

APPENDIX A NR_SA RF TEST DATA

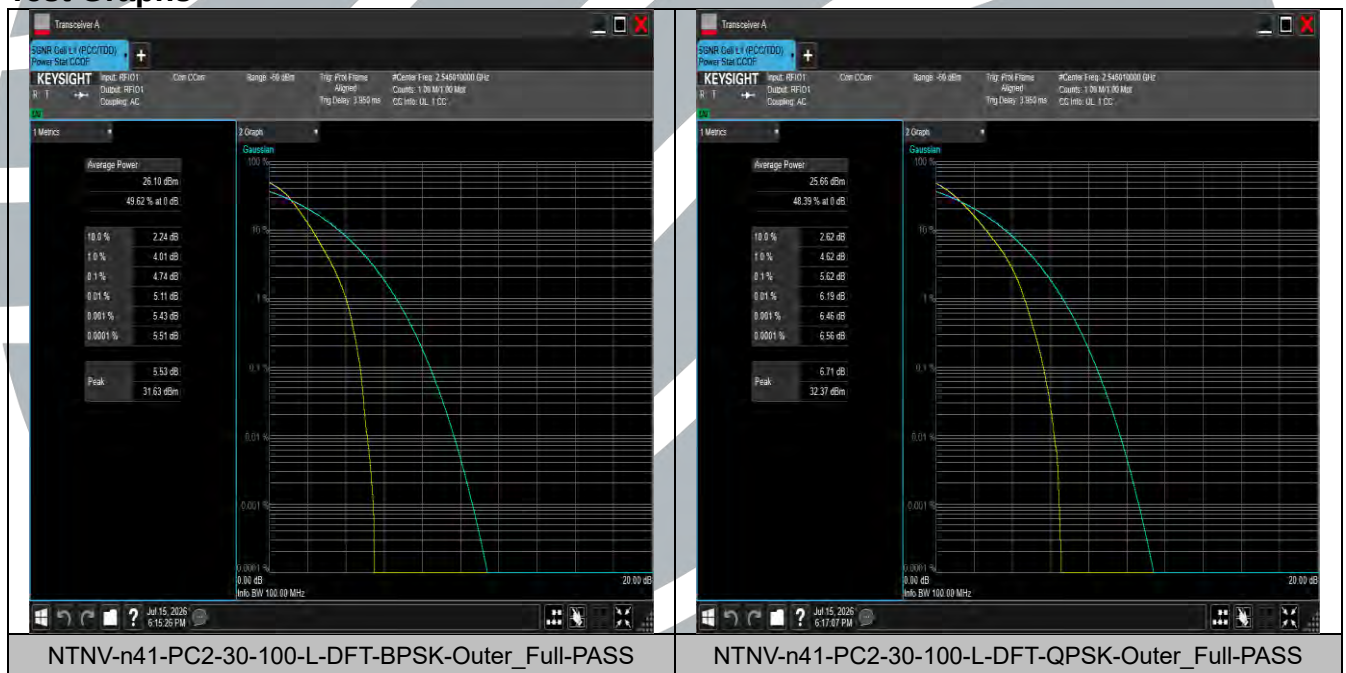
R.1 PEAK-TO-AVERAGE RATIO FOR SA

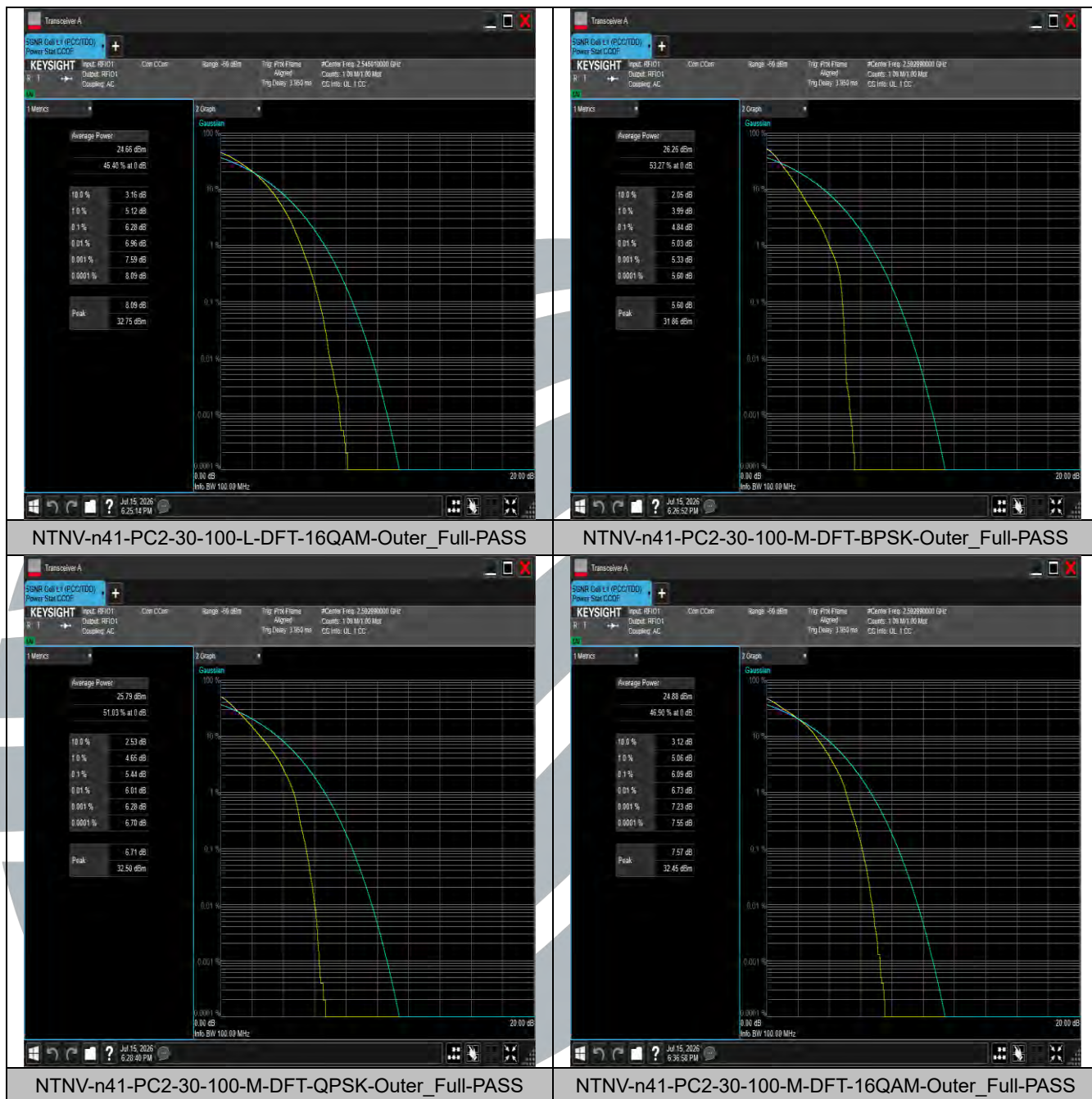
Peak-to-Average Ratio(CCDF)

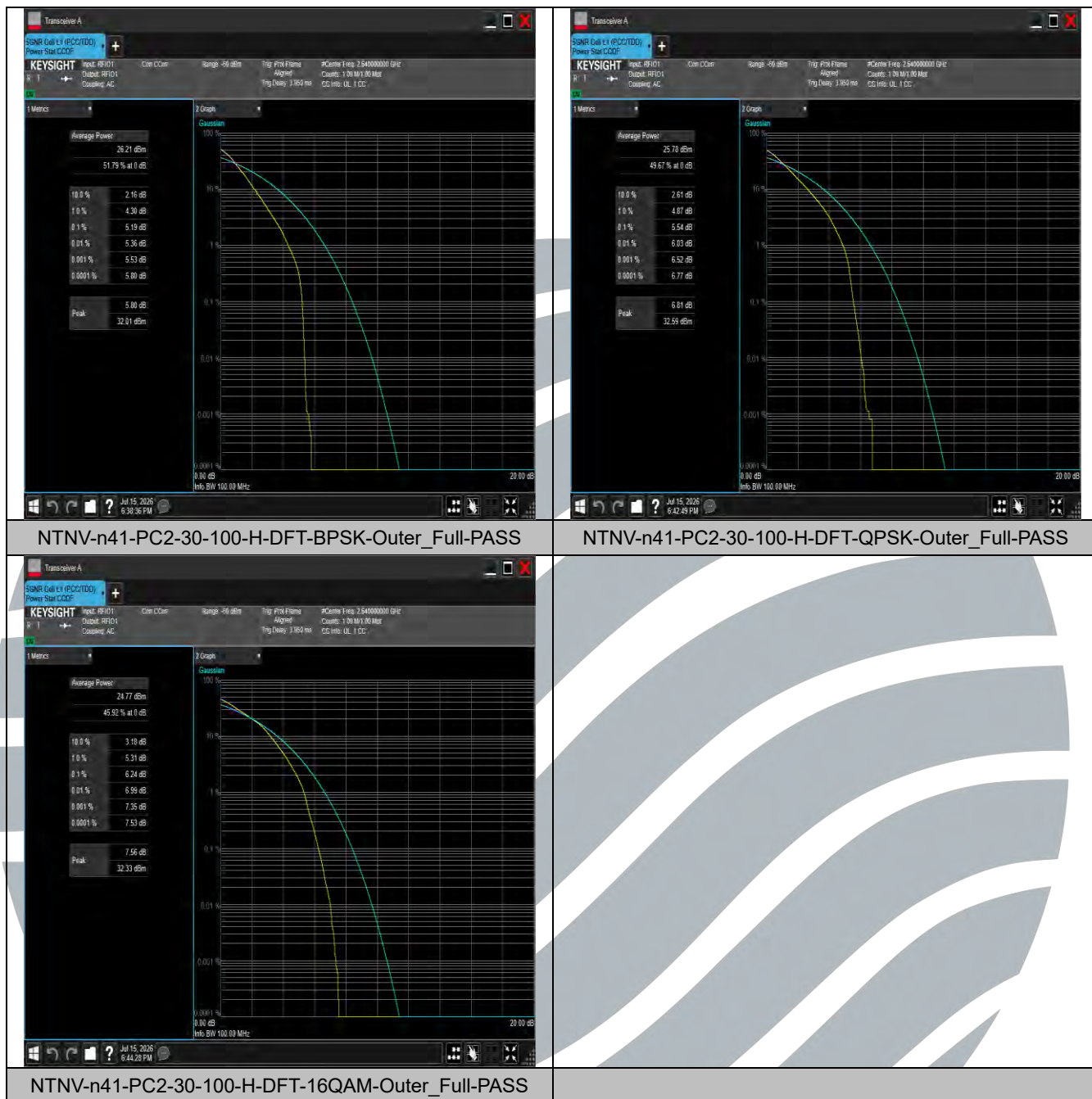
Test Result

Band	SCS (kHz)	BW (MHz)	Modulation	Channel	RB Config	Result (dB)	Limit	Verdict
n41	30	100	DFT-BPSK	L	Outer_Full	4.74	≤13dB	PASS
n41	30	100	DFT-QPSK	L	Outer_Full	5.62	≤13dB	PASS
n41	30	100	DFT-16QAM	L	Outer_Full	6.28	≤13dB	PASS
n41	30	100	DFT-BPSK	M	Outer_Full	4.84	≤13dB	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	5.44	≤13dB	PASS
n41	30	100	DFT-16QAM	M	Outer_Full	6.09	≤13dB	PASS
n41	30	100	DFT-BPSK	H	Outer_Full	5.19	≤13dB	PASS
n41	30	100	DFT-QPSK	H	Outer_Full	5.54	≤13dB	PASS
n41	30	100	DFT-16QAM	H	Outer_Full	6.24	≤13dB	PASS

Test Graphs







R.2 26DB BANDWIDTH AND OCCUPIED BANDWIDTH FOR SA

Test Result

Band	SCS (kHz)	BW (MHz)	Modulation	Ch.	RB Config	99% BW Result (MHz)	26dB BW Result (MHz)	Verdict
n41	30	10	DFT-BPSK	L	Outer_Full	8.5782	9.276	PASS
n41	30	10	DFT-QPSK	L	Outer_Full	8.5731	9.263	PASS
n41	30	10	DFT-16QAM	L	Outer_Full	8.5860	9.165	PASS
n41	30	10	DFT-BPSK	M	Outer_Full	8.5989	9.332	PASS
n41	30	10	DFT-QPSK	M	Outer_Full	8.5934	9.315	PASS
n41	30	10	DFT-16QAM	M	Outer_Full	8.5814	9.217	PASS
n41	30	10	DFT-BPSK	H	Outer_Full	8.5892	9.317	PASS
n41	30	10	DFT-QPSK	H	Outer_Full	8.5972	9.215	PASS
n41	30	10	DFT-16QAM	H	Outer_Full	8.5766	9.246	PASS
n41	30	15	DFT-BPSK	L	Outer_Full	12.884	13.71	PASS
n41	30	15	DFT-QPSK	L	Outer_Full	12.880	13.69	PASS
n41	30	15	DFT-16QAM	L	Outer_Full	12.868	13.71	PASS
n41	30	15	DFT-BPSK	M	Outer_Full	12.891	13.72	PASS
n41	30	15	DFT-QPSK	M	Outer_Full	12.878	13.67	PASS
n41	30	15	DFT-16QAM	M	Outer_Full	12.849	13.69	PASS
n41	30	15	DFT-BPSK	H	Outer_Full	12.883	13.75	PASS
n41	30	15	DFT-QPSK	H	Outer_Full	12.865	13.64	PASS
n41	30	15	DFT-16QAM	H	Outer_Full	12.875	13.73	PASS
n41	30	20	DFT-BPSK	L	Outer_Full	17.867	18.82	PASS
n41	30	20	DFT-QPSK	L	Outer_Full	17.865	18.75	PASS
n41	30	20	DFT-16QAM	L	Outer_Full	17.828	18.73	PASS
n41	30	20	DFT-BPSK	M	Outer_Full	17.872	18.81	PASS
n41	30	20	DFT-QPSK	M	Outer_Full	17.853	18.79	PASS
n41	30	20	DFT-16QAM	M	Outer_Full	17.843	18.76	PASS
n41	30	20	DFT-BPSK	H	Outer_Full	17.872	18.88	PASS
n41	30	20	DFT-QPSK	H	Outer_Full	17.867	18.79	PASS
n41	30	20	DFT-16QAM	H	Outer_Full	17.841	18.75	PASS
n41	30	30	DFT-BPSK	L	Outer_Full	26.842	28.34	PASS
n41	30	30	DFT-QPSK	L	Outer_Full	26.853	28.28	PASS
n41	30	30	DFT-16QAM	L	Outer_Full	26.814	28.26	PASS
n41	30	30	DFT-BPSK	M	Outer_Full	26.814	28.22	PASS
n41	30	30	DFT-QPSK	M	Outer_Full	26.808	28.16	PASS
n41	30	30	DFT-16QAM	M	Outer_Full	26.799	28.26	PASS
n41	30	30	DFT-BPSK	H	Outer_Full	26.816	28.28	PASS
n41	30	30	DFT-QPSK	H	Outer_Full	26.811	28.17	PASS
n41	30	30	DFT-16QAM	H	Outer_Full	26.777	28.26	PASS
n41	30	40	DFT-BPSK	L	Outer_Full	35.776	37.39	PASS

