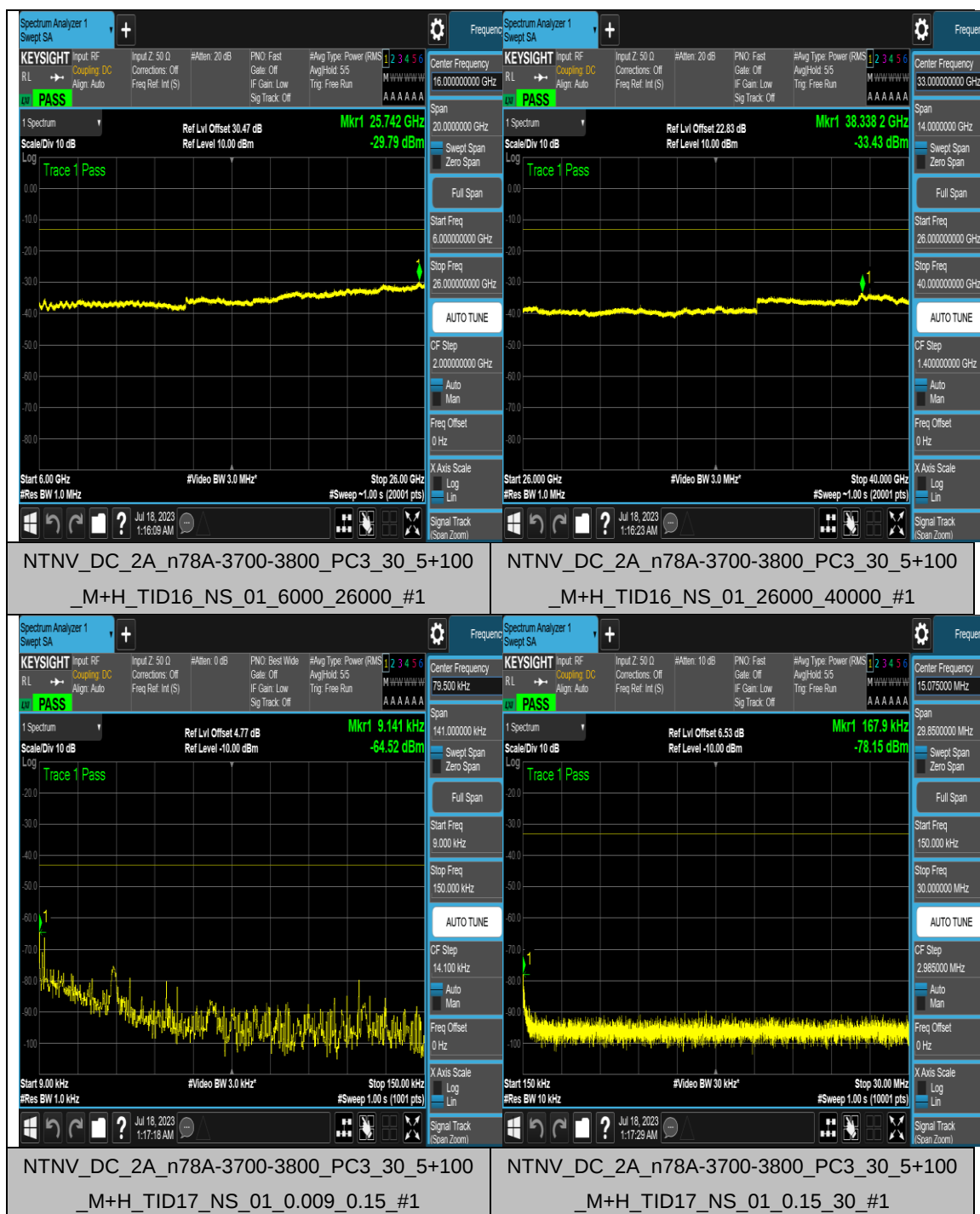
