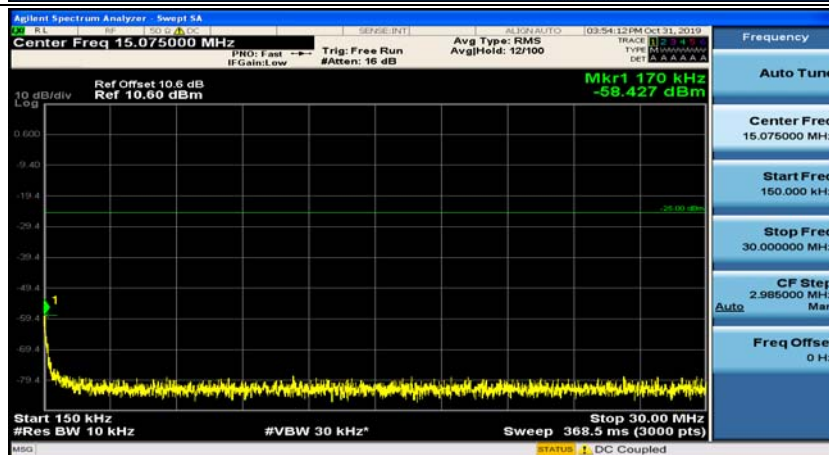
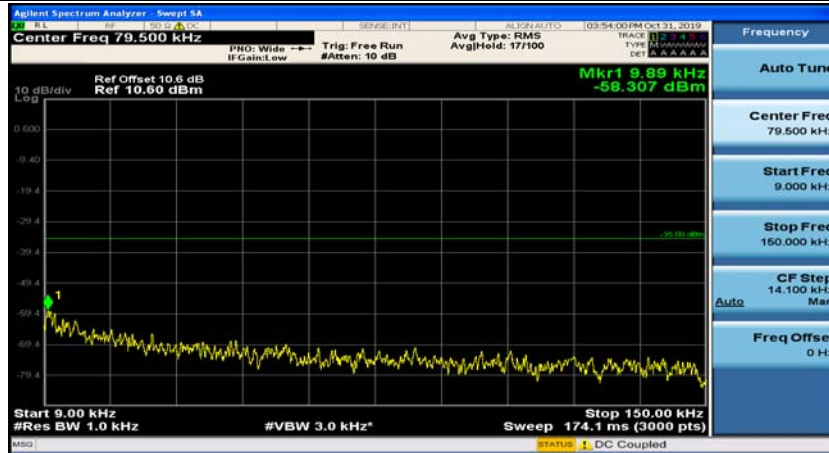
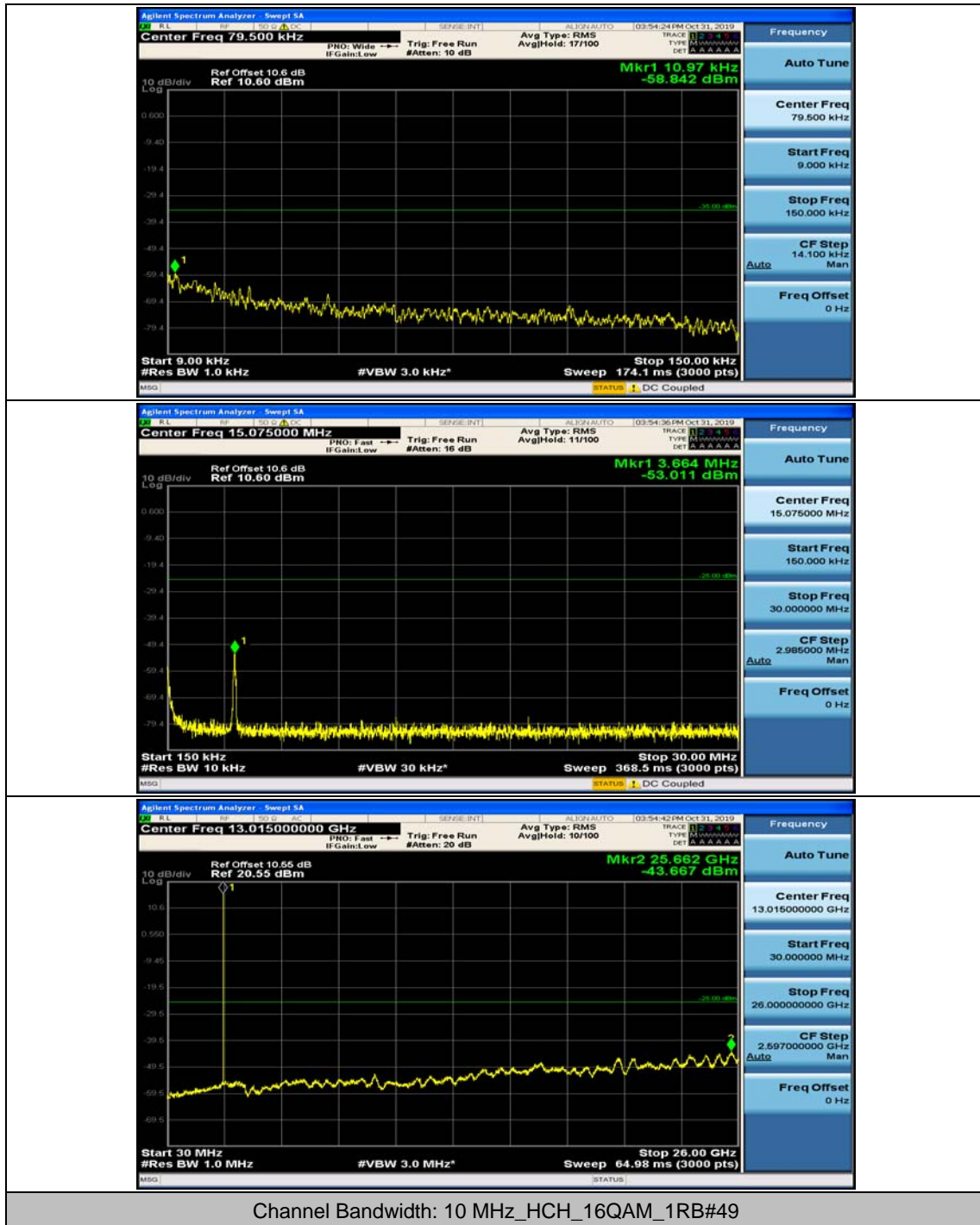
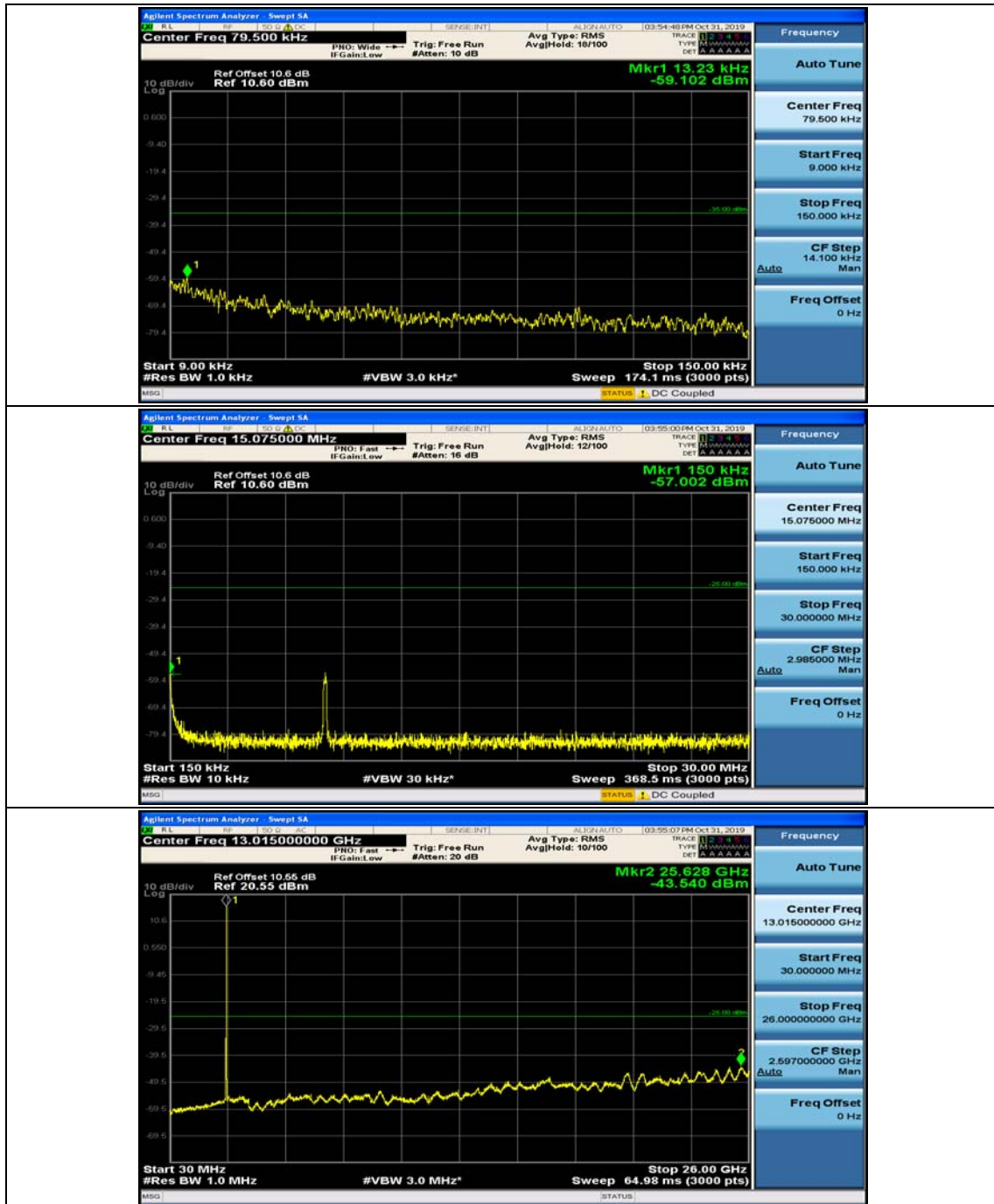


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

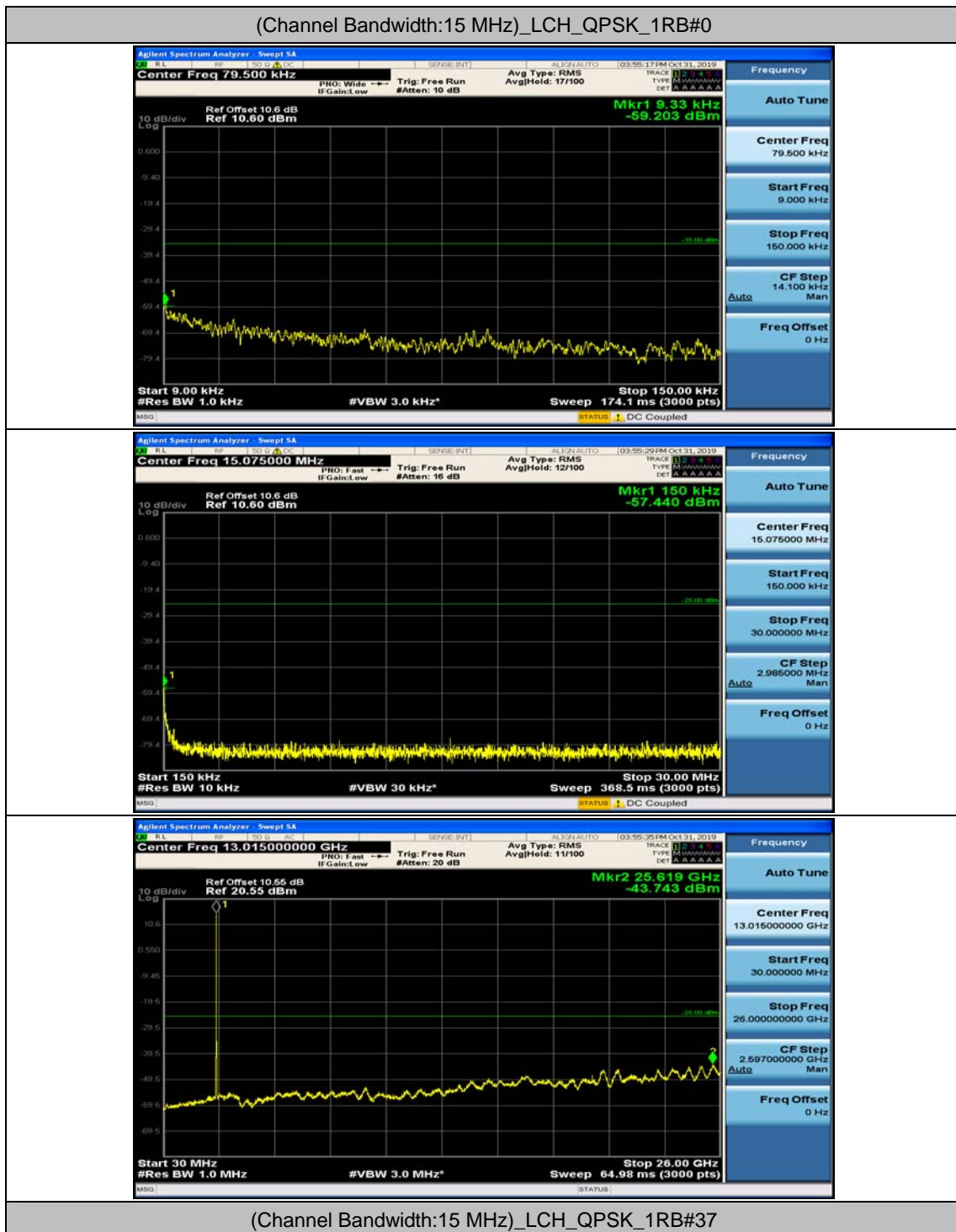


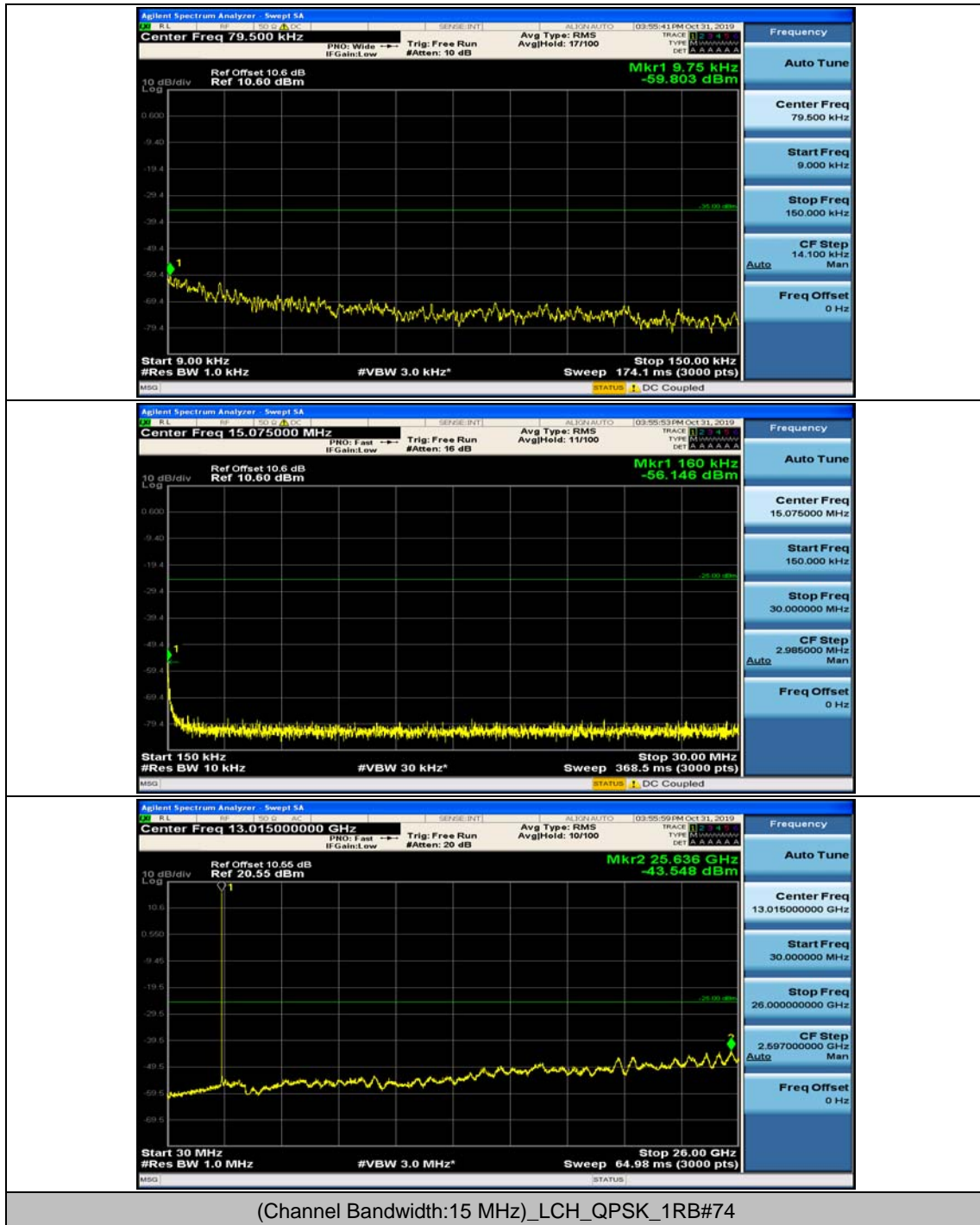
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