n41	30	40	DFT-QPSK	L	Outer_Full	35.775	37.55	PASS
n41	30	40	DFT-16QAM	L	Outer_Full	35.709	37.36	PASS
n41	30	40	DFT-BPSK	M	Outer_Full	35.723	37.33	PASS
n41	30	40	DFT-QPSK	M	Outer_Full	35.733	37.39	PASS
n41	30	40	DFT-16QAM	M	Outer_Full	35.716	37.42	PASS
n41	30	40	DFT-BPSK	H	Outer_Full	35.721	37.45	PASS
n41	30	40	DFT-QPSK	H	Outer_Full	35.732	37.40	PASS
n41	30	40	DFT-16QAM	H	Outer_Full	35.678	37.30	PASS
n41	30	50	DFT-BPSK	L	Outer_Full	45.727	47.47	PASS
n41	30	50	DFT-QPSK	L	Outer_Full	45.741	47.59	PASS
n41	30	50	DFT-16QAM	L	Outer_Full	45.686	47.66	PASS
n41	30	50	DFT-BPSK	M	Outer_Full	45.705	47.55	PASS
n41	30	50	DFT-QPSK	M	Outer_Full	45.672	47.73	PASS
n41	30	50	DFT-16QAM	M	Outer_Full	45.599	47.58	PASS
n41	30	50	DFT-BPSK	H	Outer_Full	45.652	47.50	PASS
n41	30	50	DFT-QPSK	H	Outer_Full	45.649	47.63	PASS
n41	30	50	DFT-16QAM	H	Outer_Full	45.600	47.52	PASS
n41	30	60	DFT-BPSK	L	Outer_Full	57.941	60.00	PASS
n41	30	60	DFT-QPSK	L	Outer_Full	57.913	59.94	PASS
n41	30	60	DFT-16QAM	L	Outer_Full	57.844	59.90	PASS
n41	30	60	DFT-BPSK	M	Outer_Full	57.825	59.86	PASS
n41	30	60	DFT-QPSK	M	Outer_Full	57.846	59.84	PASS
n41	30	60	DFT-16QAM	M	Outer_Full	57.749	59.97	PASS
n41	30	60	DFT-BPSK	H	Outer_Full	57.835	59.91	PASS
n41	30	60	DFT-QPSK	H	Outer_Full	57.838	59.93	PASS
n41	30	60	DFT-16QAM	H	Outer_Full	57.742	59.95	PASS
n41	30	80	DFT-BPSK	L	Outer_Full	77.317	79.76	PASS
n41	30	80	DFT-QPSK	L	Outer_Full	77.057	79.78	PASS
n41	30	80	DFT-16QAM	L	Outer_Full	77.029	79.77	PASS
n41	30	80	DFT-BPSK	M	Outer_Full	77.162	79.87	PASS
n41	30	80	DFT-QPSK	M	Outer_Full	77.007	79.78	PASS
n41	30	80	DFT-16QAM	M	Outer_Full	76.820	79.87	PASS
n41	30	80	DFT-BPSK	H	Outer_Full	77.178	79.79	PASS
n41	30	80	DFT-QPSK	H	Outer_Full	77.016	79.71	PASS
n41	30	80	DFT-16QAM	H	Outer_Full	76.861	79.88	PASS
n41	30	90	DFT-BPSK	L	Outer_Full	86.881	89.65	PASS
n41	30	90	DFT-QPSK	L	Outer_Full	86.797	89.75	PASS
n41	30	90	DFT-16QAM	L	Outer_Full	86.602	89.53	PASS
n41	30	90	DFT-BPSK	M	Outer_Full	86.735	89.62	PASS
n41	30	90	DFT-QPSK	M	Outer_Full	86.711	89.84	PASS
n41	30	90	DFT-16QAM	M	Outer_Full	86.439	89.55	PASS
n41	30	90	DFT-BPSK	H	Outer_Full	86.727	89.69	PASS

n41	30	90	DFT-QPSK	H	Outer_Full	86.676	89.82	PASS
n41	30	90	DFT-16QAM	H	Outer_Full	86.497	89.57	PASS
n41	30	100	DFT-BPSK	L	Outer_Full	96.384	99.43	PASS
n41	30	100	DFT-QPSK	L	Outer_Full	96.409	99.61	PASS
n41	30	100	DFT-16QAM	L	Outer_Full	96.179	99.65	PASS
n41	30	100	DFT-BPSK	M	Outer_Full	96.294	99.62	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	96.290	99.61	PASS
n41	30	100	DFT-16QAM	M	Outer_Full	96.132	99.67	PASS
n41	30	100	DFT-BPSK	H	Outer_Full	96.422	99.64	PASS
n41	30	100	DFT-QPSK	H	Outer_Full	96.439	99.57	PASS
n41	30	100	DFT-16QAM	H	Outer_Full	96.239	99.58	PASS

Test Graphs





NTNV-n41-PC2-30-10-L-DFT-16QAM-Outer_Full-Ant1-PASS



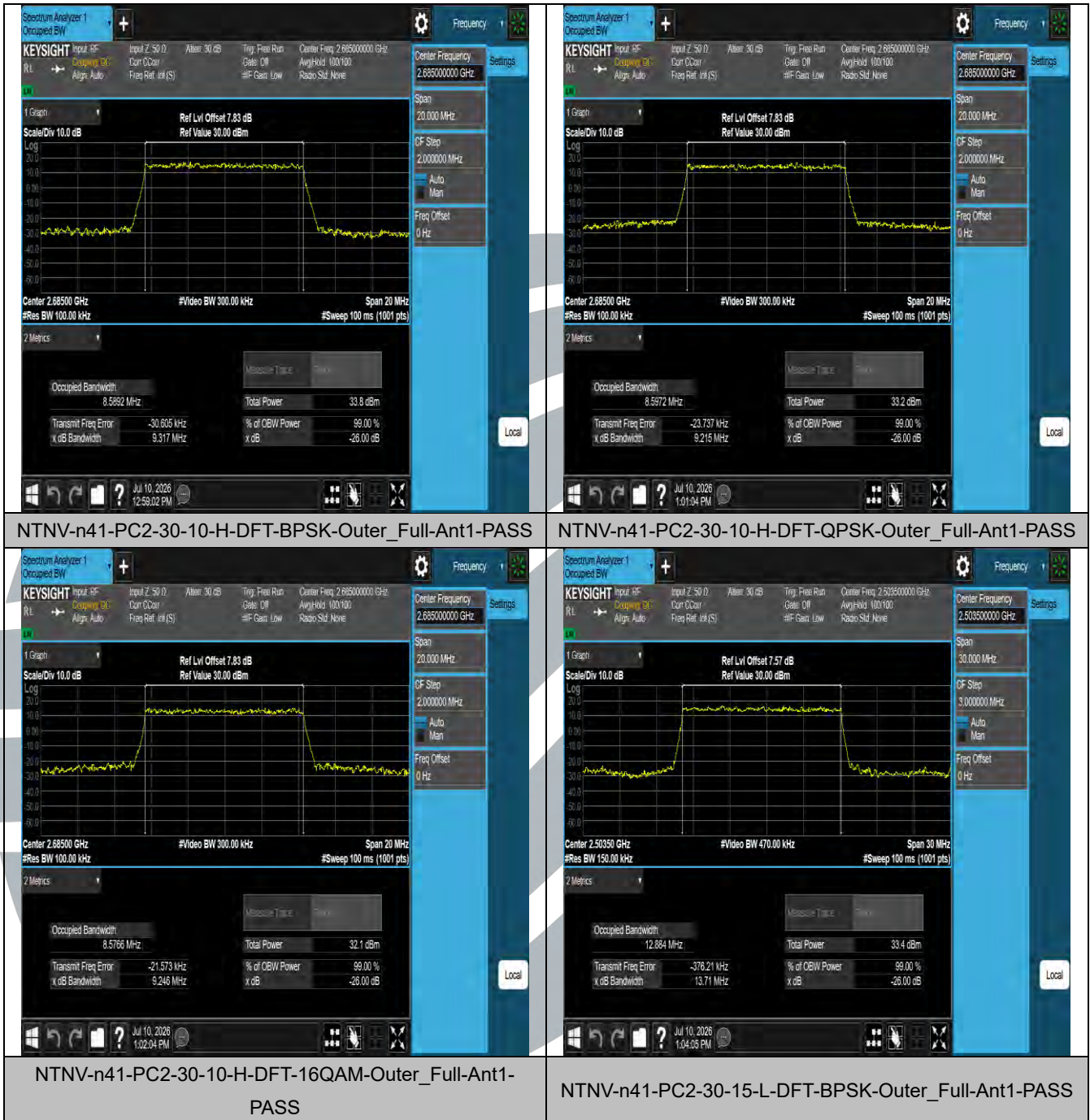
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NTNV-n41-PC2-30-10-M-DFT-16QAM-Outer_Full-Ant1-PASS





NTNV-n41-PC2-30-15-L-DFT-QPSK-Outer_Full-Ant1-PASS



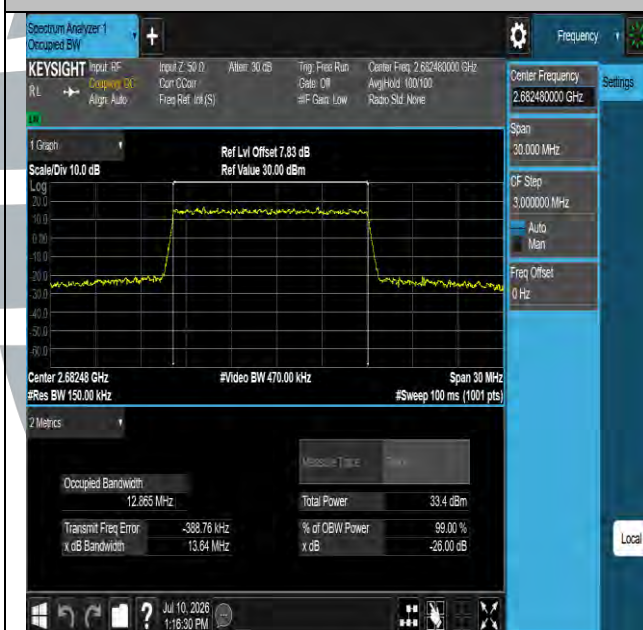
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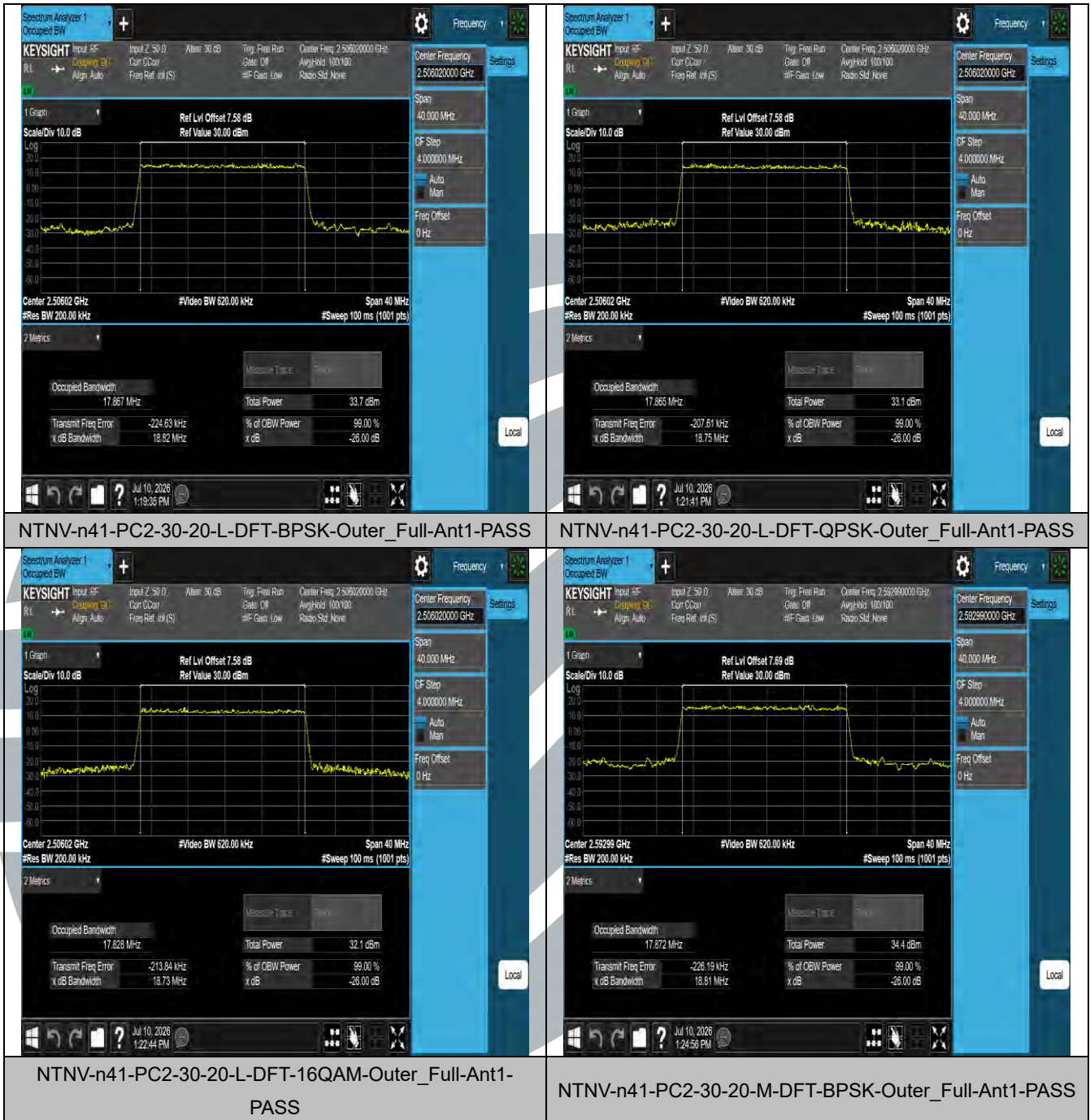


