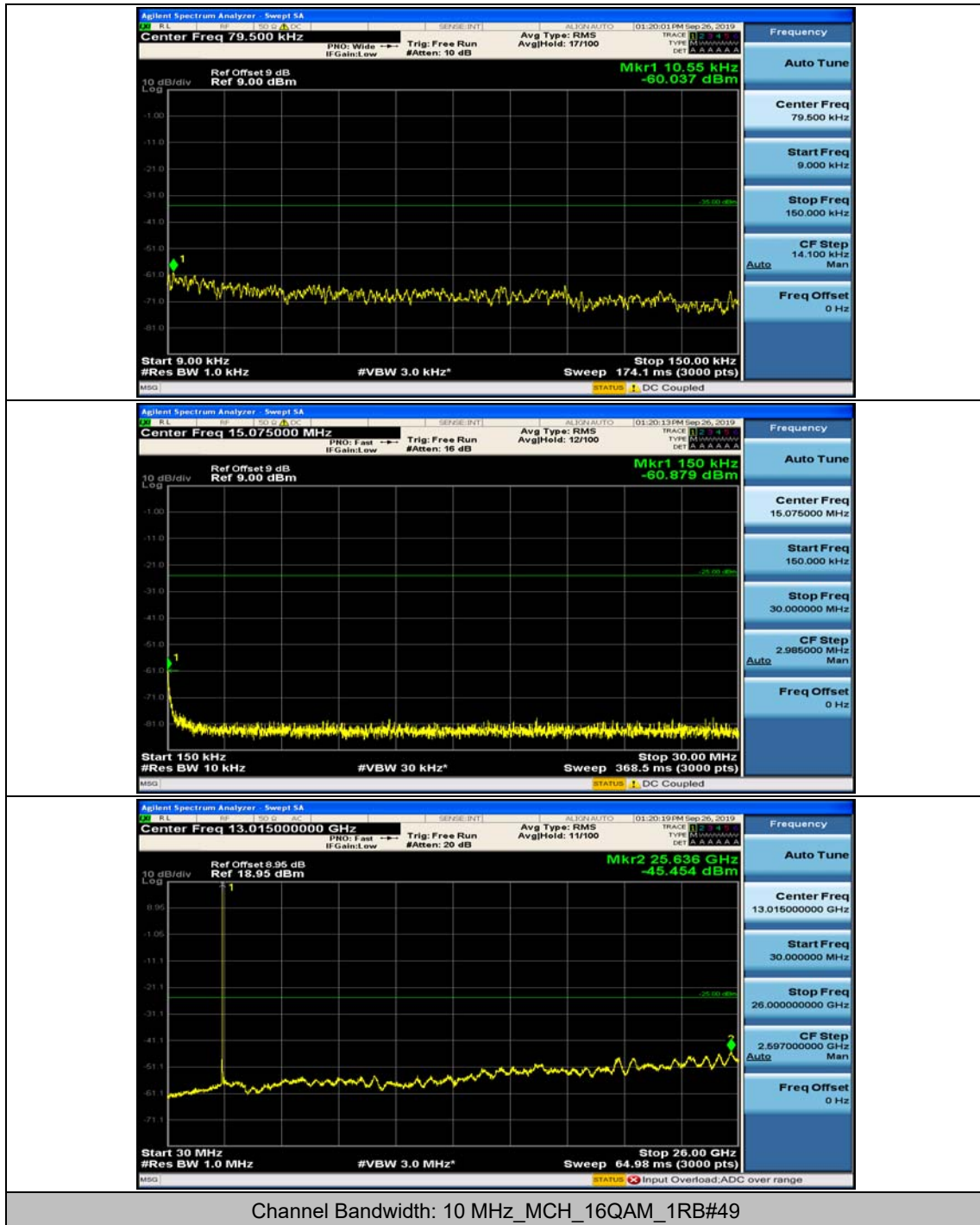
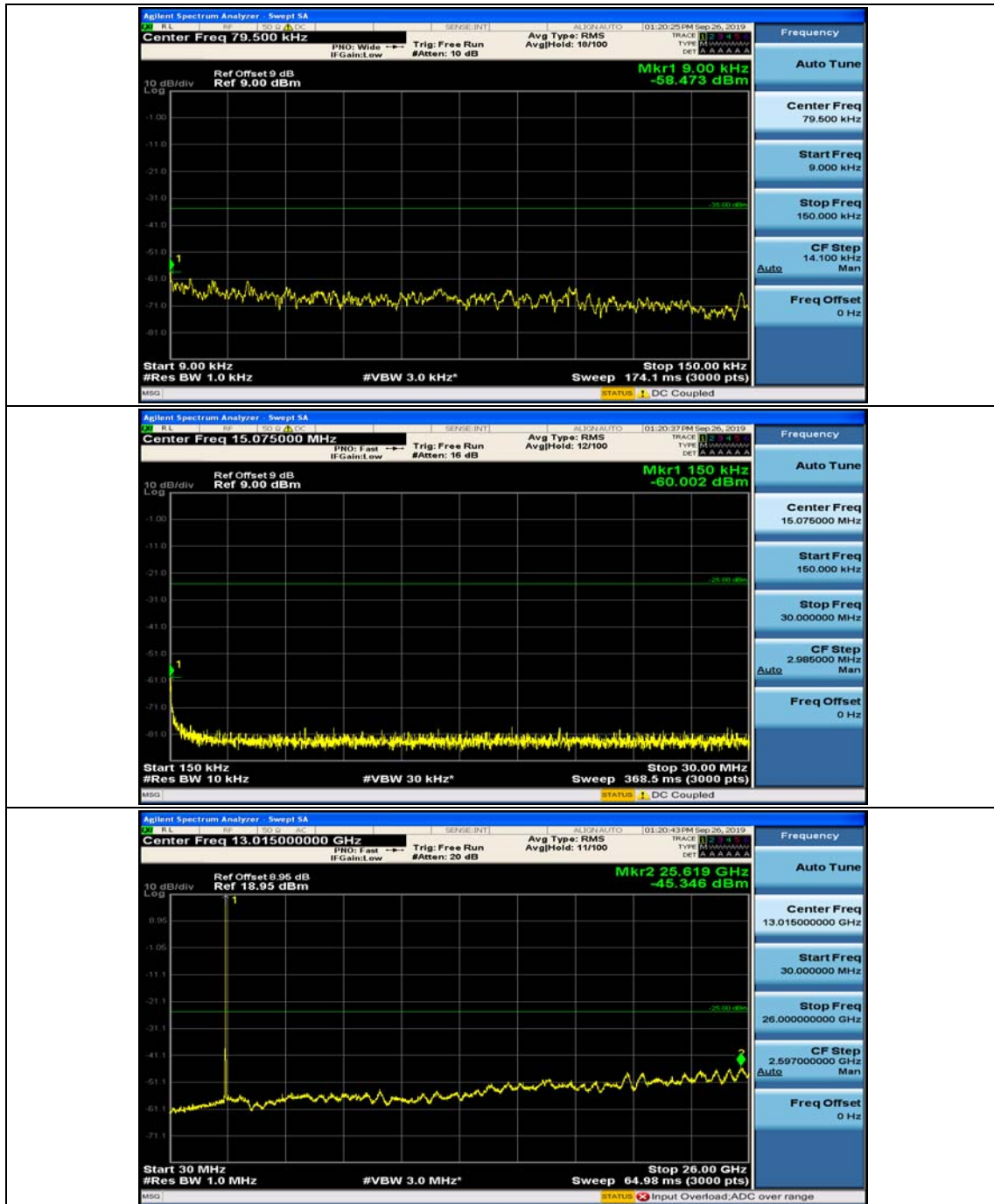
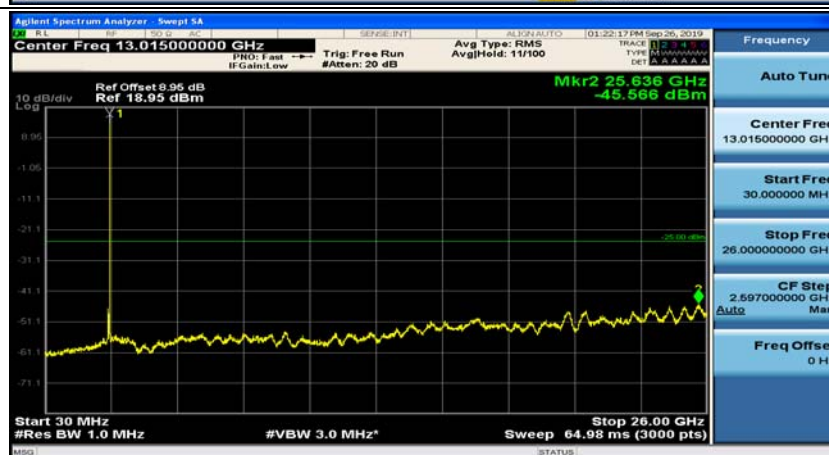
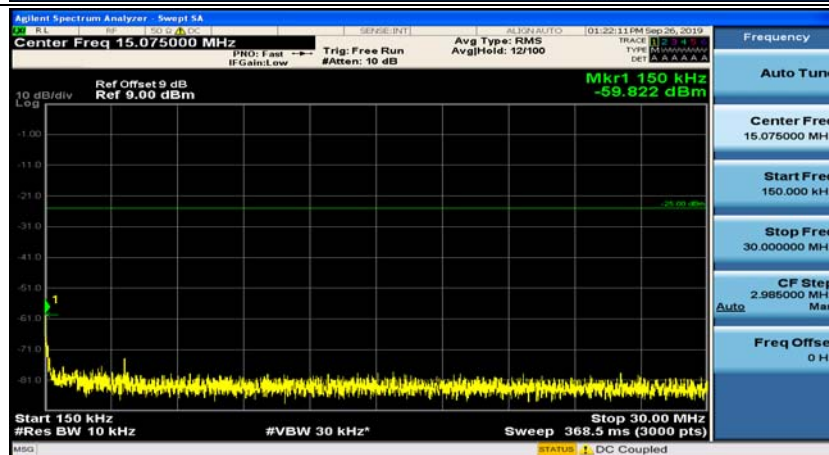
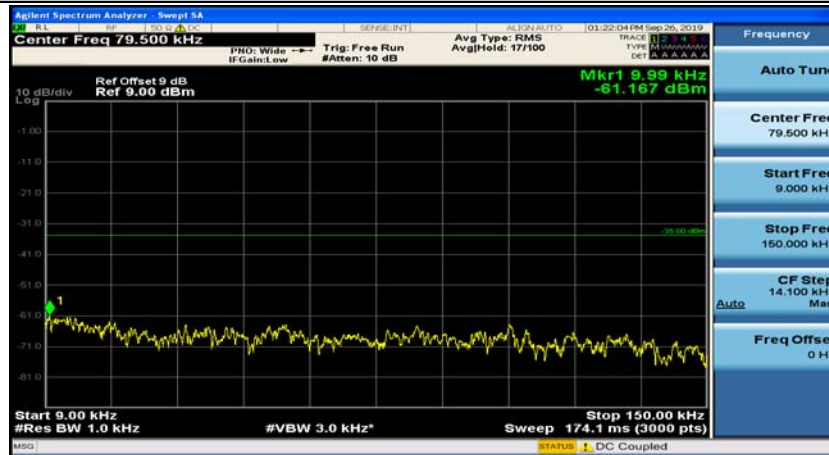


