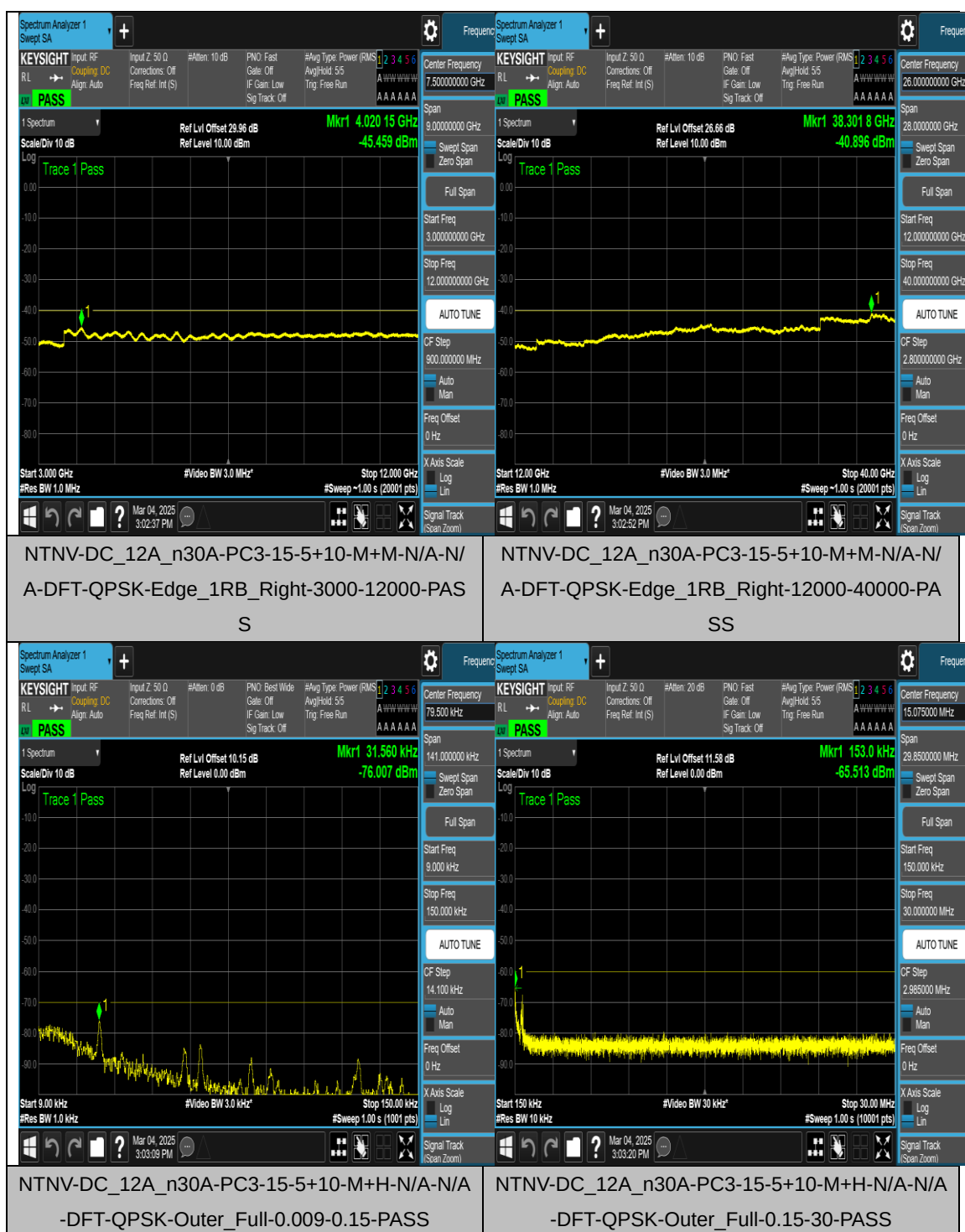
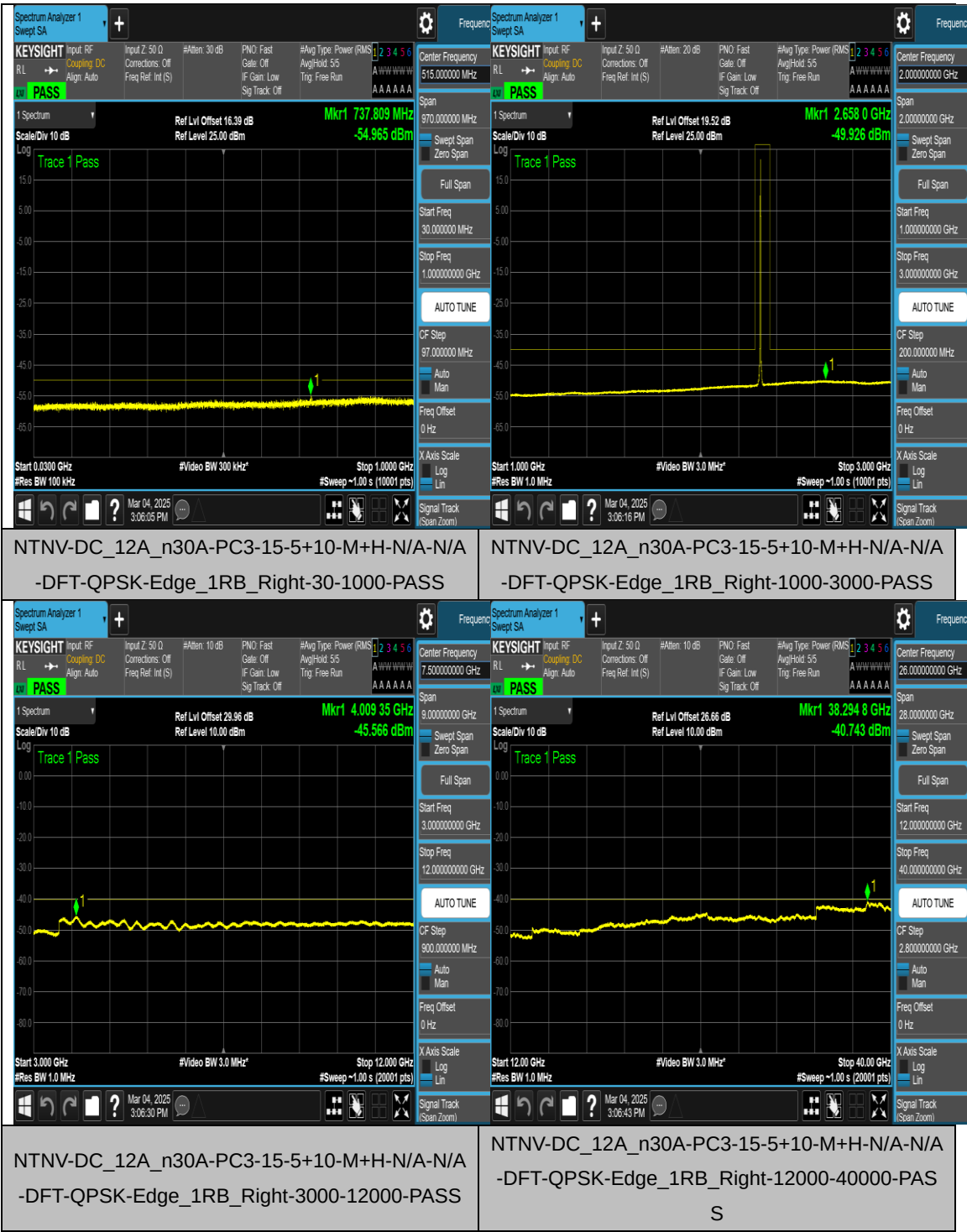












