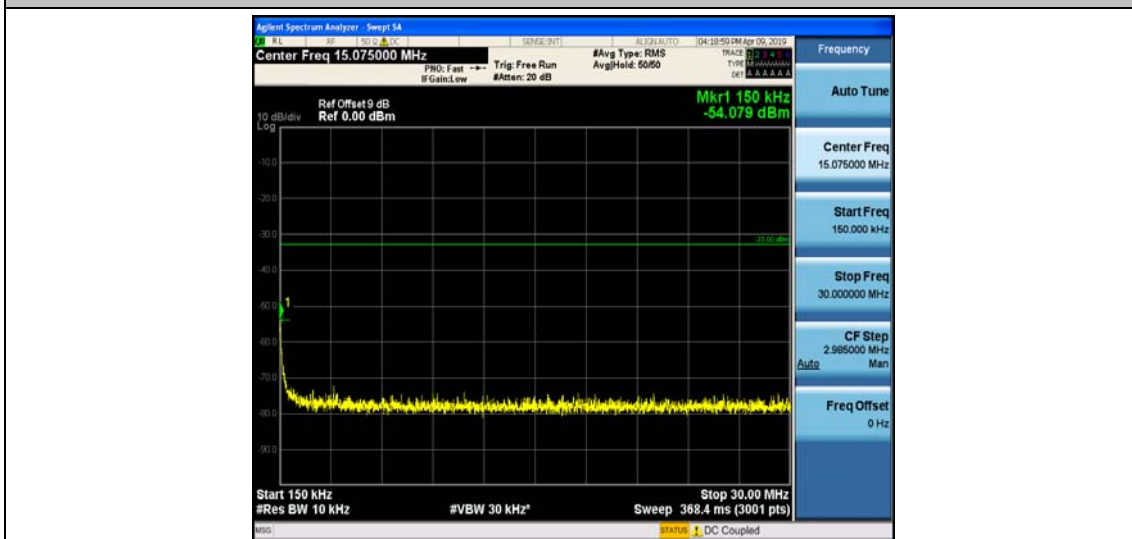




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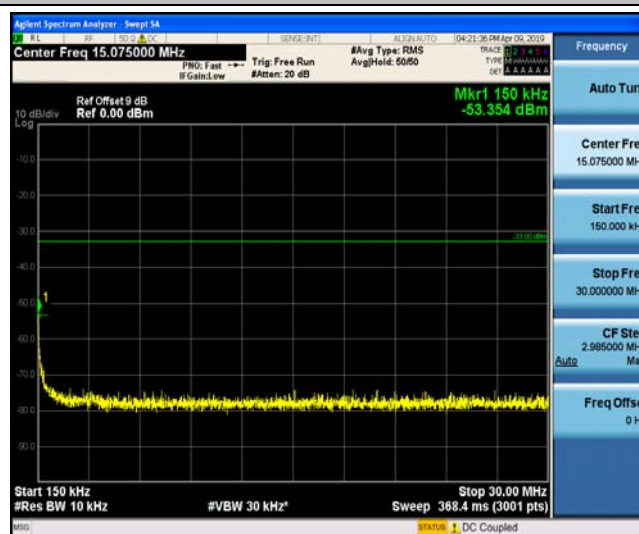
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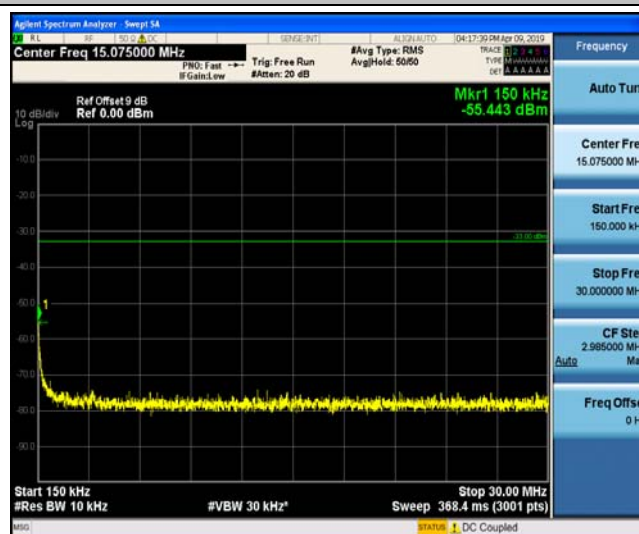
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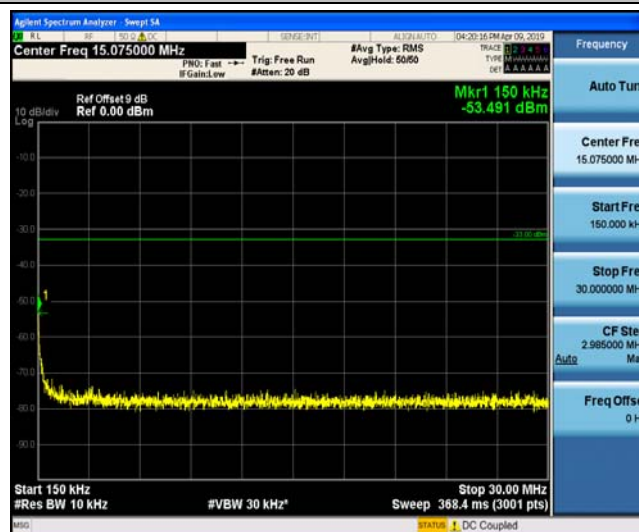
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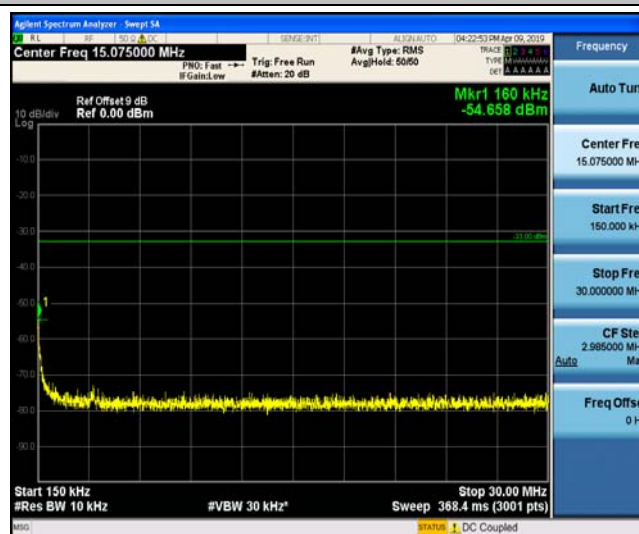
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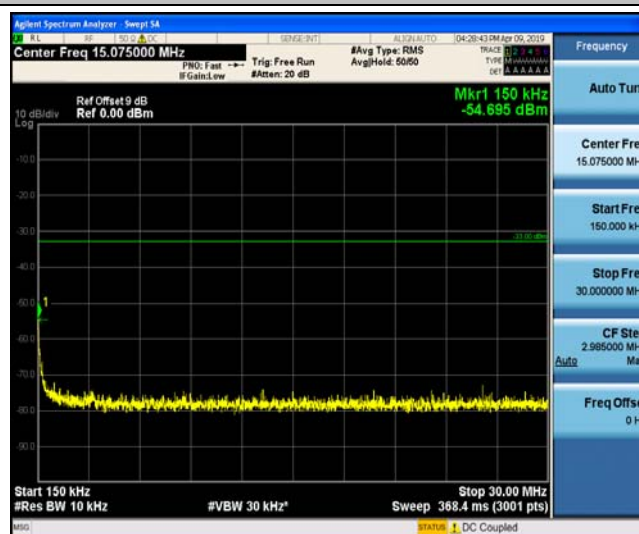
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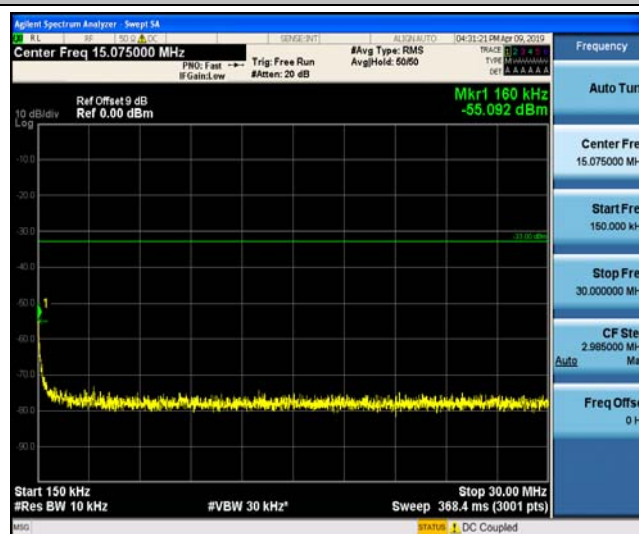
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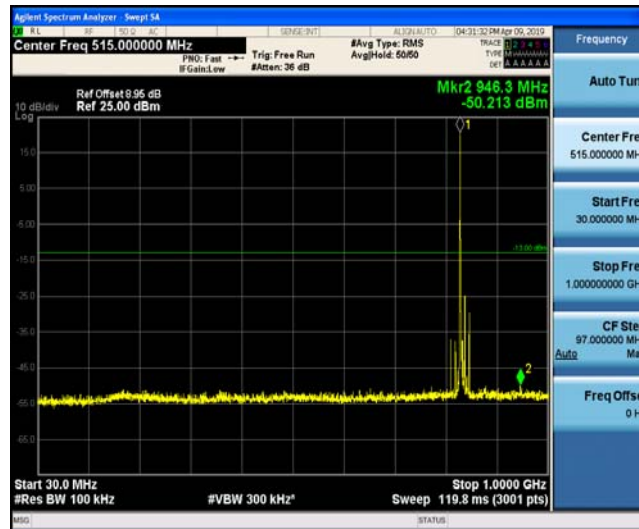
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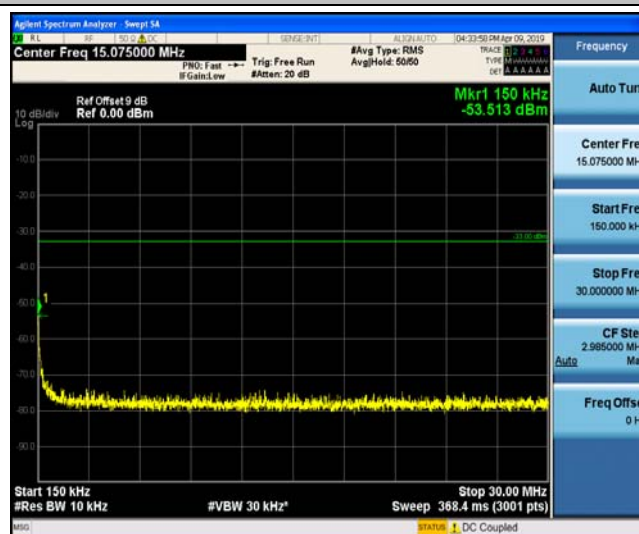
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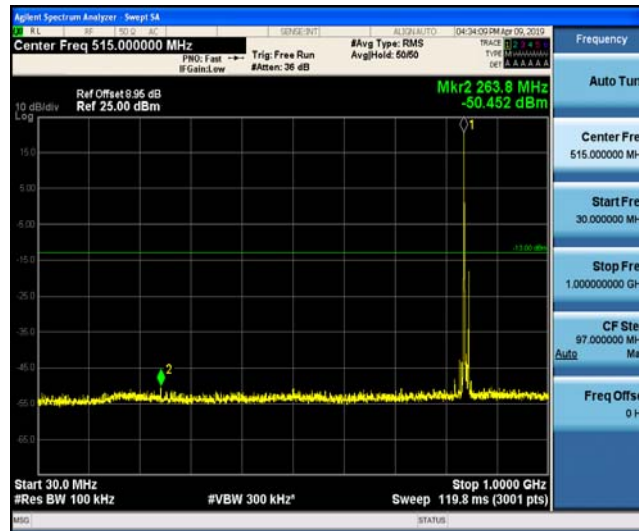
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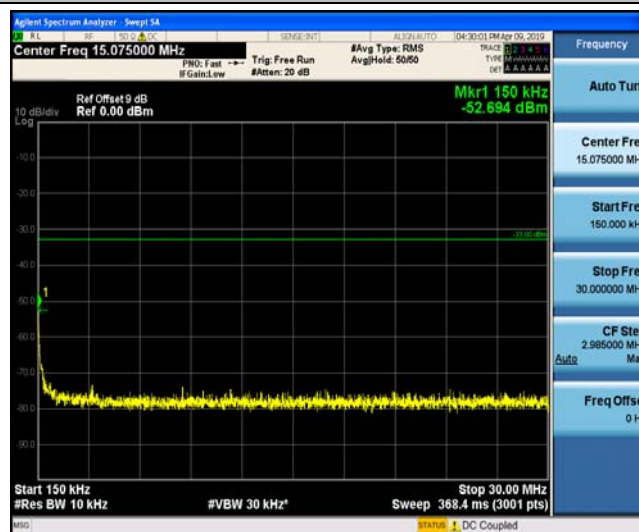
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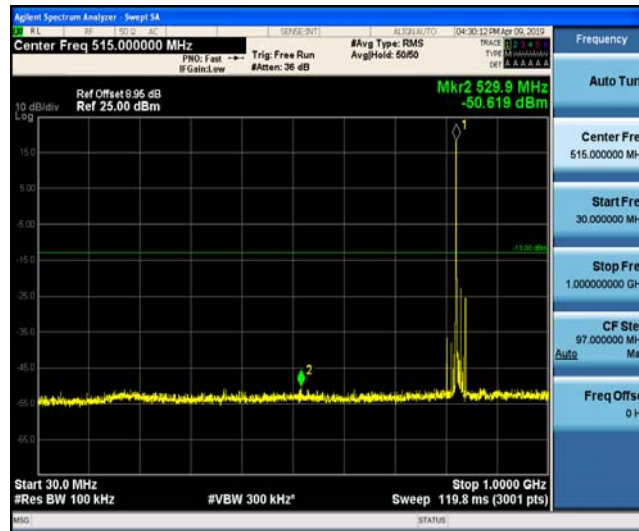
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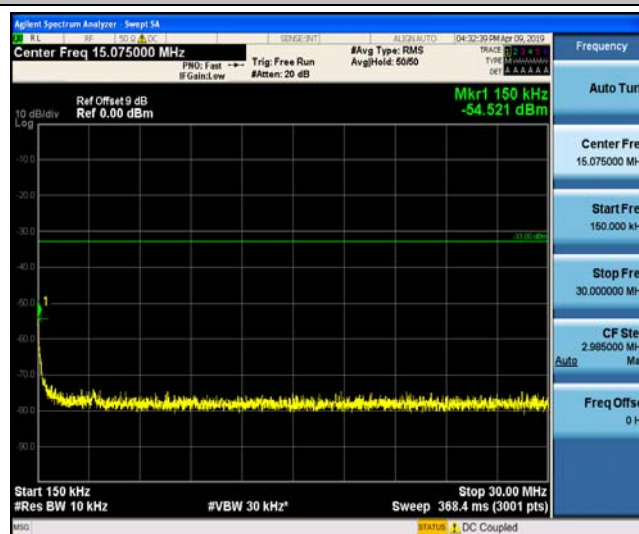
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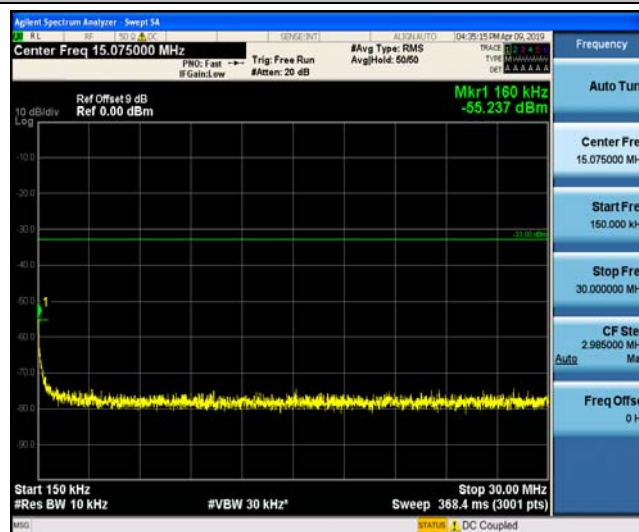
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Band5_10MHz_16QAM_20600_1RB#0



Band5_10MHz_16QAM_20600_1RB#0



Band5_10MHz_16QAM_20600_1RB#0



Band5_10MHz_16QAM_20600_1RB#0



