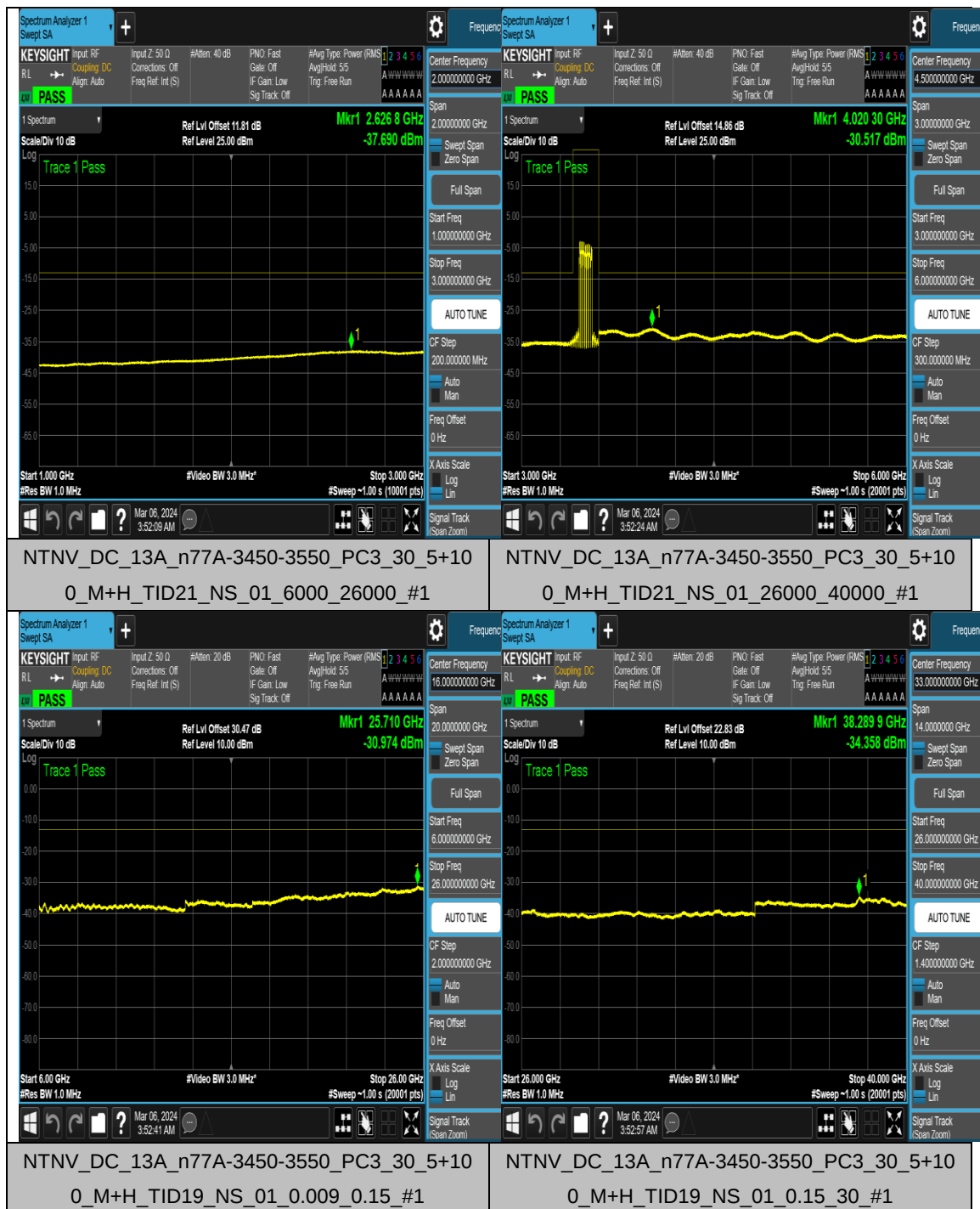
