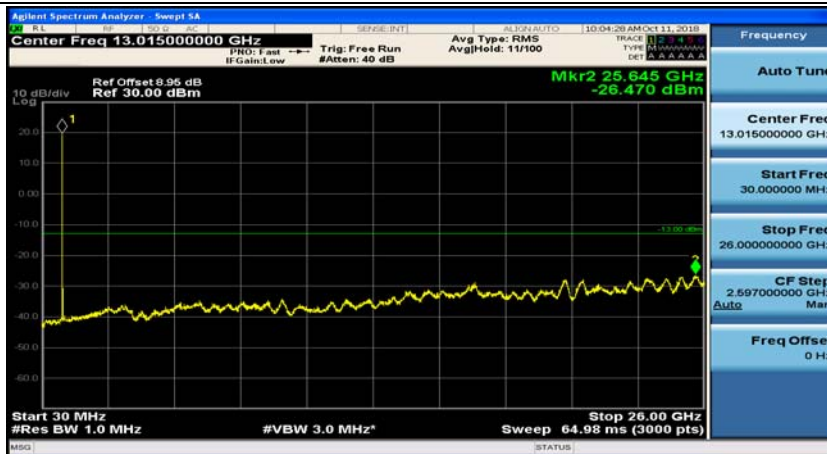
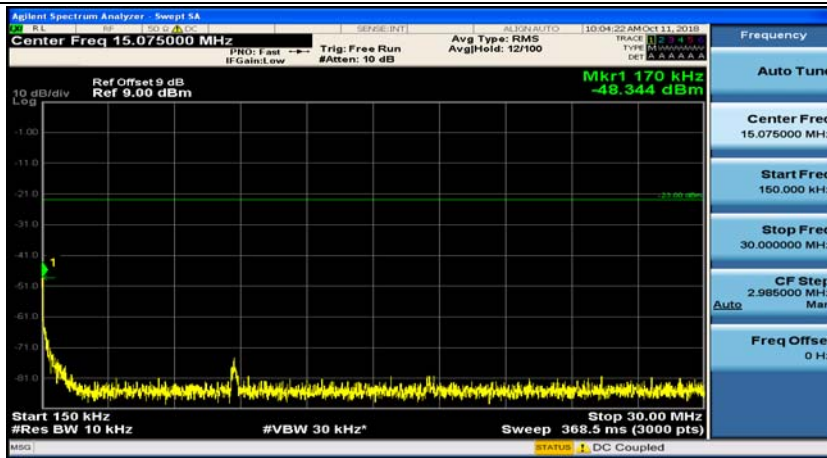
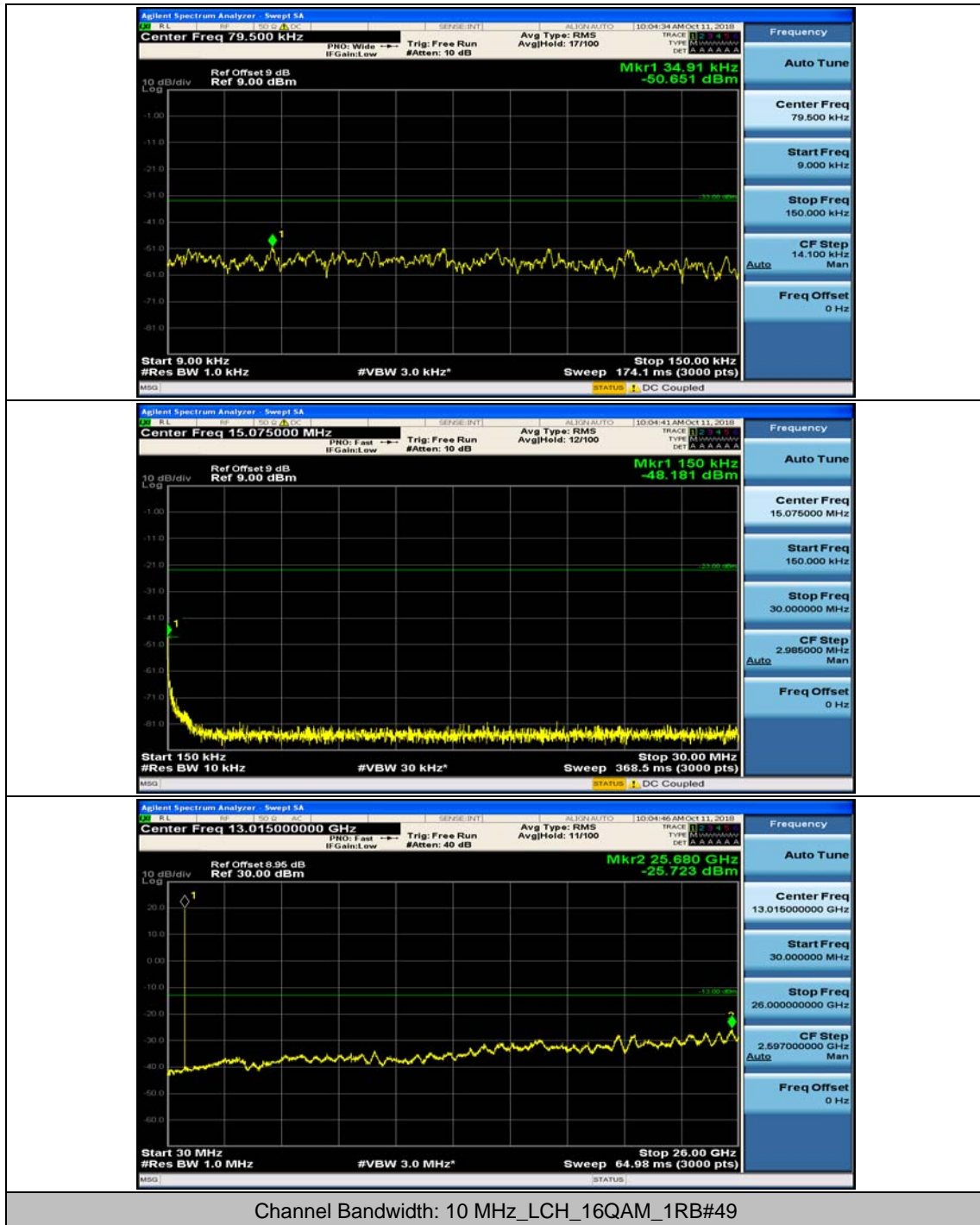
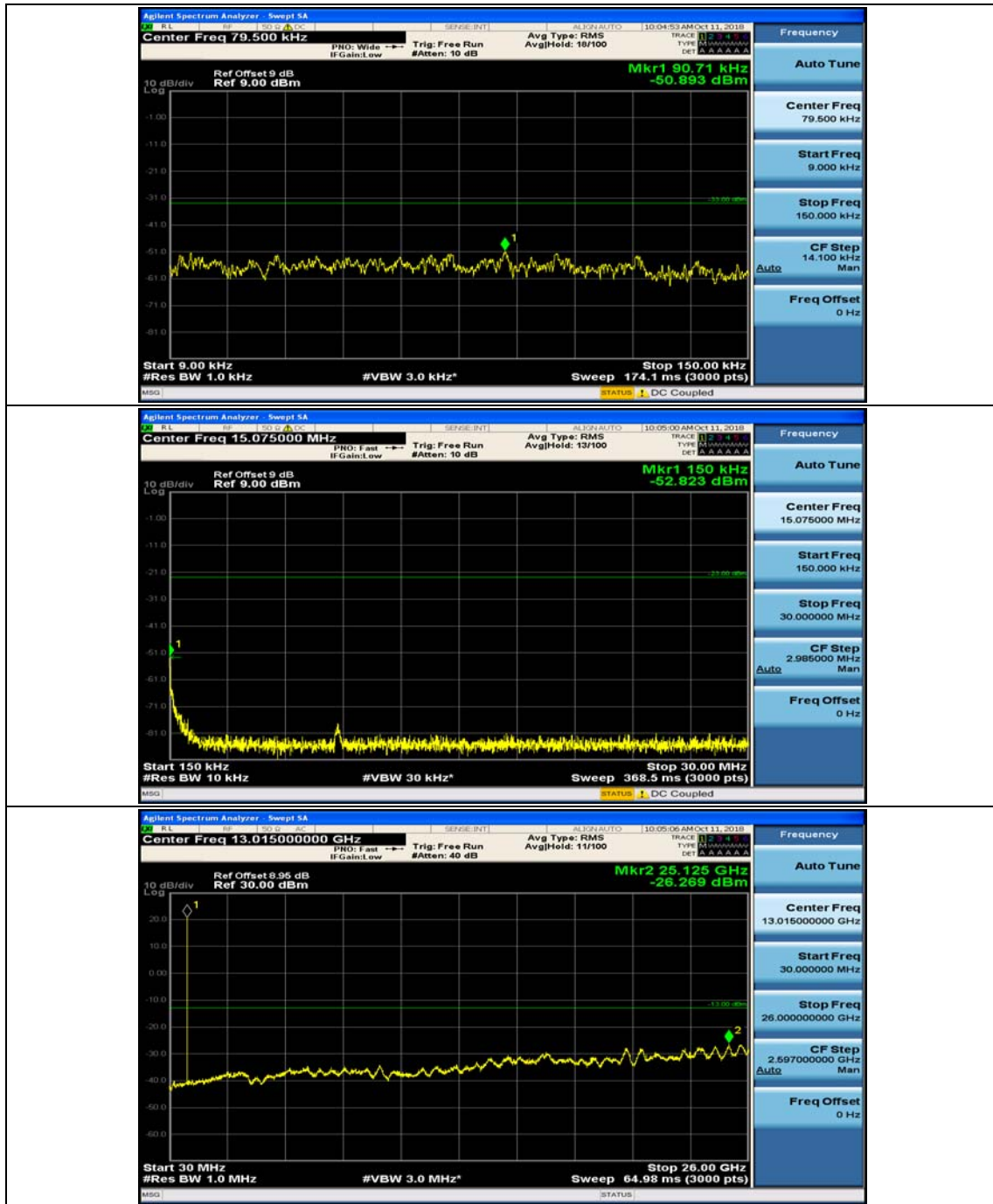


