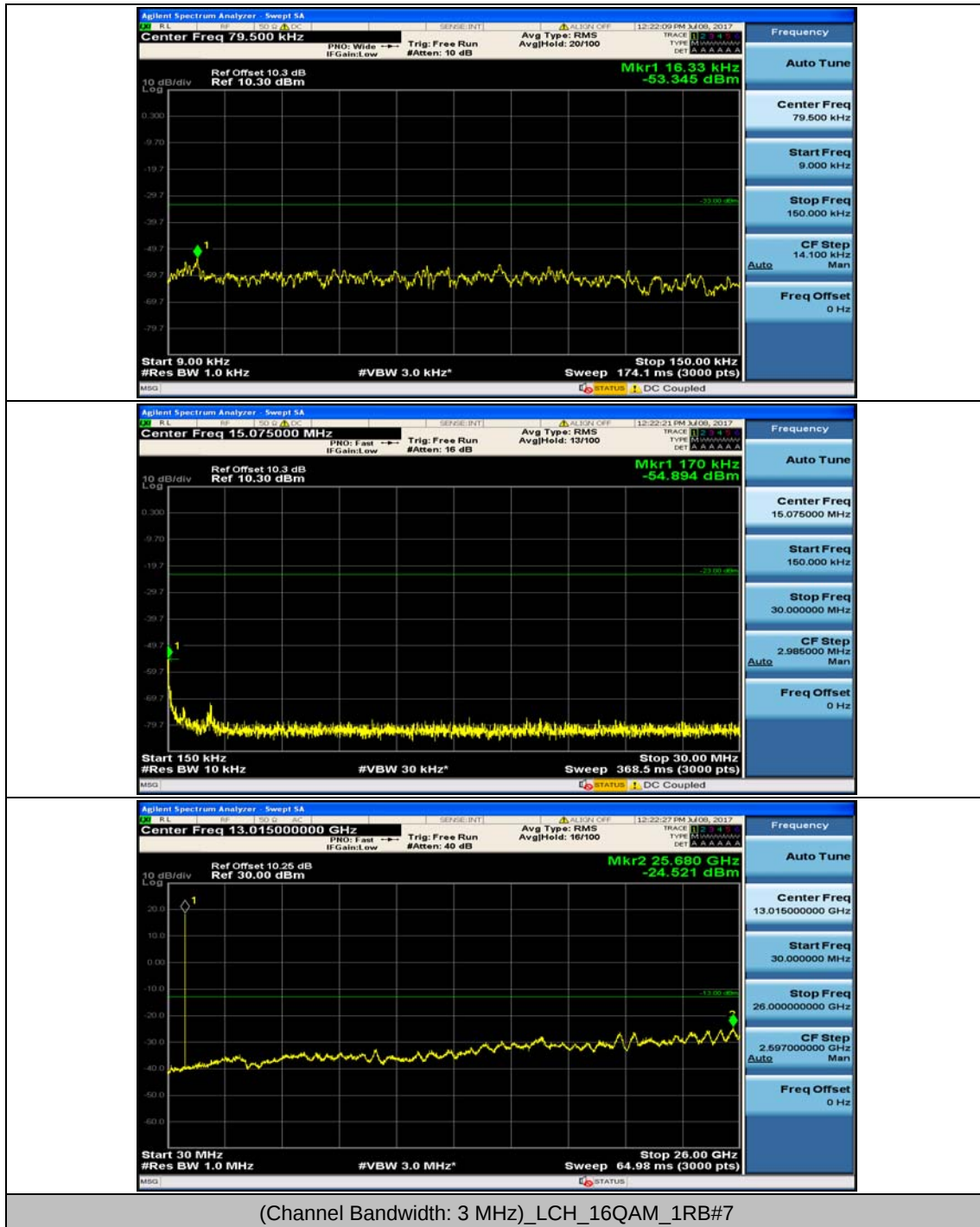
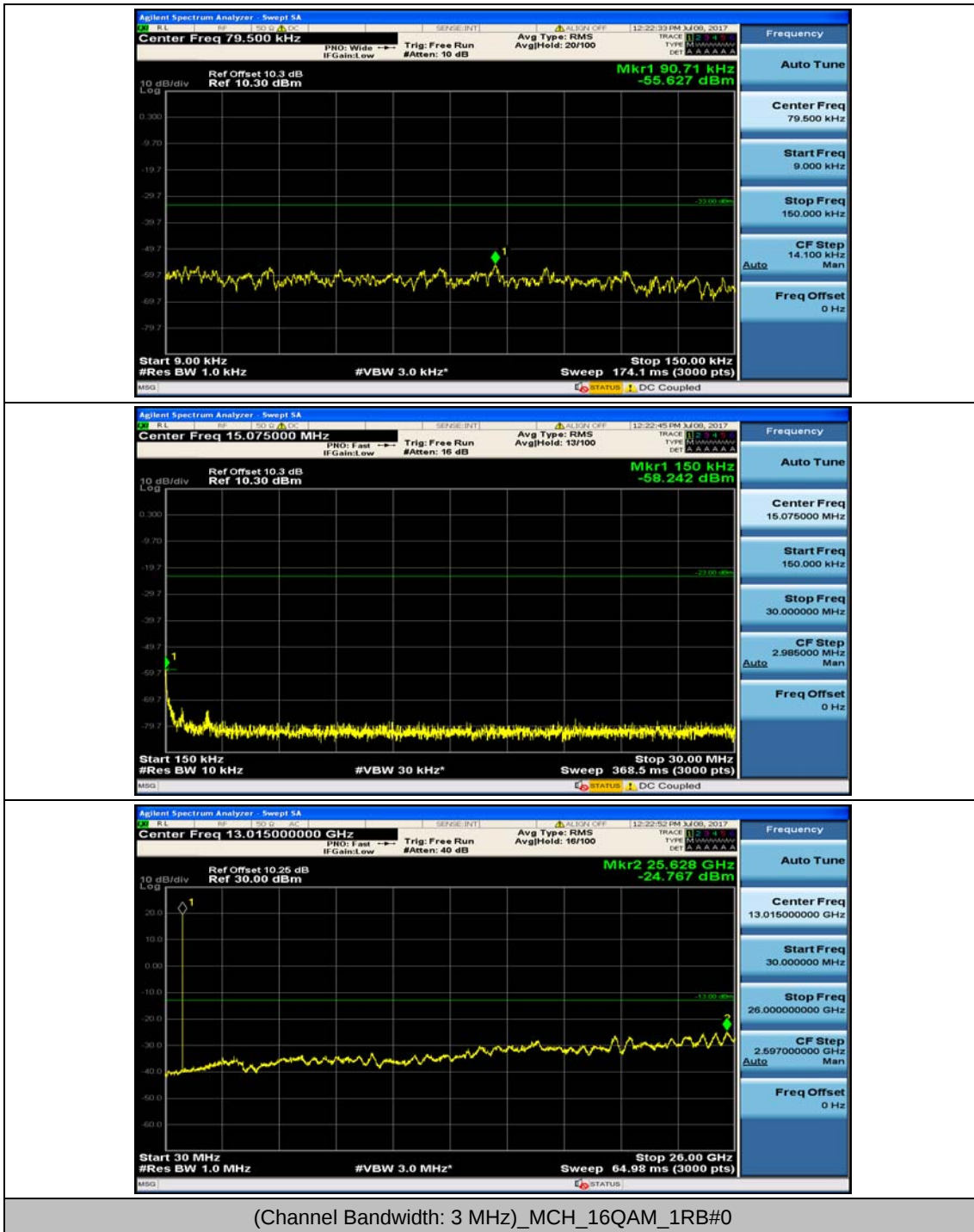
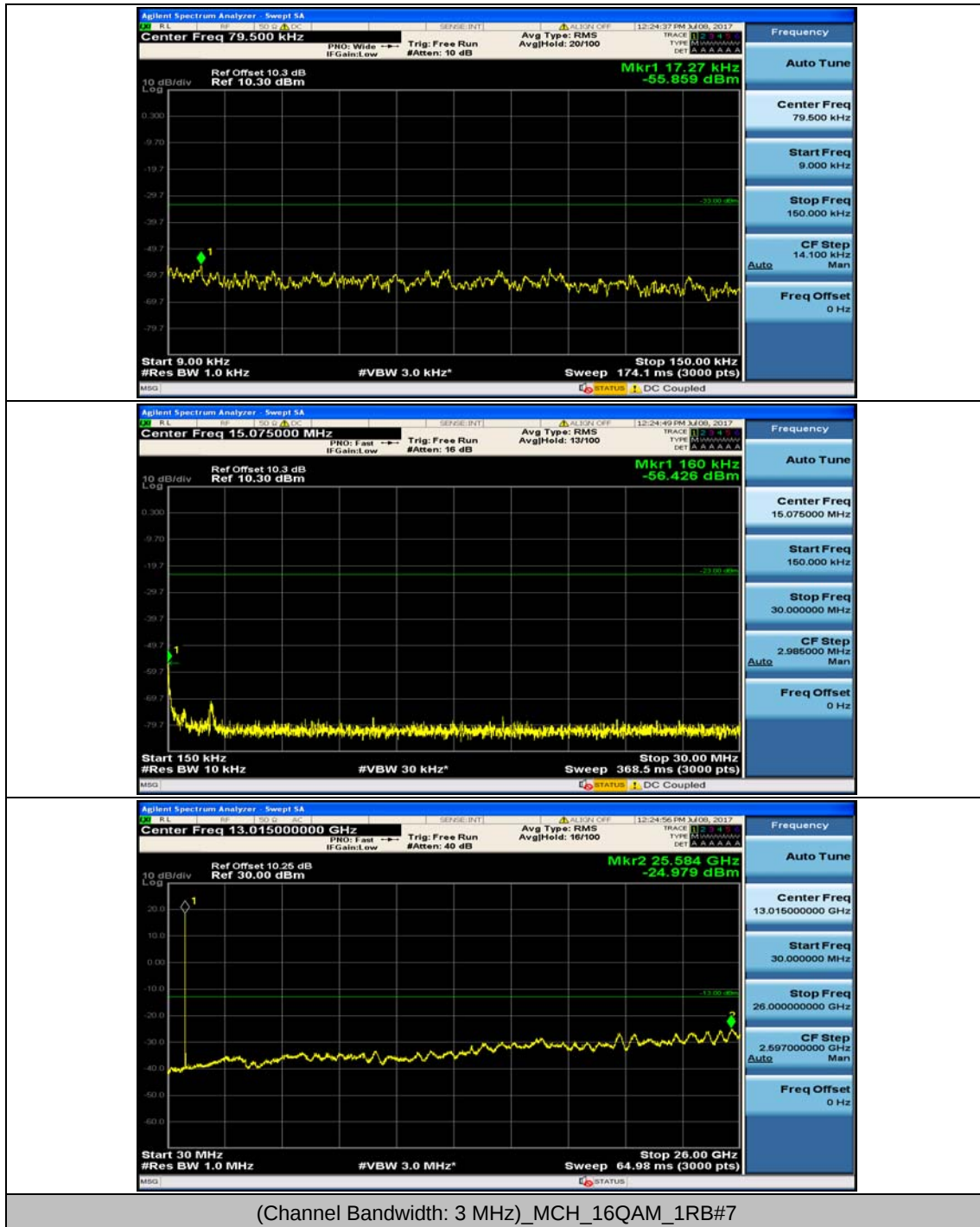
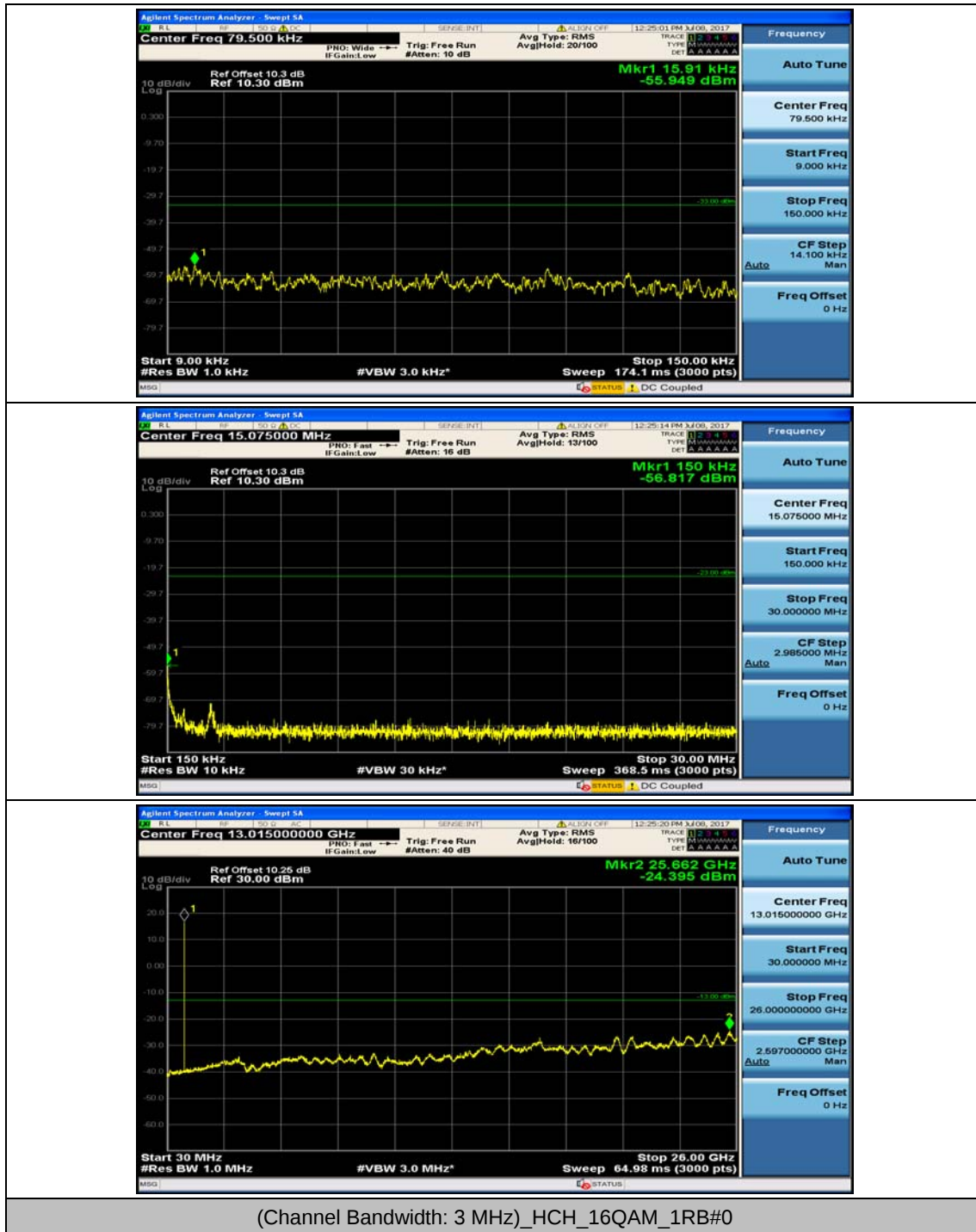
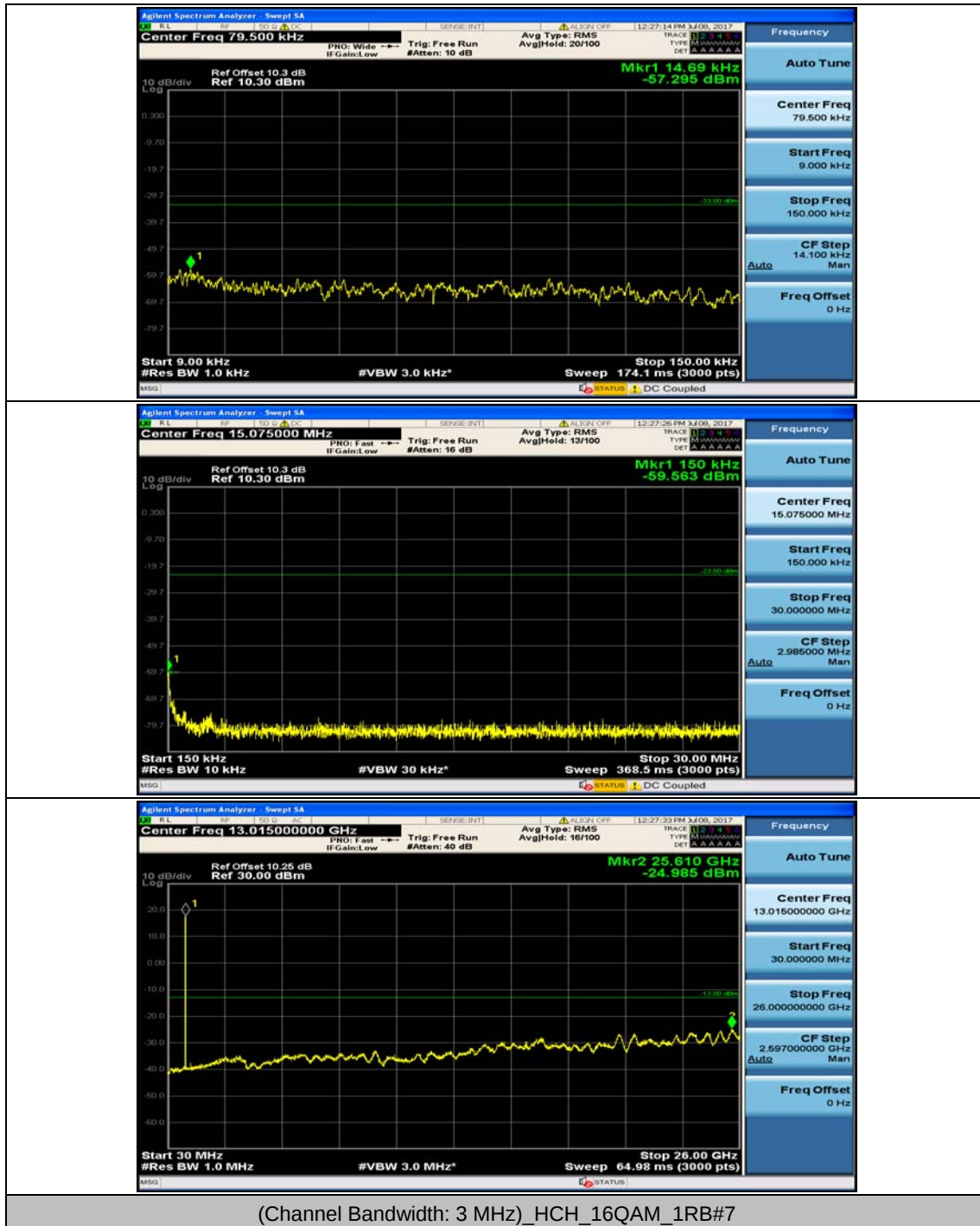


