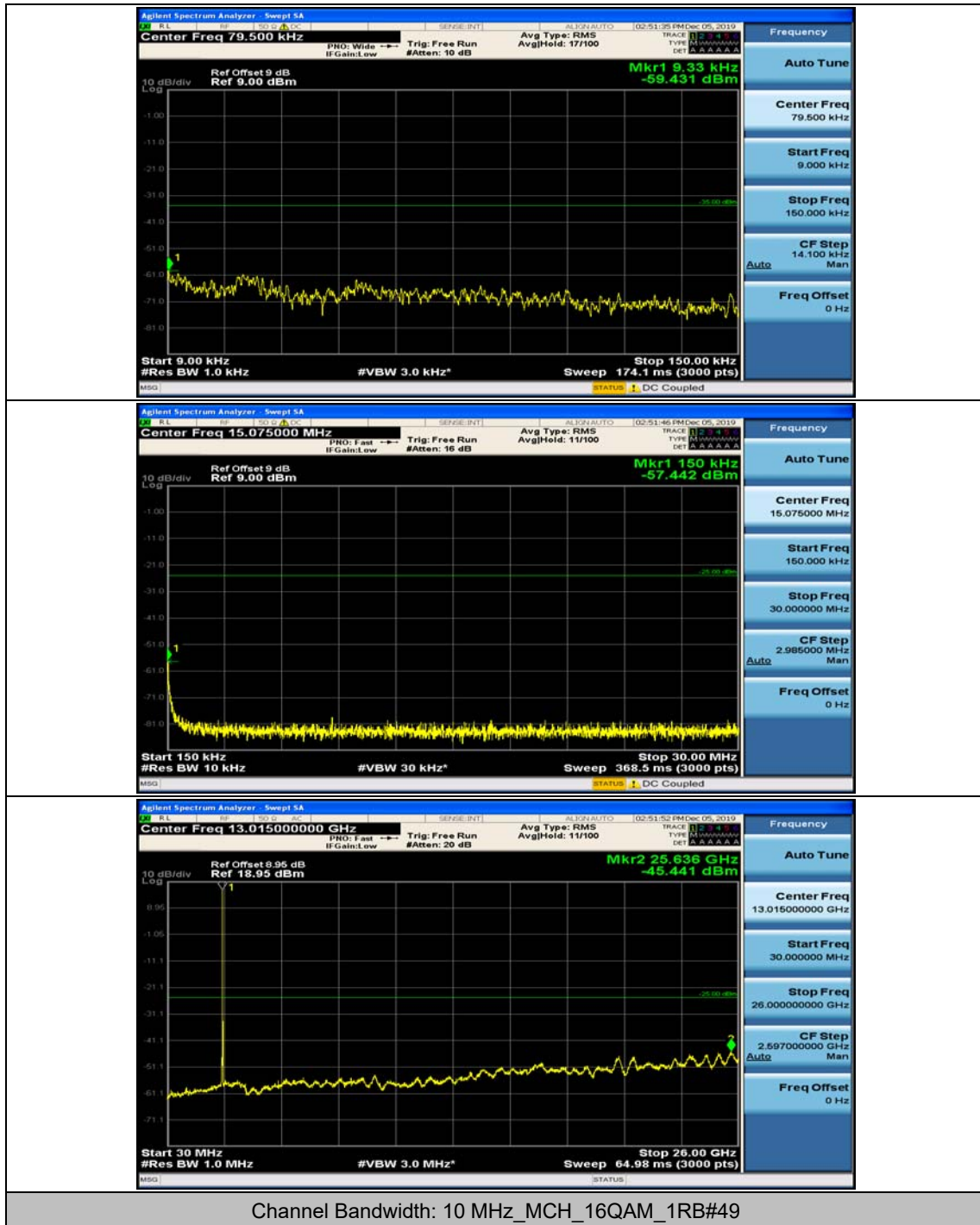
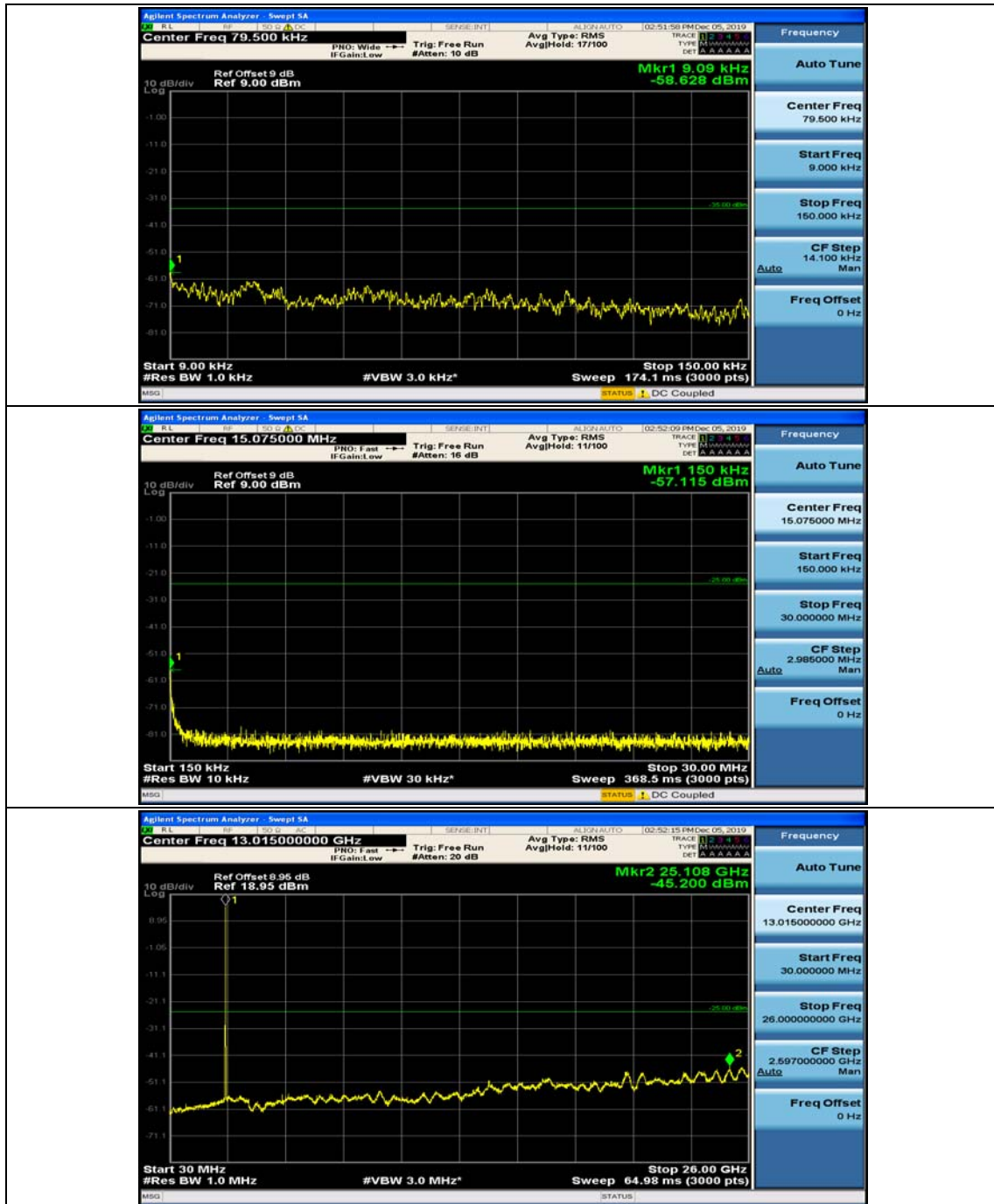
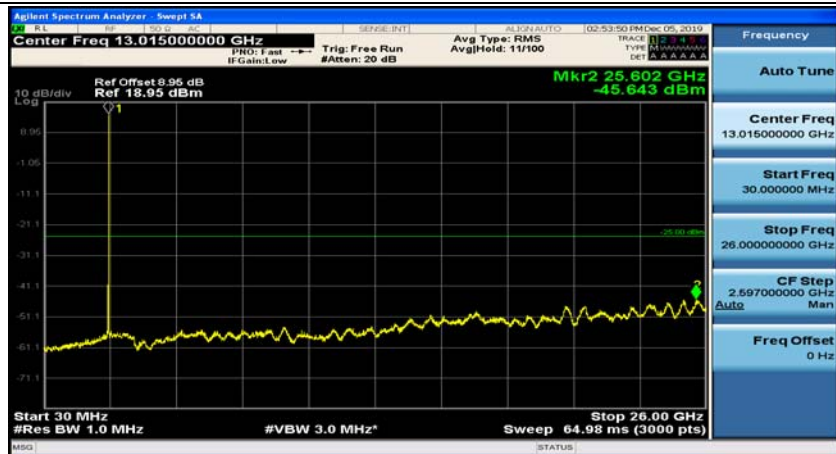
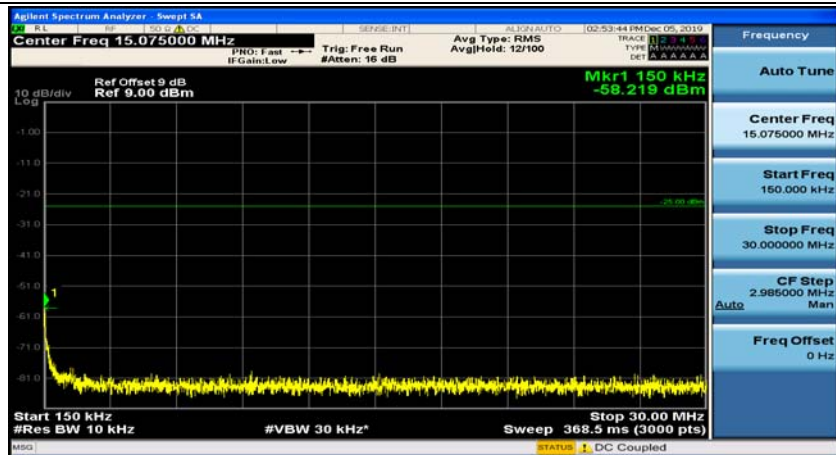
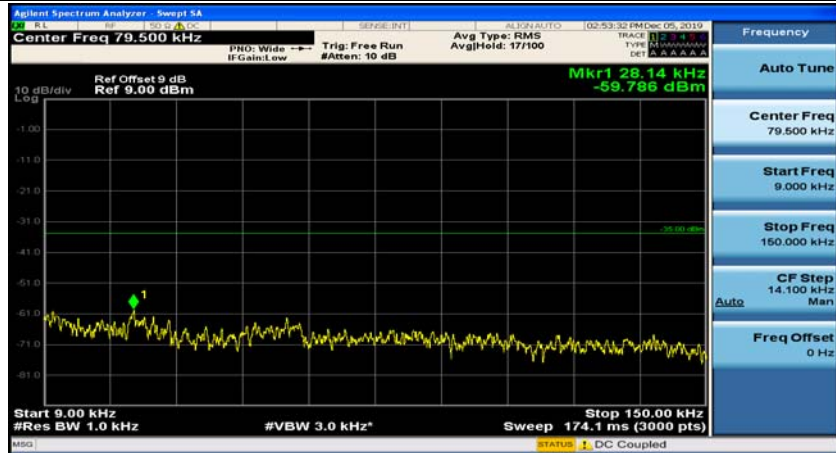