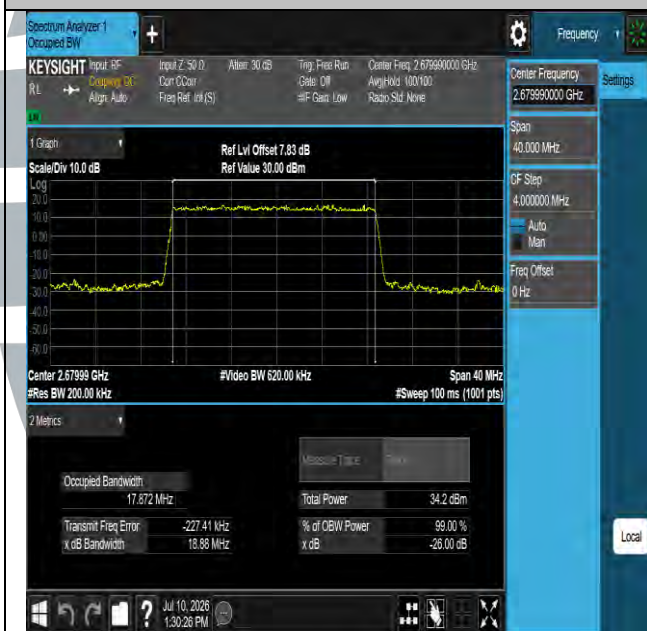
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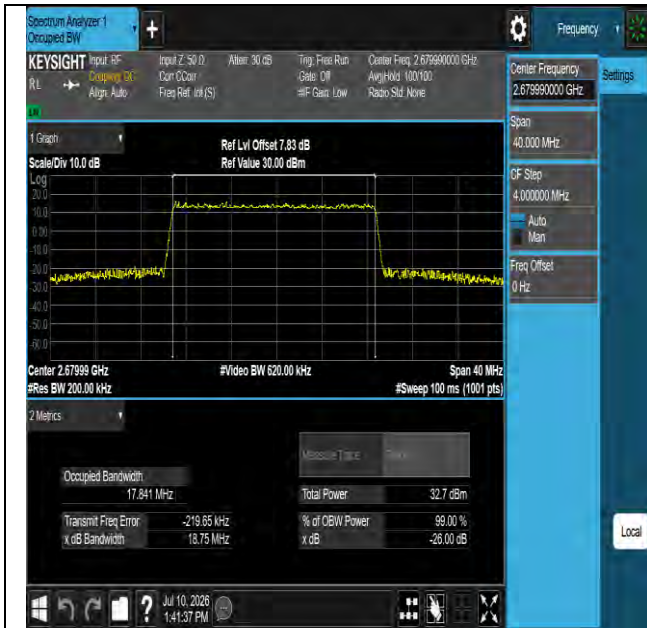


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NTNV-n41-PC2-30-30-M-DFT-BPSK-Outter_Full-Ant1-PASS



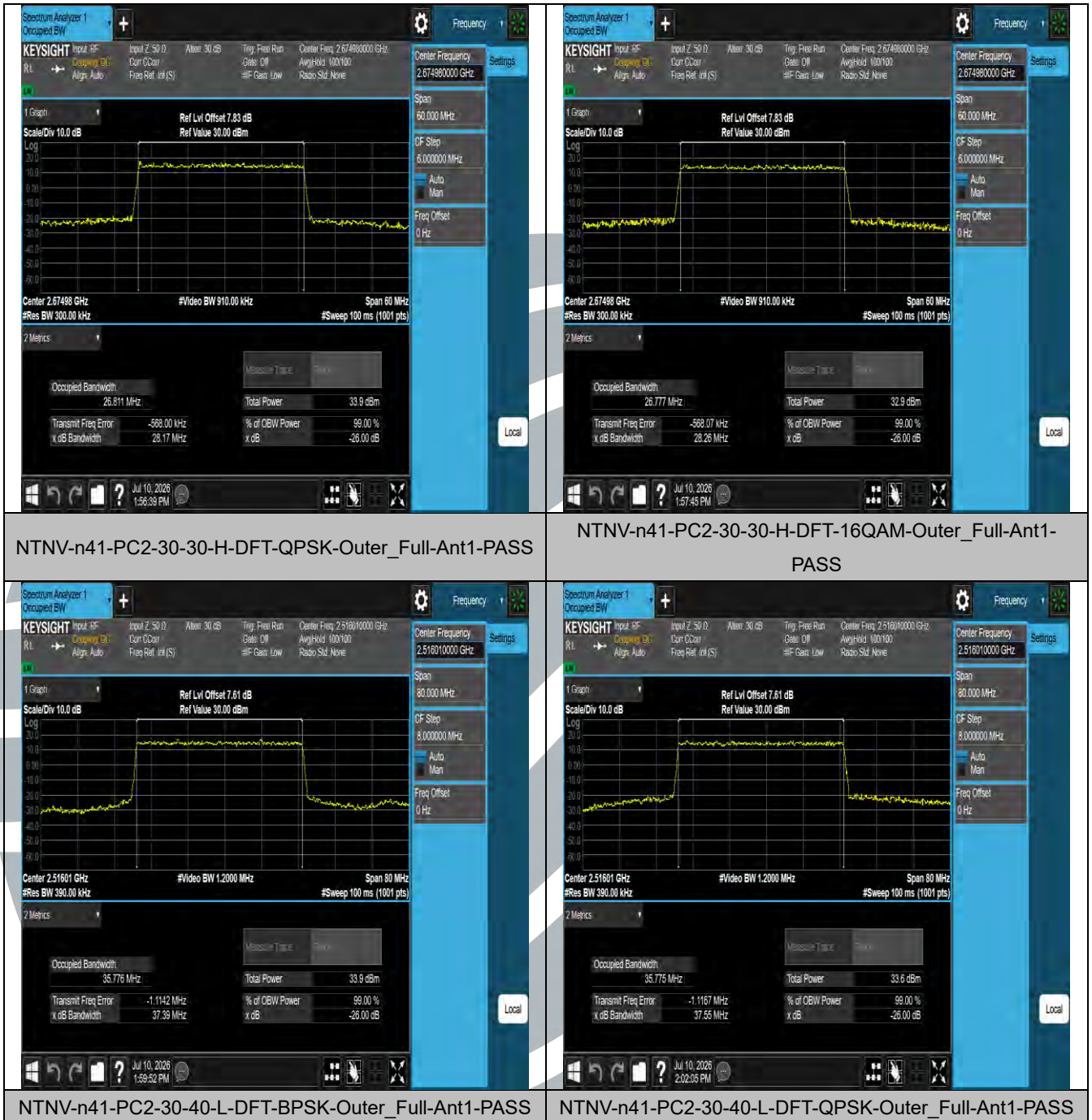
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NTNV-n41-PC2-30-30-M-DFT-16QAM-Outter_Full-Ant1-PASS



NTNV-n41-PC2-30-30-H-DFT-BPSK-Outter_Full-Ant1-PASS





NTNV-n41-PC2-30-40-L-DFT-16QAM-Outer_Full-Ant1-PASS



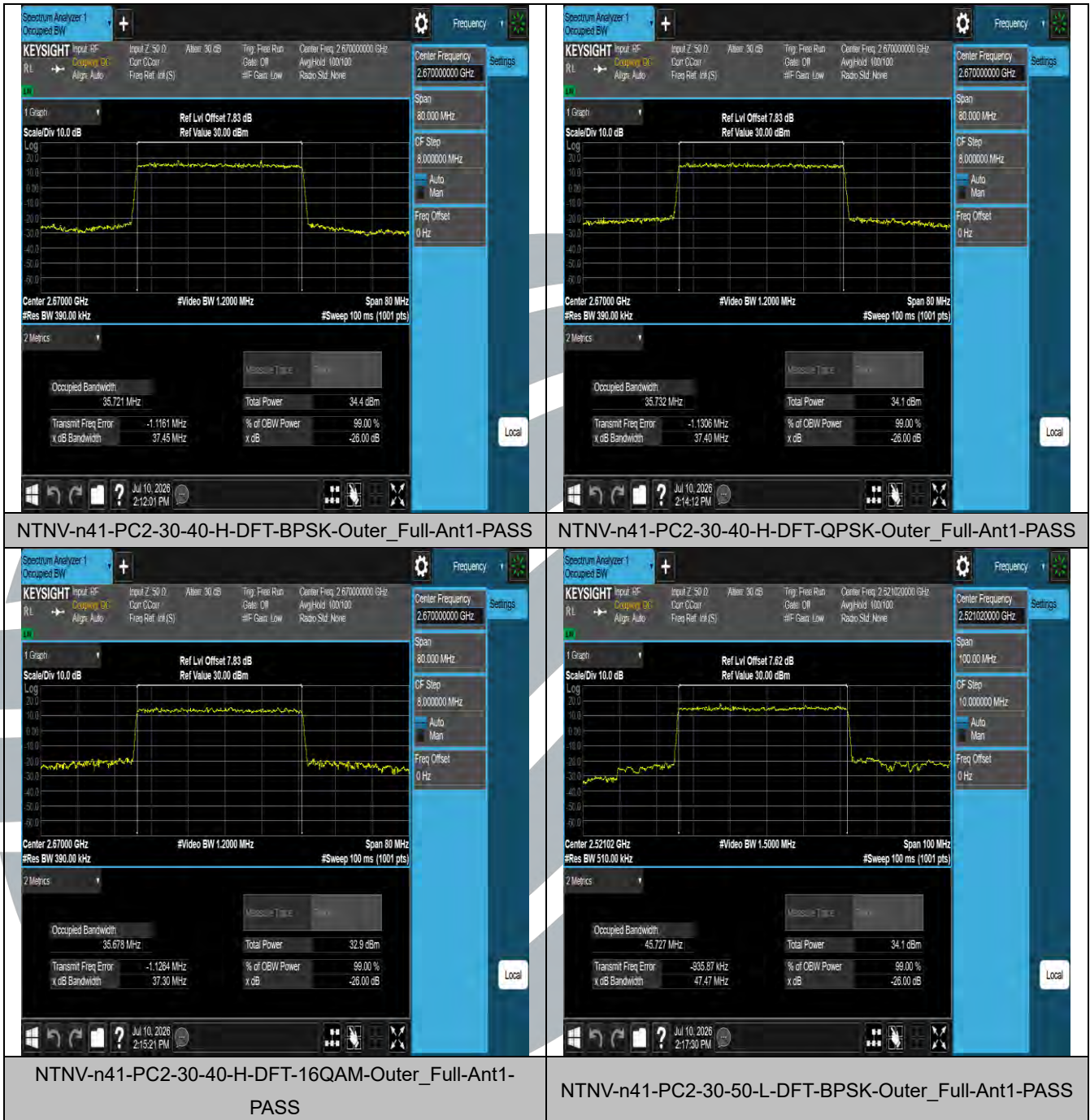
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NTNV-n41-PC2-30-40-M-DFT-QPSK-Outer_Full-Ant1-PASS



