





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	-0.75	-0.000438	± 2.5	PASS
		VN	TN	-1.59	-0.000929	± 2.5	PASS
		VH	TN	-1.1	-0.000643	± 2.5	PASS
	MCH	VL	TN	1.44	0.000831	± 2.5	PASS
		VN	TN	-0.16	-0.000092	± 2.5	PASS
		VH	TN	0.56	0.000323	± 2.5	PASS
	HCH	VL	TN	2.34	0.001334	± 2.5	PASS
		VN	TN	0.45	0.000257	± 2.5	PASS
		VH	TN	0.93	0.000530	± 2.5	PASS
16QAM	LCH	VL	TN	-1.81	-0.001058	± 2.5	PASS
		VN	TN	1.32	0.000772	± 2.5	PASS
		VH	TN	2.67	0.001561	± 2.5	PASS
	MCH	VL	TN	-0.9	-0.000519	± 2.5	PASS
		VN	TN	0.97	0.000560	± 2.5	PASS
		VH	TN	3.92	0.002263	± 2.5	PASS
	HCH	VL	TN	4.28	0.002440	± 2.5	PASS
		VN	TN	-1.18	-0.000673	± 2.5	PASS
		VH	TN	2.01	0.001146	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.67	0.002145	± 2.5	PASS
		VN	-20	-0.26	-0.000152	± 2.5	PASS
		VN	-10	4.39	0.002566	± 2.5	PASS
		VN	0	1.2	0.000701	± 2.5	PASS
		VN	10	3.23	0.001888	± 2.5	PASS
		VN	20	0.38	0.000222	± 2.5	PASS
		VN	30	0.78	0.000456	± 2.5	PASS
		VN	40	3.91	0.002286	± 2.5	PASS
	MCH	VN	-30	0.82	0.000473	± 2.5	PASS
		VN	-20	-0.37	-0.000214	± 2.5	PASS

		VN	-10	1.35	0.000779	± 2.5	PASS		
		VN	0	2.7	0.001558	± 2.5	PASS		
		VN	10	4.66	0.002690	± 2.5	PASS		
		VN	20	0.19	0.000110	± 2.5	PASS		
		VN	30	0.38	0.000219	± 2.5	PASS		
		VN	40	3.58	0.002066	± 2.5	PASS		
		VN	50	1.08	0.000623	± 2.5	PASS		
	HCH	VN	-30	3.47	0.001978	± 2.5	PASS		
		VN	-20	1.1	0.000627	± 2.5	PASS		
		VN	-10	3.23	0.001841	± 2.5	PASS		
		VN	0	4.51	0.002571	± 2.5	PASS		
		VN	10	2.1	0.001197	± 2.5	PASS		
		VN	20	2.87	0.001636	± 2.5	PASS		
		VN	30	1.56	0.000889	± 2.5	PASS		
		VN	40	2.44	0.001391	± 2.5	PASS		
		VN	50	1.28	0.000730	± 2.5	PASS		
		16QAM	LCH	VN	-30	1.59	0.000929	± 2.5	PASS
				VN	-20	-1.91	-0.001117	± 2.5	PASS
VN	-10			4.07	0.002379	± 2.5	PASS		
VN	0			3.58	0.002093	± 2.5	PASS		
VN	10			0.78	0.000456	± 2.5	PASS		
VN	20			3.44	0.002011	± 2.5	PASS		
VN	30			2.02	0.001181	± 2.5	PASS		
VN	40			-0.79	-0.000462	± 2.5	PASS		
VN	50			2.79	0.001631	± 2.5	PASS		
MCH	VN		-30	1.88	0.001072	± 2.5	PASS		
	VN		-20	0.1	0.000057	± 2.5	PASS		
	VN		-10	3.67	0.002092	± 2.5	PASS		
	VN		0	-0.6	-0.000342	± 2.5	PASS		
	VN		10	3.41	0.001944	± 2.5	PASS		
	VN		20	4.95	0.002822	± 2.5	PASS		
	VN		30	2.41	0.001374	± 2.5	PASS		