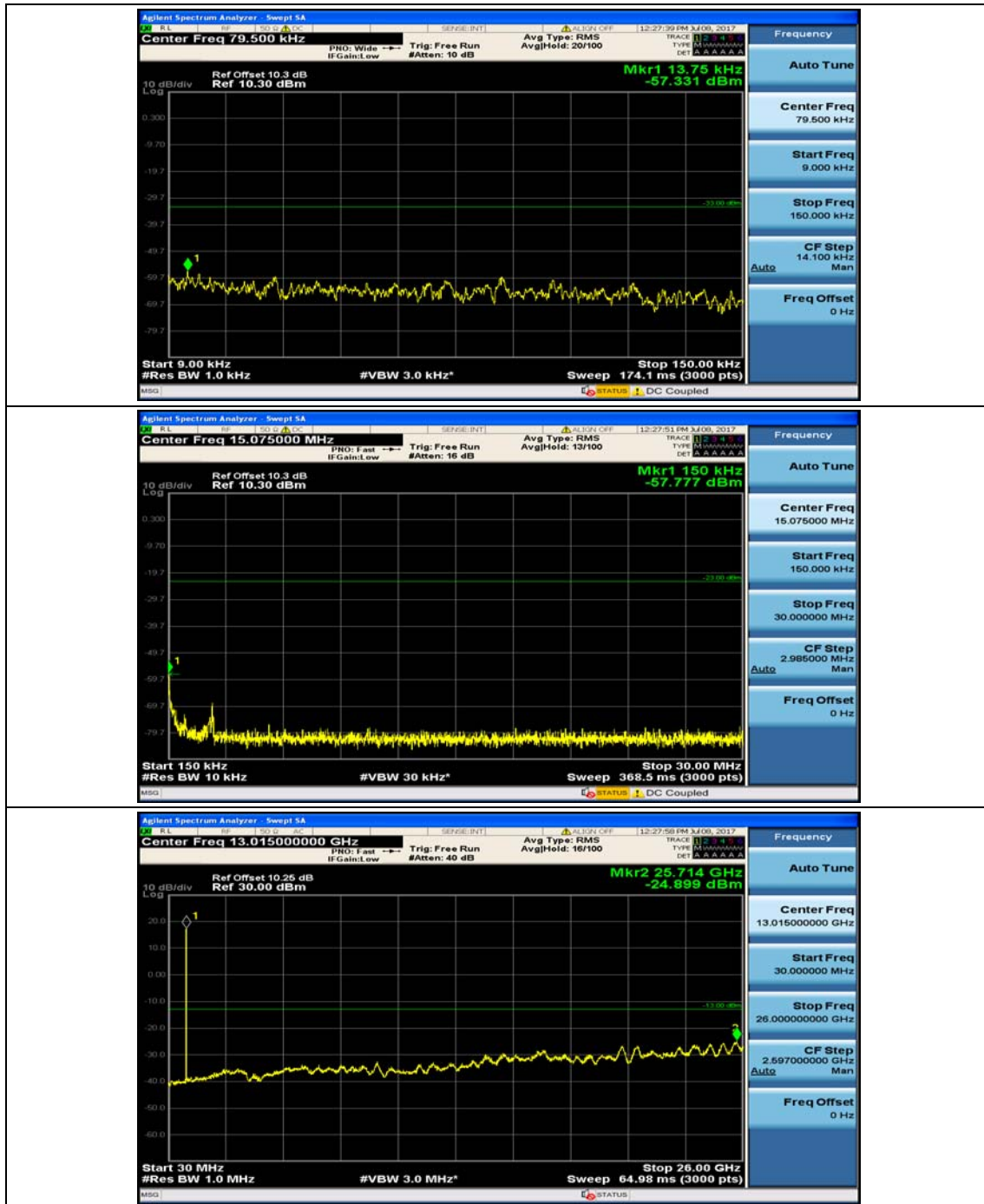




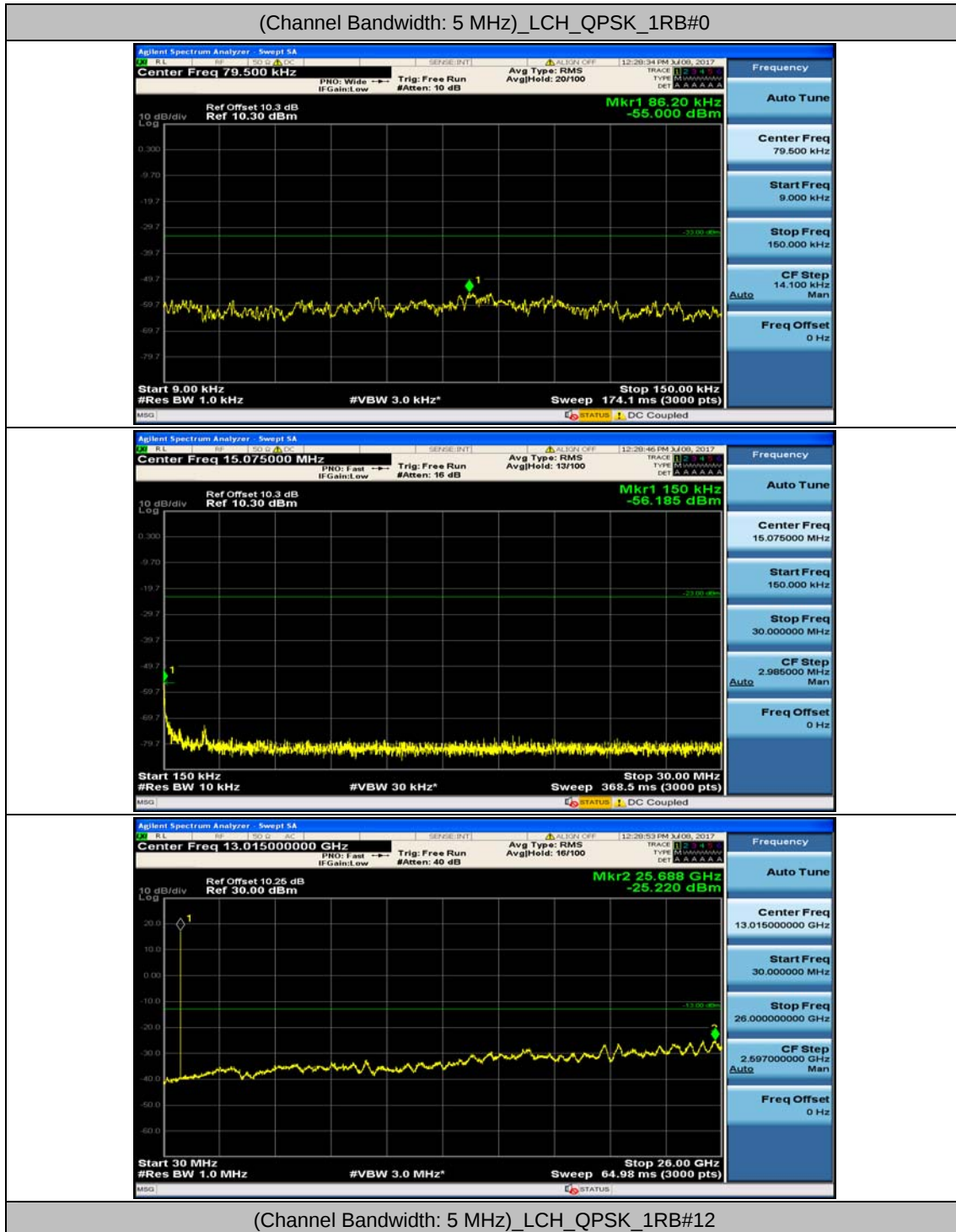


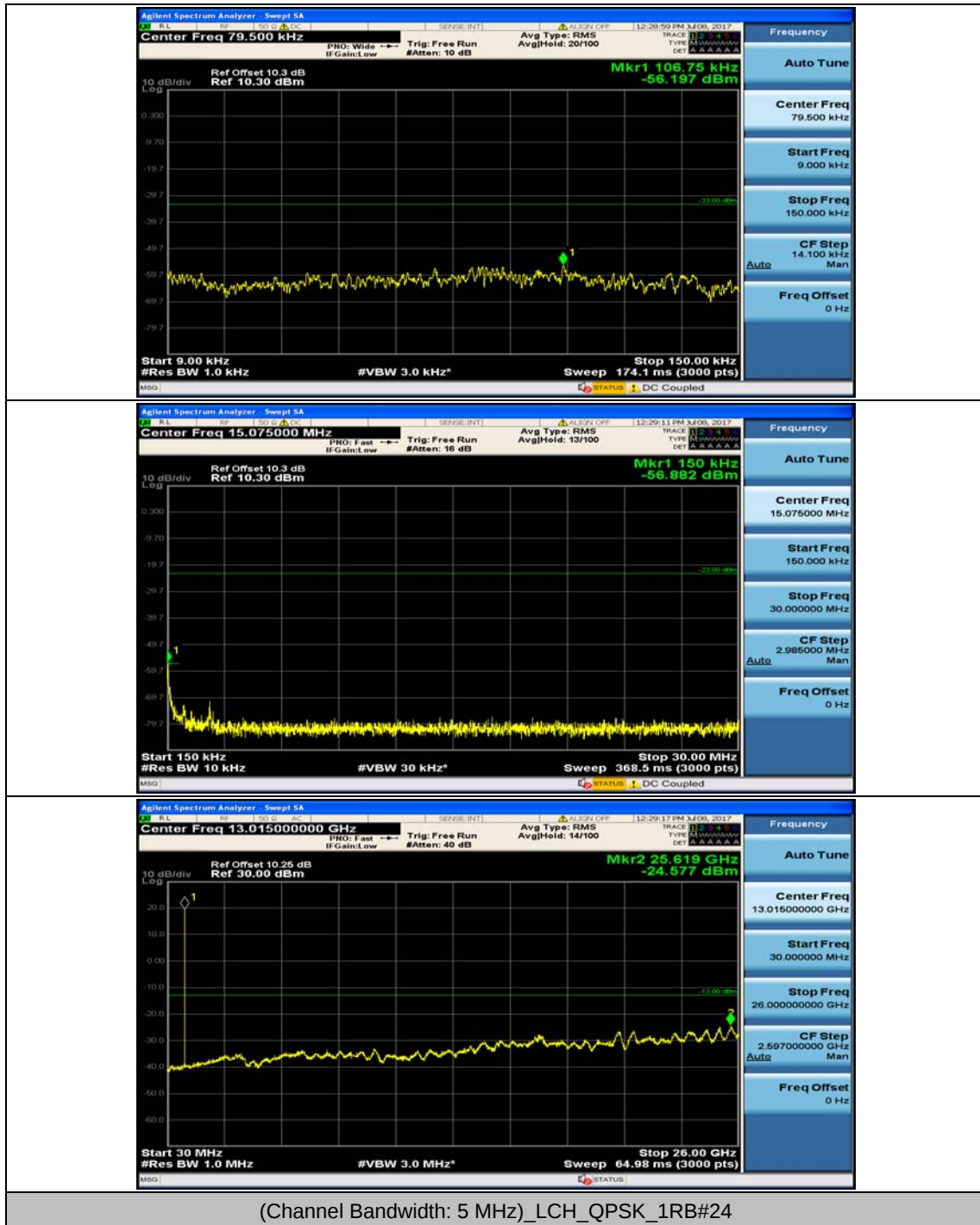


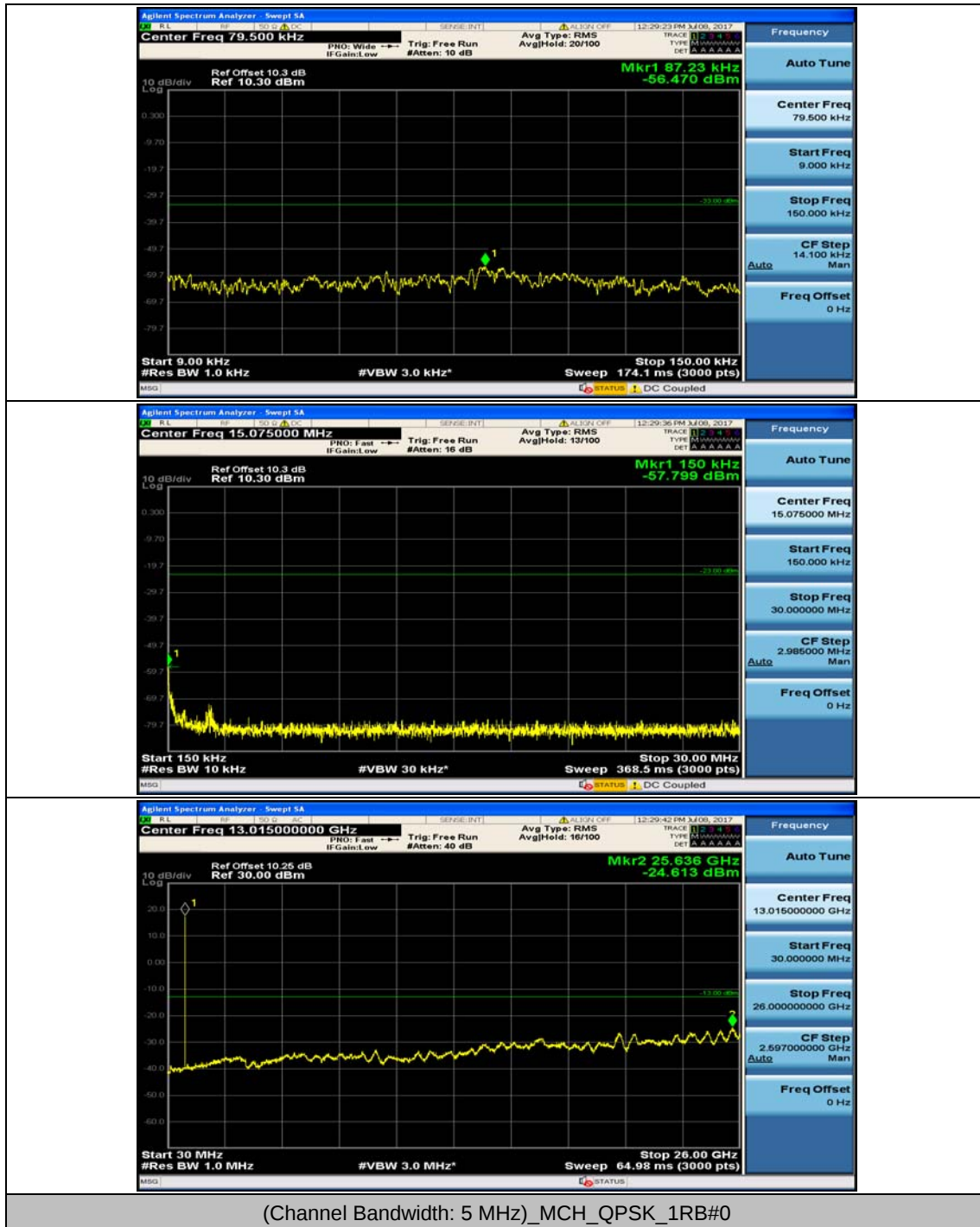


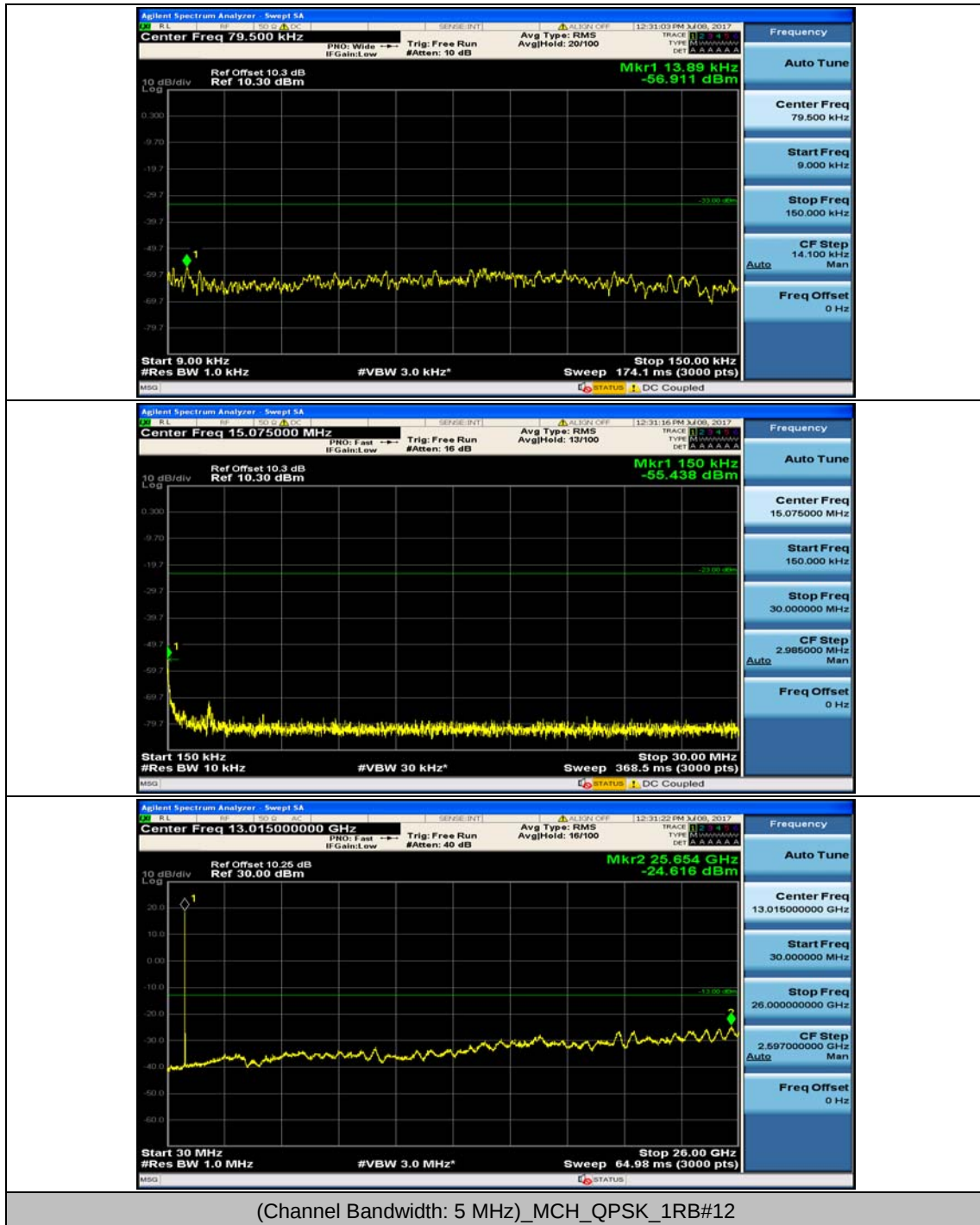


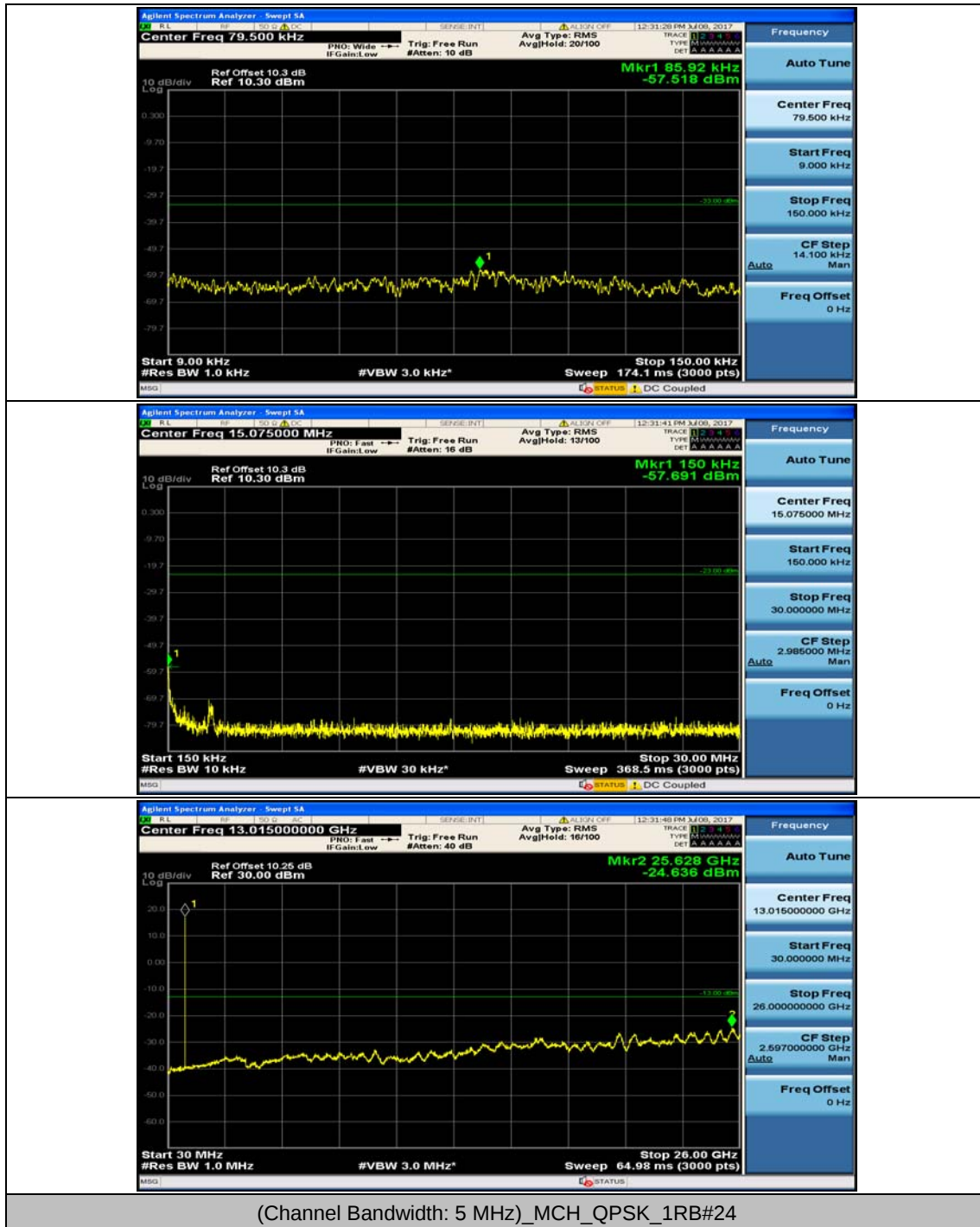
Channel Bandwidth: 5 MHz

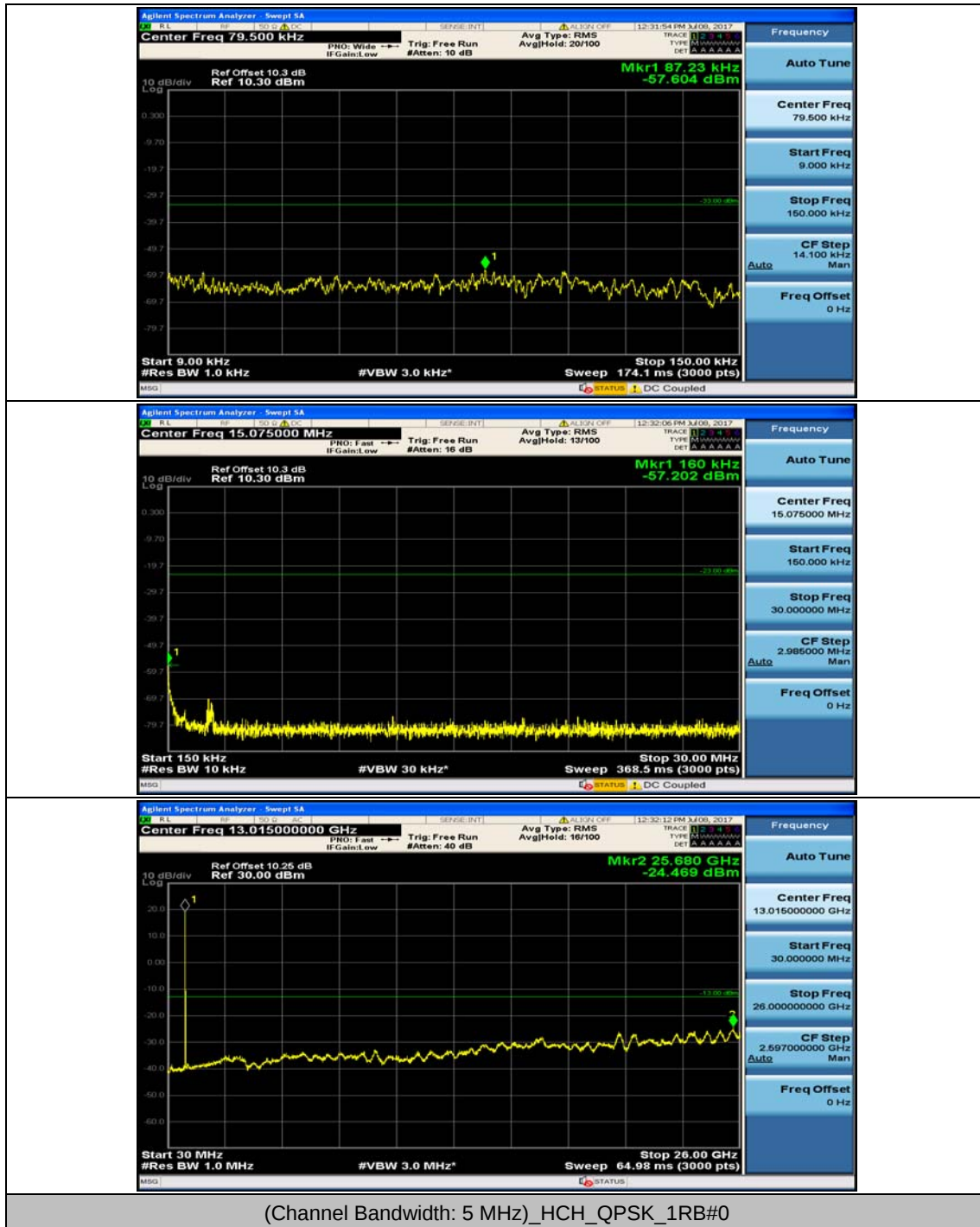


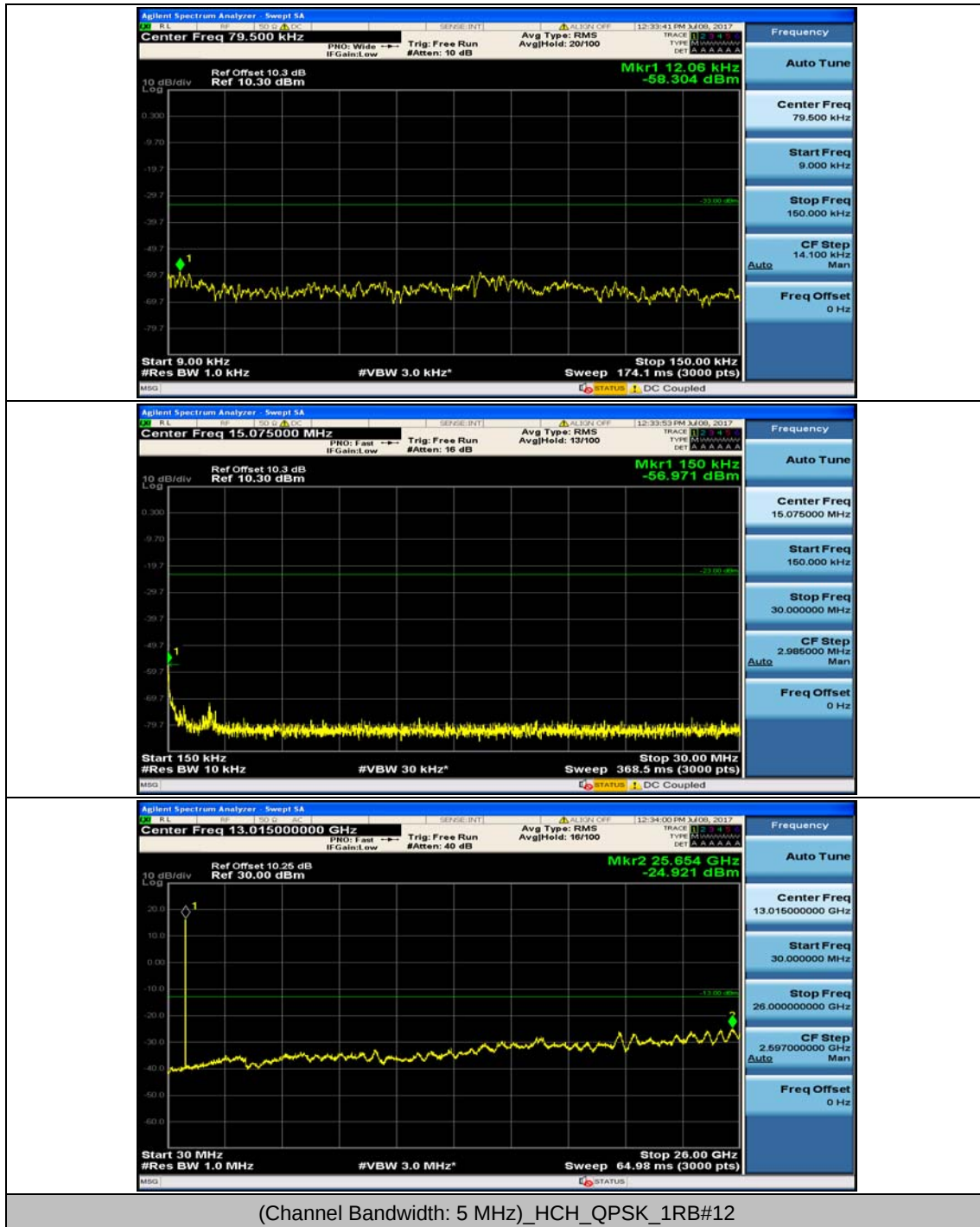


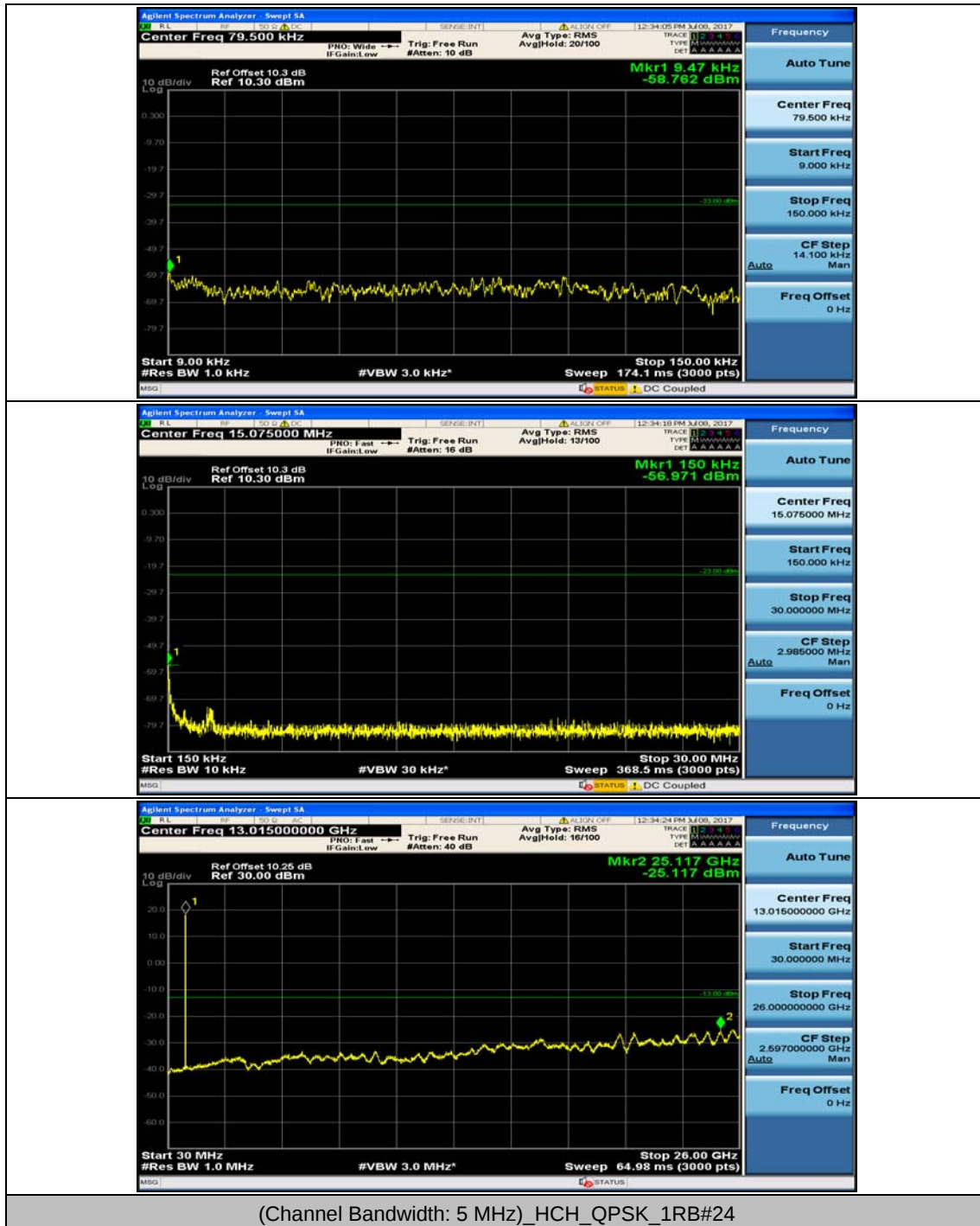


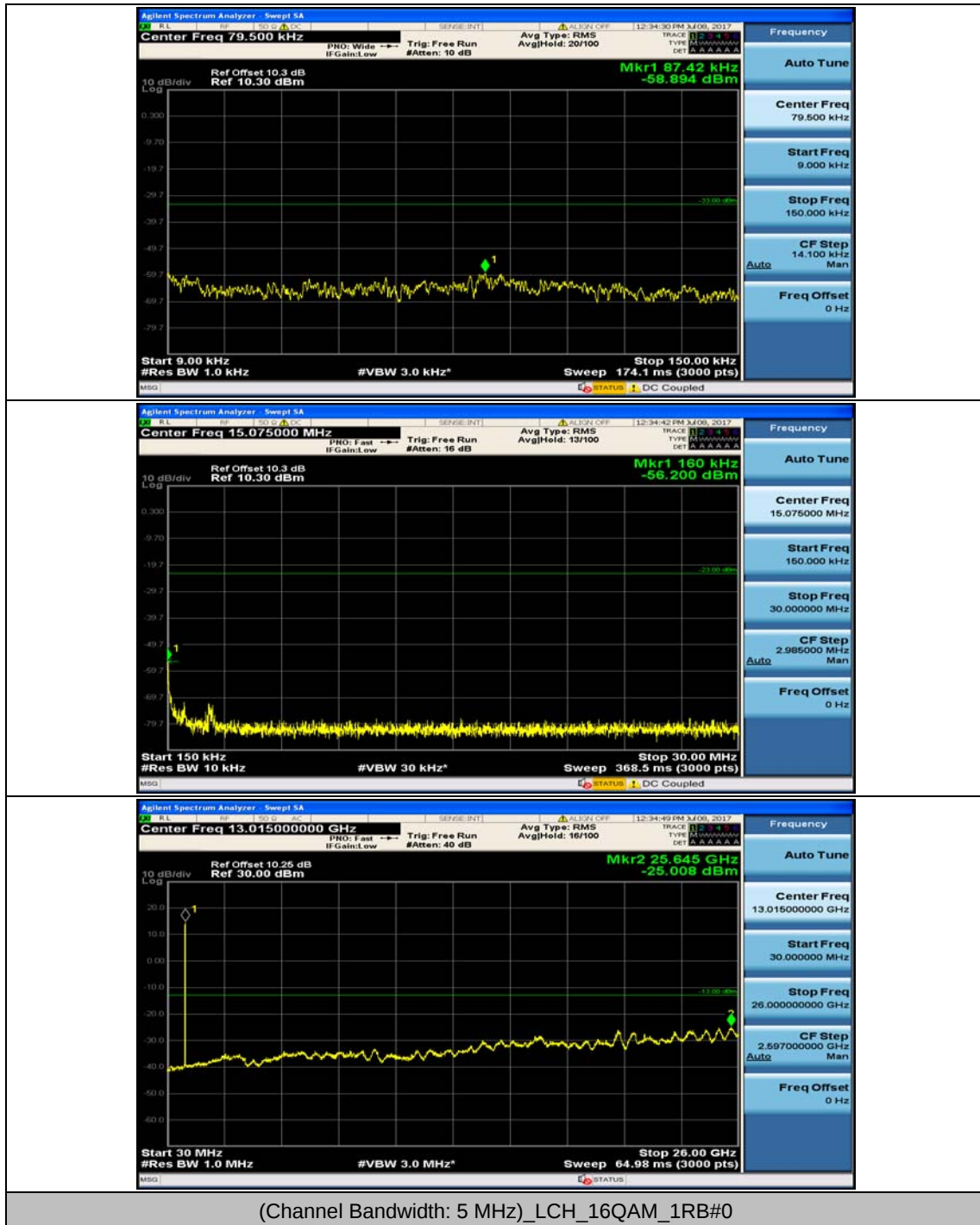


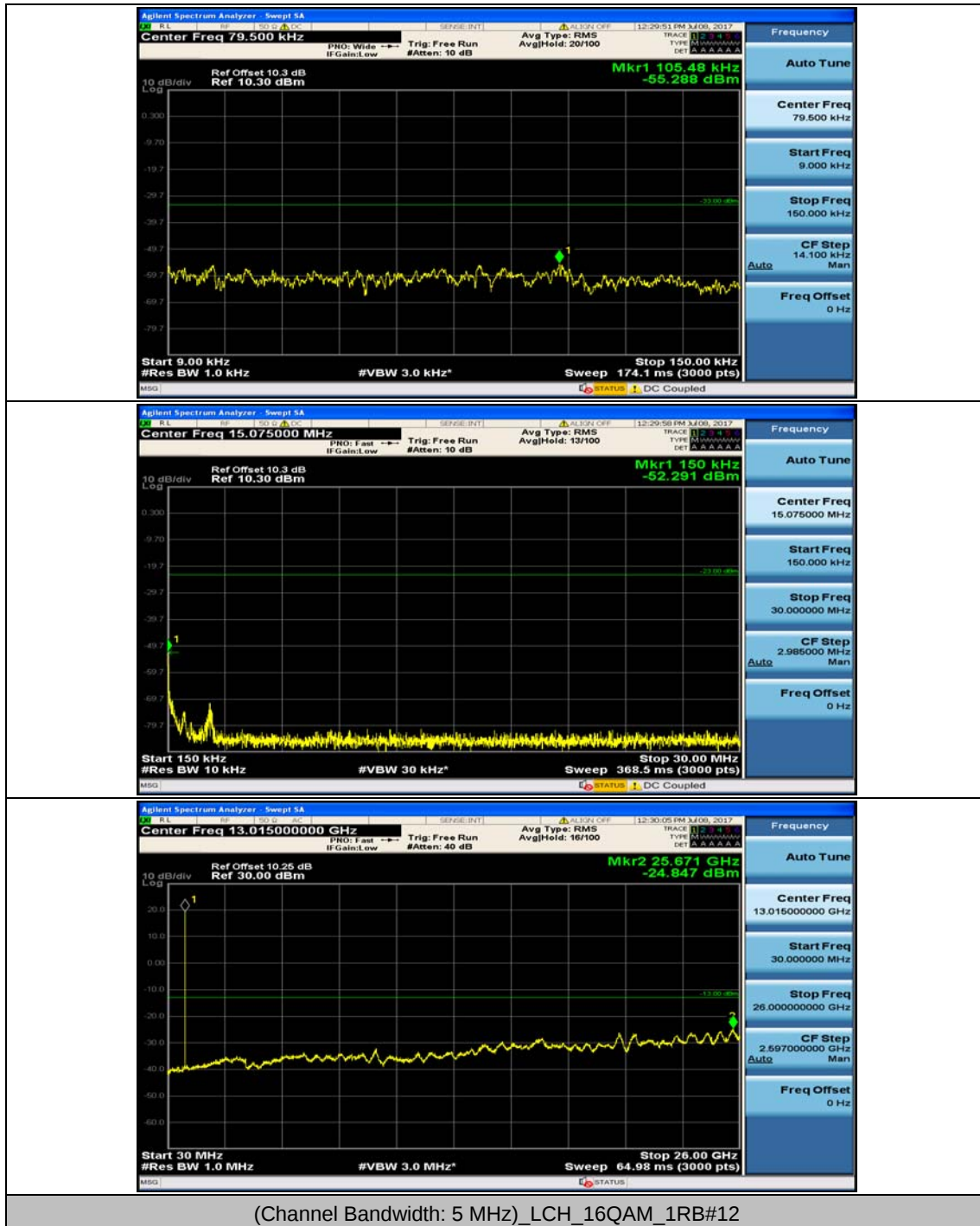


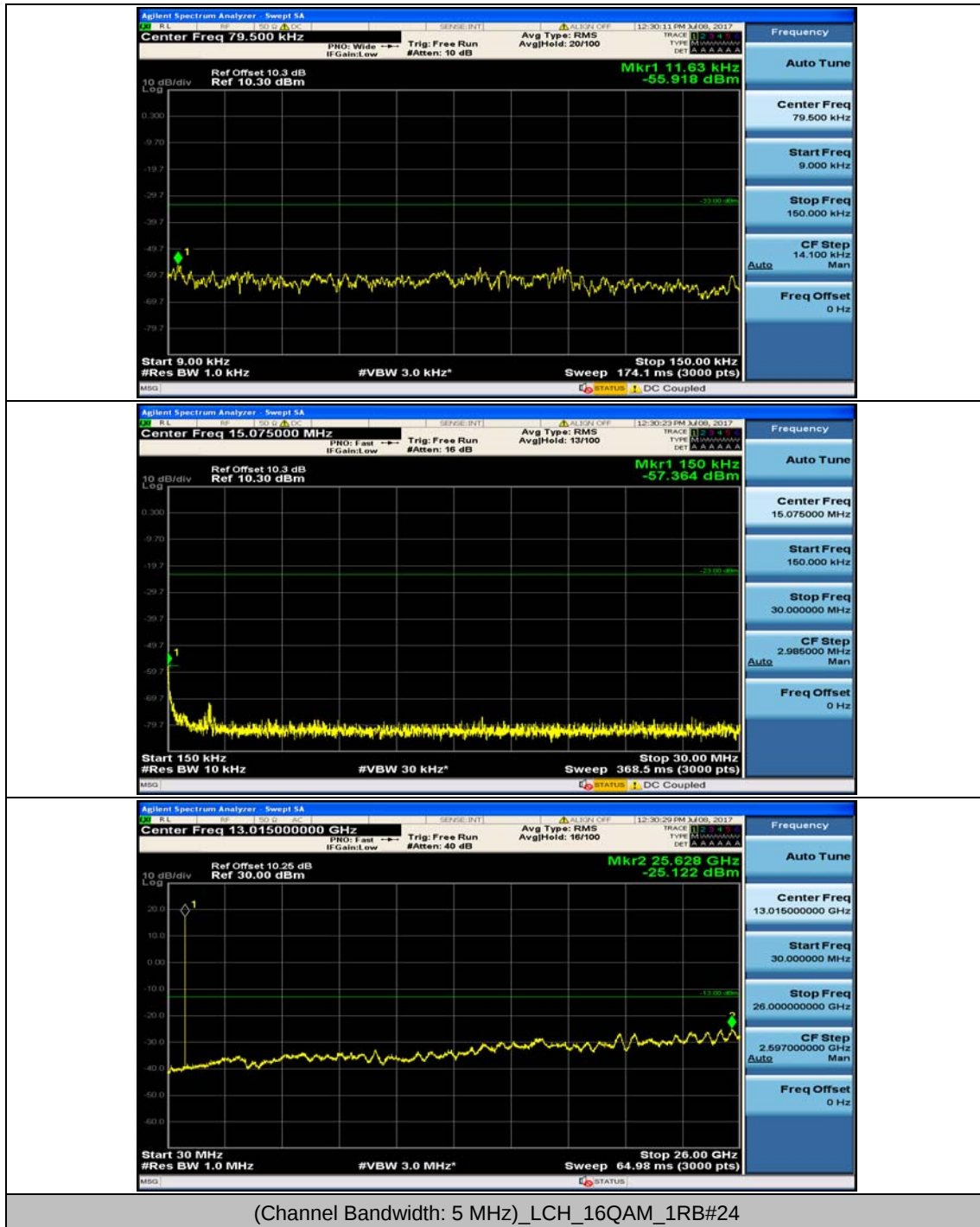


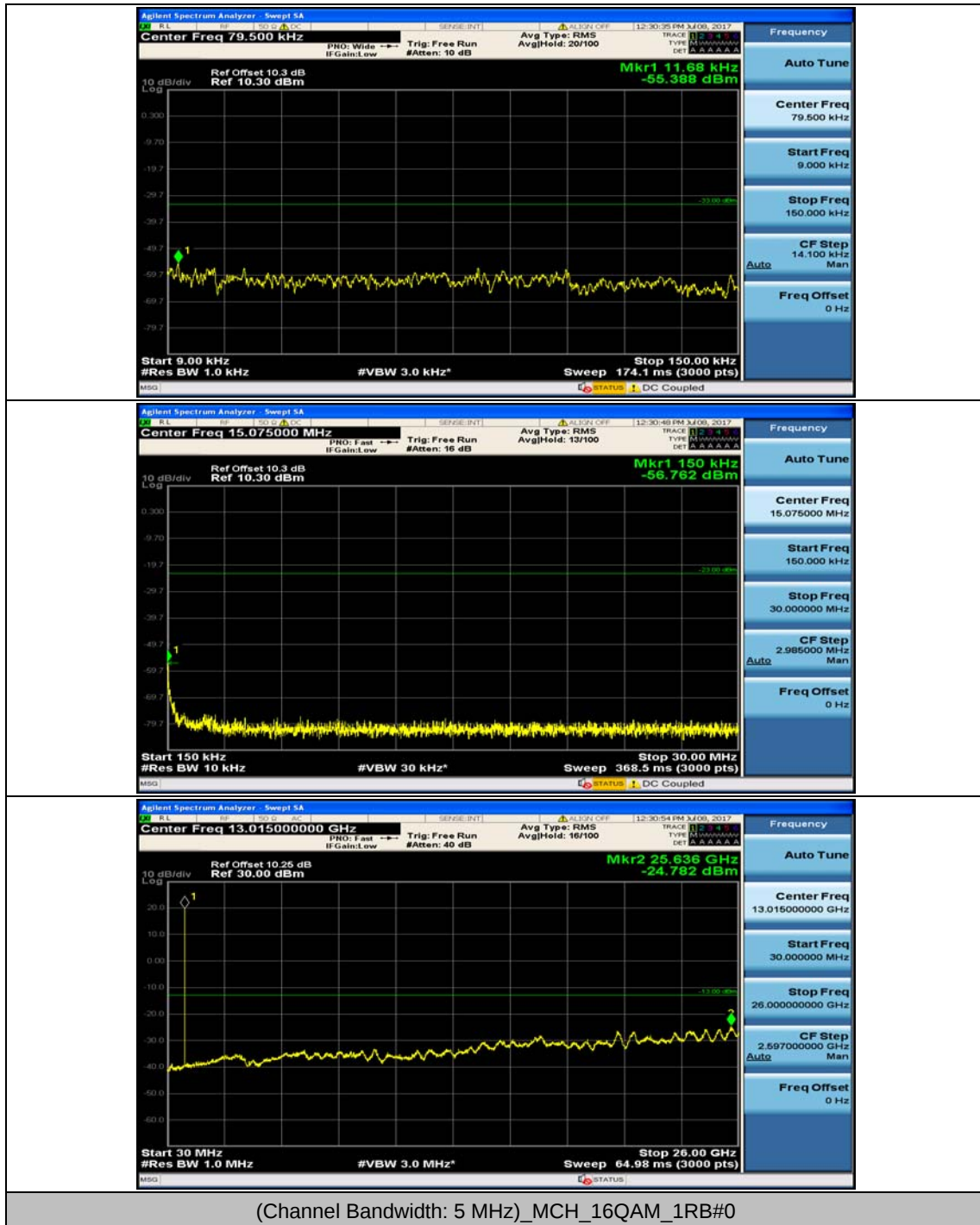


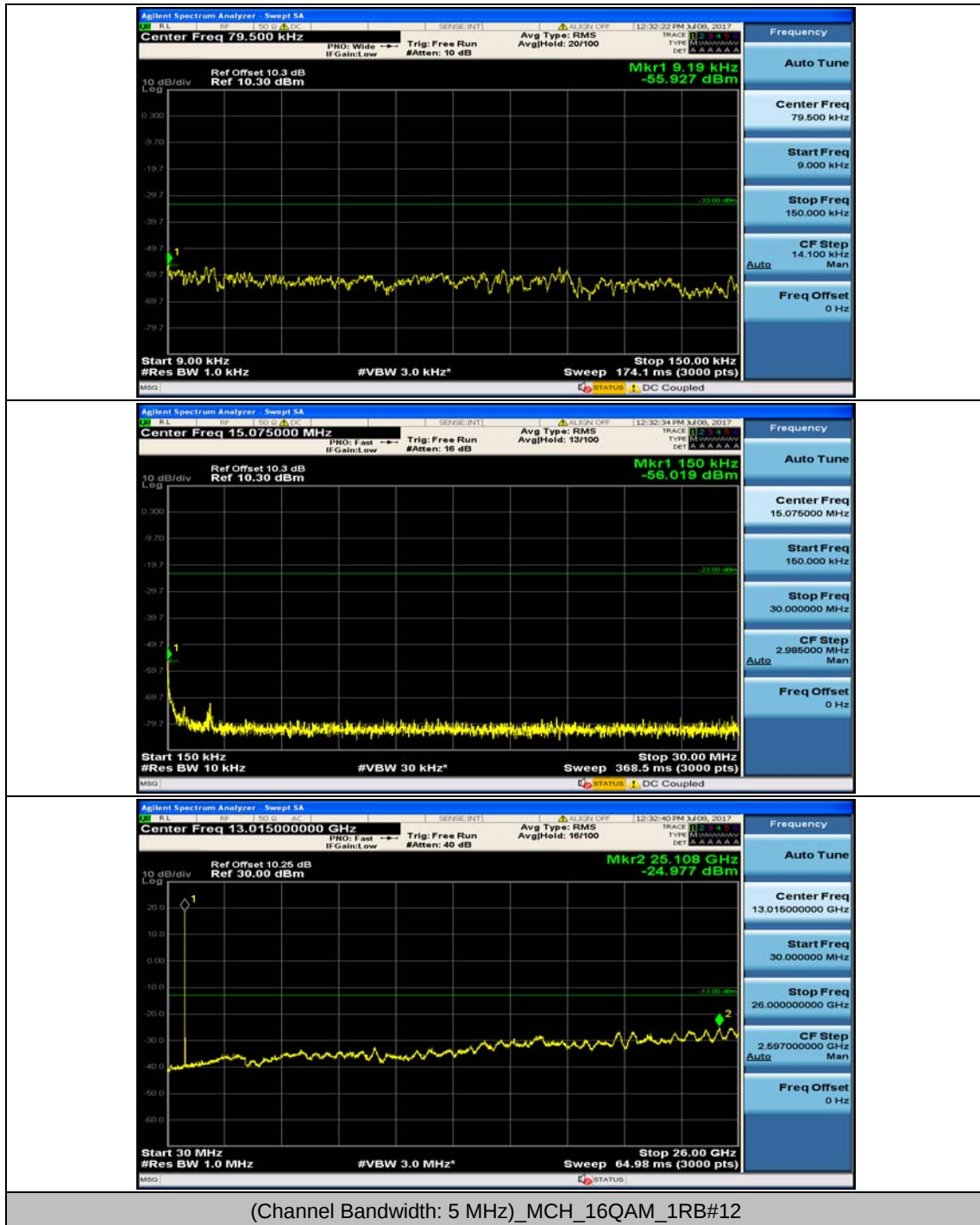


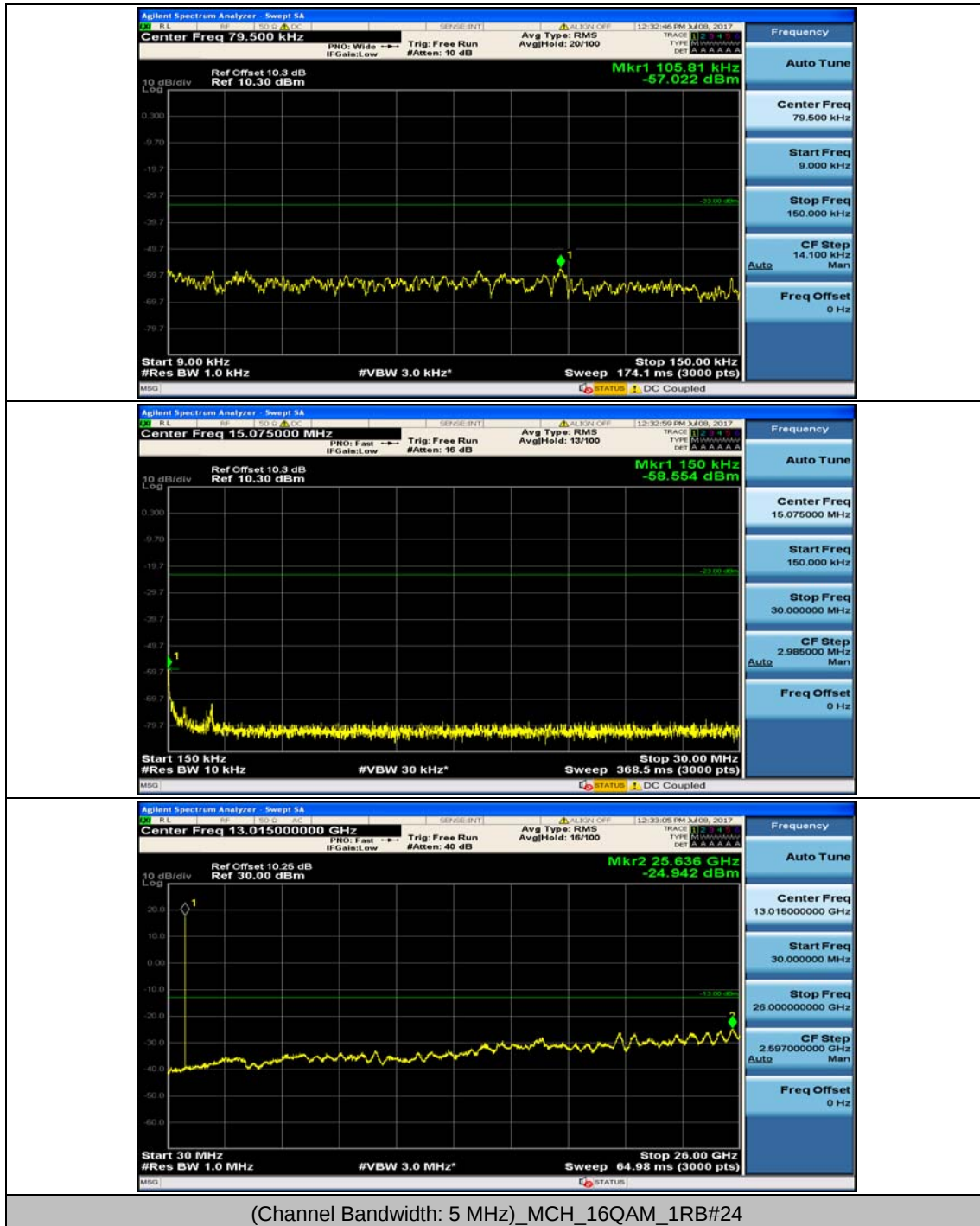


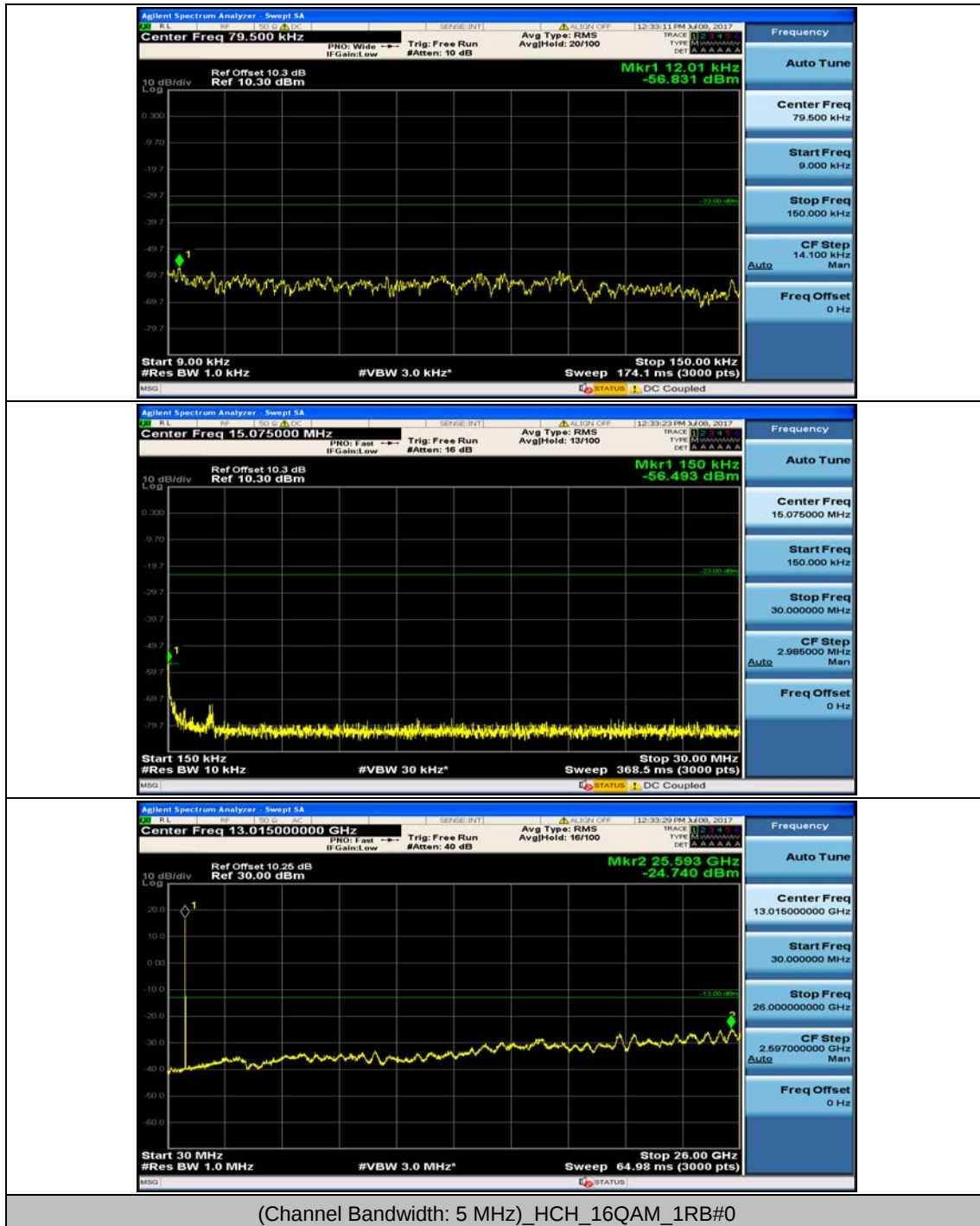


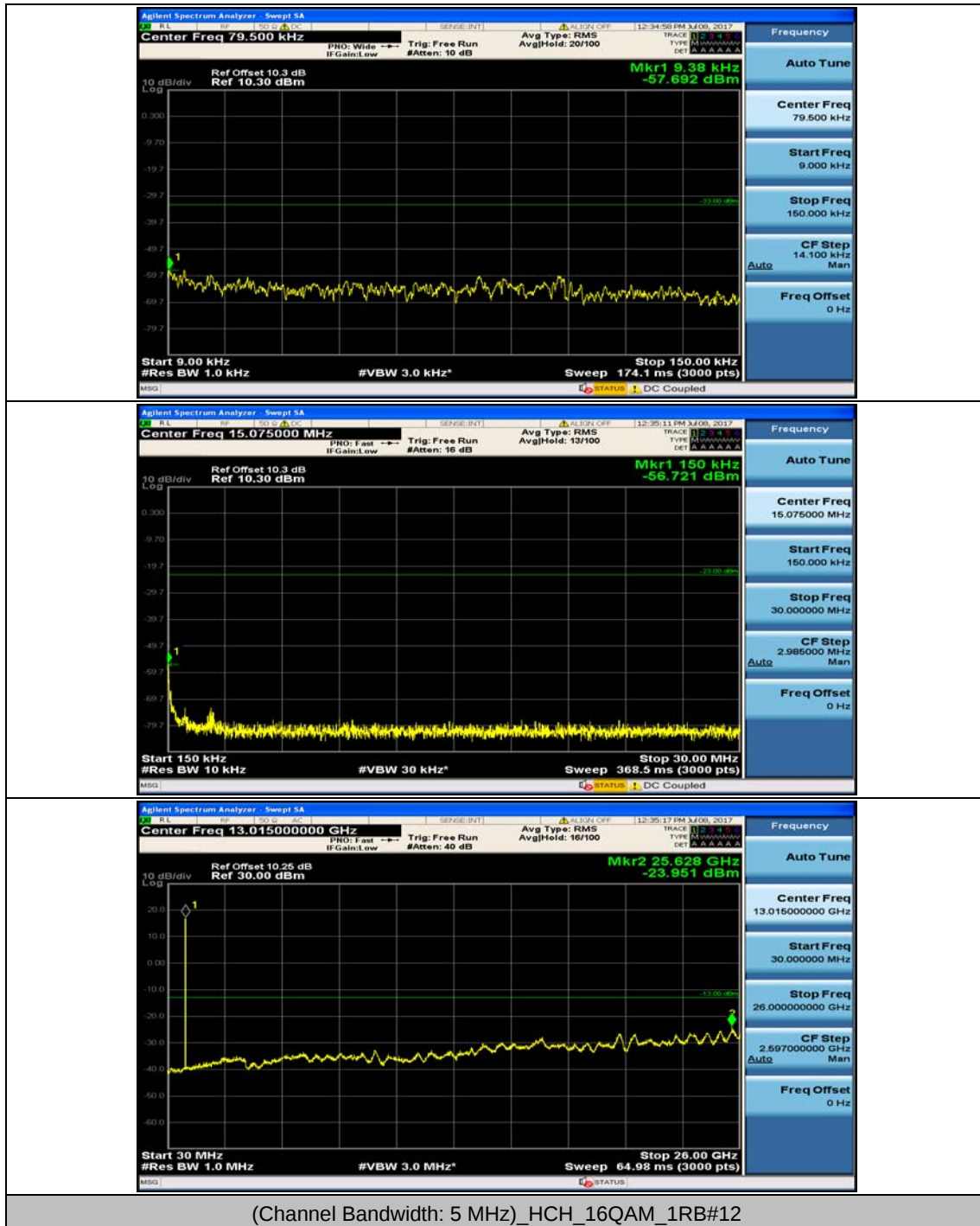


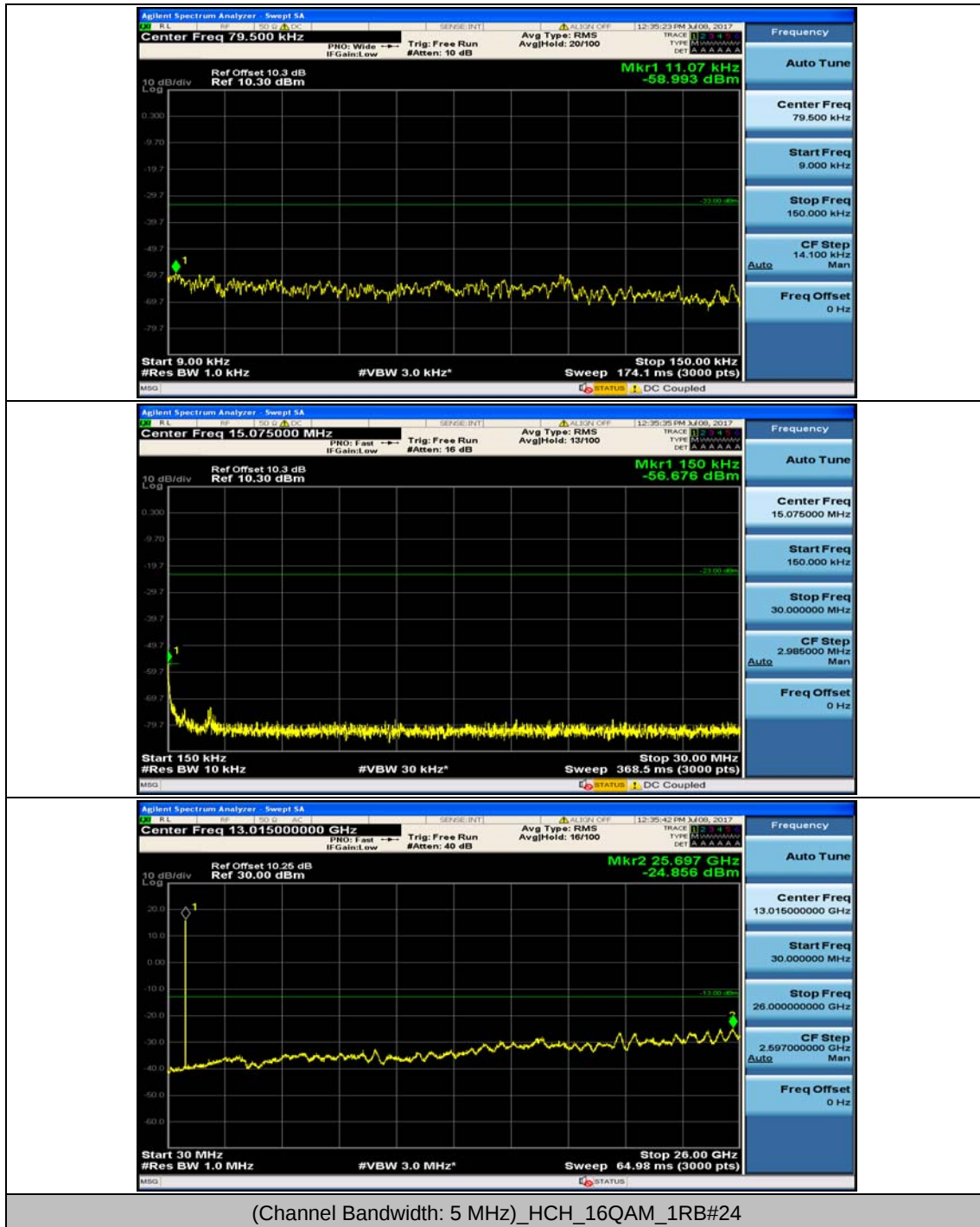


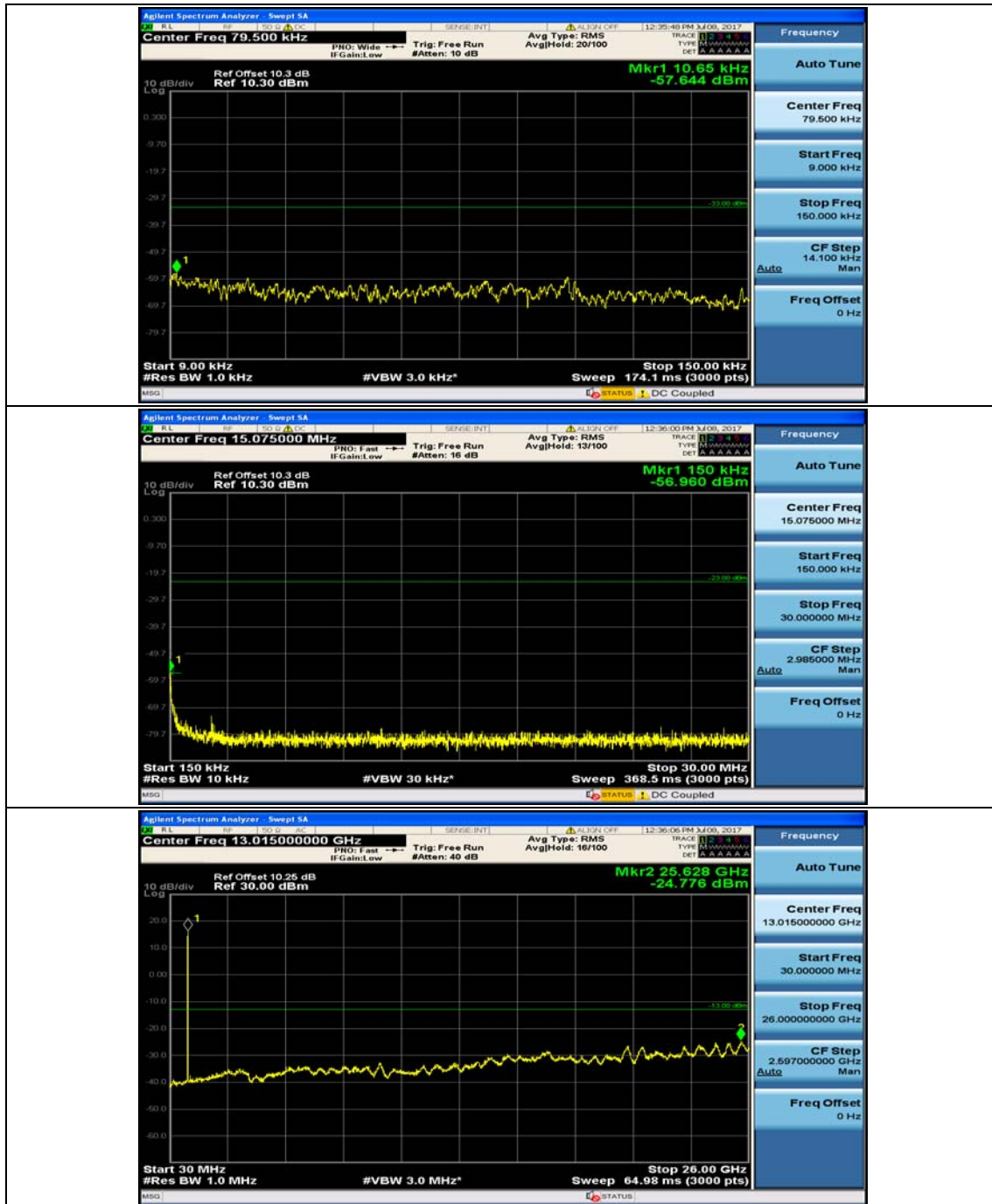




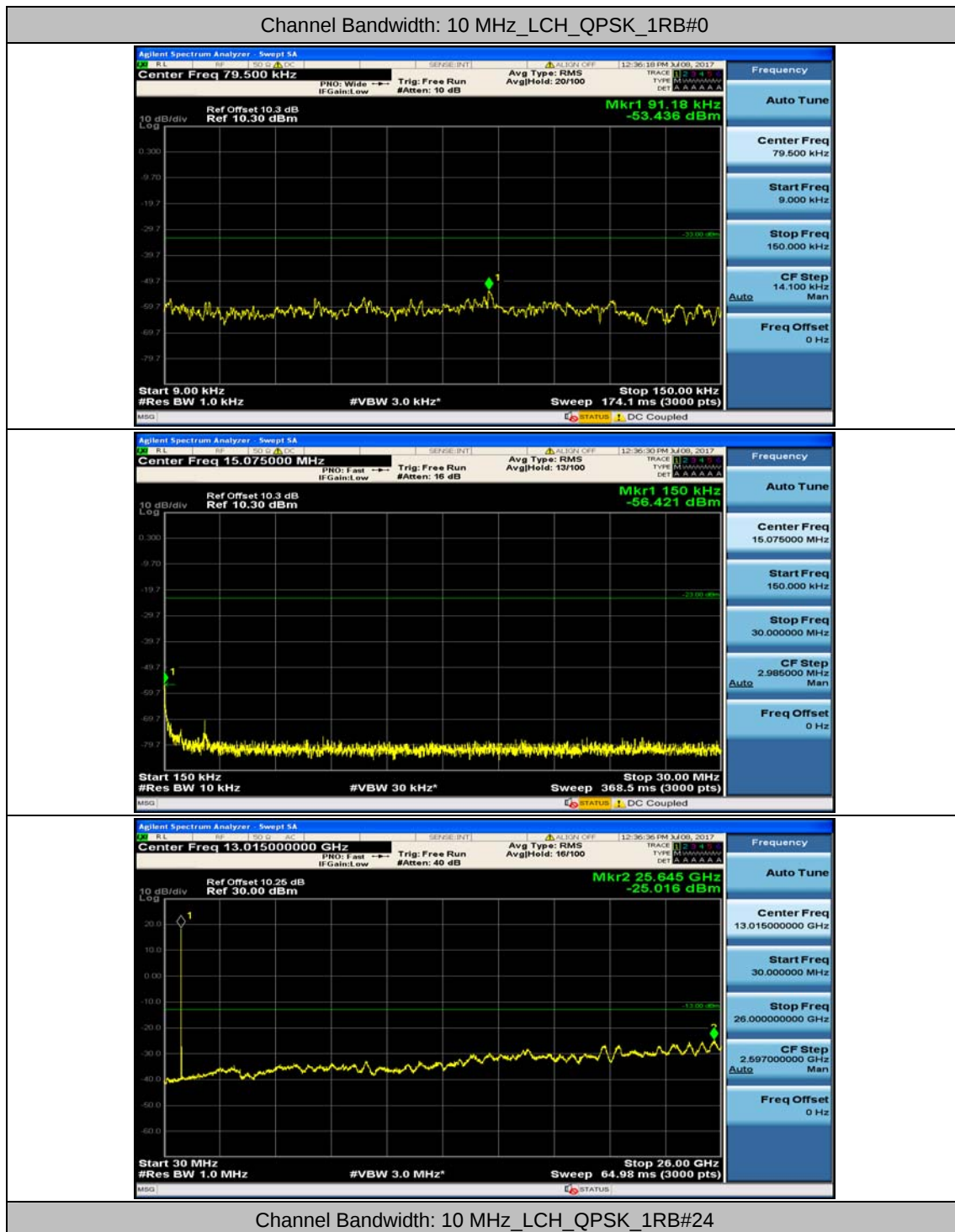


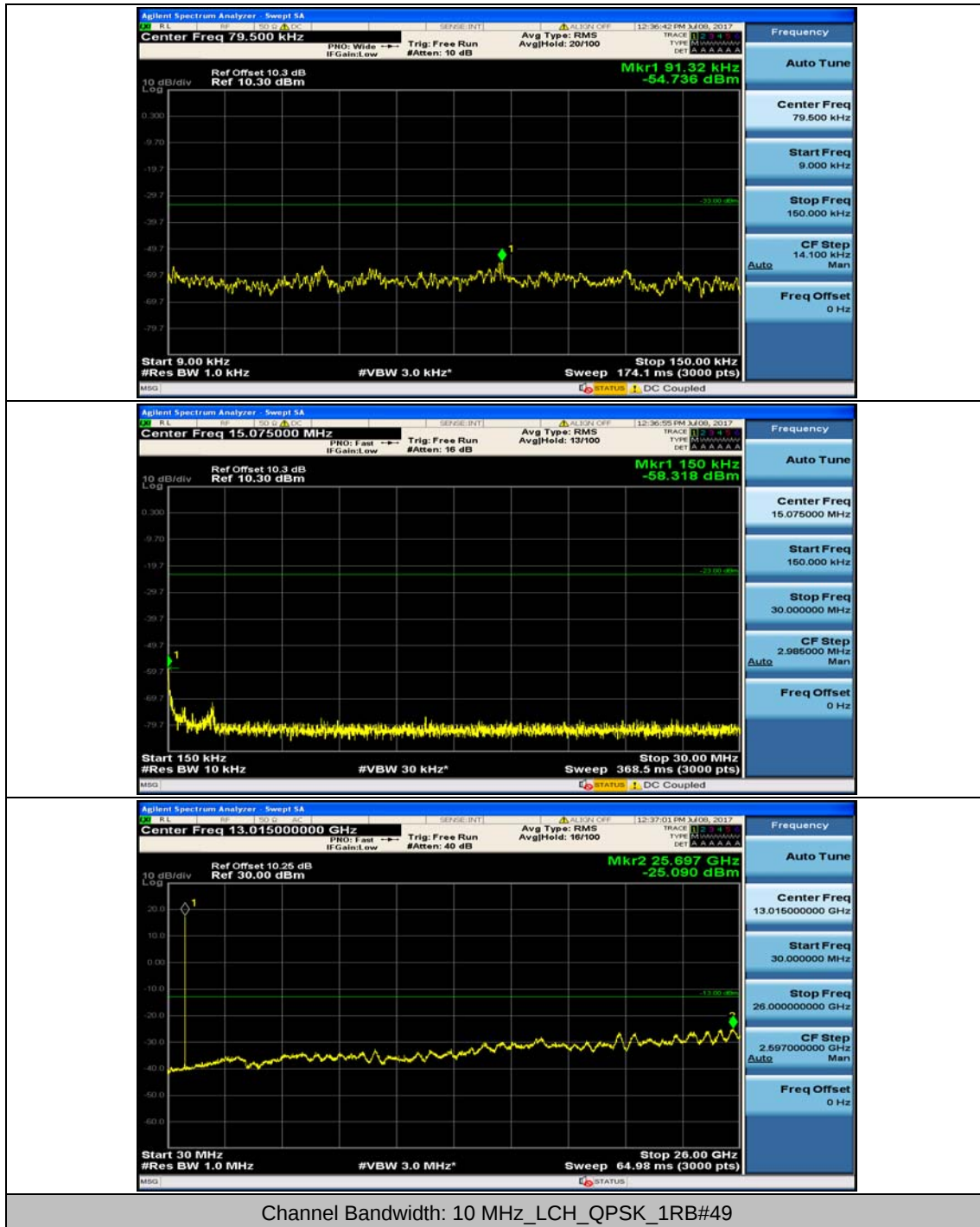


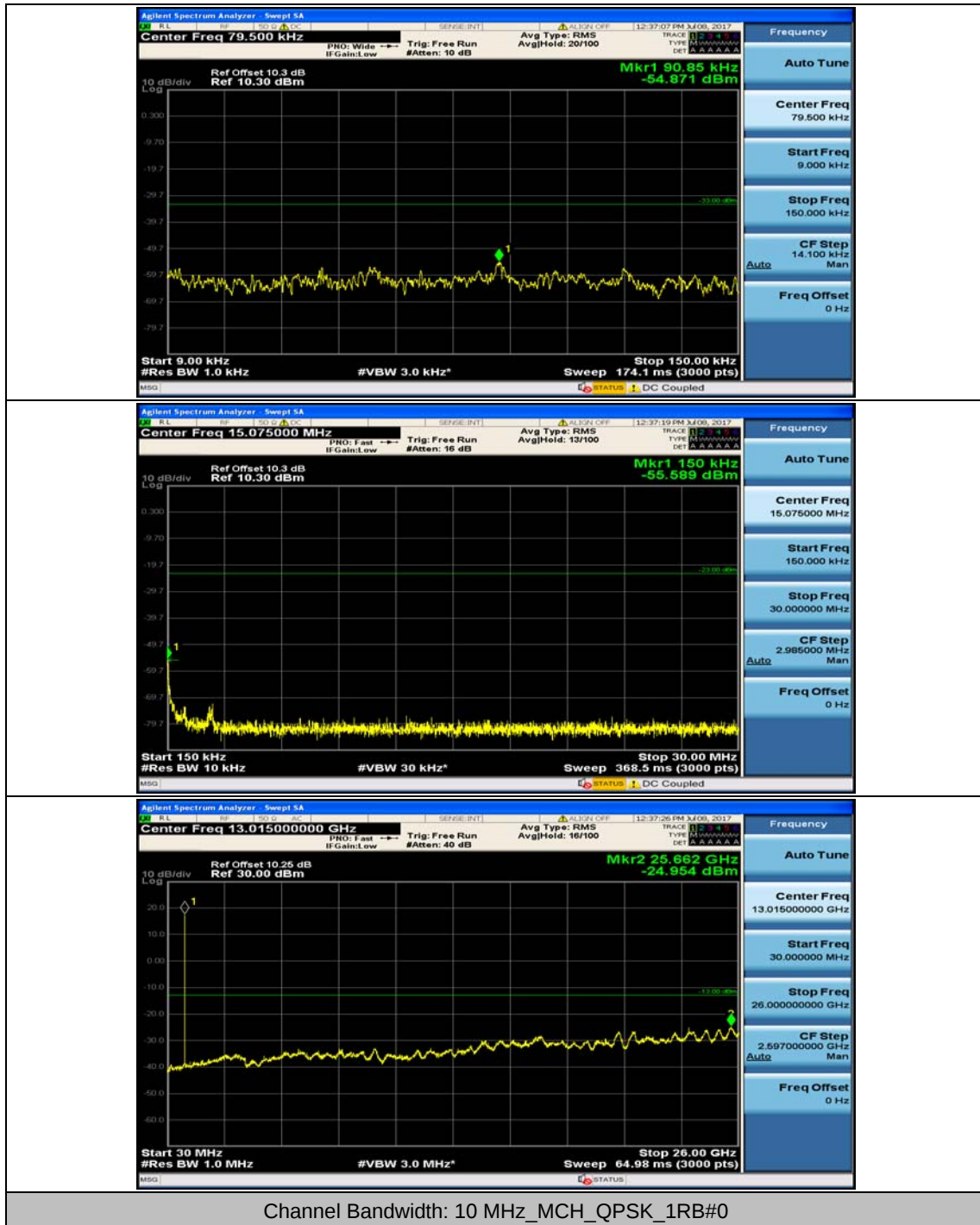


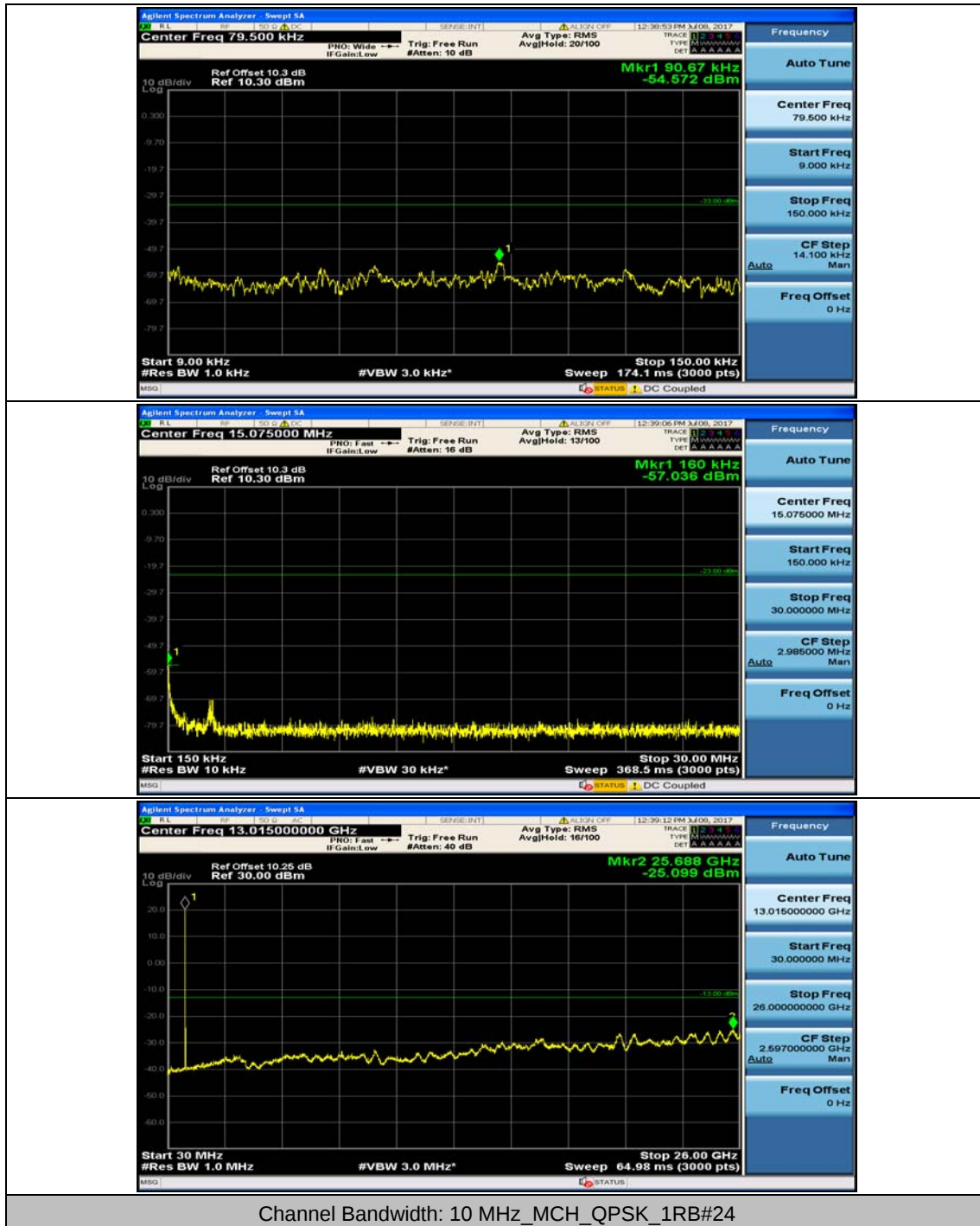


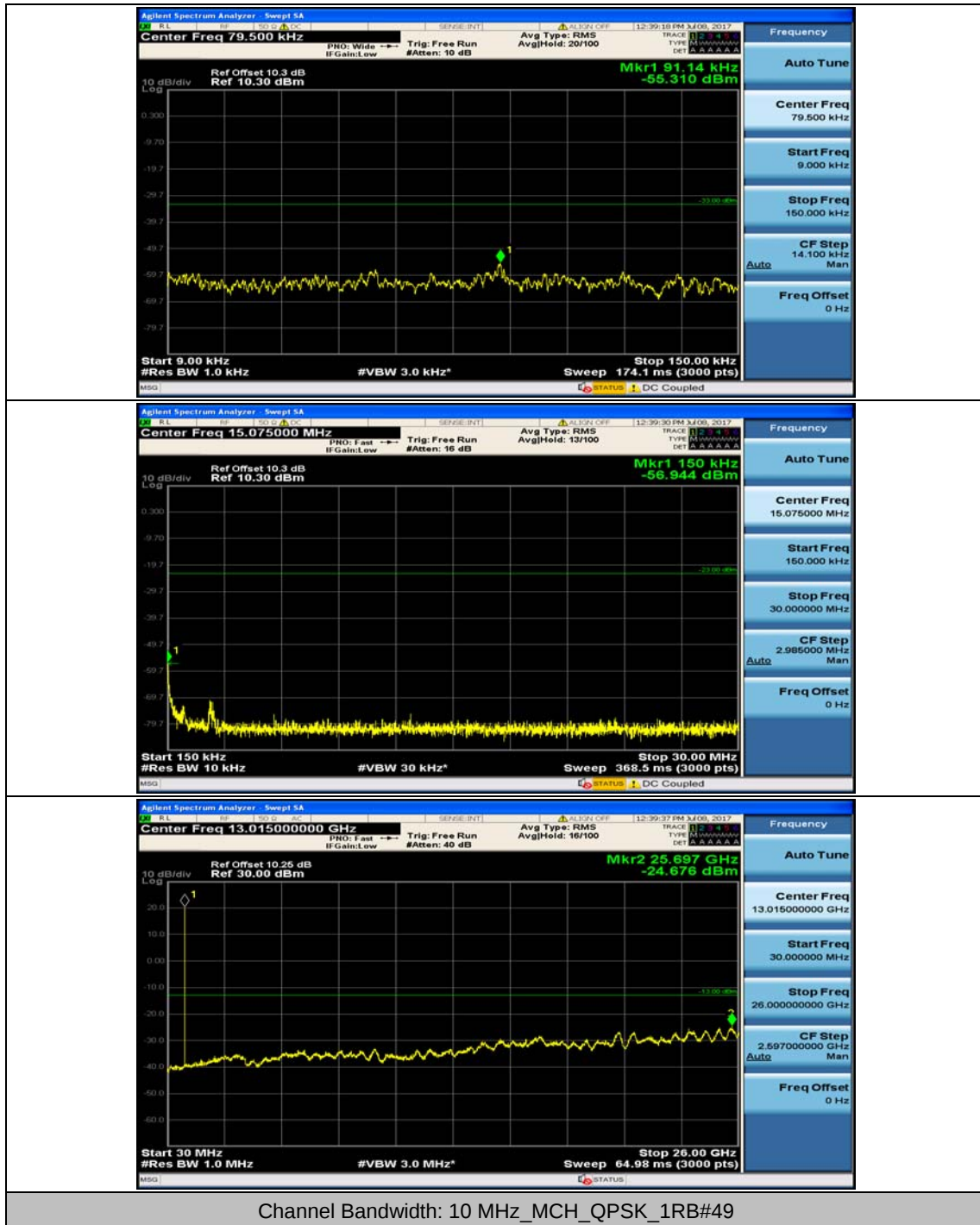
Channel Bandwidth: 10 MHz

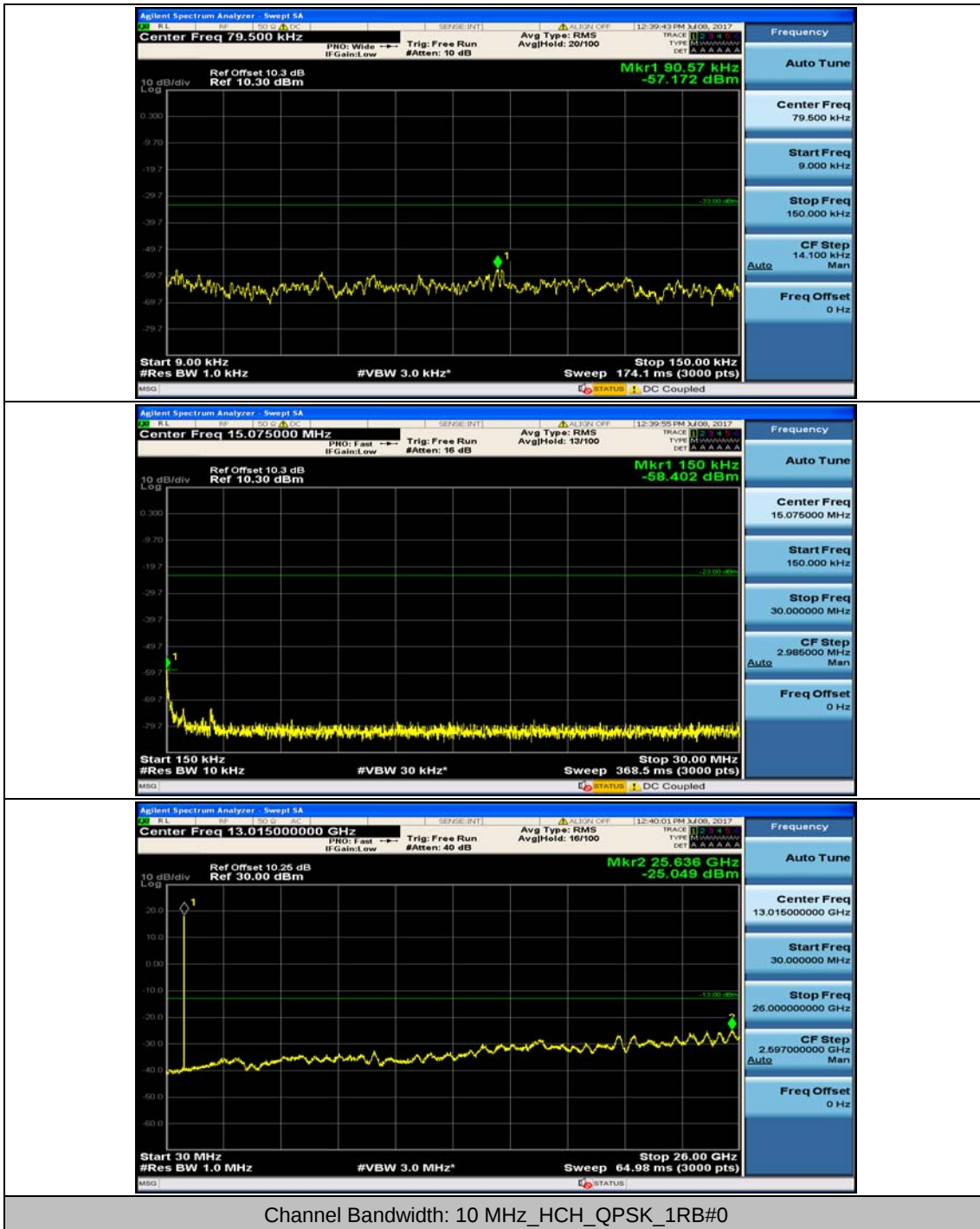


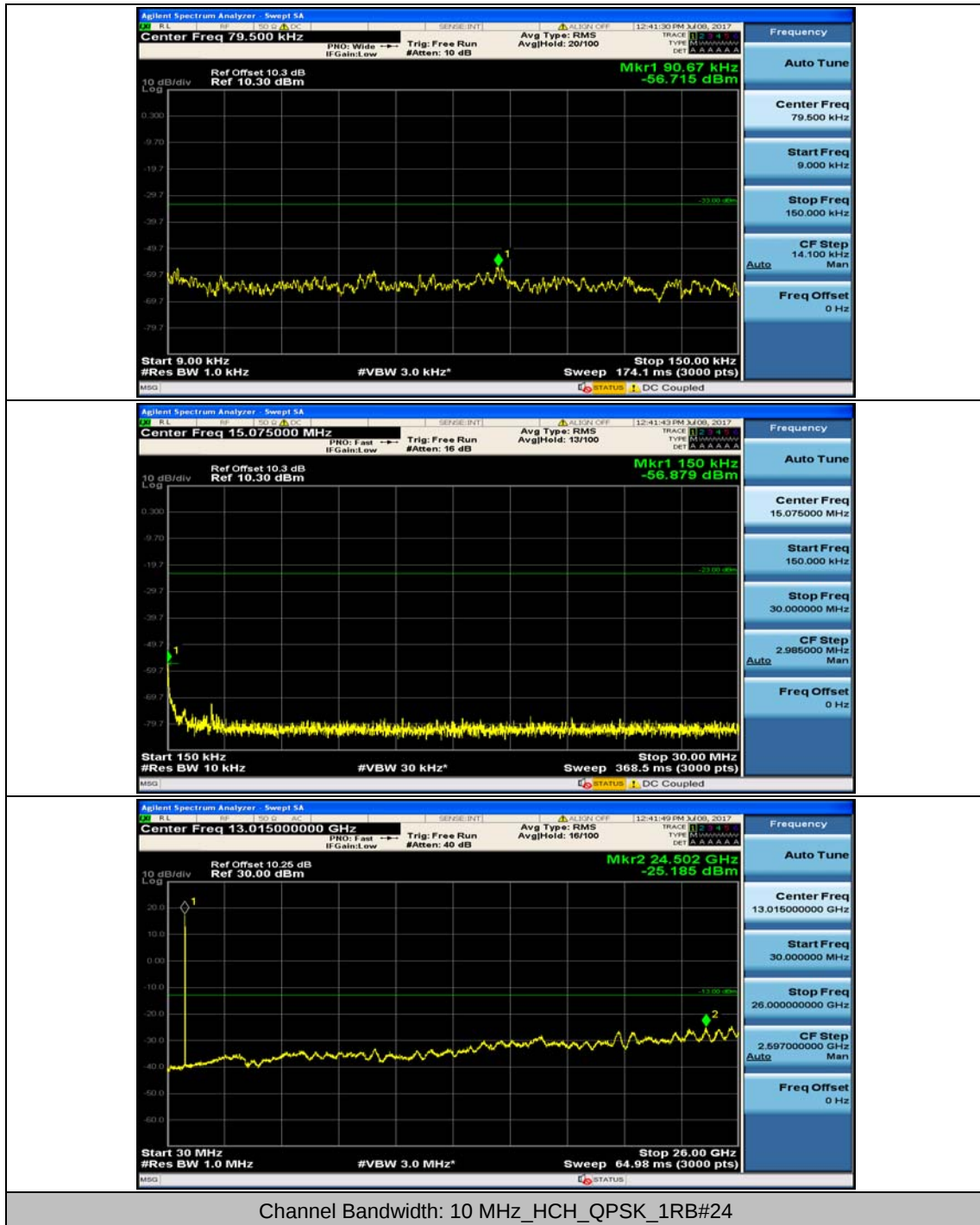


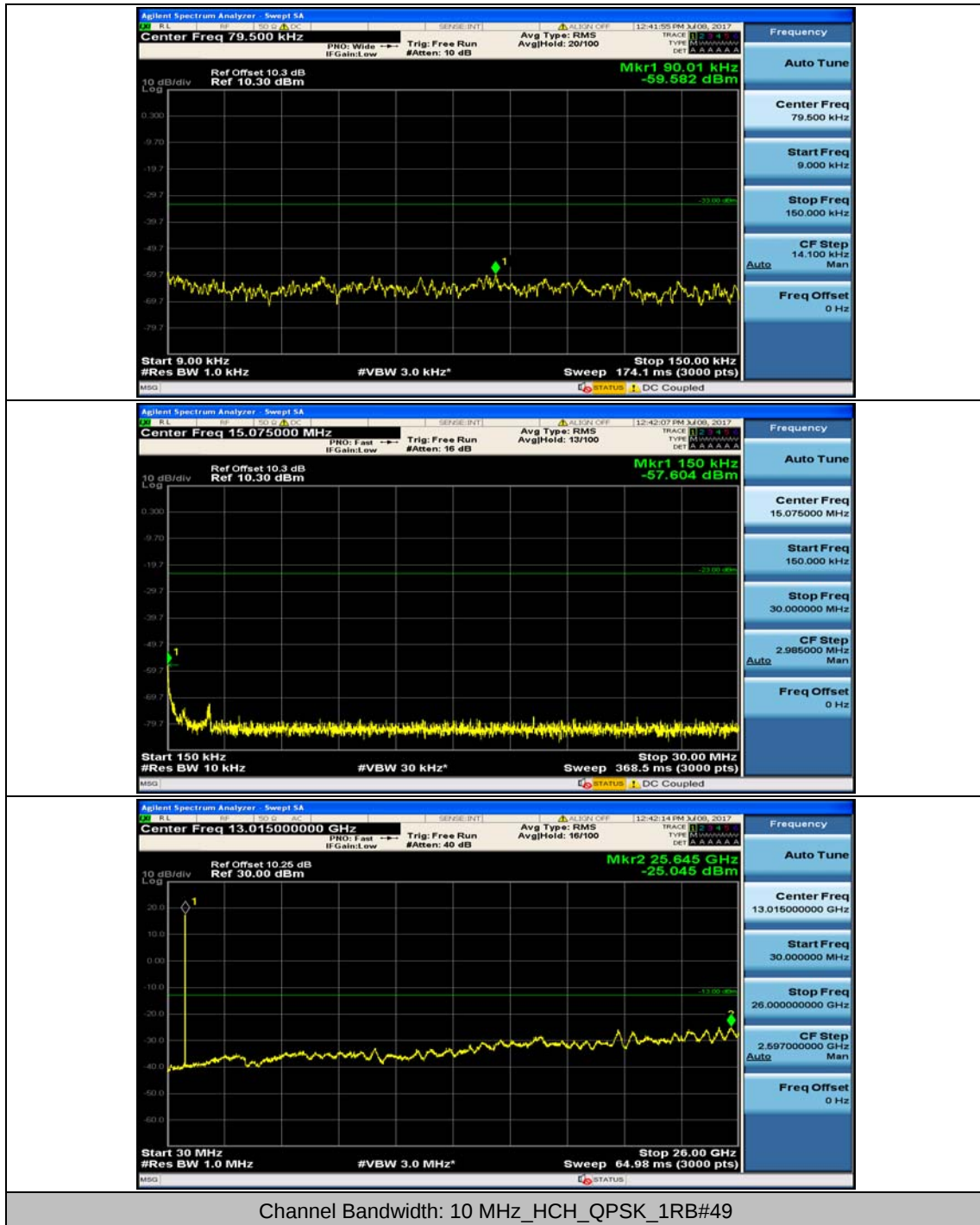


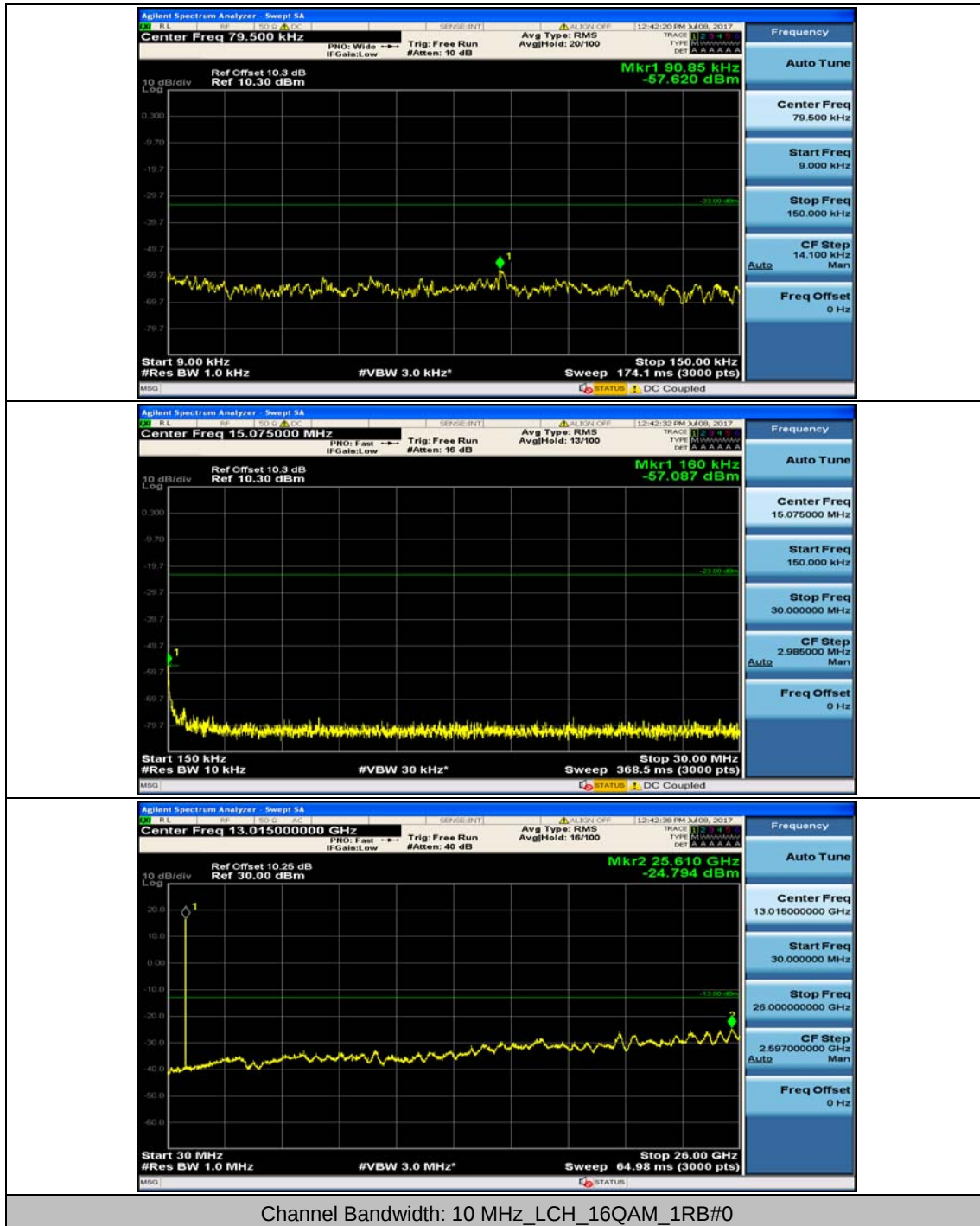


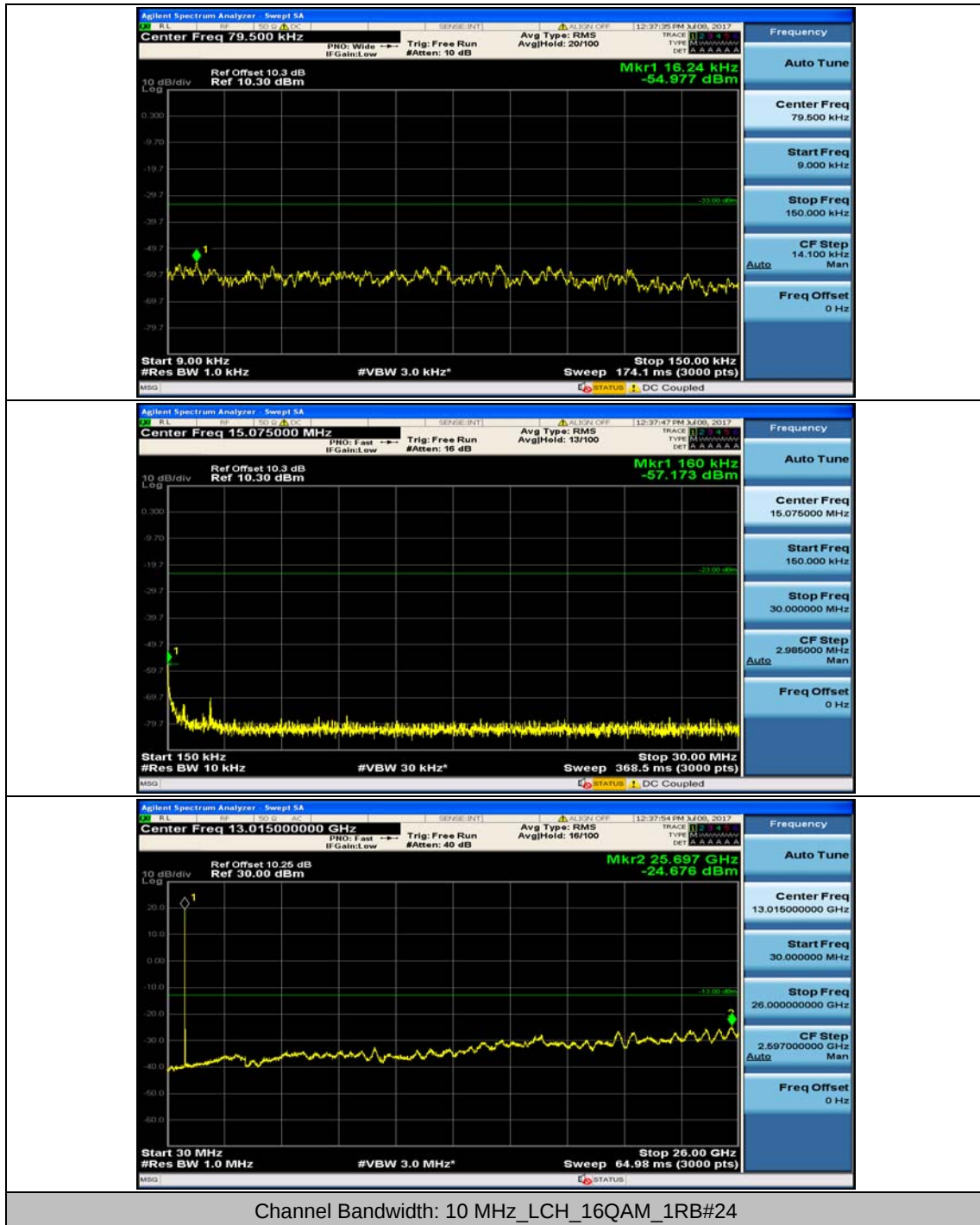


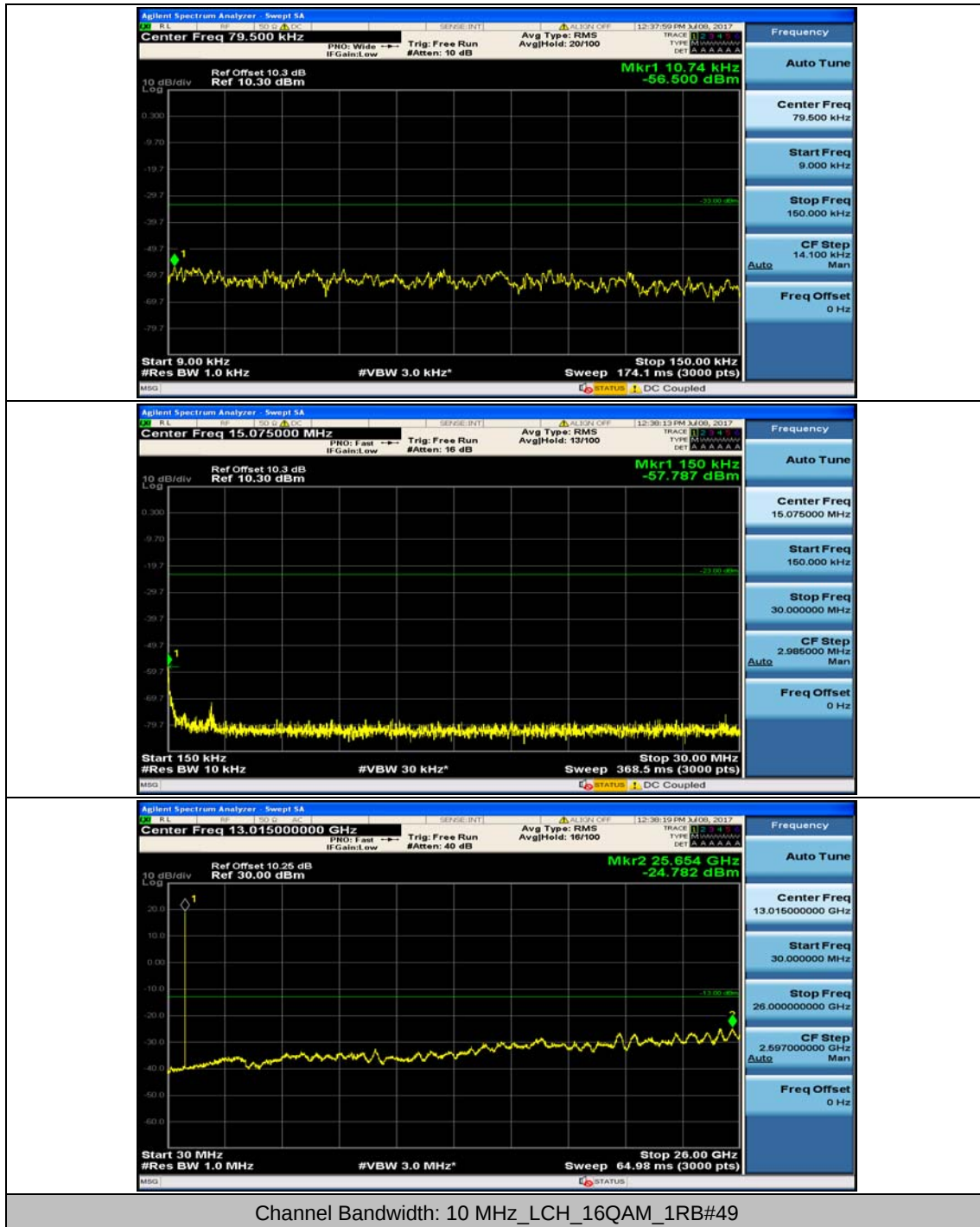


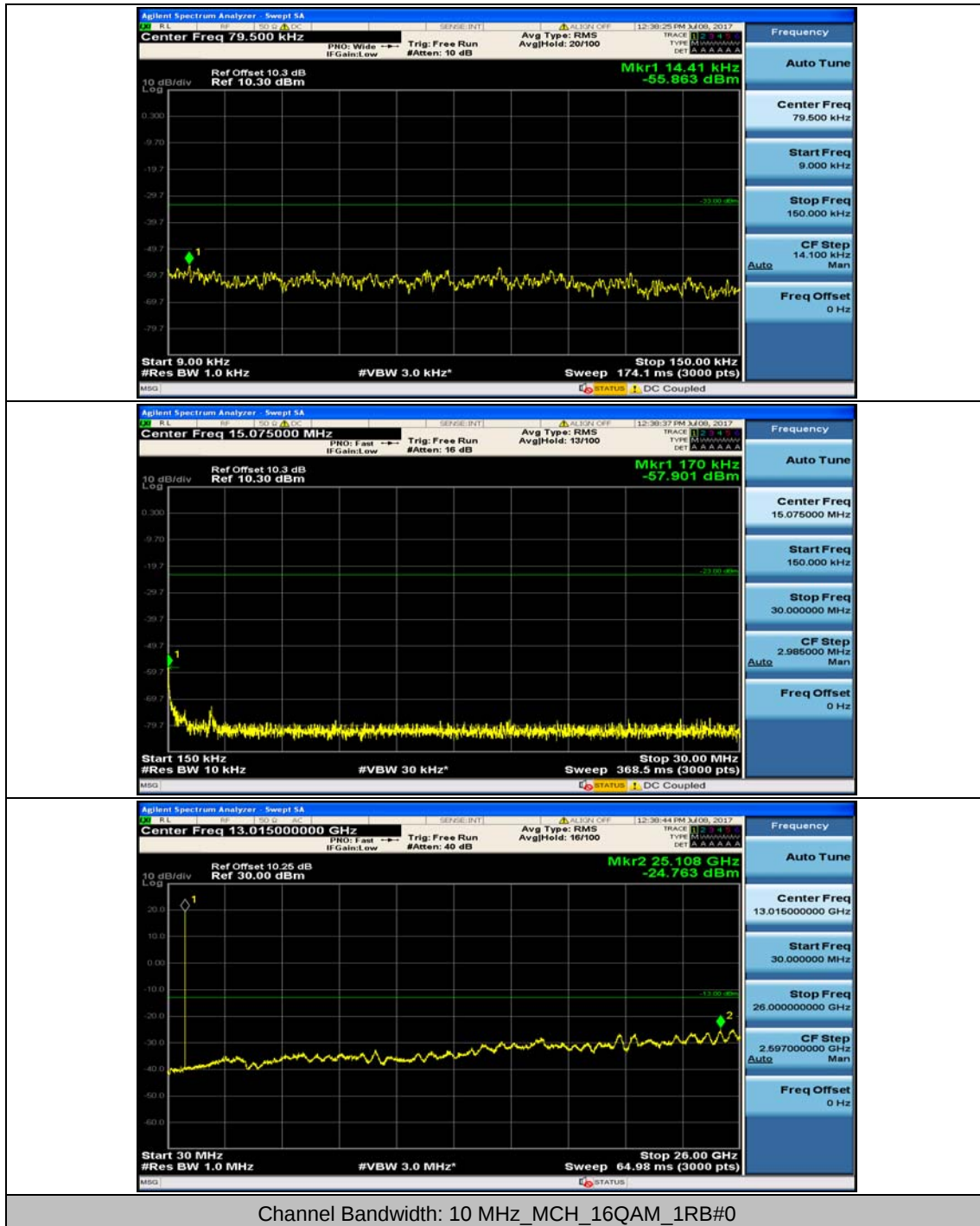


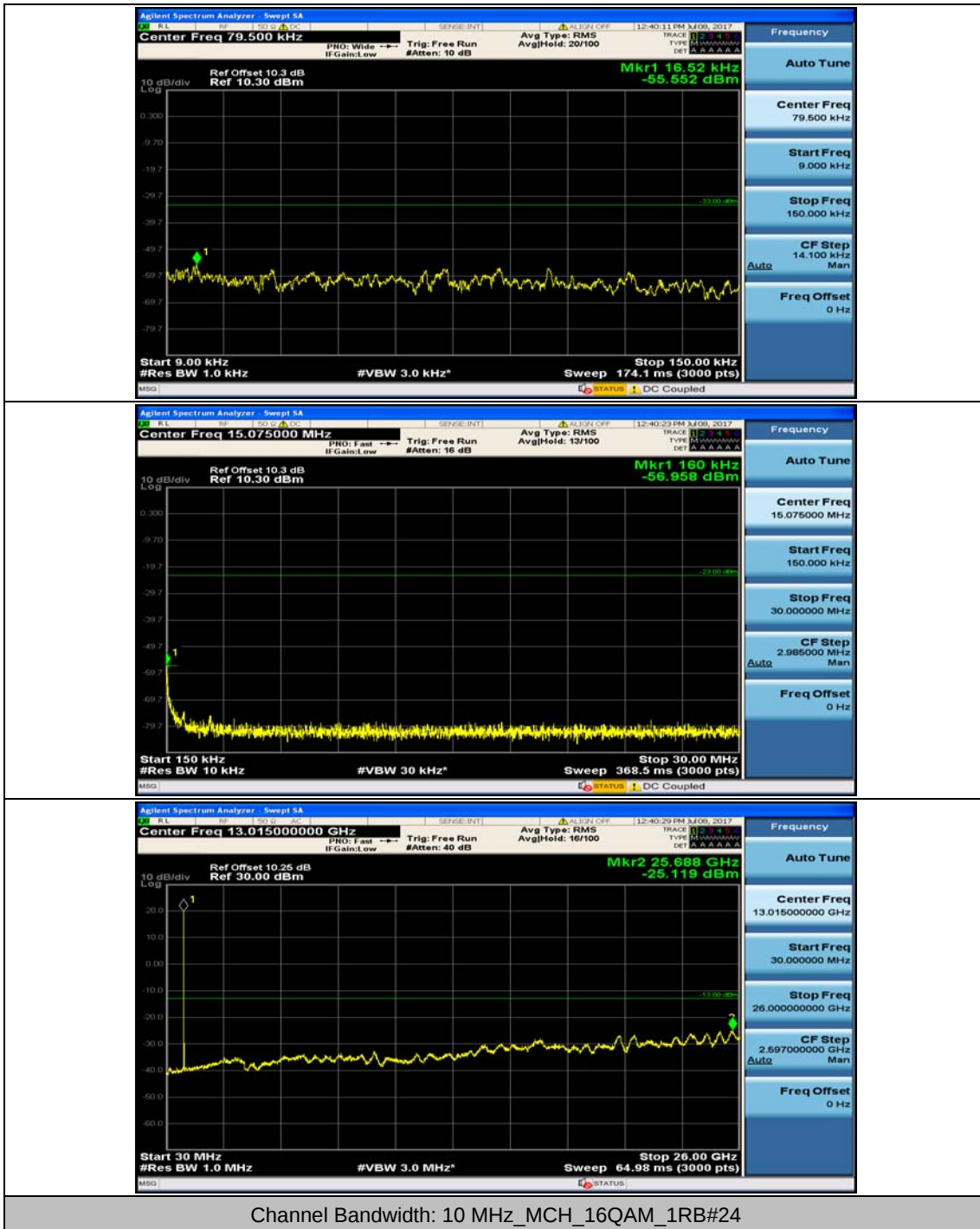


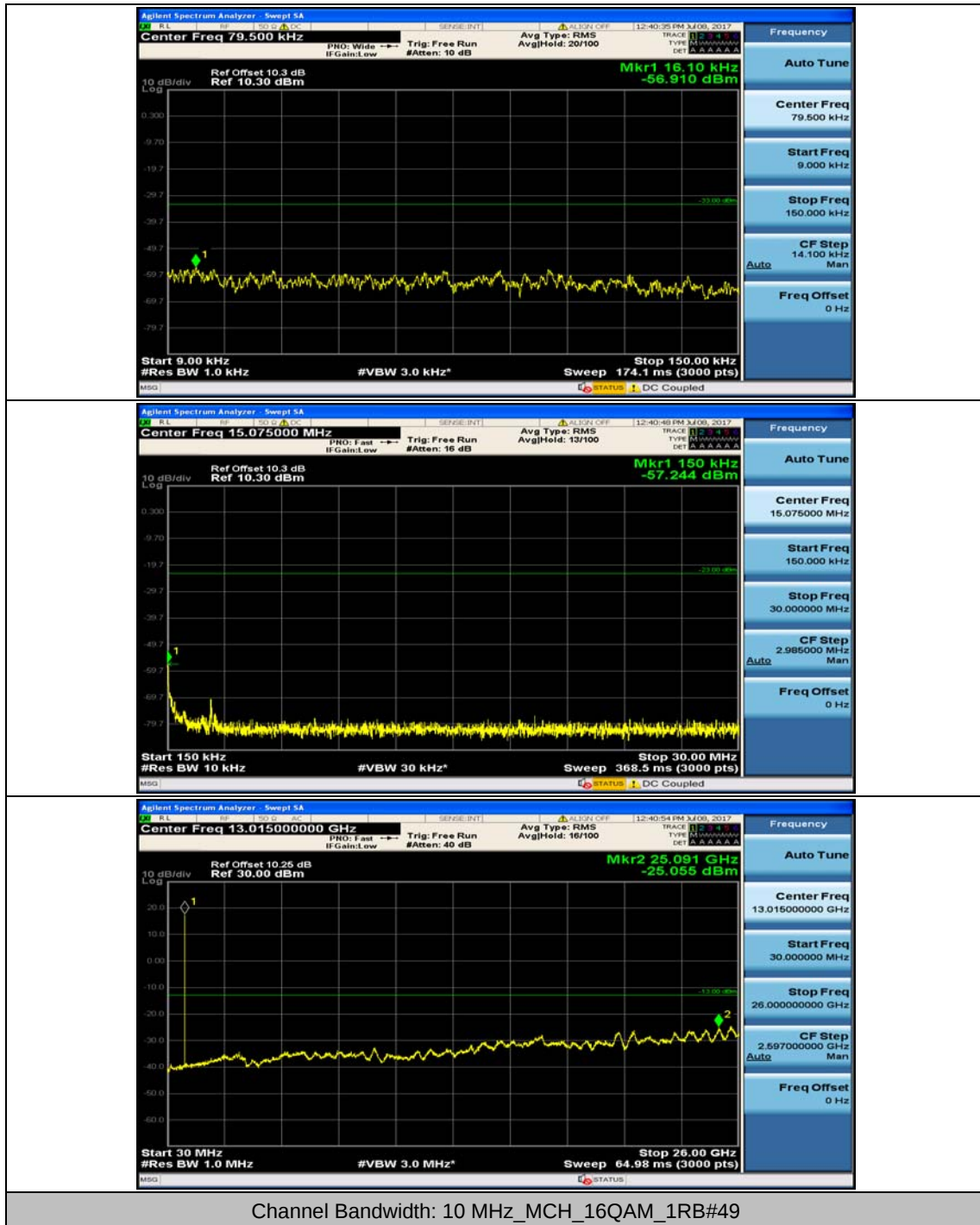


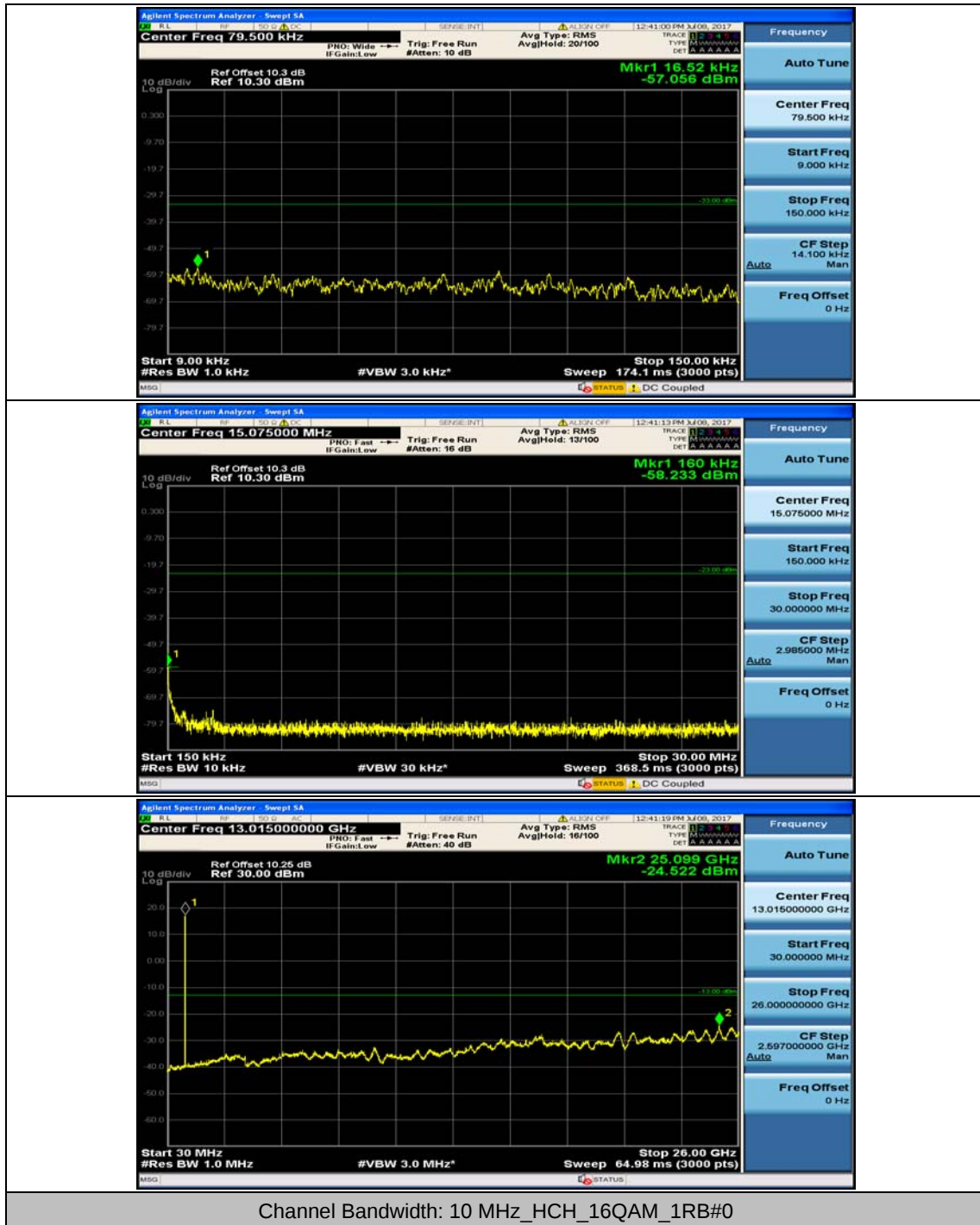


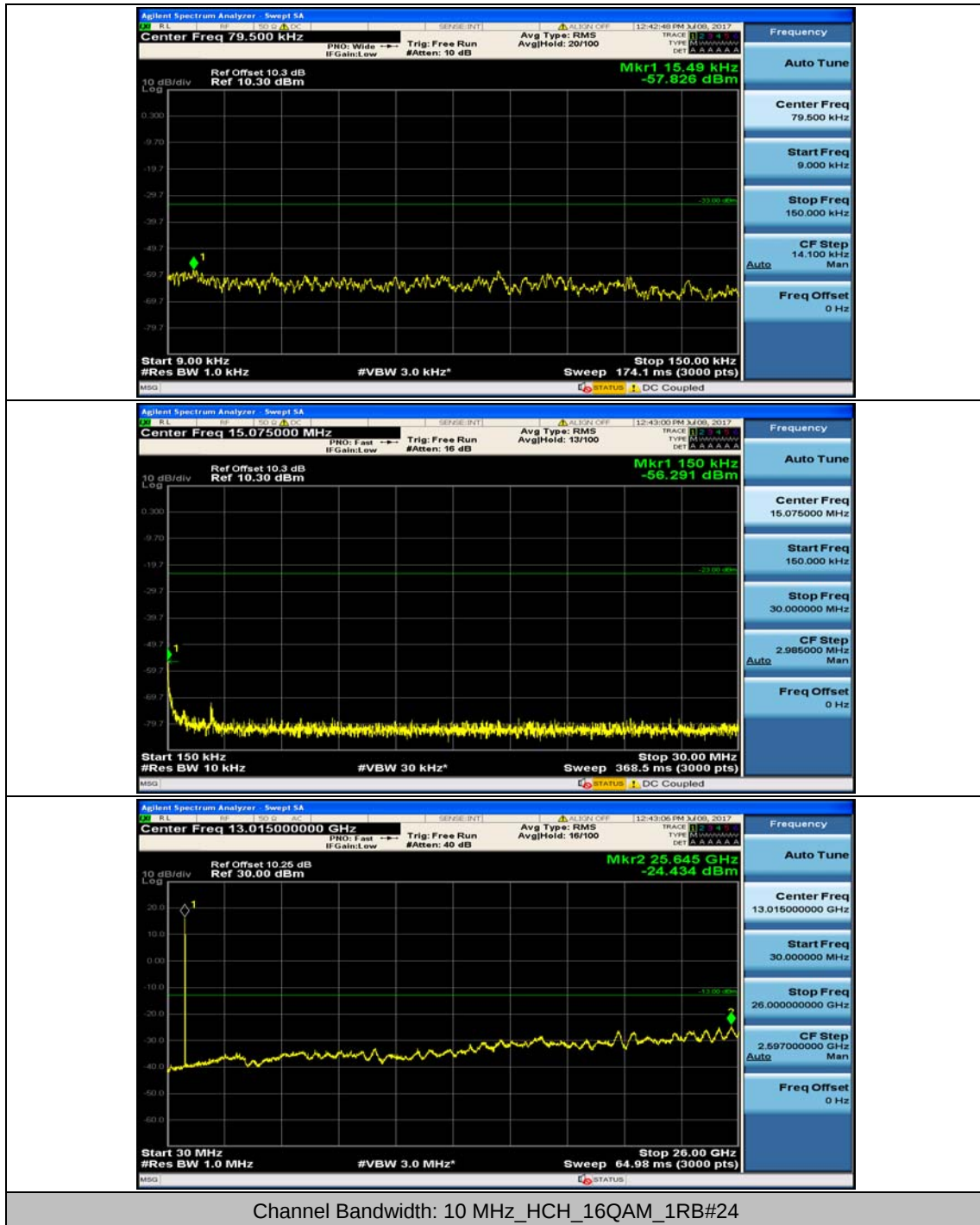


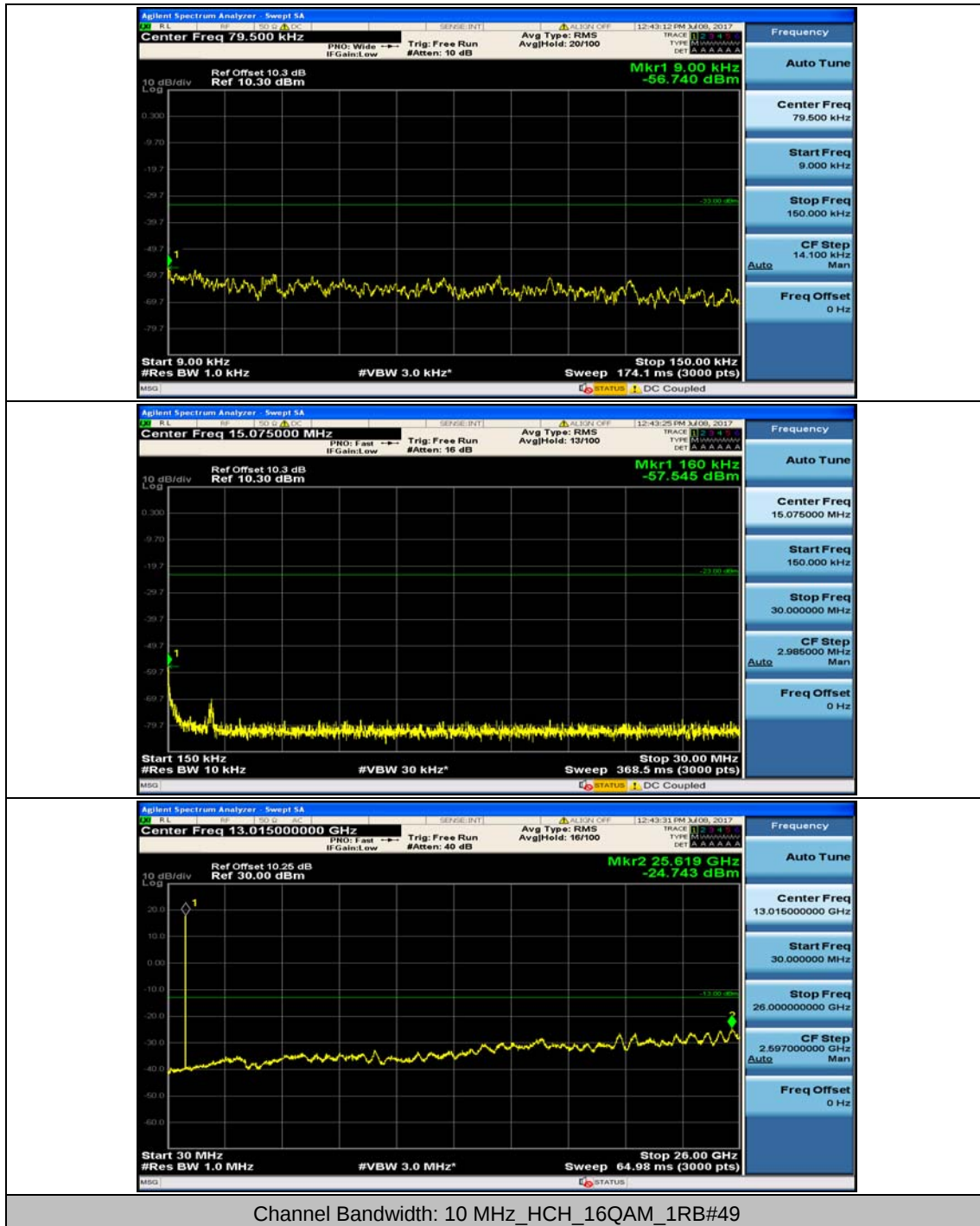


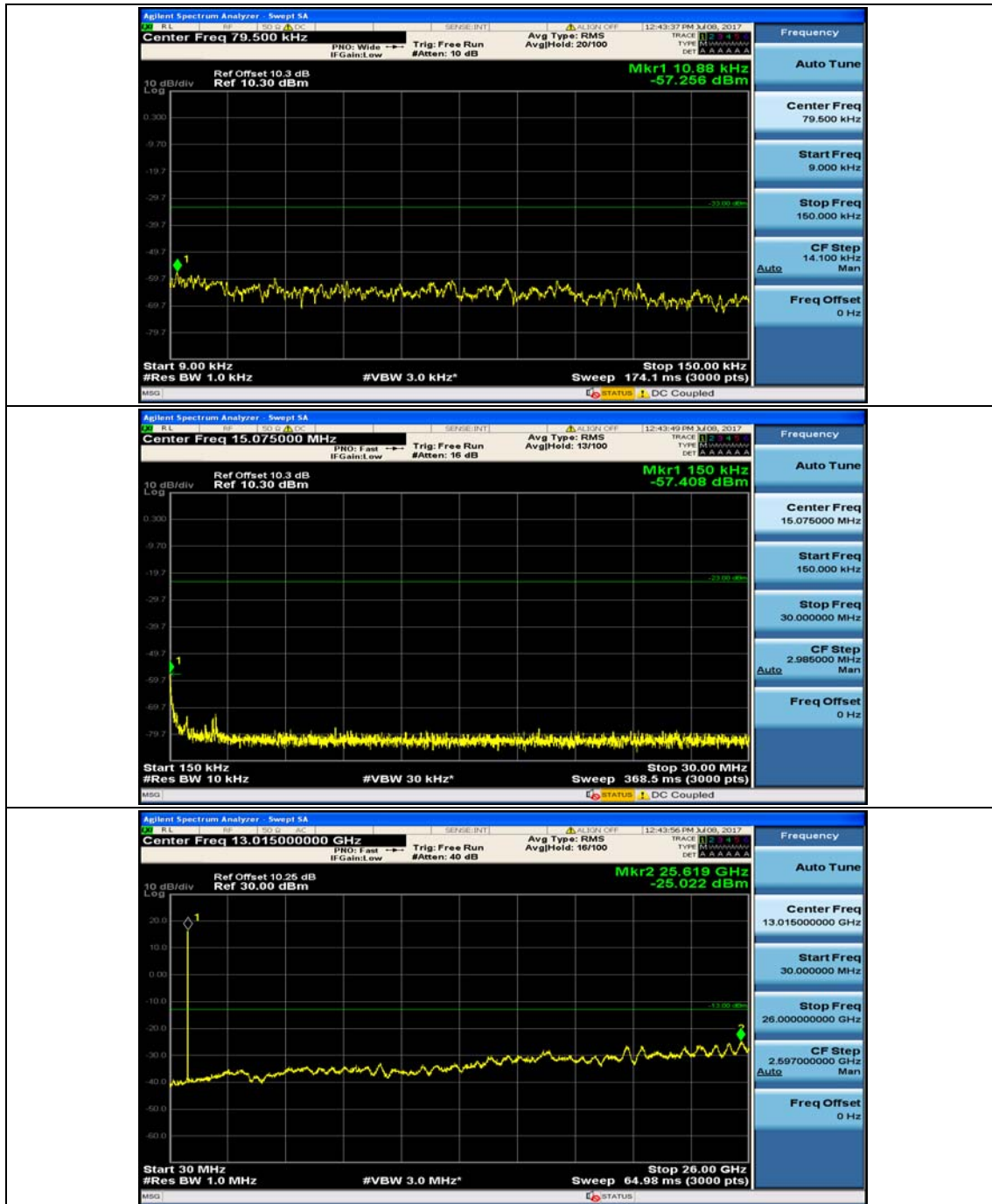












Appendix F: Frequency Stability

