























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	1.48	0.000865	± 2.5	PASS
		VN	TN	4.9	0.002864	± 2.5	PASS
		VH	TN	0.14	0.000082	± 2.5	PASS
	MCH	VL	TN	-0.12	-0.000069	± 2.5	PASS
		VN	TN	1.51	0.000872	± 2.5	PASS
		VH	TN	4.83	0.002788	± 2.5	PASS
	HCH	VL	TN	0.96	0.000547	± 2.5	PASS
		VN	TN	0.85	0.000485	± 2.5	PASS
		VH	TN	-0.16	-0.000091	± 2.5	PASS
16QAM	LCH	VL	TN	-1.4	-0.000818	± 2.5	PASS
		VN	TN	1.86	0.001087	± 2.5	PASS
		VH	TN	2.9	0.001695	± 2.5	PASS
	MCH	VL	TN	4.03	0.002326	± 2.5	PASS
		VN	TN	4.48	0.002586	± 2.5	PASS
		VH	TN	-0.23	-0.000133	± 2.5	PASS
	HCH	VL	TN	1.11	0.000633	± 2.5	PASS
		VN	TN	0.09	0.000051	± 2.5	PASS
		VH	TN	4.32	0.002463	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.19	0.001865	± 2.5	PASS
		VN	-20	4.57	0.002671	± 2.5	PASS
		VN	-10	-0.42	-0.000246	± 2.5	PASS
		VN	0	3.81	0.002227	± 2.5	PASS
		VN	10	-0.55	-0.000322	± 2.5	PASS
		VN	20	1.13	0.000661	± 2.5	PASS
		VN	30	1.97	0.001152	± 2.5	PASS
		VN	40	1.01	0.000590	± 2.5	PASS
		VN	50	-0.28	-0.000164	± 2.5	PASS

	MCH	VN	-30	0.75	0.000433	± 2.5	PASS
		VN	-20	3.2	0.001847	± 2.5	PASS
		VN	-10	2.84	0.001639	± 2.5	PASS
		VN	0	-1.97	-0.001137	± 2.5	PASS
		VN	10	4.69	0.002707	± 2.5	PASS
		VN	20	0.55	0.000317	± 2.5	PASS
		VN	30	-1.61	-0.000929	± 2.5	PASS
		VN	40	-0.33	-0.000190	± 2.5	PASS
		VN	50	-0.9	-0.000519	± 2.5	PASS
	HCH	VN	-30	1.16	0.000661	± 2.5	PASS
		VN	-20	3.11	0.001773	± 2.5	PASS
		VN	-10	4.77	0.002719	± 2.5	PASS
		VN	0	3.9	0.002223	± 2.5	PASS
		VN	10	-0.85	-0.000485	± 2.5	PASS
		VN	20	0.68	0.000388	± 2.5	PASS
		VN	30	3.89	0.002217	± 2.5	PASS
		VN	40	1.21	0.000690	± 2.5	PASS
		VN	50	1.66	0.000946	± 2.5	PASS
16QAM	LCH	VN	-30	3.93	0.002297	± 2.5	PASS
		VN	-20	-0.84	-0.000491	± 2.5	PASS
		VN	-10	-1.23	-0.000719	± 2.5	PASS
		VN	0	0.25	0.000146	± 2.5	PASS
		VN	10	-1.46	-0.000853	± 2.5	PASS
		VN	20	2.12	0.001239	± 2.5	PASS
		VN	30	0	0.000000	± 2.5	PASS
		VN	40	1.52	0.000889	± 2.5	PASS
		VN	50	-1.97	-0.001152	± 2.5	PASS
	MCH	VN	-30	0.2	0.000114	± 2.5	PASS
		VN	-20	2.62	0.001493	± 2.5	PASS
		VN	-10	-1.55	-0.000884	± 2.5	PASS
		VN	0	4.83	0.002753	± 2.5	PASS
		VN	10	-1.02	-0.000581	± 2.5	PASS
		VN	20	-1.37	-0.000781	± 2.5	PASS
		VN	30	4.16	0.002371	± 2.5	PASS
