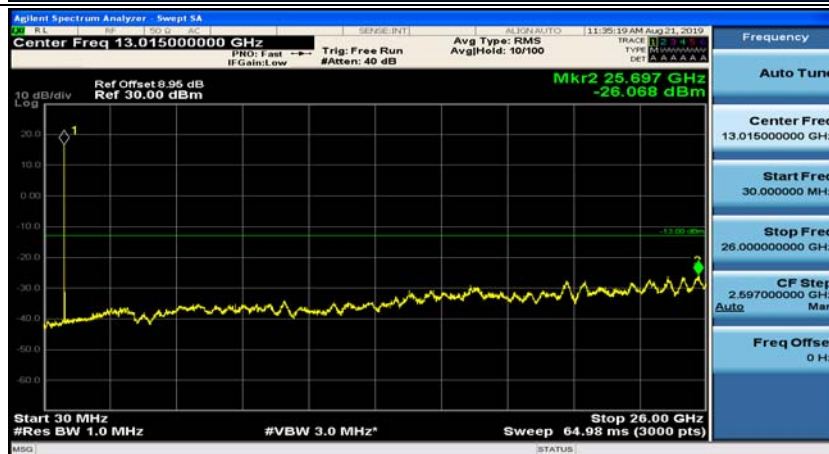
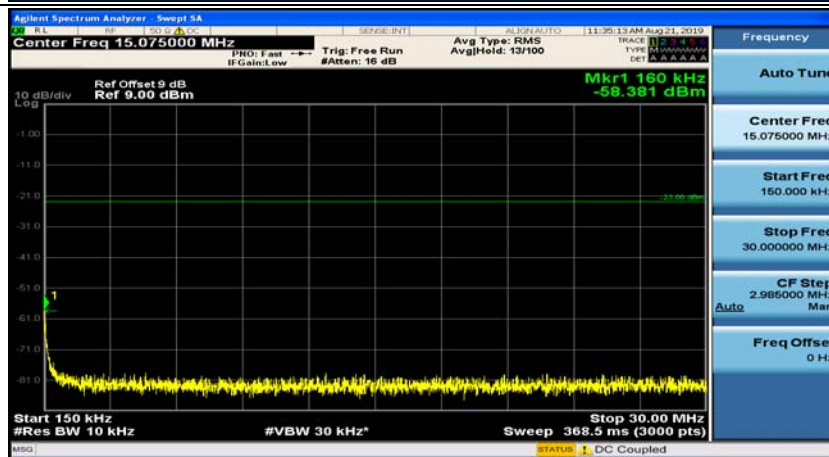
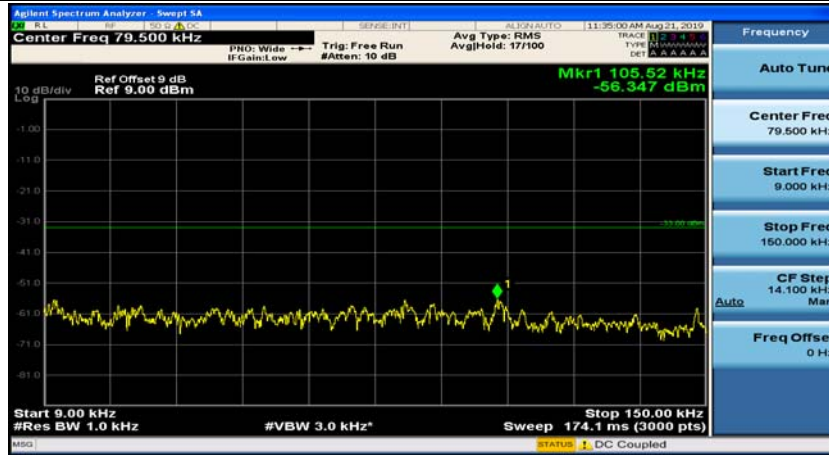
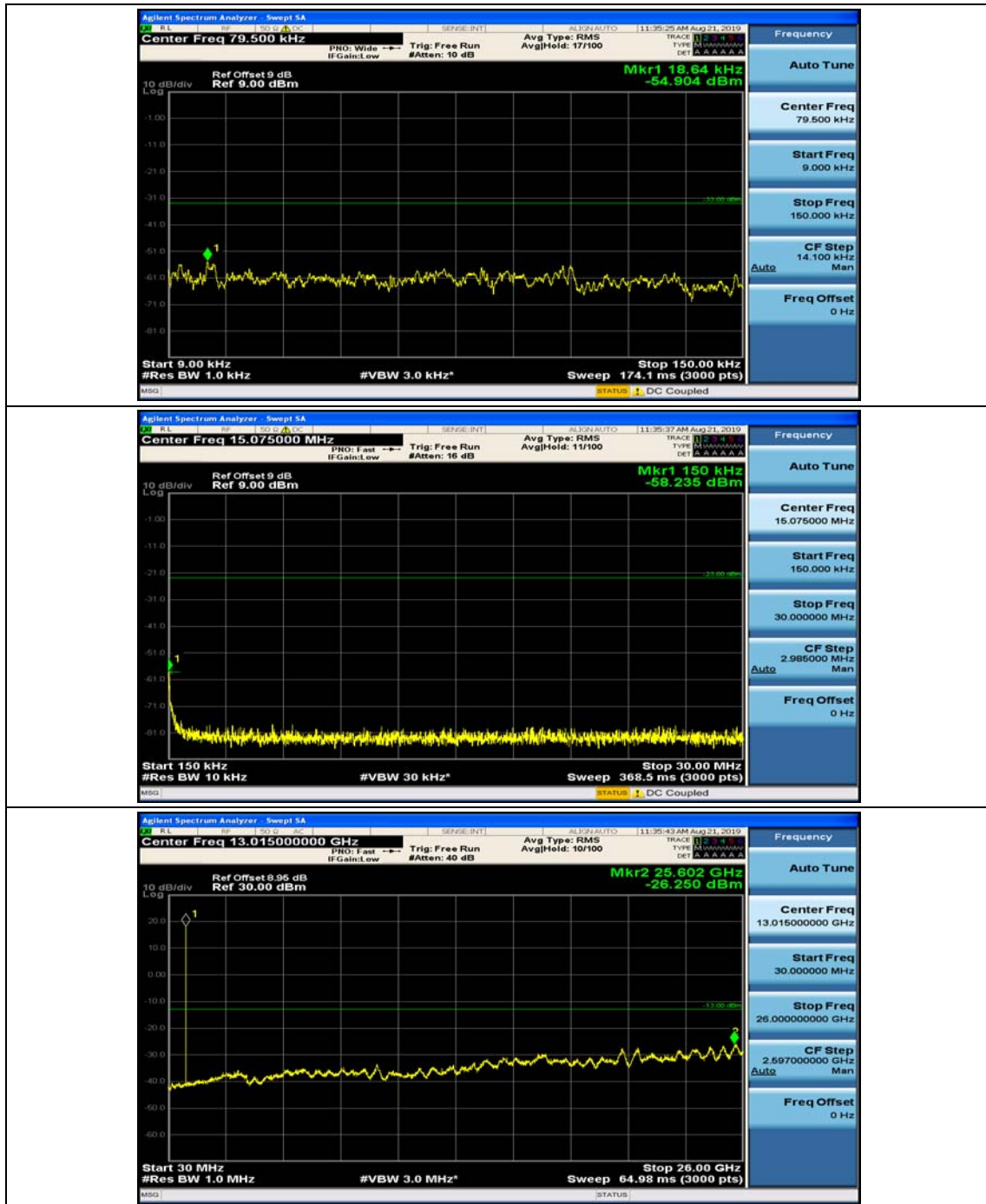