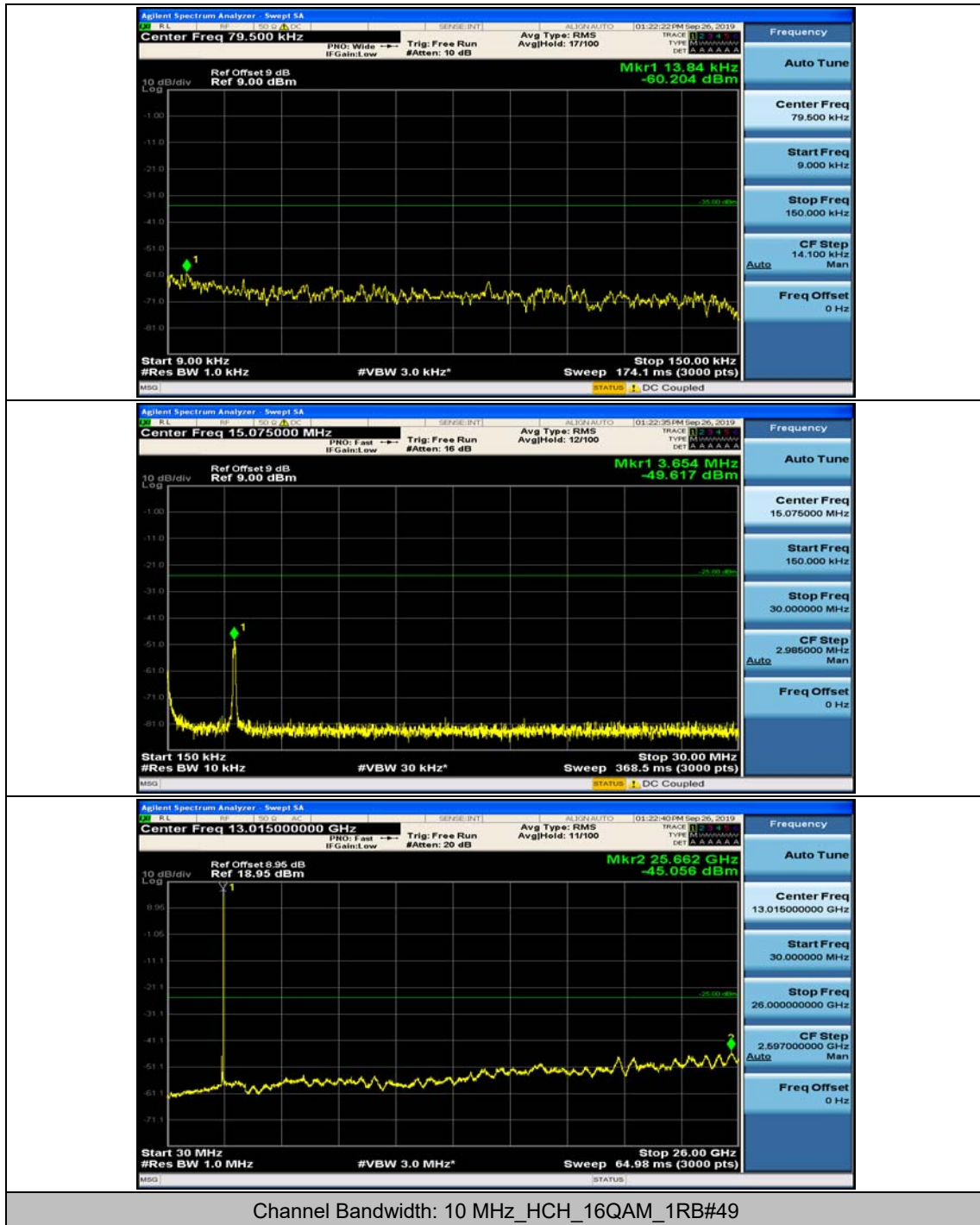


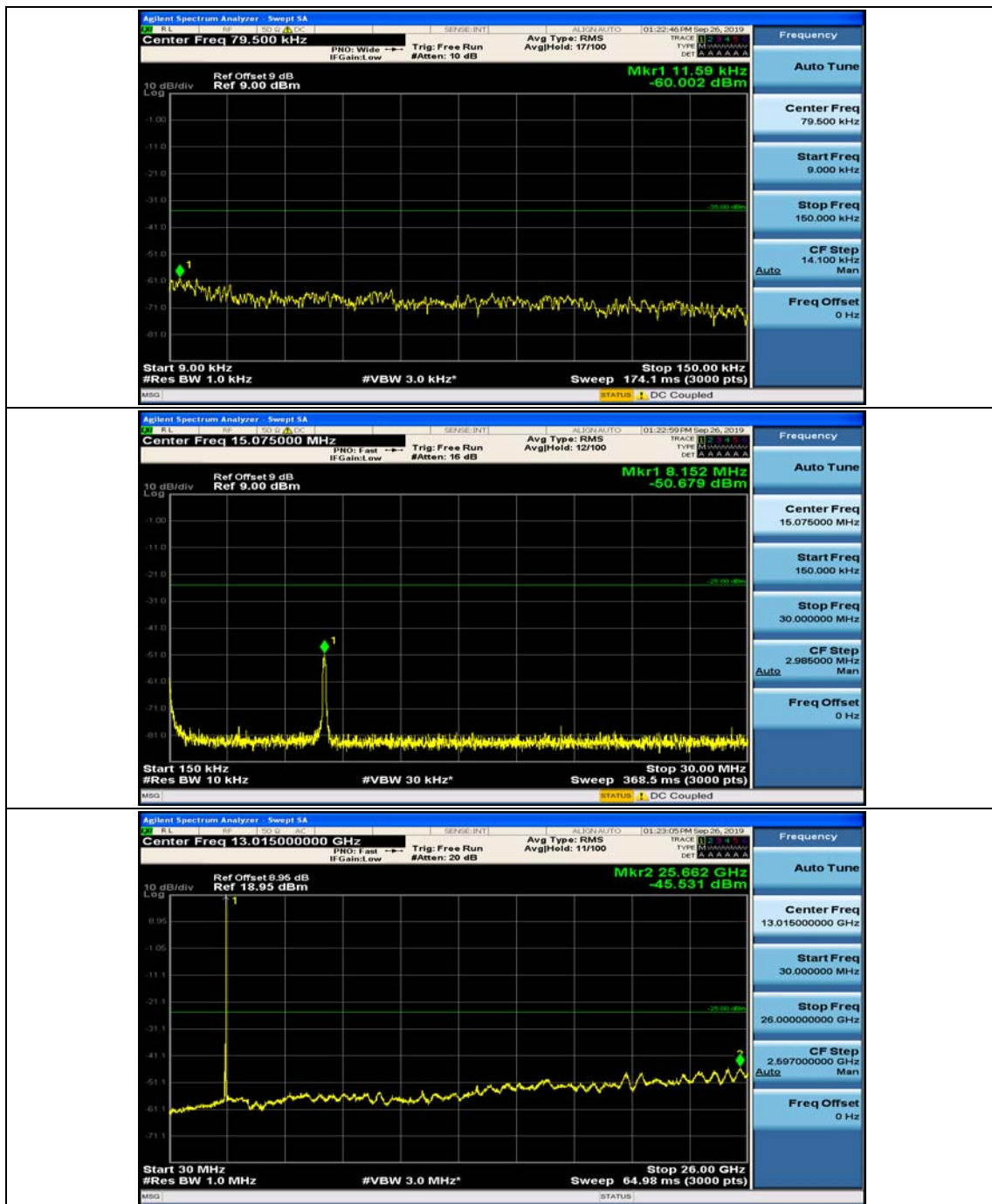


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0

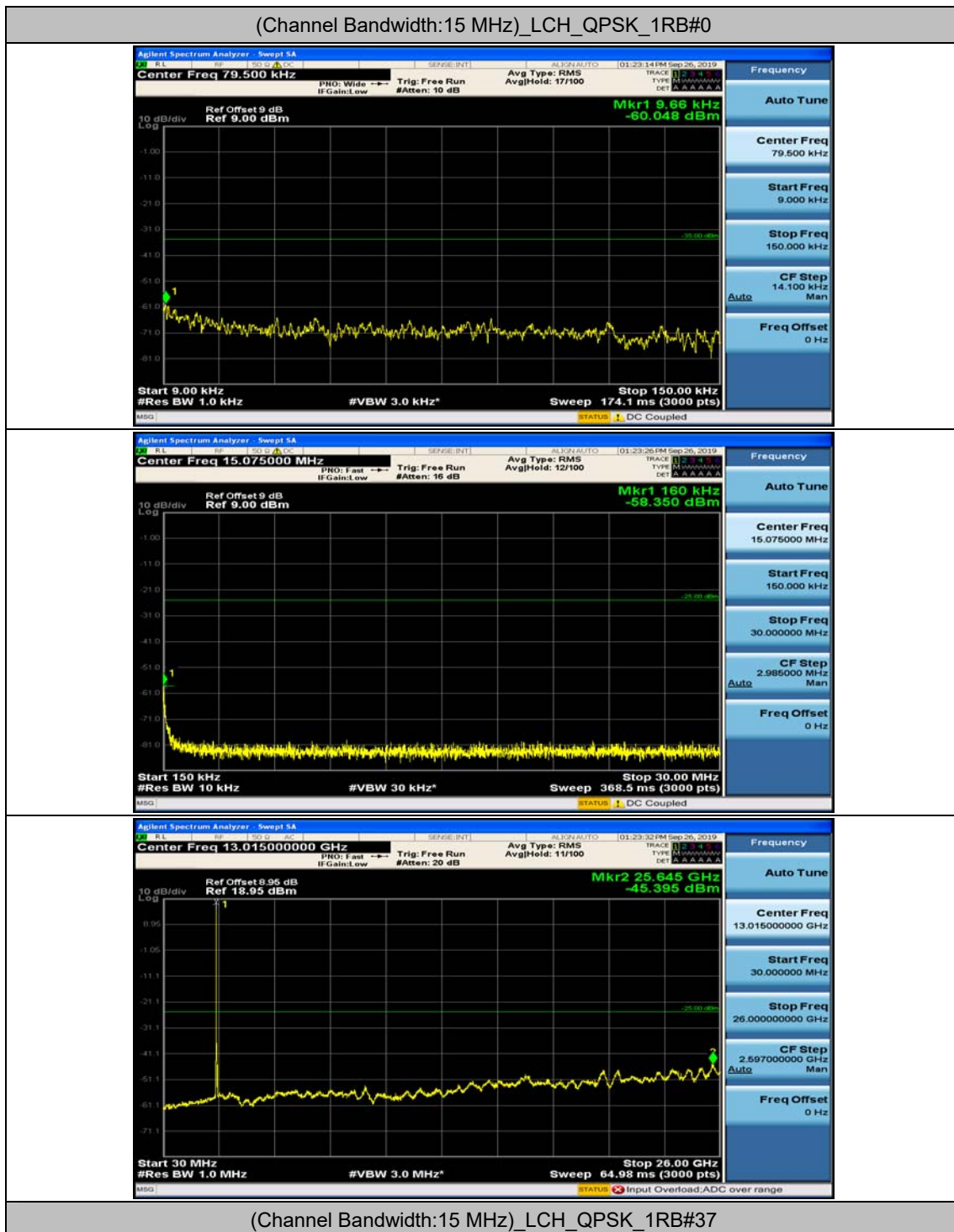


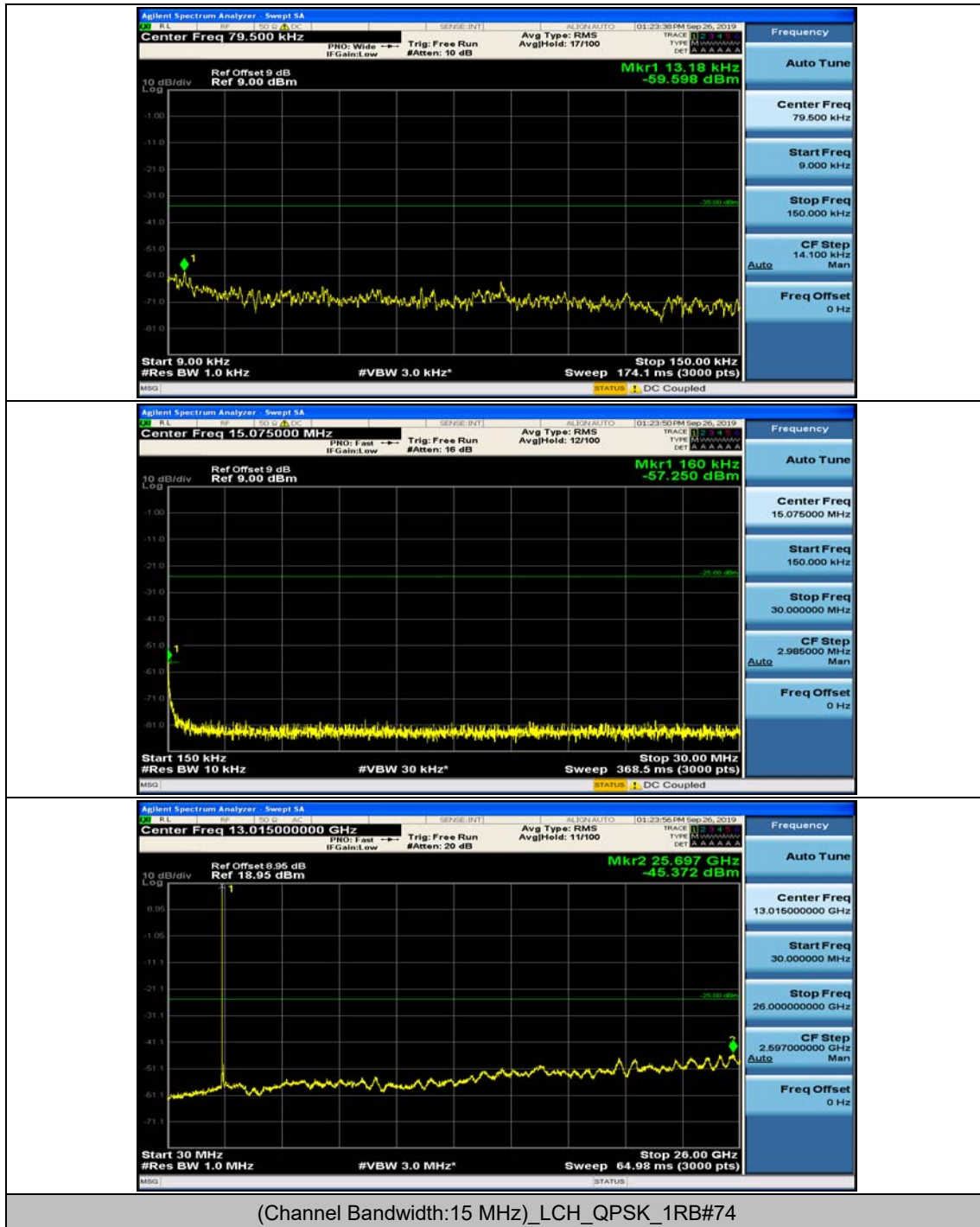
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

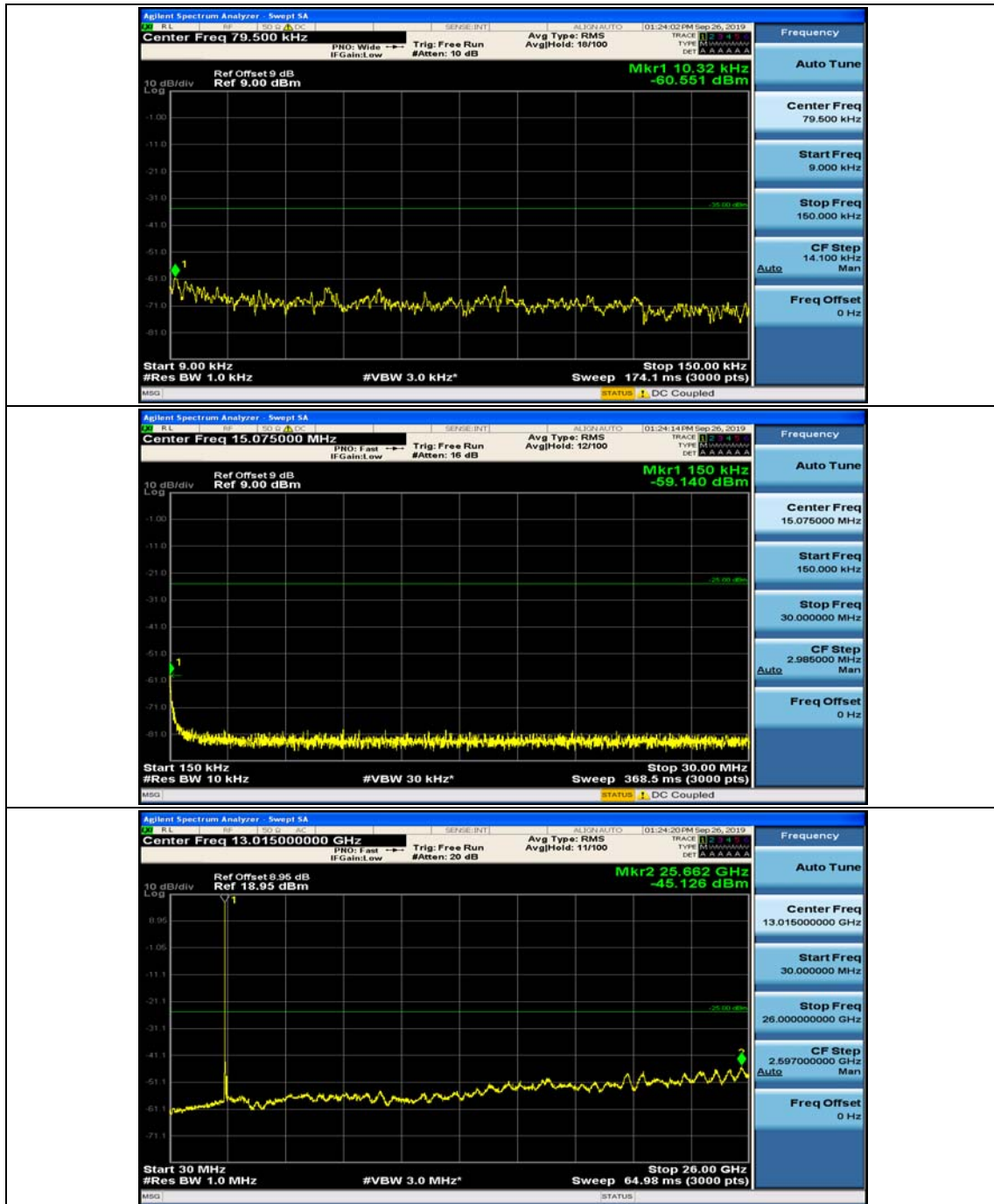




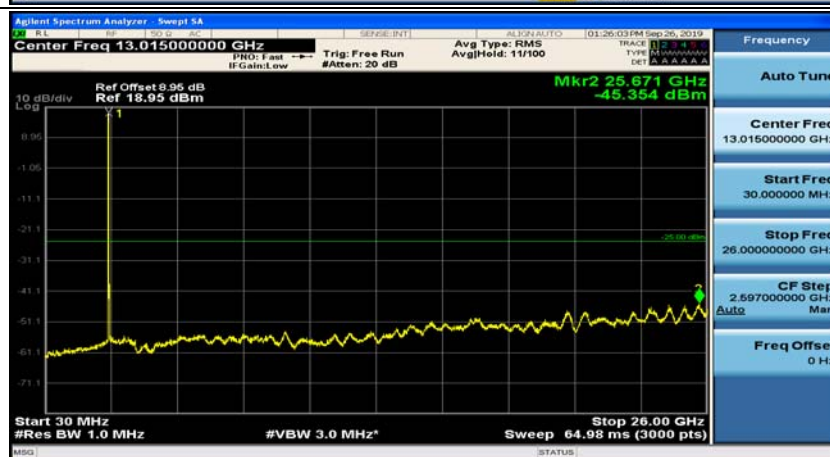
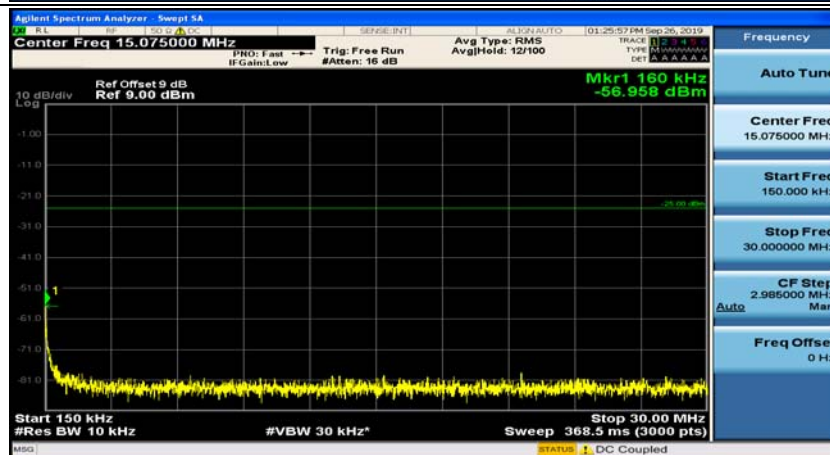
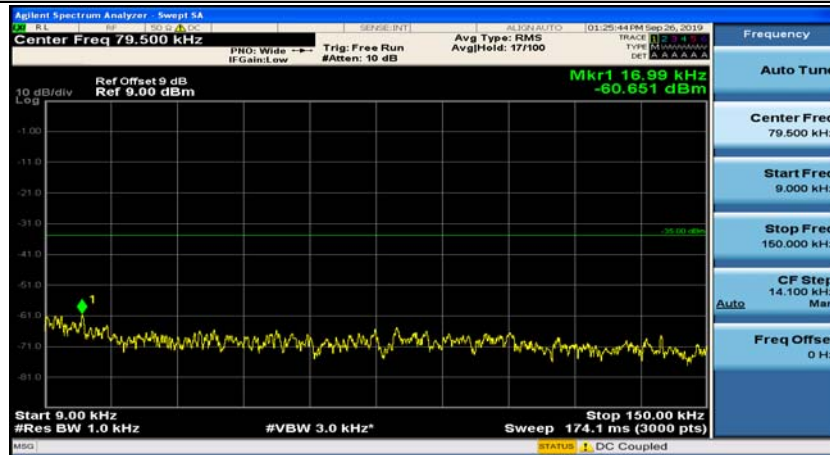
Channel Bandwidth: 15 MHz



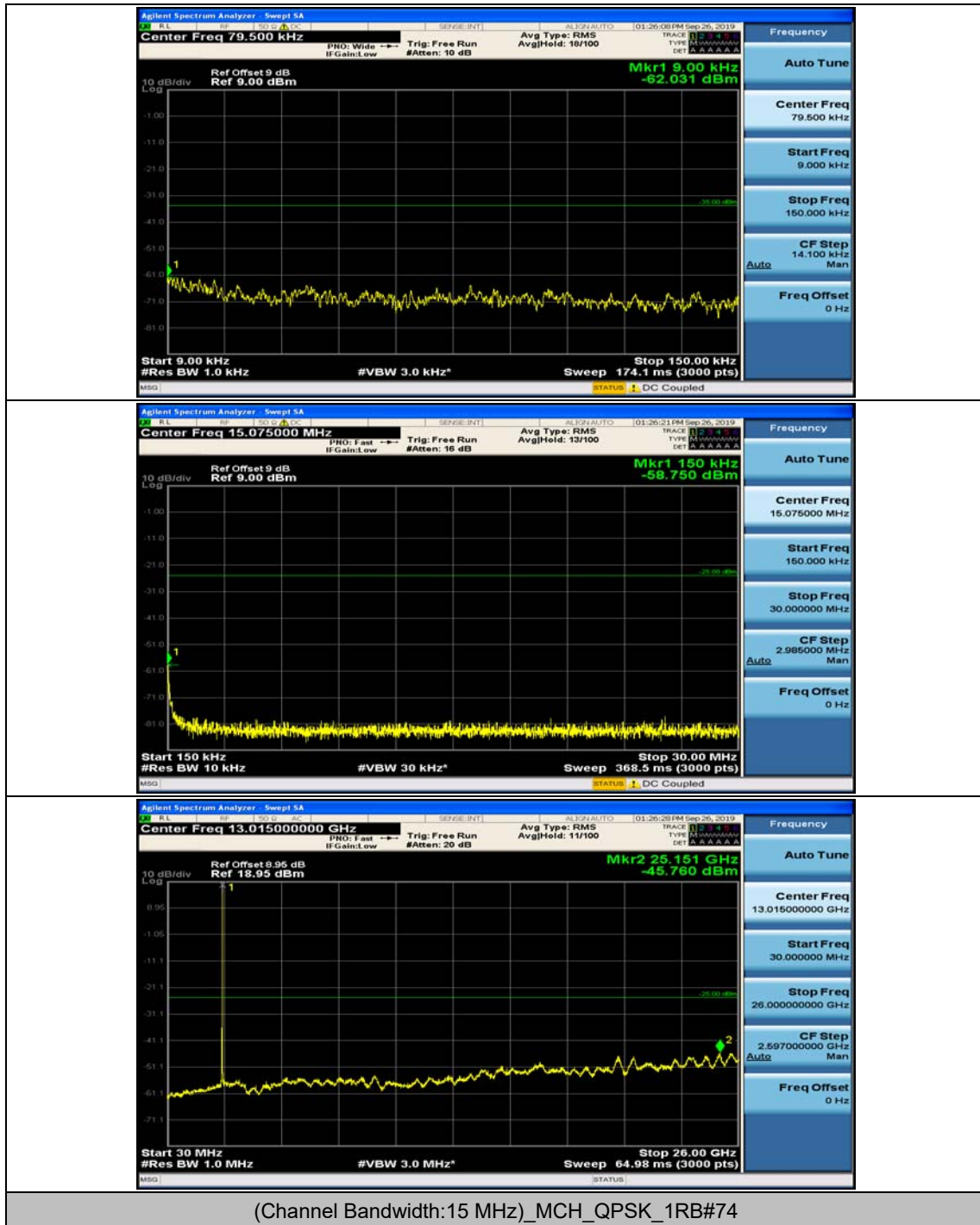


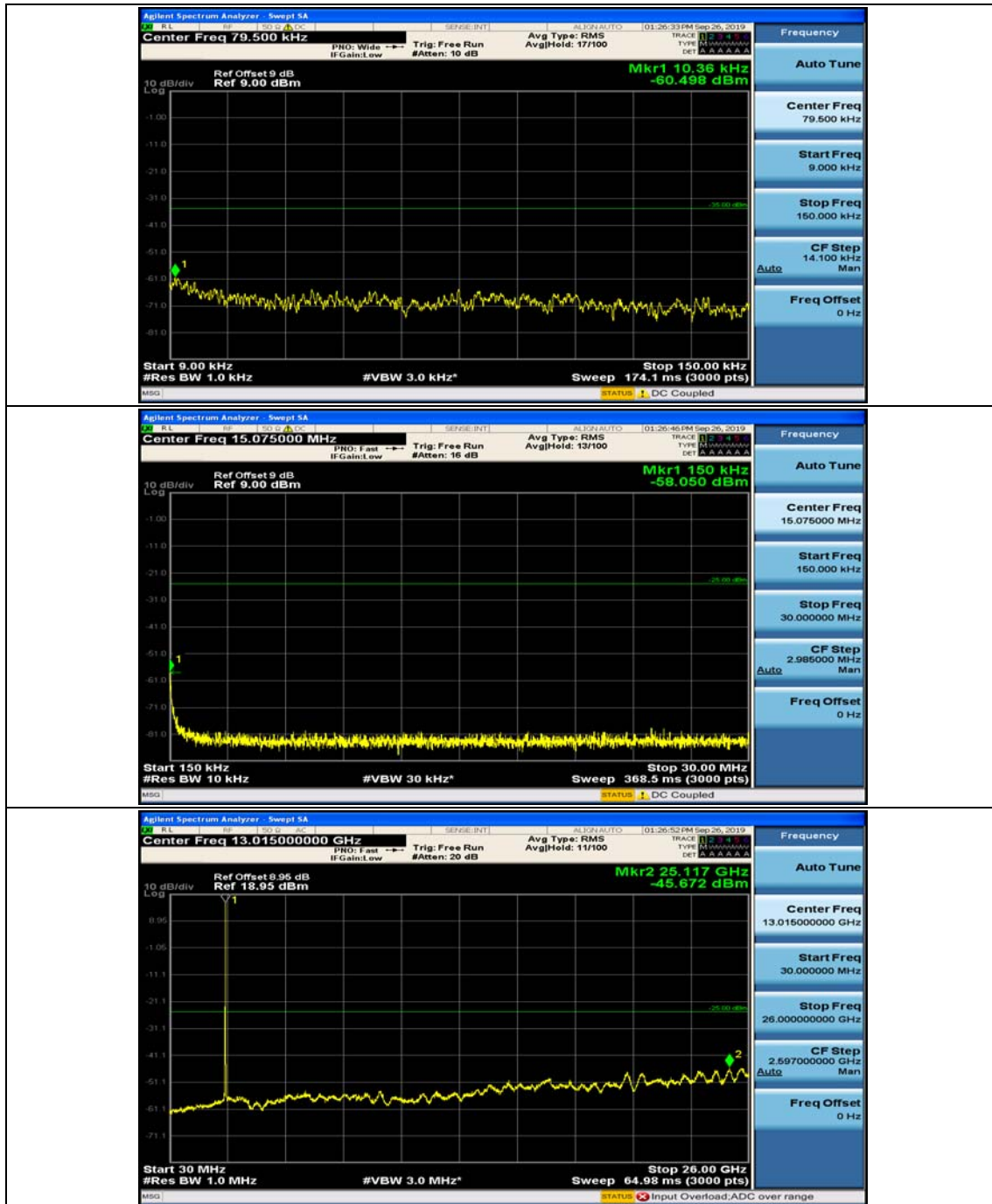


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

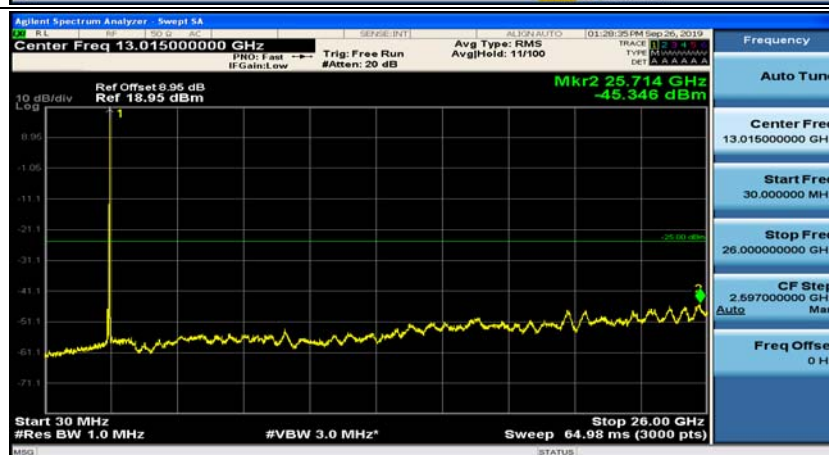
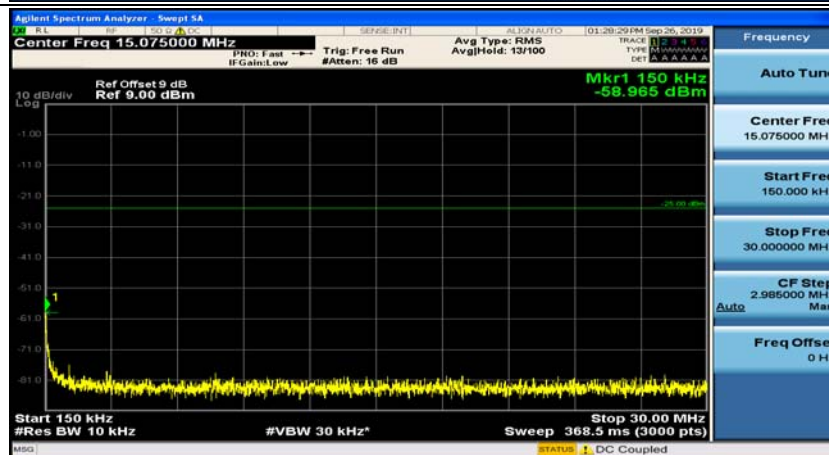
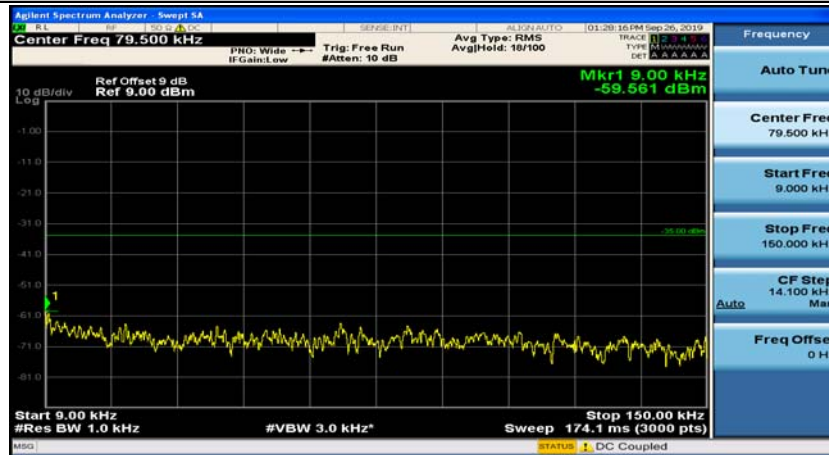


