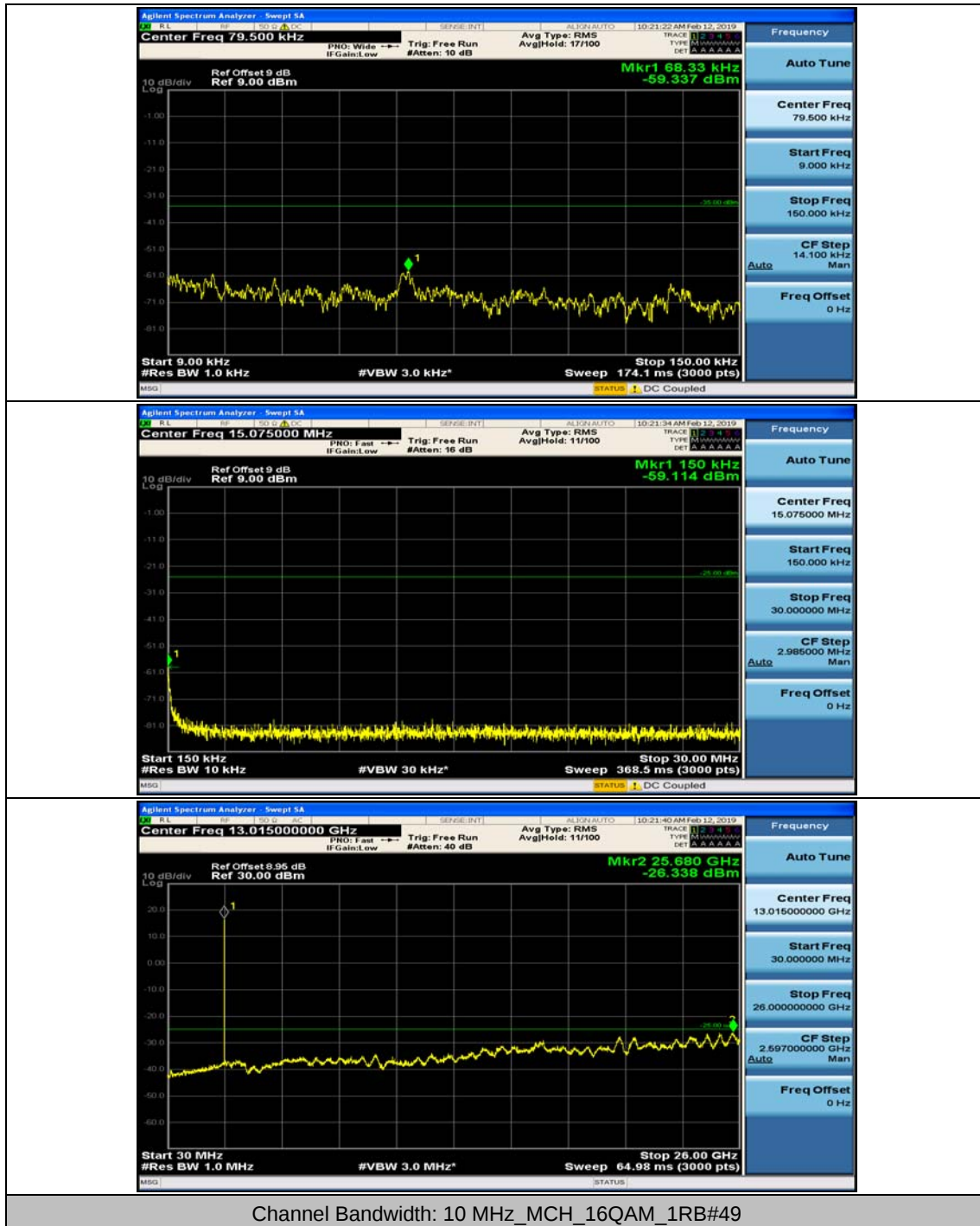
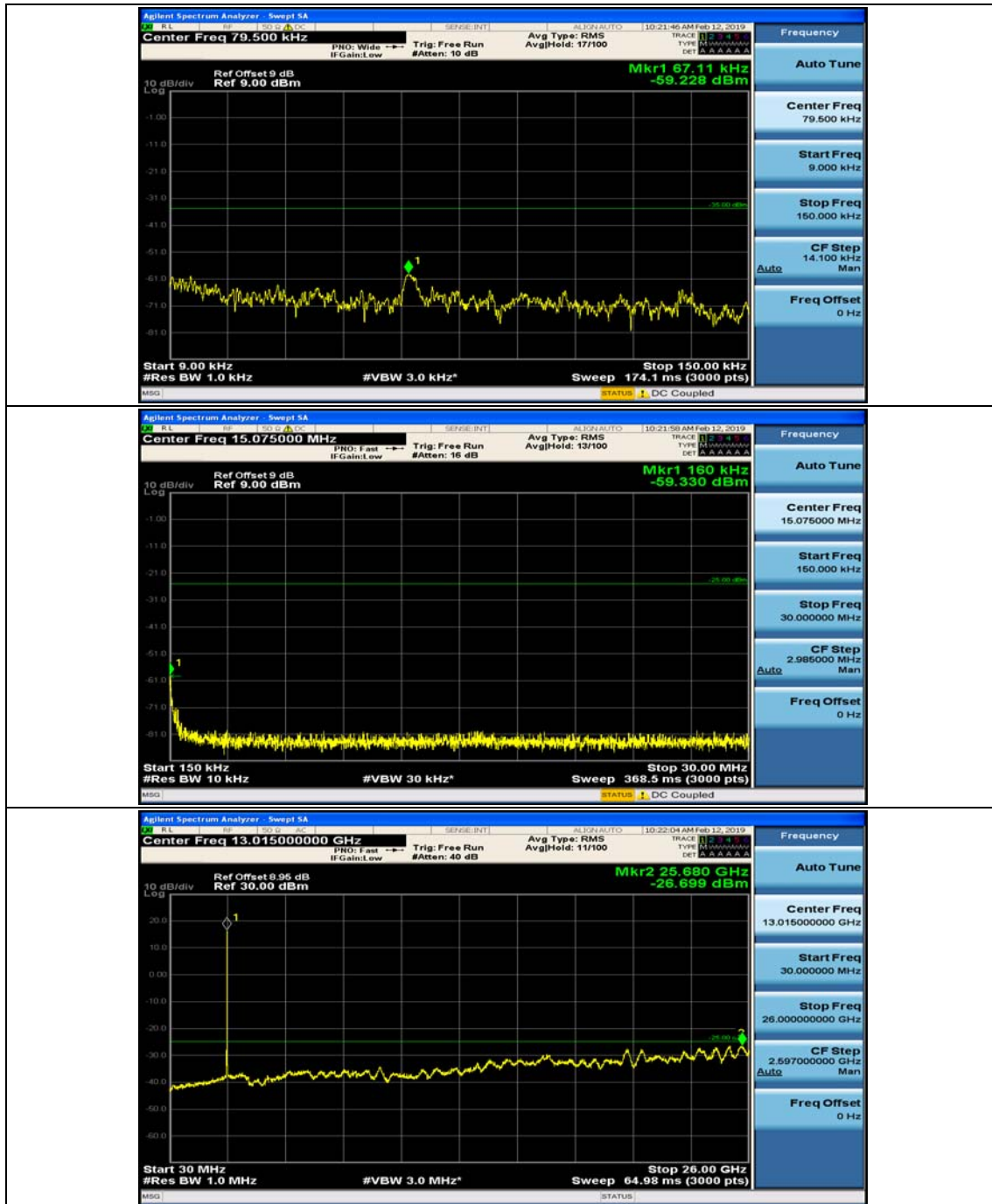
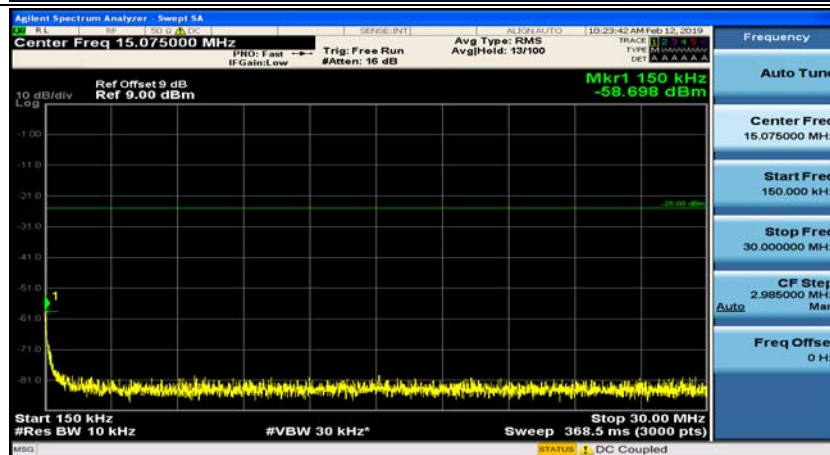
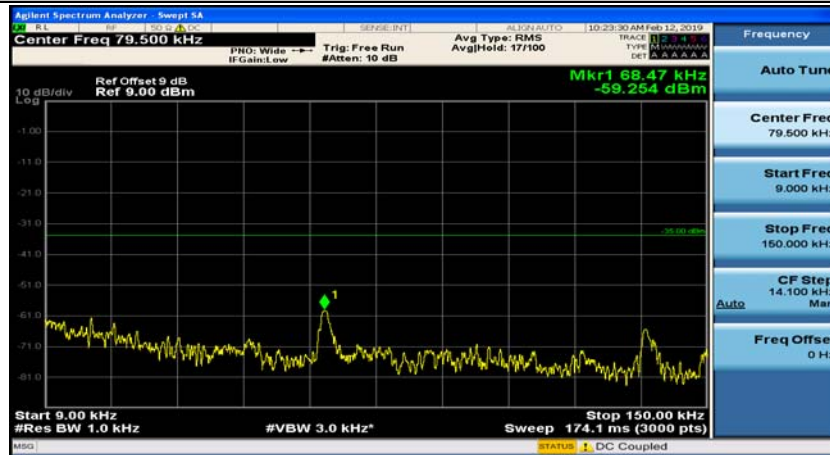


