





## 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	1.31	0.000708	± 2.5	PASS
		VN	TN	3.98	0.002151	± 2.5	PASS
		VH	TN	0.65	0.000351	± 2.5	PASS
	MCH	VL	TN	4.73	0.002516	± 2.5	PASS
		VN	TN	1.47	0.000782	± 2.5	PASS
		VH	TN	4.75	0.002527	± 2.5	PASS
	HCH	VL	TN	4.24	0.002221	± 2.5	PASS
		VN	TN	3.27	0.001713	± 2.5	PASS
		VH	TN	2.4	0.001257	± 2.5	PASS
16QAM	LCH	VL	TN	-0.25	-0.000135	± 2.5	PASS
		VN	TN	0.14	0.000076	± 2.5	PASS
		VH	TN	0.41	0.000222	± 2.5	PASS
	MCH	VL	TN	-0.51	-0.000271	± 2.5	PASS
		VN	TN	-0.85	-0.000452	± 2.5	PASS
		VH	TN	-1.19	-0.000633	± 2.5	PASS
	HCH	VL	TN	0.58	0.000304	± 2.5	PASS
		VN	TN	3.13	0.001639	± 2.5	PASS
		VH	TN	4.61	0.002414	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.05	-0.000567	± 2.5	PASS
		VN	-20	-1.3	-0.000702	± 2.5	PASS
		VN	-10	4.39	0.002372	± 2.5	PASS
		VN	0	2.02	0.001091	± 2.5	PASS
		VN	10	2.18	0.001178	± 2.5	PASS
		VN	20	1.5	0.000811	± 2.5	PASS
		VN	30	2.61	0.001410	± 2.5	PASS
		VN	40	2.62	0.001416	± 2.5	PASS
		VN	50	0.86	0.000465	± 2.5	PASS
	MCH	VN	-30	1.28	0.000681	± 2.5	PASS

		VN	-20	-1.03	-0.000548	± 2.5	PASS
		VN	-10	1.91	0.001016	± 2.5	PASS
		VN	0	0.85	0.000452	± 2.5	PASS
		VN	10	-1.31	-0.000697	± 2.5	PASS
		VN	20	-1.56	-0.000830	± 2.5	PASS
		VN	30	-0.48	-0.000255	± 2.5	PASS
		VN	40	4.79	0.002548	± 2.5	PASS
		VN	50	0.33	0.000176	± 2.5	PASS
	HCH	VN	-30	0.6	0.000314	± 2.5	PASS
		VN	-20	2.19	0.001147	± 2.5	PASS
		VN	-10	0.08	0.000042	± 2.5	PASS
		VN	0	2.56	0.001341	± 2.5	PASS
		VN	10	4.34	0.002273	± 2.5	PASS
		VN	20	4.01	0.002100	± 2.5	PASS
		VN	30	0.06	0.000031	± 2.5	PASS
		VN	40	-1.15	-0.000602	± 2.5	PASS
		VN	50	0.69	0.000361	± 2.5	PASS
		16QAM	LCH	VN	-30	4.81	0.002599
VN	-20			3.46	0.001870	± 2.5	PASS
VN	-10			3.65	0.001972	± 2.5	PASS
VN	0			2.67	0.001443	± 2.5	PASS
VN	10			-0.29	-0.000157	± 2.5	PASS
VN	20			3.79	0.002048	± 2.5	PASS
VN	30			0.58	0.000313	± 2.5	PASS
VN	40			0.91	0.000492	± 2.5	PASS
VN	50			0.36	0.000195	± 2.5	PASS
MCH	VN		-30	-1.69	-0.000899	± 2.5	PASS
	VN		-20	0.63	0.000335	± 2.5	PASS
	VN		-10	0.25	0.000133	± 2.5	PASS
	VN		0	-1.56	-0.000830	± 2.5	PASS
	VN		10	-0.81	-0.000431	± 2.5	PASS
	VN		20	0.61	0.000324	± 2.5	PASS
	VN		30	3.55	0.001888	± 2.5	PASS
	VN		40	0.25	0.000133	± 2.5	PASS
