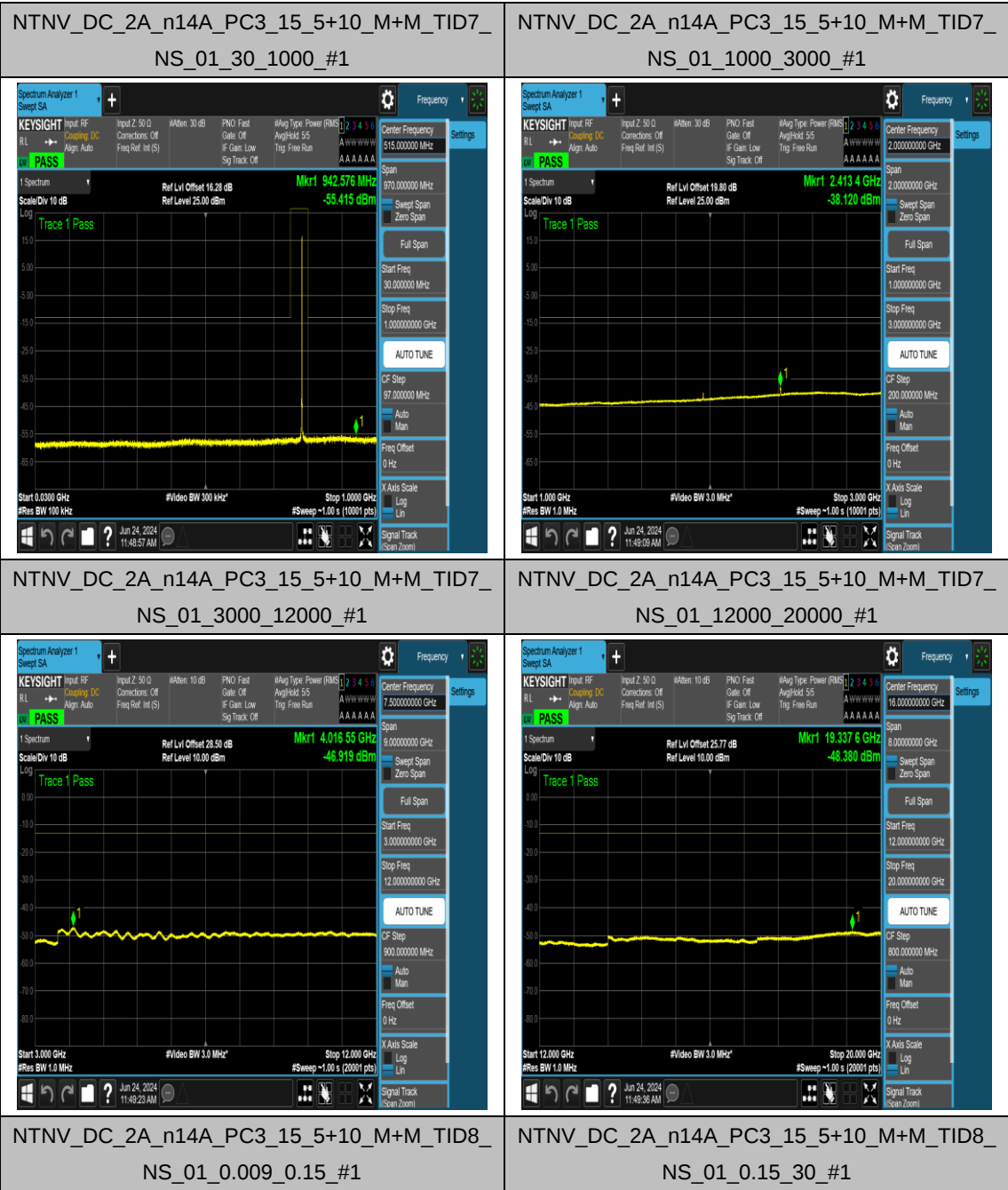
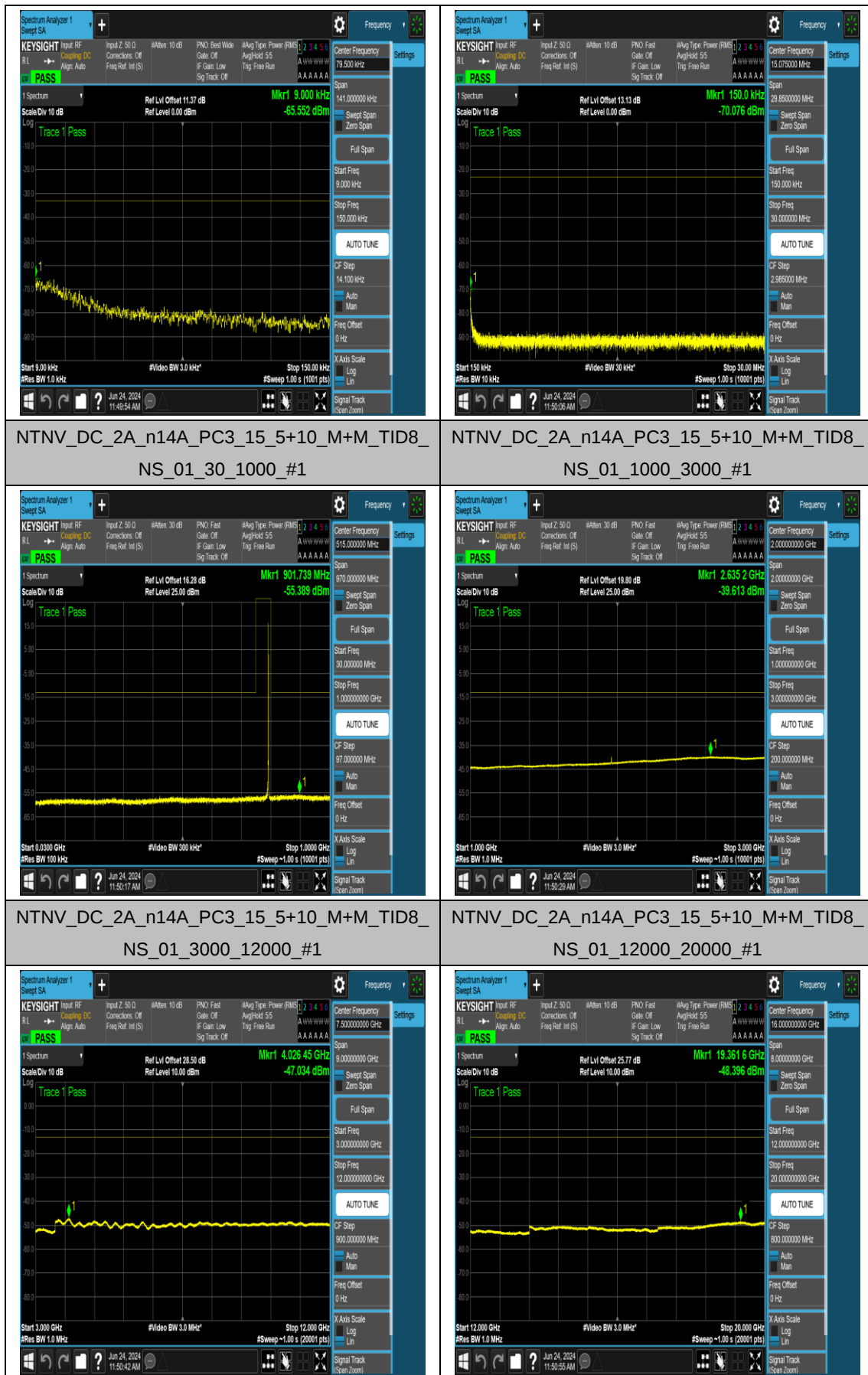
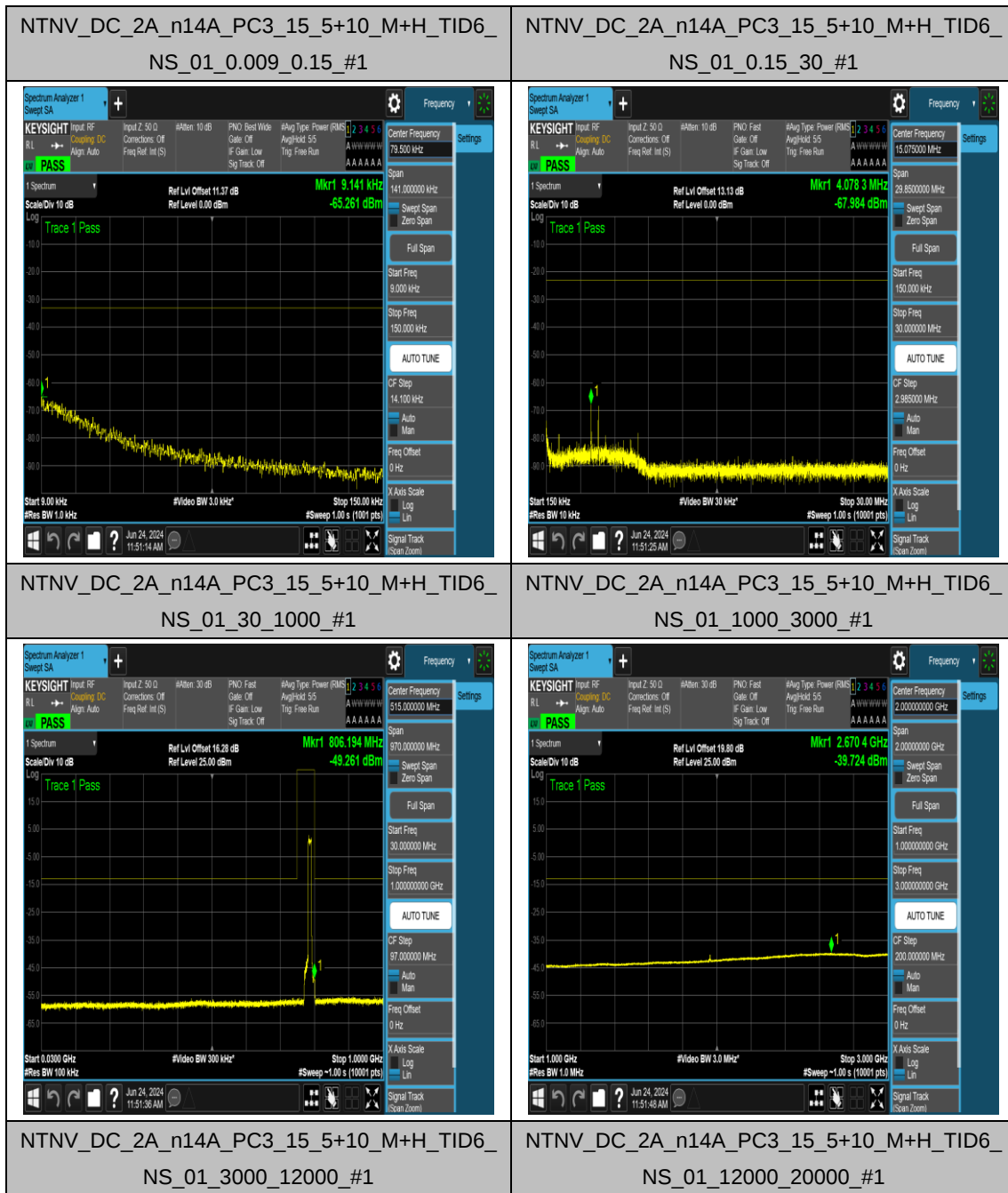
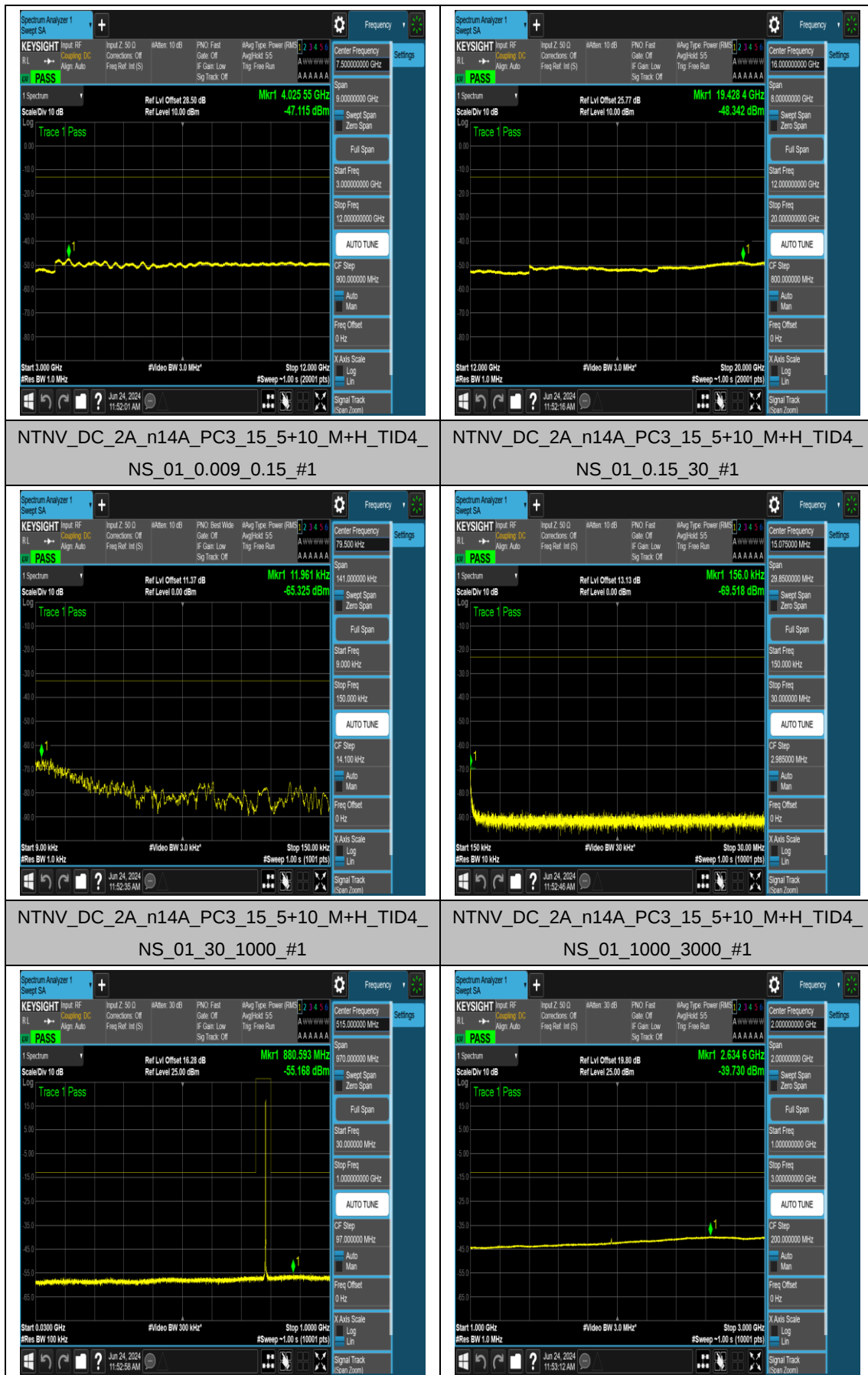
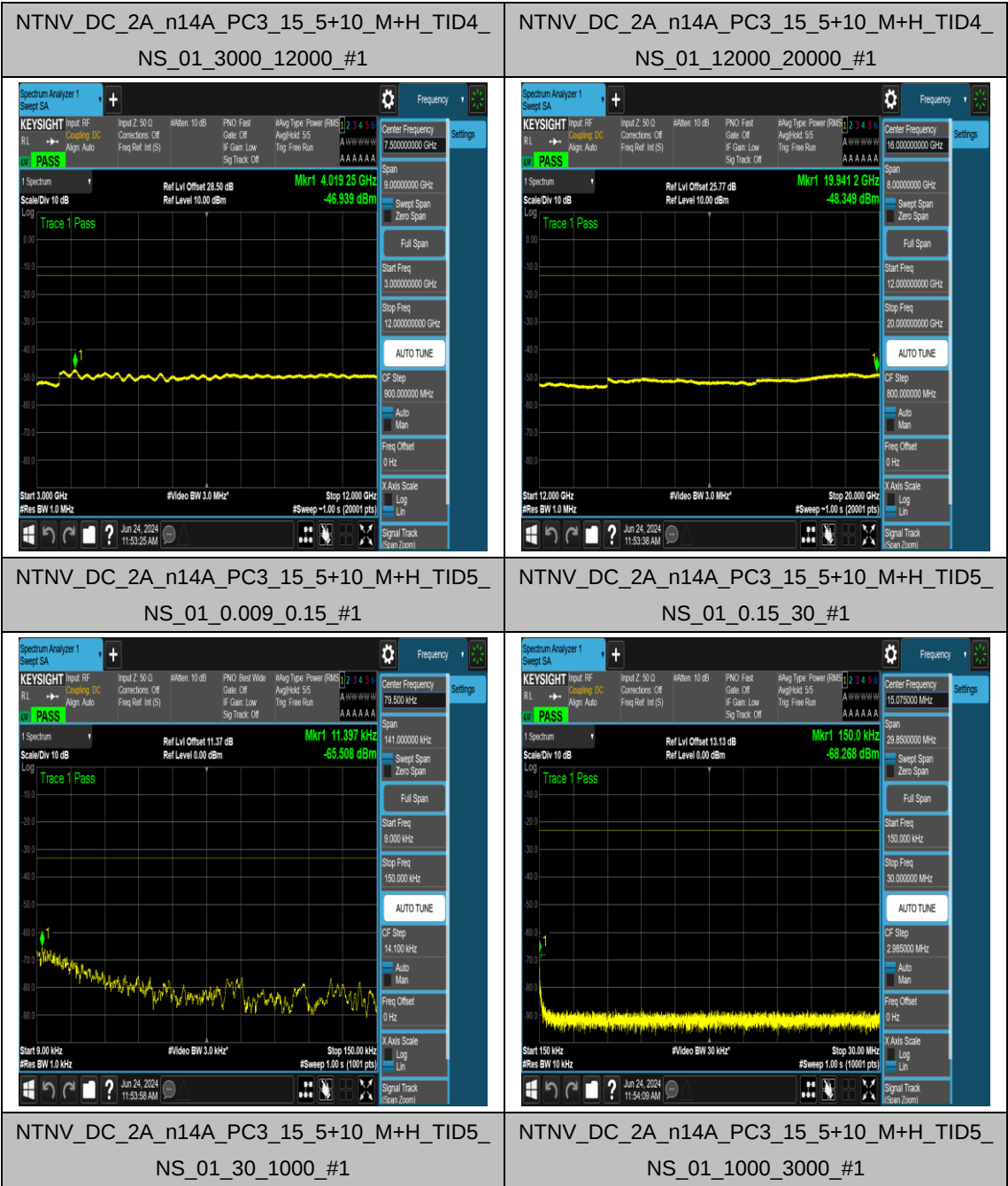


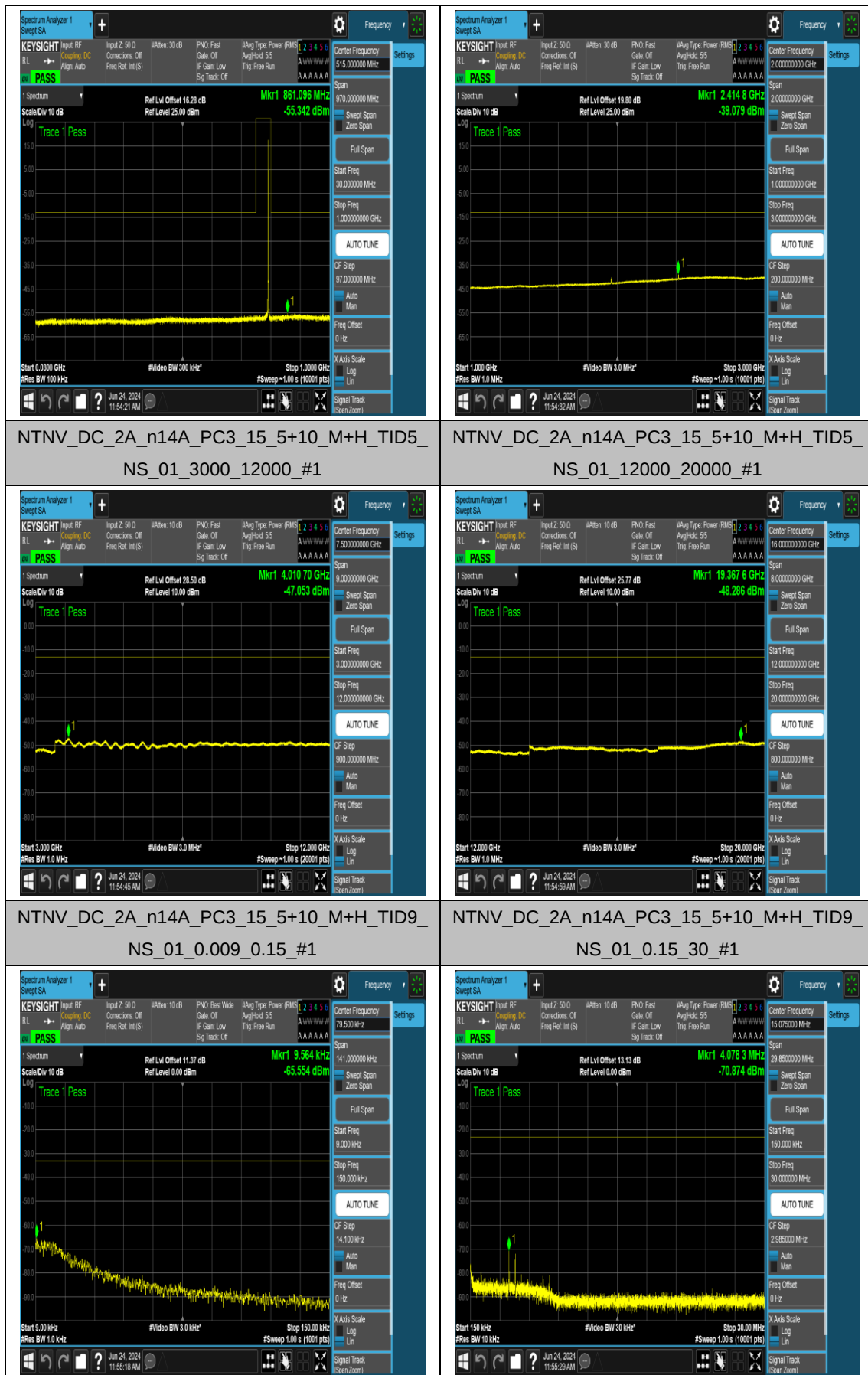


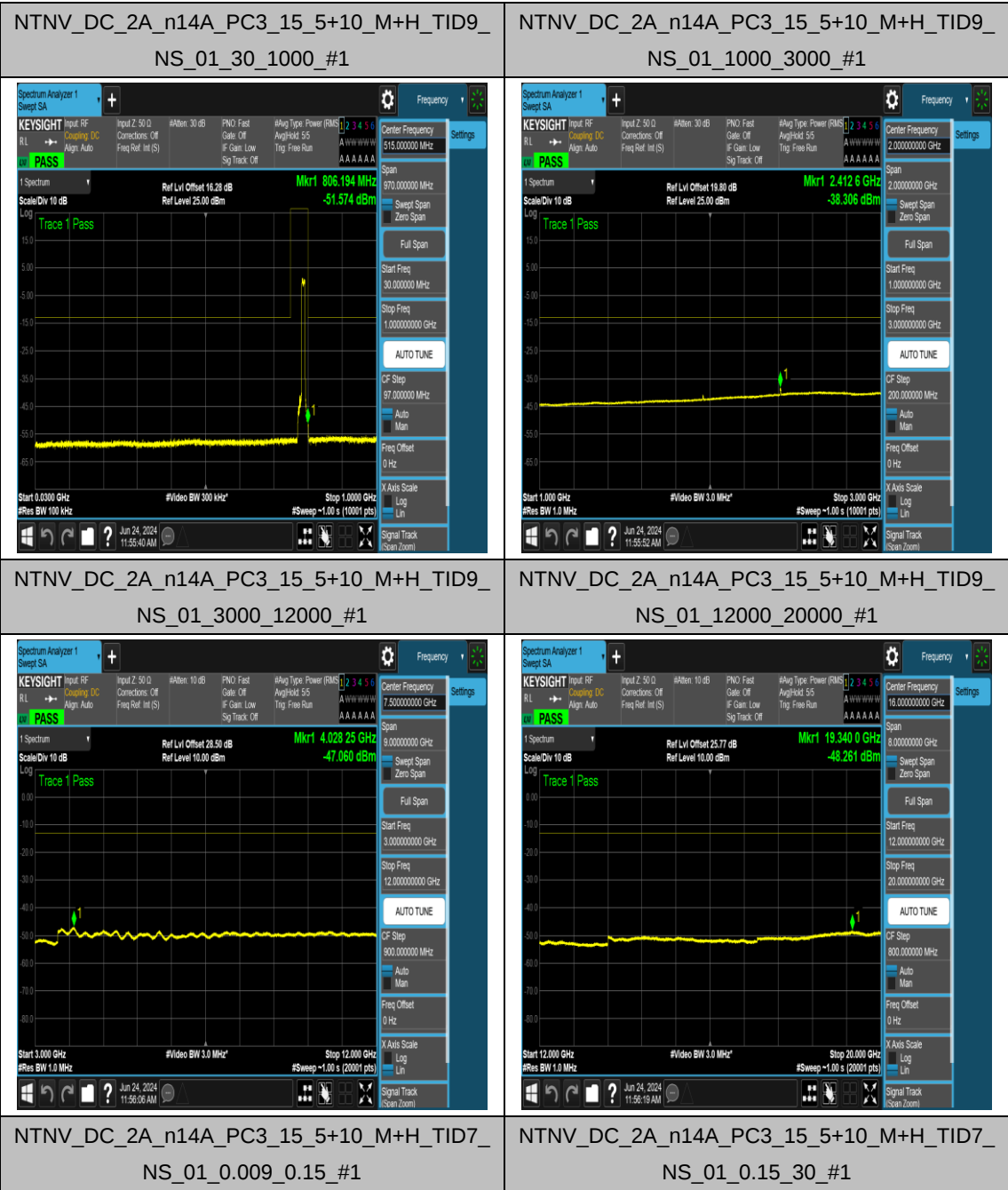


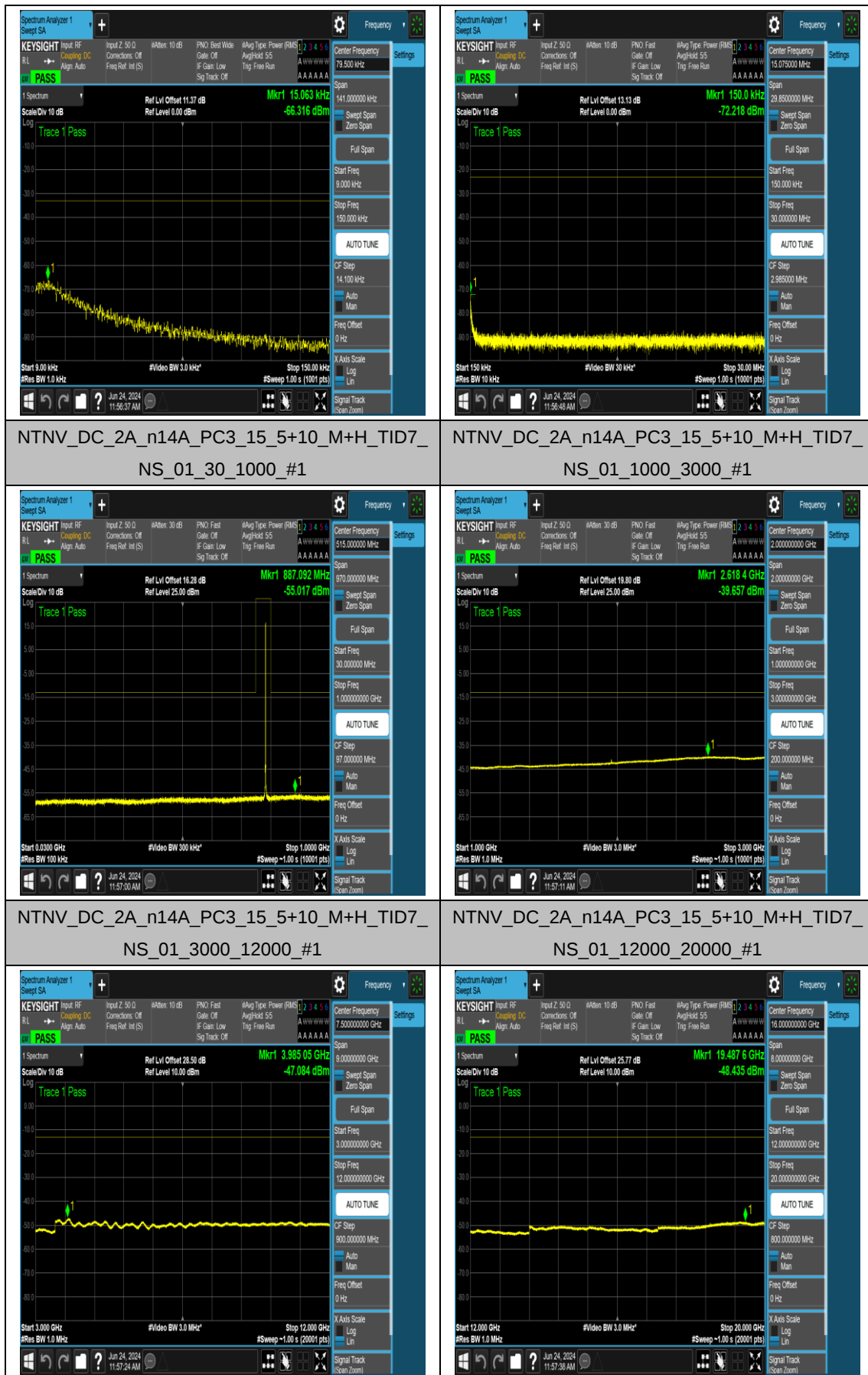


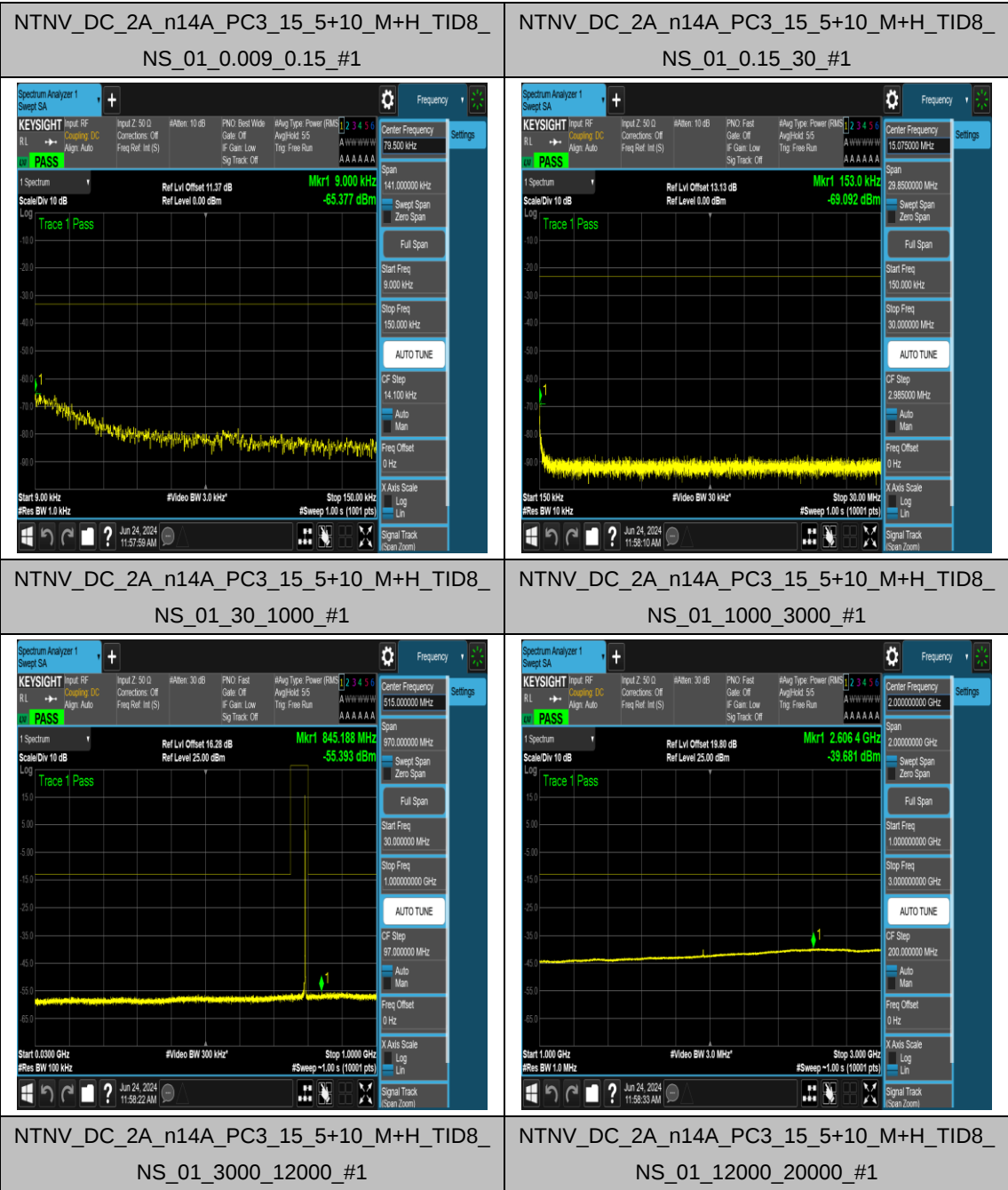














Appendix F: Frequency Stability for NSA

Test Result

Frequency Error VS. Voltage

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	VL	NT	6.000000	0.007590	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	VN	NT	3.000000	0.003795	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	VH	NT	8.000000	0.010120	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	VL	NT	5.000000	0.006325	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	VN	NT	3.000000	0.003795	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	VH	NT	12.000000	0.015180	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	VL	NT	18.000000	0.022699	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	VN	NT	12.000000	0.015132	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	VH	NT	14.000000	0.017654	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	VL	NT	12.000000	0.015132	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	VN	NT	17.000000	0.021438	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	VH	NT	16.000000	0.020177	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	VL	