	VN		40	0.39	0.000222	± 2.5	PASS		
	VN		50	2.48	0.001414	± 2.5	PASS		
HCH	VN		-30	2.43	0.001385	± 2.5	PASS		
	VN		-20	-0.9	-0.000513	± 2.5	PASS		
	VN		-10	4.11	0.002343	± 2.5	PASS		
	VN		0	4.4	0.002508	± 2.5	PASS		
	VN		10	4.76	0.002713	± 2.5	PASS		
	VN		20	-0.13	-0.000074	± 2.5	PASS		
	VN		30	1.67	0.000952	± 2.5	PASS		

		VN	40	1.67	0.000952	± 2.5	PASS
		VN	50	2.73	0.001556	± 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	0.91	0.000532	± 2.5	PASS
		VN	TN	-1.86	-0.001087	± 2.5	PASS
		VH	TN	2.66	0.001554	± 2.5	PASS
	MCH	VL	TN	4.61	0.002661	± 2.5	PASS
		VN	TN	2.95	0.001703	± 2.5	PASS
		VH	TN	0.26	0.000150	± 2.5	PASS
	HCH	VL	TN	3.82	0.002179	± 2.5	PASS
		VN	TN	-0.08	-0.000046	± 2.5	PASS
		VH	TN	3.67	0.002093	± 2.5	PASS
16QAM	LCH	VL	TN	0.47	0.000275	± 2.5	PASS
		VN	TN	-1.69	-0.000987	± 2.5	PASS
		VH	TN	-1.97	-0.001151	± 2.5	PASS
	MCH	VL	TN	3.39	0.001957	± 2.5	PASS
		VN	TN	0.66	0.000381	± 2.5	PASS
		VH	TN	-0.85	-0.000491	± 2.5	PASS
	HCH	VL	TN	0.57	0.000325	± 2.5	PASS
		VN	TN	3.96	0.002258	± 2.5	PASS
		VH	TN	0.08	0.000046	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.54	0.002068	± 2.5	PASS
		VN	-20	-1.62	-0.000947	± 2.5	PASS
		VN	-10	-0.18	-0.000105	± 2.5	PASS
		VN	0	2.93	0.001712	± 2.5	PASS
		VN	10	-1.27	-0.000742	± 2.5	PASS
		VN	20	1.62	0.000947	± 2.5	PASS
		VN	30	-0.91	-0.000532	± 2.5	PASS
		VN	40	3.76	0.002197	± 2.5	PASS
		VN	50	-1.1	-0.000643	± 2.5	PASS
	MCH	VN	-30	-0.81	-0.000468	± 2.5	PASS
		VN	-20	0.83	0.000479	± 2.5	PASS
		VN	-10	-0.07	-0.000040	± 2.5	PASS

		VN	0	2.85	0.001645	± 2.5	PASS		
		VN	10	3.4	0.001962	± 2.5	PASS		
		VN	20	0.56	0.000323	± 2.5	PASS		
		VN	30	-1.03	-0.000595	± 2.5	PASS		
		VN	40	3.23	0.001864	± 2.5	PASS		
		VN	50	1.82	0.001051	± 2.5	PASS		
	HCH	VN	-30	3.56	0.002030	± 2.5	PASS		
		VN	-20	0.33	0.000188	± 2.5	PASS		
		VN	-10	-0.77	-0.000439	± 2.5	PASS		
		VN	0	2.92	0.001665	± 2.5	PASS		
		VN	10	-0.71	-0.000405	± 2.5	PASS		
		VN	20	4.31	0.002458	± 2.5	PASS		
		VN	30	4.83	0.002754	± 2.5	PASS		
		VN	40	-1.68	-0.000958	± 2.5	PASS		
		VN	50	1.02	0.000582	± 2.5	PASS		
		16QAM	LCH	VN	-30	0.71	0.000410	± 2.5	PASS
				VN	-20	-1.35	-0.000779	± 2.5	PASS
				VN	-10	2.18	0.001258	± 2.5	PASS
VN	0			0.6	0.000346	± 2.5	PASS		
