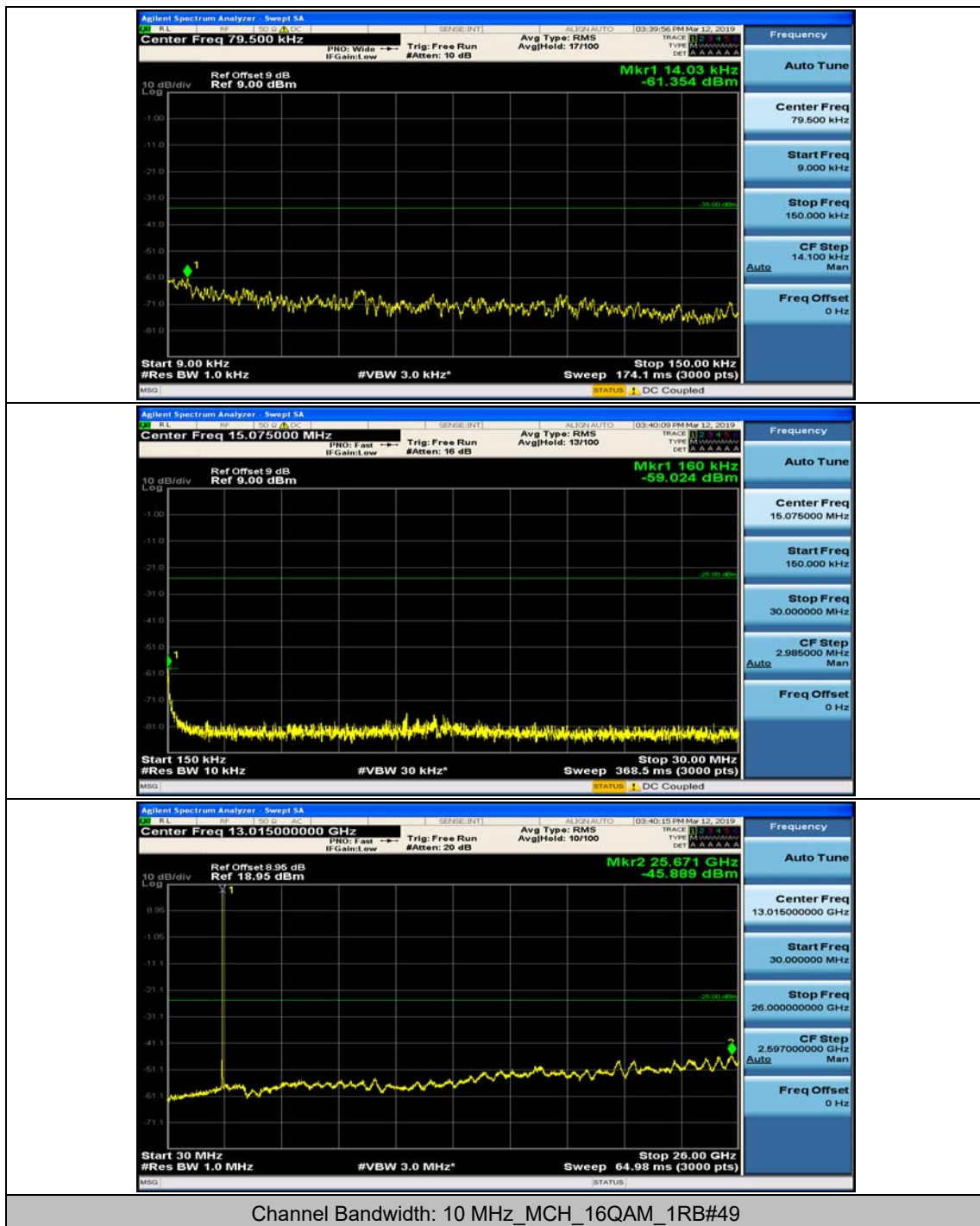
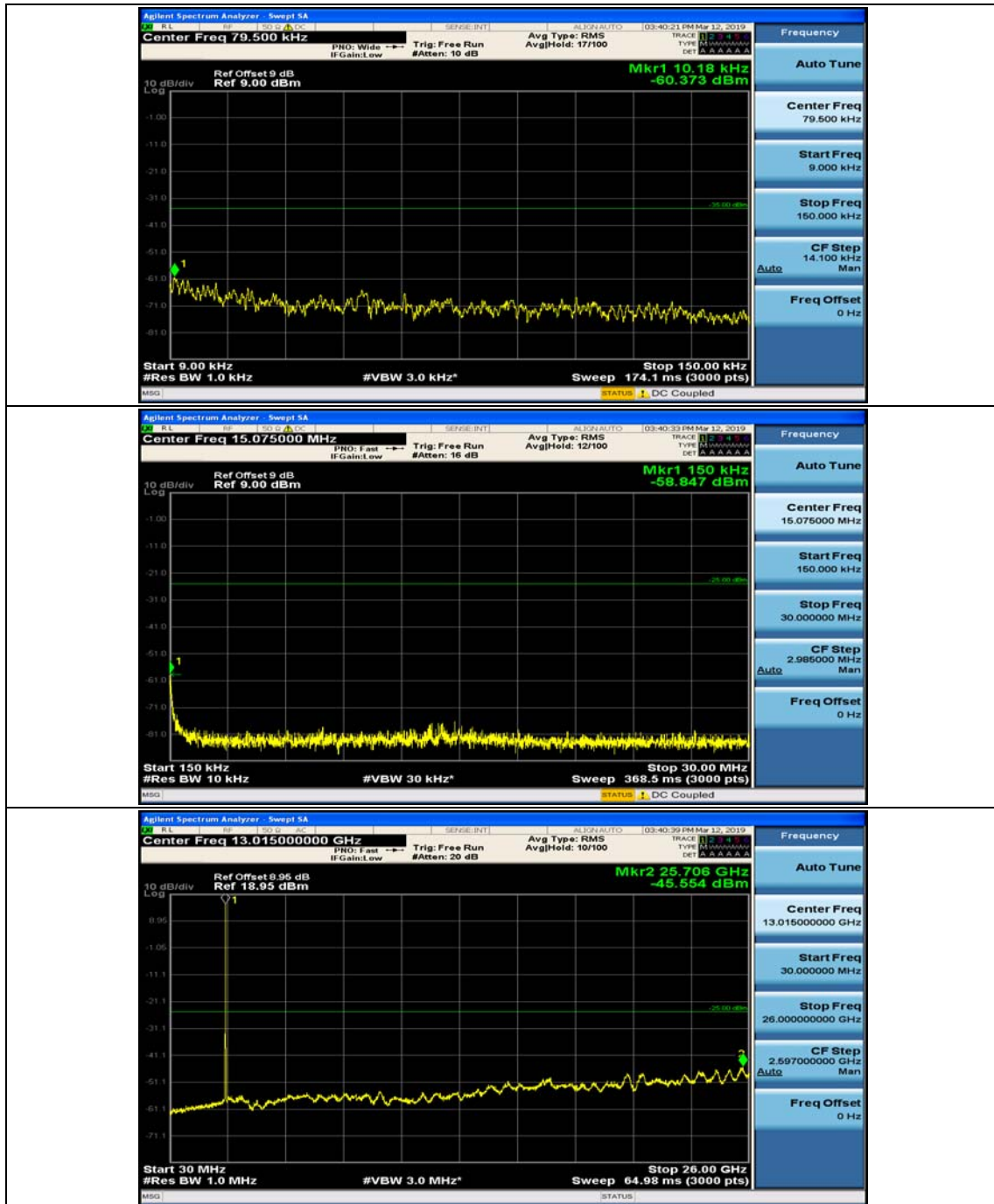
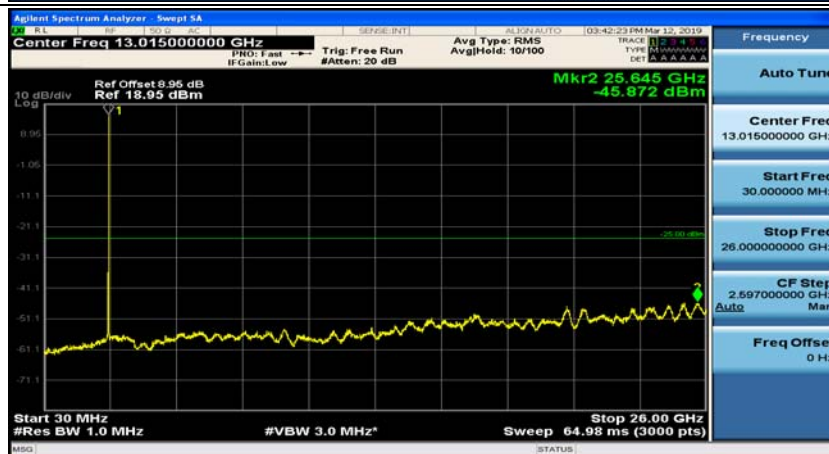
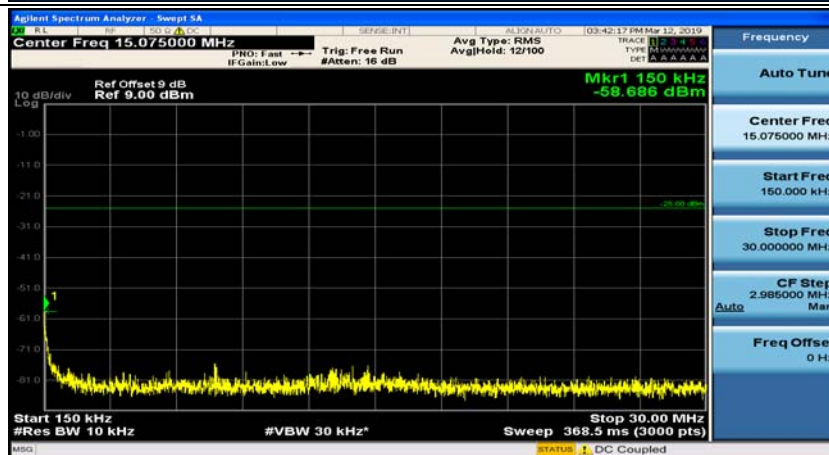
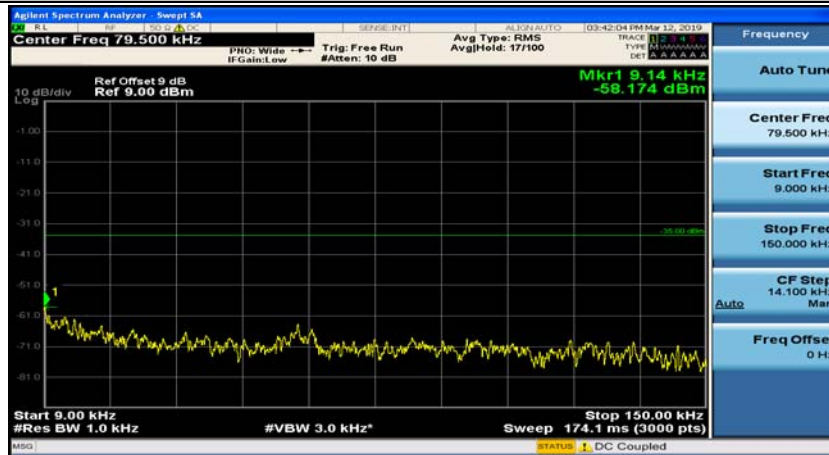


