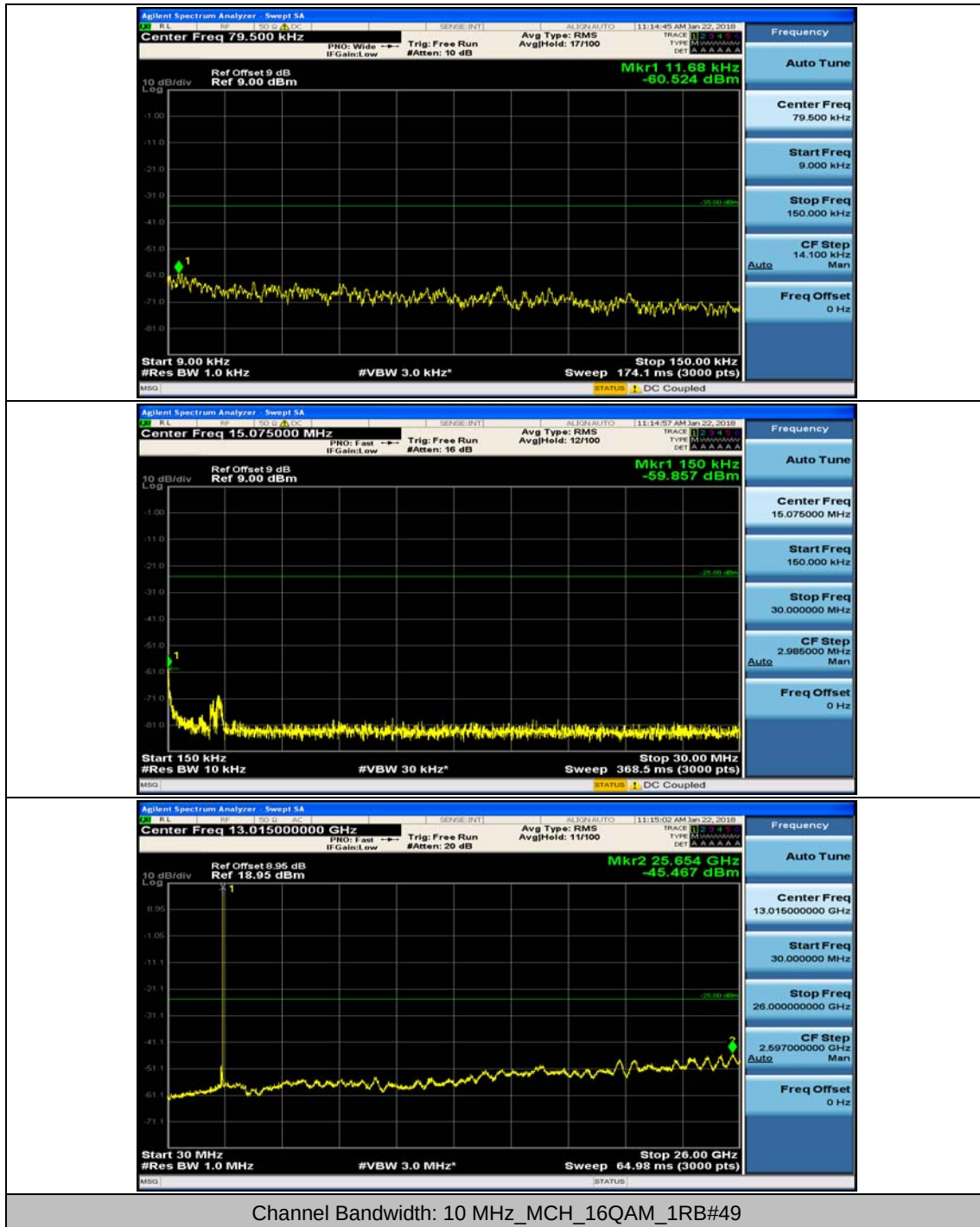
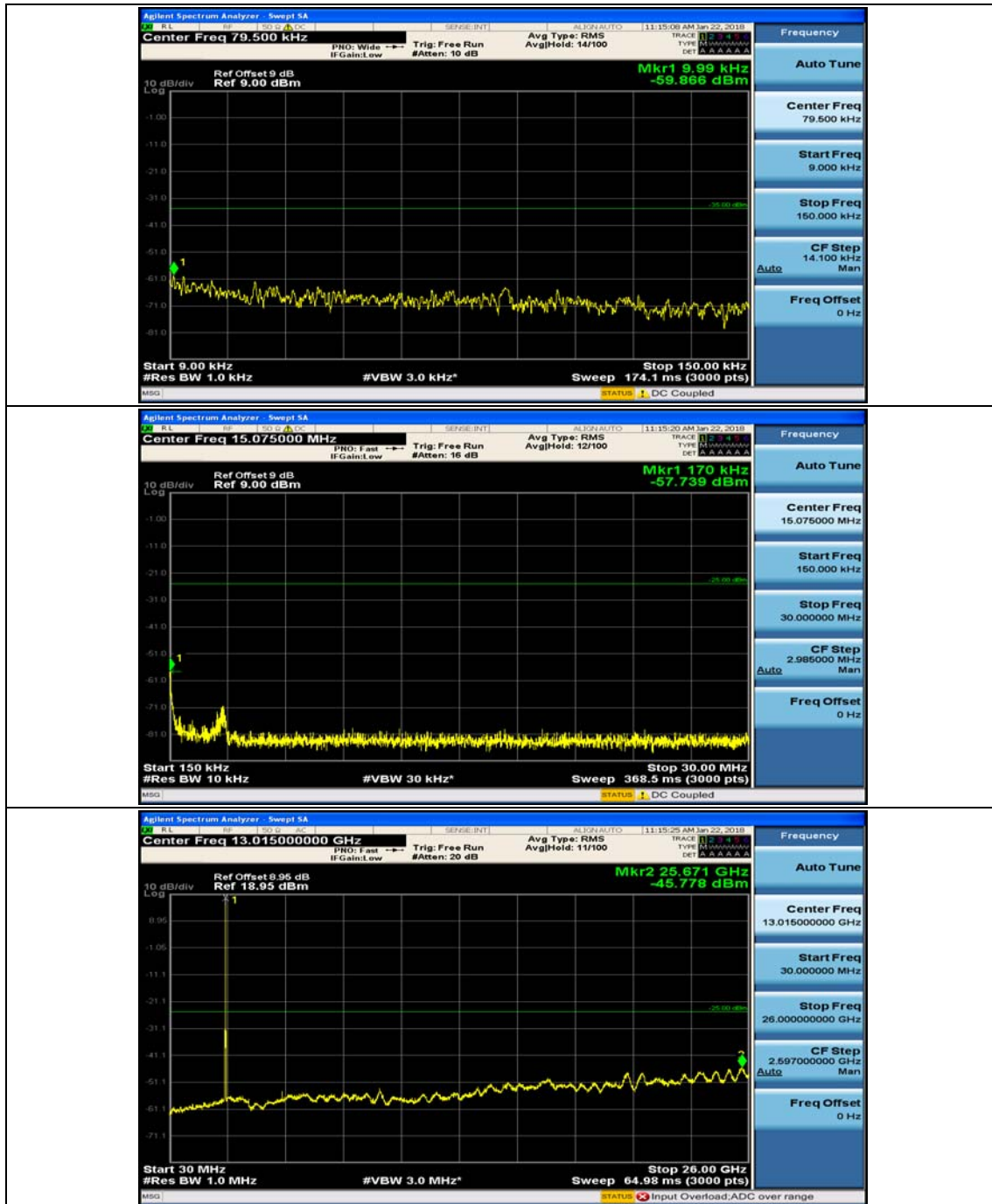
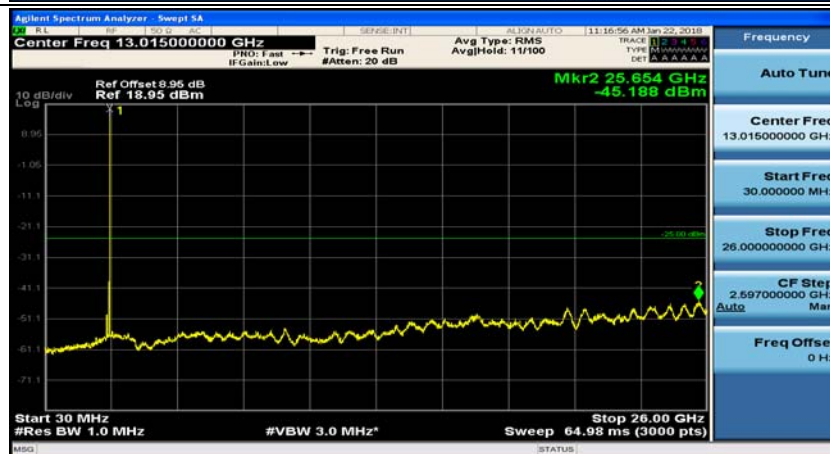
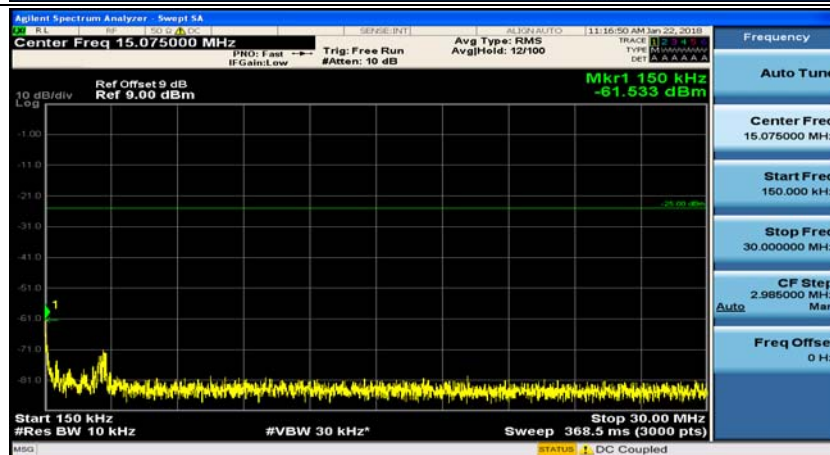
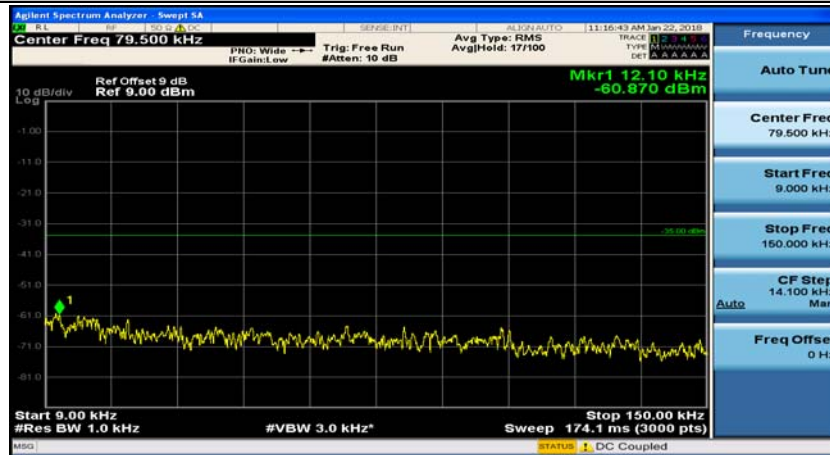


