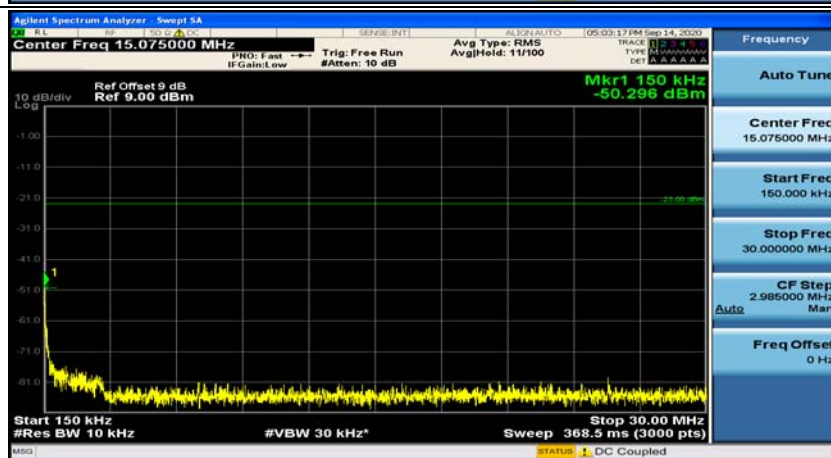
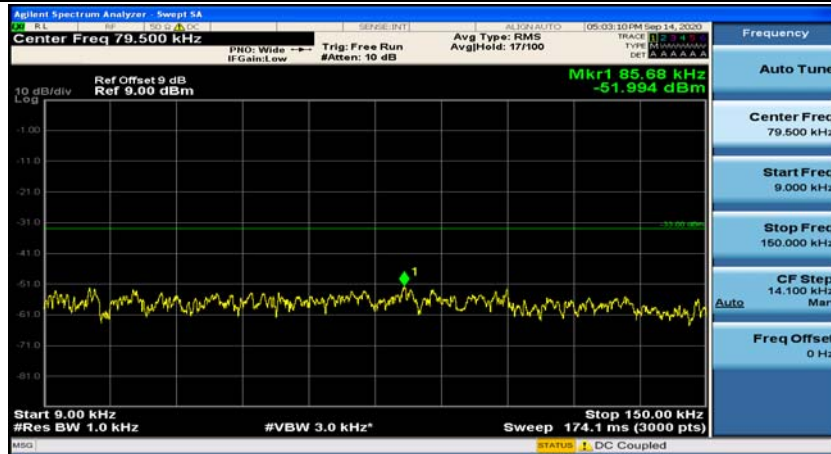
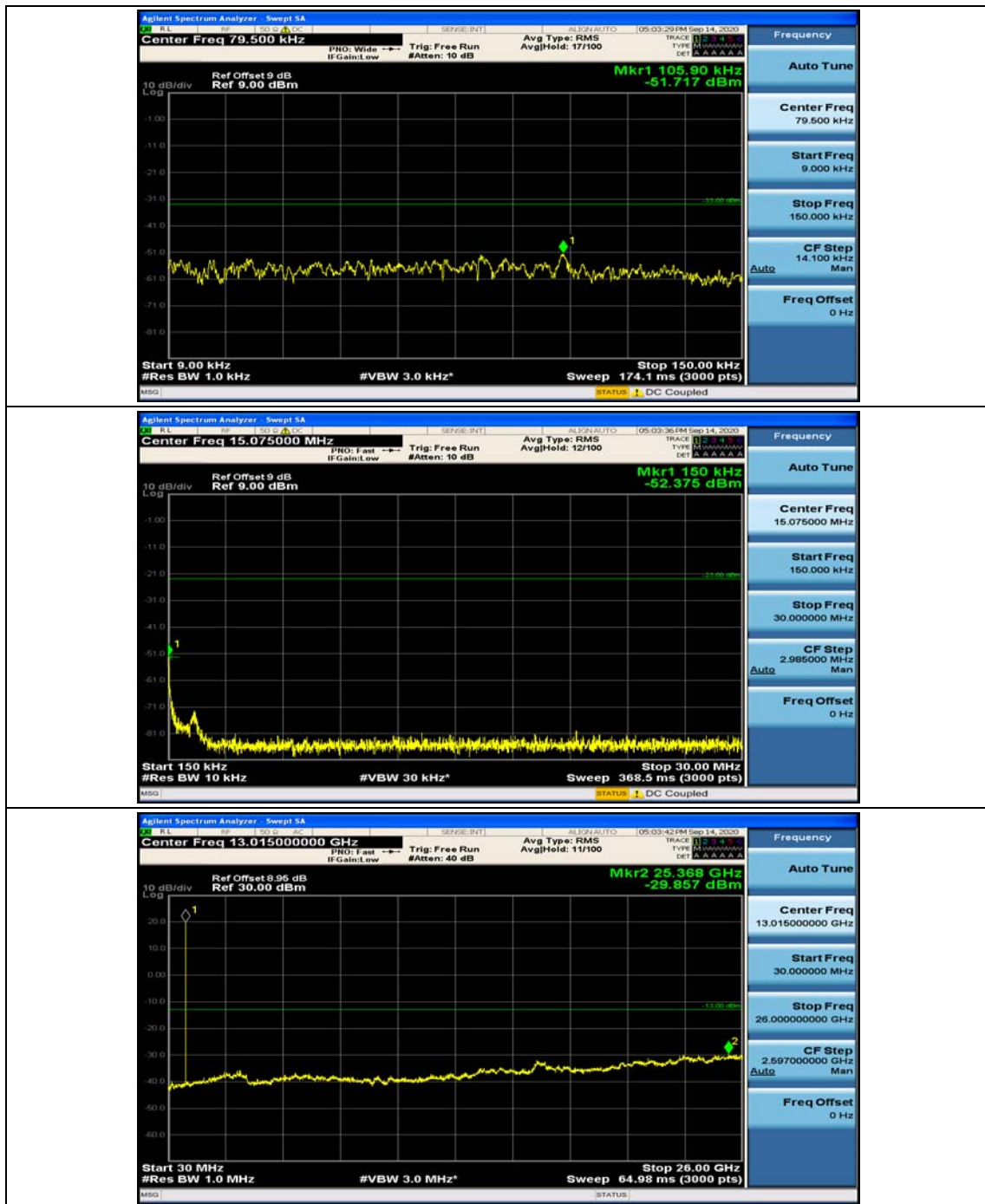
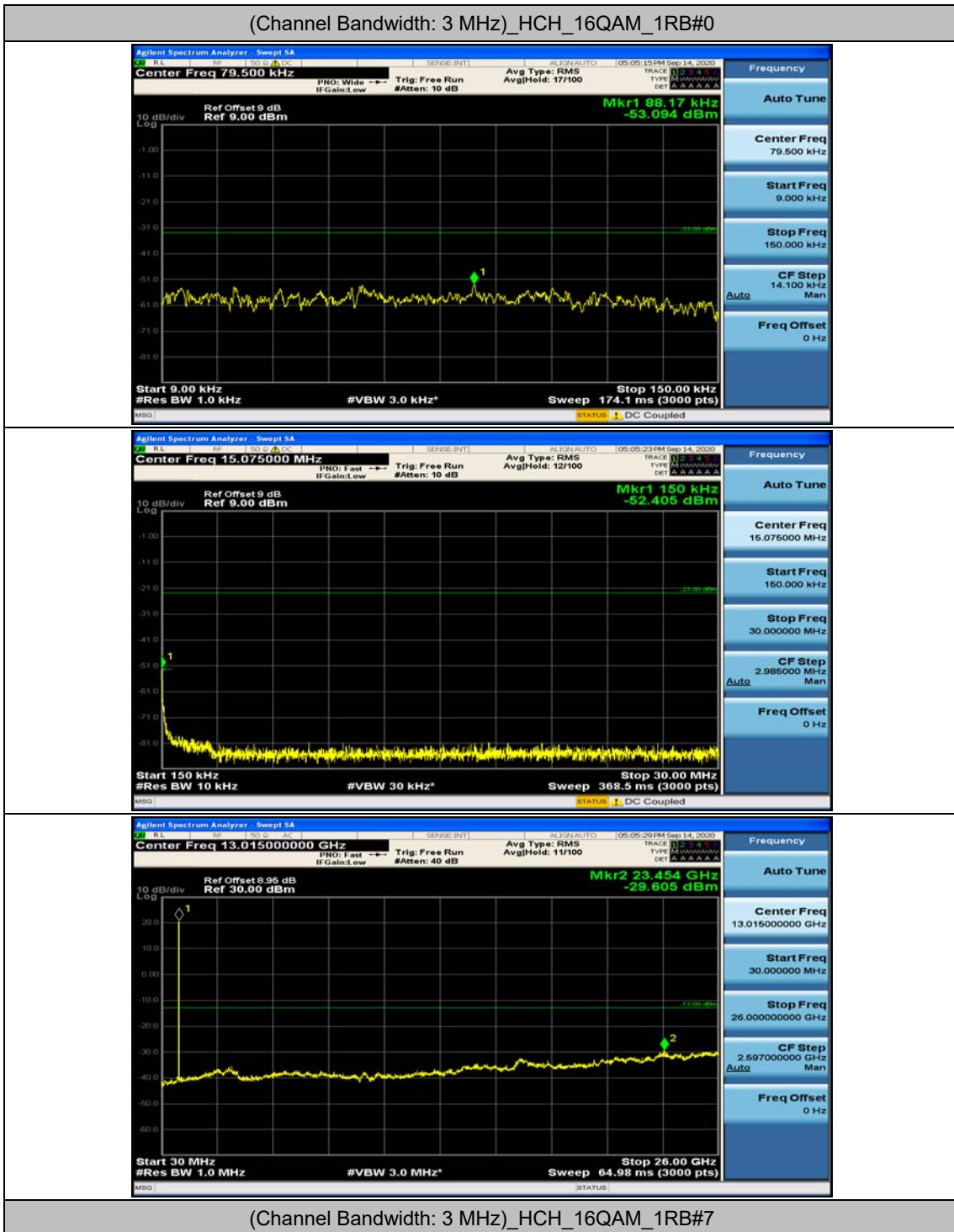


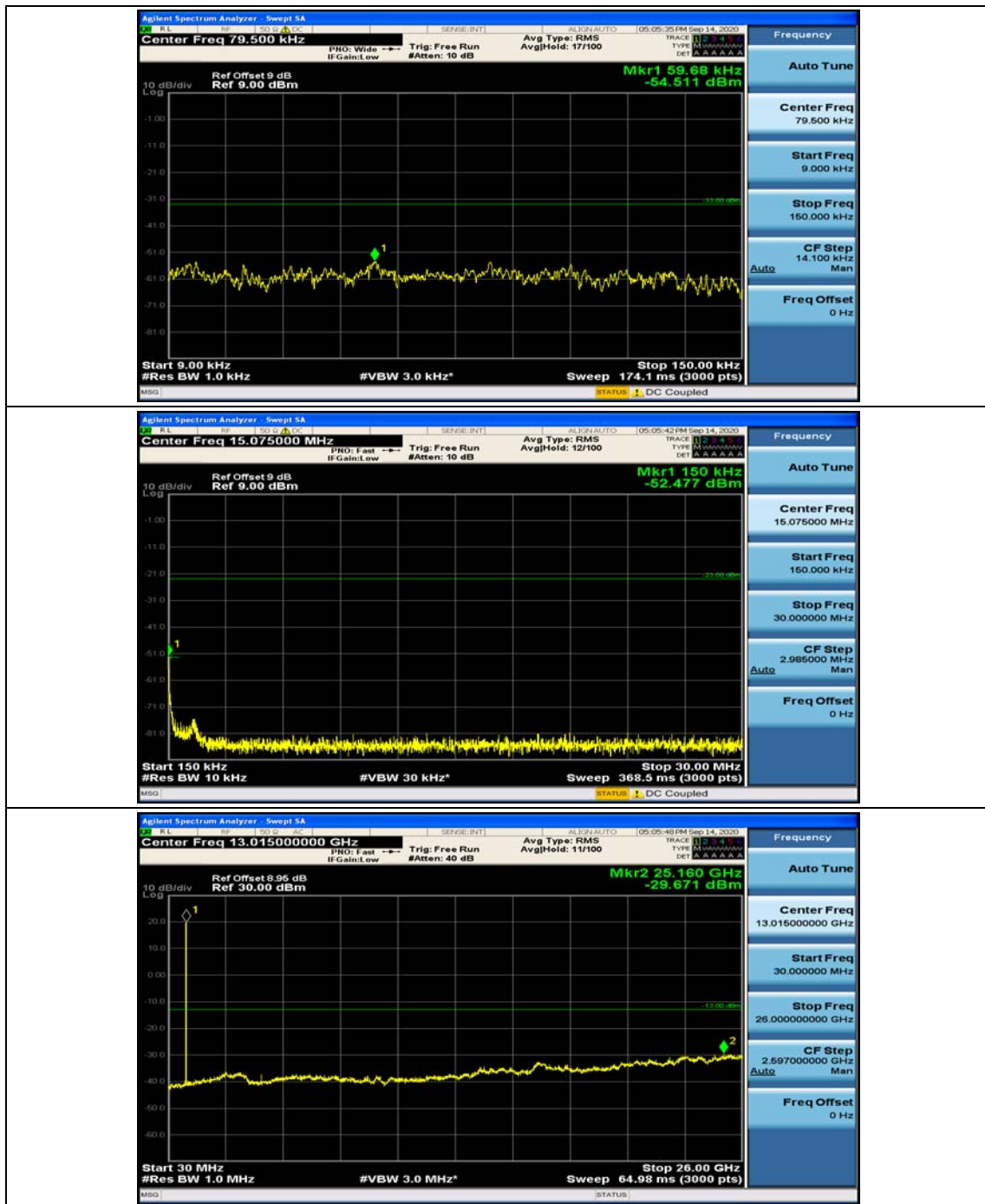
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



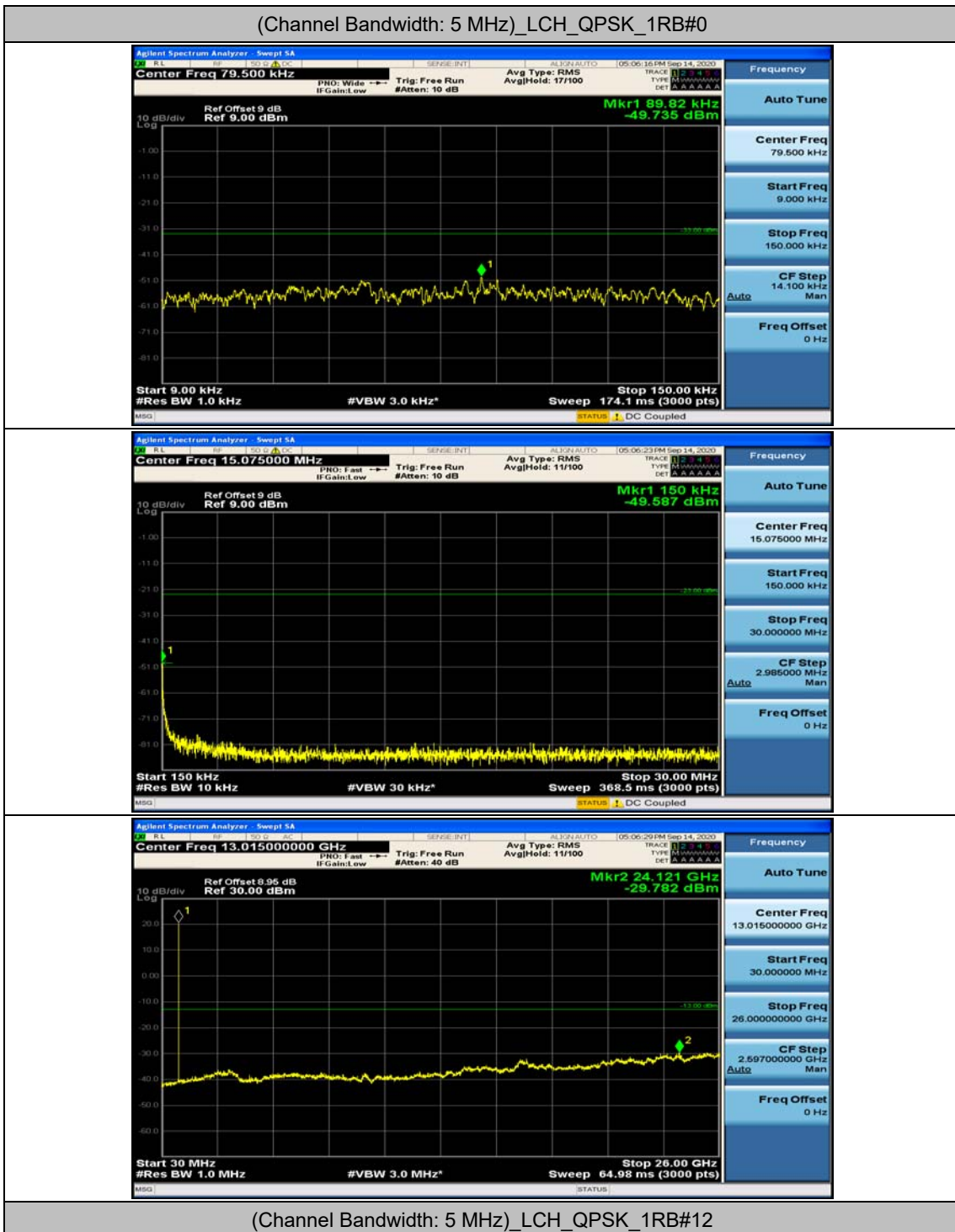
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