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	2.73	0.003310	± 2.5	PASS
		VN	TN	1.12	0.001358	± 2.5	PASS
		VH	TN	2.05	0.002486	± 2.5	PASS
	MCH	VL	TN	-1.98	-0.002367	± 2.5	PASS
		VN	TN	1.11	0.001327	± 2.5	PASS
		VH	TN	2.88	0.003443	± 2.5	PASS
	HCH	VL	TN	4.15	0.004892	± 2.5	PASS
		VN	TN	2.96	0.003489	± 2.5	PASS
		VH	TN	1.67	0.001969	± 2.5	PASS
16QAM	LCH	VL	TN	3.98	0.004826	± 2.5	PASS
		VN	TN	4.12	0.004996	± 2.5	PASS
		VH	TN	4.49	0.005444	± 2.5	PASS
	MCH	VL	TN	2.09	0.002499	± 2.5	PASS
		VN	TN	0.57	0.000681	± 2.5	PASS
		VH	TN	2.19	0.002618	± 2.5	PASS
	HCH	VL	TN	2.83	0.003336	± 2.5	PASS
		VN	TN	-0.75	-0.000884	± 2.5	PASS
		VH	TN	4.83	0.005694	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.38	0.004098	± 2.5	PASS
		VN	-20	1.44	0.001746	± 2.5	PASS
		VN	-10	4.9	0.005942	± 2.5	PASS
		VN	0	-0.51	-0.000618	± 2.5	PASS
		VN	10	-0.24	-0.000291	± 2.5	PASS
		VN	20	2.83	0.003432	± 2.5	PASS
		VN	30	0.68	0.000825	± 2.5	PASS
		VN	40	1.28	0.001552	± 2.5	PASS
		VN	50	4.38	0.005311	± 2.5	PASS
	MCH	VN	-30	4.17	0.004985	± 2.5	PASS
		VN	-20	3.58	0.004280	± 2.5	PASS

		VN	-10	1.68	0.002008	± 2.5	PASS
		VN	0	-0.78	-0.000932	± 2.5	PASS
		VN	10	-1.16	-0.001387	± 2.5	PASS
		VN	20	3.16	0.003778	± 2.5	PASS
		VN	30	-0.87	-0.001040	± 2.5	PASS
		VN	40	-1.32	-0.001578	± 2.5	PASS
		VN	50	4.54	0.005427	± 2.5	PASS
	HCH	VN	-30	-1.43	-0.001686	± 2.5	PASS
		VN	-20	-1.05	-0.001238	± 2.5	PASS
		VN	-10	3.97	0.004680	± 2.5	PASS
		VN	0	4.6	0.005423	± 2.5	PASS
		VN	10	-1.77	-0.002087	± 2.5	PASS
		VN	20	-1.99	-0.002346	± 2.5	PASS
		VN	30	1.94	0.002287	± 2.5	PASS
		VN	40	2.93	0.003454	± 2.5	PASS
		VN	50	-0.3	-0.000354	± 2.5	PASS
16QAM	LCH	VN	-30	-0.63	-0.000764	± 2.5	PASS
		VN	-20	-0.86	-0.001043	± 2.5	PASS
