

Appendix for N40(2305-2315MHz)

Product Name: Smart phone

Model No: Black 6

Appendix A: Average Power Output Data

Test Result

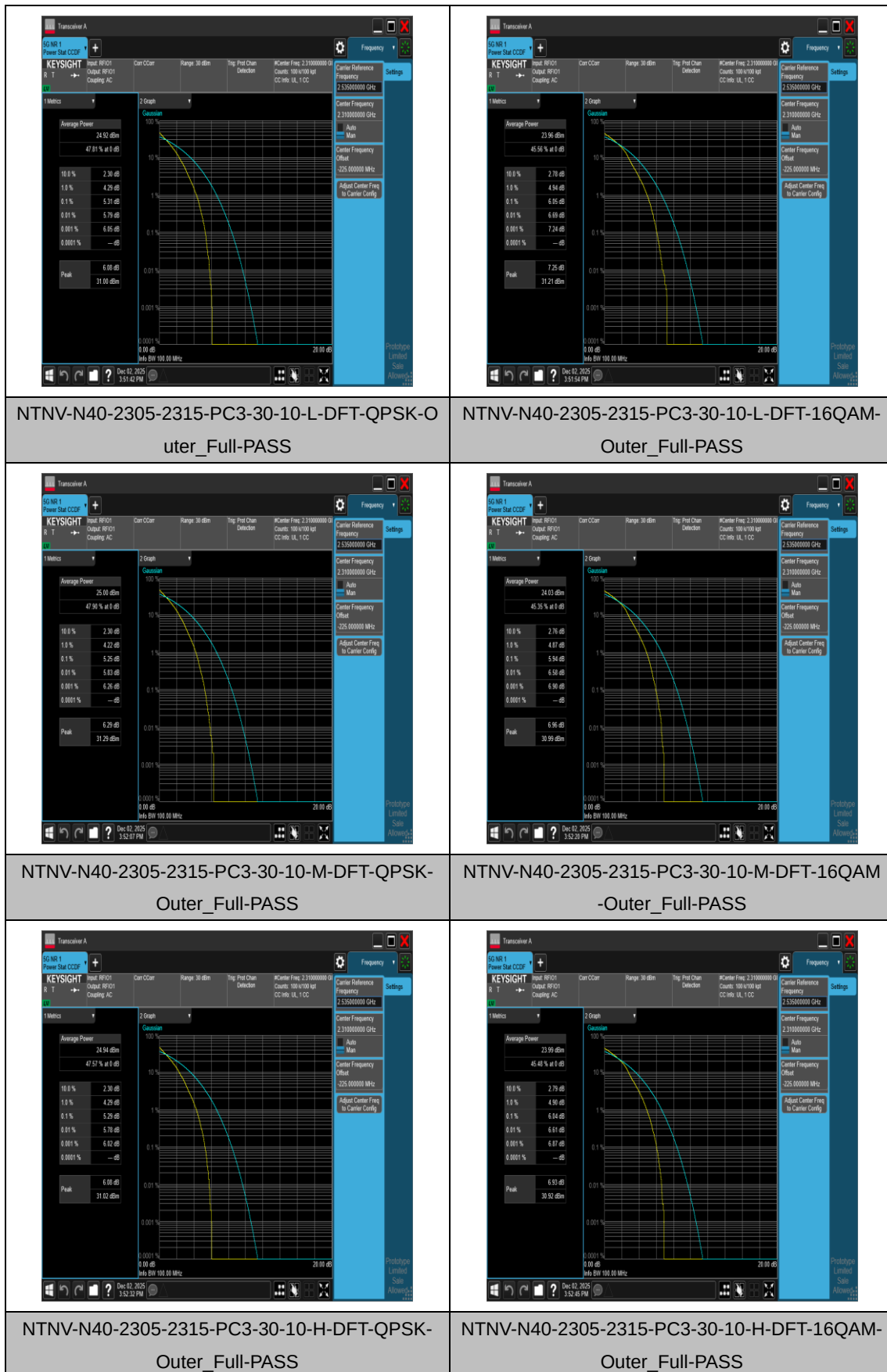
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Power (dBm)	Power Class	Verdict
N40-2305-2315	30	10	DFT-QPSK	L	Outer_Full	23.86	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	L	Inner_Full	24.79	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	L	Edge_1RB_Left	23.69	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	L	Edge_1RB_Right	23.79	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	L	Outer_Full	22.75	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	L	Inner_Full	23.75	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	L	Edge_1RB_Left	22.49	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	L	Edge_1RB_Right	22.52	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	M	Outer_Full	23.83	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	M	Inner_Full	23.79	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	M	Edge_1RB_Left	23.75	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	M	Edge_1RB_Right	23.82	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	M	Outer_Full	22.78	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	M	Inner_Full	23.86	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	M	Edge_1RB_Left	22.52	PC3	PASS
N40-2305-2315	30	10	DFT-16QAM	M	Edge_1RB_Right	22.52	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	H	Outer_Full	22.32	PC3	PASS
N40-2305-2315	30	10	DFT-QPSK	H	Inner_Full	23.30	PC3	PASS

N40-2305 -2315	30	10	DFT-QPSK	H	Edge_1RB_Left	22.14	PC3	PASS
N40-2305 -2315	30	10	DFT-QPSK	H	Edge_1RB_Right	22.10	PC3	PASS
N40-2305 -2315	30	10	DFT-16QAM	H	Outer_Full	21.34	PC3	PASS
N40-2305 -2315	30	10	DFT-16QAM	H	Inner_Full	22.30	PC3	PASS
N40-2305 -2315	30	10	DFT-16QAM	H	Edge_1RB_Left	21.81	PC3	PASS
N40-2305 -2315	30	10	DFT-16QAM	H	Edge_1RB_Right	21.84	PC3	PASS

Appendix B: Peak-to-Average Ratio for SA**Peak-to-Average Ratio(CCDF)****Test Result**

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N40-2305-2315	30	10	DFT-QPSK	L	Outer_Full	5.31	≤13	PASS
N40-2305-2315	30	10	DFT-16QAM	L	Outer_Full	6.05	≤13	PASS
N40-2305-2315	30	10	DFT-QPSK	M	Outer_Full	5.25	≤13	PASS
N40-2305-2315	30	10	DFT-16QAM	M	Outer_Full	5.94	≤13	PASS
N40-2305-2315	30	10	DFT-QPSK	H	Outer_Full	5.29	≤13	PASS
N40-2305-2315	30	10	DFT-16QAM	H	Outer_Full	6.04	≤13	PASS