	VN		50	-0.79	-0.000420	± 2.5	PASS
HCH	VN		-30	4.34	0.002273	± 2.5	PASS
	VN		-20	0.93	0.000487	± 2.5	PASS
	VN		-10	-1.18	-0.000618	± 2.5	PASS
	VN		0	2.4	0.001257	± 2.5	PASS
	VN		10	1.81	0.000948	± 2.5	PASS
	VN		20	1.82	0.000953	± 2.5	PASS

		VN	30	0.11	0.000058	± 2.5	PASS
		VN	40	-0.55	-0.000288	± 2.5	PASS
		VN	50	4.79	0.002509	± 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	1.55	0.000837	± 2.5	PASS
		VN	TN	-1.08	-0.000583	± 2.5	PASS
		VH	TN	-0.84	-0.000454	± 2.5	PASS
	MCH	VL	TN	0.77	0.000410	± 2.5	PASS
		VN	TN	-1.53	-0.000814	± 2.5	PASS
		VH	TN	0.26	0.000138	± 2.5	PASS
	HCH	VL	TN	-0.94	-0.000493	± 2.5	PASS
		VN	TN	1.23	0.000644	± 2.5	PASS
		VH	TN	4.87	0.002552	± 2.5	PASS
16QAM	LCH	VL	TN	0.81	0.000437	± 2.5	PASS
		VN	TN	2.73	0.001474	± 2.5	PASS
		VH	TN	4.19	0.002263	± 2.5	PASS
	MCH	VL	TN	4.49	0.002388	± 2.5	PASS
		VN	TN	3.54	0.001883	± 2.5	PASS
		VH	TN	3.54	0.001883	± 2.5	PASS
	HCH	VL	TN	2.6	0.001362	± 2.5	PASS
		VN	TN	1.94	0.001017	± 2.5	PASS
		VH	TN	3.76	0.001970	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.35	-0.000729	± 2.5	PASS
		VN	-20	4.73	0.002555	± 2.5	PASS
		VN	-10	2.24	0.001210	± 2.5	PASS
		VN	0	3.75	0.002025	± 2.5	PASS
		VN	10	-0.63	-0.000340	± 2.5	PASS
		VN	20	4.5	0.002430	± 2.5	PASS
		VN	30	3.28	0.001772	± 2.5	PASS
		VN	40	2.54	0.001372	± 2.5	PASS
		VN	50	0.73	0.000394	± 2.5	PASS
	MCH	VN	-30	2.15	0.001144	± 2.5	PASS
		VN	-20	-0.86	-0.000457	± 2.5	PASS

	VN	-10	2.79	0.001484	± 2.5	PASS			
		VN	0	-0.8	-0.000426	± 2.5	PASS		
		VN	10	0	0.000000	± 2.5	PASS		
		VN	20	-1.98	-0.001053	± 2.5	PASS		
		VN	30	3.17	0.001686	± 2.5	PASS		
		VN	40	-1.86	-0.000989	± 2.5	PASS		
		VN	50	3.58	0.001904	± 2.5	PASS		
	HCH	VN	-30	0.05	0.000026	± 2.5	PASS		
		VN	-20	2.01	0.001053	± 2.5	PASS		
		VN	-10	1.88	0.000985	± 2.5	PASS		
		VN	0	4.63	0.002426	± 2.5	PASS		
		VN	10	3.75	0.001965	± 2.5	PASS		
		VN	20	-1.55	-0.000812	± 2.5	PASS		
		VN	30	-0.9	-0.000472	± 2.5	PASS		
		VN	40	1.05	0.000550	± 2.5	PASS		
		VN	50	-0.6	-0.000314	± 2.5	PASS		
		16QAM	LCH	VN	-30	1.82	0.000983	± 2.5	PASS
				VN	-20	3.51	0.001896	± 2.5	PASS
VN	-10			1.76	0.000951	± 2.5	PASS		
VN	0			-1.74	-0.000940	± 2.5	PASS		
VN	10			-1.84	-0.000994	± 2.5	PASS		