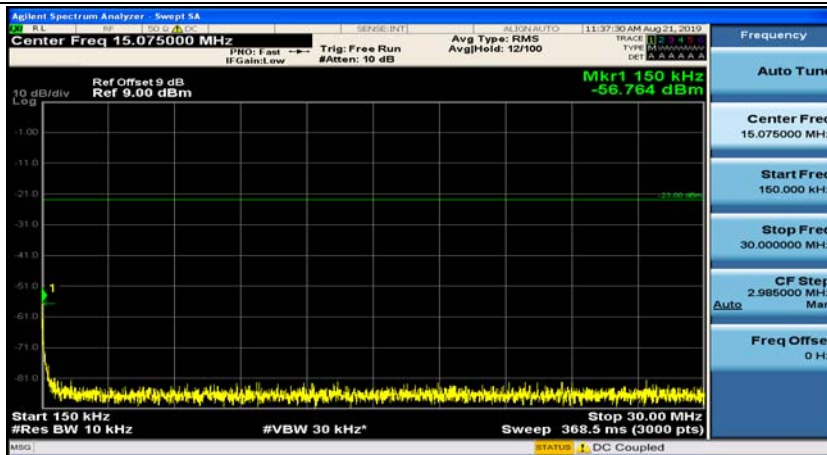
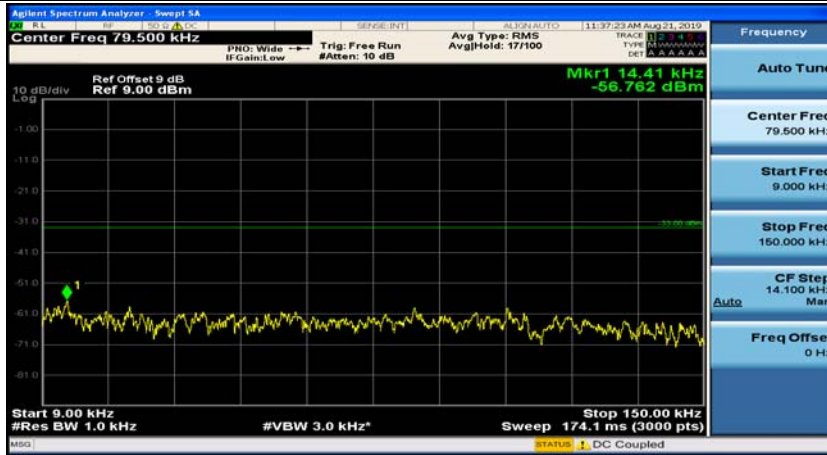
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



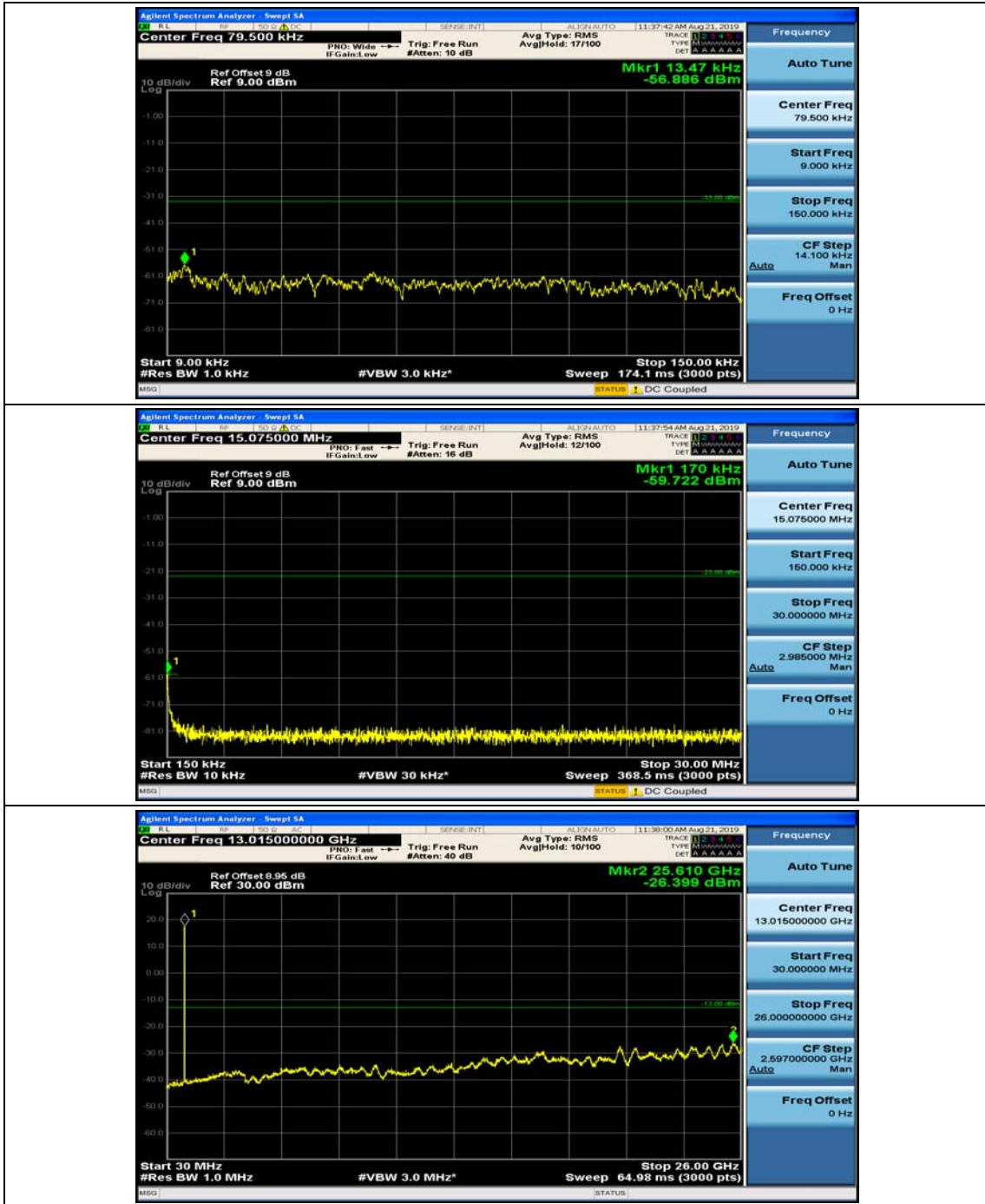
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7



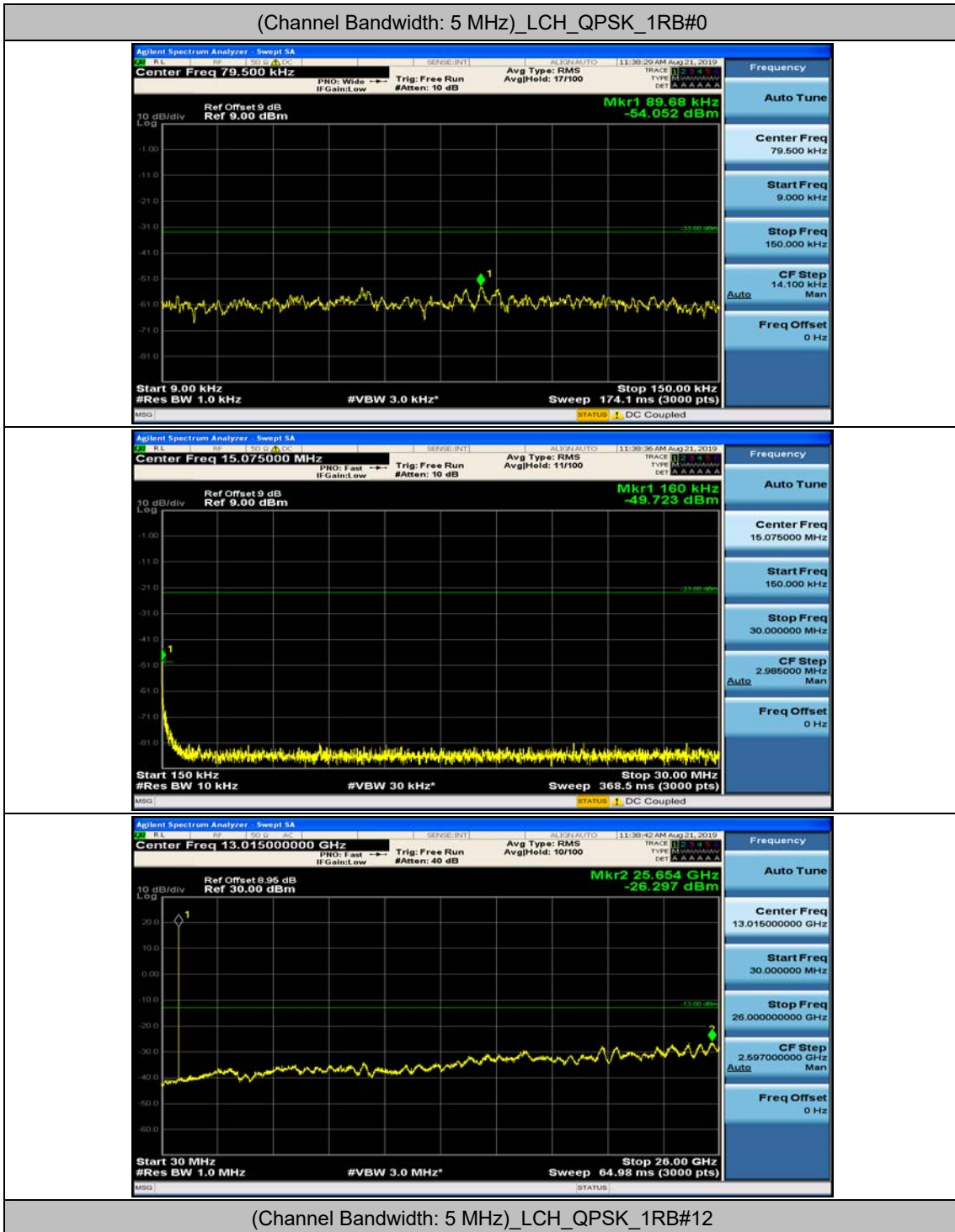
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0