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

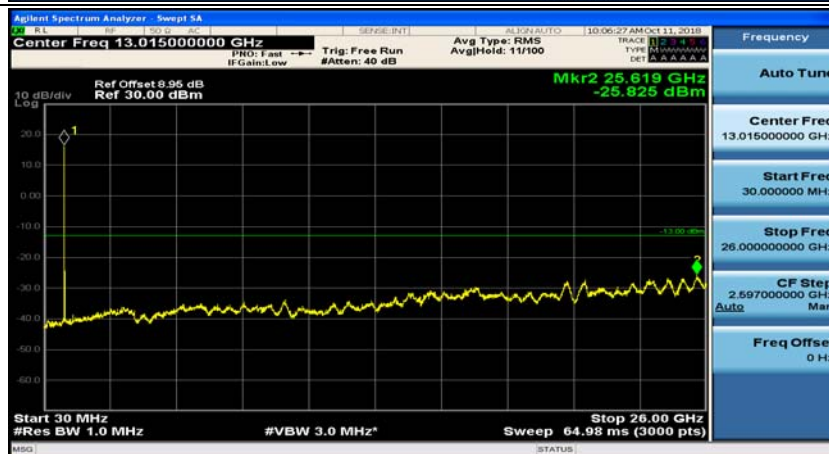
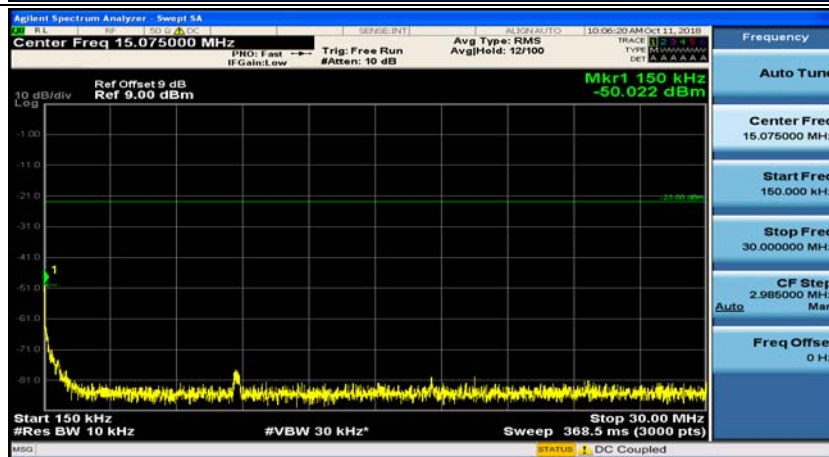