VN	10			3.81	0.002199	± 2.5	PASS		
VN	20			-0.87	-0.000502	± 2.5	PASS		
VN	30			1.17	0.000675	± 2.5	PASS		
VN	40			-0.45	-0.000260	± 2.5	PASS		
VN	50			4.51	0.002603	± 2.5	PASS		
MCH	VN		-30	0.83	0.000473	± 2.5	PASS		
	VN		-20	-0.51	-0.000291	± 2.5	PASS		
	VN		-10	0.11	0.000063	± 2.5	PASS		
	VN		0	0.99	0.000565	± 2.5	PASS		
	VN		10	-1.65	-0.000941	± 2.5	PASS		
	VN		20	3	0.001711	± 2.5	PASS		
	VN		30	1.29	0.000736	± 2.5	PASS		
	VN		40	-0.67	-0.000382	± 2.5	PASS		
	VN		50	4.24	0.002418	± 2.5	PASS		
HCH	VN		-30	-1.88	-0.001072	± 2.5	PASS		
	VN		-20	1.75	0.000998	± 2.5	PASS		
	VN		-10	2.88	0.001642	± 2.5	PASS		
	VN		0	1.21	0.000690	± 2.5	PASS		
	VN		10	4.12	0.002350	± 2.5	PASS		
	VN		20	-1.89	-0.001078	± 2.5	PASS		
	VN		30	2.88	0.001642	± 2.5	PASS		
	VN		40	-1.13	-0.000644	± 2.5	PASS		

		VN	50	-0.96	-0.000547	± 2.5	PASS
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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	-1.79	-0.001045	± 2.5	PASS
		VN	TN	4.43	0.002587	± 2.5	PASS
		VH	TN	3.18	0.001857	± 2.5	PASS
	MCH	VL	TN	4.09	0.002361	± 2.5	PASS
		VN	TN	2.54	0.001466	± 2.5	PASS
		VH	TN	1.82	0.001051	± 2.5	PASS
	HCH	VL	TN	2.76	0.001575	± 2.5	PASS
		VN	TN	3.22	0.001837	± 2.5	PASS
		VH	TN	0.14	0.000080	± 2.5	PASS
16QAM	LCH	VL	TN	-1.14	-0.000666	± 2.5	PASS
		VN	TN	3.65	0.002131	± 2.5	PASS
		VH	TN	2.85	0.001664	± 2.5	PASS
	MCH	VL	TN	1.73	0.000999	± 2.5	PASS
		VN	TN	-1.92	-0.001108	± 2.5	PASS
		VH	TN	1.27	0.000733	± 2.5	PASS
	HCH	VL	TN	3.68	0.002100	± 2.5	PASS
		VN	TN	3.01	0.001718	± 2.5	PASS
		VH	TN	1.2	0.000685	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.22	0.002464	± 2.5	PASS
		VN	-20	1.84	0.001074	± 2.5	PASS
		VN	-10	3.96	0.002312	± 2.5	PASS
		VN	0	2.61	0.001524	± 2.5	PASS
		VN	10	3.78	0.002207	± 2.5	PASS
		VN	20	2.05	0.001197	± 2.5	PASS
		VN	30	1.36	0.000794	± 2.5	PASS
		VN	40	1.81	0.001057	± 2.5	PASS
		VN	50	1.65	0.000964	± 2.5	PASS
	MCH	VN	-30	4.83	0.002788	± 2.5	PASS
		VN	-20	-1.56	-0.000900	± 2.5	PASS
		VN	-10	4.42	0.002551	± 2.5	PASS
		VN	0	0.67	0.000387	± 2.5	PASS

		VN	10	0.77	0.000444	± 2.5	PASS
		VN	20	2.85	0.001645	± 2.5	PASS
		VN	30	2.04	0.001177	± 2.5	PASS
		VN	40	-0.7	-0.000404	± 2.5	PASS
		VN	50	1.84	0.001062	± 2.5	PASS
