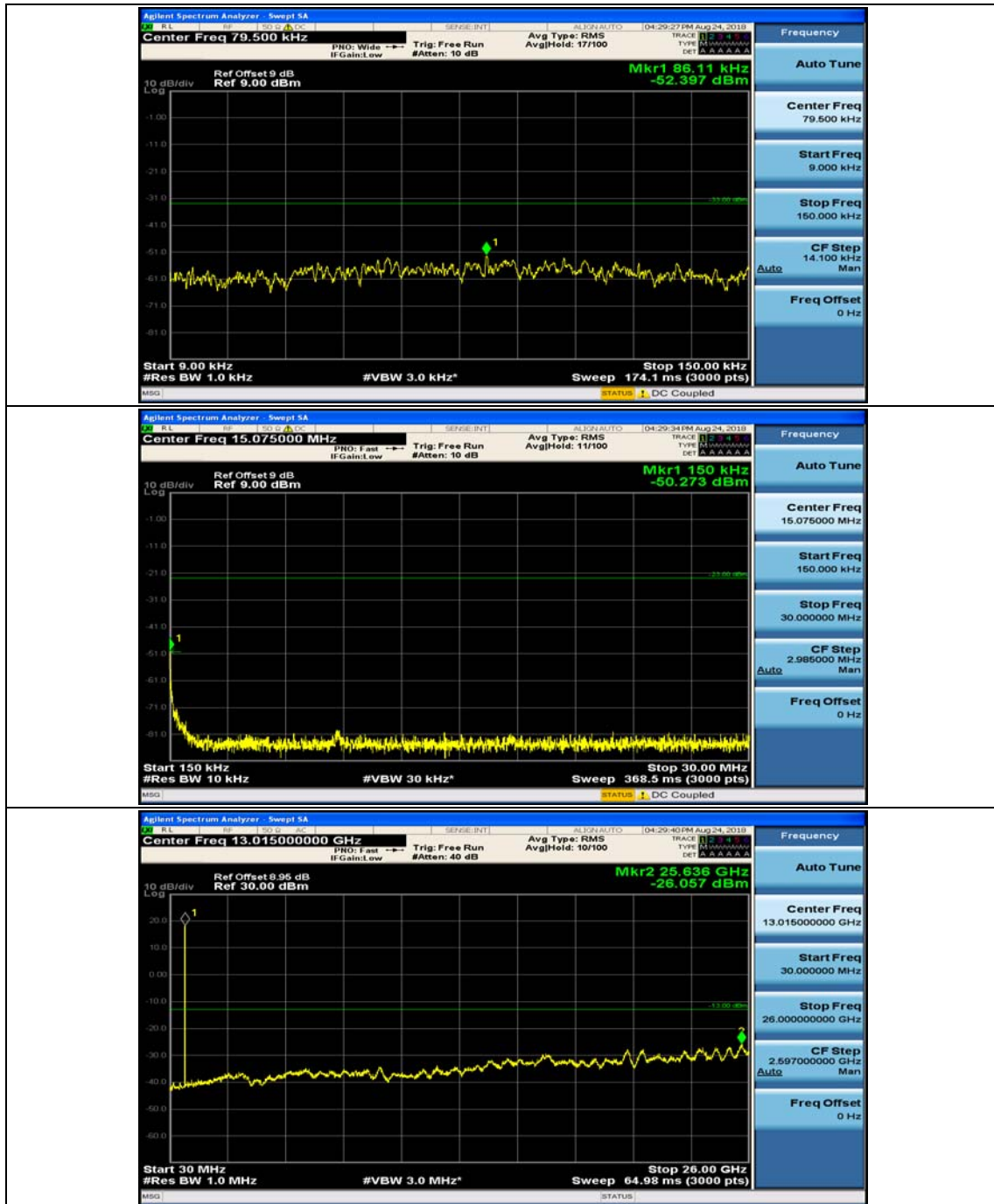
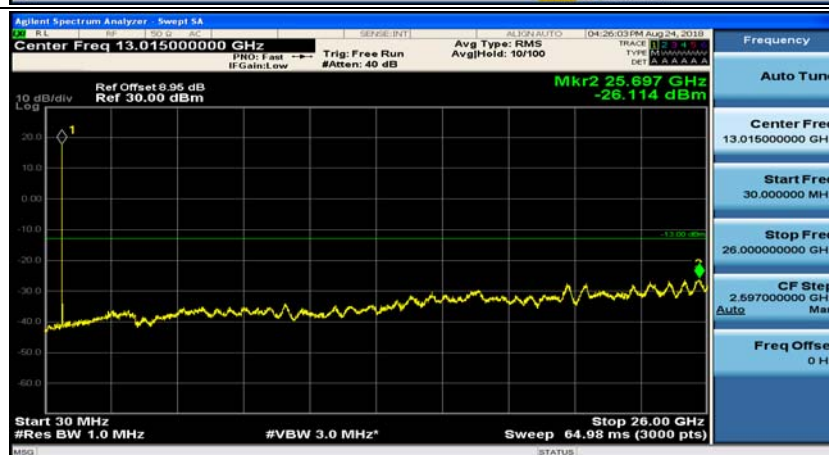
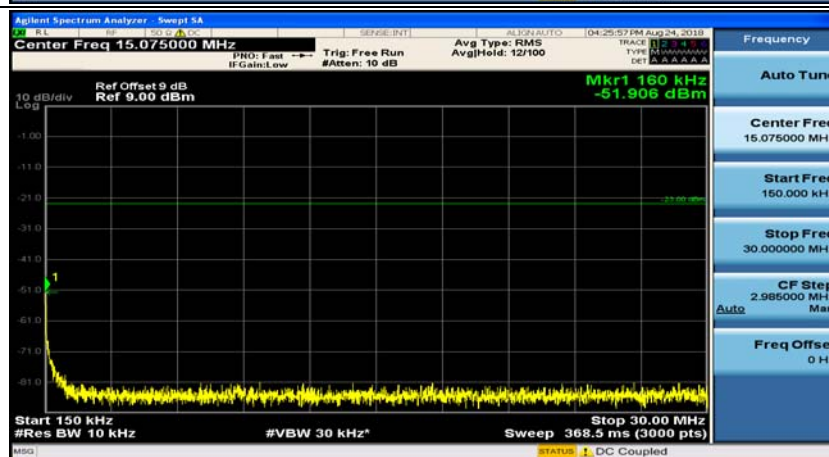
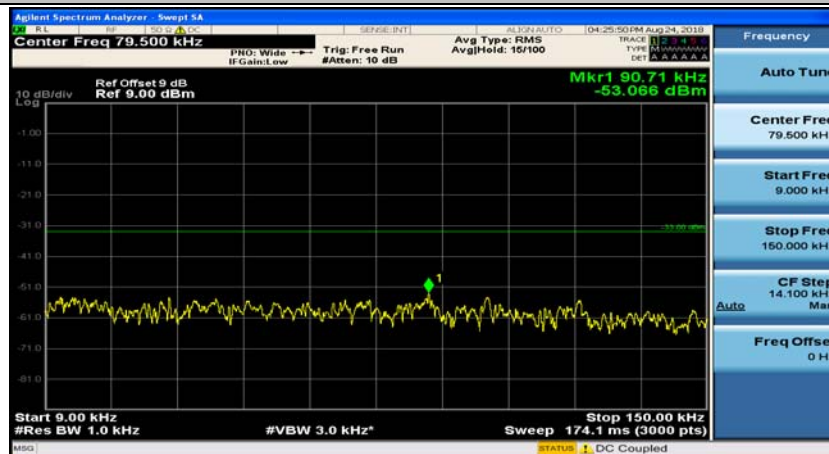
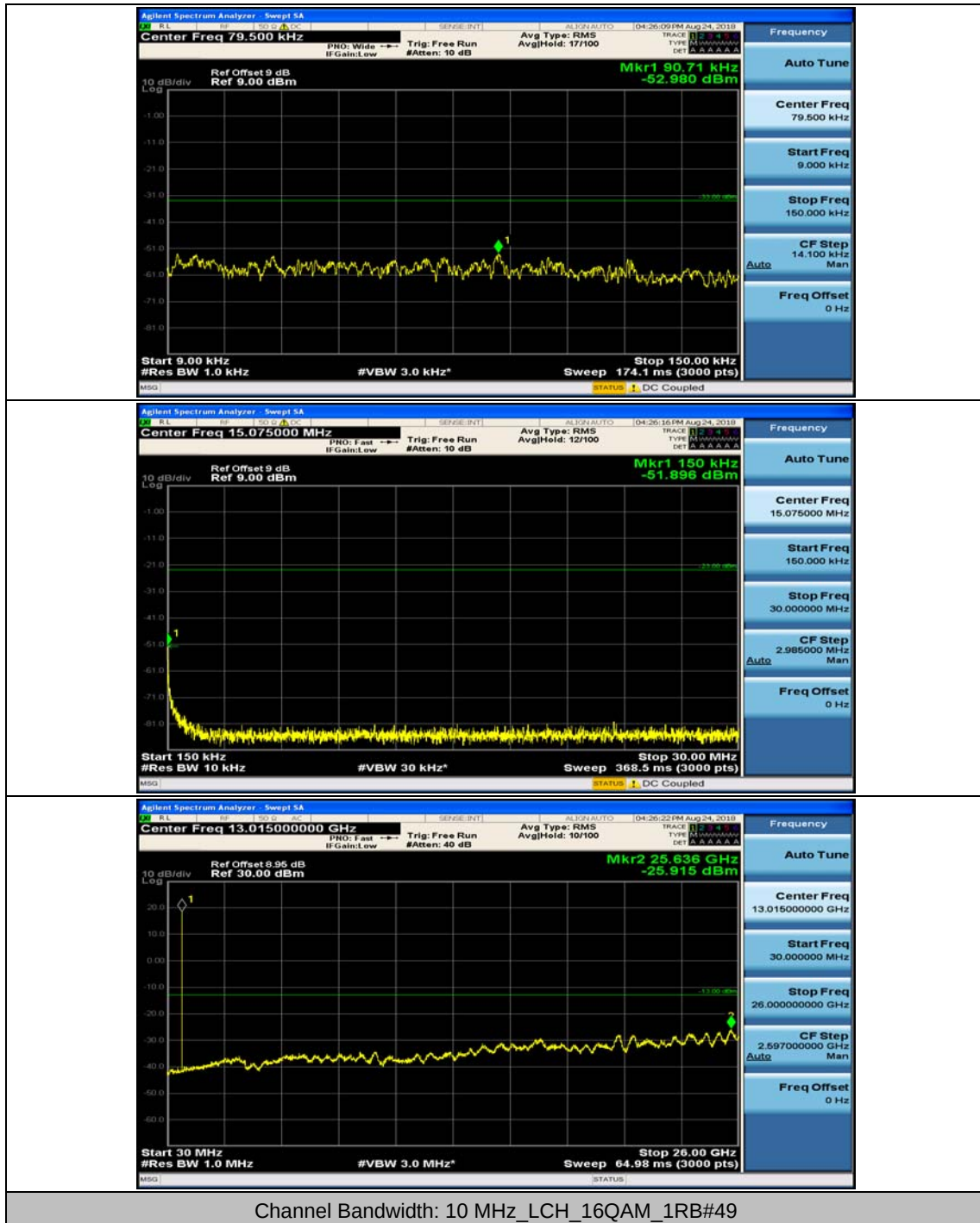


