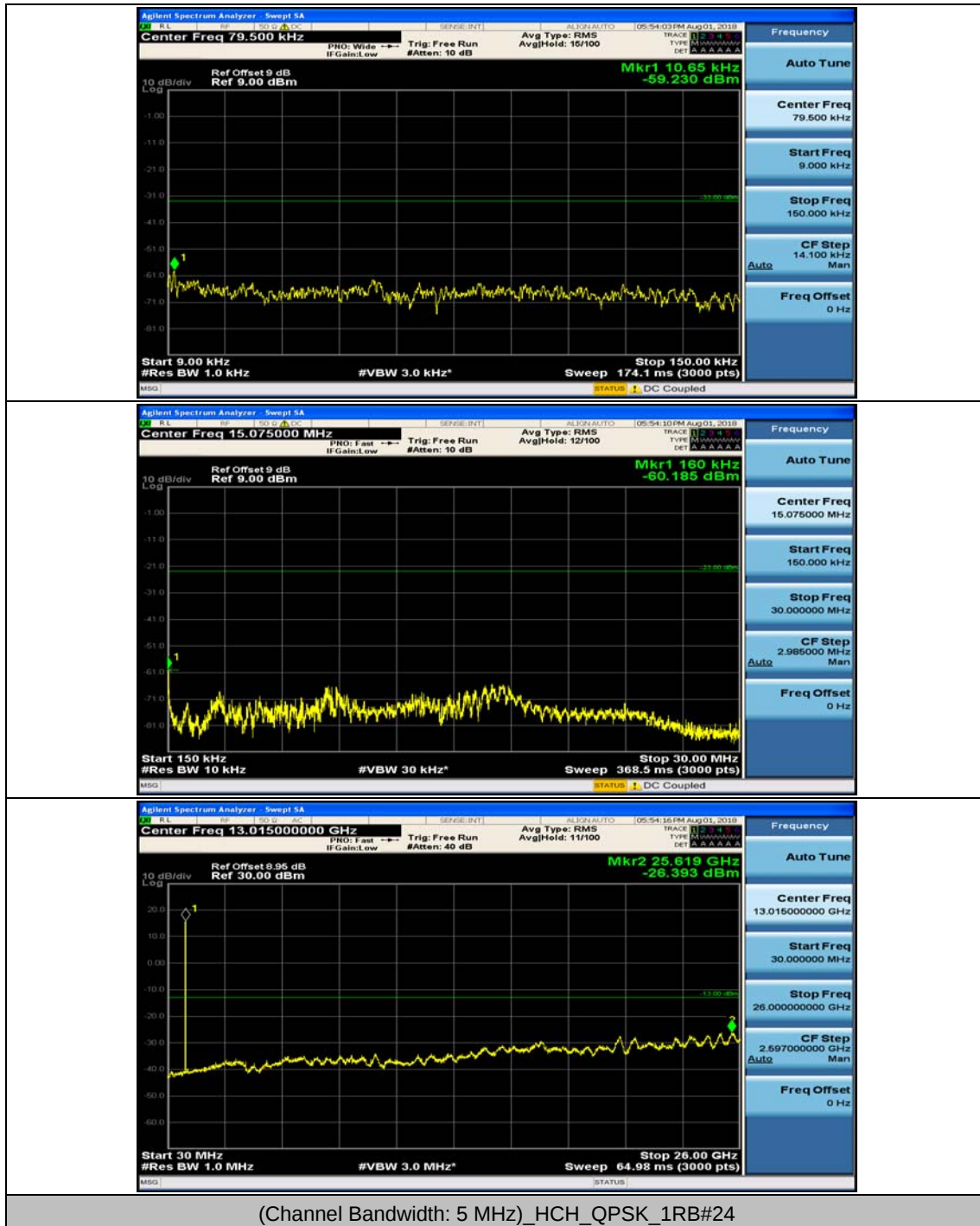
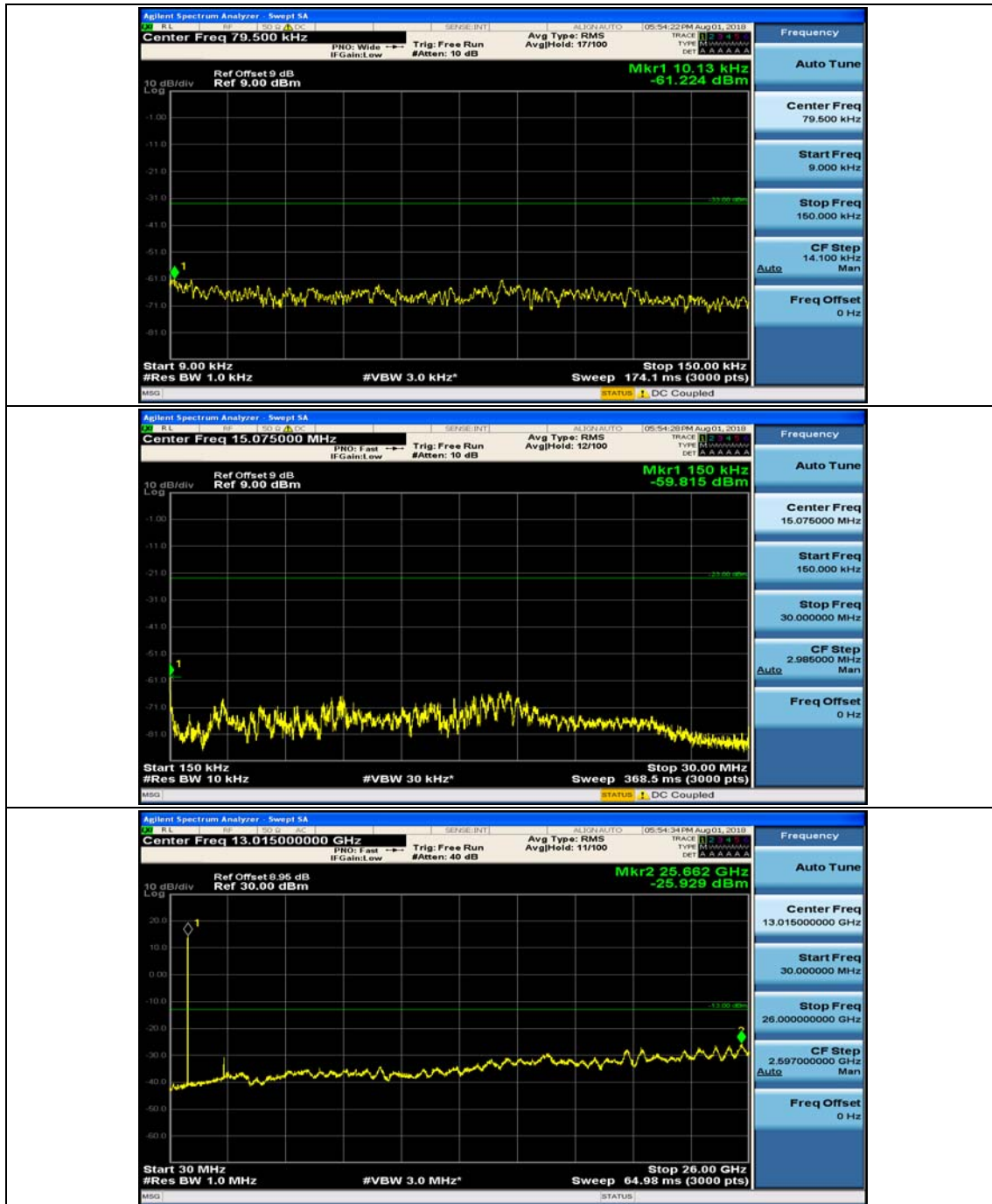
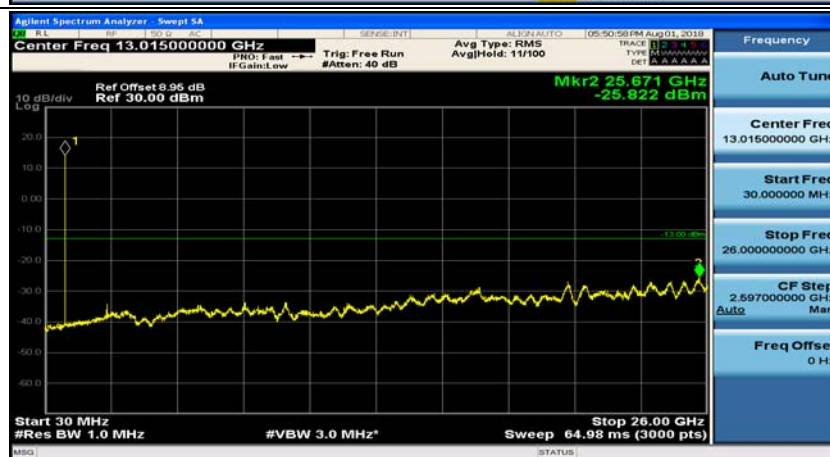
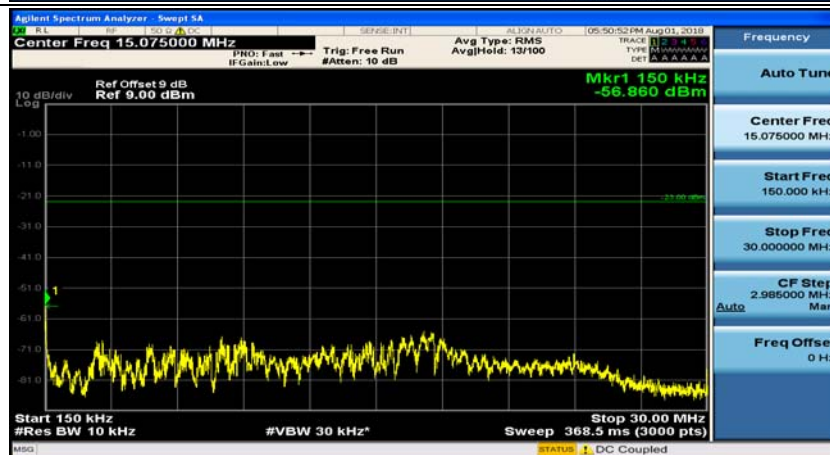