	HCH	VN	-30	0.57	0.000325	± 2.5	PASS
		VN	-20	4.04	0.002118	± 2.5	PASS
		VN	-10	-1.54	-0.000807	± 2.5	PASS
		VN	0	4.36	0.002286	± 2.5	PASS
		VN	10	4.23	0.002218	± 2.5	PASS
		VN	20	3.56	0.001866	± 2.5	PASS
		VN	30	1.33	0.000697	± 2.5	PASS
		VN	40	0.6	0.000315	± 2.5	PASS
		VN	50	4.6	0.002412	± 2.5	PASS
		16QAM	LCH	VN	-30	-0.15	-0.000087
VN	-20			4.13	0.002384	± 2.5	PASS
VN	-10			3.93	0.002268	± 2.5	PASS
VN	0			0.69	0.000398	± 2.5	PASS
VN	10			-1.79	-0.001033	± 2.5	PASS
VN	20			-0.93	-0.000537	± 2.5	PASS
VN	30			-0.21	-0.000121	± 2.5	PASS
VN	40			4.68	0.002701	± 2.5	PASS
VN	50			-1.41	-0.000814	± 2.5	PASS
MCH	VN		-30	-1.91	-0.001090	± 2.5	PASS
	VN		-20	1.8	0.001027	± 2.5	PASS
	VN		-10	1.32	0.000753	± 2.5	PASS
	VN		0	0.97	0.000553	± 2.5	PASS
	VN		10	3.63	0.002071	± 2.5	PASS
	VN		20	-1.25	-0.000713	± 2.5	PASS
	VN		30	3.11	0.001775	± 2.5	PASS
	VN		40	0.49	0.000280	± 2.5	PASS
	VN		50	3.04	0.001735	± 2.5	PASS
HCH	VN		-30	2.64	0.001384	± 2.5	PASS
	VN		-20	3.35	0.001756	± 2.5	PASS
	VN		-10	4.26	0.002233	± 2.5	PASS
	VN		0	0.91	0.000477	± 2.5	PASS
	VN		10	1.23	0.000645	± 2.5	PASS
	VN		20	-0.05	-0.000026	± 2.5	PASS
	VN		30	1.36	0.000713	± 2.5	PASS
	VN		40	-0.97	-0.000509	± 2.5	PASS
	VN		50	-0.02	-0.000010	± 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	-1.31	-0.000764	± 2.5	PASS
		VN	TN	4.02	0.002344	± 2.5	PASS
		VH	TN	4.53	0.002641	± 2.5	PASS
	MCH	VL	TN	1.29	0.000745	± 2.5	PASS
		VN	TN	1.85	0.001068	± 2.5	PASS
		VH	TN	1.84	0.001062	± 2.5	PASS
	HCH	VL	TN	0.32	0.000183	± 2.5	PASS
		VN	TN	1.29	0.000737	± 2.5	PASS
		VH	TN	0.6	0.000343	± 2.5	PASS
16QAM	LCH	VL	TN	-1.1	-0.000641	± 2.5	PASS
		VN	TN	2.77	0.001615	± 2.5	PASS
		VH	TN	2.06	0.001201	± 2.5	PASS
	MCH	VL	TN	2.08	0.001201	± 2.5	PASS
		VN	TN	4.72	0.002724	± 2.5	PASS
		VH	TN	-0.22	-0.000127	± 2.5	PASS
	HCH	VL	TN	3.34	0.001909	± 2.5	PASS
		VN	TN	4.96	0.002834	± 2.5	PASS
		VH	TN	3.84	0.002194	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.11	0.001813	± 2.5	PASS
		VN	-20	-0.5	-0.000292	± 2.5	PASS
		VN	-10	2.43	0.001417	± 2.5	PASS
		VN	0	0.58	0.000338	± 2.5	PASS
		VN	10	2.75	0.001603	± 2.5	PASS
		VN	20	0.92	0.000536	± 2.5	PASS
		VN	30	3.92	0.002286	± 2.5	PASS
		VN	40	-0.89	-0.000519	± 2.5	PASS
		VN	50	-0.65	-0.000379	± 2.5	PASS