		VN	-10	-0.88	-0.001067	± 2.5	PASS
		VN	0	0.32	0.000388	± 2.5	PASS
		VN	10	-1.66	-0.002013	± 2.5	PASS
		VN	20	-0.85	-0.001031	± 2.5	PASS
		VN	30	4.45	0.005396	± 2.5	PASS
		VN	40	2.2	0.002668	± 2.5	PASS
		VN	50	1.41	0.001710	± 2.5	PASS
	MCH	VN	-30	4.68	0.005517	± 2.5	PASS
		VN	-20	1.5	0.001768	± 2.5	PASS
		VN	-10	-0.74	-0.000872	± 2.5	PASS
		VN	0	3.32	0.003914	± 2.5	PASS
		VN	10	-1.28	-0.001509	± 2.5	PASS
		VN	20	1.19	0.001403	± 2.5	PASS
		VN	30	0.29	0.000342	± 2.5	PASS
		VN	40	1.72	0.002028	± 2.5	PASS
		VN	50	-1.69	-0.001992	± 2.5	PASS
	HCH	VN	-30	-1.56	-0.001839	± 2.5	PASS
		VN	-20	3.52	0.004149	± 2.5	PASS
		VN	-10	1.32	0.001556	± 2.5	PASS
		VN	0	0.84	0.000990	± 2.5	PASS
		VN	10	3.17	0.003737	± 2.5	PASS
		VN	20	-1.29	-0.001521	± 2.5	PASS
		VN	30	-1.22	-0.001438	± 2.5	PASS

		VN	40	3.92	0.004621	± 2.5	PASS
		VN	50	-0.66	-0.000778	± 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	2.68	0.003247	± 2.5	PASS
		VN	TN	4.21	0.005100	± 2.5	PASS
		VH	TN	3.39	0.004107	± 2.5	PASS
	MCH	VL	TN	-1.43	-0.001710	± 2.5	PASS
		VN	TN	4.32	0.005164	± 2.5	PASS
		VH	TN	3.35	0.004005	± 2.5	PASS
	HCH	VL	TN	-0.89	-0.001050	± 2.5	PASS
		VN	TN	-1.07	-0.001263	± 2.5	PASS
		VH	TN	0.97	0.001145	± 2.5	PASS
16QAM	LCH	VL	TN	3.73	0.004518	± 2.5	PASS
		VN	TN	1.87	0.002265	± 2.5	PASS
		VH	TN	-0.39	-0.000472	± 2.5	PASS
	MCH	VL	TN	4.91	0.005870	± 2.5	PASS
		VN	TN	3.58	0.004280	± 2.5	PASS
		VH	TN	1.49	0.001781	± 2.5	PASS
	HCH	VL	TN	-0.21	-0.000248	± 2.5	PASS
		VN	TN	0.55	0.000649	± 2.5	PASS
		VH	TN	2.93	0.003457	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.03	0.000036	± 2.5	PASS
		VN	-20	3.01	0.003646	± 2.5	PASS
		VN	-10	-1.92	-0.002326	± 2.5	PASS
		VN	0	3.61	0.004373	± 2.5	PASS
