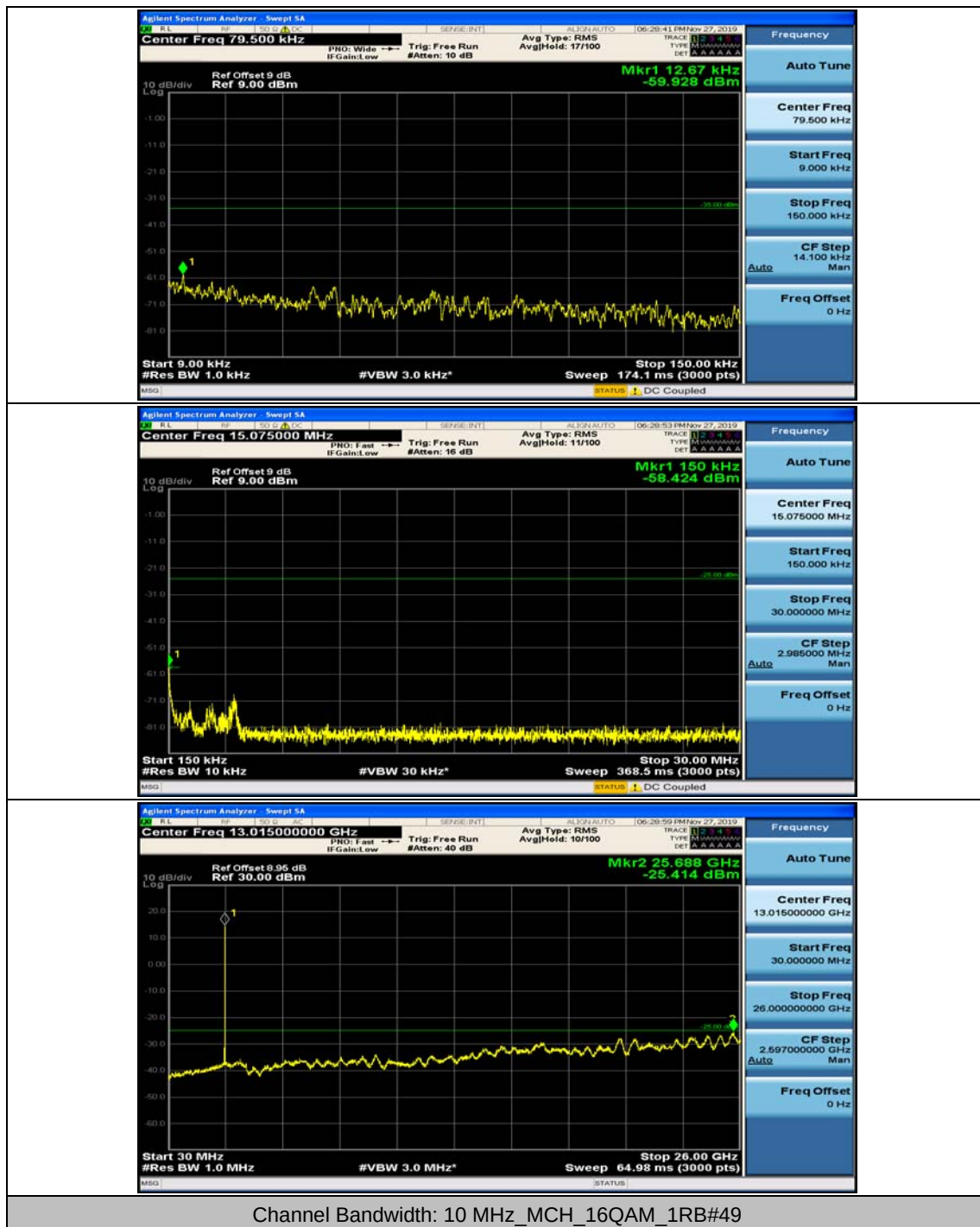
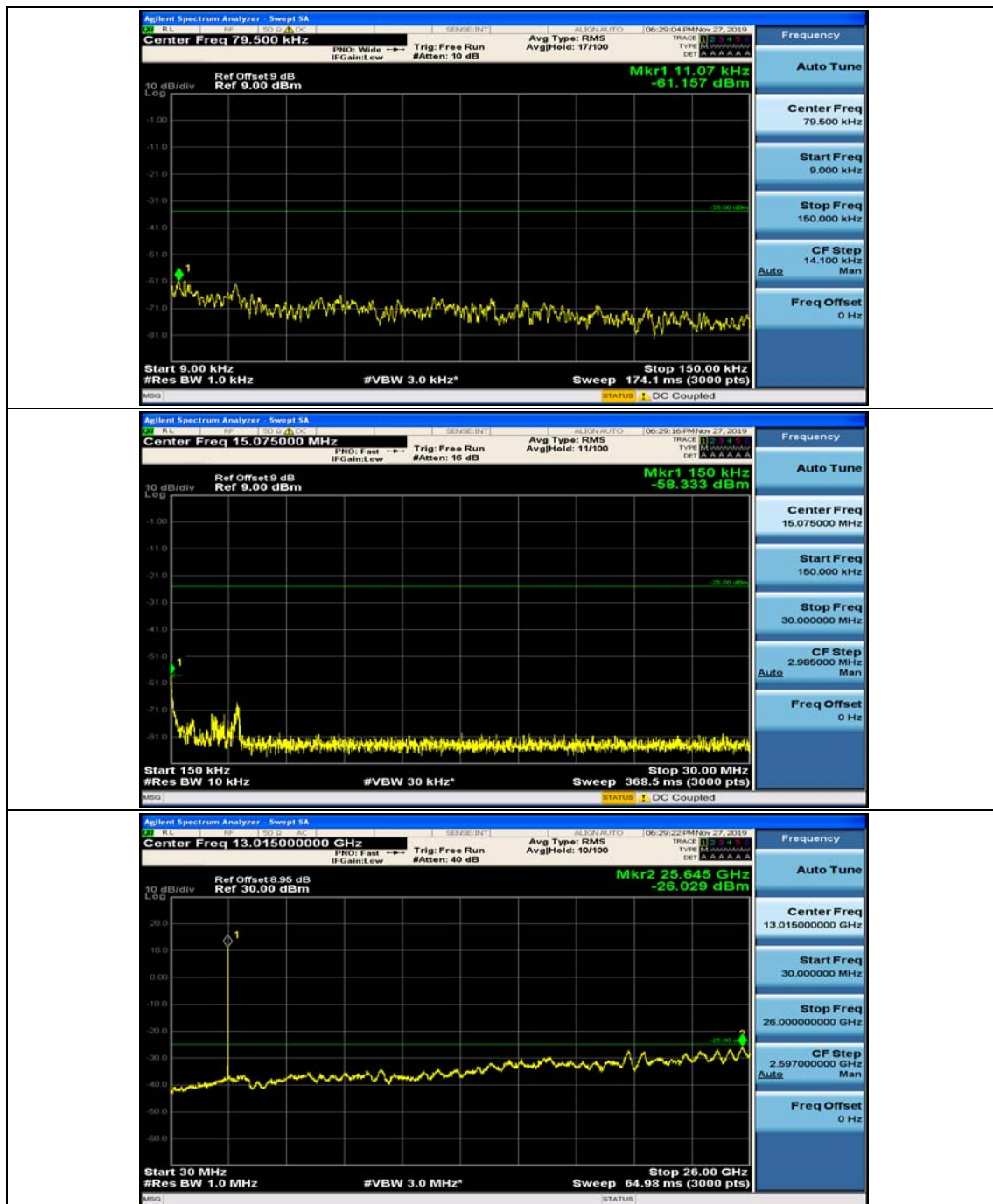
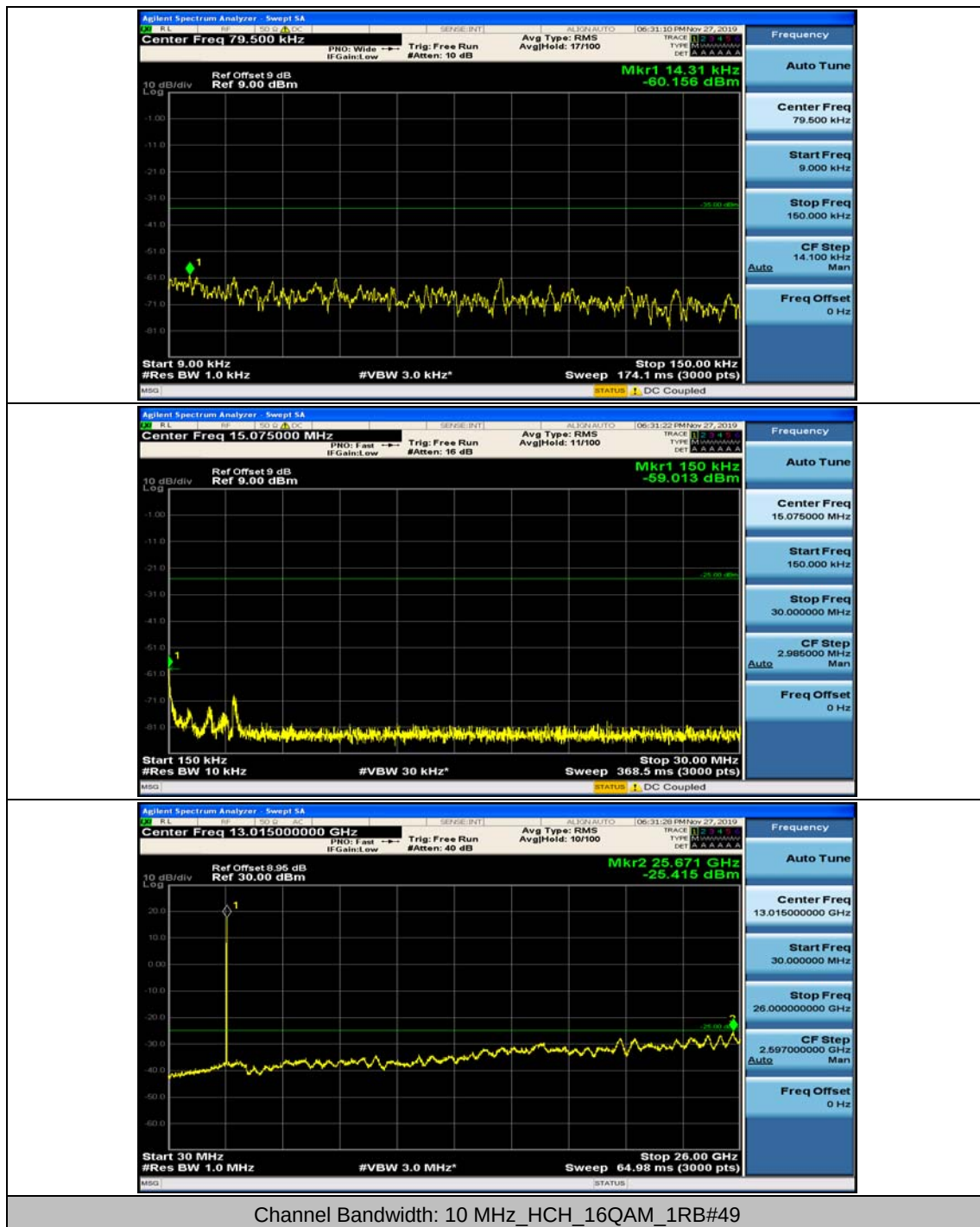
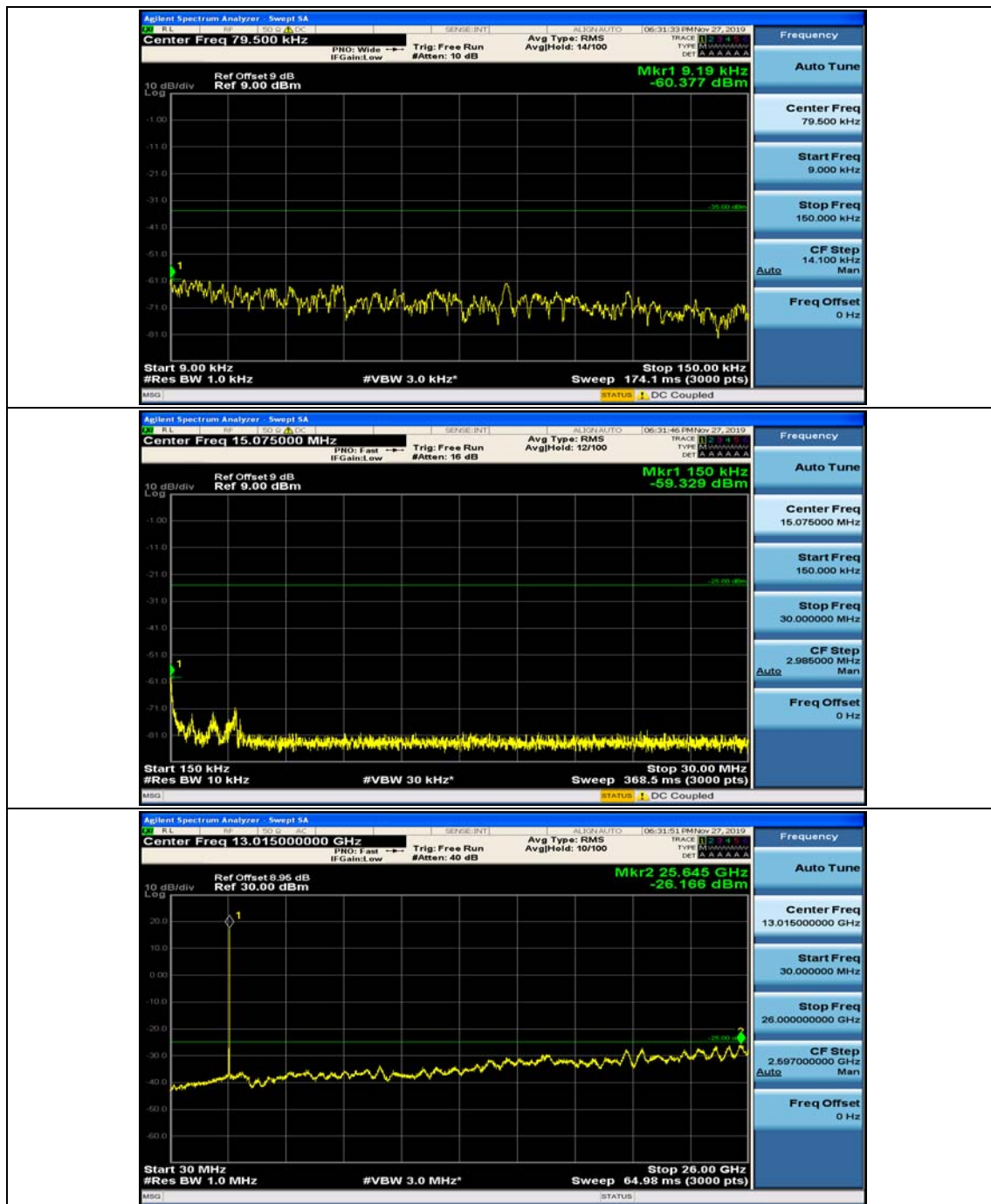


