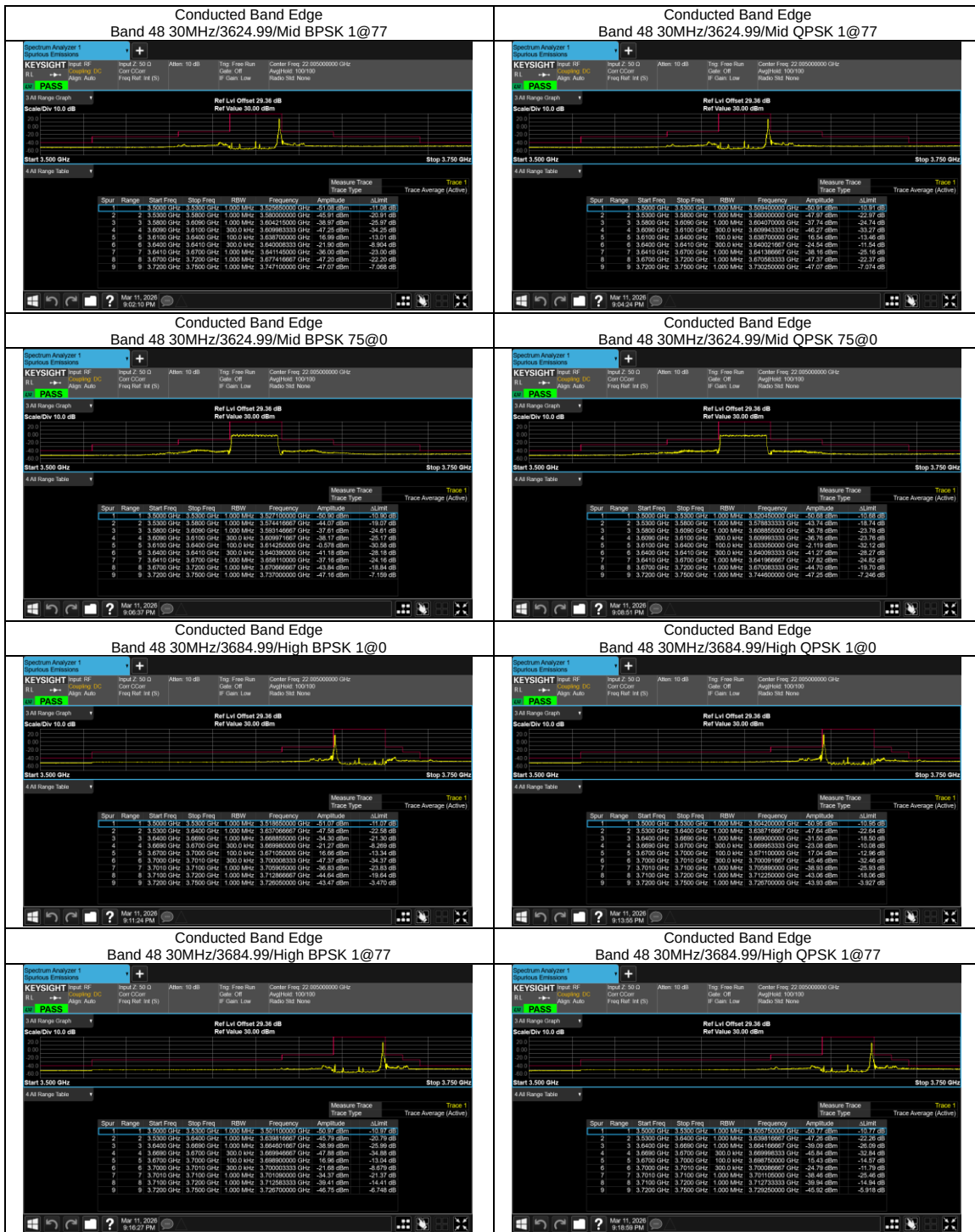
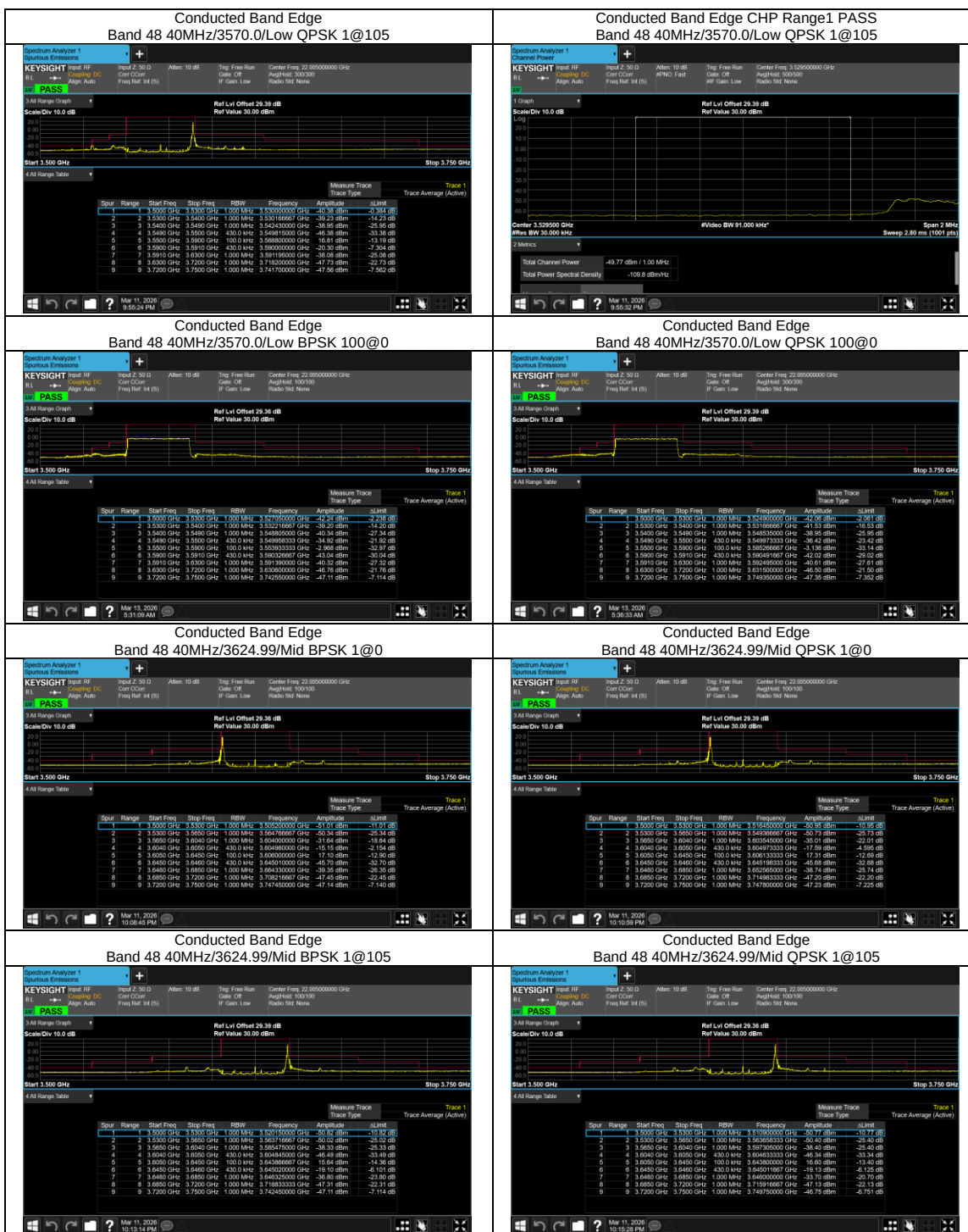