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

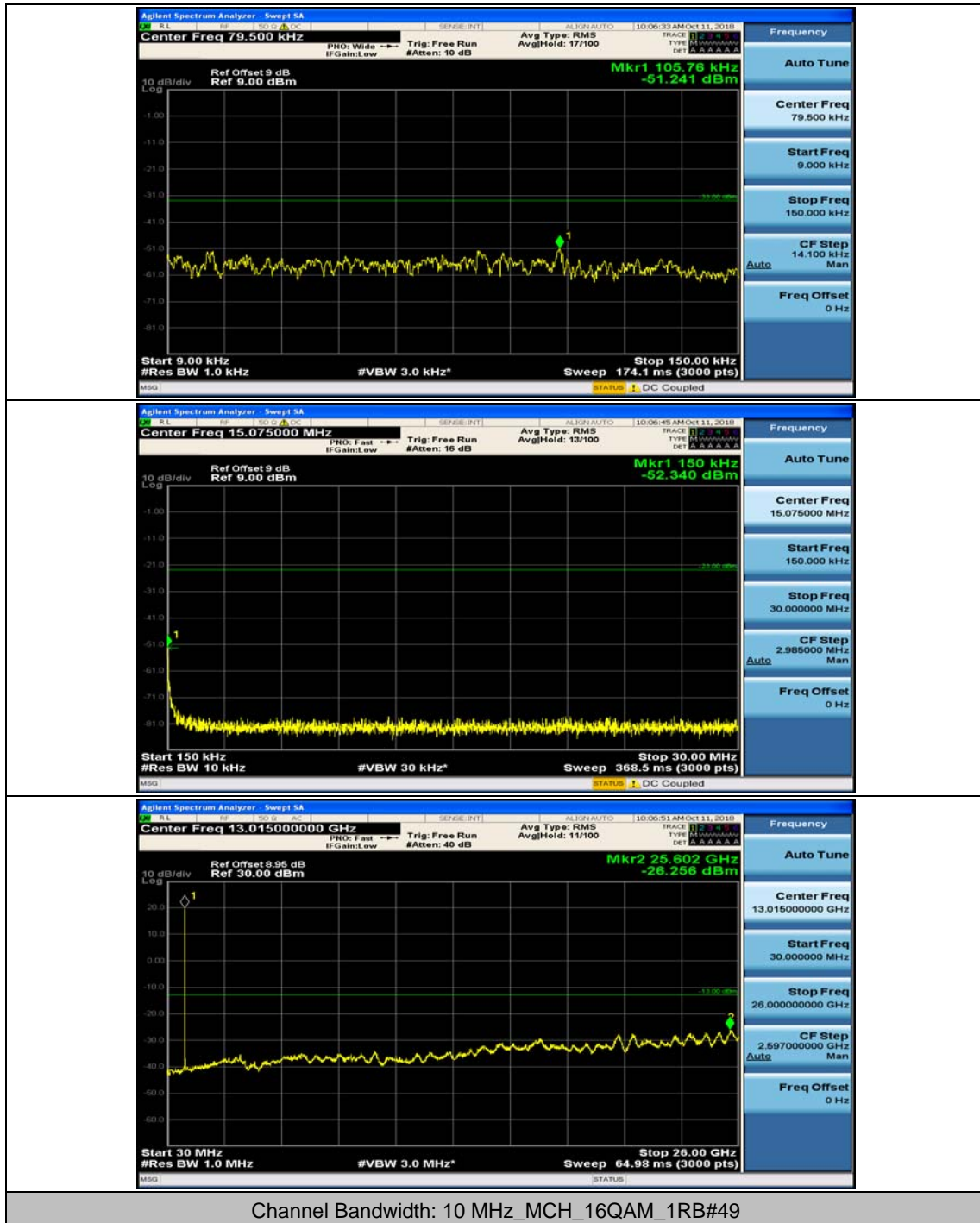


