

Appendix for N77 3450-3550MHz

Product Name: Zenius08

Model No: GMT-08QA-2301

Appendix A: Average Power Output Data for SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Power (dBm)	Power Class	Verdict
N77-3450-3550	30	100	DFT-QPSK	M	Outer_Full	25.09	PC2	PASS
N77-3450-3550	30	100	DFT-QPSK	M	Edge_1RB_Left	22.50	PC2	PASS
N77-3450-3550	30	100	DFT-QPSK	M	Inner_Full	26.28	PC2	PASS
N77-3450-3550	30	100	DFT-QPSK	M	Edge_1RB_Right	21.71	PC2	PASS
N77-3450-3550	30	100	CP-QPSK	M	Outer_Full	23.07	PC2	PASS
N77-3450-3550	30	100	CP-QPSK	M	Edge_1RB_Left	22.51	PC2	PASS
N77-3450-3550	30	100	CP-QPSK	M	Inner_Full	24.67	PC2	PASS
N77-3450-3550	30	100	CP-QPSK	M	Edge_1RB_Right	21.69	PC2	PASS

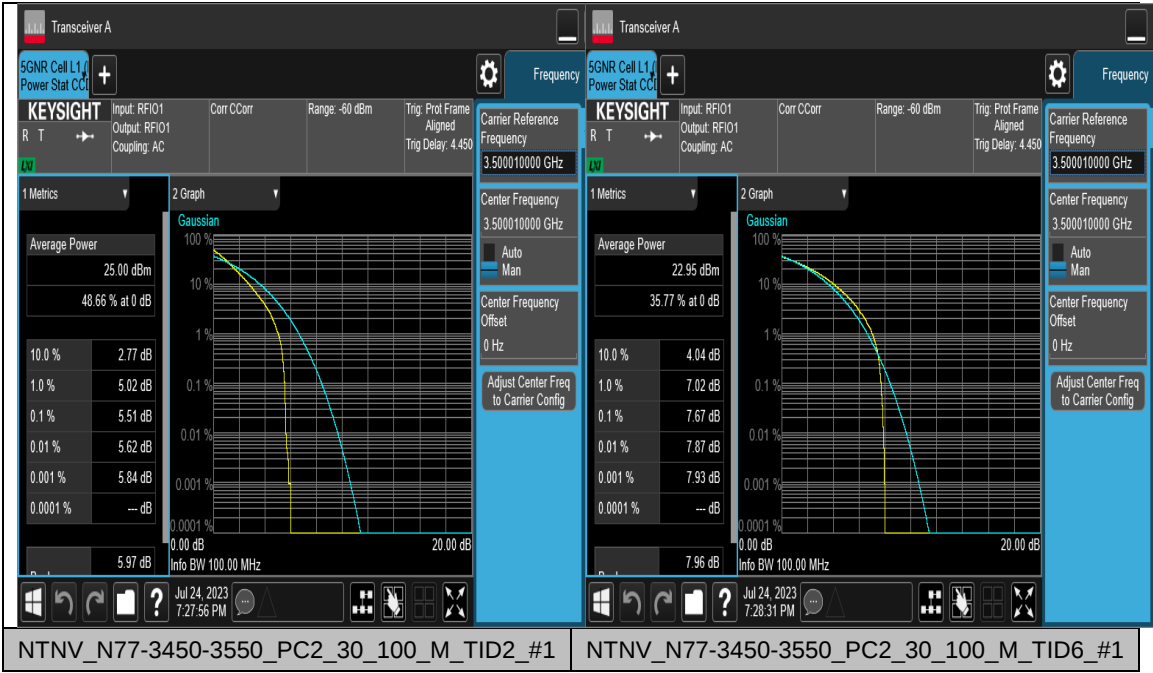
Appendix B: Peak-to-Average Ratio for SA

Peak-to-Average Ratio(CCDF)

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
N77-3450-3550	30	100	DFT-QPSK	M	Outer_Full	5.51	≤13	PASS
N77-3450-3550	30	100	CP-QPSK	M	Outer_Full	7.67	≤13	PASS