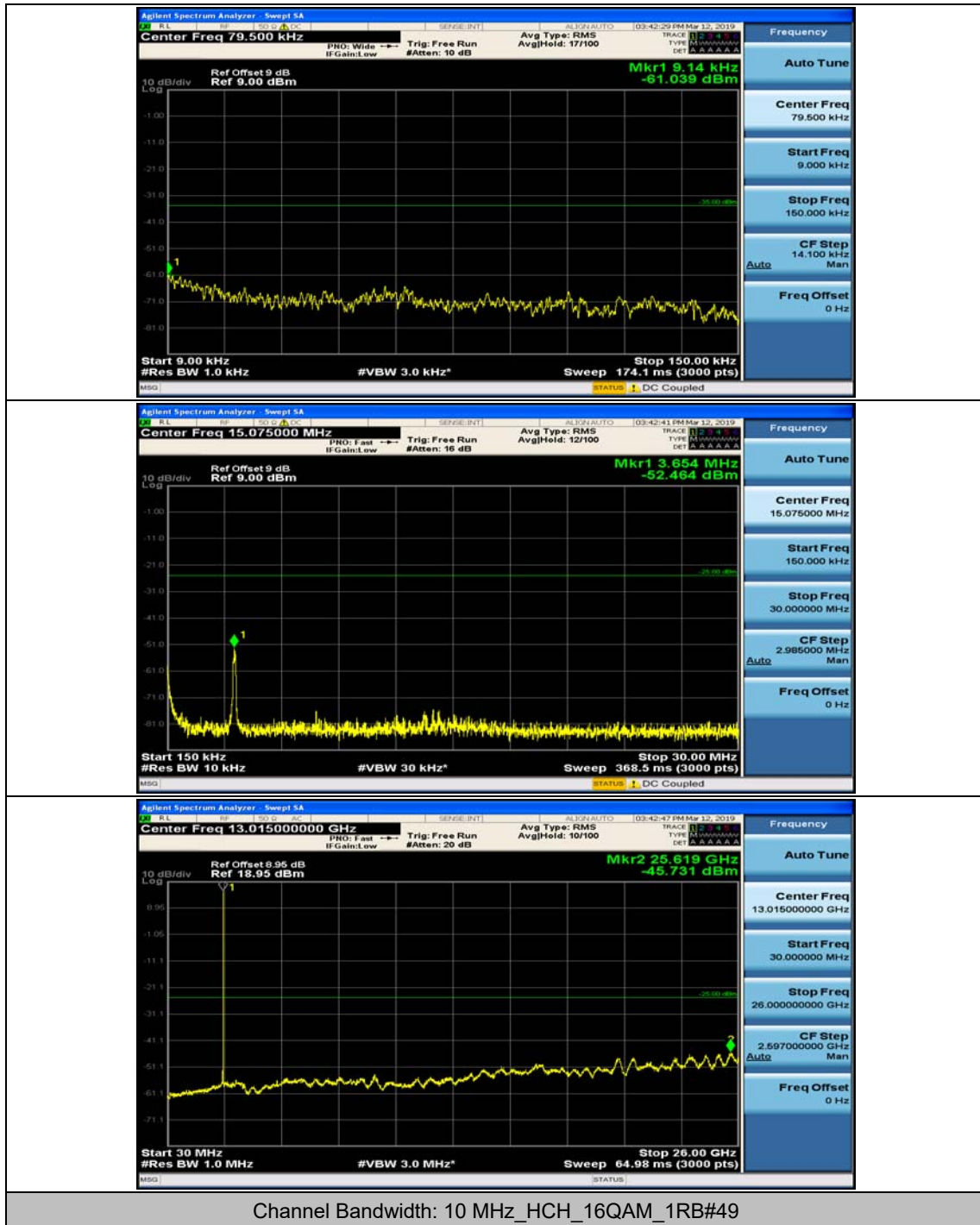


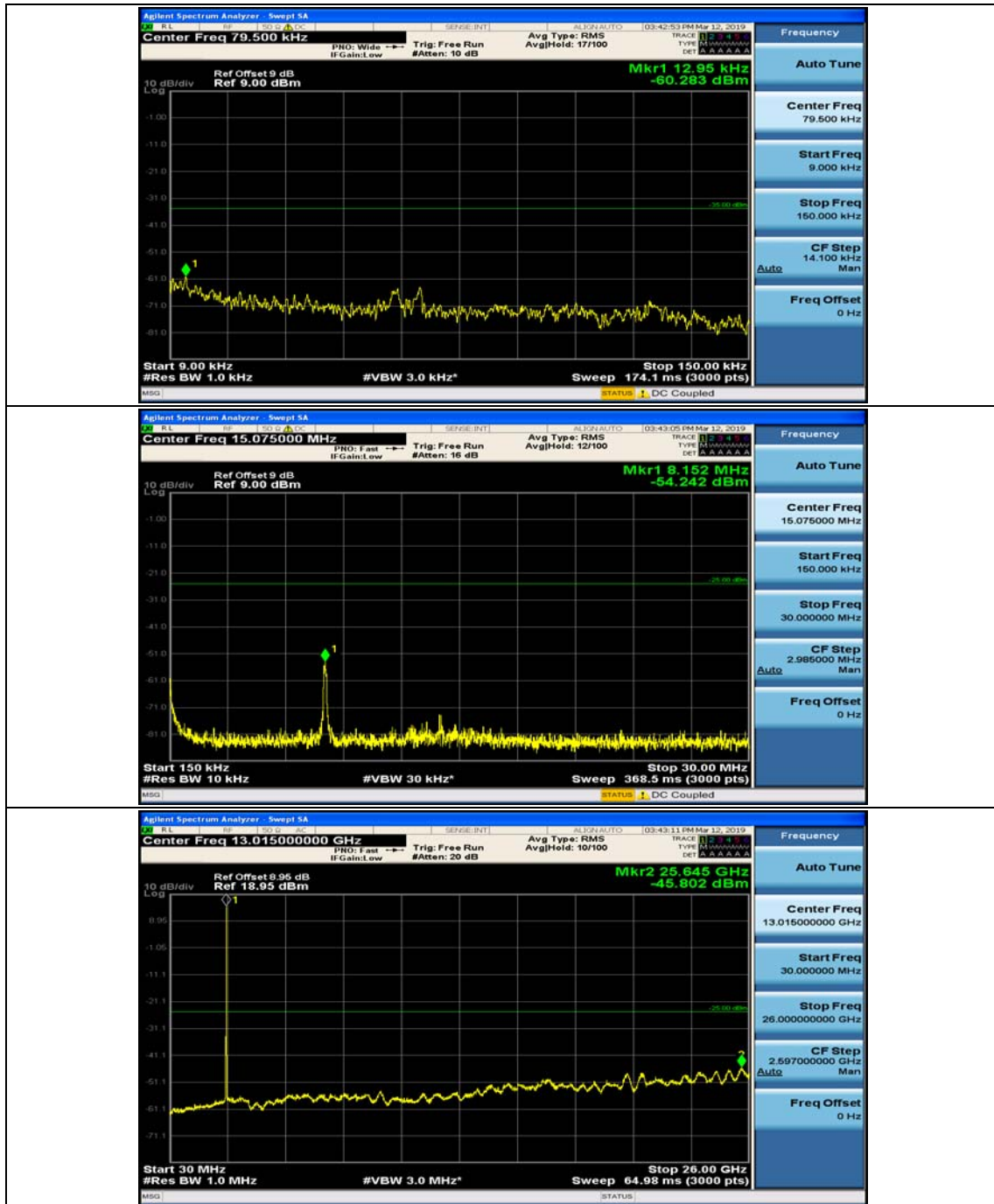


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

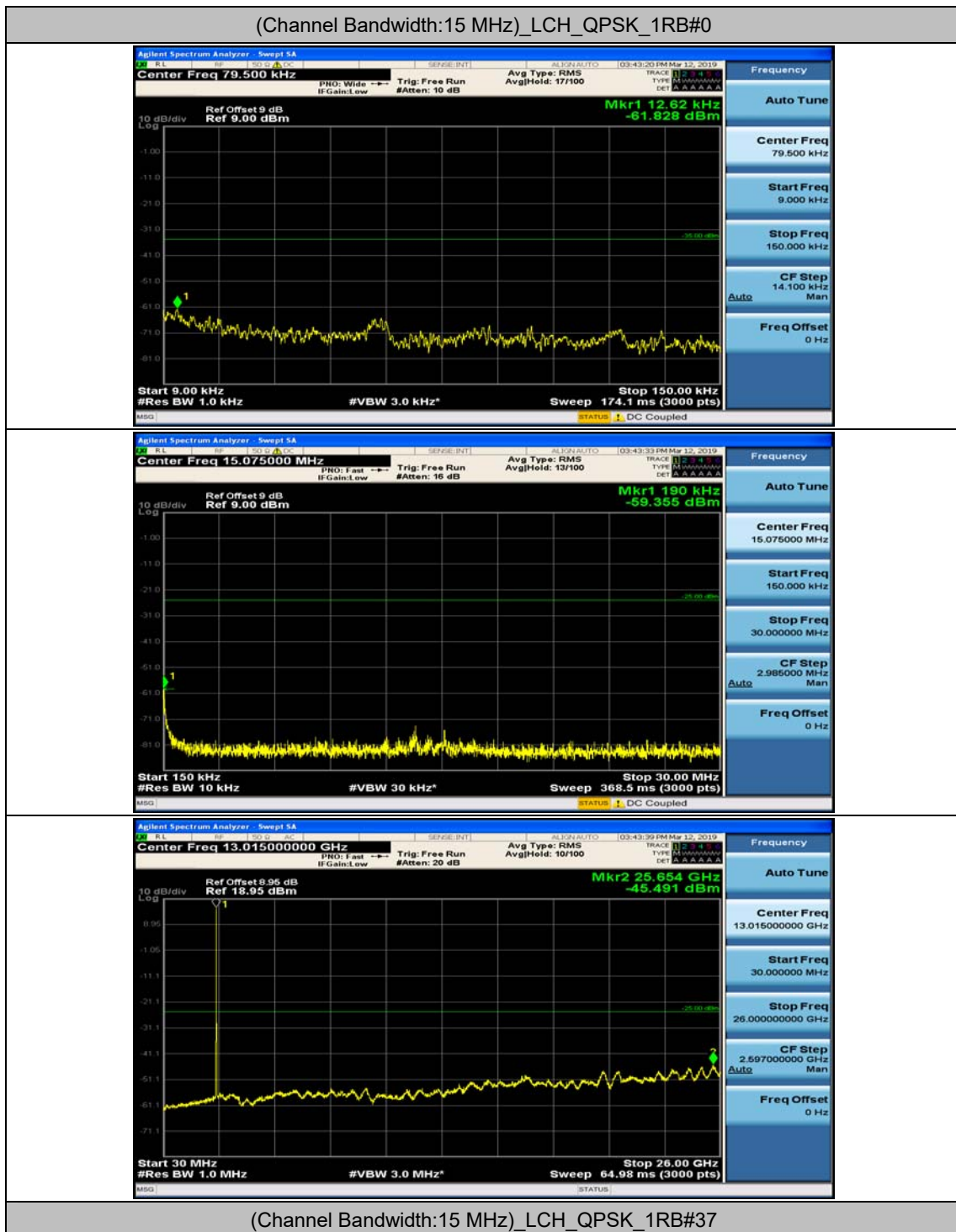


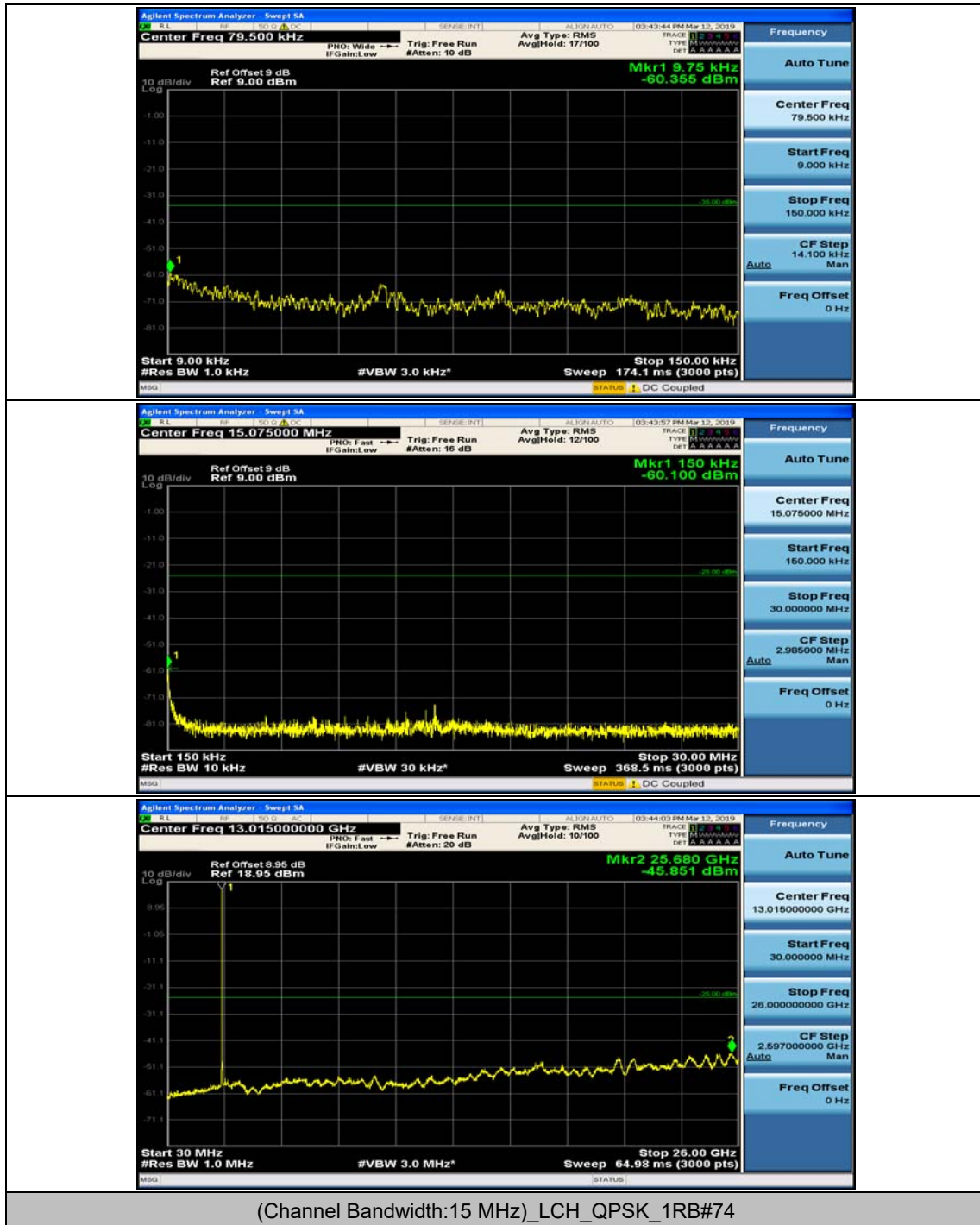
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

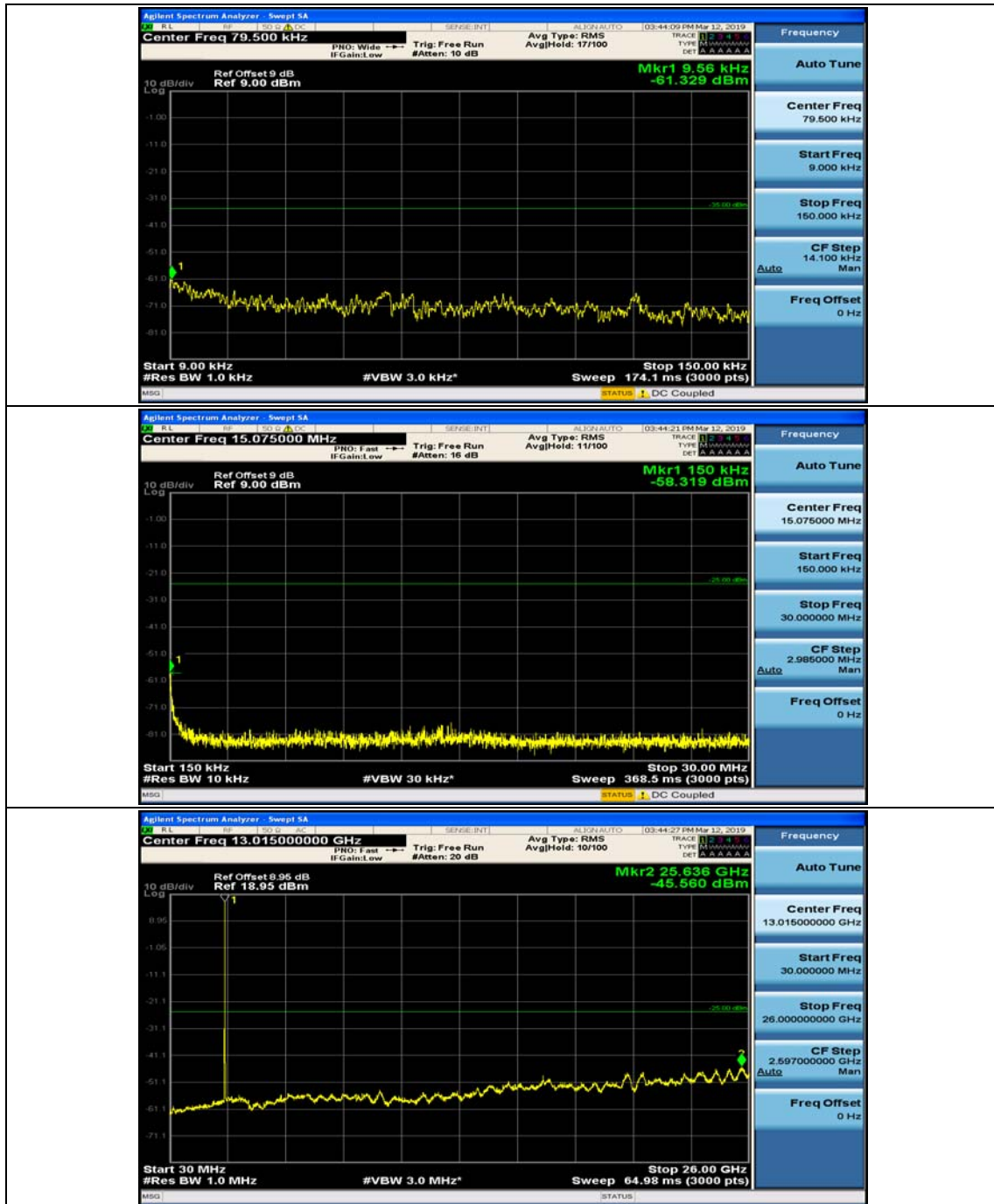




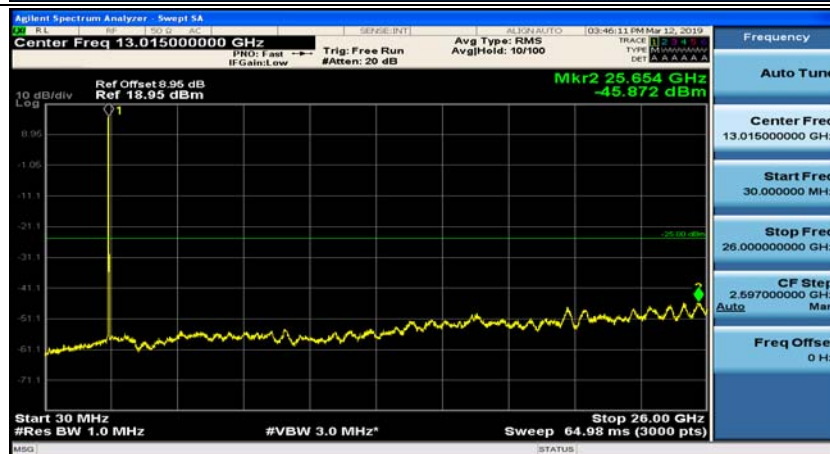
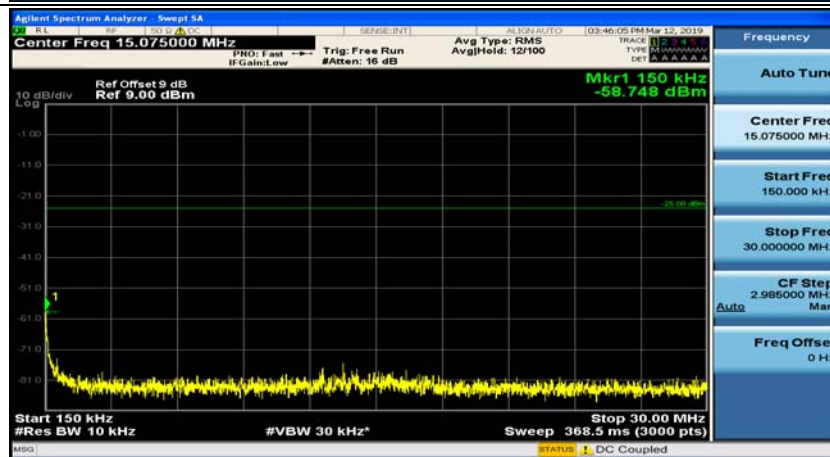
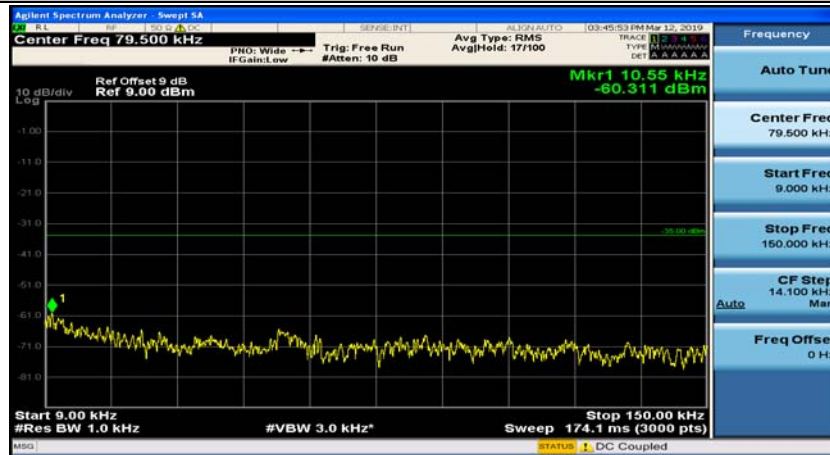
Channel Bandwidth: 15 MHz



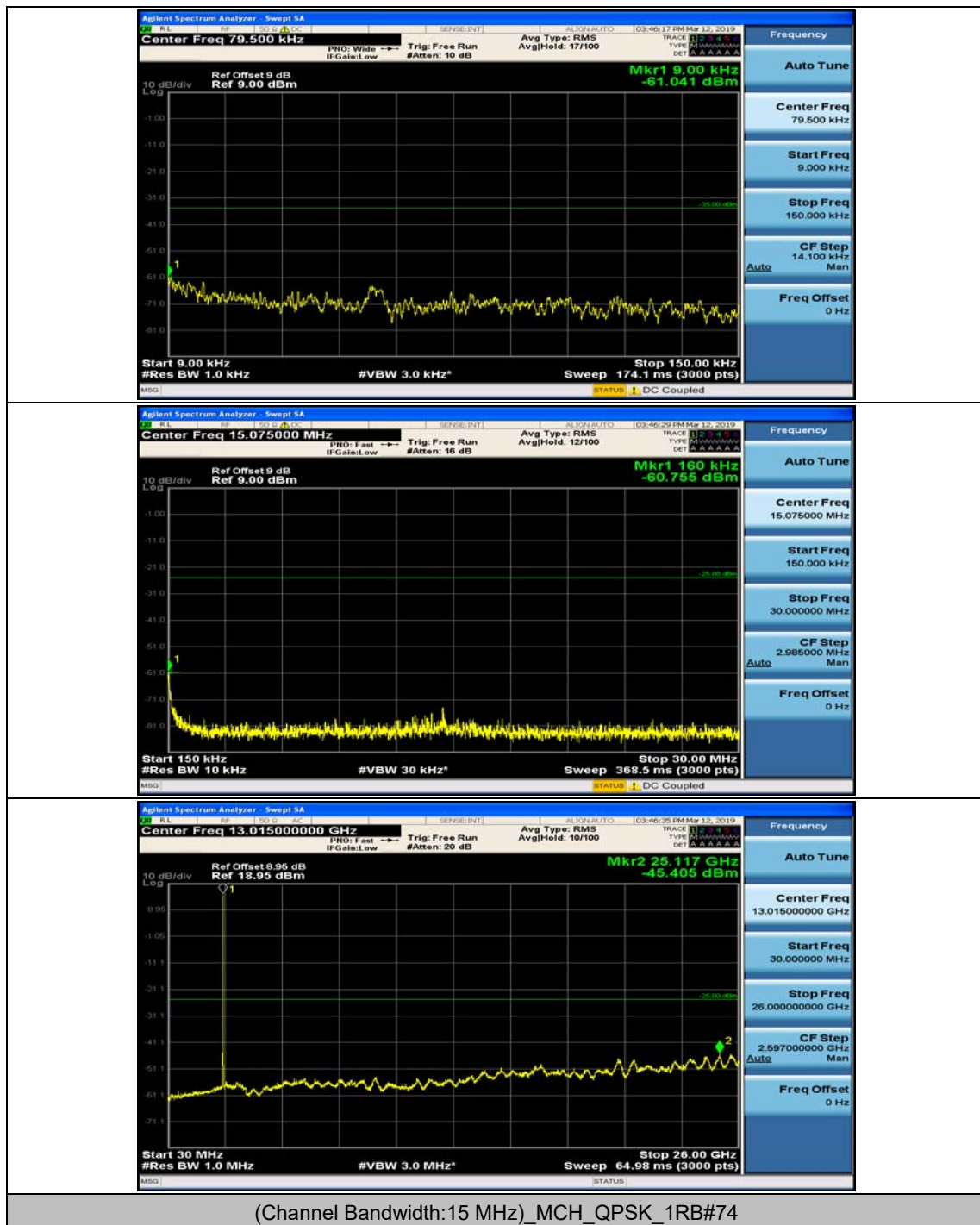


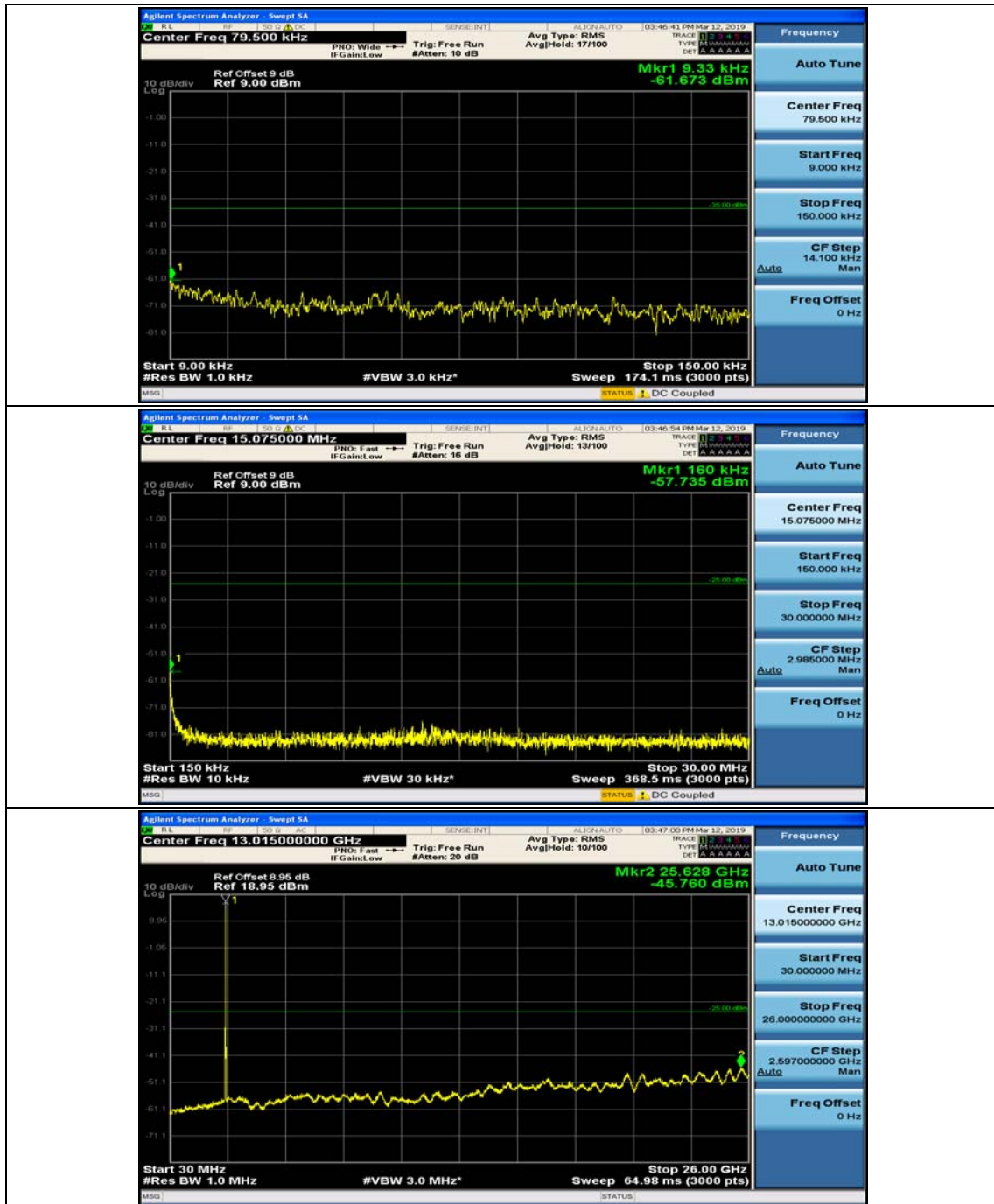


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

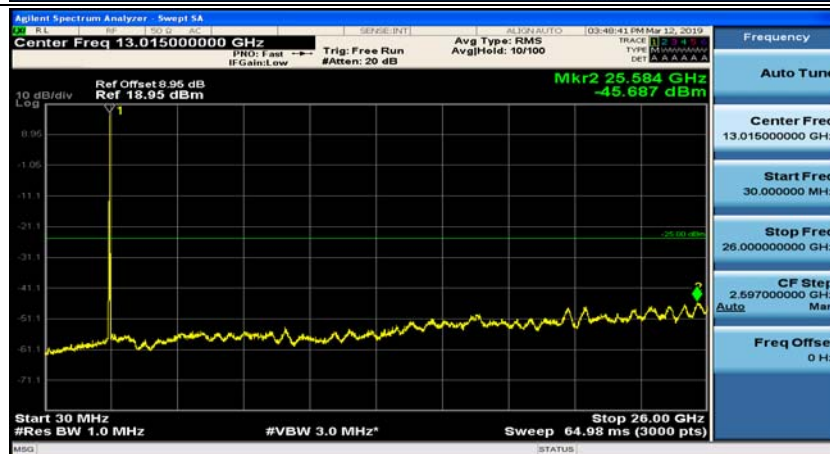
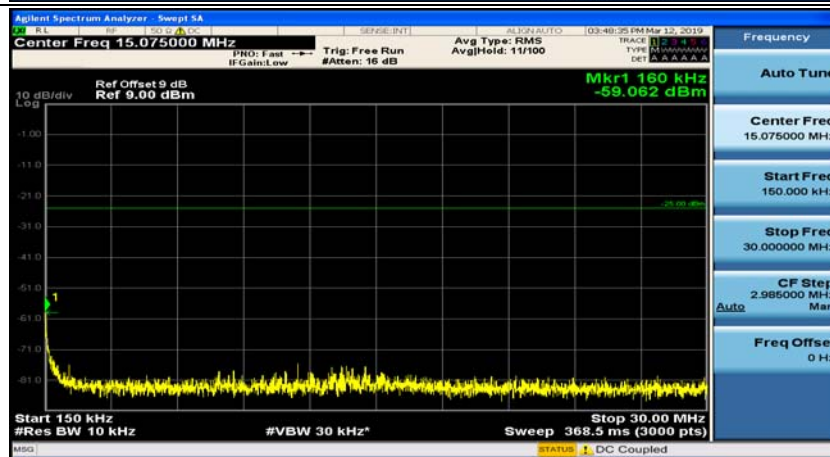
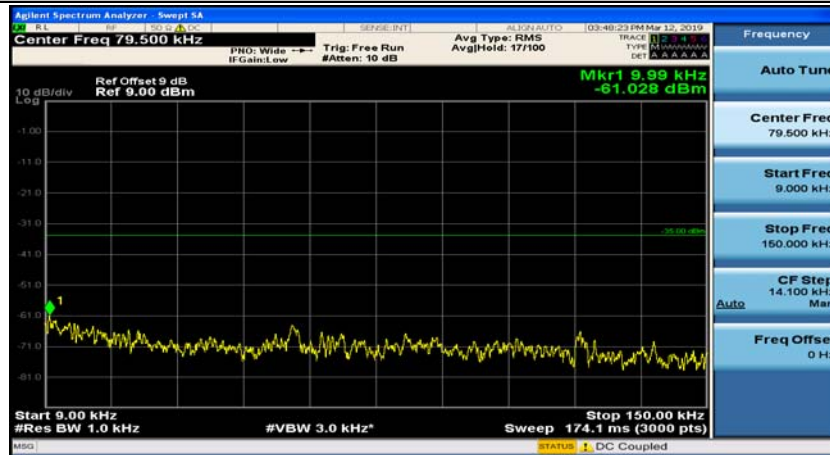