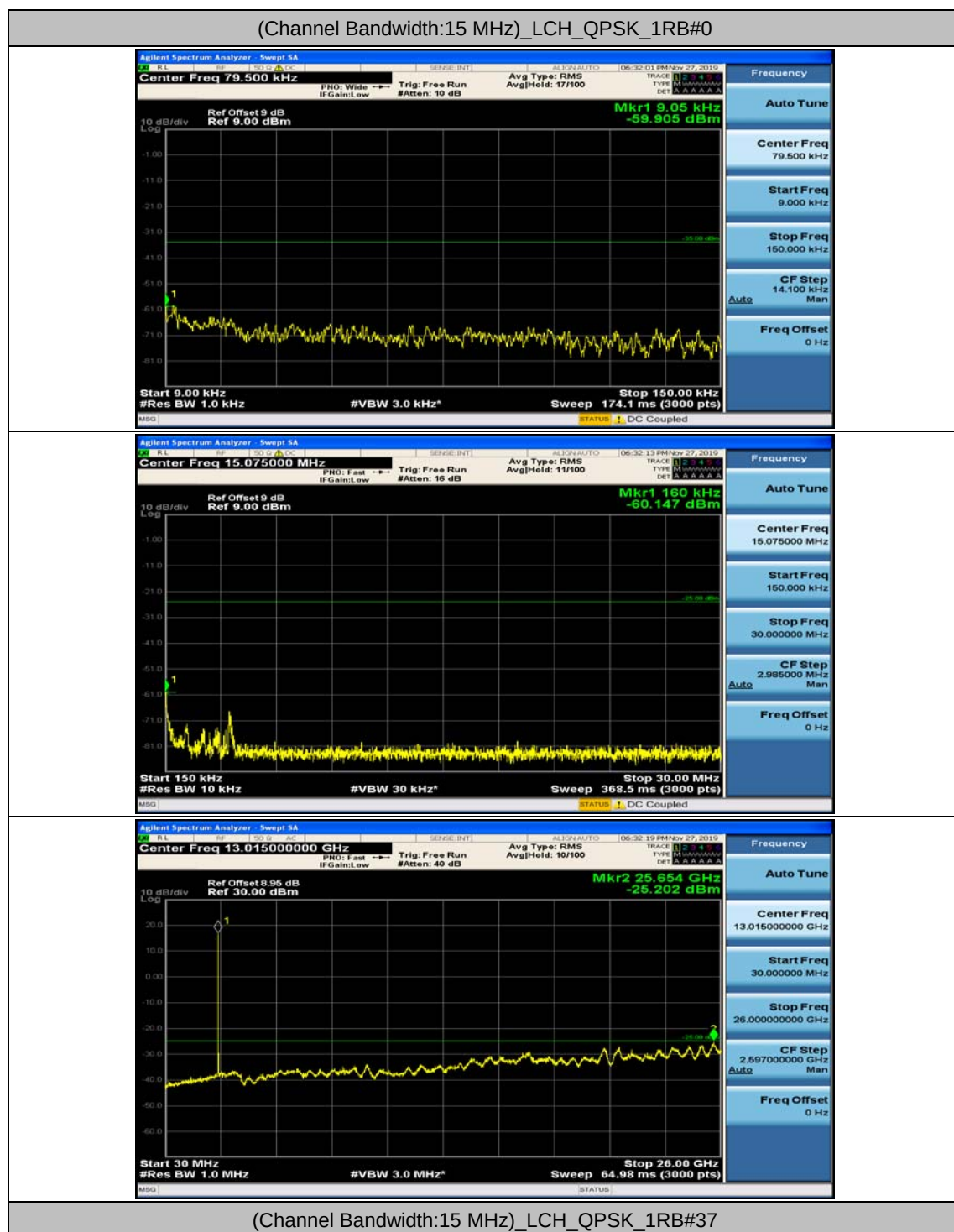


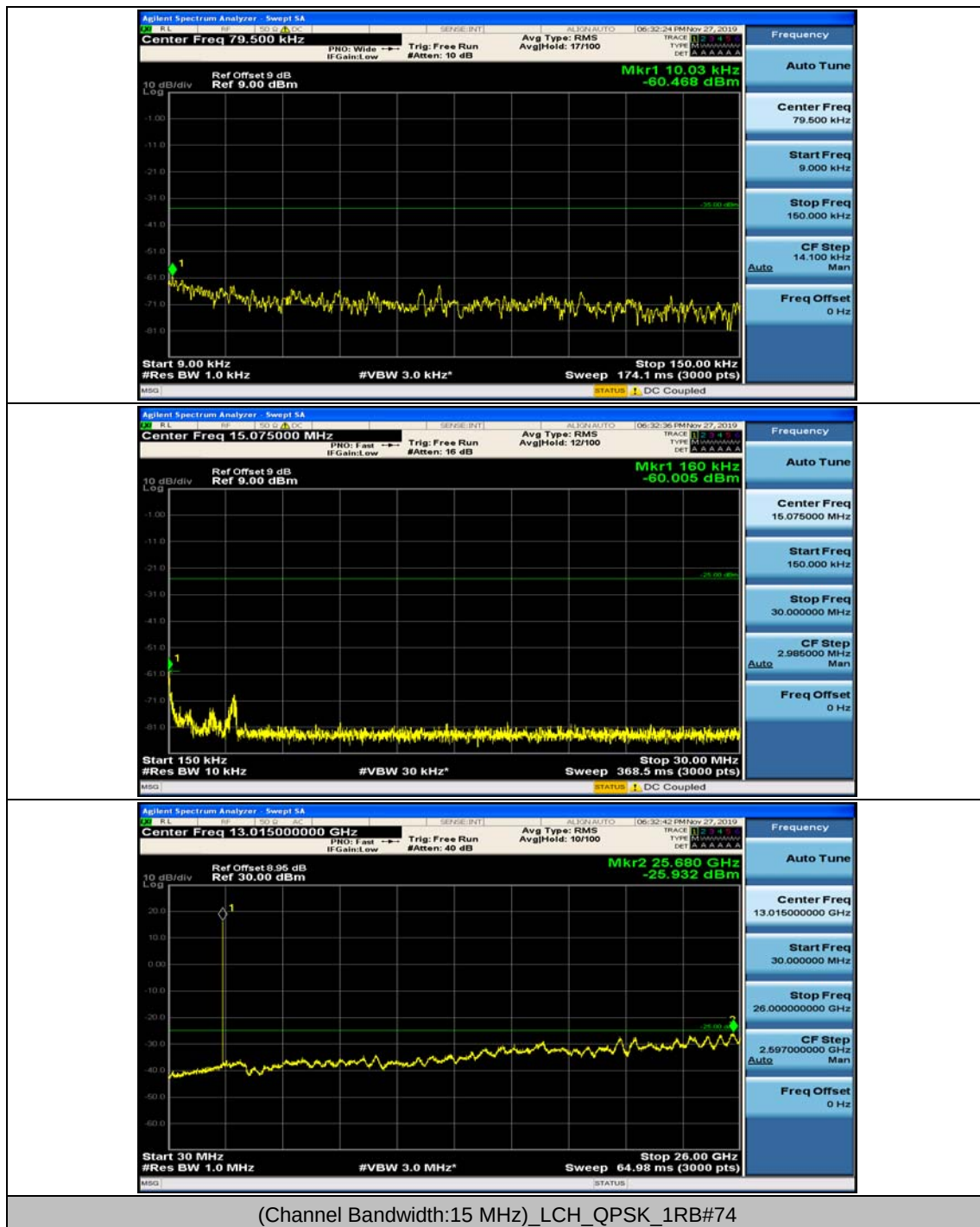


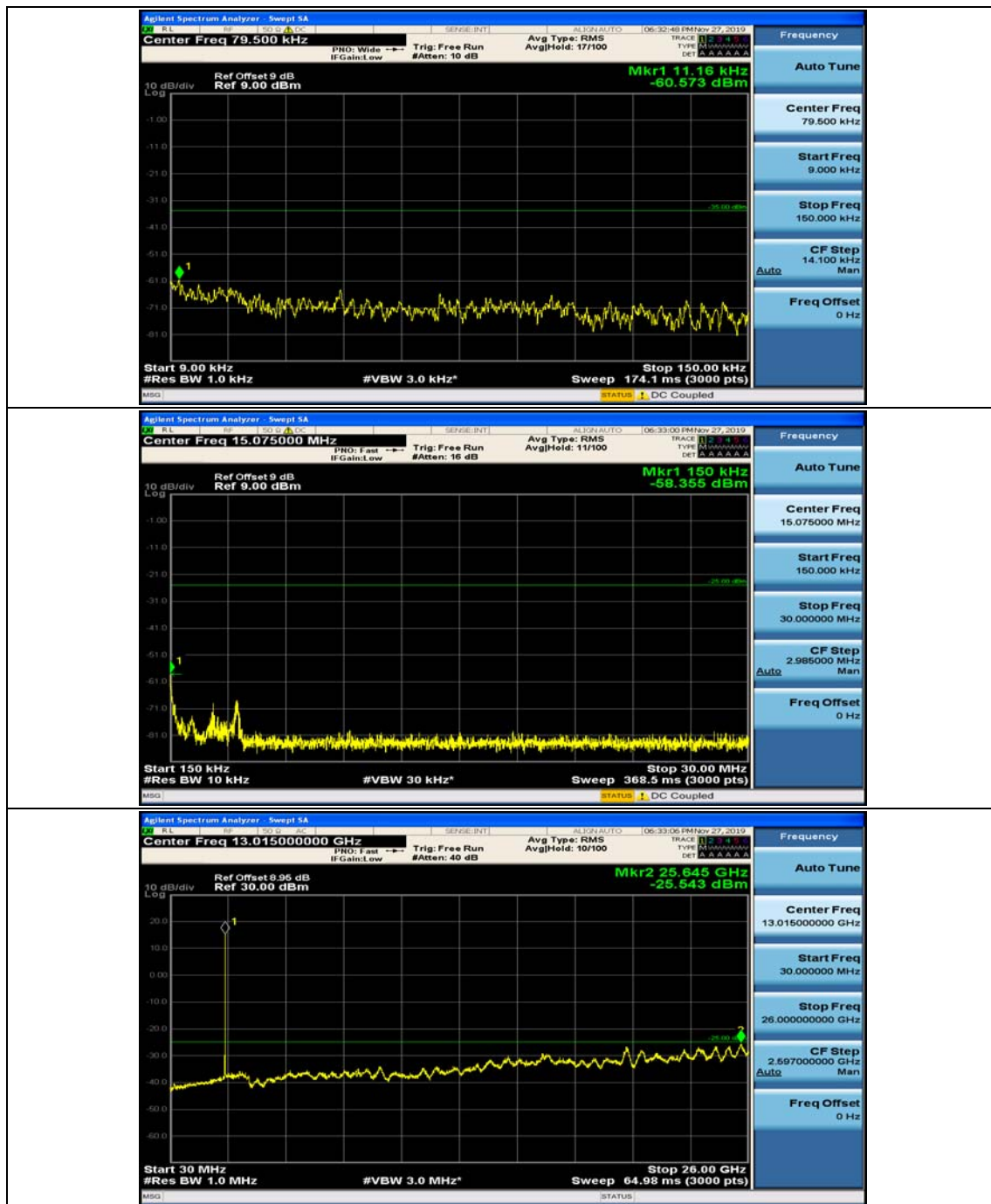




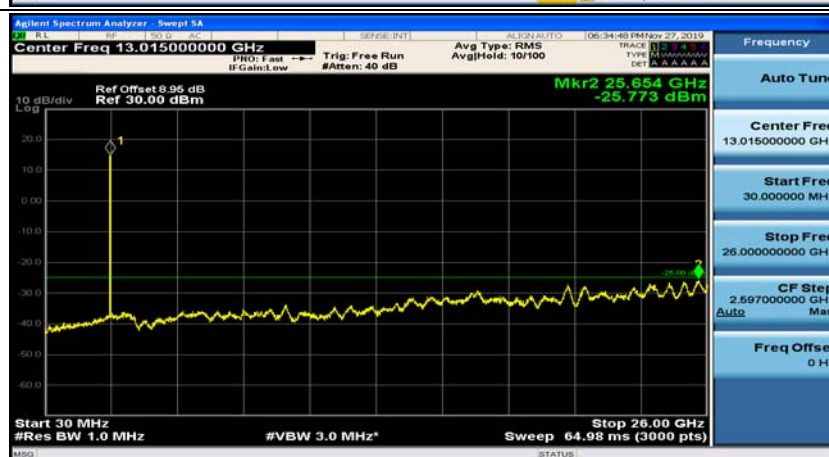
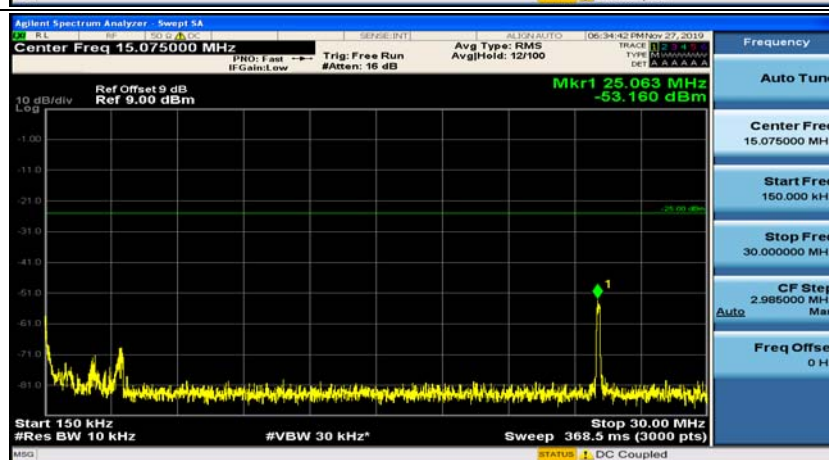
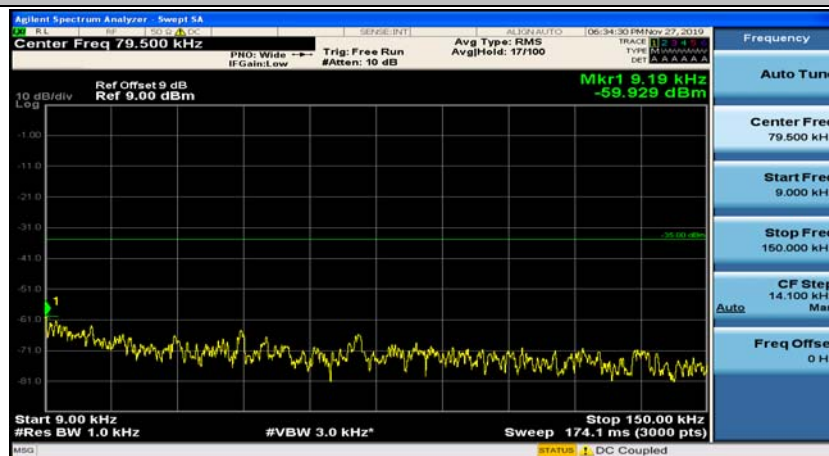
Channel Bandwidth: 15 MHz



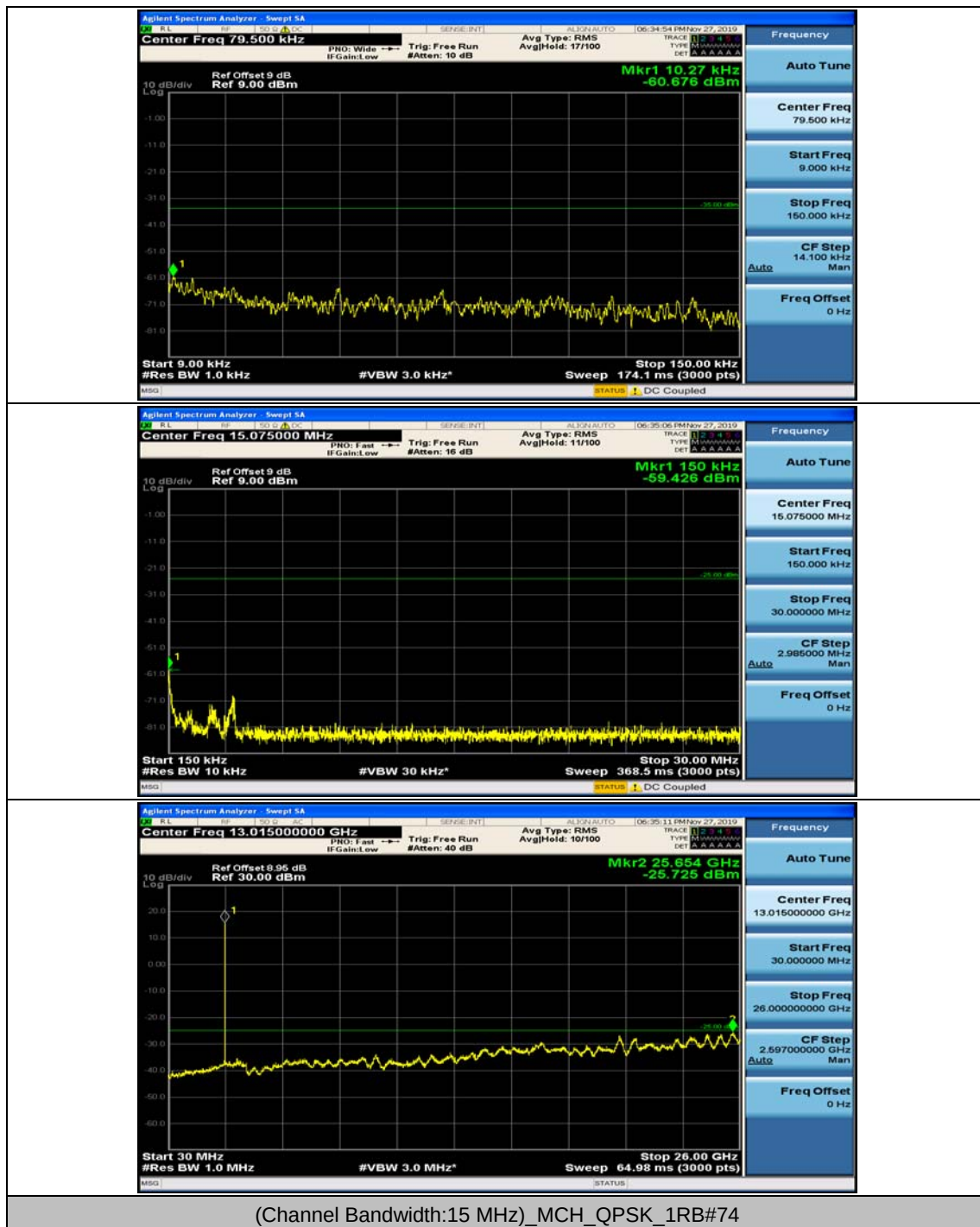


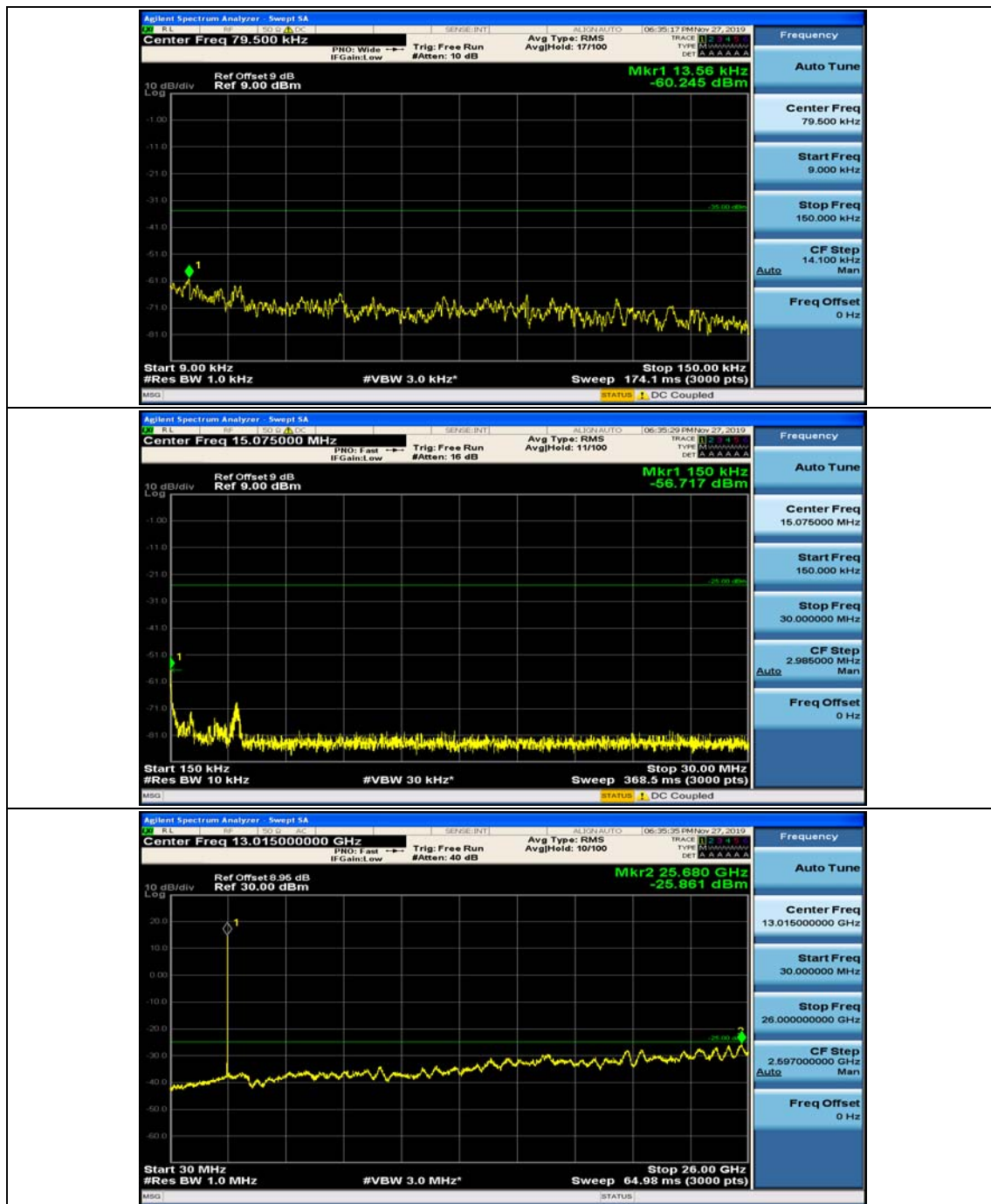


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

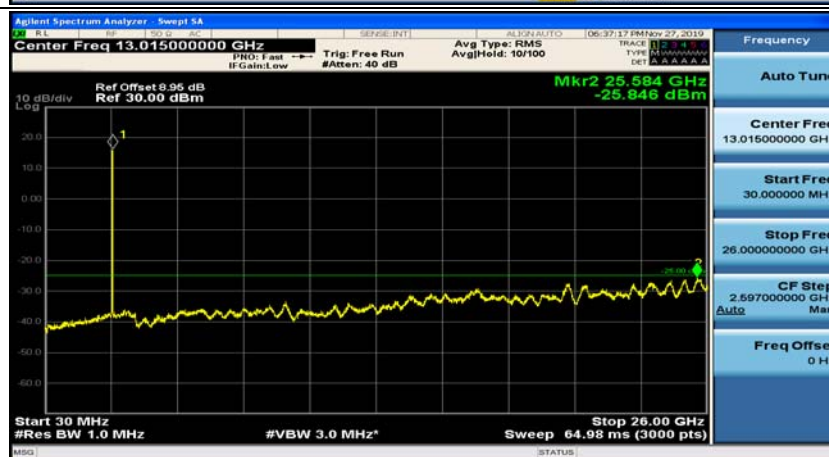
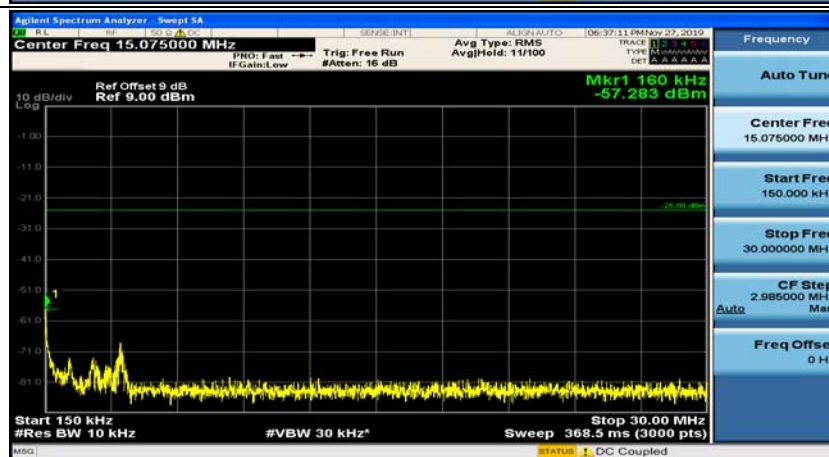
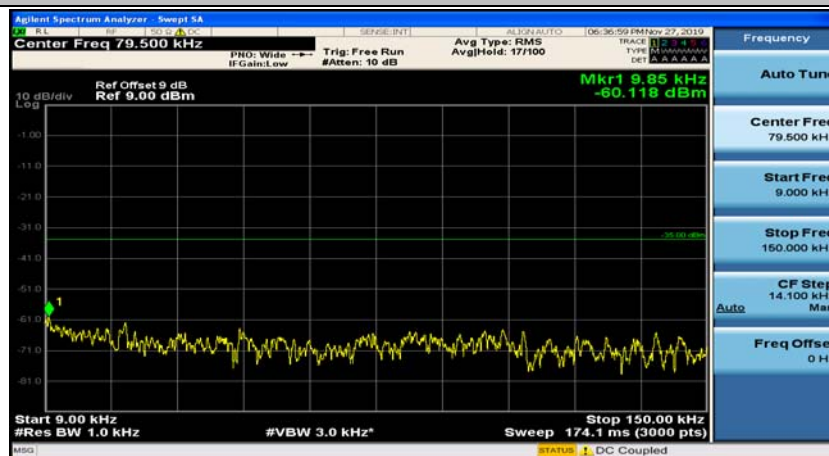