Test Graphs

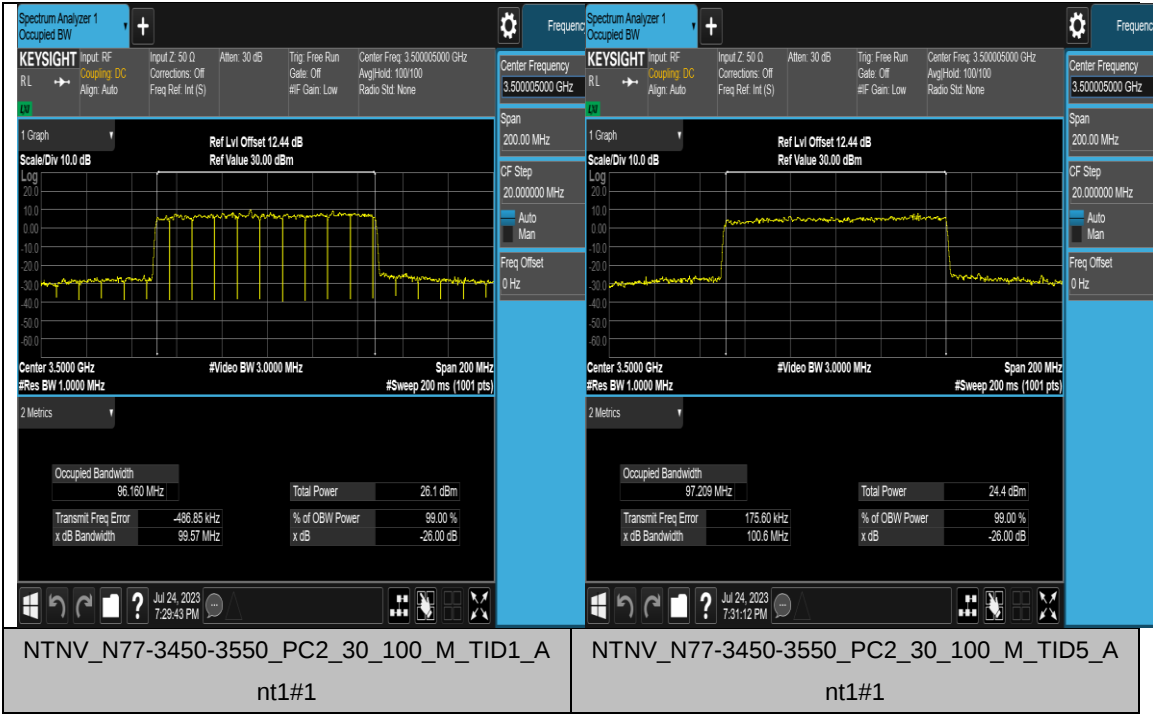


Appendix C: 26dB Bandwidth and Occupied Bandwidth for SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N77-3450 -3550	30	100	DFT-QPSK	M	Outer_Full	96.160	99.57	PASS
N77-3450 -3550	30	100	CP-QPSK	M	Outer_Full	97.209	100.6	PASS

Test Graphs



Appendix D: Band Edge for SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N77-3450-3550	30	100	CP-QPSK	L	Outer_Full	see graph	PASS
N77-3450-3550	30	100	CP-QPSK	L	Edge_1RB_Left	see graph	PASS
N77-3450-3550	30	100	CP-QPSK	H	Outer_Full	see graph	PASS
N77-3450-3550	30	100	CP-QPSK	H	Edge_1RB_Right	see graph	PASS

Test Graphs



Appendix E: Conducted Spurious Emission for SA

Test Result

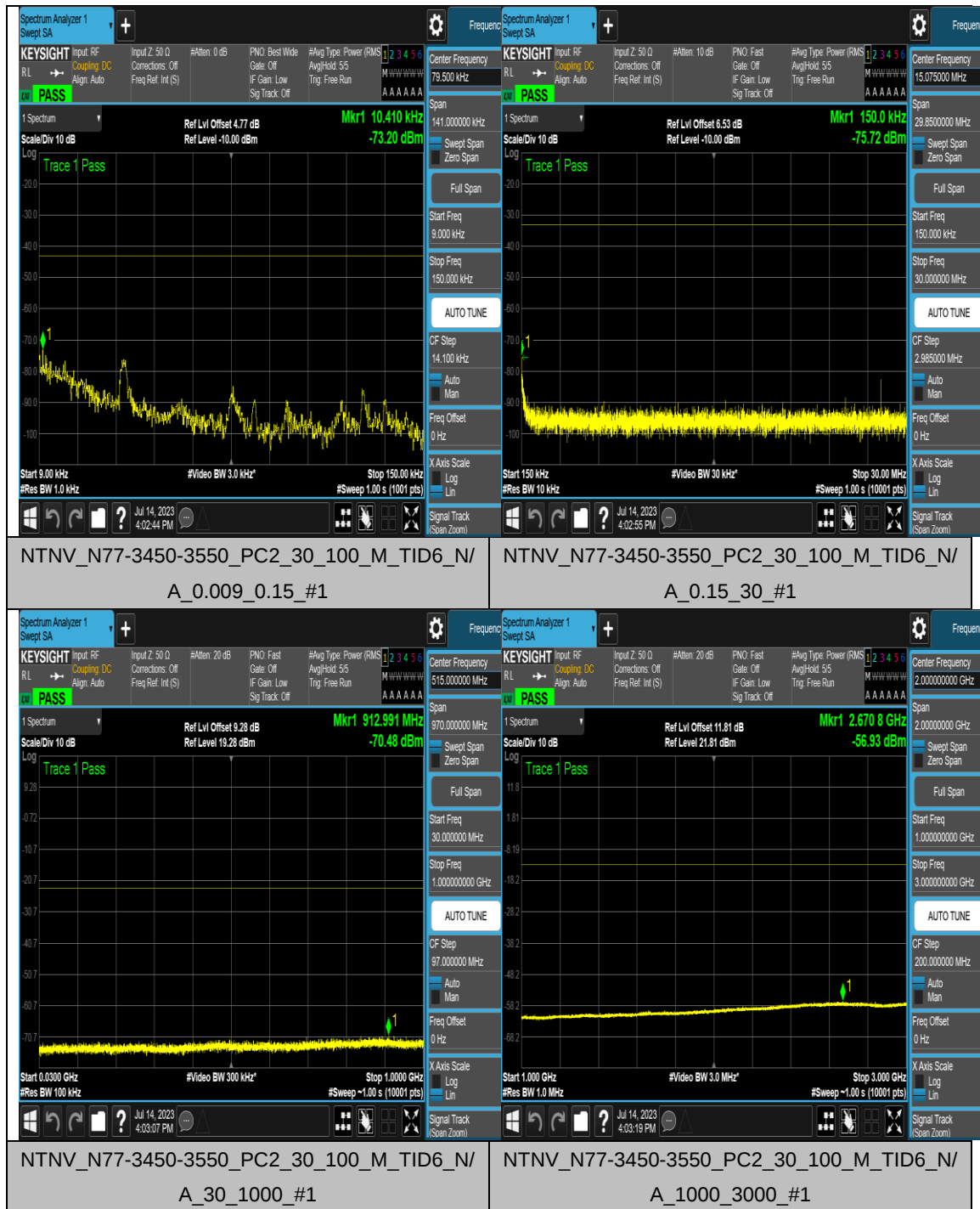
Band	SCS	Bandwidth	Modulation	Channel	RB Config	StartFreq	StopFreq	Result	Limit	Verdict
N77-3 450-35 50	30	100	DFT-QPSK	M	Outer_Full	0.009	0.15	-73.20	-43	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Outer_Full	0.15	30	-75.72	-33	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Outer_Full	30	1000	-70.48	-23	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Outer_Full	1000	3000	-56.93	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Outer_Full	3000	6000	-44.56	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Outer_Full	6000	26000	-29.75	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Outer_Full	26000	40000	-33.08	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Left	0.009	0.15	-75.46	-43	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Left	0.15	30	-78.89	-33	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Left	30	1000	-70.14	-23	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Left	1000	3000	-56.94	-13	PASS
N77-3 450-35	30	100	DFT-QPSK	M	Edge_1RB_Left	3000	6000	-49.47	-13	PASS

