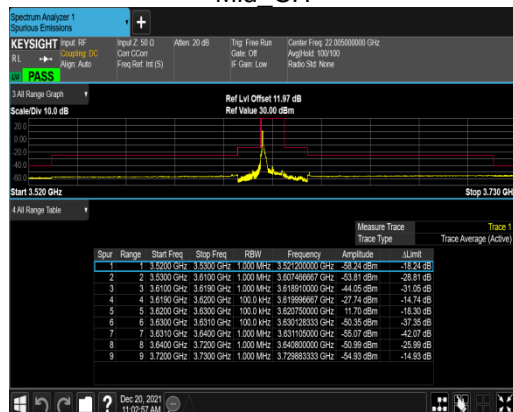




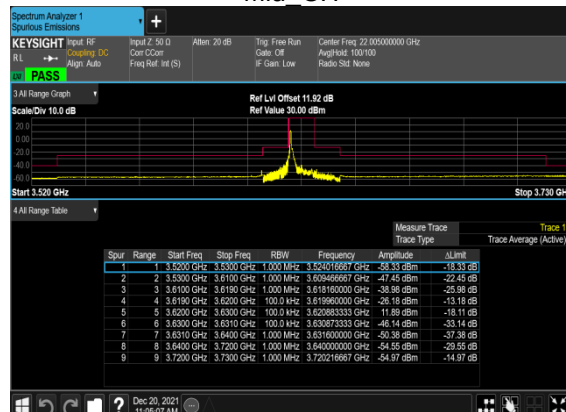
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

Mid CH



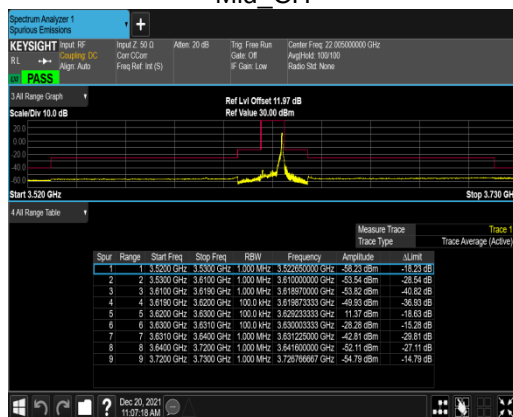
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

Mid CH



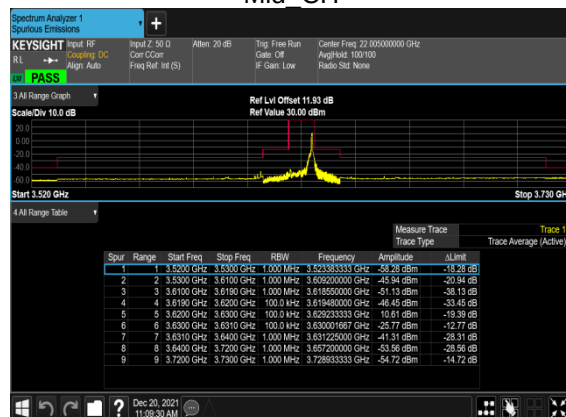
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_

Mid CH



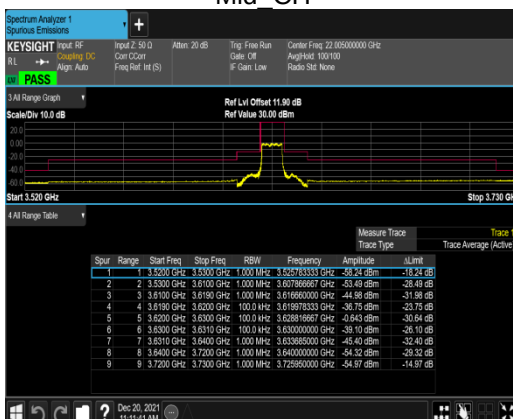
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_

Mid CH



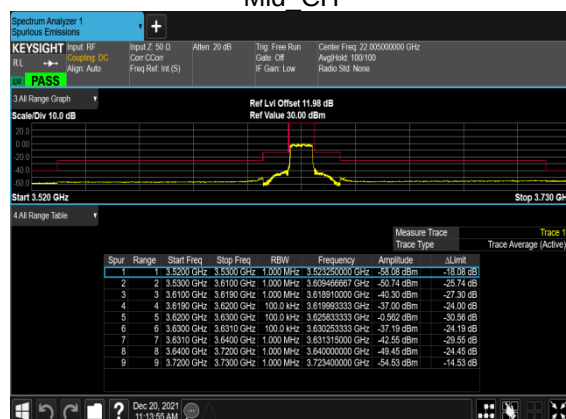
N48(10M)_DFT-s-OFDM_BPSK_Outer_Full_

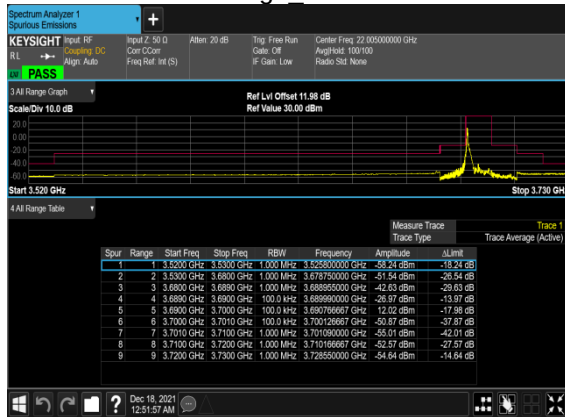
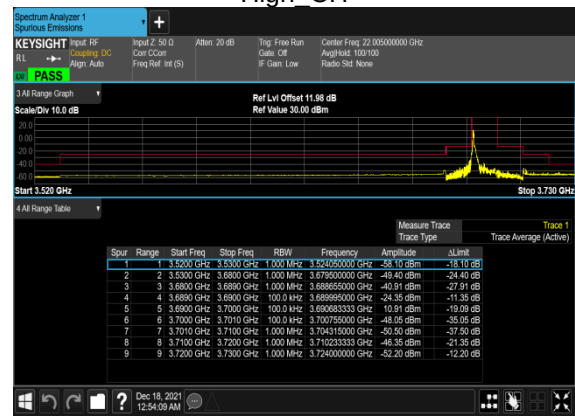
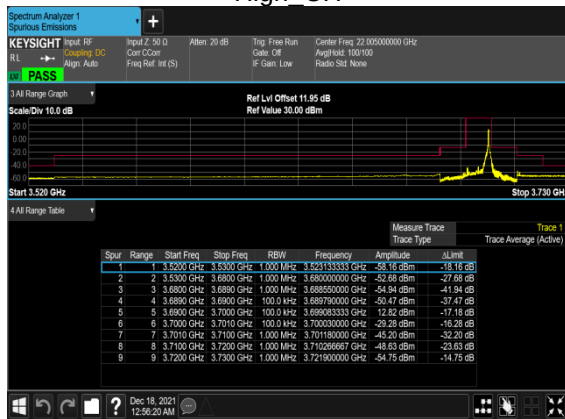
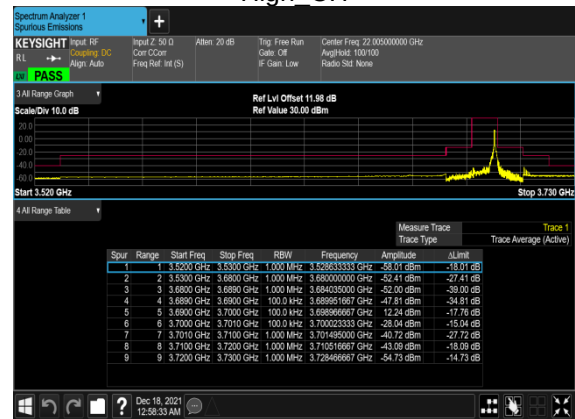
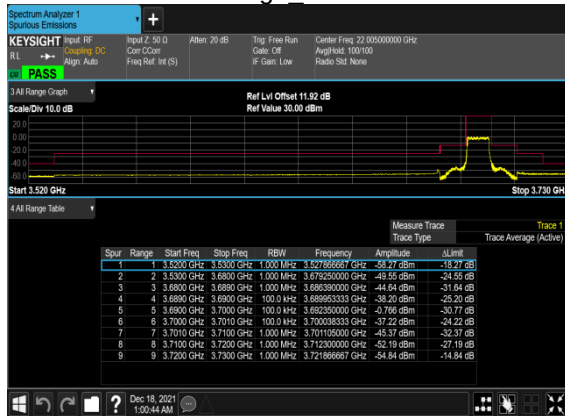
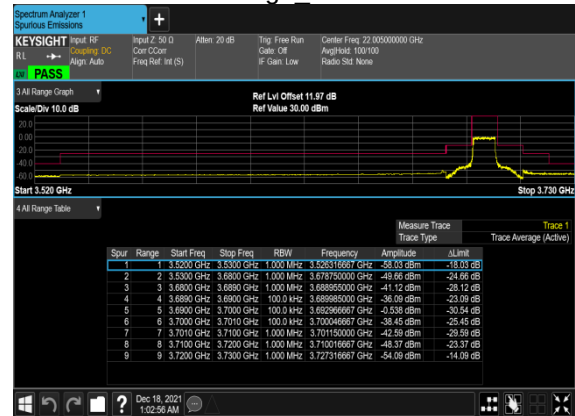
Mid CH



