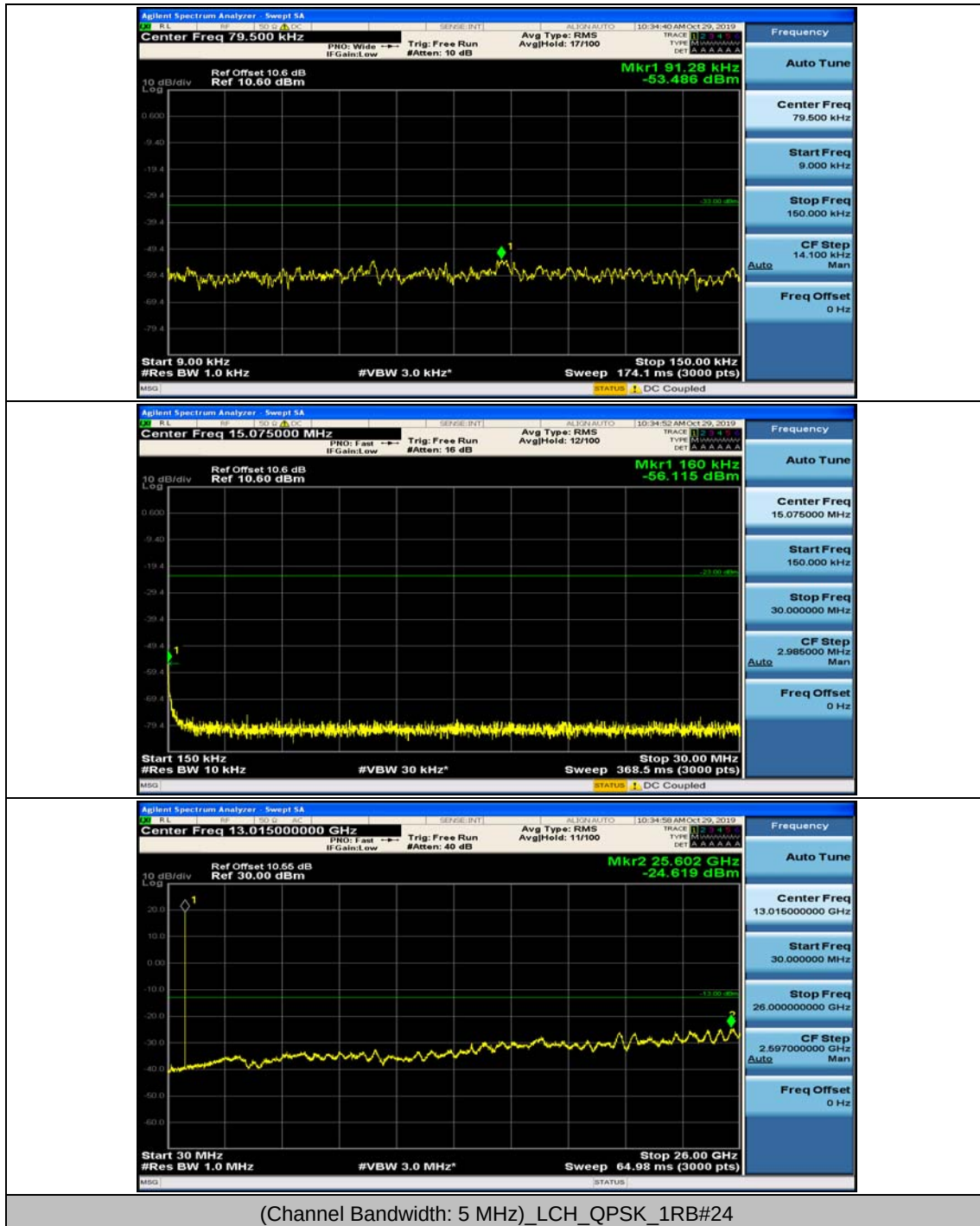
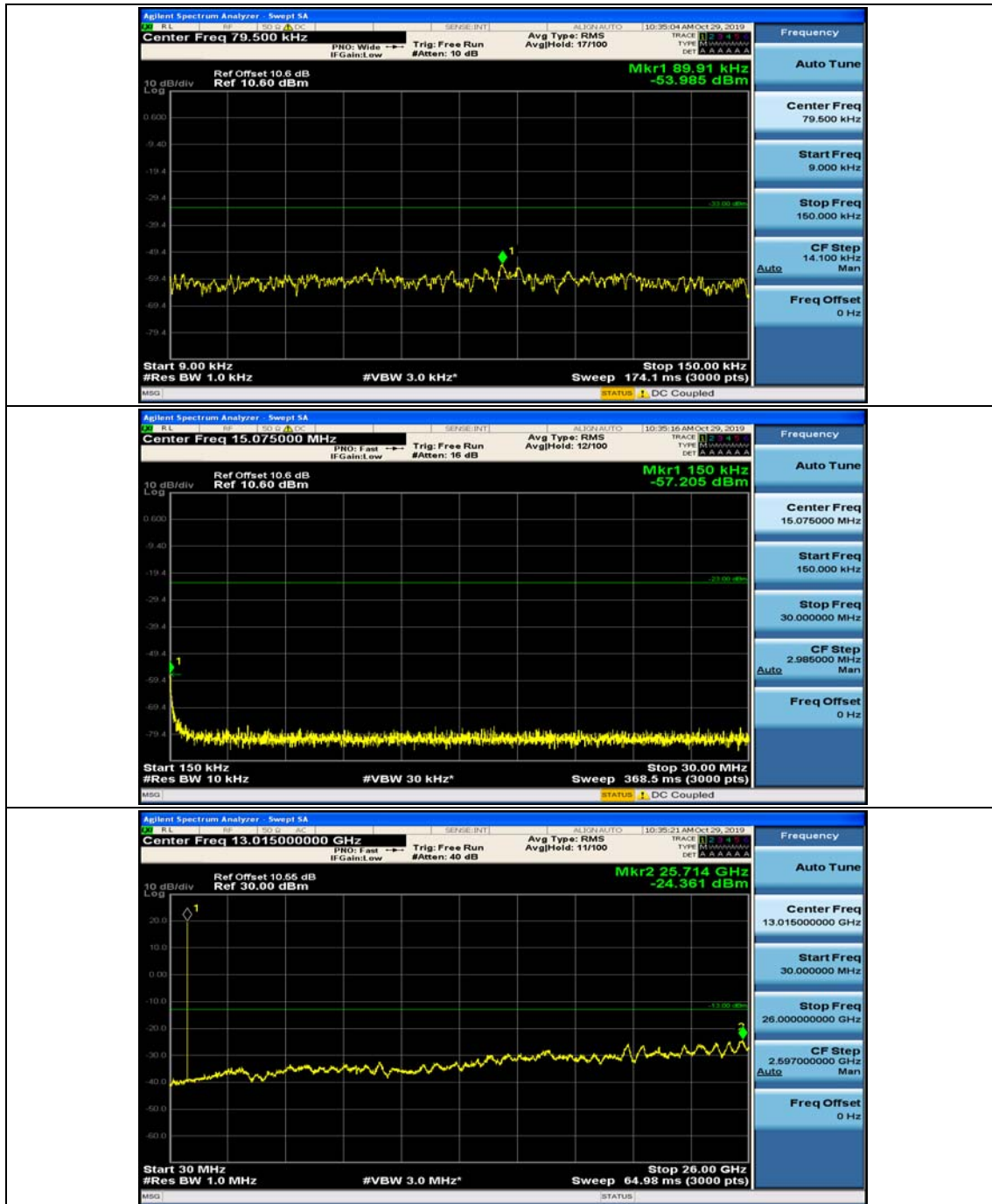
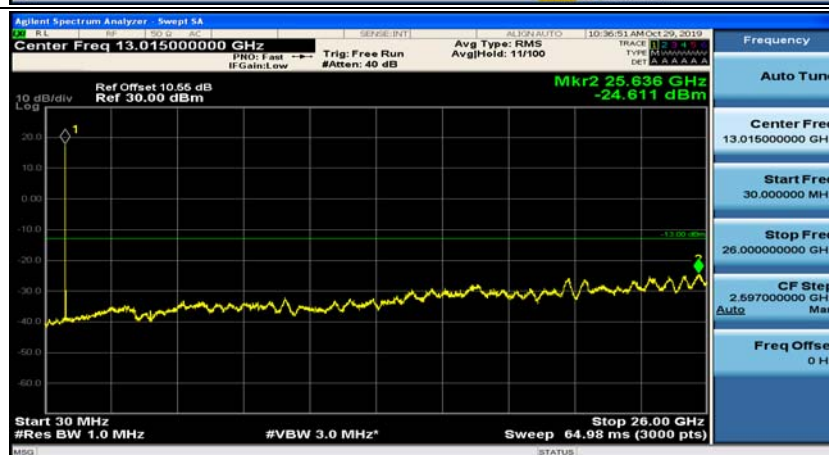
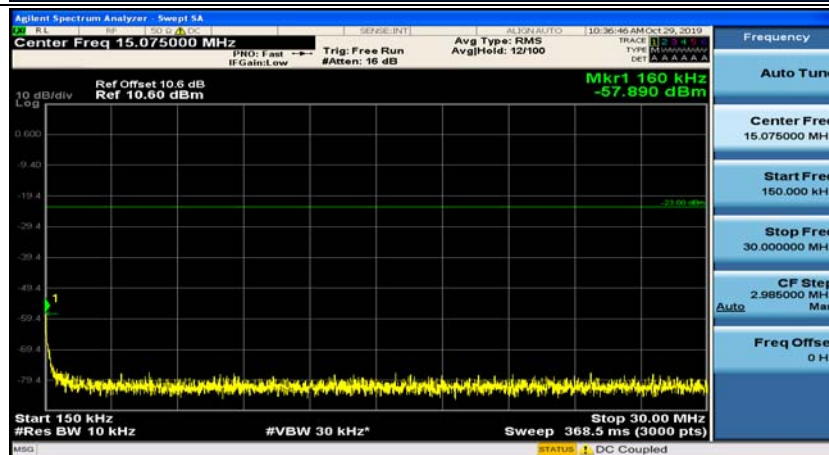
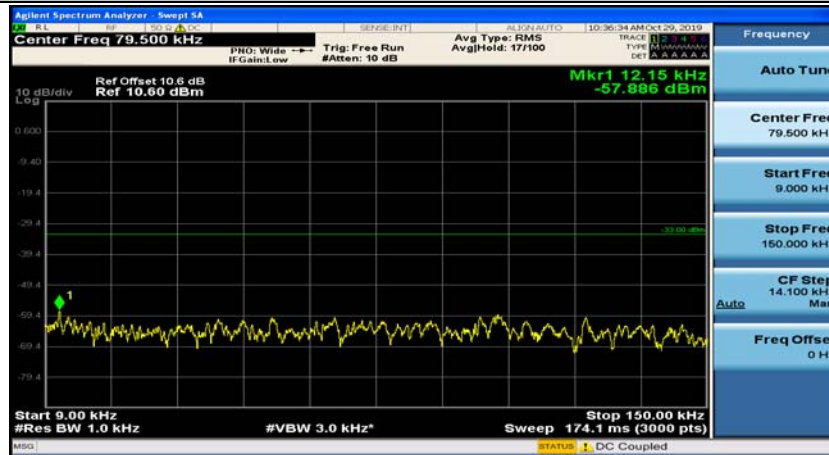