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

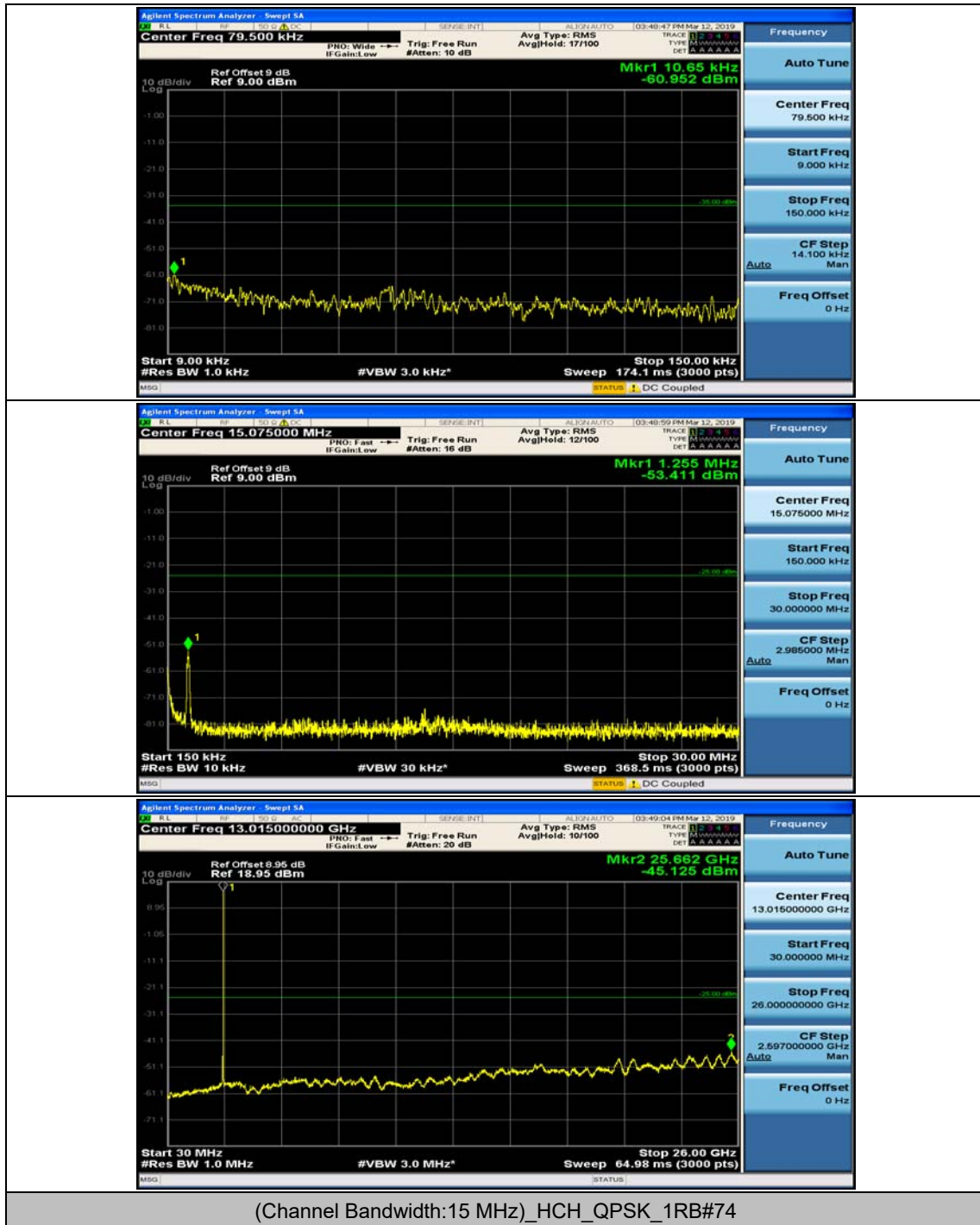


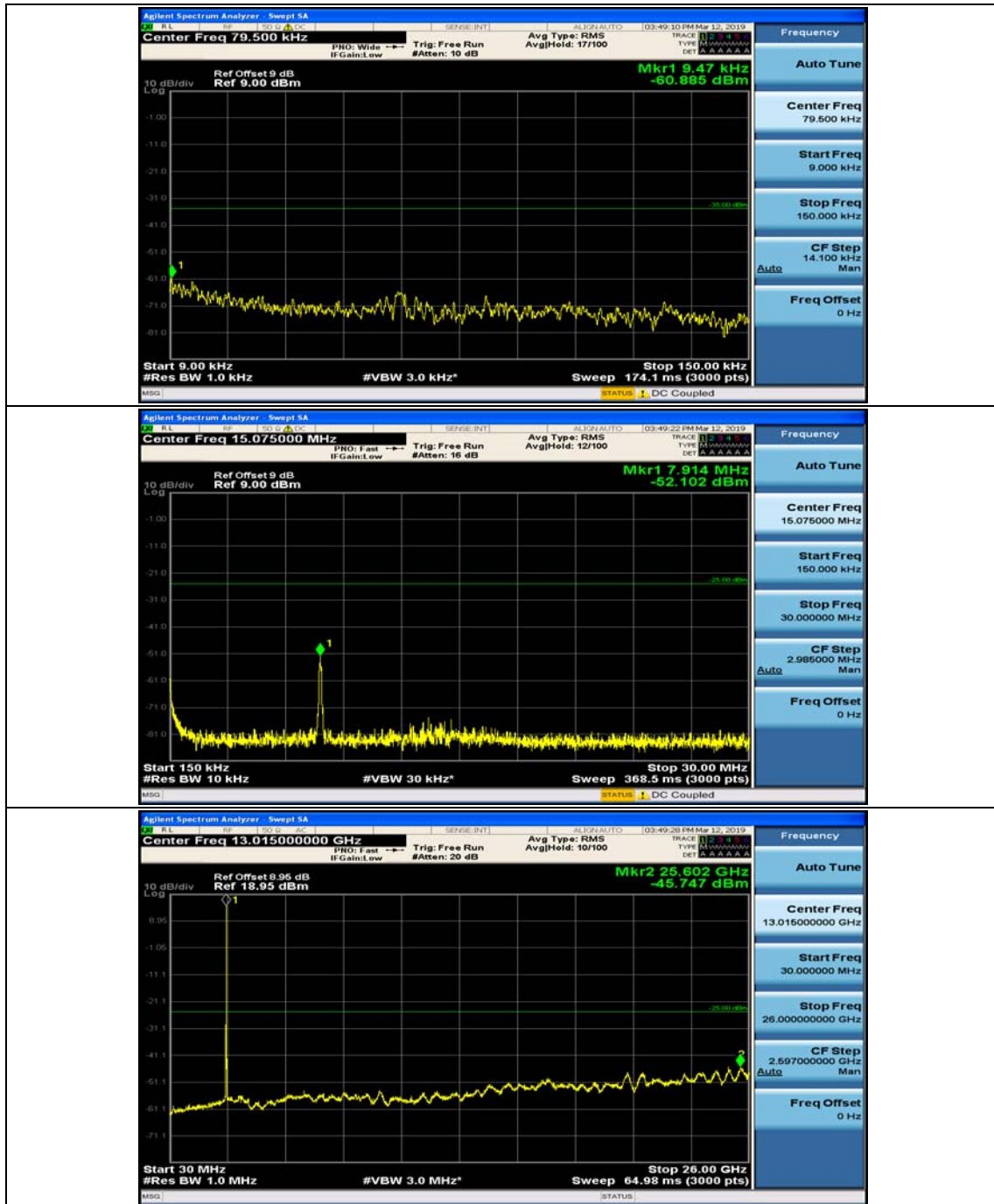


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

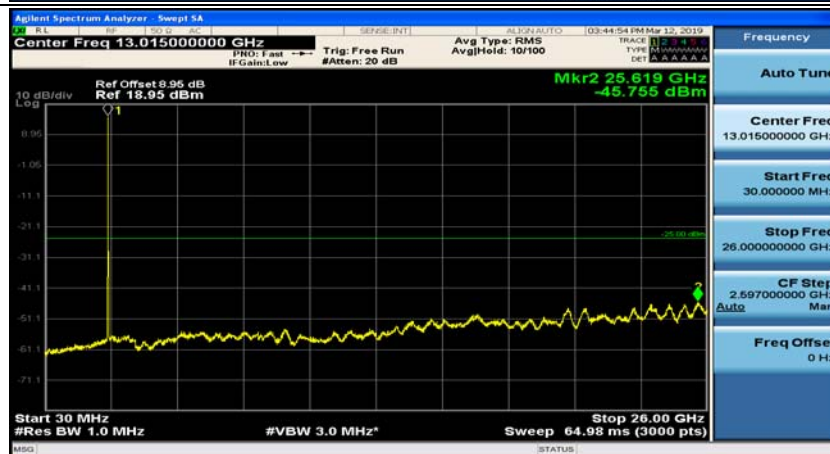
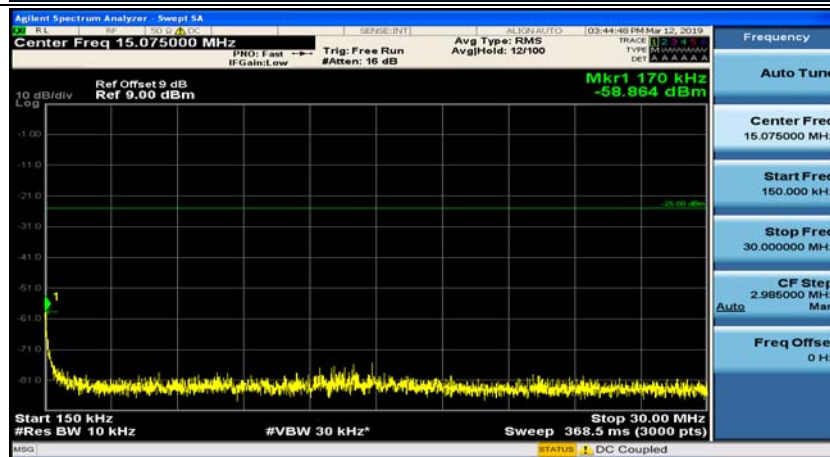
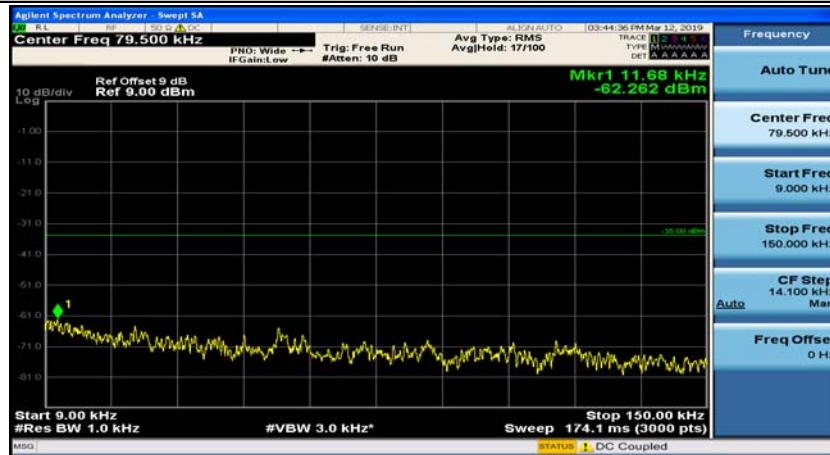


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

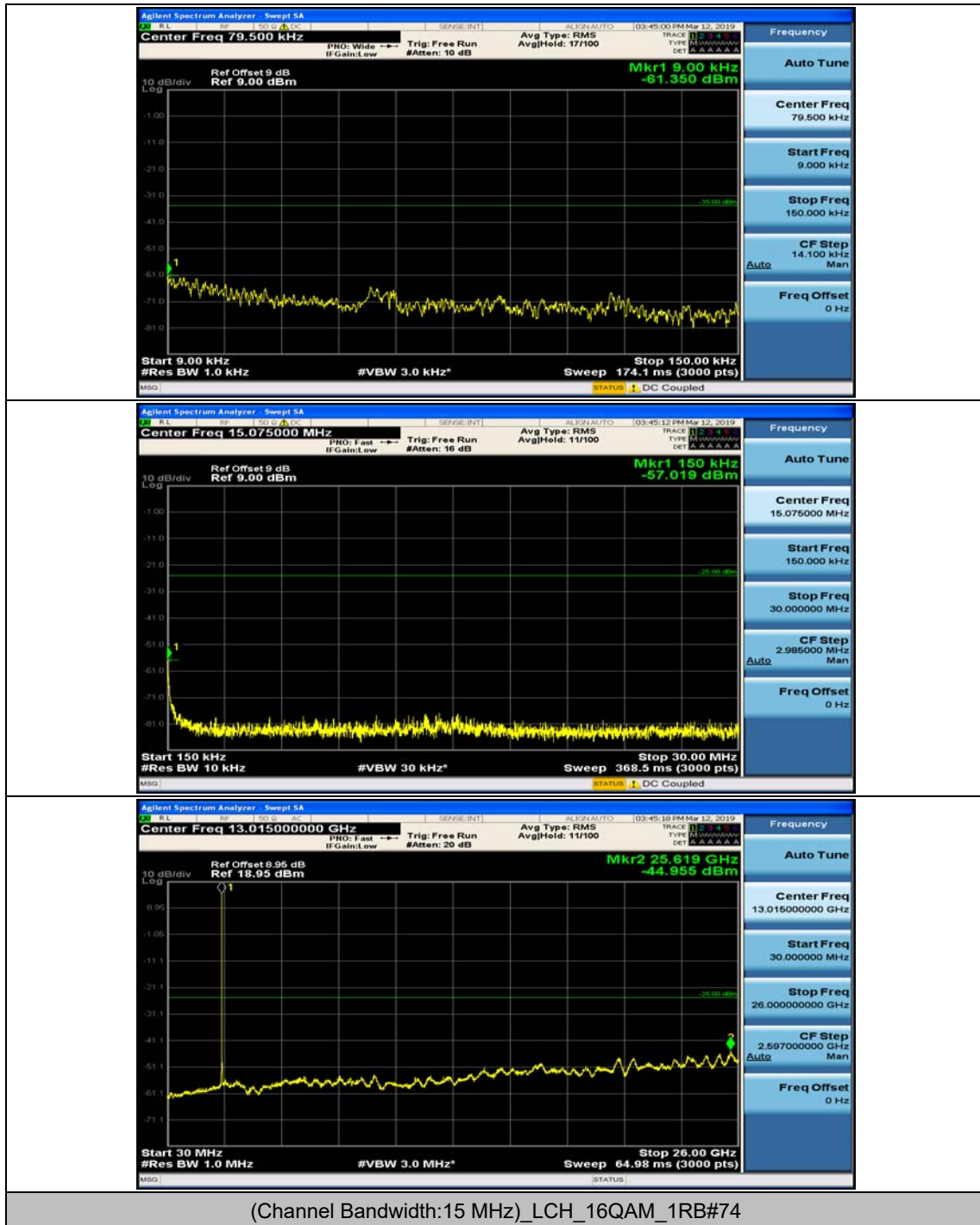


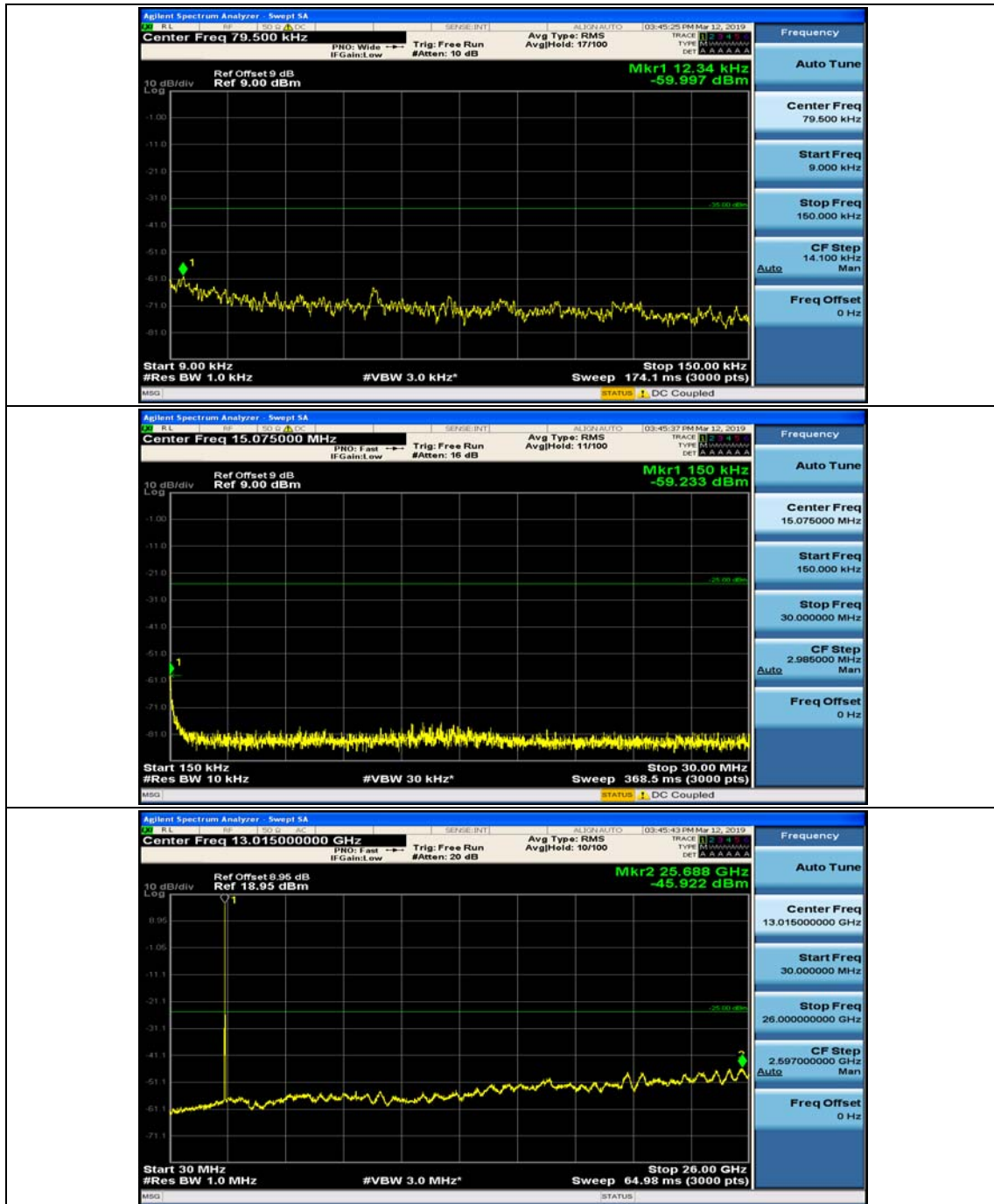


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

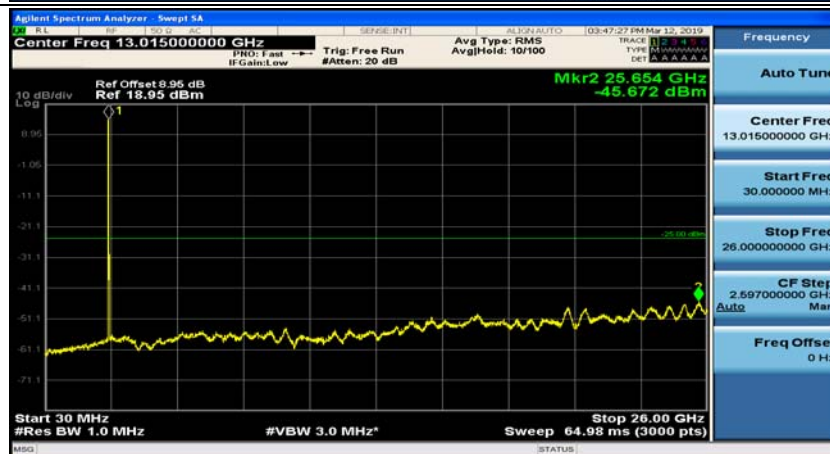
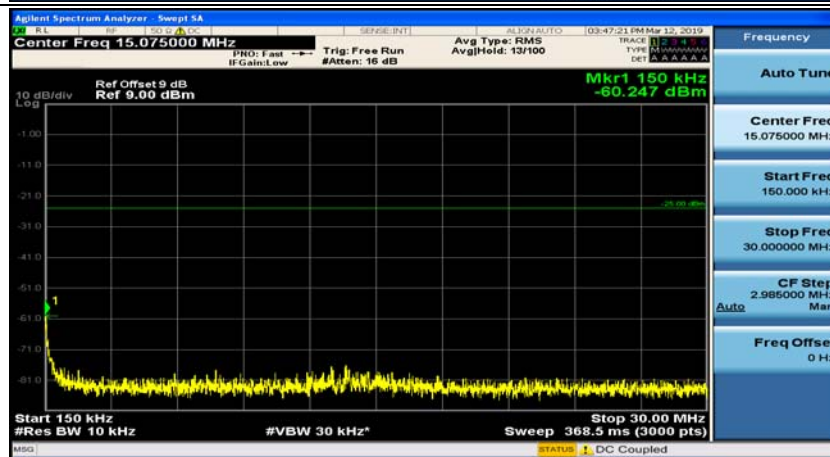
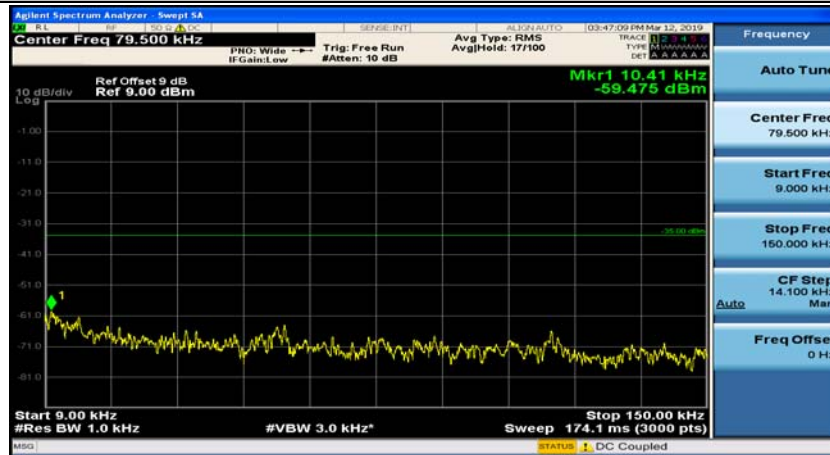