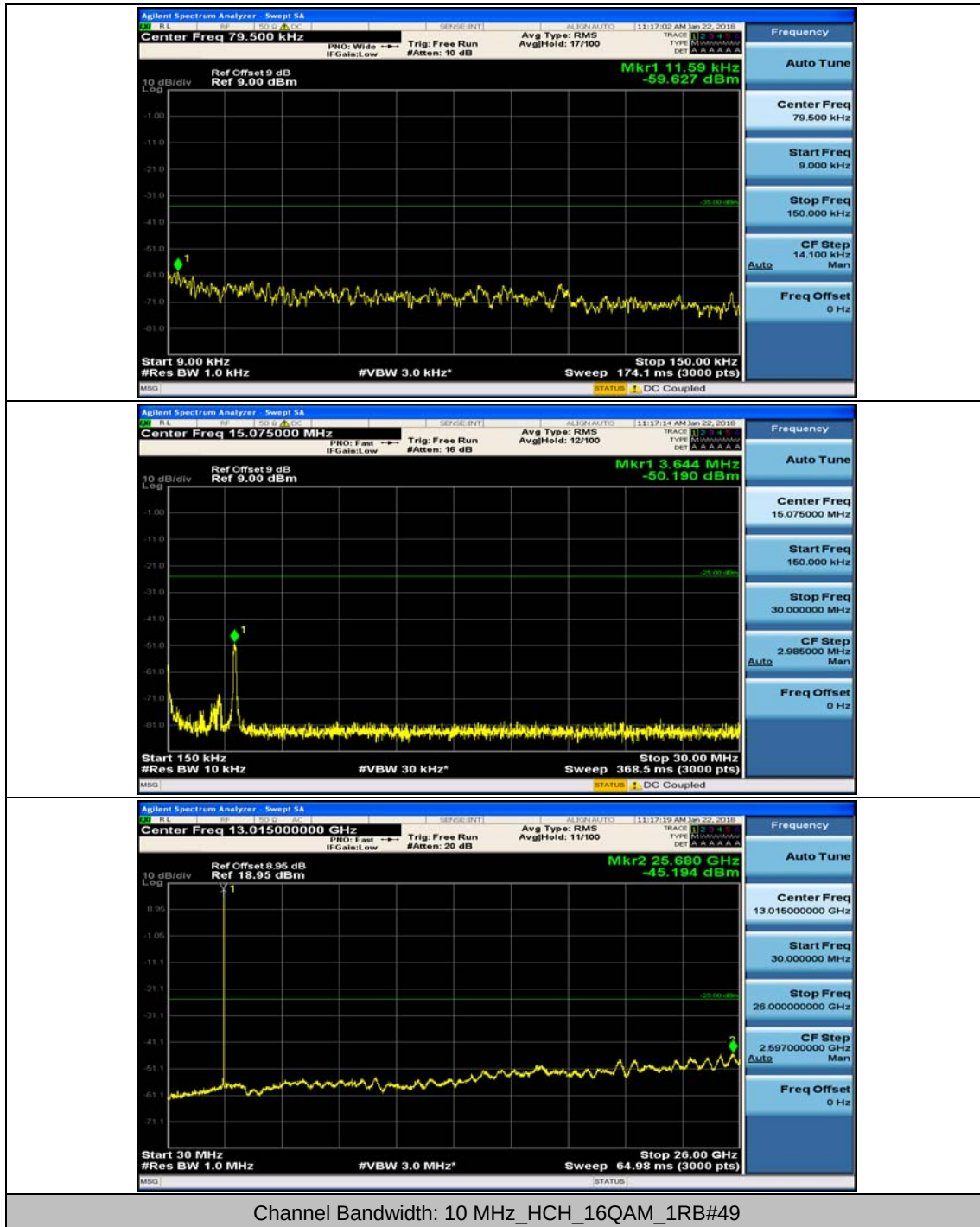


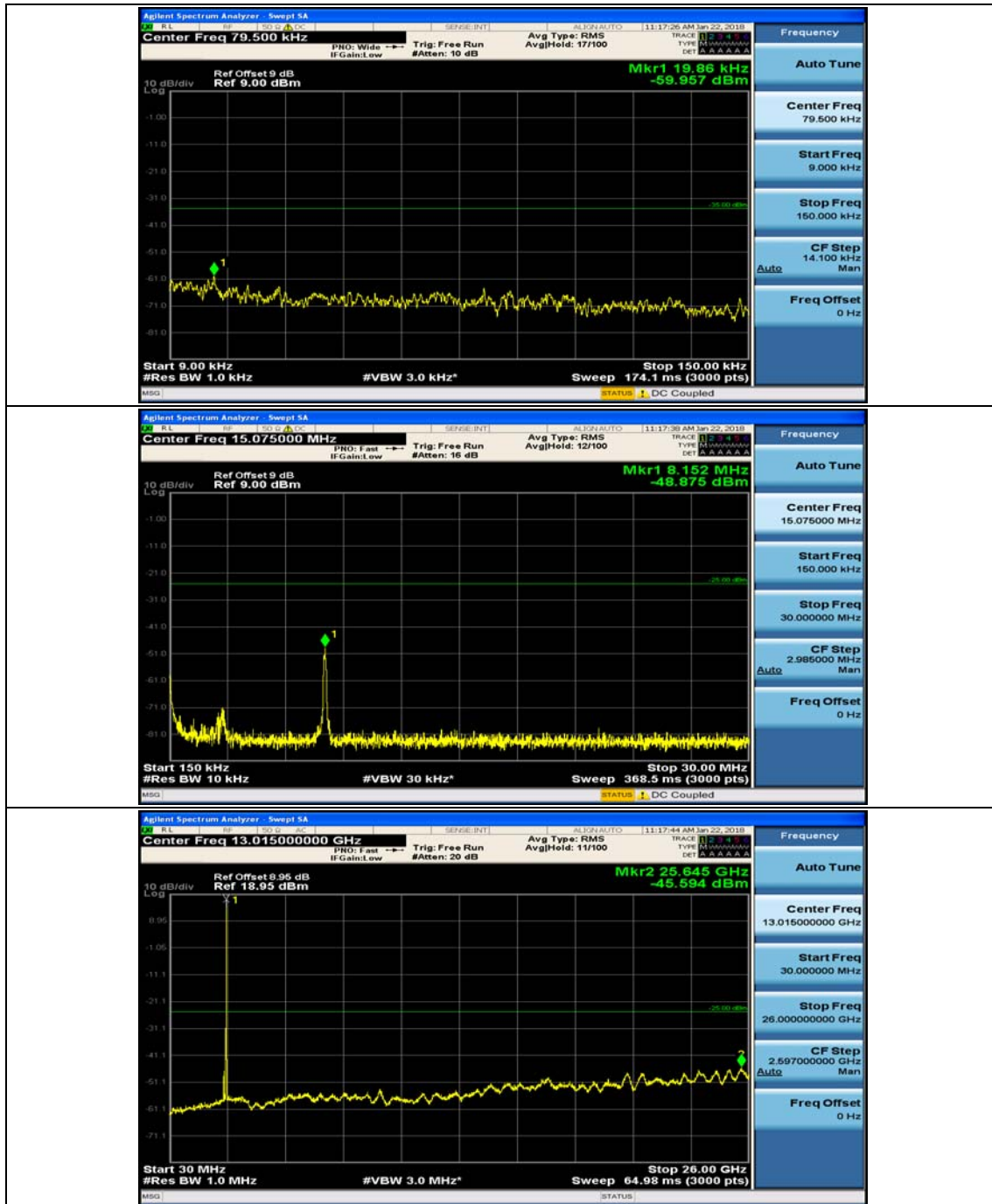


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

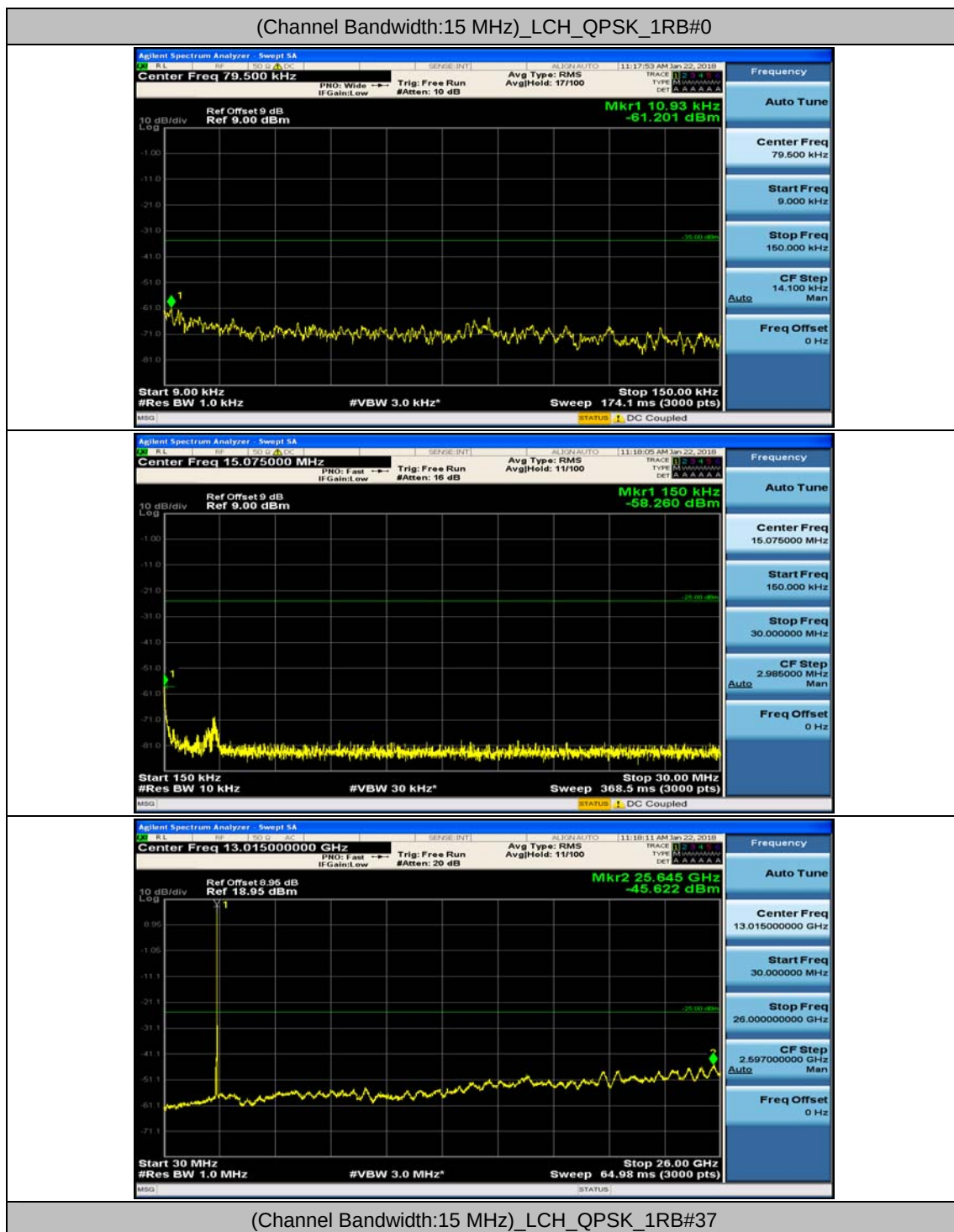


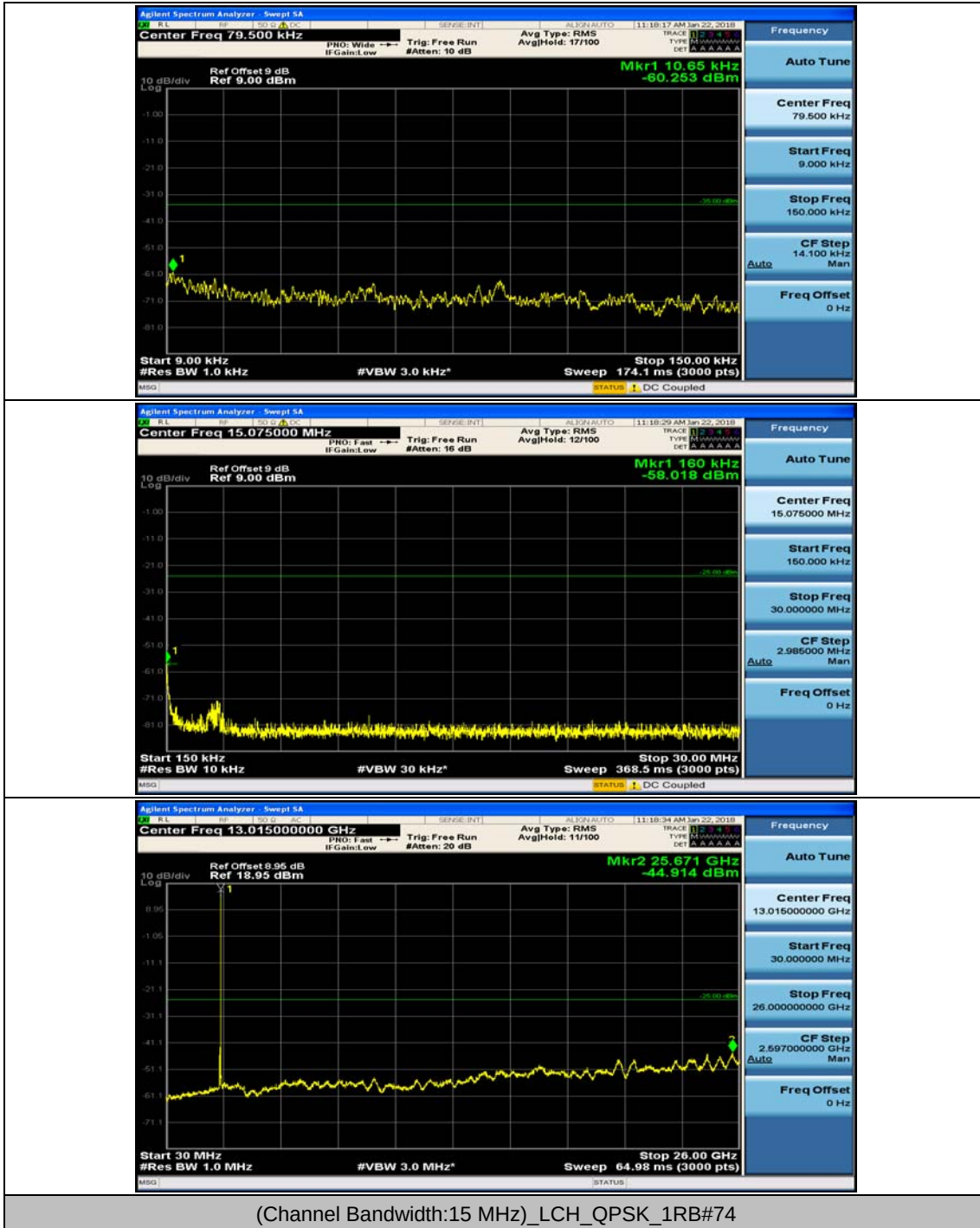
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

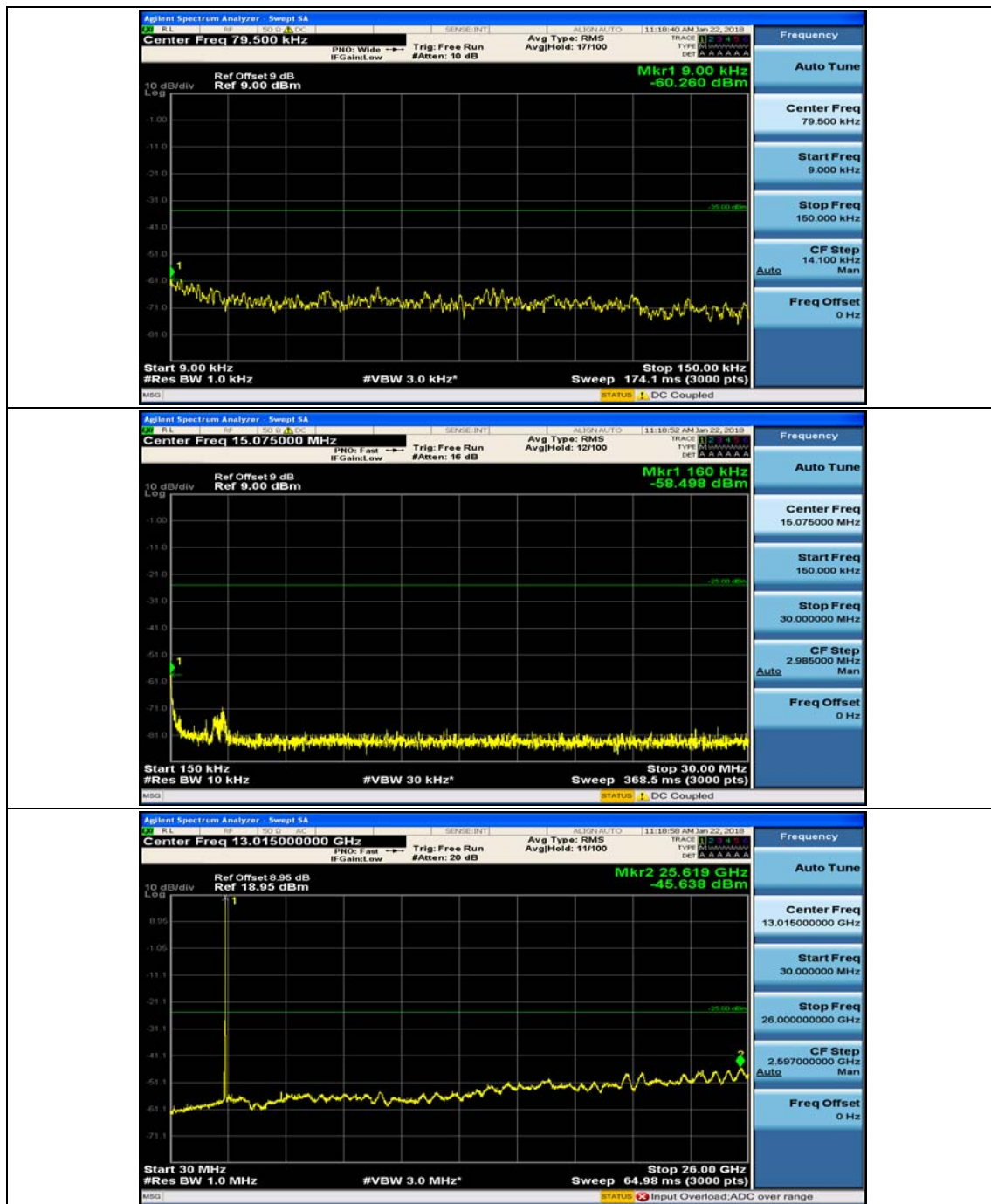




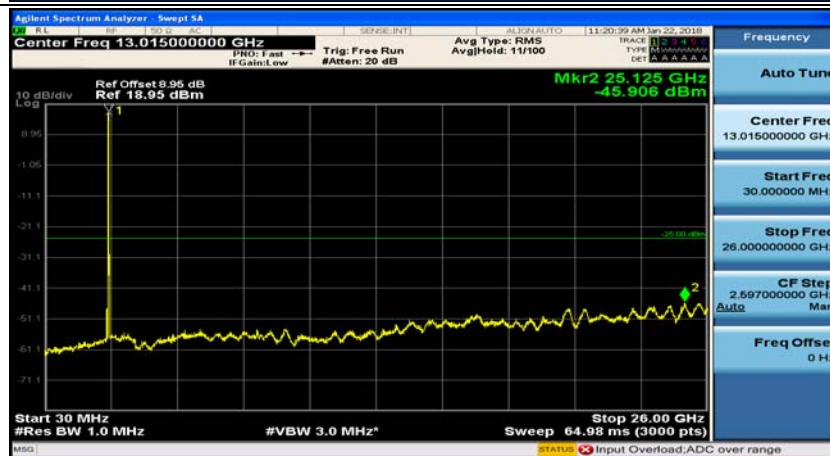
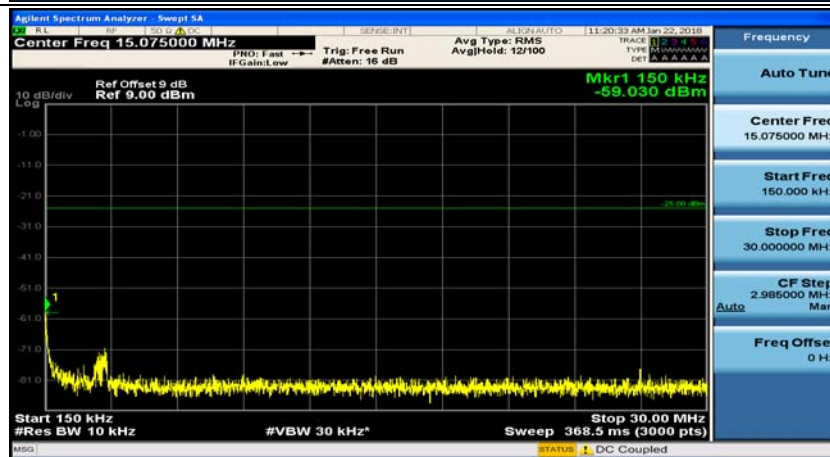
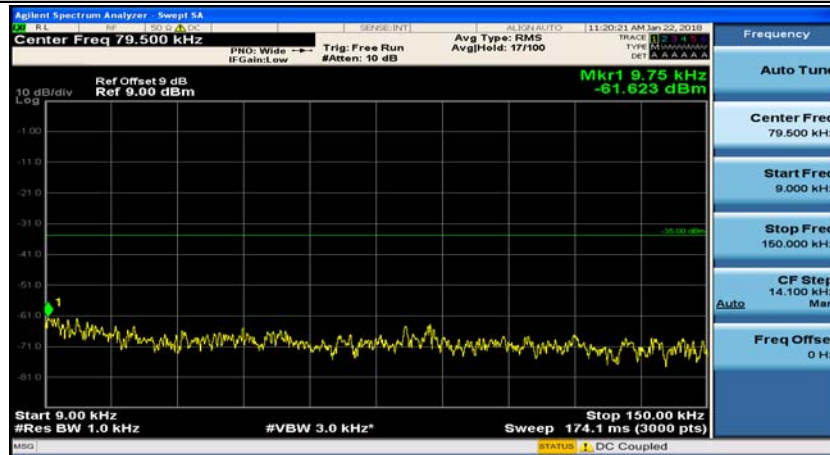
Channel Bandwidth: 15 MHz



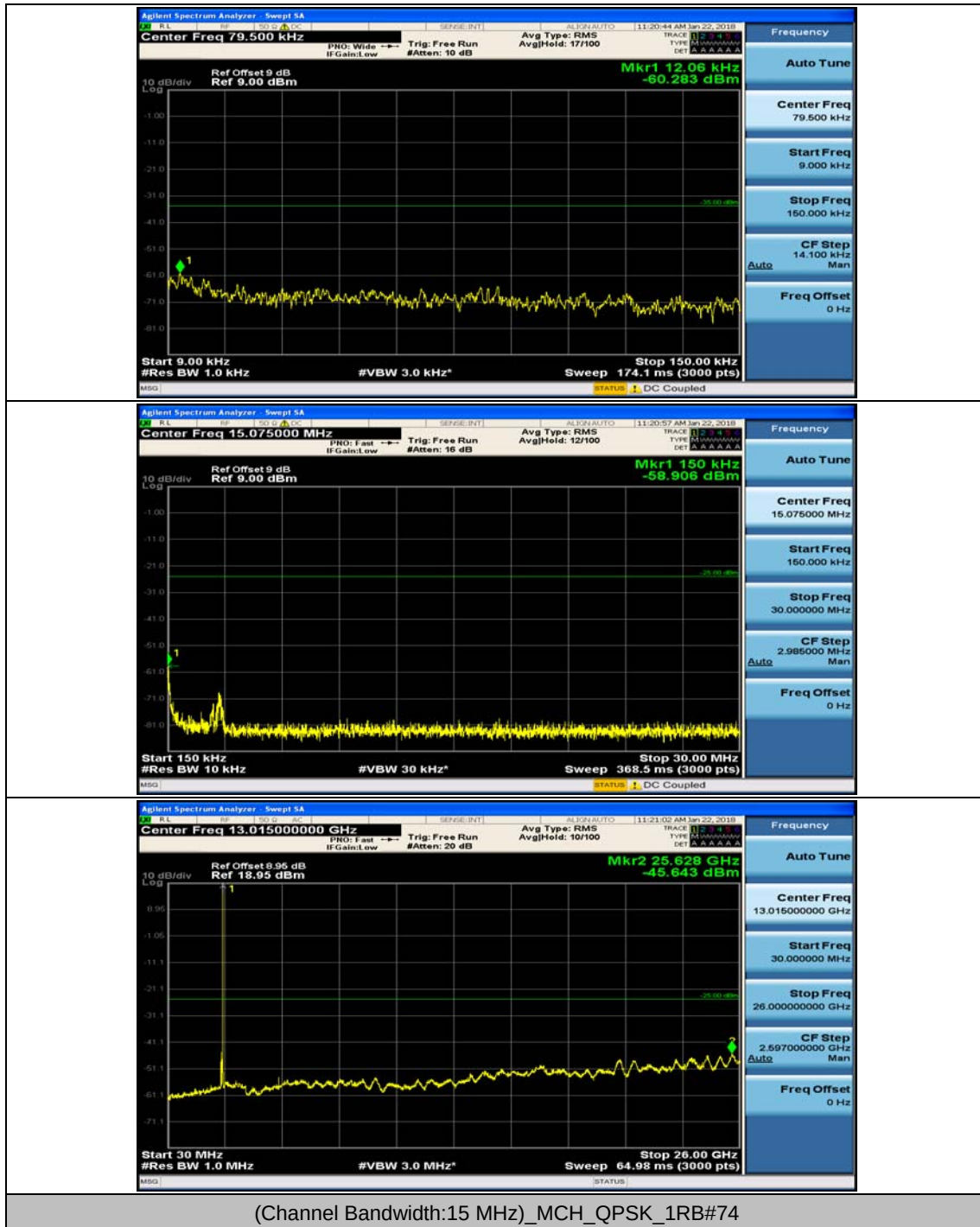


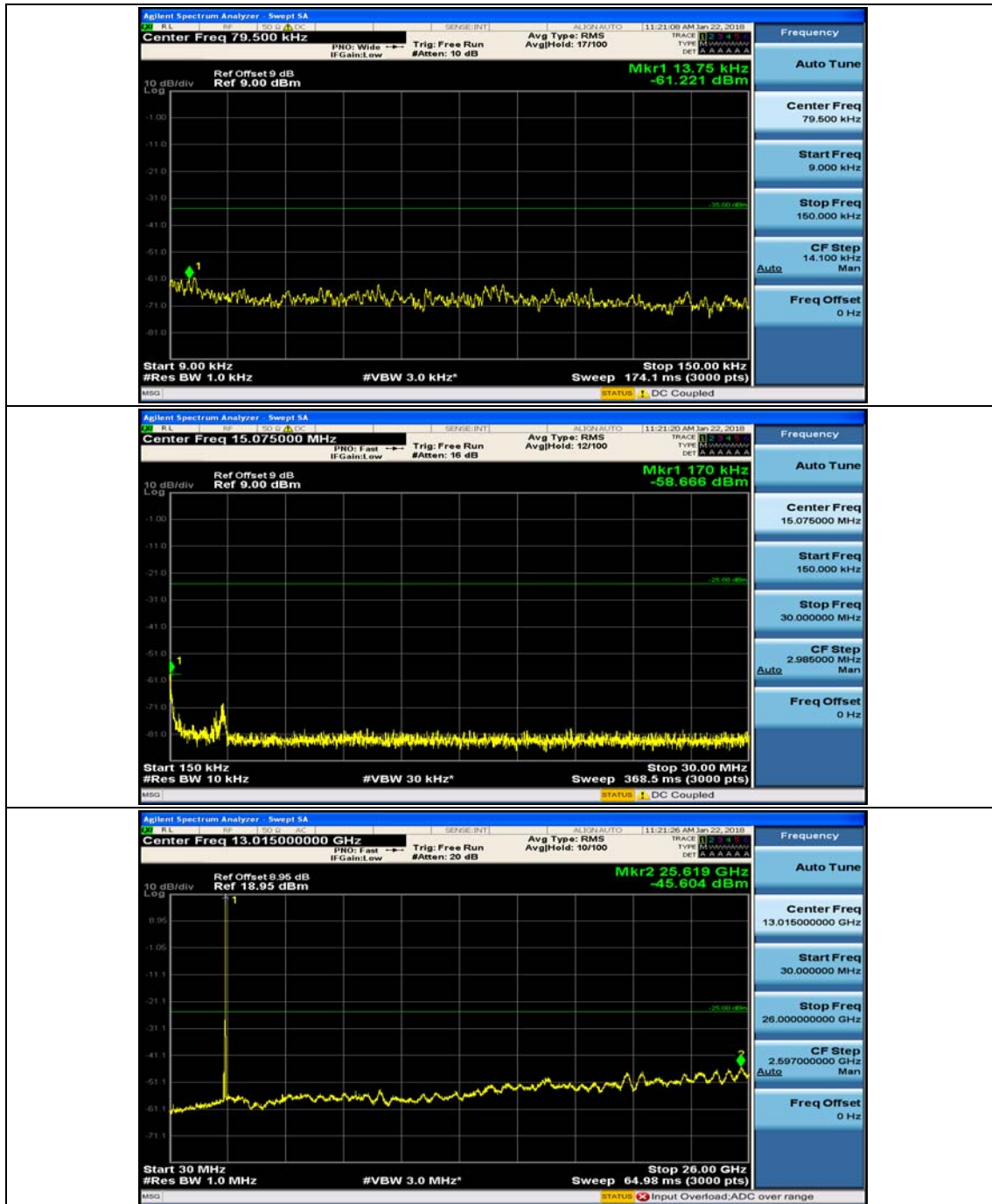


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

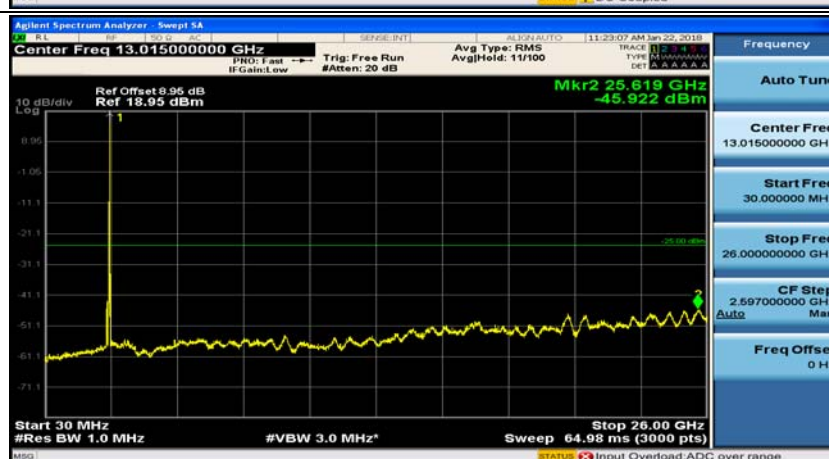
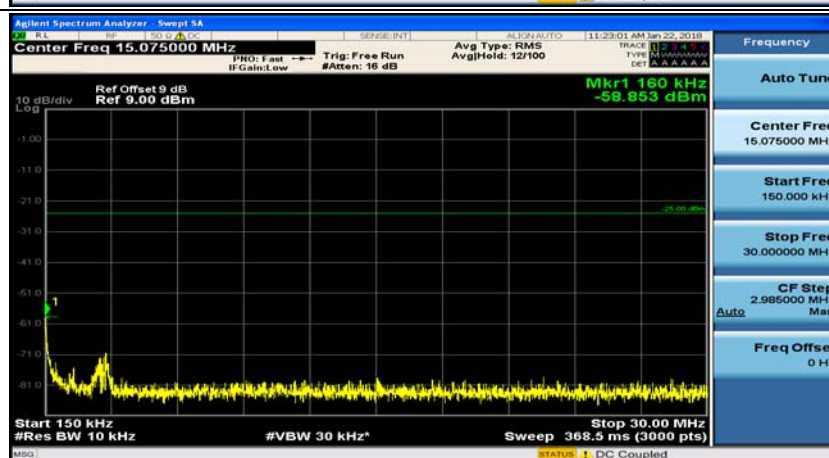
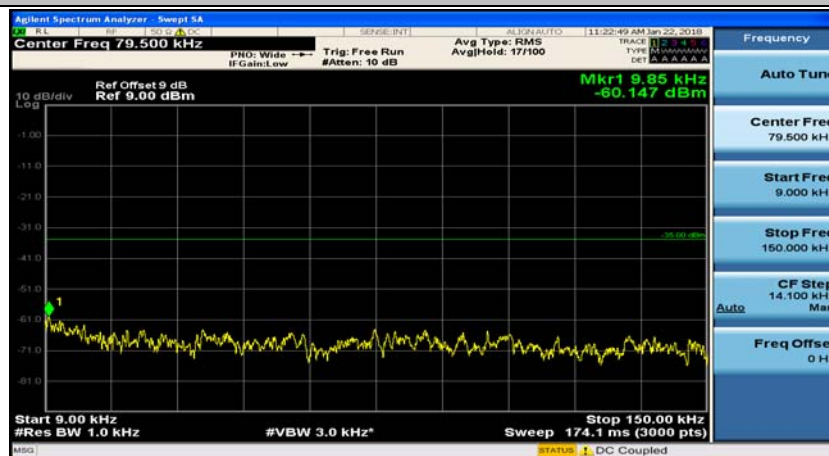


