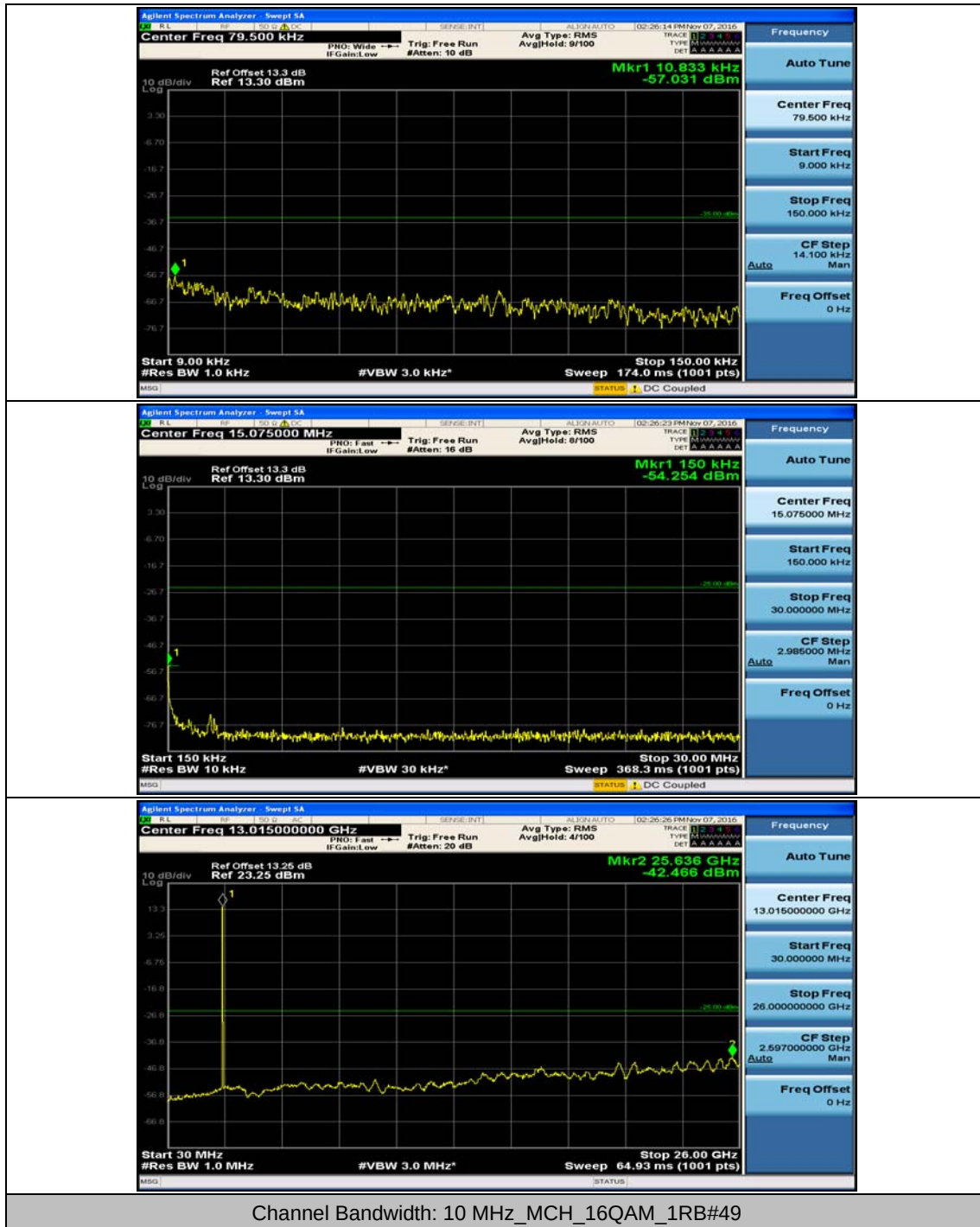
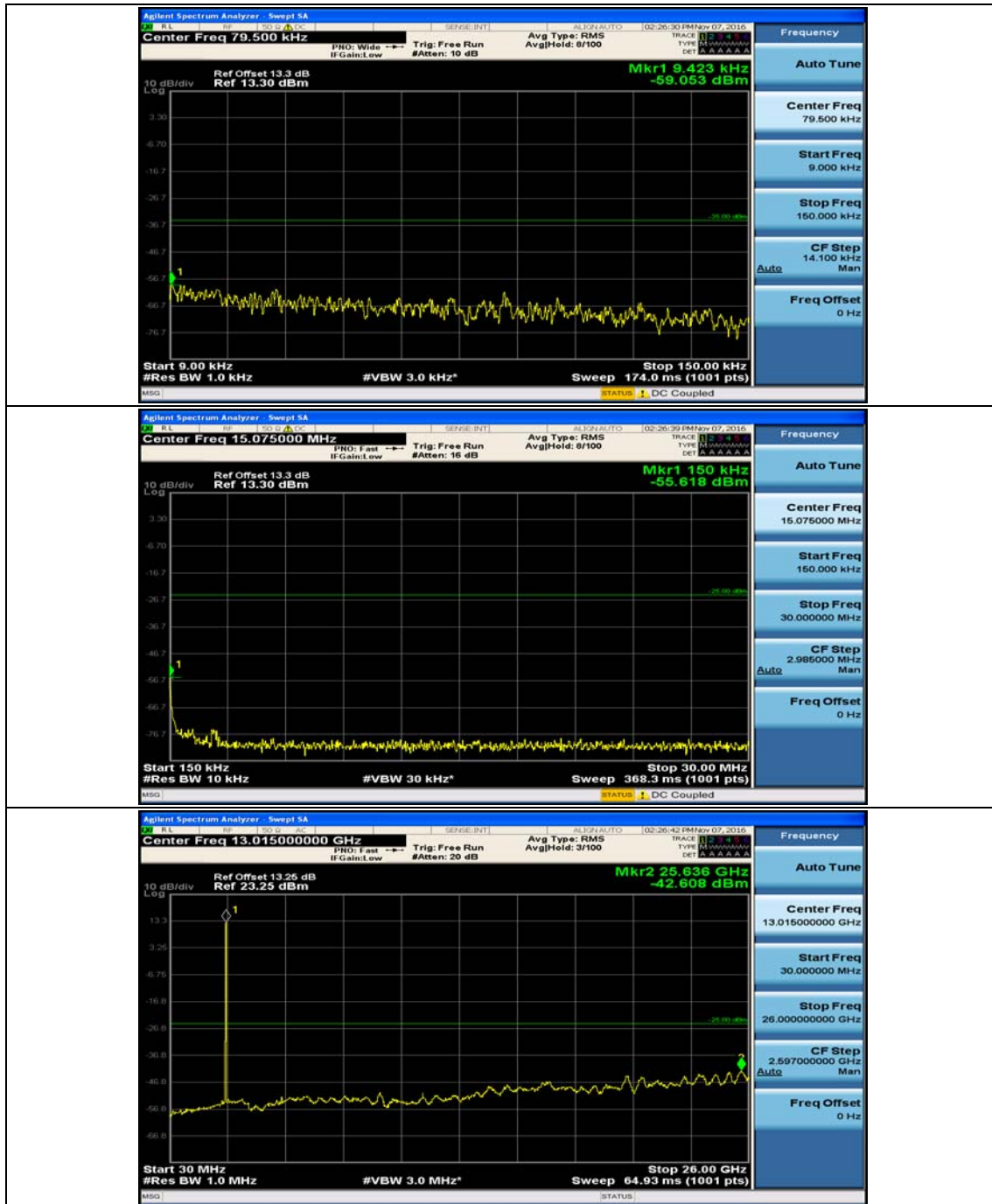
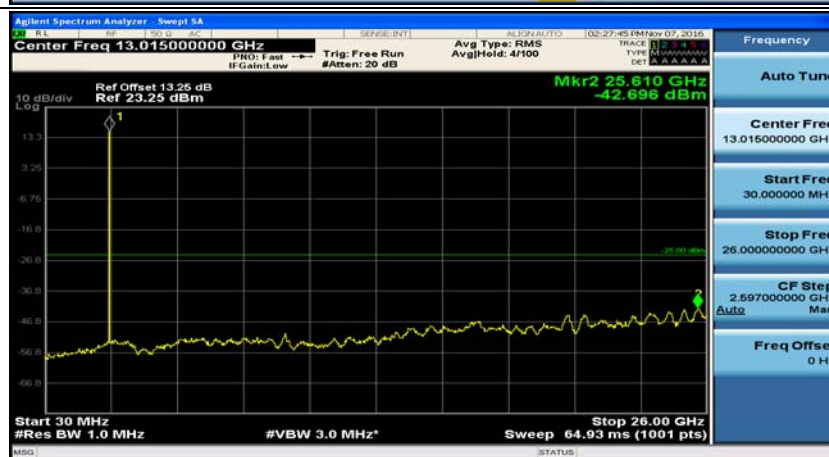
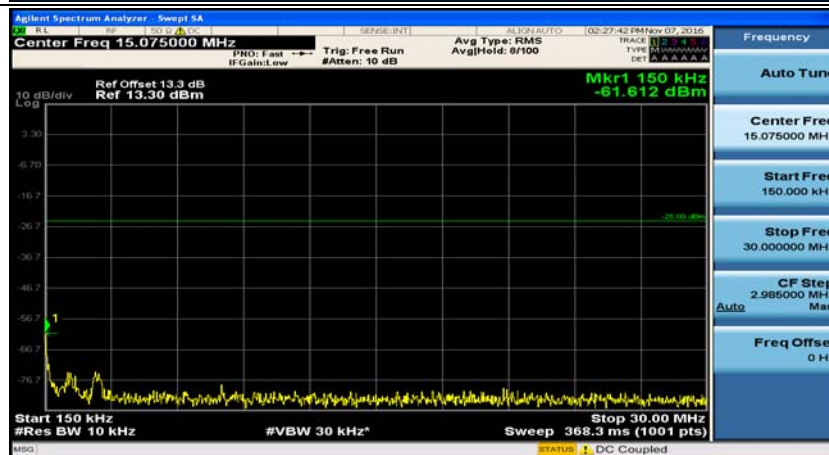