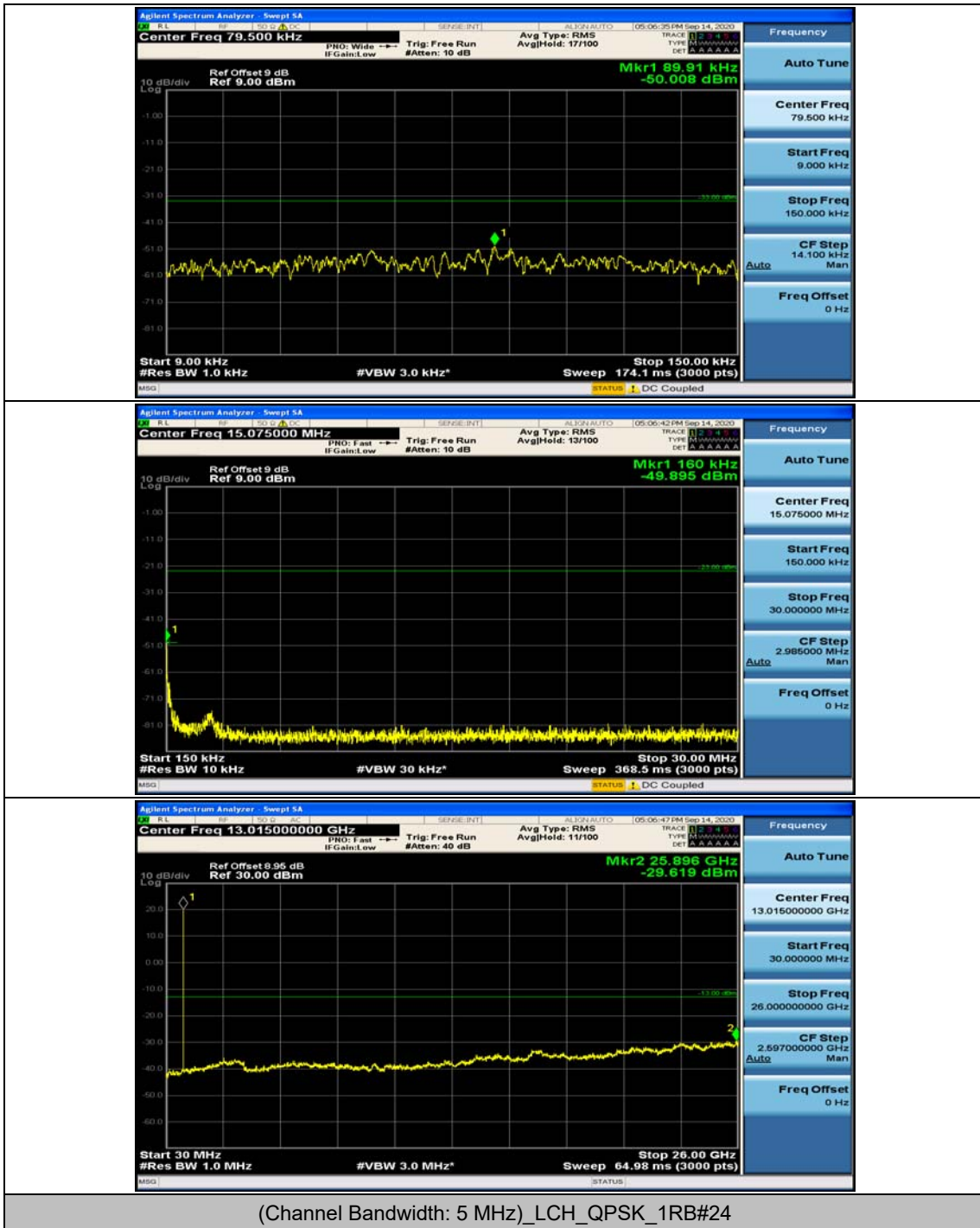


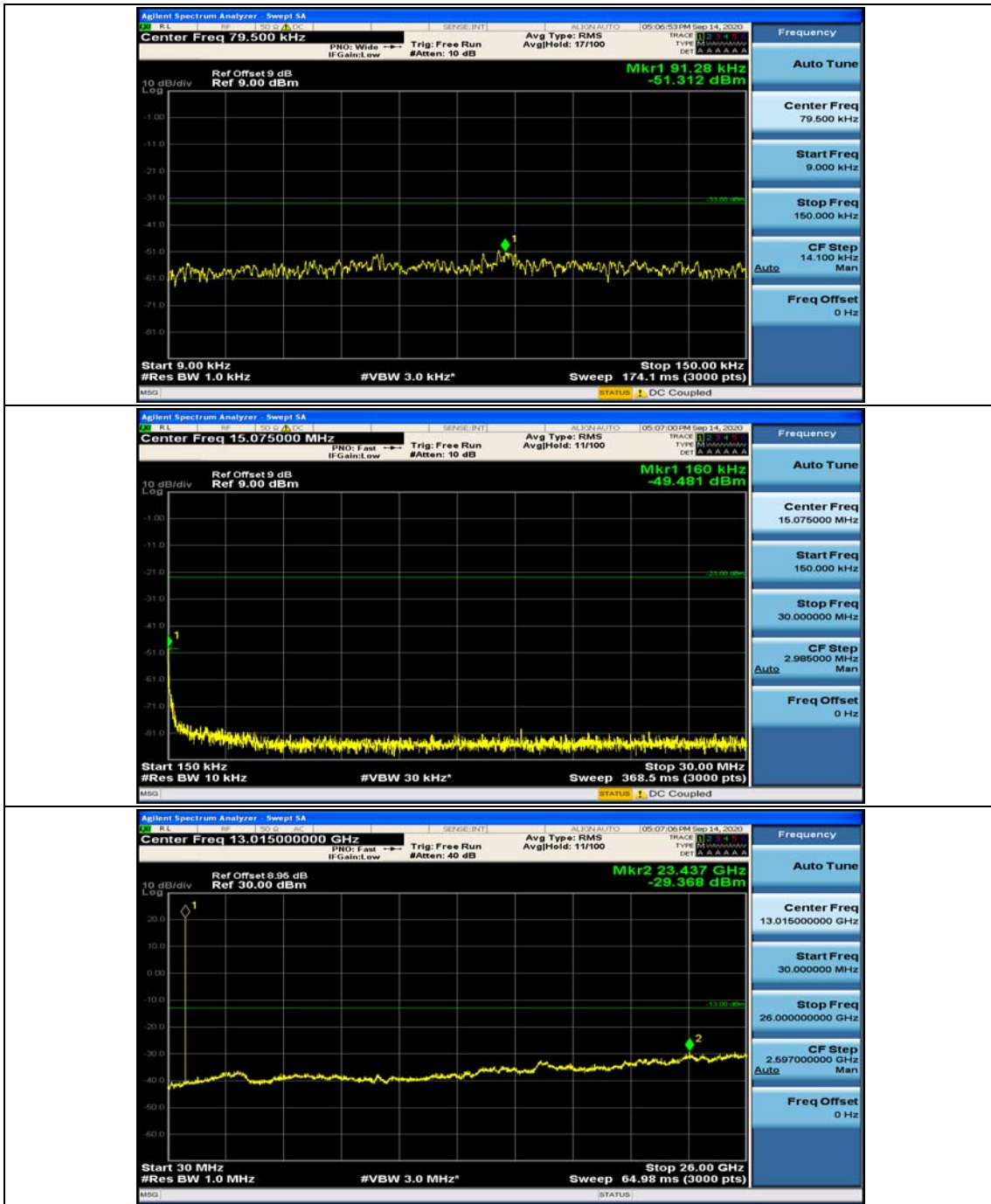


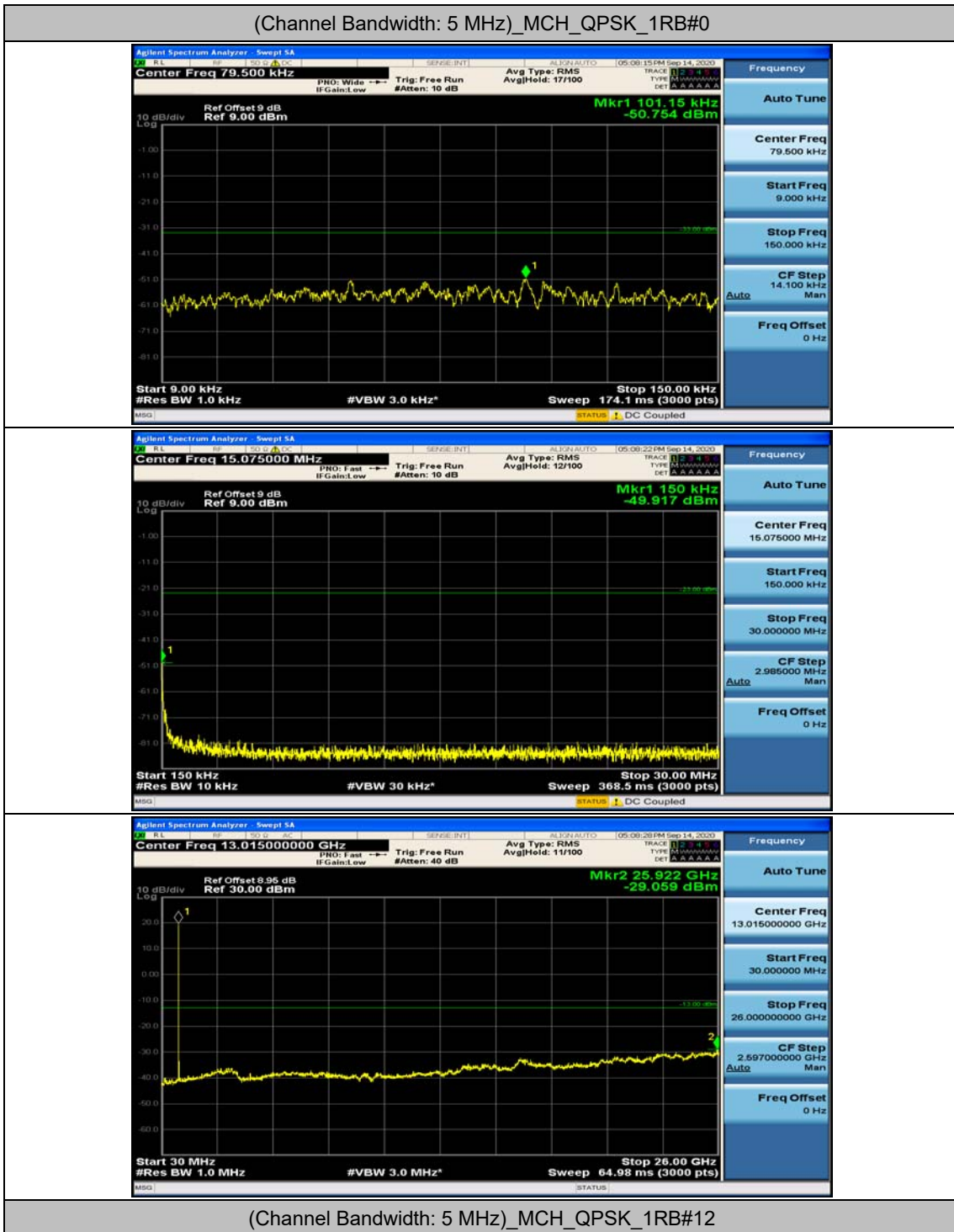


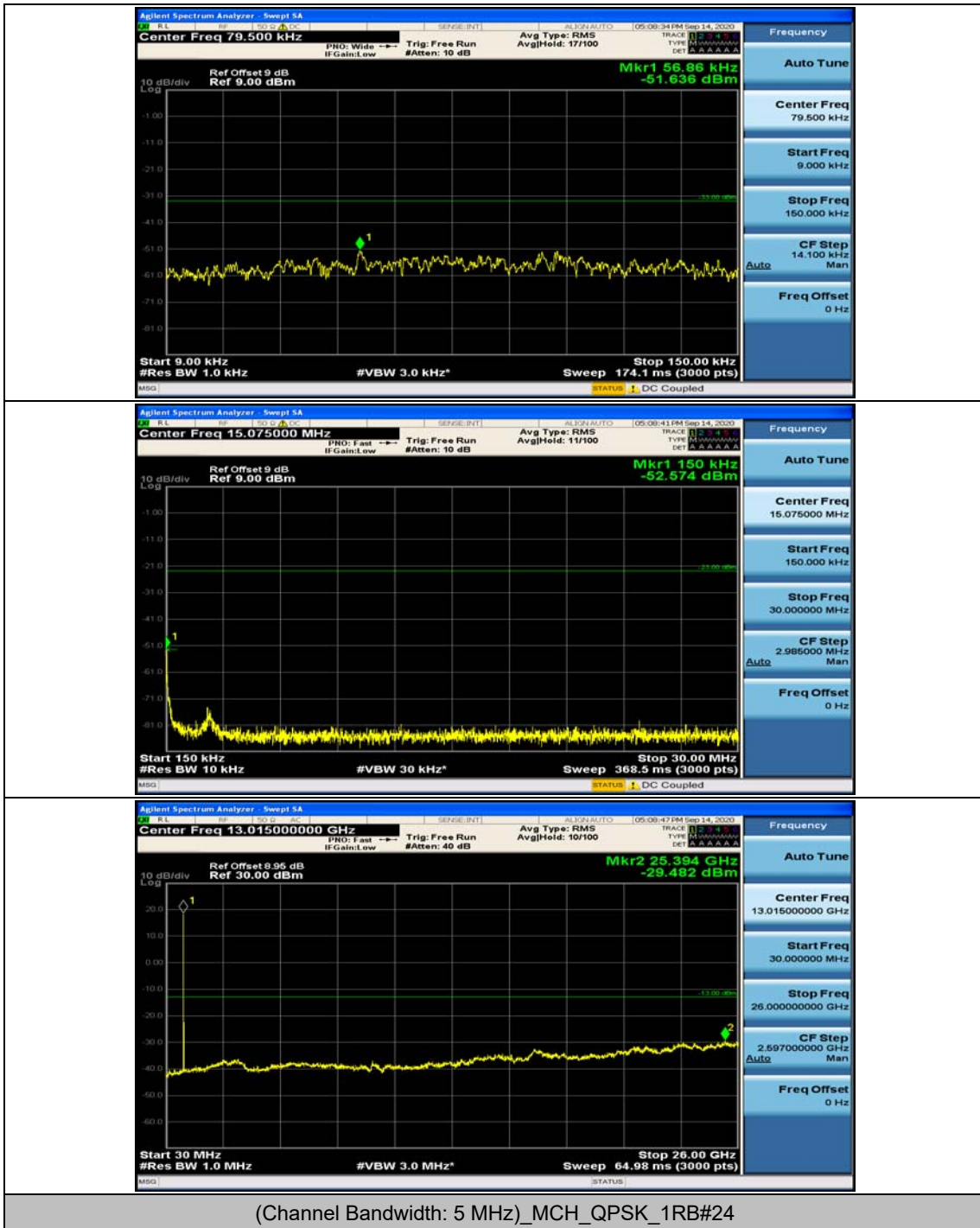
Channel Bandwidth: 5 MHz

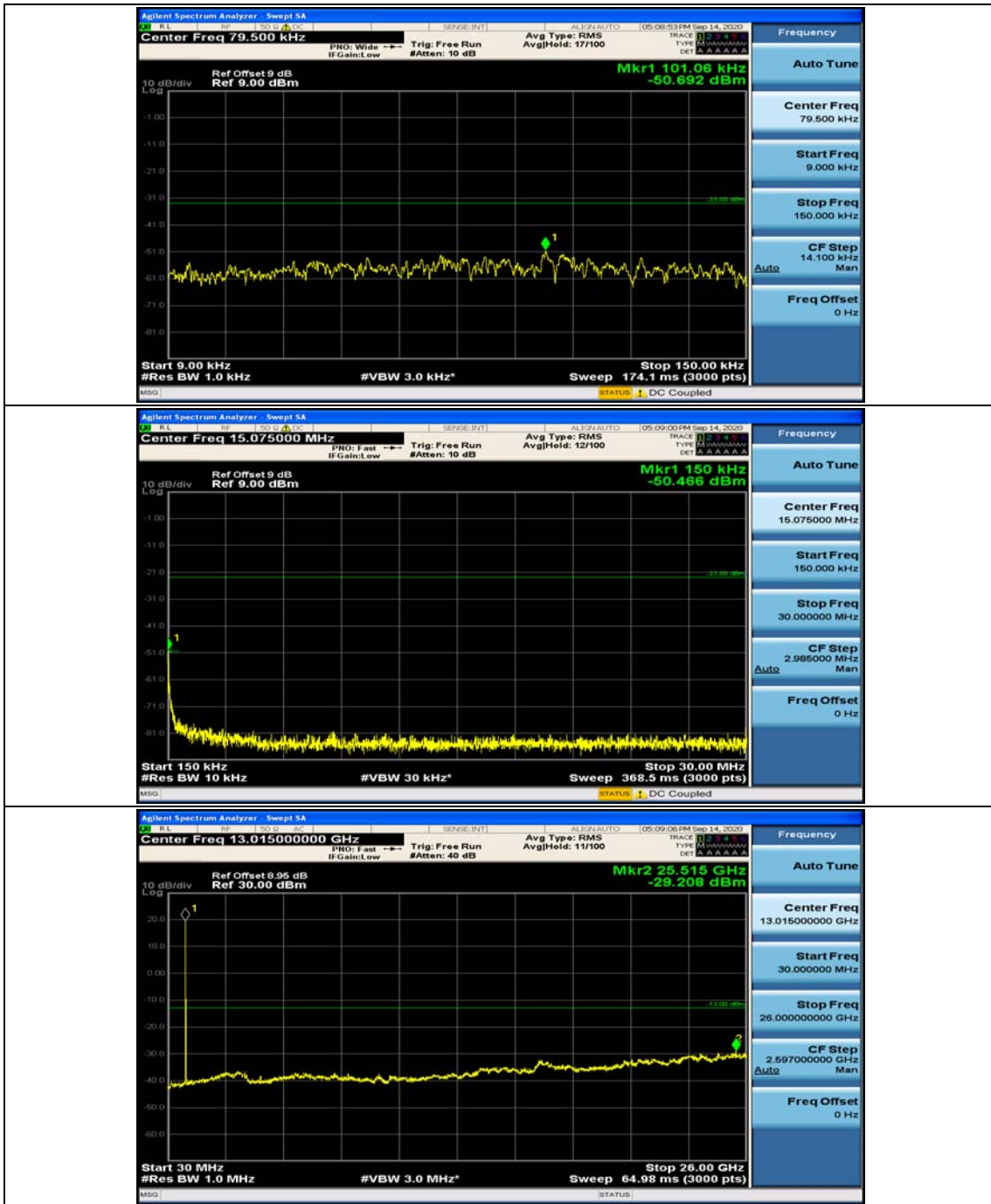




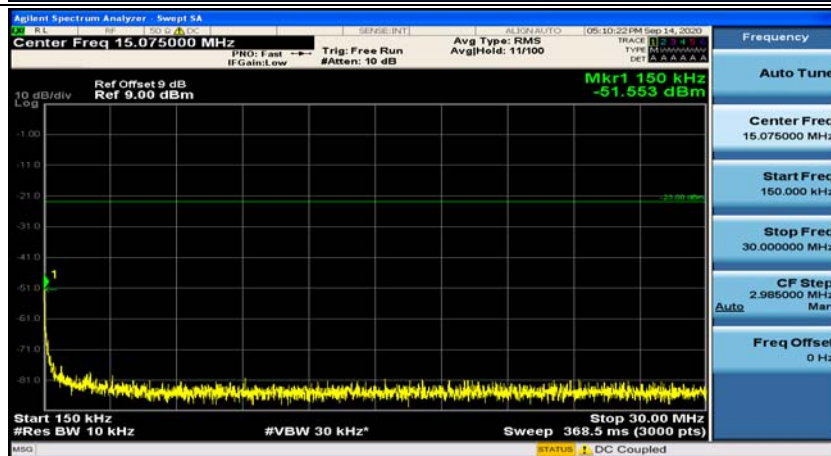
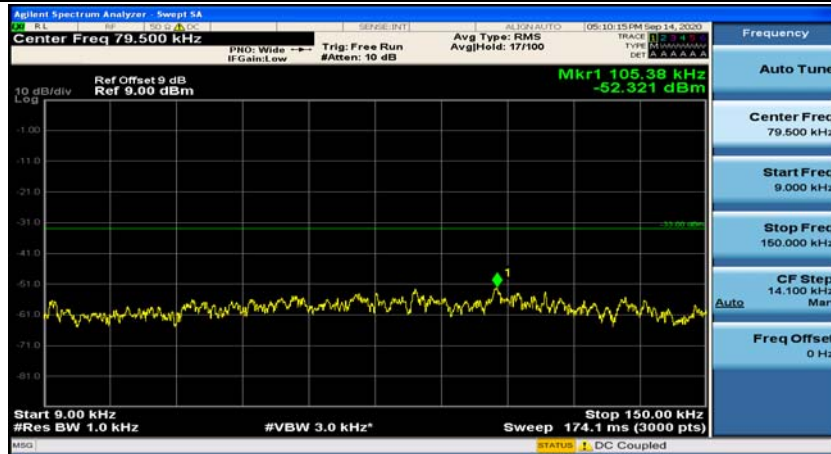




