

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	4.75	0.002777	± 2.5	PASS
		VN	TN	4.27	0.002496	± 2.5	PASS
		VH	TN	3.82	0.002233	± 2.5	PASS
	MCH	VL	TN	4.43	0.002539	± 2.5	PASS
		VN	TN	2.2	0.001261	± 2.5	PASS
		VH	TN	4.48	0.002567	± 2.5	PASS
	HCH	VL	TN	1.61	0.000905	± 2.5	PASS
		VN	TN	2.88	0.001619	± 2.5	PASS
		VH	TN	-0.23	-0.000129	± 2.5	PASS
16QAM	LCH	VL	TN	4.28	0.002502	± 2.5	PASS
		VN	TN	1.76	0.001029	± 2.5	PASS
		VH	TN	4.76	0.002782	± 2.5	PASS
	MCH	VL	TN	-1.72	-0.000986	± 2.5	PASS
		VN	TN	-1.93	-0.001106	± 2.5	PASS
		VH	TN	-0.99	-0.000567	± 2.5	PASS
	HCH	VL	TN	4.64	0.002608	± 2.5	PASS
		VN	TN	4.67	0.002625	± 2.5	PASS
		VH	TN	2.38	0.001338	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.81	0.001643	± 2.5	PASS
		VN	-20	-1.08	-0.000631	± 2.5	PASS
		VN	-10	2.22	0.001298	± 2.5	PASS
		VN	0	0.47	0.000275	± 2.5	PASS
		VN	10	3.94	0.002303	± 2.5	PASS
		VN	20	-1.69	-0.000988	± 2.5	PASS
		VN	30	0.65	0.000380	± 2.5	PASS
		VN	40	3.88	0.002268	± 2.5	PASS
		VN	50	3.49	0.002040	± 2.5	PASS
	MCH	VN	-30	0.34	0.000195	± 2.5	PASS

		VN	-20	2.33	0.001335	± 2.5	PASS
		VN	-10	4.21	0.002413	± 2.5	PASS
		VN	0	0.75	0.000430	± 2.5	PASS
		VN	10	4.85	0.002779	± 2.5	PASS
		VN	20	-1.23	-0.000705	± 2.5	PASS
		VN	30	2.59	0.001484	± 2.5	PASS
		VN	40	2.18	0.001249	± 2.5	PASS
		VN	50	3.2	0.001834	± 2.5	PASS
	HCH	VN	-30	2.74	0.001540	± 2.5	PASS
		VN	-20	-1.45	-0.000815	± 2.5	PASS
		VN	-10	-1.5	-0.000843	± 2.5	PASS
		VN	0	0.13	0.000073	± 2.5	PASS
		VN	10	-0.47	-0.000264	± 2.5	PASS
		VN	20	1.66	0.000933	± 2.5	PASS
		VN	30	0.14	0.000079	± 2.5	PASS
		VN	40	-1.71	-0.000961	± 2.5	PASS
		VN	50	3.63	0.002040	± 2.5	PASS
		16QAM	LCH	VN	-30	2.29	0.001339
VN	-20			4.94	0.002888	± 2.5	PASS
VN	-10			2.42	0.001415	± 2.5	PASS
VN	0			2.51	0.001467	± 2.5	PASS
VN	10			2.66	0.001555	± 2.5	PASS
VN	20			0.97	0.000567	± 2.5	PASS
VN	30			2.69	0.001572	± 2.5	PASS
VN	40			2.44	0.001426	± 2.5	PASS
VN	50			-0.42	-0.000246	± 2.5	PASS
MCH	VN		-30	3.35	0.001920	± 2.5	PASS
	VN		-20	-0.82	-0.000470	± 2.5	PASS
	VN		-10	0.47	0.000269	± 2.5	PASS
	VN		0	-1.76	-0.001009	± 2.5	PASS
	VN		10	-0.97	-0.000556	± 2.5	PASS
	VN		20	1.39	0.000797	± 2.5	PASS
	VN		30	-1.12	-0.000642	± 2.5	PASS
	VN		40	-1.01	-0.000579	± 2.5	PASS
