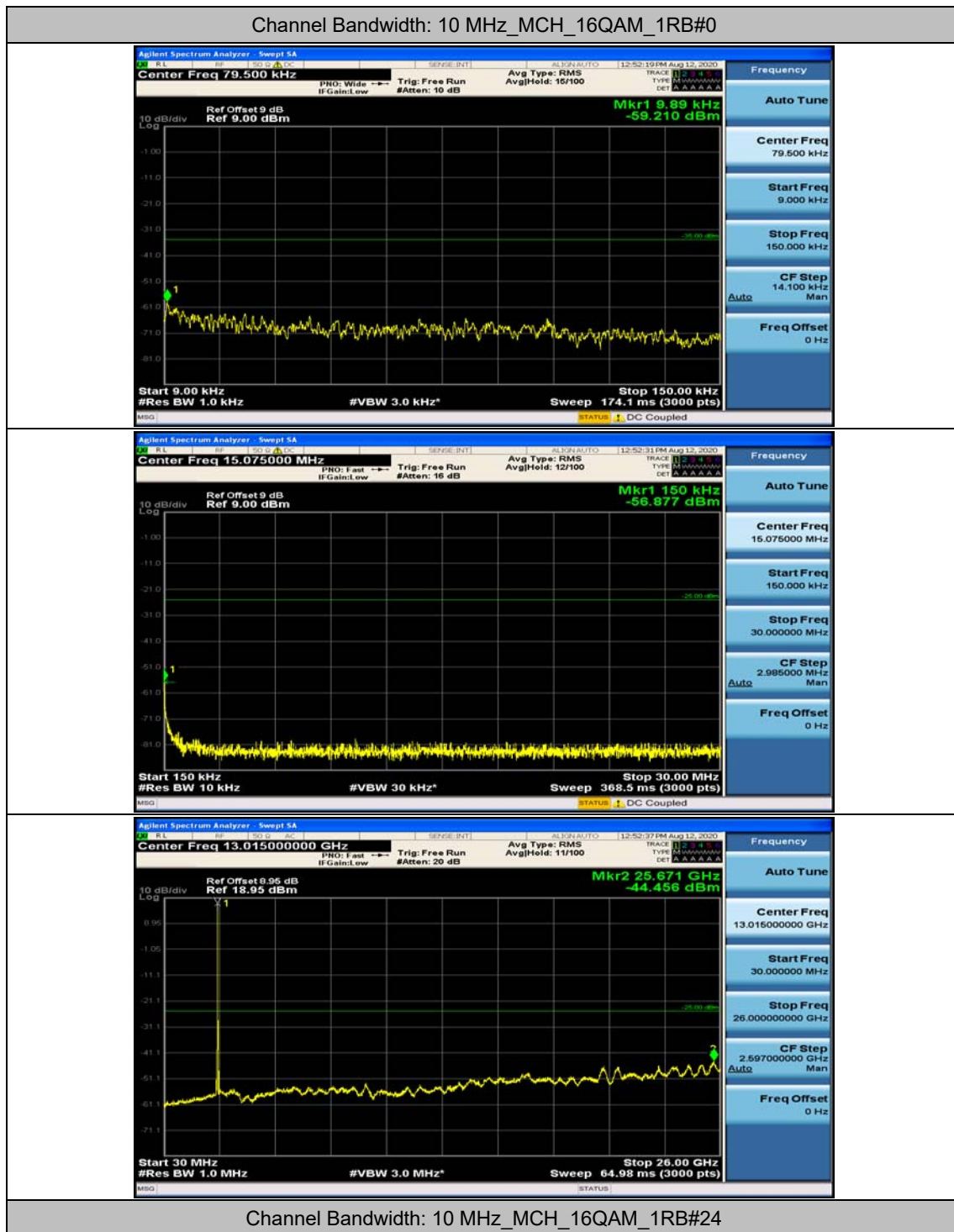
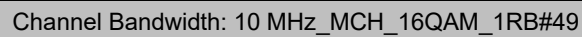
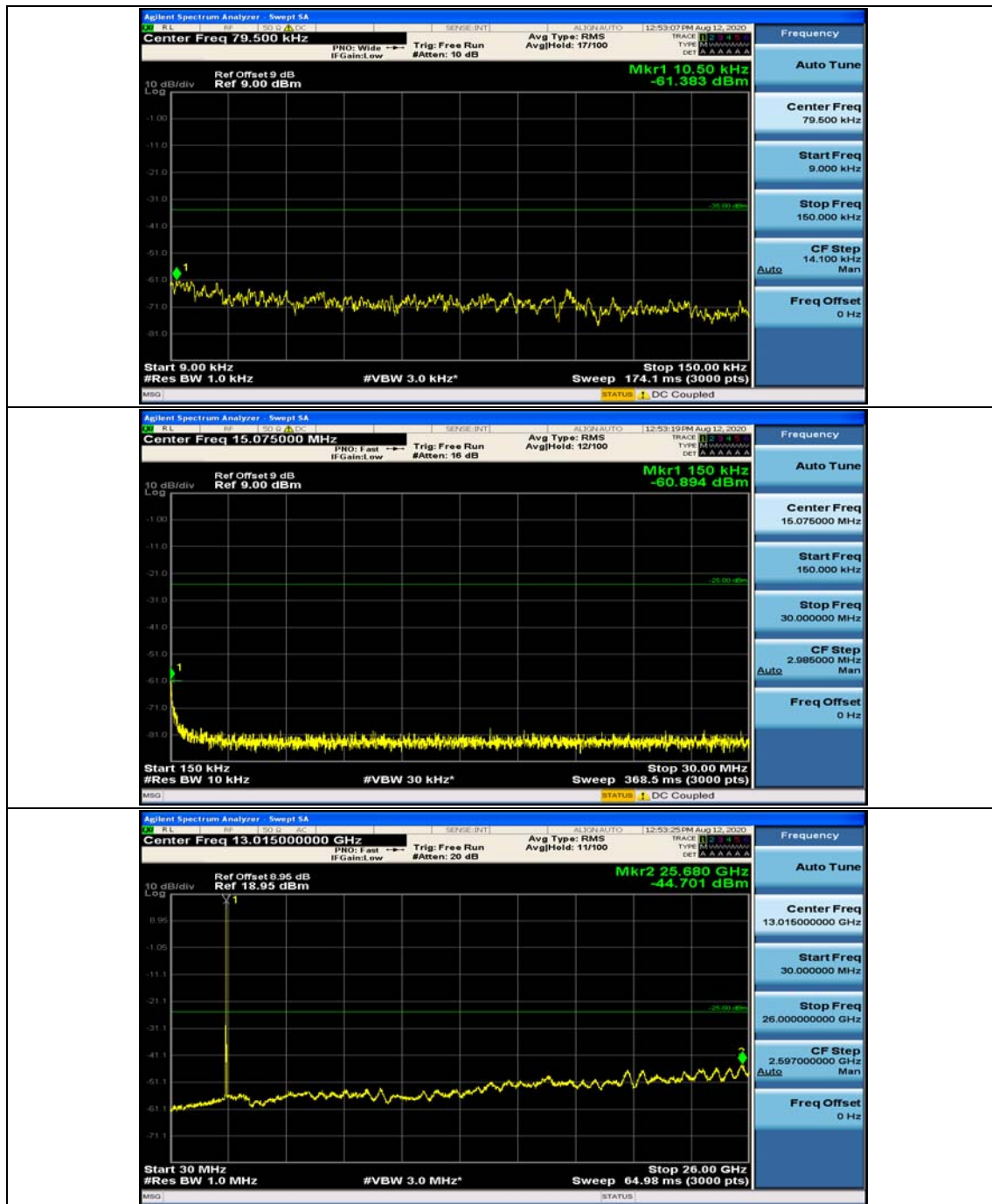
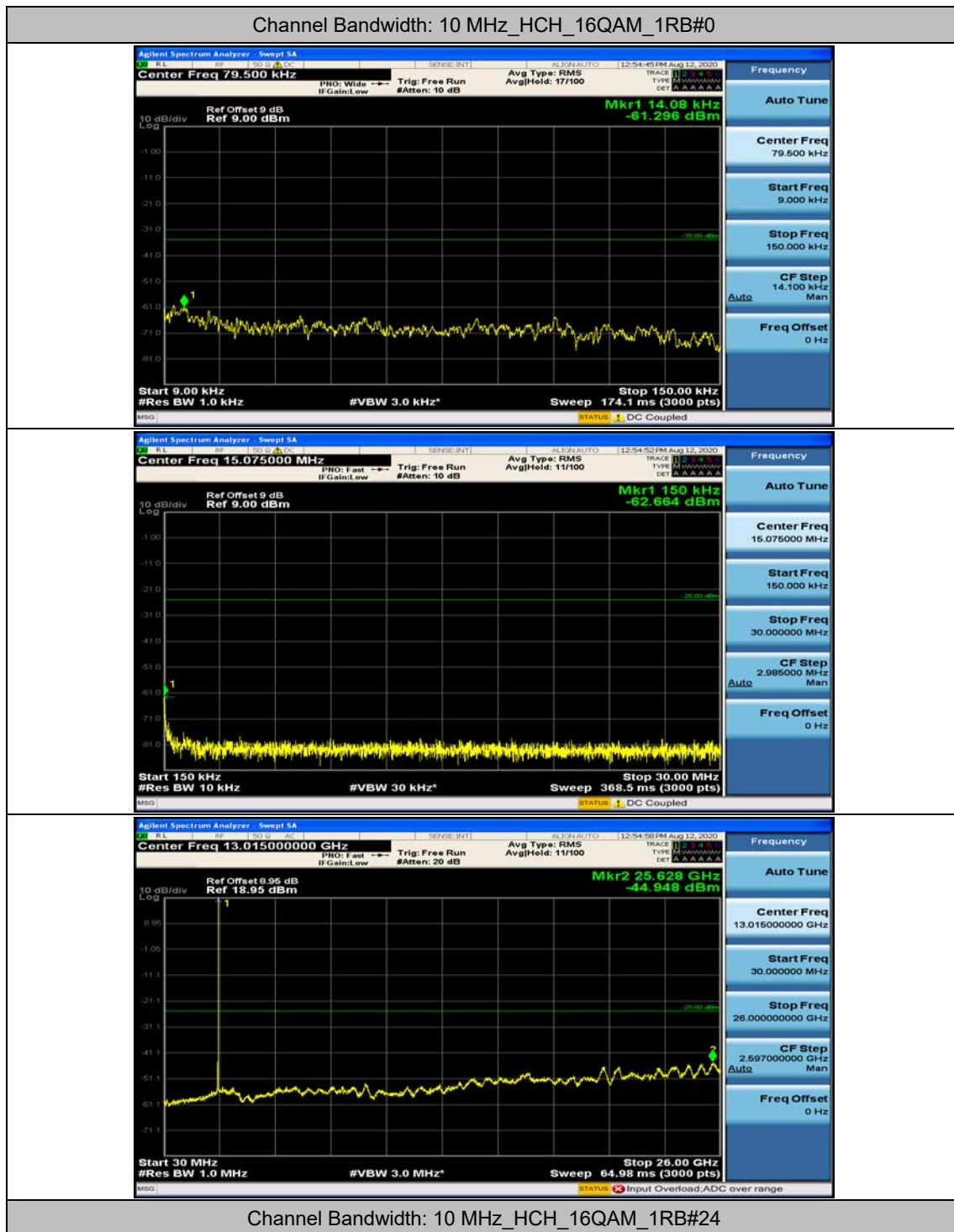
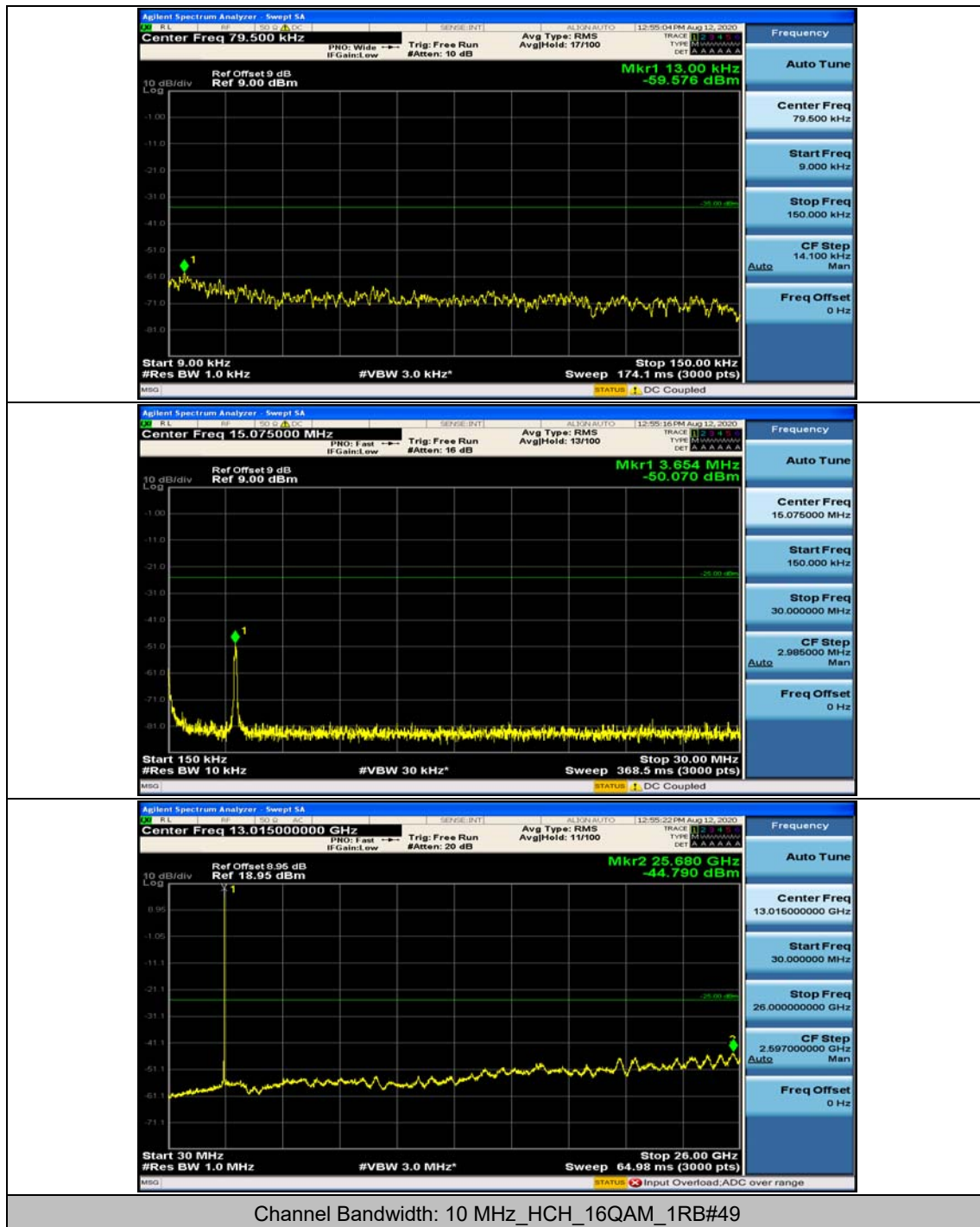