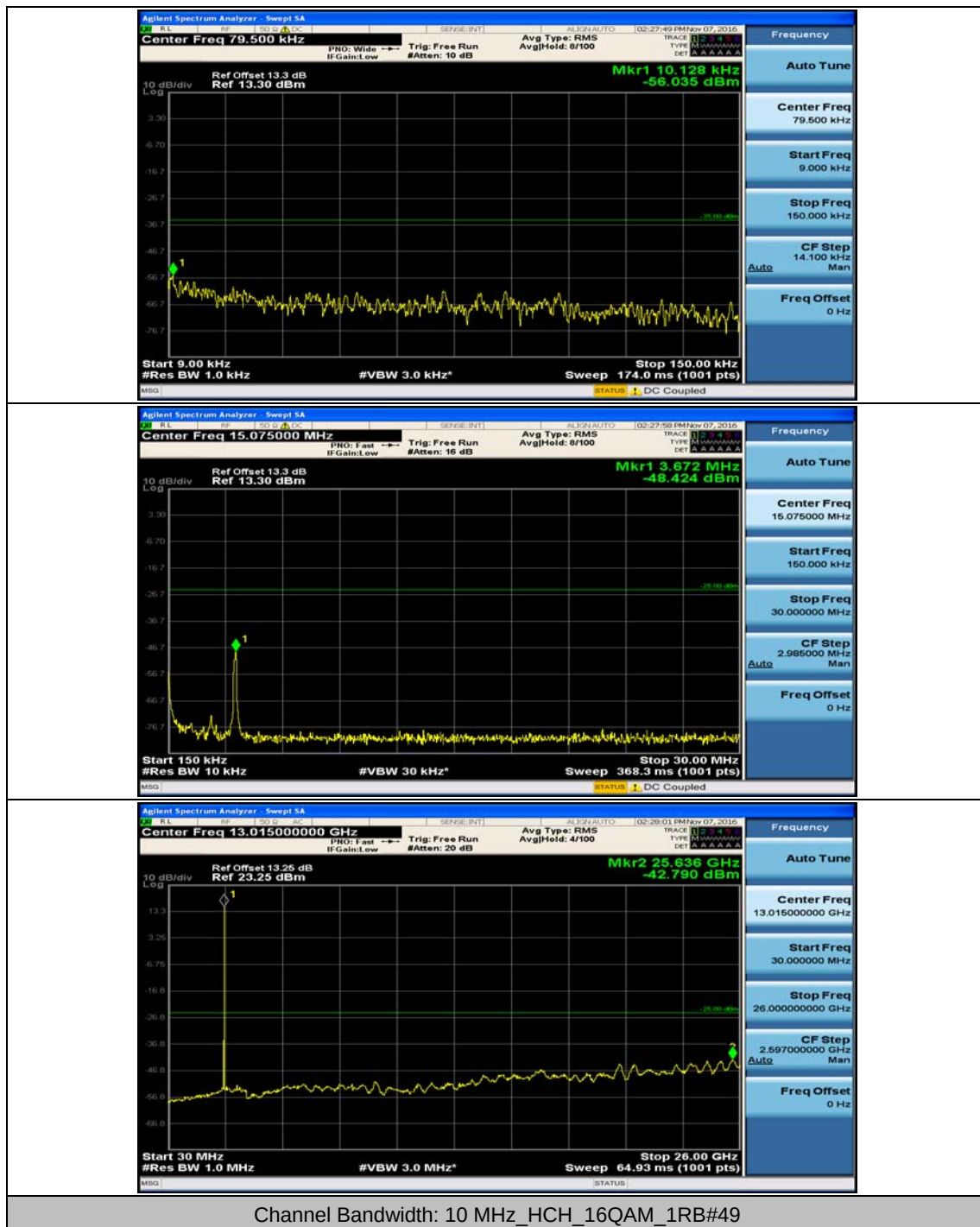


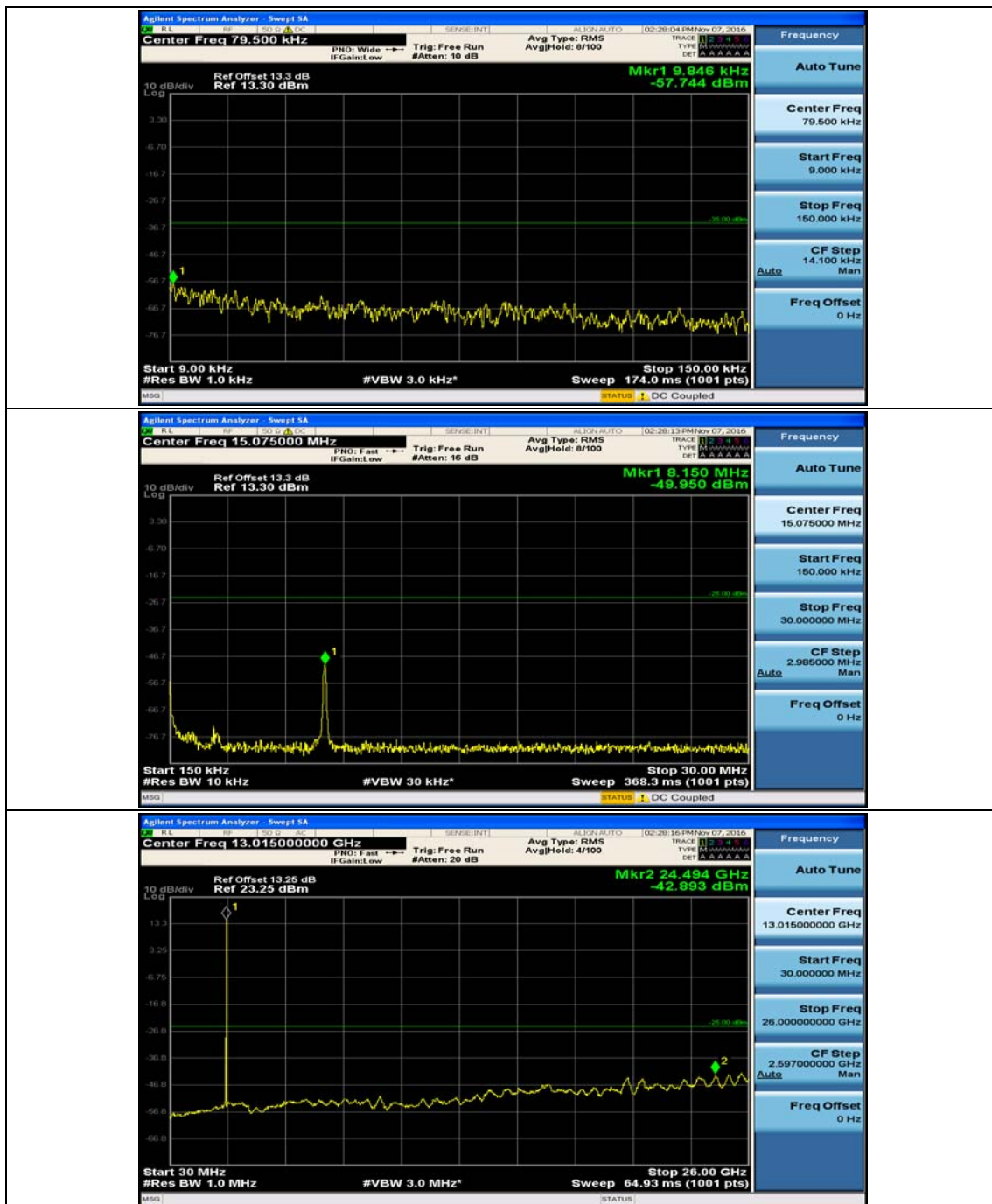


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

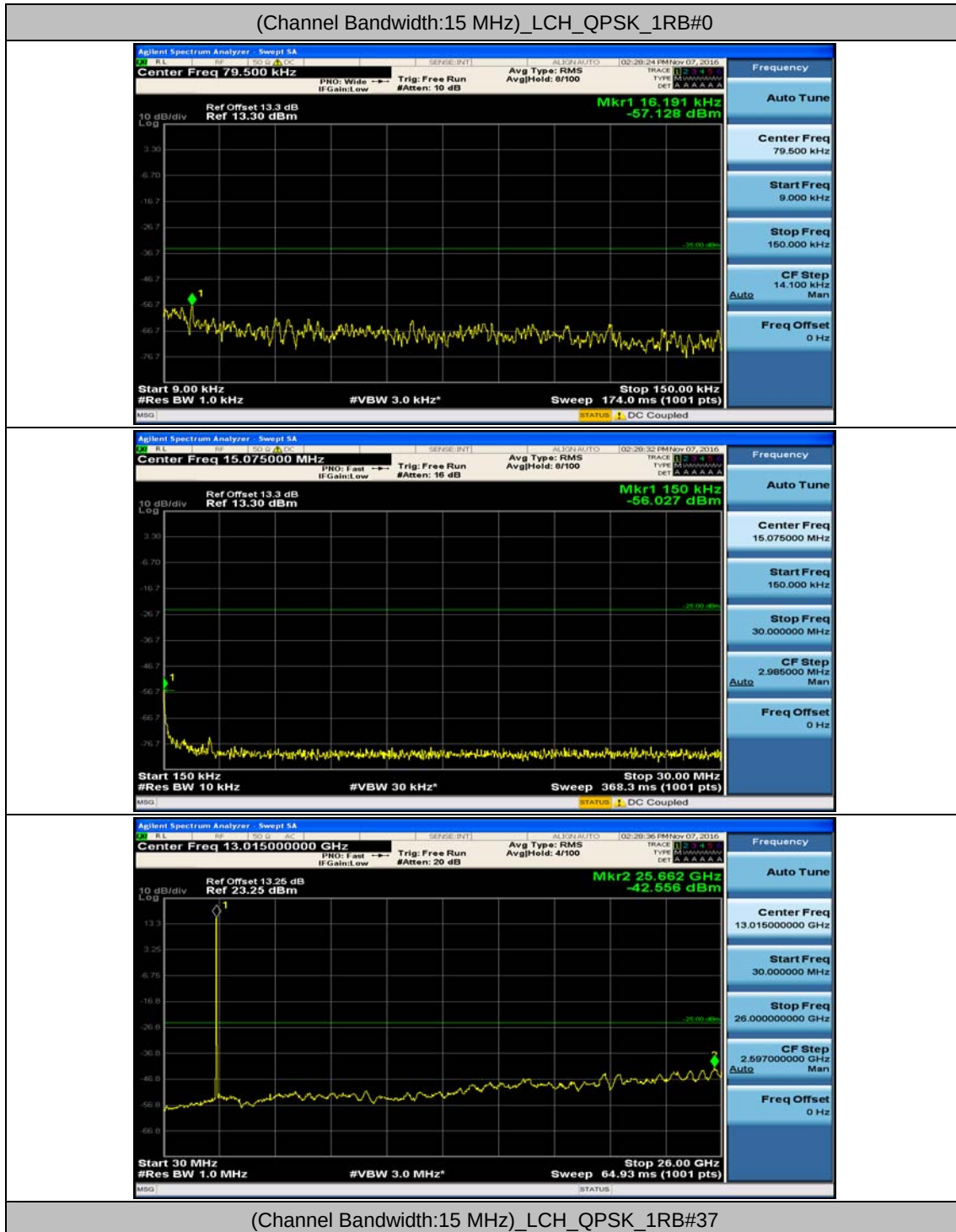


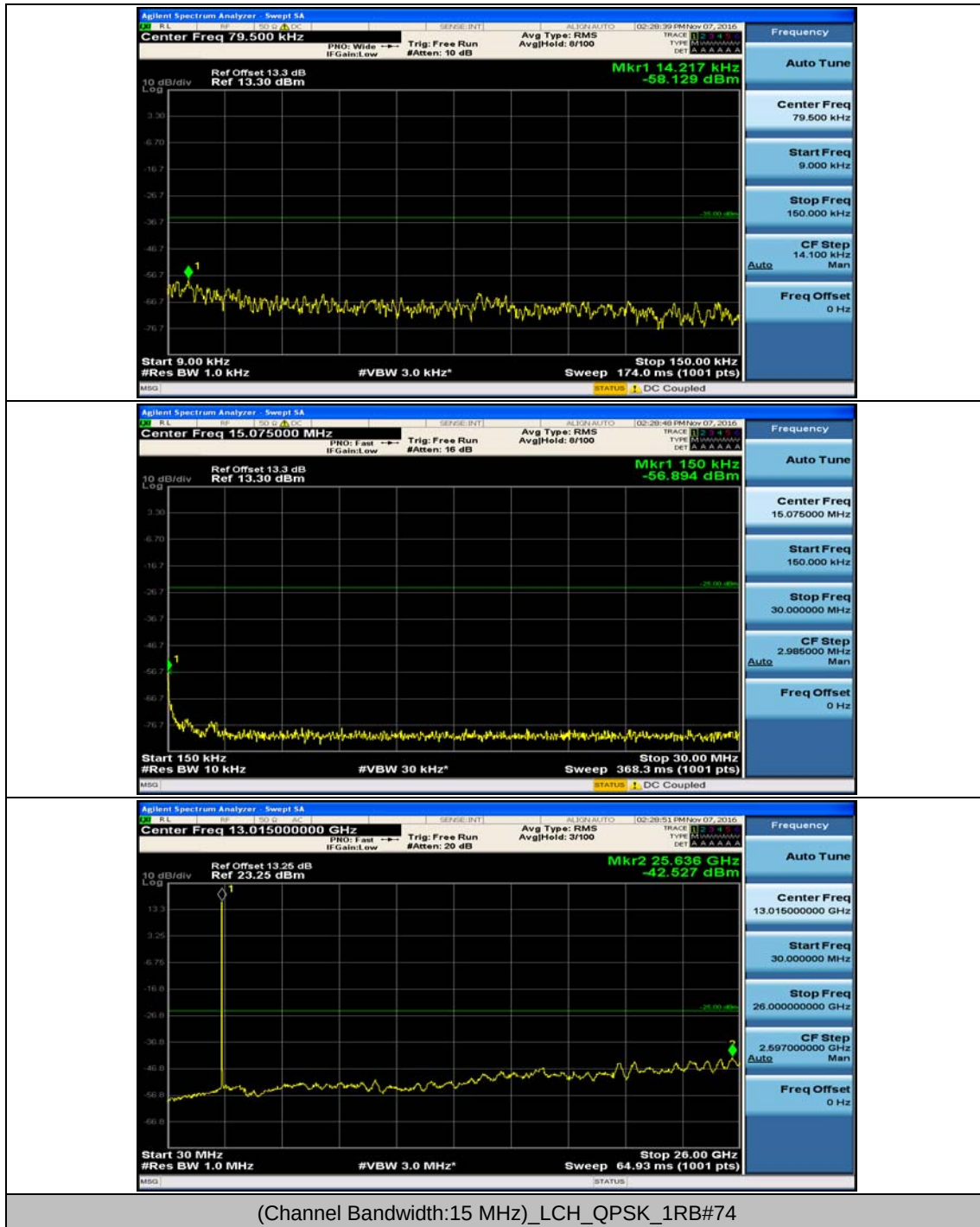
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

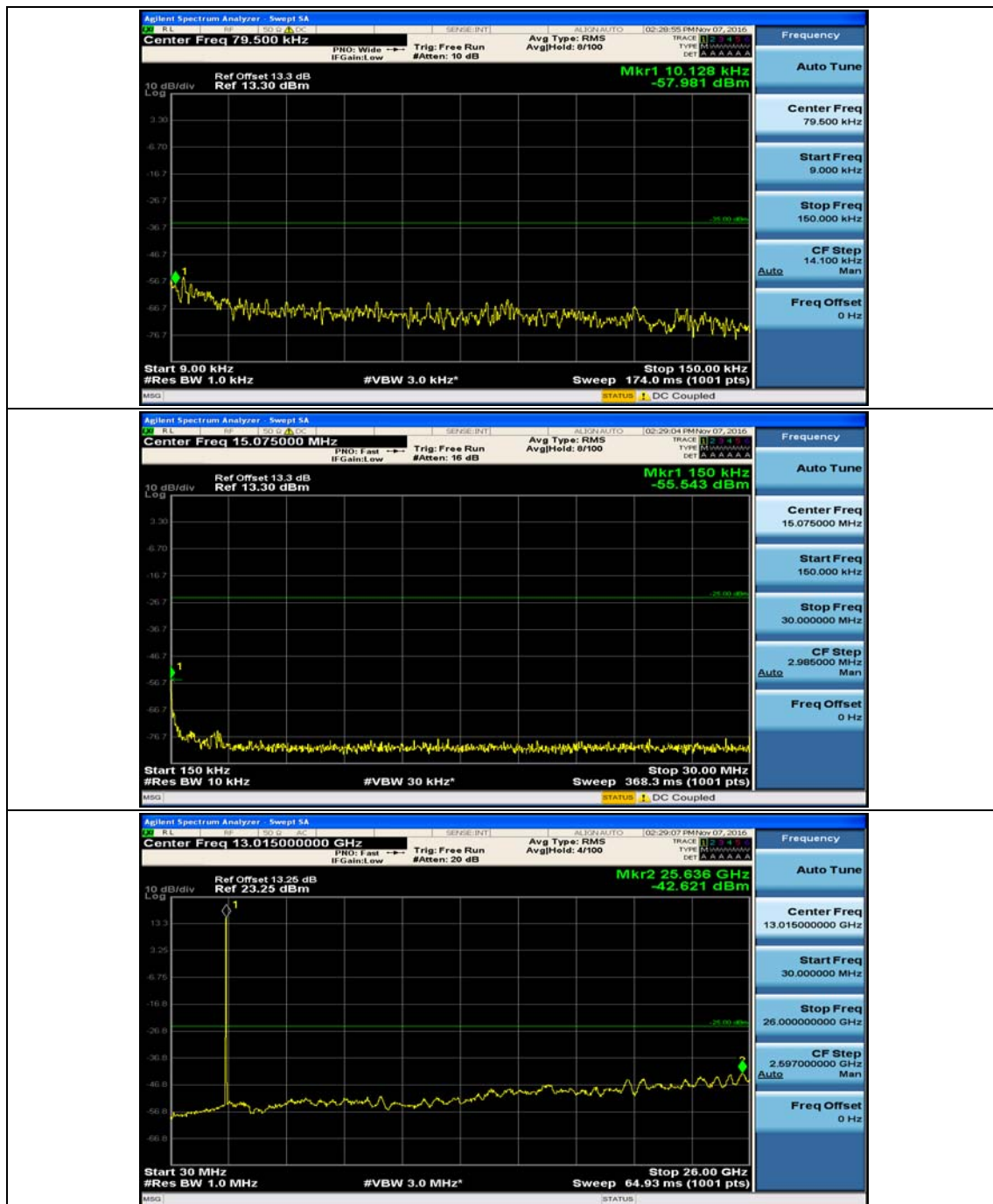




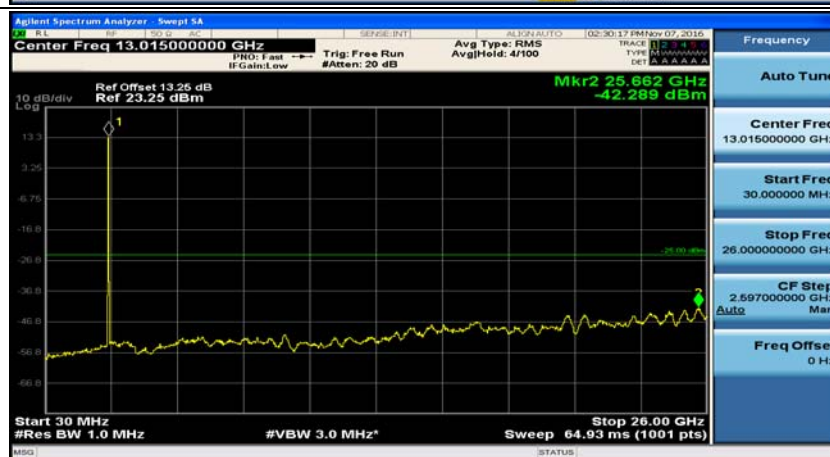
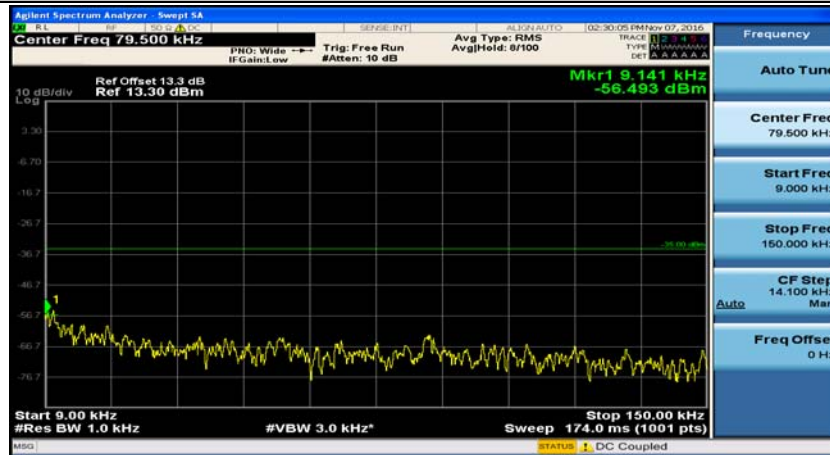
Channel Bandwidth: 15 MHz



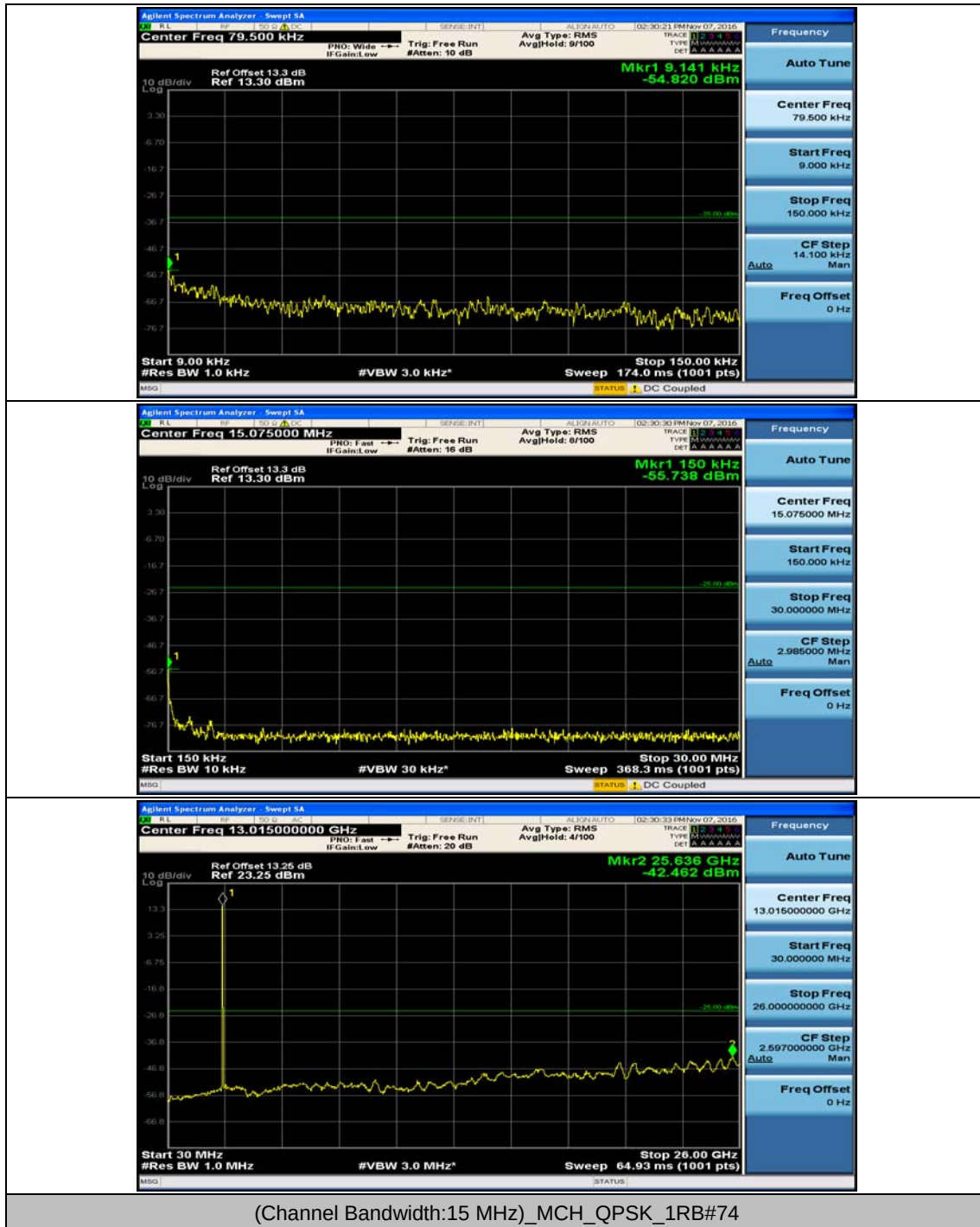


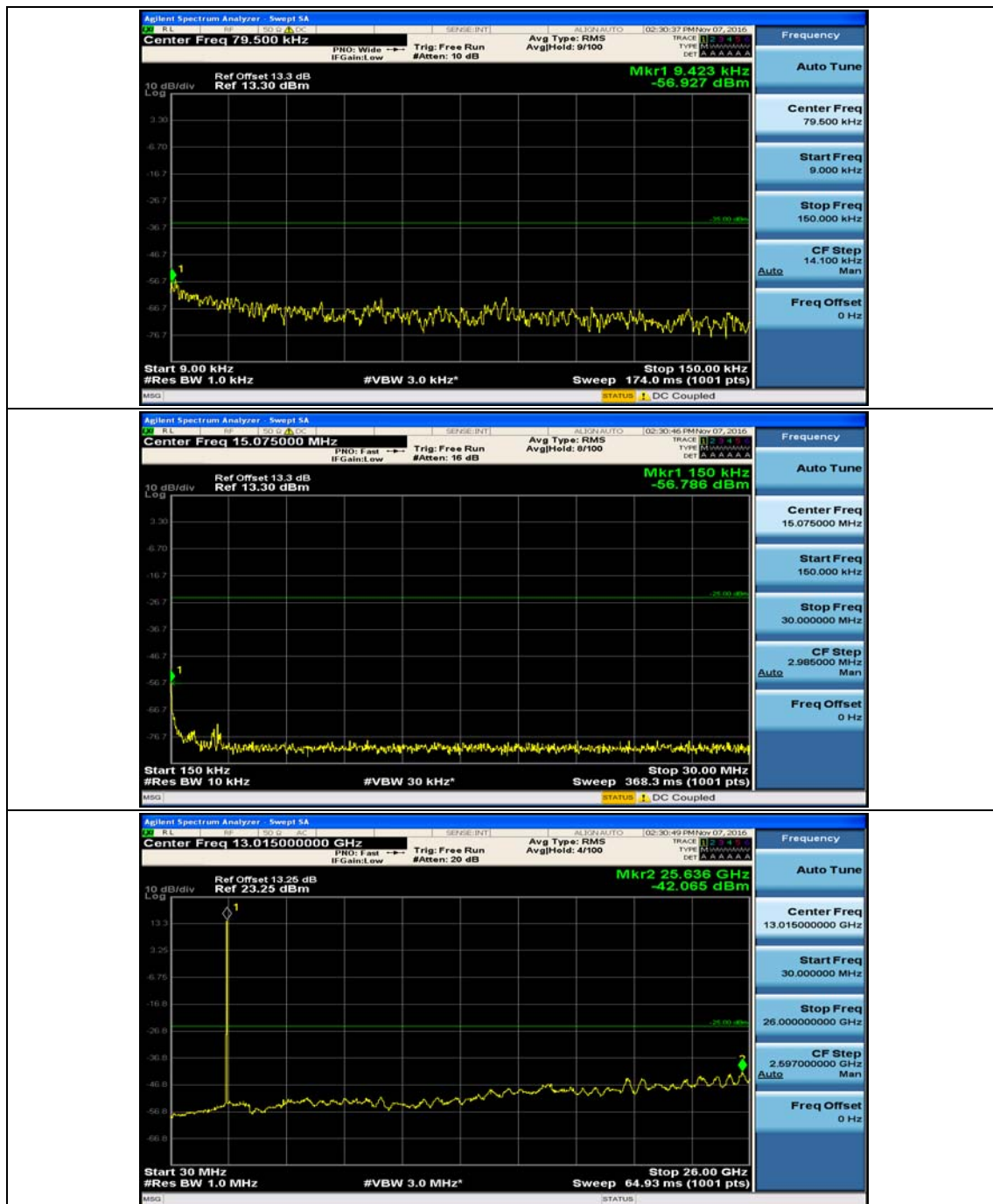


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

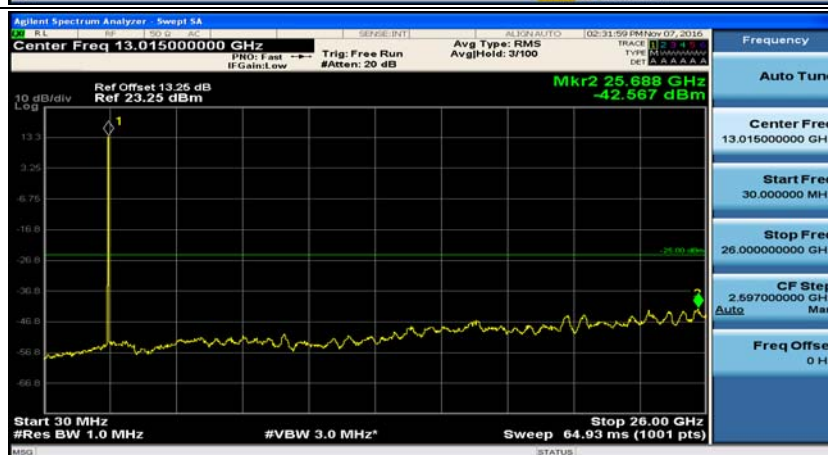
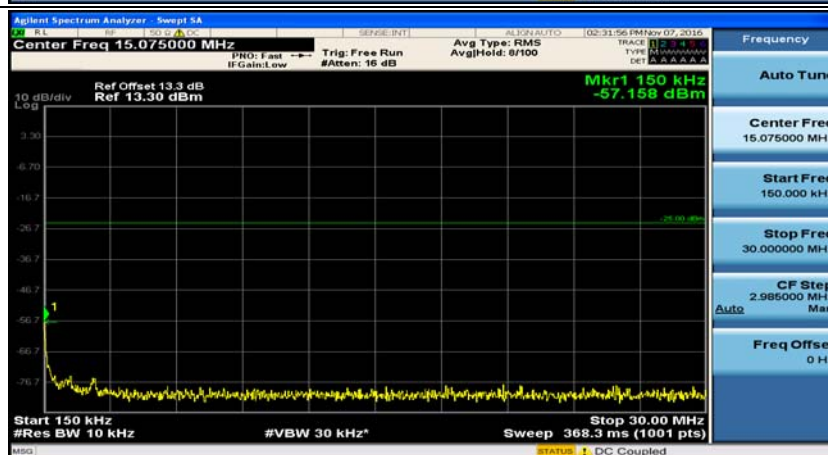
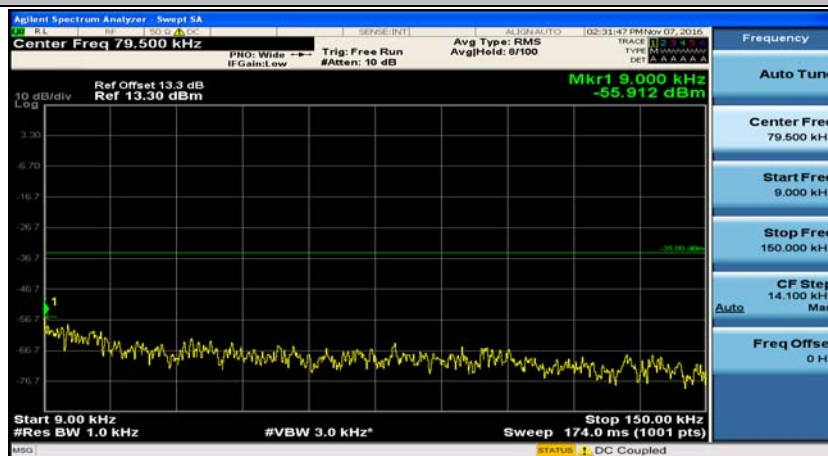