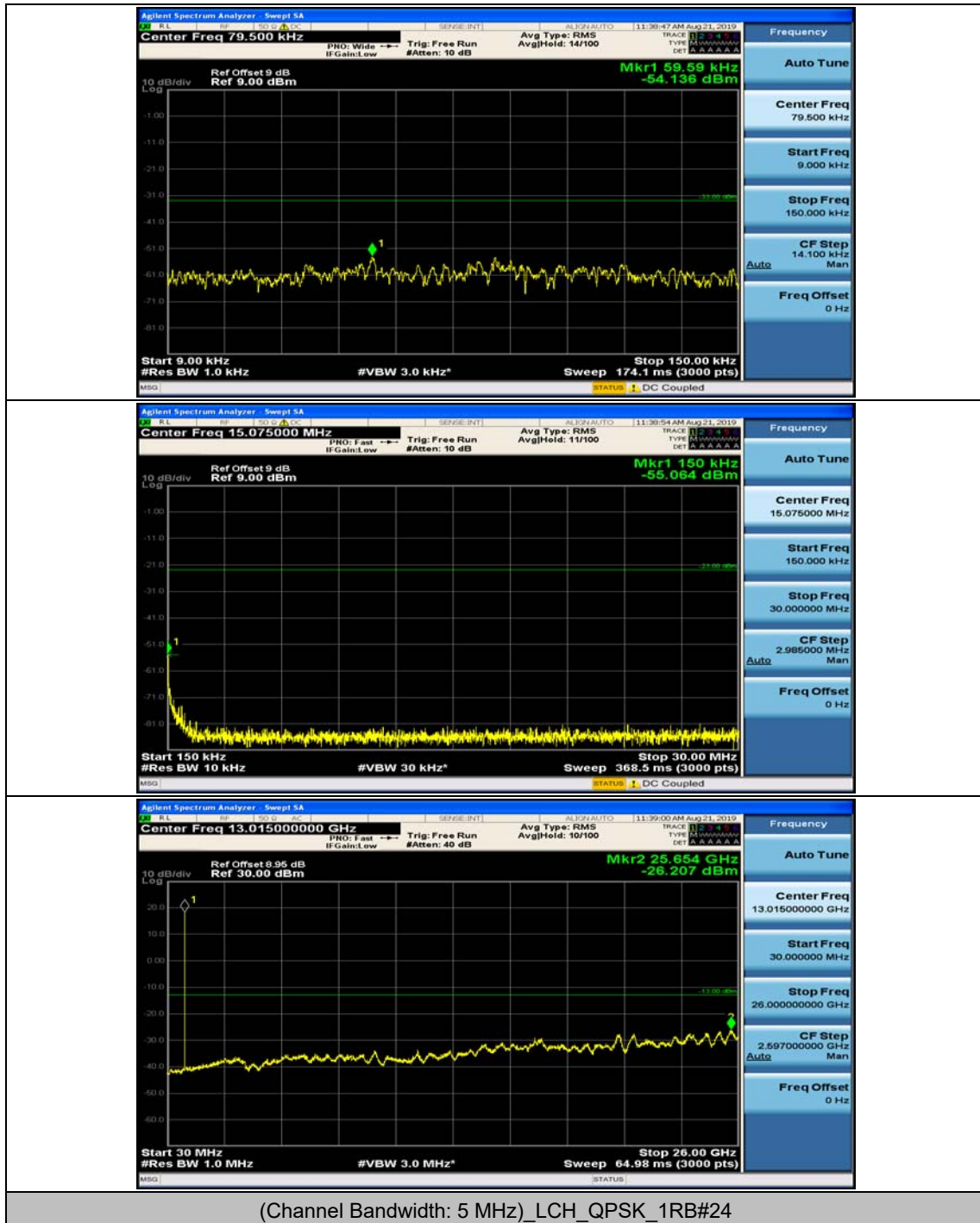


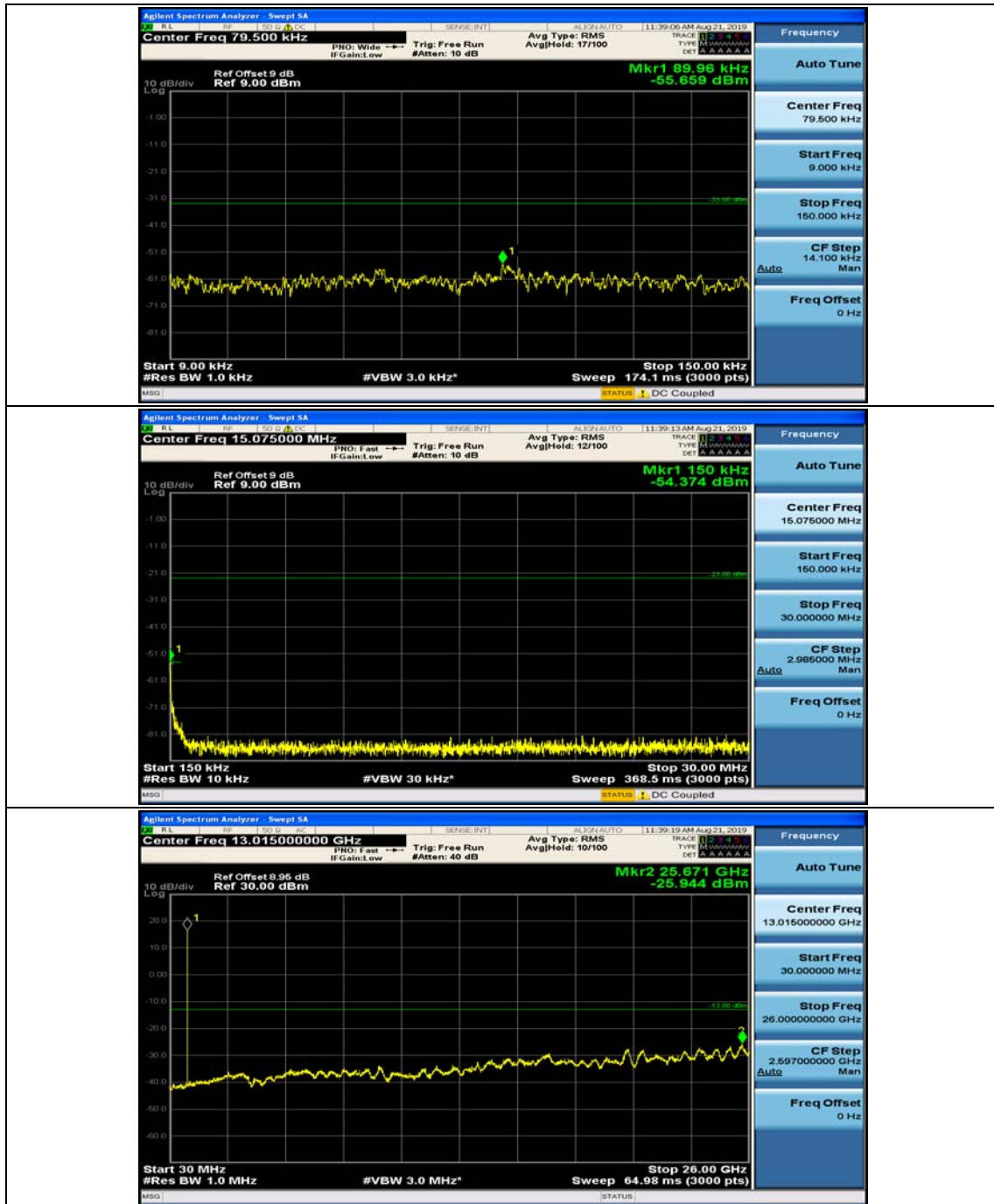
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7



