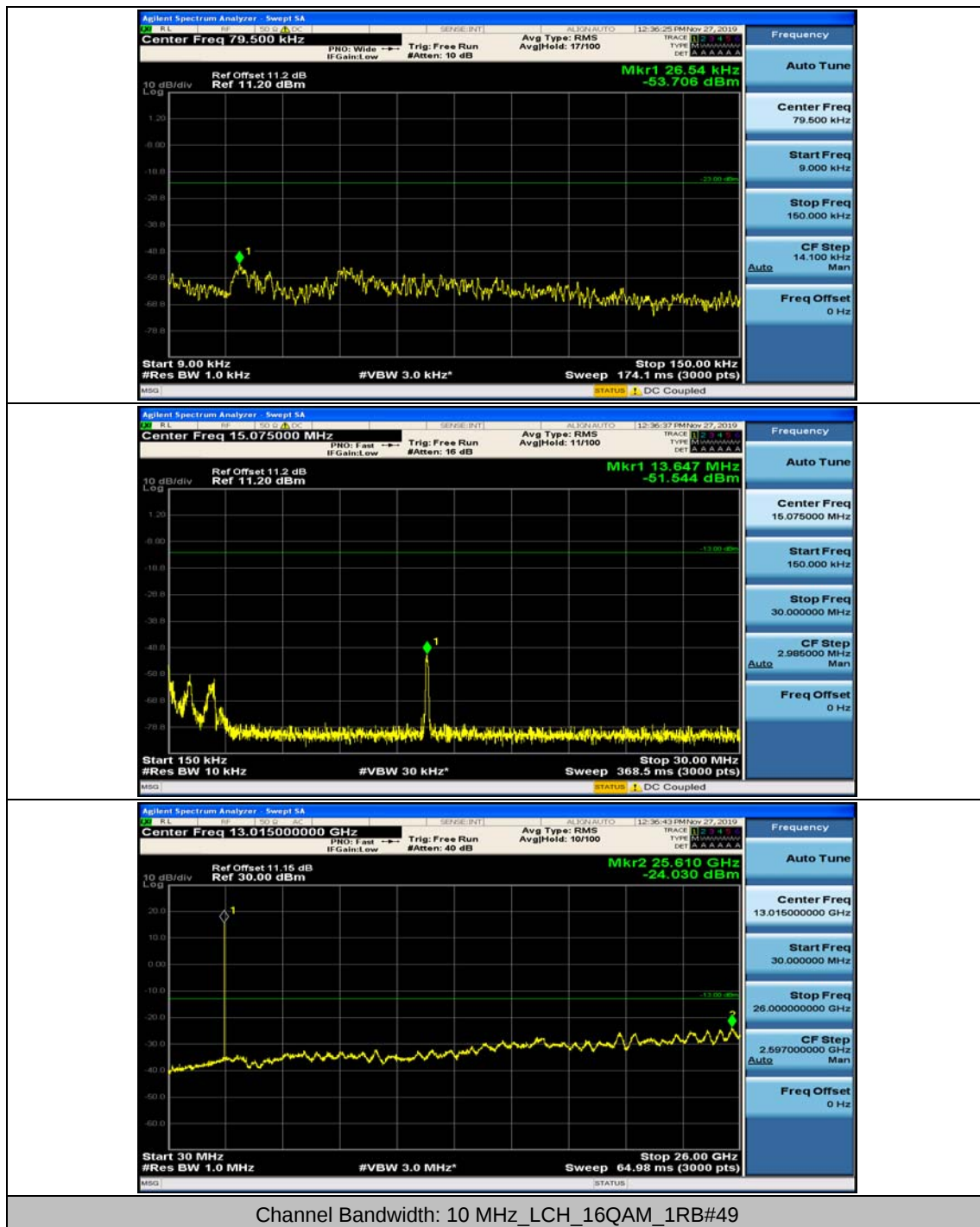
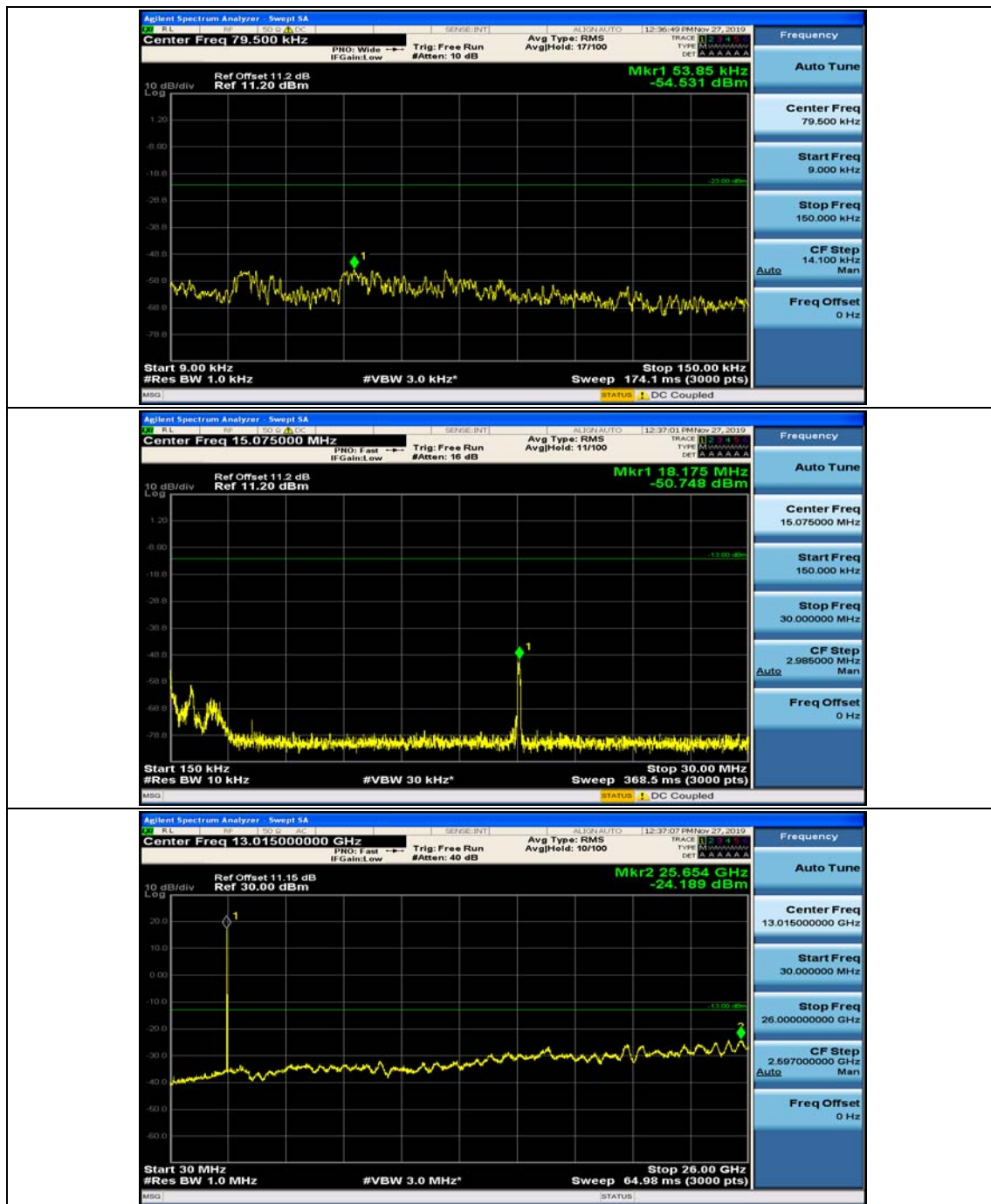
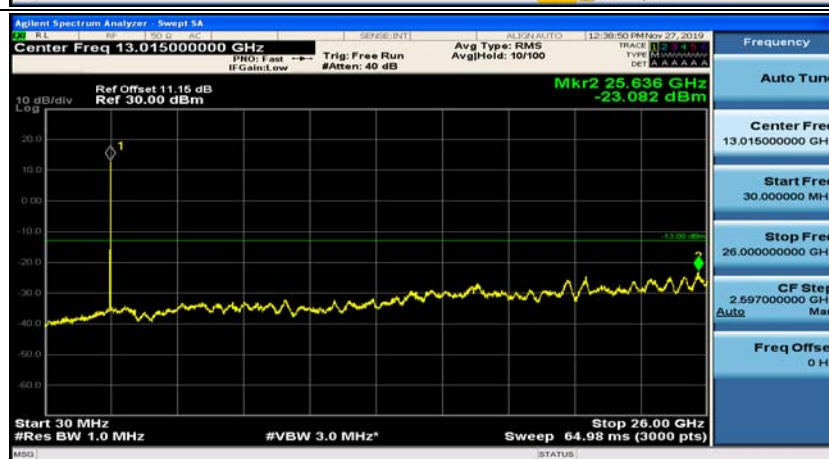
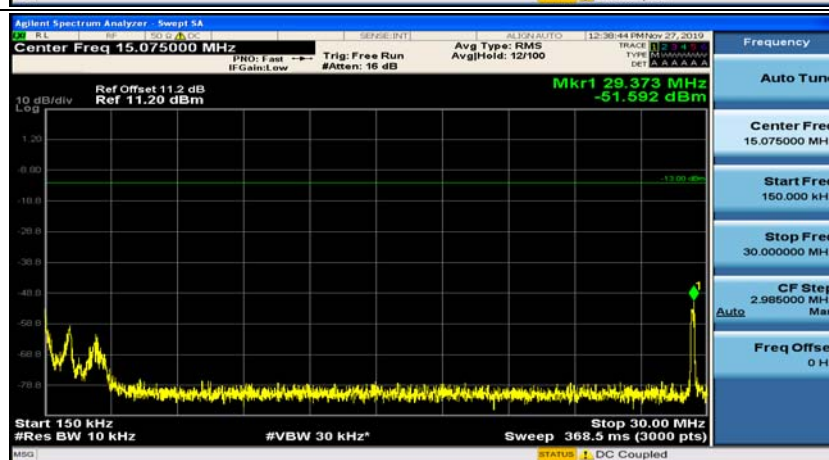
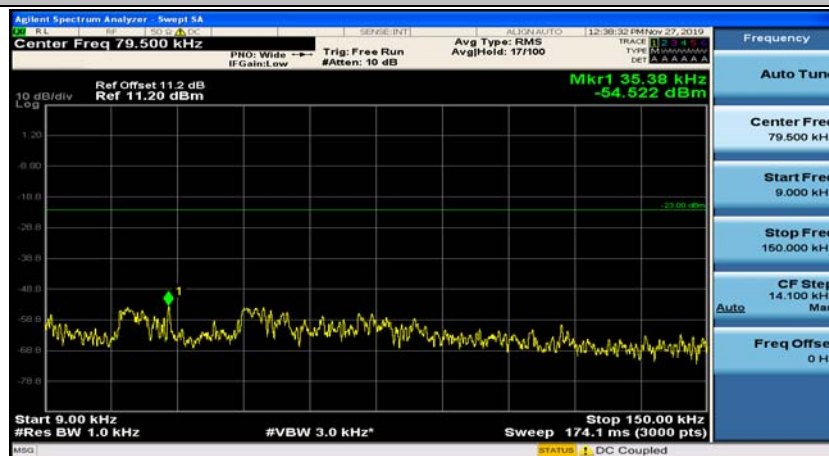


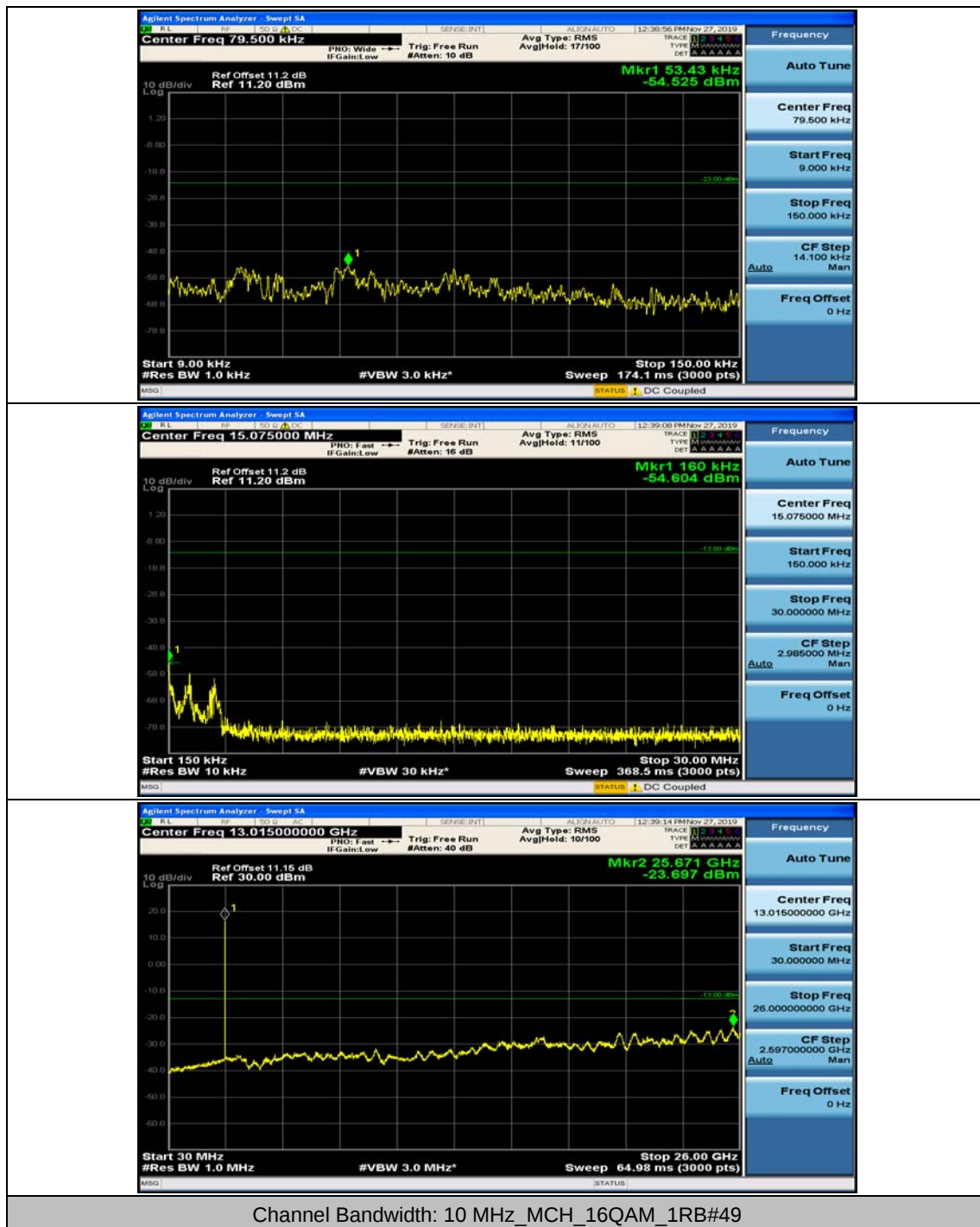


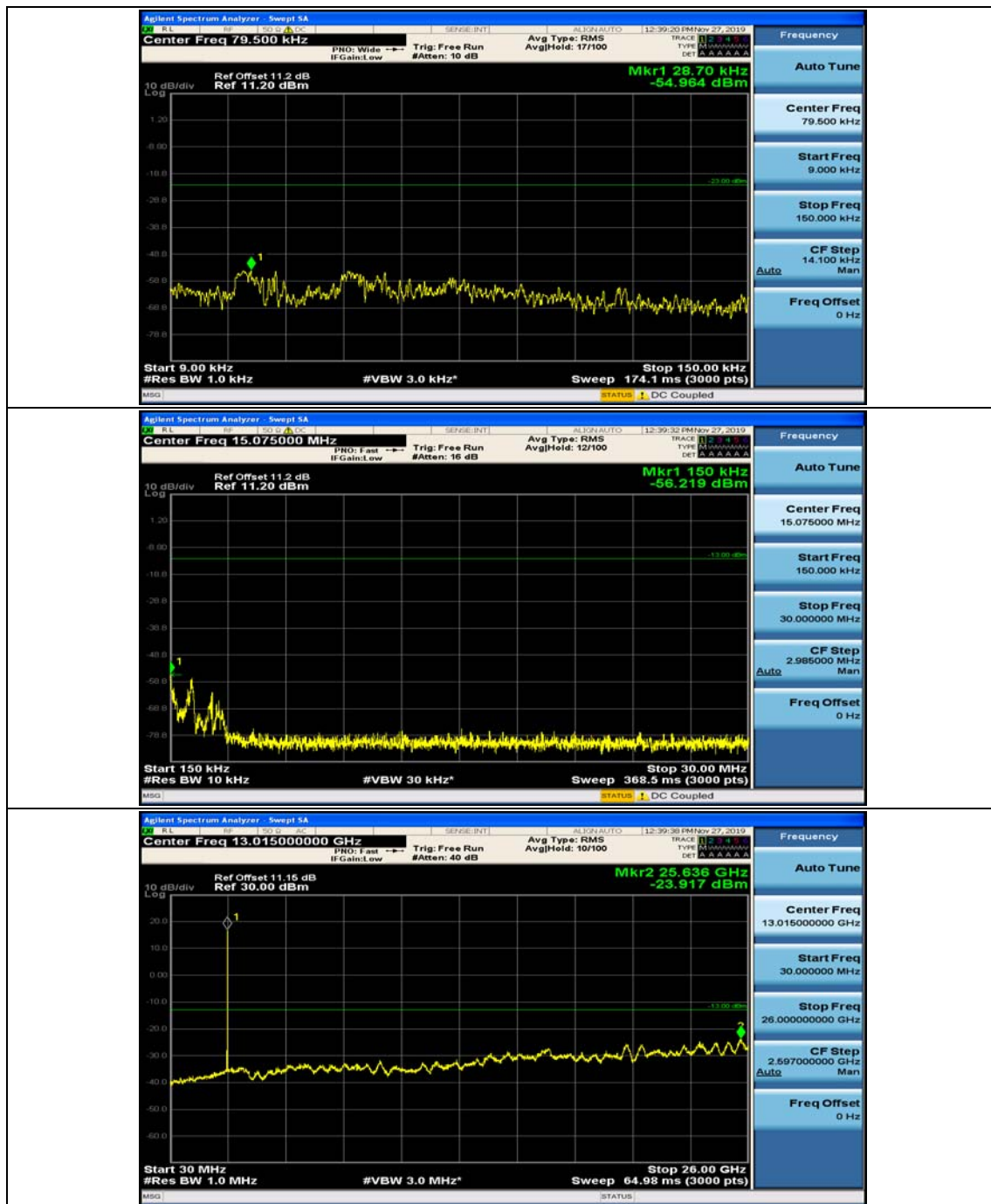


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

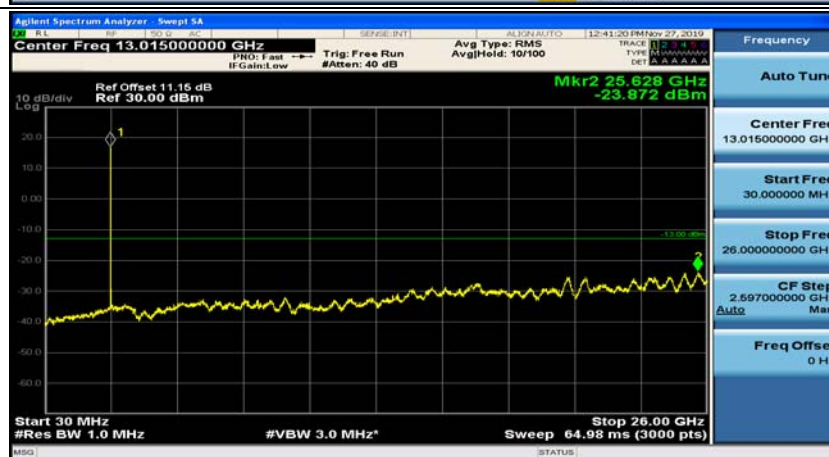
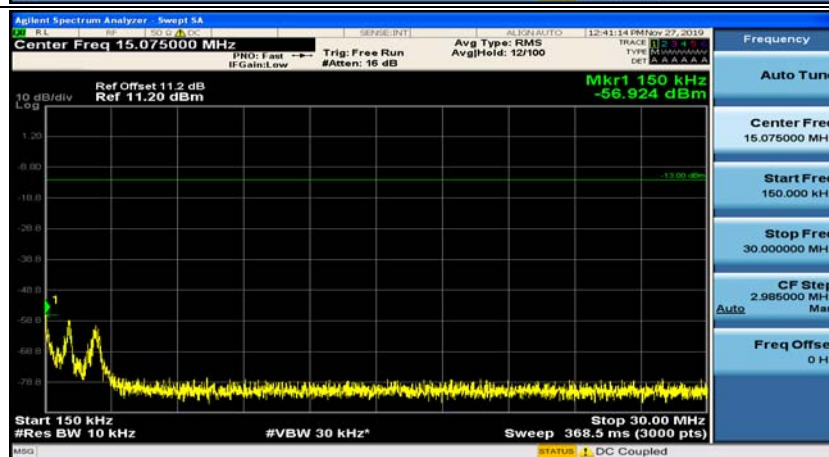
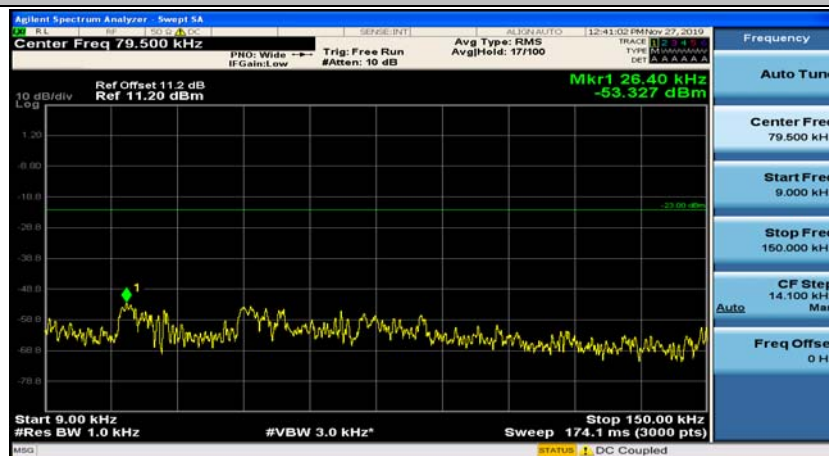