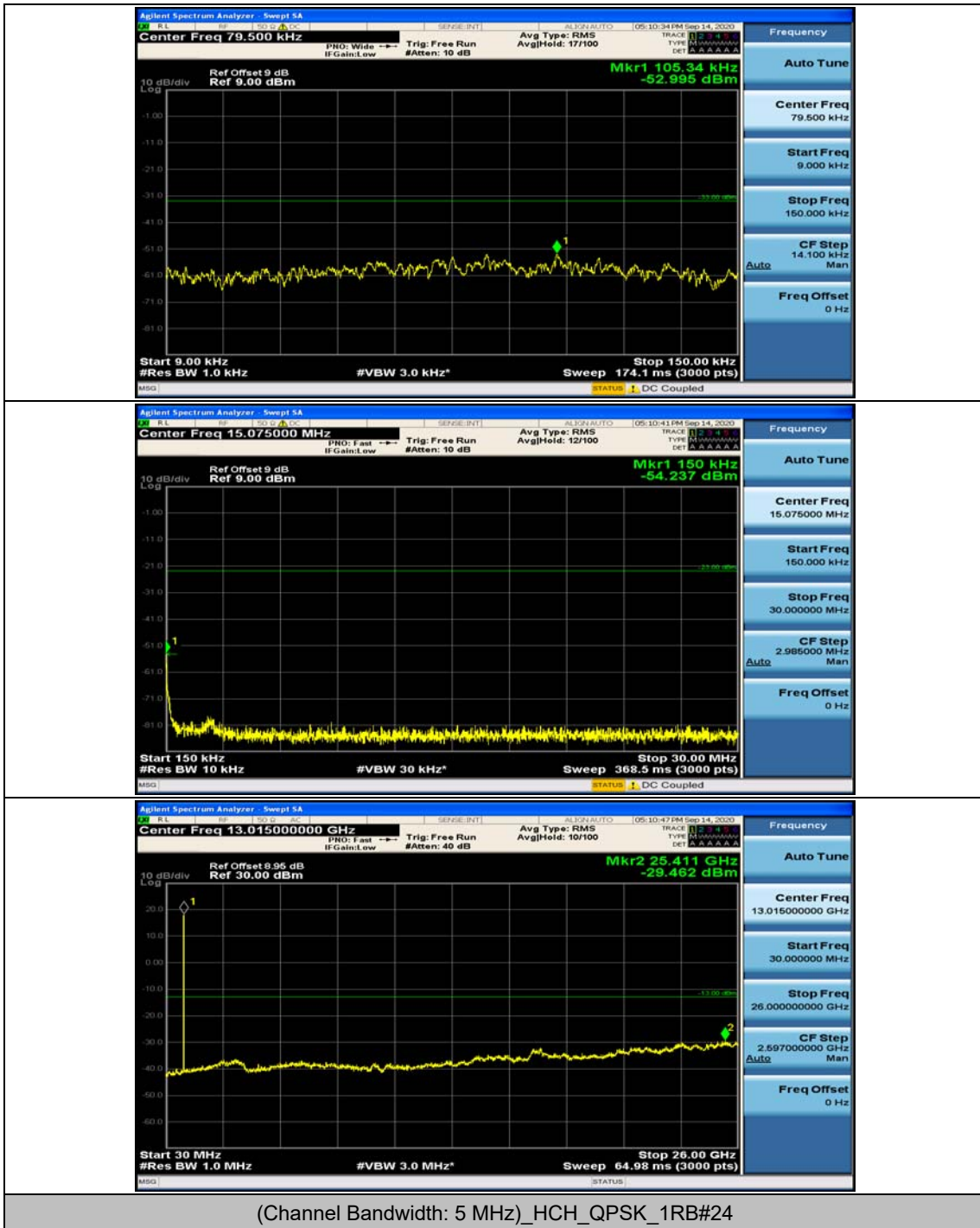


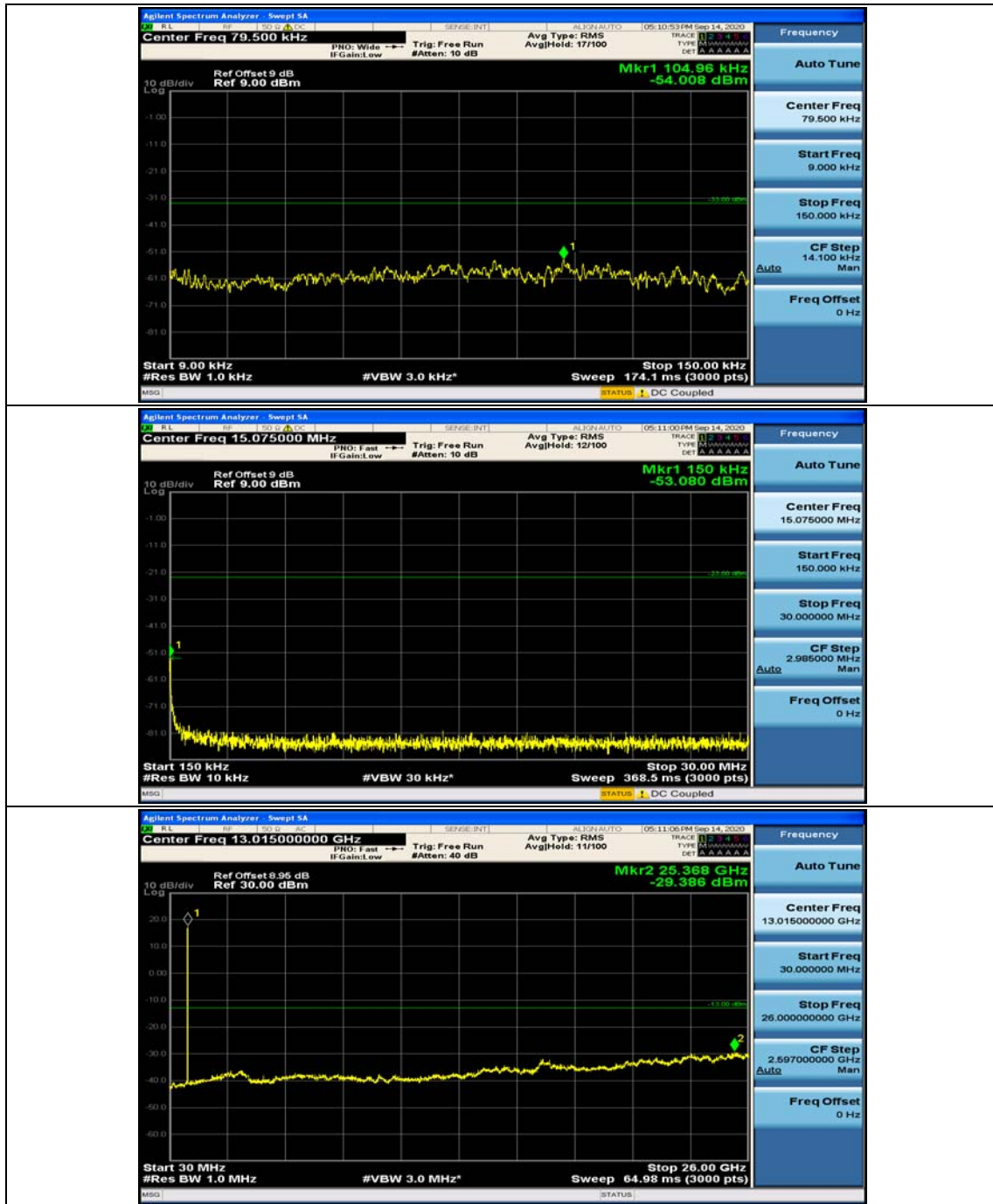


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

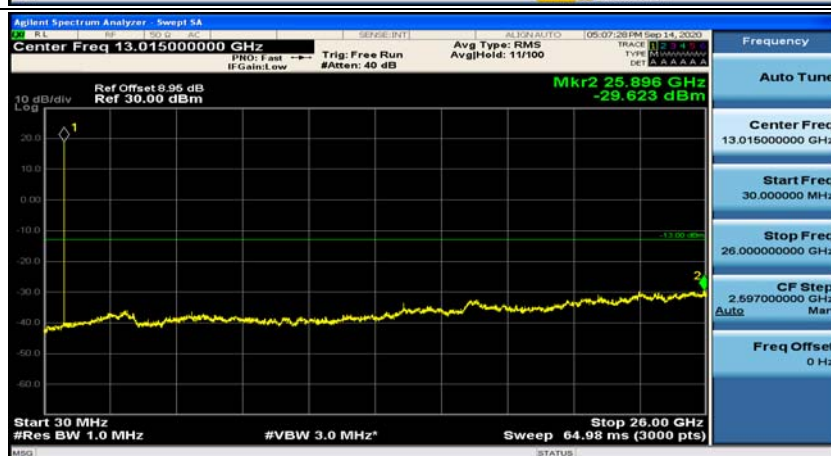
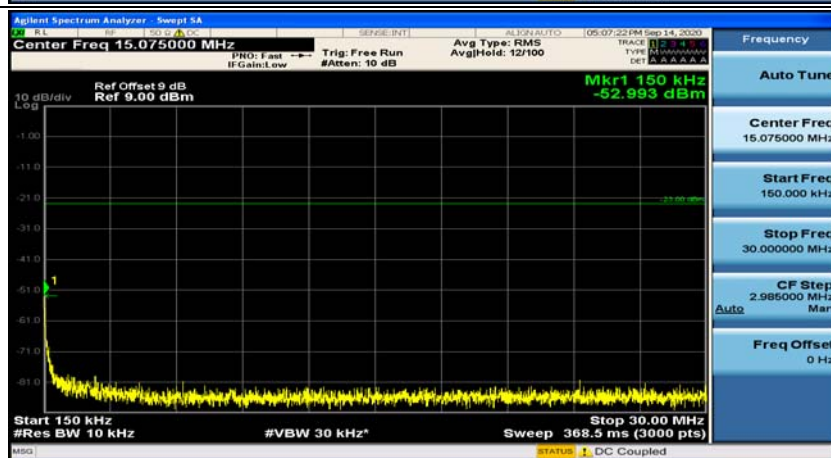
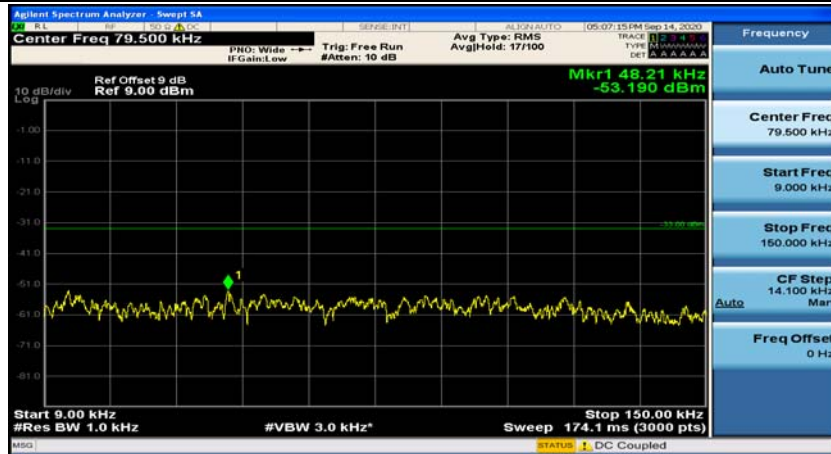


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

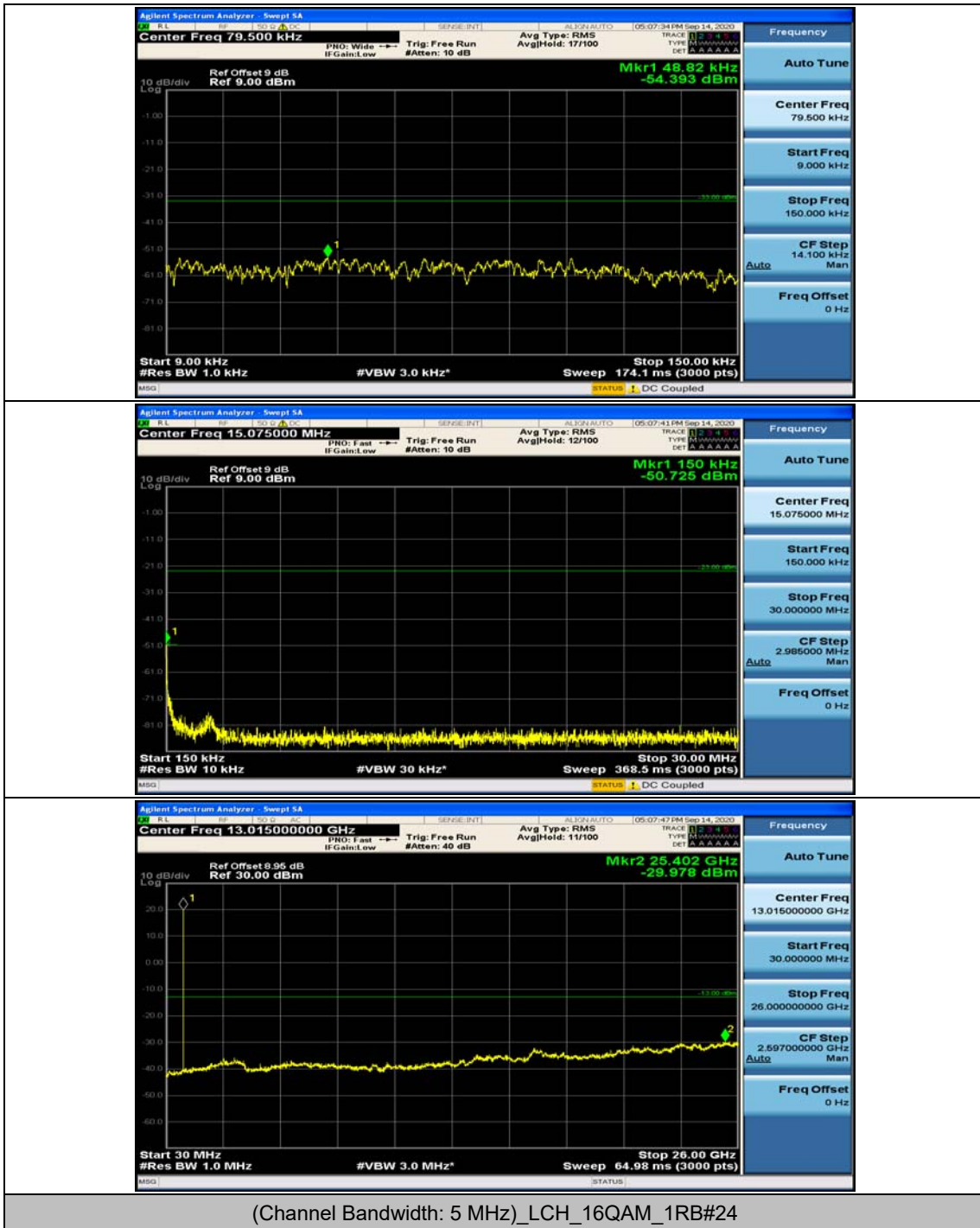


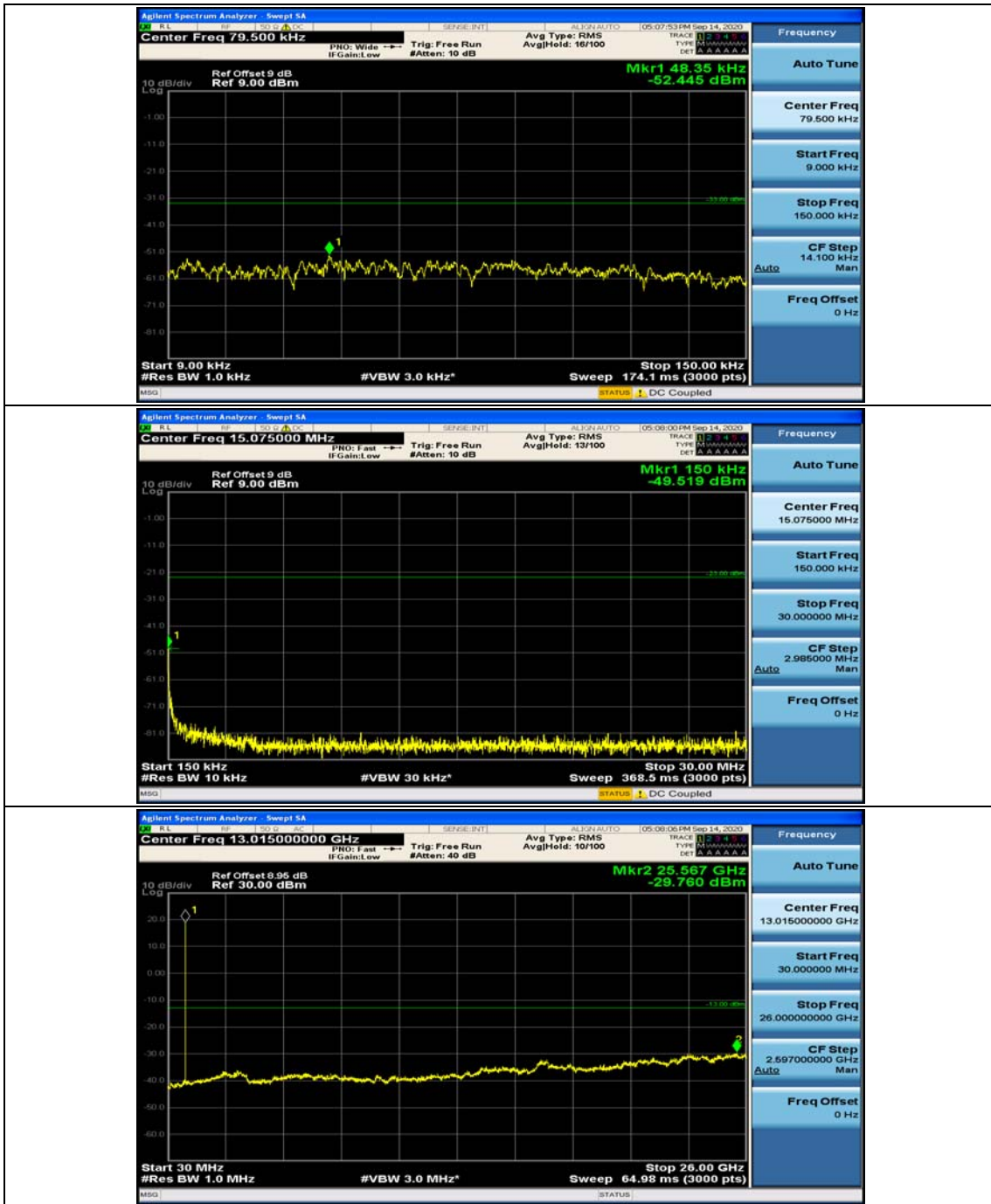


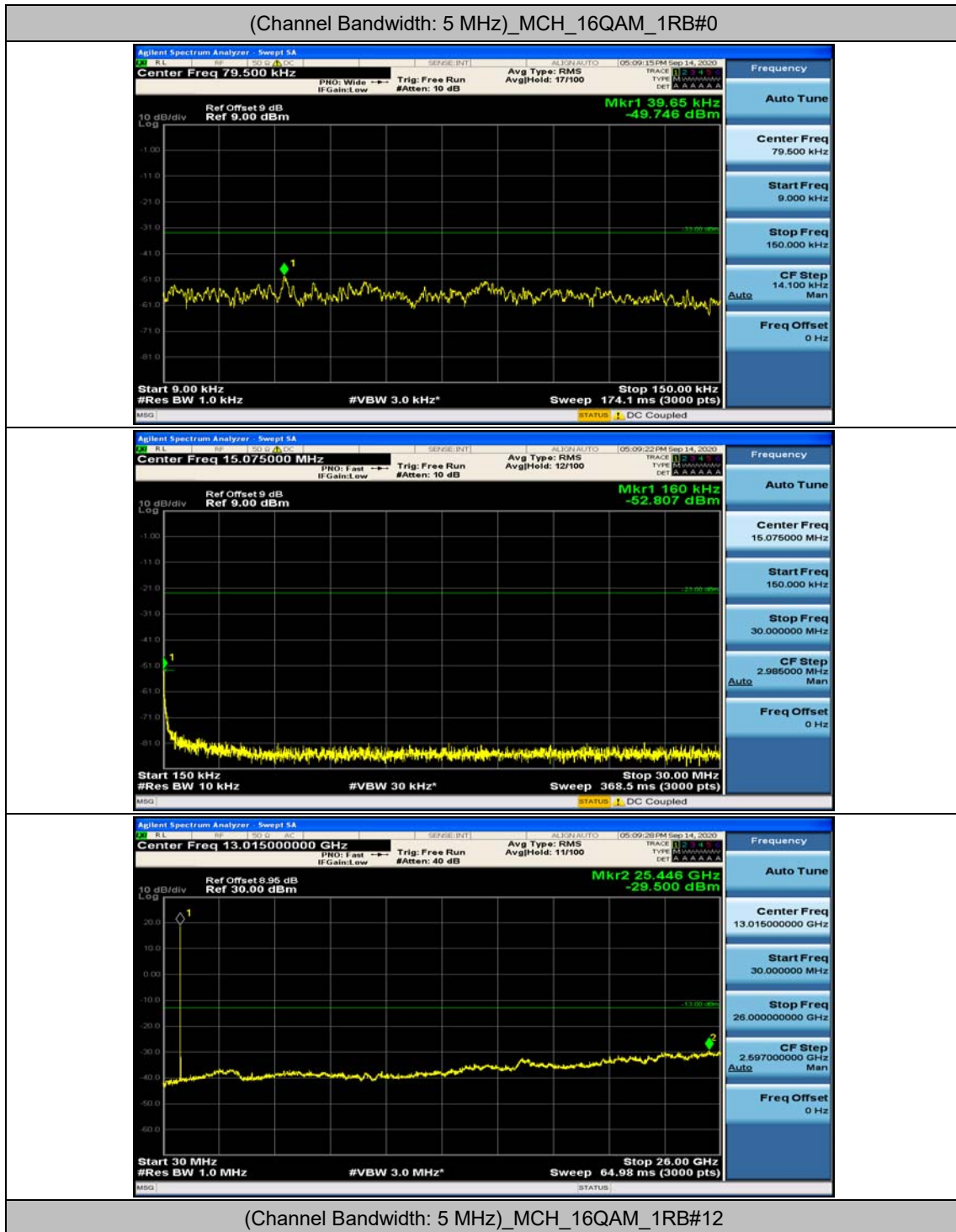
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