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

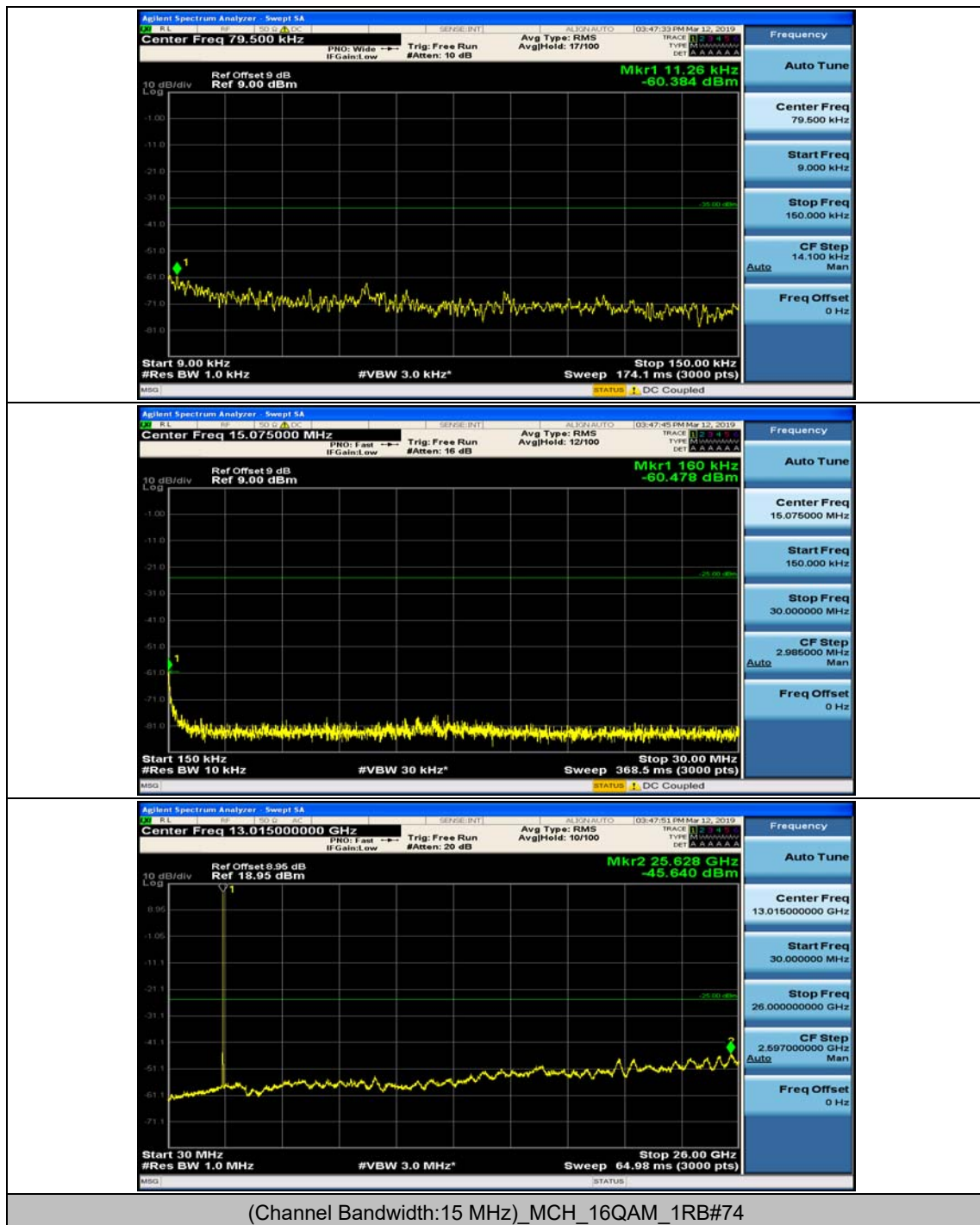


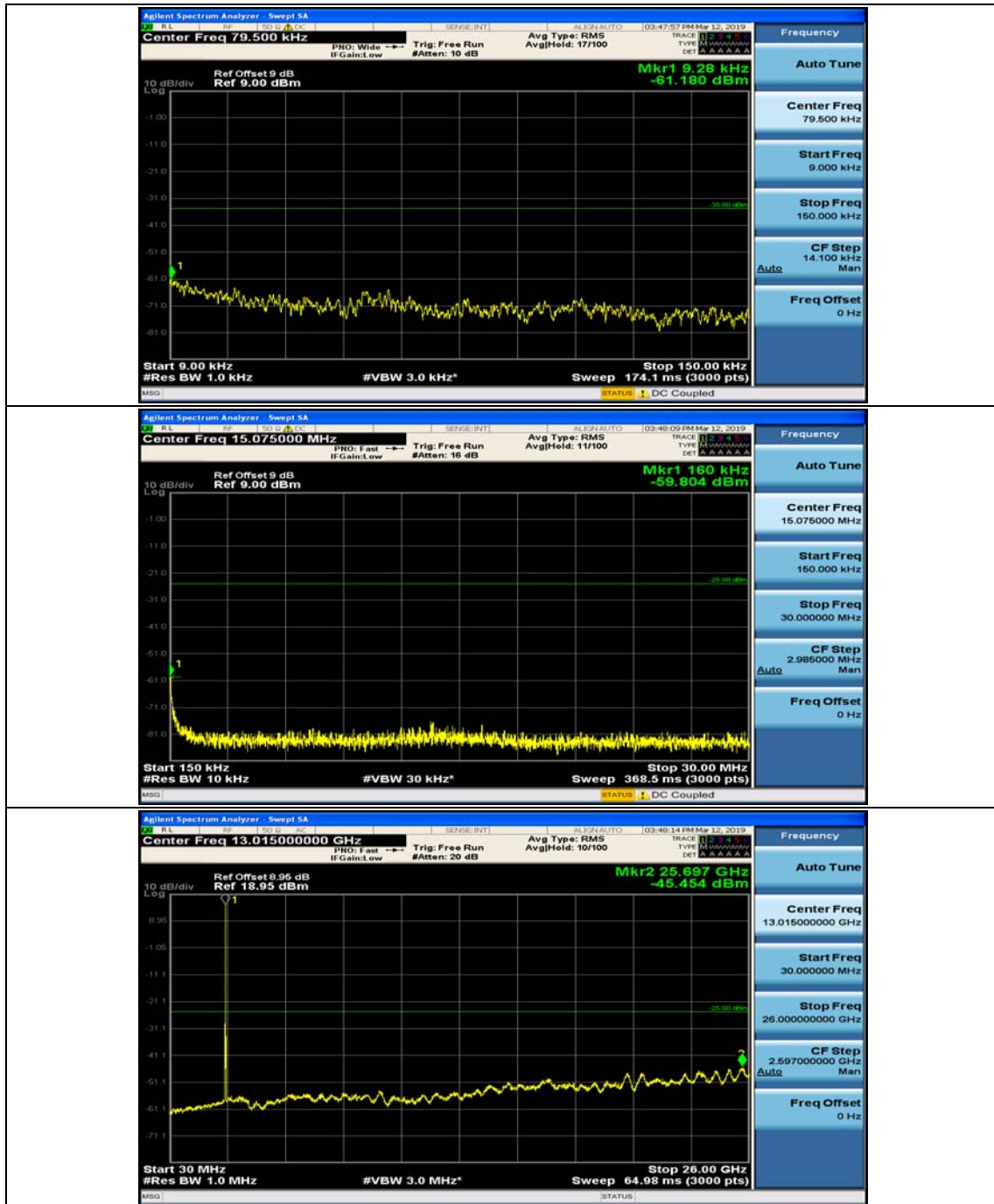


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

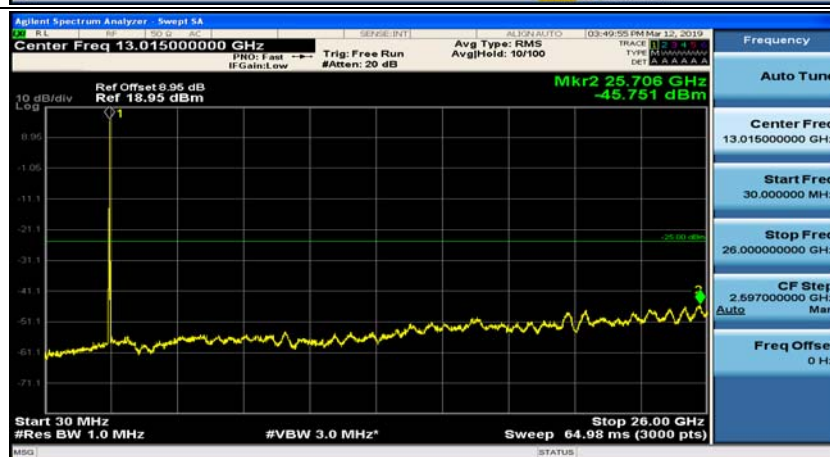
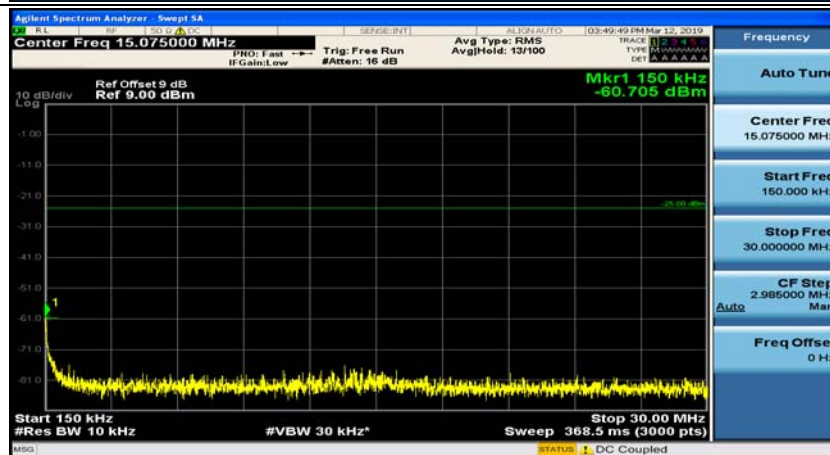
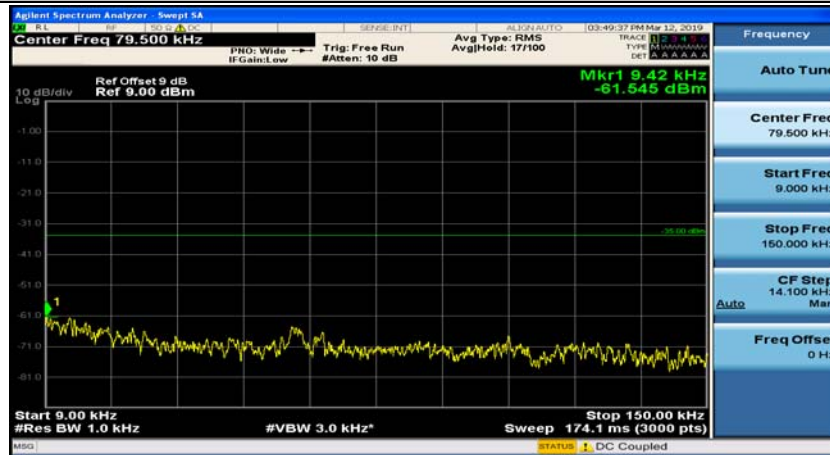