		VN	10	-0.42	-0.000509	± 2.5	PASS
		VN	20	1.56	0.001890	± 2.5	PASS
		VN	30	4.47	0.005415	± 2.5	PASS
		VN	40	-0.45	-0.000545	± 2.5	PASS
		VN	50	-1.13	-0.001369	± 2.5	PASS
	MCH	VN	-30	-0.13	-0.000155	± 2.5	PASS
		VN	-20	4.3	0.005140	± 2.5	PASS
		VN	-10	1.57	0.001877	± 2.5	PASS

		VN	0	-1.49	-0.001781	± 2.5	PASS
		VN	10	4.53	0.005415	± 2.5	PASS
		VN	20	2.33	0.002785	± 2.5	PASS
		VN	30	-1.46	-0.001745	± 2.5	PASS
		VN	40	-1.79	-0.002140	± 2.5	PASS
		VN	50	-0.27	-0.000323	± 2.5	PASS
	HCH	VN	-30	-0.98	-0.001156	± 2.5	PASS
		VN	-20	4.84	0.005711	± 2.5	PASS
		VN	-10	0.1	0.000118	± 2.5	PASS
		VN	0	-0.83	-0.000979	± 2.5	PASS
		VN	10	4.1	0.004838	± 2.5	PASS
		VN	20	1.26	0.001487	± 2.5	PASS
		VN	30	1.59	0.001876	± 2.5	PASS
		VN	40	0.96	0.001133	± 2.5	PASS
		VN	50	3.56	0.004201	± 2.5	PASS
16QAM	LCH	VN	-30	2.87	0.003431	± 2.5	PASS
		VN	-20	2.2	0.002630	± 2.5	PASS
		VN	-10	2.44	0.002917	± 2.5	PASS
		VN	0	4.09	0.004889	± 2.5	PASS
		VN	10	0.95	0.001136	± 2.5	PASS
		VN	20	-0.61	-0.000729	± 2.5	PASS
		VN	30	1.25	0.001494	± 2.5	PASS
		VN	40	-0.03	-0.000036	± 2.5	PASS
		VN	50	3.37	0.004029	± 2.5	PASS
	MCH	VN	-30	-1.1	-0.001298	± 2.5	PASS
		VN	-20	-0.07	-0.000083	± 2.5	PASS
		VN	-10	3.61	0.004260	± 2.5	PASS
		VN	0	3.73	0.004401	± 2.5	PASS
		VN	10	3.51	0.004142	± 2.5	PASS
		VN	20	4.61	0.005440	± 2.5	PASS
		VN	30	2.33	0.002749	± 2.5	PASS
		VN	40	2.44	0.002879	± 2.5	PASS
		VN	50	1.73	0.002041	± 2.5	PASS
	HCH	VN	-30	-0.2	-0.000236	± 2.5	PASS
		VN	-20	2.85	0.003363	± 2.5	PASS
		VN	-10	1.64	0.001935	± 2.5	PASS
		VN	0	1.7	0.002006	± 2.5	PASS
		VN	10	-1.04	-0.001227	± 2.5	PASS
		VN	20	0.53	0.000625	± 2.5	PASS
		VN	30	0.31	0.000366	± 2.5	PASS
		VN	40	0.67	0.000791	± 2.5	PASS