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

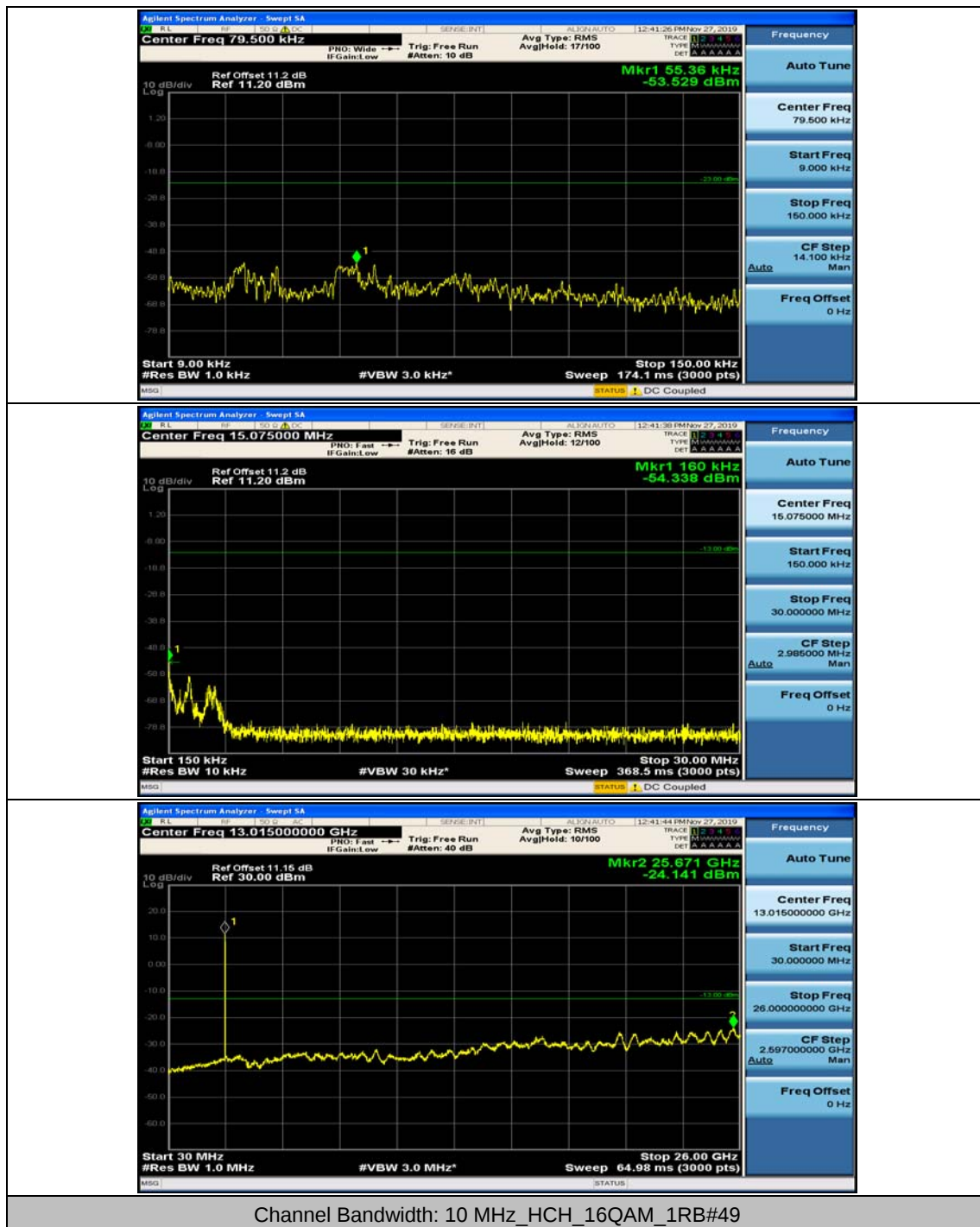


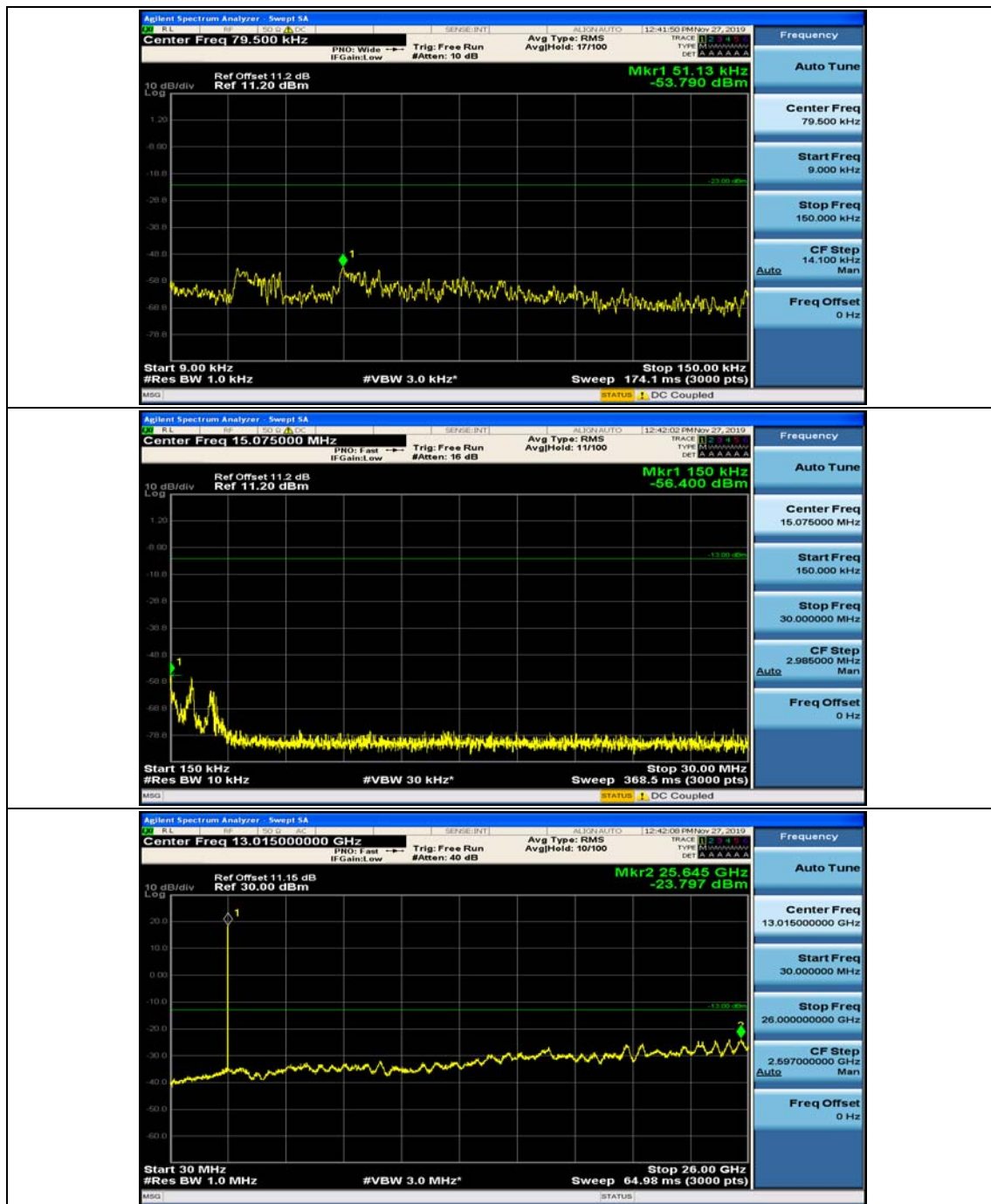


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

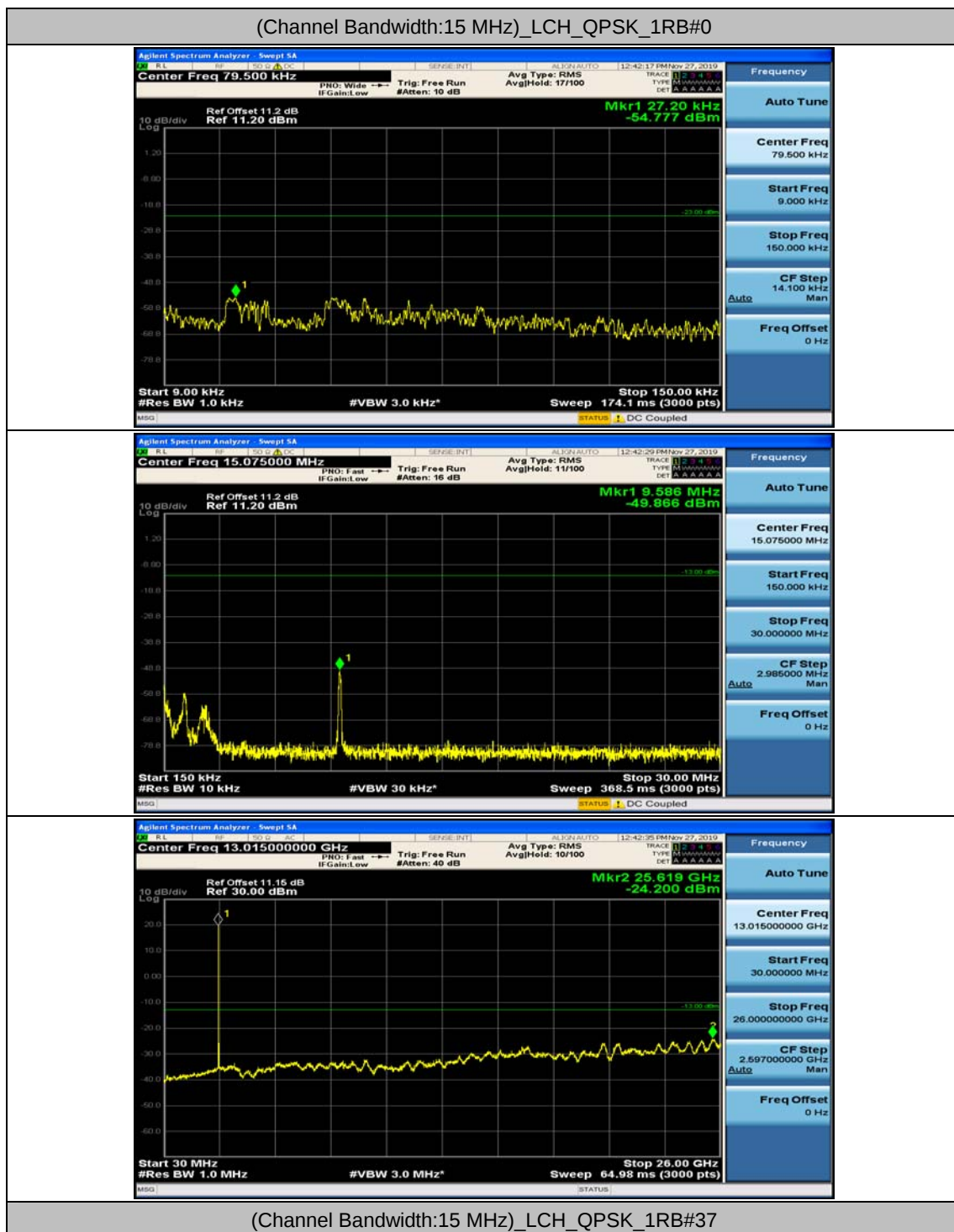


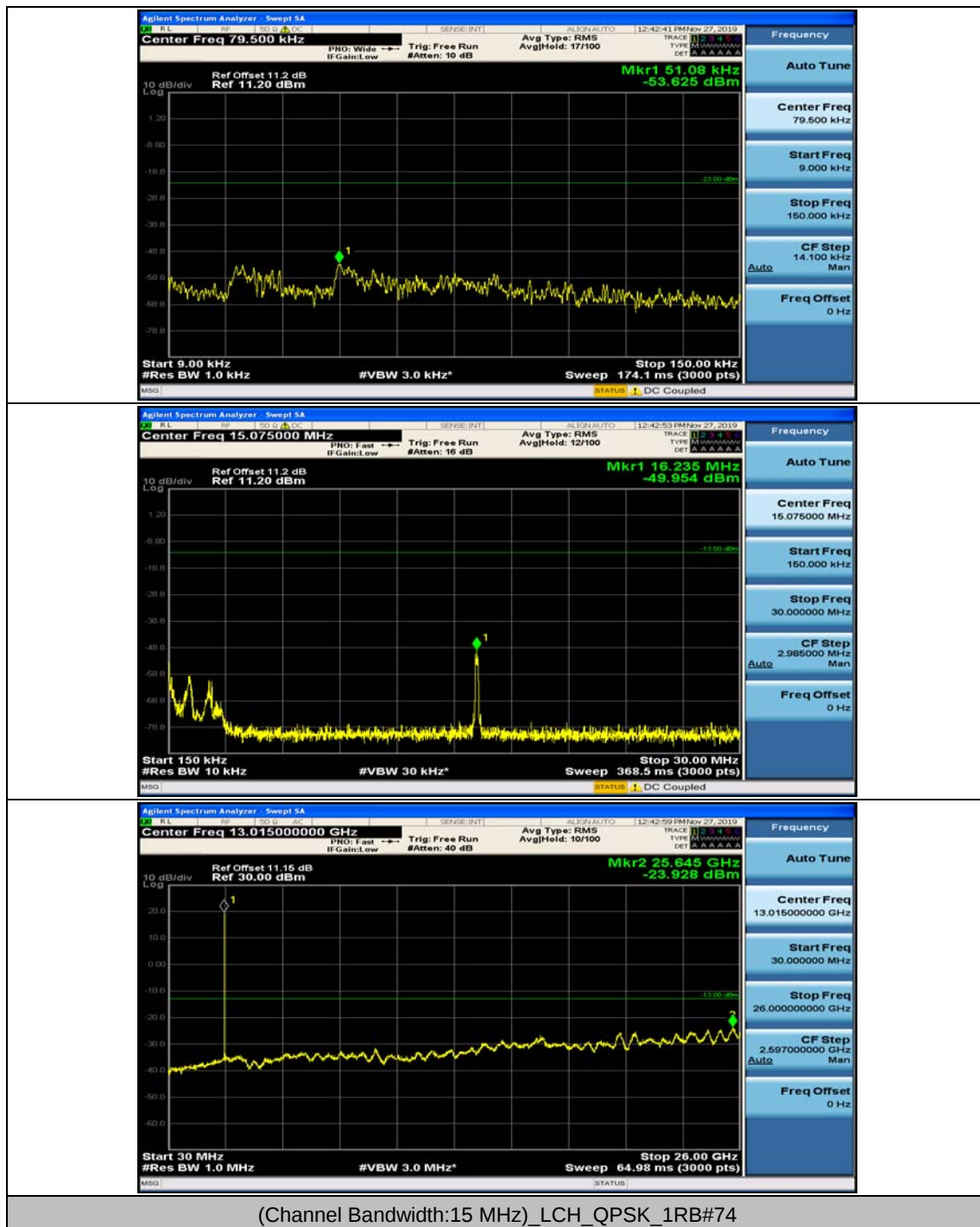
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

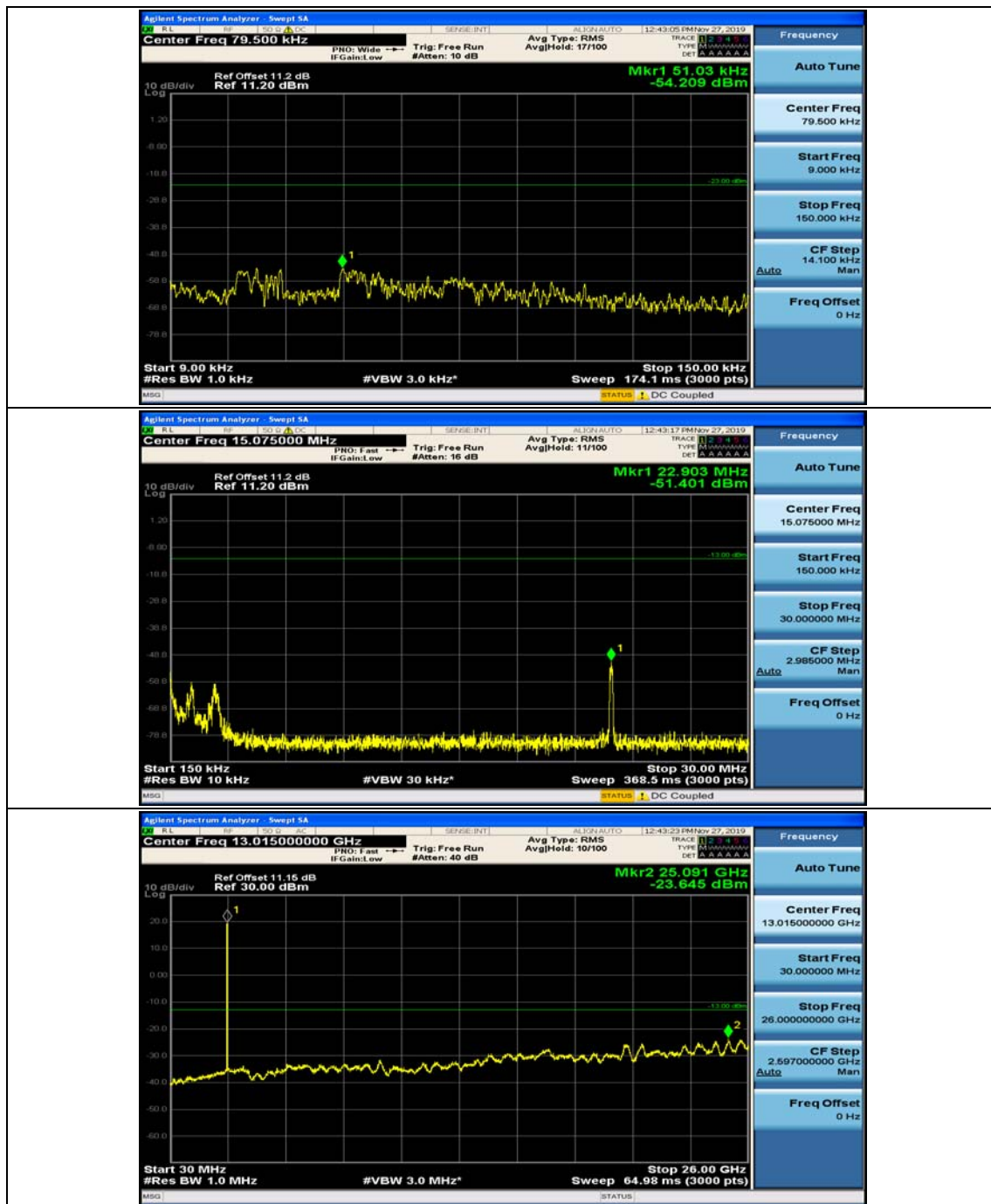




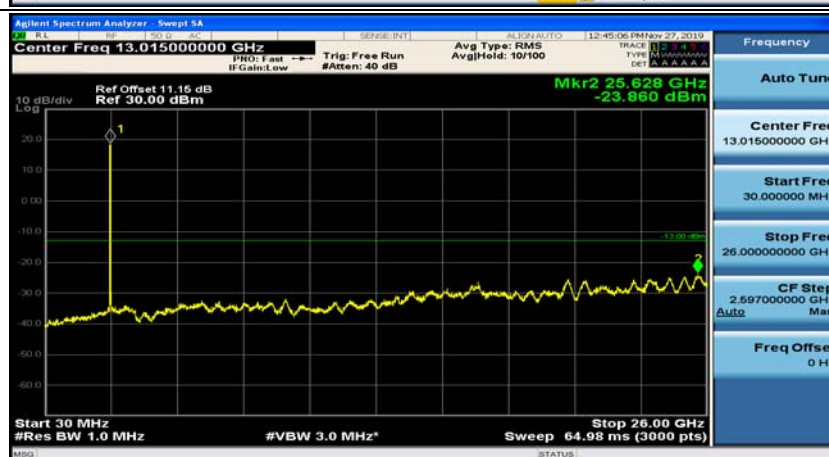
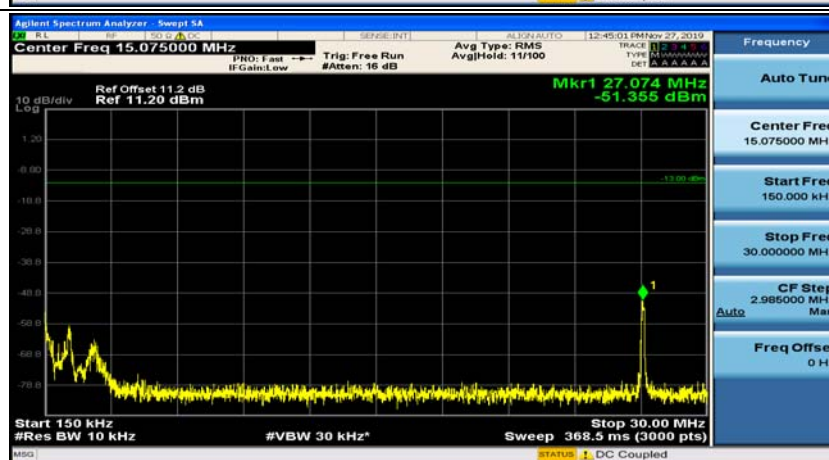
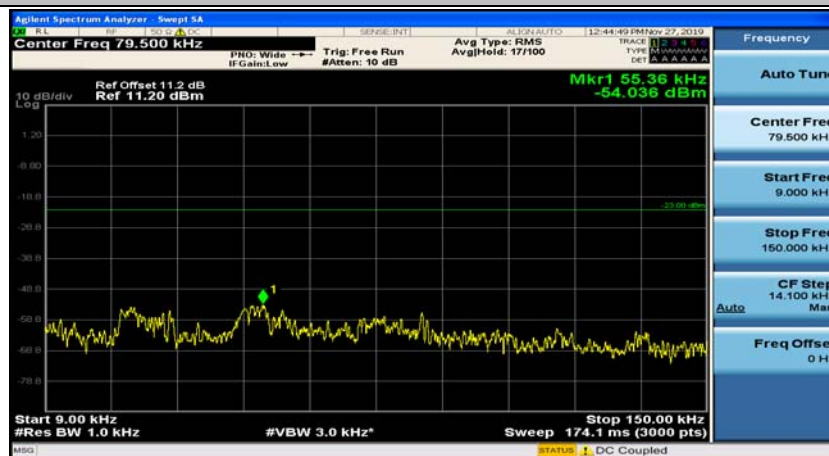
Channel Bandwidth: 15 MHz