NTNV-n41-PC2-30-40-M-DFT-16QAM-Outer_Full-Ant1-PASS





NTNV-n41-PC2-30-50-L-DFT-QPSK-Outer_Full-Ant1-PASS



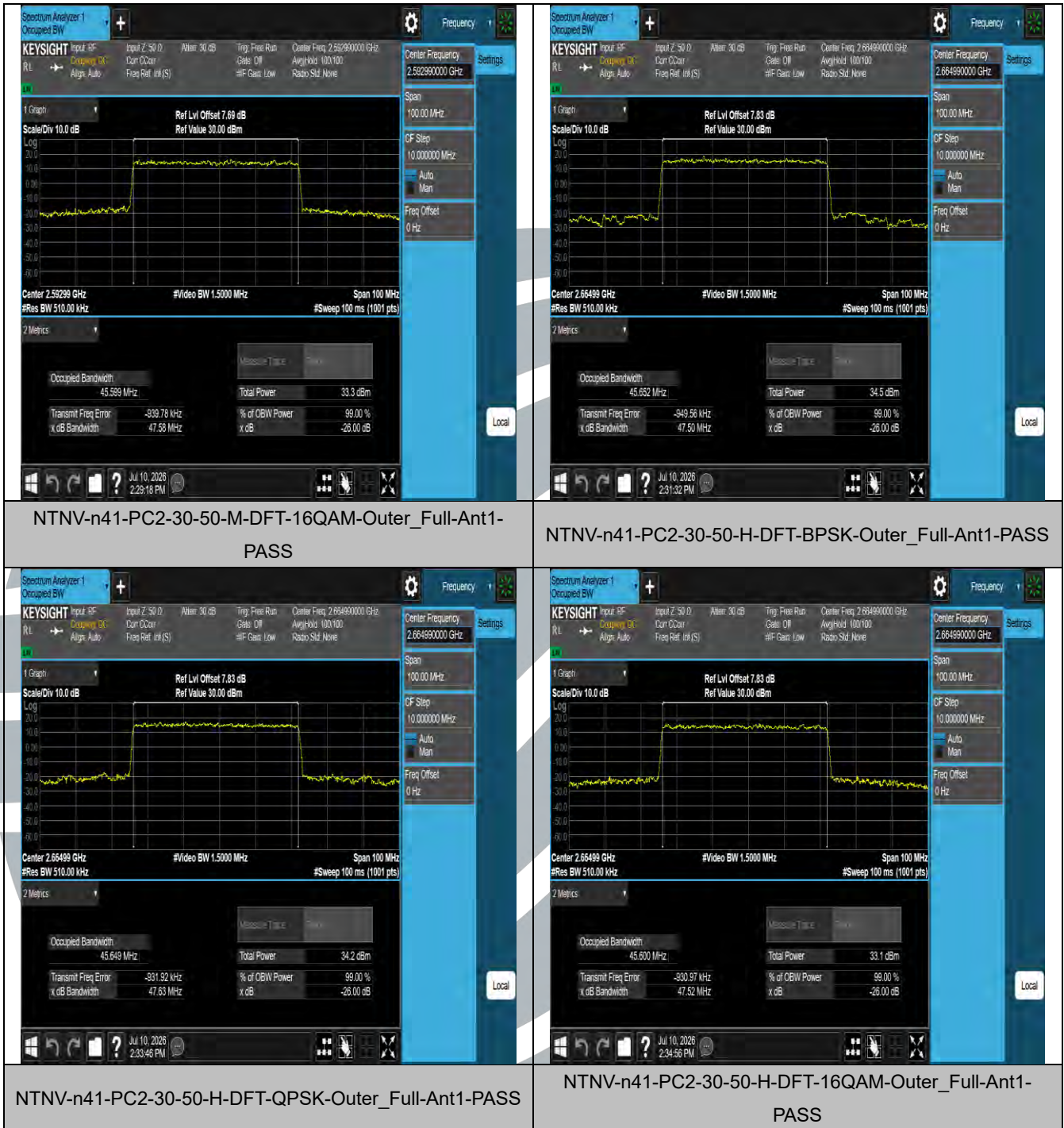
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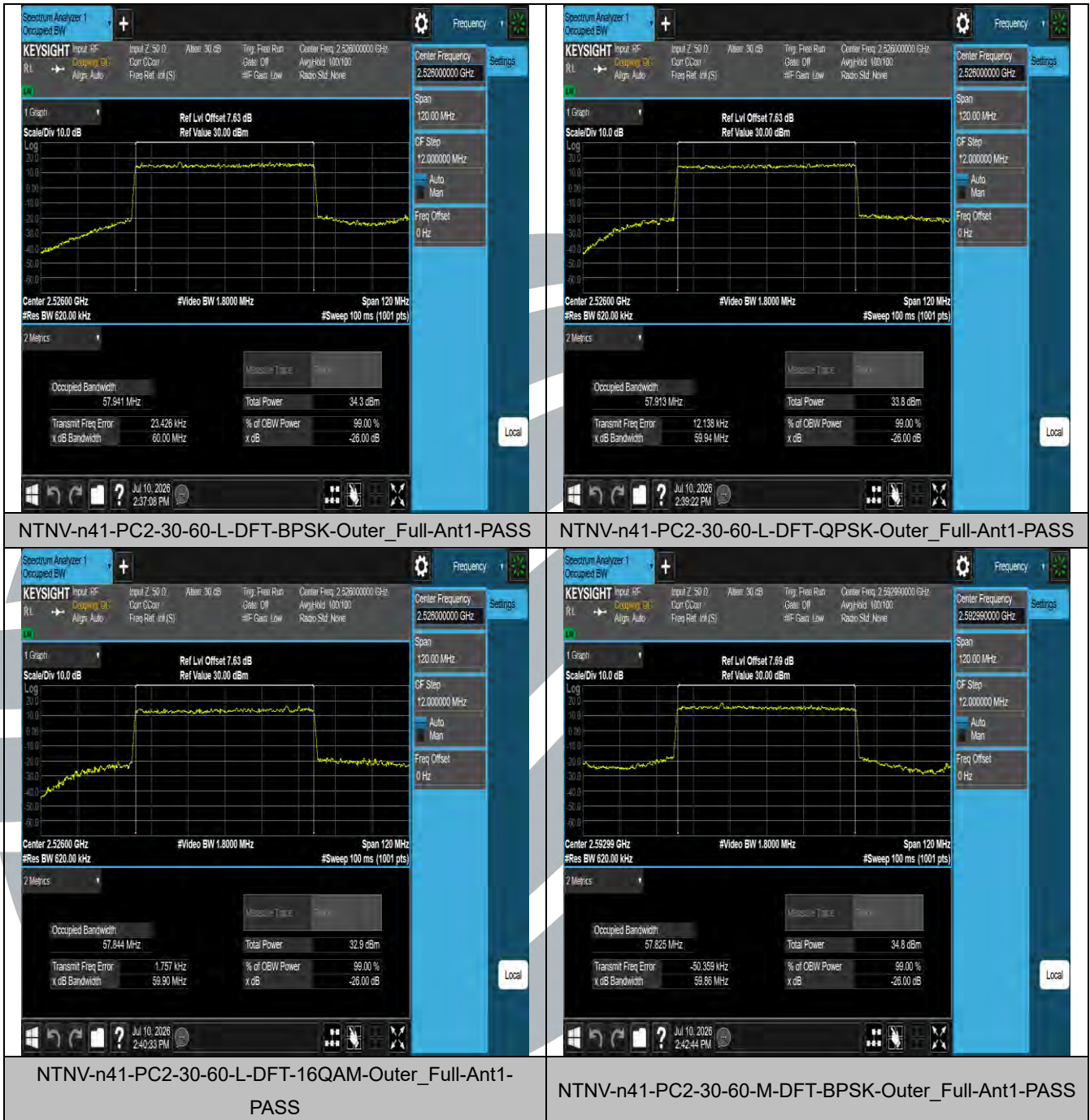


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NTNV-n41-PC2-30-60-M-DFT-QPSK-Outer_Full-Ant1-PASS



NTNV-n41-PC2-30-60-M-DFT-16QAM-Outer_Full-Ant1-PASS



NTNV-n41-PC2-30-60-H-DFT-BPSK-Outer_Full-Ant1-PASS



NTNV-n41-PC2-30-60-H-DFT-QPSK-Outer_Full-Ant1-PASS





NTNV-n41-PC2-30-80-M-DFT-BPSK-Outer_Full-Ant1-PASS



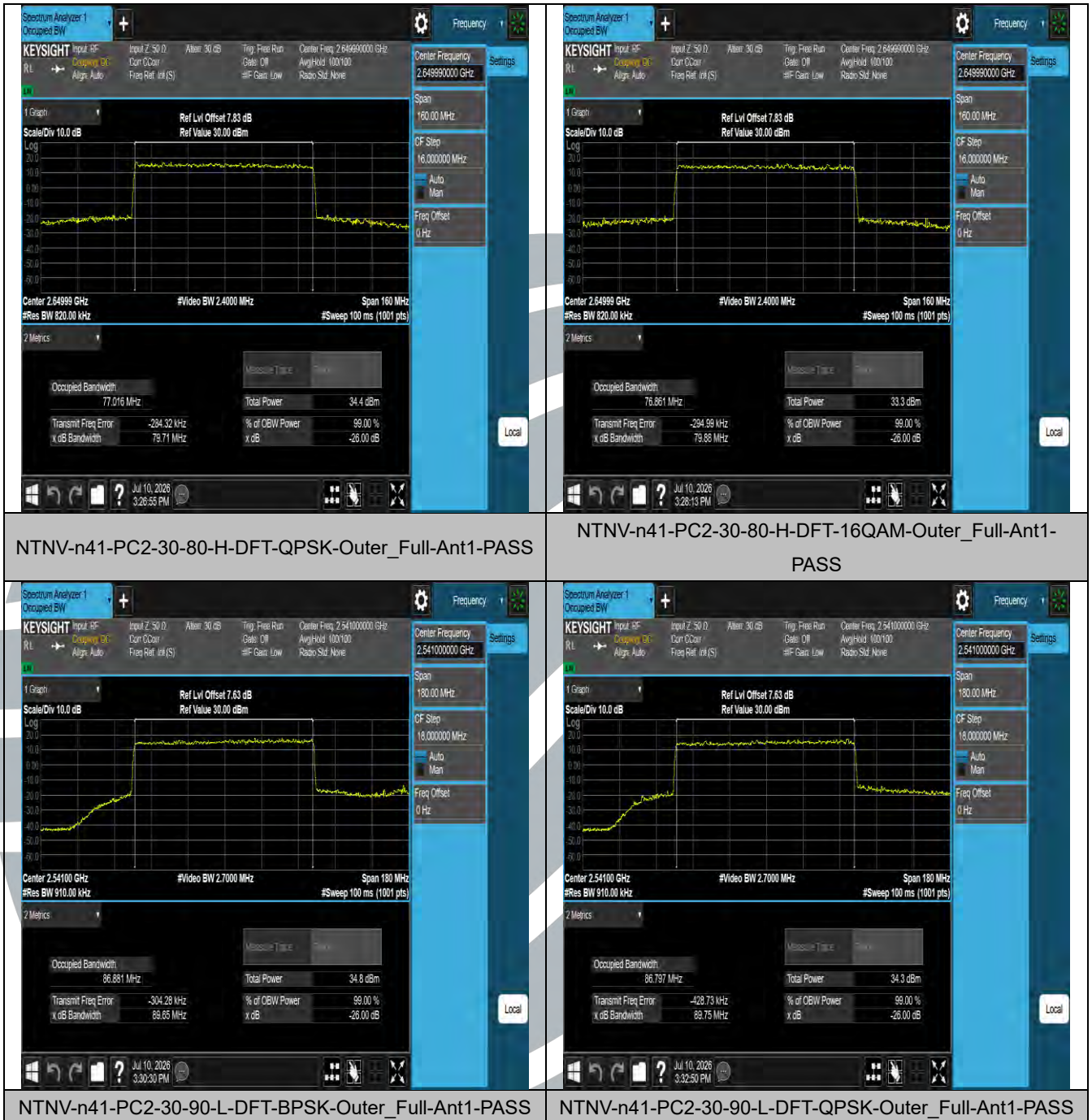
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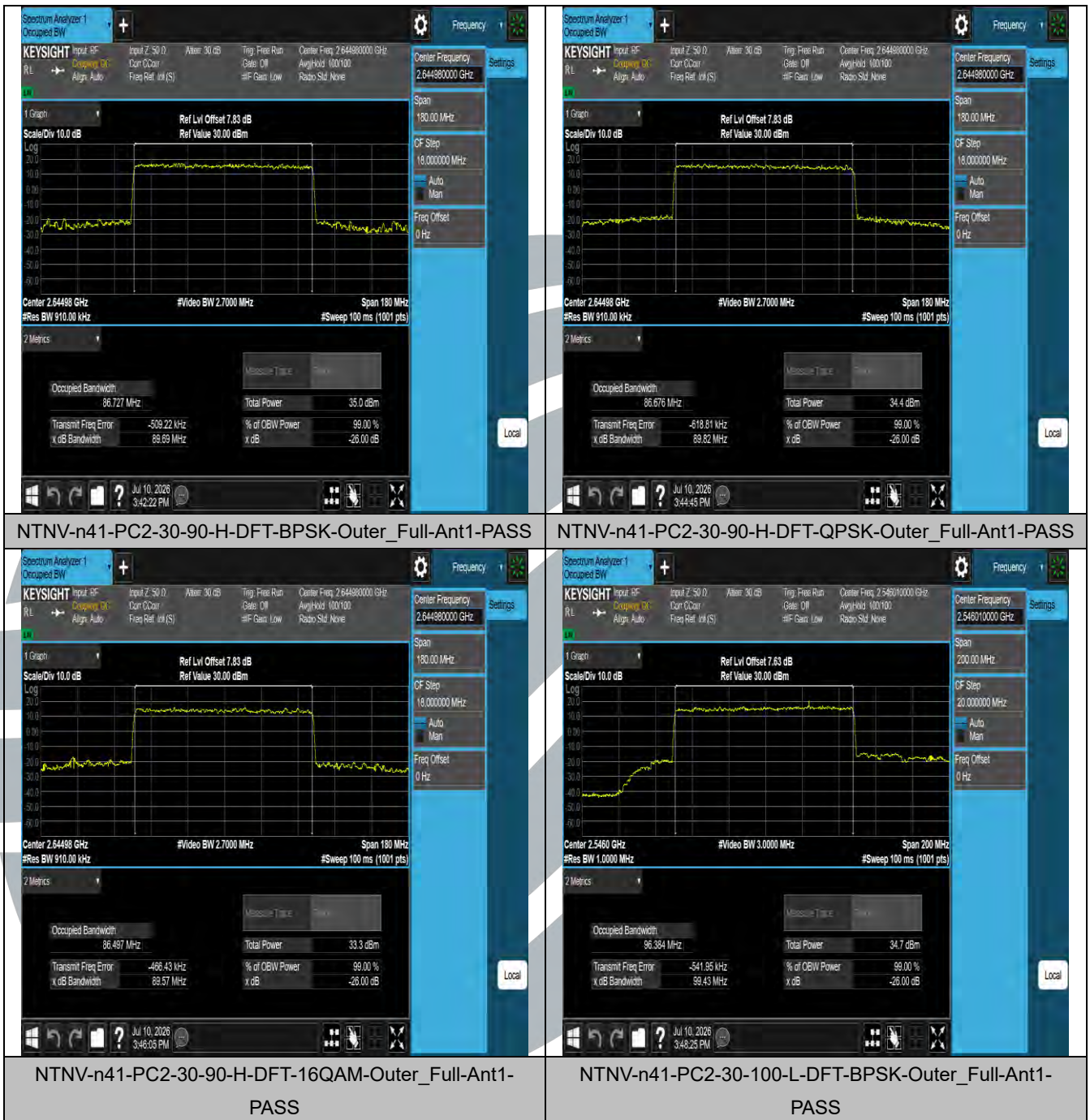
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NTNV-n41-PC2-30-80-H-DFT-BPSK-Outer_Full-Ant1-PASS