N48(10M)_DFT-s-OFDM_QPSK_Outer_Full_

Mid CH

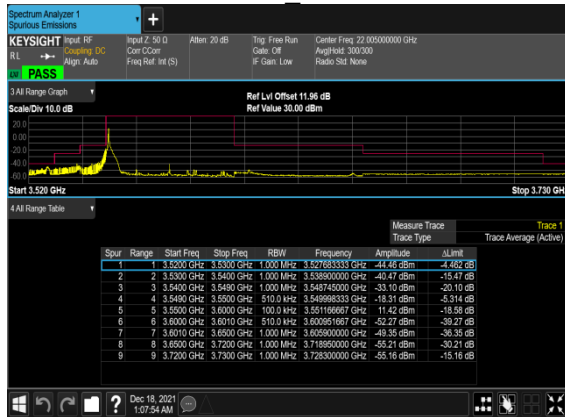


N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_
High CHN48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_
High CHN48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_
High CHN48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_
High CHN48(10M)_DFT-s-OFDM_BPSK_Outer_Full_
High CHN48(10M)_DFT-s-OFDM_QPSK_Outer_Full_
High CH



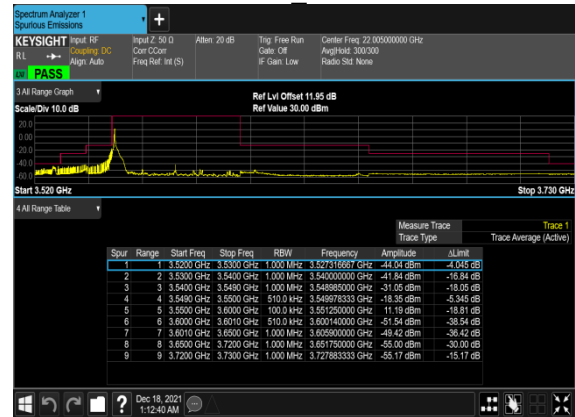
N48(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

Low CH



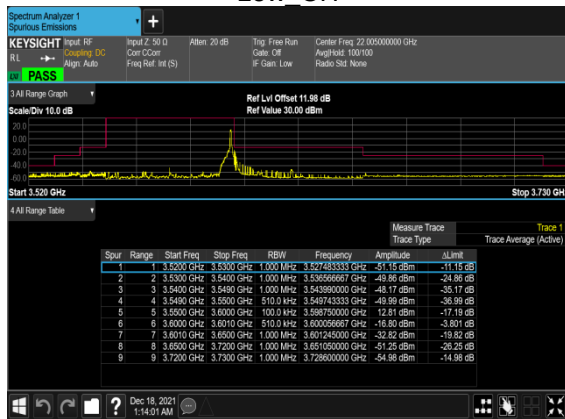
N48(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

Low CH



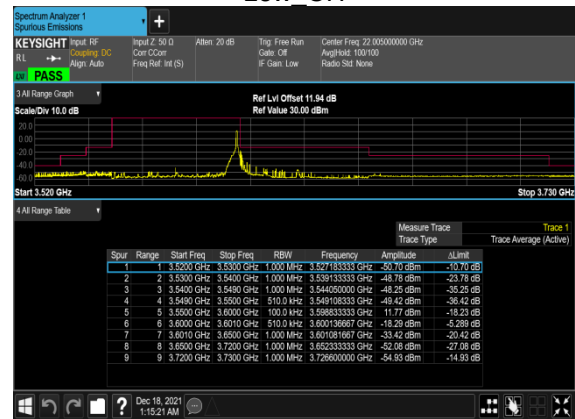
N48(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_

Low CH



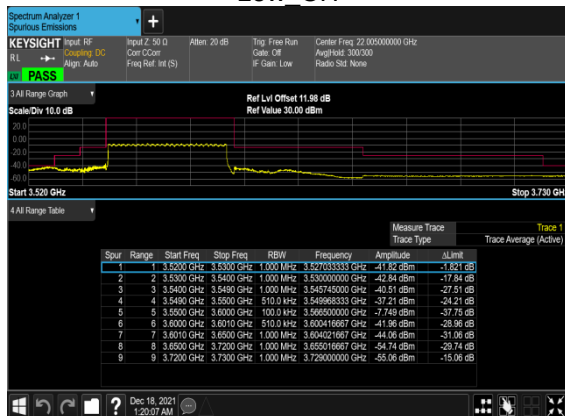
N48(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_

Low CH



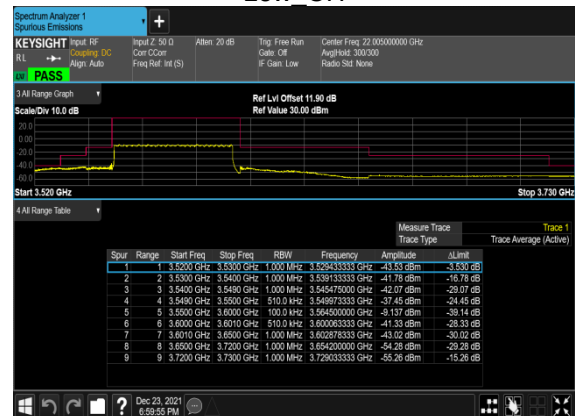
N48(50M)_DFT-s-OFDM_BPSK_Outer_Full_

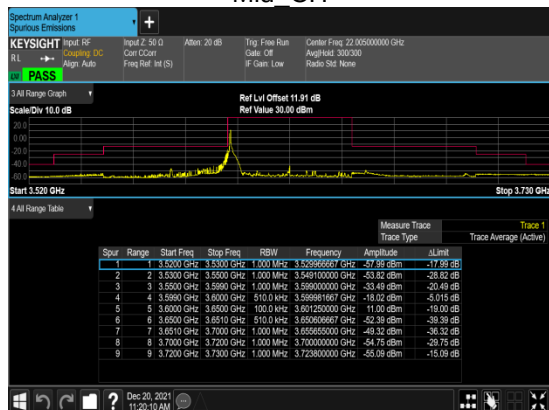
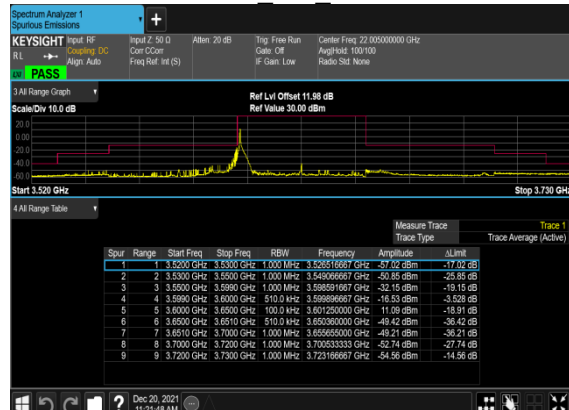
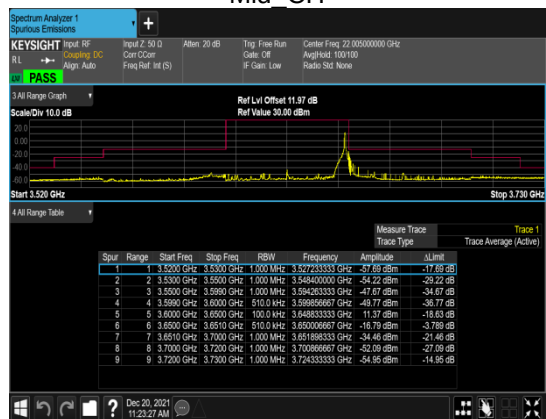
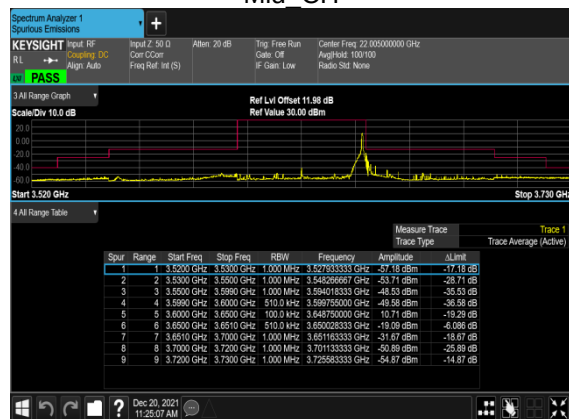
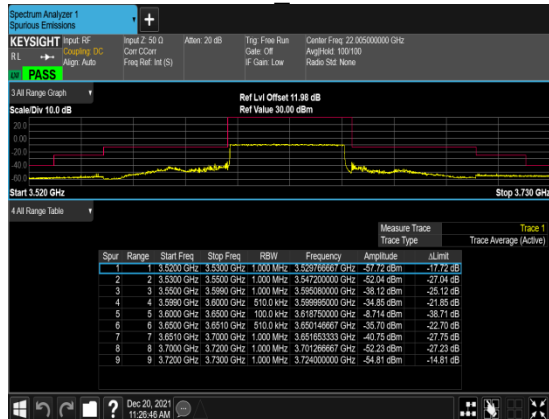
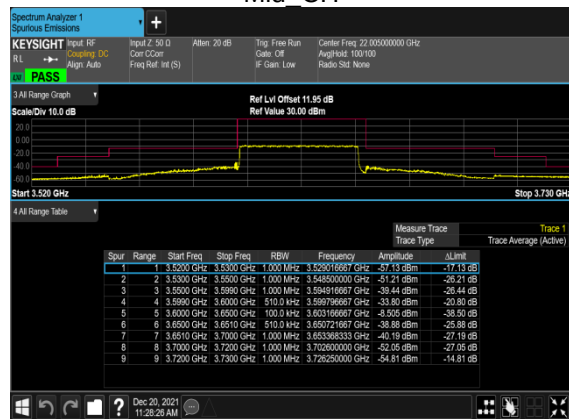
Low CH