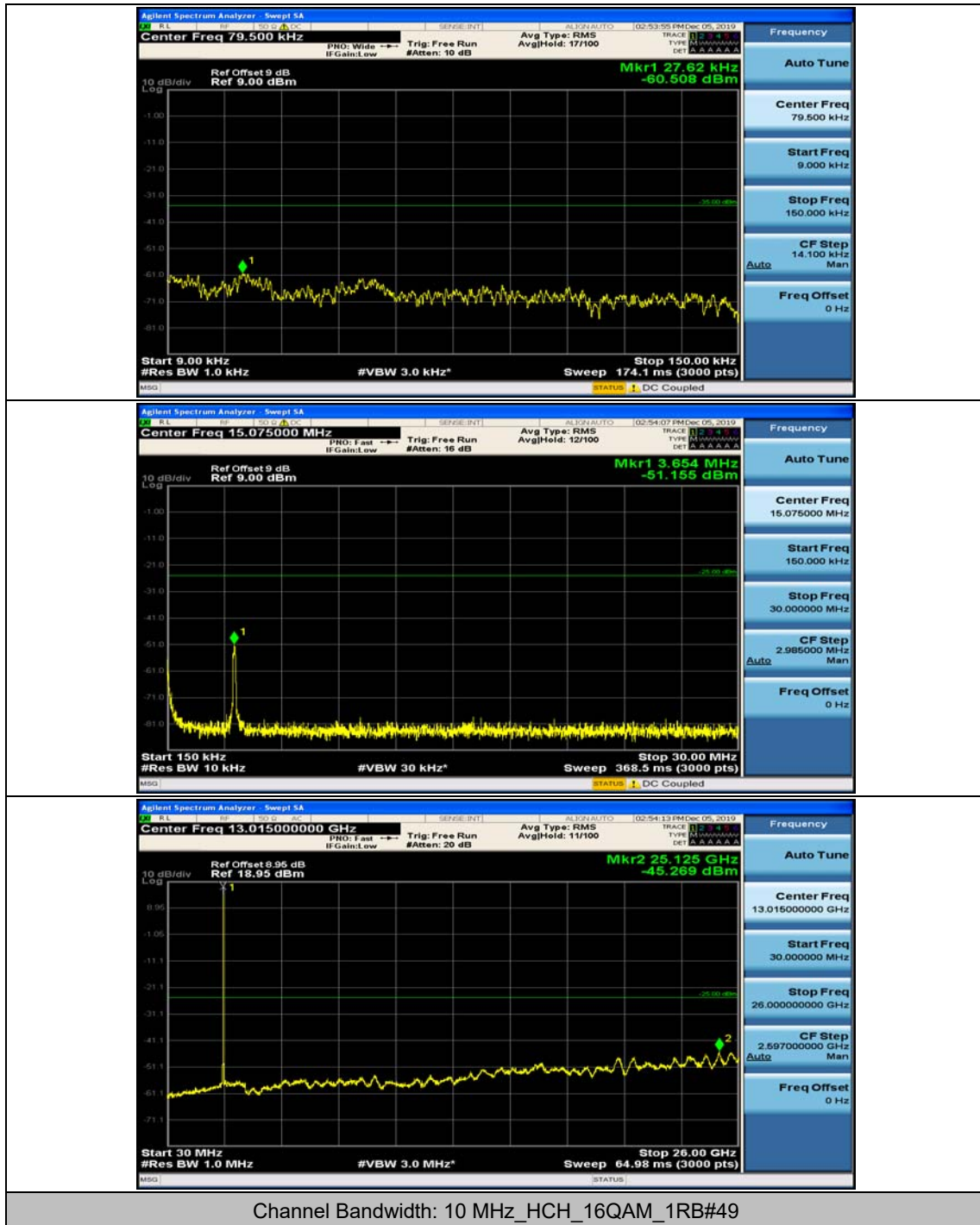


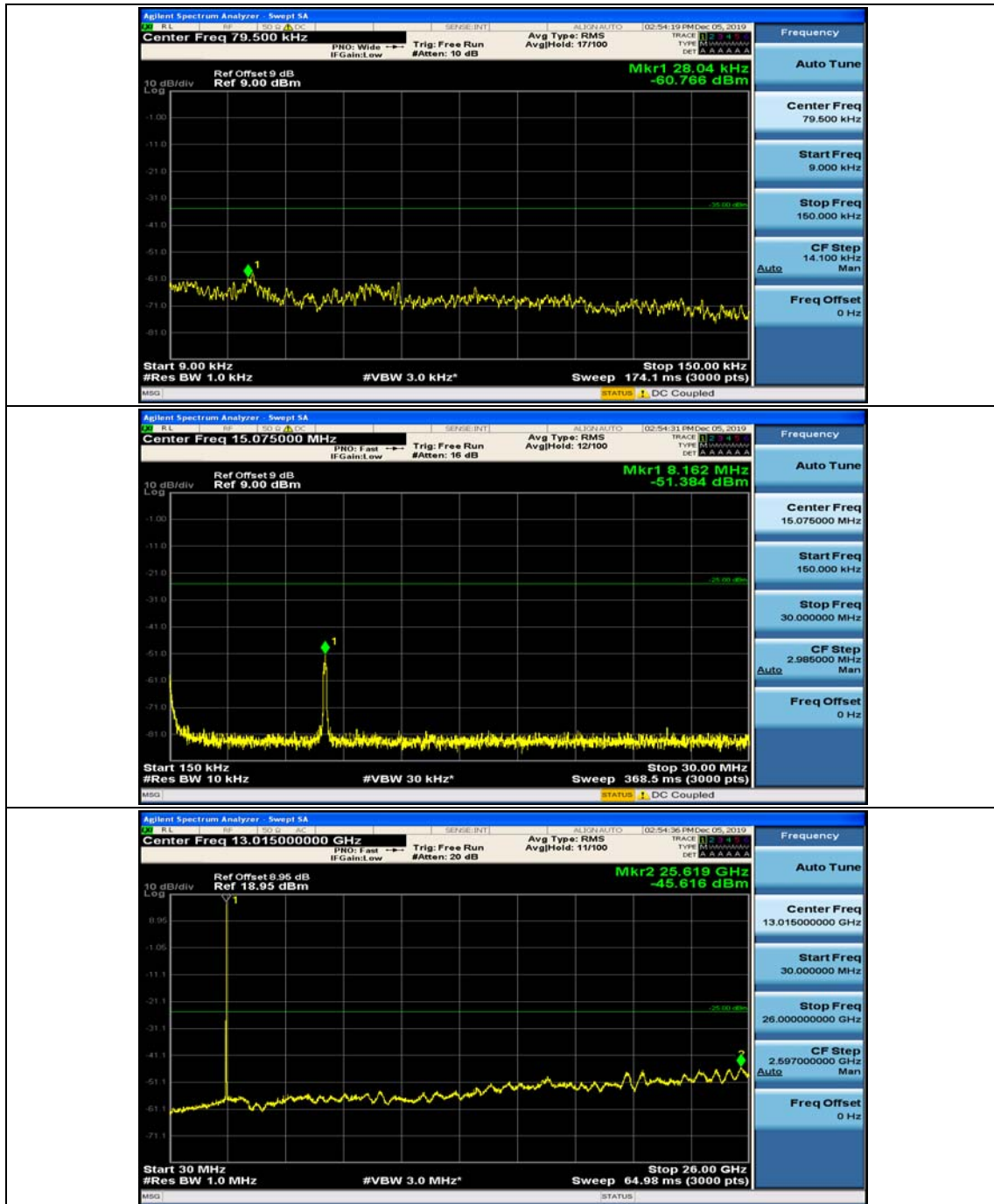


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

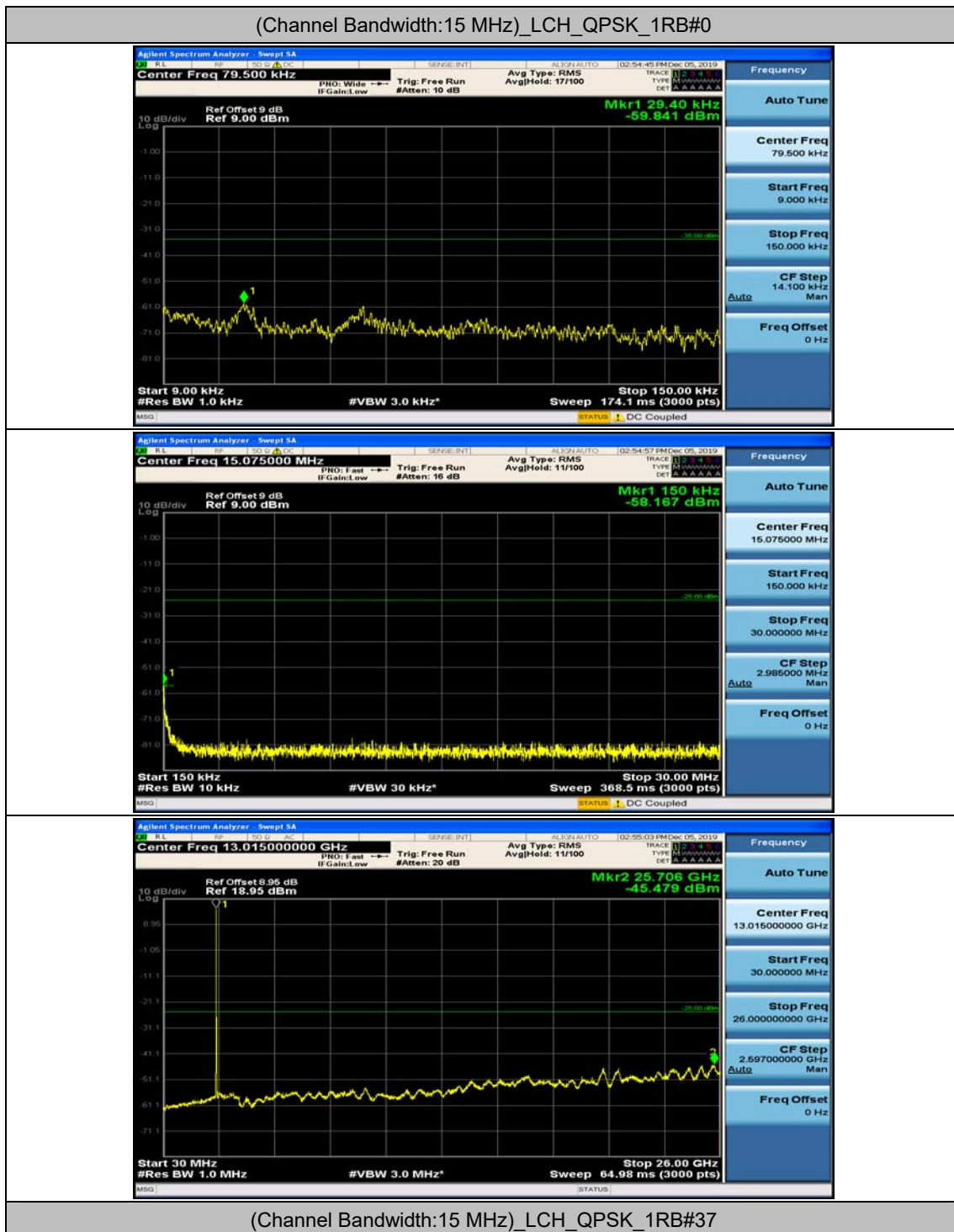


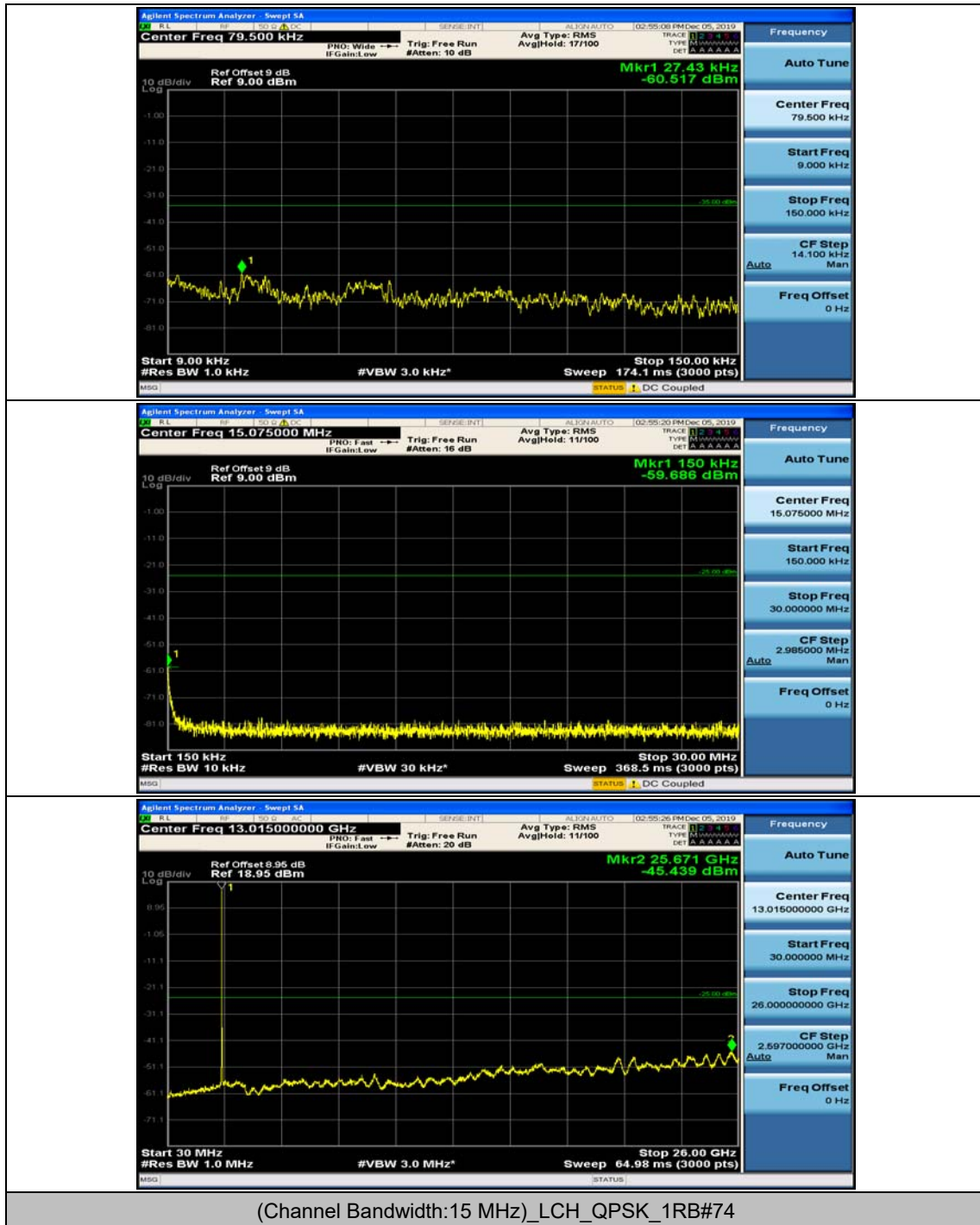
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

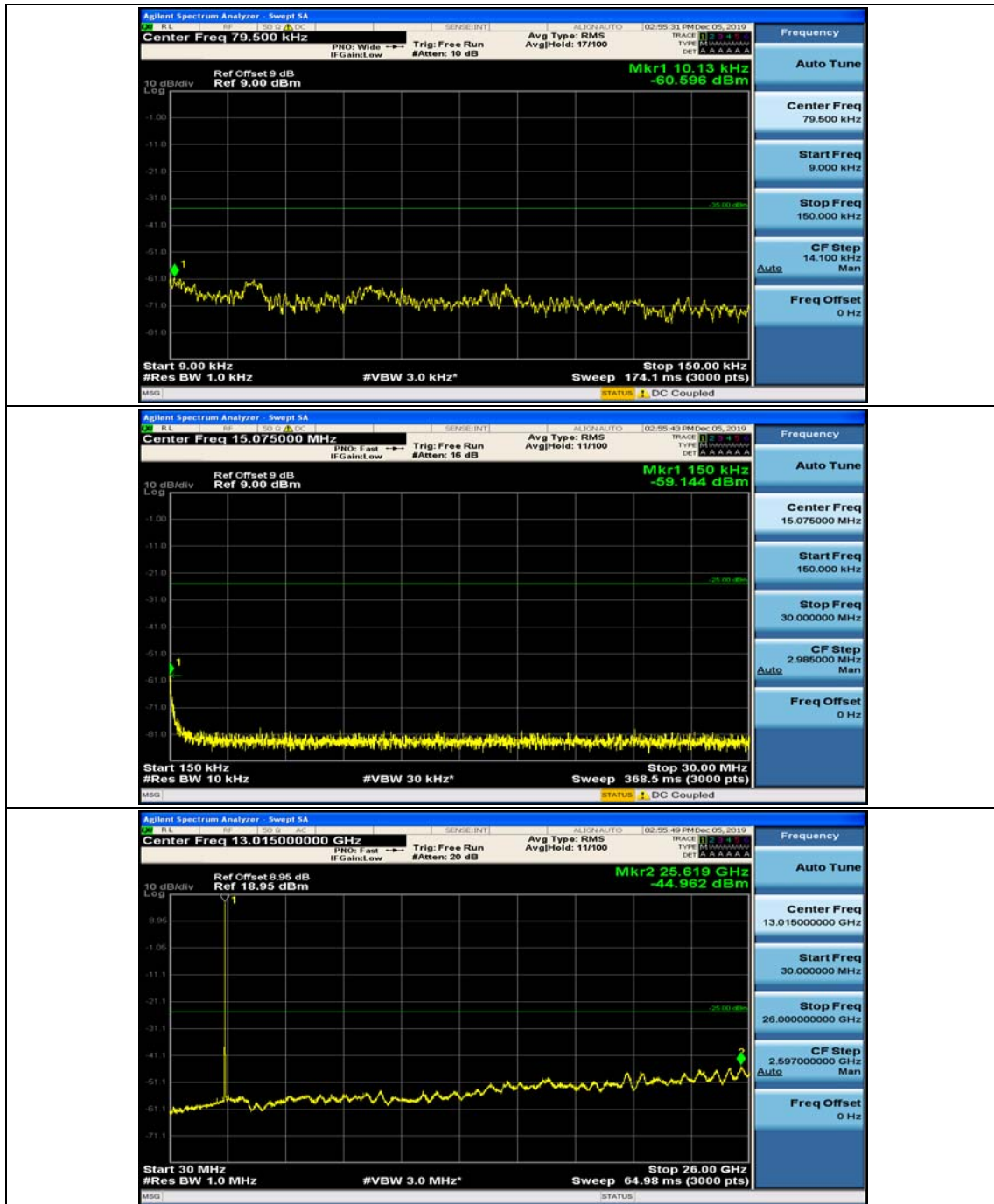




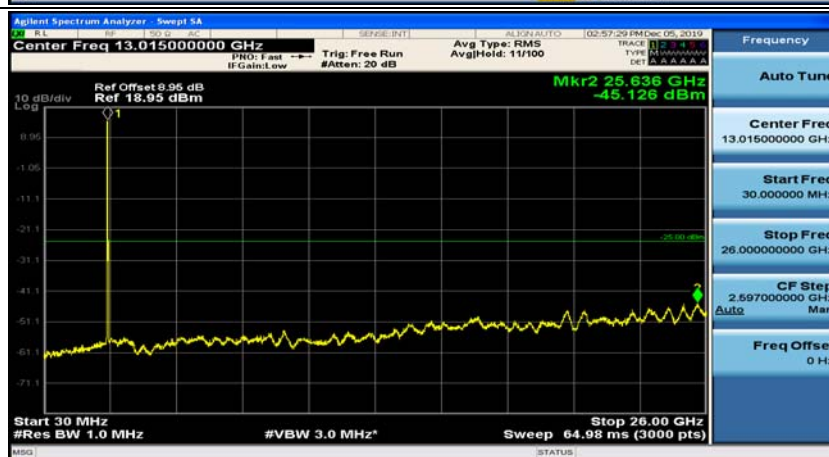
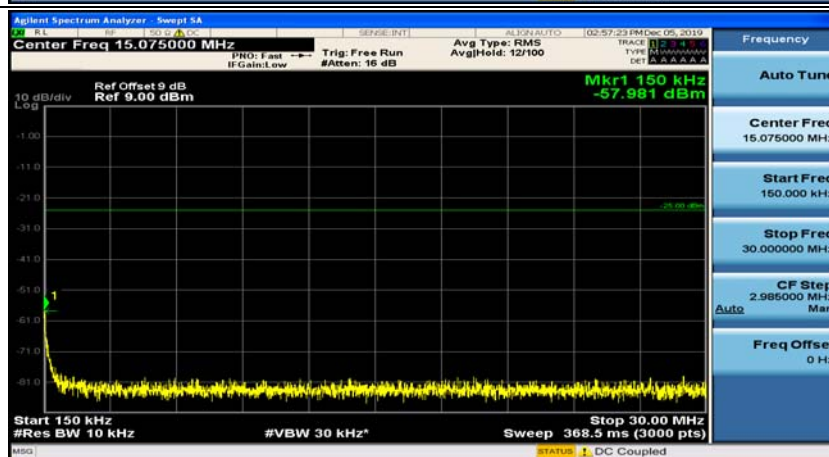
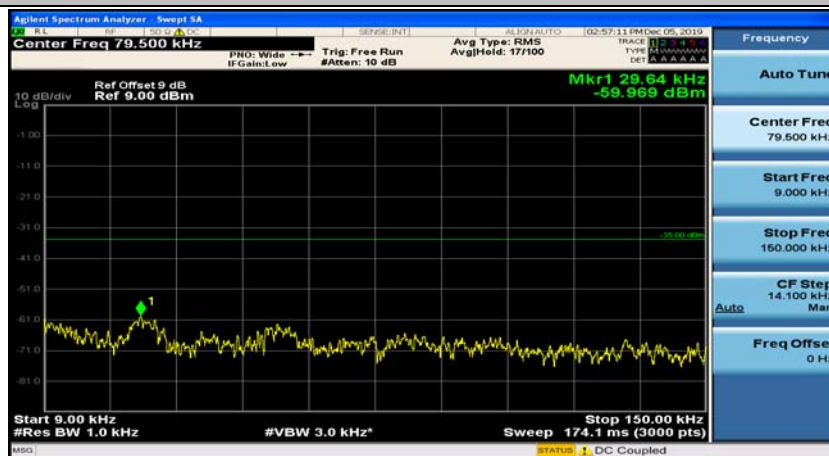
Channel Bandwidth: 15 MHz



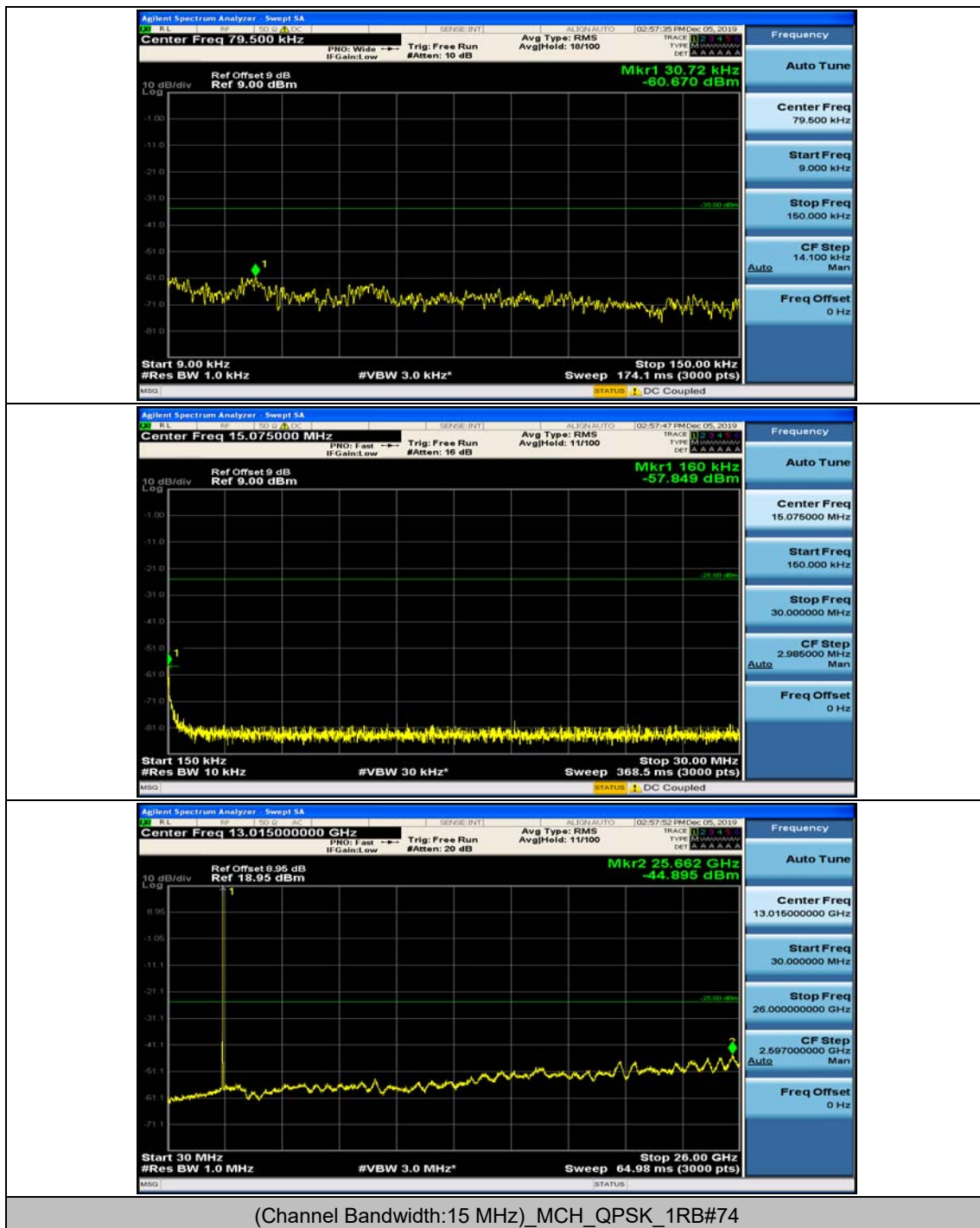


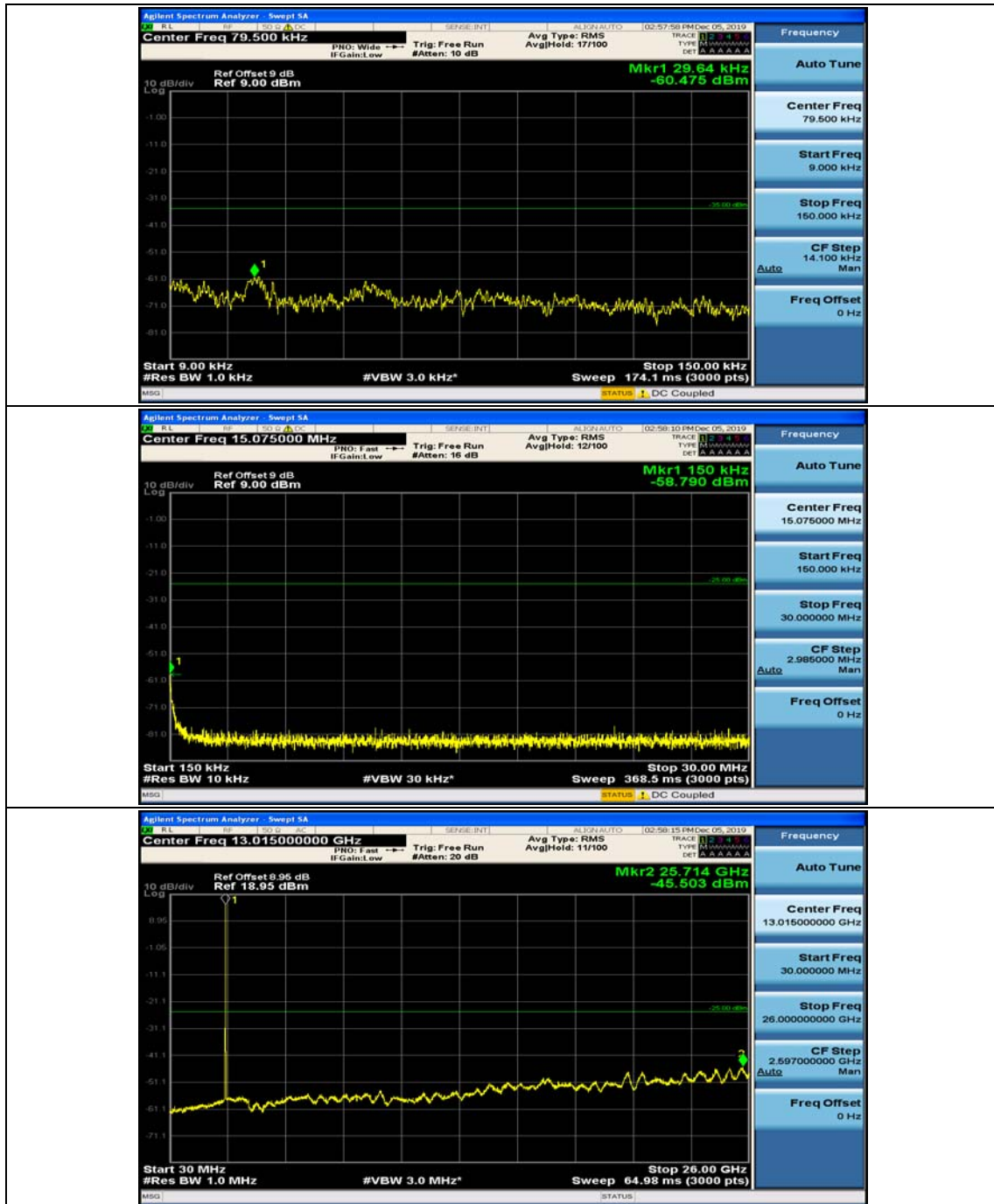


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

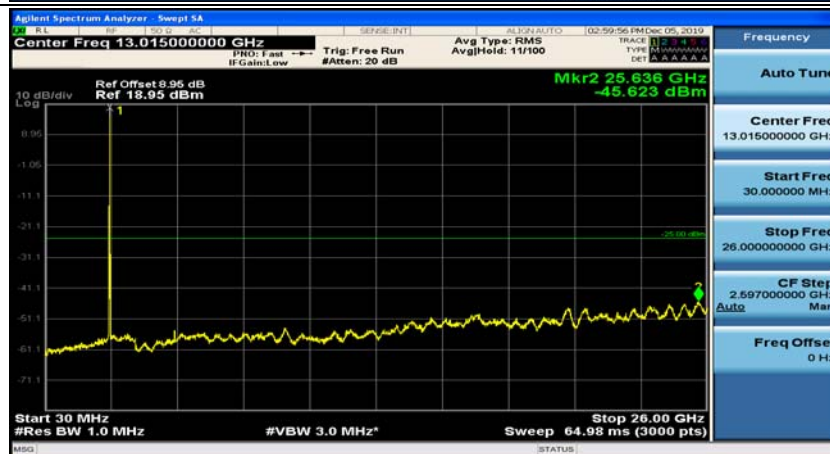
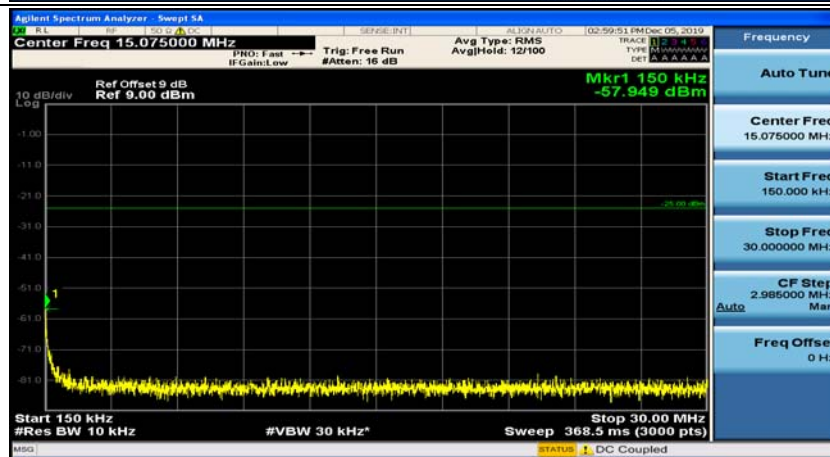
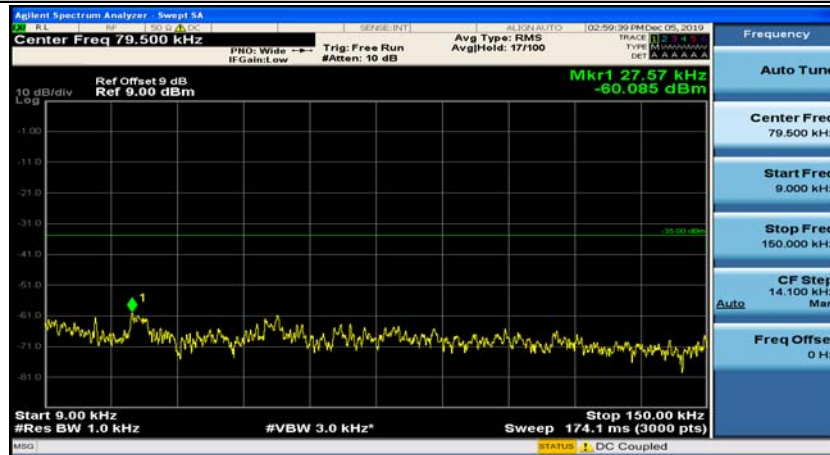