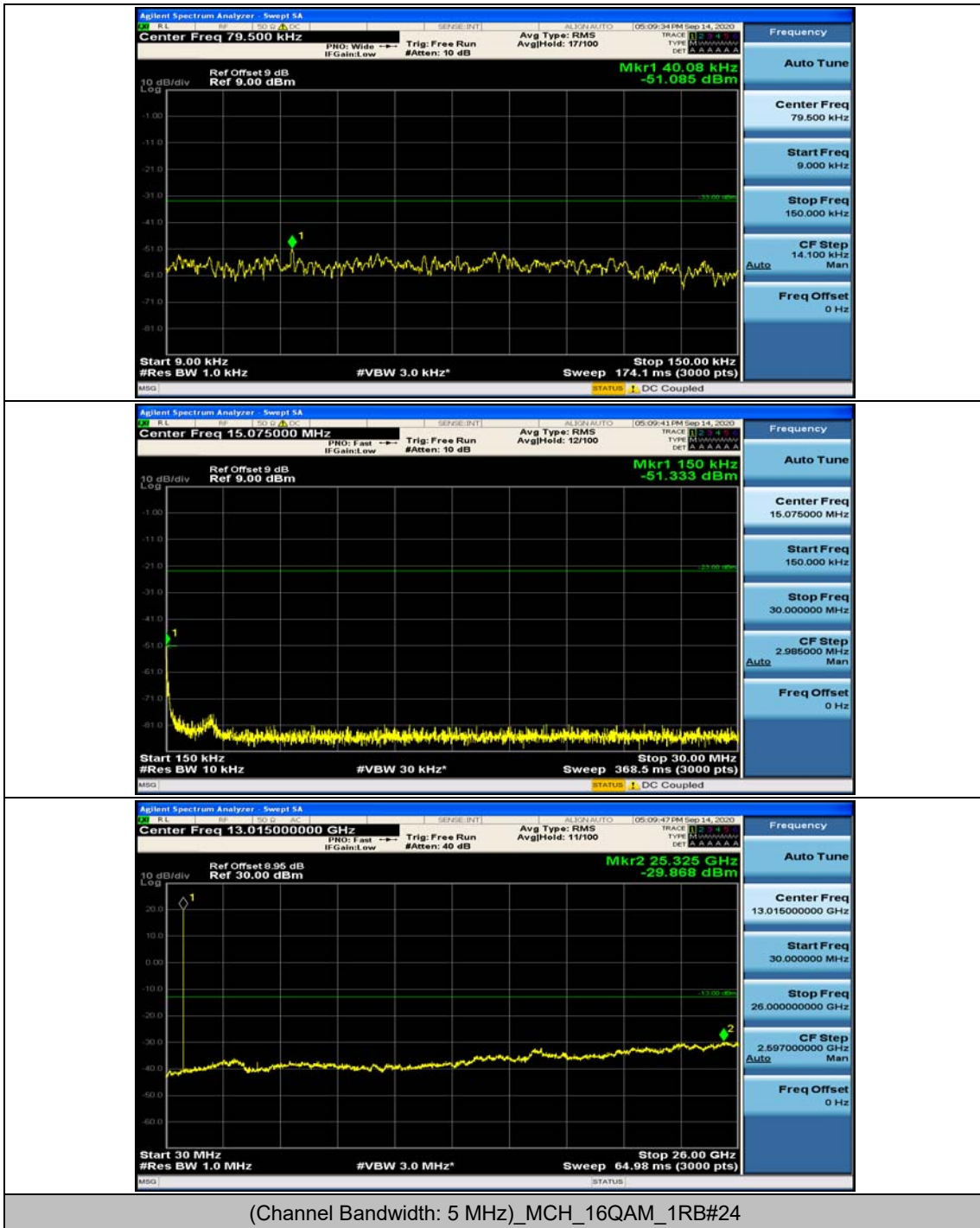


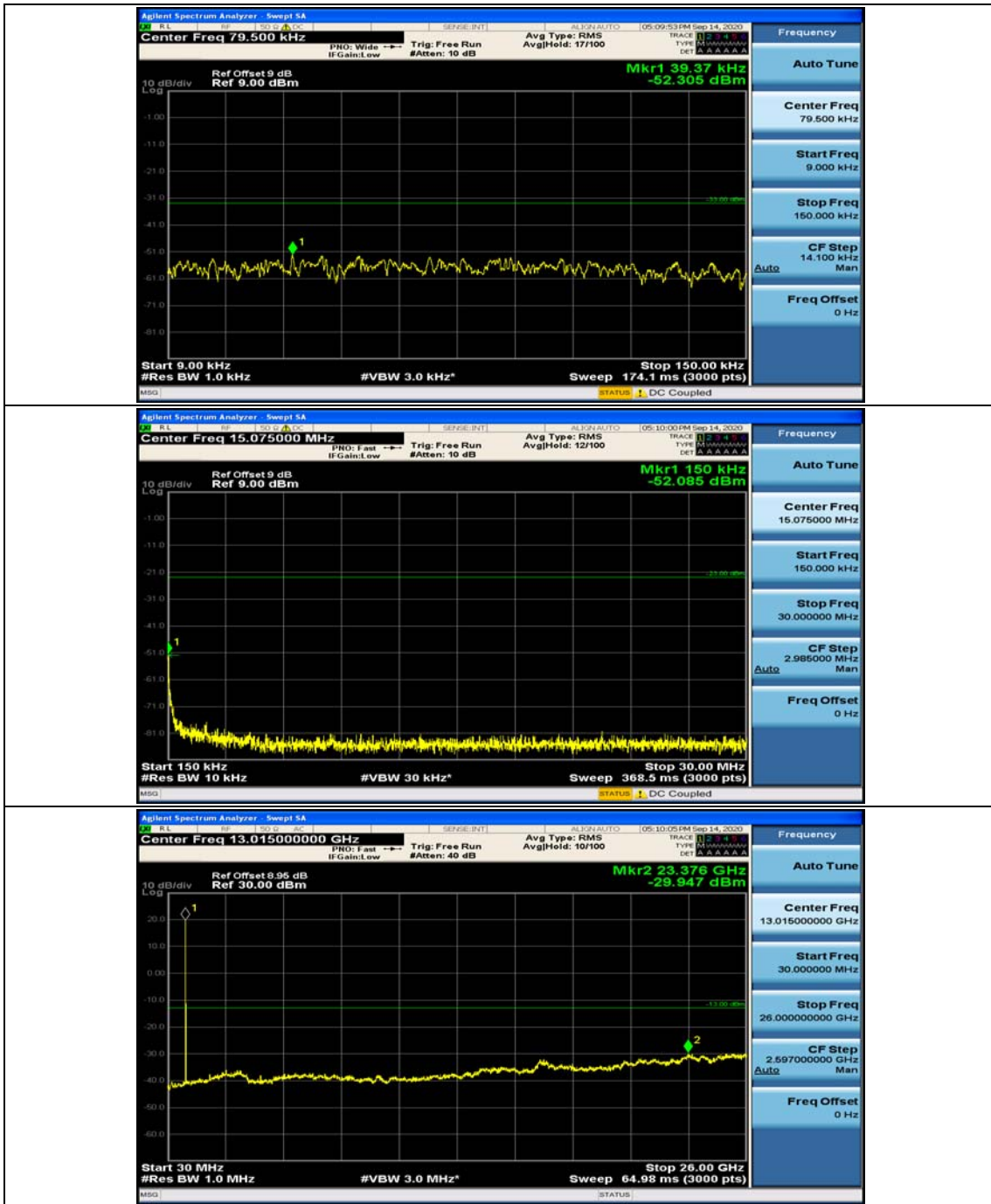
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