VN	20			3.68	0.001988	± 2.5	PASS		
VN	30			-1.71	-0.000924	± 2.5	PASS		
VN	40			2.24	0.001210	± 2.5	PASS		
VN	50			3.11	0.001680	± 2.5	PASS		
MCH	VN		-30	1.66	0.000883	± 2.5	PASS		
	VN		-20	-0.51	-0.000271	± 2.5	PASS		
	VN		-10	3.72	0.001979	± 2.5	PASS		
	VN		0	-0.13	-0.000069	± 2.5	PASS		
	VN		10	-1.39	-0.000739	± 2.5	PASS		
	VN		20	0.72	0.000383	± 2.5	PASS		
	VN		30	3.31	0.001761	± 2.5	PASS		
	VN		40	-0.94	-0.000500	± 2.5	PASS		
	VN		50	4.35	0.002314	± 2.5	PASS		
HCH	VN		-30	-1.32	-0.000692	± 2.5	PASS		
	VN		-20	-0.93	-0.000487	± 2.5	PASS		
	VN		-10	2.57	0.001347	± 2.5	PASS		
	VN		0	-0.09	-0.000047	± 2.5	PASS		
	VN		10	-1.48	-0.000775	± 2.5	PASS		
	VN		20	-1.98	-0.001037	± 2.5	PASS		
	VN		30	3.39	0.001776	± 2.5	PASS		

		VN	40	0.1	0.000052	± 2.5	PASS
		VN	50	4.54	0.002379	± 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	4.01	0.002165	± 2.5	PASS
		VN	TN	0.05	0.000027	± 2.5	PASS
		VH	TN	-1.18	-0.000637	± 2.5	PASS
	MCH	VL	TN	1.13	0.000601	± 2.5	PASS
		VN	TN	-0.71	-0.000378	± 2.5	PASS
		VH	TN	-1.63	-0.000867	± 2.5	PASS
	HCH	VL	TN	1.19	0.000624	± 2.5	PASS
		VN	TN	-0.13	-0.000068	± 2.5	PASS
		VH	TN	-1.87	-0.000980	± 2.5	PASS
16QAM	LCH	VL	TN	2.34	0.001263	± 2.5	PASS
		VN	TN	0.06	0.000032	± 2.5	PASS
		VH	TN	3.57	0.001927	± 2.5	PASS
	MCH	VL	TN	1.83	0.000973	± 2.5	PASS
		VN	TN	3.21	0.001707	± 2.5	PASS
		VH	TN	3.24	0.001723	± 2.5	PASS
	HCH	VL	TN	3.23	0.001693	± 2.5	PASS
		VN	TN	-1.8	-0.000944	± 2.5	PASS
		VH	TN	0.89	0.000467	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.18	0.001717	± 2.5	PASS
		VN	-20	3.57	0.001927	± 2.5	PASS
		VN	-10	2.29	0.001236	± 2.5	PASS
		VN	0	1.34	0.000723	± 2.5	PASS
		VN	10	-1.76	-0.000950	± 2.5	PASS
		VN	20	-1.55	-0.000837	± 2.5	PASS
		VN	30	-1.01	-0.000545	± 2.5	PASS
		VN	40	1.24	0.000669	± 2.5	PASS
		VN	50	1.07	0.000578	± 2.5	PASS
	MCH	VN	-30	-1.15	-0.000612	± 2.5	PASS
		VN	-20	4.42	0.002351	± 2.5	PASS
		VN	-10	3.71	0.001973	± 2.5	PASS

		VN	0	2.38	0.001266	± 2.5	PASS		
		VN	10	4.76	0.002532	± 2.5	PASS		
		VN	20	4.26	0.002266	± 2.5	PASS		
		VN	30	4.4	0.002340	± 2.5	PASS		
		VN	40	4.17	0.002218	± 2.5	PASS		
		VN	50	4.98	0.002649	± 2.5	PASS		
	HCH	VN	-30	0.25	0.000131	± 2.5	PASS		
		VN	-20	2.27	0.001190	± 2.5	PASS		