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	-0.04	-0.000049	± 2.5	PASS
		VN	TN	0.4	0.000485	± 2.5	PASS
		VH	TN	1.22	0.001479	± 2.5	PASS
	MCH	VL	TN	-1.68	-0.002008	± 2.5	PASS
		VN	TN	4.58	0.005475	± 2.5	PASS
		VH	TN	0.43	0.000514	± 2.5	PASS
	HCH	VL	TN	2.28	0.002688	± 2.5	PASS
		VN	TN	-1.12	-0.001320	± 2.5	PASS
		VH	TN	1.43	0.001686	± 2.5	PASS
16QAM	LCH	VL	TN	3.67	0.004450	± 2.5	PASS
		VN	TN	2.15	0.002607	± 2.5	PASS
		VH	TN	1.92	0.002328	± 2.5	PASS
	MCH	VL	TN	-0.54	-0.000646	± 2.5	PASS
		VN	TN	2.23	0.002666	± 2.5	PASS
		VH	TN	3.64	0.004351	± 2.5	PASS
	HCH	VL	TN	1.83	0.002157	± 2.5	PASS
		VN	TN	3.67	0.004326	± 2.5	PASS
		VH	TN	2.87	0.003383	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.63	-0.001976	± 2.5	PASS
		VN	-20	0.22	0.000267	± 2.5	PASS
		VN	-10	1.11	0.001346	± 2.5	PASS
		VN	0	1.35	0.001637	± 2.5	PASS
		VN	10	0.56	0.000679	± 2.5	PASS
		VN	20	4.35	0.005275	± 2.5	PASS
		VN	30	1.41	0.001710	± 2.5	PASS
		VN	40	-1.12	-0.001358	± 2.5	PASS
		VN	50	4.09	0.004959	± 2.5	PASS
	MCH	VN	-30	-1.74	-0.002080	± 2.5	PASS
		VN	-20	2.98	0.003562	± 2.5	PASS

		VN	-10	1.25	0.001494	± 2.5	PASS
		VN	0	3.4	0.004065	± 2.5	PASS
		VN	10	2.19	0.002618	± 2.5	PASS
		VN	20	-1.01	-0.001207	± 2.5	PASS
		VN	30	1.19	0.001423	± 2.5	PASS
		VN	40	-0.44	-0.000526	± 2.5	PASS
		VN	50	0.07	0.000084	± 2.5	PASS
	HCH	VN	-30	3.95	0.004656	± 2.5	PASS
		VN	-20	4.34	0.005116	± 2.5	PASS
		VN	-10	-0.59	-0.000696	± 2.5	PASS
		VN	0	1.68	0.001980	± 2.5	PASS
