



















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	4.41	0.002383	± 2.5	PASS
		VN	TN	4.65	0.002513	± 2.5	PASS
		VH	TN	1.89	0.001021	± 2.5	PASS
	MCH	VL	TN	2.59	0.001378	± 2.5	PASS
		VN	TN	4.64	0.002468	± 2.5	PASS
		VH	TN	-0.97	-0.000516	± 2.5	PASS
	HCH	VL	TN	-0.17	-0.000089	± 2.5	PASS
		VN	TN	-0.96	-0.000503	± 2.5	PASS
		VH	TN	-0.07	-0.000037	± 2.5	PASS
16QAM	LCH	VL	TN	4.81	0.002599	± 2.5	PASS
		VN	TN	-1.71	-0.000924	± 2.5	PASS
		VH	TN	4.68	0.002529	± 2.5	PASS
	MCH	VL	TN	0.94	0.000500	± 2.5	PASS
		VN	TN	2.46	0.001309	± 2.5	PASS
		VH	TN	3.85	0.002048	± 2.5	PASS
	HCH	VL	TN	4.96	0.002598	± 2.5	PASS
		VN	TN	0.61	0.000319	± 2.5	PASS
		VH	TN	-1.64	-0.000859	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.91	0.001032	± 2.5	PASS
		VN	-20	-0.06	-0.000032	± 2.5	PASS
		VN	-10	4	0.002161	± 2.5	PASS
		VN	0	4.75	0.002567	± 2.5	PASS
		VN	10	1.73	0.000935	± 2.5	PASS
		VN	20	-1.08	-0.000584	± 2.5	PASS
		VN	30	-1.99	-0.001075	± 2.5	PASS
		VN	40	2.19	0.001183	± 2.5	PASS
		VN	50	4.67	0.002523	± 2.5	PASS

	MCH	VN	-30	1.14	0.000606	± 2.5	PASS
		VN	-20	2.12	0.001128	± 2.5	PASS
		VN	-10	3.86	0.002053	± 2.5	PASS
		VN	0	4.57	0.002431	± 2.5	PASS
		VN	10	4.6	0.002447	± 2.5	PASS
		VN	20	2.99	0.001590	± 2.5	PASS
		VN	30	1.48	0.000787	± 2.5	PASS
		VN	40	-1.92	-0.001021	± 2.5	PASS
		VN	50	3.88	0.002064	± 2.5	PASS
	HCH	VN	-30	3.3	0.001728	± 2.5	PASS
		VN	-20	-0.3	-0.000157	± 2.5	PASS
		VN	-10	3.09	0.001618	± 2.5	PASS
		VN	0	0.49	0.000257	± 2.5	PASS
		VN	10	-1.75	-0.000917	± 2.5	PASS
		VN	20	1.56	0.000817	± 2.5	PASS
		VN	30	1.47	0.000770	± 2.5	PASS
		VN	40	2.98	0.001561	± 2.5	PASS
		VN	50	-0.59	-0.000309	± 2.5	PASS
16QAM	LCH	VN	-30	-1.78	-0.000962	± 2.5	PASS
		VN	-20	0.46	0.000249	± 2.5	PASS
		VN	-10	-0.61	-0.000330	± 2.5	PASS
		VN	0	0.31	0.000168	± 2.5	PASS
		VN	10	-1	-0.000540	± 2.5	PASS
		VN	20	3.65	0.001972	± 2.5	PASS
		VN	30	3.89	0.002102	± 2.5	PASS
		VN	40	0.83	0.000448	± 2.5	PASS
		VN	50	1.02	0.000551	± 2.5	PASS
	MCH	VN	-30	-1.03	-0.000548	± 2.5	PASS
		VN	-20	-1.58	-0.000840	± 2.5	PASS
		VN	-10	4.47	0.002378	± 2.5	PASS
		VN	0	2.14	0.001138	± 2.5	PASS
		VN	10	2.16	0.001149	± 2.5	PASS
		VN	20	1.02	0.000543	± 2.5	PASS
		VN	30	4.56	0.002426	± 2.5	PASS