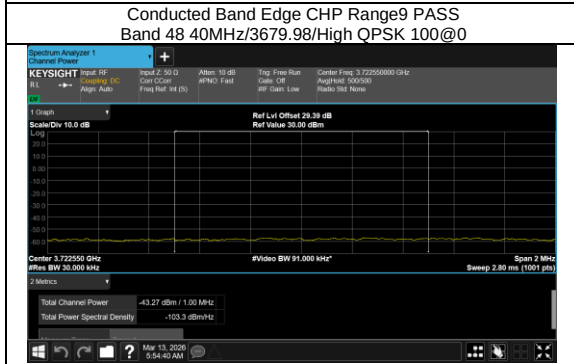
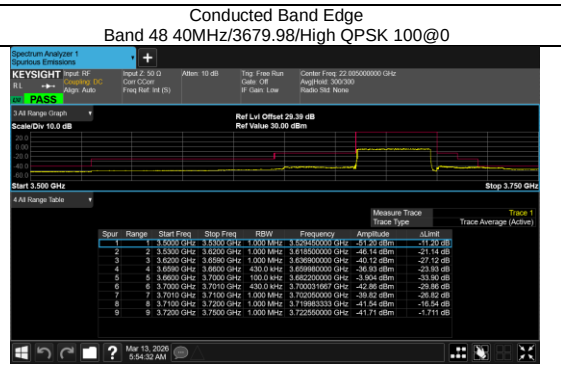
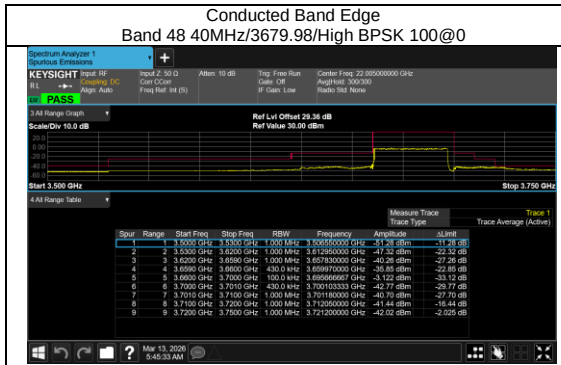














FR1 N48_ANT5 (PA Reference Designator)

Frequency Stability

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (Hz)	Verdict	Environment
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	17.9	PASS	NV
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	17.3	PASS	LV
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	15.4	PASS	HV
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	11.2	PASS	-30℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	12.3	PASS	-20℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	19.1	PASS	-10℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	16.3	PASS	0℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	15	PASS	10℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	17.9	PASS	20℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	16.3	PASS	30℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	17.3	PASS	40℃
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	15.1	PASS	50℃

$$|\text{MAX}(\Delta f)| = 19.1\text{Hz}$$

Frequency Stability	Frequency (MHz)	Limit Line	Result
$f_L - \text{MAX}(\Delta f) $	3450.869162	$\geq 3450 \text{ MHz}$	PASS
$f_H + \text{MAX}(\Delta f) $	3549.070939	$\leq 3550 \text{ MHz}$	

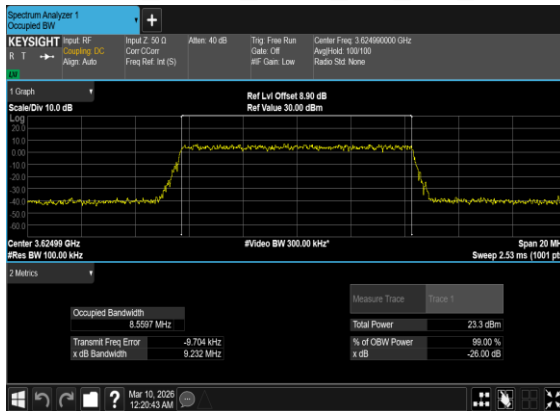


Occupied Bandwidth

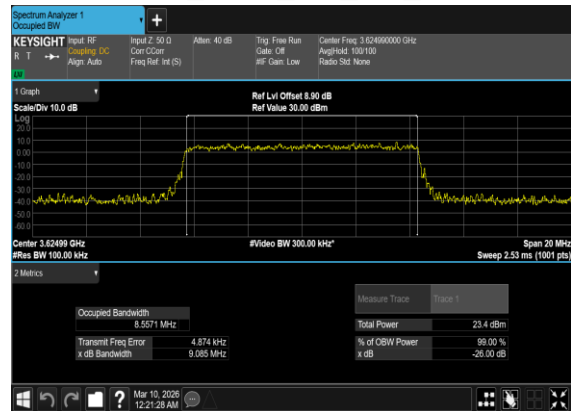
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
48	30	10	641666	3624.99	CP-OFDM QPSK	24@0	8.5597	9.232
48	30	10	641666	3624.99	CP-OFDM 16 QAM	24@0	8.5571	9.085
48	30	10	641666	3624.99	CP-OFDM 64 QAM	24@0	8.5718	9.144
48	30	10	641666	3624.99	CP-OFDM 256 QAM	24@0	8.5653	9.262
48	30	15	641666	3624.99	CP-OFDM QPSK	38@0	13.568	14.31
48	30	15	641666	3624.99	CP-OFDM 16 QAM	38@0	13.561	14.34
48	30	15	641666	3624.99	CP-OFDM 64 QAM	38@0	13.649	14.26
48	30	15	641666	3624.99	CP-OFDM 256 QAM	38@0	13.535	14.33
48	30	20	641666	3624.99	CP-OFDM QPSK	51@0	18.209	19.13
48	30	20	641666	3624.99	CP-OFDM 16 QAM	51@0	18.244	19.09
48	30	20	641666	3624.99	CP-OFDM 64 QAM	51@0	18.172	18.85
48	30	20	641666	3624.99	CP-OFDM 256 QAM	51@0	18.182	18.97
48	30	30	641666	3624.99	CP-OFDM QPSK	78@0	27.852	29.01
48	30	30	641666	3624.99	CP-OFDM 16 QAM	78@0	27.799	28.98
48	30	30	641666	3624.99	CP-OFDM 64 QAM	78@0	27.846	29.09
48	30	30	641666	3624.99	CP-OFDM 256 QAM	78@0	27.798	29.08
48	30	40	641666	3624.99	CP-OFDM QPSK	106@0	37.845	39.36
48	30	40	641666	3624.99	CP-OFDM 16 QAM	106@0	37.878	39.1
48	30	40	641666	3624.99	CP-OFDM 64 QAM	106@0	37.858	39.09
48	30	40	641666	3624.99	CP-OFDM 256 QAM	106@0	37.822	39.17



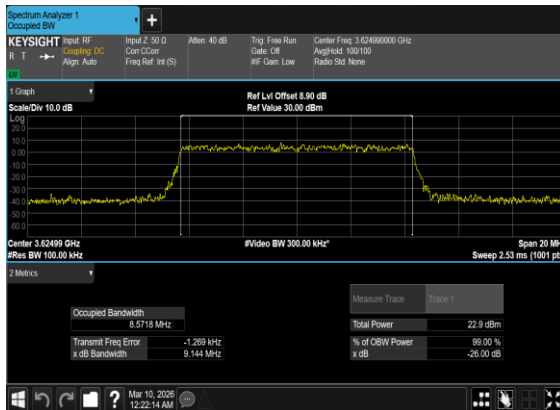
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OFDM_QPSK_Outer_Full_Mid_CH