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

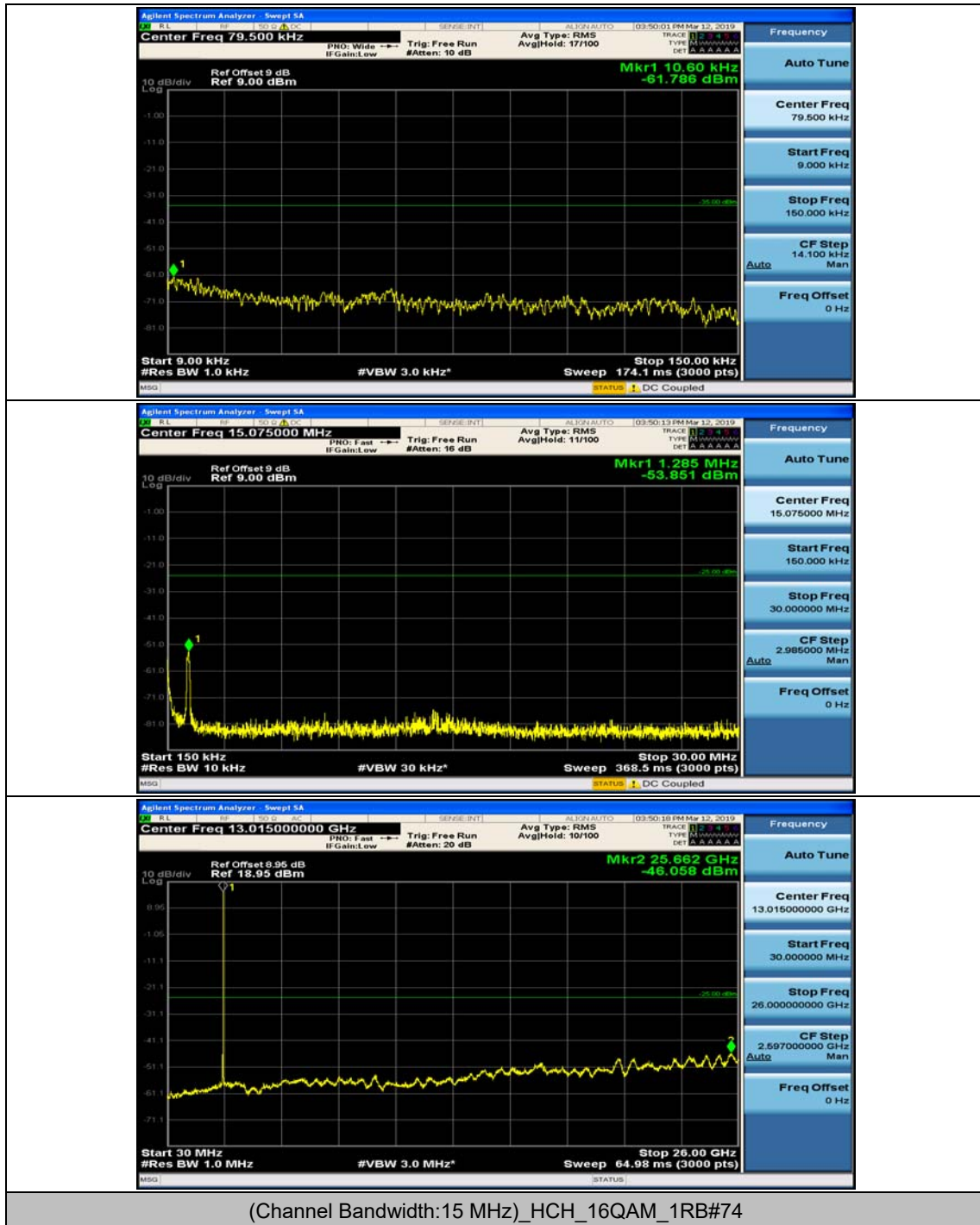


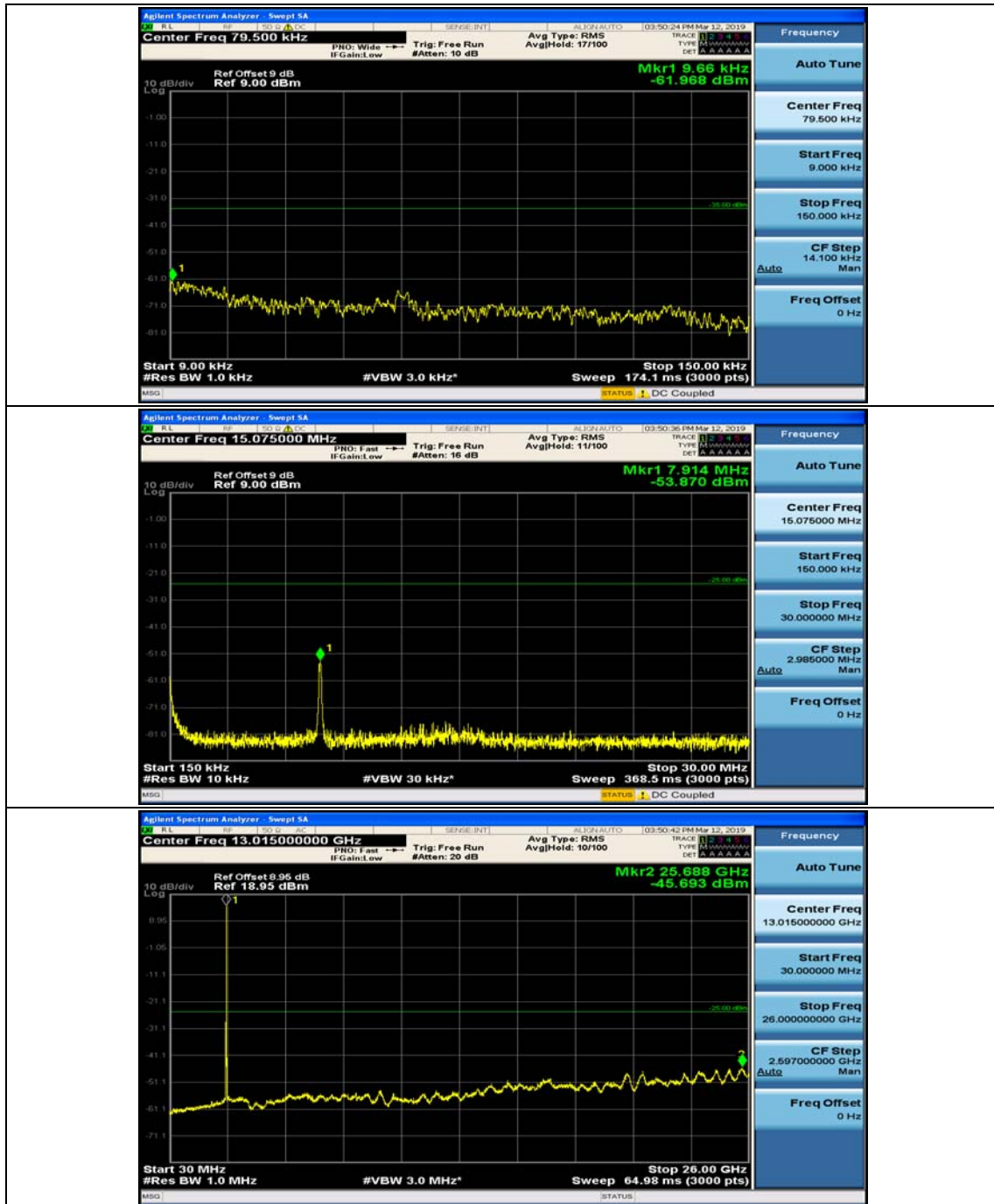


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

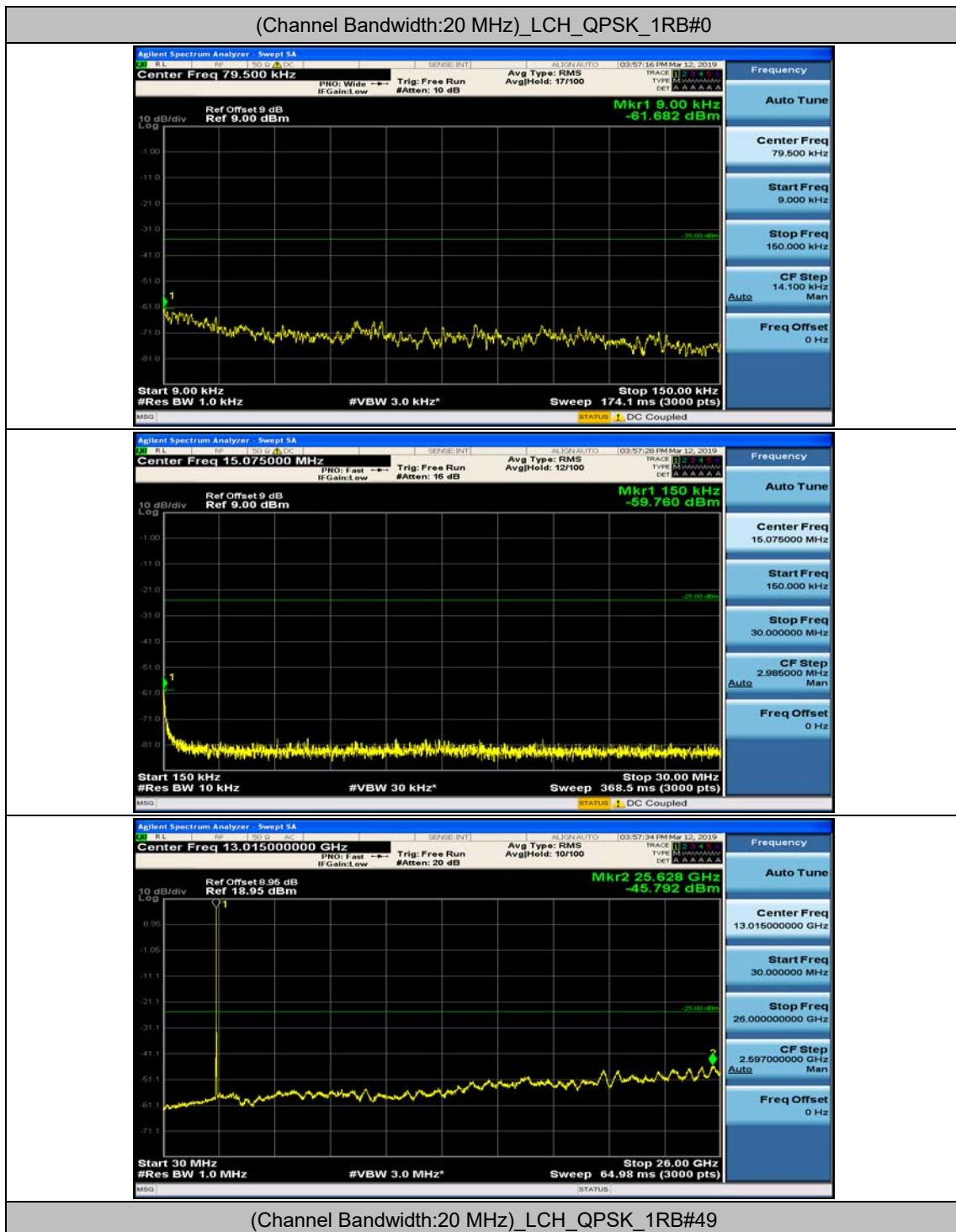


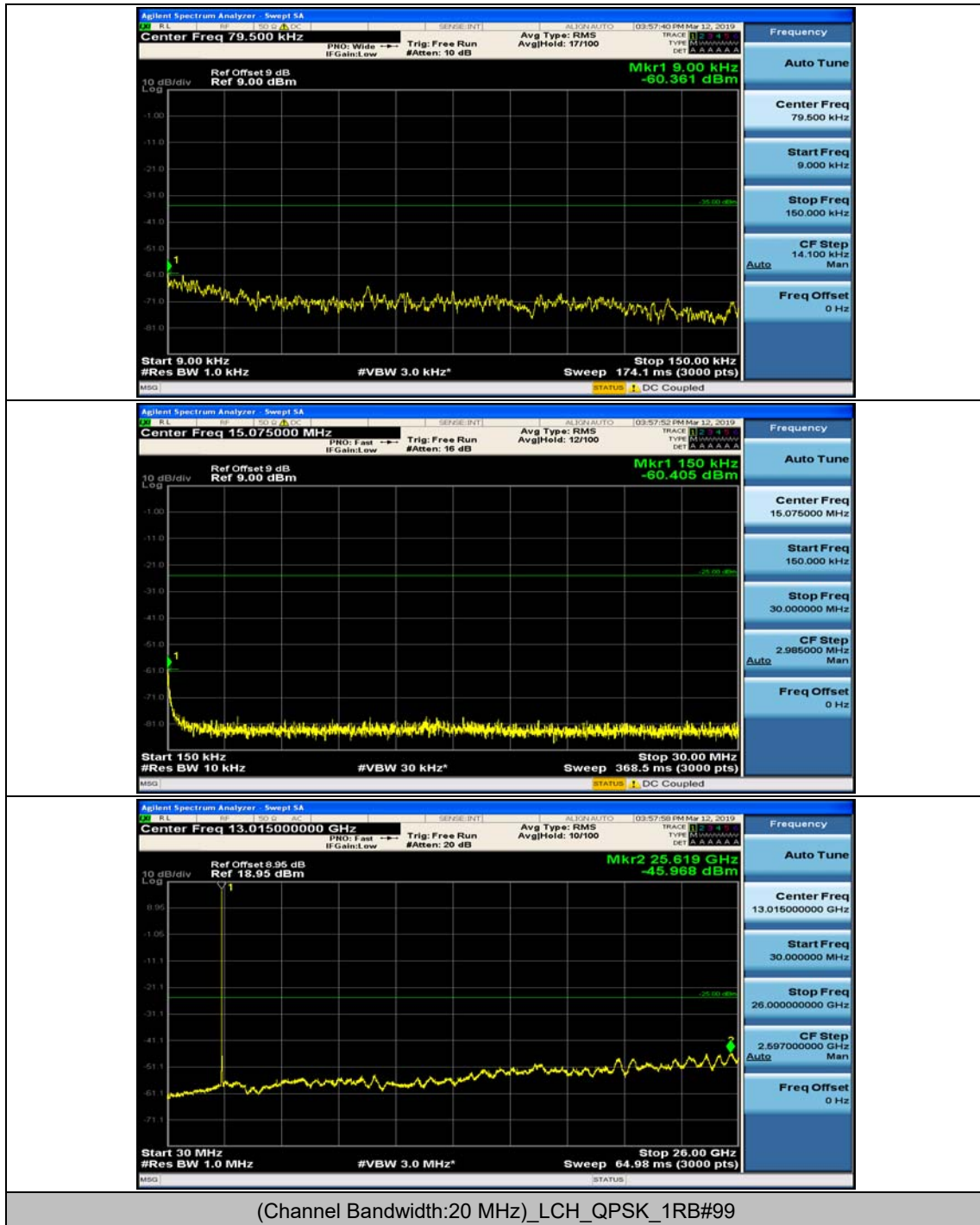
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

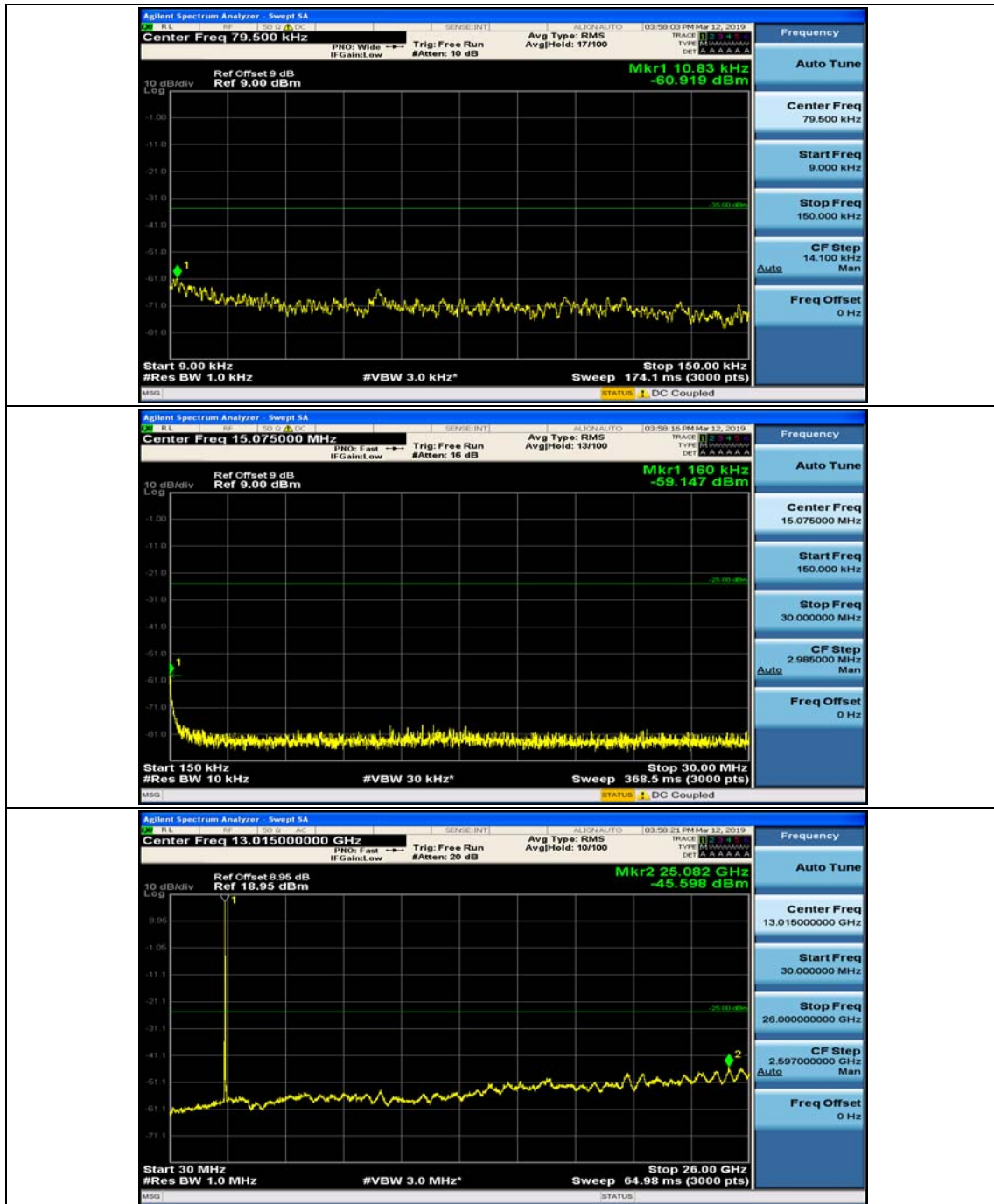




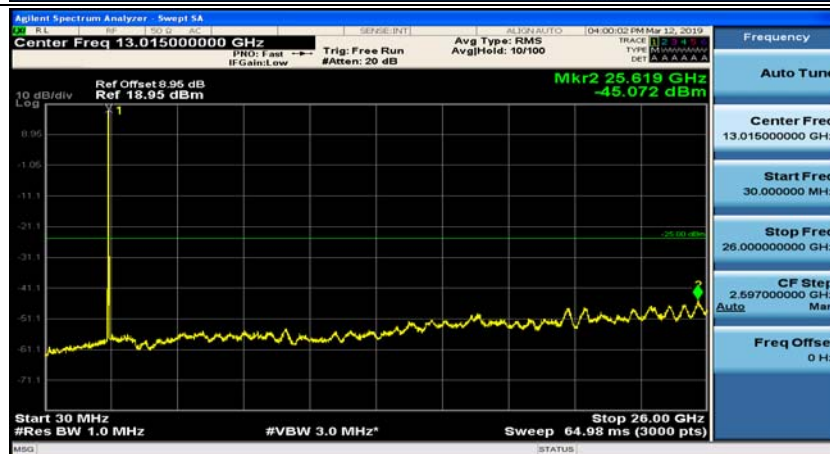
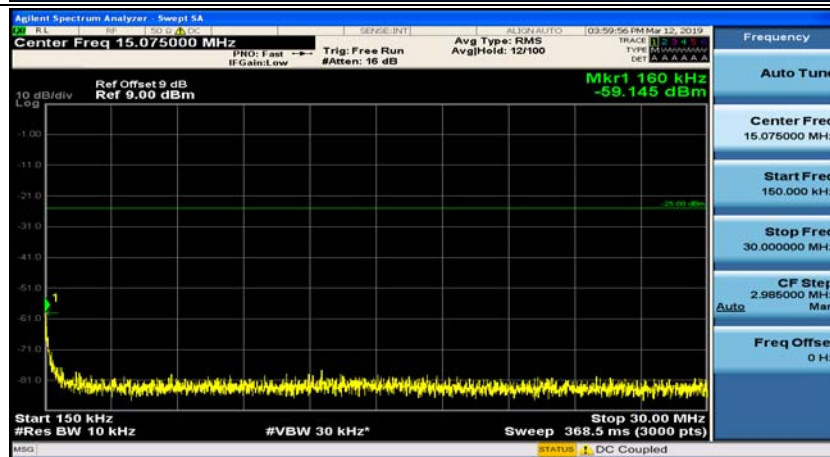
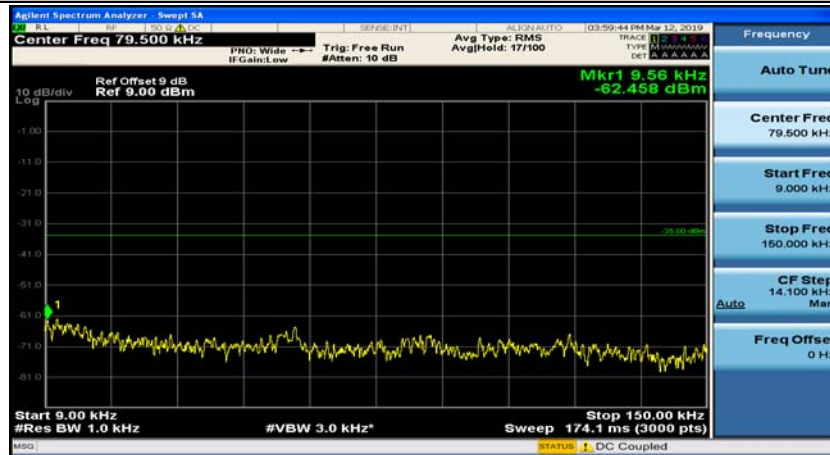
Channel Bandwidth: 20 MHz