		VN	40	3.5	0.001995	± 2.5	PASS
		VN	50	1.83	0.001043	± 2.5	PASS
	HCH	VN	-30	-1.95	-0.001112	± 2.5	PASS
		VN	-20	3.58	0.002041	± 2.5	PASS
		VN	-10	1.22	0.000695	± 2.5	PASS
		VN	0	1.85	0.001055	± 2.5	PASS
		VN	10	0.59	0.000336	± 2.5	PASS

		VN	20	0.72	0.000410	± 2.5	PASS
		VN	30	4.06	0.002314	± 2.5	PASS
		VN	40	-0.06	-0.000034	± 2.5	PASS
		VN	50	3.32	0.001892	± 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	3.63	0.002121	± 2.5	PASS
		VN	TN	0.87	0.000508	± 2.5	PASS
		VH	TN	2.83	0.001654	± 2.5	PASS
	MCH	VL	TN	2.42	0.001397	± 2.5	PASS
		VN	TN	-1.58	-0.000912	± 2.5	PASS
		VH	TN	-1.09	-0.000629	± 2.5	PASS
	HCH	VL	TN	4.55	0.002595	± 2.5	PASS
		VN	TN	4.18	0.002384	± 2.5	PASS
		VH	TN	3.94	0.002247	± 2.5	PASS
16QAM	LCH	VL	TN	-0.1	-0.000058	± 2.5	PASS
		VN	TN	-1.49	-0.000871	± 2.5	PASS
		VH	TN	-0.94	-0.000549	± 2.5	PASS
	MCH	VL	TN	-1.54	-0.000889	± 2.5	PASS
		VN	TN	-0.36	-0.000208	± 2.5	PASS
		VH	TN	4.79	0.002765	± 2.5	PASS
	HCH	VL	TN	0.01	0.000006	± 2.5	PASS
		VN	TN	2.44	0.001392	± 2.5	PASS
		VH	TN	2.4	0.001369	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.6	0.001519	± 2.5	PASS
		VN	-20	0.01	0.000006	± 2.5	PASS
		VN	-10	2.12	0.001239	± 2.5	PASS
		VN	0	-1.84	-0.001075	± 2.5	PASS
		VN	10	4.15	0.002425	± 2.5	PASS
		VN	20	-0.51	-0.000298	± 2.5	PASS
		VN	30	1.32	0.000771	± 2.5	PASS
		VN	40	4.49	0.002623	± 2.5	PASS
	VN	50	1.84	0.001075	± 2.5	PASS	
	MCH	VN	-30	4.38	0.002528	± 2.5	PASS

		VN	-20	2.9	0.001674	± 2.5	PASS
		VN	-10	4.89	0.002823	± 2.5	PASS
		VN	0	1.12	0.000646	± 2.5	PASS
		VN	10	-0.75	-0.000433	± 2.5	PASS
		VN	20	2.52	0.001455	± 2.5	PASS
		VN	30	-1.53	-0.000883	± 2.5	PASS
		VN	40	-0.87	-0.000502	± 2.5	PASS
		VN	50	4.94	0.002851	± 2.5	PASS
	HCH	VN	-30	4.88	0.002783	± 2.5	PASS
		VN	-20	2.63	0.001500	± 2.5	PASS
		VN	-10	-0.53	-0.000302	± 2.5	PASS
		VN	0	1.58	0.000901	± 2.5	PASS
		VN	10	1.65	0.000941	± 2.5	PASS
		VN	20	-0.39	-0.000222	± 2.5	PASS
		VN	30	1.4	0.000798	± 2.5	PASS
		VN	40	-0.22	-0.000125	± 2.5	PASS
		VN	50	-1.68	-0.000958	± 2.5	PASS
		16QAM	LCH	VN	-30	3.8	0.002193
VN	-20			-0.64	-0.000369	± 2.5	PASS
VN	-10			4.47	0.002580	± 2.5	PASS
VN	0			-1.6	-0.000924	± 2.5	PASS
VN	10			2.35	0.001356	± 2.5	PASS
VN	20			0.06	0.000035	± 2.5	PASS
VN	30			0.48	0.000277	± 2.5	PASS