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

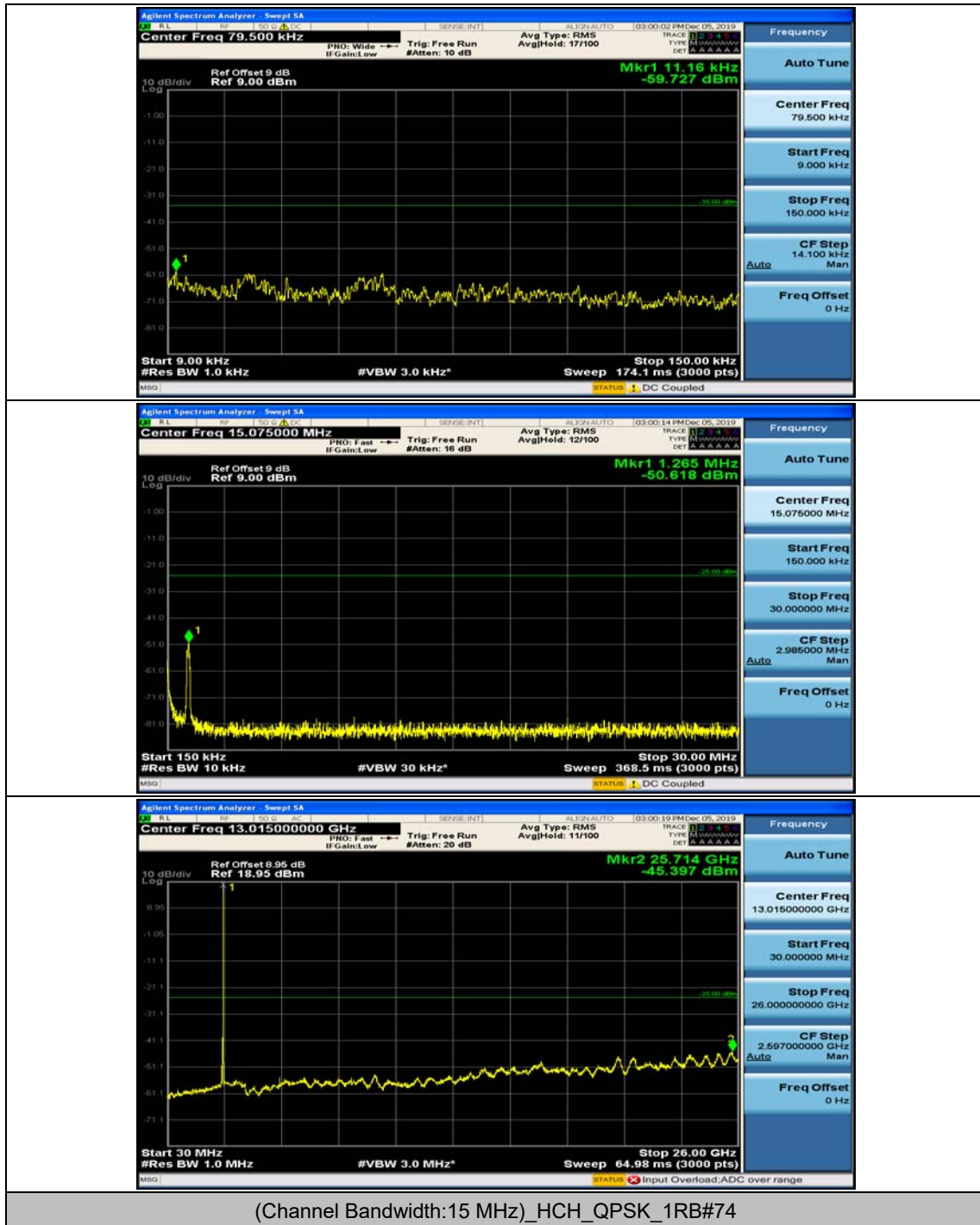


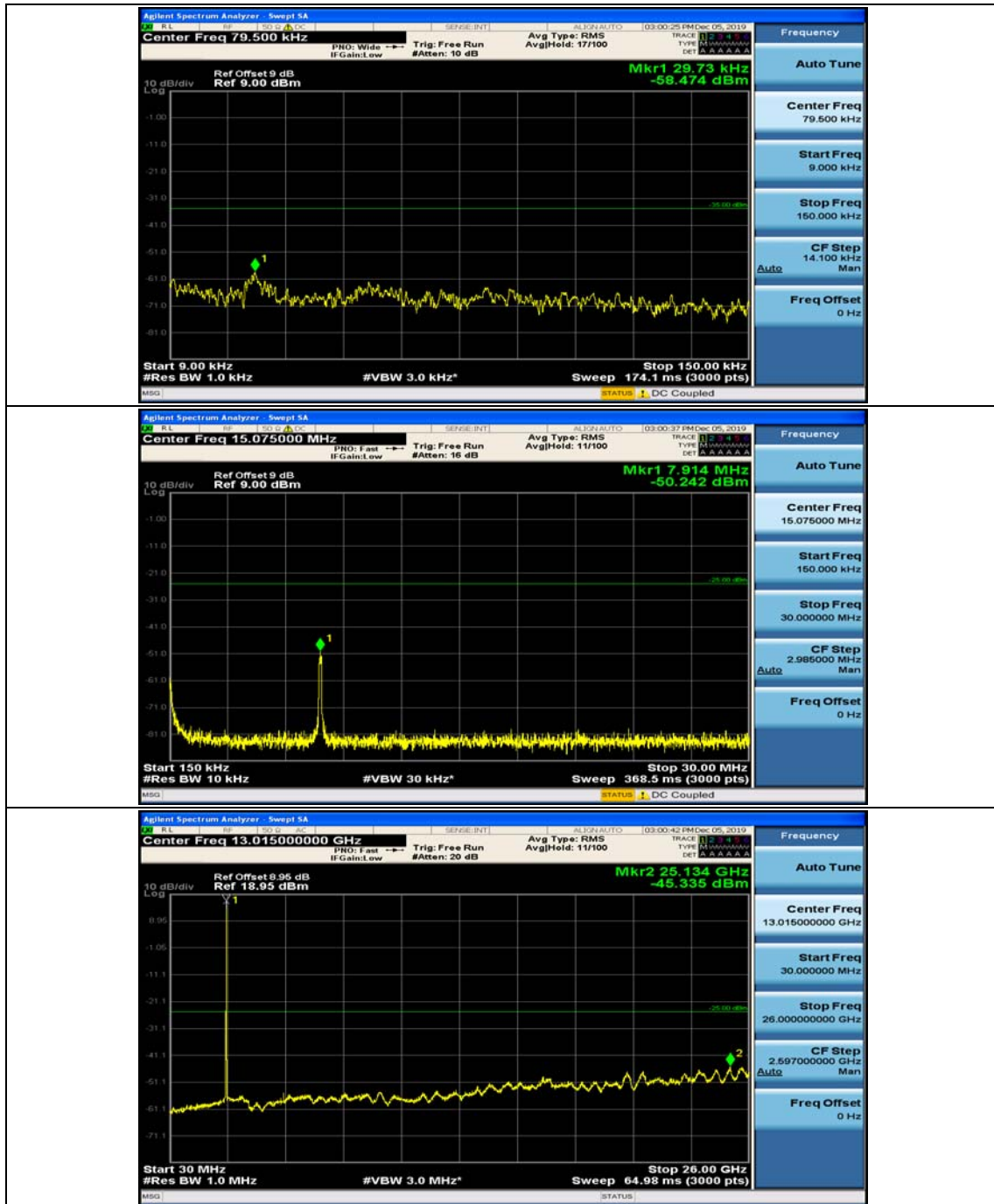


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

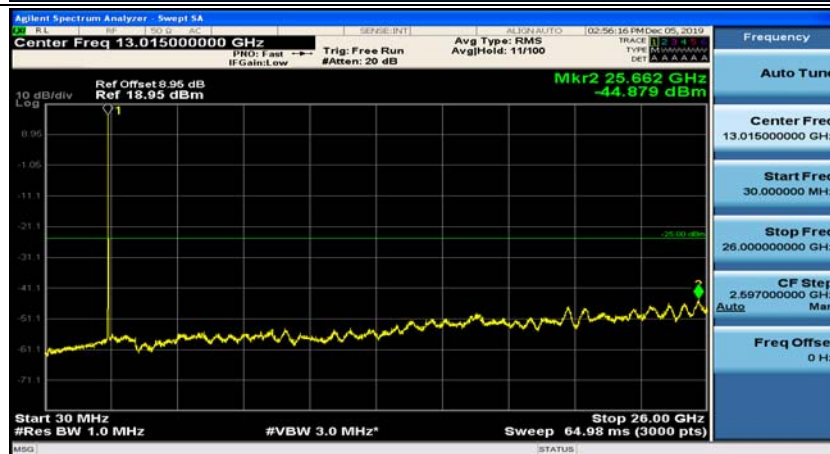
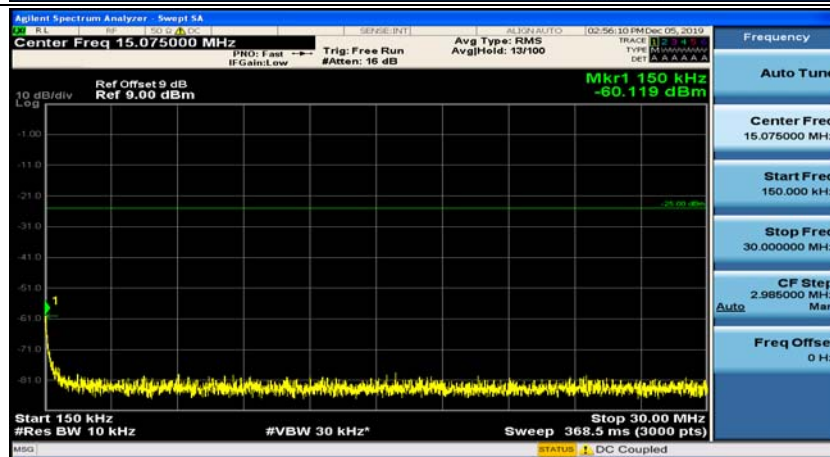
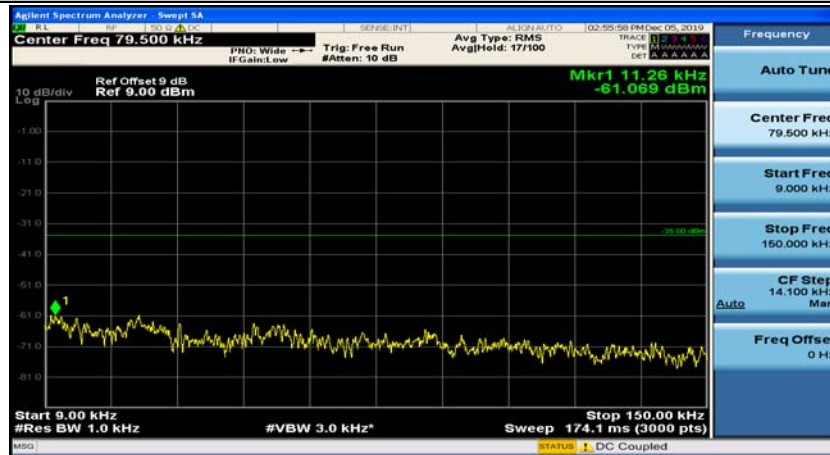


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

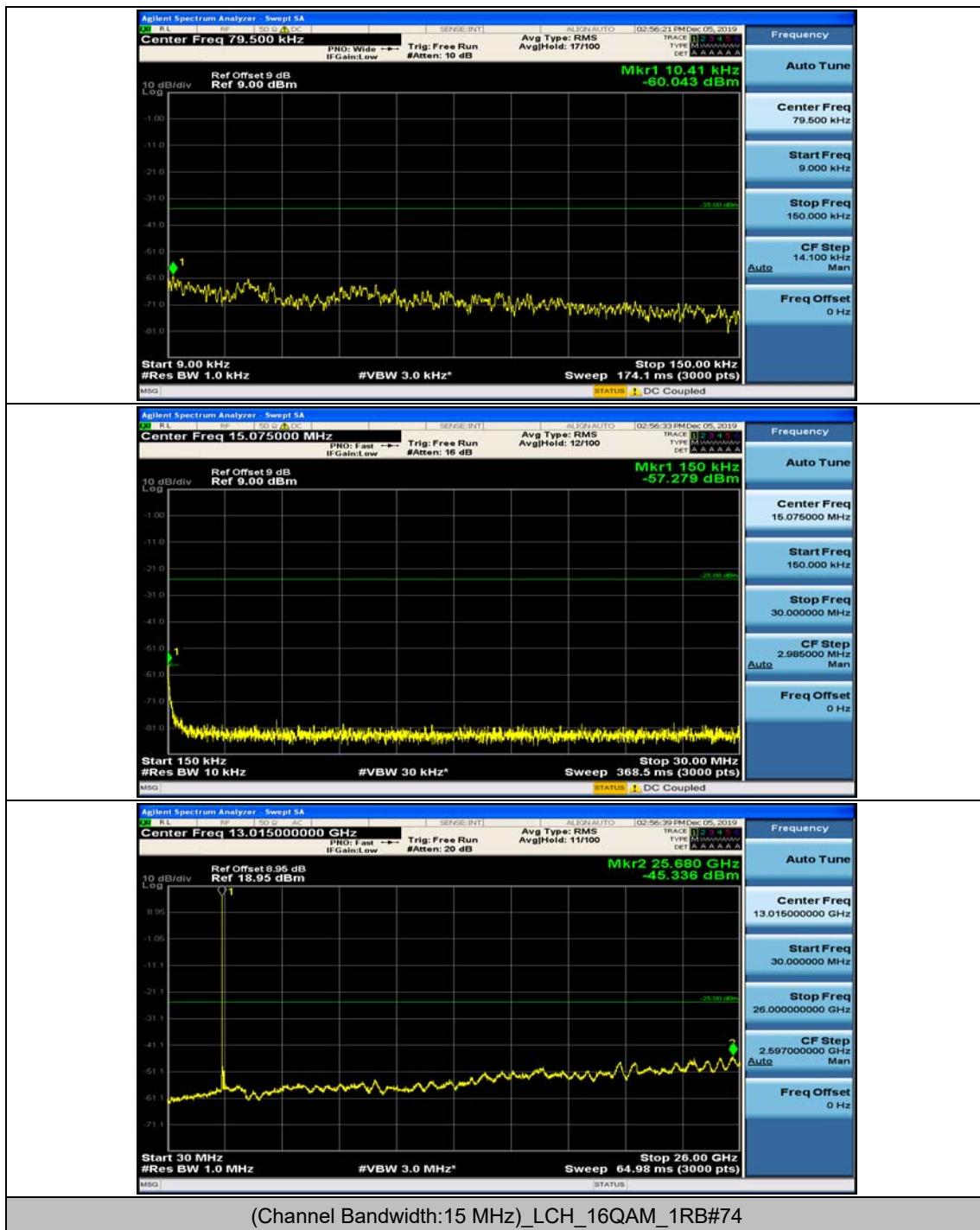


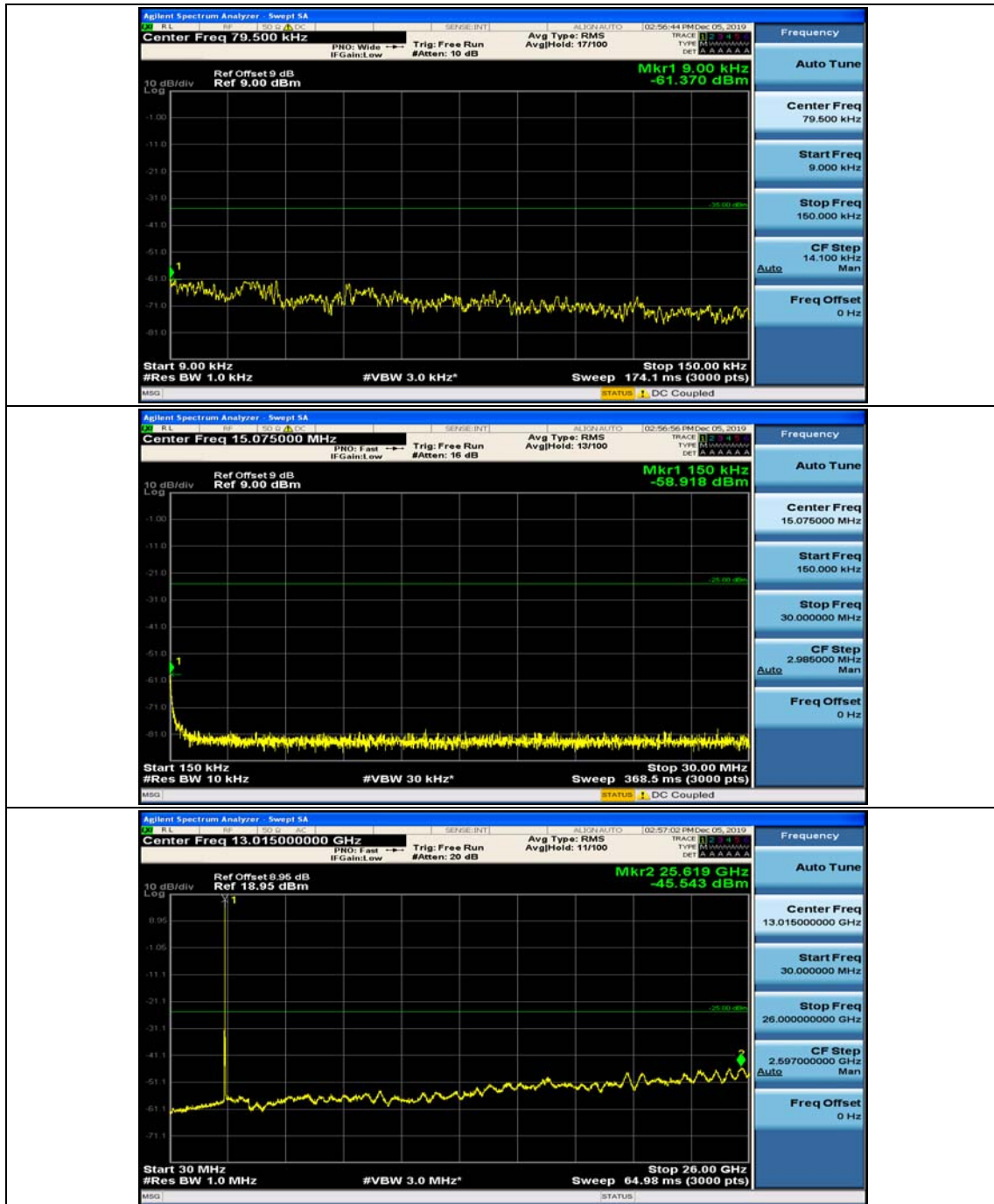


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

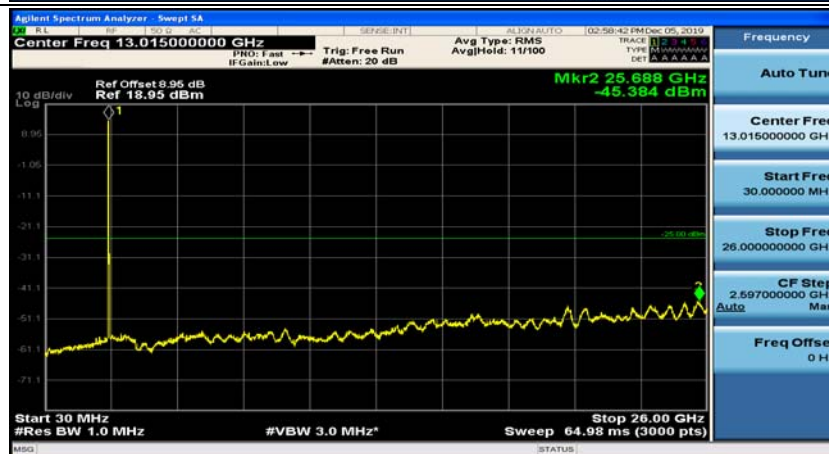
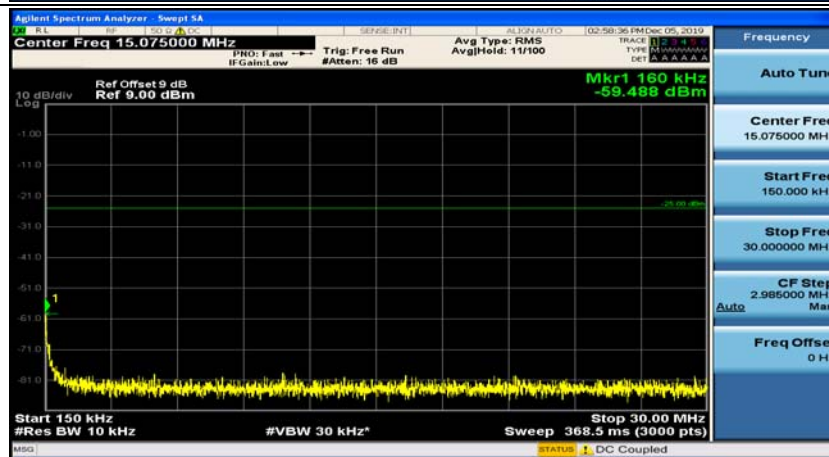
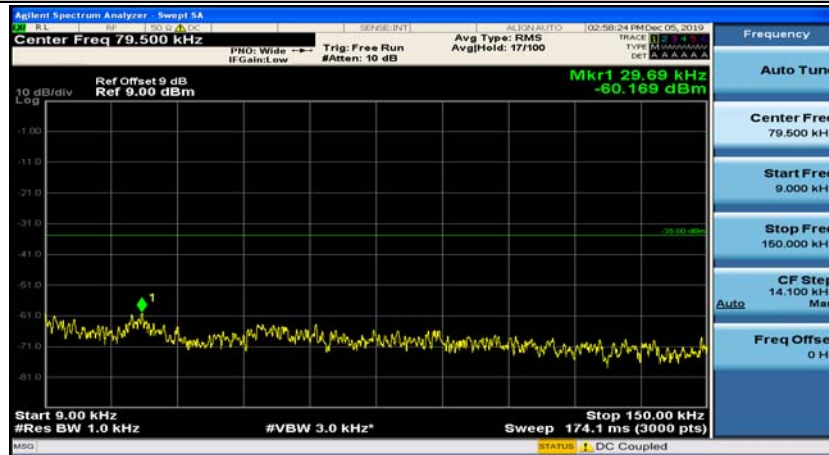