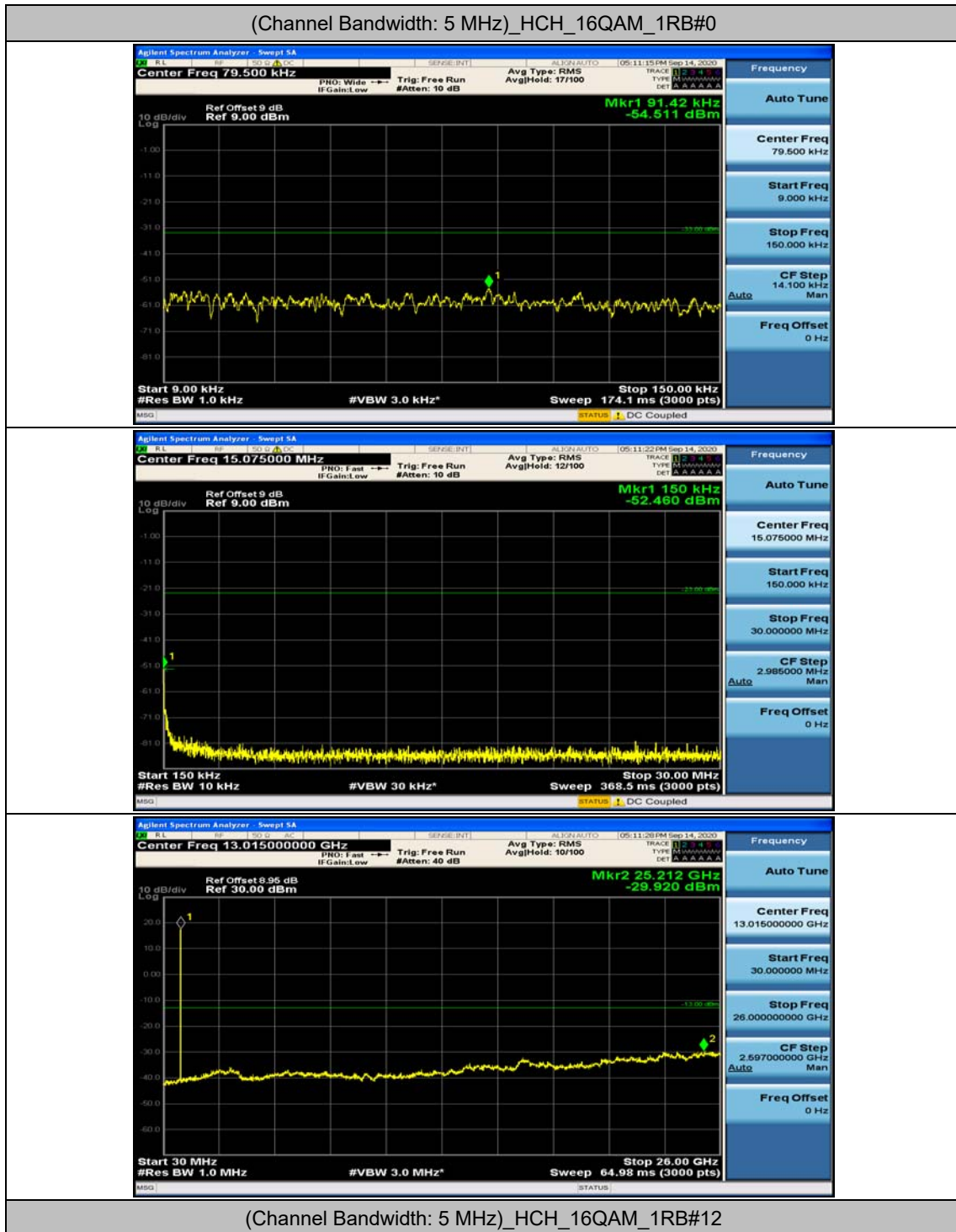


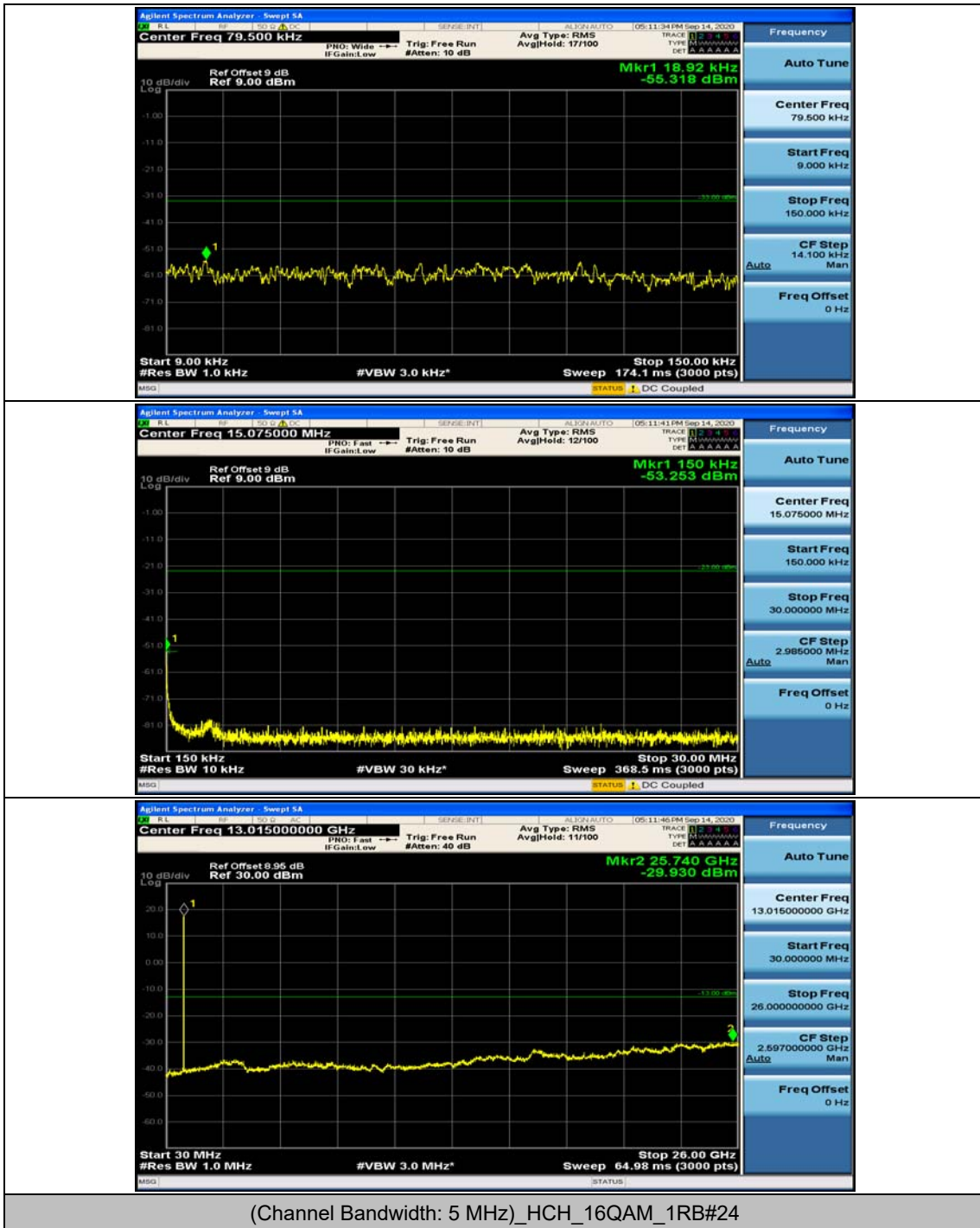


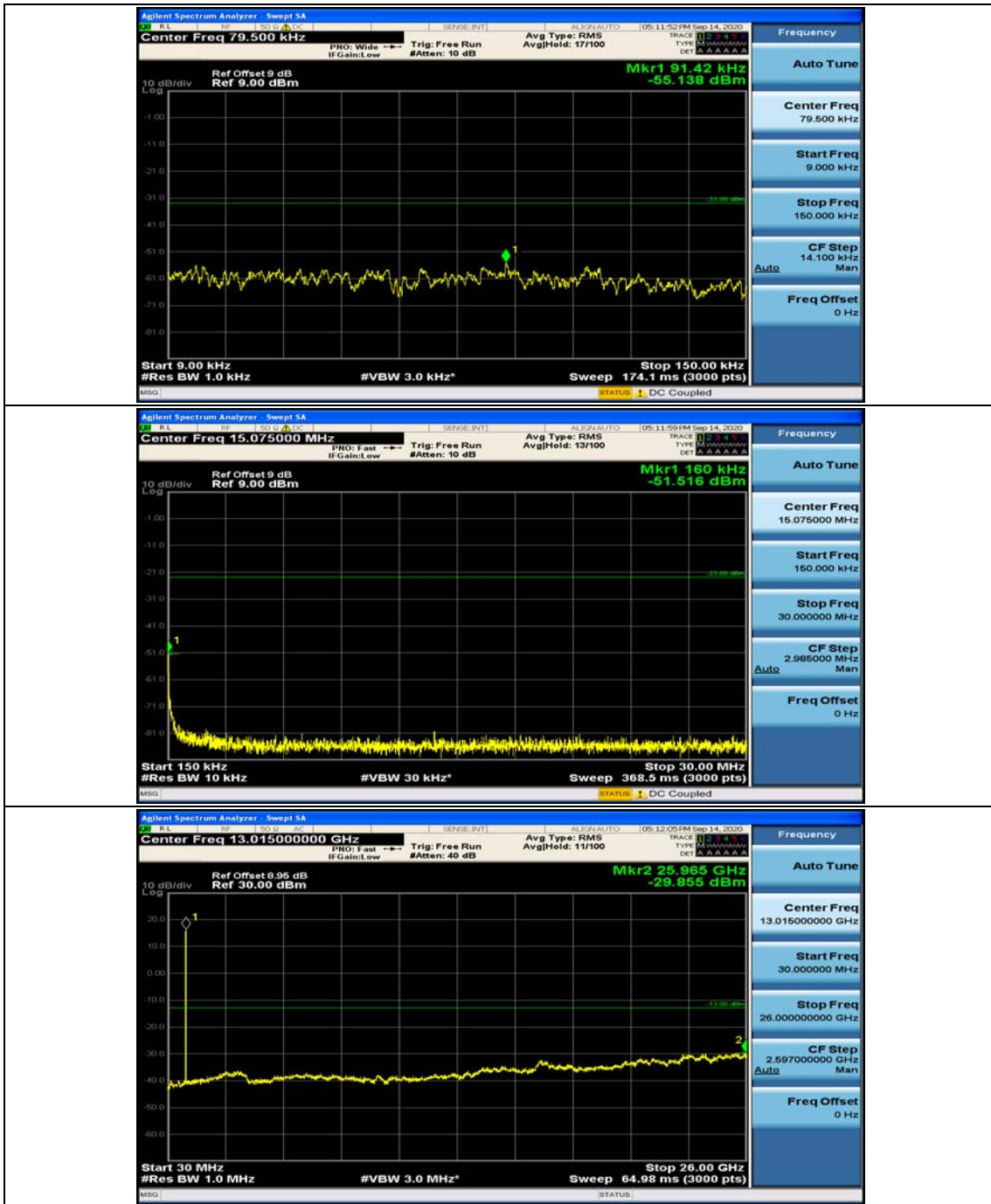




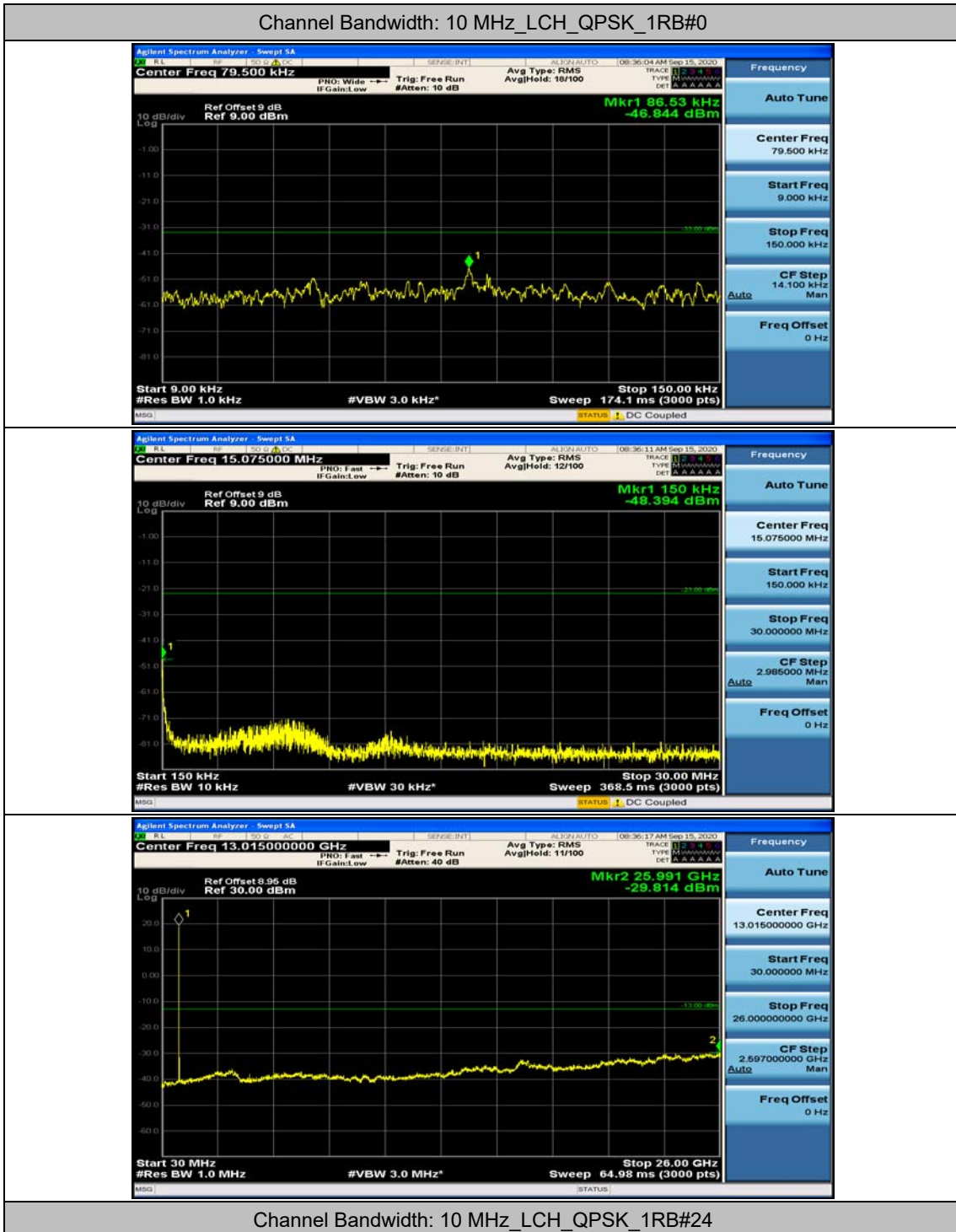


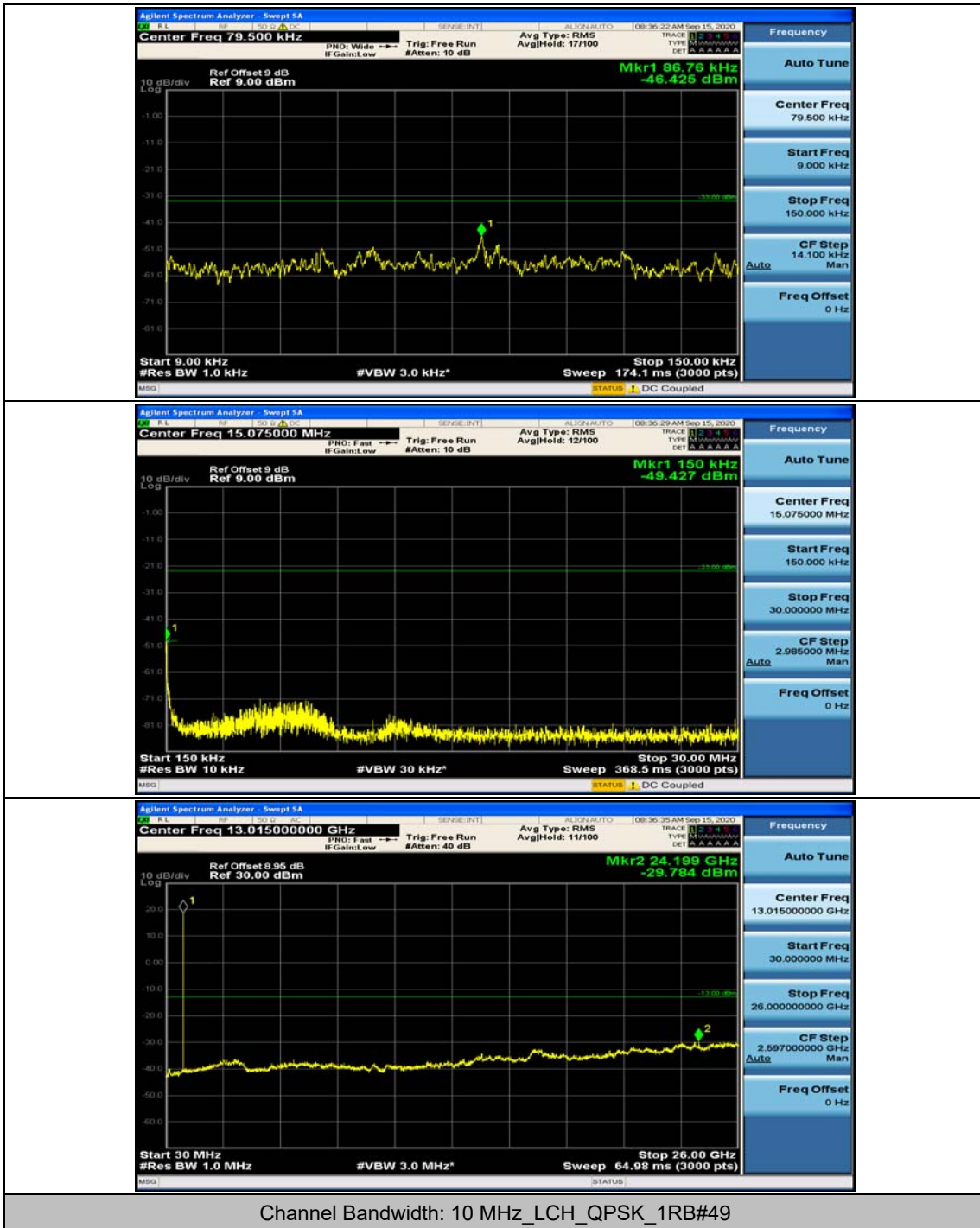


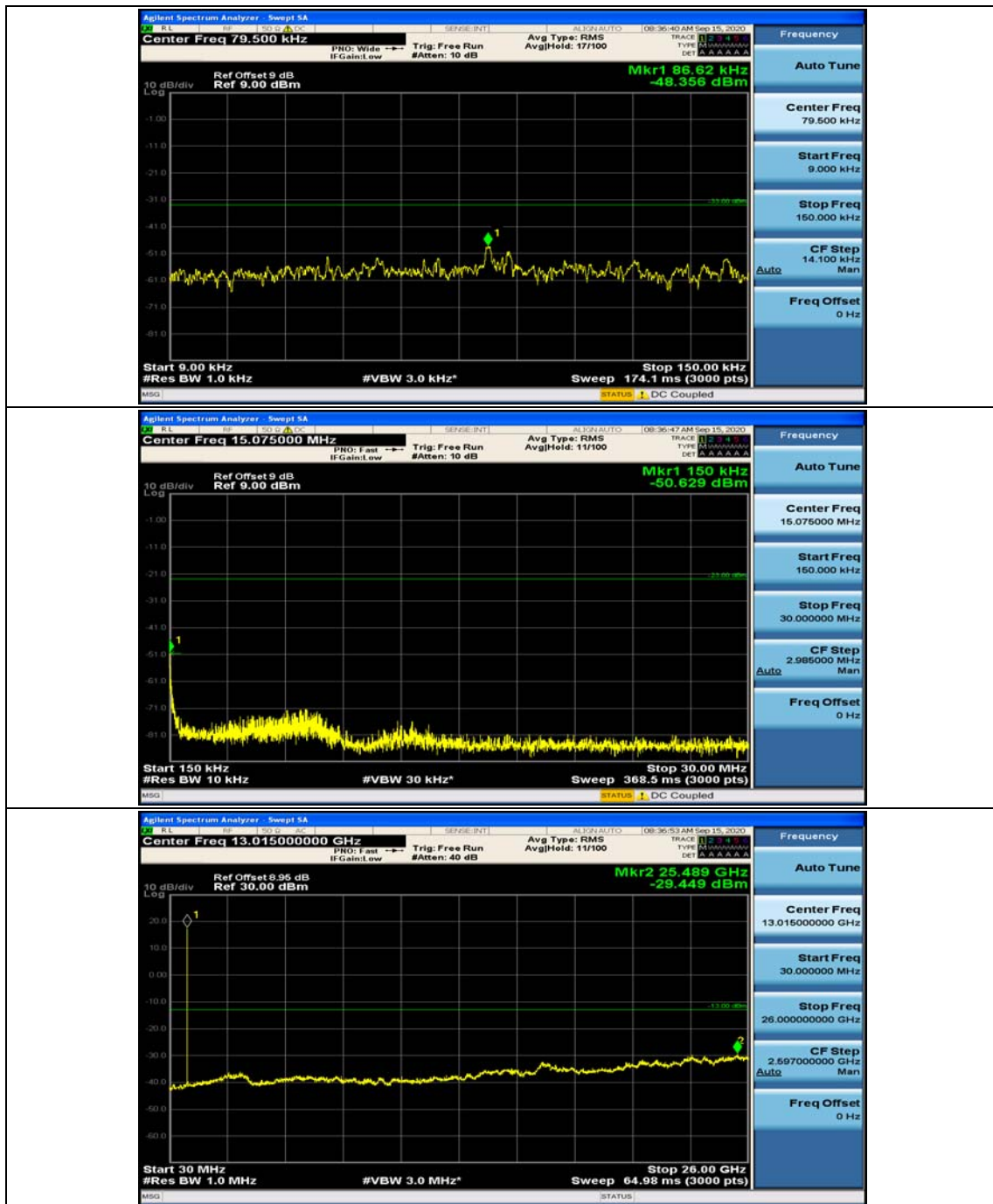


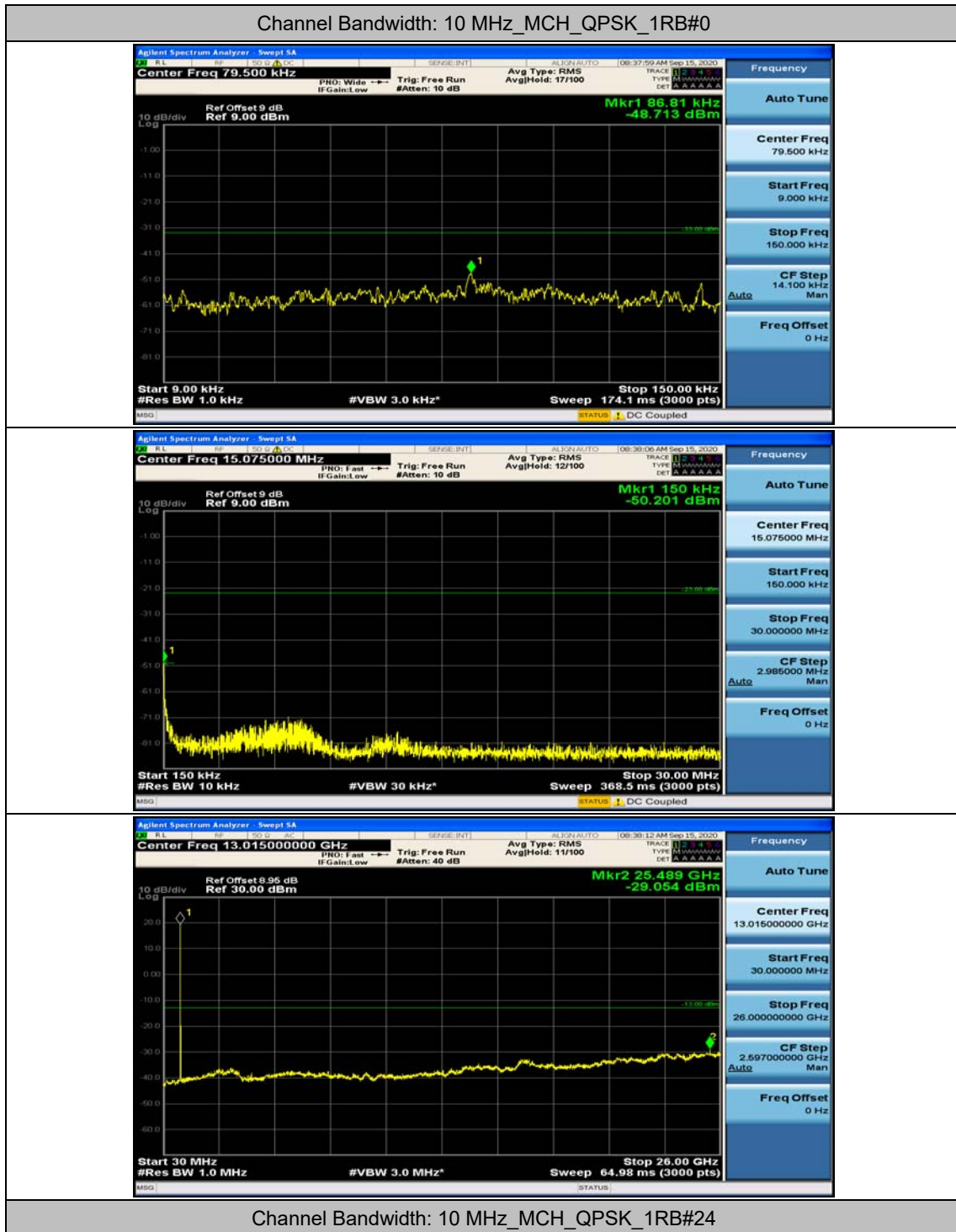


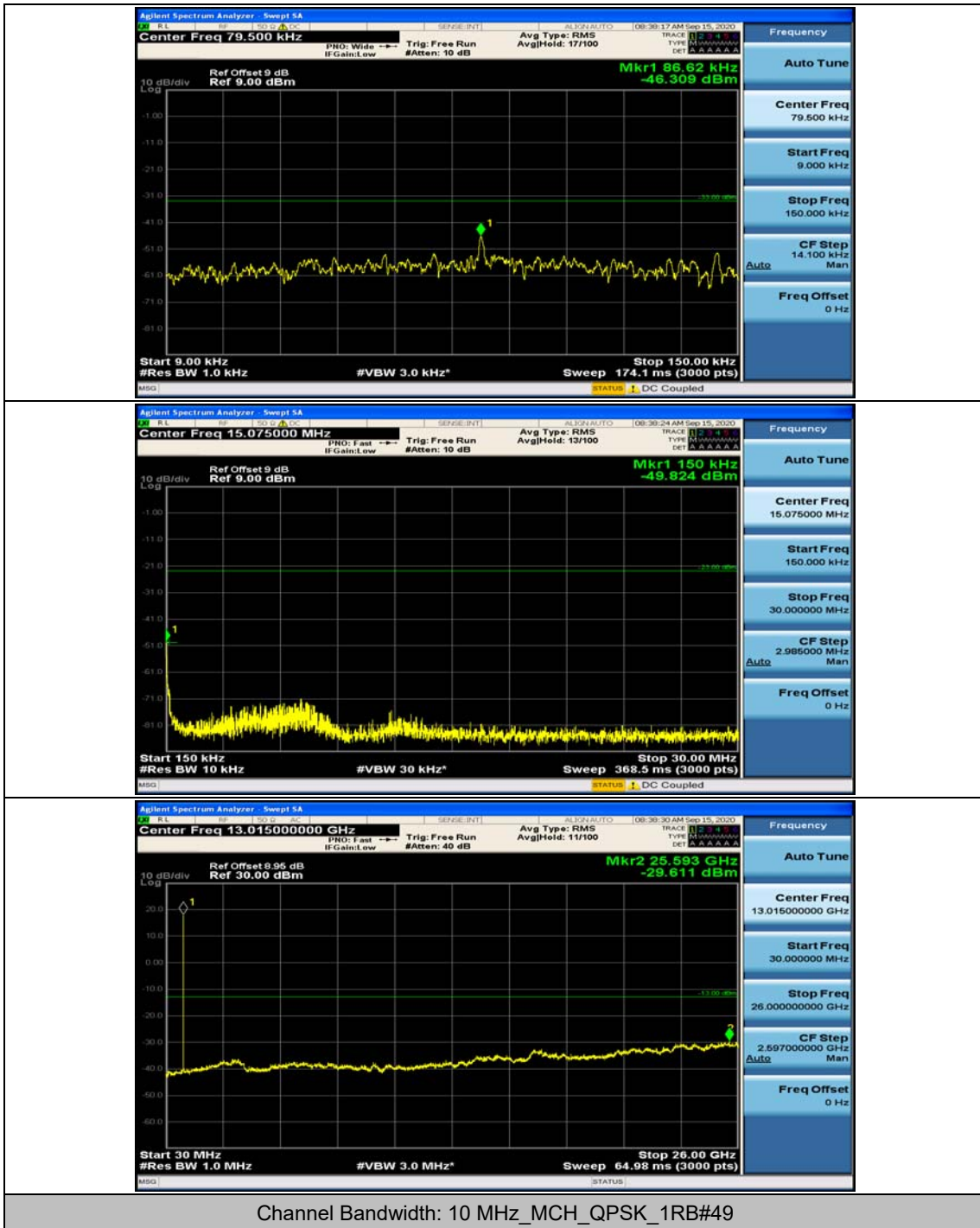
Channel Bandwidth: 10 MHz

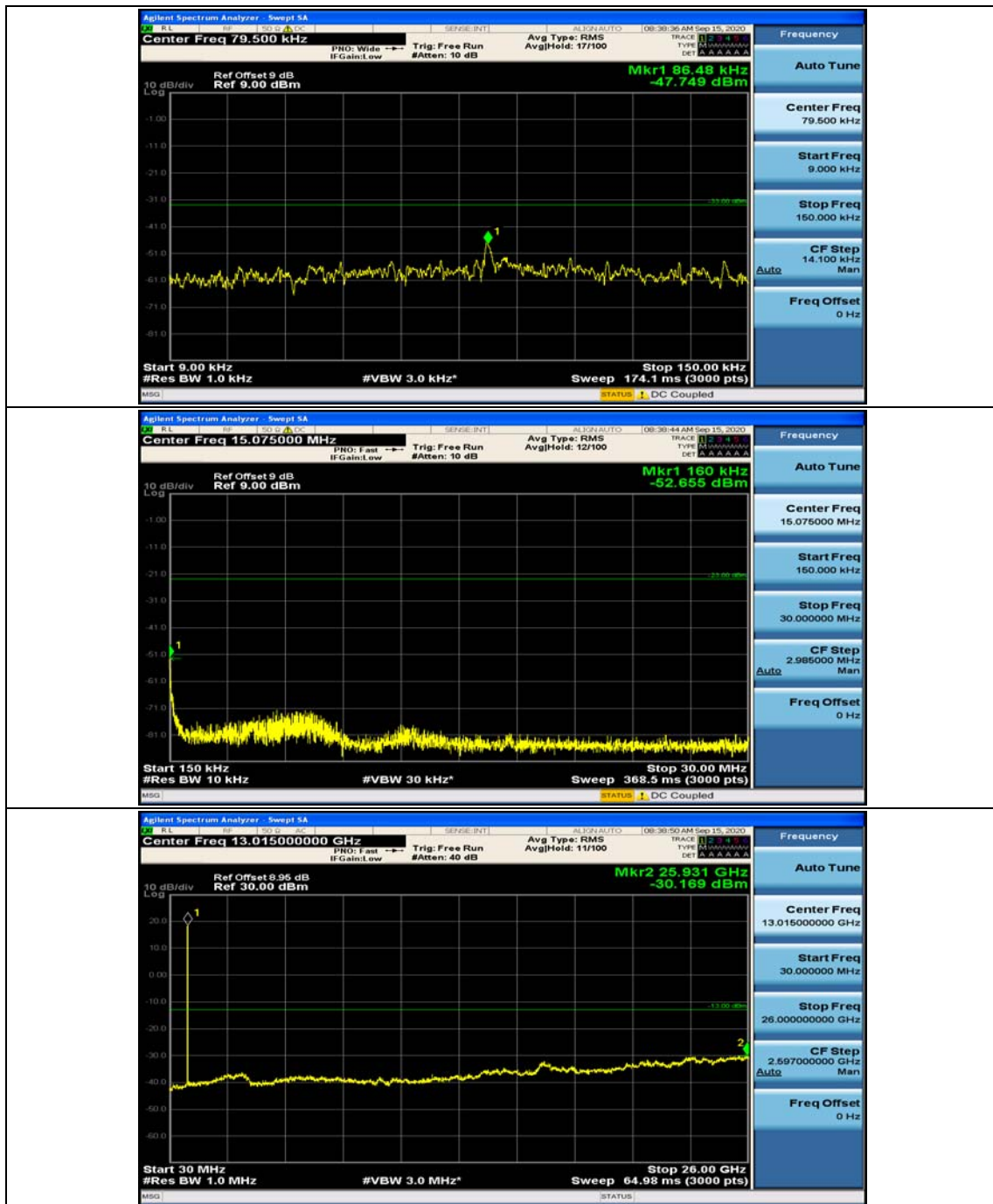


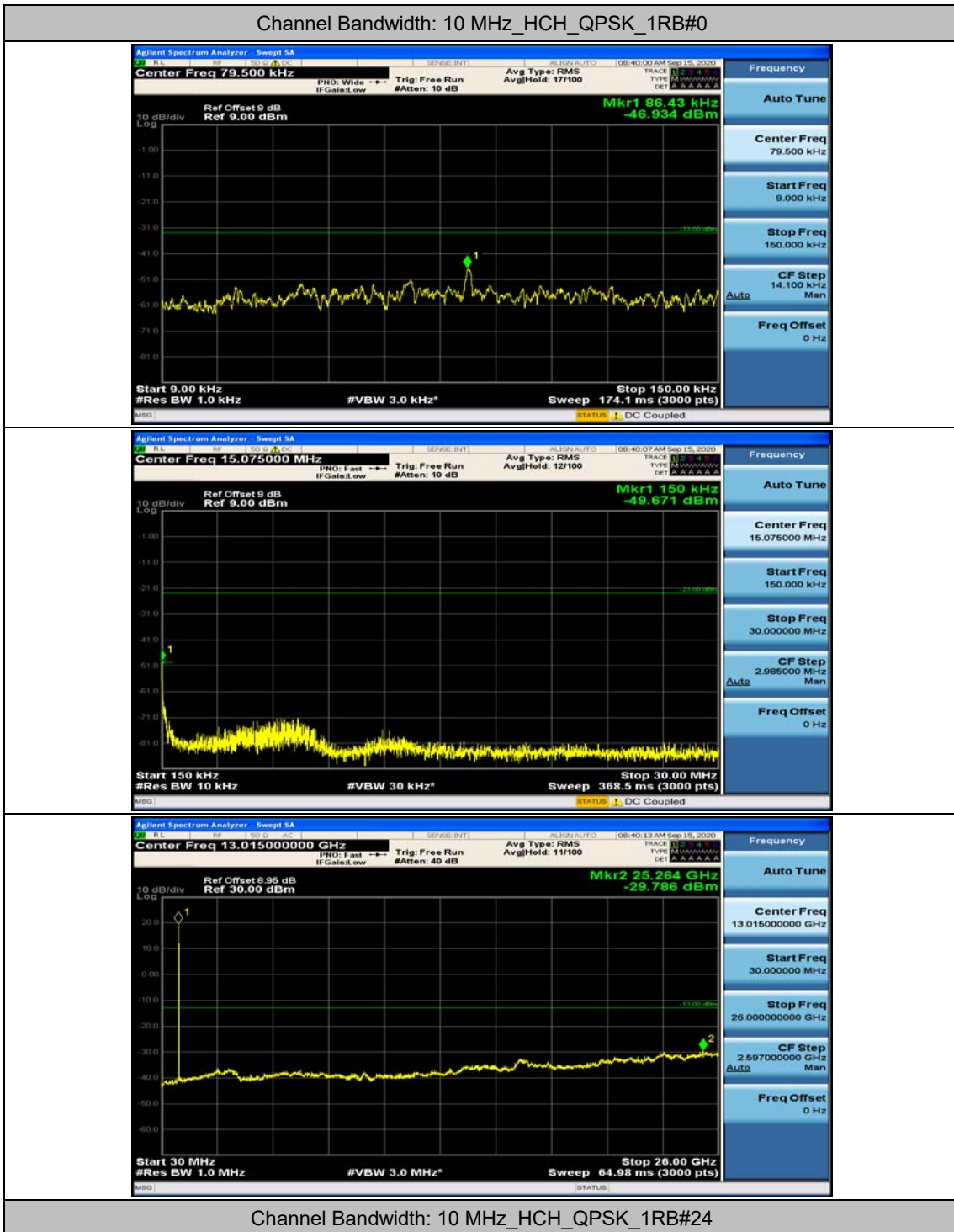


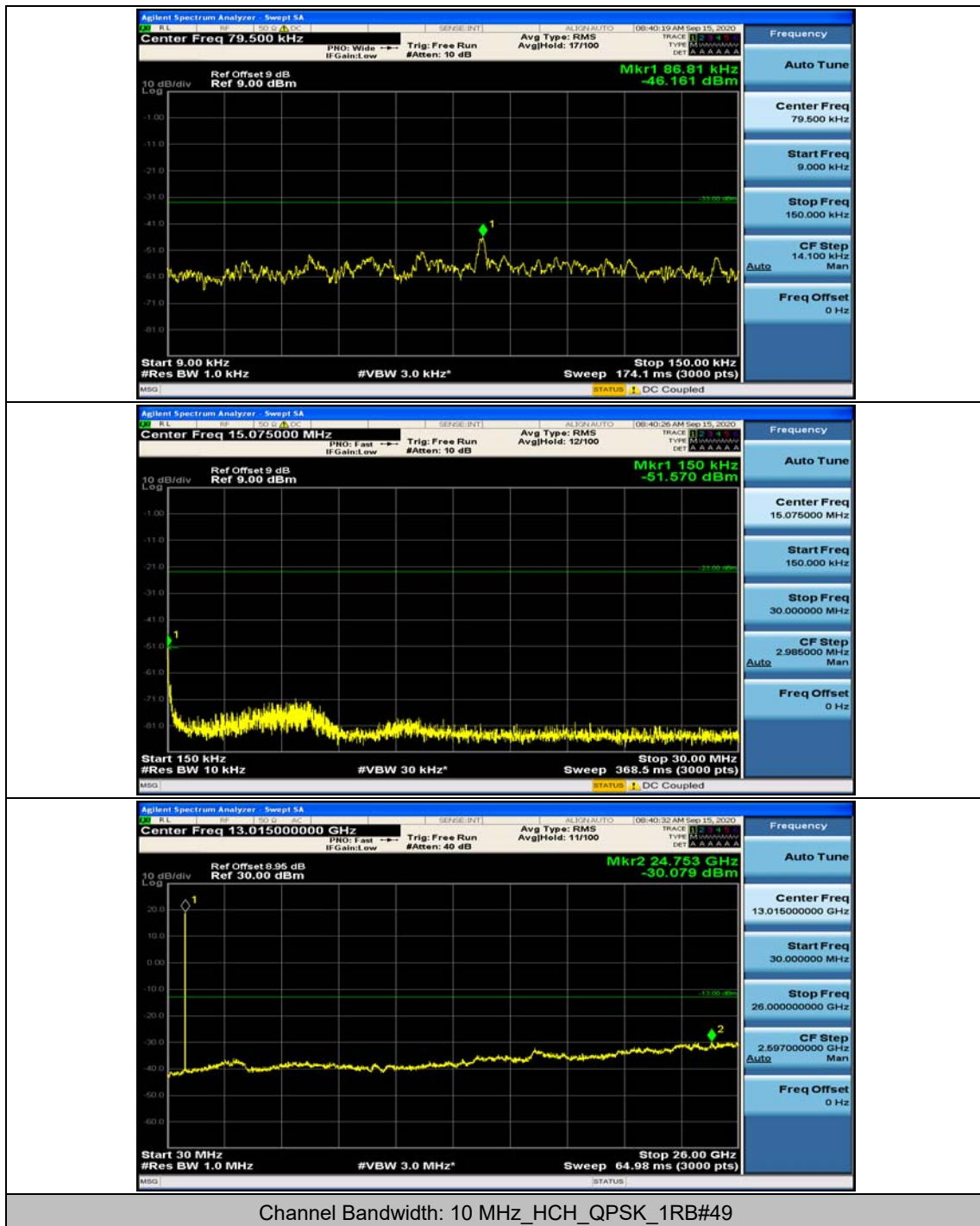


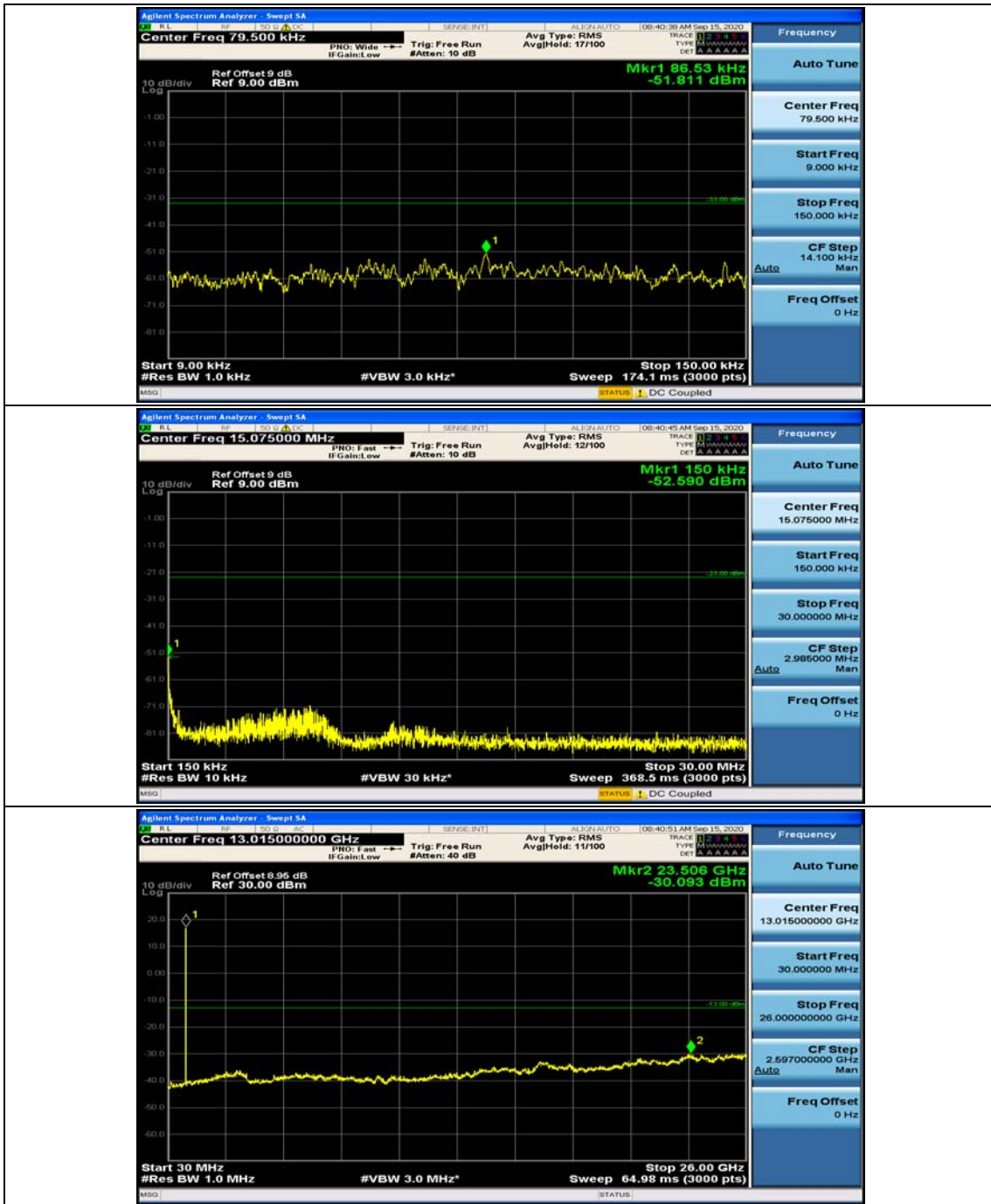


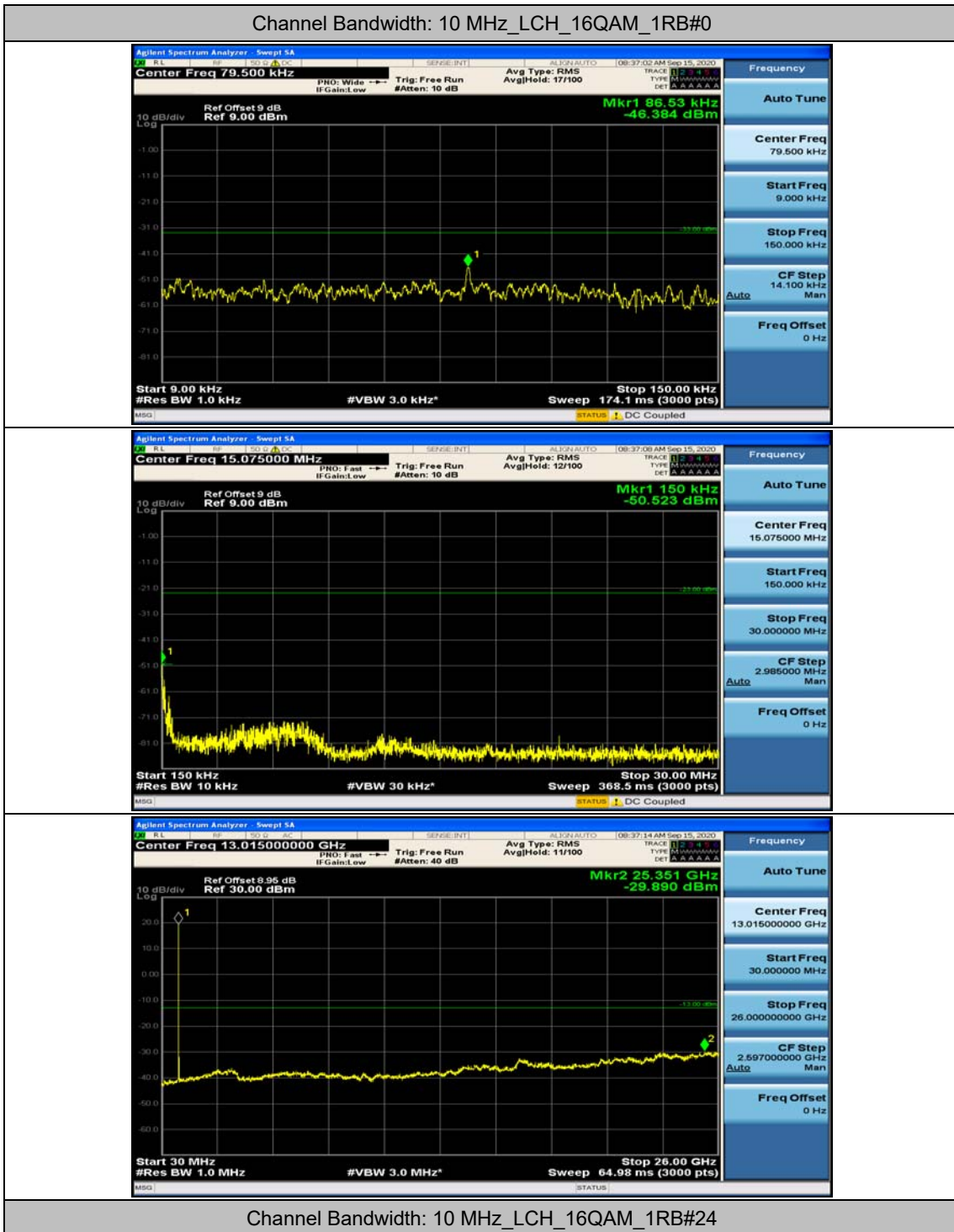


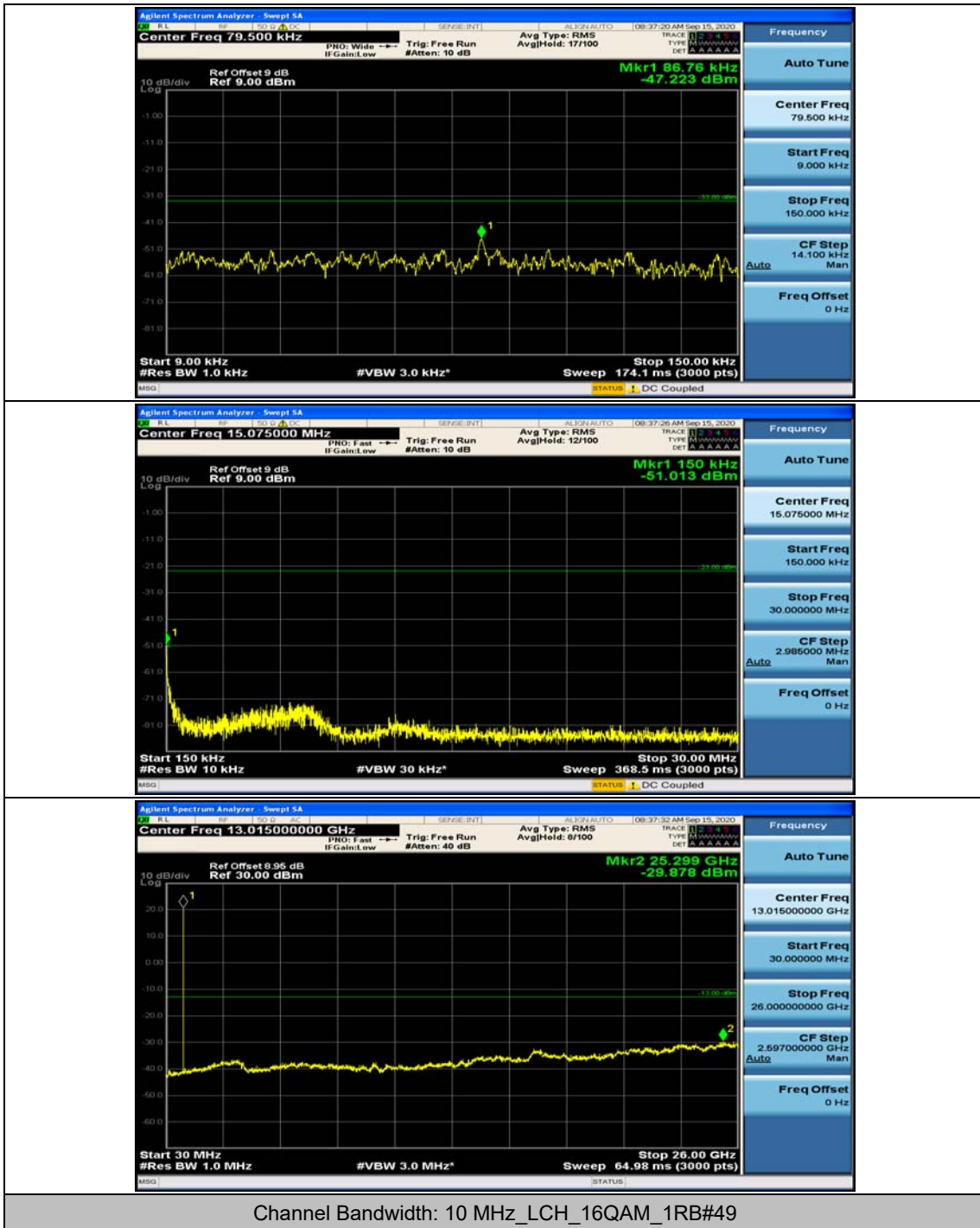


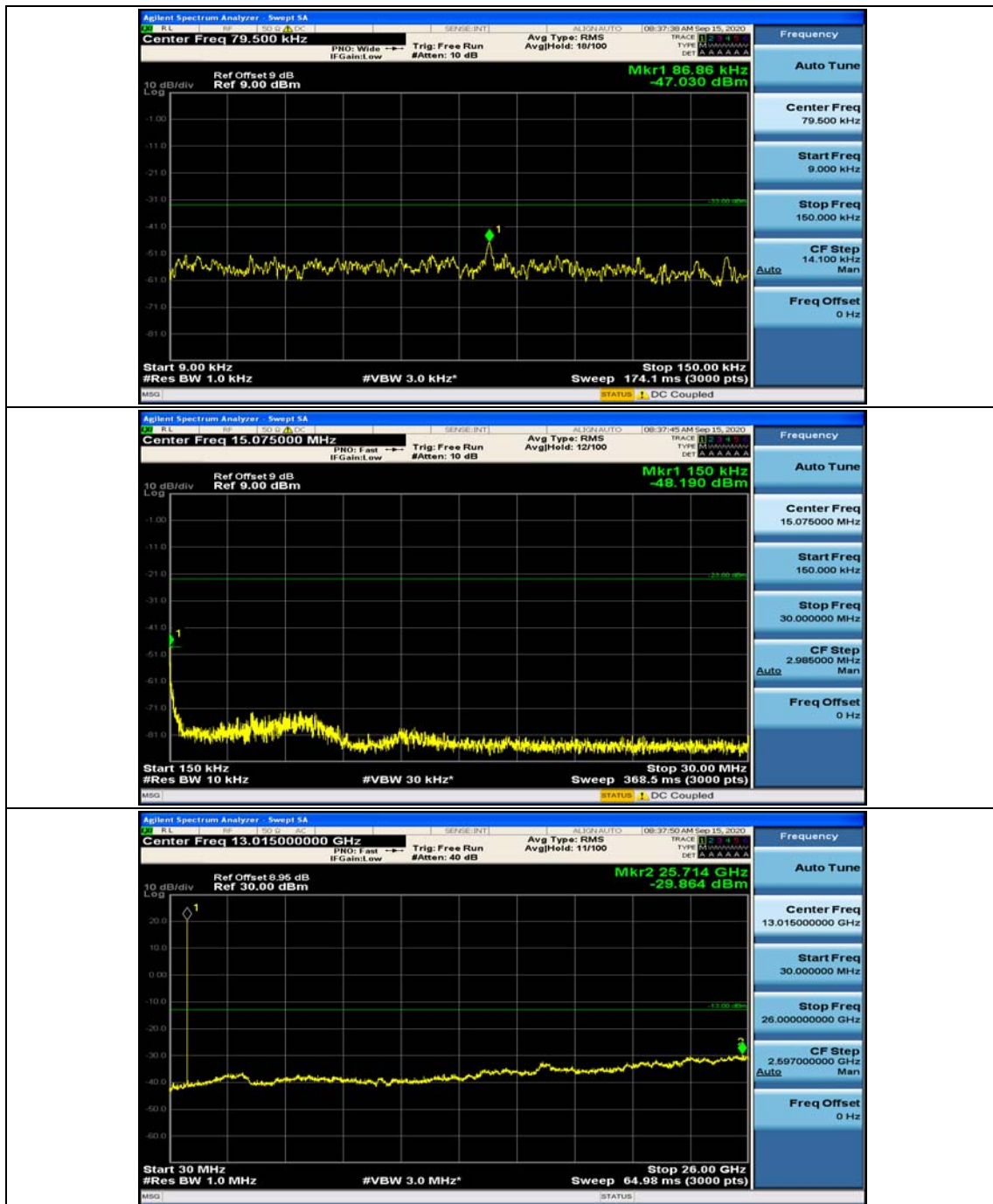


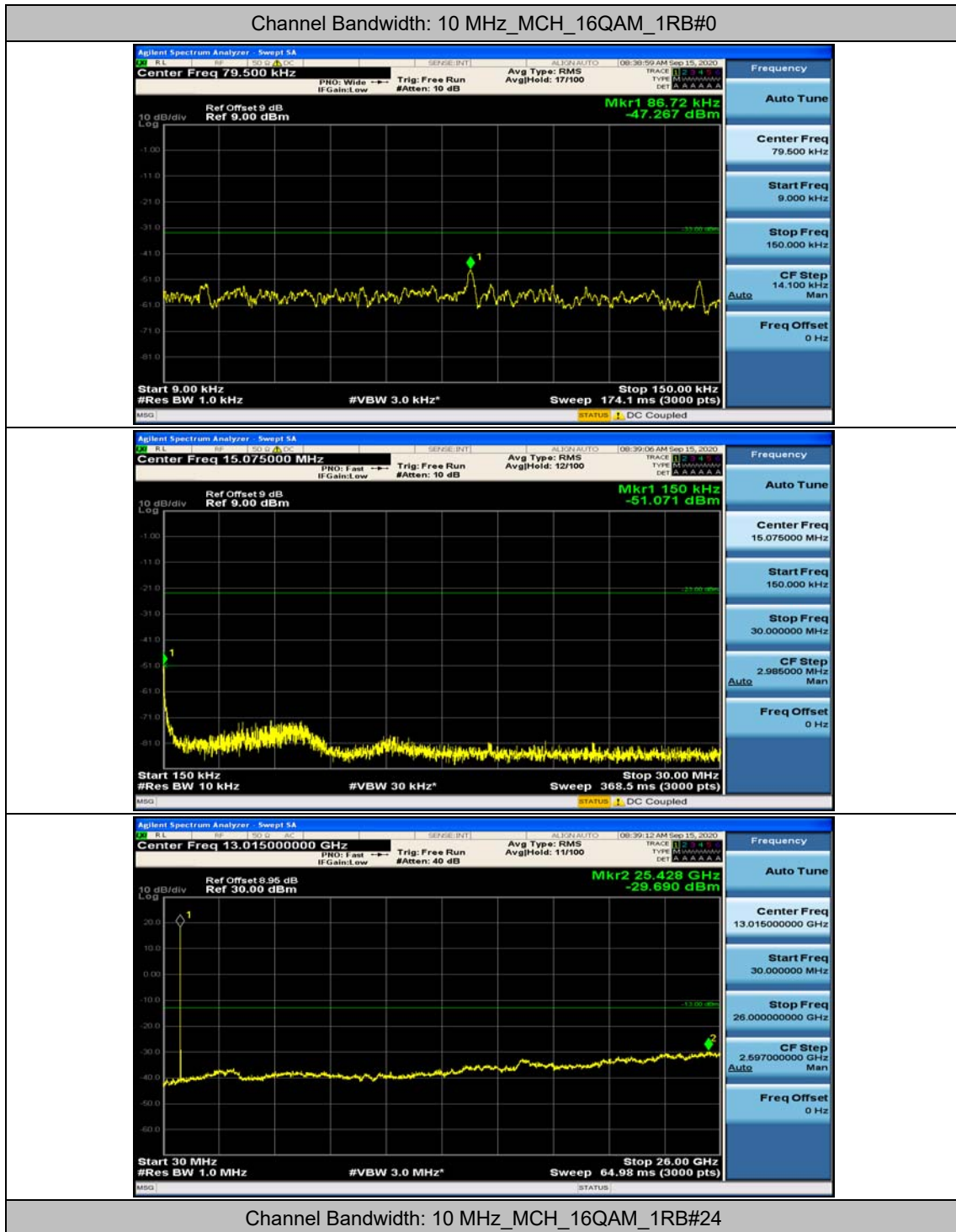


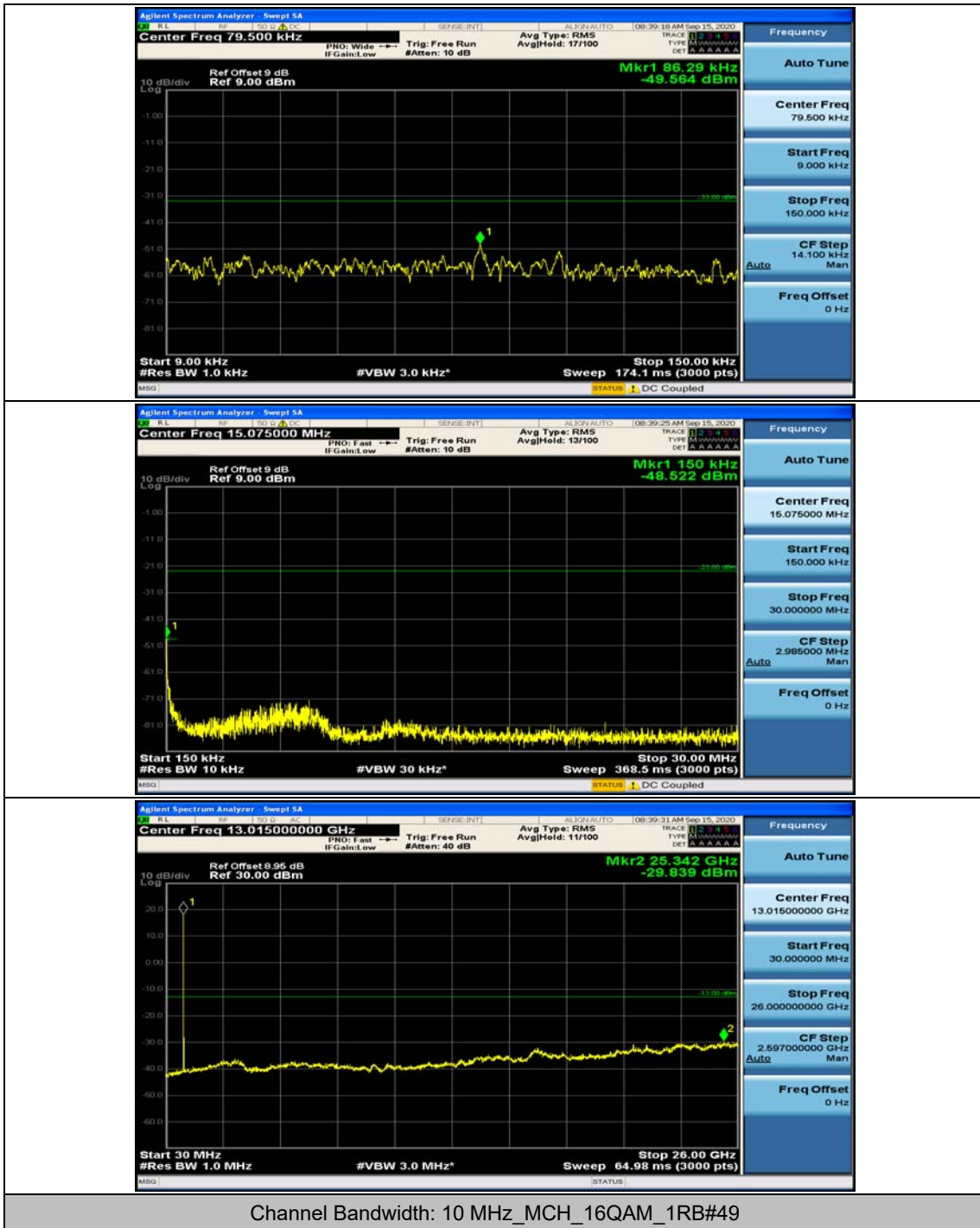


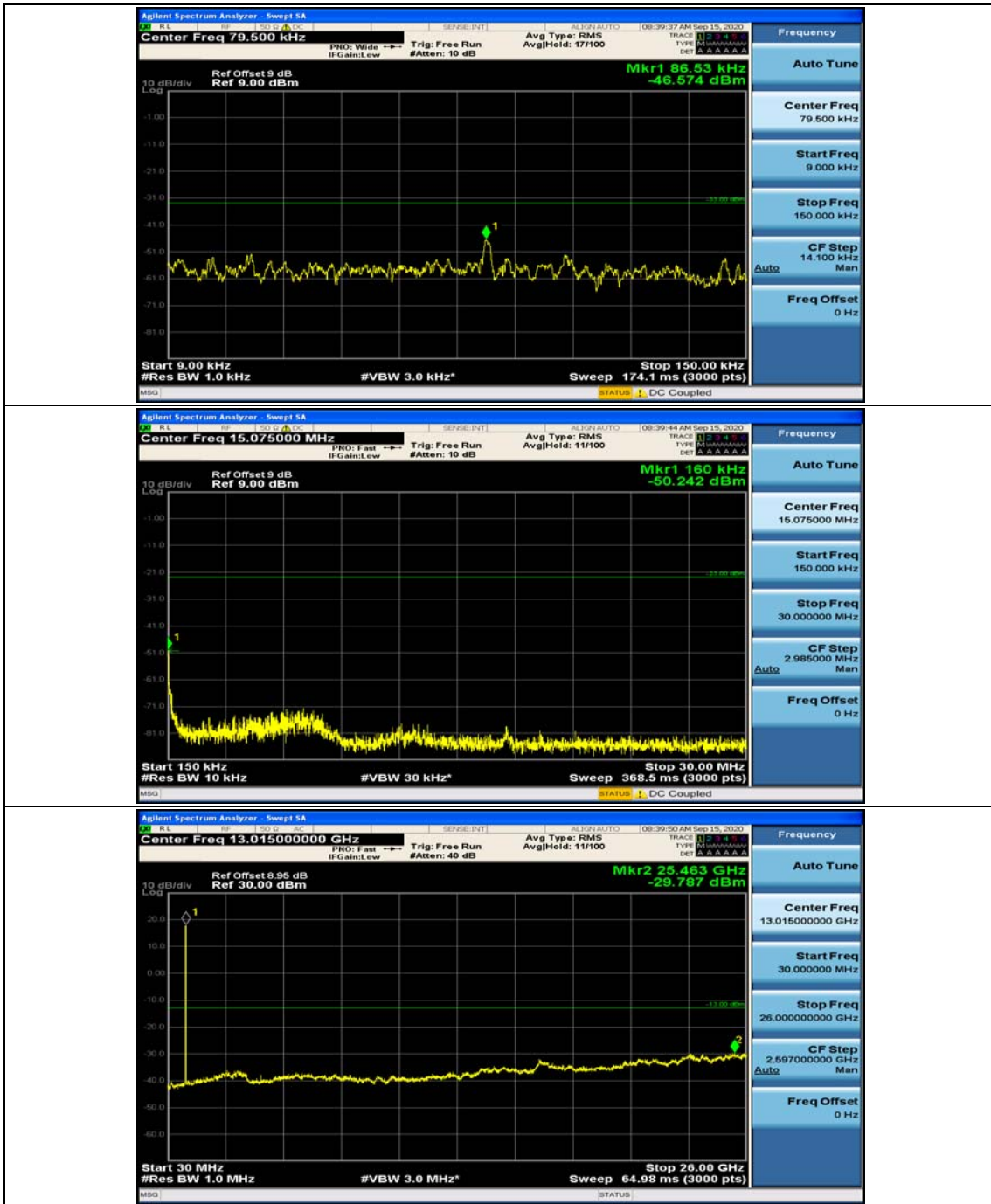


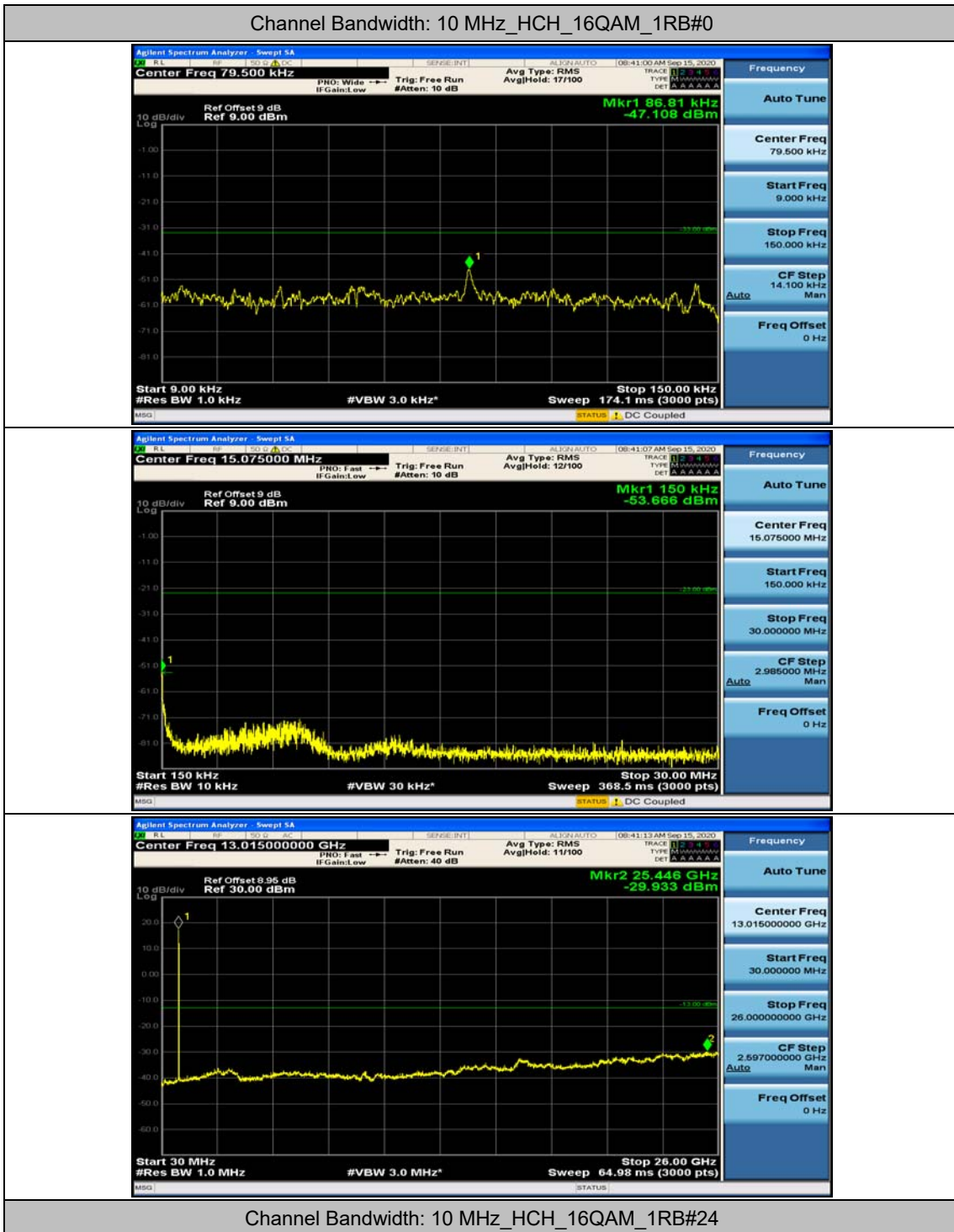


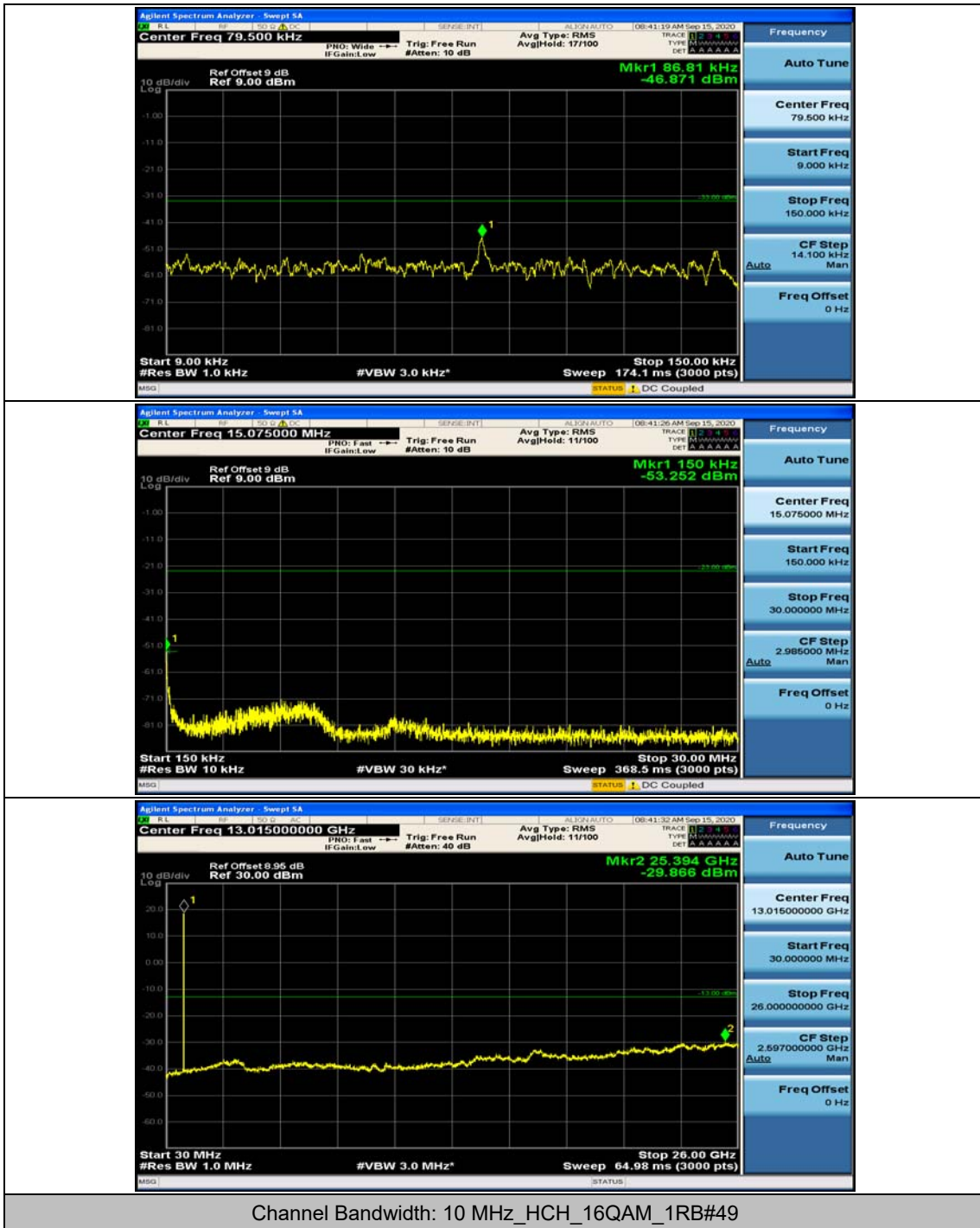


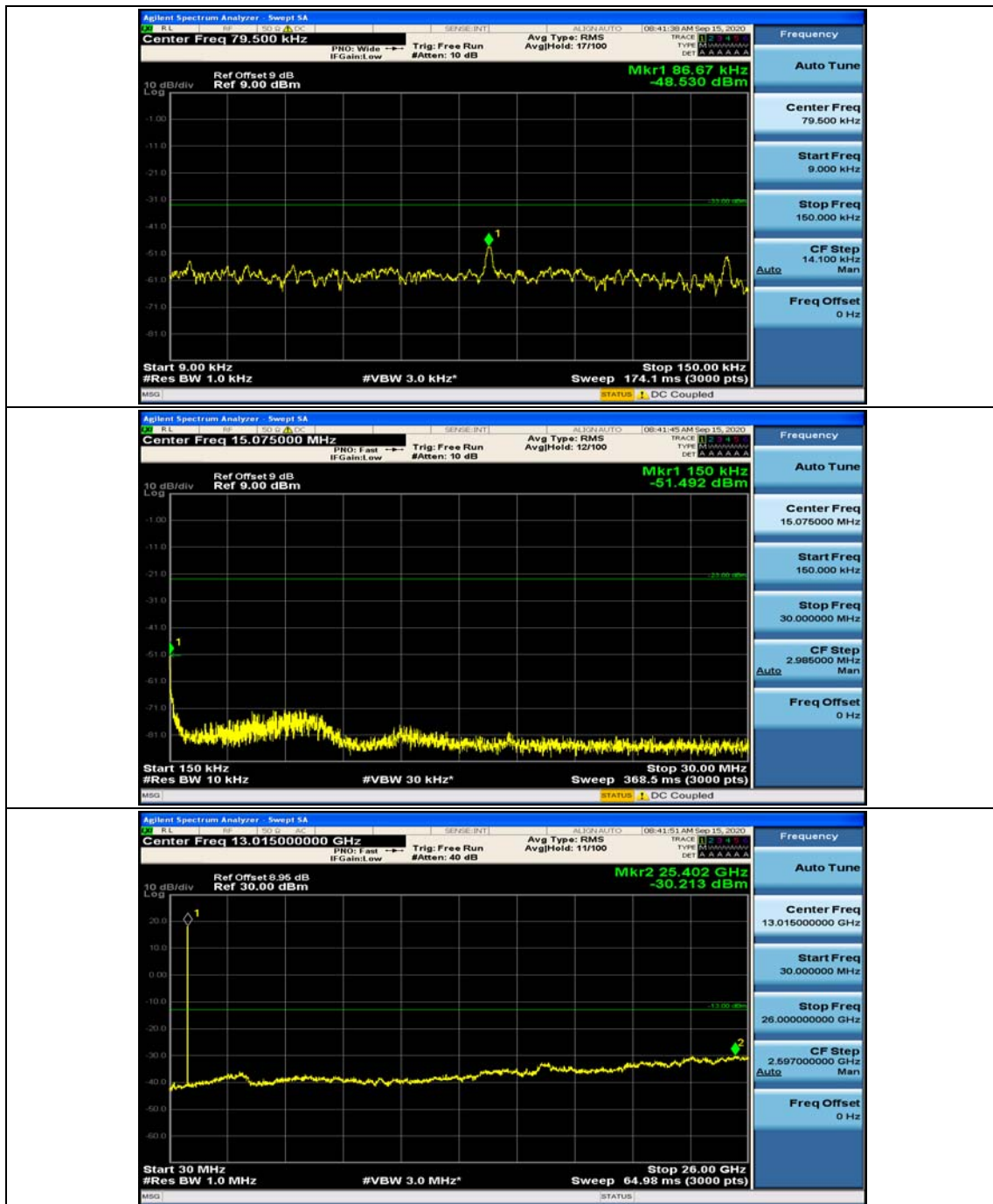












Appendix F: Frequency Stability

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	2.77	0.003359	± 2.5	PASS
		VN	TN	2.82	0.003419	± 2.5	PASS
		VH	TN	2.63	0.003189	± 2.5	PASS
	MCH	VL	TN	0.4	0.000478	± 2.5	PASS
		VN	TN	3.24	0.003873	± 2.5	PASS
		VH	TN	2.22	0.002654	± 2.5	PASS
	HCH	VL	TN	4.89	0.005764	± 2.5	PASS
		VN	TN	-0.74	-0.000872	± 2.5	PASS
		VH	TN	2.96	0.003489	± 2.5	PASS
16QAM	LCH	VL	TN	3.96	0.004802	± 2.5	PASS
		VN	TN	4.91	0.005954	± 2.5	PASS
		VH	TN	4.21	0.005105	± 2.5	PASS
	MCH	VL	TN	4.74	0.005666	± 2.5	PASS
		VN	TN	-1.81	-0.002164	± 2.5	PASS
		VH	TN	0.96	0.001148	± 2.5	PASS
	HCH	VL	TN	0.3	0.000354	± 2.5	PASS
		VN	TN	-1.39	-0.001639	± 2.5	PASS
		VH	TN	1.74	0.002051	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.15	0.002607	± 2.5	PASS
		VN	-20	3.19	0.003868	± 2.5	PASS
		VN	-10	1.48	0.001795	± 2.5	PASS
		VN	0	2.61	0.003165	± 2.5	PASS
		VN	10	-1.94	-0.002352	± 2.5	PASS
		VN	20	-1.31	-0.001588	± 2.5	PASS
		VN	30	2.42	0.002934	± 2.5	PASS
		VN	40	-0.58	-0.000703	± 2.5	PASS
		VN	50	2.29	0.002777	± 2.5	PASS

	MCH	VN	-30	2.5	0.002989	± 2.5	PASS
		VN	-20	4.73	0.005655	± 2.5	PASS
		VN	-10	-1.74	-0.002080	± 2.5	PASS
		VN	0	2.36	0.002821	± 2.5	PASS
		VN	10	4.69	0.005607	± 2.5	PASS
		VN	20	3.29	0.003933	± 2.5	PASS
		VN	30	-0.09	-0.000108	± 2.5	PASS
		VN	40	-1.81	-0.002164	± 2.5	PASS
		VN	50	-1.39	-0.001662	± 2.5	PASS
	HCH	VN	-30	0.38	0.000448	± 2.5	PASS
		VN	-20	0.8	0.000943	± 2.5	PASS
		VN	-10	3.59	0.004232	± 2.5	PASS
		VN	0	-1.04	-0.001226	± 2.5	PASS
		VN	10	-1.75	-0.002063	± 2.5	PASS
		VN	20	2.04	0.002405	± 2.5	PASS
		VN	30	2.14	0.002523	± 2.5	PASS
		VN	40	-1.56	-0.001839	± 2.5	PASS
		VN	50	-1.13	-0.001332	± 2.5	PASS
16QAM	LCH	VN	-30	0.72	0.000873	± 2.5	PASS
		VN	-20	2.02	0.002449	± 2.5	PASS
		VN	-10	0.93	0.001128	± 2.5	PASS
		VN	0	3.75	0.004547	± 2.5	PASS
		VN	10	2.38	0.002886	± 2.5	PASS
		VN	20	4.81	0.005832	± 2.5	PASS
		VN	30	-0.05	-0.000061	± 2.5	PASS