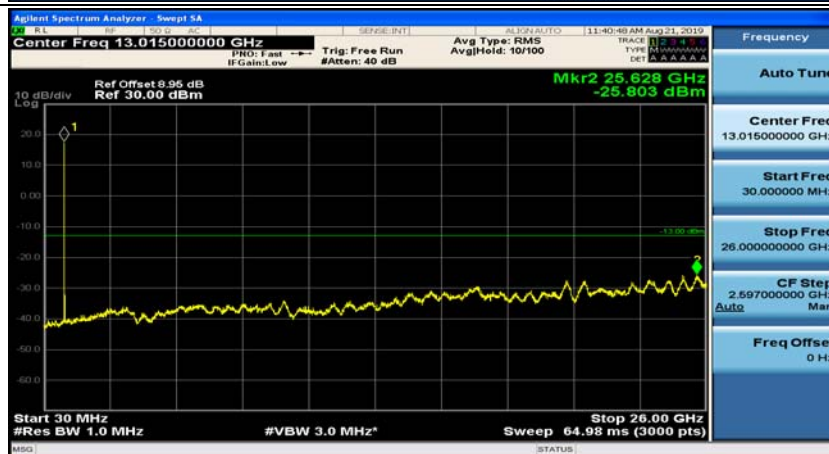
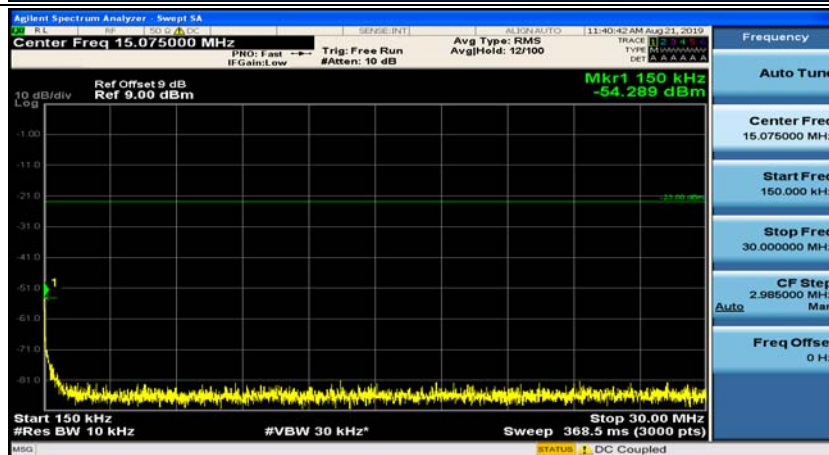
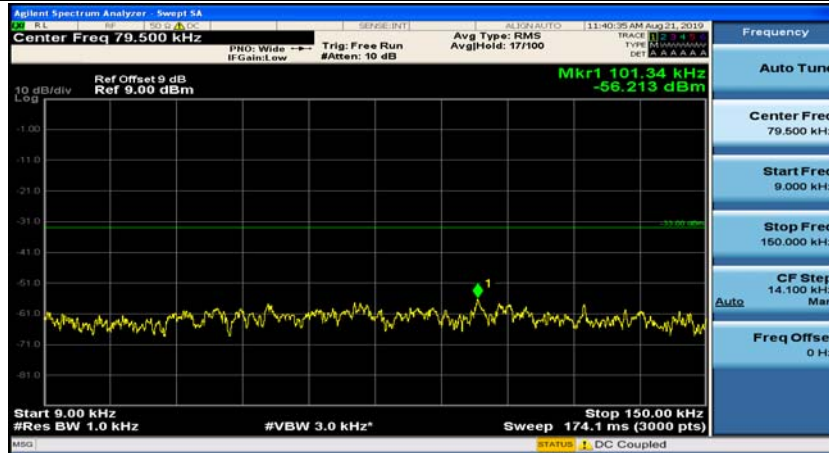
Channel Bandwidth: 5 MHz