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

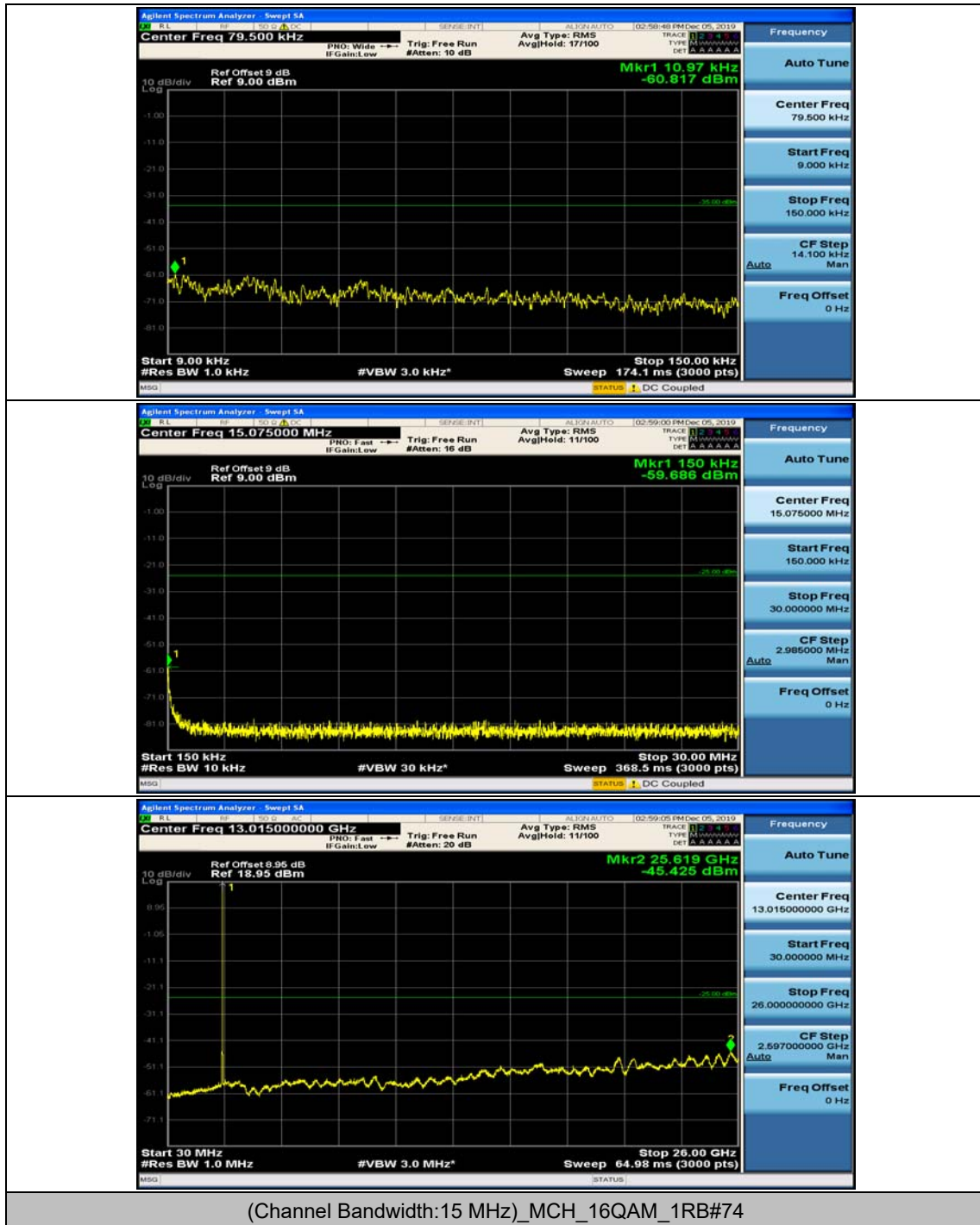


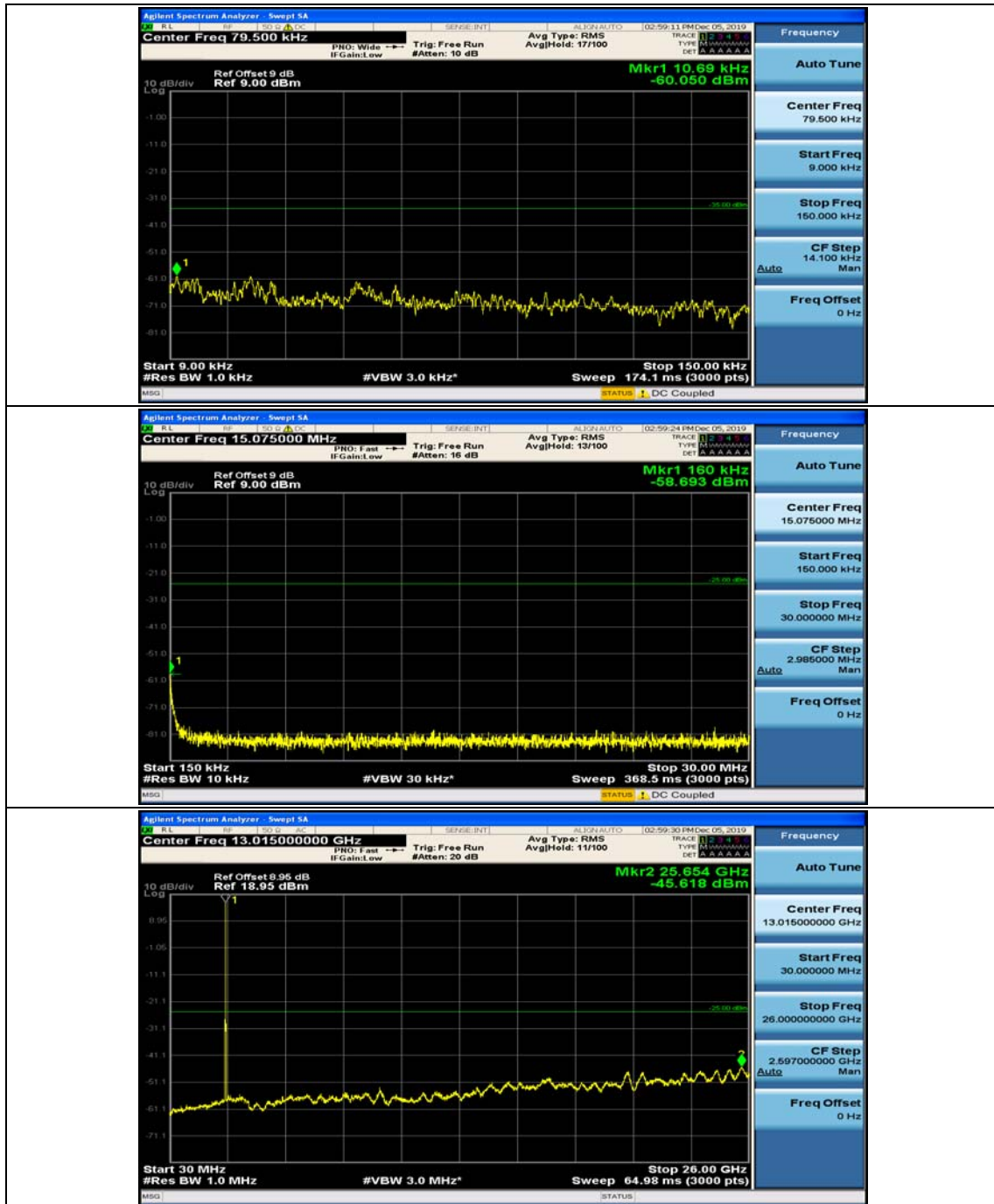


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

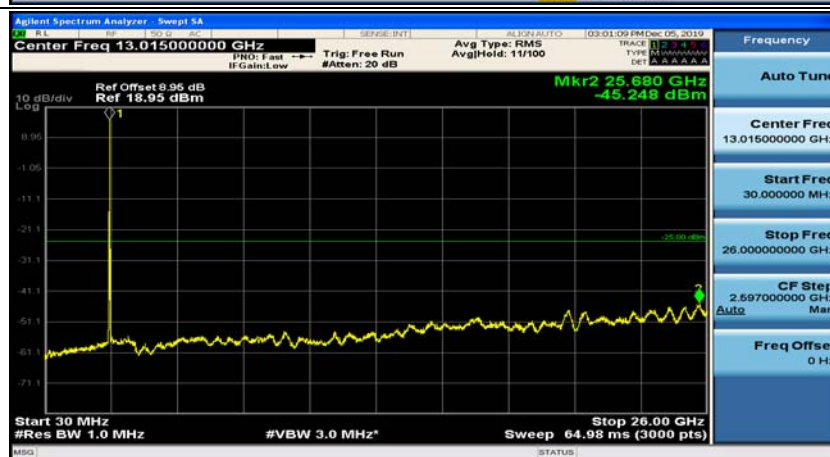
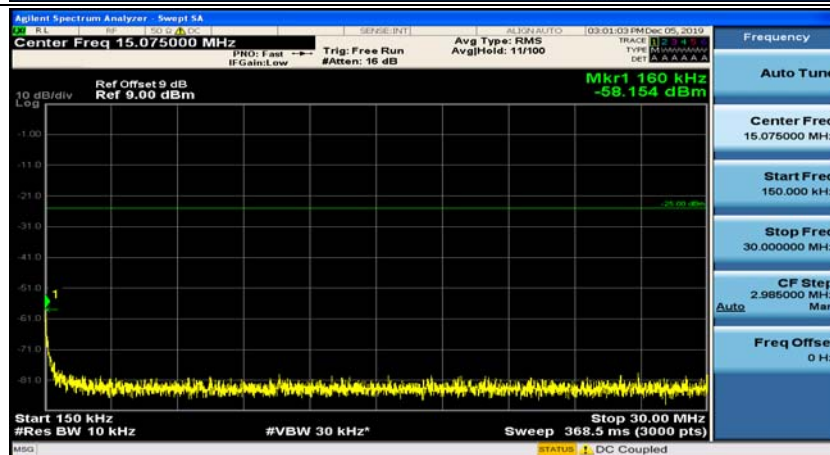
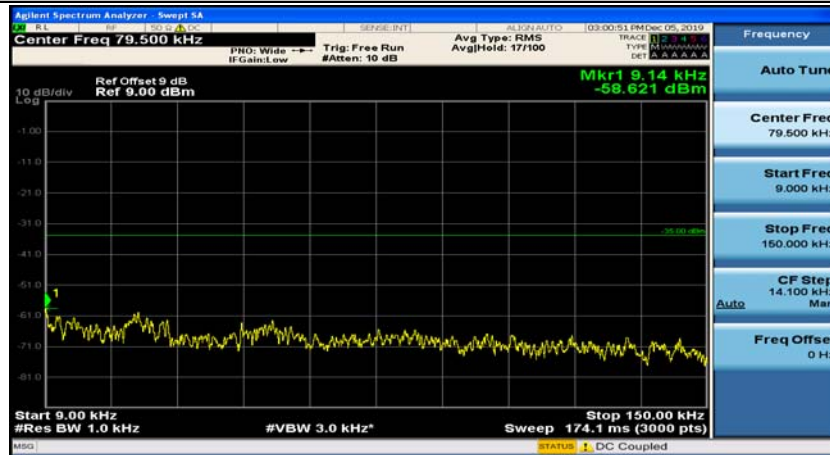