		VN	50	1.76	0.002077	± 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	2	0.002420	± 2.5	PASS
		VN	TN	0.86	0.001041	± 2.5	PASS
		VH	TN	1.11	0.001343	± 2.5	PASS
	MCH	VL	TN	3.55	0.004244	± 2.5	PASS
		VN	TN	4.25	0.005081	± 2.5	PASS
		VH	TN	4.39	0.005248	± 2.5	PASS
	HCH	VL	TN	0.64	0.000756	± 2.5	PASS
		VN	TN	1.38	0.001630	± 2.5	PASS
		VH	TN	1.7	0.002008	± 2.5	PASS
16QAM	LCH	VL	TN	-1.7	-0.002057	± 2.5	PASS
		VN	TN	4.78	0.005783	± 2.5	PASS
		VH	TN	0.57	0.000690	± 2.5	PASS
	MCH	VL	TN	-1.29	-0.001542	± 2.5	PASS
		VN	TN	-0.41	-0.000490	± 2.5	PASS
		VH	TN	1.02	0.001219	± 2.5	PASS
	HCH	VL	TN	-1.1	-0.001299	± 2.5	PASS
		VN	TN	-1.44	-0.001701	± 2.5	PASS
		VH	TN	0.43	0.000508	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.51	-0.001827	± 2.5	PASS
		VN	-20	1.26	0.001525	± 2.5	PASS
		VN	-10	2.05	0.002480	± 2.5	PASS
		VN	0	4.11	0.004973	± 2.5	PASS
		VN	10	2.58	0.003122	± 2.5	PASS
		VN	20	0.36	0.000436	± 2.5	PASS
		VN	30	0.13	0.000157	± 2.5	PASS
		VN	40	2.02	0.002444	± 2.5	PASS
		VN	50	2.46	0.002976	± 2.5	PASS
	MCH	VN	-30	0.58	0.000693	± 2.5	PASS
		VN	-20	-1.81	-0.002164	± 2.5	PASS
		VN	-10	1.13	0.001351	± 2.5	PASS
		VN	0	3.67	0.004387	± 2.5	PASS

		VN	10	1.61	0.001925	± 2.5	PASS
		VN	20	-0.13	-0.000155	± 2.5	PASS
		VN	30	2.13	0.002546	± 2.5	PASS
		VN	40	3.32	0.003969	± 2.5	PASS
		VN	50	2.1	0.002510	± 2.5	PASS
	HCH	VN	-30	-0.38	-0.000449	± 2.5	PASS
		VN	-20	3.41	0.004028	± 2.5	PASS
		VN	-10	3.6	0.004253	± 2.5	PASS
		VN	0	3.09	0.003650	± 2.5	PASS
		VN	10	-1.64	-0.001937	± 2.5	PASS
		VN	20	4.88	0.005765	± 2.5	PASS
		VN	30	-0.42	-0.000496	± 2.5	PASS
		VN	40	-0.89	-0.001051	± 2.5	PASS
		VN	50	3.14	0.003709	± 2.5	PASS
		VN	-30	4.92	0.005882	± 2.5	PASS
16QAM	LCH	VN	-20	4.83	0.005774	± 2.5	PASS