		VN	40	0.91	0.000484	± 2.5	PASS
		VN	50	-0.96	-0.000511	± 2.5	PASS
	HCH	VN	-30	-0.35	-0.000183	± 2.5	PASS
		VN	-20	-1.91	-0.001000	± 2.5	PASS
		VN	-10	4.75	0.002488	± 2.5	PASS
		VN	0	4.01	0.002100	± 2.5	PASS
		VN	10	4.97	0.002603	± 2.5	PASS

		VN	20	0.7	0.000367	± 2.5	PASS
		VN	30	2.39	0.001252	± 2.5	PASS
		VN	40	3.84	0.002011	± 2.5	PASS
		VN	50	3.64	0.001906	± 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	-1.92	-0.001037	± 2.5	PASS
		VN	TN	-0.78	-0.000421	± 2.5	PASS
		VH	TN	-0.49	-0.000265	± 2.5	PASS
	MCH	VL	TN	1.7	0.000904	± 2.5	PASS
		VN	TN	-1.78	-0.000947	± 2.5	PASS
		VH	TN	-0.59	-0.000314	± 2.5	PASS
	HCH	VL	TN	0.28	0.000147	± 2.5	PASS
		VN	TN	2.26	0.001184	± 2.5	PASS
		VH	TN	0.87	0.000456	± 2.5	PASS
16QAM	LCH	VL	TN	0.54	0.000292	± 2.5	PASS
		VN	TN	2.9	0.001566	± 2.5	PASS
		VH	TN	3.14	0.001696	± 2.5	PASS
	MCH	VL	TN	4.38	0.002330	± 2.5	PASS
		VN	TN	2.38	0.001266	± 2.5	PASS
		VH	TN	3.31	0.001761	± 2.5	PASS
	HCH	VL	TN	4.59	0.002405	± 2.5	PASS
		VN	TN	2.25	0.001179	± 2.5	PASS
		VH	TN	-0.62	-0.000325	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.28	-0.000151	± 2.5	PASS
		VN	-20	4.16	0.002247	± 2.5	PASS
		VN	-10	3.09	0.001669	± 2.5	PASS
		VN	0	-1.91	-0.001032	± 2.5	PASS
		VN	10	3.96	0.002139	± 2.5	PASS
		VN	20	3.1	0.001674	± 2.5	PASS
		VN	30	0.86	0.000464	± 2.5	PASS
		VN	40	3.62	0.001955	± 2.5	PASS
		VN	50	1.22	0.000659	± 2.5	PASS
	MCH	VN	-30	1.79	0.000952	± 2.5	PASS

	VN	VN	-20	0.25	0.000133	± 2.5	PASS
		VN	-10	-0.05	-0.000027	± 2.5	PASS
		VN	0	1.06	0.000564	± 2.5	PASS
		VN	10	3.93	0.002090	± 2.5	PASS
		VN	20	3.95	0.002101	± 2.5	PASS
		VN	30	-1.65	-0.000878	± 2.5	PASS
		VN	40	-1.31	-0.000697	± 2.5	PASS
		VN	50	0.95	0.000505	± 2.5	PASS
	HCH	VN	-30	0.05	0.000026	± 2.5	PASS
		VN	-20	-0.68	-0.000356	± 2.5	PASS
		VN	-10	-1.51	-0.000791	± 2.5	PASS
		VN	0	1.84	0.000964	± 2.5	PASS
		VN	10	-0.98	-0.000513	± 2.5	PASS
		VN	20	3.52	0.001844	± 2.5	PASS
		VN	30	-1.89	-0.000990	± 2.5	PASS
		VN	40	4.7	0.002463	± 2.5	PASS
		VN	50	0.67	0.000351	± 2.5	PASS
		16QAM	LCH	VN	-30	3.86	0.002085
VN	-20			4.22	0.002279	± 2.5	PASS
VN	-10			-1.93	-0.001042	± 2.5	PASS
VN	0			-1.82	-0.000983	± 2.5	PASS
VN	10			4.85	0.002619	± 2.5	PASS
VN	20			1.09	0.000589	± 2.5	PASS