NTNV-n41-PC2-30-100-L-DFT-QPSK-Outet_Full-Ant1-
PASS



NTNV-n41-PC2-30-100-L-DFT-16QAM-Outet_Full-Ant1-
PASS



NTNV-n41-PC2-30-100-M-DFT-BPSK-Outet_Full-Ant1-
PASS



NTNV-n41-PC2-30-100-M-DFT-QPSK-Outet_Full-Ant1-
PASS



NTNV-n41-PC2-30-100-M-DFT-16QAM-Outer_Full-Ant1-
PASS



NTNV-n41-PC2-30-100-H-DFT-BPSK-Outer_Full-Ant1-
PASS



NTNV-n41-PC2-30-100-H-DFT-QPSK-Outer_Full-Ant1-
PASS



NTNV-n41-PC2-30-100-H-DFT-16QAM-Outer_Full-Ant1-
PASS

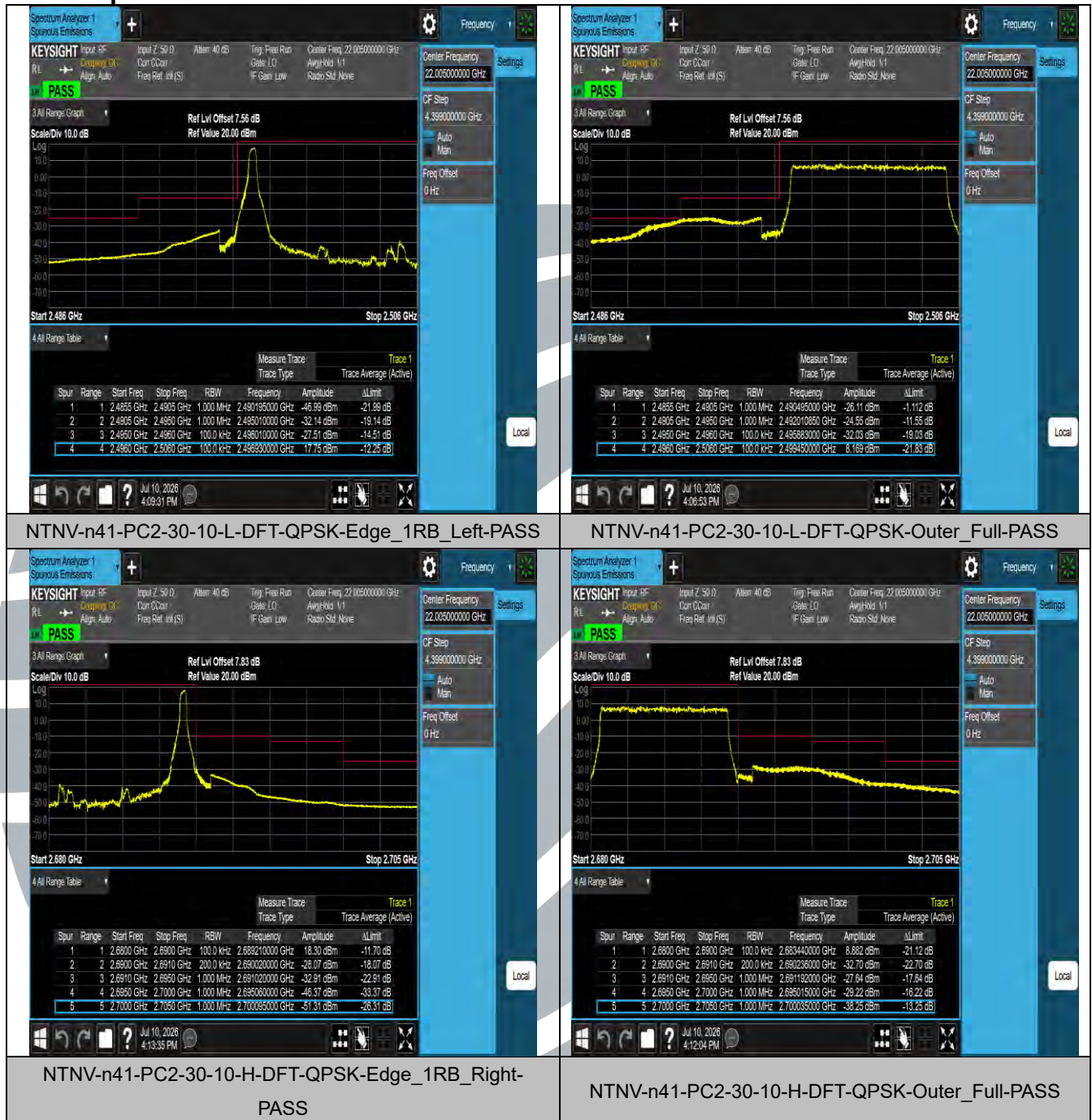
R.3 BAND EDGE FOR SA

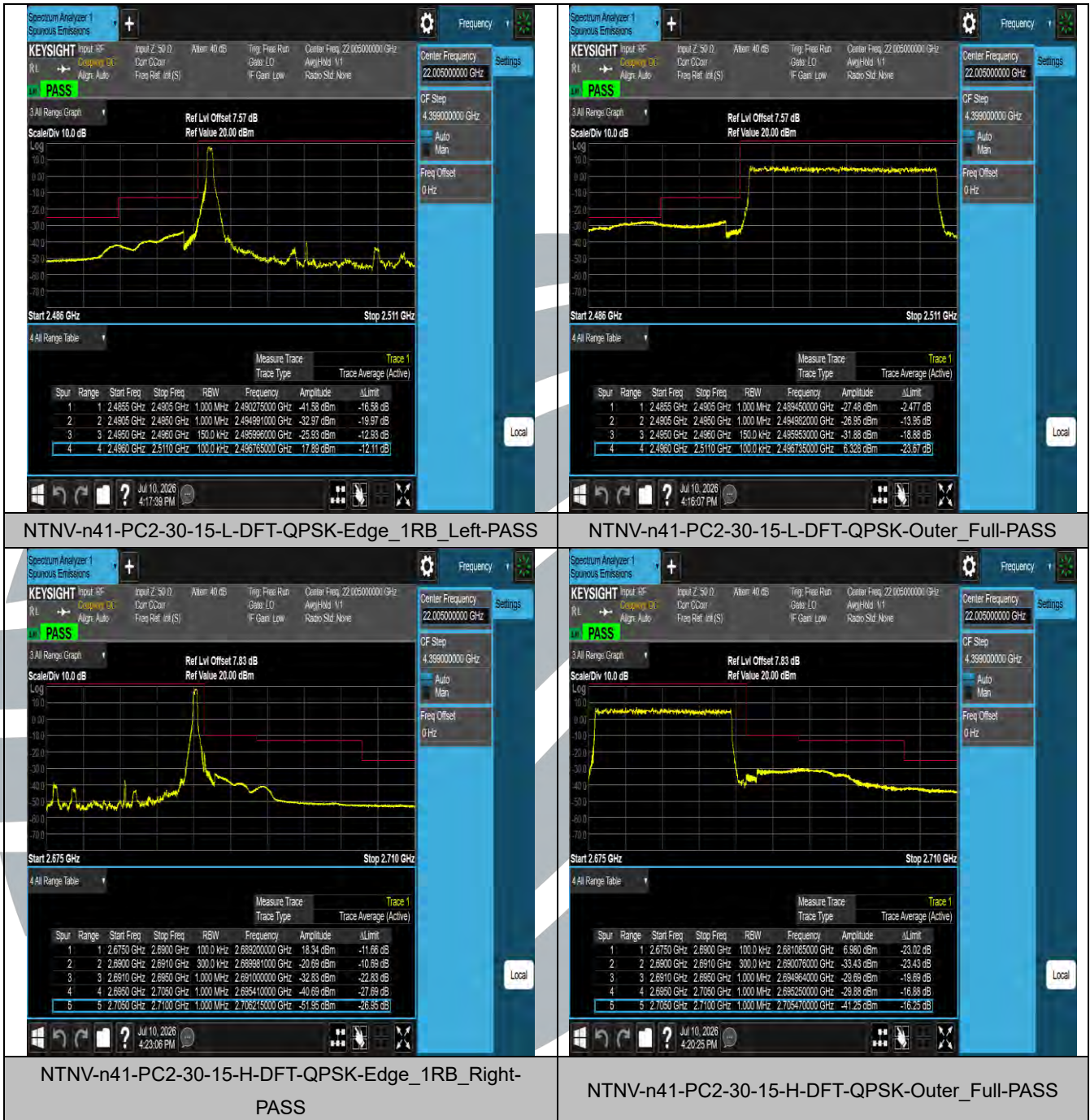
Test Result

Band	SCS (kHz)	BW (MHz)	Modulation	Channel	RB Config	Result (dBm)	Verdict
n41	30	10	DFT-QPSK	L	Edge_1RB_Left	-27.51	PASS
n41	30	10	DFT-QPSK	L	Outer_Full	-26.11	PASS
n41	30	10	DFT-QPSK	H	Edge_1RB_Right	-28.07	PASS
n41	30	10	DFT-QPSK	H	Outer_Full	-38.25	PASS
n41	30	15	DFT-QPSK	L	Edge_1RB_Left	-25.93	PASS
n41	30	15	DFT-QPSK	L	Outer_Full	-27.48	PASS
n41	30	15	DFT-QPSK	H	Edge_1RB_Right	-20.69	PASS
n41	30	15	DFT-QPSK	H	Outer_Full	-41.25	PASS
n41	30	20	DFT-QPSK	L	Edge_1RB_Left	-43.20	PASS
n41	30	20	DFT-QPSK	L	Outer_Full	-28.52	PASS
n41	30	20	DFT-QPSK	H	Edge_1RB_Right	-28.96	PASS
n41	30	20	DFT-QPSK	H	Outer_Full	-41.14	PASS
n41	30	30	DFT-QPSK	L	Edge_1RB_Left	-24.19	PASS
n41	30	30	DFT-QPSK	L	Outer_Full	-33.19	PASS
n41	30	30	DFT-QPSK	H	Edge_1RB_Right	-18.21	PASS
n41	30	30	DFT-QPSK	H	Outer_Full	-42.28	PASS
n41	30	40	DFT-QPSK	L	Edge_1RB_Left	-20.63	PASS
n41	30	40	DFT-QPSK	L	Outer_Full	-32.80	PASS
n41	30	40	DFT-QPSK	H	Edge_1RB_Right	-11.12	PASS
n41	30	40	DFT-QPSK	H	Outer_Full	-44.18	PASS
n41	30	50	DFT-QPSK	L	Edge_1RB_Left	-20.89	PASS
n41	30	50	DFT-QPSK	L	Outer_Full	-29.75	PASS
n41	30	50	DFT-QPSK	H	Edge_1RB_Right	-15.03	PASS
n41	30	50	DFT-QPSK	H	Outer_Full	-27.97	PASS
n41	30	60	DFT-QPSK	L	Edge_1RB_Left	-18.19	PASS
n41	30	60	DFT-QPSK	L	Outer_Full	-32.16	PASS
n41	30	60	DFT-QPSK	H	Edge_1RB_Right	-9.30	FAIL
n41	30	60	DFT-QPSK	H	Edge_1RB_Right	-31.63	PASS_Final 1
n41	30	60	DFT-QPSK	H	Outer_Full	-24.20	PASS
n41	30	80	DFT-QPSK	L	Edge_1RB_Left	-11.39	FAIL
n41	30	80	DFT-QPSK	L	Edge_1RB_Left	-30.50	PASS_Final 1
n41	30	80	DFT-QPSK	L	Outer_Full	-29.25	PASS
n41	30	80	DFT-QPSK	H	Edge_1RB_Right	-12.26	PASS
n41	30	80	DFT-QPSK	H	Outer_Full	-29.21	PASS
n41	30	90	DFT-QPSK	L	Edge_1RB_Left	-9.15	FAIL
n41	30	90	DFT-QPSK	L	Edge_1RB_Left	-29.59	PASS_Final

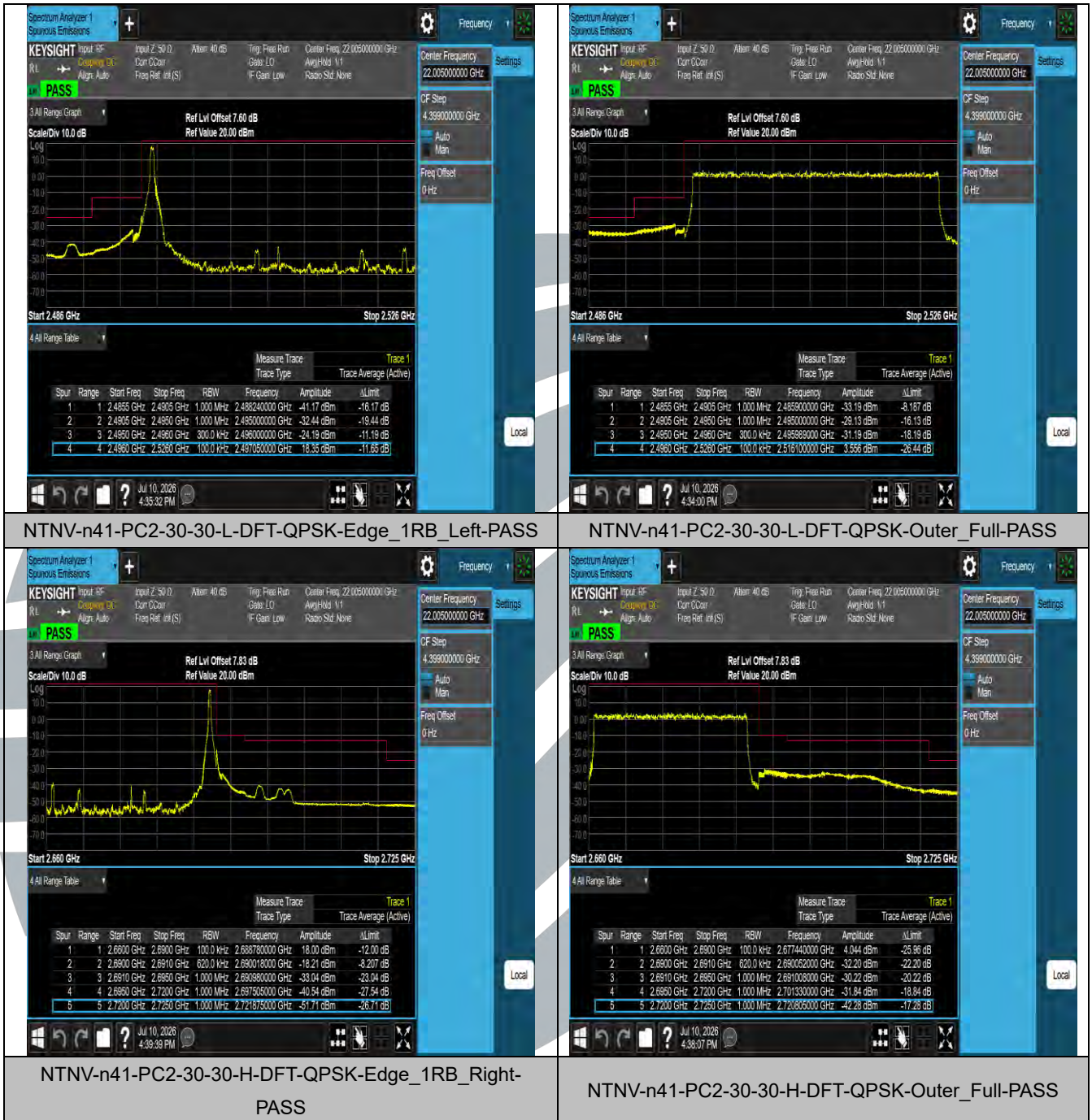
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n41	30	90	DFT-QPSK	L	Outer_Full	-31.39	PASS
n41	30	90	DFT-QPSK	H	Edge_1RB_Right	-9.59	FAIL
n41	30	90	DFT-QPSK	H	Edge_1RB_Right	-30.34	PASS_Final 1
n41	30	90	DFT-QPSK	H	Outer_Full	-33.46	PASS
n41	30	100	DFT-QPSK	L	Edge_1RB_Left	-7.52	FAIL
n41	30	100	DFT-QPSK	L	Edge_1RB_Left	-28.24	PASS_Final 1
n41	30	100	DFT-QPSK	L	Outer_Full	-26.61	PASS
n41	30	100	DFT-QPSK	H	Edge_1RB_Right	-8.01	FAIL
n41	30	100	DFT-QPSK	H	Edge_1RB_Right	-28.76	PASS_Final 1
n41	30	100	DFT-QPSK	H	Outer_Full	-27.89	PASS