		VN	10	-1.45	-0.001709	± 2.5	PASS
		VN	20	2.93	0.003454	± 2.5	PASS
		VN	30	2.98	0.003513	± 2.5	PASS
		VN	40	-0.7	-0.000825	± 2.5	PASS
		VN	50	1.7	0.002004	± 2.5	PASS
16QAM	LCH	VN	-30	-0.58	-0.000703	± 2.5	PASS
		VN	-20	-1.43	-0.001734	± 2.5	PASS
		VN	-10	2.46	0.002983	± 2.5	PASS
		VN	0	-1.19	-0.001443	± 2.5	PASS
		VN	10	0.51	0.000618	± 2.5	PASS
		VN	20	2.93	0.003553	± 2.5	PASS
		VN	30	3.27	0.003965	± 2.5	PASS
		VN	40	4.28	0.005190	± 2.5	PASS
		VN	50	4.57	0.005541	± 2.5	PASS
	MCH	VN	-30	-0.57	-0.000672	± 2.5	PASS
		VN	-20	-1.27	-0.001497	± 2.5	PASS
		VN	-10	3.48	0.004102	± 2.5	PASS
		VN	0	1.57	0.001851	± 2.5	PASS
		VN	10	0.73	0.000861	± 2.5	PASS
		VN	20	2.06	0.002428	± 2.5	PASS
		VN	30	4.46	0.005258	± 2.5	PASS
		VN	40	2.32	0.002735	± 2.5	PASS
		VN	50	-1.63	-0.001921	± 2.5	PASS
	HCH	VN	-30	2.03	0.002393	± 2.5	PASS
		VN	-20	2.04	0.002405	± 2.5	PASS
		VN	-10	-0.22	-0.000259	± 2.5	PASS
		VN	0	3.56	0.004197	± 2.5	PASS
		VN	10	1.61	0.001898	± 2.5	PASS
		VN	20	4.33	0.005104	± 2.5	PASS
		VN	30	3.59	0.004232	± 2.5	PASS

		VN	40	2.26	0.002664	± 2.5	PASS
		VN	50	2.79	0.003289	± 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	0.35	0.000424	± 2.5	PASS
		VN	TN	4.1	0.004967	± 2.5	PASS
		VH	TN	-0.06	-0.000073	± 2.5	PASS
	MCH	VL	TN	-1.14	-0.001363	± 2.5	PASS
		VN	TN	-0.18	-0.000215	± 2.5	PASS
		VH	TN	4.53	0.005415	± 2.5	PASS
	HCH	VL	TN	-1.04	-0.001227	± 2.5	PASS
		VN	TN	4.4	0.005192	± 2.5	PASS
		VH	TN	2.28	0.002690	± 2.5	PASS