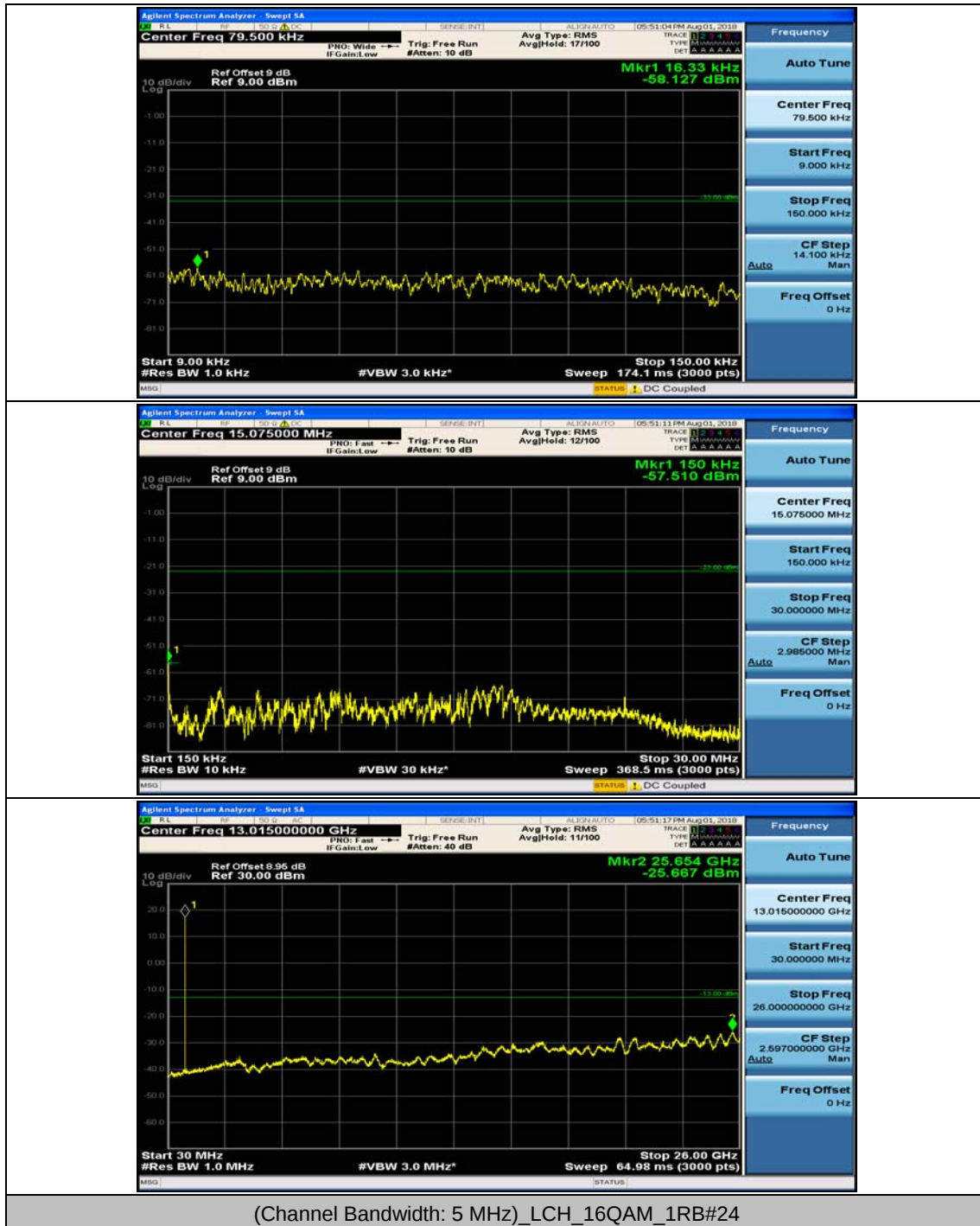


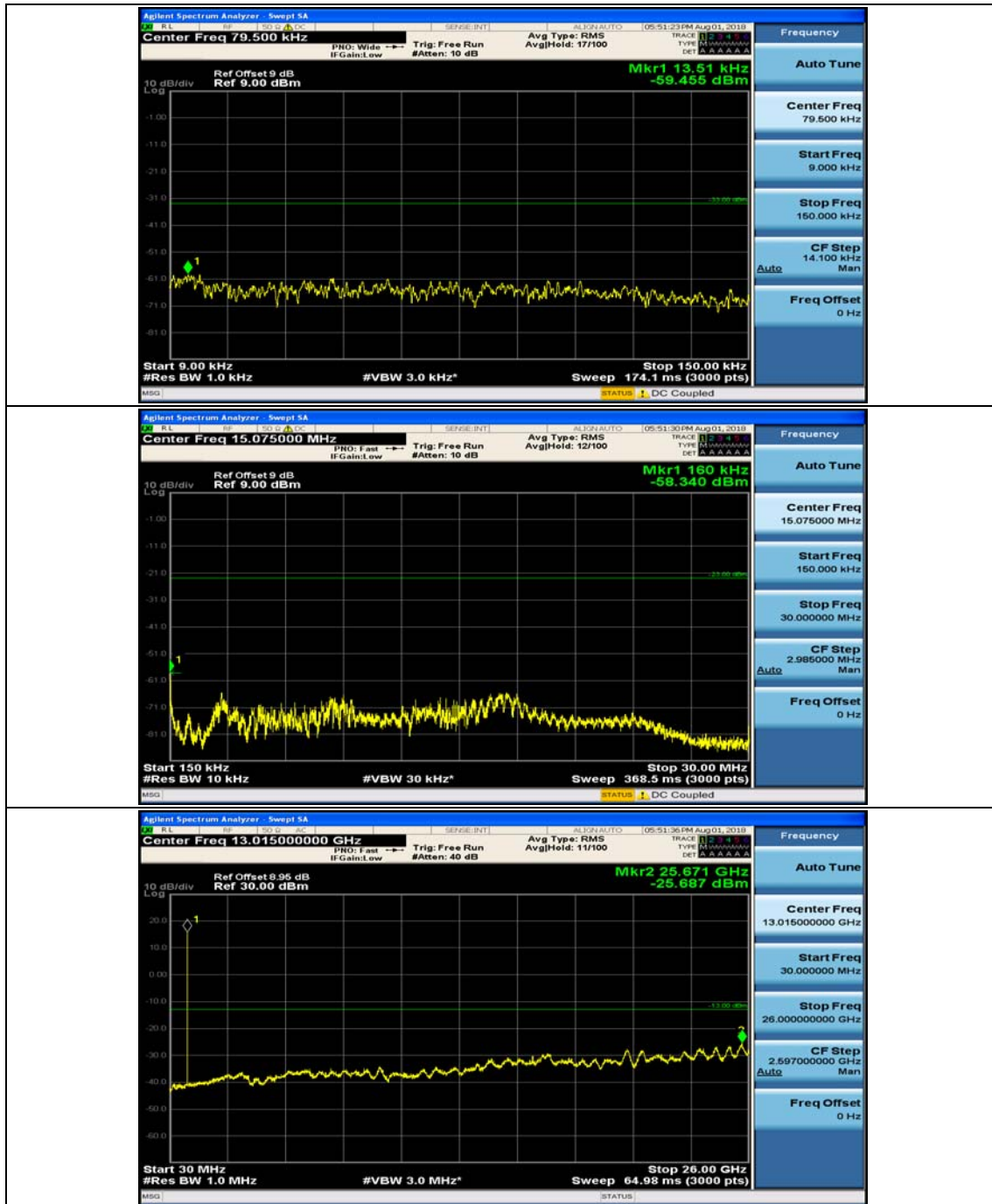


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

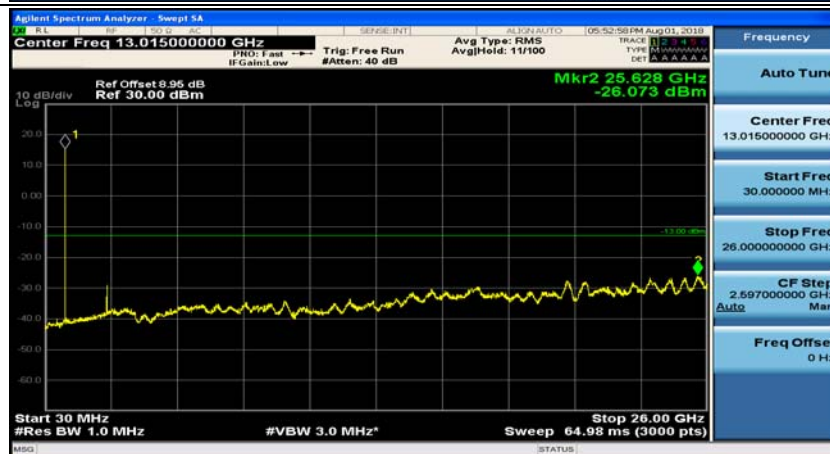
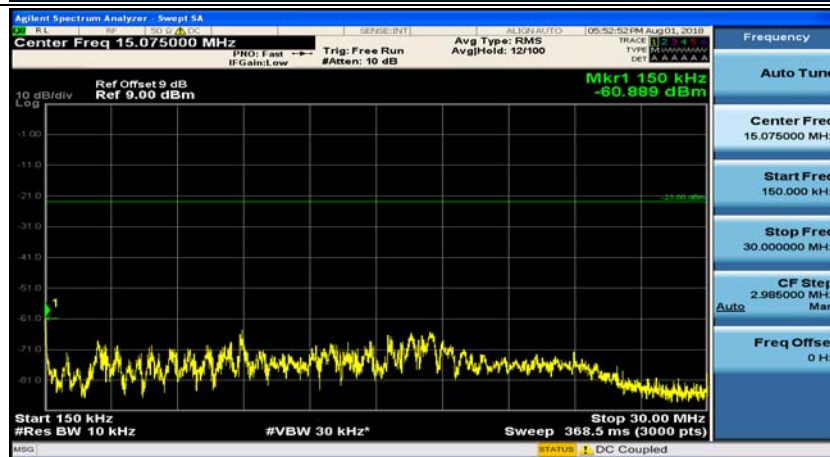
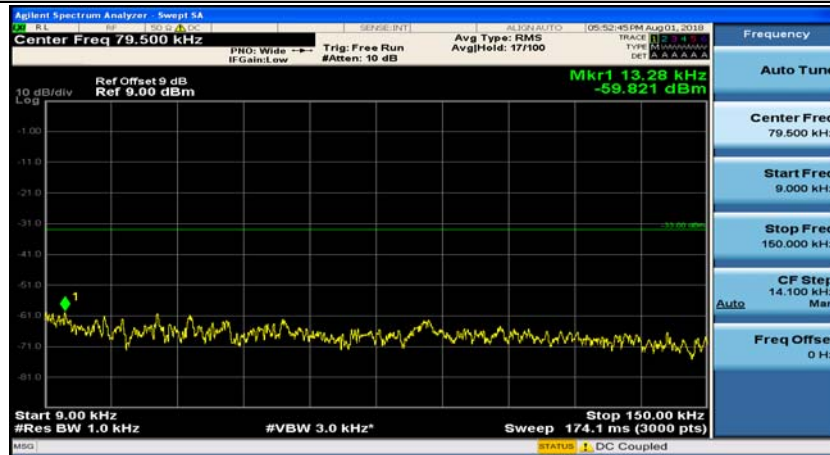


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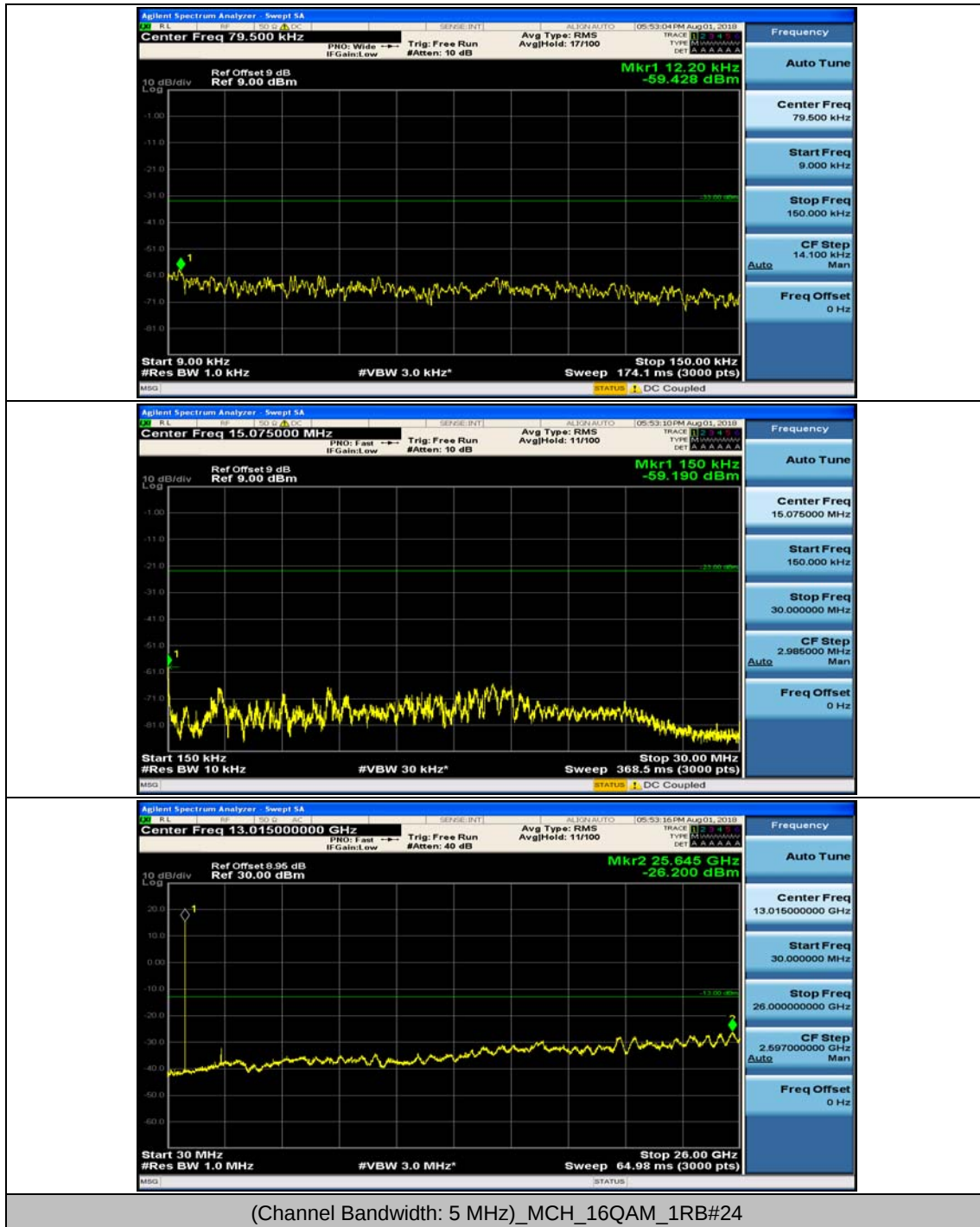


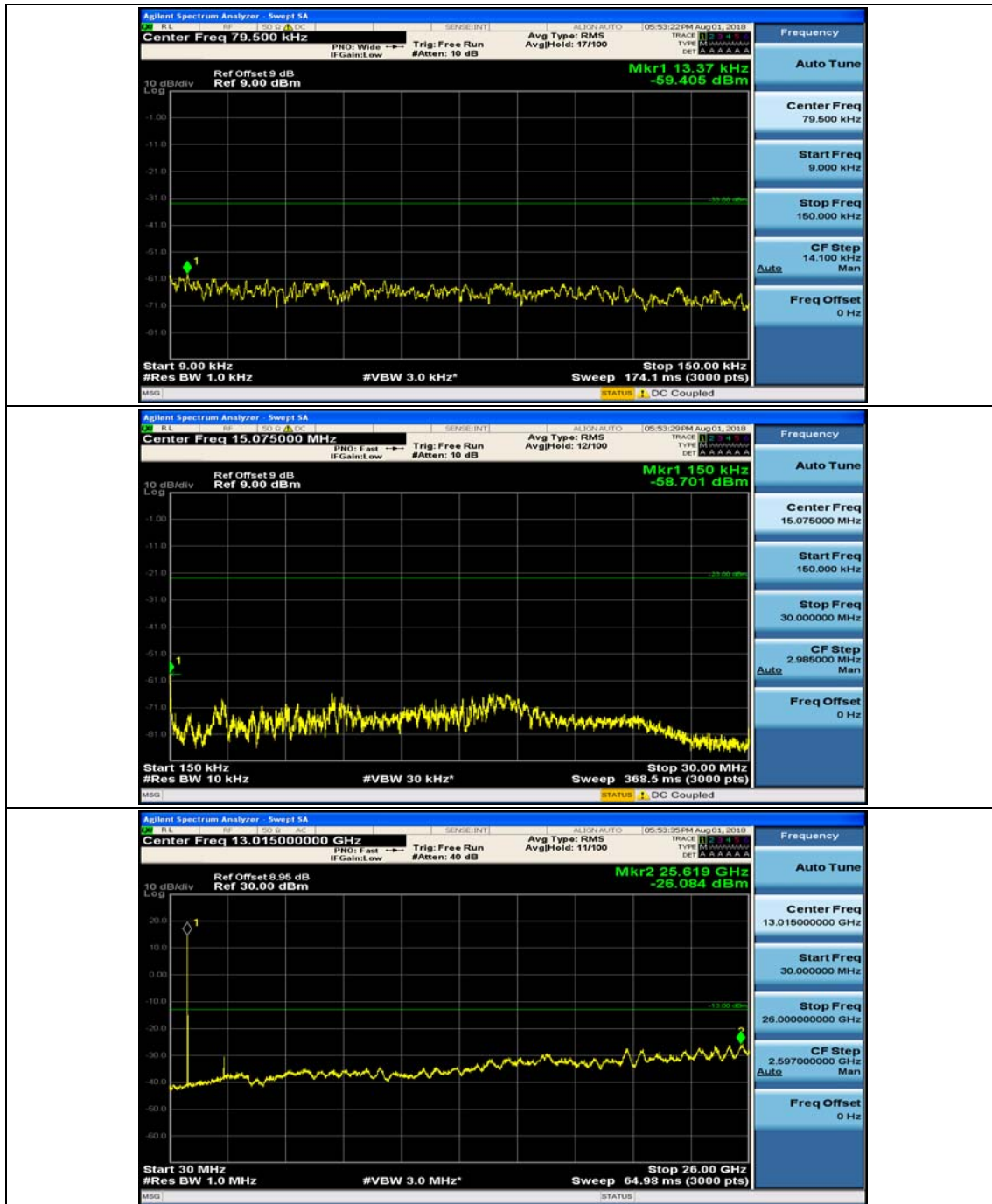


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

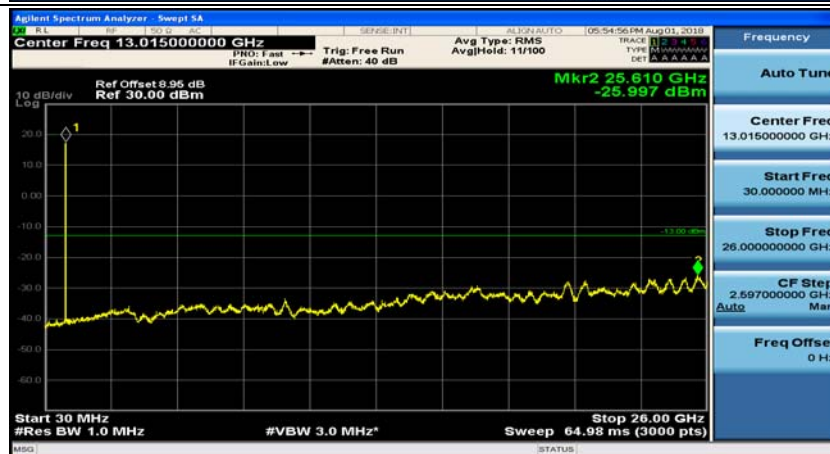
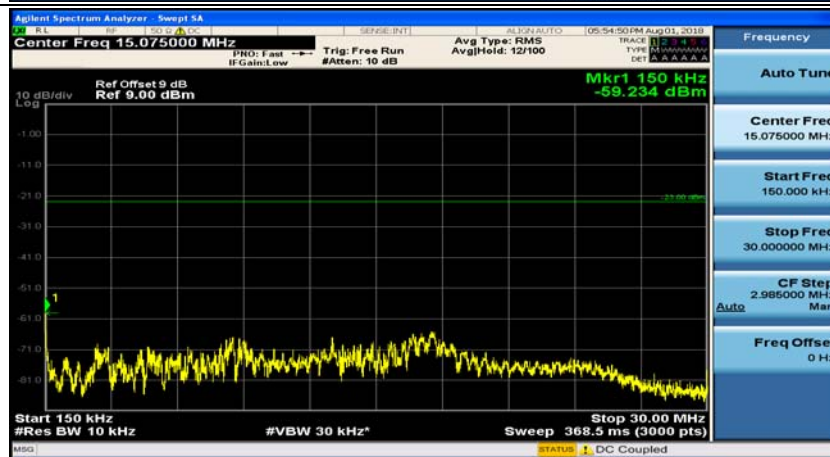
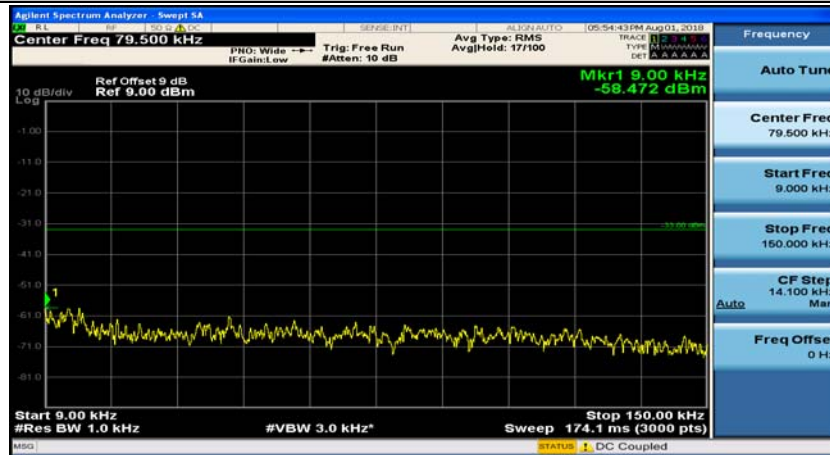