VN	30			0.98	0.000529	± 2.5	PASS
VN	40			2.78	0.001501	± 2.5	PASS
VN	50			0.56	0.000302	± 2.5	PASS
MCH	VN		-30	0.34	0.000181	± 2.5	PASS
	VN		-20	4.68	0.002489	± 2.5	PASS
	VN		-10	-0.37	-0.000197	± 2.5	PASS
	VN		0	1.31	0.000697	± 2.5	PASS
	VN		10	-0.06	-0.000032	± 2.5	PASS
	VN		20	-1.15	-0.000612	± 2.5	PASS
	VN		30	-1.54	-0.000819	± 2.5	PASS
	VN		40	-1.07	-0.000569	± 2.5	PASS
	VN		50	4.66	0.002479	± 2.5	PASS
HCH	VN		-30	2.86	0.001499	± 2.5	PASS
	VN		-20	4.06	0.002127	± 2.5	PASS
	VN		-10	2.55	0.001336	± 2.5	PASS
	VN		0	4.8	0.002515	± 2.5	PASS
	VN		10	-1.15	-0.000603	± 2.5	PASS
	VN		20	2.3	0.001205	± 2.5	PASS

		VN	30	3.97	0.002080	± 2.5	PASS
		VN	40	2.34	0.001226	± 2.5	PASS
		VN	50	2.05	0.001074	± 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	0.18	0.000097	± 2.5	PASS
		VN	TN	4.26	0.002300	± 2.5	PASS
		VH	TN	3.78	0.002040	± 2.5	PASS
	MCH	VL	TN	-1.66	-0.000883	± 2.5	PASS
		VN	TN	4.87	0.002590	± 2.5	PASS
		VH	TN	3.73	0.001984	± 2.5	PASS
	HCH	VL	TN	0.52	0.000273	± 2.5	PASS
		VN	TN	-1.28	-0.000671	± 2.5	PASS
		VH	TN	0.26	0.000136	± 2.5	PASS
16QAM	LCH	VL	TN	4.4	0.002375	± 2.5	PASS
		VN	TN	3.94	0.002127	± 2.5	PASS
		VH	TN	2.24	0.001209	± 2.5	PASS
	MCH	VL	TN	3.7	0.001968	± 2.5	PASS
		VN	TN	1.29	0.000686	± 2.5	PASS
		VH	TN	1.35	0.000718	± 2.5	PASS
	HCH	VL	TN	3.17	0.001662	± 2.5	PASS
		VN	TN	-1.17	-0.000613	± 2.5	PASS
		VH	TN	3.89	0.002039	± 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	1.99	0.001074	± 2.5	PASS
		VN	-10	3.89	0.002100	± 2.5	PASS
		VN	0	-0.92	-0.000497	± 2.5	PASS
		VN	10	4.14	0.002235	± 2.5	PASS
		VN	20	3.47	0.001873	± 2.5	PASS
		VN	30	3.75	0.002024	± 2.5	PASS
		VN	40	2.22	0.001198	± 2.5	PASS
		VN	50	3.13	0.001690	± 2.5	PASS
	MCH	VN	-30	3.12	0.001660	± 2.5	PASS
		VN	-20	0.7	0.000372	± 2.5	PASS

		VN	-10	4.1	0.002181	± 2.5	PASS		
		VN	0	3.96	0.002106	± 2.5	PASS		
		VN	10	-0.15	-0.000080	± 2.5	PASS		
		VN	20	2.08	0.001106	± 2.5	PASS		
		VN	30	2.32	0.001234	± 2.5	PASS		
		VN	40	0.37	0.000197	± 2.5	PASS		
		VN	50	0.35	0.000186	± 2.5	PASS		
	HCH	VN	-30	2.3	0.001206	± 2.5	PASS		
		VN	-20	-1.84	-0.000965	± 2.5	PASS		
		VN	-10	4.99	0.002616	± 2.5	PASS		
		VN	0	-0.56	-0.000294	± 2.5	PASS		
		VN	10	2.74	0.001436	± 2.5	PASS		
		VN	20	4.68	0.002453	± 2.5	PASS		