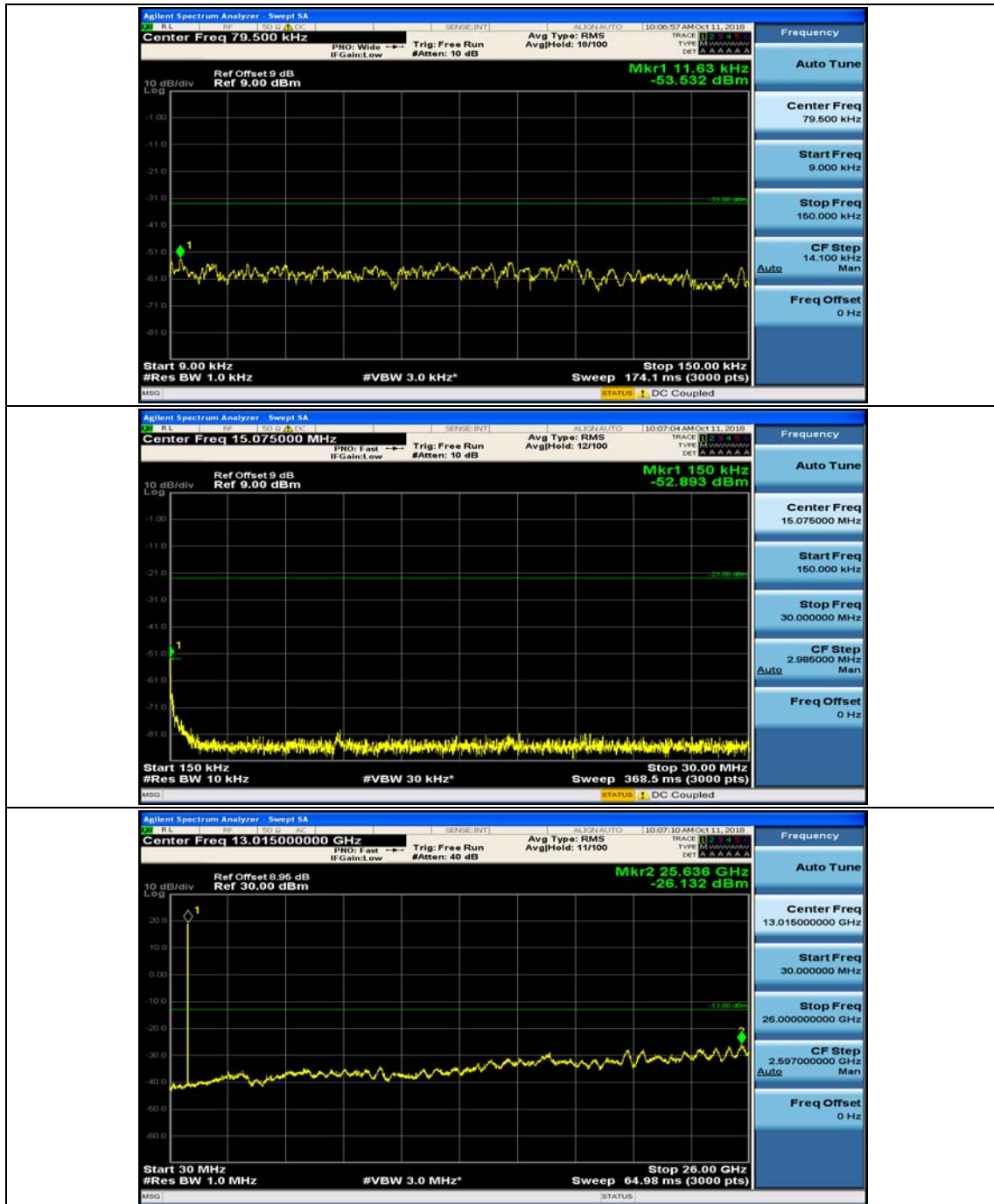


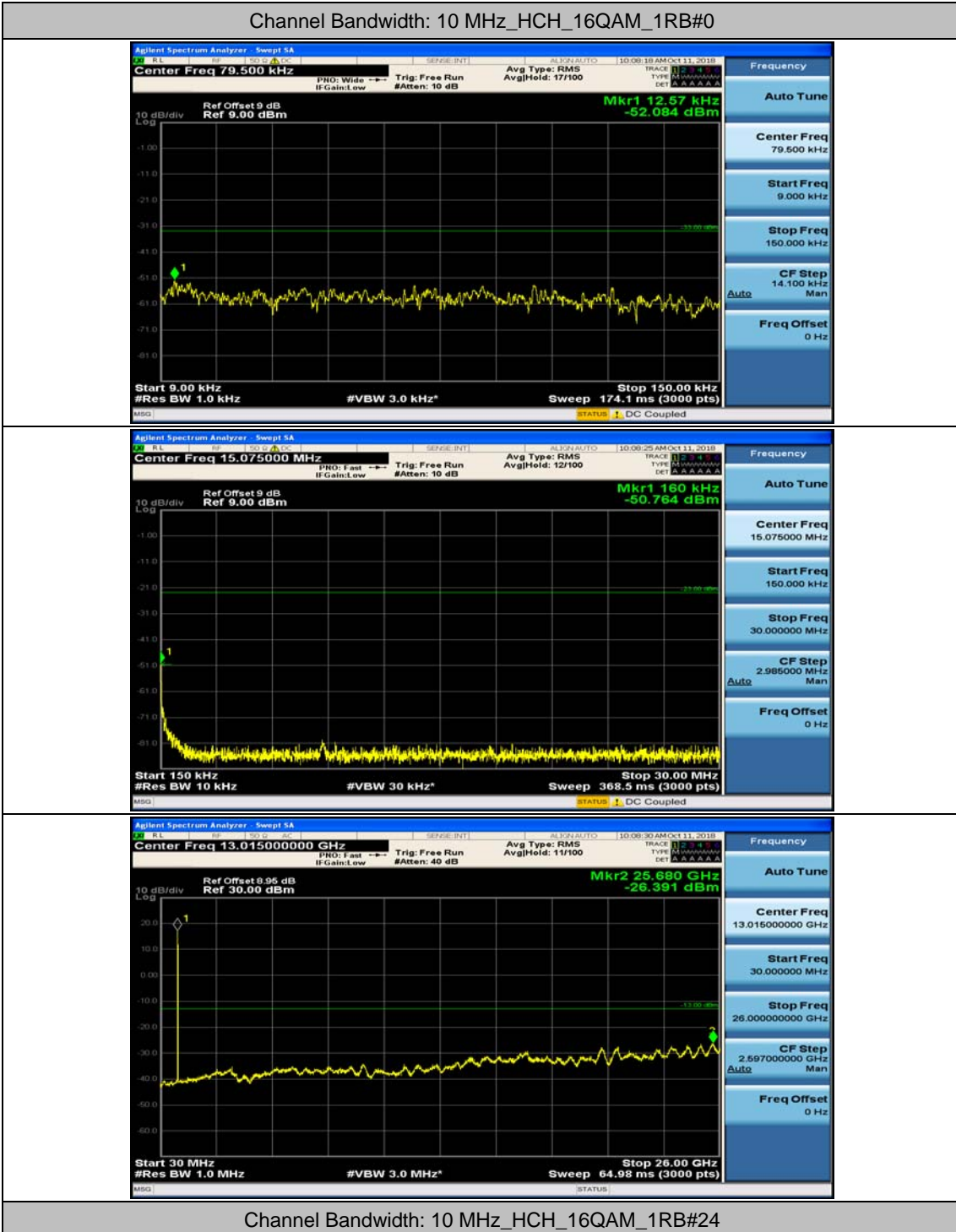
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

