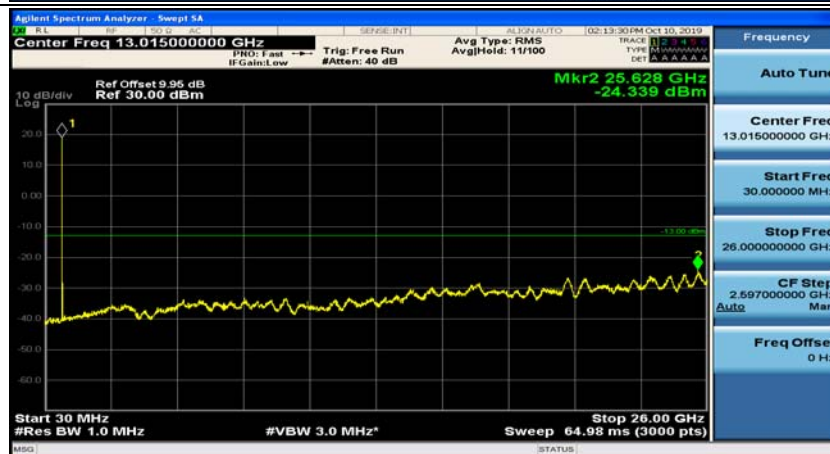
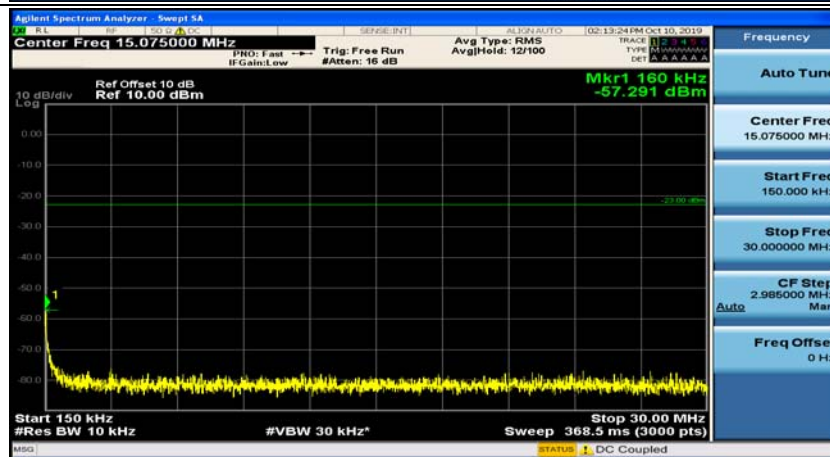
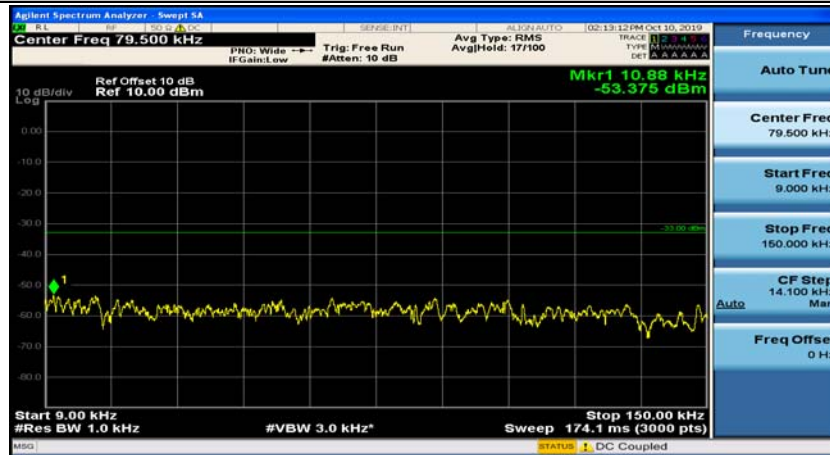
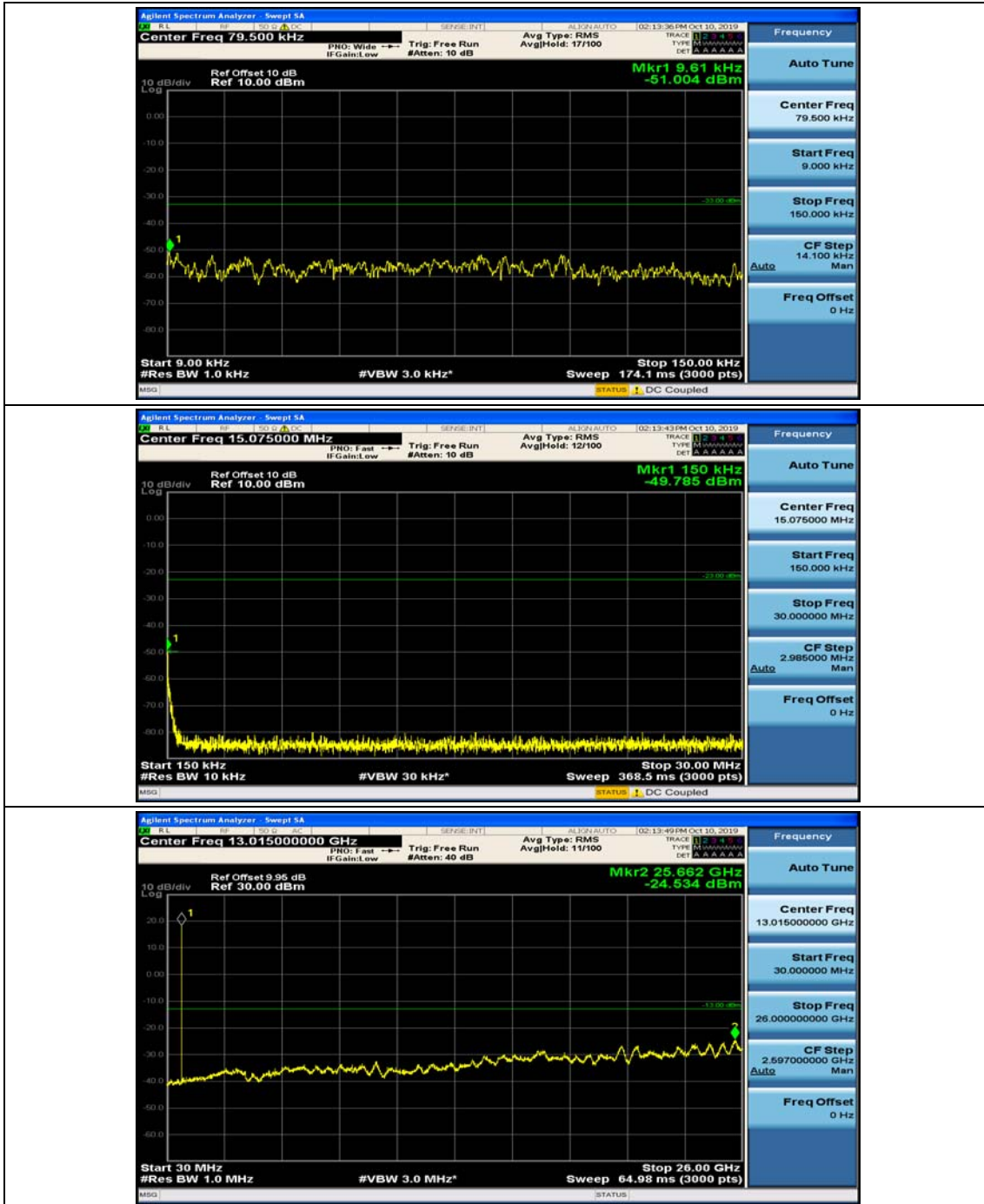


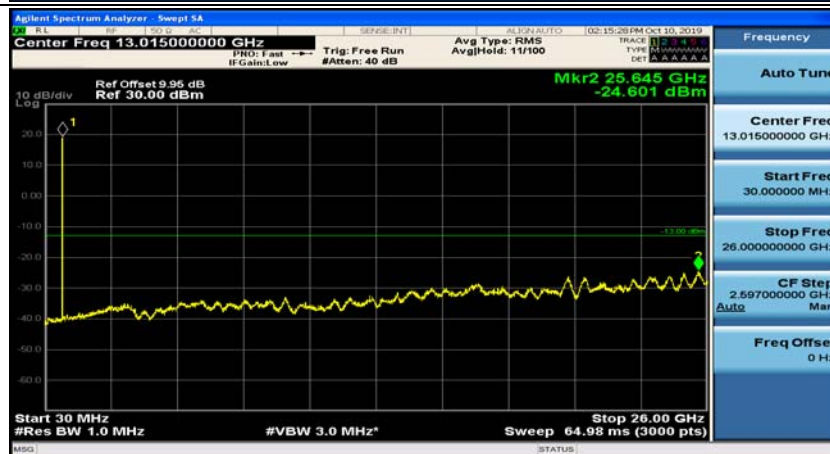
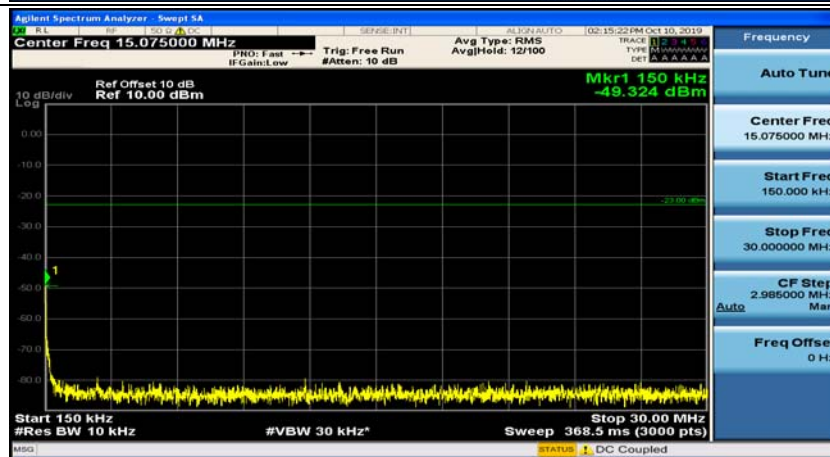
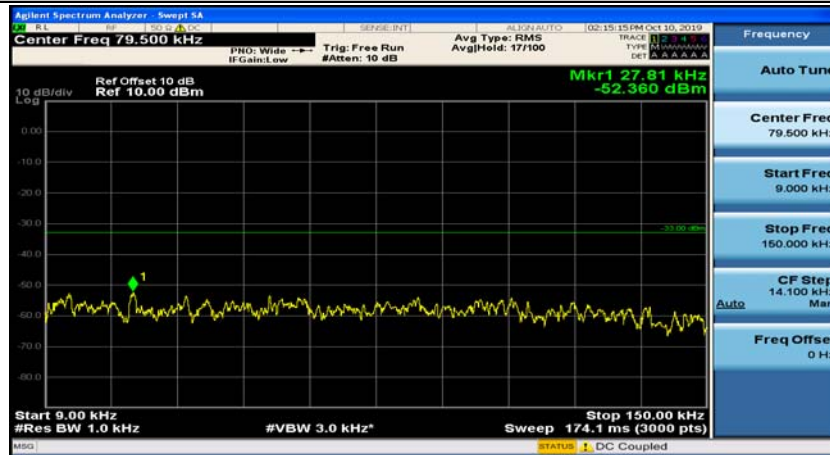
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



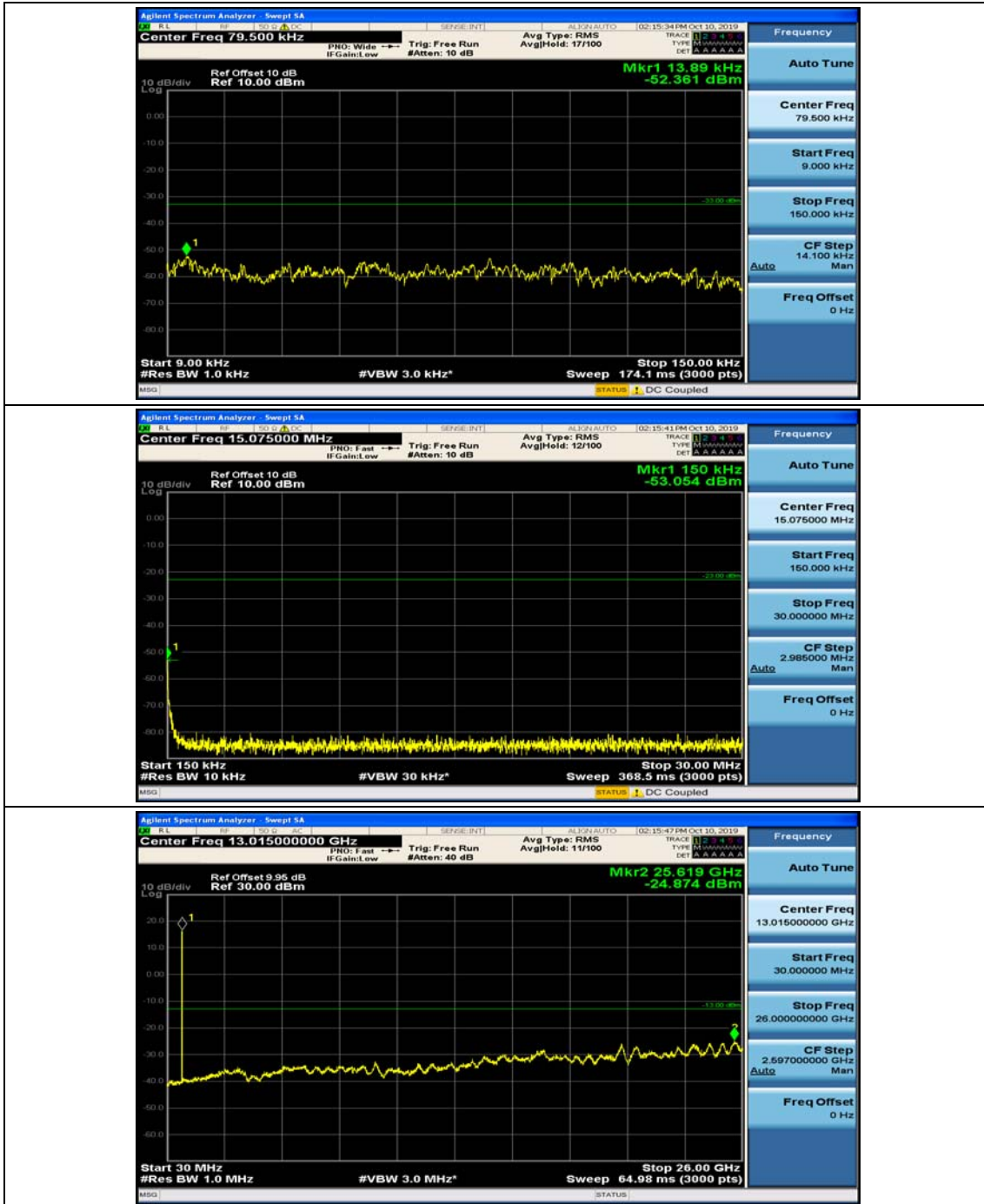
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7



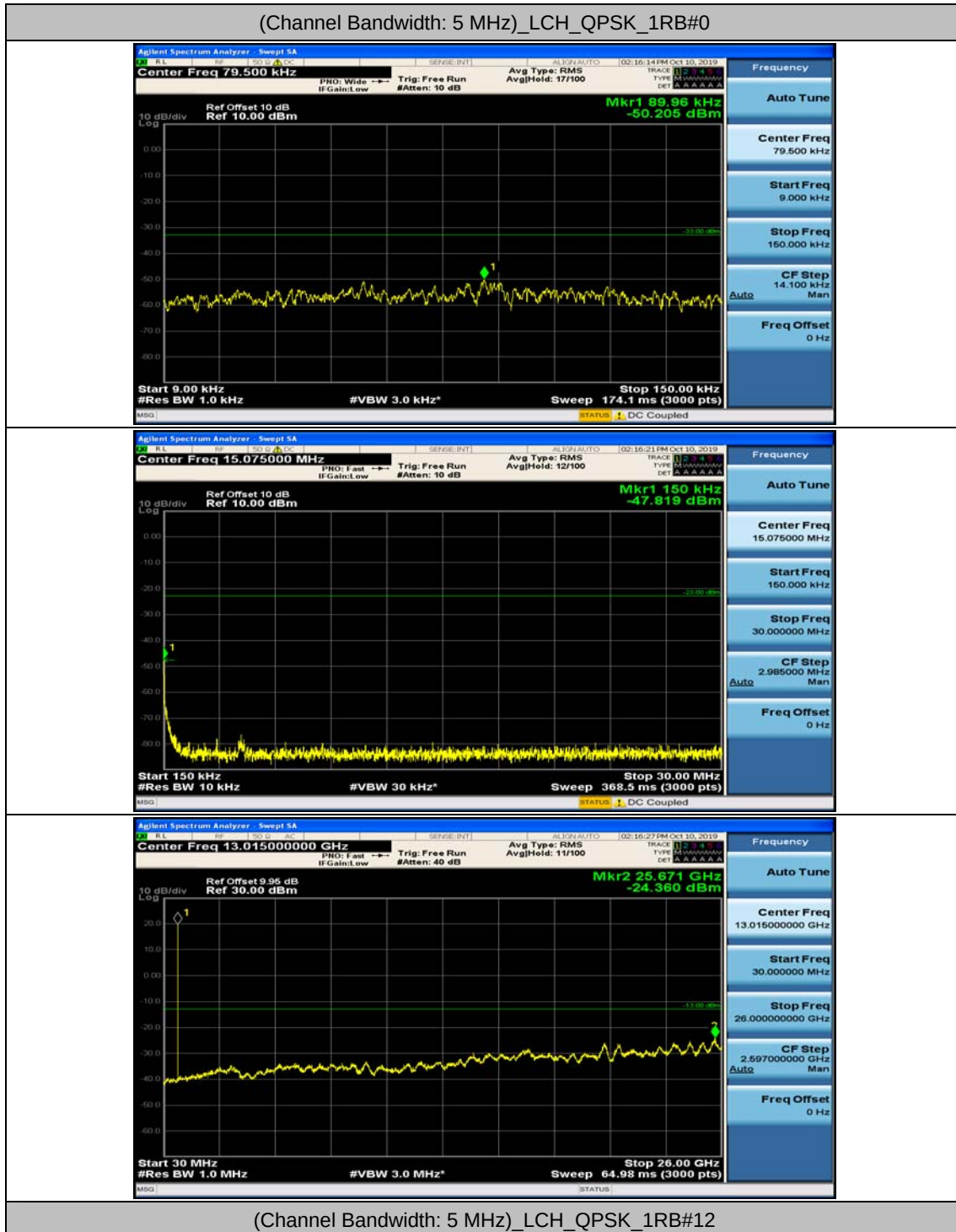
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0