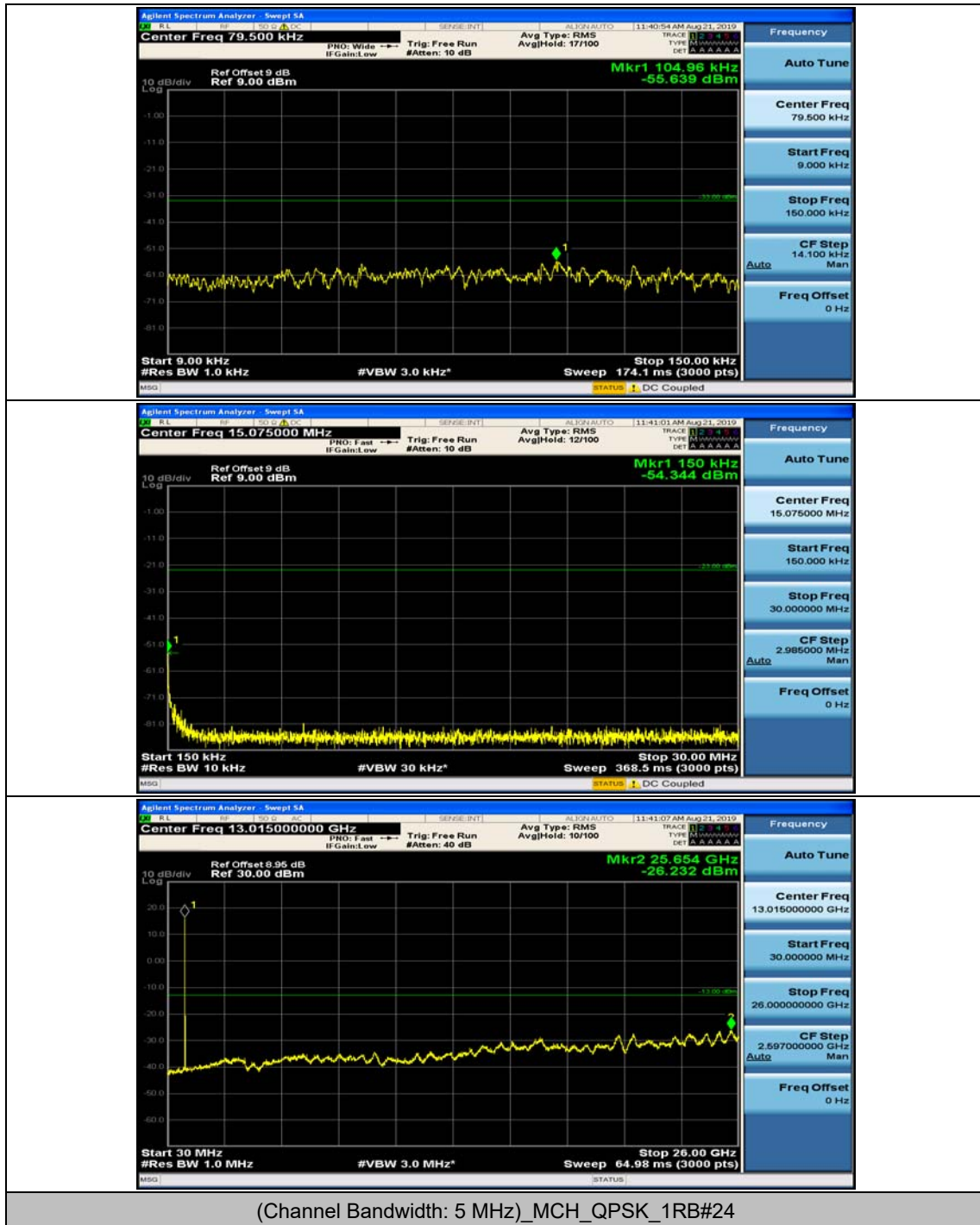


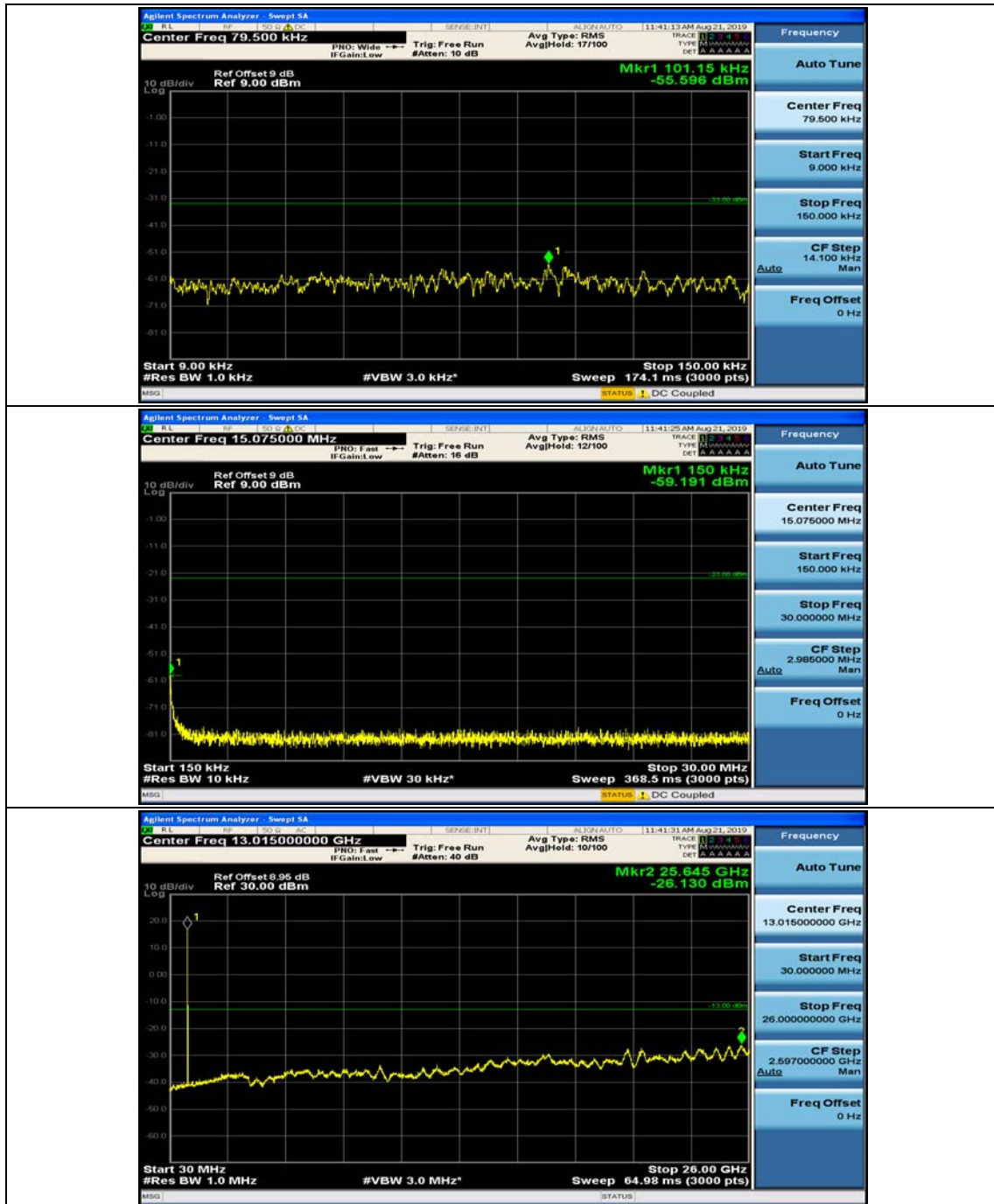


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

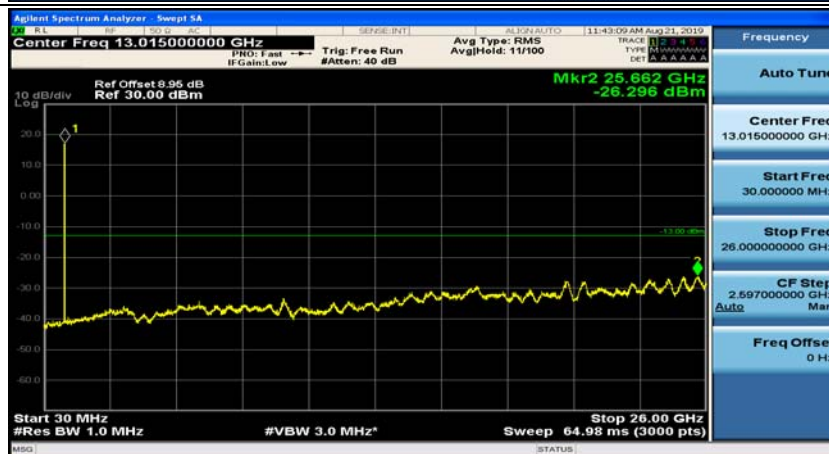
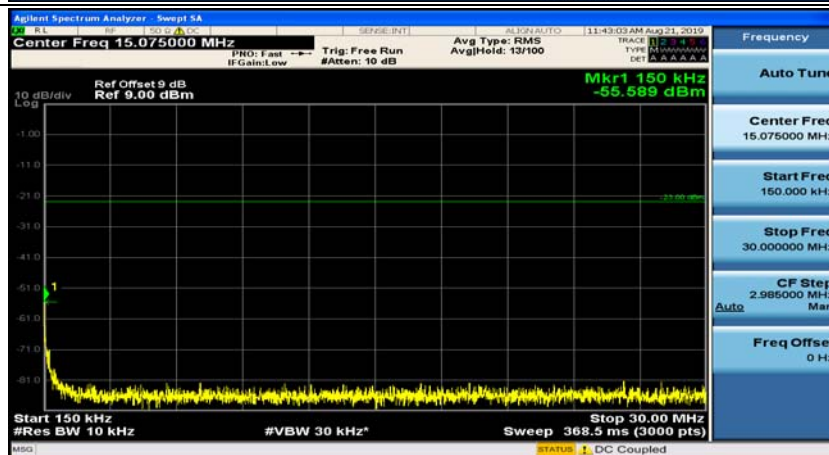
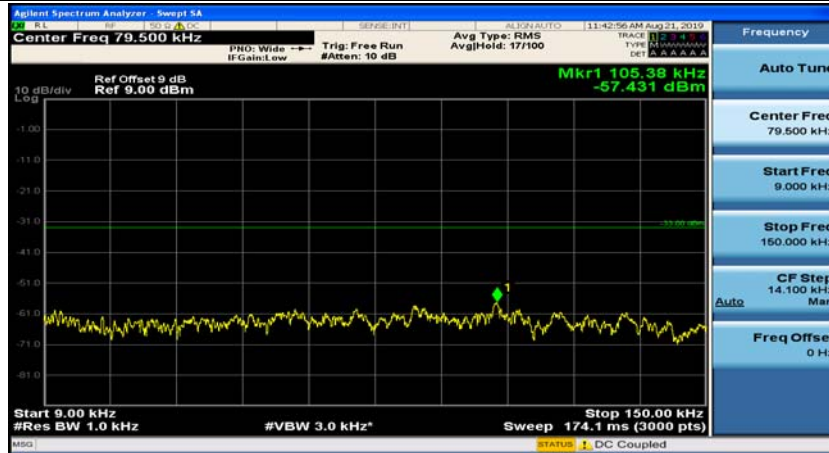