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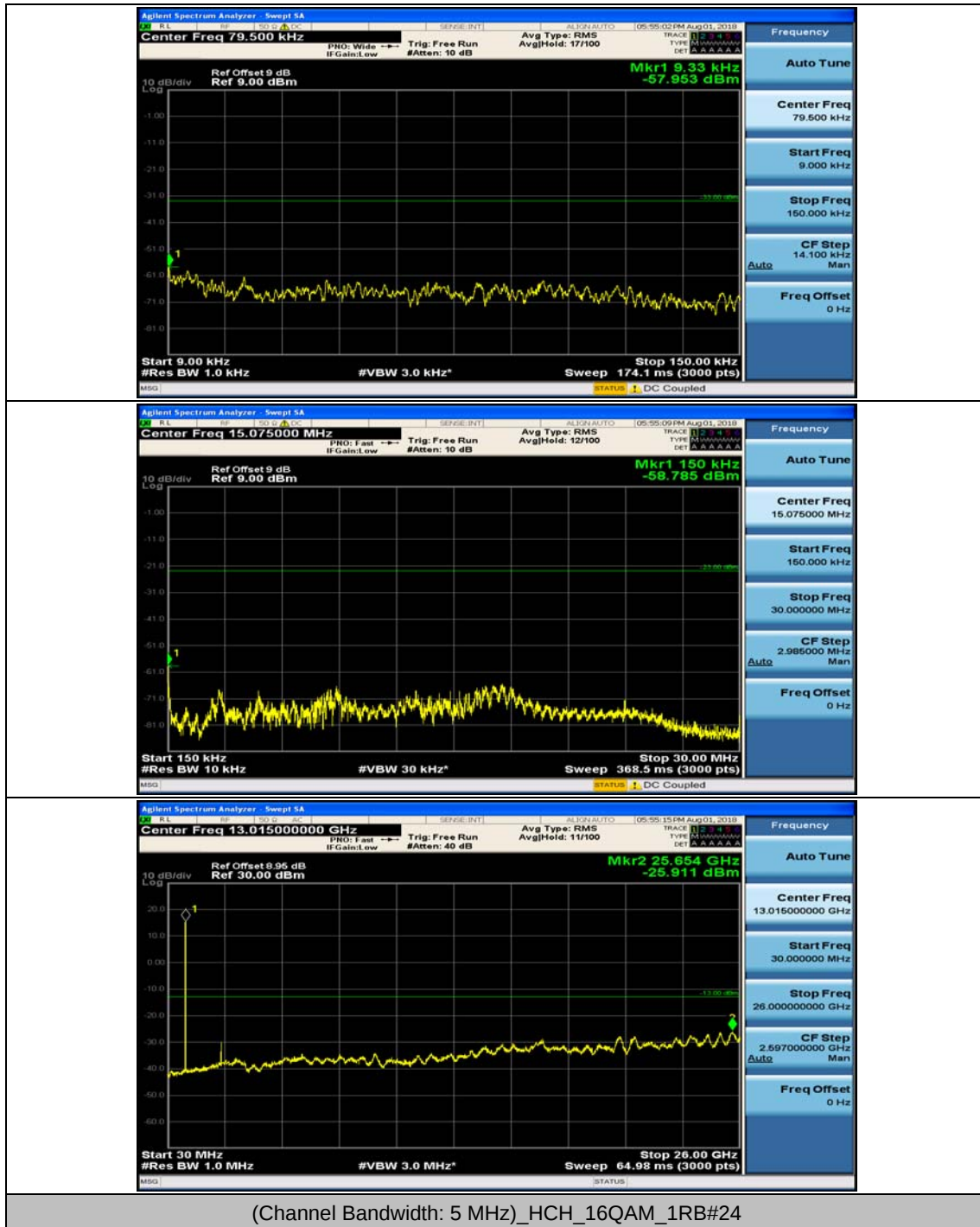


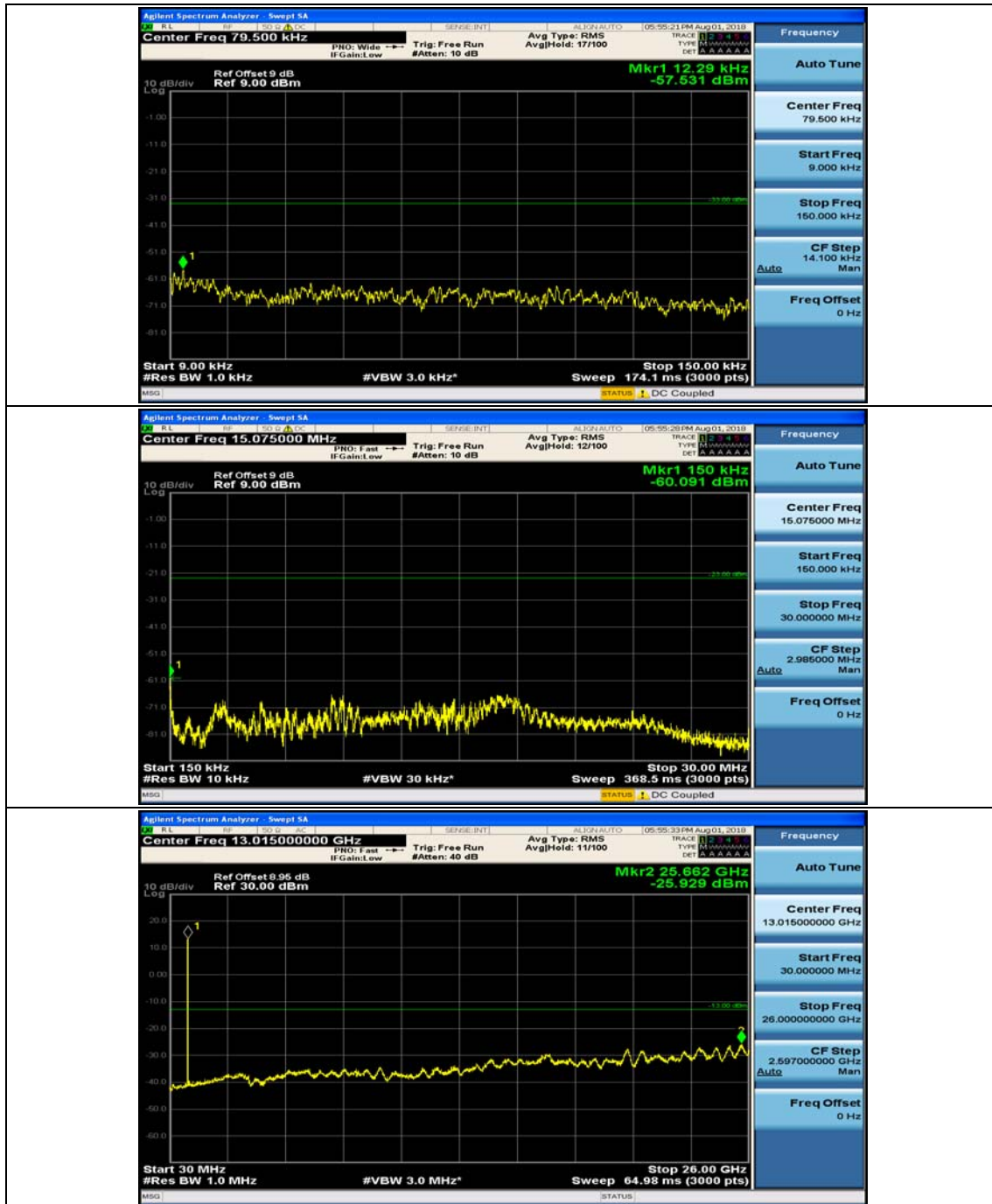


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

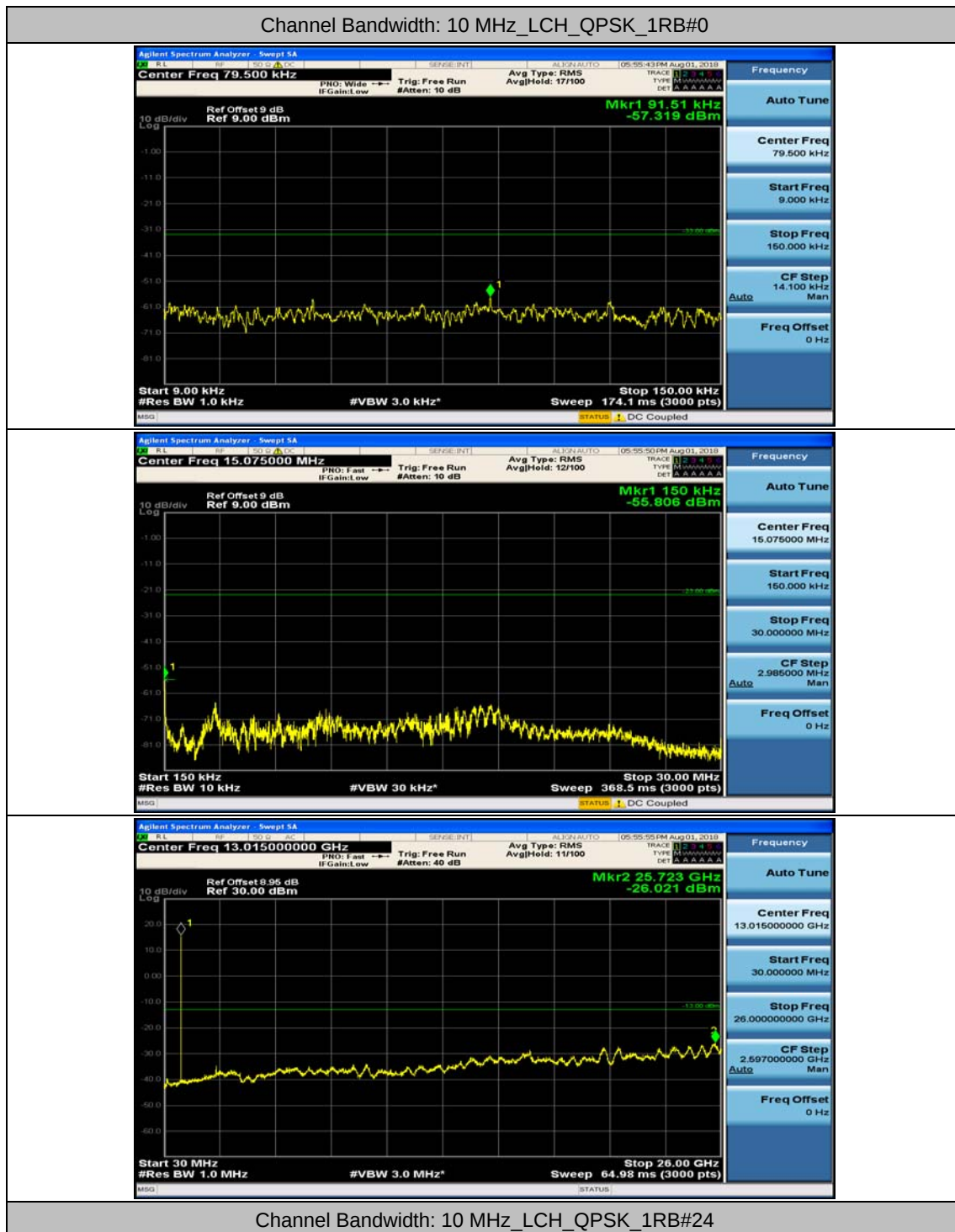


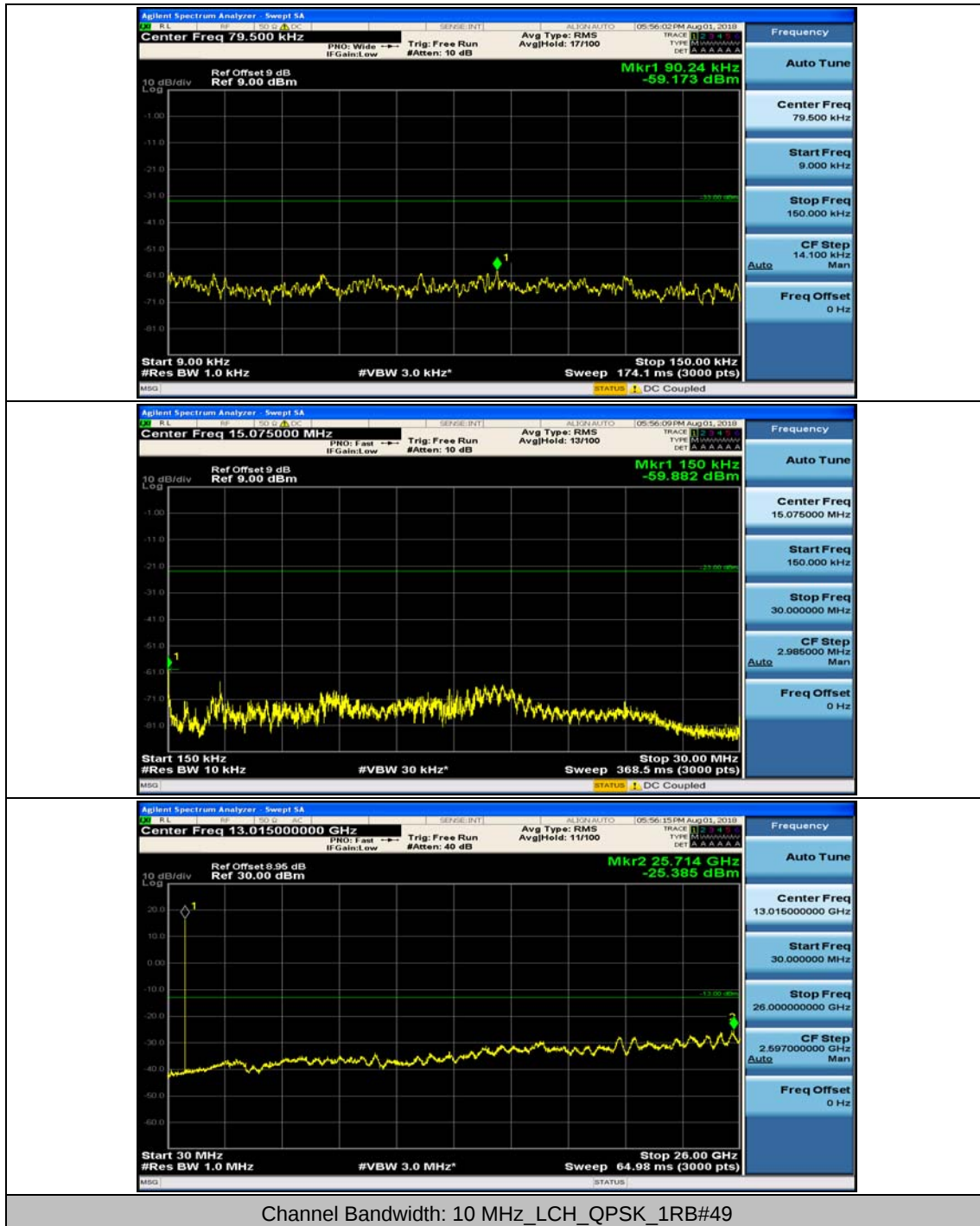
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