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

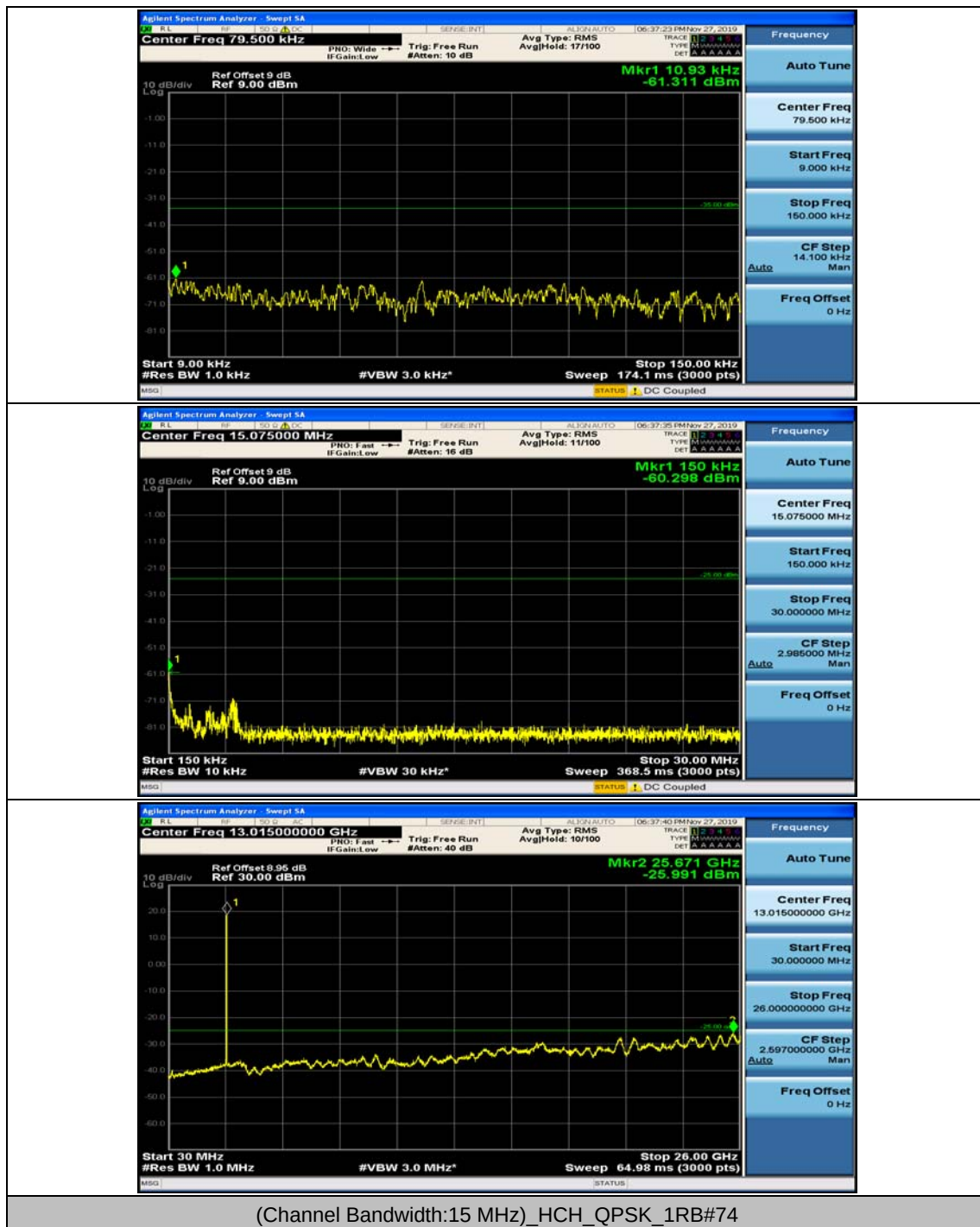


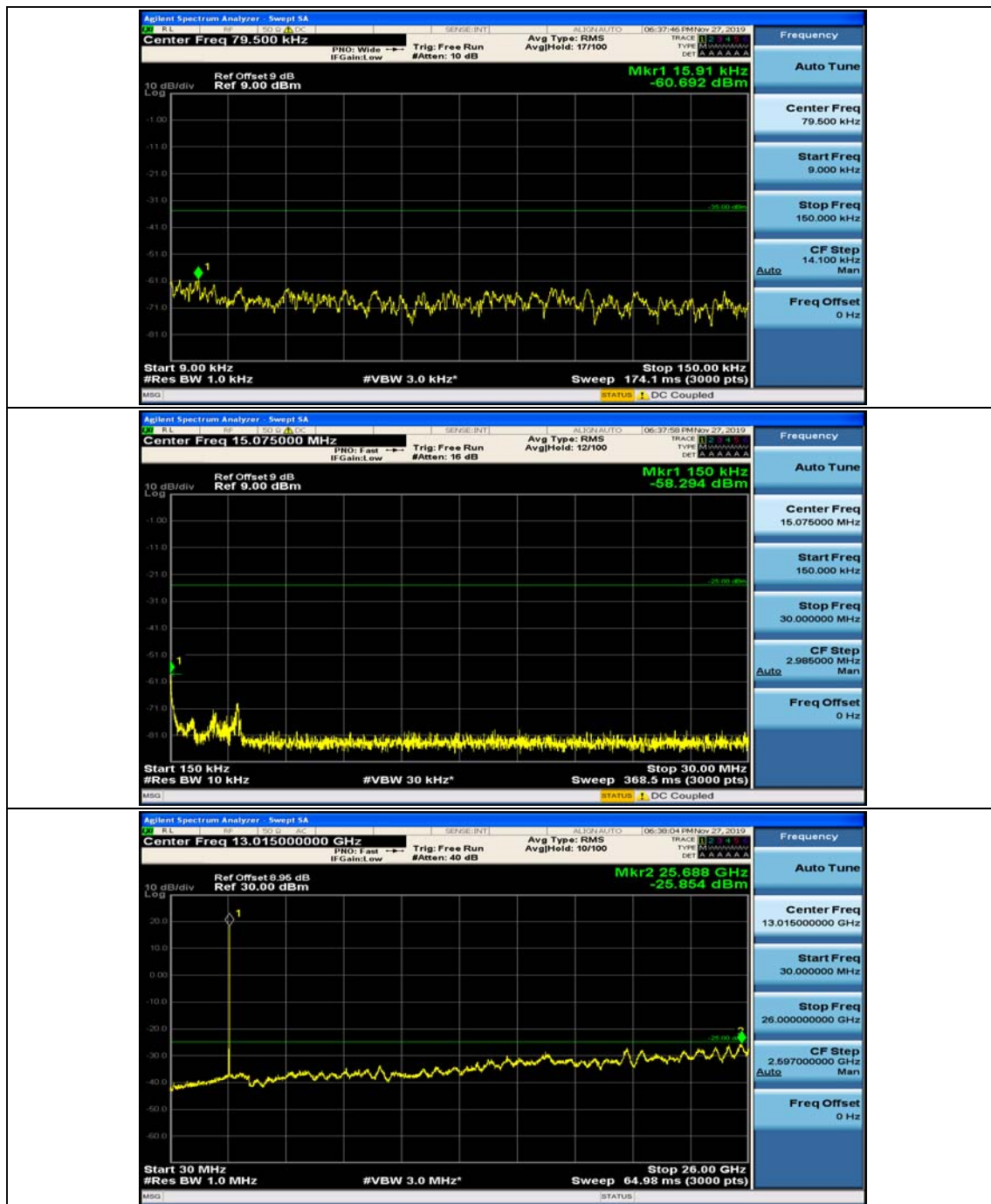


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

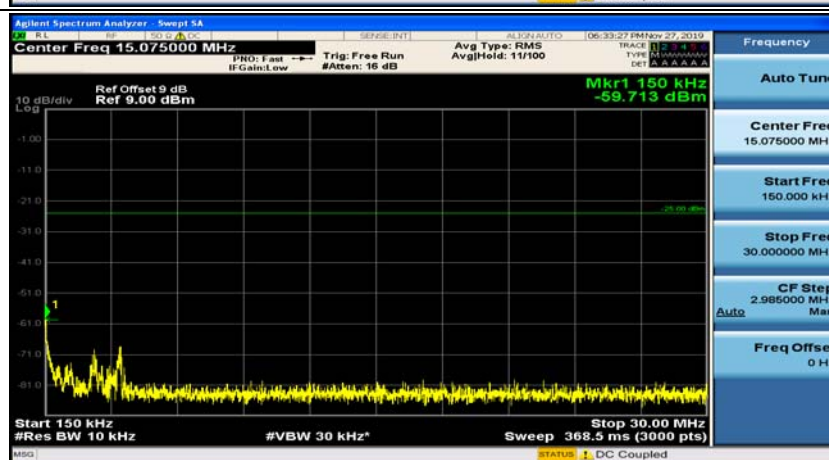
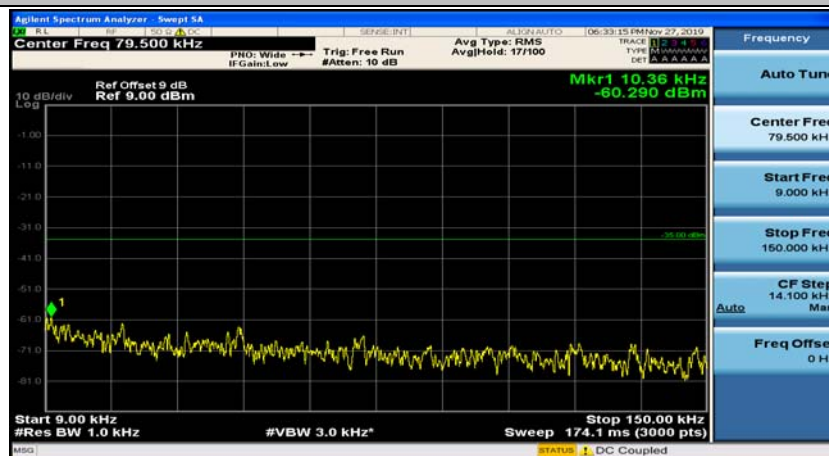


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

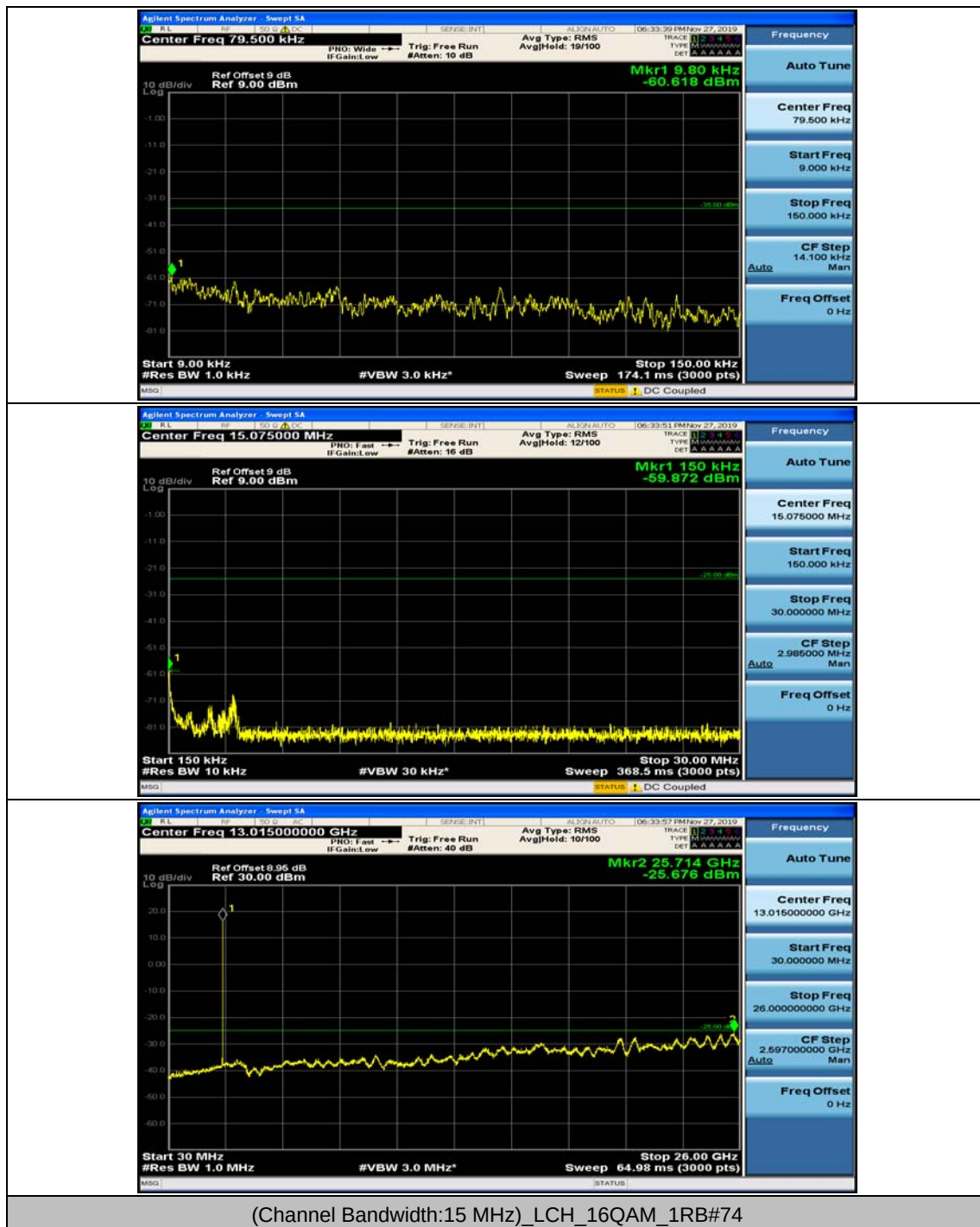


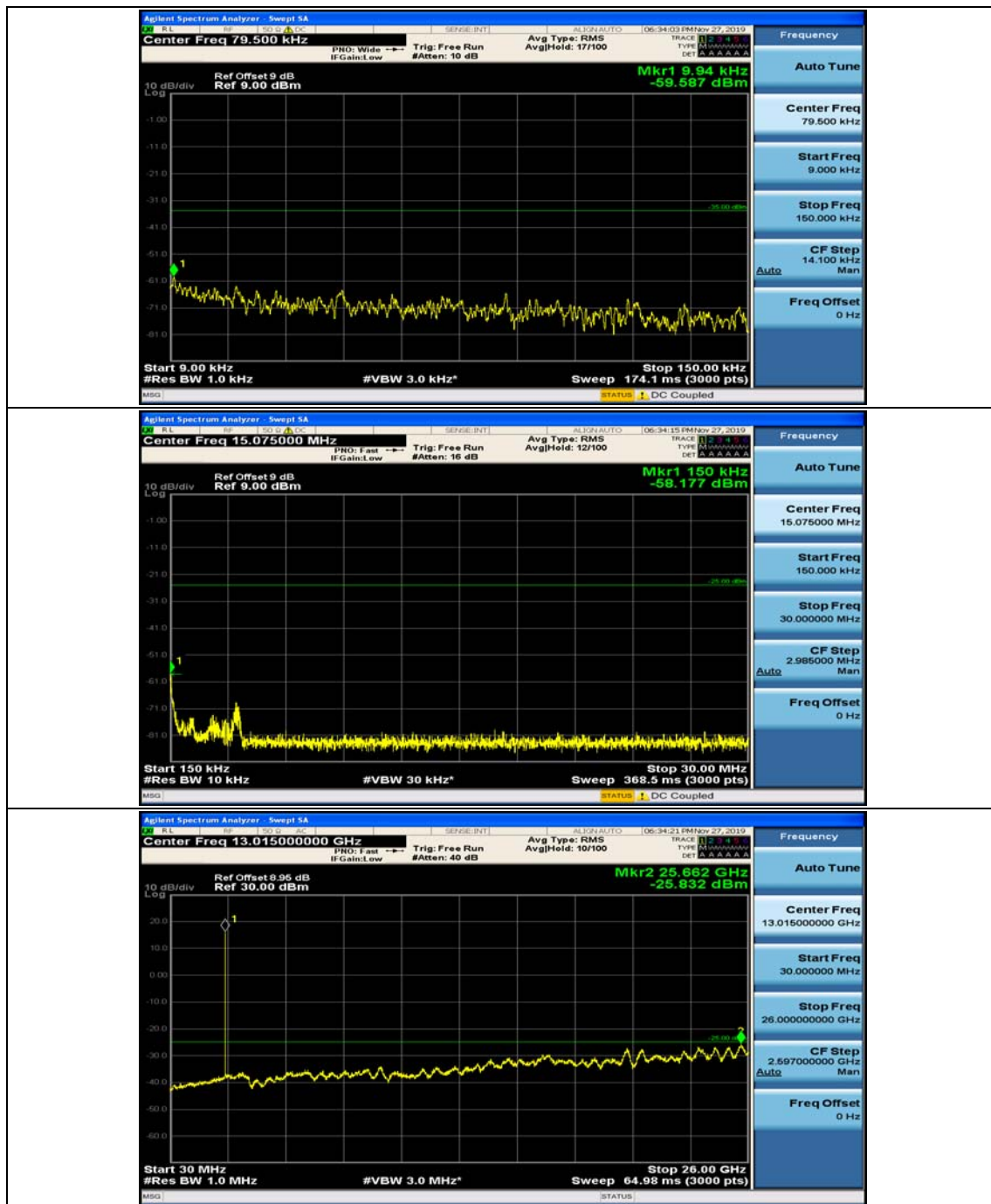


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

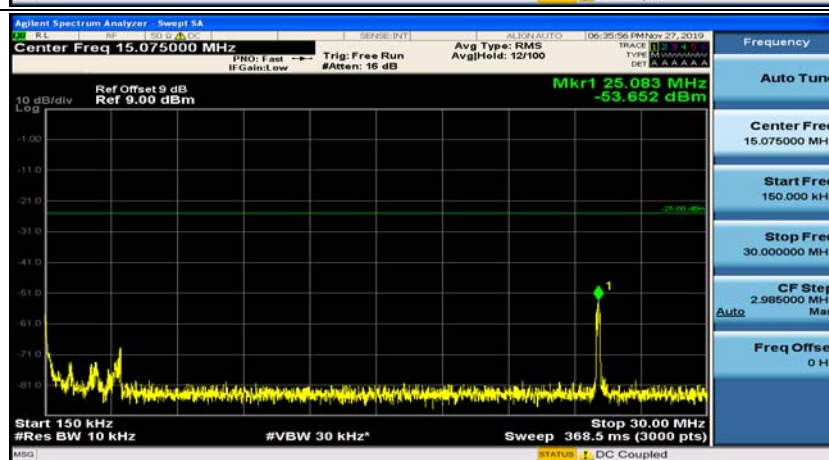
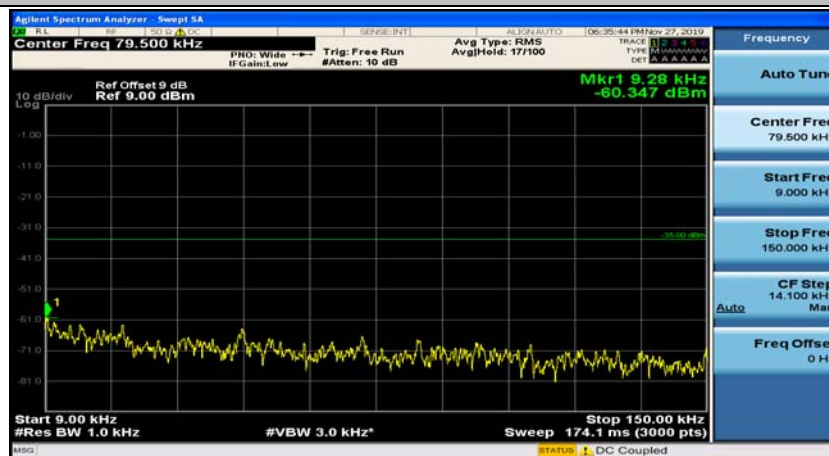