N48(50M)_DFT-s-OFDM_QPSK_Outer_Full_

Low CH

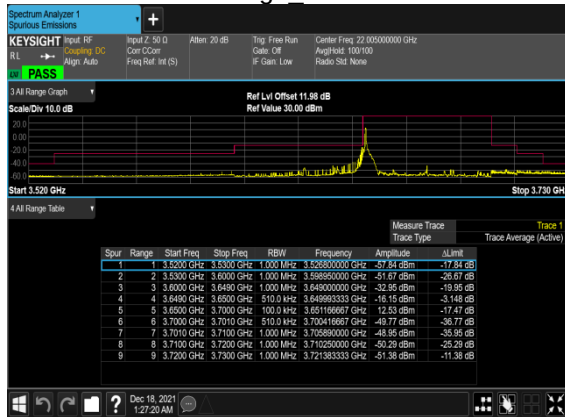


N48(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_
Mid CHN48(50M)_DFT-s-OFDM_QPSK_Edge_1RB_
Left Mid CHN48(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_
Mid CHN48(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_
Mid CHN48(50M)_DFT-s-OFDM_BPSK_Outer_Full_
Mid CHN48(50M)_DFT-s-OFDM_QPSK_Outer_Full_
Mid CH



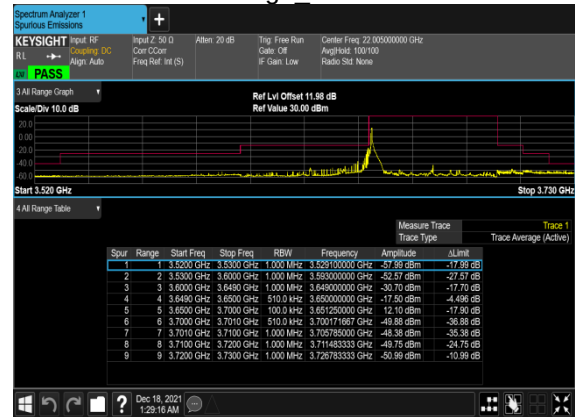
N48(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

High CH



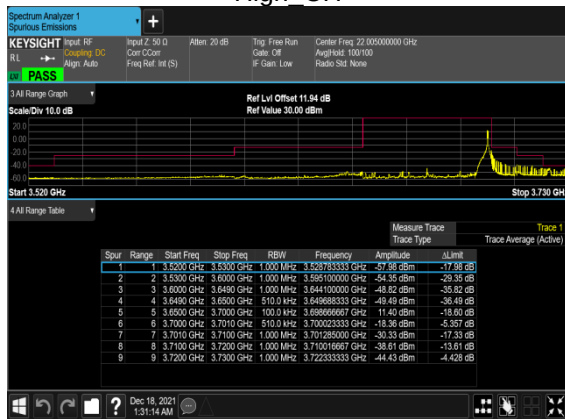
N48(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

High CH



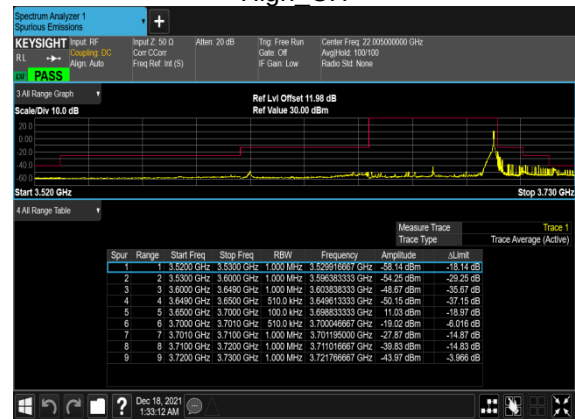
N48(50M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_

High CH



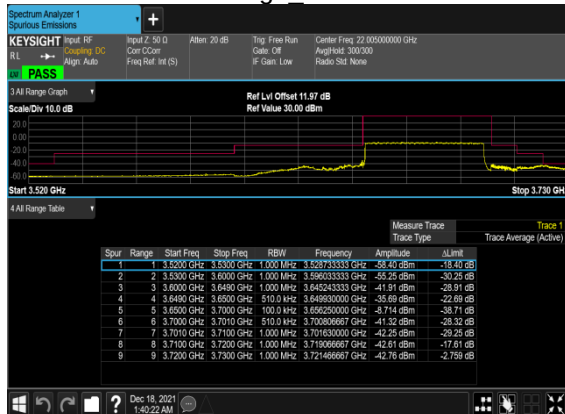
N48(50M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_

High CH



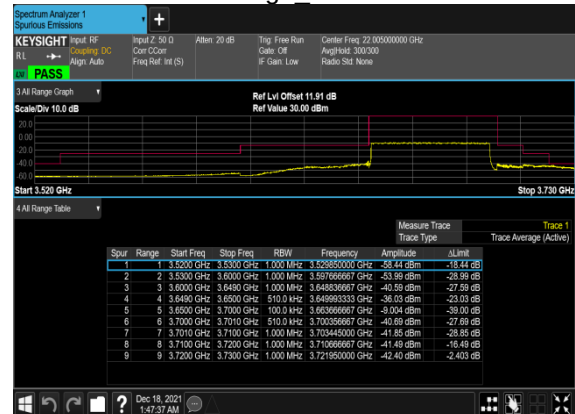
N48(50M)_DFT-s-OFDM_BPSK_Outer_Full_

High CH



N48(50M)_DFT-s-OFDM_QPSK_Outer_Full_

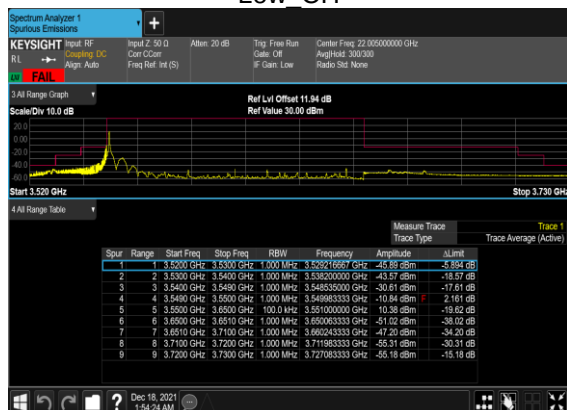
High CH





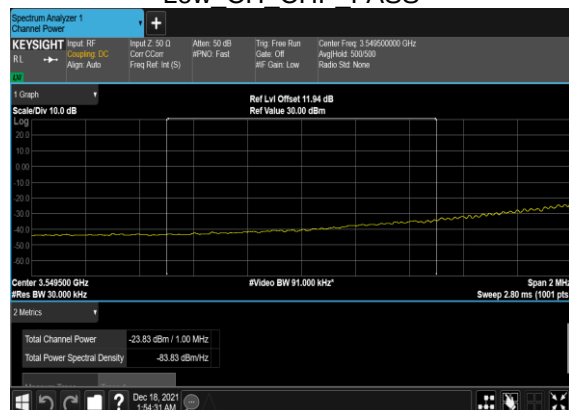
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

Low CH



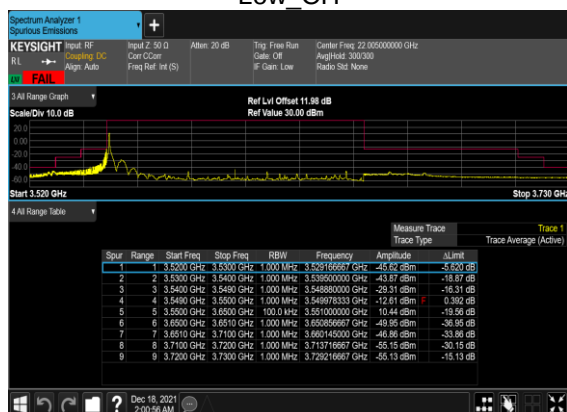
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