		VN	40	3.87	0.004693	± 2.5	PASS
		VN	50	1.03	0.001249	± 2.5	PASS
	MCH	VN	-30	2.61	0.003077	± 2.5	PASS
		VN	-20	-0.98	-0.001155	± 2.5	PASS
		VN	-10	2.49	0.002935	± 2.5	PASS
		VN	0	1.39	0.001639	± 2.5	PASS
		VN	10	-1.71	-0.002016	± 2.5	PASS
		VN	20	-0.24	-0.000283	± 2.5	PASS
		VN	30	-0.85	-0.001002	± 2.5	PASS
		VN	40	1.5	0.001768	± 2.5	PASS
		VN	50	4.9	0.005776	± 2.5	PASS
	HCH	VN	-30	2.95	0.003478	± 2.5	PASS
		VN	-20	-0.79	-0.000931	± 2.5	PASS
		VN	-10	-1.94	-0.002287	± 2.5	PASS
		VN	0	1.23	0.001450	± 2.5	PASS
		VN	10	3.77	0.004444	± 2.5	PASS

		VN	20	2.51	0.002959	± 2.5	PASS
		VN	30	-0.53	-0.000625	± 2.5	PASS
		VN	40	0.19	0.000224	± 2.5	PASS
		VN	50	4.12	0.004857	± 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	2.77	0.003356	± 2.5	PASS
		VN	TN	4.84	0.005863	± 2.5	PASS
		VH	TN	2.58	0.003125	± 2.5	PASS
	MCH	VL	TN	-0.84	-0.001004	± 2.5	PASS
		VN	TN	0.34	0.000406	± 2.5	PASS
		VH	TN	0.07	0.000084	± 2.5	PASS
	HCH	VL	TN	1.17	0.001381	± 2.5	PASS
		VN	TN	-1.23	-0.001451	± 2.5	PASS
		VH	TN	2.47	0.002914	± 2.5	PASS
16QAM	LCH	VL	TN	-0.33	-0.000400	± 2.5	PASS
		VN	TN	4.88	0.005912	± 2.5	PASS
		VH	TN	2.47	0.002992	± 2.5	PASS
	MCH	VL	TN	2.02	0.002415	± 2.5	PASS
		VN	TN	3.2	0.003825	± 2.5	PASS
		VH	TN	-0.07	-0.000084	± 2.5	PASS
	HCH	VL	TN	-1.32	-0.001558	± 2.5	PASS
		VN	TN	4.45	0.005251	± 2.5	PASS
		VH	TN	2.33	0.002749	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.39	-0.000472	± 2.5	PASS
		VN	-20	-1	-0.001211	± 2.5	PASS
		VN	-10	-1.62	-0.001962	± 2.5	PASS
		VN	0	0.29	0.000351	± 2.5	PASS
		VN	10	2.21	0.002677	± 2.5	PASS
		VN	20	-0.99	-0.001199	± 2.5	PASS
		VN	30	-0.05	-0.000061	± 2.5	PASS
		VN	40	1.98	0.002399	± 2.5	PASS
		VN	50	3.98	0.004821	± 2.5	PASS
	MCH	VN	-30	3.89	0.004650	± 2.5	PASS

	VN	VN	-20	-1.66	-0.001984	± 2.5	PASS
		VN	-10	0.91	0.001088	± 2.5	PASS
		VN	0	-1.02	-0.001219	± 2.5	PASS
		VN	10	-1.47	-0.001757	± 2.5	PASS
		VN	20	1.67	0.001996	± 2.5	PASS
		VN	30	0.85	0.001016	± 2.5	PASS
		VN	40	4.48	0.005356	± 2.5	PASS
		VN	50	-0.63	-0.000753	± 2.5	PASS
	HCH	VN	-30	3.41	0.004024	± 2.5	PASS
		VN	-20	-1.94	-0.002289	± 2.5	PASS
		VN	-10	2.44	0.002879	± 2.5	PASS
		VN	0	1.74	0.002053	± 2.5	PASS
		VN	10	2.6	0.003068	± 2.5	PASS
		VN	20	0.05	0.000059	± 2.5	PASS
		VN	30	3.42	0.004035	± 2.5	PASS
		VN	40	-1.08	-0.001274	± 2.5	PASS
		VN	50	3.03	0.003575	± 2.5	PASS
		16QAM	LCH	VN	-30	1.6	0.001913
VN	-20			-1.89	-0.002259	± 2.5	PASS
VN	-10			0.56	0.000669	± 2.5	PASS
VN	0			-1.31	-0.001566	± 2.5	PASS
VN	10			0.87	0.001040	± 2.5	PASS
VN	20			-1.13	-0.001351	± 2.5	PASS
VN	30			3.96	0.004734	± 2.5	PASS
VN	40			3.19	0.003814	± 2.5	PASS
VN	50			0.4	0.000478	± 2.5	PASS
MCH	VN		-30	2.36	0.002785	± 2.5	PASS
	VN		-20	2.39	0.002820	± 2.5	PASS
	VN		-10	4.98	0.005876	± 2.5	PASS
	VN		0	-1.11	-0.001310	± 2.5	PASS
	VN		10	-1.94	-0.002289	± 2.5	PASS
	VN		20	-1.62	-0.001912	± 2.5	PASS
	VN		30	-1.56	-0.001841	± 2.5	PASS