VN	40			-0.92	-0.000531	± 2.5	PASS
VN	50			-0.49	-0.000283	± 2.5	PASS
MCH	VN		-30	2.77	0.001580	± 2.5	PASS
	VN		-20	-1.01	-0.000576	± 2.5	PASS
	VN		-10	3.2	0.001825	± 2.5	PASS
	VN		0	0.34	0.000194	± 2.5	PASS
	VN		10	3.29	0.001876	± 2.5	PASS
	VN		20	2.39	0.001363	± 2.5	PASS
	VN		30	2.46	0.001403	± 2.5	PASS
	VN		40	-1.85	-0.001055	± 2.5	PASS
	VN		50	3.05	0.001739	± 2.5	PASS
HCH	VN		-30	2.29	0.001306	± 2.5	PASS
	VN		-20	-0.03	-0.000017	± 2.5	PASS
	VN		-10	-1.79	-0.001021	± 2.5	PASS
	VN		0	3.53	0.002013	± 2.5	PASS
	VN		10	2.29	0.001306	± 2.5	PASS
	VN		20	3.56	0.002030	± 2.5	PASS

		VN	30	3.07	0.001751	± 2.5	PASS
		VN	40	-1.8	-0.001027	± 2.5	PASS
		VN	50	2.45	0.001397	± 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	4.22	0.002464	± 2.5	PASS
		VN	TN	0.84	0.000491	± 2.5	PASS
		VH	TN	-1.29	-0.000753	± 2.5	PASS
	MCH	VL	TN	0.9	0.000519	± 2.5	PASS
		VN	TN	-1.65	-0.000952	± 2.5	PASS
		VH	TN	1.9	0.001097	± 2.5	PASS
	HCH	VL	TN	-1.59	-0.000907	± 2.5	PASS
		VN	TN	0.98	0.000559	± 2.5	PASS
		VH	TN	2.59	0.001478	± 2.5	PASS
16QAM	LCH	VL	TN	-0.75	-0.000438	± 2.5	PASS
		VN	TN	-0.12	-0.000070	± 2.5	PASS
		VH	TN	3.57	0.002085	± 2.5	PASS
	MCH	VL	TN	2.85	0.001645	± 2.5	PASS
		VN	TN	3.38	0.001951	± 2.5	PASS
		VH	TN	-1.62	-0.000935	± 2.5	PASS
	HCH	VL	TN	1.39	0.000793	± 2.5	PASS
		VN	TN	-1.54	-0.000879	± 2.5	PASS
		VH	TN	3.18	0.001815	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.63	-0.000368	± 2.5	PASS
		VN	-20	-1.68	-0.000981	± 2.5	PASS
		VN	-10	-1.96	-0.001145	± 2.5	PASS
		VN	0	4.9	0.002861	± 2.5	PASS
		VN	10	1.71	0.000999	± 2.5	PASS
		VN	20	3.8	0.002219	± 2.5	PASS
		VN	30	3.41	0.001991	± 2.5	PASS
		VN	40	-1.74	-0.001016	± 2.5	PASS
		VN	50	4.02	0.002347	± 2.5	PASS
	MCH	VN	-30	0.72	0.000416	± 2.5	PASS
		VN	-20	-0.35	-0.000202	± 2.5	PASS

		VN	-10	3.99	0.002303	± 2.5	PASS		
		VN	0	-1.46	-0.000843	± 2.5	PASS		
		VN	10	-1.24	-0.000716	± 2.5	PASS		
		VN	20	3.58	0.002066	± 2.5	PASS		
		VN	30	0.76	0.000439	± 2.5	PASS		
		VN	40	1.37	0.000791	± 2.5	PASS		
		VN	50	-0.95	-0.000548	± 2.5	PASS		
	HCH	VN	-30	2.33	0.001330	± 2.5	PASS		
		VN	-20	2.43	0.001274	± 2.5	PASS		
		VN	-10	-1.83	-0.000959	± 2.5	PASS		
		VN	0	0.46	0.000241	± 2.5	PASS		
		VN	10	4.2	0.002202	± 2.5	PASS		
		VN	20	3.13	0.001641	± 2.5	PASS		