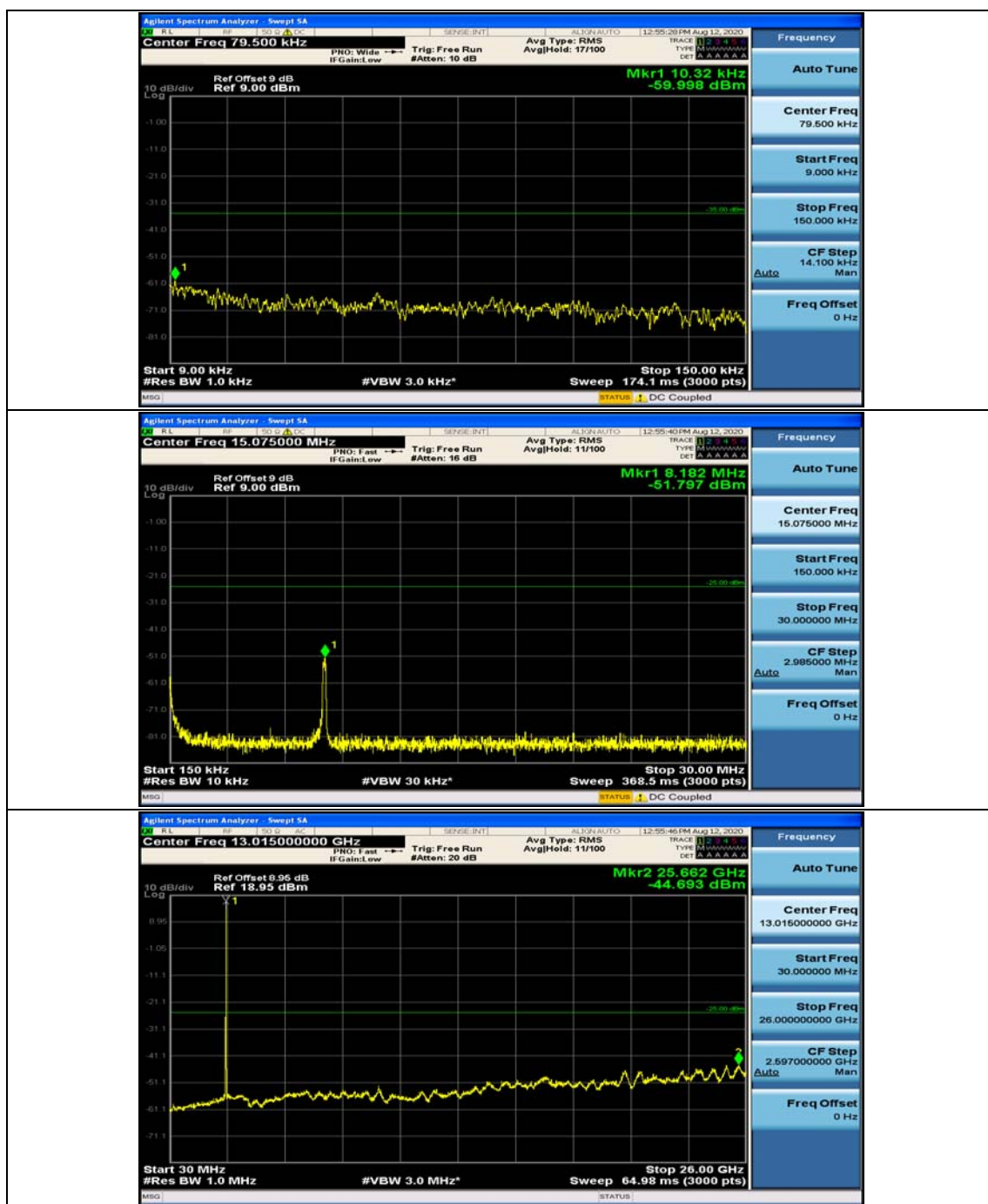




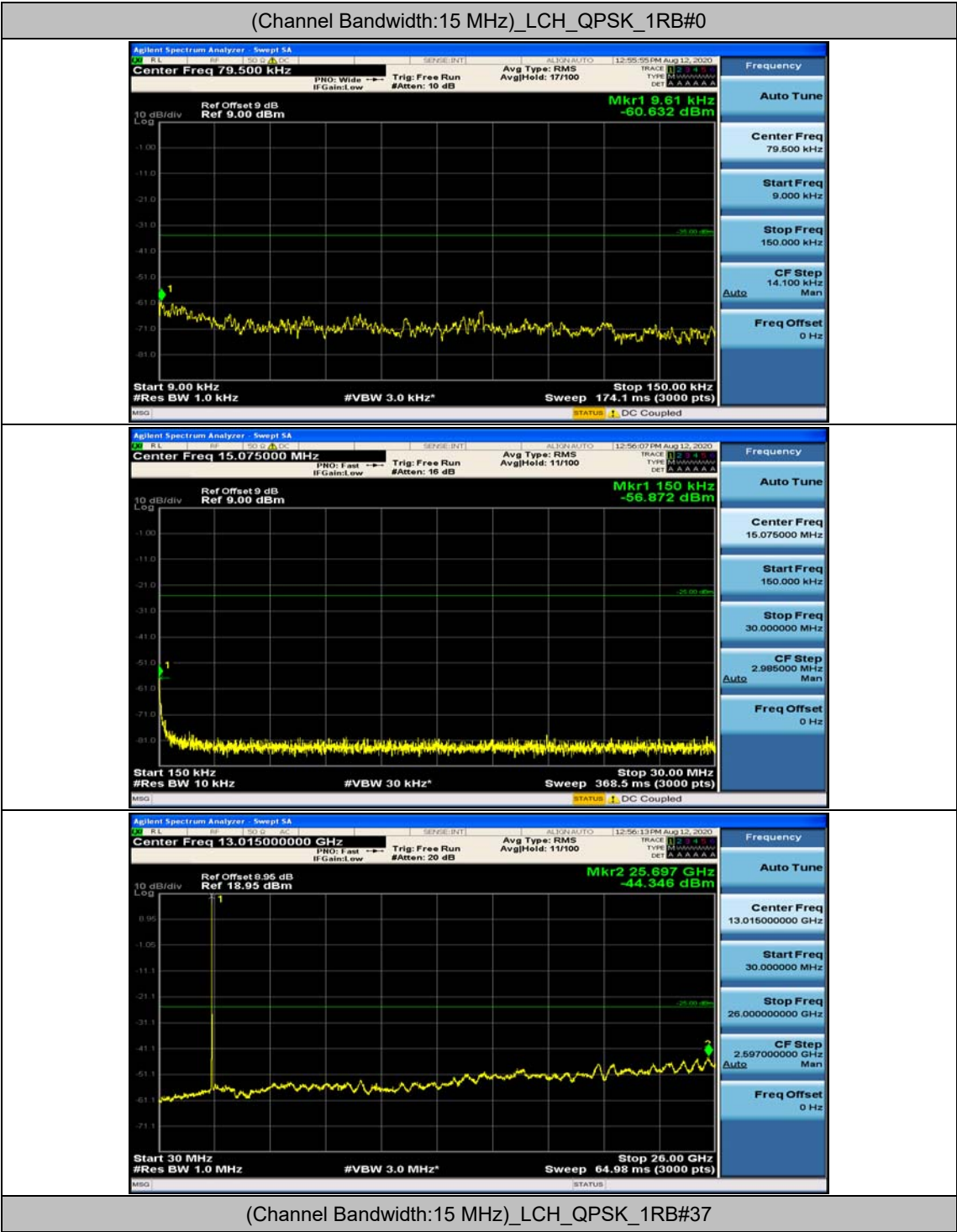


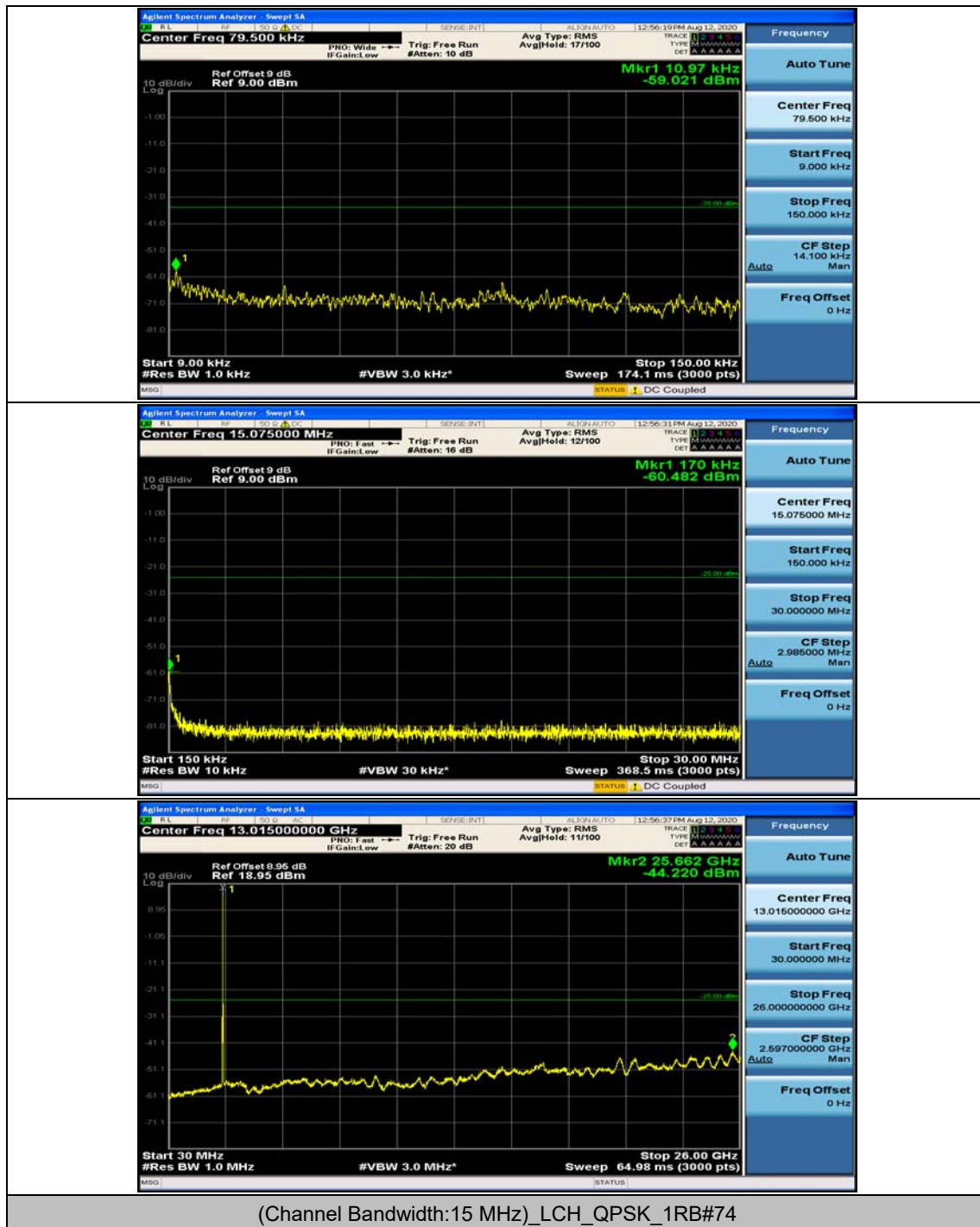


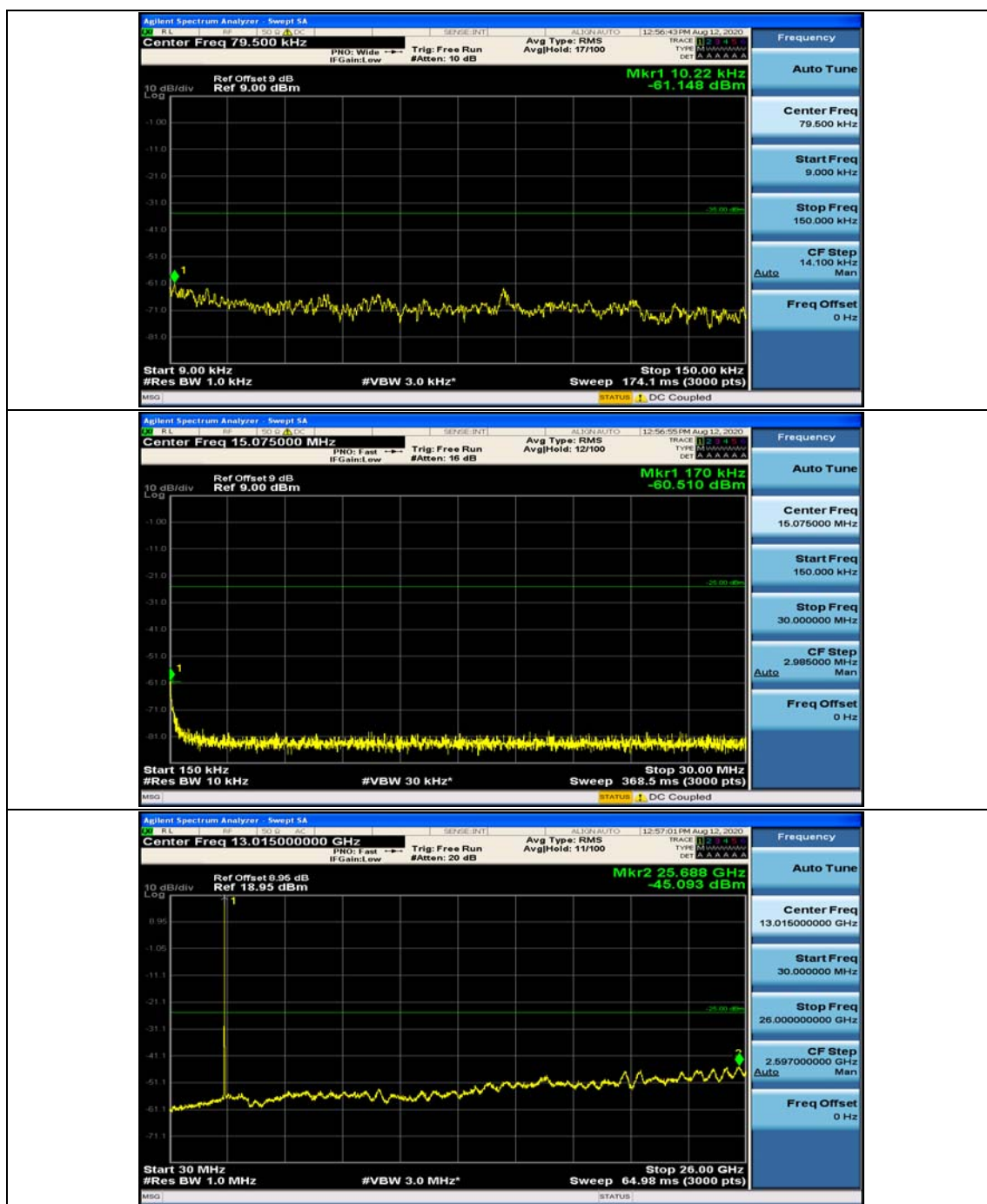




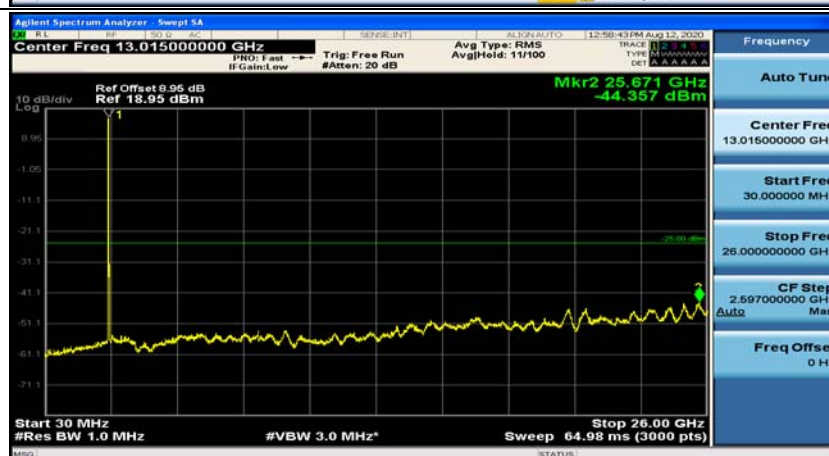
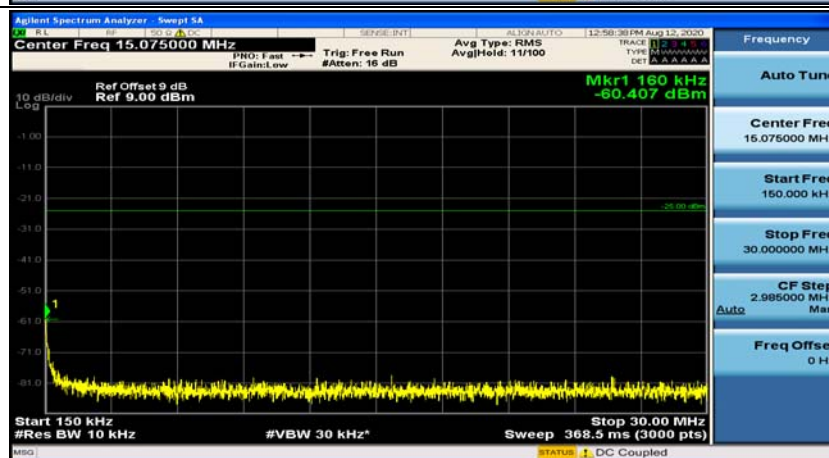
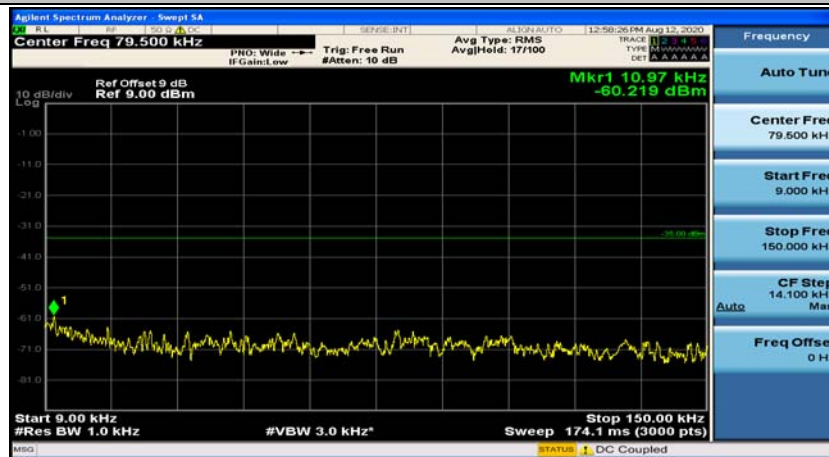
Channel Bandwidth: 15 MHz



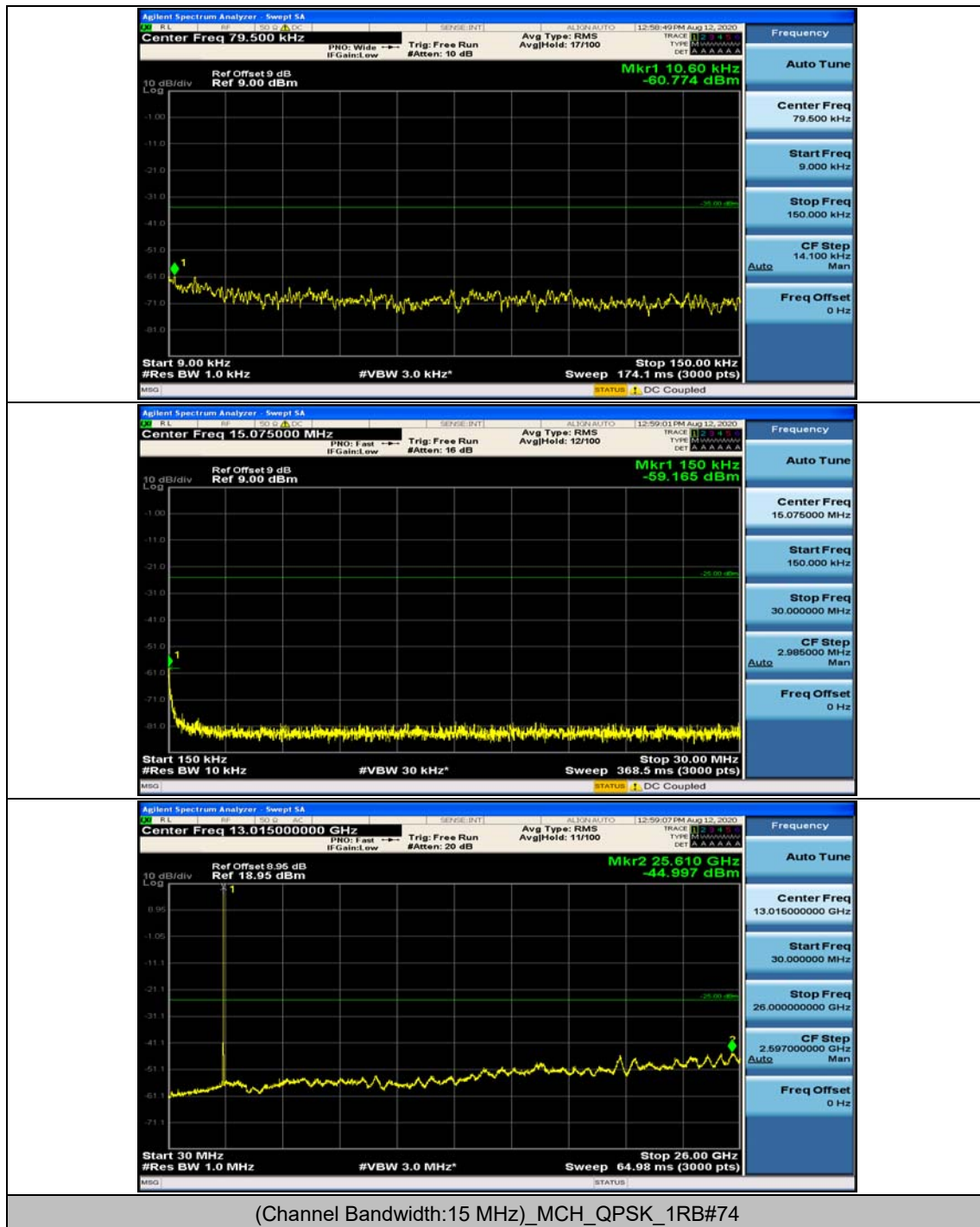


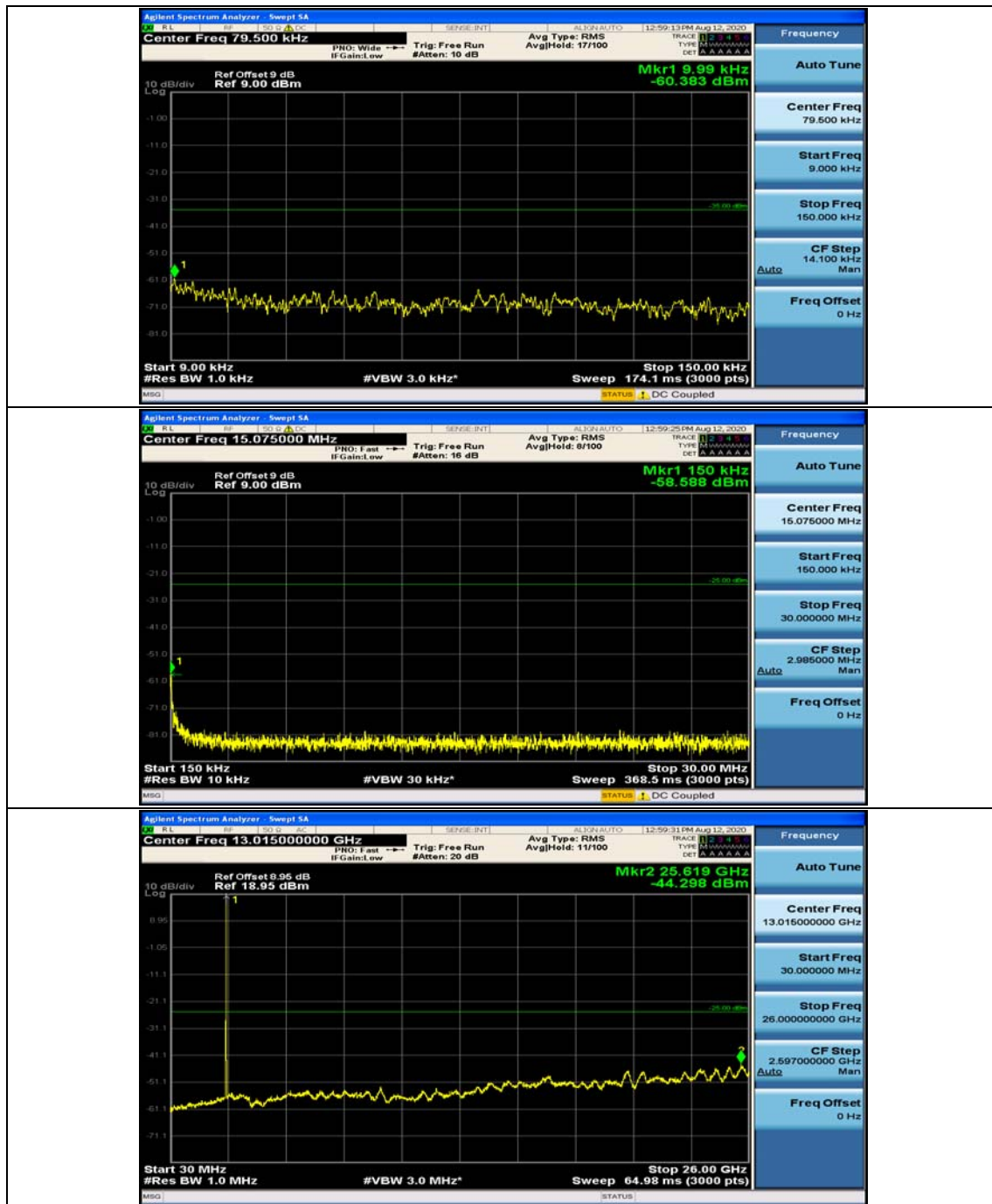


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

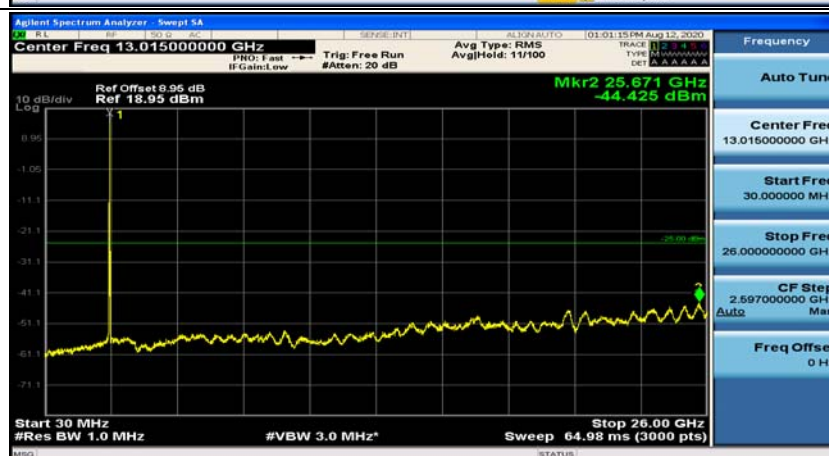
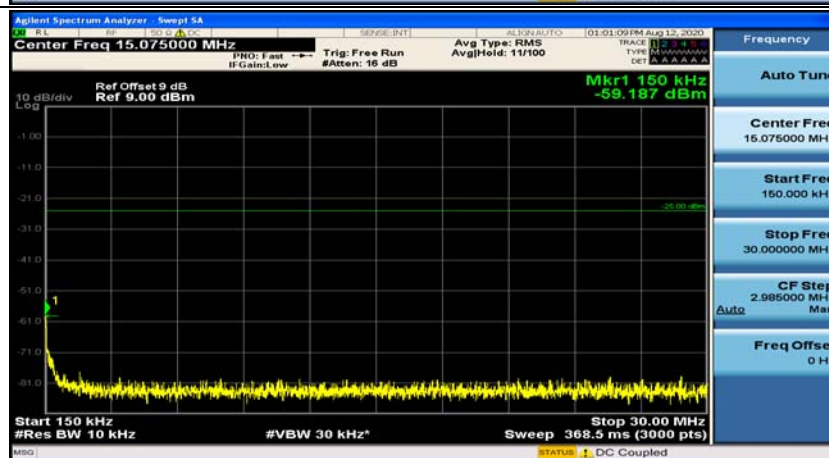
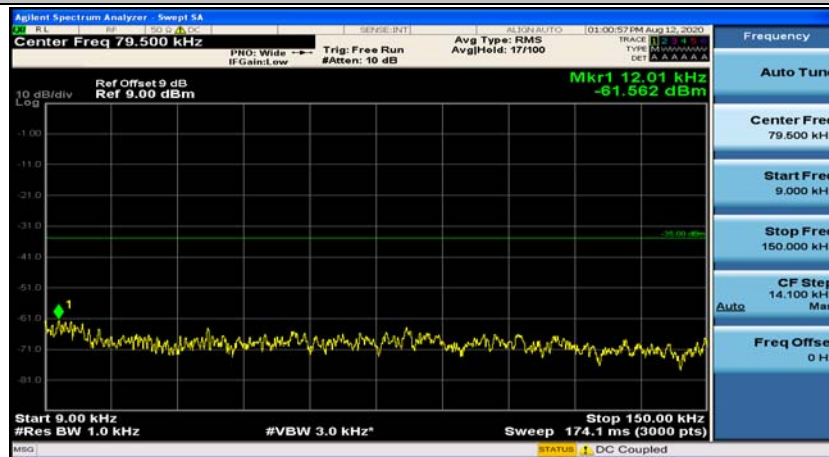