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

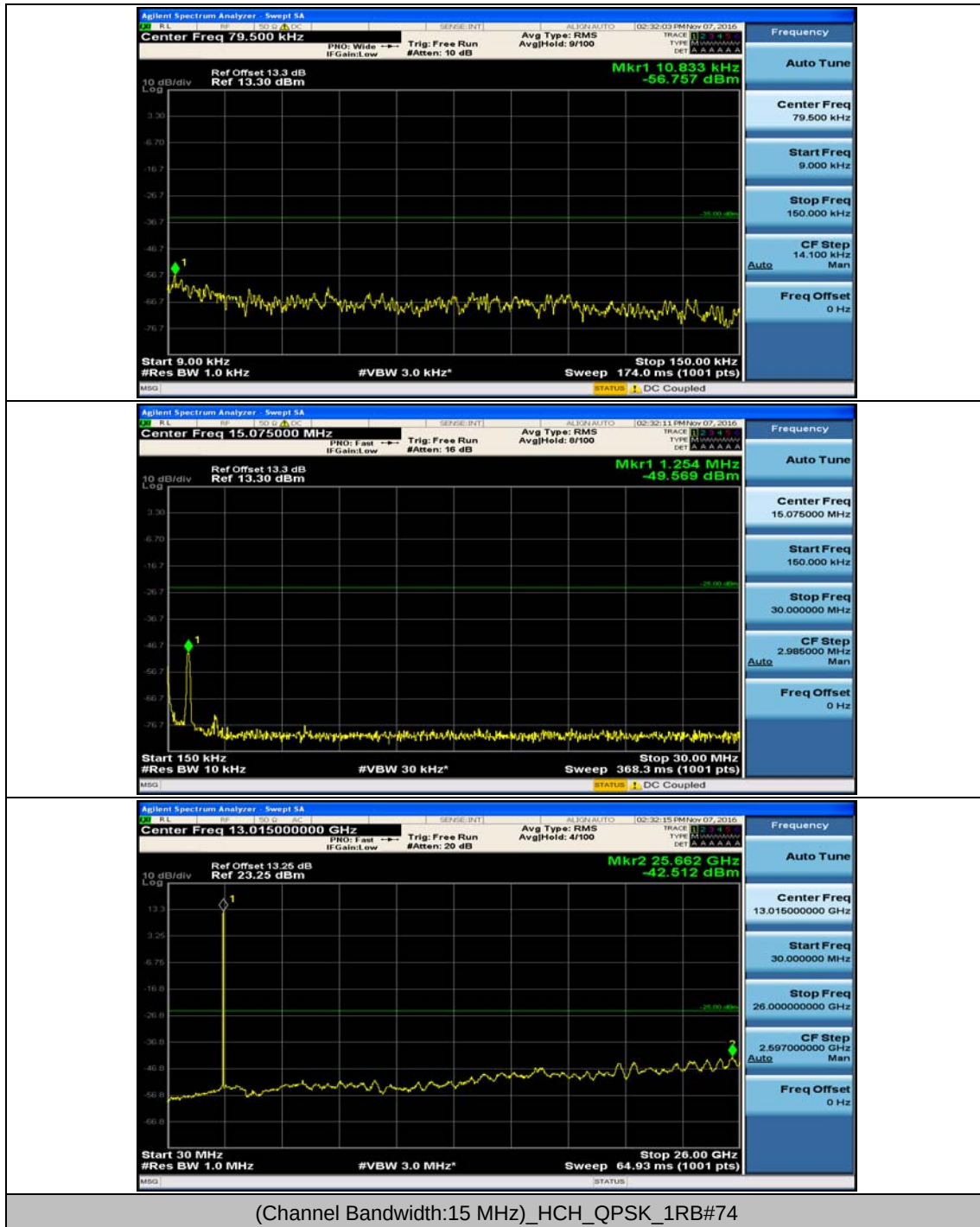


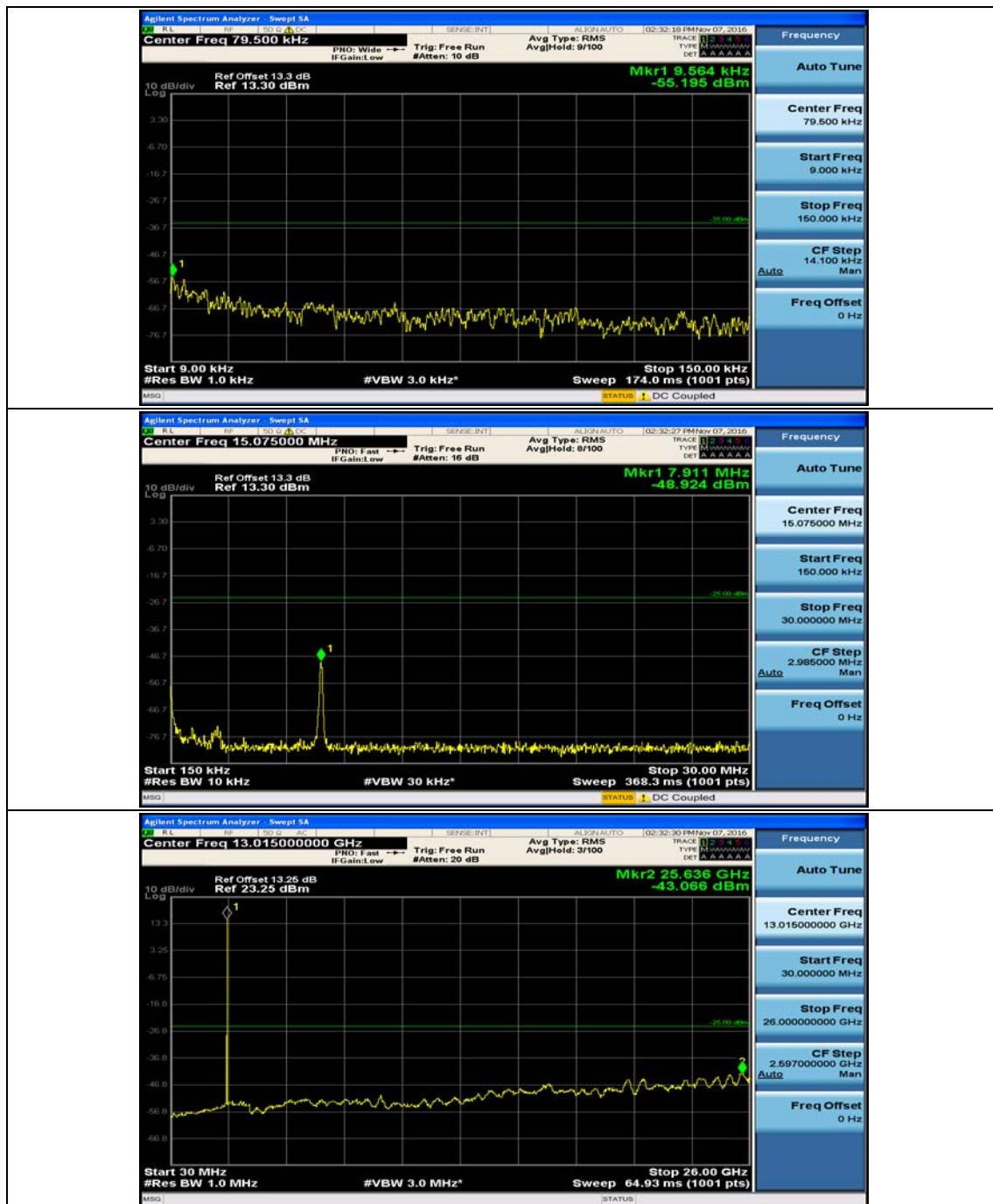


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

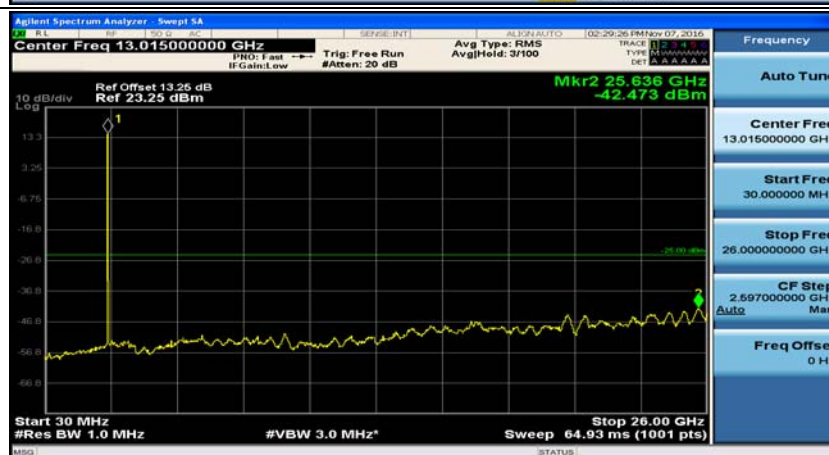
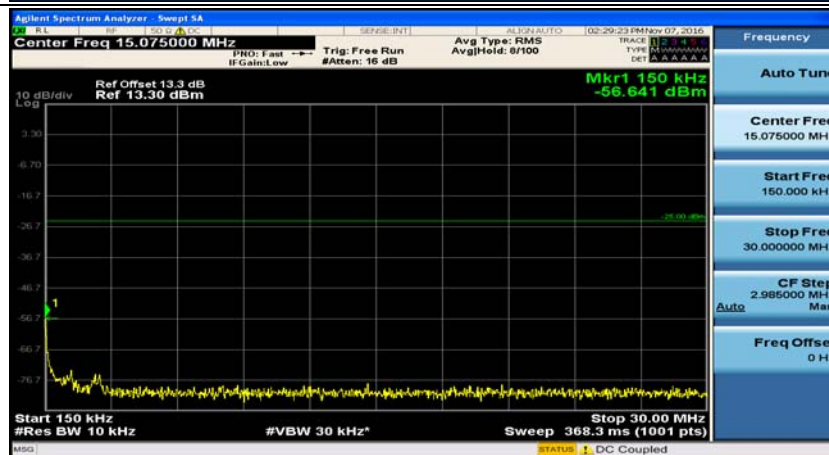
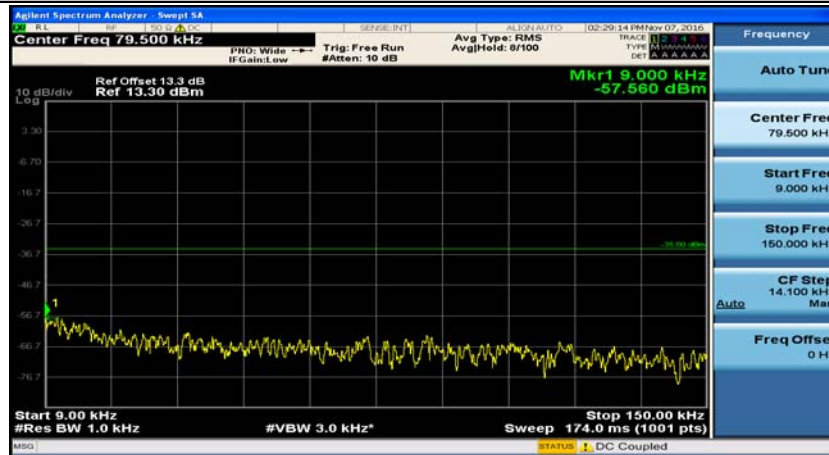