		VN	30	2.66	0.001394	± 2.5	PASS		
		VN	40	3.79	0.001987	± 2.5	PASS		
		VN	50	3.87	0.002029	± 2.5	PASS		
		16QAM	LCH	VN	-30	3.3	0.001905	± 2.5	PASS
				VN	-20	2.88	0.001662	± 2.5	PASS
VN	-10			0.62	0.000358	± 2.5	PASS		
VN	0			4.58	0.002644	± 2.5	PASS		
VN	10			3.27	0.001887	± 2.5	PASS		
VN	20			4.37	0.002522	± 2.5	PASS		
VN	30			0.92	0.000531	± 2.5	PASS		
VN	40			-1.34	-0.000773	± 2.5	PASS		
VN	50			3.32	0.001916	± 2.5	PASS		
MCH	VN		-30	4.04	0.002305	± 2.5	PASS		
	VN		-20	-1.2	-0.000685	± 2.5	PASS		
	VN		-10	0.4	0.000228	± 2.5	PASS		
	VN		0	1.63	0.000930	± 2.5	PASS		
	VN		10	4.42	0.002522	± 2.5	PASS		
	VN		20	1.07	0.000611	± 2.5	PASS		
	VN		30	-1.95	-0.001113	± 2.5	PASS		
	VN		40	2.79	0.001592	± 2.5	PASS		
	VN		50	4.18	0.002385	± 2.5	PASS		
HCH	VN		-30	1.84	0.000965	± 2.5	PASS		
	VN		-20	0.03	0.000016	± 2.5	PASS		
	VN		-10	1.28	0.000671	± 2.5	PASS		
	VN		0	-0.7	-0.000367	± 2.5	PASS		
	VN		10	-0.09	-0.000047	± 2.5	PASS		
	VN		20	3.79	0.001987	± 2.5	PASS		
	VN		30	2.75	0.001442	± 2.5	PASS		

		VN	40	2.27	0.001190	± 2.5	PASS
		VN	50	3.93	0.002060	± 2.5	PASS

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	-1.62	-0.000945	± 2.5	PASS
		VN	TN	3.58	0.002087	± 2.5	PASS
		VH	TN	1.08	0.000630	± 2.5	PASS
	MCH	VL	TN	3.41	0.001968	± 2.5	PASS
		VN	TN	3.95	0.002280	± 2.5	PASS
		VH	TN	4.33	0.002499	± 2.5	PASS
	HCH	VL	TN	0.15	0.000086	± 2.5	PASS
		VN	TN	3.21	0.001834	± 2.5	PASS
		VH	TN	-0.64	-0.000366	± 2.5	PASS
16QAM	LCH	VL	TN	-1.36	-0.000793	± 2.5	PASS
		VN	TN	-1.79	-0.001044	± 2.5	PASS
		VH	TN	-1.43	-0.000834	± 2.5	PASS
	MCH	VL	TN	-1.75	-0.001010	± 2.5	PASS
		VN	TN	3.25	0.001876	± 2.5	PASS
		VH	TN	1.68	0.000970	± 2.5	PASS
	HCH	VL	TN	-1.68	-0.000960	± 2.5	PASS
		VN	TN	1.88	0.001074	± 2.5	PASS
		VH	TN	3.44	0.001966	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.28	0.001913	± 2.5	PASS
		VN	-20	-0.19	-0.000111	± 2.5	PASS
		VN	-10	4.37	0.002548	± 2.5	PASS
		VN	0	3.23	0.001883	± 2.5	PASS
		VN	10	1.66	0.000968	± 2.5	PASS
		VN	20	3.45	0.002012	± 2.5	PASS
		VN	30	1.23	0.000717	± 2.5	PASS
		VN	40	2.53	0.001475	± 2.5	PASS
		VN	50	0.97	0.000566	± 2.5	PASS
	MCH	VN	-30	2.55	0.001472	± 2.5	PASS
		VN	-20	1.61	0.000929	± 2.5	PASS
		VN	-10	-1.62	-0.000935	± 2.5	PASS