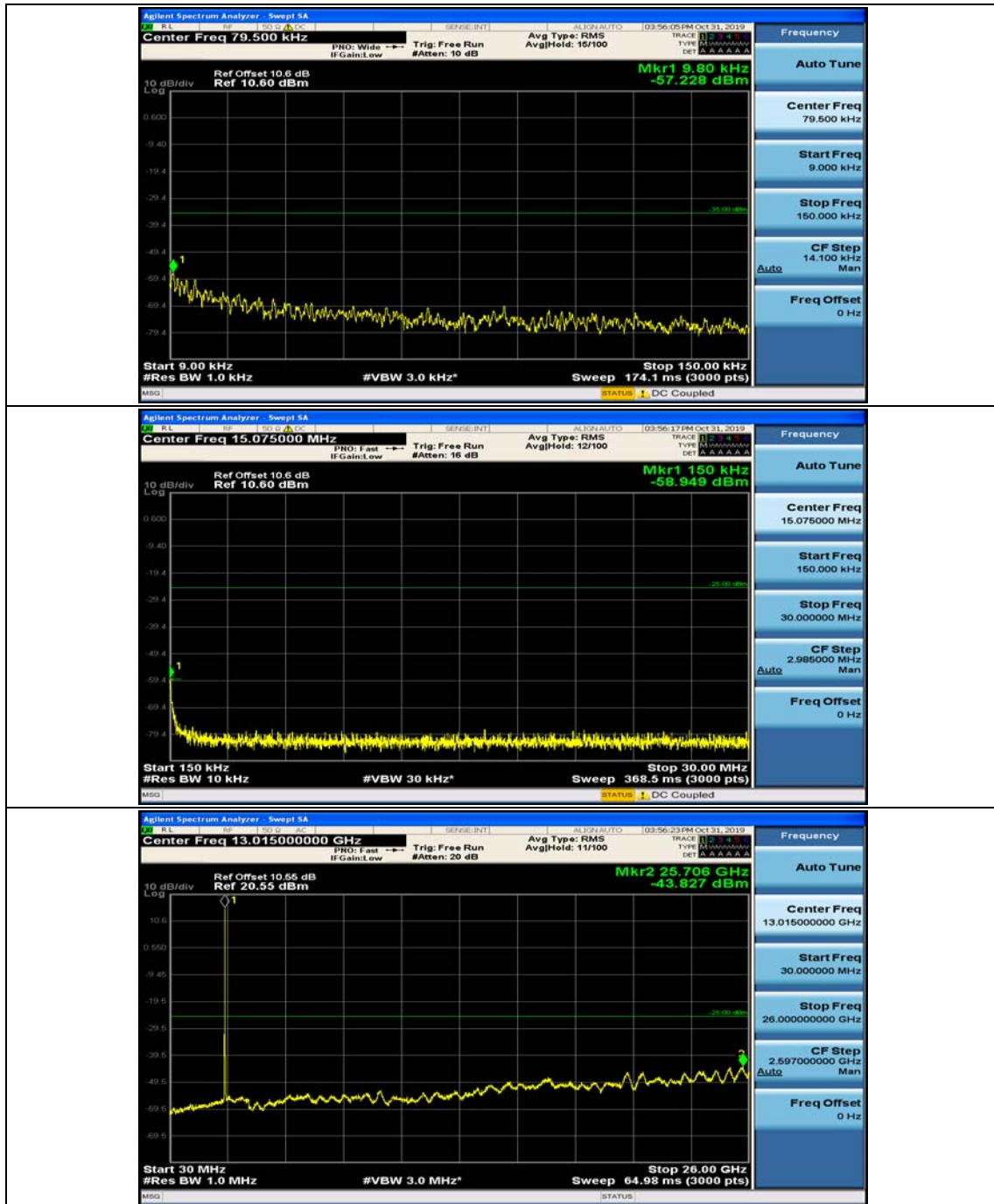




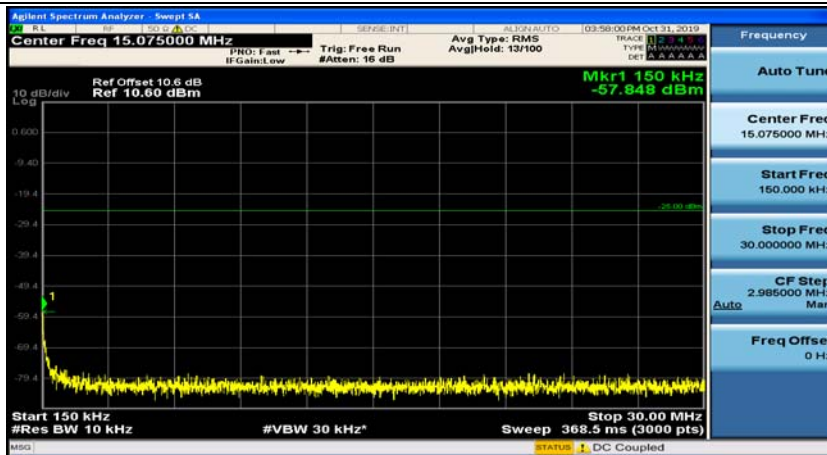
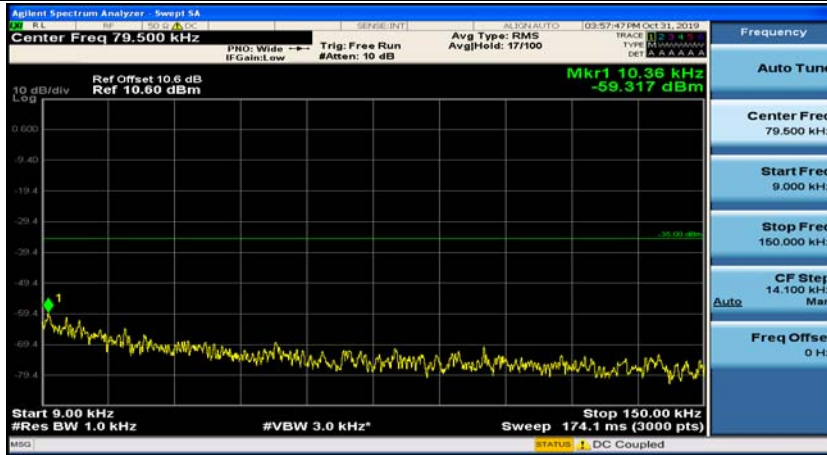
Channel Bandwidth: 15 MHz



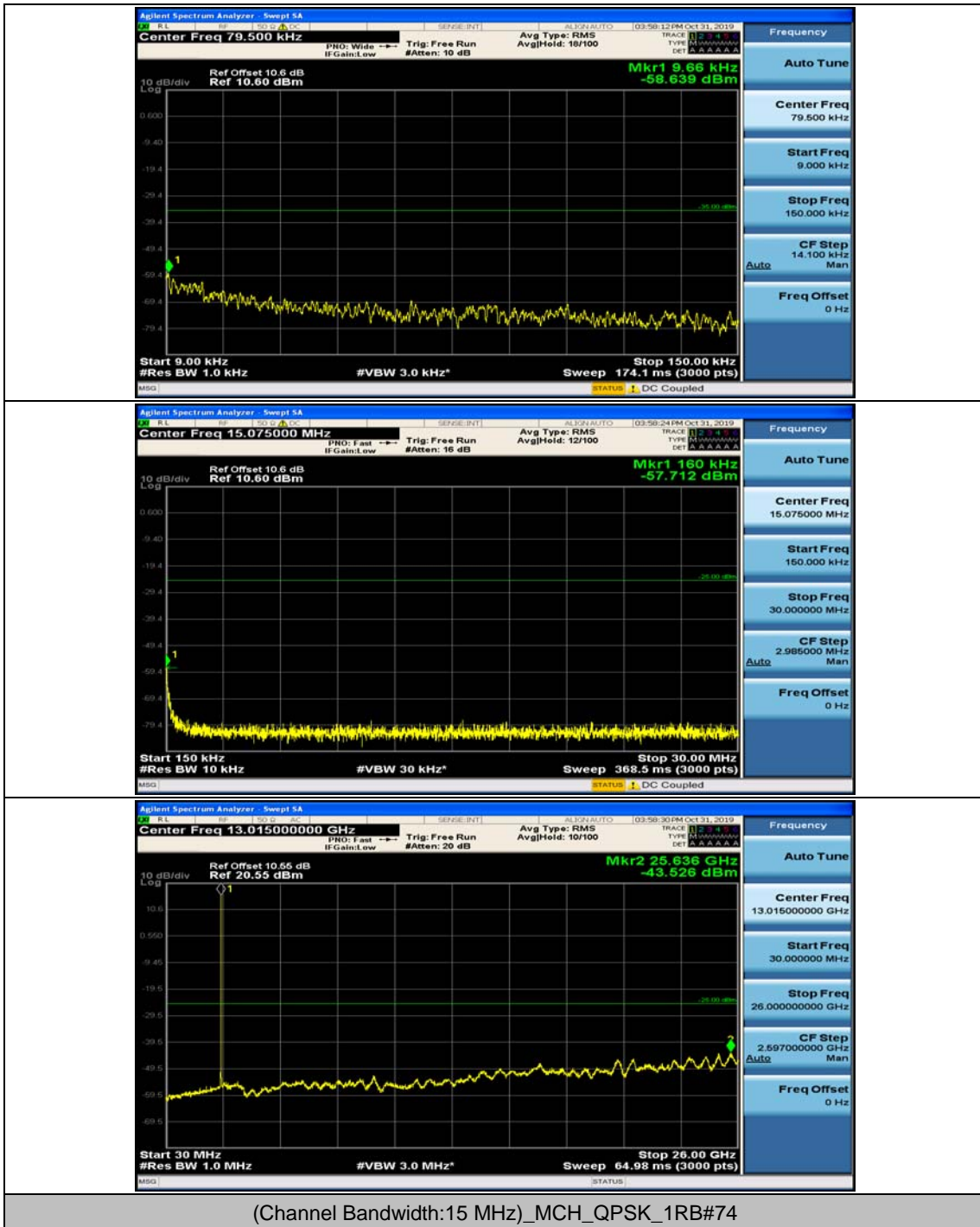


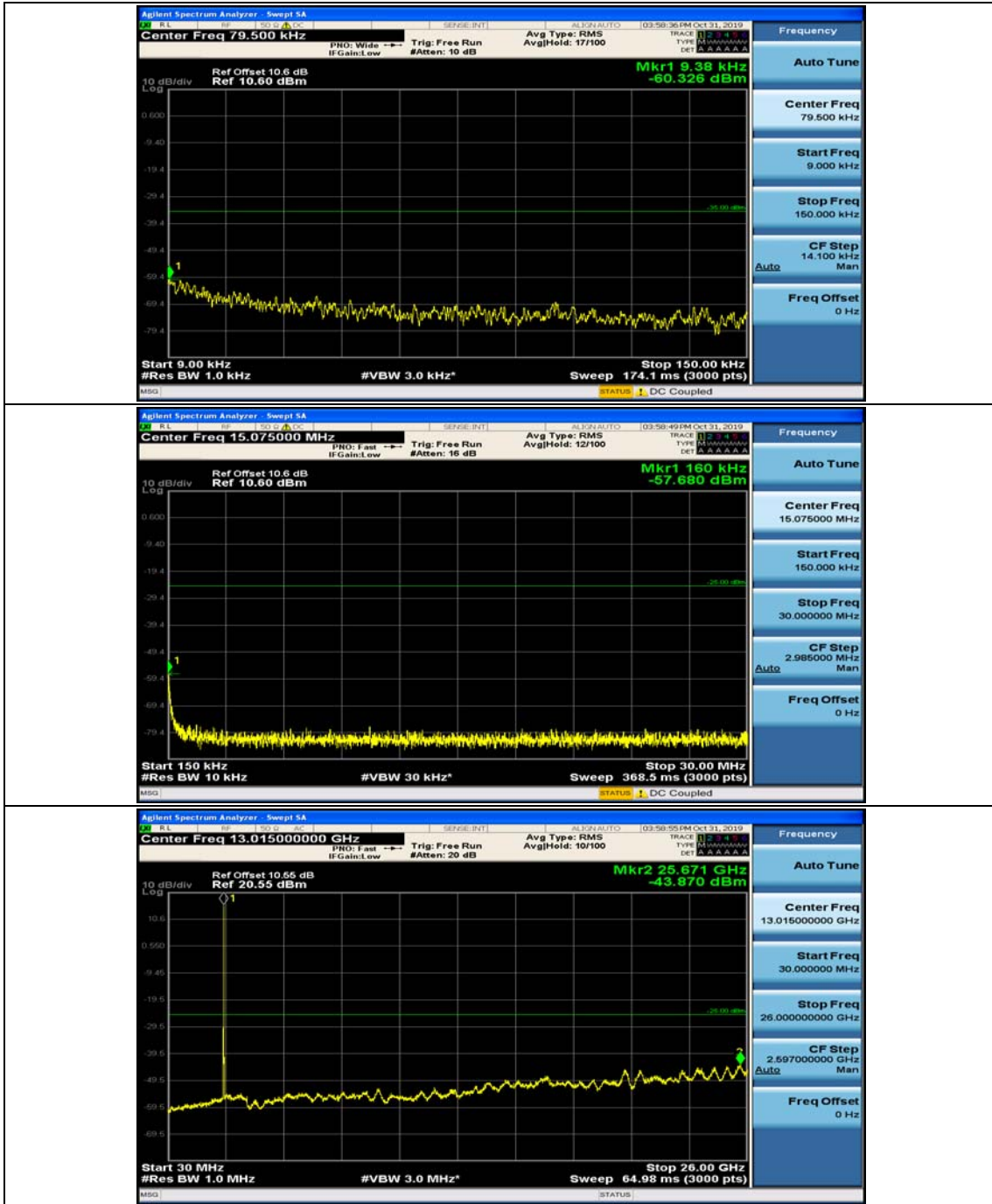


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

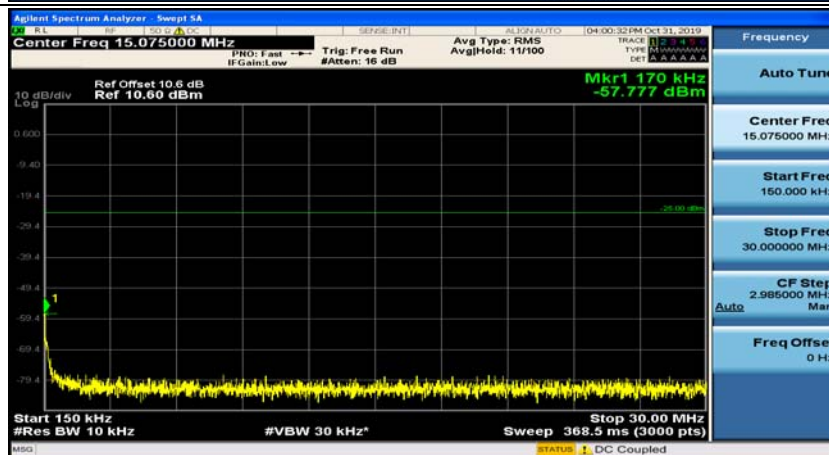
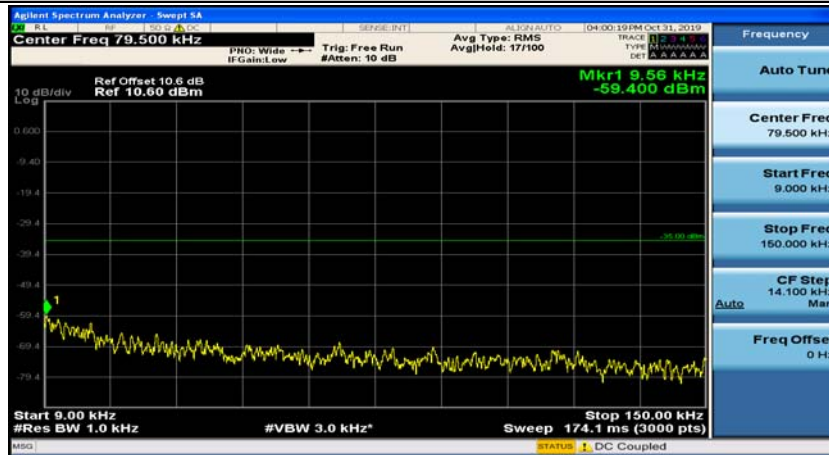