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

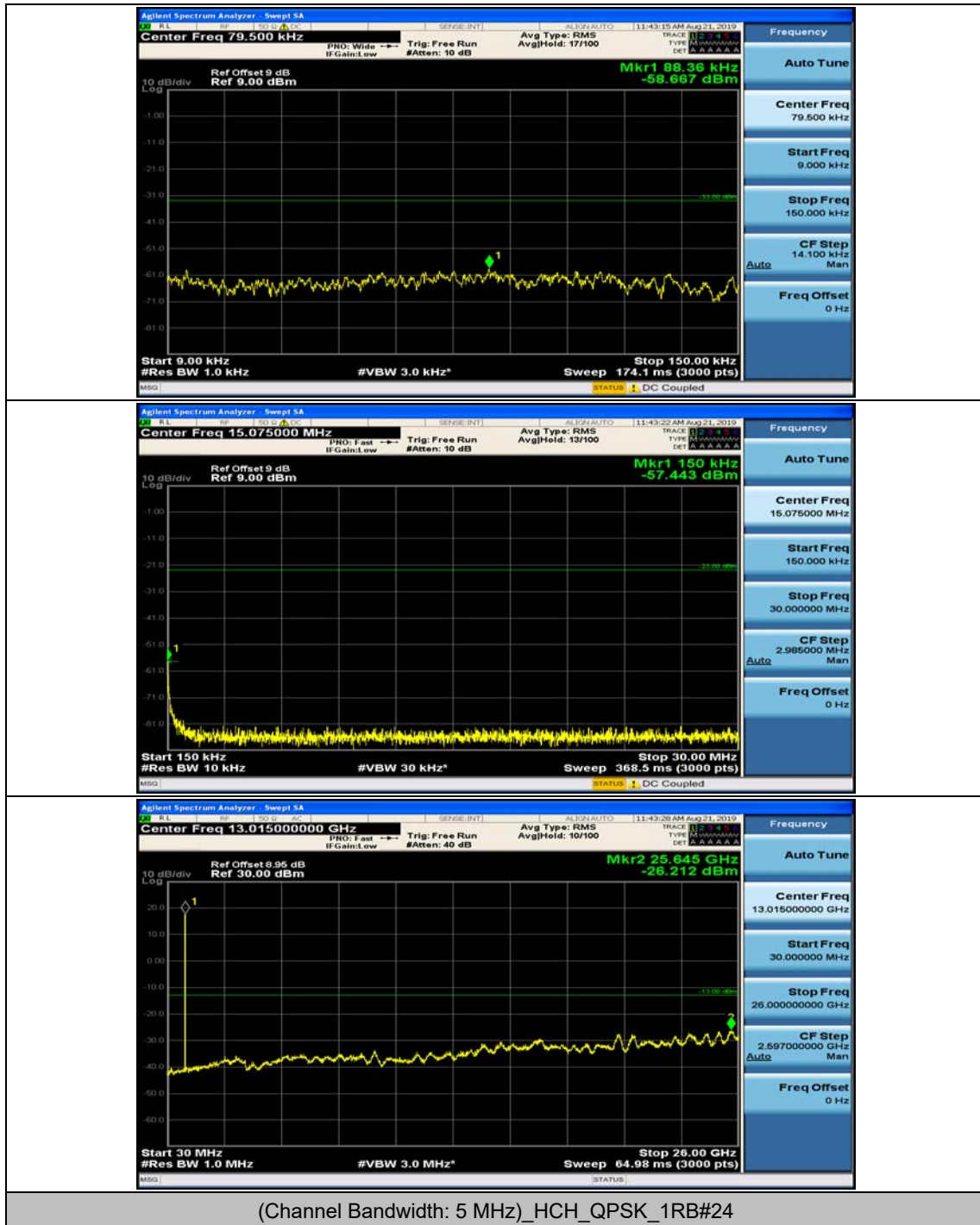


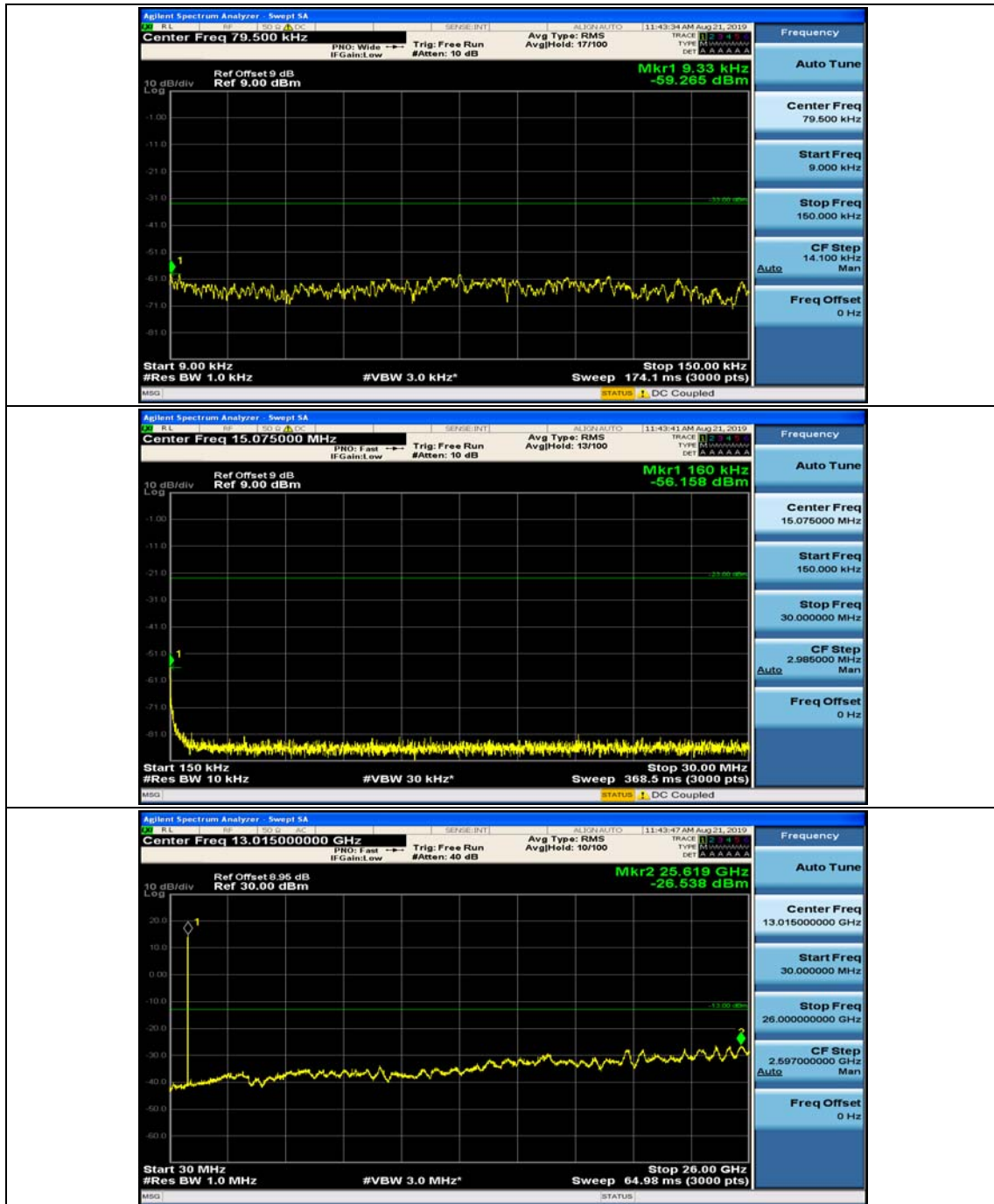


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

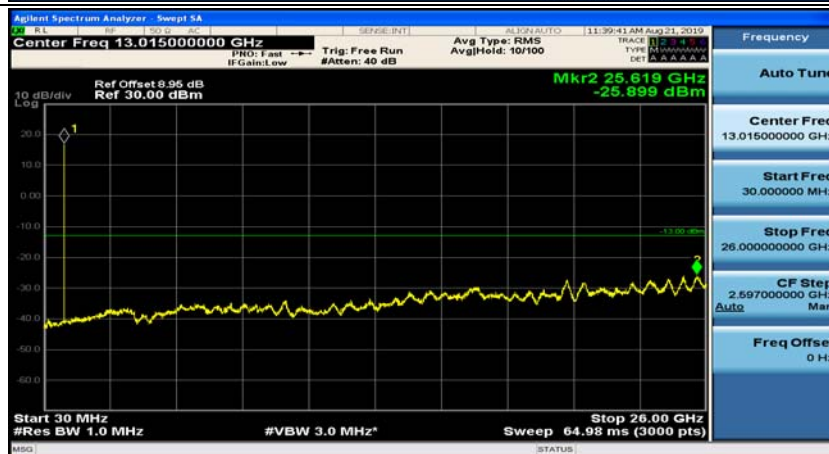
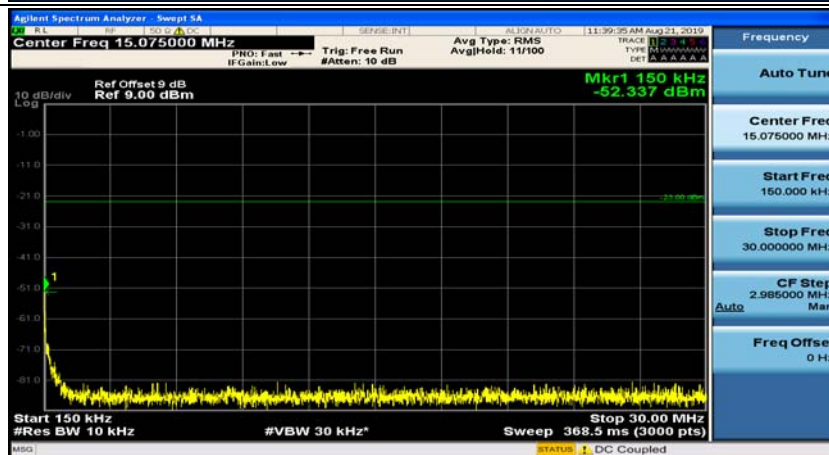
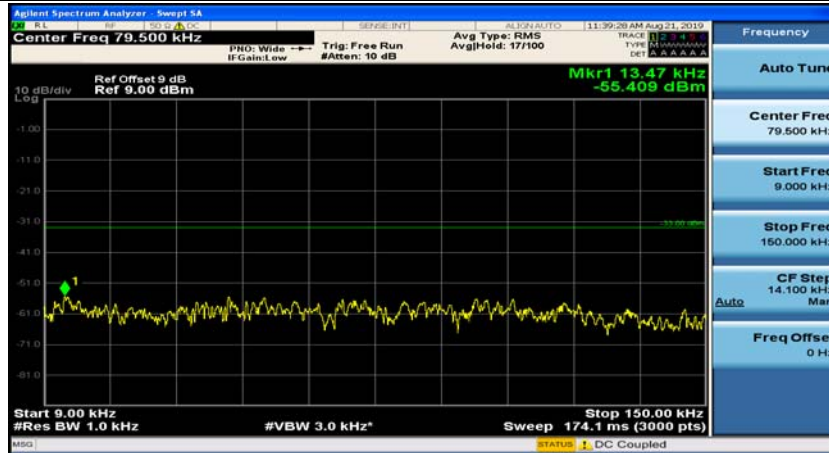