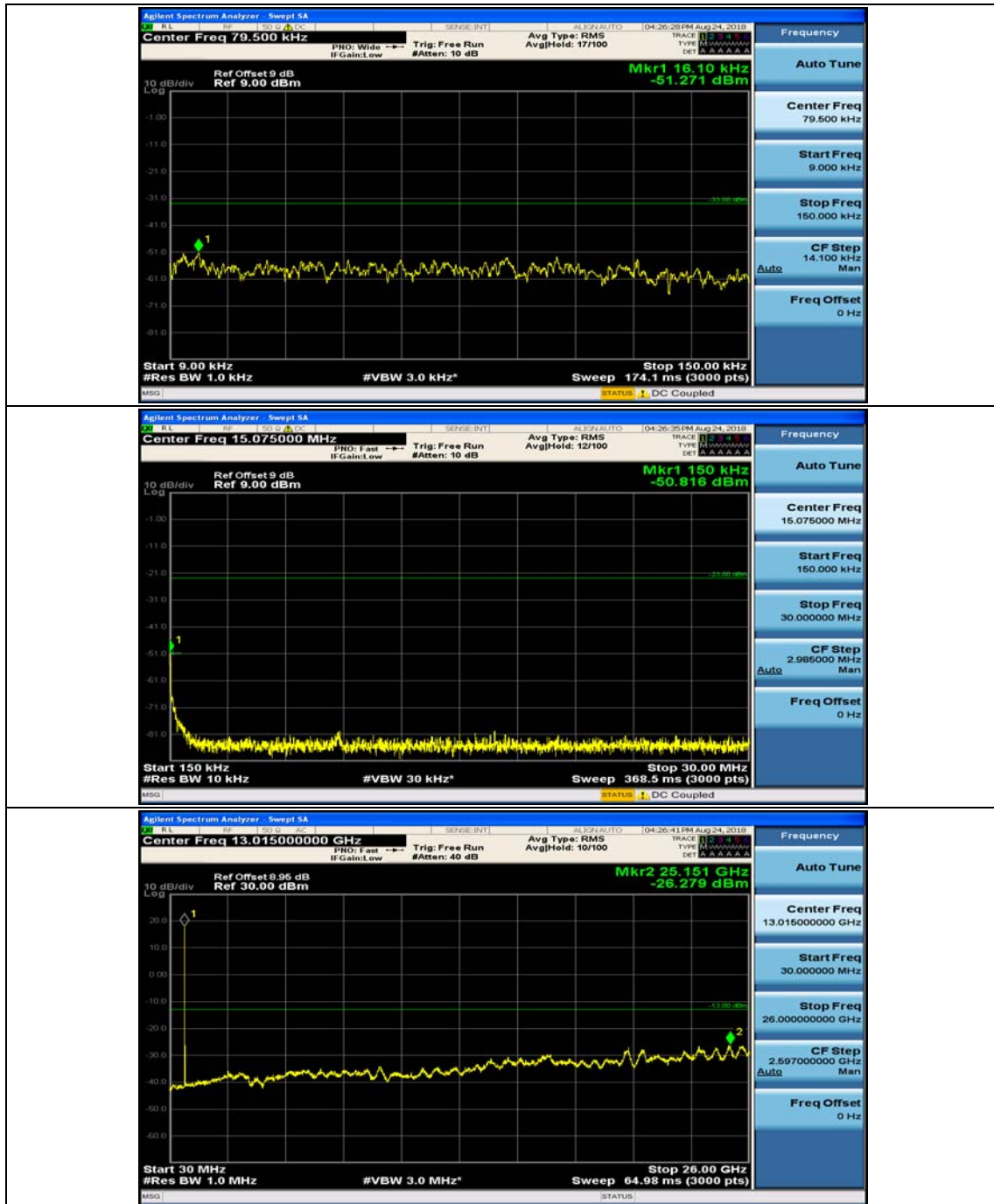


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

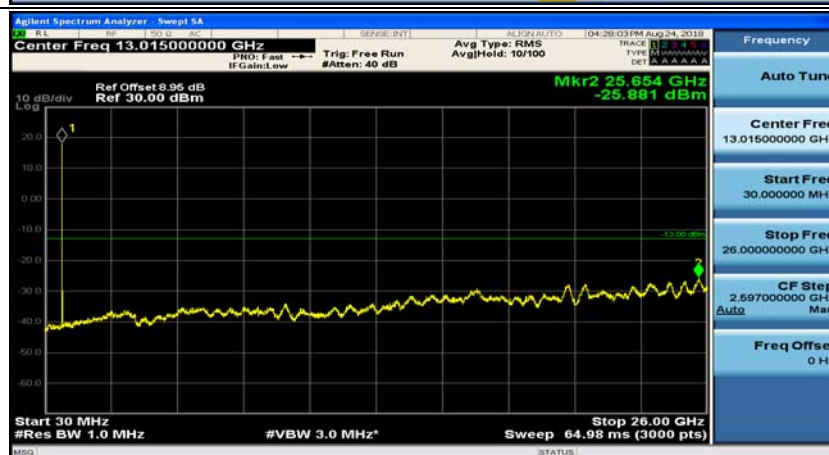
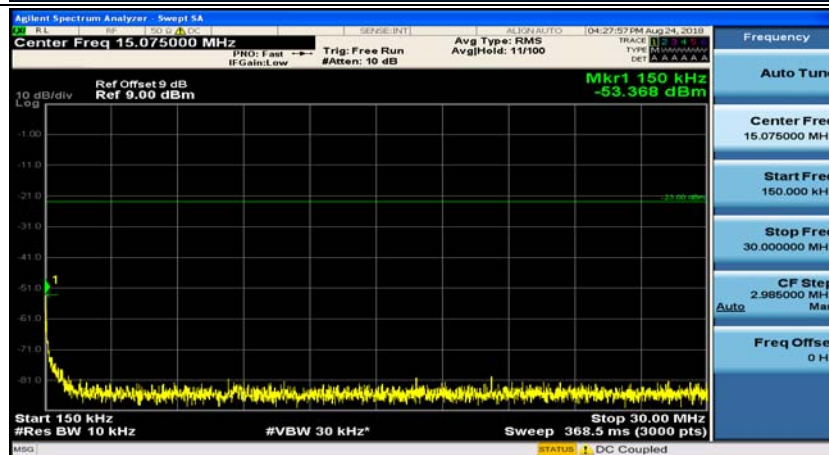
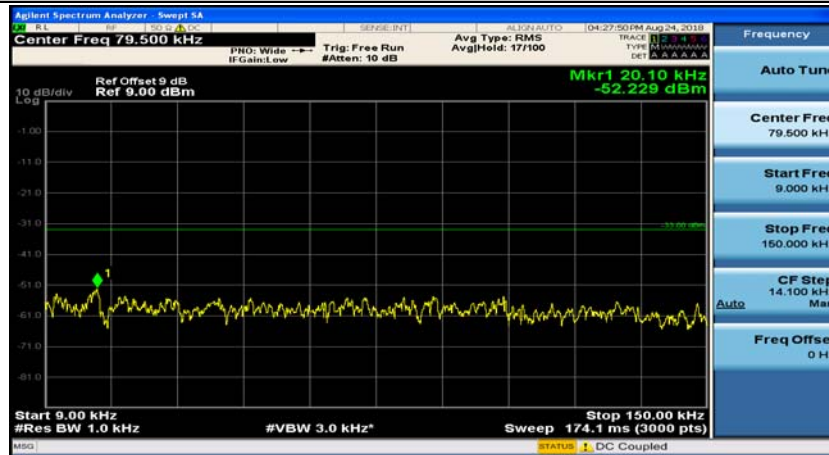