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

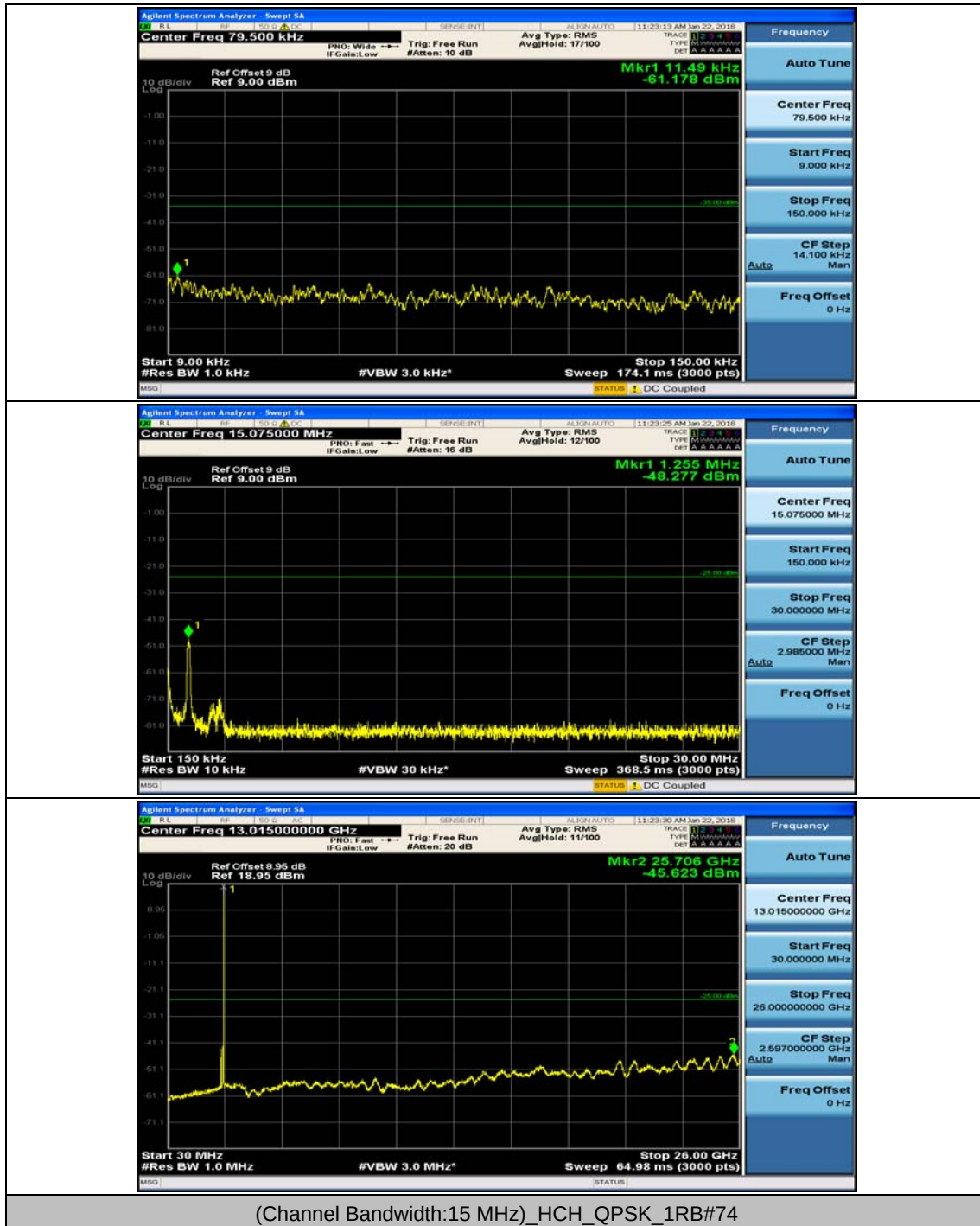


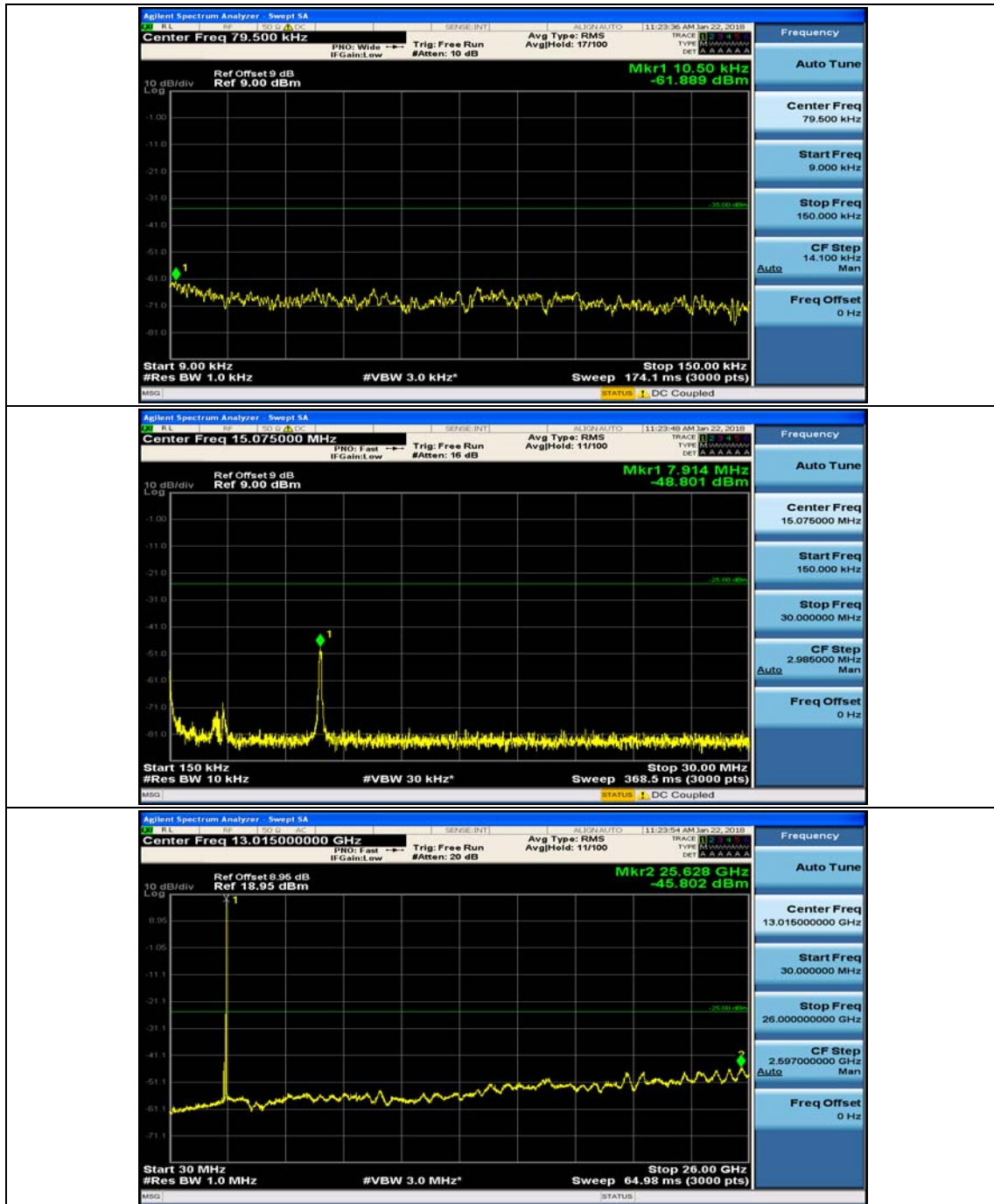


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

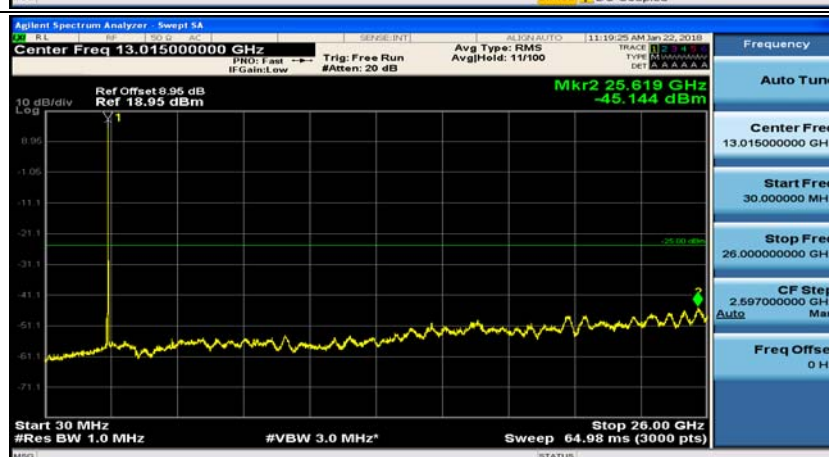
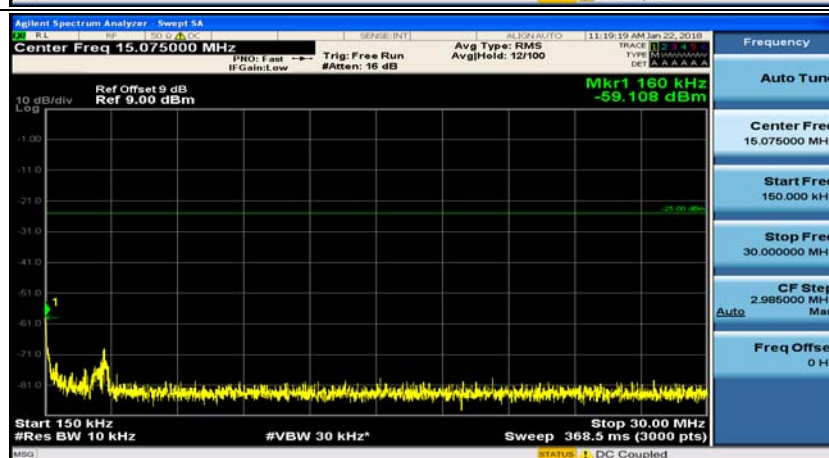
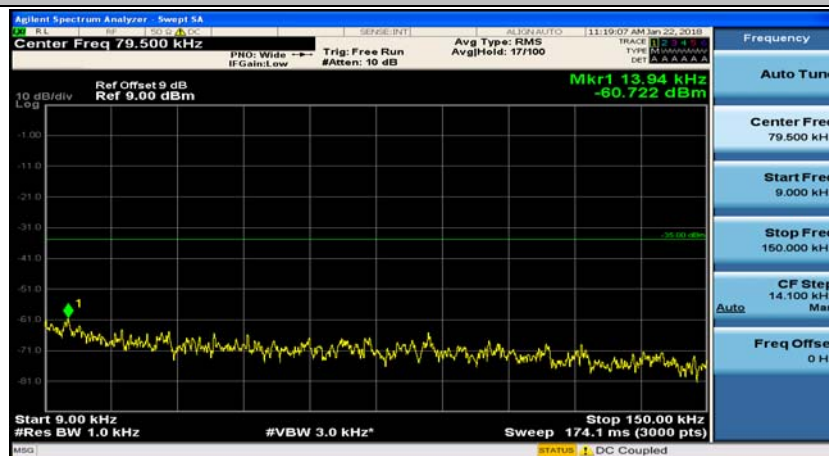


