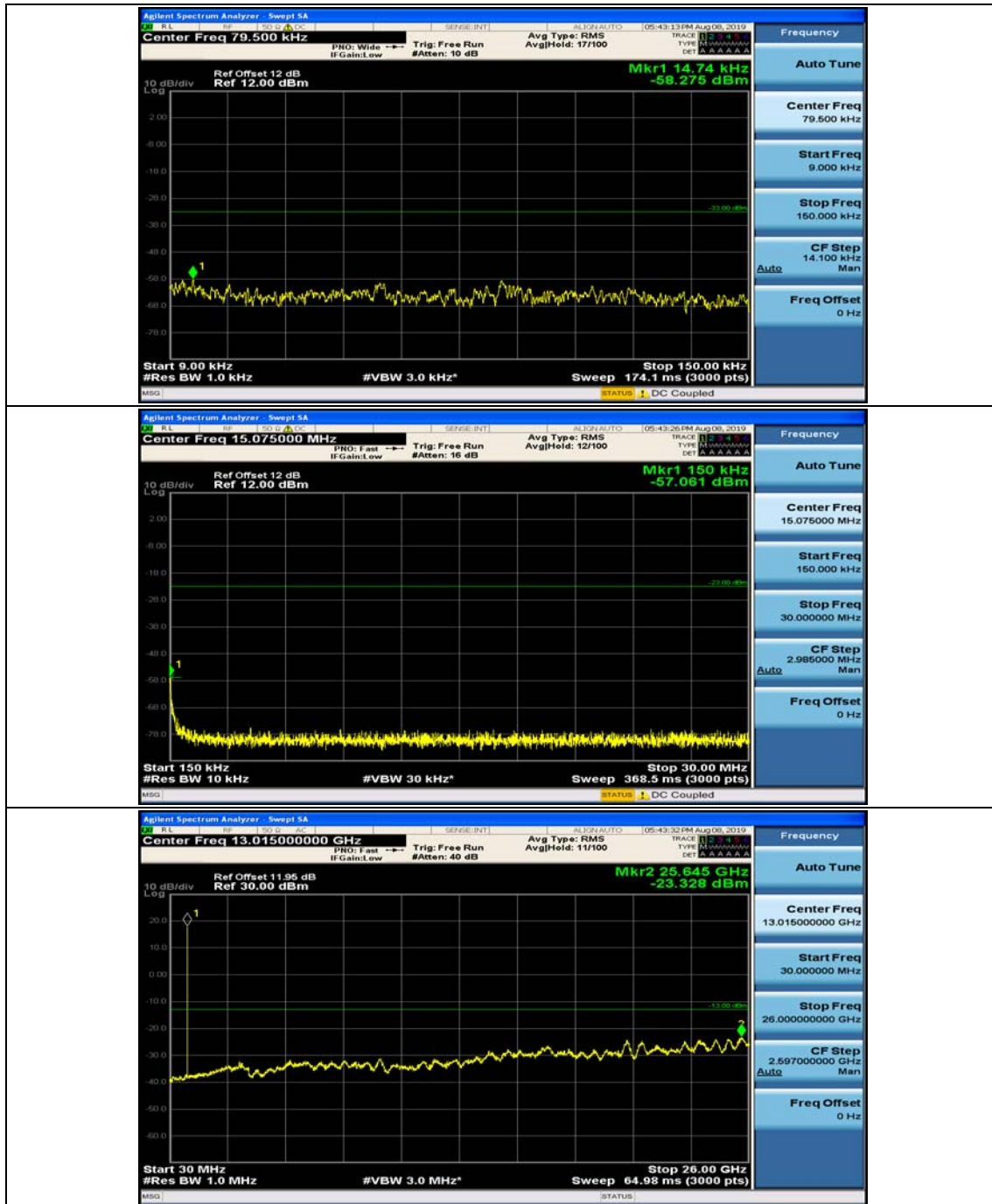
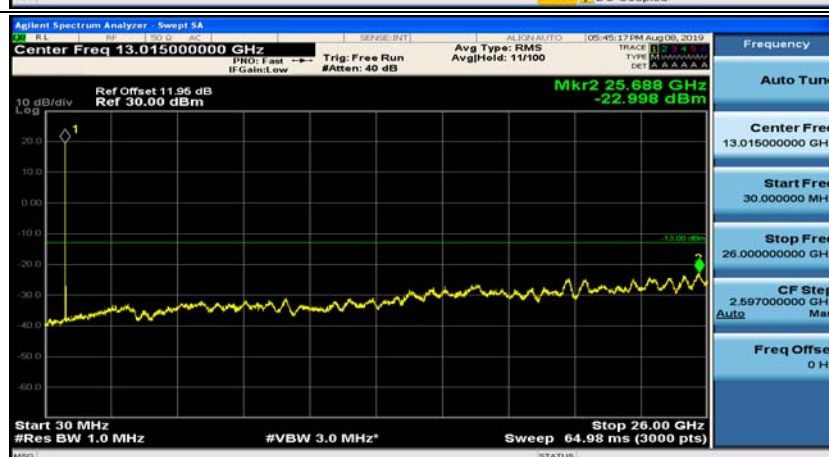
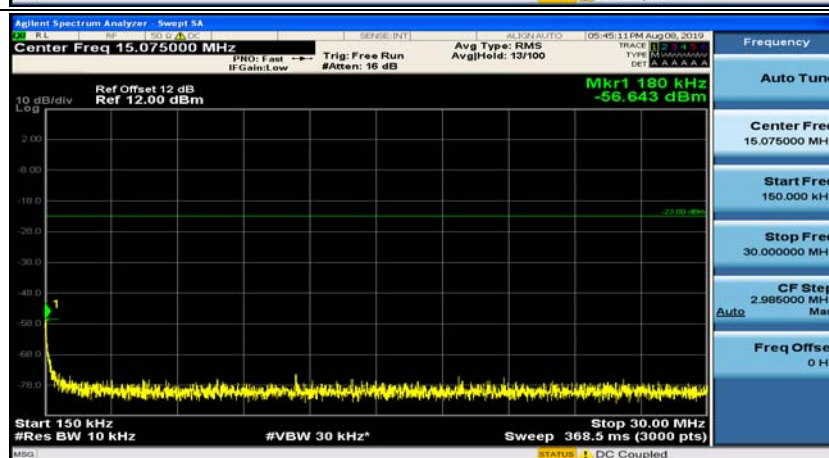
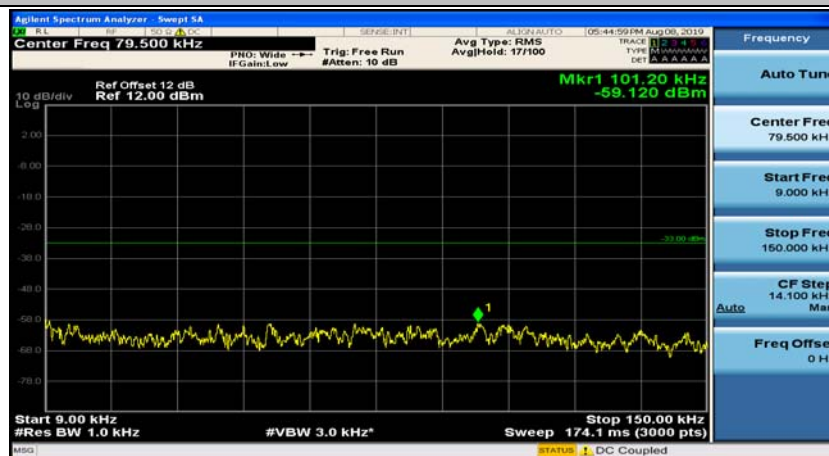
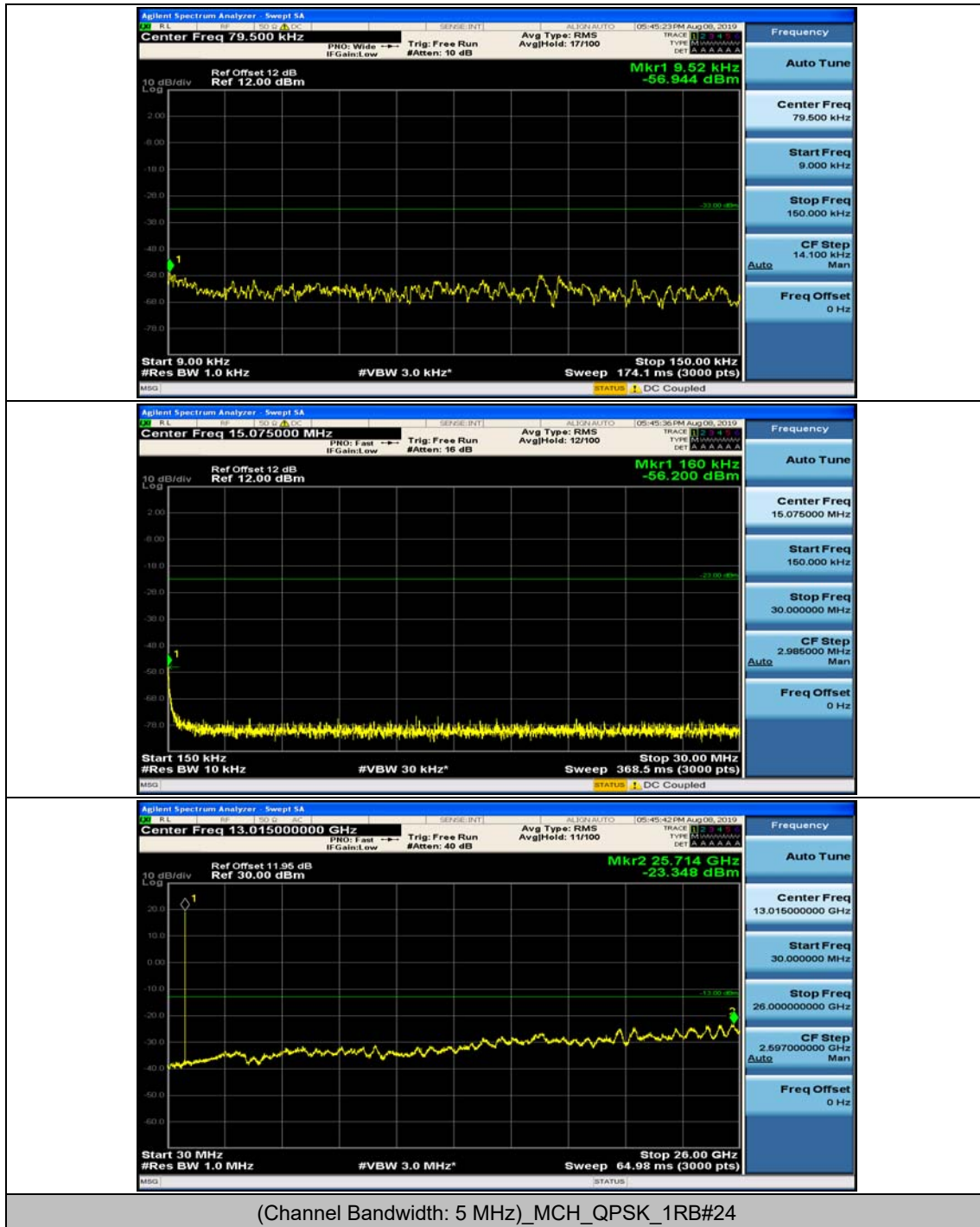


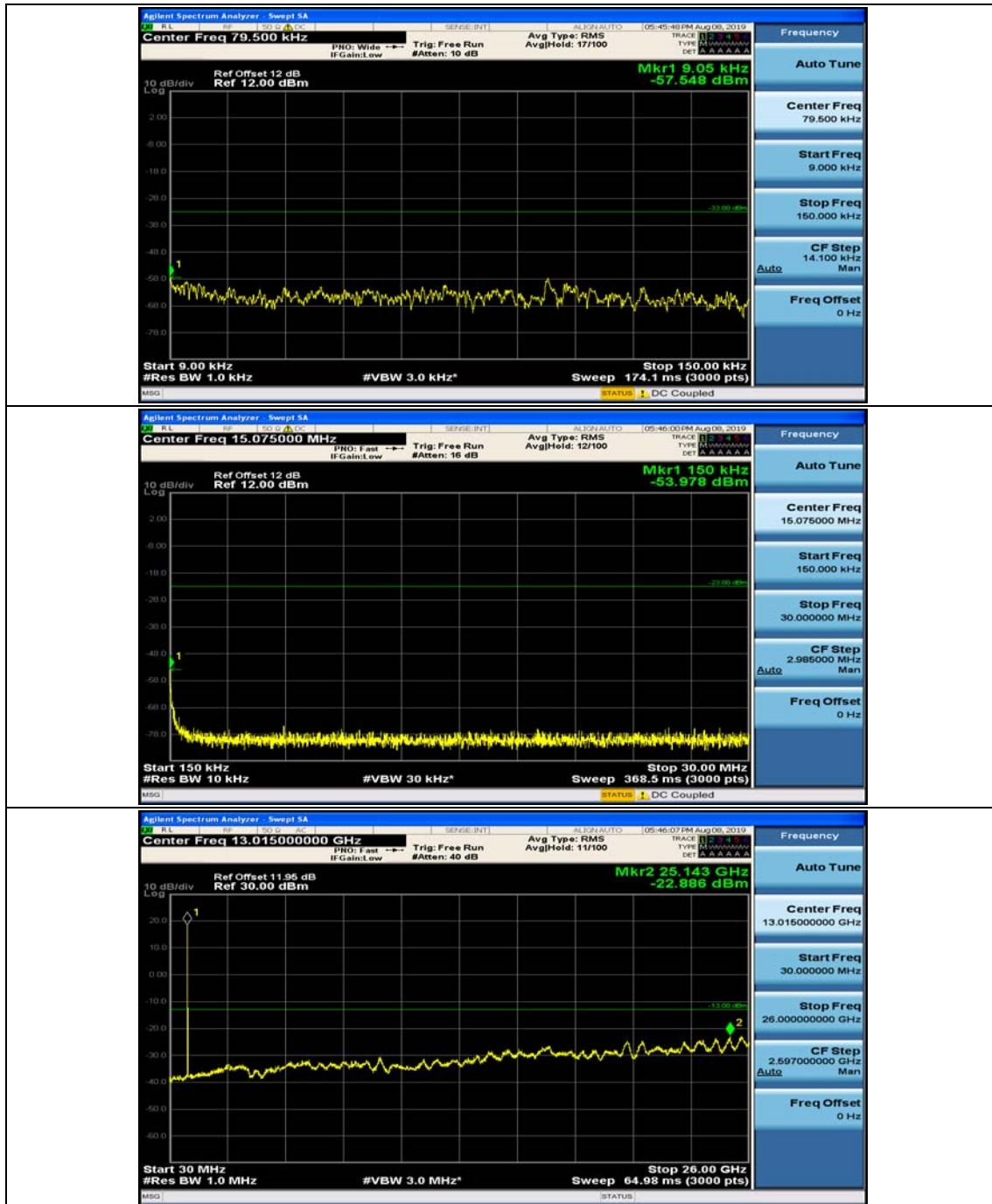


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

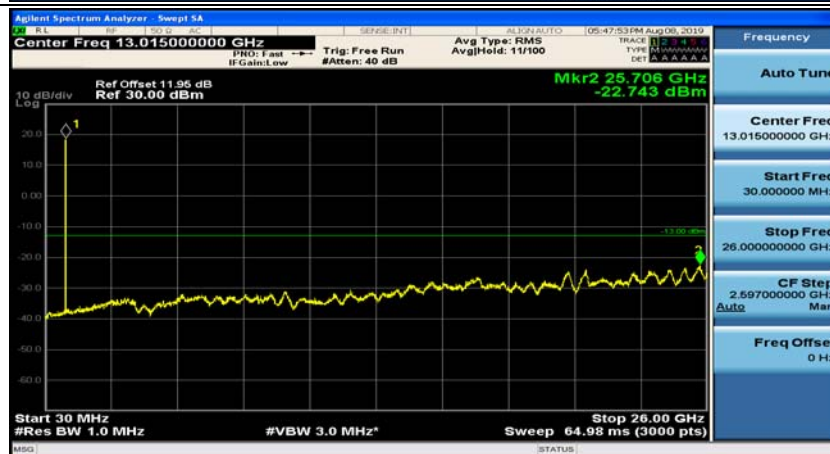
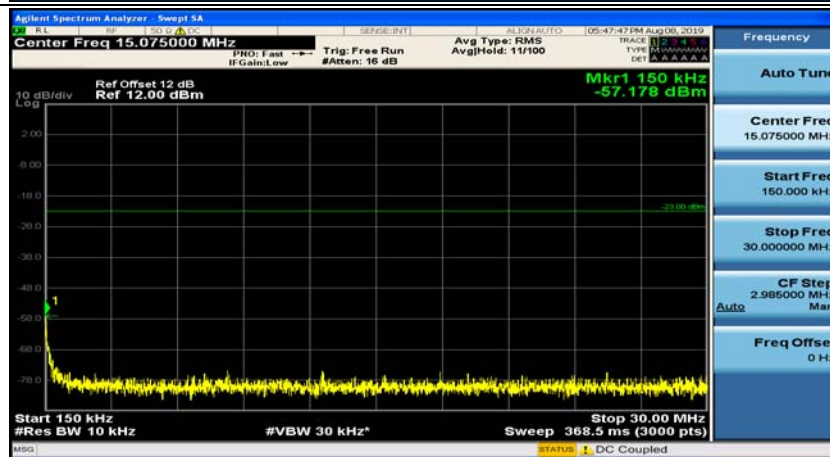
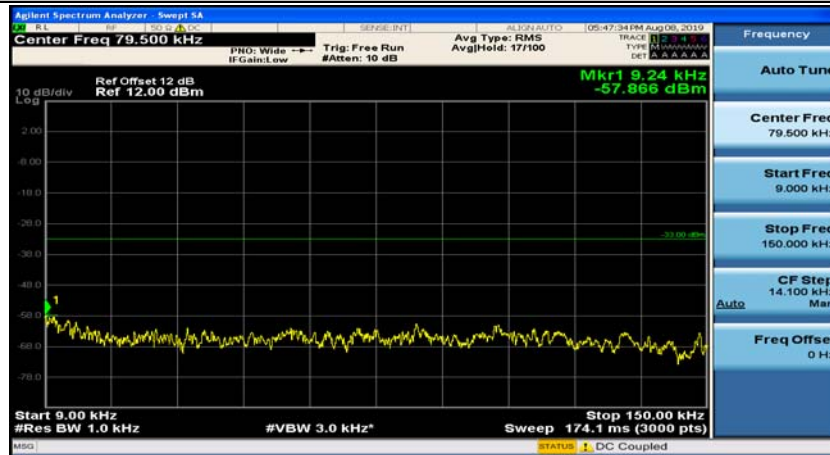