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

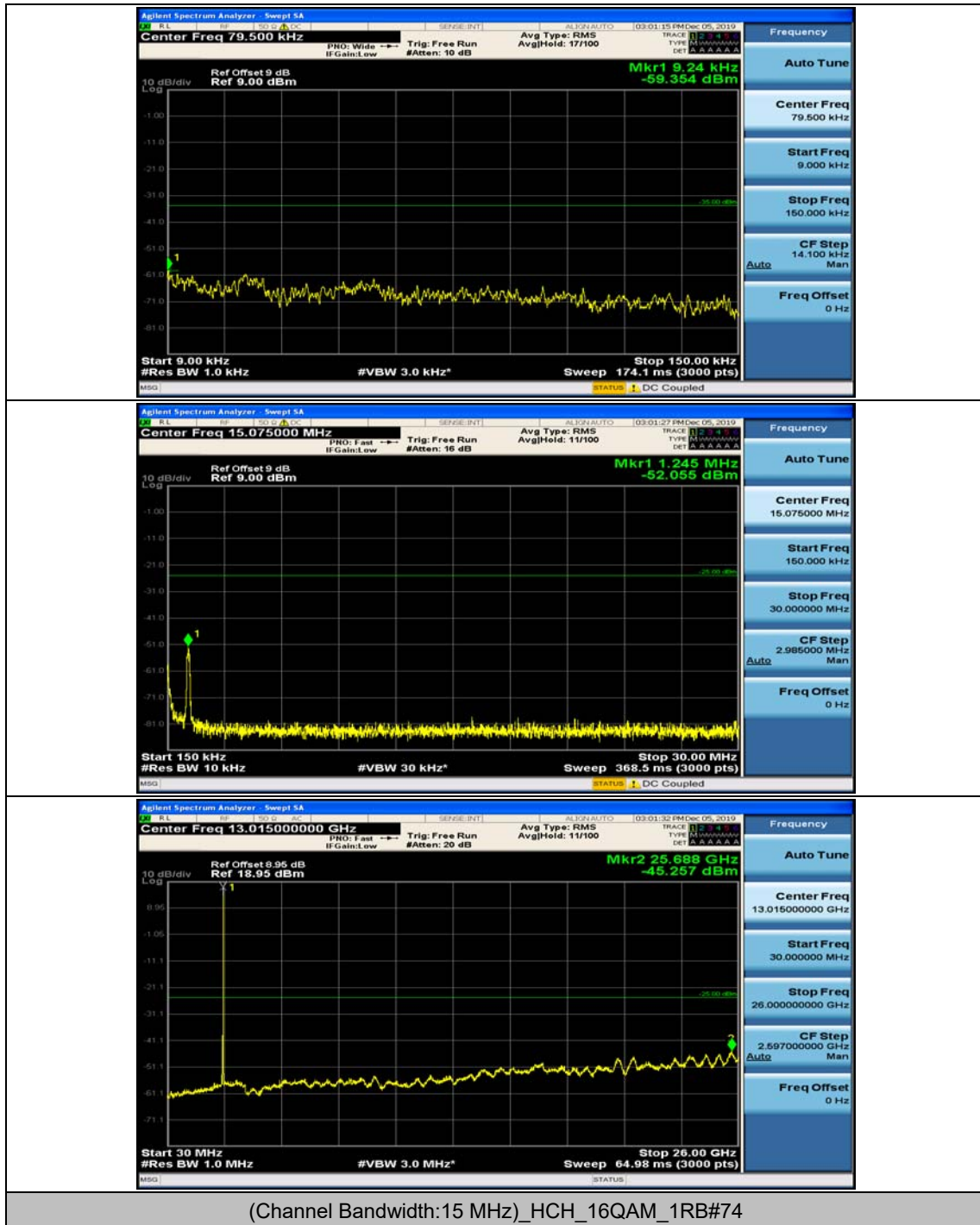


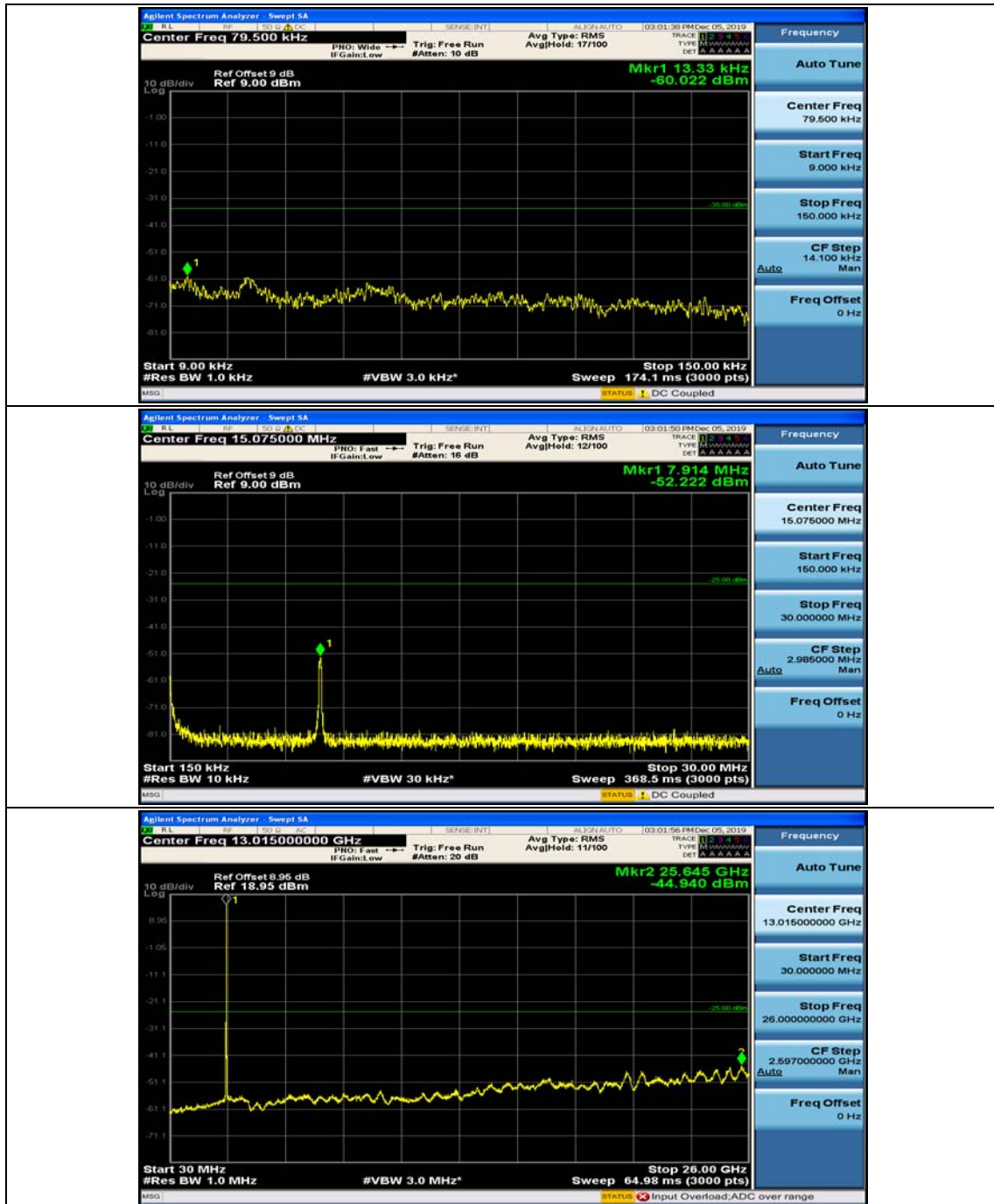


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

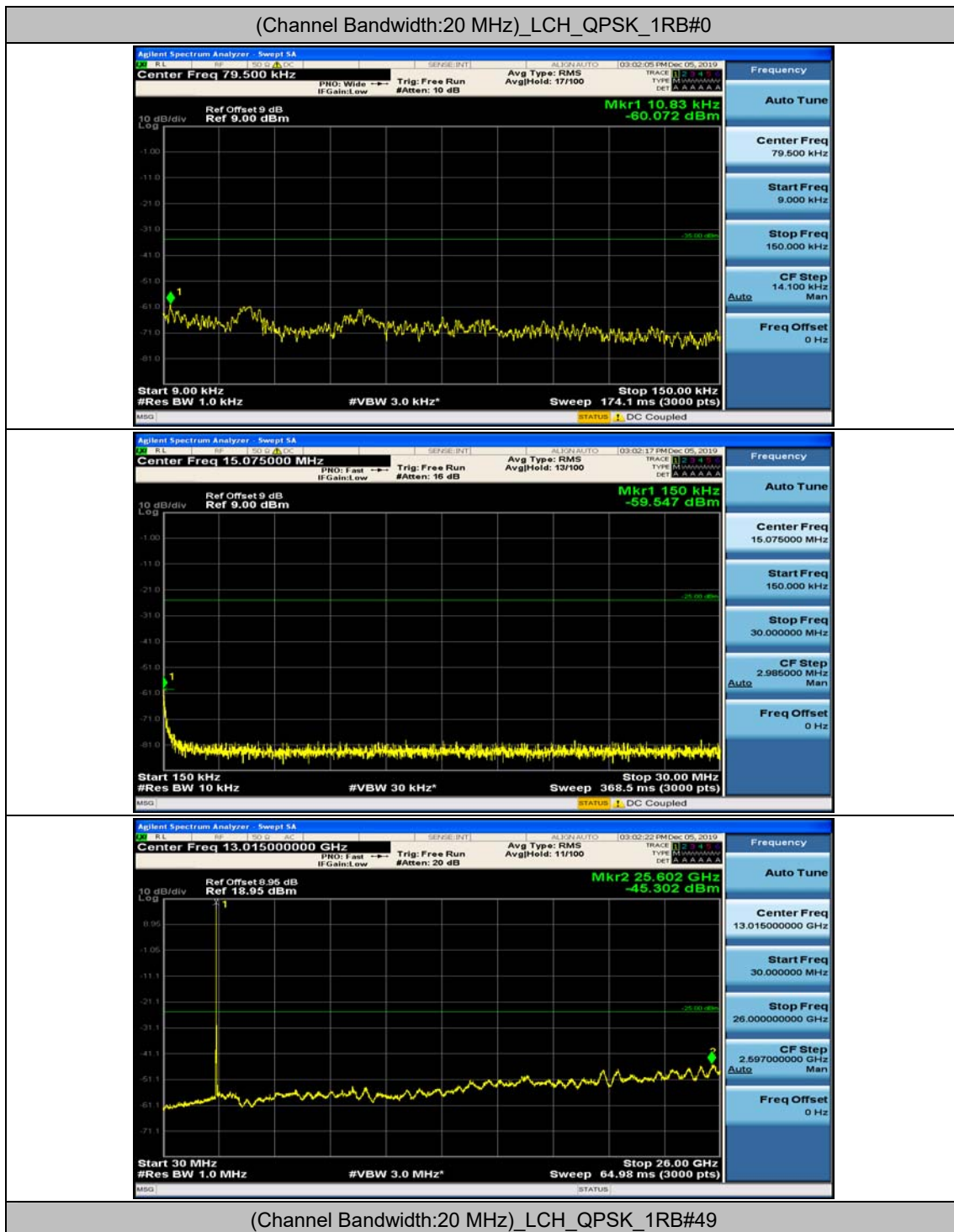


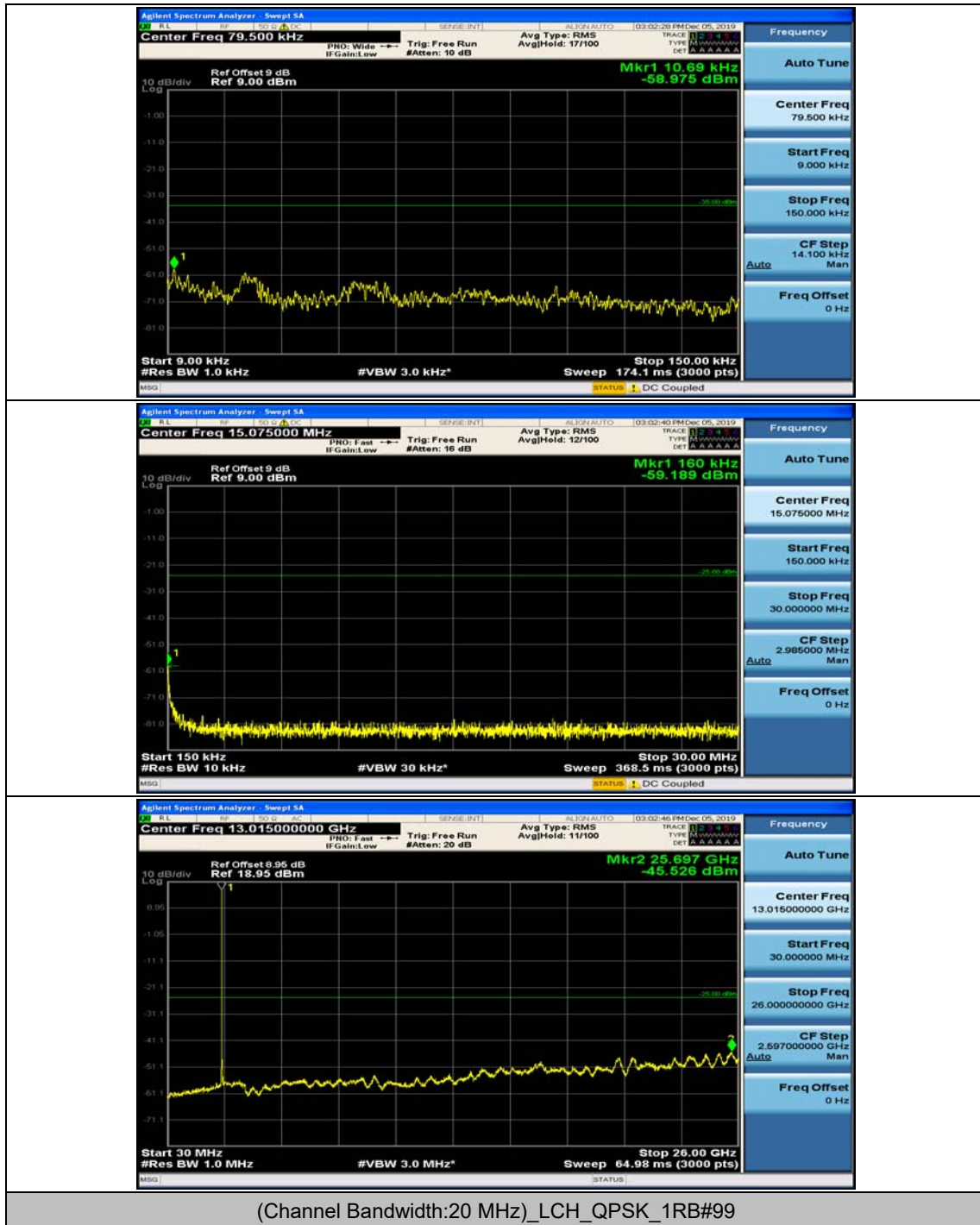
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

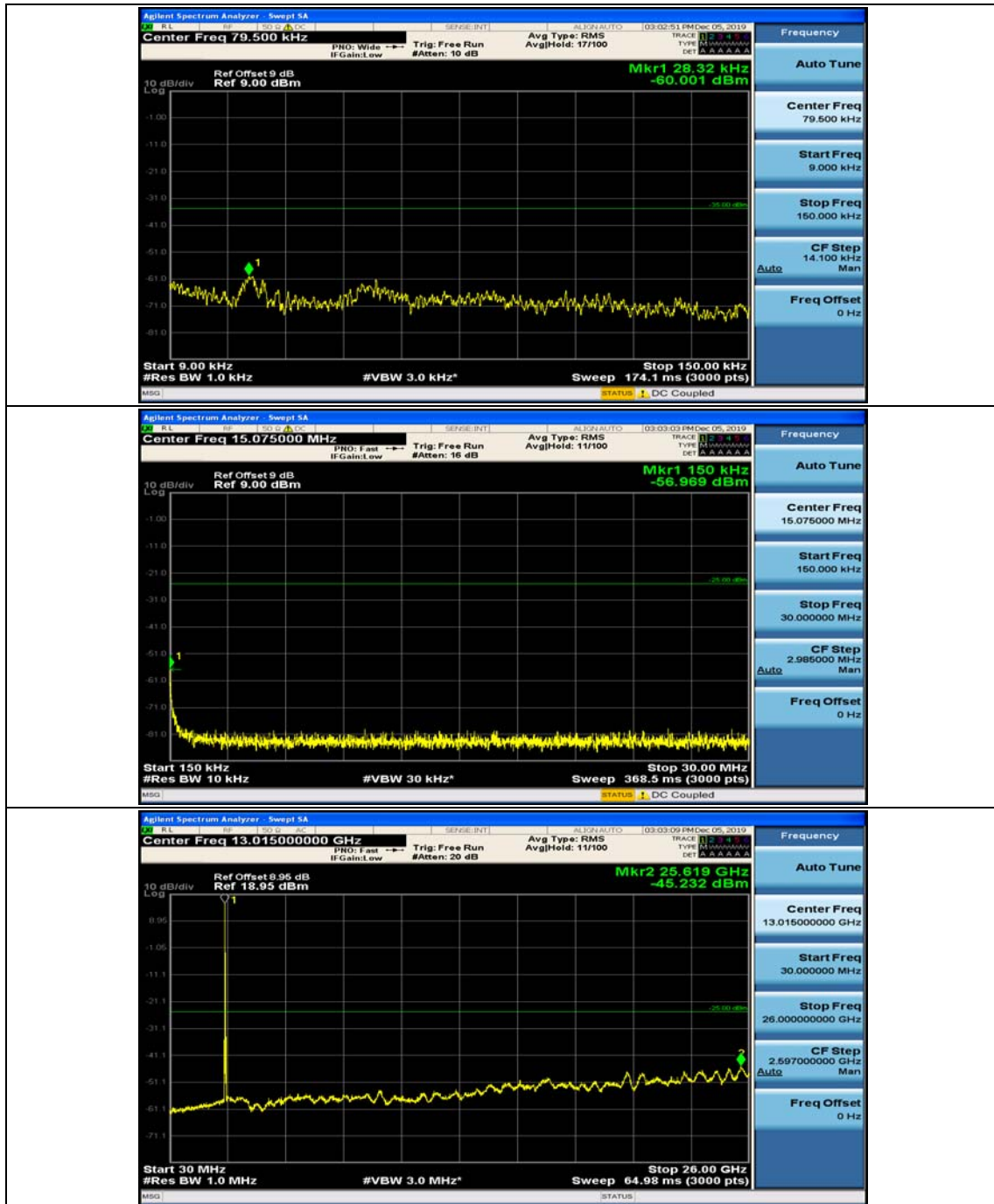




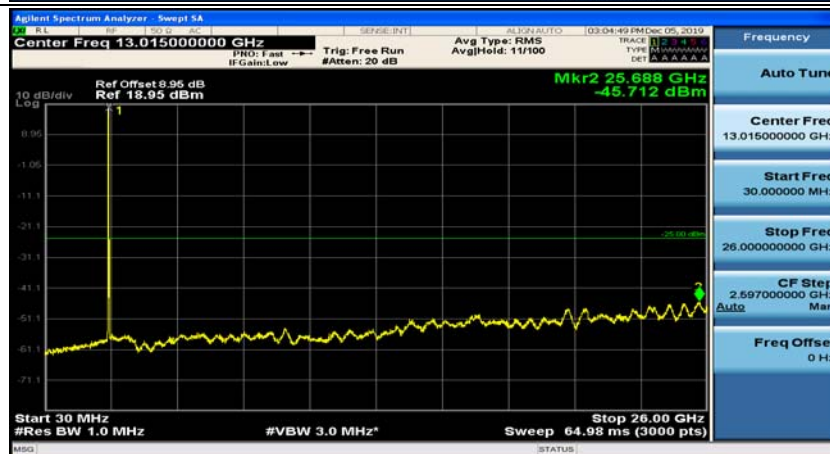
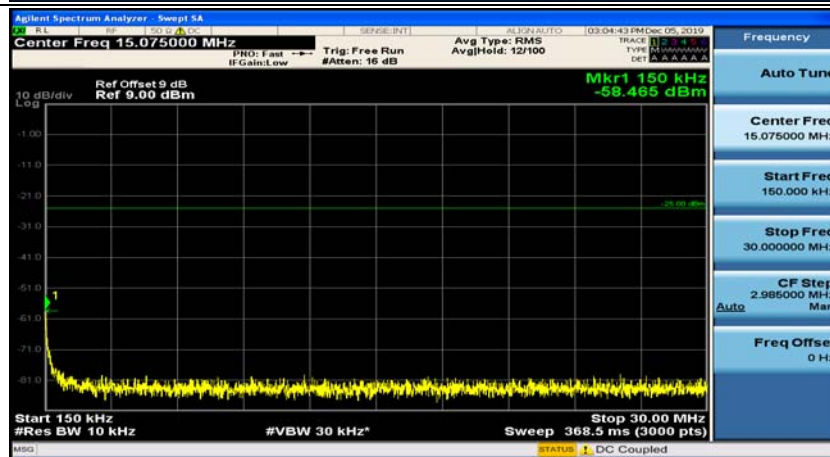
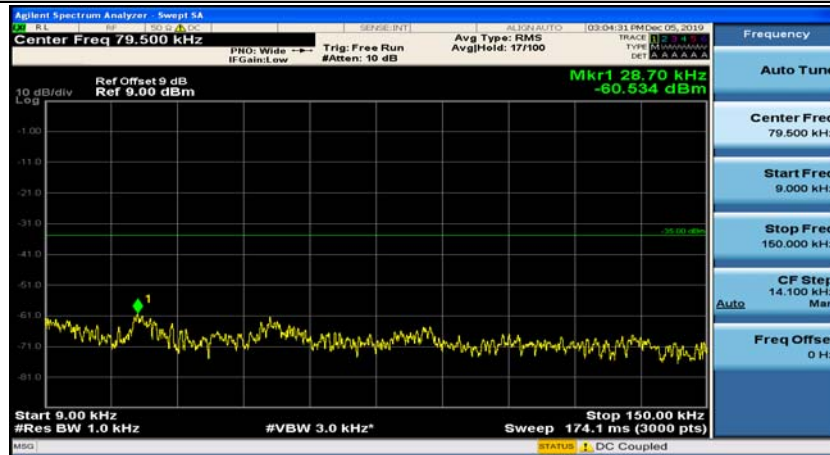
Channel Bandwidth: 20 MHz