	MCH	VN	-30	3.86	0.002228	± 2.5	PASS
		VN	-20	2.91	0.001680	± 2.5	PASS
		VN	-10	-0.74	-0.000427	± 2.5	PASS
		VN	0	2.05	0.001183	± 2.5	PASS
		VN	10	0.81	0.000468	± 2.5	PASS

		VN	20	-1.48	-0.000854	± 2.5	PASS
		VN	30	-1.12	-0.000646	± 2.5	PASS
		VN	40	4.06	0.002343	± 2.5	PASS
		VN	50	-0.47	-0.000271	± 2.5	PASS
	HCH	VN	-30	2.44	0.001394	± 2.5	PASS
		VN	-20	4.67	0.002669	± 2.5	PASS
		VN	-10	0.15	0.000086	± 2.5	PASS
		VN	0	-1.36	-0.000777	± 2.5	PASS
		VN	10	1.45	0.000829	± 2.5	PASS
		VN	20	1.76	0.001006	± 2.5	PASS
		VN	30	2.41	0.001377	± 2.5	PASS
		VN	40	-0.73	-0.000417	± 2.5	PASS
		VN	50	3.06	0.001749	± 2.5	PASS
		QPSK	LCH	VN	-30	2.41	0.001391
VN	-20			1.61	0.000929	± 2.5	PASS
VN	-10			2.08	0.001201	± 2.5	PASS
VN	0			-0.91	-0.000525	± 2.5	PASS
VN	10			2.51	0.001449	± 2.5	PASS
VN	20			4.95	0.002857	± 2.5	PASS
VN	30			2.28	0.001316	± 2.5	PASS
VN	40			4.6	0.002655	± 2.5	PASS
VN	50			0.09	0.000052	± 2.5	PASS
MCH	VN		-30	2.97	0.001697	± 2.5	PASS
	VN		-20	-1.48	-0.000846	± 2.5	PASS
	VN		-10	-0.06	-0.000034	± 2.5	PASS
	VN		0	-1.76	-0.001006	± 2.5	PASS
	VN		10	4.23	0.002417	± 2.5	PASS
	VN		20	-0.61	-0.000349	± 2.5	PASS
	VN		30	2.02	0.001154	± 2.5	PASS
	VN		40	-0.52	-0.000297	± 2.5	PASS
	VN		50	1.68	0.000960	± 2.5	PASS
HCH	VN		-30	1.15	0.000657	± 2.5	PASS
	VN		-20	0.02	0.000011	± 2.5	PASS
	VN		-10	-0.75	-0.000429	± 2.5	PASS
	VN		0	3.38	0.001931	± 2.5	PASS
	VN		10	0.36	0.000206	± 2.5	PASS
	VN		20	-0.14	-0.000080	± 2.5	PASS
	VN		30	4.46	0.002549	± 2.5	PASS
	VN		40	2.84	0.001623	± 2.5	PASS
	VN		50	-0.36	-0.000206	± 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	1.56	0.000908	± 2.5	PASS
		VN	TN	3.88	0.002259	± 2.5	PASS
		VH	TN	0.35	0.000204	± 2.5	PASS
	MCH	VL	TN	-0.43	-0.000248	± 2.5	PASS
		VN	TN	-1.23	-0.000710	± 2.5	PASS
		VH	TN	2.45	0.001414	± 2.5	PASS
	HCH	VL	TN	2.37	0.001356	± 2.5	PASS
		VN	TN	-1.8	-0.001030	± 2.5	PASS
		VH	TN	-1.04	-0.000595	± 2.5	PASS
16QAM	LCH	VL	TN	3.23	0.001881	± 2.5	PASS
		VN	TN	4.35	0.002533	± 2.5	PASS
		VH	TN	3.61	0.002102	± 2.5	PASS
	MCH	VL	TN	2.84	0.001639	± 2.5	PASS
		VN	TN	1.96	0.001131	± 2.5	PASS
		VH	TN	4.02	0.002320	± 2.5	PASS
	HCH	VL	TN	1.23	0.000704	± 2.5	PASS
		VN	TN	2.3	0.001316	± 2.5	PASS