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

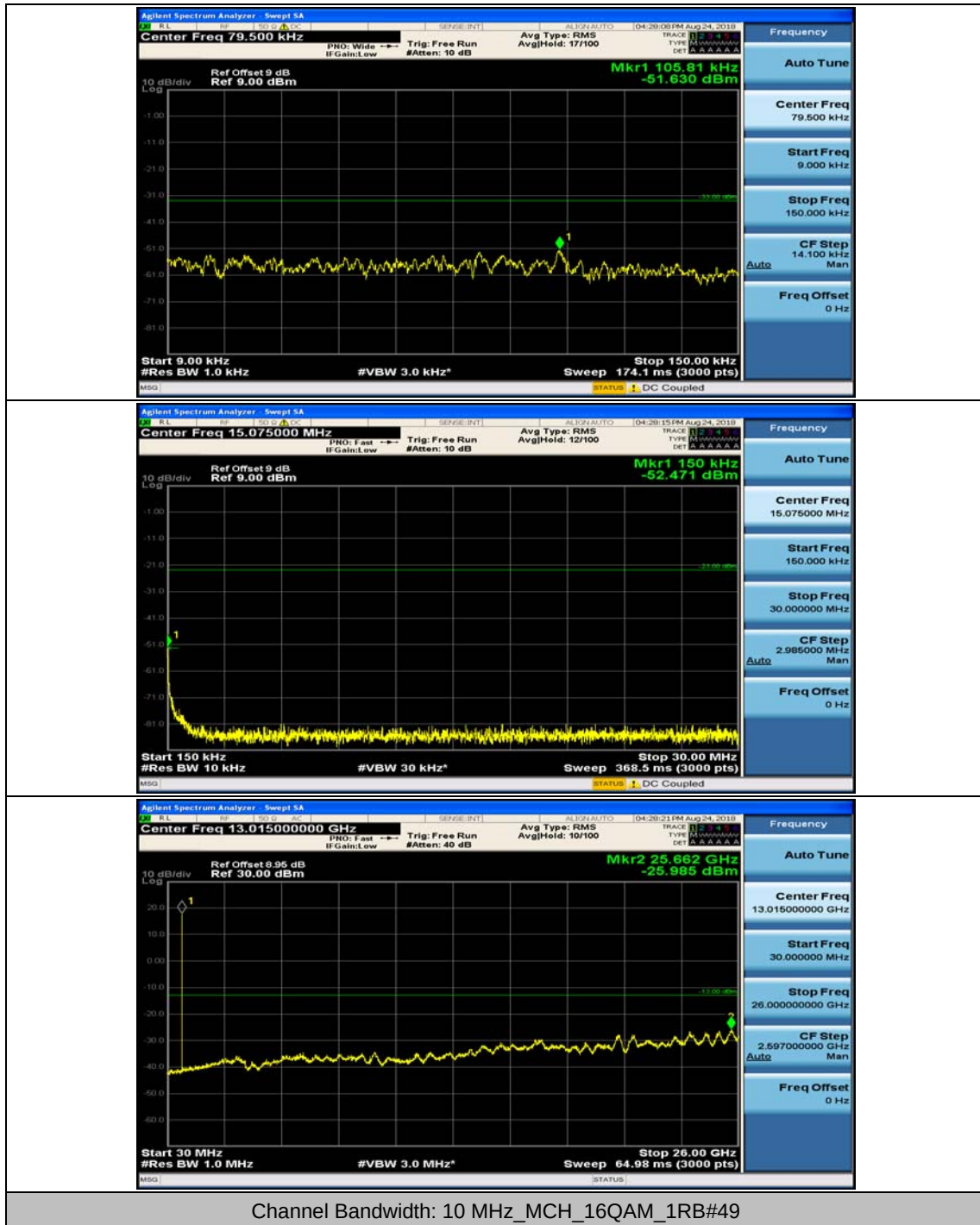


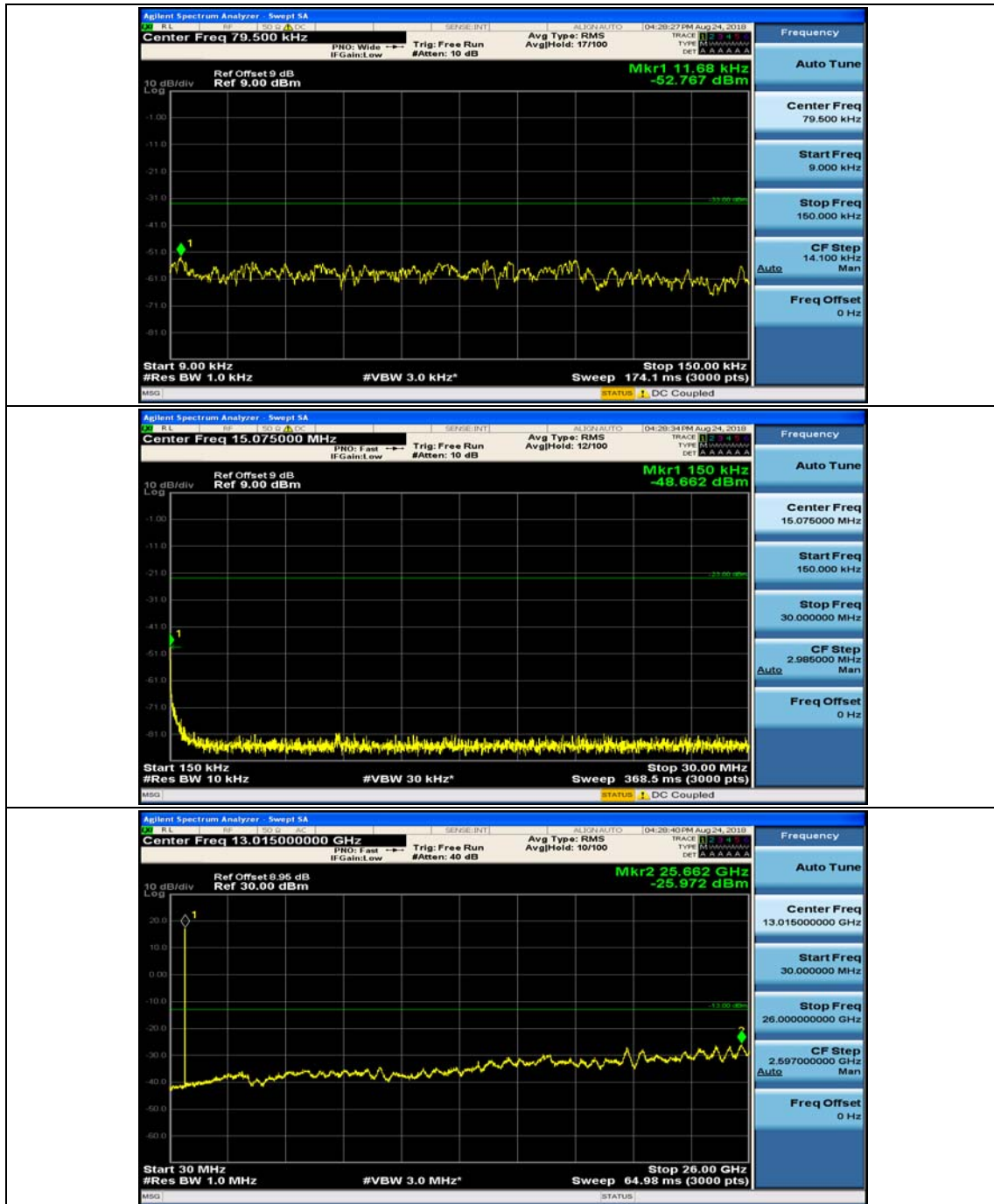