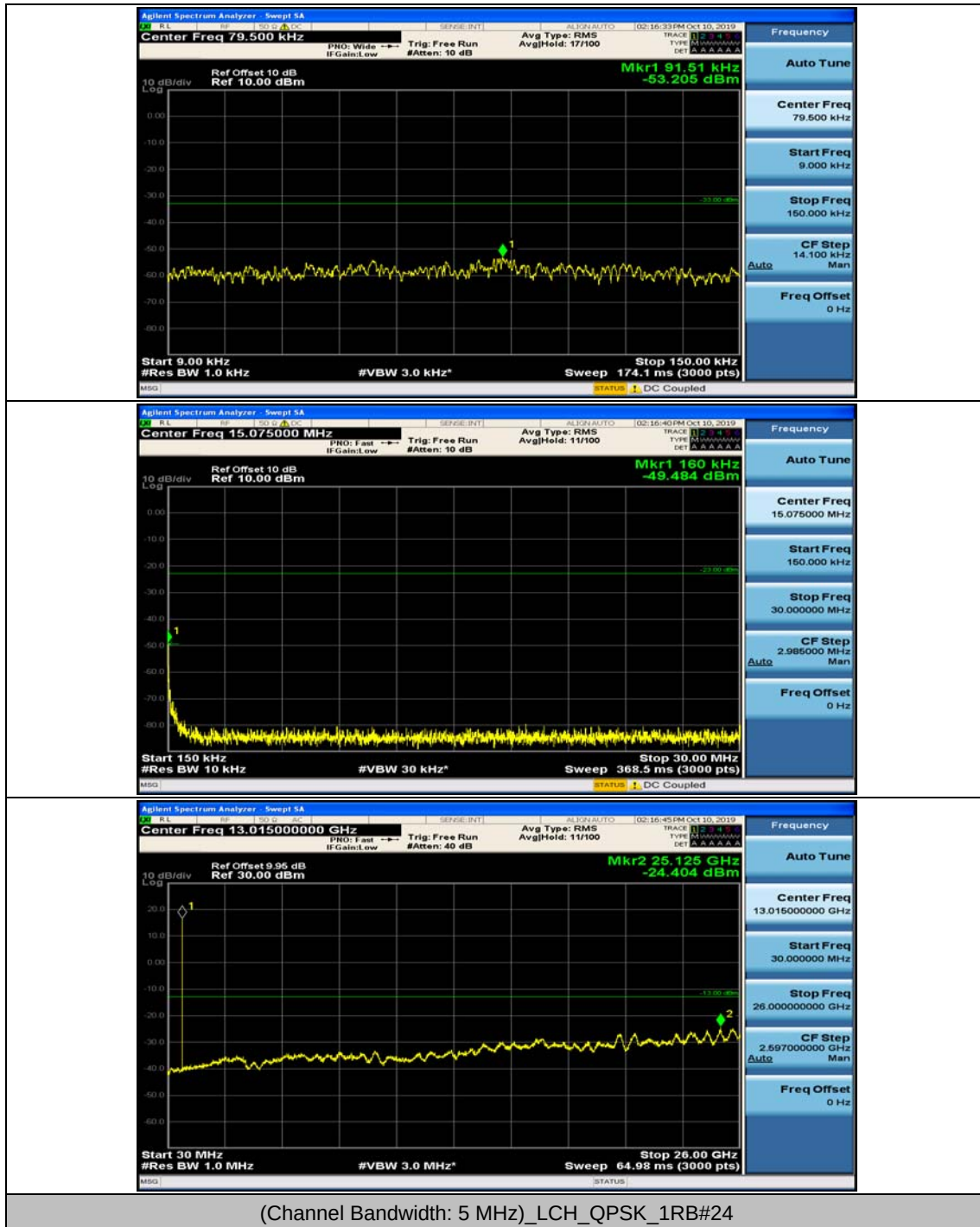


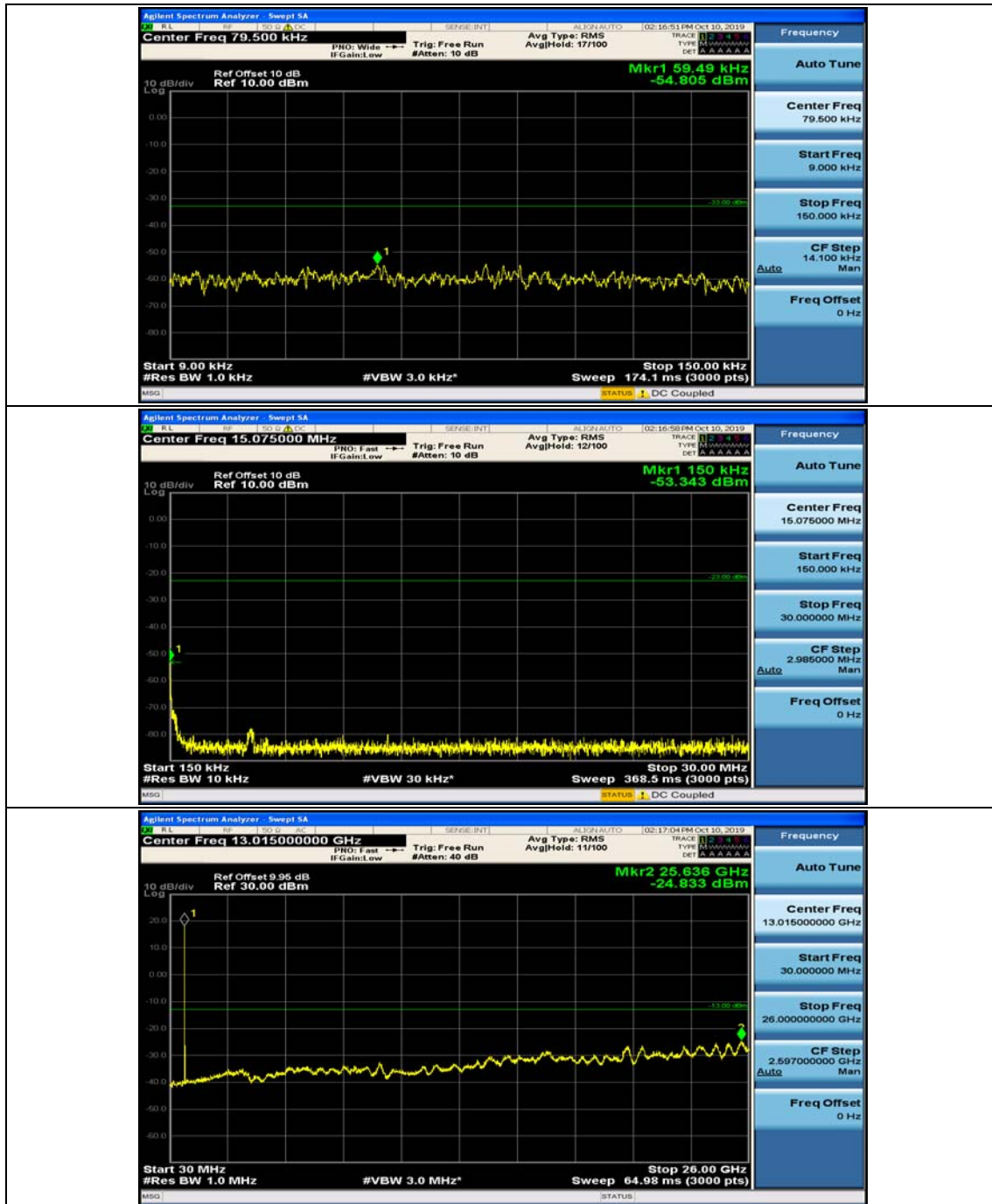
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7



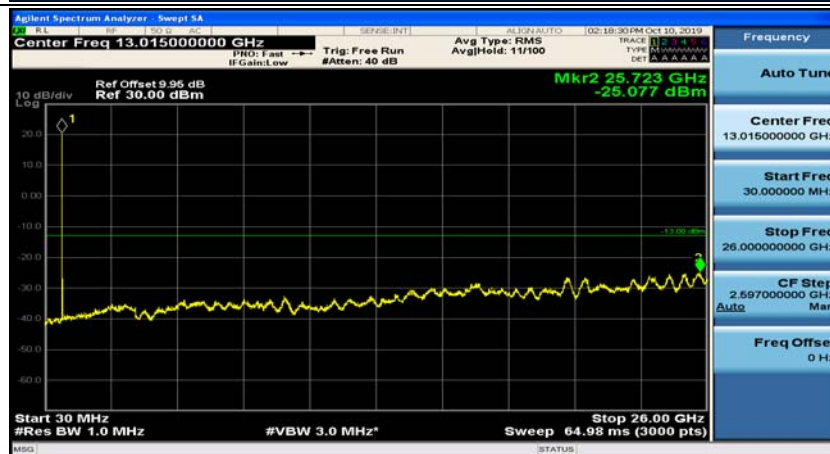
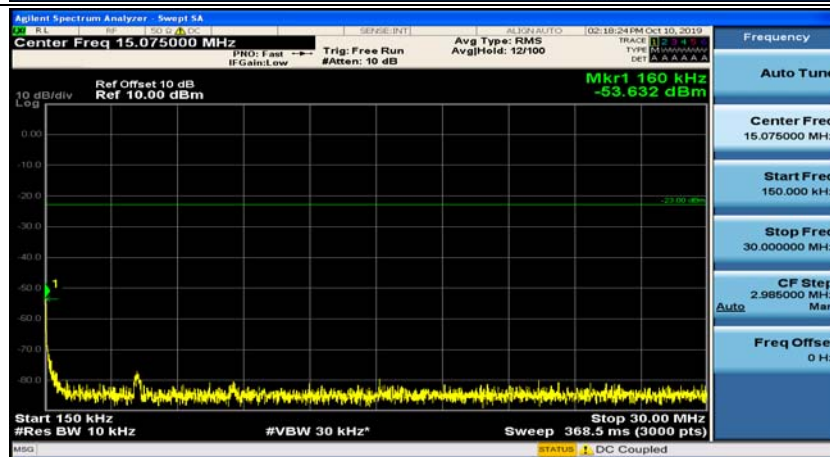
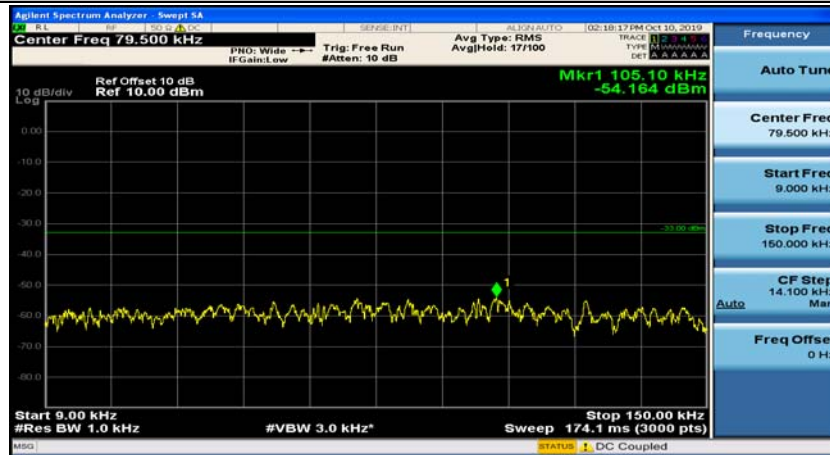
Channel Bandwidth: 5 MHz



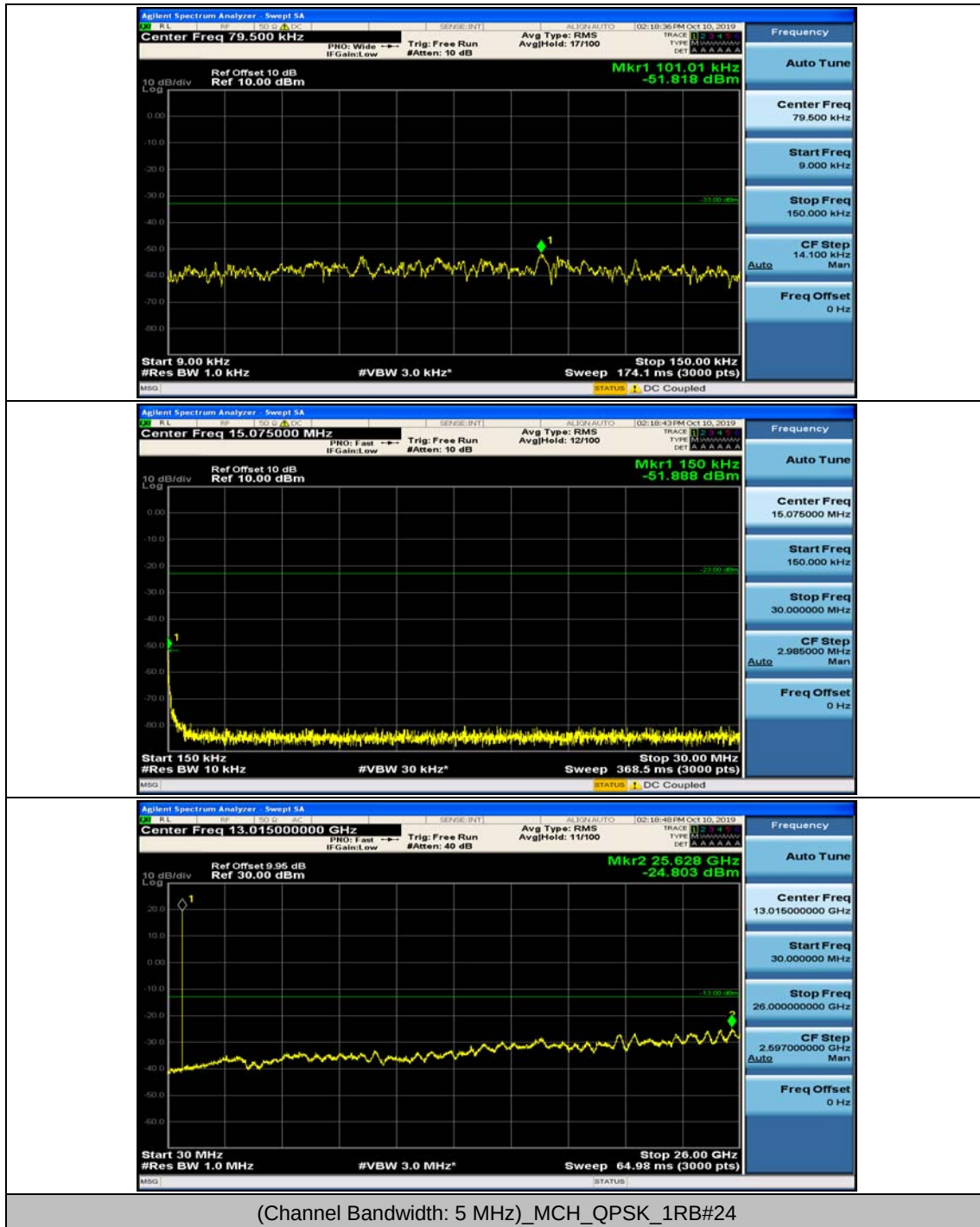


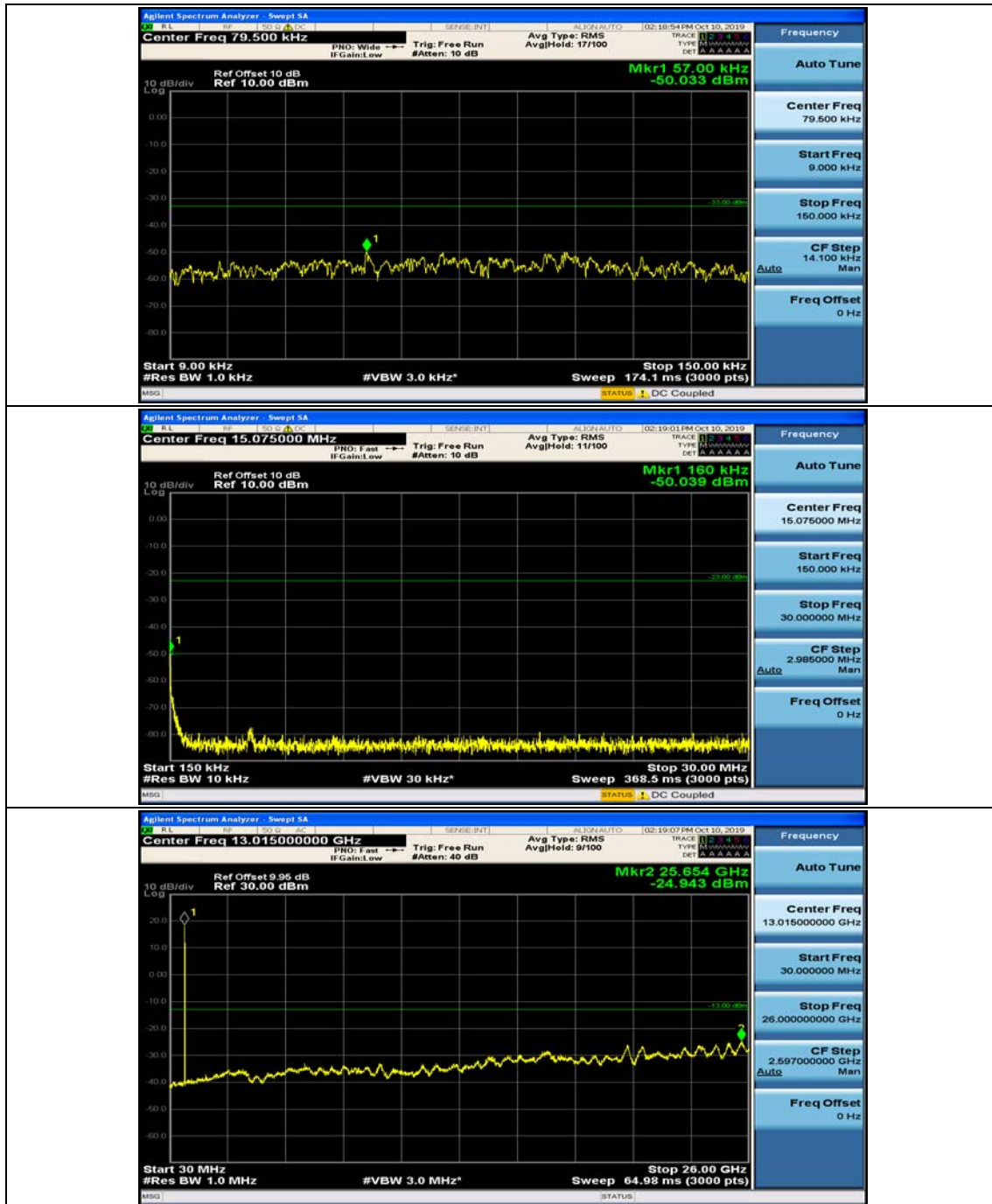


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

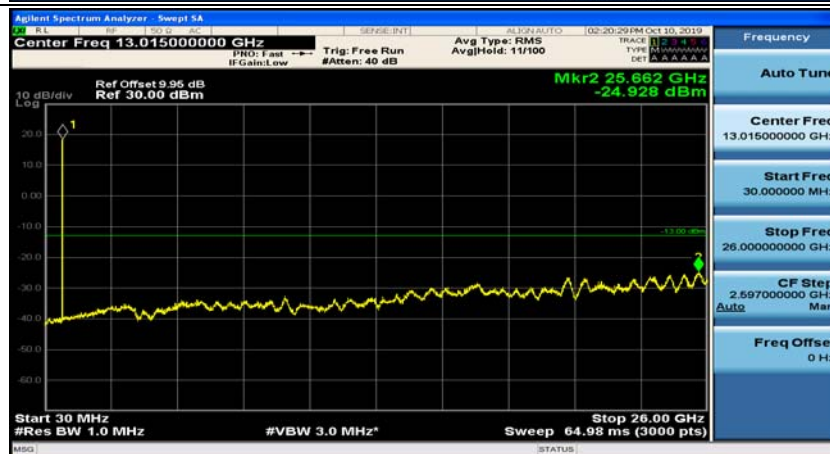
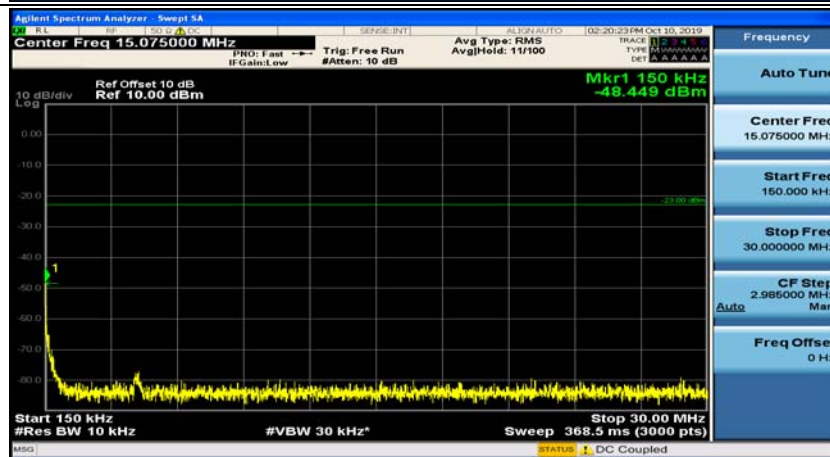