16QAM	LCH	VL	TN	-0.53	-0.000642	± 2.5	PASS
		VN	TN	1.03	0.001248	± 2.5	PASS
		VH	TN	3.34	0.004046	± 2.5	PASS
	MCH	VL	TN	-1.11	-0.001327	± 2.5	PASS
		VN	TN	3.48	0.004160	± 2.5	PASS
		VH	TN	-1.6	-0.001913	± 2.5	PASS
	HCH	VL	TN	4.45	0.005251	± 2.5	PASS
		VN	TN	2.79	0.003292	± 2.5	PASS
		VH	TN	0.11	0.000130	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.17	-0.001417	± 2.5	PASS
		VN	-20	3.05	0.003695	± 2.5	PASS
		VN	-10	2.1	0.002544	± 2.5	PASS
		VN	0	2.15	0.002604	± 2.5	PASS
		VN	10	1.05	0.001272	± 2.5	PASS
		VN	20	3.42	0.004143	± 2.5	PASS
		VN	30	4.13	0.005003	± 2.5	PASS
		VN	40	3.99	0.004833	± 2.5	PASS
		VN	50	1.7	0.002059	± 2.5	PASS
	MCH	VN	-30	2.99	0.003574	± 2.5	PASS
		VN	-20	4.13	0.004937	± 2.5	PASS
		VN	-10	0.53	0.000634	± 2.5	PASS

		VN	0	-0.59	-0.000705	± 2.5	PASS
		VN	10	-0.33	-0.000395	± 2.5	PASS
		VN	20	-1.34	-0.001602	± 2.5	PASS
		VN	30	1.72	0.002056	± 2.5	PASS
		VN	40	-0.98	-0.001172	± 2.5	PASS
		VN	50	3.28	0.003921	± 2.5	PASS
	HCH	VN	-30	1.71	0.002018	± 2.5	PASS
		VN	-20	1.72	0.002029	± 2.5	PASS
		VN	-10	1.84	0.002171	± 2.5	PASS
		VN	0	0.26	0.000307	± 2.5	PASS
		VN	10	4.3	0.005074	± 2.5	PASS
		VN	20	0.65	0.000767	± 2.5	PASS
		VN	30	-0.67	-0.000791	± 2.5	PASS
		VN	40	-0.1	-0.000118	± 2.5	PASS
		VN	50	-1.86	-0.002195	± 2.5	PASS
QPSK	LCH	VN	-30	0.92	0.001100	± 2.5	PASS
		VN	-20	-0.13	-0.000155	± 2.5	PASS
		VN	-10	2.96	0.003539	± 2.5	PASS
		VN	0	-0.25	-0.000299	± 2.5	PASS
		VN	10	4.85	0.005798	± 2.5	PASS