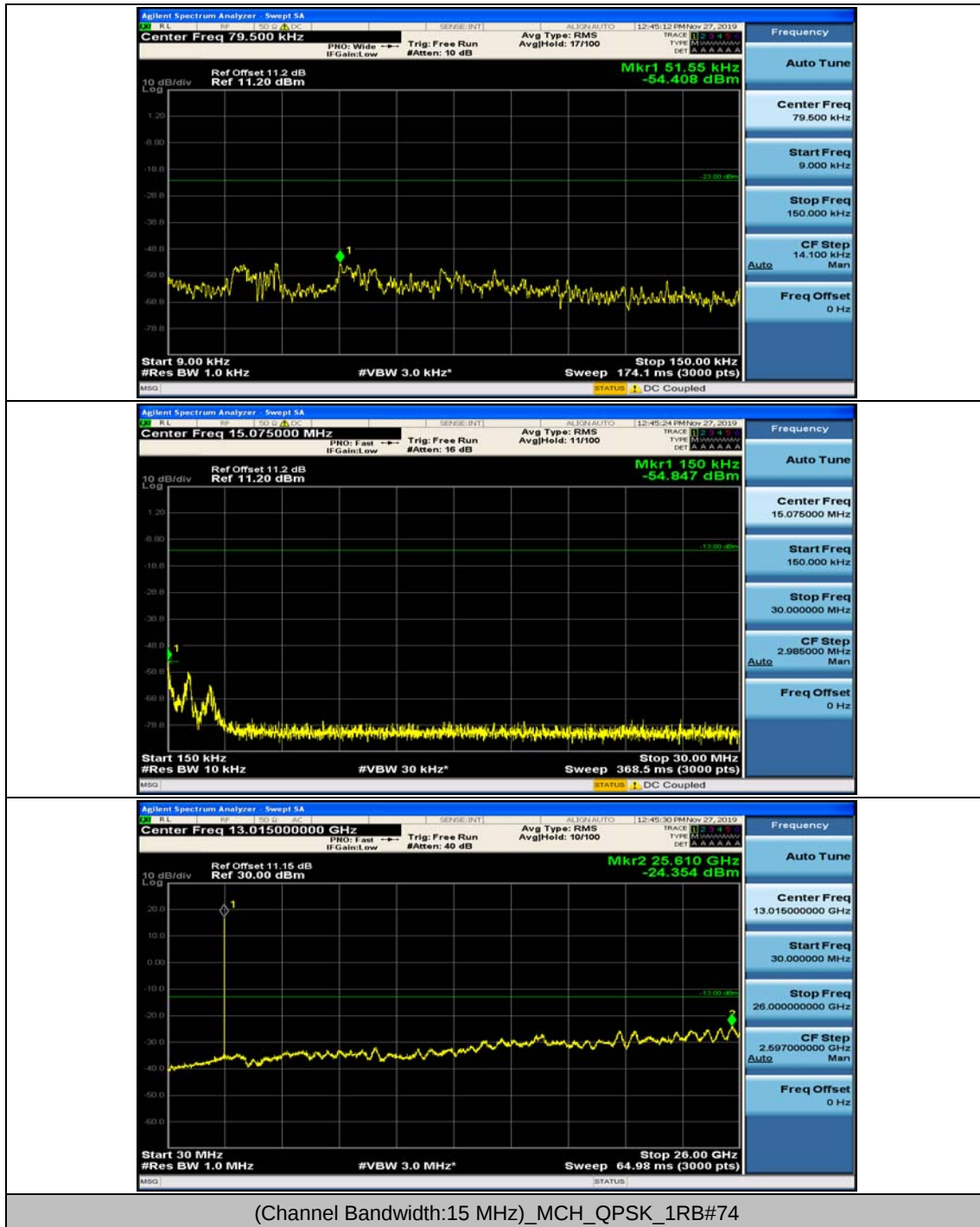


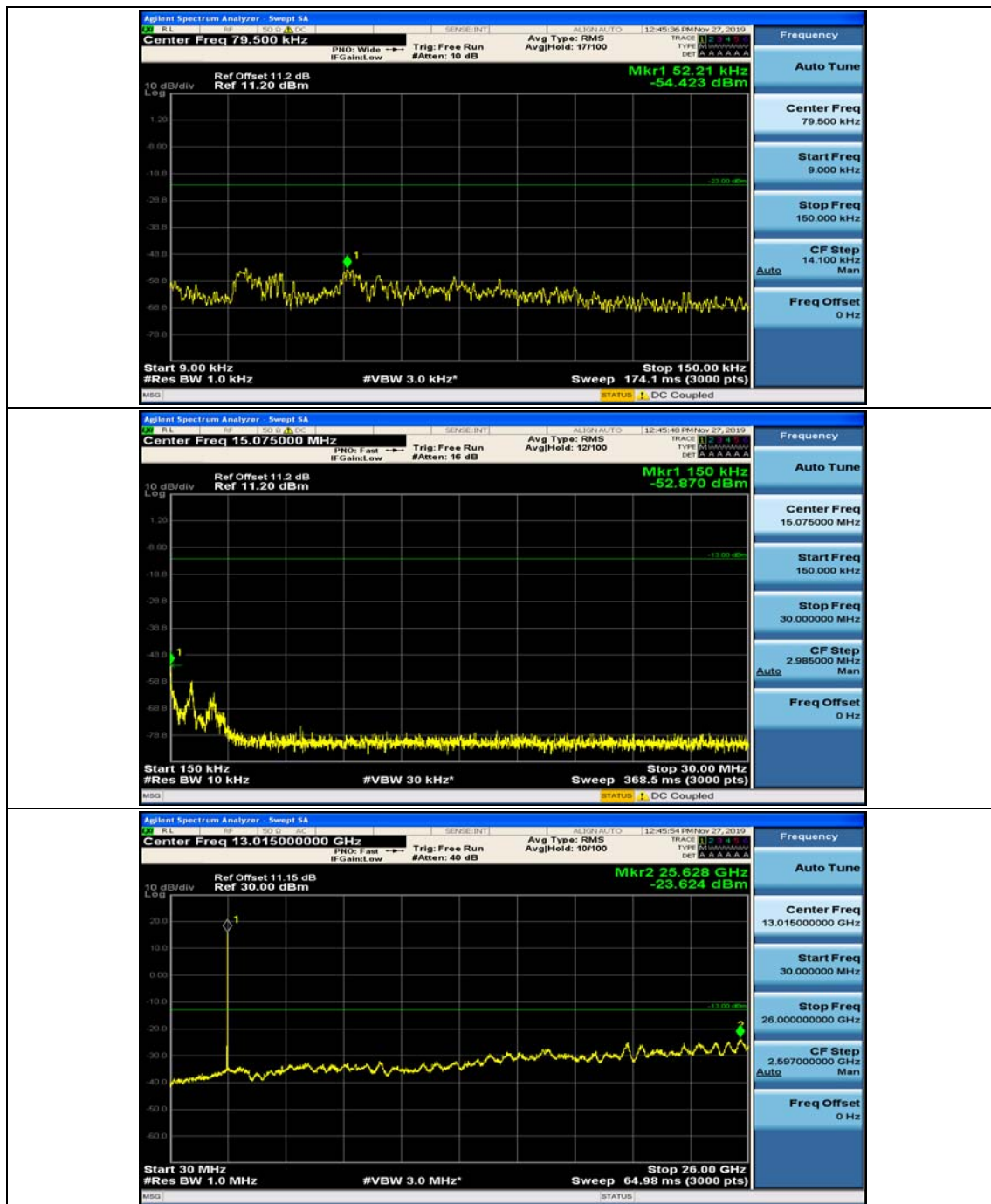


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

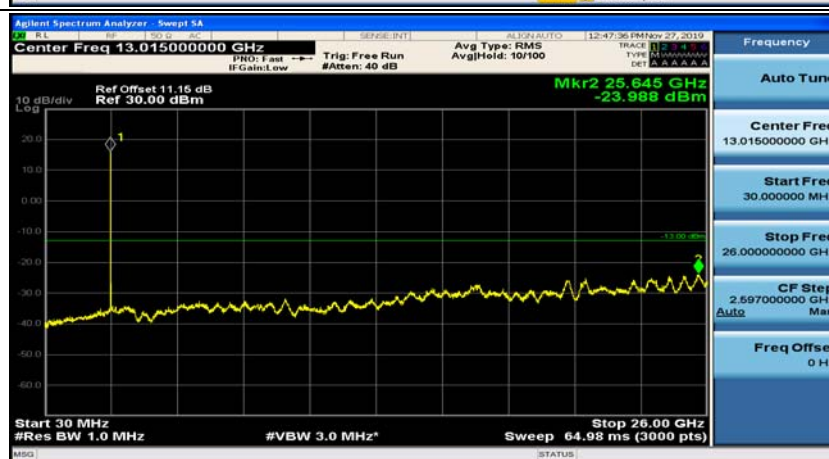
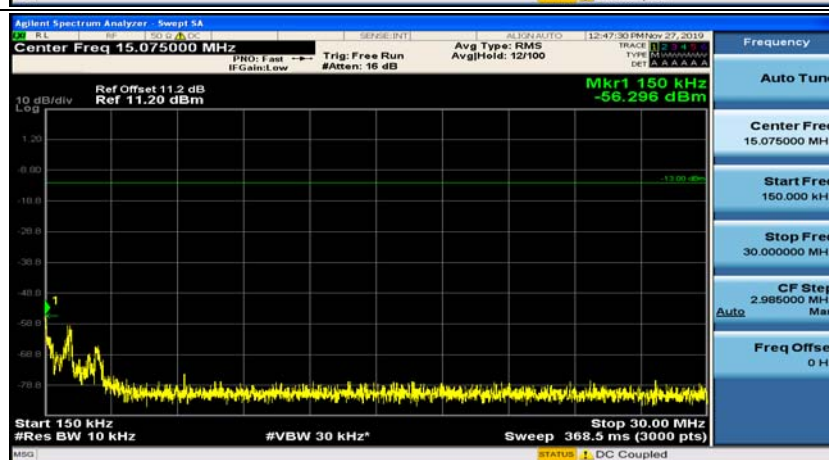
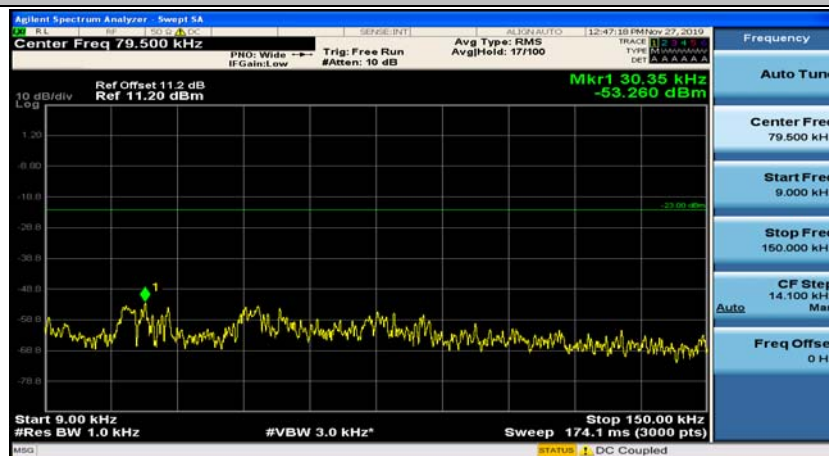


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

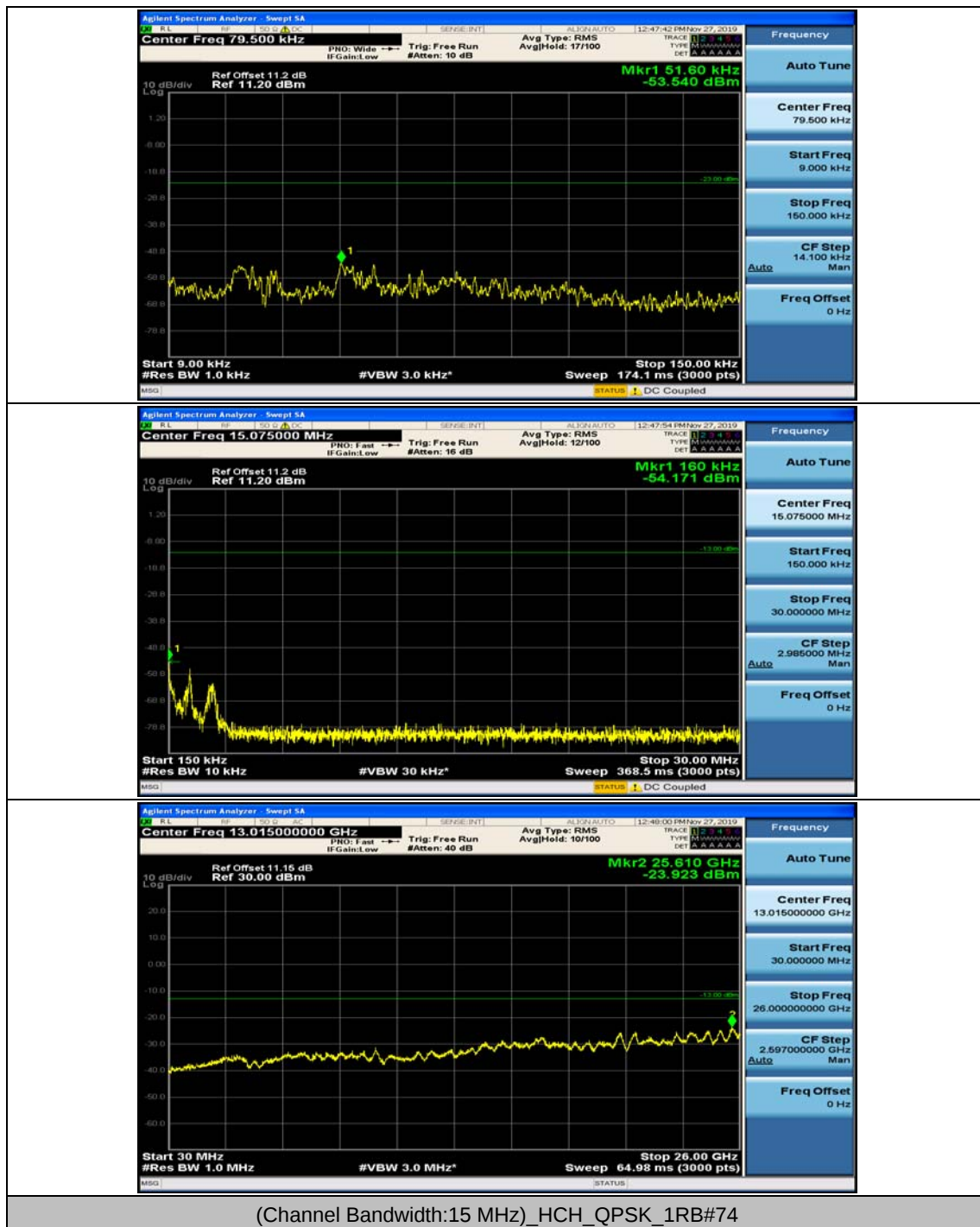


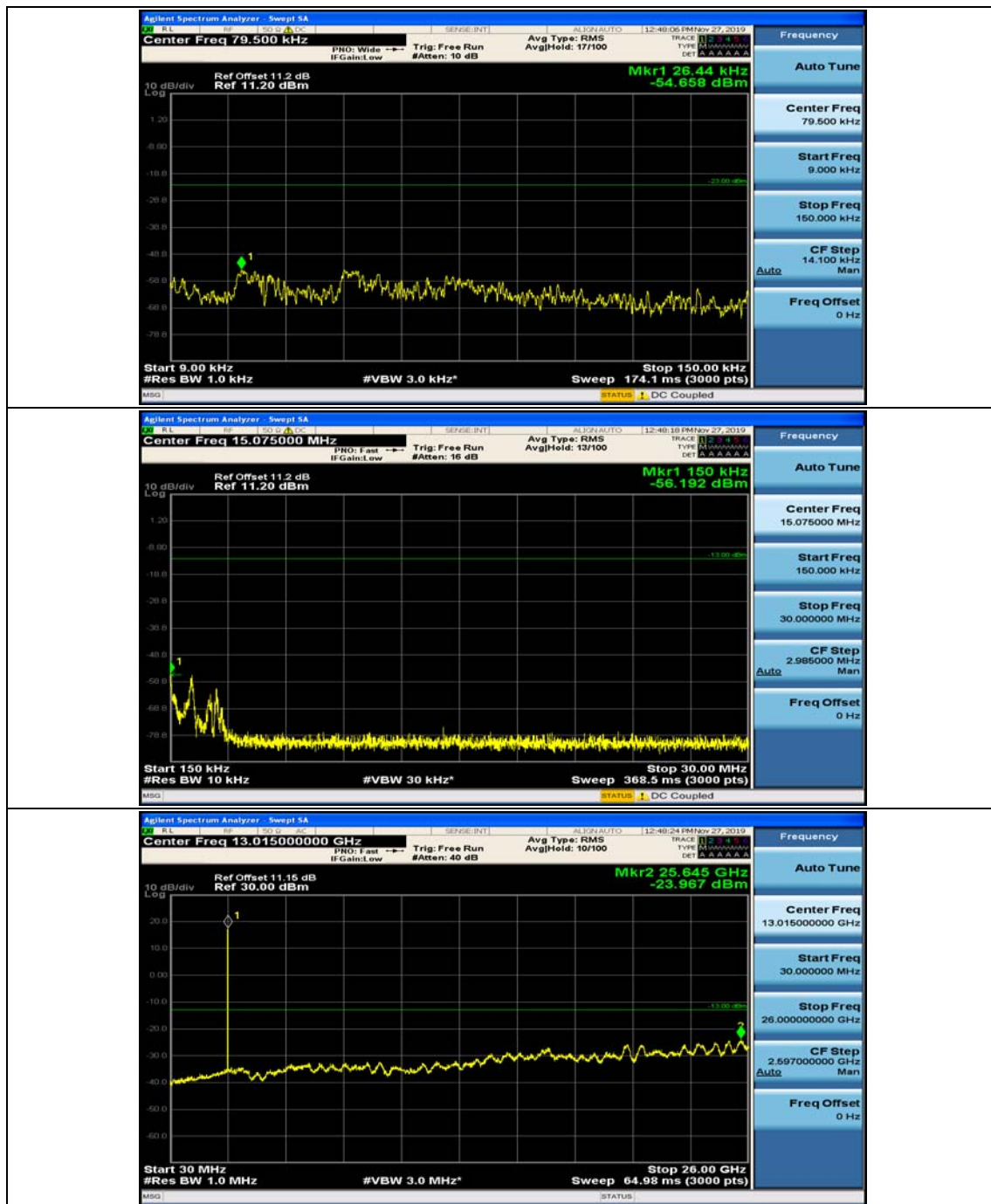


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

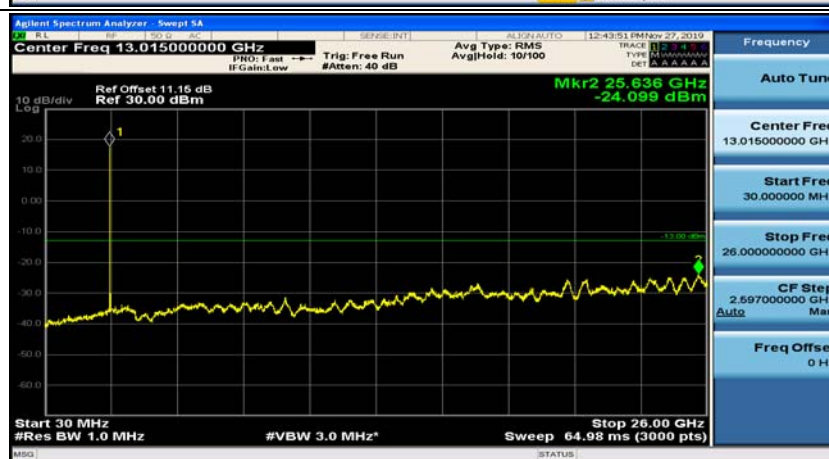
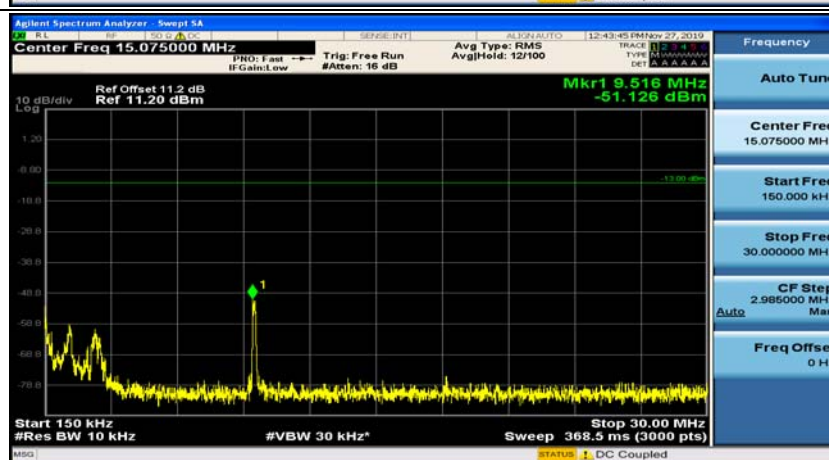
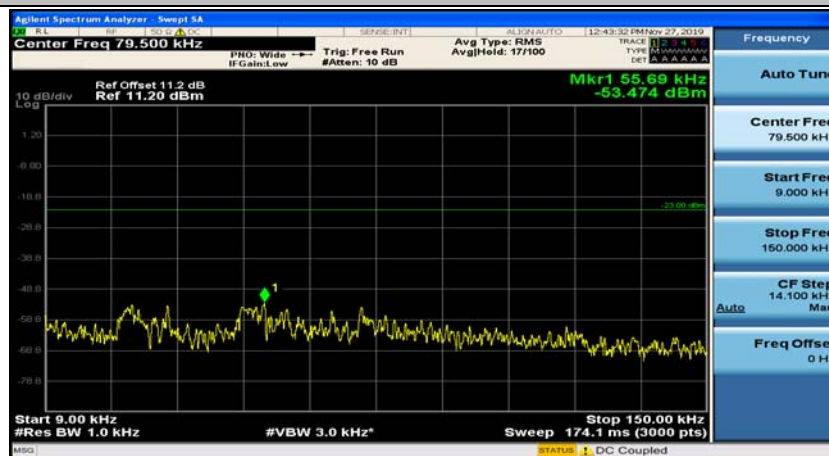