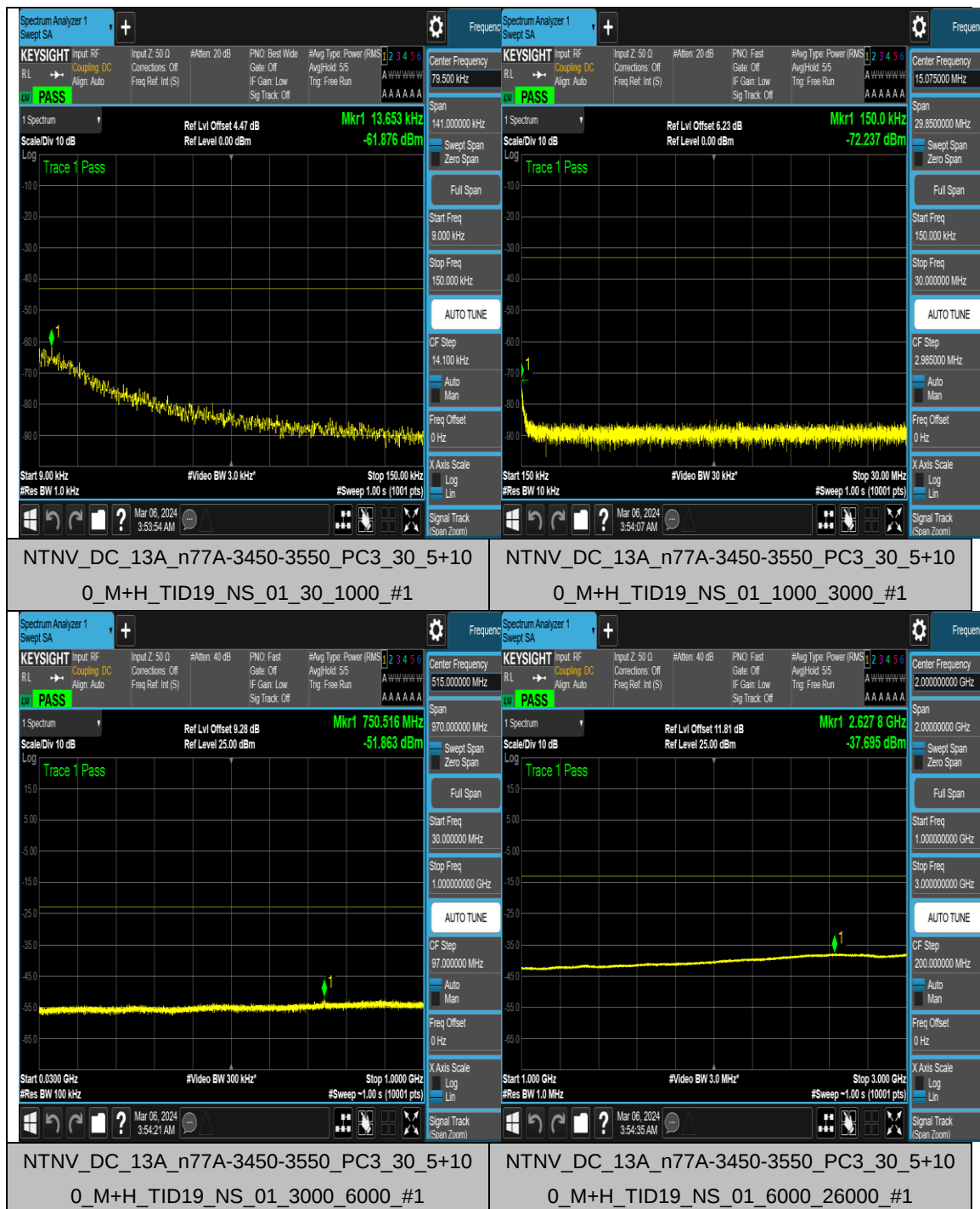