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

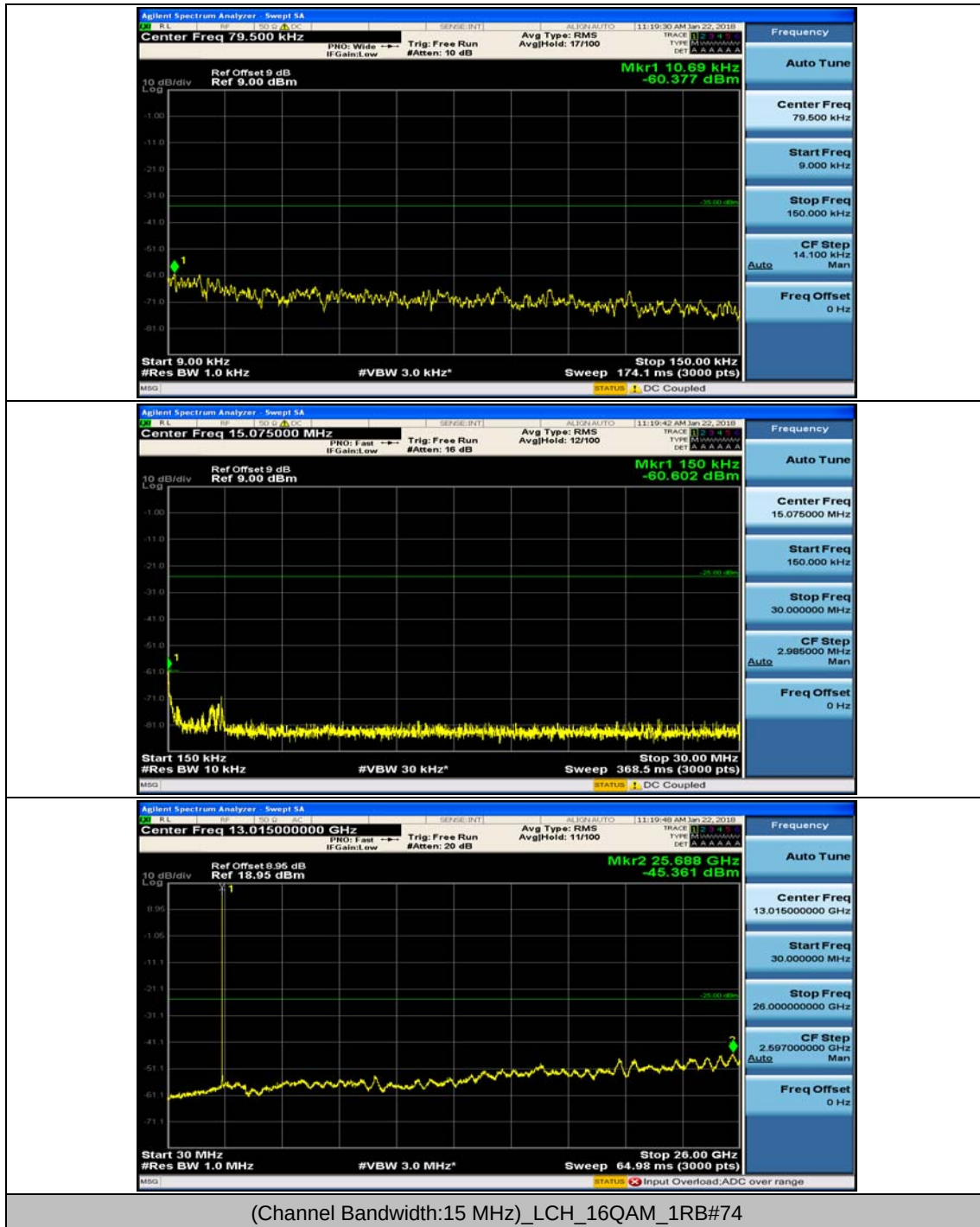


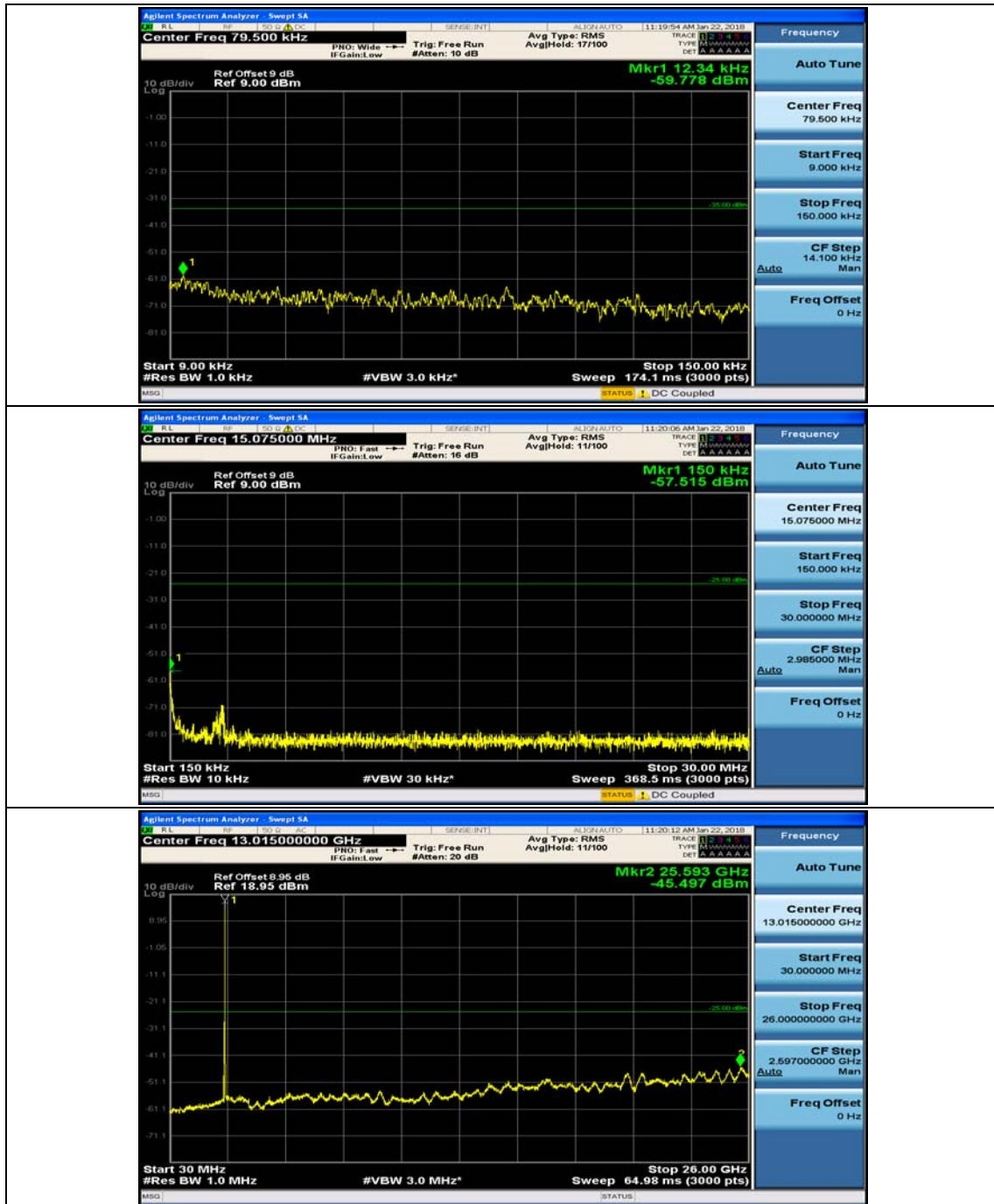


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

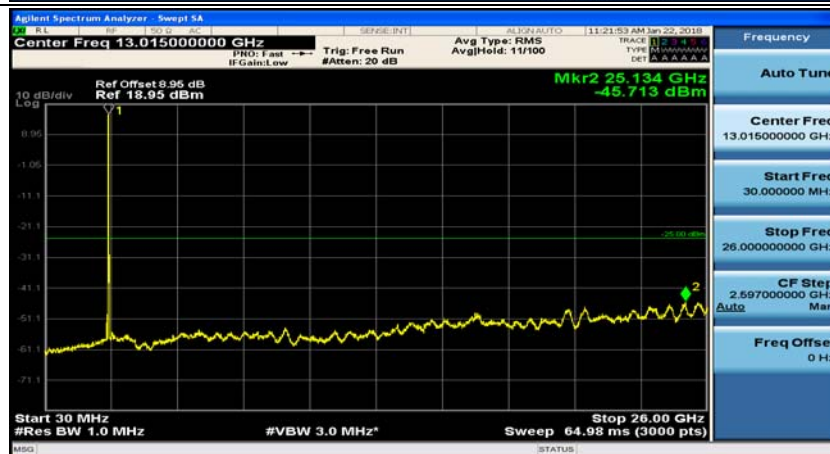
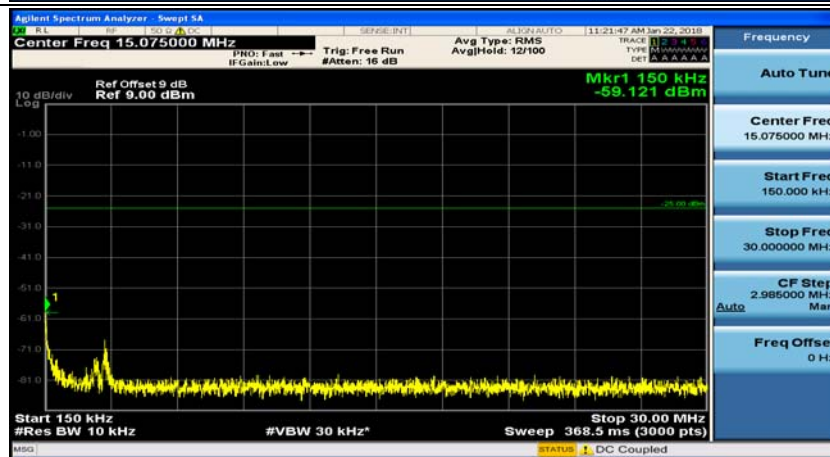
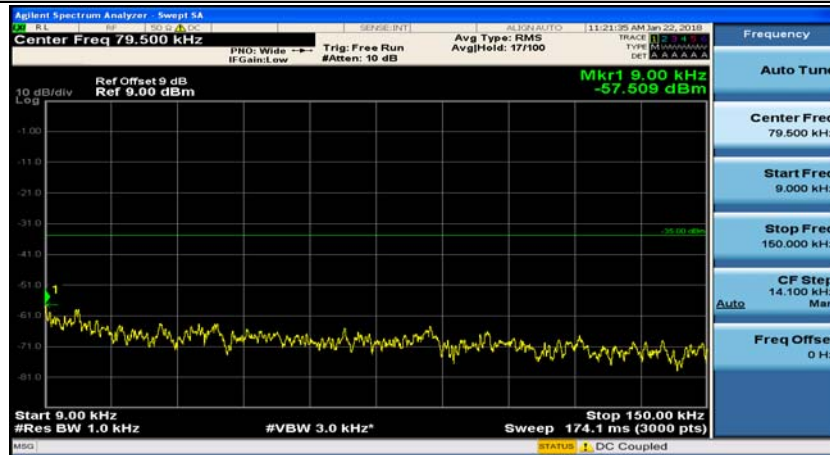


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

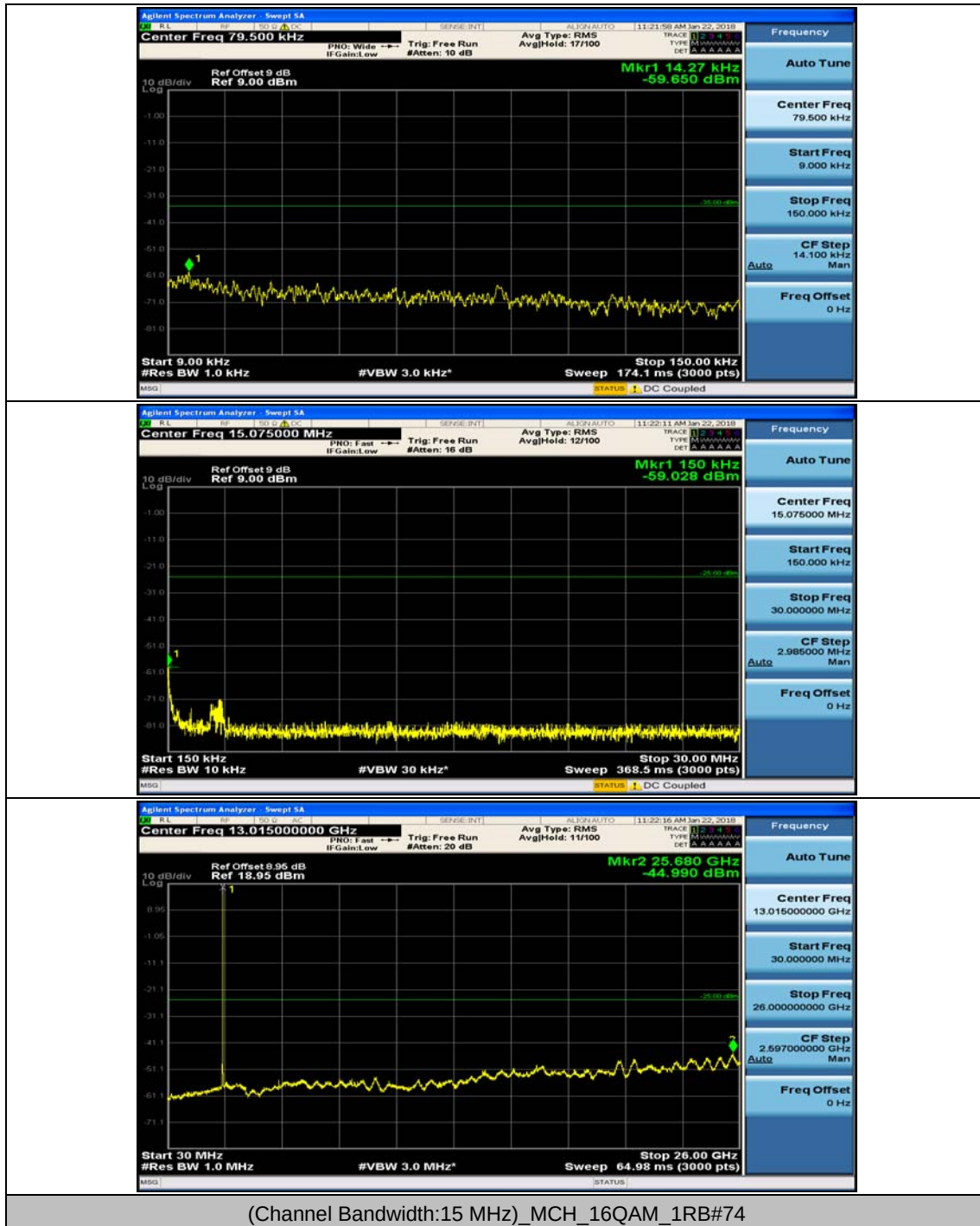


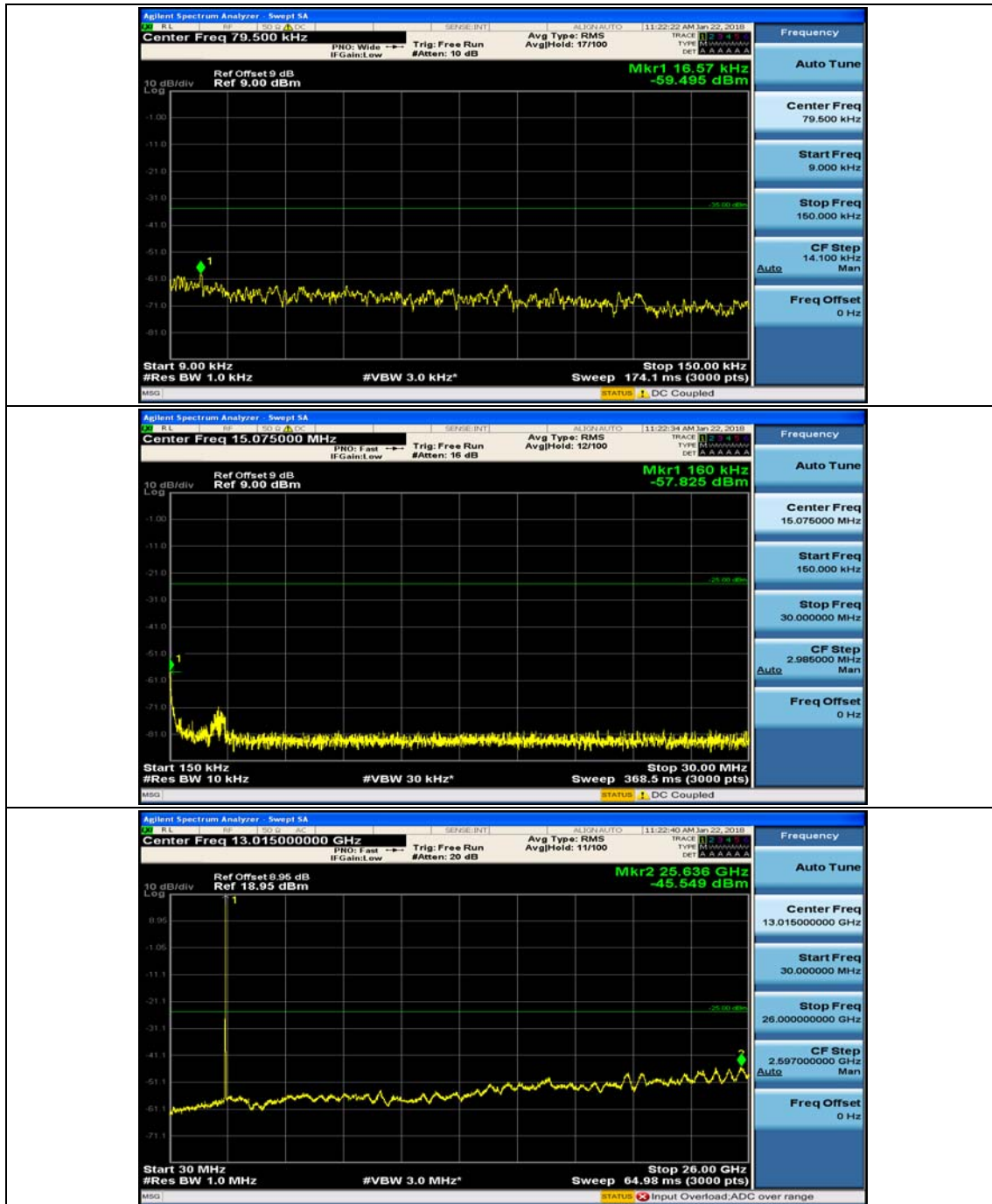


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

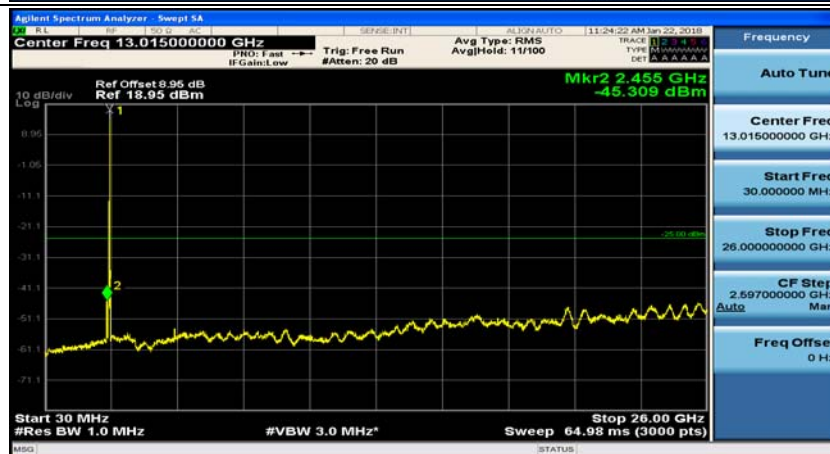
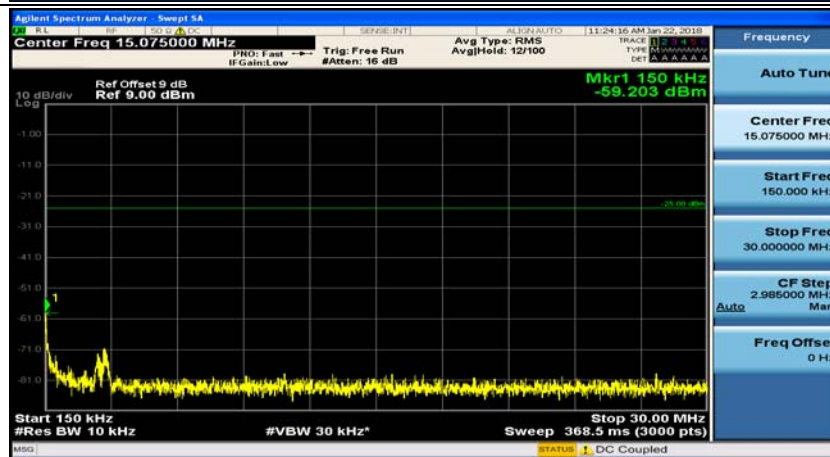