	VN		40	-1.91	-0.002254	± 2.5	PASS
	VN		50	4.72	0.005569	± 2.5	PASS
HCH	VN		-30	-1.17	-0.001381	± 2.5	PASS
	VN		-20	2.66	0.003139	± 2.5	PASS
	VN		-10	3.67	0.004330	± 2.5	PASS
	VN		0	5	0.005900	± 2.5	PASS
	VN		10	3.58	0.004224	± 2.5	PASS
	VN		20	-1.88	-0.002218	± 2.5	PASS

		VN	30	4.67	0.005510	± 2.5	PASS
		VN	40	-1.88	-0.002218	± 2.5	PASS
		VN	50	0.24	0.000283	± 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	2.77	0.003351	± 2.5	PASS
		VN	TN	4.56	0.005517	± 2.5	PASS
		VH	TN	2.55	0.003085	± 2.5	PASS
	MCH	VL	TN	-0.79	-0.000944	± 2.5	PASS
		VN	TN	-0.07	-0.000084	± 2.5	PASS
		VH	TN	1.14	0.001363	± 2.5	PASS
	HCH	VL	TN	4.61	0.005446	± 2.5	PASS
		VN	TN	-1.85	-0.002185	± 2.5	PASS
		VH	TN	4.1	0.004843	± 2.5	PASS
16QAM	LCH	VL	TN	2.97	0.003593	± 2.5	PASS
		VN	TN	4.5	0.005445	± 2.5	PASS
		VH	TN	3.16	0.003823	± 2.5	PASS
	MCH	VL	TN	0.07	0.000084	± 2.5	PASS
		VN	TN	4.22	0.005045	± 2.5	PASS
		VH	TN	-0.33	-0.000395	± 2.5	PASS
	HCH	VL	TN	4.5	0.005316	± 2.5	PASS
		VN	TN	3.75	0.004430	± 2.5	PASS
		VH	TN	1.65	0.001949	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.24	0.005130	± 2.5	PASS
		VN	-20	-1.49	-0.001803	± 2.5	PASS
		VN	-10	0.75	0.000907	± 2.5	PASS
		VN	0	2.38	0.002880	± 2.5	PASS
		VN	10	-0.85	-0.001028	± 2.5	PASS
		VN	20	1.52	0.001839	± 2.5	PASS
		VN	30	0.17	0.000206	± 2.5	PASS
		VN	40	-1.47	-0.001779	± 2.5	PASS
		VN	50	3.2	0.003872	± 2.5	PASS
	MCH	VN	-30	1.55	0.001853	± 2.5	PASS
		VN	-20	-0.45	-0.000538	± 2.5	PASS

		VN	-10	-0.85	-0.001016	± 2.5	PASS		
		VN	0	-0.44	-0.000526	± 2.5	PASS		
		VN	10	1.43	0.001710	± 2.5	PASS		
		VN	20	-0.91	-0.001088	± 2.5	PASS		
		VN	30	2.12	0.002534	± 2.5	PASS		
		VN	40	1.73	0.002068	± 2.5	PASS		
		VN	50	0.33	0.000395	± 2.5	PASS		
	HCH	VN	-30	0.05	0.000059	± 2.5	PASS		
		VN	-20	3.15	0.003721	± 2.5	PASS		
		VN	-10	3.58	0.004229	± 2.5	PASS		
		VN	0	-0.16	-0.000189	± 2.5	PASS		
		VN	10	1.17	0.001382	± 2.5	PASS		
		VN	20	-0.52	-0.000614	± 2.5	PASS		
		VN	30	0.66	0.000780	± 2.5	PASS		
		VN	40	3.28	0.003875	± 2.5	PASS		
		VN	50	4.13	0.004879	± 2.5	PASS		
		16QAM	LCH	VN	-30	-0.93	-0.001112	± 2.5	PASS
				VN	-20	3.43	0.004100	± 2.5	PASS
				VN	-10	4.76	0.005690	± 2.5	PASS
VN	0			4.81	0.005750	± 2.5	PASS		
VN	10			-0.76	-0.000909	± 2.5	PASS		
VN	20			1.5	0.001793	± 2.5	PASS		
VN	30			3.68	0.004399	± 2.5	PASS		
VN	40			-1.62	-0.001937	± 2.5	PASS		
VN	50			1.6	0.001913	± 2.5	PASS		
MCH	VN		-30	1.4	0.001654	± 2.5	PASS		
	VN		-20	1.54	0.001819	± 2.5	PASS		
	VN		-10	1.3	0.001536	± 2.5	PASS		
	VN		0	4.87	0.005753	± 2.5	PASS		
	VN		10	1.28	0.001512	± 2.5	PASS		
	VN		20	2.31	0.002729	± 2.5	PASS		
	VN		30	-0.19	-0.000224	± 2.5	PASS		
	VN		40	0.64	0.000756	± 2.5	PASS		
	VN		50	-1.61	-0.001902	± 2.5	PASS		
HCH	VN		-30	1.98	0.002339	± 2.5	PASS		
	VN	-20	0.56	0.000662	± 2.5	PASS			
	VN	-10	-0.42	-0.000496	± 2.5	PASS			
	VN	0	0.18	0.000213	± 2.5	PASS			
