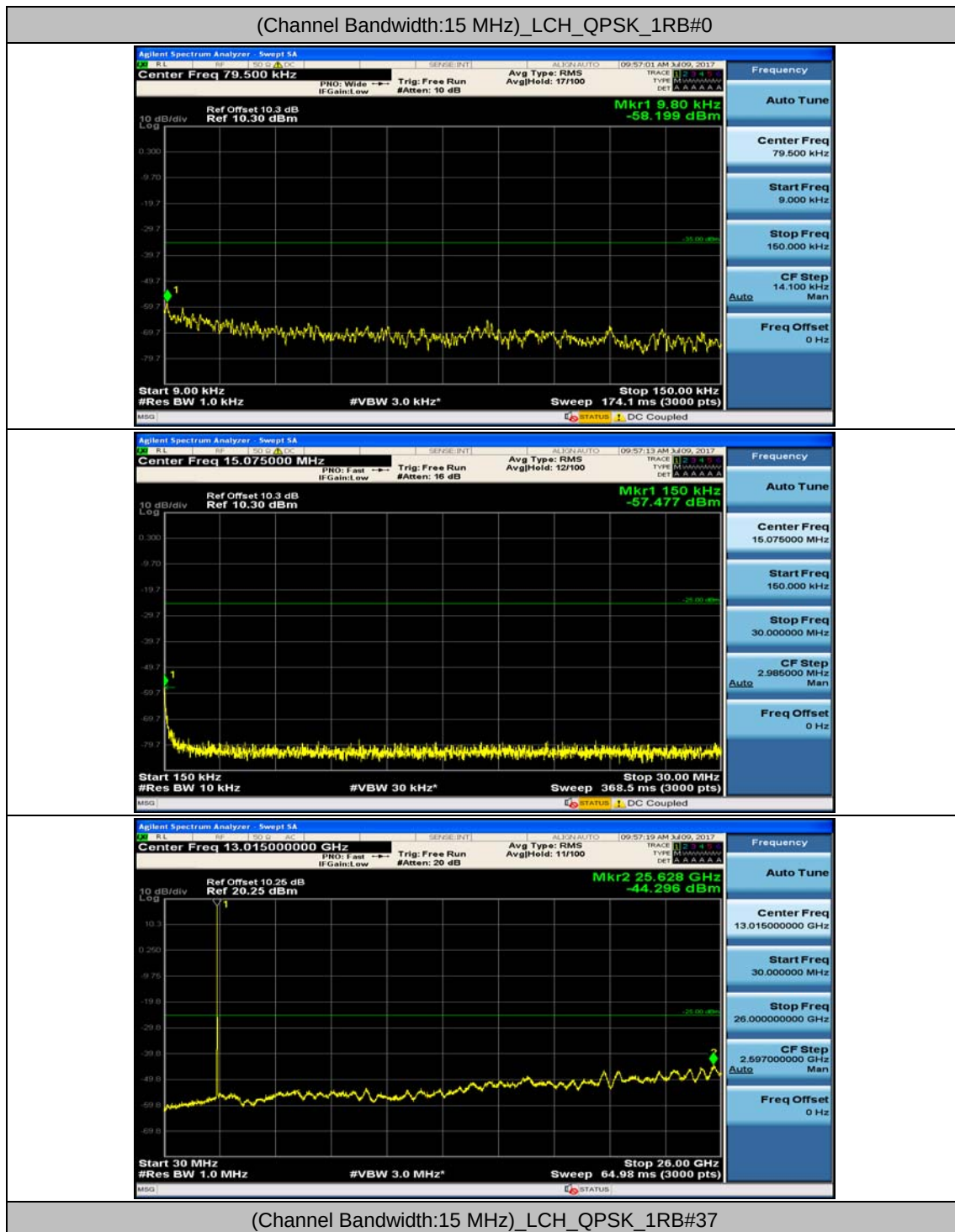
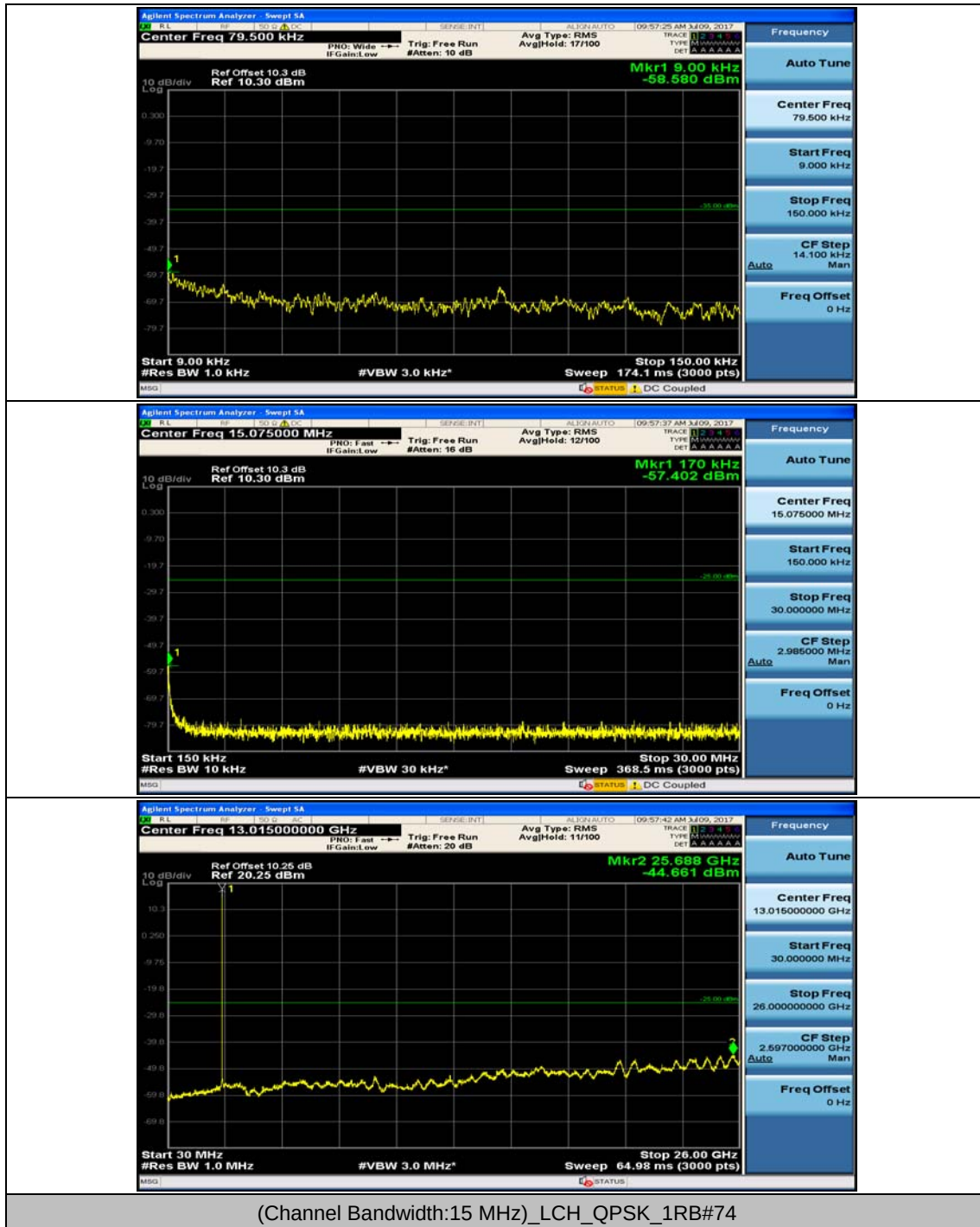
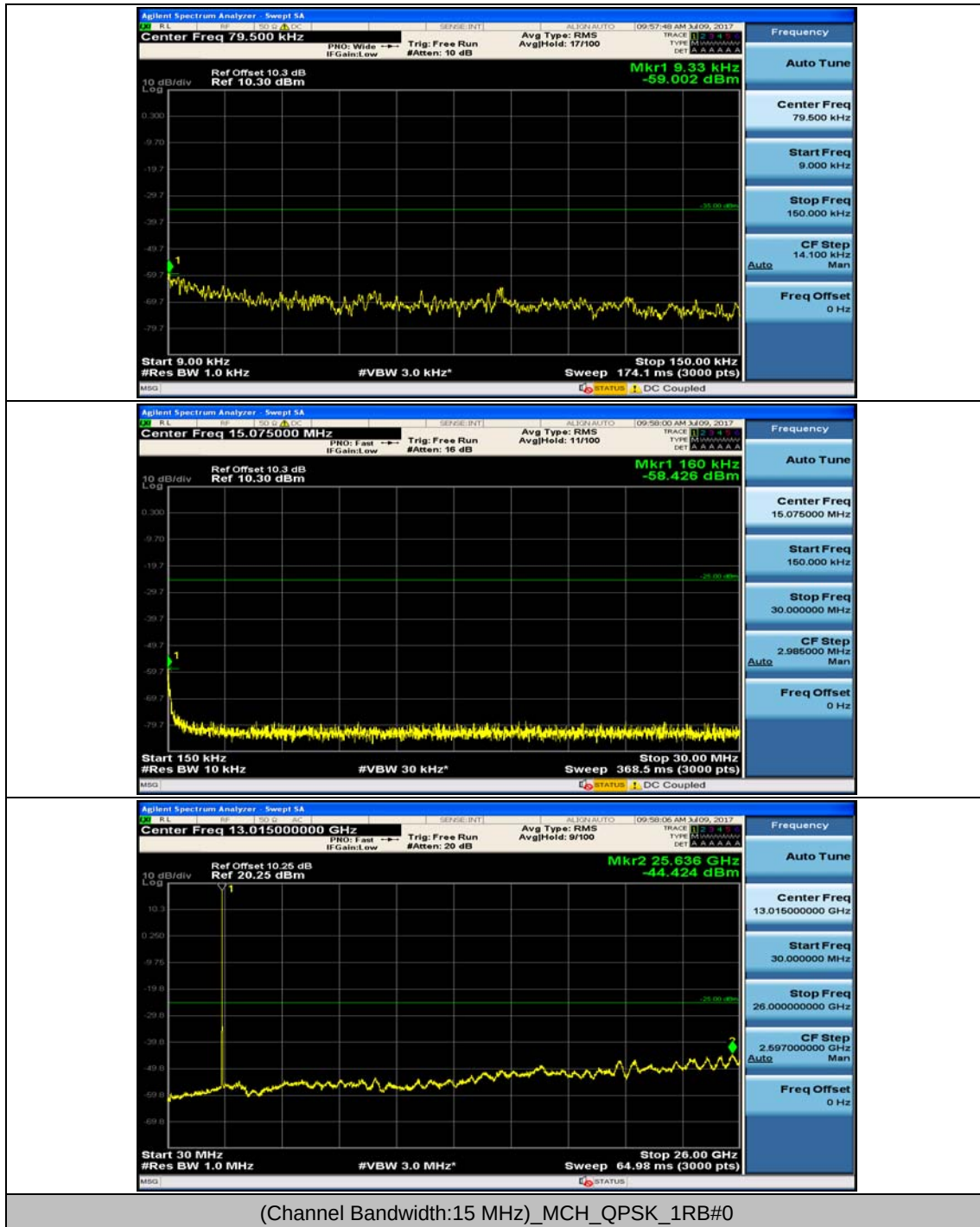
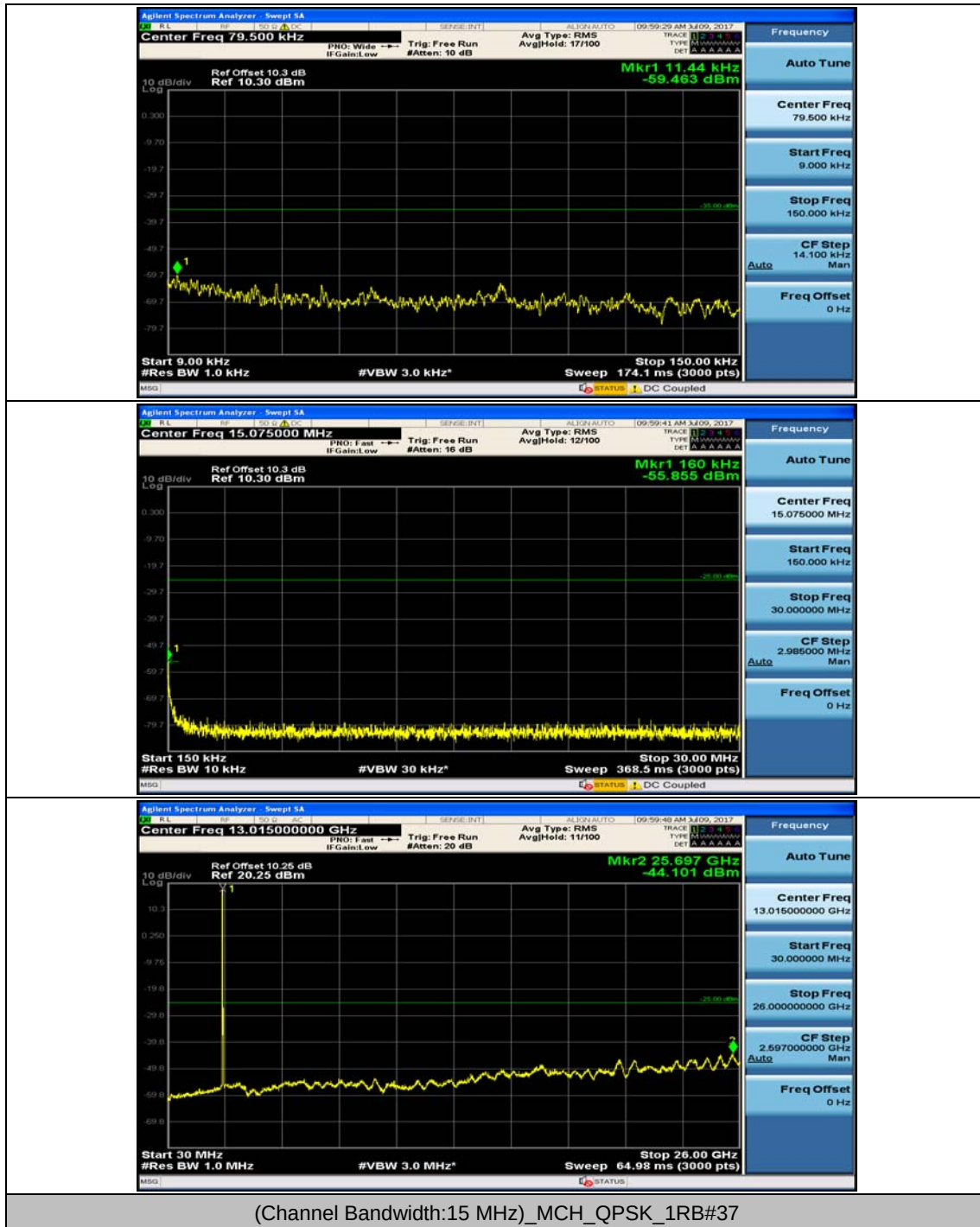