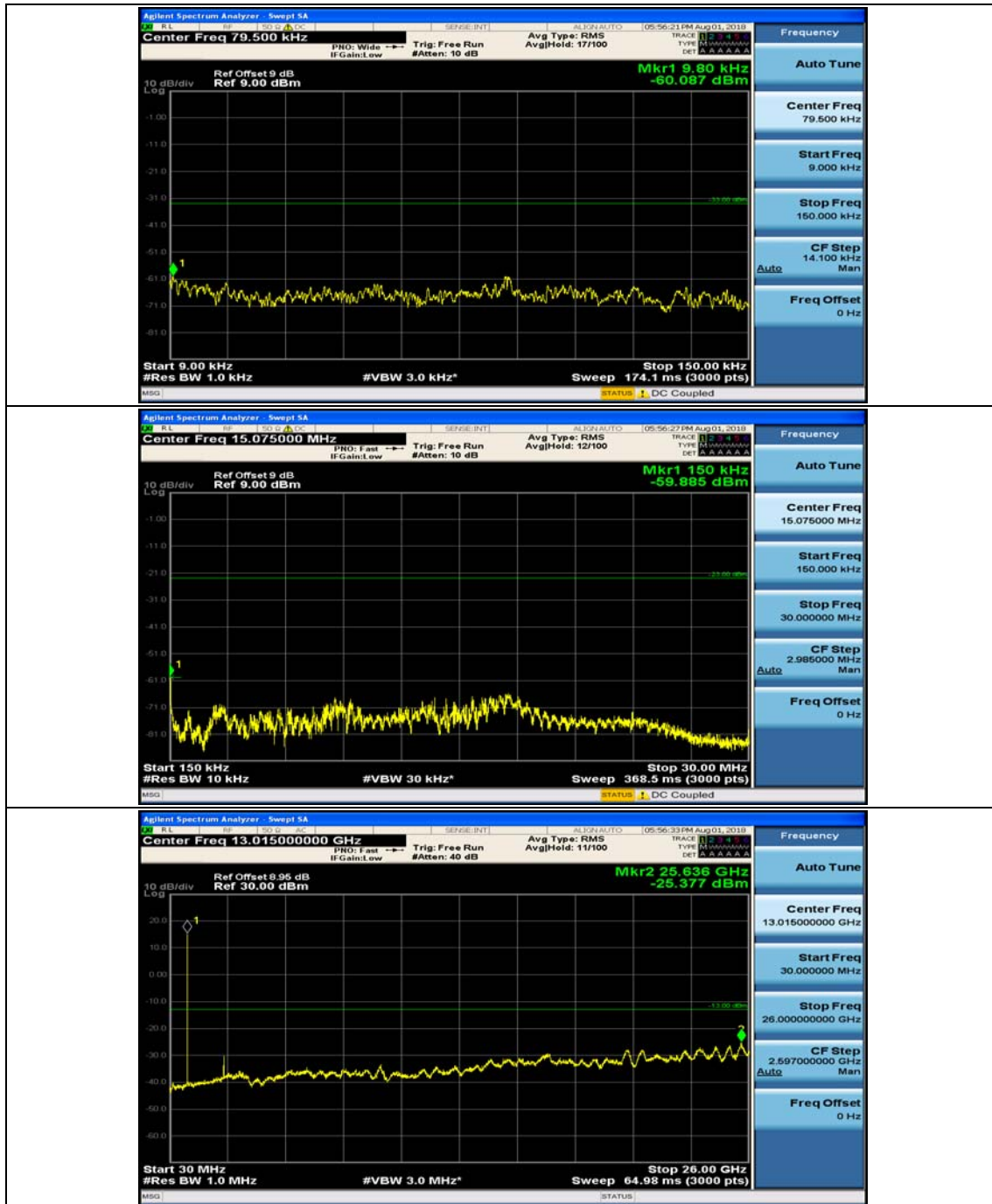




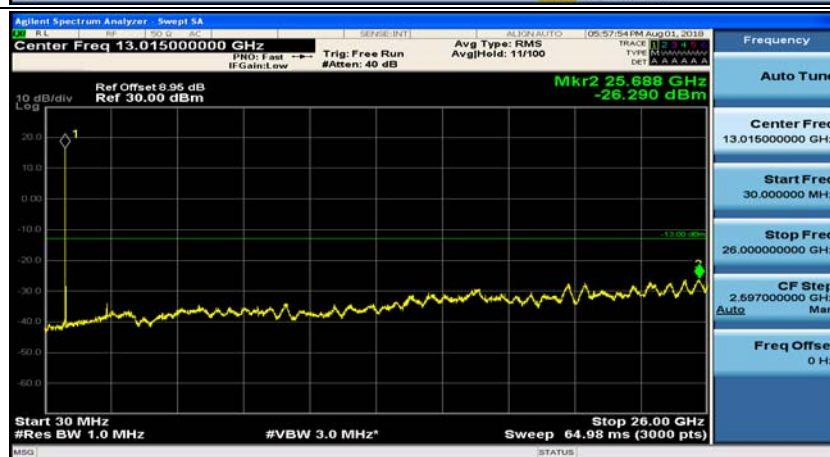
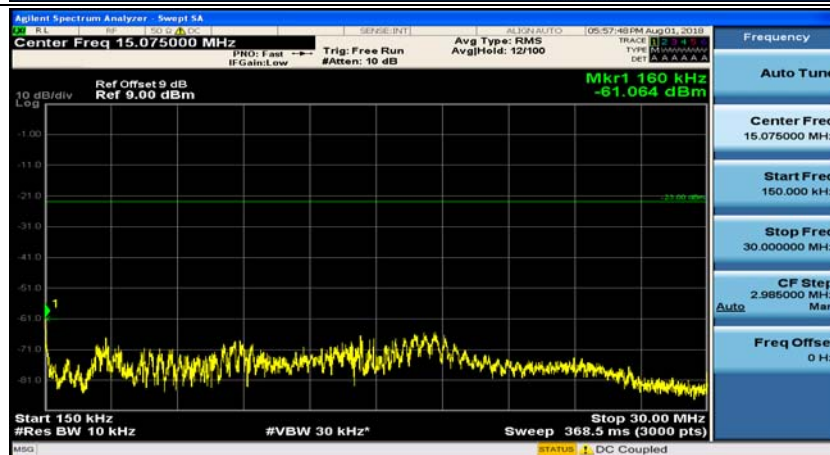
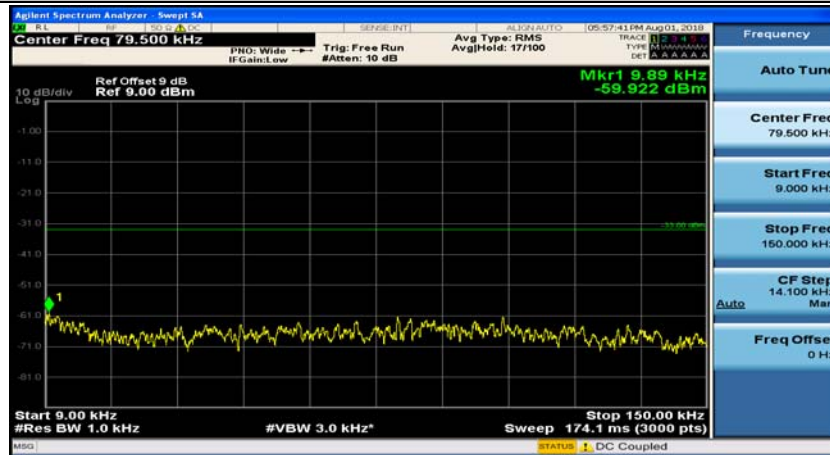
Channel Bandwidth: 10 MHz