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

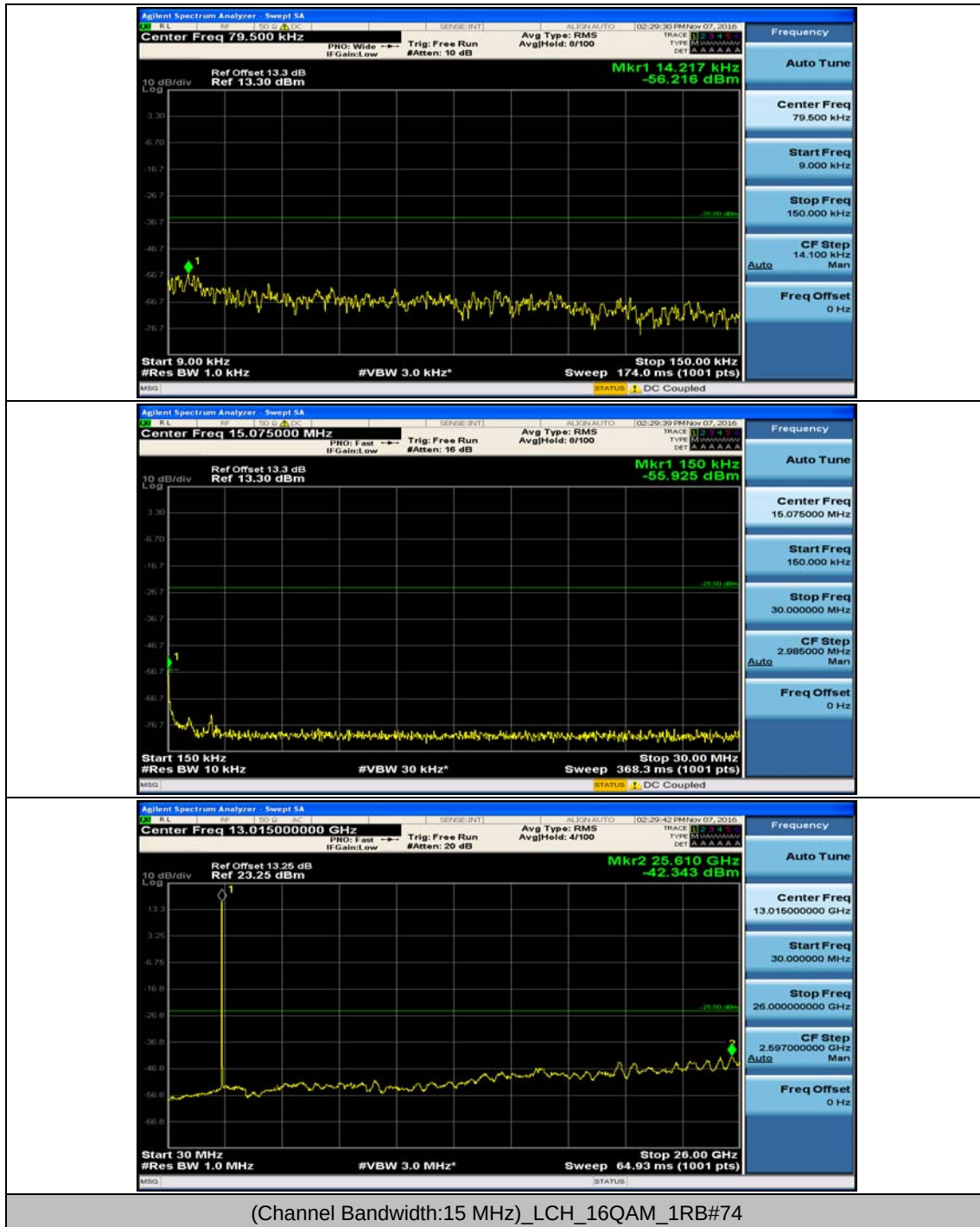


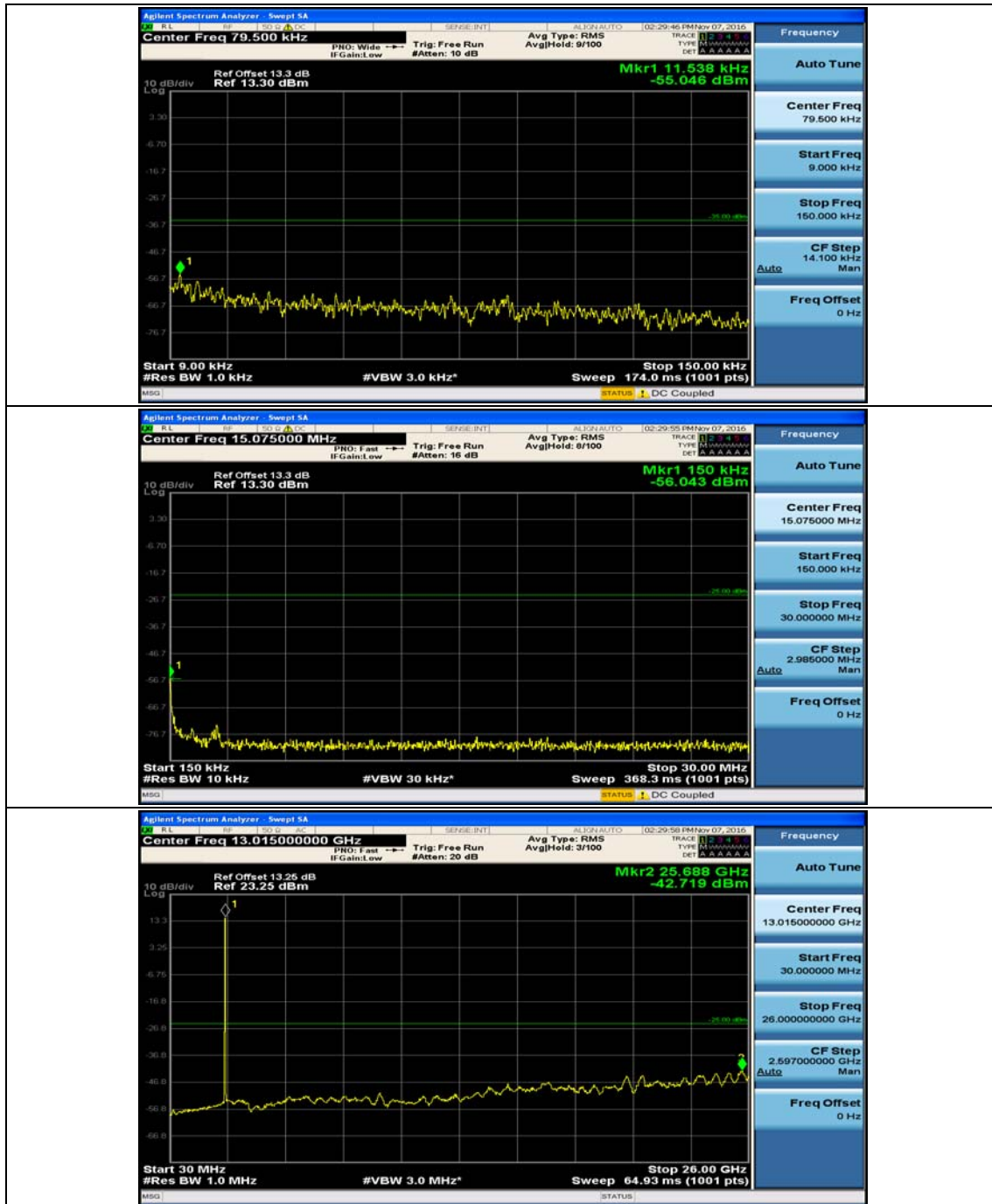


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

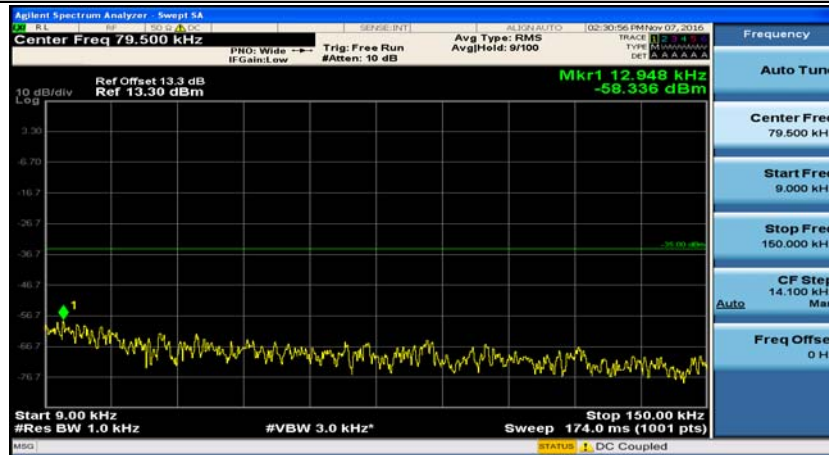


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

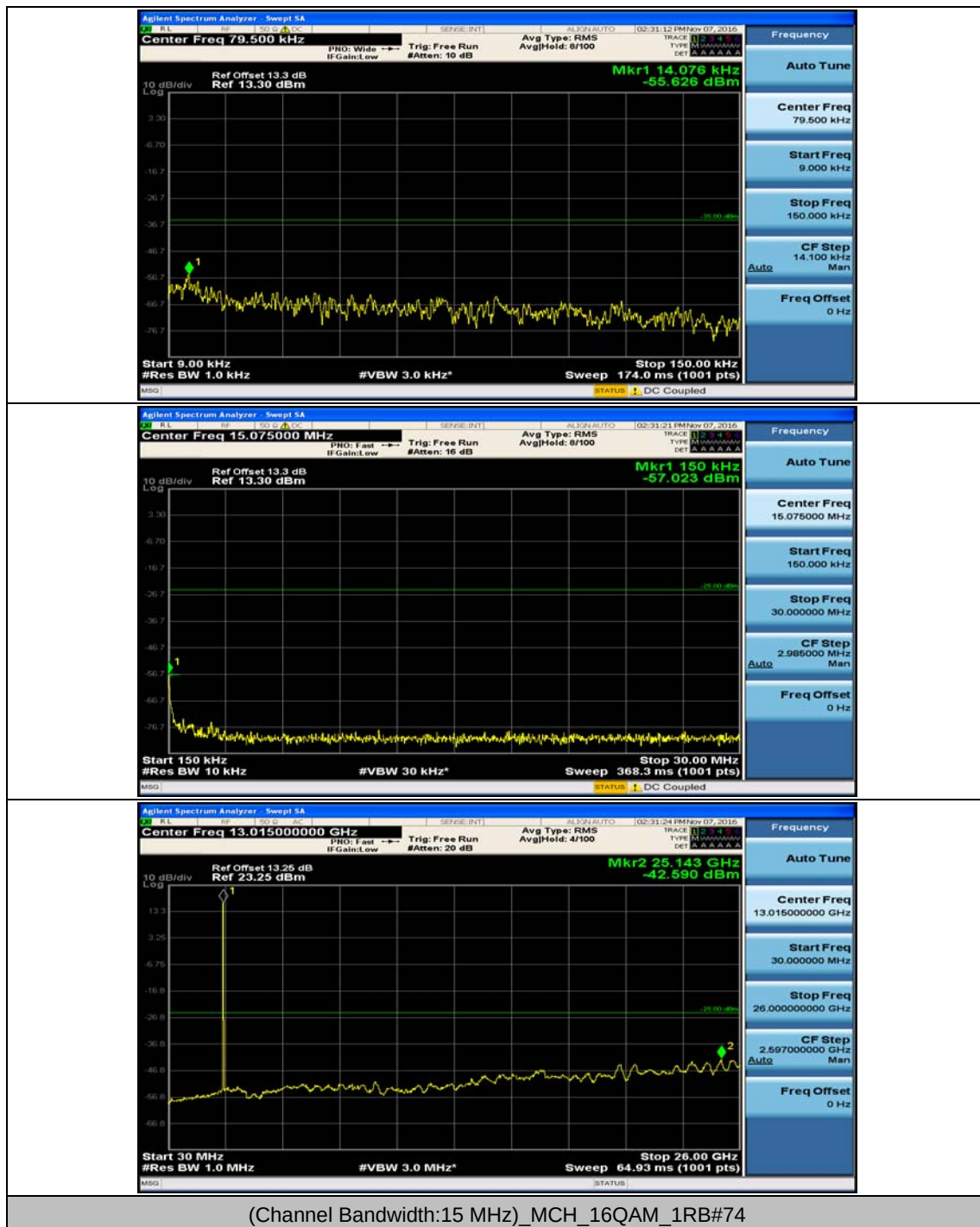


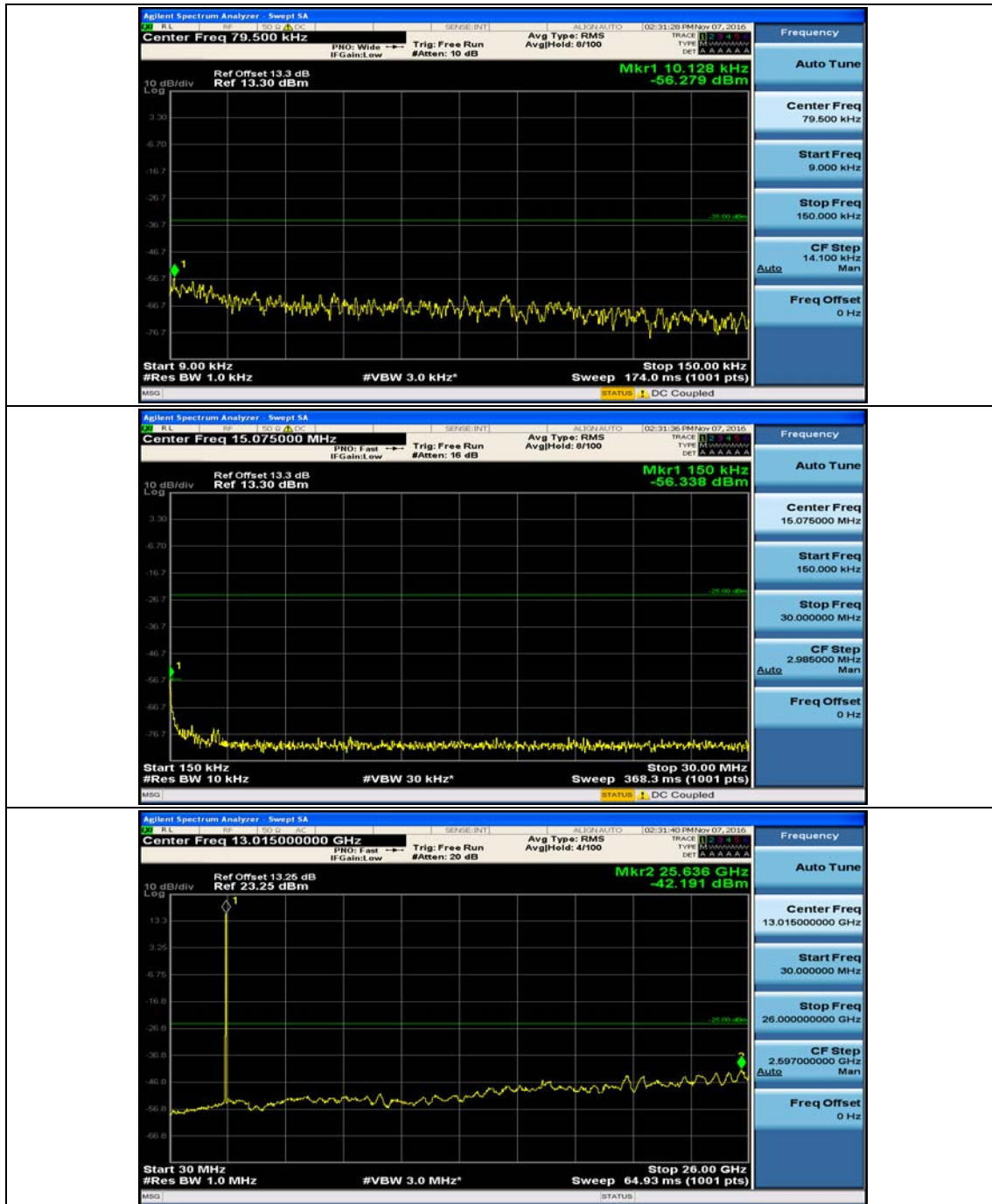


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

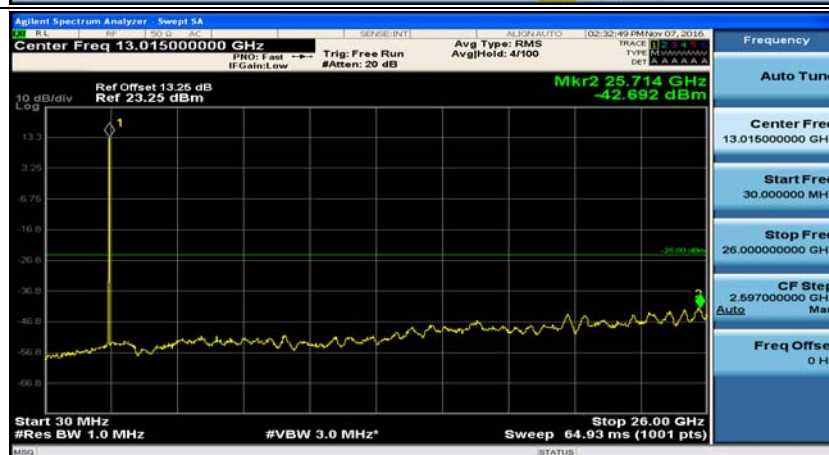
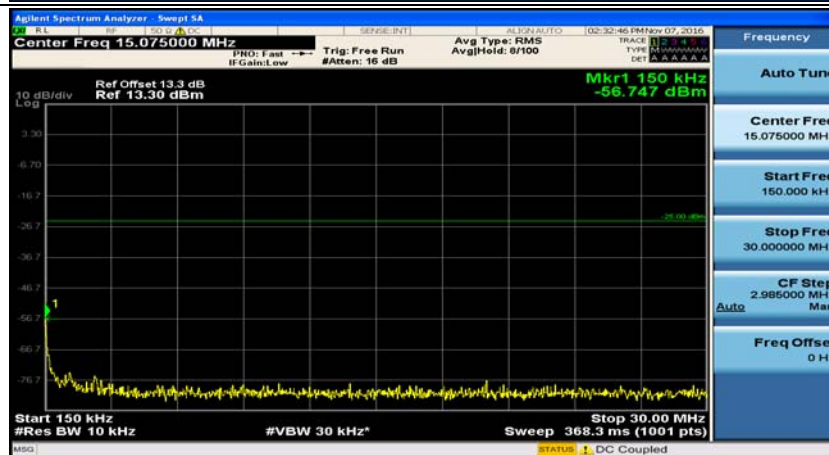
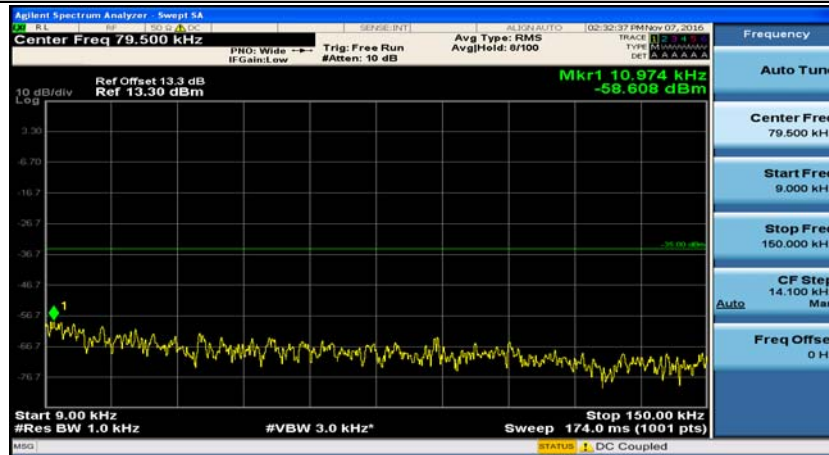