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

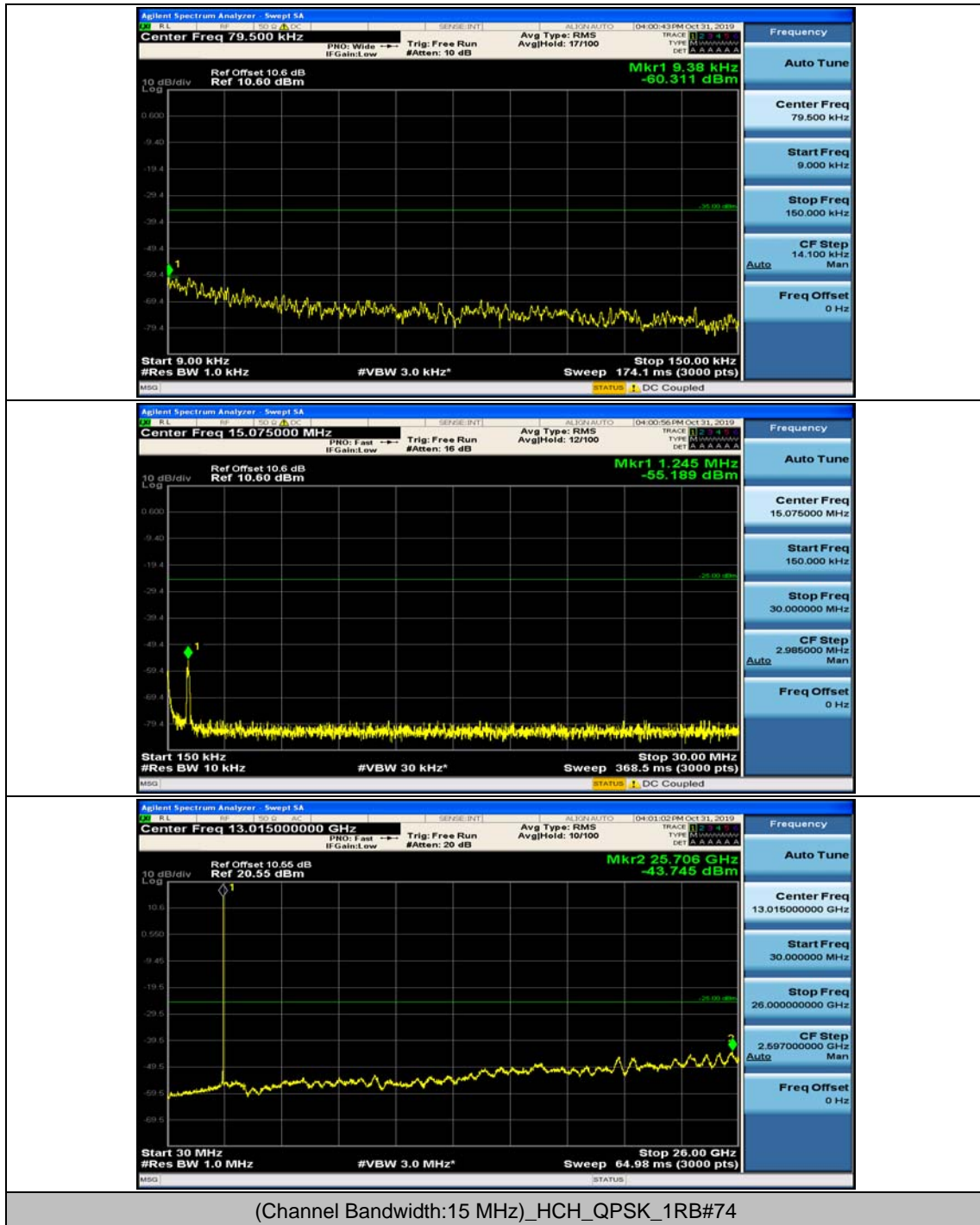


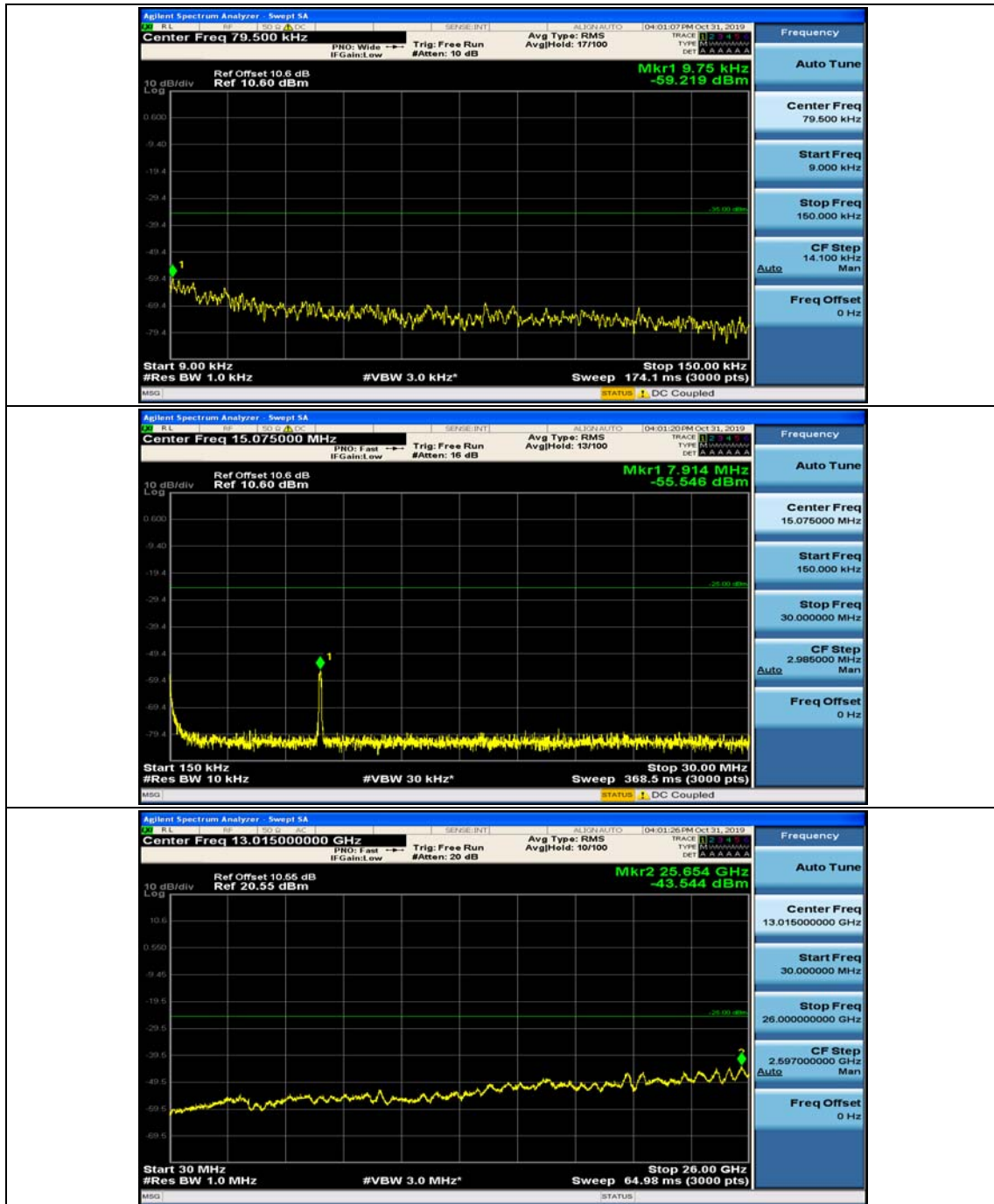


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

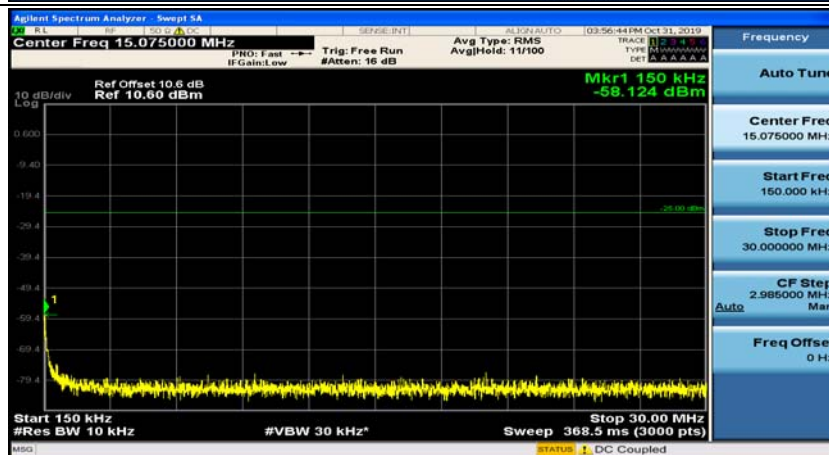
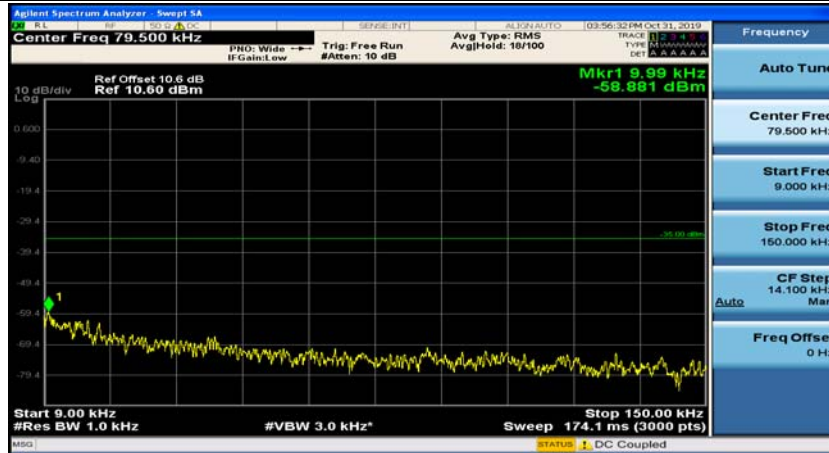