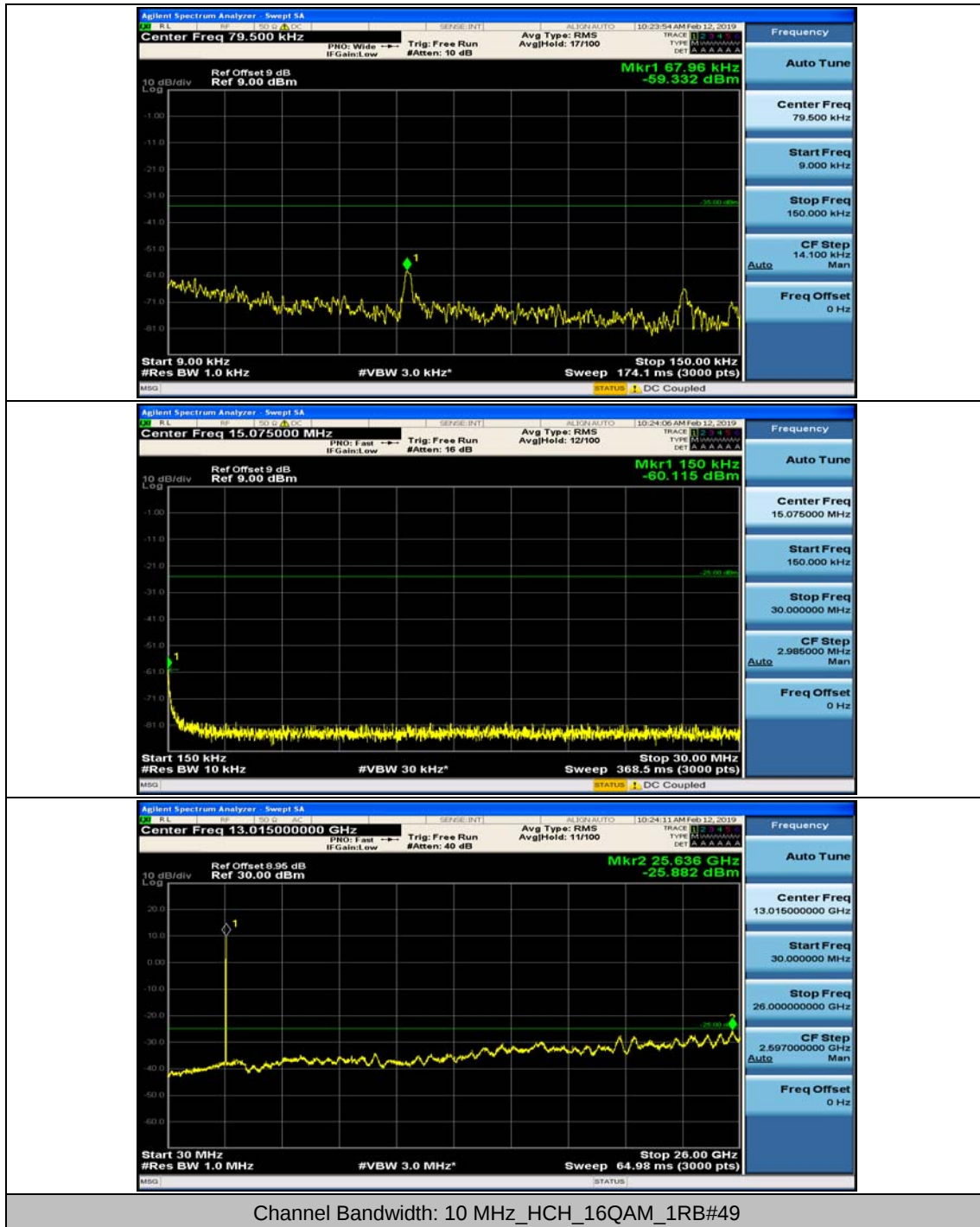


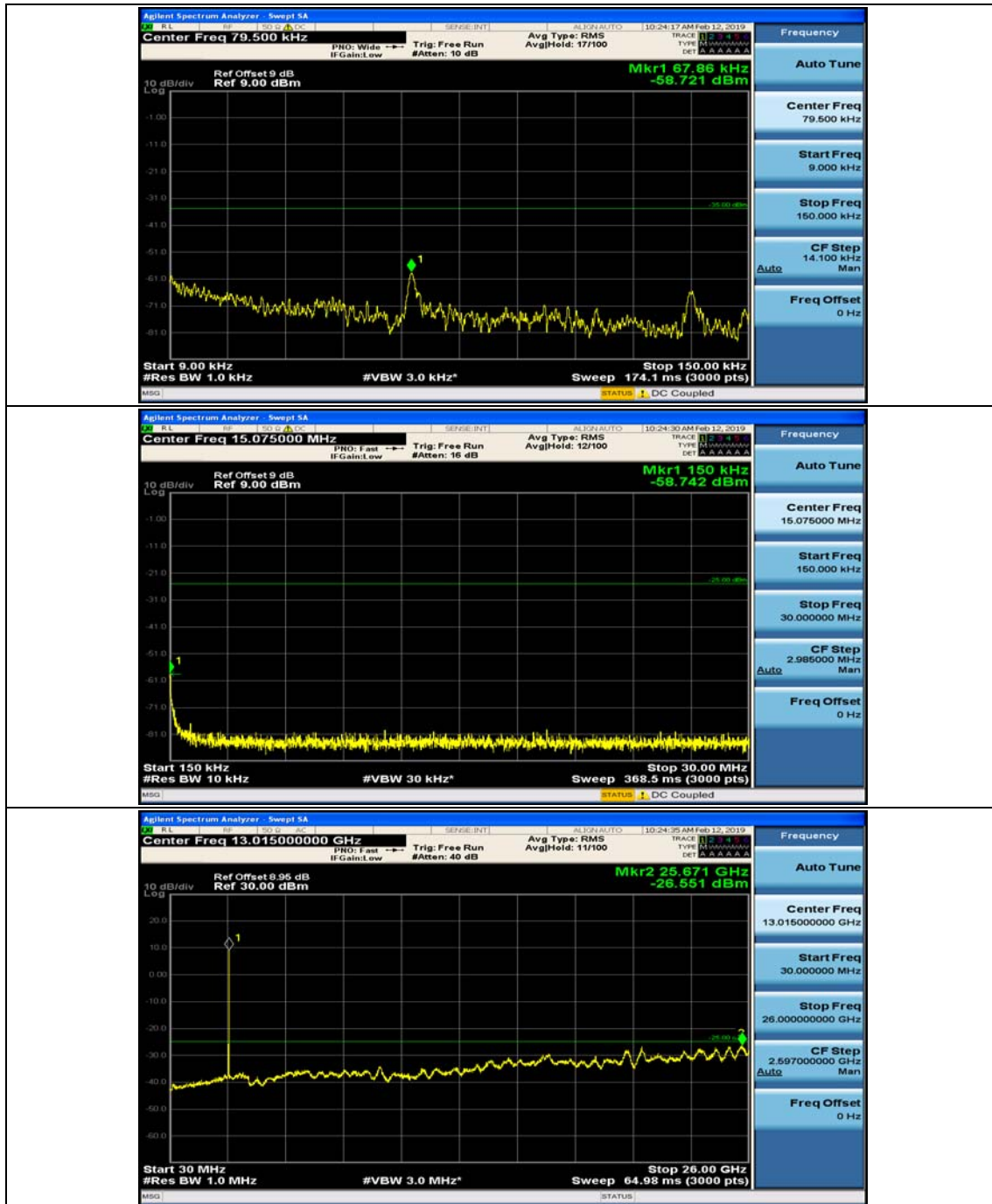


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

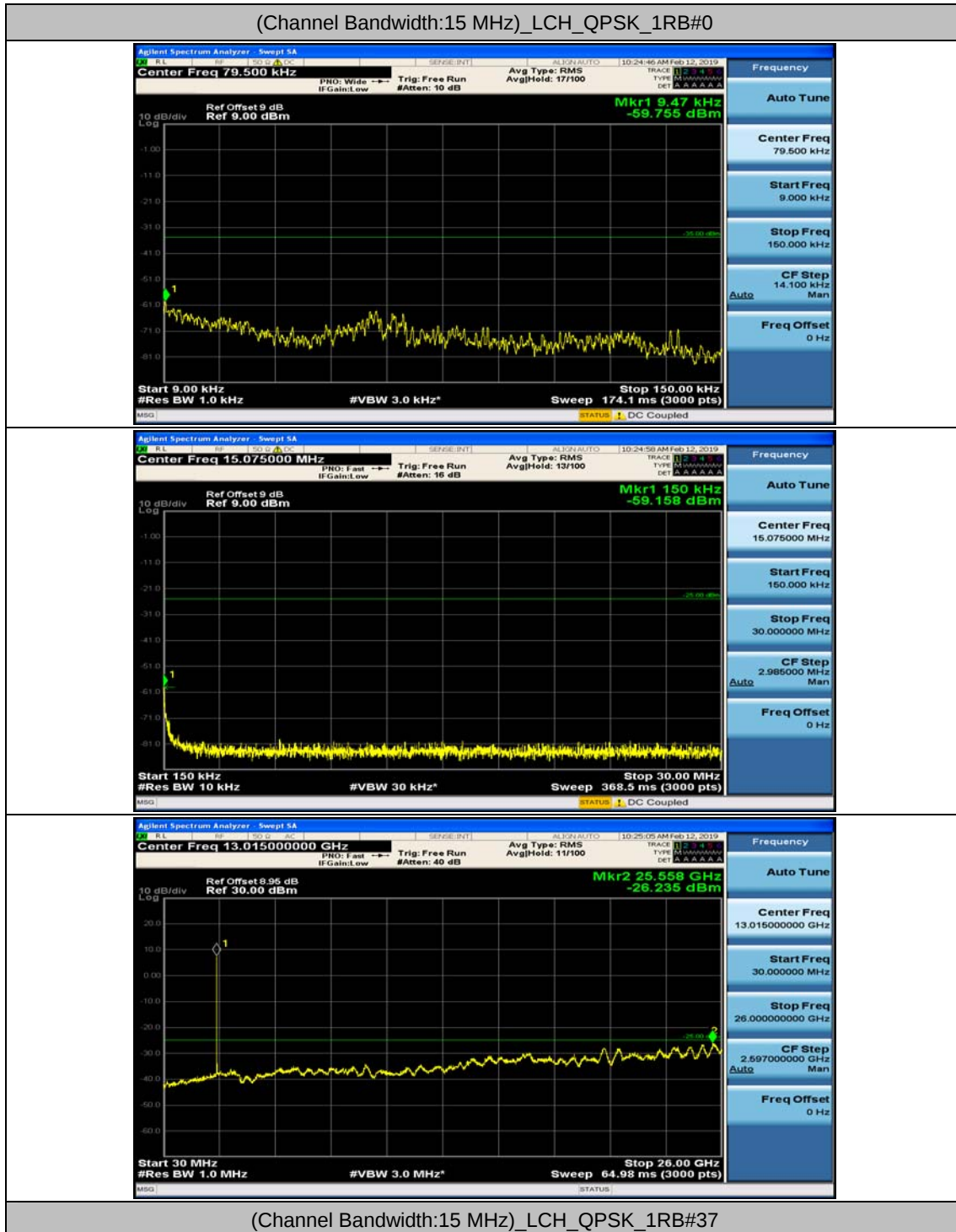


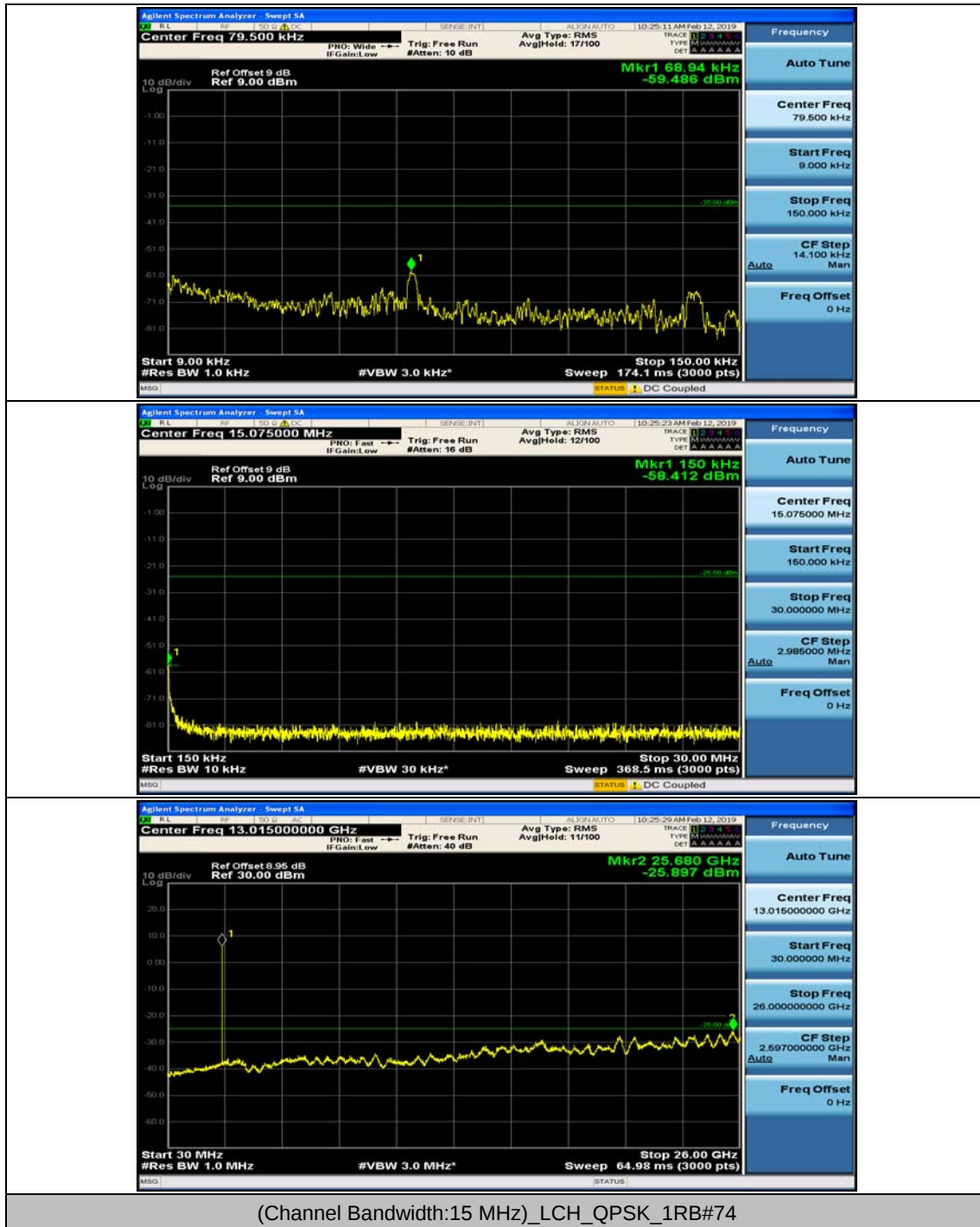
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

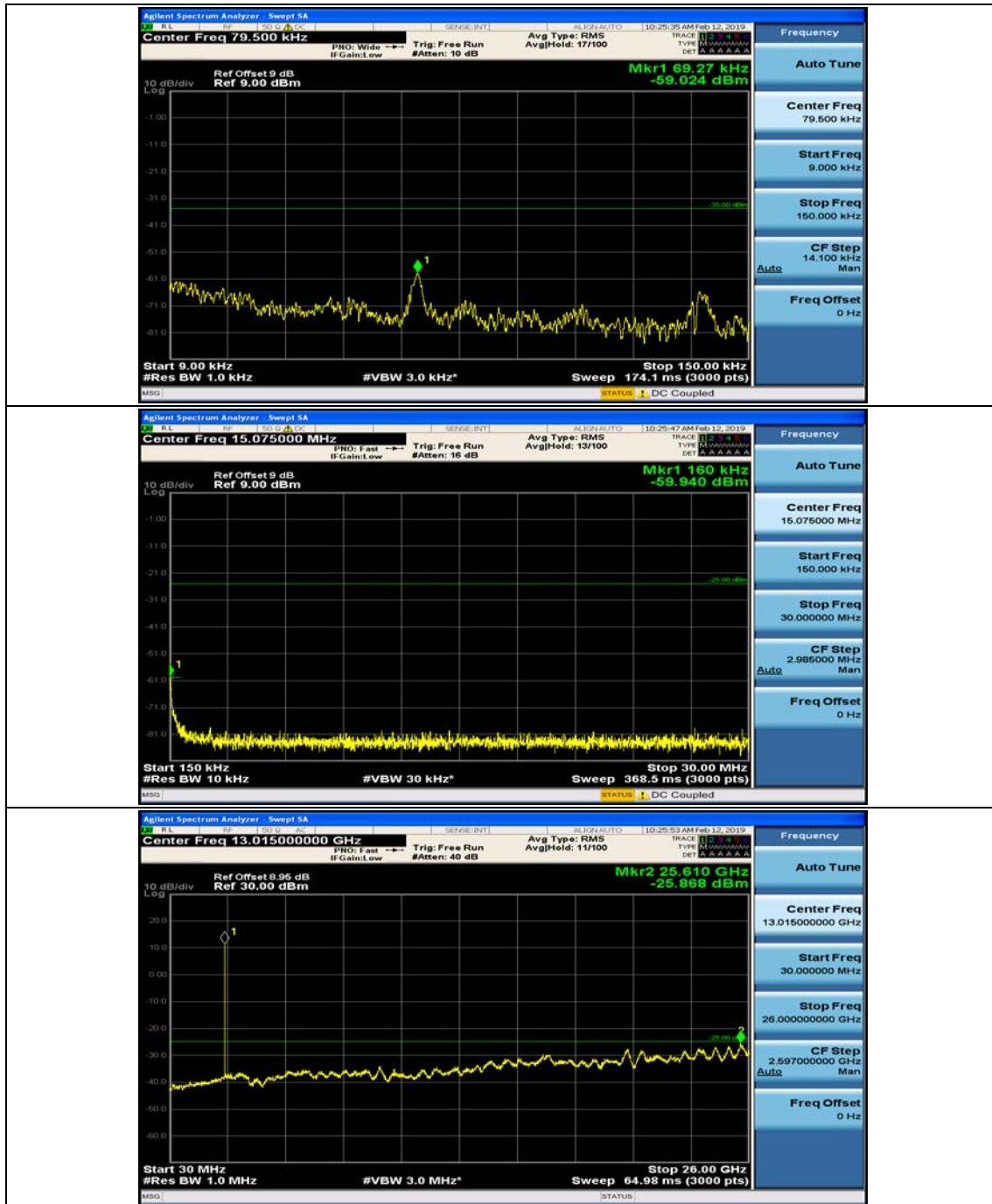




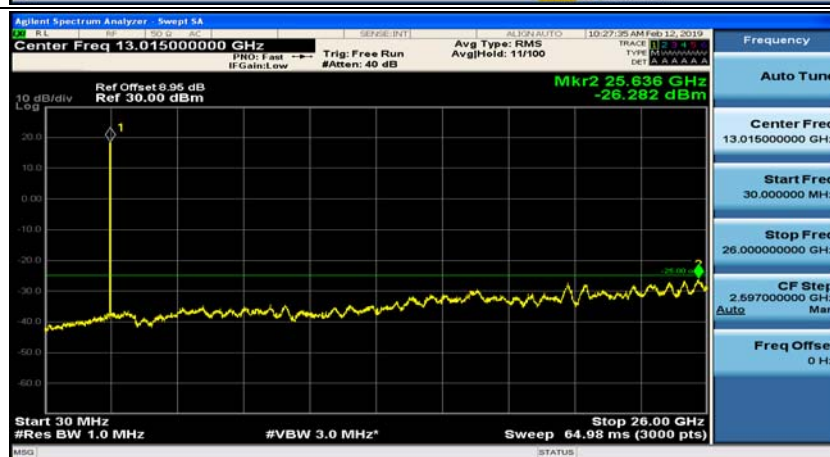
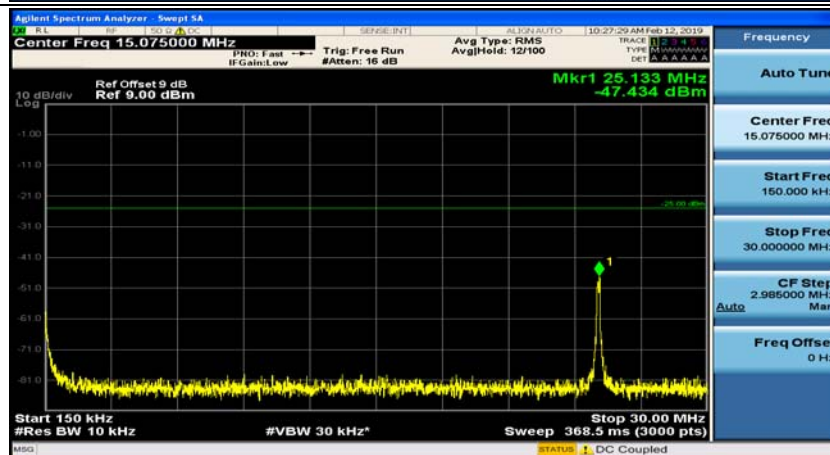
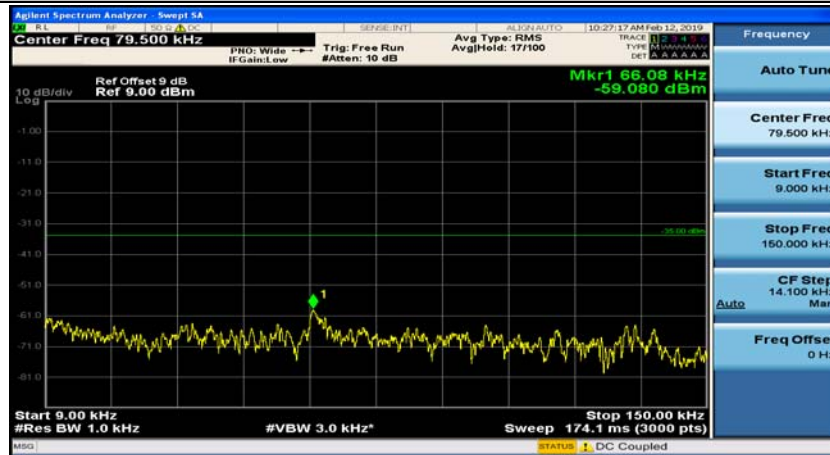
Channel Bandwidth: 15 MHz



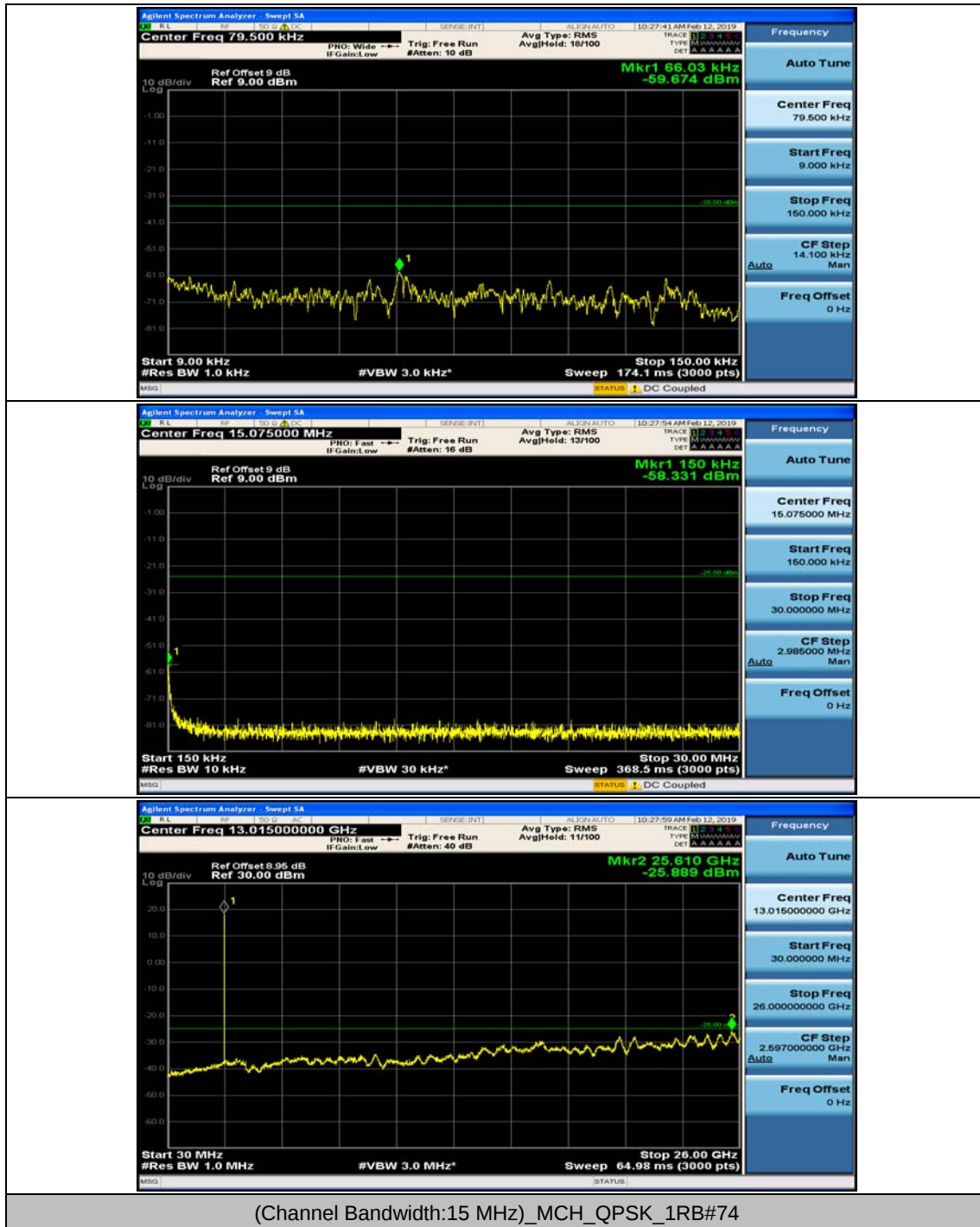


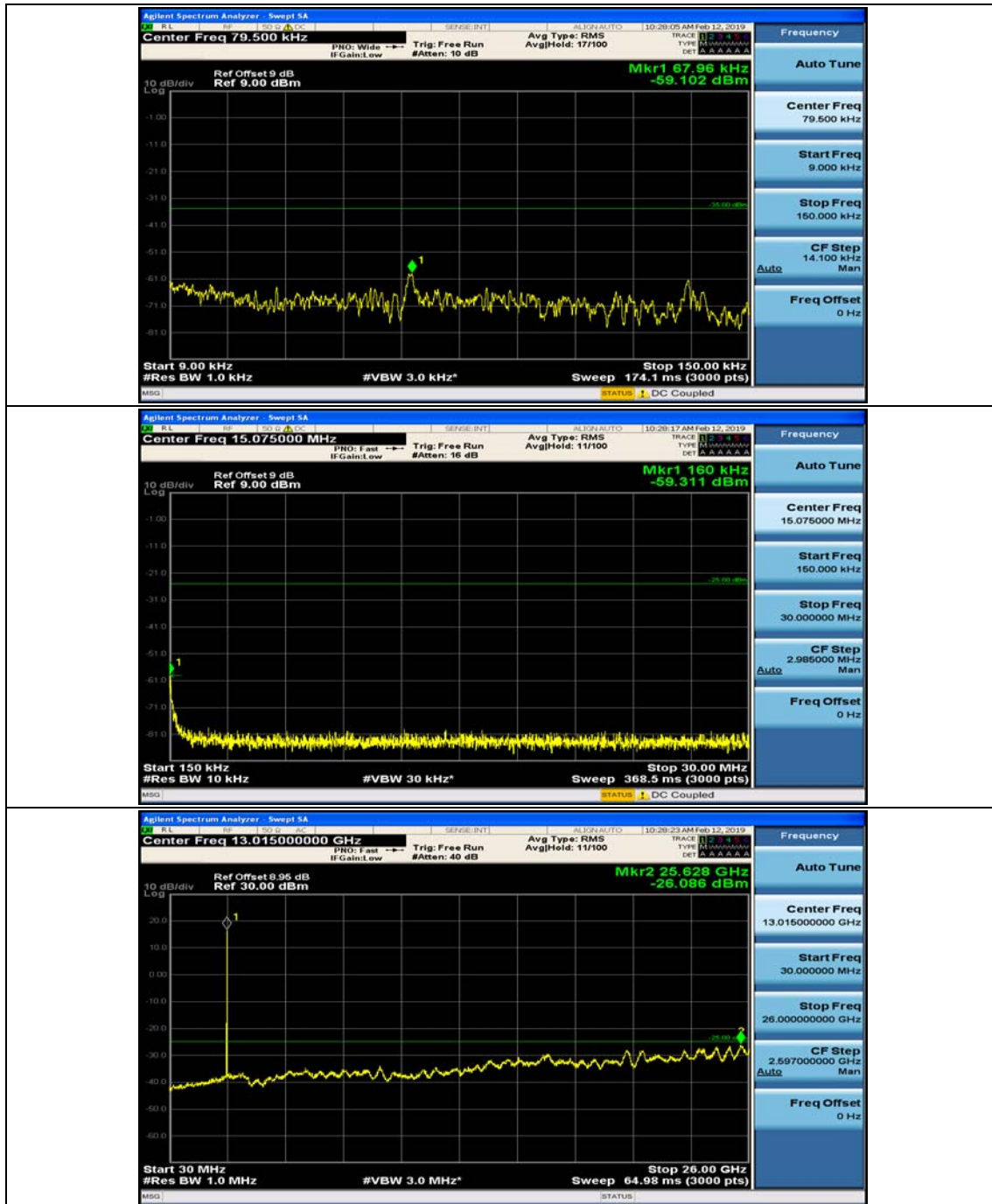


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

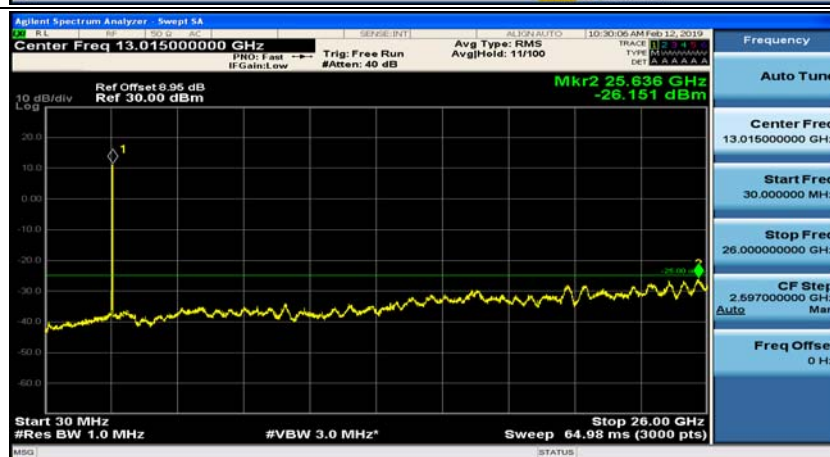
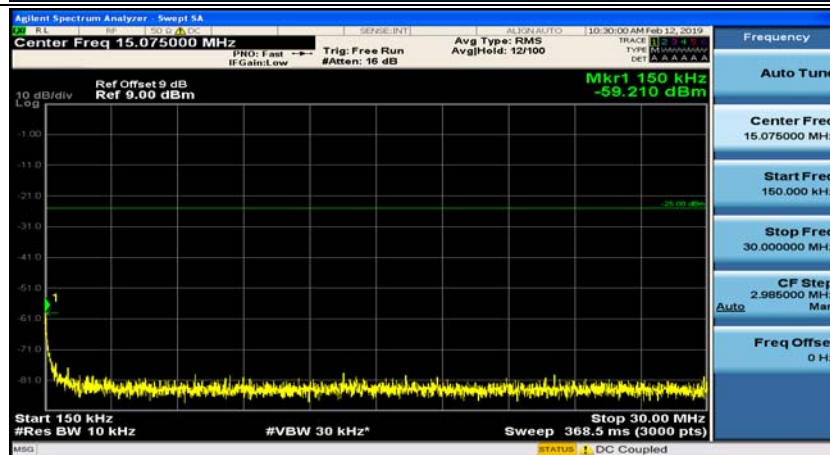
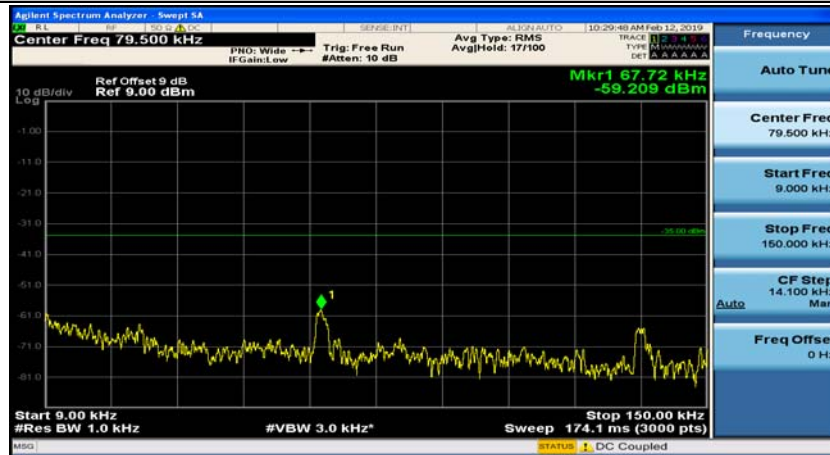