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

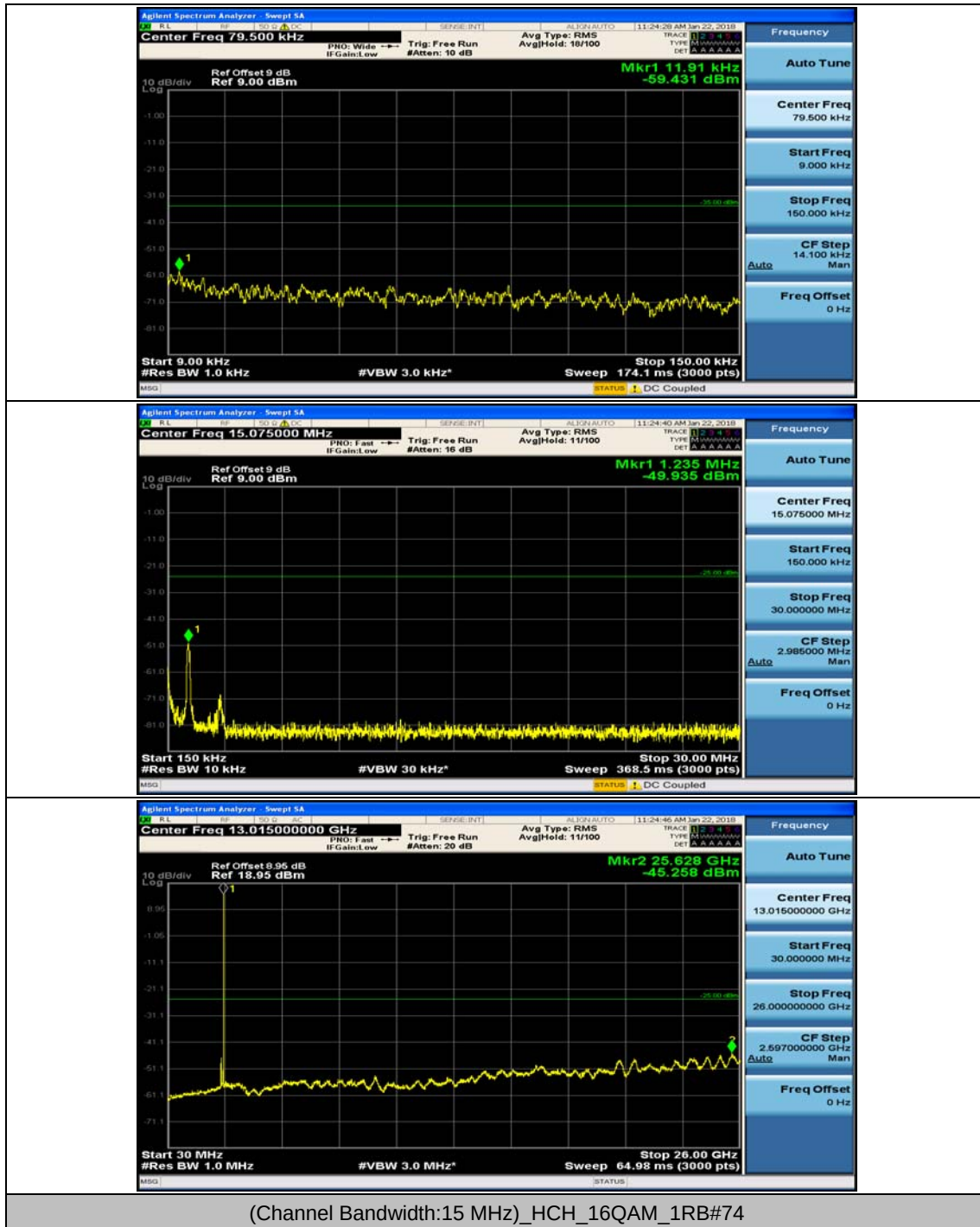


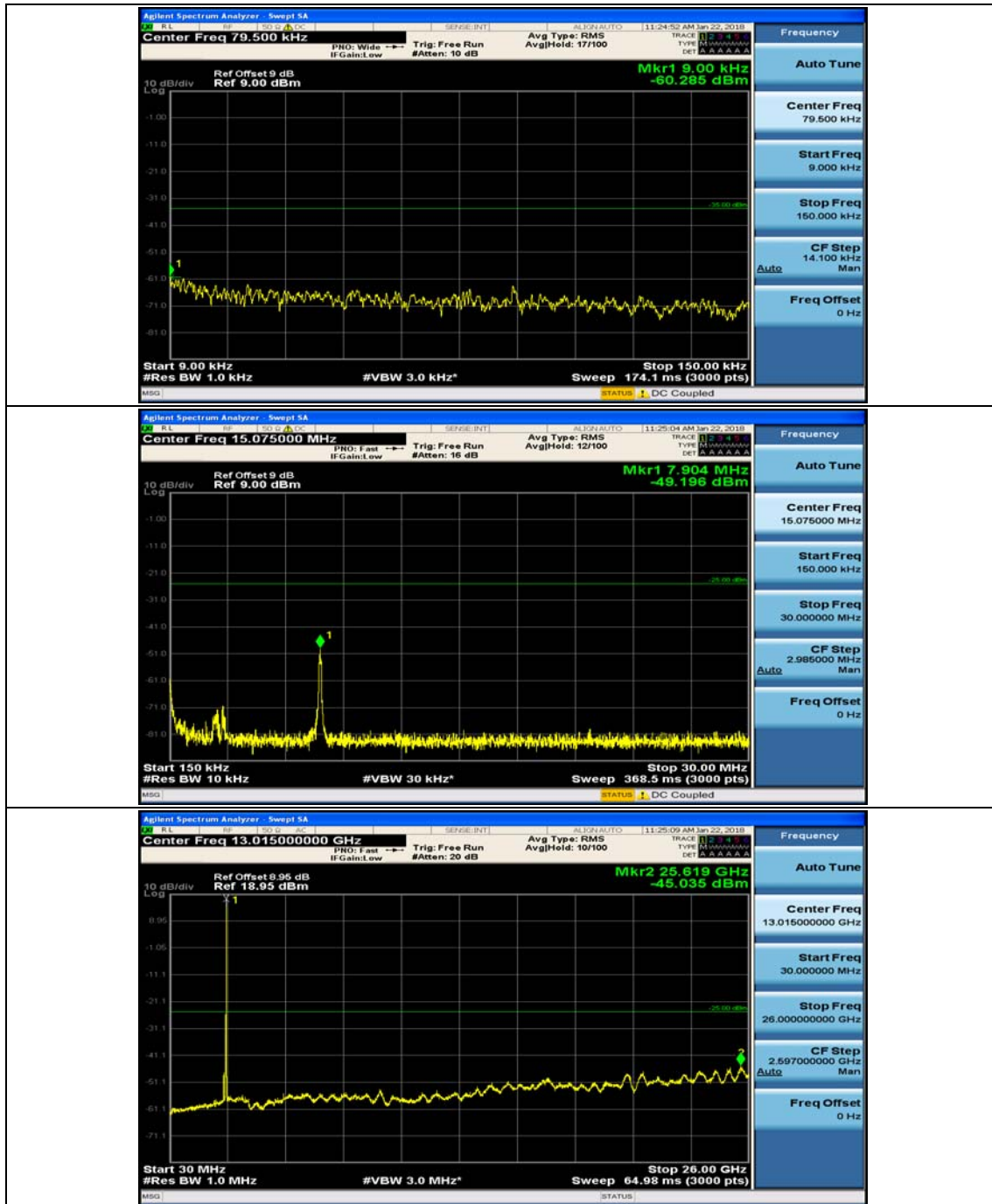


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

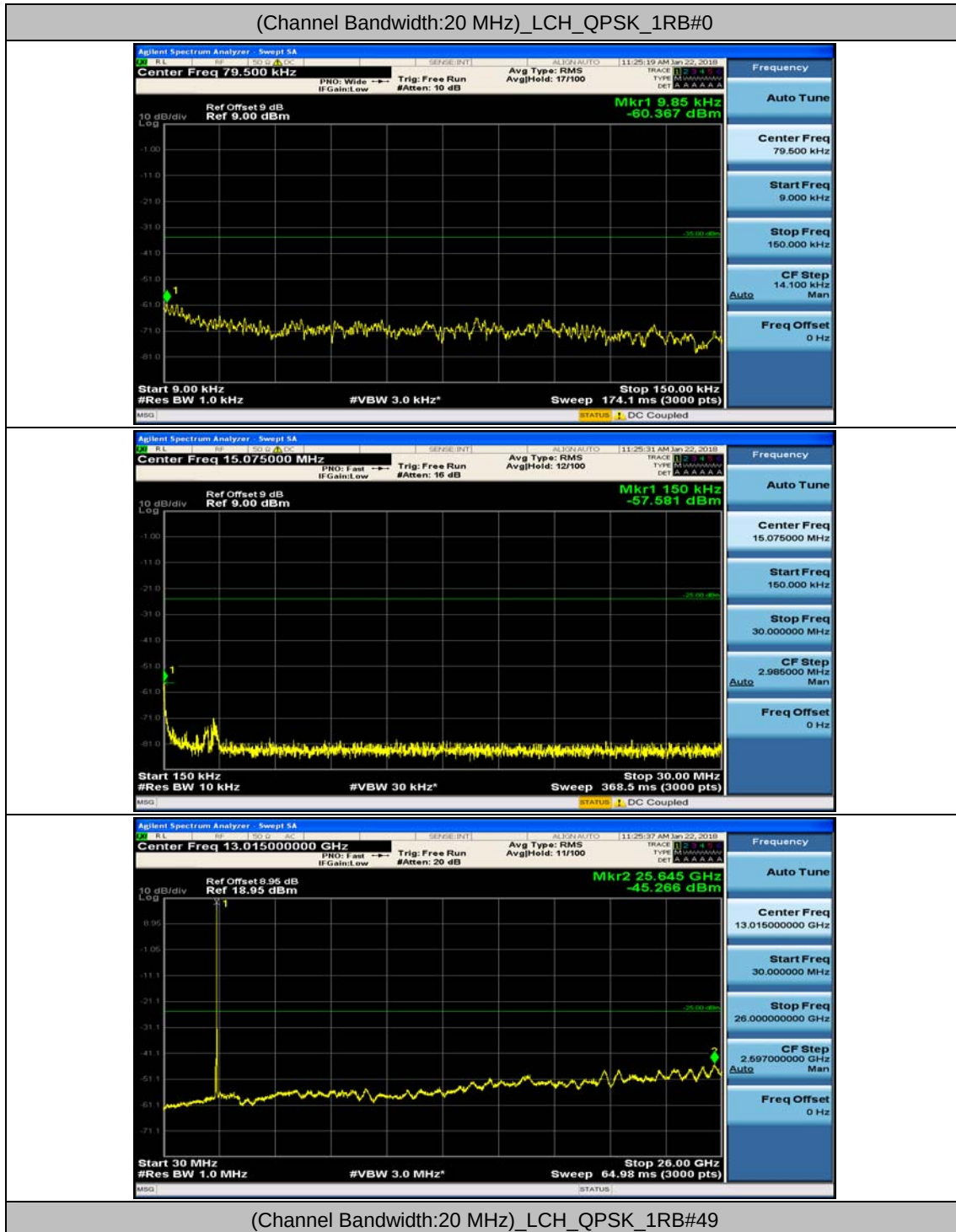


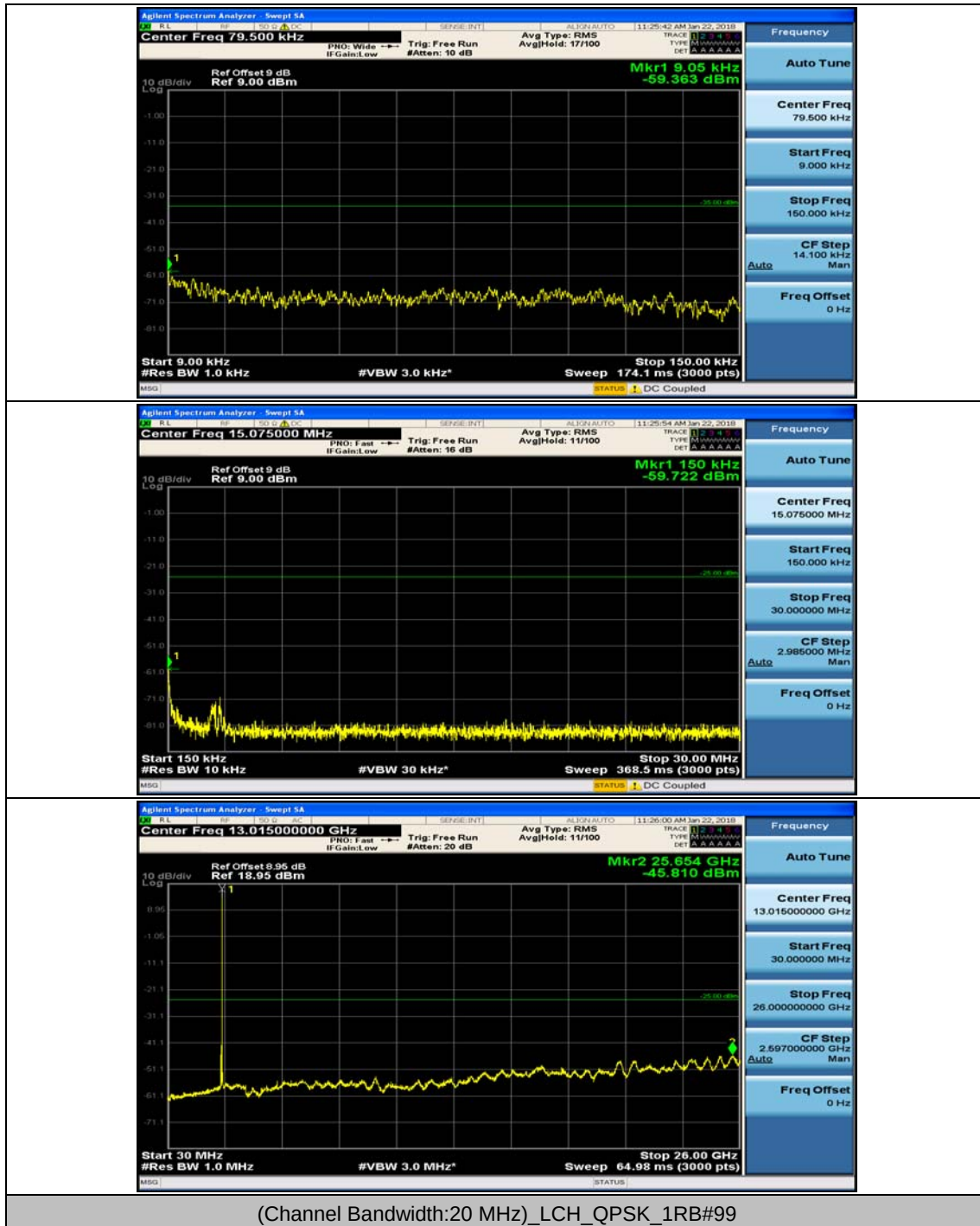
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

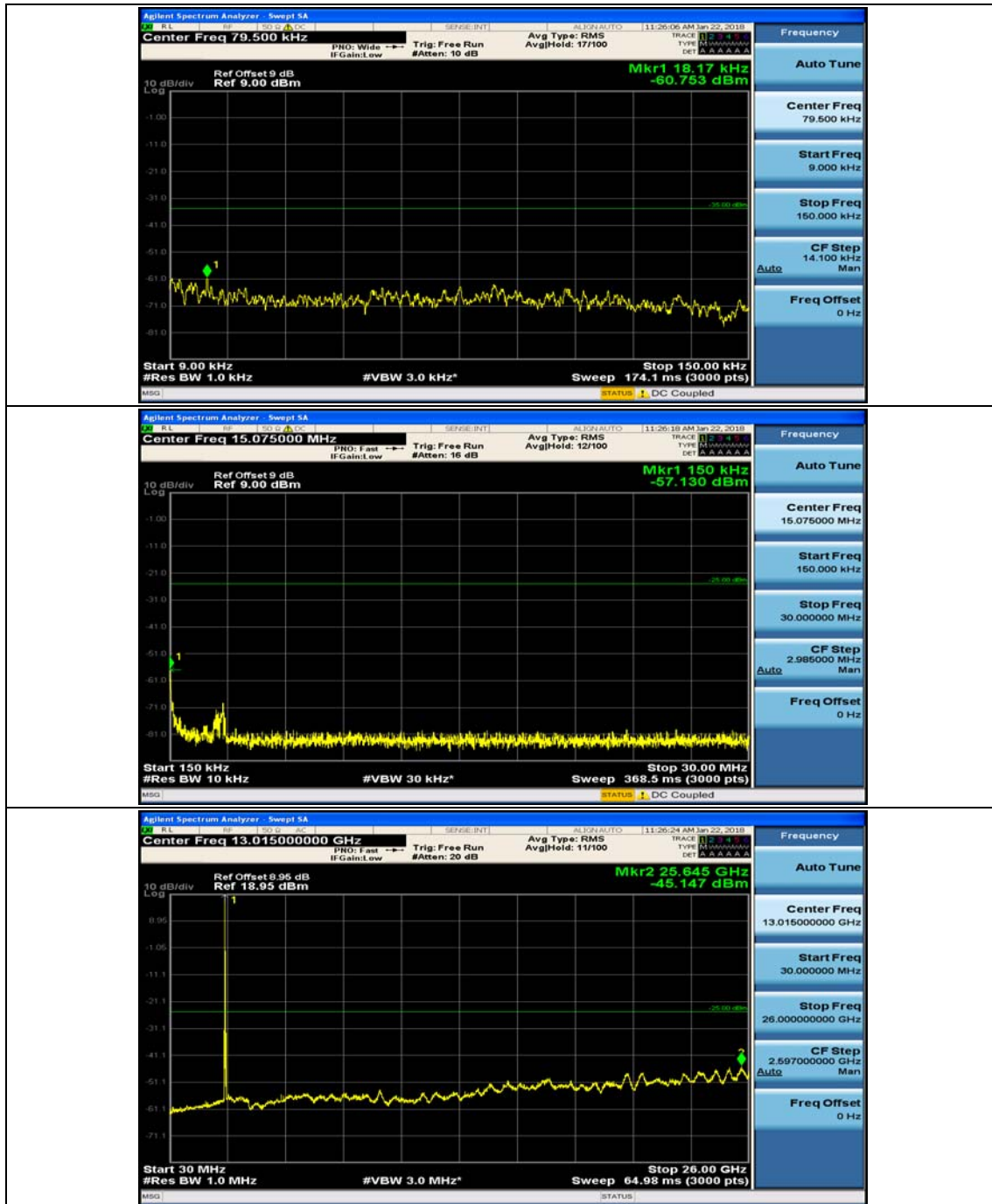




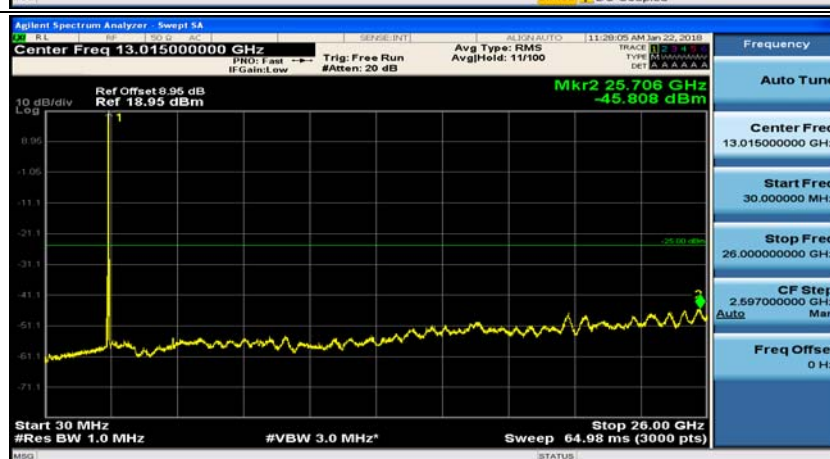
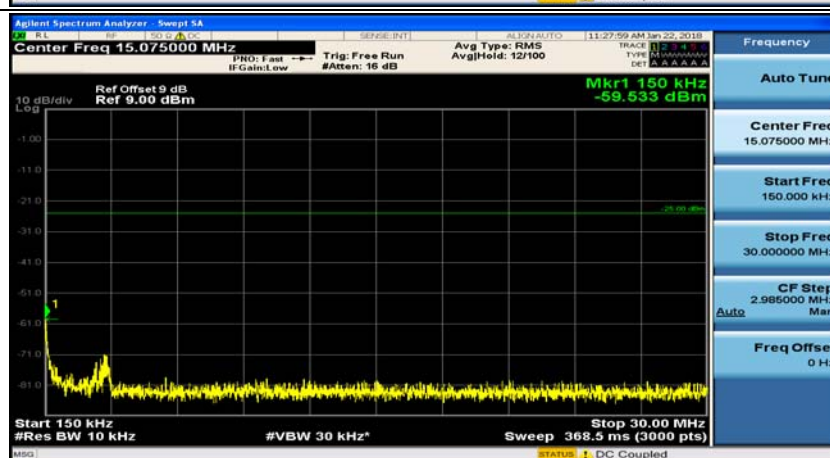
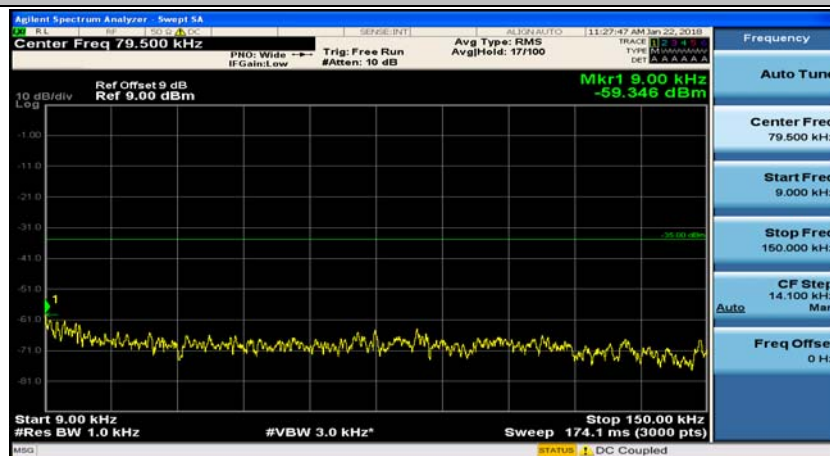
Channel Bandwidth: 20 MHz