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

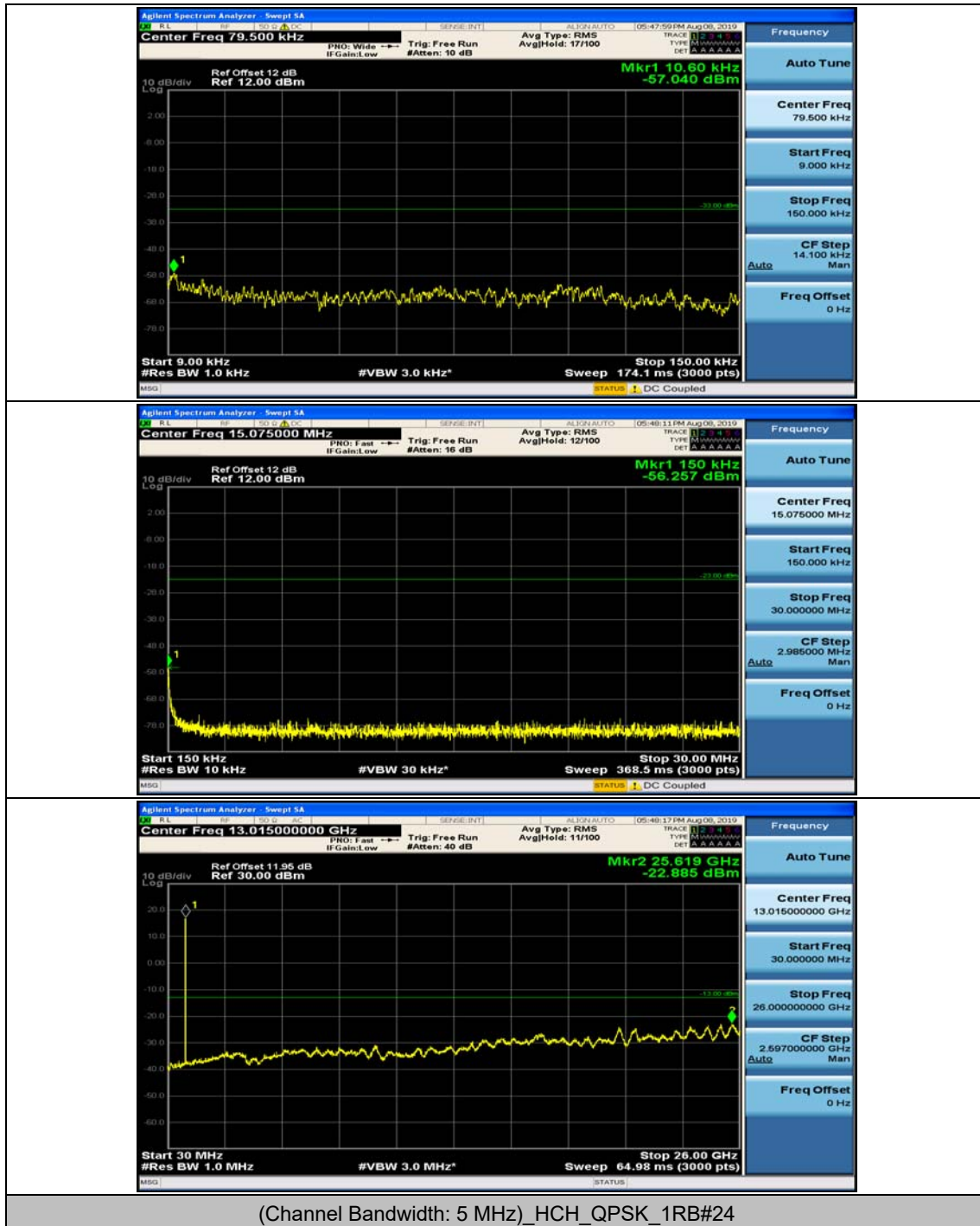


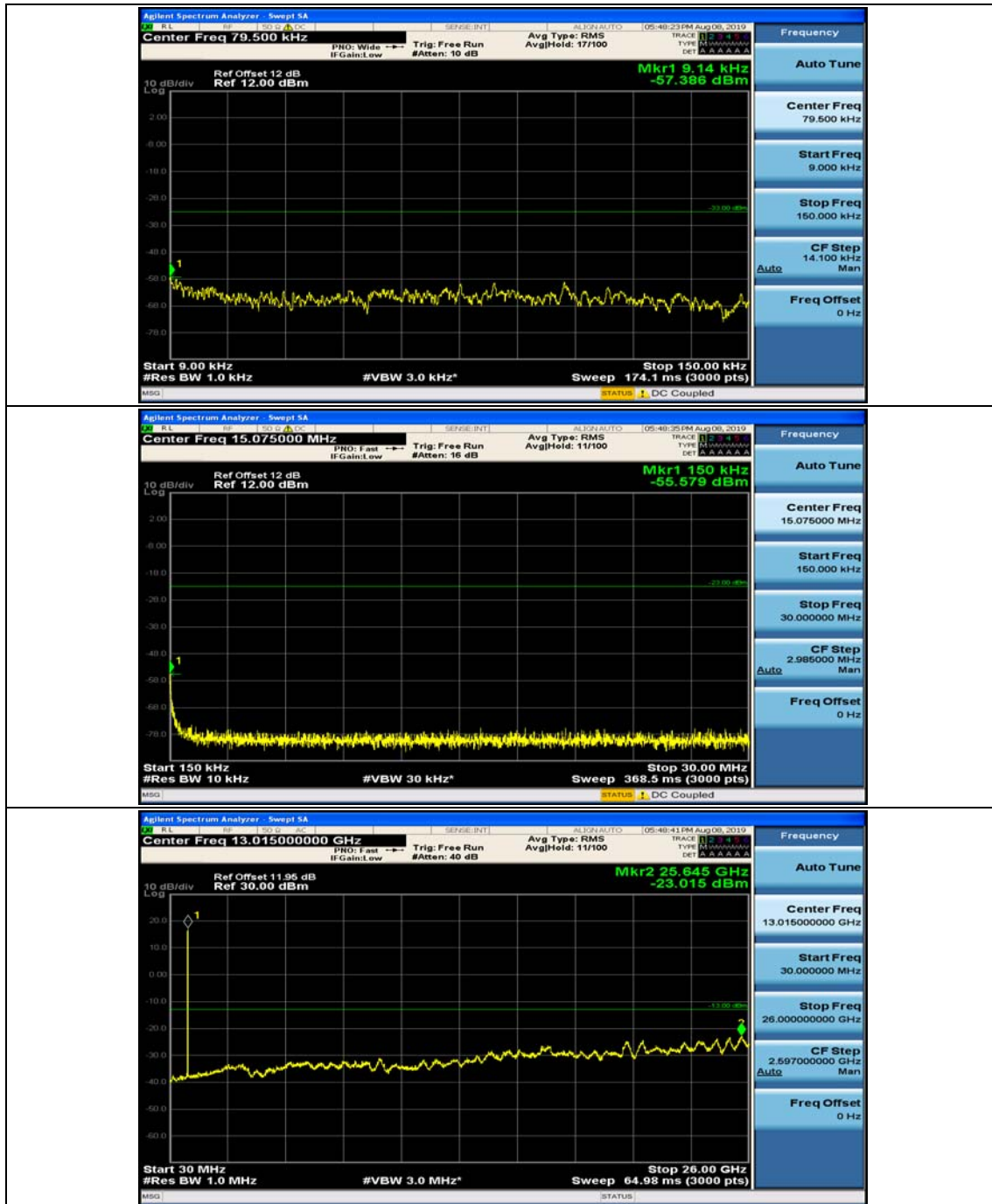


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

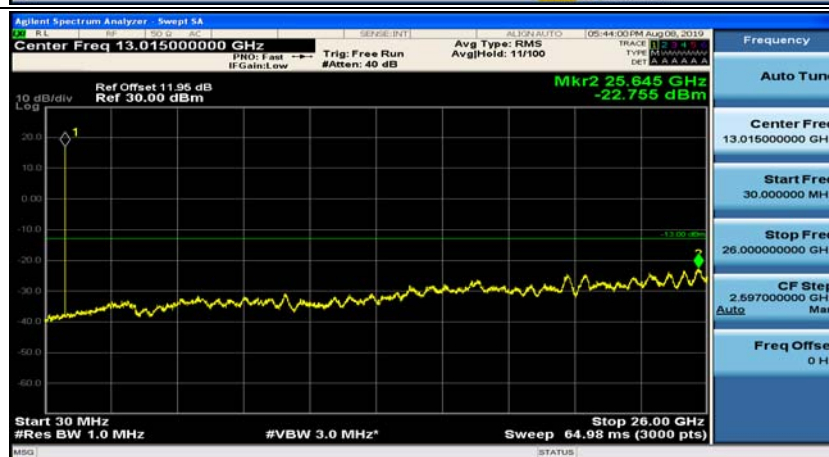
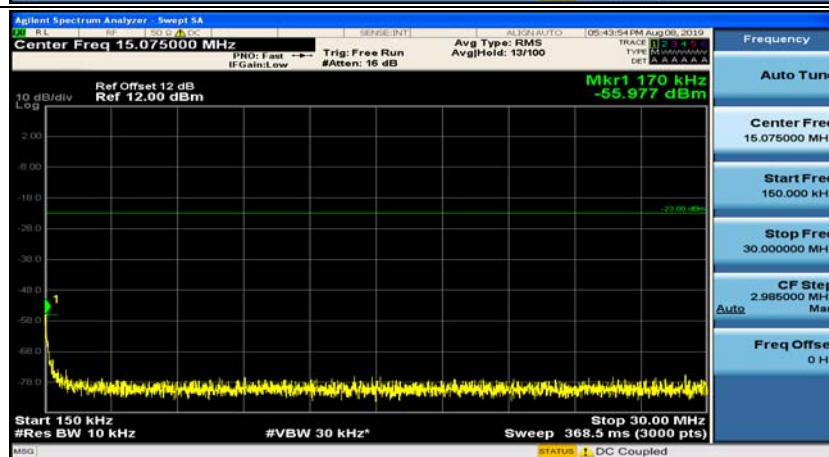
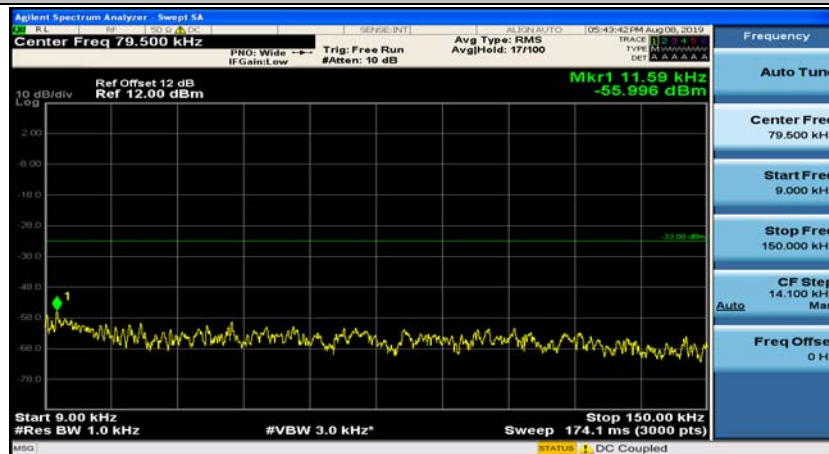