		VN	30	-0.17	-0.000089	± 2.5	PASS		
		VN	40	4.4	0.002307	± 2.5	PASS		
		VN	50	0.4	0.000210	± 2.5	PASS		
		16QAM	LCH	VN	-30	1.47	0.000794	± 2.5	PASS
				VN	-20	-0.8	-0.000432	± 2.5	PASS
VN	-10			-1.66	-0.000896	± 2.5	PASS		
VN	0			0.24	0.000130	± 2.5	PASS		
VN	10			1.04	0.000561	± 2.5	PASS		
VN	20			-0.22	-0.000119	± 2.5	PASS		
VN	30			-1.96	-0.001058	± 2.5	PASS		
VN	40			2.15	0.001161	± 2.5	PASS		
VN	50			3.2	0.001727	± 2.5	PASS		
MCH	VN		-30	-0.38	-0.000202	± 2.5	PASS		
	VN		-20	-0.08	-0.000043	± 2.5	PASS		
	VN		-10	-1.45	-0.000771	± 2.5	PASS		
	VN		0	4.1	0.002181	± 2.5	PASS		
	VN		10	0.97	0.000516	± 2.5	PASS		
	VN		20	1.39	0.000739	± 2.5	PASS		
	VN		30	-1.31	-0.000697	± 2.5	PASS		
	VN		40	4.64	0.002468	± 2.5	PASS		
	VN		50	3.76	0.002000	± 2.5	PASS		
HCH	VN	-30	1.17	0.000613	± 2.5	PASS			
	VN	-20	0.09	0.000047	± 2.5	PASS			
	VN	-10	1.78	0.000933	± 2.5	PASS			
	VN	0	-0.45	-0.000236	± 2.5	PASS			
	VN	10	2.48	0.001300	± 2.5	PASS			
	VN	20	3.01	0.001578	± 2.5	PASS			
	VN	30	0.64	0.000336	± 2.5	PASS			

		VN	40	-0.19	-0.000100	± 2.5	PASS
		VN	50	-0.28	-0.000147	± 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	1.93	0.001040	± 2.5	PASS
		VN	TN	1.24	0.000668	± 2.5	PASS
		VH	TN	4.67	0.002518	± 2.5	PASS
	MCH	VL	TN	4.65	0.002473	± 2.5	PASS
		VN	TN	0.03	0.000016	± 2.5	PASS
		VH	TN	0.74	0.000394	± 2.5	PASS
	HCH	VL	TN	3.23	0.001696	± 2.5	PASS
		VN	TN	4.64	0.002436	± 2.5	PASS
		VH	TN	3.64	0.001911	± 2.5	PASS
16QAM	LCH	VL	TN	-1.06	-0.000571	± 2.5	PASS
		VN	TN	3.53	0.001903	± 2.5	PASS
		VH	TN	-0.09	-0.000049	± 2.5	PASS
	MCH	VL	TN	2.97	0.001580	± 2.5	PASS
		VN	TN	4.87	0.002590	± 2.5	PASS
		VH	TN	3.61	0.001920	± 2.5	PASS
	HCH	VL	TN	4.94	0.002593	± 2.5	PASS
		VN	TN	-1.27	-0.000667	± 2.5	PASS
		VH	TN	0.28	0.000147	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.42	0.000226	± 2.5	PASS
		VN	-20	3.01	0.001623	± 2.5	PASS
		VN	-10	-1.23	-0.000663	± 2.5	PASS
		VN	0	1.31	0.000706	± 2.5	PASS
		VN	10	1.05	0.000566	± 2.5	PASS
		VN	20	-1.89	-0.001019	± 2.5	PASS
		VN	30	0.01	0.000005	± 2.5	PASS
		VN	40	2.61	0.001407	± 2.5	PASS
		VN	50	2.66	0.001434	± 2.5	PASS
	MCH	VN	-30	4.31	0.002293	± 2.5	PASS
		VN	-20	4.75	0.002527	± 2.5	PASS
		VN	-10	-0.39	-0.000207	± 2.5	PASS