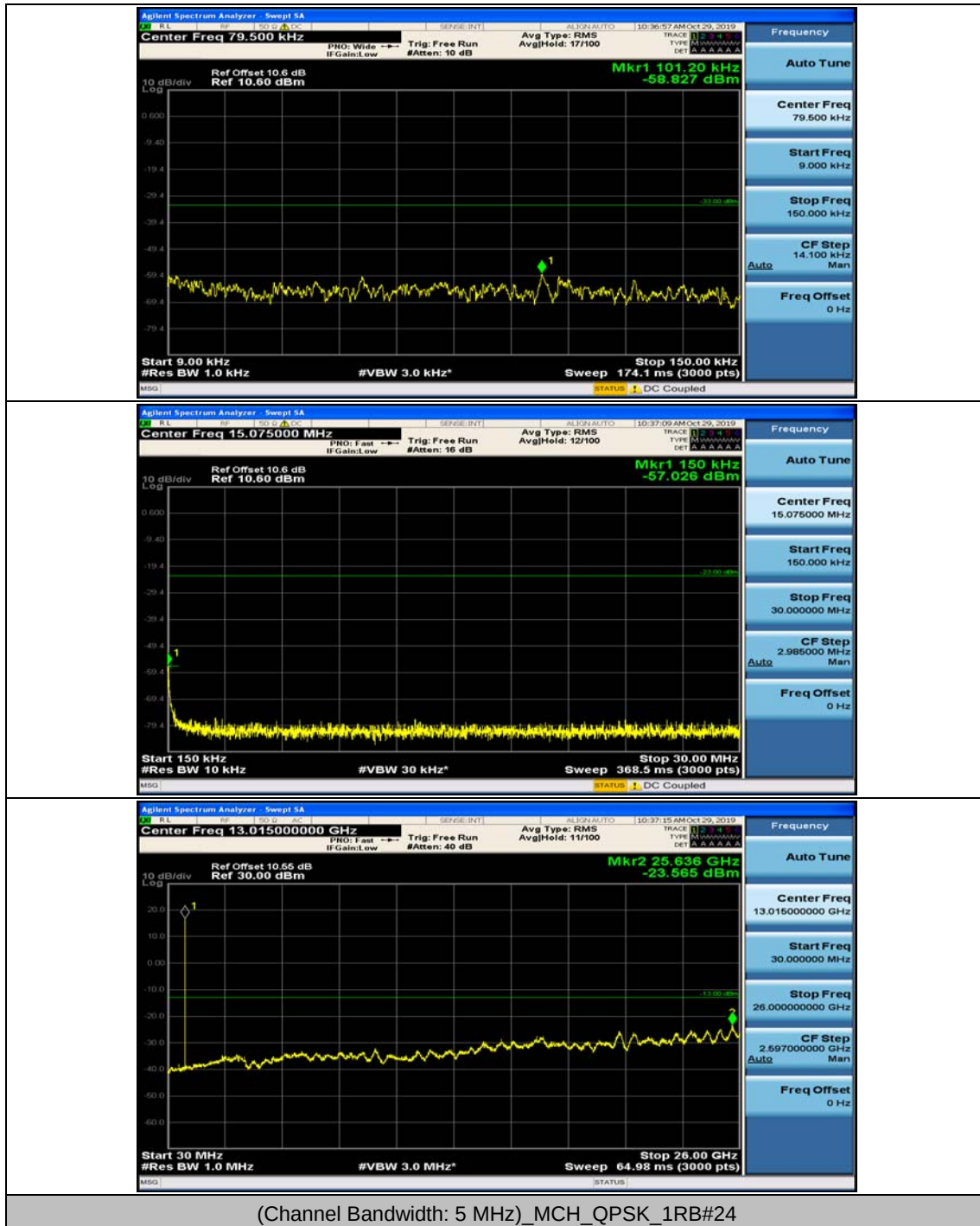


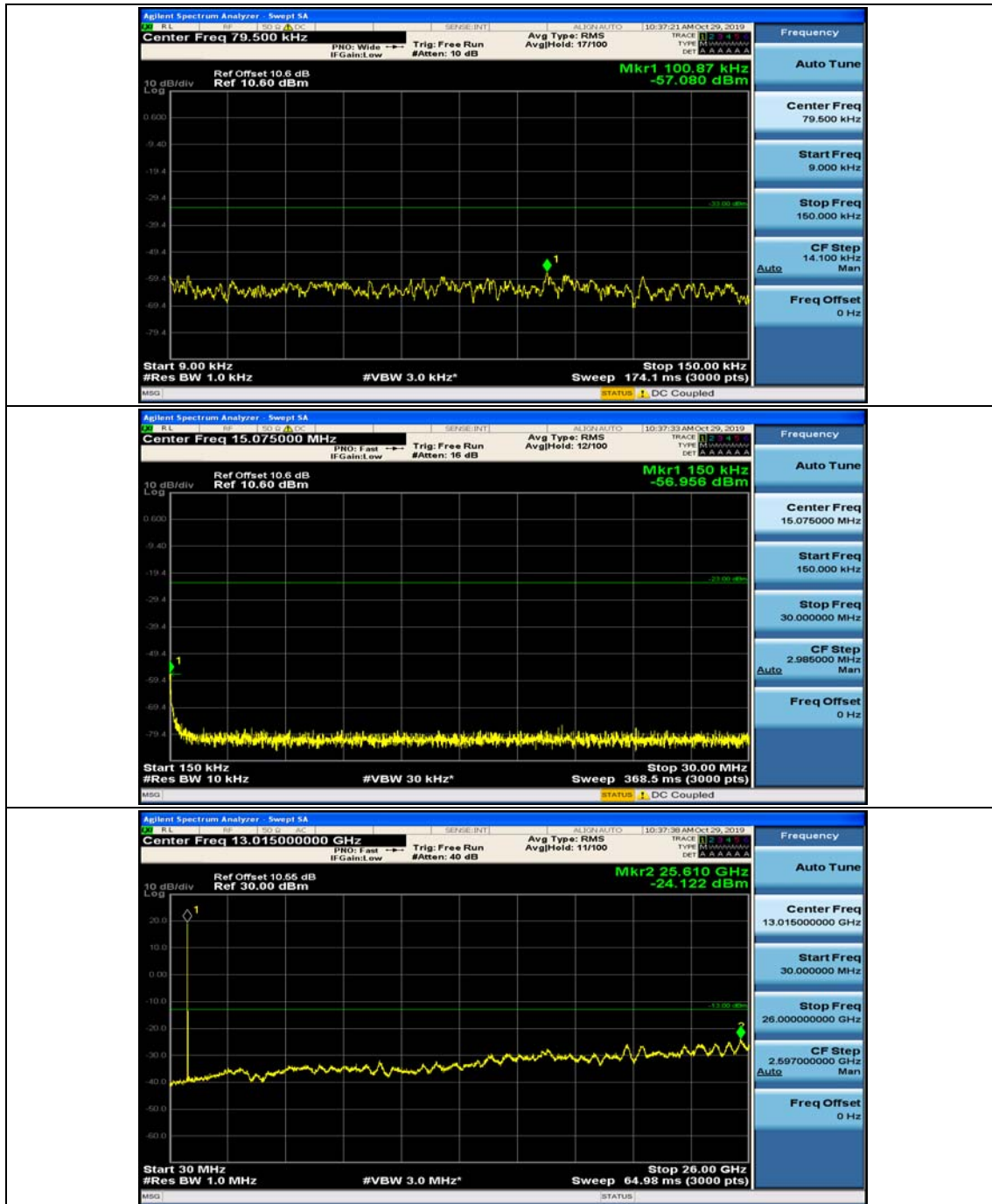


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

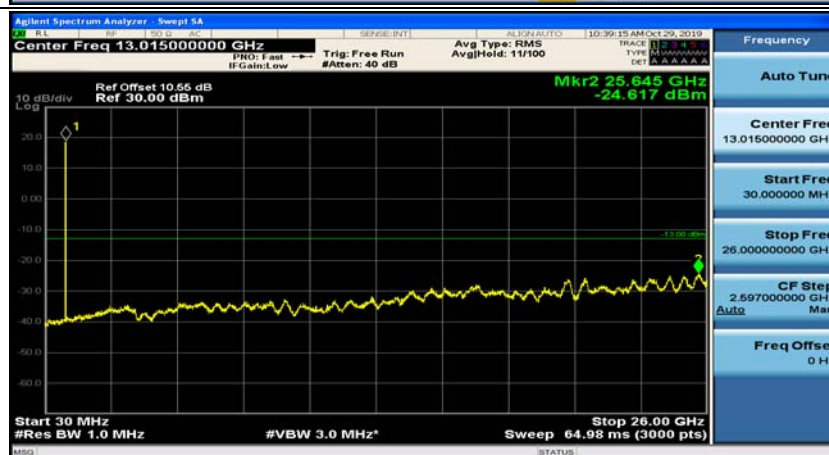
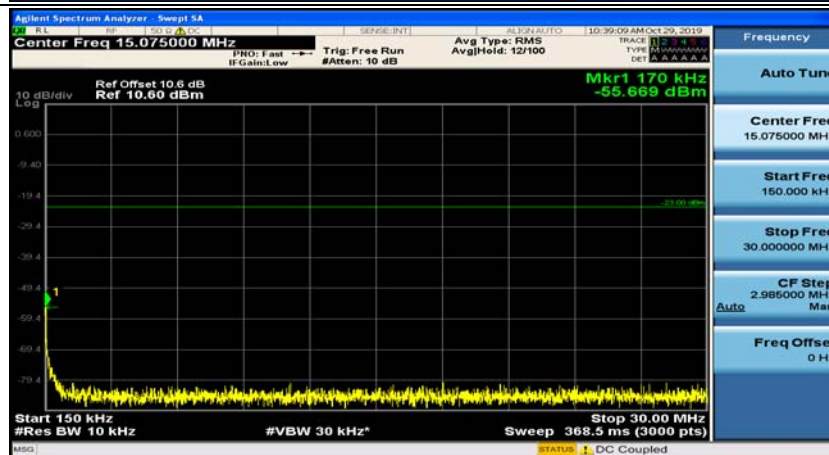
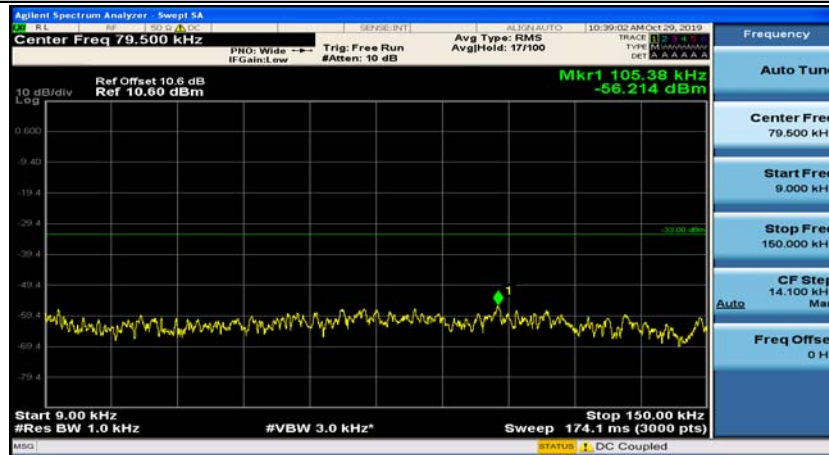


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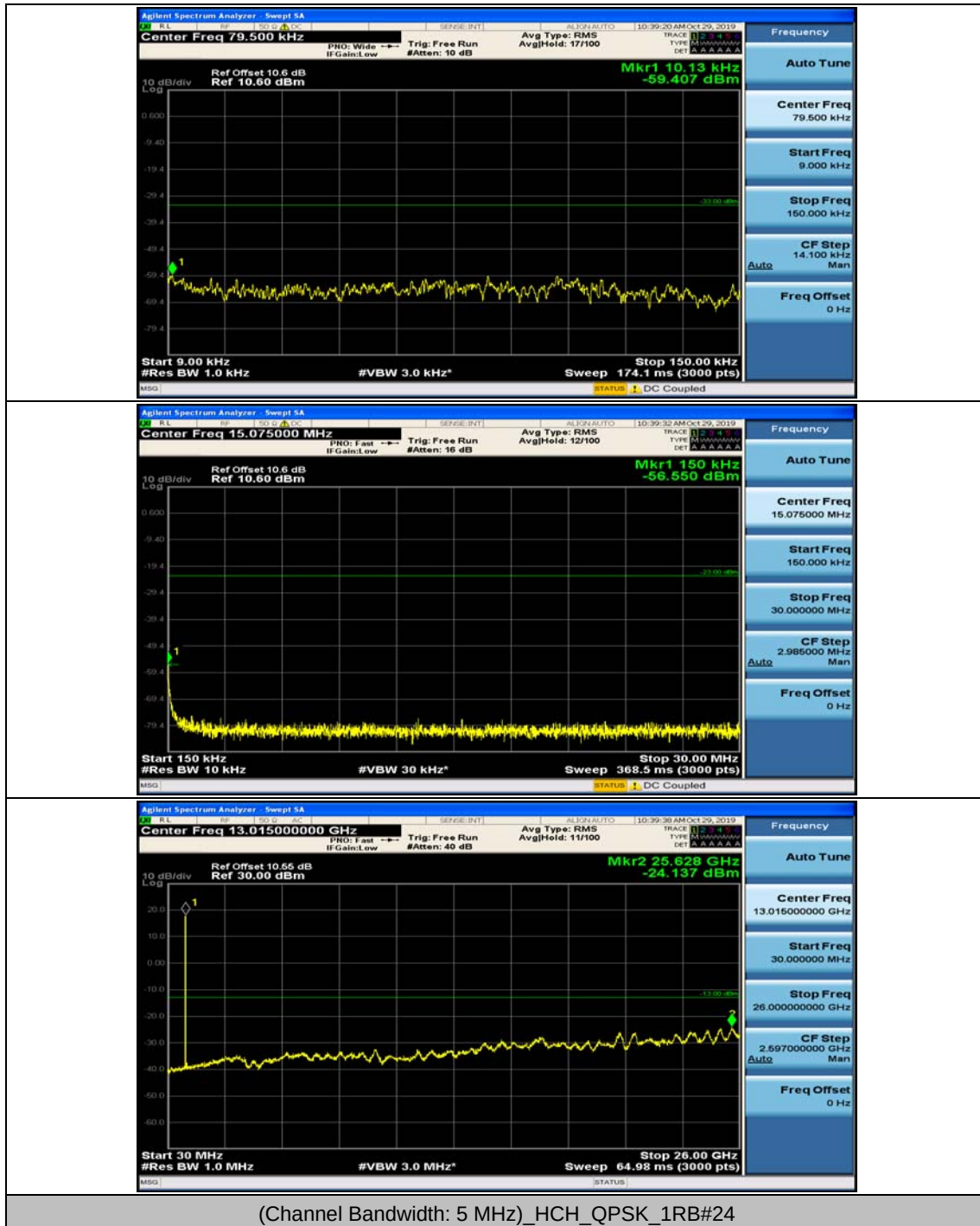


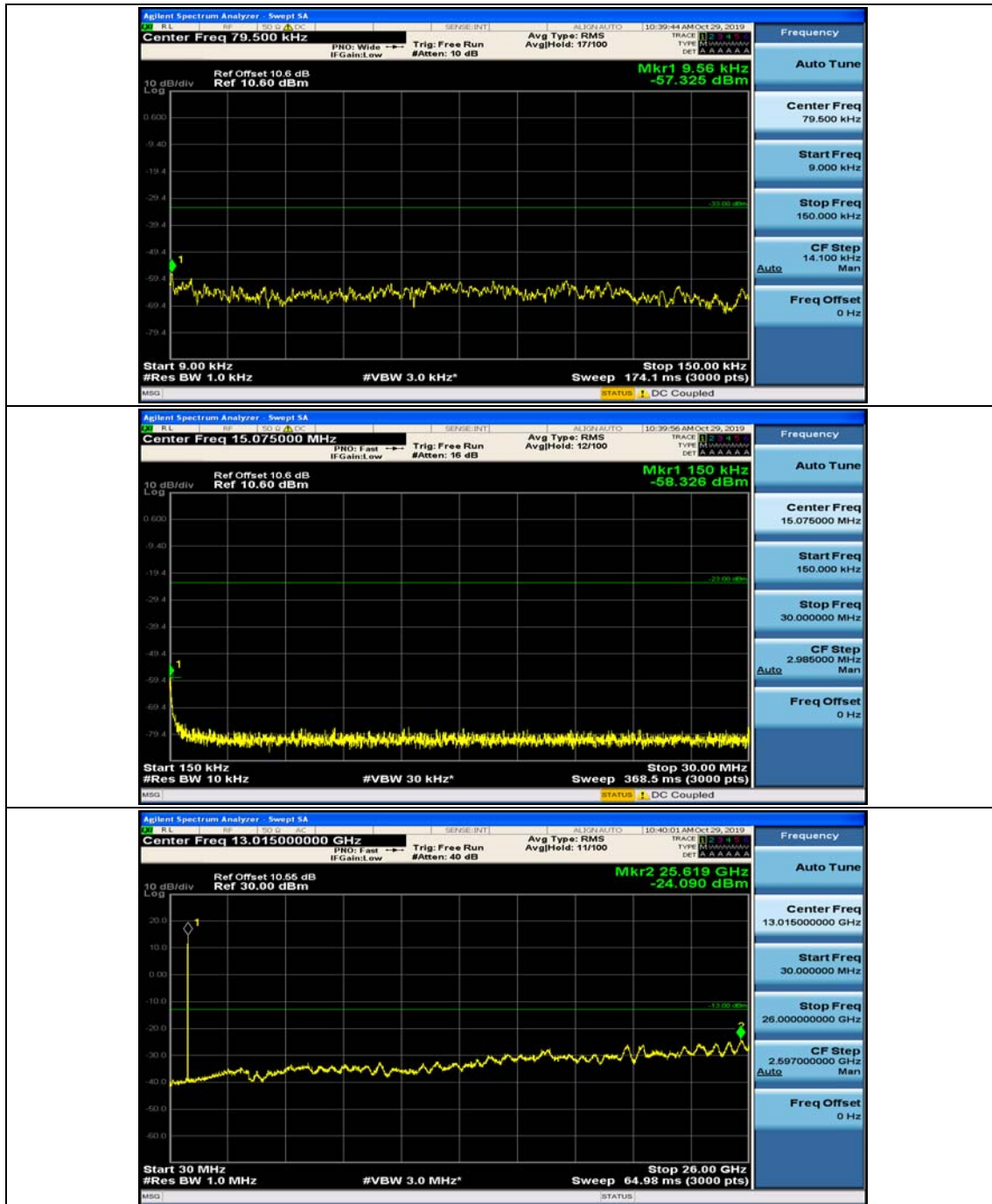


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

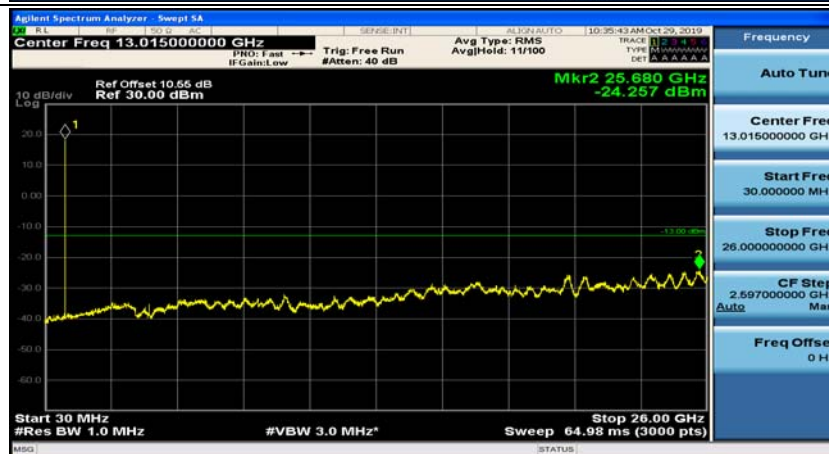
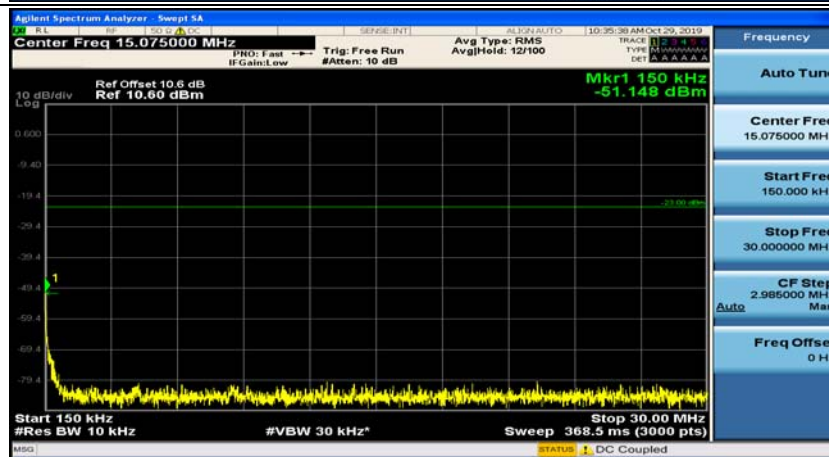
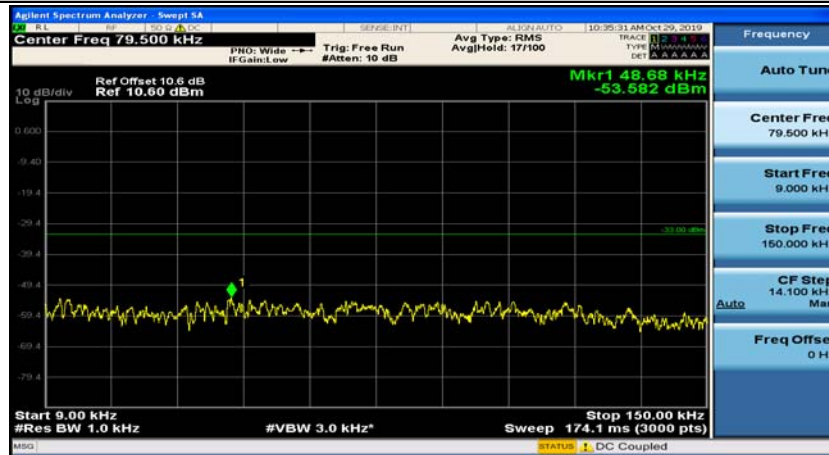


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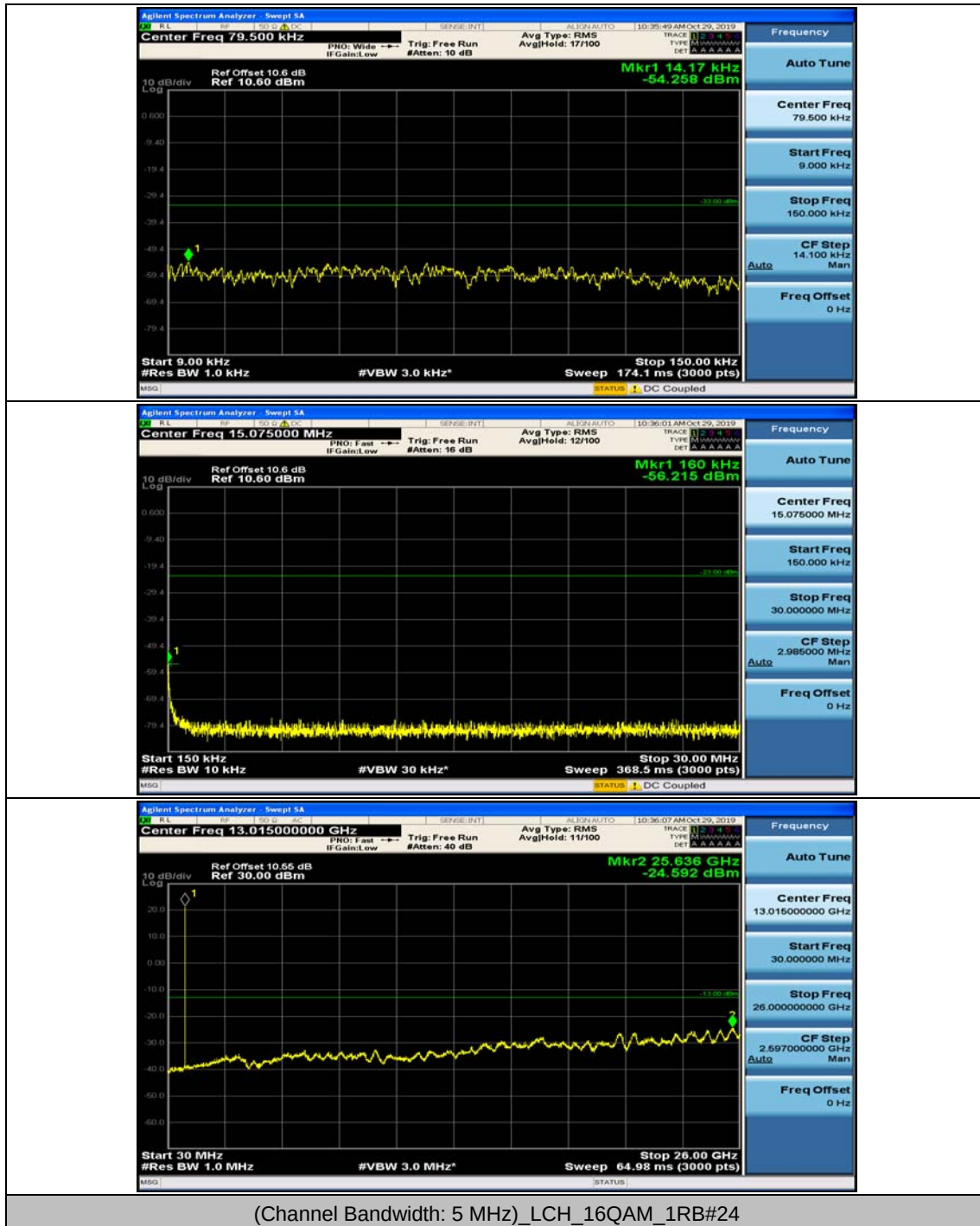