Low CH CHP PASS



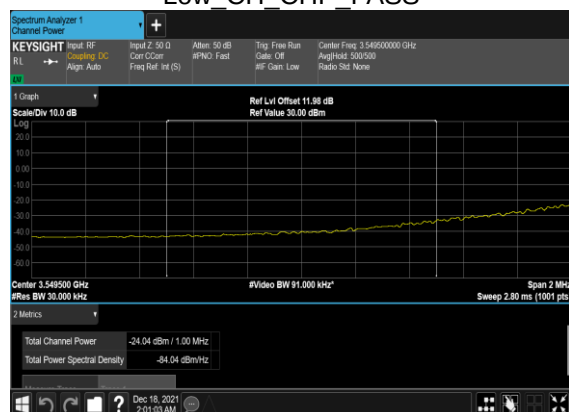
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

Low CH



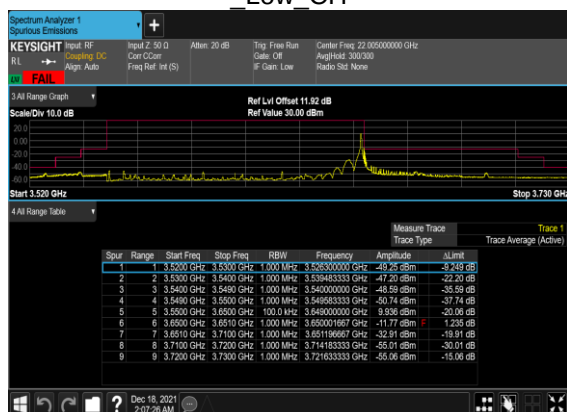
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

Low CH CHP PASS



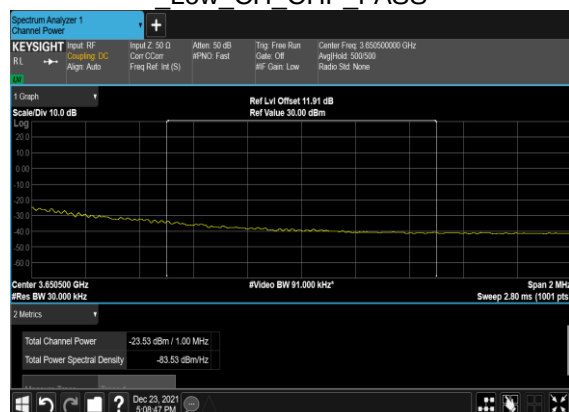
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right

Low CH



N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right

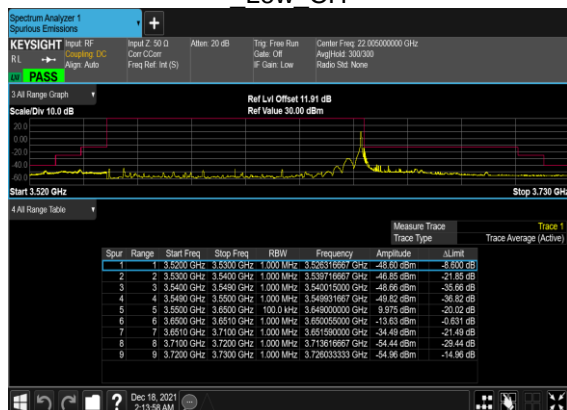
Low CH CHP PASS





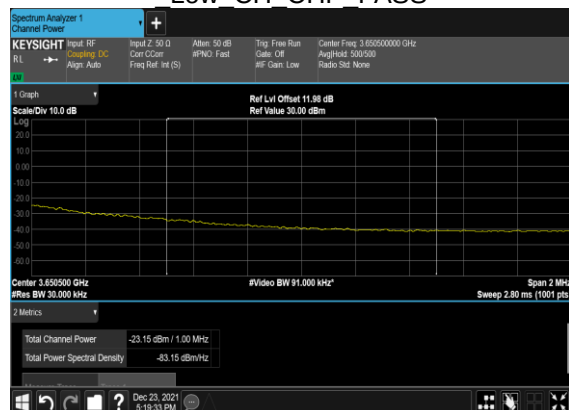
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right

Low CH



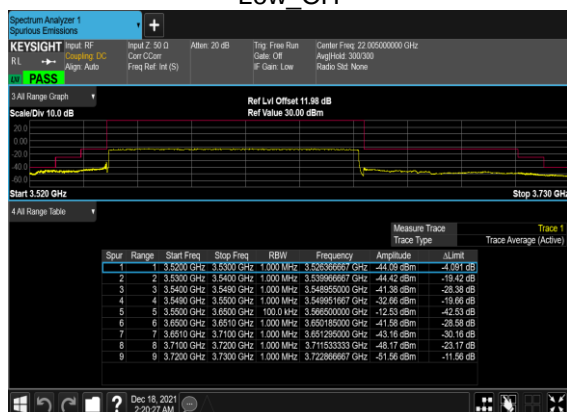
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right

Low CH CHP PASS



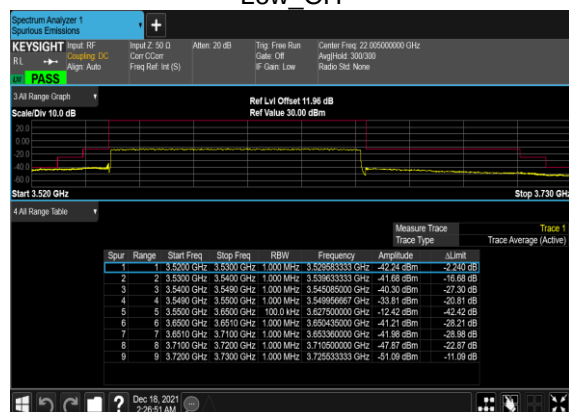
N48(100M)_DFT-s-OFDM_BPSK_Outer_Full_

Low CH



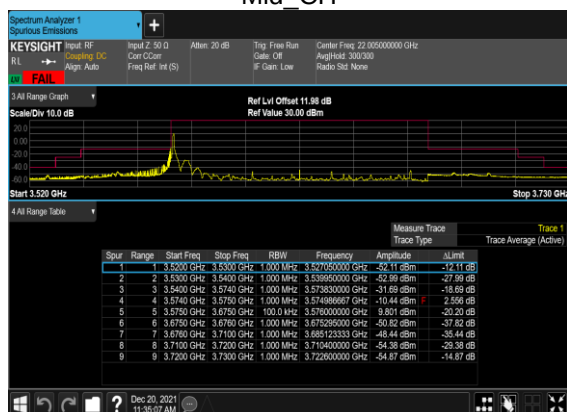
N48(100M)_DFT-s-OFDM_QPSK_Outer_Full_

Low CH



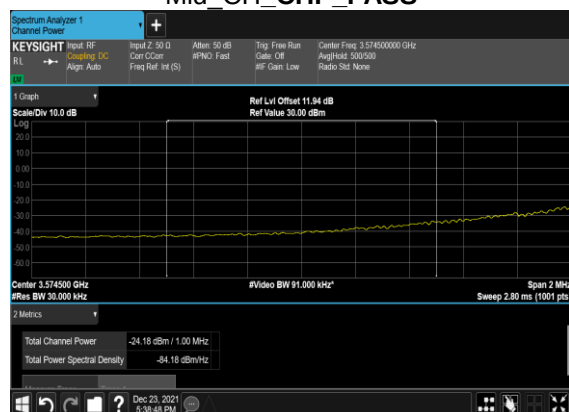
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

Mid CH



N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

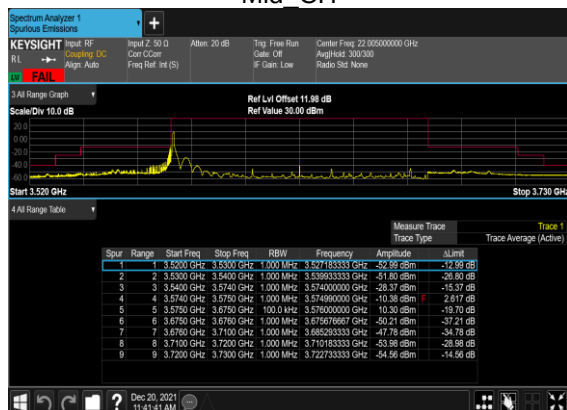
Mid CH CHP PASS





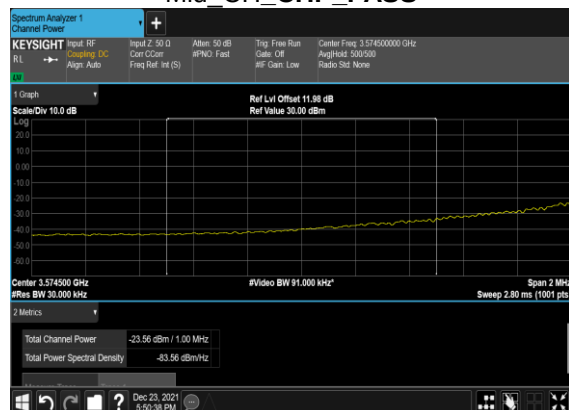
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