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

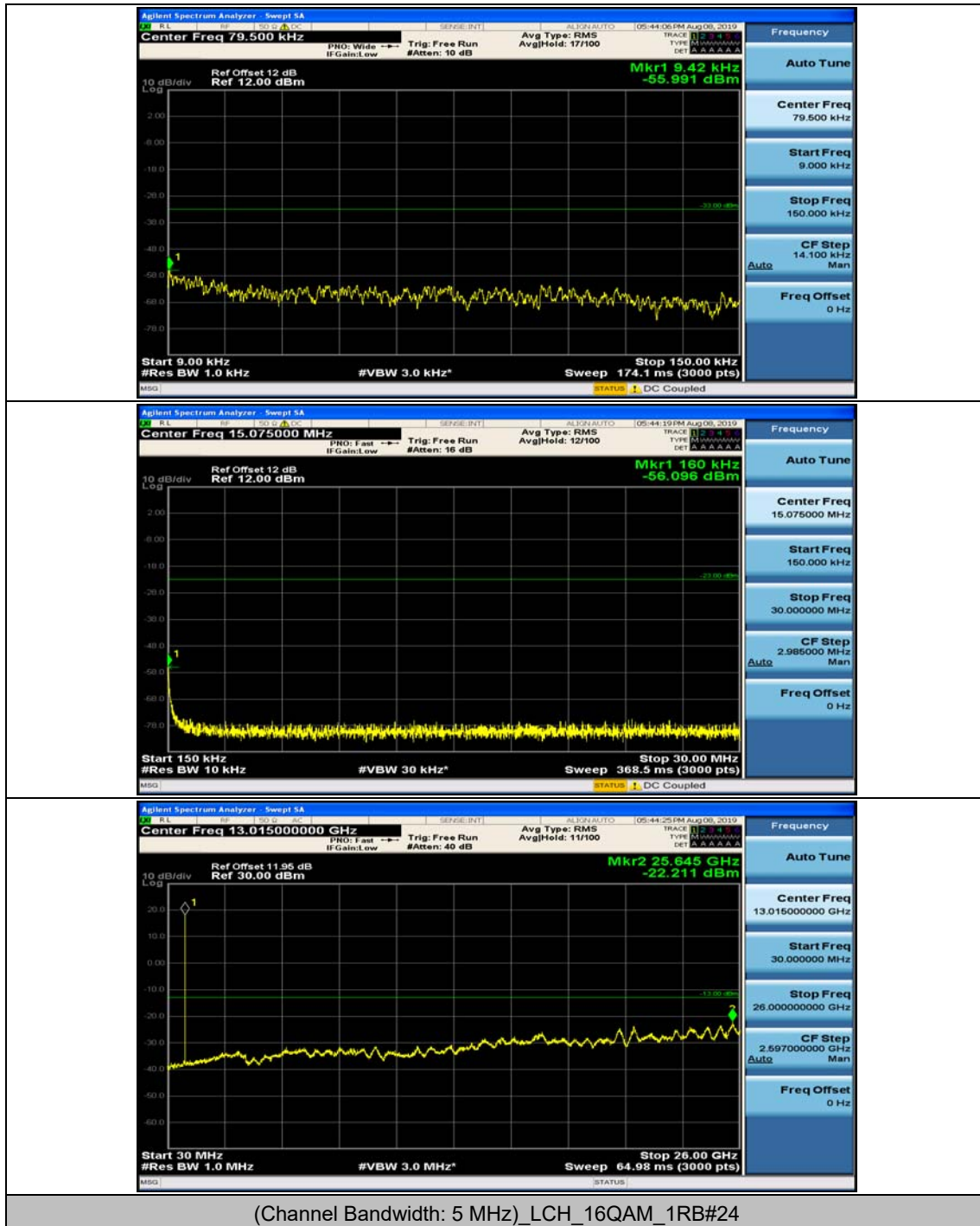


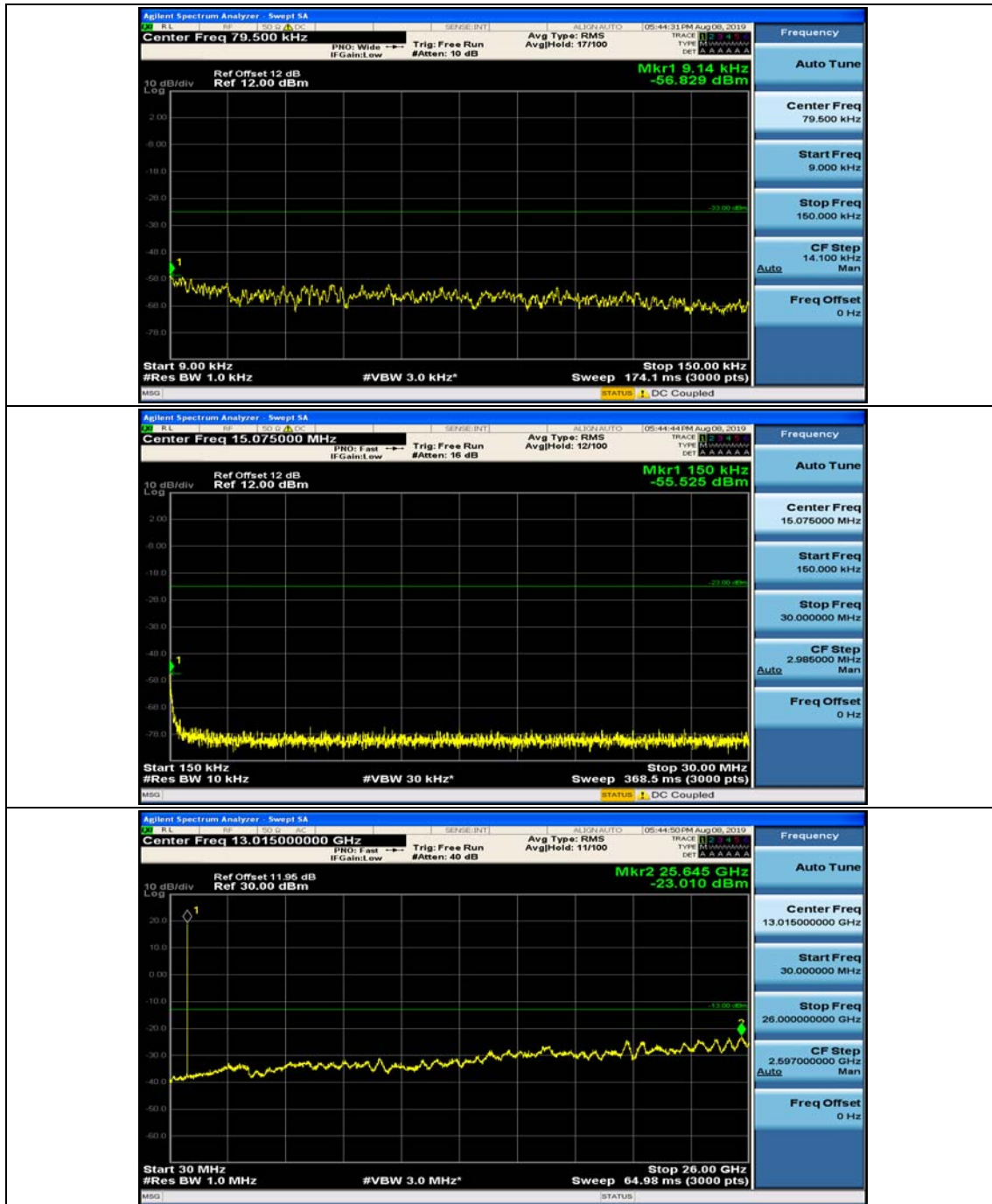


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

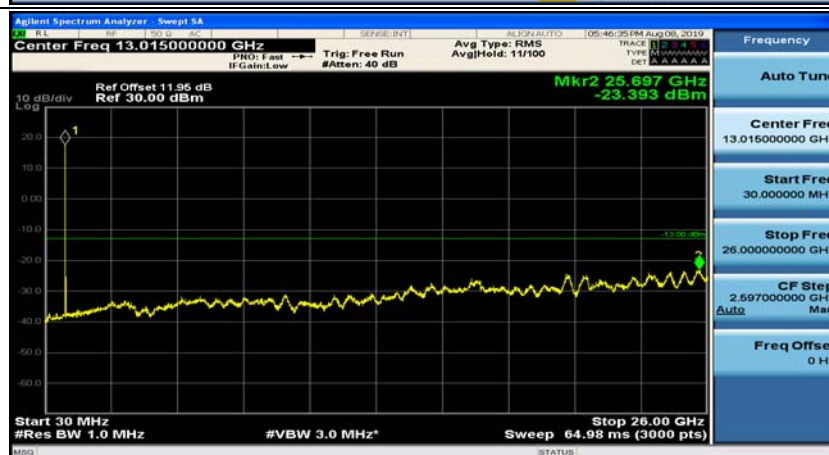
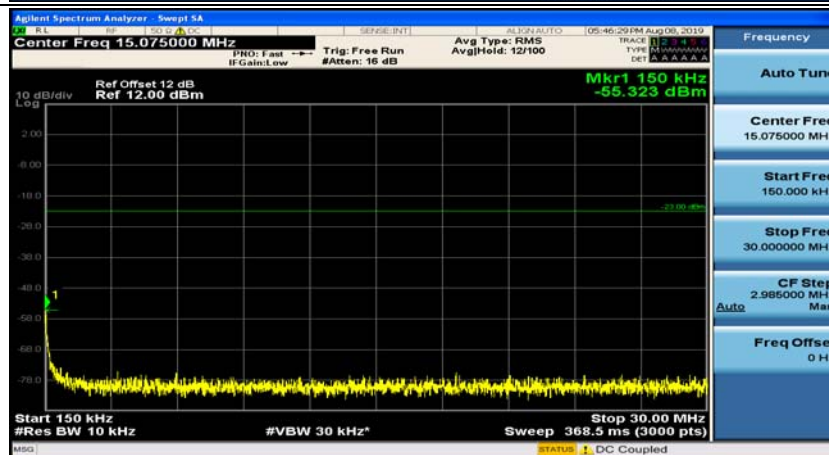


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

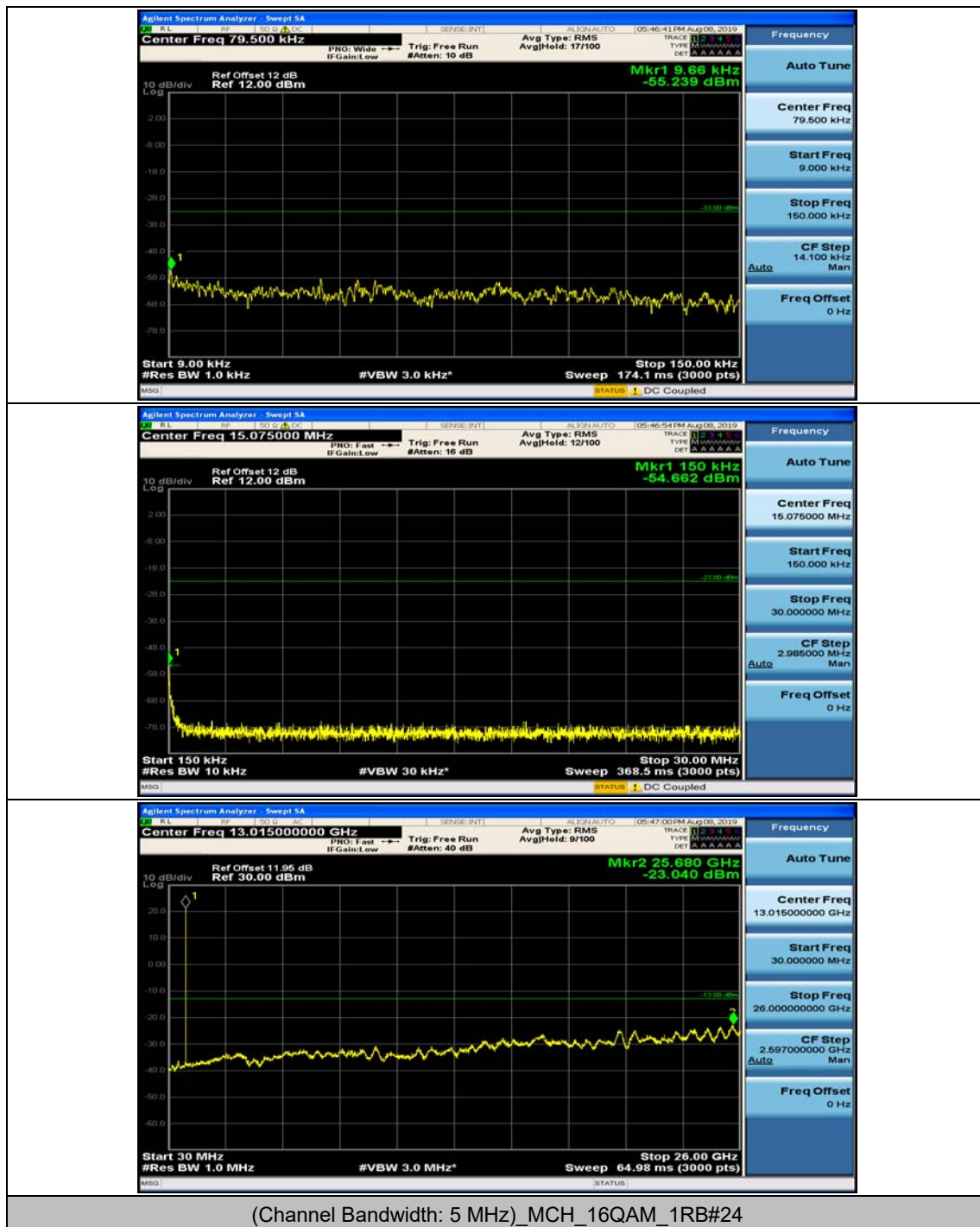


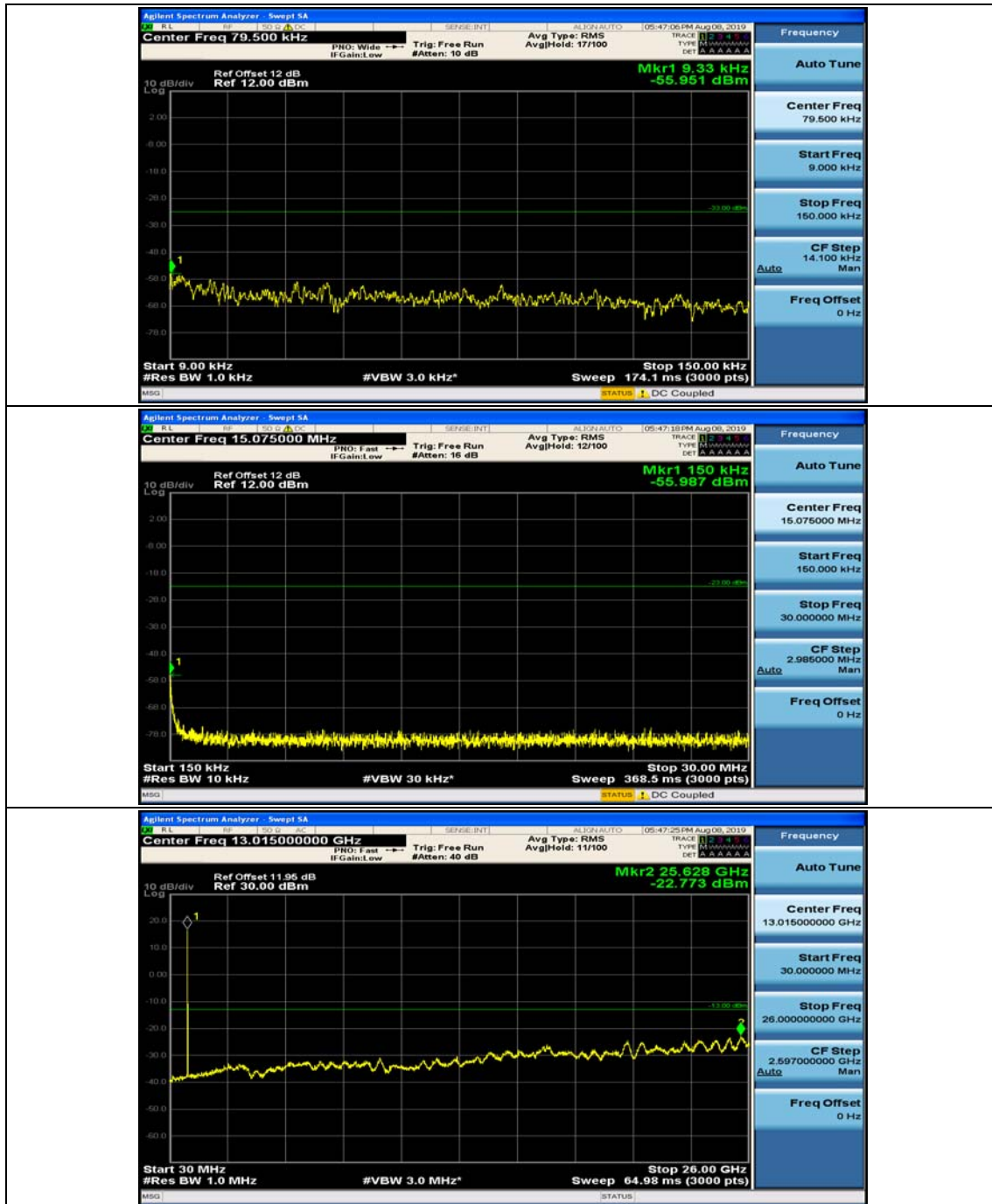


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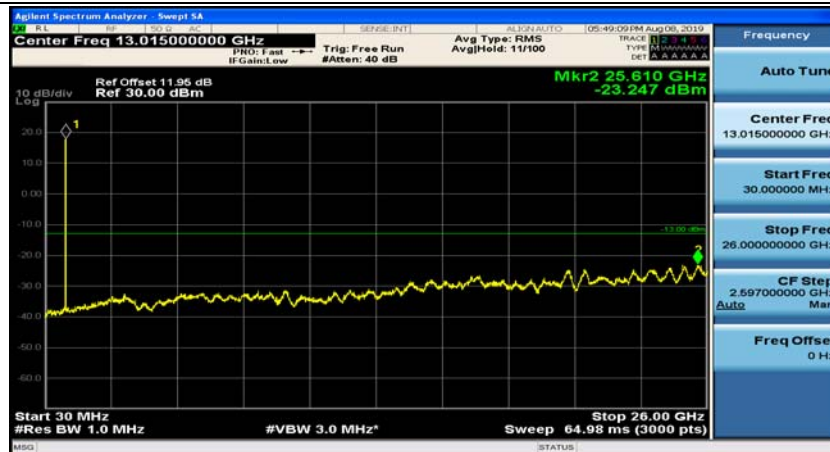
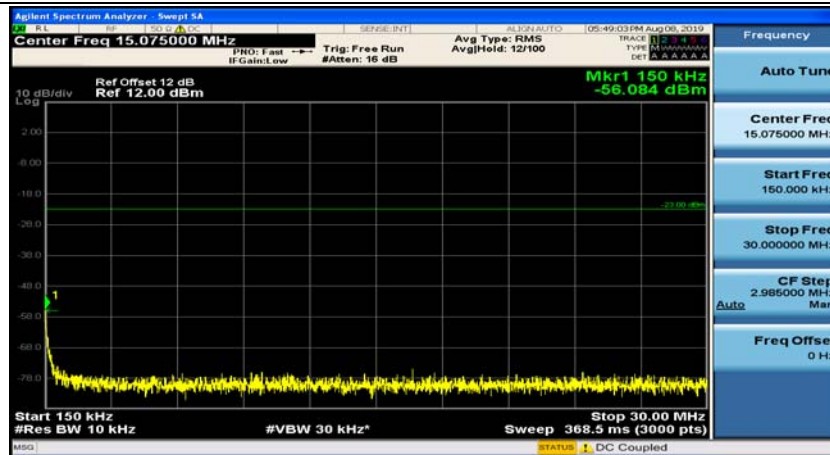
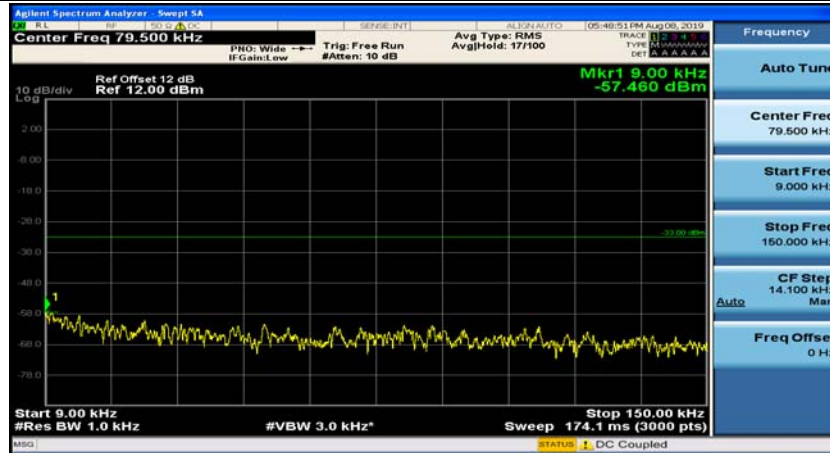