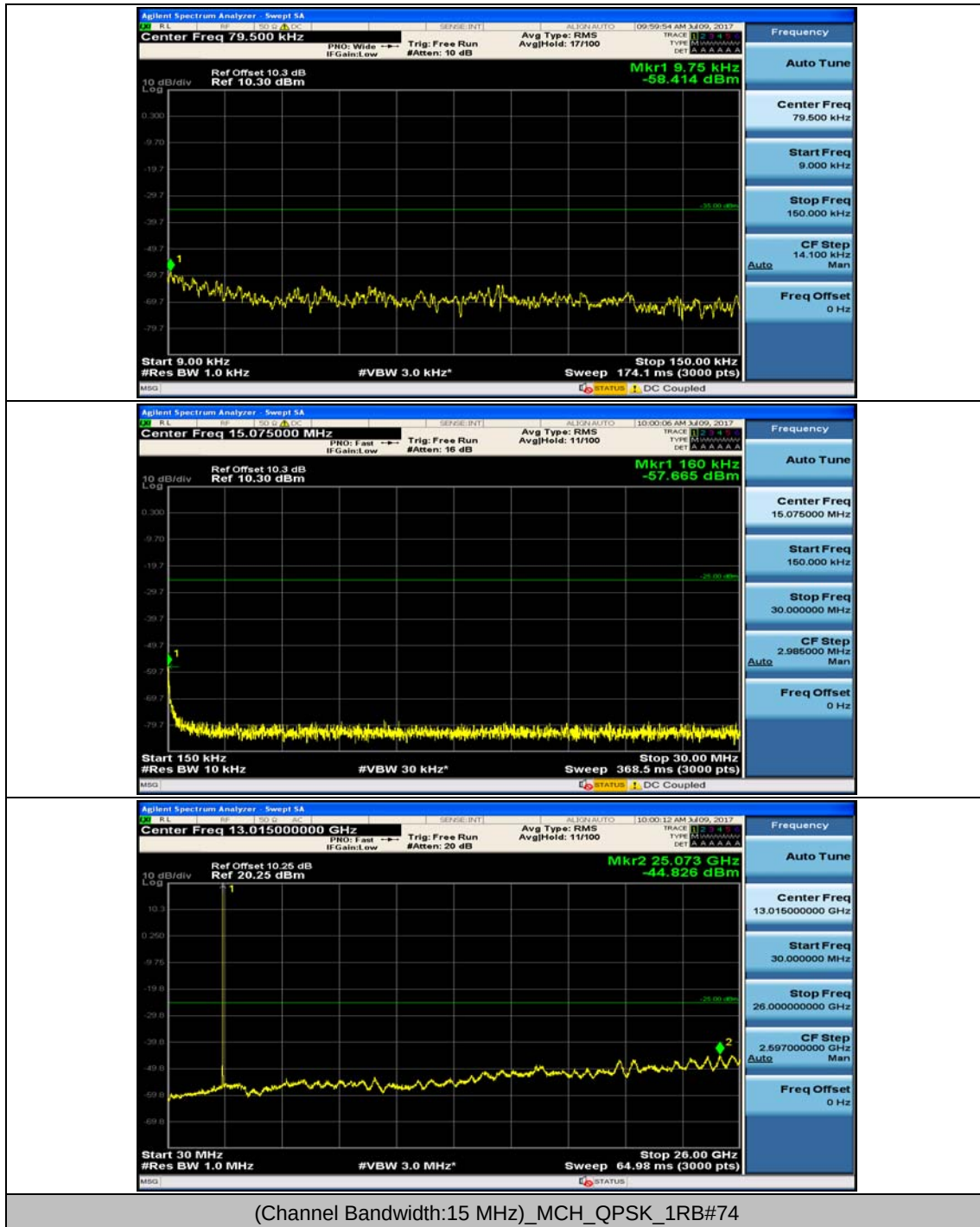
Channel Bandwidth: 15 MHz

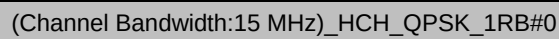


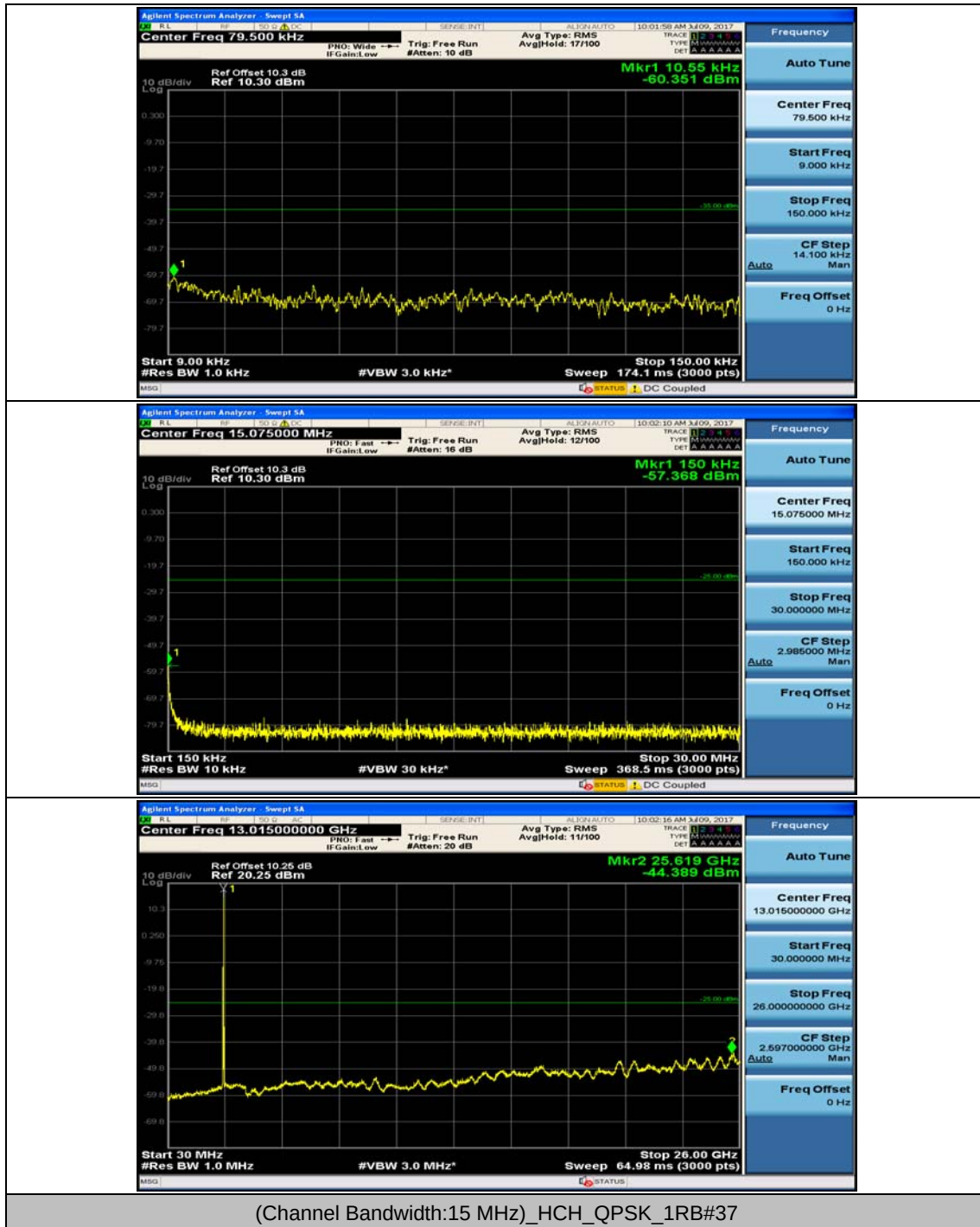


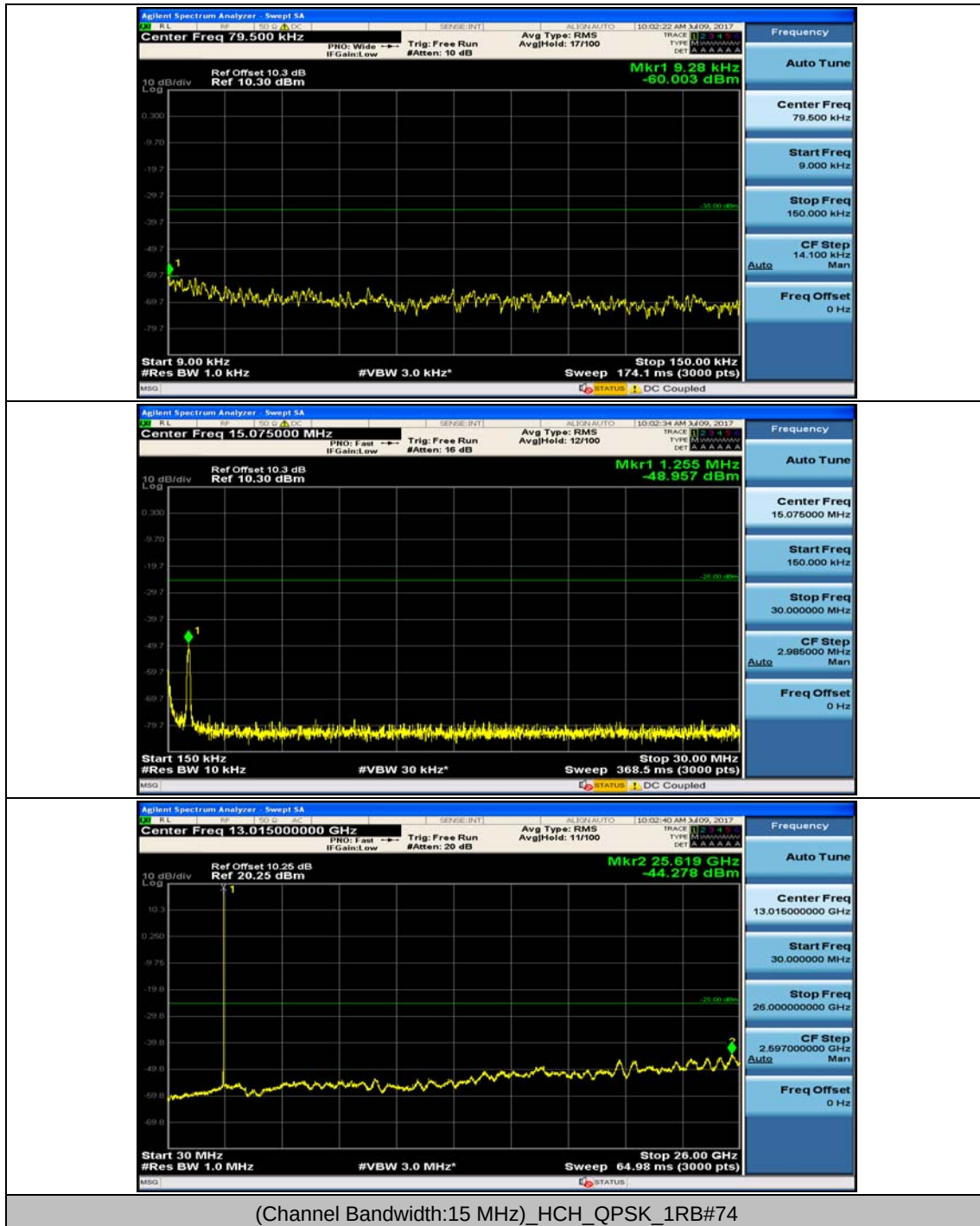


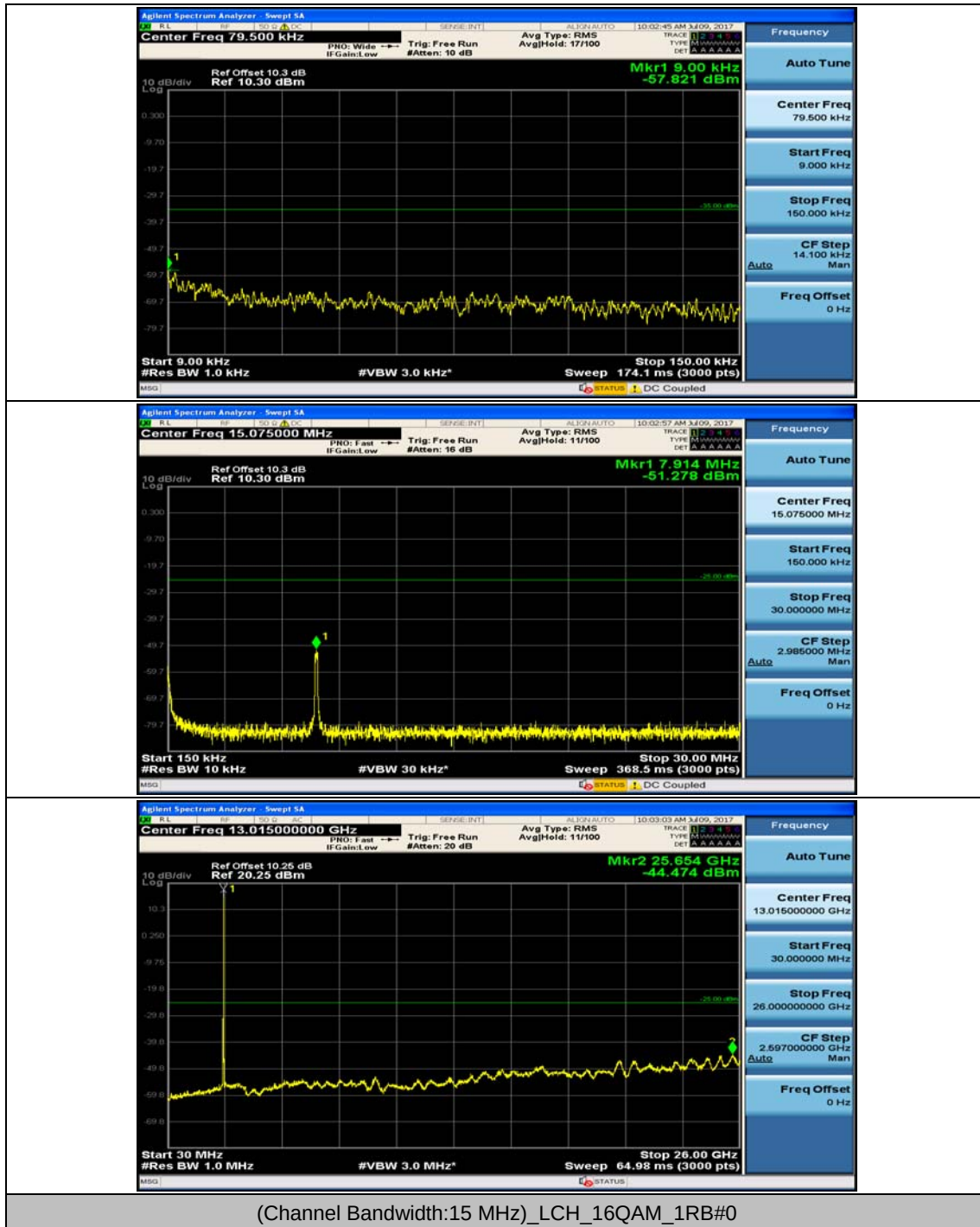


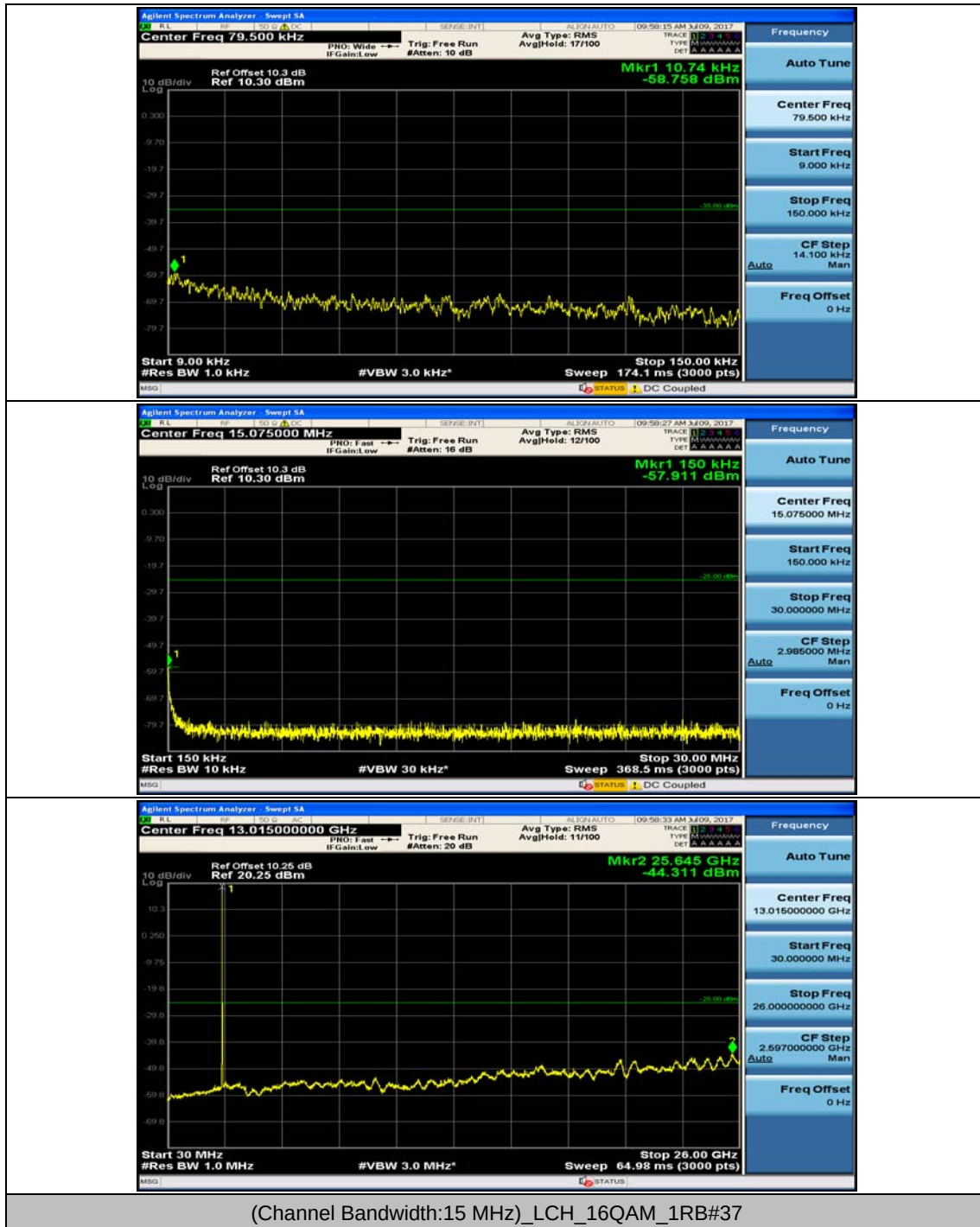


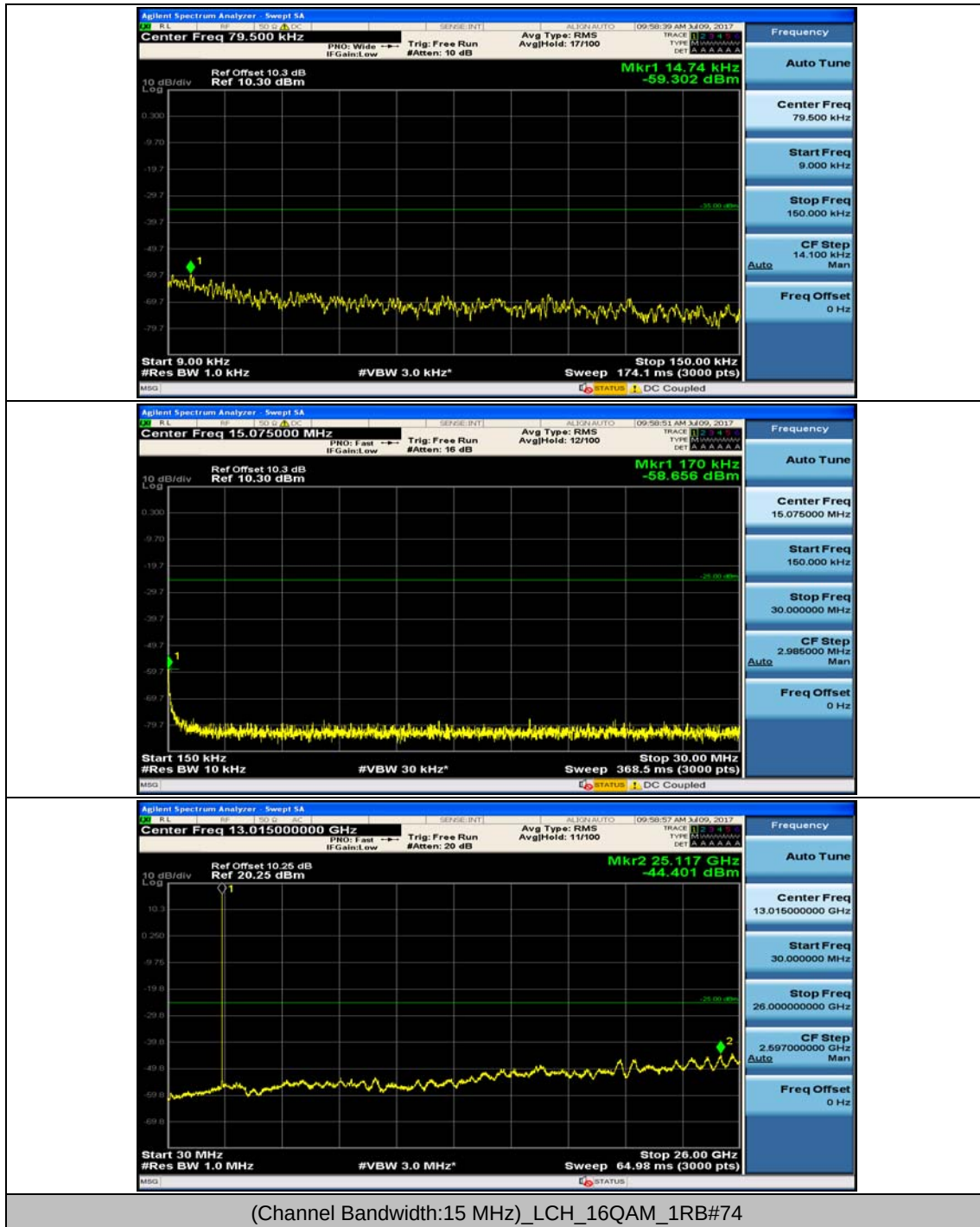


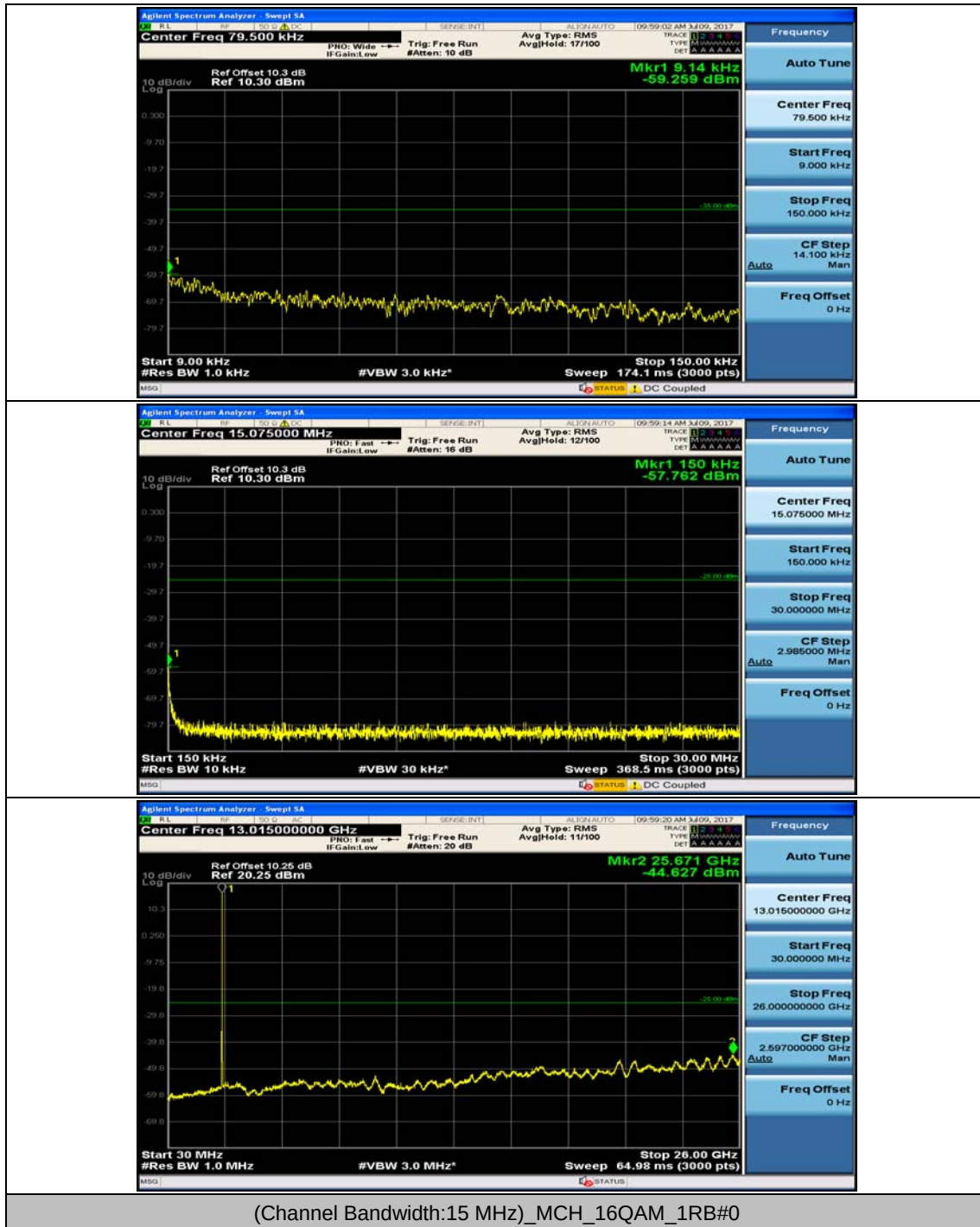


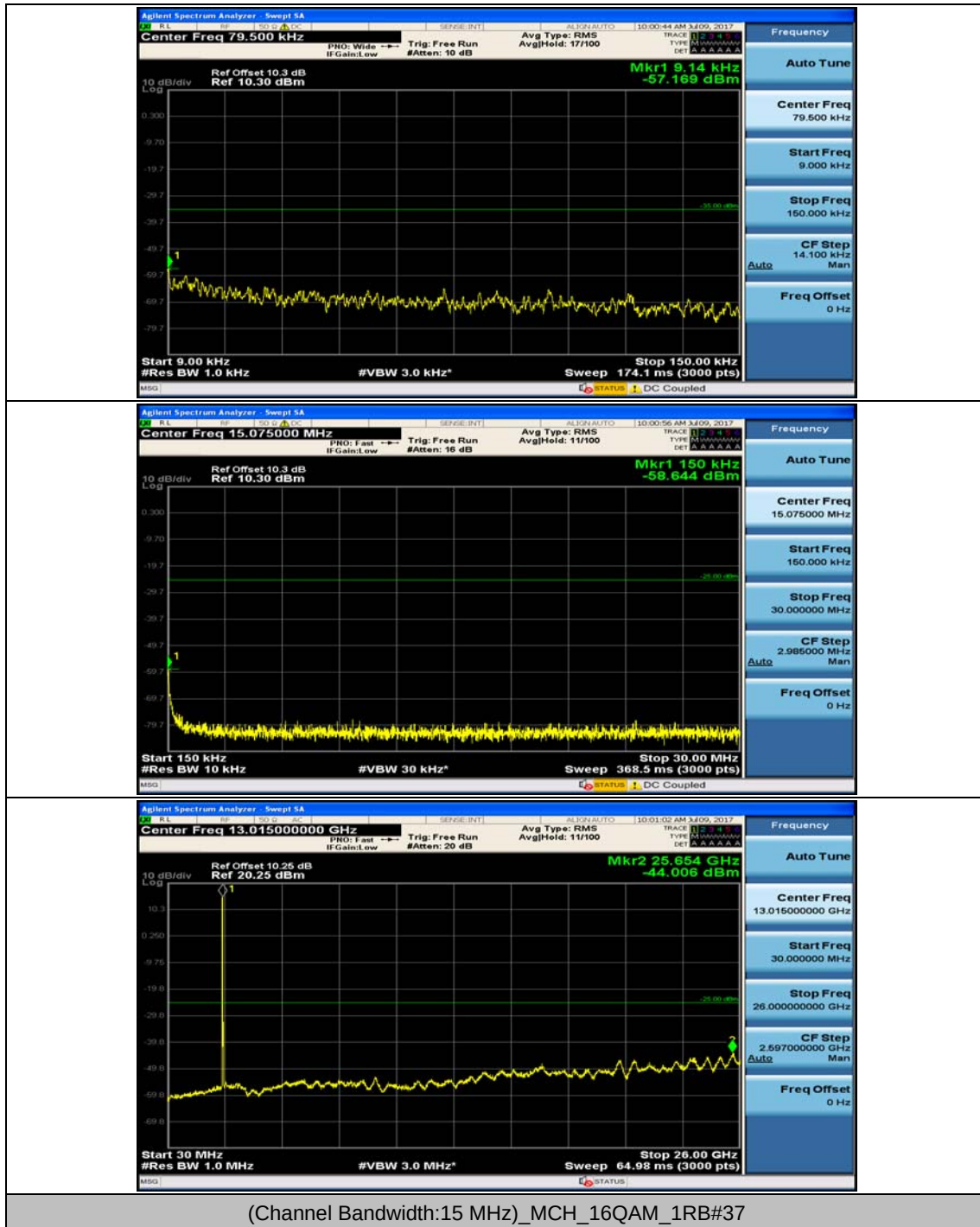