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

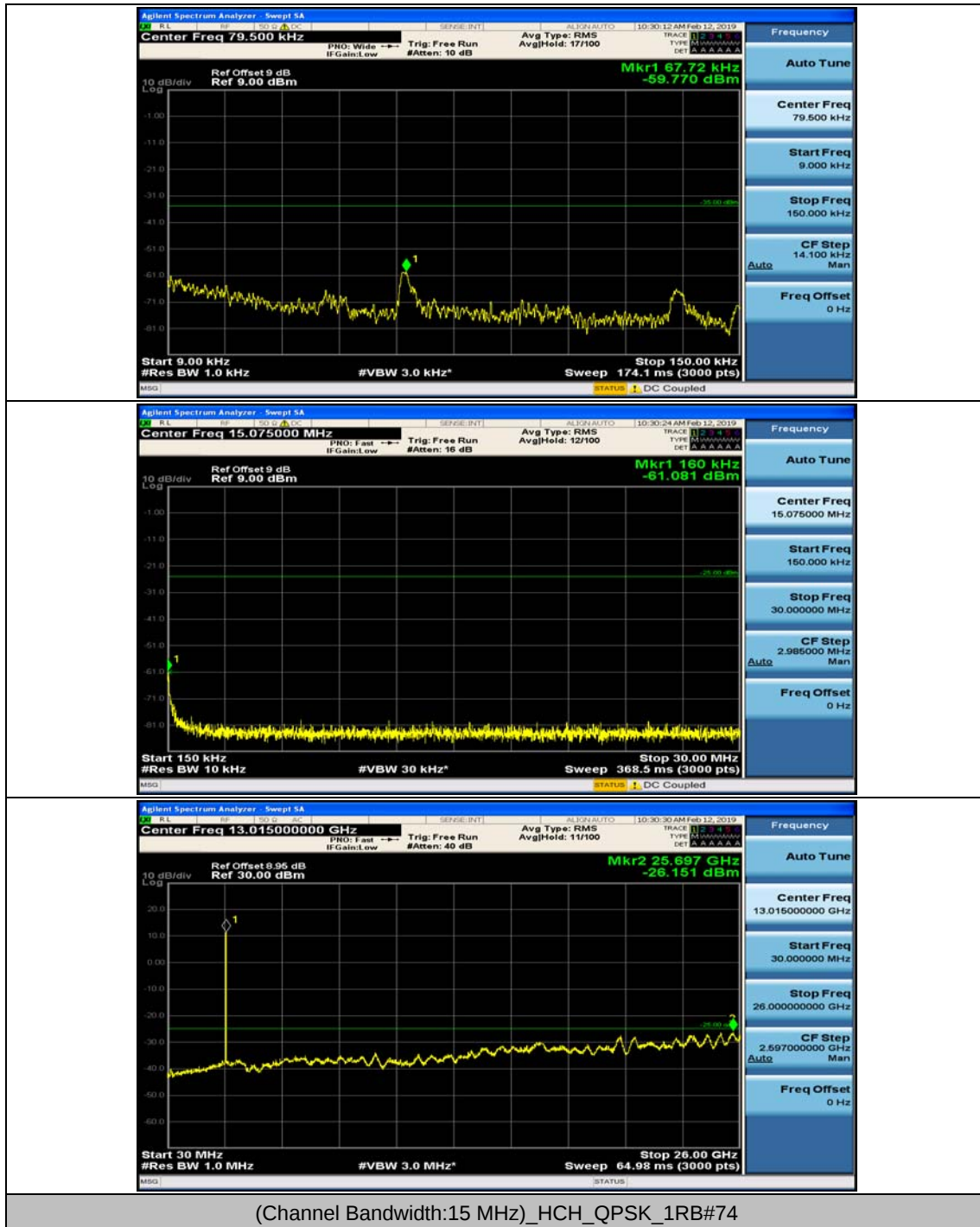


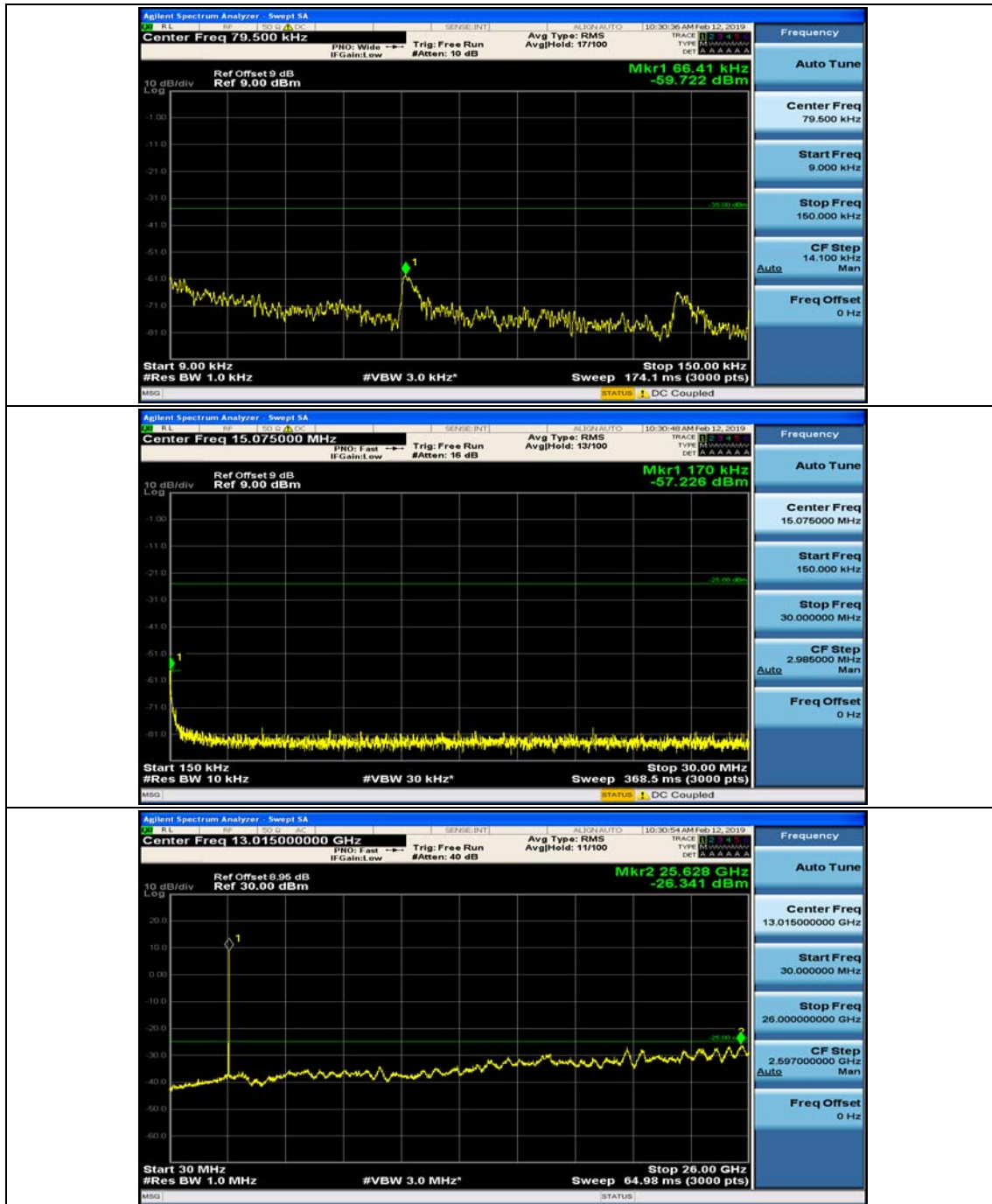


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

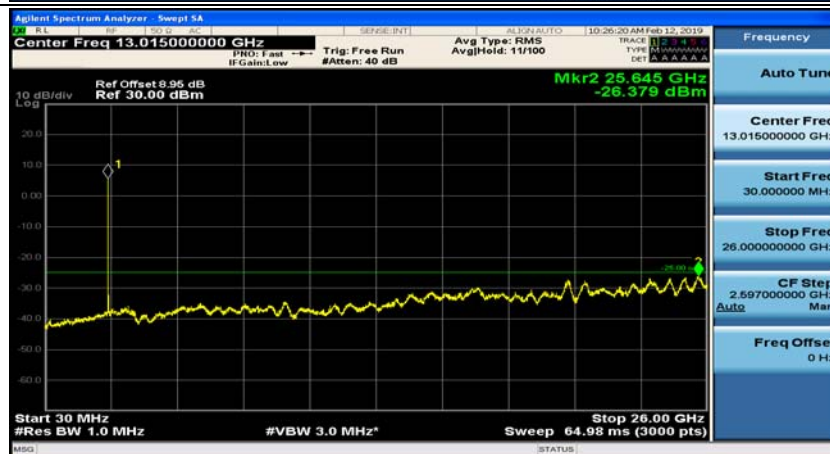
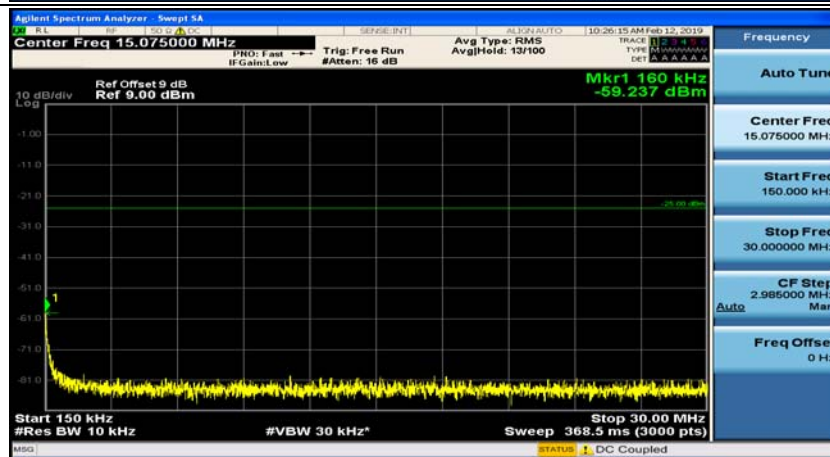
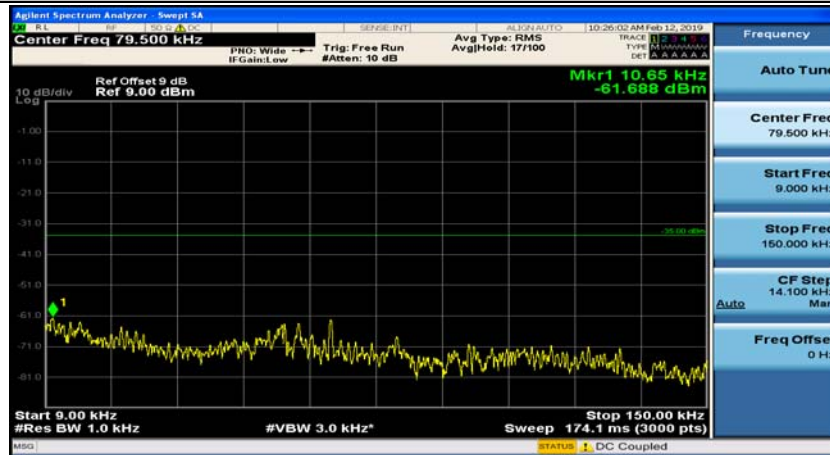


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

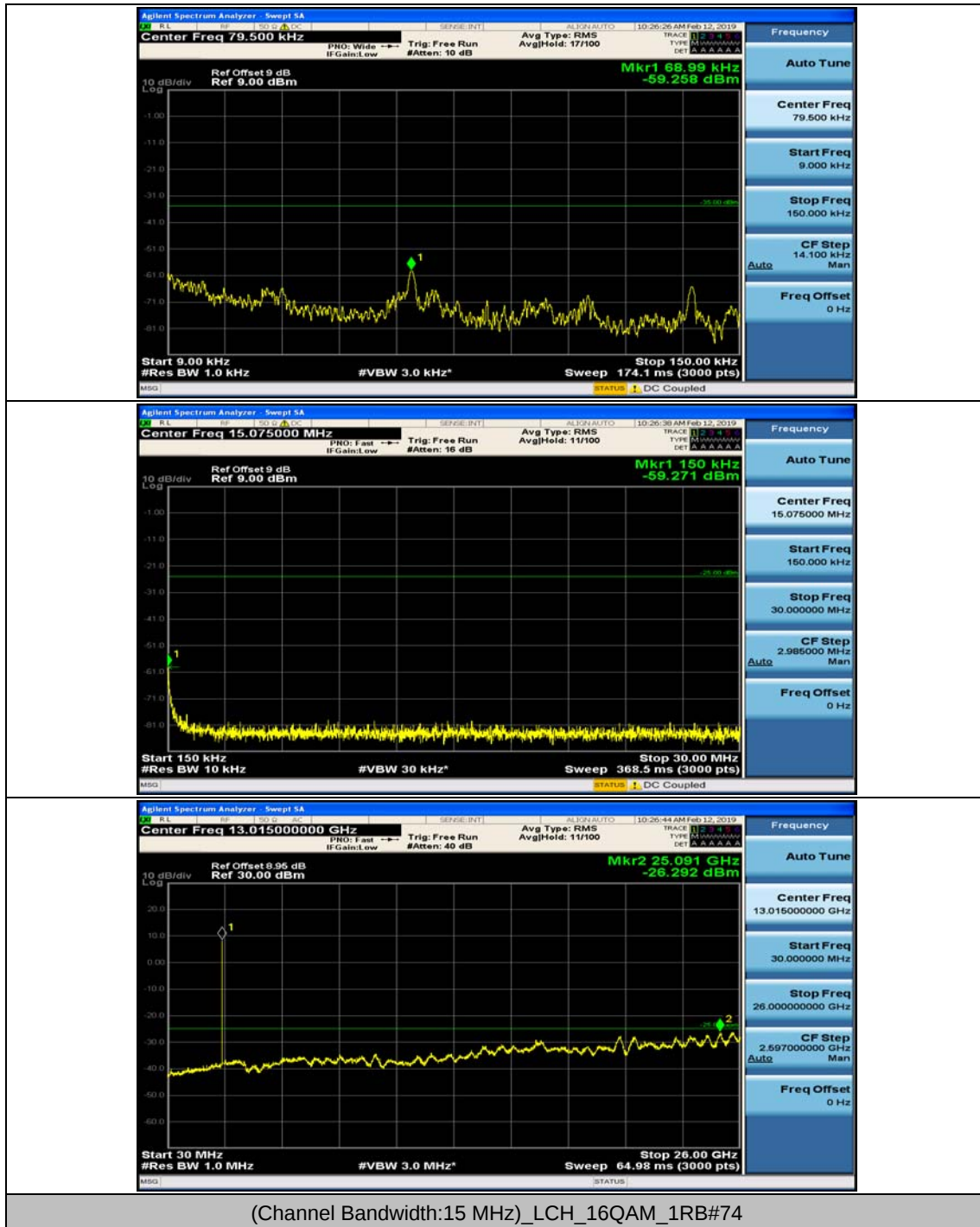


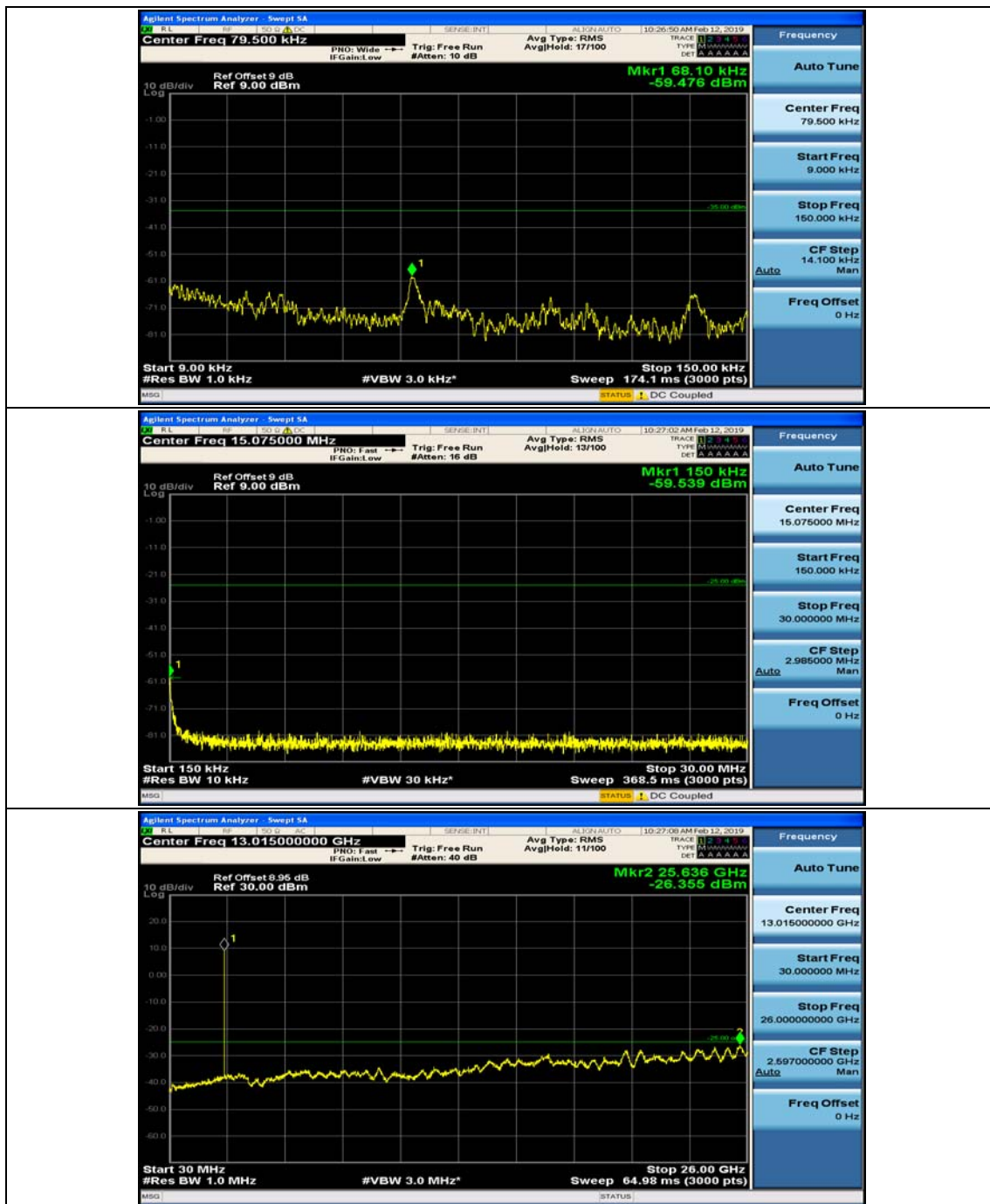


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

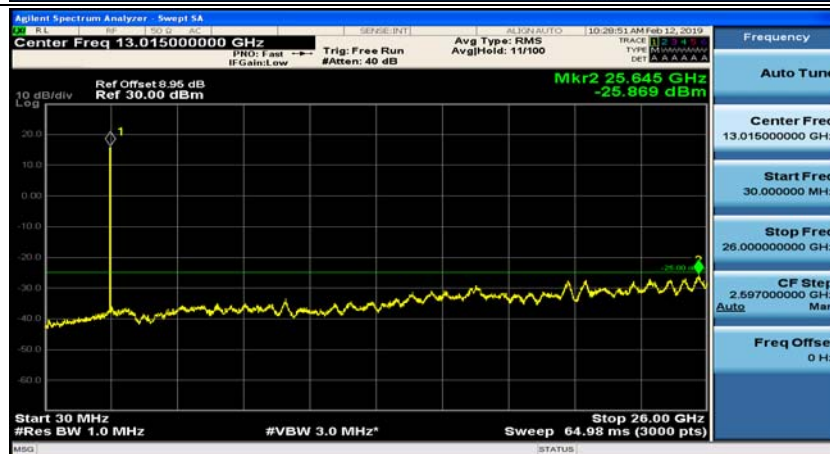
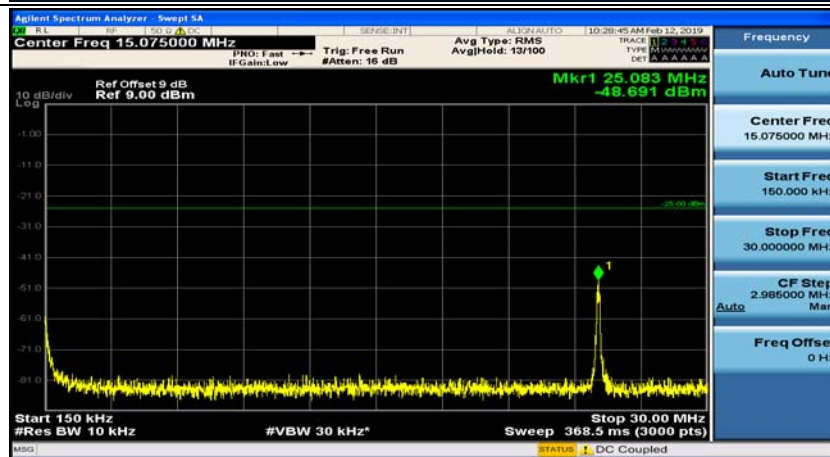
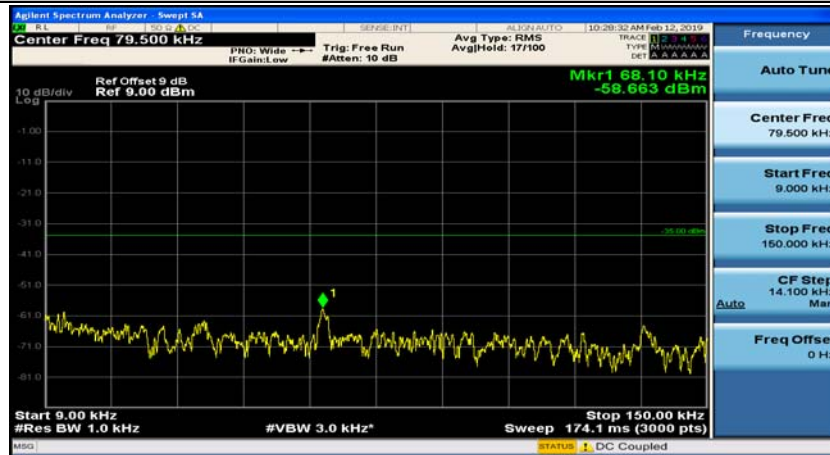