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

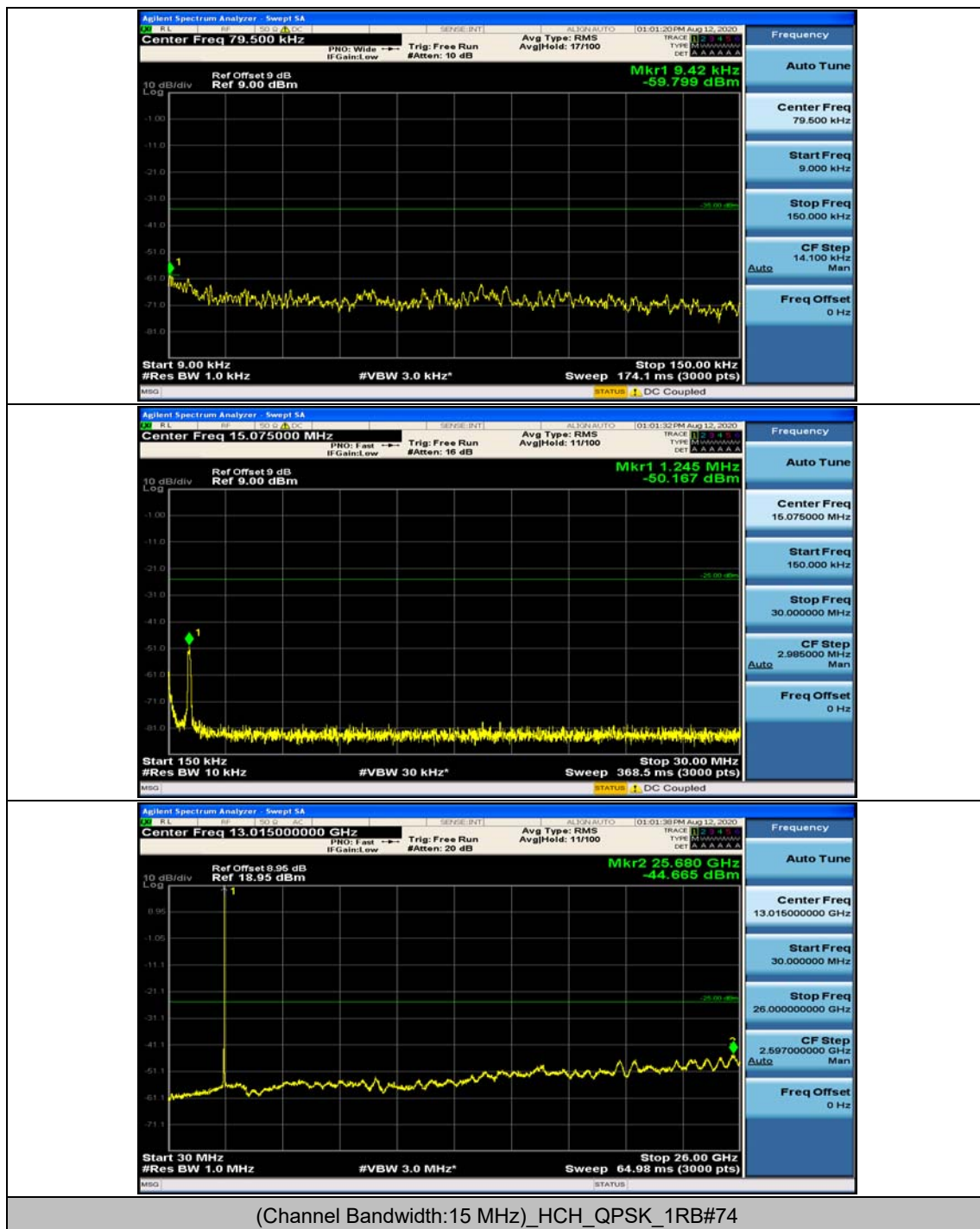


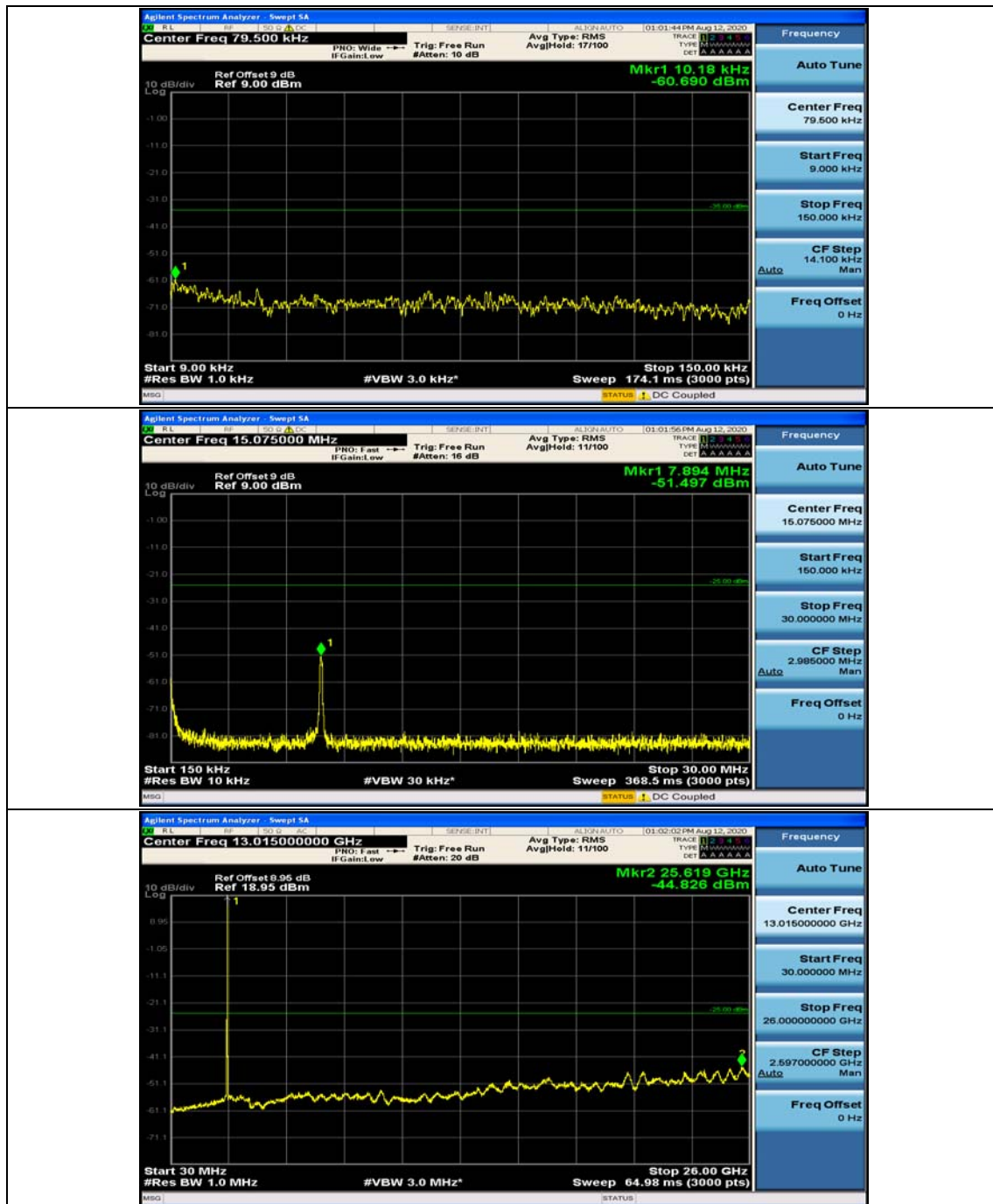


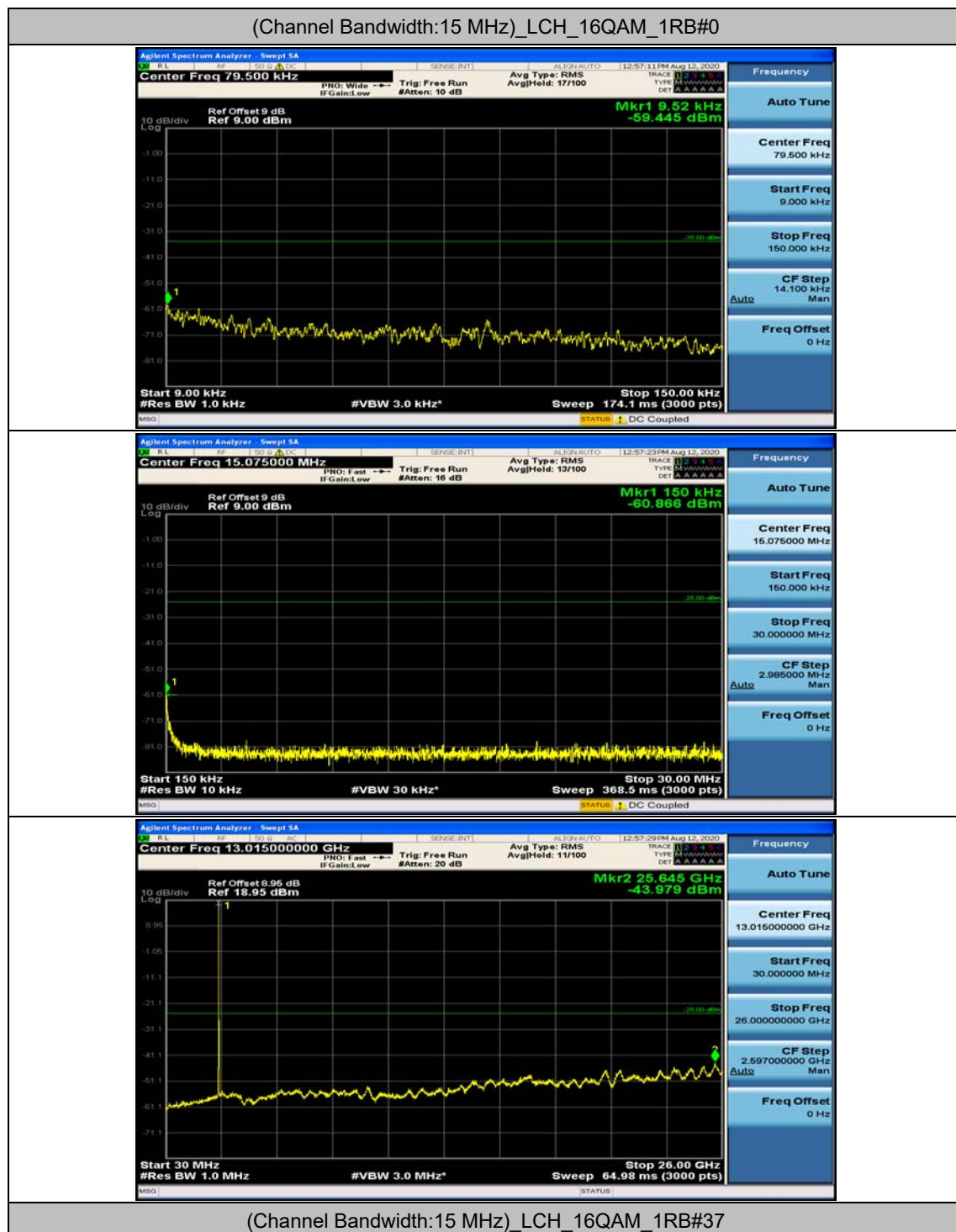
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

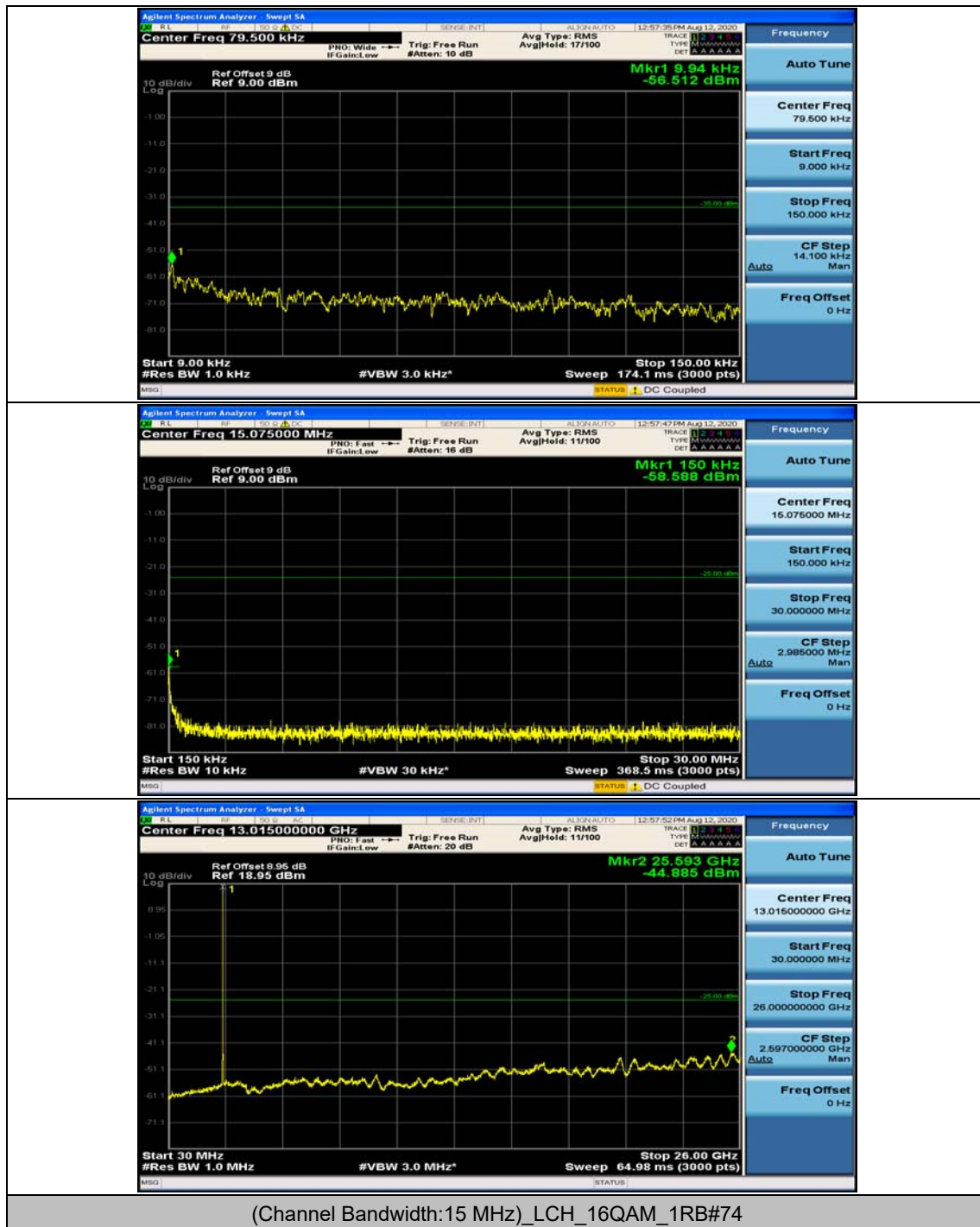


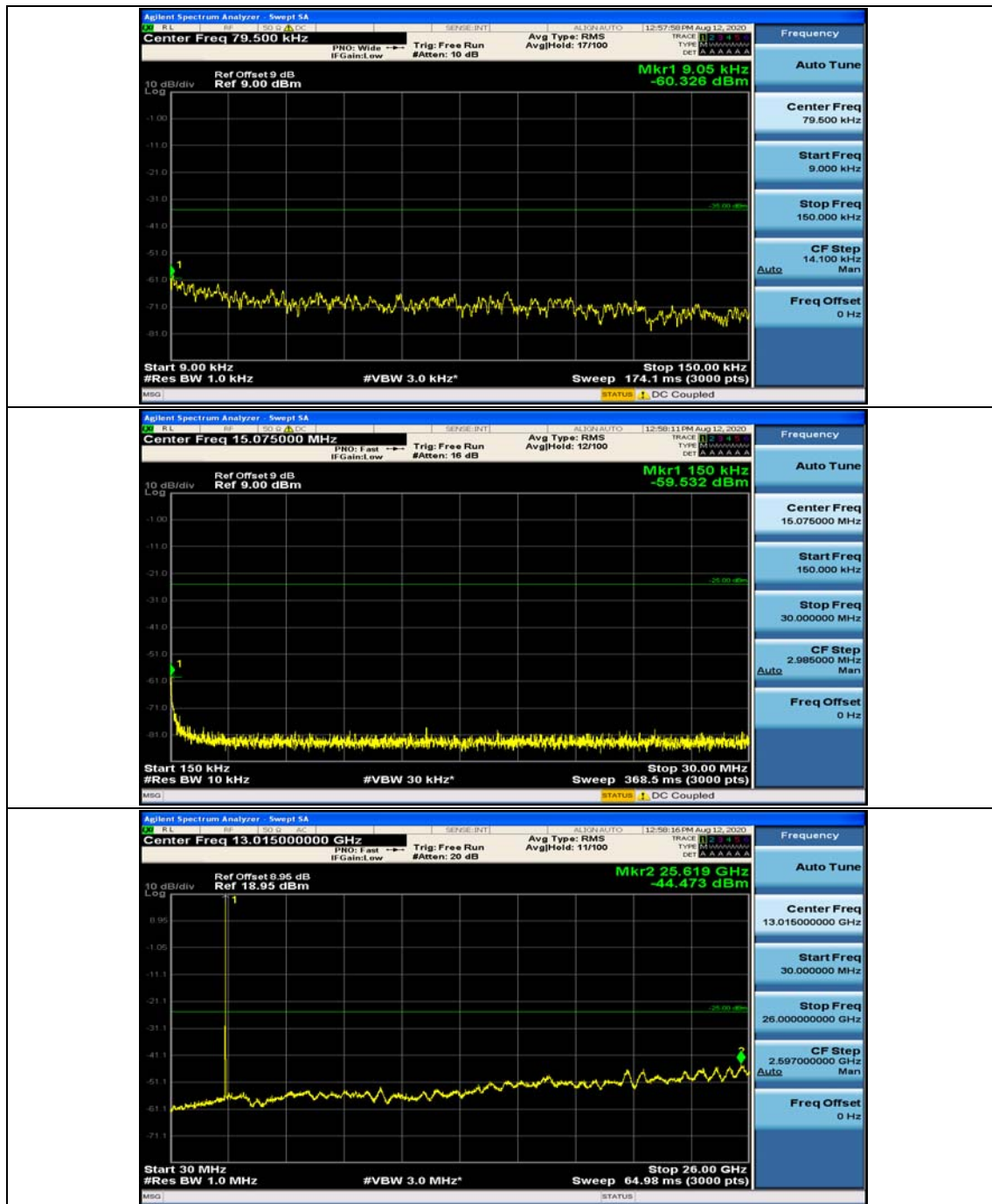
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