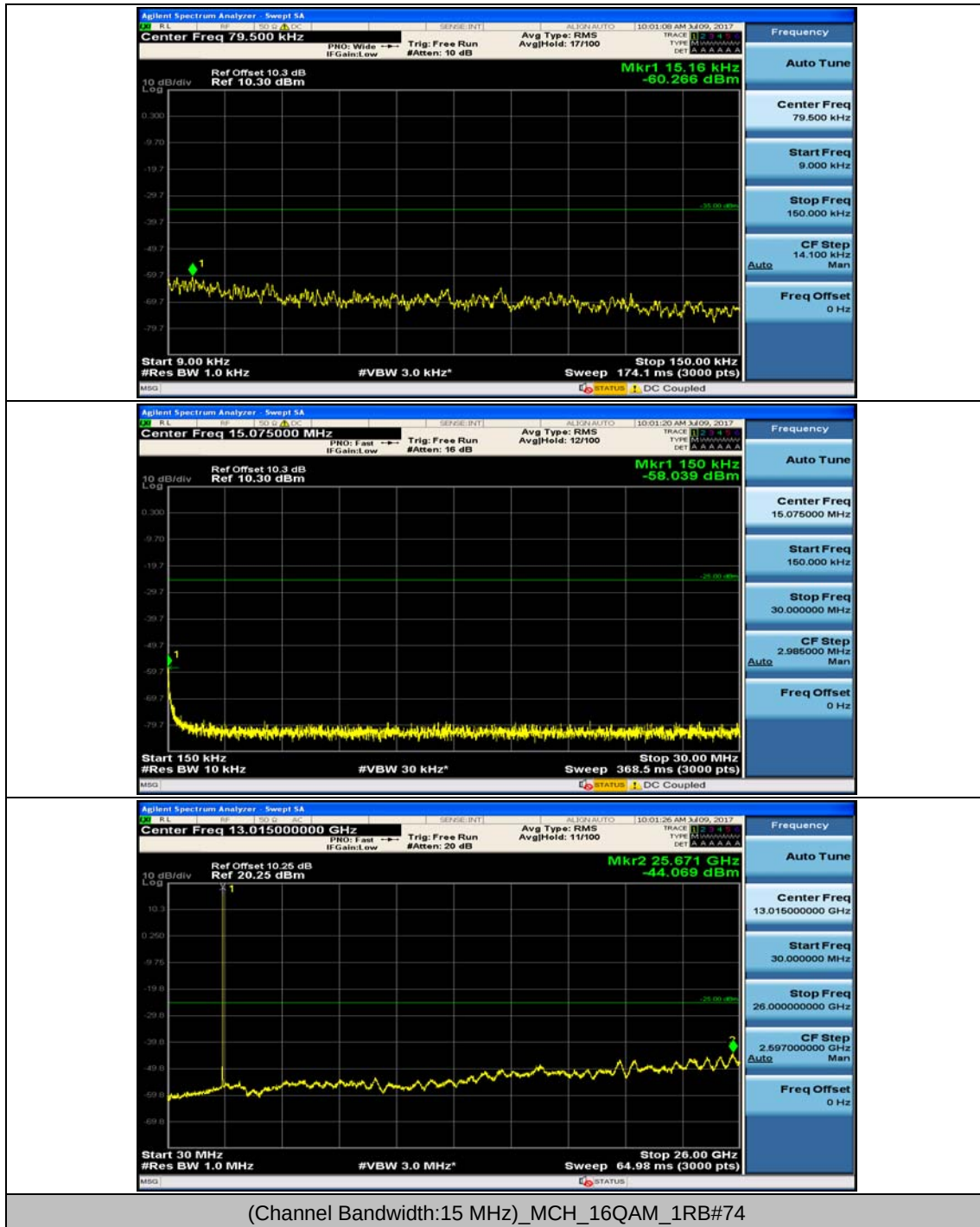


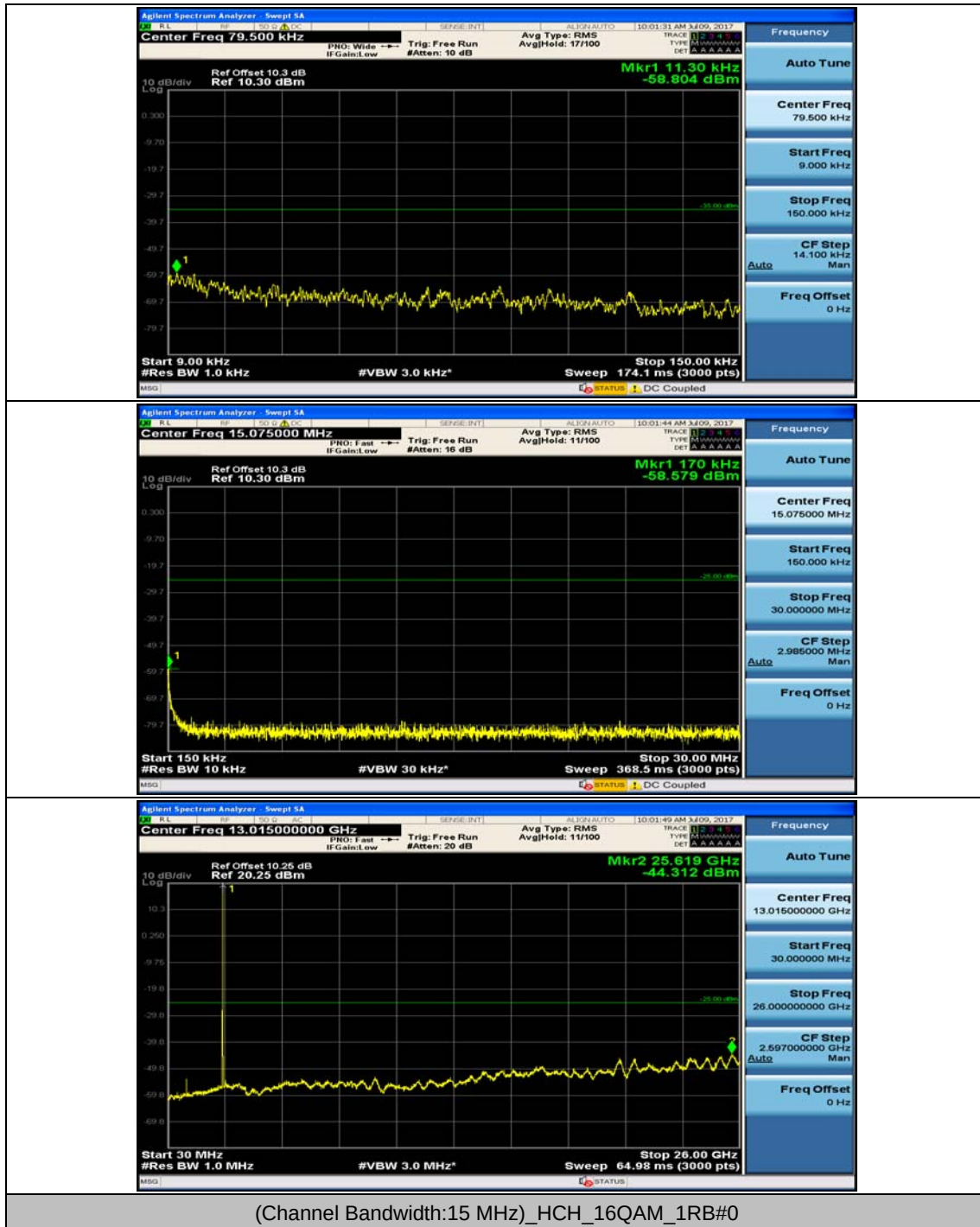


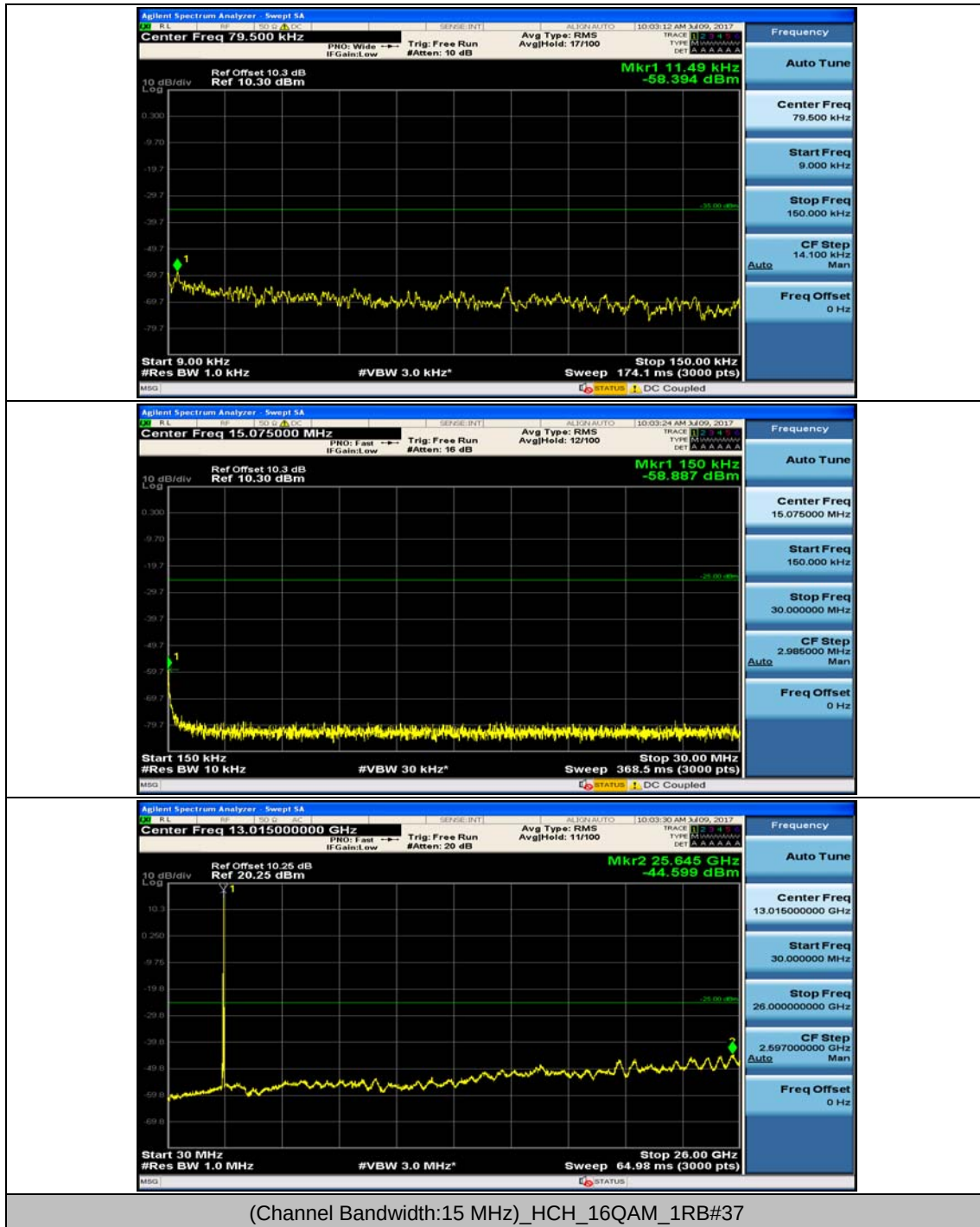


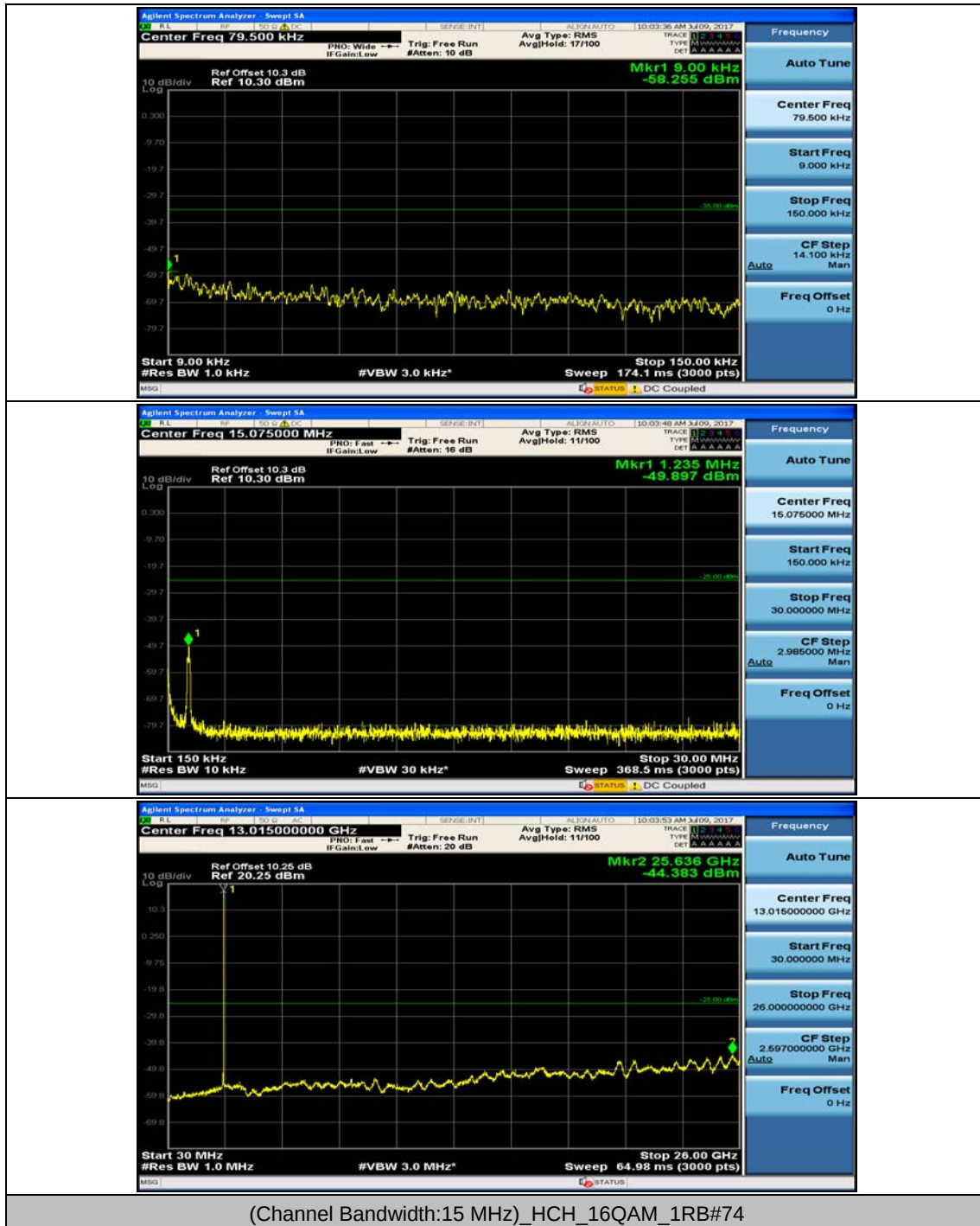


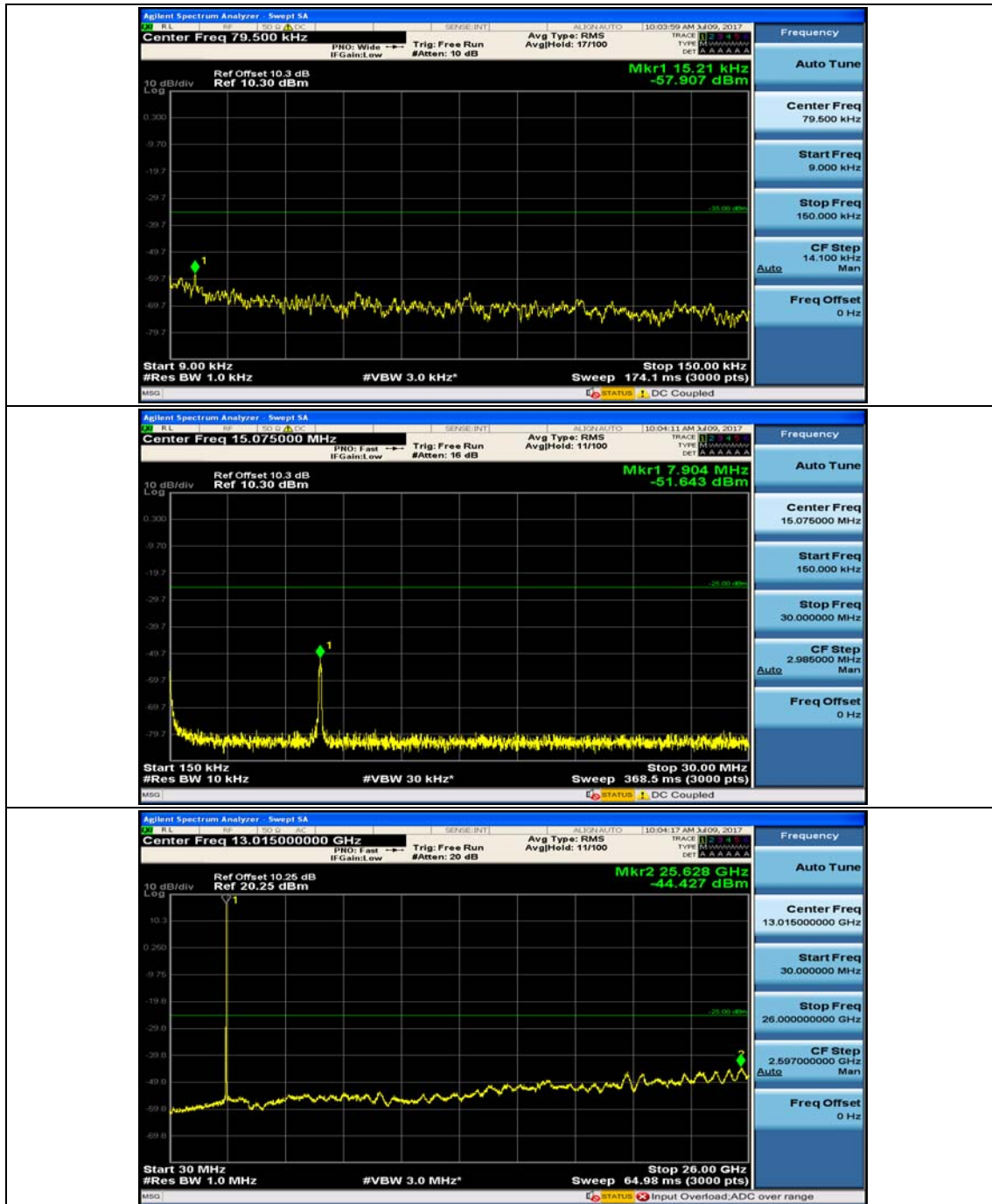




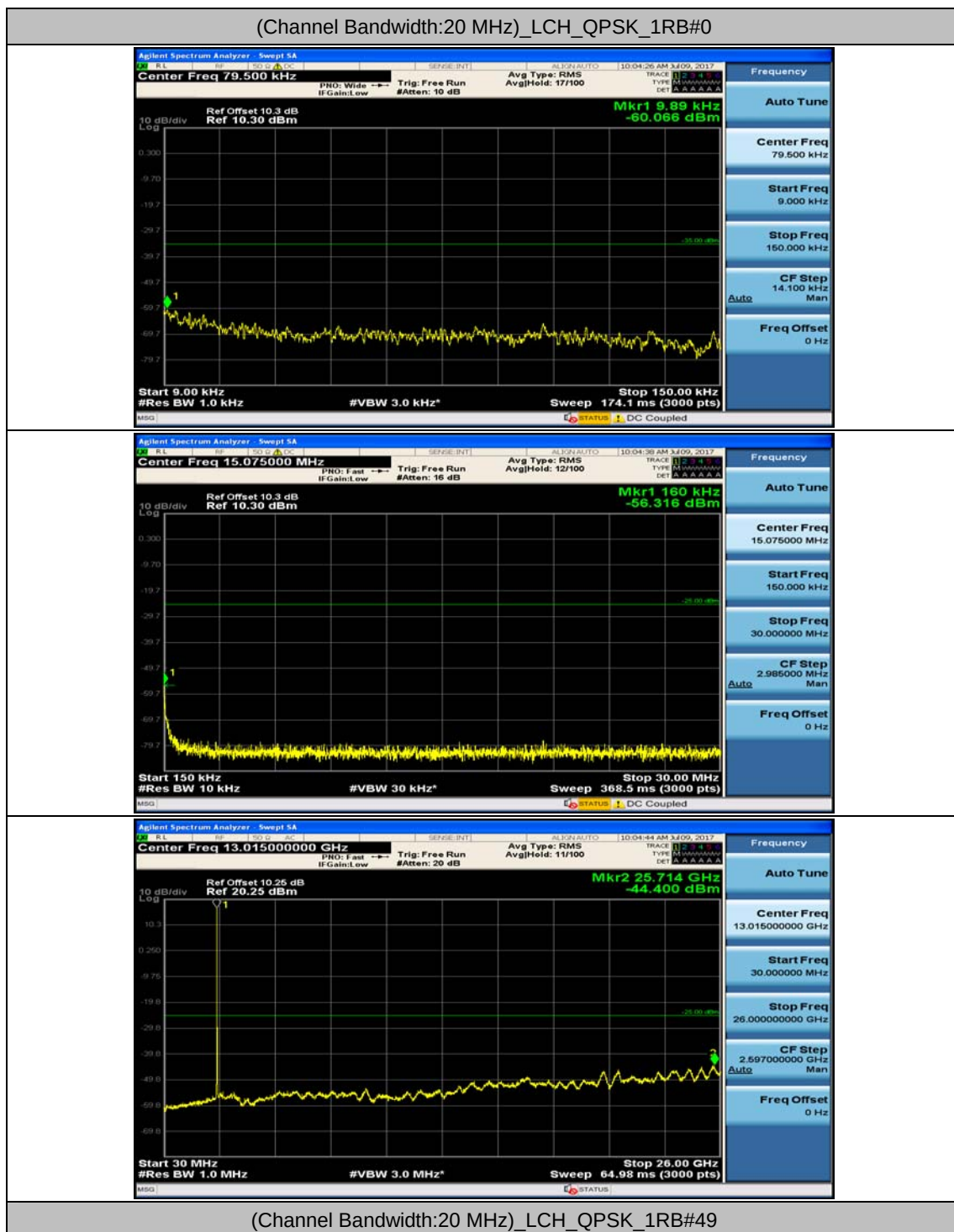


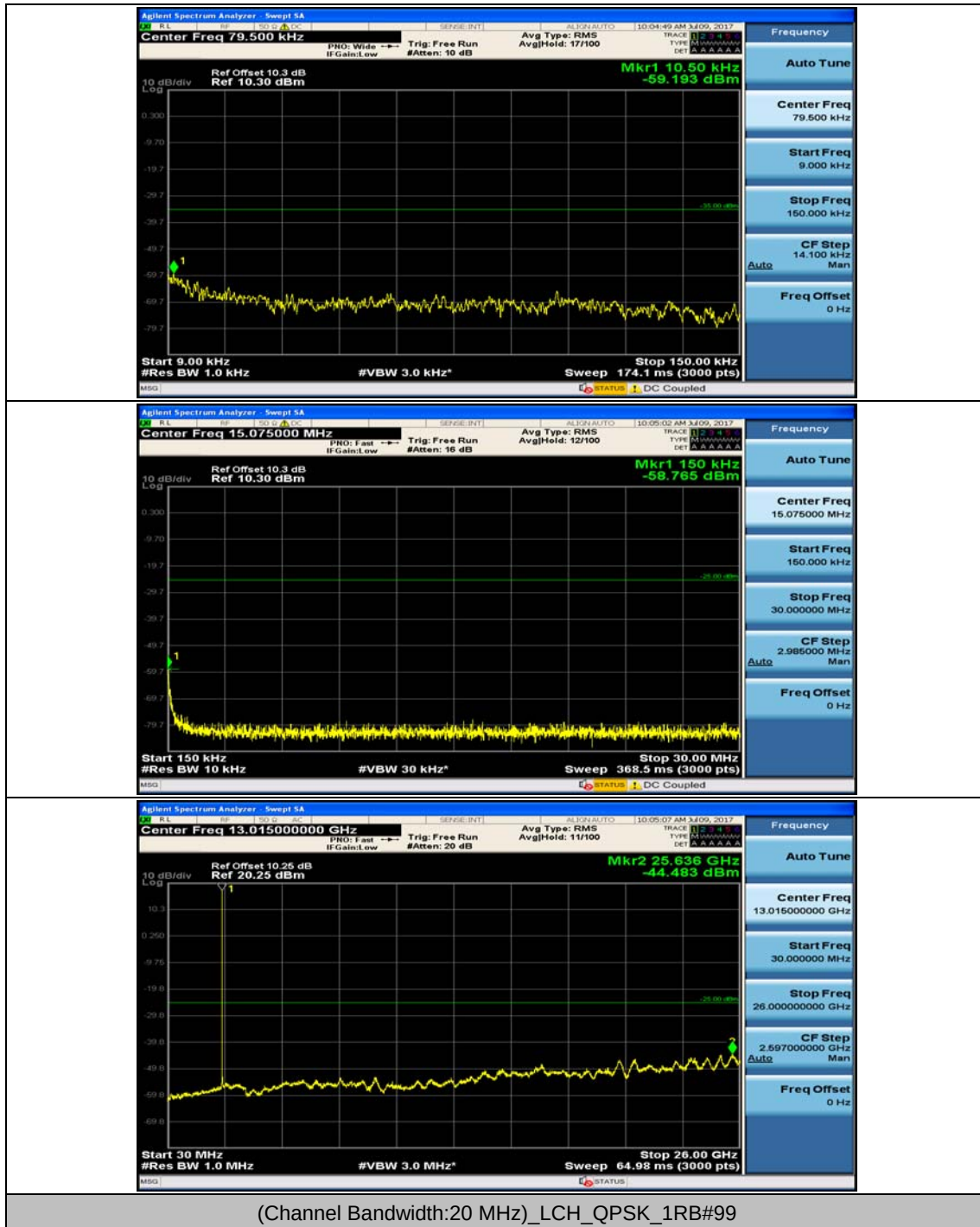


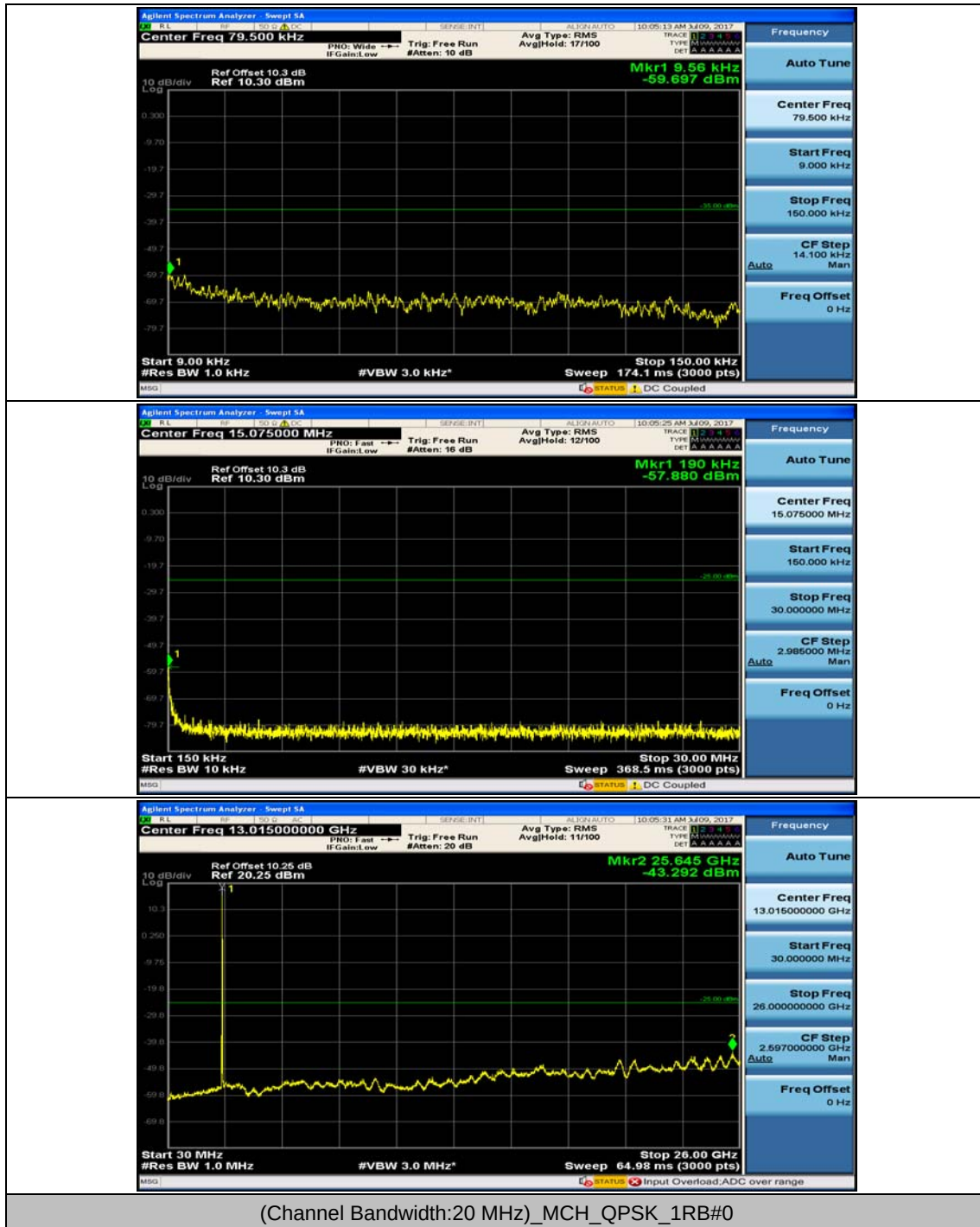


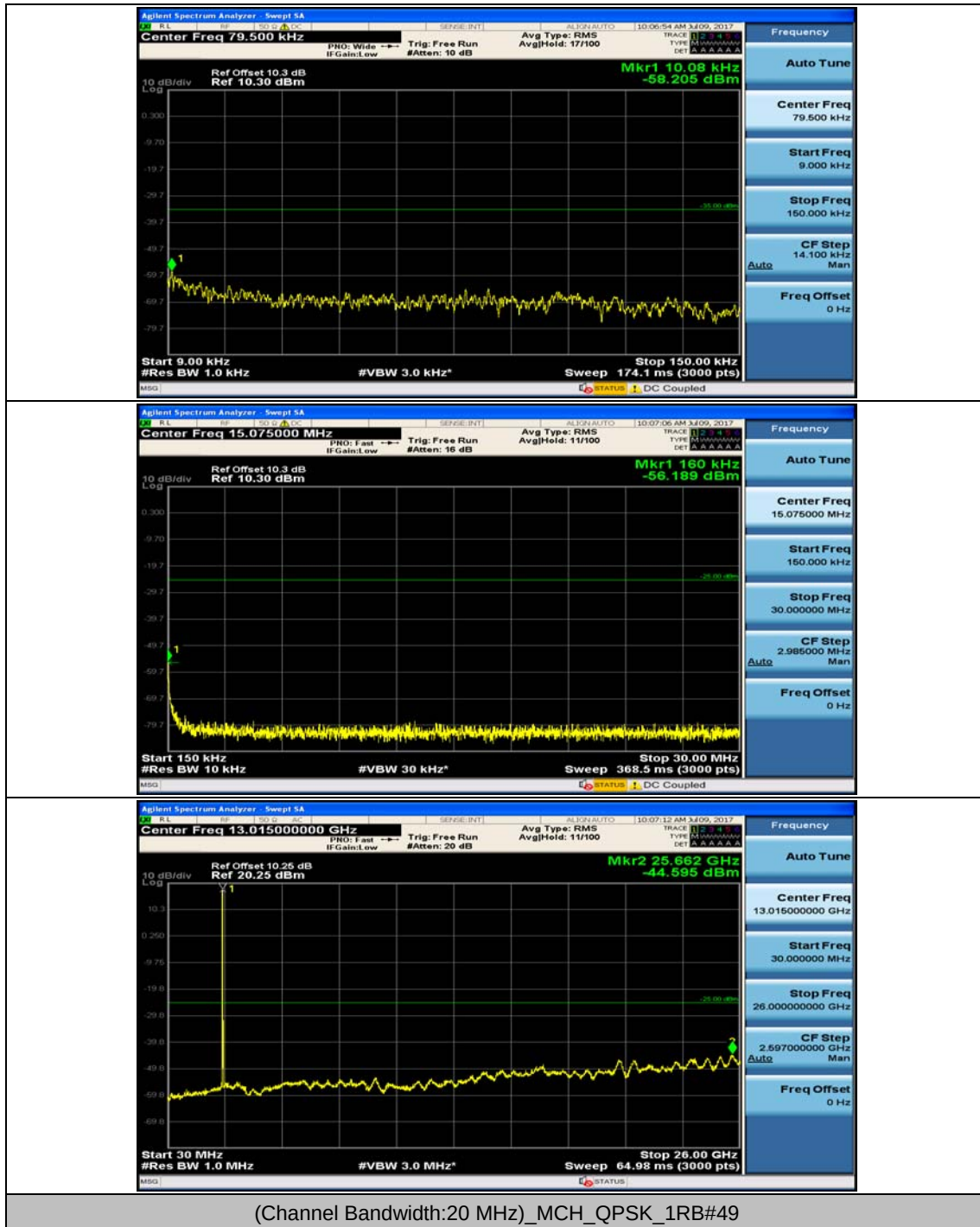


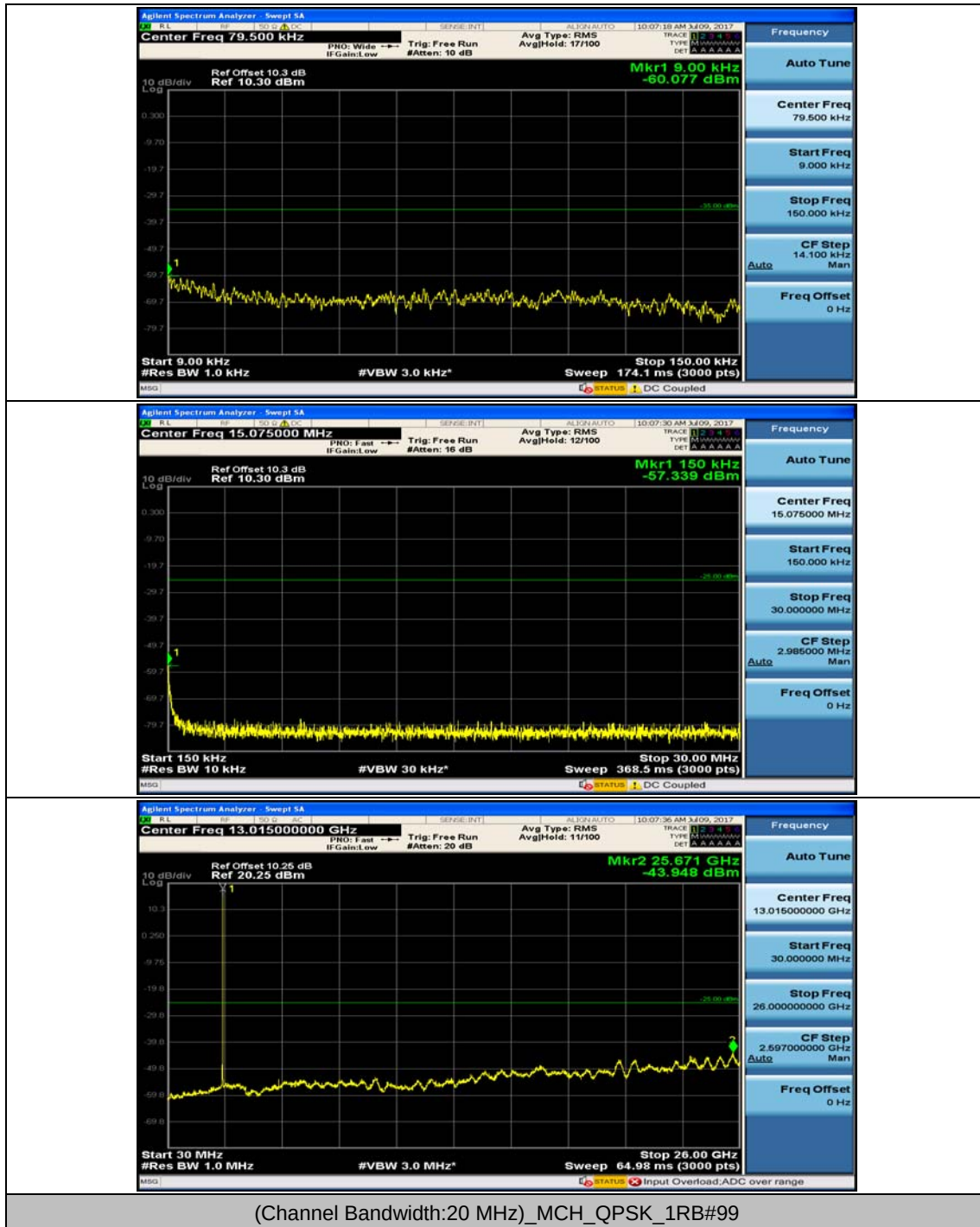