		VN	0	4.47	0.002378	± 2.5	PASS		
		VN	10	-0.91	-0.000484	± 2.5	PASS		
		VN	20	-1.05	-0.000559	± 2.5	PASS		
		VN	30	-1.58	-0.000840	± 2.5	PASS		
		VN	40	1.36	0.000723	± 2.5	PASS		
		VN	50	2.38	0.001266	± 2.5	PASS		
	HCH	VN	-30	-1.07	-0.000562	± 2.5	PASS		
		VN	-20	-0.03	-0.000016	± 2.5	PASS		
		VN	-10	4.13	0.002168	± 2.5	PASS		
		VN	0	3.33	0.001748	± 2.5	PASS		
		VN	10	2.81	0.001475	± 2.5	PASS		
		VN	20	0.1	0.000052	± 2.5	PASS		
		VN	30	1.39	0.000730	± 2.5	PASS		
		VN	40	4.84	0.002541	± 2.5	PASS		
		VN	50	2.16	0.001134	± 2.5	PASS		
		16QAM	LCH	VN	-30	1.84	0.000992	± 2.5	PASS
				VN	-20	-1.5	-0.000809	± 2.5	PASS
				VN	-10	1.87	0.001008	± 2.5	PASS
VN	0			4.64	0.002501	± 2.5	PASS		
VN	10			1.79	0.000965	± 2.5	PASS		
VN	20			1.71	0.000922	± 2.5	PASS		
VN	30			3.39	0.001827	± 2.5	PASS		
VN	40			2.54	0.001369	± 2.5	PASS		
VN	50			1.4	0.000755	± 2.5	PASS		
MCH	VN		-30	1.4	0.000745	± 2.5	PASS		
	VN		-20	3.14	0.001670	± 2.5	PASS		
	VN		-10	-0.46	-0.000245	± 2.5	PASS		
	VN		0	-0.4	-0.000213	± 2.5	PASS		
	VN		10	1.4	0.000745	± 2.5	PASS		
	VN		20	0.27	0.000144	± 2.5	PASS		
	VN		30	3.65	0.001941	± 2.5	PASS		
	VN		40	-1.7	-0.000904	± 2.5	PASS		
	VN		50	-0.22	-0.000117	± 2.5	PASS		
HCH	VN	-30	-1.65	-0.000866	± 2.5	PASS			
	VN	-20	3.2	0.001680	± 2.5	PASS			
	VN	-10	3.94	0.002068	± 2.5	PASS			
	VN	0	3.53	0.001853	± 2.5	PASS			
	VN	10	1.91	0.001003	± 2.5	PASS			
	VN	20	-1.74	-0.000913	± 2.5	PASS			
	VN	30	4.69	0.002462	± 2.5	PASS			
	VN	40	-1.11	-0.000583	± 2.5	PASS			

		VN	50	4.47	0.002346	± 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	3.26	0.001755	± 2.5	PASS
		VN	TN	-1.74	-0.000937	± 2.5	PASS
		VH	TN	3.78	0.002035	± 2.5	PASS
	MCH	VL	TN	1.87	0.000995	± 2.5	PASS
		VN	TN	-1.93	-0.001027	± 2.5	PASS
		VH	TN	0.26	0.000138	± 2.5	PASS
	HCH	VL	TN	0.91	0.000478	± 2.5	PASS
		VN	TN	2.5	0.001314	± 2.5	PASS
		VH	TN	-1.28	-0.000673	± 2.5	PASS
16QAM	LCH	VL	TN	0.18	0.000097	± 2.5	PASS
		VN	TN	3.28	0.001766	± 2.5	PASS
		VH	TN	-0.94	-0.000506	± 2.5	PASS
	MCH	VL	TN	-1.22	-0.000649	± 2.5	PASS
		VN	TN	-0.71	-0.000378	± 2.5	PASS
		VH	TN	3.34	0.001777	± 2.5	PASS
	HCH	VL	TN	0.11	0.000058	± 2.5	PASS
		VN	TN	1.19	0.000625	± 2.5	PASS