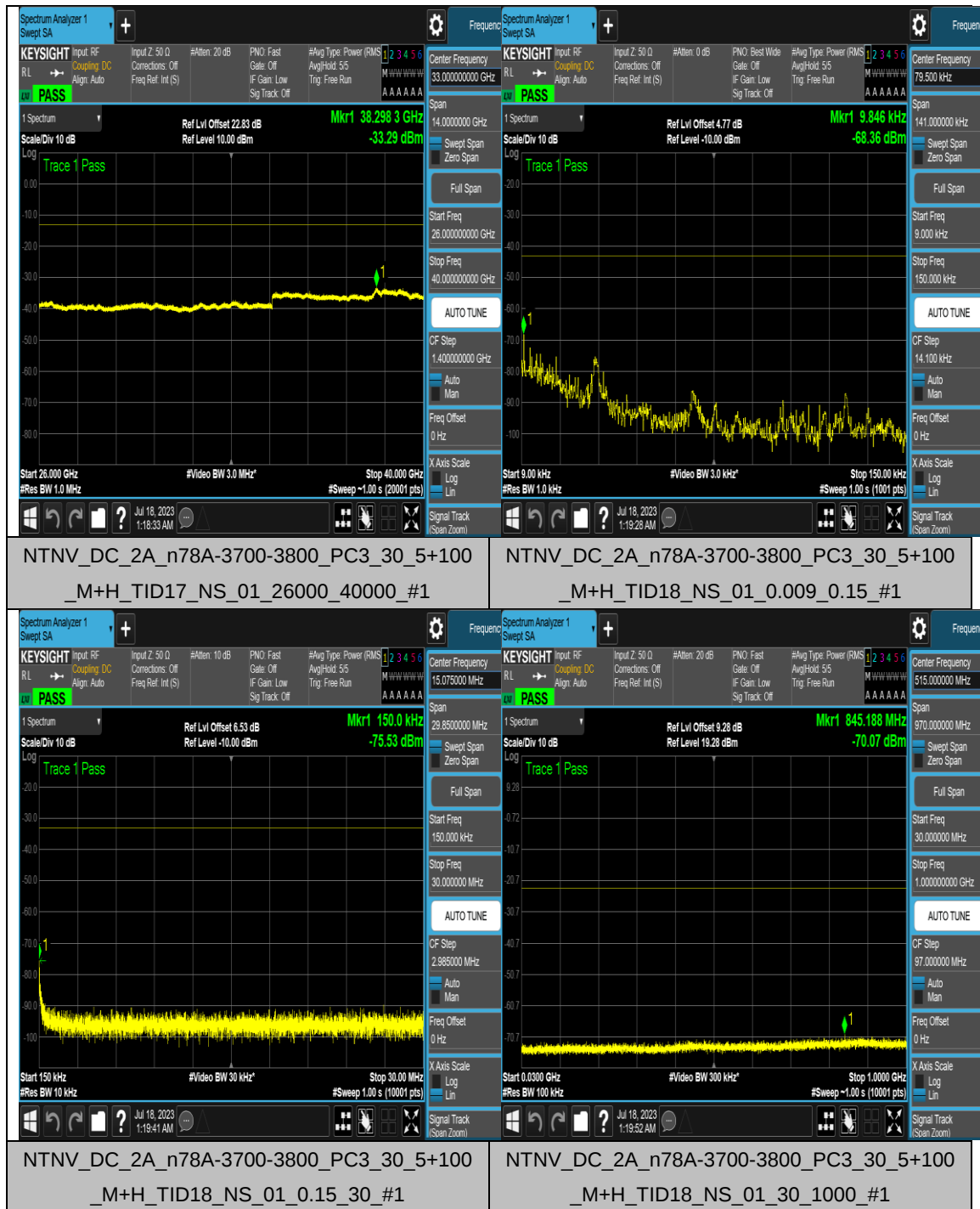