	VN		50	-1.63	-0.000934	± 2.5	PASS
HCH	VN		-30	-0.95	-0.000534	± 2.5	PASS
	VN		-20	3.04	0.001709	± 2.5	PASS
	VN		-10	2.03	0.001141	± 2.5	PASS
	VN		0	1.45	0.000815	± 2.5	PASS
	VN		10	-0.68	-0.000382	± 2.5	PASS
	VN		20	1.12	0.000629	± 2.5	PASS

		VN	30	0.2	0.000112	± 2.5	PASS
		VN	40	-0.84	-0.000472	± 2.5	PASS
		VN	50	0.15	0.000084	± 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	1.64	0.000958	± 2.5	PASS
		VN	TN	3.28	0.001916	± 2.5	PASS
		VH	TN	-1.74	-0.001017	± 2.5	PASS
	MCH	VL	TN	1.98	0.001135	± 2.5	PASS
		VN	TN	2.93	0.001679	± 2.5	PASS
		VH	TN	1.46	0.000837	± 2.5	PASS
	HCH	VL	TN	3.22	0.001810	± 2.5	PASS
		VN	TN	-0.47	-0.000264	± 2.5	PASS
		VH	TN	3.01	0.001692	± 2.5	PASS
16QAM	LCH	VL	TN	-1.19	-0.000695	± 2.5	PASS
		VN	TN	-1.24	-0.000725	± 2.5	PASS
		VH	TN	-1.61	-0.000941	± 2.5	PASS
	MCH	VL	TN	-0.81	-0.000464	± 2.5	PASS
		VN	TN	3.11	0.001782	± 2.5	PASS
		VH	TN	-1.97	-0.001129	± 2.5	PASS
	HCH	VL	TN	-0.52	-0.000292	± 2.5	PASS
		VN	TN	-0.95	-0.000534	± 2.5	PASS
		VH	TN	-1.44	-0.000809	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.05	0.000029	± 2.5	PASS
		VN	-20	2.96	0.001729	± 2.5	PASS
		VN	-10	-0.81	-0.000473	± 2.5	PASS
		VN	0	0.52	0.000304	± 2.5	PASS
		VN	10	2.04	0.001192	± 2.5	PASS
		VN	20	2.17	0.001268	± 2.5	PASS
		VN	30	-1.35	-0.000789	± 2.5	PASS
		VN	40	2.47	0.001443	± 2.5	PASS
		VN	50	0.96	0.000561	± 2.5	PASS
	MCH	VN	-30	-1.29	-0.000739	± 2.5	PASS
		VN	-20	3.49	0.002000	± 2.5	PASS

		VN	-10	-1.36	-0.000779	± 2.5	PASS		
		VN	0	3.69	0.002115	± 2.5	PASS		
		VN	10	0.89	0.000510	± 2.5	PASS		
		VN	20	3.65	0.002092	± 2.5	PASS		
		VN	30	4.32	0.002476	± 2.5	PASS		
		VN	40	-1.33	-0.000762	± 2.5	PASS		
		VN	50	1.16	0.000665	± 2.5	PASS		
	HCH	VN	-30	-1.14	-0.000641	± 2.5	PASS		
		VN	-20	3.28	0.001843	± 2.5	PASS		
		VN	-10	4.82	0.002709	± 2.5	PASS		
		VN	0	4.52	0.002540	± 2.5	PASS		
		VN	10	1.37	0.000770	± 2.5	PASS		
		VN	20	1.48	0.000832	± 2.5	PASS		
		VN	30	4.73	0.002658	± 2.5	PASS		
		VN	40	0.15	0.000084	± 2.5	PASS		
		VN	50	2.27	0.001276	± 2.5	PASS		
		16QAM	LCH	VN	-30	1.5	0.000876	± 2.5	PASS
				VN	-20	1.67	0.000976	± 2.5	PASS
				VN	-10	0.29	0.000169	± 2.5	PASS
VN	0			-1.52	-0.000888	± 2.5	PASS		
VN	10			3.94	0.002302	± 2.5	PASS		