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

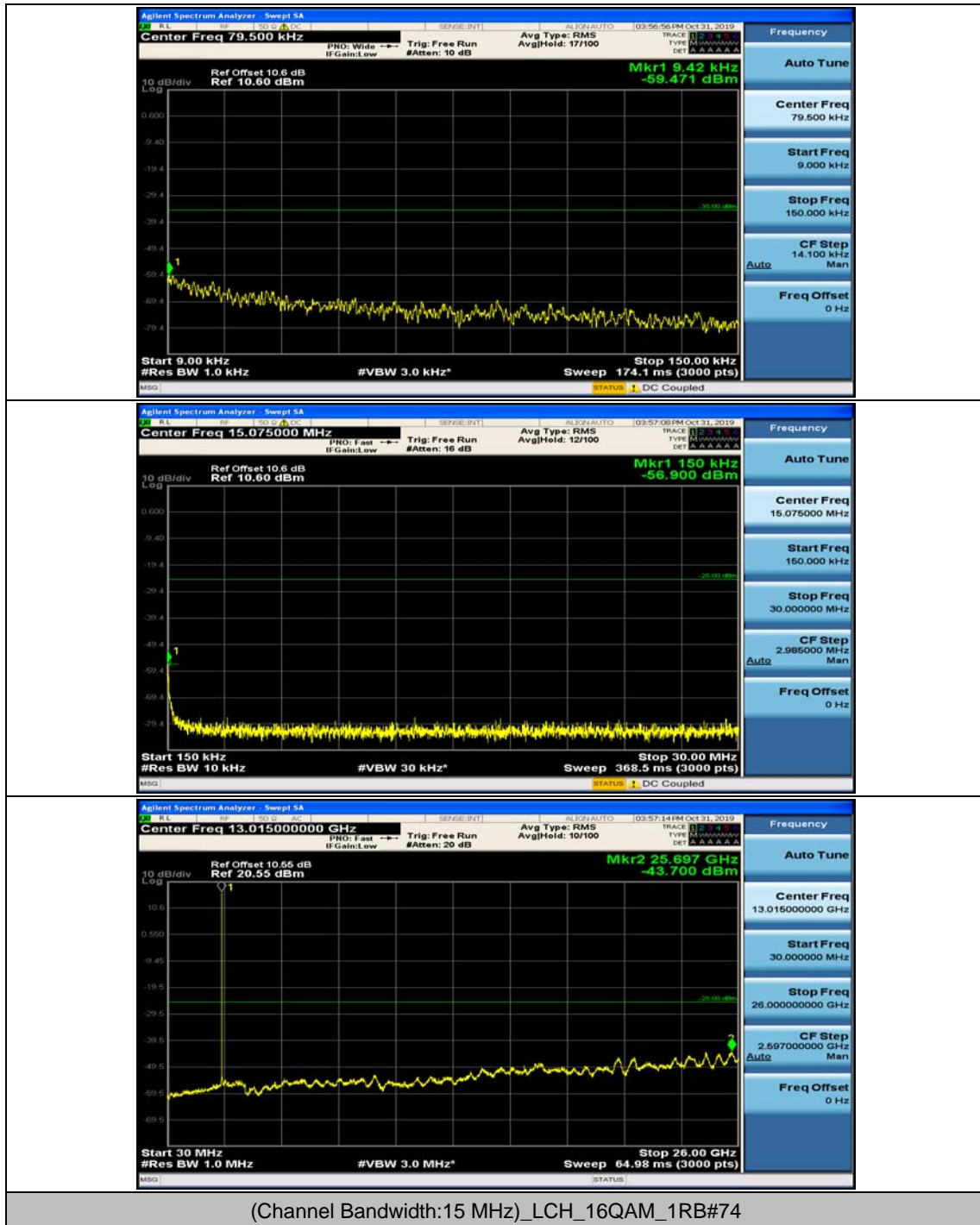


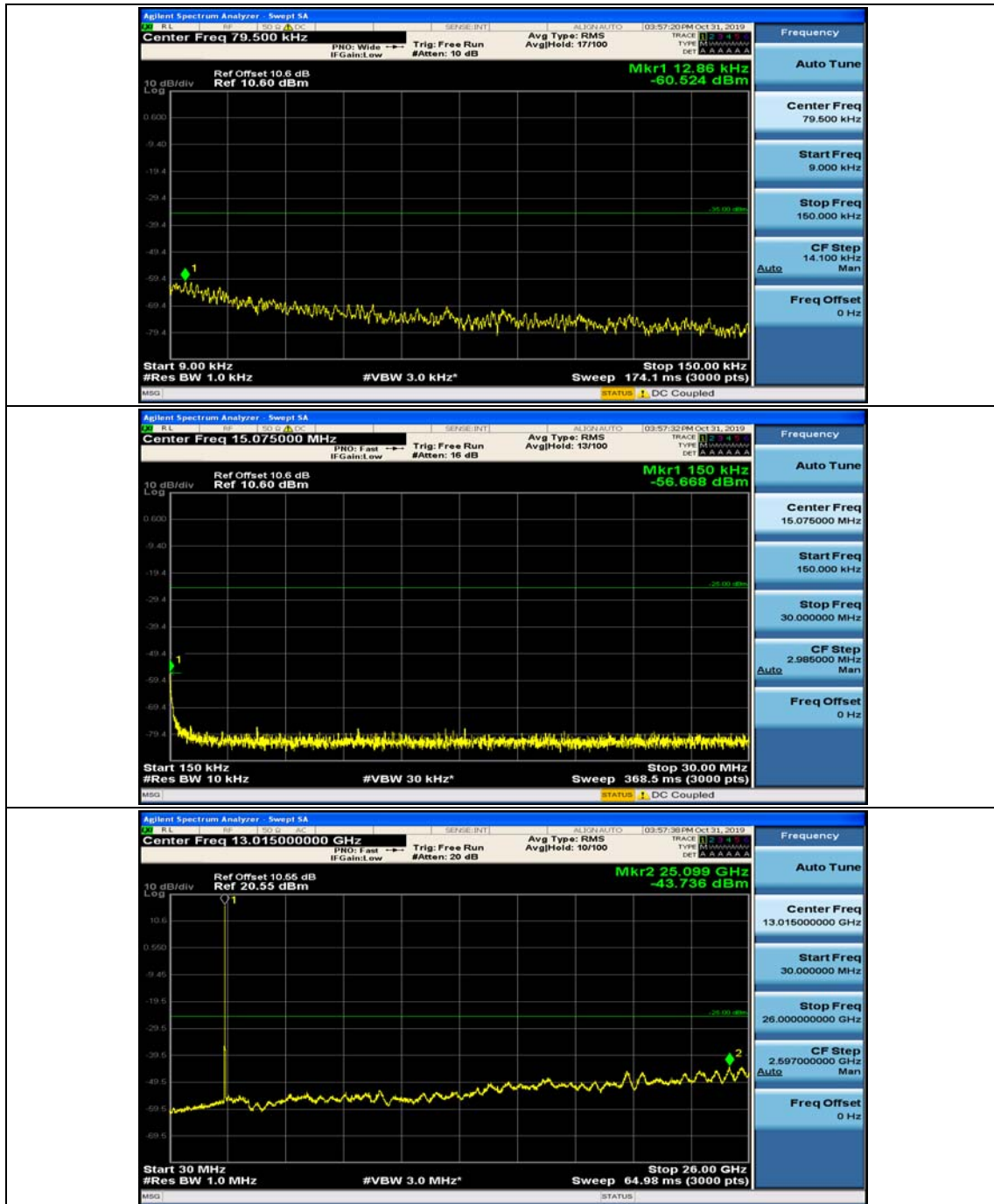


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

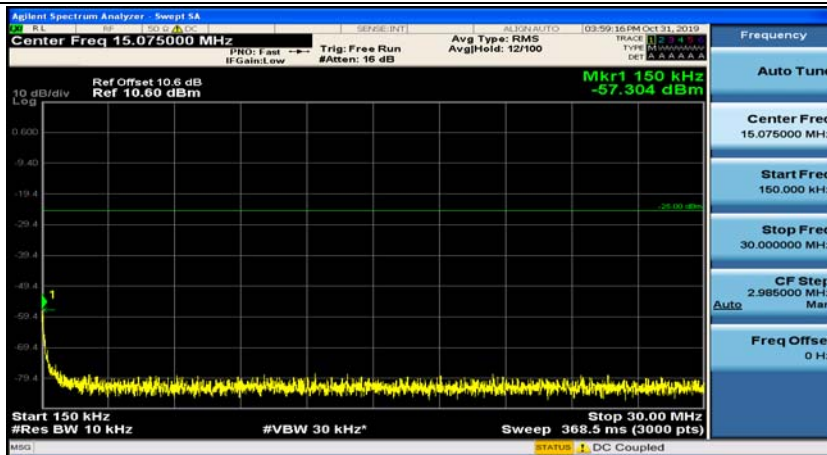


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

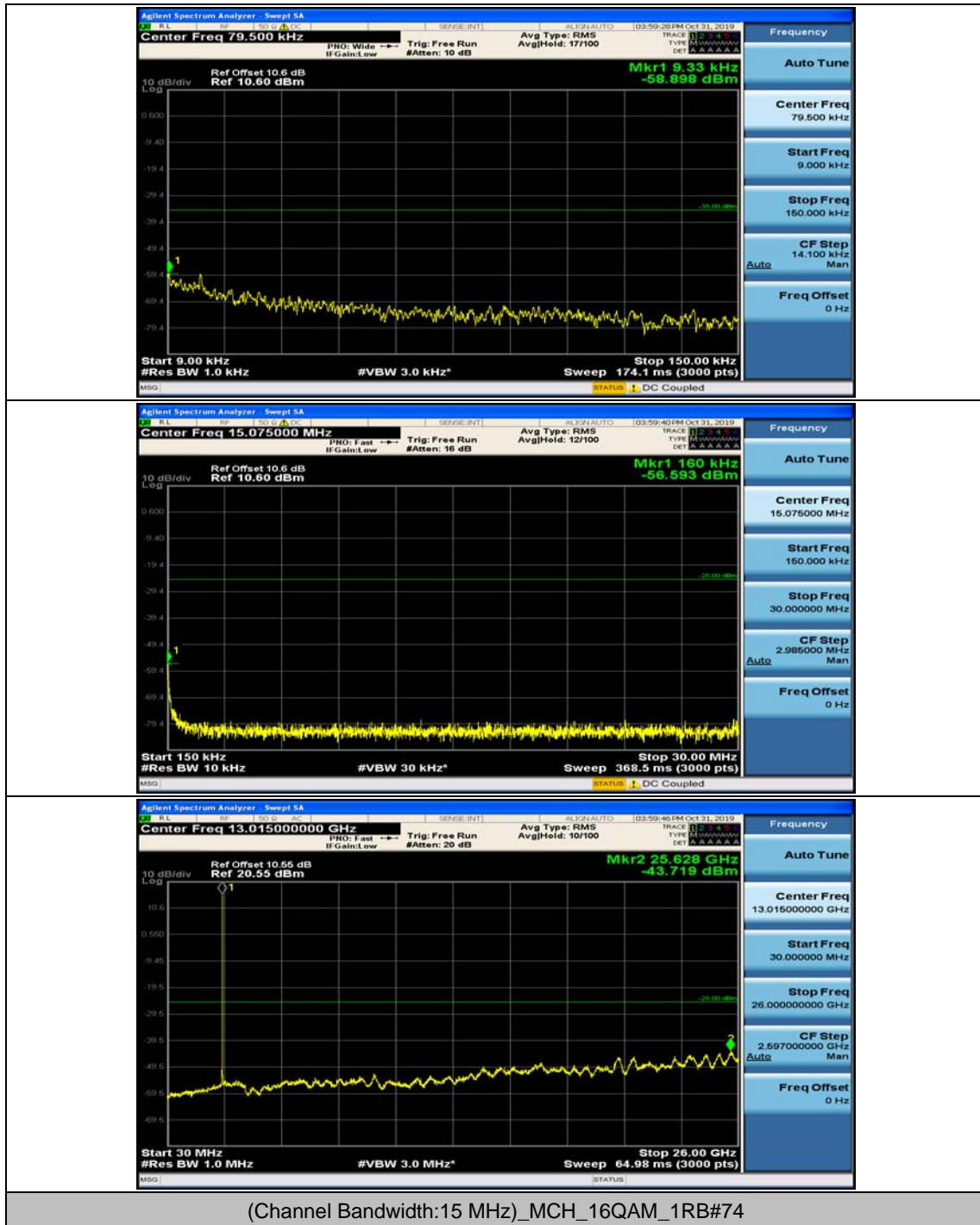


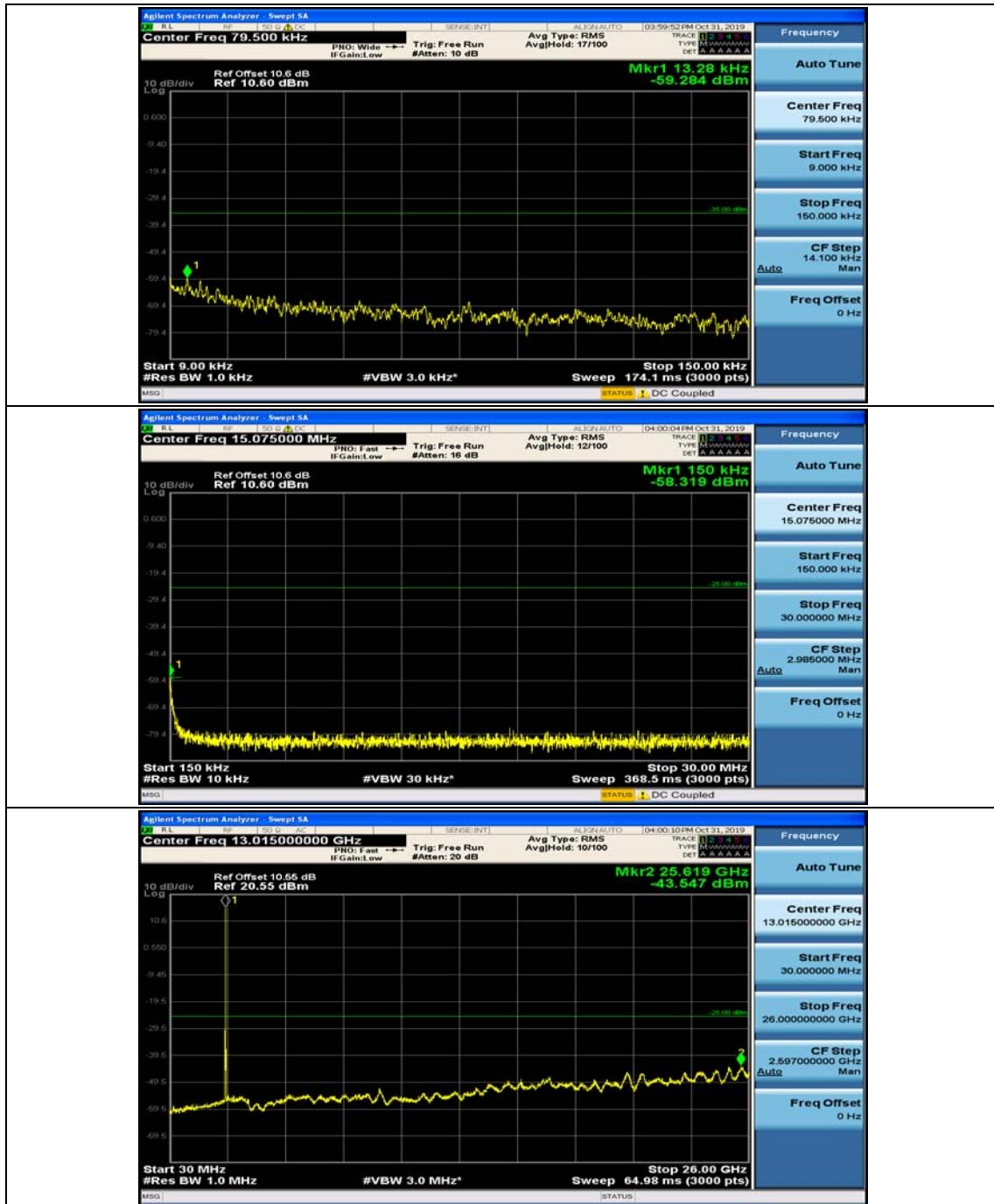


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

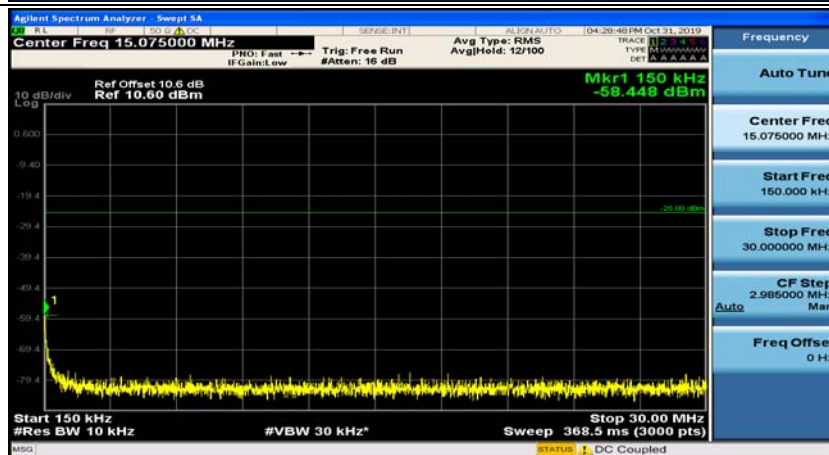
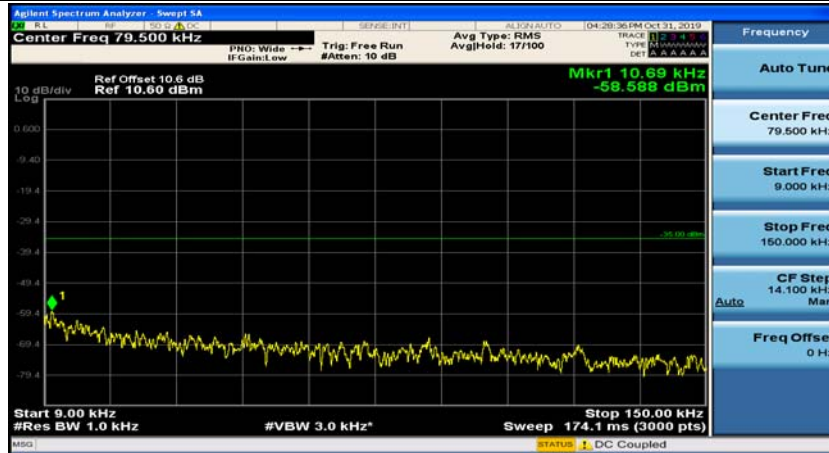


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

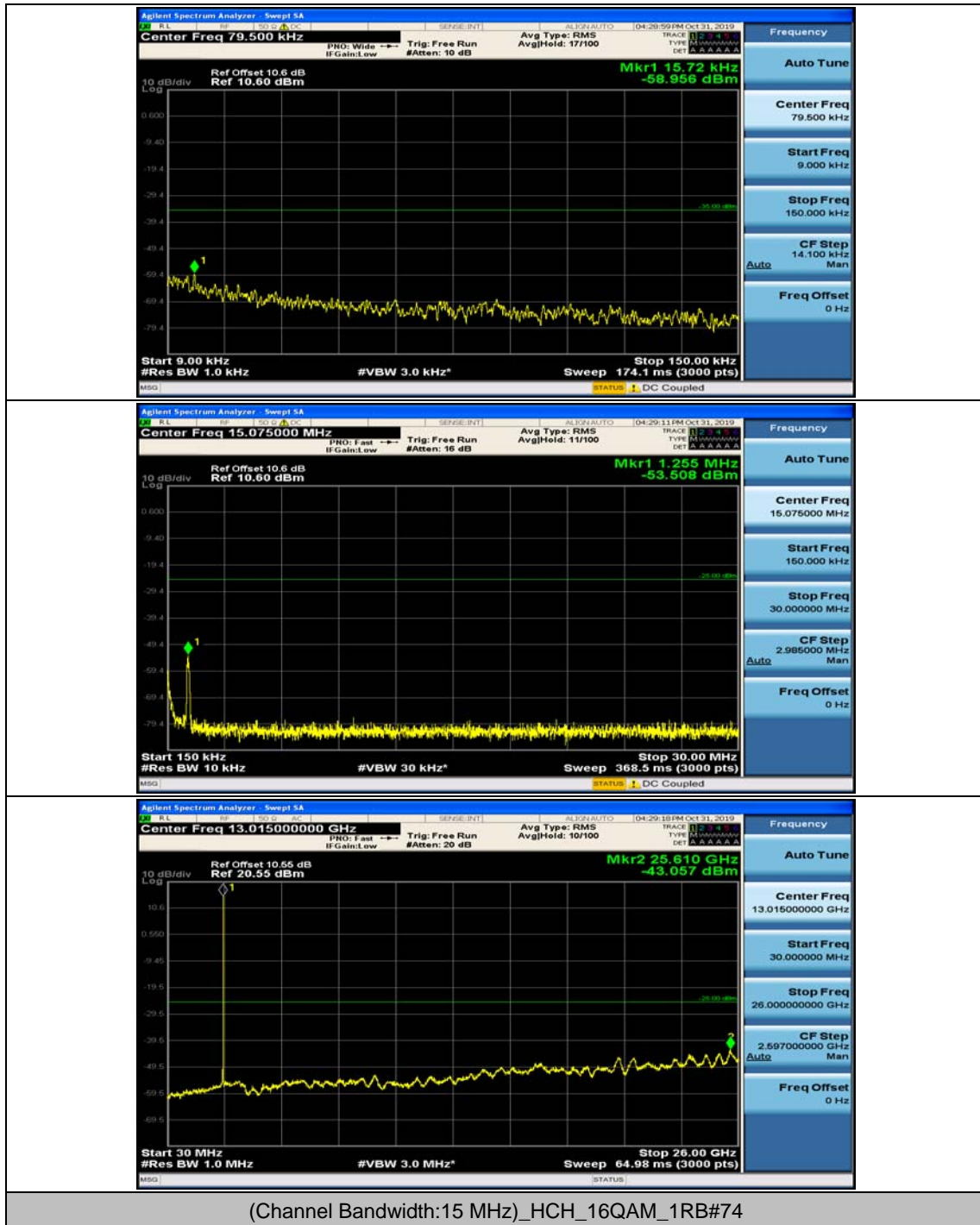


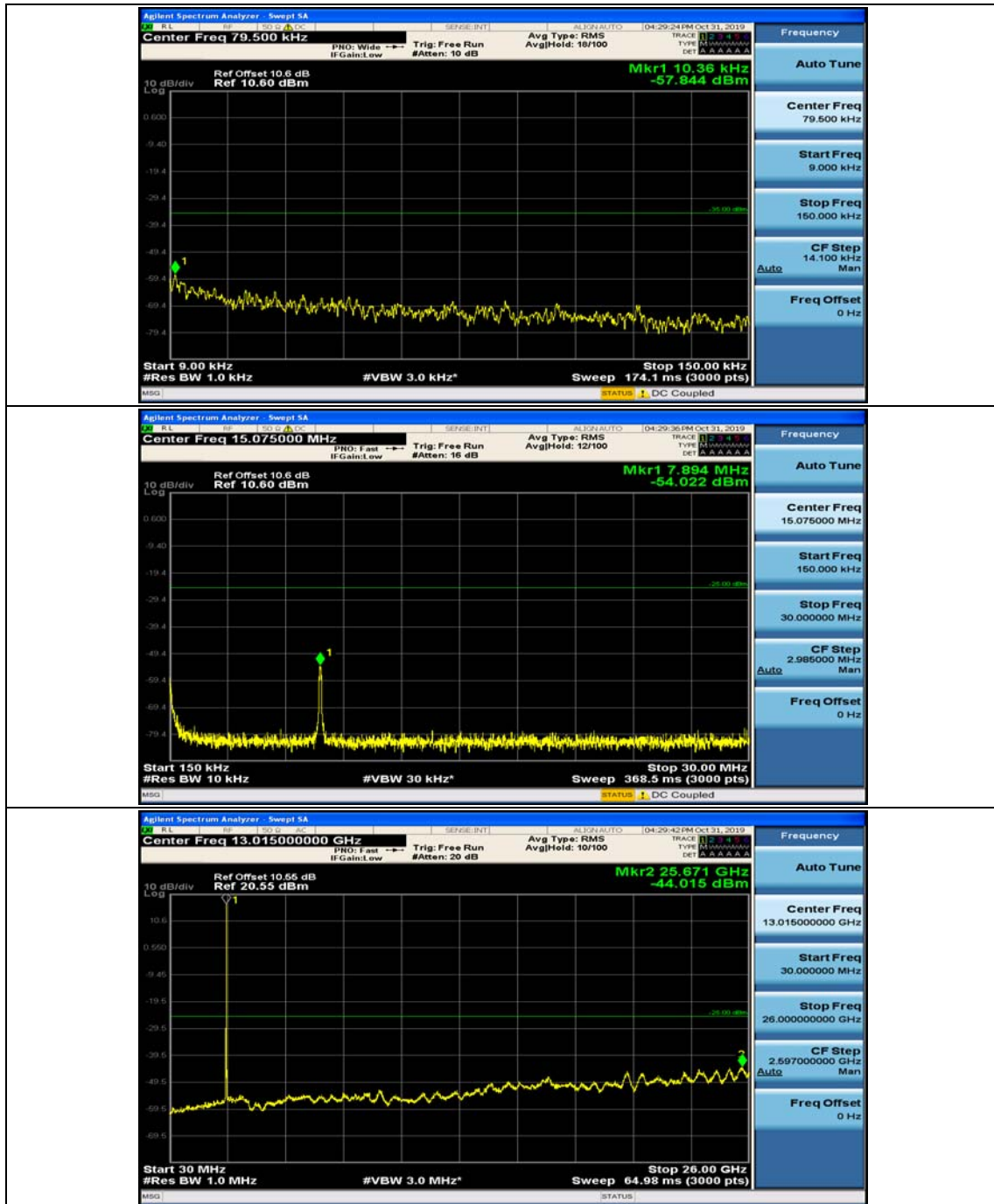


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

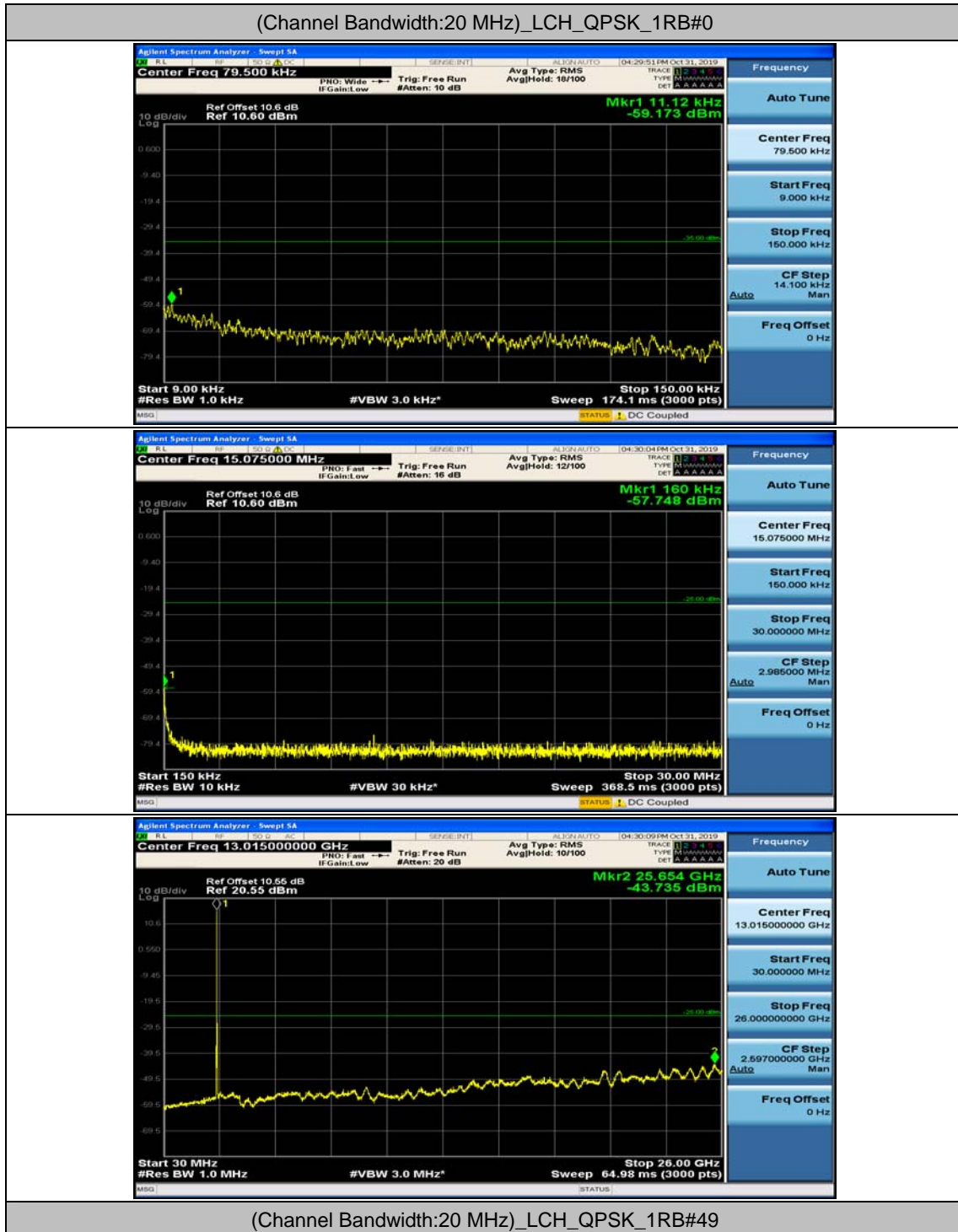


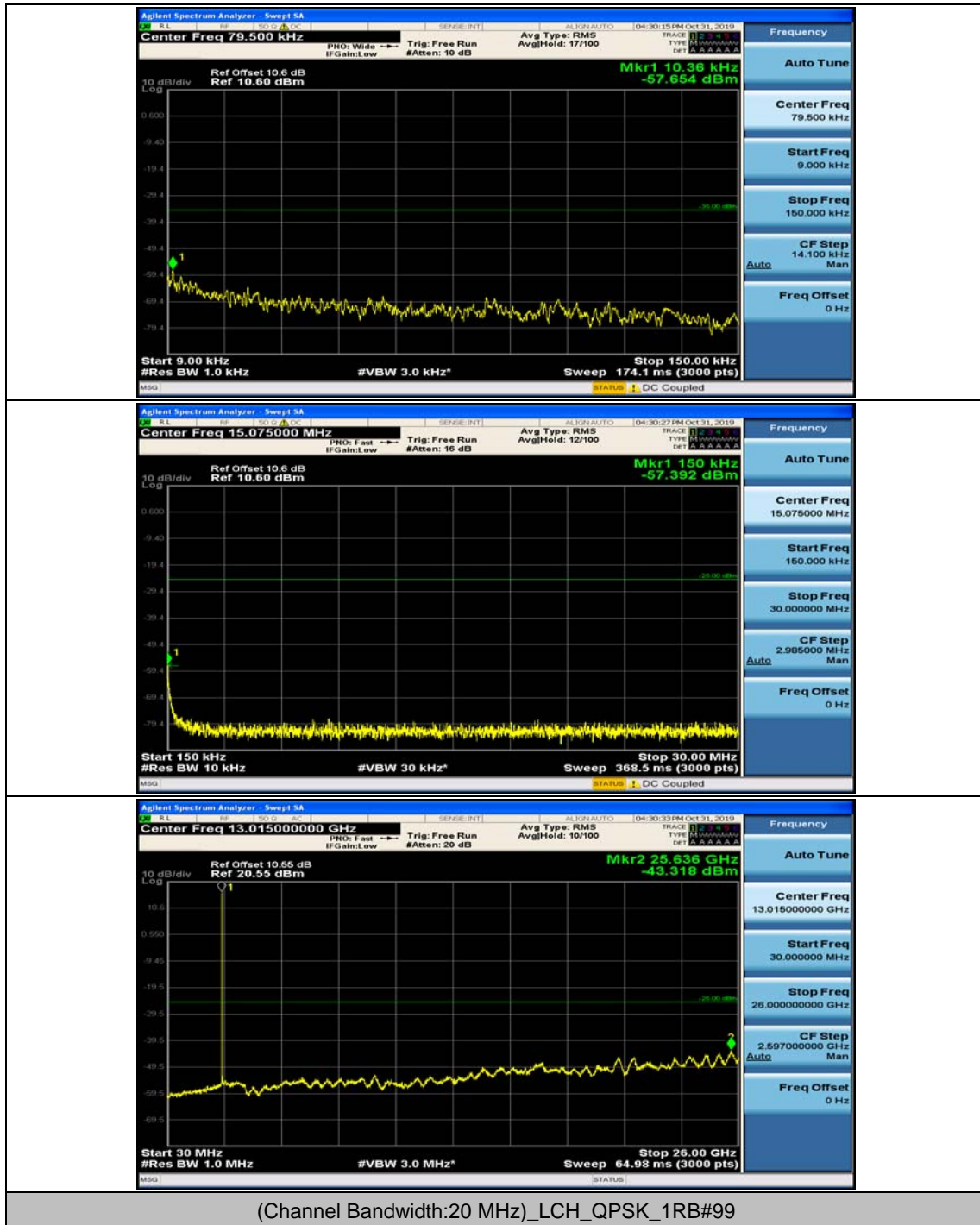
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