		VN	20	3.28	0.003921	± 2.5	PASS
		VN	30	2.64	0.003156	± 2.5	PASS
		VN	40	0.17	0.000203	± 2.5	PASS
		VN	50	-0.68	-0.000813	± 2.5	PASS
	MCH	VN	-30	4.66	0.005499	± 2.5	PASS
		VN	-20	4.45	0.005251	± 2.5	PASS
		VN	-10	3.6	0.004248	± 2.5	PASS
		VN	0	1.95	0.002301	± 2.5	PASS
		VN	10	1.46	0.001723	± 2.5	PASS
		VN	20	0.38	0.000448	± 2.5	PASS
		VN	30	0.91	0.001074	± 2.5	PASS
		VN	40	4.44	0.005239	± 2.5	PASS
		VN	50	-0.67	-0.000791	± 2.5	PASS
	HCH	VN	-30	3.96	0.004673	± 2.5	PASS
		VN	-20	-1.43	-0.001687	± 2.5	PASS
		VN	-10	4.3	0.005074	± 2.5	PASS
		VN	0	4.63	0.005463	± 2.5	PASS
		VN	10	-0.13	-0.000153	± 2.5	PASS
		VN	20	1.93	0.002277	± 2.5	PASS
		VN	30	0.32	0.000378	± 2.5	PASS
		VN	40	2.77	0.003268	± 2.5	PASS

		VN	50	3.14	0.003705	± 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	0.89	0.001077	± 2.5	PASS
		VN	TN	-0.77	-0.000932	± 2.5	PASS
		VH	TN	-1.86	-0.002250	± 2.5	PASS
	MCH	VL	TN	4.84	0.005786	± 2.5	PASS
		VN	TN	4.19	0.005009	± 2.5	PASS
		VH	TN	-1.52	-0.001817	± 2.5	PASS
	HCH	VL	TN	0.65	0.000768	± 2.5	PASS
		VN	TN	4.62	0.005458	± 2.5	PASS
		VH	TN	-0.27	-0.000319	± 2.5	PASS
16QAM	LCH	VL	TN	2.74	0.003315	± 2.5	PASS
		VN	TN	-1.85	-0.002238	± 2.5	PASS
		VH	TN	-1.9	-0.002299	± 2.5	PASS
	MCH	VL	TN	1.61	0.001925	± 2.5	PASS
		VN	TN	-0.48	-0.000574	± 2.5	PASS
		VH	TN	2.94	0.003515	± 2.5	PASS
	HCH	VL	TN	-0.27	-0.000319	± 2.5	PASS
		VN	TN	-1.31	-0.001548	± 2.5	PASS
		VH	TN	-1.52	-0.001796	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.87	-0.001053	± 2.5	PASS
