









Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3	0.001754	± 2.5	PASS
		VN	TN	4.22	0.002467	± 2.5	PASS
		VH	TN	1.98	0.001157	± 2.5	PASS
	MCH	VL	TN	4.19	0.002418	± 2.5	PASS
		VN	TN	4.23	0.002442	± 2.5	PASS
		VH	TN	-0.78	-0.000450	± 2.5	PASS
	HCH	VL	TN	-1.37	-0.000781	± 2.5	PASS
		VN	TN	-1.6	-0.000912	± 2.5	PASS
		VH	TN	0.15	0.000086	± 2.5	PASS
16QAM	LCH	VL	TN	-1.63	-0.000953	± 2.5	PASS
		VN	TN	4.71	0.002753	± 2.5	PASS
		VH	TN	3.59	0.002099	± 2.5	PASS
	MCH	VL	TN	-0.96	-0.000554	± 2.5	PASS
		VN	TN	-1.66	-0.000958	± 2.5	PASS
		VH	TN	-1.97	-0.001137	± 2.5	PASS
	HCH	VL	TN	1.04	0.000593	± 2.5	PASS
		VN	TN	0.58	0.000331	± 2.5	PASS
		VH	TN	3.9	0.002223	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.13	0.000076	± 2.5	PASS
		VN	-20	-1.93	-0.001128	± 2.5	PASS
		VN	-10	-1.78	-0.001041	± 2.5	PASS
		VN	0	2.56	0.001496	± 2.5	PASS
		VN	10	1.76	0.001029	± 2.5	PASS
		VN	20	-1.32	-0.000772	± 2.5	PASS
		VN	30	-0.68	-0.000397	± 2.5	PASS
		VN	40	2.68	0.001567	± 2.5	PASS
		VN	50	0.34	0.000199	± 2.5	PASS
	MCH	VN	-30	0.8	0.000462	± 2.5	PASS

		VN	-20	1.17	0.000675	± 2.5	PASS
		VN	-10	4.91	0.002834	± 2.5	PASS
		VN	0	0.86	0.000496	± 2.5	PASS
		VN	10	4.25	0.002453	± 2.5	PASS
		VN	20	-0.33	-0.000190	± 2.5	PASS
		VN	30	0.75	0.000433	± 2.5	PASS
		VN	40	-1.2	-0.000693	± 2.5	PASS
		VN	50	2.61	0.001506	± 2.5	PASS
	HCH	VN	-30	4.76	0.002713	± 2.5	PASS
		VN	-20	-0.53	-0.000302	± 2.5	PASS
		VN	-10	4.67	0.002662	± 2.5	PASS
		VN	0	-0.69	-0.000393	± 2.5	PASS
		VN	10	3.1	0.001767	± 2.5	PASS
		VN	20	-0.17	-0.000097	± 2.5	PASS
		VN	30	0.06	0.000034	± 2.5	PASS
		VN	40	4.94	0.002816	± 2.5	PASS
		VN	50	-1.39	-0.000792	± 2.5	PASS
		16QAM	LCH	VN	-30	0.03	0.000018
VN	-20			-0.84	-0.000491	± 2.5	PASS
VN	-10			3.51	0.002052	± 2.5	PASS
VN	0			-1.07	-0.000625	± 2.5	PASS
VN	10			2.7	0.001578	± 2.5	PASS
VN	20			0.47	0.000275	± 2.5	PASS
VN	30			2.72	0.001590	± 2.5	PASS
VN	40			0.29	0.000170	± 2.5	PASS
VN	50			3.2	0.001871	± 2.5	PASS
MCH	VN		-30	3.07	0.001750	± 2.5	PASS
	VN		-20	-0.93	-0.000530	± 2.5	PASS
	VN		-10	4.55	0.002594	± 2.5	PASS
	VN		0	3.03	0.001727	± 2.5	PASS
	VN		10	-1	-0.000570	± 2.5	PASS
	VN		20	-1.03	-0.000587	± 2.5	PASS
	VN		30	3.33	0.001898	± 2.5	PASS
	VN		40	-1.08	-0.000616	± 2.5	PASS