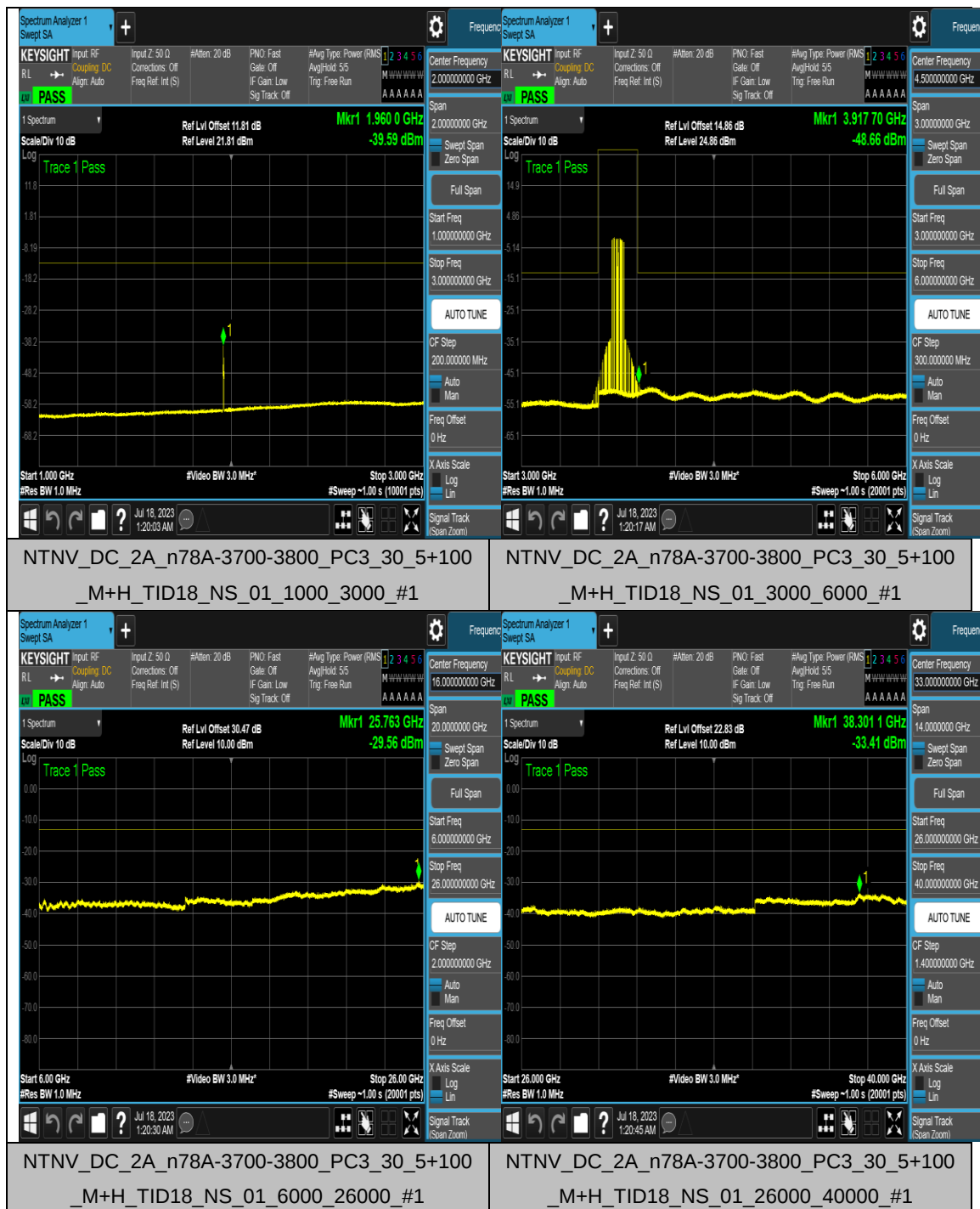