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

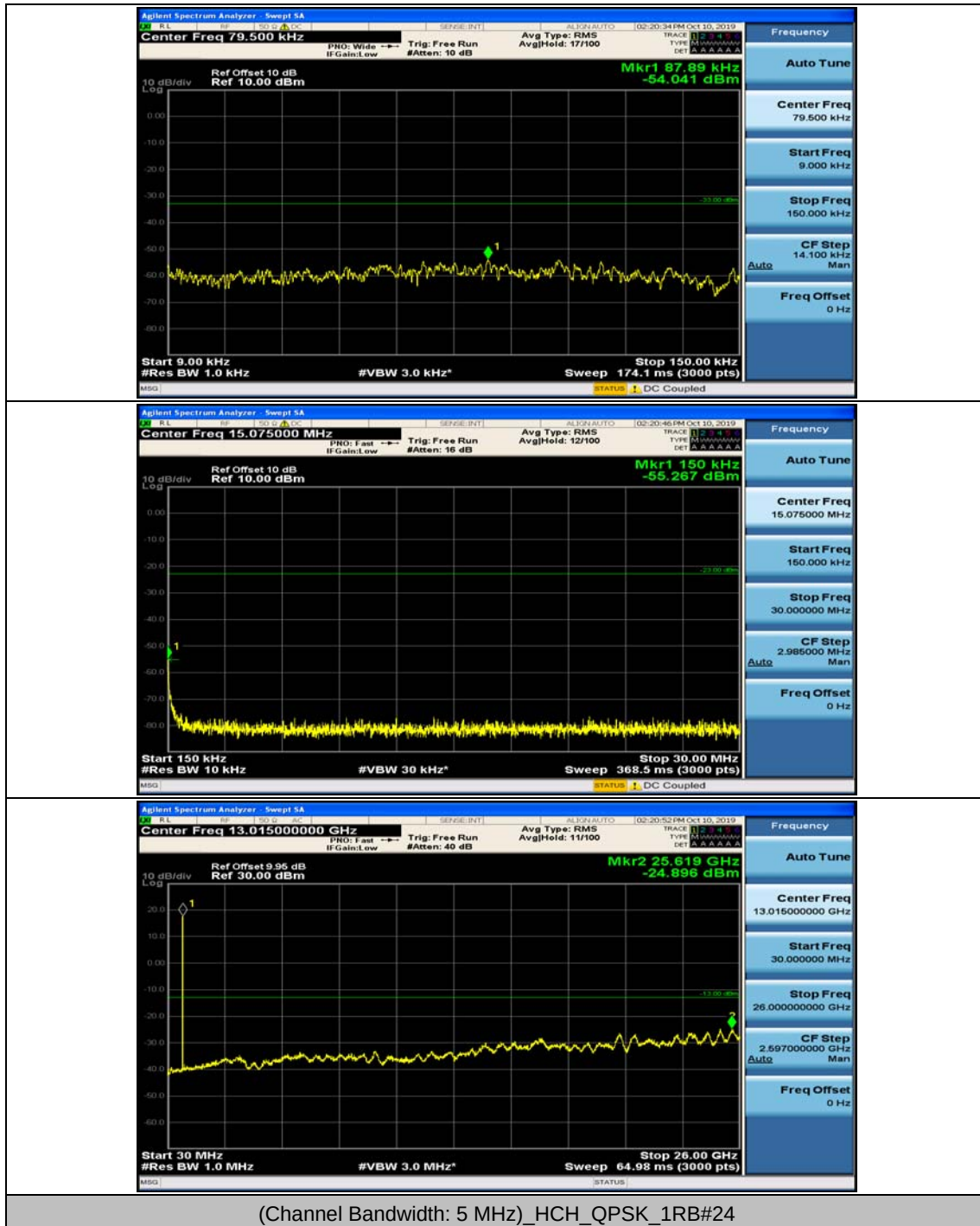


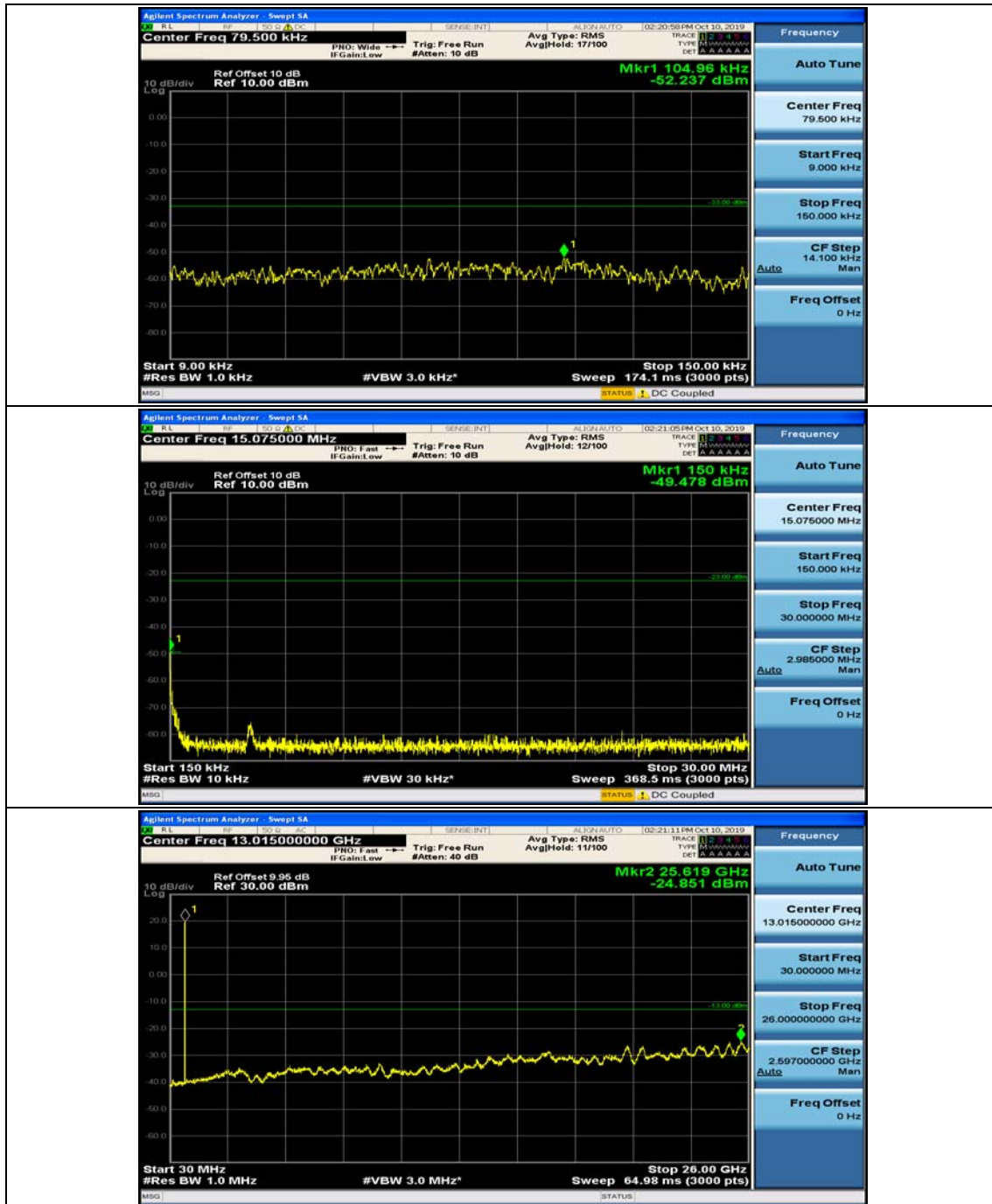


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

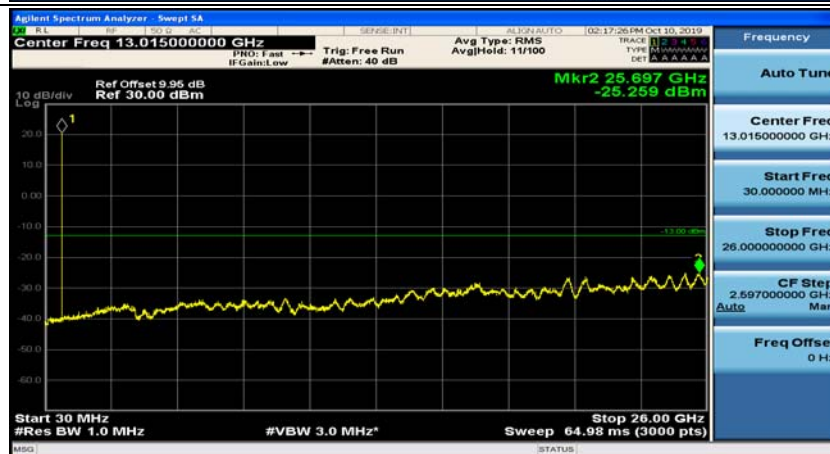
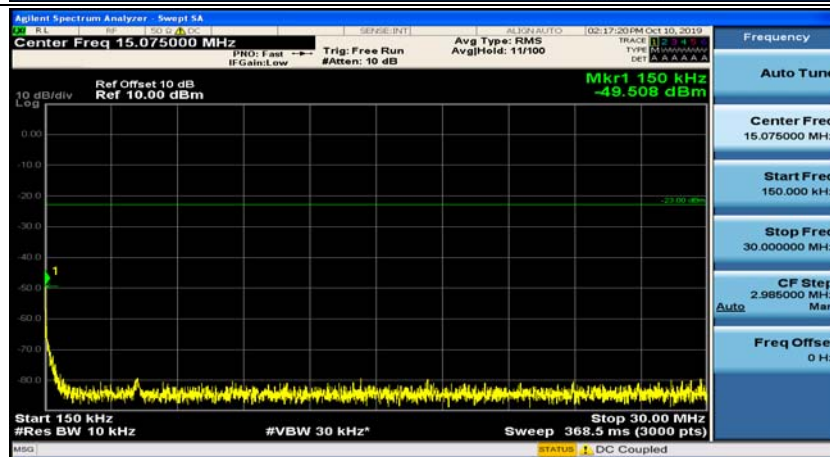


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

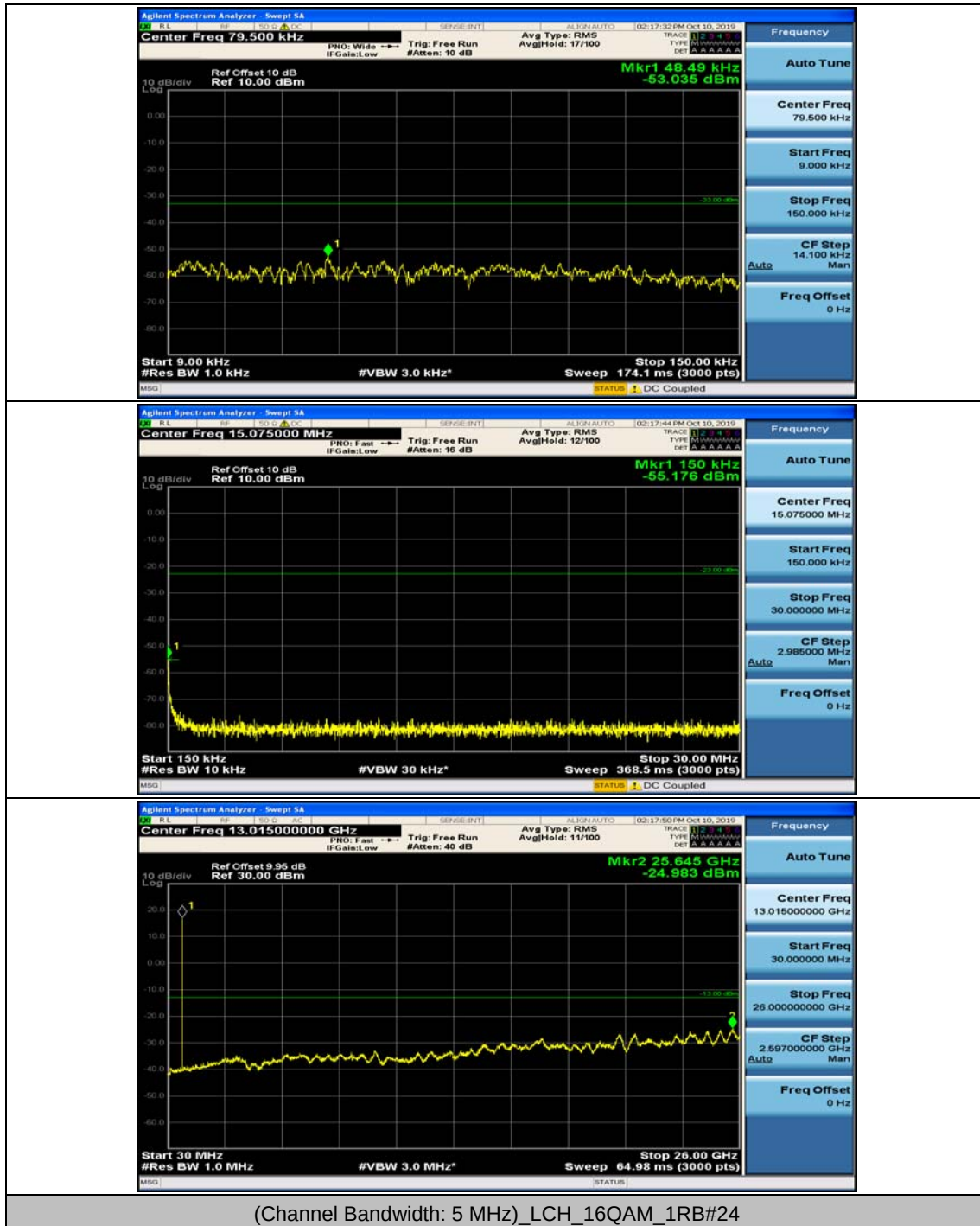


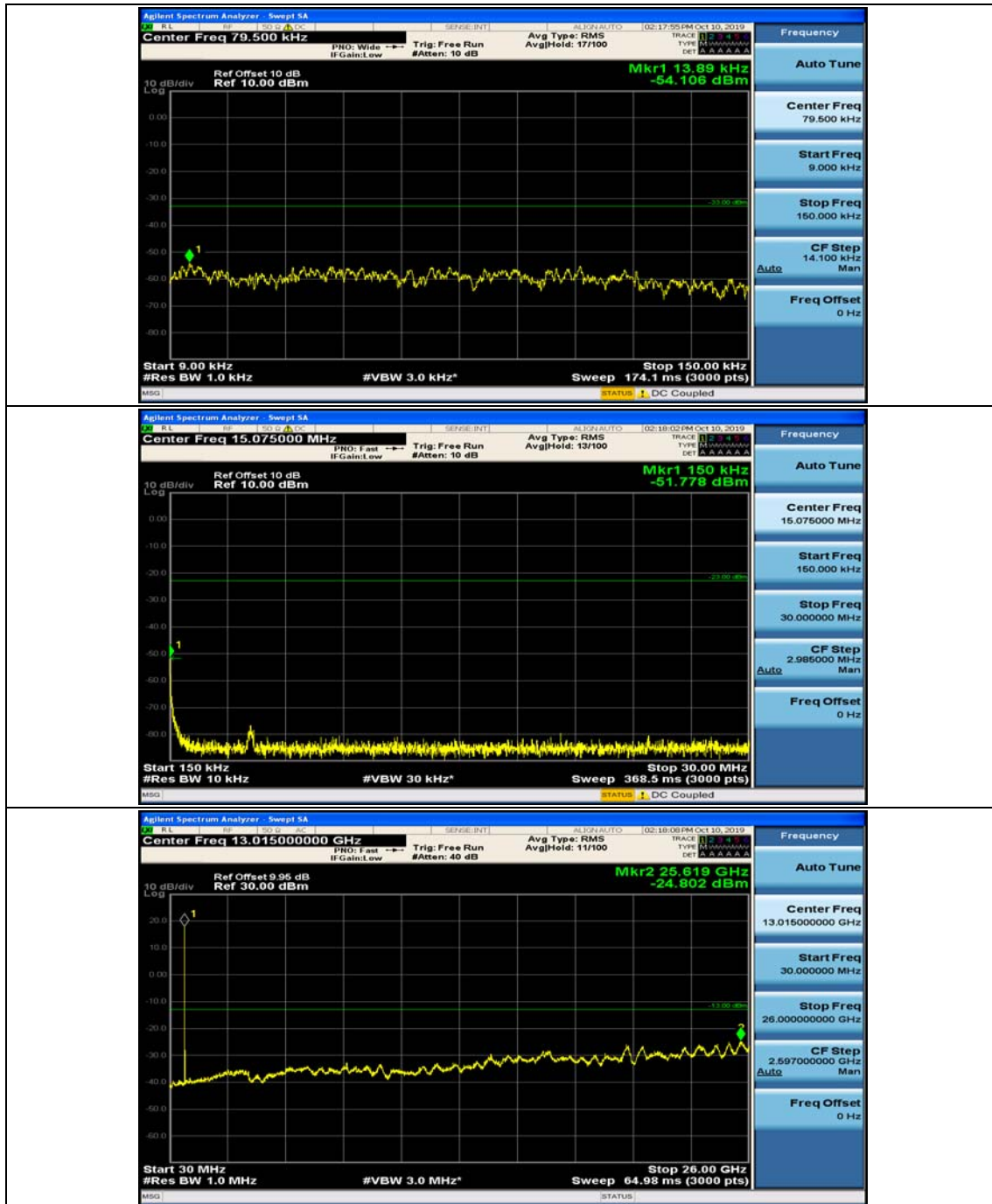


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

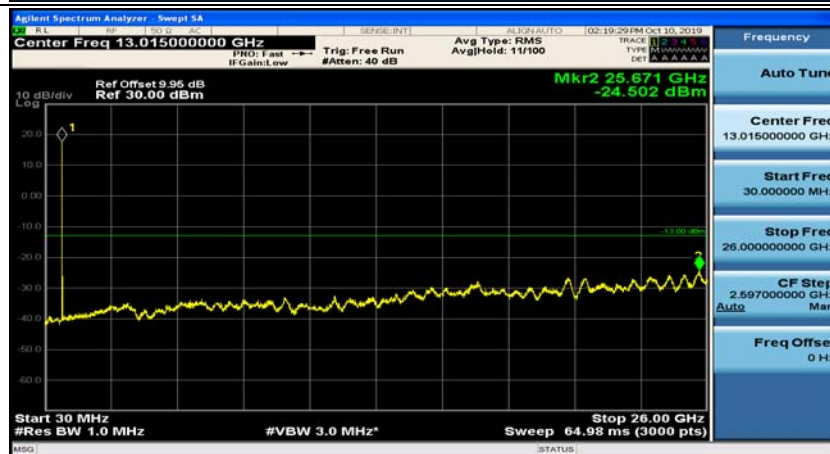
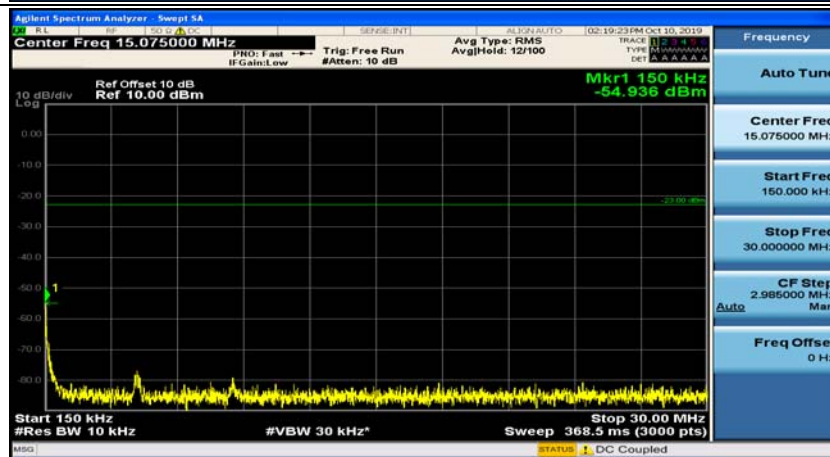
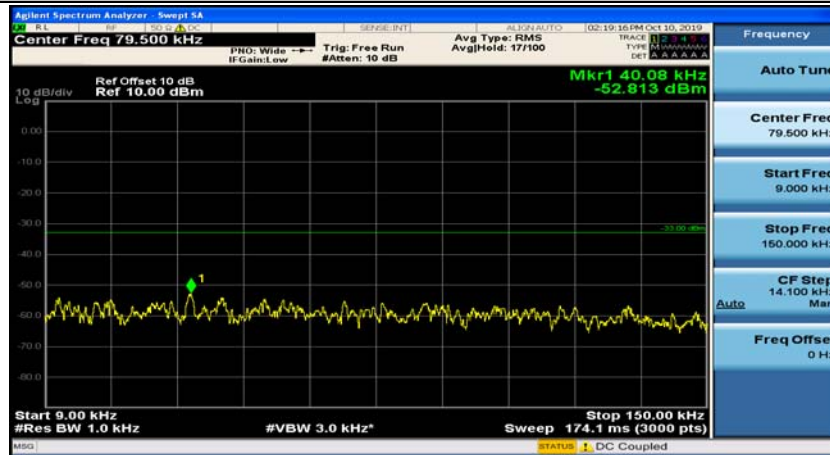