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

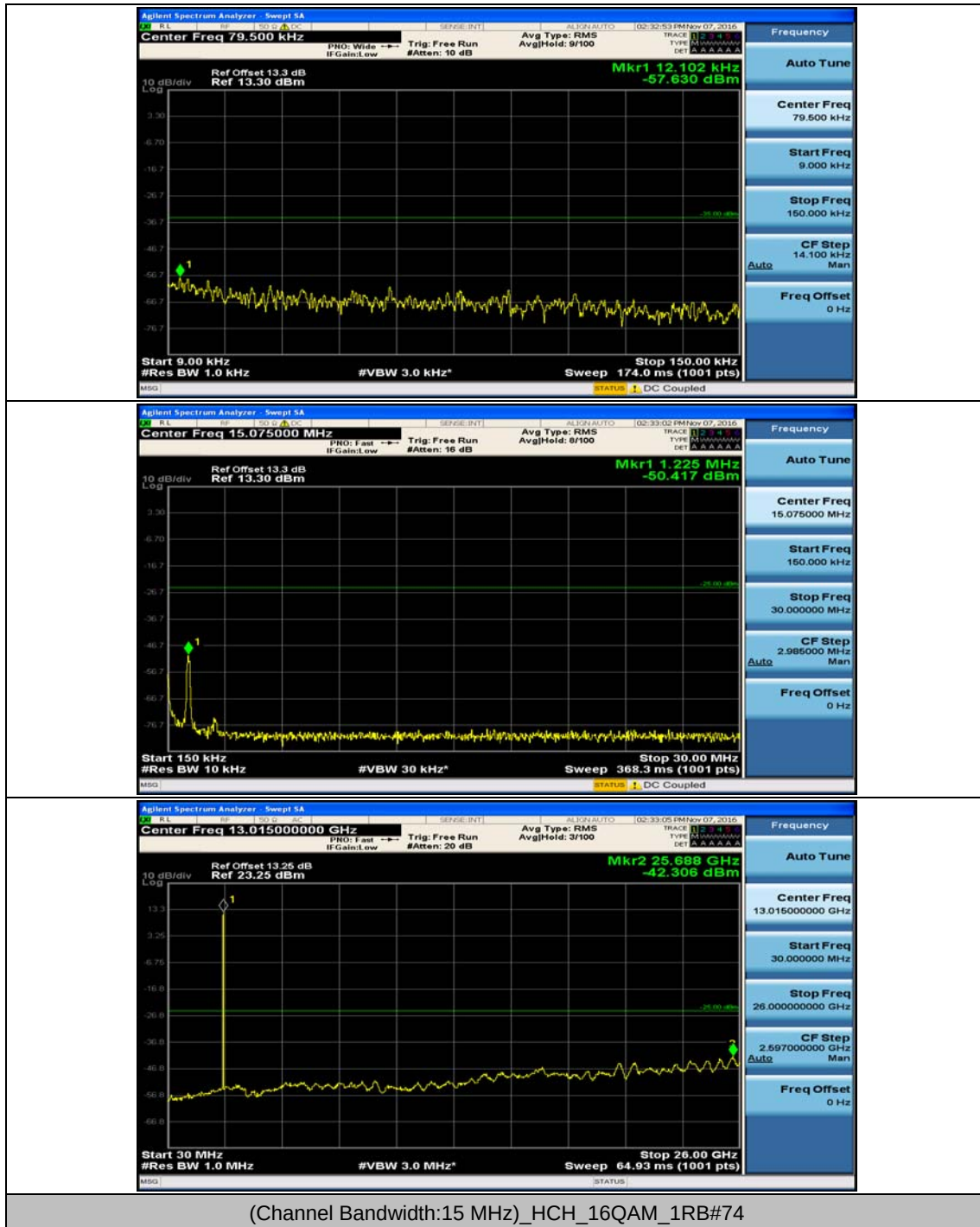


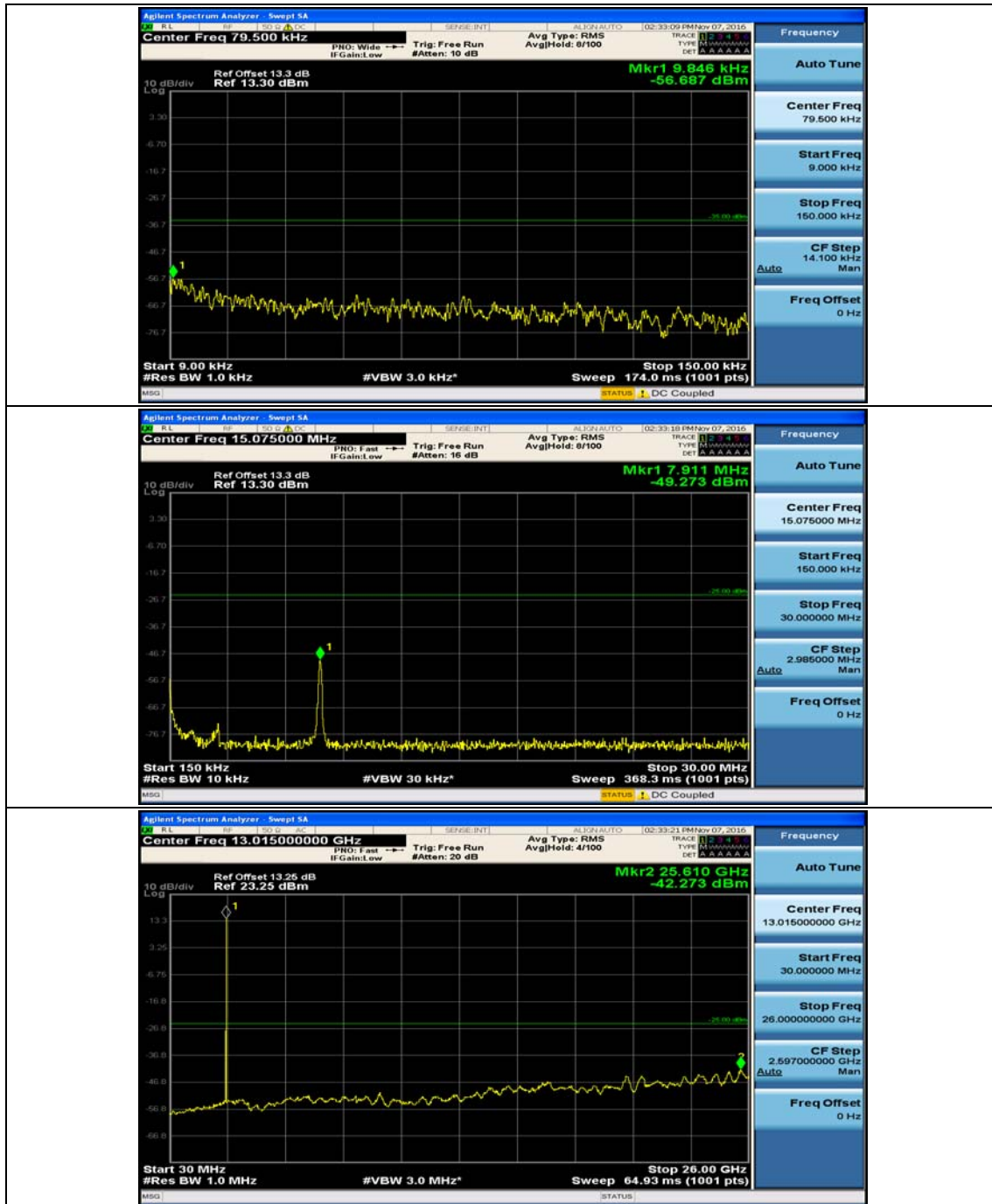


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

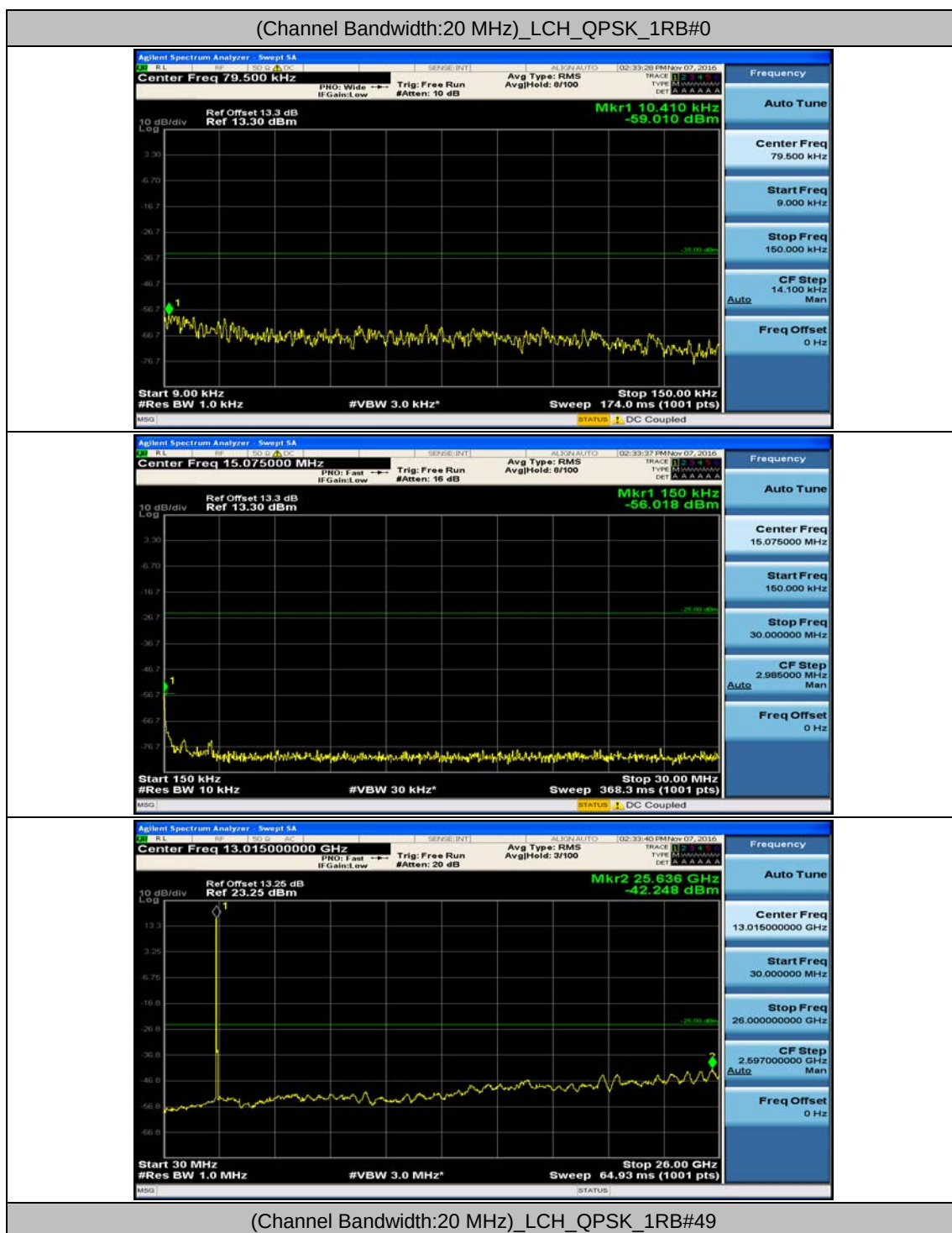


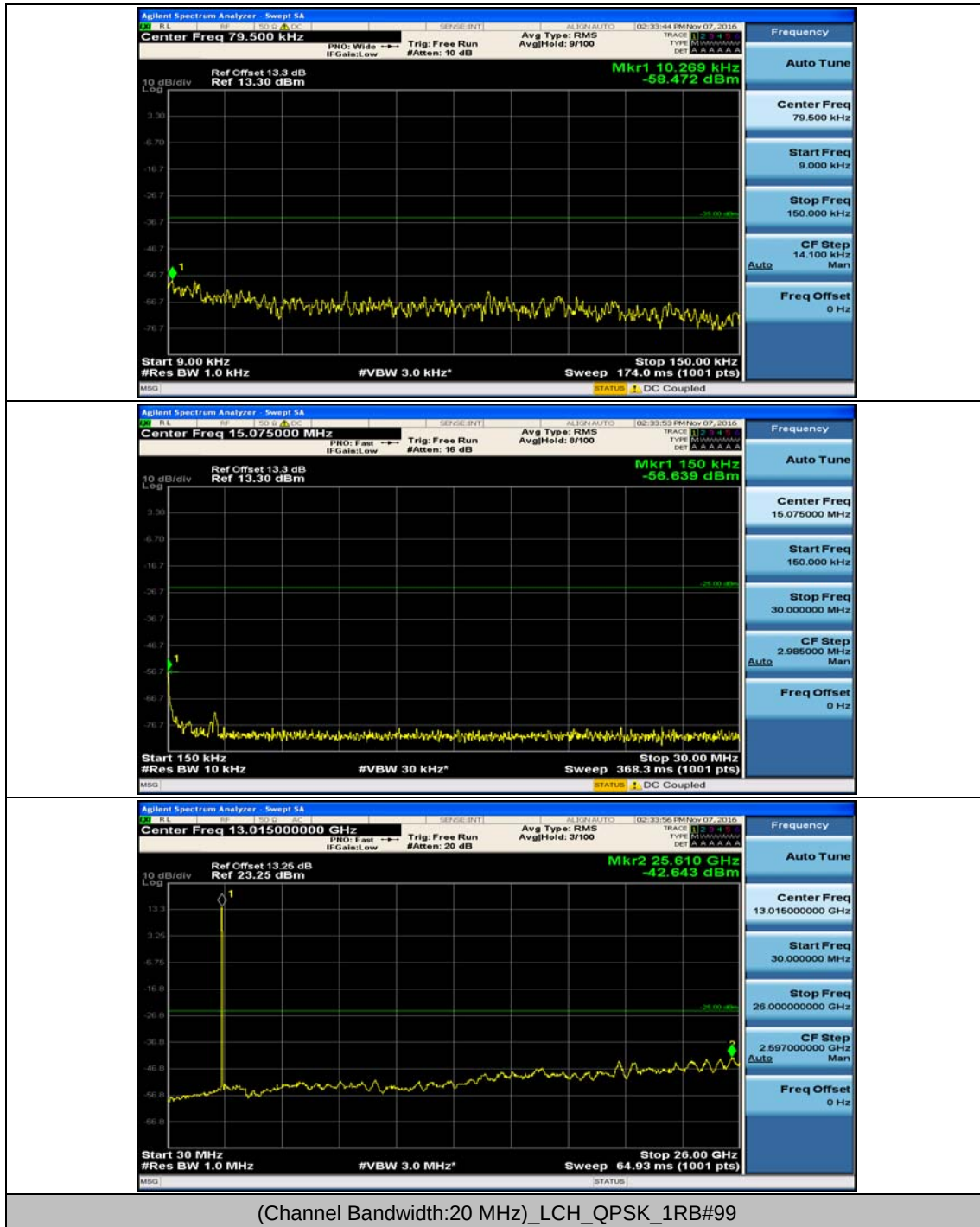
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

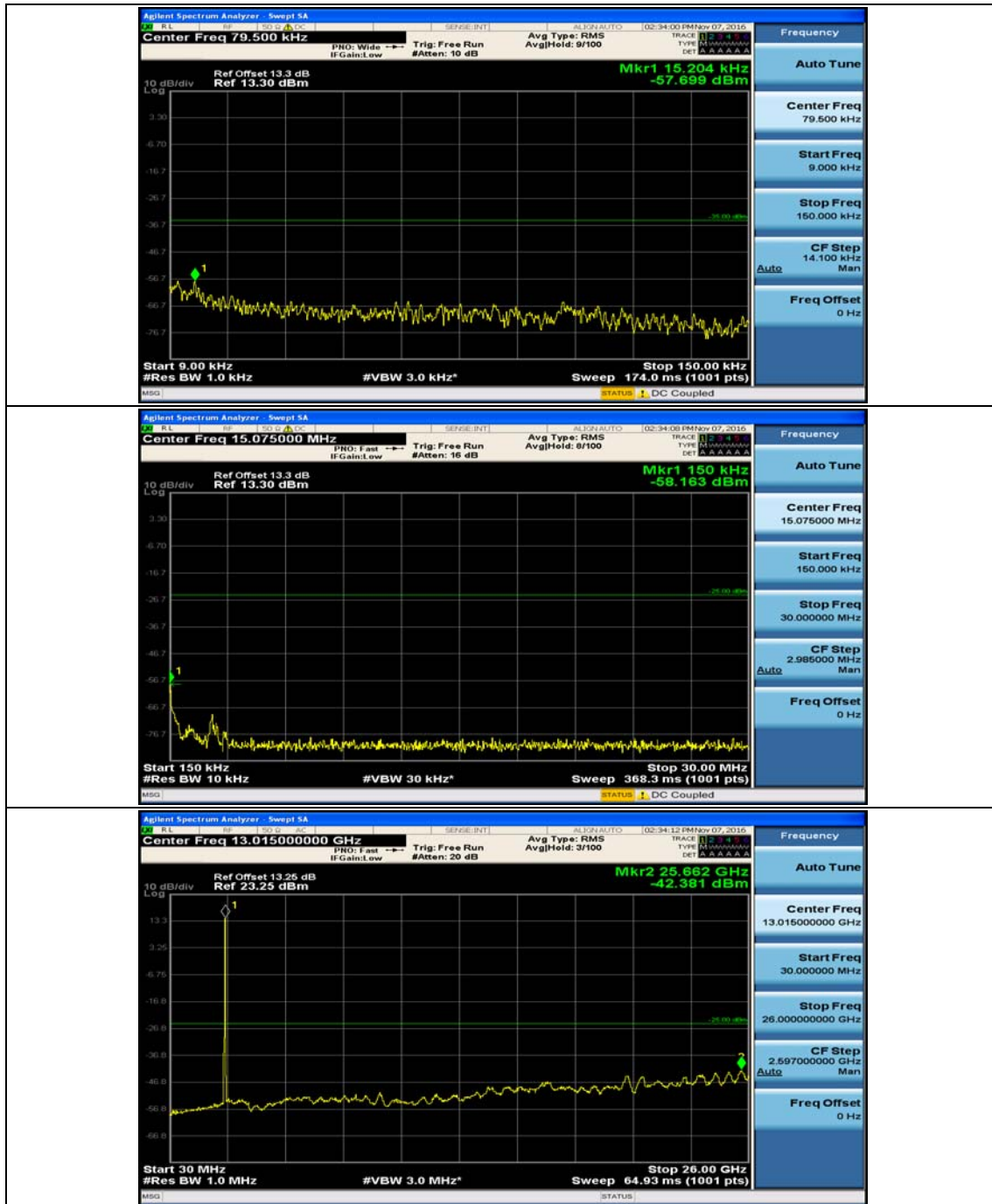




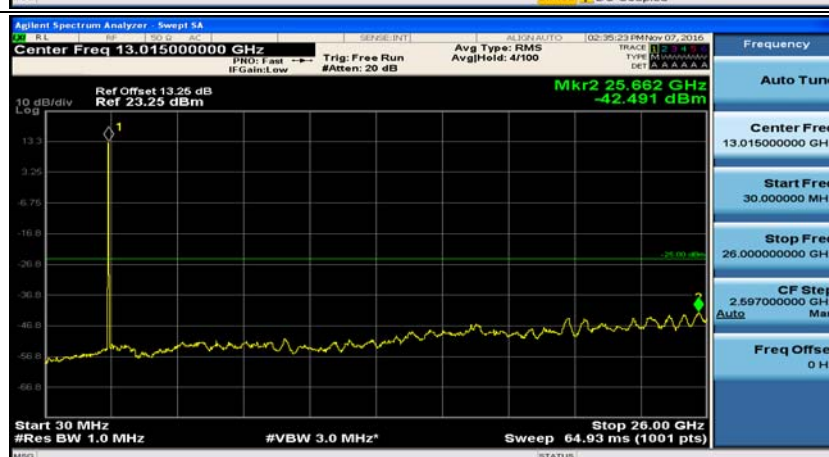
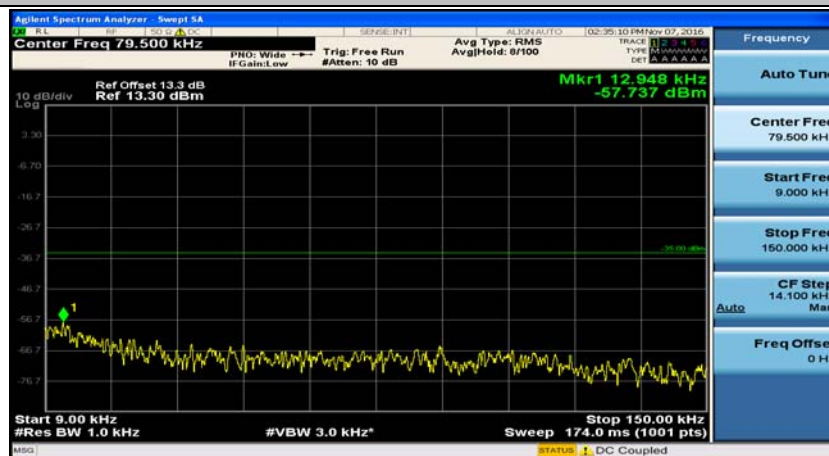
Channel Bandwidth: 20 MHz