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

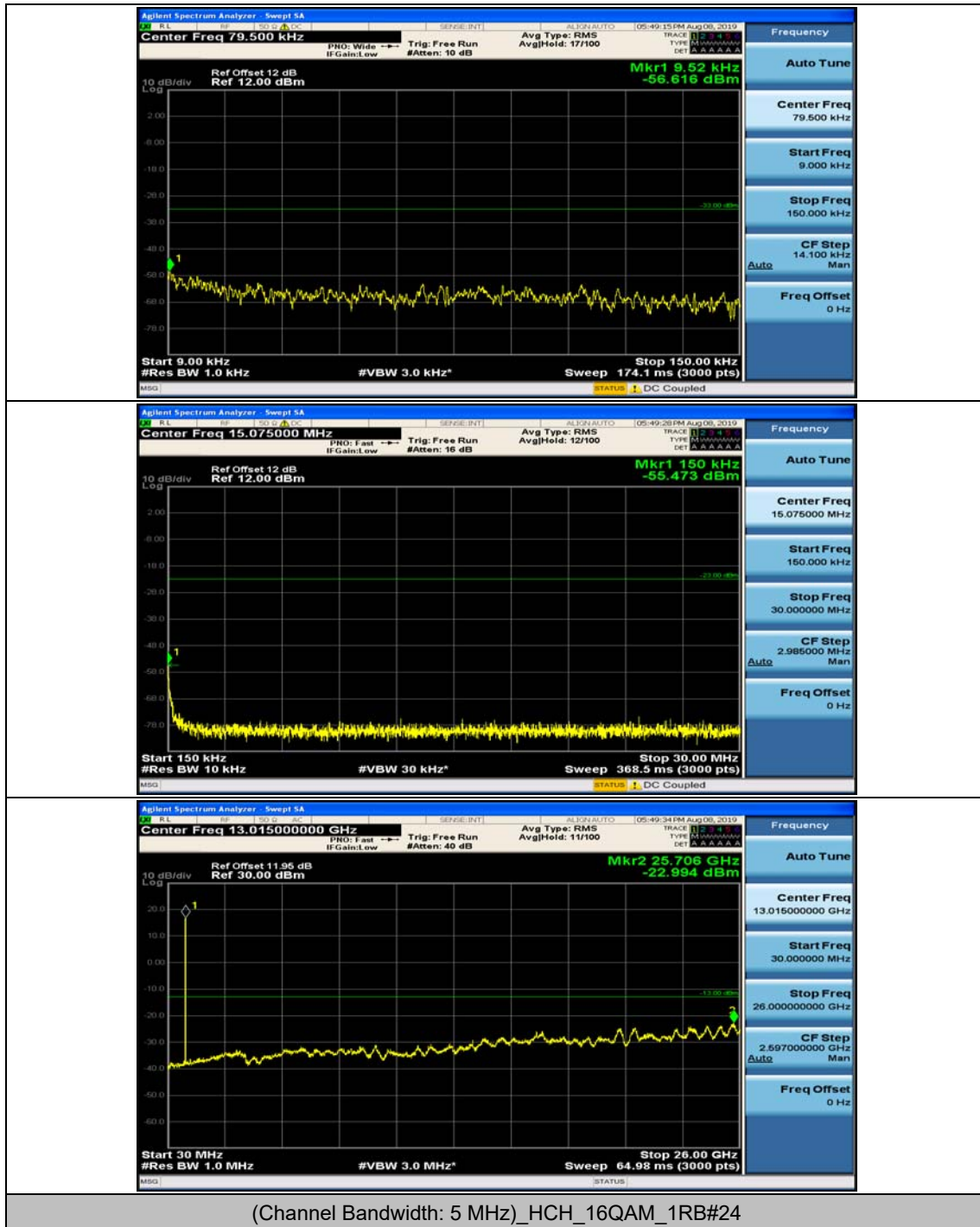


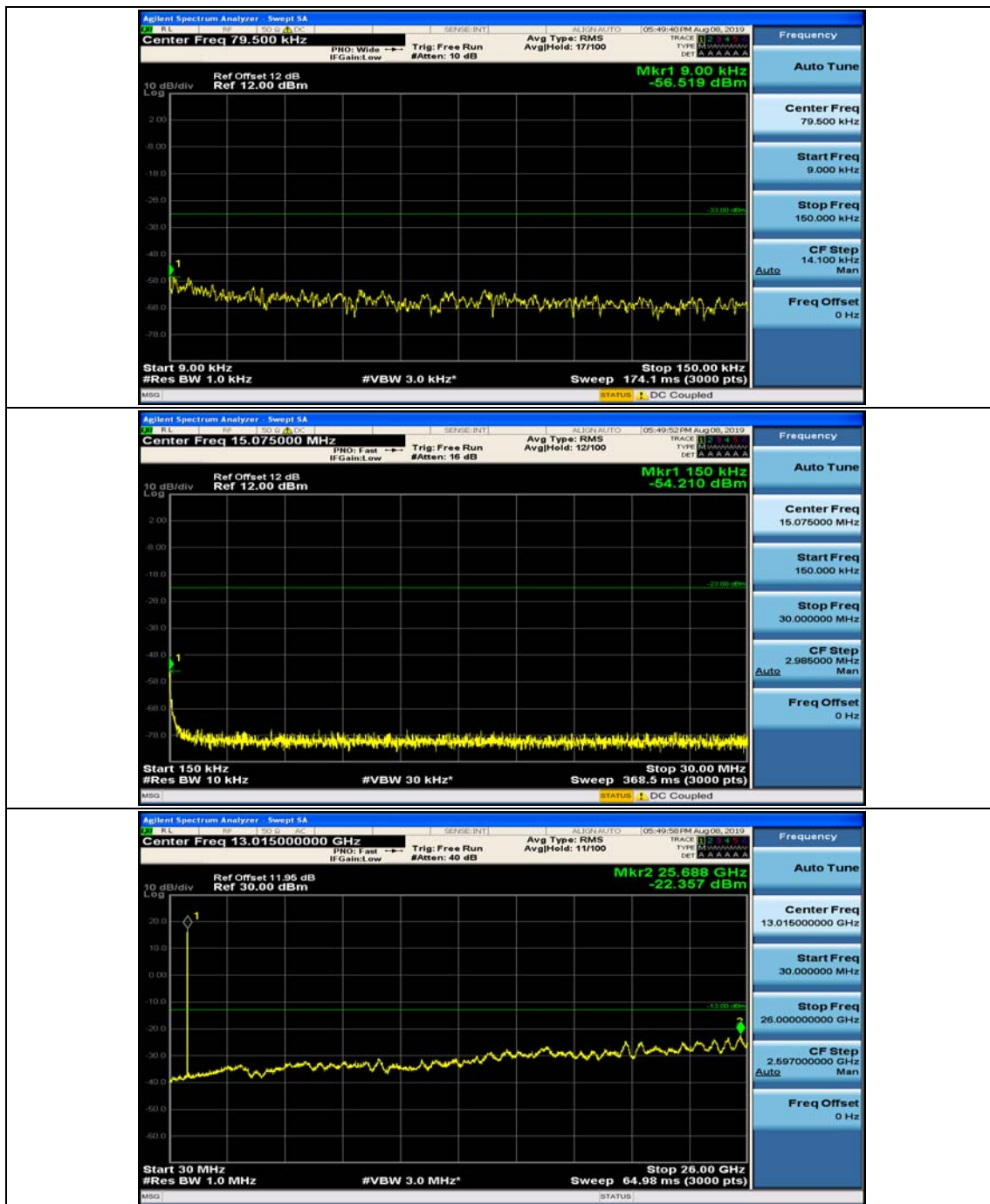


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

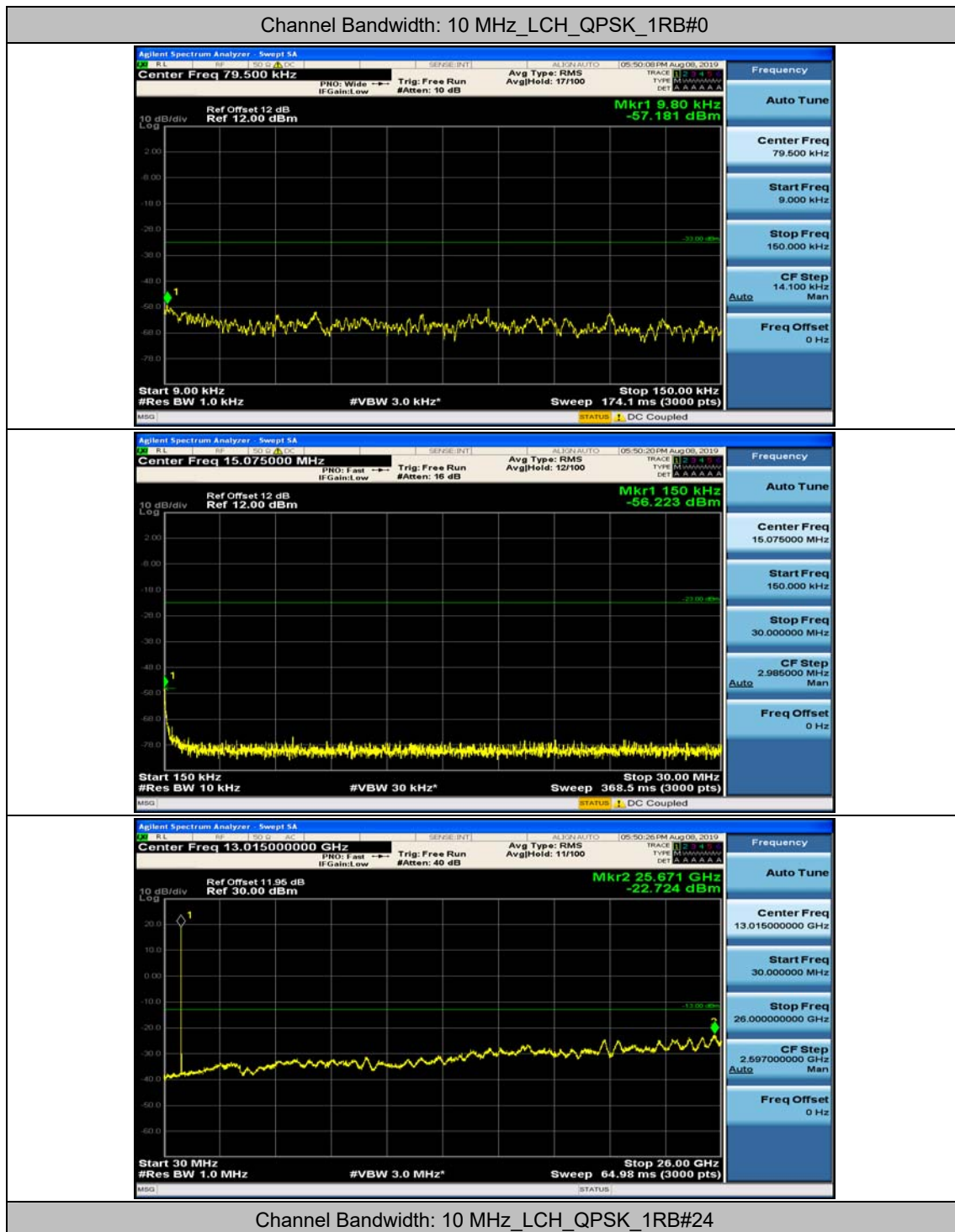


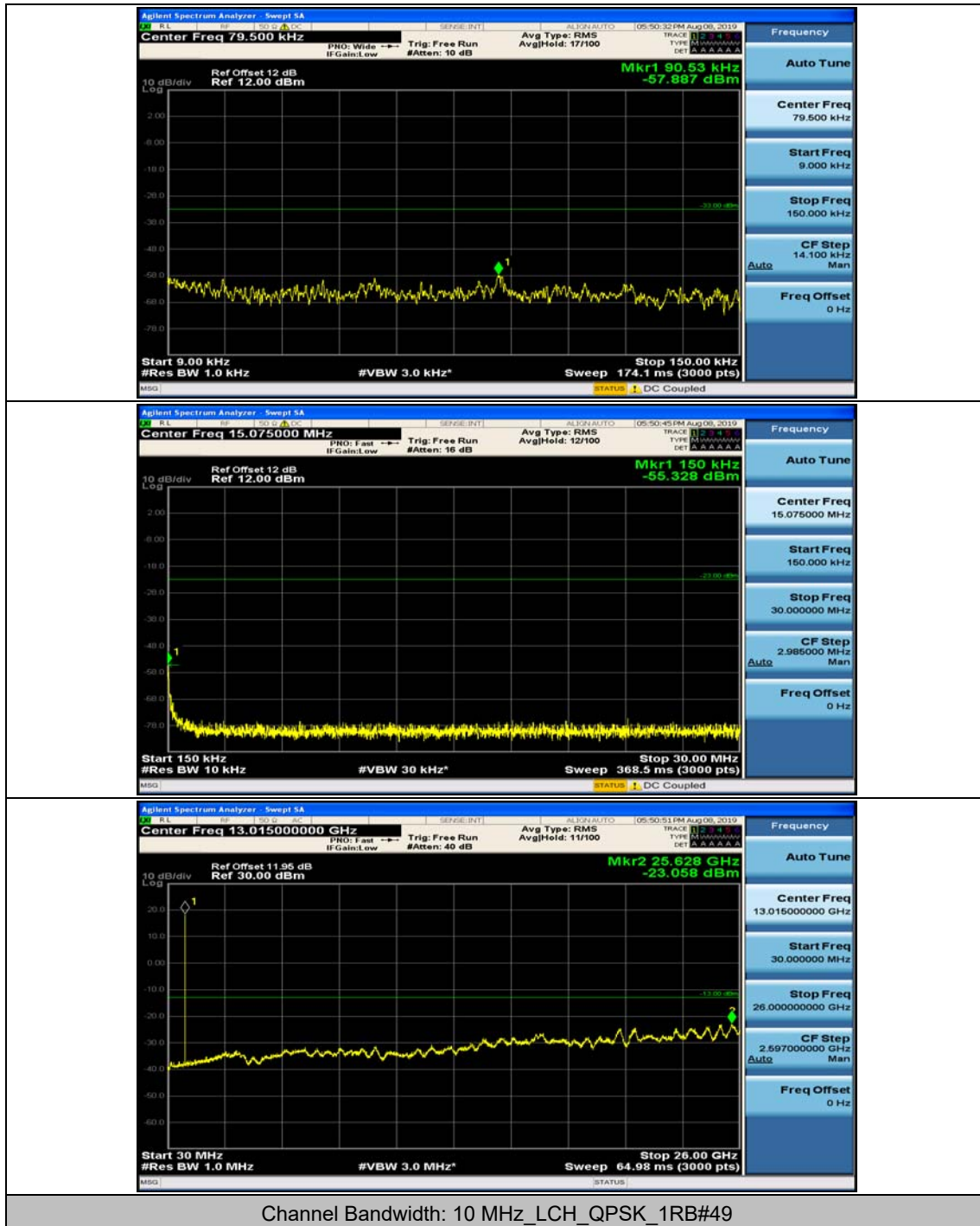
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

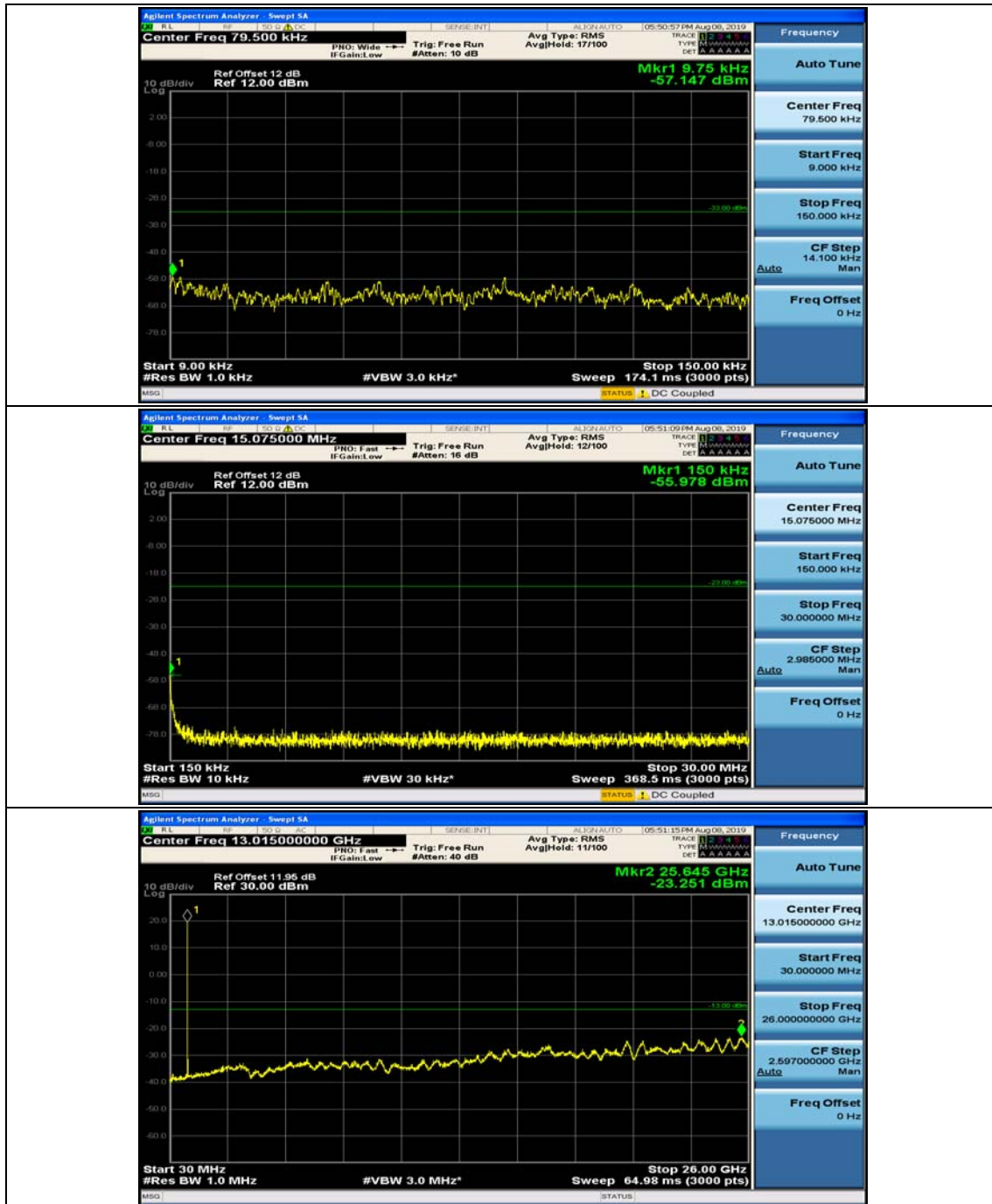




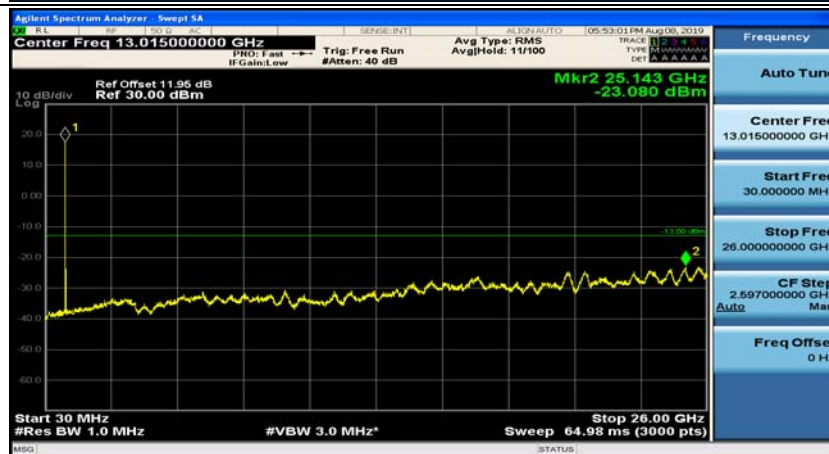
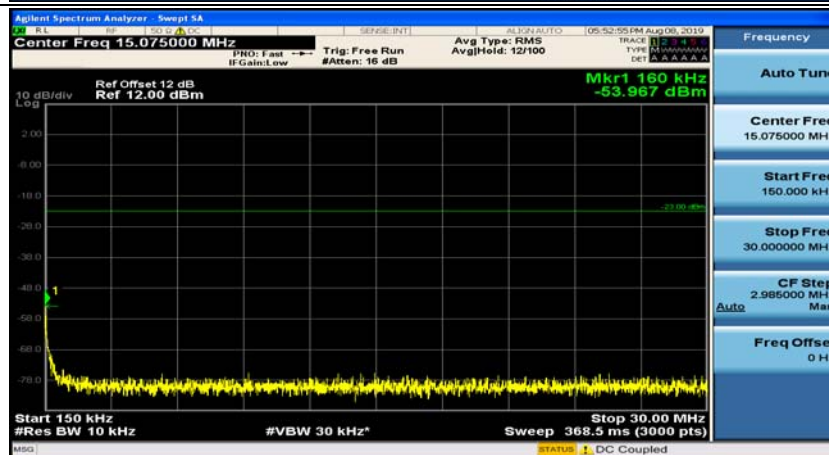
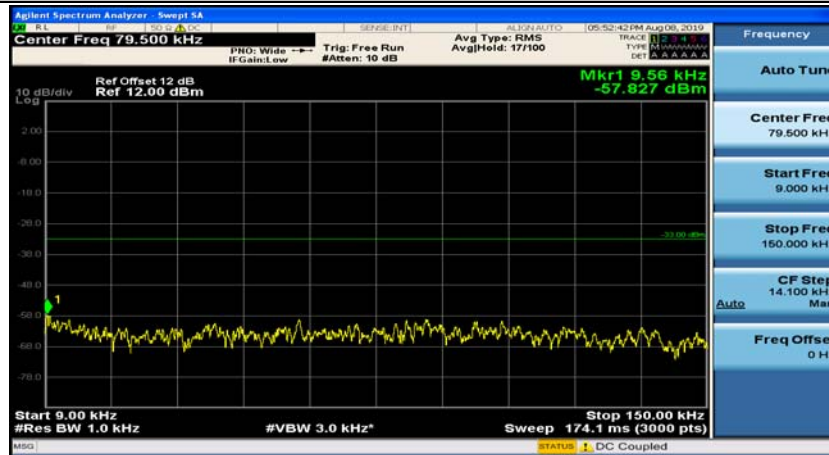
Channel Bandwidth: 10 MHz