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

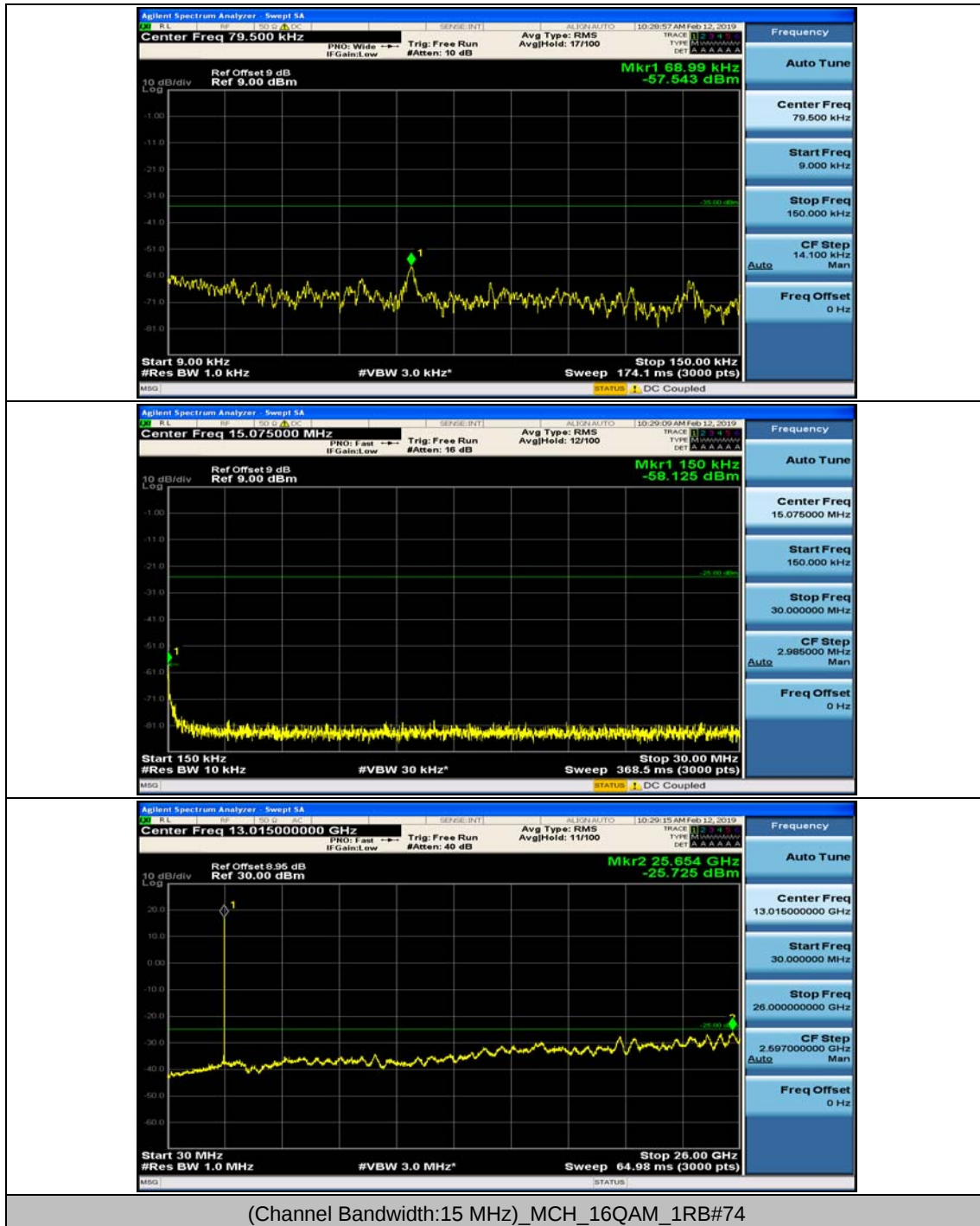


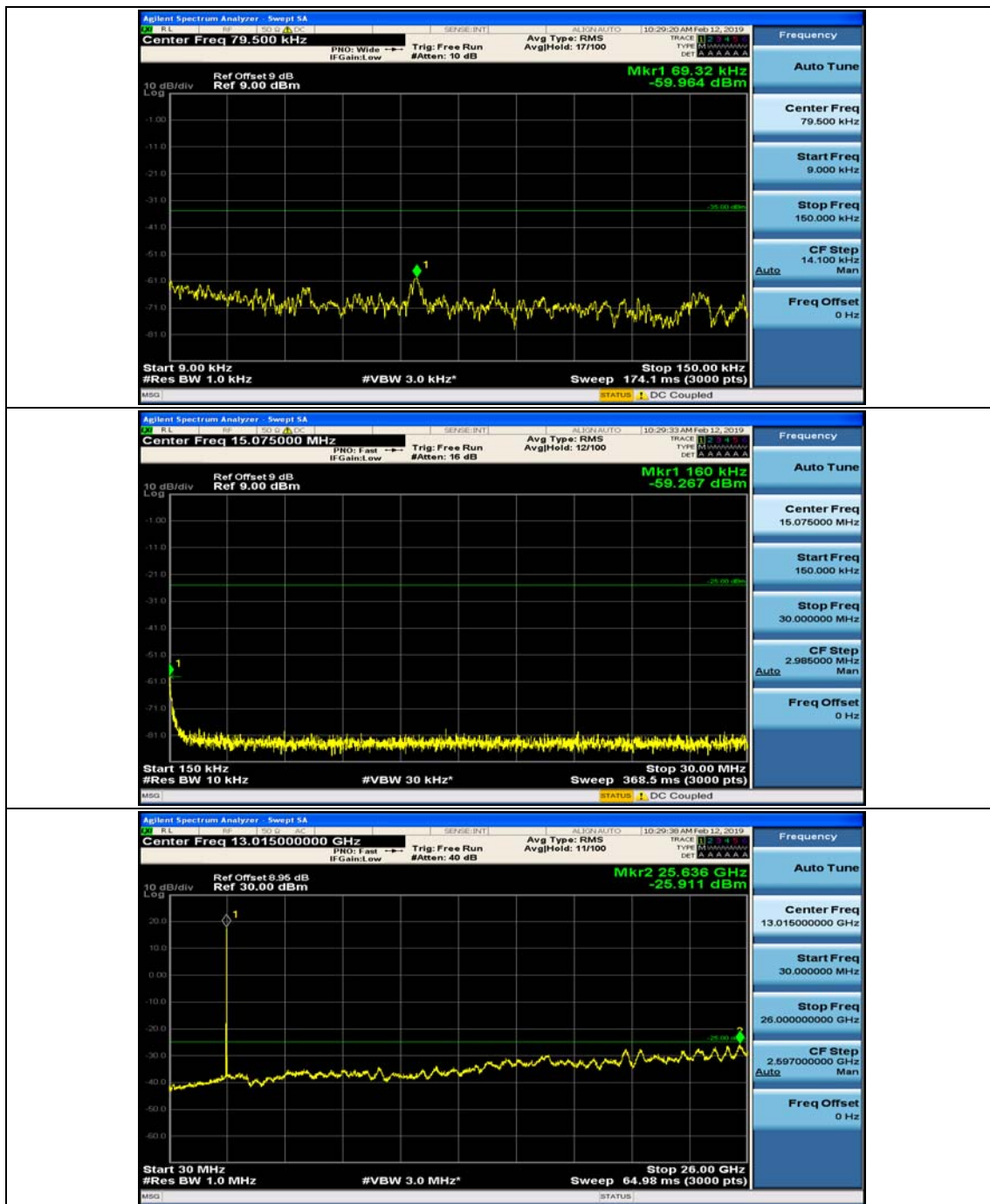


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

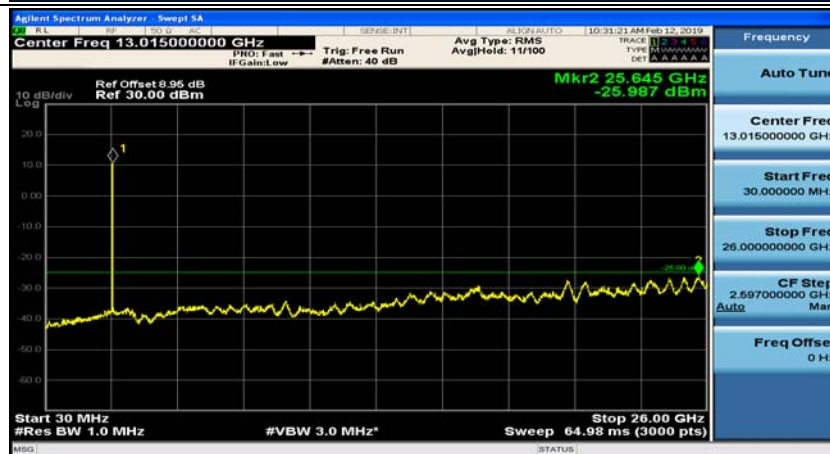
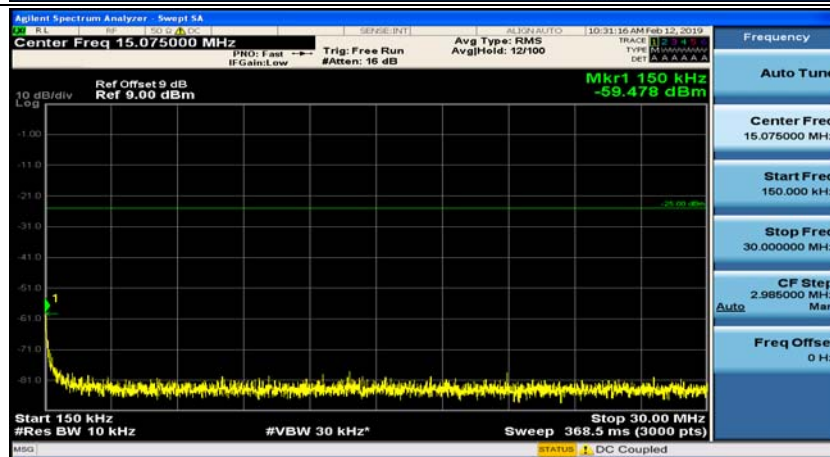
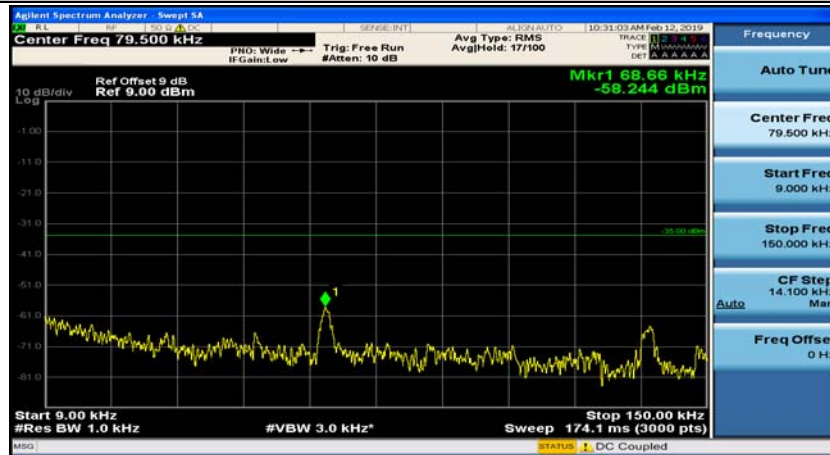