Channel Bandwidth: 20 MHz

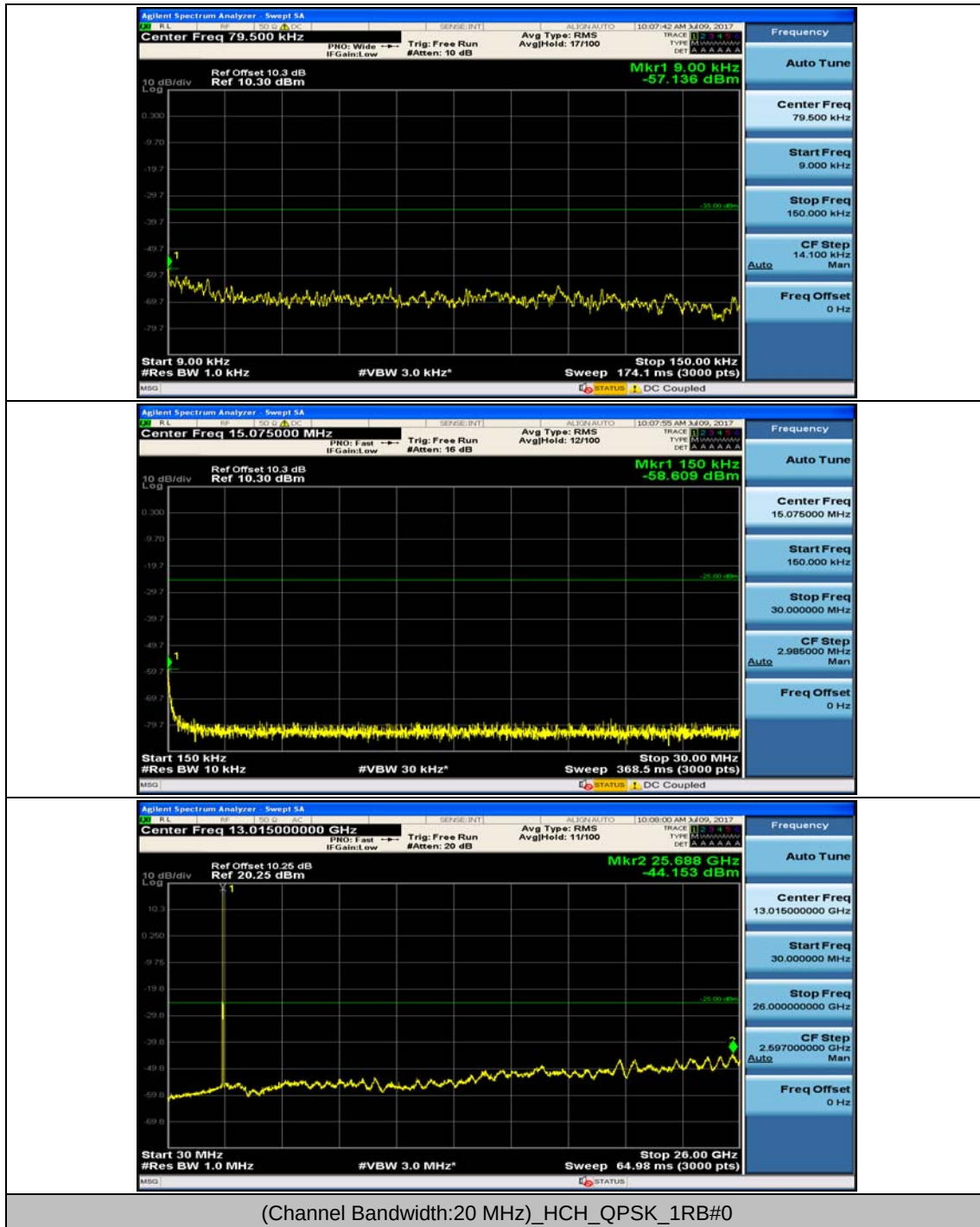


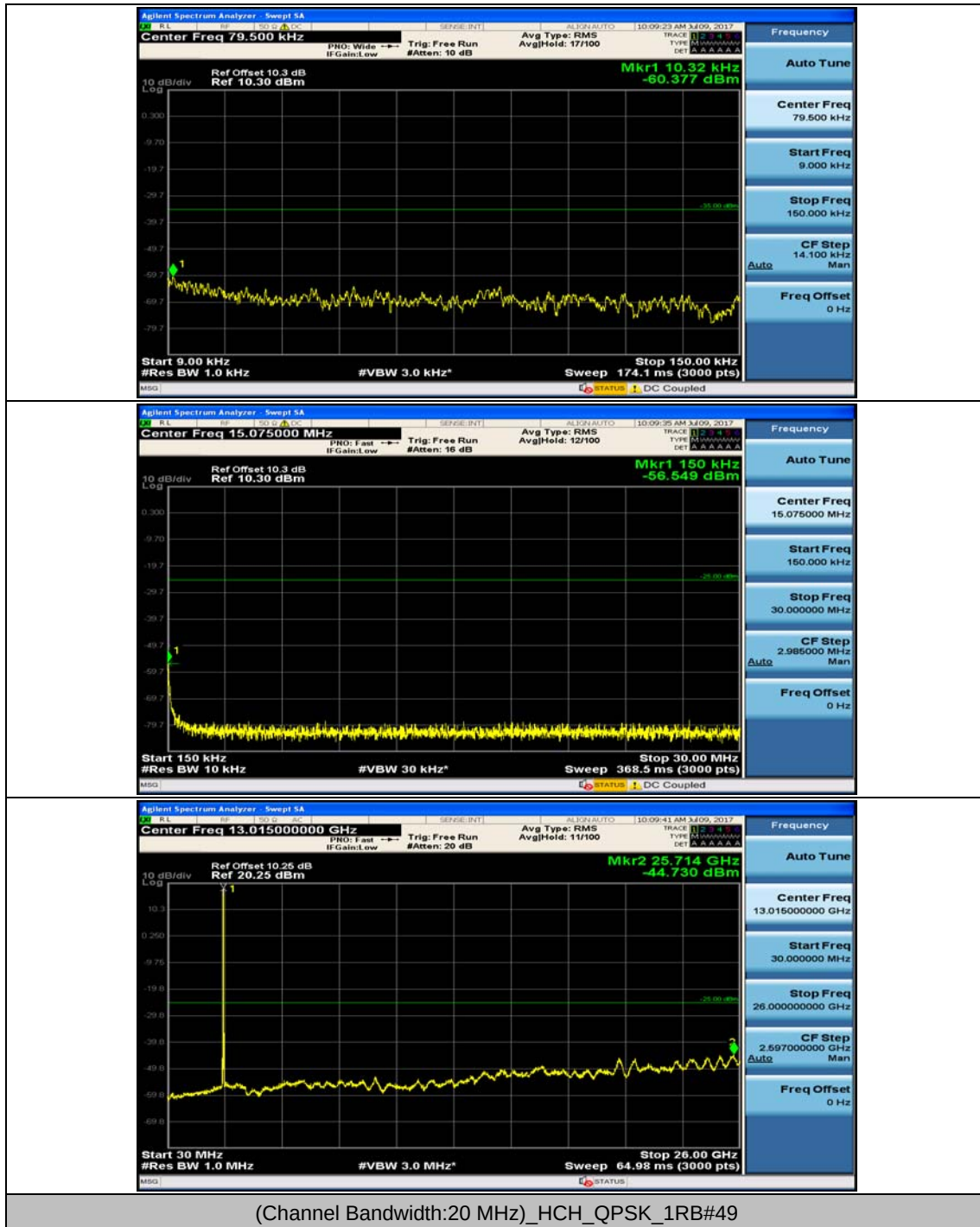


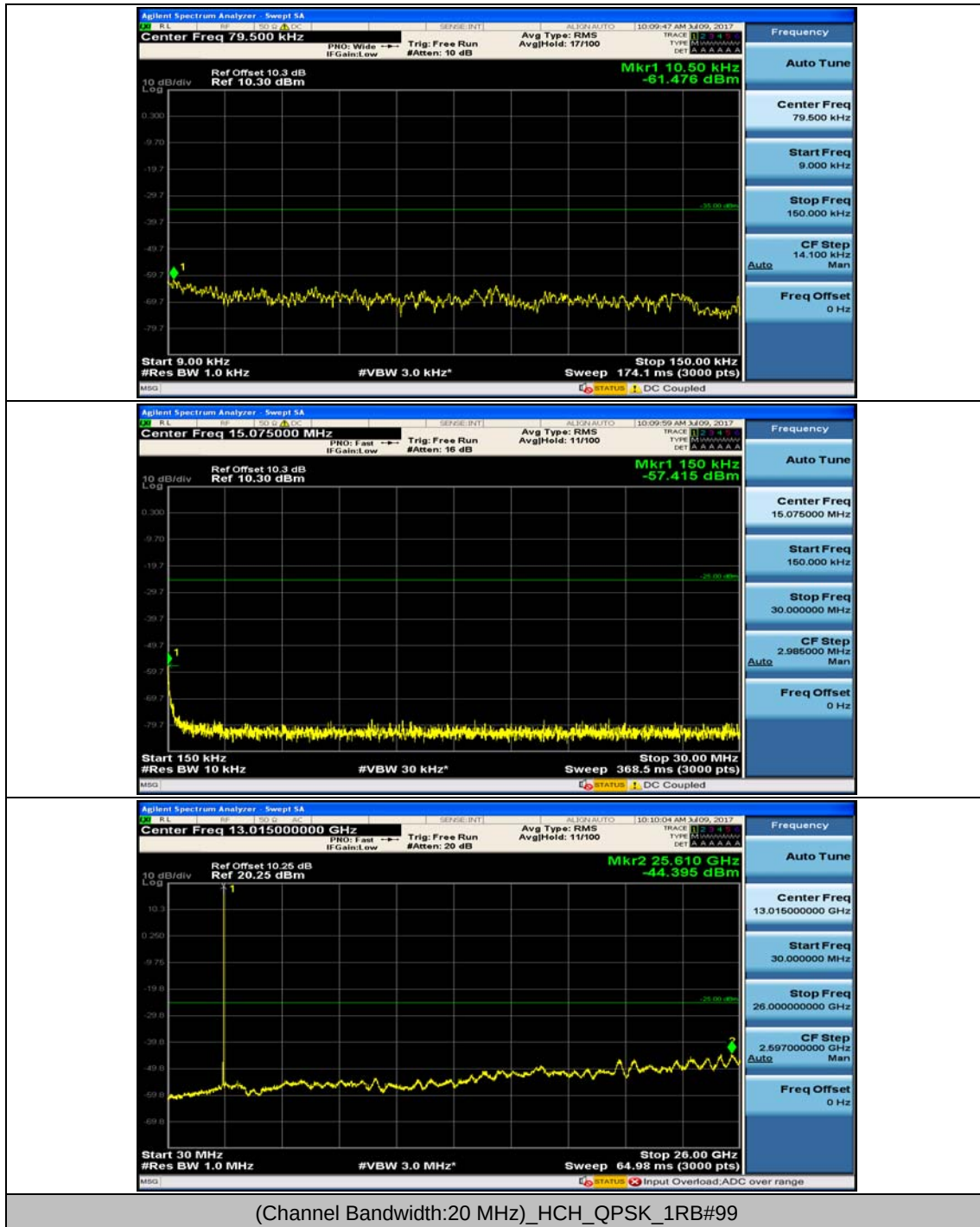


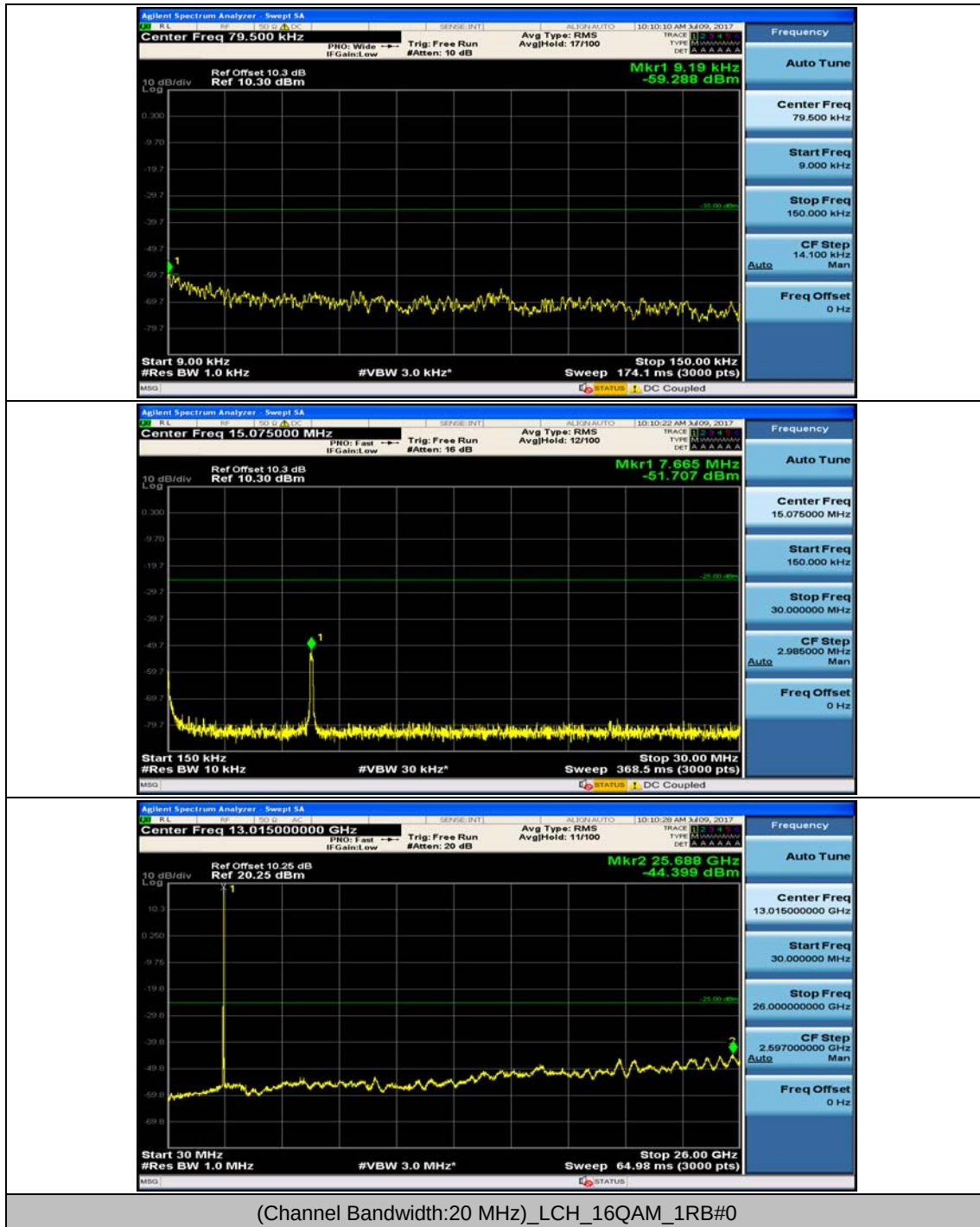


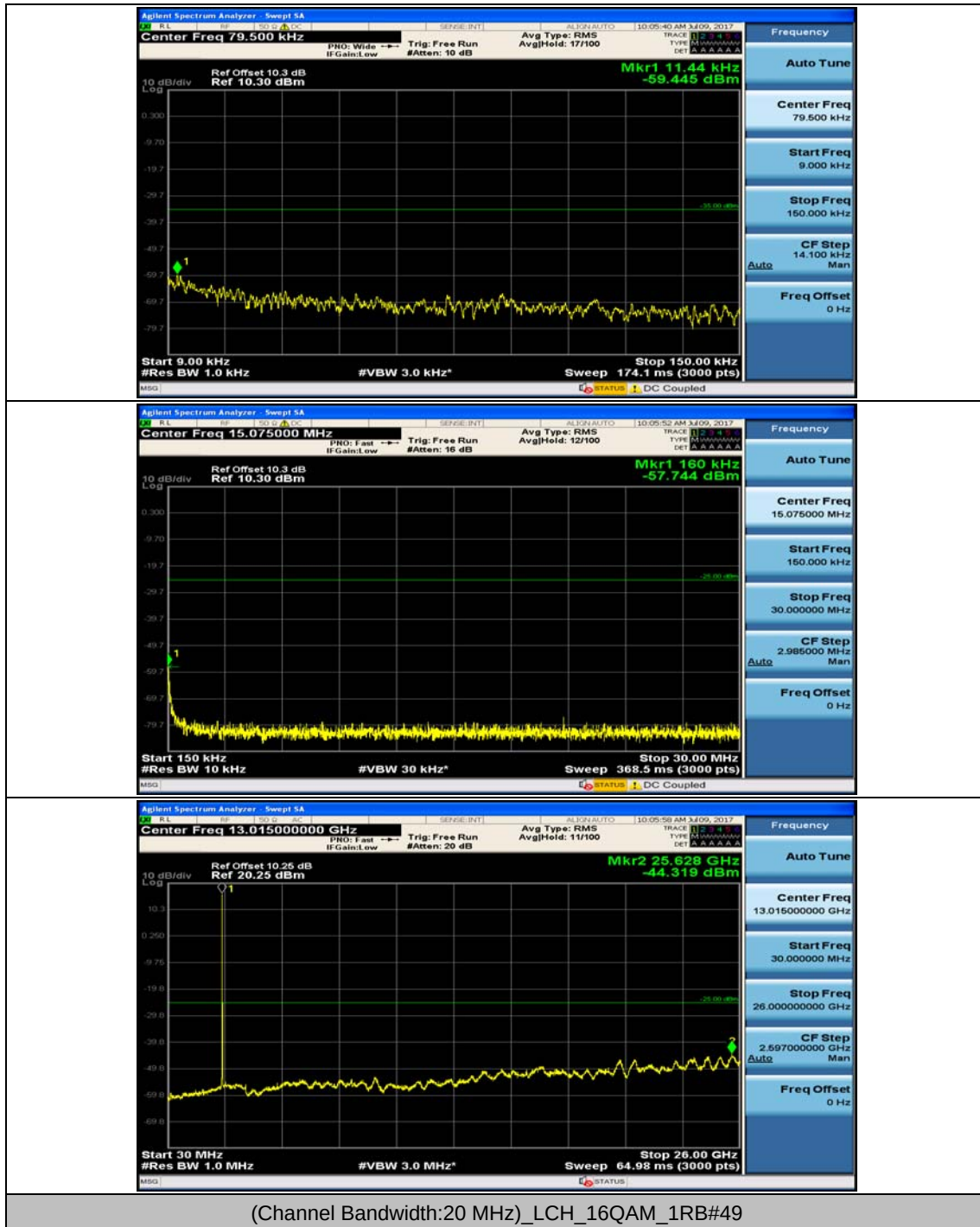


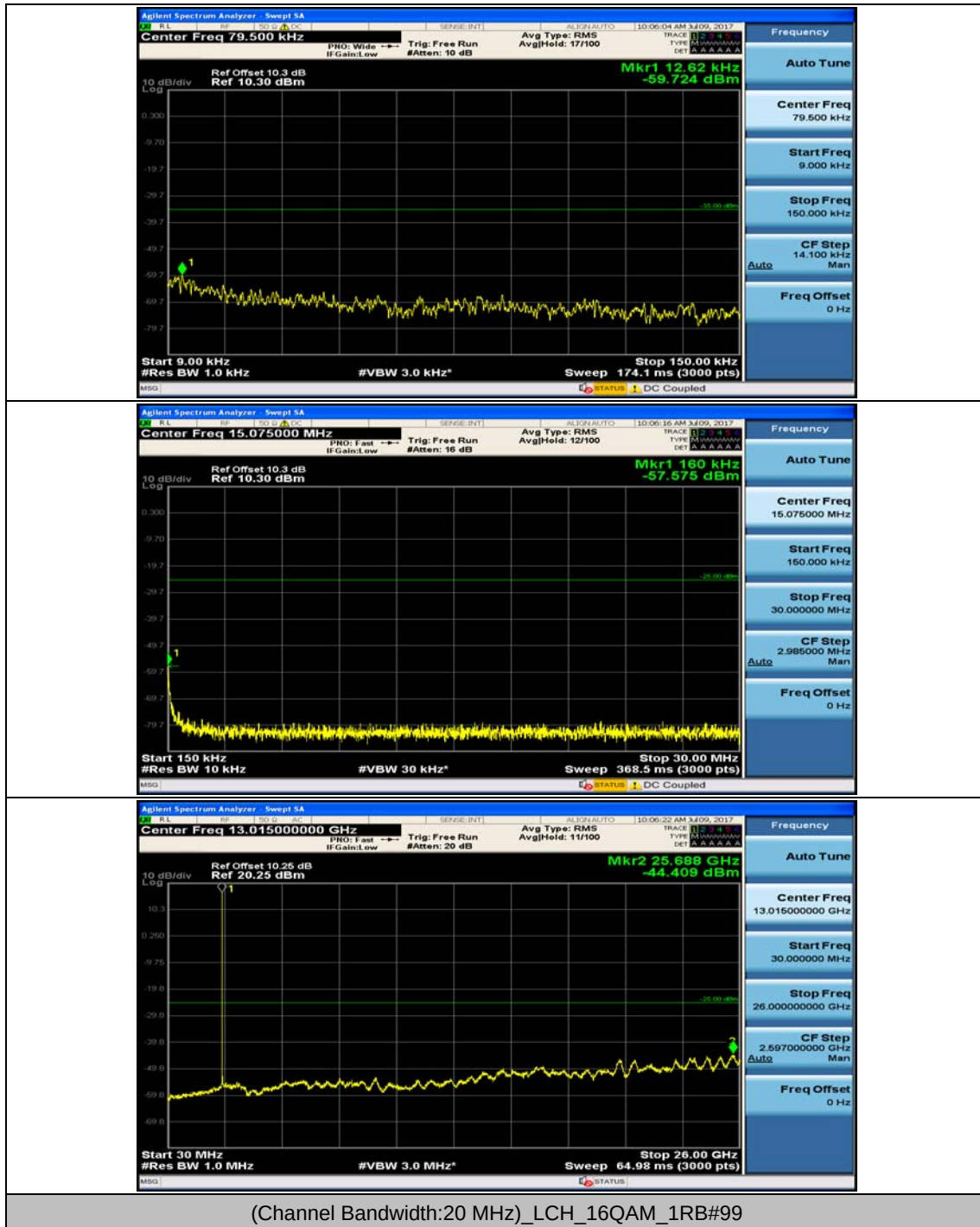


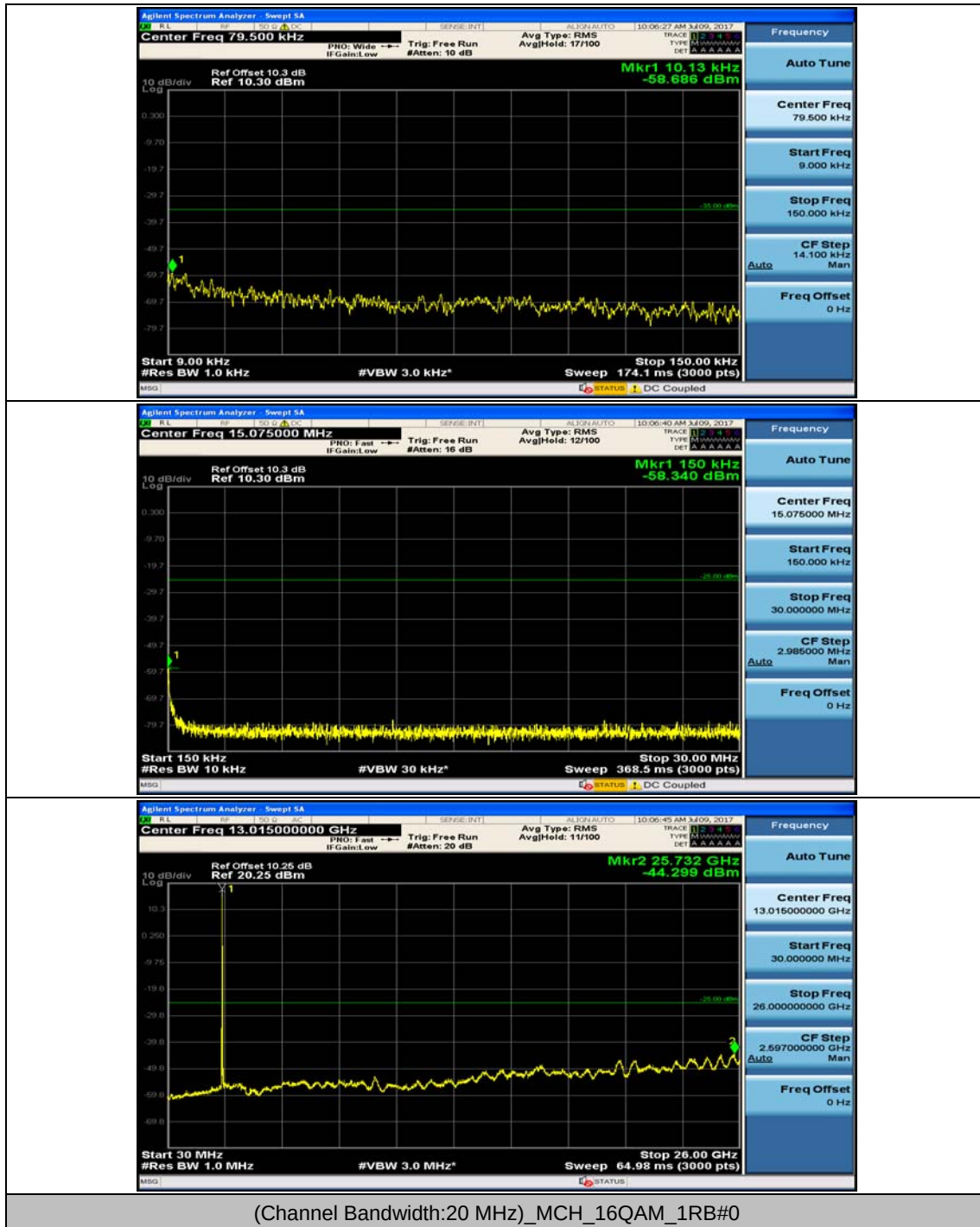


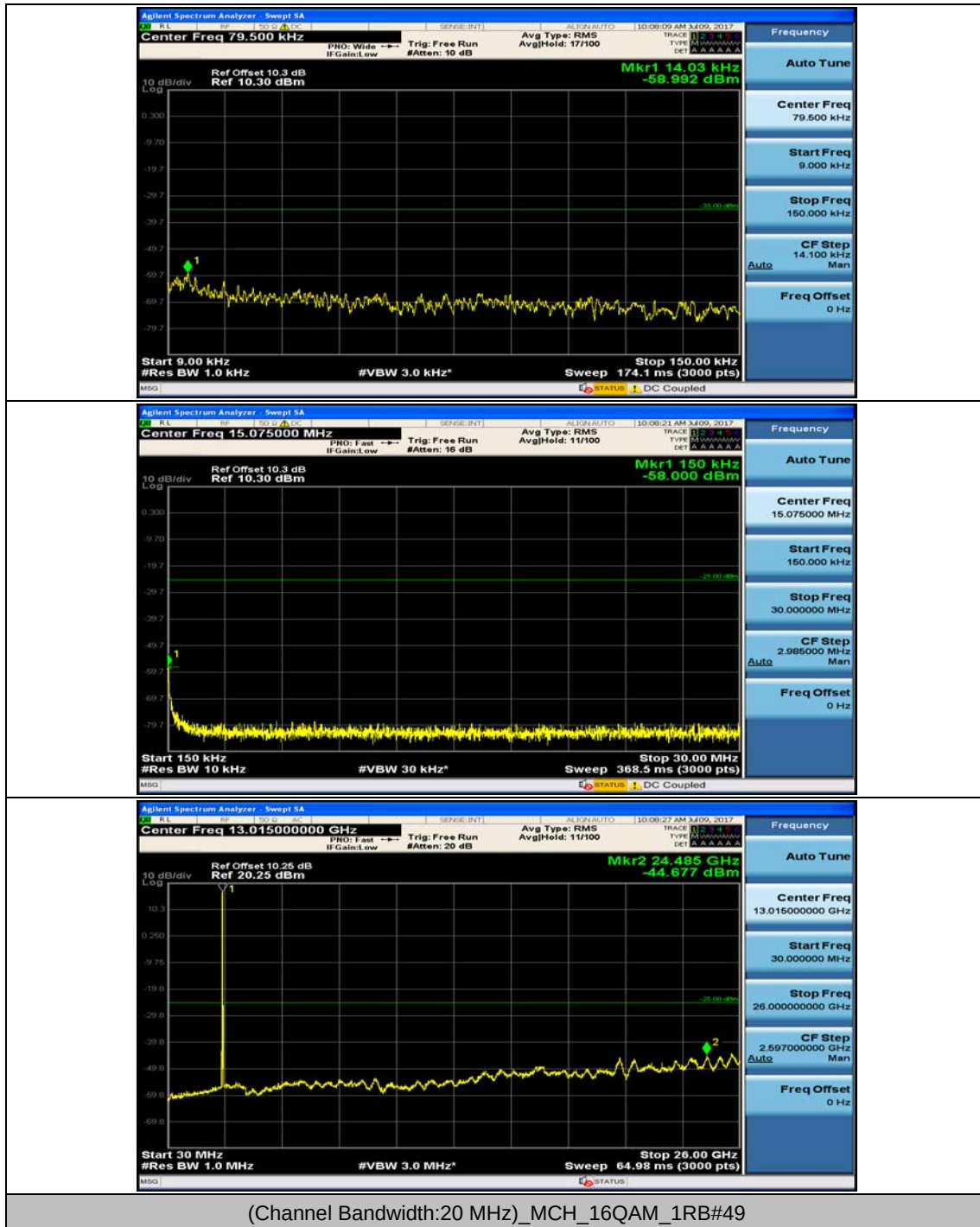


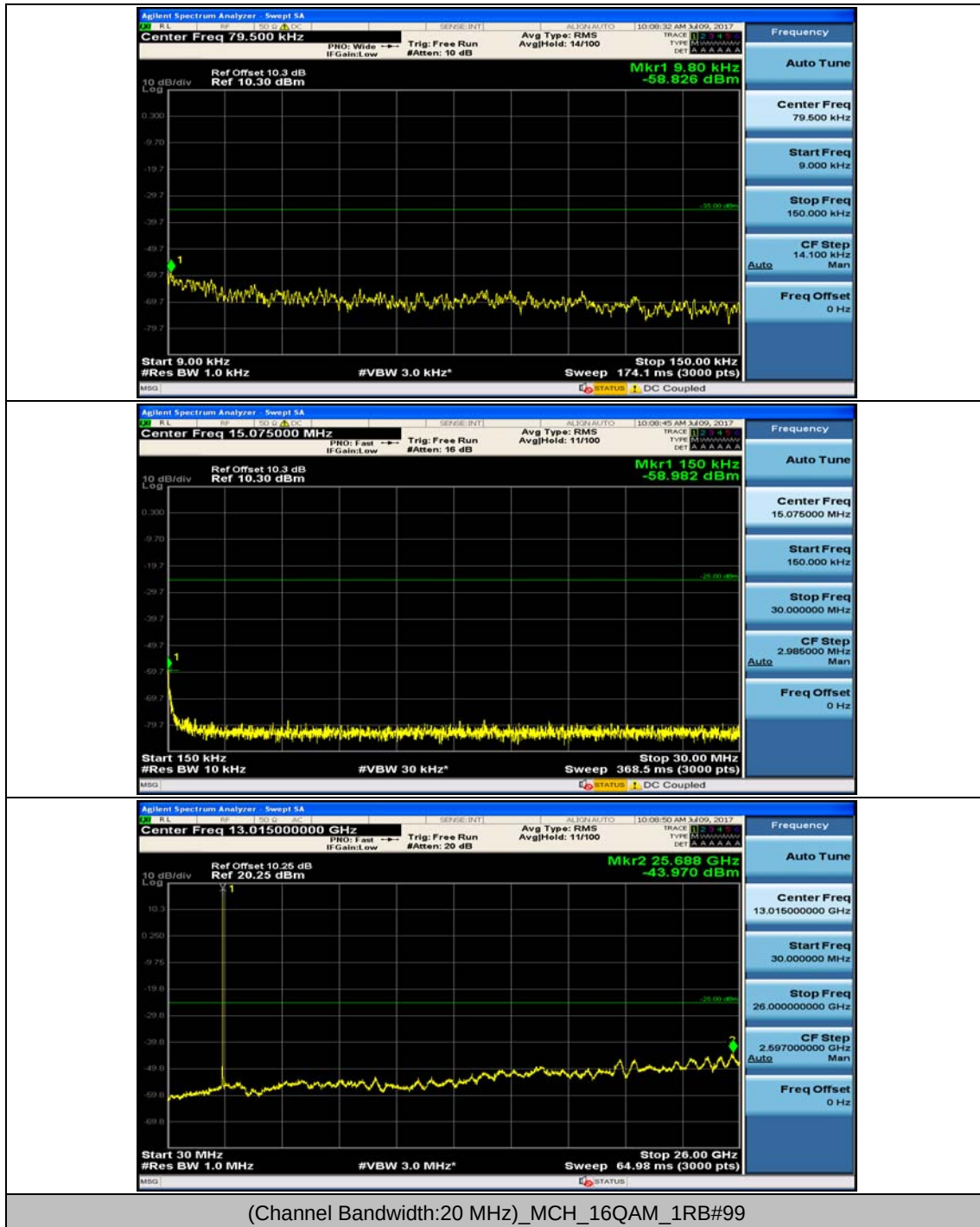