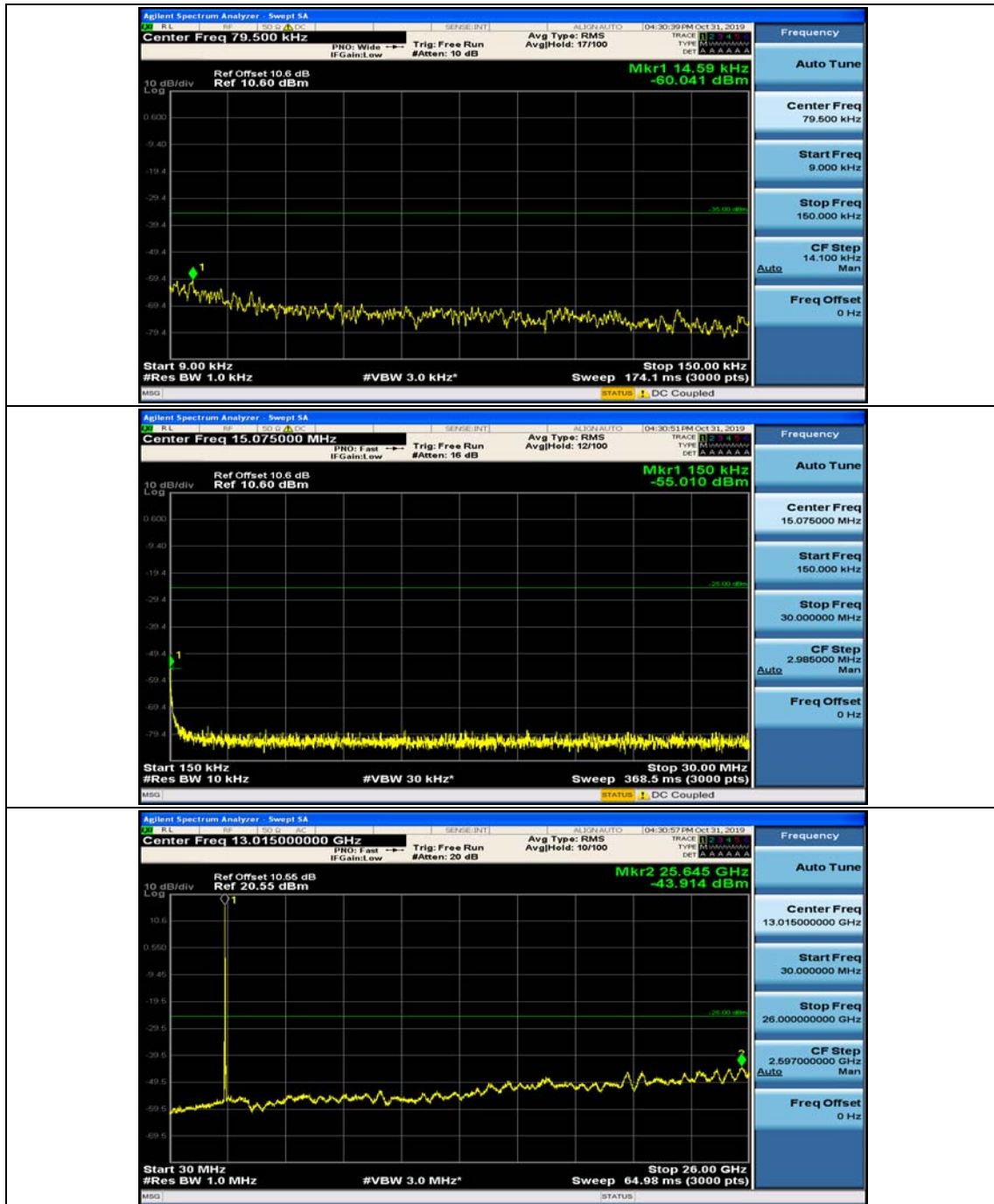




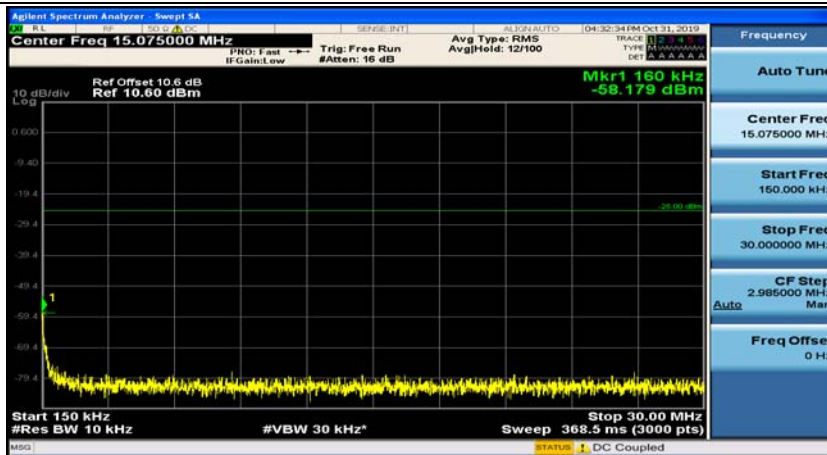
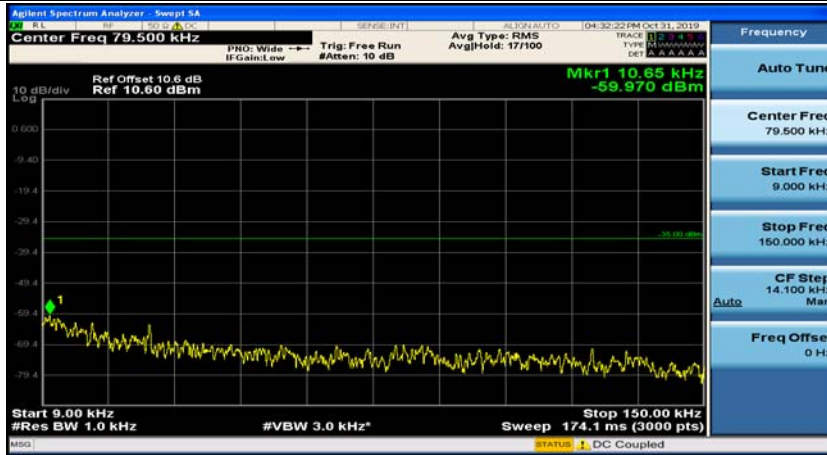
Channel Bandwidth: 20 MHz



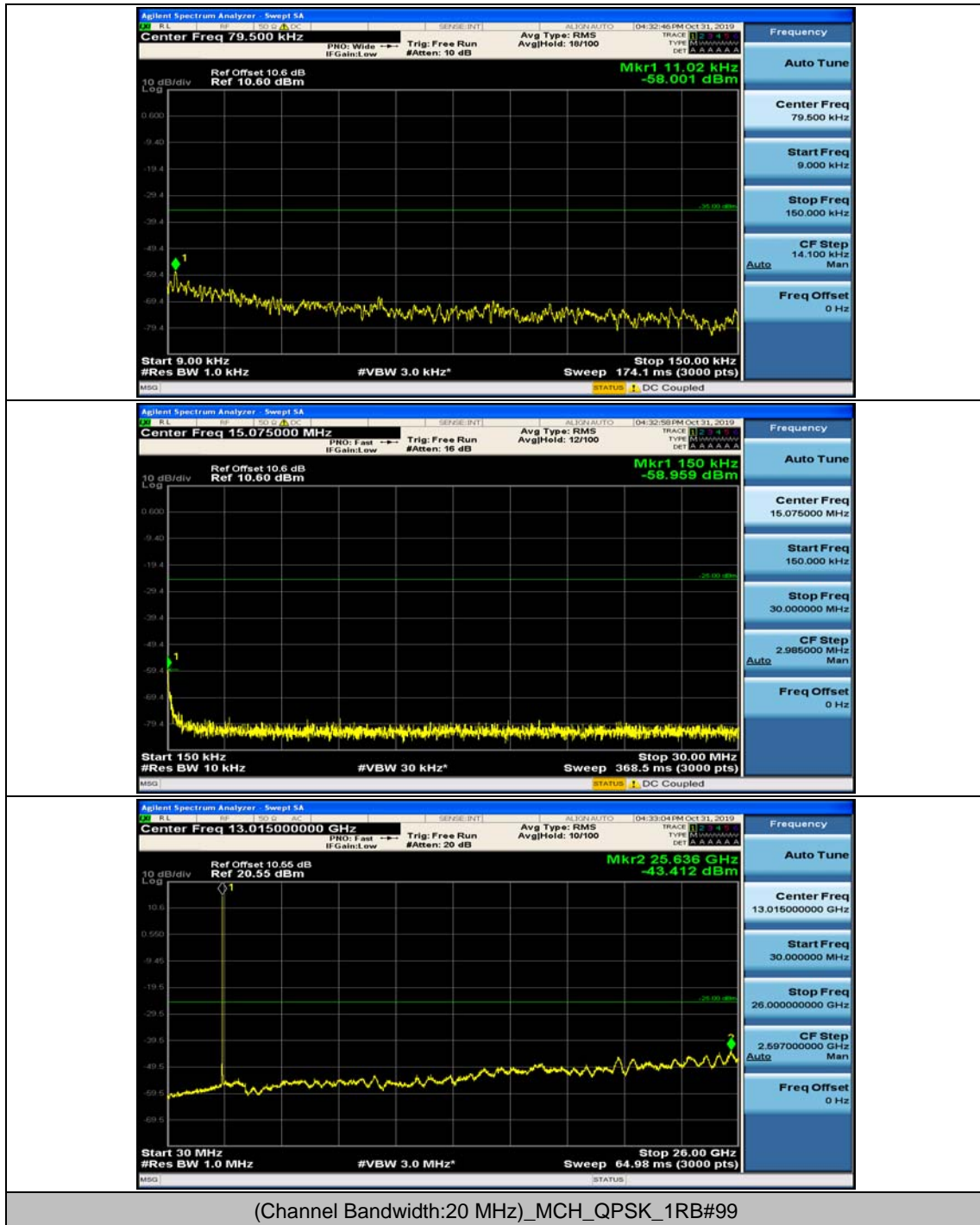


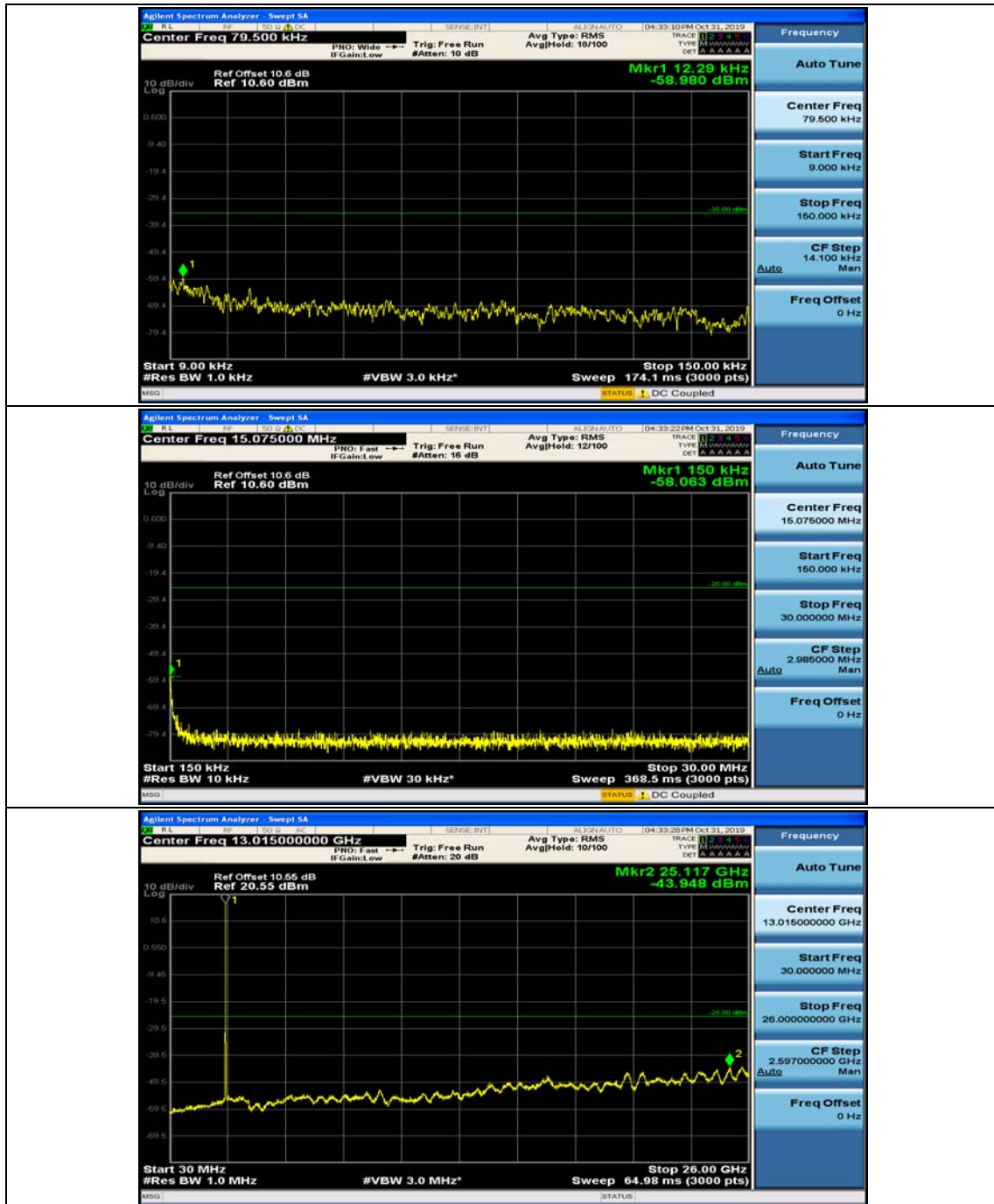


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

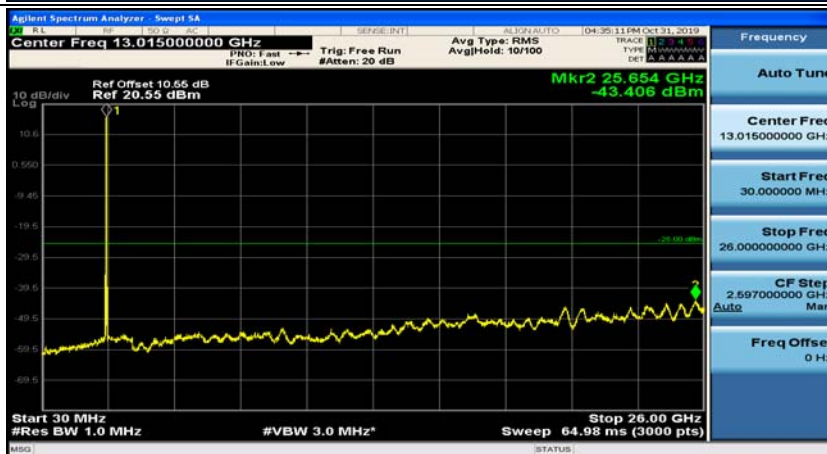
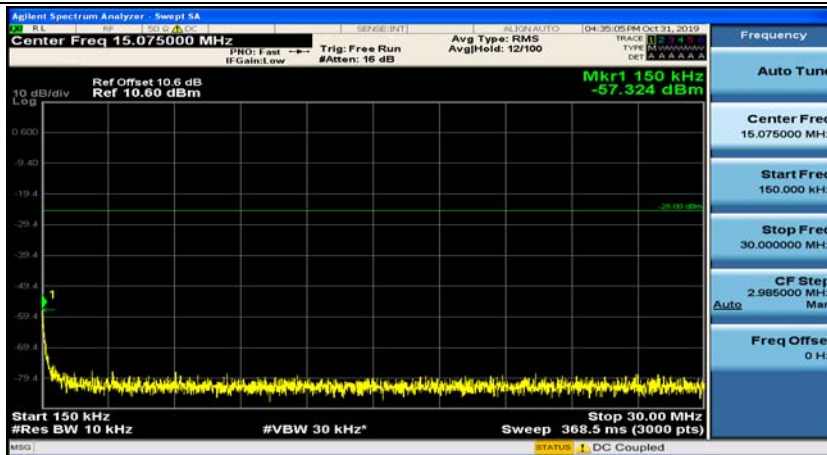
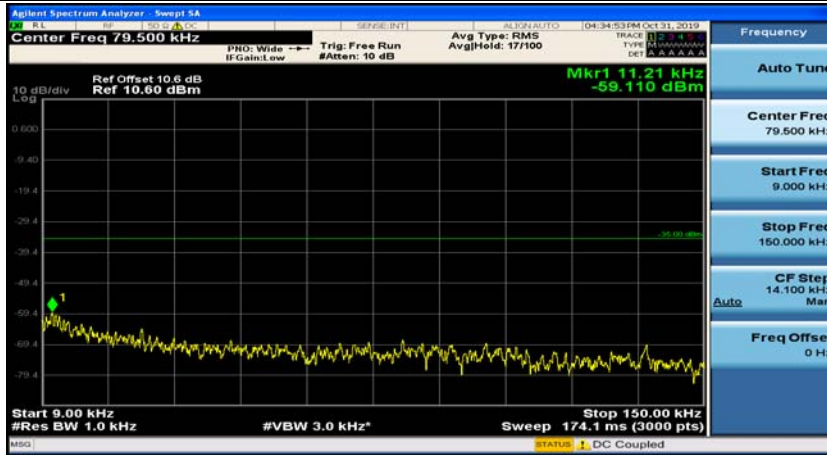