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

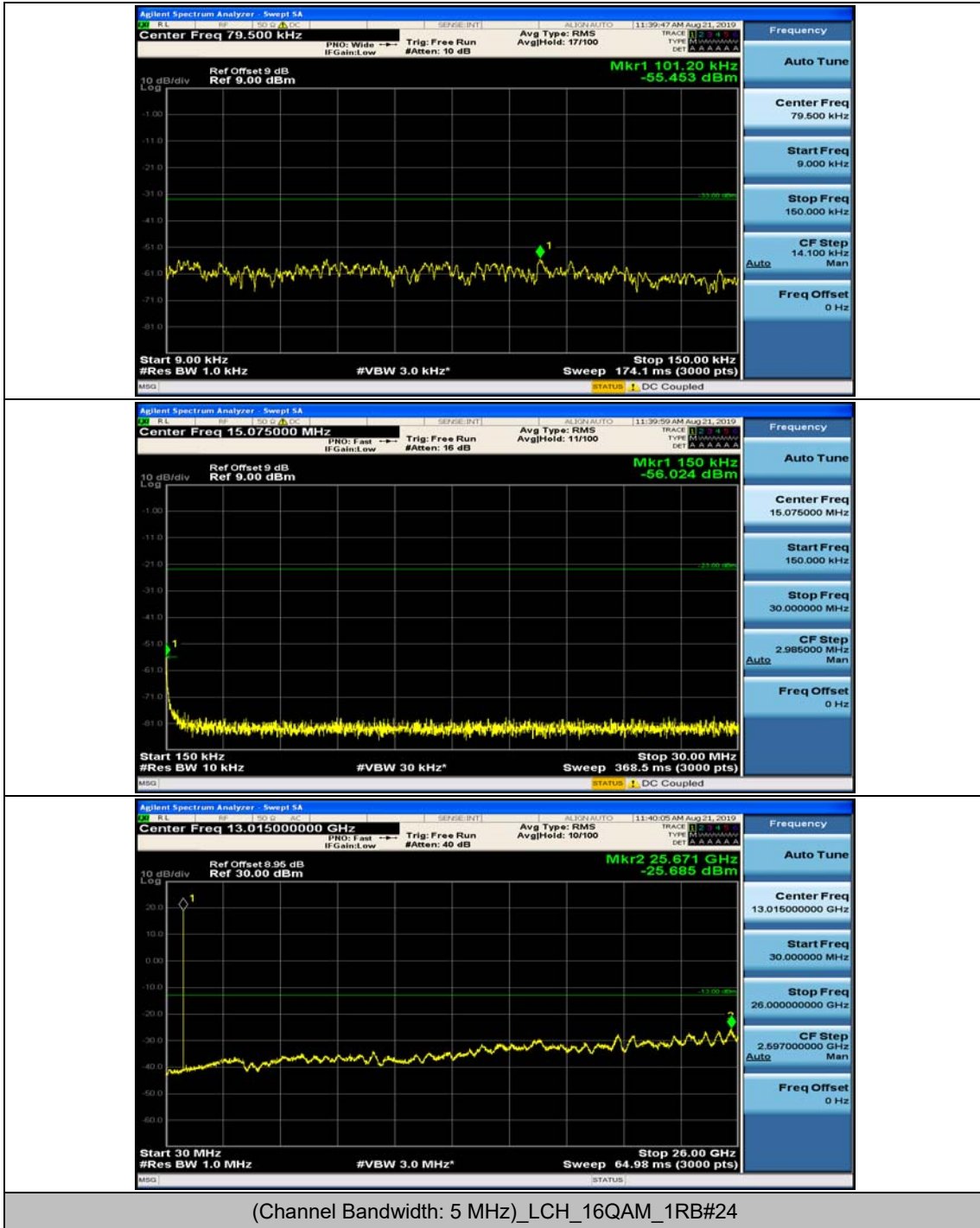


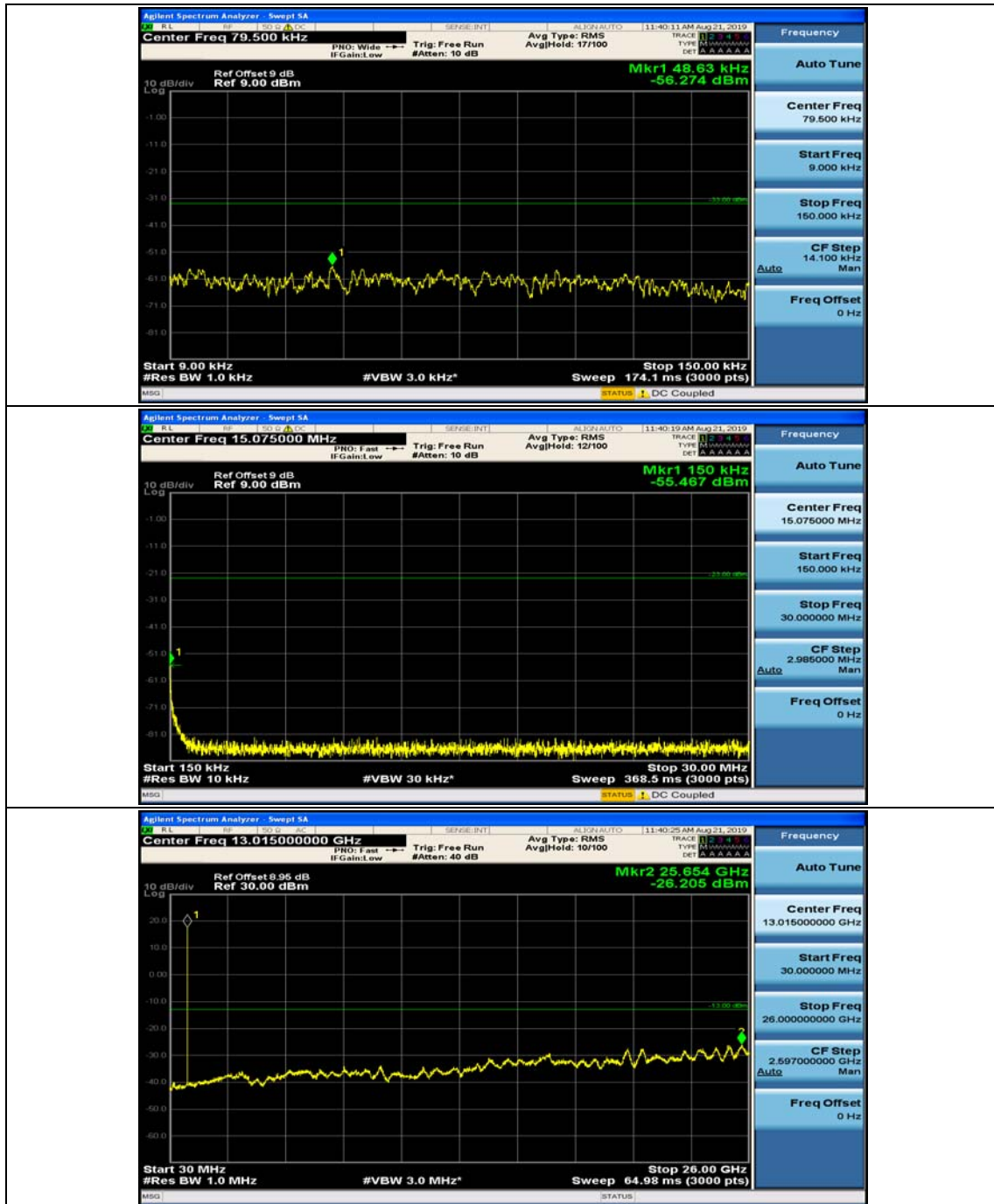


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