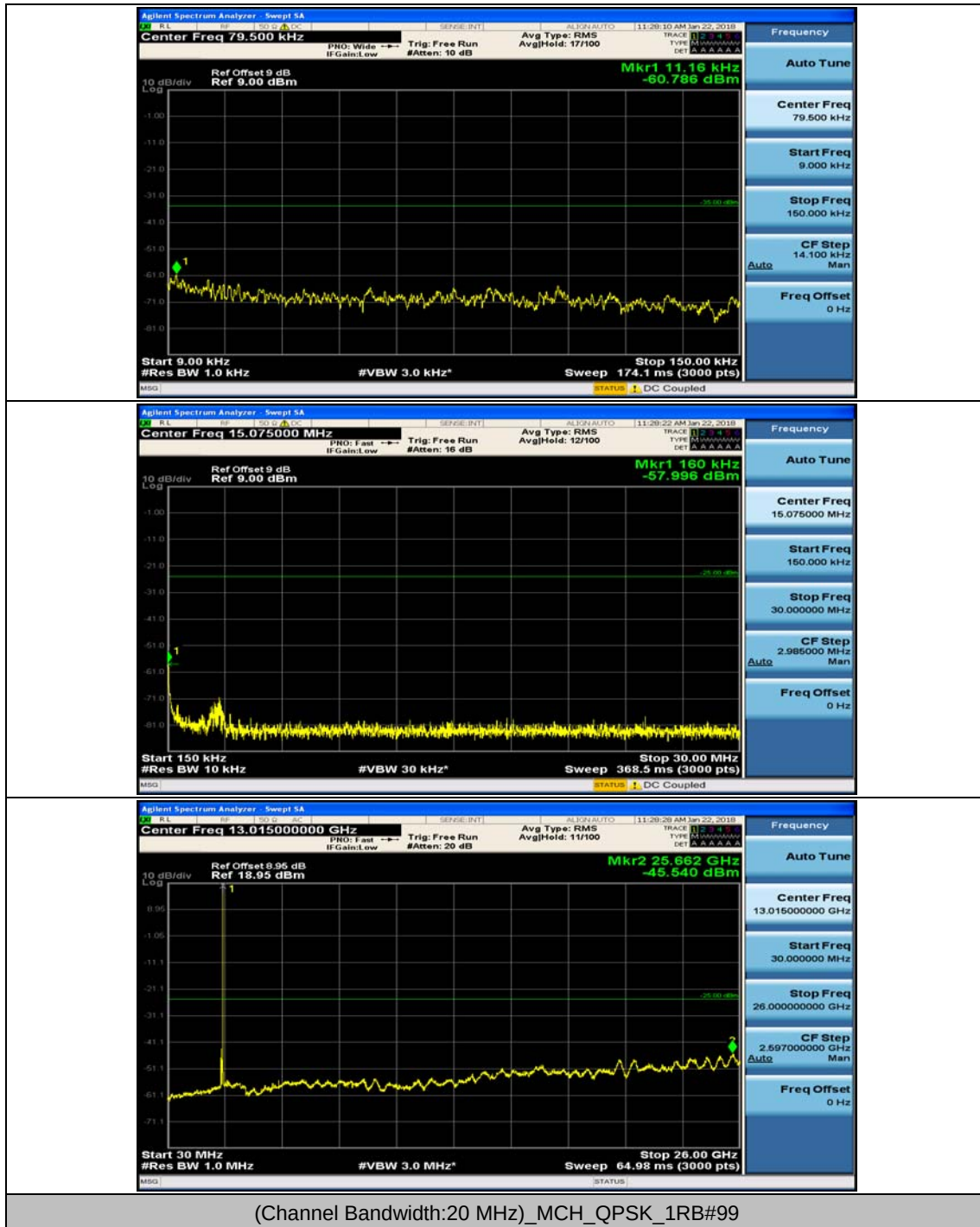


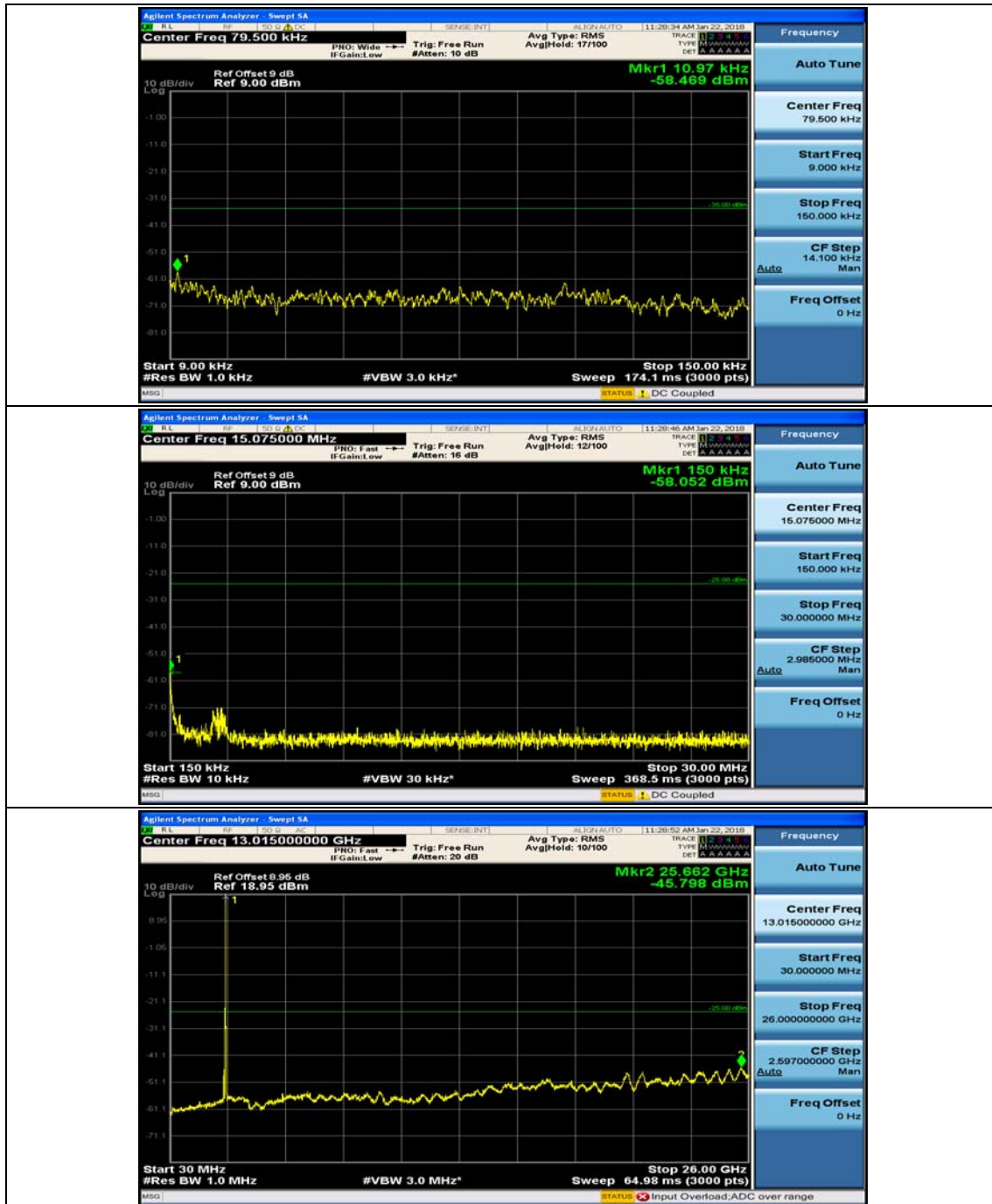


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

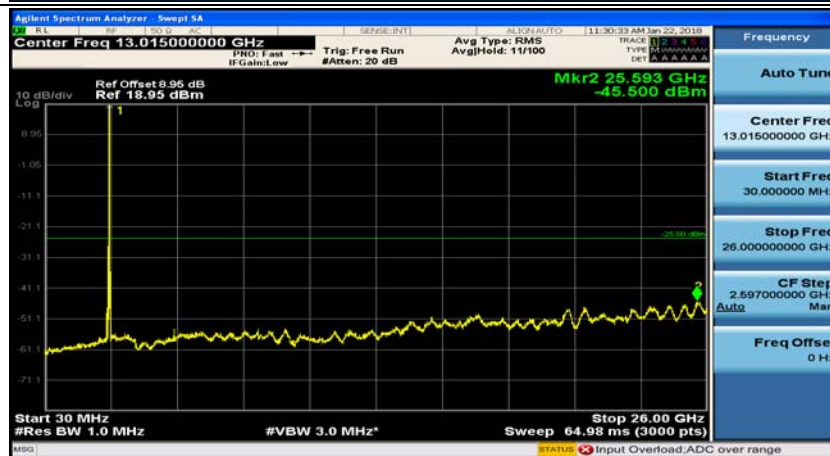
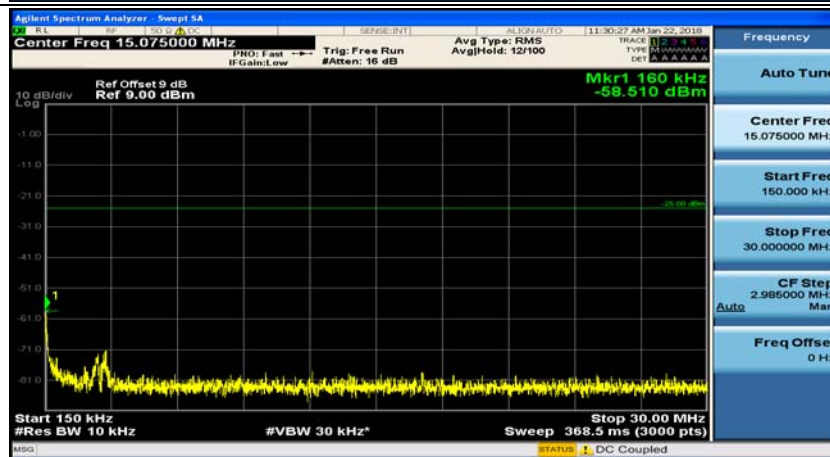
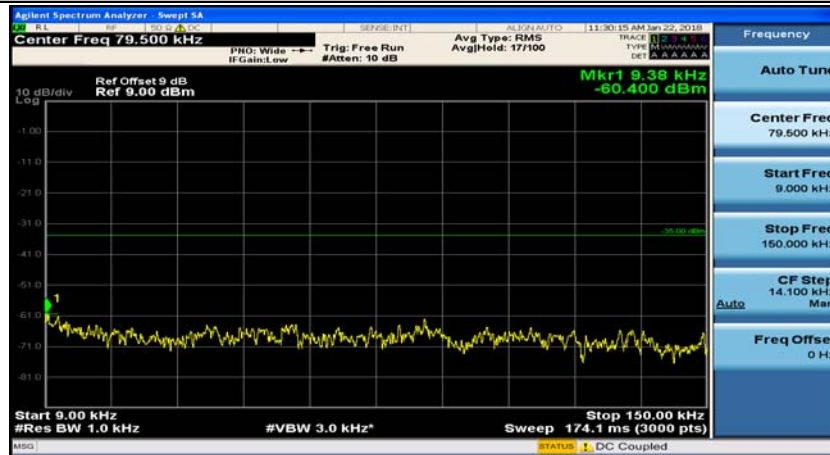


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

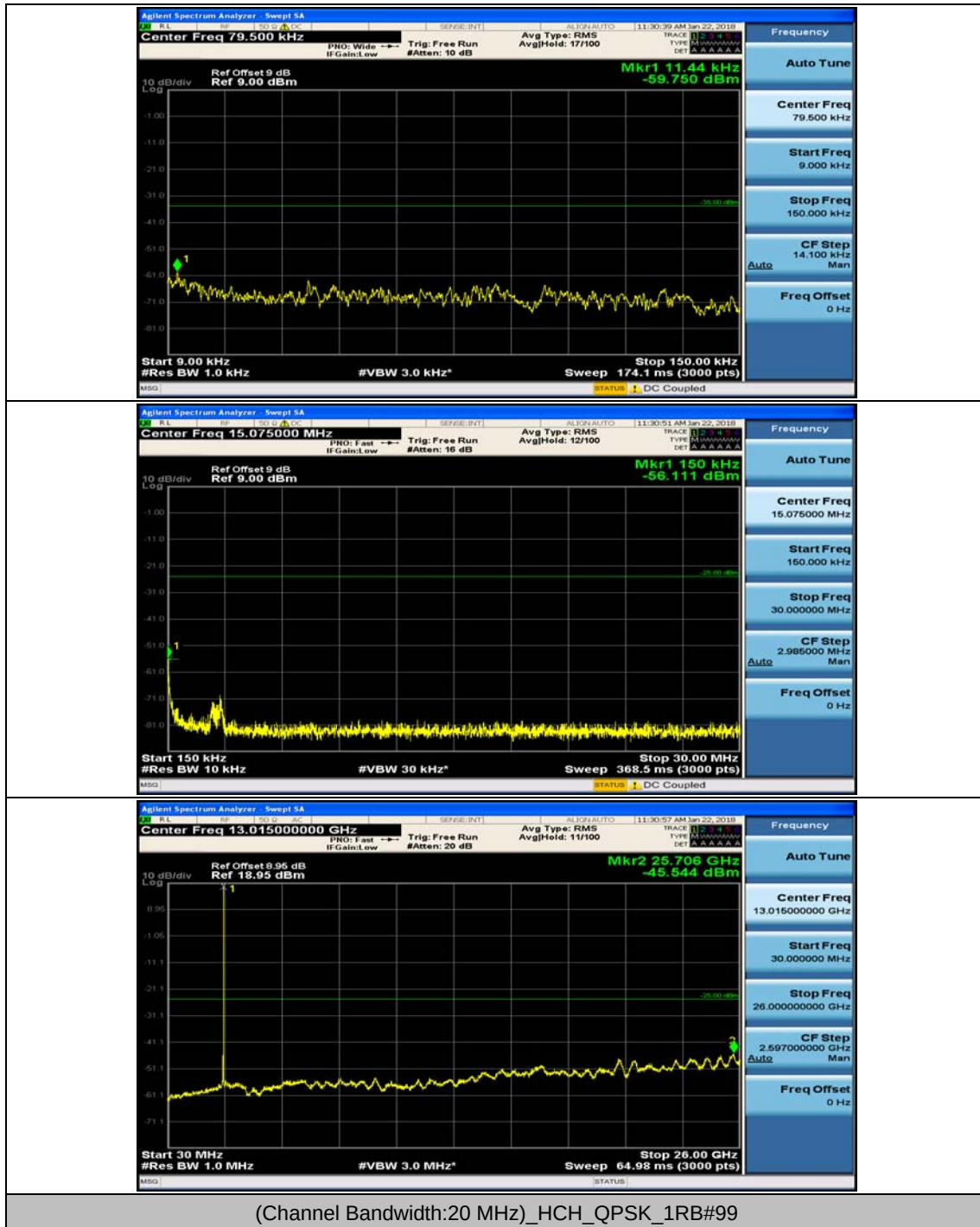


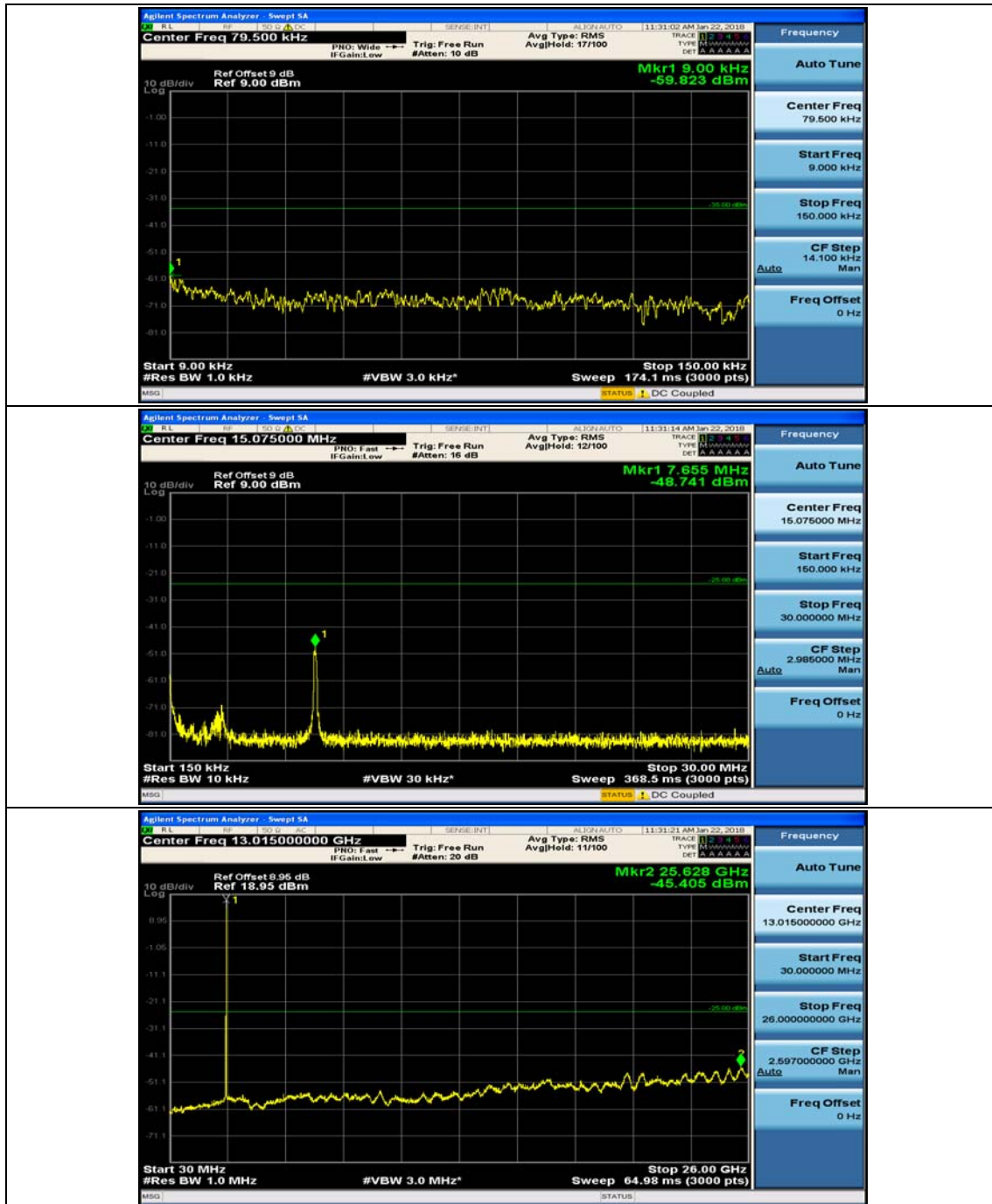


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

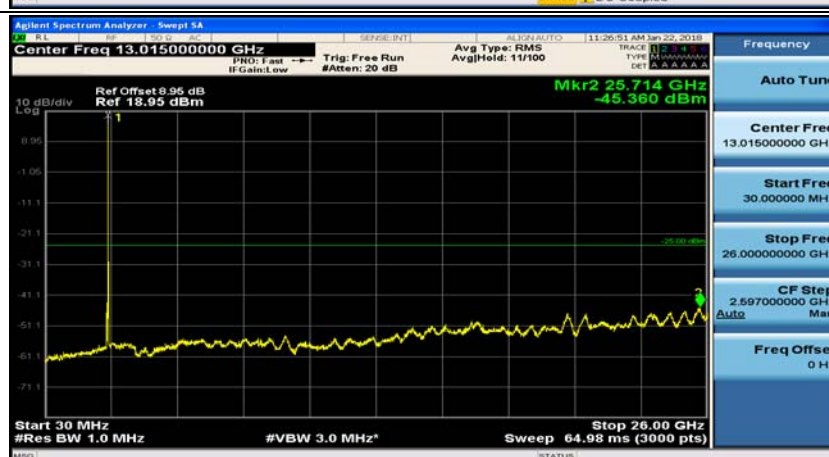
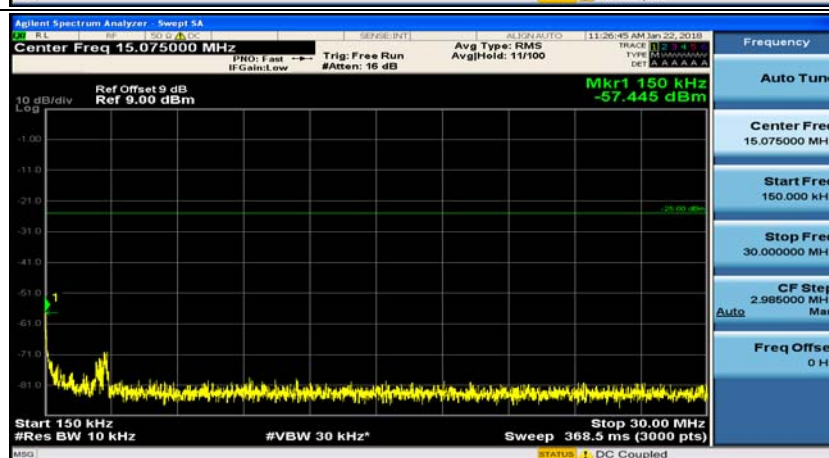
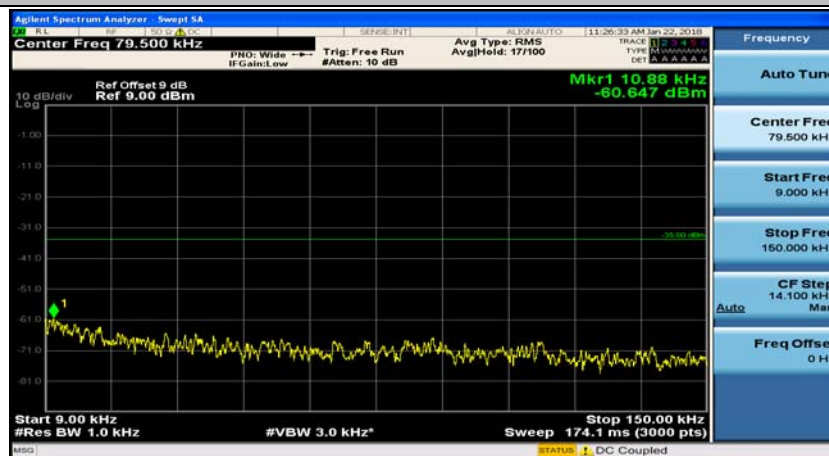