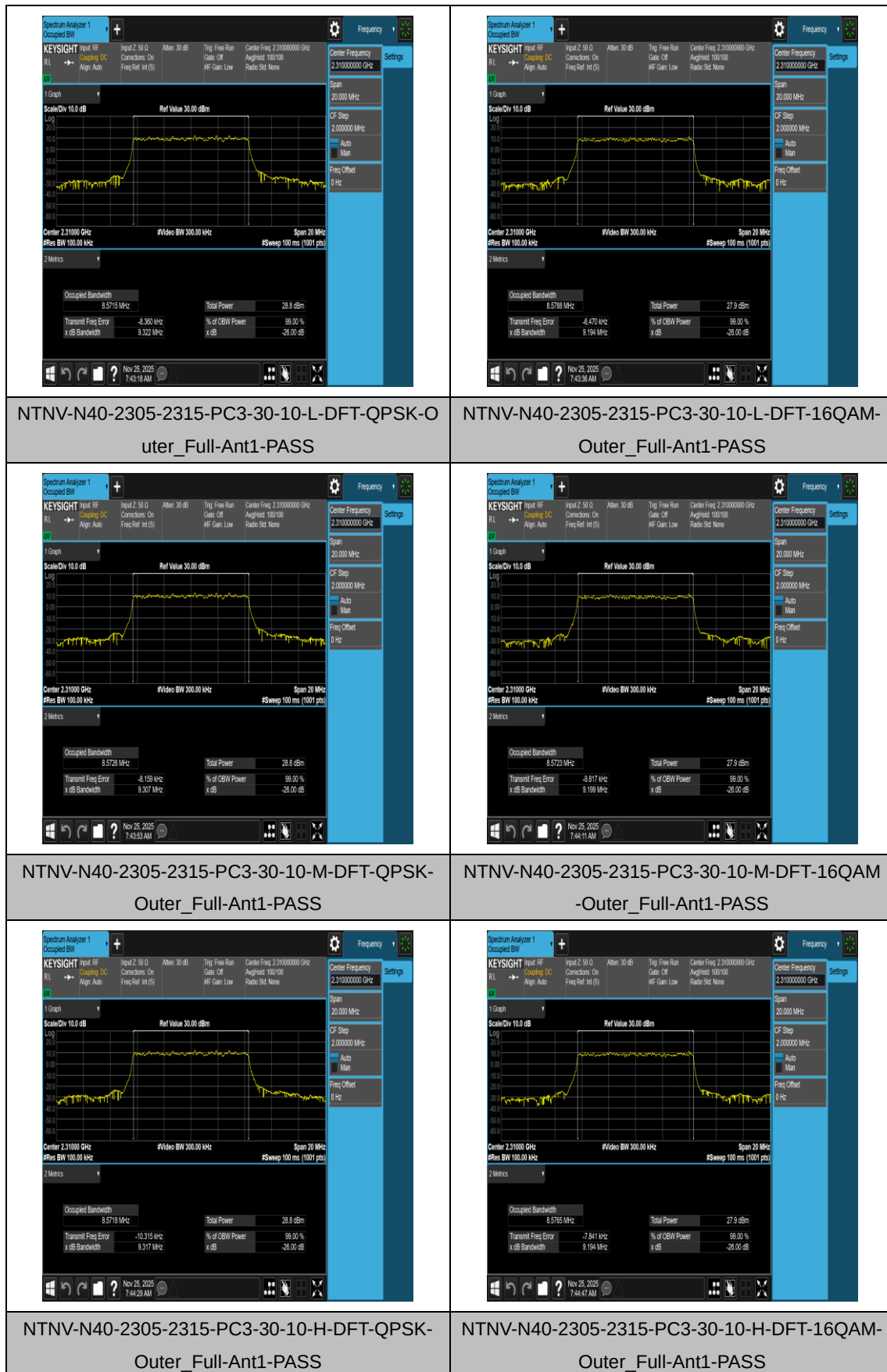
Test Graphs



Appendix C: 26dB Bandwidth and Occupied Bandwidth for SA**Test Result**

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N40-2305-2315	30	10	DFT-QPSK	L	Outer_Full	8.5715	9.322	PASS
N40-2305-2315	30	10	DFT-16QAM	L	Outer_Full	8.5788	9.194	PASS
N40-2305-2315	30	10	DFT-QPSK	M	Outer_Full	8.5726	9.307	PASS
N40-2305-2315	30	10	DFT-16QAM	M	Outer_Full	8.5723	9.199	PASS
N40-2305-2315	30	10	DFT-QPSK	H	Outer_Full	8.5718	9.317	PASS
N40-2305-2315	30	10	DFT-16QAM	H	Outer_Full	8.5765	9.194	PASS