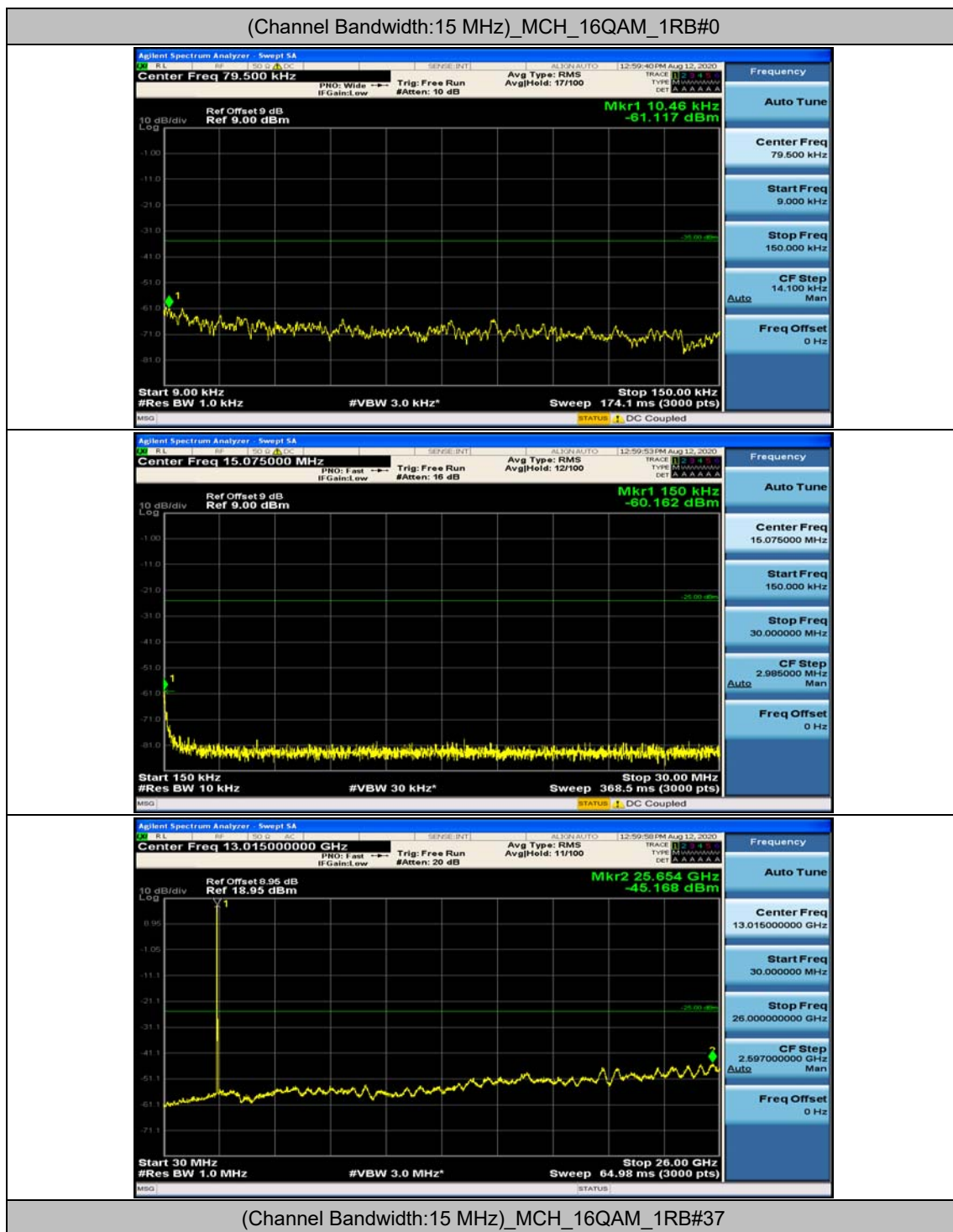


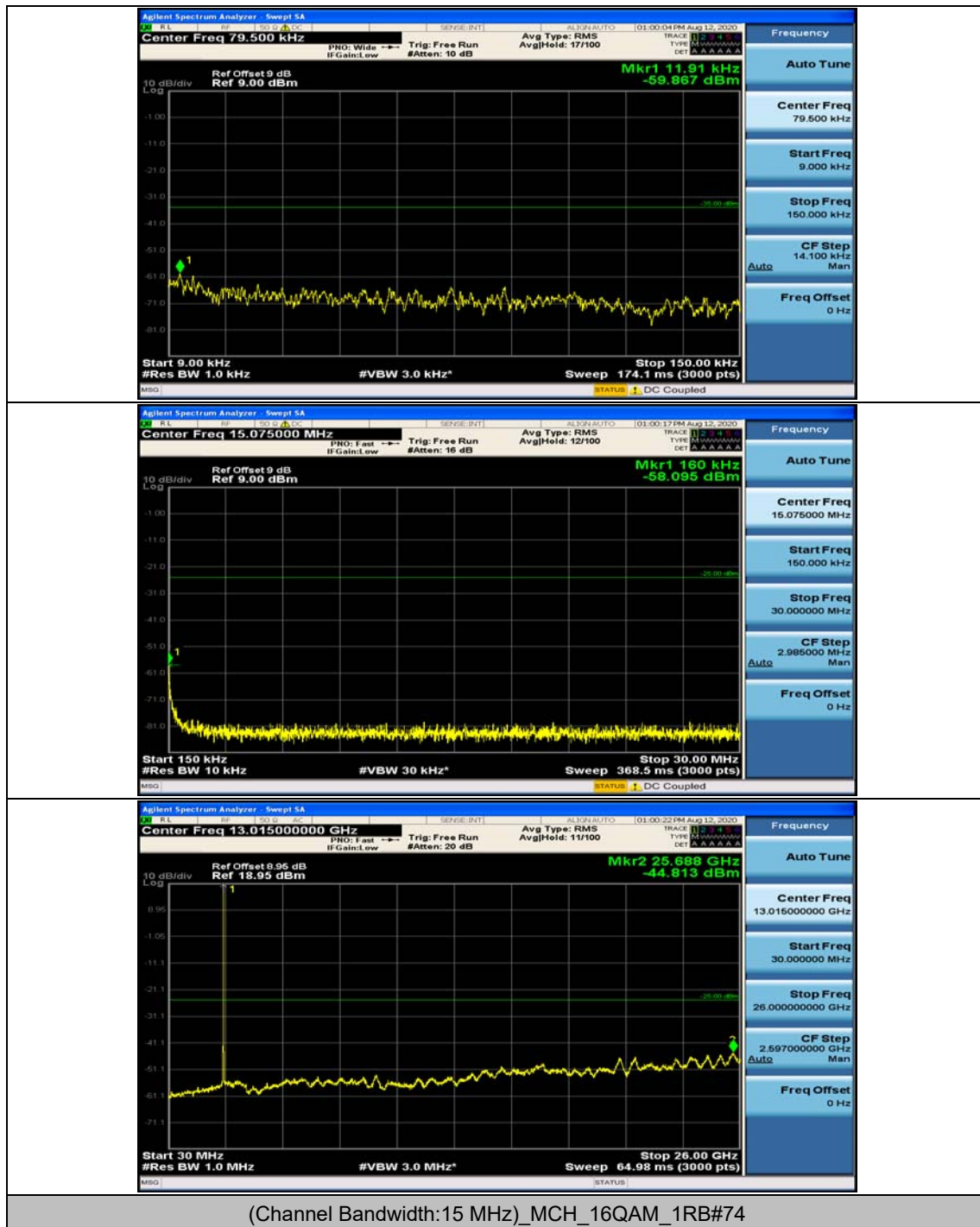


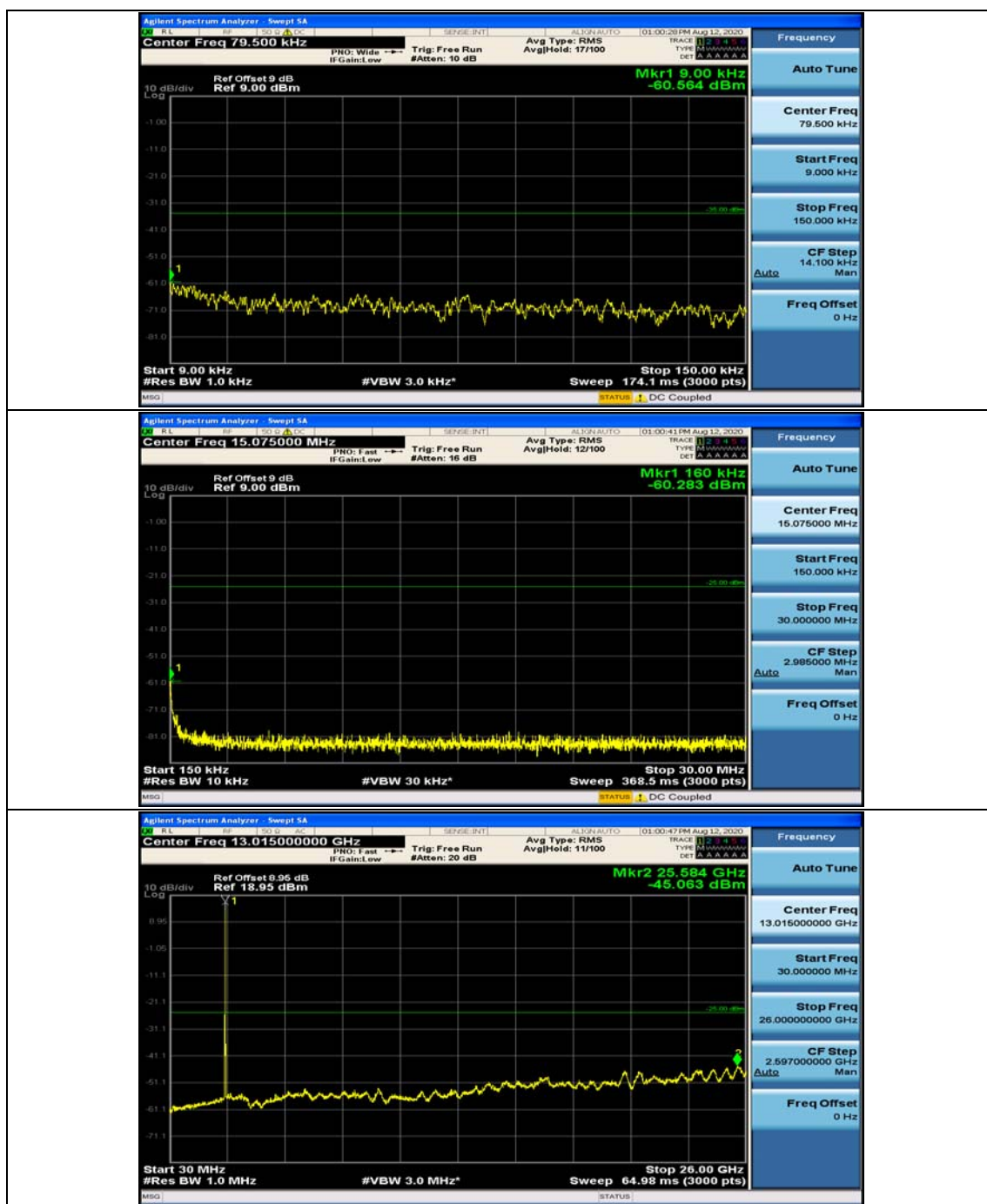




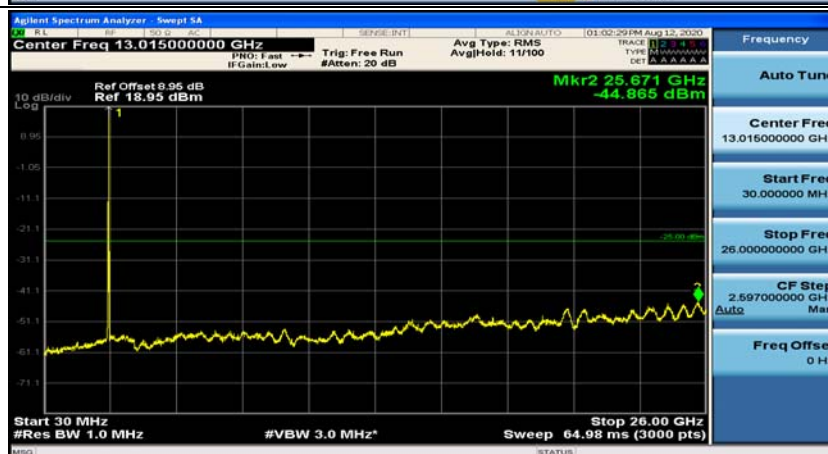
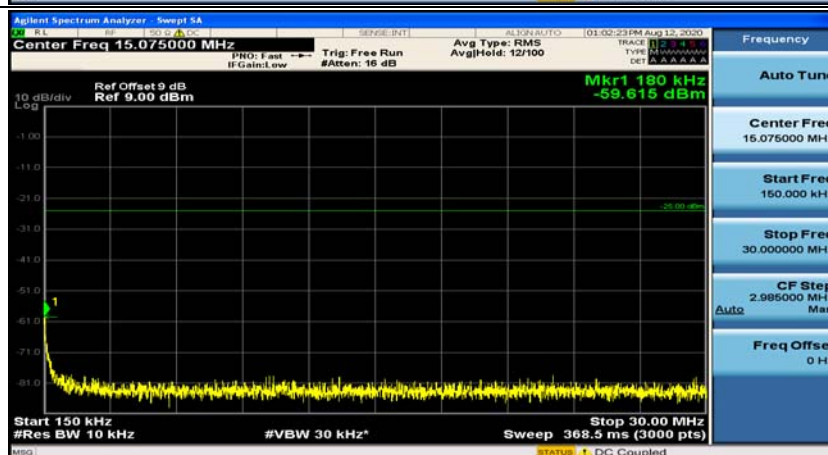
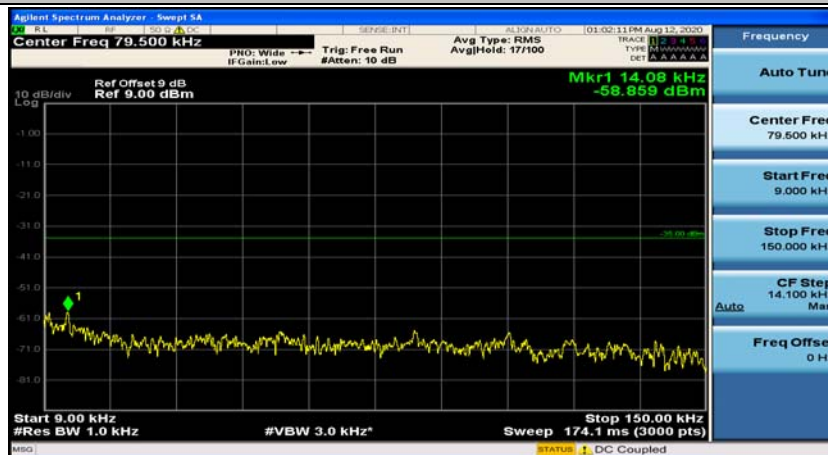