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

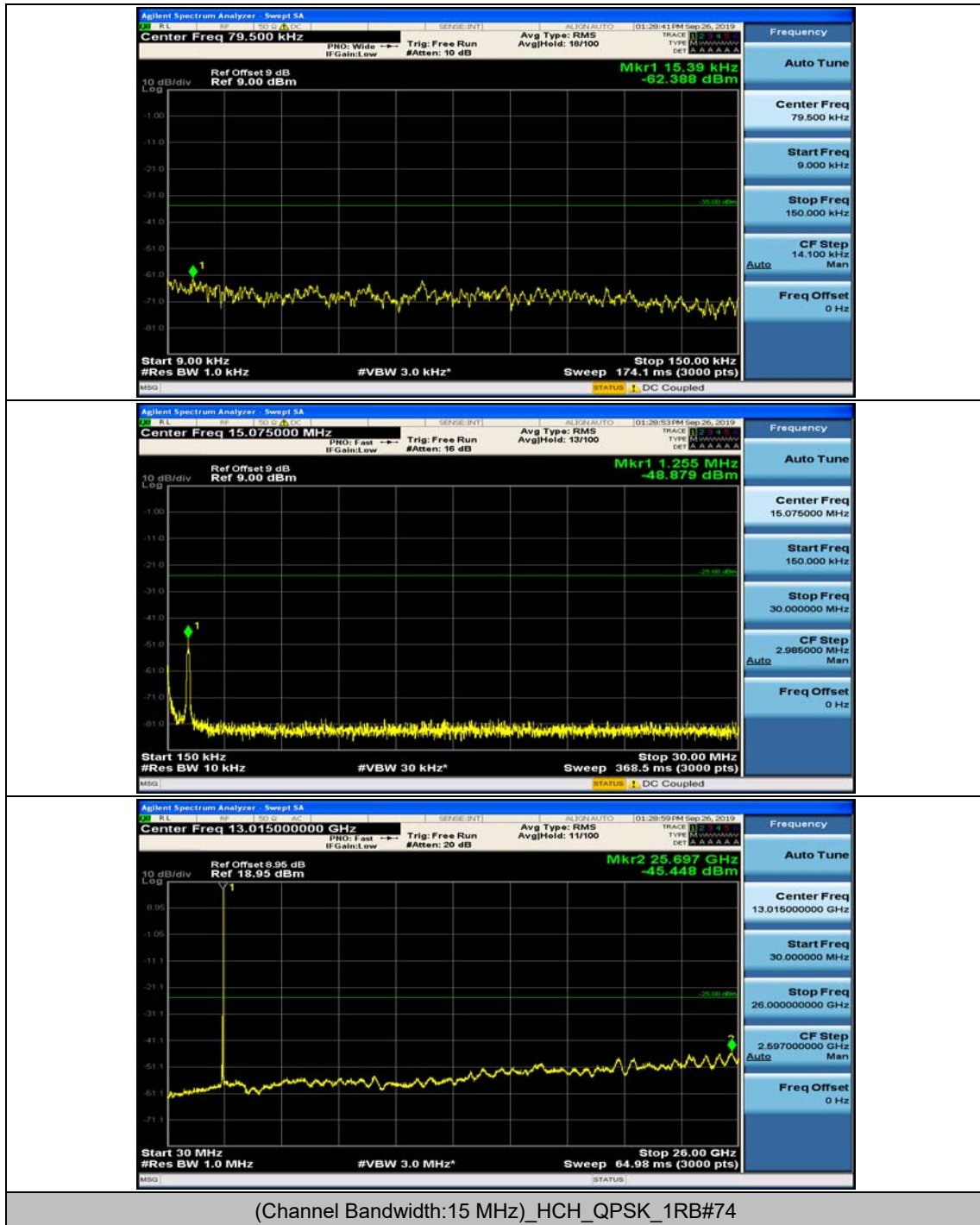


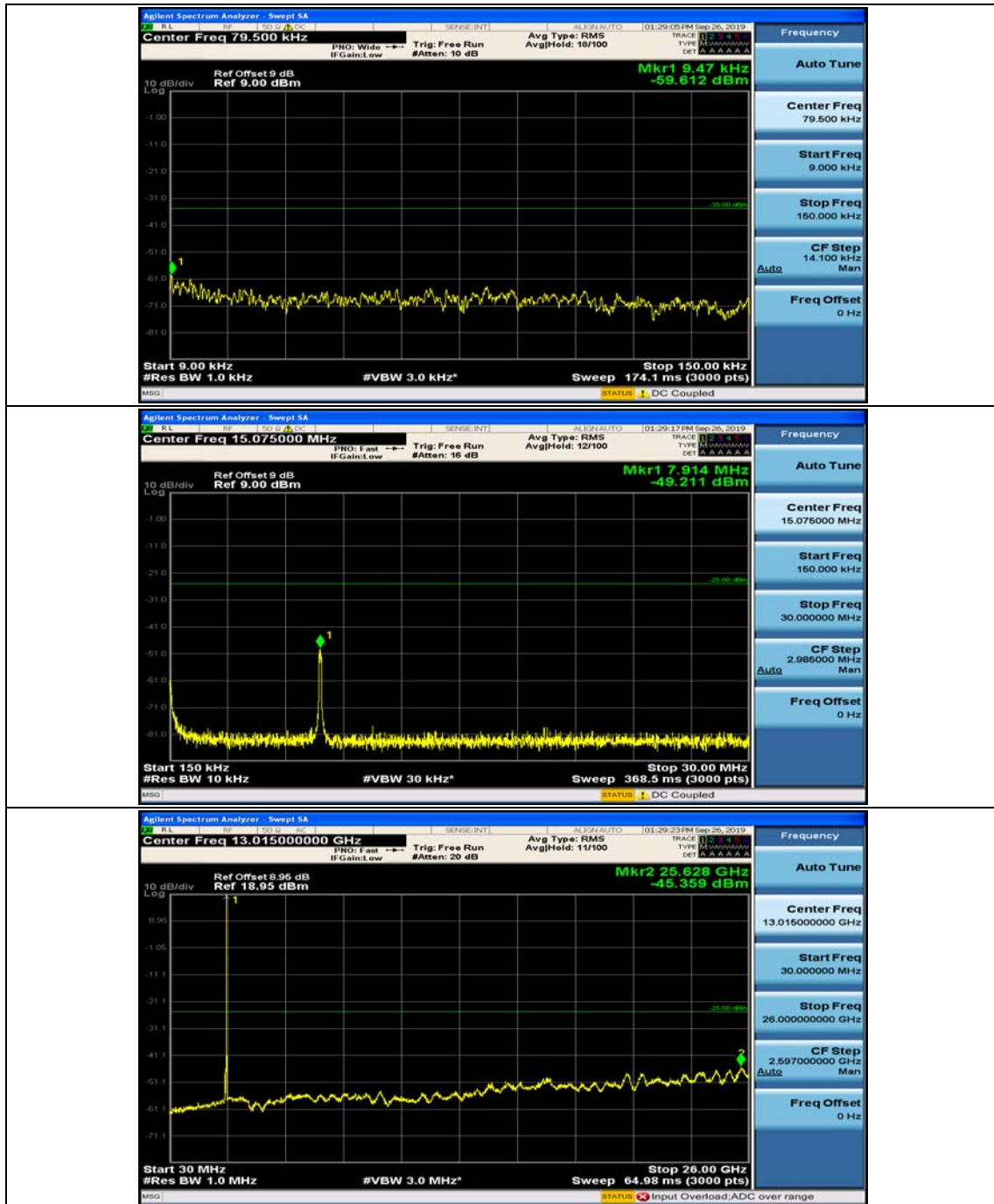


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0

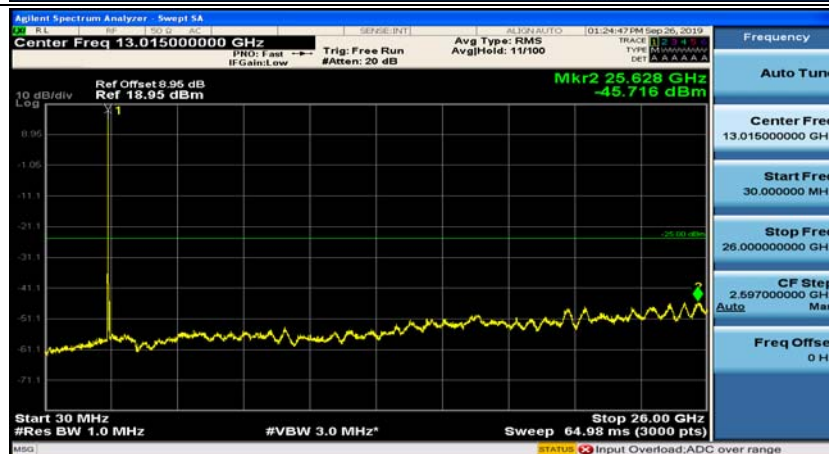
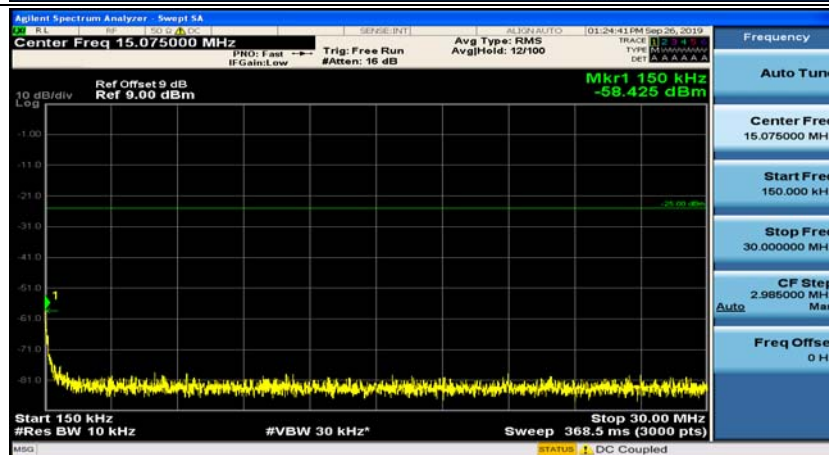
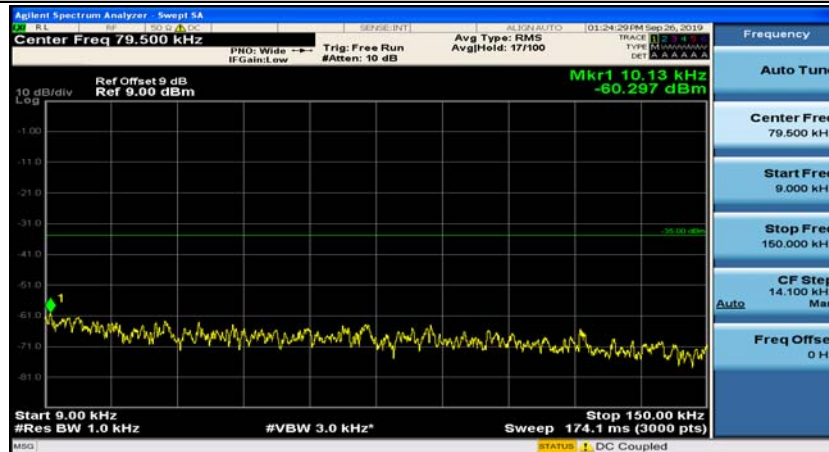


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37

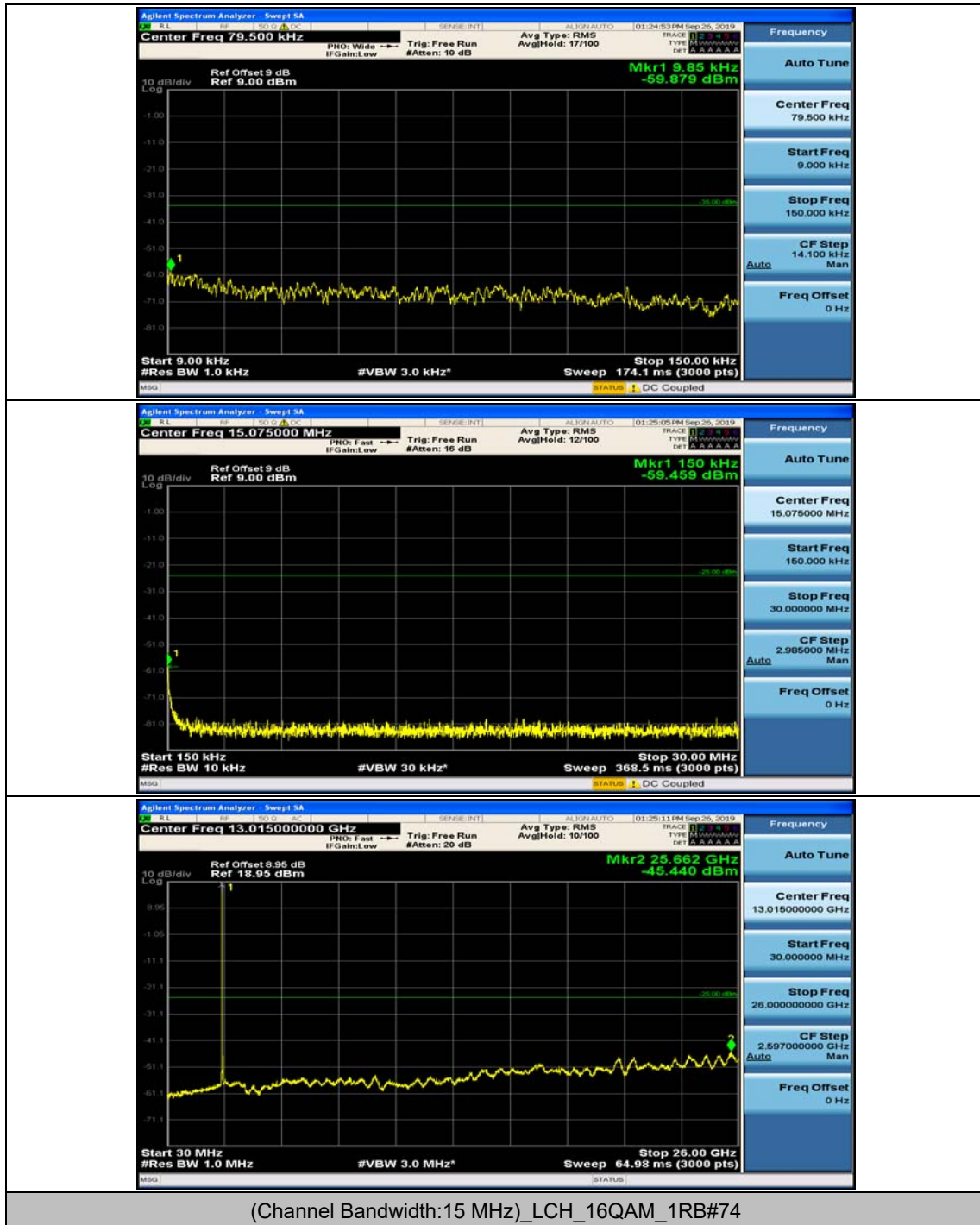


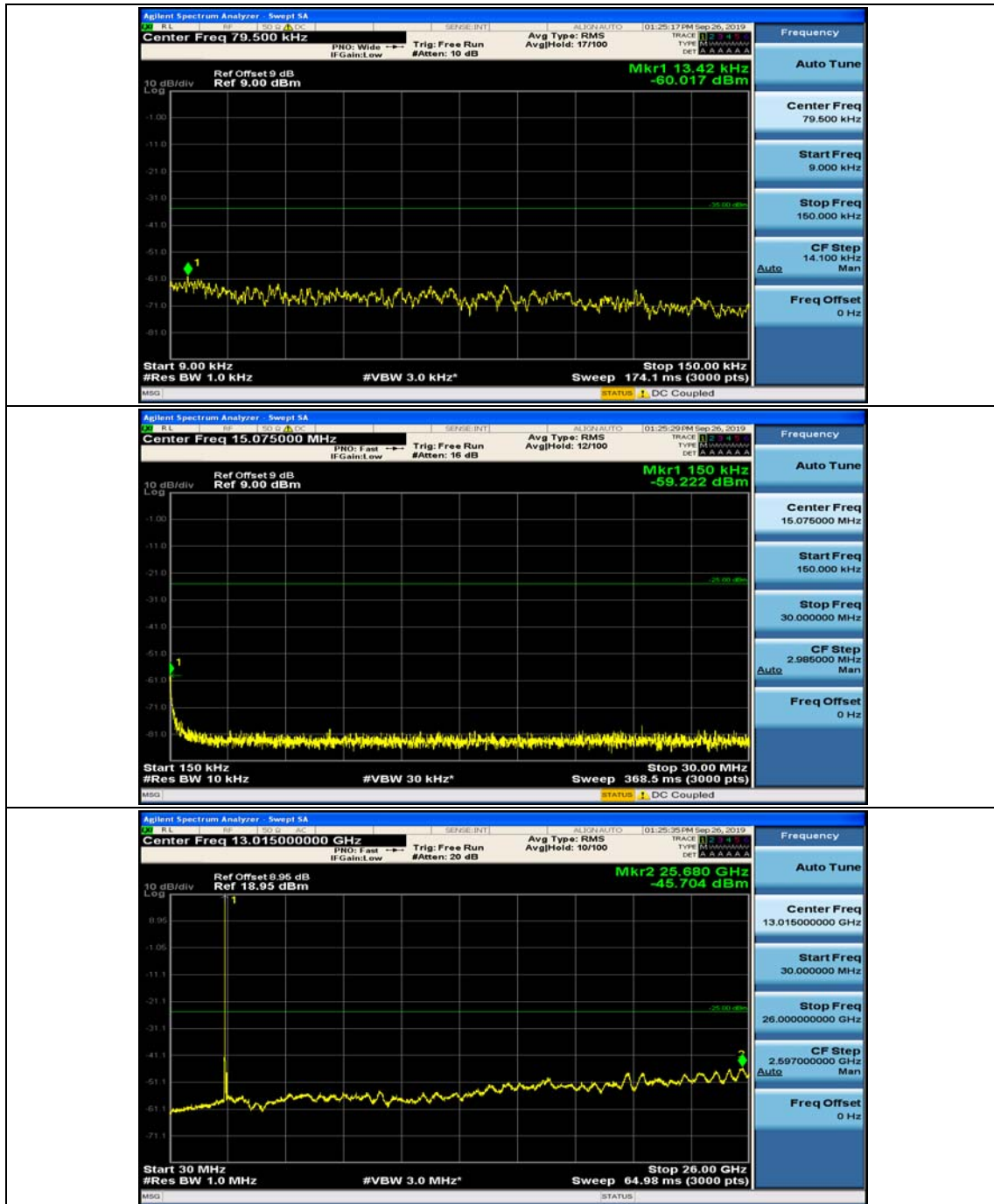


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

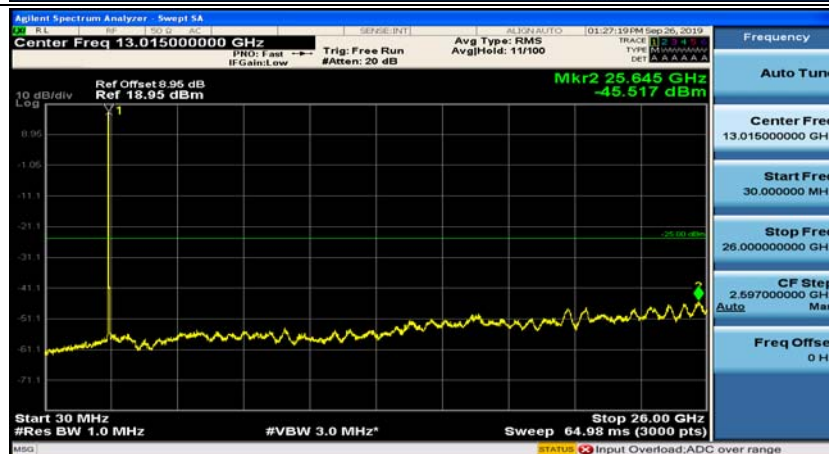
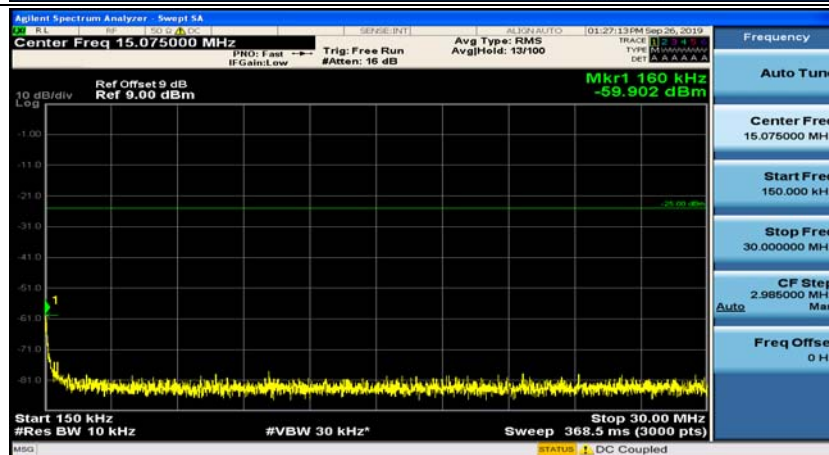
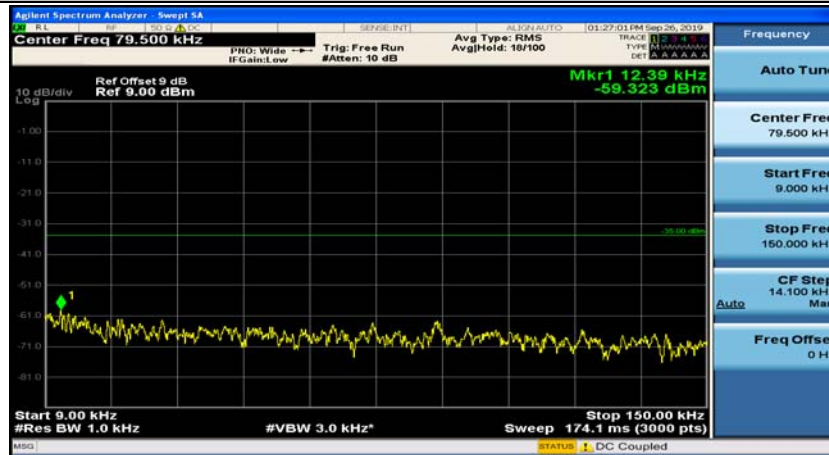