Test Graphs

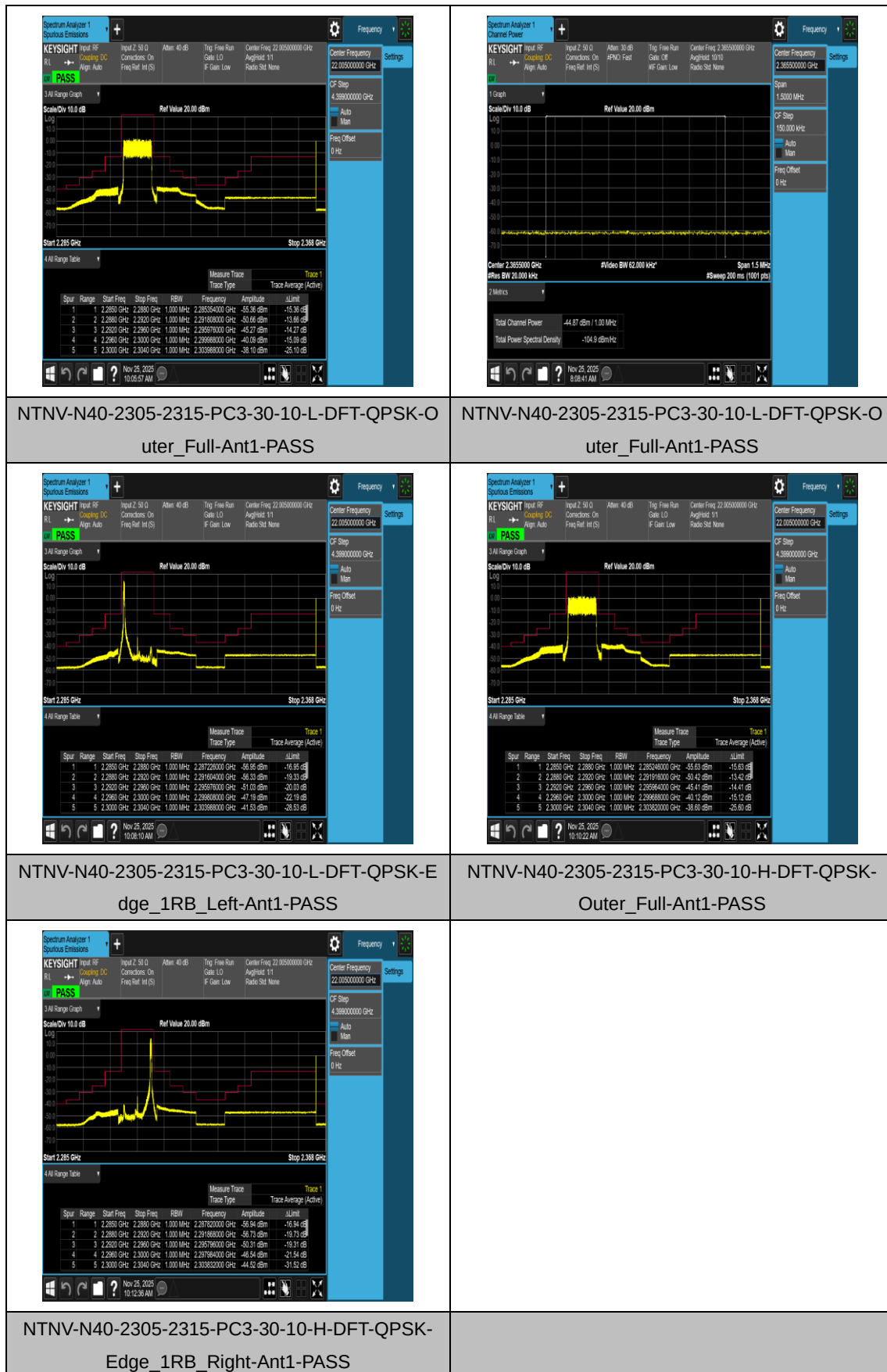


Appendix D: Band Edge for SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Margin	Verdict
N40-2305-2315	30	10	DFT-QPSK	L	Outer_Full	-48.72	11.72	PASS
N40-2305-2315	30	10	DFT-QPSK	L	Outer_Full	-44.87	4.87	PASS
N40-2305-2315	30	10	DFT-QPSK	L	Edge_1RB_Left	-45.50	14.50	PASS
N40-2305-2315	30	10	DFT-QPSK	H	Outer_Full	-48.84	11.84	PASS
N40-2305-2315	30	10	DFT-QPSK	H	Edge_1RB_Right	-45.95	14.95	PASS

Test Graphs



Appendix E: Conducted Spurious Emission for SA

Test Result

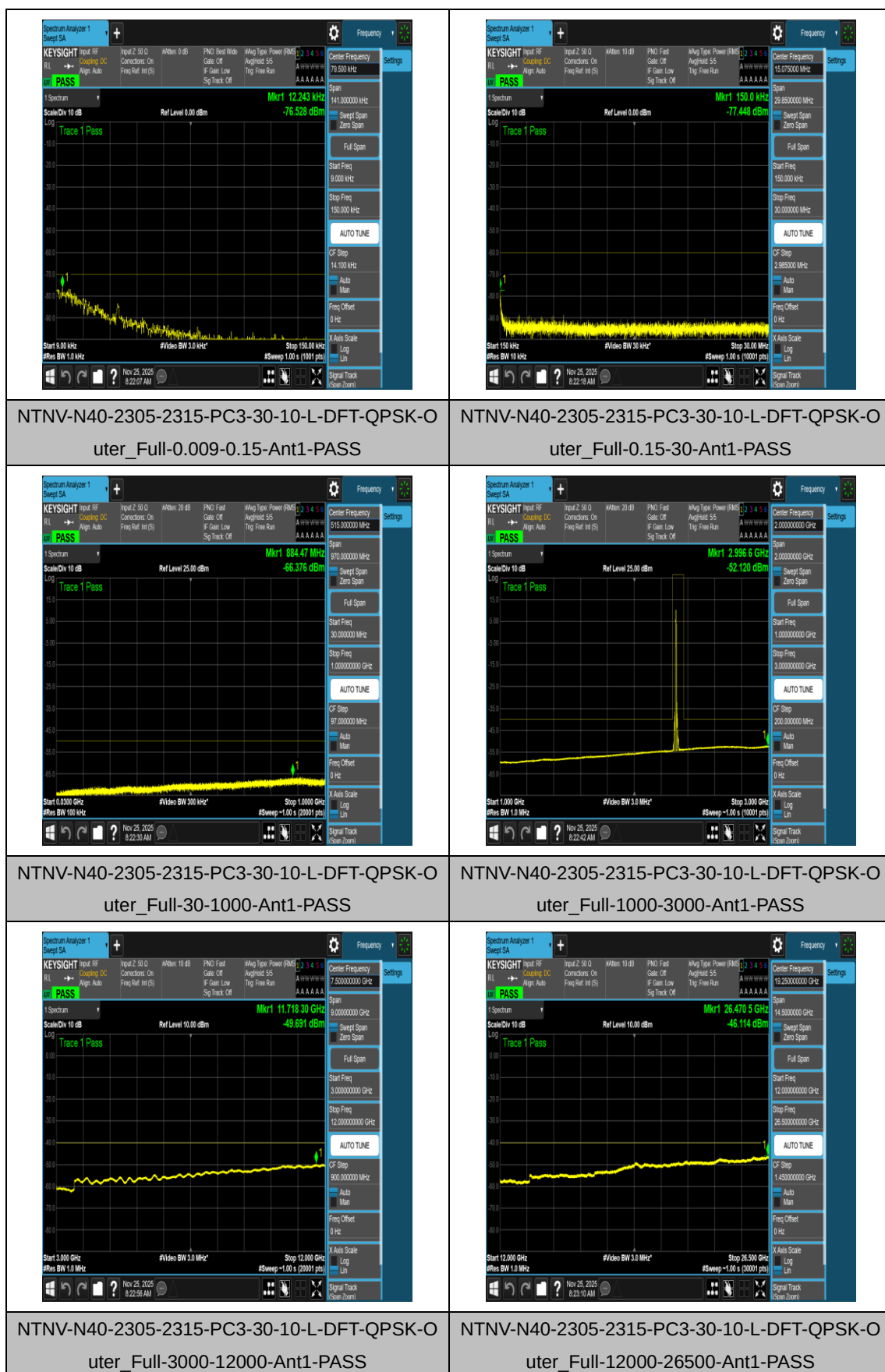
Band	SCS	Bandwidth	Modulation	Channel	RB Config	StartFreq	StopFreq	Result	Limit	Verdict
N40-2 305-23 15	30	10	DFT-QPSK	L	Outer_Full	0.009	0.15	-76.53	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Outer_Full	0.15	30	-77.45	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Outer_Full	30	1000	-66.38	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Outer_Full	1000	3000	-52.12	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Outer_Full	3000	12000	-49.69	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Outer_Full	12000	26500	-46.11	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Left	0.009	0.15	-76.07	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Left	0.15	30	-75.60	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Left	30	1000	-66.43	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Left	1000	3000	-52.06	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Left	3000	12000	-49.63	-40	PASS
N40-2 305-23	30	10	DFT-QPSK	L	Edge_1RB_Left	12000	26500	-46.00	-40	PASS