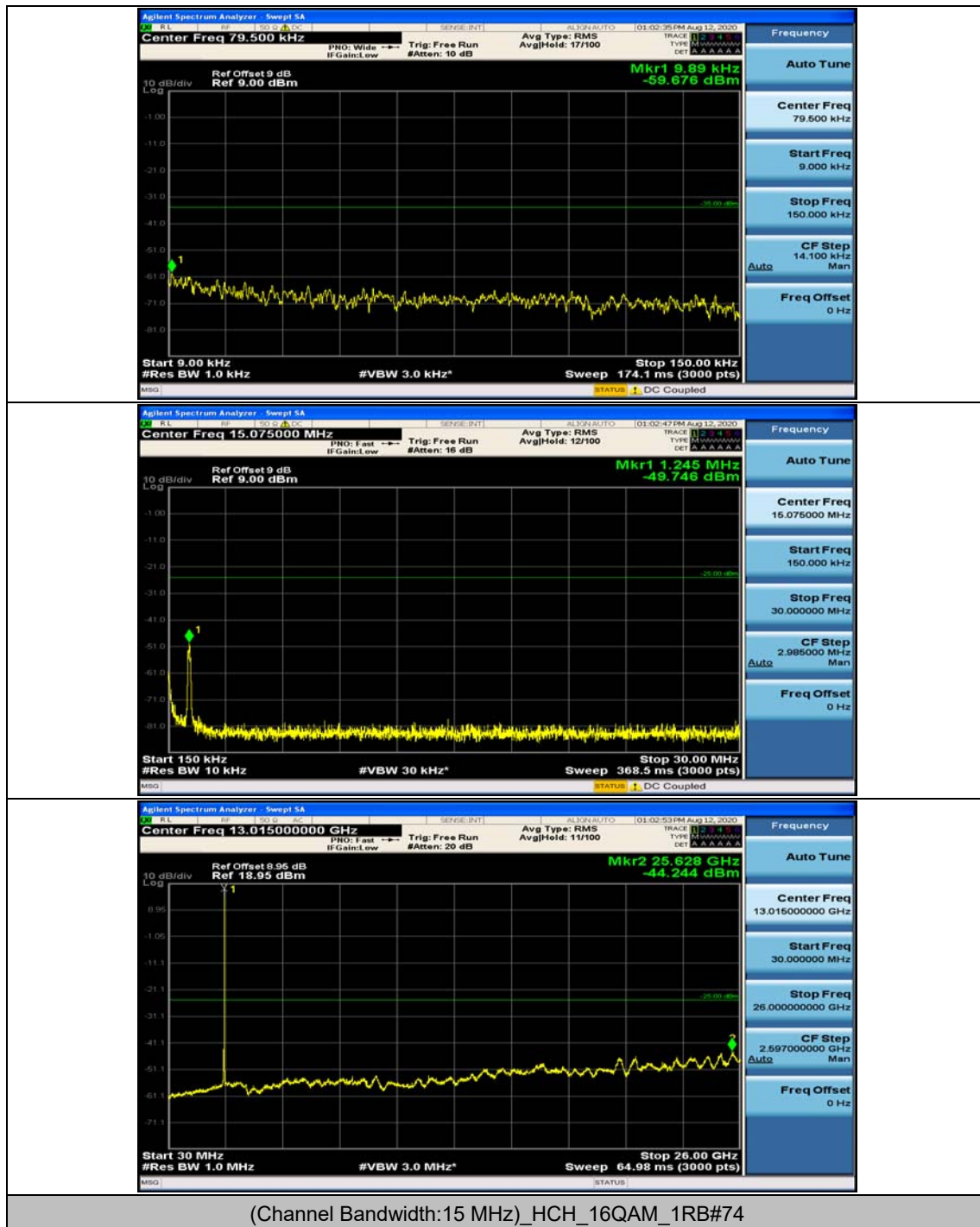


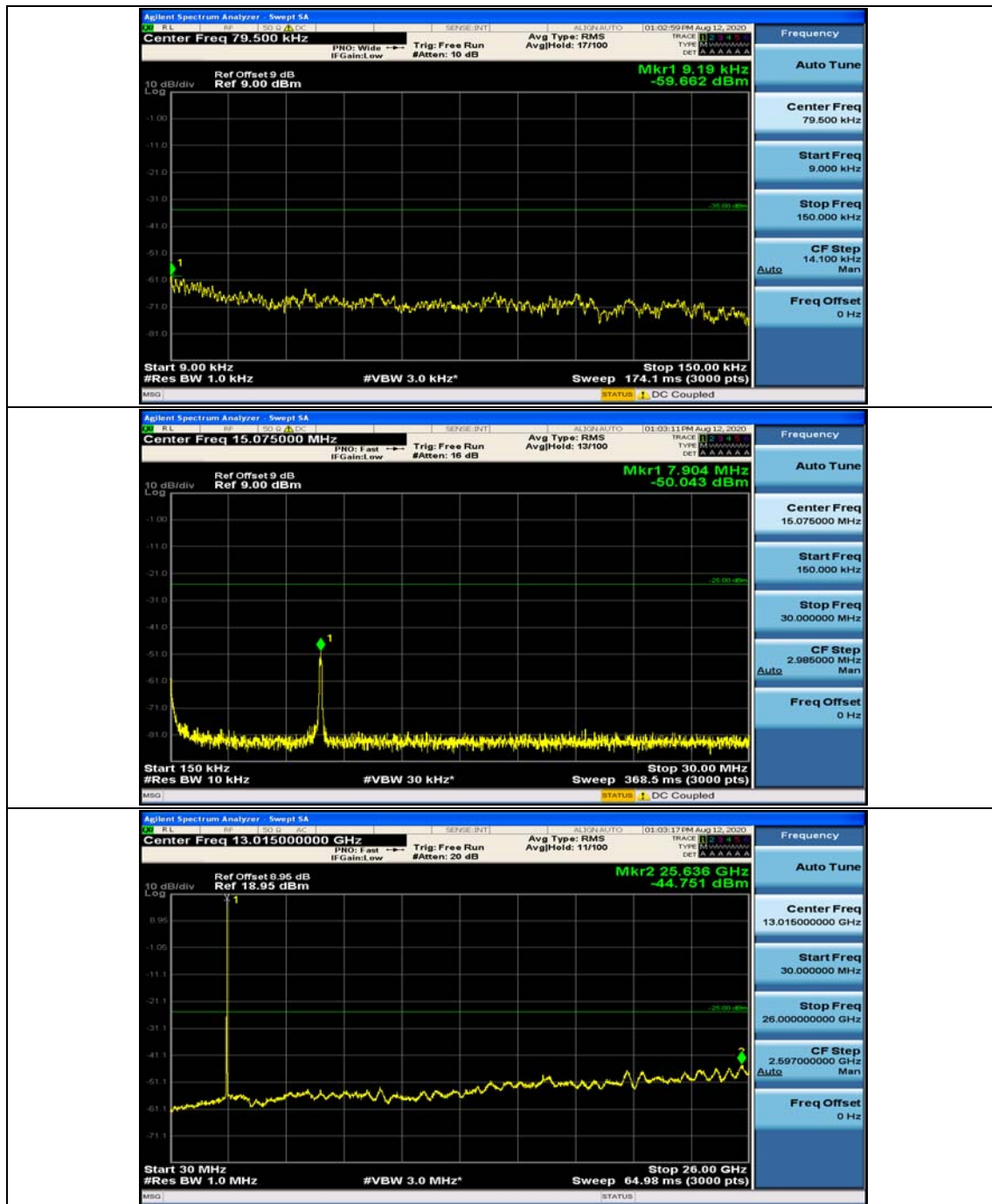


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

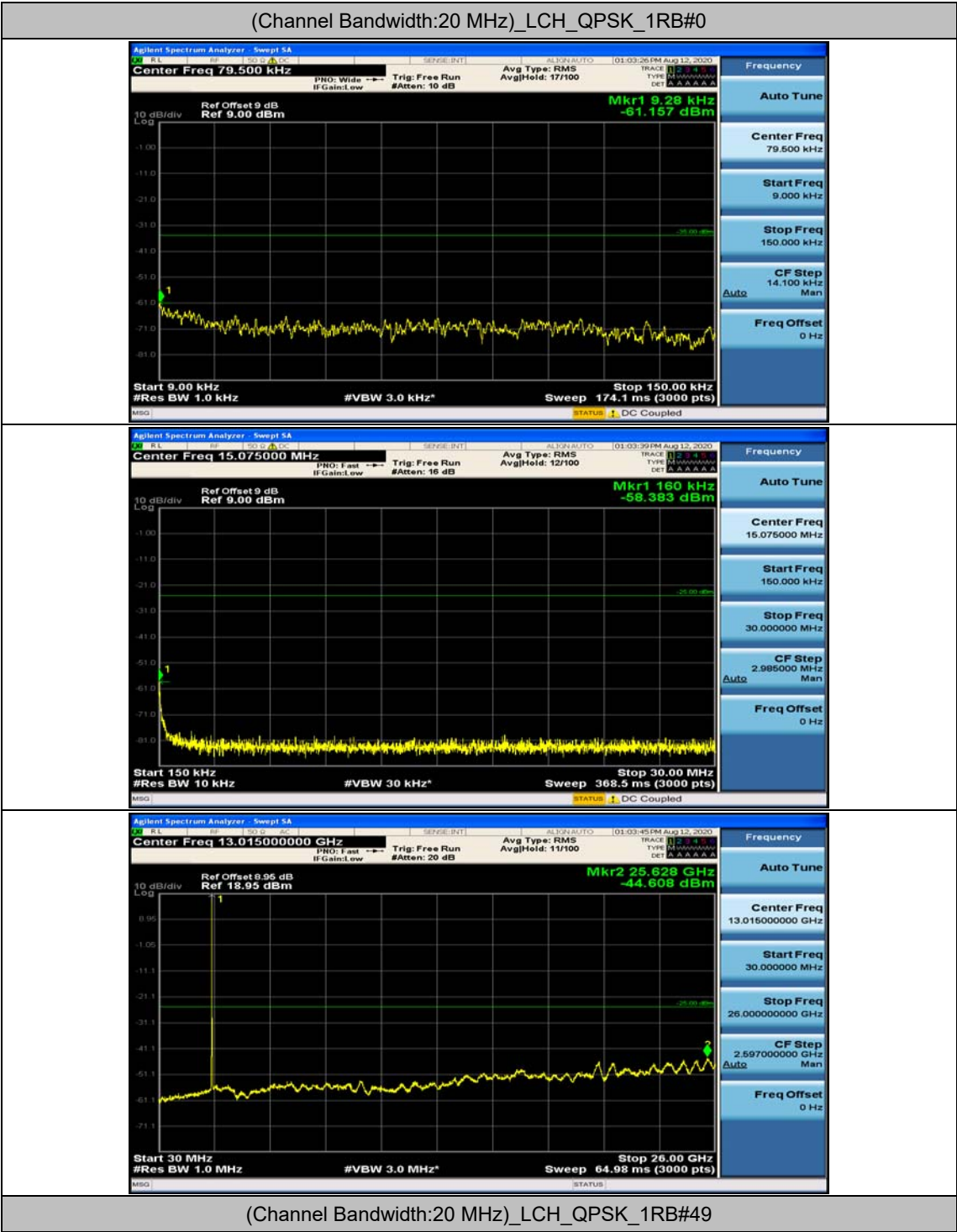


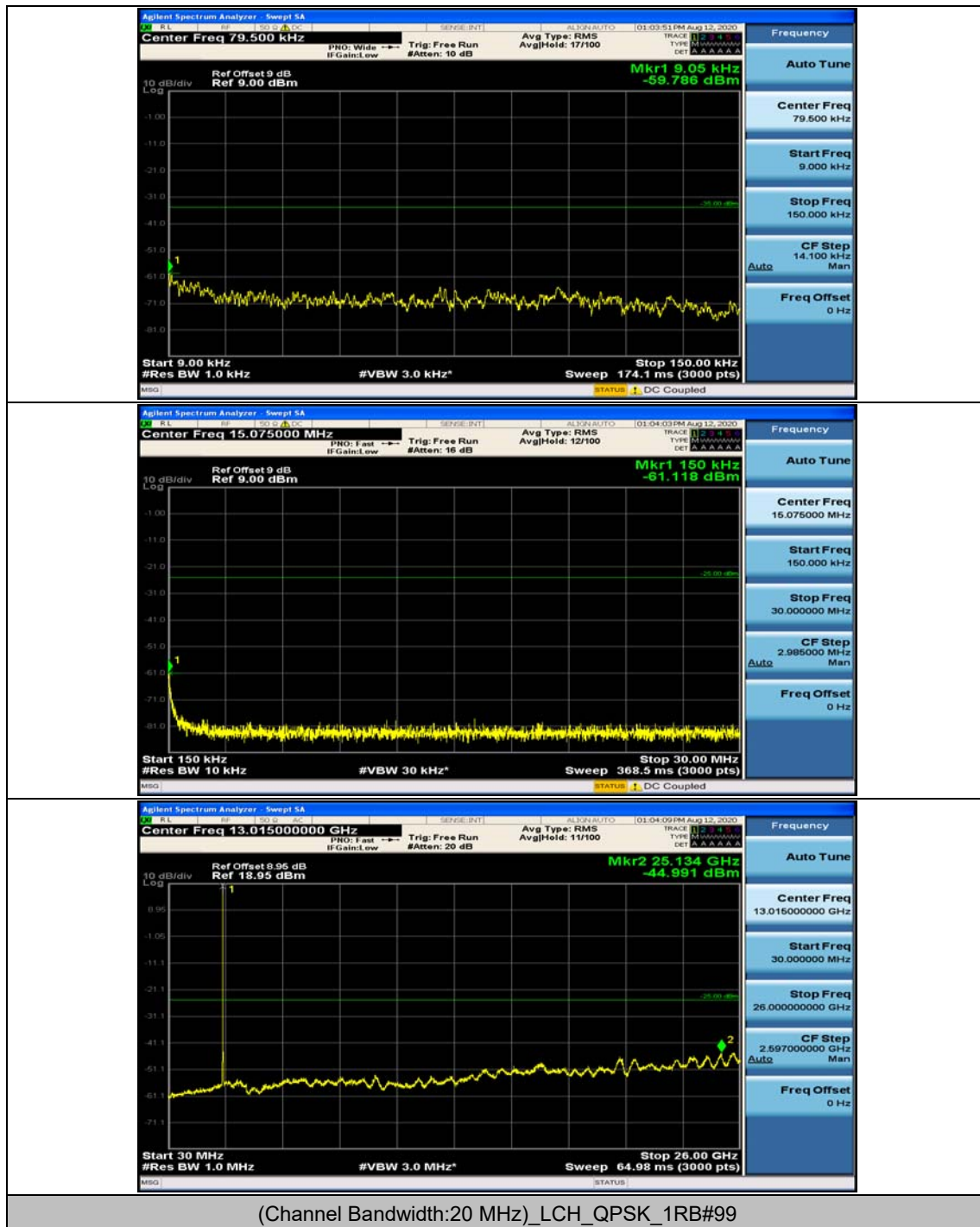
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

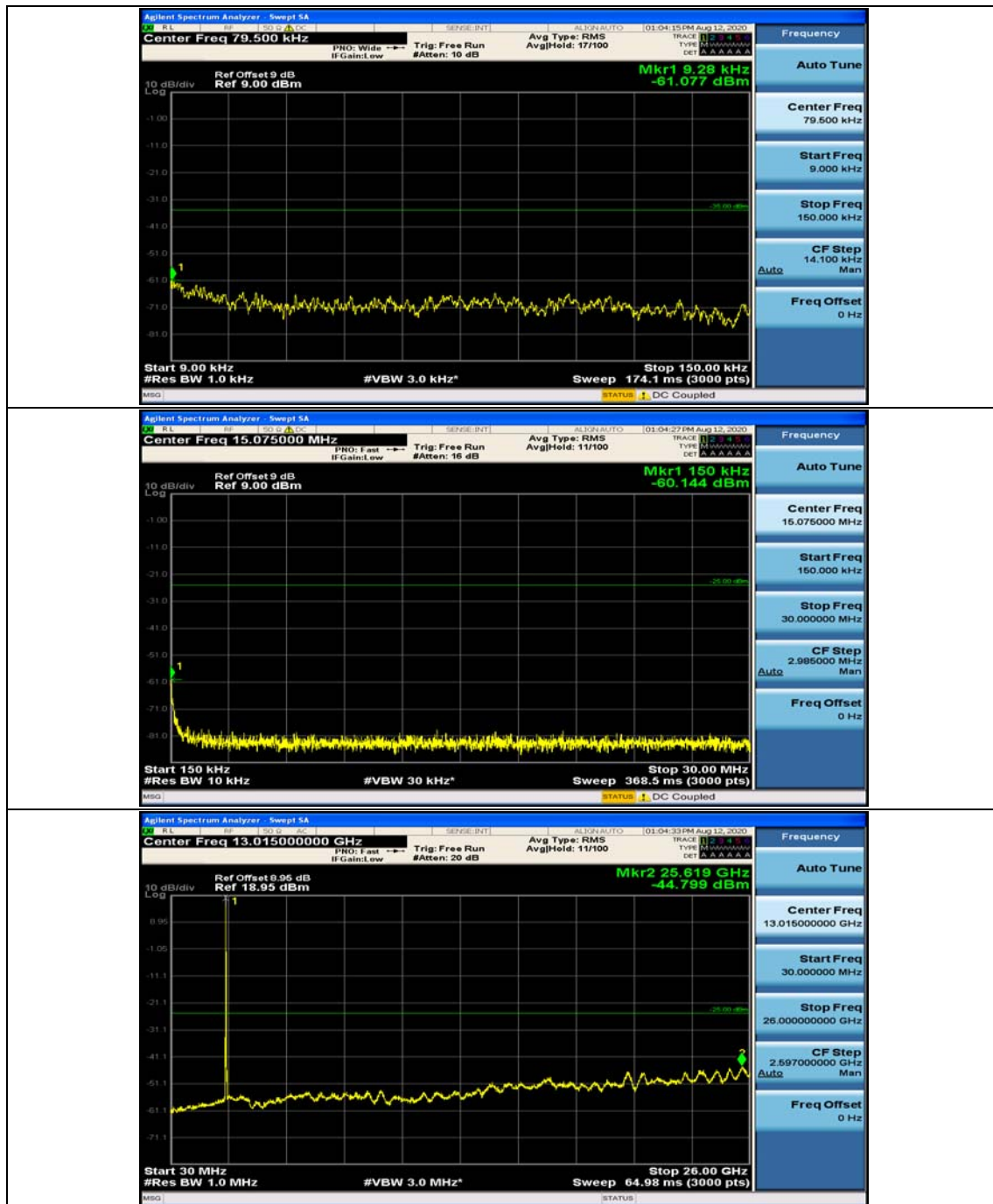




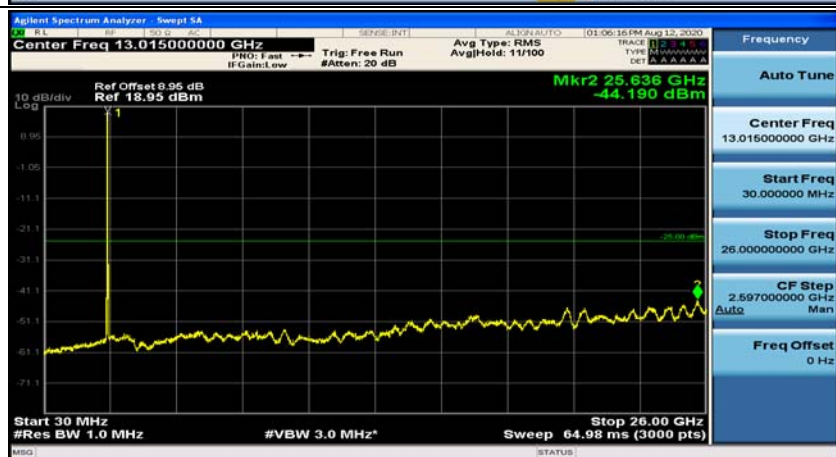
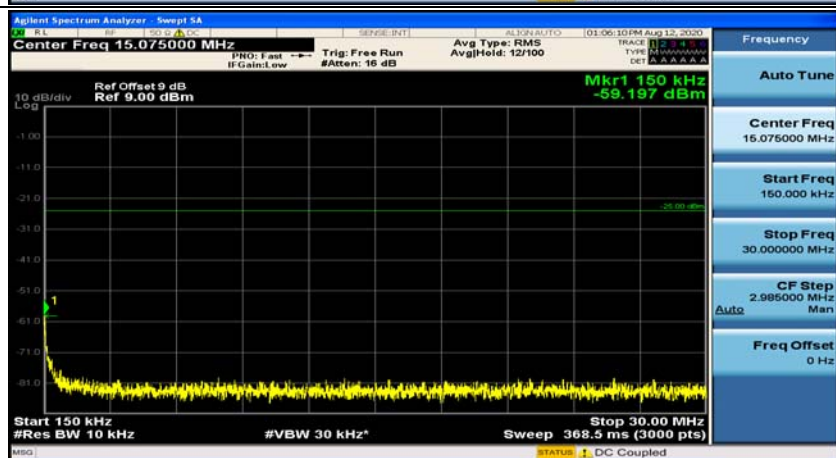
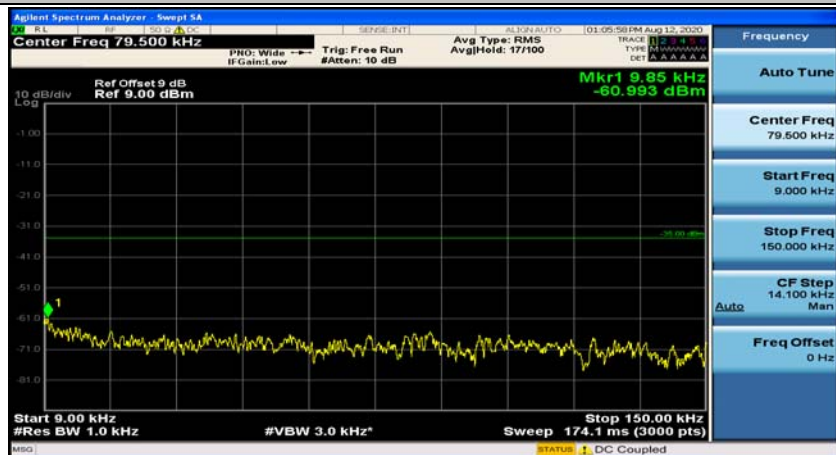
Channel Bandwidth: 20 MHz