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

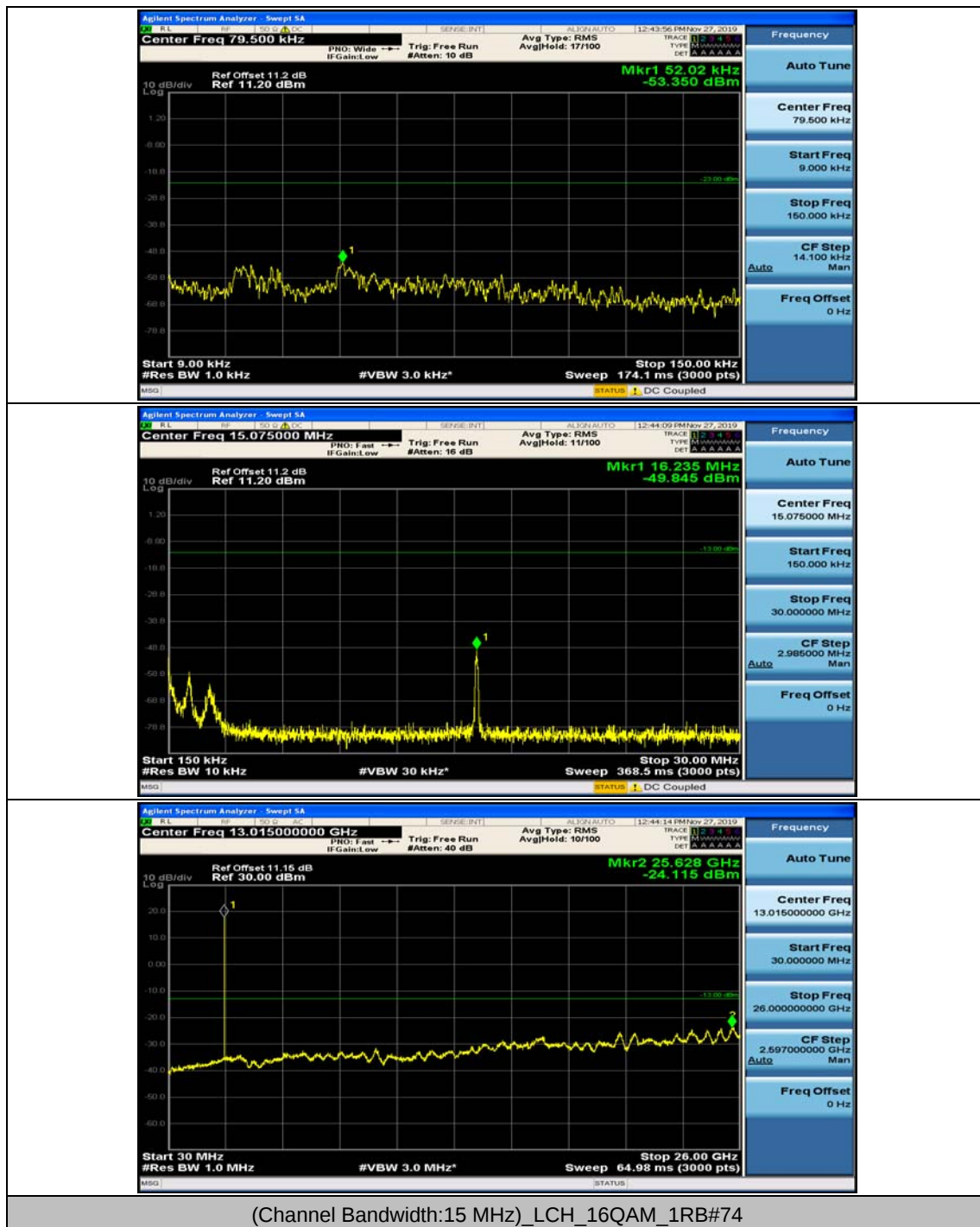


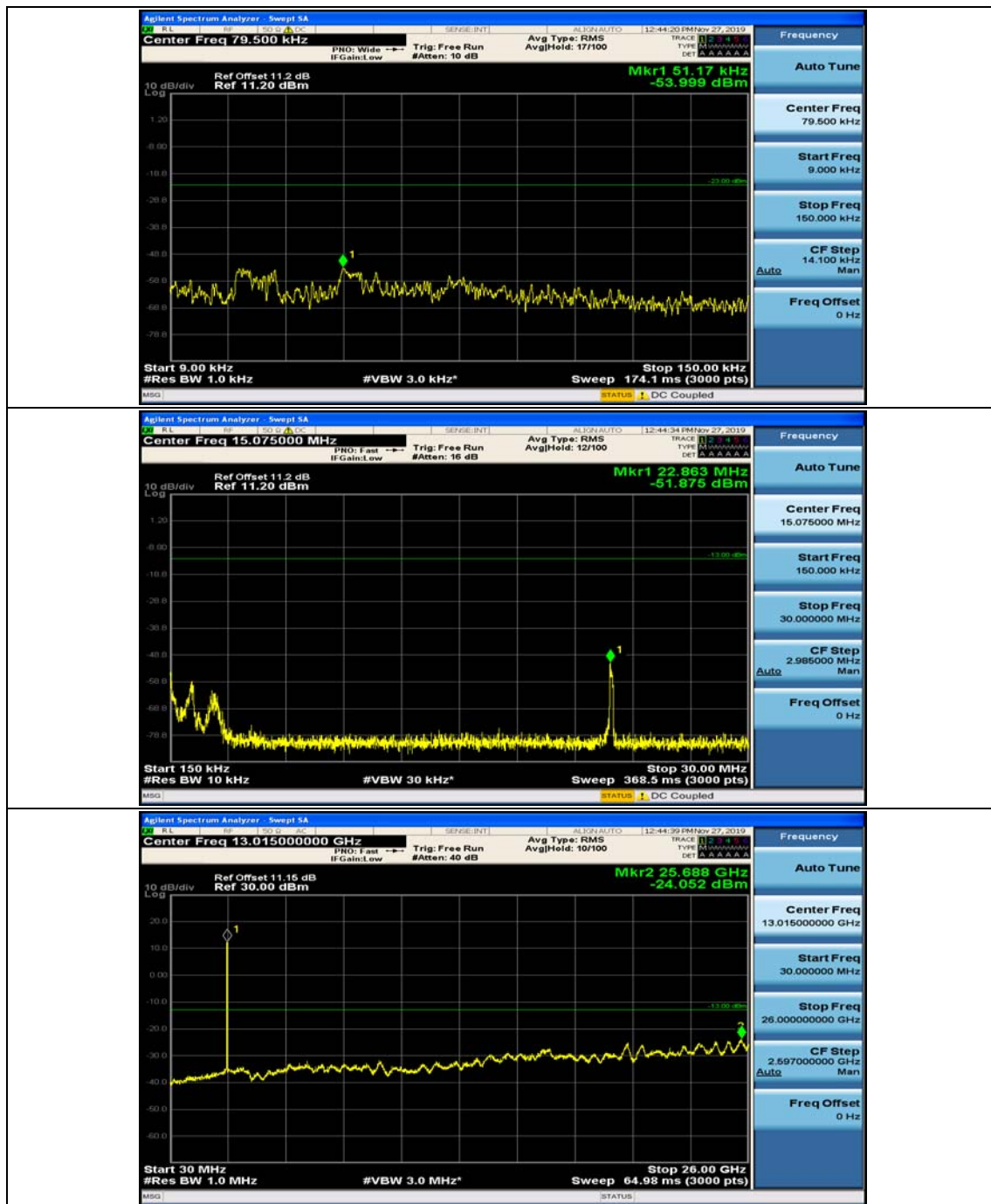


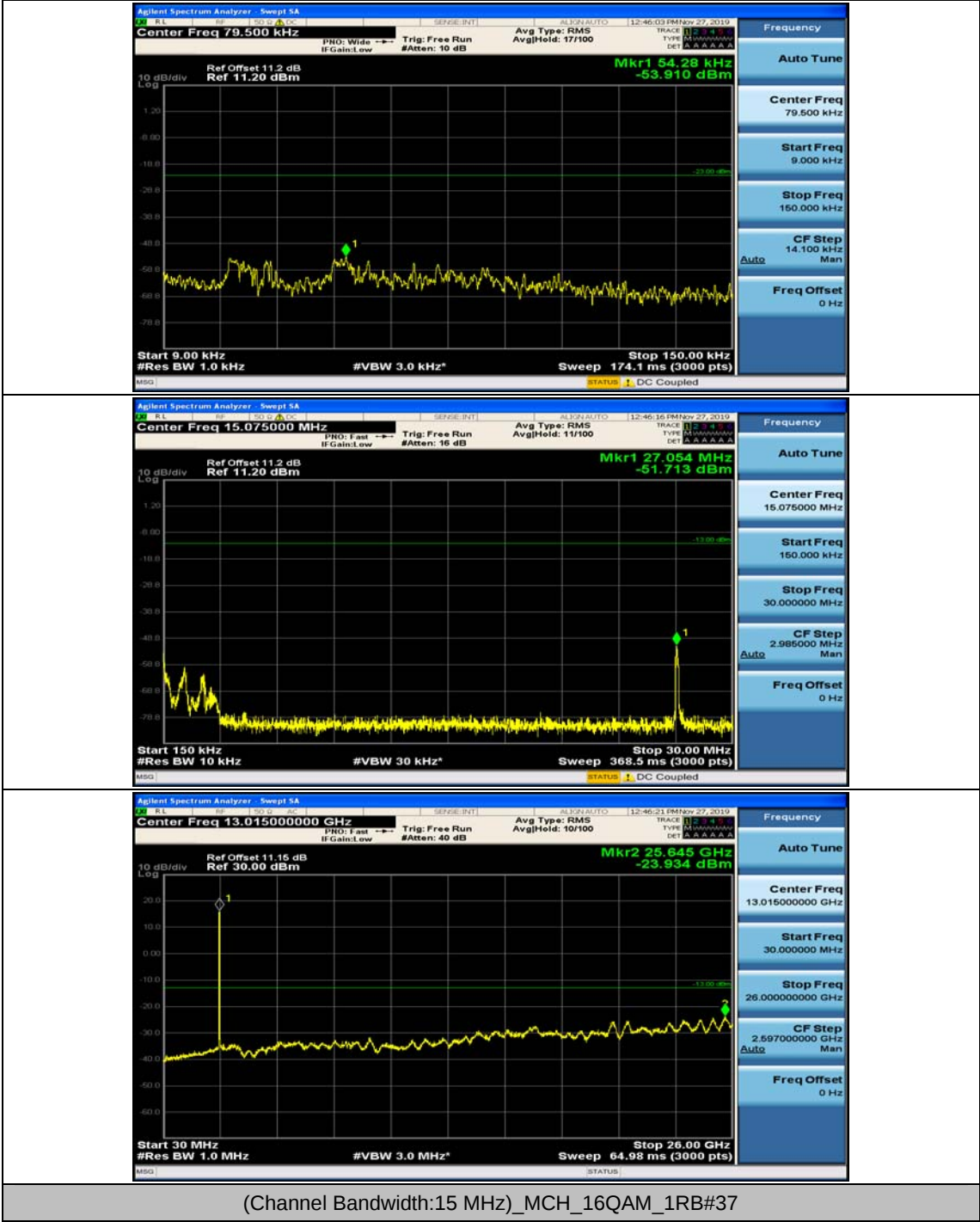
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

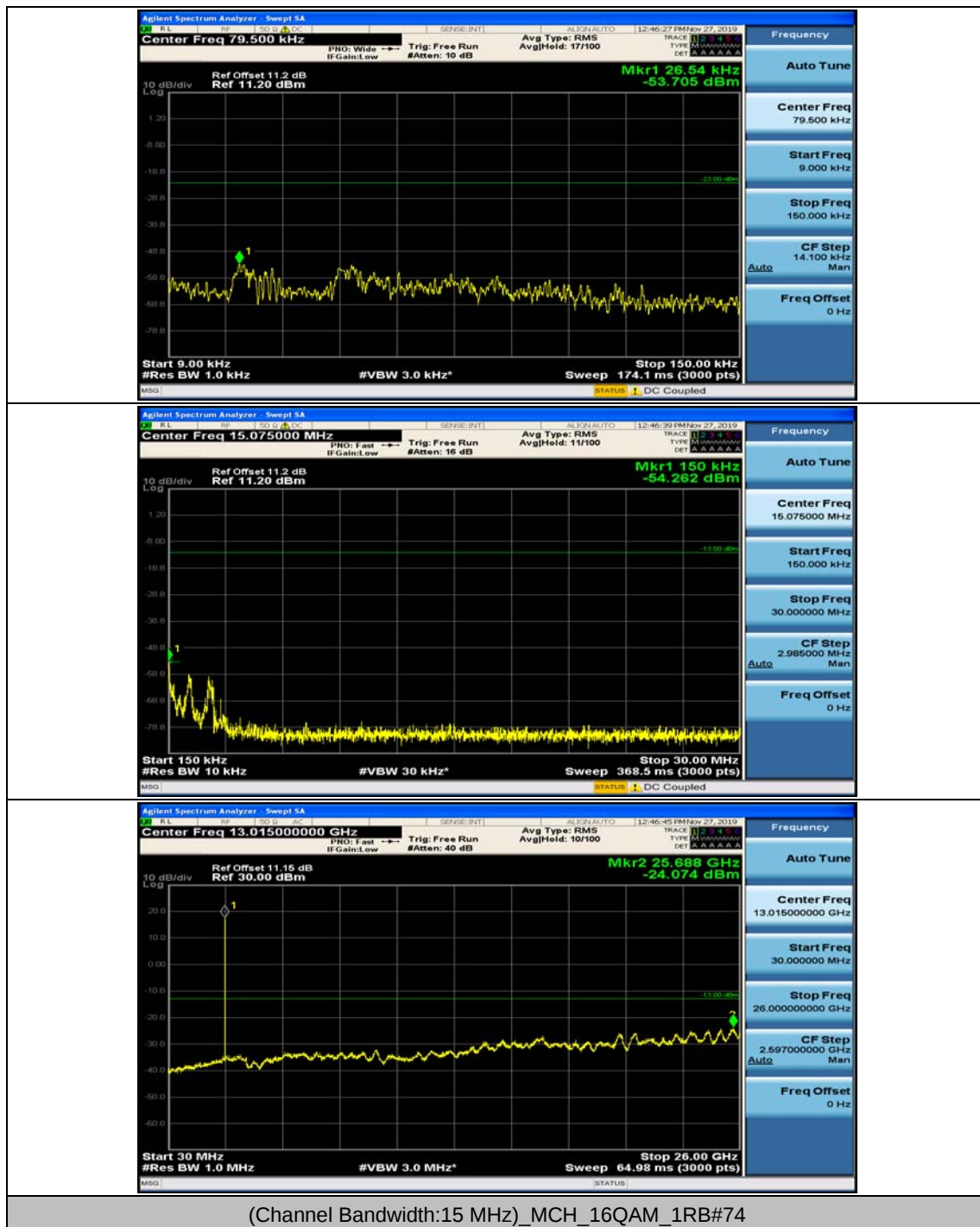


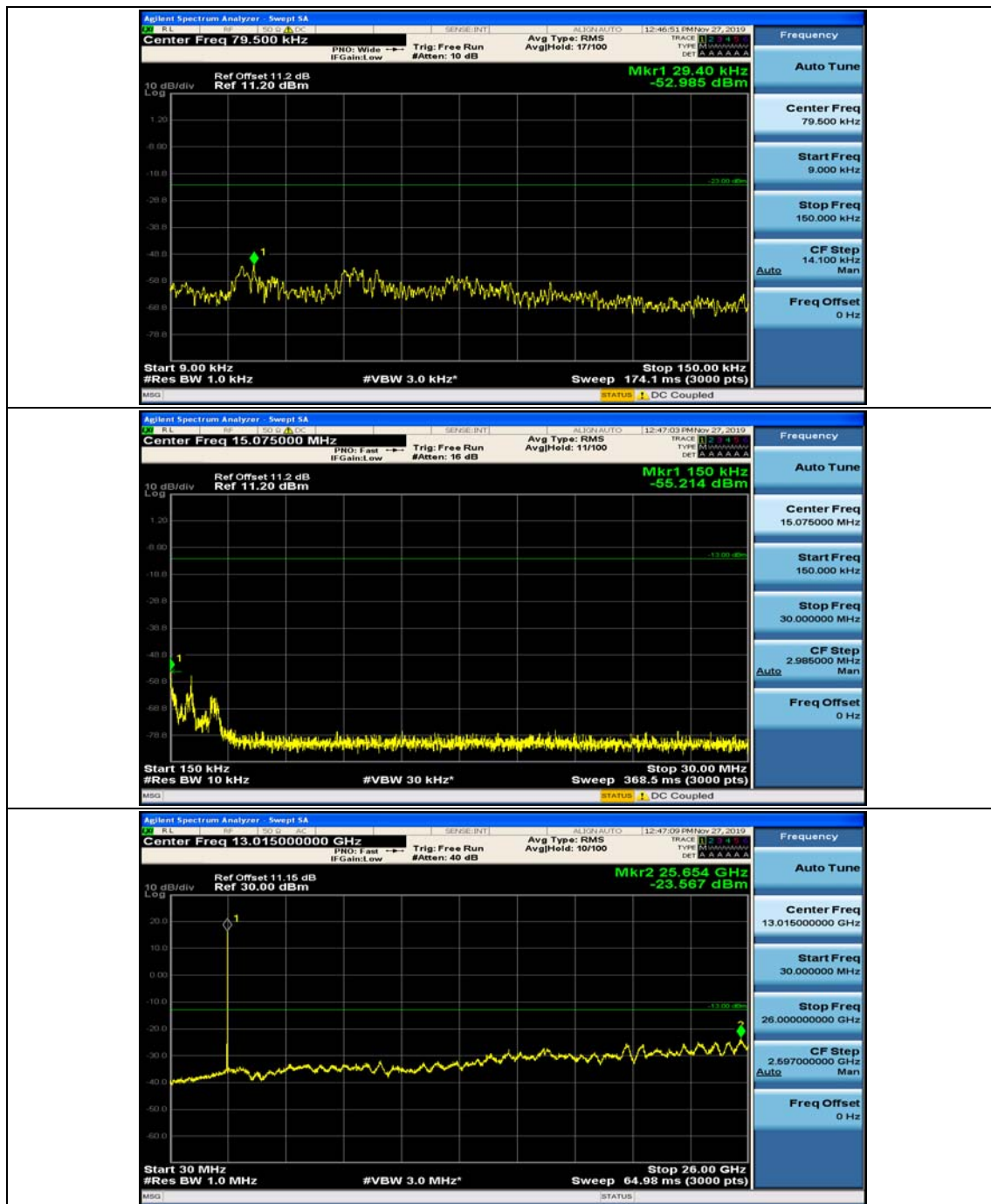
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37



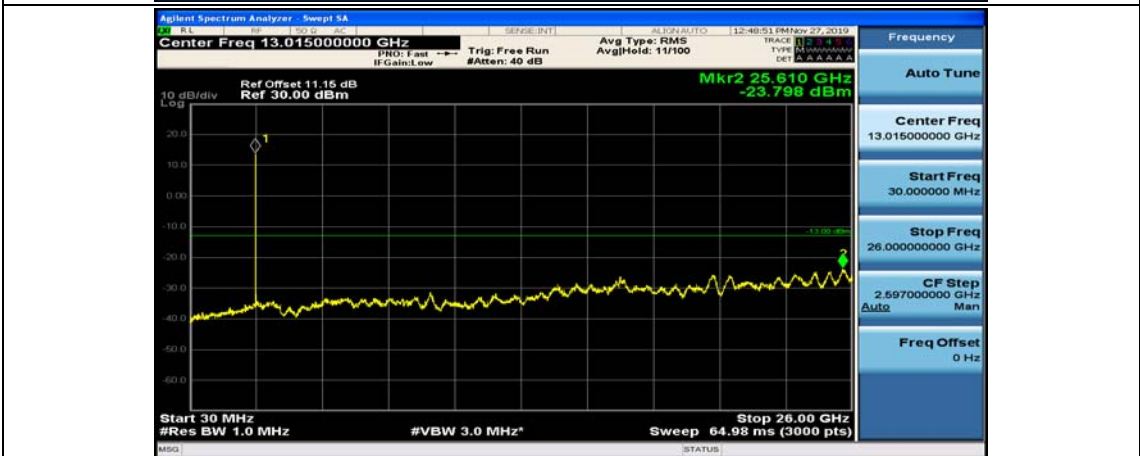
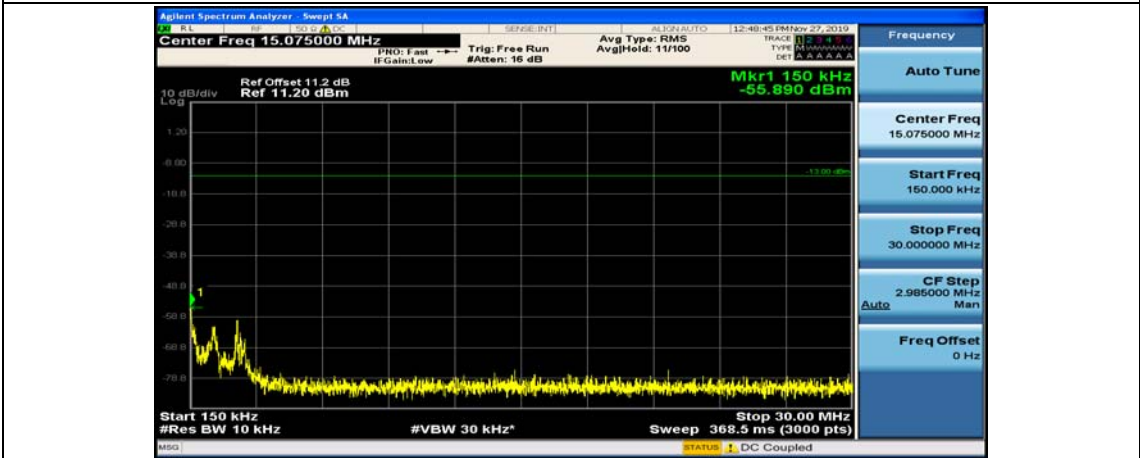
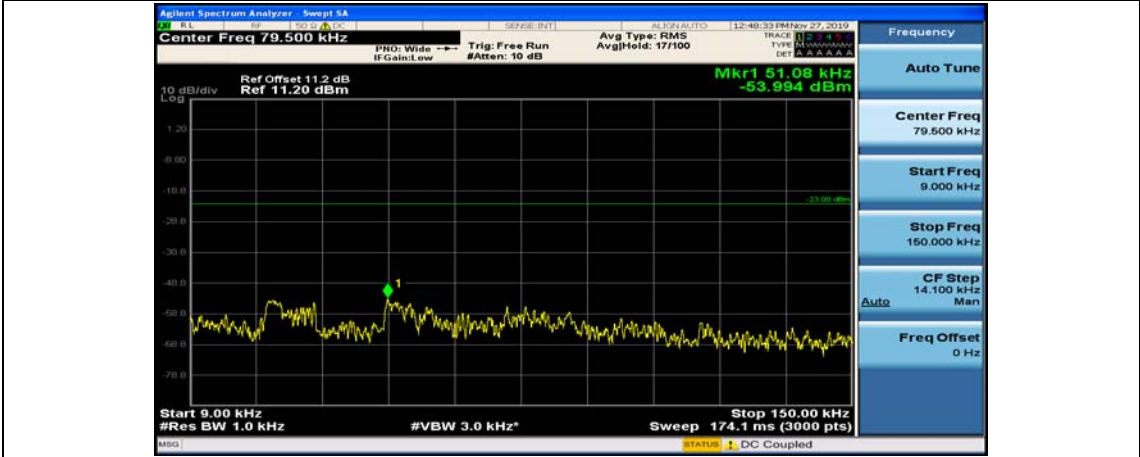