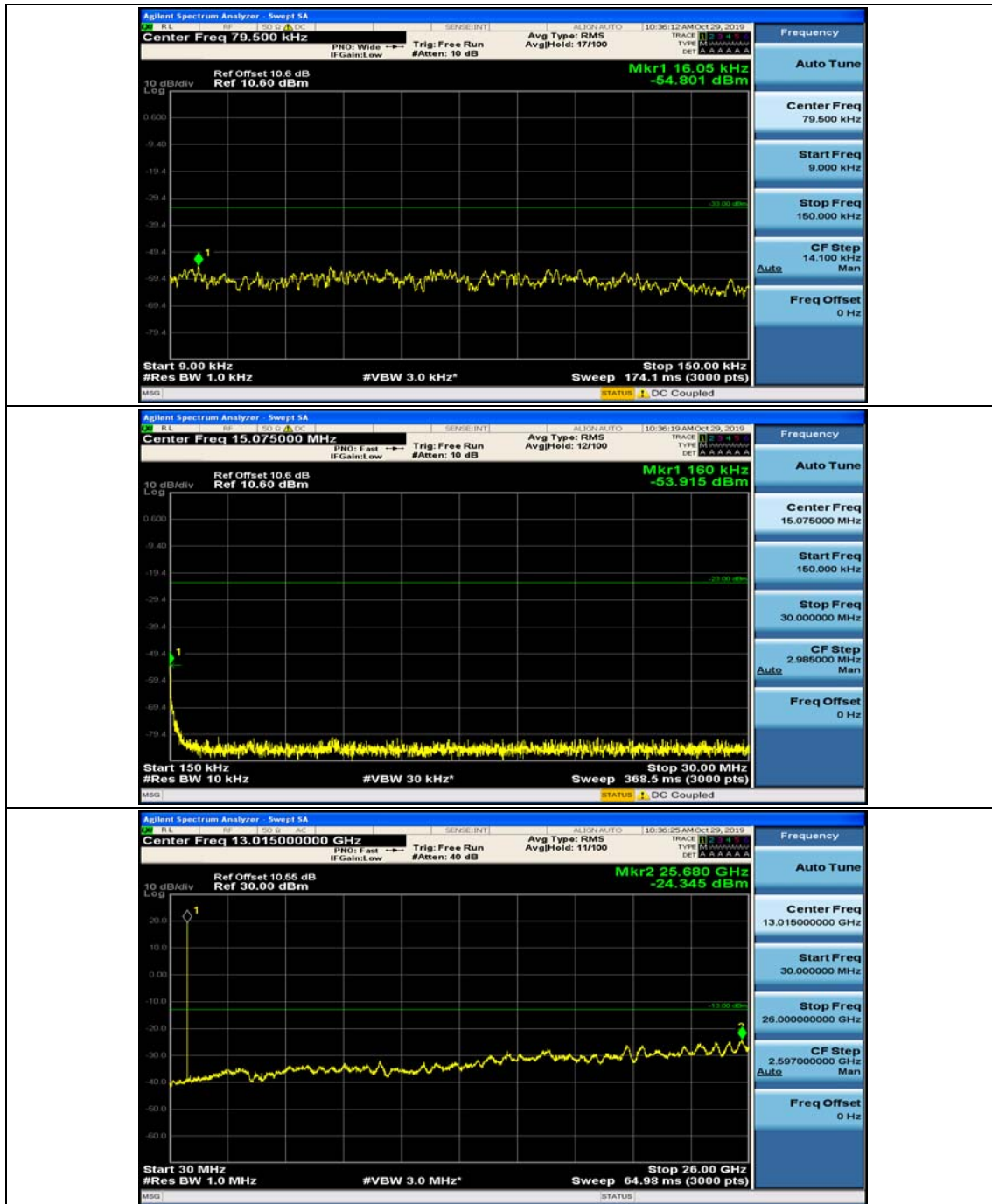


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

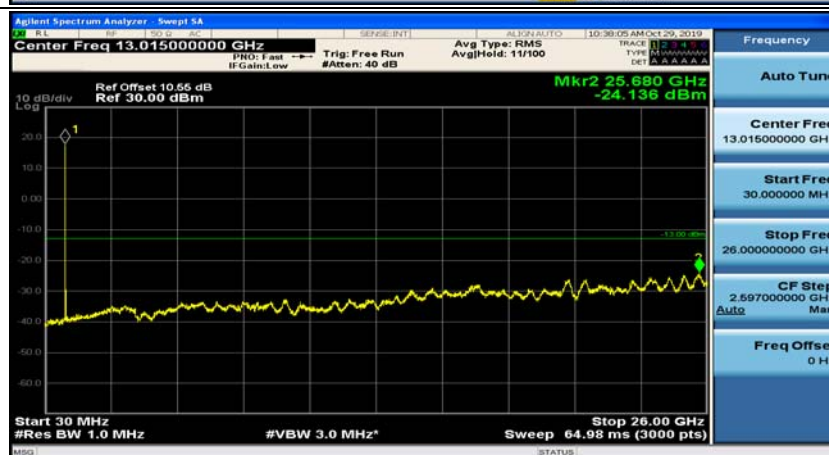
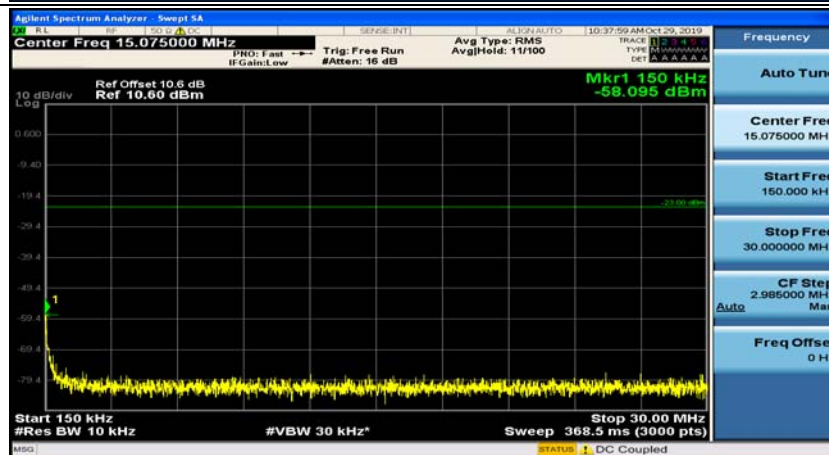
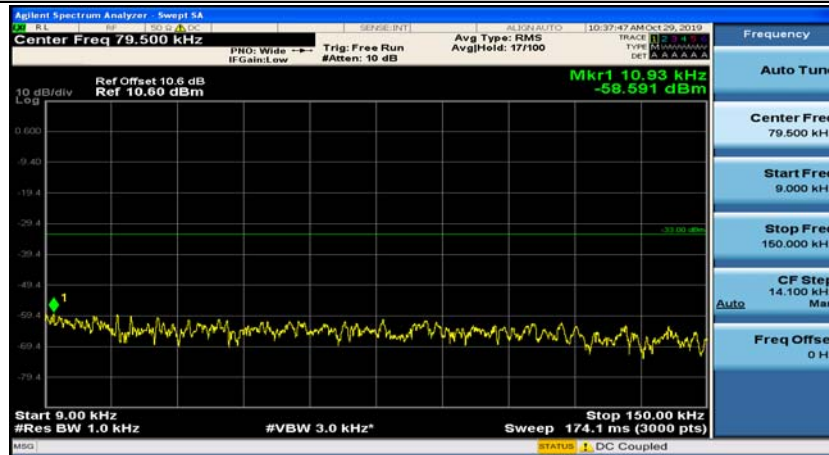


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

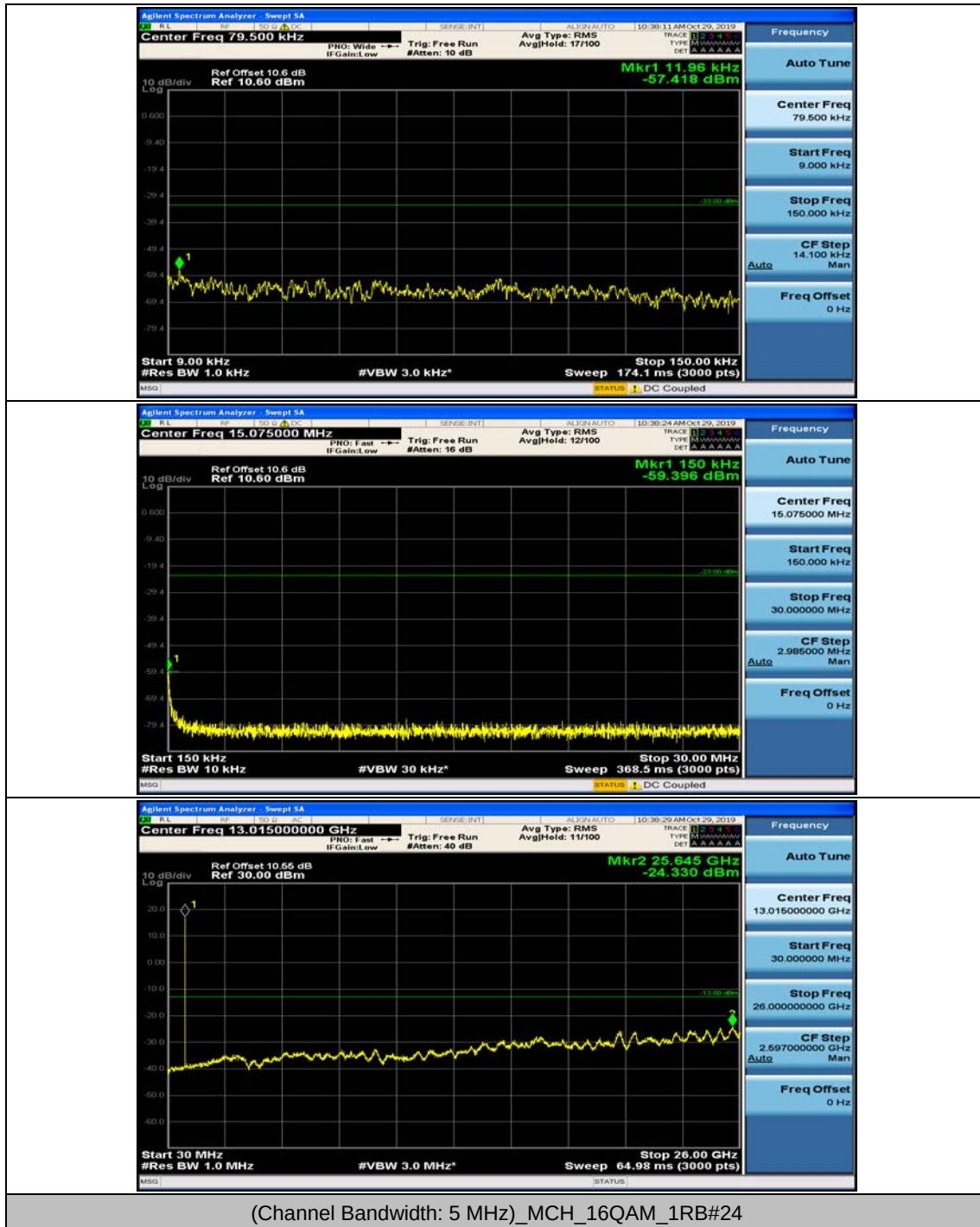


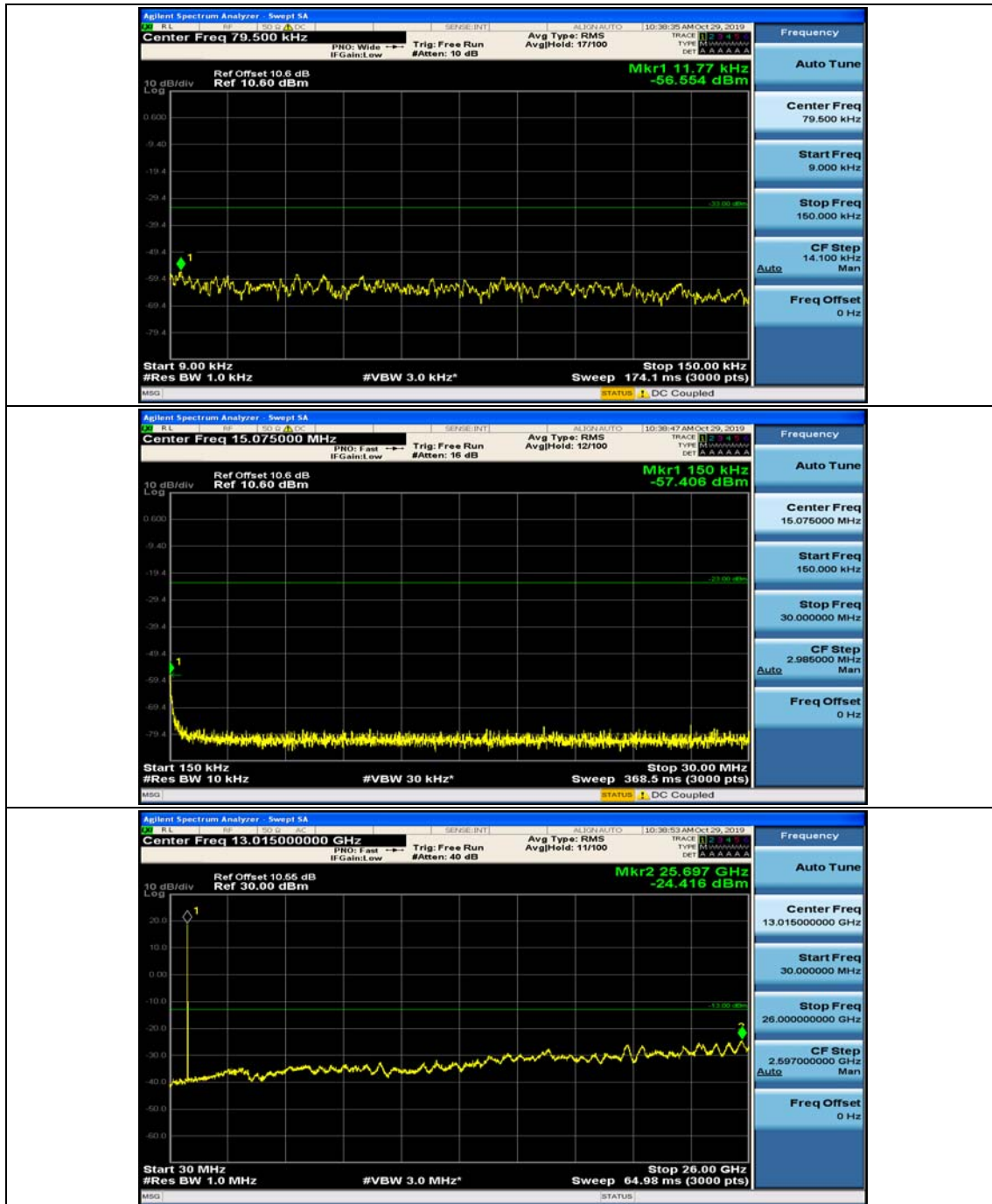


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

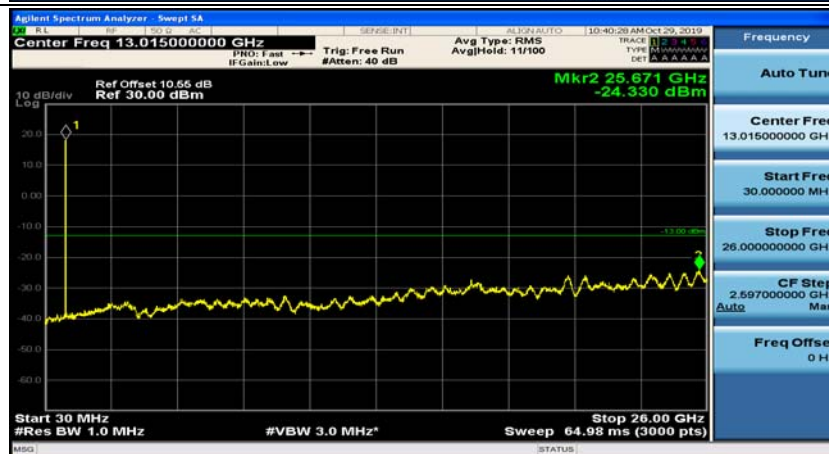
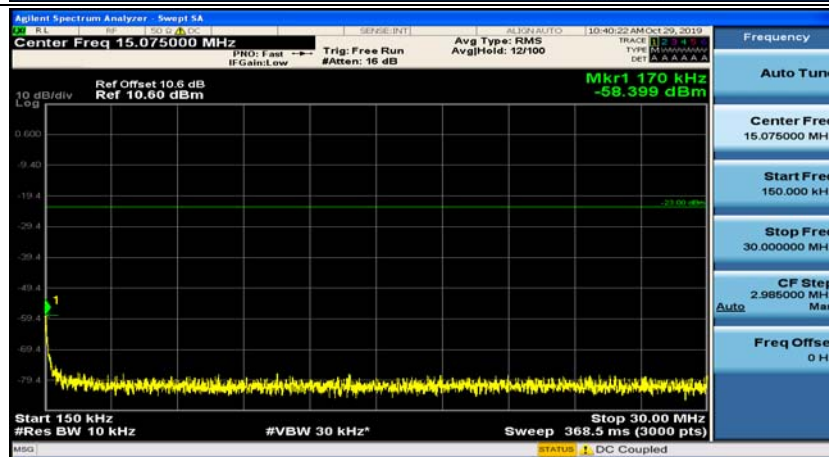
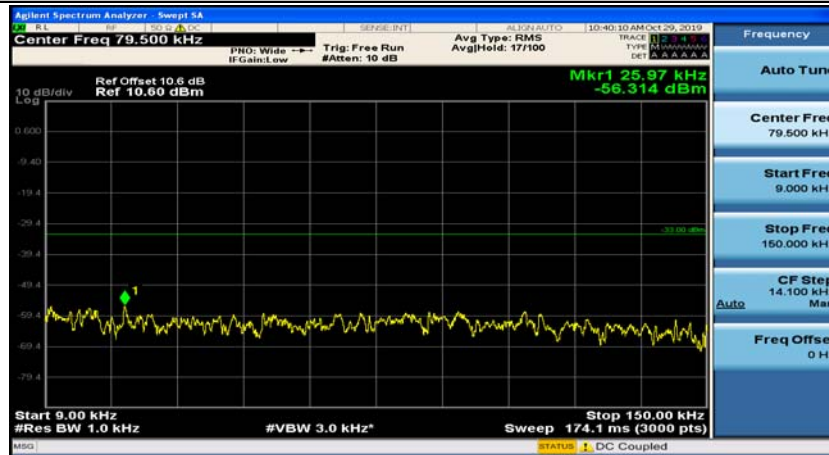