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

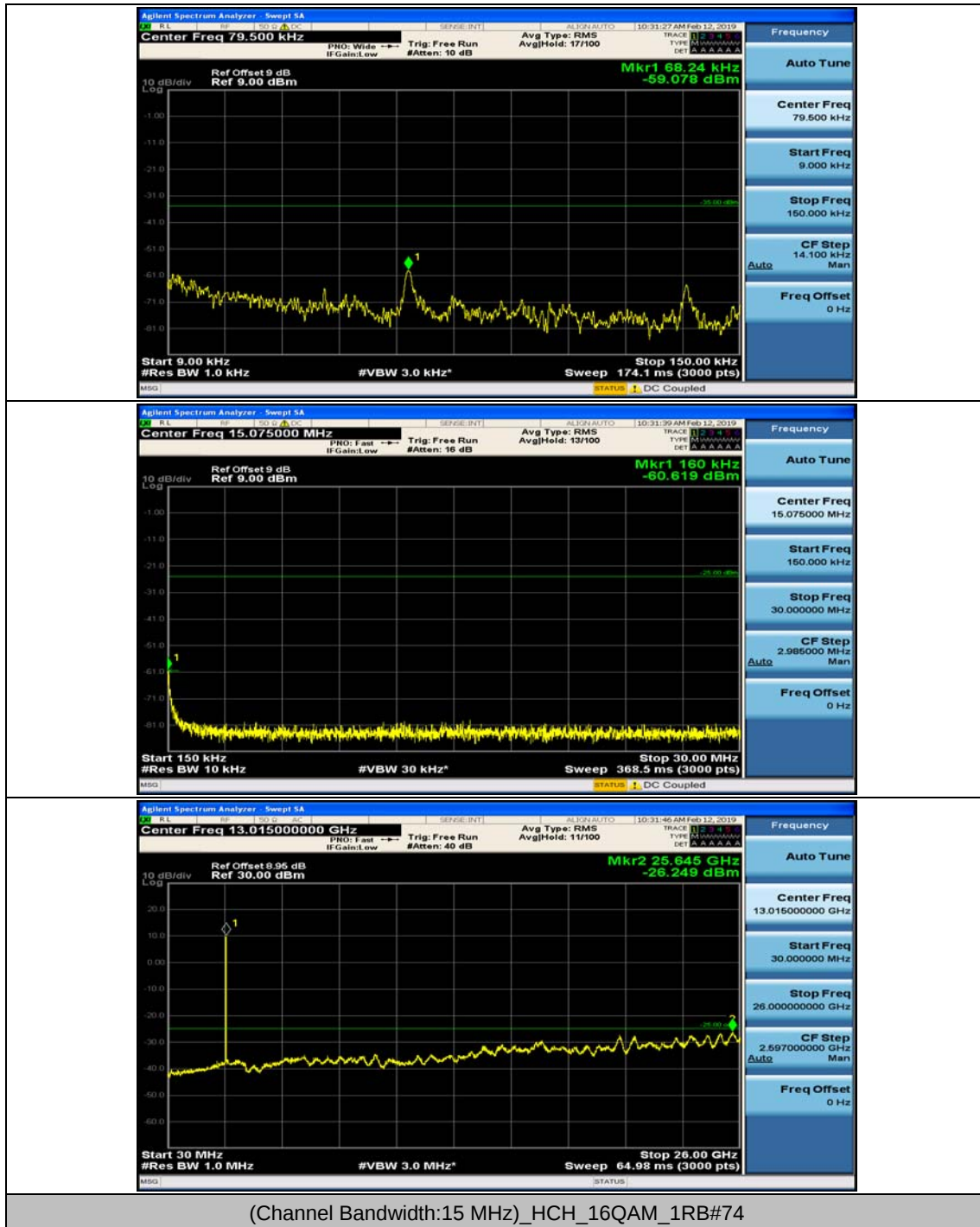


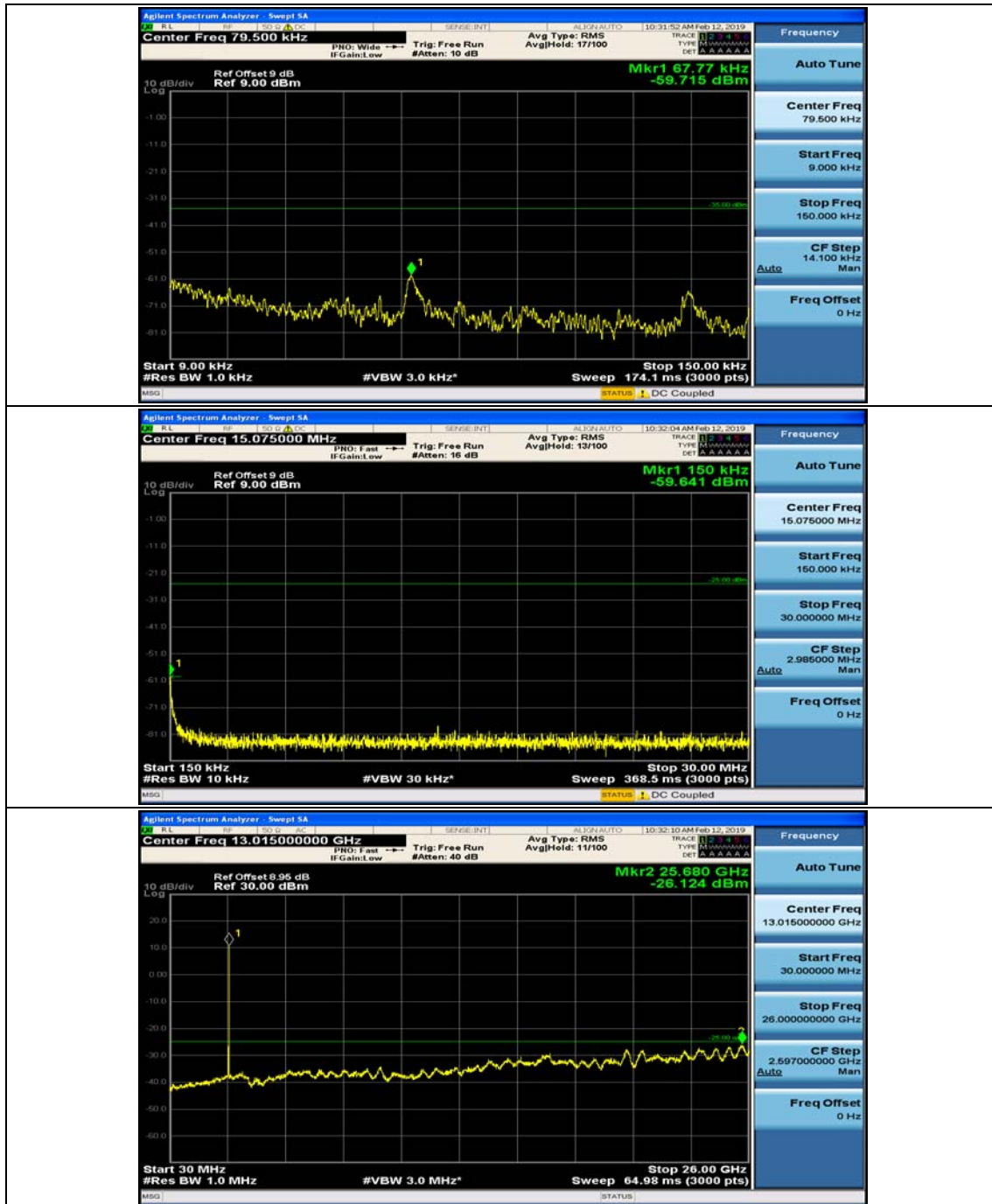


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

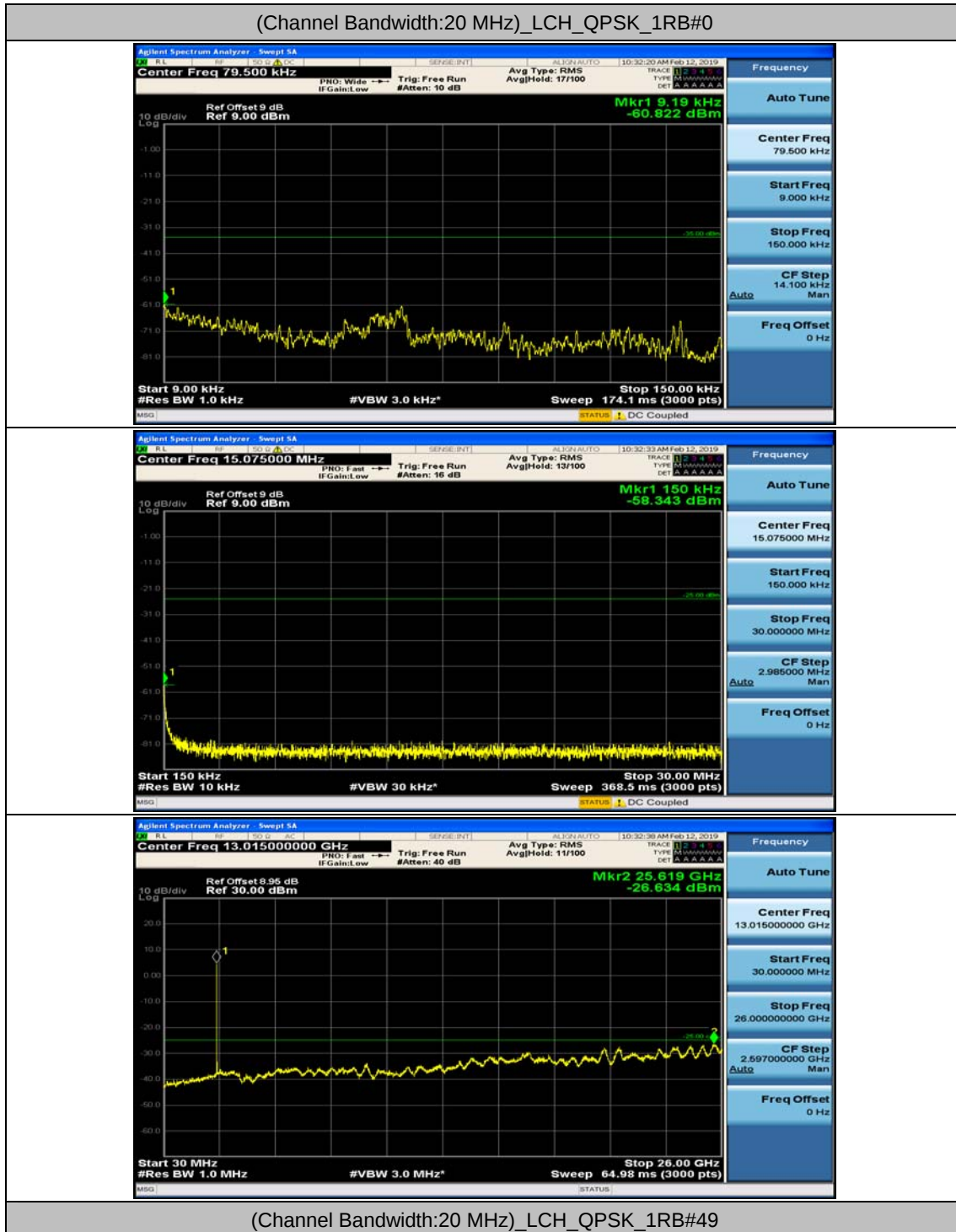


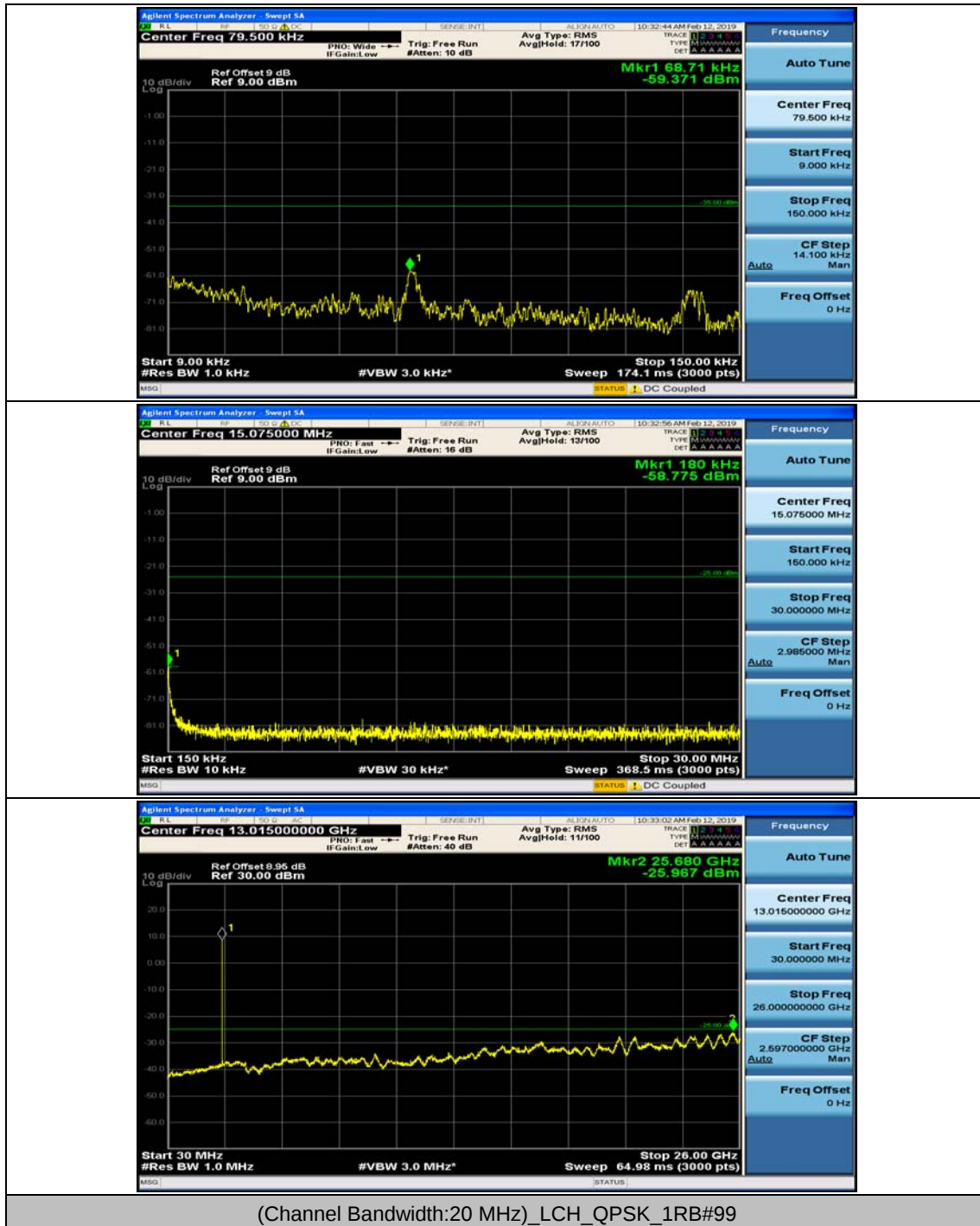
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

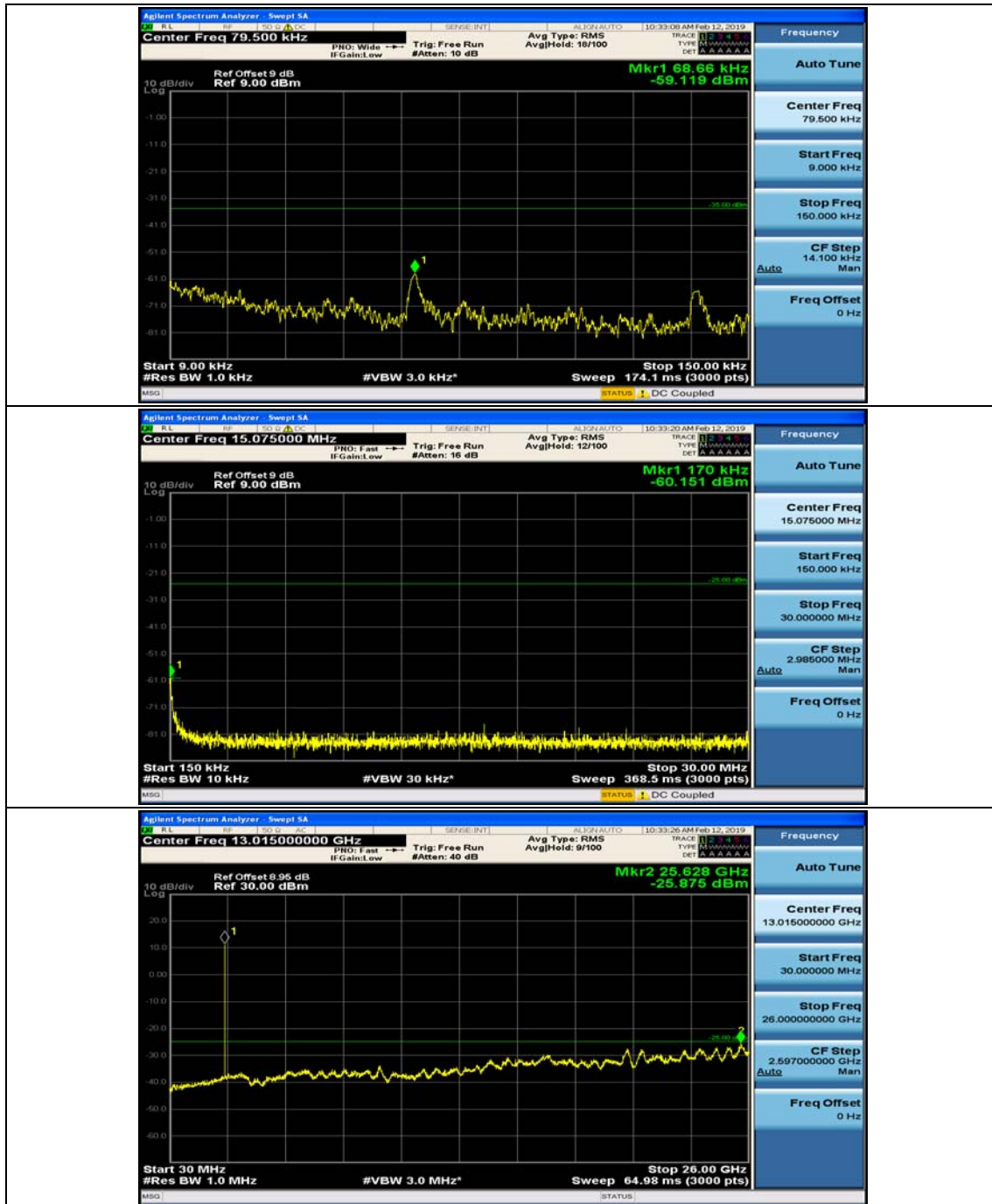




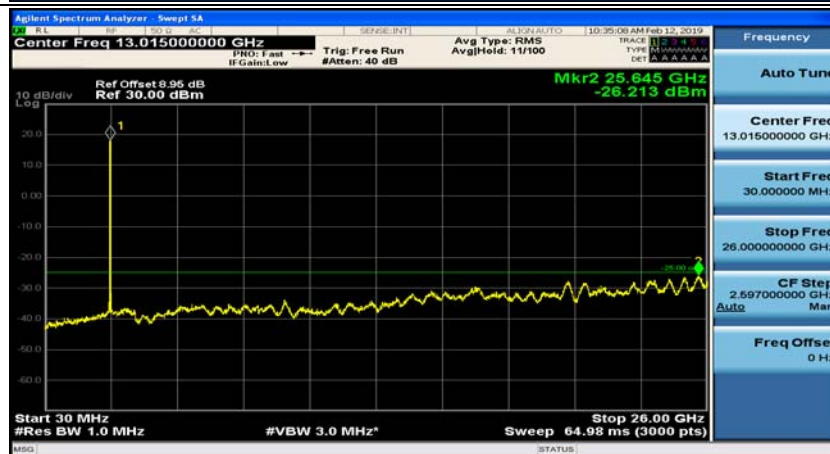
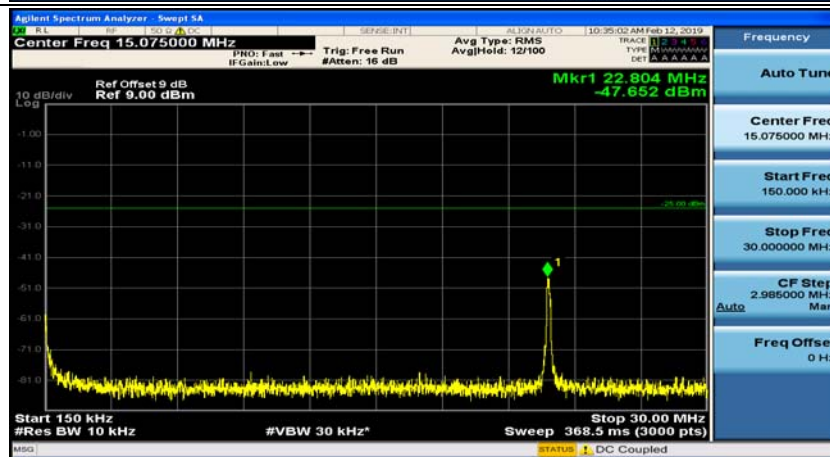
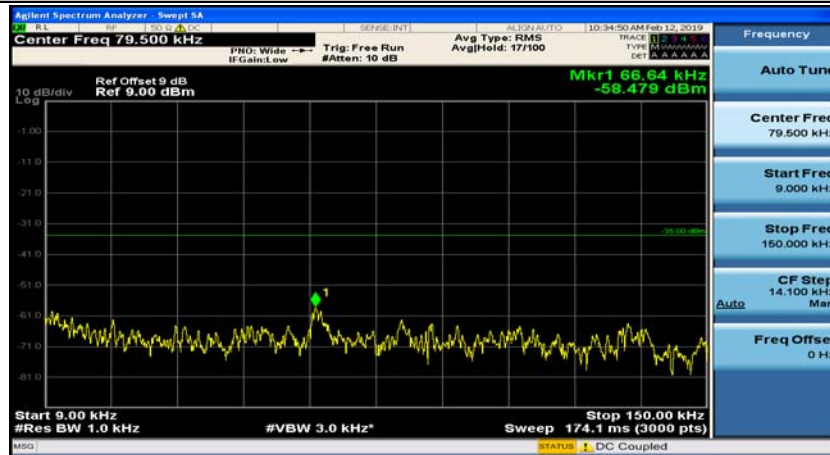
Channel Bandwidth: 20 MHz