		VN	-10	1.5	0.001793	± 2.5	PASS
		VN	0	2.21	0.002642	± 2.5	PASS
		VN	10	-0.46	-0.000550	± 2.5	PASS
		VN	20	2.41	0.002881	± 2.5	PASS
		VN	30	4.51	0.005392	± 2.5	PASS
		VN	40	2.3	0.002750	± 2.5	PASS
		VN	50	2.3	0.002750	± 2.5	PASS
	MCH	VN	-30	1.33	0.001571	± 2.5	PASS
		VN	-20	1.06	0.001252	± 2.5	PASS
		VN	-10	4.31	0.005092	± 2.5	PASS
		VN	0	-0.28	-0.000331	± 2.5	PASS
		VN	10	2.04	0.002410	± 2.5	PASS
		VN	20	4.28	0.005056	± 2.5	PASS
		VN	30	4.23	0.004997	± 2.5	PASS
		VN	40	1.62	0.001914	± 2.5	PASS
		VN	50	1.3	0.001536	± 2.5	PASS
	HCH	VN	-30	3.81	0.004501	± 2.5	PASS
		VN	-20	4.2	0.004962	± 2.5	PASS
		VN	-10	4.42	0.005222	± 2.5	PASS
		VN	0	3.35	0.003957	± 2.5	PASS
		VN	10	1.87	0.002209	± 2.5	PASS
		VN	20	4.77	0.005635	± 2.5	PASS
		VN	30	4.86	0.005741	± 2.5	PASS
		VN	40	3.86	0.004560	± 2.5	PASS
		VN	50	0.08	0.000095	± 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	4.61	0.005561	± 2.5	PASS
		VN	TN	0.14	0.000169	± 2.5	PASS
		VH	TN	0.73	0.000881	± 2.5	PASS
	MCH	VL	TN	-1.76	-0.002104	± 2.5	PASS
		VN	TN	-1.81	-0.002164	± 2.5	PASS
		VH	TN	-1.67	-0.001996	± 2.5	PASS
	HCH	VL	TN	2.51	0.002974	± 2.5	PASS
		VN	TN	-0.89	-0.001055	± 2.5	PASS
		VH	TN	2.21	0.002618	± 2.5	PASS
16QAM	LCH	VL	TN	0.58	0.000700	± 2.5	PASS
		VN	TN	1.69	0.002039	± 2.5	PASS
		VH	TN	3.25	0.003920	± 2.5	PASS
	MCH	VL	TN	1.24	0.001482	± 2.5	PASS
		VN	TN	-1.61	-0.001925	± 2.5	PASS
		VH	TN	-1.91	-0.002283	± 2.5	PASS
	HCH	VL	TN	-0.72	-0.000853	± 2.5	PASS
		VN	TN	0.1	0.000118	± 2.5	PASS
		VH	TN	2.53	0.002998	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	0.01	0.000012	± 2.5	PASS
		VN	-20	-0.03	-0.000036	± 2.5	PASS
		VN	-10	0.5	0.000603	± 2.5	PASS
		VN	0	-0.01	-0.000012	± 2.5	PASS