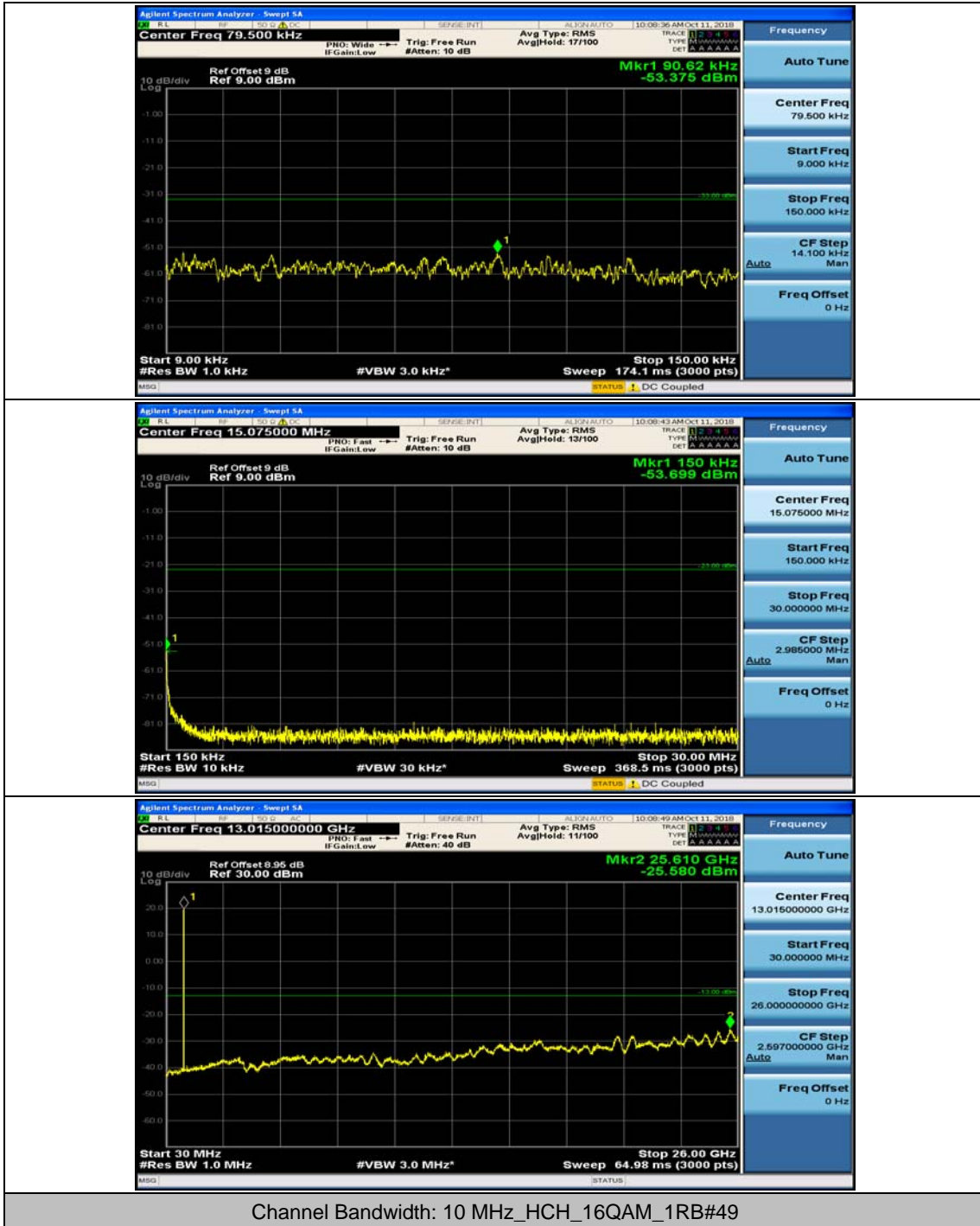


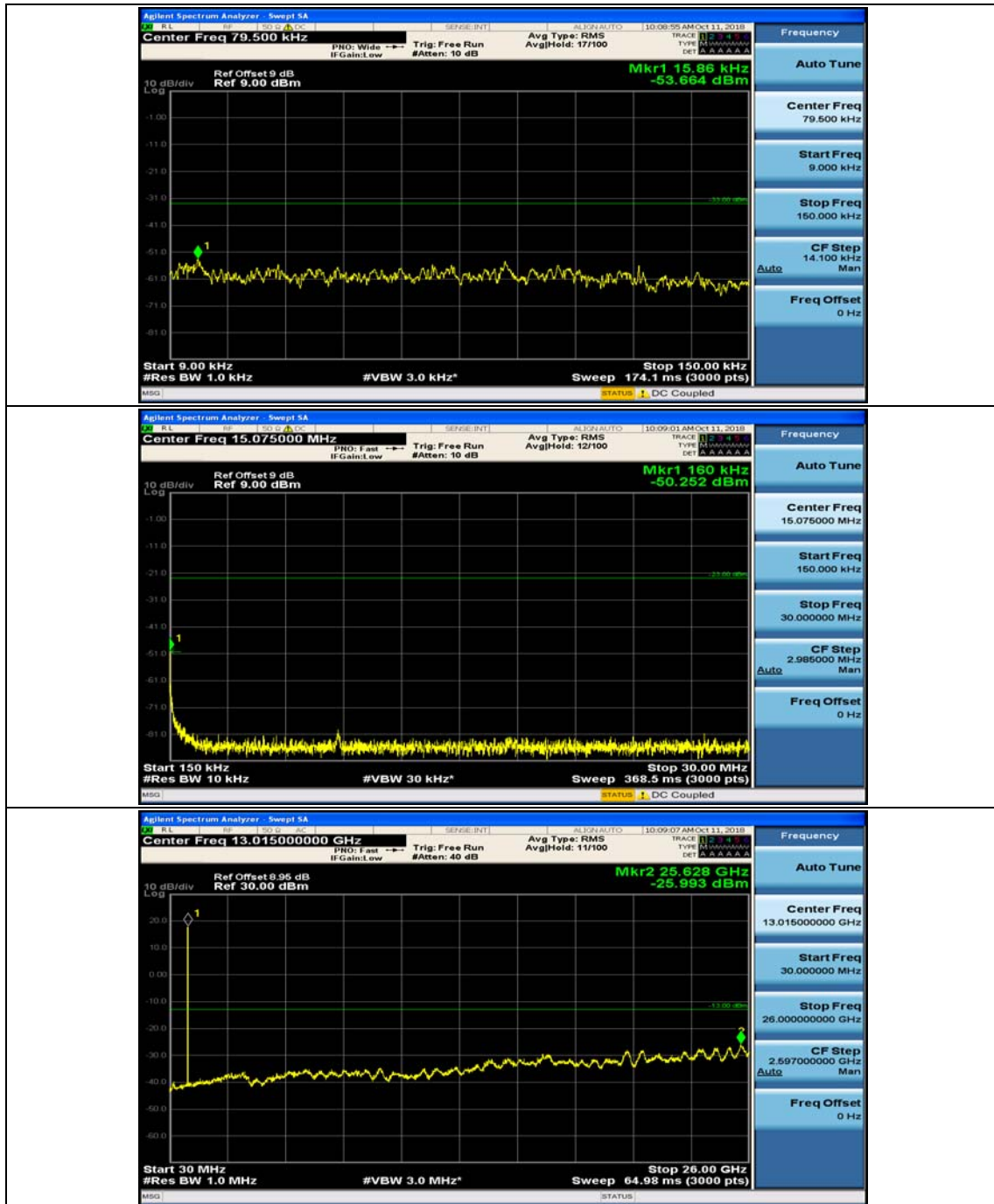
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24