	VN		50	3.5	0.001995	± 2.5	PASS
HCH	VN		-30	-0.02	-0.000011	± 2.5	PASS
	VN		-20	2.13	0.001214	± 2.5	PASS
	VN		-10	2.14	0.001220	± 2.5	PASS
	VN		0	3.43	0.001955	± 2.5	PASS
	VN		10	1.92	0.001094	± 2.5	PASS
	VN		20	1.52	0.000866	± 2.5	PASS

		VN	30	3.97	0.002263	± 2.5	PASS
		VN	40	3.71	0.002115	± 2.5	PASS
		VN	50	0.63	0.000359	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.34	0.000783	± 2.5	PASS
		VN	TN	1.08	0.000631	± 2.5	PASS
		VH	TN	3.54	0.002068	± 2.5	PASS
	MCH	VL	TN	2.86	0.001651	± 2.5	PASS
		VN	TN	3.81	0.002199	± 2.5	PASS
		VH	TN	0.47	0.000271	± 2.5	PASS
	HCH	VL	TN	0.28	0.000160	± 2.5	PASS
		VN	TN	3.68	0.002099	± 2.5	PASS
		VH	TN	3.32	0.001893	± 2.5	PASS
16QAM	LCH	VL	TN	1.21	0.000707	± 2.5	PASS
		VN	TN	3.28	0.001916	± 2.5	PASS
		VH	TN	-1.81	-0.001058	± 2.5	PASS
	MCH	VL	TN	2.68	0.001547	± 2.5	PASS
		VN	TN	3.75	0.002165	± 2.5	PASS
		VH	TN	-0.68	-0.000392	± 2.5	PASS
	HCH	VL	TN	0.86	0.000490	± 2.5	PASS
		VN	TN	-0.54	-0.000308	± 2.5	PASS
		VH	TN	2.75	0.001568	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.85	0.000497	± 2.5	PASS
		VN	-20	-1.69	-0.000987	± 2.5	PASS
		VN	-10	2.75	0.001607	± 2.5	PASS
		VN	0	-0.69	-0.000403	± 2.5	PASS
		VN	10	3.56	0.002080	± 2.5	PASS
		VN	20	4.45	0.002600	± 2.5	PASS
		VN	30	3.92	0.002290	± 2.5	PASS
		VN	40	1.05	0.000613	± 2.5	PASS
		VN	50	2.43	0.001420	± 2.5	PASS
	MCH	VN	-30	1.67	0.000964	± 2.5	PASS
		VN	-20	0.64	0.000369	± 2.5	PASS

		VN	-10	2.82	0.001628	± 2.5	PASS		
		VN	0	3.75	0.002165	± 2.5	PASS		
		VN	10	0.37	0.000214	± 2.5	PASS		
		VN	20	4.69	0.002707	± 2.5	PASS		
		VN	30	1.78	0.001027	± 2.5	PASS		
		VN	40	-1.47	-0.000848	± 2.5	PASS		
		VN	50	1.1	0.000635	± 2.5	PASS		
	HCH	VN	-30	-0.83	-0.000473	± 2.5	PASS		
		VN	-20	2.3	0.001312	± 2.5	PASS		
		VN	-10	0.07	0.000040	± 2.5	PASS		
		VN	0	4.3	0.002452	± 2.5	PASS		
		VN	10	-0.82	-0.000468	± 2.5	PASS		
		VN	20	2.79	0.001591	± 2.5	PASS		
		VN	30	2.74	0.001563	± 2.5	PASS		
		VN	40	0.17	0.000097	± 2.5	PASS		
		VN	50	1.36	0.000776	± 2.5	PASS		
		16QAM	LCH	VN	-30	2.39	0.001380	± 2.5	PASS
				VN	-20	-1.84	-0.001062	± 2.5	PASS
VN	-10			2.35	0.001356	± 2.5	PASS		
VN	0			-1.61	-0.000929	± 2.5	PASS		
VN	10			1.8	0.001039	± 2.5	PASS		
VN	20			1.43	0.000825	± 2.5	PASS		