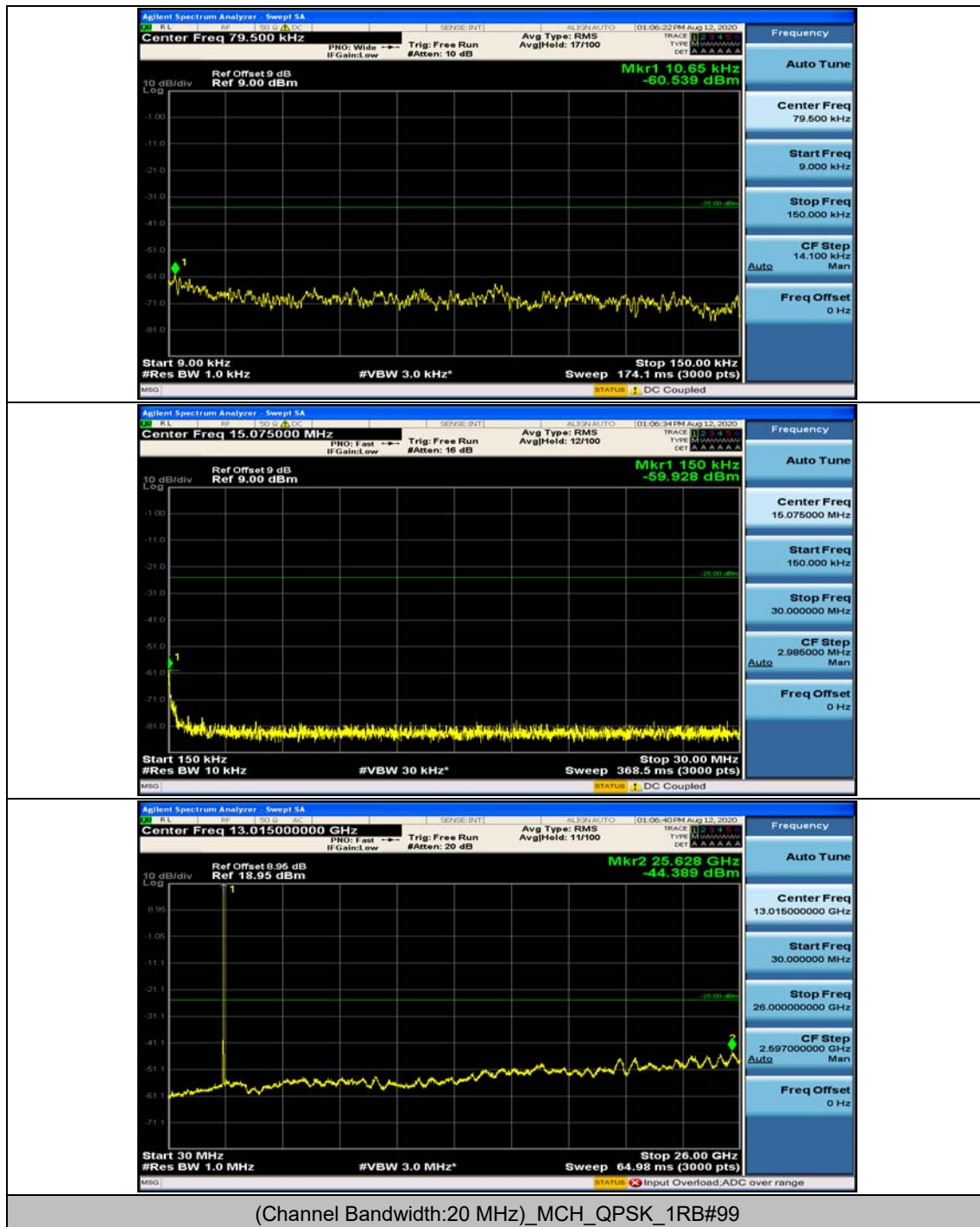


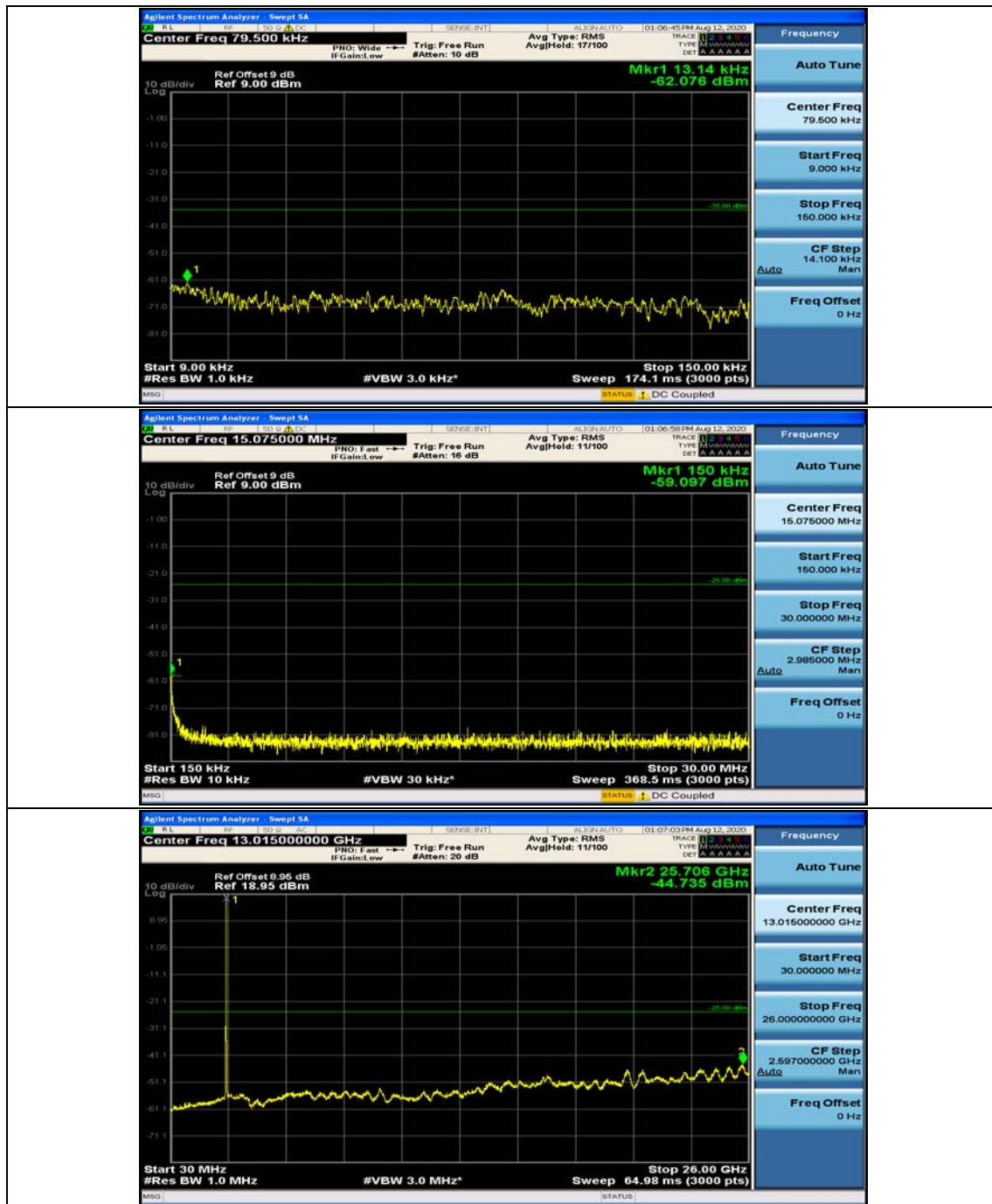


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

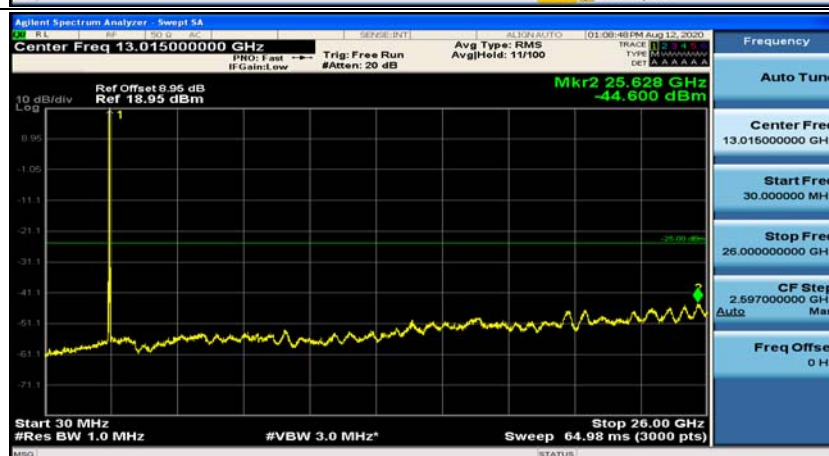
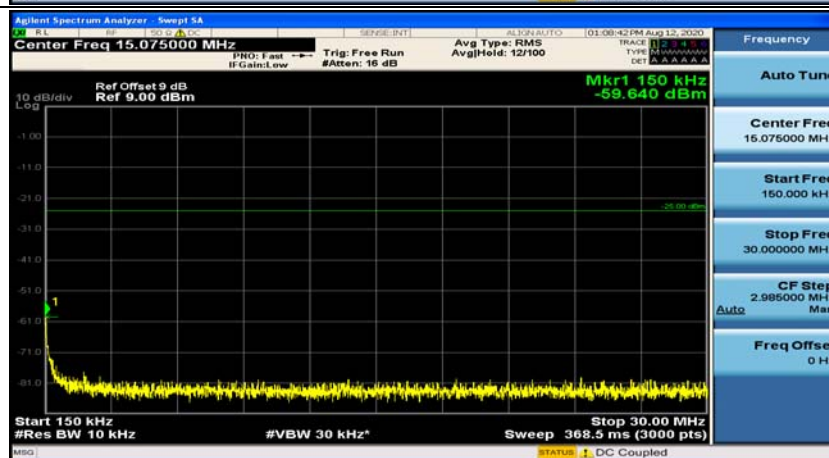
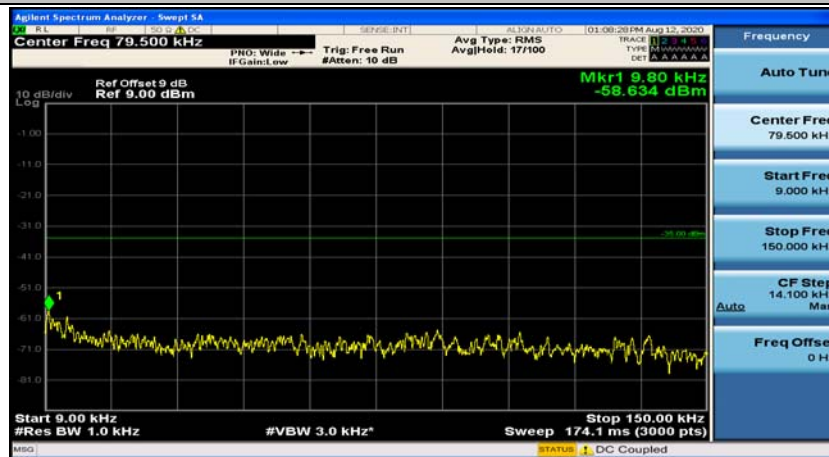


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

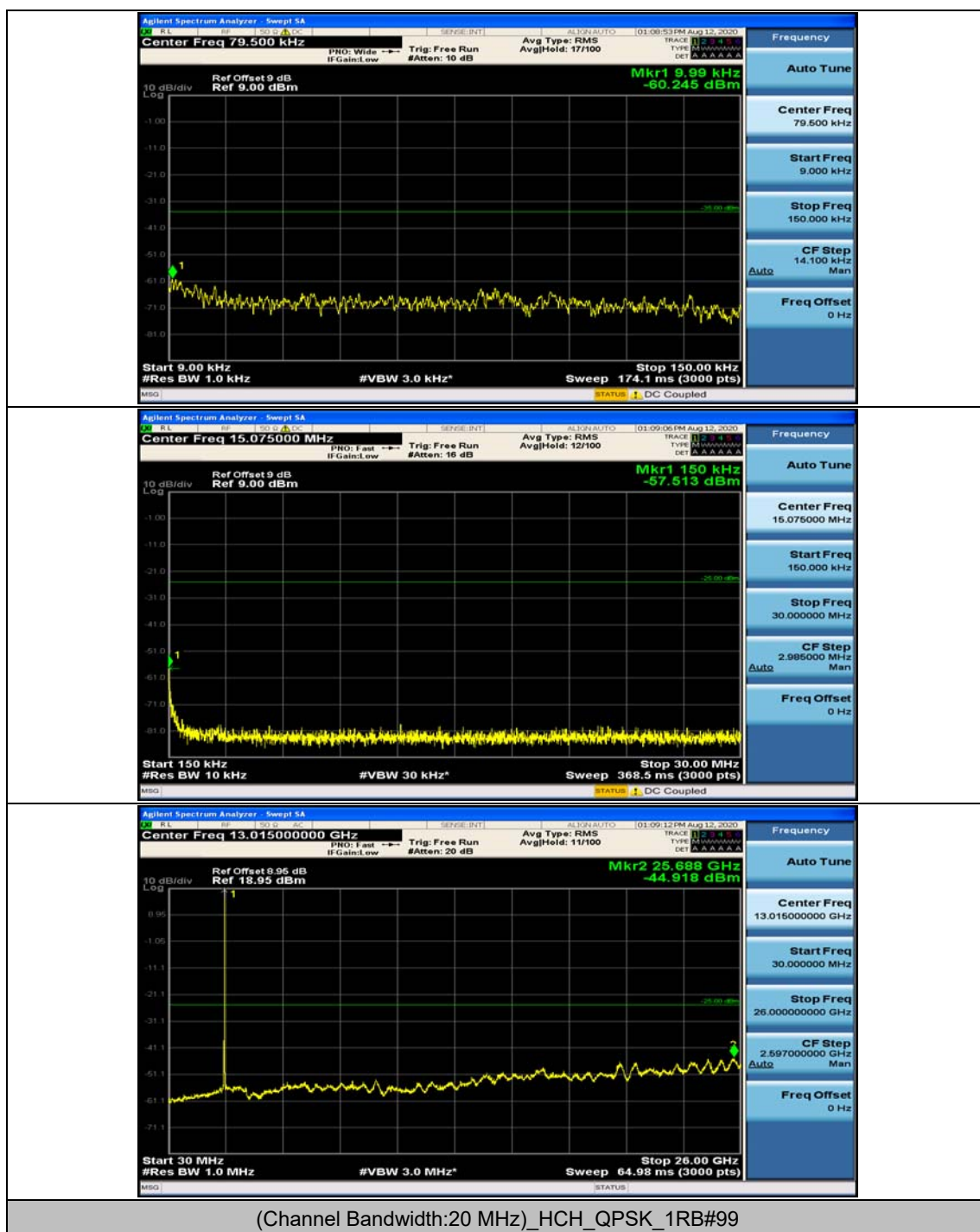


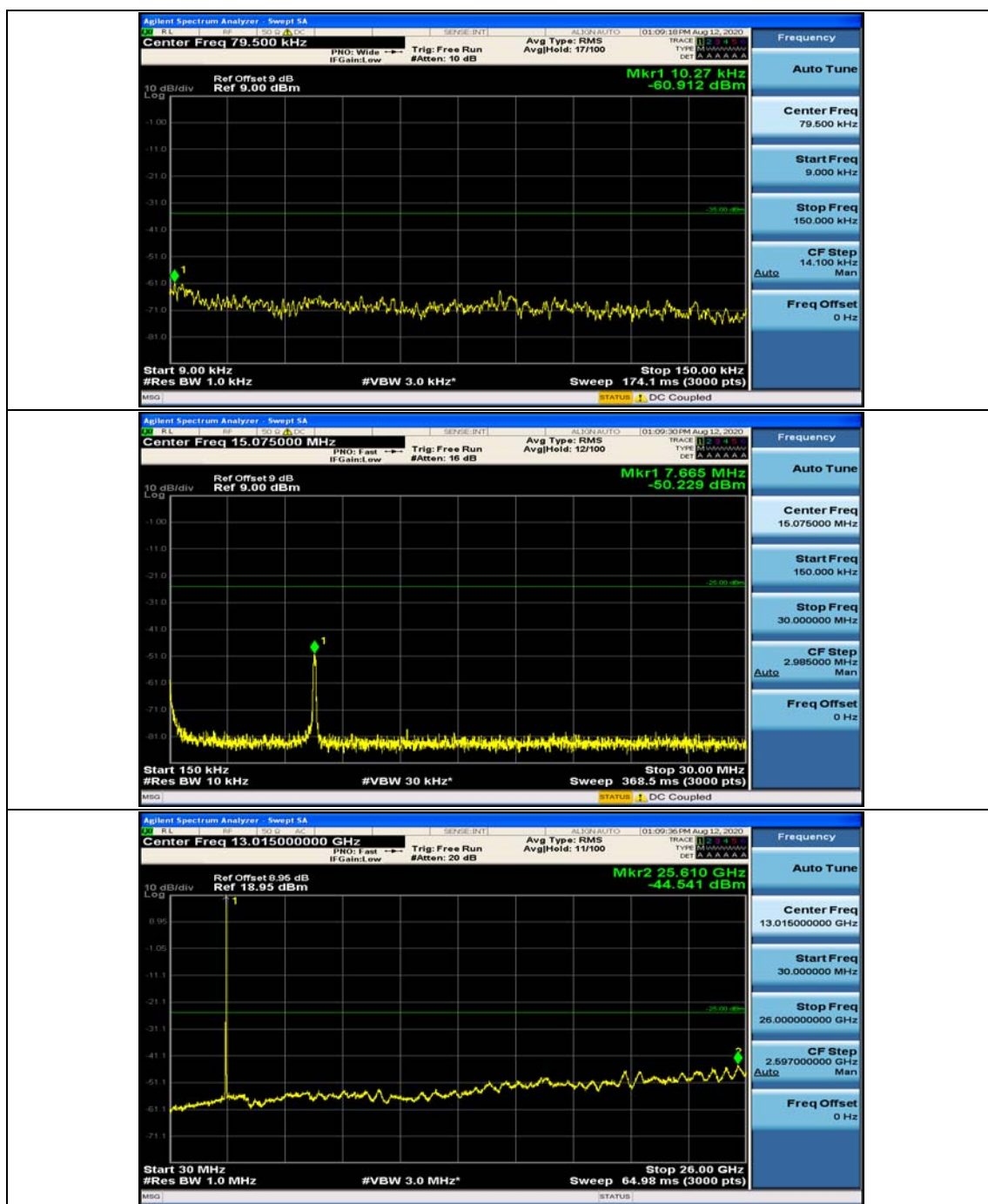


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

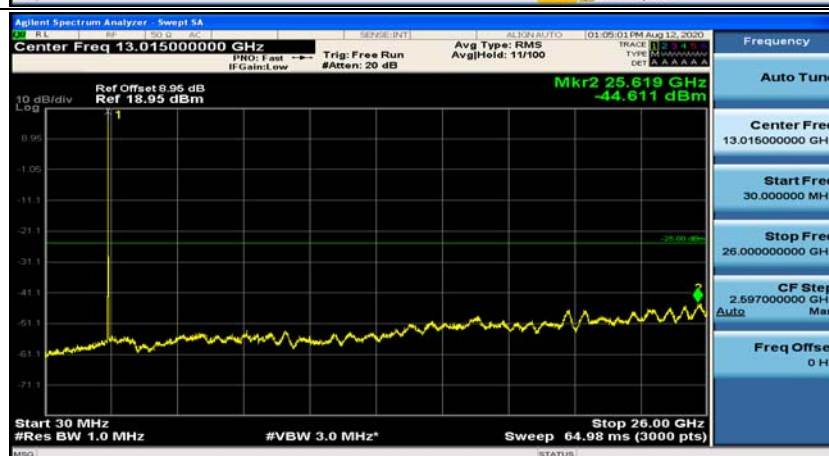
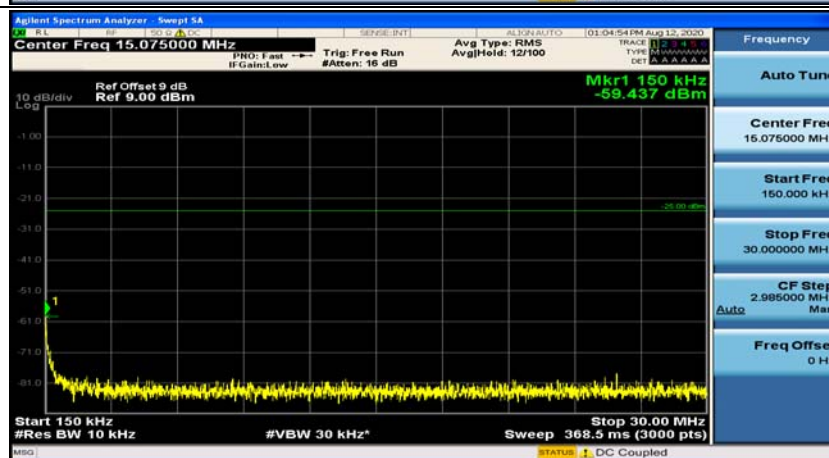
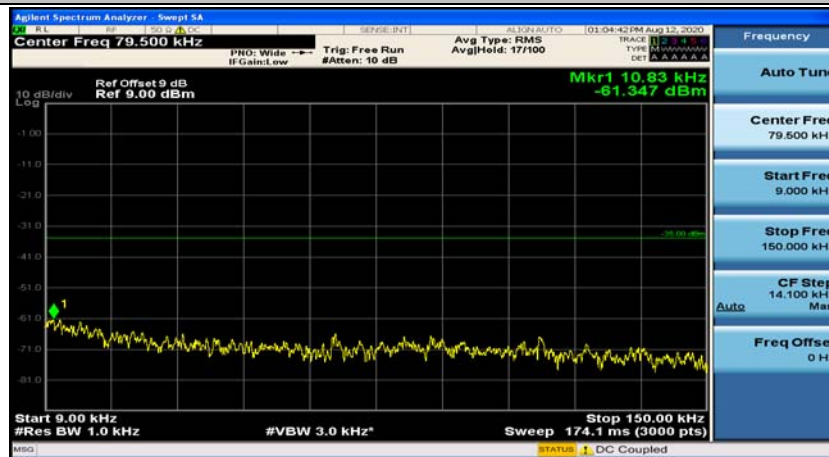