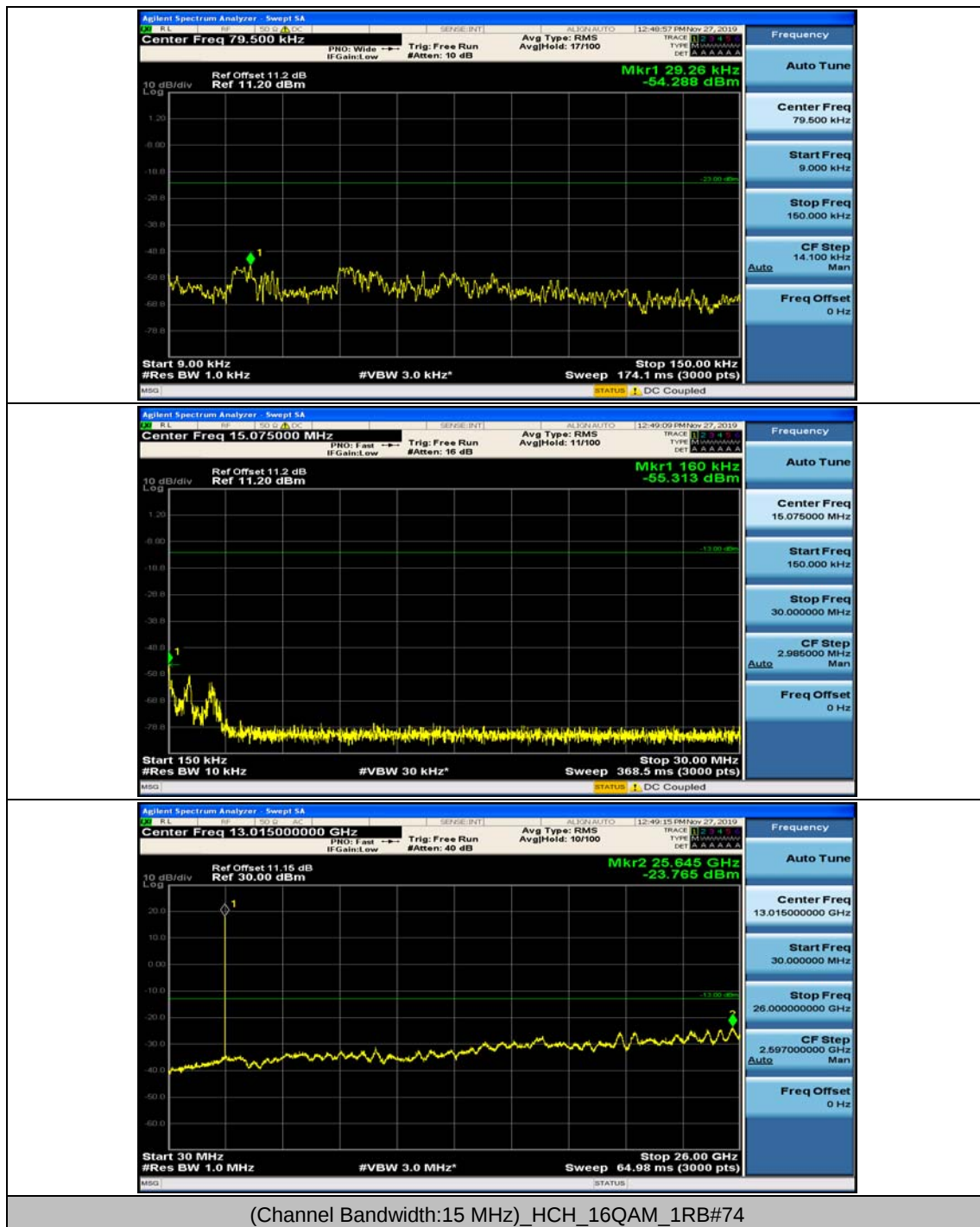


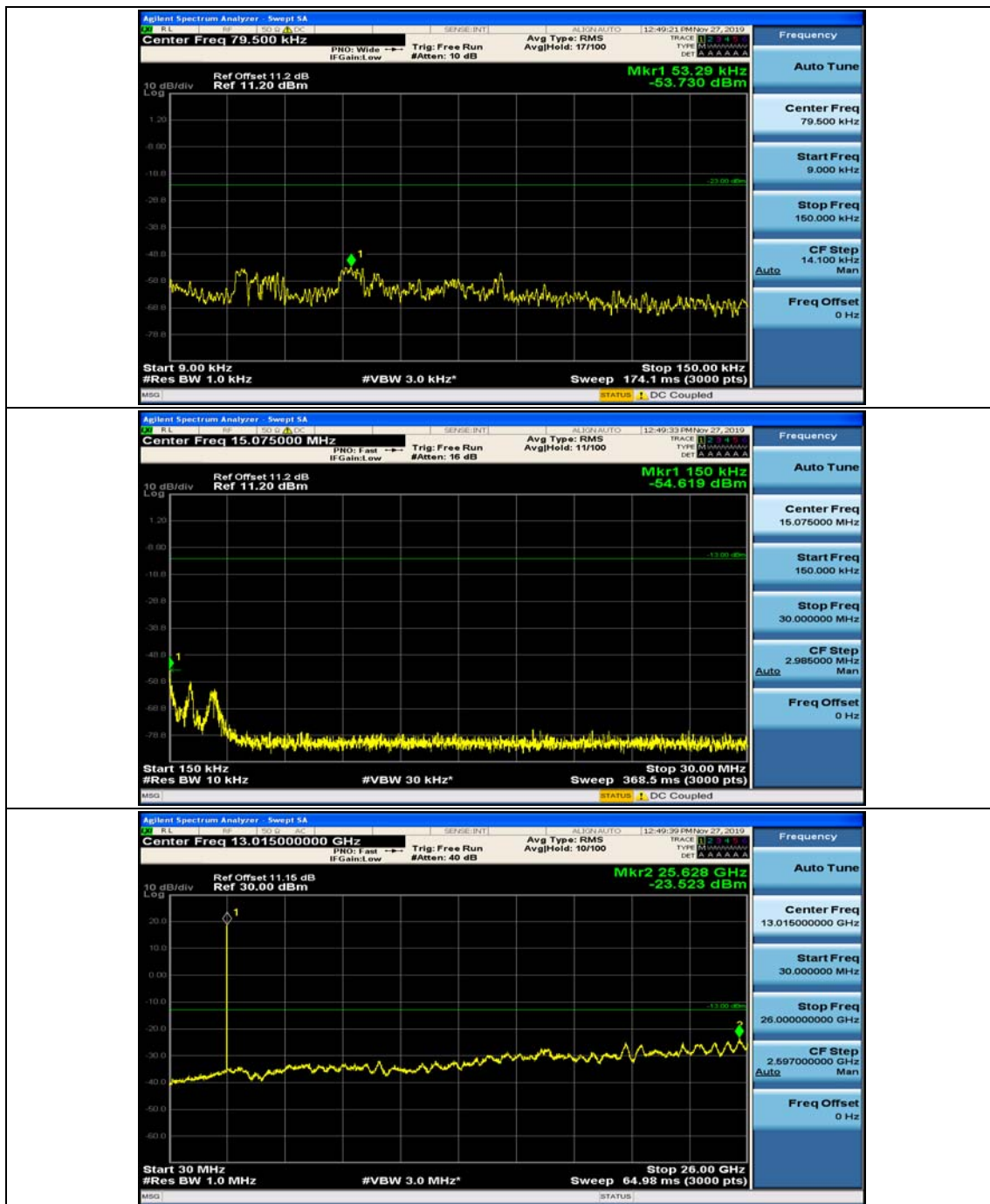


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

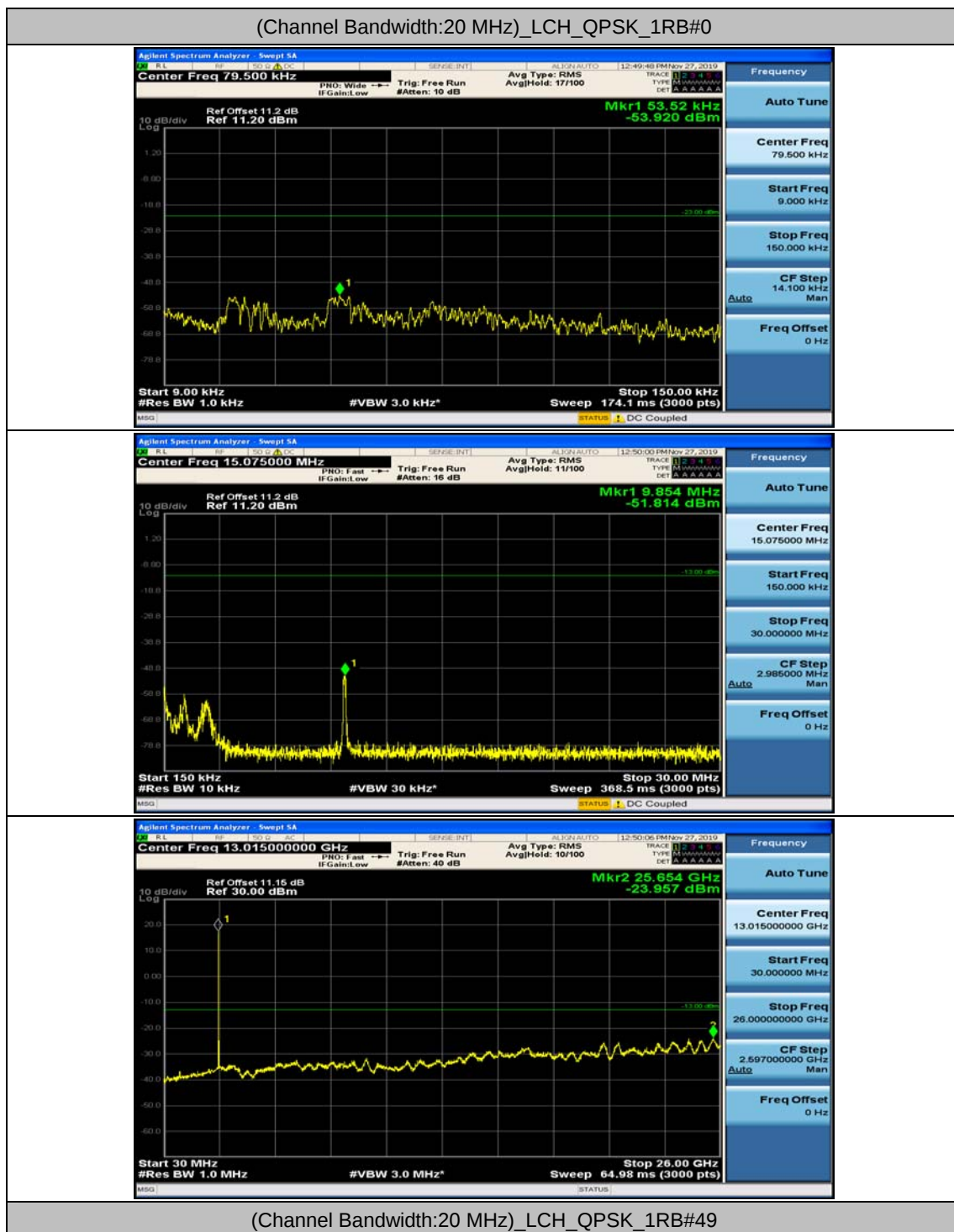


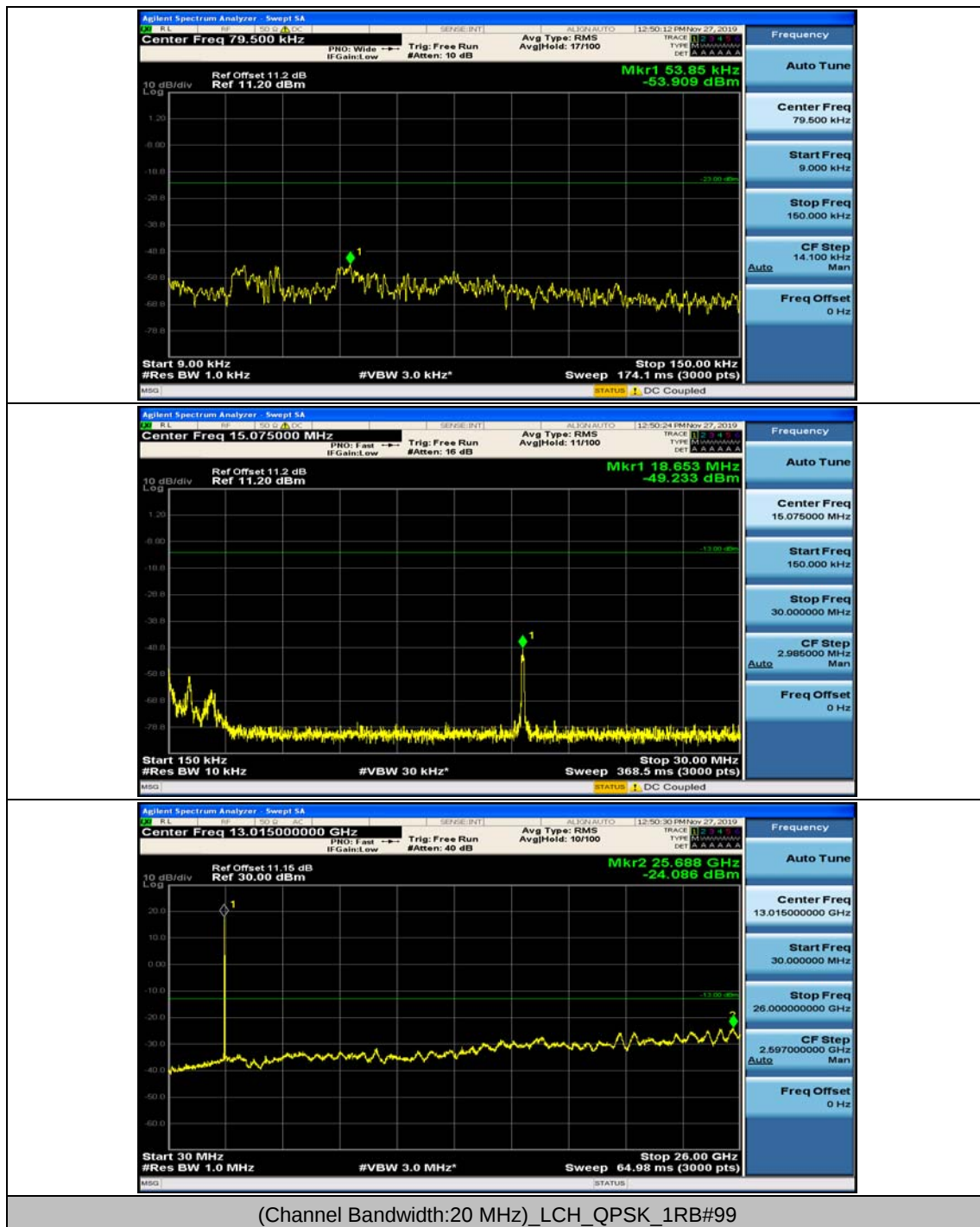
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

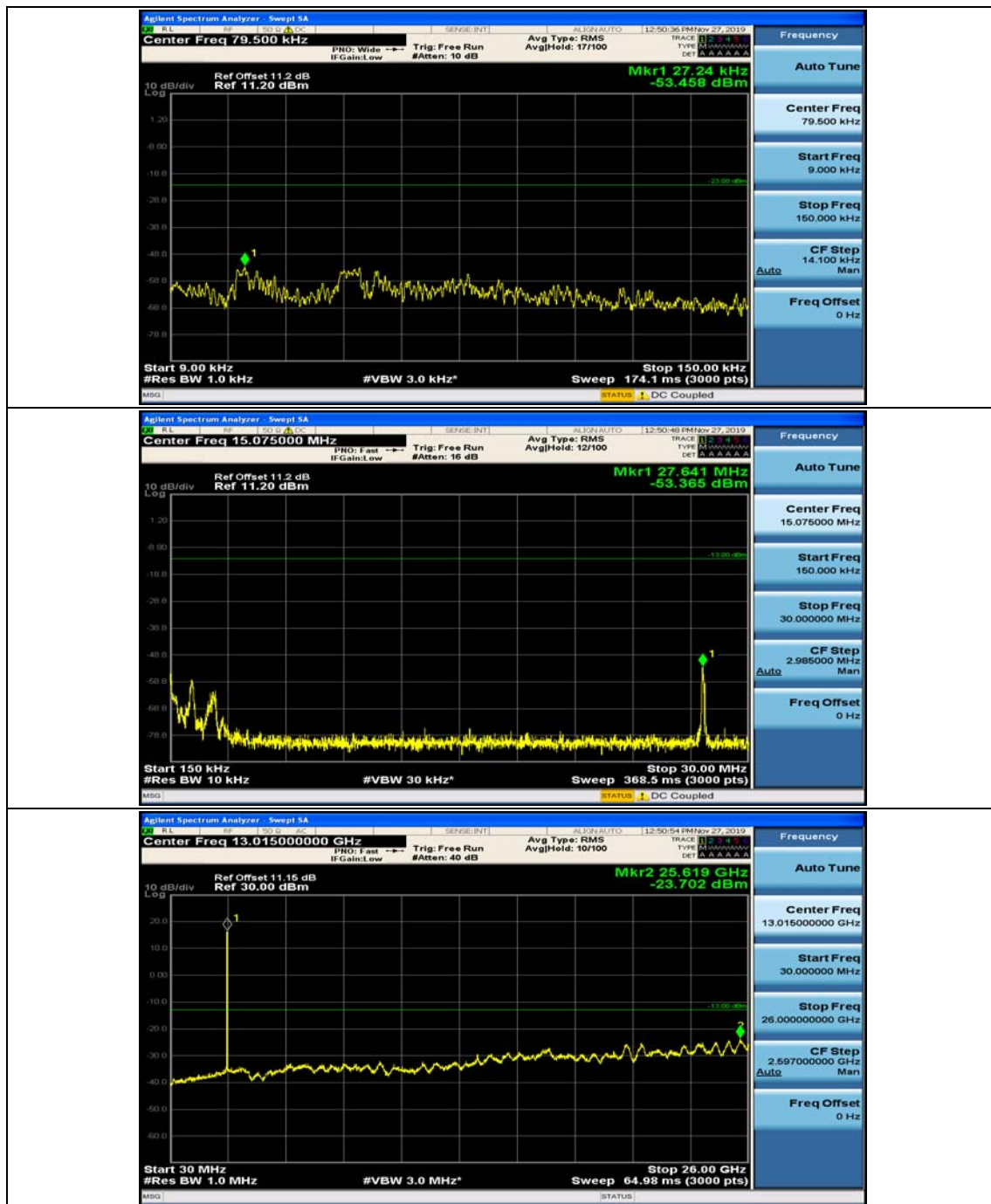




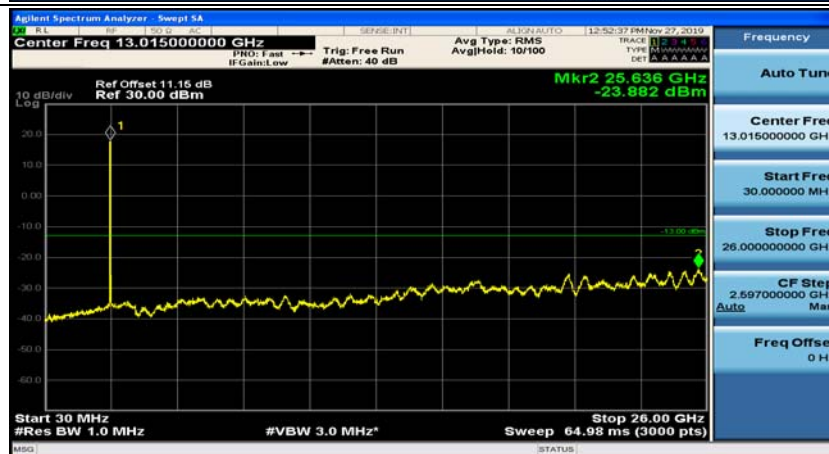
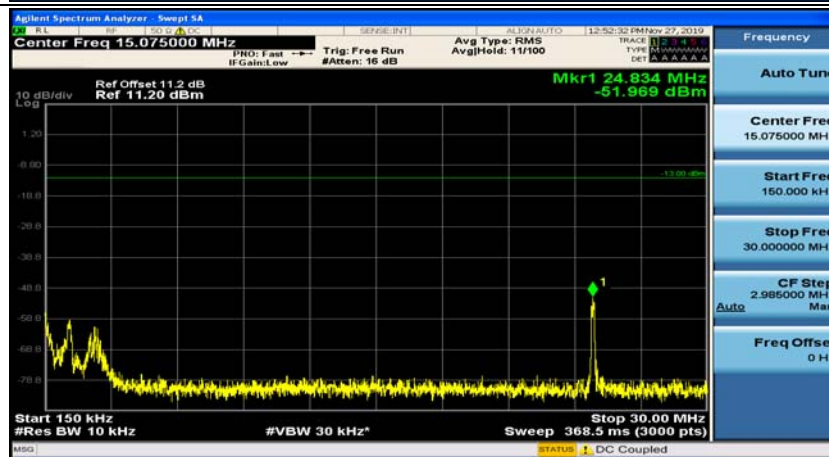
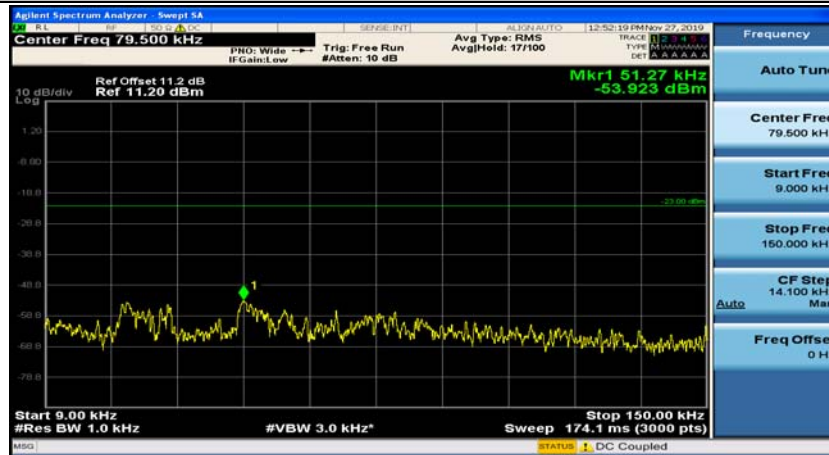
Channel Bandwidth: 20 MHz