VN	30			2.2	0.001270	± 2.5	PASS		
VN	40			0.31	0.000179	± 2.5	PASS		
VN	50			-0.04	-0.000023	± 2.5	PASS		
MCH	VN		-30	4.26	0.002429	± 2.5	PASS		
	VN		-20	1.31	0.000747	± 2.5	PASS		
	VN		-10	4.96	0.002829	± 2.5	PASS		
	VN		0	4.09	0.002332	± 2.5	PASS		
	VN		10	1.26	0.000719	± 2.5	PASS		
	VN		20	3.21	0.001831	± 2.5	PASS		
	VN		30	-0.18	-0.000103	± 2.5	PASS		
	VN		40	-0.15	-0.000086	± 2.5	PASS		
	VN		50	1.45	0.000827	± 2.5	PASS		
HCH	VN		-30	1.85	0.001055	± 2.5	PASS		
	VN		-20	4.64	0.002646	± 2.5	PASS		
	VN		-10	4.53	0.002583	± 2.5	PASS		
	VN		0	1.29	0.000736	± 2.5	PASS		
	VN		10	3.06	0.001745	± 2.5	PASS		
	VN		20	3.88	0.002213	± 2.5	PASS		
	VN		30	2.07	0.001180	± 2.5	PASS		

		VN	40	1.71	0.000975	± 2.5	PASS
		VN	50	4.53	0.002583	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.6	0.001518	± 2.5	PASS
		VN	TN	1.94	0.001133	± 2.5	PASS
		VH	TN	4.23	0.002470	± 2.5	PASS
	MCH	VL	TN	-1.18	-0.000681	± 2.5	PASS
		VN	TN	1.1	0.000635	± 2.5	PASS
		VH	TN	-1.6	-0.000924	± 2.5	PASS
	HCH	VL	TN	1.56	0.000890	± 2.5	PASS
		VN	TN	1.15	0.000656	± 2.5	PASS
		VH	TN	4.24	0.002419	± 2.5	PASS
16QAM	LCH	VL	TN	2.88	0.001682	± 2.5	PASS
		VN	TN	2.85	0.001664	± 2.5	PASS
		VH	TN	4.1	0.002394	± 2.5	PASS
	MCH	VL	TN	2.6	0.001501	± 2.5	PASS
		VN	TN	-0.8	-0.000462	± 2.5	PASS
		VH	TN	4.6	0.002655	± 2.5	PASS
	HCH	VL	TN	-0.64	-0.000365	± 2.5	PASS
		VN	TN	3.09	0.001763	± 2.5	PASS
		VH	TN	3.84	0.002191	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.77	0.002785	± 2.5	PASS
		VN	-20	4.26	0.002488	± 2.5	PASS
		VN	-10	2.57	0.001501	± 2.5	PASS
		VN	0	4.3	0.002511	± 2.5	PASS
		VN	10	1	0.000584	± 2.5	PASS
		VN	20	3.76	0.002196	± 2.5	PASS
		VN	30	3.7	0.002161	± 2.5	PASS
		VN	40	0.16	0.000093	± 2.5	PASS
		VN	50	4.05	0.002365	± 2.5	PASS
	MCH	VN	-30	3.05	0.001760	± 2.5	PASS
		VN	-20	1.43	0.000825	± 2.5	PASS
		VN	-10	1.69	0.000975	± 2.5	PASS

		VN	0	-0.04	-0.000023	± 2.5	PASS		
		VN	10	3.49	0.002014	± 2.5	PASS		
		VN	20	3.24	0.001870	± 2.5	PASS		
		VN	30	3.52	0.002032	± 2.5	PASS		
		VN	40	2.63	0.001518	± 2.5	PASS		
		VN	50	3.16	0.001824	± 2.5	PASS		
	HCH	VN	-30	0.22	0.000126	± 2.5	PASS		
		VN	-20	2.76	0.001447	± 2.5	PASS		
		VN	-10	0.03	0.000016	± 2.5	PASS		
		VN	0	-0.22	-0.000115	± 2.5	PASS		