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

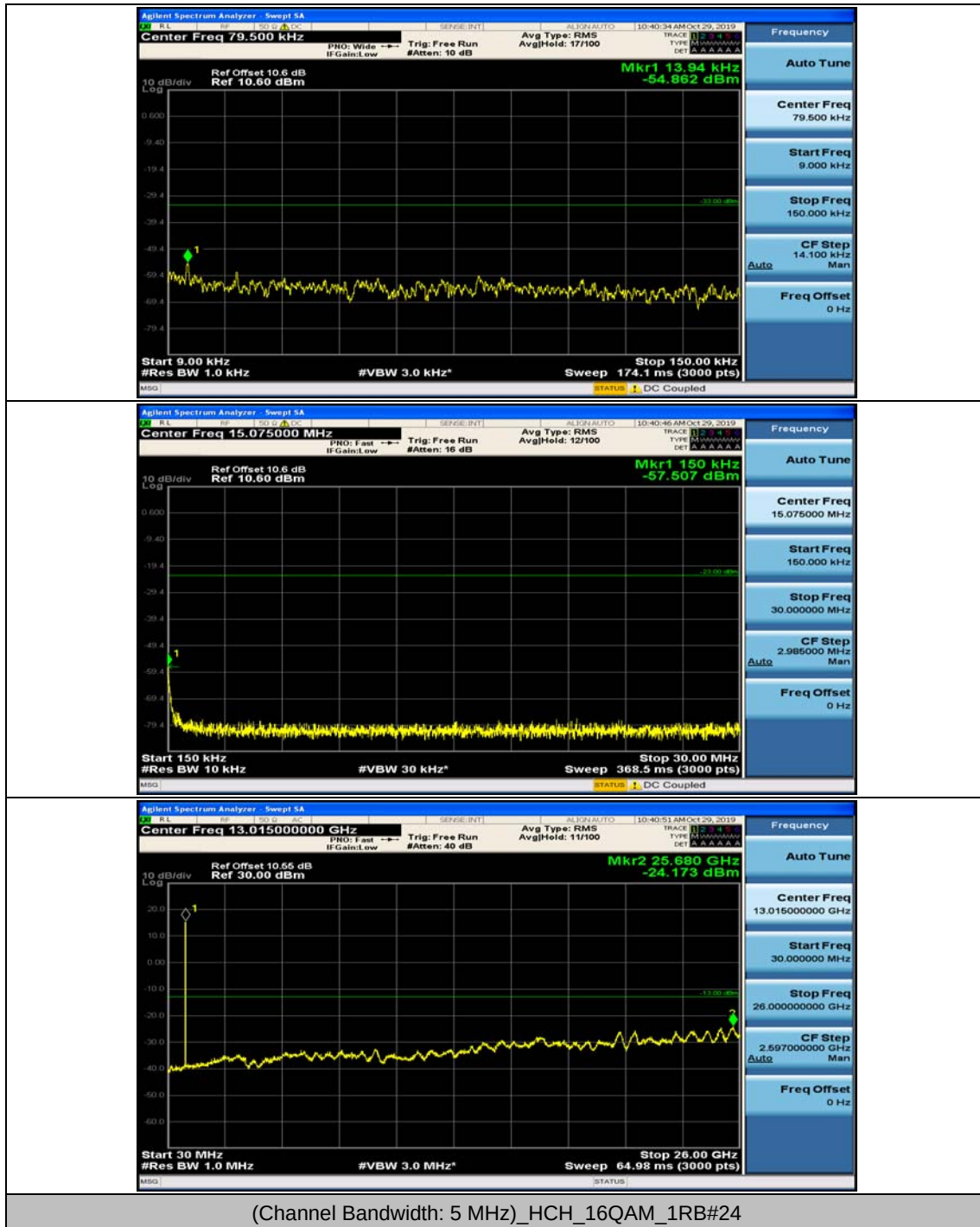


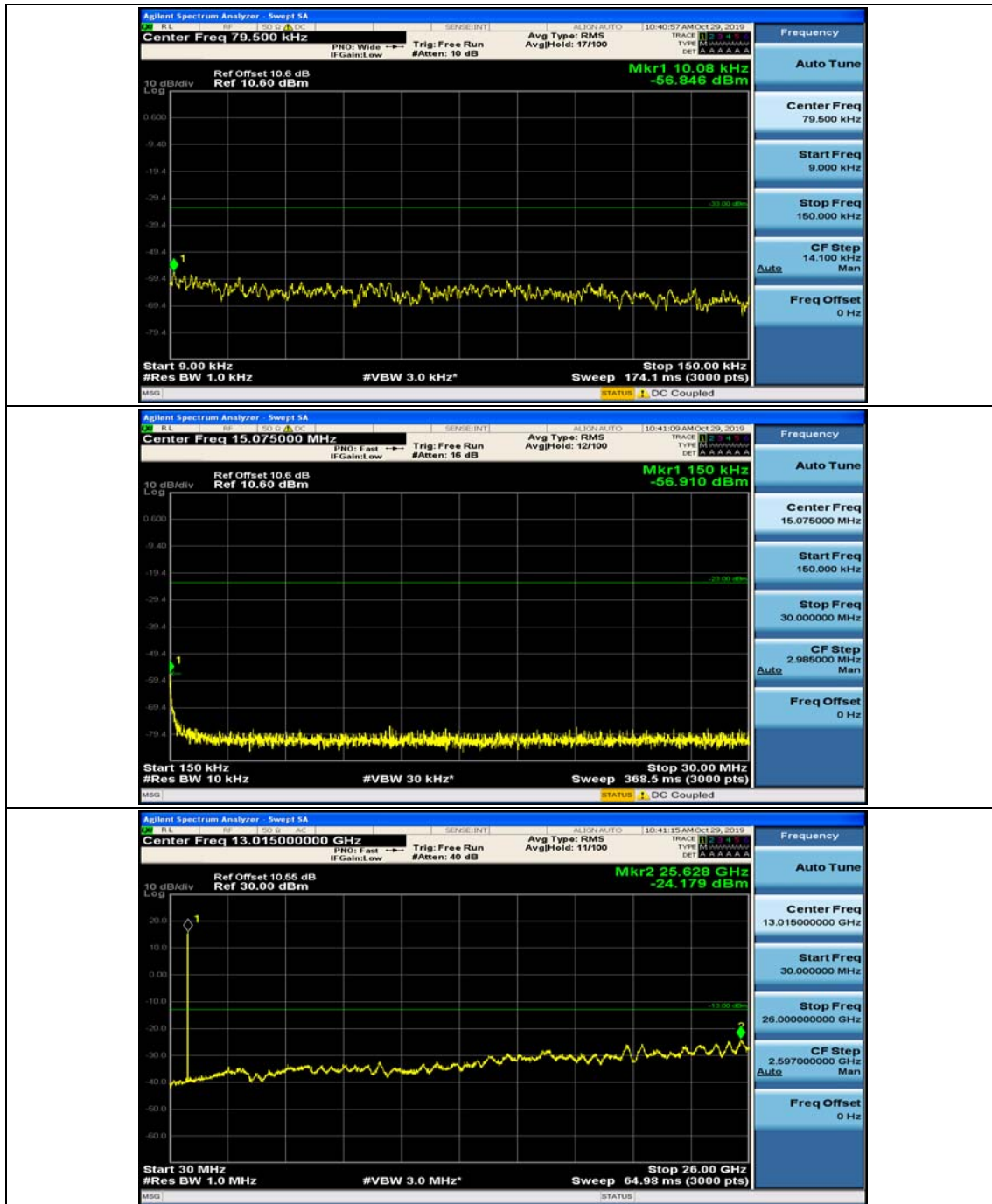


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

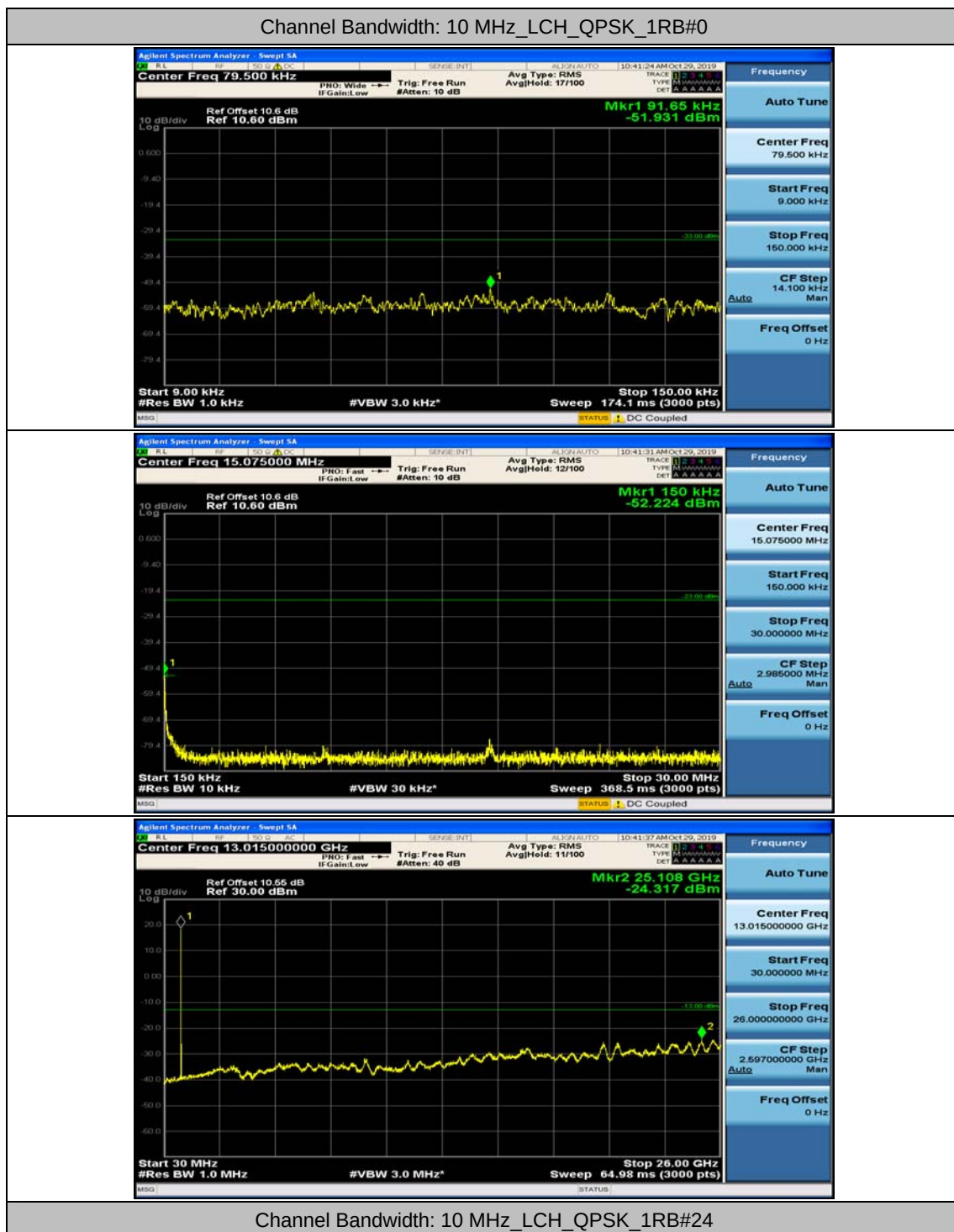


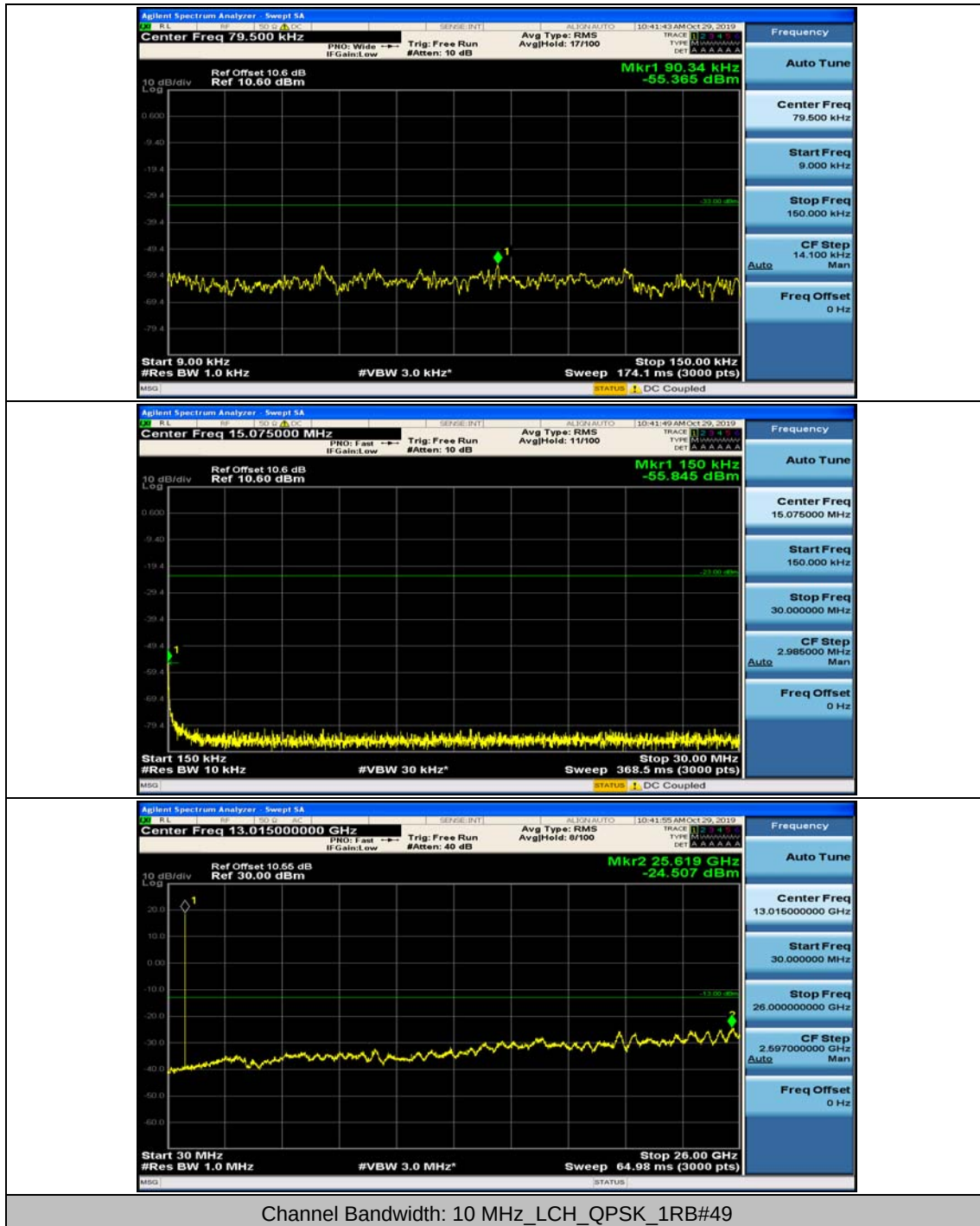
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

