

6. Appendix F: Frequency Stability

Test Result

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage		Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
					Voltage [Vdc]	Temperature (°C)				
Band38	5MHz	QPSK	37775	25RB#0	VN	NT	25.94	0.010084	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	VL	NT	25.29	0.009831	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	VH	NT	18.67	0.007258	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	VN	NT	25.35	0.009854	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	VL	NT	18.14	0.007052	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	VH	NT	23.80	0.009252	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	VN	NT	-14.42	-0.005557	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	VL	NT	16.48	0.006351	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	VH	NT	18.18	0.007006	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	VN	NT	9.00	0.003468	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	VL	NT	15.12	0.005827	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	VH	NT	8.14	0.003137	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	VN	NT	28.77	0.010991	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	VL	NT	18.75	0.007163	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	VH	NT	23.25	0.008883	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	VN	NT	13.69	0.005230	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	VL	NT	13.63	0.005207	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	VH	NT	8.94	0.003415	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	VN	NT	-13.03	-0.005060	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	VL	NT	13.93	0.005410	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	VH	NT	19.88	0.007720	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	VN	NT	-28.94	-0.011152	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	VL	NT	-23.93	-0.009222	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	VH	NT	-18.70	-0.007206	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	VN	NT	-22.99	-0.008792	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	VL	NT	-28.18	-0.010776	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	VH	NT	-15.09	-0.005771	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	VN	NT	-29.20	-0.011329	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	VL	NT	-14.39	-0.005583	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	VH	NT	-7.58	-0.002941	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	VN	NT	-29.28	-0.011283	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	VL	NT	-23.26	-0.008963	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	VH	NT	-24.42	-0.009410	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	VN	NT	-35.58	-0.013619	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	VL	NT	-20.56	-0.007870	±2.5	PASS

Band38	15MHz	QPSK	38175	75RB#0	VH	NT	-16.41	-0.006281	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VN	NT	-23.70	-0.009186	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VL	NT	-17.41	-0.006748	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	VH	NT	-6.98	-0.002705	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VN	NT	23.13	0.008913	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VL	NT	-25.89	-0.009977	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	VH	NT	-25.58	-0.009857	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VN	NT	16.28	0.006238	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VL	NT	-24.36	-0.009333	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	VH	NT	-30.21	-0.011575	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	NV	-30	23.57	0.009162	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	-20	19.43	0.007553	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	-10	16.67	0.006480	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	0	17.61	0.006845	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	10	21.57	0.008385	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	20	21.30	0.008280	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	30	18.32	0.007121	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	40	18.85	0.007328	±2.5	PASS
Band38	5MHz	QPSK	37775	25RB#0	NV	50	22.00	0.008552	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	-30	28.14	0.010939	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	-20	21.41	0.008323	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	-10	25.62	0.009959	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	0	17.98	0.006989	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	10	24.49	0.009520	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	20	23.36	0.009081	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	30	21.06	0.008187	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	40	18.28	0.007106	±2.5	PASS
Band38	5MHz	16QAM	37775	25RB#0	NV	50	18.81	0.007312	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	-30	10.50	0.004046	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	-20	21.03	0.008104	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	-10	17.50	0.006744	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	0	15.96	0.006150	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	10	23.15	0.008921	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	20	12.69	0.004890	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	30	17.35	0.006686	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	40	13.22	0.005094	±2.5	PASS
Band38	5MHz	QPSK	38000	25RB#0	NV	50	19.70	0.007592	±2.5	PASS