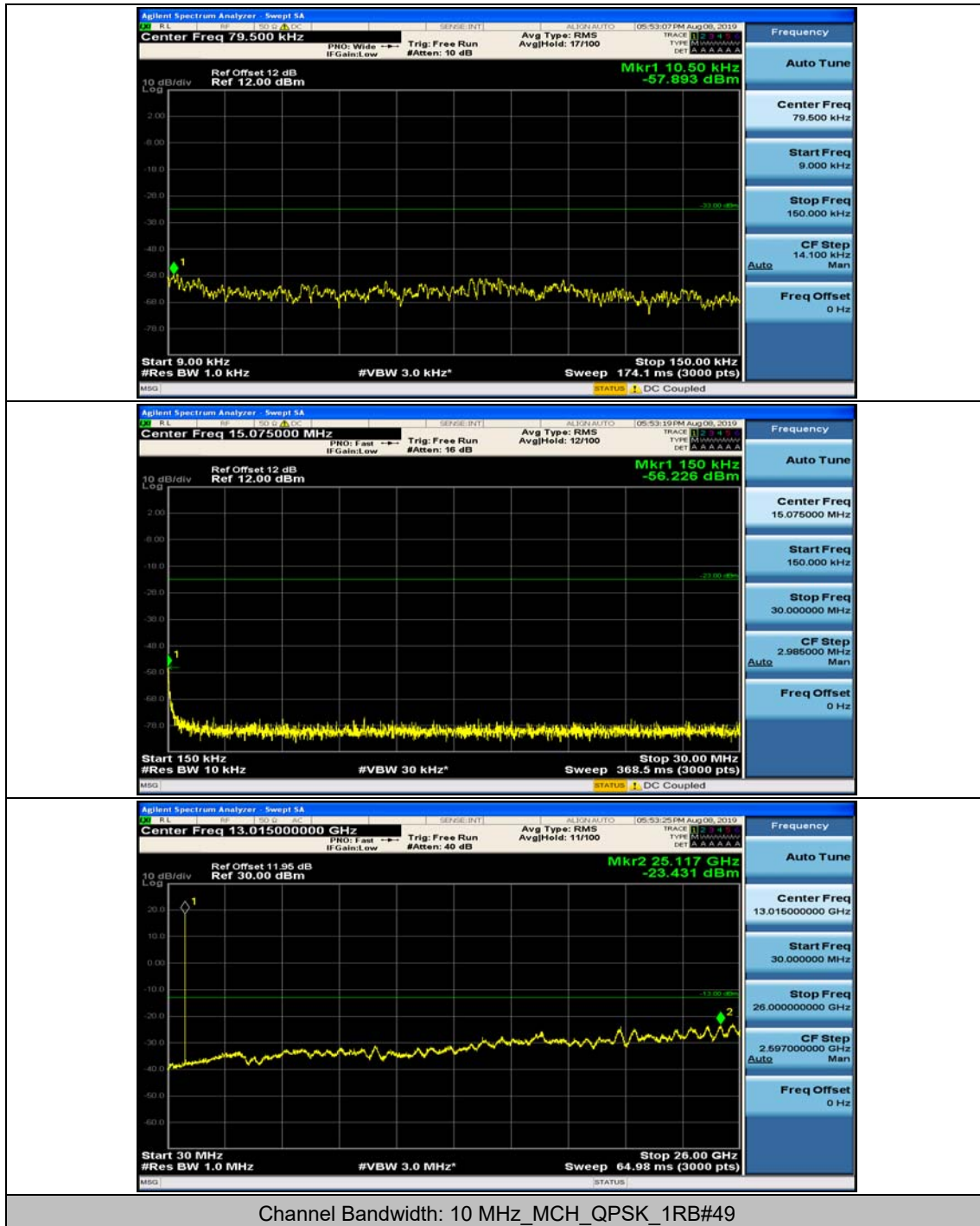


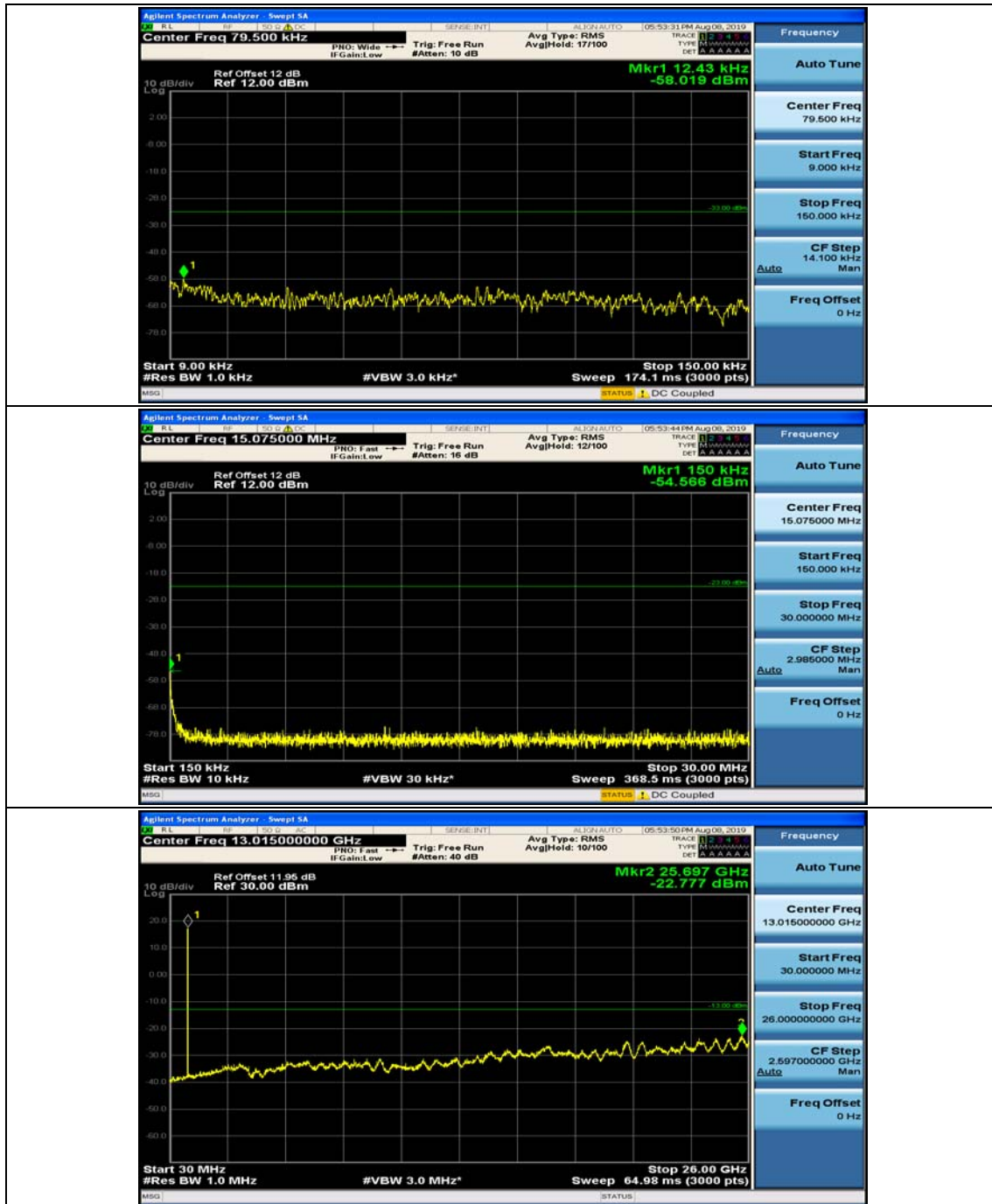


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

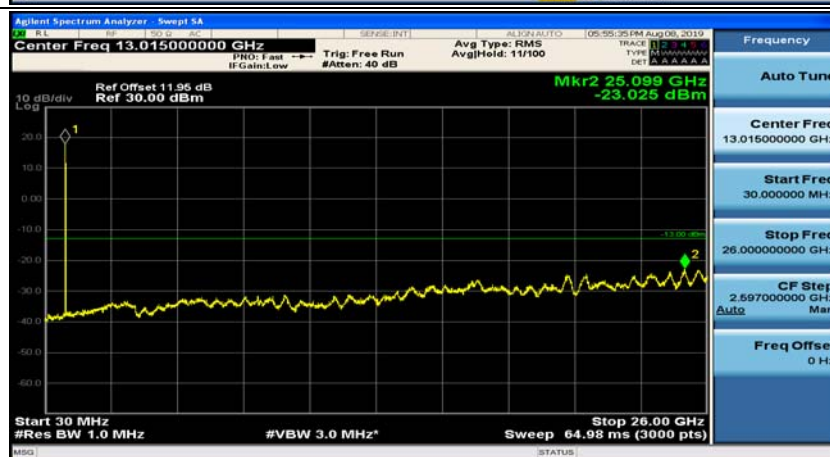
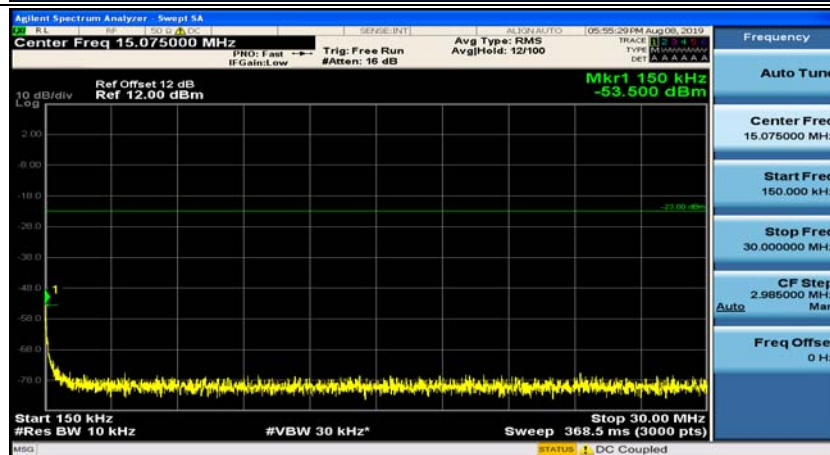
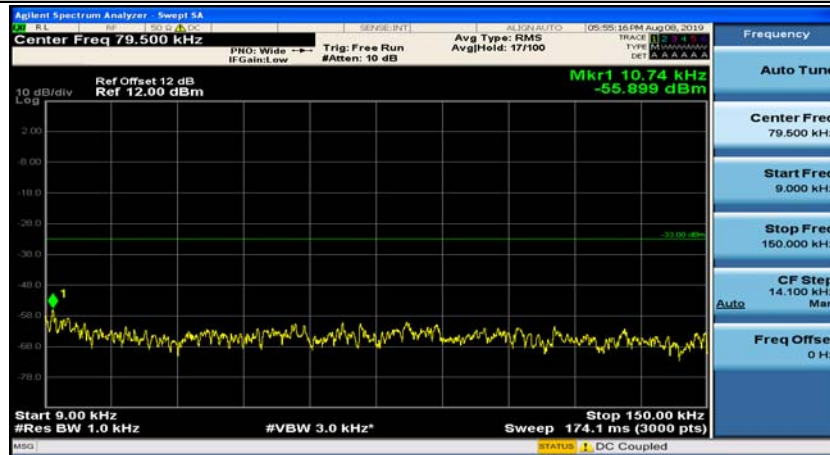