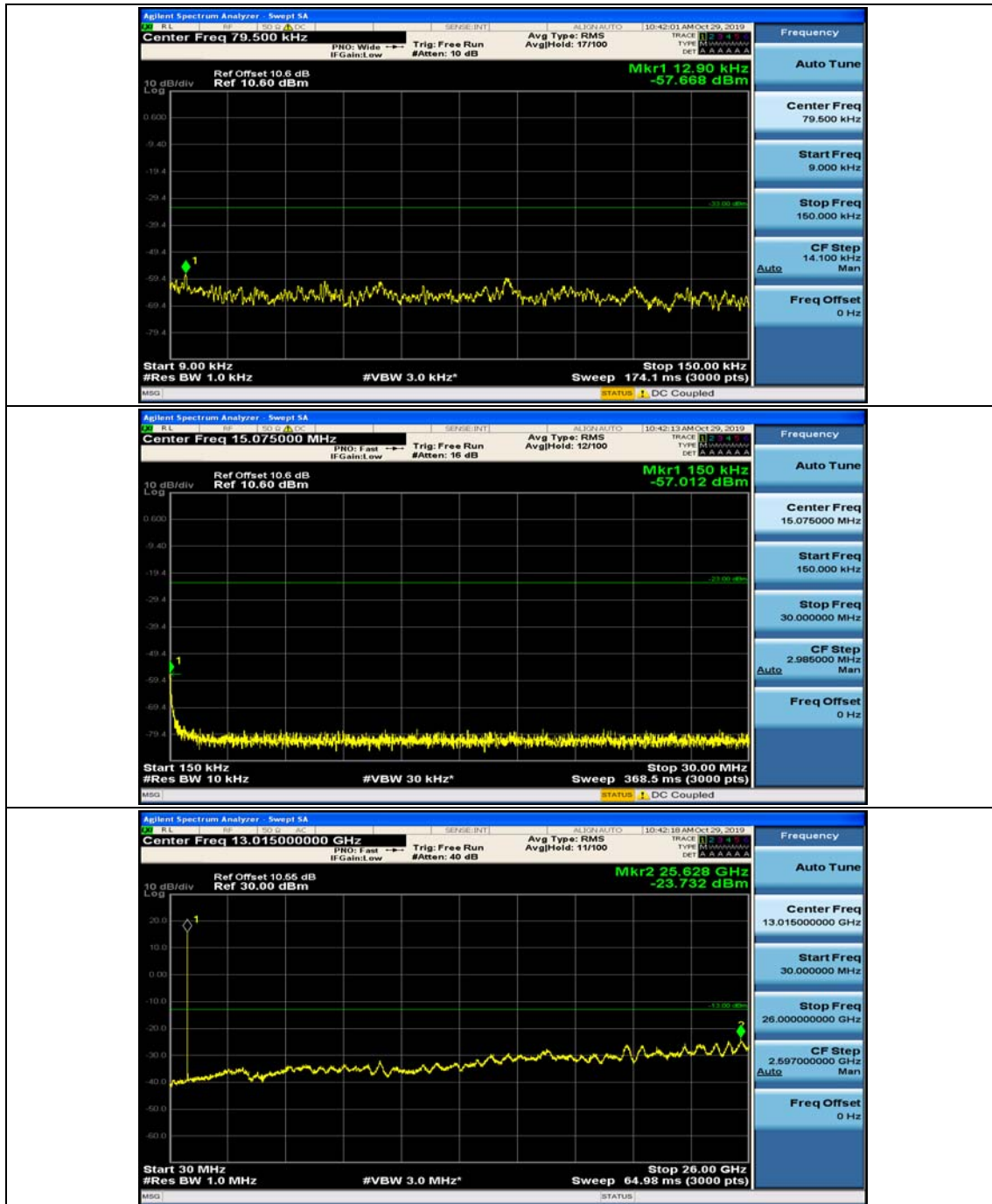




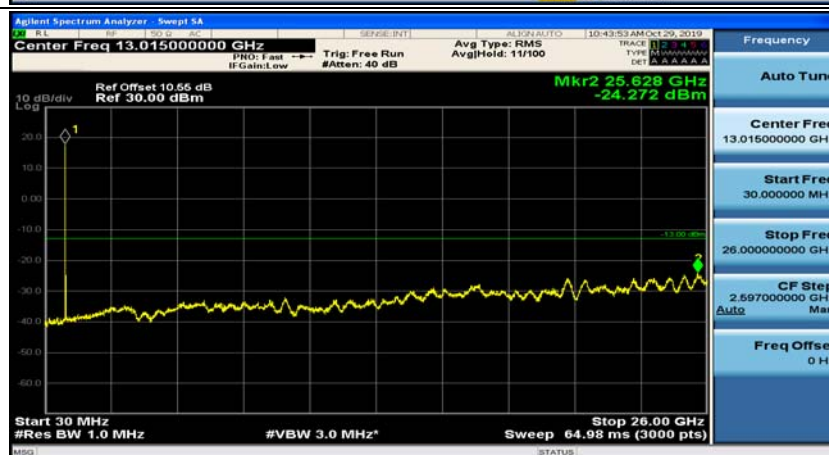
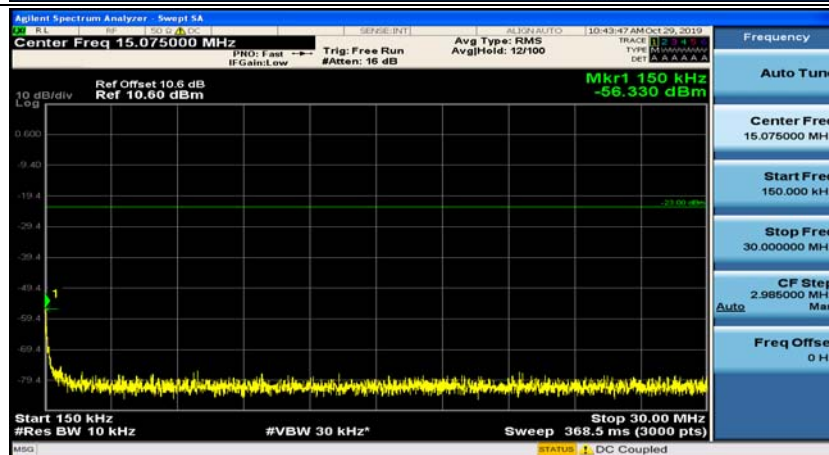
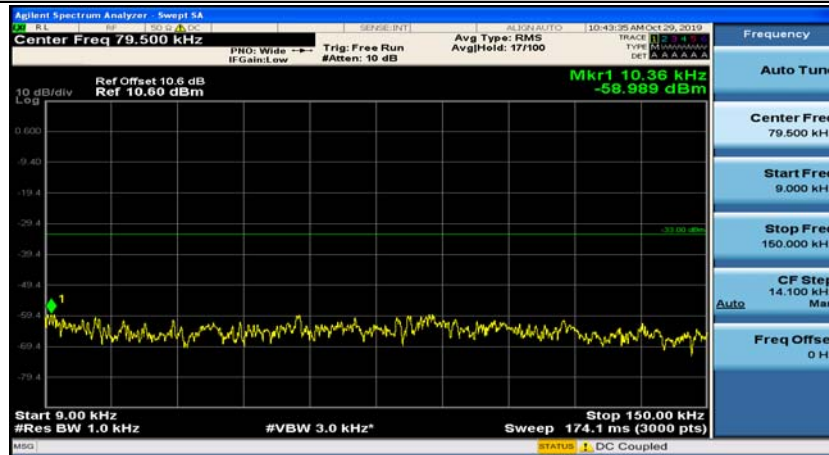
Channel Bandwidth: 10 MHz



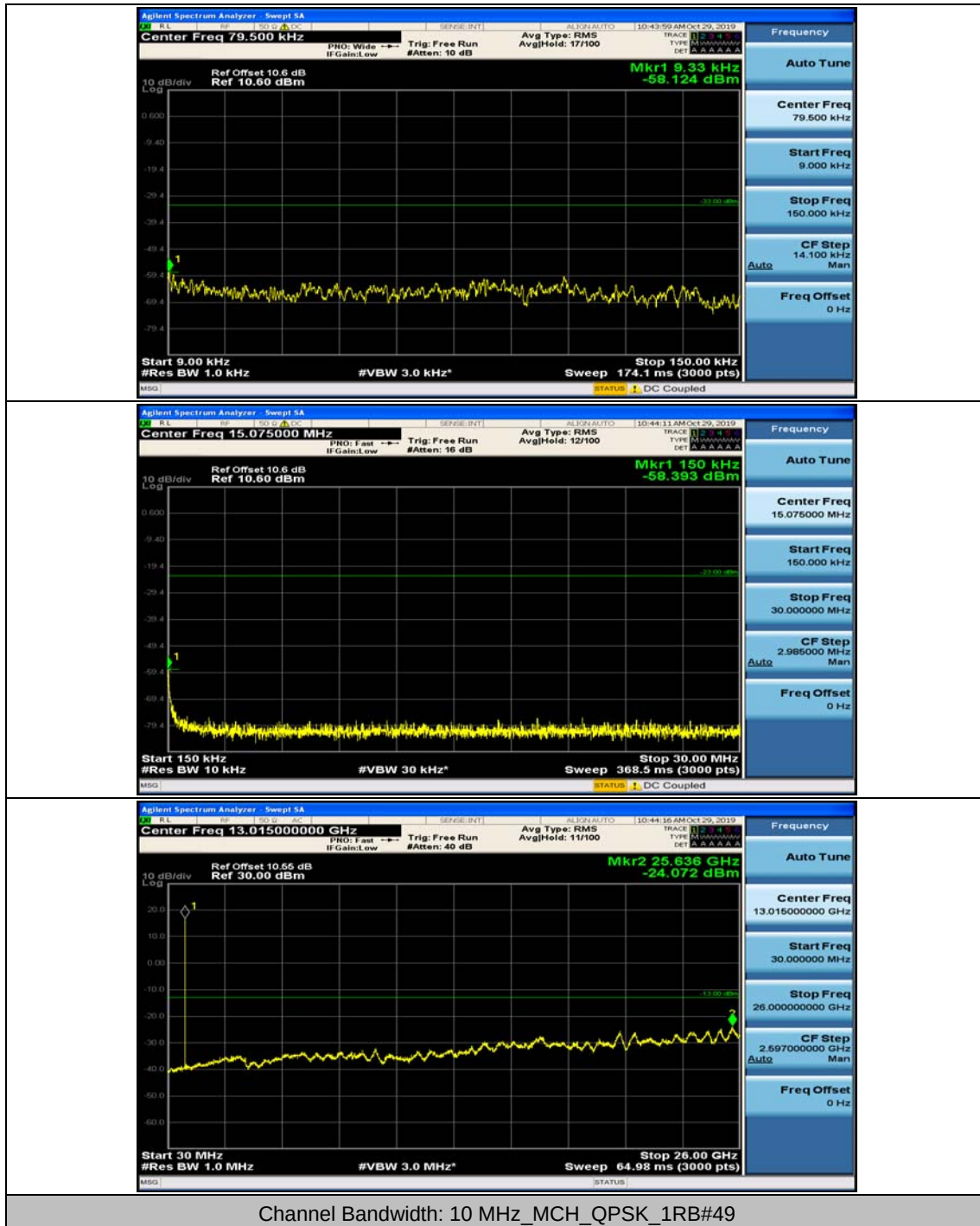


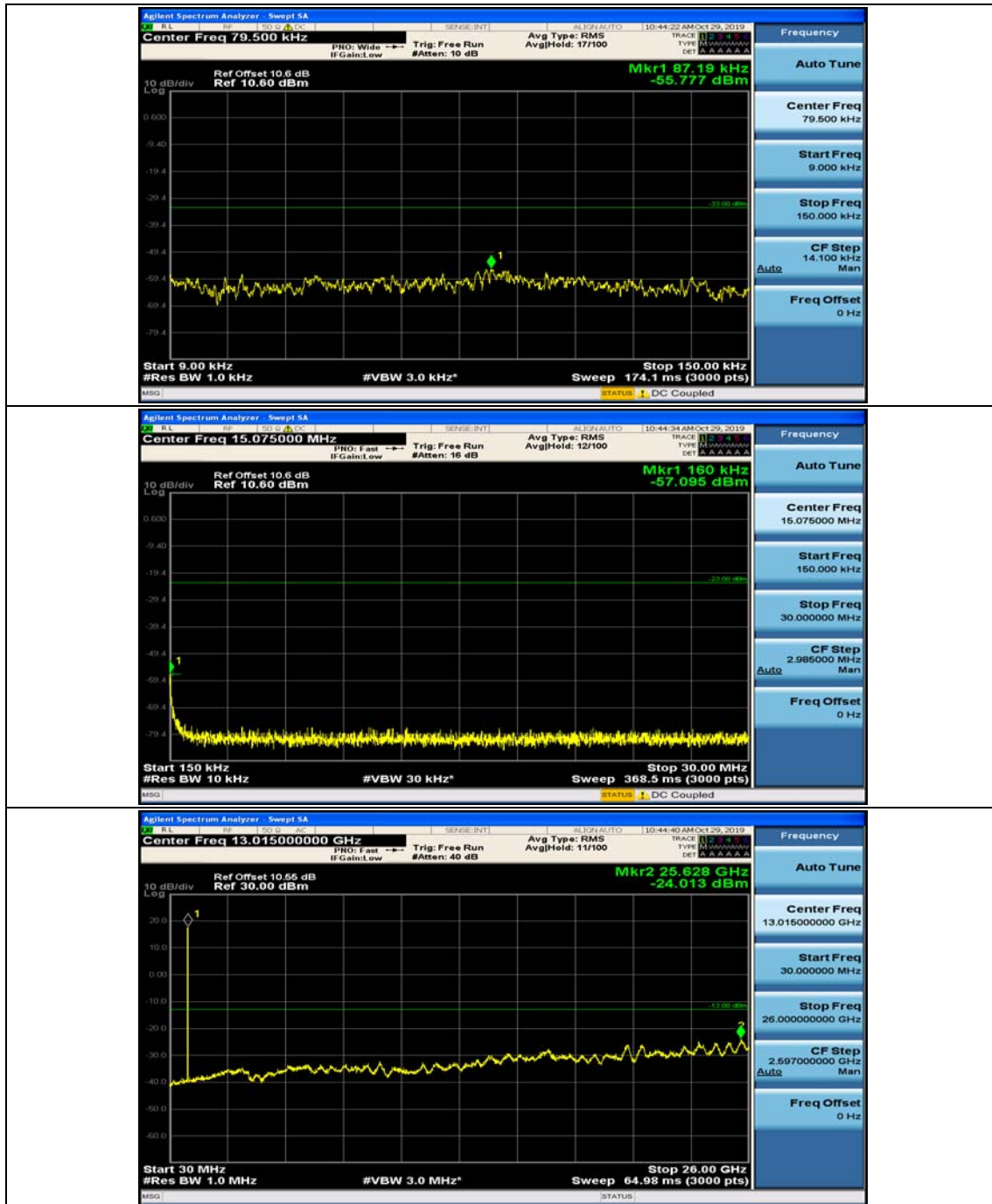


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

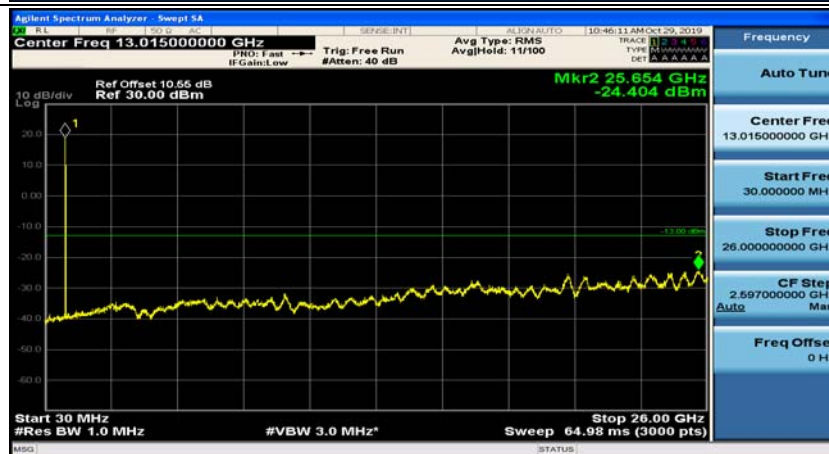
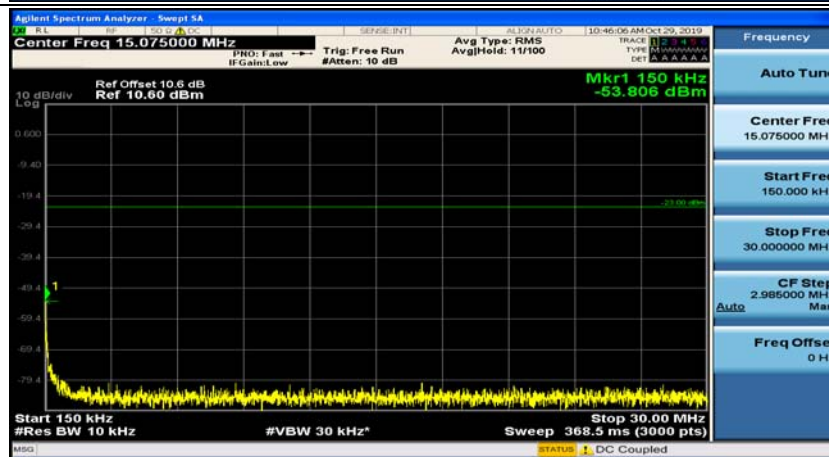
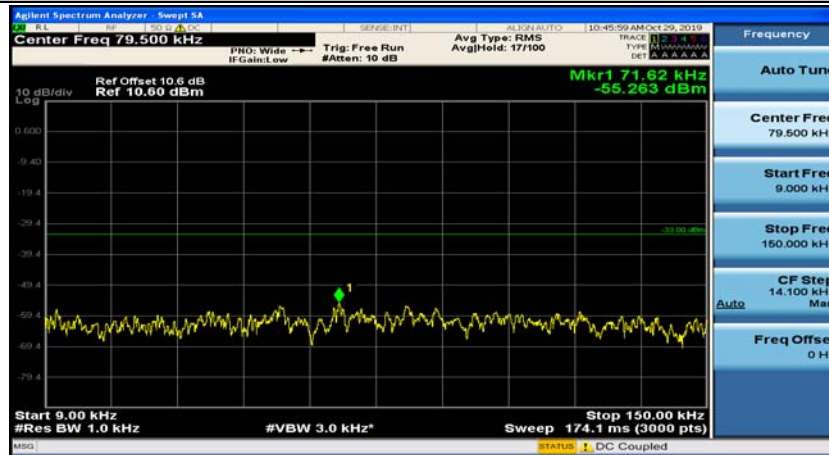