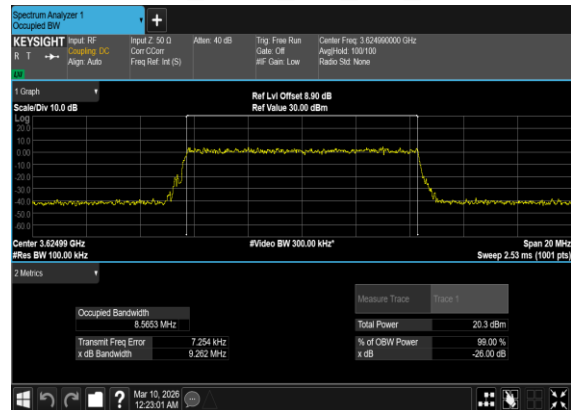
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QAM_Outer_Full_Mid_CH



N48(10M)_CP-OFDM_64
QAM_Outer_Full_Mid_CH

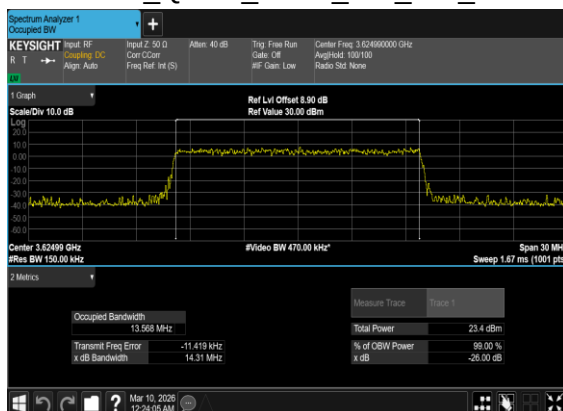


N48(10M)_CP-OFDM_256
QAM_Outer_Full_Mid_CH

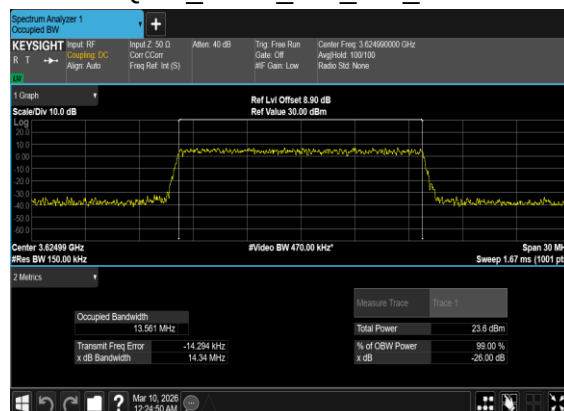




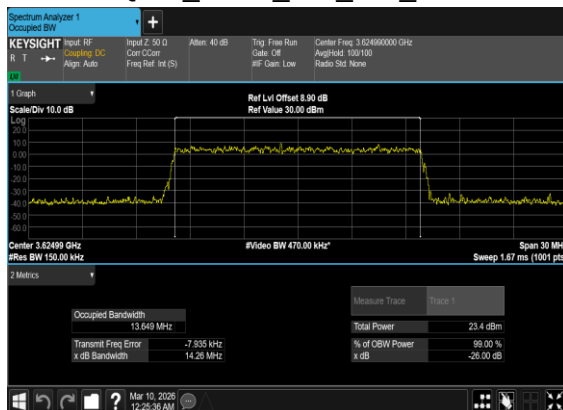
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OFDM_QPSK_Outer_Full_Mid_CH



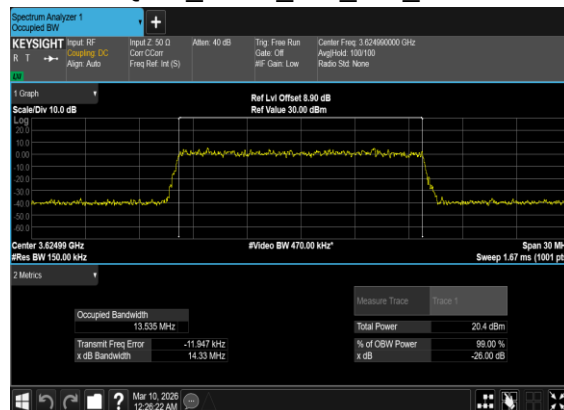
N48(15M)_CP-OFDM_16
QAM_Outer_Full_Mid_CH



N48(15M)_CP-OFDM_64
QAM_Outer_Full_Mid_CH

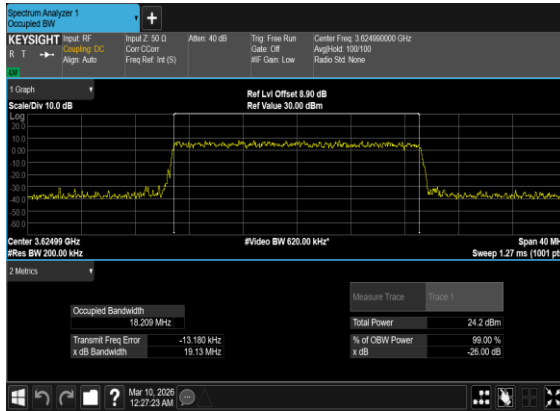


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QAM_Outer_Full_Mid_CH

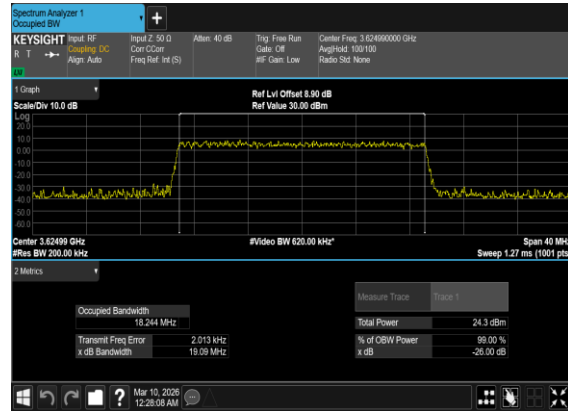




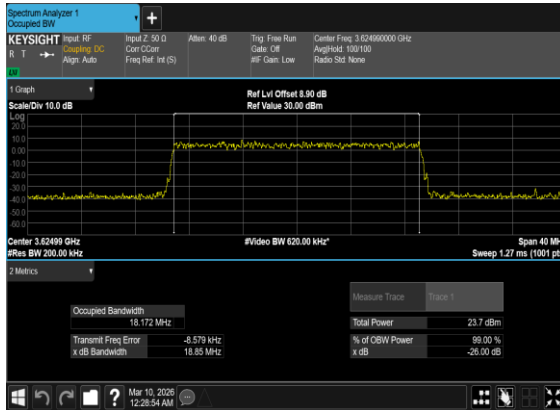
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OFDM_QPSK_Outer_Full_Mid_CH



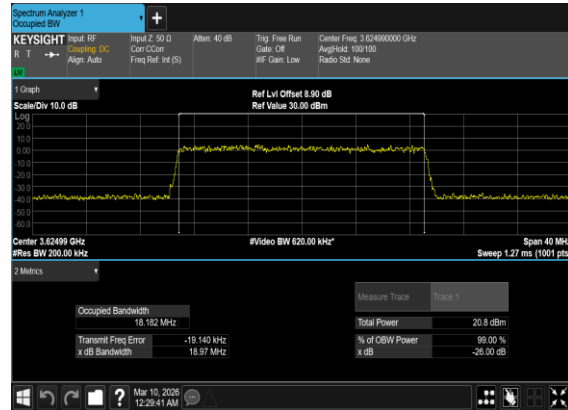
N48(20M)_CP-OFDM_16
QAM_Outer_Full_Mid_CH