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

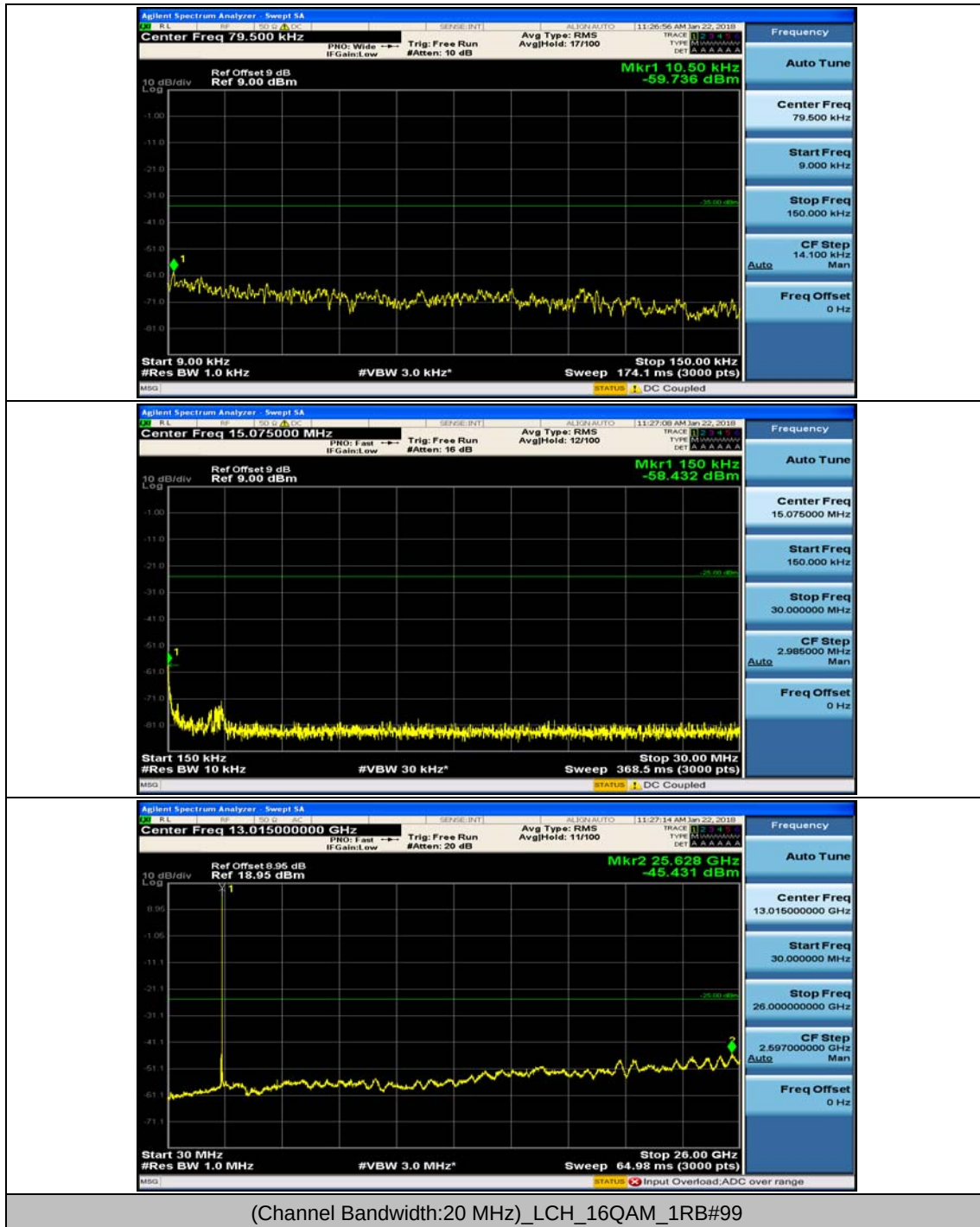


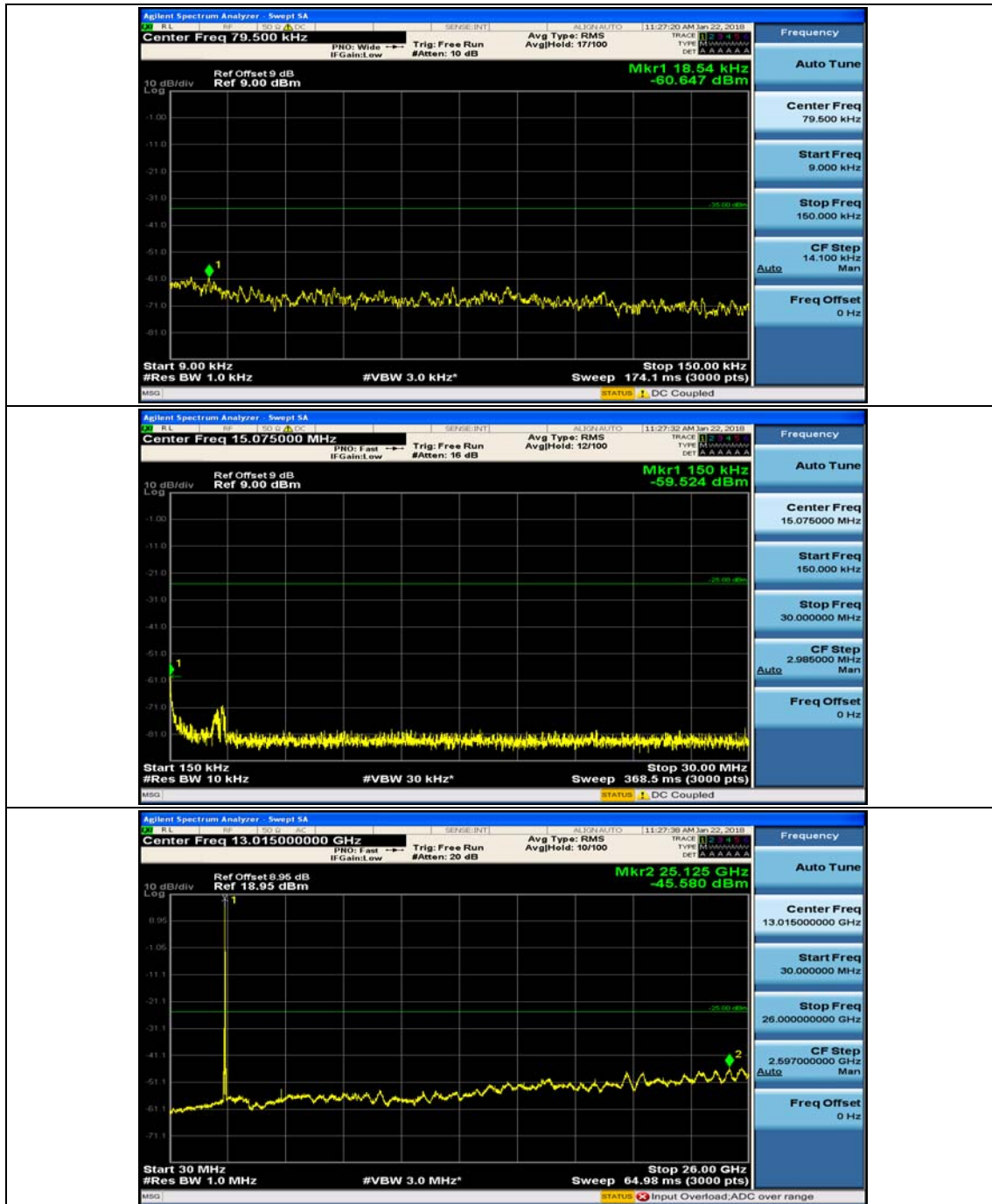


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

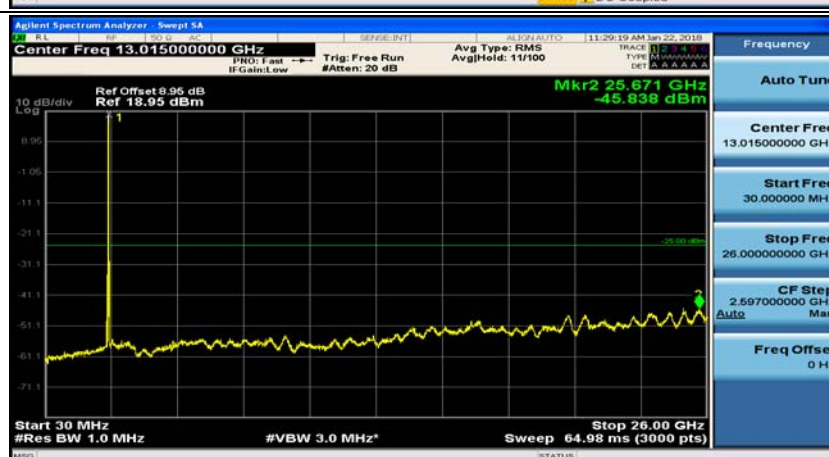
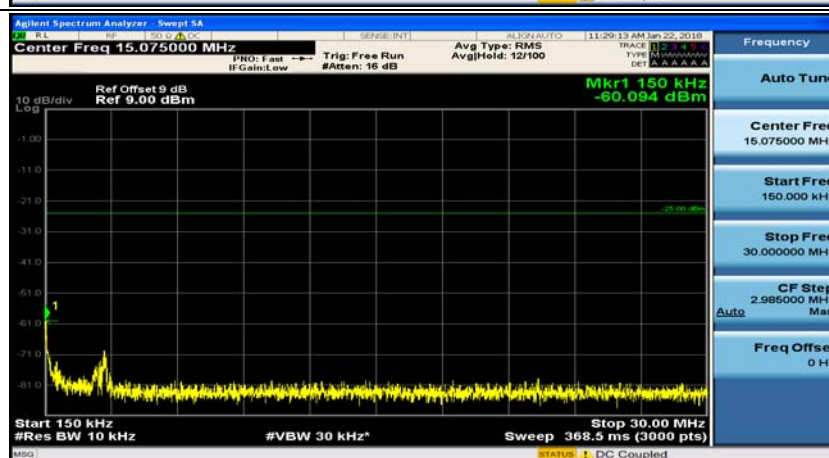
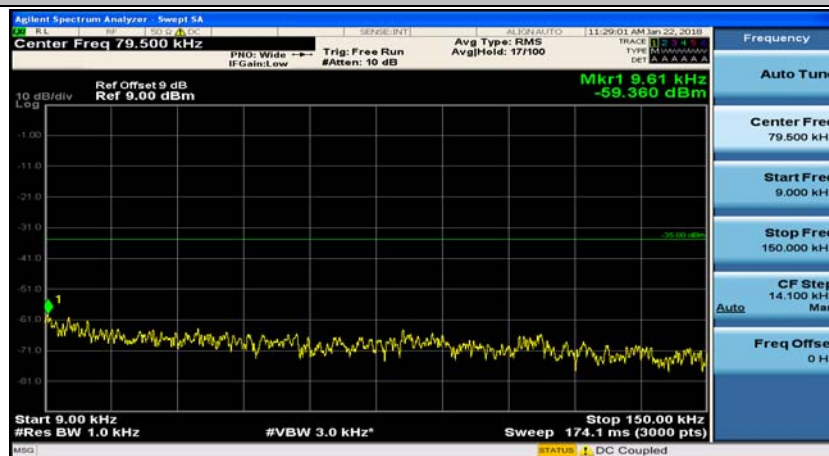


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

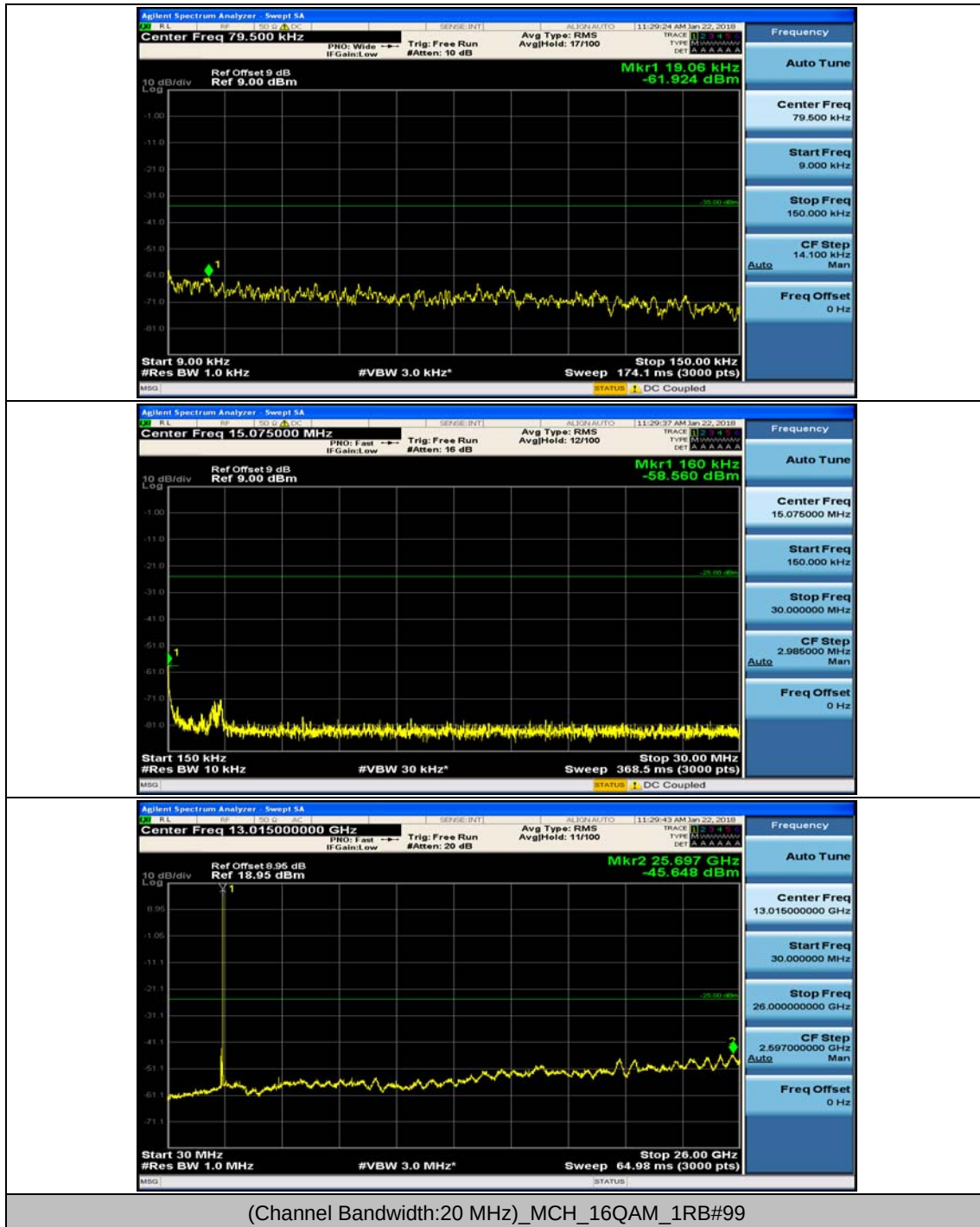


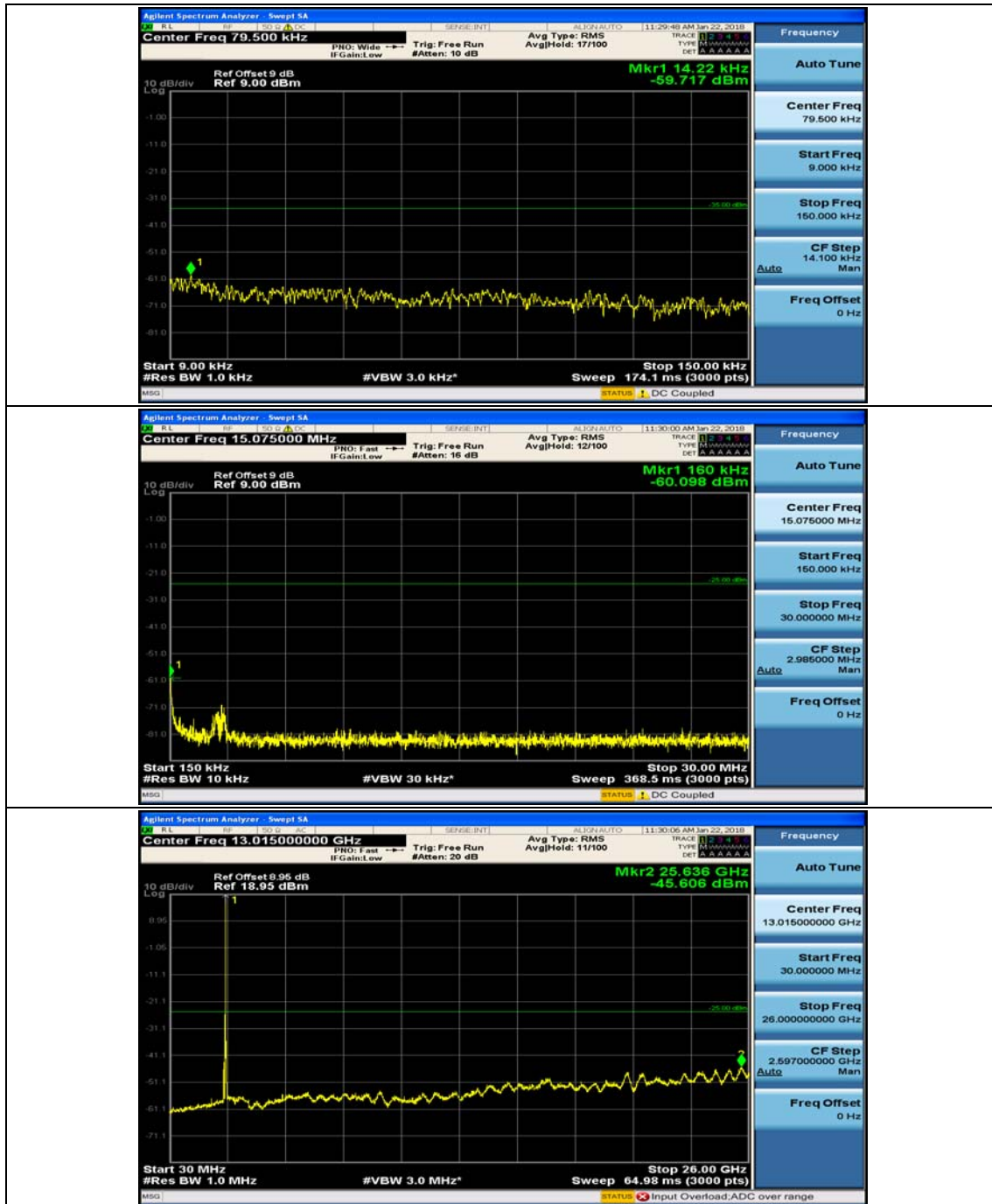


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

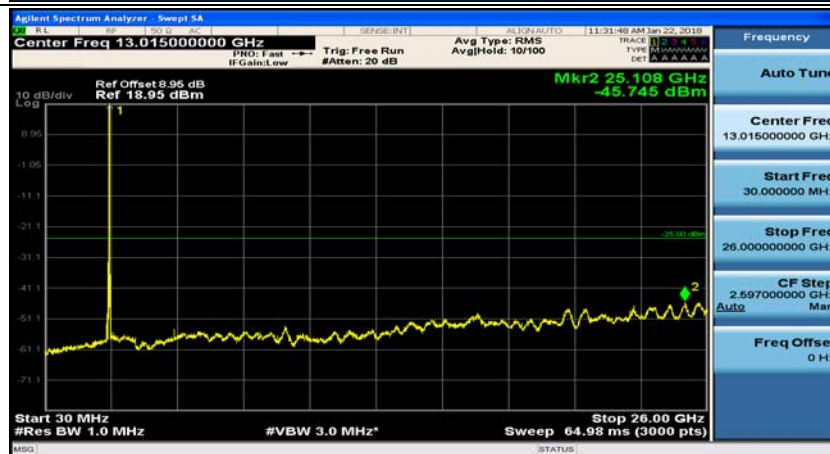
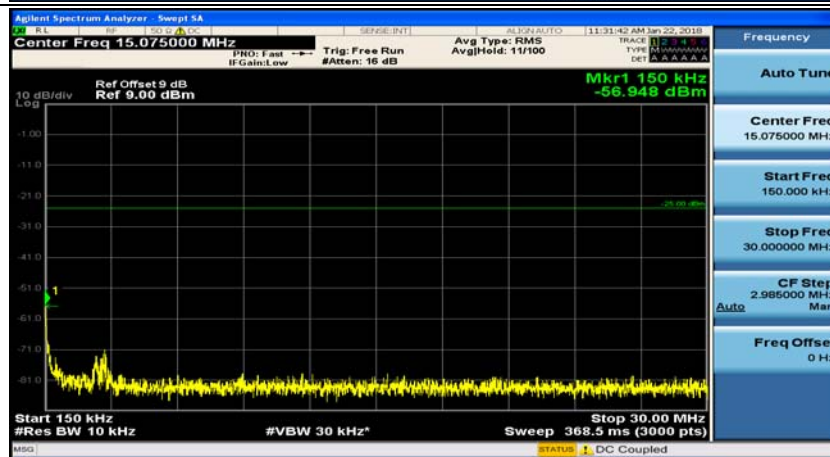
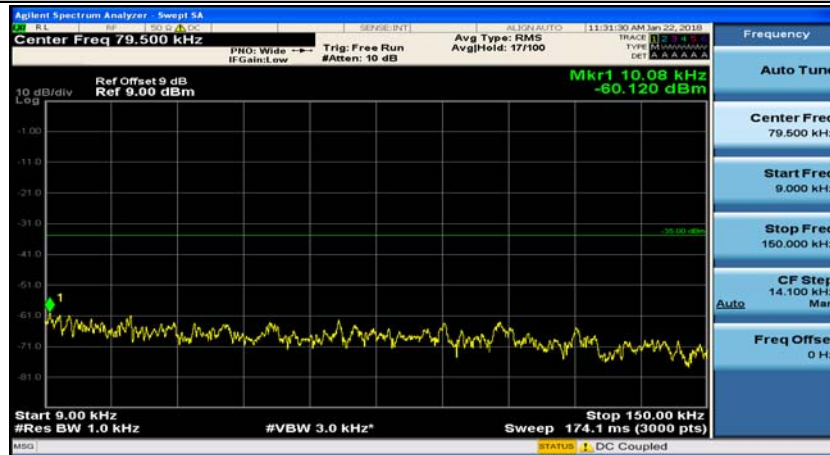