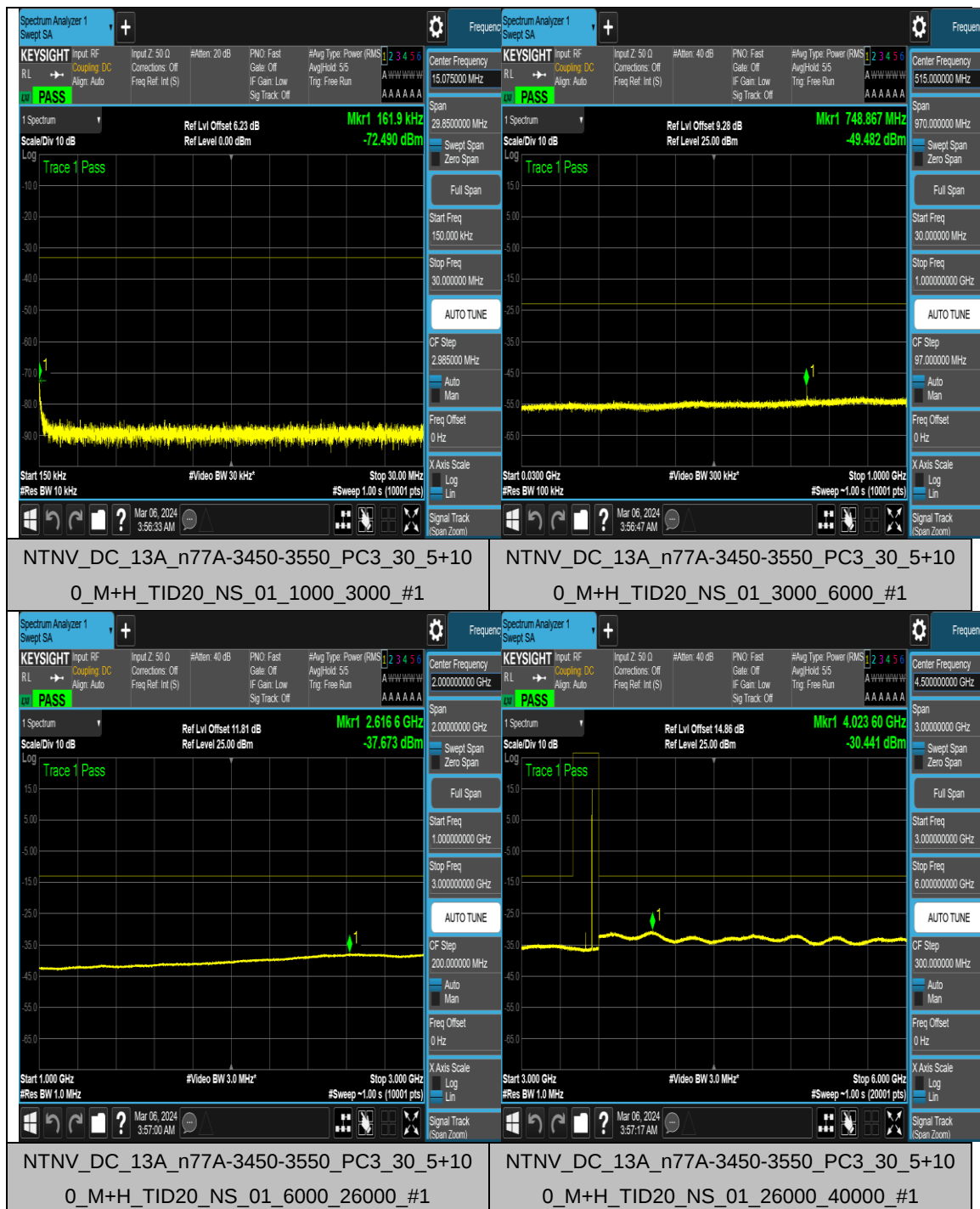


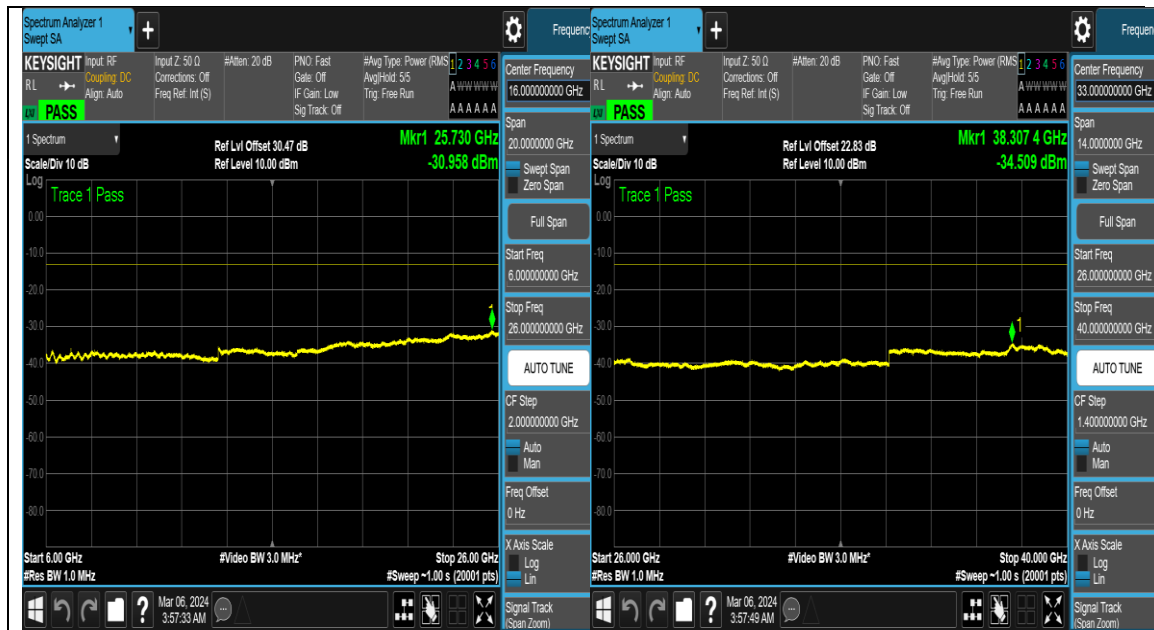












Appendix F: Frequency Stability for NSA

Test Result

Frequency Error VS. Voltage

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_13A_n77A-3 450-3550	30	5+20	CP-QPSK	M+L	Outer_Full	VN	NT	-8.46	0.00	PASS
DC_13A_n77A-3 450-3550	30	5+20	CP-16QAM	M+L	Outer_Full	VN	NT	9.62	0.00	PASS
DC_13A_n77A-3 450-3550	30	5+20	CP-QPSK	M+M	Outer_Full	VN	NT	-17.39	0.00	PASS
DC_13A_n77A-3 450-3550	30	5+20	CP-16QAM	M+M	Outer_Full	VN	NT	-9.69	0.00	PASS
DC_13A_n77A-3 450-3550	30	5+20	CP-QPSK	M+H	Outer_Full	VN	NT	-24.34	-0.01	PASS
DC_13A_n77A-3 450-3550	30	5+20	CP-16QAM	M+H	Outer_Full	VN	NT	-49.64	-0.01	PASS
DC_13A_n77A-3 450-3550	30	5+40	CP-QPSK	M+L	Outer_Full	VN	NT	-21.04	-0.01	PASS
DC_13A_n77A-3 450-3550	30	5+40	CP-16QAM	M+L	Outer_Full	VN	NT	-2.98	0.00	PASS
DC_13A_n77A-3 450-3550	30	5+40	CP-QPSK	M+M	Outer_Full	VN	NT	-9.17	0.00	PASS
DC_13A_n77A-3 450-3550	30	5+40	CP-16QAM	M+M	Outer_Full	VN	NT	-36.50	-0.01	PASS
DC_13A_n77A-3 450-3550	30	5+40	CP-QPSK	M+H	Outer_Full	VN	NT	-26.65	-0.01	PASS
DC_13A	30	5+40	CP-16QAM	M+H	Outer_Full	VN	NT	-23.68	-0.01	PASS