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

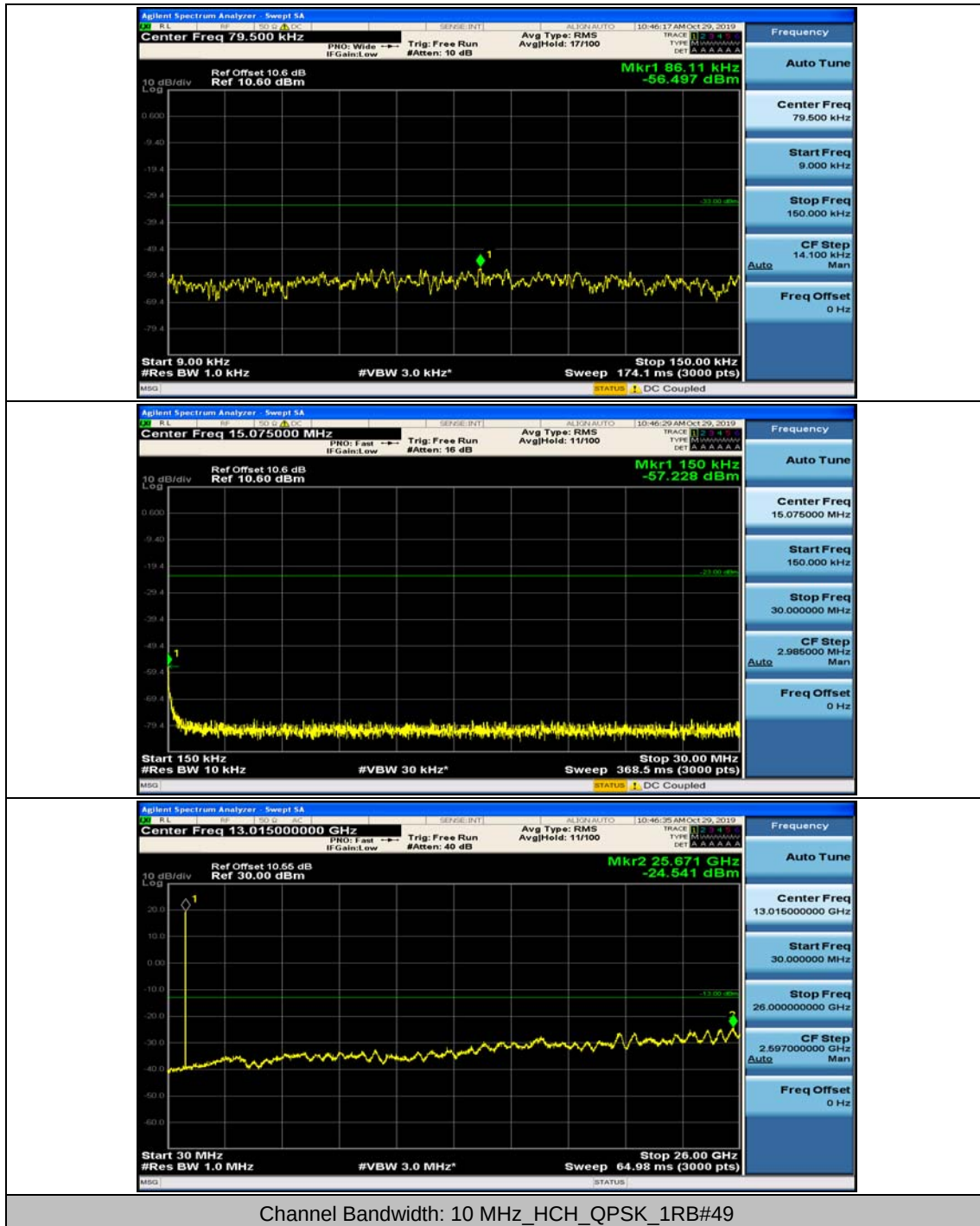


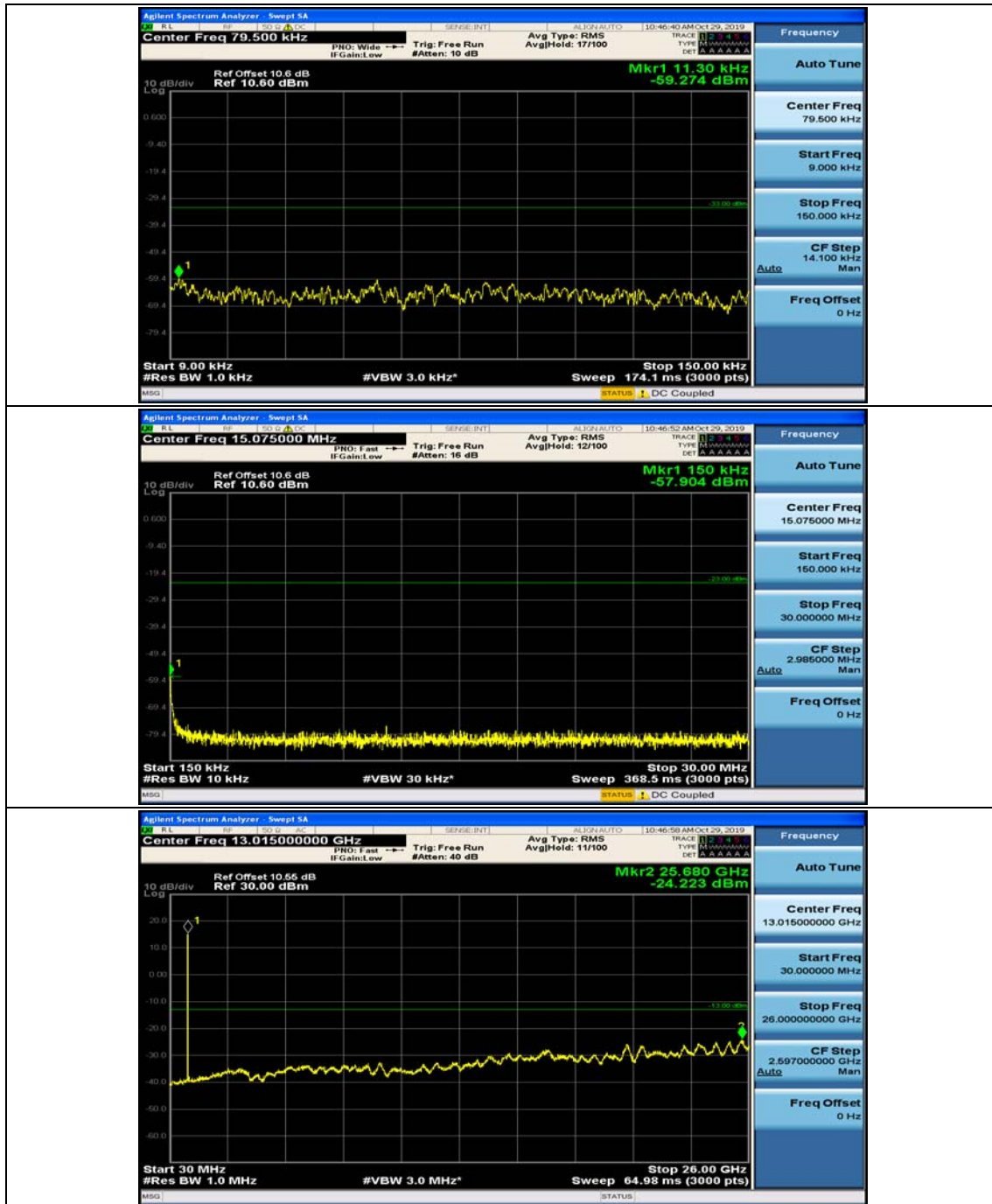


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

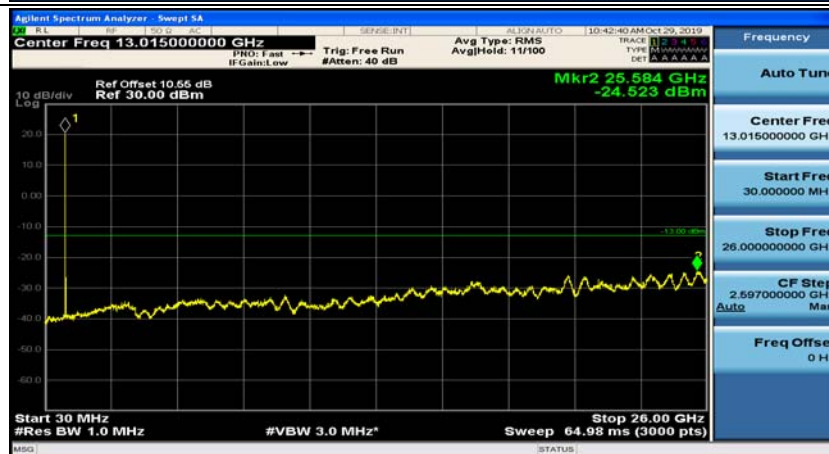
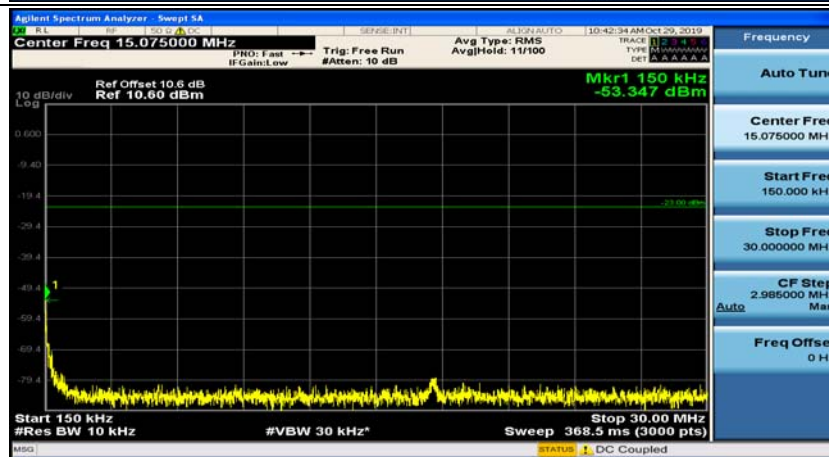
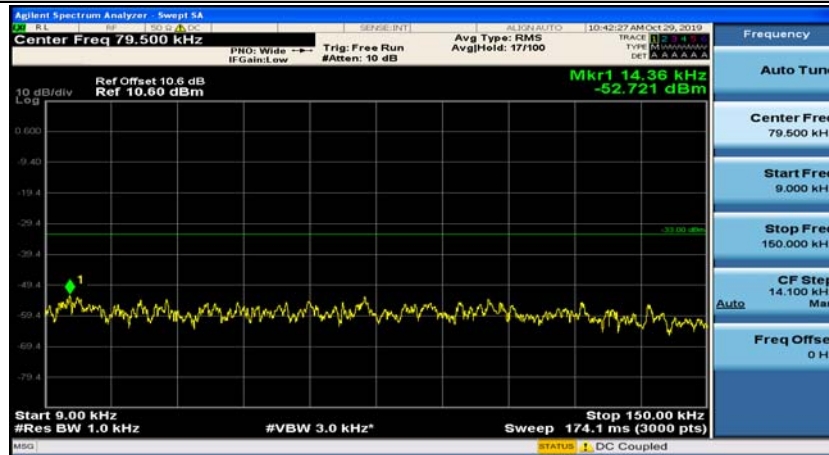


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

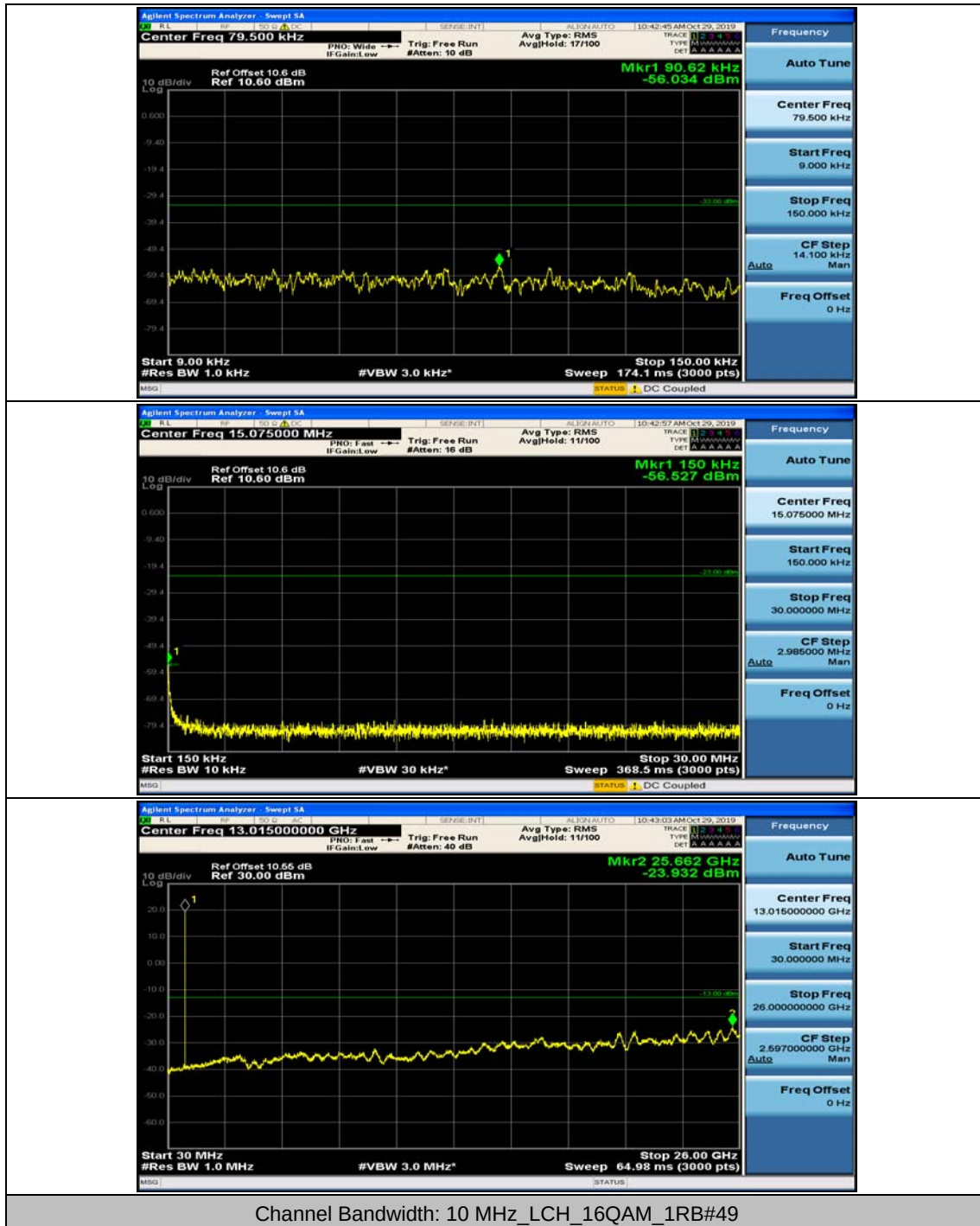


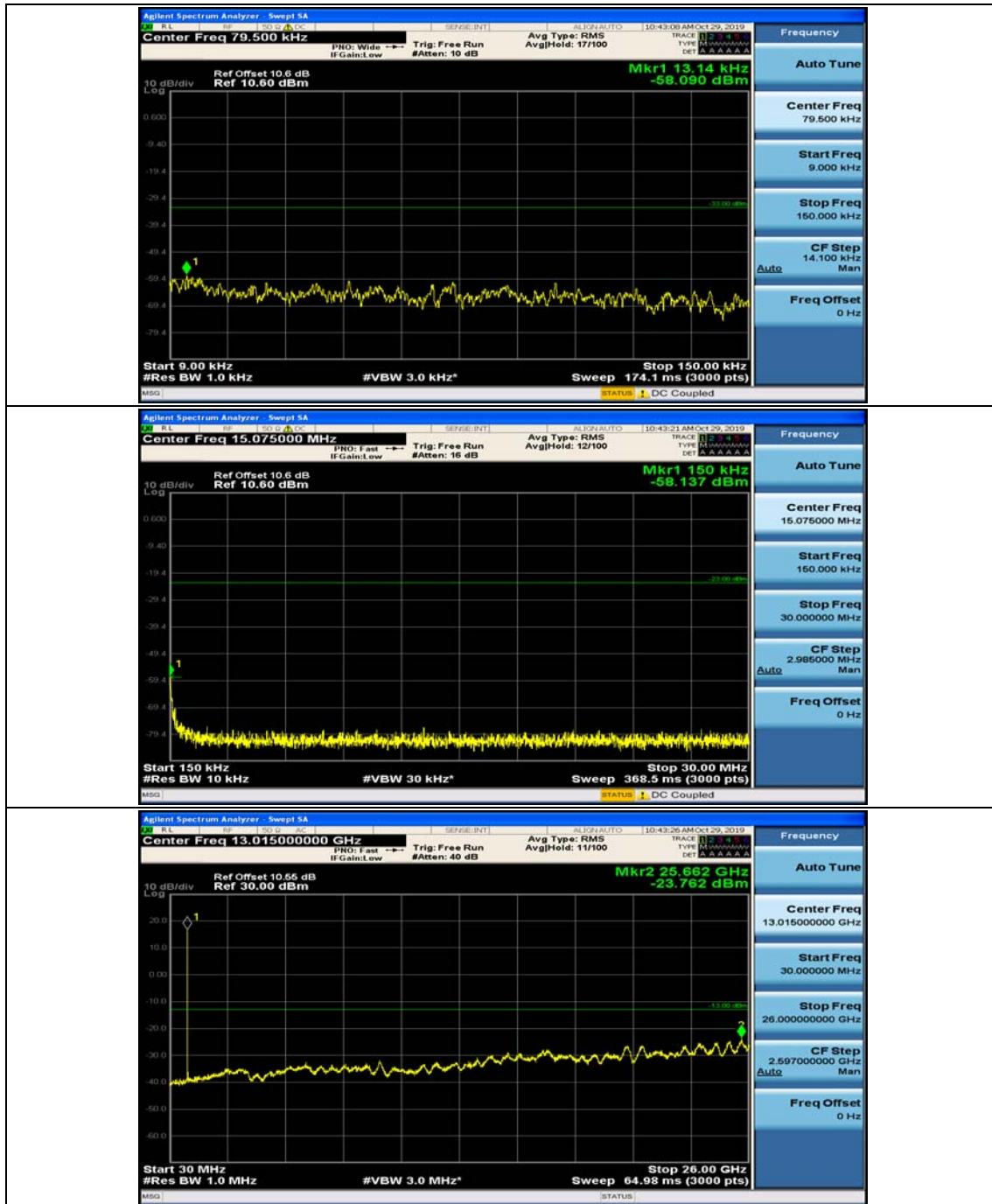


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

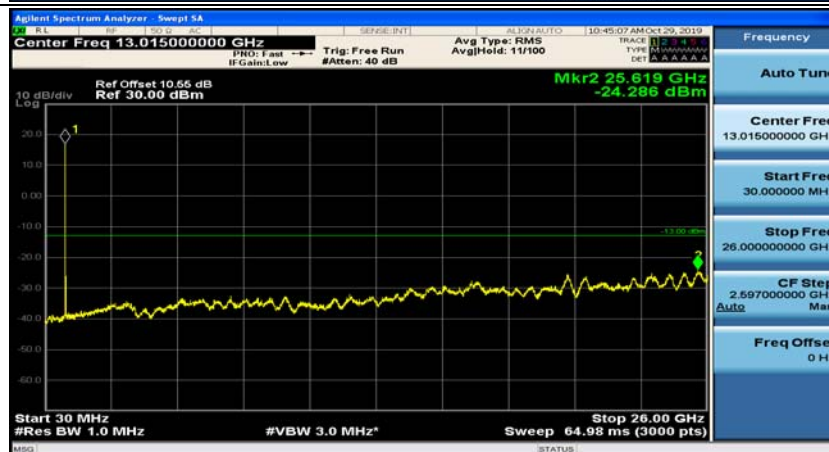
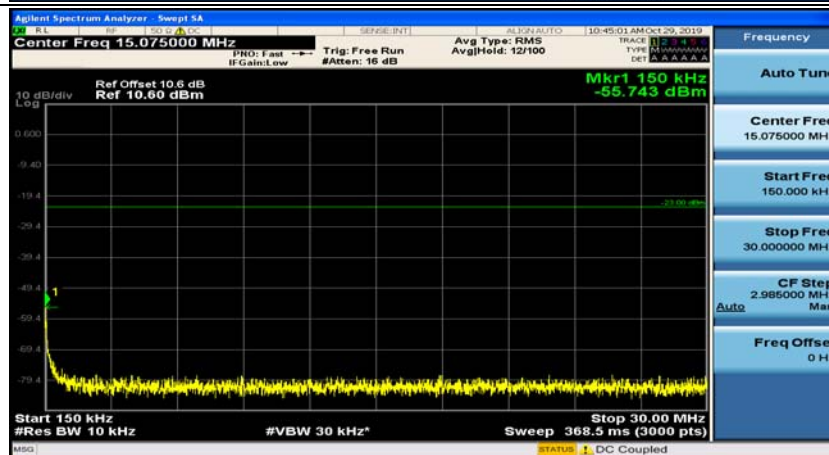
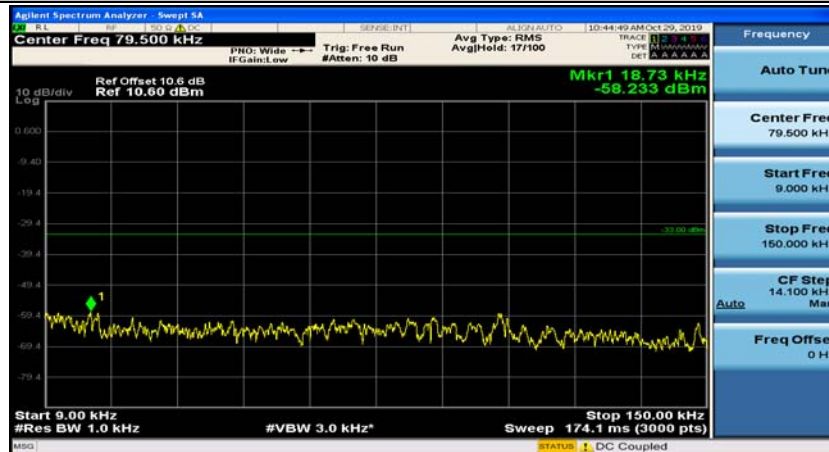