VN	20			4.46	0.002606	± 2.5	PASS		
VN	30			0.87	0.000508	± 2.5	PASS		
VN	40			4.11	0.002401	± 2.5	PASS		
VN	50			-1.38	-0.000806	± 2.5	PASS		
MCH	VN		-30	1.01	0.000579	± 2.5	PASS		
	VN		-20	4.13	0.002367	± 2.5	PASS		
	VN		-10	4.34	0.002487	± 2.5	PASS		
	VN		0	1.09	0.000625	± 2.5	PASS		
	VN		10	0.53	0.000304	± 2.5	PASS		
	VN		20	0.22	0.000126	± 2.5	PASS		
	VN		30	3.9	0.002235	± 2.5	PASS		
	VN		40	3.51	0.002011	± 2.5	PASS		
	VN		50	4.2	0.002407	± 2.5	PASS		
HCH	VN		-30	-1.94	-0.001090	± 2.5	PASS		
	VN		-20	-0.53	-0.000298	± 2.5	PASS		
	VN		-10	0.77	0.000433	± 2.5	PASS		
	VN		0	1.66	0.000933	± 2.5	PASS		
	VN		10	-0.9	-0.000506	± 2.5	PASS		
	VN		20	3	0.001686	± 2.5	PASS		
	VN		30	3.61	0.002029	± 2.5	PASS		

		VN	40	1.54	0.000866	± 2.5	PASS
		VN	50	-0.48	-0.000270	± 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	3.23	0.001886	± 2.5	PASS
		VN	TN	4.55	0.002657	± 2.5	PASS
		VH	TN	-1.26	-0.000736	± 2.5	PASS
	MCH	VL	TN	1.83	0.001049	± 2.5	PASS
		VN	TN	0.33	0.000189	± 2.5	PASS
		VH	TN	0.69	0.000395	± 2.5	PASS
	HCH	VL	TN	0.17	0.000096	± 2.5	PASS
		VN	TN	-1.53	-0.000860	± 2.5	PASS
		VH	TN	-1.12	-0.000630	± 2.5	PASS
16QAM	LCH	VL	TN	-1.72	-0.001004	± 2.5	PASS
		VN	TN	0.31	0.000181	± 2.5	PASS
		VH	TN	0.65	0.000380	± 2.5	PASS
	MCH	VL	TN	-0.83	-0.000476	± 2.5	PASS
		VN	TN	2.4	0.001375	± 2.5	PASS
		VH	TN	1.33	0.000762	± 2.5	PASS
	HCH	VL	TN	2.39	0.001344	± 2.5	PASS
		VN	TN	3.87	0.002176	± 2.5	PASS
		VH	TN	4.02	0.002260	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.26	0.001320	± 2.5	PASS
		VN	-20	2.96	0.001728	± 2.5	PASS
		VN	-10	-0.61	-0.000356	± 2.5	PASS
		VN	0	-1.87	-0.001092	± 2.5	PASS
		VN	10	0.21	0.000123	± 2.5	PASS
		VN	20	-0.13	-0.000076	± 2.5	PASS
		VN	30	2.55	0.001489	± 2.5	PASS
		VN	40	2.01	0.001174	± 2.5	PASS
		VN	50	4.65	0.002715	± 2.5	PASS
	MCH	VN	-30	-1.41	-0.000808	± 2.5	PASS
		VN	-20	-1.79	-0.001026	± 2.5	PASS
		VN	-10	4.26	0.002441	± 2.5	PASS

		VN	0	-0.4	-0.000229	± 2.5	PASS		
		VN	10	2.73	0.001564	± 2.5	PASS		
		VN	20	0.77	0.000441	± 2.5	PASS		
		VN	30	0.75	0.000430	± 2.5	PASS		
		VN	40	3.33	0.001908	± 2.5	PASS		
		VN	50	-0.02	-0.000011	± 2.5	PASS		
	HCH	VN	-30	-1.45	-0.000815	± 2.5	PASS		
		VN	-20	-0.17	-0.000096	± 2.5	PASS		
		VN	-10	-0.62	-0.000349	± 2.5	PASS		