_n77A-3 450-3550										
DC_13A _n77A-3 450-3550	30	5+50	CP-QPSK	M+L	Outer_Full	VN	NT	-14.36	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-16QAM	M+L	Outer_Full	VN	NT	-14.38	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-QPSK	M+M	Outer_Full	VN	NT	-25.88	-0.01	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-16QAM	M+M	Outer_Full	VN	NT	-6.41	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-QPSK	M+H	Outer_Full	VN	NT	-15.73	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-16QAM	M+H	Outer_Full	VN	NT	-7.94	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-QPSK	M+L	Outer_Full	VN	NT	0.33	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-16QAM	M+L	Outer_Full	VN	NT	-21.97	-0.01	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-QPSK	M+M	Outer_Full	VN	NT	-4.30	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-16QAM	M+M	Outer_Full	VN	NT	-1.74	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-QPSK	M+H	Outer_Full	VN	NT	-5.28	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-16QAM	M+H	Outer_Full	VN	NT	-0.73	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-QPSK	M+L	Outer_Full	VN	NT	-10.79	0.00	PASS
DC_13A	30	5+80	CP-16QAM	M+L	Outer_Full	VN	NT	-11.86	0.00	PASS

_n77A-3 450-3550										
DC_13A _n77A-3 450-3550	30	5+80	CP-QPSK	M+M	Outer_Full	VN	NT	0.35	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-16QAM	M+M	Outer_Full	VN	NT	-16.46	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-QPSK	M+H	Outer_Full	VN	NT	-25.38	-0.01	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-16QAM	M+H	Outer_Full	VN	NT	6.53	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-QPSK	M+L	Outer_Full	VN	NT	-2.39	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-16QAM	M+L	Outer_Full	VN	NT	-6.82	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-QPSK	M+M	Outer_Full	VN	NT	-16.72	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-16QAM	M+M	Outer_Full	VN	NT	-33.80	-0.01	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-QPSK	M+H	Outer_Full	VN	NT	-17.87	-0.01	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-16QAM	M+H	Outer_Full	VN	NT	-8.25	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-QPSK	M+L	Outer_Full	VN	NT	-13.96	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-16QAM	M+L	Outer_Full	VN	NT	-13.15	0.00	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-QPSK	M+M	Outer_Full	VN	NT	-45.66	-0.01	PASS
DC_13A	30	5+100	CP-16QAM	M+M	Outer_Full	VN	NT	-11.97	0.00	PASS

_n77A-3 450-3550										
DC_13A _n77A-3 450-3550	30	5+100	CP-QPSK	M+H	Outer_Full	VN	NT	-26.49	-0.01	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-16QAM	M+H	Outer_Full	VN	NT	-12.32	0.00	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_13A _n77A-3 450-3550	30	5+20	CP-QPSK	M+L	Outer_Full	NV	TN	1.727214	0.000499	PASS
DC_13A _n77A-3 450-3550	30	5+20	CP-16QAM	M+L	Outer_Full	NV	TN	-3.122648	-0.000903	PASS
DC_13A _n77A-3 450-3550	30	5+20	CP-QPSK	M+M	Outer_Full	NV	TN	-21.638817	-0.006183	PASS
DC_13A _n77A-3 450-3550	30	5+20	CP-16QAM	M+M	Outer_Full	NV	TN	-22.303745	-0.006372	PASS
DC_13A _n77A-3 450-3550	30	5+20	CP-QPSK	M+H	Outer_Full	NV	TN	-1.923241	-0.000543	PASS
DC_13A _n77A-3 450-3550	30	5+20	CP-16QAM	M+H	Outer_Full	NV	TN	-2.364255	-0.000668	PASS
DC_13A _n77A-3 450-3550	30	5+40	CP-QPSK	M+L	Outer_Full	NV	TN	-6.055785	-0.001745	PASS
DC_13A _n77A-3 450-3550	30	5+40	CP-16QAM	M+L	Outer_Full	NV	TN	-10.384617	-0.002993	PASS
DC_13A _n77A-3 450-3550	30	5+40	CP-QPSK	M+M	Outer_Full	NV	TN	-17.700033	-0.005057	PASS
DC_13A _n77A-3	30	5+40	CP-16QAM	M+M	Outer_Full	NV	TN	-3.124974	-0.000893	PASS