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

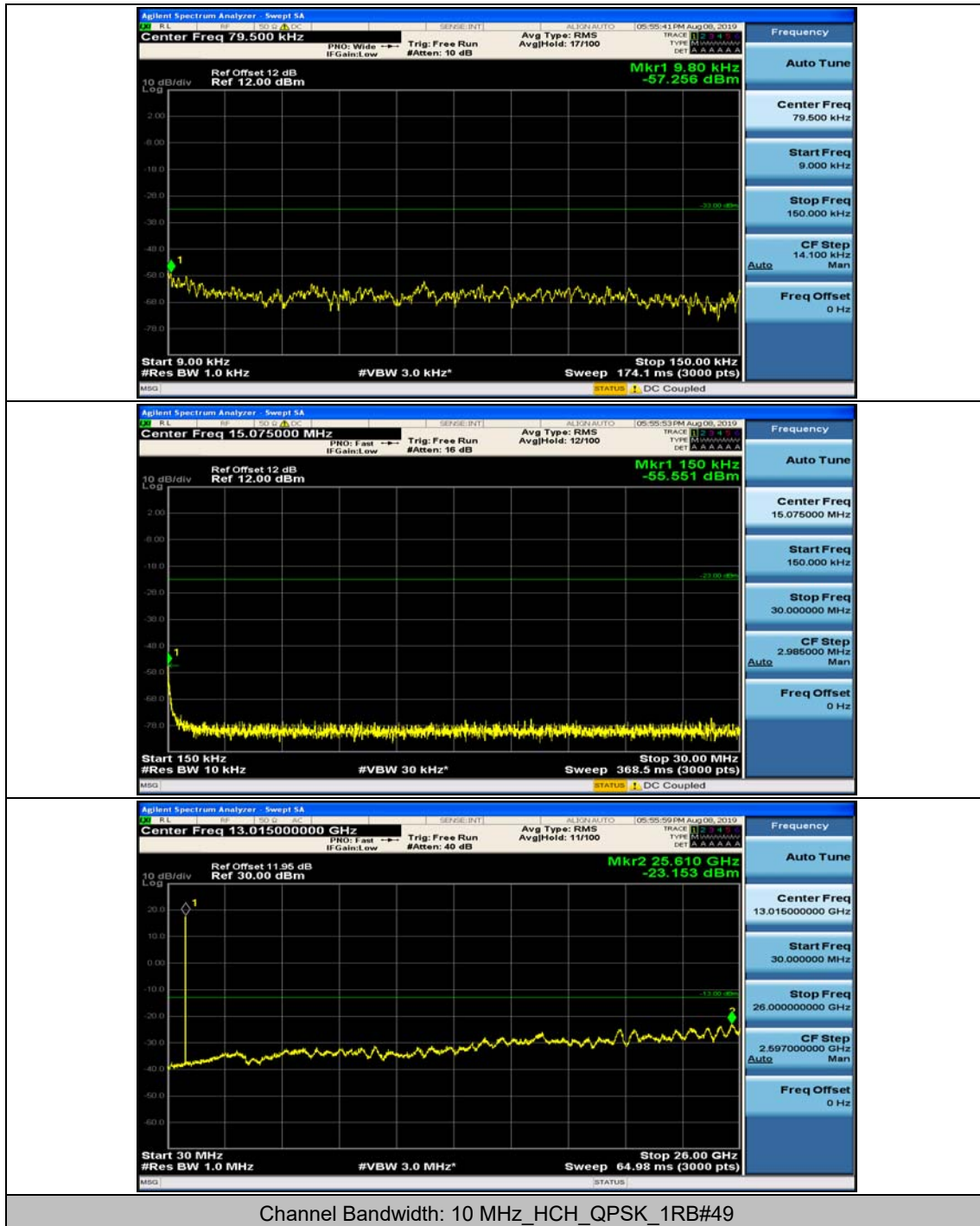


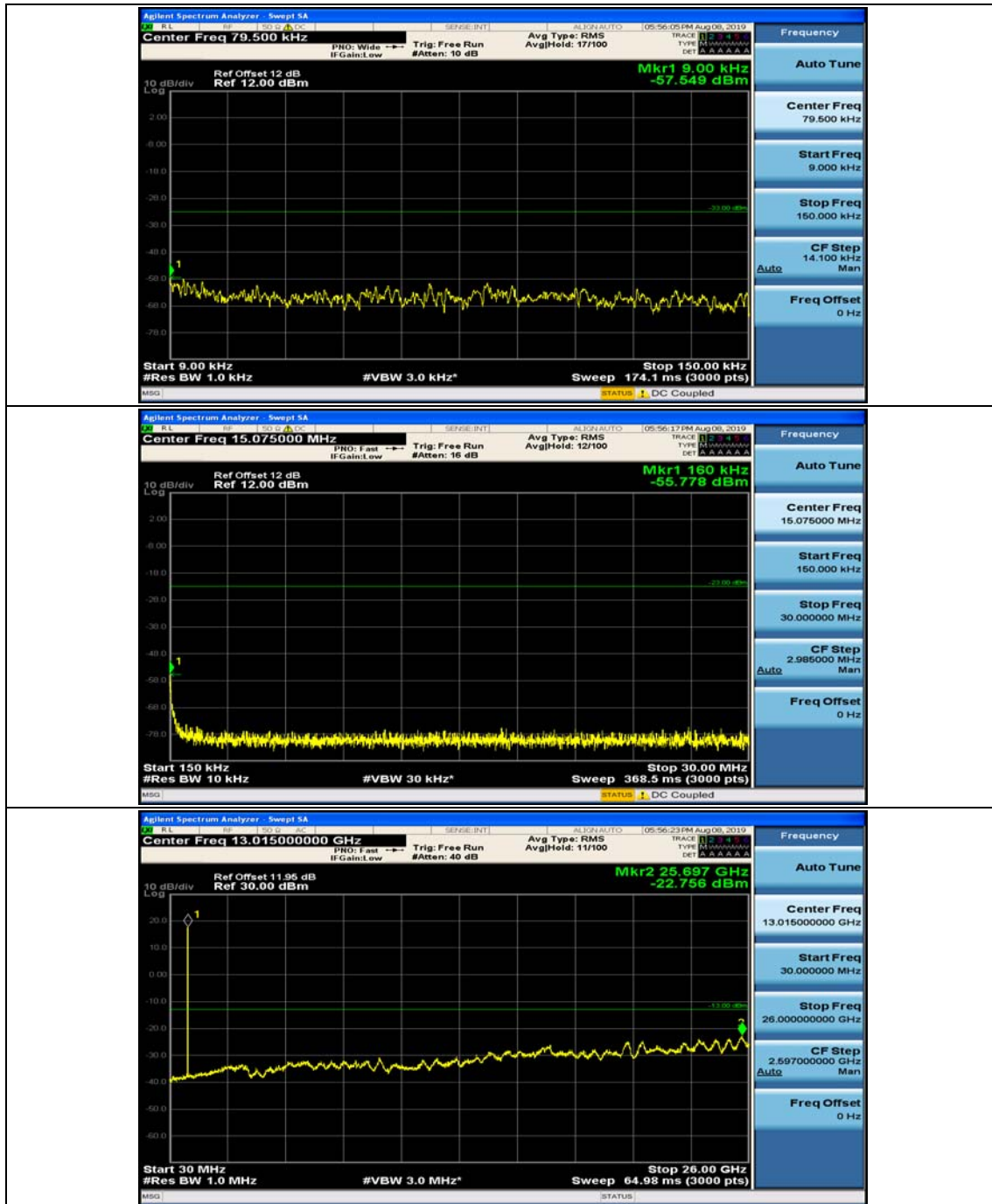


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

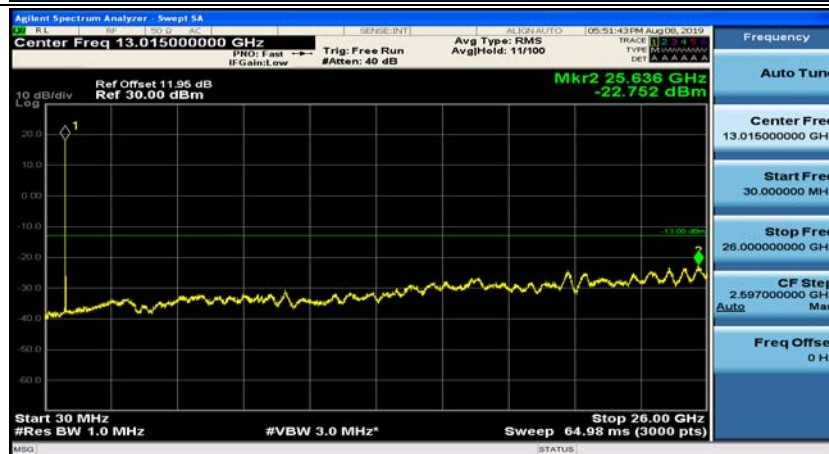
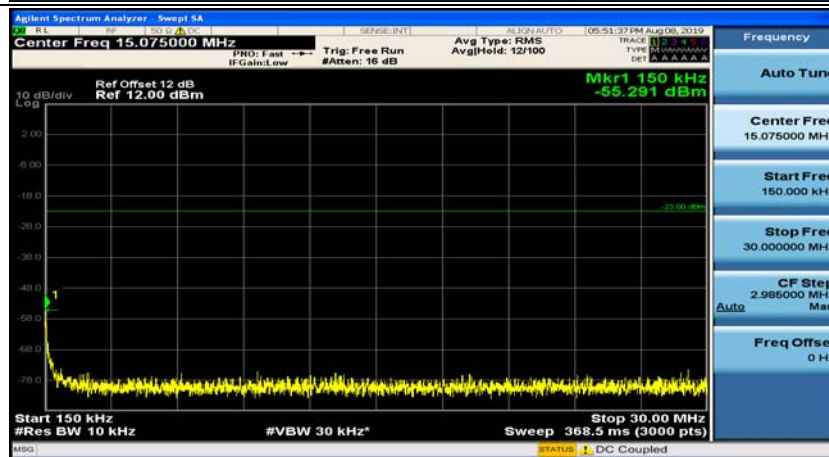


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

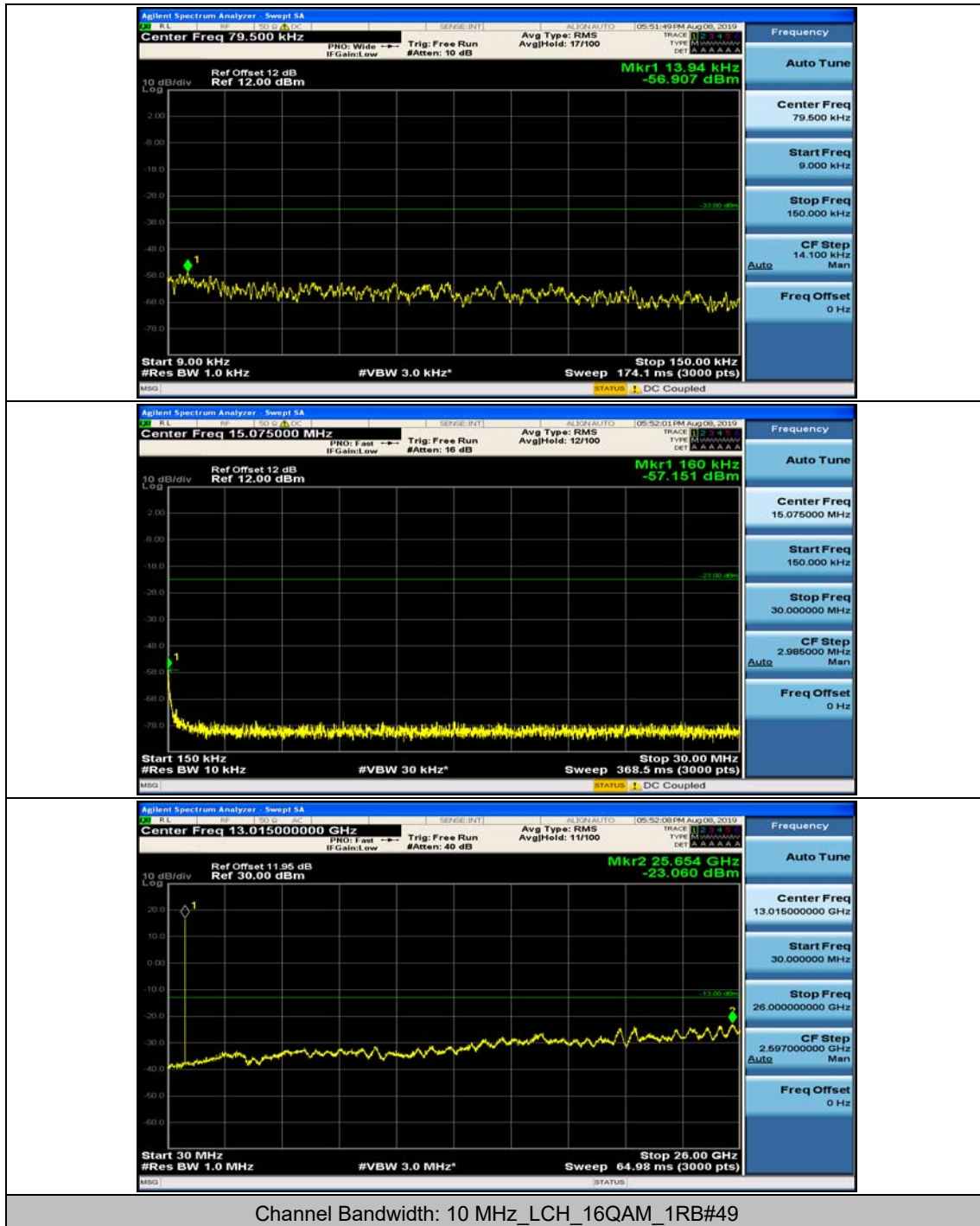


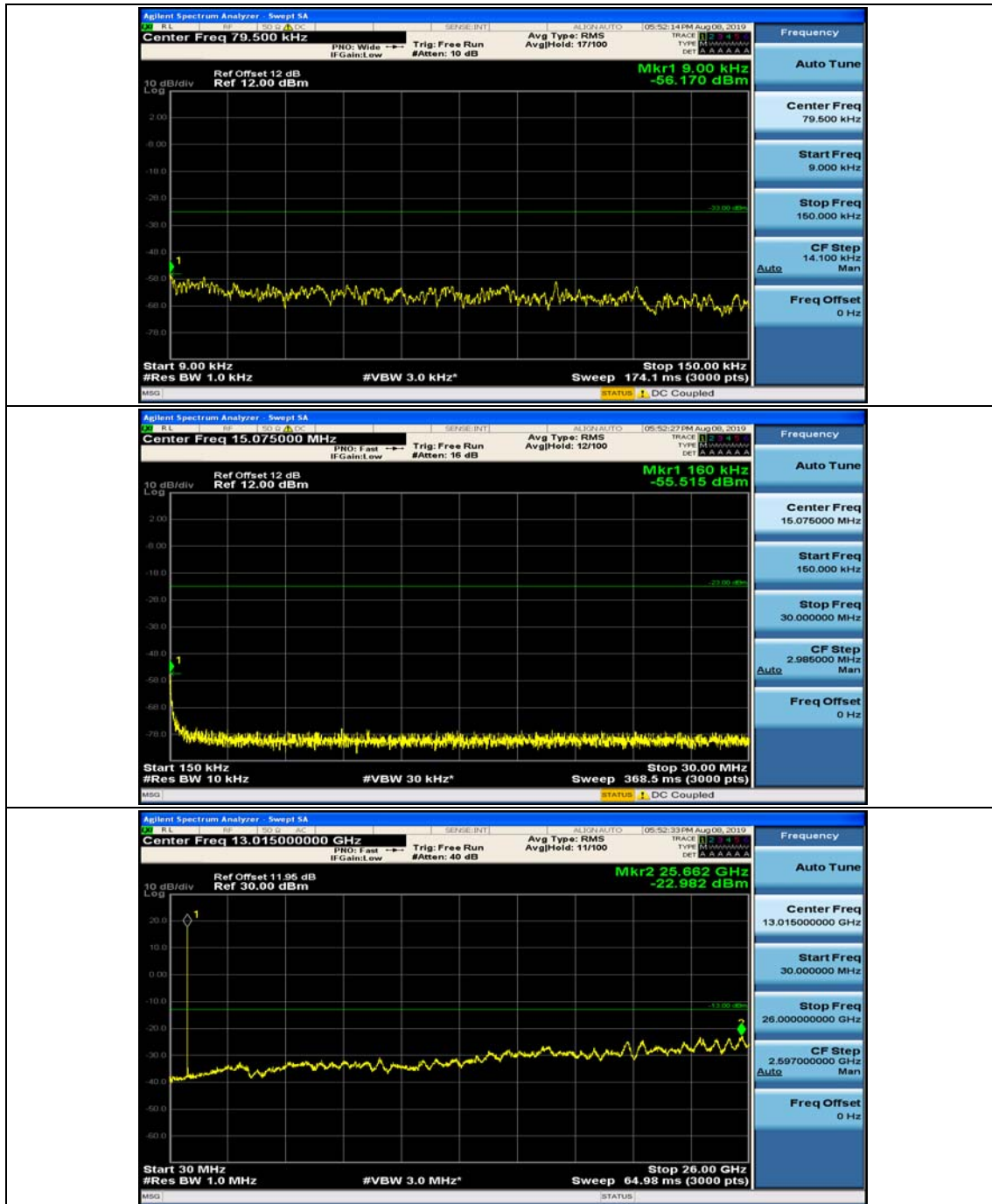


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

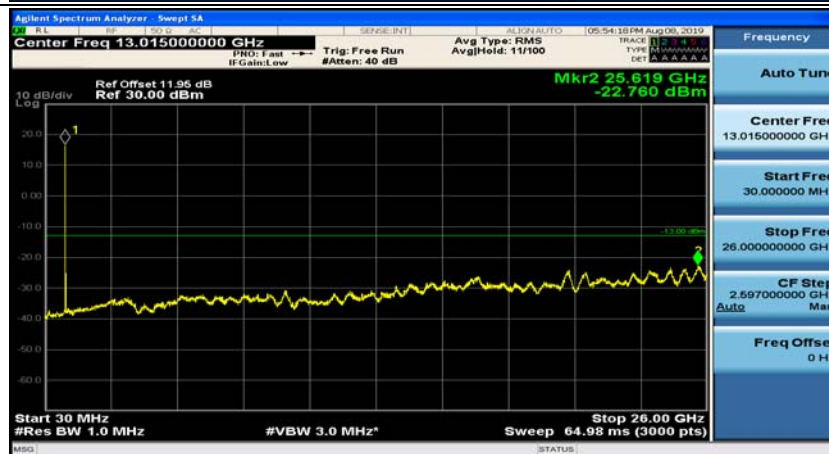
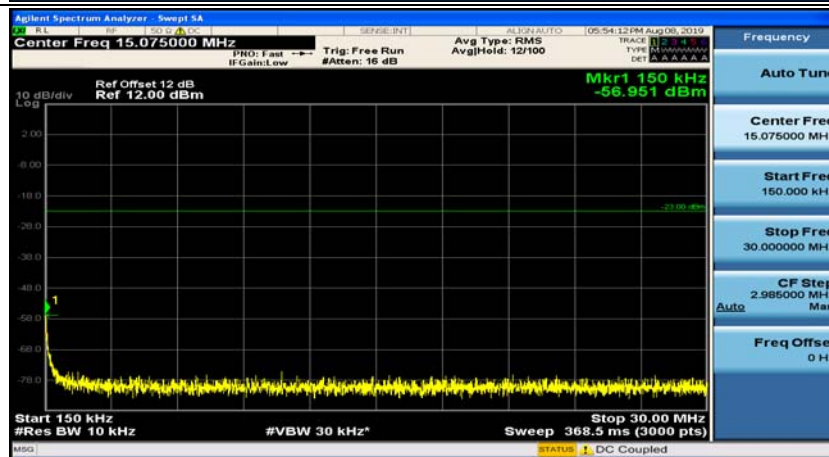
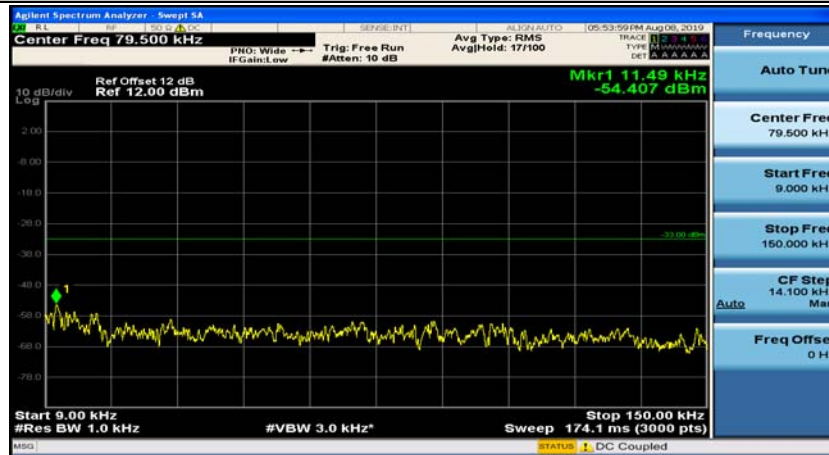