		VN	10	-1.6	-0.001930	± 2.5	PASS
		VN	20	1.2	0.001448	± 2.5	PASS
		VN	30	1.56	0.001882	± 2.5	PASS
		VN	40	4.6	0.005549	± 2.5	PASS
		VN	50	2.35	0.002835	± 2.5	PASS
	MCH	VN	-30	-1.81	-0.002164	± 2.5	PASS
		VN	-20	-0.51	-0.000610	± 2.5	PASS
		VN	-10	-1.36	-0.001626	± 2.5	PASS
		VN	0	3	0.003586	± 2.5	PASS
		VN	10	0.39	0.000466	± 2.5	PASS
		VN	20	2.96	0.003539	± 2.5	PASS
		VN	30	4.28	0.005117	± 2.5	PASS

		VN	40	-1.2	-0.001435	± 2.5	PASS
		VN	50	-1.73	-0.002068	± 2.5	PASS
	HCH	VN	-30	-0.14	-0.000166	± 2.5	PASS
		VN	-20	0.5	0.000592	± 2.5	PASS
		VN	-10	1.46	0.001730	± 2.5	PASS
		VN	0	1.22	0.001445	± 2.5	PASS
		VN	10	0.7	0.000829	± 2.5	PASS
		VN	20	4.69	0.005557	± 2.5	PASS
		VN	30	-0.34	-0.000403	± 2.5	PASS
		VN	40	2.09	0.002476	± 2.5	PASS
		VN	50	-0.32	-0.000379	± 2.5	PASS
QPSK	LCH	VN	-30	0.34	0.000406	± 2.5	PASS
		VN	-20	1.69	0.002020	± 2.5	PASS
		VN	-10	2.45	0.002929	± 2.5	PASS
		VN	0	3.99	0.004770	± 2.5	PASS
		VN	10	2.24	0.002678	± 2.5	PASS
		VN	20	0.05	0.000060	± 2.5	PASS
		VN	30	3.01	0.003598	± 2.5	PASS
		VN	40	1.29	0.001542	± 2.5	PASS
		VN	50	4.99	0.005965	± 2.5	PASS
	MCH	VN	-30	0.73	0.000865	± 2.5	PASS
		VN	-20	1.08	0.001280	± 2.5	PASS
		VN	-10	4.73	0.005604	± 2.5	PASS
		VN	0	-1.37	-0.001623	± 2.5	PASS
		VN	10	1.96	0.002322	± 2.5	PASS
		VN	20	-0.39	-0.000462	± 2.5	PASS
		VN	30	4.03	0.004775	± 2.5	PASS
		VN	40	-1.95	-0.002310	± 2.5	PASS
		VN	50	3.93	0.004656	± 2.5	PASS
	HCH	VN	-30	3.78	0.004479	± 2.5	PASS
		VN	-20	0.7	0.000829	± 2.5	PASS
		VN	-10	3.52	0.004171	± 2.5	PASS
		VN	0	2.67	0.003164	± 2.5	PASS
		VN	10	4.23	0.005012	± 2.5	PASS
		VN	20	3.64	0.004313	± 2.5	PASS
		VN	30	3.7	0.004384	± 2.5	PASS
		VN	40	1.81	0.002145	± 2.5	PASS
		VN	50	0.98	0.001161	± 2.5	PASS