













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
N12	15	5	CP-QPSK	L	Outer_Full	VL	NT	-42.65	-0.06	PASS
N12	15	5	CP-QPSK	L	Outer_Full	VN	NT	0.19	0.00	PASS
N12	15	5	CP-QPSK	L	Outer_Full	VH	NT	1.89	0.00	PASS
N12	15	5	CP-16QAM	L	Outer_Full	VL	NT	0.98	0.00	PASS
N12	15	5	CP-16QAM	L	Outer_Full	VN	NT	42.58	0.06	PASS
N12	15	5	CP-16QAM	L	Outer_Full	VH	NT	-6.76	-0.01	PASS
N12	15	5	CP-QPSK	M	Outer_Full	VL	NT	-19.26	-0.03	PASS
N12	15	5	CP-QPSK	M	Outer_Full	VN	NT	-99.12	-0.14	PASS
N12	15	5	CP-QPSK	M	Outer_Full	VH	NT	-4.72	-0.01	PASS
N12	15	5	CP-16QAM	M	Outer_Full	VL	NT	-6.71	-0.01	PASS
N12	15	5	CP-16QAM	M	Outer_Full	VN	NT	-0.74	0.00	PASS
N12	15	5	CP-16QAM	M	Outer_Full	VH	NT	-3.95	-0.01	PASS
N12	15	5	CP-QPSK	H	Outer_Full	VL	NT	-3.22	0.00	PASS
N12	15	5	CP-QPSK	H	Outer_Full	VN	NT	-82.28	-0.12	PASS
N12	15	5	CP-QPSK	H	Outer_Full	VH	NT	-1.07	0.00	PASS
N12	15	5	CP-16QAM	H	Outer_Full	VL	NT	-41.11	-0.06	PASS
N12	15	5	CP-16QAM	H	Outer_Full	VN	NT	-115.23	-0.16	PASS
N12	15	5	CP-16QAM	H	Outer_Full	VH	NT	65.75	0.09	PASS
N12	15	10	CP-QPSK	L	Outer_Full	VL	NT	-39.30	-0.06	PASS
N12	15	10	CP-QPSK	L	Outer_Full	VN	NT	1.91	0.00	PASS
N12	15	10	CP-QPSK	L	Outer_Full	VH	NT	6.01	0.01	PASS
N12	15	10	CP-16QAM	L	Outer_Full	VL	NT	49.83	0.07	PASS
N12	15	10	CP-16QAM	L	Outer_Full	VN	NT	4.69	0.01	PASS
N12	15	10	CP-16QAM	L	Outer_Full	VH	NT	4.95	0.01	PASS
N12	15	10	CP-QPSK	M	Outer_Full	VL	NT	6.79	0.01	PASS
N12	15	10	CP-QPSK	M	Outer_Full	VN	NT	-86.18	-0.12	PASS
N12	15	10	CP-QPSK	M	Outer_Full	VH	NT	65.38	0.09	PASS
N12	15	10	CP-16QAM	M	Outer_Full	VL	NT	-74.62	-0.11	PASS
N12	15	10	CP-16QAM	M	Outer_Full	VN	NT	-0.52	0.00	PASS
N12	15	10	CP-16QAM	M	Outer_Full	VH	NT	-97.93	-0.14	PASS
N12	15	10	CP-QPSK	H	Outer_Full	VL	NT	-5.90	-0.01	PASS
N12	15	10	CP-QPSK	H	Outer_Full	VN	NT	-14.98	-0.02	PASS