		VN	0	0.3	0.000173	± 2.5	PASS		
		VN	10	3.66	0.002113	± 2.5	PASS		
		VN	20	-0.41	-0.000237	± 2.5	PASS		
		VN	30	4.7	0.002713	± 2.5	PASS		
		VN	40	3.33	0.001922	± 2.5	PASS		
		VN	50	-1.29	-0.000745	± 2.5	PASS		
	HCH	VN	-30	-0.48	-0.000274	± 2.5	PASS		
		VN	-20	-1.34	-0.000766	± 2.5	PASS		
		VN	-10	4.87	0.002783	± 2.5	PASS		
		VN	0	0.57	0.000326	± 2.5	PASS		
		VN	10	4.11	0.002349	± 2.5	PASS		
		VN	20	3.93	0.002246	± 2.5	PASS		
		VN	30	2.13	0.001217	± 2.5	PASS		
		VN	40	-0.51	-0.000291	± 2.5	PASS		
		VN	50	3.06	0.001749	± 2.5	PASS		
		16QAM	LCH	VN	-30	4.59	0.002649	± 2.5	PASS
				VN	-20	-1.75	-0.001010	± 2.5	PASS
				VN	-10	-1.34	-0.000773	± 2.5	PASS
VN	0			-0.64	-0.000369	± 2.5	PASS		
VN	10			1.71	0.000987	± 2.5	PASS		
VN	20			-0.82	-0.000473	± 2.5	PASS		
VN	30			-1.97	-0.001137	± 2.5	PASS		
VN	40			-0.14	-0.000081	± 2.5	PASS		
VN	50			1.11	0.000641	± 2.5	PASS		
MCH	VN		-30	0.55	0.000314	± 2.5	PASS		
	VN		-20	1.78	0.001017	± 2.5	PASS		
	VN		-10	-1.42	-0.000811	± 2.5	PASS		
	VN		0	-1.42	-0.000811	± 2.5	PASS		
	VN		10	-1.88	-0.001074	± 2.5	PASS		
	VN		20	-1.25	-0.000714	± 2.5	PASS		
	VN		30	0.31	0.000177	± 2.5	PASS		
	VN		40	4.12	0.002354	± 2.5	PASS		
	VN		50	4.47	0.002554	± 2.5	PASS		
HCH	VN	-30	0.46	0.000263	± 2.5	PASS			
	VN	-20	1.73	0.000989	± 2.5	PASS			
	VN	-10	3.02	0.001726	± 2.5	PASS			
	VN	0	0.32	0.000183	± 2.5	PASS			
	VN	10	0.41	0.000234	± 2.5	PASS			
	VN	20	-1.08	-0.000617	± 2.5	PASS			
	VN	30	3.8	0.002171	± 2.5	PASS			
	VN	40	4.39	0.002509	± 2.5	PASS			

		VN	50	0.56	0.000320	± 2.5	PASS
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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	-0.79	-0.000460	± 2.5	PASS
		VN	TN	4.56	0.002655	± 2.5	PASS
		VH	TN	2.74	0.001595	± 2.5	PASS
	MCH	VL	TN	4.43	0.002557	± 2.5	PASS
		VN	TN	-1.06	-0.000612	± 2.5	PASS
		VH	TN	0.56	0.000323	± 2.5	PASS
	HCH	VL	TN	3.57	0.002043	± 2.5	PASS
		VN	TN	0.77	0.000441	± 2.5	PASS
		VH	TN	4.4	0.002518	± 2.5	PASS
16QAM	LCH	VL	TN	0.58	0.000338	± 2.5	PASS
		VN	TN	4.53	0.002638	± 2.5	PASS
		VH	TN	2.52	0.001467	± 2.5	PASS
	MCH	VL	TN	4.85	0.002799	± 2.5	PASS
		VN	TN	2.39	0.001380	± 2.5	PASS
		VH	TN	1.18	0.000681	± 2.5	PASS
	HCH	VL	TN	3.23	0.001848	± 2.5	PASS
		VN	TN	2.41	0.001379	± 2.5	PASS