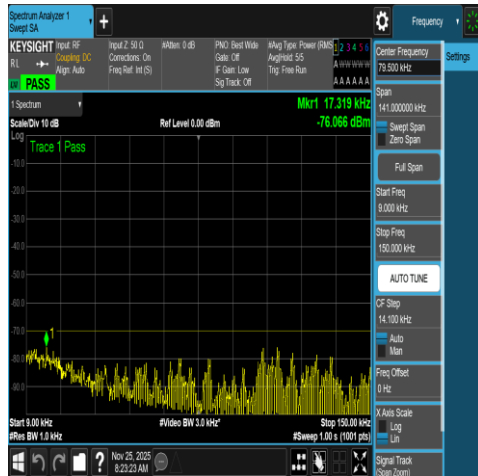
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N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Right	0.009	0.15	-76.70	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Right	0.15	30	-78.78	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Right	30	1000	-66.45	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Right	1000	3000	-52.27	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Right	3000	12000	-49.79	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	L	Edge_1RB_Right	12000	26500	-46.18	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Outer_Full	0.009	0.15	-76.88	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Outer_Full	0.15	30	-79.00	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Outer_Full	30	1000	-66.50	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Outer_Full	1000	3000	-52.11	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Outer_Full	3000	12000	-49.76	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Outer_Full	12000	26500	-45.89	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Left	0.009	0.15	-76.42	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Left	0.15	30	-78.04	-60	PASS

N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Left	30	1000	-66.48	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Left	1000	3000	-52.20	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Left	3000	12000	-49.82	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Left	12000	26500	-46.09	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Right	0.009	0.15	-76.28	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Right	0.15	30	-76.93	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Right	30	1000	-66.34	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Right	1000	3000	-52.13	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Right	3000	12000	-49.62	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	M	Edge_1RB_Right	12000	26500	-46.01	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Outer_Full	0.009	0.15	-76.91	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Outer_Full	0.15	30	-77.02	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Outer_Full	30	1000	-65.94	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Outer_Full	1000	3000	-52.30	-40	PASS
N40-2	30	10	DFT-QPSK	H	Outer_Full	3000	12000	-49.62	-40	PASS

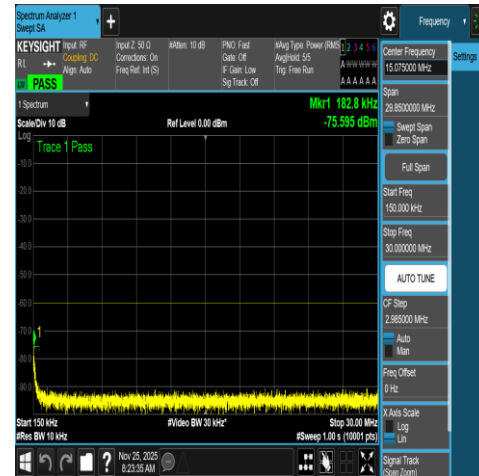
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N40-2 305-23 15	30	10	DFT-QPSK	H	Outer_Full	12000	26500	-46.09	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Left	0.009	0.15	-76.28	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Left	0.15	30	-78.11	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Left	30	1000	-66.54	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Left	1000	3000	-52.27	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Left	3000	12000	-49.81	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Left	12000	26500	-46.00	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Right	0.009	0.15	-76.38	-70	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Right	0.15	30	-77.46	-60	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Right	30	1000	-66.16	-50	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Right	1000	3000	-52.21	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Right	3000	12000	-49.60	-40	PASS
N40-2 305-23 15	30	10	DFT-QPSK	H	Edge_1RB_Right	12000	26500	-45.97	-40	PASS

Test Graphs





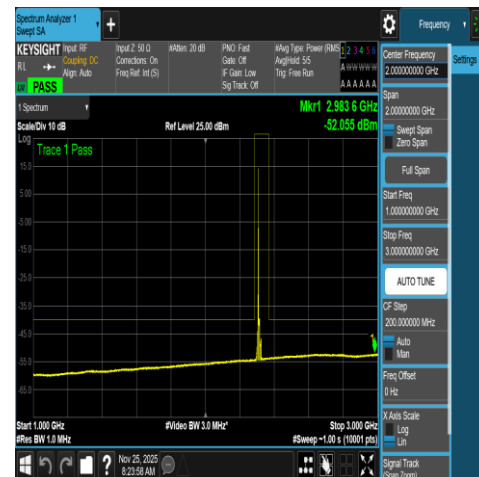
NTNV-N40-2305-2315-PC3-30-10-L-DFT-QPSK-E
dge_1RB_Left-0.009-0.15-Ant1-PASS