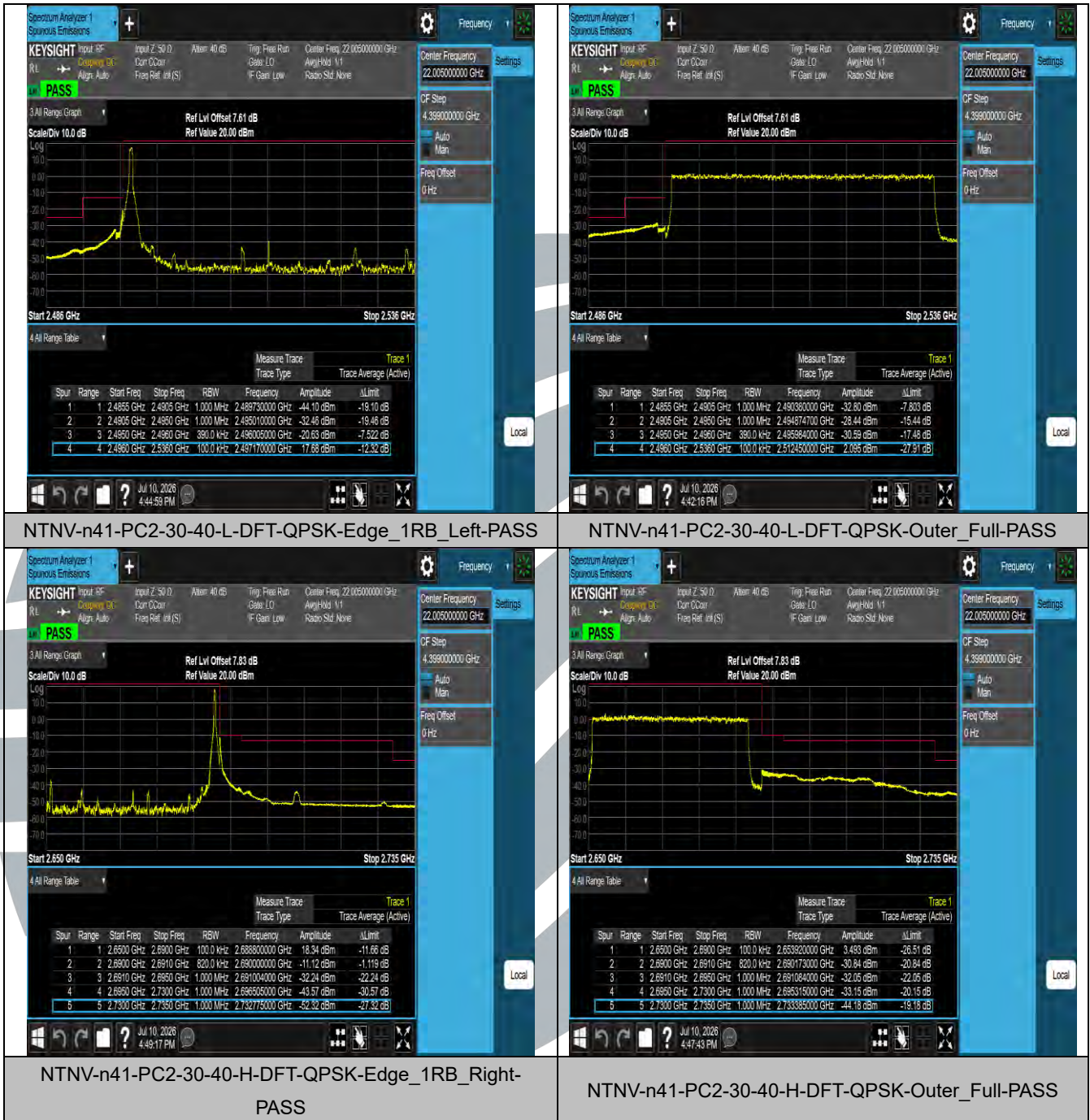
Test Graphs



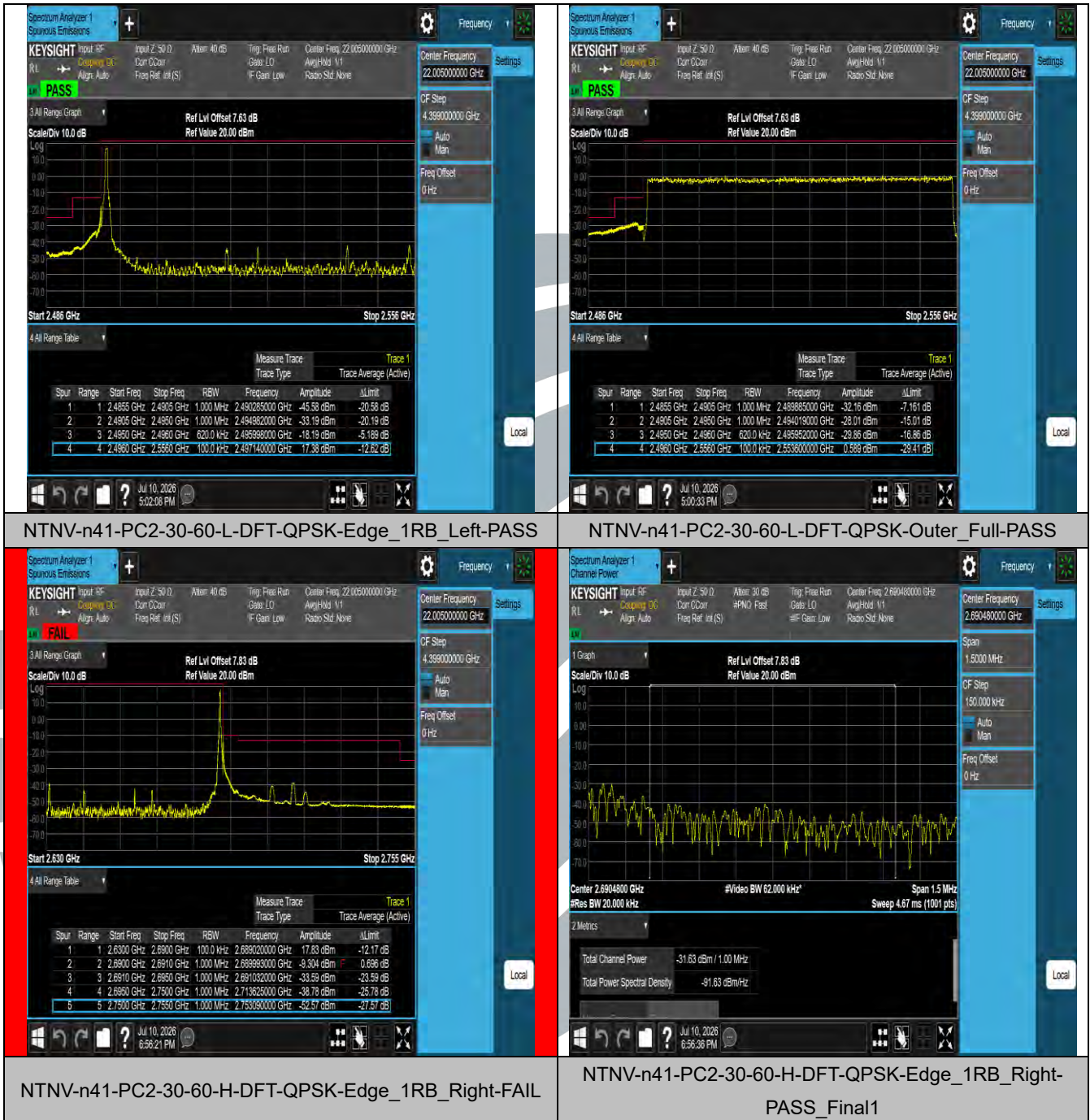




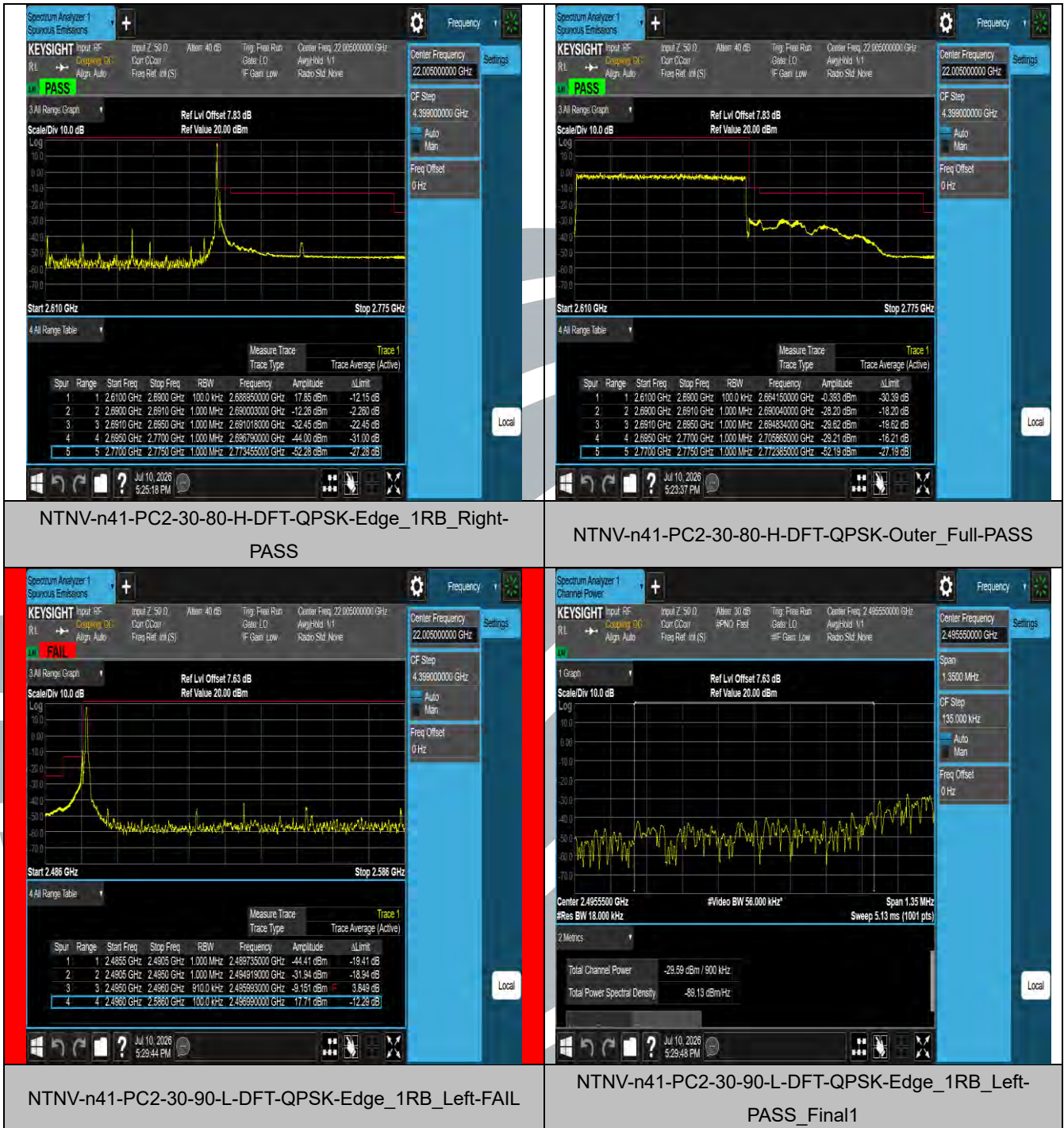


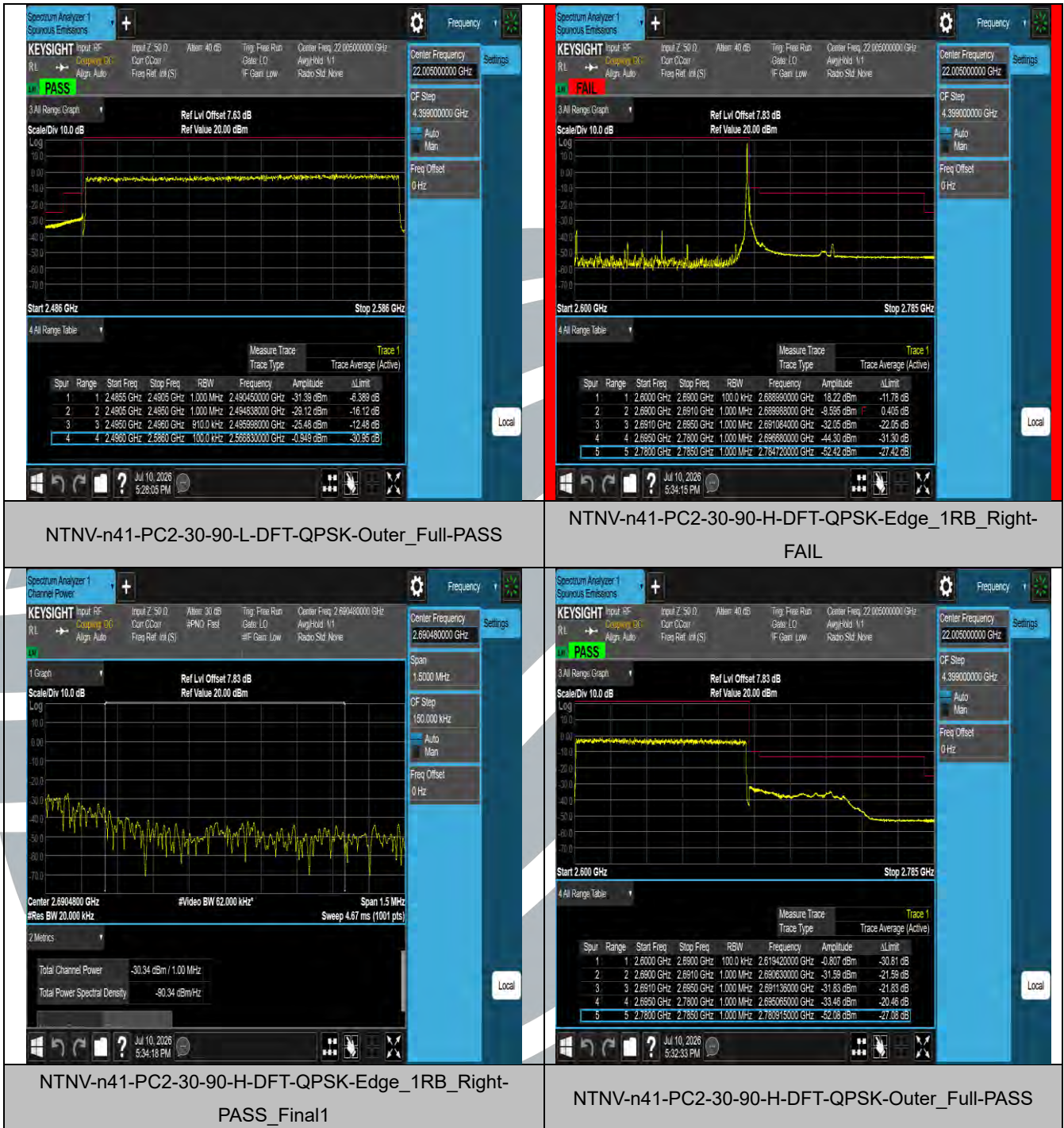


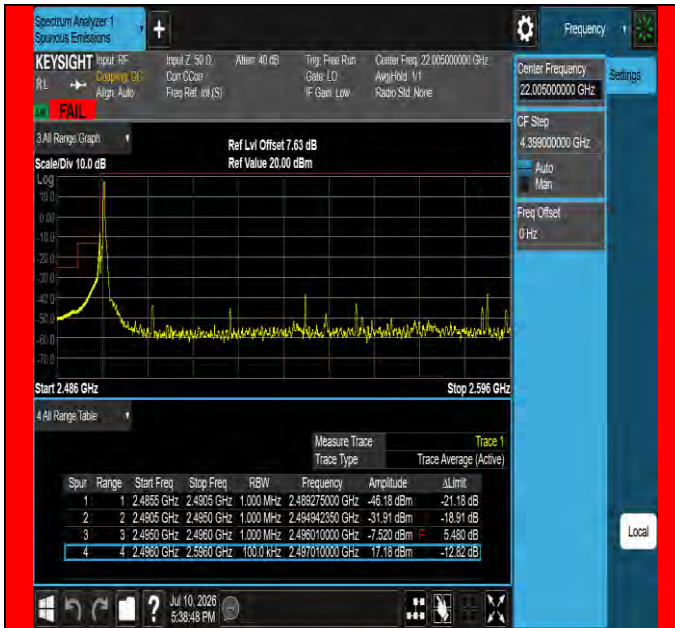