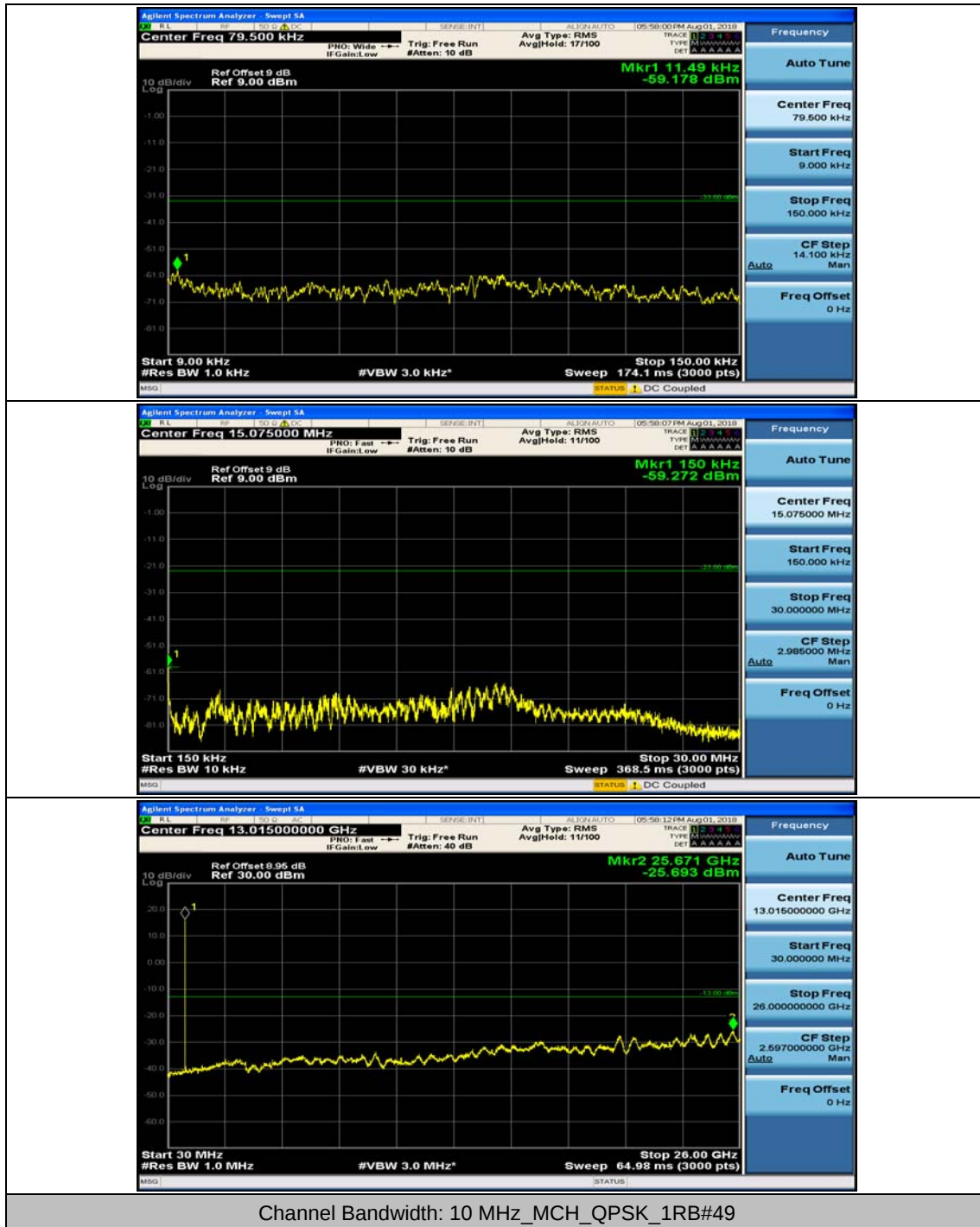


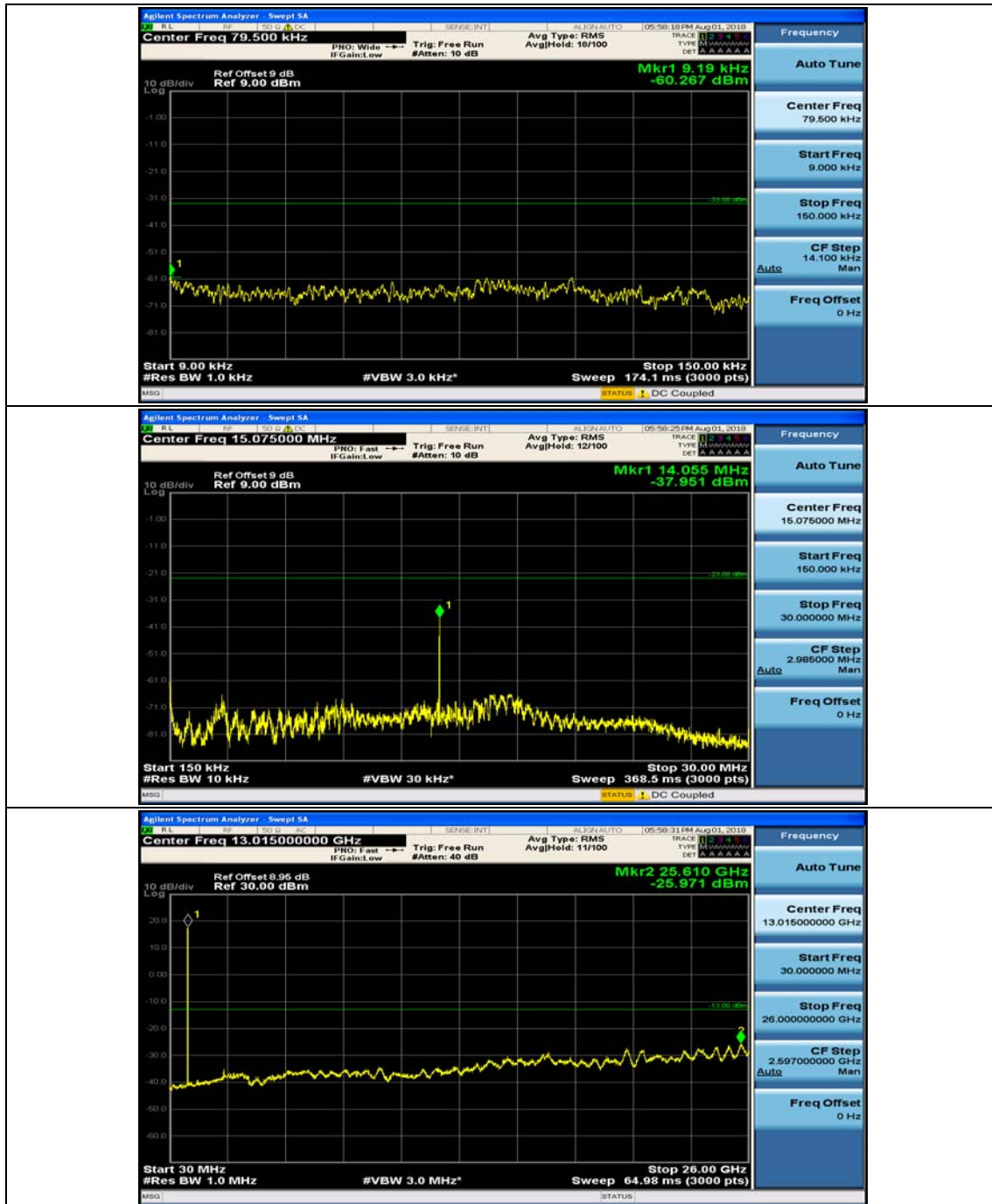


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

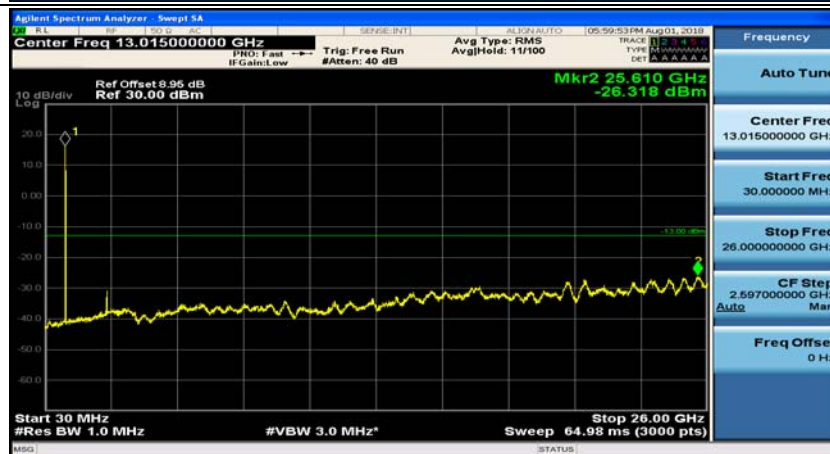
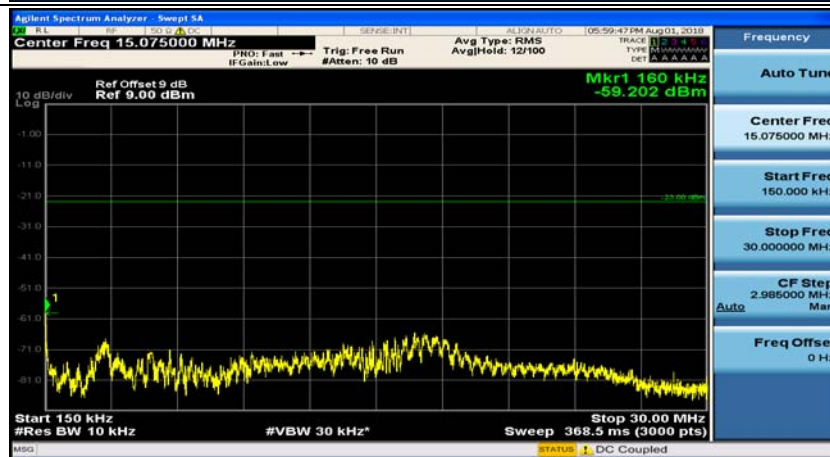
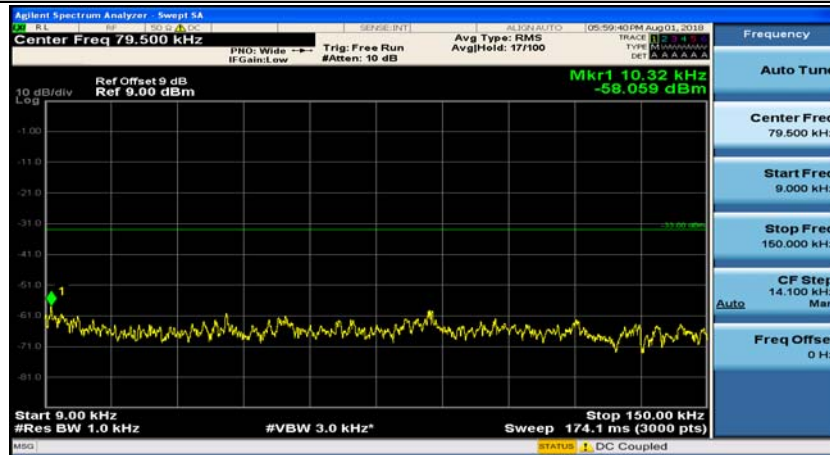


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

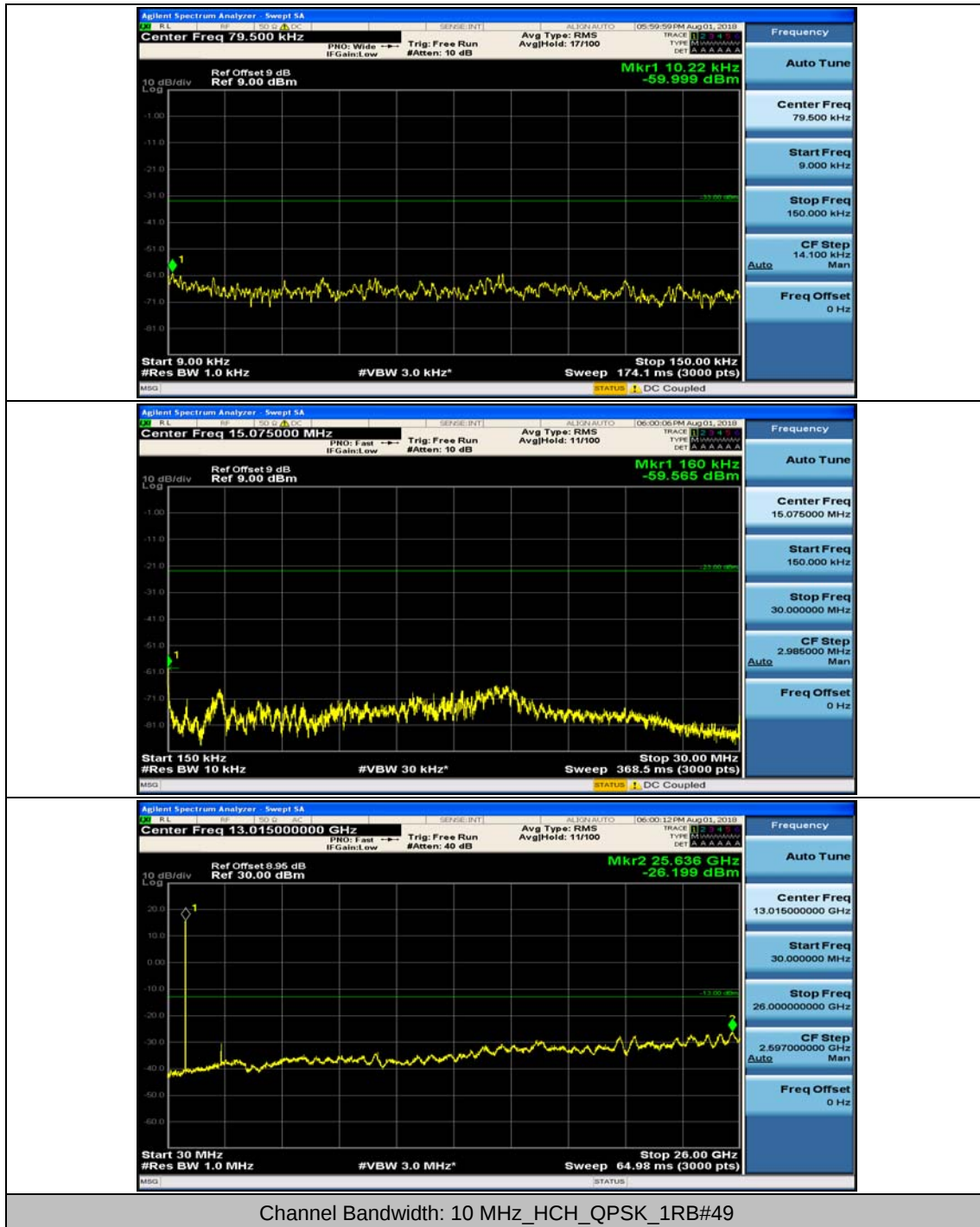


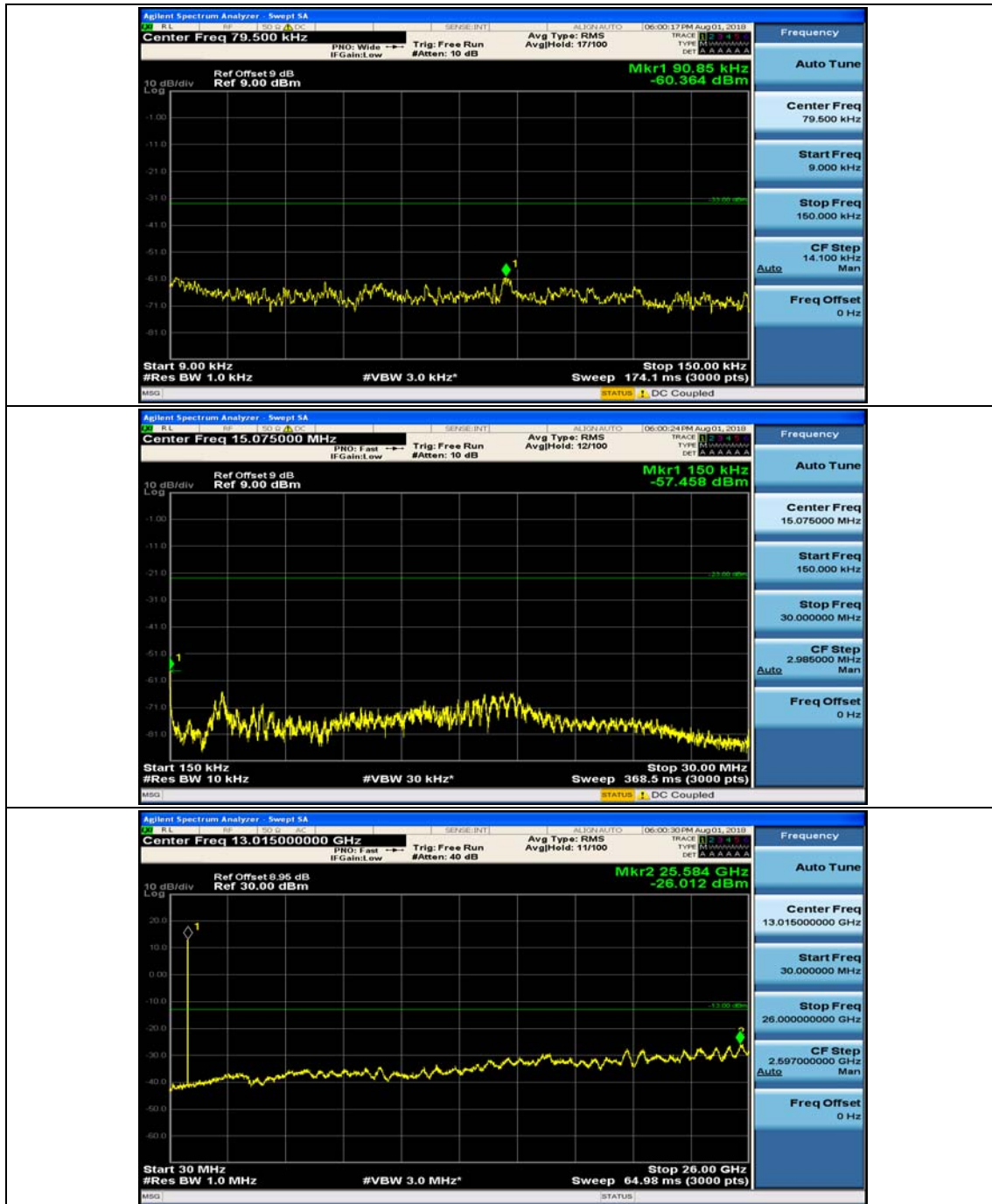


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

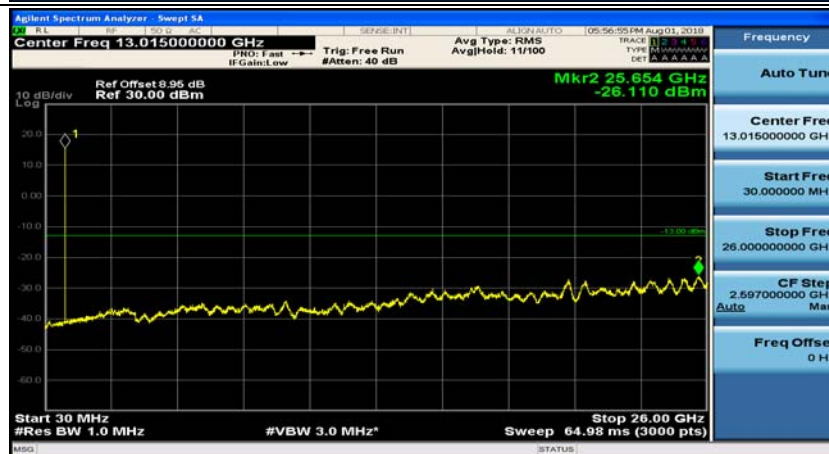
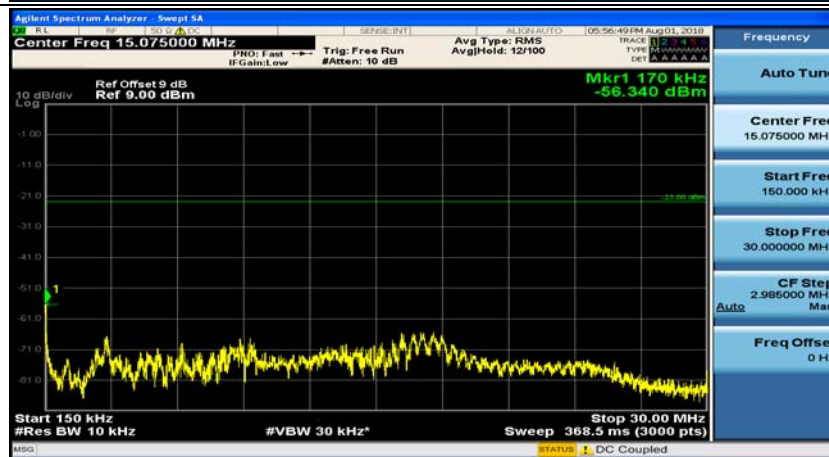
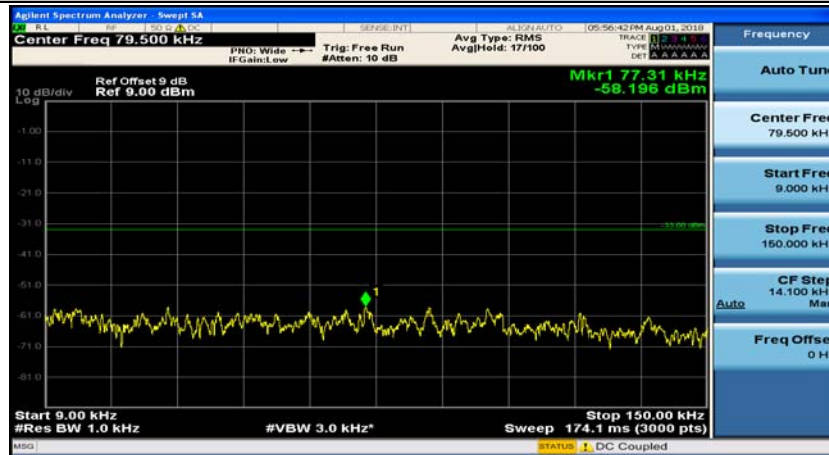