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	0.1	0.000121	± 2.5	PASS
		VN	TN	3.07	0.003723	± 2.5	PASS
		VH	TN	0.87	0.001055	± 2.5	PASS
	MCH	VL	TN	2.59	0.003096	± 2.5	PASS
		VN	TN	2.19	0.002618	± 2.5	PASS
		VH	TN	4.85	0.005798	± 2.5	PASS
	HCH	VL	TN	2.81	0.003313	± 2.5	PASS
		VN	TN	-1.2	-0.001415	± 2.5	PASS
		VH	TN	0.65	0.000766	± 2.5	PASS
16QAM	LCH	VL	TN	3.23	0.003917	± 2.5	PASS
		VN	TN	3.77	0.004571	± 2.5	PASS
		VH	TN	2.56	0.003104	± 2.5	PASS
	MCH	VL	TN	1.53	0.001829	± 2.5	PASS
		VN	TN	2.87	0.003431	± 2.5	PASS
		VH	TN	3.82	0.004567	± 2.5	PASS
	HCH	VL	TN	4.55	0.005364	± 2.5	PASS
		VN	TN	4.27	0.005034	± 2.5	PASS
		VH	TN	2.32	0.002735	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.33	0.001613	± 2.5	PASS
		VN	-20	1.34	0.001625	± 2.5	PASS
		VN	-10	1.72	0.002086	± 2.5	PASS
		VN	0	-0.99	-0.001200	± 2.5	PASS
		VN	10	1.88	0.002280	± 2.5	PASS
		VN	20	0.47	0.000570	± 2.5	PASS
		VN	30	3.61	0.004377	± 2.5	PASS
		VN	40	0.64	0.000776	± 2.5	PASS
		VN	50	1.08	0.001310	± 2.5	PASS
	MCH	VN	-30	0.16	0.000191	± 2.5	PASS

	VN	-20	4.77	0.005702	± 2.5	PASS	
		-10	4.3	0.005140	± 2.5	PASS	
		0	1.37	0.001638	± 2.5	PASS	
		10	2.82	0.003371	± 2.5	PASS	
		20	2.29	0.002738	± 2.5	PASS	
		30	1.68	0.002008	± 2.5	PASS	
		40	-1.8	-0.002152	± 2.5	PASS	
		50	0.64	0.000765	± 2.5	PASS	
	HCH	VN	-30	-1.88	-0.002216	± 2.5	PASS
		VN	-20	4.57	0.005387	± 2.5	PASS
		VN	-10	4.2	0.004951	± 2.5	PASS
		VN	0	-1.61	-0.001898	± 2.5	PASS
		VN	10	1.52	0.001792	± 2.5	PASS
		VN	20	3.04	0.003584	± 2.5	PASS
		VN	30	1.07	0.001261	± 2.5	PASS
		VN	40	2.33	0.002747	± 2.5	PASS
		VN	50	-1.41	-0.001662	± 2.5	PASS
		16QAM	LCH	VN	-30	-1.64	-0.001989
VN	-20			2.69	0.003262	± 2.5	PASS
VN	-10			4.3	0.005214	± 2.5	PASS
VN	0			-1.05	-0.001273	± 2.5	PASS
VN	10			3.51	0.004256	± 2.5	PASS
VN	20			4.72	0.005723	± 2.5	PASS
VN	30			-1.39	-0.001685	± 2.5	PASS
VN	40			0.11	0.000133	± 2.5	PASS
VN	50			4.05	0.004911	± 2.5	PASS
MCH	VN		-30	2.14	0.002523	± 2.5	PASS
	VN		-20	2.65	0.003124	± 2.5	PASS
	VN		-10	0.35	0.000413	± 2.5	PASS
	VN		0	-0.77	-0.000908	± 2.5	PASS
	VN		10	1.76	0.002075	± 2.5	PASS
	VN		20	3.89	0.004586	± 2.5	PASS
	VN		30	-0.21	-0.000248	± 2.5	PASS
	VN		40	4.99	0.005882	± 2.5	PASS
	VN		50	-1.82	-0.002145	± 2.5	PASS
HCH	VN		-30	3.61	0.004256	± 2.5	PASS
	VN		-20	0.55	0.000648	± 2.5	PASS
	VN		-10	-1.82	-0.002145	± 2.5	PASS
	VN		0	3.84	0.004527	± 2.5	PASS
	VN		10	2.46	0.002900	± 2.5	PASS
	VN		20	2.3	0.002711	± 2.5	PASS

		VN	30	1.18	0.001391	± 2.5	PASS
		VN	40	0.71	0.000837	± 2.5	PASS
		VN	50	4.23	0.004986	± 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	0.36	0.000436	± 2.5	PASS
		VN	TN	4.88	0.005912	± 2.5	PASS
		VH	TN	1.26	0.001526	± 2.5	PASS
	MCH	VL	TN	-0.3	-0.000359	± 2.5	PASS
		VN	TN	-0.52	-0.000622	± 2.5	PASS
		VH	TN	2.79	0.003335	± 2.5	PASS
	HCH	VL	TN	4.74	0.005593	± 2.5	PASS
		VN	TN	-1.09	-0.001286	± 2.5	PASS
		VH	TN	3.49	0.004118	± 2.5	PASS
16QAM	LCH	VL	TN	3.51	0.004252	± 2.5	PASS
		VN	TN	3.21	0.003889	± 2.5	PASS
		VH	TN	4.82	0.005839	± 2.5	PASS
	MCH	VL	TN	-0.39	-0.000466	± 2.5	PASS
		VN	TN	0.49	0.000586	± 2.5	PASS
		VH	TN	1.1	0.001315	± 2.5	PASS
	HCH	VL	TN	5	0.005900	± 2.5	PASS
		VN	TN	-0.24	-0.000283	± 2.5	PASS
		VH	TN	0.02	0.000024	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.7	-0.000848	± 2.5	PASS
		VN	-20	-0.88	-0.001066	± 2.5	PASS
		VN	-10	0.87	0.001054	± 2.5	PASS
		VN	0	4.14	0.005015	± 2.5	PASS
		VN	10	-1.66	-0.002011	± 2.5	PASS
		VN	20	-0.16	-0.000194	± 2.5	PASS
		VN	30	-0.63	-0.000763	± 2.5	PASS
		VN	40	2.08	0.002520	± 2.5	PASS
		VN	50	-0.26	-0.000315	± 2.5	PASS
	MCH	VN	-30	3.62	0.004328	± 2.5	PASS
		VN	-20	-0.06	-0.000072	± 2.5	PASS