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

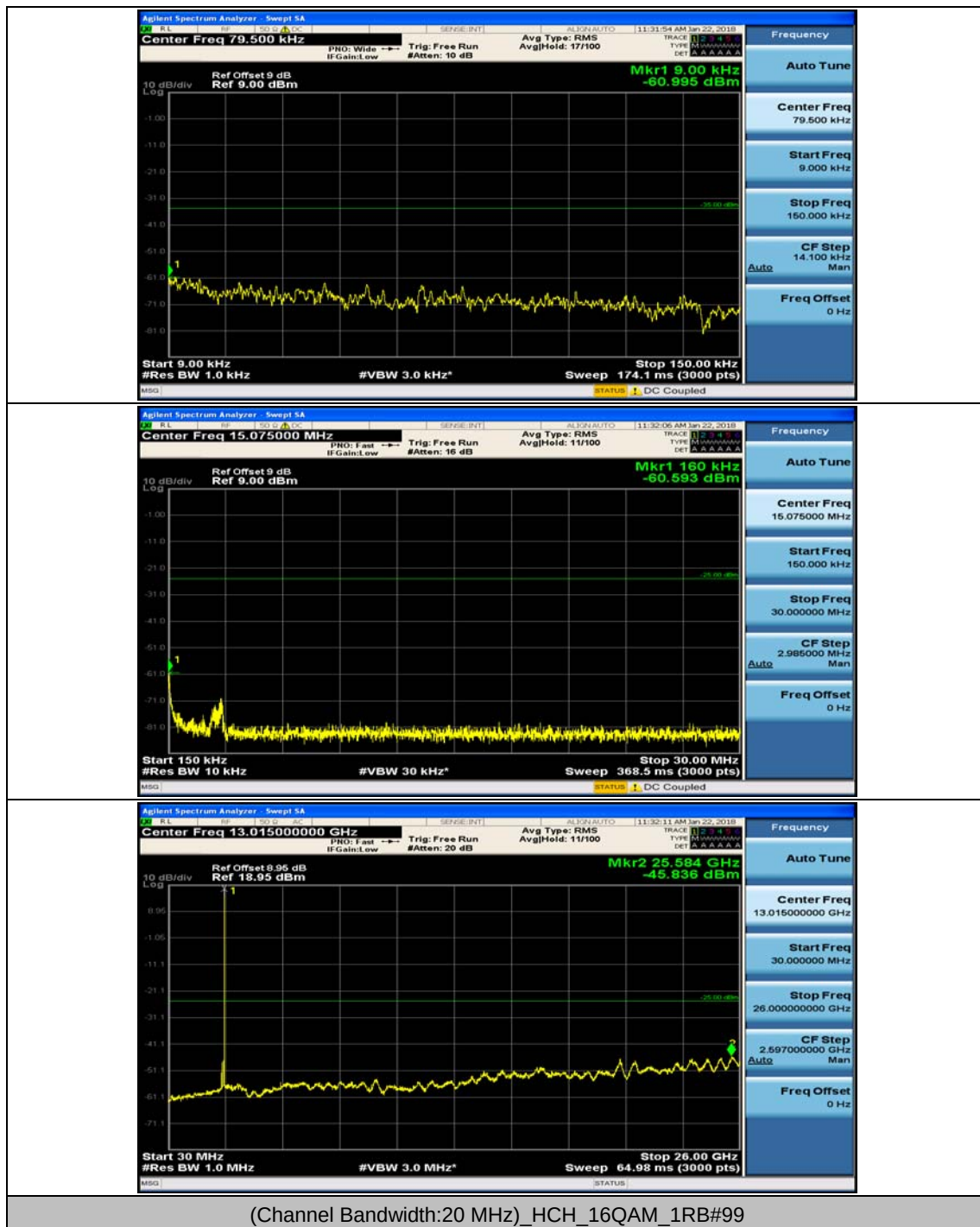


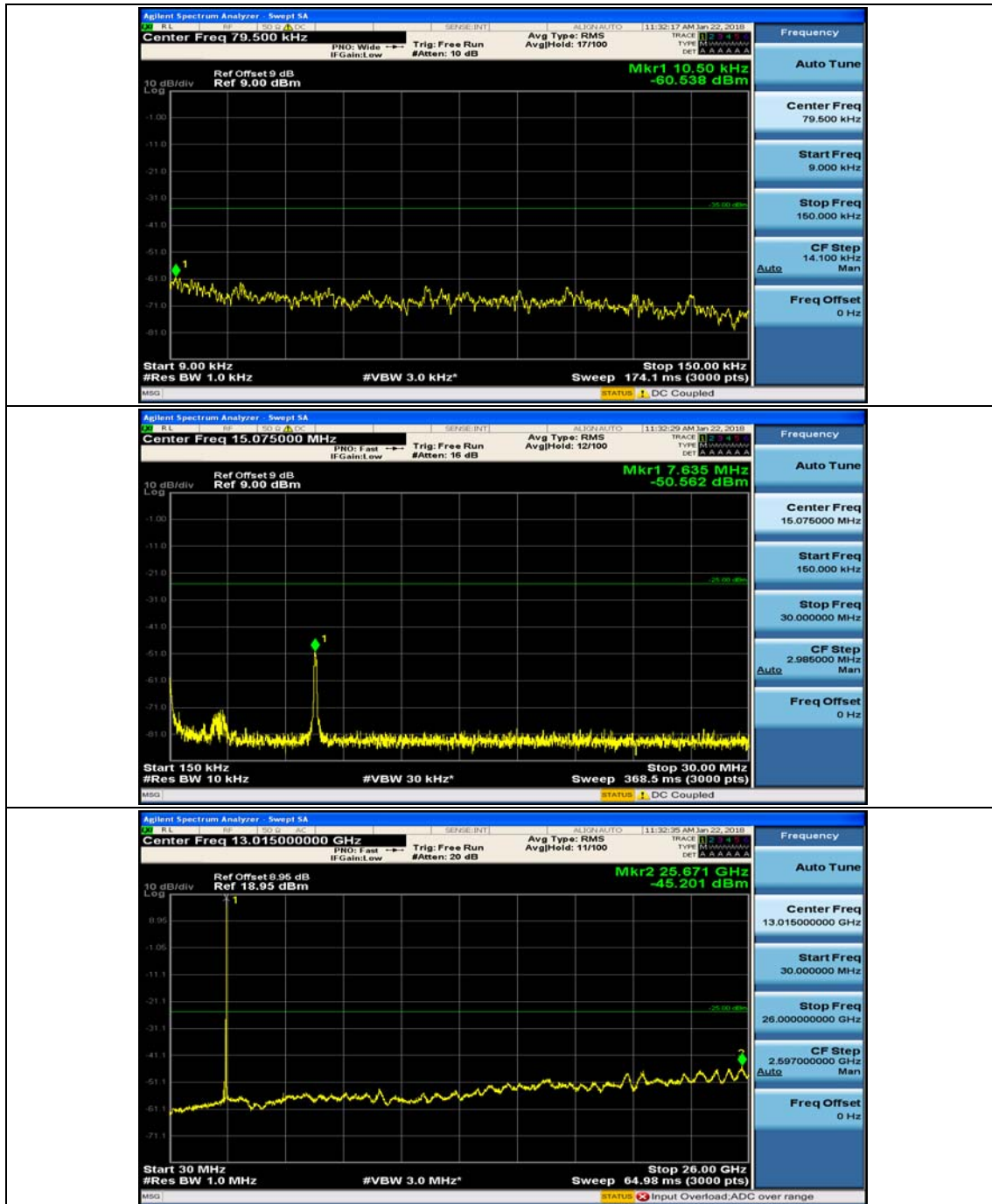


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(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	1.76	0.000703	± 2.5	PASS
		VN	TN	-1.83	-0.000731	± 2.5	PASS
		VH	TN	0.5	0.000200	± 2.5	PASS
	MCH	VL	TN	2.72	0.001073	± 2.5	PASS
		VN	TN	2.18	0.000860	± 2.5	PASS
		VH	TN	1.64	0.000647	± 2.5	PASS
	HCH	VL	TN	4.14	0.001612	± 2.5	PASS
		VN	TN	1.71	0.000666	± 2.5	PASS
		VH	TN	-0.77	-0.000300	± 2.5	PASS
16QAM	LCH	VL	TN	3.96	0.001582	± 2.5	PASS
		VN	TN	1.11	0.000444	± 2.5	PASS
		VH	TN	1.63	0.000651	± 2.5	PASS
	MCH	VL	TN	3.65	0.001440	± 2.5	PASS
		VN	TN	1.54	0.000607	± 2.5	PASS
		VH	TN	2.73	0.001077	± 2.5	PASS
	HCH	VL	TN	-0.81	-0.000315	± 2.5	PASS
		VN	TN	0.75	0.000292	± 2.5	PASS
		VH	TN	-0.32	-0.000125	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.79	0.000316	± 2.5	PASS
		VN	-20	1.63	0.000651	± 2.5	PASS
		VN	-10	2.99	0.001195	± 2.5	PASS
		VN	0	2.49	0.000995	± 2.5	PASS
		VN	10	1.35	0.000539	± 2.5	PASS
		VN	20	-0.64	-0.000256	± 2.5	PASS
		VN	30	1.07	0.000428	± 2.5	PASS
		VN	40	-1.9	-0.000759	± 2.5	PASS
		VN	50	-1.99	-0.000795	± 2.5	PASS
	MCH	VN	-30	2.54	0.001002	± 2.5	PASS
		VN	-20	-1.64	-0.000647	± 2.5	PASS
		VN	-10	3.9	0.001538	± 2.5	PASS

		VN	0	2.9	0.001144	± 2.5	PASS
		VN	10	-0.54	-0.000213	± 2.5	PASS
		VN	20	3.22	0.001270	± 2.5	PASS
		VN	30	-1.78	-0.000702	± 2.5	PASS
		VN	40	4.34	0.001712	± 2.5	PASS
		VN	50	4.24	0.001673	± 2.5	PASS
	HCH	VN	-30	4.21	0.001640	± 2.5	PASS
		VN	-20	0.61	0.000238	± 2.5	PASS
		VN	-10	2.26	0.000880	± 2.5	PASS
		VN	0	3.99	0.001554	± 2.5	PASS
		VN	10	2.44	0.000950	± 2.5	PASS
		VN	20	4.64	0.001807	± 2.5	PASS
		VN	30	3.55	0.001383	± 2.5	PASS
		VN	40	3.46	0.001348	± 2.5	PASS
		VN	50	0.1	0.000039	± 2.5	PASS
16QAM	LCH	VN	-30	4.03	0.001610	± 2.5	PASS
		VN	-20	1.68	0.000671	± 2.5	PASS
		VN	-10	4.56	0.001822	± 2.5	PASS
		VN	0	-0.35	-0.000140	± 2.5	PASS
		VN	10	3.51	0.001403	± 2.5	PASS
		VN	20	-0.75	-0.000300	± 2.5	PASS
		VN	30	3.29	0.001315	± 2.5	PASS
		VN	40	-1.32	-0.000527	± 2.5	PASS
		VN	50	-0.39	-0.000156	± 2.5	PASS
	MCH	VN	-30	1.05	0.000414	± 2.5	PASS
		VN	-20	-0.09	-0.000036	± 2.5	PASS
		VN	-10	2.66	0.001049	± 2.5	PASS
		VN	0	2.96	0.001168	± 2.5	PASS
		VN	10	4.07	0.001606	± 2.5	PASS
		VN	20	0.29	0.000114	± 2.5	PASS
		VN	30	1.67	0.000659	± 2.5	PASS
		VN	40	2.78	0.001097	± 2.5	PASS
		VN	50	4.07	0.001606	± 2.5	PASS
	HCH	VN	-30	-0.79	-0.000308	± 2.5	PASS
		VN	-20	0.82	0.000319	± 2.5	PASS
		VN	-10	-0.55	-0.000214	± 2.5	PASS
		VN	0	-1.35	-0.000526	± 2.5	PASS
		VN	10	2.16	0.000841	± 2.5	PASS
		VN	20	0.36	0.000140	± 2.5	PASS
		VN	30	-1.76	-0.000685	± 2.5	PASS
		VN	40	-0.59	-0.000230	± 2.5	PASS

		VN	50	4.25	0.001655	± 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	2.11	0.000842	± 2.5	PASS
		VN	TN	2.41	0.000962	± 2.5	PASS
		VH	TN	3.19	0.001273	± 2.5	PASS
	MCH	VL	TN	4.7	0.001854	± 2.5	PASS
		VN	TN	3.8	0.001499	± 2.5	PASS
		VH	TN	4.91	0.001937	± 2.5	PASS
	HCH	VL	TN	4.07	0.001587	± 2.5	PASS
		VN	TN	2.75	0.001072	± 2.5	PASS
		VH	TN	-0.41	-0.000160	± 2.5	PASS
16QAM	LCH	VL	TN	-0.32	-0.000128	± 2.5	PASS
		VN	TN	1.34	0.000535	± 2.5	PASS
		VH	TN	-1.09	-0.000435	± 2.5	PASS
	MCH	VL	TN	0.19	0.000075	± 2.5	PASS
		VN	TN	-0.92	-0.000363	± 2.5	PASS
		VH	TN	2.3	0.000907	± 2.5	PASS
	HCH	VL	TN	2.01	0.000784	± 2.5	PASS
		VN	TN	2.71	0.001057	± 2.5	PASS
		VH	TN	1.75	0.000682	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	-0.66	-0.000263	± 2.5	PASS
		VN	-20	2.1	0.000838	± 2.5	PASS
		VN	-10	-1.83	-0.000731	± 2.5	PASS
		VN	0	0.85	0.000339	± 2.5	PASS
		VN	10	-0.55	-0.000220	± 2.5	PASS
		VN	20	2.41	0.000962	± 2.5	PASS
		VN	30	0.2	0.000080	± 2.5	PASS
		VN	40	2.78	0.001110	± 2.5	PASS
		VN	50	4.86	0.001940	± 2.5	PASS
	MCH	VN	-30	3.33	0.001314	± 2.5	PASS
		VN	-20	-1.01	-0.000398	± 2.5	PASS
		VN	-10	3.79	0.001495	± 2.5	PASS
		VN	0	-1.89	-0.000746	± 2.5	PASS
		VN	10	0.66	0.000260	± 2.5	PASS

		VN	20	0.08	0.000032	± 2.5	PASS
		VN	30	-1.84	-0.000726	± 2.5	PASS
		VN	40	0.8	0.000316	± 2.5	PASS
		VN	50	0.68	0.000268	± 2.5	PASS
	HCH	VN	-30	2.6	0.001014	± 2.5	PASS
		VN	-20	4.29	0.001673	± 2.5	PASS
		VN	-10	4.63	0.001805	± 2.5	PASS
		VN	0	-1.28	-0.000499	± 2.5	PASS
		VN	10	-0.72	-0.000281	± 2.5	PASS
		VN	20	3.23	0.001259	± 2.5	PASS
		VN	30	2.53	0.000986	± 2.5	PASS
		VN	40	1.38	0.000538	± 2.5	PASS
		VN	50	-0.33	-0.000129	± 2.5	PASS
		VN	-30	2.83	0.001130	± 2.5	PASS
		VN	-20	4.12	0.001645	± 2.5	PASS
		VN	-10	-1.92	-0.000766	± 2.5	PASS
		VN	0	-0.42	-0.000168	± 2.5	PASS
		VN	10	3.08	0.001230	± 2.5	PASS
QPSK	LCH	VN	20	2.75	0.001098	± 2.5	PASS
		VN	30	-0.23	-0.000092	± 2.5	PASS
		VN	40	1.5	0.000599	± 2.5	PASS
		VN	50	2.56	0.001022	± 2.5	PASS
	MCH	VN	-30	-1.33	-0.000525	± 2.5	PASS
		VN	-20	3.16	0.001247	± 2.5	PASS
		VN	-10	1.45	0.000572	± 2.5	PASS
		VN	0	1.7	0.000671	± 2.5	PASS
		VN	10	3.21	0.001266	± 2.5	PASS
		VN	20	1.47	0.000580	± 2.5	PASS
		VN	30	3.48	0.001373	± 2.5	PASS
		VN	40	-0.95	-0.000375	± 2.5	PASS
		VN	50	3.42	0.001349	± 2.5	PASS
	HCH	VN	-30	-0.67	-0.000261	± 2.5	PASS
		VN	-20	-1.46	-0.000569	± 2.5	PASS
		VN	-10	0.89	0.000347	± 2.5	PASS
		VN	0	-0.22	-0.000086	± 2.5	PASS
		VN	10	2.47	0.000963	± 2.5	PASS
		VN	20	1.78	0.000694	± 2.5	PASS
		VN	30	3.14	0.001224	± 2.5	PASS
		VN	40	2.99	0.001166	± 2.5	PASS
		VN	50	2.49	0.000971	± 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	-0.74	-0.000295	± 2.5	PASS
		VN	TN	0.6	0.000239	± 2.5	PASS
		VH	TN	2.35	0.000937	± 2.5	PASS
	MCH	VL	TN	0.63	0.000249	± 2.5	PASS
		VN	TN	2.68	0.001057	± 2.5	PASS
		VH	TN	1.21	0.000477	± 2.5	PASS
	HCH	VL	TN	4.3	0.001678	± 2.5	PASS
		VN	TN	1.52	0.000593	± 2.5	PASS
		VH	TN	-1.63	-0.000636	± 2.5	PASS
16QAM	LCH	VL	TN	-0.76	-0.000303	± 2.5	PASS
		VN	TN	-0.87	-0.000347	± 2.5	PASS
		VH	TN	2.82	0.001125	± 2.5	PASS
	MCH	VL	TN	4.84	0.001909	± 2.5	PASS
		VN	TN	-0.5	-0.000197	± 2.5	PASS
		VH	TN	-0.18	-0.000071	± 2.5	PASS
	HCH	VL	TN	0.15	0.000059	± 2.5	PASS
		VN	TN	4.67	0.001822	± 2.5	PASS
		VH	TN	2.54	0.000991	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.96	0.000782	± 2.5	PASS
		VN	-20	3.1	0.001236	± 2.5	PASS
		VN	-10	0.48	0.000191	± 2.5	PASS
		VN	0	2.73	0.001089	± 2.5	PASS
		VN	10	4.81	0.001918	± 2.5	PASS
		VN	20	4.4	0.001755	± 2.5	PASS
		VN	30	3.81	0.001519	± 2.5	PASS
		VN	40	0.73	0.000291	± 2.5	PASS
		VN	50	0.8	0.000319	± 2.5	PASS
	MCH	VN	-30	1.22	0.000481	± 2.5	PASS
		VN	-20	0.32	0.000126	± 2.5	PASS
		VN	-10	-0.95	-0.000375	± 2.5	PASS
		VN	0	2.72	0.001073	± 2.5	PASS
		VN	10	4.27	0.001684	± 2.5	PASS
		VN	20	2.99	0.001179	± 2.5	PASS
VN	30	3.22	0.001270	± 2.5	PASS		

		VN	40	-0.15	-0.000059	± 2.5	PASS
		VN	50	-1.4	-0.000552	± 2.5	PASS
	HCH	VN	-30	-1.06	-0.000414	± 2.5	PASS
		VN	-20	1.77	0.000691	± 2.5	PASS
		VN	-10	2.8	0.001093	± 2.5	PASS
		VN	0	0.99	0.000386	± 2.5	PASS
		VN	10	1.28	0.000500	± 2.5	PASS
		VN	20	3.74	0.001460	± 2.5	PASS
		VN	30	-1.75	-0.000683	± 2.5	PASS
		VN	40	1.02	0.000398	± 2.5	PASS
		VN	50	1.49	0.000581	± 2.5	PASS
16QAM	LCH	VN	-30	2.51	0.001001	± 2.5	PASS
		VN	-20	0.13	0.000052	± 2.5	PASS
		VN	-10	1.04	0.000415	± 2.5	PASS
		VN	0	0.21	0.000084	± 2.5	PASS
		VN	10	2.82	0.001125	± 2.5	PASS
		VN	20	1.97	0.000786	± 2.5	PASS
		VN	30	-1.88	-0.000750	± 2.5	PASS
		VN	40	4.32	0.001723	± 2.5	PASS
		VN	50	-0.62	-0.000247	± 2.5	PASS
	MCH	VN	-30	1.23	0.000485	± 2.5	PASS
		VN	-20	-0.26	-0.000103	± 2.5	PASS
		VN	-10	4.3	0.001696	± 2.5	PASS
		VN	0	0.26	0.000103	± 2.5	PASS
		VN	10	4.88	0.001925	± 2.5	PASS
		VN	20	2.99	0.001179	± 2.5	PASS
		VN	30	2.64	0.001041	± 2.5	PASS
		VN	40	4.91	0.001937	± 2.5	PASS
		VN	50	-1.6	-0.000631	± 2.5	PASS
	HCH	VN	-30	-1.68	-0.000656	± 2.5	PASS
		VN	-20	-0.08	-0.000031	± 2.5	PASS
		VN	-10	2.68	0.001046	± 2.5	PASS
		VN	0	-0.69	-0.000269	± 2.5	PASS
		VN	10	-1.53	-0.000597	± 2.5	PASS
		VN	20	3.07	0.001198	± 2.5	PASS
		VN	30	-0.47	-0.000183	± 2.5	PASS
		VN	40	-1.51	-0.000589	± 2.5	PASS
		VN	50	-0.94	-0.000367	± 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	-0.9	-0.000359	± 2.5	PASS
		VN	TN	2.65	0.001056	± 2.5	PASS
		VH	TN	4.33	0.001725	± 2.5	PASS
	MCH	VL	TN	-0.09	-0.000036	± 2.5	PASS
		VN	TN	3.27	0.001290	± 2.5	PASS
		VH	TN	1.9	0.000750	± 2.5	PASS
	HCH	VL	TN	2.75	0.001074	± 2.5	PASS
		VN	TN	4.1	0.001602	± 2.5	PASS
		VH	TN	3.16	0.001234	± 2.5	PASS
16QAM	LCH	VL	TN	-0.1	-0.000040	± 2.5	PASS
		VN	TN	0.89	0.000355	± 2.5	PASS
		VH	TN	2.87	0.001143	± 2.5	PASS
	MCH	VL	TN	4.28	0.001688	± 2.5	PASS
		VN	TN	4.98	0.001964	± 2.5	PASS
		VH	TN	2.87	0.001132	± 2.5	PASS
	HCH	VL	TN	0.77	0.000301	± 2.5	PASS
		VN	TN	0.17	0.000066	± 2.5	PASS
		VH	TN	1.61	0.000629	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.39	0.000554	± 2.5	PASS
		VN	-20	2.56	0.001020	± 2.5	PASS
		VN	-10	0.81	0.000323	± 2.5	PASS
		VN	0	3.74	0.001490	± 2.5	PASS
		VN	10	-1	-0.000398	± 2.5	PASS
		VN	20	-0.83	-0.000331	± 2.5	PASS
		VN	30	3.27	0.001303	± 2.5	PASS
		VN	40	4.49	0.001789	± 2.5	PASS
		VN	50	-1.48	-0.000590	± 2.5	PASS
	MCH	VN	-30	-1.64	-0.000647	± 2.5	PASS
		VN	-20	4.95	0.001953	± 2.5	PASS
		VN	-10	1.55	0.000611	± 2.5	PASS
		VN	0	1.05	0.000414	± 2.5	PASS
		VN	10	4.46	0.001759	± 2.5	PASS
		VN	20	3.06	0.001207	± 2.5	PASS
		VN	30	2.75	0.001085	± 2.5	PASS
		VN	40	4.18	0.001649	± 2.5	PASS
		VN	50	-0.97	-0.000383	± 2.5	PASS

	HCH	VN	-30	0.44	0.000172	± 2.5	PASS
		VN	-20	3.01	0.001176	± 2.5	PASS
		VN	-10	-0.73	-0.000285	± 2.5	PASS
		VN	0	3.04	0.001188	± 2.5	PASS
		VN	10	2.12	0.000828	± 2.5	PASS
		VN	20	-0.13	-0.000051	± 2.5	PASS
		VN	30	-0.32	-0.000125	± 2.5	PASS
		VN	40	-0.9	-0.000352	± 2.5	PASS
		VN	50	0.44	0.000172	± 2.5	PASS
16QAM	LCH	VN	-30	3.55	0.001414	± 2.5	PASS
		VN	-20	0.57	0.000227	± 2.5	PASS
		VN	-10	1.43	0.000570	± 2.5	PASS
		VN	0	0.78	0.000311	± 2.5	PASS
		VN	10	-1.06	-0.000422	± 2.5	PASS
		VN	20	-0.49	-0.000195	± 2.5	PASS
		VN	30	-1.68	-0.000669	± 2.5	PASS
		VN	40	4.71	0.001876	± 2.5	PASS
		VN	50	1.6	0.000637	± 2.5	PASS
	MCH	VN	-30	2.46	0.000970	± 2.5	PASS
		VN	-20	2.38	0.000939	± 2.5	PASS
		VN	-10	3.75	0.001479	± 2.5	PASS
		VN	0	3.65	0.001440	± 2.5	PASS
		VN	10	1.22	0.000481	± 2.5	PASS
		VN	20	4.36	0.001720	± 2.5	PASS
		VN	30	4.61	0.001819	± 2.5	PASS
		VN	40	3.01	0.001187	± 2.5	PASS
		VN	50	2.87	0.001132	± 2.5	PASS
	HCH	VN	-30	1.01	0.000395	± 2.5	PASS
		VN	-20	0.6	0.000234	± 2.5	PASS
		VN	-10	2.81	0.001098	± 2.5	PASS
		VN	0	1.88	0.000734	± 2.5	PASS
		VN	10	1.55	0.000605	± 2.5	PASS
		VN	20	-1.87	-0.000730	± 2.5	PASS
		VN	30	0.24	0.000094	± 2.5	PASS
		VN	40	-1.7	-0.000664	± 2.5	PASS
		VN	50	1.74	0.000680	± 2.5	PASS