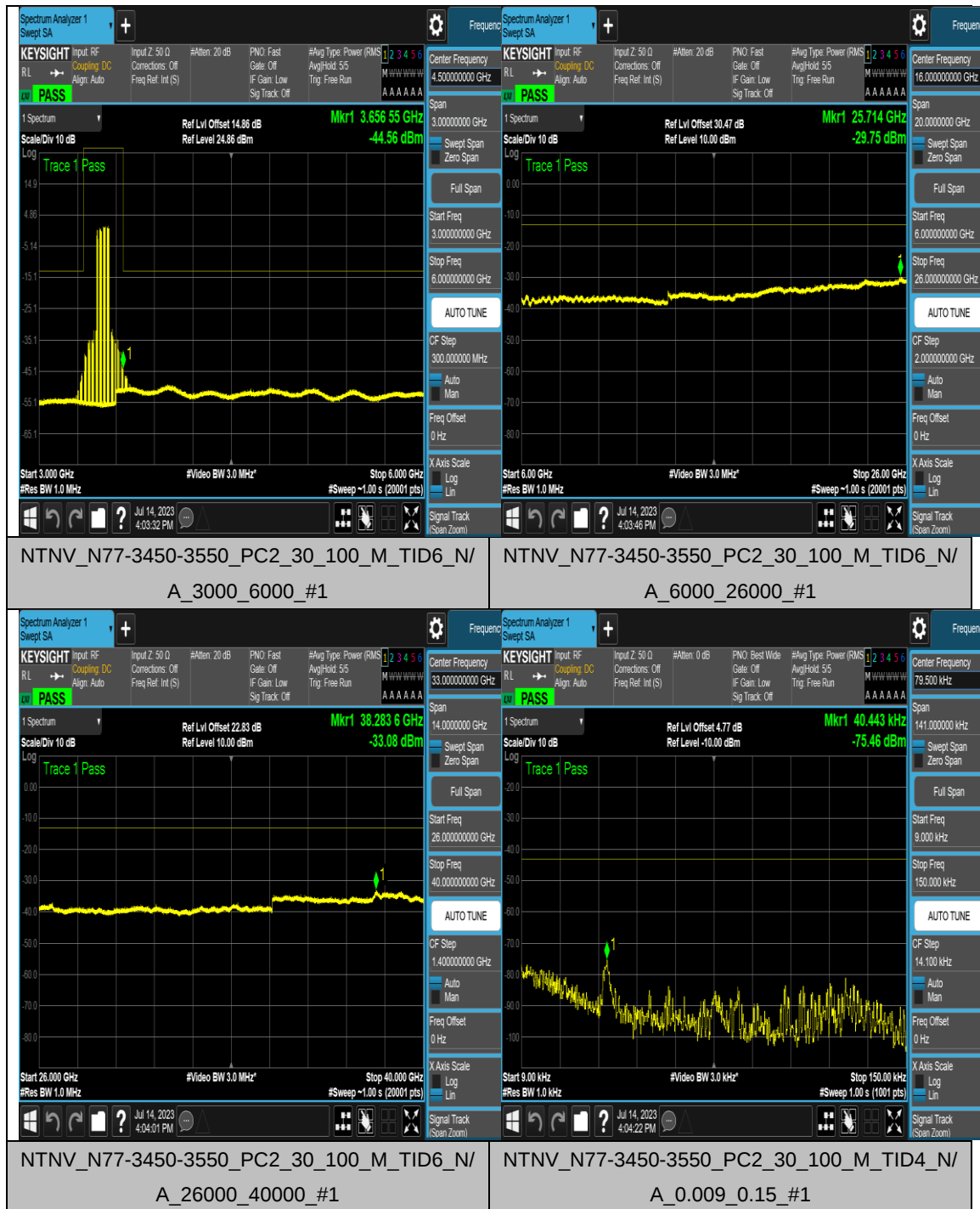
50										
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Left	6000	26000	-29.96	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Left	26000	40000	-33.25	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Right	0.009	0.15	-75.10	-43	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Right	0.15	30	-79.74	-33	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Right	30	1000	-70.50	-23	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Right	1000	3000	-56.80	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Right	3000	6000	-49.64	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Right	6000	26000	-30.03	-13	PASS
N77-3 450-35 50	30	100	DFT-QPSK	M	Edge_1RB_Right	26000	40000	-33.05	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Outer_Full	0.009	0.15	-75.72	-43	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Outer_Full	0.15	30	-78.72	-33	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Outer_Full	30	1000	-70.15	-23	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Outer_Full	1000	3000	-56.86	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Outer_Full	3000	6000	-46.10	-13	PASS