		VN	-10	1.33	0.000697	± 2.5	PASS		
		VN	0	-1.98	-0.001038	± 2.5	PASS		
		VN	10	4.18	0.002191	± 2.5	PASS		
		VN	20	2.99	0.001567	± 2.5	PASS		
		VN	30	3.45	0.001809	± 2.5	PASS		
		VN	40	2.83	0.001484	± 2.5	PASS		
		VN	50	4.2	0.002202	± 2.5	PASS		
		16QAM	LCH	VN	-30	-1.99	-0.001074	± 2.5	PASS
				VN	-20	-0.74	-0.000399	± 2.5	PASS
				VN	-10	2.4	0.001296	± 2.5	PASS
VN	0			2.64	0.001425	± 2.5	PASS		
VN	10			3.44	0.001857	± 2.5	PASS		
VN	20			-1.19	-0.000642	± 2.5	PASS		
VN	30			1.41	0.000761	± 2.5	PASS		
VN	40			4.88	0.002634	± 2.5	PASS		
VN	50			0.12	0.000065	± 2.5	PASS		
MCH	VN		-30	4.41	0.002346	± 2.5	PASS		
	VN		-20	3.27	0.001739	± 2.5	PASS		
	VN		-10	1.7	0.000904	± 2.5	PASS		
	VN		0	-1.41	-0.000750	± 2.5	PASS		
	VN		10	0.92	0.000489	± 2.5	PASS		
	VN		20	4.95	0.002633	± 2.5	PASS		
	VN		30	2.78	0.001479	± 2.5	PASS		
	VN		40	-1.64	-0.000872	± 2.5	PASS		
	VN		50	-0.03	-0.000016	± 2.5	PASS		
HCH	VN		-30	1.36	0.000713	± 2.5	PASS		
	VN		-20	2.6	0.001363	± 2.5	PASS		
	VN		-10	1.77	0.000928	± 2.5	PASS		
	VN		0	0.94	0.000493	± 2.5	PASS		
	VN		10	1.09	0.000571	± 2.5	PASS		
	VN		20	-1.98	-0.001038	± 2.5	PASS		
	VN		30	4.95	0.002595	± 2.5	PASS		
	VN		40	0.97	0.000509	± 2.5	PASS		



		VN	50	0.04	0.000021	± 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	-0.24	-0.000129	± 2.5	PASS
		VN	TN	2.66	0.001434	± 2.5	PASS
		VH	TN	3.18	0.001714	± 2.5	PASS
	MCH	VL	TN	-1.02	-0.000543	± 2.5	PASS
		VN	TN	-1.12	-0.000596	± 2.5	PASS
		VH	TN	3.21	0.001707	± 2.5	PASS
	HCH	VL	TN	4.88	0.002562	± 2.5	PASS
		VN	TN	1.67	0.000877	± 2.5	PASS
		VH	TN	0.97	0.000509	± 2.5	PASS
16QAM	LCH	VL	TN	4.56	0.002458	± 2.5	PASS
		VN	TN	4.77	0.002571	± 2.5	PASS
		VH	TN	4.52	0.002437	± 2.5	PASS
	MCH	VL	TN	0.44	0.000234	± 2.5	PASS
		VN	TN	-0.42	-0.000223	± 2.5	PASS
		VH	TN	-0.85	-0.000452	± 2.5	PASS
	HCH	VL	TN	4.52	0.002373	± 2.5	PASS
		VN	TN	1.81	0.000950	± 2.5	PASS
		VH	TN	-1.99	-0.001045	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.15	0.001159	± 2.5	PASS
		VN	-20	2.59	0.001396	± 2.5	PASS
		VN	-10	2.52	0.001358	± 2.5	PASS
		VN	0	-1.15	-0.000620	± 2.5	PASS
		VN	10	-1.42	-0.000765	± 2.5	PASS
		VN	20	-2	-0.001078	± 2.5	PASS
		VN	30	-1.42	-0.000765	± 2.5	PASS
		VN	40	-1.88	-0.001013	± 2.5	PASS