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

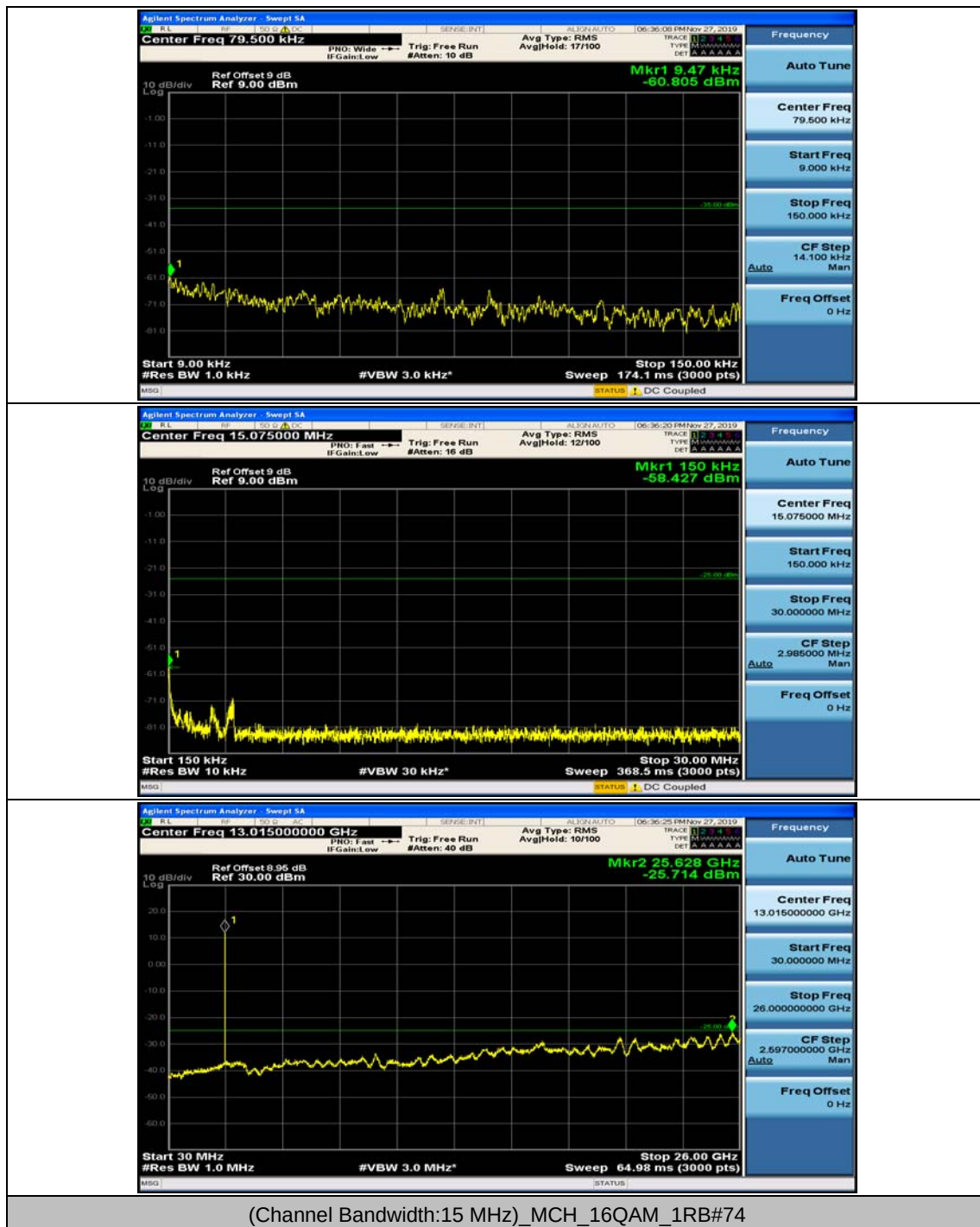


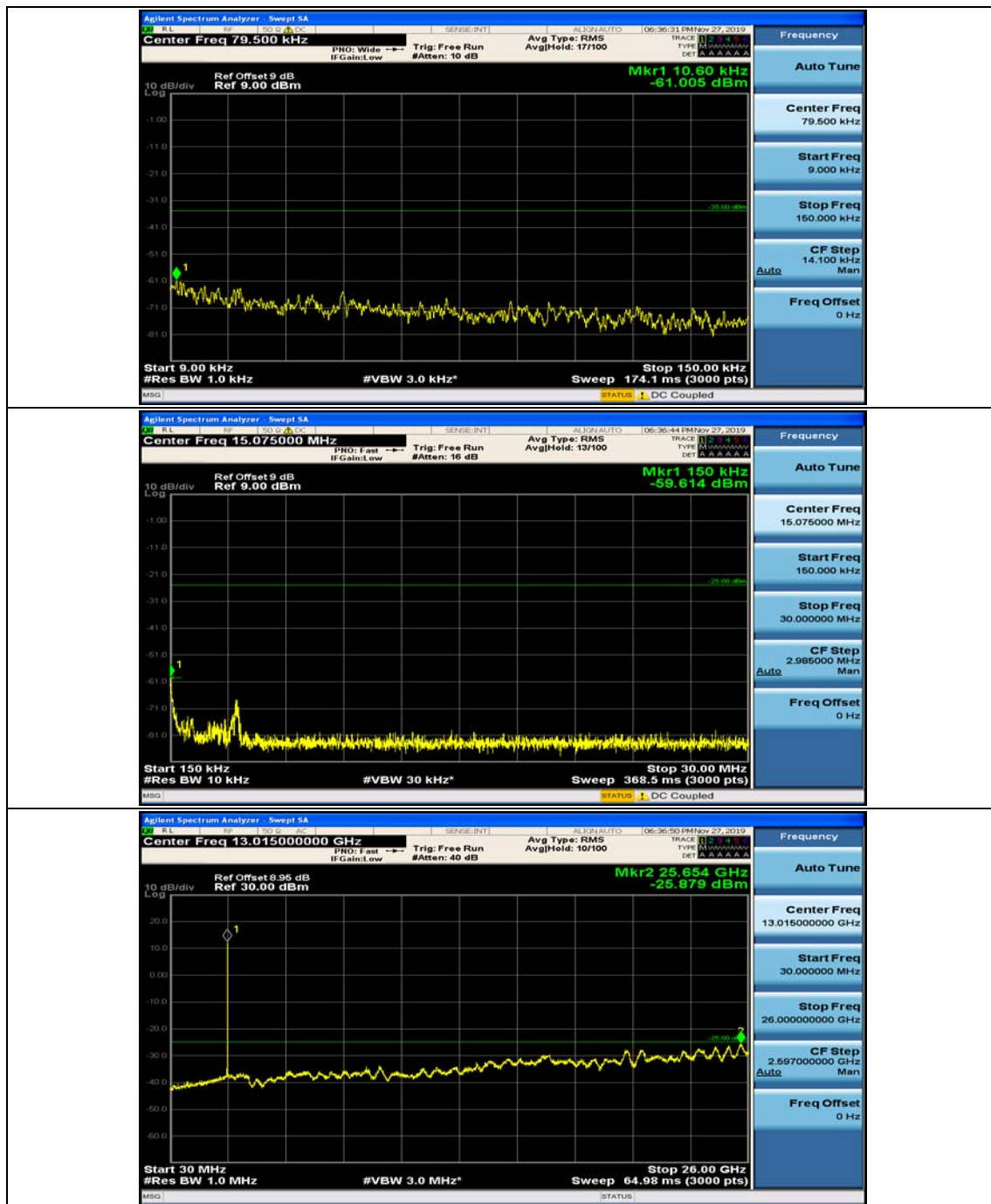


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

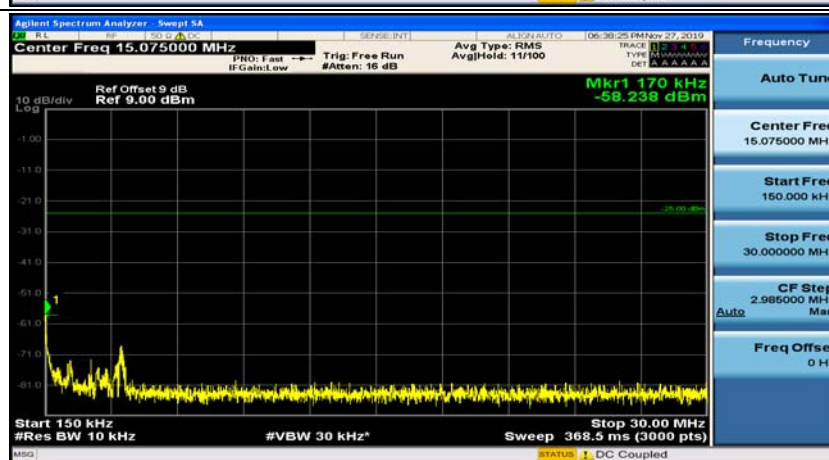
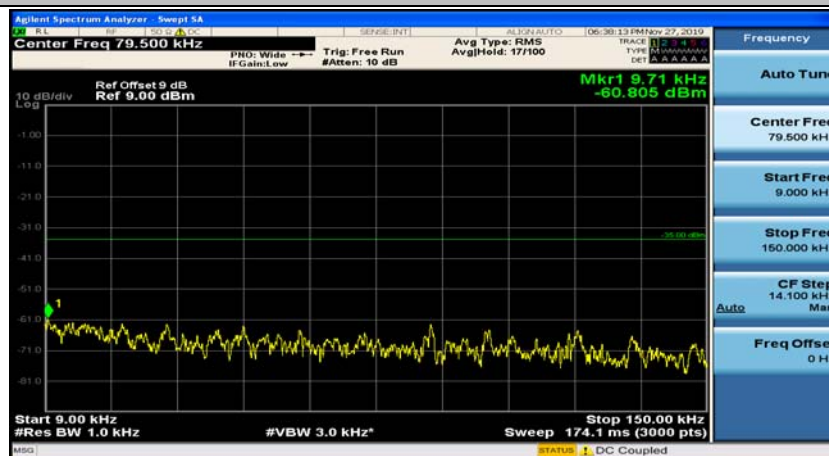