NT	12.000000	0.015085	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	VN	NT	5.000000	0.006285	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	VH	NT	4.000000	0.005028	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	VL	NT	5.000000	0.006285	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	VN	NT	10.000000	0.012571	PASS

DC_2A_n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	VH	NT	9.000000	0.011314	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	VL	NT	13.000000	0.016393	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	VN	NT	5.000000	0.006305	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	VH	NT	4.000000	0.005044	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	VL	NT	17.000000	0.021438	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	VN	NT	7.000000	0.008827	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	VH	NT	9.000000	0.011349	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	VL	NT	17.000000	0.021438	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	VN	NT	19.000000	0.023960	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	VH	NT	1.000000	0.001261	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	VL	NT	16.000000	0.020177	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	VN	NT	14.000000	0.017654	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	VH	NT	1.000000	0.001261	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	VL	NT	5.000000	0.006305	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	VN	NT	14.000000	0.017654	PASS
DC_2A_n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	VH	NT	5.000000	0.006305	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	VL	NT	19.000000	0.023960	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	VN	NT	9.000000	0.011349	PASS
DC_2A_n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	VH	NT	12.000000	0.015132	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	-30	15.000000	0.018975	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	-20	6.000000	0.007590	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	-10	11.000000	0.013915	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	0	3.000000	0.003795	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	10	13.000000	0.016445	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	20	11.000000	0.013915	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	30	15.000000	0.018975	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	40	9.000000	0.011385	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+L	Outer_Full	NV	50	16.000000	0.020240	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	-30	12.000000	0.015180	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	-20	5.000000	0.006325	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	-10	4.000000	0.005060	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	0	17.000000	0.021505	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	10	15.000000	0.018975	