N77-3 450-35 50	30	100	CP-QPSK	M	Outer_Full	6000	26000	-29.82	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Outer_Full	26000	40000	-33.36	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Left	0.009	0.15	-71.46	-43	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Left	0.15	30	-78.17	-33	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Left	30	1000	-70.43	-23	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Left	1000	3000	-56.95	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Left	3000	6000	-49.49	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Left	6000	26000	-29.64	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Left	26000	40000	-33.29	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Right	0.009	0.15	-74.31	-43	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Right	0.15	30	-78.88	-33	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Right	30	1000	-69.99	-23	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Right	1000	3000	-57.01	-13	PASS
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Right	3000	6000	-49.55	-13	PASS
N77-3	30	100	CP-QPSK	M	Edge_1RB_Right	6000	26000	-29.83	-13	PASS

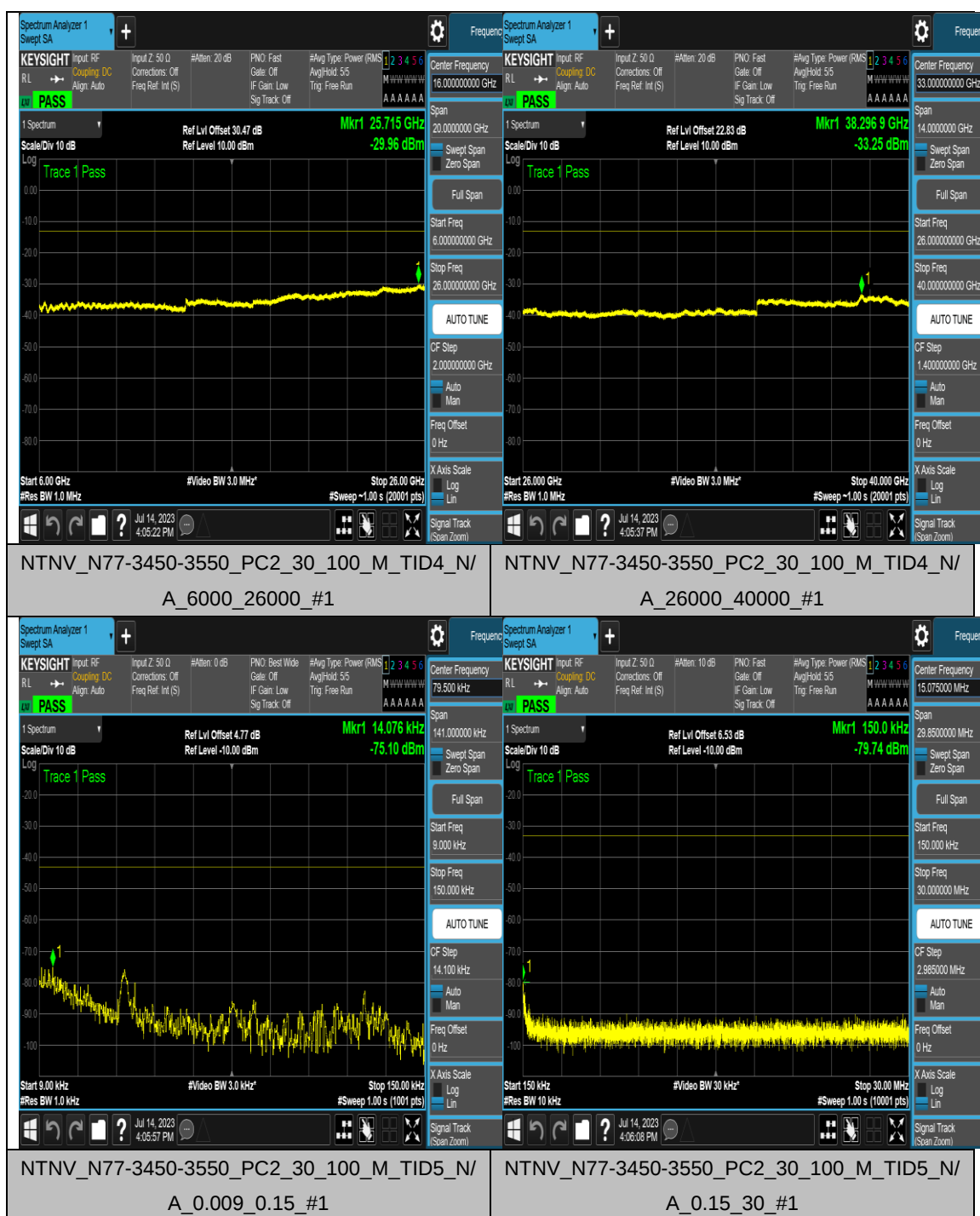
450-35 50										
N77-3 450-35 50	30	100	CP-QPSK	M	Edge_1RB_Right	26000	40000	-33.41	-13	PASS