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

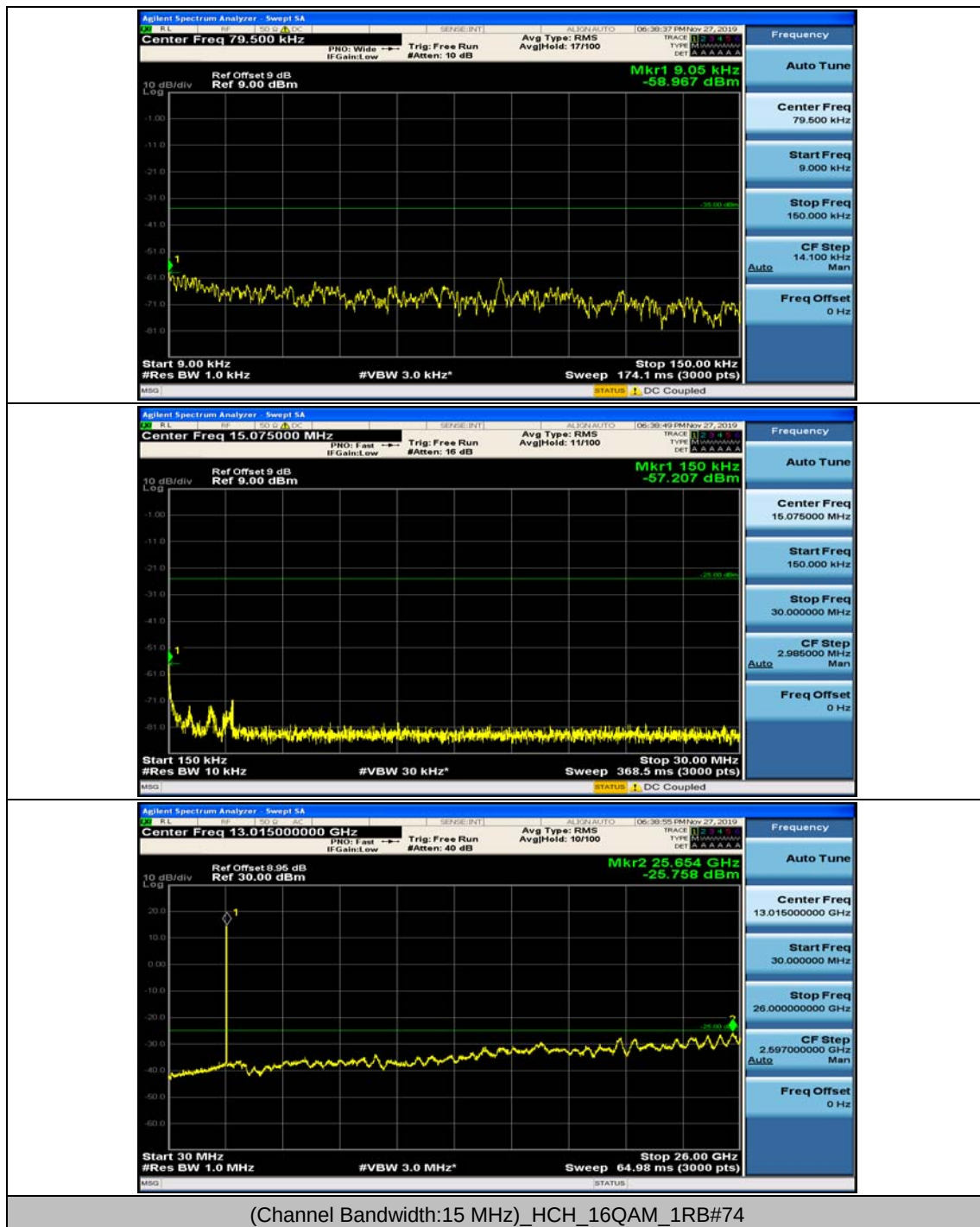


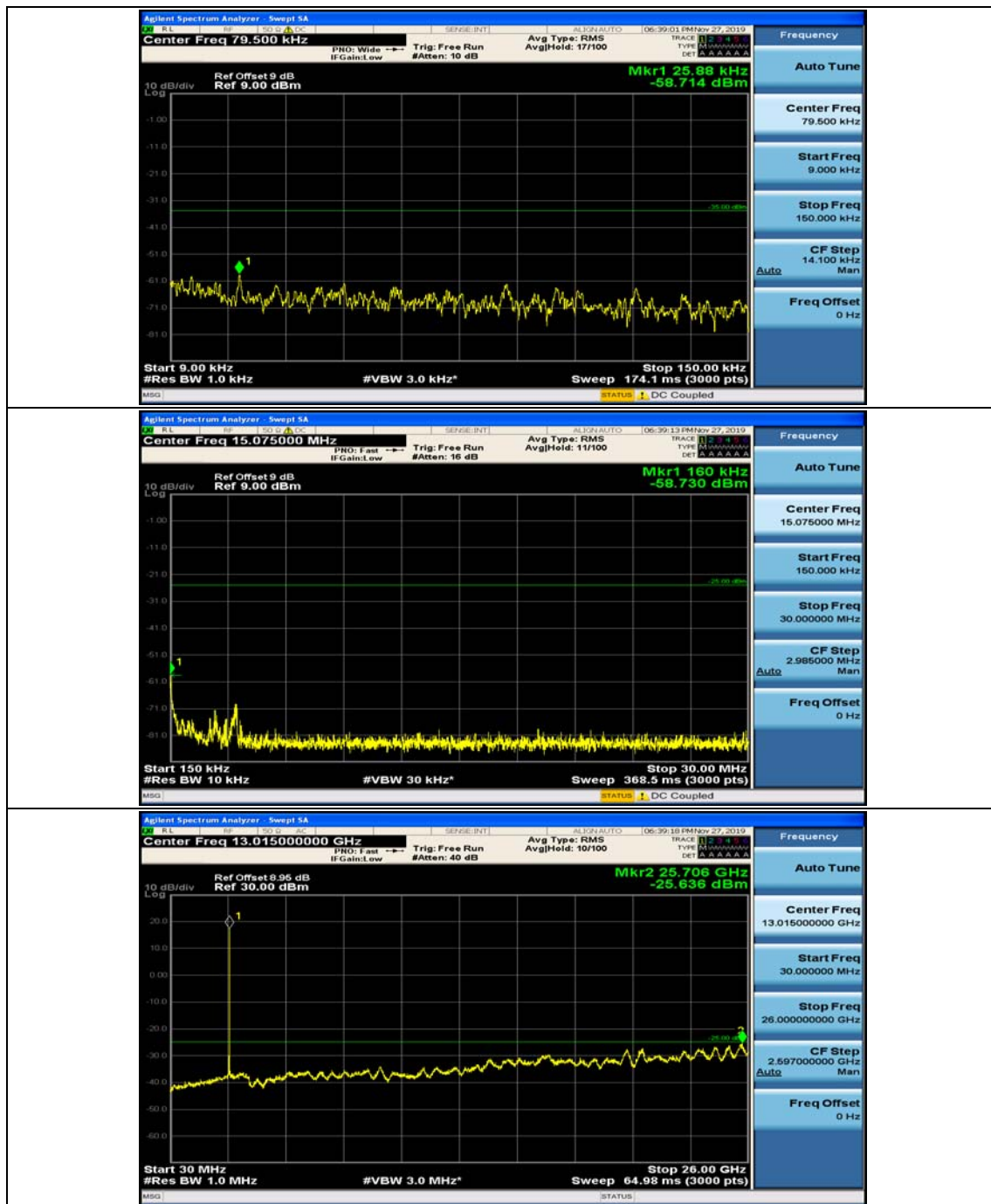


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

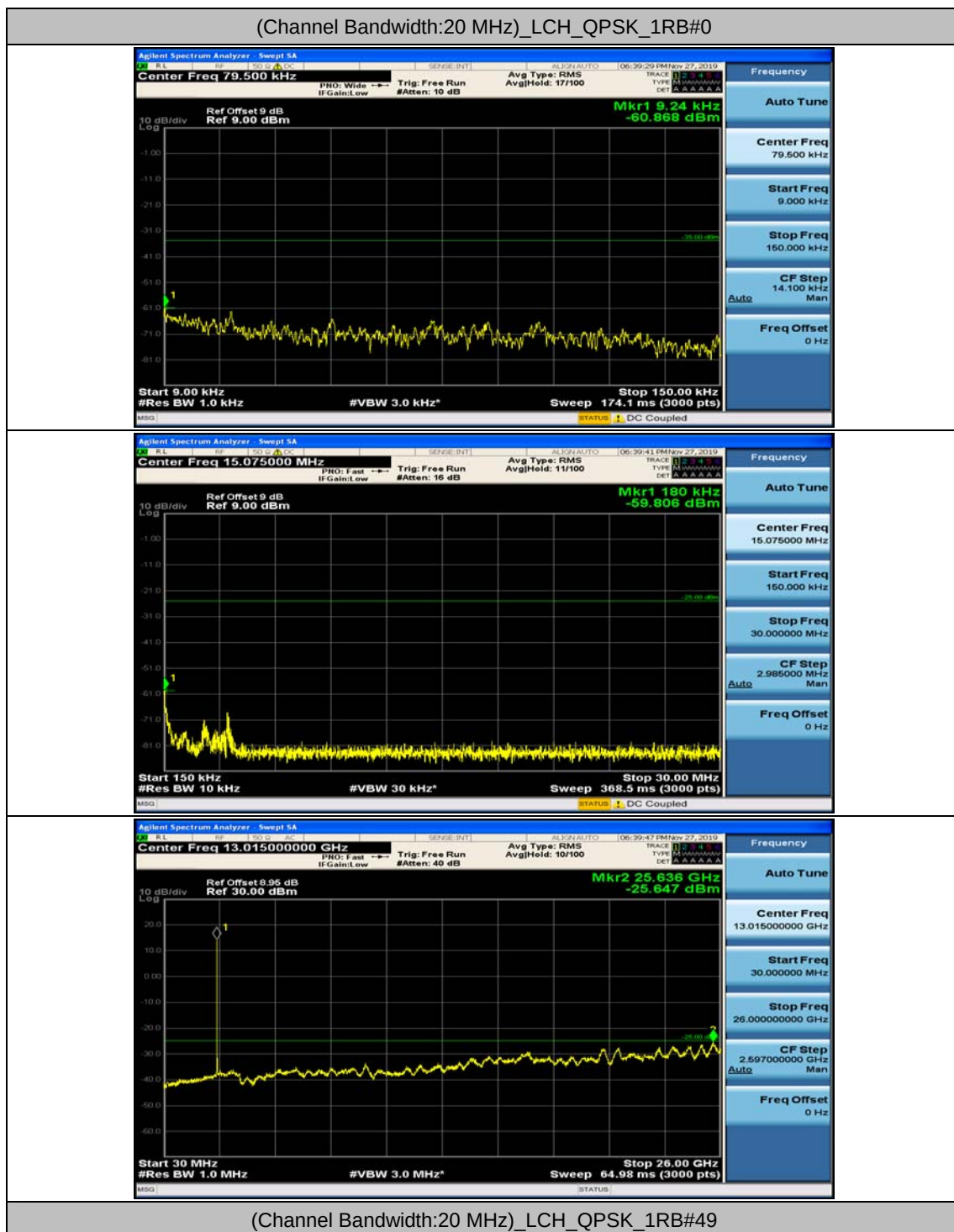


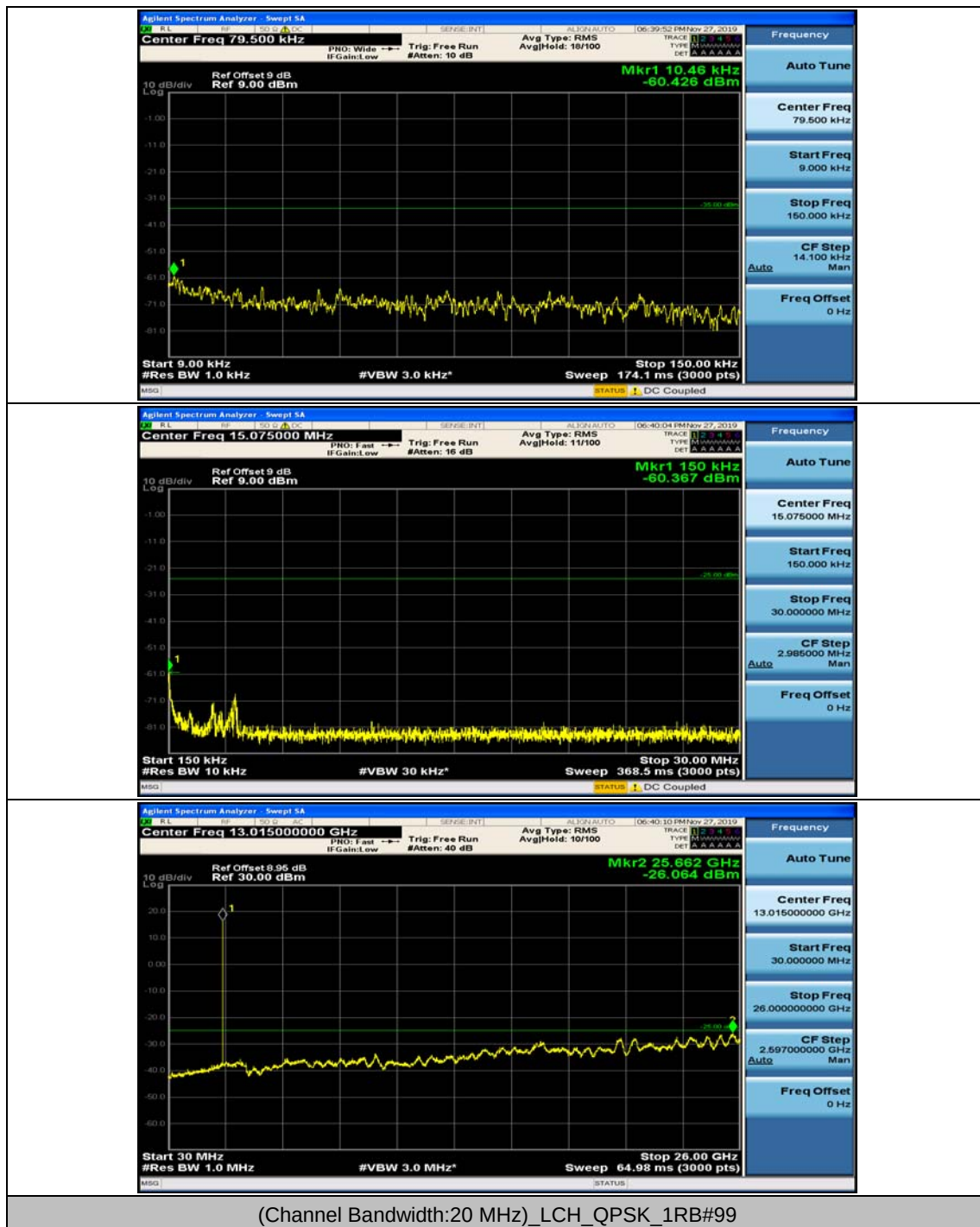
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

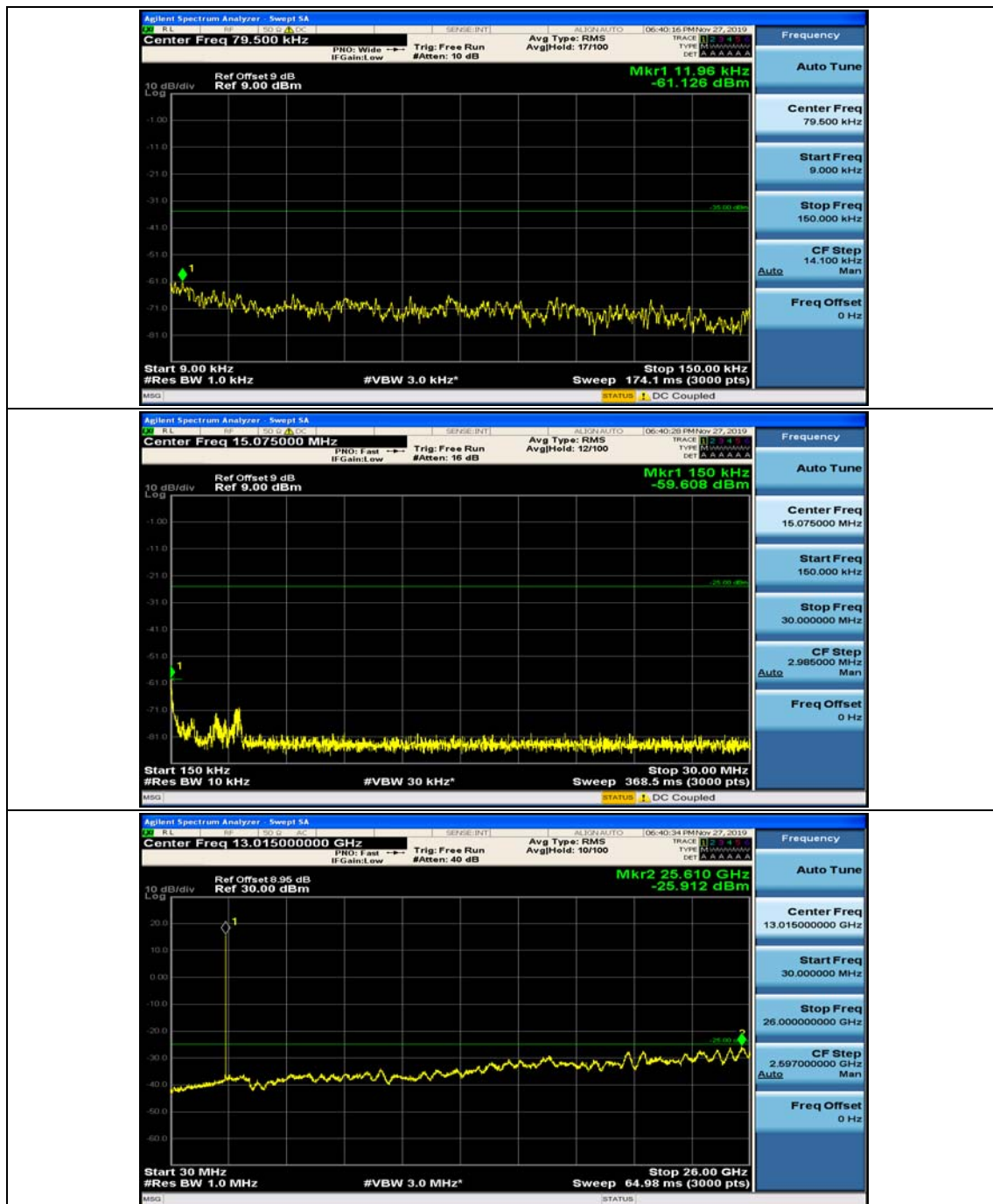




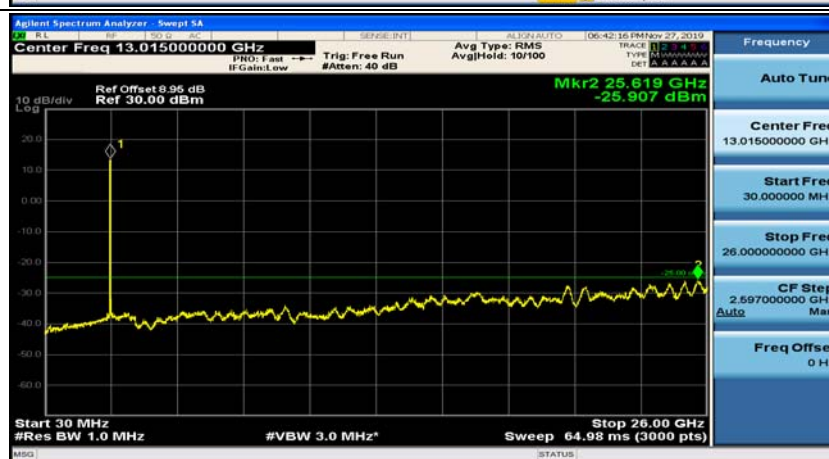
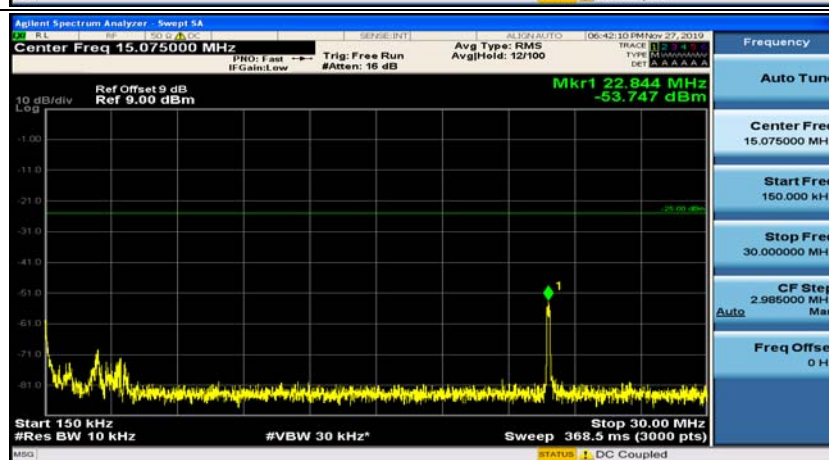
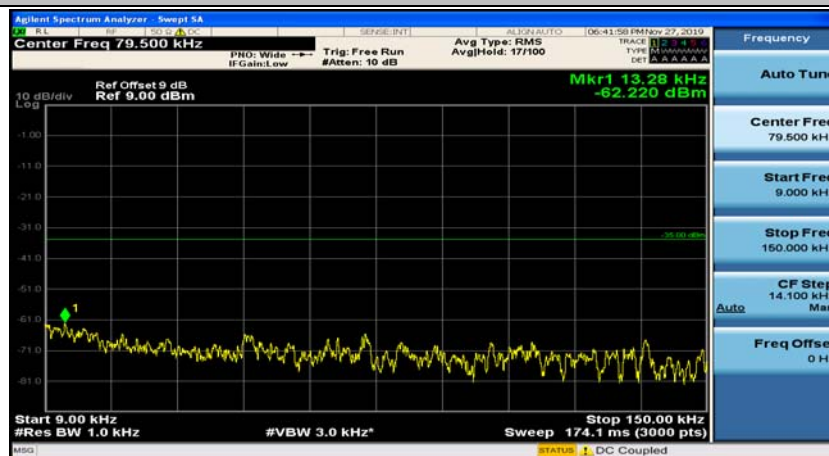
Channel Bandwidth: 20 MHz