Appendix F: Frequency Stability for NSA

Test Result

Frequency Error VS. Voltage

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_12A_n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	VL	NT	-1.630000	-0.000706	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	VN	NT	-5.270000	-0.002284	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	VH	NT	-0.860000	-0.000373	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	VL	NT	-1.850000	-0.000802	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	VN	NT	-0.930000	-0.000403	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	VH	NT	-0.870000	-0.000377	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	VL	NT	-0.640000	-0.000277	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	VN	NT	2.110000	0.000913	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	VH	NT	0.240000	0.000104	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	VL	NT	-0.210000	-0.000091	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	VN	NT	0.080000	0.000035	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	VH	NT	-0.500000	-0.000216	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	VL	NT	2.140000	0.000925	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	VN	NT	-0.500000	-0.000216	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	VH	NT	1.770000	0.000765	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	VL	NT	2.810000	0.001215	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	VN	NT	0.080000	0.000035	PASS
DC_12A	15	5+5	DFT-16QAM	M+H	Outer_Full	VH	NT	-0.640000	-0.000277	PASS

_n30A										
DC_12A_n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	VL	NT	0.910000	0.000394	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	VN	NT	1.740000	0.000753	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	VH	NT	0.860000	0.000372	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	VL	NT	1.020000	0.000442	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	VN	NT	-0.880000	-0.000381	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	VH	NT	-0.760000	-0.000329	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	VL	NT	2.520000	0.001091	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	VN	NT	-2.310000	-0.001000	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	VH	NT	-1.470000	-0.000636	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	VL	NT	-1.300000	-0.000563	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	VN	NT	-0.920000	-0.000398	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	VH	NT	0.550000	0.000238	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	VL	NT	-0.100000	-0.000043	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	VN	NT	0.210000	0.000091	PASS
DC_12A_n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	VH	NT	2.460000	0.001065	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	VL	NT	0.450000	0.000195	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	VN	NT	0.140000	0.000061	PASS
DC_12A_n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	VH	NT	-0.630000	-0.000273	PASS