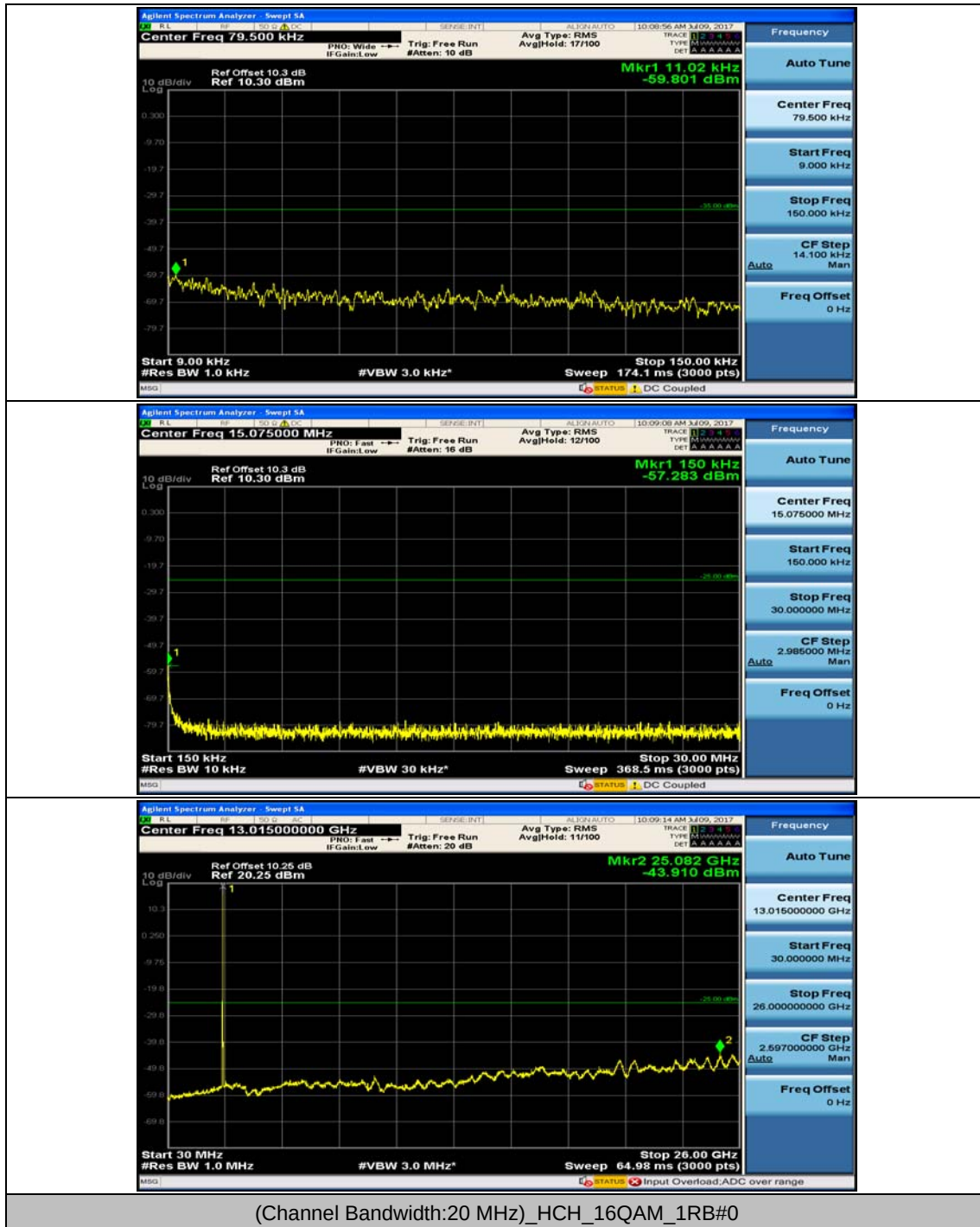


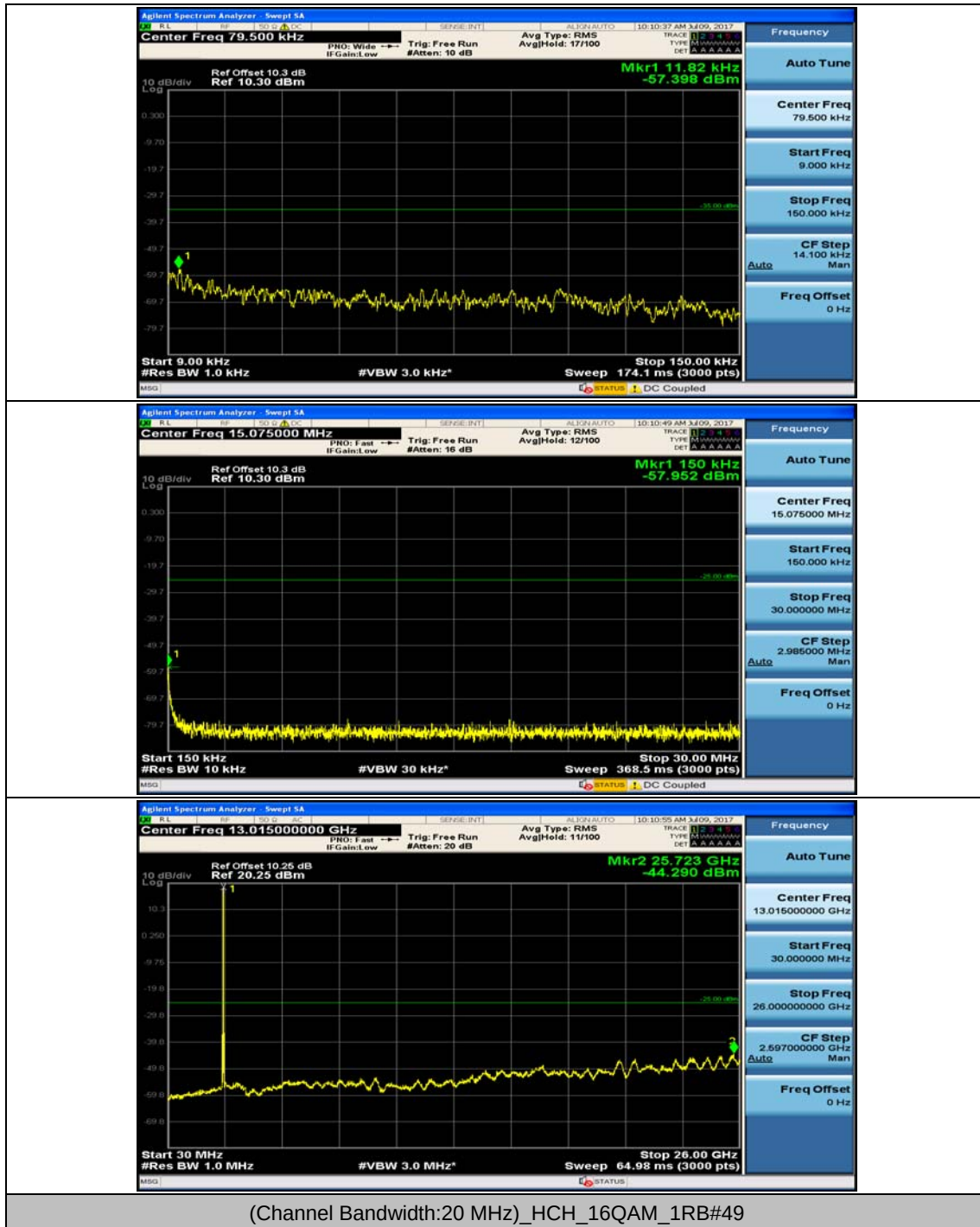


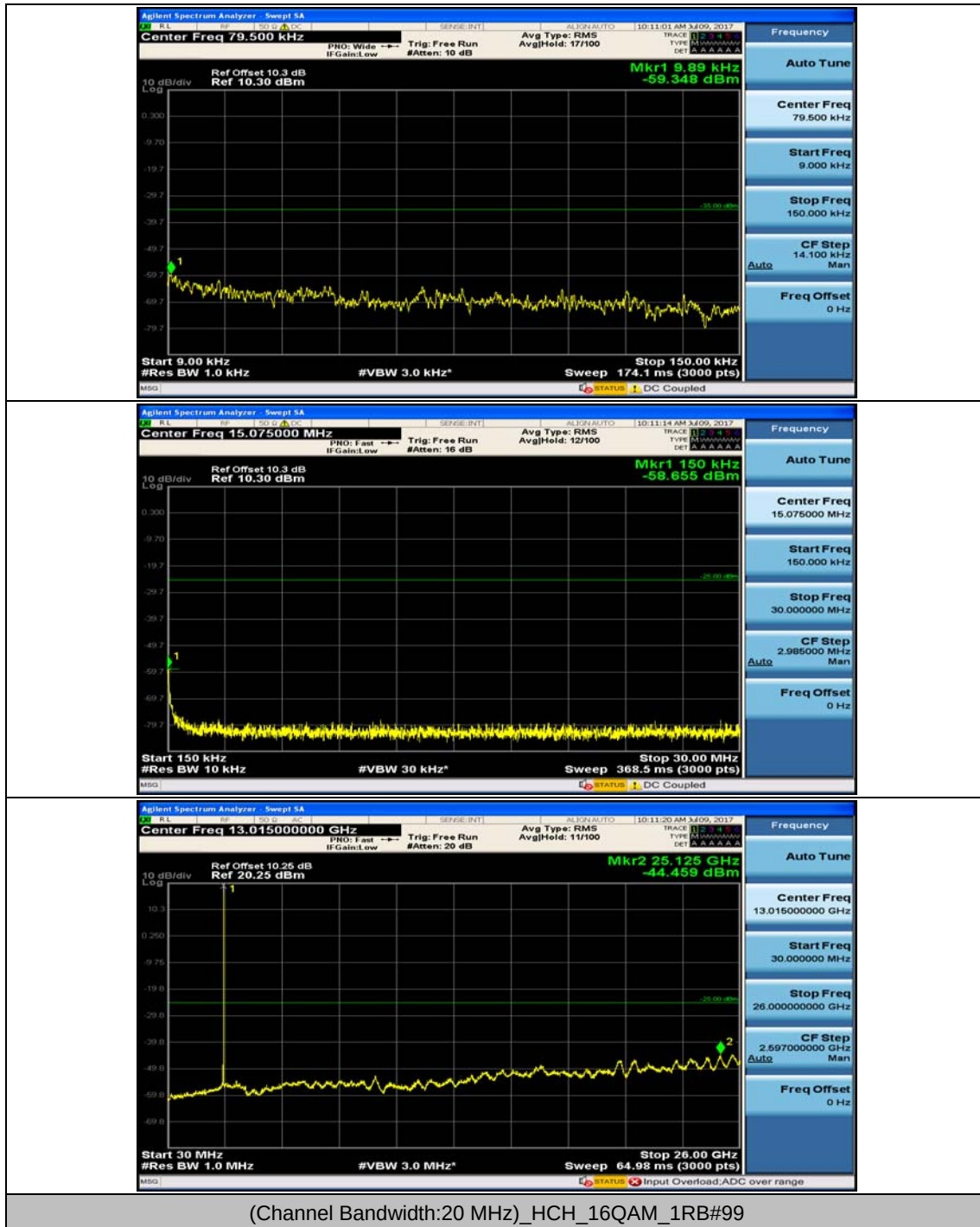


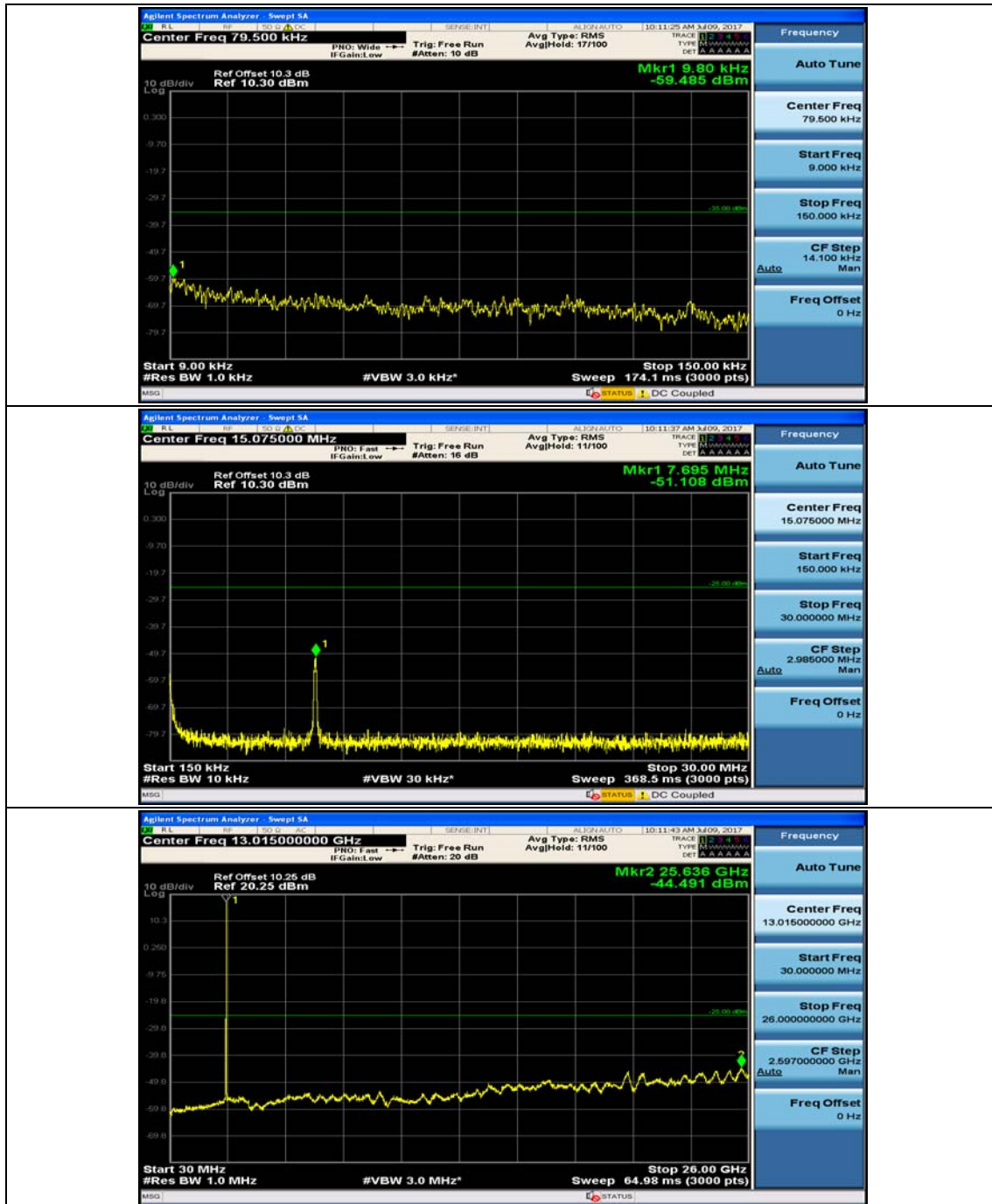












Appendix F: Frequency Stability

Test Result

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	-0.61	-0.000244	± 2.5	PASS
		VN	TN	1.06	0.000424	± 2.5	PASS
		VH	TN	4.11	0.001642	± 2.5	PASS
	MCH	VL	TN	-0.63	-0.000249	± 2.5	PASS
		VN	TN	3.36	0.001325	± 2.5	PASS