		VN	0	-0.1	-0.000056	± 2.5	PASS		
		VN	10	-0.67	-0.000377	± 2.5	PASS		
		VN	20	1.51	0.000849	± 2.5	PASS		
		VN	30	-0.48	-0.000270	± 2.5	PASS		
		VN	40	0.22	0.000124	± 2.5	PASS		
		VN	50	-0.59	-0.000332	± 2.5	PASS		
		16QAM	LCH	VN	-30	-1.02	-0.000596	± 2.5	PASS
				VN	-20	3.06	0.001787	± 2.5	PASS
				VN	-10	1.38	0.000806	± 2.5	PASS
				VN	0	1.56	0.000911	± 2.5	PASS
VN	10			3.16	0.001845	± 2.5	PASS		
VN	20			3.9	0.002277	± 2.5	PASS		
VN	30			-0.04	-0.000023	± 2.5	PASS		
VN	40			-0.86	-0.000502	± 2.5	PASS		
VN	50			-0.05	-0.000029	± 2.5	PASS		
MCH	VN		-30	4.07	0.002332	± 2.5	PASS		
	VN		-20	0.64	0.000367	± 2.5	PASS		
	VN		-10	3.26	0.001868	± 2.5	PASS		
	VN		0	-0.55	-0.000315	± 2.5	PASS		
	VN		10	2.32	0.001330	± 2.5	PASS		
	VN		20	0.8	0.000458	± 2.5	PASS		
	VN		30	-0.77	-0.000441	± 2.5	PASS		
	VN		40	0.23	0.000132	± 2.5	PASS		
	VN		50	3.25	0.001862	± 2.5	PASS		
HCH	VN		-30	-1.5	-0.000843	± 2.5	PASS		
	VN	-20	1.58	0.000888	± 2.5	PASS			
	VN	-10	-1.75	-0.000984	± 2.5	PASS			
	VN	0	3.33	0.001872	± 2.5	PASS			
	VN	10	-1.1	-0.000618	± 2.5	PASS			
	VN	20	2.68	0.001507	± 2.5	PASS			
	VN	30	2	0.001125	± 2.5	PASS			
	VN	40	2.73	0.001535	± 2.5	PASS			

		VN	50	3.35	0.001884	± 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	1.67	0.000974	± 2.5	PASS
		VN	TN	3.85	0.002245	± 2.5	PASS
		VH	TN	-1.73	-0.001009	± 2.5	PASS
	MCH	VL	TN	3.35	0.001920	± 2.5	PASS
		VN	TN	3.27	0.001874	± 2.5	PASS
		VH	TN	1.19	0.000682	± 2.5	PASS
	HCH	VL	TN	0.9	0.000506	± 2.5	PASS
		VN	TN	2.16	0.001215	± 2.5	PASS
		VH	TN	0.82	0.000461	± 2.5	PASS
16QAM	LCH	VL	TN	3.76	0.002192	± 2.5	PASS
		VN	TN	-1.52	-0.000886	± 2.5	PASS
		VH	TN	2.39	0.001394	± 2.5	PASS
	MCH	VL	TN	-1.06	-0.000607	± 2.5	PASS
		VN	TN	-1.01	-0.000579	± 2.5	PASS
		VH	TN	4.68	0.002682	± 2.5	PASS
	HCH	VL	TN	4.79	0.002695	± 2.5	PASS
		VN	TN	4.53	0.002549	± 2.5	PASS
		VH	TN	0.78	0.000439	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.94	0.001714	± 2.5	PASS
		VN	-20	3.45	0.002012	± 2.5	PASS
		VN	-10	-1.63	-0.000950	± 2.5	PASS
		VN	0	-1.56	-0.000910	± 2.5	PASS
		VN	10	-0.68	-0.000397	± 2.5	PASS
		VN	20	4.75	0.002770	± 2.5	PASS
		VN	30	0.87	0.000507	± 2.5	PASS
		VN	40	0.76	0.000443	± 2.5	PASS
		VN	50	-1.14	-0.000665	± 2.5	PASS