		VN	-20	4.73	0.005723	± 2.5	PASS
		VN	-10	1.61	0.001948	± 2.5	PASS
		VN	0	-1.61	-0.001948	± 2.5	PASS
		VN	10	0.14	0.000169	± 2.5	PASS
		VN	20	1.91	0.002311	± 2.5	PASS
		VN	30	0.8	0.000968	± 2.5	PASS
		VN	40	1.74	0.002105	± 2.5	PASS
		VN	50	-1.29	-0.001561	± 2.5	PASS
	MCH	VN	-30	3.01	0.003598	± 2.5	PASS
		VN	-20	1.88	0.002247	± 2.5	PASS
		VN	-10	1.5	0.001793	± 2.5	PASS
		VN	0	4.61	0.005511	± 2.5	PASS

		VN	10	2.07	0.002475	± 2.5	PASS
		VN	20	-0.17	-0.000203	± 2.5	PASS
		VN	30	1.72	0.002056	± 2.5	PASS
		VN	40	0.47	0.000562	± 2.5	PASS
		VN	50	-1.93	-0.002307	± 2.5	PASS
	HCH	VN	-30	-0.56	-0.000662	± 2.5	PASS
		VN	-20	0.64	0.000756	± 2.5	PASS
		VN	-10	3.44	0.004064	± 2.5	PASS
		VN	0	2.2	0.002599	± 2.5	PASS
		VN	10	4.63	0.005470	± 2.5	PASS
		VN	20	0.16	0.000189	± 2.5	PASS
		VN	30	-1.6	-0.001890	± 2.5	PASS
		VN	40	1.21	0.001429	± 2.5	PASS
		VN	50	-1.47	-0.001737	± 2.5	PASS
16QAM	LCH	VN	-30	2.66	0.003180	± 2.5	PASS
		VN	-20	-1.03	-0.001231	± 2.5	PASS
		VN	-10	4.32	0.005164	± 2.5	PASS
		VN	0	-0.68	-0.000813	± 2.5	PASS
		VN	10	-0.25	-0.000299	± 2.5	PASS
		VN	20	-1.26	-0.001506	± 2.5	PASS
		VN	30	-1.89	-0.002259	± 2.5	PASS
		VN	40	-1.13	-0.001351	± 2.5	PASS
		VN	50	3.99	0.004770	± 2.5	PASS
	MCH	VN	-30	3.47	0.004099	± 2.5	PASS
		VN	-20	4.24	0.005009	± 2.5	PASS
		VN	-10	3.23	0.003816	± 2.5	PASS
		VN	0	0.99	0.001170	± 2.5	PASS
		VN	10	2.19	0.002587	± 2.5	PASS
		VN	20	-1.63	-0.001926	± 2.5	PASS
		VN	30	-0.78	-0.000921	± 2.5	PASS