Band38	5MHz	16QAM	38000	25RB#0	NV	-30	-5.46	-0.002104	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	-20	11.03	0.004250	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	-10	9.97	0.003842	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	0	23.30	0.008979	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	10	18.07	0.006963	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	20	25.65	0.009884	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	30	15.95	0.006146	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	40	18.34	0.007067	±2.5	PASS
Band38	5MHz	16QAM	38000	25RB#0	NV	50	20.77	0.008004	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	-30	21.20	0.008099	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	-20	19.87	0.007591	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	-10	17.27	0.006598	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	0	17.31	0.006613	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	10	14.65	0.005597	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	20	14.79	0.005650	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	30	22.02	0.008413	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	40	10.56	0.004034	±2.5	PASS
Band38	5MHz	QPSK	38225	25RB#0	NV	50	11.49	0.004390	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	-30	-6.75	-0.002579	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	-20	-11.96	-0.004569	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	-10	-13.09	-0.005001	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	0	-24.15	-0.009226	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	10	-12.76	-0.004875	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	20	-23.89	-0.009127	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	30	-17.64	-0.006739	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	40	-12.37	-0.004726	±2.5	PASS
Band38	5MHz	16QAM	38225	25RB#0	NV	50	-16.04	-0.006128	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	-30	19.05	0.007398	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	-20	19.28	0.007487	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	-10	19.31	0.007499	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	0	17.80	0.006913	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	10	18.95	0.007359	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	20	8.91	0.003460	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	30	10.33	0.004012	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	40	13.65	0.005301	±2.5	PASS
Band38	10MHz	QPSK	37800	50RB#0	NV	50	8.81	0.003421	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	-30	-15.88	-0.006119	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	-20	-16.67	-0.006424	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	-10	-18.85	-0.007264	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	0	-18.40	-0.007091	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	10	-14.72	-0.005672	±2.5	PASS

Band38	10MHz	QPSK	38000	50RB#0	NV	20	-18.47	-0.007118	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	30	-14.68	-0.005657	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	40	-12.89	-0.004967	±2.5	PASS
Band38	10MHz	QPSK	38000	50RB#0	NV	50	-16.22	-0.006250	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	-30	-9.23	-0.003530	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	-20	-15.35	-0.005870	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	-10	-12.09	-0.004623	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	0	-7.05	-0.002696	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	10	7.27	0.002780	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	20	-8.27	-0.003163	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	30	-5.85	-0.002237	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	40	7.60	0.002906	±2.5	PASS
Band38	10MHz	QPSK	38200	50RB#0	NV	50	-4.78	-0.001828	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	-30	8.90	0.003453	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	-20	17.91	0.006949	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	-10	17.17	0.006661	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	0	21.47	0.008330	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	10	18.84	0.007309	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	20	15.88	0.006161	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	30	11.34	0.004400	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	40	14.43	0.005598	±2.5	PASS
Band38	15MHz	QPSK	37825	75RB#0	NV	50	9.73	0.003775	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	-30	-28.24	-0.010882	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	-20	-14.72	-0.005672	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	-10	-13.39	-0.005160	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	0	-10.16	-0.003915	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	10	-16.78	-0.006466	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	20	-12.26	-0.004724	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	30	-11.66	-0.004493	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	40	-9.66	-0.003723	±2.5	PASS
Band38	15MHz	QPSK	38000	75RB#0	NV	50	-6.71	-0.002586	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	-30	-8.98	-0.003437	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	-20	8.74	0.003345	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	-10	11.57	0.004429	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	0	-13.20	-0.005053	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	10	-6.78	-0.002595	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	20	6.01	0.002300	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	30	10.10	0.003866	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	40	10.03	0.003839	±2.5	PASS
Band38	15MHz	QPSK	38175	75RB#0	NV	50	10.90	0.004172	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	-30	8.17	0.003167	±2.5	PASS

Band38	20MHz	QPSK	37850	100RB#0	NV	-20	19.47	0.007547	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	-10	22.43	0.008694	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	0	15.86	0.006147	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	10	17.81	0.006903	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	20	13.86	0.005372	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	30	15.74	0.006101	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	40	9.43	0.003655	±2.5	PASS
Band38	20MHz	QPSK	37850	100RB#0	NV	50	8.88	0.003442	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-30	-17.48	-0.006736	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-20	-16.37	-0.006308	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	-10	-21.30	-0.008208	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	0	-16.47	-0.006347	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	10	-15.41	-0.005938	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	20	-7.82	-0.003013	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	30	-15.13	-0.005830	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	40	-9.23	-0.003557	±2.5	PASS
Band38	20MHz	QPSK	38000	100RB#0	NV	50	-6.61	-0.002547	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-30	-23.09	-0.008847	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-20	-10.41	-0.003989	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	-10	-11.54	-0.004421	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	0	-7.87	-0.003015	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	10	7.08	0.002713	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	20	7.15	0.002739	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	30	14.10	0.005402	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	40	13.00	0.004981	±2.5	PASS
Band38	20MHz	QPSK	38150	100RB#0	NV	50	-9.88	-0.003785	±2.5	PASS