Mid_CH



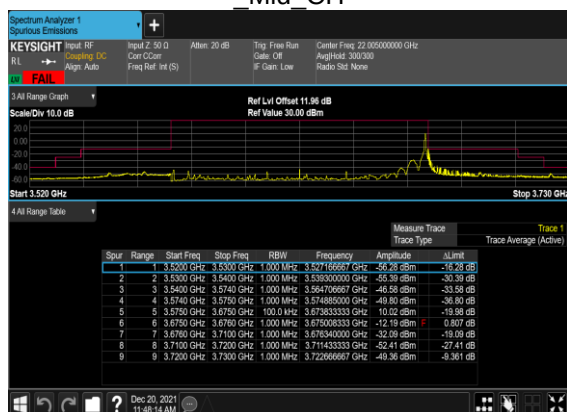
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

Mid_CH_CHP_PASS



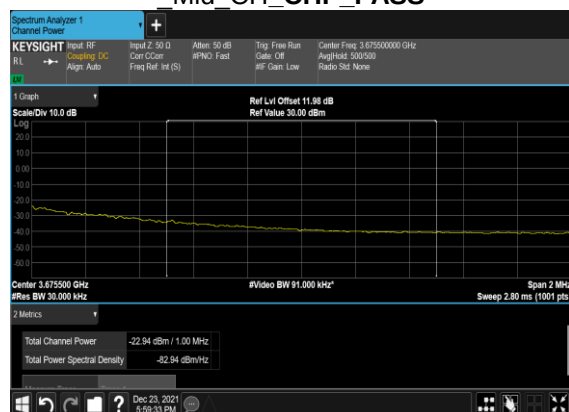
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right

Mid_CH



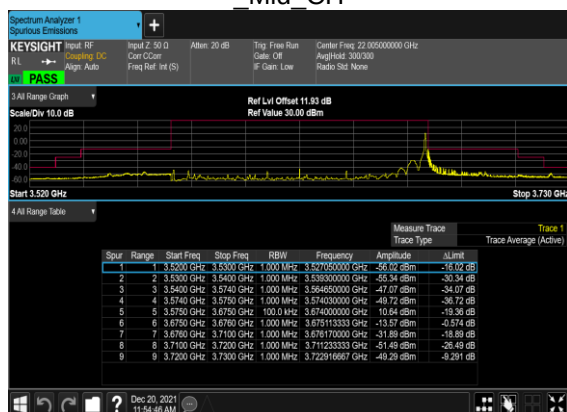
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right

Mid_CH_CHP_PASS



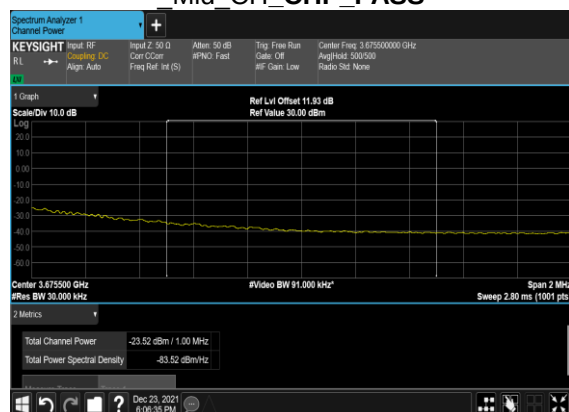
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right

Mid_CH



N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right

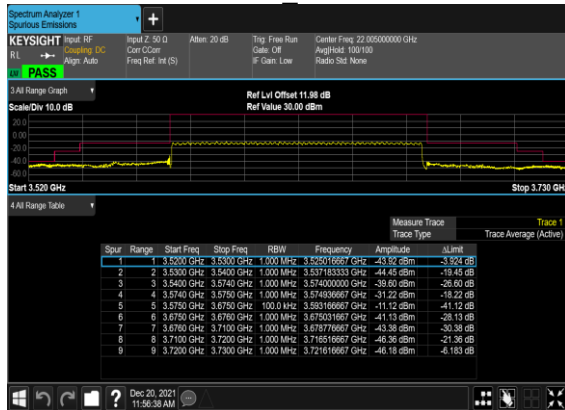
Mid_CH_CHP_PASS





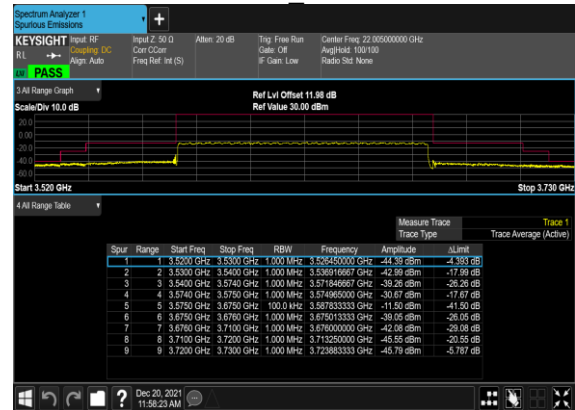
N48(100M)_DFT-s-OFDM_BPSK_Outer_Full_

Mid CH



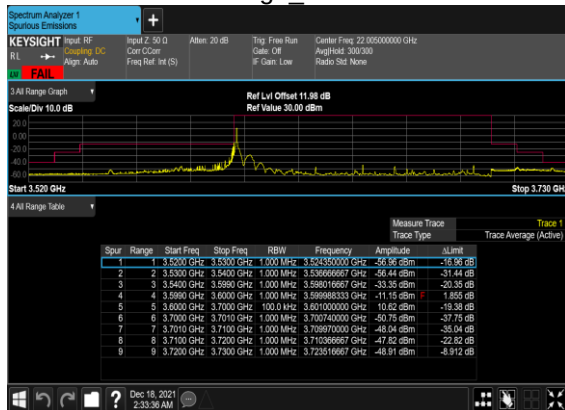
N48(100M)_DFT-s-OFDM_QPSK_Outer_Full_

Mid CH



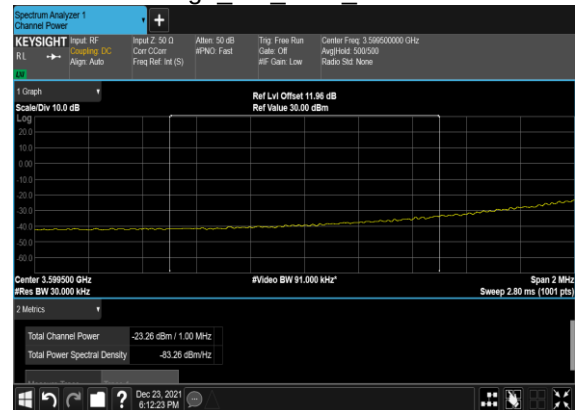
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

High CH



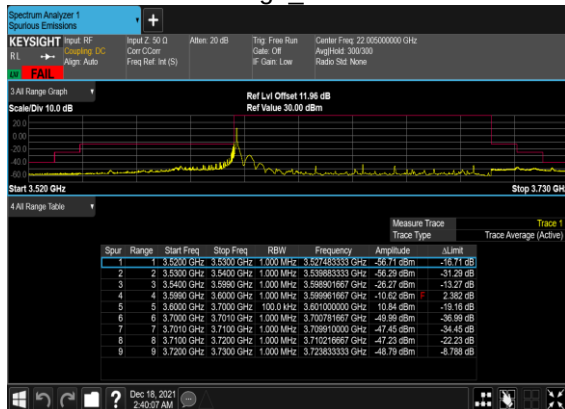
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_

High CH CHP PASS



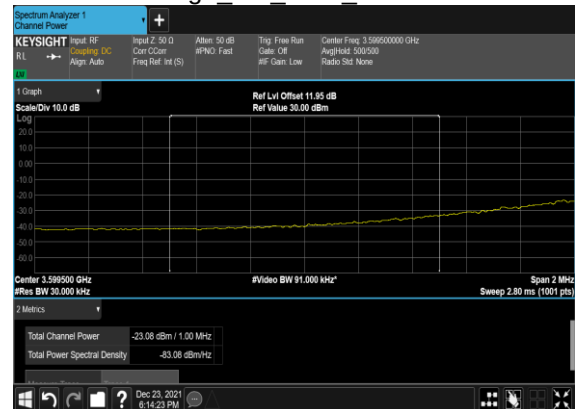
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

High CH



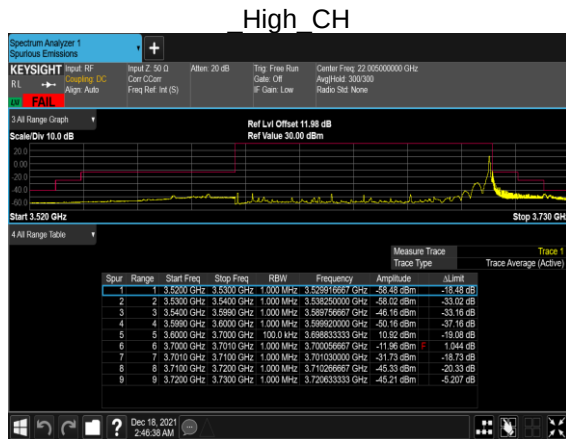
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_