	VN	10	3.12	0.003686	± 2.5	PASS			
	VN	20	3.44	0.004064	± 2.5	PASS			
	VN	30	1.88	0.002221	± 2.5	PASS			

		VN	40	3.07	0.003627	± 2.5	PASS
		VN	50	-1.07	-0.001264	± 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	2.77	0.003341	± 2.5	PASS
		VN	TN	2.2	0.002654	± 2.5	PASS
		VH	TN	0.72	0.000869	± 2.5	PASS
	MCH	VL	TN	-1.3	-0.001554	± 2.5	PASS
		VN	TN	2.92	0.003491	± 2.5	PASS
		VH	TN	-1.45	-0.001733	± 2.5	PASS
	HCH	VL	TN	-0.63	-0.000746	± 2.5	PASS
		VN	TN	1.37	0.001623	± 2.5	PASS
		VH	TN	3.01	0.003566	± 2.5	PASS
16QAM	LCH	VL	TN	4.23	0.005103	± 2.5	PASS
		VN	TN	0.44	0.000531	± 2.5	PASS
		VH	TN	-0.66	-0.000796	± 2.5	PASS
	MCH	VL	TN	-1.61	-0.001925	± 2.5	PASS
		VN	TN	-1.39	-0.001662	± 2.5	PASS
		VH	TN	-1.49	-0.001781	± 2.5	PASS
	HCH	VL	TN	2.35	0.002784	± 2.5	PASS
		VN	TN	1.61	0.001908	± 2.5	PASS
		VH	TN	0.35	0.000415	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.79	0.002159	± 2.5	PASS
		VN	-20	0.09	0.000109	± 2.5	PASS
		VN	-10	-1.76	-0.002123	± 2.5	PASS
		VN	0	4.92	0.005935	± 2.5	PASS
		VN	10	3.14	0.003788	± 2.5	PASS
		VN	20	4.39	0.005296	± 2.5	PASS
		VN	30	-0.58	-0.000700	± 2.5	PASS
		VN	40	-1.78	-0.002147	± 2.5	PASS
		VN	50	-0.38	-0.000458	± 2.5	PASS
	MCH	VN	-30	4.54	0.005427	± 2.5	PASS
		VN	-20	0.55	0.000658	± 2.5	PASS
		VN	-10	0.88	0.001052	± 2.5	PASS

		VN	0	1.4	0.001674	± 2.5	PASS		
		VN	10	4.61	0.005511	± 2.5	PASS		
		VN	20	-1.86	-0.002224	± 2.5	PASS		
		VN	30	3.72	0.004447	± 2.5	PASS		
		VN	40	3.08	0.003682	± 2.5	PASS		
		VN	50	4.4	0.005260	± 2.5	PASS		
	HCH	VN	-30	2.97	0.003519	± 2.5	PASS		
		VN	-20	-1.72	-0.002038	± 2.5	PASS		
		VN	-10	2.89	0.003424	± 2.5	PASS		
		VN	0	0.92	0.001090	± 2.5	PASS		
		VN	10	0.78	0.000924	± 2.5	PASS		
		VN	20	-1.21	-0.001434	± 2.5	PASS		
		VN	30	4.31	0.005107	± 2.5	PASS		
		VN	40	-0.32	-0.000379	± 2.5	PASS		
		VN	50	2.44	0.002891	± 2.5	PASS		
		16QAM	LCH	VN	-30	3.97	0.004746	± 2.5	PASS
				VN	-20	3.37	0.004029	± 2.5	PASS
				VN	-10	4.36	0.005212	± 2.5	PASS
VN	0			0.45	0.000538	± 2.5	PASS		
VN	10			-0.01	-0.000012	± 2.5	PASS		
VN	20			4.01	0.004794	± 2.5	PASS		
VN	30			-1.51	-0.001805	± 2.5	PASS		
VN	40			4.91	0.005870	± 2.5	PASS		
VN	50			1.58	0.001889	± 2.5	PASS		
MCH	VN		-30	-1.95	-0.002310	± 2.5	PASS		
	VN		-20	4.34	0.005142	± 2.5	PASS		
	VN		-10	4.09	0.004846	± 2.5	PASS		
	VN		0	-0.26	-0.000308	± 2.5	PASS		
	VN		10	1.85	0.002192	± 2.5	PASS		
	VN		20	1.38	0.001635	± 2.5	PASS		
	VN		30	0.27	0.000320	± 2.5	PASS		
	VN		40	0.75	0.000889	± 2.5	PASS		
	VN		50	2.8	0.003318	± 2.5	PASS		
HCH	VN	-30	2.53	0.002998	± 2.5	PASS			
	VN	-20	0.24	0.000284	± 2.5	PASS			
	VN	-10	3.03	0.003590	± 2.5	PASS			
	VN	0	4.33	0.005130	± 2.5	PASS			
	VN	10	2.61	0.003092	± 2.5	PASS			
	VN	20	1.72	0.002038	± 2.5	PASS			
	VN	30	2.21	0.002618	± 2.5	PASS			
	VN	40	1.66	0.001967	± 2.5	PASS			

		VN	50	2.72	0.003223	± 2.5	PASS
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