		VN	50	3.9	0.002102	± 2.5	PASS
	MCH	VN	-30	-0.39	-0.000207	± 2.5	PASS
		VN	-20	-1.75	-0.000931	± 2.5	PASS
		VN	-10	4.95	0.002633	± 2.5	PASS
		VN	0	-1.16	-0.000617	± 2.5	PASS

		VN	10	0.96	0.000511	± 2.5	PASS
		VN	20	0.58	0.000309	± 2.5	PASS
		VN	30	1.28	0.000681	± 2.5	PASS
		VN	40	0.66	0.000351	± 2.5	PASS
		VN	50	1.92	0.001021	± 2.5	PASS
	HCH	VN	-30	1.47	0.000772	± 2.5	PASS
		VN	-20	2.97	0.001559	± 2.5	PASS
		VN	-10	1.55	0.000814	± 2.5	PASS
		VN	0	0.97	0.000509	± 2.5	PASS
		VN	10	1.92	0.001008	± 2.5	PASS
		VN	20	3.1	0.001627	± 2.5	PASS
		VN	30	-1.42	-0.000745	± 2.5	PASS
		VN	40	3.55	0.001864	± 2.5	PASS
		VN	50	3.7	0.001942	± 2.5	PASS
		QPSK	LCH	VN	-30	1.51	0.000814
VN	-20			0.95	0.000512	± 2.5	PASS
VN	-10			2.75	0.001482	± 2.5	PASS
VN	0			3.28	0.001768	± 2.5	PASS
VN	10			2.65	0.001429	± 2.5	PASS
VN	20			-1.28	-0.000690	± 2.5	PASS
VN	30			4.69	0.002528	± 2.5	PASS
VN	40			-0.17	-0.000092	± 2.5	PASS
VN	50			3.75	0.002022	± 2.5	PASS
MCH	VN		-30	4.72	0.002511	± 2.5	PASS
	VN		-20	3.88	0.002064	± 2.5	PASS
	VN		-10	0.46	0.000245	± 2.5	PASS
	VN		0	3.72	0.001979	± 2.5	PASS
	VN		10	-1.52	-0.000809	± 2.5	PASS
	VN		20	-0.51	-0.000271	± 2.5	PASS
	VN		30	1.52	0.000809	± 2.5	PASS
	VN		40	4.33	0.002303	± 2.5	PASS
	VN		50	2.7	0.001436	± 2.5	PASS
HCH	VN		-30	2.47	0.001297	± 2.5	PASS
	VN		-20	0.71	0.000373	± 2.5	PASS
	VN		-10	4.85	0.002546	± 2.5	PASS
	VN		0	0.79	0.000415	± 2.5	PASS
	VN		10	3.7	0.001942	± 2.5	PASS
	VN		20	4.37	0.002294	± 2.5	PASS
	VN		30	2.45	0.001286	± 2.5	PASS
	VN		40	1.33	0.000698	± 2.5	PASS
	VN		50	1.86	0.000976	± 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	3.63	0.001954	± 2.5	PASS
		VN	TN	3.47	0.001868	± 2.5	PASS
		VH	TN	4.71	0.002536	± 2.5	PASS
	MCH	VL	TN	-1.93	-0.001027	± 2.5	PASS
		VN	TN	4.73	0.002516	± 2.5	PASS
		VH	TN	2.4	0.001277	± 2.5	PASS
	HCH	VL	TN	1.22	0.000641	± 2.5	PASS
		VN	TN	2.05	0.001078	± 2.5	PASS
		VH	TN	2.3	0.001209	± 2.5	PASS
16QAM	LCH	VL	TN	2.02	0.001087	± 2.5	PASS
		VN	TN	-0.47	-0.000253	± 2.5	PASS
		VH	TN	0.97	0.000522	± 2.5	PASS
	MCH	VL	TN	2.17	0.001154	± 2.5	PASS
		VN	TN	-0.45	-0.000239	± 2.5	PASS
		VH	TN	3.82	0.002032	± 2.5	PASS
	HCH	VL	TN	-0.8	-0.000420	± 2.5	PASS
		VN	TN	4.61	0.002423	± 2.5	PASS