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

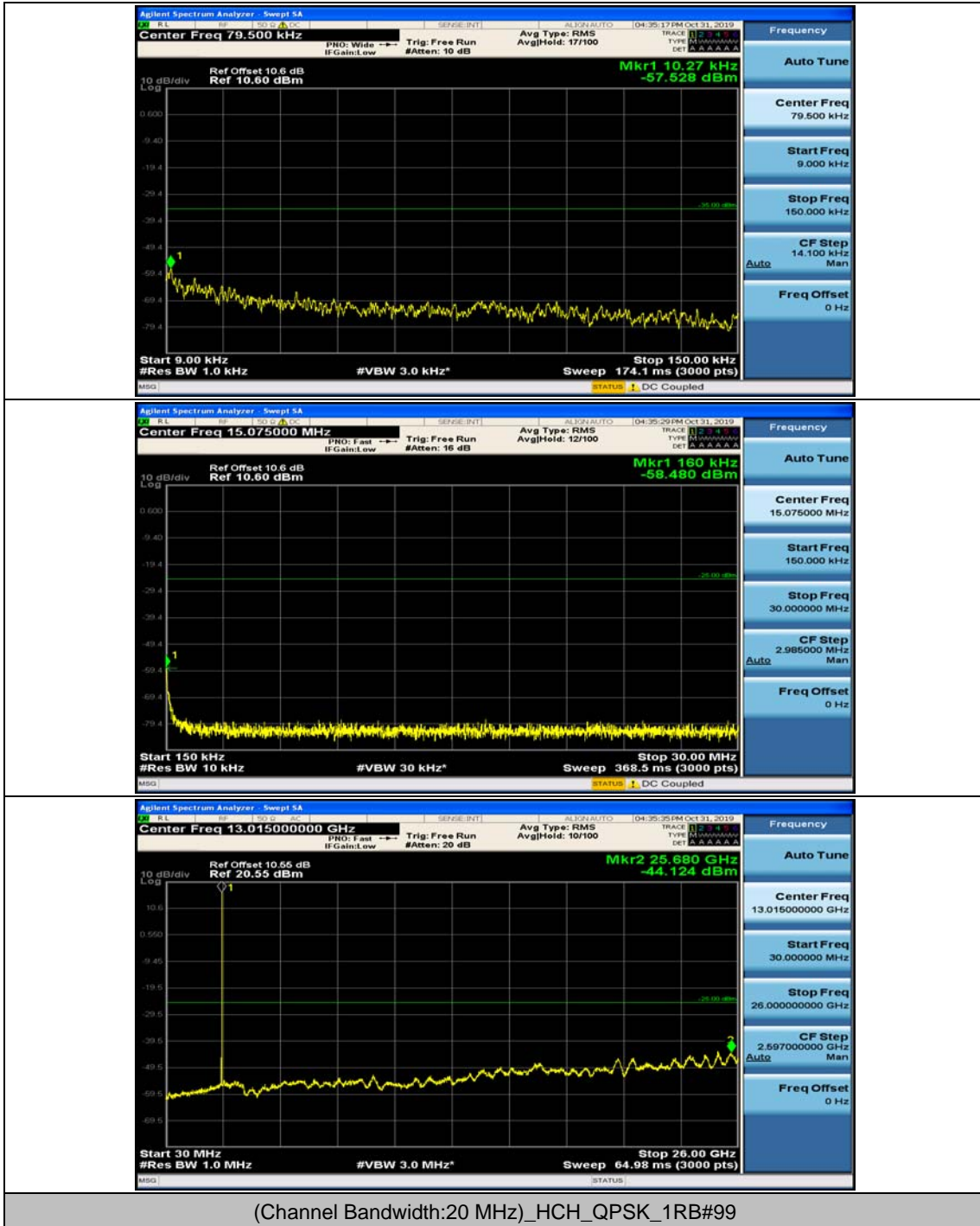


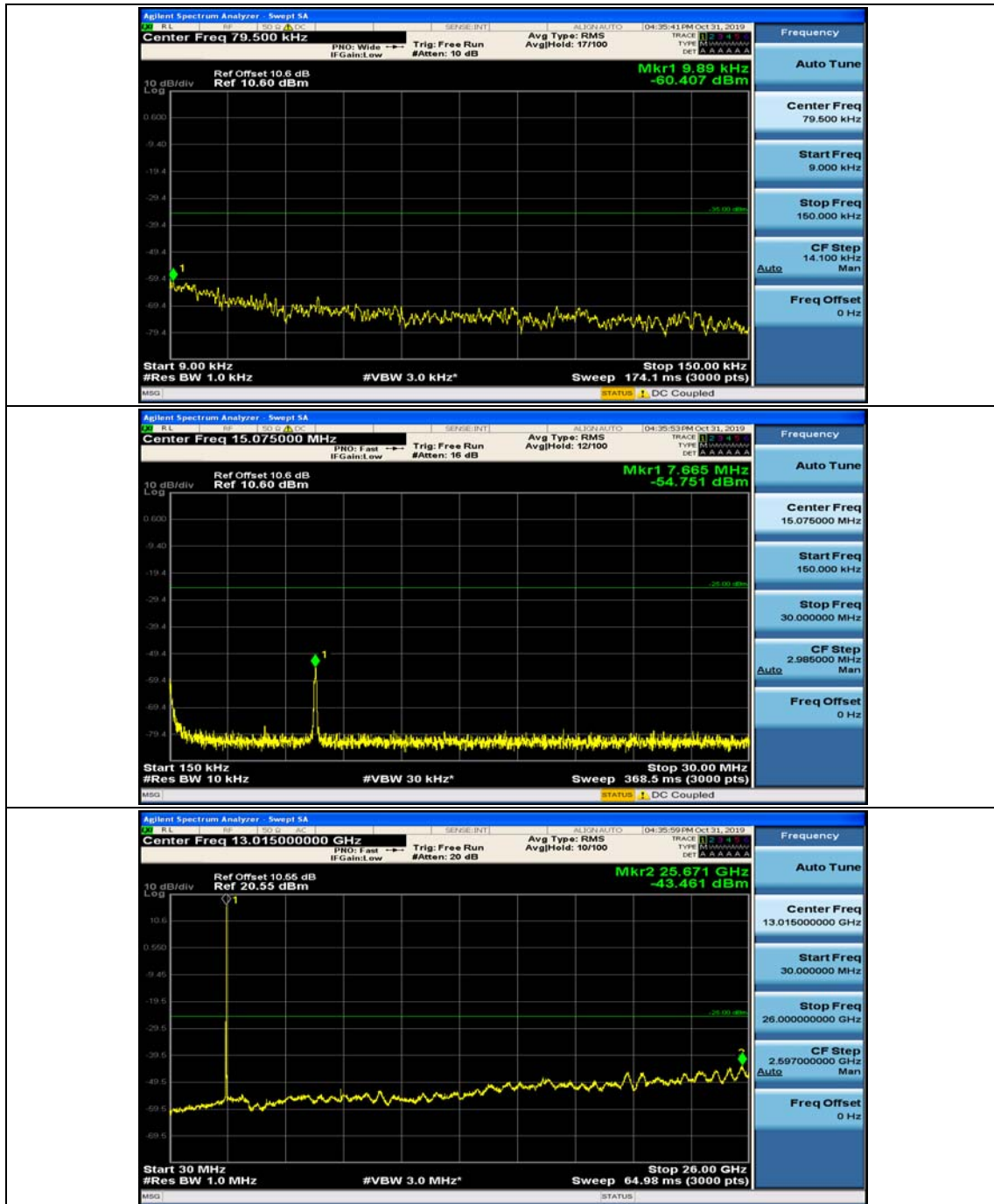


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

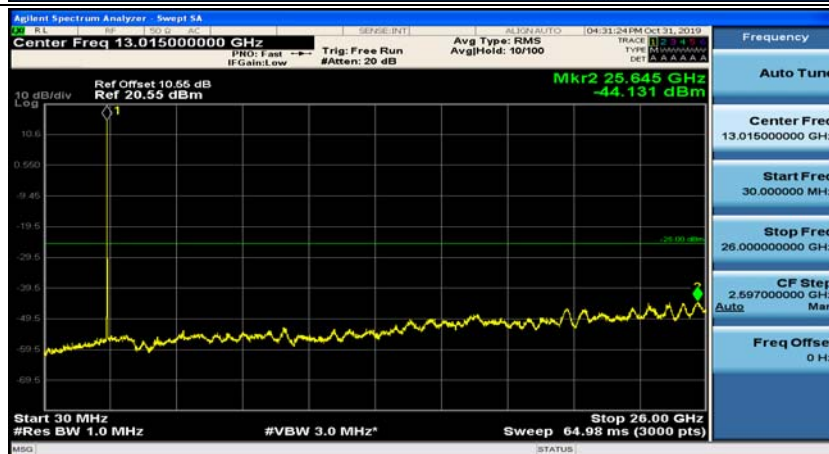
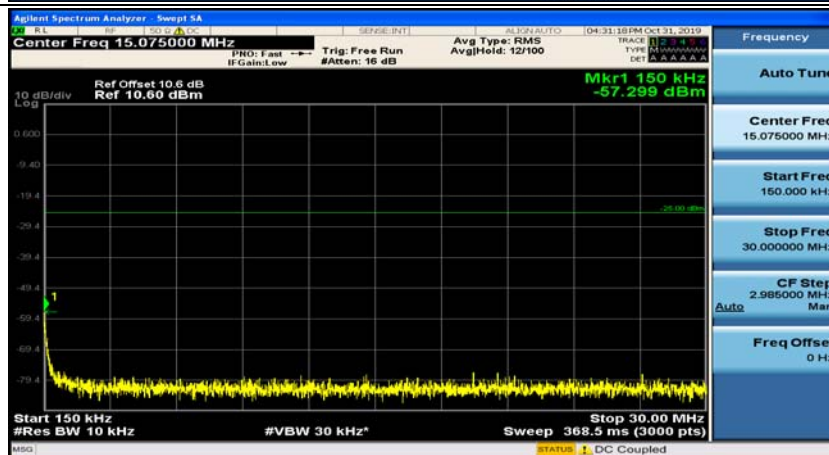
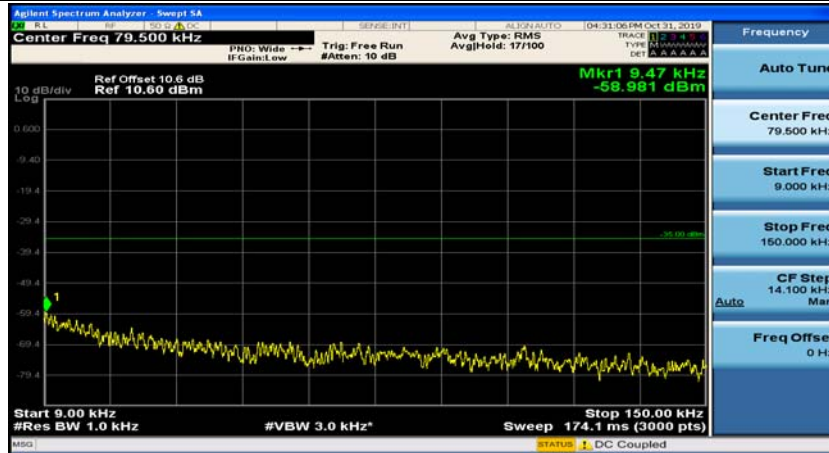


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

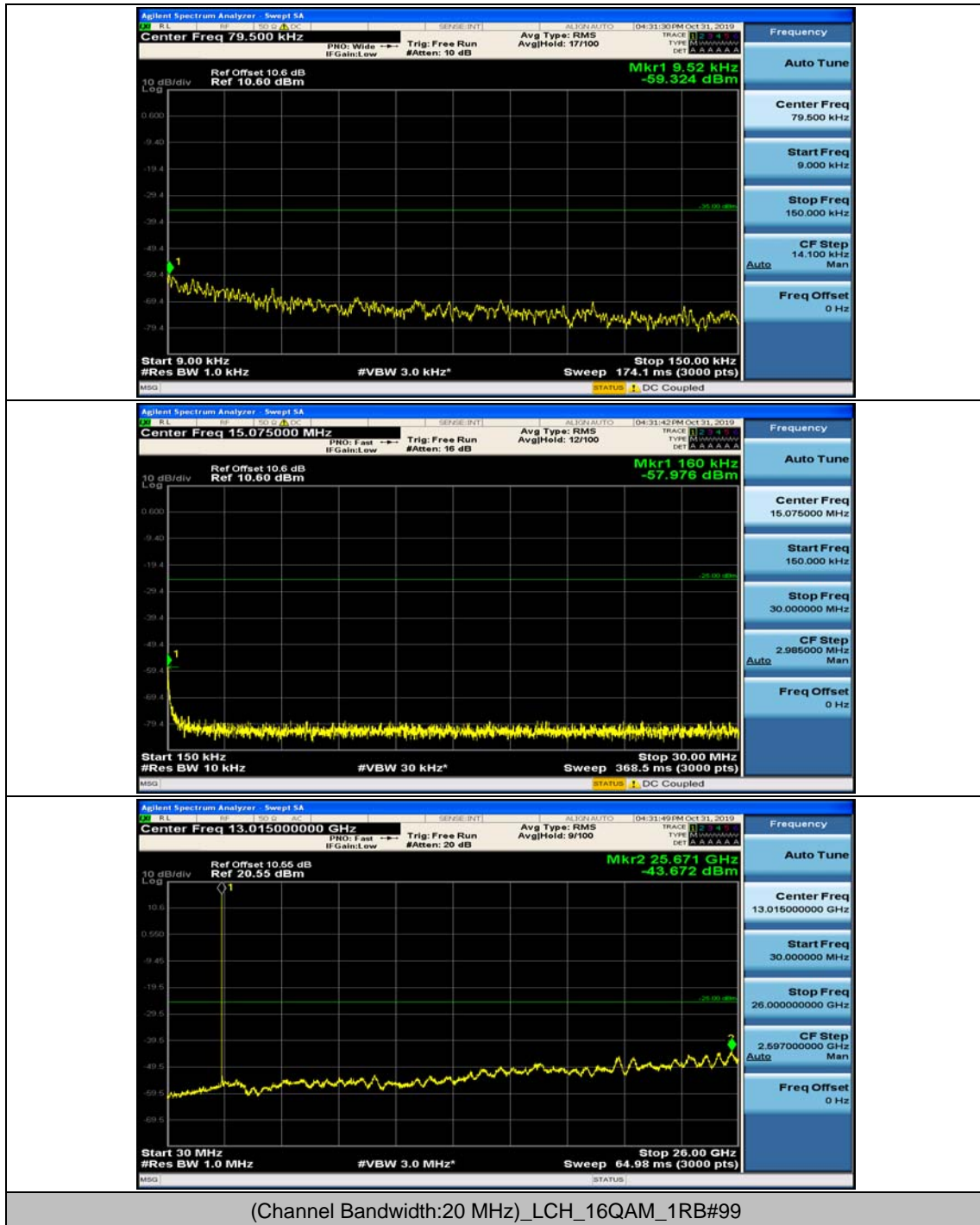


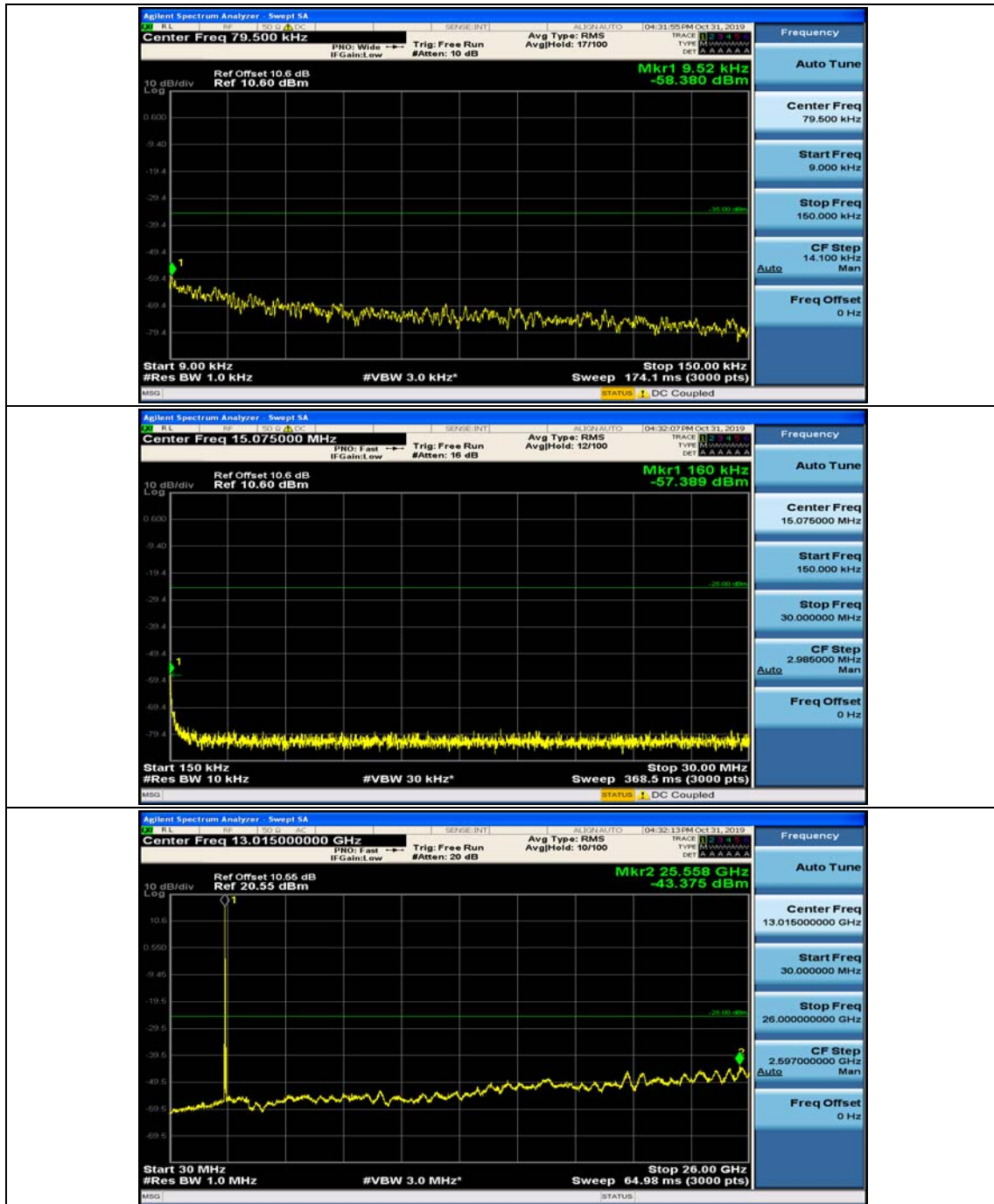


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

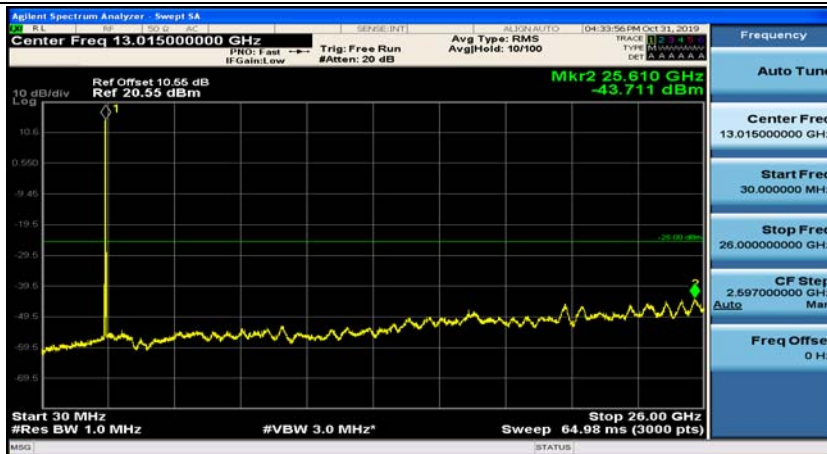
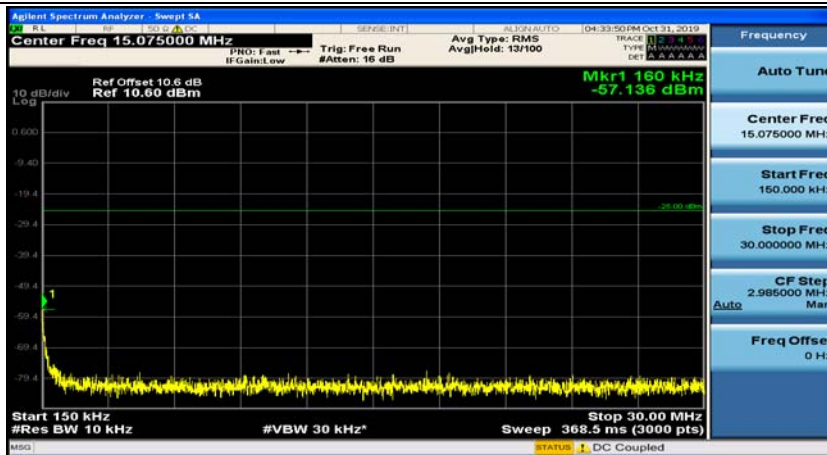
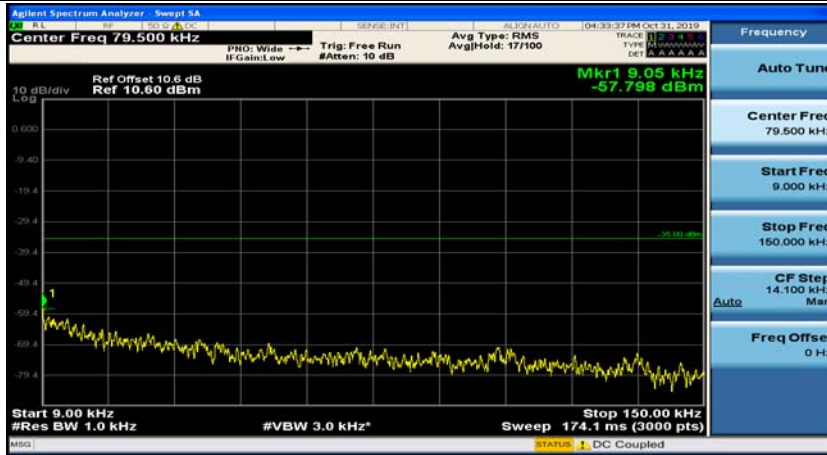