N48(20M)_CP-OFDM_64
QAM_Outer_Full_Mid_CH

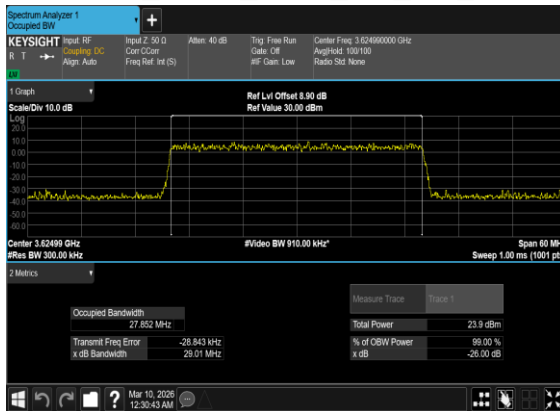


N48(20M)_CP-OFDM_256
QAM_Outer_Full_Mid_CH

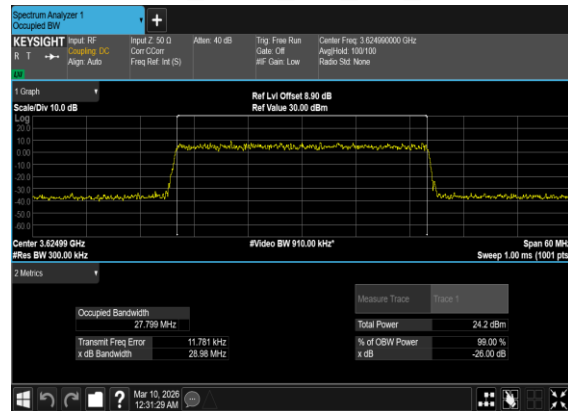




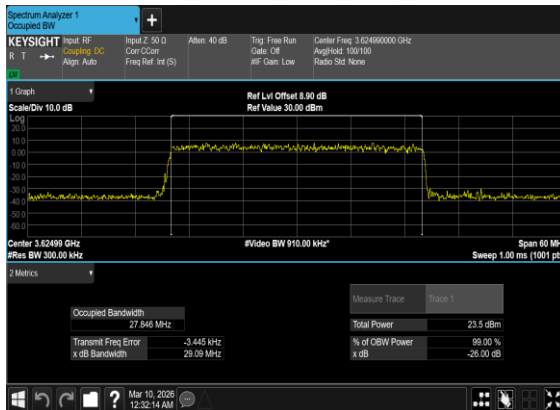
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OFDM_QPSK_Outer_Full_Mid_CH



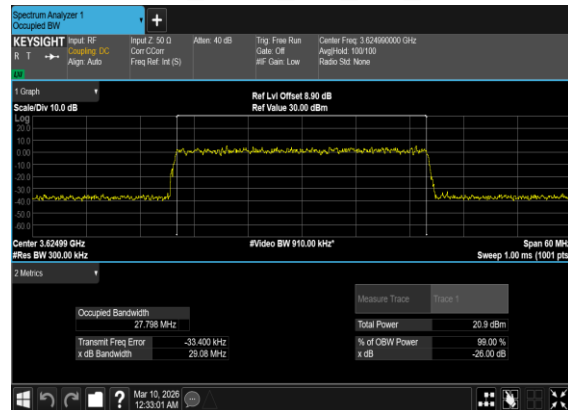
N48(30M)_CP-OFDM_16
QAM_Outer_Full_Mid_CH



N48(30M)_CP-OFDM_64
QAM_Outer_Full_Mid_CH

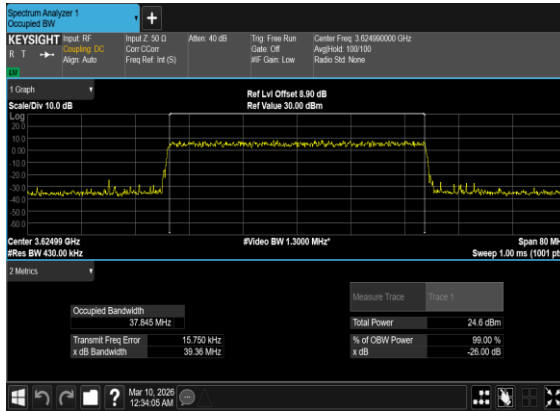


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QAM_Outer_Full_Mid_CH

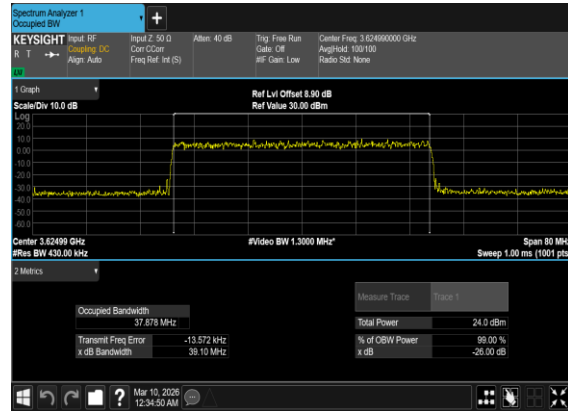




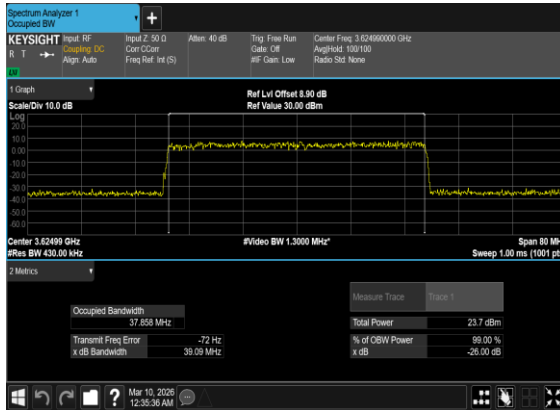
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OFDM_QPSK_Outer_Full_Mid_CH



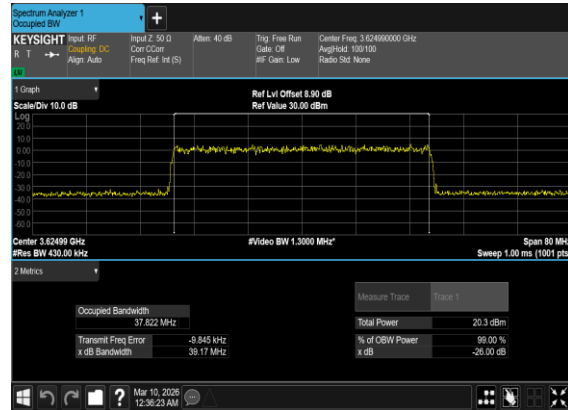
N48(40M)_CP-OFDM_16
QAM_Outer_Full_Mid_CH