Appendix F: Frequency Stability for NSA

Test Result

Frequency Error VS. Voltage

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_2A_n78A-3700-3800	30	5+20	DFT-QPSK	M+L	Outer_Full	VN	NT	1.48	0.00	PASS
DC_2A_n78A-3700-3800	30	5+20	CP-QPSK	M+L	Outer_Full	VN	NT	-6.65	0.00	PASS
DC_2A_n78A-3700-3800	30	5+20	DFT-QPSK	M+M	Outer_Full	VN	NT	2.79	0.00	PASS
DC_2A_n78A-3700-3800	30	5+20	CP-QPSK	M+M	Outer_Full	VN	NT	-12.48	0.00	PASS
DC_2A_n78A-3700-3800	30	5+20	DFT-QPSK	M+H	Outer_Full	VN	NT	-9.47	0.00	PASS
DC_2A_n78A-3700-3800	30	5+20	CP-QPSK	M+H	Outer_Full	VN	NT	-17.14	0.00	PASS
DC_2A_n78A-3700-3800	30	5+40	DFT-QPSK	M+L	Outer_Full	VN	NT	-10.95	0.00	PASS
DC_2A_n78A-3700-3800	30	5+40	CP-QPSK	M+L	Outer_Full	VN	NT	-3.39	0.00	PASS
DC_2A_n78A-3700-3800	30	5+40	DFT-QPSK	M+M	Outer_Full	VN	NT	2.41	0.00	PASS
DC_2A_n78A-3700-3800	30	5+40	CP-QPSK	M+M	Outer_Full	VN	NT	-10.87	0.00	PASS
DC_2A_n78A-3700-3800	30	5+40	DFT-QPSK	M+H	Outer_Full	VN	NT	-13.50	0.00	PASS
DC_2A_n78A-3700-3800	30	5+40	CP-QPSK	M+H	Outer_Full	VN	NT	-14.74	0.00	PASS

n78A-37 00-3800										
DC_2A_ n78A-37 00-3800	30	5+50	DFT-QPSK	M+L	Outer_Full	VN	NT	-7.19	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+50	CP-QPSK	M+L	Outer_Full	VN	NT	-2.17	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+50	DFT-QPSK	M+M	Outer_Full	VN	NT	6.41	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+50	CP-QPSK	M+M	Outer_Full	VN	NT	-6.99	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+50	DFT-QPSK	M+H	Outer_Full	VN	NT	-17.20	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+50	CP-QPSK	M+H	Outer_Full	VN	NT	-3.14	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+60	DFT-QPSK	M+L	Outer_Full	VN	NT	-13.48	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+60	CP-QPSK	M+L	Outer_Full	VN	NT	-1.33	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+60	DFT-QPSK	M+M	Outer_Full	VN	NT	-15.10	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+60	CP-QPSK	M+M	Outer_Full	VN	NT	-17.14	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+60	DFT-QPSK	M+H	Outer_Full	VN	NT	2.87	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+60	CP-QPSK	M+H	Outer_Full	VN	NT	-21.21	-0.01	PASS
DC_2A_ n78A-37 00-3800	30	5+80	DFT-QPSK	M+L	Outer_Full	VN	NT	-7.99	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+80	CP-QPSK	M+L	Outer_Full	VN	NT	-1.77	0.00	PASS

n78A-37 00-3800										
DC_2A_ n78A-37 00-3800	30	5+80	DFT-QPSK	M+M	Outer_Full	VN	NT	-8.54	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+80	CP-QPSK	M+M	Outer_Full	VN	NT	-9.46	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+80	DFT-QPSK	M+H	Outer_Full	VN	NT	6.46	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+80	CP-QPSK	M+H	Outer_Full	VN	NT	-1.32	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+90	DFT-QPSK	M+L	Outer_Full	VN	NT	-6.15	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+90	CP-QPSK	M+L	Outer_Full	VN	NT	-5.44	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+90	DFT-QPSK	M+M	Outer_Full	VN	NT	2.24	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+90	CP-QPSK	M+M	Outer_Full	VN	NT	-13.35	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+90	DFT-QPSK	M+H	Outer_Full	VN	NT	-7.18	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+90	CP-QPSK	M+H	Outer_Full	VN	NT	-20.73	-0.01	PASS
DC_2A_ n78A-37 00-3800	30	5+100	DFT-QPSK	M+L	Outer_Full	VN	NT	-12.00	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+100	CP-QPSK	M+L	Outer_Full	VN	NT	-8.13	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+100	DFT-QPSK	M+M	Outer_Full	VN	NT	5.79	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+100	CP-QPSK	M+M	Outer_Full	VN	NT	-23.42	-0.01	PASS