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

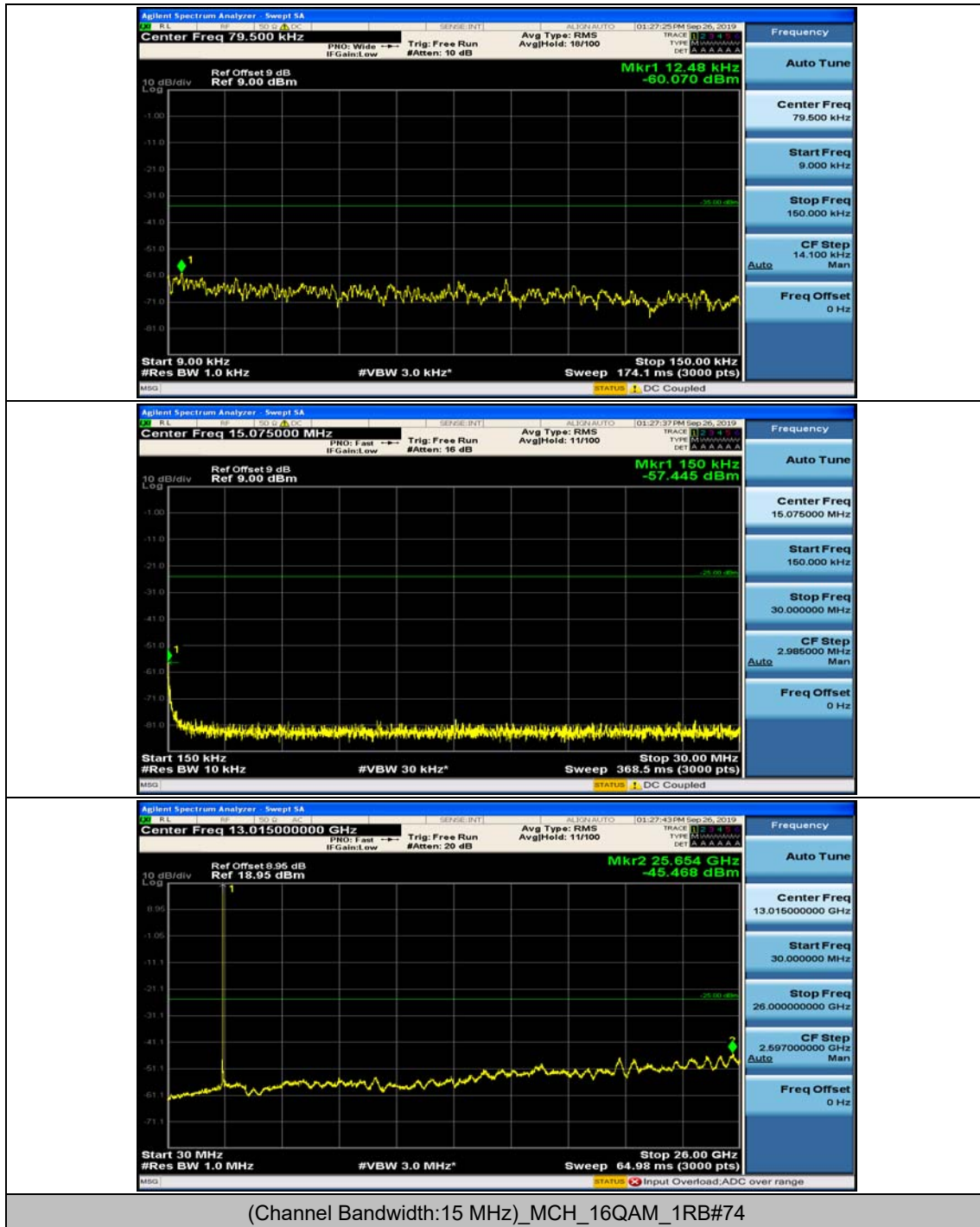


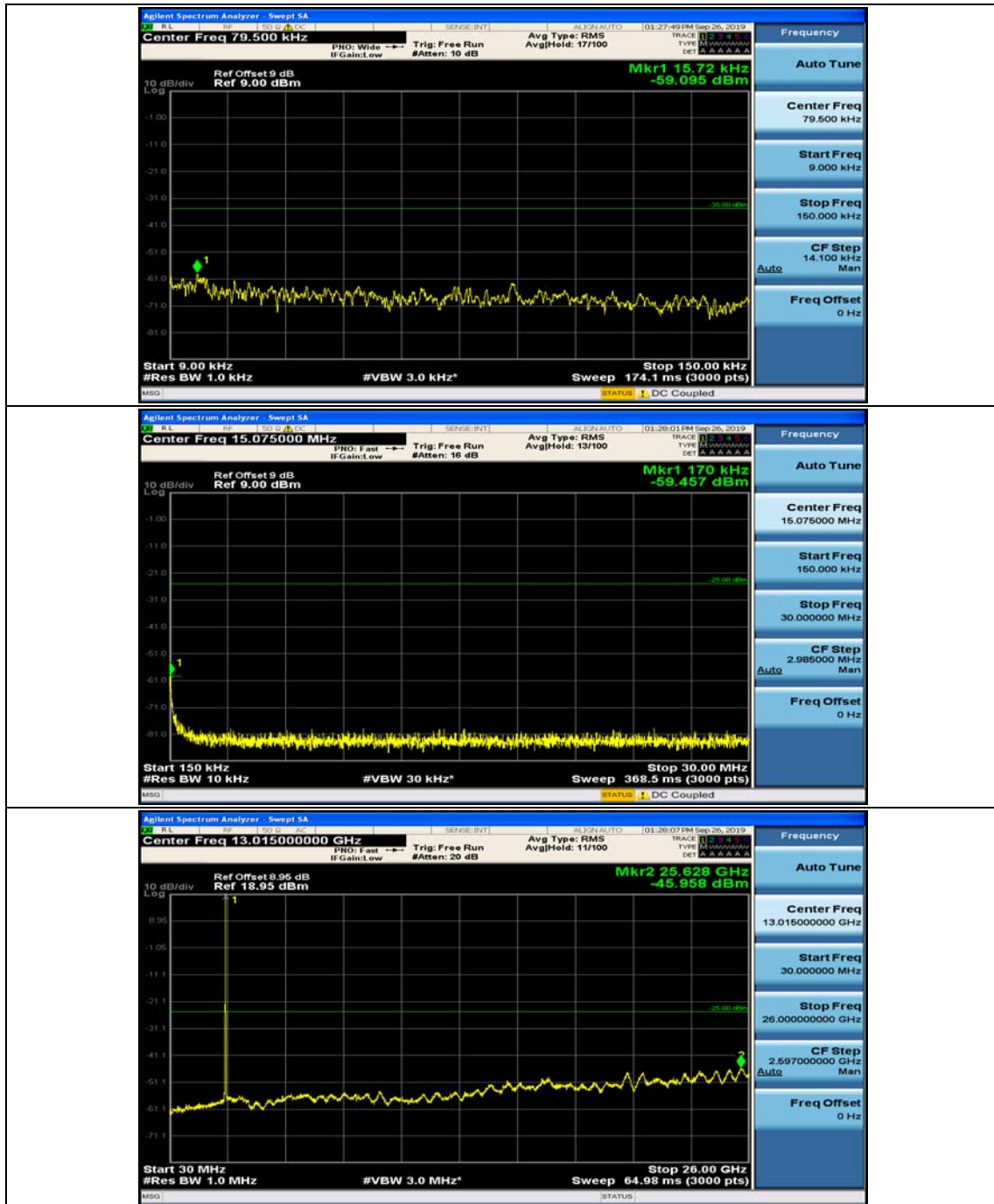


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

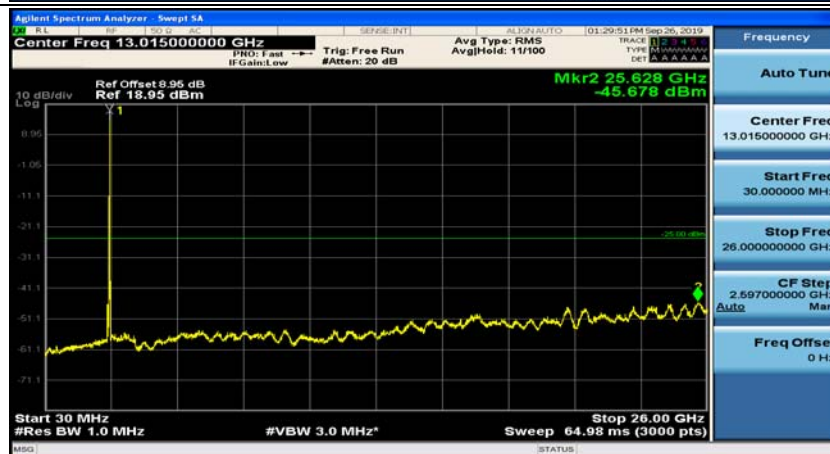
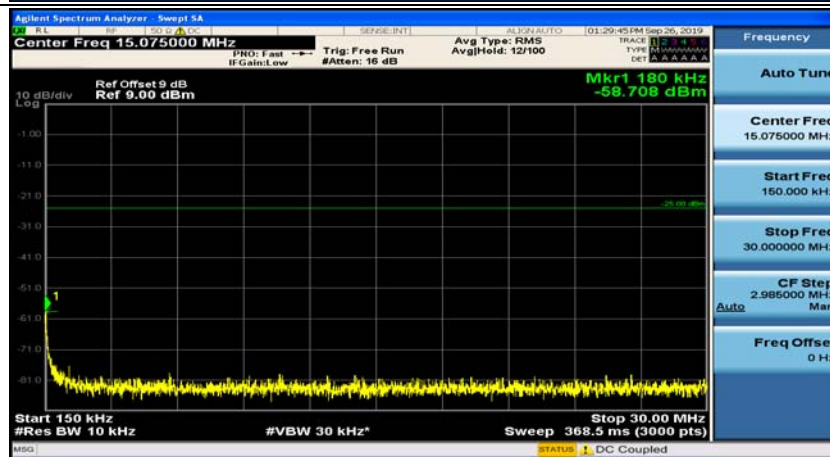
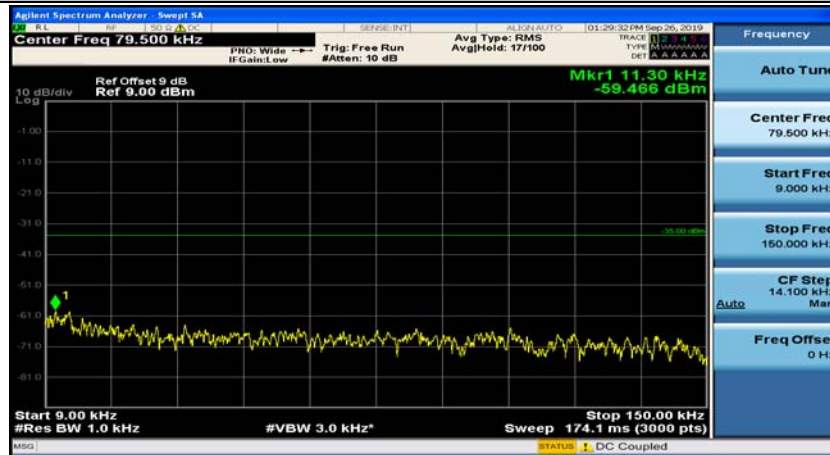