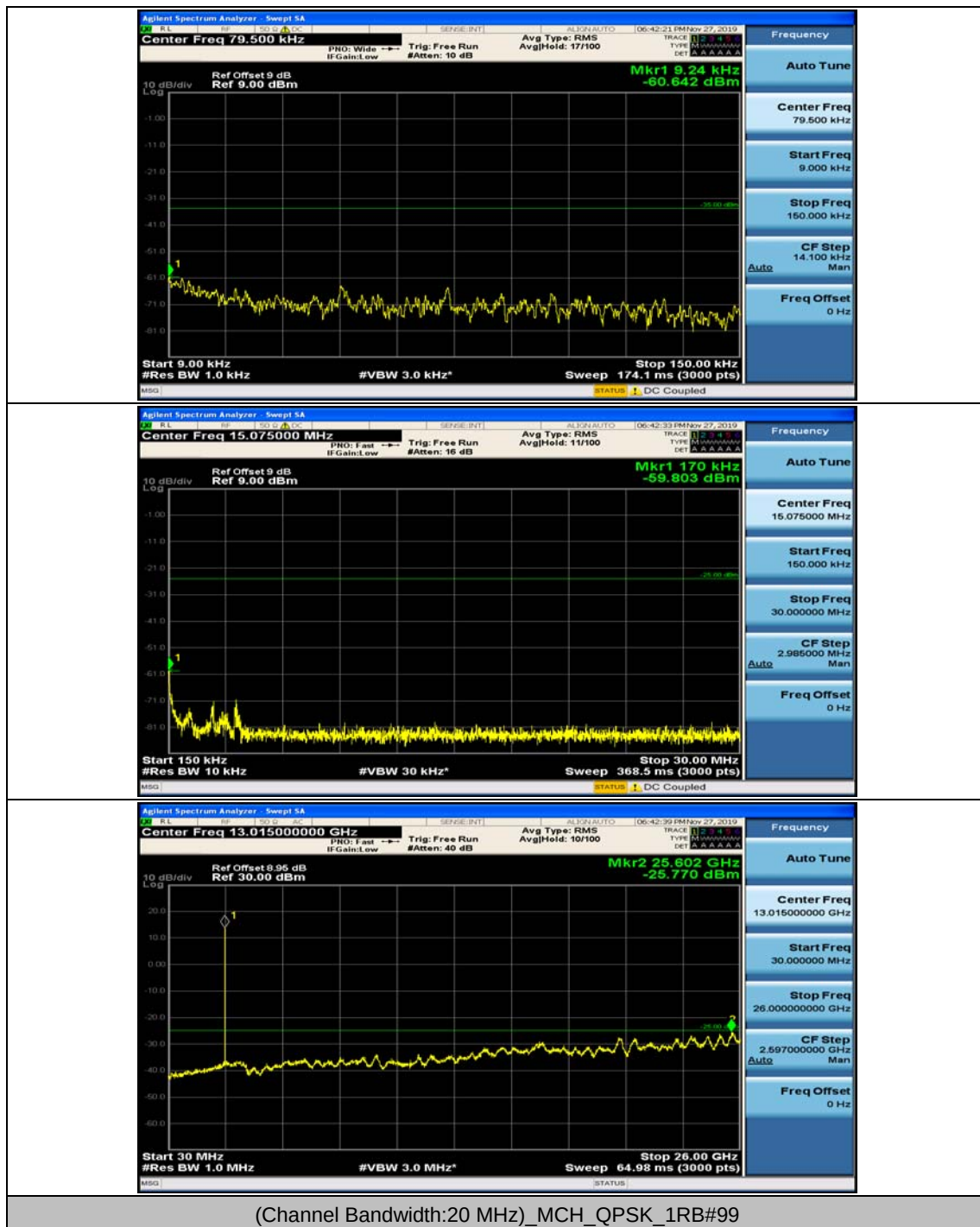


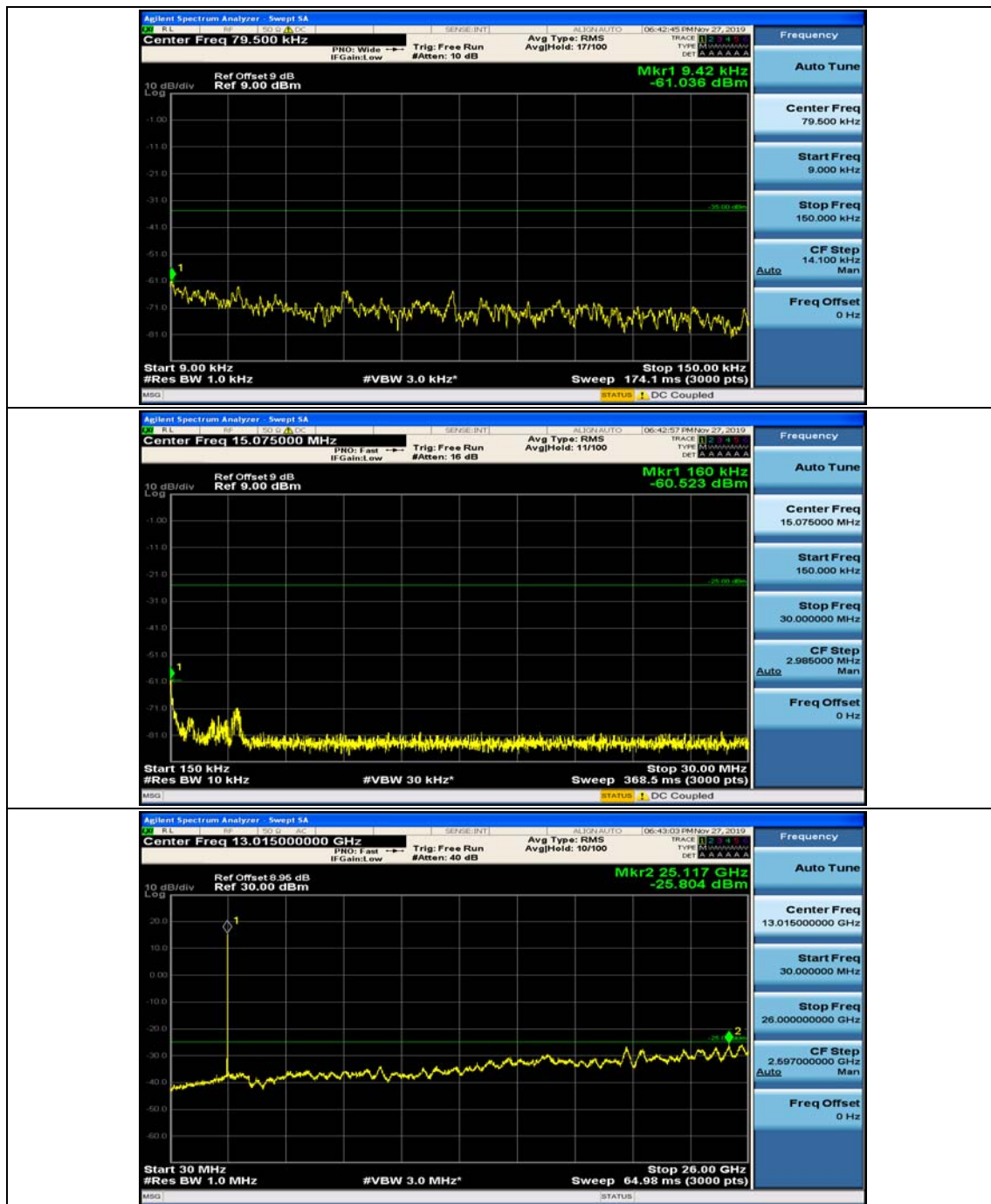


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

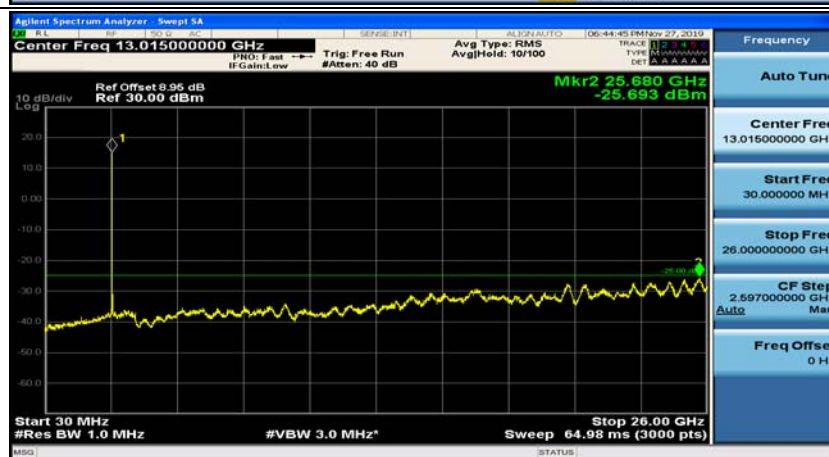
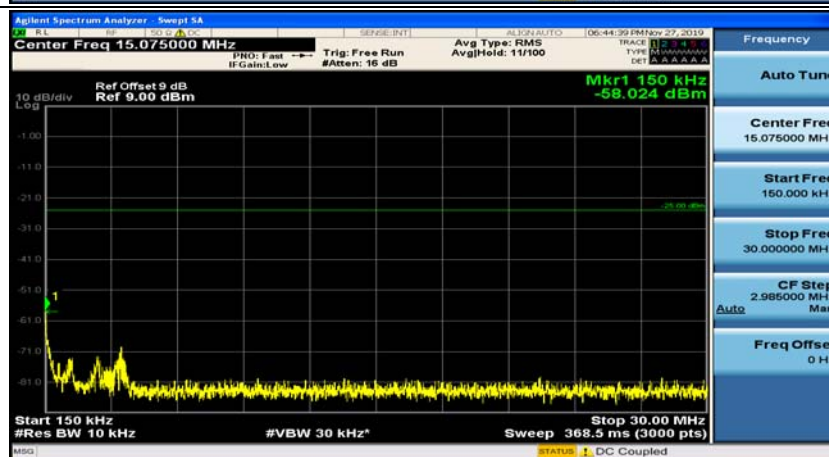
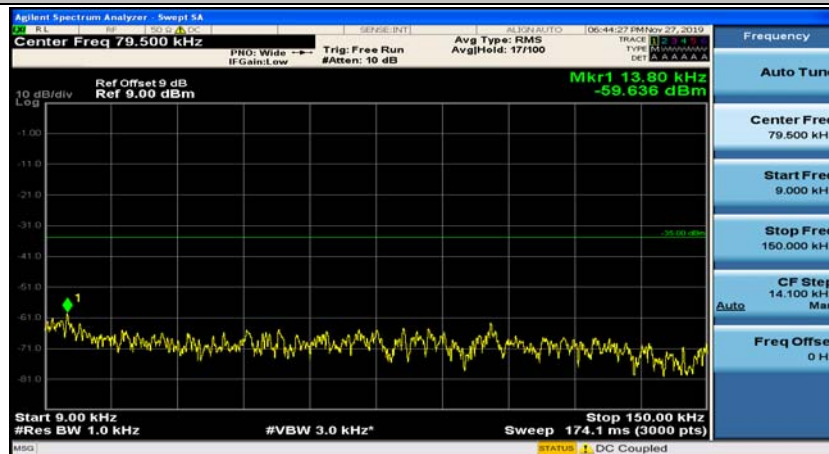


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

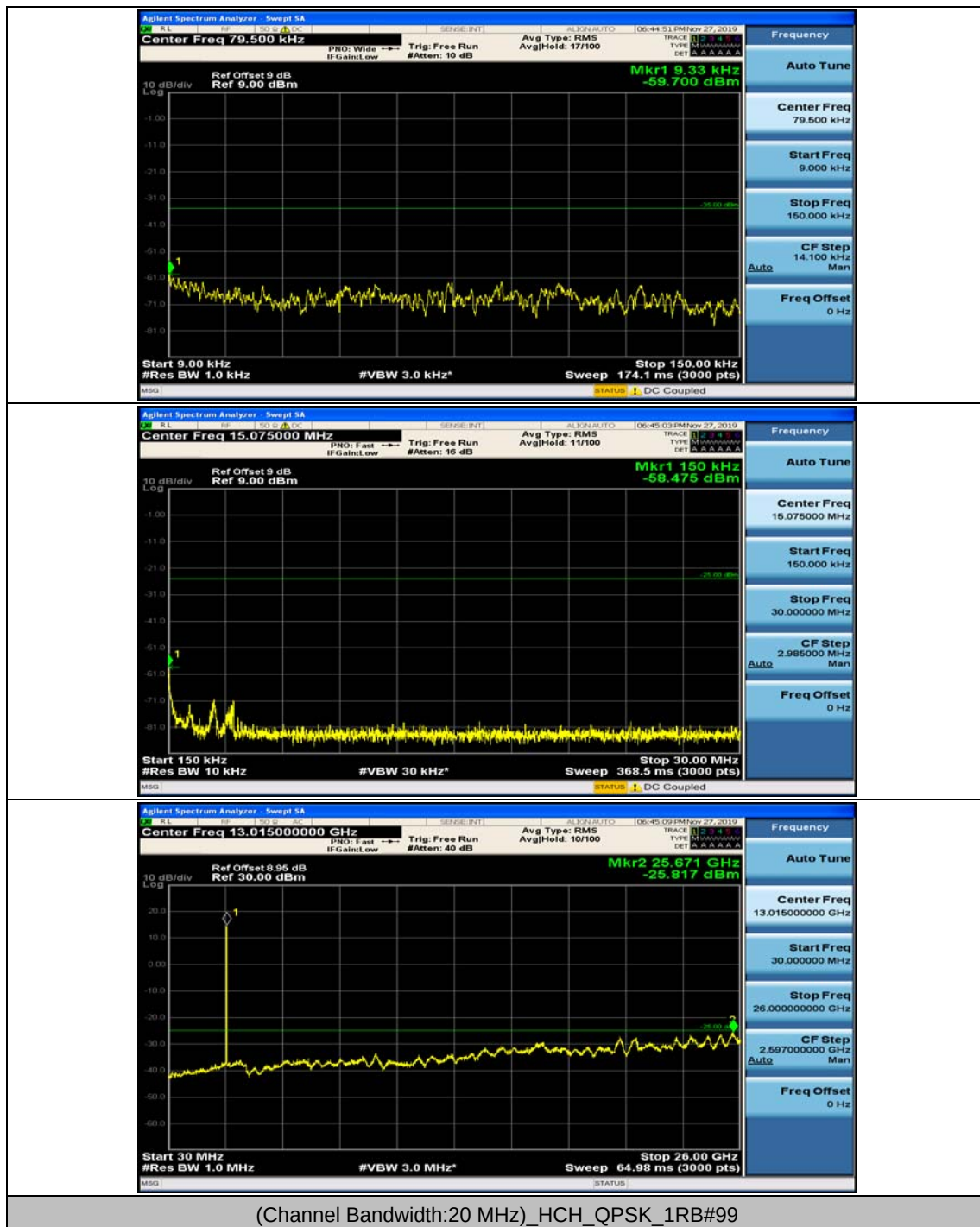


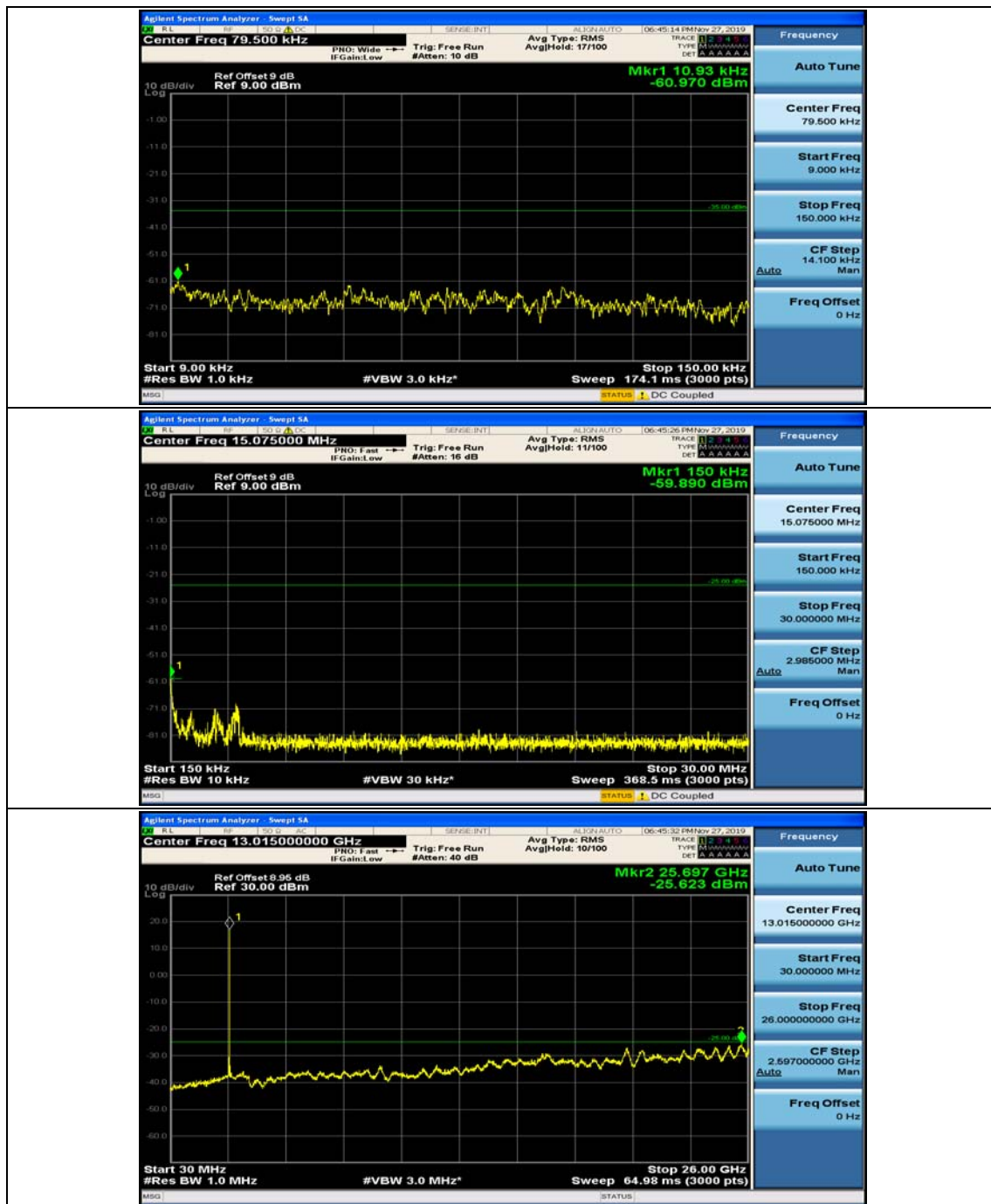


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

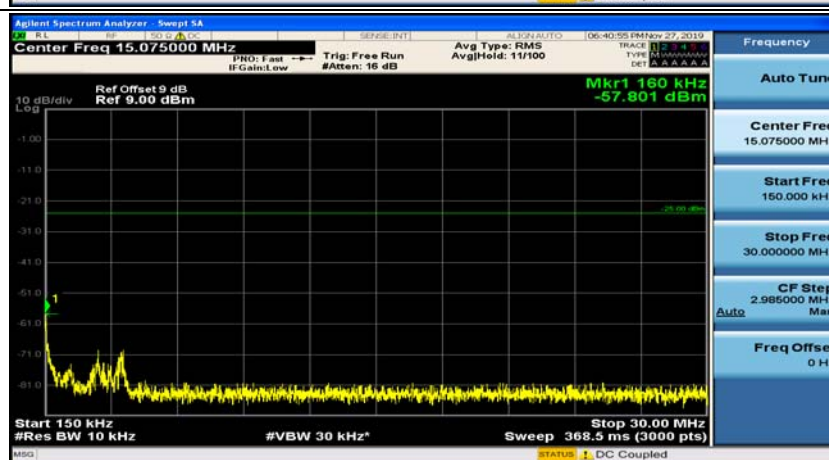
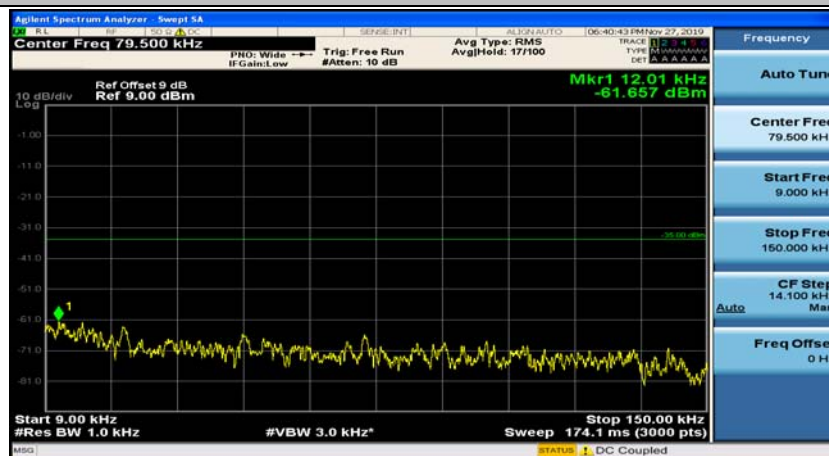