		VN	-10	-0.71	-0.000849	± 2.5	PASS	
		VN	0	0.41	0.000490	± 2.5	PASS	
		VN	10	-1.71	-0.002044	± 2.5	PASS	
		VN	20	-1.65	-0.001973	± 2.5	PASS	
		VN	30	4.18	0.004997	± 2.5	PASS	
		VN	40	-0.22	-0.000263	± 2.5	PASS	
		VN	50	-0.51	-0.000610	± 2.5	PASS	
	HCH	VN	-30	4.15	0.004897	± 2.5	PASS	
		VN	-20	-0.72	-0.000850	± 2.5	PASS	
		VN	-10	2.28	0.002690	± 2.5	PASS	
		VN	0	3.35	0.003953	± 2.5	PASS	
		VN	10	1.66	0.001959	± 2.5	PASS	
		VN	20	-1.2	-0.001416	± 2.5	PASS	
		VN	30	-0.42	-0.000496	± 2.5	PASS	
	QPSK	LCH	VN	40	0.81	0.000956	± 2.5	PASS
			VN	50	4.3	0.005074	± 2.5	PASS
			VN	-30	-0.61	-0.000729	± 2.5	PASS
			VN	-20	1.95	0.002331	± 2.5	PASS
VN			-10	0.24	0.000287	± 2.5	PASS	
VN			0	1.15	0.001375	± 2.5	PASS	
VN			10	-1.17	-0.001399	± 2.5	PASS	
VN			20	3.87	0.004626	± 2.5	PASS	
VN			30	-0.54	-0.000646	± 2.5	PASS	
MCH		VN	40	1.11	0.001327	± 2.5	PASS	
		VN	50	-1.12	-0.001339	± 2.5	PASS	
		VN	-30	2.22	0.002619	± 2.5	PASS	
		VN	-20	1.68	0.001982	± 2.5	PASS	
		VN	-10	-0.87	-0.001027	± 2.5	PASS	
		VN	0	1.51	0.001782	± 2.5	PASS	
		VN	10	-1.36	-0.001605	± 2.5	PASS	
		VN	20	-1.53	-0.001805	± 2.5	PASS	
		VN	30	2.23	0.002631	± 2.5	PASS	
HCH	VN	40	3	0.003540	± 2.5	PASS		
	VN	50	-0.51	-0.000602	± 2.5	PASS		
	VN	-30	-0.34	-0.000401	± 2.5	PASS		
	VN	-20	2.15	0.002537	± 2.5	PASS		
	VN	-10	1.57	0.001853	± 2.5	PASS		
	VN	0	4.97	0.005864	± 2.5	PASS		
	VN	10	-0.26	-0.000307	± 2.5	PASS		
	VN	20	2.11	0.002490	± 2.5	PASS		
	VN	30	2.14	0.002525	± 2.5	PASS		

		VN	40	3.53	0.004165	± 2.5	PASS
		VN	50	4.84	0.005711	± 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	1.48	0.001791	± 2.5	PASS
		VN	TN	-1.58	-0.001912	± 2.5	PASS
		VH	TN	-1.17	-0.001416	± 2.5	PASS
	MCH	VL	TN	1.94	0.002319	± 2.5	PASS
		VN	TN	1.04	0.001243	± 2.5	PASS
		VH	TN	-0.9	-0.001076	± 2.5	PASS
	HCH	VL	TN	0.52	0.000614	± 2.5	PASS
		VN	TN	1.6	0.001890	± 2.5	PASS
		VH	TN	0.28	0.000331	± 2.5	PASS
16QAM	LCH	VL	TN	3.75	0.004537	± 2.5	PASS
		VN	TN	1.4	0.001694	± 2.5	PASS
		VH	TN	1.4	0.001694	± 2.5	PASS
	MCH	VL	TN	3.8	0.004543	± 2.5	PASS
		VN	TN	0.99	0.001184	± 2.5	PASS
		VH	TN	4.94	0.005906	± 2.5	PASS
	HCH	VL	TN	-0.09	-0.000106	± 2.5	PASS
		VN	TN	4.08	0.004820	± 2.5	PASS
		VH	TN	2.58	0.003048	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.37	0.002868	± 2.5	PASS
		VN	-20	2.48	0.003001	± 2.5	PASS
		VN	-10	4.83	0.005844	± 2.5	PASS
		VN	0	0.47	0.000569	± 2.5	PASS
		VN	10	0.41	0.000496	± 2.5	PASS
		VN	20	1.63	0.001972	± 2.5	PASS
		VN	30	-0.44	-0.000532	± 2.5	PASS
		VN	40	-0.13	-0.000157	± 2.5	PASS
		VN	50	-1.3	-0.001573	± 2.5	PASS
	MCH	VN	-30	1.6	0.001913	± 2.5	PASS
		VN	-20	1.06	0.001267	± 2.5	PASS
		VN	-10	-0.15	-0.000179	± 2.5	PASS