		VH	TN	4.28	0.001688	± 2.5	PASS
	HCH	VL	TN	1.22	0.000475	± 2.5	PASS
		VN	TN	0.8	0.000312	± 2.5	PASS
		VH	TN	4.52	0.001760	± 2.5	PASS
16QAM	LCH	VL	TN	-0.61	-0.000244	± 2.5	PASS
		VN	TN	-0.8	-0.000320	± 2.5	PASS
		VH	TN	3.15	0.001259	± 2.5	PASS
	MCH	VL	TN	0.6	0.000237	± 2.5	PASS
		VN	TN	0.73	0.000288	± 2.5	PASS
		VH	TN	3.18	0.001254	± 2.5	PASS
	HCH	VL	TN	1.8	0.000701	± 2.5	PASS
		VN	TN	4.09	0.001593	± 2.5	PASS
		VH	TN	2.88	0.001122	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.34	0.000136	± 2.5	PASS
		VN	-20	2.09	0.000835	± 2.5	PASS
		VN	-10	-0.74	-0.000296	± 2.5	PASS
		VN	0	1.42	0.000567	± 2.5	PASS
		VN	10	2.81	0.001123	± 2.5	PASS
		VN	20	1.49	0.000595	± 2.5	PASS
		VN	30	1.66	0.000663	± 2.5	PASS
		VN	40	2.5	0.000999	± 2.5	PASS
		VN	50	3.25	0.001299	± 2.5	PASS
	MCH	VN	-30	0.65	0.000256	± 2.5	PASS
		VN	-20	-1.59	-0.000627	± 2.5	PASS