n78A-37 00-3800										
DC_2A_ n78A-37 00-3800	30	5+100	DFT-QPSK	M+H	Outer_Full	VN	NT	-11.41	0.00	PASS
DC_2A_ n78A-37 00-3800	30	5+100	CP-QPSK	M+H	Outer_Full	VN	NT	-15.22	0.00	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_2A_ n78A-37 00-3800	30	5+20	DFT-QPSK	M+L	Outer_Full	NV	TN	-5.959320	-0.001606	PASS
DC_2A_ n78A-37 00-3800	30	5+20	CP-QPSK	M+L	Outer_Full	NV	TN	-1.457634	-0.000393	PASS
DC_2A_ n78A-37 00-3800	30	5+20	DFT-QPSK	M+M	Outer_Full	NV	TN	-11.489926	-0.003064	PASS
DC_2A_ n78A-37 00-3800	30	5+20	CP-QPSK	M+M	Outer_Full	NV	TN	-8.619071	-0.002298	PASS
DC_2A_ n78A-37 00-3800	30	5+20	DFT-QPSK	M+H	Outer_Full	NV	TN	-1.945872	-0.000513	PASS
DC_2A_ n78A-37 00-3800	30	5+20	CP-QPSK	M+H	Outer_Full	NV	TN	-3.861965	-0.001019	PASS
DC_2A_ n78A-37 00-3800	30	5+40	DFT-QPSK	M+L	Outer_Full	NV	TN	-13.419985	-0.003608	PASS
DC_2A_ n78A-37 00-3800	30	5+40	CP-QPSK	M+L	Outer_Full	NV	TN	-0.755272	-0.000203	PASS
DC_2A_ n78A-37 00-3800	30	5+40	DFT-QPSK	M+M	Outer_Full	NV	TN	-0.084408	-0.000023	PASS
DC_2A_ n78A-37	30	5+40	CP-QPSK	M+M	Outer_Full	NV	TN	-2.980821	-0.000795	PASS

00-3800										
DC_2A_ n78A-37 00-3800	30	5+40	DFT-QPSK	M+H	Outer_Full	NV	TN	-5.126268	-0.001356	PASS
DC_2A_ n78A-37 00-3800	30	5+40	CP-QPSK	M+H	Outer_Full	NV	TN	-5.269348	-0.001394	PASS
DC_2A_ n78A-37 00-3800	30	5+50	DFT-QPSK	M+L	Outer_Full	NV	TN	-13.995373	-0.003757	PASS
DC_2A_ n78A-37 00-3800	30	5+50	CP-QPSK	M+L	Outer_Full	NV	TN	-9.685846	-0.002600	PASS
DC_2A_ n78A-37 00-3800	30	5+50	DFT-QPSK	M+M	Outer_Full	NV	TN	0.794795	0.000212	PASS
DC_2A_ n78A-37 00-3800	30	5+50	CP-QPSK	M+M	Outer_Full	NV	TN	-2.861453	-0.000763	PASS
DC_2A_ n78A-37 00-3800	30	5+50	DFT-QPSK	M+H	Outer_Full	NV	TN	-16.516397	-0.004375	PASS
DC_2A_ n78A-37 00-3800	30	5+50	CP-QPSK	M+H	Outer_Full	NV	TN	-1.077688	-0.000285	PASS
DC_2A_ n78A-37 00-3800	30	5+60	DFT-QPSK	M+L	Outer_Full	NV	TN	-1.490082	-0.000399	PASS
DC_2A_ n78A-37 00-3800	30	5+60	CP-QPSK	M+L	Outer_Full	NV	TN	-10.125402	-0.002715	PASS
DC_2A_ n78A-37 00-3800	30	5+60	DFT-QPSK	M+M	Outer_Full	NV	TN	-2.037355	-0.000543	PASS
DC_2A_ n78A-37 00-3800	30	5+60	CP-QPSK	M+M	Outer_Full	NV	TN	-4.197480	-0.001119	PASS
DC_2A_ n78A-37 00-3800	30	5+60	DFT-QPSK	M+H	Outer_Full	NV	TN	-25.082542	-0.006653	PASS
DC_2A_ n78A-37	30	5+60	CP-QPSK	M+H	Outer_Full	NV	TN	-10.174496	-0.002699	PASS