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

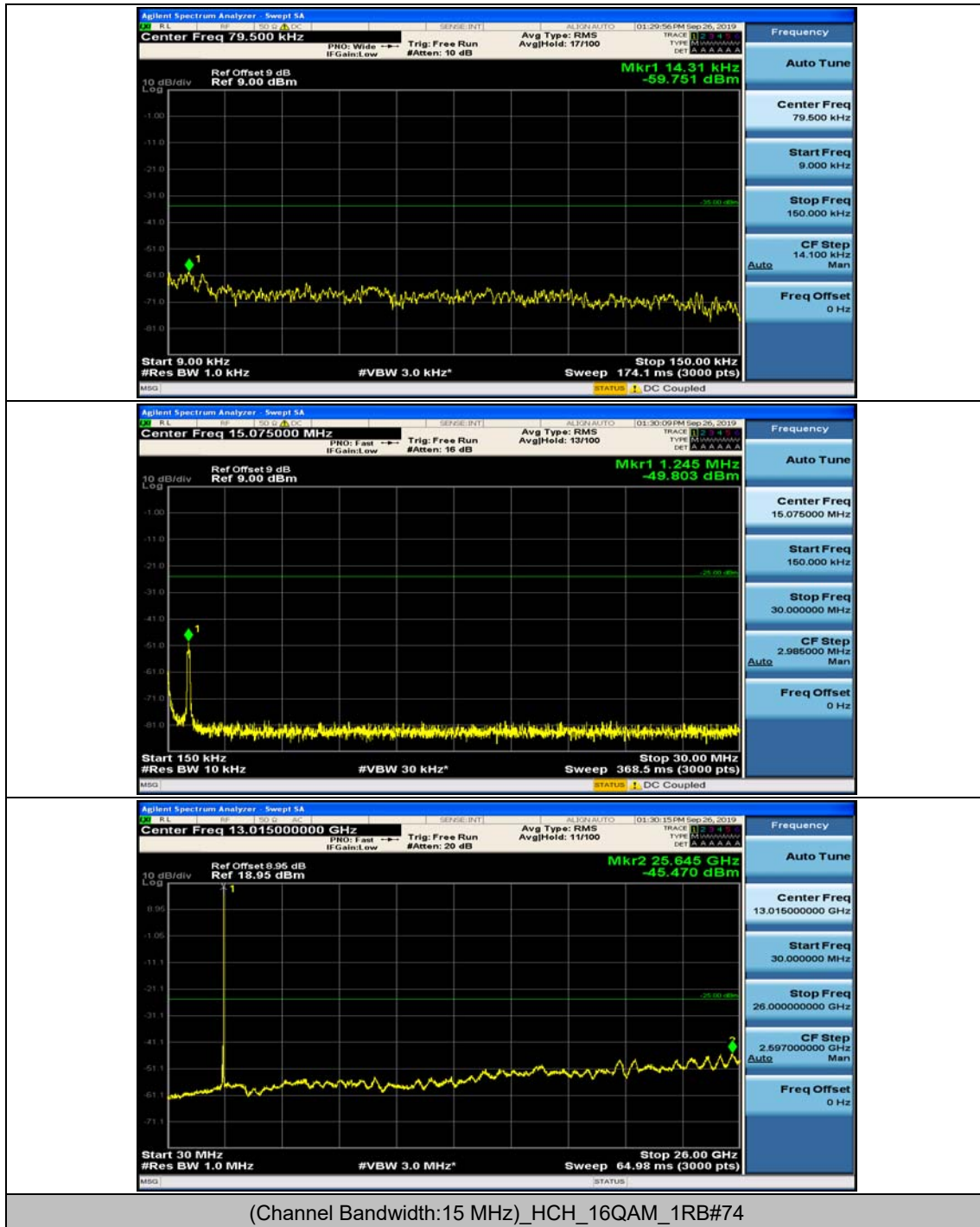


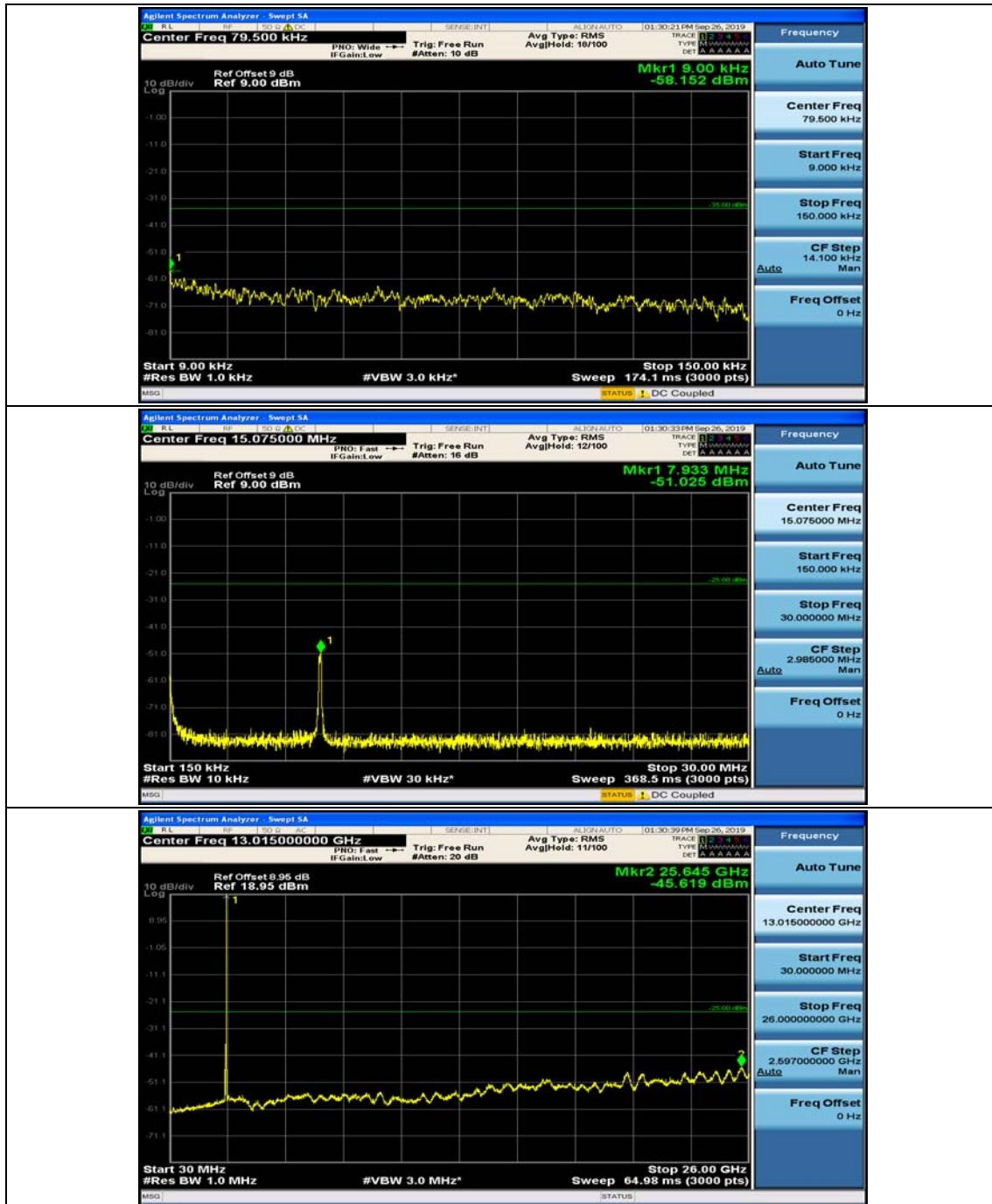


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#0

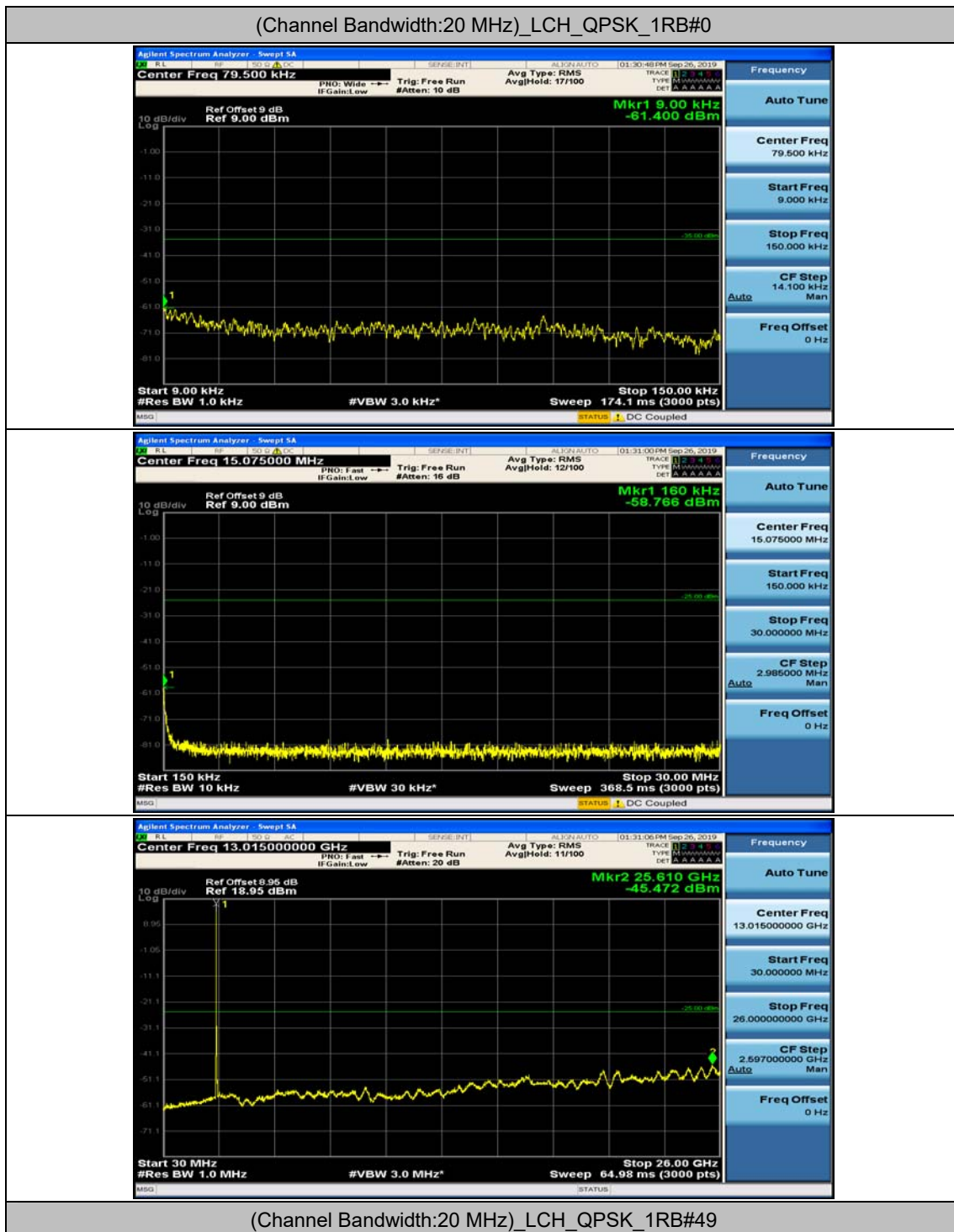


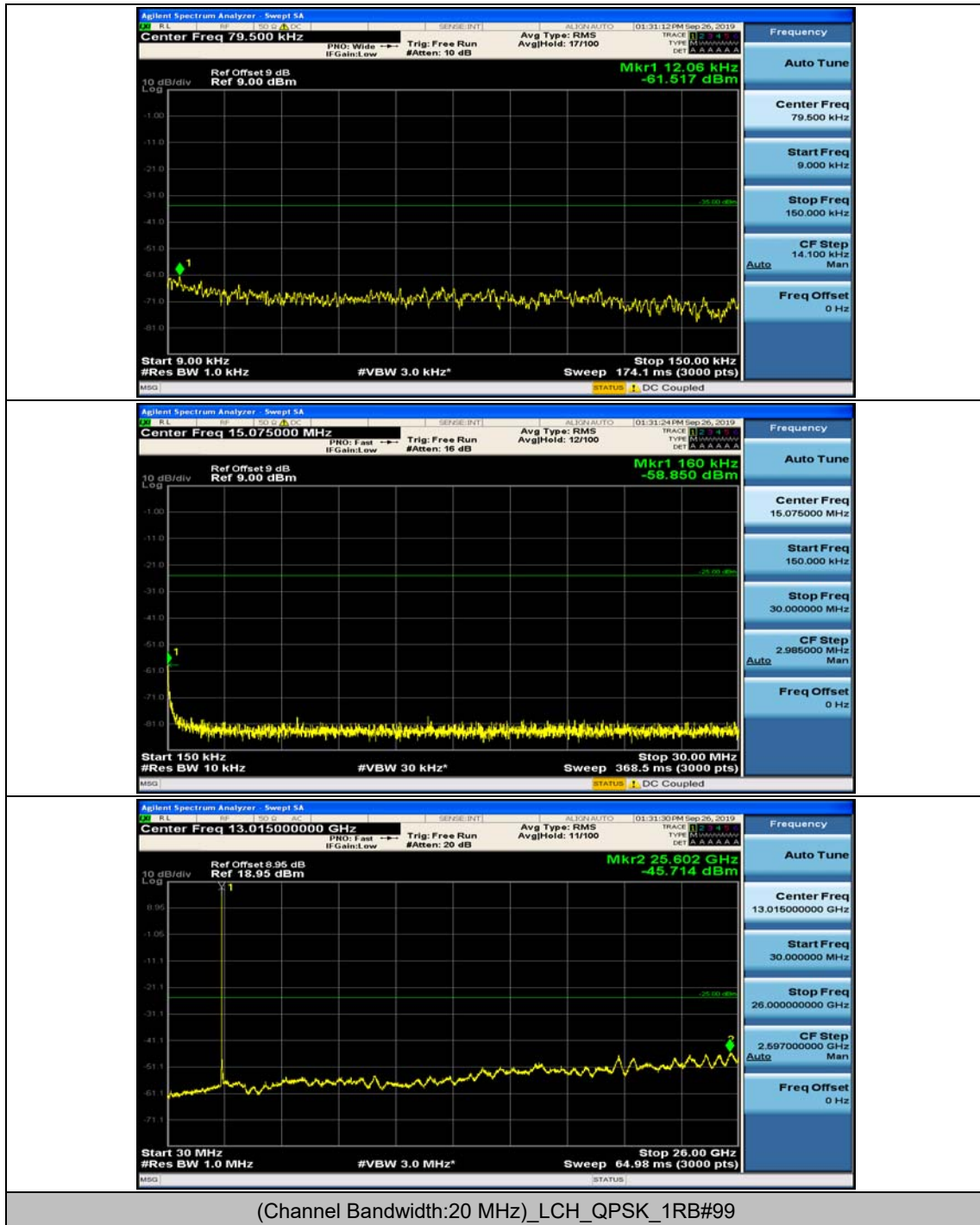
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#37

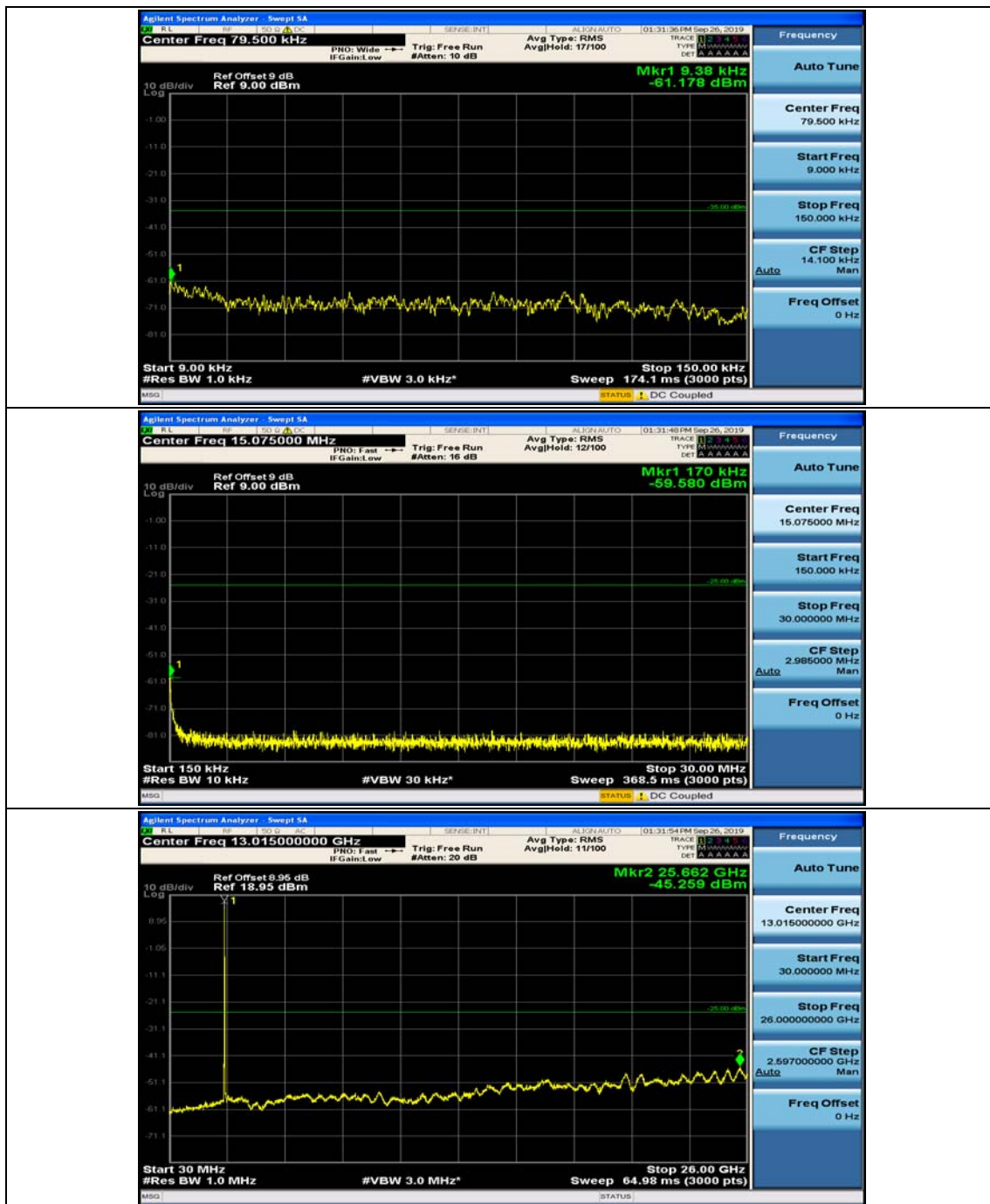




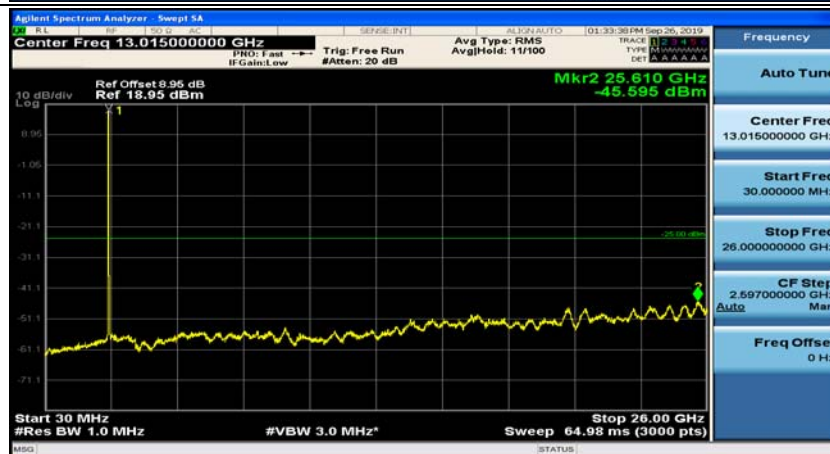
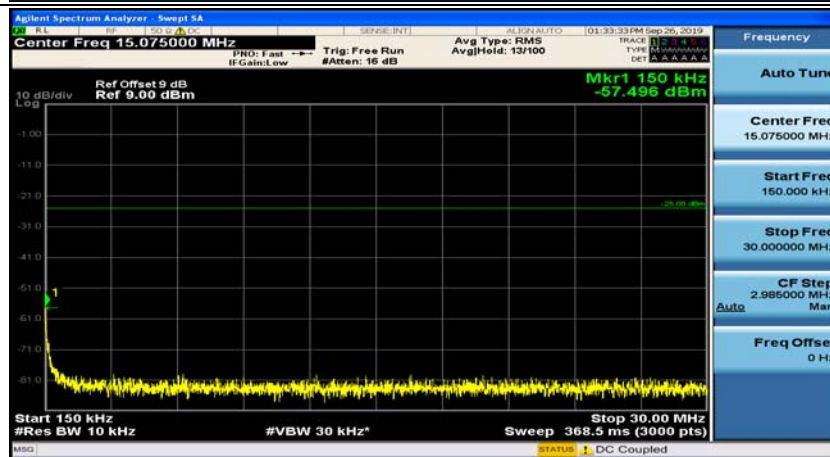
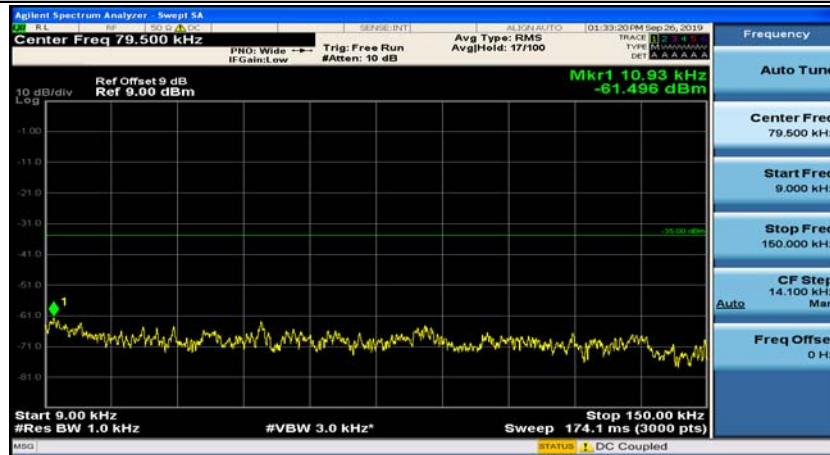
Channel Bandwidth: 20 MHz