High CH CHP PASS

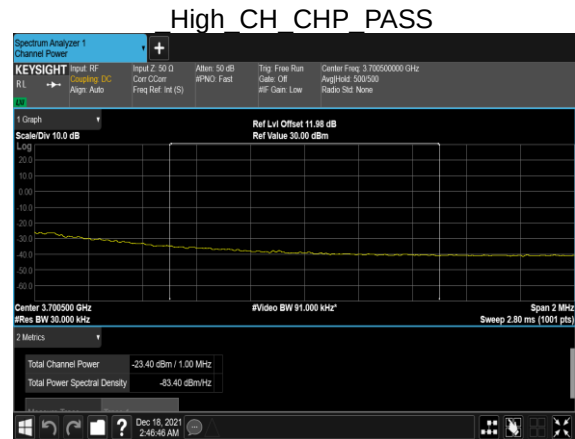




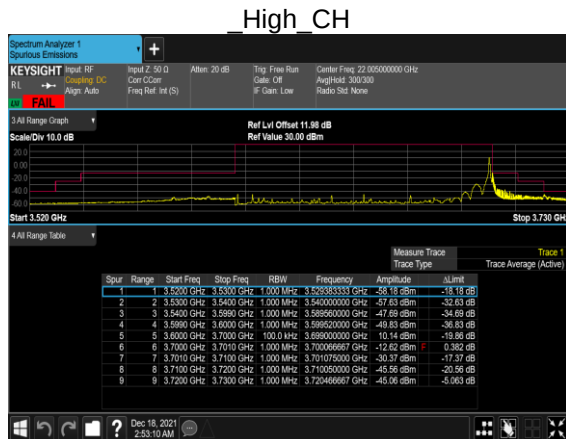
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right



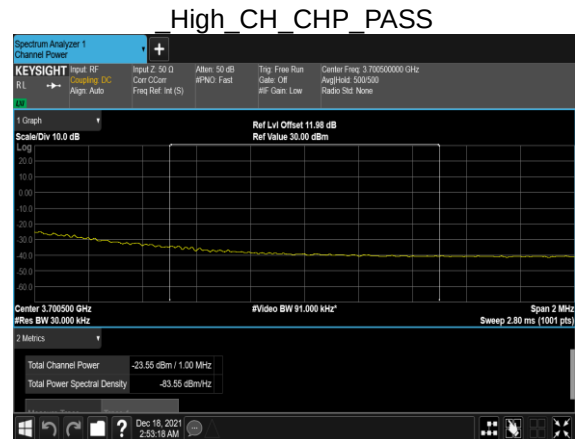
N48(100M)_DFT-s-OFDM_BPSK_Edge_1RB_Right



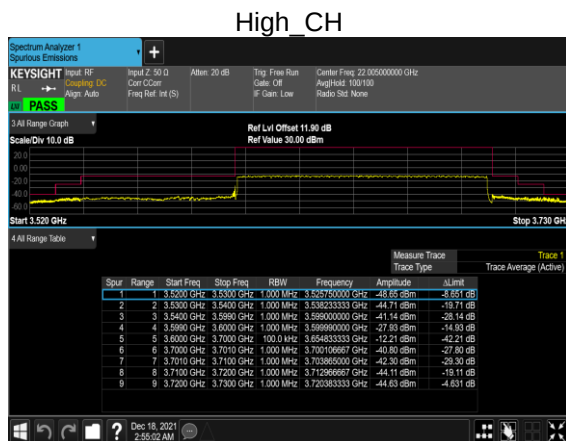
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right



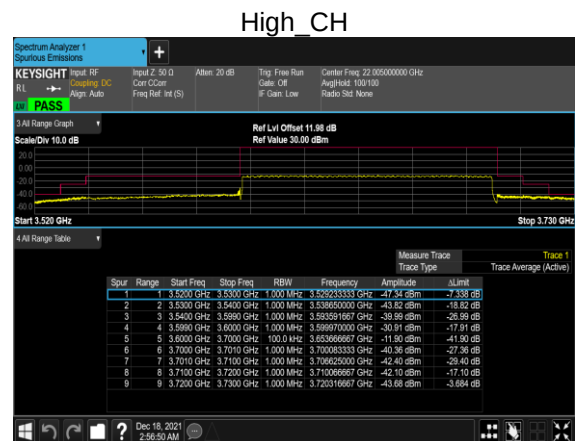
N48(100M)_DFT-s-OFDM_QPSK_Edge_1RB_Right



N48(100M)_DFT-s-OFDM_BPSK_Outer_Full_



N48(100M)_DFT-s-OFDM_QPSK_Outer_Full_



**A4. FR1 N48 MIMO-ANT5 – SCS 15kHz****A4.1 Frequency Stability**

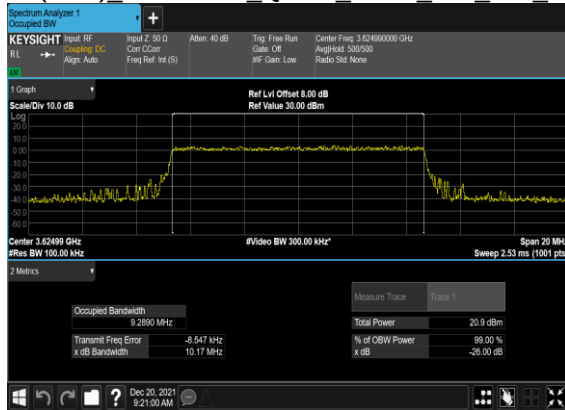
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Deviation (ppm)	Verdict	Environment
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0506	PASS	NV
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0408	PASS	LV
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0298	PASS	HV
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0514	PASS	-30℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0241	PASS	-20℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0266	PASS	-10℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0255	PASS	0℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0519	PASS	10℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0213	PASS	20℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0687	PASS	30℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0227	PASS	40℃
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	0.0473	PASS	50℃

**A4.2 Occupied Bandwidth**

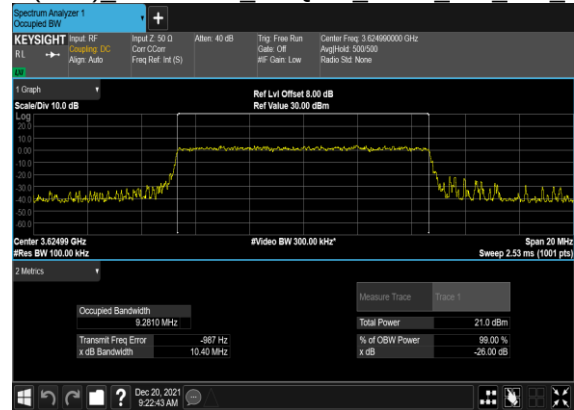
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB OBW (MHz)
48	15	10	641666	3624.99	CP-OFDM QPSK	52@0	9.289	10.17
48	15	10	641666	3624.99	CP-OFDM 16 QAM	52@0	9.281	10.4
48	15	10	641666	3624.99	CP-OFDM 64 QAM	52@0	9.268	9.951
48	15	10	641666	3624.99	CP-OFDM 256 QAM	52@0	9.2883	9.758
48	15	15	641666	3624.99	CP-OFDM QPSK	79@0	14.1	14.73
48	15	15	641666	3624.99	CP-OFDM 16 QAM	79@0	14.081	14.67
48	15	15	641666	3624.99	CP-OFDM 64 QAM	79@0	14.081	14.77
48	15	15	641666	3624.99	CP-OFDM 256 QAM	79@0	14.083	14.73
48	15	20	641666	3624.99	CP-OFDM QPSK	106@0	18.897	20.0
48	15	20	641666	3624.99	CP-OFDM 16 QAM	106@0	18.903	19.69
48	15	20	641666	3624.99	CP-OFDM 64 QAM	106@0	18.901	19.86
48	15	20	641666	3624.99	CP-OFDM 256 QAM	106@0	18.946	19.73
48	15	40	641666	3624.99	CP-OFDM QPSK	216@0	38.542	39.95
48	15	40	641666	3624.99	CP-OFDM 16 QAM	216@0	38.471	39.93
48	15	40	641666	3624.99	CP-OFDM 64 QAM	216@0	38.515	39.93
48	15	40	641666	3624.99	CP-OFDM 256 QAM	216@0	38.511	39.97
48	15	50	641666	3624.99	CP-OFDM QPSK	270@0	48.152	49.75
48	15	50	641666	3624.99	CP-OFDM 16 QAM	270@0	48.06	49.93
48	15	50	641666	3624.99	CP-OFDM 64 QAM	270@0	48.142	49.91
48	15	50	641666	3624.99	CP-OFDM 256 QAM	270@0	48.208	50.01