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

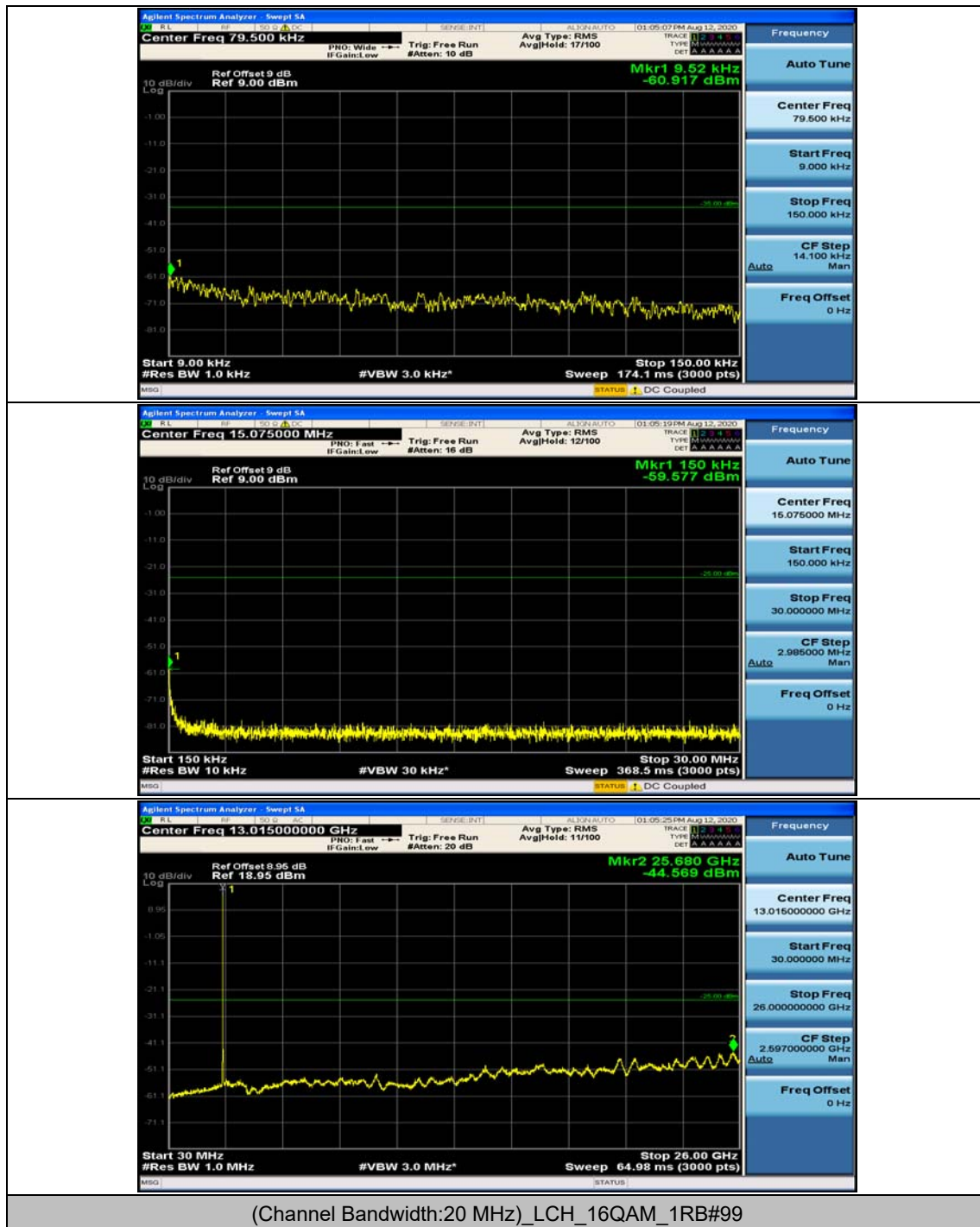


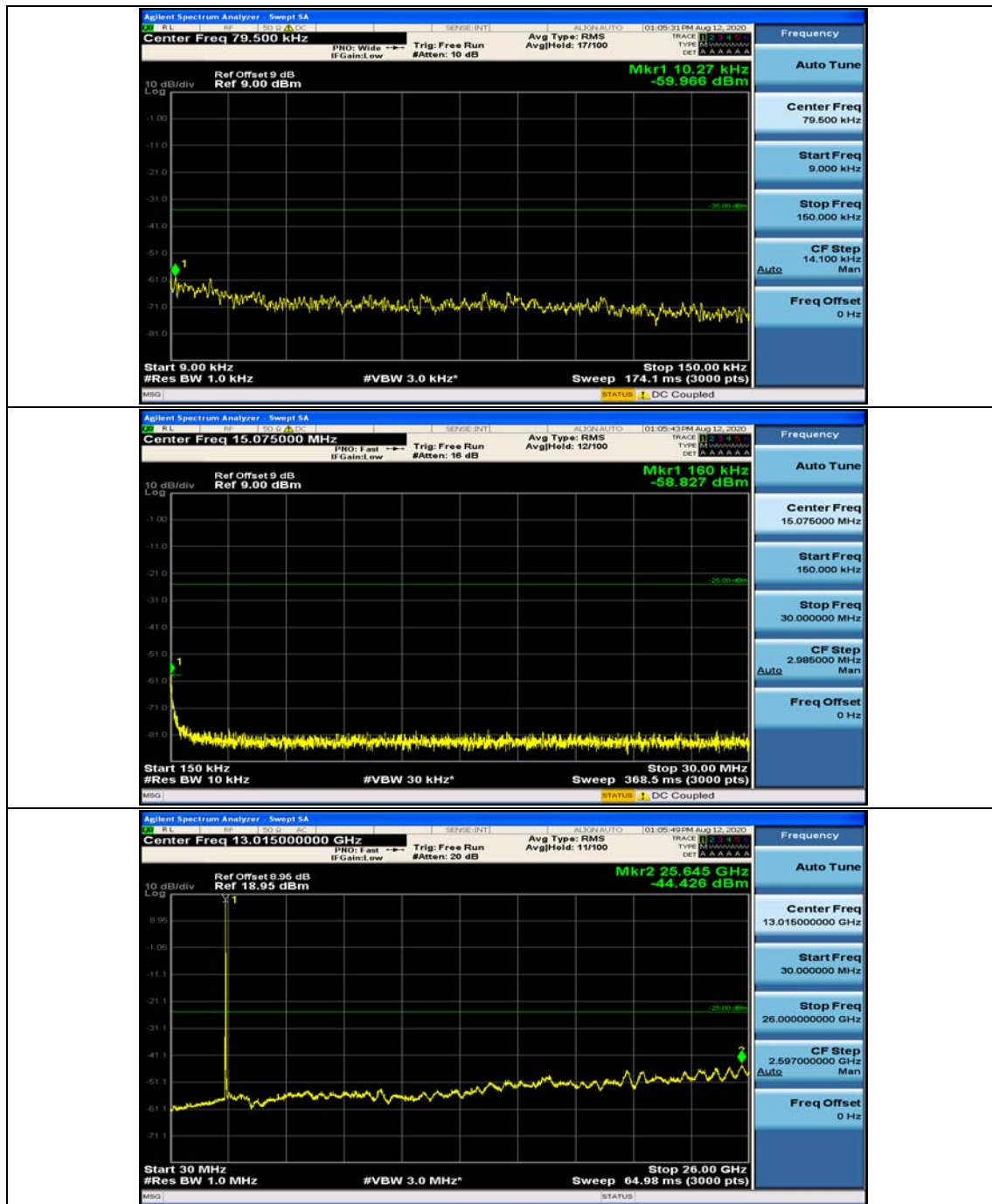


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

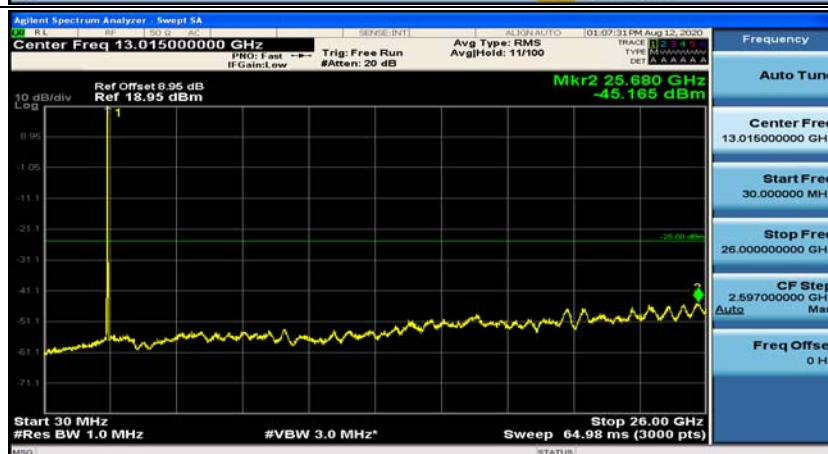
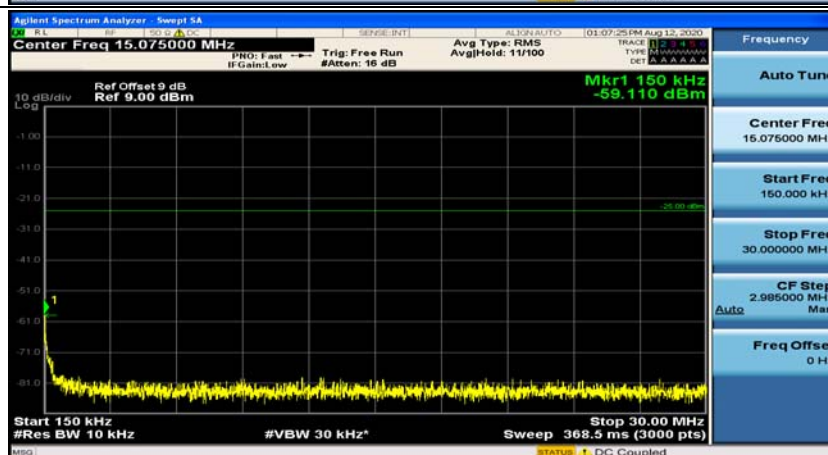
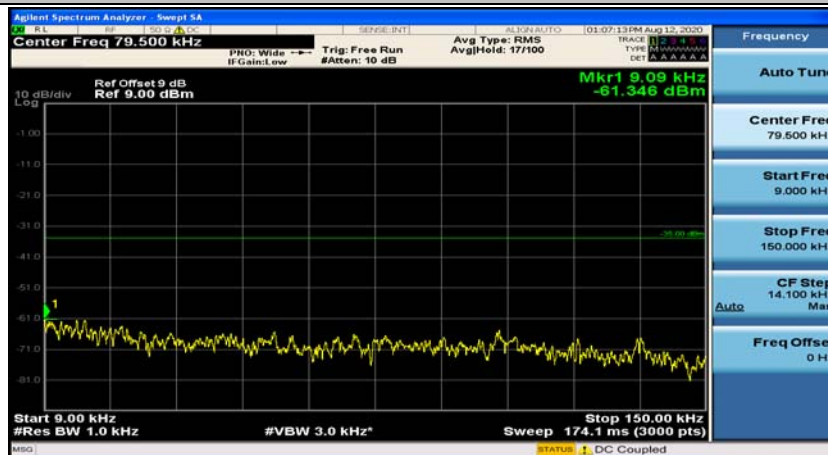


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

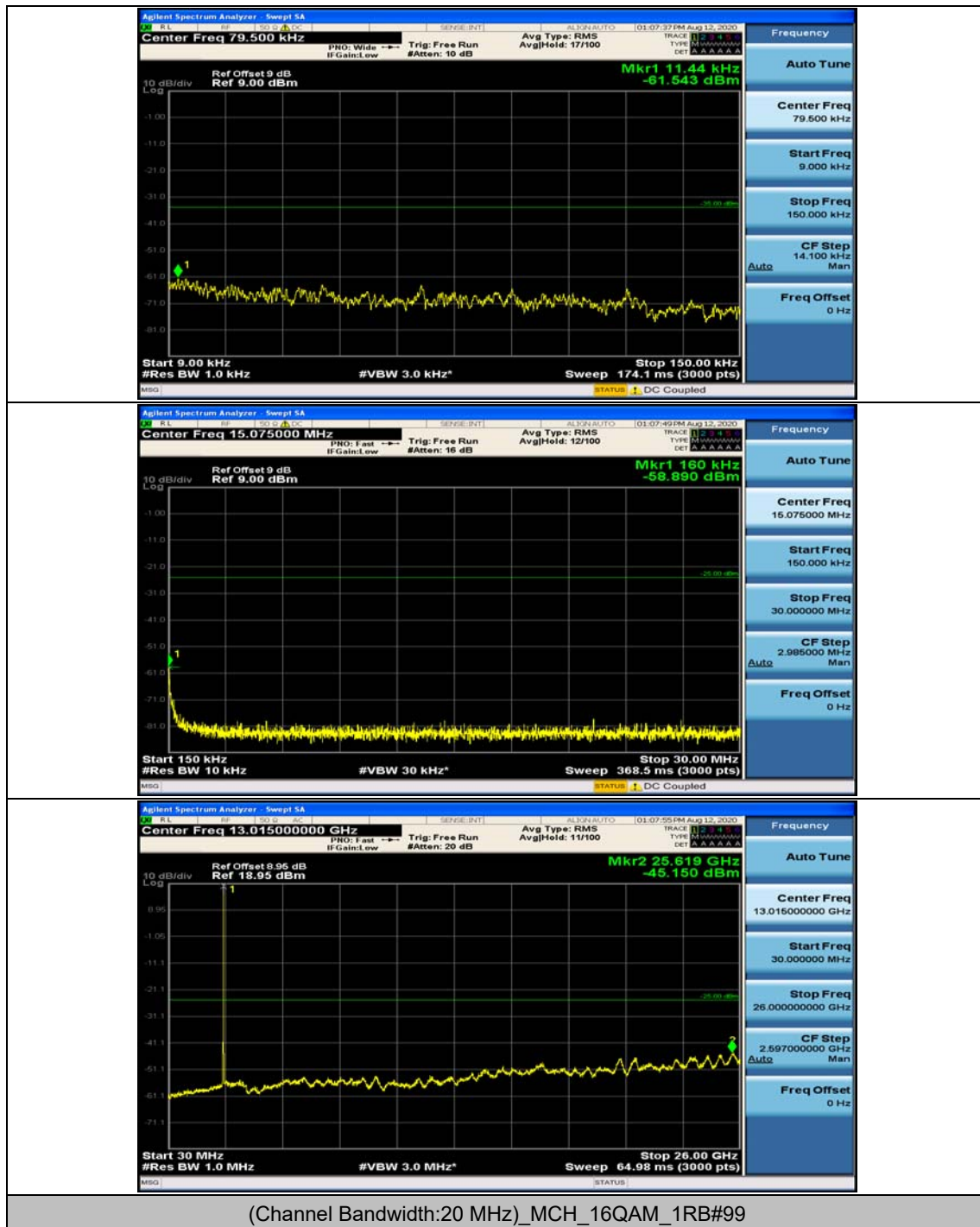


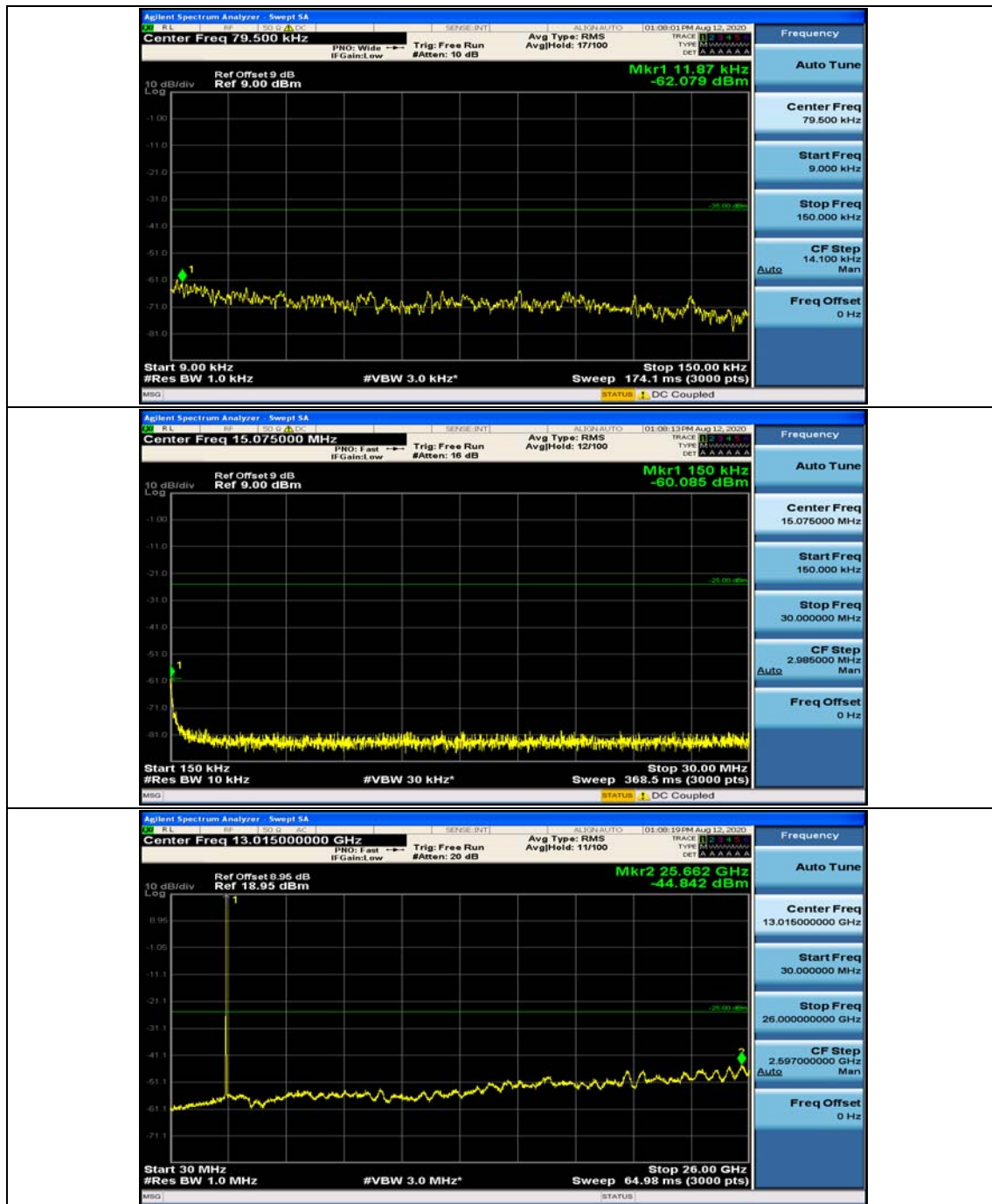


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

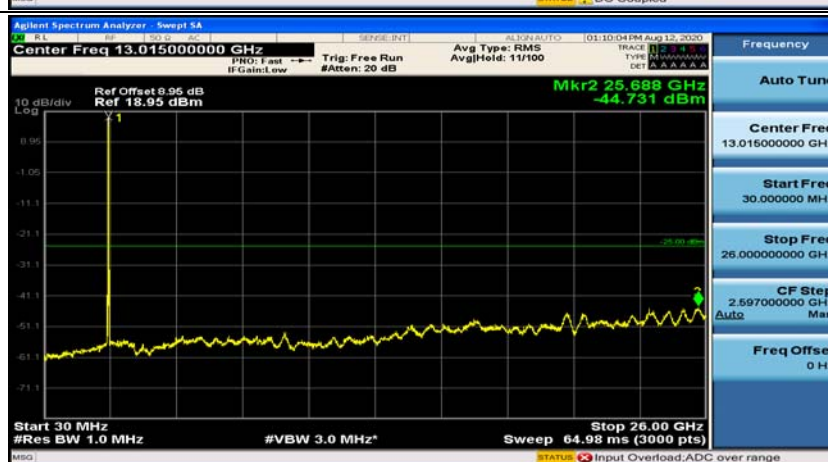
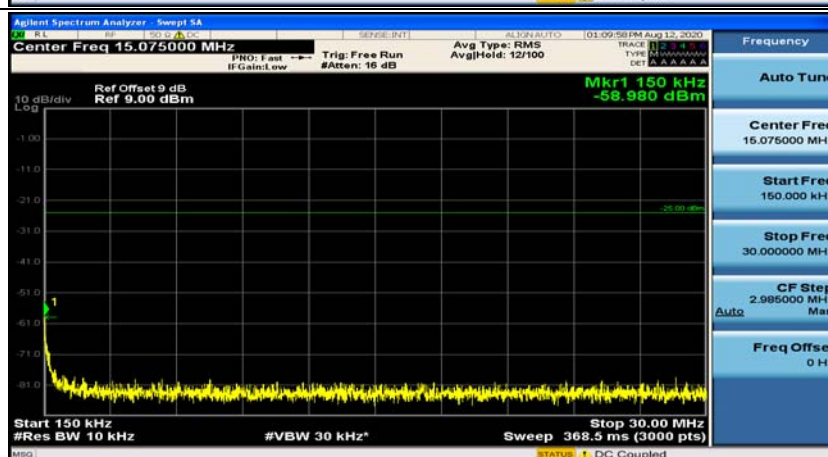
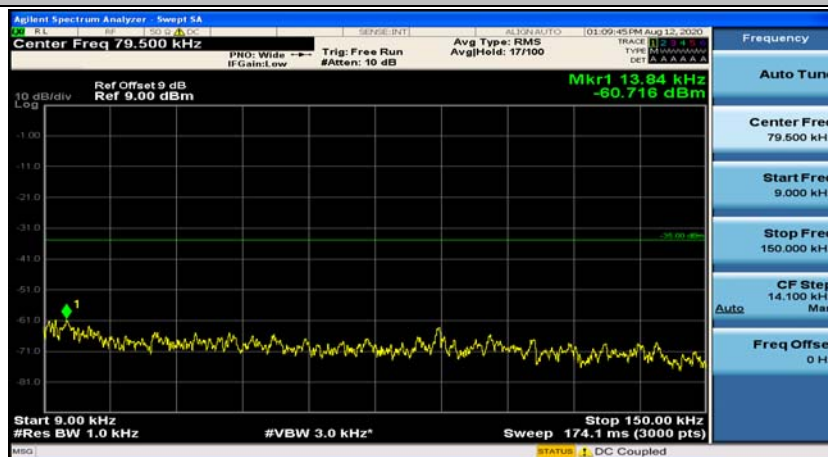