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	20	19.000000	0.024035	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	30	16.000000	0.020240	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	40	9.000000	0.011385	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+L	Outer_Full	NV	50	1.000000	0.001265	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	-30	2.000000	0.002522	PASS

n14A										
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	-20	8.000000	0.010088	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	-10	3.000000	0.003783	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	0	12.000000	0.015132	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	10	18.000000	0.022699	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	20	13.000000	0.016393	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	30	7.000000	0.008827	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	40	14.000000	0.017654	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+M	Outer_Full	NV	50	3.000000	0.003783	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	-30	7.000000	0.008827	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	-20	14.000000	0.017654	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	-10	11.000000	0.013871	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	0	13.000000	0.016393	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	10	1.000000	0.001261	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	20	15.000000	0.018916	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	30	9.000000	0.011349	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	40	4.000000	0.005044	PASS
DC_2A_n14A	15	5+5	DFT-16QAM	M+M	Outer_Full	NV	50	13.000000	0.016393	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	-30	7.000000	0.008799	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	-20	2.000000	0.002514	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	-10	9.000000	0.011314	PASS
DC_2A_n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	0	3.000000	0.003771	PASS

n14A										
DC_2A_ n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	10	14.000000	0.017599	PASS
DC_2A_ n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	20	8.000000	0.010057	PASS
DC_2A_ n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	30	12.000000	0.015085	PASS
DC_2A_ n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	40	10.000000	0.012571	PASS
DC_2A_ n14A	15	5+5	DFT-QPSK	M+H	Outer_Full	NV	50	16.000000	0.020113	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	-30	8.000000	0.010057	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	-20	6.000000	0.007542	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	-10	1.000000	0.001257	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	0	11.000000	0.013828	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	10	13.000000	0.016341	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	20	7.000000	0.008799	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	30	10.000000	0.012571	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	40	12.000000	0.015085	PASS