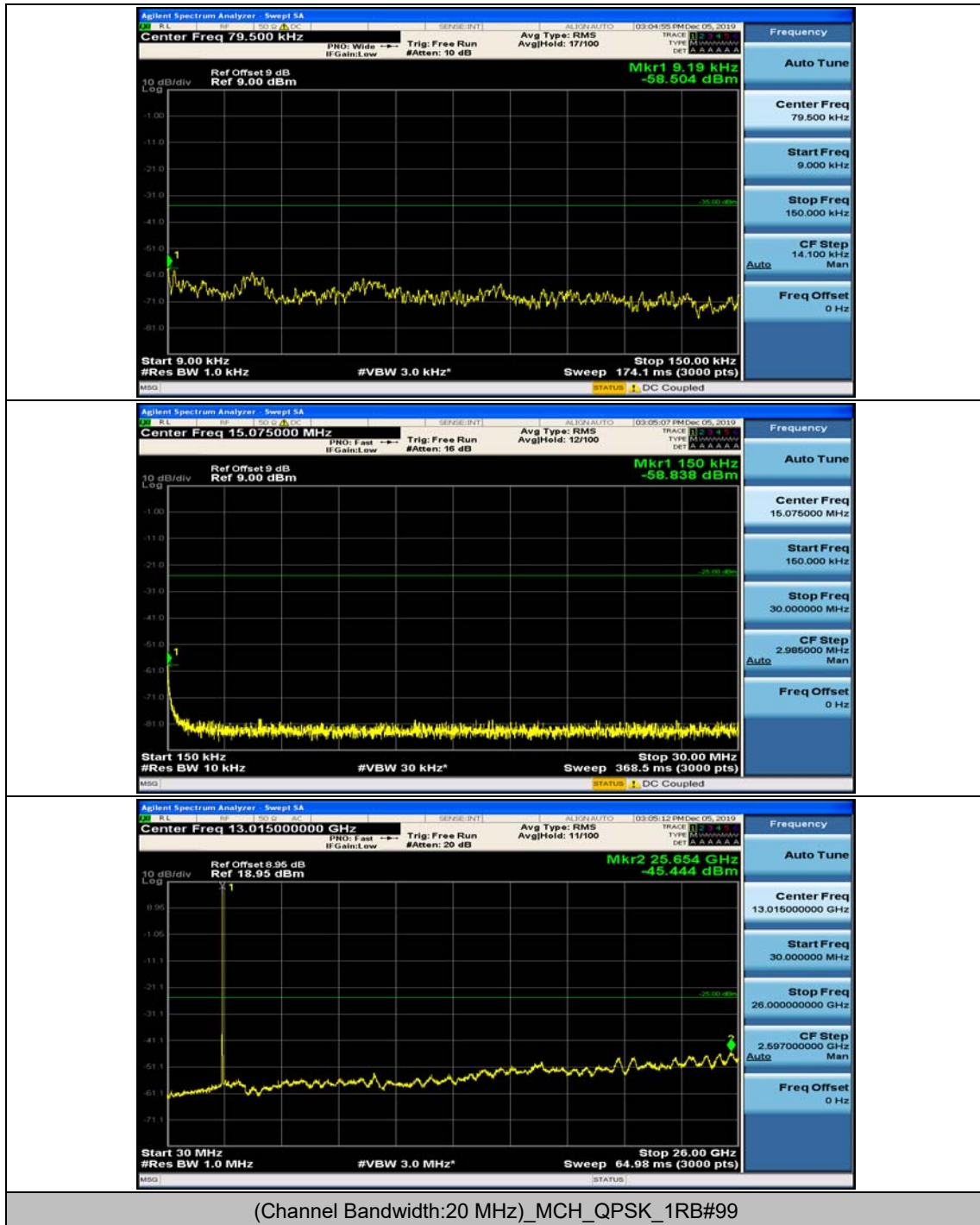


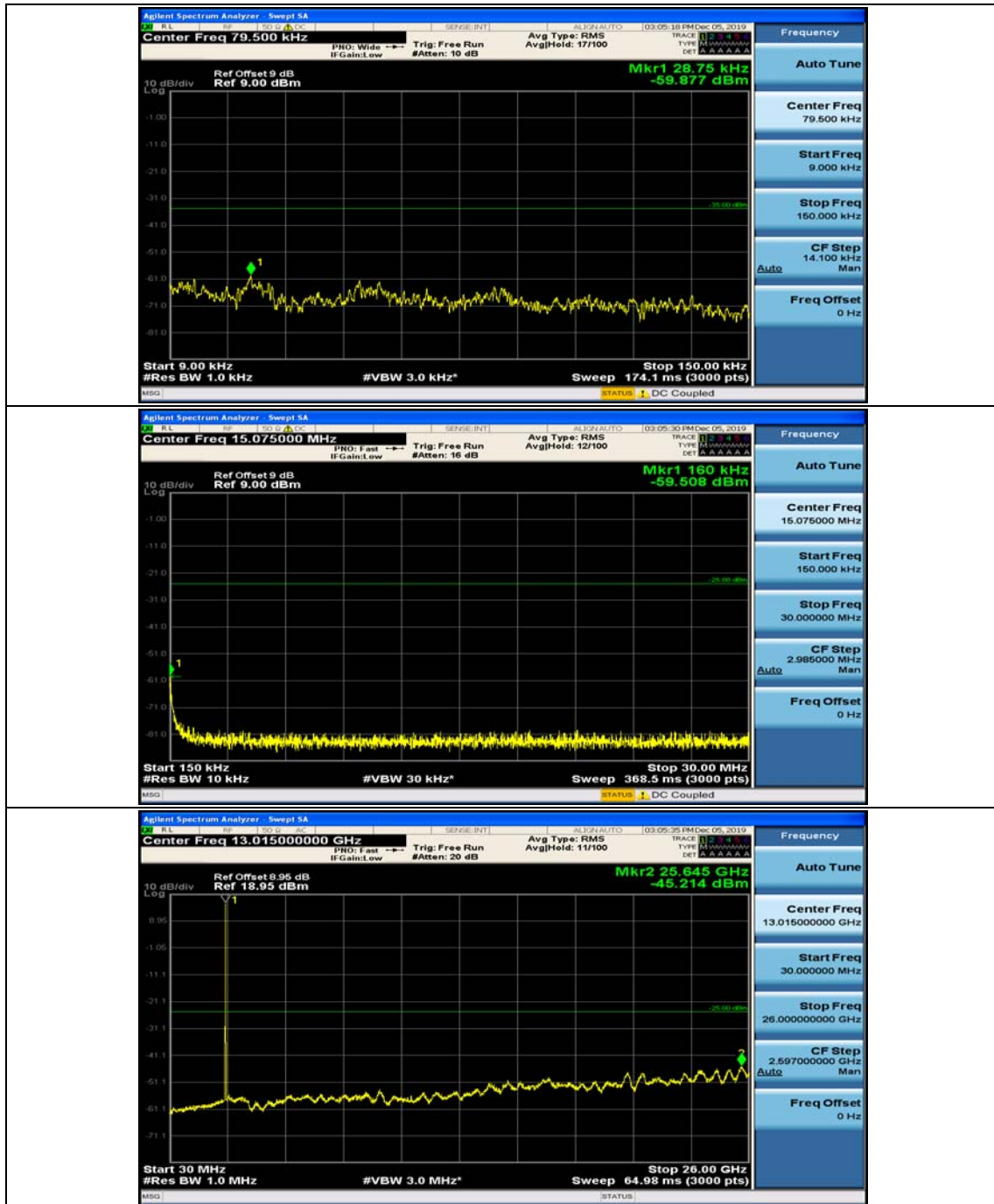


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

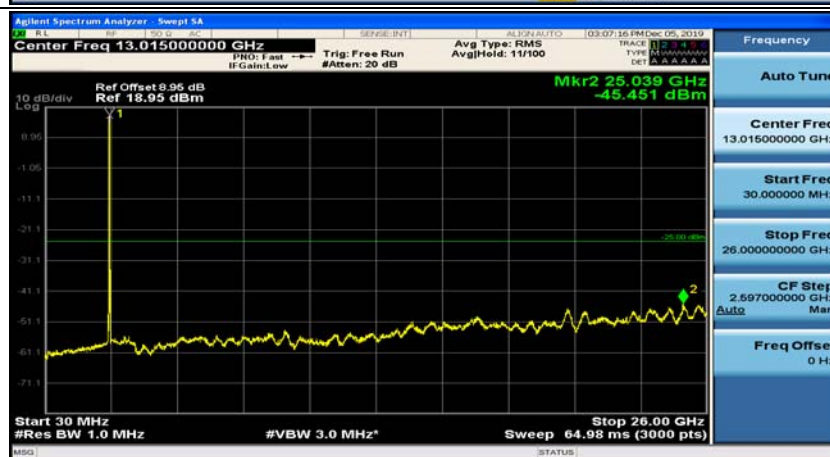
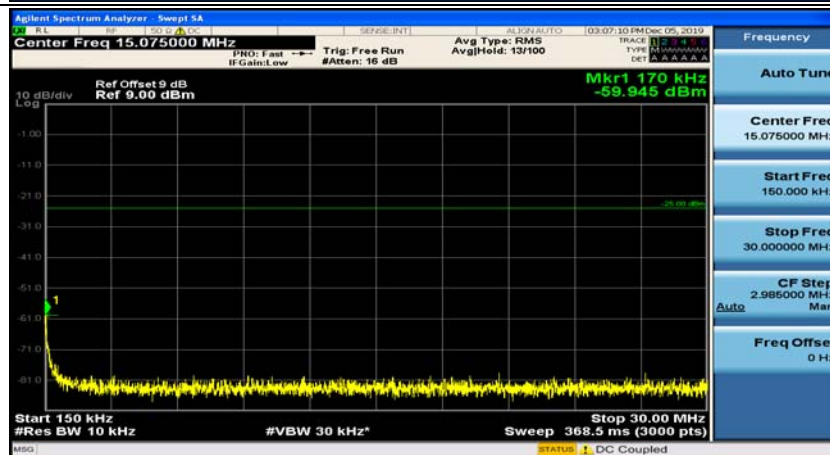
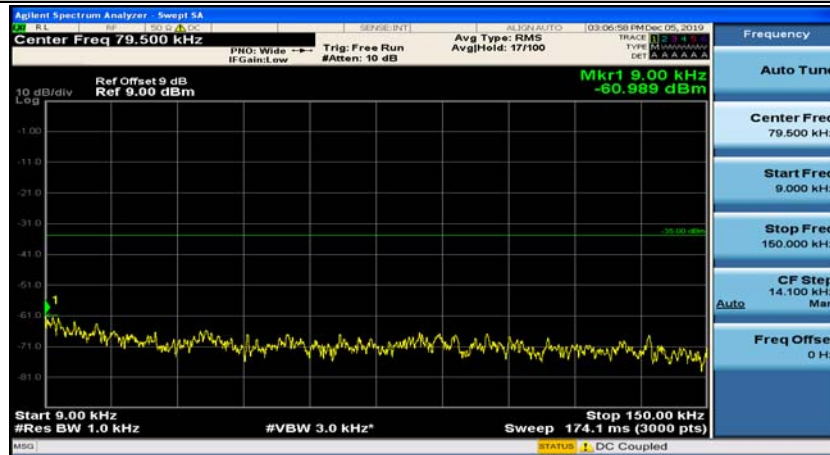


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

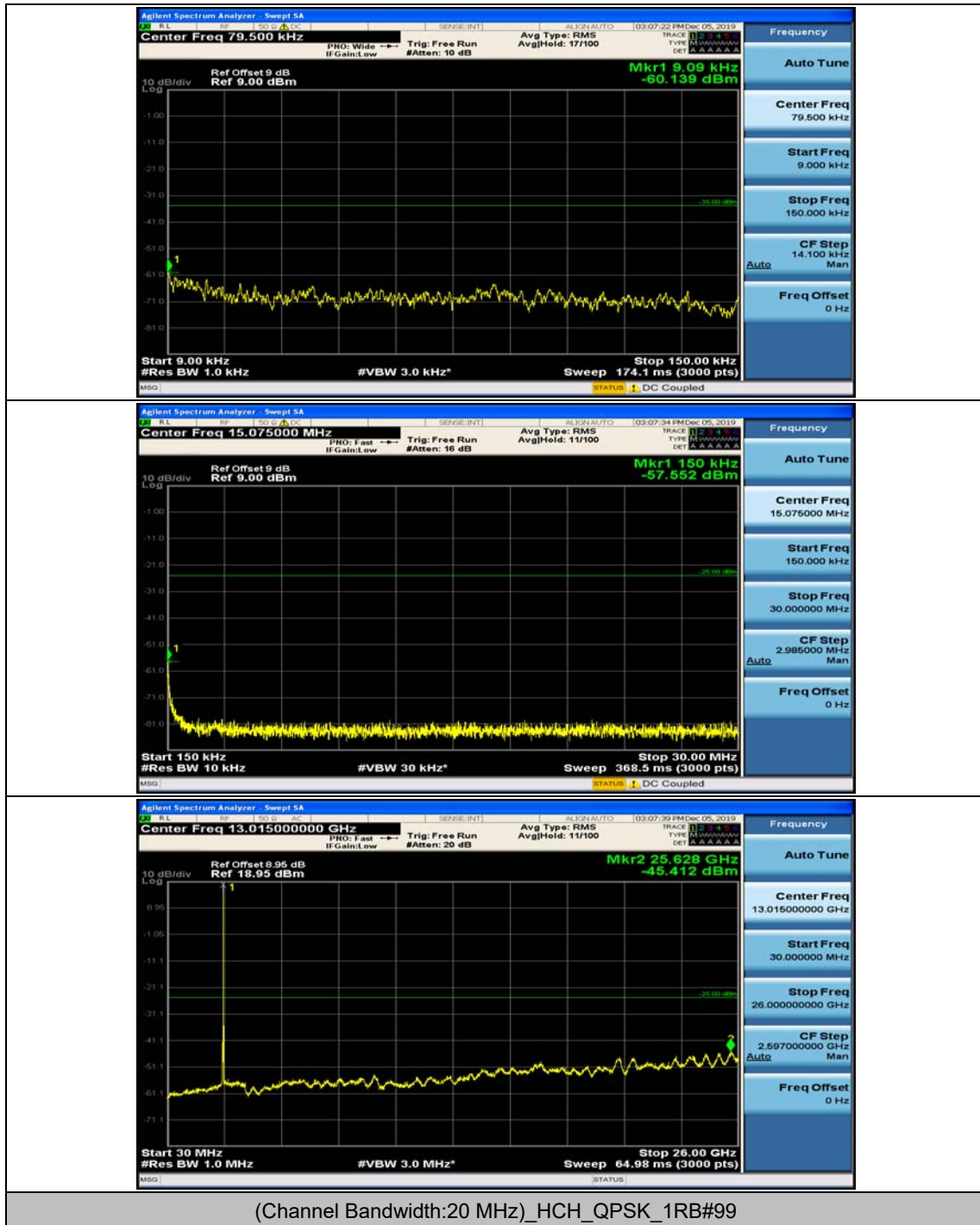


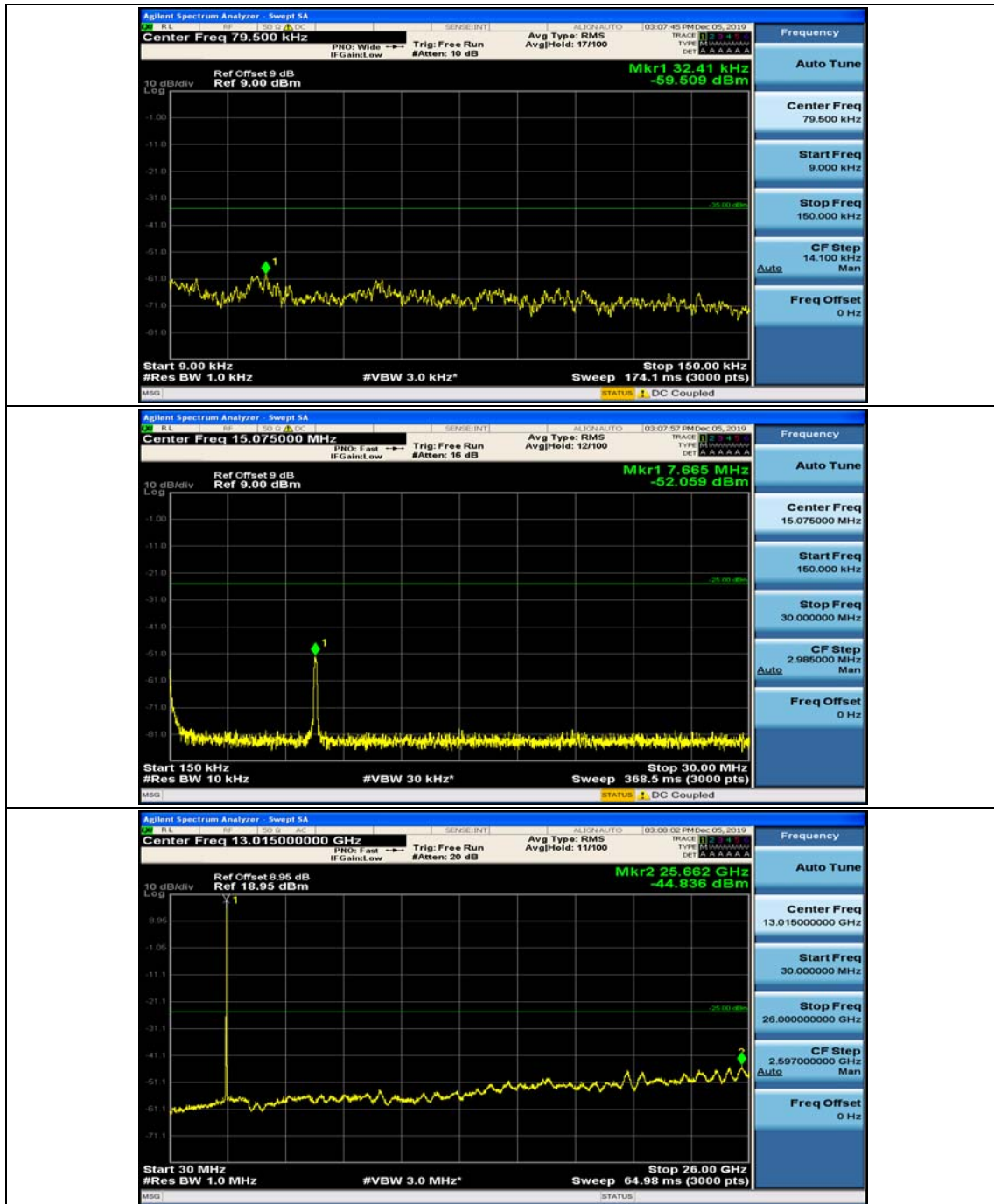


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

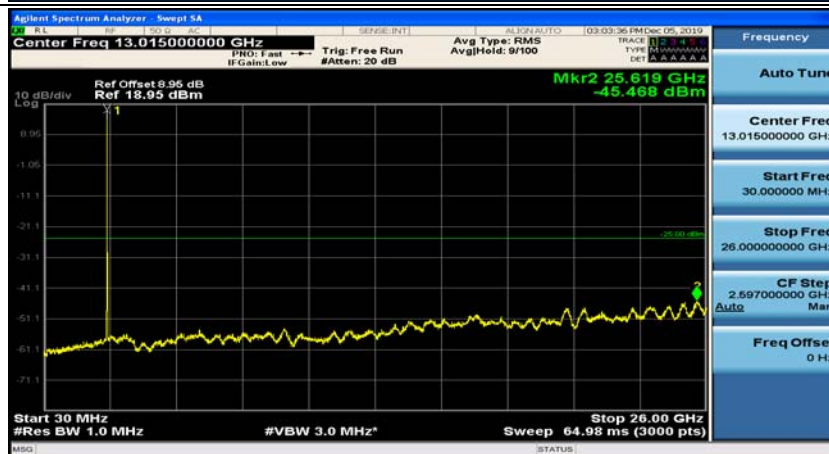
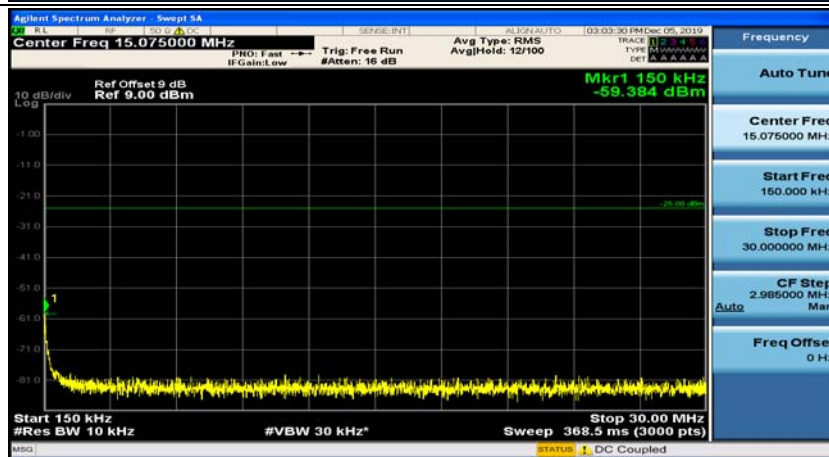
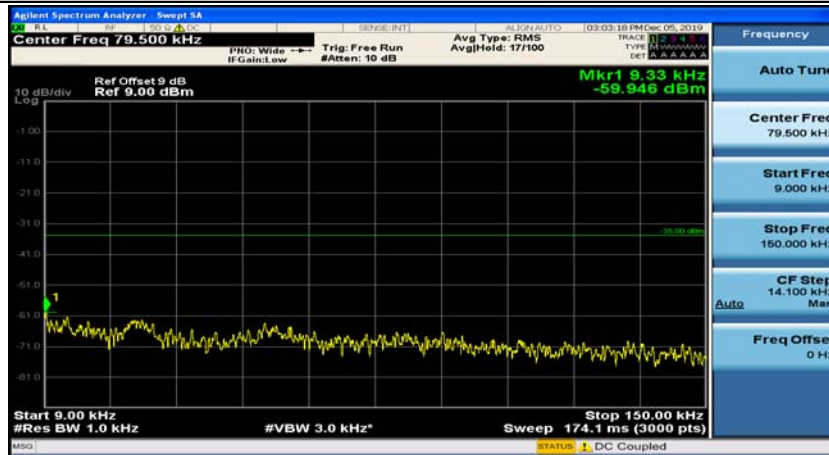