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

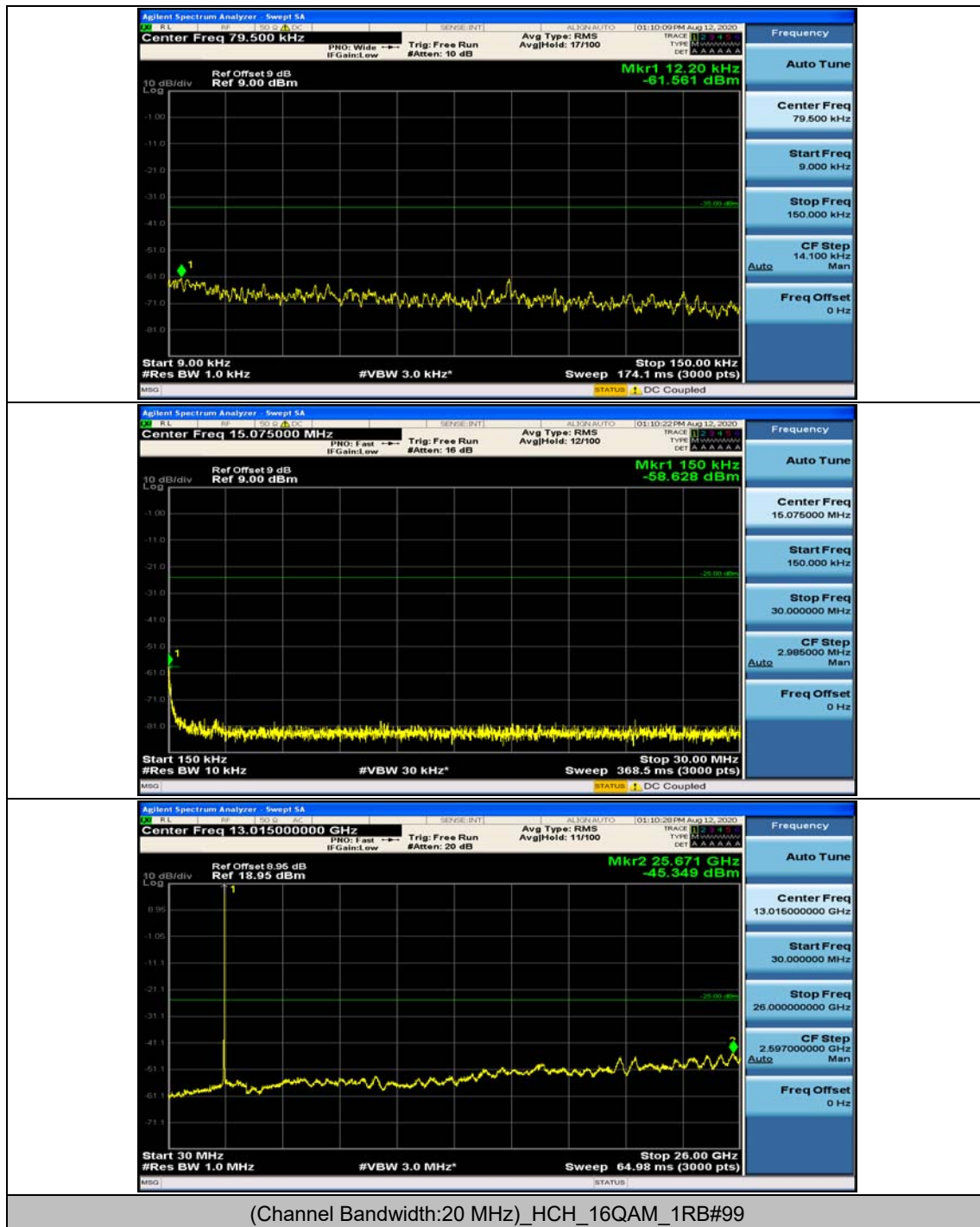


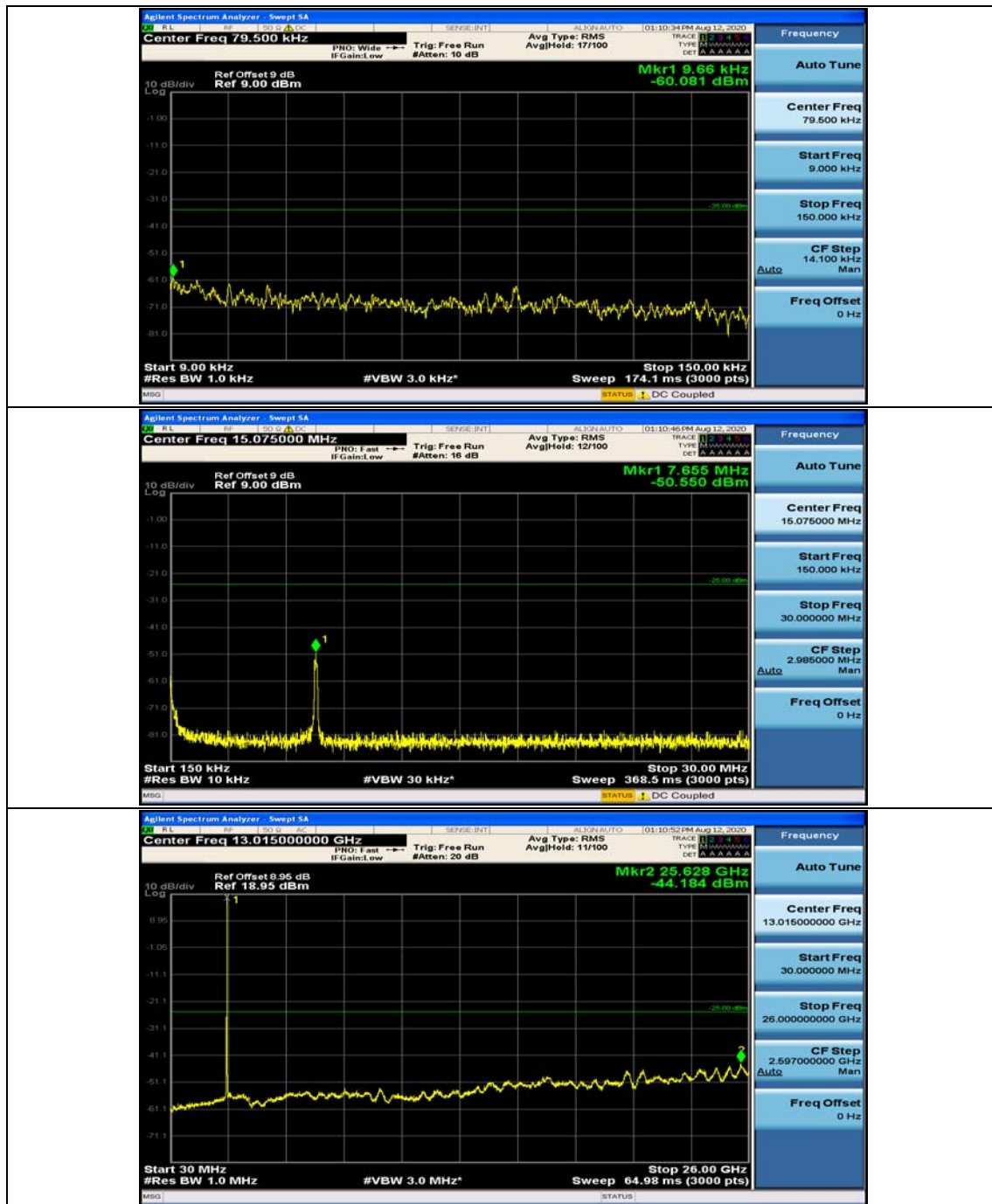


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49





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	1.7	0.000679	± 2.5	PASS
		VN	TN	1.24	0.000496	± 2.5	PASS
		VH	TN	-1.47	-0.000587	± 2.5	PASS
	MCH	VL	TN	3.66	0.001444	± 2.5	PASS
		VN	TN	3.77	0.001487	± 2.5	PASS
		VH	TN	-1.98	-0.000781	± 2.5	PASS
	HCH	VL	TN	-1.15	-0.000448	± 2.5	PASS
		VN	TN	-1.33	-0.000518	± 2.5	PASS
		VH	TN	0.47	0.000183	± 2.5	PASS
16QAM	LCH	VL	TN	-1.38	-0.000551	± 2.5	PASS
		VN	TN	-1.18	-0.000472	± 2.5	PASS
		VH	TN	-1.31	-0.000523	± 2.5	PASS
	MCH	VL	TN	1.04	0.000410	± 2.5	PASS
		VN	TN	2.85	0.001124	± 2.5	PASS
		VH	TN	1.77	0.000698	± 2.5	PASS
	HCH	VL	TN	3.01	0.001172	± 2.5	PASS
		VN	TN	2.81	0.001094	± 2.5	PASS
		VH	TN	-0.66	-0.000257	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.74	-0.000296	± 2.5	PASS
		VN	-20	0.27	0.000108	± 2.5	PASS
		VN	-10	0.35	0.000140	± 2.5	PASS
		VN	0	4.89	0.001954	± 2.5	PASS
		VN	10	0.59	0.000236	± 2.5	PASS
		VN	20	-1.57	-0.000627	± 2.5	PASS
		VN	30	3.21	0.001283	± 2.5	PASS
		VN	40	2.89	0.001155	± 2.5	PASS
		VN	50	1.93	0.000771	± 2.5	PASS
	MCH	VN	-30	1.3	0.000513	± 2.5	PASS

		VN	-20	0.81	0.000320	± 2.5	PASS
		VN	-10	1.05	0.000414	± 2.5	PASS
		VN	0	3.94	0.001554	± 2.5	PASS
		VN	10	3.35	0.001321	± 2.5	PASS
		VN	20	3.86	0.001523	± 2.5	PASS
		VN	30	4.11	0.001621	± 2.5	PASS
		VN	40	1.37	0.000540	± 2.5	PASS
		VN	50	-0.69	-0.000272	± 2.5	PASS
	HCH	VN	-30	0.79	0.000308	± 2.5	PASS
		VN	-20	-1.35	-0.000526	± 2.5	PASS
		VN	-10	1.25	0.000487	± 2.5	PASS
		VN	0	4.12	0.001605	± 2.5	PASS
		VN	10	3.69	0.001437	± 2.5	PASS
		VN	20	-0.67	-0.000261	± 2.5	PASS
		VN	30	4.19	0.001632	± 2.5	PASS
		VN	40	-0.42	-0.000164	± 2.5	PASS
		VN	50	1.82	0.000709	± 2.5	PASS
16QAM	LCH	VN	-30	2.97	0.001187	± 2.5	PASS
		VN	-20	0.6	0.000240	± 2.5	PASS
		VN	-10	3.36	0.001343	± 2.5	PASS
		VN	0	0.4	0.000160	± 2.5	PASS
		VN	10	1.09	0.000436	± 2.5	PASS
		VN	20	-1.92	-0.000767	± 2.5	PASS
		VN	30	3.49	0.001395	± 2.5	PASS
		VN	40	-0.41	-0.000164	± 2.5	PASS
		VN	50	0.97	0.000388	± 2.5	PASS
	MCH	VN	-30	1.46	0.000576	± 2.5	PASS
		VN	-20	0.93	0.000367	± 2.5	PASS
		VN	-10	4.79	0.001890	± 2.5	PASS
		VN	0	-0.93	-0.000367	± 2.5	PASS
		VN	10	1.97	0.000777	± 2.5	PASS
		VN	20	0.92	0.000363	± 2.5	PASS
		VN	30	2.53	0.000998	± 2.5	PASS
		VN	40	-0.2	-0.000079	± 2.5	PASS
		VN	50	4.73	0.001866	± 2.5	PASS
	HCH	VN	-30	-0.3	-0.000117	± 2.5	PASS
		VN	-20	2.08	0.000810	± 2.5	PASS
		VN	-10	2.38	0.000927	± 2.5	PASS
		VN	0	4.03	0.001570	± 2.5	PASS
		VN	10	4.67	0.001819	± 2.5	PASS
		VN	20	-1.54	-0.000600	± 2.5	PASS

		VN	30	3.32	0.001293	± 2.5	PASS
		VN	40	2.07	0.000806	± 2.5	PASS
		VN	50	-0.67	-0.000261	± 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	3.1	0.001238	± 2.5	PASS
		VN	TN	2.68	0.001070	± 2.5	PASS
		VH	TN	1.05	0.000419	± 2.5	PASS
	MCH	VL	TN	3.88	0.001531	± 2.5	PASS
		VN	TN	2.17	0.000856	± 2.5	PASS
		VH	TN	2.61	0.001030	± 2.5	PASS
	HCH	VL	TN	-1.7	-0.000663	± 2.5	PASS
		VN	TN	2.43	0.000947	± 2.5	PASS
		VH	TN	2.08	0.000811	± 2.5	PASS
16QAM	LCH	VL	TN	-0.79	-0.000315	± 2.5	PASS
		VN	TN	1.58	0.000631	± 2.5	PASS
		VH	TN	-0.15	-0.000060	± 2.5	PASS
	MCH	VL	TN	1.75	0.000690	± 2.5	PASS
		VN	TN	3.52	0.001389	± 2.5	PASS
		VH	TN	2.76	0.001089	± 2.5	PASS
	HCH	VL	TN	3.03	0.001181	± 2.5	PASS
		VN	TN	1.07	0.000417	± 2.5	PASS
		VH	TN	5	0.001949	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.2	0.000878	± 2.5	PASS
		VN	-20	-0.26	-0.000104	± 2.5	PASS
		VN	-10	3.05	0.001218	± 2.5	PASS
		VN	0	2.45	0.000978	± 2.5	PASS
		VN	10	4.65	0.001856	± 2.5	PASS
		VN	20	-0.43	-0.000172	± 2.5	PASS
		VN	30	-1.42	-0.000567	± 2.5	PASS
		VN	40	2.56	0.001022	± 2.5	PASS
		VN	50	2.54	0.001014	± 2.5	PASS
	MCH	VN	-30	2.82	0.001112	± 2.5	PASS

		VN	-20	3.62	0.001428	± 2.5	PASS
		VN	-10	-0.52	-0.000205	± 2.5	PASS
		VN	0	4.86	0.001917	± 2.5	PASS
		VN	10	-1.05	-0.000414	± 2.5	PASS
		VN	20	3.48	0.001373	± 2.5	PASS
		VN	30	0.73	0.000288	± 2.5	PASS
		VN	40	4.88	0.001925	± 2.5	PASS
		VN	50	-0.04	-0.000016	± 2.5	PASS
	HCH	VN	-30	0.04	0.000016	± 2.5	PASS
		VN	-20	1.28	0.000499	± 2.5	PASS
		VN	-10	4.94	0.001926	± 2.5	PASS
		VN	0	-0.3	-0.000117	± 2.5	PASS
		VN	10	0.21	0.000082	± 2.5	PASS
		VN	20	1.41	0.000550	± 2.5	PASS
		VN	30	3.12	0.001216	± 2.5	PASS
		VN	40	5	0.001949	± 2.5	PASS
		VN	50	-1.3	-0.000507	± 2.5	PASS
16QAM	LCH	VN	-30	-0.17	-0.000068	± 2.5	PASS
		VN	-20	3.9	0.001557	± 2.5	PASS
		VN	-10	3.62	0.001445	± 2.5	PASS
		VN	0	2.75	0.001098	± 2.5	PASS
		VN	10	1.38	0.000551	± 2.5	PASS
		VN	20	4.35	0.001737	± 2.5	PASS
		VN	30	0.19	0.000076	± 2.5	PASS
		VN	40	1.38	0.000551	± 2.5	PASS
		VN	50	3.64	0.001453	± 2.5	PASS
	MCH	VN	-30	0.77	0.000304	± 2.5	PASS
		VN	-20	3.19	0.001258	± 2.5	PASS
		VN	-10	4.25	0.001677	± 2.5	PASS
		VN	0	-0.6	-0.000237	± 2.5	PASS
		VN	10	0.6	0.000237	± 2.5	PASS
		VN	20	0.1	0.000039	± 2.5	PASS
		VN	30	-1.34	-0.000529	± 2.5	PASS
		VN	40	4.94	0.001949	± 2.5	PASS
		VN	50	4.67	0.001842	± 2.5	PASS
	HCH	VN	-30	4.67	0.001821	± 2.5	PASS
		VN	-20	0.05	0.000019	± 2.5	PASS
		VN	-10	2.34	0.000912	± 2.5	PASS
		VN	0	3.89	0.001517	± 2.5	PASS
		VN	10	-1.76	-0.000686	± 2.5	PASS
		VN	20	2.14	0.000834	± 2.5	PASS

		VN	30	-1.21	-0.000472	± 2.5	PASS
		VN	40	-1.04	-0.000405	± 2.5	PASS
		VN	50	-0.59	-0.000230	± 2.5	PASS

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	0.46	0.000183	± 2.5	PASS
		VN	TN	0.67	0.000267	± 2.5	PASS
		VH	TN	2.68	0.001069	± 2.5	PASS
	MCH	VL	TN	-0.3	-0.000118	± 2.5	PASS
		VN	TN	-0.03	-0.000012	± 2.5	PASS
		VH	TN	1.5	0.000592	± 2.5	PASS
	HCH	VL	TN	4.22	0.001647	± 2.5	PASS
		VN	TN	4.88	0.001904	± 2.5	PASS
		VH	TN	3.82	0.001491	± 2.5	PASS
16QAM	LCH	VL	TN	1.36	0.000542	± 2.5	PASS
		VN	TN	4.07	0.001623	± 2.5	PASS
		VH	TN	0.06	0.000024	± 2.5	PASS
	MCH	VL	TN	3.92	0.001546	± 2.5	PASS
		VN	TN	-1.23	-0.000485	± 2.5	PASS
		VH	TN	-0.5	-0.000197	± 2.5	PASS
	HCH	VL	TN	-0.53	-0.000207	± 2.5	PASS
		VN	TN	1.45	0.000566	± 2.5	PASS
		VH	TN	-0.03	-0.000012	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.65	-0.000658	± 2.5	PASS
		VN	-20	1.61	0.000642	± 2.5	PASS
		VN	-10	0.55	0.000219	± 2.5	PASS
		VN	0	-0.09	-0.000036	± 2.5	PASS
		VN	10	0.81	0.000323	± 2.5	PASS
		VN	20	1.35	0.000538	± 2.5	PASS
		VN	30	-1.48	-0.000590	± 2.5	PASS
		VN	40	1.93	0.000770	± 2.5	PASS
		VN	50	-0.77	-0.000307	± 2.5	PASS
	MCH	VN	-30	4.27	0.001684	± 2.5	PASS

		VN	-20	4.9	0.001933	± 2.5	PASS
		VN	-10	2.94	0.001160	± 2.5	PASS
		VN	0	3.92	0.001546	± 2.5	PASS
		VN	10	1.07	0.000422	± 2.5	PASS
		VN	20	3.11	0.001227	± 2.5	PASS
		VN	30	0.73	0.000288	± 2.5	PASS
		VN	40	3.58	0.001412	± 2.5	PASS
		VN	50	3.57	0.001408	± 2.5	PASS
	HCH	VN	-30	-0.22	-0.000086	± 2.5	PASS
		VN	-20	-1.57	-0.000613	± 2.5	PASS
		VN	-10	0.34	0.000133	± 2.5	PASS
		VN	0	-1.16	-0.000453	± 2.5	PASS
		VN	10	3.97	0.001549	± 2.5	PASS
		VN	20	4.5	0.001756	± 2.5	PASS
		VN	30	1.6	0.000624	± 2.5	PASS
		VN	40	-0.98	-0.000382	± 2.5	PASS
		VN	50	4.68	0.001826	± 2.5	PASS
16QAM	LCH	VN	-30	4.94	0.001970	± 2.5	PASS
		VN	-20	0.19	0.000076	± 2.5	PASS
		VN	-10	-0.1	-0.000040	± 2.5	PASS
		VN	0	2.21	0.000881	± 2.5	PASS
		VN	10	1.43	0.000570	± 2.5	PASS
		VN	20	3.91	0.001559	± 2.5	PASS
		VN	30	-1.4	-0.000558	± 2.5	PASS
		VN	40	0.32	0.000128	± 2.5	PASS
		VN	50	2.53	0.001009	± 2.5	PASS
	MCH	VN	-30	3.17	0.001250	± 2.5	PASS
		VN	-20	-0.68	-0.000268	± 2.5	PASS
		VN	-10	4.63	0.001826	± 2.5	PASS
		VN	0	-0.86	-0.000339	± 2.5	PASS
		VN	10	3.13	0.001235	± 2.5	PASS
		VN	20	0.05	0.000020	± 2.5	PASS
		VN	30	0.9	0.000355	± 2.5	PASS
		VN	40	0.09	0.000036	± 2.5	PASS
		VN	50	0.33	0.000130	± 2.5	PASS
	HCH	VN	-30	1.26	0.000492	± 2.5	PASS
		VN	-20	-0.64	-0.000250	± 2.5	PASS
		VN	-10	-1.41	-0.000550	± 2.5	PASS
		VN	0	2.8	0.001093	± 2.5	PASS
		VN	10	0.69	0.000269	± 2.5	PASS
		VN	20	-1.62	-0.000632	± 2.5	PASS

		VN	30	-0.15	-0.000059	± 2.5	PASS
		VN	40	0.36	0.000140	± 2.5	PASS
		VN	50	0.01	0.000004	± 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	-1.11	-0.000442	± 2.5	PASS
		VN	TN	3.74	0.001490	± 2.5	PASS
		VH	TN	-1.93	-0.000769	± 2.5	PASS
	MCH	VL	TN	1.29	0.000509	± 2.5	PASS
		VN	TN	0.86	0.000339	± 2.5	PASS
		VH	TN	0.25	0.000099	± 2.5	PASS
	HCH	VL	TN	0.74	0.000289	± 2.5	PASS
		VN	TN	2.12	0.000828	± 2.5	PASS
		VH	TN	0.51	0.000199	± 2.5	PASS
16QAM	LCH	VL	TN	4.53	0.001805	± 2.5	PASS
		VN	TN	2.73	0.001088	± 2.5	PASS
		VH	TN	1.3	0.000518	± 2.5	PASS
	MCH	VL	TN	2.9	0.001144	± 2.5	PASS
		VN	TN	-1.97	-0.000777	± 2.5	PASS
		VH	TN	1.6	0.000631	± 2.5	PASS
	HCH	VL	TN	4.1	0.001602	± 2.5	PASS
		VN	TN	1	0.000391	± 2.5	PASS
		VH	TN	3.2	0.001250	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.34	0.000135	± 2.5	PASS
		VN	-20	3.72	0.001482	± 2.5	PASS
		VN	-10	2.35	0.000936	± 2.5	PASS
		VN	0	3.19	0.001271	± 2.5	PASS
		VN	10	-1.05	-0.000418	± 2.5	PASS
		VN	20	1.8	0.000717	± 2.5	PASS
		VN	30	1.38	0.000550	± 2.5	PASS
		VN	40	4.37	0.001741	± 2.5	PASS
		VN	50	-1.68	-0.000669	± 2.5	PASS
	MCH	VN	-30	-0.55	-0.000217	± 2.5	PASS

		VN	-20	0.67	0.000264	± 2.5	PASS
		VN	-10	2.19	0.000864	± 2.5	PASS
		VN	0	1.14	0.000450	± 2.5	PASS
		VN	10	4.95	0.001953	± 2.5	PASS
		VN	20	1.31	0.000517	± 2.5	PASS
		VN	30	0.12	0.000047	± 2.5	PASS
		VN	40	-0.33	-0.000130	± 2.5	PASS
		VN	50	3.1	0.001223	± 2.5	PASS
	HCH	VN	-30	3.28	0.001281	± 2.5	PASS
		VN	-20	0.37	0.000145	± 2.5	PASS
		VN	-10	0.2	0.000078	± 2.5	PASS
		VN	0	3.27	0.001277	± 2.5	PASS
		VN	10	1.99	0.000777	± 2.5	PASS
		VN	20	3.94	0.001539	± 2.5	PASS
		VN	30	-1.36	-0.000531	± 2.5	PASS
		VN	40	0.07	0.000027	± 2.5	PASS
		VN	50	4.71	0.001840	± 2.5	PASS
16QAM	LCH	VN	-30	1.4	0.000558	± 2.5	PASS
		VN	-20	-1.86	-0.000741	± 2.5	PASS
		VN	-10	3.04	0.001211	± 2.5	PASS
		VN	0	2.44	0.000972	± 2.5	PASS
		VN	10	2.22	0.000884	± 2.5	PASS
		VN	20	3.41	0.001359	± 2.5	PASS
		VN	30	3.41	0.001359	± 2.5	PASS
		VN	40	0.49	0.000195	± 2.5	PASS
		VN	50	4.92	0.001960	± 2.5	PASS
	MCH	VN	-30	4.42	0.001744	± 2.5	PASS
		VN	-20	1.65	0.000651	± 2.5	PASS
		VN	-10	0.3	0.000118	± 2.5	PASS
		VN	0	3.17	0.001250	± 2.5	PASS
		VN	10	3.88	0.001531	± 2.5	PASS
		VN	20	4.35	0.001716	± 2.5	PASS
		VN	30	-1.58	-0.000623	± 2.5	PASS
		VN	40	1.17	0.000462	± 2.5	PASS
		VN	50	-1.83	-0.000722	± 2.5	PASS
	HCH	VN	-30	3.96	0.001547	± 2.5	PASS
		VN	-20	-1.25	-0.000488	± 2.5	PASS
		VN	-10	0.75	0.000293	± 2.5	PASS
		VN	0	2.66	0.001039	± 2.5	PASS
		VN	10	4.41	0.001723	± 2.5	PASS
		VN	20	0.24	0.000094	± 2.5	PASS

		VN	30	0.37	0.000145	± 2.5	PASS
		VN	40	-1.12	-0.000438	± 2.5	PASS
		VN	50	3.43	0.001340	± 2.5	PASS