N12	15	10	CP-QPSK	H	Outer_Full	VH	NT	2.91	0.00	PASS
N12	15	10	CP-16QAM	H	Outer_Full	VL	NT	27.94	0.04	PASS
N12	15	10	CP-16QAM	H	Outer_Full	VN	NT	-131.35	-0.18	PASS
N12	15	10	CP-16QAM	H	Outer_Full	VH	NT	7.73	0.01	PASS
N12	15	15	CP-QPSK	L	Outer_Full	VL	NT	-0.24	0.00	PASS
N12	15	15	CP-QPSK	L	Outer_Full	VN	NT	65.67	0.09	PASS
N12	15	15	CP-QPSK	L	Outer_Full	VH	NT	34.46	0.05	PASS
N12	15	15	CP-16QAM	L	Outer_Full	VL	NT	0.43	0.00	PASS
N12	15	15	CP-16QAM	L	Outer_Full	VN	NT	-2.15	0.00	PASS
N12	15	15	CP-16QAM	L	Outer_Full	VH	NT	-4.87	-0.01	PASS
N12	15	15	CP-QPSK	M	Outer_Full	VL	NT	-51.55	-0.07	PASS
N12	15	15	CP-QPSK	M	Outer_Full	VN	NT	-0.42	0.00	PASS
N12	15	15	CP-QPSK	M	Outer_Full	VH	NT	-1.52	0.00	PASS
N12	15	15	CP-16QAM	M	Outer_Full	VL	NT	-12.33	-0.02	PASS
N12	15	15	CP-16QAM	M	Outer_Full	VN	NT	3.07	0.00	PASS
N12	15	15	CP-16QAM	M	Outer_Full	VH	NT	-112.62	-0.16	PASS
N12	15	15	CP-QPSK	H	Outer_Full	VL	NT	-48.56	-0.07	PASS
N12	15	15	CP-QPSK	H	Outer_Full	VN	NT	-116.08	-0.16	PASS
N12	15	15	CP-QPSK	H	Outer_Full	VH	NT	-19.48	-0.03	PASS
N12	15	15	CP-16QAM	H	Outer_Full	VL	NT	3.14	0.00	PASS
N12	15	15	CP-16QAM	H	Outer_Full	VN	NT	0.31	0.00	PASS
N12	15	15	CP-16QAM	H	Outer_Full	VH	NT	48.06	0.07	PASS

Frequency Error VS. Temperature

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage	Temperature	Deviation(Hz)	Deviation (ppm)	Verdict
N12	15	5	CP-QPSK	L	Outer_Full	NV	-30	-6.026510	-0.008591	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	-20	28.977827	0.041308	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	-10	62.495304	0.089088	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	0	-7.010953	-0.009994	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	10	-3.837915	-0.005471	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	20	90.864693	0.129529	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	30	114.804276	0.163655	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	40	-59.176014	-0.084356	PASS
N12	15	5	CP-QPSK	L	Outer_Full	NV	50	-4.487644	-0.006397	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	-30	-5.602065	-0.007986	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	-20	-4.975848	-0.007093	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	-10	-3.984246	-0.005680	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	0	-3.558448	-0.005073	PASS

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N12	15	5	CP-16QAM	L	Outer_Full	NV	10	-3.258562	-0.004645	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	20	-3.231138	-0.004606	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	30	-3.162143	-0.004508	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	40	-3.561764	-0.005077	PASS
N12	15	5	CP-16QAM	L	Outer_Full	NV	50	-4.117335	-0.005869	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	-30	-1.525071	-0.002156	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	-20	2.715292	0.003838	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	-10	-1.612709	-0.002279	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	0	-5.815924	-0.008220	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	10	92.642670	0.130944	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	20	-84.966103	-0.120093	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	30	1.775179	0.002509	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	40	-1.244074	-0.001758	PASS
N12	15	5	CP-QPSK	M	Outer_Full	NV	50	4.176121	0.005903	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	-30	-7.600935	-0.010743	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	-20	-6.745631	-0.009534	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	-10	20.399336	0.028833	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	0	34.477699	0.048732	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	10	86.782173	0.122660	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	20	-6.247221	-0.008830	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	30	-82.831795	-0.117077	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	40	114.060165	0.161216	PASS
N12	15	5	CP-16QAM	M	Outer_Full	NV	50	-6.074467	-0.008586	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	-30	-56.706963	-0.079477	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	-20	-1.420521	-0.001991	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	-10	1.341210	0.001880	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	0	-35.169762	-0.049292	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	10	-52.875675	-0.074107	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	20	90.132736	0.126325	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	30	-100.996849	-0.141551	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	40	-13.337012	-0.018692	PASS
N12	15	5	CP-QPSK	H	Outer_Full	NV	50	2.094898	0.002936	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	-30	-4.469263	-0.006264	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	-20	-24.204607	-0.033924	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	-10	1.641996	0.002301	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	0	4.442924	0.006227	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	10	-1.828105	-0.002562	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	20	0.771253	0.001081	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	30	57.069523	0.079985	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	40	-2.232328	-0.003129	PASS
N12	15	5	CP-16QAM	H	Outer_Full	NV	50	10.797177	0.015133	PASS