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

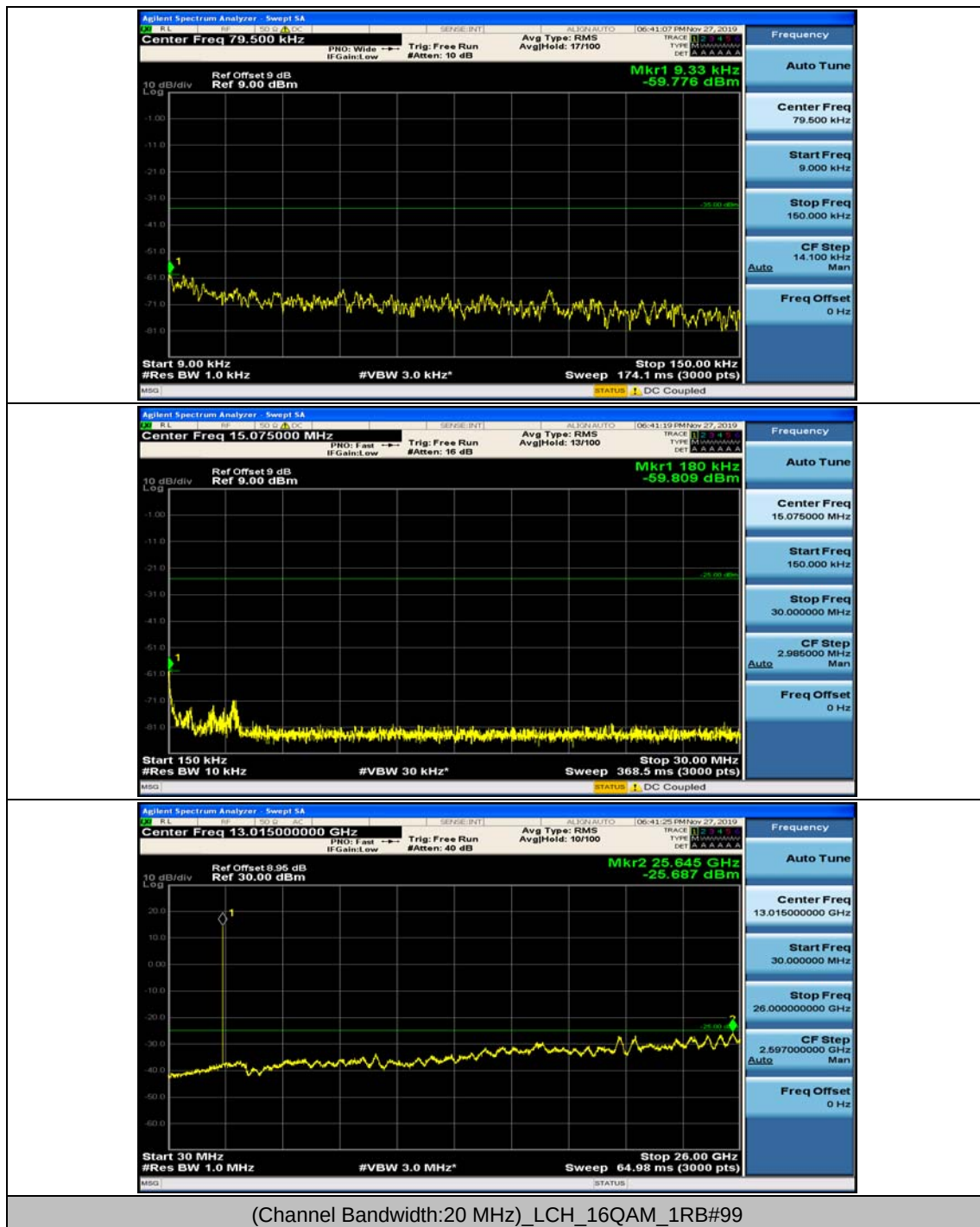


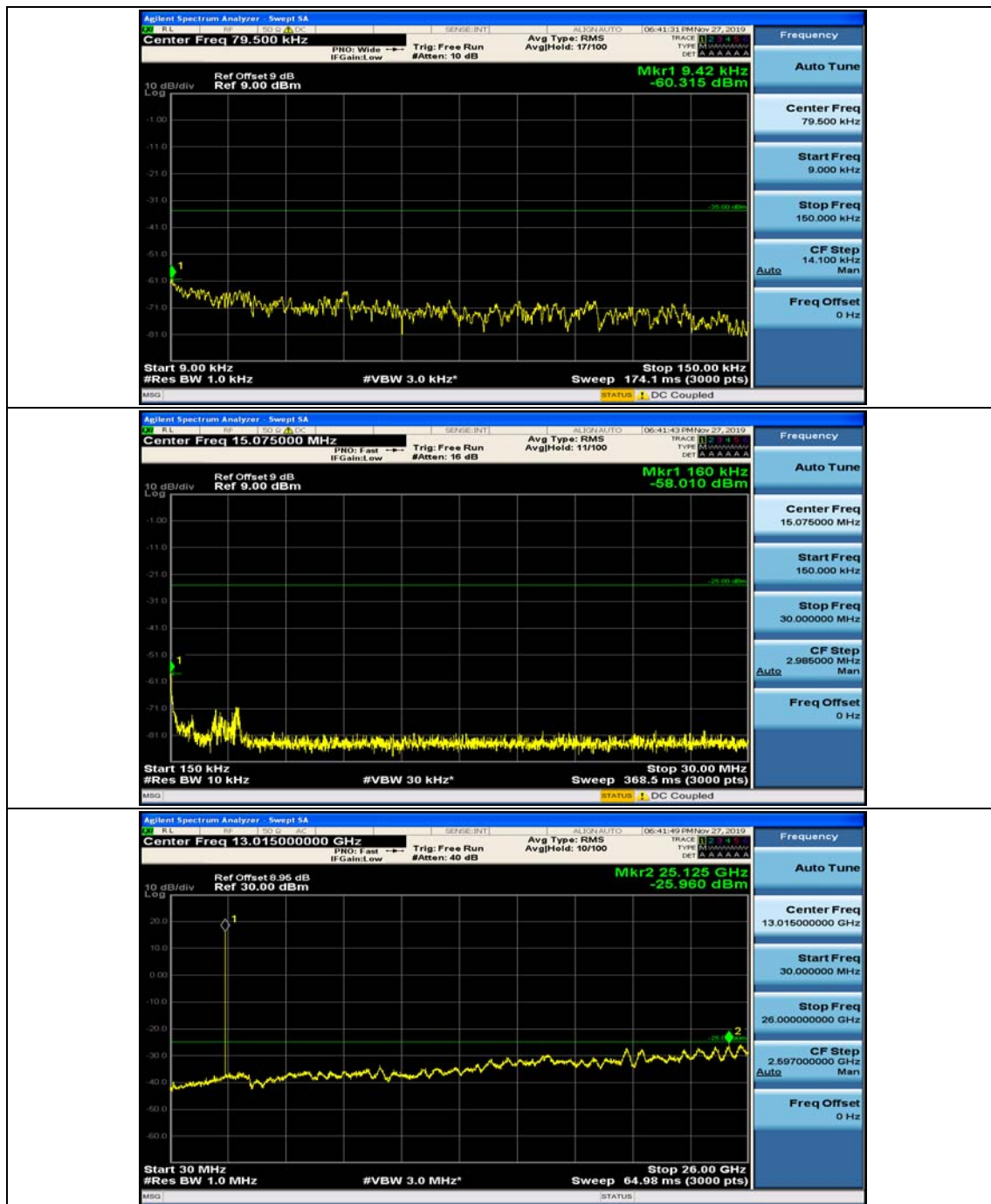


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

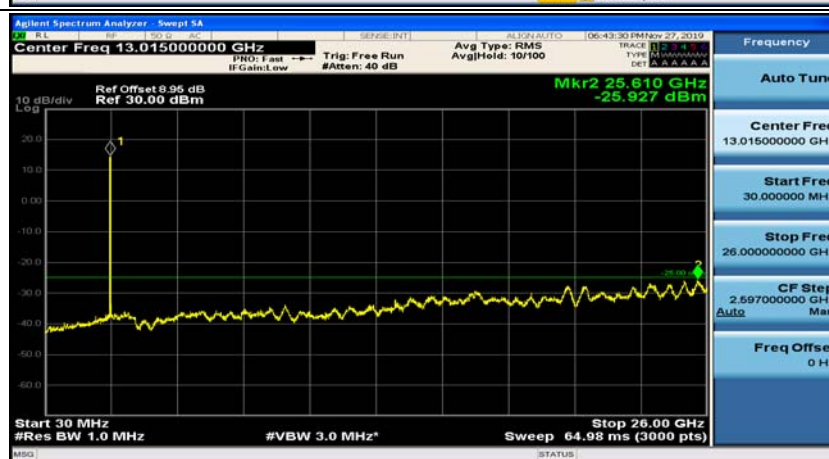
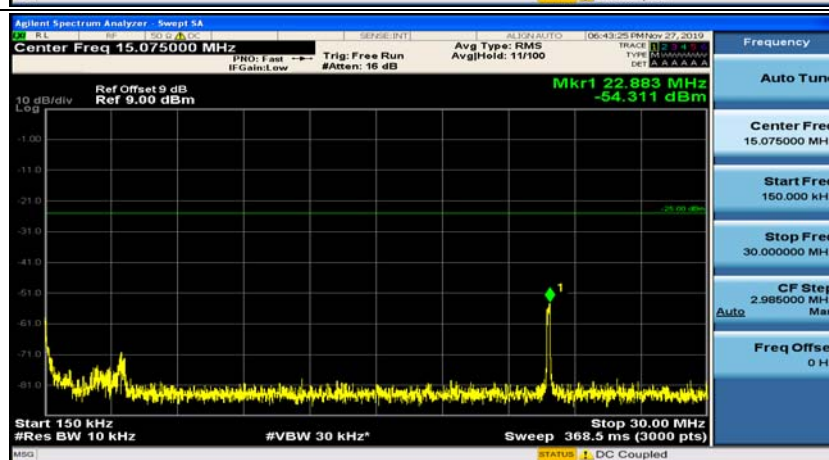
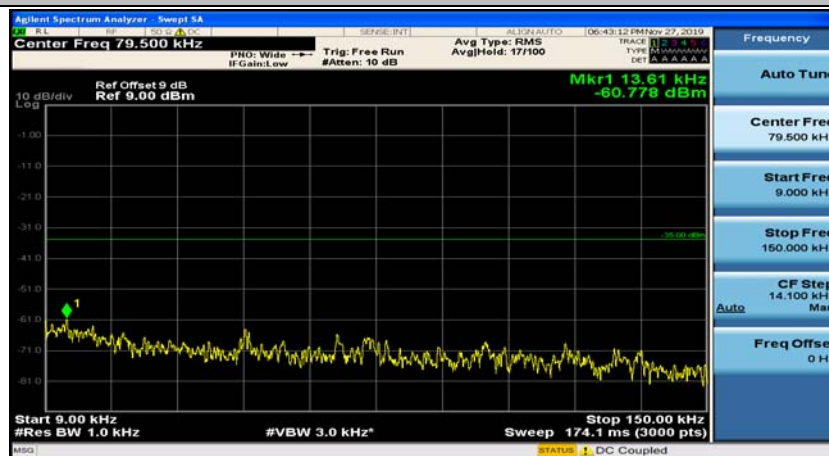


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

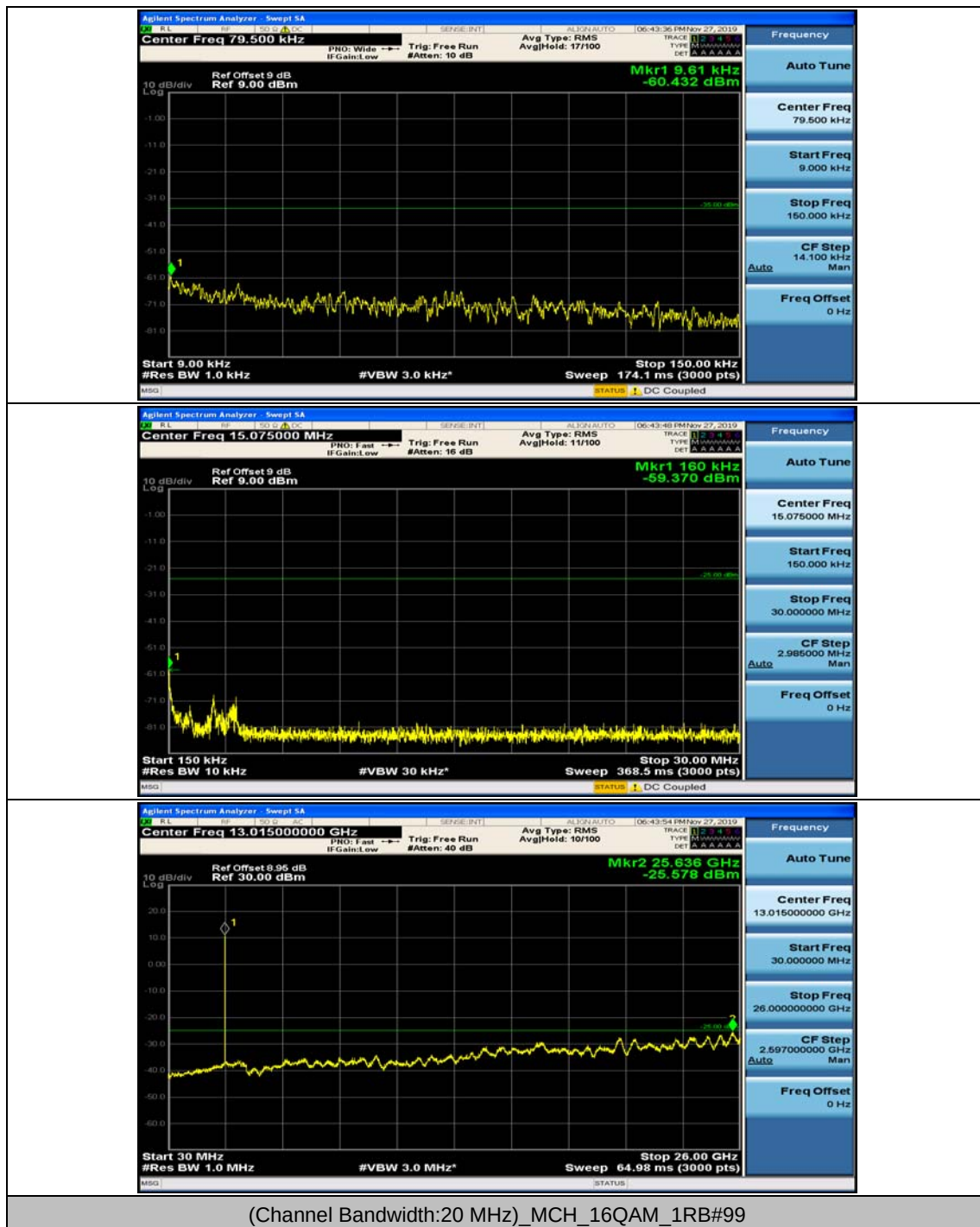


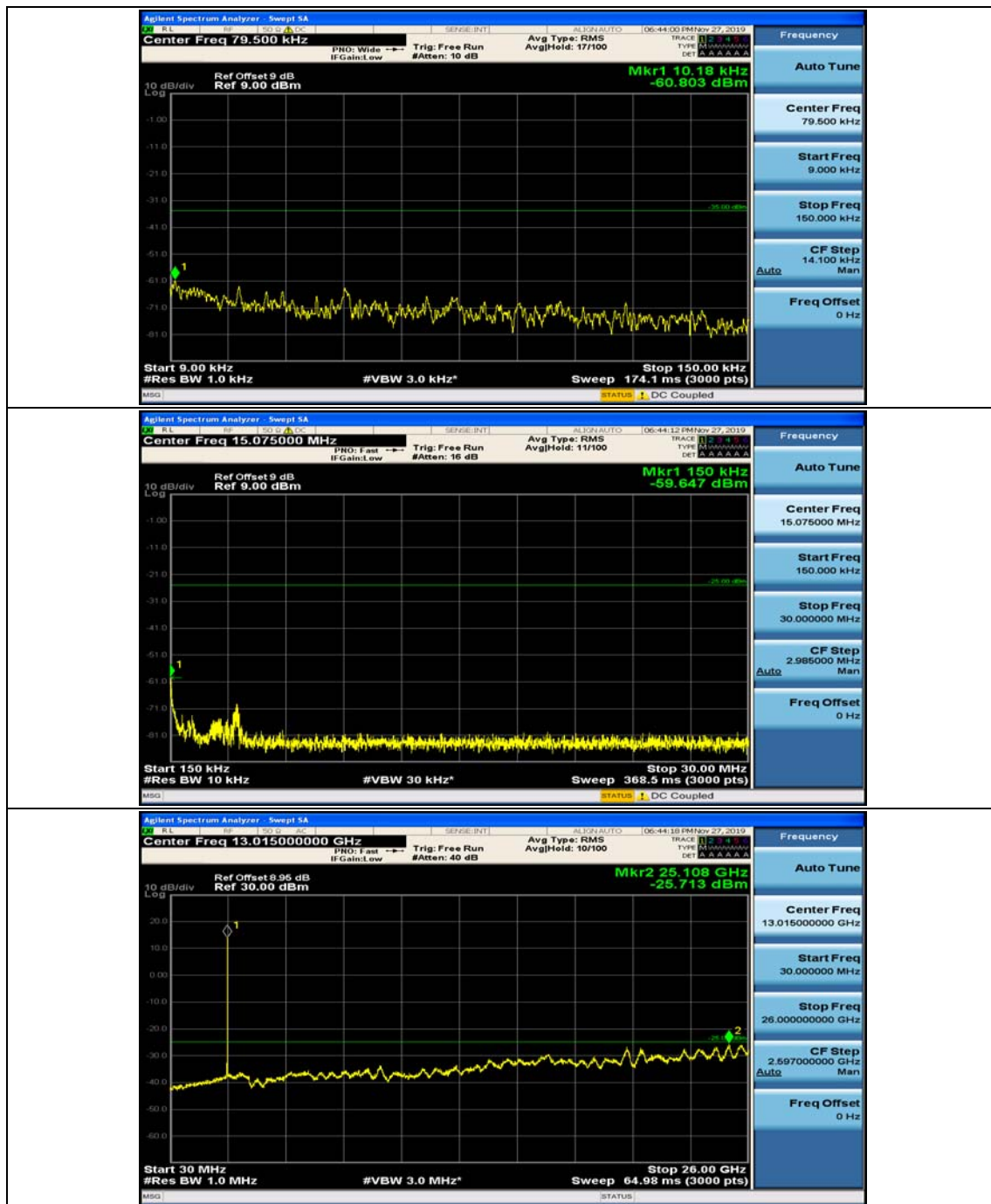


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

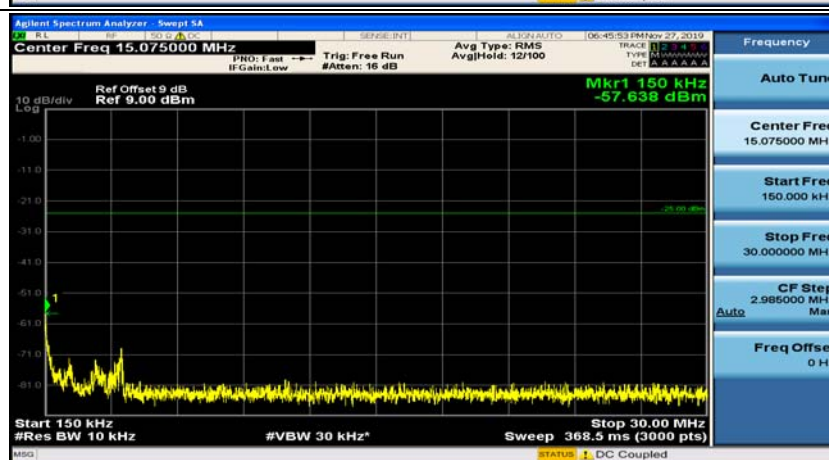
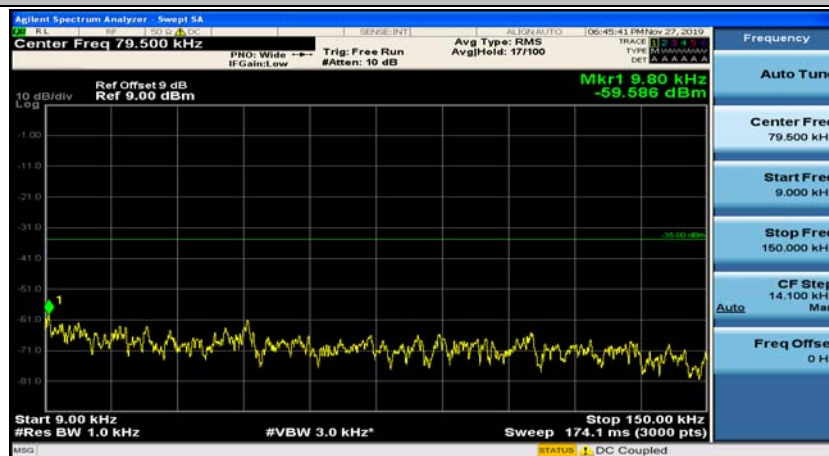