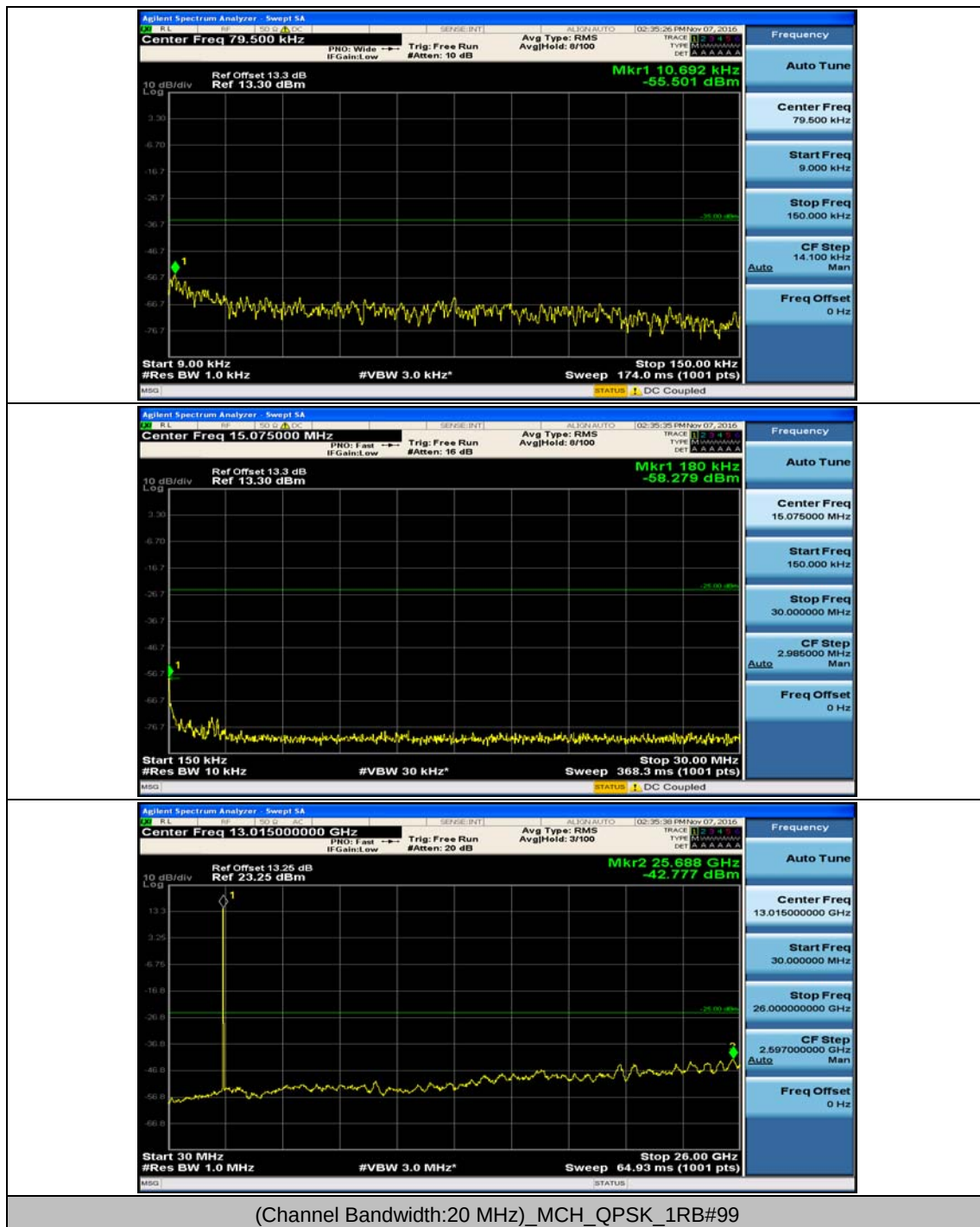


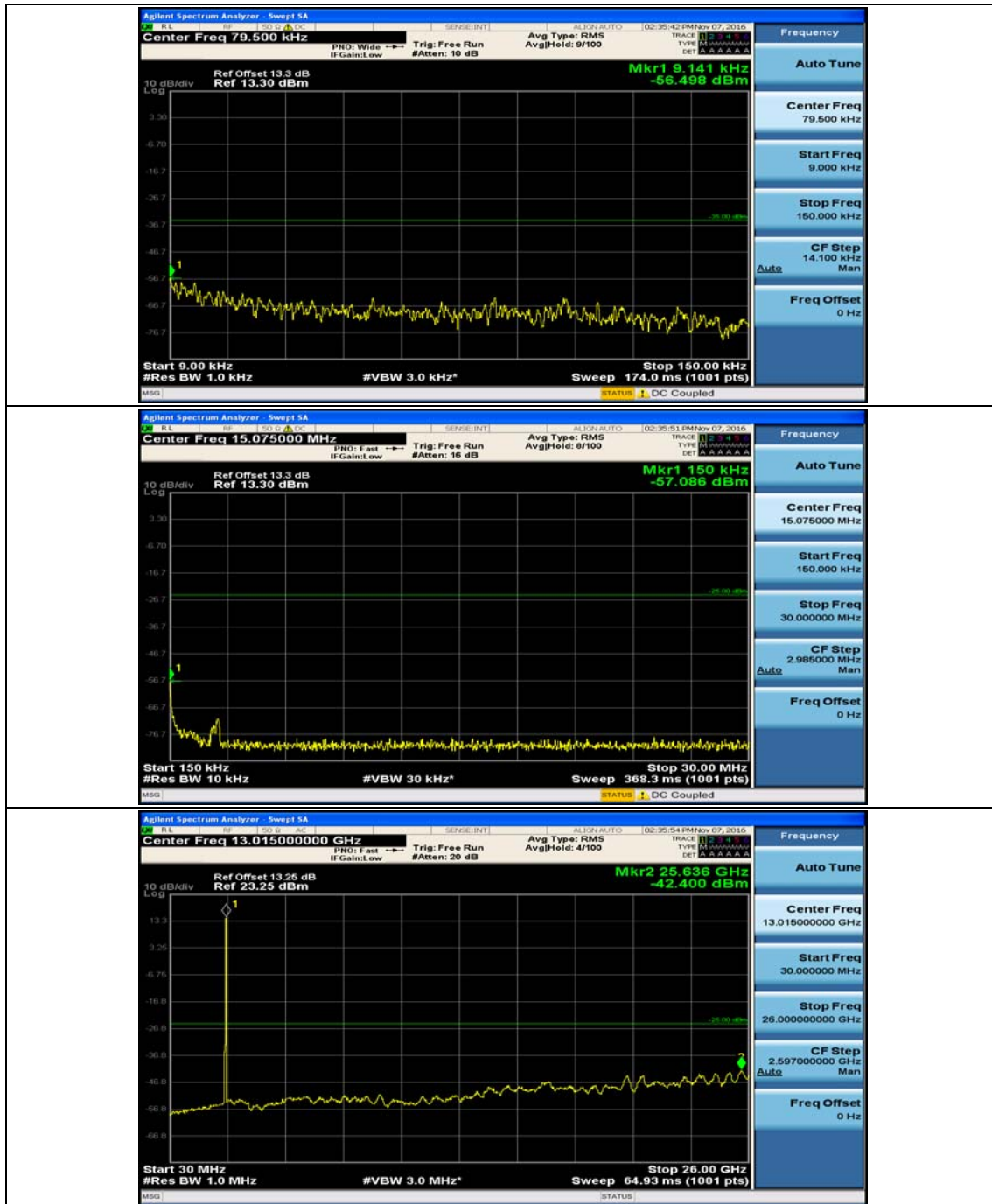


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

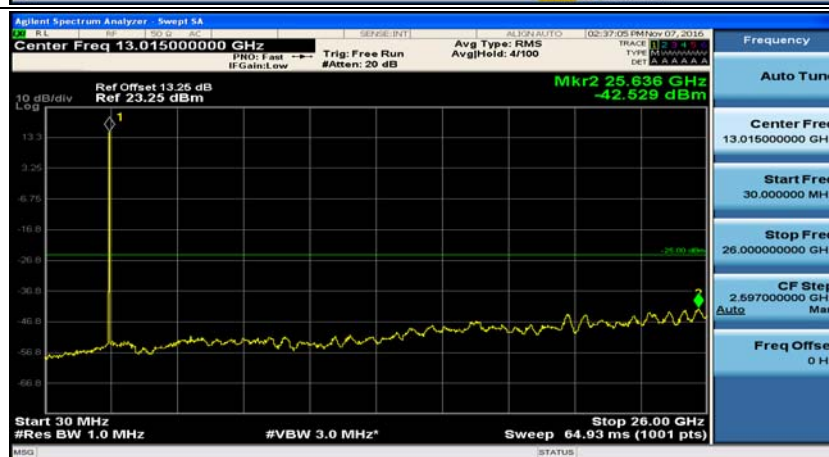
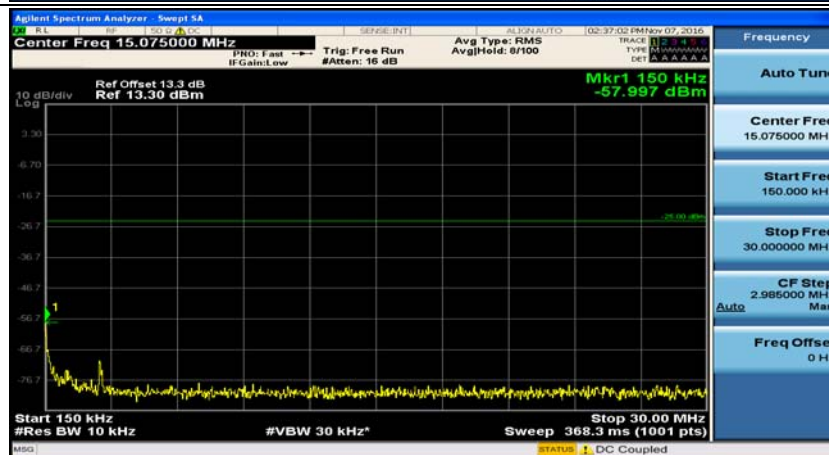
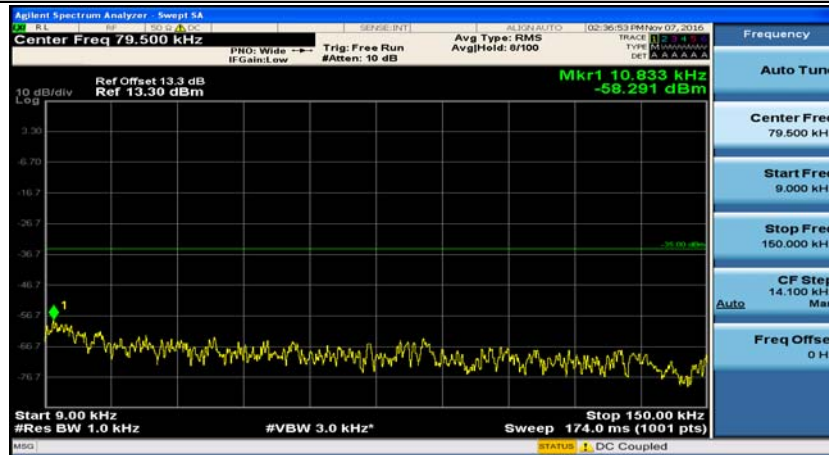


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

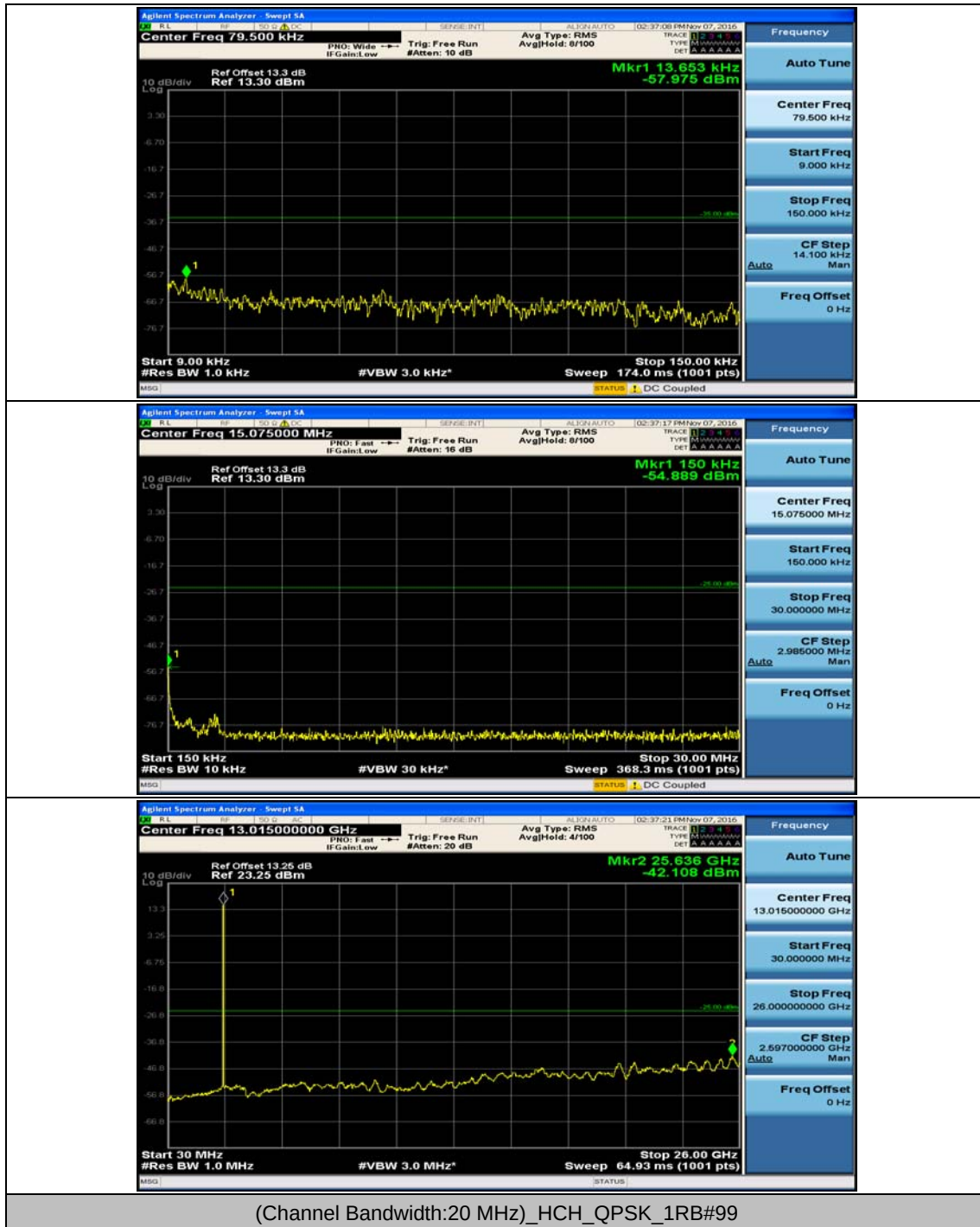


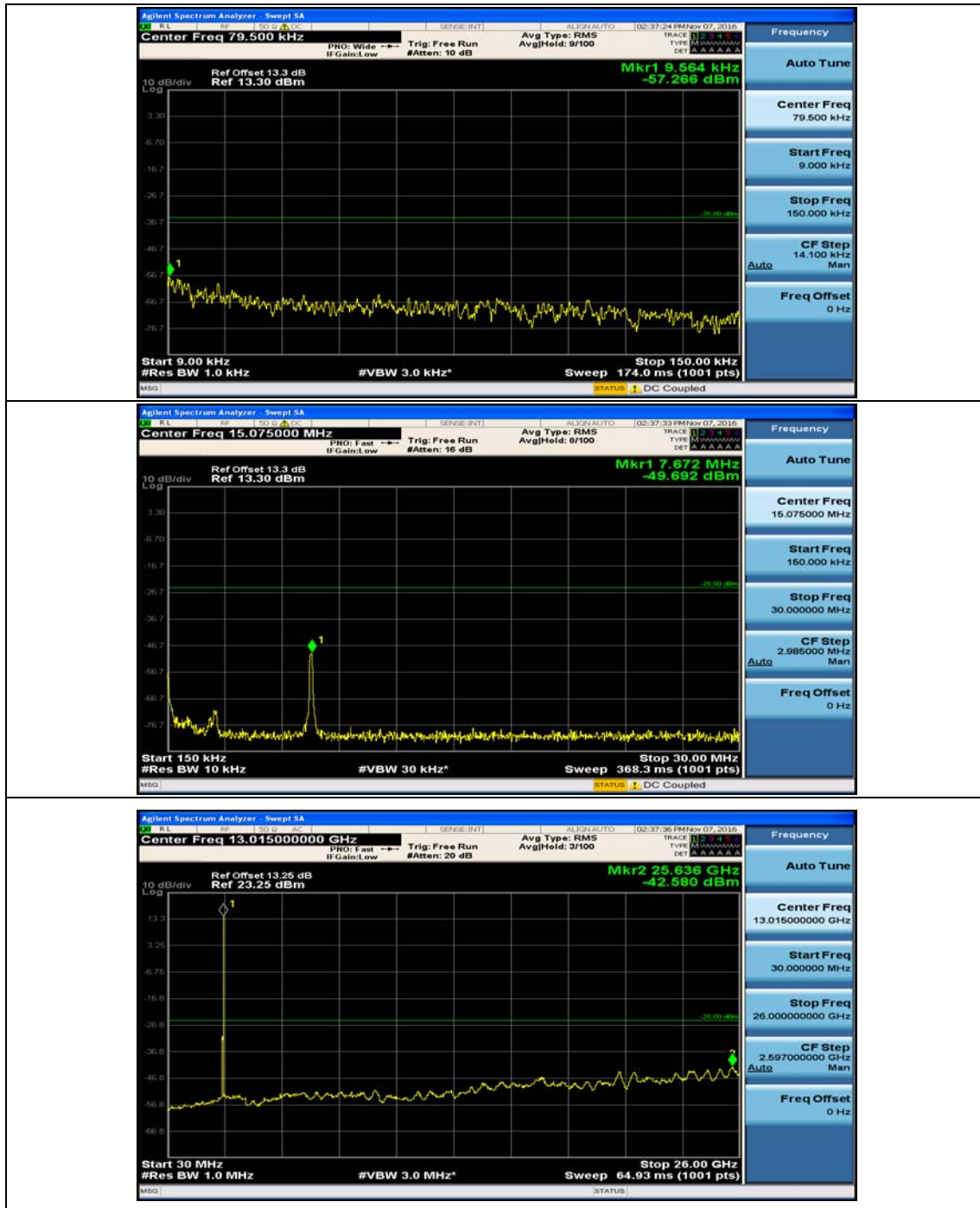


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

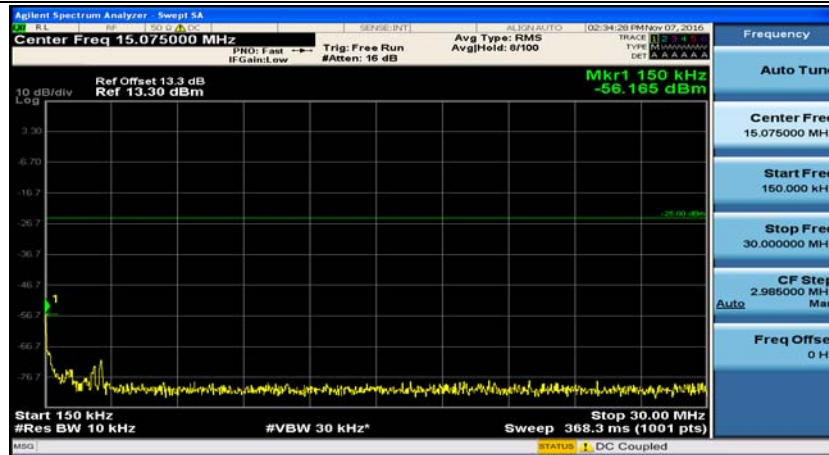
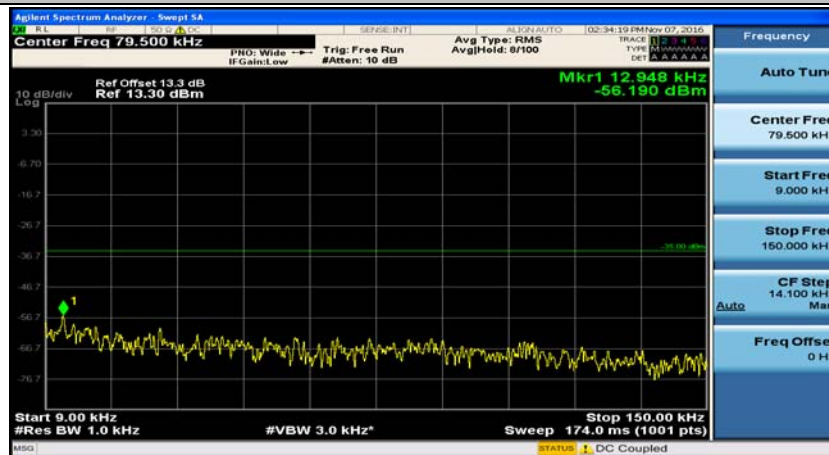


