	V
	10803.49	-52.96	-40	-12.96	-68.11	-54.64	10.52	12.20	V
	14404.66	-54.04	-40	-14.04	-69.74	-55.74	11.85	13.55	V

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



EN-DC_2A_n48A / LTE 20MHz + NR 40MHz / QPSK / Sample 1 & Monopole Antenna									
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)
Lowest 5G n48	7102.37	-57.17	-40	-17.17	-65.36	-60.50	8.25	11.58	H
	10653.55	-54.93	-40	-14.93	-67.81	-56.48	10.45	12.00	H
	14204.74	-54.09	-40	-14.09	-69.97	-55.80	11.74	13.45	H
	7102.37	-56.48	-40	-16.48	-65.83	-59.81	8.25	11.58	V
	10653.55	-52.63	-40	-12.63	-67.97	-54.18	10.45	12.00	V
	14204.74	-54.81	-40	-14.81	-70.08	-56.52	11.74	13.45	V
Lowest LTE Band 2	3751.18	-60.48	-13	-47.48	-63.57	-67.23	5.85	12.60	H
	5626.77	-59.28	-13	-46.28	-64.46	-65.08	7.30	13.10	H
	7502	-57.70	-13	-44.70	-66.30	-60.85	8.35	11.50	H
	3751.18	-57.88	-13	-44.88	-64.13	-64.63	5.85	12.60	V
	5626.77	-58.73	-13	-45.73	-64.41	-64.53	7.30	13.10	V
	7502	-58.35	-13	-45.35	-66.94	-61.50	8.35	11.50	V
Middle 5G n48	7152.35	-56.99	-40	-16.99	-65.39	-60.29	8.30	11.60	H
	10728.52	-54.44	-40	-14.44	-67.62	-55.96	10.48	12.00	H
	14304.70	-53.67	-40	-13.67	-69.69	-55.37	11.80	13.50	H
	7152.35	-55.52	-40	-15.52	-65.56	-58.82	8.30	11.60	V
	10728.52	-51.52	-40	-11.52	-67.22	-53.04	10.48	12.00	V
	14304.70	-54.31	-40	-14.31	-69.80	-56.01	11.80	13.50	V
Middle LTE Band 2	3751.18	-60.60	-13	-47.60	-63.69	-67.35	5.85	12.60	H
	5626.77	-58.97	-13	-45.97	-64.15	-64.77	7.30	13.10	H
	7502	-57.69	-13	-44.69	-66.29	-60.84	8.35	11.50	H
	3751.18	-56.97	-13	-43.97	-63.22	-63.72	5.85	12.60	V
	5626.77	-58.81	-13	-45.81	-64.49	-64.61	7.30	13.10	V
	7502	-57.58	-13	-44.58	-66.17	-60.73	8.35	11.50	V
Highest 5G n48	7202.33	-57.44	-40	-17.44	-66.05	-60.74	8.32	11.62	H
	10803.49	-54.44	-40	-14.44	-68.00	-56.12	10.52	12.20	H
	14404.66	-53.70	-40	-13.70	-69.86	-55.40	11.85	13.55	H
	7202.33	-55.14	-40	-15.14	-65.88	-58.44	8.32	11.62	V
	10803.49	-52.83	-40	-12.83	-67.98	-54.51	10.52	12.20	V
	14404.66	-53.80	-40	-13.80	-69.50	-55.50	11.85	13.55	V
Highest LTE Band 2	3751.18	-60.20	-13	-47.20	-63.29	-66.95	5.85	12.60	H
	5626.77	-58.91	-13	-45.91	-64.09	-64.71	7.30	13.10	H
	7502	-57.88	-13	-44.88	-66.48	-61.03	8.35	11.50	H
	3751.18	-57.23	-13	-44.23	-63.48	-63.98	5.85	12.60	V
	5626.77	-58.89	-13	-45.89	-64.57	-64.69	7.30	13.10	V
	7502	-57.23	-13	-44.23	-65.82	-60.38	8.35	11.50	V

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