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

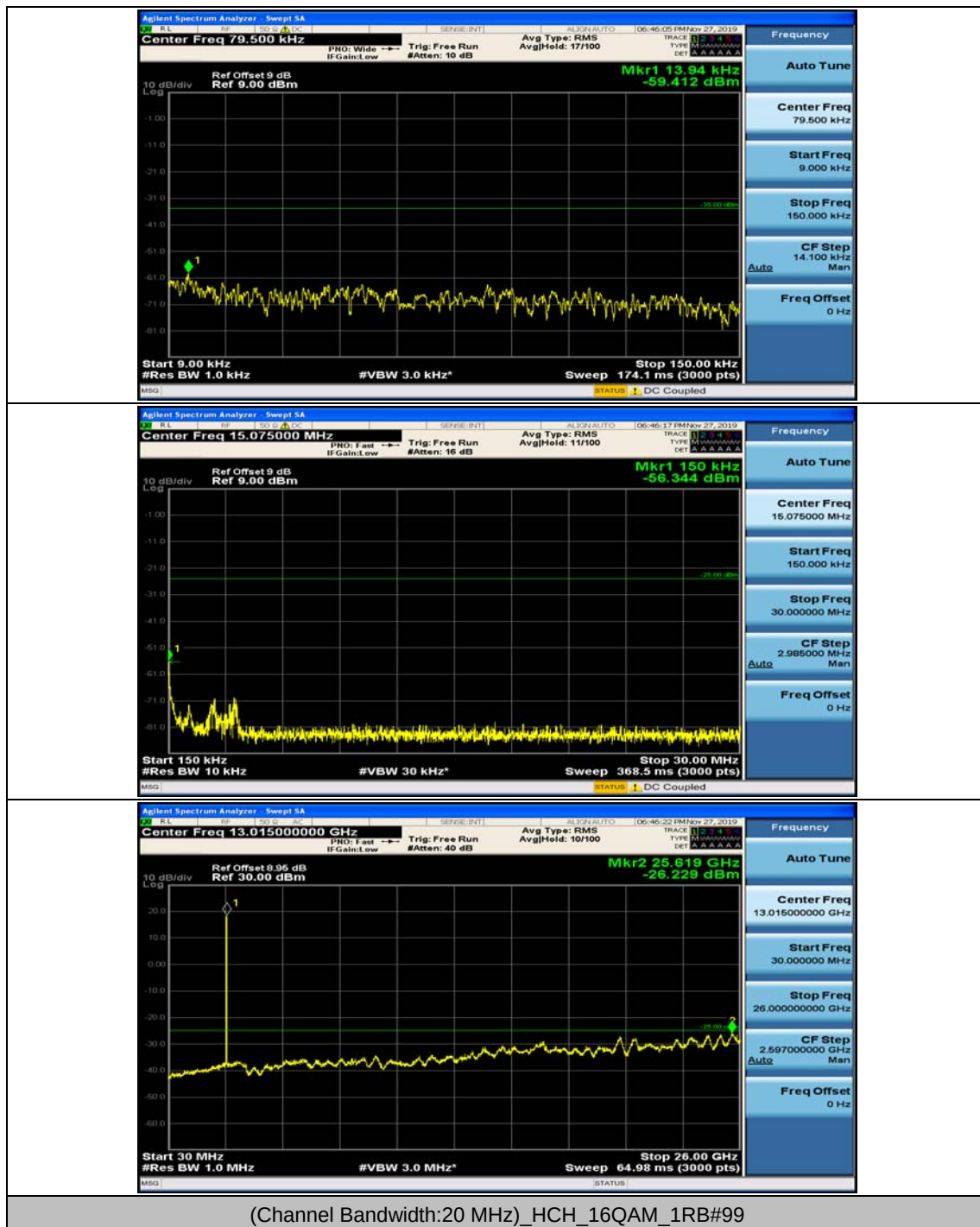


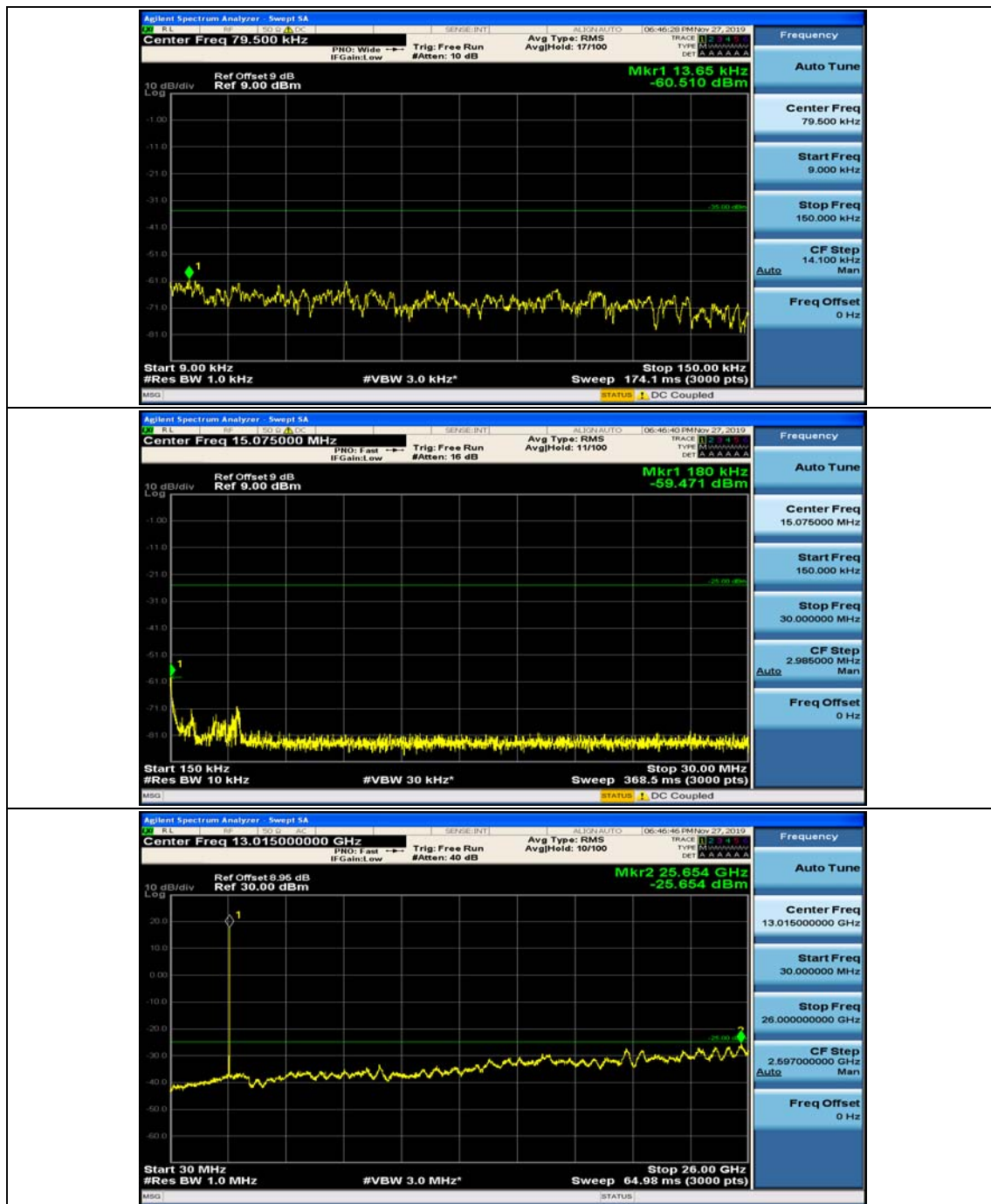


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(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	3.71	0.001485	± 2.5	PASS
		VN	TN	-0.53	-0.000212	± 2.5	PASS
		VH	TN	4.85	0.001941	± 2.5	PASS
	MCH	VL	TN	-1.05	-0.000405	± 2.5	PASS
		VN	TN	1.5	0.000578	± 2.5	PASS
		VH	TN	1.28	0.000494	± 2.5	PASS
	HCH	VL	TN	1.5	0.000558	± 2.5	PASS
		VN	TN	3.74	0.001392	± 2.5	PASS
		VH	TN	1.51	0.000562	± 2.5	PASS
16QAM	LCH	VL	TN	2.33	0.000933	± 2.5	PASS
		VN	TN	1.15	0.000460	± 2.5	PASS
		VH	TN	0.35	0.000140	± 2.5	PASS
	MCH	VL	TN	3.85	0.001485	± 2.5	PASS
		VN	TN	1.39	0.000536	± 2.5	PASS
		VH	TN	3.33	0.001284	± 2.5	PASS
	HCH	VL	TN	2.46	0.000915	± 2.5	PASS
		VN	TN	2.87	0.001068	± 2.5	PASS
		VH	TN	4.2	0.001563	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.84	-0.000736	± 2.5	PASS
		VN	-20	1.92	0.000768	± 2.5	PASS
		VN	-10	-0.73	-0.000292	± 2.5	PASS
		VN	0	-1.64	-0.000656	± 2.5	PASS
		VN	10	4.02	0.001609	± 2.5	PASS
		VN	20	4.42	0.001769	± 2.5	PASS
		VN	30	0.87	0.000348	± 2.5	PASS
		VN	40	4.17	0.001669	± 2.5	PASS
		VN	50	3.64	0.001457	± 2.5	PASS
	MCH	VN	-30	-1.46	-0.000563	± 2.5	PASS

		VN	-20	0.97	0.000374	± 2.5	PASS
		VN	-10	2.48	0.000956	± 2.5	PASS
		VN	0	2.49	0.000960	± 2.5	PASS
		VN	10	3.86	0.001489	± 2.5	PASS
		VN	20	0	0.000000	± 2.5	PASS
		VN	30	0.19	0.000073	± 2.5	PASS
		VN	40	2.17	0.000837	± 2.5	PASS
		VN	50	-0.86	-0.000332	± 2.5	PASS
	HCH	VN	-30	-0.94	-0.000350	± 2.5	PASS
		VN	-20	1.63	0.000607	± 2.5	PASS
		VN	-10	1.07	0.000398	± 2.5	PASS
		VN	0	2.18	0.000811	± 2.5	PASS
		VN	10	-0.79	-0.000294	± 2.5	PASS
		VN	20	2.4	0.000893	± 2.5	PASS
		VN	30	2.02	0.000752	± 2.5	PASS
		VN	40	2.91	0.001083	± 2.5	PASS
		VN	50	1.85	0.000688	± 2.5	PASS
16QAM	LCH	VN	-30	2.55	0.001021	± 2.5	PASS
		VN	-20	-1.76	-0.000704	± 2.5	PASS
		VN	-10	-0.77	-0.000308	± 2.5	PASS
		VN	0	-1.76	-0.000704	± 2.5	PASS
		VN	10	2.67	0.001069	± 2.5	PASS
		VN	20	0.27	0.000108	± 2.5	PASS
		VN	30	4.47	0.001789	± 2.5	PASS
		VN	40	-0.72	-0.000288	± 2.5	PASS
		VN	50	-1.99	-0.000796	± 2.5	PASS
	MCH	VN	-30	-0.23	-0.000089	± 2.5	PASS
		VN	-20	3.03	0.001169	± 2.5	PASS
		VN	-10	1.36	0.000524	± 2.5	PASS
		VN	0	1.1	0.000424	± 2.5	PASS
		VN	10	-0.41	-0.000158	± 2.5	PASS
		VN	20	-1.52	-0.000586	± 2.5	PASS
		VN	30	0.05	0.000019	± 2.5	PASS
		VN	40	2.04	0.000787	± 2.5	PASS
		VN	50	0.92	0.000355	± 2.5	PASS
	HCH	VN	-30	2.48	0.000923	± 2.5	PASS
		VN	-20	-0.52	-0.000193	± 2.5	PASS
		VN	-10	-1.27	-0.000473	± 2.5	PASS
		VN	0	1.9	0.000707	± 2.5	PASS
		VN	10	-1.66	-0.000618	± 2.5	PASS
		VN	20	3.08	0.001146	± 2.5	PASS

		VN	30	0.06	0.000022	± 2.5	PASS
		VN	40	2.8	0.001042	± 2.5	PASS
		VN	50	-11.63	-0.004327	± 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	1.86	0.000744	± 2.5	PASS
		VN	TN	4.44	0.001775	± 2.5	PASS
		VH	TN	2.25	0.000900	± 2.5	PASS
	MCH	VL	TN	2.14	0.000825	± 2.5	PASS
		VN	TN	4.83	0.001863	± 2.5	PASS
		VH	TN	-0.23	-0.000089	± 2.5	PASS
	HCH	VL	TN	-0.34	-0.000127	± 2.5	PASS
		VN	TN	2.17	0.000808	± 2.5	PASS
		VH	TN	3.23	0.001203	± 2.5	PASS
16QAM	LCH	VL	TN	0.15	0.000060	± 2.5	PASS
		VN	TN	1.09	0.000436	± 2.5	PASS
		VH	TN	3.13	0.001251	± 2.5	PASS
	MCH	VL	TN	3.55	0.001369	± 2.5	PASS
		VN	TN	1.43	0.000551	± 2.5	PASS
		VH	TN	1.73	0.000667	± 2.5	PASS
	HCH	VL	TN	1.54	0.000574	± 2.5	PASS
		VN	TN	4.76	0.001773	± 2.5	PASS
		VH	TN	3.84	0.001430	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.84	0.001136	± 2.5	PASS
		VN	-20	4.77	0.001907	± 2.5	PASS
		VN	-10	-1.81	-0.000724	± 2.5	PASS
		VN	0	-0.1	-0.000040	± 2.5	PASS
		VN	10	-1.67	-0.000668	± 2.5	PASS
		VN	20	1.46	0.000584	± 2.5	PASS
		VN	30	-1.13	-0.000452	± 2.5	PASS
		VN	40	-1.79	-0.000716	± 2.5	PASS
		VN	50	1.68	0.000672	± 2.5	PASS
	MCH	VN	-30	1.02	0.000393	± 2.5	PASS
		VN	-20	-1	-0.000386	± 2.5	PASS

		VN	-10	1.51	0.000582	± 2.5	PASS
		VN	0	3.72	0.001435	± 2.5	PASS
		VN	10	2.9	0.001118	± 2.5	PASS
		VN	20	2.11	0.000814	± 2.5	PASS
		VN	30	2.52	0.000972	± 2.5	PASS
		VN	40	3.97	0.001531	± 2.5	PASS
		VN	50	-0.49	-0.000189	± 2.5	PASS
	HCH	VN	-30	-0.81	-0.000302	± 2.5	PASS
		VN	-20	3.75	0.001397	± 2.5	PASS
		VN	-10	0.69	0.000257	± 2.5	PASS
		VN	0	0.77	0.000287	± 2.5	PASS
		VN	10	4.64	0.001728	± 2.5	PASS
		VN	20	3.48	0.001296	± 2.5	PASS
		VN	30	1.22	0.000454	± 2.5	PASS
		VN	40	3.32	0.001236	± 2.5	PASS
		VN	50	2.08	0.000775	± 2.5	PASS
QPSK	LCH	VN	-30	-1.65	-0.000660	± 2.5	PASS
		VN	-20	0.78	0.000312	± 2.5	PASS
		VN	-10	3.03	0.001212	± 2.5	PASS
		VN	0	0.98	0.000392	± 2.5	PASS
		VN	10	-1.75	-0.000700	± 2.5	PASS
		VN	20	1.74	0.000696	± 2.5	PASS
		VN	30	3.86	0.001543	± 2.5	PASS
		VN	40	-0.07	-0.000028	± 2.5	PASS
		VN	50	3.38	0.001351	± 2.5	PASS
	MCH	VN	-30	1.59	0.000613	± 2.5	PASS
		VN	-20	4.69	0.001809	± 2.5	PASS
		VN	-10	2.14	0.000825	± 2.5	PASS
		VN	0	-0.43	-0.000166	± 2.5	PASS
		VN	10	-0.64	-0.000247	± 2.5	PASS
		VN	20	0.16	0.000062	± 2.5	PASS
		VN	30	0.84	0.000324	± 2.5	PASS
		VN	40	4.61	0.001778	± 2.5	PASS
		VN	50	4.93	0.001901	± 2.5	PASS
	HCH	VN	-30	0.87	0.000324	± 2.5	PASS
		VN	-20	0.03	0.000011	± 2.5	PASS
		VN	-10	4.01	0.001493	± 2.5	PASS
		VN	0	-0.9	-0.000335	± 2.5	PASS
		VN	10	-0.5	-0.000186	± 2.5	PASS
		VN	20	2.79	0.001039	± 2.5	PASS
		VN	30	4.05	0.001508	± 2.5	PASS

		VN	40	3.03	0.001128	± 2.5	PASS
		VN	50	-11.63	-0.004331	± 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	-0.24	-0.000096	± 2.5	PASS
		VN	TN	2.52	0.001007	± 2.5	PASS
		VH	TN	0.24	0.000096	± 2.5	PASS
	MCH	VL	TN	0.93	0.000359	± 2.5	PASS
		VN	TN	2.18	0.000841	± 2.5	PASS
		VH	TN	-0.4	-0.000154	± 2.5	PASS
	HCH	VL	TN	-1.68	-0.000626	± 2.5	PASS
		VN	TN	3.58	0.001335	± 2.5	PASS
		VH	TN	-1.92	-0.000716	± 2.5	PASS
16QAM	LCH	VL	TN	3.06	0.001222	± 2.5	PASS
		VN	TN	2.13	0.000851	± 2.5	PASS
		VH	TN	0.01	0.000004	± 2.5	PASS
	MCH	VL	TN	2.28	0.000879	± 2.5	PASS
		VN	TN	-1.33	-0.000513	± 2.5	PASS
		VH	TN	-0.92	-0.000355	± 2.5	PASS
	HCH	VL	TN	-1.25	-0.000466	± 2.5	PASS
		VN	TN	1.4	0.000522	± 2.5	PASS
		VH	TN	2.12	0.000790	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.53	0.000611	± 2.5	PASS
		VN	-20	3.37	0.001346	± 2.5	PASS
		VN	-10	2.42	0.000967	± 2.5	PASS
		VN	0	3.51	0.001402	± 2.5	PASS
		VN	10	0.35	0.000140	± 2.5	PASS
		VN	20	3.16	0.001262	± 2.5	PASS
		VN	30	2.72	0.001086	± 2.5	PASS
		VN	40	3.44	0.001374	± 2.5	PASS
		VN	50	1.17	0.000467	± 2.5	PASS
	MCH	VN	-30	1.92	0.000740	± 2.5	PASS
		VN	-20	-0.82	-0.000316	± 2.5	PASS
		VN	-10	0.58	0.000224	± 2.5	PASS

		VN	0	4.24	0.001635	± 2.5	PASS
		VN	10	1.19	0.000459	± 2.5	PASS
		VN	20	-0.39	-0.000150	± 2.5	PASS
		VN	30	-0.68	-0.000262	± 2.5	PASS
		VN	40	1.86	0.000717	± 2.5	PASS
		VN	50	2.96	0.001142	± 2.5	PASS
	HCH	VN	-30	1.71	0.000637	± 2.5	PASS
		VN	-20	-1.47	-0.000548	± 2.5	PASS
		VN	-10	4.39	0.001637	± 2.5	PASS
		VN	0	0.22	0.000082	± 2.5	PASS
		VN	10	-0.43	-0.000160	± 2.5	PASS
		VN	20	1.92	0.000716	± 2.5	PASS
		VN	30	4.33	0.001614	± 2.5	PASS
		VN	40	-1.38	-0.000514	± 2.5	PASS
		VN	50	1.8	0.000671	± 2.5	PASS
16QAM	LCH	VN	-30	0.2	0.000080	± 2.5	PASS
		VN	-20	0.92	0.000367	± 2.5	PASS
		VN	-10	2.67	0.001067	± 2.5	PASS
		VN	0	-1.81	-0.000723	± 2.5	PASS
		VN	10	3.47	0.001386	± 2.5	PASS
		VN	20	0.23	0.000092	± 2.5	PASS
		VN	30	0.65	0.000260	± 2.5	PASS
		VN	40	3.05	0.001218	± 2.5	PASS
		VN	50	0.08	0.000032	± 2.5	PASS
	MCH	VN	-30	0.08	0.000031	± 2.5	PASS
		VN	-20	-1.36	-0.000524	± 2.5	PASS
		VN	-10	0.62	0.000239	± 2.5	PASS
		VN	0	1.1	0.000424	± 2.5	PASS
		VN	10	2.32	0.000895	± 2.5	PASS
		VN	20	2.98	0.001149	± 2.5	PASS
		VN	30	2.38	0.000918	± 2.5	PASS
		VN	40	2.12	0.000818	± 2.5	PASS
		VN	50	4.25	0.001639	± 2.5	PASS
	HCH	VN	-30	2.97	0.001107	± 2.5	PASS
		VN	-20	2.37	0.000884	± 2.5	PASS
		VN	-10	1.79	0.000667	± 2.5	PASS
		VN	0	-1.45	-0.000541	± 2.5	PASS
		VN	10	-1.61	-0.000600	± 2.5	PASS
		VN	20	4.35	0.001622	± 2.5	PASS
		VN	30	0.44	0.000164	± 2.5	PASS
		VN	40	1.83	0.000682	± 2.5	PASS

		VN	50	-11.63	-0.004336	± 2.5	PASS
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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	-1.79	-0.000714	± 2.5	PASS
		VN	TN	-0.05	-0.000020	± 2.5	PASS
		VH	TN	4.53	0.001808	± 2.5	PASS
	MCH	VL	TN	2.09	0.000806	± 2.5	PASS
		VN	TN	-1.91	-0.000737	± 2.5	PASS
		VH	TN	-1.07	-0.000413	± 2.5	PASS
	HCH	VL	TN	0.12	0.000045	± 2.5	PASS
		VN	TN	4.4	0.001642	± 2.5	PASS
		VH	TN	-0.79	-0.000295	± 2.5	PASS
16QAM	LCH	VL	TN	-1.05	-0.000419	± 2.5	PASS
		VN	TN	3.64	0.001453	± 2.5	PASS
		VH	TN	0.38	0.000152	± 2.5	PASS
	MCH	VL	TN	1.3	0.000501	± 2.5	PASS
		VN	TN	0.98	0.000378	± 2.5	PASS
		VH	TN	-0.73	-0.000282	± 2.5	PASS
	HCH	VL	TN	-1.34	-0.000500	± 2.5	PASS
		VN	TN	1.19	0.000444	± 2.5	PASS
		VH	TN	3.49	0.001302	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.04	0.000814	± 2.5	PASS
		VN	-20	1.01	0.000403	± 2.5	PASS
		VN	-10	-1.25	-0.000499	± 2.5	PASS
		VN	0	4.99	0.001991	± 2.5	PASS
		VN	10	2.78	0.001109	± 2.5	PASS
		VN	20	4.09	0.001632	± 2.5	PASS
		VN	30	3.76	0.001500	± 2.5	PASS
		VN	40	-0.55	-0.000219	± 2.5	PASS
		VN	50	-0.6	-0.000239	± 2.5	PASS
	MCH	VN	-30	-1.71	-0.000659	± 2.5	PASS
		VN	-20	-1.86	-0.000717	± 2.5	PASS
		VN	-10	0.03	0.000012	± 2.5	PASS
		VN	0	4.33	0.001670	± 2.5	PASS

		VN	10	4.8	0.001851	± 2.5	PASS
		VN	20	3.7	0.001427	± 2.5	PASS
		VN	30	3.71	0.001431	± 2.5	PASS
		VN	40	2.39	0.000922	± 2.5	PASS
		VN	50	3.4	0.001311	± 2.5	PASS
	HCH	VN	-30	4.08	0.001522	± 2.5	PASS
		VN	-20	3.73	0.001392	± 2.5	PASS
		VN	-10	2.41	0.000899	± 2.5	PASS
		VN	0	4.15	0.001549	± 2.5	PASS
		VN	10	-0.06	-0.000022	± 2.5	PASS
		VN	20	1.66	0.000619	± 2.5	PASS
		VN	30	4.61	0.001720	± 2.5	PASS
		VN	40	-1.52	-0.000567	± 2.5	PASS
		VN	50	-0.61	-0.000228	± 2.5	PASS
16QAM	LCH	VN	-30	0.54	0.000215	± 2.5	PASS
		VN	-20	4.04	0.001612	± 2.5	PASS
		VN	-10	3.63	0.001449	± 2.5	PASS
		VN	0	4.45	0.001776	± 2.5	PASS
		VN	10	4.87	0.001943	± 2.5	PASS
		VN	20	3.99	0.001592	± 2.5	PASS
		VN	30	0.97	0.000387	± 2.5	PASS
		VN	40	-1.71	-0.000682	± 2.5	PASS
		VN	50	3.85	0.001536	± 2.5	PASS
	MCH	VN	-30	0.77	0.000297	± 2.5	PASS
		VN	-20	3.85	0.001485	± 2.5	PASS
		VN	-10	2.76	0.001064	± 2.5	PASS
		VN	0	-0.21	-0.000081	± 2.5	PASS
		VN	10	-1.51	-0.000582	± 2.5	PASS
		VN	20	2.11	0.000814	± 2.5	PASS
		VN	30	1.81	0.000698	± 2.5	PASS
		VN	40	3.08	0.001188	± 2.5	PASS
		VN	50	-1.4	-0.000540	± 2.5	PASS
	HCH	VN	-30	1.38	0.000515	± 2.5	PASS
		VN	-20	3.86	0.001440	± 2.5	PASS
		VN	-10	1.51	0.000563	± 2.5	PASS
		VN	0	1.57	0.000586	± 2.5	PASS
		VN	10	2.09	0.000780	± 2.5	PASS
		VN	20	1.34	0.000500	± 2.5	PASS
		VN	30	2.61	0.000974	± 2.5	PASS
		VN	40	2.33	0.000869	± 2.5	PASS
		VN	50	-11.63	-0.004340	± 2.5	PASS