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

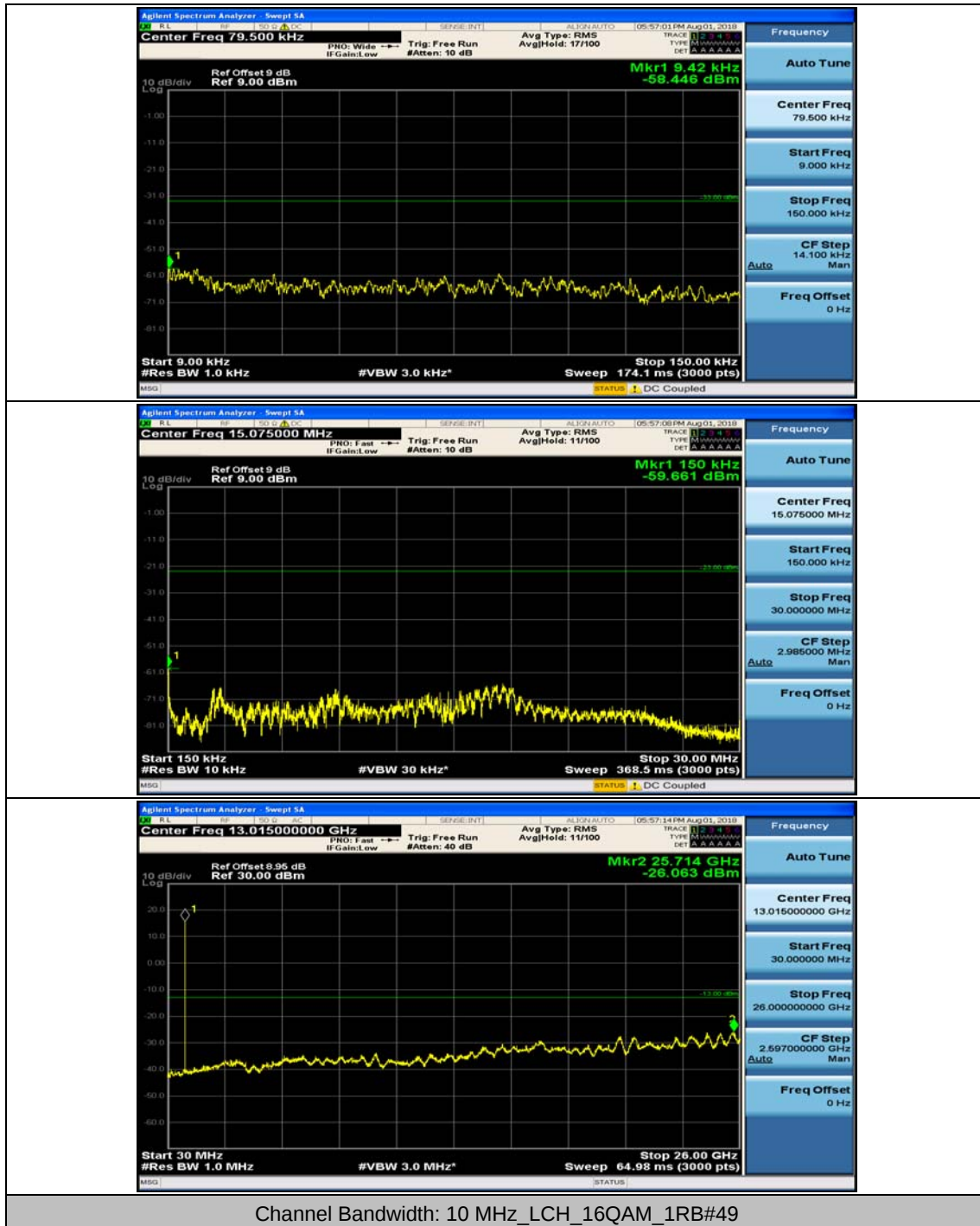


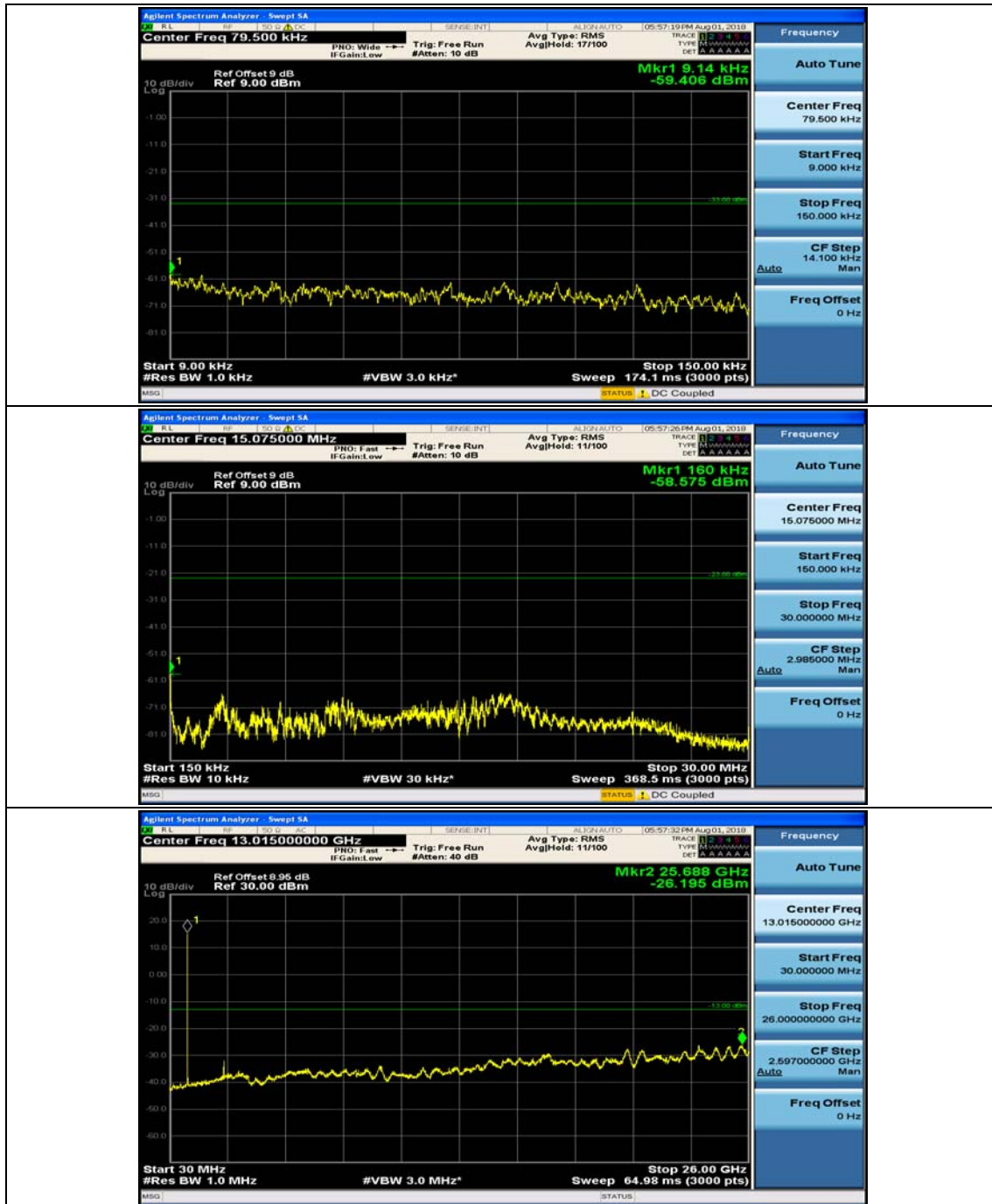


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

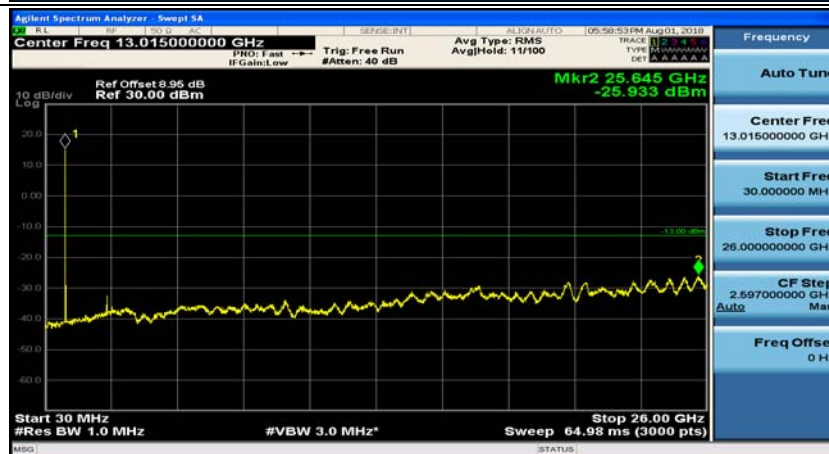
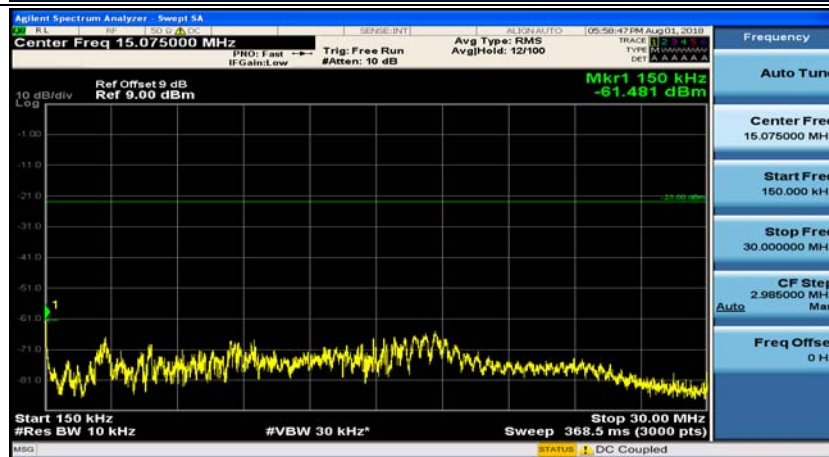
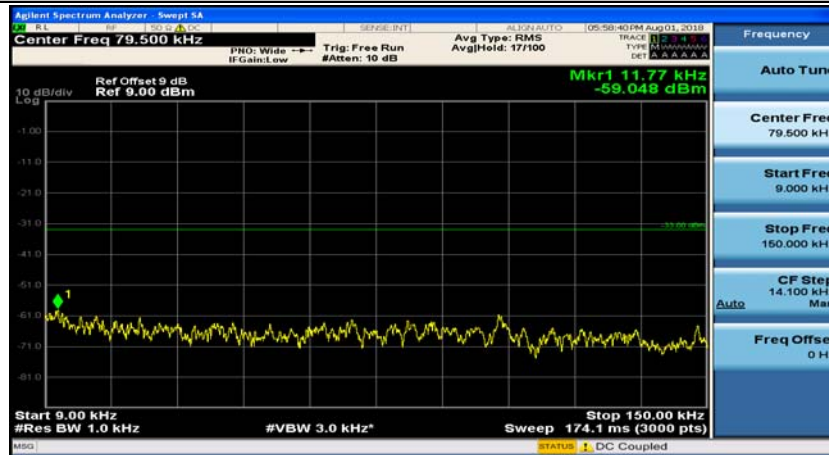