Test Graphs

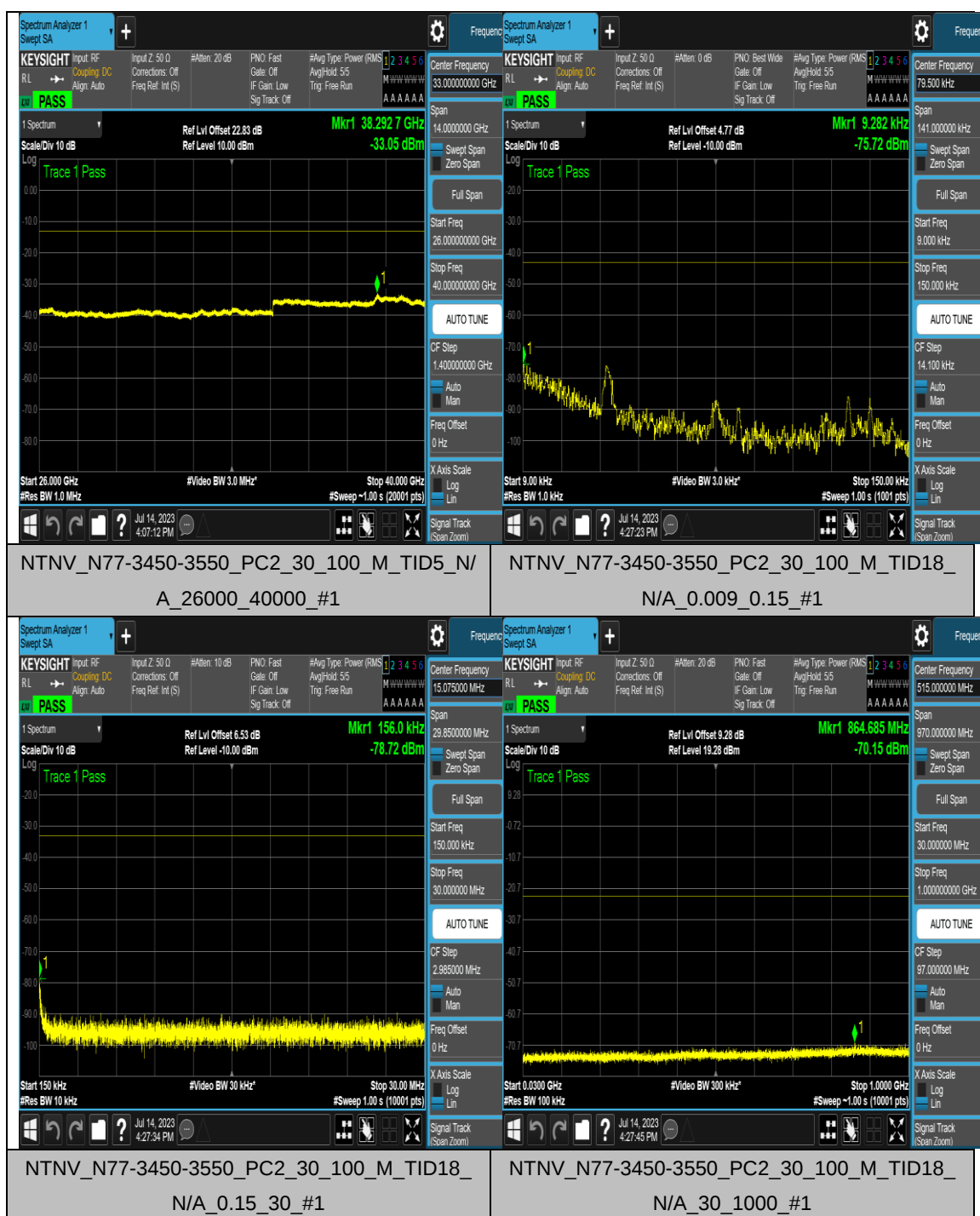


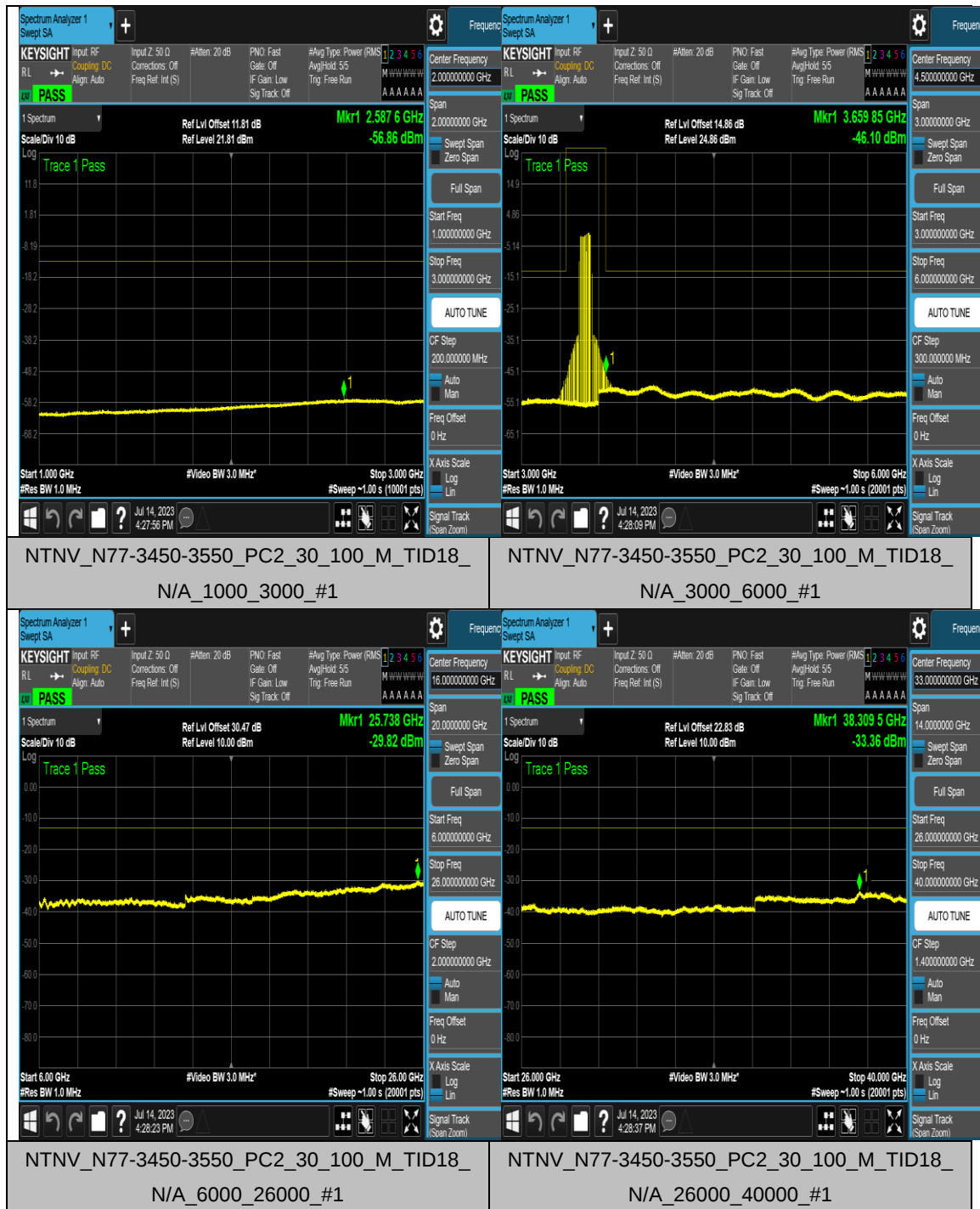


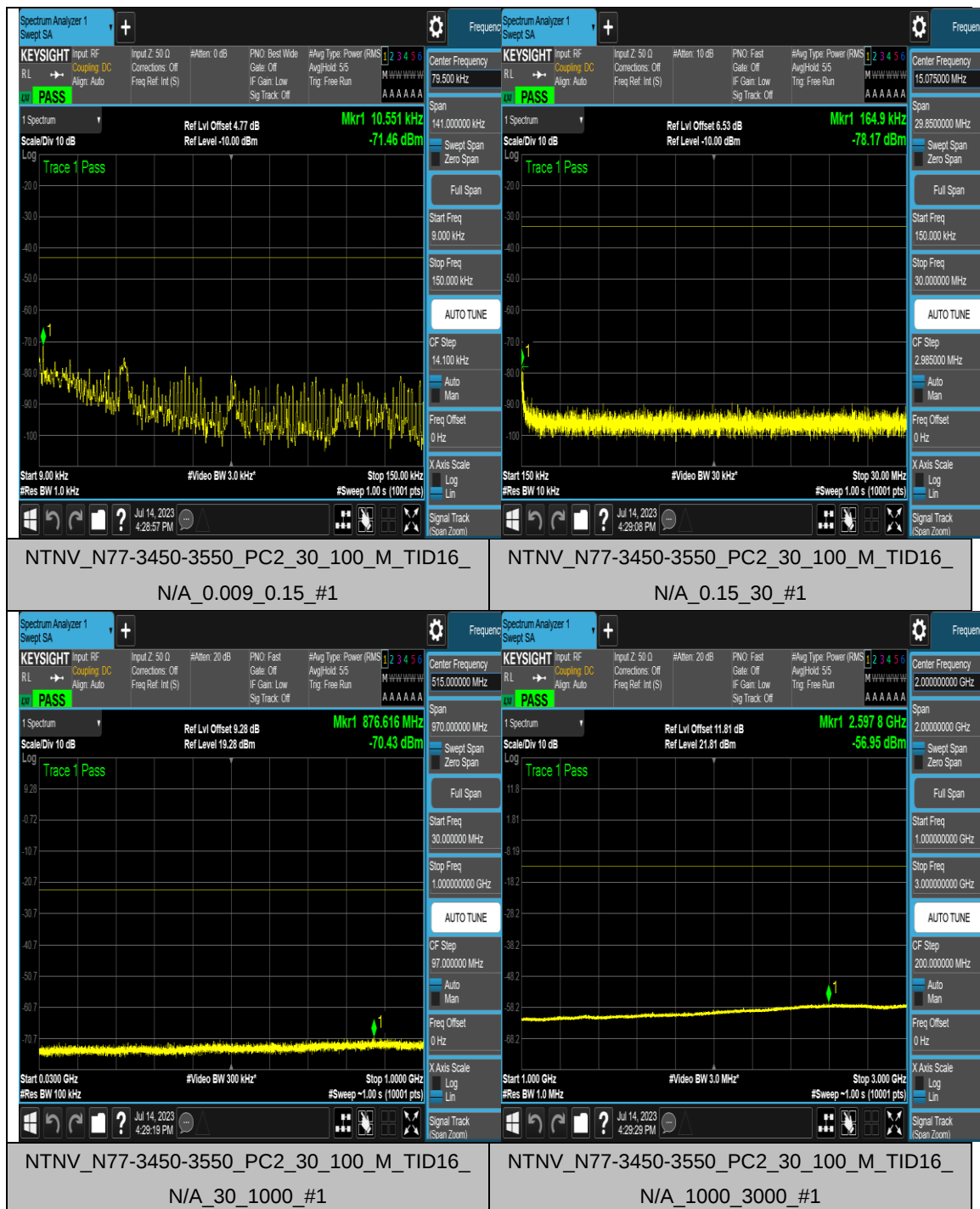


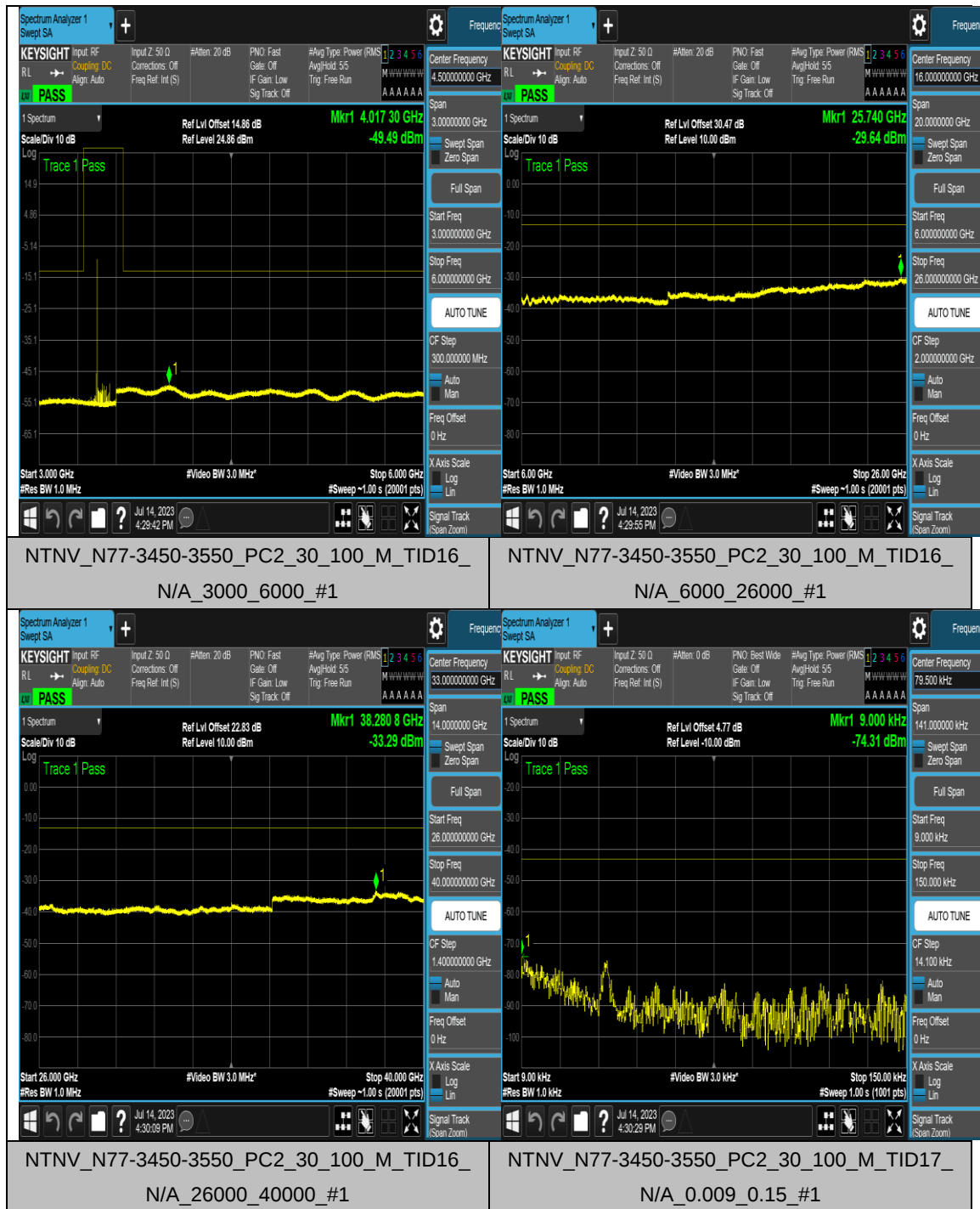


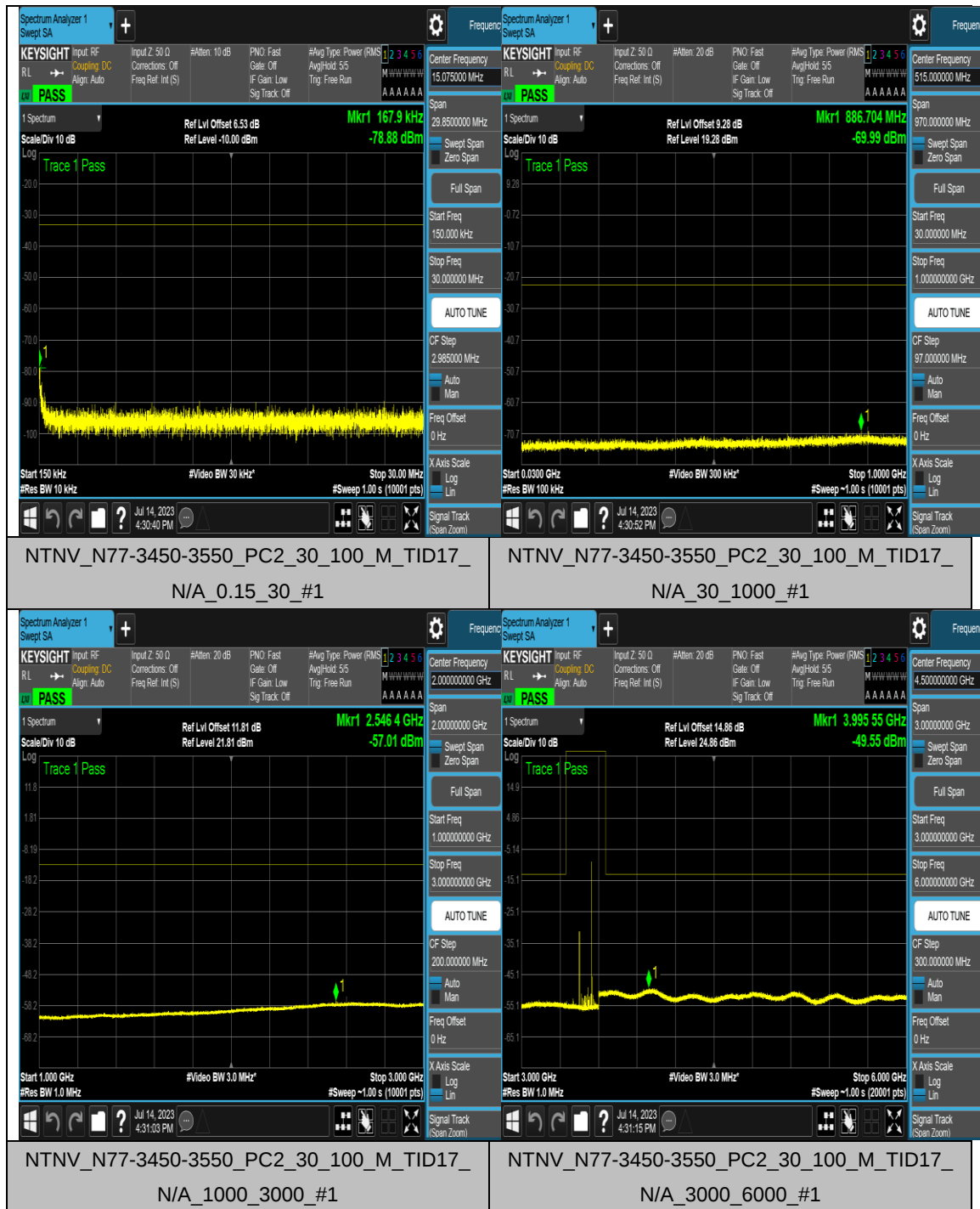


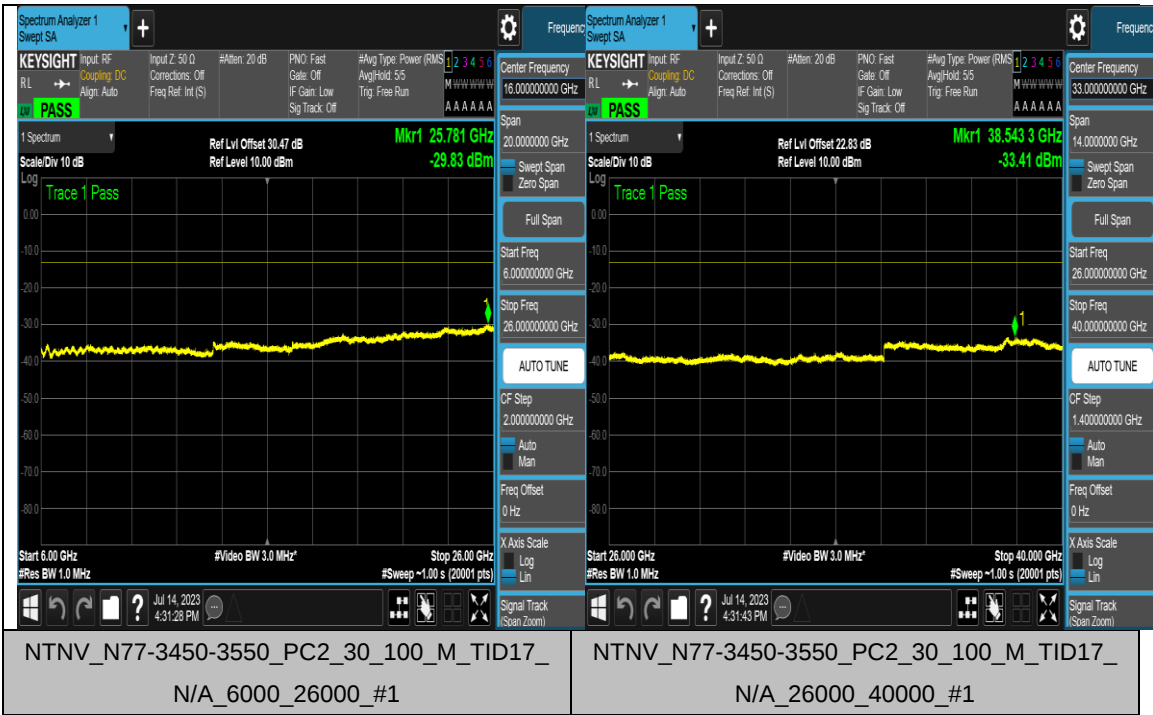












Appendix F: Frequency Stability for SA

Test Result

Frequency Error VS. Voltage

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	VL	NT	-2.68	0.00	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	VN	NT	9.39	0.00	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	VH	NT	-5.25	0.00	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	VL	NT	2.49	0.00	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	VN	NT	-8.40	0.00	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	VH	NT	4.04	0.00	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	-30	2.764761	0.000790	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	-20	-2.225189	-0.000636	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	-10	-4.081736	-0.001166	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	0	9.148976	0.002614	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	10	13.357145	0.003816	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	20	-1.195858	-0.000342	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	30	10.536781	0.003011	PASS

N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	40	3.803164	0.001087	PASS
N77-345 0-3550	30	100	DFT-QPSK	M	Outer_Full	NV	50	14.264512	0.004076	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	-30	4.828866	0.001380	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	-20	5.870371	0.001677	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	-10	10.489890	0.002997	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	0	-0.004690	-0.000001	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	10	0.149540	0.000043	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	20	-3.962005	-0.001132	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	30	-2.947389	-0.000842	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	40	21.770306	0.006220	PASS
N77-345 0-3550	30	100	CP-QPSK	M	Outer_Full	NV	50	20.440174	0.005840	PASS

Appendix F: Modulation characteristics for SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
N77-3450-3550	30	100	DFT-QPSK	M	Outer_Full	see graph	PASS
N77-3450-3550	30	100	CP-QPSK	M	Outer_Full	see graph	PASS

Test Graphs