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	DFT-s-OFDM PI/2 BPSK	24@0	-17.91	-18.89	see graph	PASS
48	30	10	637000	3555.0	DFT-s-OFDM PI/2 BPSK	1@0	-19.8	-24.8	see graph	PASS
48	30	10	637000	3555.0	DFT-s-OFDM PI/2 BPSK	1@23	-24.37	-20.3	see graph	PASS
48	30	10	637000	3555.0	DFT-s-OFDM QPSK	24@0	-20.92	-20.66	see graph	PASS
48	30	10	637000	3555.0	DFT-s-OFDM QPSK	1@0	-19.52	-24.34	see graph	PASS
48	30	10	637000	3555.0	DFT-s-OFDM QPSK	1@23	-23.99	-20.35	see graph	PASS
48	30	10	641666	3624.99	DFT-s-OFDM PI/2 BPSK	24@0	-17.76	-18.29	see graph	PASS
48	30	10	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@0	-19.15	-22.78	see graph	PASS
48	30	10	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@23	-24.08	-21.11	see graph	PASS
48	30	10	641666	3624.99	DFT-s-OFDM QPSK	24@0	-19.57	-19.3	see graph	PASS
48	30	10	641666	3624.99	DFT-s-OFDM QPSK	1@0	-19.96	-23.9	see graph	PASS
48	30	10	641666	3624.99	DFT-s-OFDM QPSK	1@23	-20.66	-18.31	see graph	PASS
48	30	10	646332	3694.98	DFT-s-OFDM PI/2 BPSK	24@0	-17.58	-18.16	see graph	PASS
48	30	10	646332	3694.98	DFT-s-OFDM PI/2 BPSK	1@0	-18.04	-21.28	see graph	PASS
48	30	10	646332	3694.98	DFT-s-OFDM PI/2 BPSK	1@23	-21.43	-18.65	see graph	PASS
48	30	10	646332	3694.98	DFT-s-OFDM QPSK	24@0	-18.84	-18.5	see graph	PASS
48	30	10	646332	3694.98	DFT-s-OFDM QPSK	1@0	-17.64	-20.59	see graph	PASS
48	30	10	646332	3694.98	DFT-s-OFDM QPSK	1@23	-20.67	-18.28	see graph	PASS
48	30	20	637334	3560.01	DFT-s-OFDM PI/2 BPSK	50@0	-15.63	-17.04	see graph	PASS
48	30	20	637334	3560.01	DFT-s-OFDM PI/2 BPSK	1@0	-20.63	-23.34	see graph	PASS



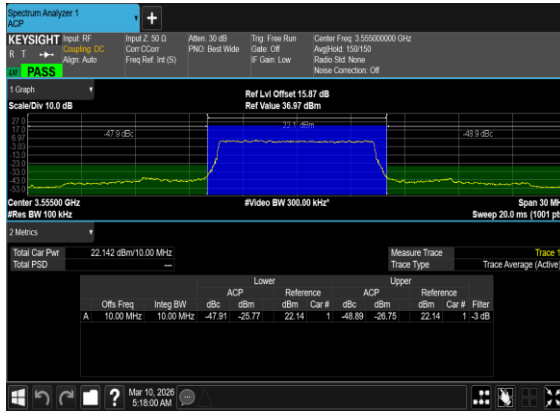
48	30	20	637334	3560.01	DFT-s-OFDM PI/2 BPSK	1@50	-20.19	-19.06	see graph	PASS
48	30	20	637334	3560.01	DFT-s-OFDM QPSK	50@0	-17.28	-18.08	see graph	PASS
48	30	20	637334	3560.01	DFT-s-OFDM QPSK	1@0	-19.65	-21.51	see graph	PASS
48	30	20	637334	3560.01	DFT-s-OFDM QPSK	1@50	-22.68	-21.17	see graph	PASS
48	30	20	641666	3624.99	DFT-s-OFDM PI/2 BPSK	50@0	-17.14	-17.41	see graph	PASS
48	30	20	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@0	-18.36	-19.1	see graph	PASS
48	30	20	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@50	-18.84	-17.95	see graph	PASS
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	-16.86	-16.27	see graph	PASS
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	1@0	-17.39	-18.08	see graph	PASS
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	1@50	-18.71	-17.77	see graph	PASS
48	30	20	646000	3690.0	DFT-s-OFDM PI/2 BPSK	50@0	-16.27	-15.73	see graph	PASS
48	30	20	646000	3690.0	DFT-s-OFDM PI/2 BPSK	1@0	-19.04	-19.4	see graph	PASS
48	30	20	646000	3690.0	DFT-s-OFDM PI/2 BPSK	1@50	-19.18	-17.97	see graph	PASS
48	30	20	646000	3690.0	DFT-s-OFDM QPSK	50@0	-16.21	-15.94	see graph	PASS
48	30	20	646000	3690.0	DFT-s-OFDM QPSK	1@0	-18.31	-18.85	see graph	PASS
48	30	20	646000	3690.0	DFT-s-OFDM QPSK	1@50	-18.65	-17.79	see graph	PASS
48	30	40	638000	3570.0	DFT-s-OFDM PI/2 BPSK	100@0	-15.82	-15.4	see graph	PASS
48	30	40	638000	3570.0	DFT-s-OFDM PI/2 BPSK	1@0	-15.3	-16.53	see graph	PASS
48	30	40	638000	3570.0	DFT-s-OFDM PI/2 BPSK	1@105	-16.65	-15.27	see graph	PASS
48	30	40	638000	3570.0	DFT-s-OFDM QPSK	100@0	-15.24	-14.61	see graph	PASS
48	30	40	638000	3570.0	DFT-s-OFDM QPSK	1@0	-14.09	-15.26	see graph	PASS
48	30	40	638000	3570.0	DFT-s-OFDM QPSK	1@105	-16.76	-15.27	see graph	PASS



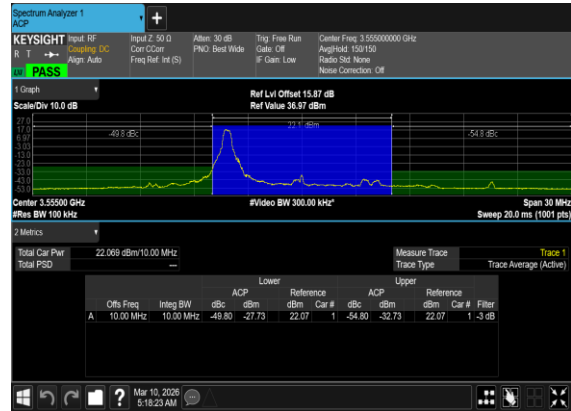
48	30	40	641666	3624.99	DFT-s-OFDM PI/2 BPSK	100@0	-15.14	-14.81	see graph	PASS
48	30	40	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@0	-14.77	-16.29	see graph	PASS
48	30	40	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@105	-15.23	-14.01	see graph	PASS
48	30	40	641666	3624.99	DFT-s-OFDM QPSK	100@0	-15.1	-14.56	see graph	PASS
48	30	40	641666	3624.99	DFT-s-OFDM QPSK	1@0	-13.38	-14.06	see graph	PASS
48	30	40	641666	3624.99	DFT-s-OFDM QPSK	1@105	-17.09	-15.39	see graph	PASS
48	30	40	645332	3679.98	DFT-s-OFDM PI/2 BPSK	100@0	-14.75	-14.81	see graph	PASS
48	30	40	645332	3679.98	DFT-s-OFDM PI/2 BPSK	1@0	-13.41	-14.24	see graph	PASS
48	30	40	645332	3679.98	DFT-s-OFDM PI/2 BPSK	1@105	-16.53	-14.57	see graph	PASS
48	30	40	645332	3679.98	DFT-s-OFDM QPSK	100@0	-14.98	-14.05	see graph	PASS
48	30	40	645332	3679.98	DFT-s-OFDM QPSK	1@0	-13.63	-14.57	see graph	PASS
48	30	40	645332	3679.98	DFT-s-OFDM QPSK	1@105	-15.64	-13.84	see graph	PASS



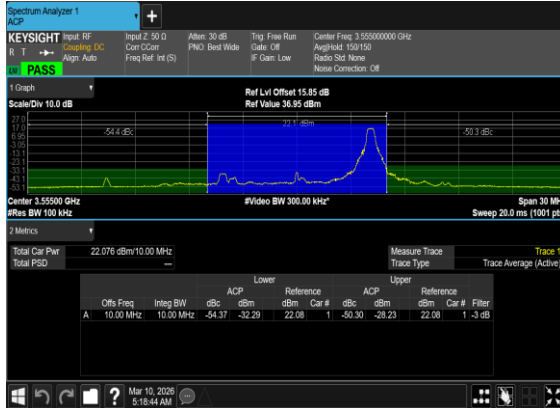
N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Outer_Full_Low_CH