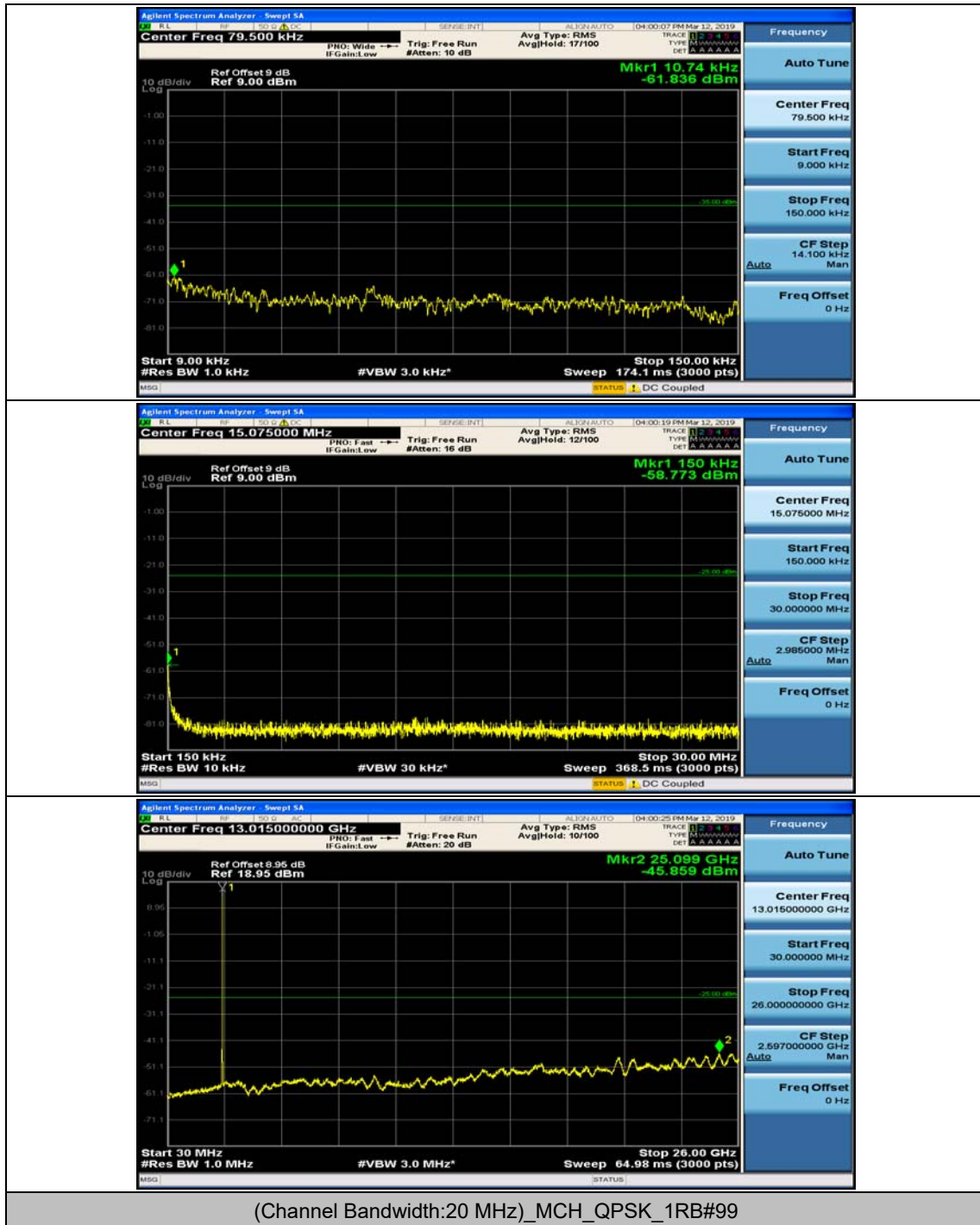


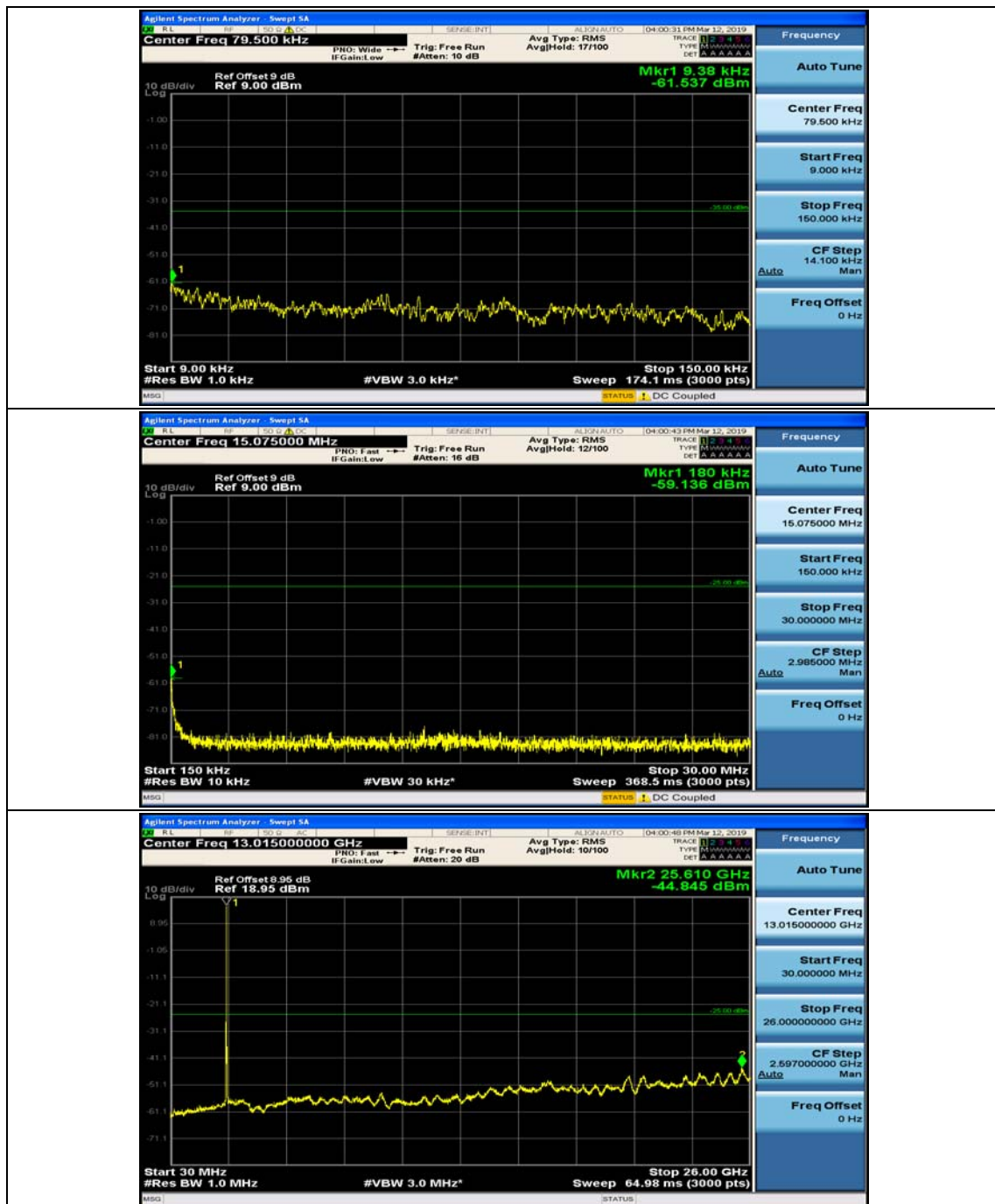


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

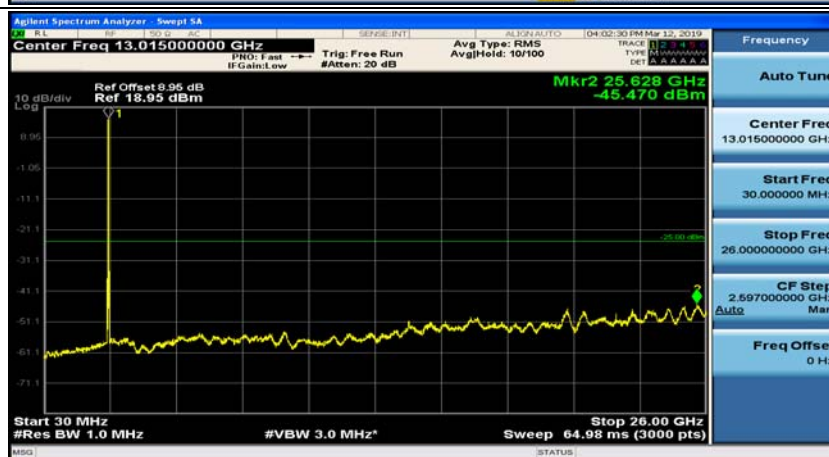
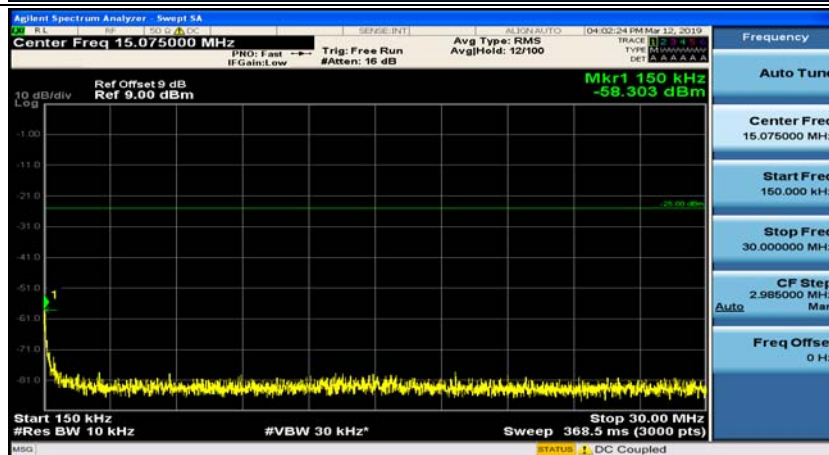
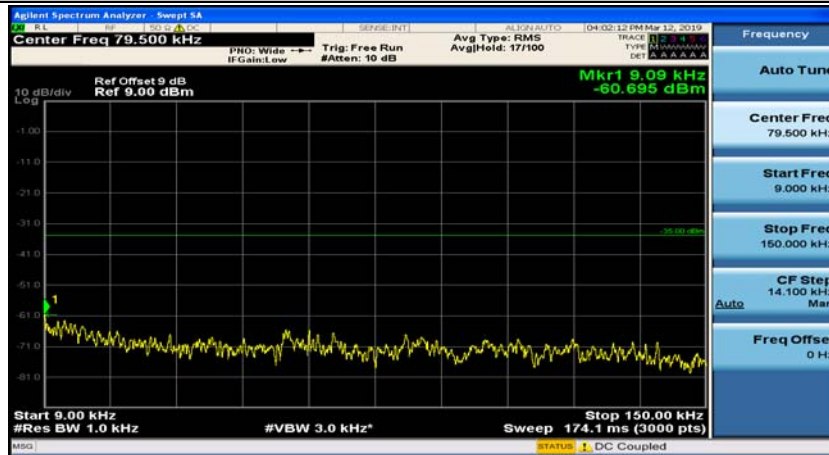


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

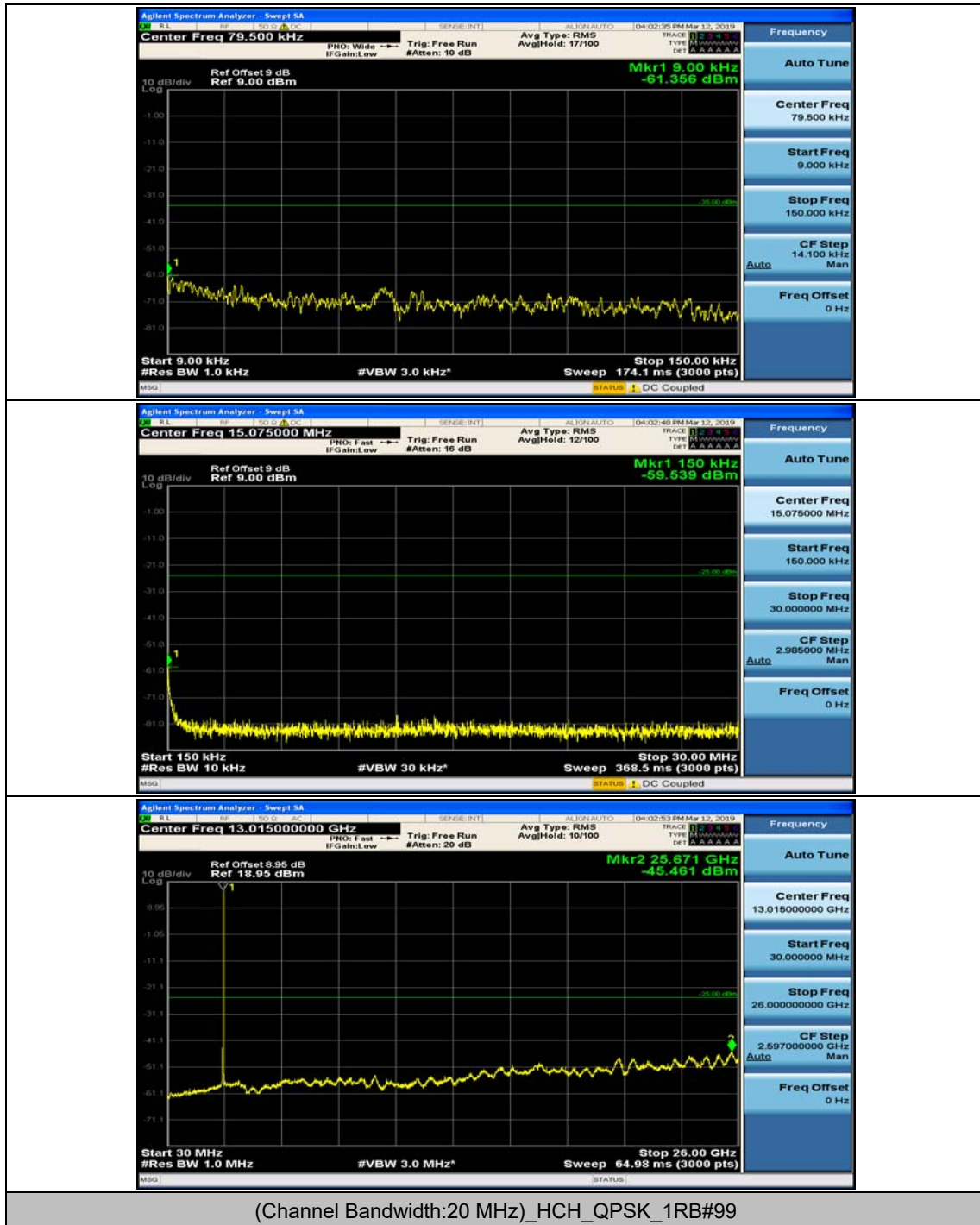


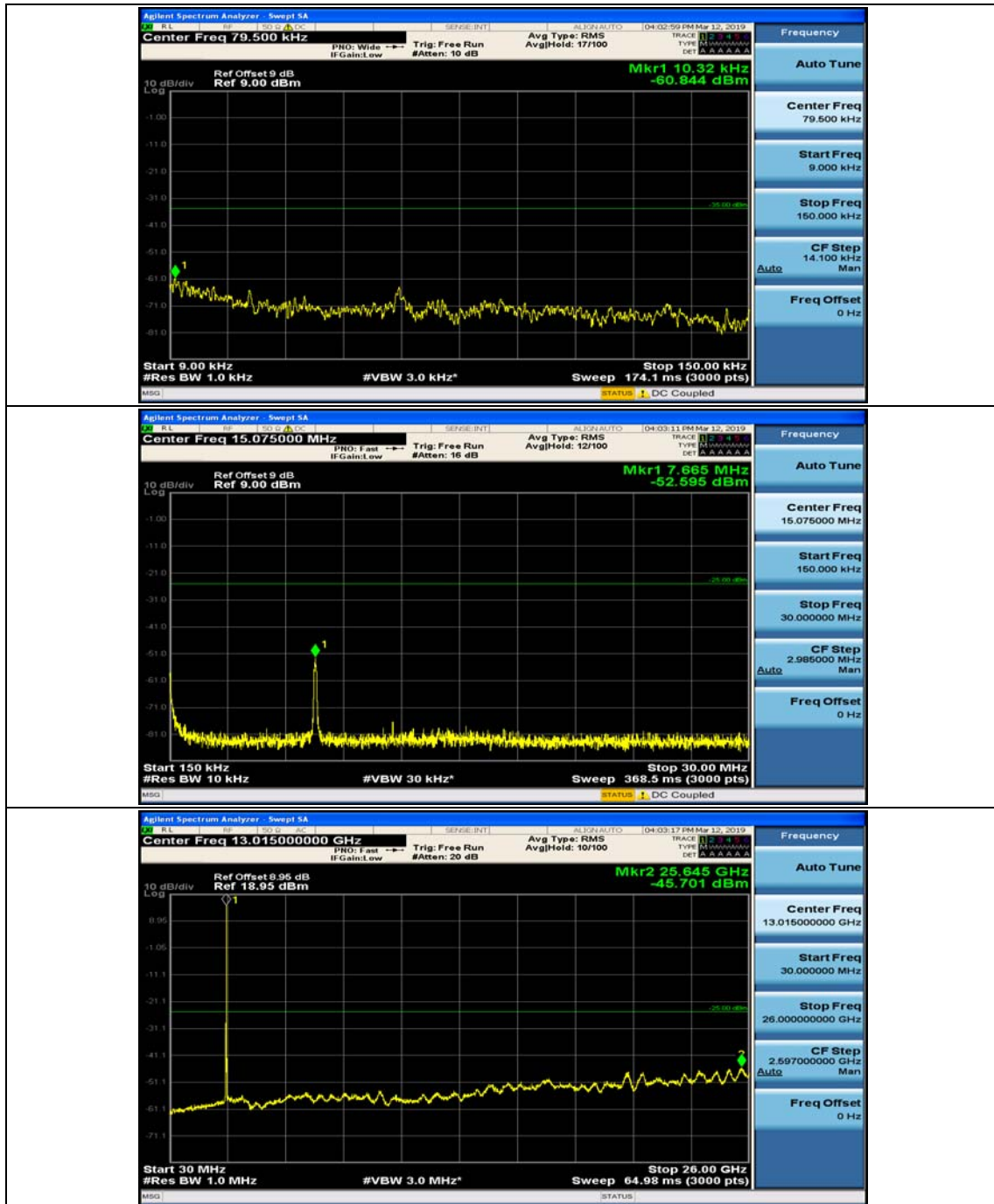


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

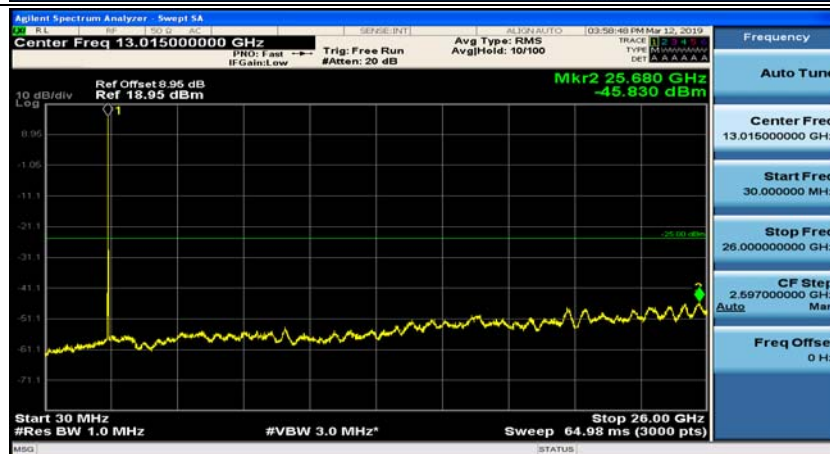
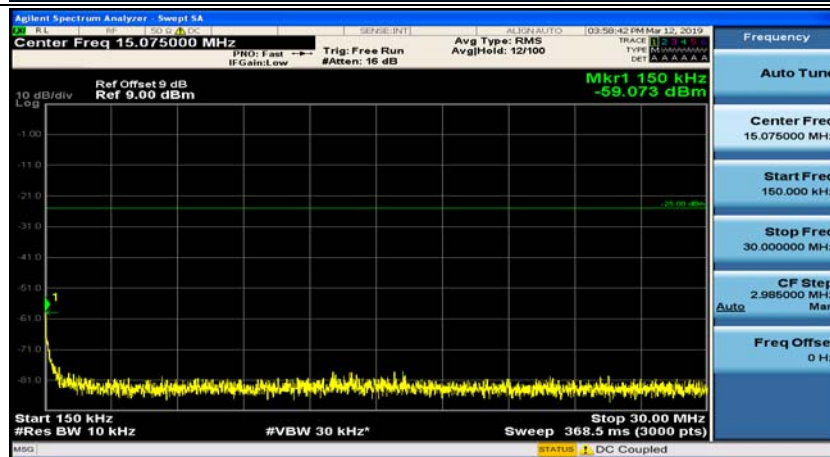
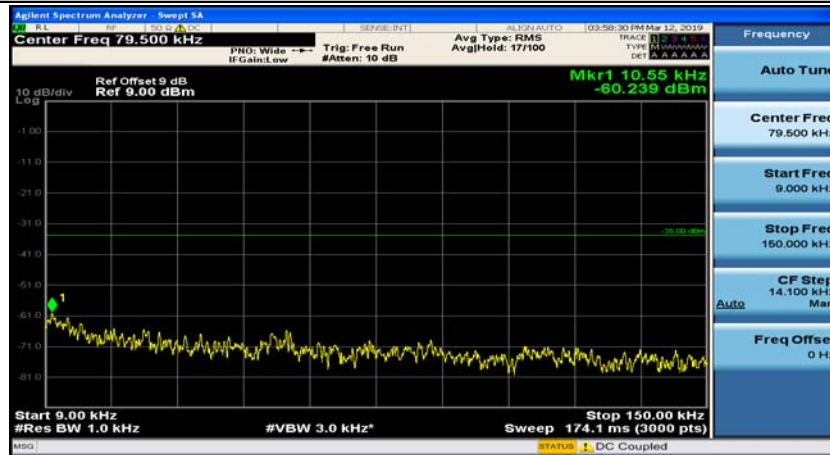