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

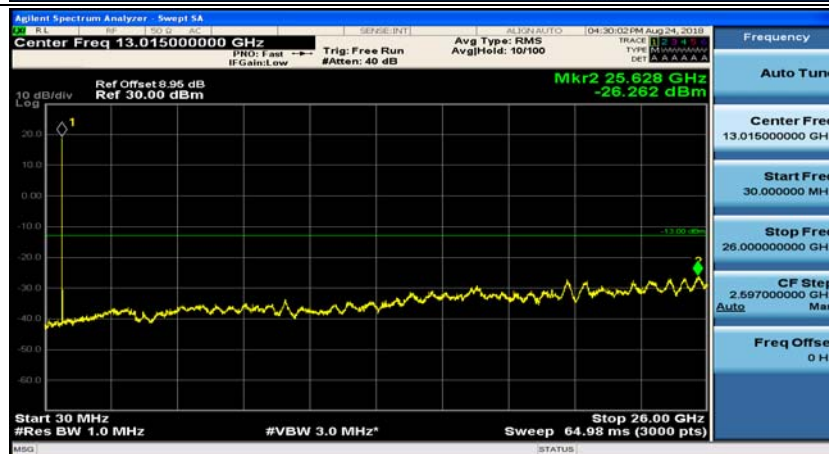
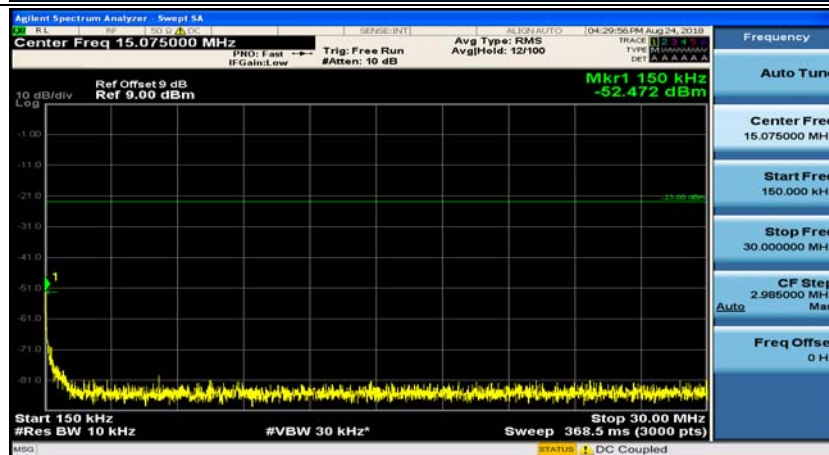
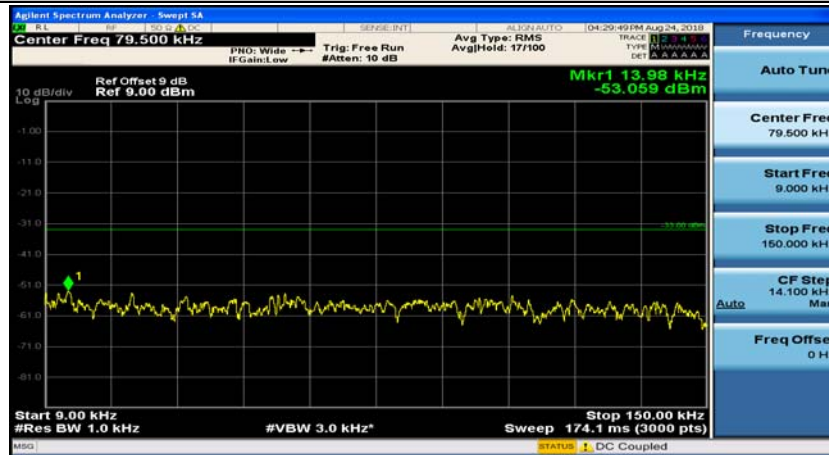