N12	15	10	CP-QPSK	L	Outer_Full	NV	-30	-2.838352	-0.004032	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	-20	-0.537651	-0.000764	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	-10	-3.880794	-0.005512	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	0	6.479506	0.009204	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	10	5.264766	0.007478	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	20	4.778411	0.006788	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	30	-49.773926	-0.070702	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	40	3.959583	0.005624	PASS
N12	15	10	CP-QPSK	L	Outer_Full	NV	50	4.076766	0.005791	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	-30	27.494469	0.039055	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	-20	-4.431225	-0.006294	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	-10	7.037135	0.009996	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	0	-2.611972	-0.003710	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	10	-2.097185	-0.002979	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	20	-56.437473	-0.080167	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	30	-29.897642	-0.042468	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	40	38.199368	0.054260	PASS
N12	15	10	CP-16QAM	L	Outer_Full	NV	50	-6.843017	-0.009720	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	-30	-2.296064	-0.003245	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	-20	-6.082139	-0.008597	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	-10	-0.057744	-0.000082	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	0	96.551834	0.136469	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	10	8.601192	0.012157	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	20	-13.147349	-0.018583	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	30	2.920568	0.004128	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	40	1.930732	0.002729	PASS
N12	15	10	CP-QPSK	M	Outer_Full	NV	50	-58.290733	-0.082390	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	-30	32.622440	0.046109	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	-20	142.565079	0.201505	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	-10	-21.825607	-0.030849	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	0	-1.152571	-0.001629	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	10	-1.181174	-0.001670	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	20	-1.226808	-0.001734	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	30	-0.749827	-0.001060	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	40	-0.703781	-0.000995	PASS
N12	15	10	CP-16QAM	M	Outer_Full	NV	50	-0.234452	-0.000331	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	-30	-3.119399	-0.004387	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	-20	18.558125	0.026101	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	-10	-3.150142	-0.004431	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	0	-6.084927	-0.008558	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	10	-106.356949	-0.149588	PASS

N12	15	10	CP-QPSK	H	Outer_Full	NV	20	-2.104359	-0.002960	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	30	-62.966770	-0.088561	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	40	-6.535489	-0.009192	PASS
N12	15	10	CP-QPSK	H	Outer_Full	NV	50	88.435150	0.124381	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	-30	-4.529916	-0.006371	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	-20	75.501038	0.106190	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	-10	-9.163554	-0.012888	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	0	-50.132038	-0.070509	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	10	1.478875	0.002080	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	20	-8.108979	-0.011405	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	30	7.037975	0.009899	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	40	-0.607172	-0.000854	PASS
N12	15	10	CP-16QAM	H	Outer_Full	NV	50	-71.184837	-0.100119	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	-30	14.385185	0.020361	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	-20	-8.048702	-0.011392	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	-10	-2.951739	-0.004178	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	0	-53.215561	-0.075323	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	10	-2.302350	-0.003259	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	20	-72.583969	-0.102737	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	30	-129.992783	-0.183995	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	40	-41.740875	-0.059081	PASS
N12	15	15	CP-QPSK	L	Outer_Full	NV	50	-54.612858	-0.077301	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	-30	-7.578648	-0.010727	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	-20	17.379539	0.024599	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	-10	-0.888519	-0.001258	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	0	-38.093567	-0.053919	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	10	-4.257321	-0.006026	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	20	-77.480553	-0.109668	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	30	-42.373314	-0.059976	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	40	-10.225125	-0.014473	PASS
N12	15	15	CP-16QAM	L	Outer_Full	NV	50	-121.281761	-0.171666	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	-30	-32.333691	-0.045701	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	-20	-0.000615	-0.000001	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	-10	-117.743500	-0.166422	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	0	1.155112	0.001633	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	10	122.280739	0.172835	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	20	2.053611	0.002903	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	30	-1.319026	-0.001864	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	40	-17.393826	-0.024585	PASS
N12	15	15	CP-QPSK	M	Outer_Full	NV	50	-61.611366	-0.087083	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	-30	0.604522	0.000854	PASS

N12	15	15	CP-16QAM	M	Outer_Full	NV	-20	26.545076	0.037520	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	-10	-3.280621	-0.004637	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	0	-31.798691	-0.044945	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	10	2.650522	0.003746	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	20	87.734146	0.124006	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	30	22.031607	0.031140	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	40	-1.320253	-0.001866	PASS
N12	15	15	CP-16QAM	M	Outer_Full	NV	50	-3.106621	-0.004391	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	-30	-34.740936	-0.049034	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	-20	11.261967	0.015896	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	-10	2.912125	0.004110	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	0	-0.405813	-0.000573	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	10	29.578260	0.041748	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	20	37.595486	0.053063	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	30	3.881439	0.005478	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	40	56.856812	0.080250	PASS
N12	15	15	CP-QPSK	H	Outer_Full	NV	50	-14.938851	-0.021085	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	-30	-86.726021	-0.122408	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	-20	48.540798	0.068512	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	-10	-107.085060	-0.151143	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	0	-49.215466	-0.069464	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	10	5.686700	0.008026	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	20	4.020234	0.005674	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	30	53.973053	0.076179	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	40	0.921023	0.001300	PASS
N12	15	15	CP-16QAM	H	Outer_Full	NV	50	8.535899	0.012048	PASS