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

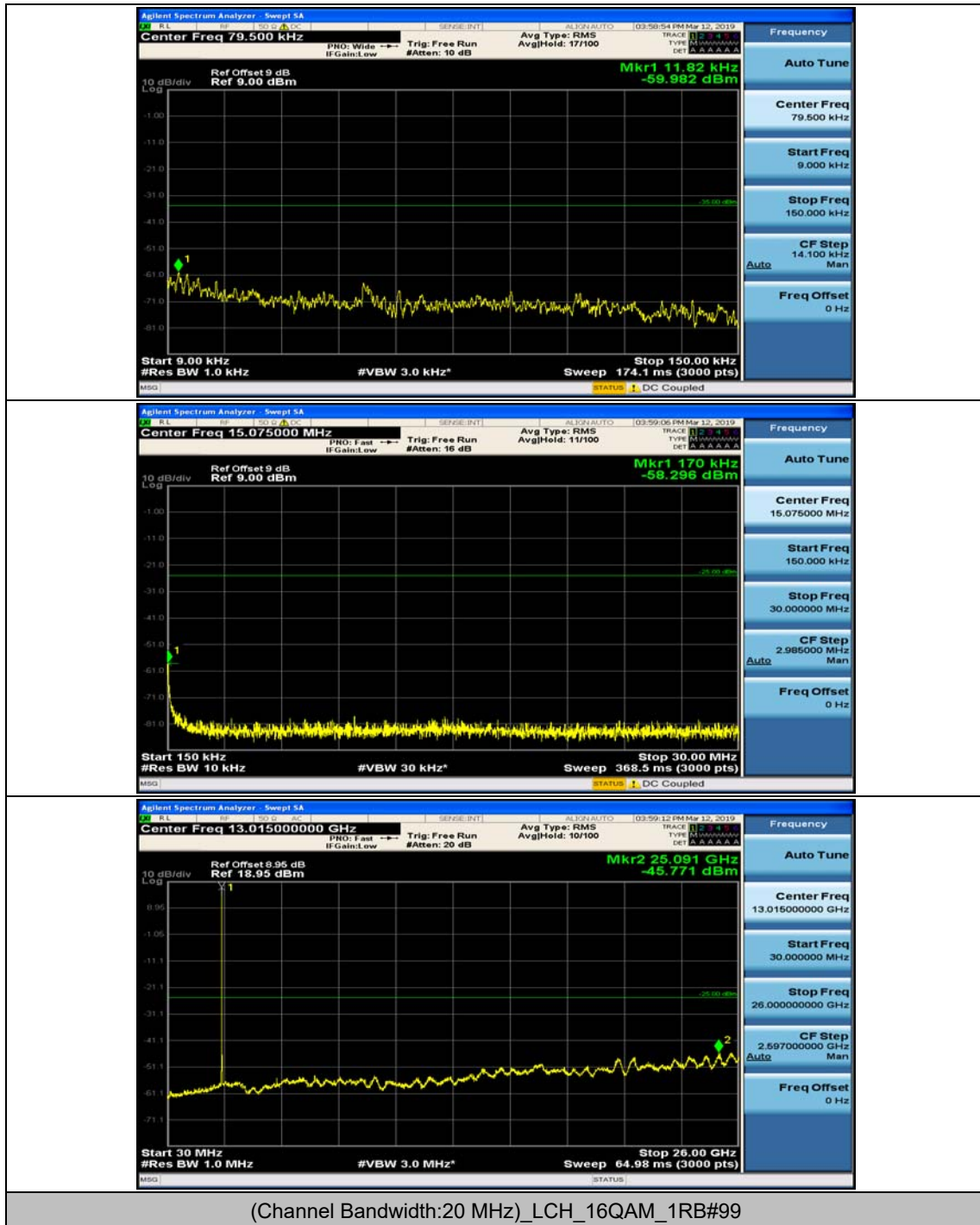


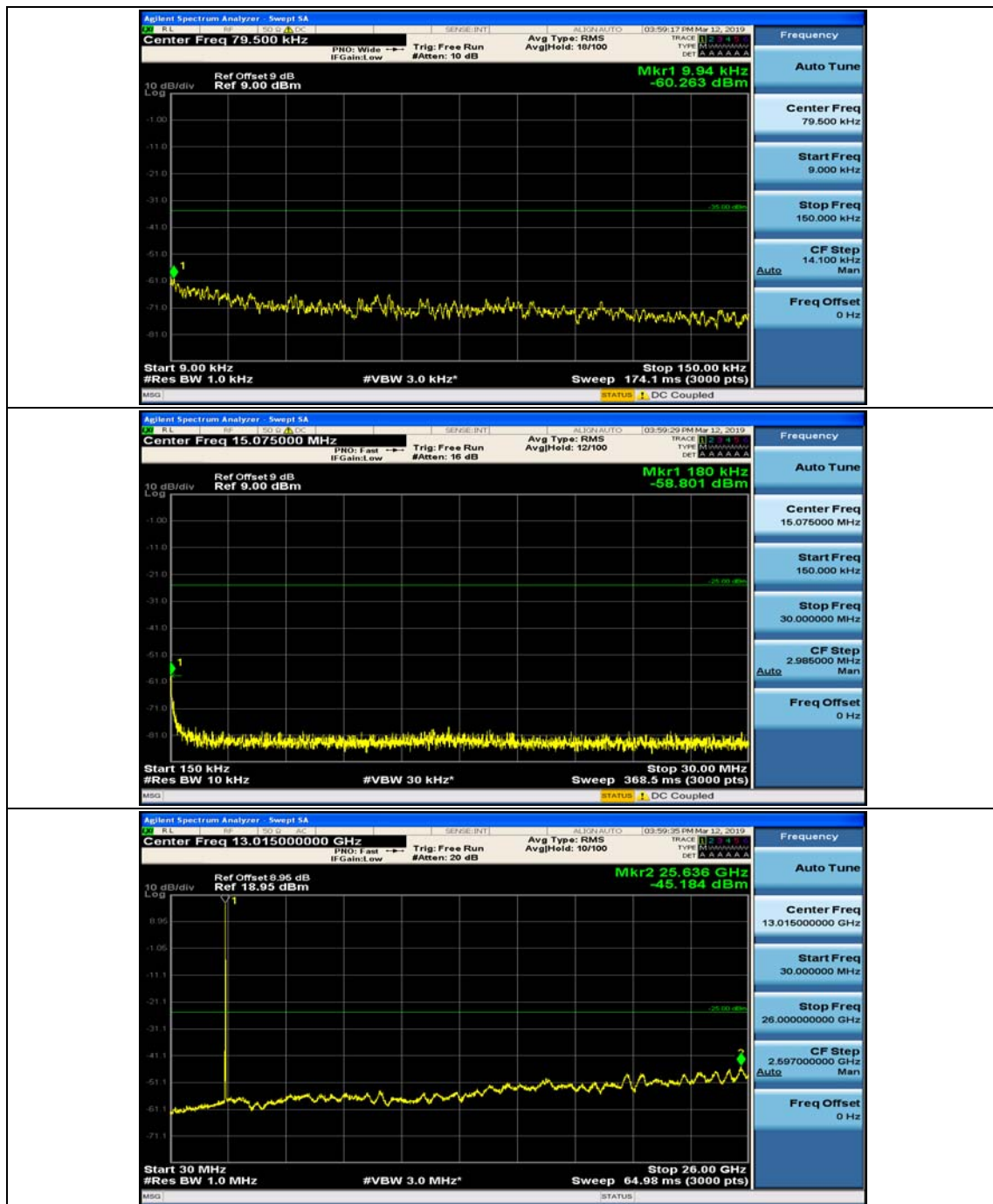


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

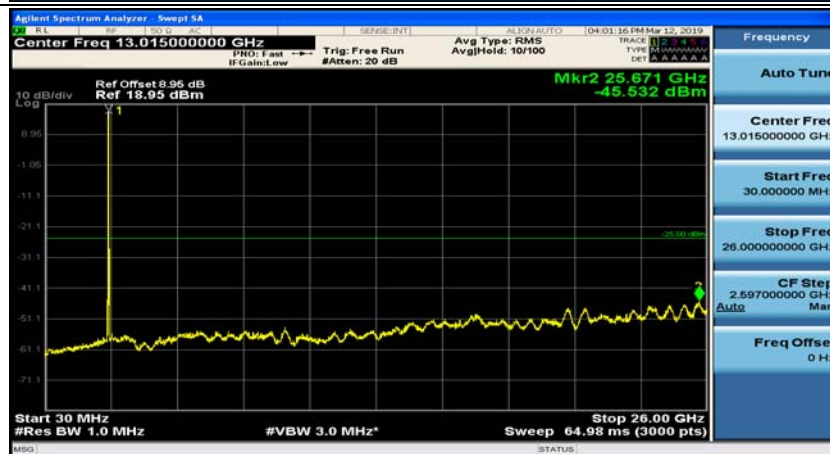
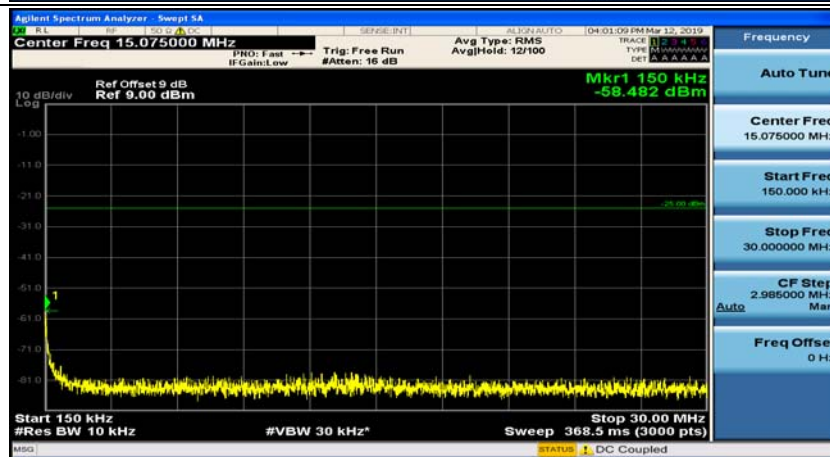
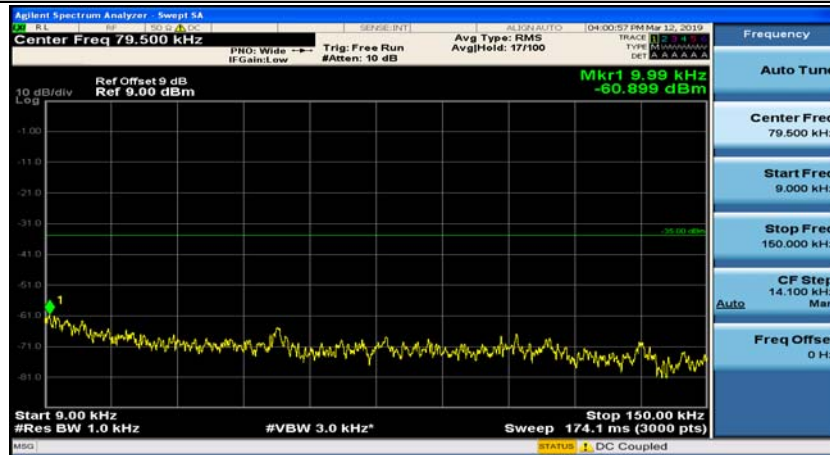


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

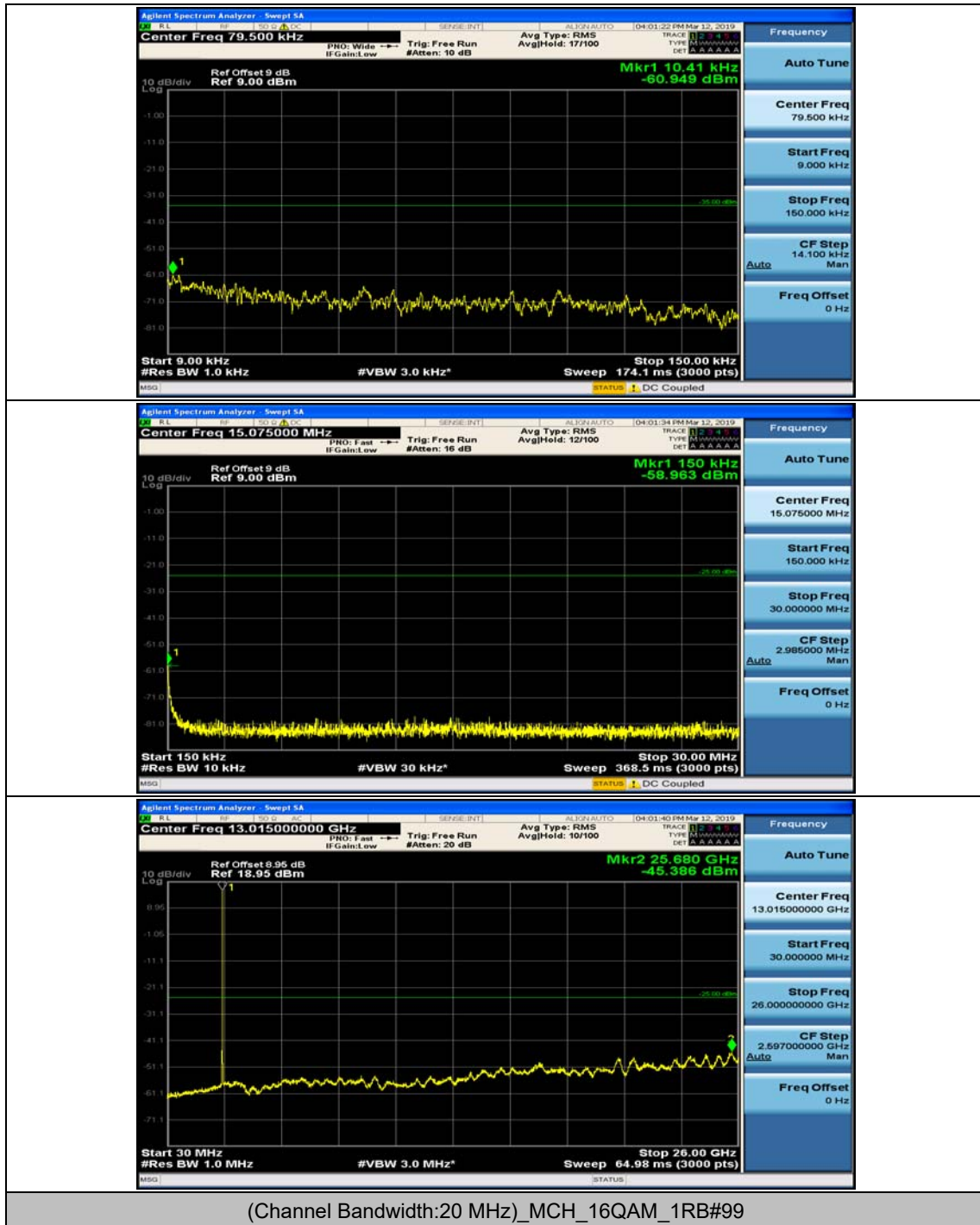


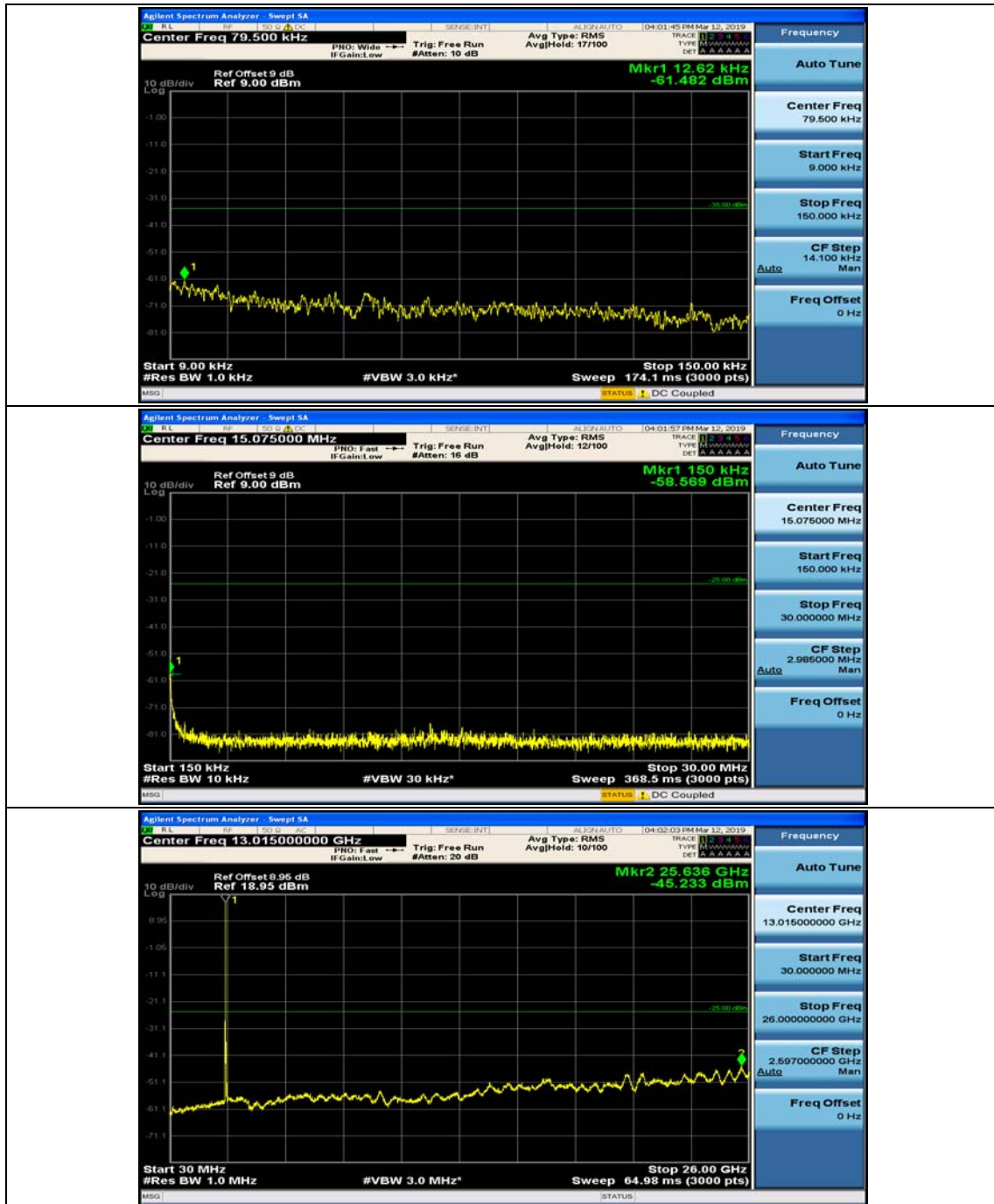


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

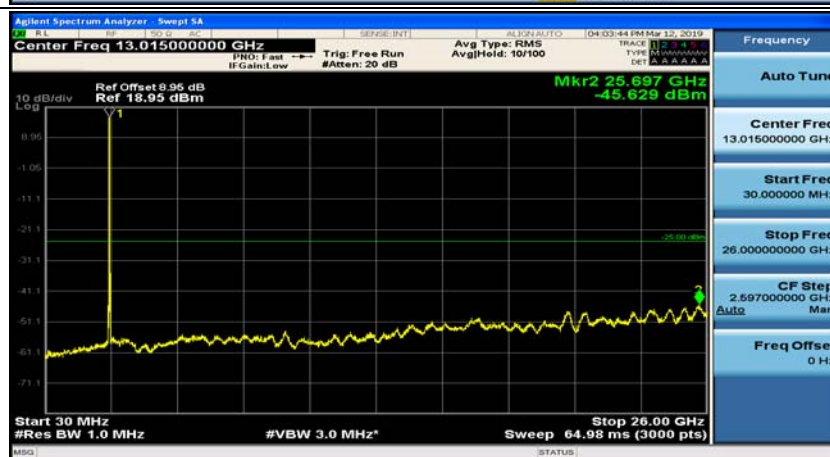
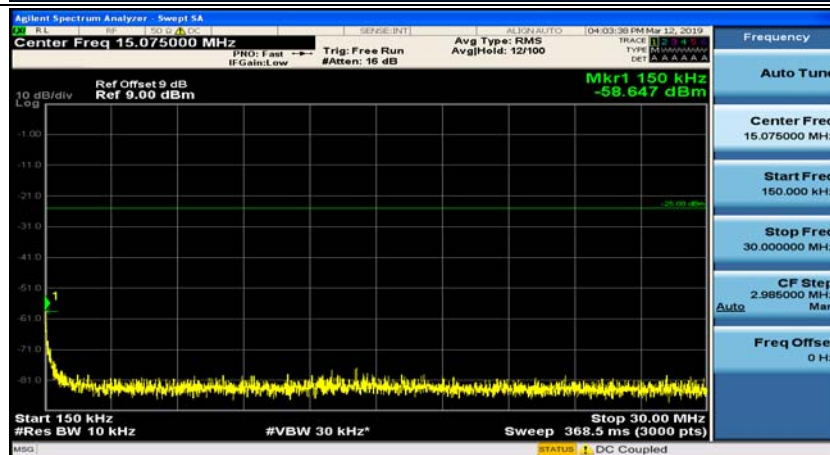
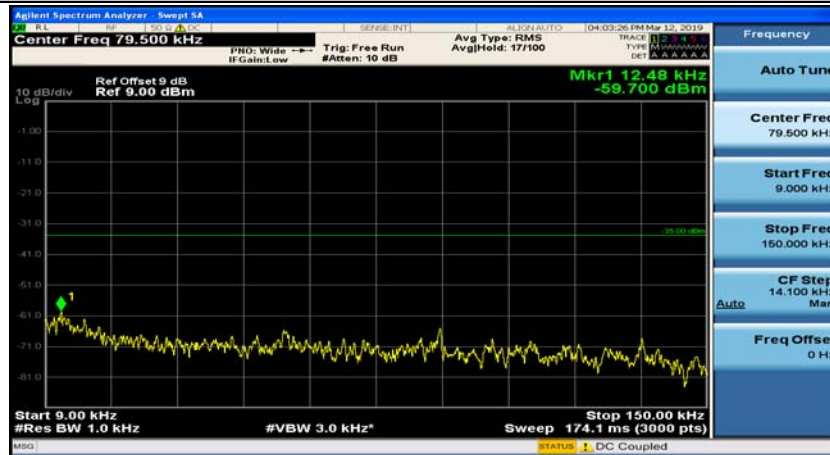