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

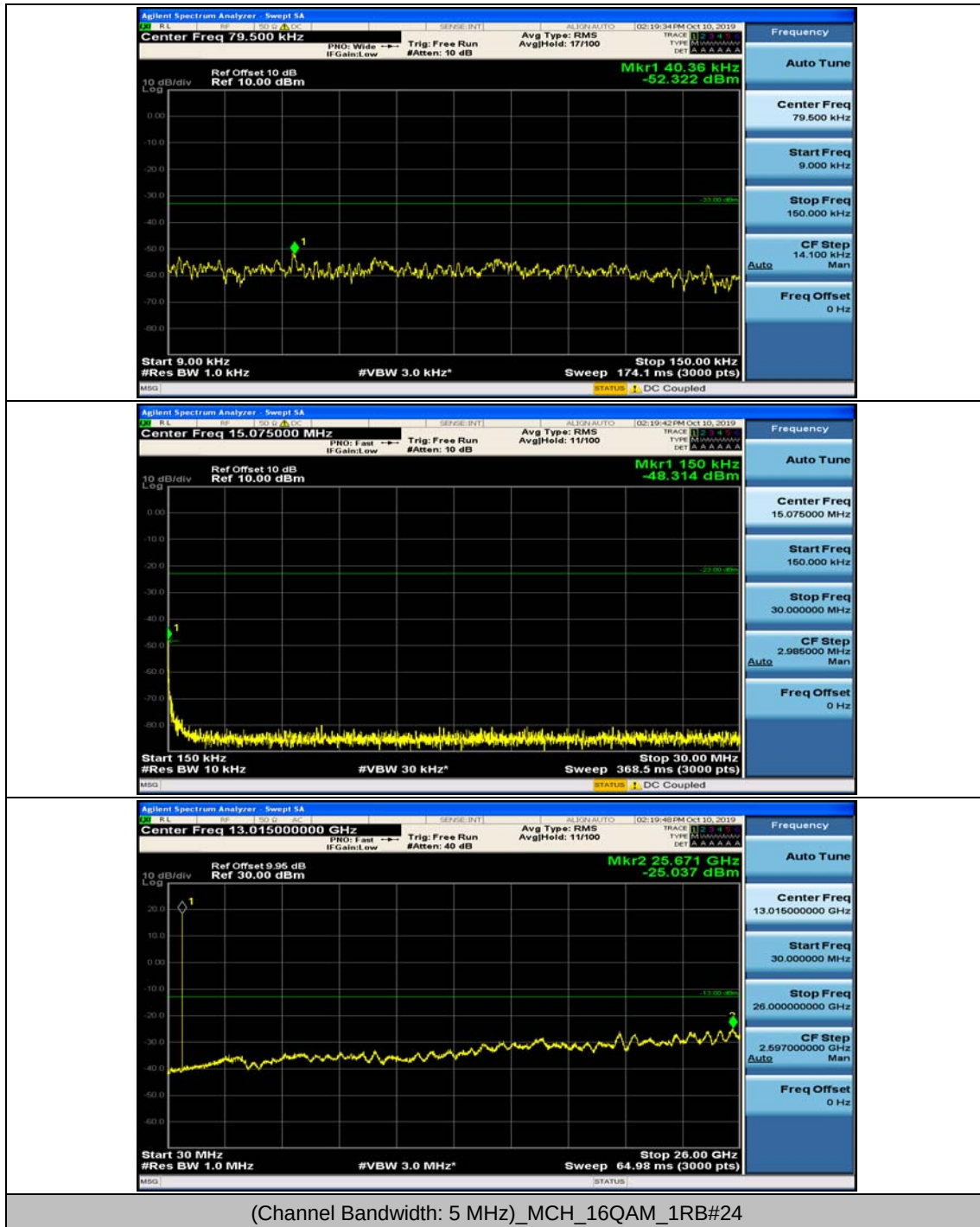


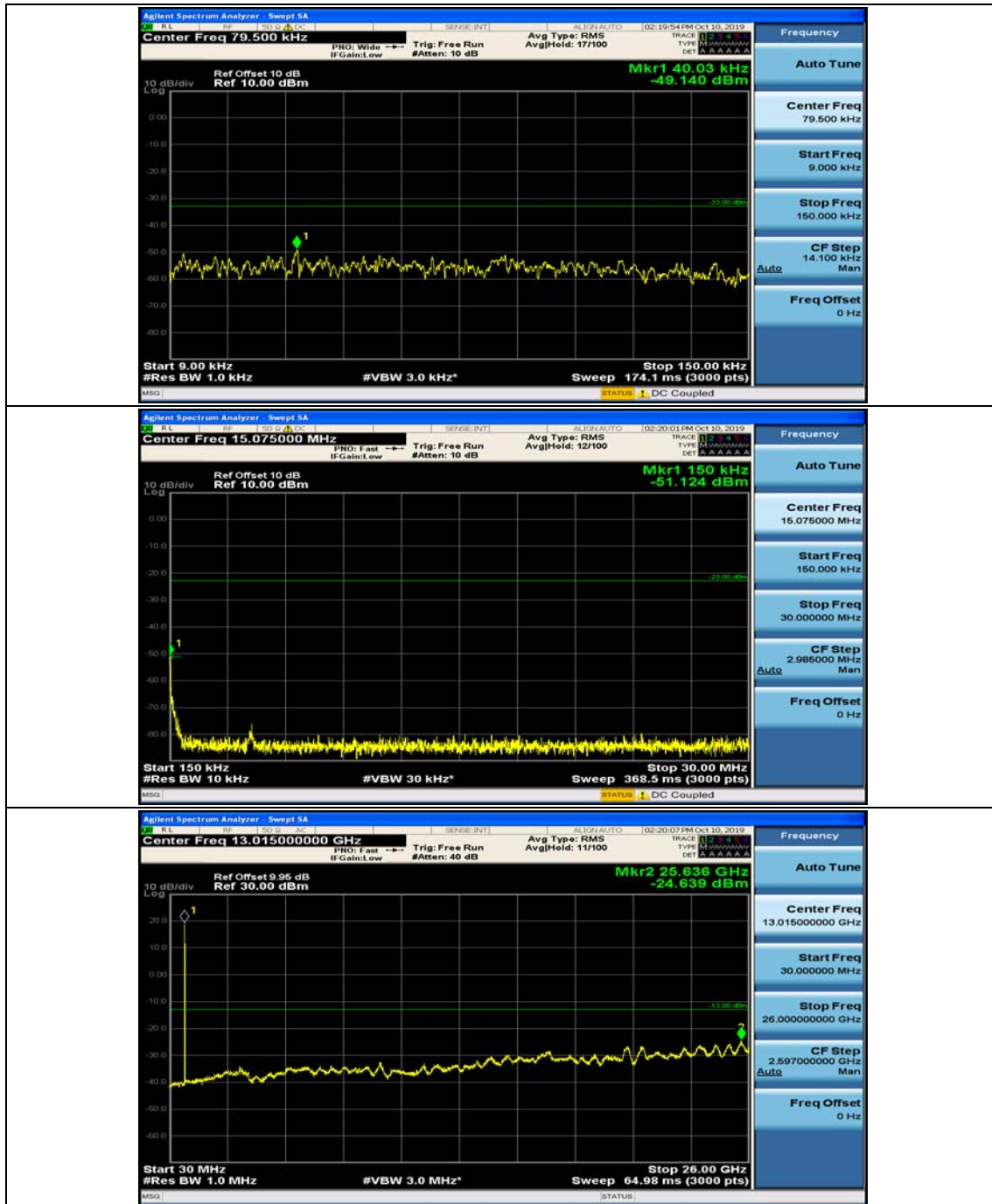


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

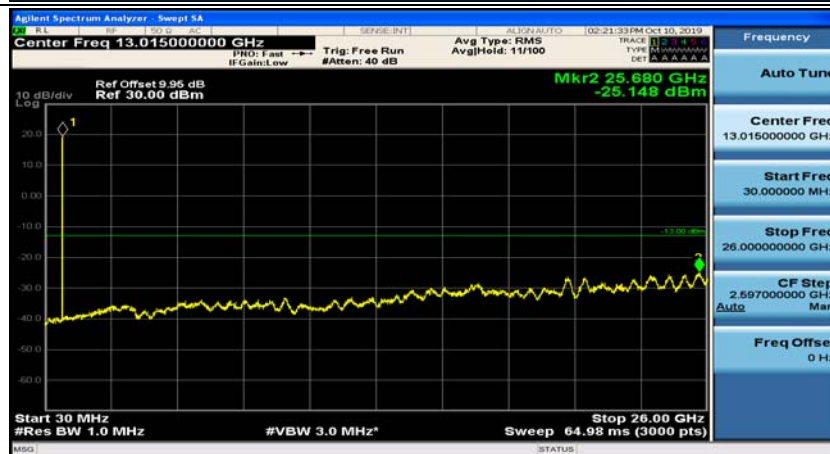
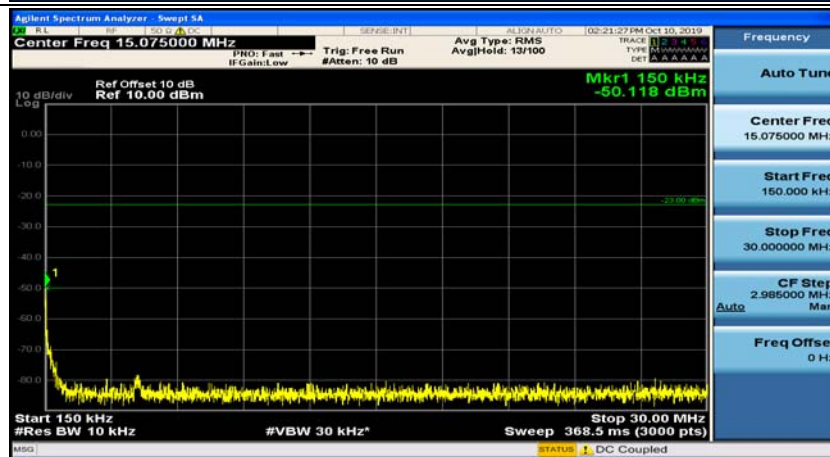
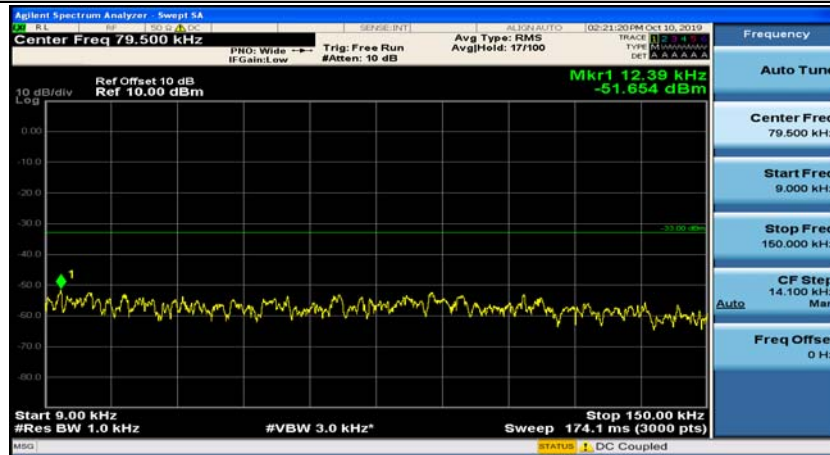