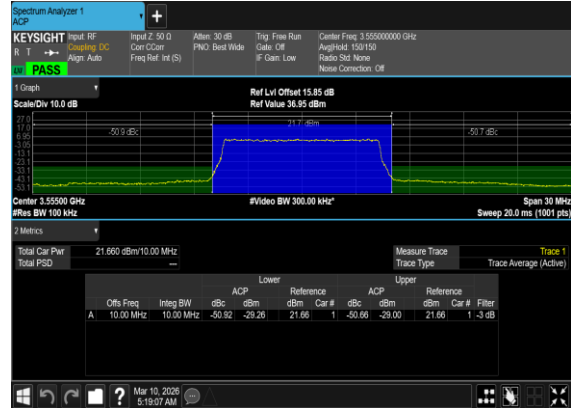
N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Left_Low_CH



N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Right_Low_CH

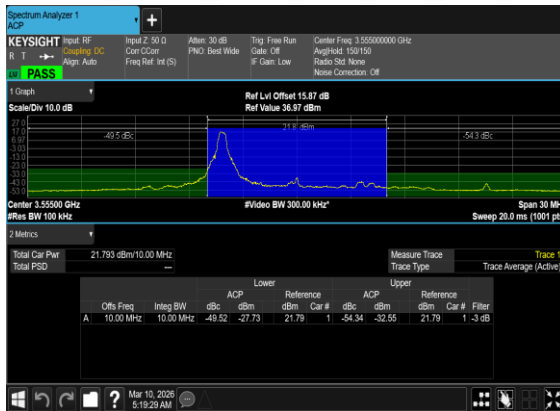


N48(10M)_DFT-s-
OFDM_QPSK_Outer_Full_Low_CH

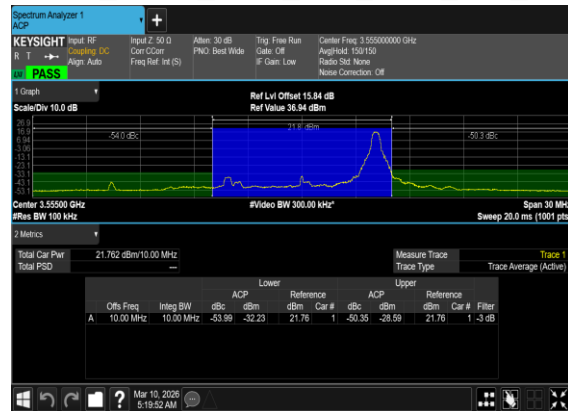




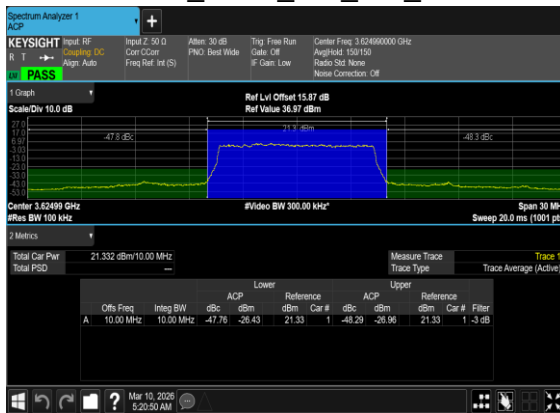
N48(10M)_DFT-s-
OFDM_QPSK_Edge_1RB_Left_Low_CH



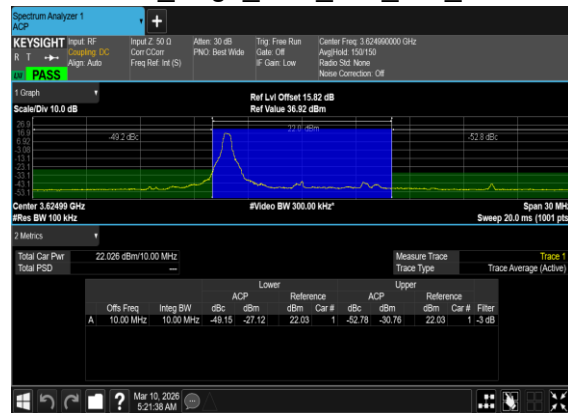
N48(10M)_DFT-s-
OFDM_QPSK_Edge_1RB_Right_Low_CH



N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Outer_Full_Mid_CH

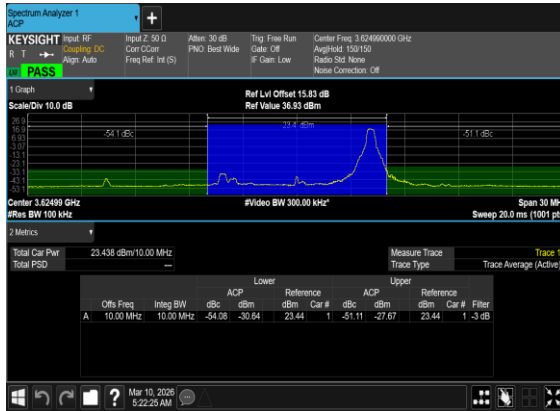


N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Left_Mid_CH

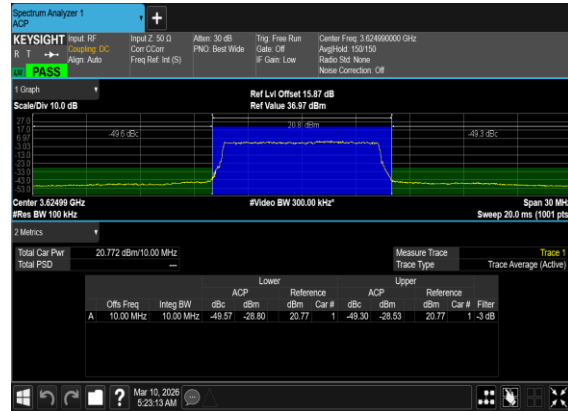




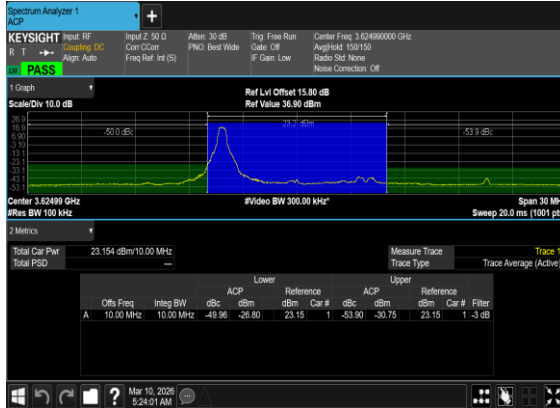
N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Right_Mid_CH



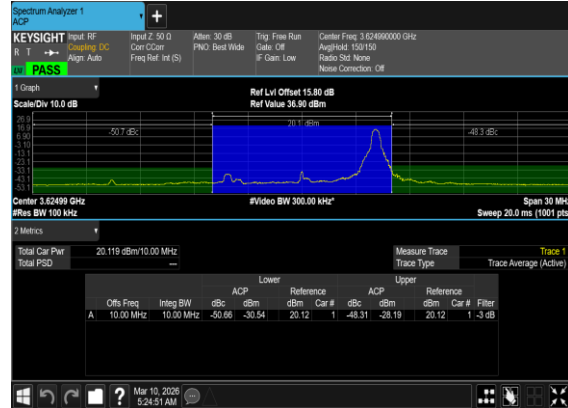
N48(10M)_DFT-s-
OFDM_QPSK_Outer_Full_Mid_CH