	MCH	VN	-30	0.92	0.000527	± 2.5	PASS
		VN	-20	2.85	0.001633	± 2.5	PASS
		VN	-10	-1.57	-0.000900	± 2.5	PASS
		VN	0	0.09	0.000052	± 2.5	PASS

		VN	10	-1.75	-0.001003	± 2.5	PASS
		VN	20	0.11	0.000063	± 2.5	PASS
		VN	30	0.45	0.000258	± 2.5	PASS
		VN	40	2.97	0.001702	± 2.5	PASS
		VN	50	2.8	0.001605	± 2.5	PASS
	HCH	VN	-30	1.14	0.000641	± 2.5	PASS
		VN	-20	-1.99	-0.001120	± 2.5	PASS
		VN	-10	-1.02	-0.000574	± 2.5	PASS
		VN	0	0.68	0.000383	± 2.5	PASS
		VN	10	1.93	0.001086	± 2.5	PASS
		VN	20	-0.66	-0.000371	± 2.5	PASS
		VN	30	-0.65	-0.000366	± 2.5	PASS
		VN	40	4.78	0.002689	± 2.5	PASS
		VN	50	3.71	0.002087	± 2.5	PASS
		16QAM	LCH	VN	-30	0.44	0.000257
VN	-20			1.67	0.000974	± 2.5	PASS
VN	-10			-1.04	-0.000606	± 2.5	PASS
VN	0			2.54	0.001481	± 2.5	PASS
VN	10			-0.79	-0.000461	± 2.5	PASS
VN	20			2.32	0.001353	± 2.5	PASS
VN	30			2.43	0.001417	± 2.5	PASS
VN	40			1.57	0.000915	± 2.5	PASS
VN	50			2	0.001166	± 2.5	PASS
MCH	VN		-30	4.31	0.002470	± 2.5	PASS
	VN		-20	-0.42	-0.000241	± 2.5	PASS
	VN		-10	2.41	0.001381	± 2.5	PASS
	VN		0	-0.51	-0.000292	± 2.5	PASS
	VN		10	2.11	0.001209	± 2.5	PASS
	VN		20	1.21	0.000693	± 2.5	PASS
	VN		30	4.33	0.002481	± 2.5	PASS
	VN		40	4.75	0.002722	± 2.5	PASS
	VN		50	2.12	0.001215	± 2.5	PASS
HCH	VN		-30	3.26	0.001834	± 2.5	PASS
	VN		-20	3.06	0.001722	± 2.5	PASS
	VN		-10	3.6	0.002025	± 2.5	PASS
	VN		0	4.51	0.002537	± 2.5	PASS
	VN		10	-0.57	-0.000321	± 2.5	PASS
	VN		20	1.23	0.000692	± 2.5	PASS
	VN	30	-1.38	-0.000776	± 2.5	PASS	
	VN	40	-1.91	-0.001075	± 2.5	PASS	
	VN	50	1.83	0.001030	± 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	3.86	0.002247	± 2.5	PASS
		VN	TN	-1.04	-0.000606	± 2.5	PASS
		VH	TN	2.12	0.001234	± 2.5	PASS
	MCH	VL	TN	1.62	0.000928	± 2.5	PASS
		VN	TN	1.86	0.001066	± 2.5	PASS
		VH	TN	2.93	0.001679	± 2.5	PASS
	HCH	VL	TN	1.08	0.000608	± 2.5	PASS
		VN	TN	2.3	0.001296	± 2.5	PASS
		VH	TN	3.1	0.001746	± 2.5	PASS
16QAM	LCH	VL	TN	2.88	0.001677	± 2.5	PASS
		VN	TN	3.22	0.001875	± 2.5	PASS
		VH	TN	1.32	0.000769	± 2.5	PASS
	MCH	VL	TN	2.03	0.001163	± 2.5	PASS
		VN	TN	1.94	0.001112	± 2.5	PASS
		VH	TN	1.6	0.000917	± 2.5	PASS
	HCH	VL	TN	1.01	0.000569	± 2.5	PASS
		VN	TN	0.05	0.000028	± 2.5	PASS