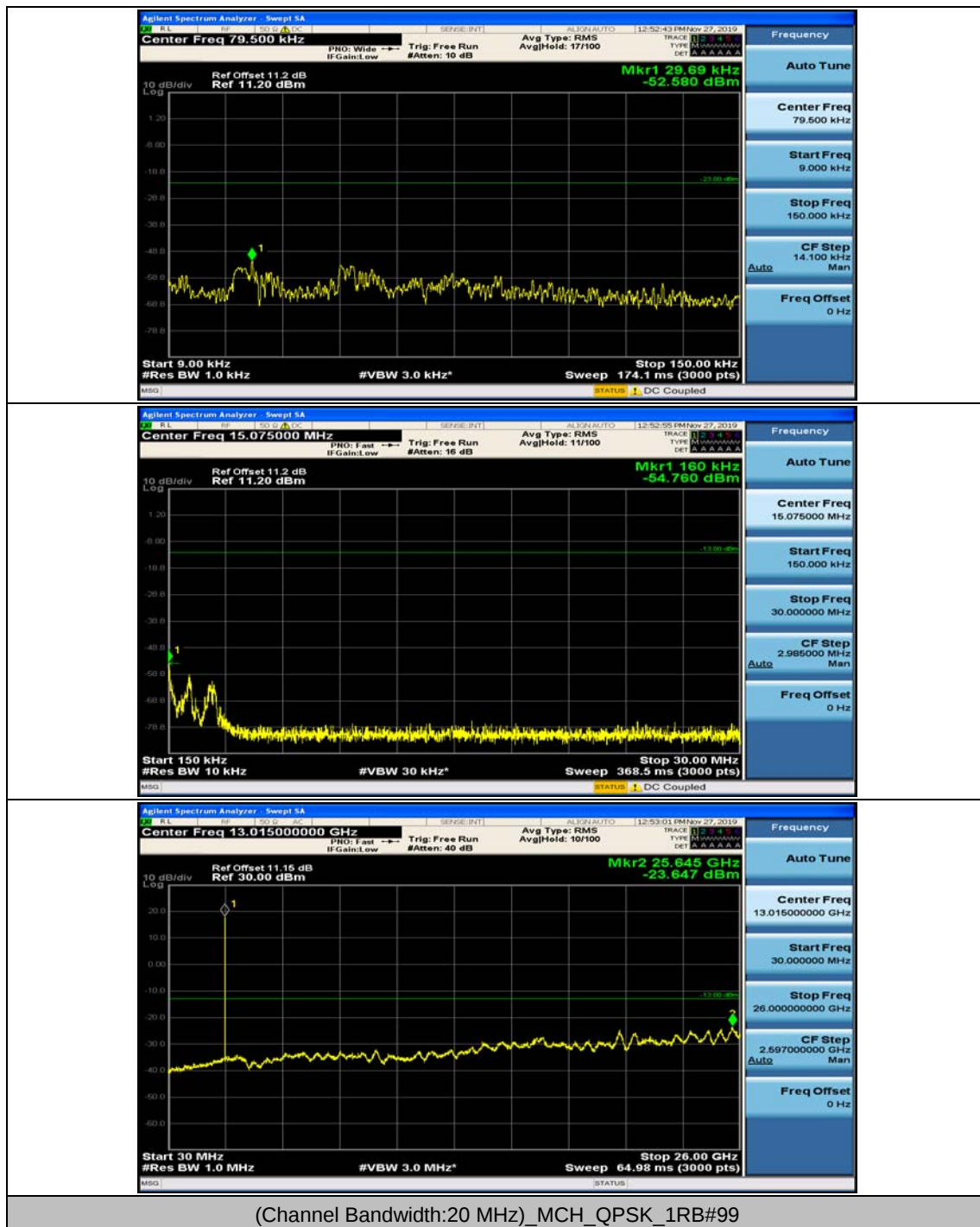


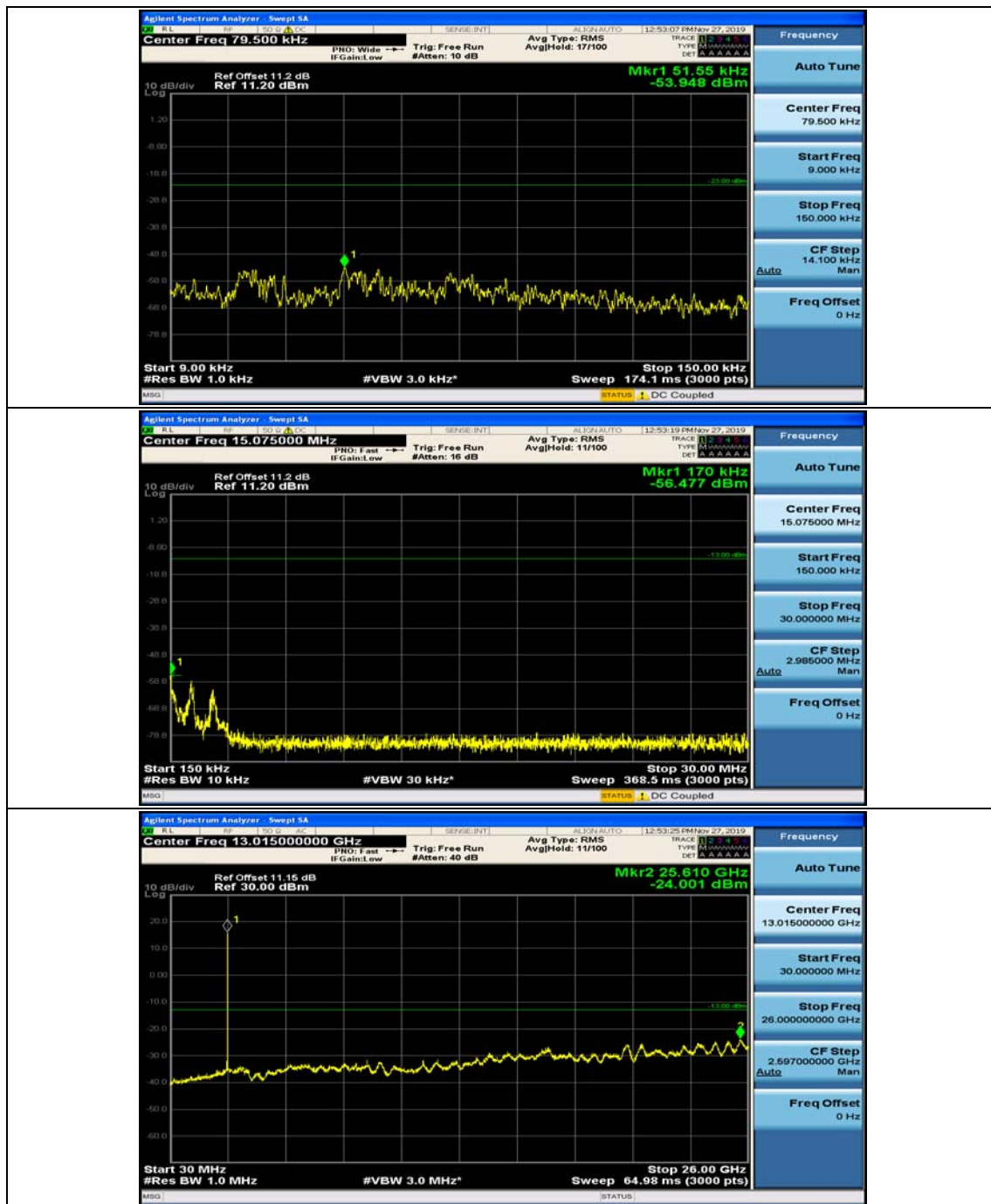


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

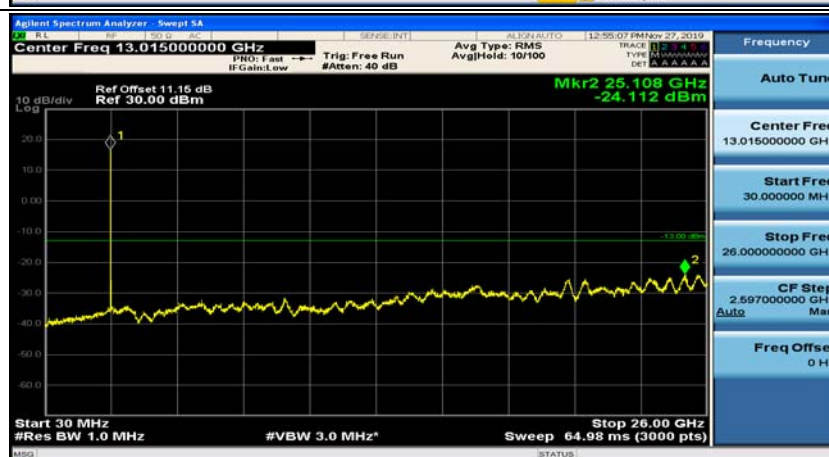
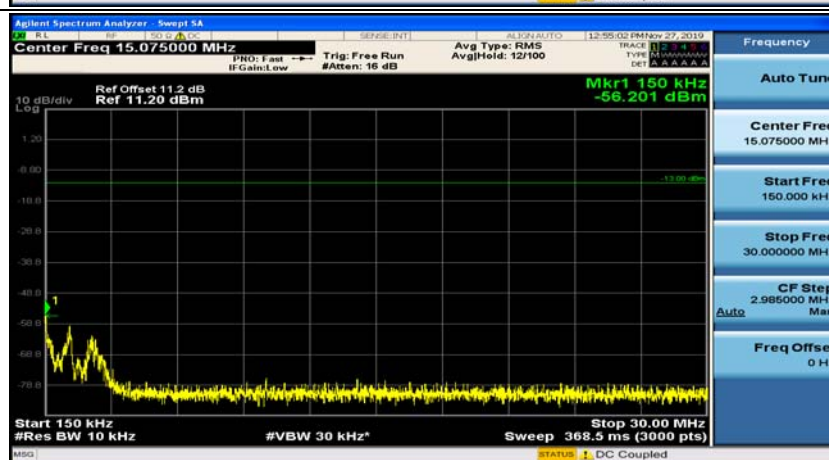
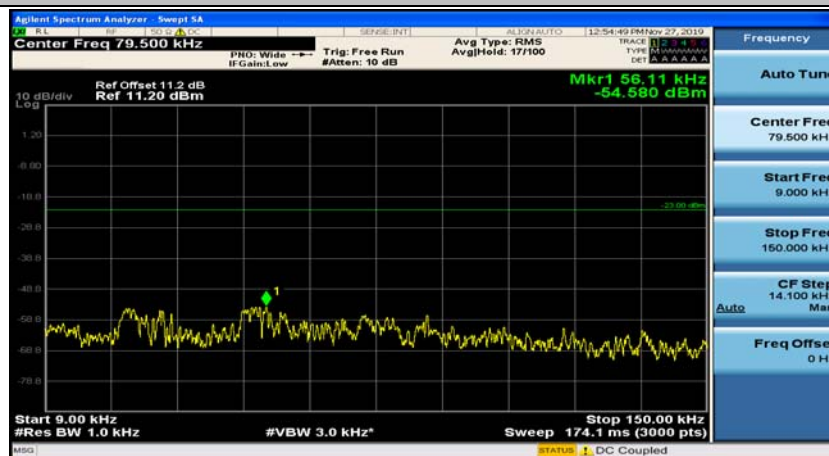


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

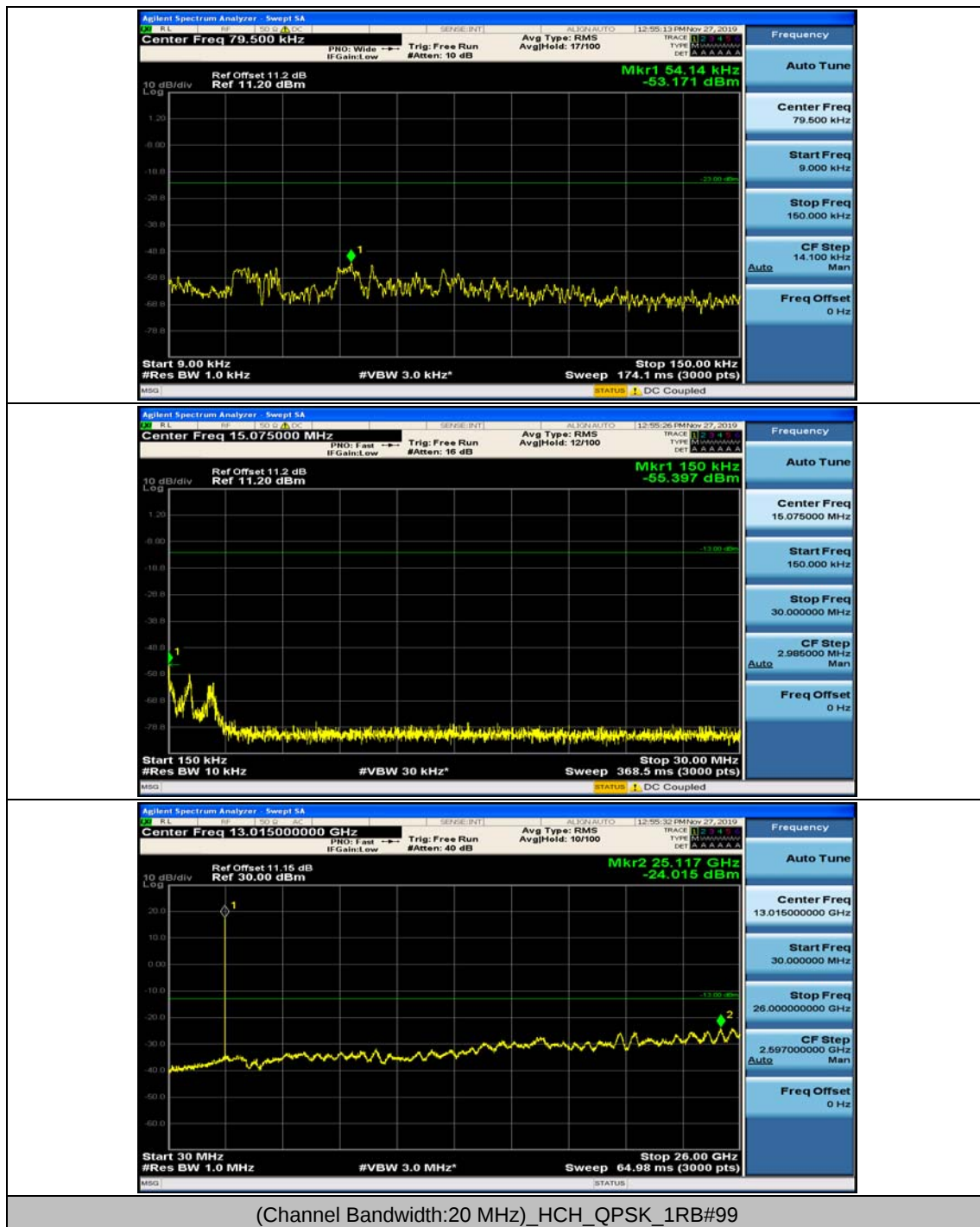


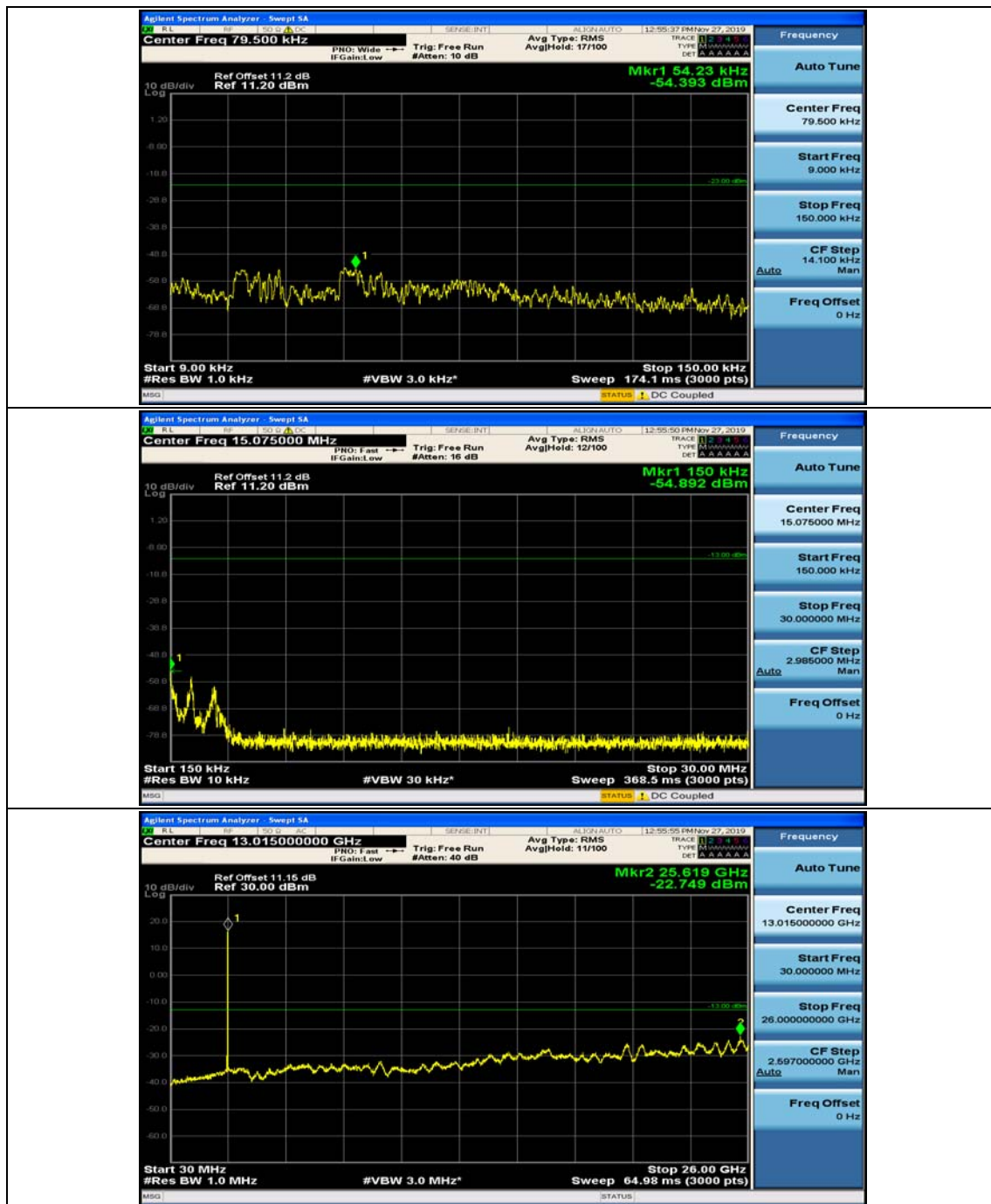


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

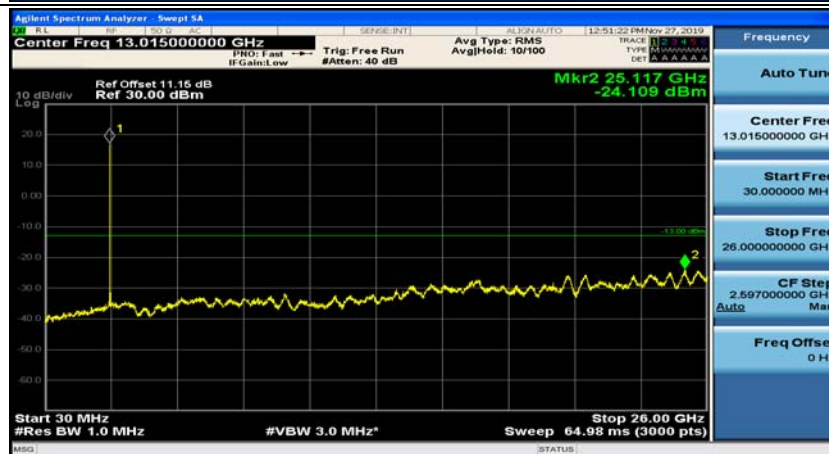
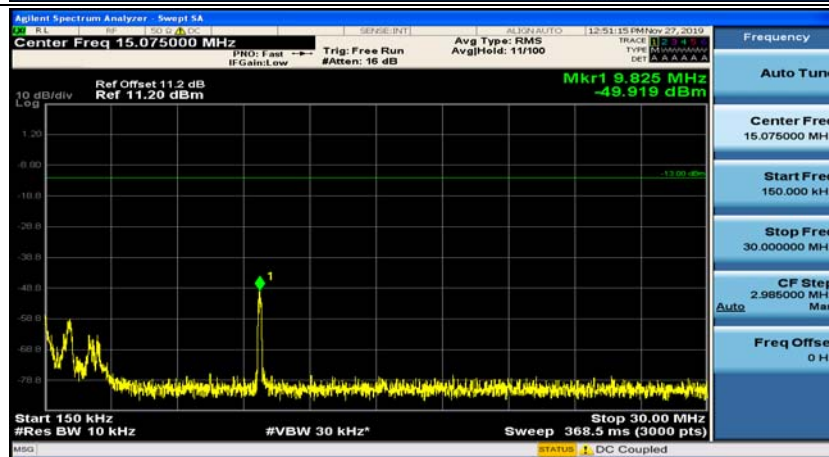
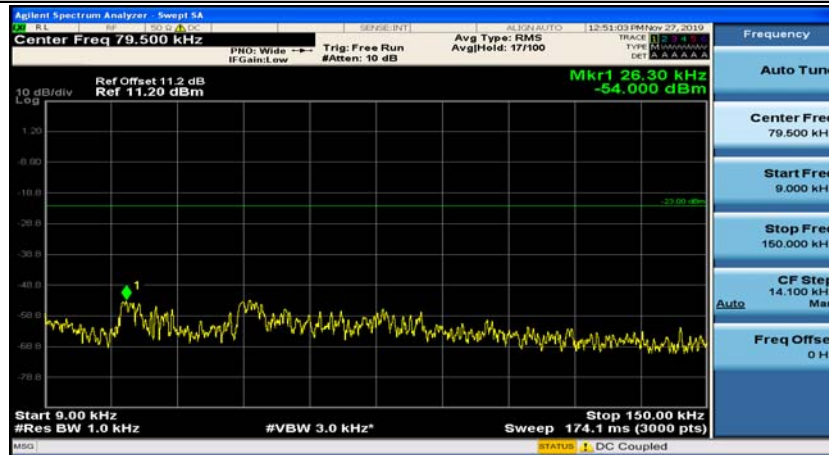