N48(10M)_DFT-s-
OFDM_QPSK_Edge_1RB_Left_Mid_CH

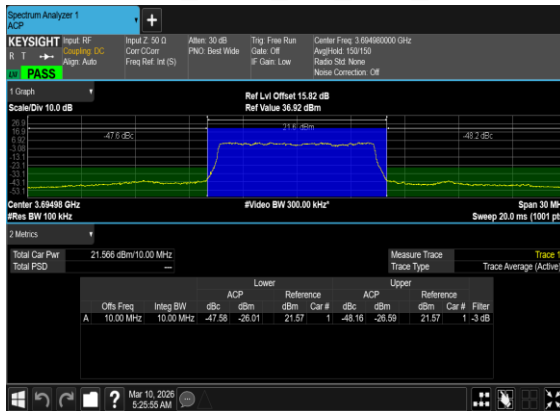


N48(10M)_DFT-s-
OFDM_QPSK_Edge_1RB_Right_Mid_CH

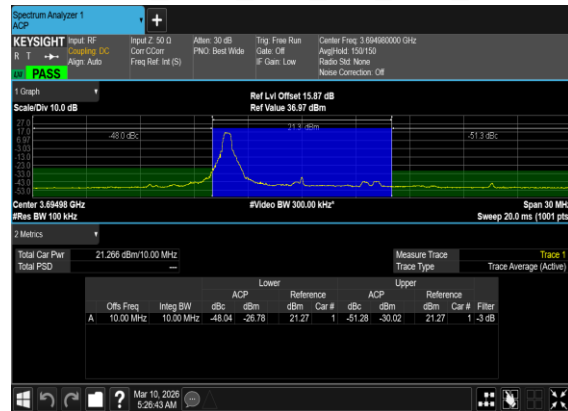




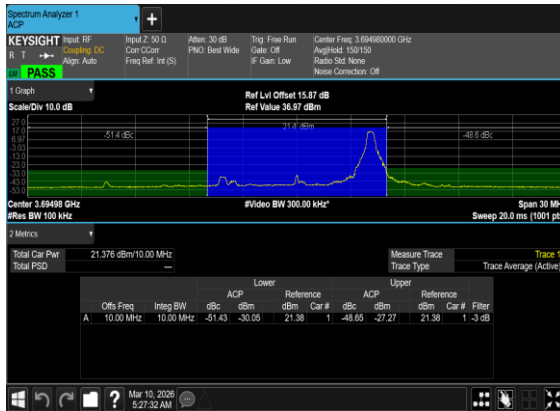
N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Outer_Full_High_CH



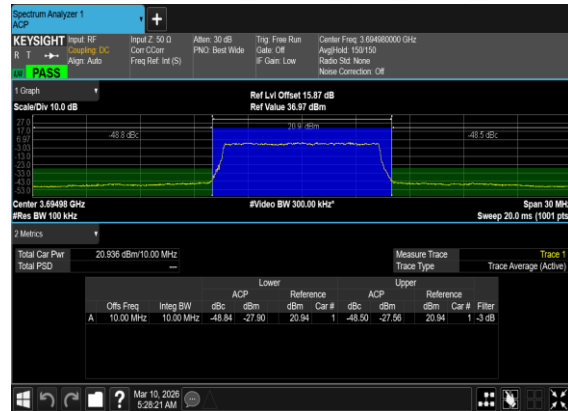
N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Left_High_CH



N48(10M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Right_High_CH

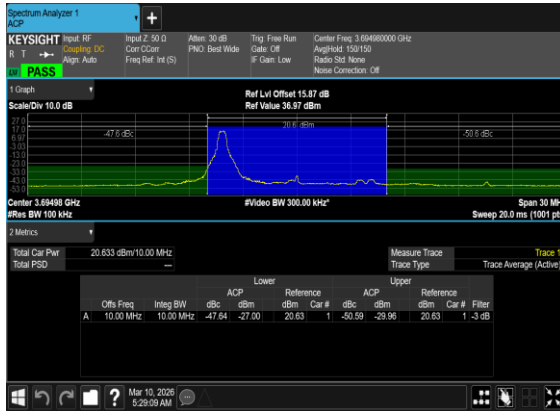


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OFDM_QPSK_Outer_Full_High_CH

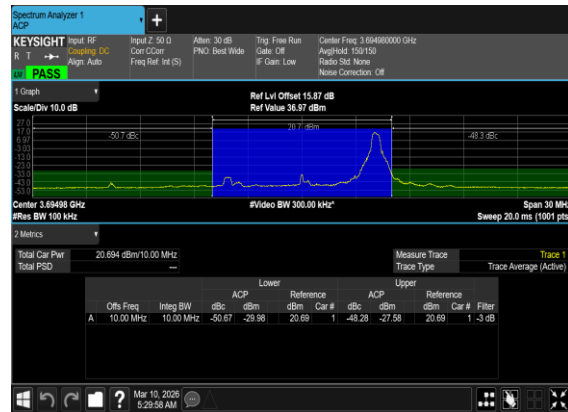




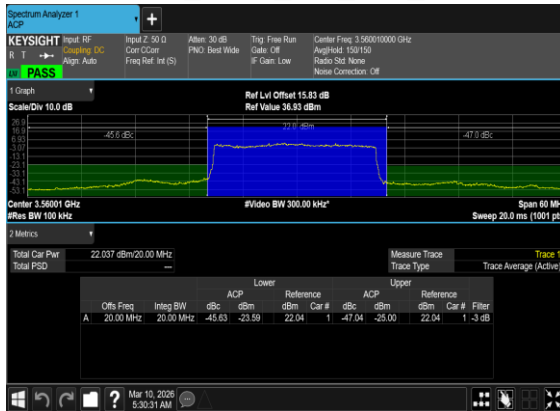
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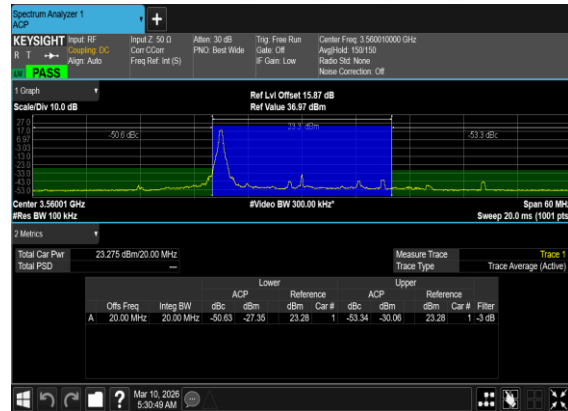
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N48(20M)_DFT-s-OFDM_PI_2-BPSK_Outer_Full_Low_CH



N48(20M)_DFT-s-OFDM_PI_2-BPSK_Edge_1RB_Left_Low_CH

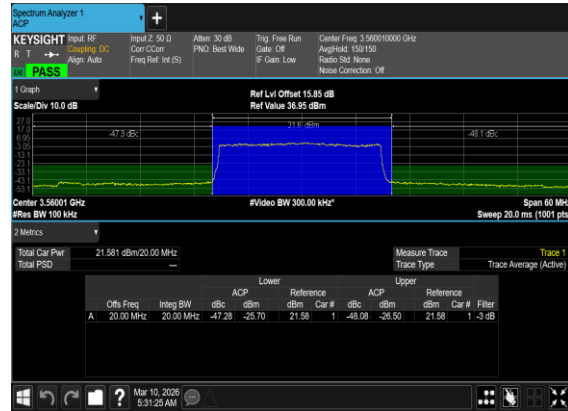




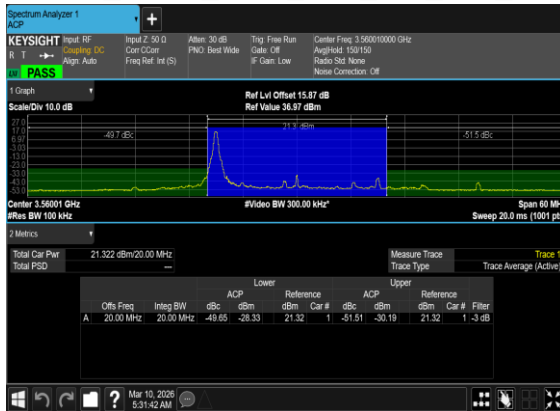
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BPSK_Edge_1RB_Right_Low_CH