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

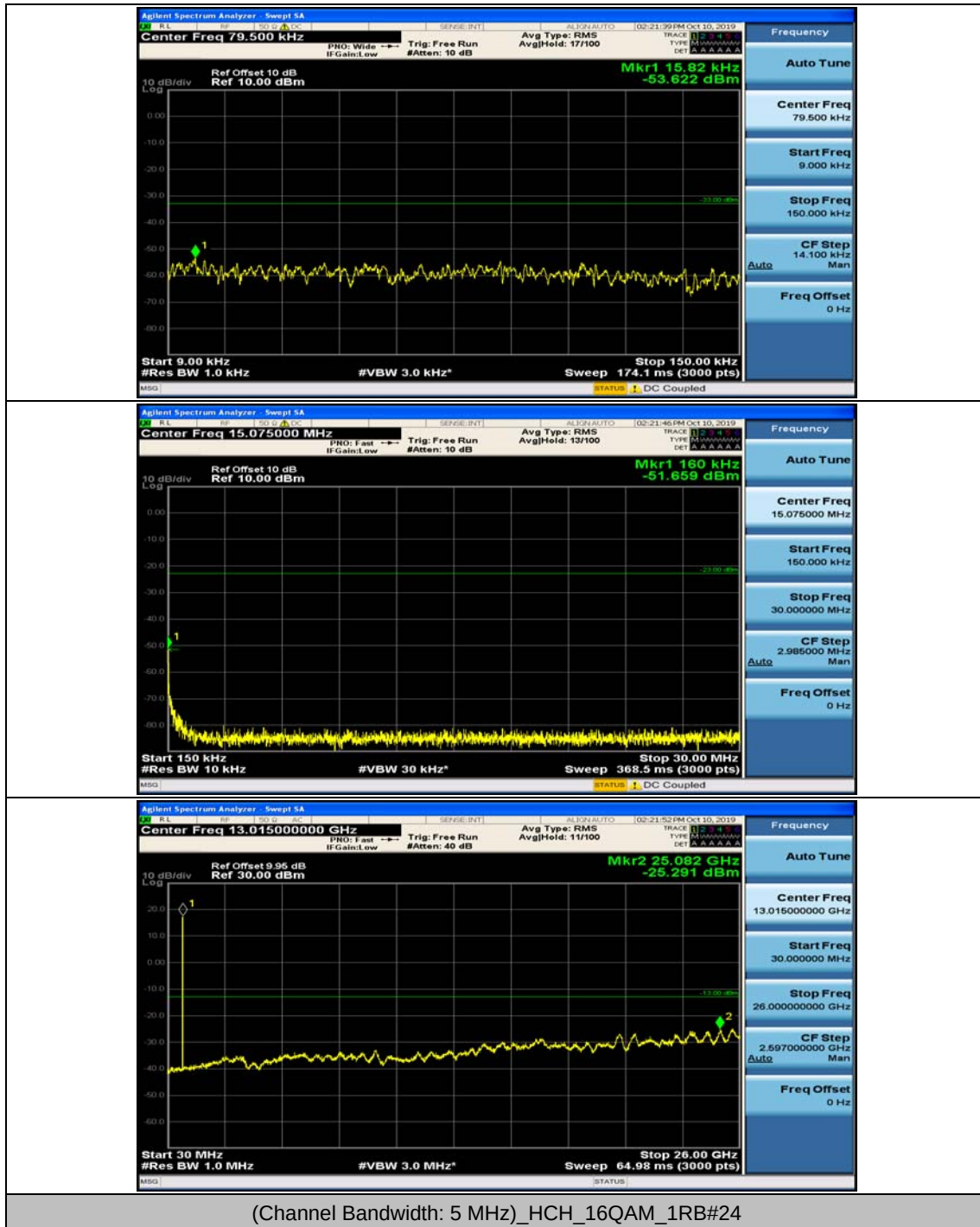


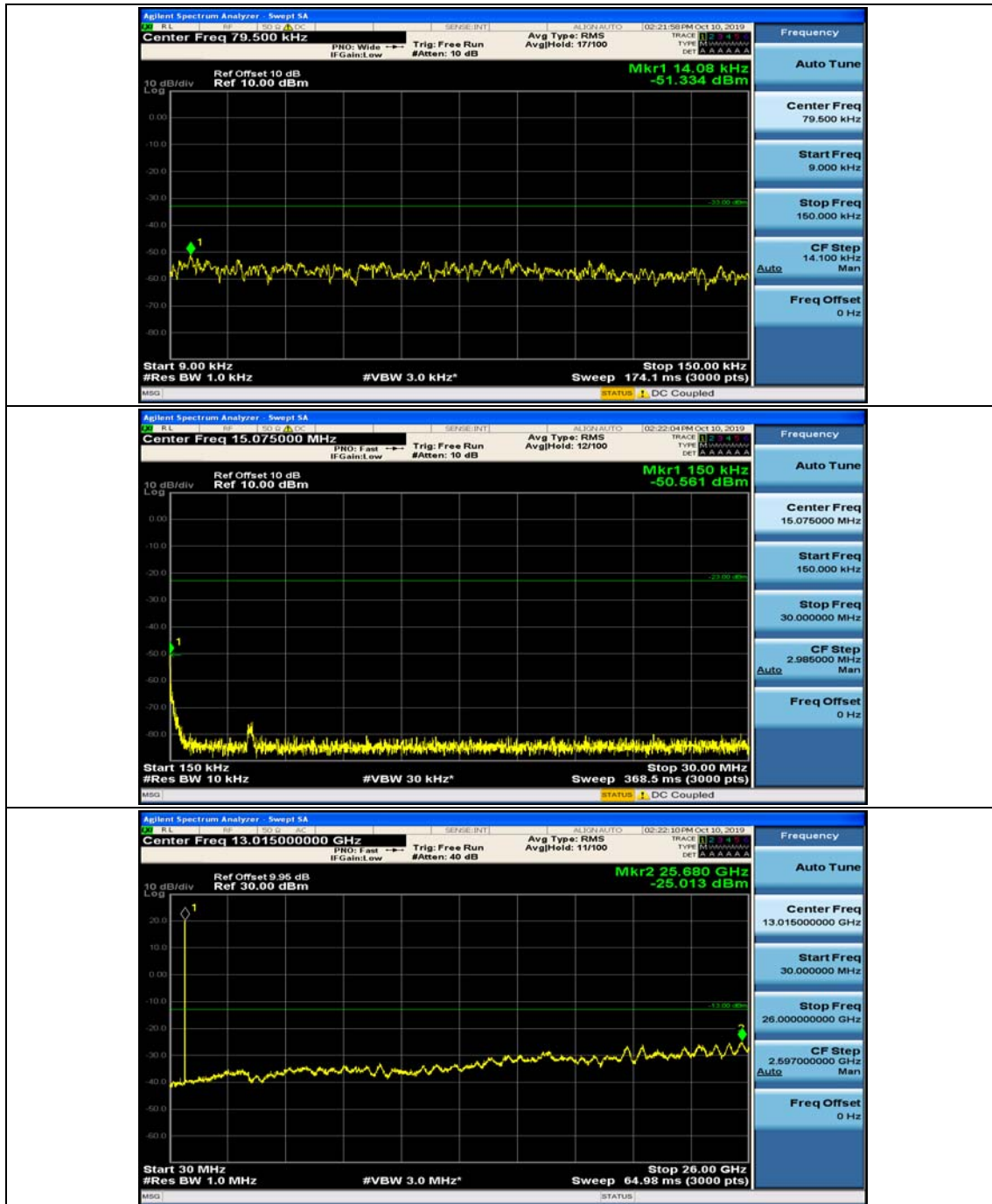


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

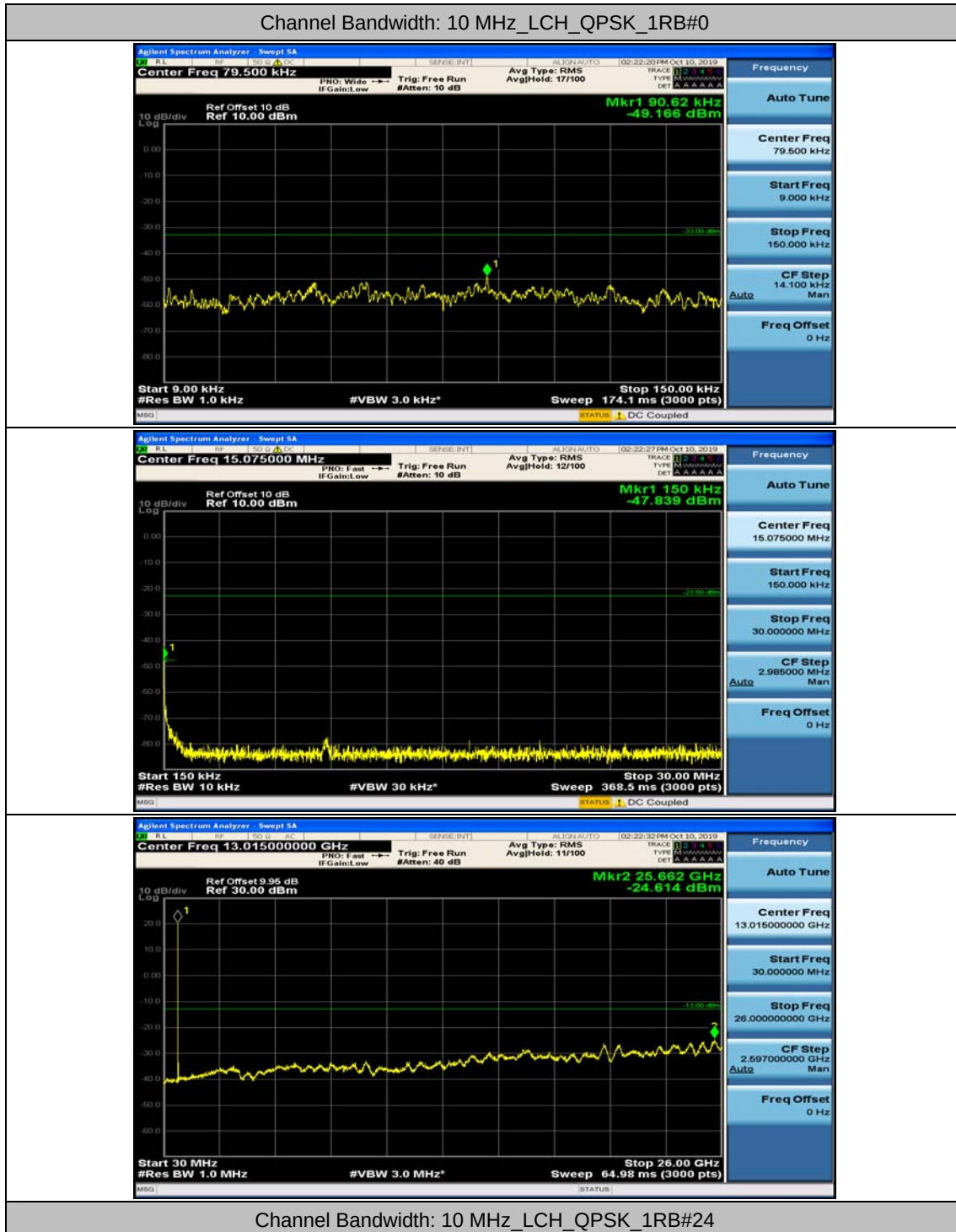


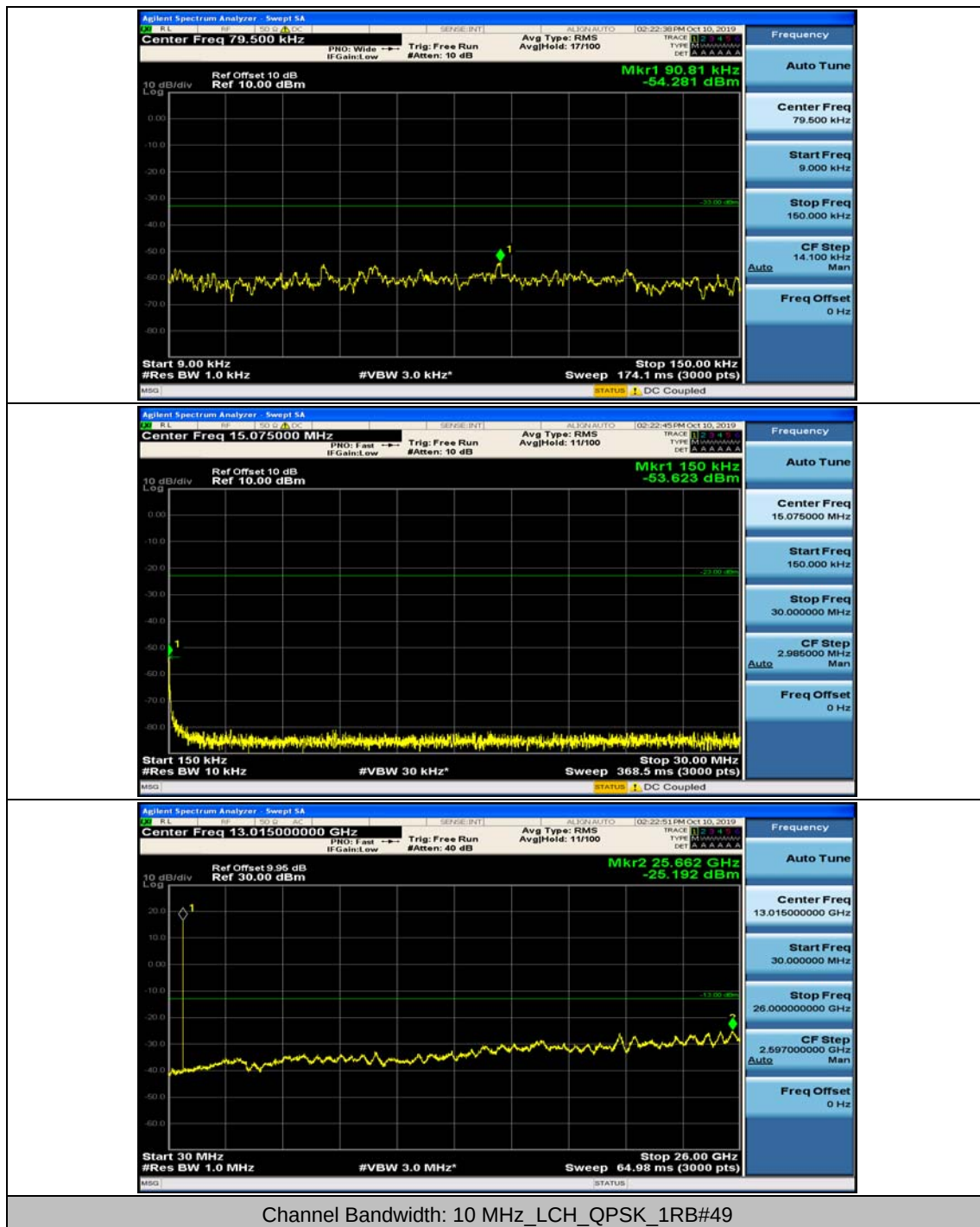
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

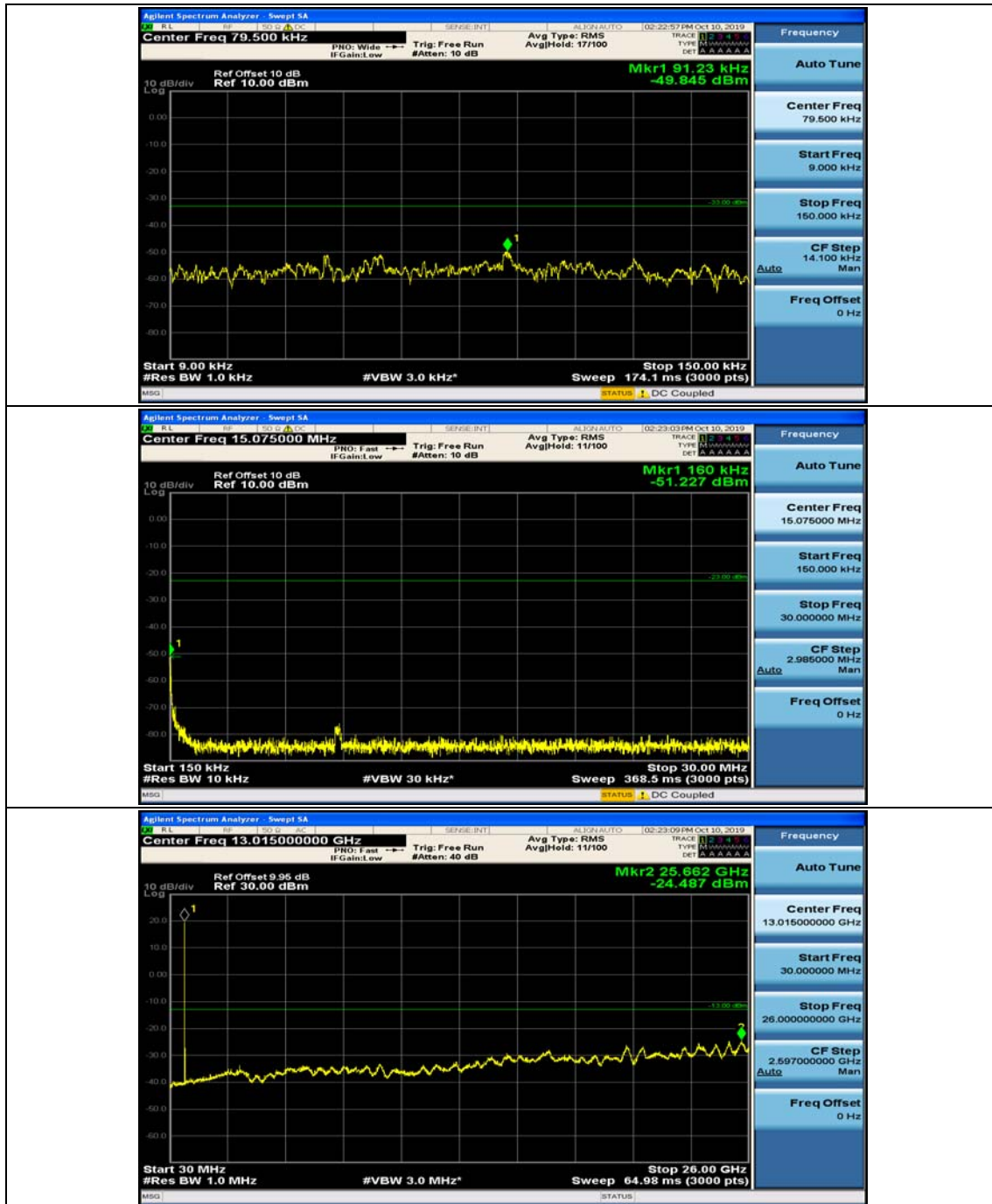




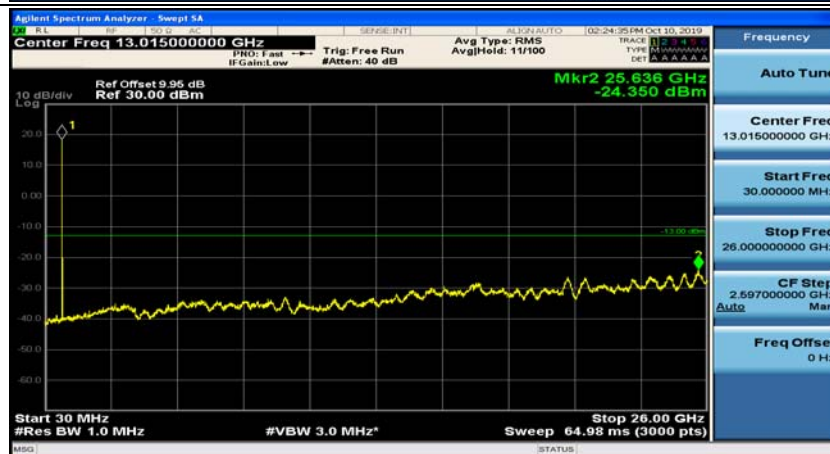
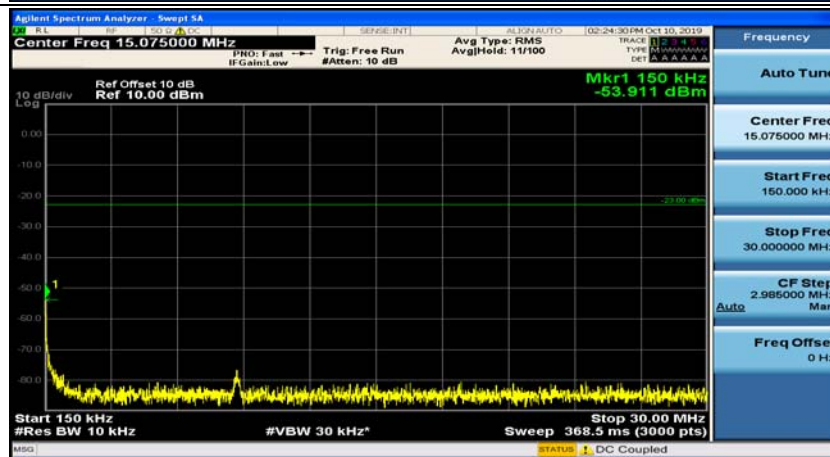
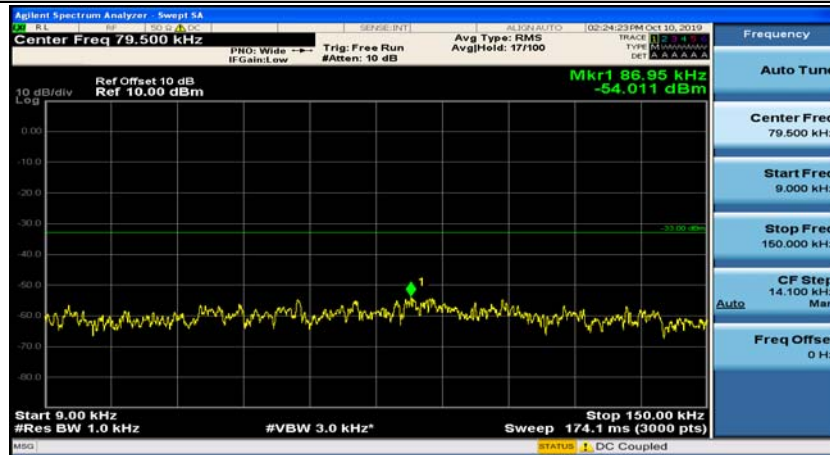
Channel Bandwidth: 10 MHz



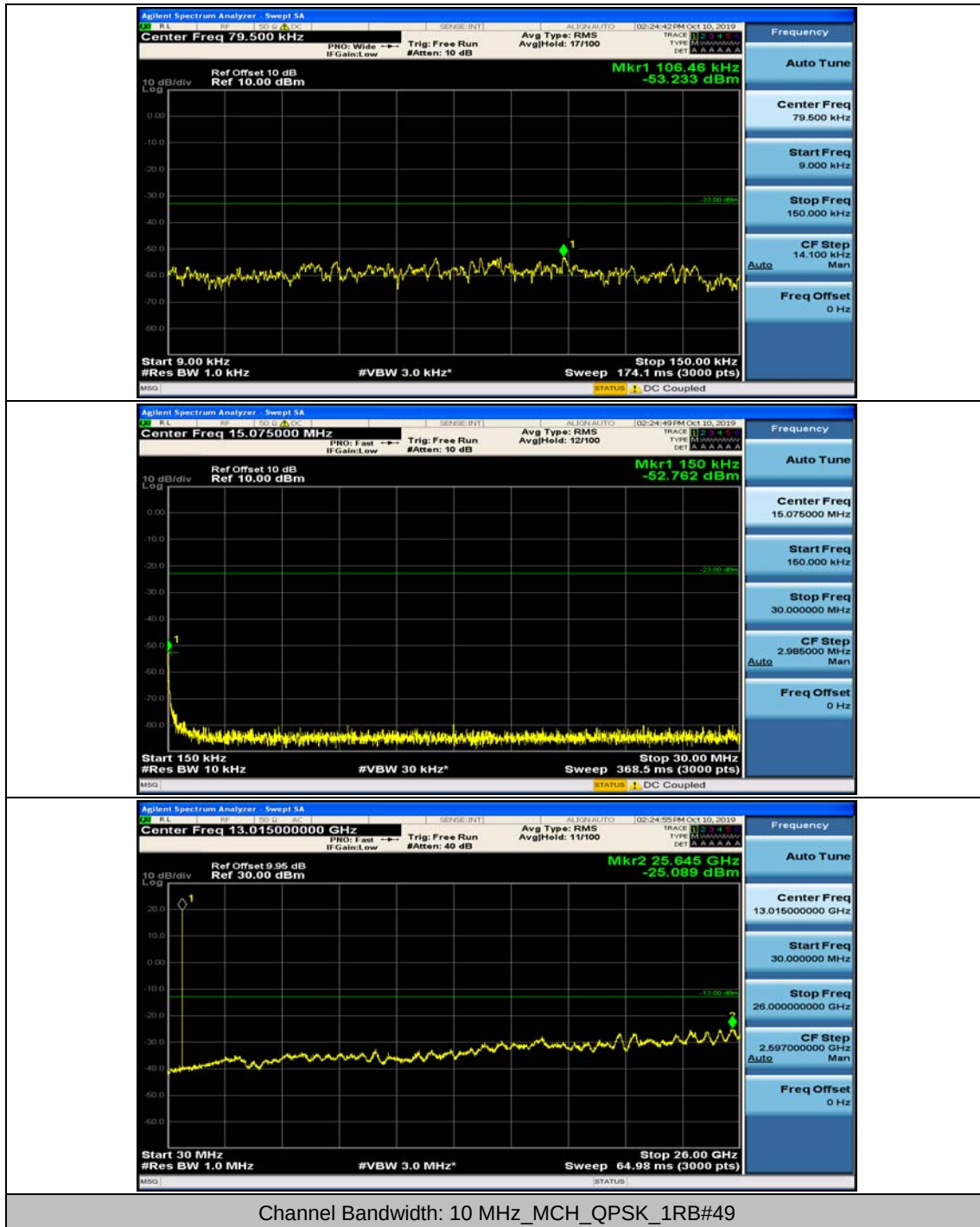


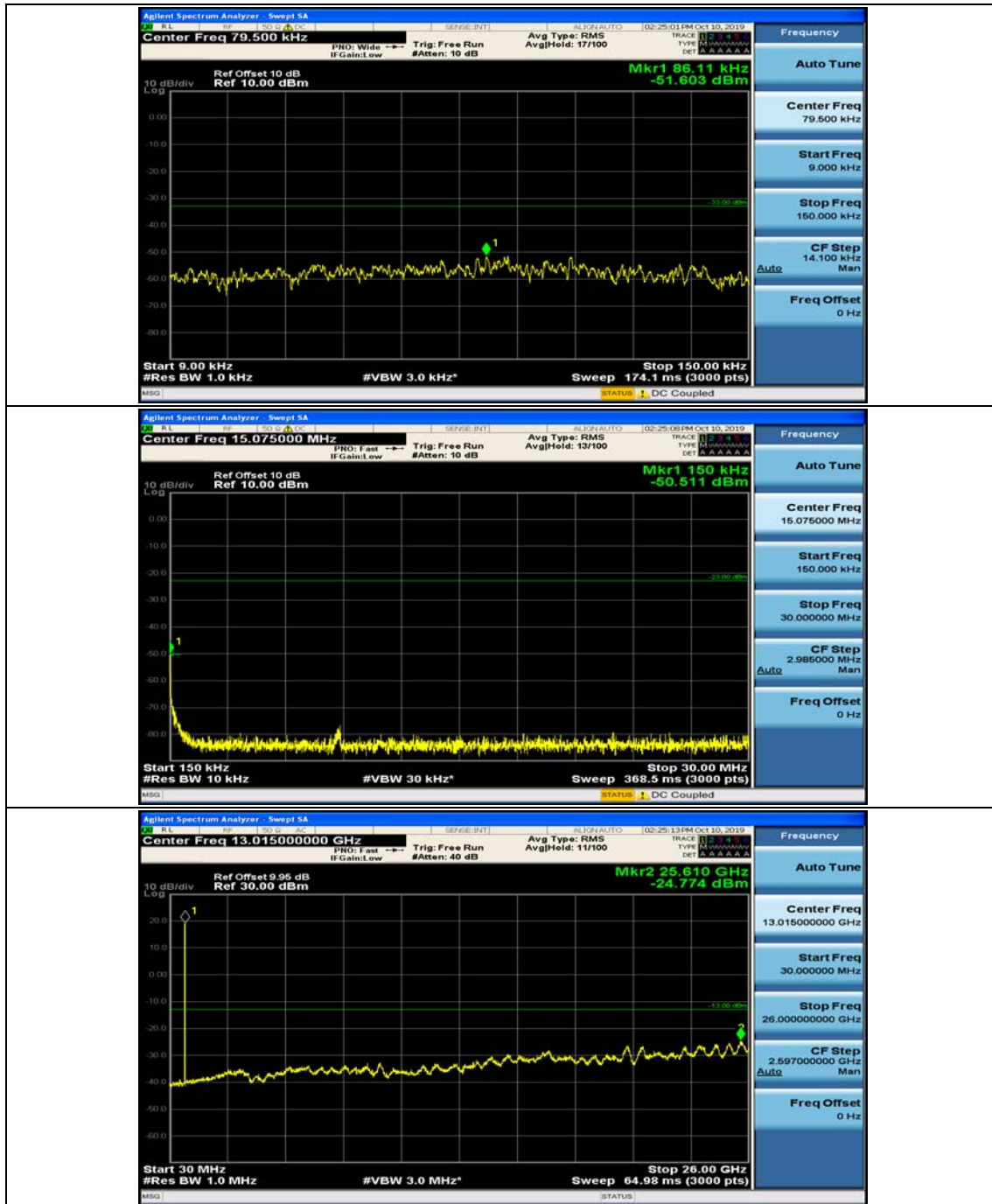


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

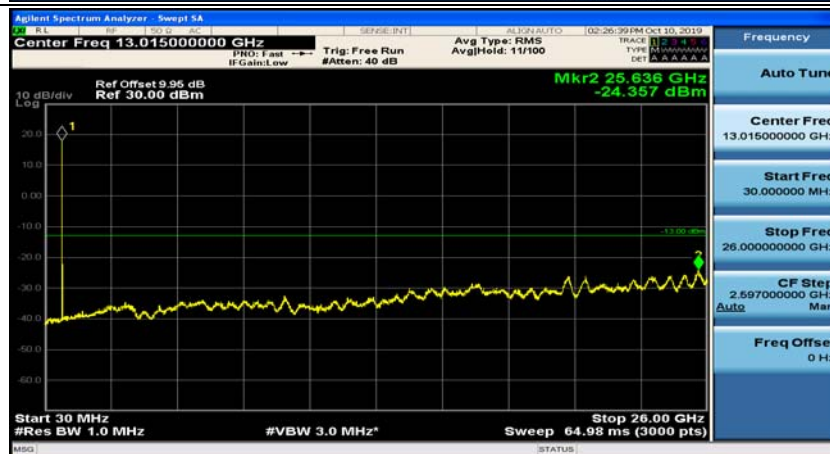
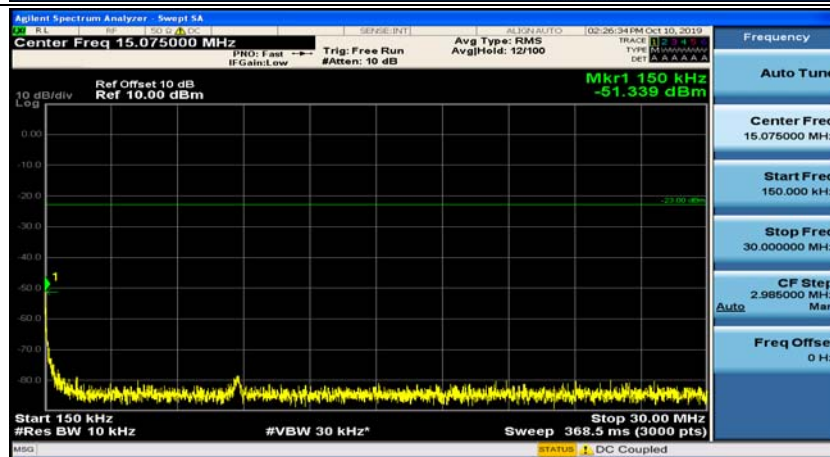
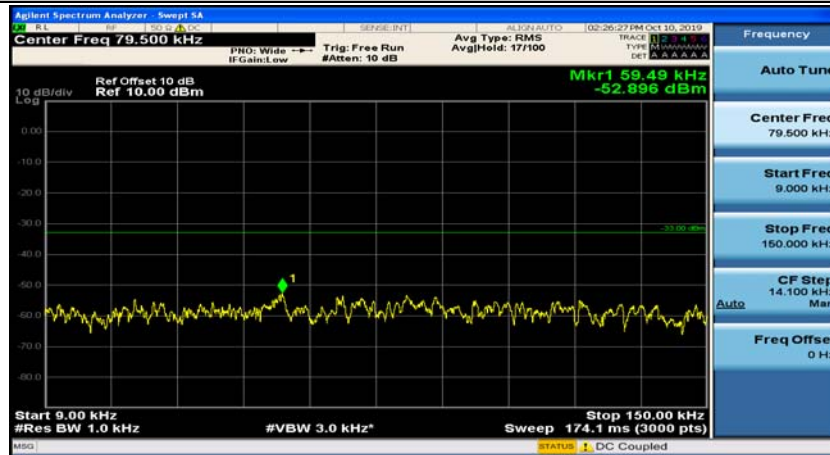