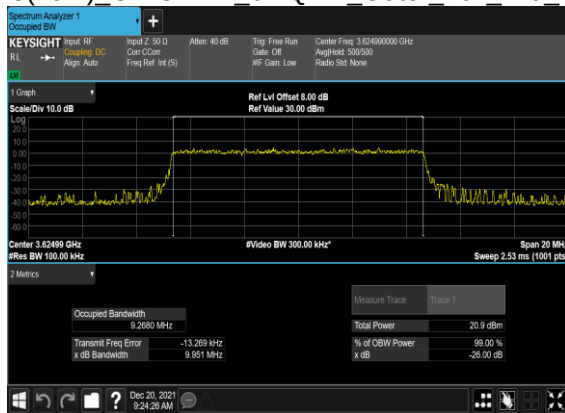
N48(10M) CP-OFDM QPSK Outer Full Mid CH



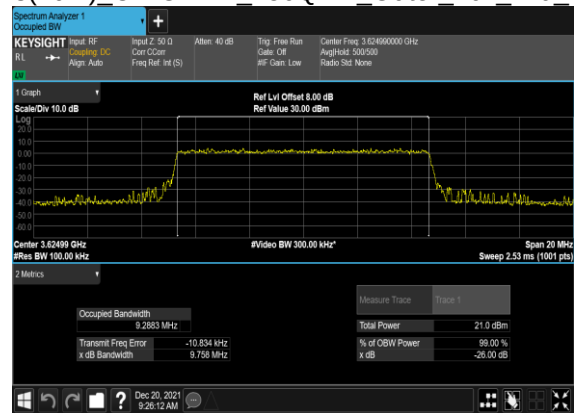
N48(10M) CP-OFDM 16 QAM Outer Full Mid CH



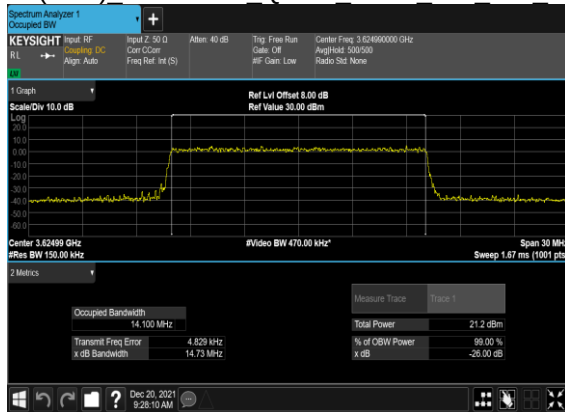
N48(10M) CP-OFDM 64 QAM Outer Full Mid CH



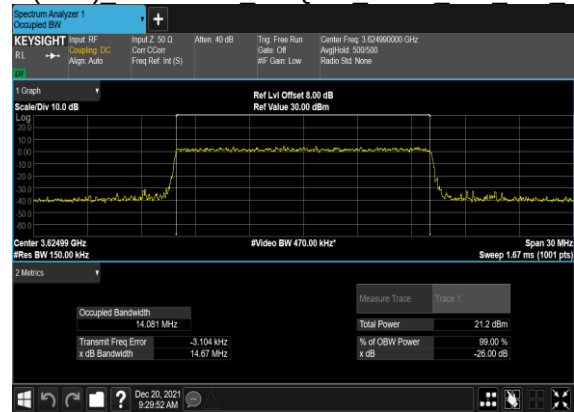
N48(10M) CP-OFDM 256QAM Outer Full Mid CH



N48(15M) CP-OFDM QPSK Outer Full Mid CH

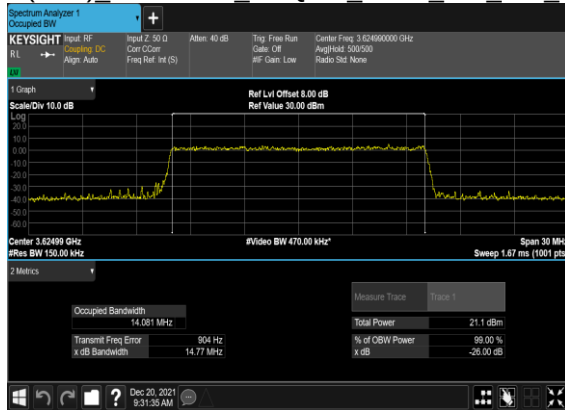


N48(15M) CP-OFDM 16 QAM Outer Full Mid CH

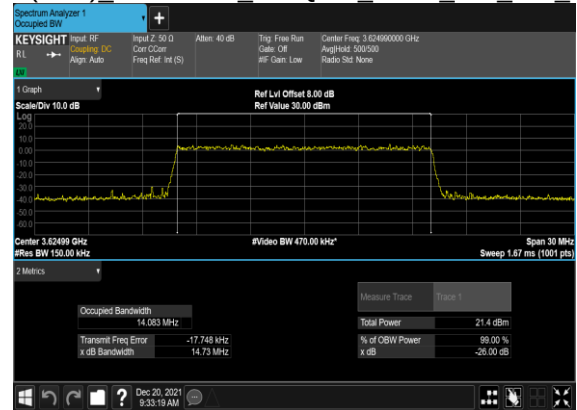




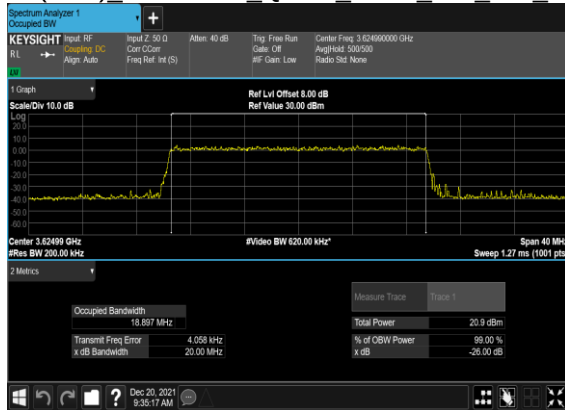
N48(15M) CP-OFDM 64 QAM Outer Full Mid CH



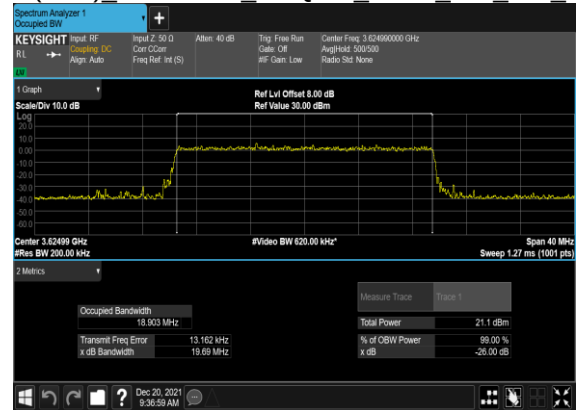
N48(15M) CP-OFDM 256QAM Outer Full Mid CH



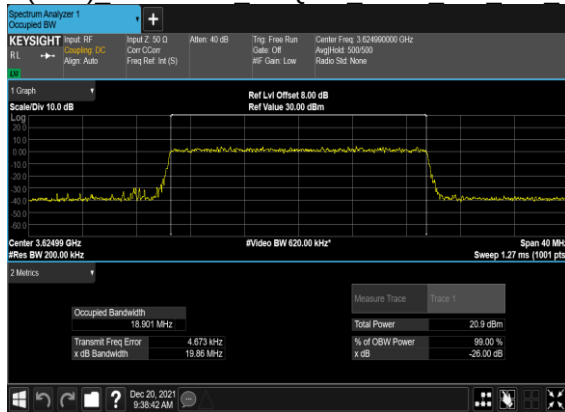
N48(20M) CP-OFDM QPSK Outer Full Mid CH



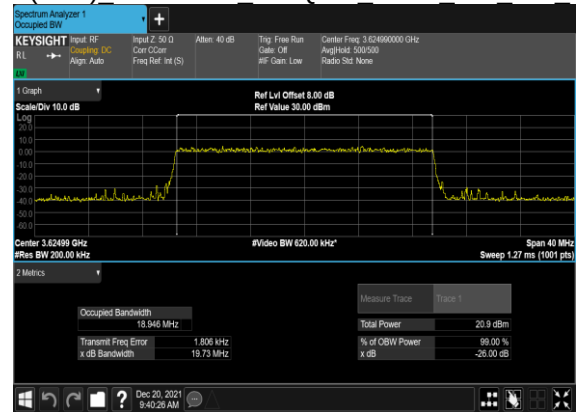
N48(20M) CP-OFDM 16 QAM Outer Full Mid CH