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

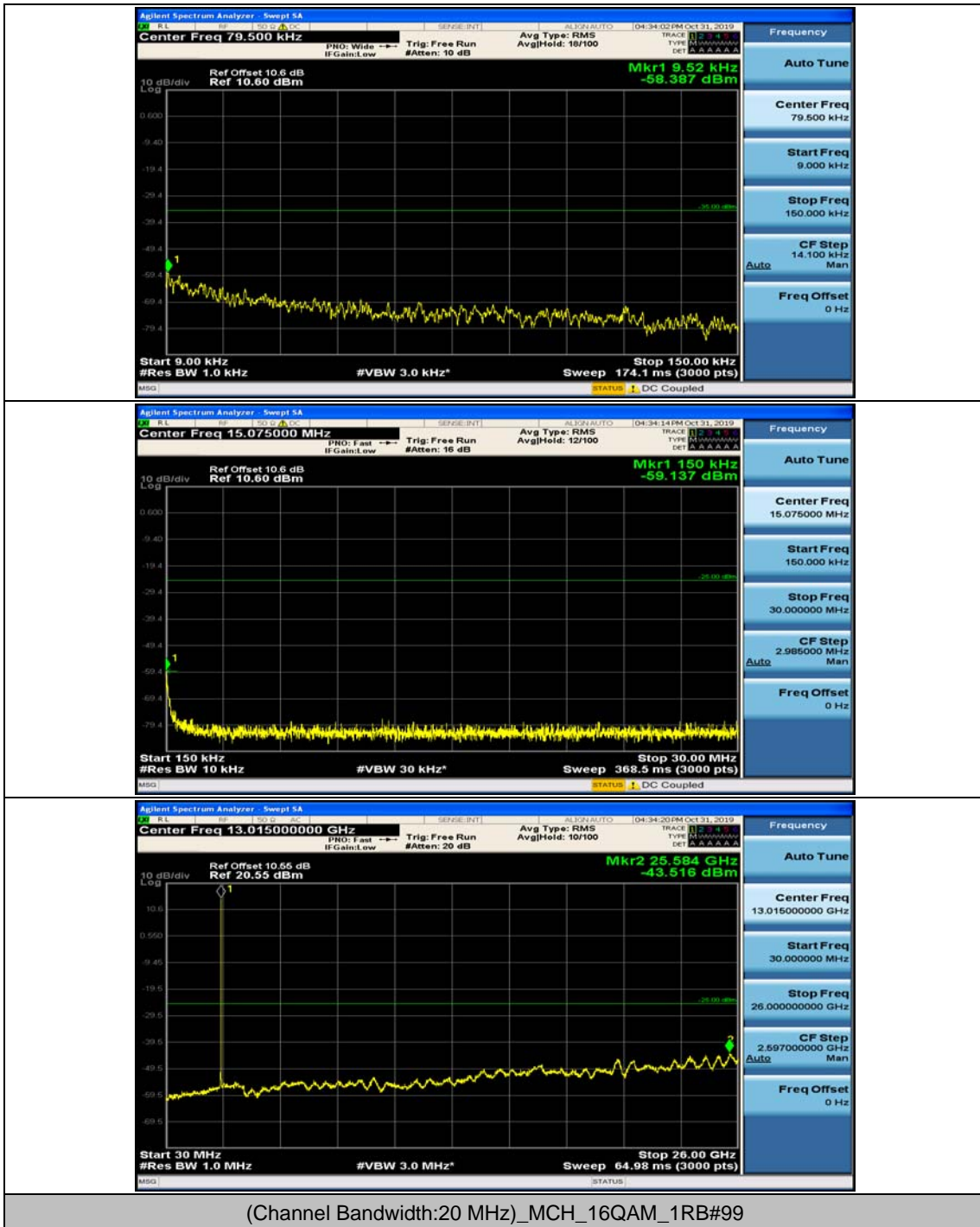


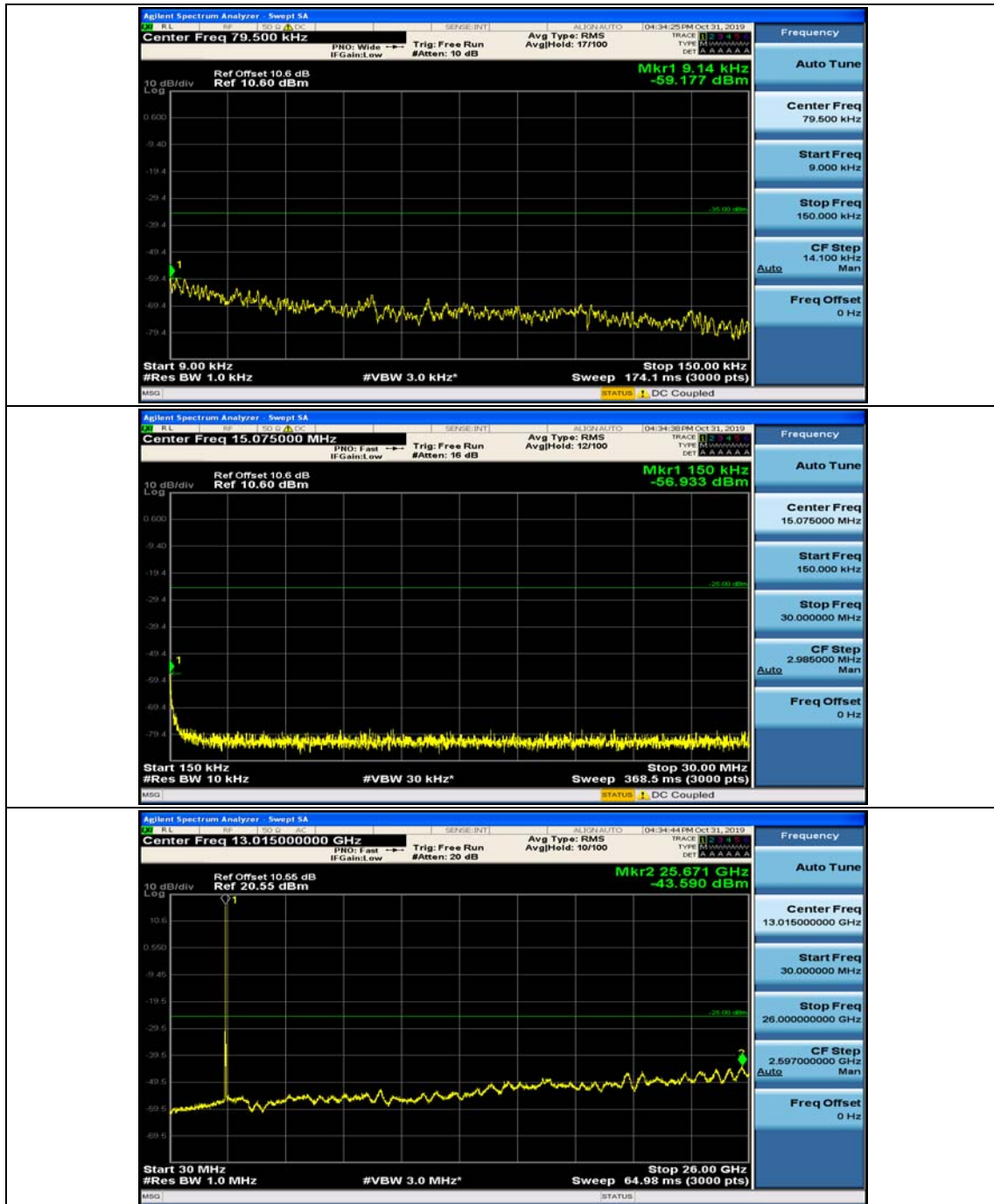


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

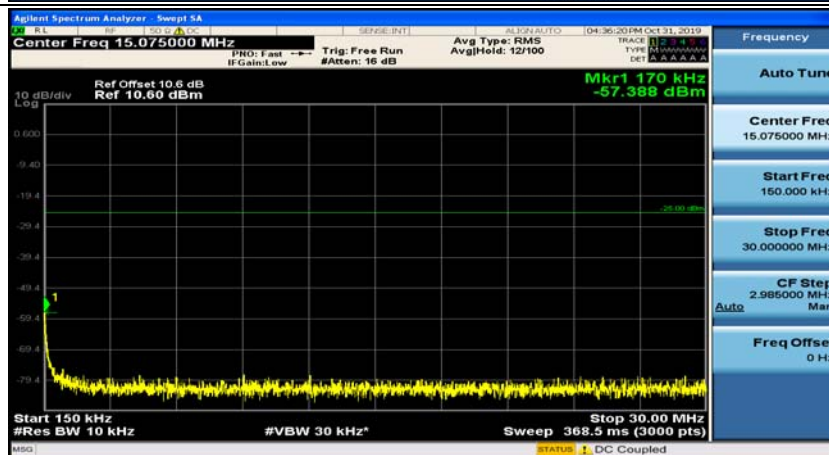
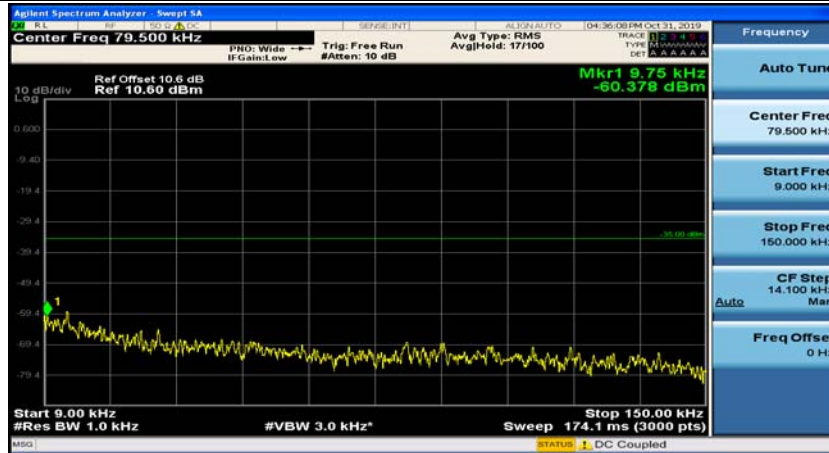


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

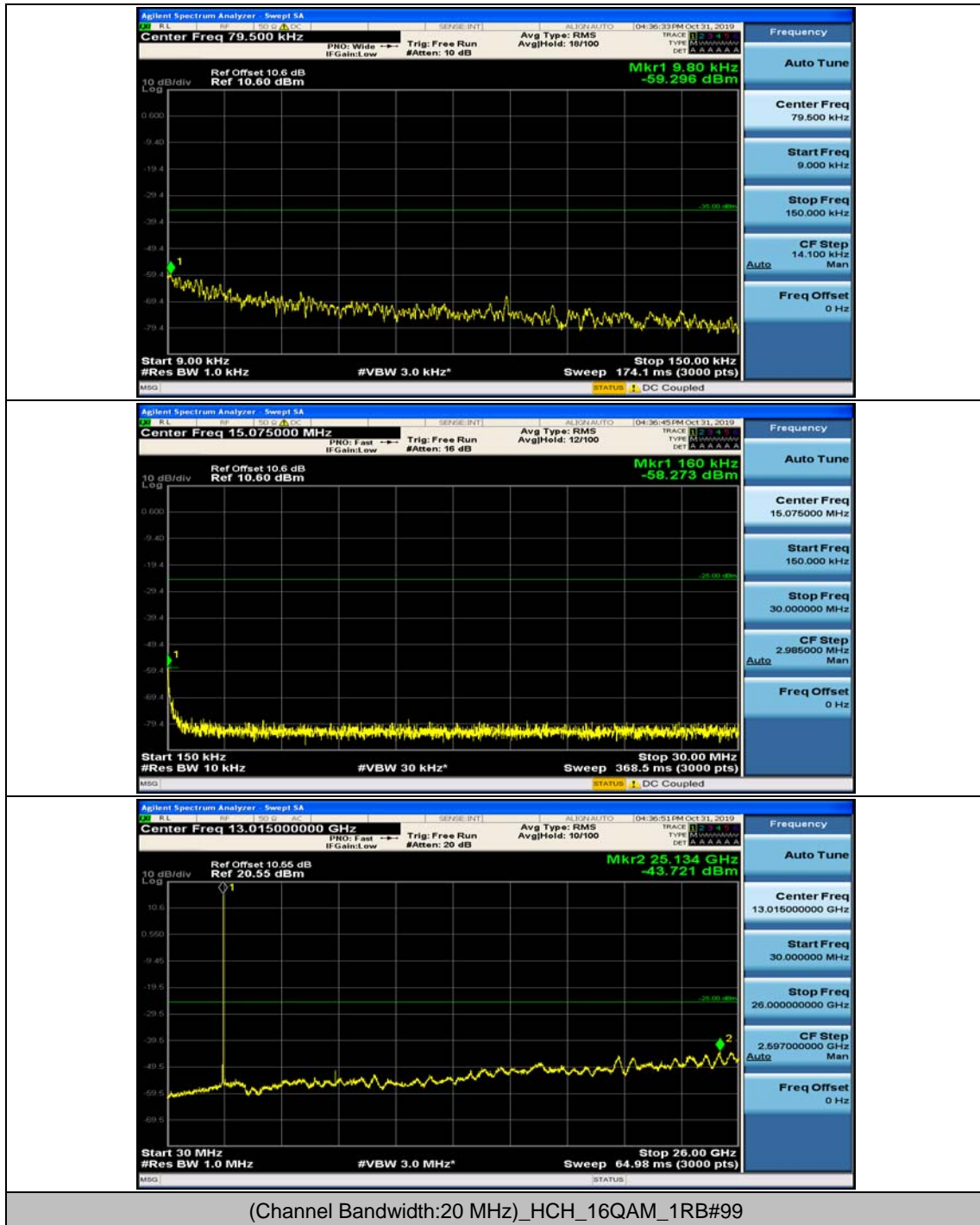


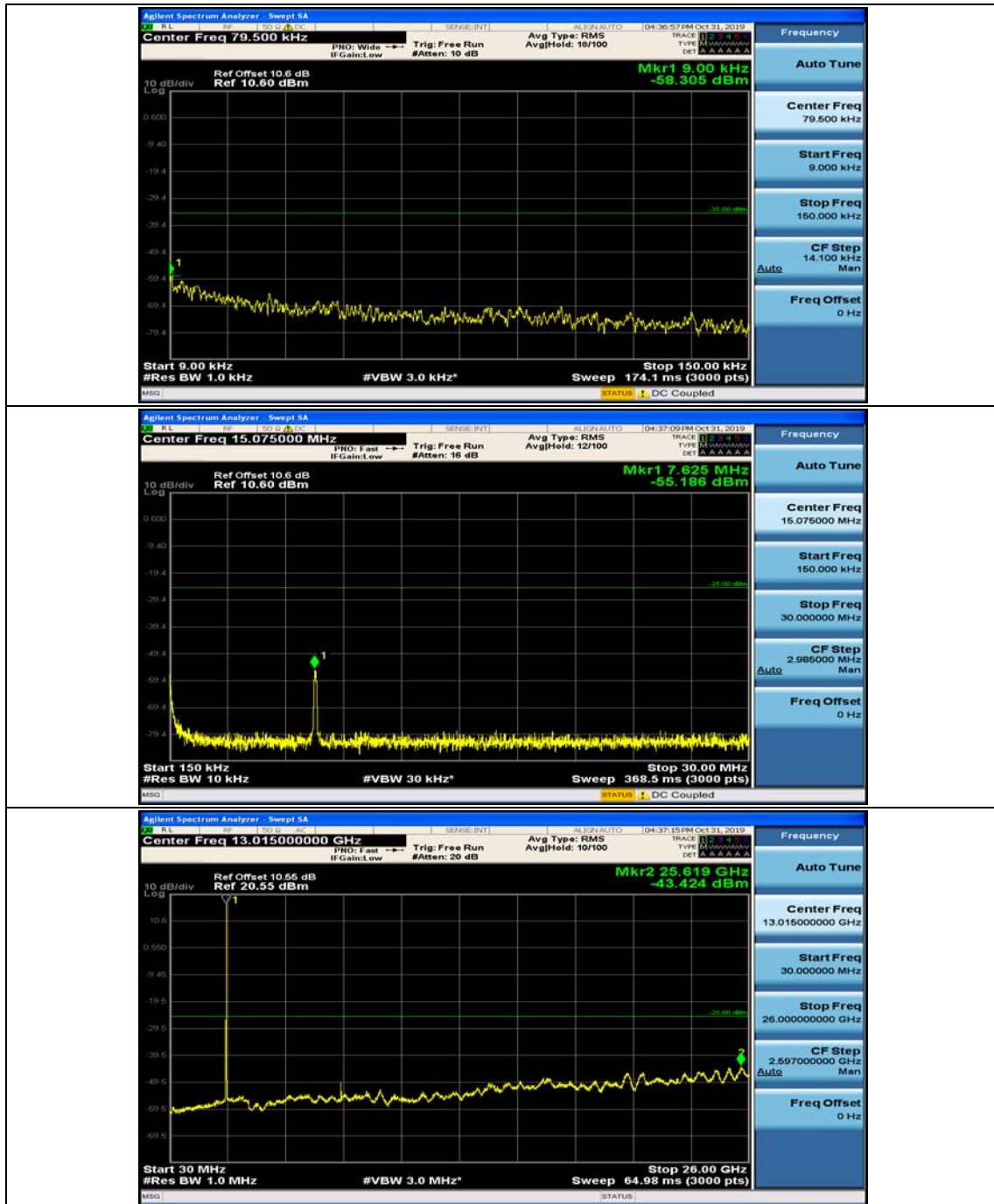


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(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	4.25	0.001698	± 2.5	PASS
		VN	TN	0.59	0.000236	± 2.5	PASS
		VH	TN	3.27	0.001307	± 2.5	PASS
	MCH	VL	TN	0.63	0.000249	± 2.5	PASS
		VN	TN	-1.36	-0.000536	± 2.5	PASS
		VH	TN	2.79	0.001101	± 2.5	PASS
	HCH	VL	TN	1	0.000389	± 2.5	PASS
		VN	TN	2.85	0.001110	± 2.5	PASS
		VH	TN	0.63	0.000245	± 2.5	PASS
16QAM	LCH	VL	TN	3.86	0.001542	± 2.5	PASS
		VN	TN	0.25	0.000100	± 2.5	PASS
		VH	TN	0.03	0.000012	± 2.5	PASS
	MCH	VL	TN	-1.81	-0.000714	± 2.5	PASS
		VN	TN	2.65	0.001045	± 2.5	PASS
		VH	TN	3.66	0.001444	± 2.5	PASS
	HCH	VL	TN	2.21	0.000861	± 2.5	PASS
		VN	TN	2.58	0.001005	± 2.5	PASS
		VH	TN	-0.01	-0.000004	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.13	0.001650	± 2.5	PASS
		VN	-20	0.56	0.000224	± 2.5	PASS
		VN	-10	2.22	0.000887	± 2.5	PASS
		VN	0	-0.02	-0.000008	± 2.5	PASS
		VN	10	3.48	0.001391	± 2.5	PASS
		VN	20	3.43	0.001371	± 2.5	PASS
		VN	30	-0.4	-0.000160	± 2.5	PASS
		VN	40	-1.55	-0.000619	± 2.5	PASS
		VN	50	-0.93	-0.000372	± 2.5	PASS
	MCH	VN	-30	1.23	0.000485	± 2.5	PASS