		VN	0	-1.27	-0.001518	± 2.5	PASS		
		VN	10	0.77	0.000921	± 2.5	PASS		
		VN	20	4.26	0.005093	± 2.5	PASS		
		VN	30	1.23	0.001470	± 2.5	PASS		
		VN	40	2.56	0.003060	± 2.5	PASS		
		VN	50	-0.28	-0.000335	± 2.5	PASS		
	HCH	VN	-30	1.32	0.001559	± 2.5	PASS		
		VN	-20	-0.4	-0.000473	± 2.5	PASS		
		VN	-10	4.96	0.005859	± 2.5	PASS		
		VN	0	1.25	0.001477	± 2.5	PASS		
		VN	10	1.35	0.001595	± 2.5	PASS		
		VN	20	3.36	0.003969	± 2.5	PASS		
		VN	30	1.55	0.001831	± 2.5	PASS		
		VN	40	2.13	0.002516	± 2.5	PASS		
		VN	50	1.11	0.001311	± 2.5	PASS		
		16QAM	LCH	VN	-30	4.43	0.005296	± 2.5	PASS
				VN	-20	0.39	0.000466	± 2.5	PASS
				VN	-10	-0.03	-0.000036	± 2.5	PASS
VN	0			-0.26	-0.000311	± 2.5	PASS		
VN	10			-0.64	-0.000765	± 2.5	PASS		
VN	20			-0.25	-0.000299	± 2.5	PASS		
VN	30			2.05	0.002451	± 2.5	PASS		
VN	40			-0.92	-0.001100	± 2.5	PASS		
VN	50			4.5	0.005380	± 2.5	PASS		
MCH	VN		-30	4.19	0.004950	± 2.5	PASS		
	VN		-20	4.03	0.004761	± 2.5	PASS		
	VN		-10	2.3	0.002717	± 2.5	PASS		
	VN		0	2.37	0.002800	± 2.5	PASS		
	VN		10	1.49	0.001760	± 2.5	PASS		
	VN		20	0.56	0.000662	± 2.5	PASS		
	VN		30	-1.74	-0.002056	± 2.5	PASS		
	VN		40	0.6	0.000709	± 2.5	PASS		
	VN		50	-1.14	-0.001347	± 2.5	PASS		
HCH	VN		-30	1.78	0.002103	± 2.5	PASS		
	VN		-20	4.27	0.005044	± 2.5	PASS		
	VN		-10	-1.55	-0.001831	± 2.5	PASS		
	VN		0	-0.29	-0.000343	± 2.5	PASS		
	VN		10	4.71	0.005564	± 2.5	PASS		
	VN		20	-1.1	-0.001299	± 2.5	PASS		
	VN		30	1.66	0.001961	± 2.5	PASS		
	VN		40	0.06	0.000071	± 2.5	PASS		

		VN	50	1.61	0.001902	± 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	1.06	0.001279	± 2.5	PASS
		VN	TN	-1.12	-0.001351	± 2.5	PASS
		VH	TN	2.23	0.002690	± 2.5	PASS
	MCH	VL	TN	0.91	0.001088	± 2.5	PASS
		VN	TN	1.32	0.001578	± 2.5	PASS
		VH	TN	2.38	0.002845	± 2.5	PASS
	HCH	VL	TN	3.11	0.003685	± 2.5	PASS
		VN	TN	4.49	0.005320	± 2.5	PASS
		VH	TN	2.75	0.003258	± 2.5	PASS
16QAM	LCH	VL	TN	1.37	0.001653	± 2.5	PASS
		VN	TN	4.87	0.005875	± 2.5	PASS
		VH	TN	2.1	0.002533	± 2.5	PASS
	MCH	VL	TN	1.69	0.002020	± 2.5	PASS
		VN	TN	1.73	0.002068	± 2.5	PASS
		VH	TN	1.78	0.002128	± 2.5	PASS
	HCH	VL	TN	0.05	0.000059	± 2.5	PASS
		VN	TN	1.68	0.001991	± 2.5	PASS
		VH	TN	2.62	0.003104	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	2	0.002413	± 2.5	PASS
		VN	-20	-1.86	-0.002244	± 2.5	PASS
		VN	-10	0.09	0.000109	± 2.5	PASS
		VN	0	-0.41	-0.000495	± 2.5	PASS
		VN	10	2.09	0.002521	± 2.5	PASS
		VN	20	-1.18	-0.001423	± 2.5	PASS
		VN	30	3.67	0.004427	± 2.5	PASS
		VN	40	1.66	0.002002	± 2.5	PASS
		VN	50	0.47	0.000567	± 2.5	PASS
	MCH	VN	-30	1.33	0.001590	± 2.5	PASS
		VN	-20	2	0.002391	± 2.5	PASS
		VN	-10	1.13	0.001351	± 2.5	PASS
		VN	0	2.93	0.003503	± 2.5	PASS

		VN	10	2.61	0.003120	± 2.5	PASS
		VN	20	3.31	0.003957	± 2.5	PASS
		VN	30	-0.31	-0.000371	± 2.5	PASS
		VN	40	2.05	0.002451	± 2.5	PASS
		VN	50	-0.52	-0.000622	± 2.5	PASS
	HCH	VN	-30	-1.95	-0.002310	± 2.5	PASS
		VN	-20	4.9	0.005806	± 2.5	PASS
		VN	-10	4.21	0.004988	± 2.5	PASS
		VN	0	-0.12	-0.000142	± 2.5	PASS
		VN	10	3.07	0.003637	± 2.5	PASS
		VN	20	1.97	0.002334	± 2.5	PASS
		VN	30	-0.47	-0.000557	± 2.5	PASS
		VN	40	4.37	0.005178	± 2.5	PASS
		VN	50	0.06	0.000071	± 2.5	PASS
		QPSK	LCH	VN	-30	-1.41	-0.001686
VN	-20			-1.05	-0.001255	± 2.5	PASS
VN	-10			3.47	0.004148	± 2.5	PASS
VN	0			-1.84	-0.002200	± 2.5	PASS
VN	10			3.25	0.003885	± 2.5	PASS
VN	20			2.28	0.002726	± 2.5	PASS
VN	30			3.68	0.004399	± 2.5	PASS
VN	40			1.31	0.001566	± 2.5	PASS
VN	50			0.3	0.000359	± 2.5	PASS
MCH	VN		-30	2.32	0.002749	± 2.5	PASS
	VN		-20	-1.13	-0.001339	± 2.5	PASS
	VN		-10	-1.86	-0.002204	± 2.5	PASS
	VN		0	0.9	0.001066	± 2.5	PASS
	VN		10	-1.42	-0.001682	± 2.5	PASS
	VN		20	1.61	0.001908	± 2.5	PASS
	VN		30	3.37	0.003993	± 2.5	PASS
	VN		40	4.35	0.005154	± 2.5	PASS
	VN		50	3.11	0.003685	± 2.5	PASS
HCH	VN		-30	2.83	0.003353	± 2.5	PASS
	VN		-20	4.36	0.005166	± 2.5	PASS
	VN		-10	0.93	0.001102	± 2.5	PASS
	VN		0	-1.07	-0.001268	± 2.5	PASS
	VN		10	1.71	0.002026	± 2.5	PASS
	VN		20	3.47	0.004111	± 2.5	PASS
	VN		30	1.07	0.001268	± 2.5	PASS
	VN		40	4.8	0.005687	± 2.5	PASS
	VN		50	-0.48	-0.000569	± 2.5	PASS