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

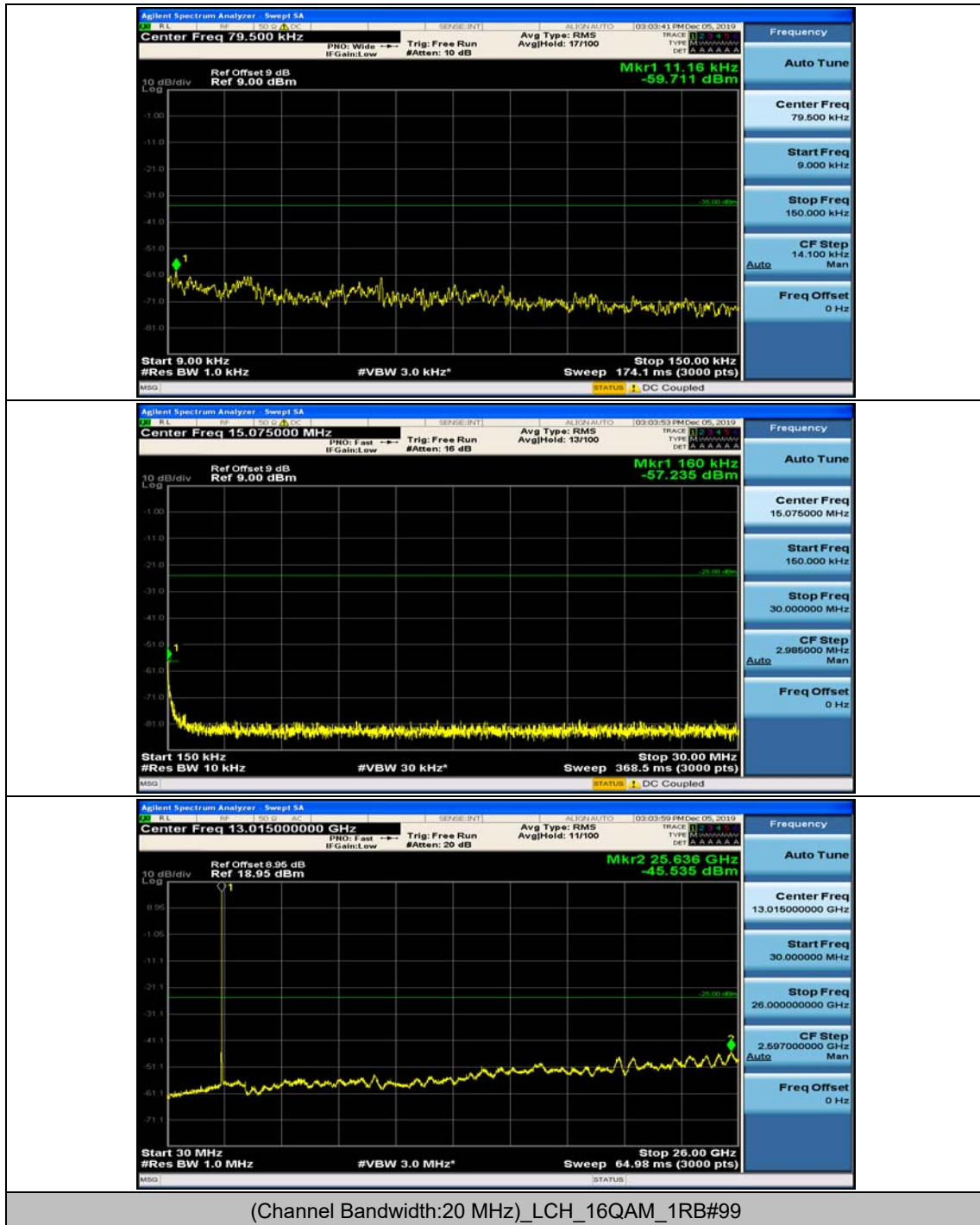


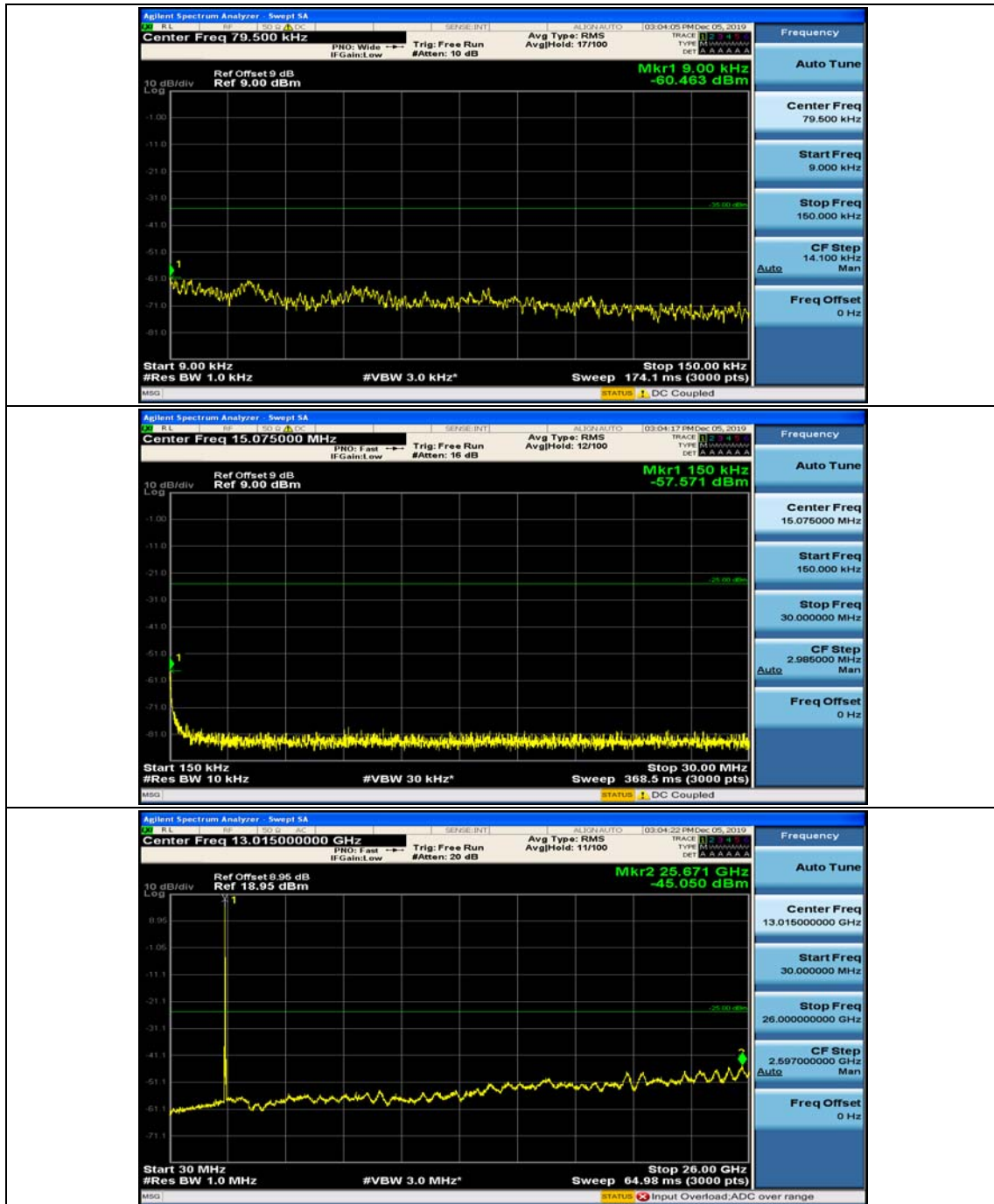


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

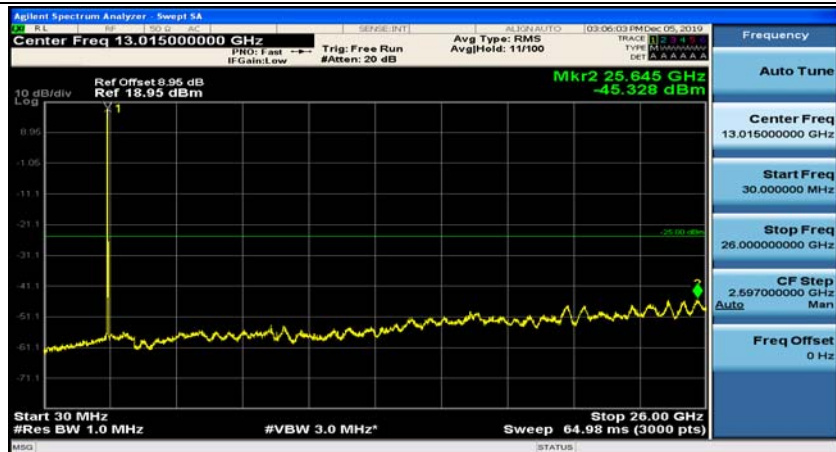
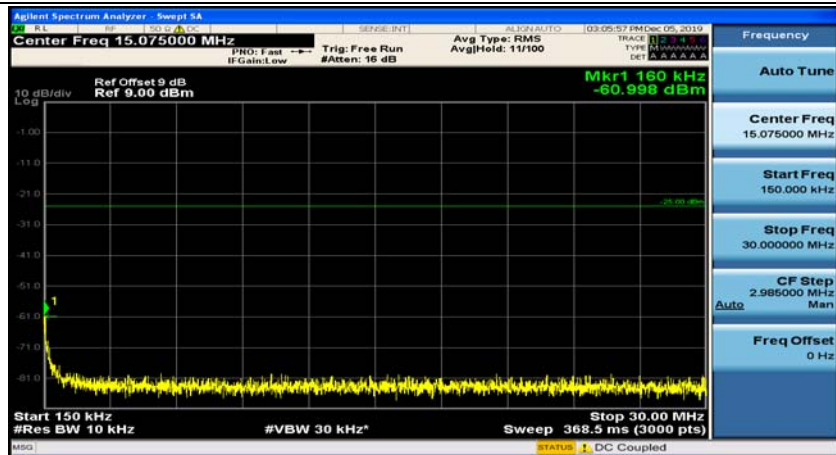
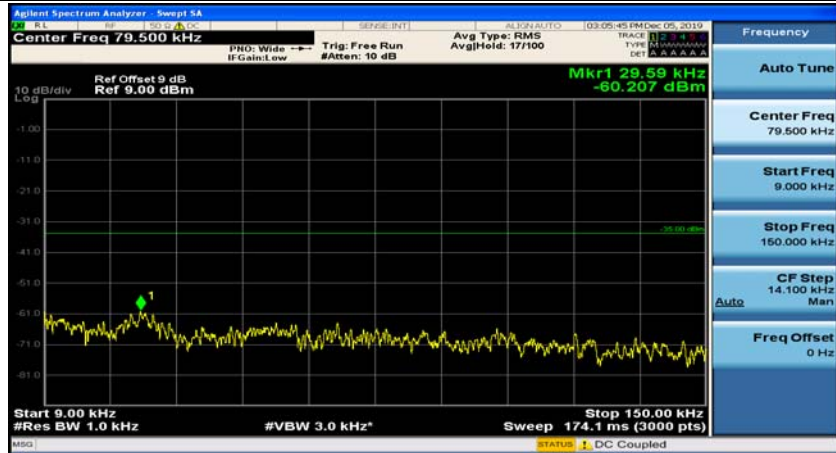


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

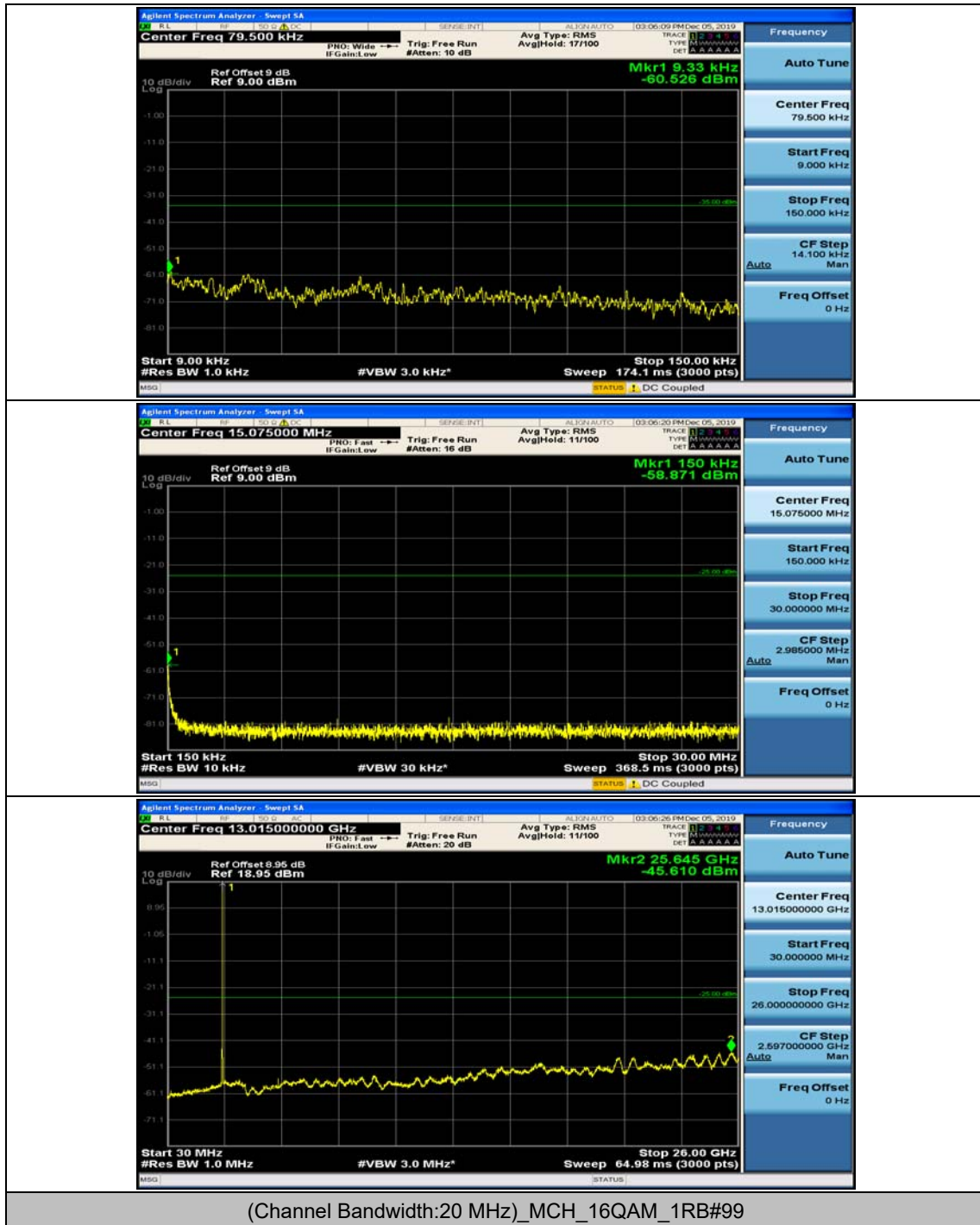


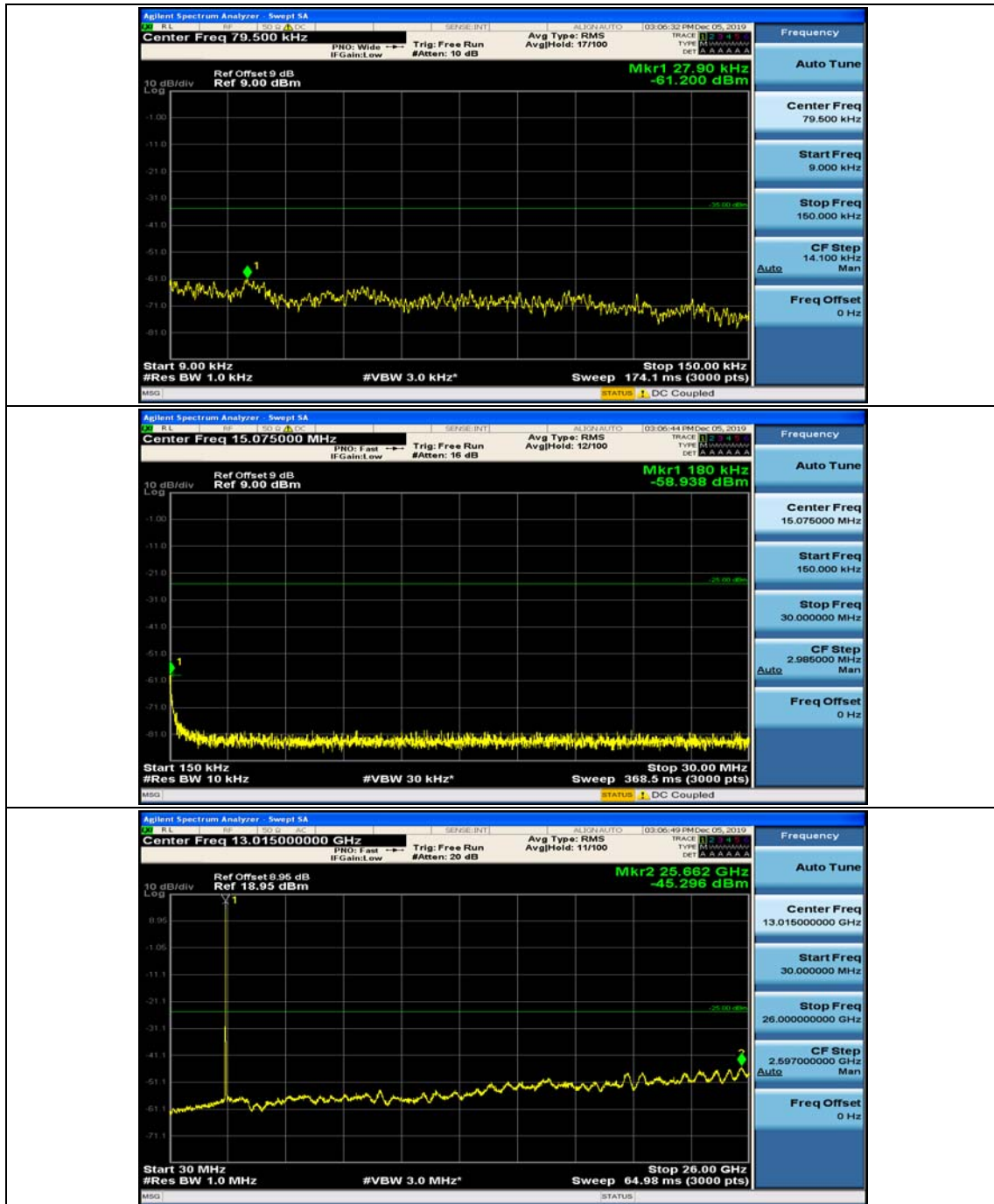


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

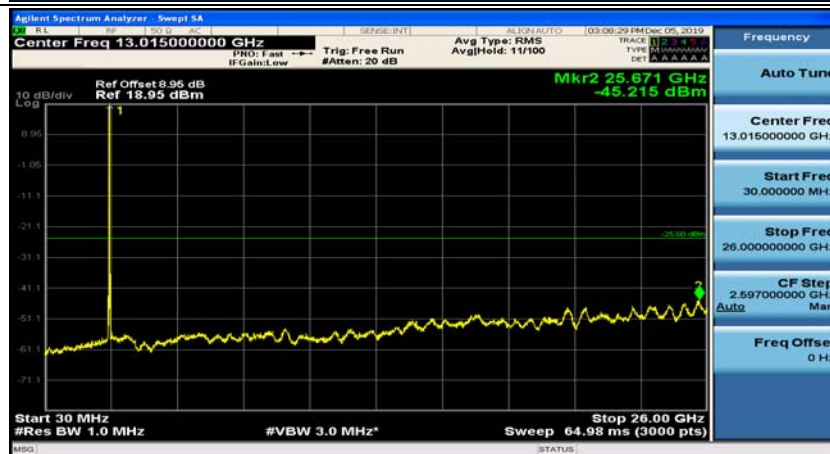
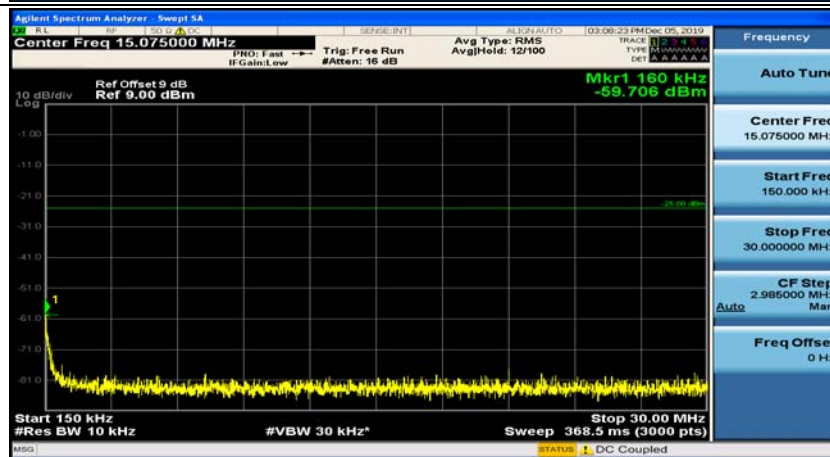
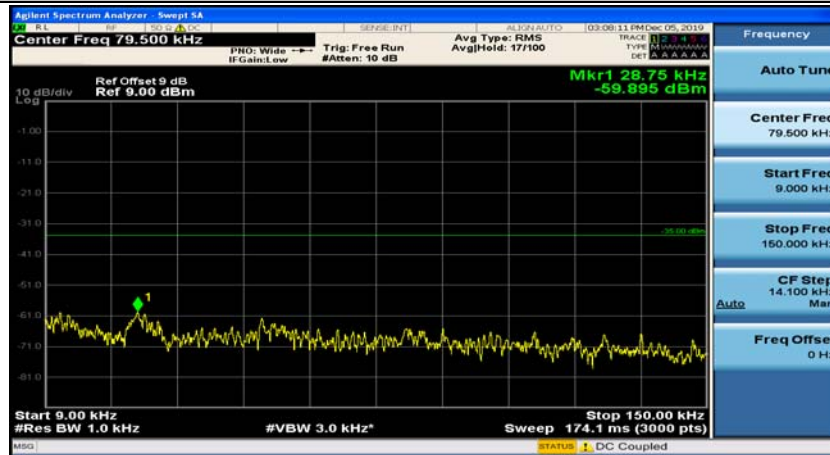