		VH	TN	3.85	0.002203	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.79	0.002789	± 2.5	PASS
		VN	-20	-1.19	-0.000693	± 2.5	PASS
		VN	-10	4.3	0.002504	± 2.5	PASS
		VN	0	-1.02	-0.000594	± 2.5	PASS
		VN	10	1.98	0.001153	± 2.5	PASS
		VN	20	-1.26	-0.000734	± 2.5	PASS
		VN	30	-1.66	-0.000967	± 2.5	PASS
		VN	40	-1.74	-0.001013	± 2.5	PASS
		VN	50	2.64	0.001537	± 2.5	PASS
	MCH	VN	-30	1.09	0.000629	± 2.5	PASS
		VN	-20	-1.38	-0.000797	± 2.5	PASS
		VN	-10	3.86	0.002228	± 2.5	PASS
		VN	0	0.34	0.000196	± 2.5	PASS
		VN	10	4.75	0.002742	± 2.5	PASS
		VN	20	1.27	0.000733	± 2.5	PASS

		VN	30	-0.93	-0.000537	± 2.5	PASS
		VN	40	4.07	0.002349	± 2.5	PASS
		VN	50	1.62	0.000935	± 2.5	PASS
	HCH	VN	-30	1.52	0.000870	± 2.5	PASS
		VN	-20	1.04	0.000595	± 2.5	PASS
		VN	-10	0.57	0.000326	± 2.5	PASS
		VN	0	4.53	0.002592	± 2.5	PASS
		VN	10	2.55	0.001459	± 2.5	PASS
		VN	20	-1.25	-0.000715	± 2.5	PASS
		VN	30	4.07	0.002329	± 2.5	PASS
		VN	40	3.91	0.002237	± 2.5	PASS
		VN	50	-0.88	-0.000504	± 2.5	PASS
16QAM	LCH	VN	-30	2.6	0.001501	± 2.5	PASS
		VN	-20	-1.25	-0.000722	± 2.5	PASS
		VN	-10	1.27	0.000733	± 2.5	PASS
		VN	0	2	0.001154	± 2.5	PASS
		VN	10	2.98	0.001720	± 2.5	PASS
		VN	20	2.12	0.001224	± 2.5	PASS
		VN	30	-1.62	-0.000935	± 2.5	PASS
		VN	40	4.24	0.002447	± 2.5	PASS
		VN	50	3.95	0.002280	± 2.5	PASS
	MCH	VN	-30	2.88	0.001648	± 2.5	PASS
		VN	-20	3.5	0.002003	± 2.5	PASS
		VN	-10	4.7	0.002690	± 2.5	PASS
		VN	0	0.16	0.000092	± 2.5	PASS
		VN	10	2.36	0.001351	± 2.5	PASS
		VN	20	0.26	0.000149	± 2.5	PASS
		VN	30	1.8	0.001030	± 2.5	PASS
		VN	40	0.59	0.000338	± 2.5	PASS
		VN	50	-0.8	-0.000458	± 2.5	PASS
	HCH	VN	-30	-0.44	-0.000252	± 2.5	PASS
		VN	-20	2.51	0.001436	± 2.5	PASS
		VN	-10	4.08	0.002335	± 2.5	PASS
		VN	0	4.64	0.002655	± 2.5	PASS
		VN	10	-1.2	-0.000687	± 2.5	PASS
		VN	20	4.01	0.002295	± 2.5	PASS
		VN	30	1.47	0.000841	± 2.5	PASS
		VN	40	3.35	0.001917	± 2.5	PASS
		VN	50	-0.45	-0.000258	± 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	4.54	0.002640	± 2.5	PASS
		VN	TN	-0.8	-0.000465	± 2.5	PASS
		VH	TN	4.05	0.002355	± 2.5	PASS
	MCH	VL	TN	-0.09	-0.000052	± 2.5	PASS
		VN	TN	1.89	0.001091	± 2.5	PASS
		VH	TN	4.46	0.002574	± 2.5	PASS
	HCH	VL	TN	0.88	0.000504	± 2.5	PASS
		VN	TN	1.11	0.000636	± 2.5	PASS