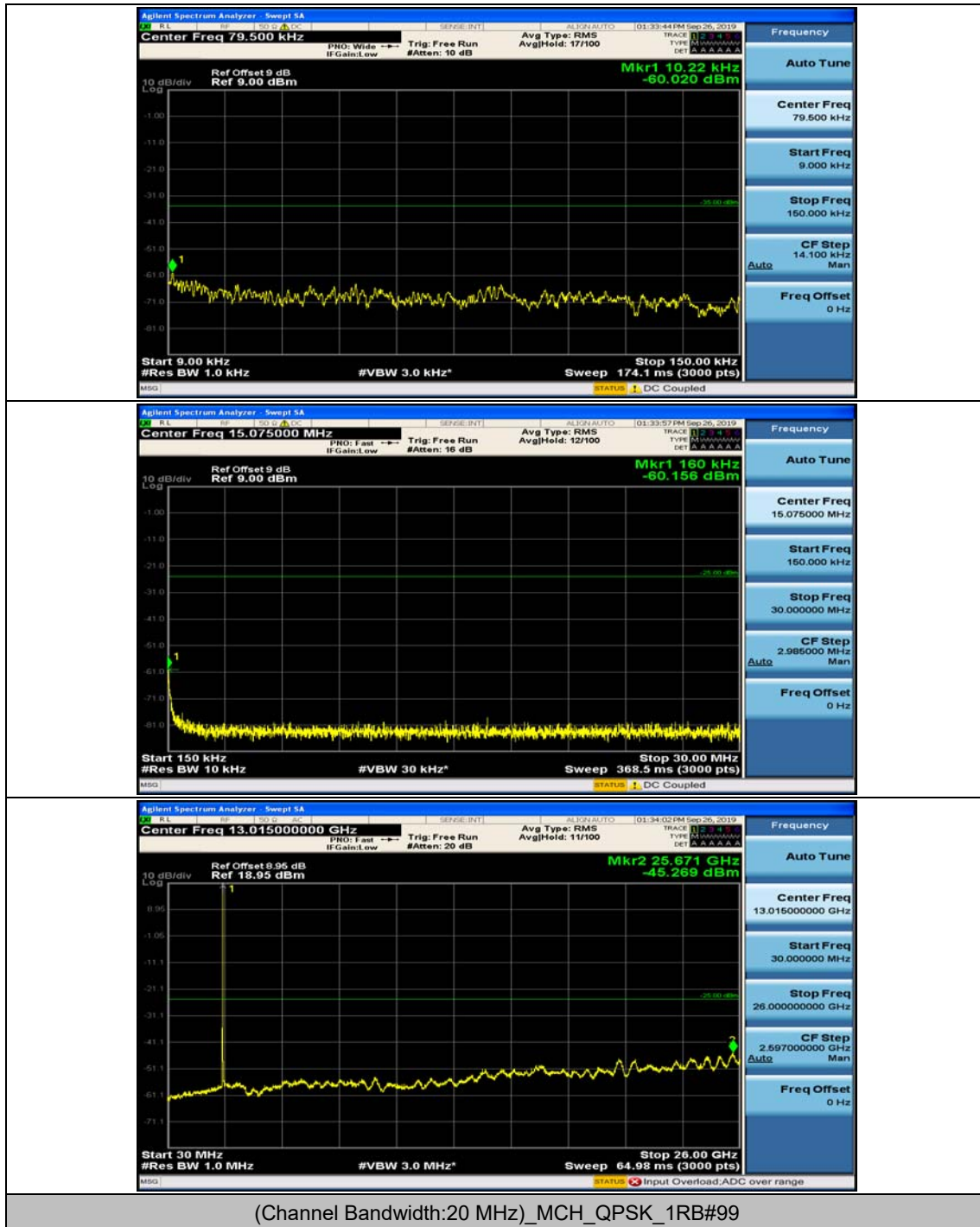


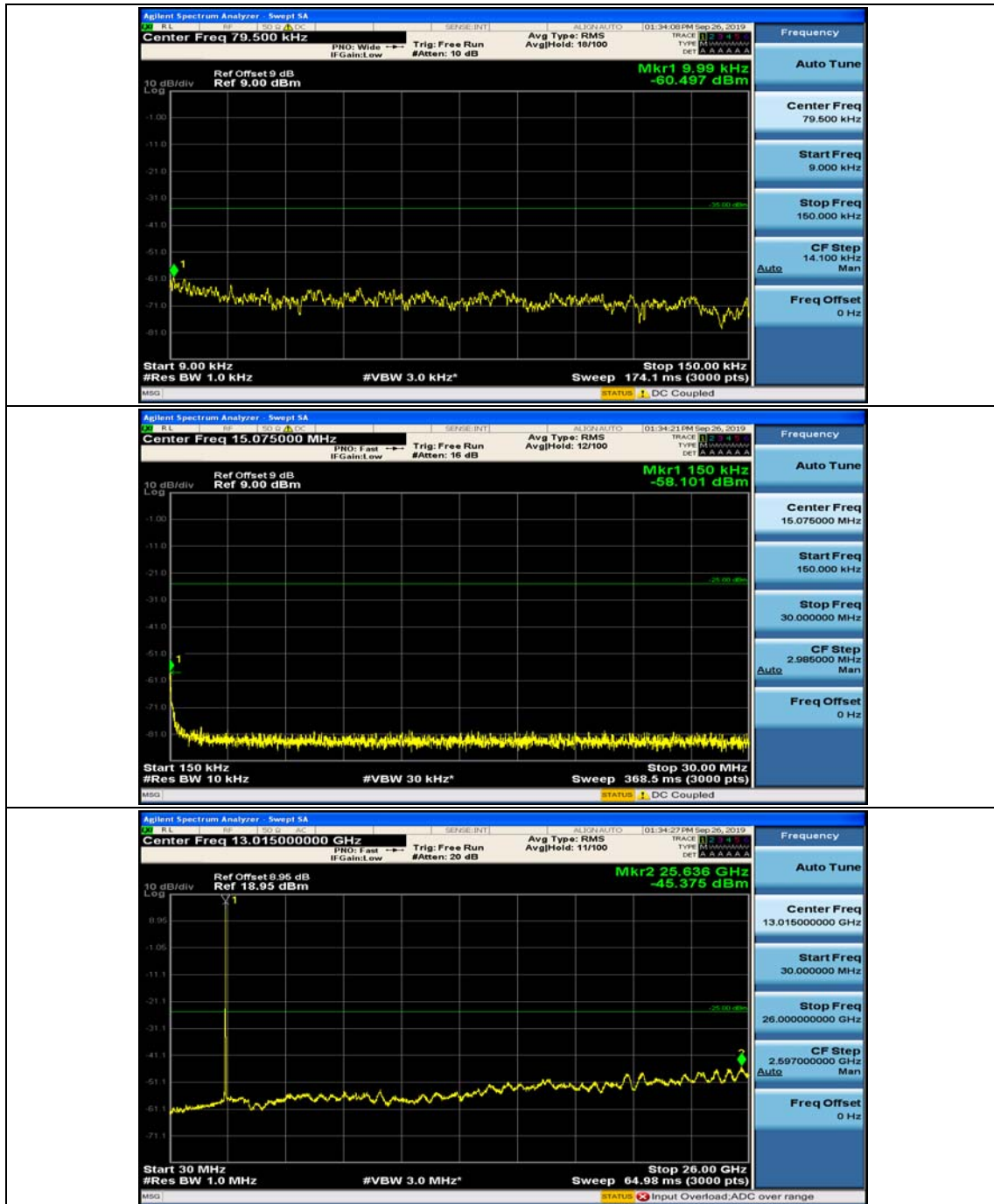


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#0

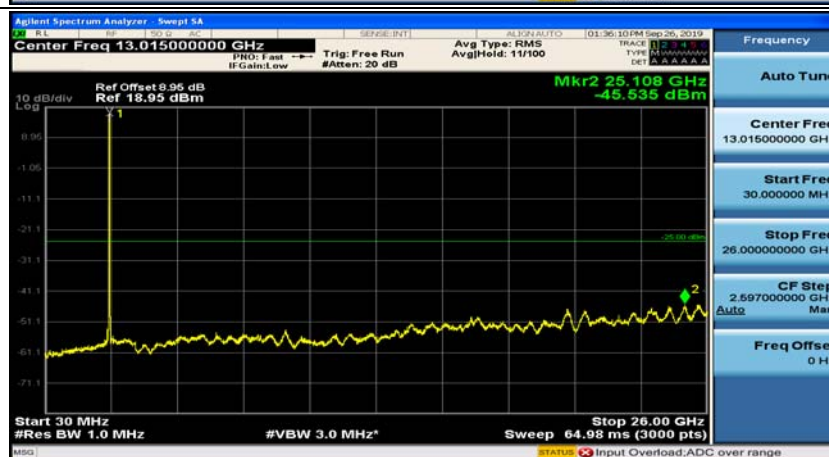
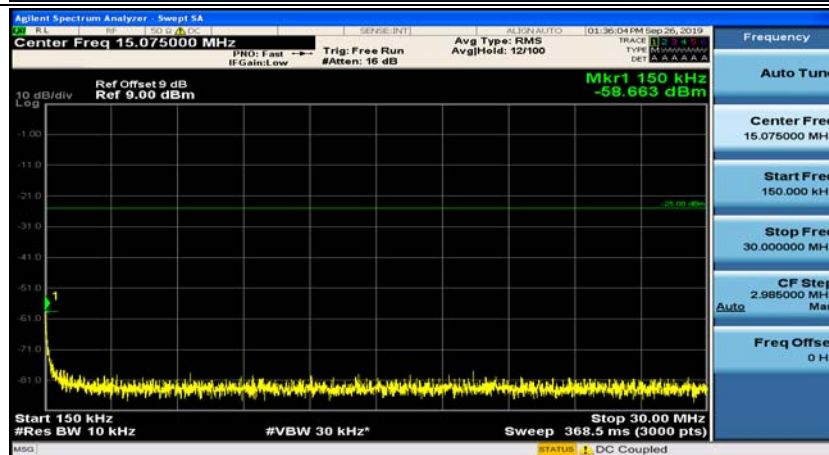
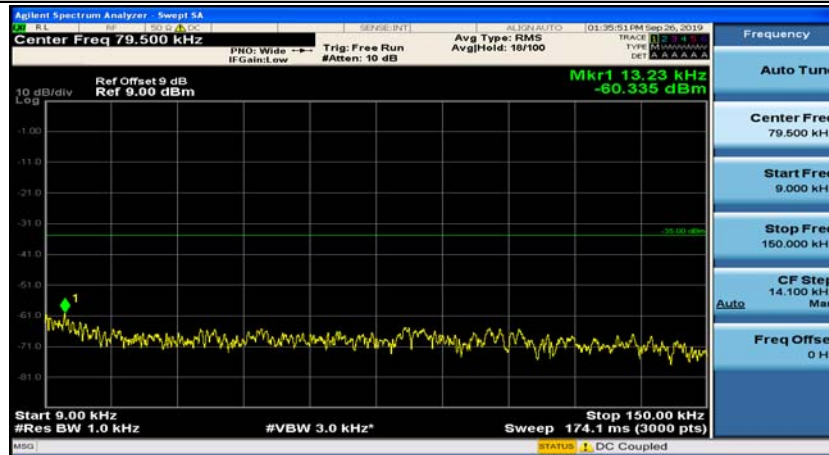


(Channel Bandwidth:20 MHz)_MCH_QPSK_1RB#49

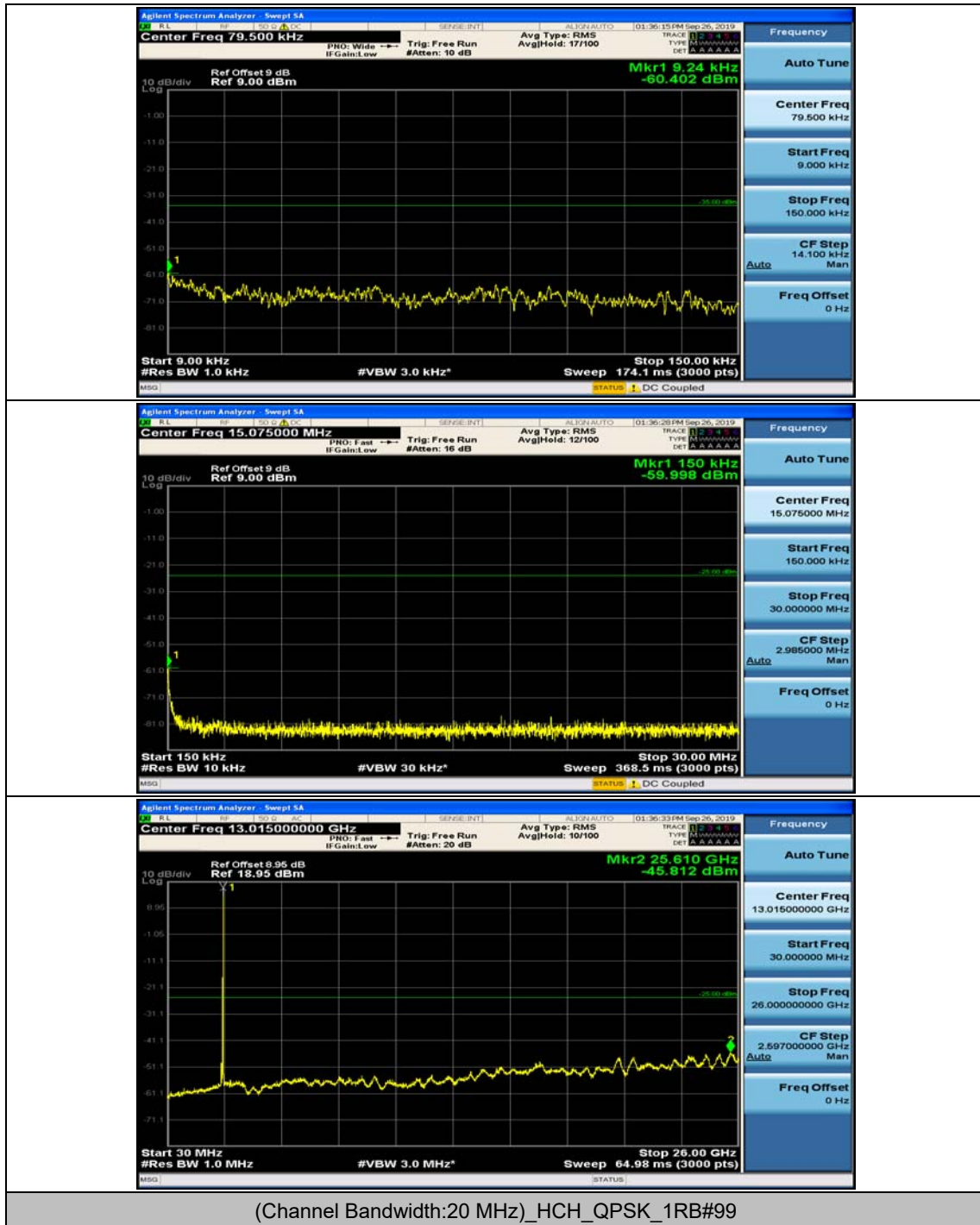


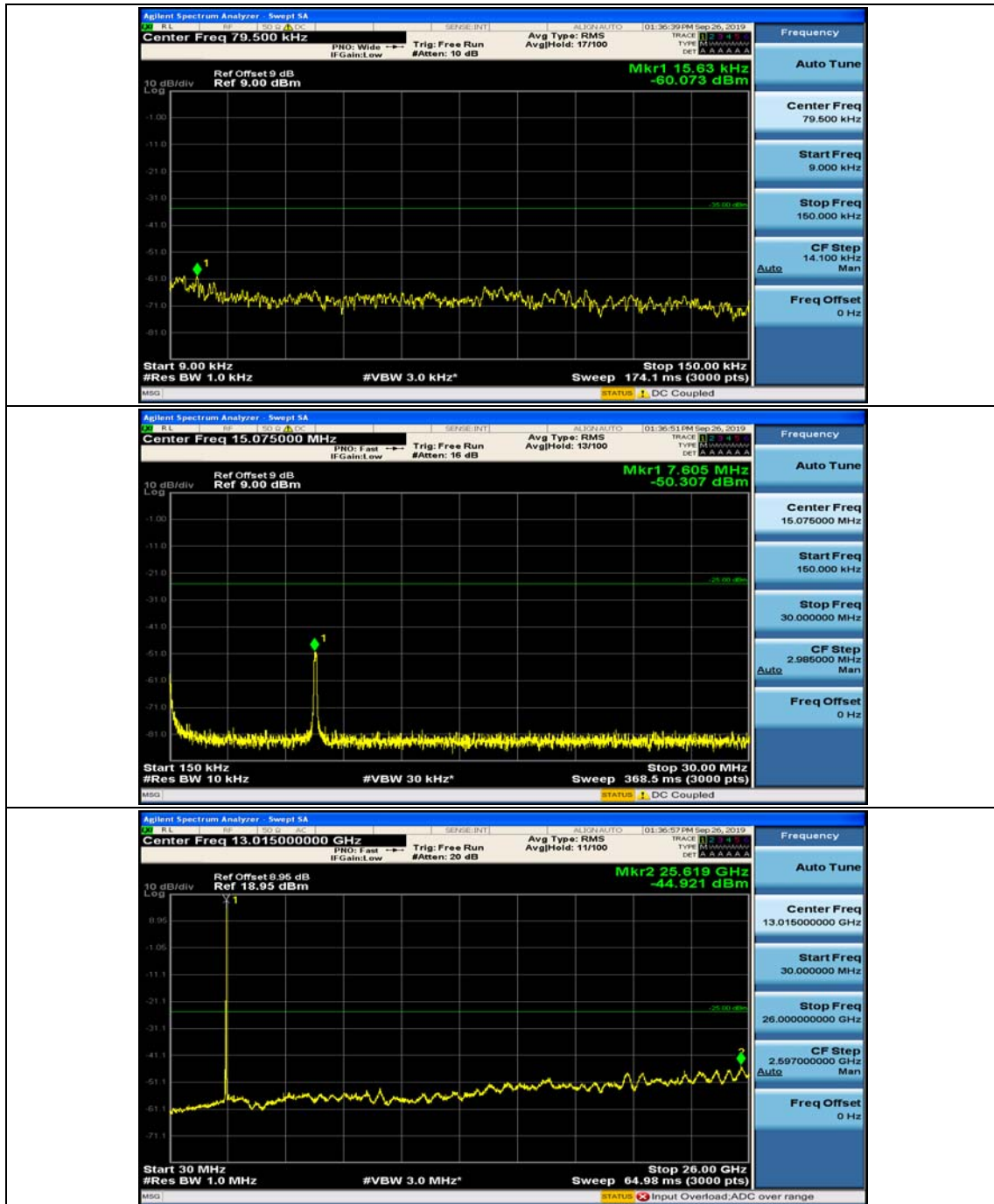


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#0

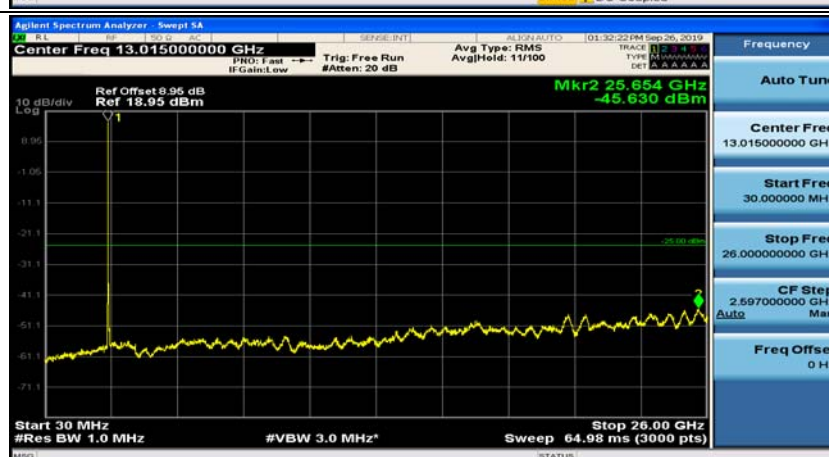
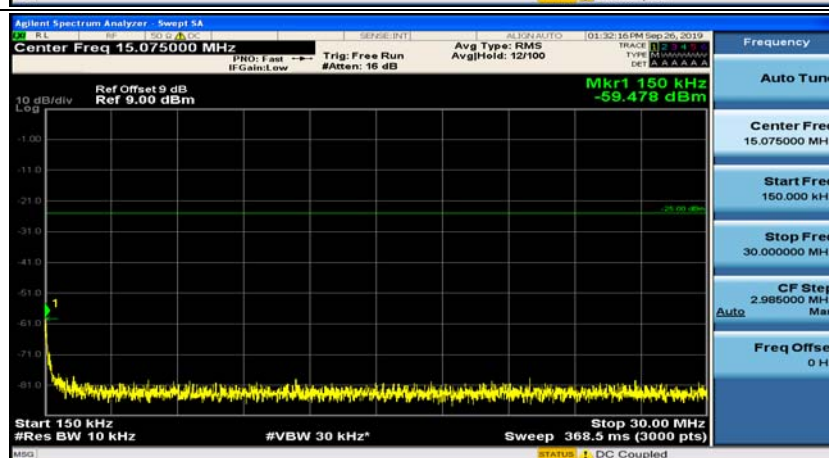
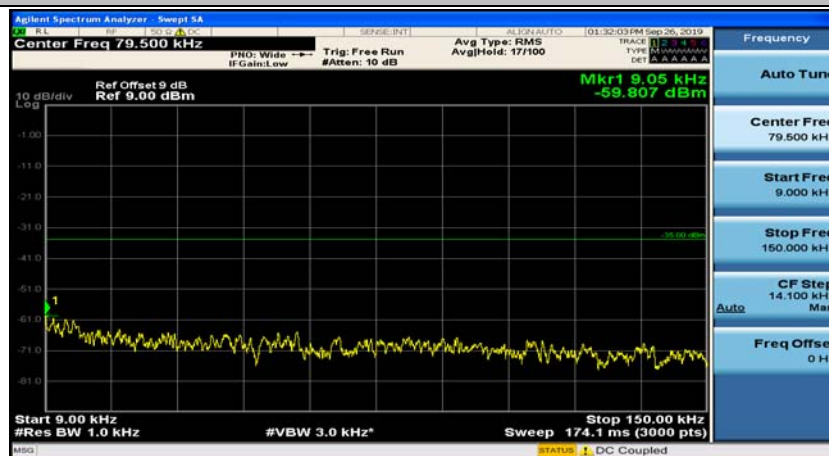