NTNV-N40-2305-2315-PC3-30-10-L-DFT-QPSK-E
dge_1RB_Left-0.15-30-Ant1-PASS



NTNV-N40-2305-2315-PC3-30-10-L-DFT-QPSK-E
dge_1RB_Left-30-1000-Ant1-PASS



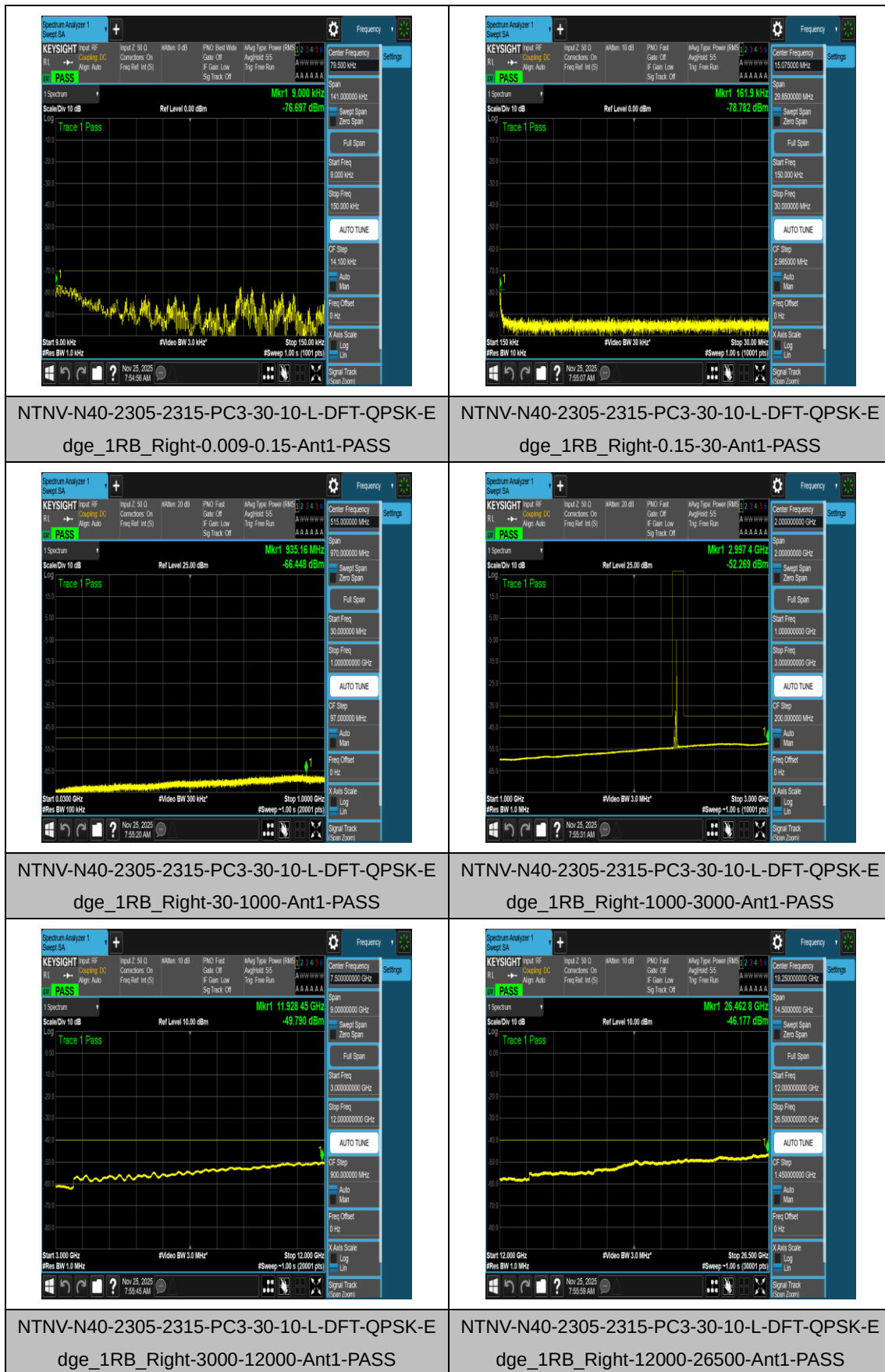
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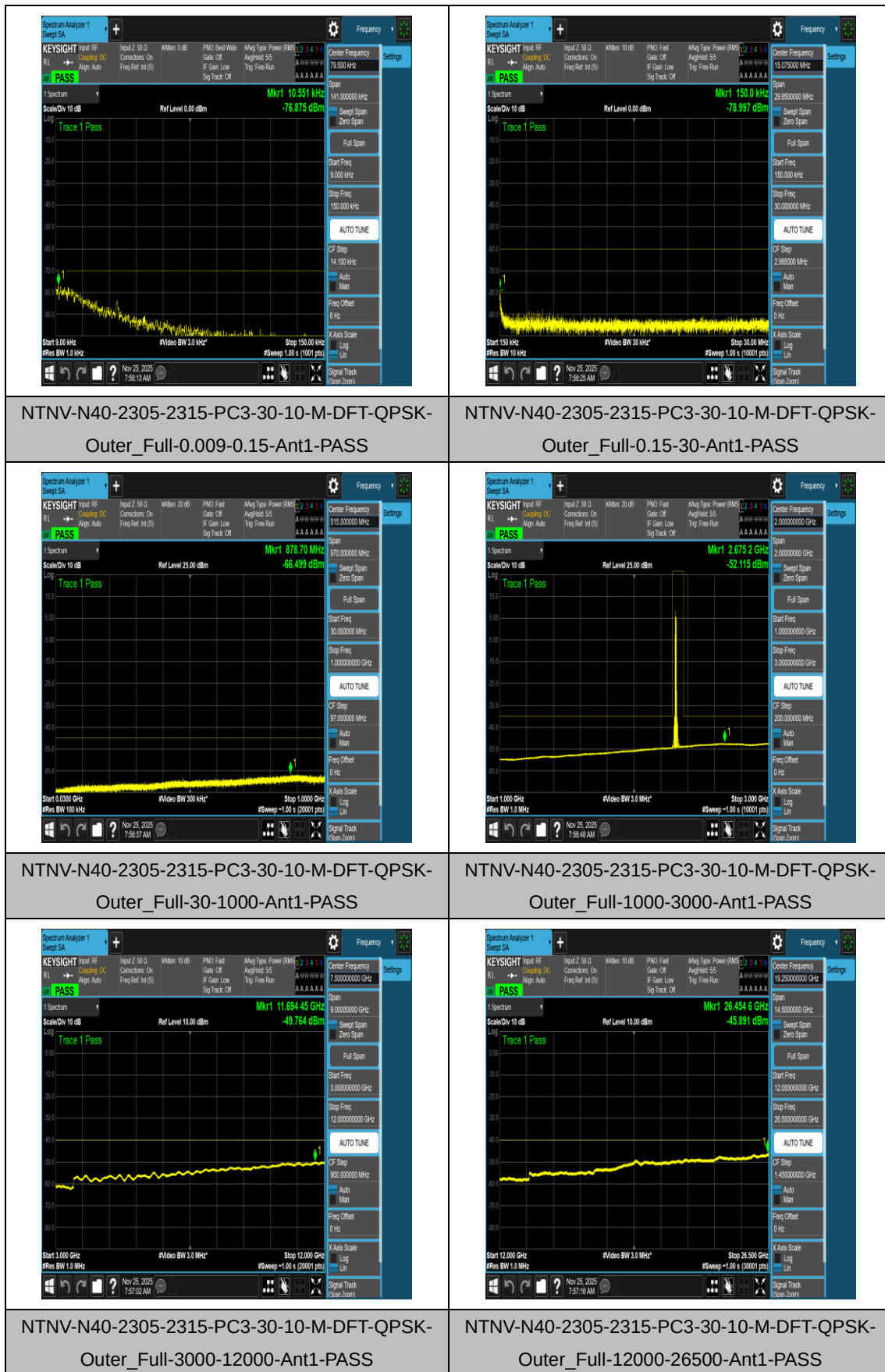