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

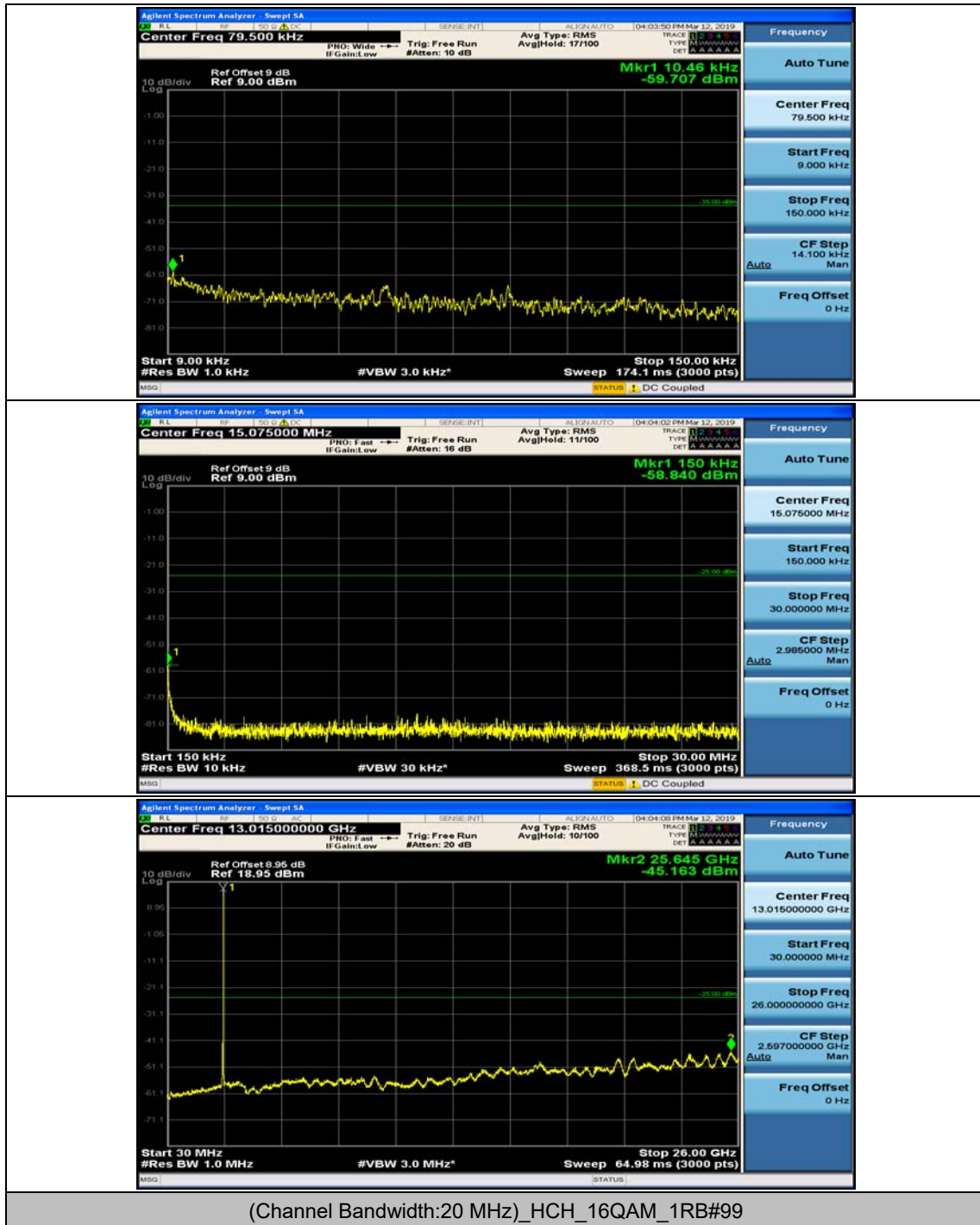


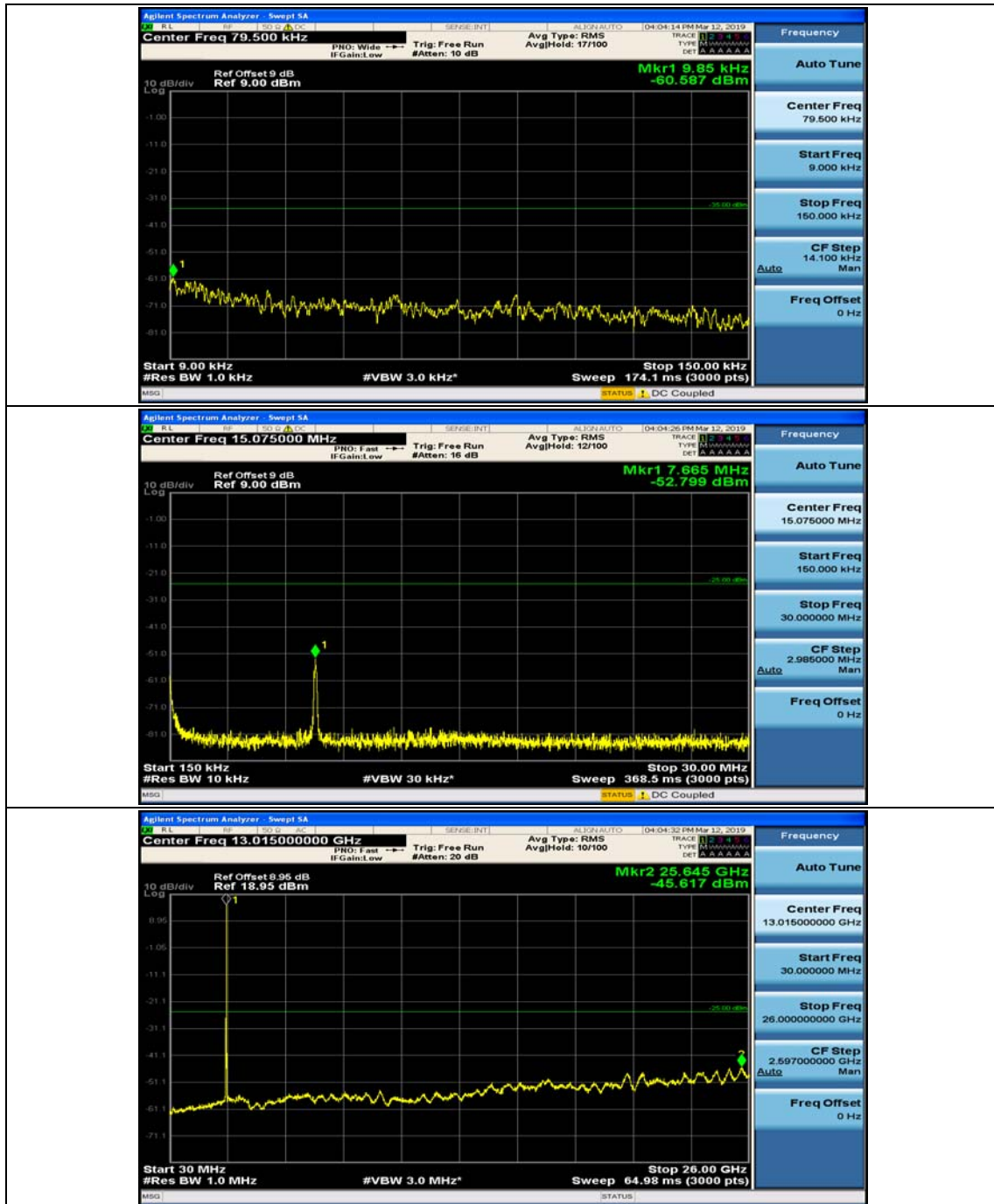


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(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	2.97	0.001187	± 2.5	PASS
		VN	TN	3.61	0.001443	± 2.5	PASS
		VH	TN	1.21	0.000484	± 2.5	PASS
	MCH	VL	TN	1.91	0.000753	± 2.5	PASS
		VN	TN	-1.88	-0.000742	± 2.5	PASS
		VH	TN	3.47	0.001369	± 2.5	PASS
	HCH	VL	TN	4.8	0.001870	± 2.5	PASS
		VN	TN	4.78	0.001862	± 2.5	PASS
		VH	TN	3.78	0.001472	± 2.5	PASS
16QAM	LCH	VL	TN	2.89	0.001155	± 2.5	PASS
		VN	TN	-0.76	-0.000304	± 2.5	PASS
		VH	TN	0.19	0.000076	± 2.5	PASS
	MCH	VL	TN	2.08	0.000821	± 2.5	PASS
		VN	TN	4.05	0.001598	± 2.5	PASS
		VH	TN	1.12	0.000442	± 2.5	PASS
	HCH	VL	TN	3.66	0.001426	± 2.5	PASS
		VN	TN	2.8	0.001091	± 2.5	PASS
		VH	TN	-1.9	-0.000740	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.05	-0.000020	± 2.5	PASS
		VN	-20	4.7	0.001878	± 2.5	PASS
		VN	-10	2.44	0.000975	± 2.5	PASS
		VN	0	-1.53	-0.000611	± 2.5	PASS
		VN	10	-1.01	-0.000404	± 2.5	PASS
		VN	20	0.75	0.000300	± 2.5	PASS
		VN	30	-1.76	-0.000703	± 2.5	PASS
		VN	40	1.59	0.000635	± 2.5	PASS
		VN	50	3.74	0.001495	± 2.5	PASS
	MCH	VN	-30	2.66	0.001049	± 2.5	PASS

		VN	-20	0.3	0.000118	± 2.5	PASS
		VN	-10	2.41	0.000951	± 2.5	PASS
		VN	0	2.05	0.000809	± 2.5	PASS
		VN	10	3.2	0.001262	± 2.5	PASS
		VN	20	1.34	0.000529	± 2.5	PASS
		VN	30	4.48	0.001767	± 2.5	PASS
		VN	40	-0.8	-0.000316	± 2.5	PASS
		VN	50	3.6	0.001420	± 2.5	PASS
	HCH	VN	-30	1.67	0.000650	± 2.5	PASS
		VN	-20	1.79	0.000697	± 2.5	PASS
		VN	-10	4.31	0.001679	± 2.5	PASS
		VN	0	1.65	0.000643	± 2.5	PASS
		VN	10	-0.4	-0.000156	± 2.5	PASS
		VN	20	4.84	0.001885	± 2.5	PASS
		VN	30	-0.53	-0.000206	± 2.5	PASS
		VN	40	0.07	0.000027	± 2.5	PASS
		VN	50	-0.24	-0.000093	± 2.5	PASS
16QAM	LCH	VN	-30	2.28	0.000911	± 2.5	PASS
		VN	-20	2.91	0.001163	± 2.5	PASS
		VN	-10	1.56	0.000623	± 2.5	PASS
		VN	0	3.28	0.001311	± 2.5	PASS
		VN	10	3.41	0.001363	± 2.5	PASS
		VN	20	2.49	0.000995	± 2.5	PASS
		VN	30	-0.71	-0.000284	± 2.5	PASS
		VN	40	-1.11	-0.000444	± 2.5	PASS
		VN	50	3.14	0.001255	± 2.5	PASS
	MCH	VN	-30	3.94	0.001554	± 2.5	PASS
		VN	-20	-0.17	-0.000067	± 2.5	PASS
		VN	-10	-0.9	-0.000355	± 2.5	PASS
		VN	0	4.07	0.001606	± 2.5	PASS
		VN	10	0.93	0.000367	± 2.5	PASS
		VN	20	-0.97	-0.000383	± 2.5	PASS
		VN	30	3.67	0.001448	± 2.5	PASS
		VN	40	3.05	0.001203	± 2.5	PASS
		VN	50	0.03	0.000012	± 2.5	PASS
	HCH	VN	-30	-0.07	-0.000027	± 2.5	PASS
		VN	-20	-0.69	-0.000269	± 2.5	PASS
		VN	-10	-0.28	-0.000109	± 2.5	PASS
		VN	0	2.33	0.000907	± 2.5	PASS
		VN	10	0.52	0.000203	± 2.5	PASS
		VN	20	1.87	0.000728	± 2.5	PASS

		VN	30	-0.28	-0.000109	± 2.5	PASS
		VN	40	4.22	0.001644	± 2.5	PASS
		VN	50	3.29	0.001281	± 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	3.47	0.001385	± 2.5	PASS
		VN	TN	1.77	0.000707	± 2.5	PASS
		VH	TN	2.7	0.001078	± 2.5	PASS
	MCH	VL	TN	-0.34	-0.000134	± 2.5	PASS
		VN	TN	-1.45	-0.000572	± 2.5	PASS
		VH	TN	0.34	0.000134	± 2.5	PASS
	HCH	VL	TN	1.76	0.000686	± 2.5	PASS
		VN	TN	0.97	0.000378	± 2.5	PASS
		VH	TN	1.54	0.000600	± 2.5	PASS
16QAM	LCH	VL	TN	3.19	0.001273	± 2.5	PASS
		VN	TN	3.48	0.001389	± 2.5	PASS
		VH	TN	2.95	0.001178	± 2.5	PASS
	MCH	VL	TN	0.03	0.000012	± 2.5	PASS
		VN	TN	3.88	0.001531	± 2.5	PASS
		VH	TN	3.42	0.001349	± 2.5	PASS
	HCH	VL	TN	1	0.000390	± 2.5	PASS
		VN	TN	3.06	0.001193	± 2.5	PASS
		VH	TN	0.55	0.000214	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	4.51	0.001800	± 2.5	PASS
		VN	-20	-0.3	-0.000120	± 2.5	PASS
		VN	-10	-0.48	-0.000192	± 2.5	PASS
		VN	0	-0.27	-0.000108	± 2.5	PASS
		VN	10	-0.58	-0.000232	± 2.5	PASS
		VN	20	0.96	0.000383	± 2.5	PASS
		VN	30	-1.92	-0.000766	± 2.5	PASS
		VN	40	-1.38	-0.000551	± 2.5	PASS
		VN	50	-1.2	-0.000479	± 2.5	PASS
	MCH	VN	-30	1.4	0.000552	± 2.5	PASS
		VN	-20	2.03	0.000801	± 2.5	PASS

		VN	-10	4.71	0.001858	± 2.5	PASS
		VN	0	0.32	0.000126	± 2.5	PASS
		VN	10	2.62	0.001034	± 2.5	PASS
		VN	20	0.44	0.000174	± 2.5	PASS
		VN	30	-1.79	-0.000706	± 2.5	PASS
		VN	40	-0.43	-0.000170	± 2.5	PASS
		VN	50	2.46	0.000970	± 2.5	PASS
	HCH	VN	-30	3.92	0.001528	± 2.5	PASS
		VN	-20	-1.92	-0.000749	± 2.5	PASS
		VN	-10	-0.62	-0.000242	± 2.5	PASS
		VN	0	2.67	0.001041	± 2.5	PASS
		VN	10	4.32	0.001684	± 2.5	PASS
		VN	20	3.9	0.001520	± 2.5	PASS
		VN	30	0.87	0.000339	± 2.5	PASS
		VN	40	4.65	0.001813	± 2.5	PASS
		VN	50	-0.36	-0.000140	± 2.5	PASS
QPSK	LCH	VN	-30	-0.35	-0.000140	± 2.5	PASS
		VN	-20	1.8	0.000719	± 2.5	PASS
		VN	-10	0.9	0.000359	± 2.5	PASS
		VN	0	2.56	0.001022	± 2.5	PASS
		VN	10	1.1	0.000439	± 2.5	PASS
		VN	20	1.73	0.000691	± 2.5	PASS
		VN	30	-0.56	-0.000224	± 2.5	PASS
		VN	40	0.62	0.000248	± 2.5	PASS
		VN	50	3.71	0.001481	± 2.5	PASS
	MCH	VN	-30	-0.69	-0.000272	± 2.5	PASS
		VN	-20	1.12	0.000442	± 2.5	PASS
		VN	-10	2.98	0.001176	± 2.5	PASS
		VN	0	4.72	0.001862	± 2.5	PASS
		VN	10	-0.85	-0.000335	± 2.5	PASS
		VN	20	0.59	0.000233	± 2.5	PASS
		VN	30	0.81	0.000320	± 2.5	PASS
		VN	40	1.4	0.000552	± 2.5	PASS
		VN	50	0.11	0.000043	± 2.5	PASS
	HCH	VN	-30	0.86	0.000335	± 2.5	PASS
		VN	-20	1.49	0.000581	± 2.5	PASS
		VN	-10	0.68	0.000265	± 2.5	PASS
		VN	0	-0.99	-0.000386	± 2.5	PASS
		VN	10	1.25	0.000487	± 2.5	PASS
		VN	20	-1.54	-0.000600	± 2.5	PASS
		VN	30	2.02	0.000788	± 2.5	PASS

		VN	40	0.6	0.000234	± 2.5	PASS
		VN	50	-0.72	-0.000281	± 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	1.65	0.000658	± 2.5	PASS
		VN	TN	4.62	0.001842	± 2.5	PASS
		VH	TN	1.38	0.000550	± 2.5	PASS
	MCH	VL	TN	1.33	0.000525	± 2.5	PASS
		VN	TN	0.84	0.000331	± 2.5	PASS
		VH	TN	-1.35	-0.000533	± 2.5	PASS
	HCH	VL	TN	1.9	0.000741	± 2.5	PASS
		VN	TN	4.44	0.001733	± 2.5	PASS
		VH	TN	4.18	0.001631	± 2.5	PASS
16QAM	LCH	VL	TN	-0.17	-0.000068	± 2.5	PASS
		VN	TN	2.11	0.000841	± 2.5	PASS
		VH	TN	-1.47	-0.000586	± 2.5	PASS
	MCH	VL	TN	0.78	0.000308	± 2.5	PASS
		VN	TN	0.66	0.000260	± 2.5	PASS
		VH	TN	0.85	0.000335	± 2.5	PASS
	HCH	VL	TN	4.82	0.001881	± 2.5	PASS
		VN	TN	0.96	0.000375	± 2.5	PASS
		VH	TN	2.16	0.000843	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.44	-0.000574	± 2.5	PASS
		VN	-20	1.45	0.000578	± 2.5	PASS
		VN	-10	-1.24	-0.000495	± 2.5	PASS
		VN	0	2.45	0.000977	± 2.5	PASS
		VN	10	-0.26	-0.000104	± 2.5	PASS
		VN	20	2.49	0.000993	± 2.5	PASS
		VN	30	-0.29	-0.000116	± 2.5	PASS
		VN	40	3.25	0.001296	± 2.5	PASS
		VN	50	-1.1	-0.000439	± 2.5	PASS
	MCH	VN	-30	0.3	0.000118	± 2.5	PASS
		VN	-20	0.4	0.000158	± 2.5	PASS
		VN	-10	3.54	0.001396	± 2.5	PASS

		VN	0	1.91	0.000753	± 2.5	PASS
		VN	10	0.75	0.000296	± 2.5	PASS
		VN	20	2.66	0.001049	± 2.5	PASS
		VN	30	1.51	0.000596	± 2.5	PASS
		VN	40	0.47	0.000185	± 2.5	PASS
		VN	50	-0.63	-0.000249	± 2.5	PASS
	HCH	VN	-30	-0.68	-0.000265	± 2.5	PASS
		VN	-20	3.92	0.001530	± 2.5	PASS
		VN	-10	0.74	0.000289	± 2.5	PASS
		VN	0	0.63	0.000246	± 2.5	PASS
		VN	10	3.95	0.001541	± 2.5	PASS
		VN	20	2.5	0.000976	± 2.5	PASS
		VN	30	-1.38	-0.000539	± 2.5	PASS
		VN	40	-0.16	-0.000062	± 2.5	PASS
		VN	50	-1.6	-0.000624	± 2.5	PASS
QPSK	LCH	VN	-30	3.98	0.001587	± 2.5	PASS
		VN	-20	4.54	0.001811	± 2.5	PASS
		VN	-10	1.15	0.000459	± 2.5	PASS
		VN	0	1.23	0.000491	± 2.5	PASS
		VN	10	-0.24	-0.000096	± 2.5	PASS
		VN	20	1.42	0.000566	± 2.5	PASS
		VN	30	4.86	0.001938	± 2.5	PASS
		VN	40	0.34	0.000136	± 2.5	PASS
		VN	50	1.72	0.000686	± 2.5	PASS
	MCH	VN	-30	1.95	0.000769	± 2.5	PASS
		VN	-20	-1.82	-0.000718	± 2.5	PASS
		VN	-10	0.81	0.000320	± 2.5	PASS
		VN	0	0.17	0.000067	± 2.5	PASS
		VN	10	0.2	0.000079	± 2.5	PASS
		VN	20	3.79	0.001495	± 2.5	PASS
		VN	30	-0.97	-0.000383	± 2.5	PASS
		VN	40	-0.95	-0.000375	± 2.5	PASS
		VN	50	1.67	0.000659	± 2.5	PASS
	HCH	VN	-30	-1.27	-0.000496	± 2.5	PASS
		VN	-20	-1.23	-0.000480	± 2.5	PASS
		VN	-10	4.28	0.001670	± 2.5	PASS
		VN	0	3.78	0.001475	± 2.5	PASS
		VN	10	1.99	0.000777	± 2.5	PASS
		VN	20	3.84	0.001499	± 2.5	PASS
		VN	30	-1.1	-0.000429	± 2.5	PASS
		VN	40	2.99	0.001167	± 2.5	PASS

		VN	50	-0.41	-0.000160	± 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	-1.48	-0.000590	± 2.5	PASS
		VN	TN	4.64	0.001849	± 2.5	PASS
		VH	TN	1.83	0.000729	± 2.5	PASS
	MCH	VL	TN	4.1	0.001617	± 2.5	PASS
		VN	TN	-1.61	-0.000635	± 2.5	PASS
		VH	TN	1.74	0.000686	± 2.5	PASS
	HCH	VL	TN	-0.74	-0.000289	± 2.5	PASS
		VN	TN	-0.56	-0.000219	± 2.5	PASS
		VH	TN	-1.34	-0.000523	± 2.5	PASS
16QAM	LCH	VL	TN	3.24	0.001291	± 2.5	PASS
		VN	TN	4.6	0.001833	± 2.5	PASS
		VH	TN	1.1	0.000438	± 2.5	PASS
	MCH	VL	TN	-1.63	-0.000643	± 2.5	PASS
		VN	TN	4.43	0.001748	± 2.5	PASS
		VH	TN	3.49	0.001377	± 2.5	PASS
	HCH	VL	TN	2.96	0.001156	± 2.5	PASS
		VN	TN	2.94	0.001148	± 2.5	PASS
		VH	TN	-0.92	-0.000359	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.34	-0.000135	± 2.5	PASS
		VN	-20	3.75	0.001494	± 2.5	PASS
		VN	-10	2.75	0.001096	± 2.5	PASS
		VN	0	2.27	0.000904	± 2.5	PASS
		VN	10	3.14	0.001251	± 2.5	PASS
		VN	20	-1.54	-0.000614	± 2.5	PASS
		VN	30	3.97	0.001582	± 2.5	PASS
		VN	40	1.97	0.000785	± 2.5	PASS
		VN	50	3.18	0.001267	± 2.5	PASS
	MCH	VN	-30	-0.13	-0.000051	± 2.5	PASS
		VN	-20	3.82	0.001507	± 2.5	PASS
		VN	-10	3.25	0.001282	± 2.5	PASS
		VN	0	1.23	0.000485	± 2.5	PASS

		VN	10	-0.88	-0.000347	± 2.5	PASS
		VN	20	-0.73	-0.000288	± 2.5	PASS
		VN	30	-0.94	-0.000371	± 2.5	PASS
		VN	40	1.9	0.000750	± 2.5	PASS
		VN	50	1.71	0.000675	± 2.5	PASS
	HCH	VN	-30	4.18	0.001633	± 2.5	PASS
		VN	-20	1.45	0.000566	± 2.5	PASS
		VN	-10	4.25	0.001660	± 2.5	PASS
		VN	0	-0.4	-0.000156	± 2.5	PASS
		VN	10	1.97	0.000770	± 2.5	PASS
		VN	20	3.11	0.001215	± 2.5	PASS
		VN	30	-1.42	-0.000555	± 2.5	PASS
		VN	40	-1.95	-0.000762	± 2.5	PASS
		VN	50	-0.08	-0.000031	± 2.5	PASS
QPSK	LCH	VN	-30	3.88	0.001546	± 2.5	PASS
		VN	-20	-0.4	-0.000159	± 2.5	PASS
		VN	-10	-1.98	-0.000789	± 2.5	PASS
		VN	0	-0.36	-0.000143	± 2.5	PASS
		VN	10	3.35	0.001335	± 2.5	PASS
		VN	20	2.78	0.001108	± 2.5	PASS
		VN	30	2.72	0.001084	± 2.5	PASS
		VN	40	-0.08	-0.000032	± 2.5	PASS
		VN	50	2.63	0.001048	± 2.5	PASS
	MCH	VN	-30	1.27	0.000501	± 2.5	PASS
		VN	-20	4.4	0.001736	± 2.5	PASS
		VN	-10	1.87	0.000738	± 2.5	PASS
		VN	0	3.01	0.001187	± 2.5	PASS
		VN	10	2.13	0.000840	± 2.5	PASS
		VN	20	2.2	0.000868	± 2.5	PASS
		VN	30	2.76	0.001089	± 2.5	PASS
		VN	40	1.43	0.000564	± 2.5	PASS
		VN	50	4.93	0.001945	± 2.5	PASS
	HCH	VN	-30	1.74	0.000680	± 2.5	PASS
		VN	-20	-1.79	-0.000699	± 2.5	PASS
		VN	-10	1.49	0.000582	± 2.5	PASS
		VN	0	2.19	0.000855	± 2.5	PASS
		VN	10	-1.91	-0.000746	± 2.5	PASS
		VN	20	-1.79	-0.000699	± 2.5	PASS
		VN	30	3.12	0.001219	± 2.5	PASS
		VN	40	1.98	0.000773	± 2.5	PASS
		VN	50	1.24	0.000484	± 2.5	PASS