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

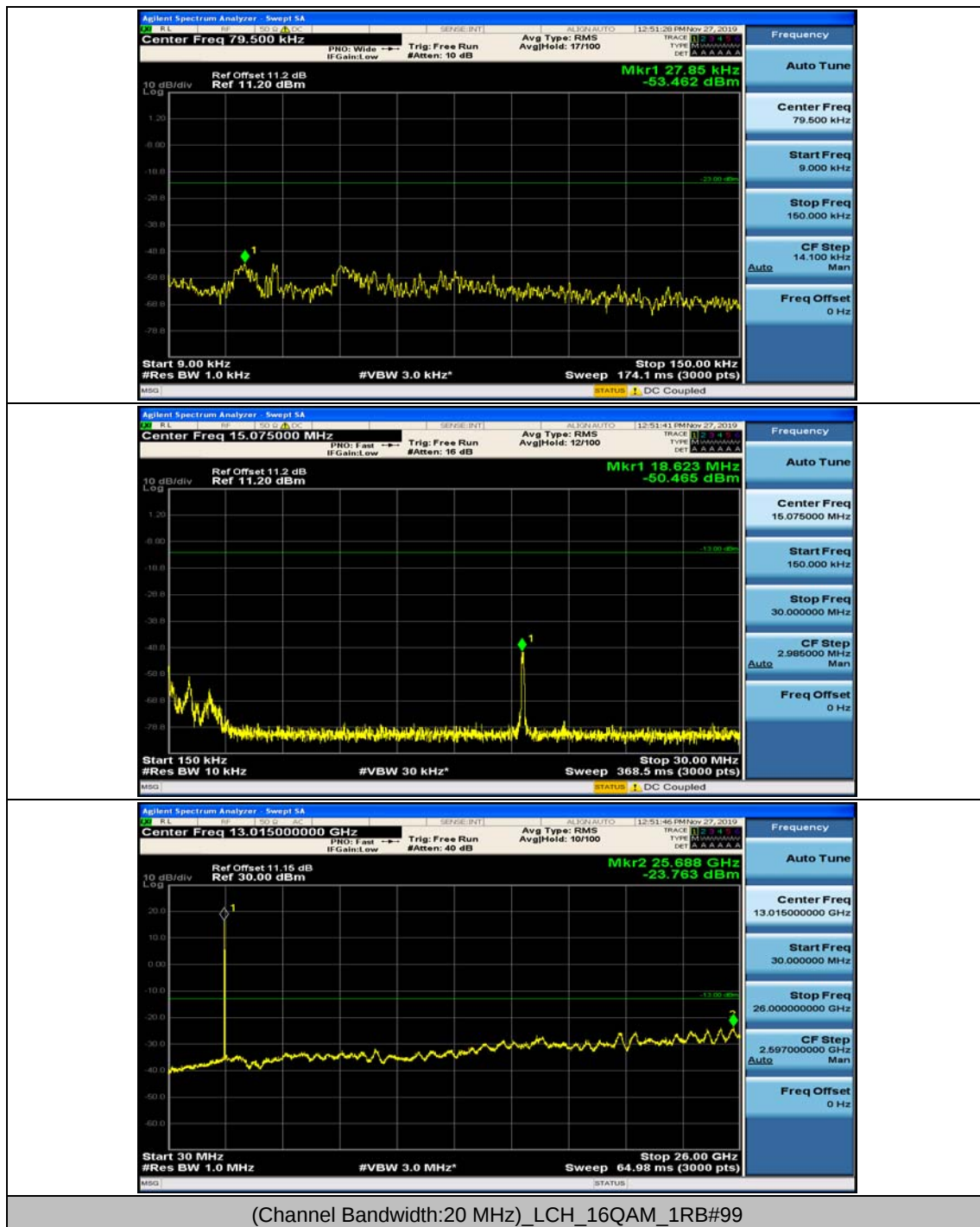


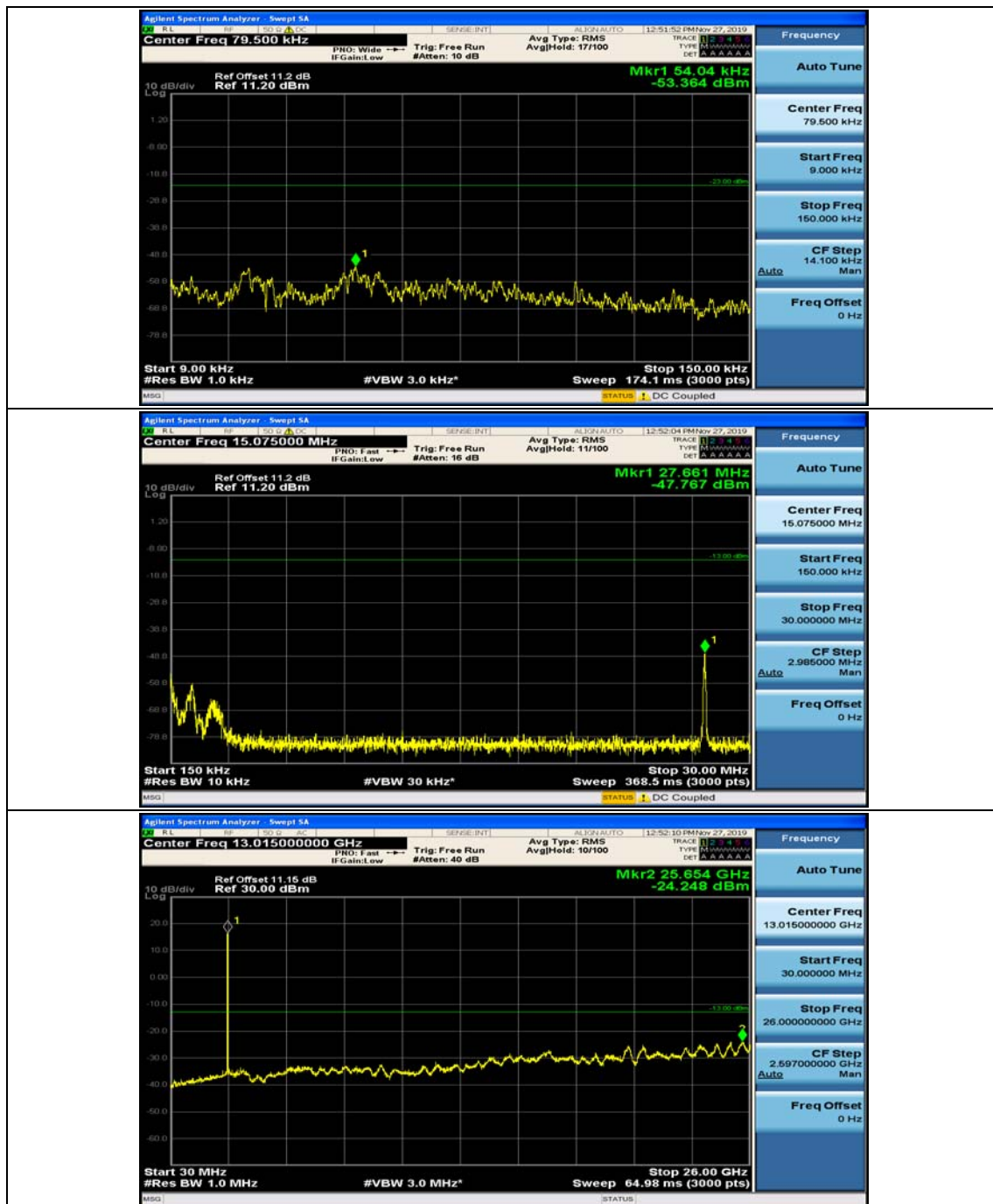


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

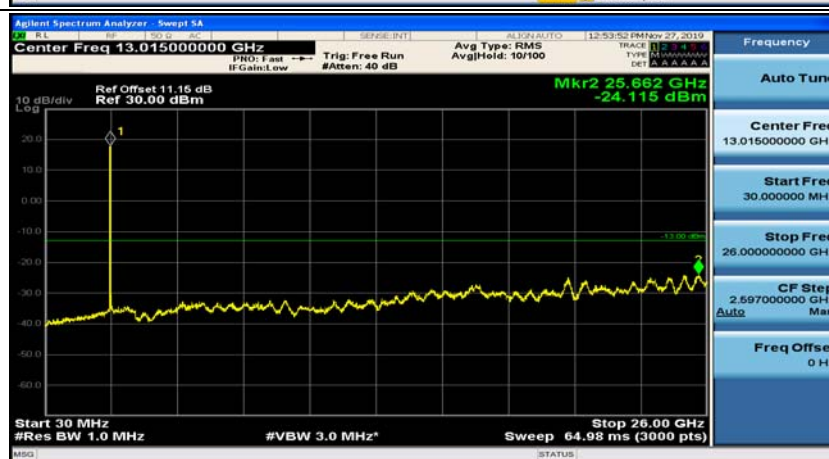
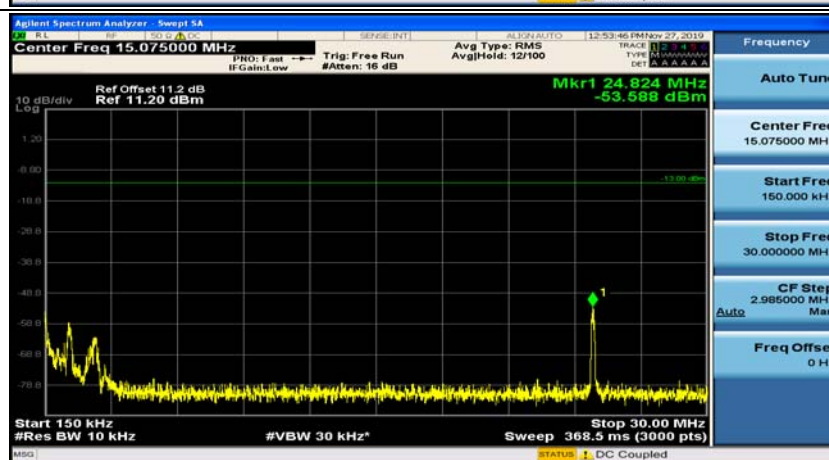
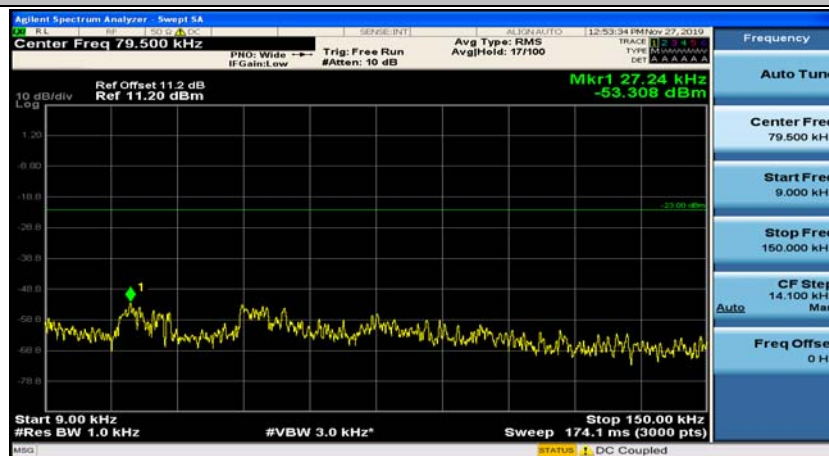


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

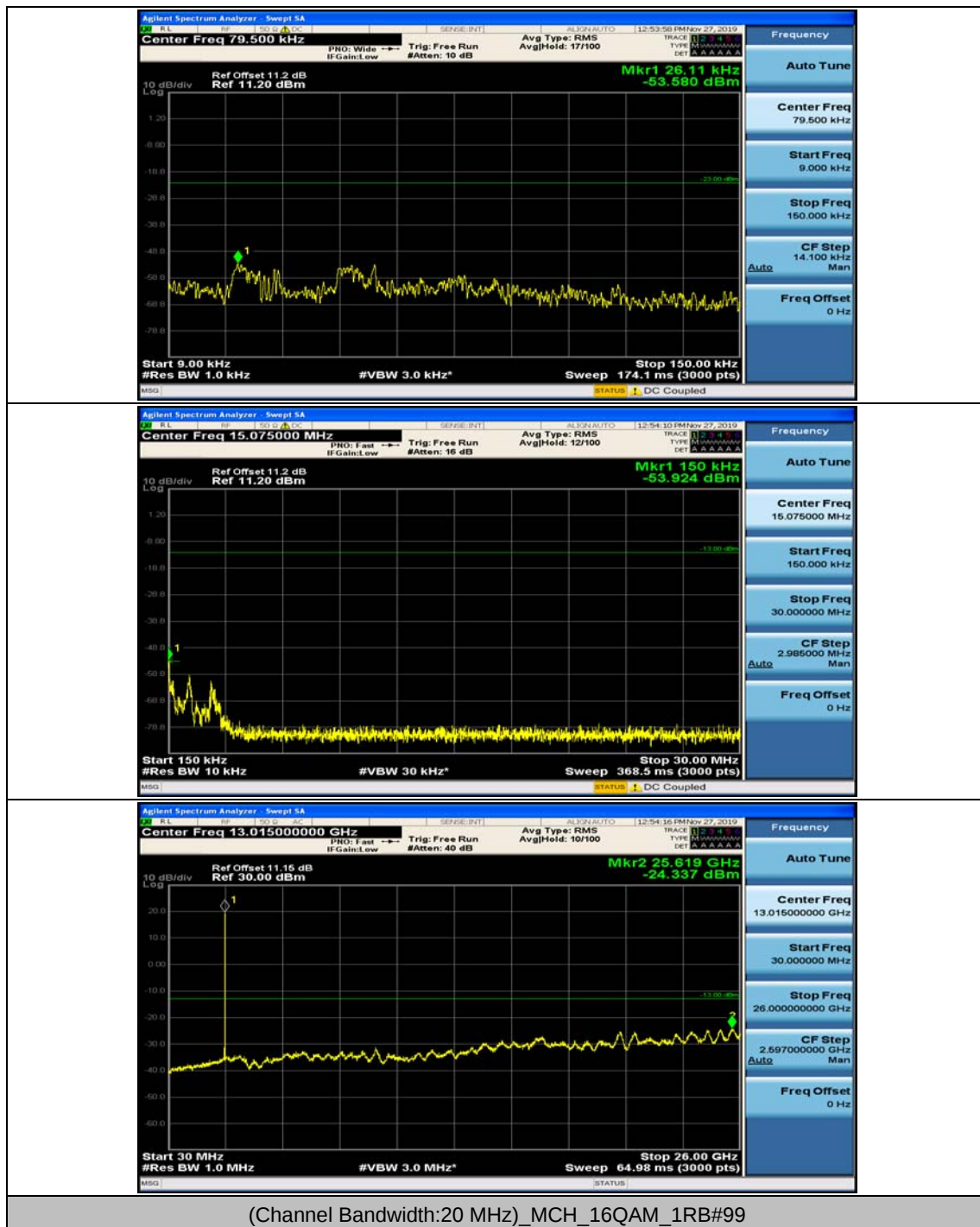


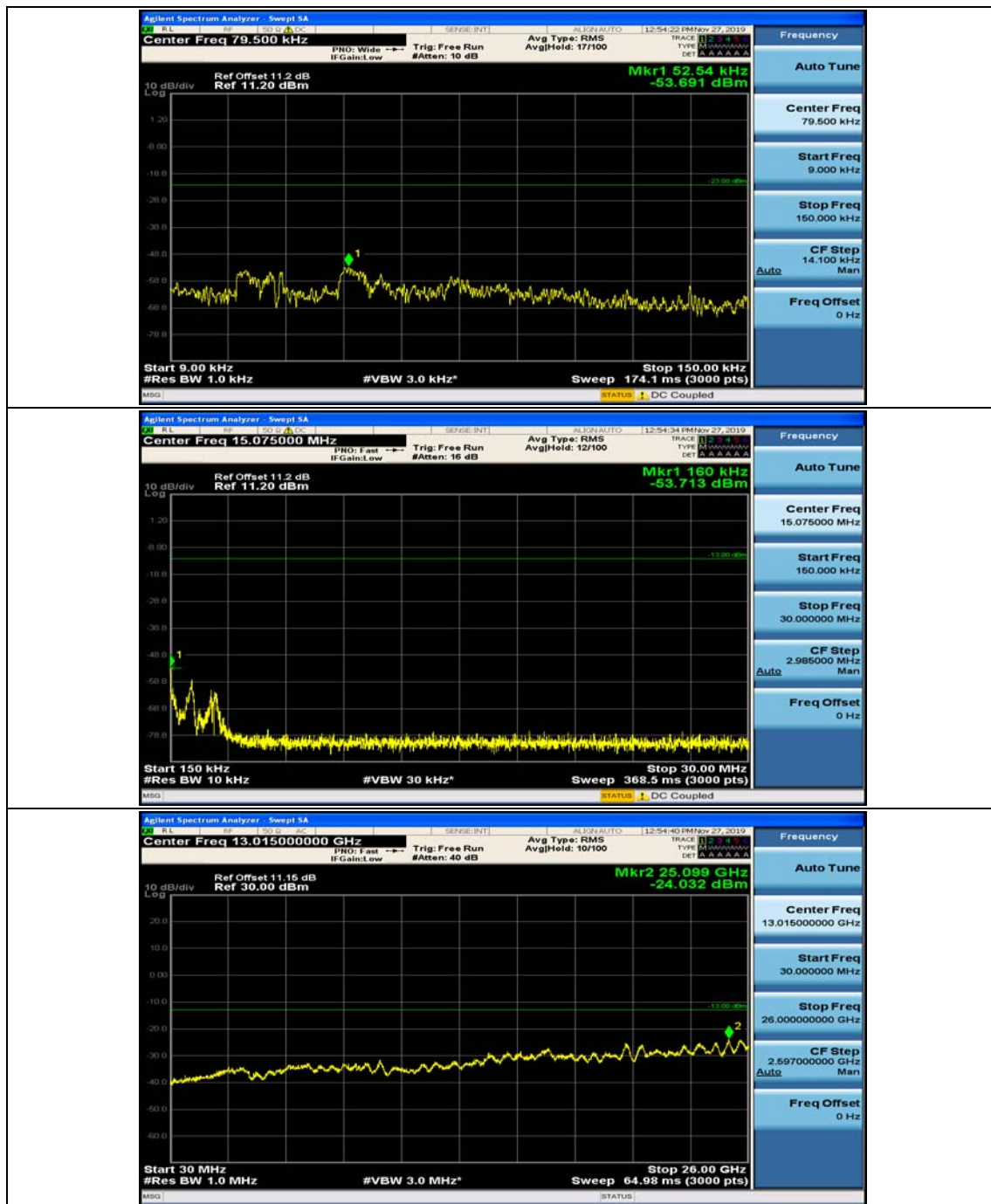


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

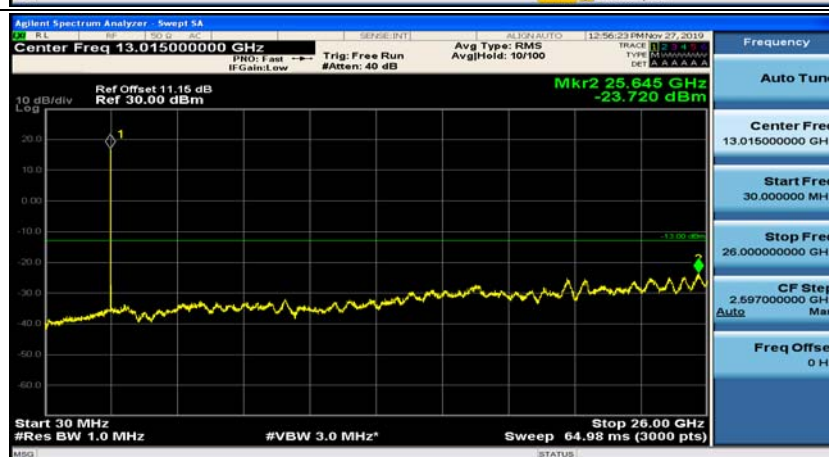
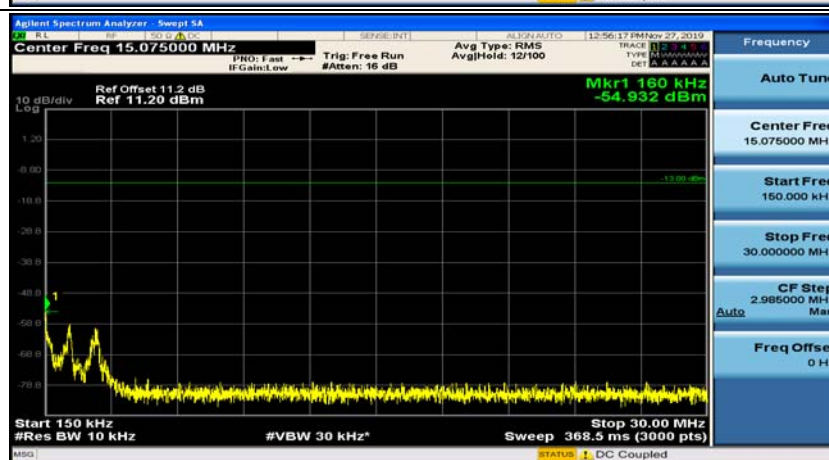
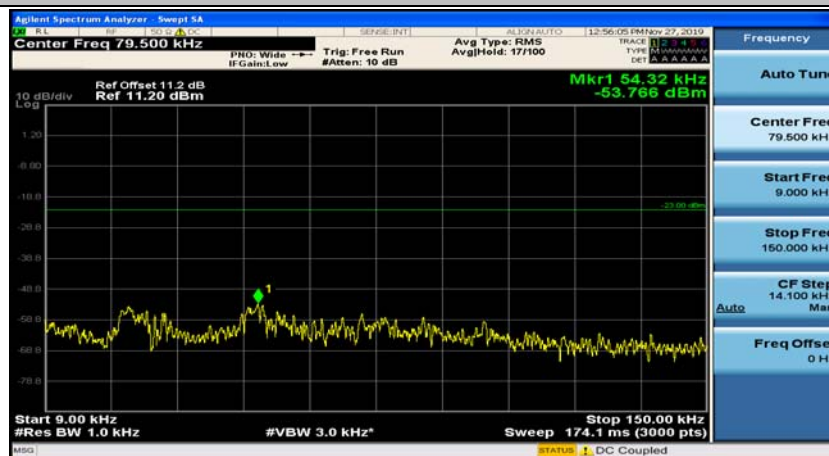