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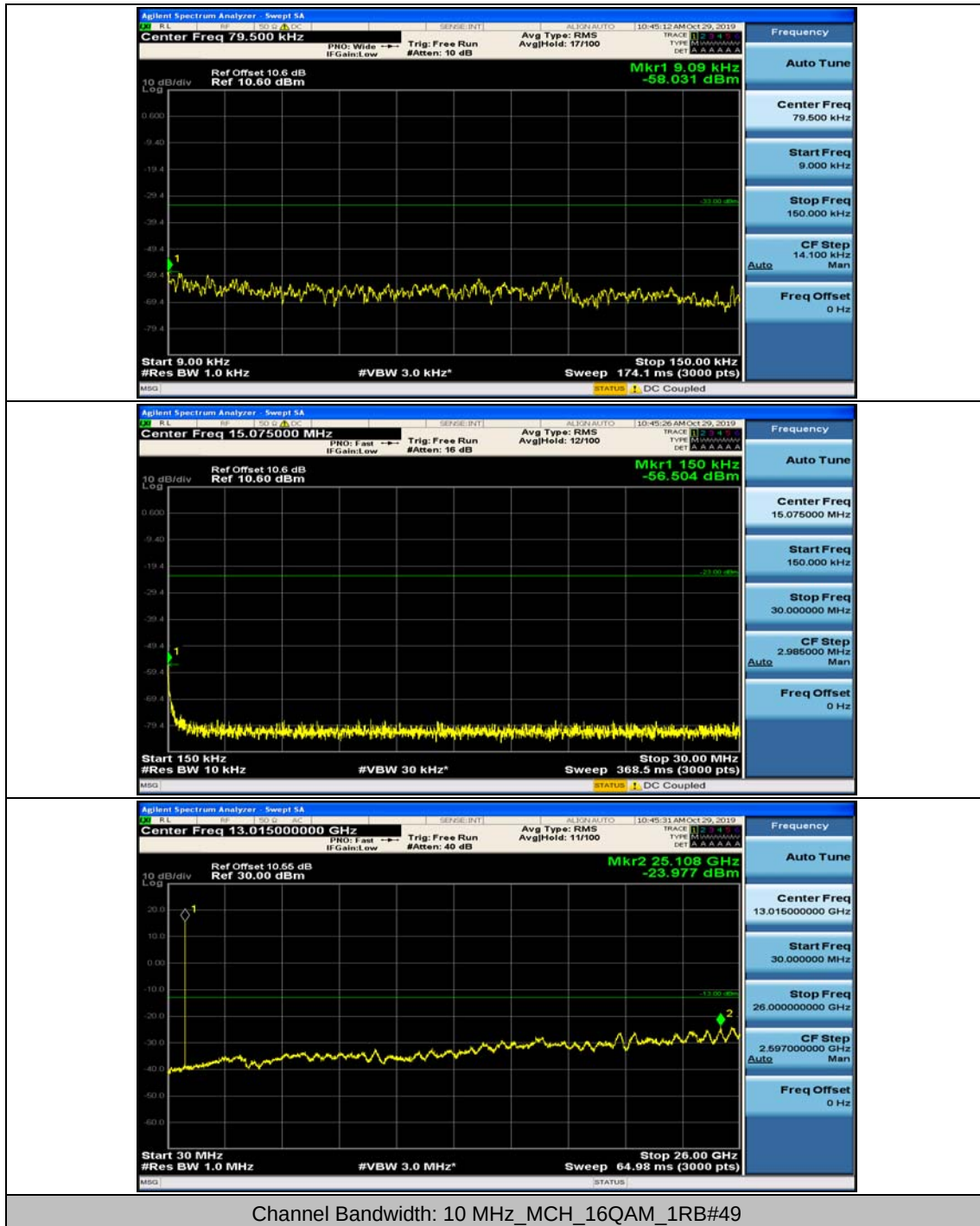


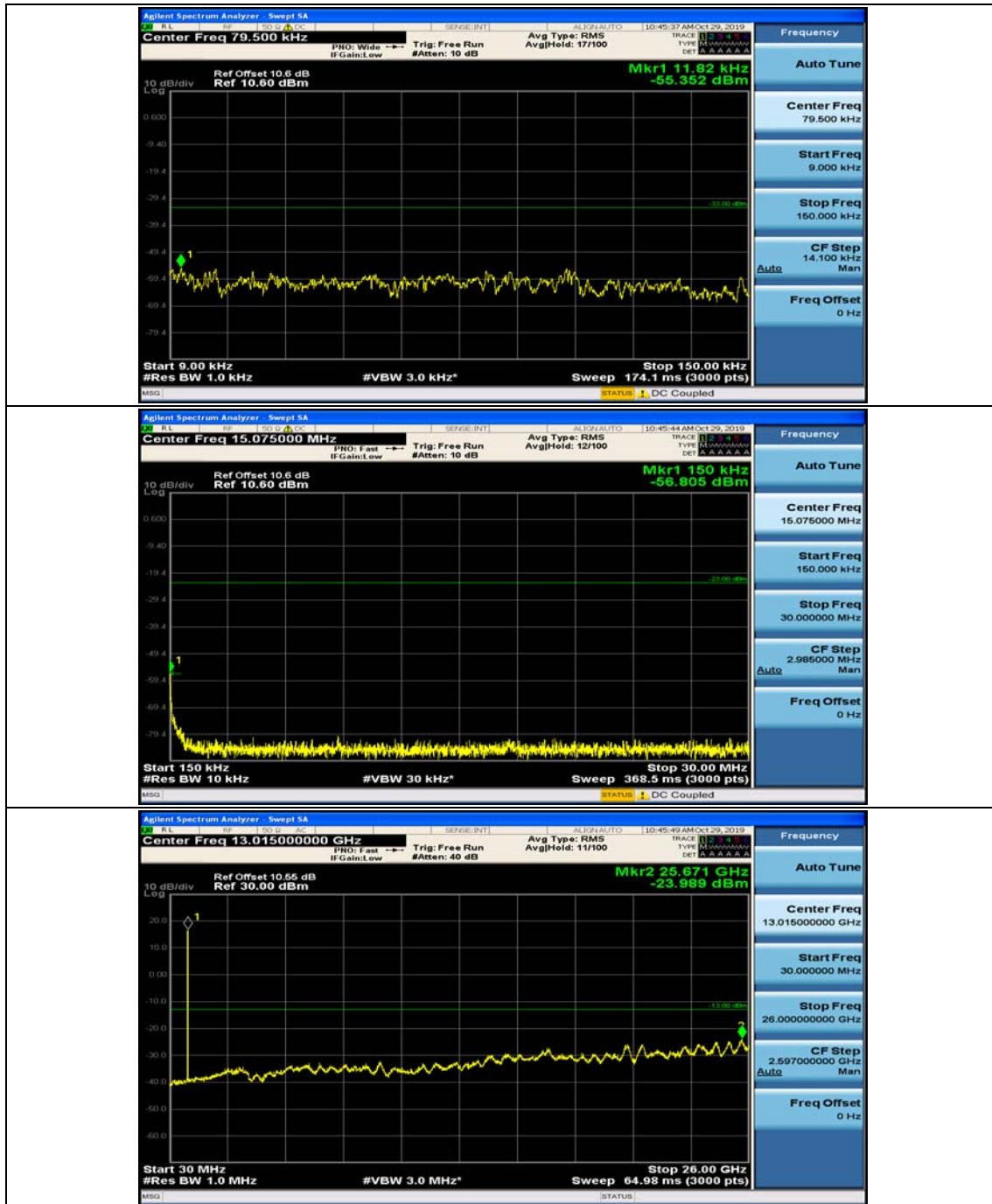


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

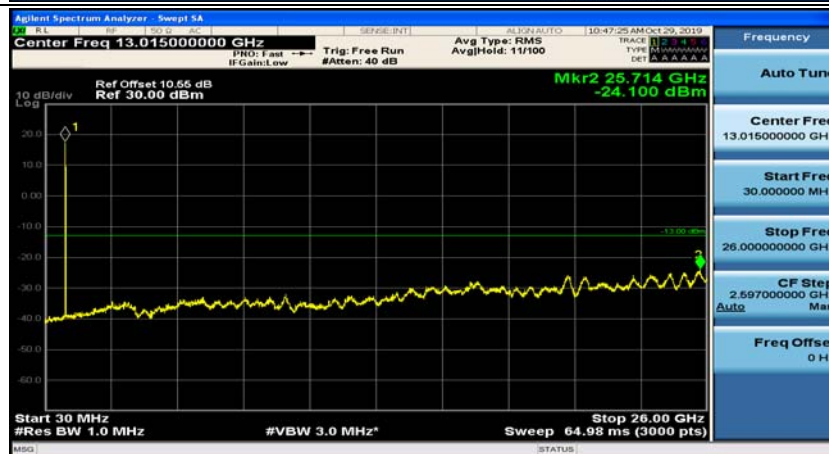
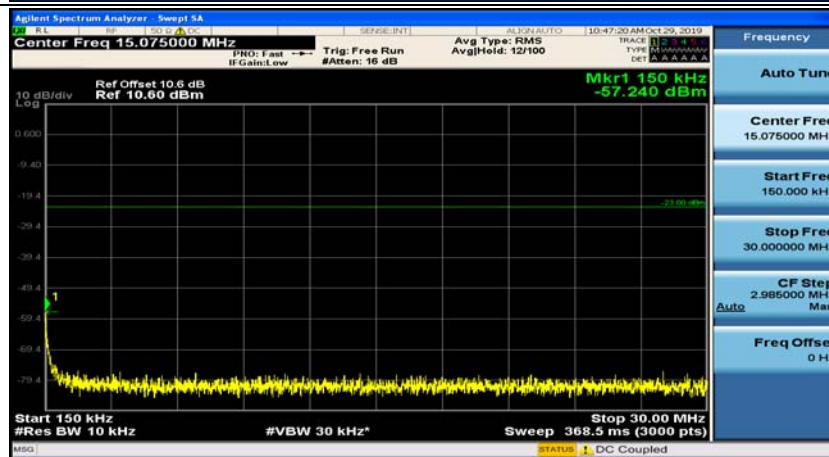
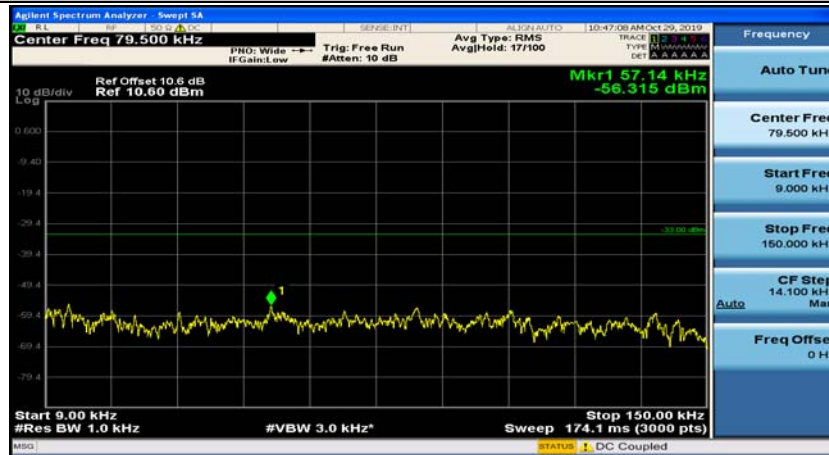


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

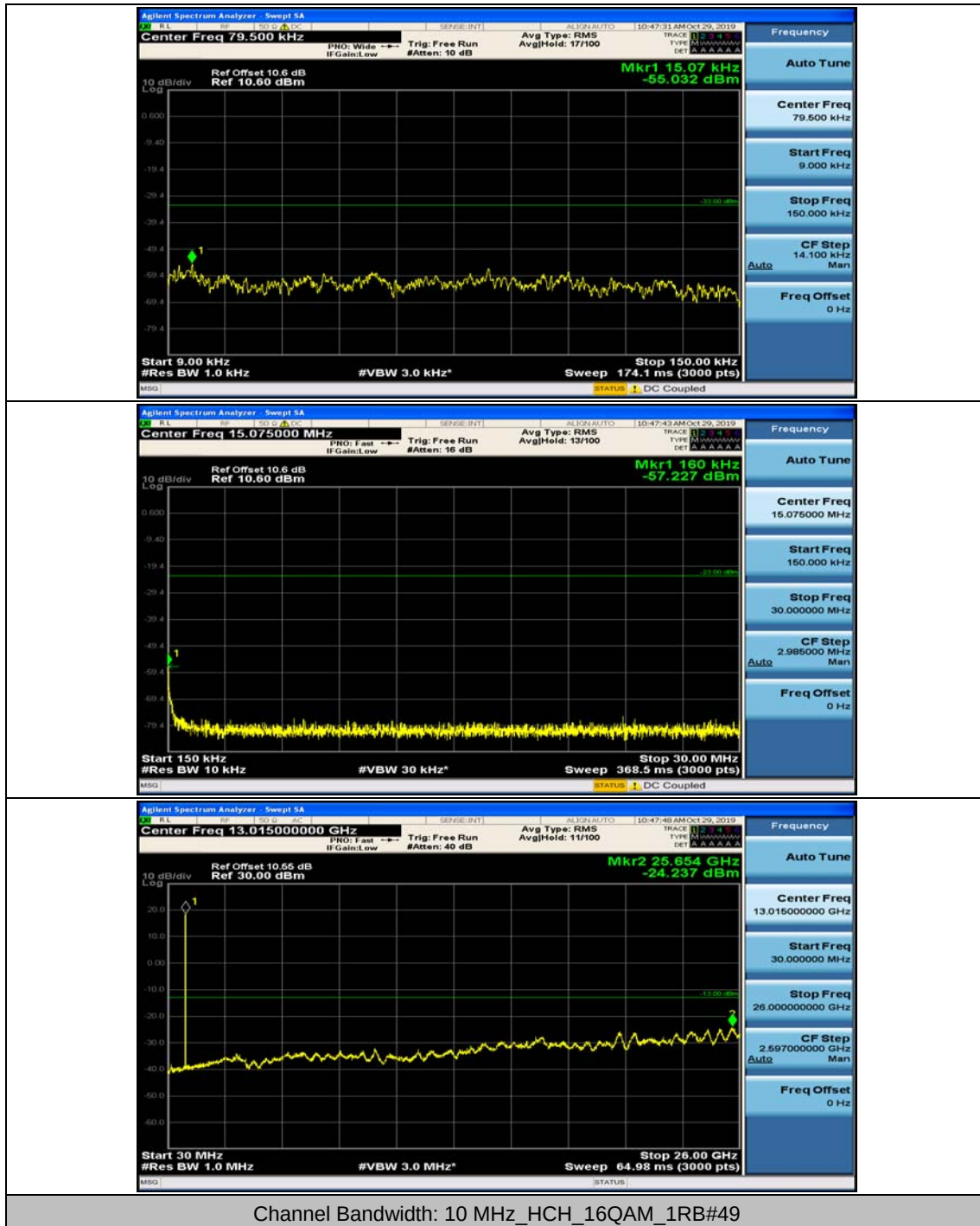


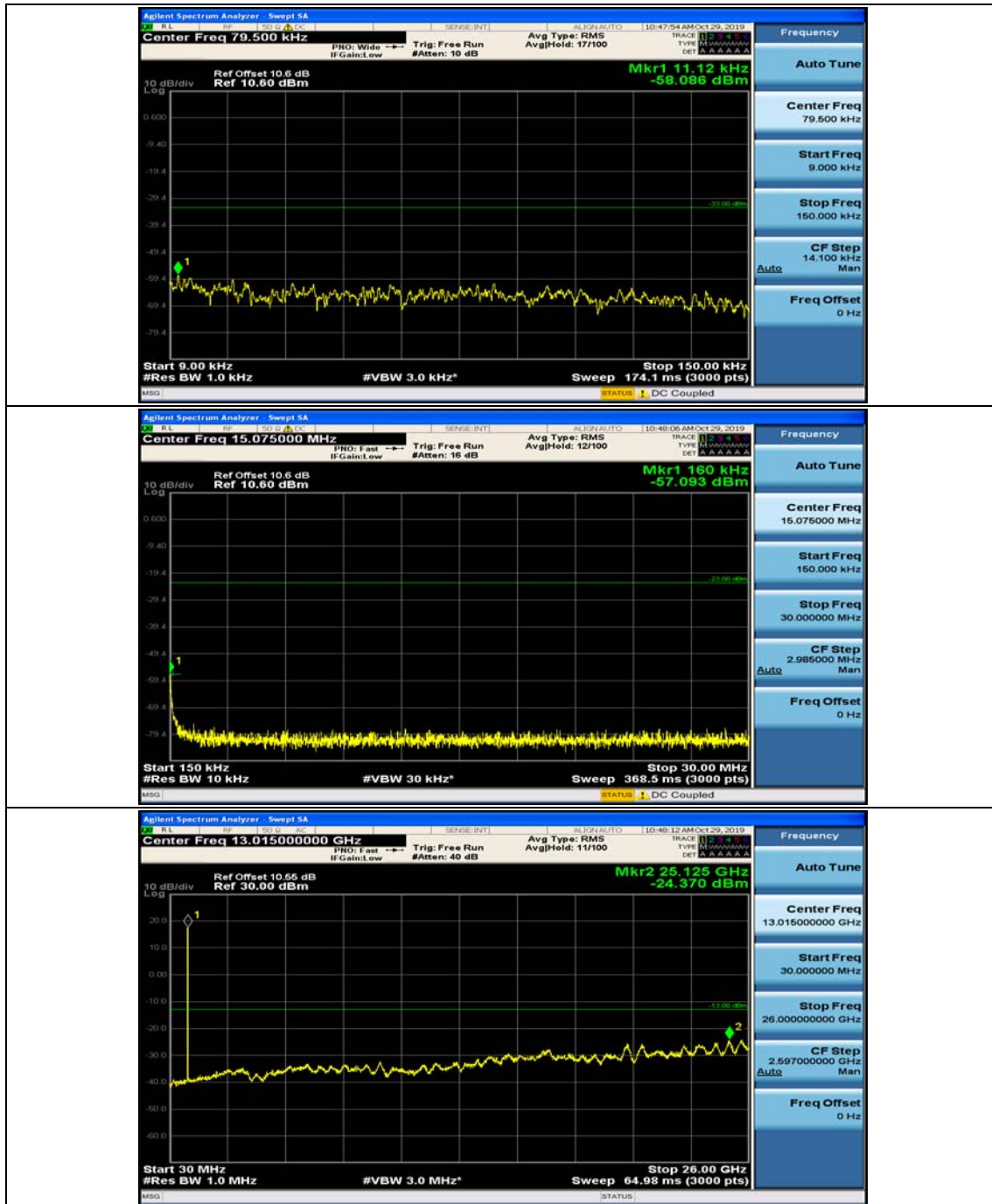


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



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	0.76	0.000922	± 2.5	PASS
		VN	TN	-0.73	-0.000885	± 2.5	PASS
		VH	TN	-1.54	-0.001867	± 2.5	PASS
	MCH	VL	TN	-0.2	-0.000239	± 2.5	PASS
		VN	TN	-0.24	-0.000287	± 2.5	PASS
		VH	TN	3.73	0.004459	± 2.5	PASS
	HCH	VL	TN	1.13	0.001332	± 2.5	PASS
		VN	TN	-1.74	-0.002051	± 2.5	PASS
		VH	TN	1.05	0.001238	± 2.5	PASS
16QAM	LCH	VL	TN	2.29	0.002777	± 2.5	PASS
		VN	TN	2.82	0.003419	± 2.5	PASS
		VH	TN	-1.93	-0.002340	± 2.5	PASS
	MCH	VL	TN	1.24	0.001482	± 2.5	PASS
		VN	TN	-1.86	-0.002224	± 2.5	PASS
		VH	TN	3.64	0.004351	± 2.5	PASS
	HCH	VL	TN	2.9	0.003419	± 2.5	PASS
		VN	TN	4.61	0.005434	± 2.5	PASS
		VH	TN	-1.68	-0.001980	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.83	-0.001006	± 2.5	PASS
		VN	-20	1.23	0.001491	± 2.5	PASS
		VN	-10	2.06	0.002498	± 2.5	PASS
		VN	0	1.67	0.002025	± 2.5	PASS
		VN	10	-1.6	-0.001940	± 2.5	PASS
		VN	20	0.92	0.001116	± 2.5	PASS
		VN	30	4.58	0.005554	± 2.5	PASS
		VN	40	-1.15	-0.001394	± 2.5	PASS
		VN	50	4.45	0.005396	± 2.5	PASS
	MCH	VN	-30	-1.59	-0.001901	± 2.5	PASS
		VN	-20	-0.7	-0.000837	± 2.5	PASS