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

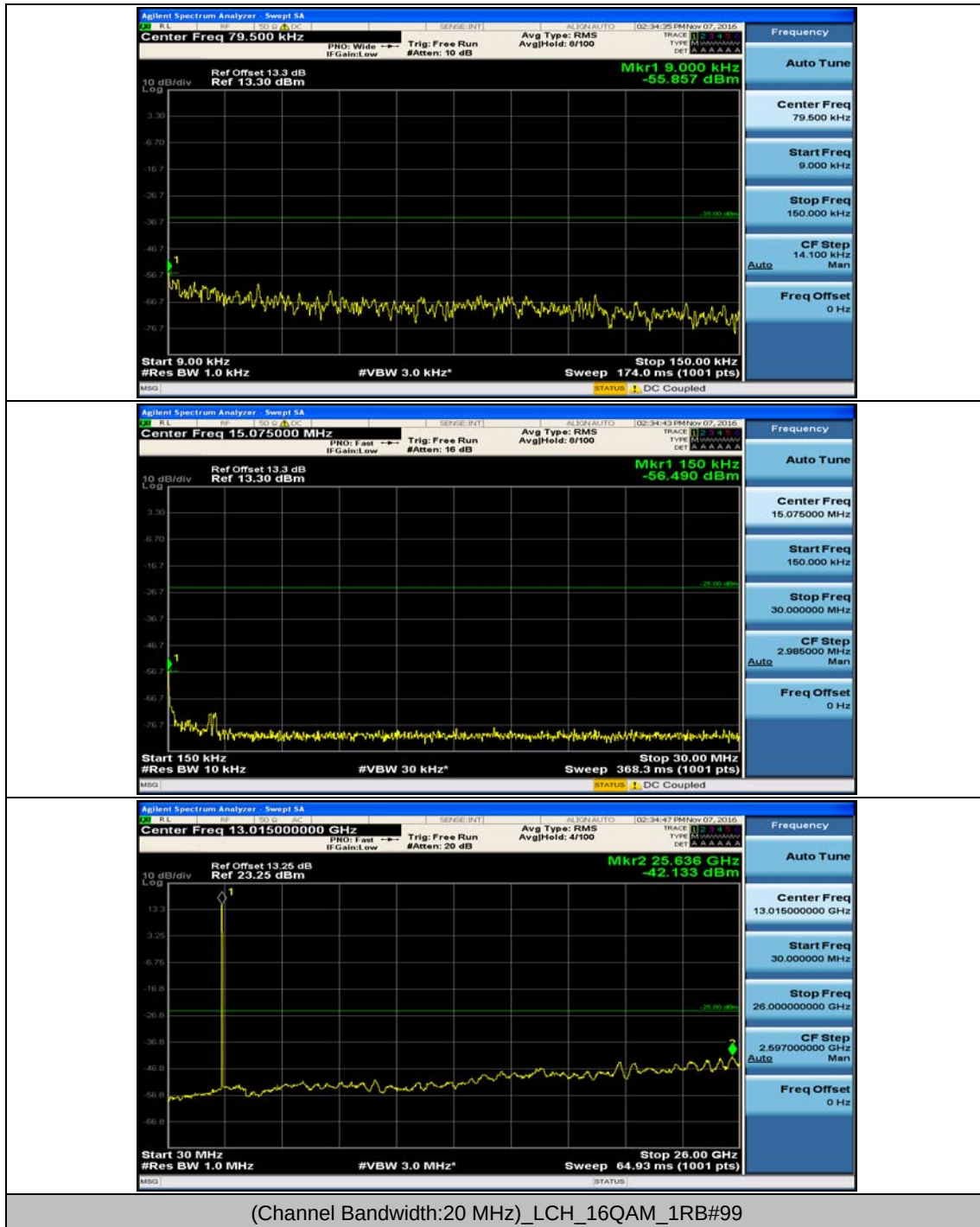


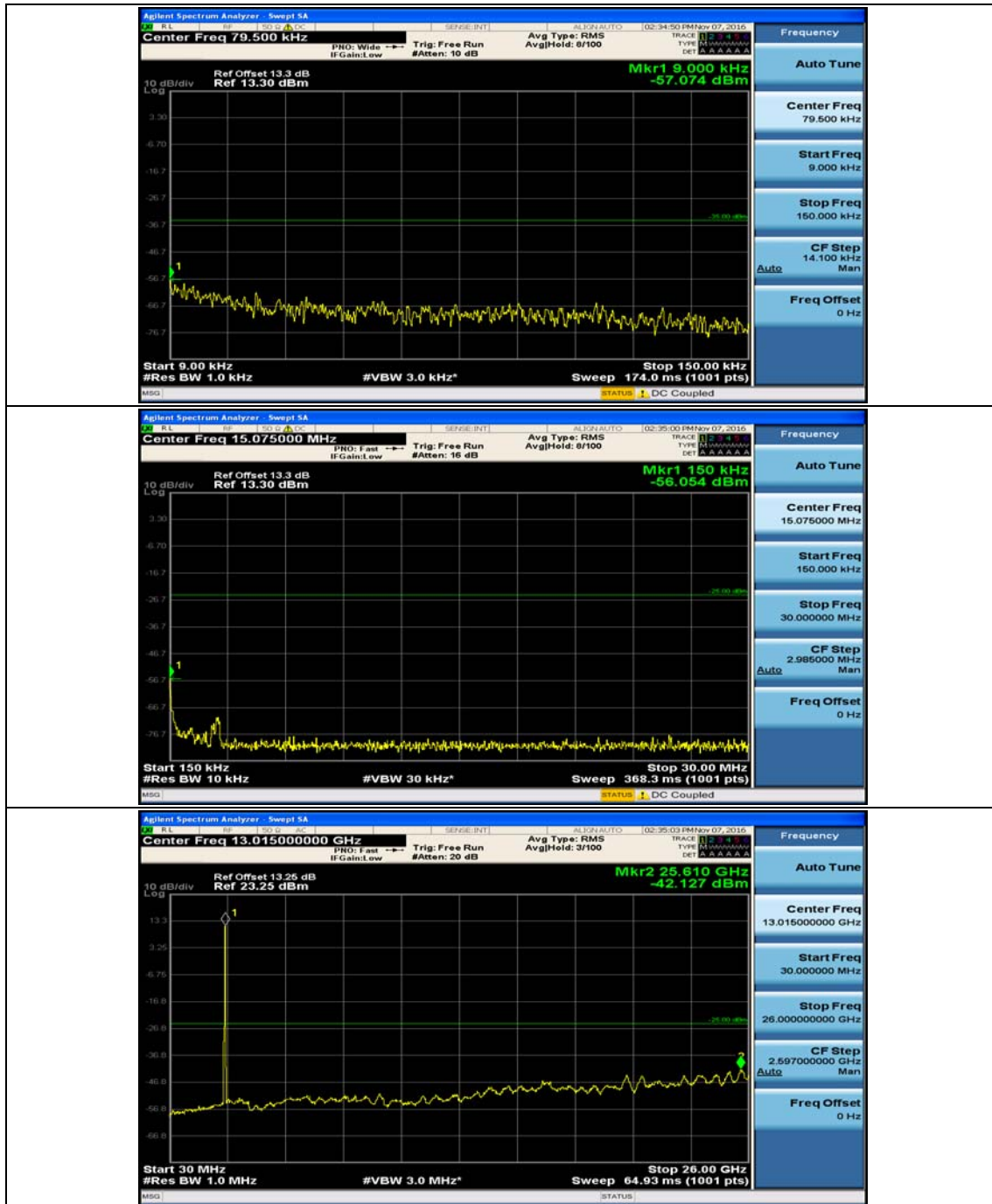


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

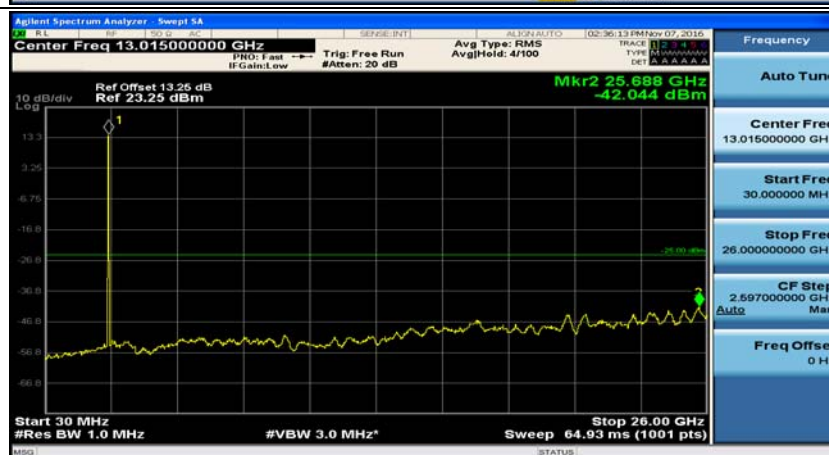
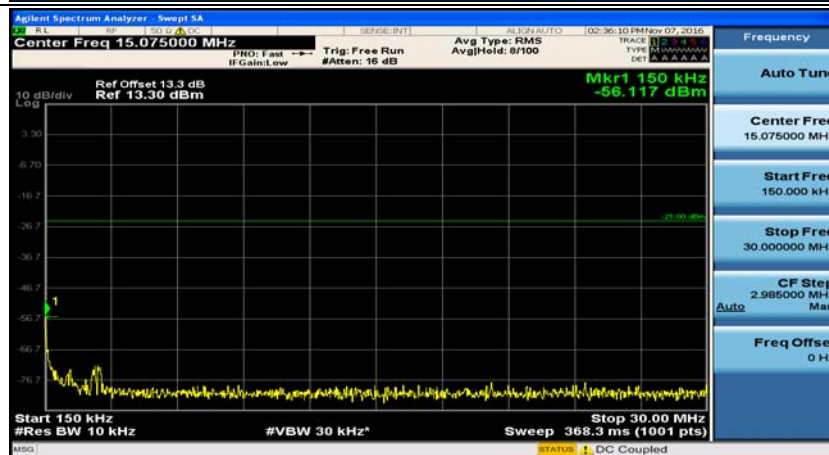
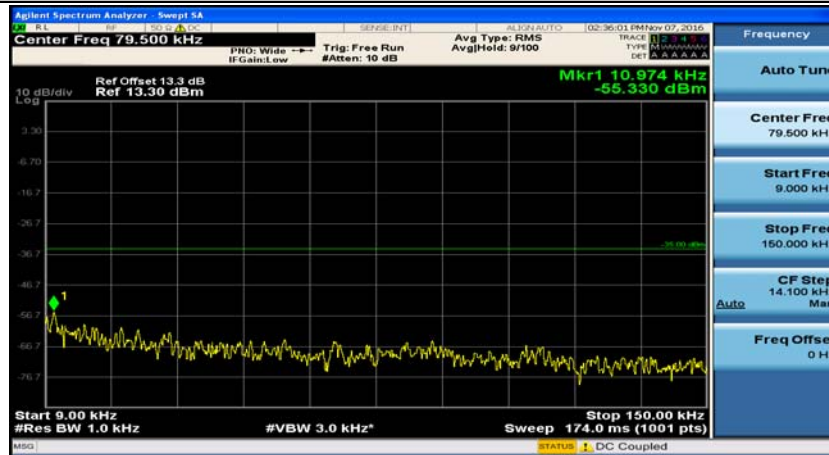