		VH	TN	2.75	0.001445	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.61	0.000867	± 2.5	PASS
		VN	-20	2.97	0.001599	± 2.5	PASS
		VN	-10	4.62	0.002487	± 2.5	PASS
		VN	0	1.77	0.000953	± 2.5	PASS
		VN	10	4.35	0.002342	± 2.5	PASS
		VN	20	-0.22	-0.000118	± 2.5	PASS
		VN	30	1.57	0.000845	± 2.5	PASS
		VN	40	-1.2	-0.000646	± 2.5	PASS
		VN	50	-0.78	-0.000420	± 2.5	PASS
	MCH	VN	-30	3.06	0.001628	± 2.5	PASS
		VN	-20	0.25	0.000133	± 2.5	PASS
		VN	-10	-0.35	-0.000186	± 2.5	PASS
		VN	0	0.59	0.000314	± 2.5	PASS

		VN	10	0.31	0.000165	± 2.5	PASS
		VN	20	3.45	0.001835	± 2.5	PASS
		VN	30	1.01	0.000537	± 2.5	PASS
		VN	40	2.13	0.001133	± 2.5	PASS
		VN	50	-0.08	-0.000043	± 2.5	PASS
	HCH	VN	-30	1.97	0.001035	± 2.5	PASS
		VN	-20	1.69	0.000888	± 2.5	PASS
		VN	-10	2.63	0.001382	± 2.5	PASS
		VN	0	3.14	0.001650	± 2.5	PASS
		VN	10	-0.03	-0.000016	± 2.5	PASS
		VN	20	-1.83	-0.000962	± 2.5	PASS
		VN	30	4.73	0.002486	± 2.5	PASS
		VN	40	4.26	0.002239	± 2.5	PASS
		VN	50	1.18	0.000620	± 2.5	PASS
		16QAM	LCH	VN	-30	3.14	0.001690
VN	-20			-1.98	-0.001066	± 2.5	PASS
VN	-10			1.99	0.001071	± 2.5	PASS
VN	0			3.63	0.001954	± 2.5	PASS
VN	10			0.14	0.000075	± 2.5	PASS
VN	20			4.46	0.002401	± 2.5	PASS
VN	30			2.52	0.001357	± 2.5	PASS
VN	40			4.22	0.002272	± 2.5	PASS
VN	50			-0.95	-0.000511	± 2.5	PASS
MCH	VN		-30	-0.77	-0.000410	± 2.5	PASS
	VN		-20	-0.82	-0.000436	± 2.5	PASS
	VN		-10	3.51	0.001867	± 2.5	PASS
	VN		0	3.39	0.001803	± 2.5	PASS
	VN		10	4.99	0.002654	± 2.5	PASS
	VN		20	-0.84	-0.000447	± 2.5	PASS
	VN		30	3.44	0.001830	± 2.5	PASS
	VN		40	4.23	0.002250	± 2.5	PASS
	VN		50	4.86	0.002585	± 2.5	PASS
HCH	VN		-30	-0.51	-0.000268	± 2.5	PASS
	VN		-20	2.24	0.001177	± 2.5	PASS
	VN		-10	-0.37	-0.000194	± 2.5	PASS
	VN		0	1.22	0.000641	± 2.5	PASS
	VN		10	-1.13	-0.000594	± 2.5	PASS
	VN		20	4.78	0.002512	± 2.5	PASS
	VN	30	4.81	0.002528	± 2.5	PASS	
	VN	40	1.62	0.000852	± 2.5	PASS	
	VN	50	2.62	0.001377	± 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	2.84	0.001527	± 2.5	PASS
		VN	TN	4.68	0.002516	± 2.5	PASS
		VH	TN	-0.34	-0.000183	± 2.5	PASS
	MCH	VL	TN	1.81	0.000963	± 2.5	PASS
		VN	TN	0.78	0.000415	± 2.5	PASS
		VH	TN	-0.61	-0.000324	± 2.5	PASS
	HCH	VL	TN	0.42	0.000221	± 2.5	PASS
		VN	TN	3.57	0.001879	± 2.5	PASS
		VH	TN	-1.46	-0.000768	± 2.5	PASS