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

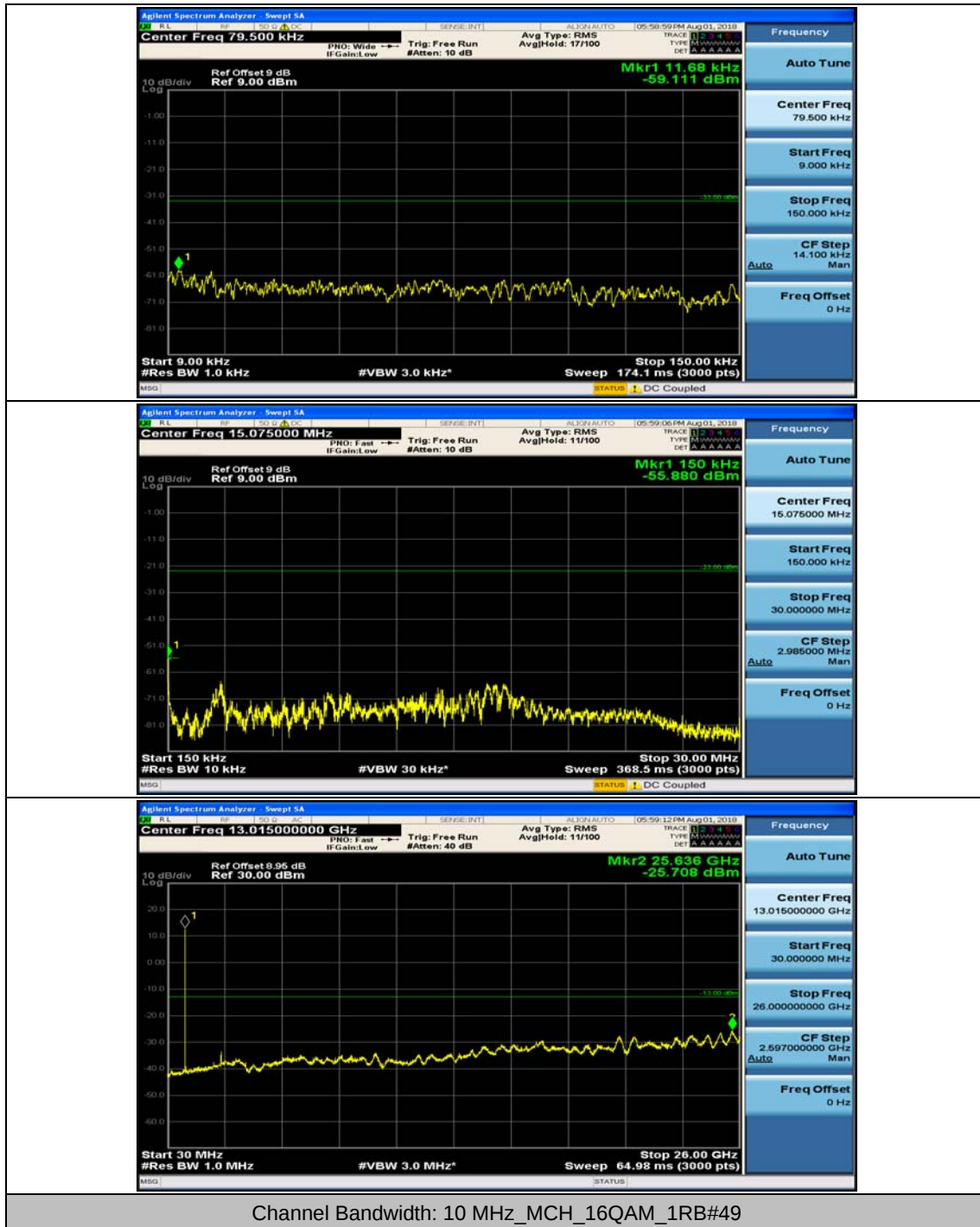


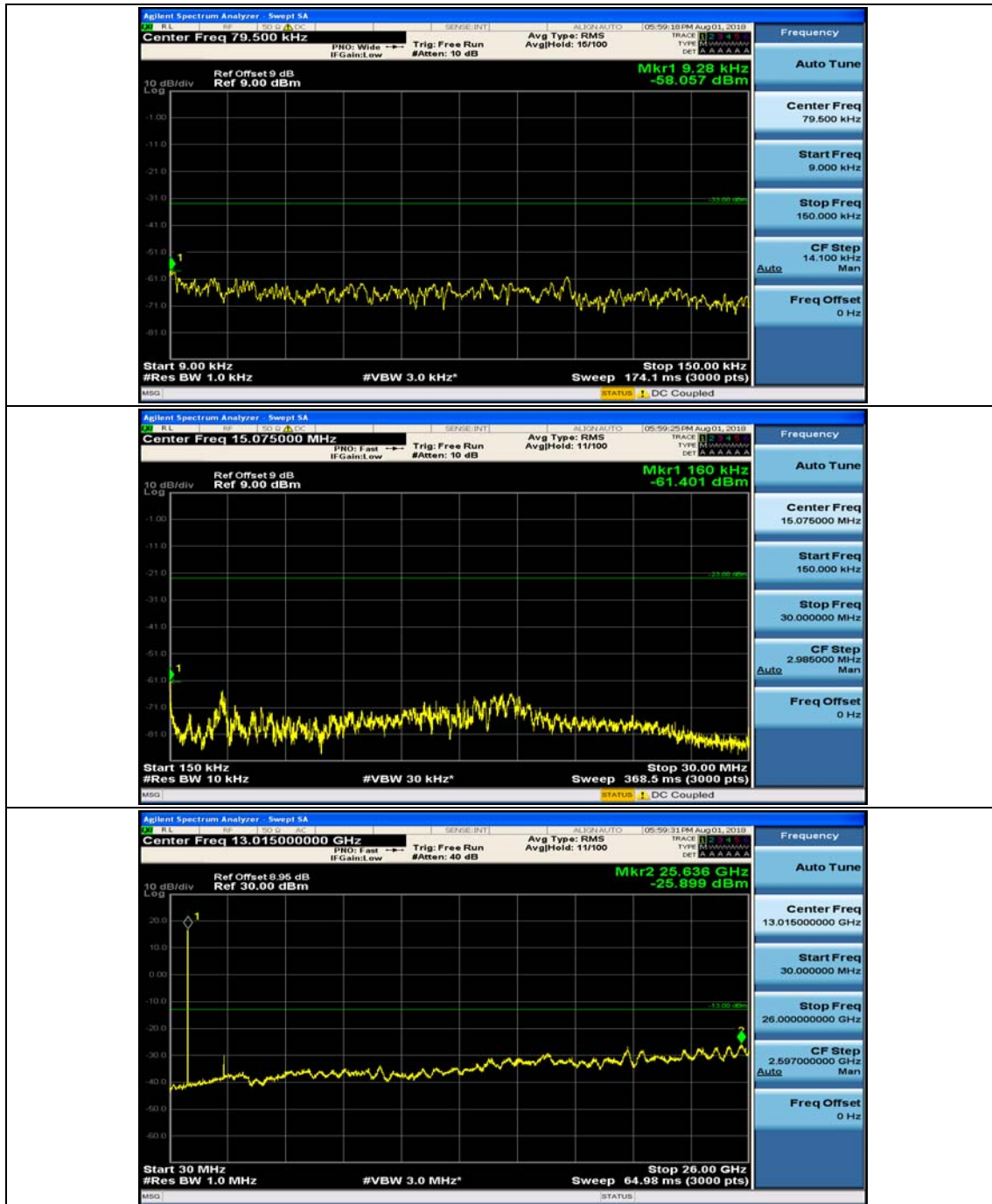


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

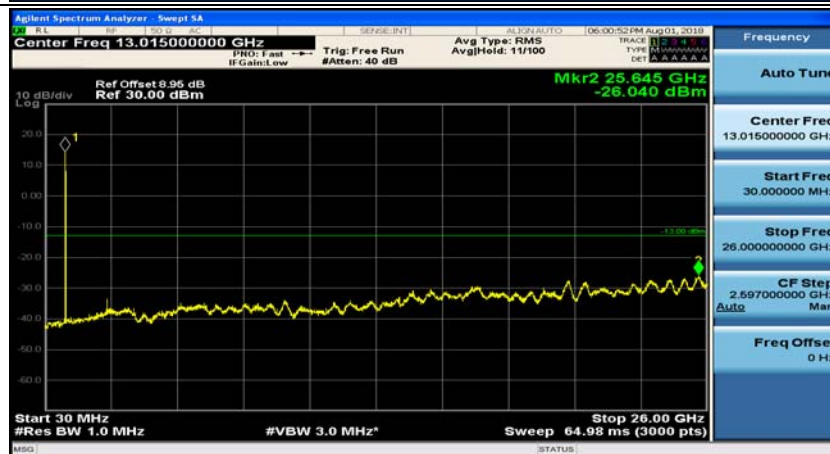
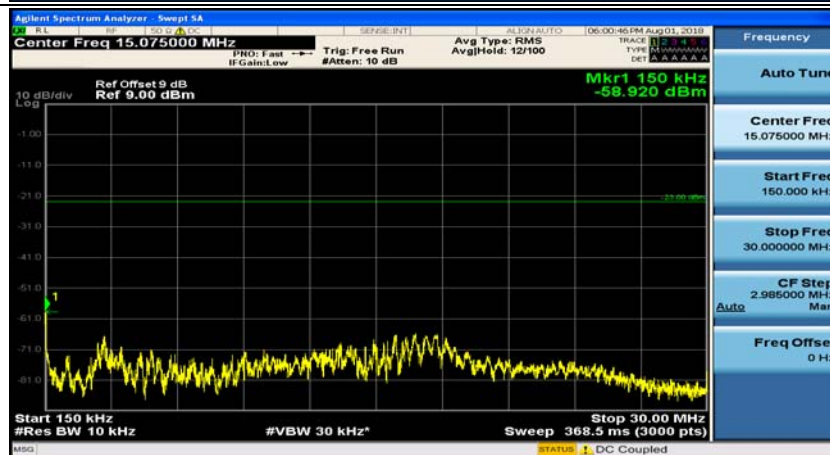
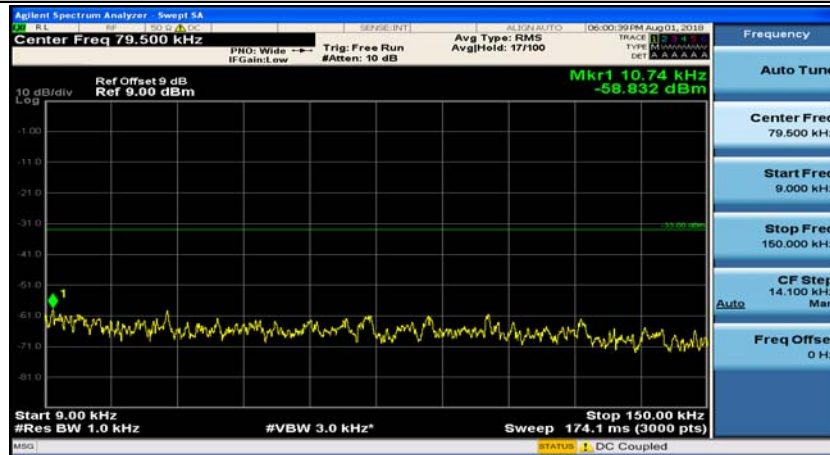


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

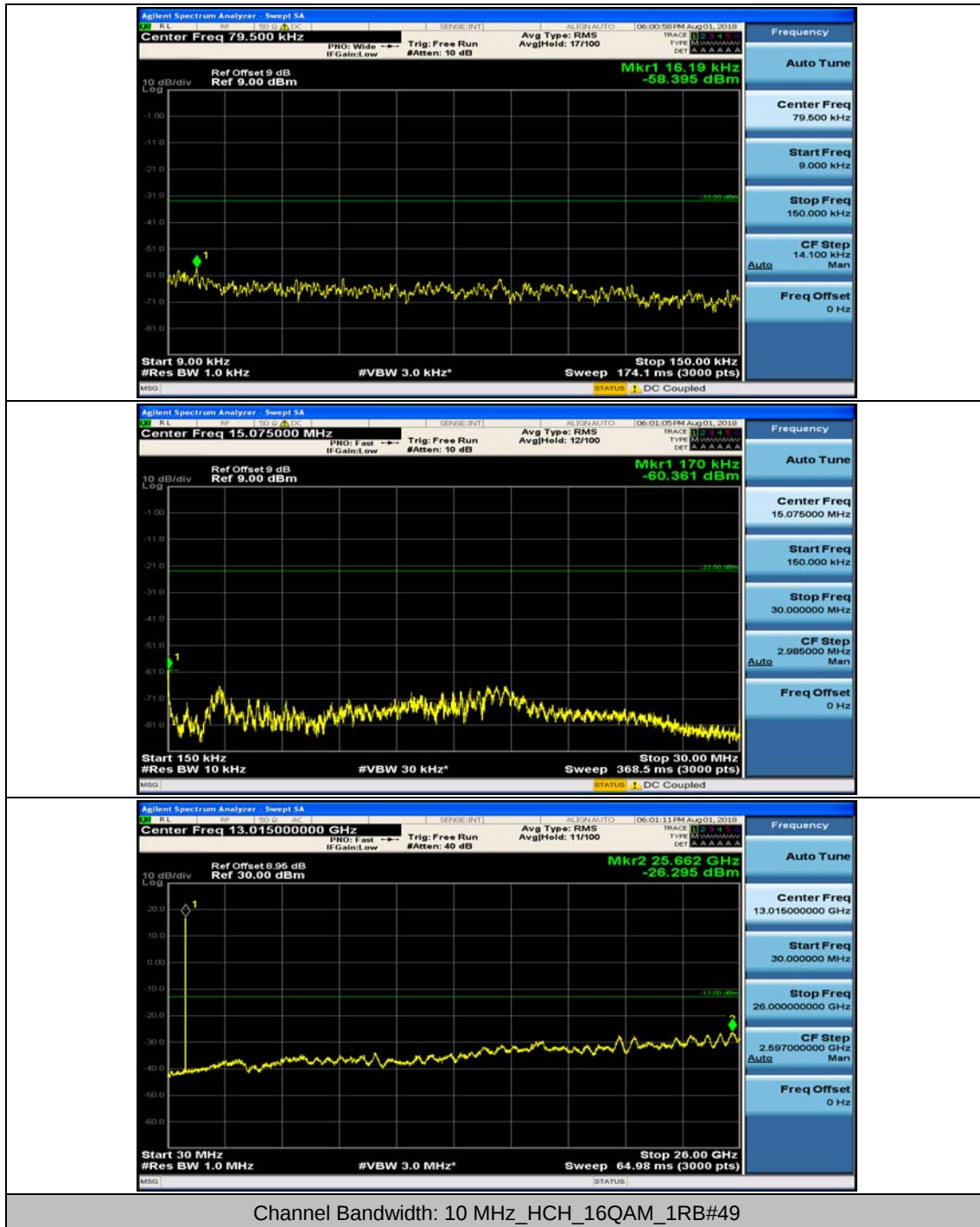


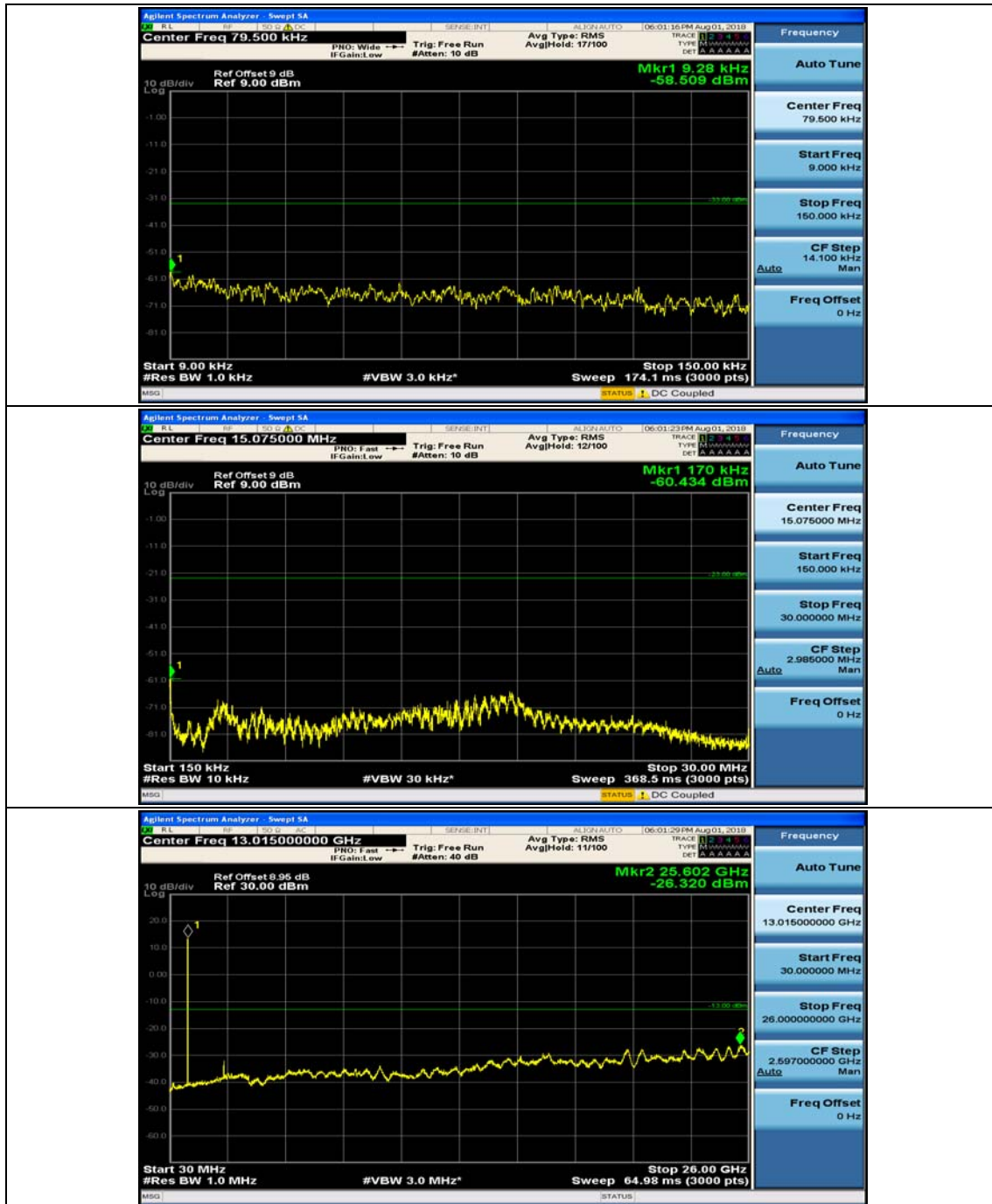


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24





Appendix E: 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	4.33	0.005250	± 2.5	PASS
		VN	TN	-0.53	-0.000643	± 2.5	PASS
		VH	TN	-0.15	-0.000182	± 2.5	PASS
	MCH	VL	TN	-1.85	-0.002212	± 2.5	PASS
		VN	TN	0.36	0.000430	± 2.5	PASS
		VH	TN	-1.44	-0.001721	± 2.5	PASS
	HCH	VL	TN	-1.97	-0.002322	± 2.5	PASS
		VN	TN	-1.25	-0.001474	± 2.5	PASS
		VH	TN	2.58	0.003041	± 2.5	PASS
16QAM	LCH	VL	TN	4.46	0.005408	± 2.5	PASS
		VN	TN	0.51	0.000618	± 2.5	PASS
		VH	TN	1.25	0.001516	± 2.5	PASS
	MCH	VL	TN	4.33	0.005176	± 2.5	PASS
		VN	TN	1.83	0.002188	± 2.5	PASS
		VH	TN	1.79	0.002140	± 2.5	PASS
	HCH	VL	TN	1.53	0.001804	± 2.5	PASS
		VN	TN	-0.44	-0.000519	± 2.5	PASS
		VH	TN	2.35	0.002770	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.85	0.004668	± 2.5	PASS
		VN	-20	2.92	0.003541	± 2.5	PASS
		VN	-10	3.1	0.003759	± 2.5	PASS
		VN	0	2.91	0.003529	± 2.5	PASS
		VN	10	4.19	0.005081	± 2.5	PASS
		VN	20	-1.21	-0.001467	± 2.5	PASS
		VN	30	3.83	0.004644	± 2.5	PASS
		VN	40	1.82	0.002207	± 2.5	PASS
		VN	50	-0.02	-0.000024	± 2.5	PASS
	MCH	VN	-30	4.52	0.005403	± 2.5	PASS
		VN	-20	2.36	0.002821	± 2.5	PASS