		VN	10	-0.7	-0.000367	± 2.5	PASS		
		VN	20	1.49	0.000781	± 2.5	PASS		
		VN	30	3.35	0.001756	± 2.5	PASS		
		VN	40	0.43	0.000225	± 2.5	PASS		
		VN	50	2.4	0.001258	± 2.5	PASS		
		16QAM	LCH	VN	-30	4.82	0.002782	± 2.5	PASS
				VN	-20	0.49	0.000283	± 2.5	PASS
				VN	-10	3.69	0.002130	± 2.5	PASS
VN	0			3.83	0.002211	± 2.5	PASS		
VN	10			0.02	0.000012	± 2.5	PASS		
VN	20			3.97	0.002291	± 2.5	PASS		
VN	30			1.28	0.000739	± 2.5	PASS		
VN	40			-0.38	-0.000219	± 2.5	PASS		
VN	50			2.93	0.001691	± 2.5	PASS		
MCH	VN		-30	3.22	0.001837	± 2.5	PASS		
	VN		-20	3.46	0.001974	± 2.5	PASS		
	VN		-10	-1.59	-0.000907	± 2.5	PASS		
	VN		0	2.4	0.001369	± 2.5	PASS		
	VN		10	2.77	0.001581	± 2.5	PASS		
	VN		20	1.61	0.000919	± 2.5	PASS		
	VN		30	2.67	0.001524	± 2.5	PASS		
	VN		40	1.04	0.000593	± 2.5	PASS		
	VN		50	0.13	0.000074	± 2.5	PASS		
HCH	VN		-30	-1.15	-0.000603	± 2.5	PASS		
	VN		-20	3.65	0.001913	± 2.5	PASS		
	VN		-10	4.83	0.002532	± 2.5	PASS		
	VN		0	1.29	0.000676	± 2.5	PASS		
	VN		10	0.97	0.000509	± 2.5	PASS		
	VN		20	0.35	0.000183	± 2.5	PASS		
	VN		30	1.18	0.000619	± 2.5	PASS		
	VN		40	4.5	0.002359	± 2.5	PASS		

		VN	50	3.81	0.001997	± 2.5	PASS
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Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.69	0.000402	± 2.5	PASS
		VN	TN	2.41	0.001405	± 2.5	PASS
		VH	TN	2.55	0.001487	± 2.5	PASS
	MCH	VL	TN	0.1	0.000058	± 2.5	PASS
		VN	TN	-0.9	-0.000519	± 2.5	PASS
		VH	TN	0.24	0.000139	± 2.5	PASS
	HCH	VL	TN	2.31	0.001320	± 2.5	PASS
		VN	TN	4.7	0.002686	± 2.5	PASS
		VH	TN	1.82	0.001040	± 2.5	PASS
16QAM	LCH	VL	TN	4.92	0.002869	± 2.5	PASS
		VN	TN	-1.29	-0.000752	± 2.5	PASS
		VH	TN	4.51	0.002630	± 2.5	PASS
	MCH	VL	TN	0.48	0.000277	± 2.5	PASS
		VN	TN	-1.69	-0.000975	± 2.5	PASS
		VH	TN	4.53	0.002615	± 2.5	PASS
	HCH	VL	TN	4.95	0.002829	± 2.5	PASS
		VN	TN	4.59	0.002623	± 2.5	PASS
		VH	TN	2.75	0.001571	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.57	0.000915	± 2.5	PASS
		VN	-20	0.17	0.000099	± 2.5	PASS
		VN	-10	3.61	0.002105	± 2.5	PASS
		VN	0	3.97	0.002315	± 2.5	PASS
		VN	10	3.66	0.002134	± 2.5	PASS
		VN	20	-0.44	-0.000257	± 2.5	PASS
		VN	30	1.8	0.001050	± 2.5	PASS
		VN	40	3.47	0.002023	± 2.5	PASS
		VN	50	-1.65	-0.000962	± 2.5	PASS