		VH	TN	2.85	0.001606	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.05	0.001194	± 2.5	PASS
		VN	-20	-0.12	-0.000070	± 2.5	PASS
		VN	-10	4.82	0.002806	± 2.5	PASS
		VN	0	-1.05	-0.000611	± 2.5	PASS
		VN	10	4.51	0.002626	± 2.5	PASS
		VN	20	-0.63	-0.000367	± 2.5	PASS
		VN	30	4.44	0.002585	± 2.5	PASS
		VN	40	0.52	0.000303	± 2.5	PASS
		VN	50	1.6	0.000932	± 2.5	PASS
	MCH	VN	-30	1.12	0.000642	± 2.5	PASS
		VN	-20	-1.43	-0.000819	± 2.5	PASS
		VN	-10	0.98	0.000562	± 2.5	PASS
		VN	0	1.53	0.000877	± 2.5	PASS
		VN	10	1.51	0.000865	± 2.5	PASS

		VN	20	1.32	0.000756	± 2.5	PASS
		VN	30	0.35	0.000201	± 2.5	PASS
		VN	40	-1.78	-0.001020	± 2.5	PASS
		VN	50	-0.19	-0.000109	± 2.5	PASS
	HCH	VN	-30	-0.5	-0.000282	± 2.5	PASS
		VN	-20	1.31	0.000738	± 2.5	PASS
		VN	-10	1.39	0.000783	± 2.5	PASS
		VN	0	-1.05	-0.000592	± 2.5	PASS
		VN	10	2.32	0.001307	± 2.5	PASS
		VN	20	4.76	0.002682	± 2.5	PASS
		VN	30	2.66	0.001499	± 2.5	PASS
		VN	40	-1.23	-0.000693	± 2.5	PASS
		VN	50	2.6	0.001465	± 2.5	PASS
16QAM	LCH	VN	-30	1.6	0.000932	± 2.5	PASS
		VN	-20	4.64	0.002702	± 2.5	PASS
		VN	-10	1.89	0.001100	± 2.5	PASS
		VN	0	2.67	0.001555	± 2.5	PASS
		VN	10	3.6	0.002096	± 2.5	PASS
		VN	20	1.13	0.000658	± 2.5	PASS
		VN	30	0.42	0.000245	± 2.5	PASS
		VN	40	3.13	0.001822	± 2.5	PASS
		VN	50	-1.11	-0.000646	± 2.5	PASS
	MCH	VN	-30	2.47	0.001415	± 2.5	PASS
		VN	-20	-0.08	-0.000046	± 2.5	PASS
		VN	-10	2.1	0.001203	± 2.5	PASS
		VN	0	2.31	0.001324	± 2.5	PASS
		VN	10	3.84	0.002201	± 2.5	PASS
		VN	20	2.75	0.001576	± 2.5	PASS
		VN	30	-1.47	-0.000842	± 2.5	PASS
		VN	40	-1.1	-0.000630	± 2.5	PASS
		VN	50	3.2	0.001834	± 2.5	PASS
	HCH	VN	-30	-0.07	-0.000039	± 2.5	PASS
		VN	-20	4.81	0.002710	± 2.5	PASS
		VN	-10	0.68	0.000383	± 2.5	PASS
		VN	0	3.27	0.001842	± 2.5	PASS
		VN	10	-0.58	-0.000327	± 2.5	PASS
		VN	20	-0.44	-0.000248	± 2.5	PASS
		VN	30	0.52	0.000293	± 2.5	PASS
		VN	40	3.82	0.002152	± 2.5	PASS
		VN	50	2.17	0.001223	± 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	2.72	0.001581	± 2.5	PASS
		VN	TN	0.17	0.000099	± 2.5	PASS
		VH	TN	2.73	0.001587	± 2.5	PASS
	MCH	VL	TN	-1.49	-0.000854	± 2.5	PASS
		VN	TN	4.26	0.002441	± 2.5	PASS
		VH	TN	2.25	0.001289	± 2.5	PASS
	HCH	VL	TN	-1.13	-0.000638	± 2.5	PASS
		VN	TN	2.88	0.001625	± 2.5	PASS
		VH	TN	-1.34	-0.000756	± 2.5	PASS