		VH	TN	1.08	0.000568	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.72	0.000388	± 2.5	PASS
		VN	-20	4.93	0.002654	± 2.5	PASS
		VN	-10	-0.2	-0.000108	± 2.5	PASS
		VN	0	0.92	0.000495	± 2.5	PASS
		VN	10	-1.99	-0.001071	± 2.5	PASS
		VN	20	-0.06	-0.000032	± 2.5	PASS
		VN	30	2.36	0.001271	± 2.5	PASS
		VN	40	2.44	0.001314	± 2.5	PASS
		VN	50	4.48	0.002412	± 2.5	PASS
	MCH	VN	-30	-1.35	-0.000718	± 2.5	PASS
		VN	-20	-0.67	-0.000356	± 2.5	PASS
		VN	-10	2.08	0.001106	± 2.5	PASS
		VN	0	0	0.000000	± 2.5	PASS
		VN	10	0.56	0.000298	± 2.5	PASS

		VN	20	-1.08	-0.000574	± 2.5	PASS
		VN	30	3.08	0.001638	± 2.5	PASS
		VN	40	-0.03	-0.000016	± 2.5	PASS
		VN	50	1.71	0.000910	± 2.5	PASS
	HCH	VN	-30	2.36	0.001240	± 2.5	PASS
		VN	-20	4.67	0.002455	± 2.5	PASS
		VN	-10	0.48	0.000252	± 2.5	PASS
		VN	0	3.97	0.002087	± 2.5	PASS
		VN	10	3.43	0.001803	± 2.5	PASS
		VN	20	2.56	0.001346	± 2.5	PASS
		VN	30	4.7	0.002470	± 2.5	PASS
		VN	40	4.18	0.002197	± 2.5	PASS
		VN	50	1.11	0.000583	± 2.5	PASS
		16QAM	LCH	VN	-30	1.97	0.001061
VN	-20			3.01	0.001620	± 2.5	PASS
VN	-10			1.9	0.001023	± 2.5	PASS
VN	0			-1.83	-0.000985	± 2.5	PASS
VN	10			3.26	0.001755	± 2.5	PASS
VN	20			0.43	0.000231	± 2.5	PASS
VN	30			4.18	0.002250	± 2.5	PASS
VN	40			0.44	0.000237	± 2.5	PASS
VN	50			-1.73	-0.000931	± 2.5	PASS
MCH	VN		-30	0.4	0.000213	± 2.5	PASS
	VN		-20	4.93	0.002622	± 2.5	PASS
	VN		-10	3.56	0.001894	± 2.5	PASS
	VN		0	2.01	0.001069	± 2.5	PASS
	VN		10	0.81	0.000431	± 2.5	PASS
	VN		20	3.92	0.002085	± 2.5	PASS
	VN		30	1.47	0.000782	± 2.5	PASS
	VN		40	-0.05	-0.000027	± 2.5	PASS
	VN		50	-0.16	-0.000085	± 2.5	PASS
HCH	VN		-30	2.54	0.001335	± 2.5	PASS
	VN		-20	-1.77	-0.000930	± 2.5	PASS
	VN		-10	0.43	0.000226	± 2.5	PASS
	VN		0	2.99	0.001572	± 2.5	PASS
	VN		10	0.29	0.000152	± 2.5	PASS
	VN		20	1.81	0.000951	± 2.5	PASS
	VN		30	0.73	0.000384	± 2.5	PASS
	VN		40	0.3	0.000158	± 2.5	PASS
	VN		50	2.03	0.001067	± 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	0.25	0.000134	± 2.5	PASS
		VN	TN	2.55	0.001371	± 2.5	PASS
		VH	TN	0.92	0.000495	± 2.5	PASS
	MCH	VL	TN	3.14	0.001670	± 2.5	PASS
		VN	TN	4.34	0.002309	± 2.5	PASS
		VH	TN	-1.86	-0.000989	± 2.5	PASS
	HCH	VL	TN	0.51	0.000268	± 2.5	PASS
		VN	TN	2.16	0.001137	± 2.5	PASS