	MCH	VN	-30	-1.15	-0.000664	± 2.5	PASS
		VN	-20	3.95	0.002280	± 2.5	PASS
		VN	-10	3.7	0.002136	± 2.5	PASS
		VN	0	-1.02	-0.000589	± 2.5	PASS

		VN	10	3.06	0.001766	± 2.5	PASS
		VN	20	0.74	0.000427	± 2.5	PASS
		VN	30	4.45	0.002569	± 2.5	PASS
		VN	40	3.55	0.002049	± 2.5	PASS
		VN	50	0.79	0.000456	± 2.5	PASS
	HCH	VN	-30	0.5	0.000286	± 2.5	PASS
		VN	-20	4.59	0.002623	± 2.5	PASS
		VN	-10	-1.08	-0.000617	± 2.5	PASS
		VN	0	-0.84	-0.000480	± 2.5	PASS
		VN	10	-0.47	-0.000269	± 2.5	PASS
		VN	20	-0.39	-0.000223	± 2.5	PASS
		VN	30	2.07	0.001183	± 2.5	PASS
		VN	40	2.58	0.001474	± 2.5	PASS
		VN	50	-1.13	-0.000646	± 2.5	PASS
		16QAM	LCH	VN	-30	-1.88	-0.001085
VN	-20			2.95	0.001703	± 2.5	PASS
VN	-10			0.25	0.000144	± 2.5	PASS
VN	0			3.27	0.001887	± 2.5	PASS
VN	10			4.32	0.002494	± 2.5	PASS
VN	20			-0.27	-0.000156	± 2.5	PASS
VN	30			2.37	0.001368	± 2.5	PASS
VN	40			1.34	0.000773	± 2.5	PASS
VN	50			0.83	0.000479	± 2.5	PASS
MCH	VN		-30	2.29	0.001309	± 2.5	PASS
	VN		-20	-1.02	-0.000583	± 2.5	PASS
	VN		-10	1.07	0.000611	± 2.5	PASS
	VN		0	4.81	0.002749	± 2.5	PASS
	VN		10	3.08	0.001760	± 2.5	PASS
	VN		20	-1.4	-0.000800	± 2.5	PASS
	VN		30	-1.67	-0.000954	± 2.5	PASS
	VN		40	4.74	0.002709	± 2.5	PASS
	VN		50	-1.86	-0.001063	± 2.5	PASS
HCH	VN		-30	3.44	0.001966	± 2.5	PASS
	VN		-20	2.82	0.001611	± 2.5	PASS
	VN		-10	-0.43	-0.000246	± 2.5	PASS
	VN		0	3.77	0.002154	± 2.5	PASS
	VN		10	4.99	0.002851	± 2.5	PASS
	VN		20	4.18	0.002389	± 2.5	PASS
	VN		30	3.64	0.002080	± 2.5	PASS
	VN		40	4.07	0.002326	± 2.5	PASS
	VN		50	1.62	0.000926	± 2.5	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.55	-0.000902	± 2.5	PASS
		VN	TN	1.78	0.001036	± 2.5	PASS
		VH	TN	1.27	0.000739	± 2.5	PASS
	MCH	VL	TN	2.92	0.001685	± 2.5	PASS
		VN	TN	-0.08	-0.000046	± 2.5	PASS
		VH	TN	4.05	0.002338	± 2.5	PASS
	HCH	VL	TN	4.91	0.002810	± 2.5	PASS
		VN	TN	4.59	0.002627	± 2.5	PASS
		VH	TN	0.23	0.000132	± 2.5	PASS
16QAM	LCH	VL	TN	4.49	0.002614	± 2.5	PASS
		VN	TN	-0.08	-0.000047	± 2.5	PASS
		VH	TN	1.46	0.000850	± 2.5	PASS
	MCH	VL	TN	2.85	0.001645	± 2.5	PASS
		VN	TN	3.01	0.001737	± 2.5	PASS
		VH	TN	3.93	0.002268	± 2.5	PASS
	HCH	VL	TN	2.84	0.001625	± 2.5	PASS
		VN	TN	1.81	0.001036	± 2.5	PASS