		VH	TN	3.6	0.002060	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.93	0.000541	± 2.5	PASS
		VN	-20	4.41	0.002568	± 2.5	PASS
		VN	-10	4.13	0.002405	± 2.5	PASS
		VN	0	-0.52	-0.000303	± 2.5	PASS
		VN	10	-0.28	-0.000163	± 2.5	PASS
		VN	20	2.05	0.001194	± 2.5	PASS
		VN	30	3.99	0.002323	± 2.5	PASS
		VN	40	0.12	0.000070	± 2.5	PASS
		VN	50	4.28	0.002492	± 2.5	PASS
	MCH	VN	-30	3.11	0.001795	± 2.5	PASS
		VN	-20	3.5	0.002020	± 2.5	PASS
		VN	-10	4.74	0.002736	± 2.5	PASS
		VN	0	0.39	0.000225	± 2.5	PASS

		VN	10	-1.79	-0.001033	± 2.5	PASS
		VN	20	3.3	0.001905	± 2.5	PASS
		VN	30	-1.33	-0.000768	± 2.5	PASS
		VN	40	3.96	0.002286	± 2.5	PASS
		VN	50	3.95	0.002280	± 2.5	PASS
	HCH	VN	-30	-0.56	-0.000320	± 2.5	PASS
		VN	-20	4.37	0.002501	± 2.5	PASS
		VN	-10	0.96	0.000549	± 2.5	PASS
		VN	0	1.65	0.000944	± 2.5	PASS
		VN	10	4.5	0.002575	± 2.5	PASS
		VN	20	-0.33	-0.000189	± 2.5	PASS
		VN	30	-1.52	-0.000870	± 2.5	PASS
		VN	40	4.53	0.002592	± 2.5	PASS
		VN	50	4.08	0.002335	± 2.5	PASS
16QAM	LCH	VN	-30	0.84	0.000485	± 2.5	PASS
		VN	-20	-1.81	-0.001045	± 2.5	PASS
		VN	-10	0.2	0.000115	± 2.5	PASS
		VN	0	1.88	0.001085	± 2.5	PASS
		VN	10	1.55	0.000895	± 2.5	PASS
		VN	20	3.86	0.002228	± 2.5	PASS
		VN	30	0.97	0.000560	± 2.5	PASS
		VN	40	0.65	0.000375	± 2.5	PASS
		VN	50	1.31	0.000756	± 2.5	PASS
	MCH	VN	-30	4.96	0.002838	± 2.5	PASS
		VN	-20	-0.07	-0.000040	± 2.5	PASS
		VN	-10	4.96	0.002838	± 2.5	PASS
		VN	0	-1.71	-0.000979	± 2.5	PASS
		VN	10	0.94	0.000538	± 2.5	PASS
		VN	20	2.12	0.001213	± 2.5	PASS
		VN	30	2.21	0.001265	± 2.5	PASS
		VN	40	4.18	0.002392	± 2.5	PASS
		VN	50	-0.14	-0.000080	± 2.5	PASS
	HCH	VN	-30	4.57	0.002615	± 2.5	PASS
		VN	-20	2.42	0.001385	± 2.5	PASS
		VN	-10	-1.34	-0.000767	± 2.5	PASS
		VN	0	3.82	0.002186	± 2.5	PASS
		VN	10	3.29	0.001883	± 2.5	PASS
		VN	20	0.89	0.000509	± 2.5	PASS
VN		30	2.53	0.001448	± 2.5	PASS	
VN		40	2.14	0.001225	± 2.5	PASS	
VN		50	2.93	0.001677	± 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	3.25	0.001890	± 2.5	PASS
		VN	TN	-0.47	-0.000273	± 2.5	PASS
		VH	TN	2.03	0.001180	± 2.5	PASS
	MCH	VL	TN	0.54	0.000312	± 2.5	PASS
		VN	TN	1.48	0.000854	± 2.5	PASS
		VH	TN	-1.06	-0.000612	± 2.5	PASS
	HCH	VL	TN	-0.53	-0.000304	± 2.5	PASS
		VN	TN	1.09	0.000625	± 2.5	PASS