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

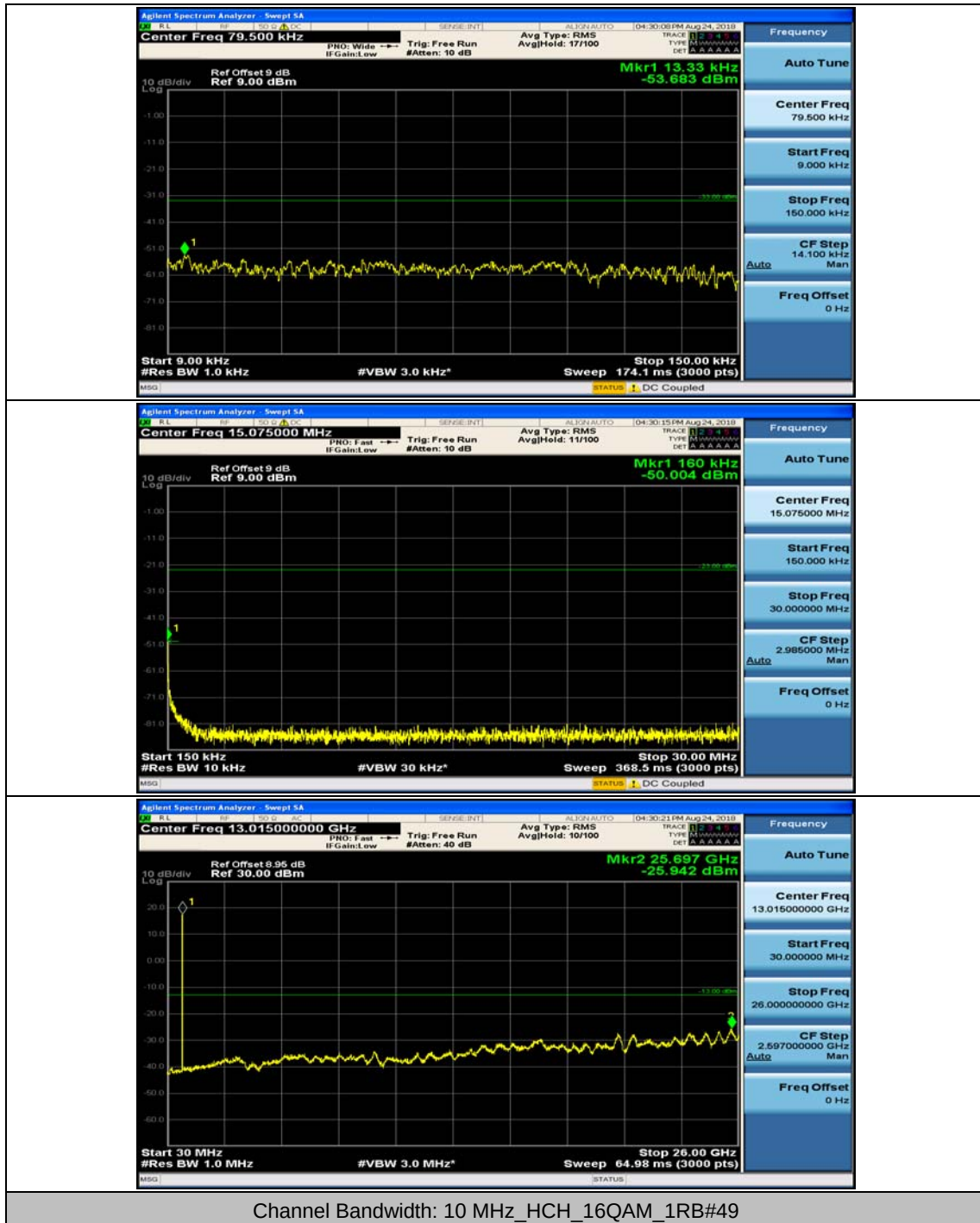


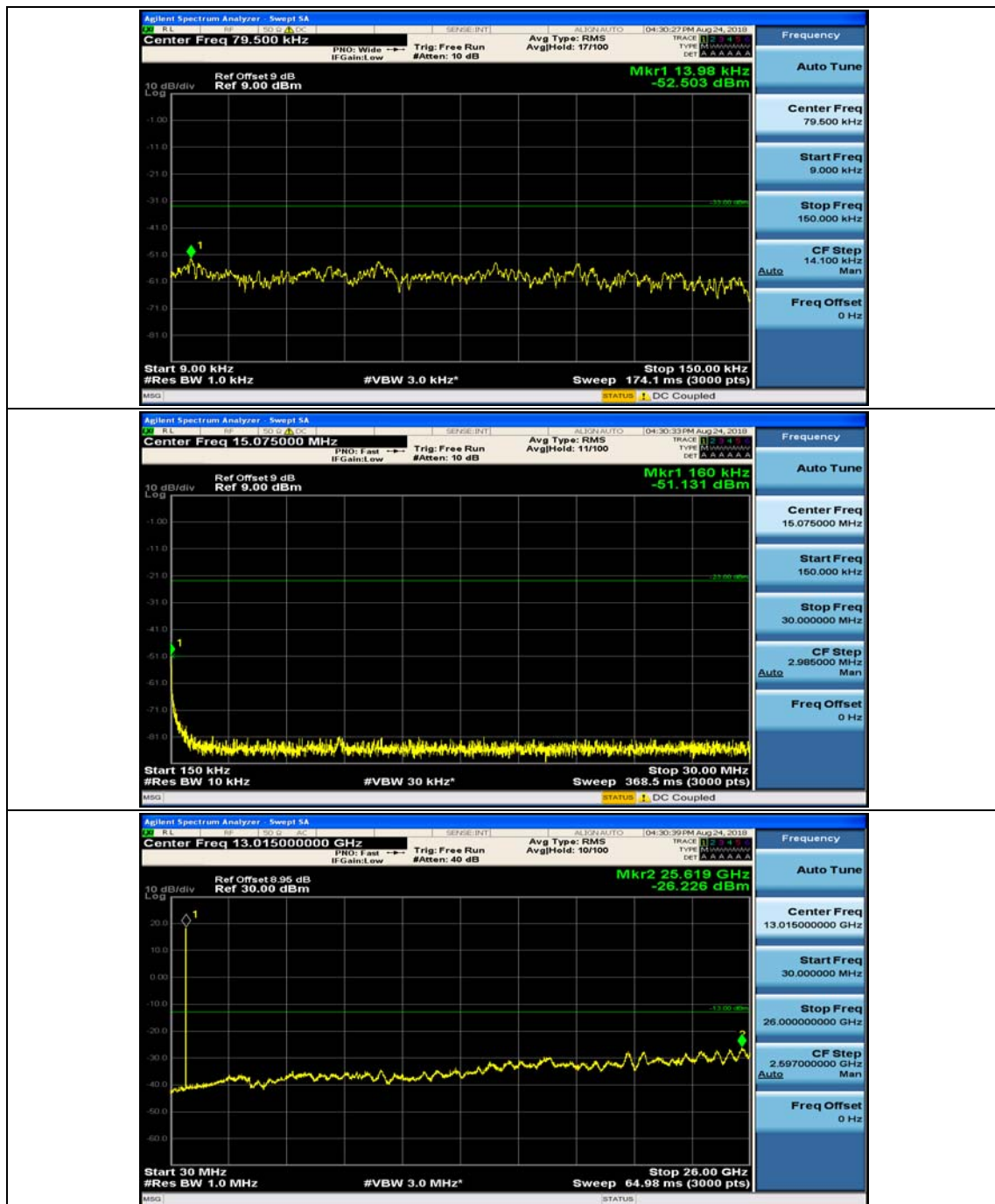


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_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	3.62	0.005174	± 2.5	PASS
		VN	TN	3.2	0.004573	± 2.5	PASS
		VH	TN	0.39	0.000557	± 2.5	PASS
	MCH	VL	TN	3.97	0.005611	± 2.5	PASS
		VN	TN	4.66	0.006587	± 2.5	PASS
		VH	TN	-0.75	-0.001060	± 2.5	PASS
	HCH	VL	TN	-0.29	-0.000405	± 2.5	PASS
		VN	TN	0.59	0.000825	± 2.5	PASS
		VH	TN	1.09	0.001524	± 2.5	PASS
16QAM	LCH	VL	TN	2.97	0.004245	± 2.5	PASS
		VN	TN	-0.82	-0.001172	± 2.5	PASS
		VH	TN	-0.41	-0.000586	± 2.5	PASS
	MCH	VL	TN	3.06	0.004325	± 2.5	PASS
		VN	TN	4.12	0.005823	± 2.5	PASS
		VH	TN	4.39	0.006205	± 2.5	PASS
	HCH	VL	TN	2.91	0.004068	± 2.5	PASS
		VN	TN	4.87	0.006808	± 2.5	PASS
		VH	TN	4.42	0.006179	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.77	0.001100	± 2.5	PASS
		VN	-20	4.58	0.006546	± 2.5	PASS
		VN	-10	0.31	0.000443	± 2.5	PASS
		VN	0	-0.69	-0.000986	± 2.5	PASS
		VN	10	-1.84	-0.002630	± 2.5	PASS
		VN	20	1.36	0.001944	± 2.5	PASS
		VN	30	3.82	0.005459	± 2.5	PASS
		VN	40	3.72	0.005317	± 2.5	PASS
		VN	50	-1.59	-0.002272	± 2.5	PASS
	MCH	VN	-30	2.74	0.003873	± 2.5	PASS

		VN	-20	1.16	0.001640	± 2.5	PASS
		VN	-10	4.25	0.006007	± 2.5	PASS