Frequency Error VS. Temperature

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_12A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	-30	-4.750000	-0.002059	PASS

_n30A										
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	-20	-1.840000	-0.000797	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	-10	0.350000	0.000152	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	0	-0.620000	-0.000269	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	10	-2.720000	-0.001179	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	20	-2.370000	-0.001027	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	30	-2.940000	-0.001274	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	40	-1.000000	-0.000433	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	50	-3.350000	-0.001452	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	-30	-2.220000	-0.000962	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	-20	-2.009999	-0.000871	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	-10	-0.860000	-0.000373	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	0	-1.360000	-0.000589	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	10	-2.160000	-0.000936	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	20	-2.190000	-0.000949	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	30	-4.010000	-0.001738	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	40	-0.530000	-0.000230	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	50	-1.090000	-0.000472	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	-30	-1.170000	-0.000506	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	-20	-1.000000	-0.000433	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	-10	1.620000	0.000701	PASS
DC_12A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	0	-0.720000	-0.000312	PASS

_n30A										
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	10	-0.810000	-0.000351	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	20	-1.170000	-0.000506	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	30	0.670000	0.000290	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	40	-0.660000	-0.000286	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	50	-1.170000	-0.000506	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	-30	1.080000	0.000468	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	-20	-0.870000	-0.000377	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	-10	0.010000	0.000004	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	0	-0.990000	-0.000429	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	10	-0.150000	-0.000065	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	20	-1.550000	-0.000671	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	30	1.580000	0.000684	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	40	-0.140000	-0.000061	PASS
DC_12A_n30A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	50	-2.360000	-0.001021	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	-30	0.800000	0.000346	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	-20	1.200000	0.000519	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	-10	3.070000	0.001328	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	0	2.140000	0.000925	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	10	0.940000	0.000406	PASS
DC_12A_n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	20	1.110000	0.000480	PASS
DC_12A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	30	1.190000	0.000515	PASS

_n30A										
DC_12A _n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	40	-1.150000	-0.000497	PASS
DC_12A _n30A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	50	1.780000	0.000770	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	-30	2.020000	0.000874	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	-20	-0.210000	-0.000091	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	-10	0.140000	0.000061	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	0	0.410000	0.000177	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	10	0.590000	0.000255	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	20	0.330000	0.000143	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	30	1.900000	0.000822	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	40	2.040000	0.000882	PASS
DC_12A _n30A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	50	1.260000	0.000545	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	-30	2.340000	0.001013	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	-20	1.360000	0.000589	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	-10	0.500000	0.000216	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	0	1.320000	0.000571	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	10	-0.020000	-0.000009	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	20	0.020000	0.000009	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	30	0.250000	0.000108	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	40	-3.330000	-0.001442	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	50	0.520000	0.000225	PASS
DC_12A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	-30	-0.090000	-0.000039	PASS

_n30A										
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	-20	-0.750000	-0.000325	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	-10	0.260000	0.000113	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	0	1.850000	0.000801	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	10	0.500000	0.000216	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	20	-2.450000	-0.001061	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	30	1.600000	0.000693	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	40	0.720000	0.000312	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	50	1.670000	0.000723	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	-30	0.750000	0.000325	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	-20	-0.370000	-0.000160	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	-10	0.810000	0.000351	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	0	0.920000	0.000398	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	10	0.250000	0.000108	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	20	-1.090000	-0.000472	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	30	0.290000	0.000126	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	40	-0.180000	-0.000078	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	50	1.220000	0.000528	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	-30	2.160000	0.000935	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	-20	-2.390000	-0.001035	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	-10	2.250000	0.000974	PASS
DC_12A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	0	-0.310000	-0.000134	PASS

_n30A										
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	10	0.350000	0.000152	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	20	-0.890000	-0.000385	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	30	-0.730000	-0.000316	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	40	-1.260000	-0.000545	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	50	0.320000	0.000139	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	-30	-0.570000	-0.000247	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	-20	0.650000	0.000281	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	-10	1.140000	0.000494	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	0	-0.060000	-0.000026	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	10	-0.780000	-0.000338	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	20	-2.680000	-0.001160	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	30	-0.410000	-0.000177	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	40	-0.800000	-0.000346	PASS
DC_12A _n30A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	50	-1.260000	-0.000545	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	-30	-1.410000	-0.000610	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	-20	-0.340000	-0.000147	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	-10	-0.860000	-0.000372	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	0	-0.640000	-0.000277	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	10	0.870000	0.000377	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	20	-0.780000	-0.000338	PASS
DC_12A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	30	-2.360000	-0.001021	PASS

_n30A										
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	40	-1.250000	-0.000541	PASS
DC_12A _n30A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	50	0.550000	0.000238	PASS