		VH	TN	1.24	0.000711	± 2.5	PASS
16QAM	LCH	VL	TN	0.64	0.000372	± 2.5	PASS
		VN	TN	0.62	0.000360	± 2.5	PASS
		VH	TN	-1.37	-0.000797	± 2.5	PASS
	MCH	VL	TN	4.13	0.002384	± 2.5	PASS
		VN	TN	1.52	0.000877	± 2.5	PASS
		VH	TN	-1.24	-0.000716	± 2.5	PASS
	HCH	VL	TN	4.07	0.002332	± 2.5	PASS
		VN	TN	3.13	0.001794	± 2.5	PASS
		VH	TN	2.67	0.001530	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.94	0.001128	± 2.5	PASS
		VN	-20	1.89	0.001099	± 2.5	PASS
		VN	-10	-0.38	-0.000221	± 2.5	PASS
		VN	0	2.44	0.001419	± 2.5	PASS
		VN	10	-0.91	-0.000529	± 2.5	PASS
		VN	20	0.32	0.000186	± 2.5	PASS
		VN	30	4.4	0.002558	± 2.5	PASS
		VN	40	0.16	0.000093	± 2.5	PASS
		VN	50	2	0.001163	± 2.5	PASS
	MCH	VN	-30	1.17	0.000675	± 2.5	PASS
		VN	-20	-1.99	-0.001149	± 2.5	PASS
		VN	-10	0.7	0.000404	± 2.5	PASS
		VN	0	-2	-0.001154	± 2.5	PASS
		VN	10	2.51	0.001449	± 2.5	PASS
		VN	20	1.64	0.000947	± 2.5	PASS

		VN	30	1.19	0.000687	± 2.5	PASS
		VN	40	-1.04	-0.000600	± 2.5	PASS
		VN	50	-1.31	-0.000756	± 2.5	PASS
	HCH	VN	-30	0.54	0.000309	± 2.5	PASS
		VN	-20	-0.33	-0.000189	± 2.5	PASS
		VN	-10	5	0.002865	± 2.5	PASS
		VN	0	2.72	0.001559	± 2.5	PASS
		VN	10	-1.25	-0.000716	± 2.5	PASS
		VN	20	0.6	0.000344	± 2.5	PASS
		VN	30	-0.97	-0.000556	± 2.5	PASS
		VN	40	3.37	0.001931	± 2.5	PASS
		VN	50	-0.41	-0.000235	± 2.5	PASS
		16QAM	LCH	VN	-30	2.16	0.001247
VN	-20			4.66	0.002690	± 2.5	PASS
VN	-10			0.99	0.000571	± 2.5	PASS
VN	0			-0.75	-0.000433	± 2.5	PASS
VN	10			0.01	0.000006	± 2.5	PASS
VN	20			-0.51	-0.000294	± 2.5	PASS
VN	30			-0.25	-0.000144	± 2.5	PASS
VN	40			0.56	0.000323	± 2.5	PASS
VN	50			1.2	0.000693	± 2.5	PASS
MCH	VN		-30	0.9	0.000516	± 2.5	PASS
	VN		-20	-1.79	-0.001026	± 2.5	PASS
	VN		-10	2.5	0.001433	± 2.5	PASS
	VN		0	3.24	0.001857	± 2.5	PASS
	VN		10	2.21	0.001266	± 2.5	PASS
	VN		20	4.17	0.002390	± 2.5	PASS
	VN		30	1.03	0.000590	± 2.5	PASS
	VN		40	1.07	0.000613	± 2.5	PASS
	VN		50	3.64	0.002086	± 2.5	PASS
HCH	VN		-30	0.33	0.000189	± 2.5	PASS
	VN		-20	4.22	0.002418	± 2.5	PASS
	VN		-10	1.46	0.000837	± 2.5	PASS
	VN		0	4.57	0.002619	± 2.5	PASS
	VN		10	3.2	0.001834	± 2.5	PASS
	VN		20	-1.72	-0.000986	± 2.5	PASS
	VN		30	4.26	0.002441	± 2.5	PASS
	VN		40	-0.16	-0.000092	± 2.5	PASS
	VN		50	3.09	0.001771	± 2.5	PASS