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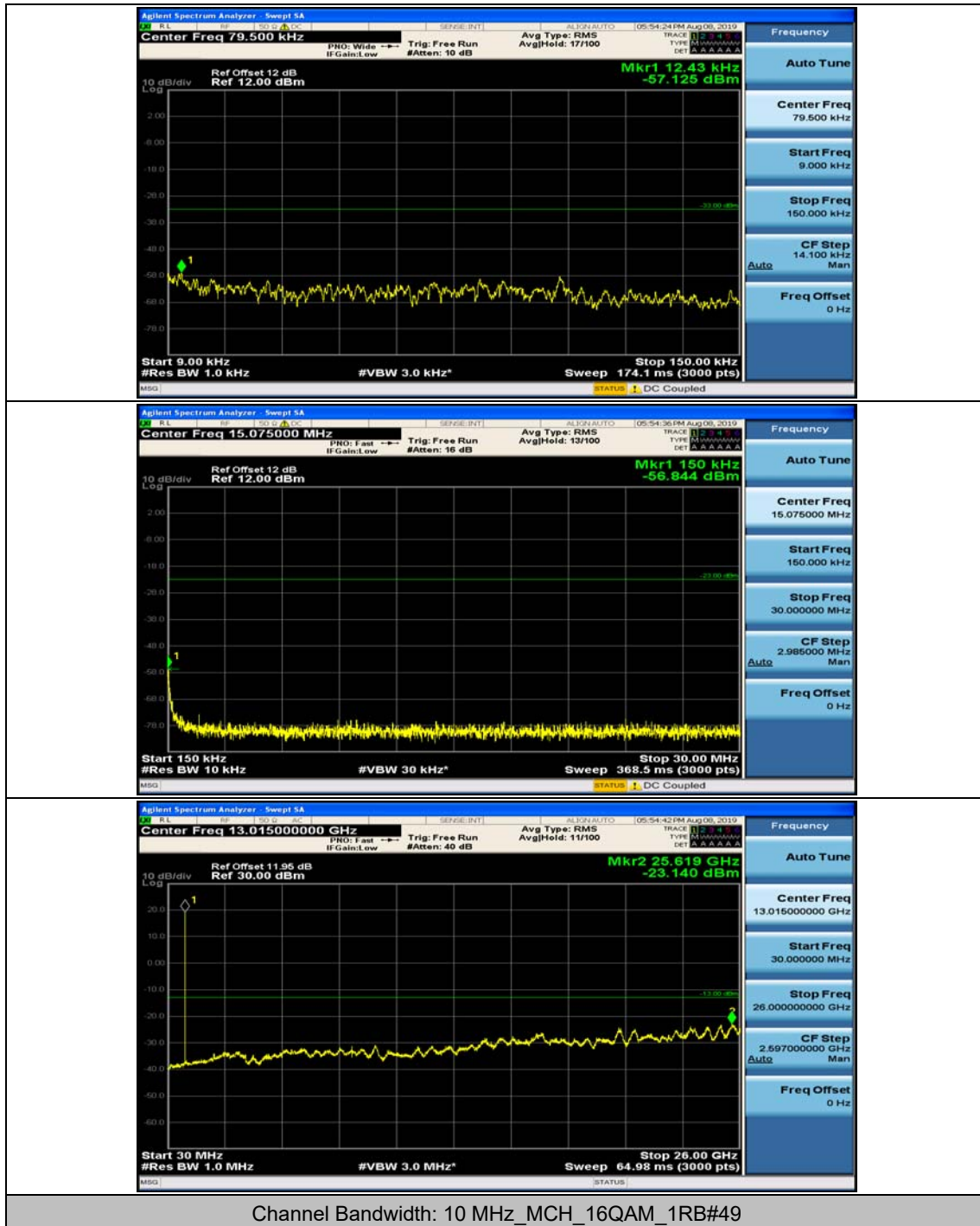


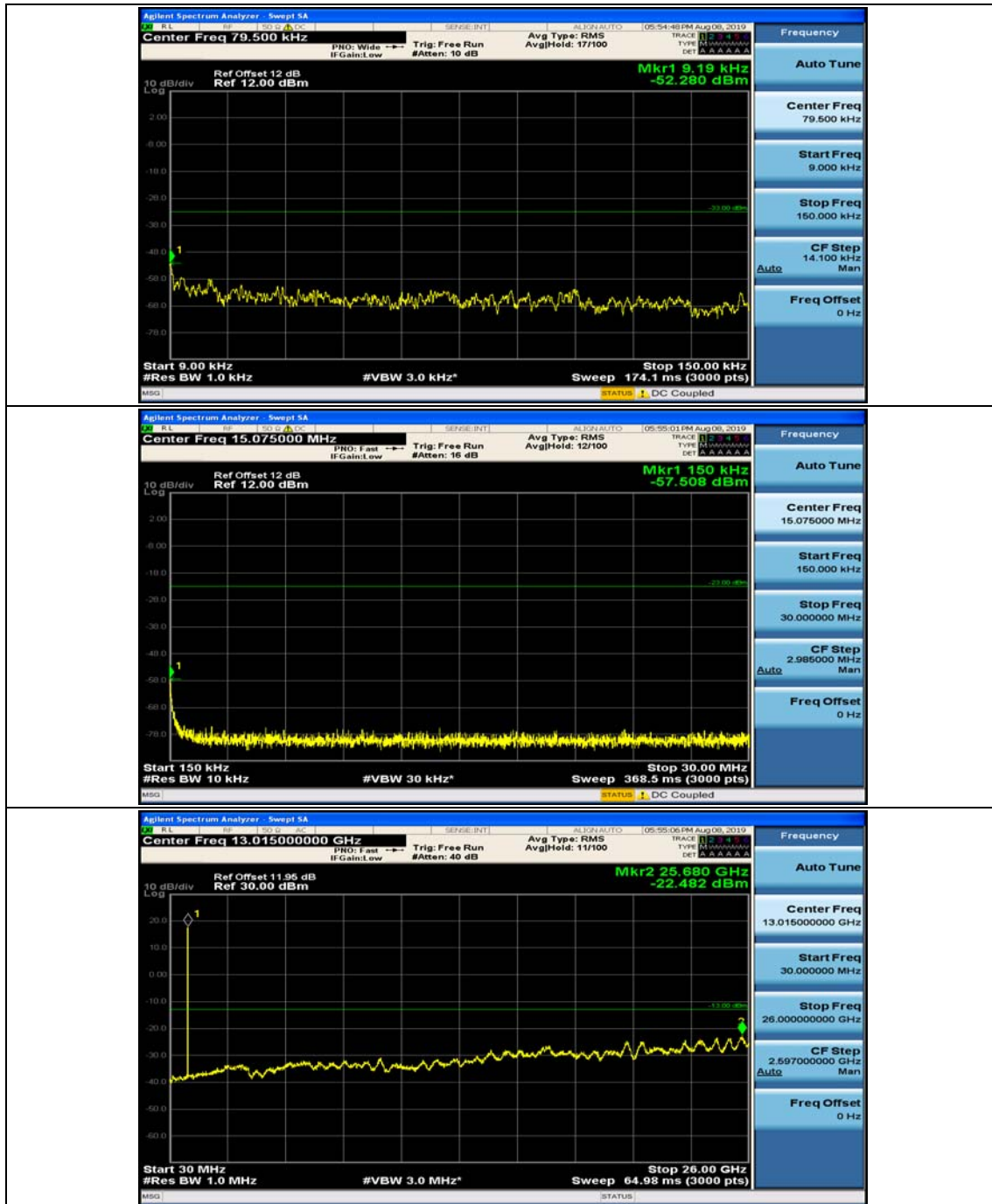


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

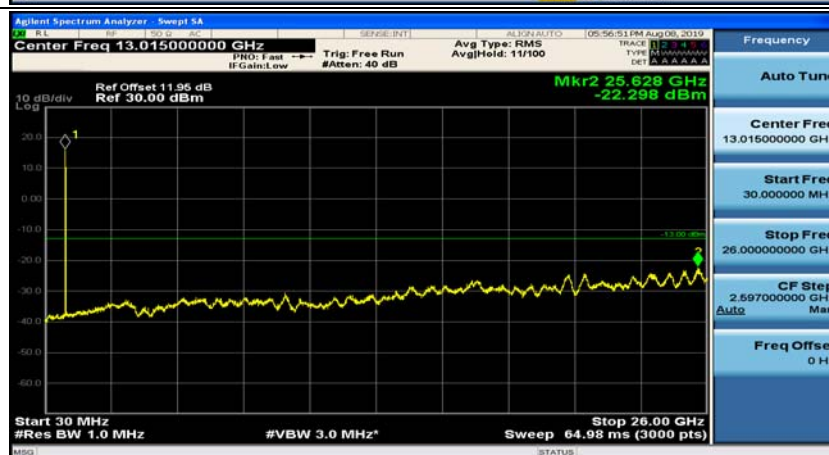
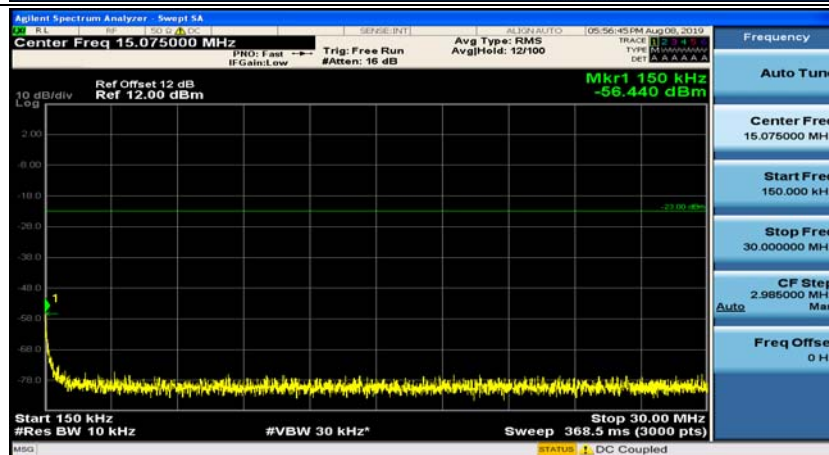
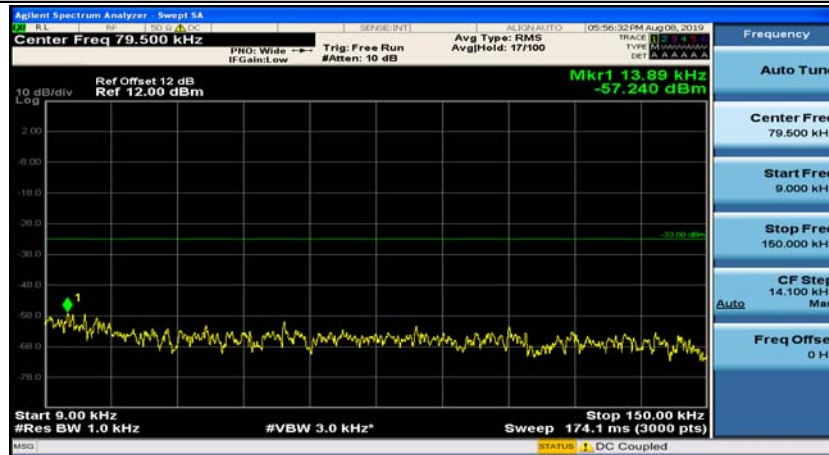


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

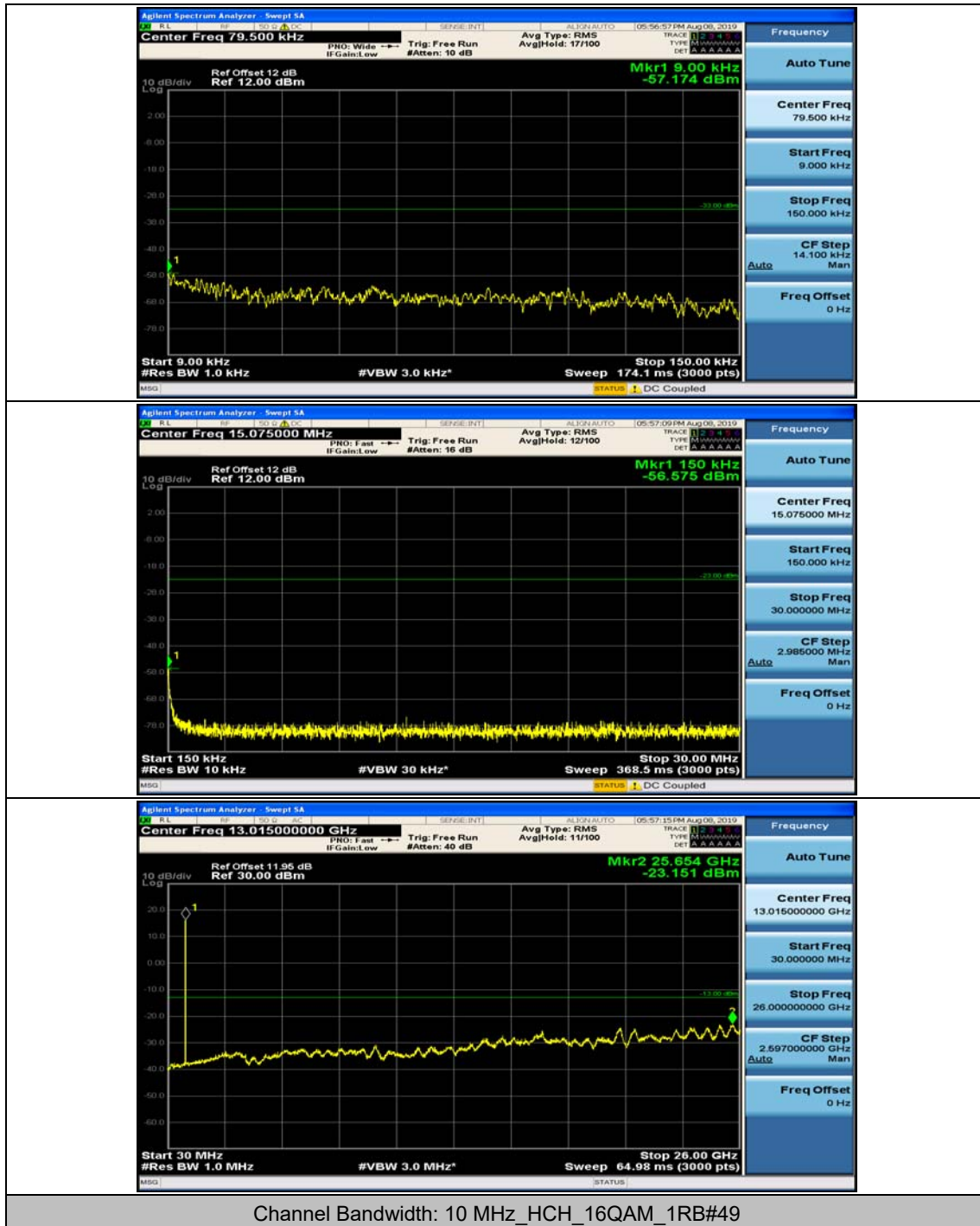


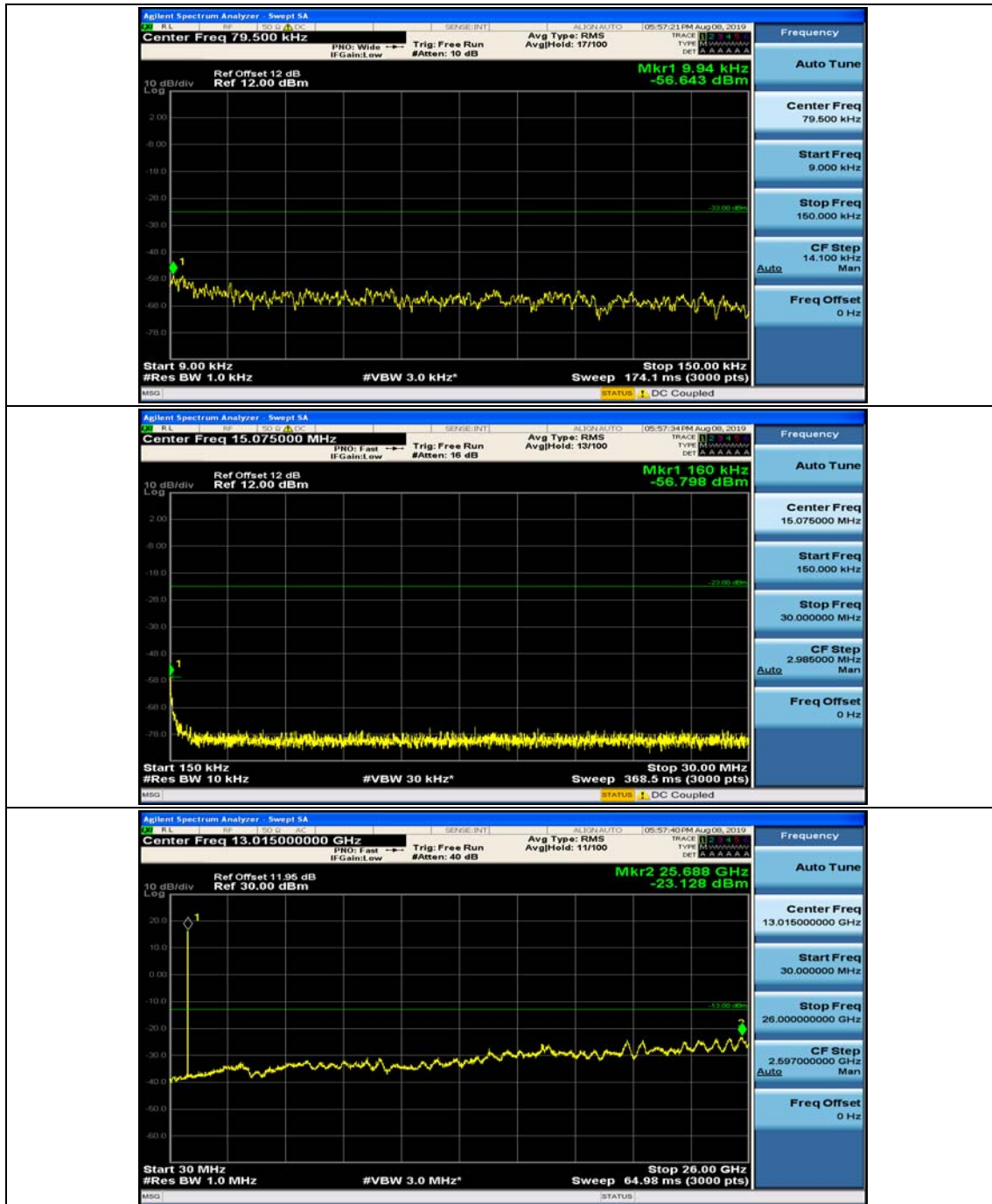


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



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	-0.55	-0.000667	± 2.5	PASS
		VN	TN	0.93	0.001128	± 2.5	PASS
		VH	TN	0.5	0.000606	± 2.5	PASS
	MCH	VL	TN	4.31	0.005152	± 2.5	PASS
		VN	TN	0.64	0.000765	± 2.5	PASS
		VH	TN	1.45	0.001733	± 2.5	PASS
	HCH	VL	TN	1.39	0.001639	± 2.5	PASS
		VN	TN	0.63	0.000743	± 2.5	PASS
		VH	TN	1.74	0.002051	± 2.5	PASS
16QAM	LCH	VL	TN	2.17	0.002631	± 2.5	PASS
		VN	TN	2.05	0.002486	± 2.5	PASS
		VH	TN	-0.1	-0.000121	± 2.5	PASS
	MCH	VL	TN	3.06	0.003658	± 2.5	PASS
		VN	TN	3.87	0.004626	± 2.5	PASS
		VH	TN	3.84	0.004591	± 2.5	PASS
	HCH	VL	TN	0.55	0.000648	± 2.5	PASS
		VN	TN	-0.41	-0.000483	± 2.5	PASS
		VH	TN	3.01	0.003548	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.48	0.005432	± 2.5	PASS
		VN	-20	4.71	0.005711	± 2.5	PASS
		VN	-10	0.63	0.000764	± 2.5	PASS
		VN	0	1.99	0.002413	± 2.5	PASS
		VN	10	2.46	0.002983	± 2.5	PASS
		VN	20	2.08	0.002522	± 2.5	PASS
		VN	30	1.6	0.001940	± 2.5	PASS
		VN	40	2.84	0.003444	± 2.5	PASS
		VN	50	-1.74	-0.002110	± 2.5	PASS
	MCH	VN	-30	0.16	0.000191	± 2.5	PASS
		VN	-20	4.83	0.005774	± 2.5	PASS