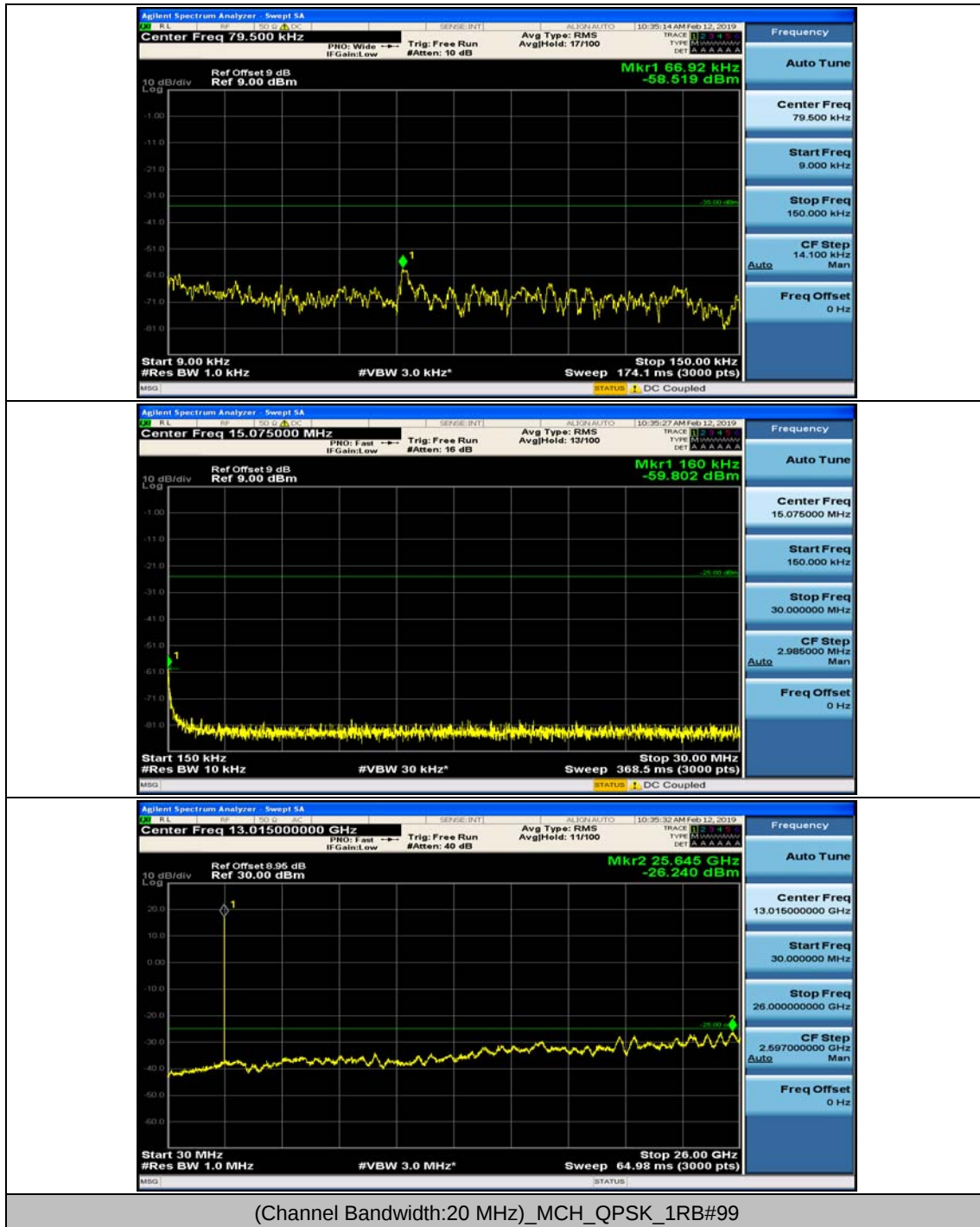


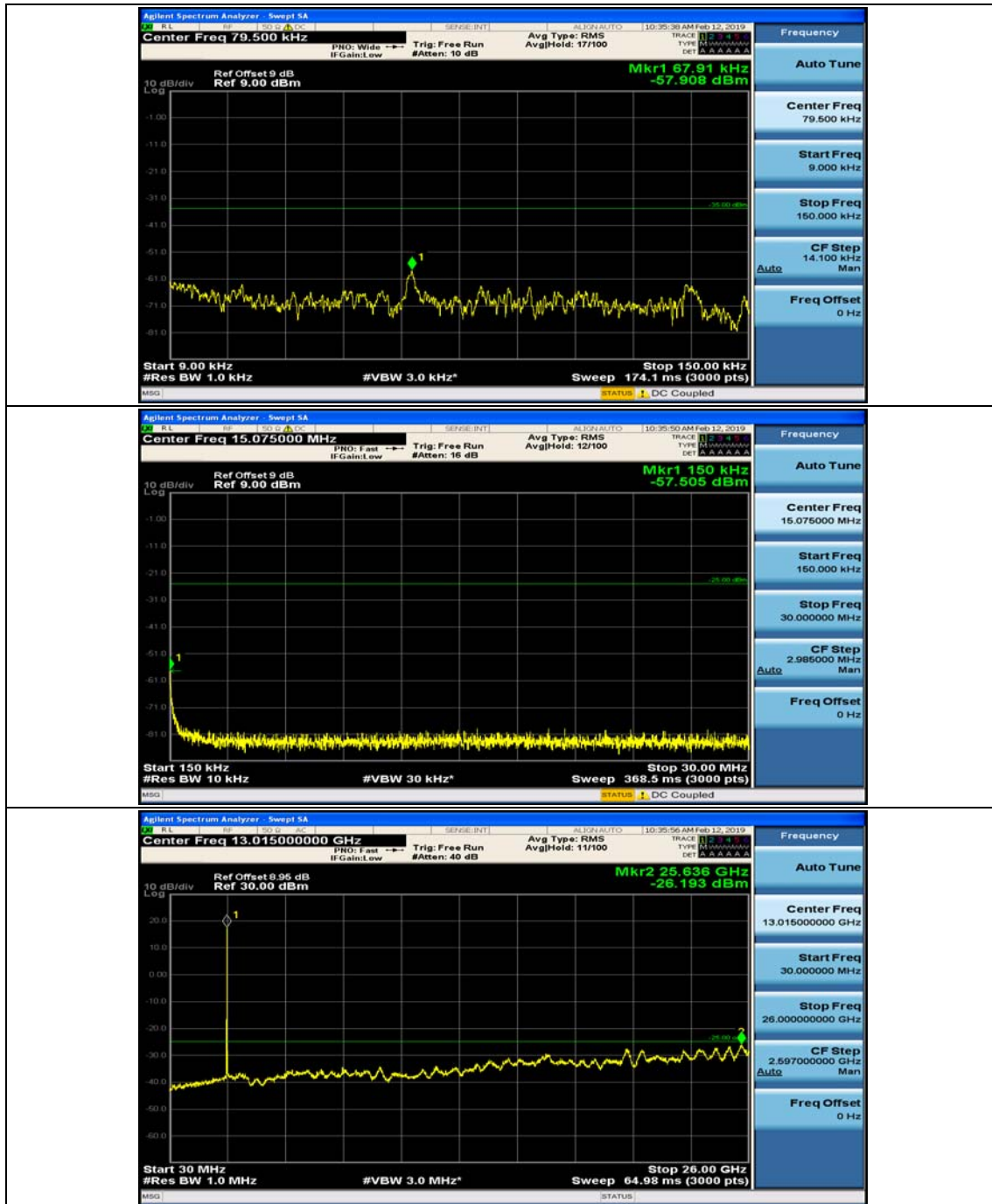


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

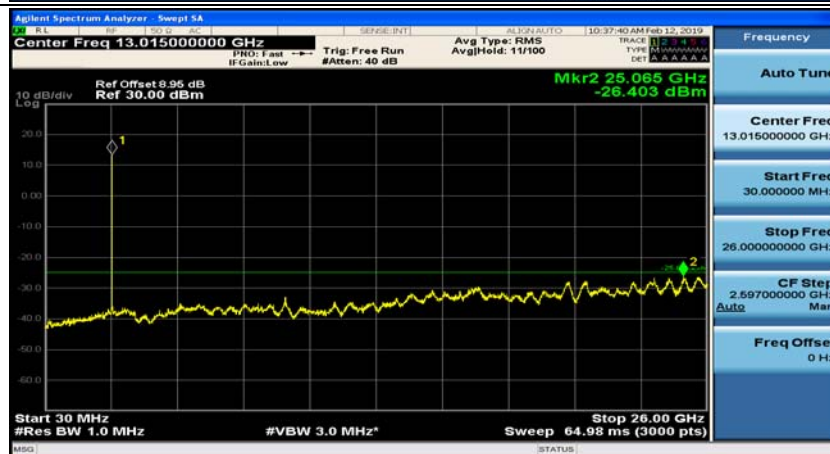
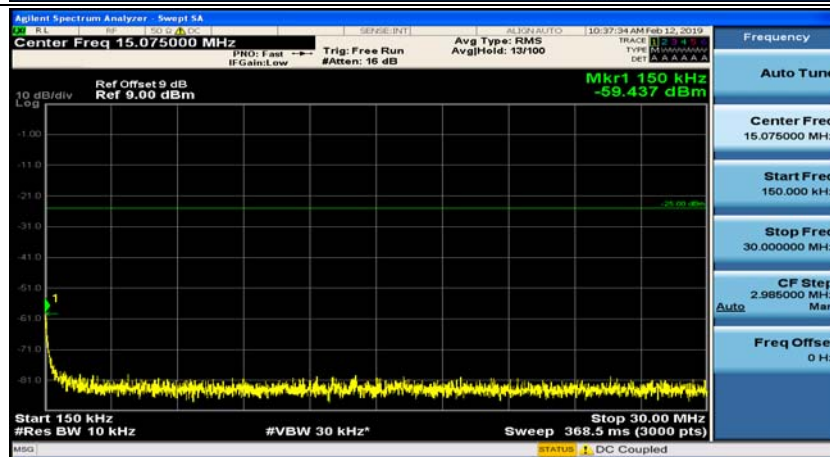
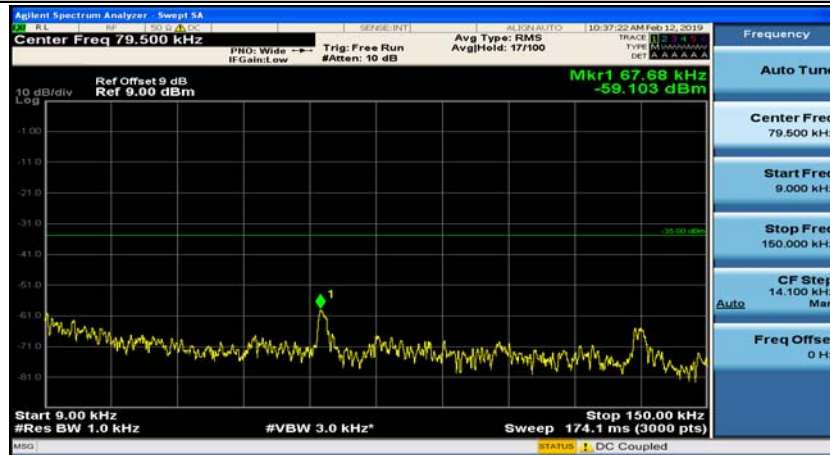


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

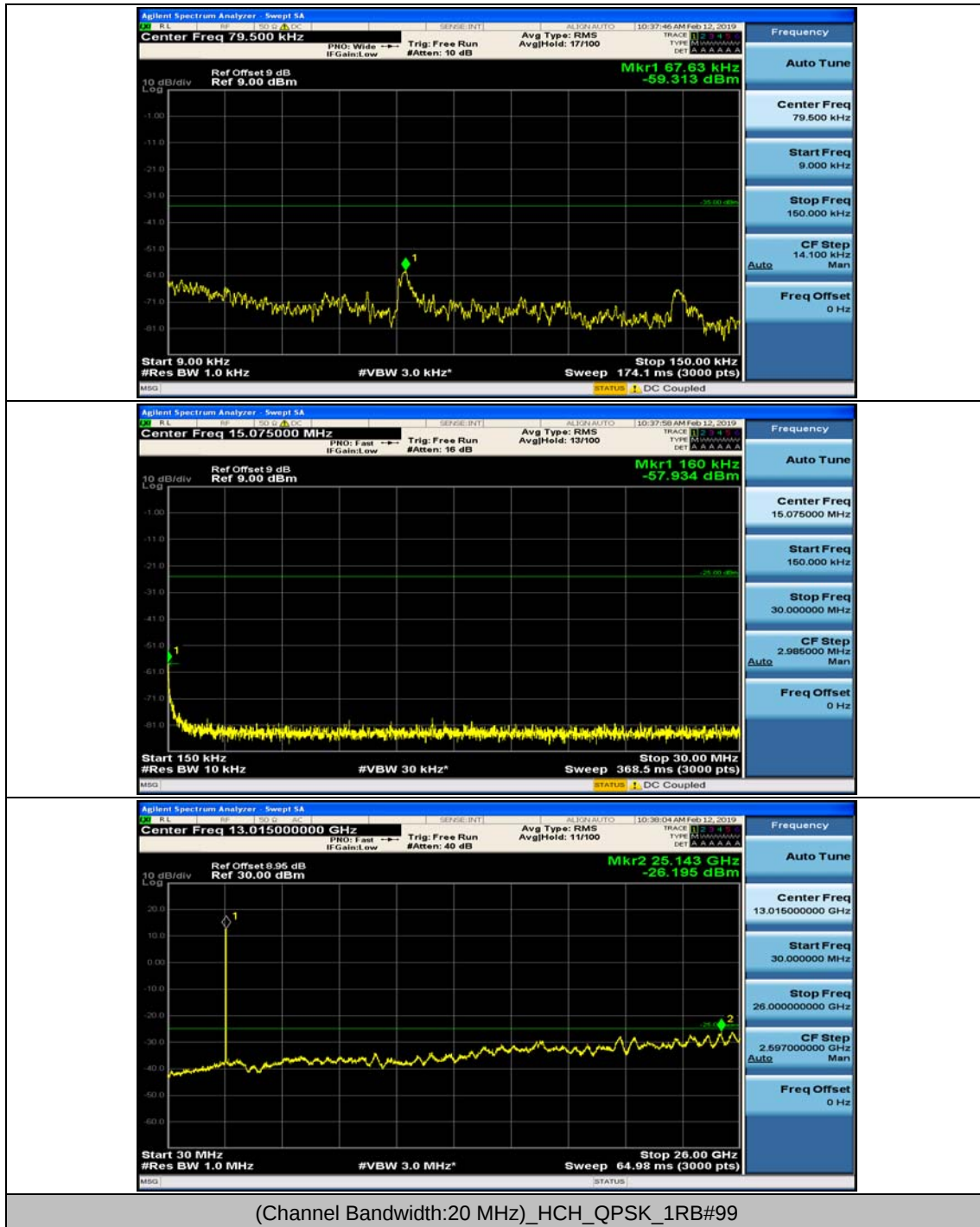


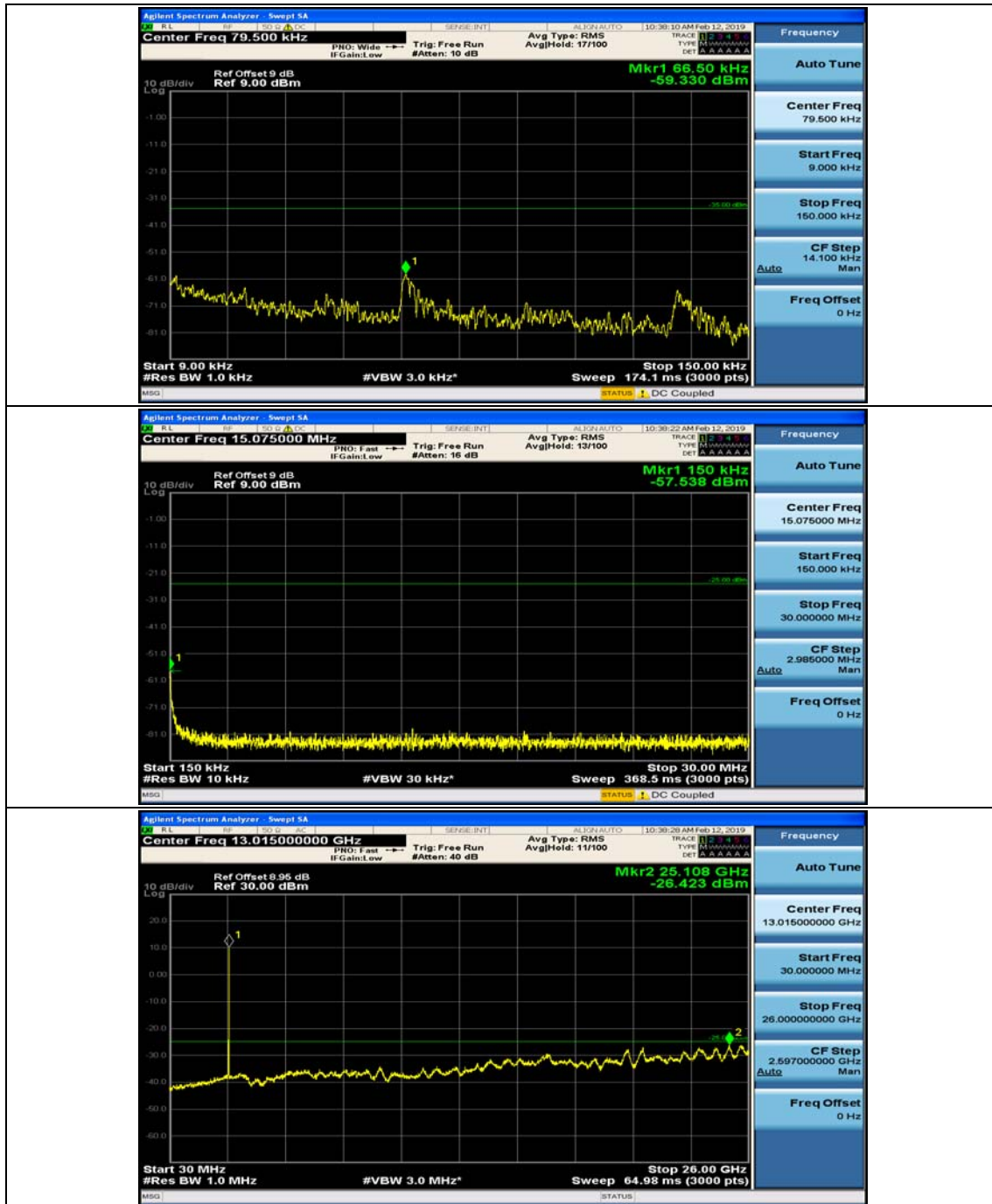


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

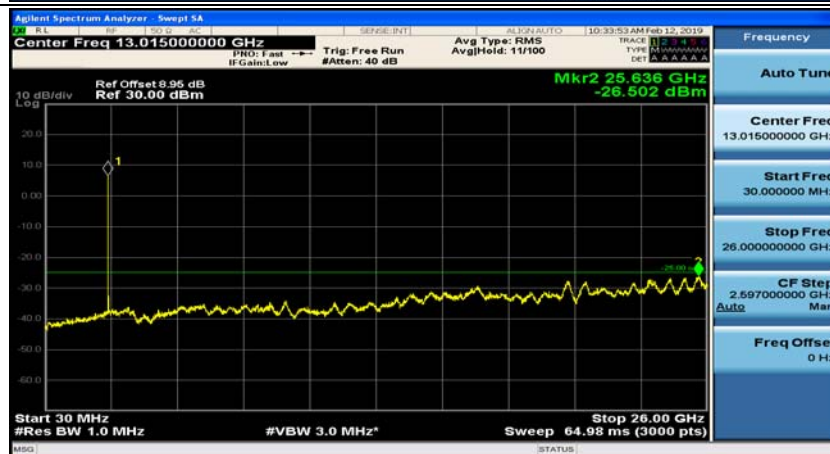
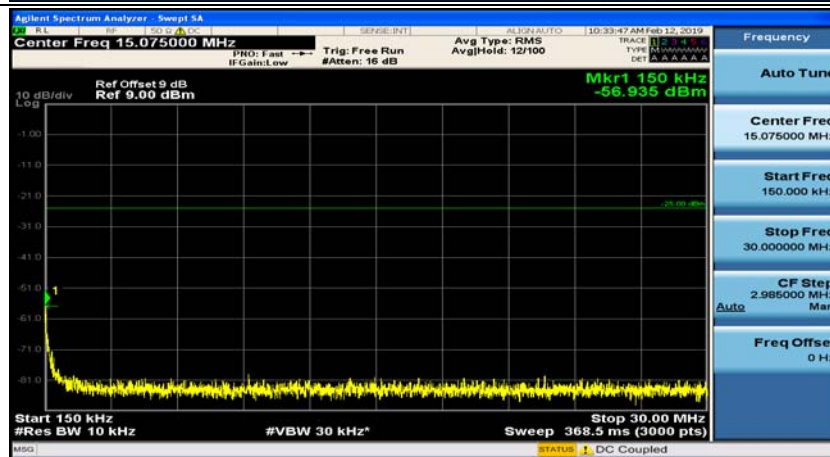
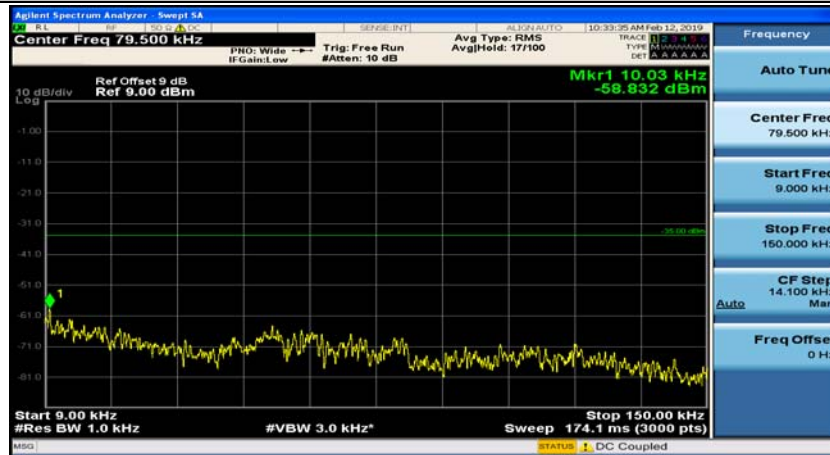