		VN	40	1.61	0.001902	± 2.5	PASS
		VN	50	0.22	0.000260	± 2.5	PASS
	HCH	VN	-30	0.67	0.000791	± 2.5	PASS
		VN	-20	3.46	0.004087	± 2.5	PASS
		VN	-10	0.76	0.000898	± 2.5	PASS
		VN	0	0.53	0.000626	± 2.5	PASS
		VN	10	0.5	0.000591	± 2.5	PASS
		VN	20	3.34	0.003946	± 2.5	PASS
		VN	30	-1.95	-0.002304	± 2.5	PASS
		VN	40	3.21	0.003792	± 2.5	PASS
		VN	50	1.81	0.002138	± 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	-0.66	-0.000796	± 2.5	PASS
		VN	TN	2.57	0.003100	± 2.5	PASS
		VH	TN	3.28	0.003957	± 2.5	PASS
	MCH	VL	TN	2.59	0.003096	± 2.5	PASS
		VN	TN	1.25	0.001494	± 2.5	PASS
		VH	TN	1.44	0.001721	± 2.5	PASS
	HCH	VL	TN	-0.7	-0.000829	± 2.5	PASS
		VN	TN	-1.8	-0.002133	± 2.5	PASS
		VH	TN	1.77	0.002097	± 2.5	PASS
16QAM	LCH	VL	TN	2.5	0.003016	± 2.5	PASS
		VN	TN	0.5	0.000603	± 2.5	PASS
		VH	TN	3.04	0.003667	± 2.5	PASS
	MCH	VL	TN	3.73	0.004459	± 2.5	PASS
		VN	TN	2.96	0.003539	± 2.5	PASS
		VH	TN	2.63	0.003144	± 2.5	PASS
	HCH	VL	TN	2.39	0.002832	± 2.5	PASS
		VN	TN	3.42	0.004052	± 2.5	PASS
		VH	TN	4.11	0.004870	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	1.29	0.001556	± 2.5	PASS
		VN	-20	3.36	0.004053	± 2.5	PASS
		VN	-10	-0.78	-0.000941	± 2.5	PASS
		VN	0	3.56	0.004294	± 2.5	PASS
		VN	10	4.5	0.005428	± 2.5	PASS
		VN	20	-1.08	-0.001303	± 2.5	PASS
		VN	30	4.7	0.005669	± 2.5	PASS
		VN	40	-1.2	-0.001448	± 2.5	PASS
		VN	50	0.06	0.000072	± 2.5	PASS
	MCH	VN	-30	1.61	0.001925	± 2.5	PASS
		VN	-20	4.67	0.005583	± 2.5	PASS