		VN	-10	-1.33	-0.001590	± 2.5	PASS
		VN	0	1.91	0.002283	± 2.5	PASS
		VN	10	3.38	0.004041	± 2.5	PASS
		VN	20	0.4	0.000478	± 2.5	PASS
		VN	30	-0.34	-0.000406	± 2.5	PASS
		VN	40	2.6	0.003108	± 2.5	PASS
		VN	50	-1.53	-0.001829	± 2.5	PASS
	HCH	VN	-30	1.1	0.001297	± 2.5	PASS
		VN	-20	3.62	0.004267	± 2.5	PASS
		VN	-10	0.02	0.000024	± 2.5	PASS
		VN	0	4.89	0.005764	± 2.5	PASS
		VN	10	2.06	0.002428	± 2.5	PASS
		VN	20	2.06	0.002428	± 2.5	PASS
		VN	30	2.5	0.002947	± 2.5	PASS
		VN	40	-0.05	-0.000059	± 2.5	PASS
		VN	50	1.8	0.002122	± 2.5	PASS
16QAM	LCH	VN	-30	-1.77	-0.002146	± 2.5	PASS
		VN	-20	1.58	0.001916	± 2.5	PASS
		VN	-10	-0.43	-0.000521	± 2.5	PASS
		VN	0	4.69	0.005687	± 2.5	PASS
		VN	10	4.34	0.005263	± 2.5	PASS
		VN	20	-0.2	-0.000243	± 2.5	PASS
		VN	30	0.17	0.000206	± 2.5	PASS
		VN	40	0.38	0.000461	± 2.5	PASS
		VN	50	4.96	0.006014	± 2.5	PASS
	MCH	VN	-30	2.41	0.002841	± 2.5	PASS
		VN	-20	3.19	0.003760	± 2.5	PASS
		VN	-10	-1.87	-0.002204	± 2.5	PASS
		VN	0	0.27	0.000318	± 2.5	PASS
		VN	10	-0.22	-0.000259	± 2.5	PASS
		VN	20	3.94	0.004645	± 2.5	PASS
		VN	30	4.65	0.005482	± 2.5	PASS
		VN	40	4.07	0.004798	± 2.5	PASS
		VN	50	0.75	0.000884	± 2.5	PASS
	HCH	VN	-30	3.27	0.003855	± 2.5	PASS
		VN	-20	-0.79	-0.000931	± 2.5	PASS
		VN	-10	-0.09	-0.000106	± 2.5	PASS
		VN	0	2.76	0.003254	± 2.5	PASS
		VN	10	1.5	0.001768	± 2.5	PASS
		VN	20	1.68	0.001980	± 2.5	PASS
		VN	30	4.14	0.004880	± 2.5	PASS

		VN	40	0.11	0.000130	± 2.5	PASS
		VN	50	1.14	0.001344	± 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	3.05	0.003695	± 2.5	PASS
		VN	TN	3.04	0.003683	± 2.5	PASS
		VH	TN	-1.26	-0.001526	± 2.5	PASS
	MCH	VL	TN	-0.08	-0.000096	± 2.5	PASS
		VN	TN	-0.35	-0.000418	± 2.5	PASS
		VH	TN	1.16	0.001387	± 2.5	PASS
	HCH	VL	TN	3.32	0.003917	± 2.5	PASS
		VN	TN	-1.5	-0.001770	± 2.5	PASS
		VH	TN	4.85	0.005723	± 2.5	PASS
16QAM	LCH	VL	TN	3.98	0.004821	± 2.5	PASS
		VN	TN	3.25	0.003937	± 2.5	PASS
		VH	TN	-0.52	-0.000630	± 2.5	PASS
	MCH	VL	TN	-1.93	-0.002307	± 2.5	PASS
		VN	TN	4.53	0.005415	± 2.5	PASS
		VH	TN	4.04	0.004830	± 2.5	PASS
	HCH	VL	TN	4.26	0.005027	± 2.5	PASS
		VN	TN	1.73	0.002041	± 2.5	PASS
		VH	TN	3.32	0.003917	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.39	0.005318	± 2.5	PASS
		VN	-20	-0.37	-0.000448	± 2.5	PASS
		VN	-10	-1.54	-0.001866	± 2.5	PASS
		VN	0	4.04	0.004894	± 2.5	PASS
		VN	10	4.35	0.005270	± 2.5	PASS
		VN	20	1.83	0.002217	± 2.5	PASS
		VN	30	1.27	0.001538	± 2.5	PASS
		VN	40	3.32	0.004022	± 2.5	PASS
		VN	50	-1.33	-0.001611	± 2.5	PASS
	MCH	VN	-30	4.4	0.005260	± 2.5	PASS
		VN	-20	4.21	0.005033	± 2.5	PASS
		VN	-10	-1.39	-0.001662	± 2.5	PASS

		VN	0	3.24	0.003873	± 2.5	PASS
		VN	10	2.08	0.002487	± 2.5	PASS
		VN	20	-0.91	-0.001088	± 2.5	PASS
		VN	30	2.49	0.002977	± 2.5	PASS
		VN	40	-0.49	-0.000586	± 2.5	PASS
		VN	50	4.06	0.004854	± 2.5	PASS
	HCH	VN	-30	2.47	0.002914	± 2.5	PASS
		VN	-20	-0.51	-0.000602	± 2.5	PASS
		VN	-10	2.6	0.003068	± 2.5	PASS
		VN	0	0.97	0.001145	± 2.5	PASS
		VN	10	0.35	0.000413	± 2.5	PASS
		VN	20	-1.96	-0.002313	± 2.5	PASS
		VN	30	0.99	0.001168	± 2.5	PASS
		VN	40	4.49	0.005298	± 2.5	PASS
		VN	50	1.26	0.001487	± 2.5	PASS
16QAM	LCH	VN	-30	-0.69	-0.000825	± 2.5	PASS
		VN	-20	1.91	0.002283	± 2.5	PASS
		VN	-10	4.54	0.005427	± 2.5	PASS
		VN	0	-1.81	-0.002164	± 2.5	PASS
		VN	10	3.74	0.004471	± 2.5	PASS
		VN	20	4.85	0.005798	± 2.5	PASS
		VN	30	1.49	0.001781	± 2.5	PASS
		VN	40	1.34	0.001602	± 2.5	PASS
		VN	50	1.3	0.001554	± 2.5	PASS
	MCH	VN	-30	4.23	0.004991	± 2.5	PASS
		VN	-20	-1.1	-0.001298	± 2.5	PASS
		VN	-10	-1.1	-0.001298	± 2.5	PASS
		VN	0	1.52	0.001794	± 2.5	PASS
		VN	10	4.67	0.005510	± 2.5	PASS
		VN	20	3.38	0.003988	± 2.5	PASS
		VN	30	-0.81	-0.000956	± 2.5	PASS
		VN	40	4	0.004720	± 2.5	PASS
		VN	50	1.21	0.001428	± 2.5	PASS
	HCH	VN	-30	3.63	0.004283	± 2.5	PASS
		VN	-20	-0.95	-0.001121	± 2.5	PASS
		VN	-10	4.86	0.005735	± 2.5	PASS
		VN	0	0.49	0.000578	± 2.5	PASS
		VN	10	3.41	0.004024	± 2.5	PASS
		VN	20	-1.92	-0.002265	± 2.5	PASS
		VN	30	1.36	0.001605	± 2.5	PASS
		VN	40	0.02	0.000024	± 2.5	PASS

		VN	50	0	0.000000	± 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	2.05	0.002480	± 2.5	PASS
		VN	TN	0.37	0.000448	± 2.5	PASS
		VH	TN	3.88	0.004694	± 2.5	PASS
	MCH	VL	TN	0.43	0.000514	± 2.5	PASS
		VN	TN	-1.94	-0.002319	± 2.5	PASS
		VH	TN	1.8	0.002152	± 2.5	PASS
	HCH	VL	TN	2.31	0.002729	± 2.5	PASS
		VN	TN	-0.79	-0.000933	± 2.5	PASS
		VH	TN	1.68	0.001985	± 2.5	PASS
16QAM	LCH	VL	TN	3.07	0.003714	± 2.5	PASS
		VN	TN	-0.84	-0.001016	± 2.5	PASS
		VH	TN	4.03	0.004876	± 2.5	PASS
	MCH	VL	TN	4.17	0.004985	± 2.5	PASS
		VN	TN	-0.25	-0.000299	± 2.5	PASS
		VH	TN	-0.5	-0.000598	± 2.5	PASS
	HCH	VL	TN	-0.61	-0.000721	± 2.5	PASS
		VN	TN	2.71	0.003201	± 2.5	PASS
		VH	TN	-0.71	-0.000839	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.5	0.004235	± 2.5	PASS
		VN	-20	3.9	0.004719	± 2.5	PASS
		VN	-10	-1.22	-0.001476	± 2.5	PASS
		VN	0	1.45	0.001754	± 2.5	PASS
		VN	10	0.39	0.000472	± 2.5	PASS
		VN	20	-0.43	-0.000520	± 2.5	PASS
		VN	30	0.36	0.000436	± 2.5	PASS
		VN	40	1.14	0.001379	± 2.5	PASS
		VN	50	-1.46	-0.001766	± 2.5	PASS
	MCH	VN	-30	0.05	0.000060	± 2.5	PASS
		VN	-20	2.1	0.002510	± 2.5	PASS
		VN	-10	2.25	0.002690	± 2.5	PASS
		VN	0	2.22	0.002654	± 2.5	PASS

		VN	10	3.23	0.003861	± 2.5	PASS
		VN	20	-1.84	-0.002200	± 2.5	PASS
		VN	30	1.92	0.002295	± 2.5	PASS
		VN	40	0.06	0.000072	± 2.5	PASS
		VN	50	3.99	0.004770	± 2.5	PASS
	HCH	VN	-30	-0.36	-0.000425	± 2.5	PASS
		VN	-20	4.63	0.005470	± 2.5	PASS
		VN	-10	3.05	0.003603	± 2.5	PASS
		VN	0	-0.87	-0.001028	± 2.5	PASS
		VN	10	3.13	0.003698	± 2.5	PASS
		VN	20	0.4	0.000473	± 2.5	PASS
		VN	30	-1.76	-0.002079	± 2.5	PASS
		VN	40	4.1	0.004843	± 2.5	PASS
		VN	50	4.63	0.005470	± 2.5	PASS
16QAM	LCH	VN	-30	0.18	0.000215	± 2.5	PASS
		VN	-20	3.99	0.004770	± 2.5	PASS
		VN	-10	0.58	0.000693	± 2.5	PASS
		VN	0	1.86	0.002224	± 2.5	PASS
		VN	10	4.55	0.005439	± 2.5	PASS
		VN	20	-0.68	-0.000813	± 2.5	PASS
		VN	30	4.26	0.005093	± 2.5	PASS
		VN	40	2.99	0.003574	± 2.5	PASS
		VN	50	0.6	0.000717	± 2.5	PASS
	MCH	VN	-30	0.79	0.000933	± 2.5	PASS
		VN	-20	2.51	0.002965	± 2.5	PASS
		VN	-10	0.38	0.000449	± 2.5	PASS
		VN	0	-0.56	-0.000662	± 2.5	PASS
		VN	10	-0.66	-0.000780	± 2.5	PASS
		VN	20	0.53	0.000626	± 2.5	PASS
		VN	30	4.98	0.005883	± 2.5	PASS
		VN	40	2.1	0.002481	± 2.5	PASS
		VN	50	2.3	0.002717	± 2.5	PASS
	HCH	VN	-30	1.21	0.001429	± 2.5	PASS
		VN	-20	0.69	0.000815	± 2.5	PASS
		VN	-10	2.16	0.002552	± 2.5	PASS
		VN	0	-1.4	-0.001654	± 2.5	PASS
		VN	10	1.45	0.001713	± 2.5	PASS
		VN	20	4.64	0.005481	± 2.5	PASS
		VN	30	0.46	0.000543	± 2.5	PASS
		VN	40	4.58	0.005411	± 2.5	PASS
		VN	50	-0.96	-0.001134	± 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	0.37	0.000446	± 2.5	PASS
		VN	TN	0.7	0.000844	± 2.5	PASS
		VH	TN	3.96	0.004777	± 2.5	PASS
	MCH	VL	TN	1.1	0.001315	± 2.5	PASS
		VN	TN	0.38	0.000454	± 2.5	PASS
		VH	TN	4.61	0.005511	± 2.5	PASS
	HCH	VL	TN	-1.79	-0.002121	± 2.5	PASS
		VN	TN	1.63	0.001931	± 2.5	PASS
		VH	TN	0.16	0.000190	± 2.5	PASS
16QAM	LCH	VL	TN	1.48	0.001785	± 2.5	PASS
		VN	TN	0.48	0.000579	± 2.5	PASS
		VH	TN	0.75	0.000905	± 2.5	PASS
	MCH	VL	TN	-0.2	-0.000239	± 2.5	PASS
		VN	TN	-0.4	-0.000478	± 2.5	PASS
		VH	TN	3.4	0.004065	± 2.5	PASS
	HCH	VL	TN	-0.31	-0.000367	± 2.5	PASS
		VN	TN	4.96	0.005877	± 2.5	PASS
		VH	TN	0.09	0.000107	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	3.45	0.004162	± 2.5	PASS
		VN	-20	-0.39	-0.000470	± 2.5	PASS
		VN	-10	3.05	0.003679	± 2.5	PASS
		VN	0	0.57	0.000688	± 2.5	PASS
		VN	10	3.4	0.004101	± 2.5	PASS
		VN	20	0.99	0.001194	± 2.5	PASS
		VN	30	-0.91	-0.001098	± 2.5	PASS
		VN	40	1.14	0.001375	± 2.5	PASS
		VN	50	3.17	0.003824	± 2.5	PASS
	MCH	VN	-30	3.26	0.003897	± 2.5	PASS
		VN	-20	0.53	0.000634	± 2.5	PASS
		VN	-10	4.9	0.005858	± 2.5	PASS
		VN	0	4.15	0.004961	± 2.5	PASS
		VN	10	2.47	0.002953	± 2.5	PASS
		VN	20	-0.64	-0.000765	± 2.5	PASS

		VN	30	-0.42	-0.000502	± 2.5	PASS
		VN	40	2.35	0.002809	± 2.5	PASS
		VN	50	-0.72	-0.000861	± 2.5	PASS
	HCH	VN	-30	0.43	0.000509	± 2.5	PASS
		VN	-20	3.51	0.004159	± 2.5	PASS
		VN	-10	0.94	0.001114	± 2.5	PASS
		VN	0	0.48	0.000569	± 2.5	PASS
		VN	10	2.11	0.002500	± 2.5	PASS
		VN	20	-0.07	-0.000083	± 2.5	PASS
		VN	30	1.69	0.002002	± 2.5	PASS
		VN	40	1.56	0.001848	± 2.5	PASS
		VN	50	4.93	0.005841	± 2.5	PASS
QPSK	LCH	VN	-30	1.43	0.001710	± 2.5	PASS
		VN	-20	1.08	0.001291	± 2.5	PASS
		VN	-10	-0.82	-0.000980	± 2.5	PASS
		VN	0	-0.92	-0.001100	± 2.5	PASS
		VN	10	2.11	0.002522	± 2.5	PASS
		VN	20	4.2	0.005021	± 2.5	PASS
		VN	30	3.09	0.003694	± 2.5	PASS
		VN	40	2.54	0.003036	± 2.5	PASS
		VN	50	2.96	0.003539	± 2.5	PASS
	MCH	VN	-30	2.95	0.003495	± 2.5	PASS
		VN	-20	4.67	0.005533	± 2.5	PASS
		VN	-10	4.94	0.005853	± 2.5	PASS
		VN	0	1.75	0.002073	± 2.5	PASS
		VN	10	1.91	0.002263	± 2.5	PASS
		VN	20	1.51	0.001789	± 2.5	PASS
		VN	30	3.62	0.004289	± 2.5	PASS
		VN	40	0.48	0.000569	± 2.5	PASS
		VN	50	2.35	0.002784	± 2.5	PASS
	HCH	VN	-30	0.2	0.000237	± 2.5	PASS
		VN	-20	0.37	0.000438	± 2.5	PASS
		VN	-10	2.37	0.002808	± 2.5	PASS
		VN	0	4.53	0.005367	± 2.5	PASS
		VN	10	2.03	0.002405	± 2.5	PASS
		VN	20	4.87	0.005770	± 2.5	PASS
		VN	30	3.43	0.004064	± 2.5	PASS
		VN	40	3.93	0.004656	± 2.5	PASS
		VN	50	3.61	0.004277	± 2.5	PASS