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

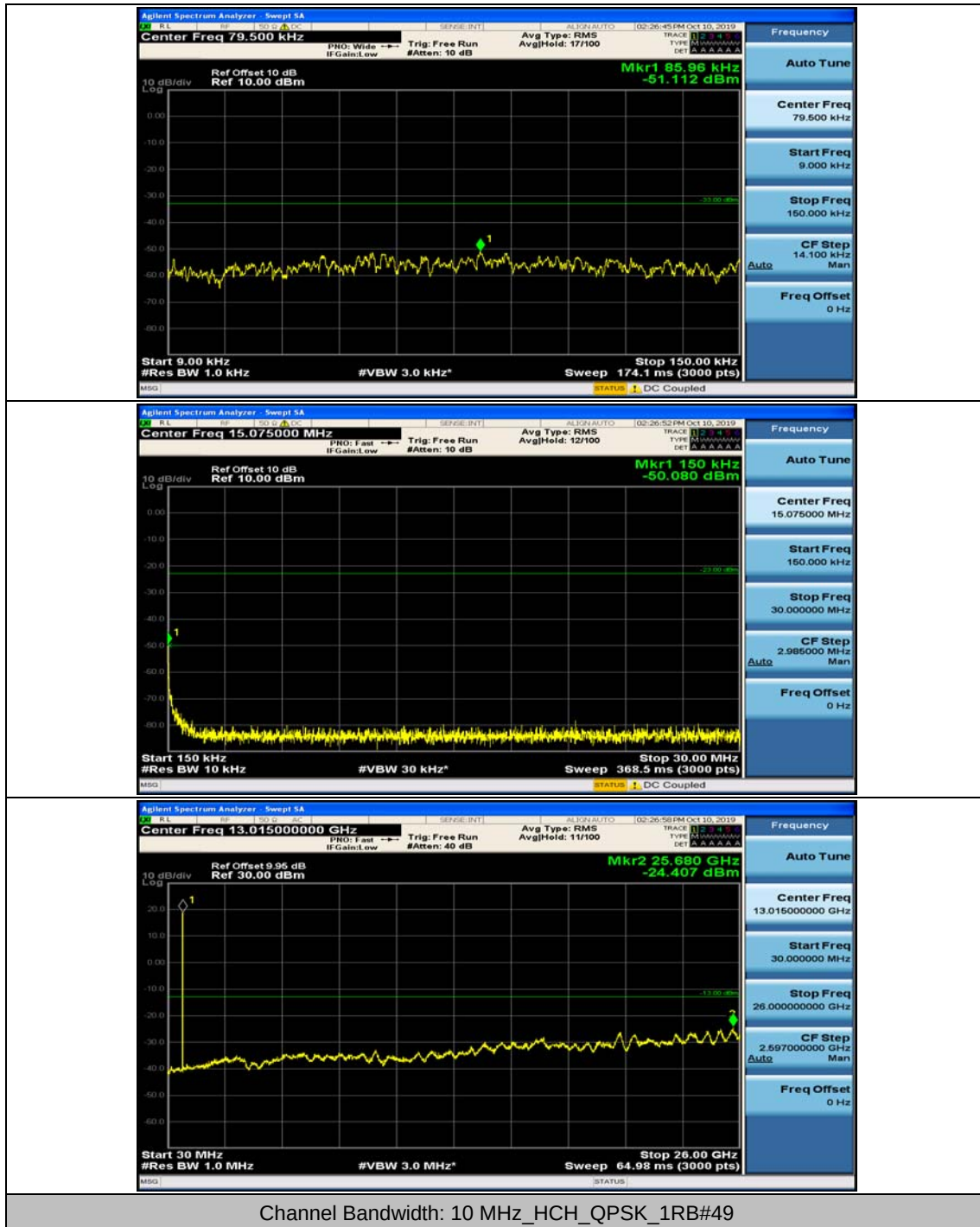


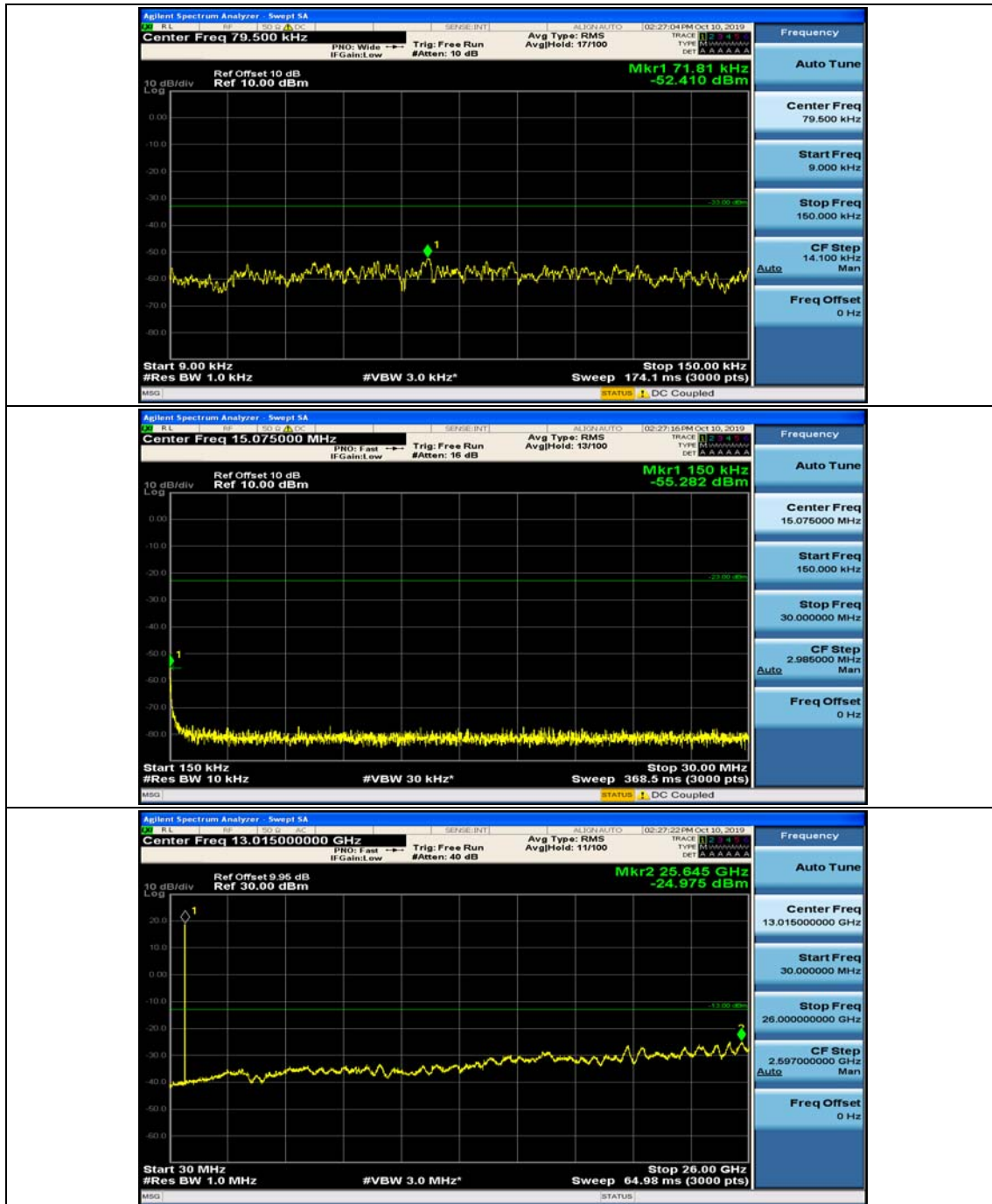


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

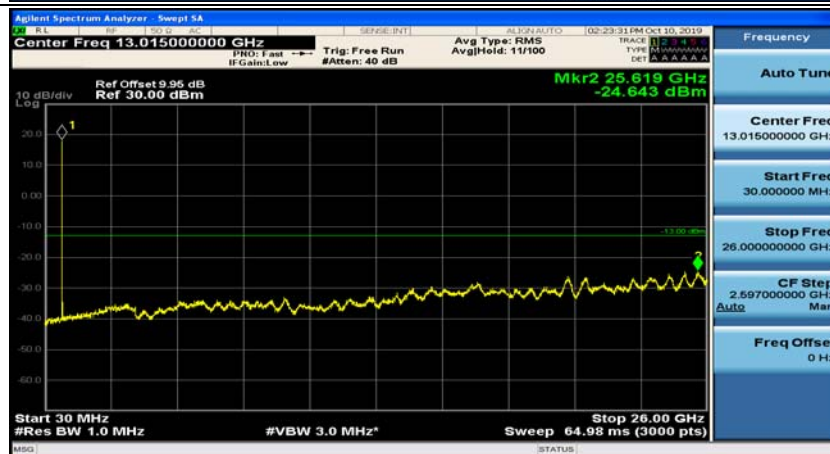
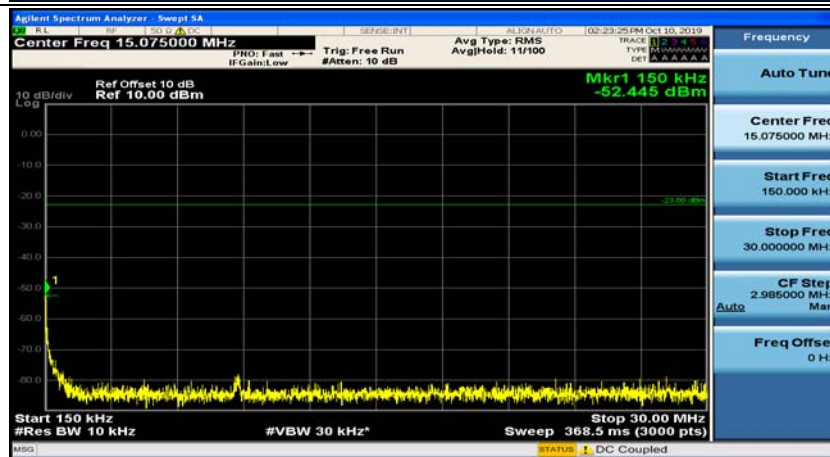
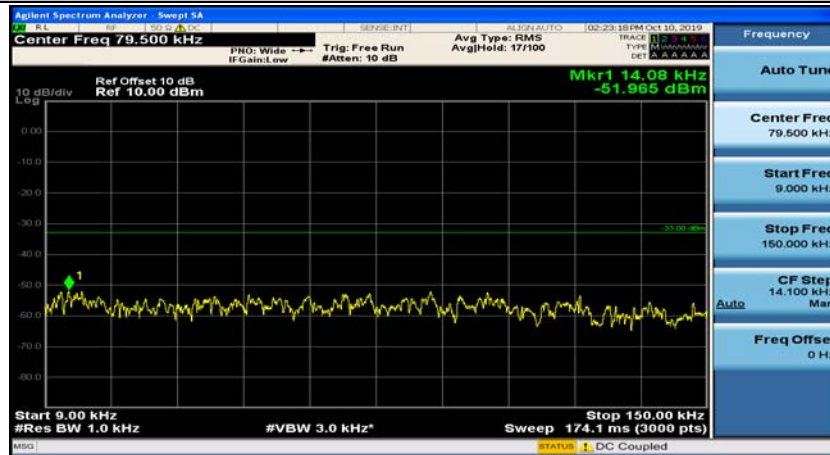