		VH	TN	1.54	0.000811	± 2.5	PASS
16QAM	LCH	VL	TN	-1.01	-0.000543	± 2.5	PASS
		VN	TN	4.26	0.002290	± 2.5	PASS
		VH	TN	4.03	0.002167	± 2.5	PASS
	MCH	VL	TN	-1.8	-0.000957	± 2.5	PASS
		VN	TN	3.96	0.002106	± 2.5	PASS
		VH	TN	-0.13	-0.000069	± 2.5	PASS
	HCH	VL	TN	2.81	0.001479	± 2.5	PASS
		VN	TN	-0.81	-0.000426	± 2.5	PASS
		VH	TN	2.09	0.001100	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.6	0.000860	± 2.5	PASS
		VN	-20	-0.74	-0.000398	± 2.5	PASS
		VN	-10	3.7	0.001989	± 2.5	PASS
		VN	0	4.63	0.002489	± 2.5	PASS
		VN	10	0.88	0.000473	± 2.5	PASS
		VN	20	-1.51	-0.000812	± 2.5	PASS
		VN	30	2.99	0.001608	± 2.5	PASS
		VN	40	-0.24	-0.000129	± 2.5	PASS
		VN	50	4.05	0.002177	± 2.5	PASS
	MCH	VN	-30	3.66	0.001947	± 2.5	PASS
		VN	-20	3.65	0.001941	± 2.5	PASS
		VN	-10	3.09	0.001644	± 2.5	PASS
		VN	0	0.32	0.000170	± 2.5	PASS
		VN	10	2.09	0.001112	± 2.5	PASS
		VN	20	0.07	0.000037	± 2.5	PASS

		VN	30	1.12	0.000596	± 2.5	PASS
		VN	40	4.54	0.002415	± 2.5	PASS
		VN	50	3.8	0.002021	± 2.5	PASS
	HCH	VN	-30	3.1	0.001632	± 2.5	PASS
		VN	-20	1.99	0.001047	± 2.5	PASS
		VN	-10	4.72	0.002484	± 2.5	PASS
		VN	0	0.96	0.000505	± 2.5	PASS
		VN	10	2.95	0.001553	± 2.5	PASS
		VN	20	0.12	0.000063	± 2.5	PASS
		VN	30	2.8	0.001474	± 2.5	PASS
		VN	40	4.45	0.002342	± 2.5	PASS
		VN	50	2.45	0.001289	± 2.5	PASS
		16QAM	LCH	VN	-30	0.39	0.000210
VN	-20			2.93	0.001575	± 2.5	PASS
VN	-10			0.22	0.000118	± 2.5	PASS
VN	0			4.08	0.002194	± 2.5	PASS
VN	10			0.63	0.000339	± 2.5	PASS
VN	20			-1.24	-0.000667	± 2.5	PASS
VN	30			4.08	0.002194	± 2.5	PASS
VN	40			4.11	0.002210	± 2.5	PASS
VN	50			-0.2	-0.000108	± 2.5	PASS
MCH	VN		-30	2.71	0.001441	± 2.5	PASS
	VN		-20	2.59	0.001378	± 2.5	PASS
	VN		-10	4.84	0.002574	± 2.5	PASS
	VN		0	3.29	0.001750	± 2.5	PASS
	VN		10	1.34	0.000713	± 2.5	PASS
	VN		20	-0.15	-0.000080	± 2.5	PASS
	VN		30	1.97	0.001048	± 2.5	PASS
	VN		40	3.33	0.001771	± 2.5	PASS
	VN		50	3.68	0.001957	± 2.5	PASS
HCH	VN		-30	-0.63	-0.000332	± 2.5	PASS
	VN		-20	3.98	0.002095	± 2.5	PASS
	VN		-10	4.55	0.002395	± 2.5	PASS
	VN		0	2.77	0.001458	± 2.5	PASS
	VN		10	-0.34	-0.000179	± 2.5	PASS
	VN		20	1.12	0.000589	± 2.5	PASS
	VN		30	1.62	0.000853	± 2.5	PASS
	VN		40	3.89	0.002047	± 2.5	PASS
	VN		50	3.1	0.001632	± 2.5	PASS