		VN	0	-1.52	-0.002148	± 2.5	PASS
		VN	10	1.05	0.001484	± 2.5	PASS
		VN	20	0.71	0.001004	± 2.5	PASS
		VN	30	-1.57	-0.002219	± 2.5	PASS
		VN	40	3.42	0.004834	± 2.5	PASS
		VN	50	-1.13	-0.001597	± 2.5	PASS
	HCH	VN	-30	-0.16	-0.000224	± 2.5	PASS
		VN	-20	2.14	0.002992	± 2.5	PASS
		VN	-10	0.66	0.000923	± 2.5	PASS
		VN	0	0.1	0.000140	± 2.5	PASS
		VN	10	2.94	0.004110	± 2.5	PASS
		VN	20	-0.63	-0.000881	± 2.5	PASS
		VN	30	1.83	0.002558	± 2.5	PASS
		VN	40	1.64	0.002293	± 2.5	PASS
		VN	50	1.28	0.001789	± 2.5	PASS
16QAM	LCH	VN	-30	-0.98	-0.001401	± 2.5	PASS
		VN	-20	0.86	0.001229	± 2.5	PASS
		VN	-10	4.1	0.005860	± 2.5	PASS
		VN	0	0.54	0.000772	± 2.5	PASS
		VN	10	0.3	0.000429	± 2.5	PASS
		VN	20	4.55	0.006503	± 2.5	PASS
		VN	30	-0.91	-0.001301	± 2.5	PASS
		VN	40	-0.32	-0.000457	± 2.5	PASS
		VN	50	-1.81	-0.002587	± 2.5	PASS
	MCH	VN	-30	-1.21	-0.001710	± 2.5	PASS
		VN	-20	0.87	0.001230	± 2.5	PASS
		VN	-10	0.93	0.001314	± 2.5	PASS
		VN	0	-0.64	-0.000905	± 2.5	PASS
		VN	10	3.27	0.004622	± 2.5	PASS
		VN	20	2.38	0.003364	± 2.5	PASS
		VN	30	2.78	0.003929	± 2.5	PASS
		VN	40	1.97	0.002784	± 2.5	PASS
		VN	50	-1.33	-0.001880	± 2.5	PASS
	HCH	VN	-30	1.02	0.001426	± 2.5	PASS
		VN	-20	-1.45	-0.002027	± 2.5	PASS
		VN	-10	0.79	0.001104	± 2.5	PASS
		VN	0	0	0.000000	± 2.5	PASS
		VN	10	-0.57	-0.000797	± 2.5	PASS
		VN	20	3.17	0.004432	± 2.5	PASS