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

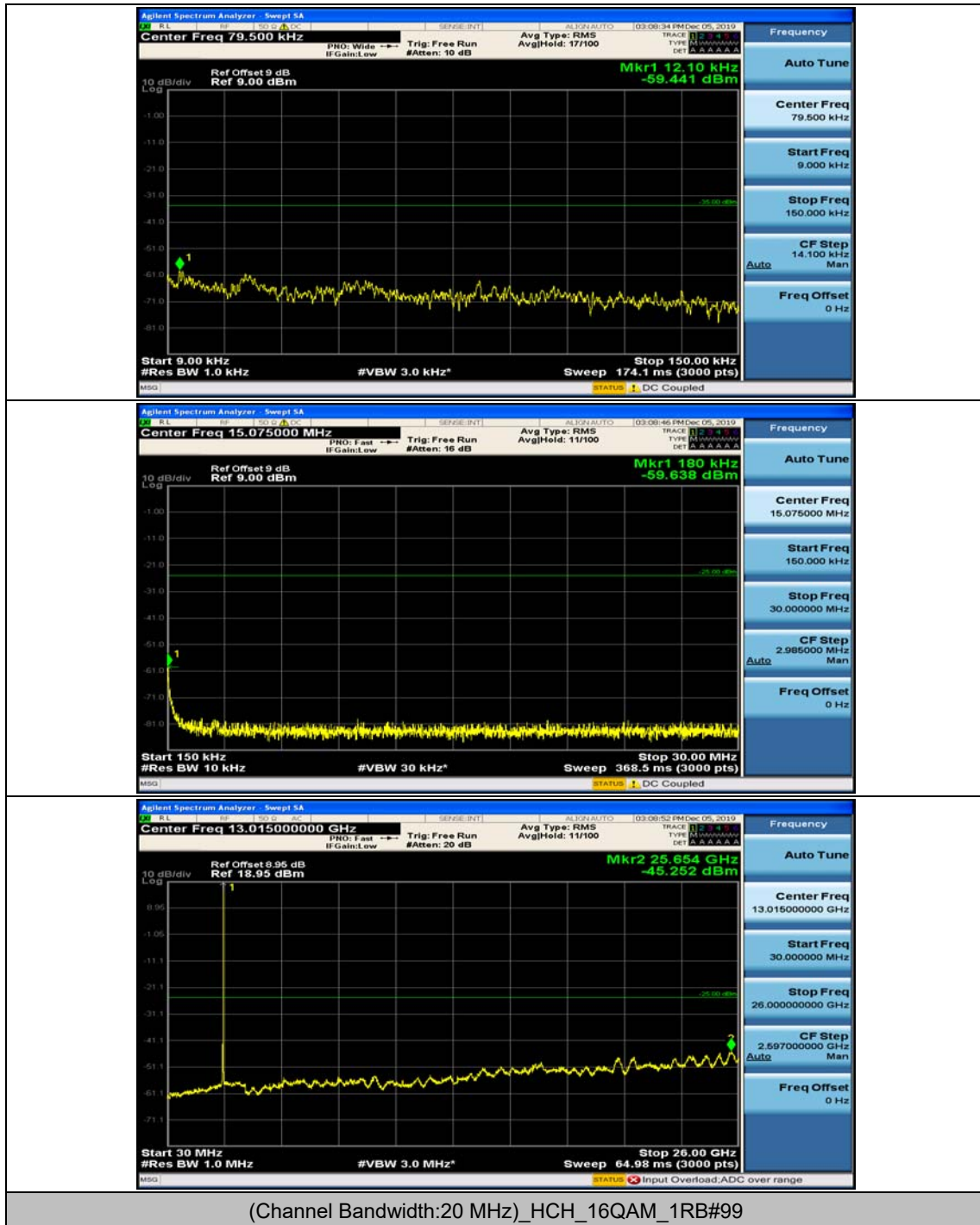


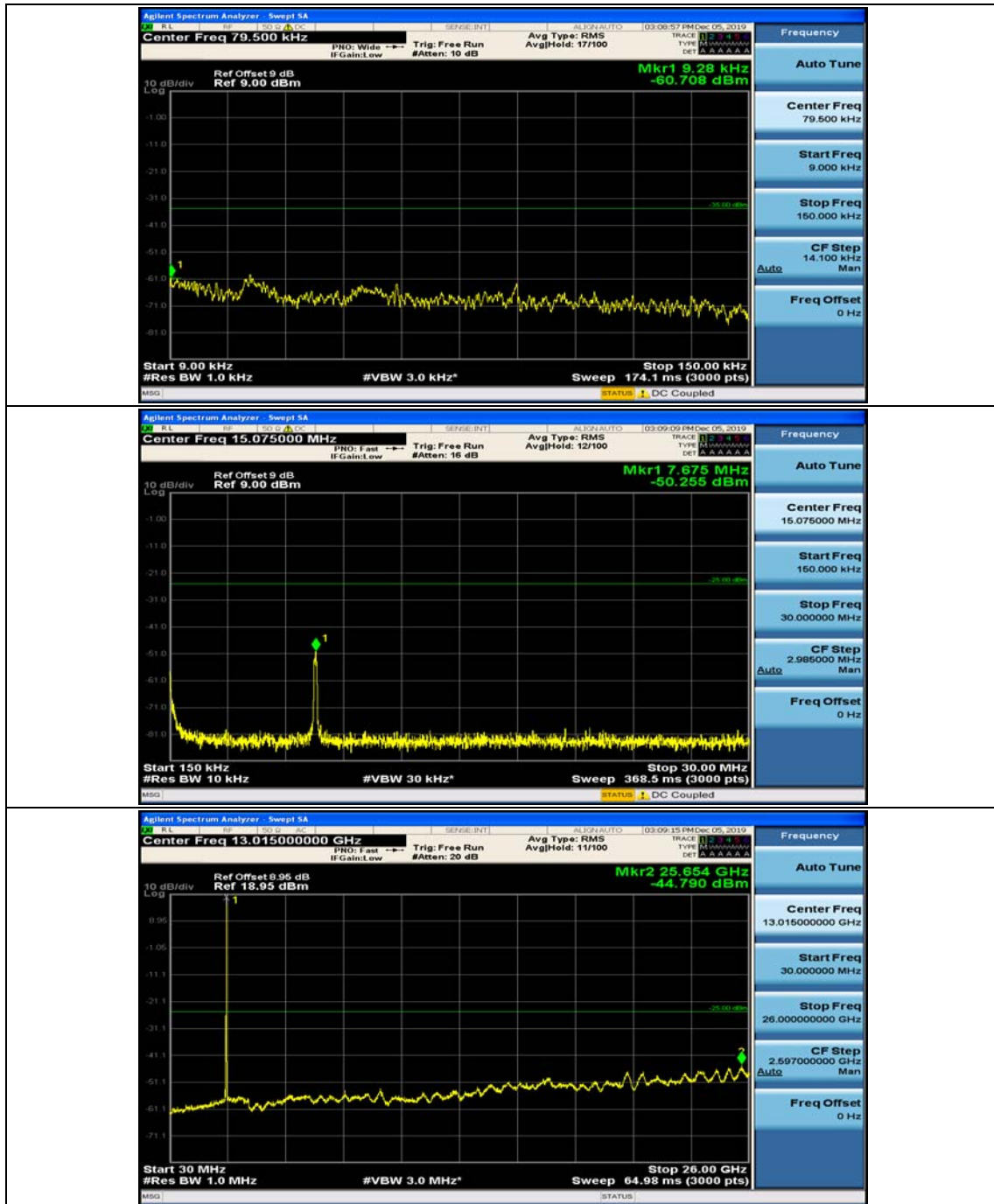


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(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	0.85	0.000340	± 2.5	PASS
		VN	TN	2.19	0.000875	± 2.5	PASS
		VH	TN	2.39	0.000955	± 2.5	PASS
	MCH	VL	TN	2.02	0.000797	± 2.5	PASS
		VN	TN	-0.43	-0.000170	± 2.5	PASS
		VH	TN	-0.86	-0.000339	± 2.5	PASS
	HCH	VL	TN	-1.79	-0.000697	± 2.5	PASS
		VN	TN	4.57	0.001780	± 2.5	PASS
		VH	TN	1.21	0.000471	± 2.5	PASS
16QAM	LCH	VL	TN	4.98	0.001990	± 2.5	PASS
		VN	TN	4.48	0.001790	± 2.5	PASS
		VH	TN	-0.4	-0.000160	± 2.5	PASS
	MCH	VL	TN	4.13	0.001629	± 2.5	PASS
		VN	TN	4.46	0.001759	± 2.5	PASS
		VH	TN	-0.27	-0.000107	± 2.5	PASS
	HCH	VL	TN	-0.51	-0.000199	± 2.5	PASS
		VN	TN	0.04	0.000016	± 2.5	PASS
		VH	TN	-1.03	-0.000401	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.61	0.001043	± 2.5	PASS
		VN	-20	3.09	0.001235	± 2.5	PASS
		VN	-10	4.42	0.001766	± 2.5	PASS
		VN	0	2.57	0.001027	± 2.5	PASS
		VN	10	-1.78	-0.000711	± 2.5	PASS
		VN	20	0.01	0.000004	± 2.5	PASS
		VN	30	4	0.001598	± 2.5	PASS
		VN	40	0.2	0.000080	± 2.5	PASS
		VN	50	-1	-0.000400	± 2.5	PASS
	MCH	VN	-30	4.63	0.001826	± 2.5	PASS
		VN	-20	1.67	0.000659	± 2.5	PASS

		VN	-10	-1.06	-0.000418	± 2.5	PASS
		VN	0	4.23	0.001669	± 2.5	PASS
		VN	10	4.26	0.001680	± 2.5	PASS
		VN	20	-1.84	-0.000726	± 2.5	PASS
		VN	30	-1.07	-0.000422	± 2.5	PASS
		VN	40	4.71	0.001858	± 2.5	PASS
		VN	50	0.69	0.000272	± 2.5	PASS
	HCH	VN	-30	4.85	0.001889	± 2.5	PASS
		VN	-20	0.85	0.000331	± 2.5	PASS
		VN	-10	3.31	0.001289	± 2.5	PASS
		VN	0	-1.53	-0.000596	± 2.5	PASS
		VN	10	4.2	0.001636	± 2.5	PASS
		VN	20	2.84	0.001106	± 2.5	PASS
		VN	30	-0.25	-0.000097	± 2.5	PASS
		VN	40	4.6	0.001792	± 2.5	PASS
		VN	50	3.76	0.001464	± 2.5	PASS
16QAM	LCH	VN	-30	0.06	0.000024	± 2.5	PASS
		VN	-20	-0.01	-0.000004	± 2.5	PASS
		VN	-10	3.26	0.001303	± 2.5	PASS
		VN	0	4.29	0.001714	± 2.5	PASS
		VN	10	3.39	0.001355	± 2.5	PASS
		VN	20	4.15	0.001658	± 2.5	PASS
		VN	30	2.75	0.001099	± 2.5	PASS
		VN	40	-0.19	-0.000076	± 2.5	PASS
		VN	50	2.51	0.001003	± 2.5	PASS
	MCH	VN	-30	1.09	0.000430	± 2.5	PASS
		VN	-20	-0.45	-0.000178	± 2.5	PASS
		VN	-10	-0.43	-0.000170	± 2.5	PASS
		VN	0	3.5	0.001381	± 2.5	PASS
		VN	10	2.28	0.000899	± 2.5	PASS
		VN	20	1.51	0.000596	± 2.5	PASS
		VN	30	0.01	0.000004	± 2.5	PASS
		VN	40	3.84	0.001515	± 2.5	PASS
		VN	50	4.11	0.001621	± 2.5	PASS
	HCH	VN	-30	4.41	0.001718	± 2.5	PASS
		VN	-20	2.41	0.000939	± 2.5	PASS
		VN	-10	0.64	0.000249	± 2.5	PASS
		VN	0	1.65	0.000643	± 2.5	PASS
		VN	10	4.65	0.001811	± 2.5	PASS
		VN	20	4.88	0.001901	± 2.5	PASS
		VN	30	2.66	0.001036	± 2.5	PASS

		VN	40	3.99	0.001554	± 2.5	PASS
		VN	50	1.54	0.000600	± 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	0.69	0.000275	± 2.5	PASS
		VN	TN	4.56	0.001820	± 2.5	PASS
		VH	TN	0.99	0.000395	± 2.5	PASS
	MCH	VL	TN	1.47	0.000580	± 2.5	PASS
		VN	TN	4.57	0.001803	± 2.5	PASS
		VH	TN	-0.37	-0.000146	± 2.5	PASS
	HCH	VL	TN	3.56	0.001388	± 2.5	PASS
		VN	TN	4.73	0.001844	± 2.5	PASS
		VH	TN	-0.15	-0.000058	± 2.5	PASS
16QAM	LCH	VL	TN	4.04	0.001613	± 2.5	PASS
		VN	TN	-1.25	-0.000499	± 2.5	PASS
		VH	TN	0.76	0.000303	± 2.5	PASS
	MCH	VL	TN	2.66	0.001049	± 2.5	PASS
		VN	TN	2.07	0.000817	± 2.5	PASS
		VH	TN	-0.66	-0.000260	± 2.5	PASS
	HCH	VL	TN	4.23	0.001649	± 2.5	PASS
		VN	TN	-0.43	-0.000168	± 2.5	PASS
		VH	TN	-0.69	-0.000269	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.3	0.001717	± 2.5	PASS
		VN	-20	3.72	0.001485	± 2.5	PASS
		VN	-10	3.7	0.001477	± 2.5	PASS
		VN	0	1.49	0.000595	± 2.5	PASS
		VN	10	3.99	0.001593	± 2.5	PASS
		VN	20	4.15	0.001657	± 2.5	PASS
		VN	30	2.39	0.000954	± 2.5	PASS
		VN	40	0.68	0.000271	± 2.5	PASS
		VN	50	3.08	0.001230	± 2.5	PASS
	MCH	VN	-30	4.42	0.001744	± 2.5	PASS
		VN	-20	-0.5	-0.000197	± 2.5	PASS
		VN	-10	3.32	0.001310	± 2.5	PASS

		VN	0	0.76	0.000300	± 2.5	PASS
		VN	10	0.47	0.000185	± 2.5	PASS
		VN	20	2.61	0.001030	± 2.5	PASS
		VN	30	-0.62	-0.000245	± 2.5	PASS
		VN	40	1.76	0.000694	± 2.5	PASS
		VN	50	1.94	0.000765	± 2.5	PASS
	HCH	VN	-30	-0.51	-0.000199	± 2.5	PASS
		VN	-20	0.4	0.000156	± 2.5	PASS
		VN	-10	2.98	0.001162	± 2.5	PASS
		VN	0	-0.27	-0.000105	± 2.5	PASS
		VN	10	3.73	0.001454	± 2.5	PASS
		VN	20	3.93	0.001532	± 2.5	PASS
		VN	30	1.92	0.000749	± 2.5	PASS
		VN	40	2.48	0.000967	± 2.5	PASS
		VN	50	1.91	0.000745	± 2.5	PASS
16QAM	LCH	VN	-30	2.83	0.001130	± 2.5	PASS
		VN	-20	0.76	0.000303	± 2.5	PASS
		VN	-10	-1.6	-0.000639	± 2.5	PASS
		VN	0	-0.87	-0.000347	± 2.5	PASS
		VN	10	2.2	0.000878	± 2.5	PASS
		VN	20	0.43	0.000172	± 2.5	PASS
		VN	30	3.56	0.001421	± 2.5	PASS
		VN	40	0.36	0.000144	± 2.5	PASS
		VN	50	-1.97	-0.000786	± 2.5	PASS
	MCH	VN	-30	3.03	0.001195	± 2.5	PASS
		VN	-20	0.54	0.000213	± 2.5	PASS
		VN	-10	-1.01	-0.000398	± 2.5	PASS
		VN	0	2.05	0.000809	± 2.5	PASS
		VN	10	0.22	0.000087	± 2.5	PASS
		VN	20	-1.96	-0.000773	± 2.5	PASS
		VN	30	0.68	0.000268	± 2.5	PASS
		VN	40	0.59	0.000233	± 2.5	PASS
		VN	50	-1.18	-0.000465	± 2.5	PASS
	HCH	VN	-30	0.32	0.000125	± 2.5	PASS
		VN	-20	-1.14	-0.000444	± 2.5	PASS
		VN	-10	-0.57	-0.000222	± 2.5	PASS
		VN	0	4.8	0.001871	± 2.5	PASS
		VN	10	0.88	0.000343	± 2.5	PASS
		VN	20	0.86	0.000335	± 2.5	PASS
		VN	30	1.06	0.000413	± 2.5	PASS
		VN	40	-0.72	-0.000281	± 2.5	PASS

		VN	50	1.81	0.000706	± 2.5	PASS
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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	0.56	0.000223	± 2.5	PASS
		VN	TN	1.38	0.000550	± 2.5	PASS
		VH	TN	1.94	0.000774	± 2.5	PASS
	MCH	VL	TN	4.84	0.001909	± 2.5	PASS
		VN	TN	0.54	0.000213	± 2.5	PASS
		VH	TN	-1.96	-0.000773	± 2.5	PASS
	HCH	VL	TN	1.4	0.000546	± 2.5	PASS
		VN	TN	3.91	0.001526	± 2.5	PASS
		VH	TN	3.62	0.001413	± 2.5	PASS
16QAM	LCH	VL	TN	4.24	0.001691	± 2.5	PASS
		VN	TN	-0.96	-0.000383	± 2.5	PASS
		VH	TN	1.41	0.000562	± 2.5	PASS
	MCH	VL	TN	-0.77	-0.000304	± 2.5	PASS
		VN	TN	3.89	0.001535	± 2.5	PASS
		VH	TN	2.79	0.001101	± 2.5	PASS
	HCH	VL	TN	-0.79	-0.000308	± 2.5	PASS
		VN	TN	-1.55	-0.000605	± 2.5	PASS
		VH	TN	4.73	0.001846	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.57	0.001025	± 2.5	PASS
		VN	-20	0.18	0.000072	± 2.5	PASS
		VN	-10	0.1	0.000040	± 2.5	PASS
		VN	0	3.59	0.001432	± 2.5	PASS
		VN	10	-1.9	-0.000758	± 2.5	PASS
		VN	20	3.83	0.001527	± 2.5	PASS
		VN	30	-1.12	-0.000447	± 2.5	PASS
		VN	40	4.45	0.001775	± 2.5	PASS
		VN	50	0.39	0.000156	± 2.5	PASS
	MCH	VN	-30	-0.3	-0.000118	± 2.5	PASS
		VN	-20	3.02	0.001191	± 2.5	PASS
		VN	-10	3.03	0.001195	± 2.5	PASS
		VN	0	3.9	0.001538	± 2.5	PASS

		VN	10	4.67	0.001842	± 2.5	PASS
		VN	20	0.69	0.000272	± 2.5	PASS
		VN	30	4.01	0.001582	± 2.5	PASS
		VN	40	-0.71	-0.000280	± 2.5	PASS
		VN	50	-0.29	-0.000114	± 2.5	PASS
	HCH	VN	-30	1.68	0.000656	± 2.5	PASS
		VN	-20	3.65	0.001424	± 2.5	PASS
		VN	-10	2.78	0.001085	± 2.5	PASS
		VN	0	-0.1	-0.000039	± 2.5	PASS
		VN	10	1.44	0.000562	± 2.5	PASS
		VN	20	2.87	0.001120	± 2.5	PASS
		VN	30	1.18	0.000460	± 2.5	PASS
		VN	40	1.95	0.000761	± 2.5	PASS
		VN	50	0.85	0.000332	± 2.5	PASS
16QAM	LCH	VN	-30	2.43	0.000969	± 2.5	PASS
		VN	-20	0.27	0.000108	± 2.5	PASS
		VN	-10	0.04	0.000016	± 2.5	PASS
		VN	0	4.48	0.001787	± 2.5	PASS
		VN	10	4.97	0.001982	± 2.5	PASS
		VN	20	-1.3	-0.000518	± 2.5	PASS
		VN	30	0.77	0.000307	± 2.5	PASS
		VN	40	1.23	0.000491	± 2.5	PASS
		VN	50	2.38	0.000949	± 2.5	PASS
	MCH	VN	-30	-1.35	-0.000533	± 2.5	PASS
		VN	-20	-0.28	-0.000110	± 2.5	PASS
		VN	-10	4.38	0.001728	± 2.5	PASS
		VN	0	4.74	0.001870	± 2.5	PASS
		VN	10	2.26	0.000892	± 2.5	PASS
		VN	20	3.12	0.001231	± 2.5	PASS
		VN	30	3.59	0.001416	± 2.5	PASS
		VN	40	4.79	0.001890	± 2.5	PASS
		VN	50	0.5	0.000197	± 2.5	PASS
	HCH	VN	-30	-1.95	-0.000761	± 2.5	PASS
		VN	-20	-0.54	-0.000211	± 2.5	PASS
		VN	-10	1.54	0.000601	± 2.5	PASS
		VN	0	4.38	0.001709	± 2.5	PASS
		VN	10	-1.01	-0.000394	± 2.5	PASS
		VN	20	-0.62	-0.000242	± 2.5	PASS
		VN	30	2.42	0.000944	± 2.5	PASS
		VN	40	4.11	0.001604	± 2.5	PASS
		VN	50	0.03	0.000012	± 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	-1.21	-0.000482	± 2.5	PASS
		VN	TN	4.82	0.001920	± 2.5	PASS
		VH	TN	0.52	0.000207	± 2.5	PASS
	MCH	VL	TN	-1.72	-0.000679	± 2.5	PASS
		VN	TN	-1.94	-0.000765	± 2.5	PASS
		VH	TN	-1.32	-0.000521	± 2.5	PASS
	HCH	VL	TN	1.44	0.000563	± 2.5	PASS
		VN	TN	4.55	0.001777	± 2.5	PASS
		VH	TN	1.42	0.000555	± 2.5	PASS
16QAM	LCH	VL	TN	1.33	0.000530	± 2.5	PASS
		VN	TN	1.26	0.000502	± 2.5	PASS
		VH	TN	-1.01	-0.000402	± 2.5	PASS
	MCH	VL	TN	2.86	0.001128	± 2.5	PASS
		VN	TN	1.84	0.000726	± 2.5	PASS
		VH	TN	-1.84	-0.000726	± 2.5	PASS
	HCH	VL	TN	-1.97	-0.000770	± 2.5	PASS
		VN	TN	-1.11	-0.000434	± 2.5	PASS
		VH	TN	-1.16	-0.000453	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.94	-0.000375	± 2.5	PASS
		VN	-20	3.76	0.001498	± 2.5	PASS
		VN	-10	4.73	0.001884	± 2.5	PASS
		VN	0	3.56	0.001418	± 2.5	PASS
		VN	10	2.23	0.000888	± 2.5	PASS
		VN	20	-1.37	-0.000546	± 2.5	PASS
		VN	30	3.84	0.001530	± 2.5	PASS
		VN	40	0.45	0.000179	± 2.5	PASS
		VN	50	-0.92	-0.000367	± 2.5	PASS
	MCH	VN	-30	-0.15	-0.000059	± 2.5	PASS
		VN	-20	0.02	0.000008	± 2.5	PASS
		VN	-10	4.58	0.001807	± 2.5	PASS
		VN	0	3.96	0.001562	± 2.5	PASS
		VN	10	4.48	0.001767	± 2.5	PASS
		VN	20	-1.7	-0.000671	± 2.5	PASS

		VN	30	1.88	0.000742	± 2.5	PASS
		VN	40	4.66	0.001838	± 2.5	PASS
		VN	50	2.5	0.000986	± 2.5	PASS
	HCH	VN	-30	1.78	0.000695	± 2.5	PASS
		VN	-20	-1.17	-0.000457	± 2.5	PASS
		VN	-10	1.1	0.000430	± 2.5	PASS
		VN	0	2.01	0.000785	± 2.5	PASS
		VN	10	1.33	0.000520	± 2.5	PASS
		VN	20	4.46	0.001742	± 2.5	PASS
		VN	30	3.82	0.001492	± 2.5	PASS
		VN	40	3.52	0.001375	± 2.5	PASS
		VN	50	4.45	0.001738	± 2.5	PASS
16QAM	LCH	VN	-30	2.2	0.000876	± 2.5	PASS
		VN	-20	-0.66	-0.000263	± 2.5	PASS
		VN	-10	2.13	0.000849	± 2.5	PASS
		VN	0	-1.77	-0.000705	± 2.5	PASS
		VN	10	4.89	0.001948	± 2.5	PASS
		VN	20	2.36	0.000940	± 2.5	PASS
		VN	30	2.41	0.000960	± 2.5	PASS
		VN	40	-0.23	-0.000092	± 2.5	PASS
		VN	50	0.64	0.000255	± 2.5	PASS
	MCH	VN	-30	4.47	0.001763	± 2.5	PASS
		VN	-20	-0.8	-0.000316	± 2.5	PASS
		VN	-10	0.09	0.000036	± 2.5	PASS
		VN	0	0.41	0.000162	± 2.5	PASS
		VN	10	4.6	0.001815	± 2.5	PASS
		VN	20	1.32	0.000521	± 2.5	PASS
		VN	30	1.42	0.000560	± 2.5	PASS
		VN	40	0.23	0.000091	± 2.5	PASS
		VN	50	-0.99	-0.000391	± 2.5	PASS
	HCH	VN	-30	-1.6	-0.000625	± 2.5	PASS
		VN	-20	-1.07	-0.000418	± 2.5	PASS
		VN	-10	-1.96	-0.000766	± 2.5	PASS
		VN	0	2.69	0.001051	± 2.5	PASS
		VN	10	0.59	0.000230	± 2.5	PASS
		VN	20	0.85	0.000332	± 2.5	PASS
		VN	30	0.07	0.000027	± 2.5	PASS
		VN	40	-0.88	-0.000344	± 2.5	PASS
		VN	50	1.85	0.000723	± 2.5	PASS