		VN	-10	1.6	0.001913	± 2.5	PASS
		VN	0	4.64	0.005547	± 2.5	PASS
		VN	10	-0.6	-0.000717	± 2.5	PASS
		VN	20	1.07	0.001279	± 2.5	PASS
		VN	30	1.26	0.001506	± 2.5	PASS
		VN	40	2.04	0.002439	± 2.5	PASS
		VN	50	4.03	0.004818	± 2.5	PASS
	HCH	VN	-30	4.18	0.004928	± 2.5	PASS
		VN	-20	-0.99	-0.001167	± 2.5	PASS
		VN	-10	-1.27	-0.001497	± 2.5	PASS
		VN	0	-0.58	-0.000684	± 2.5	PASS
		VN	10	2.76	0.003254	± 2.5	PASS
		VN	20	1.84	0.002169	± 2.5	PASS
		VN	30	3.44	0.004055	± 2.5	PASS
		VN	40	2.09	0.002464	± 2.5	PASS
		VN	50	0.92	0.001085	± 2.5	PASS
16QAM	LCH	VN	-30	0.11	0.000133	± 2.5	PASS
		VN	-20	0.34	0.000412	± 2.5	PASS
		VN	-10	-0.78	-0.000946	± 2.5	PASS
		VN	0	3.73	0.004523	± 2.5	PASS
		VN	10	2.97	0.003601	± 2.5	PASS
		VN	20	-1.09	-0.001322	± 2.5	PASS
		VN	30	0.51	0.000618	± 2.5	PASS
		VN	40	1.31	0.001588	± 2.5	PASS
		VN	50	-0.15	-0.000182	± 2.5	PASS
	MCH	VN	-30	0.08	0.000094	± 2.5	PASS
		VN	-20	1.58	0.001863	± 2.5	PASS
		VN	-10	-2	-0.002358	± 2.5	PASS
		VN	0	-0.1	-0.000118	± 2.5	PASS
		VN	10	1.69	0.001992	± 2.5	PASS
		VN	20	2.95	0.003478	± 2.5	PASS
		VN	30	4.26	0.005022	± 2.5	PASS
		VN	40	-1.91	-0.002252	± 2.5	PASS
		VN	50	0.91	0.001073	± 2.5	PASS
	HCH	VN	-30	-1.55	-0.001827	± 2.5	PASS
		VN	-20	3.68	0.004338	± 2.5	PASS
		VN	-10	-1.04	-0.001226	± 2.5	PASS
		VN	0	-1.47	-0.001733	± 2.5	PASS
		VN	10	1.97	0.002322	± 2.5	PASS
		VN	20	3.05	0.003595	± 2.5	PASS
		VN	30	-0.62	-0.000731	± 2.5	PASS

		VN	40	-1.48	-0.001745	± 2.5	PASS
		VN	50	-0.25	-0.000295	± 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	3.51	0.004252	± 2.5	PASS
		VN	TN	-0.01	-0.000012	± 2.5	PASS
		VH	TN	0.78	0.000945	± 2.5	PASS
	MCH	VL	TN	-1.89	-0.002259	± 2.5	PASS
		VN	TN	3.38	0.004041	± 2.5	PASS
		VH	TN	0.42	0.000502	± 2.5	PASS
	HCH	VL	TN	-1.6	-0.001888	± 2.5	PASS
		VN	TN	1.12	0.001322	± 2.5	PASS
		VH	TN	-1.49	-0.001758	± 2.5	PASS
16QAM	LCH	VL	TN	-0.01	-0.000012	± 2.5	PASS
		VN	TN	3.79	0.004591	± 2.5	PASS
		VH	TN	2.89	0.003501	± 2.5	PASS
	MCH	VL	TN	-0.97	-0.001160	± 2.5	PASS
		VN	TN	1.79	0.002140	± 2.5	PASS
		VH	TN	-0.44	-0.000526	± 2.5	PASS
	HCH	VL	TN	-1.55	-0.001829	± 2.5	PASS
		VN	TN	4.93	0.005817	± 2.5	PASS
		VH	TN	3.46	0.004083	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.4	0.004119	± 2.5	PASS
		VN	-20	1.37	0.001660	± 2.5	PASS
		VN	-10	0.51	0.000618	± 2.5	PASS
		VN	0	0.36	0.000436	± 2.5	PASS
		VN	10	3.64	0.004409	± 2.5	PASS
		VN	20	2.45	0.002968	± 2.5	PASS
		VN	30	0.82	0.000993	± 2.5	PASS
		VN	40	-0.79	-0.000957	± 2.5	PASS
		VN	50	-0.59	-0.000715	± 2.5	PASS
	MCH	VN	-30	1.35	0.001614	± 2.5	PASS
		VN	-20	2.19	0.002618	± 2.5	PASS
		VN	-10	-0.86	-0.001028	± 2.5	PASS

		VN	0	-0.45	-0.000538	± 2.5	PASS
		VN	10	2.37	0.002833	± 2.5	PASS
		VN	20	4.32	0.005164	± 2.5	PASS
		VN	30	-0.13	-0.000155	± 2.5	PASS
		VN	40	2.85	0.003407	± 2.5	PASS
		VN	50	-1.69	-0.002020	± 2.5	PASS
	HCH	VN	-30	4.2	0.004956	± 2.5	PASS
		VN	-20	2.44	0.002879	± 2.5	PASS
		VN	-10	1.84	0.002171	± 2.5	PASS
		VN	0	0.2	0.000236	± 2.5	PASS
		VN	10	-1.35	-0.001593	± 2.5	PASS
		VN	20	-1.03	-0.001215	± 2.5	PASS
		VN	30	2.14	0.002525	± 2.5	PASS
		VN	40	1.33	0.001569	± 2.5	PASS
		VN	50	1.11	0.001310	± 2.5	PASS
16QAM	LCH	VN	-30	-1.47	-0.001757	± 2.5	PASS
		VN	-20	0.4	0.000478	± 2.5	PASS
		VN	-10	-0.67	-0.000801	± 2.5	PASS
		VN	0	0.96	0.001148	± 2.5	PASS
		VN	10	2.9	0.003467	± 2.5	PASS
		VN	20	-0.6	-0.000717	± 2.5	PASS
		VN	30	4.05	0.004842	± 2.5	PASS
		VN	40	1.59	0.001901	± 2.5	PASS
		VN	50	-1.96	-0.002343	± 2.5	PASS
	MCH	VN	-30	1.38	0.001628	± 2.5	PASS
		VN	-20	0.34	0.000401	± 2.5	PASS
		VN	-10	-0.32	-0.000378	± 2.5	PASS
		VN	0	0.65	0.000767	± 2.5	PASS
		VN	10	3.94	0.004649	± 2.5	PASS
		VN	20	4.42	0.005215	± 2.5	PASS
		VN	30	0.17	0.000201	± 2.5	PASS
		VN	40	0.41	0.000484	± 2.5	PASS
		VN	50	1.27	0.001499	± 2.5	PASS
	HCH	VN	-30	-0.02	-0.000024	± 2.5	PASS
		VN	-20	0.31	0.000366	± 2.5	PASS
		VN	-10	0.78	0.000920	± 2.5	PASS
		VN	0	0.02	0.000024	± 2.5	PASS
		VN	10	0.55	0.000649	± 2.5	PASS
		VN	20	2.25	0.002655	± 2.5	PASS
		VN	30	4	0.004720	± 2.5	PASS
		VN	40	-1.15	-0.001357	± 2.5	PASS

		VN	50	0.37	0.000437	± 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	0.004489	± 2.5	PASS
		VN	TN	-1.29	-0.001561	± 2.5	PASS
		VH	TN	1.56	0.001887	± 2.5	PASS
	MCH	VL	TN	2.1	0.002510	± 2.5	PASS
		VN	TN	-0.82	-0.000980	± 2.5	PASS
		VH	TN	3.91	0.004674	± 2.5	PASS
	HCH	VL	TN	4.41	0.005210	± 2.5	PASS
		VN	TN	-0.11	-0.000130	± 2.5	PASS
		VH	TN	-0.11	-0.000130	± 2.5	PASS
16QAM	LCH	VL	TN	-1.13	-0.001367	± 2.5	PASS
		VN	TN	4.18	0.005057	± 2.5	PASS
		VH	TN	3.21	0.003884	± 2.5	PASS
	MCH	VL	TN	-1.97	-0.002355	± 2.5	PASS
		VN	TN	3.48	0.004160	± 2.5	PASS
		VH	TN	-1.53	-0.001829	± 2.5	PASS
	HCH	VL	TN	2.64	0.003119	± 2.5	PASS
		VN	TN	2.96	0.003497	± 2.5	PASS
		VH	TN	1.3	0.001536	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.42	0.002928	± 2.5	PASS
		VN	-20	3.36	0.004065	± 2.5	PASS
		VN	-10	1.15	0.001391	± 2.5	PASS
		VN	0	0.77	0.000932	± 2.5	PASS
		VN	10	0.39	0.000472	± 2.5	PASS
		VN	20	4.3	0.005203	± 2.5	PASS
		VN	30	0.13	0.000157	± 2.5	PASS
		VN	40	0	0.000000	± 2.5	PASS
		VN	50	4.48	0.005420	± 2.5	PASS
	MCH	VN	-30	4.92	0.005882	± 2.5	PASS
		VN	-20	-1.08	-0.001291	± 2.5	PASS
		VN	-10	-1.63	-0.001949	± 2.5	PASS
		VN	0	2.06	0.002463	± 2.5	PASS

		VN	10	-0.45	-0.000538	± 2.5	PASS
		VN	20	1.04	0.001243	± 2.5	PASS
		VN	30	2.08	0.002487	± 2.5	PASS
		VN	40	4.39	0.005248	± 2.5	PASS
		VN	50	-1.59	-0.001901	± 2.5	PASS
	HCH	VN	-30	-1.04	-0.001229	± 2.5	PASS
		VN	-20	1.01	0.001193	± 2.5	PASS
		VN	-10	-0.37	-0.000437	± 2.5	PASS
		VN	0	-0.75	-0.000886	± 2.5	PASS
		VN	10	0.92	0.001087	± 2.5	PASS
		VN	20	-1.43	-0.001689	± 2.5	PASS
		VN	30	-1.62	-0.001914	± 2.5	PASS
		VN	40	0.83	0.000981	± 2.5	PASS
		VN	50	1.5	0.001772	± 2.5	PASS
		VN	-30	4.9	0.005858	± 2.5	PASS
16QAM	LCH	VN	-20	3.21	0.003837	± 2.5	PASS
		VN	-10	4.52	0.005403	± 2.5	PASS
		VN	0	2.98	0.003562	± 2.5	PASS
		VN	10	0.64	0.000765	± 2.5	PASS
		VN	20	0.61	0.000729	± 2.5	PASS
		VN	30	-1.03	-0.001231	± 2.5	PASS
		VN	40	3.39	0.004053	± 2.5	PASS
		VN	50	2.6	0.003108	± 2.5	PASS
	MCH	VN	-30	2.56	0.003024	± 2.5	PASS
		VN	-20	3.9	0.004607	± 2.5	PASS
		VN	-10	-0.79	-0.000933	± 2.5	PASS
		VN	0	1.98	0.002339	± 2.5	PASS
		VN	10	-1.48	-0.001748	± 2.5	PASS
		VN	20	3.39	0.004005	± 2.5	PASS
		VN	30	4.99	0.005895	± 2.5	PASS
		VN	40	0.33	0.000390	± 2.5	PASS
		VN	50	4.31	0.005092	± 2.5	PASS
	HCH	VN	-30	1.91	0.002256	± 2.5	PASS
		VN	-20	1.47	0.001737	± 2.5	PASS
		VN	-10	2.96	0.003497	± 2.5	PASS
		VN	0	-0.94	-0.001110	± 2.5	PASS
		VN	10	4.87	0.005753	± 2.5	PASS
		VN	20	1.84	0.002174	± 2.5	PASS
		VN	30	1.32	0.001559	± 2.5	PASS
		VN	40	0.46	0.000543	± 2.5	PASS
		VN	50	2.77	0.003272	± 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	1.65	0.001990	± 2.5	PASS
		VN	TN	3.13	0.003776	± 2.5	PASS
		VH	TN	4.83	0.005826	± 2.5	PASS
	MCH	VL	TN	2.43	0.002905	± 2.5	PASS
		VN	TN	-0.39	-0.000466	± 2.5	PASS
		VH	TN	1.4	0.001674	± 2.5	PASS
	HCH	VL	TN	0.28	0.000332	± 2.5	PASS
		VN	TN	4.31	0.005107	± 2.5	PASS
		VH	TN	1.71	0.002026	± 2.5	PASS
16QAM	LCH	VL	TN	4.37	0.005271	± 2.5	PASS
		VN	TN	4.72	0.005694	± 2.5	PASS
		VH	TN	3.83	0.004620	± 2.5	PASS
	MCH	VL	TN	4.97	0.005941	± 2.5	PASS
		VN	TN	4.88	0.005834	± 2.5	PASS
		VH	TN	-0.31	-0.000371	± 2.5	PASS
	HCH	VL	TN	2.44	0.002891	± 2.5	PASS
		VN	TN	-1.13	-0.001339	± 2.5	PASS
		VH	TN	3.42	0.004052	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	-0.95	-0.001146	± 2.5	PASS
		VN	-20	1.21	0.001460	± 2.5	PASS
		VN	-10	-1.93	-0.002328	± 2.5	PASS
		VN	0	1.68	0.002027	± 2.5	PASS
		VN	10	0.63	0.000760	± 2.5	PASS
		VN	20	-0.42	-0.000507	± 2.5	PASS
		VN	30	-1.61	-0.001942	± 2.5	PASS
		VN	40	-1.27	-0.001532	± 2.5	PASS
		VN	50	-1.95	-0.002352	± 2.5	PASS
	MCH	VN	-30	3.94	0.004710	± 2.5	PASS
		VN	-20	1.2	0.001435	± 2.5	PASS
		VN	-10	2.78	0.003323	± 2.5	PASS
		VN	0	-0.4	-0.000478	± 2.5	PASS
		VN	10	-1.14	-0.001363	± 2.5	PASS
		VN	20	-1.98	-0.002367	± 2.5	PASS

		VN	30	2.42	0.002893	± 2.5	PASS
		VN	40	-1.24	-0.001482	± 2.5	PASS
		VN	50	3.66	0.004375	± 2.5	PASS
	HCH	VN	-30	4.77	0.005652	± 2.5	PASS
		VN	-20	-0.06	-0.000071	± 2.5	PASS
		VN	-10	1.07	0.001268	± 2.5	PASS
		VN	0	-1.52	-0.001801	± 2.5	PASS
		VN	10	1.47	0.001742	± 2.5	PASS
		VN	20	-0.66	-0.000782	± 2.5	PASS
		VN	30	-1.58	-0.001872	± 2.5	PASS
		VN	40	-1.64	-0.001943	± 2.5	PASS
		VN	50	1.18	0.001398	± 2.5	PASS
QPSK	LCH	VN	-30	1.03	0.001231	± 2.5	PASS
		VN	-20	1.89	0.002259	± 2.5	PASS
		VN	-10	1.07	0.001279	± 2.5	PASS
		VN	0	1.64	0.001961	± 2.5	PASS
		VN	10	-0.25	-0.000299	± 2.5	PASS
		VN	20	1.95	0.002331	± 2.5	PASS
		VN	30	3.67	0.004387	± 2.5	PASS
		VN	40	-0.62	-0.000741	± 2.5	PASS
		VN	50	2.13	0.002546	± 2.5	PASS
	MCH	VN	-30	1.8	0.002133	± 2.5	PASS
		VN	-20	-1.18	-0.001398	± 2.5	PASS
		VN	-10	2.56	0.003033	± 2.5	PASS
		VN	0	2.15	0.002547	± 2.5	PASS
		VN	10	3.4	0.004028	± 2.5	PASS
		VN	20	4.65	0.005509	± 2.5	PASS
		VN	30	3.87	0.004585	± 2.5	PASS
		VN	40	-1.36	-0.001611	± 2.5	PASS
		VN	50	-1.1	-0.001303	± 2.5	PASS
	HCH	VN	-30	0.54	0.000640	± 2.5	PASS
		VN	-20	4.44	0.005261	± 2.5	PASS
		VN	-10	1.24	0.001469	± 2.5	PASS
		VN	0	4.59	0.005438	± 2.5	PASS
		VN	10	-0.87	-0.001031	± 2.5	PASS
		VN	20	3.4	0.004028	± 2.5	PASS
		VN	30	2.84	0.003365	± 2.5	PASS
		VN	40	4.6	0.005450	± 2.5	PASS
		VN	50	-1.12	-0.001327	± 2.5	PASS