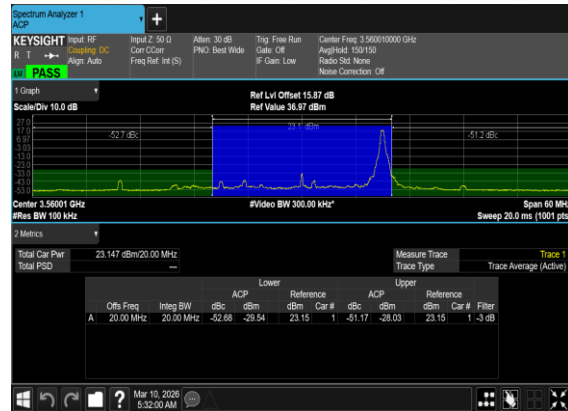
N48(20M)_DFT-s-
OFDM_QPSK_Outer_Full_Low_CH



N48(20M)_DFT-s-
OFDM_QPSK_Edge_1RB_Left_Low_CH

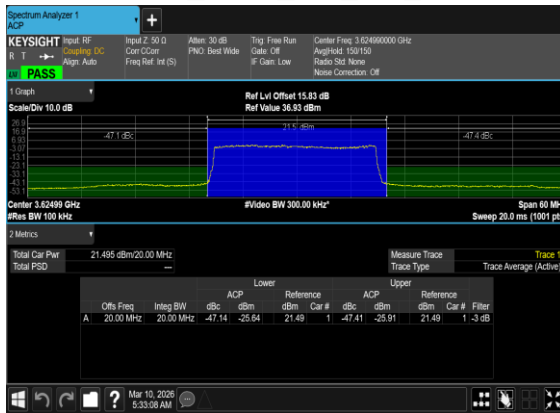


N48(20M)_DFT-s-
OFDM_QPSK_Edge_1RB_Right_Low_CH

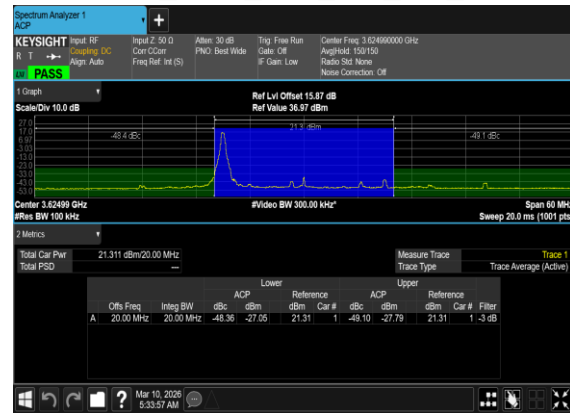




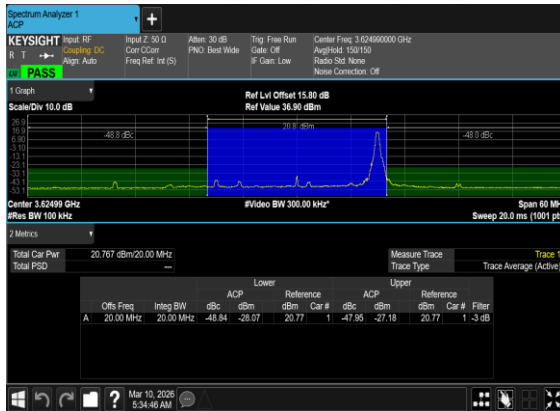
N48(20M)_DFT-s-OFDM_PI_2-
BPSK_Outer_Full_Mid_CH



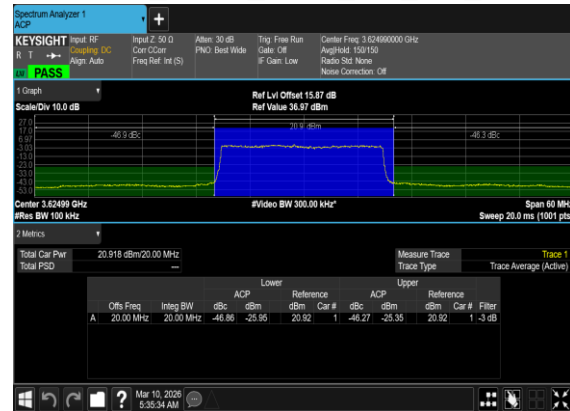
N48(20M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Left_Mid_CH



N48(20M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Right_Mid_CH

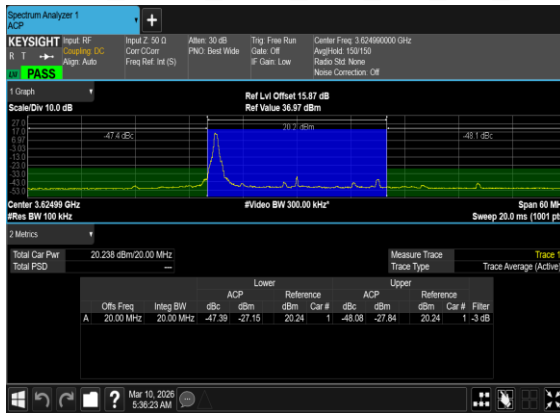


N48(20M)_DFT-s-
OFDM_QPSK_Outer_Full_Mid_CH

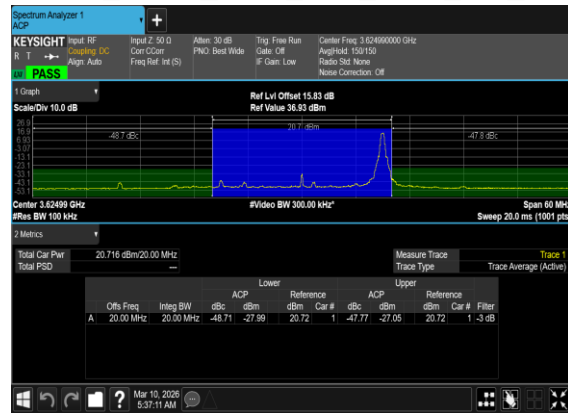




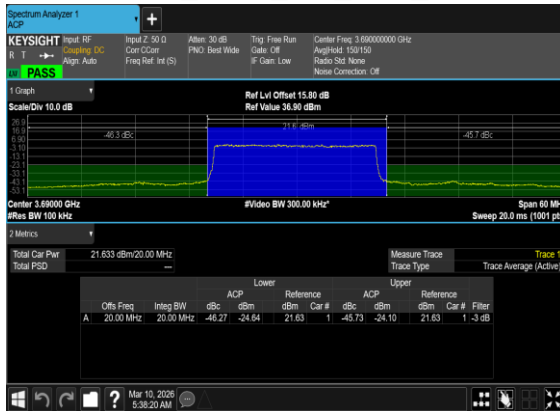
N48(20M)_DFT-s-
OFDM_QPSK_Edge_1RB_Left_Mid_CH



N48(20M)_DFT-s-
OFDM_QPSK_Edge_1RB_Right_Mid_CH



N48(20M)_DFT-s-OFDM_PI_2-
BPSK_Outer_Full_High_CH



N48(20M)_DFT-s-OFDM_PI_2-
BPSK_Edge_1RB_Left_High_CH