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

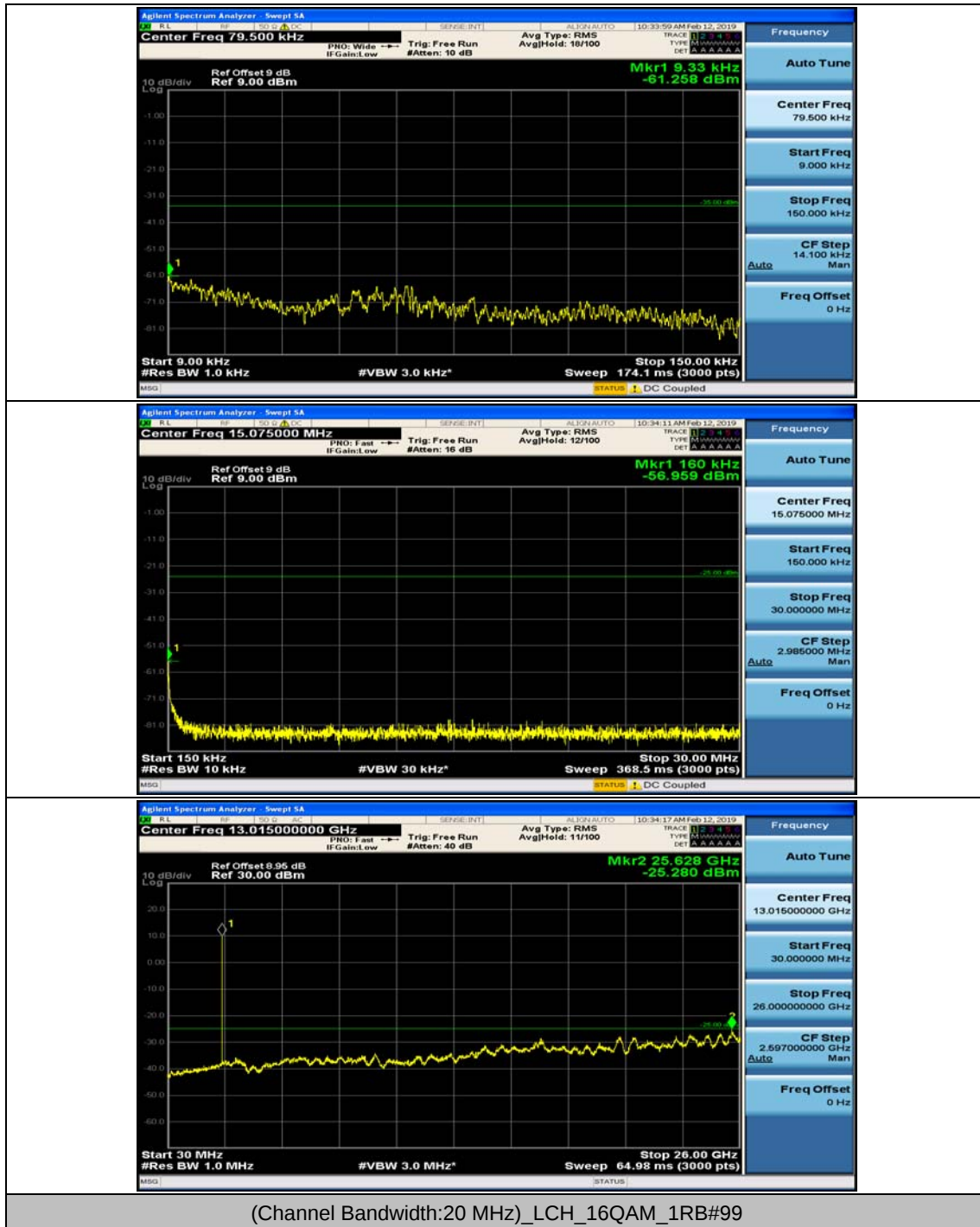


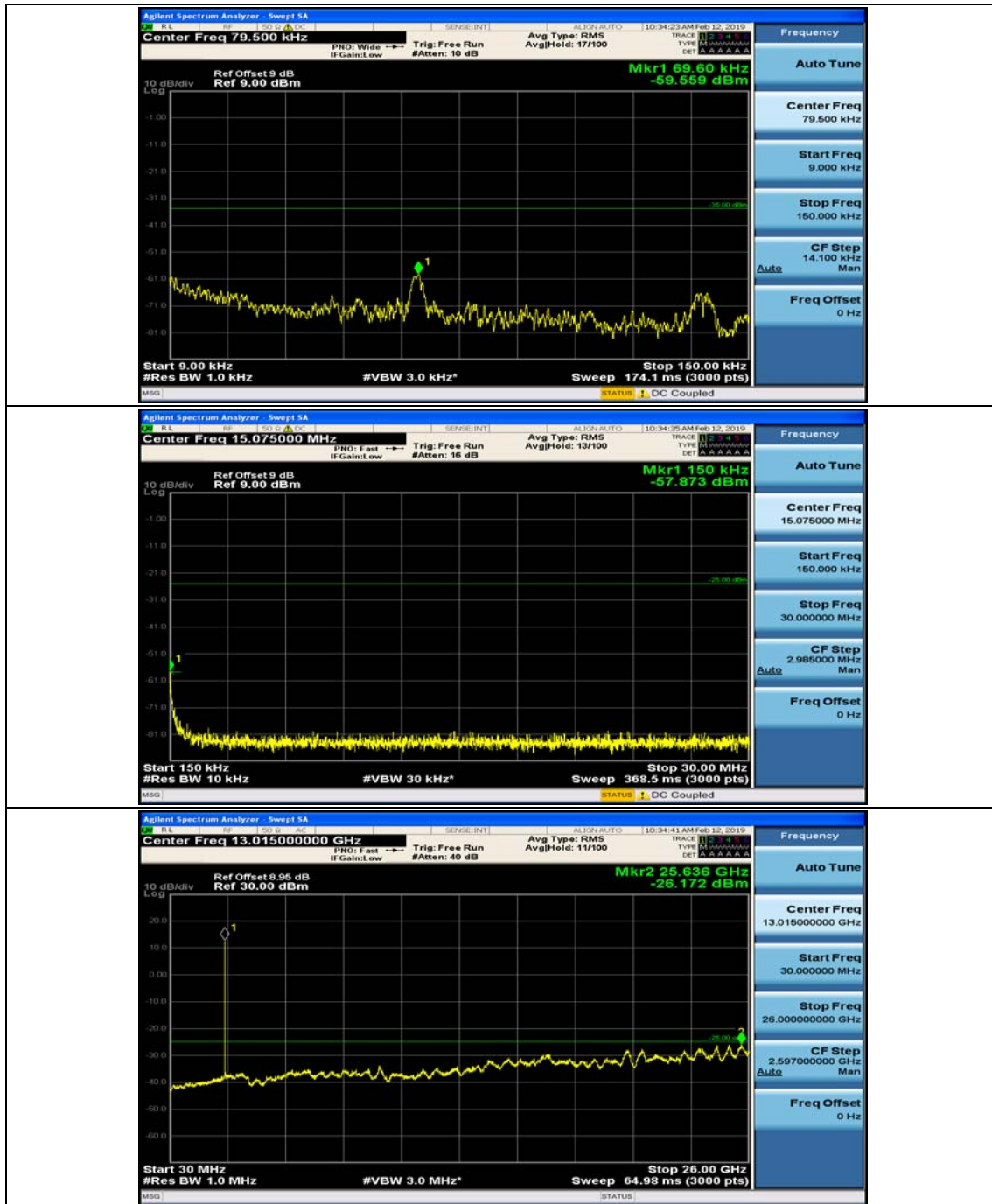


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

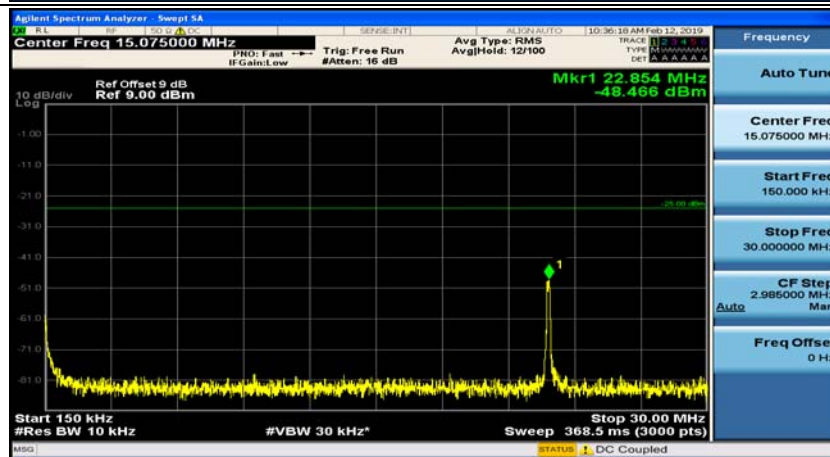


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

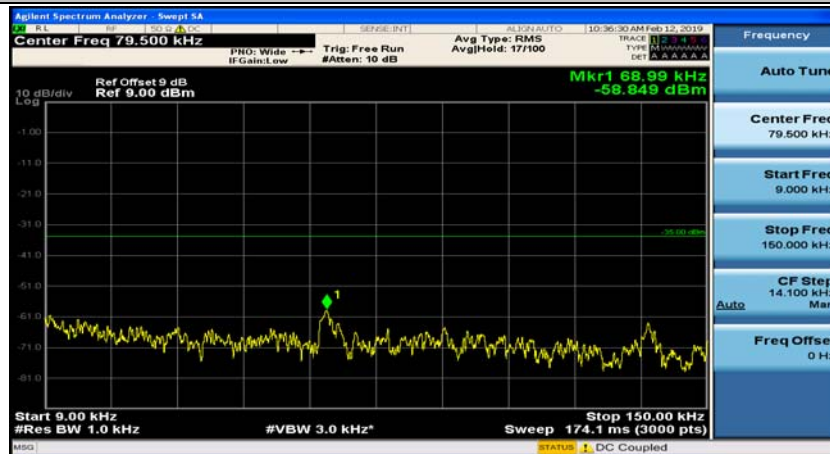


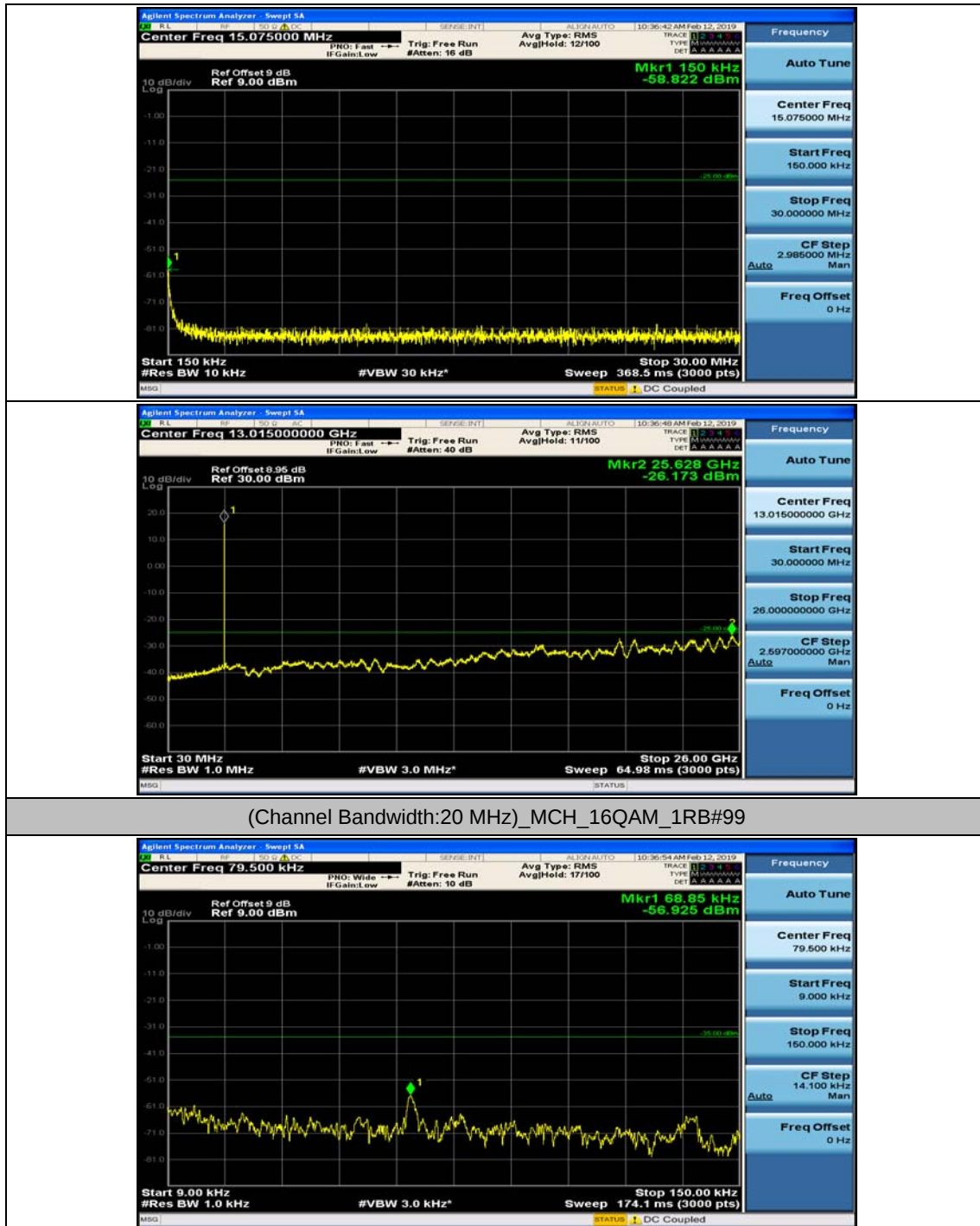


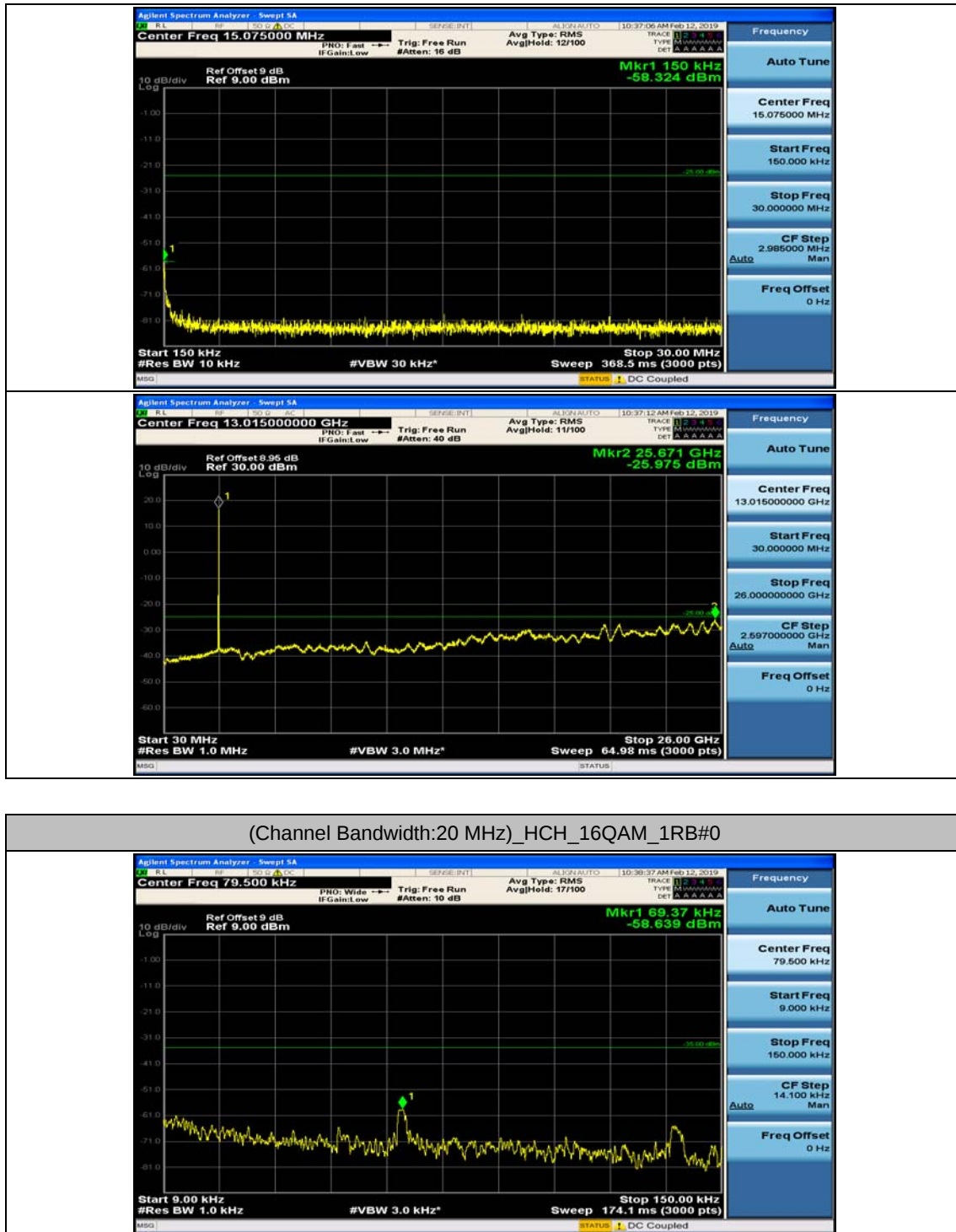
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0



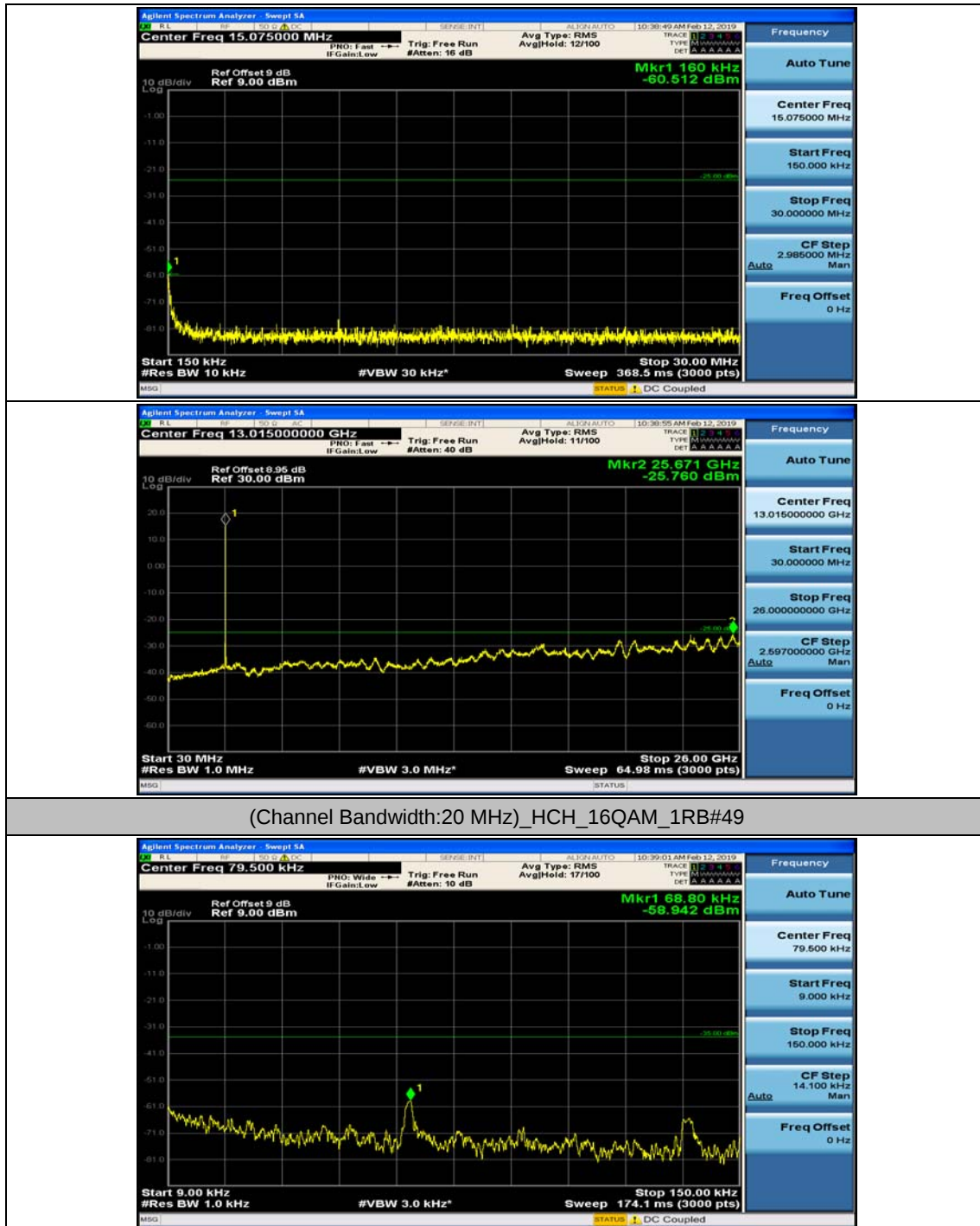
(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