		VN	-10	3.7	0.004423	± 2.5	PASS
		VN	0	0.58	0.000693	± 2.5	PASS
		VN	10	4.7	0.005619	± 2.5	PASS
		VN	20	-1.95	-0.002331	± 2.5	PASS

		VN	30	1.6	0.001913	± 2.5	PASS
		VN	40	1.04	0.001243	± 2.5	PASS
		VN	50	1.81	0.002164	± 2.5	PASS
	HCH	VN	-30	2.2	0.002607	± 2.5	PASS
		VN	-20	-1.99	-0.002358	± 2.5	PASS
		VN	-10	2.59	0.003069	± 2.5	PASS
		VN	0	1.74	0.002062	± 2.5	PASS
		VN	10	3.72	0.004408	± 2.5	PASS
		VN	20	-0.48	-0.000569	± 2.5	PASS
		VN	30	4.86	0.005758	± 2.5	PASS
		VN	40	4.84	0.005735	± 2.5	PASS
		VN	50	4.56	0.005403	± 2.5	PASS
QPSK	LCH	VN	-30	-0.99	-0.001184	± 2.5	PASS
		VN	-20	0.72	0.000861	± 2.5	PASS
		VN	-10	-1.85	-0.002212	± 2.5	PASS
		VN	0	-1.08	-0.001291	± 2.5	PASS
		VN	10	3.43	0.004100	± 2.5	PASS
		VN	20	3.67	0.004387	± 2.5	PASS
		VN	30	0.17	0.000203	± 2.5	PASS
		VN	40	-0.4	-0.000478	± 2.5	PASS
		VN	50	-1.95	-0.002331	± 2.5	PASS
	MCH	VN	-30	-1.17	-0.001386	± 2.5	PASS
		VN	-20	3.24	0.003839	± 2.5	PASS
		VN	-10	4.87	0.005770	± 2.5	PASS
		VN	0	0	0.000000	± 2.5	PASS
		VN	10	3.62	0.004289	± 2.5	PASS
		VN	20	4.87	0.005770	± 2.5	PASS
		VN	30	1.49	0.001765	± 2.5	PASS
		VN	40	1.1	0.001303	± 2.5	PASS
		VN	50	3.49	0.004135	± 2.5	PASS
	HCH	VN	-30	-0.9	-0.001066	± 2.5	PASS
		VN	-20	0.27	0.000320	± 2.5	PASS
		VN	-10	2.12	0.002512	± 2.5	PASS
		VN	0	-0.39	-0.000462	± 2.5	PASS
		VN	10	-0.23	-0.000273	± 2.5	PASS
		VN	20	0.9	0.001066	± 2.5	PASS
		VN	30	1.6	0.001896	± 2.5	PASS
		VN	40	-0.29	-0.000344	± 2.5	PASS
		VN	50	-1.03	-0.001220	± 2.5	PASS