00-3800										
DC_2A_ n78A-37 00-3800	30	5+80	DFT-QPSK	M+L	Outer_Full	NV	TN	-1.984471	-0.000531	PASS
DC_2A_ n78A-37 00-3800	30	5+80	CP-QPSK	M+L	Outer_Full	NV	TN	-4.418500	-0.001181	PASS
DC_2A_ n78A-37 00-3800	30	5+80	DFT-QPSK	M+M	Outer_Full	NV	TN	-12.079597	-0.003221	PASS
DC_2A_ n78A-37 00-3800	30	5+80	CP-QPSK	M+M	Outer_Full	NV	TN	-12.983196	-0.003462	PASS
DC_2A_ n78A-37 00-3800	30	5+80	DFT-QPSK	M+H	Outer_Full	NV	TN	7.330431	0.001950	PASS
DC_2A_ n78A-37 00-3800	30	5+80	CP-QPSK	M+H	Outer_Full	NV	TN	1.808430	0.000481	PASS
DC_2A_ n78A-37 00-3800	30	5+90	DFT-QPSK	M+L	Outer_Full	NV	TN	-6.575604	-0.001756	PASS
DC_2A_ n78A-37 00-3800	30	5+90	CP-QPSK	M+L	Outer_Full	NV	TN	13.518851	0.003610	PASS
DC_2A_ n78A-37 00-3800	30	5+90	DFT-QPSK	M+M	Outer_Full	NV	TN	1.241314	0.000331	PASS
DC_2A_ n78A-37 00-3800	30	5+90	CP-QPSK	M+M	Outer_Full	NV	TN	-20.832664	-0.005555	PASS
DC_2A_ n78A-37 00-3800	30	5+90	DFT-QPSK	M+H	Outer_Full	NV	TN	-5.042829	-0.001343	PASS
DC_2A_ n78A-37 00-3800	30	5+90	CP-QPSK	M+H	Outer_Full	NV	TN	-11.073939	-0.002949	PASS
DC_2A_ n78A-37 00-3800	30	5+100	DFT-QPSK	M+L	Outer_Full	NV	TN	-15.740560	-0.004197	PASS
DC_2A_ n78A-37	30	5+100	CP-QPSK	M+L	Outer_Full	NV	TN	-9.174624	-0.002447	PASS

00-3800										
DC_2A_ n78A-37 00-3800	30	5+100	DFT-QPSK	M+M	Outer_Full	NV	TN	-4.698927	-0.001253	PASS
DC_2A_ n78A-37 00-3800	30	5+100	CP-QPSK	M+M	Outer_Full	NV	TN	-17.620499	-0.004699	PASS
DC_2A_ n78A-37 00-3800	30	5+100	DFT-QPSK	M+H	Outer_Full	NV	TN	-20.376074	-0.005434	PASS
DC_2A_ n78A-37 00-3800	30	5+100	CP-QPSK	M+H	Outer_Full	NV	TN	0.227379	0.000061	PASS

Appendix F: Modulation characteristics for NSA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Verdict
DC_2A_n78A-3700-3800	30	5+20	DFT-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+20	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+20	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+20	CP-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+20	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+20	CP-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+30	DFT-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+30	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+30	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+30	CP-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+30	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+30	CP-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+40	DFT-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+40	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+40	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+40	CP-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+40	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+40	CP-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3800	30	5+50	DFT-QPSK	M+L	Outer_Full	see graph	PASS

800							
DC_2A_n78A-3700-3 800	30	5+50	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+50	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+50	CP-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+50	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+50	CP-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+60	DFT-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+60	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+60	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+60	CP-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+60	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+60	CP-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+80	DFT-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+80	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+80	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+80	CP-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+80	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+80	CP-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+90	DFT-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+90	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+90	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3	30	5+90	CP-QPSK	M+M	Outer_Full	see graph	PASS

800							
DC_2A_n78A-3700-3 800	30	5+90	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+90	CP-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+100	DFT-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+100	CP-QPSK	M+L	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+100	DFT-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+100	CP-QPSK	M+M	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+100	DFT-QPSK	M+H	Outer_Full	see graph	PASS
DC_2A_n78A-3700-3 800	30	5+100	CP-QPSK	M+H	Outer_Full	see graph	PASS

Test Graphs