		VN	-20	0.35	0.000138	± 2.5	PASS
		VN	-10	3.65	0.001440	± 2.5	PASS
		VN	0	1.95	0.000769	± 2.5	PASS
		VN	10	-1.67	-0.000659	± 2.5	PASS
		VN	20	4.6	0.001815	± 2.5	PASS
		VN	30	1.4	0.000552	± 2.5	PASS
		VN	40	-0.77	-0.000304	± 2.5	PASS
		VN	50	4.78	0.001886	± 2.5	PASS
	HCH	VN	-30	2.08	0.000810	± 2.5	PASS
		VN	-20	-1.14	-0.000444	± 2.5	PASS
		VN	-10	0.76	0.000296	± 2.5	PASS
		VN	0	0.69	0.000269	± 2.5	PASS
		VN	10	1.64	0.000639	± 2.5	PASS
		VN	20	-0.37	-0.000144	± 2.5	PASS
		VN	30	1.87	0.000728	± 2.5	PASS
		VN	40	2.61	0.001017	± 2.5	PASS
		VN	50	3.67	0.001429	± 2.5	PASS
		16QAM	LCH	VN	-30	1.61	0.000643
VN	-20			-1.1	-0.000440	± 2.5	PASS
VN	-10			4.86	0.001942	± 2.5	PASS
VN	0			3.51	0.001403	± 2.5	PASS
VN	10			4.67	0.001866	± 2.5	PASS
VN	20			-1.46	-0.000583	± 2.5	PASS
VN	30			-1.52	-0.000607	± 2.5	PASS
VN	40			1.1	0.000440	± 2.5	PASS
VN	50			2.53	0.001011	± 2.5	PASS
MCH	VN		-30	2.07	0.000817	± 2.5	PASS
	VN		-20	1.09	0.000430	± 2.5	PASS
	VN		-10	4.24	0.001673	± 2.5	PASS
	VN		0	3.99	0.001574	± 2.5	PASS
	VN		10	0.2	0.000079	± 2.5	PASS
	VN		20	0.19	0.000075	± 2.5	PASS
	VN		30	3.21	0.001266	± 2.5	PASS
	VN		40	2.38	0.000939	± 2.5	PASS
	VN		50	2.03	0.000801	± 2.5	PASS
HCH	VN		-30	4.84	0.001885	± 2.5	PASS
	VN		-20	-0.54	-0.000210	± 2.5	PASS
	VN		-10	4.91	0.001912	± 2.5	PASS
	VN		0	1.38	0.000537	± 2.5	PASS
	VN		10	-0.9	-0.000351	± 2.5	PASS
	VN		20	0.91	0.000354	± 2.5	PASS

		VN	30	-1.84	-0.000717	± 2.5	PASS
		VN	40	3.35	0.001305	± 2.5	PASS
		VN	50	1.36	0.000530	± 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	3.53	0.001409	± 2.5	PASS
		VN	TN	2.09	0.000834	± 2.5	PASS
		VH	TN	-1.1	-0.000439	± 2.5	PASS
	MCH	VL	TN	0.91	0.000359	± 2.5	PASS
		VN	TN	1.72	0.000679	± 2.5	PASS
		VH	TN	3.61	0.001424	± 2.5	PASS
	HCH	VL	TN	1.57	0.000612	± 2.5	PASS
		VN	TN	0.81	0.000316	± 2.5	PASS
		VH	TN	-1.33	-0.000519	± 2.5	PASS
16QAM	LCH	VL	TN	2.9	0.001158	± 2.5	PASS
		VN	TN	-0.91	-0.000363	± 2.5	PASS
		VH	TN	2.76	0.001102	± 2.5	PASS
	MCH	VL	TN	3.81	0.001503	± 2.5	PASS
		VN	TN	-0.52	-0.000205	± 2.5	PASS
		VH	TN	1.56	0.000615	± 2.5	PASS
	HCH	VL	TN	2.88	0.001123	± 2.5	PASS
		VN	TN	2.03	0.000791	± 2.5	PASS
		VH	TN	-1.32	-0.000515	± 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	1.97	0.000786	± 2.5	PASS
		VN	-10	4.87	0.001944	± 2.5	PASS
		VN	0	4.71	0.001880	± 2.5	PASS
		VN	10	2.81	0.001122	± 2.5	PASS
		VN	20	3.22	0.001285	± 2.5	PASS
		VN	30	2.25	0.000898	± 2.5	PASS
		VN	40	4.23	0.001689	± 2.5	PASS
		VN	50	-0.04	-0.000016	± 2.5	PASS
	MCH	VN	-30	-1.62	-0.000639	± 2.5	PASS
		VN	-20	1.12	0.000442	± 2.5	PASS

		VN	-10	4.9	0.001933	± 2.5	PASS		
		VN	0	-0.06	-0.000024	± 2.5	PASS		
		VN	10	3.2	0.001262	± 2.5	PASS		
		VN	20	2.49	0.000982	± 2.5	PASS		
		VN	30	-1.23	-0.000485	± 2.5	PASS		
		VN	40	-0.38	-0.000150	± 2.5	PASS		
		VN	50	1.28	0.000505	± 2.5	PASS		
	HCH	VN	-30	-1.95	-0.000760	± 2.5	PASS		
		VN	-20	-0.47	-0.000183	± 2.5	PASS		
		VN	-10	1.37	0.000534	± 2.5	PASS		
		VN	0	1.94	0.000756	± 2.5	PASS		
		VN	10	-0.76	-0.000296	± 2.5	PASS		
		VN	20	4.73	0.001844	± 2.5	PASS		
		VN	30	2.16	0.000842	± 2.5	PASS		
		VN	40	1.3	0.000507	± 2.5	PASS		
		VN	50	-0.93	-0.000363	± 2.5	PASS		
		16QAM	LCH	VN	-30	2.91	0.001162	± 2.5	PASS
				VN	-20	2.89	0.001154	± 2.5	PASS
VN	-10			1.54	0.000615	± 2.5	PASS		
VN	0			-1.92	-0.000766	± 2.5	PASS		
VN	10			0.26	0.000104	± 2.5	PASS		
VN	20			2.39	0.000954	± 2.5	PASS		
VN	30			3.57	0.001425	± 2.5	PASS		
VN	40			0.07	0.000028	± 2.5	PASS		
VN	50			2.07	0.000826	± 2.5	PASS		
MCH	VN		-30	-0.4	-0.000158	± 2.5	PASS		
	VN		-20	3.94	0.001554	± 2.5	PASS		
	VN		-10	2.18	0.000860	± 2.5	PASS		
	VN		0	-1.94	-0.000765	± 2.5	PASS		
	VN		10	-0.33	-0.000130	± 2.5	PASS		
	VN		20	1.4	0.000552	± 2.5	PASS		
	VN		30	-1.99	-0.000785	± 2.5	PASS		
	VN		40	4.9	0.001933	± 2.5	PASS		
	VN		50	1.88	0.000742	± 2.5	PASS		
HCH	VN		-30	3	0.001170	± 2.5	PASS		
	VN		-20	0.44	0.000172	± 2.5	PASS		
	VN		-10	3.24	0.001263	± 2.5	PASS		
	VN		0	-1.08	-0.000421	± 2.5	PASS		
	VN		10	0.24	0.000094	± 2.5	PASS		
	VN		20	-0.5	-0.000195	± 2.5	PASS		
	VN		30	-0.59	-0.000230	± 2.5	PASS		

		VN	40	3.19	0.001244	± 2.5	PASS
		VN	50	4.88	0.001903	± 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	3.13	0.001248	± 2.5	PASS
		VN	TN	-1.94	-0.000774	± 2.5	PASS
		VH	TN	-1.1	-0.000439	± 2.5	PASS
	MCH	VL	TN	-0.82	-0.000323	± 2.5	PASS
		VN	TN	-1.84	-0.000726	± 2.5	PASS
		VH	TN	4.1	0.001617	± 2.5	PASS
	HCH	VL	TN	0.48	0.000187	± 2.5	PASS
		VN	TN	3.47	0.001354	± 2.5	PASS
		VH	TN	1.63	0.000636	± 2.5	PASS
16QAM	LCH	VL	TN	1.88	0.000750	± 2.5	PASS
		VN	TN	-1.86	-0.000742	± 2.5	PASS
		VH	TN	4.21	0.001679	± 2.5	PASS
	MCH	VL	TN	4.77	0.001882	± 2.5	PASS
		VN	TN	0.21	0.000083	± 2.5	PASS
		VH	TN	3	0.001183	± 2.5	PASS
	HCH	VL	TN	0.15	0.000059	± 2.5	PASS
		VN	TN	1.16	0.000453	± 2.5	PASS
		VH	TN	-1.51	-0.000589	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.69	0.001073	± 2.5	PASS
		VN	-20	3.91	0.001559	± 2.5	PASS
		VN	-10	2.85	0.001137	± 2.5	PASS
		VN	0	2.36	0.000941	± 2.5	PASS
		VN	10	1.35	0.000538	± 2.5	PASS
		VN	20	3.86	0.001539	± 2.5	PASS
		VN	30	0.95	0.000379	± 2.5	PASS
		VN	40	0.61	0.000243	± 2.5	PASS
		VN	50	3.04	0.001212	± 2.5	PASS
	MCH	VN	-30	2.28	0.000899	± 2.5	PASS
		VN	-20	3.79	0.001495	± 2.5	PASS
		VN	-10	2.45	0.000966	± 2.5	PASS

		VN	0	-1.57	-0.000619	± 2.5	PASS		
		VN	10	4.95	0.001953	± 2.5	PASS		
		VN	20	-1.68	-0.000663	± 2.5	PASS		
		VN	30	1.53	0.000604	± 2.5	PASS		
		VN	40	-0.34	-0.000134	± 2.5	PASS		
		VN	50	4.68	0.001846	± 2.5	PASS		
	HCH	VN	-30	2.03	0.000792	± 2.5	PASS		
		VN	-20	2.54	0.000991	± 2.5	PASS		
		VN	-10	0.13	0.000051	± 2.5	PASS		
		VN	0	0.16	0.000062	± 2.5	PASS		
		VN	10	3.23	0.001260	± 2.5	PASS		
		VN	20	2.03	0.000792	± 2.5	PASS		
		VN	30	-0.18	-0.000070	± 2.5	PASS		
		VN	40	3.78	0.001475	± 2.5	PASS		
		VN	50	2.04	0.000796	± 2.5	PASS		
		16QAM	LCH	VN	-30	-0.47	-0.000187	± 2.5	PASS
				VN	-20	-0.2	-0.000080	± 2.5	PASS
				VN	-10	4.53	0.001807	± 2.5	PASS
VN	0			2.17	0.000865	± 2.5	PASS		
VN	10			3.4	0.001356	± 2.5	PASS		
VN	20			4.28	0.001707	± 2.5	PASS		
VN	30			1.31	0.000522	± 2.5	PASS		
VN	40			0.62	0.000247	± 2.5	PASS		
VN	50			0.01	0.000004	± 2.5	PASS		
MCH	VN		-30	3.34	0.001318	± 2.5	PASS		
	VN		-20	4.89	0.001929	± 2.5	PASS		
	VN		-10	3.67	0.001448	± 2.5	PASS		
	VN		0	4.41	0.001740	± 2.5	PASS		
	VN		10	-0.92	-0.000363	± 2.5	PASS		
	VN		20	-0.56	-0.000221	± 2.5	PASS		
	VN		30	0.11	0.000043	± 2.5	PASS		
	VN		40	-1.68	-0.000663	± 2.5	PASS		
	VN		50	-0.79	-0.000312	± 2.5	PASS		
HCH	VN		-30	3.35	0.001307	± 2.5	PASS		
	VN		-20	3.94	0.001538	± 2.5	PASS		
	VN		-10	1.86	0.000726	± 2.5	PASS		
	VN		0	4.51	0.001760	± 2.5	PASS		
	VN		10	2.95	0.001151	± 2.5	PASS		
	VN		20	2.51	0.000980	± 2.5	PASS		
	VN		30	1.65	0.000644	± 2.5	PASS		
	VN		40	2.05	0.000800	± 2.5	PASS		

		VN	50	3.27	0.001276	± 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	4.38	0.001745	± 2.5	PASS
		VN	TN	4.26	0.001697	± 2.5	PASS
		VH	TN	0.38	0.000151	± 2.5	PASS
	MCH	VL	TN	4.58	0.001807	± 2.5	PASS
		VN	TN	-0.89	-0.000351	± 2.5	PASS
		VH	TN	1.38	0.000544	± 2.5	PASS
	HCH	VL	TN	0.39	0.000152	± 2.5	PASS
		VN	TN	-0.57	-0.000223	± 2.5	PASS
		VH	TN	-1.95	-0.000762	± 2.5	PASS
16QAM	LCH	VL	TN	1.92	0.000765	± 2.5	PASS
		VN	TN	0.94	0.000375	± 2.5	PASS
		VH	TN	2.58	0.001028	± 2.5	PASS
	MCH	VL	TN	1.22	0.000481	± 2.5	PASS
		VN	TN	4.61	0.001819	± 2.5	PASS
		VH	TN	-1.07	-0.000422	± 2.5	PASS
	HCH	VL	TN	-1.64	-0.000641	± 2.5	PASS
		VN	TN	0.13	0.000051	± 2.5	PASS
		VH	TN	1.14	0.000445	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.31	0.000124	± 2.5	PASS
		VN	-20	-1.1	-0.000438	± 2.5	PASS
		VN	-10	2.16	0.000861	± 2.5	PASS
		VN	0	1.69	0.000673	± 2.5	PASS
		VN	10	3.43	0.001367	± 2.5	PASS
		VN	20	0.42	0.000167	± 2.5	PASS
		VN	30	3.54	0.001410	± 2.5	PASS
		VN	40	-0.09	-0.000036	± 2.5	PASS
		VN	50	-0.82	-0.000327	± 2.5	PASS
	MCH	VN	-30	-0.38	-0.000150	± 2.5	PASS
		VN	-20	-1.9	-0.000750	± 2.5	PASS
		VN	-10	-1.64	-0.000647	± 2.5	PASS
		VN	0	0.68	0.000268	± 2.5	PASS

		VN	10	0.1	0.000039	± 2.5	PASS
		VN	20	0.96	0.000379	± 2.5	PASS
		VN	30	1.1	0.000434	± 2.5	PASS
		VN	40	1.71	0.000675	± 2.5	PASS
		VN	50	-0.71	-0.000280	± 2.5	PASS
	HCH	VN	-30	4.37	0.001707	± 2.5	PASS
		VN	-20	1.88	0.000734	± 2.5	PASS
		VN	-10	2.34	0.000914	± 2.5	PASS
		VN	0	4.05	0.001582	± 2.5	PASS
		VN	10	-0.7	-0.000273	± 2.5	PASS
		VN	20	2.25	0.000879	± 2.5	PASS
		VN	30	4.29	0.001676	± 2.5	PASS
		VN	40	-1.03	-0.000402	± 2.5	PASS
		VN	50	1.77	0.000691	± 2.5	PASS
		16QAM	LCH	VN	-30	3.43	0.001367
VN	-20			4.96	0.001976	± 2.5	PASS
VN	-10			4.78	0.001904	± 2.5	PASS
VN	0			2.35	0.000936	± 2.5	PASS
VN	10			3.01	0.001199	± 2.5	PASS
VN	20			-0.41	-0.000163	± 2.5	PASS
VN	30			0.58	0.000231	± 2.5	PASS
VN	40			-0.22	-0.000088	± 2.5	PASS
VN	50			0.87	0.000347	± 2.5	PASS
MCH	VN		-30	1.22	0.000481	± 2.5	PASS
	VN		-20	4.49	0.001771	± 2.5	PASS
	VN		-10	4.55	0.001795	± 2.5	PASS
	VN		0	1.3	0.000513	± 2.5	PASS
	VN		10	0.36	0.000142	± 2.5	PASS
	VN		20	2.75	0.001085	± 2.5	PASS
	VN		30	-0.67	-0.000264	± 2.5	PASS
	VN		40	3.1	0.001223	± 2.5	PASS
	VN		50	0.53	0.000209	± 2.5	PASS
HCH	VN		-30	2.17	0.000848	± 2.5	PASS
	VN		-20	-1.6	-0.000625	± 2.5	PASS
	VN		-10	1.5	0.000586	± 2.5	PASS
	VN		0	3	0.001172	± 2.5	PASS
	VN		10	1.04	0.000406	± 2.5	PASS
	VN		20	-1.62	-0.000633	± 2.5	PASS
	VN		30	4.73	0.001848	± 2.5	PASS
	VN		40	4.86	0.001898	± 2.5	PASS
	VN		50	1.58	0.000617	± 2.5	PASS