		VN	-10	4.42	0.001744	± 2.5	PASS
		VN	0	3.01	0.001187	± 2.5	PASS
		VN	10	3.01	0.001187	± 2.5	PASS
		VN	20	3.16	0.001247	± 2.5	PASS
		VN	30	2.91	0.001148	± 2.5	PASS
		VN	40	-1.08	-0.000426	± 2.5	PASS
		VN	50	1.05	0.000414	± 2.5	PASS
	HCH	VN	-30	2.39	0.000931	± 2.5	PASS
		VN	-20	-1.07	-0.000417	± 2.5	PASS
		VN	-10	0.56	0.000218	± 2.5	PASS
		VN	0	2.88	0.001122	± 2.5	PASS
		VN	10	0.13	0.000051	± 2.5	PASS
		VN	20	0.65	0.000253	± 2.5	PASS
		VN	30	0.97	0.000378	± 2.5	PASS
		VN	40	3.51	0.001367	± 2.5	PASS
		VN	50	1.51	0.000588	± 2.5	PASS
16QAM	LCH	VN	-30	-1.11	-0.000444	± 2.5	PASS
		VN	-20	0.09	0.000036	± 2.5	PASS
		VN	-10	-0.02	-0.000008	± 2.5	PASS
		VN	0	0.87	0.000348	± 2.5	PASS
		VN	10	-1.31	-0.000523	± 2.5	PASS
		VN	20	0.76	0.000304	± 2.5	PASS
		VN	30	1.35	0.000539	± 2.5	PASS
		VN	40	1.09	0.000436	± 2.5	PASS
		VN	50	1.76	0.000703	± 2.5	PASS
	MCH	VN	-30	4.02	0.001586	± 2.5	PASS
		VN	-20	1.61	0.000635	± 2.5	PASS
		VN	-10	2.92	0.001152	± 2.5	PASS
		VN	0	1.24	0.000489	± 2.5	PASS
		VN	10	2.99	0.001179	± 2.5	PASS
		VN	20	4.98	0.001964	± 2.5	PASS
		VN	30	-1.25	-0.000493	± 2.5	PASS
		VN	40	3.27	0.001290	± 2.5	PASS
		VN	50	-1.11	-0.000438	± 2.5	PASS
	HCH	VN	-30	2.56	0.000997	± 2.5	PASS
		VN	-20	-1.55	-0.000604	± 2.5	PASS
		VN	-10	-0.55	-0.000214	± 2.5	PASS
		VN	0	-1.42	-0.000553	± 2.5	PASS
		VN	10	-0.09	-0.000035	± 2.5	PASS
		VN	20	1.17	0.000456	± 2.5	PASS
		VN	30	-1.21	-0.000471	± 2.5	PASS

		VN	40	1.18	0.000460	± 2.5	PASS
		VN	50	-0.05	-0.000019	± 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	-0.24	-0.000096	± 2.5	PASS
		VN	TN	-1.42	-0.000567	± 2.5	PASS
		VH	TN	0.25	0.000100	± 2.5	PASS
	MCH	VL	TN	2.69	0.001061	± 2.5	PASS
		VN	TN	2	0.000789	± 2.5	PASS
		VH	TN	0.03	0.000012	± 2.5	PASS
	HCH	VL	TN	1.42	0.000554	± 2.5	PASS
		VN	TN	-1.96	-0.000764	± 2.5	PASS
		VH	TN	0.6	0.000234	± 2.5	PASS
16QAM	LCH	VL	TN	0.83	0.000331	± 2.5	PASS
		VN	TN	-0.54	-0.000216	± 2.5	PASS
		VH	TN	4.7	0.001876	± 2.5	PASS
	MCH	VL	TN	-1.69	-0.000667	± 2.5	PASS
		VN	TN	2.05	0.000809	± 2.5	PASS
		VH	TN	0.9	0.000355	± 2.5	PASS
	HCH	VL	TN	1.47	0.000573	± 2.5	PASS
		VN	TN	-1.26	-0.000491	± 2.5	PASS
		VH	TN	4.69	0.001828	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	2.23	0.000890	± 2.5	PASS
		VN	-20	0.98	0.000391	± 2.5	PASS
		VN	-10	0.48	0.000192	± 2.5	PASS
		VN	0	1.85	0.000739	± 2.5	PASS
		VN	10	3.89	0.001553	± 2.5	PASS
		VN	20	4.91	0.001960	± 2.5	PASS
		VN	30	3.33	0.001329	± 2.5	PASS
		VN	40	-0.87	-0.000347	± 2.5	PASS
		VN	50	2.5	0.000998	± 2.5	PASS
	MCH	VN	-30	-1.66	-0.000655	± 2.5	PASS
		VN	-20	3.23	0.001274	± 2.5	PASS
		VN	-10	4.85	0.001913	± 2.5	PASS

		VN	0	0.86	0.000339	± 2.5	PASS
		VN	10	4	0.001578	± 2.5	PASS
		VN	20	3.77	0.001487	± 2.5	PASS
		VN	30	0.65	0.000256	± 2.5	PASS
		VN	40	-1.32	-0.000521	± 2.5	PASS
		VN	50	0.66	0.000260	± 2.5	PASS
	HCH	VN	-30	-1.16	-0.000452	± 2.5	PASS
		VN	-20	3.22	0.001255	± 2.5	PASS
		VN	-10	2.33	0.000908	± 2.5	PASS
		VN	0	3.74	0.001458	± 2.5	PASS
		VN	10	3.61	0.001407	± 2.5	PASS
		VN	20	0.46	0.000179	± 2.5	PASS
		VN	30	0.26	0.000101	± 2.5	PASS
		VN	40	-1.66	-0.000647	± 2.5	PASS
		VN	50	-0.63	-0.000246	± 2.5	PASS
QPSK	LCH	VN	-30	1.35	0.000539	± 2.5	PASS
		VN	-20	0.24	0.000096	± 2.5	PASS
		VN	-10	4.51	0.001800	± 2.5	PASS
		VN	0	2.41	0.000962	± 2.5	PASS
		VN	10	3.59	0.001433	± 2.5	PASS
		VN	20	3.96	0.001581	± 2.5	PASS
		VN	30	4.6	0.001836	± 2.5	PASS
		VN	40	3.49	0.001393	± 2.5	PASS
		VN	50	0.97	0.000387	± 2.5	PASS
	MCH	VN	-30	-0.85	-0.000335	± 2.5	PASS
		VN	-20	0.08	0.000032	± 2.5	PASS
		VN	-10	3.85	0.001519	± 2.5	PASS
		VN	0	-0.04	-0.000016	± 2.5	PASS
		VN	10	1.41	0.000556	± 2.5	PASS
		VN	20	-1.18	-0.000465	± 2.5	PASS
		VN	30	4.97	0.001961	± 2.5	PASS
		VN	40	-0.7	-0.000276	± 2.5	PASS
		VN	50	3.22	0.001270	± 2.5	PASS
	HCH	VN	-30	-0.64	-0.000250	± 2.5	PASS
		VN	-20	1.49	0.000581	± 2.5	PASS
		VN	-10	3.77	0.001470	± 2.5	PASS
		VN	0	0.37	0.000144	± 2.5	PASS
		VN	10	1.62	0.000632	± 2.5	PASS
		VN	20	4.39	0.001712	± 2.5	PASS
		VN	30	3.6	0.001404	± 2.5	PASS
		VN	40	1.4	0.000546	± 2.5	PASS

		VN	50	-1.1	-0.000429	± 2.5	PASS
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Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.55	0.001416	± 2.5	PASS
		VN	TN	-1.4	-0.000558	± 2.5	PASS
		VH	TN	4.93	0.001966	± 2.5	PASS
	MCH	VL	TN	3.32	0.001310	± 2.5	PASS
		VN	TN	2.76	0.001089	± 2.5	PASS
		VH	TN	4.69	0.001850	± 2.5	PASS
	HCH	VL	TN	0.04	0.000016	± 2.5	PASS
		VN	TN	1.37	0.000535	± 2.5	PASS
		VH	TN	1.4	0.000546	± 2.5	PASS
16QAM	LCH	VL	TN	4.81	0.001918	± 2.5	PASS
		VN	TN	1.42	0.000566	± 2.5	PASS
		VH	TN	0.33	0.000132	± 2.5	PASS
	MCH	VL	TN	1.29	0.000509	± 2.5	PASS
		VN	TN	-0.88	-0.000347	± 2.5	PASS
		VH	TN	1.5	0.000592	± 2.5	PASS
	HCH	VL	TN	4.11	0.001604	± 2.5	PASS
		VN	TN	-1.72	-0.000671	± 2.5	PASS
		VH	TN	-0.12	-0.000047	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.76	0.000702	± 2.5	PASS
		VN	-20	-0.28	-0.000112	± 2.5	PASS
		VN	-10	3.74	0.001492	± 2.5	PASS
		VN	0	3.88	0.001547	± 2.5	PASS
		VN	10	4.81	0.001918	± 2.5	PASS
		VN	20	3.67	0.001464	± 2.5	PASS
		VN	30	-1.16	-0.000463	± 2.5	PASS
		VN	40	2.72	0.001085	± 2.5	PASS
		VN	50	3.79	0.001511	± 2.5	PASS
	MCH	VN	-30	4.31	0.001700	± 2.5	PASS
		VN	-20	-1.73	-0.000682	± 2.5	PASS
		VN	-10	-1.09	-0.000430	± 2.5	PASS
		VN	0	-1.6	-0.000631	± 2.5	PASS

		VN	10	0.13	0.000051	± 2.5	PASS
		VN	20	2.45	0.000966	± 2.5	PASS
		VN	30	-0.66	-0.000260	± 2.5	PASS
		VN	40	1.2	0.000473	± 2.5	PASS
		VN	50	4.19	0.001653	± 2.5	PASS
	HCH	VN	-30	0.96	0.000375	± 2.5	PASS
		VN	-20	-1.69	-0.000660	± 2.5	PASS
		VN	-10	2.27	0.000886	± 2.5	PASS
		VN	0	-0.63	-0.000246	± 2.5	PASS
		VN	10	3.02	0.001179	± 2.5	PASS
		VN	20	0.08	0.000031	± 2.5	PASS
		VN	30	2.35	0.000917	± 2.5	PASS
		VN	40	3.34	0.001303	± 2.5	PASS
		VN	50	-0.68	-0.000265	± 2.5	PASS
		VN	-30	-1.84	-0.000734	± 2.5	PASS
16QAM	LCH	VN	-20	2.53	0.001009	± 2.5	PASS
		VN	-10	-0.68	-0.000271	± 2.5	PASS
		VN	0	-0.98	-0.000391	± 2.5	PASS
		VN	10	3.39	0.001352	± 2.5	PASS
		VN	20	-0.7	-0.000279	± 2.5	PASS
		VN	30	0.16	0.000064	± 2.5	PASS
		VN	40	0.69	0.000275	± 2.5	PASS
		VN	50	0.67	0.000267	± 2.5	PASS
	MCH	VN	-30	-0.78	-0.000308	± 2.5	PASS
		VN	-20	-0.96	-0.000379	± 2.5	PASS
		VN	-10	-1.07	-0.000422	± 2.5	PASS
		VN	0	4.22	0.001665	± 2.5	PASS
		VN	10	1.23	0.000485	± 2.5	PASS
		VN	20	4.16	0.001641	± 2.5	PASS
		VN	30	0.12	0.000047	± 2.5	PASS
		VN	40	-0.1	-0.000039	± 2.5	PASS
		VN	50	2.07	0.000817	± 2.5	PASS
	HCH	VN	-30	2.81	0.001097	± 2.5	PASS
		VN	-20	0.15	0.000059	± 2.5	PASS
		VN	-10	1.01	0.000394	± 2.5	PASS
		VN	0	0.03	0.000012	± 2.5	PASS
		VN	10	1.27	0.000496	± 2.5	PASS
		VN	20	3.92	0.001530	± 2.5	PASS
		VN	30	1.32	0.000515	± 2.5	PASS
		VN	40	4.31	0.001682	± 2.5	PASS
		VN	50	3.75	0.001463	± 2.5	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.16	0.000861	± 2.5	PASS
		VN	TN	3.49	0.001390	± 2.5	PASS
		VH	TN	-1.51	-0.000602	± 2.5	PASS
	MCH	VL	TN	1.96	0.000773	± 2.5	PASS
		VN	TN	0.76	0.000300	± 2.5	PASS
		VH	TN	3.47	0.001369	± 2.5	PASS
	HCH	VL	TN	3.71	0.001449	± 2.5	PASS
		VN	TN	1.2	0.000469	± 2.5	PASS
		VH	TN	4.3	0.001680	± 2.5	PASS
16QAM	LCH	VL	TN	3.16	0.001259	± 2.5	PASS
		VN	TN	1.95	0.000777	± 2.5	PASS
		VH	TN	-1.46	-0.000582	± 2.5	PASS
	MCH	VL	TN	0.02	0.000008	± 2.5	PASS
		VN	TN	4.94	0.001949	± 2.5	PASS
		VH	TN	4.76	0.001878	± 2.5	PASS
	HCH	VL	TN	0.43	0.000168	± 2.5	PASS
		VN	TN	4.64	0.001813	± 2.5	PASS
		VH	TN	3.17	0.001238	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.53	0.001805	± 2.5	PASS
		VN	-20	2.14	0.000853	± 2.5	PASS
		VN	-10	0.06	0.000024	± 2.5	PASS
		VN	0	1.15	0.000458	± 2.5	PASS
		VN	10	1.46	0.000582	± 2.5	PASS
		VN	20	3.1	0.001235	± 2.5	PASS
		VN	30	-0.02	-0.000008	± 2.5	PASS
		VN	40	-1.59	-0.000633	± 2.5	PASS
		VN	50	3.94	0.001570	± 2.5	PASS
	MCH	VN	-30	3.19	0.001258	± 2.5	PASS
		VN	-20	3.51	0.001385	± 2.5	PASS
		VN	-10	0.68	0.000268	± 2.5	PASS
		VN	0	0.09	0.000036	± 2.5	PASS
		VN	10	2.01	0.000793	± 2.5	PASS
		VN	20	3.83	0.001511	± 2.5	PASS
VN	30	3.25	0.001282	± 2.5	PASS		

		VN	40	2.66	0.001049	± 2.5	PASS
		VN	50	0.43	0.000170	± 2.5	PASS
	HCH	VN	-30	4.54	0.001773	± 2.5	PASS
		VN	-20	4.06	0.001586	± 2.5	PASS
		VN	-10	-1.69	-0.000660	± 2.5	PASS
		VN	0	1.56	0.000609	± 2.5	PASS
		VN	10	4.96	0.001938	± 2.5	PASS
		VN	20	-1.73	-0.000676	± 2.5	PASS
		VN	30	0.98	0.000383	± 2.5	PASS
		VN	40	0.32	0.000125	± 2.5	PASS
		VN	50	3.55	0.001387	± 2.5	PASS
16QAM	LCH	VN	-30	-0.07	-0.000028	± 2.5	PASS
		VN	-20	3.28	0.001307	± 2.5	PASS
		VN	-10	-0.61	-0.000243	± 2.5	PASS
		VN	0	3.54	0.001410	± 2.5	PASS
		VN	10	2.74	0.001092	± 2.5	PASS
		VN	20	3.18	0.001267	± 2.5	PASS
		VN	30	3.8	0.001514	± 2.5	PASS
		VN	40	0.45	0.000179	± 2.5	PASS
		VN	50	4.05	0.001614	± 2.5	PASS
	MCH	VN	-30	4.36	0.001720	± 2.5	PASS
		VN	-20	0.47	0.000185	± 2.5	PASS
		VN	-10	-0.51	-0.000201	± 2.5	PASS
		VN	0	0.88	0.000347	± 2.5	PASS
		VN	10	-1.77	-0.000698	± 2.5	PASS
		VN	20	2.2	0.000868	± 2.5	PASS
		VN	30	3.36	0.001325	± 2.5	PASS
		VN	40	-1.91	-0.000753	± 2.5	PASS
		VN	50	-0.6	-0.000237	± 2.5	PASS
	HCH	VN	-30	3.9	0.001523	± 2.5	PASS
		VN	-20	2.11	0.000824	± 2.5	PASS
		VN	-10	1.18	0.000461	± 2.5	PASS
		VN	0	-0.75	-0.000293	± 2.5	PASS
		VN	10	0.07	0.000027	± 2.5	PASS
		VN	20	2.77	0.001082	± 2.5	PASS
		VN	30	0.27	0.000105	± 2.5	PASS
		VN	40	0.89	0.000348	± 2.5	PASS
		VN	50	3.82	0.001492	± 2.5	PASS