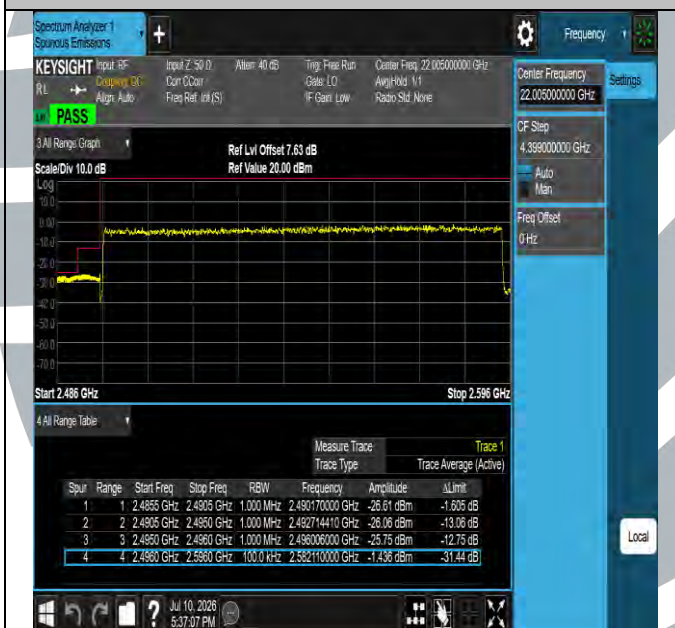




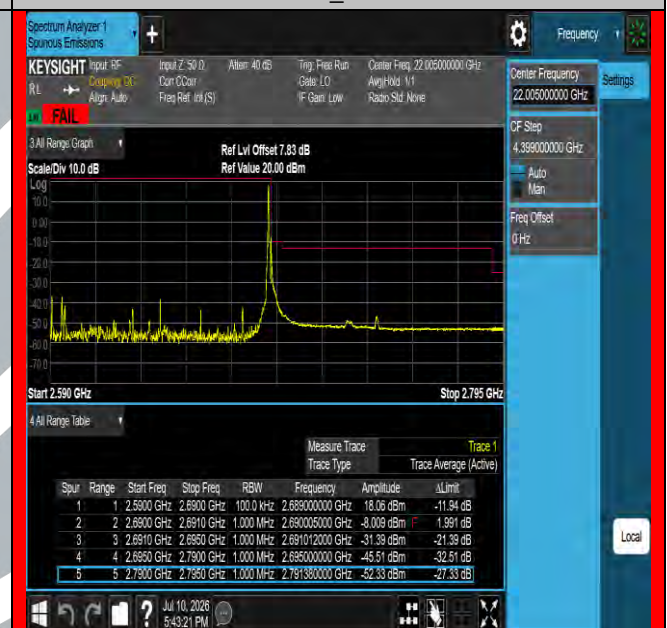
NTNV-n41-PC2-30-100-L-DFT-QPSK-Edge_1RB_Left-FAIL



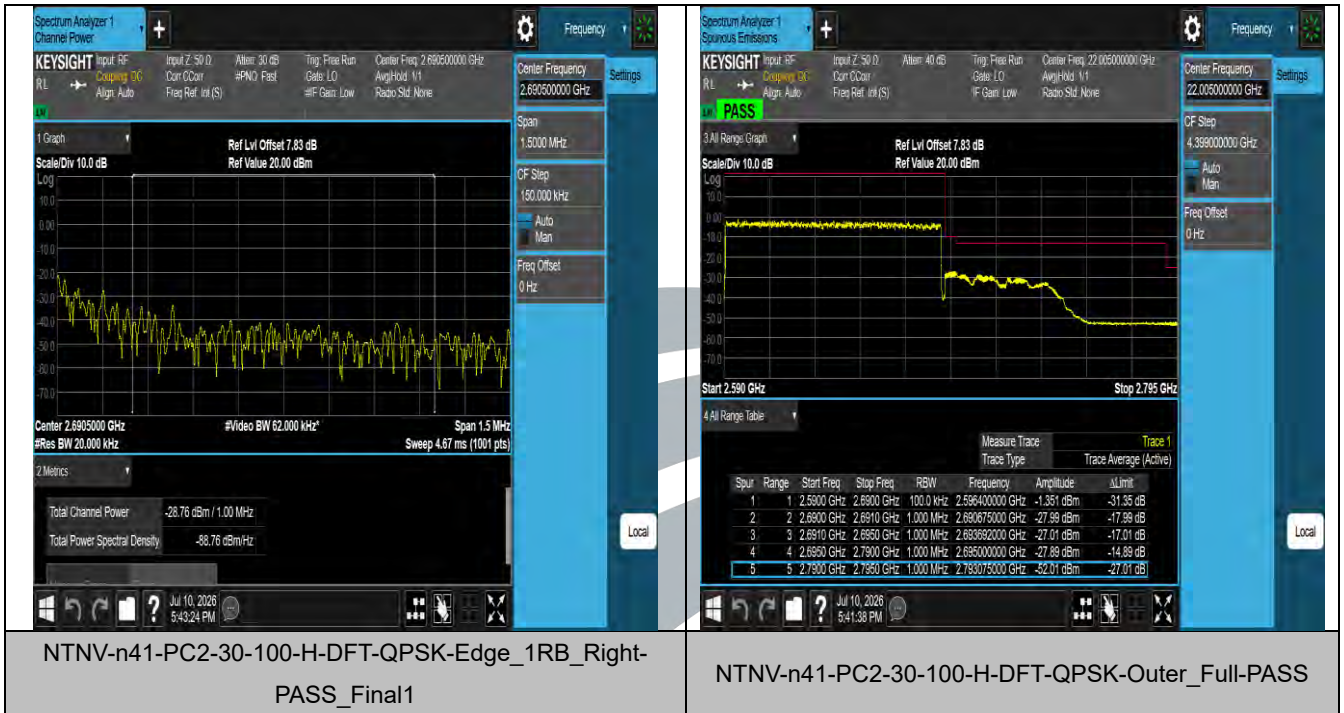
NTNV-n41-PC2-30-100-L-DFT-QPSK-Edge_1RB_Left-PASS_Final1