16QAM	LCH	VL	TN	-0.63	-0.000339	± 2.5	PASS
		VN	TN	3.23	0.001737	± 2.5	PASS
		VH	TN	-0.48	-0.000258	± 2.5	PASS
	MCH	VL	TN	1.62	0.000862	± 2.5	PASS
		VN	TN	2.35	0.001250	± 2.5	PASS
		VH	TN	0.24	0.000128	± 2.5	PASS
	HCH	VL	TN	1.46	0.000768	± 2.5	PASS
		VN	TN	2.74	0.001442	± 2.5	PASS
		VH	TN	0.5	0.000263	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.07	0.001651	± 2.5	PASS
		VN	-20	4.2	0.002258	± 2.5	PASS
		VN	-10	3.32	0.001785	± 2.5	PASS
		VN	0	1.49	0.000801	± 2.5	PASS
		VN	10	3.42	0.001839	± 2.5	PASS
		VN	20	-1.5	-0.000806	± 2.5	PASS
		VN	30	3.93	0.002113	± 2.5	PASS
		VN	40	0.34	0.000183	± 2.5	PASS
		VN	50	-1.85	-0.000995	± 2.5	PASS
	MCH	VN	-30	1.77	0.000941	± 2.5	PASS
		VN	-20	0.11	0.000059	± 2.5	PASS
		VN	-10	-1.98	-0.001053	± 2.5	PASS
		VN	0	1.95	0.001037	± 2.5	PASS
		VN	10	2.51	0.001335	± 2.5	PASS

		VN	20	1.23	0.000654	± 2.5	PASS
		VN	30	2.97	0.001580	± 2.5	PASS
		VN	40	0.88	0.000468	± 2.5	PASS
		VN	50	-1.54	-0.000819	± 2.5	PASS
	HCH	VN	-30	1.45	0.000763	± 2.5	PASS
		VN	-20	1.27	0.000668	± 2.5	PASS
		VN	-10	1.44	0.000758	± 2.5	PASS
		VN	0	1.47	0.000774	± 2.5	PASS
		VN	10	-1.22	-0.000642	± 2.5	PASS
		VN	20	-0.05	-0.000026	± 2.5	PASS
		VN	30	0.91	0.000479	± 2.5	PASS
		VN	40	2.29	0.001205	± 2.5	PASS
		VN	50	1.07	0.000563	± 2.5	PASS
16QAM	LCH	VN	-30	3.42	0.001839	± 2.5	PASS
		VN	-20	3.53	0.001898	± 2.5	PASS
		VN	-10	-1.51	-0.000812	± 2.5	PASS
		VN	0	1.72	0.000925	± 2.5	PASS
		VN	10	3.88	0.002086	± 2.5	PASS
		VN	20	3.42	0.001839	± 2.5	PASS
		VN	30	-1.81	-0.000973	± 2.5	PASS
		VN	40	-1.48	-0.000796	± 2.5	PASS
		VN	50	-0.69	-0.000371	± 2.5	PASS
	MCH	VN	-30	0.09	0.000048	± 2.5	PASS
		VN	-20	1.17	0.000622	± 2.5	PASS
		VN	-10	-1.1	-0.000585	± 2.5	PASS
		VN	0	-1.18	-0.000628	± 2.5	PASS
		VN	10	0.27	0.000144	± 2.5	PASS
		VN	20	0.38	0.000202	± 2.5	PASS
		VN	30	-0.96	-0.000511	± 2.5	PASS
		VN	40	4.24	0.002255	± 2.5	PASS
		VN	50	1.49	0.000793	± 2.5	PASS
	HCH	VN	-30	3.48	0.001832	± 2.5	PASS
		VN	-20	-1.91	-0.001005	± 2.5	PASS
		VN	-10	3.05	0.001605	± 2.5	PASS
		VN	0	1.18	0.000621	± 2.5	PASS
		VN	10	4.06	0.002137	± 2.5	PASS
		VN	20	2.52	0.001326	± 2.5	PASS
		VN	30	0.41	0.000216	± 2.5	PASS
		VN	40	0.28	0.000147	± 2.5	PASS
		VN	50	-0.82	-0.000432	± 2.5	PASS