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

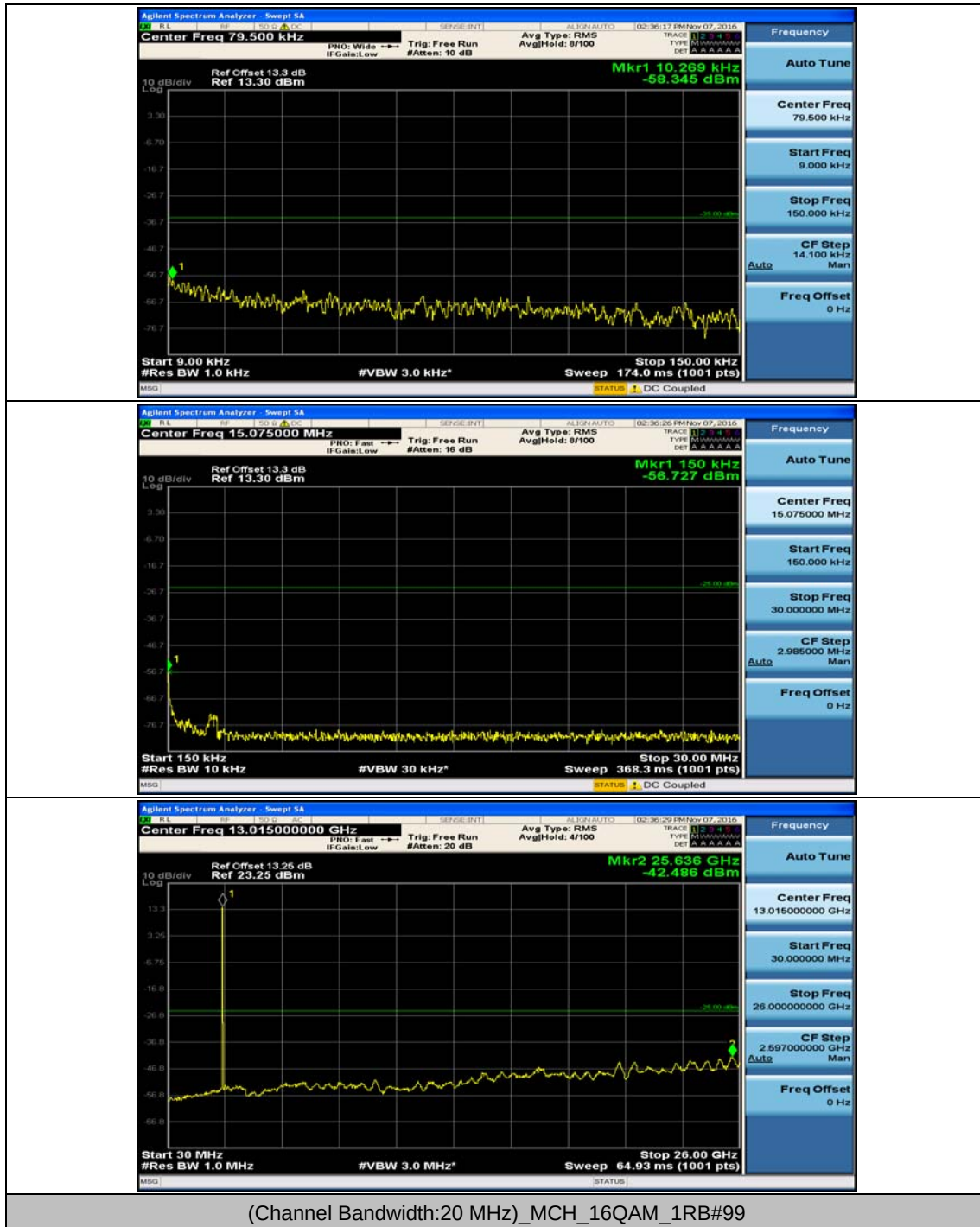


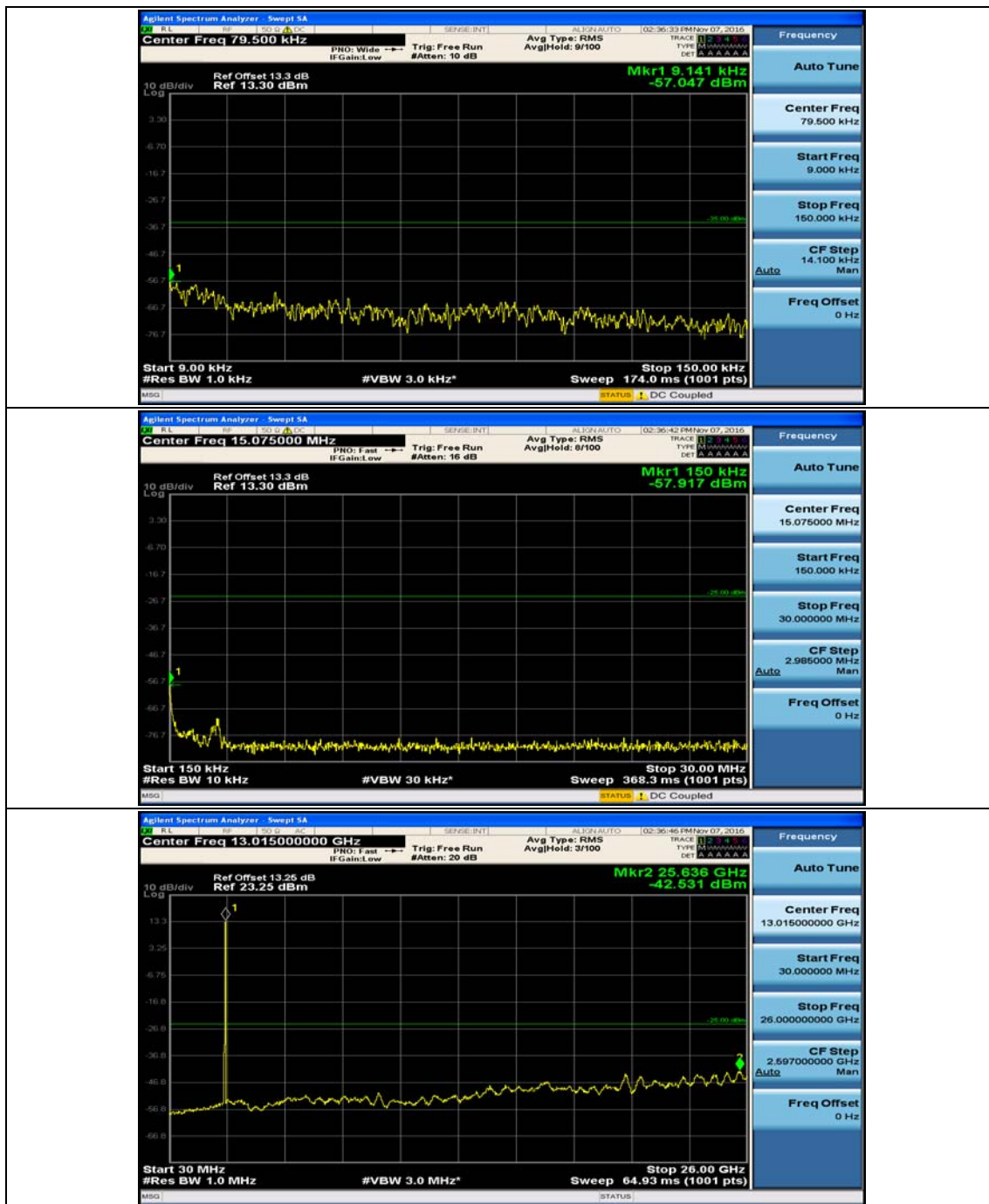


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

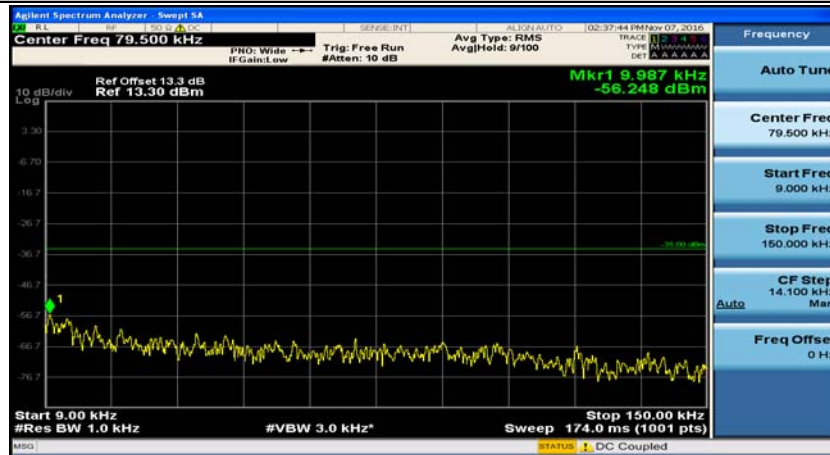


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

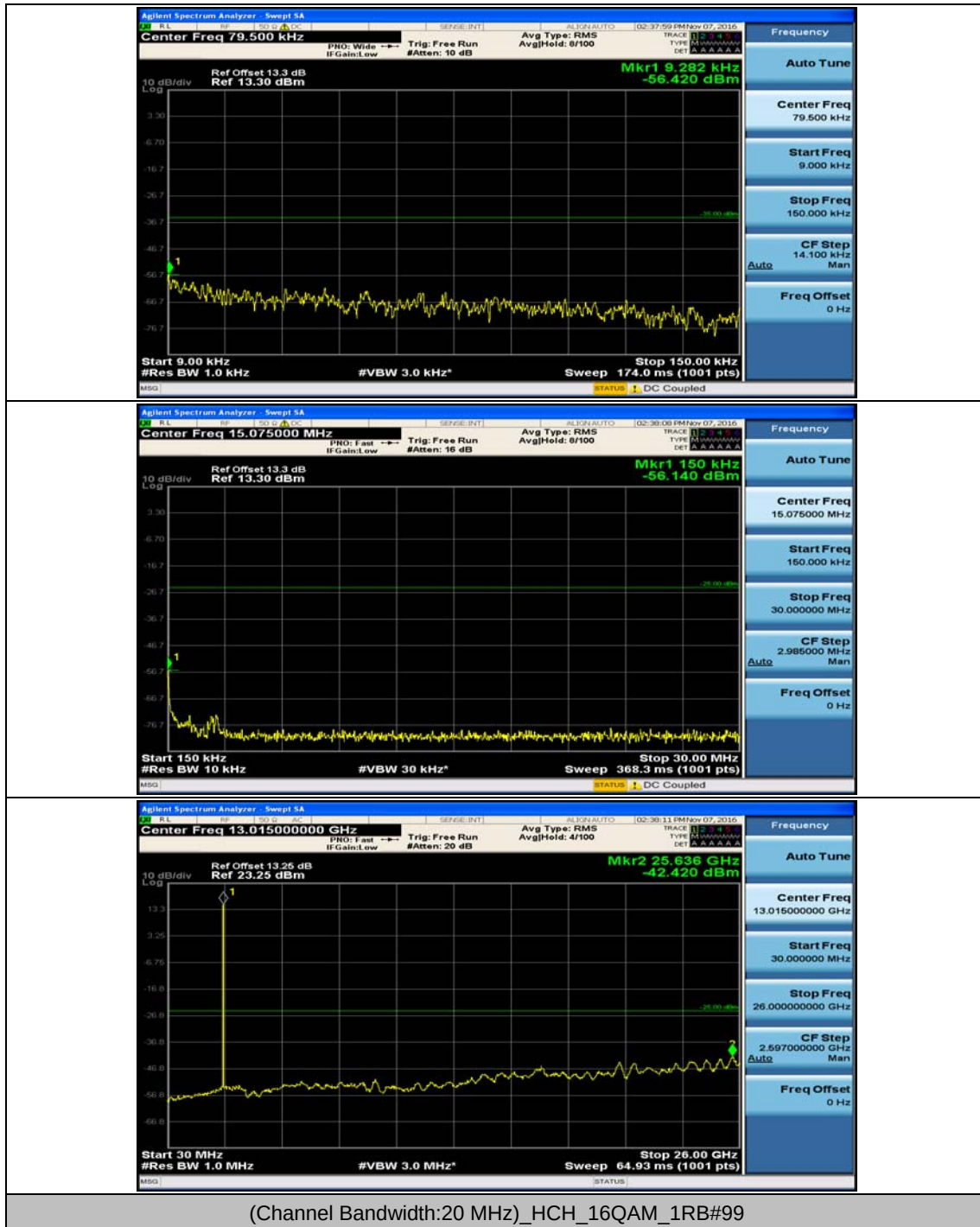


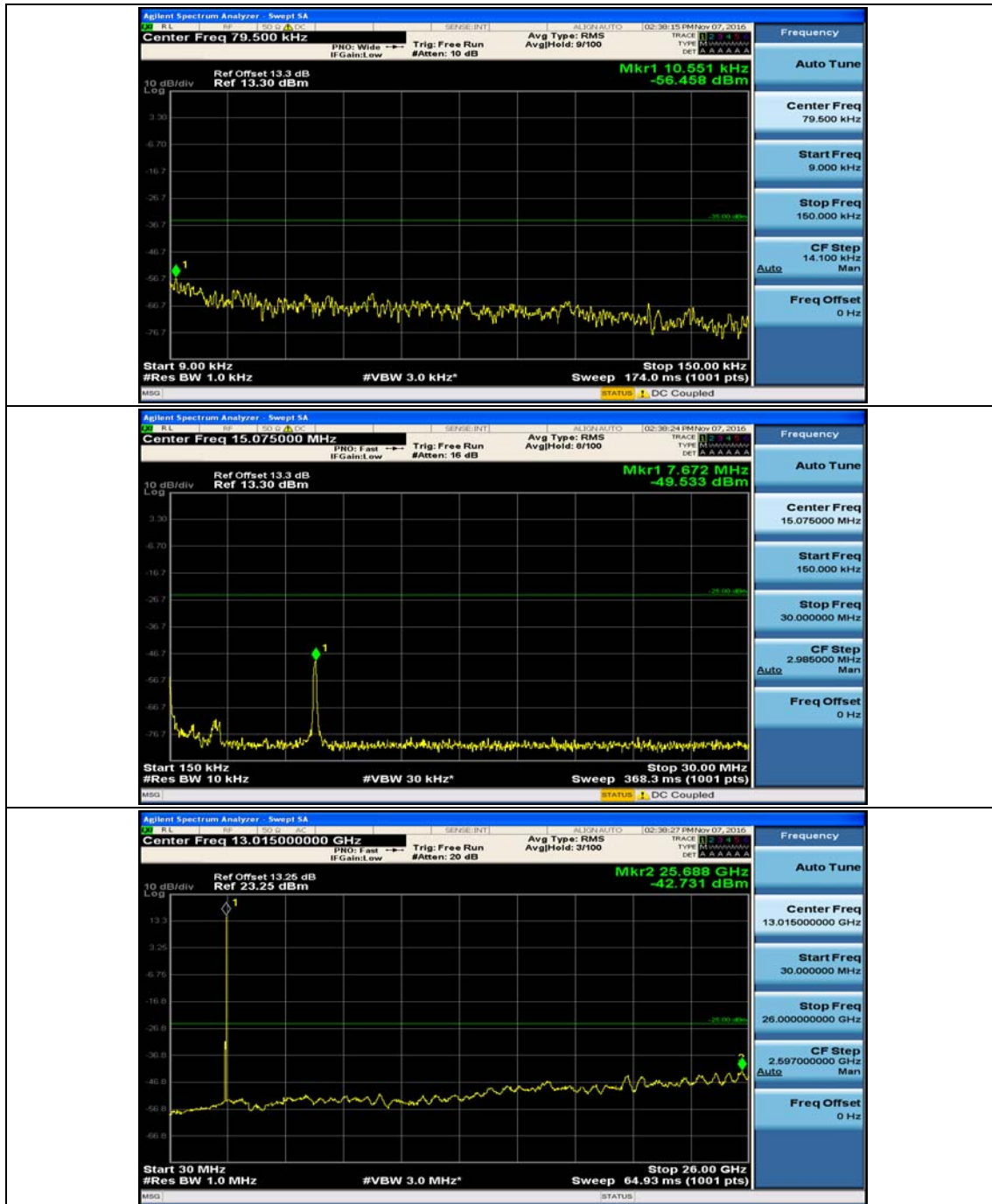


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#49





Note

9kHz~150kHz

Limit=[10Log(RBW_{measure} / RBW_{10kHz}) +55 + 10log(P)] dB

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	5.36	0.002142	± 2.5	PASS
		VN	TN	2	0.000799	± 2.5	PASS
		VH	TN	1.4	0.000559	± 2.5	PASS
	MCH	VL	TN	-1.71	-0.000675	± 2.5	PASS
		VN	TN	2.12	0.000836	± 2.5	PASS
		VH	TN	3.95	0.001558	± 2.5	PASS
	HCH	VL	TN	2.94	0.001145	± 2.5	PASS
		VN	TN	2.05	0.000798	± 2.5	PASS
		VH	TN	0.64	0.000249	± 2.5	PASS
16QAM	LCH	VL	TN	1.07	0.000428	± 2.5	PASS
		VN	TN	3.87	0.001546	± 2.5	PASS
		VH	TN	3.9	0.001558	± 2.5	PASS
	MCH	VL	TN	-1.3	-0.000513	± 2.5	PASS
		VN	TN	-1.36	-0.000536	± 2.5	PASS
		VH	TN	3.93	0.001550	± 2.5	PASS
	HCH	VL	TN	1.03	0.000401	± 2.5	PASS
		VN	TN	0.7	0.000273	± 2.5	PASS
		VH	TN	3.38	0.001316	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.32	0.000527	± 2.5	PASS
		VN	-20	3.43	0.001371	± 2.5	PASS
		VN	-10	0.14	0.000056	± 2.5	PASS
		VN	0	4.73	0.001890	± 2.5	PASS
		VN	10	0.89	0.000356	± 2.5	PASS
		VN	20	1.65	0.000659	± 2.5	PASS
		VN	30	0.29	0.000116	± 2.5	PASS
		VN	40	1.38	0.000551	± 2.5	PASS
		VN	50	-0.78	-0.000312	± 2.5	PASS
	MCH	VN	-30	2.01	0.000793	± 2.5	PASS
		VN	-20	0.07	0.000028	± 2.5	PASS
		VN	-10	4.84	0.001909	± 2.5	PASS

		VN	0	2.38	0.000939	± 2.5	PASS
		VN	10	-0.48	-0.000189	± 2.5	PASS
		VN	20	-0.86	-0.000339	± 2.5	PASS
		VN	30	2.76	0.001089	± 2.5	PASS
		VN	40	-1.73	-0.000682	± 2.5	PASS
		VN	50	3.93	0.001550	± 2.5	PASS
	HCH	VN	-30	1.26	0.000491	± 2.5	PASS
		VN	-20	2.29	0.000892	± 2.5	PASS
		VN	-10	3.8	0.001480	± 2.5	PASS
		VN	0	4.78	0.001862	± 2.5	PASS
		VN	10	-1.48	-0.000576	± 2.5	PASS
		VN	20	0.68	0.000265	± 2.5	PASS
		VN	30	0.78	0.000304	± 2.5	PASS
		VN	40	4.95	0.001928	± 2.5	PASS
		VN	50	4.6	0.001792	± 2.5	PASS
16QAM	LCH	VN	-30	1.63	0.000651	± 2.5	PASS
		VN	-20	4.51	0.001802	± 2.5	PASS
		VN	-10	2.32	0.000927	± 2.5	PASS
		VN	0	4.97	0.001986	± 2.5	PASS
		VN	10	2.56	0.001023	± 2.5	PASS
		VN	20	1.38	0.000551	± 2.5	PASS
		VN	30	2.2	0.000879	± 2.5	PASS
		VN	40	4.87	0.001946	± 2.5	PASS
		VN	50	-0.86	-0.000344	± 2.5	PASS
	MCH	VN	-30	-0.79	-0.000312	± 2.5	PASS
		VN	-20	-0.42	-0.000166	± 2.5	PASS
		VN	-10	0.35	0.000138	± 2.5	PASS
		VN	0	1.84	0.000726	± 2.5	PASS
		VN	10	3.75	0.001479	± 2.5	PASS
		VN	20	1.79	0.000706	± 2.5	PASS
		VN	30	0.03	0.000012	± 2.5	PASS
		VN	40	2.53	0.000998	± 2.5	PASS
		VN	50	2.44	0.000963	± 2.5	PASS
	HCH	VN	-30	3.59	0.001398	± 2.5	PASS
		VN	-20	0.19	0.000074	± 2.5	PASS
		VN	-10	-0.63	-0.000245	± 2.5	PASS
		VN	0	1.39	0.000541	± 2.5	PASS
		VN	10	3.74	0.001457	± 2.5	PASS
		VN	20	0.31	0.000121	± 2.5	PASS
		VN	30	1.94	0.000756	± 2.5	PASS
		VN	40	2.13	0.000830	± 2.5	PASS

		VN	50	-1.23	-0.000479	± 2.5	PASS
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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	-2.66	-0.001062	± 2.5	PASS
		VN	TN	1.9	0.000758	± 2.5	PASS
		VH	TN	-1.29	-0.000515	± 2.5	PASS
	MCH	VL	TN	-1.11	-0.000438	± 2.5	PASS
		VN	TN	4.44	0.001751	± 2.5	PASS
		VH	TN	-0.4	-0.000158	± 2.5	PASS
	HCH	VL	TN	-0.52	-0.000203	± 2.5	PASS
		VN	TN	3.97	0.001548	± 2.5	PASS
		VH	TN	-1.66	-0.000647	± 2.5	PASS
16QAM	LCH	VL	TN	4.9	0.001956	± 2.5	PASS
		VN	TN	1.64	0.000655	± 2.5	PASS
		VH	TN	-1.17	-0.000467	± 2.5	PASS
	MCH	VL	TN	4.45	0.001755	± 2.5	PASS
		VN	TN	1.2	0.000473	± 2.5	PASS
		VH	TN	2.59	0.001022	± 2.5	PASS
	HCH	VL	TN	-1.19	-0.000464	± 2.5	PASS
		VN	TN	0.63	0.000246	± 2.5	PASS
		VH	TN	1.15	0.000448	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.93	0.000770	± 2.5	PASS
		VN	-20	4.52	0.001804	± 2.5	PASS
		VN	-10	4.27	0.001705	± 2.5	PASS
		VN	0	1.85	0.000739	± 2.5	PASS
		VN	10	4.97	0.001984	± 2.5	PASS
		VN	20	4.73	0.001888	± 2.5	PASS
		VN	30	2.05	0.000818	± 2.5	PASS
		VN	40	4.8	0.001916	± 2.5	PASS
		VN	50	-0.64	-0.000255	± 2.5	PASS
	MCH	VN	-30	-0.22	-0.000087	± 2.5	PASS
		VN	-20	4.01	0.001582	± 2.5	PASS
		VN	-10	0.78	0.000308	± 2.5	PASS
		VN	0	0.19	0.000075	± 2.5	PASS

		VN	10	-1.74	-0.000686	± 2.5	PASS
		VN	20	1.08	0.000426	± 2.5	PASS
		VN	30	0.3	0.000118	± 2.5	PASS
		VN	40	3.58	0.001412	± 2.5	PASS
		VN	50	-1.05	-0.000414	± 2.5	PASS
	HCH	VN	-30	-1.97	-0.000768	± 2.5	PASS
		VN	-20	-1.91	-0.000745	± 2.5	PASS
		VN	-10	1.39	0.000542	± 2.5	PASS
		VN	0	3.04	0.001185	± 2.5	PASS
		VN	10	0.17	0.000066	± 2.5	PASS
		VN	20	1.6	0.000624	± 2.5	PASS
		VN	30	3.35	0.001306	± 2.5	PASS
		VN	40	0.81	0.000316	± 2.5	PASS
		VN	50	-0.68	-0.000265	± 2.5	PASS
16QAM	LCH	VN	-30	4.04	0.001613	± 2.5	PASS
		VN	-20	2.29	0.000914	± 2.5	PASS
		VN	-10	3.24	0.001293	± 2.5	PASS
		VN	0	4.7	0.001876	± 2.5	PASS
		VN	10	1.55	0.000619	± 2.5	PASS
		VN	20	-0.33	-0.000132	± 2.5	PASS
		VN	30	1.37	0.000547	± 2.5	PASS
		VN	40	-0.54	-0.000216	± 2.5	PASS
		VN	50	1.37	0.000547	± 2.5	PASS
	MCH	VN	-30	-0.5	-0.000197	± 2.5	PASS
		VN	-20	2.27	0.000895	± 2.5	PASS
		VN	-10	1.85	0.000730	± 2.5	PASS
		VN	0	-1.71	-0.000675	± 2.5	PASS
		VN	10	2	0.000789	± 2.5	PASS
		VN	20	-1.81	-0.000714	± 2.5	PASS
		VN	30	2.93	0.001156	± 2.5	PASS
		VN	40	3.03	0.001195	± 2.5	PASS
		VN	50	-0.31	-0.000122	± 2.5	PASS
	HCH	VN	-30	-0.41	-0.000160	± 2.5	PASS
		VN	-20	2.58	0.001006	± 2.5	PASS
		VN	-10	3.72	0.001450	± 2.5	PASS
		VN	0	-0.57	-0.000222	± 2.5	PASS
		VN	10	1.12	0.000437	± 2.5	PASS
		VN	20	4.28	0.001669	± 2.5	PASS
		VN	30	2.74	0.001068	± 2.5	PASS
		VN	40	0.41	0.000160	± 2.5	PASS
		VN	50	3.98	0.001552	± 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	2.13	0.000849	± 2.5	PASS
		VN	TN	-0.12	-0.000048	± 2.5	PASS
		VH	TN	3.28	0.001308	± 2.5	PASS
	MCH	VL	TN	1.84	0.000726	± 2.5	PASS
		VN	TN	-1.4	-0.000552	± 2.5	PASS
		VH	TN	-0.82	-0.000323	± 2.5	PASS
	HCH	VL	TN	-0.12	-0.000047	± 2.5	PASS
		VN	TN	1.61	0.000628	± 2.5	PASS
		VH	TN	3.76	0.001467	± 2.5	PASS
16QAM	LCH	VL	TN	2.76	0.001101	± 2.5	PASS
		VN	TN	4.59	0.001831	± 2.5	PASS
		VH	TN	3.63	0.001448	± 2.5	PASS
	MCH	VL	TN	1.04	0.000410	± 2.5	PASS
		VN	TN	2.59	0.001022	± 2.5	PASS
		VH	TN	4.56	0.001799	± 2.5	PASS
	HCH	VL	TN	-2	-0.000780	± 2.5	PASS
		VN	TN	-1.76	-0.000687	± 2.5	PASS
		VH	TN	-1.87	-0.000730	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.82	0.001125	± 2.5	PASS
		VN	-20	-1.54	-0.000614	± 2.5	PASS
		VN	-10	1.63	0.000650	± 2.5	PASS
		VN	0	0.26	0.000104	± 2.5	PASS
		VN	10	4.8	0.001914	± 2.5	PASS
		VN	20	-1.77	-0.000706	± 2.5	PASS
		VN	30	-0.91	-0.000363	± 2.5	PASS
		VN	40	4.64	0.001850	± 2.5	PASS
		VN	50	2.93	0.001168	± 2.5	PASS
	MCH	VN	-30	0.81	0.000320	± 2.5	PASS
		VN	-20	-0.76	-0.000300	± 2.5	PASS
		VN	-10	2.13	0.000840	± 2.5	PASS
		VN	0	2.76	0.001089	± 2.5	PASS
		VN	10	0.05	0.000020	± 2.5	PASS
		VN	20	1.22	0.000481	± 2.5	PASS

		VN	30	1.33	0.000525	± 2.5	PASS
		VN	40	0.73	0.000288	± 2.5	PASS
		VN	50	2.67	0.001053	± 2.5	PASS
	HCH	VN	-30	1.52	0.000593	± 2.5	PASS
		VN	-20	-1.1	-0.000429	± 2.5	PASS
		VN	-10	3.38	0.001319	± 2.5	PASS
		VN	0	1.35	0.000527	± 2.5	PASS
		VN	10	1.5	0.000585	± 2.5	PASS
		VN	20	-1.3	-0.000507	± 2.5	PASS
		VN	30	-1.16	-0.000453	± 2.5	PASS
		VN	40	2.93	0.001143	± 2.5	PASS
		VN	50	1.11	0.000433	± 2.5	PASS
16QAM	LCH	VN	-30	1.51	0.000602	± 2.5	PASS
		VN	-20	-1.54	-0.000614	± 2.5	PASS
		VN	-10	0.33	0.000132	± 2.5	PASS
		VN	0	-1.17	-0.000467	± 2.5	PASS
		VN	10	3.32	0.001324	± 2.5	PASS
		VN	20	2.91	0.001161	± 2.5	PASS
		VN	30	0.54	0.000215	± 2.5	PASS
		VN	40	2.91	0.001161	± 2.5	PASS
		VN	50	0.31	0.000124	± 2.5	PASS
	MCH	VN	-30	4.78	0.001886	± 2.5	PASS
		VN	-20	4.6	0.001815	± 2.5	PASS
		VN	-10	0.19	0.000075	± 2.5	PASS
		VN	0	-1.85	-0.000730	± 2.5	PASS
		VN	10	4.08	0.001609	± 2.5	PASS
		VN	20	2.12	0.000836	± 2.5	PASS
		VN	30	0.89	0.000351	± 2.5	PASS
		VN	40	0.42	0.000166	± 2.5	PASS
		VN	50	-1.23	-0.000485	± 2.5	PASS
	HCH	VN	-30	0.19	0.000074	± 2.5	PASS
		VN	-20	-1.63	-0.000636	± 2.5	PASS
		VN	-10	2.73	0.001065	± 2.5	PASS
		VN	0	1.09	0.000425	± 2.5	PASS
		VN	10	1.07	0.000418	± 2.5	PASS
		VN	20	2.87	0.001120	± 2.5	PASS
		VN	30	3.19	0.001245	± 2.5	PASS
		VN	40	-0.24	-0.000094	± 2.5	PASS
		VN	50	1.8	0.000702	± 2.5	PASS

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	3.19	0.001271	± 2.5	PASS
		VN	TN	3.5	0.001394	± 2.5	PASS
		VH	TN	4.63	0.001845	± 2.5	PASS
	MCH	VL	TN	-1.83	-0.000722	± 2.5	PASS
		VN	TN	1.37	0.000540	± 2.5	PASS
		VH	TN	3.71	0.001464	± 2.5	PASS
	HCH	VL	TN	1.55	0.000605	± 2.5	PASS
		VN	TN	0.51	0.000199	± 2.5	PASS
		VH	TN	2.42	0.000945	± 2.5	PASS
16QAM	LCH	VL	TN	4.06	0.001618	± 2.5	PASS
		VN	TN	2.21	0.000880	± 2.5	PASS
		VH	TN	0.28	0.000112	± 2.5	PASS
	MCH	VL	TN	2.69	0.001061	± 2.5	PASS
		VN	TN	2.45	0.000966	± 2.5	PASS
		VH	TN	2.91	0.001148	± 2.5	PASS
	HCH	VL	TN	-0.15	-0.000059	± 2.5	PASS
		VN	TN	0.74	0.000289	± 2.5	PASS
		VH	TN	1.39	0.000543	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.77	0.000705	± 2.5	PASS
		VN	-20	1.31	0.000522	± 2.5	PASS
		VN	-10	-1.89	-0.000753	± 2.5	PASS
		VN	0	-1.56	-0.000622	± 2.5	PASS
		VN	10	-1.58	-0.000629	± 2.5	PASS
		VN	20	2.46	0.000980	± 2.5	PASS
		VN	30	-0.65	-0.000259	± 2.5	PASS
		VN	40	1.71	0.000681	± 2.5	PASS
		VN	50	0.62	0.000247	± 2.5	PASS
	MCH	VN	-30	4.42	0.001744	± 2.5	PASS
		VN	-20	4.74	0.001870	± 2.5	PASS
		VN	-10	4.92	0.001941	± 2.5	PASS
		VN	0	3.66	0.001444	± 2.5	PASS
		VN	10	3.36	0.001325	± 2.5	PASS
		VN	20	1.71	0.000675	± 2.5	PASS

		VN	30	-0.19	-0.000075	± 2.5	PASS
		VN	40	2.82	0.001112	± 2.5	PASS
		VN	50	1.78	0.000702	± 2.5	PASS
	HCH	VN	-30	1.79	0.000699	± 2.5	PASS
		VN	-20	2.17	0.000848	± 2.5	PASS
		VN	-10	0.2	0.000078	± 2.5	PASS
		VN	0	-1.27	-0.000496	± 2.5	PASS
		VN	10	1.44	0.000563	± 2.5	PASS
		VN	20	4.62	0.001805	± 2.5	PASS
		VN	30	2.57	0.001004	± 2.5	PASS
		VN	40	2.79	0.001090	± 2.5	PASS
		VN	50	2.32	0.000906	± 2.5	PASS
16QAM	LCH	VN	-30	4.55	0.001813	± 2.5	PASS
		VN	-20	0.83	0.000331	± 2.5	PASS
		VN	-10	2.88	0.001147	± 2.5	PASS
		VN	0	0.33	0.000131	± 2.5	PASS
		VN	10	1.45	0.000578	± 2.5	PASS
		VN	20	0.99	0.000394	± 2.5	PASS
		VN	30	-0.57	-0.000227	± 2.5	PASS
		VN	40	3.28	0.001307	± 2.5	PASS
		VN	50	-1.36	-0.000542	± 2.5	PASS
	MCH	VN	-30	-0.07	-0.000028	± 2.5	PASS
		VN	-20	1.71	0.000675	± 2.5	PASS
		VN	-10	4.32	0.001704	± 2.5	PASS
		VN	0	-0.98	-0.000387	± 2.5	PASS
		VN	10	0.39	0.000154	± 2.5	PASS
		VN	20	2.76	0.001089	± 2.5	PASS
		VN	30	0.01	0.000004	± 2.5	PASS
		VN	40	-1.37	-0.000540	± 2.5	PASS
		VN	50	4.97	0.001961	± 2.5	PASS
	HCH	VN	-30	-1.42	-0.000555	± 2.5	PASS
		VN	-20	4.26	0.001664	± 2.5	PASS
		VN	-10	0.99	0.000387	± 2.5	PASS
		VN	0	1.5	0.000586	± 2.5	PASS
		VN	10	-0.28	-0.000109	± 2.5	PASS
		VN	20	4.45	0.001738	± 2.5	PASS
		VN	30	1.85	0.000723	± 2.5	PASS
		VN	40	-0.89	-0.000348	± 2.5	PASS
		VN	50	2.74	0.001070	± 2.5	PASS