NTNV-n41-PC2-30-100-L-DFT-QPSK-Outer_Full-PASS



NTNV-n41-PC2-30-100-H-DFT-QPSK-Edge_1RB_Right-FAIL

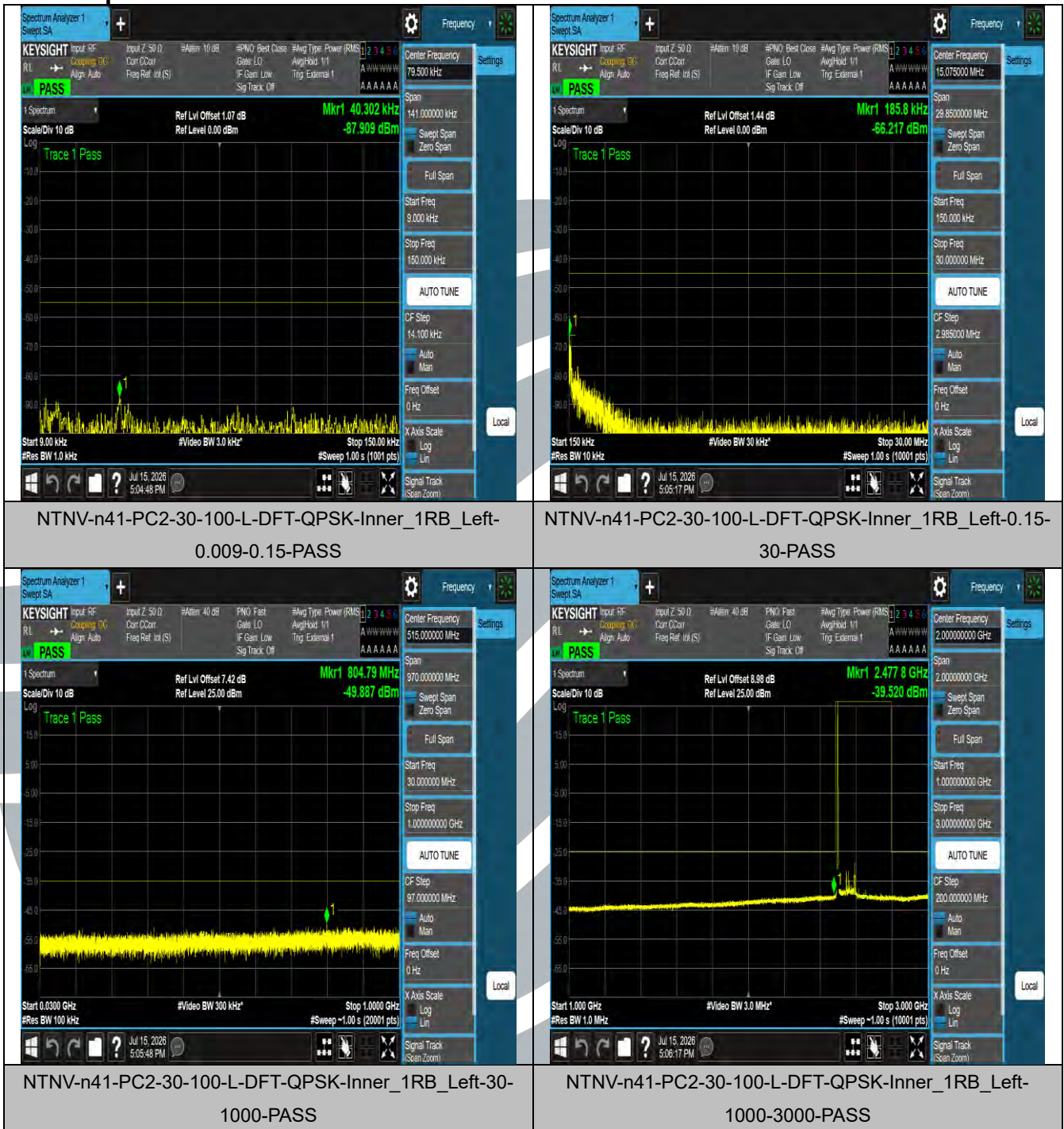


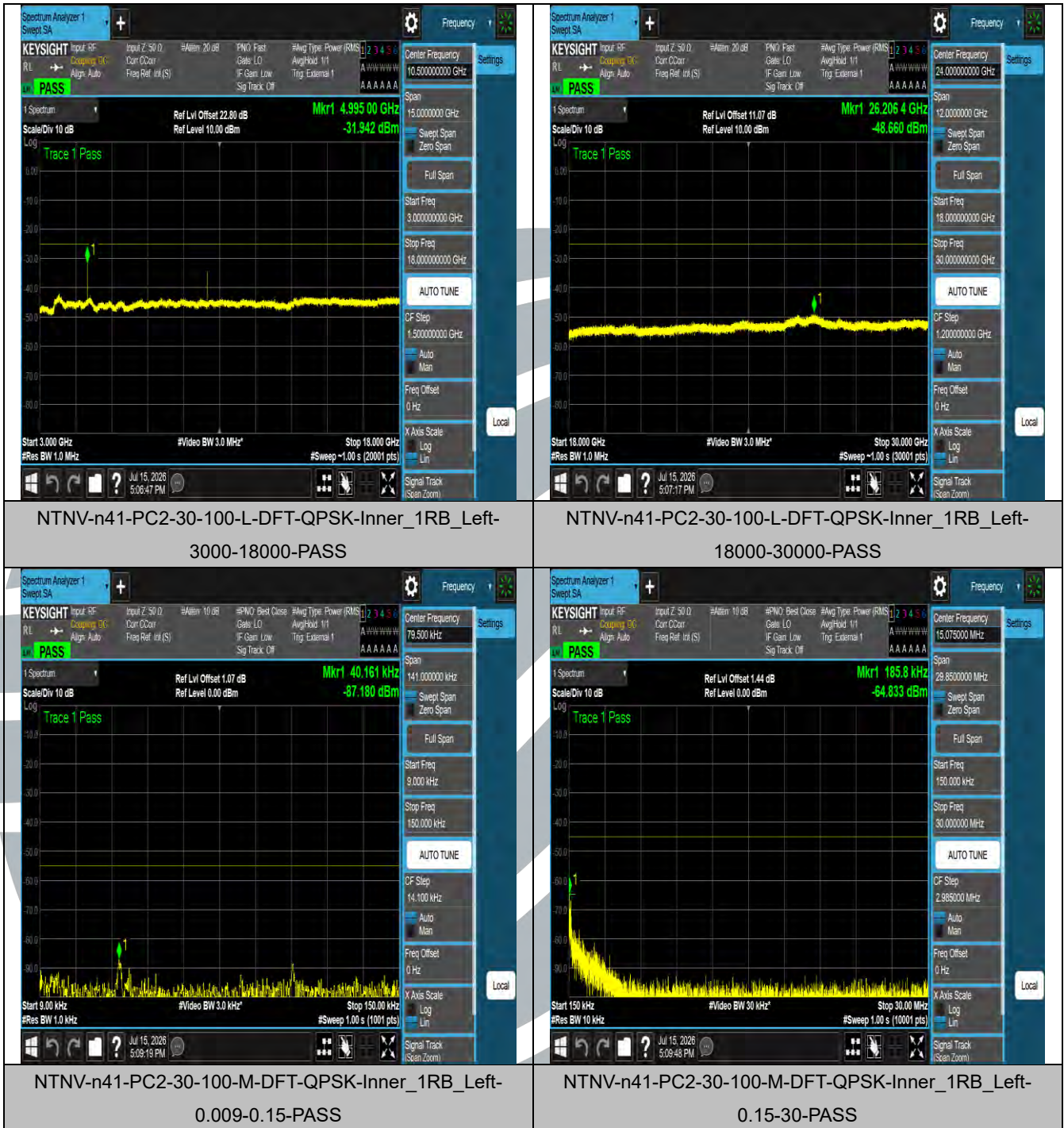
R.4 CONDUCTED SPURIOUS EMISSION FOR SA

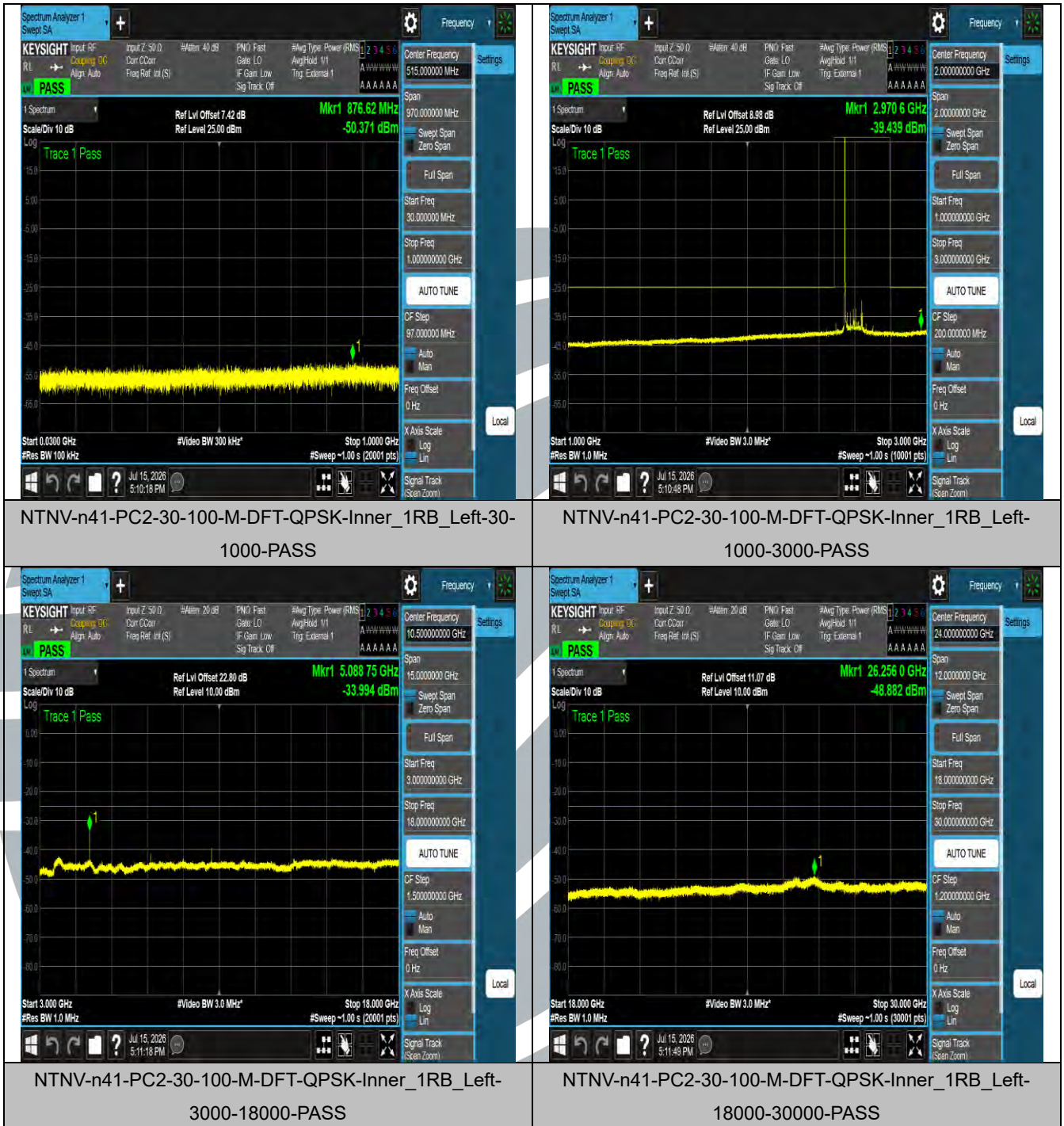
Test Result

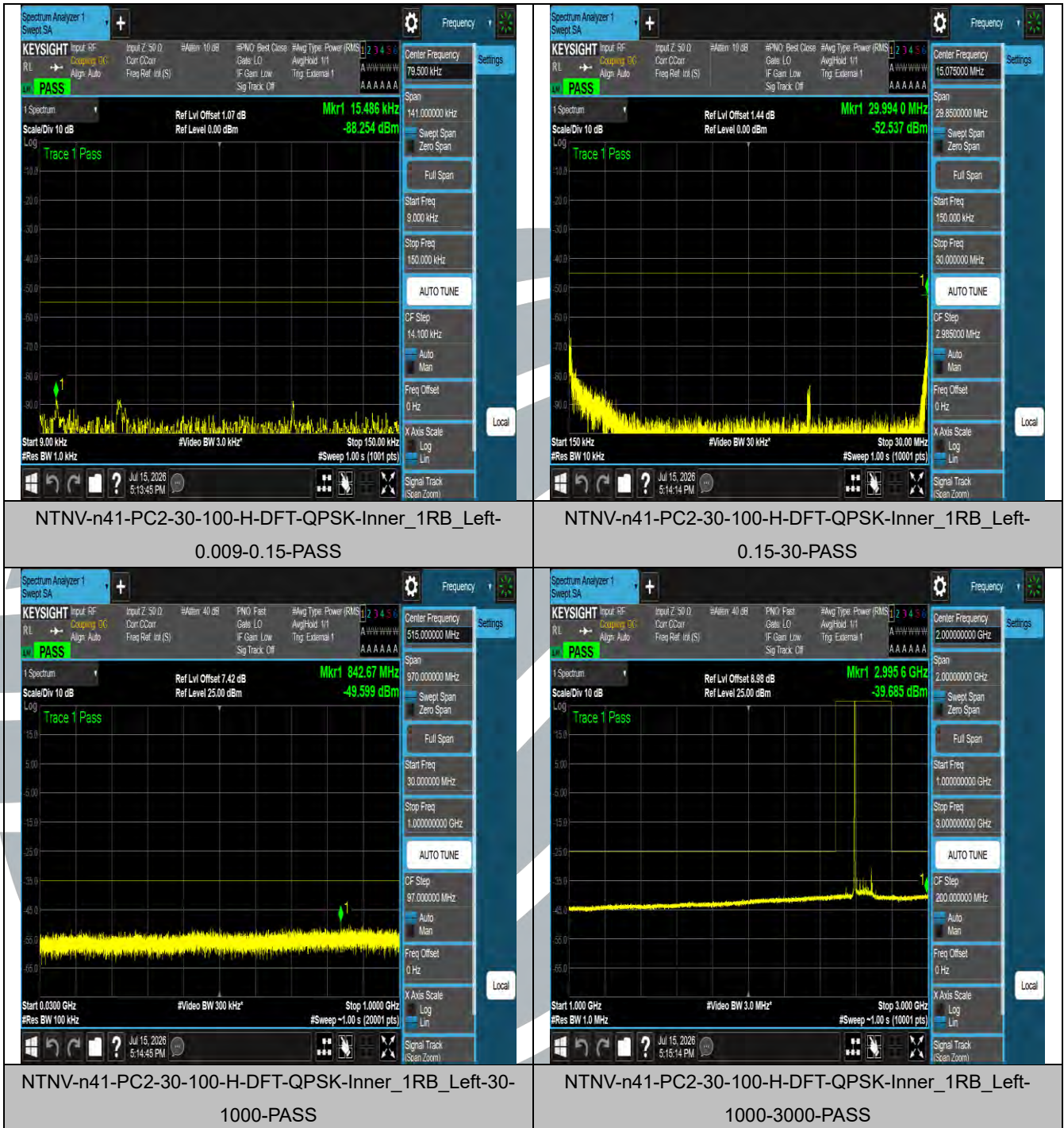
Band	SCS (kHz)	BW (MHz)	Modulation	Ch.	RB Config	Start Freq (MHz)	Stop Freq (MHz)	Result (dBm)	Limit (dBm)	Verdict
n41	30	100	DFT-QPSK	L	Inner_1RB_Left	0.009	0.15	-87.91	≤-55dBm	PASS
n41	30	100	DFT-QPSK	L	Inner_1RB_Left	0.15	30	-66.22	≤-45dBm	PASS
n41	30	100	DFT-QPSK	L	Inner_1RB_Left	30	1000	-49.89	≤-35dBm	PASS
n41	30	100	DFT-QPSK	L	Inner_1RB_Left	1000	3000	-39.52	≤-25dBm	PASS
n41	30	100	DFT-QPSK	L	Inner_1RB_Left	3000	18000	-31.94	≤-25dBm	PASS
n41	30	100	DFT-QPSK	L	Inner_1RB_Left	18000	30000	-48.66	≤-25dBm	PASS
n41	30	100	DFT-QPSK	M	Inner_1RB_Left	0.009	0.15	-87.18	≤-55dBm	PASS
n41	30	100	DFT-QPSK	M	Inner_1RB_Left	0.15	30	-64.83	≤-45dBm	PASS
n41	30	100	DFT-QPSK	M	Inner_1RB_Left	30	1000	-50.37	≤-35dBm	PASS
n41	30	100	DFT-QPSK	M	Inner_1RB_Left	1000	3000	-39.44	≤-25dBm	PASS
n41	30	100	DFT-QPSK	M	Inner_1RB_Left	3000	18000	-33.99	≤-25dBm	PASS
n41	30	100	DFT-QPSK	M	Inner_1RB_Left	18000	30000	-48.88	≤-25dBm	PASS
n41	30	100	DFT-QPSK	H	Inner_1RB_Left	0.009	0.15	-88.25	≤-55dBm	PASS
n41	30	100	DFT-QPSK	H	Inner_1RB_Left	0.15	30	-52.54	≤-45dBm	PASS
n41	30	100	DFT-QPSK	H	Inner_1RB_Left	30	1000	-49.60	≤-35dBm	PASS
n41	30	100	DFT-QPSK	H	Inner_1RB_Left	1000	3000	-39.69	≤-25dBm	PASS
n41	30	100	DFT-QPSK	H	Inner_1RB_Left	3000	18000	-33.86	≤-25dBm	PASS
n41	30	100	DFT-QPSK	H	Inner_1RB_Left	18000	30000	-49.09	≤-25dBm	PASS

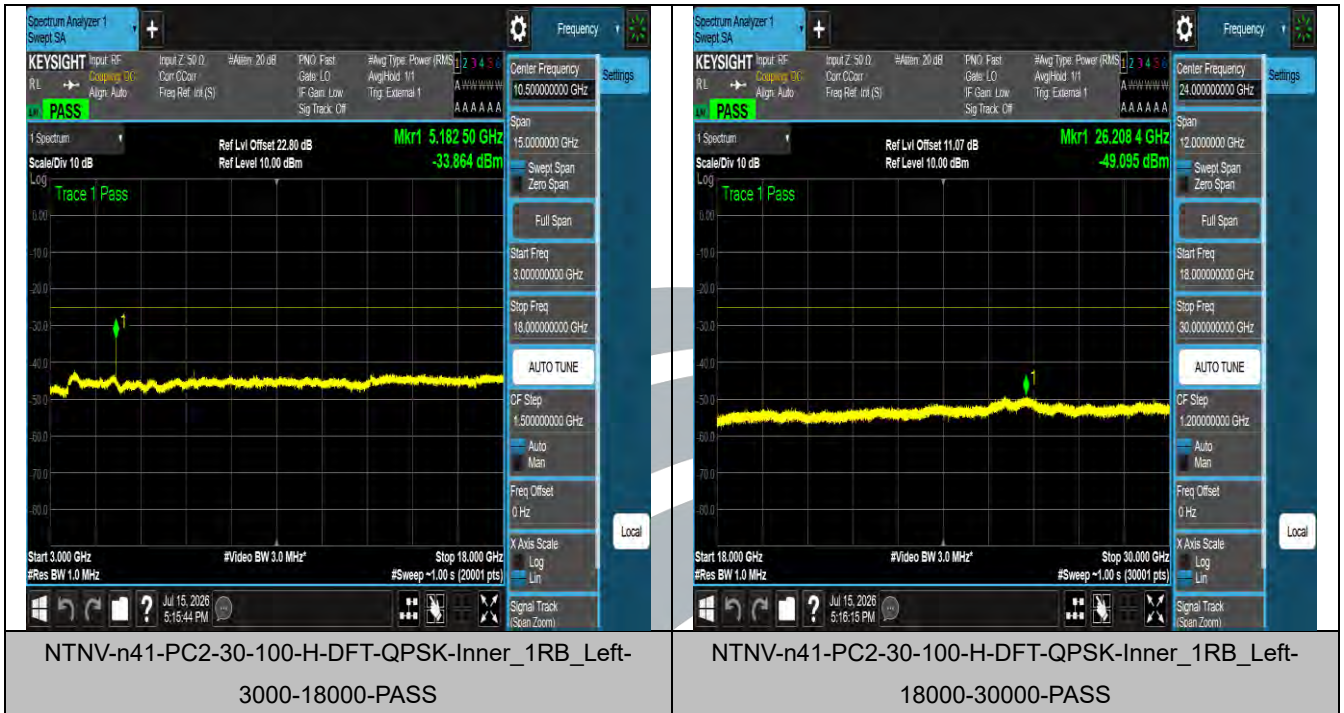
Test Graphs











R.5 FREQUENCY STABILITY FOR SA

Test Result

Frequency Error VS. Voltage

Voltage													
Band	SCS	BW (MHz)	Modulation	Ch.	RB Config	Voltage	Temp.	Result (ppm)	Limit (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
n41	30	100	DFT-QPSK	M	Outer_Full	VL	NT	- 0.001524	2496- 2690	2496	2690	2496- 2690	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	VN	NT	-8.8E-05	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	VH	NT	- 0.001482	- 2.5~2.5	2496	2690	---	PASS

Frequency Error VS. Temperature

Temperature													
Band	SCS	BW (MHz)	Modulation	Ch.	RB Config	Voltage	Temp.	Result (ppm)	Limit (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
n41	30	100	DFT-QPSK	M	Outer_Full	NV	-30	- 0.000336	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	-20	- 0.001293	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	-10	- 0.002167	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	0	- 0.001376	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	10	- 0.001198	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	20	-0.00084	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	30	- 0.001709	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	40	- 0.000191	- 2.5~2.5	2496	2690	---	PASS
n41	30	100	DFT-QPSK	M	Outer_Full	NV	50	-8.8E-05	- 2.5~2.5	2496	2690	---	PASS