		VH	TN	-0.84	-0.000481	± 2.5	PASS
16QAM	LCH	VL	TN	4.27	0.002483	± 2.5	PASS
		VN	TN	4.09	0.002378	± 2.5	PASS
		VH	TN	3.41	0.001983	± 2.5	PASS
	MCH	VL	TN	4.66	0.002690	± 2.5	PASS
		VN	TN	1.63	0.000941	± 2.5	PASS
		VH	TN	2.53	0.001460	± 2.5	PASS
	HCH	VL	TN	-0.54	-0.000309	± 2.5	PASS
		VN	TN	4.8	0.002751	± 2.5	PASS
		VH	TN	-0.52	-0.000298	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.82	0.001058	± 2.5	PASS
		VN	-20	2.22	0.001291	± 2.5	PASS
		VN	-10	4.83	0.002808	± 2.5	PASS
		VN	0	1.9	0.001105	± 2.5	PASS
		VN	10	0.98	0.000570	± 2.5	PASS
		VN	20	1.04	0.000605	± 2.5	PASS
		VN	30	3.53	0.002052	± 2.5	PASS
		VN	40	1.37	0.000797	± 2.5	PASS
		VN	50	-0.3	-0.000174	± 2.5	PASS
	MCH	VN	-30	4.37	0.002522	± 2.5	PASS
		VN	-20	3.55	0.002049	± 2.5	PASS
		VN	-10	4.74	0.002736	± 2.5	PASS
		VN	0	4.95	0.002857	± 2.5	PASS
		VN	10	3.82	0.002205	± 2.5	PASS

		VN	20	-0.43	-0.000248	± 2.5	PASS
		VN	30	-0.53	-0.000306	± 2.5	PASS
		VN	40	1.57	0.000906	± 2.5	PASS
		VN	50	2.88	0.001662	± 2.5	PASS
	HCH	VN	-30	3.71	0.002126	± 2.5	PASS
		VN	-20	-1.66	-0.000951	± 2.5	PASS
		VN	-10	2.4	0.001375	± 2.5	PASS
		VN	0	-0.95	-0.000544	± 2.5	PASS
		VN	10	0.5	0.000287	± 2.5	PASS
		VN	20	0.34	0.000195	± 2.5	PASS
		VN	30	2.98	0.001708	± 2.5	PASS
		VN	40	-0.16	-0.000092	± 2.5	PASS
		VN	50	4.46	0.002556	± 2.5	PASS
16QAM	LCH	VN	-30	2.87	0.001657	± 2.5	PASS
		VN	-20	0.98	0.000566	± 2.5	PASS
		VN	-10	1.74	0.001004	± 2.5	PASS
		VN	0	0.13	0.000075	± 2.5	PASS
		VN	10	4.62	0.002667	± 2.5	PASS
		VN	20	-1.09	-0.000629	± 2.5	PASS
		VN	30	2.73	0.001576	± 2.5	PASS
		VN	40	1.11	0.000641	± 2.5	PASS
		VN	50	3.56	0.002055	± 2.5	PASS
	MCH	VN	-30	0.21	0.000120	± 2.5	PASS
		VN	-20	2.18	0.001249	± 2.5	PASS
		VN	-10	1.34	0.000768	± 2.5	PASS
		VN	0	3.94	0.002258	± 2.5	PASS
		VN	10	3.63	0.002080	± 2.5	PASS
		VN	20	0.11	0.000063	± 2.5	PASS
		VN	30	4.79	0.002745	± 2.5	PASS
		VN	40	4.23	0.002424	± 2.5	PASS
		VN	50	2.78	0.001593	± 2.5	PASS
	HCH	VN	-30	1.37	0.000785	± 2.5	PASS
		VN	-20	2.13	0.001221	± 2.5	PASS
		VN	-10	2.97	0.001702	± 2.5	PASS
		VN	0	-0.96	-0.000550	± 2.5	PASS
		VN	10	3.96	0.002269	± 2.5	PASS
		VN	20	3.8	0.002178	± 2.5	PASS
		VN	30	3.14	0.001799	± 2.5	PASS
		VN	40	0.73	0.000418	± 2.5	PASS
		VN	50	3.64	0.002086	± 2.5	PASS