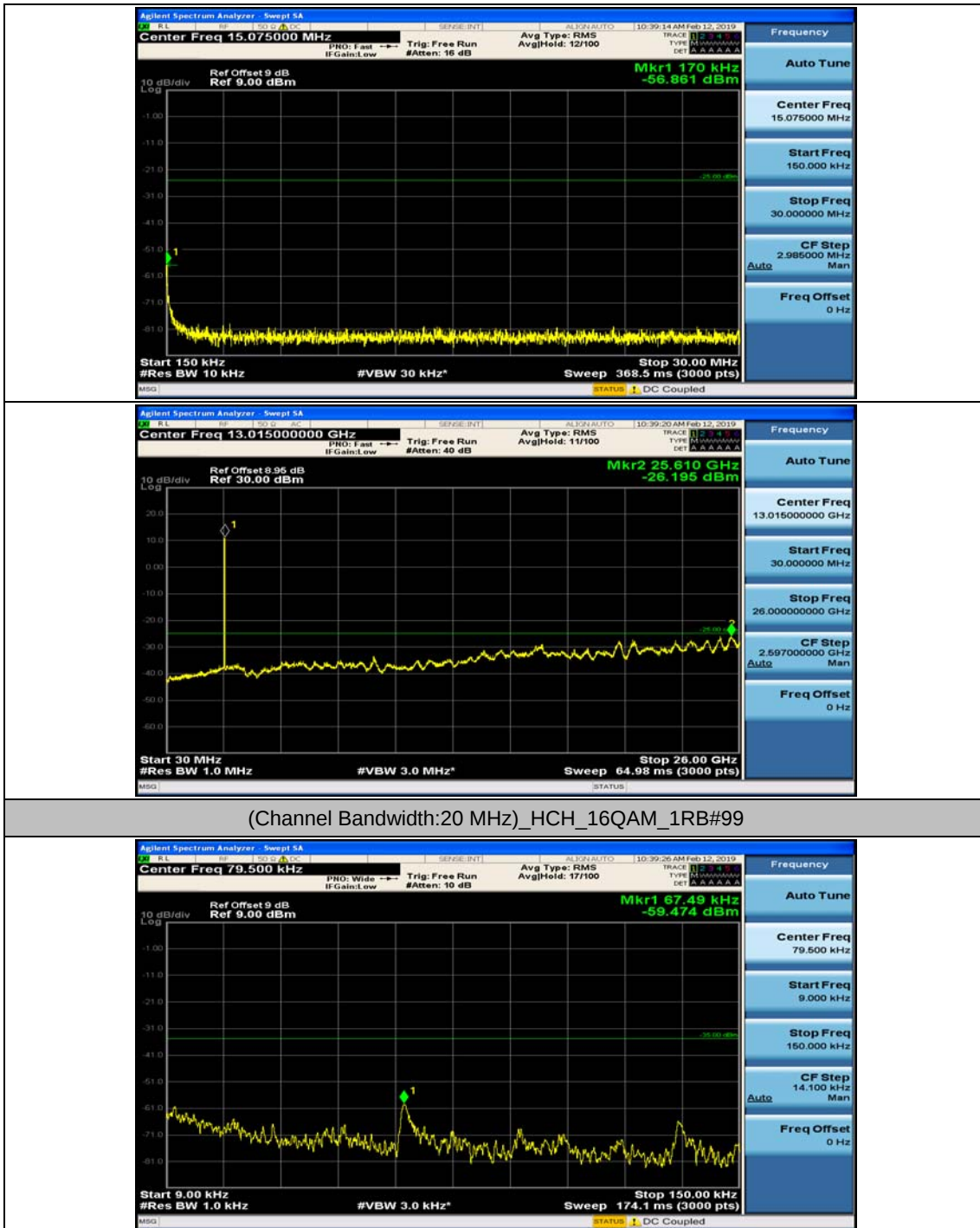


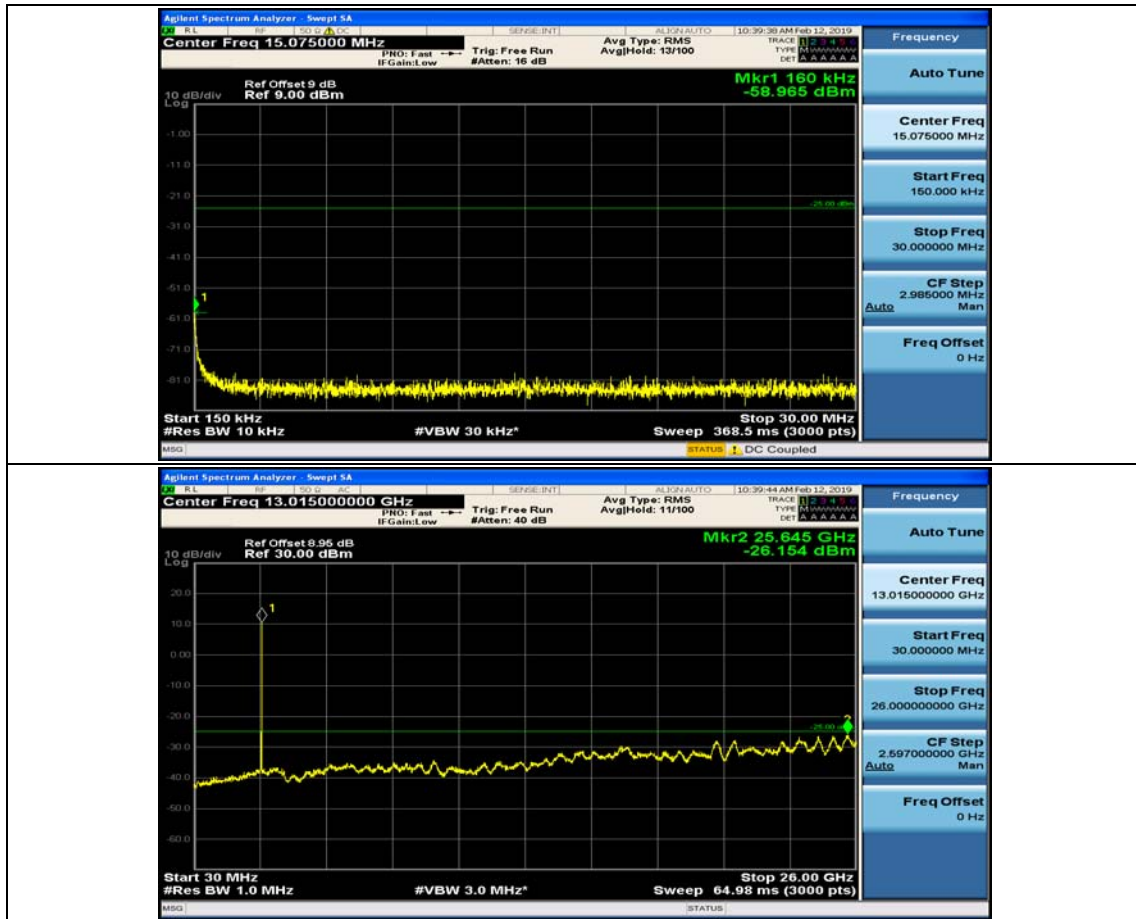




(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0







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	2.91	0.001165	± 2.5	PASS
		VN	TN	4.26	0.001705	± 2.5	PASS
		VH	TN	4.03	0.001613	± 2.5	PASS
	MCH	VL	TN	0.92	0.000355	± 2.5	PASS
		VN	TN	2.42	0.000933	± 2.5	PASS
		VH	TN	2.64	0.001018	± 2.5	PASS
	HCH	VL	TN	0.01	0.000004	± 2.5	PASS
		VN	TN	4.55	0.001693	± 2.5	PASS
		VH	TN	0.25	0.000093	± 2.5	PASS
16QAM	LCH	VL	TN	2.21	0.000885	± 2.5	PASS
		VN	TN	3.86	0.001545	± 2.5	PASS
		VH	TN	-1.57	-0.000628	± 2.5	PASS
	MCH	VL	TN	1.06	0.000409	± 2.5	PASS
		VN	TN	0.05	0.000019	± 2.5	PASS
		VH	TN	3.77	0.001454	± 2.5	PASS
	HCH	VL	TN	3.58	0.001332	± 2.5	PASS
		VN	TN	1.46	0.000543	± 2.5	PASS
		VH	TN	-1.66	-0.000618	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.2	0.000881	± 2.5	PASS
		VN	-20	1.92	0.000768	± 2.5	PASS
		VN	-10	3.11	0.001245	± 2.5	PASS
		VN	0	3.4	0.001361	± 2.5	PASS
		VN	10	4.8	0.001921	± 2.5	PASS
		VN	20	2.95	0.001181	± 2.5	PASS
		VN	30	-1.11	-0.000444	± 2.5	PASS
		VN	40	3.3	0.001321	± 2.5	PASS
		VN	50	1.14	0.000456	± 2.5	PASS
	MCH	VN	-30	-0.84	-0.000324	± 2.5	PASS

		VN	-20	2.95	0.001138	± 2.5	PASS
		VN	-10	0.58	0.000224	± 2.5	PASS
		VN	0	-1.21	-0.000467	± 2.5	PASS
		VN	10	-1.2	-0.000463	± 2.5	PASS
		VN	20	3.81	0.001469	± 2.5	PASS
		VN	30	2.48	0.000956	± 2.5	PASS
		VN	40	1.81	0.000698	± 2.5	PASS
		VN	50	-0.23	-0.000089	± 2.5	PASS
	HCH	VN	-30	3.75	0.001395	± 2.5	PASS
		VN	-20	4.4	0.001637	± 2.5	PASS
		VN	-10	0.43	0.000160	± 2.5	PASS
		VN	0	3.63	0.001351	± 2.5	PASS
		VN	10	4.15	0.001544	± 2.5	PASS
		VN	20	4.21	0.001567	± 2.5	PASS
		VN	30	2.22	0.000826	± 2.5	PASS
		VN	40	-0.92	-0.000342	± 2.5	PASS
		VN	50	4.99	0.001857	± 2.5	PASS
16QAM	LCH	VN	-30	2.15	0.000861	± 2.5	PASS
		VN	-20	-0.23	-0.000092	± 2.5	PASS
		VN	-10	3.28	0.001313	± 2.5	PASS
		VN	0	1.42	0.000568	± 2.5	PASS
		VN	10	-1.15	-0.000460	± 2.5	PASS
		VN	20	-1.3	-0.000520	± 2.5	PASS
		VN	30	4.23	0.001693	± 2.5	PASS
		VN	40	1.53	0.000612	± 2.5	PASS
		VN	50	0.27	0.000108	± 2.5	PASS
	MCH	VN	-30	4.73	0.001824	± 2.5	PASS
		VN	-20	-1.08	-0.000417	± 2.5	PASS
		VN	-10	2.19	0.000845	± 2.5	PASS
		VN	0	4.16	0.001604	± 2.5	PASS
		VN	10	0.5	0.000193	± 2.5	PASS
		VN	20	-1.33	-0.000513	± 2.5	PASS
		VN	30	3.61	0.001392	± 2.5	PASS
		VN	40	-1.03	-0.000397	± 2.5	PASS
		VN	50	-1.29	-0.000497	± 2.5	PASS
	HCH	VN	-30	3.96	0.001473	± 2.5	PASS
		VN	-20	-1.5	-0.000558	± 2.5	PASS
		VN	-10	-0.88	-0.000327	± 2.5	PASS
		VN	0	3.71	0.001380	± 2.5	PASS
		VN	10	-0.26	-0.000097	± 2.5	PASS
		VN	20	0.73	0.000272	± 2.5	PASS

		VN	30	3.29	0.001224	± 2.5	PASS
		VN	40	4.63	0.001723	± 2.5	PASS
		VN	50	-11.63	-0.004327	± 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	1.66	0.000664	± 2.5	PASS
		VN	TN	-0.79	-0.000316	± 2.5	PASS
		VH	TN	3.53	0.001411	± 2.5	PASS
	MCH	VL	TN	0.4	0.000154	± 2.5	PASS
		VN	TN	3.54	0.001365	± 2.5	PASS
		VH	TN	2.01	0.000775	± 2.5	PASS
	HCH	VL	TN	0.2	0.000074	± 2.5	PASS
		VN	TN	-0.36	-0.000134	± 2.5	PASS
		VH	TN	2.21	0.000823	± 2.5	PASS
16QAM	LCH	VL	TN	-1.12	-0.000448	± 2.5	PASS
		VN	TN	-0.83	-0.000332	± 2.5	PASS
		VH	TN	2.4	0.000960	± 2.5	PASS
	MCH	VL	TN	1	0.000386	± 2.5	PASS
		VN	TN	1.5	0.000578	± 2.5	PASS
		VH	TN	1.86	0.000717	± 2.5	PASS
	HCH	VL	TN	-1.06	-0.000395	± 2.5	PASS
		VN	TN	2.11	0.000786	± 2.5	PASS
		VH	TN	4.84	0.001803	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	1.52	0.000608	± 2.5	PASS
		VN	-20	-0.75	-0.000300	± 2.5	PASS
		VN	-10	-1.33	-0.000532	± 2.5	PASS
		VN	0	-0.99	-0.000396	± 2.5	PASS
		VN	10	3.95	0.001579	± 2.5	PASS
		VN	20	2.1	0.000840	± 2.5	PASS
		VN	30	4.27	0.001707	± 2.5	PASS
		VN	40	3.89	0.001555	± 2.5	PASS
		VN	50	-0.37	-0.000148	± 2.5	PASS
	MCH	VN	-30	3.25	0.001253	± 2.5	PASS
		VN	-20	-0.16	-0.000062	± 2.5	PASS

		VN	-10	2.4	0.000926	± 2.5	PASS
		VN	0	-0.48	-0.000185	± 2.5	PASS
		VN	10	0.01	0.000004	± 2.5	PASS
		VN	20	-0.77	-0.000297	± 2.5	PASS
		VN	30	0.52	0.000201	± 2.5	PASS
		VN	40	-0.61	-0.000235	± 2.5	PASS
		VN	50	1.66	0.000640	± 2.5	PASS
	HCH	VN	-30	2.95	0.001099	± 2.5	PASS
		VN	-20	4.25	0.001583	± 2.5	PASS
		VN	-10	4.85	0.001806	± 2.5	PASS
		VN	0	4.12	0.001534	± 2.5	PASS
		VN	10	4.13	0.001538	± 2.5	PASS
		VN	20	0.83	0.000309	± 2.5	PASS
		VN	30	2.35	0.000875	± 2.5	PASS
		VN	40	3.86	0.001438	± 2.5	PASS
		VN	50	1.32	0.000492	± 2.5	PASS
QPSK	LCH	VN	-30	4.49	0.001795	± 2.5	PASS
		VN	-20	4.28	0.001711	± 2.5	PASS
		VN	-10	4.88	0.001951	± 2.5	PASS
		VN	0	1.76	0.000704	± 2.5	PASS
		VN	10	-0.04	-0.000016	± 2.5	PASS
		VN	20	2.46	0.000984	± 2.5	PASS
		VN	30	3.04	0.001216	± 2.5	PASS
		VN	40	1.68	0.000672	± 2.5	PASS
		VN	50	3.84	0.001535	± 2.5	PASS
	MCH	VN	-30	-1.63	-0.000629	± 2.5	PASS
		VN	-20	1.83	0.000706	± 2.5	PASS
		VN	-10	0.75	0.000289	± 2.5	PASS
		VN	0	-1.42	-0.000548	± 2.5	PASS
		VN	10	0.55	0.000212	± 2.5	PASS
		VN	20	2.1	0.000810	± 2.5	PASS
		VN	30	-1.77	-0.000683	± 2.5	PASS
		VN	40	3.74	0.001442	± 2.5	PASS
		VN	50	2	0.000771	± 2.5	PASS
	HCH	VN	-30	4.27	0.001590	± 2.5	PASS
		VN	-20	0.33	0.000123	± 2.5	PASS
		VN	-10	0.15	0.000056	± 2.5	PASS
		VN	0	3.33	0.001240	± 2.5	PASS
		VN	10	0.78	0.000291	± 2.5	PASS
		VN	20	4.39	0.001635	± 2.5	PASS
		VN	30	0.49	0.000182	± 2.5	PASS

		VN	40	3.79	0.001412	± 2.5	PASS
		VN	50	-11.63	-0.004331	± 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	2.05	0.000819	± 2.5	PASS
		VN	TN	3.88	0.001550	± 2.5	PASS
		VH	TN	-0.79	-0.000316	± 2.5	PASS
	MCH	VL	TN	1.12	0.000432	± 2.5	PASS
		VN	TN	2.84	0.001095	± 2.5	PASS
		VH	TN	1.08	0.000417	± 2.5	PASS
	HCH	VL	TN	-0.95	-0.000354	± 2.5	PASS
		VN	TN	1.64	0.000611	± 2.5	PASS
		VH	TN	3.32	0.001238	± 2.5	PASS
16QAM	LCH	VL	TN	1.33	0.000531	± 2.5	PASS
		VN	TN	3.88	0.001550	± 2.5	PASS
		VH	TN	3.93	0.001570	± 2.5	PASS
	MCH	VL	TN	1.38	0.000532	± 2.5	PASS
		VN	TN	4.41	0.001701	± 2.5	PASS
		VH	TN	-0.94	-0.000363	± 2.5	PASS
	HCH	VL	TN	-0.83	-0.000309	± 2.5	PASS
		VN	TN	2.1	0.000783	± 2.5	PASS
		VH	TN	4.79	0.001786	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.15	0.000060	± 2.5	PASS
		VN	-20	4.35	0.001738	± 2.5	PASS
		VN	-10	0.71	0.000284	± 2.5	PASS
		VN	0	0.37	0.000148	± 2.5	PASS
		VN	10	2.47	0.000987	± 2.5	PASS
		VN	20	3.09	0.001234	± 2.5	PASS
		VN	30	-0.05	-0.000020	± 2.5	PASS
		VN	40	1.57	0.000627	± 2.5	PASS
		VN	50	0.5	0.000200	± 2.5	PASS
	MCH	VN	-30	2.93	0.001130	± 2.5	PASS
		VN	-20	1.1	0.000424	± 2.5	PASS
		VN	-10	0.04	0.000015	± 2.5	PASS

		VN	0	4.28	0.001651	± 2.5	PASS
		VN	10	4.27	0.001647	± 2.5	PASS
		VN	20	-0.21	-0.000081	± 2.5	PASS
		VN	30	-0.07	-0.000027	± 2.5	PASS
		VN	40	1.86	0.000717	± 2.5	PASS
		VN	50	1.52	0.000586	± 2.5	PASS
	HCH	VN	-30	2.33	0.000869	± 2.5	PASS
		VN	-20	2.03	0.000757	± 2.5	PASS
		VN	-10	1.36	0.000507	± 2.5	PASS
		VN	0	1.69	0.000630	± 2.5	PASS
		VN	10	3.25	0.001212	± 2.5	PASS
		VN	20	0.66	0.000246	± 2.5	PASS
		VN	30	3.81	0.001420	± 2.5	PASS
		VN	40	0.36	0.000134	± 2.5	PASS
		VN	50	-0.84	-0.000313	± 2.5	PASS
16QAM	LCH	VN	-30	-0.98	-0.000391	± 2.5	PASS
		VN	-20	3.97	0.001586	± 2.5	PASS
		VN	-10	2.02	0.000807	± 2.5	PASS
		VN	0	1	0.000399	± 2.5	PASS
		VN	10	2.17	0.000867	± 2.5	PASS
		VN	20	4.28	0.001710	± 2.5	PASS
		VN	30	3.32	0.001326	± 2.5	PASS
		VN	40	-1.09	-0.000435	± 2.5	PASS
		VN	50	0.15	0.000060	± 2.5	PASS
	MCH	VN	-30	2.11	0.000814	± 2.5	PASS
		VN	-20	-0.54	-0.000208	± 2.5	PASS
		VN	-10	2.98	0.001149	± 2.5	PASS
		VN	0	3.73	0.001438	± 2.5	PASS
		VN	10	1.28	0.000494	± 2.5	PASS
		VN	20	4.69	0.001809	± 2.5	PASS
		VN	30	0.28	0.000108	± 2.5	PASS
		VN	40	1.56	0.000602	± 2.5	PASS
		VN	50	4.99	0.001924	± 2.5	PASS
	HCH	VN	-30	0.35	0.000130	± 2.5	PASS
		VN	-20	4.61	0.001719	± 2.5	PASS
		VN	-10	-0.98	-0.000365	± 2.5	PASS
		VN	0	4.52	0.001685	± 2.5	PASS
		VN	10	-1.05	-0.000391	± 2.5	PASS
		VN	20	-1.54	-0.000574	± 2.5	PASS
		VN	30	1.58	0.000589	± 2.5	PASS
		VN	40	-0.2	-0.000075	± 2.5	PASS

		VN	50	-11.63	-0.004336	± 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	3.15	0.001257	± 2.5	PASS
		VN	TN	-0.53	-0.000211	± 2.5	PASS
		VH	TN	0.41	0.000164	± 2.5	PASS
	MCH	VL	TN	-1.52	-0.000586	± 2.5	PASS
		VN	TN	0.24	0.000093	± 2.5	PASS
		VH	TN	1.97	0.000760	± 2.5	PASS
	HCH	VL	TN	0.24	0.000090	± 2.5	PASS
		VN	TN	-1.9	-0.000709	± 2.5	PASS
		VH	TN	-0.41	-0.000153	± 2.5	PASS
16QAM	LCH	VL	TN	1.44	0.000575	± 2.5	PASS
		VN	TN	-0.21	-0.000084	± 2.5	PASS
		VH	TN	4.96	0.001979	± 2.5	PASS
	MCH	VL	TN	1.92	0.000740	± 2.5	PASS
		VN	TN	-1.56	-0.000602	± 2.5	PASS
		VH	TN	0.62	0.000239	± 2.5	PASS
	HCH	VL	TN	1.14	0.000425	± 2.5	PASS
		VN	TN	2.52	0.000940	± 2.5	PASS
		VH	TN	-1.98	-0.000739	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.05	0.000818	± 2.5	PASS
		VN	-20	-0.6	-0.000239	± 2.5	PASS
		VN	-10	-0.26	-0.000104	± 2.5	PASS
		VN	0	4.51	0.001800	± 2.5	PASS
		VN	10	0.37	0.000148	± 2.5	PASS
		VN	20	0.34	0.000136	± 2.5	PASS
		VN	30	0.29	0.000116	± 2.5	PASS
		VN	40	-0.44	-0.000176	± 2.5	PASS
		VN	50	2.63	0.001049	± 2.5	PASS
	MCH	VN	-30	4.81	0.001855	± 2.5	PASS
		VN	-20	-1.8	-0.000694	± 2.5	PASS
		VN	-10	3.34	0.001288	± 2.5	PASS
		VN	0	1.11	0.000428	± 2.5	PASS

		VN	10	-1.97	-0.000760	± 2.5	PASS
		VN	20	3.08	0.001188	± 2.5	PASS
		VN	30	3.08	0.001188	± 2.5	PASS
		VN	40	-0.84	-0.000324	± 2.5	PASS
		VN	50	0.4	0.000154	± 2.5	PASS
	HCH	VN	-30	-0.85	-0.000317	± 2.5	PASS
		VN	-20	0.21	0.000078	± 2.5	PASS
		VN	-10	4.55	0.001698	± 2.5	PASS
		VN	0	3.54	0.001321	± 2.5	PASS
		VN	10	-1.06	-0.000396	± 2.5	PASS
		VN	20	4.42	0.001649	± 2.5	PASS
		VN	30	1.52	0.000567	± 2.5	PASS
		VN	40	1.4	0.000522	± 2.5	PASS
		VN	50	2.32	0.000866	± 2.5	PASS
16QAM	LCH	VN	-30	-1.4	-0.000559	± 2.5	PASS
		VN	-20	4.83	0.001927	± 2.5	PASS
		VN	-10	-1.5	-0.000599	± 2.5	PASS
		VN	0	0.53	0.000211	± 2.5	PASS
		VN	10	2.85	0.001137	± 2.5	PASS
		VN	20	4.55	0.001816	± 2.5	PASS
		VN	30	4.47	0.001784	± 2.5	PASS
		VN	40	3.11	0.001241	± 2.5	PASS
		VN	50	-1.01	-0.000403	± 2.5	PASS
	MCH	VN	-30	2.16	0.000833	± 2.5	PASS
		VN	-20	-0.33	-0.000127	± 2.5	PASS
		VN	-10	2.16	0.000833	± 2.5	PASS
		VN	0	4.55	0.001755	± 2.5	PASS
		VN	10	-1.42	-0.000548	± 2.5	PASS
		VN	20	2.61	0.001007	± 2.5	PASS
		VN	30	2.18	0.000841	± 2.5	PASS
		VN	40	2.6	0.001003	± 2.5	PASS
		VN	50	3.42	0.001319	± 2.5	PASS
	HCH	VN	-30	3.37	0.001257	± 2.5	PASS
		VN	-20	0.8	0.000299	± 2.5	PASS
		VN	-10	0.73	0.000272	± 2.5	PASS
		VN	0	-1.24	-0.000463	± 2.5	PASS
		VN	10	4.96	0.001851	± 2.5	PASS
		VN	20	-0.97	-0.000362	± 2.5	PASS
		VN	30	4.92	0.001836	± 2.5	PASS
		VN	40	0.46	0.000172	± 2.5	PASS
		VN	50	-11.63	-0.004340	± 2.5	PASS