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#49

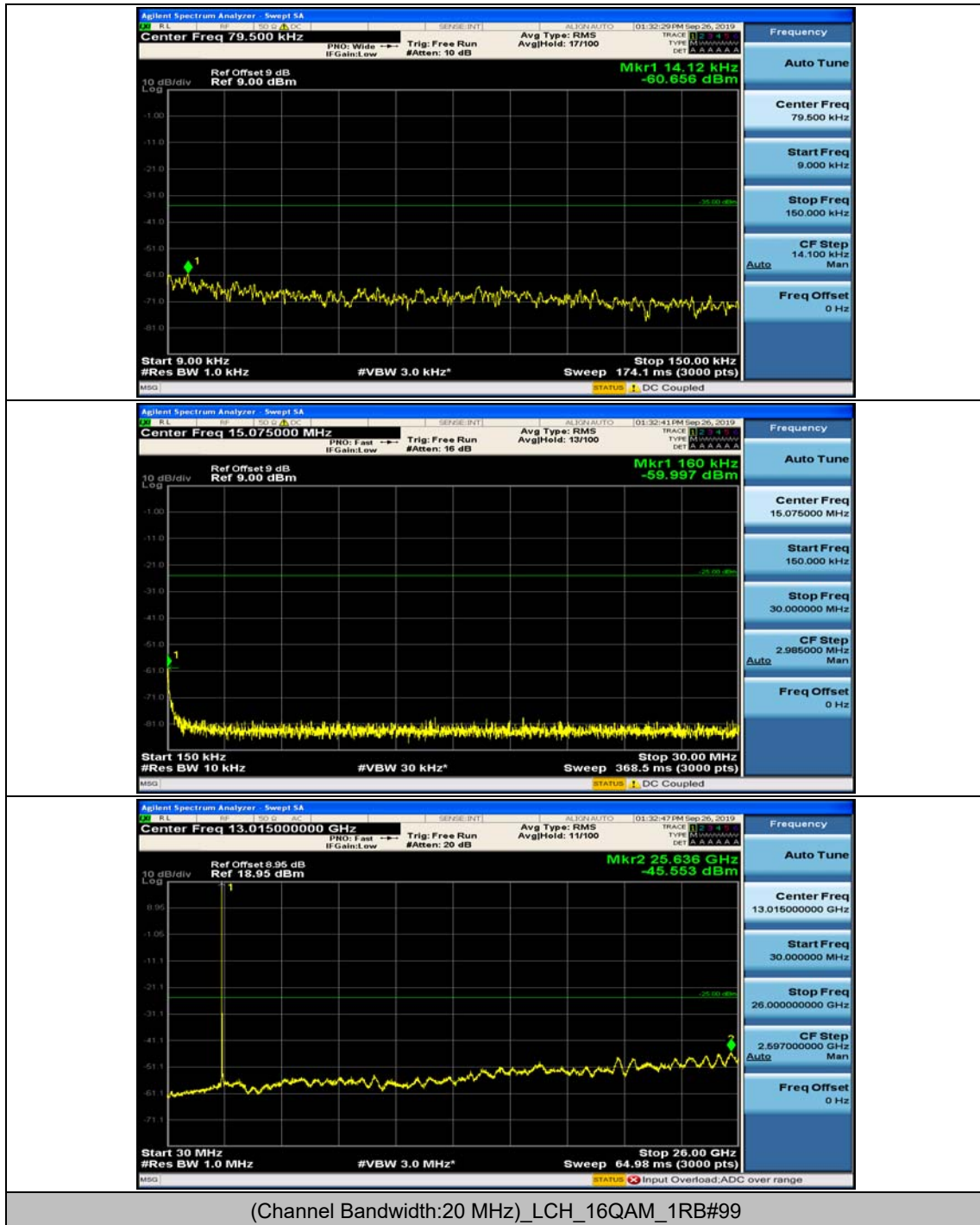


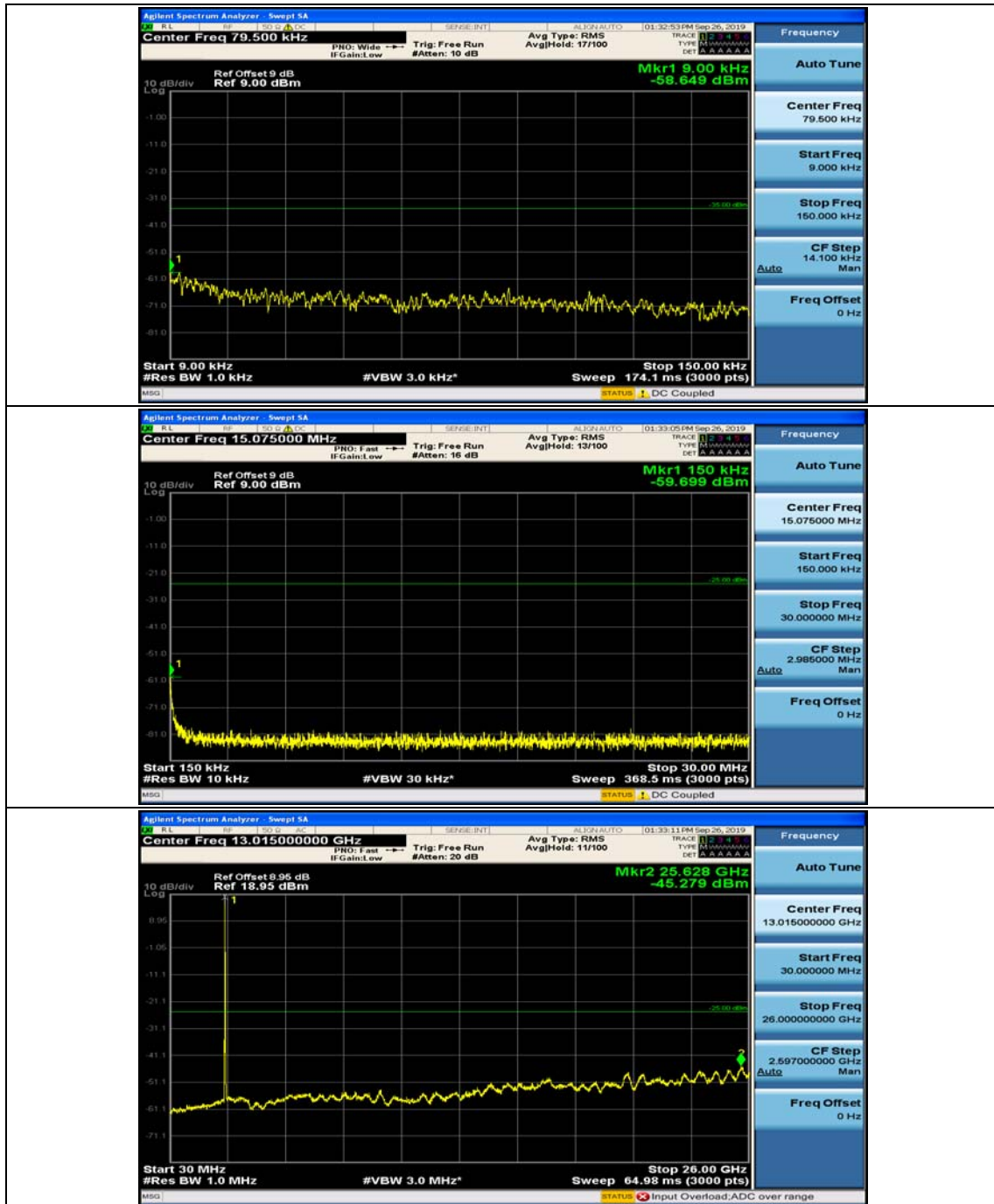


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0

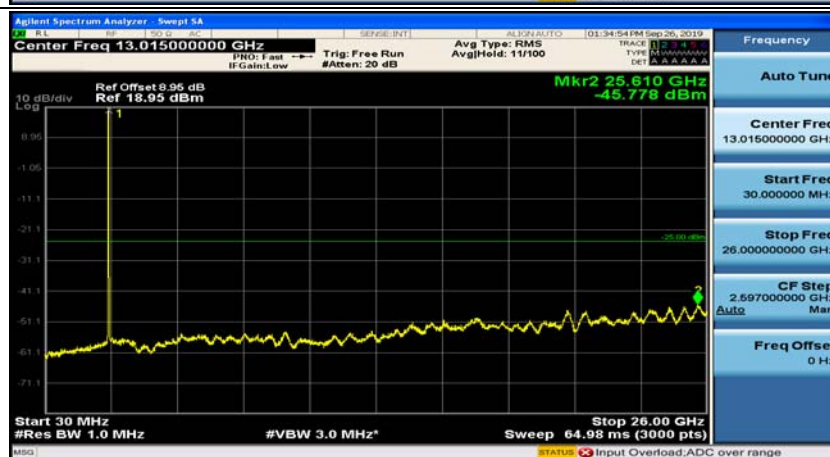
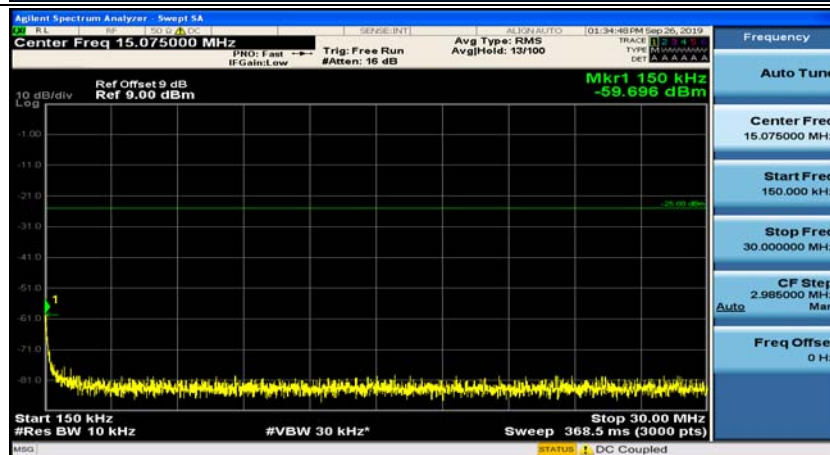
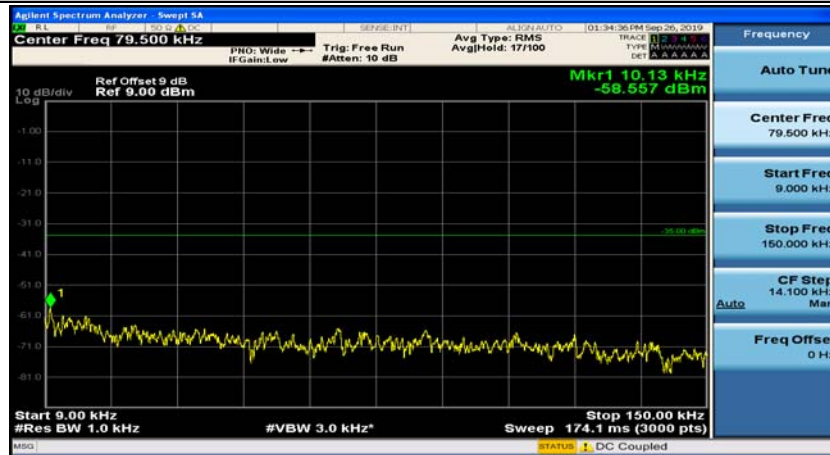


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#49

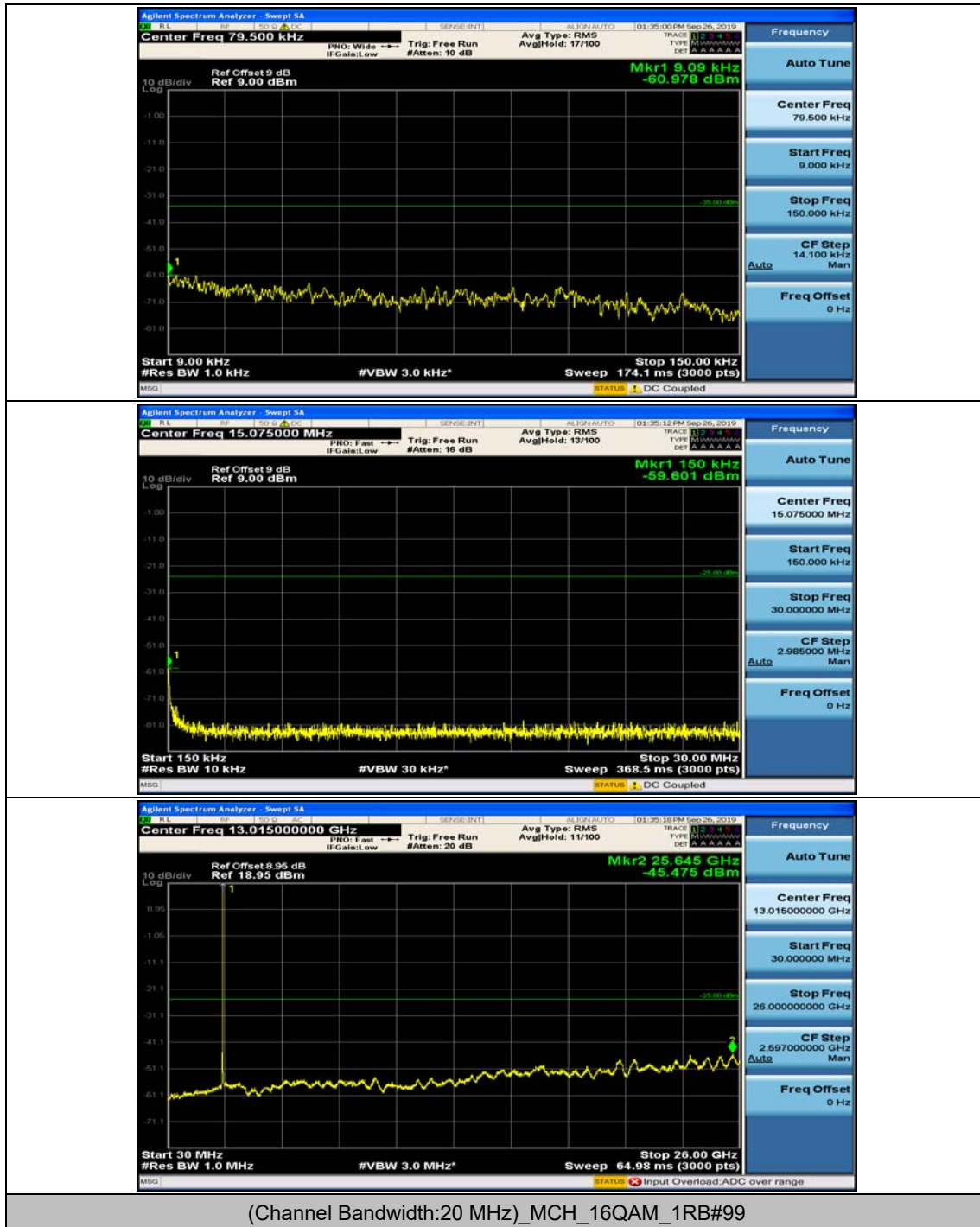


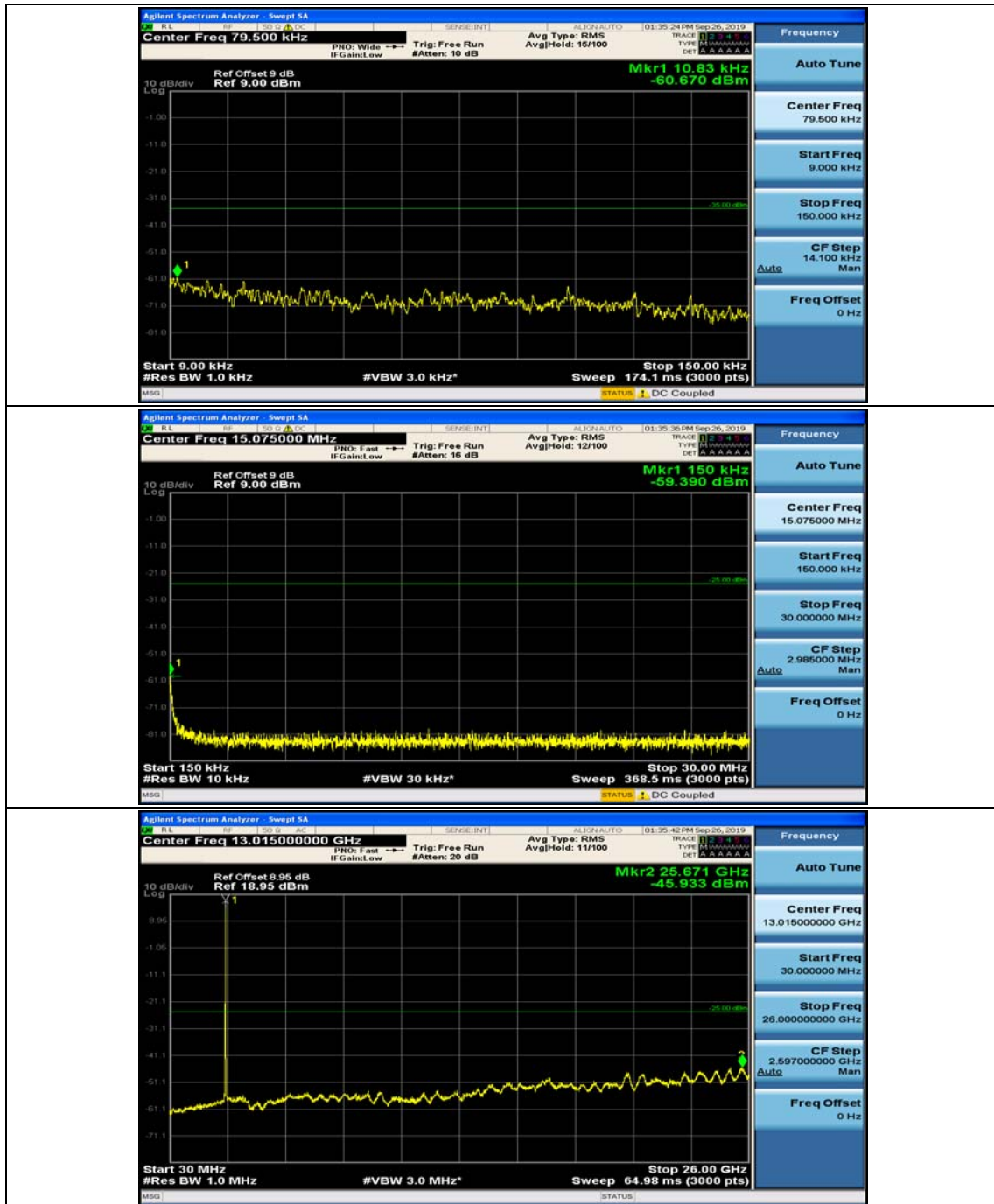


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#0

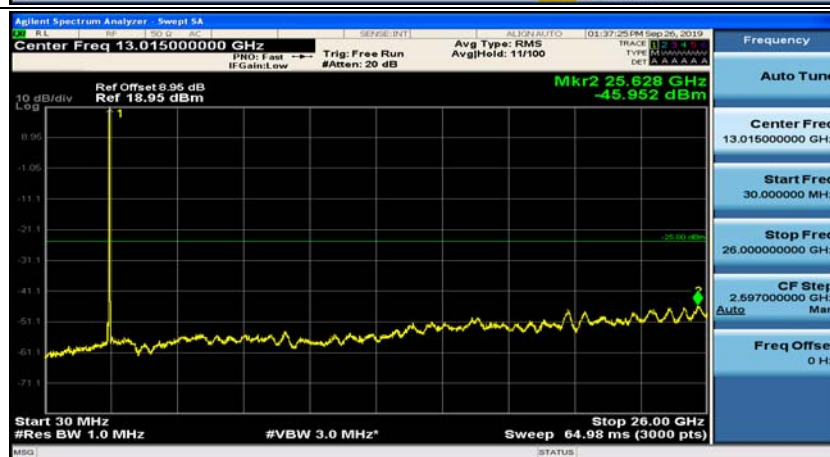
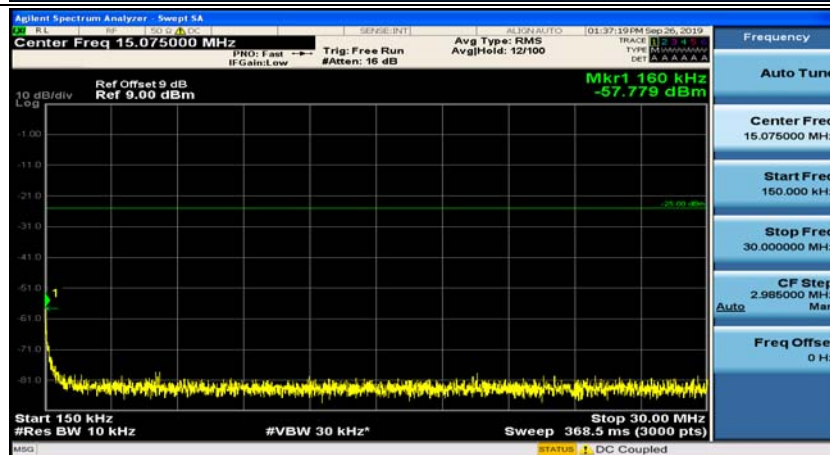
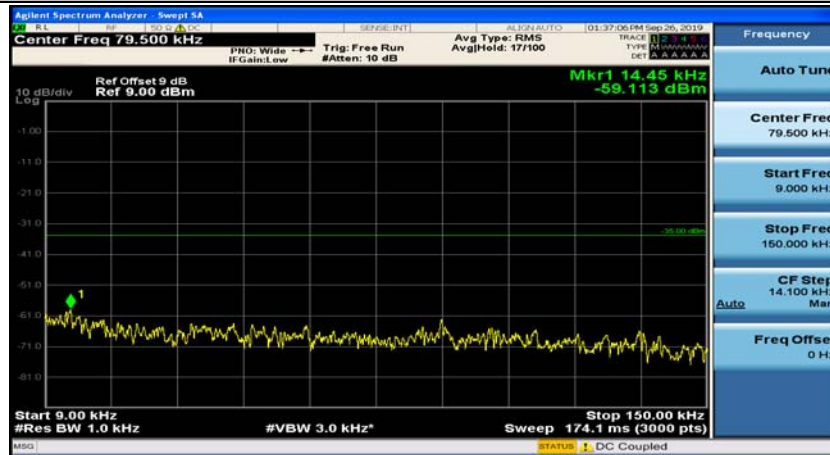