		VN	30	3.58	0.005005	± 2.5	PASS
		VN	40	4.04	0.005648	± 2.5	PASS
		VN	50	0.72	0.001007	± 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	3.26	0.004654	± 2.5	PASS
		VN	TN	-1.32	-0.001884	± 2.5	PASS
		VH	TN	1.86	0.002655	± 2.5	PASS
	MCH	VL	TN	0.62	0.000876	± 2.5	PASS
		VN	TN	1.23	0.001739	± 2.5	PASS
		VH	TN	2.01	0.002841	± 2.5	PASS
	HCH	VL	TN	4.94	0.006914	± 2.5	PASS
		VN	TN	0.55	0.000770	± 2.5	PASS
		VH	TN	0.66	0.000924	± 2.5	PASS
16QAM	LCH	VL	TN	2.39	0.003412	± 2.5	PASS
		VN	TN	0.68	0.000971	± 2.5	PASS
		VH	TN	3.78	0.005396	± 2.5	PASS
	MCH	VL	TN	-1.3	-0.001837	± 2.5	PASS
		VN	TN	1.01	0.001428	± 2.5	PASS
		VH	TN	-0.39	-0.000551	± 2.5	PASS
	HCH	VL	TN	2.1	0.002939	± 2.5	PASS
		VN	TN	4	0.005598	± 2.5	PASS
		VH	TN	-1.76	-0.002463	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.62	0.003740	± 2.5	PASS
		VN	-20	4.43	0.006324	± 2.5	PASS
		VN	-10	4.27	0.006096	± 2.5	PASS
		VN	0	2.97	0.004240	± 2.5	PASS
		VN	10	-0.4	-0.000571	± 2.5	PASS
		VN	20	0.32	0.000457	± 2.5	PASS
		VN	30	-1.79	-0.002555	± 2.5	PASS
		VN	40	3	0.004283	± 2.5	PASS
		VN	50	2.56	0.003655	± 2.5	PASS
	MCH	VN	-30	2.19	0.003095	± 2.5	PASS
		VN	-20	4.71	0.006657	± 2.5	PASS

		VN	-10	-0.9	-0.001272	± 2.5	PASS	
		VN	0	-1.21	-0.001710	± 2.5	PASS	
		VN	10	2.53	0.003576	± 2.5	PASS	
		VN	20	4.96	0.007011	± 2.5	PASS	
		VN	30	1.15	0.001625	± 2.5	PASS	
		VN	40	0.88	0.001244	± 2.5	PASS	
		VN	50	2.6	0.003675	± 2.5	PASS	
	HCH	VN	-30	-0.04	-0.000056	± 2.5	PASS	
		VN	-20	4.12	0.005766	± 2.5	PASS	
		VN	-10	2.72	0.003807	± 2.5	PASS	
		VN	0	-1.34	-0.001875	± 2.5	PASS	
		VN	10	0.76	0.001064	± 2.5	PASS	
		VN	20	4.62	0.006466	± 2.5	PASS	
		VN	30	2.65	0.003709	± 2.5	PASS	
		VN	40	3.84	0.005374	± 2.5	PASS	
		VN	50	0.47	0.000658	± 2.5	PASS	
	QPSK	LCH	VN	-30	4.51	0.006438	± 2.5	PASS
			VN	-20	-1.74	-0.002484	± 2.5	PASS
VN			-10	3.88	0.005539	± 2.5	PASS	
VN			0	1.71	0.002441	± 2.5	PASS	
VN			10	4.18	0.005967	± 2.5	PASS	
VN			20	0.62	0.000885	± 2.5	PASS	
VN			30	-1.18	-0.001685	± 2.5	PASS	
VN			40	0.96	0.001370	± 2.5	PASS	
VN			50	3.58	0.005111	± 2.5	PASS	
MCH		VN	-30	0.27	0.000382	± 2.5	PASS	
		VN	-20	-0.13	-0.000184	± 2.5	PASS	
		VN	-10	4.22	0.005965	± 2.5	PASS	
		VN	0	-0.75	-0.001060	± 2.5	PASS	
		VN	10	0.23	0.000325	± 2.5	PASS	
		VN	20	0.53	0.000749	± 2.5	PASS	
		VN	30	3.41	0.004820	± 2.5	PASS	
		VN	40	2.26	0.003194	± 2.5	PASS	
		VN	50	1.45	0.002049	± 2.5	PASS	
HCH		VN	-30	-0.99	-0.001386	± 2.5	PASS	
		VN	-20	2.93	0.004101	± 2.5	PASS	
		VN	-10	4.97	0.006956	± 2.5	PASS	
		VN	0	0.38	0.000532	± 2.5	PASS	
		VN	10	-0.96	-0.001344	± 2.5	PASS	
		VN	20	1.8	0.002519	± 2.5	PASS	
		VN	30	4.04	0.005654	± 2.5	PASS	

		VN	40	0.11	0.000154	± 2.5	PASS
		VN	50	-1.86	-0.002603	± 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	3.18	0.004533	± 2.5	PASS
		VN	TN	2.52	0.003592	± 2.5	PASS
		VH	TN	4.02	0.005731	± 2.5	PASS
	MCH	VL	TN	1.41	0.001993	± 2.5	PASS
		VN	TN	2.03	0.002869	± 2.5	PASS
		VH	TN	0.93	0.001314	± 2.5	PASS
	HCH	VL	TN	2.61	0.003658	± 2.5	PASS
		VN	TN	3.04	0.004261	± 2.5	PASS
		VH	TN	1.47	0.002060	± 2.5	PASS
16QAM	LCH	VL	TN	3.84	0.005474	± 2.5	PASS
		VN	TN	1.39	0.001981	± 2.5	PASS
		VH	TN	3.21	0.004576	± 2.5	PASS
	MCH	VL	TN	-0.47	-0.000664	± 2.5	PASS
		VN	TN	4.13	0.005837	± 2.5	PASS
		VH	TN	2.88	0.004071	± 2.5	PASS
	HCH	VL	TN	2.12	0.002971	± 2.5	PASS
		VN	TN	-1.68	-0.002355	± 2.5	PASS
		VH	TN	4.6	0.006447	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.72	-0.002452	± 2.5	PASS
		VN	-20	3.97	0.005659	± 2.5	PASS
		VN	-10	4.12	0.005873	± 2.5	PASS
		VN	0	-0.54	-0.000770	± 2.5	PASS
		VN	10	-0.99	-0.001411	± 2.5	PASS
		VN	20	2.57	0.003664	± 2.5	PASS
		VN	30	-0.24	-0.000342	± 2.5	PASS
		VN	40	3.81	0.005431	± 2.5	PASS
		VN	50	4.12	0.005873	± 2.5	PASS
	MCH	VN	-30	4.35	0.006148	± 2.5	PASS
		VN	-20	-0.47	-0.000664	± 2.5	PASS
		VN	-10	-0.45	-0.000636	± 2.5	PASS