N48(20M) CP-OFDM 64 QAM Outer Full Mid CH

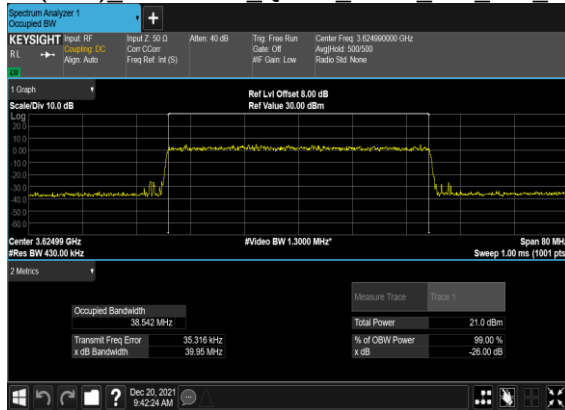


N48(20M) CP-OFDM 256QAM Outer Full Mid CH

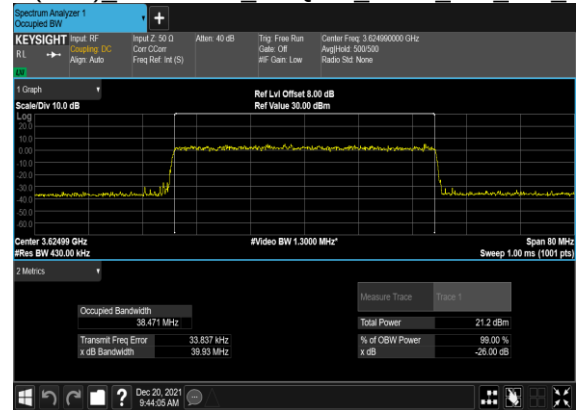




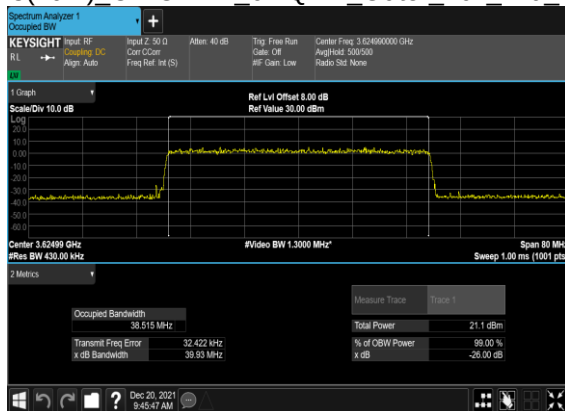
N48(40M) CP-OFDM QPSK Outer Full Mid CH



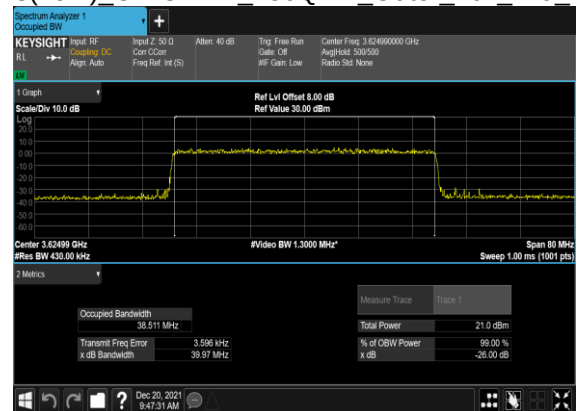
N48(40M) CP-OFDM 16 QAM Outer Full Mid CH



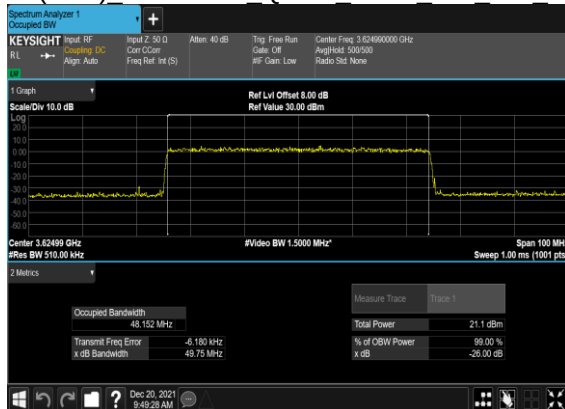
N48(40M) CP-OFDM 64 QAM Outer Full Mid CH



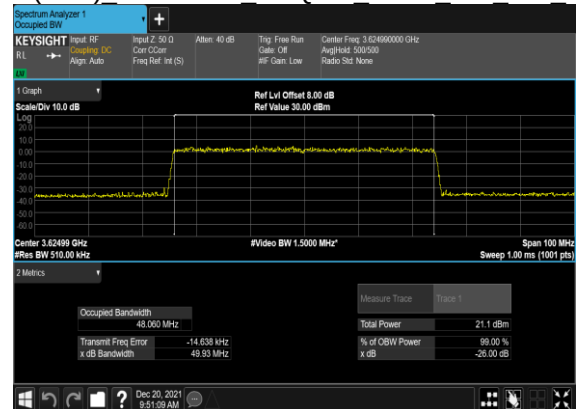
N48(40M) CP-OFDM 256QAM Outer Full Mid CH



N48(50M) CP-OFDM QPSK Outer Full Mid CH

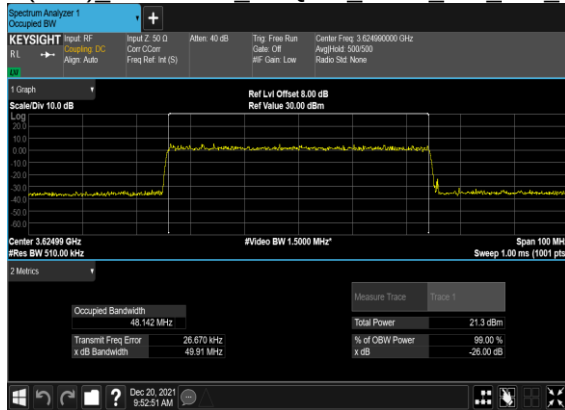


N48(50M) CP-OFDM 16 QAM Outer Full Mid CH

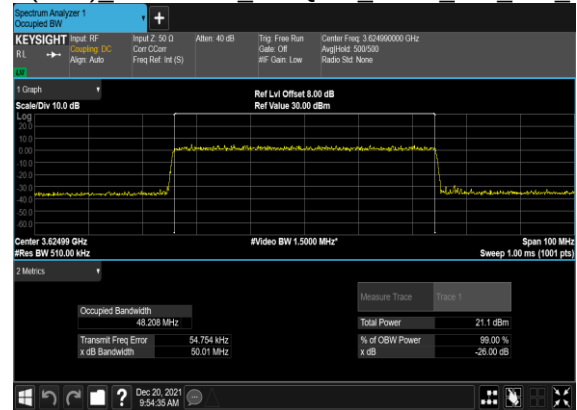




N48(50M) CP-OFDM 64 QAM Outer Full Mid CH



N48(50M) CP-OFDM 256QAM Outer Full Mid CH





A4.3 Adjacent Channel Leakage Ratio

NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Lower Margin	Upper Margin	Result	Verdict
48	15	10	637000	3555.0	CP-s-OFDM QPSK	52@0	-13.13	-13.57	see graph	PASS
48	15	10	637000	3555.0	CP-s-OFDM QPSK	1@0	-6.79	-18.35	see graph	PASS
48	15	10	637000	3555.0	CP-s-OFDM QPSK	1@51	-18.5	-7.95	see graph	PASS
48	15	10	641666	3624.99	CP-s-OFDM QPSK	52@0	-13.21	-12.75	see graph	PASS
48	15	10	641666	3624.99	CP-s-OFDM QPSK	1@0	-6.48	-17.2	see graph	PASS
48	15	10	641666	3624.99	CP-s-OFDM QPSK	1@51	-18.64	-7.33	see graph	PASS
48	15	10	646332	3694.98	CP-s-OFDM QPSK	52@0	-12.45	-13.15	see graph	PASS
48	15	10	646332	3694.98	CP-s-OFDM QPSK	1@0	-6.03	-16.71	see graph	PASS
48	15	10	646332	3694.98	CP-s-OFDM QPSK	1@51	-15.78	-6.77	see graph	PASS
48	15	20	637334	3560.01	CP-s-OFDM QPSK	106@0	-13.5	-14.01	see graph	PASS
48	15	20	637334	3560.01	CP-s-OFDM QPSK	1@0	-8.0	-16.45	see graph	PASS
48	15	20	637334	3560.01	CP-s-OFDM QPSK	1@105	-17.24	-7.59	see graph	PASS
48	15	20	641666	3624.99	CP-s-OFDM QPSK	106@0	-10.92	-11.28	see graph	PASS
48	15	20	641666	3624.99	CP-s-OFDM QPSK	1@0	-7.11	-15.62	see graph	PASS
48	15	20	641666	3624.99	CP-s-OFDM QPSK	1@105	-16.06	-8.68	see graph	PASS
48	15	20	646000	3690.0	CP-s-OFDM QPSK	106@0	-11.86	-12.33	see graph	PASS
48	15	20	646000	3690.0	CP-s-OFDM QPSK	1@0	-7.1	-14.91	see graph	PASS
48	15	20	646000	3690.0	CP-s-OFDM QPSK	1@105	-14.27	-8.28	see graph	PASS
48	15	50	638334	3575.01	CP-s-OFDM QPSK	270@0	-10.91	-10.39	see graph	PASS
48	15	50	638334	3575.01	CP-s-OFDM QPSK	1@0	-9.01	-10.66	see graph	PASS
48	15	50	638334	3575.01	CP-s-OFDM QPSK	1@269	-11.85	-9.62	see graph	PASS
48	15	50	641666	3624.99	CP-s-OFDM QPSK	270@0	-10.62	-9.85	see graph	PASS
48	15	50	641666	3624.99	CP-s-OFDM QPSK	1@0	-8.43	-9.99	see graph	PASS
48	15	50	641666	3624.99	CP-s-OFDM QPSK	1@269	-11.1	-8.26	see graph	PASS
48	15	50	645000	3675.0	CP-s-OFDM QPSK	270@0	-10.48	-9.63	see graph	PASS
48	15	50	645000	3675.0	CP-s-OFDM QPSK	1@0	-8.5	-9.72	see graph	PASS
48	15	50	645000	3675.0	CP-s-OFDM QPSK	1@269	-11.33	-8.53	see graph	PASS