(Channel Bandwidth:20 MHz)_MCH_16QAM_1RB#49

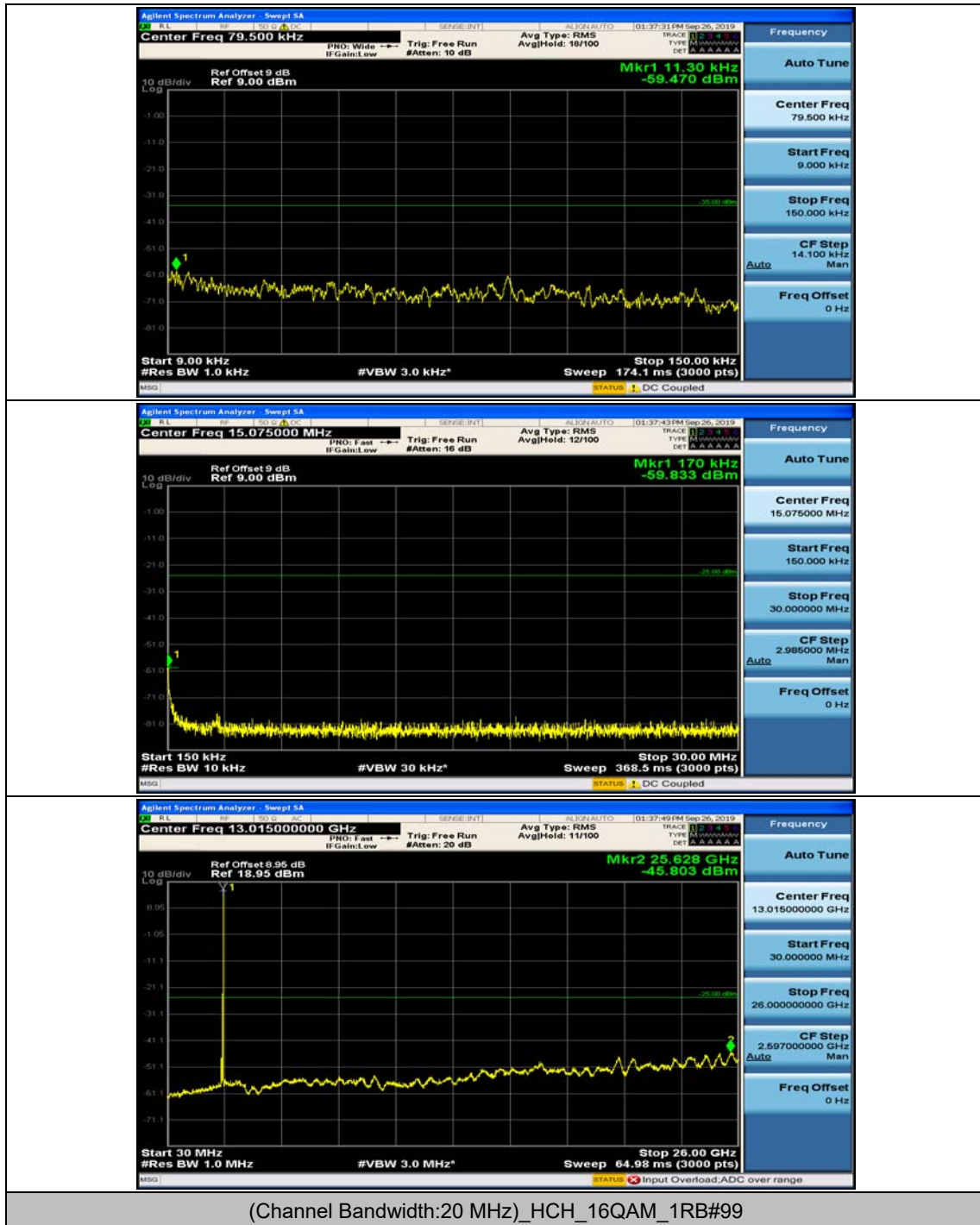


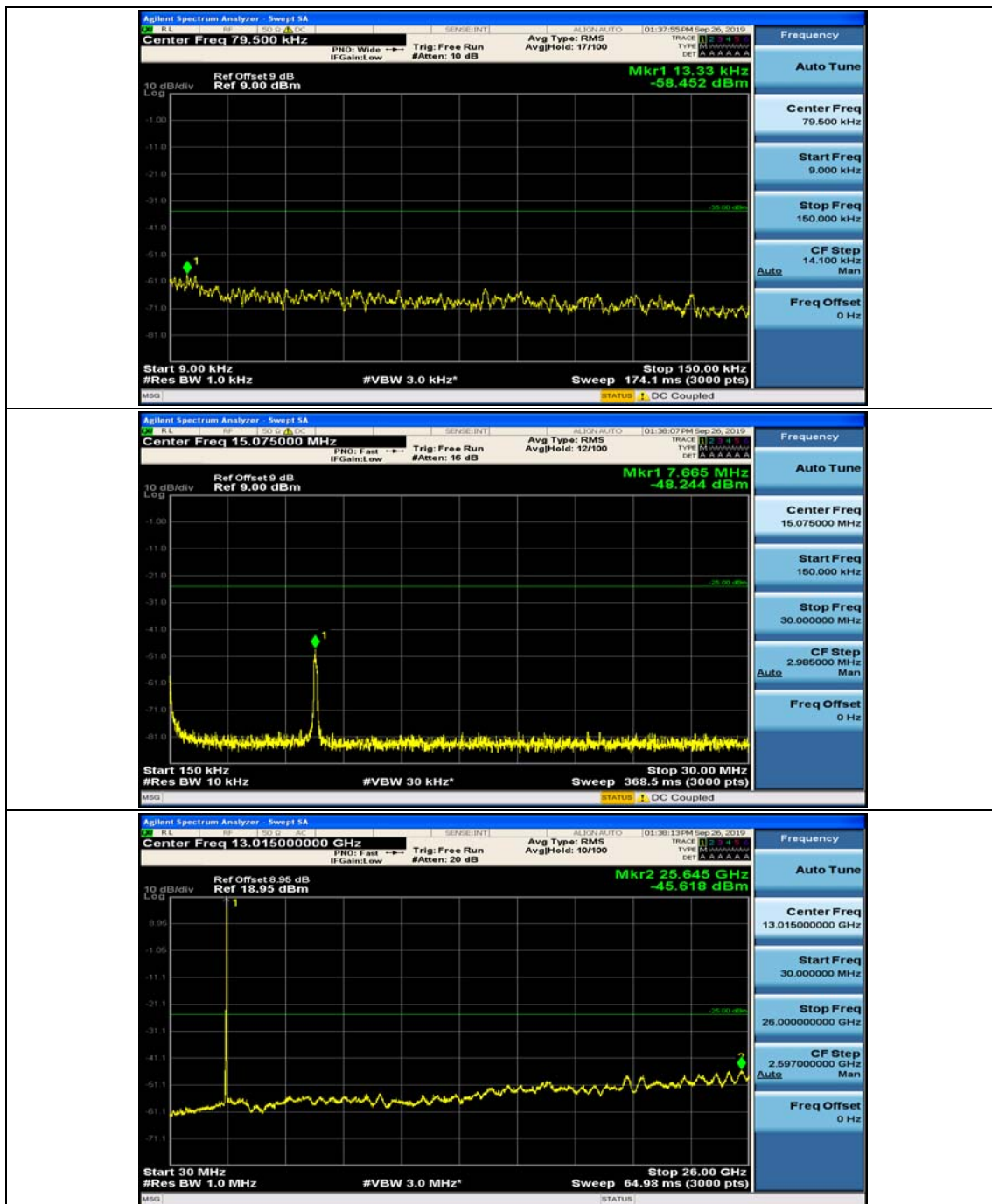


(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#0



(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	3.45	0.001379	± 2.5	PASS
		VN	TN	-0.06	-0.000024	± 2.5	PASS
		VH	TN	1.17	0.000468	± 2.5	PASS
	MCH	VL	TN	2.75	0.001085	± 2.5	PASS
		VN	TN	-1.61	-0.000635	± 2.5	PASS
		VH	TN	0.82	0.000323	± 2.5	PASS
	HCH	VL	TN	3.51	0.001367	± 2.5	PASS
		VN	TN	2.72	0.001059	± 2.5	PASS
		VH	TN	-0.05	-0.000019	± 2.5	PASS
16QAM	LCH	VL	TN	0.87	0.000348	± 2.5	PASS
		VN	TN	3.77	0.001506	± 2.5	PASS
		VH	TN	3.53	0.001411	± 2.5	PASS
	MCH	VL	TN	-1.87	-0.000738	± 2.5	PASS
		VN	TN	-0.59	-0.000233	± 2.5	PASS
		VH	TN	1.7	0.000671	± 2.5	PASS
	HCH	VL	TN	0.3	0.000117	± 2.5	PASS
		VN	TN	-1.8	-0.000701	± 2.5	PASS
		VH	TN	3.22	0.001254	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.66	0.001463	± 2.5	PASS
		VN	-20	3.17	0.001267	± 2.5	PASS
		VN	-10	2.15	0.000859	± 2.5	PASS
		VN	0	1.76	0.000703	± 2.5	PASS
		VN	10	-1.01	-0.000404	± 2.5	PASS
		VN	20	1.68	0.000671	± 2.5	PASS
		VN	30	-0.02	-0.000008	± 2.5	PASS
		VN	40	-0.68	-0.000272	± 2.5	PASS
		VN	50	2.12	0.000847	± 2.5	PASS
	MCH	VN	-30	3.49	0.001377	± 2.5	PASS

		VN	-20	2.16	0.000852	± 2.5	PASS
		VN	-10	4.16	0.001641	± 2.5	PASS
		VN	0	-1.94	-0.000765	± 2.5	PASS
		VN	10	3.61	0.001424	± 2.5	PASS
		VN	20	2.89	0.001140	± 2.5	PASS
		VN	30	3.86	0.001523	± 2.5	PASS
		VN	40	2.64	0.001041	± 2.5	PASS
		VN	50	-0.78	-0.000308	± 2.5	PASS
	HCH	VN	-30	2.84	0.001106	± 2.5	PASS
		VN	-20	3.27	0.001274	± 2.5	PASS
		VN	-10	4	0.001558	± 2.5	PASS
		VN	0	2.98	0.001161	± 2.5	PASS
		VN	10	-1.21	-0.000471	± 2.5	PASS
		VN	20	-1.89	-0.000736	± 2.5	PASS
		VN	30	3.08	0.001200	± 2.5	PASS
		VN	40	-0.72	-0.000280	± 2.5	PASS
16QAM	LCH	VN	50	0.1	0.000039	± 2.5	PASS
		VN	-30	1.42	0.000567	± 2.5	PASS
		VN	-20	2.73	0.001091	± 2.5	PASS
		VN	-10	-1.05	-0.000420	± 2.5	PASS
		VN	0	4.7	0.001878	± 2.5	PASS
		VN	10	4.9	0.001958	± 2.5	PASS
		VN	20	1.3	0.000519	± 2.5	PASS
		VN	30	4.73	0.001890	± 2.5	PASS
		VN	40	2.45	0.000979	± 2.5	PASS
	MCH	VN	50	0.01	0.000004	± 2.5	PASS
		VN	-30	4.12	0.001625	± 2.5	PASS
		VN	-20	0.21	0.000083	± 2.5	PASS
		VN	-10	3.23	0.001274	± 2.5	PASS
		VN	0	2.13	0.000840	± 2.5	PASS
		VN	10	3.45	0.001361	± 2.5	PASS
		VN	20	3.45	0.001361	± 2.5	PASS
		VN	30	4.02	0.001586	± 2.5	PASS
		VN	40	1.16	0.000458	± 2.5	PASS
	HCH	VN	50	2.58	0.001018	± 2.5	PASS
		VN	-30	3.84	0.001496	± 2.5	PASS
		VN	-20	2.88	0.001122	± 2.5	PASS
		VN	-10	-1.23	-0.000479	± 2.5	PASS
		VN	0	2.36	0.000919	± 2.5	PASS
		VN	10	3.89	0.001515	± 2.5	PASS
		VN	20	2.99	0.001165	± 2.5	PASS

		VN	30	-0.79	-0.000308	± 2.5	PASS
		VN	40	4	0.001558	± 2.5	PASS
		VN	50	-1.06	-0.000413	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.87	-0.000347	± 2.5	PASS
		VN	TN	2.82	0.001126	± 2.5	PASS
		VH	TN	-1.68	-0.000671	± 2.5	PASS
	MCH	VL	TN	4.21	0.001661	± 2.5	PASS
		VN	TN	2.65	0.001045	± 2.5	PASS
		VH	TN	4.83	0.001905	± 2.5	PASS
	HCH	VL	TN	4.62	0.001801	± 2.5	PASS
		VN	TN	4.67	0.001821	± 2.5	PASS
		VH	TN	4.2	0.001637	± 2.5	PASS
16QAM	LCH	VL	TN	-1.15	-0.000459	± 2.5	PASS
		VN	TN	2.86	0.001142	± 2.5	PASS
		VH	TN	2.66	0.001062	± 2.5	PASS
	MCH	VL	TN	-0.43	-0.000170	± 2.5	PASS
		VN	TN	-0.33	-0.000130	± 2.5	PASS
		VH	TN	3.73	0.001471	± 2.5	PASS
	HCH	VL	TN	3.56	0.001388	± 2.5	PASS
		VN	TN	0.38	0.000148	± 2.5	PASS
		VH	TN	-0.1	-0.000039	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	4.35	0.001737	± 2.5	PASS
		VN	-20	-1.2	-0.000479	± 2.5	PASS
		VN	-10	2.37	0.000946	± 2.5	PASS
		VN	0	0.14	0.000056	± 2.5	PASS
		VN	10	-0.71	-0.000283	± 2.5	PASS
		VN	20	-0.05	-0.000020	± 2.5	PASS
		VN	30	4.11	0.001641	± 2.5	PASS
		VN	40	0.53	0.000212	± 2.5	PASS
		VN	50	2.97	0.001186	± 2.5	PASS
	MCH	VN	-30	-0.64	-0.000252	± 2.5	PASS
		VN	-20	0.8	0.000316	± 2.5	PASS

		VN	-10	3.79	0.001495	± 2.5	PASS
		VN	0	0.21	0.000083	± 2.5	PASS
		VN	10	-1.07	-0.000422	± 2.5	PASS
		VN	20	-0.03	-0.000012	± 2.5	PASS
		VN	30	-1.16	-0.000458	± 2.5	PASS
		VN	40	4.97	0.001961	± 2.5	PASS
		VN	50	3.93	0.001550	± 2.5	PASS
	HCH	VN	-30	-0.12	-0.000047	± 2.5	PASS
		VN	-20	4.73	0.001844	± 2.5	PASS
		VN	-10	4.18	0.001630	± 2.5	PASS
		VN	0	1.7	0.000663	± 2.5	PASS
		VN	10	4.88	0.001903	± 2.5	PASS
		VN	20	-0.18	-0.000070	± 2.5	PASS
		VN	30	-0.5	-0.000195	± 2.5	PASS
		VN	40	0.21	0.000082	± 2.5	PASS
		VN	50	2.3	0.000897	± 2.5	PASS
QPSK	LCH	VN	-30	-0.22	-0.000088	± 2.5	PASS
		VN	-20	0.93	0.000371	± 2.5	PASS
		VN	-10	-1.71	-0.000683	± 2.5	PASS
		VN	0	4.31	0.001721	± 2.5	PASS
		VN	10	1.3	0.000519	± 2.5	PASS
		VN	20	-0.68	-0.000271	± 2.5	PASS
		VN	30	0.06	0.000024	± 2.5	PASS
		VN	40	1.94	0.000774	± 2.5	PASS
		VN	50	-0.64	-0.000255	± 2.5	PASS
	MCH	VN	-30	3.52	0.001389	± 2.5	PASS
		VN	-20	4.53	0.001787	± 2.5	PASS
		VN	-10	2.66	0.001049	± 2.5	PASS
		VN	0	-1.45	-0.000572	± 2.5	PASS
		VN	10	2.17	0.000856	± 2.5	PASS
		VN	20	4.26	0.001680	± 2.5	PASS
		VN	30	4.15	0.001637	± 2.5	PASS
		VN	40	-0.29	-0.000114	± 2.5	PASS
		VN	50	1.23	0.000485	± 2.5	PASS
	HCH	VN	-30	-0.23	-0.000090	± 2.5	PASS
		VN	-20	0.64	0.000250	± 2.5	PASS
		VN	-10	2.98	0.001162	± 2.5	PASS
		VN	0	0.17	0.000066	± 2.5	PASS
		VN	10	-0.03	-0.000012	± 2.5	PASS
		VN	20	2.78	0.001084	± 2.5	PASS
		VN	30	4.53	0.001766	± 2.5	PASS

		VN	40	1.19	0.000464	± 2.5	PASS
		VN	50	2.57	0.001002	± 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	-1.8	-0.000718	± 2.5	PASS
		VN	TN	0.61	0.000243	± 2.5	PASS
		VH	TN	4.14	0.001651	± 2.5	PASS
	MCH	VL	TN	1.36	0.000536	± 2.5	PASS
		VN	TN	1.49	0.000588	± 2.5	PASS
		VH	TN	4.76	0.001878	± 2.5	PASS
	HCH	VL	TN	2.22	0.000866	± 2.5	PASS
		VN	TN	0	0.000000	± 2.5	PASS
		VH	TN	-1.99	-0.000777	± 2.5	PASS
16QAM	LCH	VL	TN	1.55	0.000618	± 2.5	PASS
		VN	TN	1.44	0.000574	± 2.5	PASS
		VH	TN	3.82	0.001523	± 2.5	PASS
	MCH	VL	TN	4.55	0.001795	± 2.5	PASS
		VN	TN	0.84	0.000331	± 2.5	PASS
		VH	TN	-0.39	-0.000154	± 2.5	PASS
	HCH	VL	TN	-0.61	-0.000238	± 2.5	PASS
		VN	TN	-0.19	-0.000074	± 2.5	PASS
		VH	TN	2.55	0.000995	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.74	0.000295	± 2.5	PASS
		VN	-20	-0.67	-0.000267	± 2.5	PASS
		VN	-10	0.15	0.000060	± 2.5	PASS
		VN	0	-1.98	-0.000790	± 2.5	PASS
		VN	10	0.09	0.000036	± 2.5	PASS
		VN	20	-1.04	-0.000415	± 2.5	PASS
		VN	30	1.76	0.000702	± 2.5	PASS
		VN	40	-0.56	-0.000223	± 2.5	PASS
		VN	50	-1.05	-0.000419	± 2.5	PASS
	MCH	VN	-30	0.89	0.000351	± 2.5	PASS
		VN	-20	-1.77	-0.000698	± 2.5	PASS
		VN	-10	-0.58	-0.000229	± 2.5	PASS

		VN	0	2.7	0.001065	± 2.5	PASS
		VN	10	0	0.000000	± 2.5	PASS
		VN	20	0.54	0.000213	± 2.5	PASS
		VN	30	2.64	0.001041	± 2.5	PASS
		VN	40	-0.37	-0.000146	± 2.5	PASS
		VN	50	1.09	0.000430	± 2.5	PASS
	HCH	VN	-30	-0.28	-0.000109	± 2.5	PASS
		VN	-20	3.41	0.001331	± 2.5	PASS
		VN	-10	-0.59	-0.000230	± 2.5	PASS
		VN	0	0.86	0.000336	± 2.5	PASS
		VN	10	-0.71	-0.000277	± 2.5	PASS
		VN	20	4.55	0.001776	± 2.5	PASS
		VN	30	-0.25	-0.000098	± 2.5	PASS
		VN	40	1.95	0.000761	± 2.5	PASS
		VN	50	4.97	0.001940	± 2.5	PASS
QPSK	LCH	VN	-30	-1.9	-0.000758	± 2.5	PASS
		VN	-20	3.71	0.001480	± 2.5	PASS
		VN	-10	0.06	0.000024	± 2.5	PASS
		VN	0	4.65	0.001854	± 2.5	PASS
		VN	10	3.83	0.001527	± 2.5	PASS
		VN	20	1.22	0.000487	± 2.5	PASS
		VN	30	4.17	0.001663	± 2.5	PASS
		VN	40	-0.79	-0.000315	± 2.5	PASS
		VN	50	-0.66	-0.000263	± 2.5	PASS
	MCH	VN	-30	2.67	0.001053	± 2.5	PASS
		VN	-20	3.86	0.001523	± 2.5	PASS
		VN	-10	-1.12	-0.000442	± 2.5	PASS
		VN	0	4.13	0.001629	± 2.5	PASS
		VN	10	1.57	0.000619	± 2.5	PASS
		VN	20	0.86	0.000339	± 2.5	PASS
		VN	30	4	0.001578	± 2.5	PASS
		VN	40	-0.55	-0.000217	± 2.5	PASS
		VN	50	4.12	0.001625	± 2.5	PASS
	HCH	VN	-30	3.74	0.001460	± 2.5	PASS
		VN	-20	2.56	0.000999	± 2.5	PASS
		VN	-10	0.44	0.000172	± 2.5	PASS
		VN	0	-1.88	-0.000734	± 2.5	PASS
		VN	10	-1.15	-0.000449	± 2.5	PASS
		VN	20	0.08	0.000031	± 2.5	PASS
		VN	30	-0.76	-0.000297	± 2.5	PASS
		VN	40	-1.87	-0.000730	± 2.5	PASS

		VN	50	4	0.001561	± 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	-1.38	-0.000550	± 2.5	PASS
		VN	TN	3.64	0.001450	± 2.5	PASS
		VH	TN	1.42	0.000566	± 2.5	PASS
	MCH	VL	TN	1.17	0.000462	± 2.5	PASS
		VN	TN	3.05	0.001203	± 2.5	PASS
		VH	TN	-1.72	-0.000679	± 2.5	PASS
	HCH	VL	TN	4.75	0.001855	± 2.5	PASS
		VN	TN	-0.03	-0.000012	± 2.5	PASS
		VH	TN	0.47	0.000184	± 2.5	PASS
16QAM	LCH	VL	TN	4.14	0.001649	± 2.5	PASS
		VN	TN	4.58	0.001825	± 2.5	PASS
		VH	TN	4.1	0.001633	± 2.5	PASS
	MCH	VL	TN	2.36	0.000931	± 2.5	PASS
		VN	TN	-1.68	-0.000663	± 2.5	PASS
		VH	TN	4.55	0.001795	± 2.5	PASS
	HCH	VL	TN	-1.24	-0.000484	± 2.5	PASS
		VN	TN	-0.98	-0.000383	± 2.5	PASS
		VH	TN	-1.84	-0.000719	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.83	0.000729	± 2.5	PASS
		VN	-20	1.59	0.000633	± 2.5	PASS
		VN	-10	-0.26	-0.000104	± 2.5	PASS
		VN	0	-1.31	-0.000522	± 2.5	PASS
		VN	10	0.45	0.000179	± 2.5	PASS
		VN	20	1.86	0.000741	± 2.5	PASS
		VN	30	3.13	0.001247	± 2.5	PASS
		VN	40	1.71	0.000681	± 2.5	PASS
		VN	50	0.98	0.000390	± 2.5	PASS
	MCH	VN	-30	-1.51	-0.000596	± 2.5	PASS
		VN	-20	4.16	0.001641	± 2.5	PASS
		VN	-10	-0.23	-0.000091	± 2.5	PASS
		VN	0	4.5	0.001775	± 2.5	PASS

		VN	10	-1.24	-0.000489	± 2.5	PASS
		VN	20	-1.09	-0.000430	± 2.5	PASS
		VN	30	2.97	0.001172	± 2.5	PASS
		VN	40	1.96	0.000773	± 2.5	PASS
		VN	50	1.65	0.000651	± 2.5	PASS
	HCH	VN	-30	3.73	0.001457	± 2.5	PASS
		VN	-20	1.56	0.000609	± 2.5	PASS
		VN	-10	2.21	0.000863	± 2.5	PASS
		VN	0	3.98	0.001555	± 2.5	PASS
		VN	10	-0.64	-0.000250	± 2.5	PASS
		VN	20	1.84	0.000719	± 2.5	PASS
		VN	30	0.6	0.000234	± 2.5	PASS
		VN	40	4.36	0.001703	± 2.5	PASS
		VN	50	2.36	0.000922	± 2.5	PASS
QPSK	LCH	VN	-30	-0.62	-0.000247	± 2.5	PASS
		VN	-20	2.62	0.001044	± 2.5	PASS
		VN	-10	-1.67	-0.000665	± 2.5	PASS
		VN	0	-0.49	-0.000195	± 2.5	PASS
		VN	10	0.85	0.000339	± 2.5	PASS
		VN	20	0.16	0.000064	± 2.5	PASS
		VN	30	4.25	0.001693	± 2.5	PASS
		VN	40	4.66	0.001857	± 2.5	PASS
		VN	50	-0.26	-0.000104	± 2.5	PASS
	MCH	VN	-30	0.19	0.000075	± 2.5	PASS
		VN	-20	2.59	0.001022	± 2.5	PASS
		VN	-10	1.37	0.000540	± 2.5	PASS
		VN	0	3.06	0.001207	± 2.5	PASS
		VN	10	-0.88	-0.000347	± 2.5	PASS
		VN	20	4.29	0.001692	± 2.5	PASS
		VN	30	3.83	0.001511	± 2.5	PASS
		VN	40	1.16	0.000458	± 2.5	PASS
		VN	50	0.67	0.000264	± 2.5	PASS
	HCH	VN	-30	2.64	0.001031	± 2.5	PASS
		VN	-20	1.48	0.000578	± 2.5	PASS
		VN	-10	-0.58	-0.000227	± 2.5	PASS
		VN	0	-0.19	-0.000074	± 2.5	PASS
		VN	10	-0.82	-0.000320	± 2.5	PASS
		VN	20	4.26	0.001664	± 2.5	PASS
		VN	30	1.27	0.000496	± 2.5	PASS
		VN	40	-0.32	-0.000125	± 2.5	PASS
		VN	50	1.68	0.000656	± 2.5	PASS