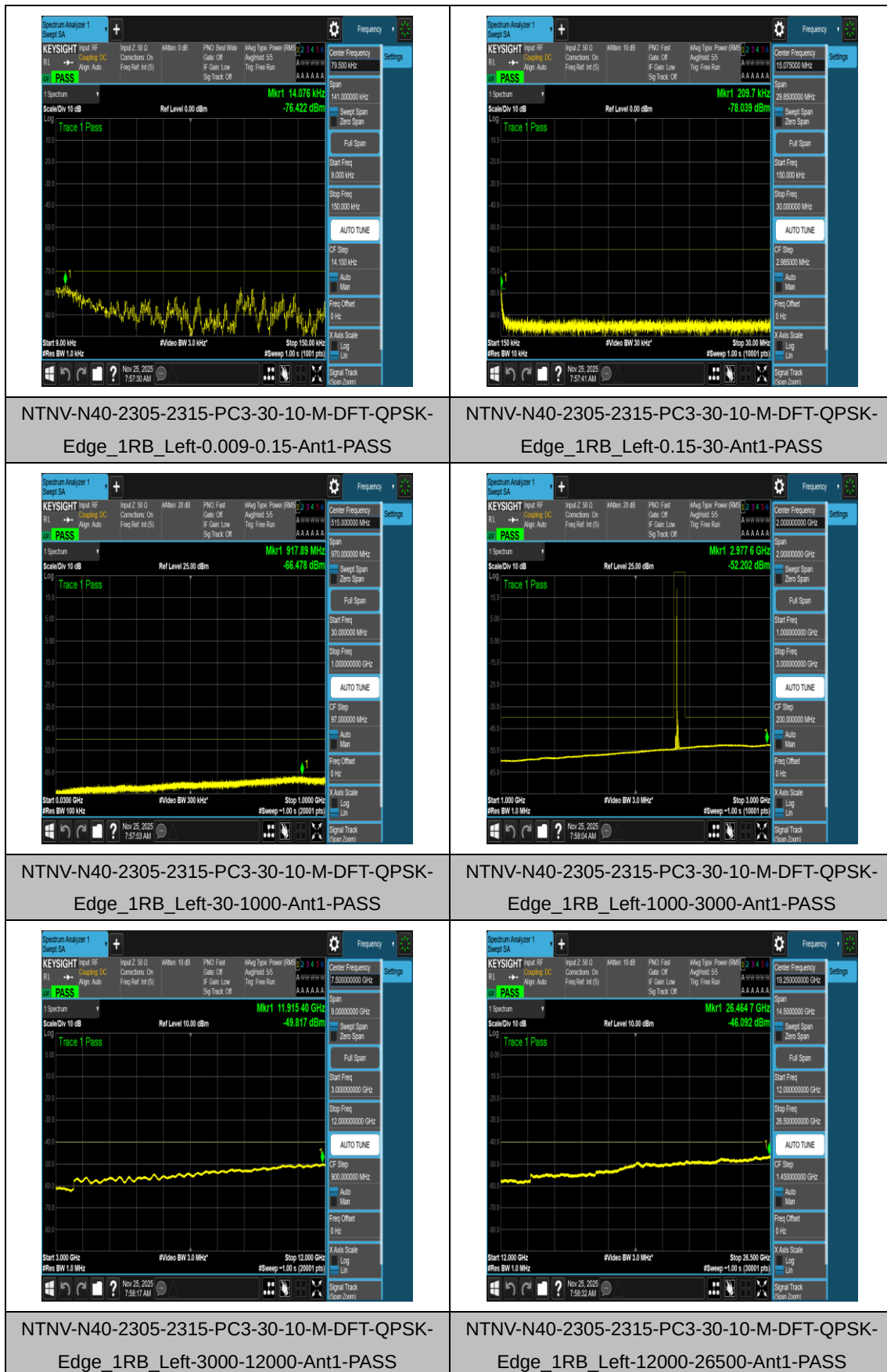
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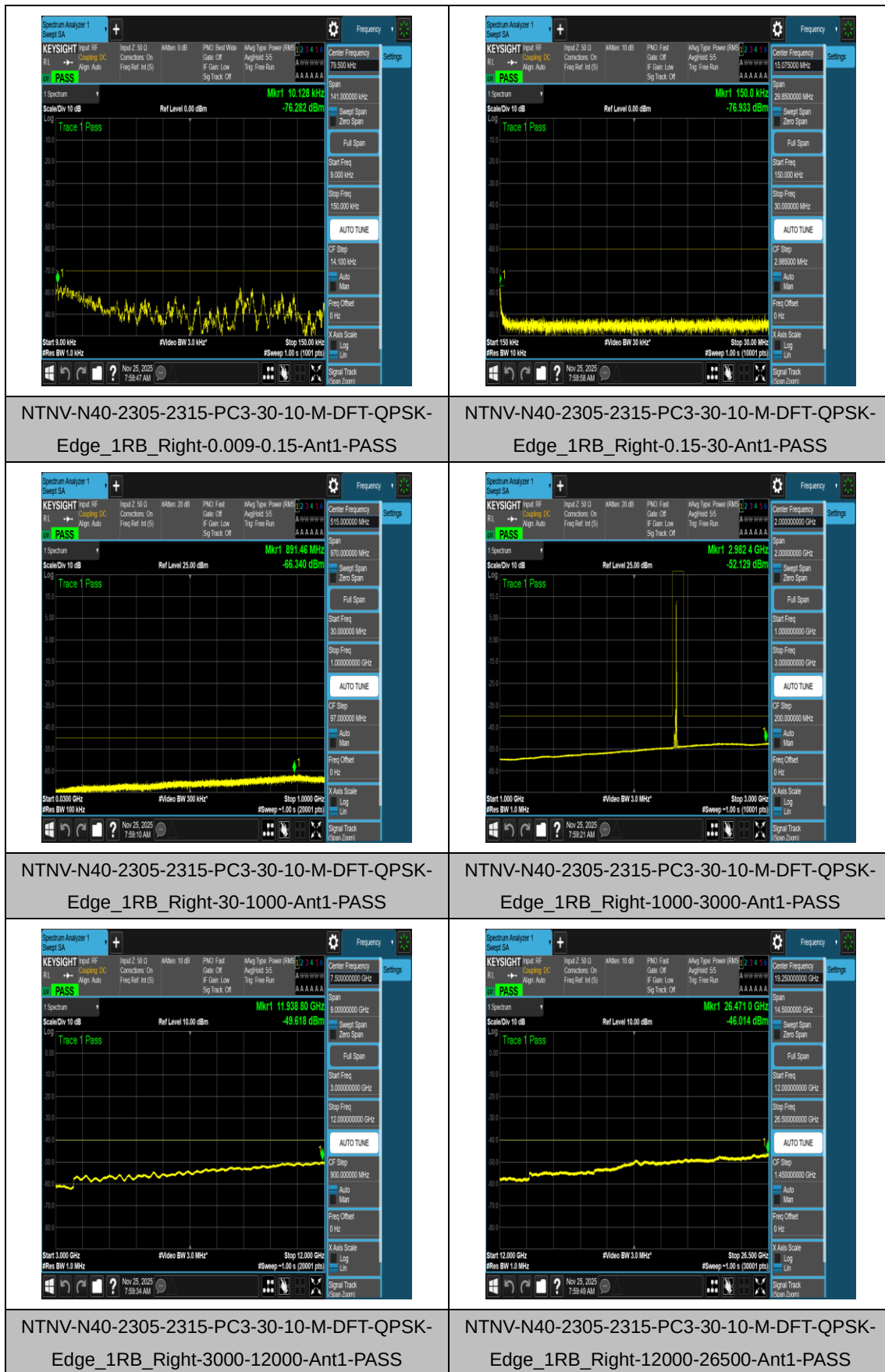