		VN	0	1.15	0.001625	± 2.5	PASS
		VN	10	-0.92	-0.001300	± 2.5	PASS
		VN	20	-0.42	-0.000594	± 2.5	PASS
		VN	30	4.22	0.005965	± 2.5	PASS
		VN	40	4.14	0.005852	± 2.5	PASS
		VN	50	-0.16	-0.000226	± 2.5	PASS
	HCH	VN	-30	2.61	0.003658	± 2.5	PASS
		VN	-20	3.76	0.005270	± 2.5	PASS
		VN	-10	2.19	0.003069	± 2.5	PASS
		VN	0	1.21	0.001696	± 2.5	PASS
		VN	10	3.3	0.004625	± 2.5	PASS
		VN	20	4.6	0.006447	± 2.5	PASS
		VN	30	0.67	0.000939	± 2.5	PASS
		VN	40	4.01	0.005620	± 2.5	PASS
		VN	50	-1.56	-0.002186	± 2.5	PASS
16QAM	LCH	VN	-30	1.16	0.001654	± 2.5	PASS
		VN	-20	2.65	0.003778	± 2.5	PASS
		VN	-10	4.35	0.006201	± 2.5	PASS
		VN	0	1.9	0.002708	± 2.5	PASS
		VN	10	0.6	0.000855	± 2.5	PASS
		VN	20	-1.99	-0.002837	± 2.5	PASS
		VN	30	3.66	0.005217	± 2.5	PASS
		VN	40	1.37	0.001953	± 2.5	PASS
		VN	50	1.77	0.002523	± 2.5	PASS
	MCH	VN	-30	-1.74	-0.002459	± 2.5	PASS
		VN	-20	3.2	0.004523	± 2.5	PASS
		VN	-10	0.08	0.000113	± 2.5	PASS
		VN	0	-1.11	-0.001569	± 2.5	PASS
		VN	10	4.09	0.005781	± 2.5	PASS
		VN	20	-1.95	-0.002756	± 2.5	PASS
		VN	30	2.37	0.003350	± 2.5	PASS
		VN	40	-1.64	-0.002318	± 2.5	PASS
		VN	50	-0.93	-0.001314	± 2.5	PASS
	HCH	VN	-30	-0.31	-0.000434	± 2.5	PASS
		VN	-20	1.05	0.001472	± 2.5	PASS
		VN	-10	-0.82	-0.001149	± 2.5	PASS
		VN	0	1	0.001402	± 2.5	PASS
		VN	10	2.66	0.003728	± 2.5	PASS
		VN	20	-1.4	-0.001962	± 2.5	PASS
		VN	30	-1.04	-0.001458	± 2.5	PASS
		VN	40	-1.71	-0.002397	± 2.5	PASS

		VN	50	2.62	0.003672	± 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	2.26	0.003210	± 2.5	PASS
		VN	TN	0.78	0.001108	± 2.5	PASS
		VH	TN	-1.36	-0.001932	± 2.5	PASS
	MCH	VL	TN	-1.13	-0.001597	± 2.5	PASS
		VN	TN	4.59	0.006488	± 2.5	PASS
		VH	TN	3.07	0.004339	± 2.5	PASS
	HCH	VL	TN	3.82	0.005373	± 2.5	PASS
		VN	TN	3.4	0.004782	± 2.5	PASS
		VH	TN	2.95	0.004149	± 2.5	PASS
16QAM	LCH	VL	TN	2.38	0.003381	± 2.5	PASS
		VN	TN	-0.02	-0.000028	± 2.5	PASS
		VH	TN	1.73	0.002457	± 2.5	PASS
	MCH	VL	TN	0.97	0.001371	± 2.5	PASS
		VN	TN	0.11	0.000155	± 2.5	PASS
		VH	TN	4.91	0.006940	± 2.5	PASS
	HCH	VL	TN	-0.64	-0.000900	± 2.5	PASS
		VN	TN	1.46	0.002053	± 2.5	PASS
		VH	TN	0.19	0.000267	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	0.45	0.000639	± 2.5	PASS
		VN	-20	-0.4	-0.000568	± 2.5	PASS
		VN	-10	3.28	0.004659	± 2.5	PASS
		VN	0	-0.02	-0.000028	± 2.5	PASS
		VN	10	1.27	0.001804	± 2.5	PASS
		VN	20	3.12	0.004432	± 2.5	PASS
		VN	30	2.48	0.003523	± 2.5	PASS
		VN	40	2.43	0.003452	± 2.5	PASS
		VN	50	1.21	0.001719	± 2.5	PASS
	MCH	VN	-30	4.31	0.006092	± 2.5	PASS
		VN	-20	-1.93	-0.002728	± 2.5	PASS
		VN	-10	3.76	0.005314	± 2.5	PASS
		VN	0	3.51	0.004961	± 2.5	PASS

		VN	10	2.91	0.004113	± 2.5	PASS
		VN	20	2	0.002827	± 2.5	PASS
		VN	30	-1.77	-0.002502	± 2.5	PASS
		VN	40	0.59	0.000834	± 2.5	PASS
		VN	50	-0.66	-0.000933	± 2.5	PASS
	HCH	VN	-30	0.85	0.001195	± 2.5	PASS
		VN	-20	0.82	0.001153	± 2.5	PASS
		VN	-10	1.34	0.001885	± 2.5	PASS
		VN	0	4.69	0.006596	± 2.5	PASS
		VN	10	3.22	0.004529	± 2.5	PASS
		VN	20	1.94	0.002729	± 2.5	PASS
		VN	30	-0.02	-0.000028	± 2.5	PASS
		VN	40	3.33	0.004684	± 2.5	PASS
		VN	50	2.68	0.003769	± 2.5	PASS
		VN	-30	-1.73	-0.002457	± 2.5	PASS
QPSK	LCH	VN	-20	-1.13	-0.001605	± 2.5	PASS
		VN	-10	1.08	0.001534	± 2.5	PASS
		VN	0	-1.4	-0.001989	± 2.5	PASS
		VN	10	1.08	0.001534	± 2.5	PASS
		VN	20	4.11	0.005838	± 2.5	PASS
		VN	30	0.11	0.000156	± 2.5	PASS
		VN	40	4.64	0.006591	± 2.5	PASS
		VN	50	0.48	0.000682	± 2.5	PASS
	MCH	VN	-30	3.83	0.005413	± 2.5	PASS
		VN	-20	4.06	0.005739	± 2.5	PASS
		VN	-10	3.42	0.004834	± 2.5	PASS
		VN	0	0.68	0.000961	± 2.5	PASS
		VN	10	1.05	0.001484	± 2.5	PASS
		VN	20	2.1	0.002968	± 2.5	PASS
		VN	30	1.06	0.001498	± 2.5	PASS
		VN	40	-1.14	-0.001611	± 2.5	PASS
		VN	50	-0.29	-0.000410	± 2.5	PASS
	HCH	VN	-30	0.98	0.001378	± 2.5	PASS
		VN	-20	0.48	0.000675	± 2.5	PASS
		VN	-10	0.07	0.000098	± 2.5	PASS
		VN	0	3.11	0.004374	± 2.5	PASS
		VN	10	3.82	0.005373	± 2.5	PASS
		VN	20	-1.89	-0.002658	± 2.5	PASS
		VN	30	3.65	0.005134	± 2.5	PASS
		VN	40	-0.42	-0.000591	± 2.5	PASS
		VN	50	3.1	0.004360	± 2.5	PASS