		VN	-10	-0.6	-0.000717	± 2.5	PASS
		VN	0	-0.48	-0.000574	± 2.5	PASS
		VN	10	-1.25	-0.001494	± 2.5	PASS
		VN	20	2.4	0.002869	± 2.5	PASS
		VN	30	1.28	0.001530	± 2.5	PASS
		VN	40	-0.58	-0.000693	± 2.5	PASS
		VN	50	2.86	0.003419	± 2.5	PASS
	HCH	VN	-30	4.02	0.004739	± 2.5	PASS
		VN	-20	2.09	0.002464	± 2.5	PASS
		VN	-10	4.77	0.005623	± 2.5	PASS
		VN	0	2.53	0.002982	± 2.5	PASS
		VN	10	3.01	0.003548	± 2.5	PASS
		VN	20	2.14	0.002523	± 2.5	PASS
		VN	30	-0.44	-0.000519	± 2.5	PASS
		VN	40	2.28	0.002688	± 2.5	PASS
		VN	50	-0.64	-0.000754	± 2.5	PASS
16QAM	LCH	VN	-30	0.07	0.000085	± 2.5	PASS
		VN	-20	3.77	0.004571	± 2.5	PASS
		VN	-10	-1.44	-0.001746	± 2.5	PASS
		VN	0	4.79	0.005808	± 2.5	PASS
		VN	10	-1.2	-0.001455	± 2.5	PASS
		VN	20	2.98	0.003613	± 2.5	PASS
		VN	30	3.36	0.004074	± 2.5	PASS
		VN	40	4.18	0.005069	± 2.5	PASS
		VN	50	-0.12	-0.000146	± 2.5	PASS
	MCH	VN	-30	1.4	0.001650	± 2.5	PASS
		VN	-20	1.94	0.002287	± 2.5	PASS
		VN	-10	4.48	0.005281	± 2.5	PASS
		VN	0	-1.93	-0.002275	± 2.5	PASS
		VN	10	-1.73	-0.002039	± 2.5	PASS
		VN	20	4.94	0.005823	± 2.5	PASS
		VN	30	2.05	0.002417	± 2.5	PASS
		VN	40	2.96	0.003489	± 2.5	PASS
		VN	50	4.78	0.005635	± 2.5	PASS
	HCH	VN	-30	4.21	0.004963	± 2.5	PASS
		VN	-20	2.97	0.003501	± 2.5	PASS
		VN	-10	4.94	0.005823	± 2.5	PASS
		VN	0	3.04	0.003584	± 2.5	PASS
		VN	10	3.31	0.003902	± 2.5	PASS
		VN	20	2.6	0.003065	± 2.5	PASS
		VN	30	1.93	0.002275	± 2.5	PASS

		VN	40	0.29	0.000342	± 2.5	PASS
		VN	50	0.31	0.000365	± 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	0.65	0.000787	± 2.5	PASS
		VN	TN	1.81	0.002193	± 2.5	PASS
		VH	TN	4.77	0.005778	± 2.5	PASS
	MCH	VL	TN	-1.54	-0.001841	± 2.5	PASS
		VN	TN	1.01	0.001207	± 2.5	PASS
		VH	TN	-0.49	-0.000586	± 2.5	PASS
	HCH	VL	TN	3.22	0.003799	± 2.5	PASS
		VN	TN	-1.83	-0.002159	± 2.5	PASS
		VH	TN	4.34	0.005121	± 2.5	PASS
16QAM	LCH	VL	TN	2.4	0.002907	± 2.5	PASS
		VN	TN	4.36	0.005282	± 2.5	PASS
		VH	TN	1.61	0.001950	± 2.5	PASS
	MCH	VL	TN	4.56	0.005451	± 2.5	PASS
		VN	TN	0.33	0.000395	± 2.5	PASS
		VH	TN	4.11	0.004913	± 2.5	PASS
	HCH	VL	TN	1.91	0.002254	± 2.5	PASS
		VN	TN	3.14	0.003705	± 2.5	PASS
		VH	TN	2.14	0.002525	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.44	-0.000533	± 2.5	PASS
		VN	-20	0.07	0.000085	± 2.5	PASS
		VN	-10	-0.88	-0.001066	± 2.5	PASS
		VN	0	2.8	0.003392	± 2.5	PASS
		VN	10	0.34	0.000412	± 2.5	PASS
		VN	20	3.32	0.004022	± 2.5	PASS
		VN	30	-1.43	-0.001732	± 2.5	PASS
		VN	40	-0.81	-0.000981	± 2.5	PASS
		VN	50	4.19	0.005076	± 2.5	PASS
	MCH	VN	-30	0.29	0.000347	± 2.5	PASS
		VN	-20	1.43	0.001710	± 2.5	PASS
		VN	-10	0.9	0.001076	± 2.5	PASS

		VN	0	-0.07	-0.000084	± 2.5	PASS
		VN	10	3.48	0.004160	± 2.5	PASS
		VN	20	2.55	0.003048	± 2.5	PASS
		VN	30	4.68	0.005595	± 2.5	PASS
		VN	40	3.14	0.003754	± 2.5	PASS
		VN	50	3.73	0.004459	± 2.5	PASS
	HCH	VN	-30	-0.65	-0.000767	± 2.5	PASS
		VN	-20	2.9	0.003422	± 2.5	PASS
		VN	-10	-1.12	-0.001322	± 2.5	PASS
		VN	0	0.02	0.000024	± 2.5	PASS
		VN	10	0.51	0.000602	± 2.5	PASS
		VN	20	4.69	0.005534	± 2.5	PASS
		VN	30	2.49	0.002938	± 2.5	PASS
		VN	40	2.81	0.003316	± 2.5	PASS
		VN	50	2.05	0.002419	± 2.5	PASS
16QAM	LCH	VN	-30	-1.11	-0.001327	± 2.5	PASS
		VN	-20	0.35	0.000418	± 2.5	PASS
		VN	-10	-1.76	-0.002104	± 2.5	PASS
		VN	0	-0.34	-0.000406	± 2.5	PASS
		VN	10	3.45	0.004124	± 2.5	PASS
		VN	20	0.07	0.000084	± 2.5	PASS
		VN	30	-0.43	-0.000514	± 2.5	PASS
		VN	40	-0.16	-0.000191	± 2.5	PASS
		VN	50	-0.69	-0.000825	± 2.5	PASS
	MCH	VN	-30	0.26	0.000307	± 2.5	PASS
		VN	-20	1.13	0.001333	± 2.5	PASS
		VN	-10	1.46	0.001723	± 2.5	PASS
		VN	0	3.83	0.004519	± 2.5	PASS
		VN	10	-0.53	-0.000625	± 2.5	PASS
		VN	20	-0.58	-0.000684	± 2.5	PASS
		VN	30	2.67	0.003150	± 2.5	PASS
		VN	40	-1.2	-0.001416	± 2.5	PASS
		VN	50	4.55	0.005369	± 2.5	PASS
	HCH	VN	-30	0.65	0.000767	± 2.5	PASS
		VN	-20	3.51	0.004142	± 2.5	PASS
		VN	-10	3.42	0.004035	± 2.5	PASS
		VN	0	4.5	0.005310	± 2.5	PASS
		VN	10	-1.15	-0.001357	± 2.5	PASS
		VN	20	-0.35	-0.000413	± 2.5	PASS
		VN	30	2.07	0.002442	± 2.5	PASS
		VN	40	0.98	0.001156	± 2.5	PASS

		VN	50	0.6	0.000708	± 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	0.32	0.000387	± 2.5	PASS
		VN	TN	3.16	0.003823	± 2.5	PASS
		VH	TN	0.31	0.000375	± 2.5	PASS
	MCH	VL	TN	1.05	0.001255	± 2.5	PASS
		VN	TN	-1.03	-0.001231	± 2.5	PASS
		VH	TN	-1.55	-0.001853	± 2.5	PASS
	HCH	VL	TN	3.96	0.004678	± 2.5	PASS
		VN	TN	3.31	0.003910	± 2.5	PASS
		VH	TN	4.5	0.005316	± 2.5	PASS
16QAM	LCH	VL	TN	-1.81	-0.002190	± 2.5	PASS
		VN	TN	2.46	0.002976	± 2.5	PASS
		VH	TN	0.56	0.000678	± 2.5	PASS
	MCH	VL	TN	2.35	0.002809	± 2.5	PASS
		VN	TN	0.09	0.000108	± 2.5	PASS
		VH	TN	0.63	0.000753	± 2.5	PASS
	HCH	VL	TN	-1.3	-0.001536	± 2.5	PASS
		VN	TN	1.85	0.002185	± 2.5	PASS
		VH	TN	4.52	0.005340	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.88	0.005904	± 2.5	PASS
		VN	-20	-1.94	-0.002347	± 2.5	PASS
		VN	-10	2.67	0.003230	± 2.5	PASS
		VN	0	3.49	0.004223	± 2.5	PASS
		VN	10	-0.21	-0.000254	± 2.5	PASS
		VN	20	2.08	0.002517	± 2.5	PASS
		VN	30	-0.93	-0.001125	± 2.5	PASS
		VN	40	4.85	0.005868	± 2.5	PASS
		VN	50	-0.15	-0.000181	± 2.5	PASS
	MCH	VN	-30	3.29	0.003933	± 2.5	PASS
		VN	-20	4.66	0.005571	± 2.5	PASS
		VN	-10	1.47	0.001757	± 2.5	PASS
		VN	0	-0.03	-0.000036	± 2.5	PASS

		VN	10	0.42	0.000502	± 2.5	PASS
		VN	20	2.26	0.002702	± 2.5	PASS
		VN	30	3.55	0.004244	± 2.5	PASS
		VN	40	0.49	0.000586	± 2.5	PASS
		VN	50	-1.78	-0.002128	± 2.5	PASS
	HCH	VN	-30	-1.47	-0.001737	± 2.5	PASS
		VN	-20	2.87	0.003390	± 2.5	PASS
		VN	-10	0.51	0.000602	± 2.5	PASS
		VN	0	3.23	0.003816	± 2.5	PASS
		VN	10	2.33	0.002753	± 2.5	PASS
		VN	20	4.97	0.005871	± 2.5	PASS
		VN	30	4.36	0.005151	± 2.5	PASS
		VN	40	-1.03	-0.001217	± 2.5	PASS
		VN	50	3.91	0.004619	± 2.5	PASS
16QAM	LCH	VN	-30	4.82	0.005762	± 2.5	PASS
		VN	-20	2.14	0.002558	± 2.5	PASS
		VN	-10	-0.29	-0.000347	± 2.5	PASS
		VN	0	3.1	0.003706	± 2.5	PASS
		VN	10	0.08	0.000096	± 2.5	PASS
		VN	20	1.46	0.001745	± 2.5	PASS
		VN	30	0.72	0.000861	± 2.5	PASS
		VN	40	-0.58	-0.000693	± 2.5	PASS
		VN	50	0.15	0.000179	± 2.5	PASS
	MCH	VN	-30	0.97	0.001146	± 2.5	PASS
		VN	-20	4.37	0.005162	± 2.5	PASS
		VN	-10	4.08	0.004820	± 2.5	PASS
		VN	0	0.22	0.000260	± 2.5	PASS
		VN	10	4.73	0.005588	± 2.5	PASS
		VN	20	0.59	0.000697	± 2.5	PASS
		VN	30	2.7	0.003190	± 2.5	PASS
		VN	40	-0.32	-0.000378	± 2.5	PASS
		VN	50	3.51	0.004146	± 2.5	PASS
	HCH	VN	-30	-0.72	-0.000851	± 2.5	PASS
		VN	-20	-1.73	-0.002044	± 2.5	PASS
		VN	-10	-0.61	-0.000721	± 2.5	PASS
		VN	0	-1.68	-0.001985	± 2.5	PASS
		VN	10	-1.99	-0.002351	± 2.5	PASS
		VN	20	-0.42	-0.000496	± 2.5	PASS
		VN	30	0.01	0.000012	± 2.5	PASS
		VN	40	2.63	0.003107	± 2.5	PASS
		VN	50	4.87	0.005753	± 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	1.11	0.001339	± 2.5	PASS
		VN	TN	-1.36	-0.001641	± 2.5	PASS
		VH	TN	2.29	0.002762	± 2.5	PASS
	MCH	VL	TN	-0.74	-0.000885	± 2.5	PASS
		VN	TN	-0.14	-0.000167	± 2.5	PASS
		VH	TN	-0.43	-0.000514	± 2.5	PASS
	HCH	VL	TN	2.43	0.002879	± 2.5	PASS
		VN	TN	2.49	0.002950	± 2.5	PASS
		VH	TN	0.67	0.000794	± 2.5	PASS
16QAM	LCH	VL	TN	0.65	0.000784	± 2.5	PASS
		VN	TN	3	0.003619	± 2.5	PASS
		VH	TN	4.57	0.005513	± 2.5	PASS
	MCH	VL	TN	2.6	0.003108	± 2.5	PASS
		VN	TN	1.1	0.001315	± 2.5	PASS
		VH	TN	-1.72	-0.002056	± 2.5	PASS
	HCH	VL	TN	4.06	0.004810	± 2.5	PASS
		VN	TN	4.45	0.005273	± 2.5	PASS
		VH	TN	4.71	0.005581	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.51	0.004234	± 2.5	PASS
		VN	-20	1.4	0.001689	± 2.5	PASS
		VN	-10	4.59	0.005537	± 2.5	PASS
		VN	0	3.38	0.004077	± 2.5	PASS
		VN	10	2.65	0.003197	± 2.5	PASS
		VN	20	-0.97	-0.001170	± 2.5	PASS
		VN	30	-1.74	-0.002099	± 2.5	PASS
		VN	40	3.86	0.004656	± 2.5	PASS
		VN	50	2.66	0.003209	± 2.5	PASS
	MCH	VN	-30	4.66	0.005571	± 2.5	PASS
		VN	-20	-1.3	-0.001554	± 2.5	PASS
		VN	-10	2.76	0.003299	± 2.5	PASS
		VN	0	3.73	0.004459	± 2.5	PASS
		VN	10	-0.21	-0.000251	± 2.5	PASS
		VN	20	2.23	0.002666	± 2.5	PASS

		VN	30	-1.69	-0.002020	± 2.5	PASS
		VN	40	-0.79	-0.000944	± 2.5	PASS
		VN	50	1.64	0.001961	± 2.5	PASS
	HCH	VN	-30	4.1	0.004858	± 2.5	PASS
		VN	-20	-0.41	-0.000486	± 2.5	PASS
		VN	-10	-0.71	-0.000841	± 2.5	PASS
		VN	0	1.95	0.002310	± 2.5	PASS
		VN	10	0.86	0.001019	± 2.5	PASS
		VN	20	4.51	0.005344	± 2.5	PASS
		VN	30	-1.26	-0.001493	± 2.5	PASS
		VN	40	-1.65	-0.001955	± 2.5	PASS
		VN	50	-0.58	-0.000687	± 2.5	PASS
16QAM	LCH	VN	-30	0.91	0.001088	± 2.5	PASS
		VN	-20	-0.02	-0.000024	± 2.5	PASS
		VN	-10	-1.96	-0.002343	± 2.5	PASS
		VN	0	3.82	0.004567	± 2.5	PASS
		VN	10	1.57	0.001877	± 2.5	PASS
		VN	20	1.13	0.001351	± 2.5	PASS
		VN	30	-0.44	-0.000526	± 2.5	PASS
		VN	40	3.64	0.004351	± 2.5	PASS
		VN	50	2.11	0.002522	± 2.5	PASS
	MCH	VN	-30	1.62	0.001919	± 2.5	PASS
		VN	-20	2.3	0.002725	± 2.5	PASS
		VN	-10	1.63	0.001931	± 2.5	PASS
		VN	0	0.86	0.001019	± 2.5	PASS
		VN	10	3.33	0.003945	± 2.5	PASS
		VN	20	4.85	0.005746	± 2.5	PASS
		VN	30	0.38	0.000450	± 2.5	PASS
		VN	40	-1.58	-0.001872	± 2.5	PASS
		VN	50	1.98	0.002346	± 2.5	PASS
	HCH	VN	-30	-1.87	-0.002216	± 2.5	PASS
		VN	-20	-0.4	-0.000474	± 2.5	PASS
		VN	-10	0.49	0.000581	± 2.5	PASS
		VN	0	-1.29	-0.001528	± 2.5	PASS
		VN	10	4.14	0.004905	± 2.5	PASS
		VN	20	3.08	0.003649	± 2.5	PASS
		VN	30	2.97	0.003519	± 2.5	PASS
		VN	40	-1.07	-0.001268	± 2.5	PASS
		VN	50	1.56	0.001848	± 2.5	PASS