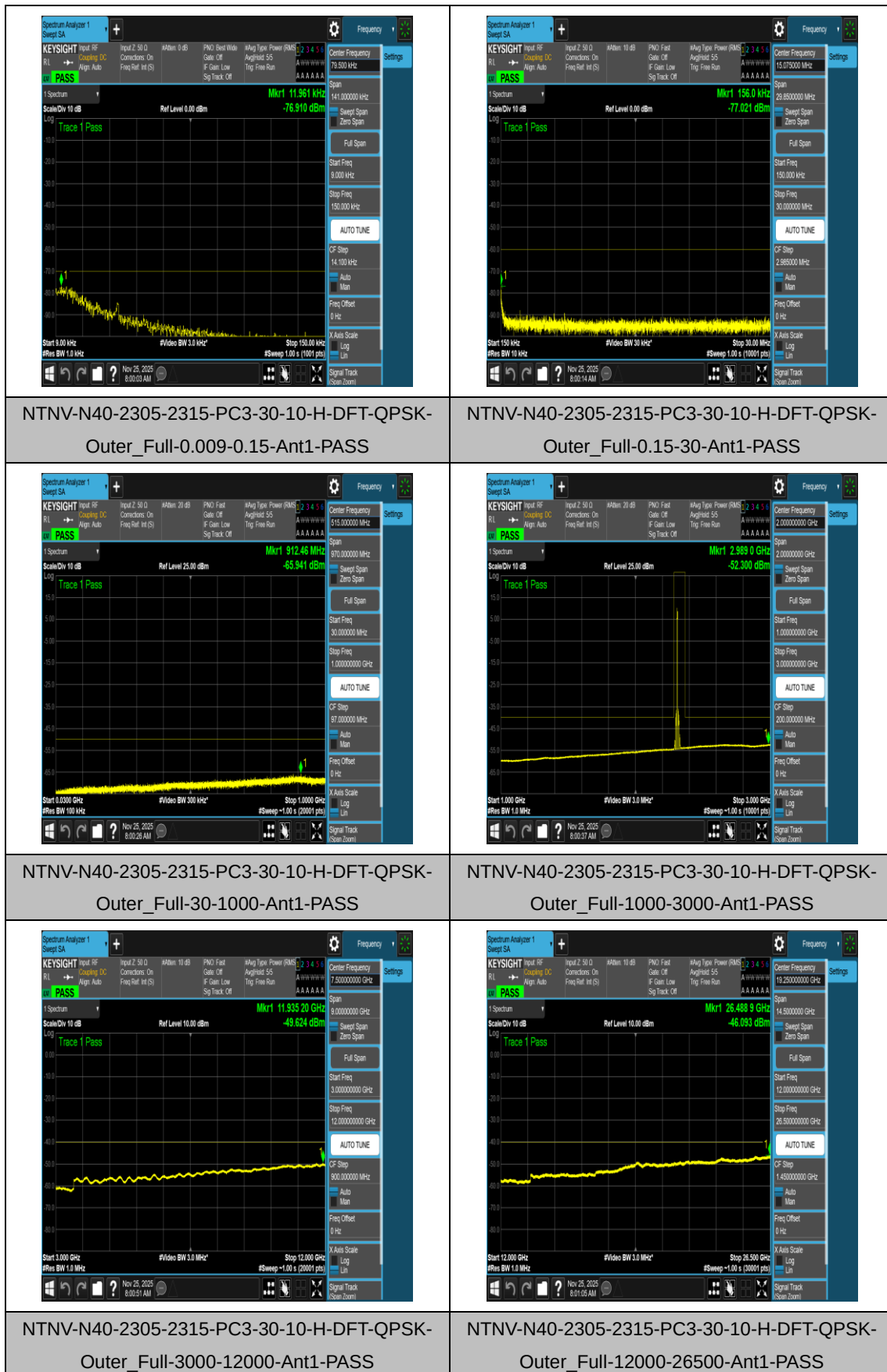
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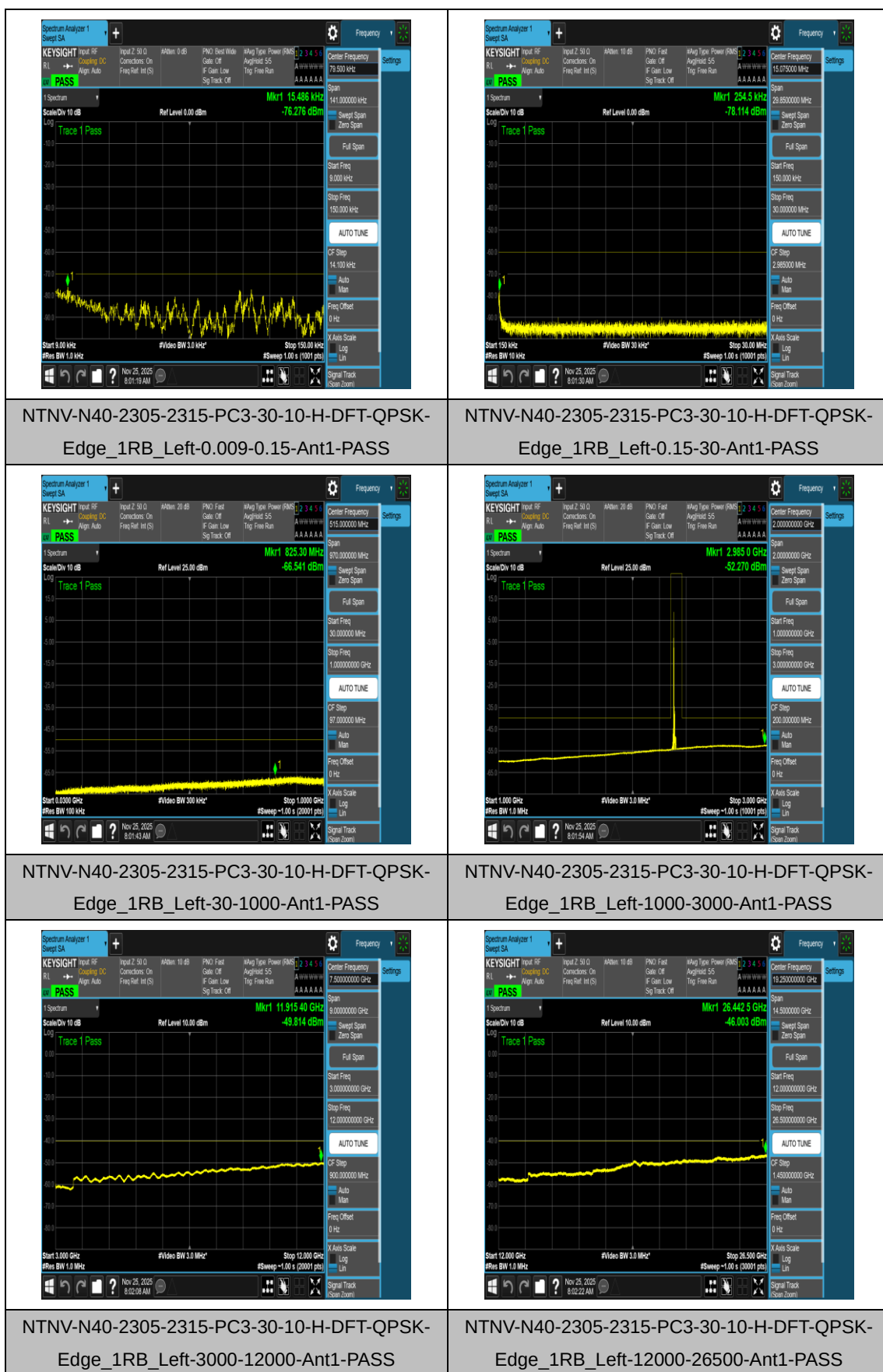