		VH	TN	2.85	0.001631	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.06	0.002364	± 2.5	PASS
		VN	-20	-1.55	-0.000902	± 2.5	PASS
		VN	-10	-0.75	-0.000437	± 2.5	PASS
		VN	0	0.97	0.000565	± 2.5	PASS
		VN	10	1.07	0.000623	± 2.5	PASS
		VN	20	0.09	0.000052	± 2.5	PASS
		VN	30	3.35	0.001951	± 2.5	PASS
		VN	40	3.26	0.001898	± 2.5	PASS
		VN	50	0.75	0.000437	± 2.5	PASS
	MCH	VN	-30	-1.54	-0.000889	± 2.5	PASS
		VN	-20	1.03	0.000595	± 2.5	PASS
		VN	-10	-1.77	-0.001022	± 2.5	PASS
		VN	0	1.84	0.001062	± 2.5	PASS
		VN	10	4.63	0.002672	± 2.5	PASS

		VN	20	2.01	0.001160	± 2.5	PASS
		VN	30	4.85	0.002799	± 2.5	PASS
		VN	40	0.11	0.000063	± 2.5	PASS
		VN	50	0.43	0.000248	± 2.5	PASS
	HCH	VN	-30	4.12	0.002358	± 2.5	PASS
		VN	-20	1.1	0.000629	± 2.5	PASS
		VN	-10	-0.91	-0.000521	± 2.5	PASS
		VN	0	-1.46	-0.000835	± 2.5	PASS
		VN	10	3.54	0.002026	± 2.5	PASS
		VN	20	0.2	0.000114	± 2.5	PASS
		VN	30	-1.33	-0.000761	± 2.5	PASS
		VN	40	4	0.002289	± 2.5	PASS
		VN	50	0.1	0.000057	± 2.5	PASS
16QAM	LCH	VN	-30	1	0.000577	± 2.5	PASS
		VN	-20	-0.61	-0.000352	± 2.5	PASS
		VN	-10	1.83	0.001056	± 2.5	PASS
		VN	0	-0.84	-0.000485	± 2.5	PASS
		VN	10	2.63	0.001518	± 2.5	PASS
		VN	20	3.44	0.001986	± 2.5	PASS
		VN	30	1.93	0.001114	± 2.5	PASS
		VN	40	4.14	0.002390	± 2.5	PASS
		VN	50	3.2	0.001847	± 2.5	PASS
	MCH	VN	-30	0.27	0.000155	± 2.5	PASS
		VN	-20	4.46	0.002552	± 2.5	PASS
		VN	-10	2.34	0.001339	± 2.5	PASS
		VN	0	-1.14	-0.000652	± 2.5	PASS
		VN	10	2.12	0.001213	± 2.5	PASS
		VN	20	4.02	0.002300	± 2.5	PASS
		VN	30	4.61	0.002638	± 2.5	PASS
		VN	40	0.82	0.000469	± 2.5	PASS
		VN	50	3.69	0.002112	± 2.5	PASS
	HCH	VN	-30	2.96	0.001694	± 2.5	PASS
		VN	-20	0.19	0.000109	± 2.5	PASS
		VN	-10	2.66	0.001522	± 2.5	PASS
		VN	0	-0.39	-0.000223	± 2.5	PASS
		VN	10	4.45	0.002546	± 2.5	PASS
		VN	20	1.17	0.000670	± 2.5	PASS
		VN	30	4.73	0.002707	± 2.5	PASS
		VN	40	2.37	0.001356	± 2.5	PASS
		VN	50	-1.54	-0.000881	± 2.5	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.35	0.000785	± 2.5	PASS
		VN	TN	1.96	0.001140	± 2.5	PASS
		VH	TN	0.2	0.000116	± 2.5	PASS
	MCH	VL	TN	-0.41	-0.000237	± 2.5	PASS
		VN	TN	4.48	0.002586	± 2.5	PASS
		VH	TN	-0.17	-0.000098	± 2.5	PASS
	HCH	VL	TN	2.52	0.001444	± 2.5	PASS
		VN	TN	-1.72	-0.000986	± 2.5	PASS
		VH	TN	-0.28	-0.000160	± 2.5	PASS