16QAM	LCH	VL	TN	3.45	0.002006	± 2.5	PASS
		VN	TN	-1.41	-0.000820	± 2.5	PASS
		VH	TN	3.19	0.001855	± 2.5	PASS
	MCH	VL	TN	4.4	0.002521	± 2.5	PASS
		VN	TN	4.92	0.002819	± 2.5	PASS
		VH	TN	1.83	0.001049	± 2.5	PASS
	HCH	VL	TN	2.24	0.001264	± 2.5	PASS
		VN	TN	4.37	0.002465	± 2.5	PASS
		VH	TN	-0.02	-0.000011	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.92	0.001116	± 2.5	PASS
		VN	-20	4.41	0.002564	± 2.5	PASS
		VN	-10	0.83	0.000483	± 2.5	PASS
		VN	0	-0.72	-0.000419	± 2.5	PASS
		VN	10	-1.77	-0.001029	± 2.5	PASS
		VN	20	-1.55	-0.000901	± 2.5	PASS
		VN	30	0.88	0.000512	± 2.5	PASS
		VN	40	3.56	0.002070	± 2.5	PASS
	MCH	VN	50	4.8	0.002791	± 2.5	PASS
		VN	-30	0.12	0.000069	± 2.5	PASS
		VN	-20	-0.37	-0.000212	± 2.5	PASS
		VN	-10	4.39	0.002516	± 2.5	PASS
		VN	0	-1.37	-0.000785	± 2.5	PASS
		VN	10	4.2	0.002407	± 2.5	PASS
VN	20	-1.93	-0.001106	± 2.5	PASS		

		VN	30	-0.33	-0.000189	± 2.5	PASS
		VN	40	1.26	0.000722	± 2.5	PASS
		VN	50	-0.14	-0.000080	± 2.5	PASS
	HCH	VN	-30	-1.4	-0.000790	± 2.5	PASS
		VN	-20	2.77	0.001563	± 2.5	PASS
		VN	-10	4.93	0.002781	± 2.5	PASS
		VN	0	4.23	0.002386	± 2.5	PASS
		VN	10	4.8	0.002708	± 2.5	PASS
		VN	20	4.44	0.002505	± 2.5	PASS
		VN	30	3.36	0.001896	± 2.5	PASS
		VN	40	2.33	0.001315	± 2.5	PASS
		VN	50	-0.21	-0.000118	± 2.5	PASS
		16QAM	LCH	VN	-30	-0.6	-0.000349
VN	-20			4.06	0.002360	± 2.5	PASS
VN	-10			3.6	0.002093	± 2.5	PASS
VN	0			-1.75	-0.001017	± 2.5	PASS
VN	10			4.61	0.002680	± 2.5	PASS
VN	20			2.06	0.001198	± 2.5	PASS
VN	30			3.78	0.002198	± 2.5	PASS
VN	40			-0.49	-0.000285	± 2.5	PASS
VN	50			0.56	0.000326	± 2.5	PASS
MCH	VN		-30	-1.45	-0.000831	± 2.5	PASS
	VN		-20	2.98	0.001708	± 2.5	PASS
	VN		-10	-1.53	-0.000877	± 2.5	PASS
	VN		0	3.58	0.002052	± 2.5	PASS
	VN		10	2.37	0.001358	± 2.5	PASS
	VN		20	1.07	0.000613	± 2.5	PASS
	VN		30	2.52	0.001444	± 2.5	PASS
	VN		40	-1.77	-0.001014	± 2.5	PASS
	VN		50	1.94	0.001112	± 2.5	PASS
HCH	VN		-30	1.22	0.000688	± 2.5	PASS
	VN		-20	-1.61	-0.000908	± 2.5	PASS
	VN		-10	-1.88	-0.001061	± 2.5	PASS
	VN		0	2.44	0.001377	± 2.5	PASS
	VN		10	-1.05	-0.000592	± 2.5	PASS
	VN		20	2.51	0.001416	± 2.5	PASS
	VN		30	0.98	0.000553	± 2.5	PASS
	VN		40	-1.31	-0.000739	± 2.5	PASS
	VN		50	1.78	0.001004	± 2.5	PASS