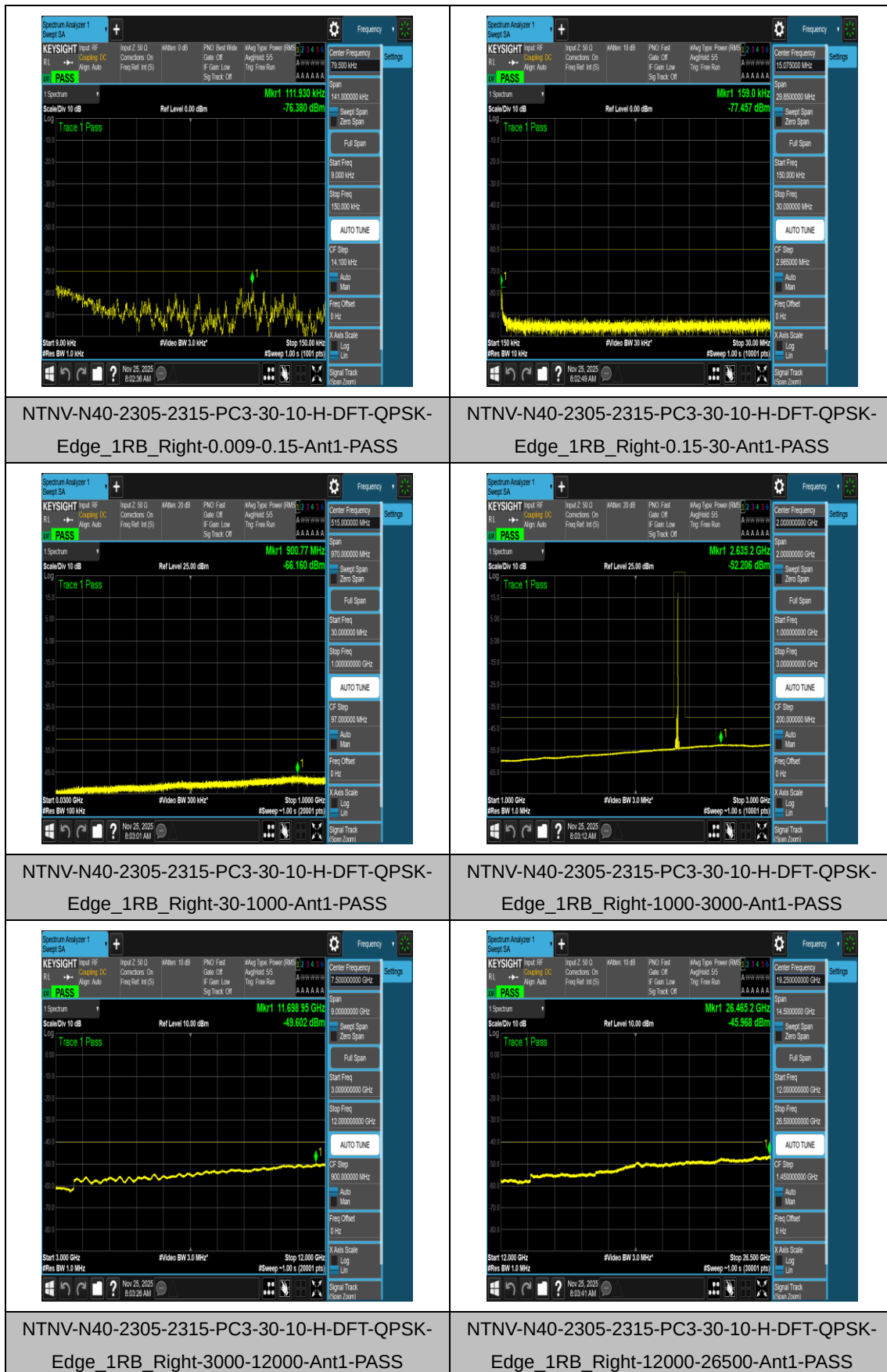












Appendix F: Frequency Stability for SA

Test Result

Frequency Error VS. Voltage

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	VL	NT	-12.670000	-0.005485	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	VN	NT	-4.220000	-0.001827	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	VH	NT	-7.670000	-0.003320	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	VL	NT	-14.400000	-0.006234	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	VN	NT	-16.250000	-0.007035	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	VH	NT	2.170000	0.000939	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	VL	NT	-5.470000	-0.002368	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	VN	NT	-7.500000	-0.003247	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	VH	NT	-9.070000	-0.003926	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	VL	NT	-5.970000	-0.002584	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	VN	NT	-7.260000	-0.003143	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	VH	NT	-7.200000	-0.003117	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	VL	NT	-2.280000	-0.000987	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	VN	NT	5.600000	0.002424	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	VH	NT	1.330000	0.000576	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	VL	NT	-4.790000	-0.002074	PASS

N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	VN	NT	3.030000	0.001312	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	VH	NT	-5.190000	-0.002247	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	-30	-1.890000	-0.000818	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	-20	-12.730000	-0.005511	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	-10	-3.370000	-0.001459	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	0	-9.320000	-0.004035	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	10	-11.300000	-0.004892	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	20	-0.560000	-0.000242	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	30	1.880000	0.000814	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	40	-10.340000	-0.004476	PASS
N40-230 5-2315	30	10	DFT-QPSK	L	Outer_Full	NV	50	-5.250000	-0.002273	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	-30	-8.990000	-0.003892	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	-20	0.090000	0.000039	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	-10	-4.630000	-0.002004	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	0	-5.510000	-0.002385	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	10	-5.660000	-0.002450	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	20	-5.370000	-0.002325	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	30	-13.570000	-0.005874	PASS

N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	40	-4.000000	-0.001732	PASS
N40-230 5-2315	30	10	DFT-16QAM	L	Outer_Full	NV	50	-2.400000	-0.001039	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	-30	-8.160000	-0.003532	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	-20	-2.450000	-0.001061	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	-10	-4.730000	-0.002048	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	0	4.430000	0.001918	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	10	-8.030000	-0.003476	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	20	-8.030000	-0.003476	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	30	-6.470000	-0.002801	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	40	-7.260000	-0.003143	PASS
N40-230 5-2315	30	10	DFT-QPSK	M	Outer_Full	NV	50	-2.200000	-0.000952	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	-30	-12.290000	-0.005320	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	-20	1.800000	0.000779	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	-10	0.550000	0.000238	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	0	5.210000	0.002255	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	10	1.280000	0.000554	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	20	-1.560000	-0.000675	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	30	0.920000	0.000398	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	40	-0.140000	-0.000061	PASS
N40-230 5-2315	30	10	DFT-16QAM	M	Outer_Full	NV	50	-2.090000	-0.000905	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	-30	1.370000	0.000593	PASS

N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	-20	-7.540000	-0.003264	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	-10	0.160000	0.000069	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	0	-2.570000	-0.001113	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	10	-2.200000	-0.000952	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	20	1.880000	0.000814	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	30	-4.430000	-0.001918	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	40	5.430000	0.002351	PASS
N40-230 5-2315	30	10	DFT-QPSK	H	Outer_Full	NV	50	-1.290000	-0.000558	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	-30	4.680000	0.002026	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	-20	0.850000	0.000368	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	-10	3.920000	0.001697	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	0	5.790000	0.002506	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	10	4.040000	0.001749	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	20	-1.160000	-0.000502	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	30	8.860000	0.003835	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	40	-0.770000	-0.000333	PASS
N40-230 5-2315	30	10	DFT-16QAM	H	Outer_Full	NV	50	-0.110000	-0.000048	PASS