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

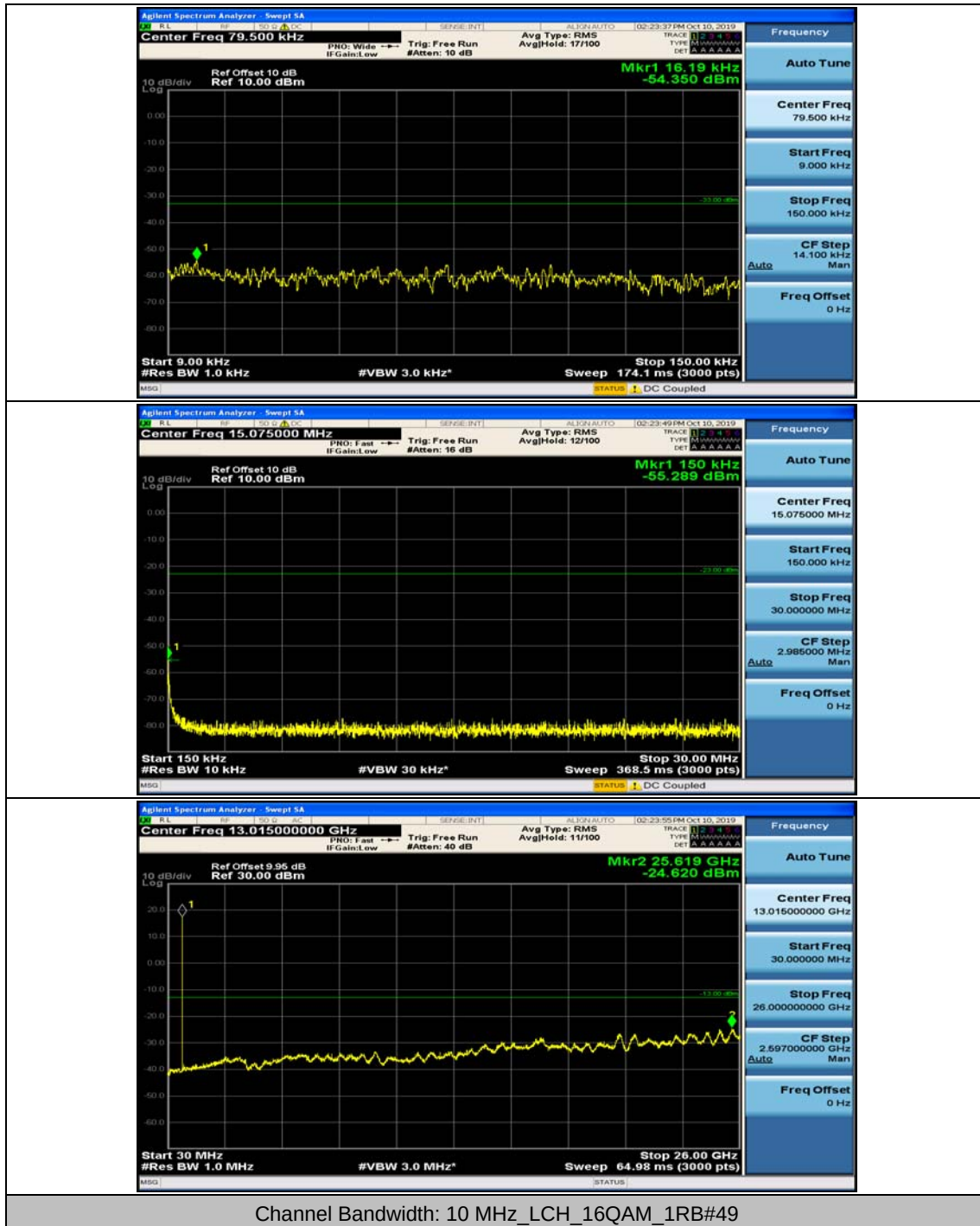


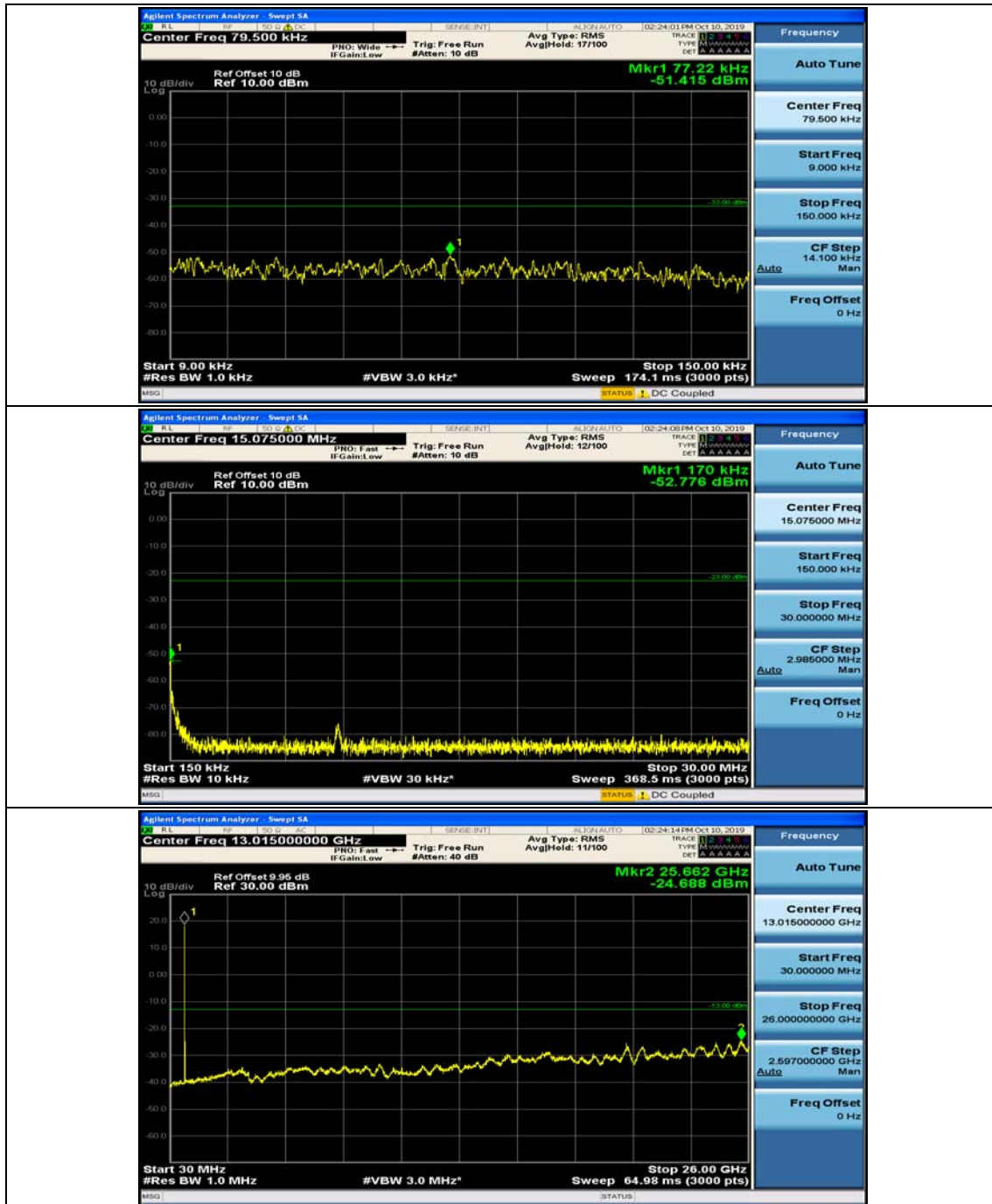


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

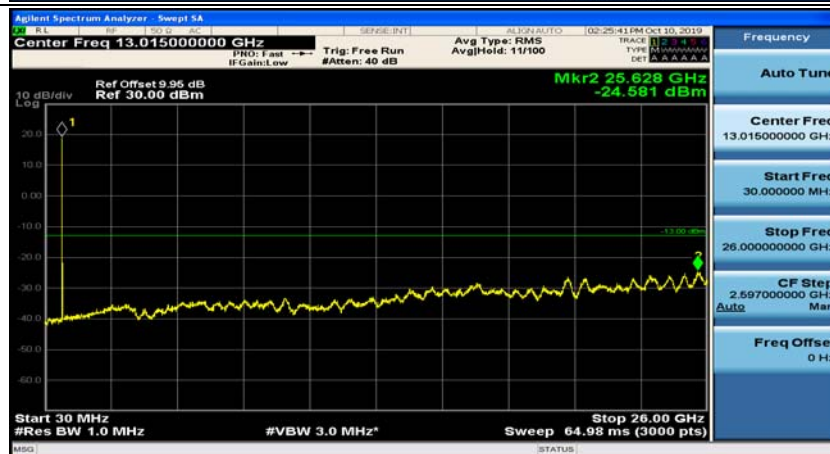
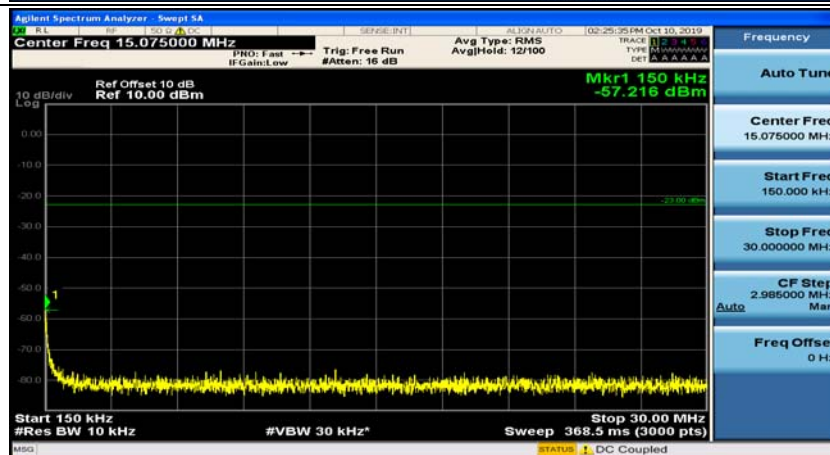
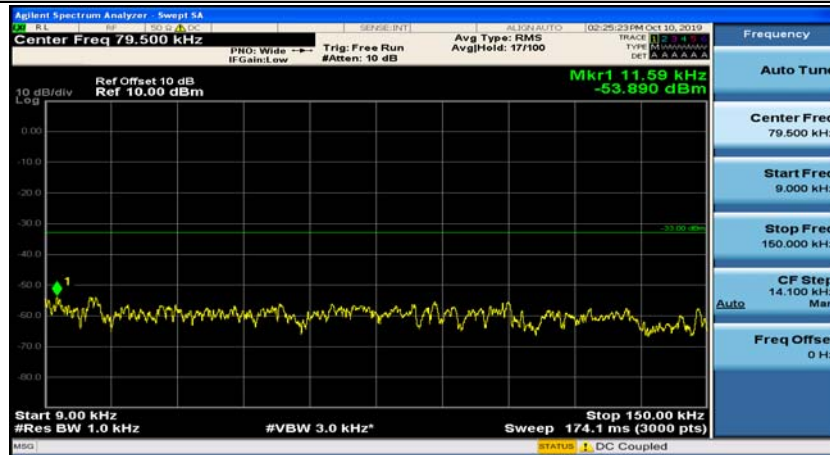


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

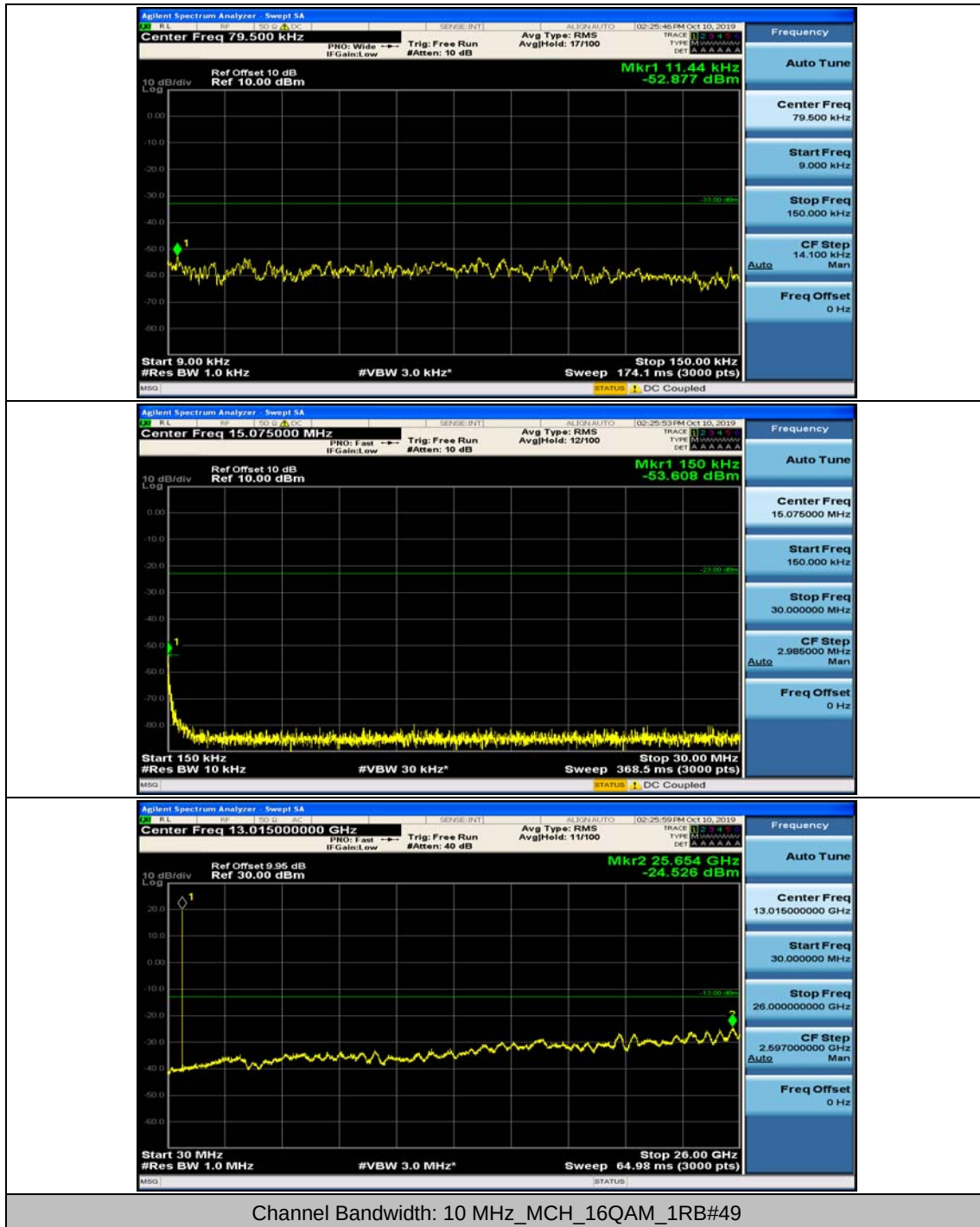


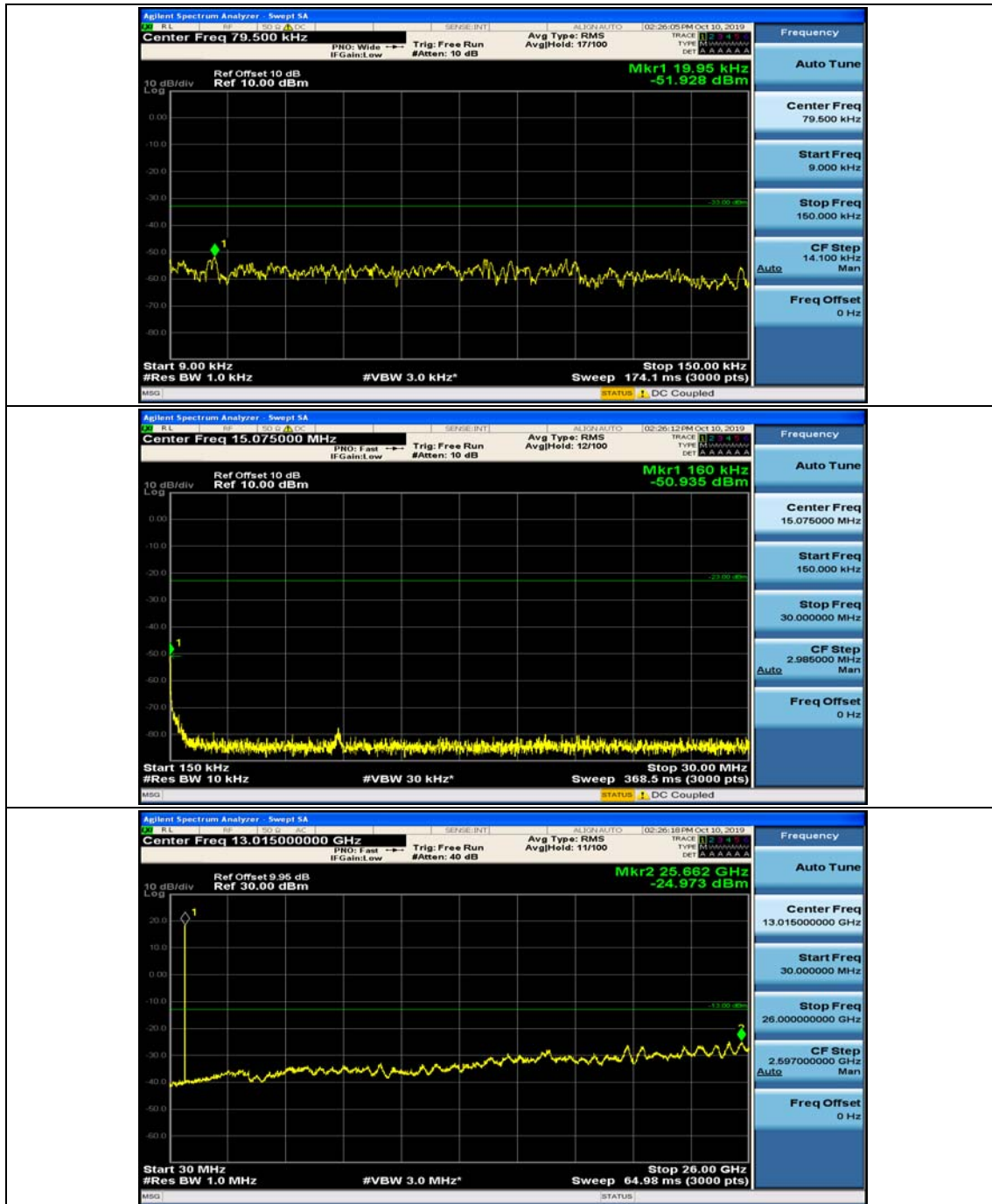


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

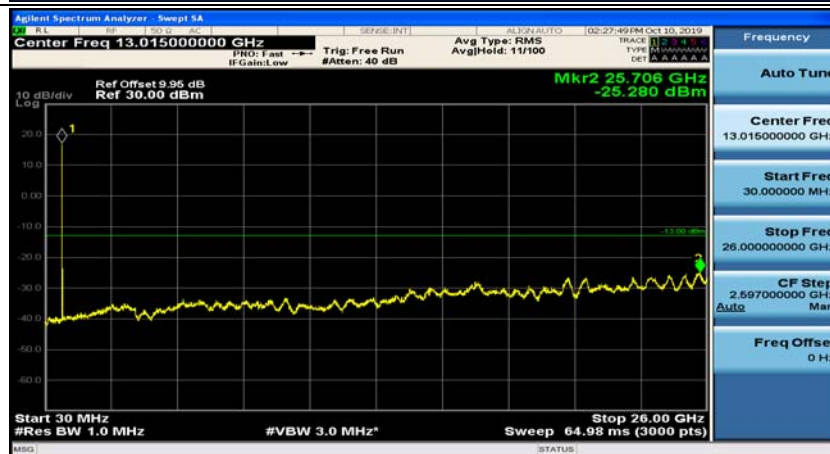
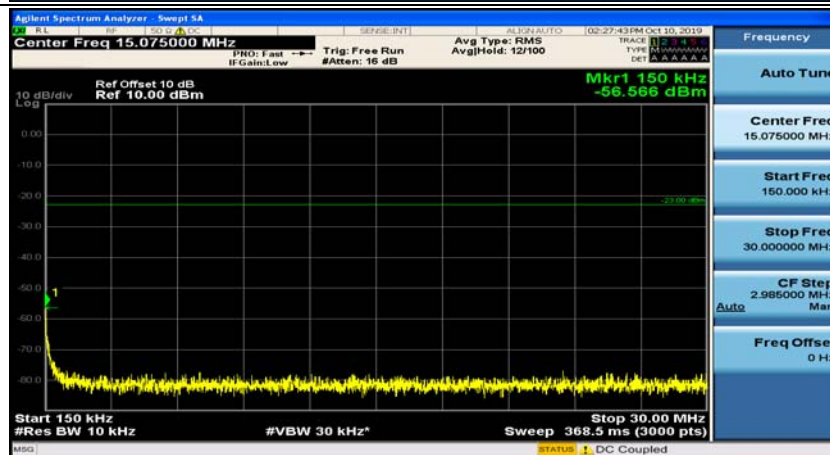
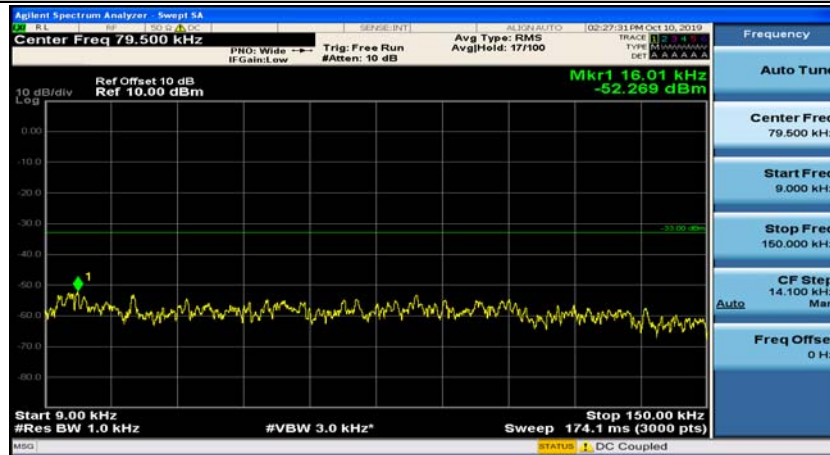