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

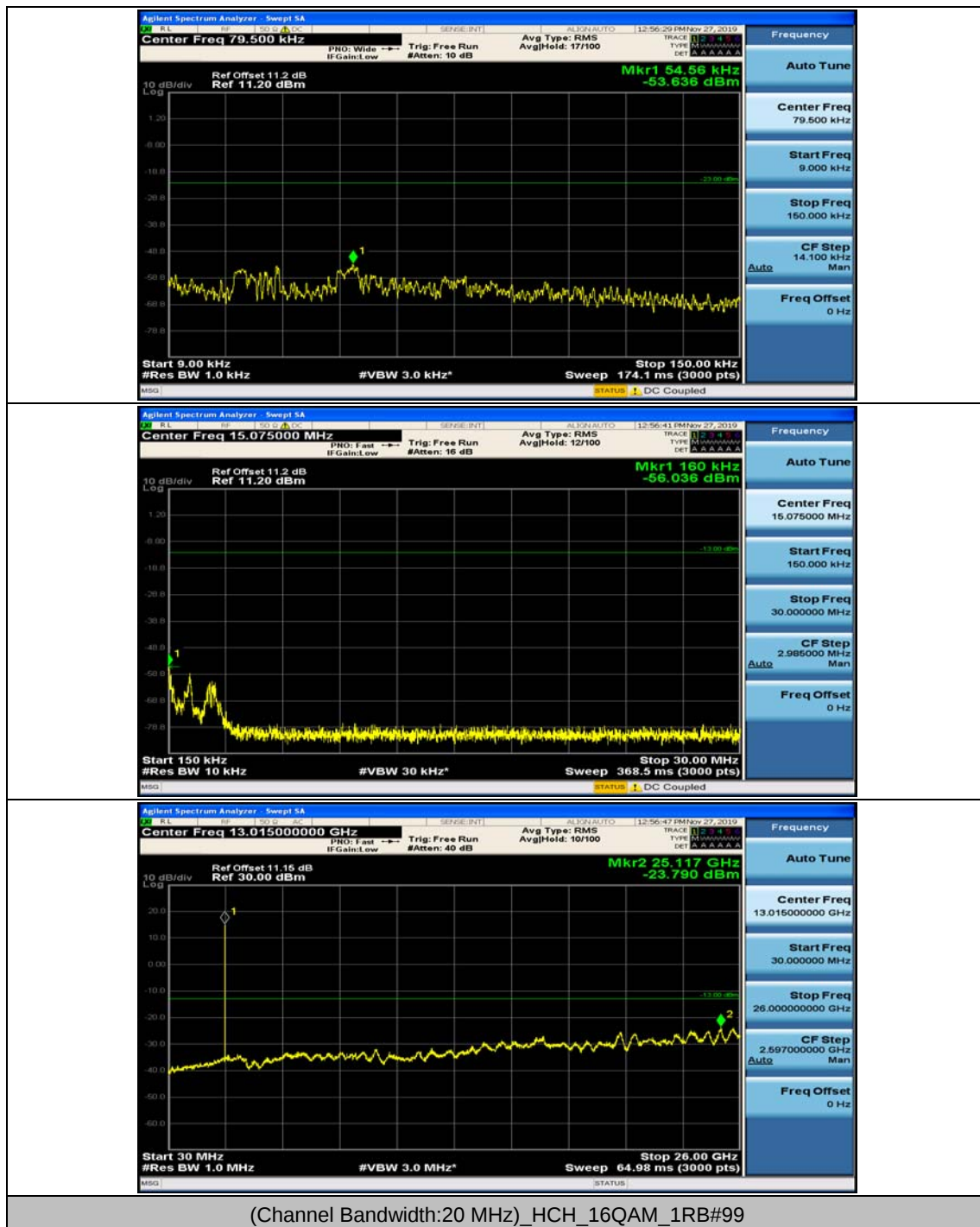


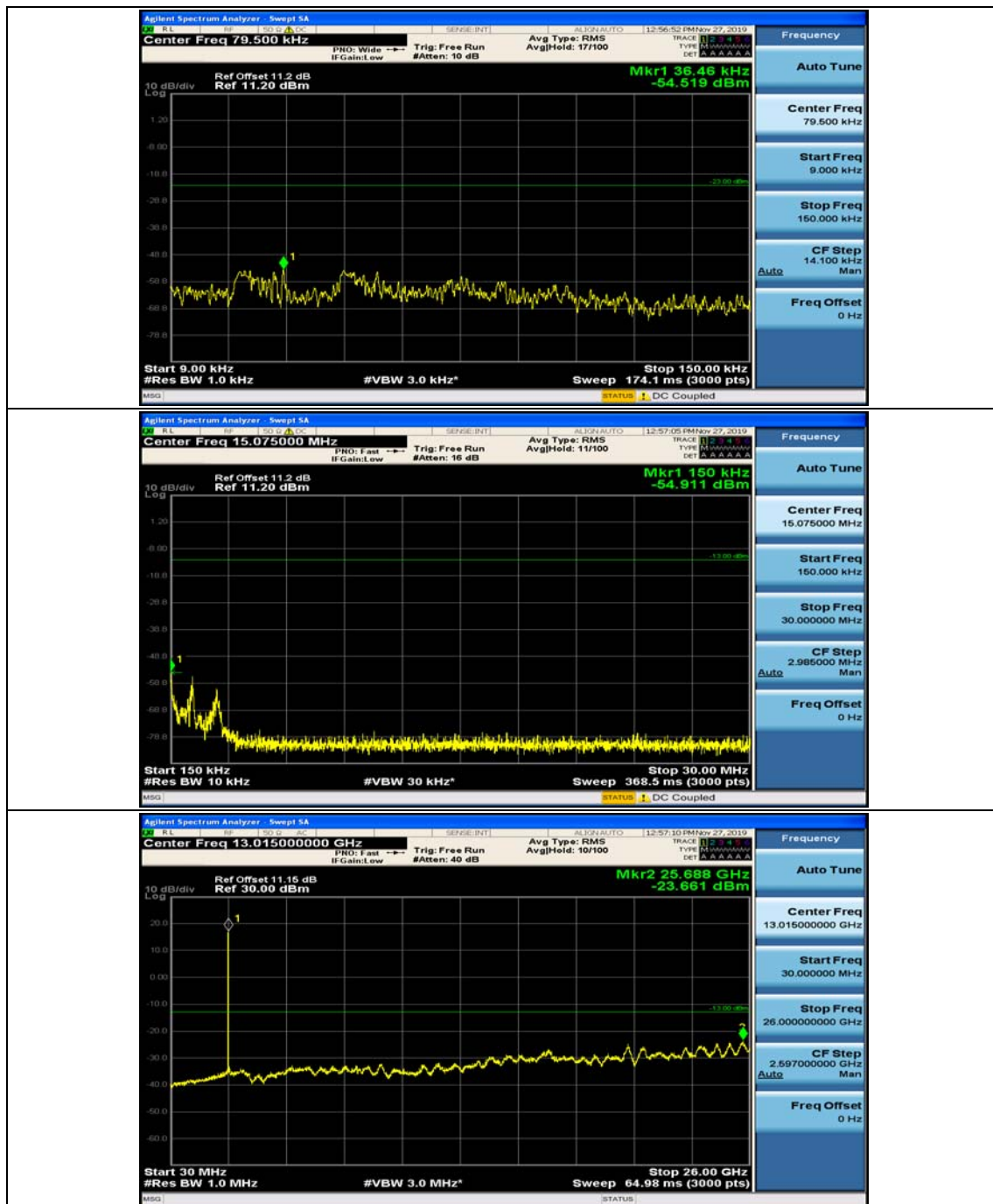


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(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	3.31	0.001287	± 2.5	PASS
		VN	TN	-1.08	-0.000420	± 2.5	PASS
		VH	TN	2.88	0.001120	± 2.5	PASS
	MCH	VL	TN	4.1	0.001580	± 2.5	PASS
		VN	TN	-1.97	-0.000759	± 2.5	PASS
		VH	TN	1.48	0.000570	± 2.5	PASS
	HCH	VL	TN	2.27	0.000867	± 2.5	PASS
		VN	TN	-0.17	-0.000065	± 2.5	PASS
		VH	TN	-0.43	-0.000164	± 2.5	PASS
16QAM	LCH	VL	TN	2.08	0.000809	± 2.5	PASS
		VN	TN	-1.99	-0.000774	± 2.5	PASS
		VH	TN	-1.61	-0.000626	± 2.5	PASS
	MCH	VL	TN	3.45	0.001329	± 2.5	PASS
		VN	TN	2.29	0.000882	± 2.5	PASS
		VH	TN	3.51	0.001353	± 2.5	PASS
	HCH	VL	TN	3.12	0.001192	± 2.5	PASS
		VN	TN	2.31	0.000883	± 2.5	PASS
		VH	TN	3.88	0.001482	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.23	0.000089	± 2.5	PASS
		VN	-20	0.09	0.000035	± 2.5	PASS
		VN	-10	-0.43	-0.000167	± 2.5	PASS
		VN	0	4.88	0.001897	± 2.5	PASS
		VN	10	0	0.000000	± 2.5	PASS
		VN	20	0.39	0.000152	± 2.5	PASS
		VN	30	2.52	0.000980	± 2.5	PASS
		VN	40	-0.35	-0.000136	± 2.5	PASS
		VN	50	-0.24	-0.000093	± 2.5	PASS
	MCH	VN	-30	2.16	0.000832	± 2.5	PASS

		VN	-20	-0.26	-0.000100	± 2.5	PASS
		VN	-10	1.68	0.000647	± 2.5	PASS
		VN	0	1.75	0.000674	± 2.5	PASS
		VN	10	2.79	0.001075	± 2.5	PASS
		VN	20	3.12	0.001202	± 2.5	PASS
		VN	30	2.67	0.001029	± 2.5	PASS
		VN	40	2.15	0.000829	± 2.5	PASS
		VN	50	-1.64	-0.000632	± 2.5	PASS
	HCH	VN	-30	4.58	0.001750	± 2.5	PASS
		VN	-20	-1.44	-0.000550	± 2.5	PASS
		VN	-10	-0.58	-0.000222	± 2.5	PASS
		VN	0	3.74	0.001429	± 2.5	PASS
		VN	10	1.86	0.000711	± 2.5	PASS
		VN	20	2.5	0.000955	± 2.5	PASS
		VN	30	2.68	0.001024	± 2.5	PASS
		VN	40	4.36	0.001666	± 2.5	PASS
		VN	50	-0.95	-0.000363	± 2.5	PASS
16QAM	LCH	VN	-30	2.63	0.001022	± 2.5	PASS
		VN	-20	0.02	0.000008	± 2.5	PASS
		VN	-10	3.98	0.001547	± 2.5	PASS
		VN	0	-0.4	-0.000155	± 2.5	PASS
		VN	10	2.38	0.000925	± 2.5	PASS
		VN	20	1.49	0.000579	± 2.5	PASS
		VN	30	4.5	0.001749	± 2.5	PASS
		VN	40	2.66	0.001034	± 2.5	PASS
		VN	50	3.62	0.001407	± 2.5	PASS
	MCH	VN	-30	0.32	0.000123	± 2.5	PASS
		VN	-20	3.9	0.001503	± 2.5	PASS
		VN	-10	-1.92	-0.000740	± 2.5	PASS
		VN	0	2.75	0.001060	± 2.5	PASS
		VN	10	0.66	0.000254	± 2.5	PASS
		VN	20	-1.43	-0.000551	± 2.5	PASS
		VN	30	0.05	0.000019	± 2.5	PASS
		VN	40	-0.32	-0.000123	± 2.5	PASS
		VN	50	3.5	0.001349	± 2.5	PASS
	HCH	VN	-30	1.83	0.000699	± 2.5	PASS
		VN	-20	1.07	0.000409	± 2.5	PASS
		VN	-10	-1.33	-0.000508	± 2.5	PASS
		VN	0	-1.26	-0.000481	± 2.5	PASS
		VN	10	3.33	0.001272	± 2.5	PASS
		VN	20	2.33	0.000890	± 2.5	PASS

		VN	30	4.16	0.001589	± 2.5	PASS
		VN	40	-1.6	-0.000611	± 2.5	PASS
		VN	50	-1.34	-0.000512	± 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	2.89	0.001122	± 2.5	PASS
		VN	TN	4.02	0.001561	± 2.5	PASS
		VH	TN	4.27	0.001658	± 2.5	PASS
	MCH	VL	TN	0.06	0.000023	± 2.5	PASS
		VN	TN	2.16	0.000832	± 2.5	PASS
		VH	TN	1.28	0.000493	± 2.5	PASS
	HCH	VL	TN	0.25	0.000096	± 2.5	PASS
		VN	TN	3.42	0.001308	± 2.5	PASS
		VH	TN	-1.11	-0.000424	± 2.5	PASS
16QAM	LCH	VL	TN	-1.35	-0.000524	± 2.5	PASS
		VN	TN	2.56	0.000994	± 2.5	PASS
		VH	TN	-1.1	-0.000427	± 2.5	PASS
	MCH	VL	TN	3.29	0.001268	± 2.5	PASS
		VN	TN	2.7	0.001040	± 2.5	PASS
		VH	TN	4.32	0.001665	± 2.5	PASS
	HCH	VL	TN	2.73	0.001044	± 2.5	PASS
		VN	TN	1.3	0.000497	± 2.5	PASS
		VH	TN	-1.07	-0.000409	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.69	0.000656	± 2.5	PASS
		VN	-20	4.43	0.001720	± 2.5	PASS
		VN	-10	4.76	0.001849	± 2.5	PASS
		VN	0	-1.88	-0.000730	± 2.5	PASS
		VN	10	1.03	0.000400	± 2.5	PASS
		VN	20	1.81	0.000703	± 2.5	PASS
		VN	30	1.52	0.000590	± 2.5	PASS
		VN	40	4.94	0.001918	± 2.5	PASS
		VN	50	2.37	0.000920	± 2.5	PASS
	MCH	VN	-30	-1.1	-0.000424	± 2.5	PASS
		VN	-20	1	0.000385	± 2.5	PASS

		VN	-10	0.1	0.000039	± 2.5	PASS
		VN	0	1.87	0.000721	± 2.5	PASS
		VN	10	2.77	0.001067	± 2.5	PASS
		VN	20	3.51	0.001353	± 2.5	PASS
		VN	30	3.52	0.001356	± 2.5	PASS
		VN	40	-1.8	-0.000694	± 2.5	PASS
		VN	50	0.49	0.000189	± 2.5	PASS
	HCH	VN	-30	2.14	0.000818	± 2.5	PASS
		VN	-20	3.73	0.001426	± 2.5	PASS
		VN	-10	1.67	0.000639	± 2.5	PASS
		VN	0	-0.83	-0.000317	± 2.5	PASS
		VN	10	-1.81	-0.000692	± 2.5	PASS
		VN	20	-1.63	-0.000623	± 2.5	PASS
		VN	30	-1.17	-0.000447	± 2.5	PASS
		VN	40	2.59	0.000990	± 2.5	PASS
		VN	50	0.15	0.000057	± 2.5	PASS
QPSK	LCH	VN	-30	4.59	0.001783	± 2.5	PASS
		VN	-20	1.37	0.000532	± 2.5	PASS
		VN	-10	4.5	0.001748	± 2.5	PASS
		VN	0	4.24	0.001647	± 2.5	PASS
		VN	10	4.19	0.001627	± 2.5	PASS
		VN	20	-1.06	-0.000412	± 2.5	PASS
		VN	30	0.69	0.000268	± 2.5	PASS
		VN	40	1.05	0.000408	± 2.5	PASS
		VN	50	0.03	0.000012	± 2.5	PASS
	MCH	VN	-30	1.93	0.000744	± 2.5	PASS
		VN	-20	-0.64	-0.000247	± 2.5	PASS
		VN	-10	2.82	0.001087	± 2.5	PASS
		VN	0	2.04	0.000786	± 2.5	PASS
		VN	10	0.72	0.000277	± 2.5	PASS
		VN	20	4.72	0.001819	± 2.5	PASS
		VN	30	3.67	0.001414	± 2.5	PASS
		VN	40	-1.8	-0.000694	± 2.5	PASS
		VN	50	-1.46	-0.000563	± 2.5	PASS
	HCH	VN	-30	1.26	0.000482	± 2.5	PASS
		VN	-20	3.85	0.001472	± 2.5	PASS
		VN	-10	3.53	0.001350	± 2.5	PASS
		VN	0	-0.07	-0.000027	± 2.5	PASS
		VN	10	3.2	0.001224	± 2.5	PASS
		VN	20	-1.56	-0.000597	± 2.5	PASS
		VN	30	-1.56	-0.000597	± 2.5	PASS

		VN	40	-0.74	-0.000283	± 2.5	PASS
		VN	50	1.63	0.000623	± 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	2.06	0.000799	± 2.5	PASS
		VN	TN	4.72	0.001831	± 2.5	PASS
		VH	TN	-0.7	-0.000272	± 2.5	PASS
	MCH	VL	TN	-1.38	-0.000532	± 2.5	PASS
		VN	TN	-1.81	-0.000697	± 2.5	PASS
		VH	TN	4	0.001541	± 2.5	PASS
	HCH	VL	TN	4.02	0.001539	± 2.5	PASS
		VN	TN	-0.58	-0.000222	± 2.5	PASS
		VH	TN	2.36	0.000903	± 2.5	PASS
16QAM	LCH	VL	TN	3.35	0.001300	± 2.5	PASS
		VN	TN	0.91	0.000353	± 2.5	PASS
		VH	TN	0.43	0.000167	± 2.5	PASS
	MCH	VL	TN	0.23	0.000089	± 2.5	PASS
		VN	TN	2.51	0.000967	± 2.5	PASS
		VH	TN	0.89	0.000343	± 2.5	PASS
	HCH	VL	TN	-1.15	-0.000440	± 2.5	PASS
		VN	TN	0.66	0.000253	± 2.5	PASS
		VH	TN	-1.5	-0.000574	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.35	0.000912	± 2.5	PASS
		VN	-20	1.07	0.000415	± 2.5	PASS
		VN	-10	2.25	0.000873	± 2.5	PASS
		VN	0	2.38	0.000923	± 2.5	PASS
		VN	10	3.61	0.001401	± 2.5	PASS
		VN	20	-1.12	-0.000435	± 2.5	PASS
		VN	30	3.69	0.001432	± 2.5	PASS
		VN	40	1.41	0.000547	± 2.5	PASS
		VN	50	-1.85	-0.000718	± 2.5	PASS
	MCH	VN	-30	4.08	0.001572	± 2.5	PASS
		VN	-20	0.65	0.000250	± 2.5	PASS
		VN	-10	4.39	0.001692	± 2.5	PASS

		VN	0	-0.3	-0.000116	± 2.5	PASS
		VN	10	0.52	0.000200	± 2.5	PASS
		VN	20	4.49	0.001730	± 2.5	PASS
		VN	30	1.16	0.000447	± 2.5	PASS
		VN	40	4.39	0.001692	± 2.5	PASS
		VN	50	1.01	0.000389	± 2.5	PASS
	HCH	VN	-30	3.33	0.001275	± 2.5	PASS
		VN	-20	1.04	0.000398	± 2.5	PASS
		VN	-10	2.73	0.001045	± 2.5	PASS
		VN	0	-1.57	-0.000601	± 2.5	PASS
		VN	10	4.06	0.001554	± 2.5	PASS
		VN	20	3.19	0.001221	± 2.5	PASS
		VN	30	0.82	0.000314	± 2.5	PASS
		VN	40	3.73	0.001428	± 2.5	PASS
		VN	50	1.55	0.000593	± 2.5	PASS
16QAM	LCH	VN	-30	-0.39	-0.000151	± 2.5	PASS
		VN	-20	1.94	0.000753	± 2.5	PASS
		VN	-10	4.54	0.001761	± 2.5	PASS
		VN	0	-1.61	-0.000625	± 2.5	PASS
		VN	10	0.05	0.000019	± 2.5	PASS
		VN	20	-0.79	-0.000306	± 2.5	PASS
		VN	30	3.6	0.001397	± 2.5	PASS
		VN	40	-0.86	-0.000334	± 2.5	PASS
		VN	50	3.83	0.001486	± 2.5	PASS
	MCH	VN	-30	-1.15	-0.000443	± 2.5	PASS
		VN	-20	-1.15	-0.000443	± 2.5	PASS
		VN	-10	3.36	0.001295	± 2.5	PASS
		VN	0	3.14	0.001210	± 2.5	PASS
		VN	10	-0.28	-0.000108	± 2.5	PASS
		VN	20	2.34	0.000902	± 2.5	PASS
		VN	30	0.27	0.000104	± 2.5	PASS
		VN	40	4.8	0.001850	± 2.5	PASS
		VN	50	-1.26	-0.000486	± 2.5	PASS
	HCH	VN	-30	1.7	0.000651	± 2.5	PASS
		VN	-20	-0.54	-0.000207	± 2.5	PASS
		VN	-10	-0.24	-0.000092	± 2.5	PASS
		VN	0	4.9	0.001876	± 2.5	PASS
		VN	10	3.92	0.001500	± 2.5	PASS
		VN	20	2.64	0.001011	± 2.5	PASS
		VN	30	-0.6	-0.000230	± 2.5	PASS
		VN	40	2.91	0.001114	± 2.5	PASS

		VN	50	3.01	0.001152	± 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	2.68	0.001039	± 2.5	PASS
		VN	TN	2.8	0.001085	± 2.5	PASS
		VH	TN	4.21	0.001632	± 2.5	PASS
	MCH	VL	TN	4.23	0.001630	± 2.5	PASS
		VN	TN	-0.01	-0.000004	± 2.5	PASS
		VH	TN	0.84	0.000324	± 2.5	PASS
	HCH	VL	TN	-1.28	-0.000490	± 2.5	PASS
		VN	TN	2.73	0.001046	± 2.5	PASS
		VH	TN	-0.4	-0.000153	± 2.5	PASS
16QAM	LCH	VL	TN	4.43	0.001717	± 2.5	PASS
		VN	TN	3.28	0.001271	± 2.5	PASS
		VH	TN	1.39	0.000539	± 2.5	PASS
	MCH	VL	TN	-1.39	-0.000536	± 2.5	PASS
		VN	TN	-0.89	-0.000343	± 2.5	PASS
		VH	TN	-0.8	-0.000308	± 2.5	PASS
	HCH	VL	TN	-0.43	-0.000165	± 2.5	PASS
		VN	TN	3	0.001149	± 2.5	PASS
		VH	TN	2.59	0.000992	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.14	0.000829	± 2.5	PASS
		VN	-20	0.49	0.000190	± 2.5	PASS
		VN	-10	3.45	0.001337	± 2.5	PASS
		VN	0	-0.21	-0.000081	± 2.5	PASS
		VN	10	2.36	0.000915	± 2.5	PASS
		VN	20	-1.42	-0.000550	± 2.5	PASS
		VN	30	4.32	0.001674	± 2.5	PASS
		VN	40	4.07	0.001578	± 2.5	PASS
		VN	50	4.53	0.001756	± 2.5	PASS
	MCH	VN	-30	-0.76	-0.000293	± 2.5	PASS
		VN	-20	1.24	0.000478	± 2.5	PASS
		VN	-10	1.72	0.000663	± 2.5	PASS
		VN	0	2.92	0.001125	± 2.5	PASS

		VN	10	0.76	0.000293	± 2.5	PASS
		VN	20	-0.2	-0.000077	± 2.5	PASS
		VN	30	-0.47	-0.000181	± 2.5	PASS
		VN	40	1.65	0.000636	± 2.5	PASS
		VN	50	3.46	0.001333	± 2.5	PASS
	HCH	VN	-30	-0.75	-0.000287	± 2.5	PASS
		VN	-20	2.61	0.001000	± 2.5	PASS
		VN	-10	3.78	0.001448	± 2.5	PASS
		VN	0	1.36	0.000521	± 2.5	PASS
		VN	10	0.57	0.000218	± 2.5	PASS
		VN	20	4.4	0.001686	± 2.5	PASS
		VN	30	4.41	0.001690	± 2.5	PASS
		VN	40	1.63	0.000625	± 2.5	PASS
		VN	50	3.15	0.001207	± 2.5	PASS
		VN	-30	2.63	0.001019	± 2.5	PASS
16QAM	LCH	VN	-20	3.63	0.001407	± 2.5	PASS
		VN	-10	-1.24	-0.000481	± 2.5	PASS
		VN	0	-0.04	-0.000016	± 2.5	PASS
		VN	10	-0.56	-0.000217	± 2.5	PASS
		VN	20	-0.57	-0.000221	± 2.5	PASS
		VN	30	-1.94	-0.000752	± 2.5	PASS
		VN	40	0	0.000000	± 2.5	PASS
		VN	50	-0.7	-0.000271	± 2.5	PASS
	MCH	VN	-30	2.15	0.000829	± 2.5	PASS
		VN	-20	4.48	0.001726	± 2.5	PASS
		VN	-10	1.33	0.000513	± 2.5	PASS
		VN	0	3.07	0.001183	± 2.5	PASS
		VN	10	2.86	0.001102	± 2.5	PASS
		VN	20	-1.29	-0.000497	± 2.5	PASS
		VN	30	4	0.001541	± 2.5	PASS
		VN	40	3.66	0.001410	± 2.5	PASS
		VN	50	4.79	0.001846	± 2.5	PASS
	HCH	VN	-30	3.16	0.001211	± 2.5	PASS
		VN	-20	-0.71	-0.000272	± 2.5	PASS
		VN	-10	0.21	0.000080	± 2.5	PASS
		VN	0	4.85	0.001858	± 2.5	PASS
		VN	10	1.71	0.000655	± 2.5	PASS
		VN	20	-1.25	-0.000479	± 2.5	PASS
		VN	30	-1.43	-0.000548	± 2.5	PASS
		VN	40	4.87	0.001866	± 2.5	PASS
		VN	50	0.96	0.000368	± 2.5	PASS