16QAM	LCH	VL	TN	3.29	0.001913	± 2.5	PASS
		VN	TN	-1.59	-0.000924	± 2.5	PASS
		VH	TN	1.97	0.001145	± 2.5	PASS
	MCH	VL	TN	0.72	0.000416	± 2.5	PASS
		VN	TN	4.03	0.002326	± 2.5	PASS
		VH	TN	0.58	0.000335	± 2.5	PASS
	HCH	VL	TN	0.3	0.000172	± 2.5	PASS
		VN	TN	4.35	0.002493	± 2.5	PASS
		VH	TN	4.07	0.002332	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.29	-0.000169	± 2.5	PASS
		VN	-20	3.86	0.002244	± 2.5	PASS
		VN	-10	2.58	0.001500	± 2.5	PASS
		VN	0	-0.74	-0.000430	± 2.5	PASS
		VN	10	2.55	0.001483	± 2.5	PASS
		VN	20	3.74	0.002174	± 2.5	PASS
		VN	30	1.33	0.000773	± 2.5	PASS
		VN	40	-1.49	-0.000866	± 2.5	PASS
		VN	50	-1.56	-0.000907	± 2.5	PASS
	MCH	VN	-30	4.31	0.002488	± 2.5	PASS
		VN	-20	-0.7	-0.000404	± 2.5	PASS
		VN	-10	-0.04	-0.000023	± 2.5	PASS
		VN	0	1.68	0.000970	± 2.5	PASS
		VN	10	2.68	0.001547	± 2.5	PASS
		VN	20	4.76	0.002747	± 2.5	PASS

		VN	30	2.86	0.001651	± 2.5	PASS
		VN	40	2.84	0.001639	± 2.5	PASS
		VN	50	4.45	0.002569	± 2.5	PASS
	HCH	VN	-30	-1.19	-0.000682	± 2.5	PASS
		VN	-20	4.81	0.002756	± 2.5	PASS
		VN	-10	-0.34	-0.000195	± 2.5	PASS
		VN	0	4.84	0.002774	± 2.5	PASS
		VN	10	2.61	0.001496	± 2.5	PASS
		VN	20	-1.09	-0.000625	± 2.5	PASS
		VN	30	3.86	0.002212	± 2.5	PASS
		VN	40	4.94	0.002831	± 2.5	PASS
		VN	50	-0.54	-0.000309	± 2.5	PASS
		16QAM	LCH	VN	-30	1.79	0.001033
VN	-20			-0.14	-0.000081	± 2.5	PASS
VN	-10			3.11	0.001795	± 2.5	PASS
VN	0			-1.73	-0.000999	± 2.5	PASS
VN	10			1.04	0.000600	± 2.5	PASS
VN	20			0.77	0.000444	± 2.5	PASS
VN	30			-1.35	-0.000779	± 2.5	PASS
VN	40			2.73	0.001576	± 2.5	PASS
VN	50			-0.86	-0.000496	± 2.5	PASS
MCH	VN		-30	3.71	0.002126	± 2.5	PASS
	VN		-20	3.46	0.001983	± 2.5	PASS
	VN		-10	-1.08	-0.000619	± 2.5	PASS
	VN		0	1.23	0.000705	± 2.5	PASS
	VN		10	1.39	0.000797	± 2.5	PASS
	VN		20	-0.38	-0.000218	± 2.5	PASS
	VN		30	2.99	0.001713	± 2.5	PASS
	VN		40	2.25	0.001289	± 2.5	PASS
	VN		50	2.27	0.001301	± 2.5	PASS
HCH	VN		-30	1.41	0.000808	± 2.5	PASS
	VN		-20	-0.03	-0.000017	± 2.5	PASS
	VN		-10	4.36	0.002499	± 2.5	PASS
	VN		0	0.59	0.000338	± 2.5	PASS
	VN		10	0.38	0.000218	± 2.5	PASS
	VN		20	3.64	0.002086	± 2.5	PASS
	VN		30	-1.64	-0.000940	± 2.5	PASS
	VN		40	3.79	0.002172	± 2.5	PASS
	VN		50	2.3	0.001318	± 2.5	PASS