DC_2A_ n14A	15	5+5	DFT-16QAM	M+H	Outer_Full	NV	50	13.000000	0.016341	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	-30	14.000000	0.017654	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	-20	13.000000	0.016393	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	-10	15.000000	0.018916	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	0	5.000000	0.006305	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	10	15.000000	0.018916	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	20	17.000000	0.021438	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	30	11.000000	0.013871	PASS

n14A										
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	40	15.000000	0.018916	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+L	Outer_Full	NV	50	16.000000	0.020177	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	-30	11.000000	0.013871	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	-20	6.000000	0.007566	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	-10	13.000000	0.016393	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	0	4.000000	0.005044	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	10	2.000000	0.002522	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	20	12.000000	0.015132	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	30	17.000000	0.021438	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	40	5.000000	0.006305	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+L	Outer_Full	NV	50	2.000000	0.002522	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	-30	19.000000	0.023960	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	-20	14.000000	0.017654	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	-10	17.000000	0.021438	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	0	15.000000	0.018916	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	10	19.000000	0.023960	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	20	17.000000	0.021438	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	30	18.000000	0.022699	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	40	10.000000	0.012610	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+M	Outer_Full	NV	50	1.000000	0.001261	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	-30	7.000000	0.008827	PASS

n14A										
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	-20	11.000000	0.013871	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	-10	5.000000	0.006305	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	0	19.000000	0.023960	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	10	13.000000	0.016393	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	20	1.000000	0.001261	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	30	8.000000	0.010088	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	40	15.000000	0.018916	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+M	Outer_Full	NV	50	9.000000	0.011349	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	-30	14.000000	0.017654	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	-20	2.000000	0.002522	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	-10	15.000000	0.018916	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	0	7.000000	0.008827	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	10	1.000000	0.001261	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	20	5.000000	0.006305	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	30	18.000000	0.022699	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	40	5.000000	0.006305	PASS
DC_2A_ n14A	15	5+10	DFT-QPSK	M+H	Outer_Full	NV	50	11.000000	0.013871	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	-30	11.000000	0.013871	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	-20	5.000000	0.006305	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	-10	12.000000	0.015132	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	0	7.000000	0.008827	PASS

n14A										
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	10	1.000000	0.001261	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	20	5.000000	0.006305	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	30	3.000000	0.003783	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	40	6.000000	0.007566	PASS
DC_2A_ n14A	15	5+10	DFT-16QAM	M+H	Outer_Full	NV	50	1.000000	0.001261	PASS