450-3550										
DC_13A _n77A-3 450-3550	30	5+40	CP-QPSK	M+H	Outer_Full	NV	TN	-3.926343	-0.001112	PASS
DC_13A _n77A-3 450-3550	30	5+40	CP-16QAM	M+H	Outer_Full	NV	TN	-12.206397	-0.003458	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-QPSK	M+L	Outer_Full	NV	TN	-1.083055	-0.000312	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-16QAM	M+L	Outer_Full	NV	TN	-15.032013	-0.004326	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-QPSK	M+M	Outer_Full	NV	TN	-11.650706	-0.003329	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-16QAM	M+M	Outer_Full	NV	TN	-6.654671	-0.001901	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-QPSK	M+H	Outer_Full	NV	TN	-5.667466	-0.001608	PASS
DC_13A _n77A-3 450-3550	30	5+50	CP-16QAM	M+H	Outer_Full	NV	TN	-11.265819	-0.003196	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-QPSK	M+L	Outer_Full	NV	TN	-30.404284	-0.008737	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-16QAM	M+L	Outer_Full	NV	TN	-11.520119	-0.003310	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-QPSK	M+M	Outer_Full	NV	TN	-25.272081	-0.007221	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-16QAM	M+M	Outer_Full	NV	TN	-15.236713	-0.004353	PASS
DC_13A _n77A-3 450-3550	30	5+60	CP-QPSK	M+H	Outer_Full	NV	TN	-9.785090	-0.002780	PASS
DC_13A _n77A-3	30	5+60	CP-16QAM	M+H	Outer_Full	NV	TN	-18.405390	-0.005229	PASS

450-3550										
DC_13A _n77A-3 450-3550	30	5+80	CP-QPSK	M+L	Outer_Full	NV	TN	-6.396849	-0.001833	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-16QAM	M+L	Outer_Full	NV	TN	4.498388	0.001289	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-QPSK	M+M	Outer_Full	NV	TN	-36.333416	-0.010381	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-16QAM	M+M	Outer_Full	NV	TN	-35.677071	-0.010193	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-QPSK	M+H	Outer_Full	NV	TN	-12.610130	-0.003593	PASS
DC_13A _n77A-3 450-3550	30	5+80	CP-16QAM	M+H	Outer_Full	NV	TN	-10.295347	-0.002933	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-QPSK	M+L	Outer_Full	NV	TN	11.022483	0.003154	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-16QAM	M+L	Outer_Full	NV	TN	2.462801	0.000705	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-QPSK	M+M	Outer_Full	NV	TN	-3.725700	-0.001064	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-16QAM	M+M	Outer_Full	NV	TN	-0.280199	-0.000080	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-QPSK	M+H	Outer_Full	NV	TN	-14.515017	-0.004141	PASS
DC_13A _n77A-3 450-3550	30	5+90	CP-16QAM	M+H	Outer_Full	NV	TN	-9.993011	-0.002851	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-QPSK	M+L	Outer_Full	NV	TN	-16.367817	-0.004677	PASS
DC_13A _n77A-3	30	5+100	CP-16QAM	M+L	Outer_Full	NV	TN	-14.108336	-0.004031	PASS

450-3550										
DC_13A _n77A-3 450-3550	30	5+100	CP-QPSK	M+M	Outer_Full	NV	TN	-14.832477	-0.004238	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-16QAM	M+M	Outer_Full	NV	TN	-10.175125	-0.002907	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-QPSK	M+H	Outer_Full	NV	TN	-13.652646	-0.003901	PASS
DC_13A _n77A-3 450-3550	30	5+100	CP-16QAM	M+H	Outer_Full	NV	TN	-17.271864	-0.004935	PASS