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

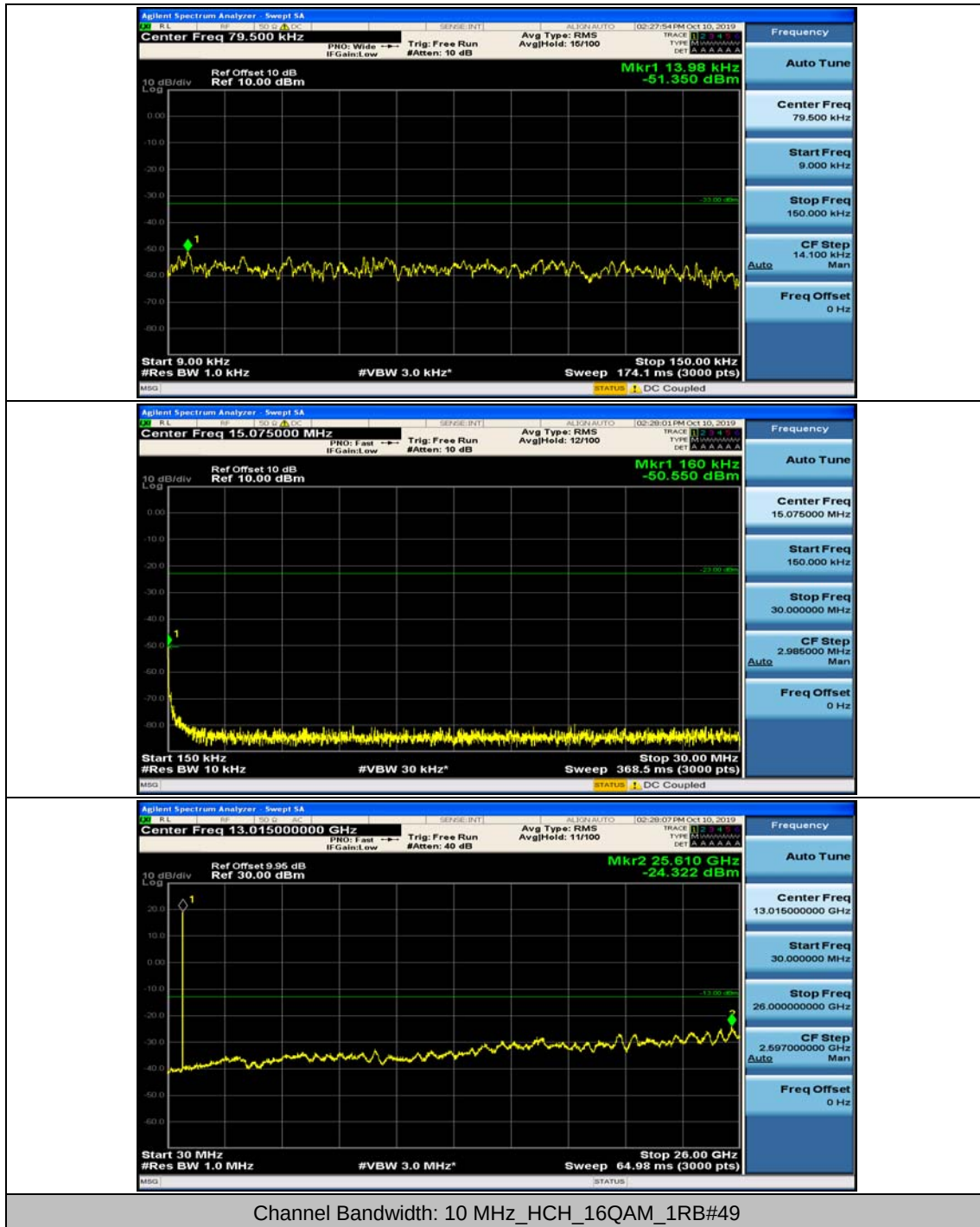


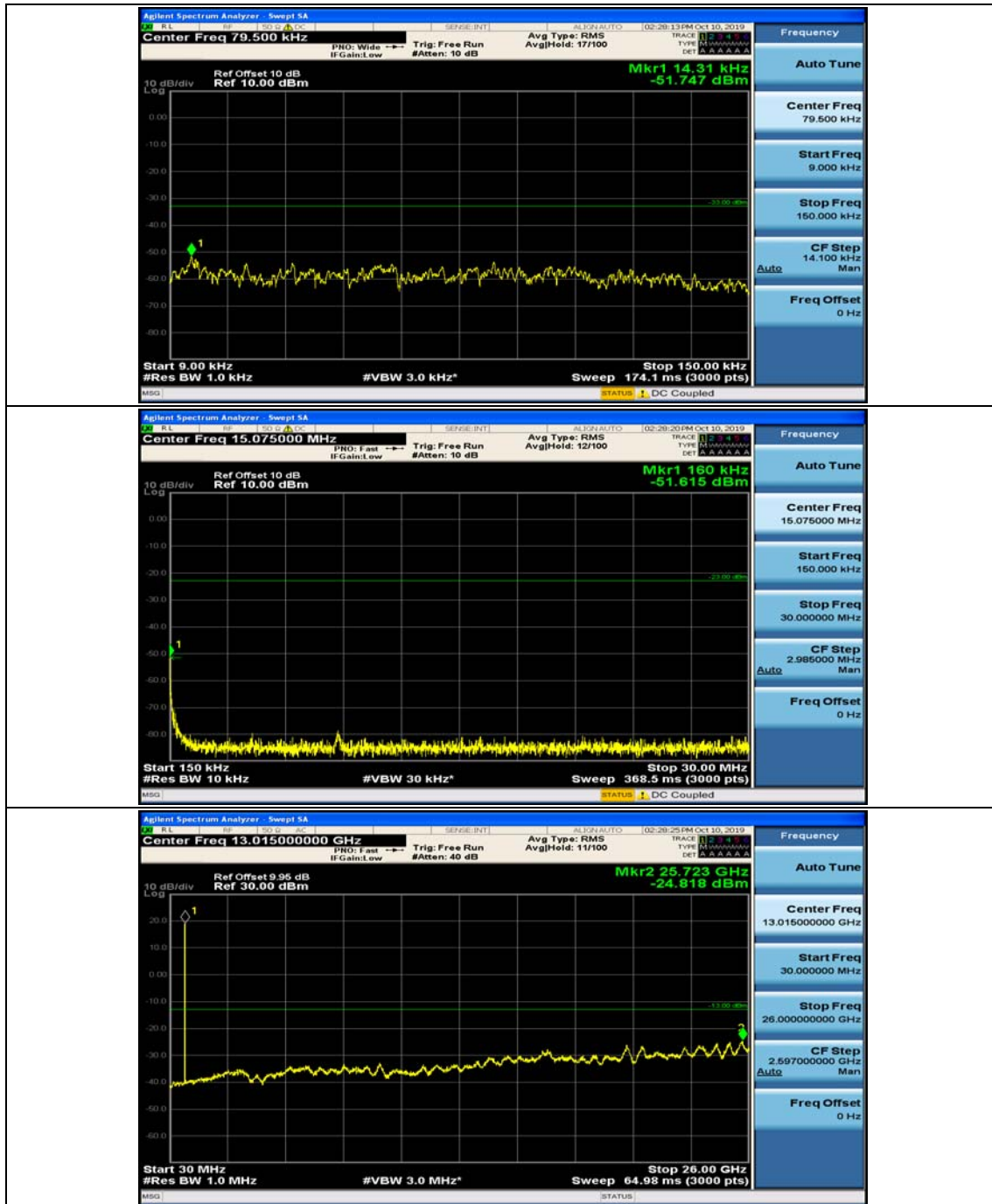


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24





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	1.91	0.002730	± 2.5	PASS
		VN	TN	1.65	0.002358	± 2.5	PASS
		VH	TN	3.15	0.004502	± 2.5	PASS
	MCH	VL	TN	2	0.002827	± 2.5	PASS
		VN	TN	3.36	0.004749	± 2.5	PASS
		VH	TN	-0.63	-0.000890	± 2.5	PASS
	HCH	VL	TN	0.21	0.000294	± 2.5	PASS
		VN	TN	1.95	0.002726	± 2.5	PASS
		VH	TN	-1.1	-0.001538	± 2.5	PASS
16QAM	LCH	VL	TN	1.08	0.001544	± 2.5	PASS
		VN	TN	1.9	0.002715	± 2.5	PASS
		VH	TN	2.46	0.003516	± 2.5	PASS
	MCH	VL	TN	3.05	0.004311	± 2.5	PASS
		VN	TN	4.59	0.006488	± 2.5	PASS
		VH	TN	-1.03	-0.001456	± 2.5	PASS
	HCH	VL	TN	-0.54	-0.000755	± 2.5	PASS
		VN	TN	3.31	0.004627	± 2.5	PASS
		VH	TN	2.15	0.003006	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.13	0.004473	± 2.5	PASS
		VN	-20	2.45	0.003502	± 2.5	PASS
		VN	-10	3.42	0.004888	± 2.5	PASS
		VN	0	-1.58	-0.002258	± 2.5	PASS
		VN	10	-1.44	-0.002058	± 2.5	PASS
		VN	20	0.98	0.001401	± 2.5	PASS
		VN	30	4.61	0.006589	± 2.5	PASS
		VN	40	1.49	0.002129	± 2.5	PASS
		VN	50	-0.12	-0.000172	± 2.5	PASS
	MCH	VN	-30	-0.21	-0.000297	± 2.5	PASS
VN		-20	0.67	0.000947	± 2.5	PASS	

		VN	-10	0.26	0.000367	± 2.5	PASS
		VN	0	4.51	0.006375	± 2.5	PASS
		VN	10	-0.95	-0.001343	± 2.5	PASS
		VN	20	-1.95	-0.002756	± 2.5	PASS
		VN	30	4.99	0.007053	± 2.5	PASS
		VN	40	-0.22	-0.000311	± 2.5	PASS
		VN	50	-0.96	-0.001357	± 2.5	PASS
	HCH	VN	-30	-1.99	-0.002782	± 2.5	PASS
		VN	-20	1.19	0.001664	± 2.5	PASS
		VN	-10	1.58	0.002209	± 2.5	PASS
		VN	0	2.03	0.002838	± 2.5	PASS
		VN	10	-0.09	-0.000126	± 2.5	PASS
		VN	20	1.6	0.002237	± 2.5	PASS
		VN	30	0.81	0.001132	± 2.5	PASS
		VN	40	1.22	0.001706	± 2.5	PASS
		VN	50	0.91	0.001272	± 2.5	PASS
16QAM	LCH	VN	-30	-0.31	-0.000443	± 2.5	PASS
		VN	-20	4.55	0.006503	± 2.5	PASS
		VN	-10	3.61	0.005159	± 2.5	PASS
		VN	0	2.45	0.003502	± 2.5	PASS
		VN	10	2.17	0.003101	± 2.5	PASS
		VN	20	-0.02	-0.000029	± 2.5	PASS
		VN	30	4.22	0.006031	± 2.5	PASS
		VN	40	0.31	0.000443	± 2.5	PASS
		VN	50	3.94	0.005631	± 2.5	PASS
	MCH	VN	-30	4.92	0.006954	± 2.5	PASS
		VN	-20	1.59	0.002247	± 2.5	PASS
		VN	-10	1.26	0.001781	± 2.5	PASS
		VN	0	-1.35	-0.001908	± 2.5	PASS
		VN	10	1.3	0.001837	± 2.5	PASS
		VN	20	0.11	0.000155	± 2.5	PASS
		VN	30	4.43	0.006261	± 2.5	PASS
		VN	40	1.73	0.002445	± 2.5	PASS
		VN	50	0.72	0.001018	± 2.5	PASS
	HCH	VN	-30	3.23	0.004516	± 2.5	PASS
		VN	-20	1.76	0.002461	± 2.5	PASS
		VN	-10	1.83	0.002558	± 2.5	PASS
		VN	0	3.33	0.004655	± 2.5	PASS
		VN	10	-1.49	-0.002083	± 2.5	PASS
		VN	20	3.72	0.005201	± 2.5	PASS
		VN	30	2.64	0.003691	± 2.5	PASS

		VN	40	1.44	0.002013	± 2.5	PASS
		VN	50	2.09	0.002922	± 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	2.08	0.002969	± 2.5	PASS
		VN	TN	4.97	0.007095	± 2.5	PASS
		VH	TN	4.52	0.006453	± 2.5	PASS
	MCH	VL	TN	0.83	0.001173	± 2.5	PASS
		VN	TN	-1.01	-0.001428	± 2.5	PASS
		VH	TN	3.15	0.004452	± 2.5	PASS
	HCH	VL	TN	-1.45	-0.002029	± 2.5	PASS
		VN	TN	1.06	0.001484	± 2.5	PASS
		VH	TN	3.57	0.004997	± 2.5	PASS
16QAM	LCH	VL	TN	0.99	0.001413	± 2.5	PASS
		VN	TN	0.59	0.000842	± 2.5	PASS
		VH	TN	3.21	0.004582	± 2.5	PASS
	MCH	VL	TN	3.22	0.004551	± 2.5	PASS
		VN	TN	2.8	0.003958	± 2.5	PASS
		VH	TN	-1.72	-0.002431	± 2.5	PASS
	HCH	VL	TN	0.68	0.000952	± 2.5	PASS
		VN	TN	4.31	0.006032	± 2.5	PASS
		VH	TN	1.96	0.002743	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.91	0.002727	± 2.5	PASS
		VN	-20	-1.11	-0.001585	± 2.5	PASS
		VN	-10	0.88	0.001256	± 2.5	PASS
		VN	0	-0.4	-0.000571	± 2.5	PASS
		VN	10	4.78	0.006824	± 2.5	PASS
		VN	20	4.36	0.006224	± 2.5	PASS
		VN	30	-0.27	-0.000385	± 2.5	PASS
		VN	40	3.75	0.005353	± 2.5	PASS
		VN	50	0.36	0.000514	± 2.5	PASS
	MCH	VN	-30	2.64	0.003731	± 2.5	PASS
		VN	-20	-1.44	-0.002035	± 2.5	PASS
		VN	-10	2.7	0.003816	± 2.5	PASS

		VN	0	2.34	0.003307	± 2.5	PASS
		VN	10	2.28	0.003223	± 2.5	PASS
		VN	20	1.79	0.002530	± 2.5	PASS
		VN	30	2.24	0.003166	± 2.5	PASS
		VN	40	2.36	0.003336	± 2.5	PASS
		VN	50	4.26	0.006021	± 2.5	PASS
	HCH	VN	-30	4.04	0.005654	± 2.5	PASS
		VN	-20	1.7	0.002379	± 2.5	PASS
		VN	-10	2.22	0.003107	± 2.5	PASS
		VN	0	-1.29	-0.001805	± 2.5	PASS
		VN	10	2.44	0.003415	± 2.5	PASS
		VN	20	2.17	0.003037	± 2.5	PASS
		VN	30	0.87	0.001218	± 2.5	PASS
		VN	40	4.19	0.005864	± 2.5	PASS
		VN	50	0.16	0.000224	± 2.5	PASS
16QAM	LCH	VN	-30	4.55	0.006495	± 2.5	PASS
		VN	-20	-1.53	-0.002184	± 2.5	PASS
		VN	-10	1.39	0.001984	± 2.5	PASS
		VN	0	1.08	0.001542	± 2.5	PASS
		VN	10	2.77	0.003954	± 2.5	PASS
		VN	20	2.03	0.002898	± 2.5	PASS
		VN	30	2.78	0.003969	± 2.5	PASS
		VN	40	1.94	0.002769	± 2.5	PASS
		VN	50	4.31	0.006153	± 2.5	PASS
	MCH	VN	-30	-0.53	-0.000749	± 2.5	PASS
		VN	-20	0	0.000000	± 2.5	PASS
		VN	-10	2.73	0.003859	± 2.5	PASS
		VN	0	3.11	0.004396	± 2.5	PASS
		VN	10	0.6	0.000848	± 2.5	PASS
		VN	20	0.8	0.001131	± 2.5	PASS
		VN	30	4.48	0.006332	± 2.5	PASS
		VN	40	4.03	0.005696	± 2.5	PASS
		VN	50	1.11	0.001569	± 2.5	PASS
	HCH	VN	-30	0.7	0.000980	± 2.5	PASS
		VN	-20	1.66	0.002323	± 2.5	PASS
		VN	-10	-1.35	-0.001889	± 2.5	PASS
		VN	0	3.86	0.005402	± 2.5	PASS
		VN	10	1.99	0.002785	± 2.5	PASS
		VN	20	4.24	0.005934	± 2.5	PASS
		VN	30	1.52	0.002127	± 2.5	PASS
		VN	40	-0.14	-0.000196	± 2.5	PASS

		VN	50	-1.37	-0.001917	± 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	3.71	0.005289	± 2.5	PASS
		VN	TN	-0.75	-0.001069	± 2.5	PASS
		VH	TN	-0.17	-0.000242	± 2.5	PASS
	MCH	VL	TN	-1.13	-0.001597	± 2.5	PASS
		VN	TN	-0.63	-0.000890	± 2.5	PASS
		VH	TN	3.46	0.004890	± 2.5	PASS
	HCH	VL	TN	0.83	0.001163	± 2.5	PASS
		VN	TN	0.27	0.000378	± 2.5	PASS
		VH	TN	1.73	0.002425	± 2.5	PASS
16QAM	LCH	VL	TN	1.11	0.001582	± 2.5	PASS
		VN	TN	1.79	0.002552	± 2.5	PASS
		VH	TN	4.8	0.006842	± 2.5	PASS
	MCH	VL	TN	0.28	0.000396	± 2.5	PASS
		VN	TN	-0.91	-0.001286	± 2.5	PASS
		VH	TN	0.43	0.000608	± 2.5	PASS
	HCH	VL	TN	0.87	0.001219	± 2.5	PASS
		VN	TN	1.01	0.001416	± 2.5	PASS
		VH	TN	4.65	0.006517	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.62	0.003735	± 2.5	PASS
		VN	-20	1.55	0.002210	± 2.5	PASS
		VN	-10	4.64	0.006614	± 2.5	PASS
		VN	0	4.83	0.006885	± 2.5	PASS
		VN	10	1.09	0.001554	± 2.5	PASS
		VN	20	1.55	0.002210	± 2.5	PASS
		VN	30	2.12	0.003022	± 2.5	PASS
		VN	40	-0.2	-0.000285	± 2.5	PASS
		VN	50	-1.92	-0.002737	± 2.5	PASS
	MCH	VN	-30	2.47	0.003491	± 2.5	PASS
		VN	-20	-0.31	-0.000438	± 2.5	PASS
		VN	-10	4.55	0.006431	± 2.5	PASS
		VN	0	-1.72	-0.002431	± 2.5	PASS

		VN	10	-1.08	-0.001527	± 2.5	PASS
		VN	20	3.33	0.004707	± 2.5	PASS
		VN	30	3.19	0.004509	± 2.5	PASS
		VN	40	3.49	0.004933	± 2.5	PASS
		VN	50	-1.68	-0.002375	± 2.5	PASS
	HCH	VN	-30	0.33	0.000463	± 2.5	PASS
		VN	-20	-0.18	-0.000252	± 2.5	PASS
		VN	-10	3.95	0.005536	± 2.5	PASS
		VN	0	4.35	0.006097	± 2.5	PASS
		VN	10	4.59	0.006433	± 2.5	PASS
		VN	20	-1.43	-0.002004	± 2.5	PASS
		VN	30	-1.41	-0.001976	± 2.5	PASS
		VN	40	-1.61	-0.002256	± 2.5	PASS
		VN	50	0.78	0.001093	± 2.5	PASS
16QAM	LCH	VN	-30	3.69	0.005260	± 2.5	PASS
		VN	-20	1.38	0.001967	± 2.5	PASS
		VN	-10	1.11	0.001582	± 2.5	PASS
		VN	0	-0.57	-0.000813	± 2.5	PASS
		VN	10	4.44	0.006329	± 2.5	PASS
		VN	20	-0.12	-0.000171	± 2.5	PASS
		VN	30	3.02	0.004305	± 2.5	PASS
		VN	40	4.1	0.005845	± 2.5	PASS
		VN	50	0.36	0.000513	± 2.5	PASS
	MCH	VN	-30	-0.31	-0.000438	± 2.5	PASS
		VN	-20	-0.53	-0.000749	± 2.5	PASS
		VN	-10	3.84	0.005428	± 2.5	PASS
		VN	0	3.74	0.005286	± 2.5	PASS
		VN	10	3.43	0.004848	± 2.5	PASS
		VN	20	-1.41	-0.001993	± 2.5	PASS
		VN	30	2.22	0.003138	± 2.5	PASS
		VN	40	0.01	0.000014	± 2.5	PASS
		VN	50	2.42	0.003420	± 2.5	PASS
	HCH	VN	-30	2.91	0.004078	± 2.5	PASS
		VN	-20	2.17	0.003041	± 2.5	PASS
		VN	-10	4.83	0.006769	± 2.5	PASS
		VN	0	-0.7	-0.000981	± 2.5	PASS
		VN	10	-0.51	-0.000715	± 2.5	PASS
		VN	20	4.91	0.006882	± 2.5	PASS
		VN	30	1.57	0.002200	± 2.5	PASS
		VN	40	2.44	0.003420	± 2.5	PASS
		VN	50	-1.51	-0.002116	± 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	2.14	0.003040	± 2.5	PASS
		VN	TN	-0.72	-0.001023	± 2.5	PASS
		VH	TN	3.73	0.005298	± 2.5	PASS
	MCH	VL	TN	-1.41	-0.001993	± 2.5	PASS
		VN	TN	2	0.002827	± 2.5	PASS
		VH	TN	2.33	0.003293	± 2.5	PASS
	HCH	VL	TN	4.58	0.006442	± 2.5	PASS
		VN	TN	2.55	0.003586	± 2.5	PASS
		VH	TN	4.4	0.006188	± 2.5	PASS
16QAM	LCH	VL	TN	-1.94	-0.002756	± 2.5	PASS
		VN	TN	-1.36	-0.001932	± 2.5	PASS
		VH	TN	-0.32	-0.000455	± 2.5	PASS
	MCH	VL	TN	2.12	0.002996	± 2.5	PASS
		VN	TN	-0.75	-0.001060	± 2.5	PASS
		VH	TN	-1.7	-0.002403	± 2.5	PASS
	HCH	VL	TN	1.75	0.002461	± 2.5	PASS
		VN	TN	0.71	0.000999	± 2.5	PASS
		VH	TN	3.29	0.004627	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.35	-0.000497	± 2.5	PASS
		VN	-20	4.64	0.006591	± 2.5	PASS
		VN	-10	3.01	0.004276	± 2.5	PASS
		VN	0	0.8	0.001136	± 2.5	PASS
		VN	10	-0.01	-0.000014	± 2.5	PASS
		VN	20	2.48	0.003523	± 2.5	PASS
		VN	30	0.61	0.000866	± 2.5	PASS
		VN	40	-0.91	-0.001293	± 2.5	PASS
		VN	50	4.24	0.006023	± 2.5	PASS
	MCH	VN	-30	-0.27	-0.000382	± 2.5	PASS
		VN	-20	3.68	0.005201	± 2.5	PASS
		VN	-10	-0.84	-0.001187	± 2.5	PASS
		VN	0	3.54	0.005004	± 2.5	PASS
		VN	10	3.02	0.004269	± 2.5	PASS
		VN	20	3.92	0.005541	± 2.5	PASS

		VN	30	3.09	0.004367	± 2.5	PASS
		VN	40	1.12	0.001583	± 2.5	PASS
		VN	50	1.21	0.001710	± 2.5	PASS
	HCH	VN	-30	0.82	0.001153	± 2.5	PASS
		VN	-20	-1.31	-0.001842	± 2.5	PASS
		VN	-10	-1.44	-0.002025	± 2.5	PASS
		VN	0	3.07	0.004318	± 2.5	PASS
		VN	10	-0.68	-0.000956	± 2.5	PASS
		VN	20	0.43	0.000605	± 2.5	PASS
		VN	30	-0.99	-0.001392	± 2.5	PASS
		VN	40	2.19	0.003080	± 2.5	PASS
		VN	50	2.55	0.003586	± 2.5	PASS
16QAM	LCH	VN	-30	2.78	0.003949	± 2.5	PASS
		VN	-20	2.63	0.003736	± 2.5	PASS
		VN	-10	4.45	0.006321	± 2.5	PASS
		VN	0	4.16	0.005909	± 2.5	PASS
		VN	10	1.57	0.002230	± 2.5	PASS
		VN	20	2.36	0.003352	± 2.5	PASS
		VN	30	0.19	0.000270	± 2.5	PASS
		VN	40	2.27	0.003224	± 2.5	PASS
		VN	50	3.35	0.004759	± 2.5	PASS
	MCH	VN	-30	2.86	0.004042	± 2.5	PASS
		VN	-20	-1.97	-0.002784	± 2.5	PASS
		VN	-10	2.38	0.003364	± 2.5	PASS
		VN	0	1.79	0.002530	± 2.5	PASS
		VN	10	4.07	0.005753	± 2.5	PASS
		VN	20	4.78	0.006756	± 2.5	PASS
		VN	30	-0.51	-0.000721	± 2.5	PASS
		VN	40	3.21	0.004537	± 2.5	PASS
		VN	50	-1.39	-0.001965	± 2.5	PASS
	HCH	VN	-30	-1.7	-0.002391	± 2.5	PASS
		VN	-20	0.09	0.000127	± 2.5	PASS
		VN	-10	4.76	0.006695	± 2.5	PASS
		VN	0	4.15	0.005837	± 2.5	PASS
		VN	10	-1.06	-0.001491	± 2.5	PASS
		VN	20	2.17	0.003052	± 2.5	PASS
		VN	30	-0.66	-0.000928	± 2.5	PASS
		VN	40	-1.53	-0.002152	± 2.5	PASS
		VN	50	2.22	0.003122	± 2.5	PASS