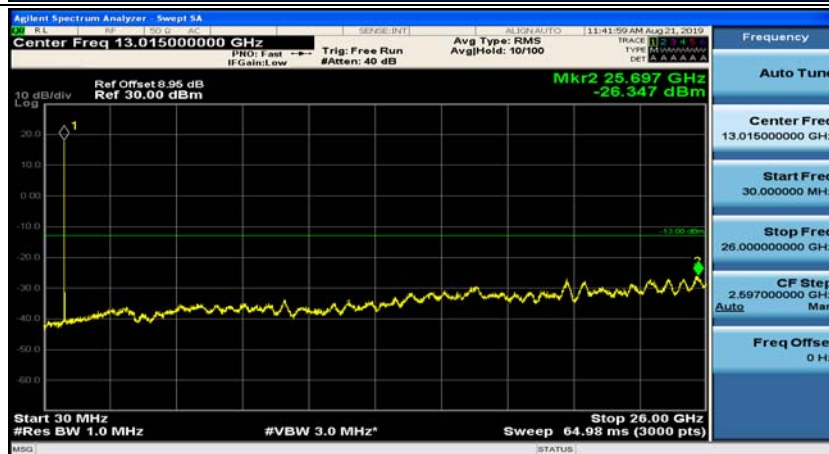
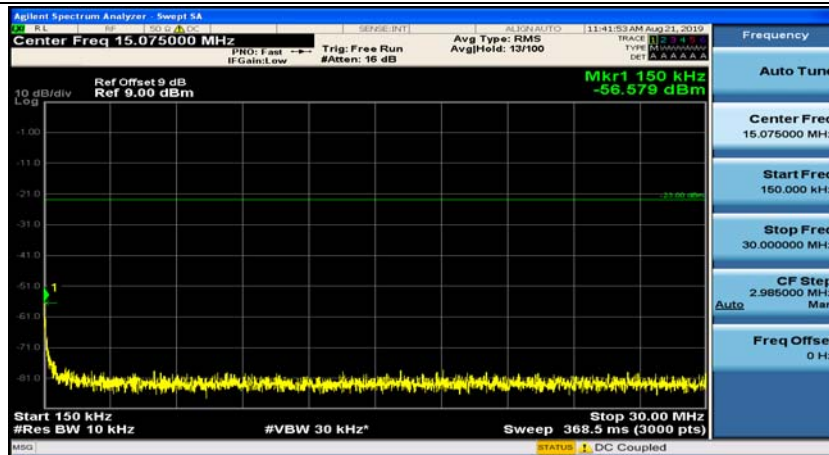
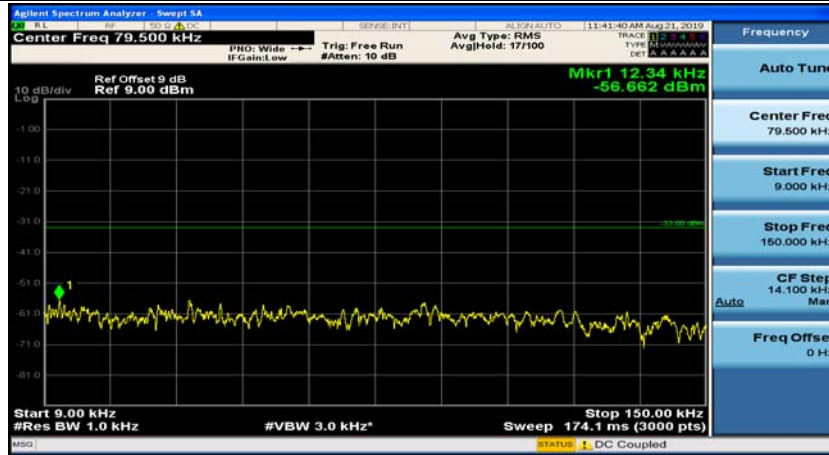


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

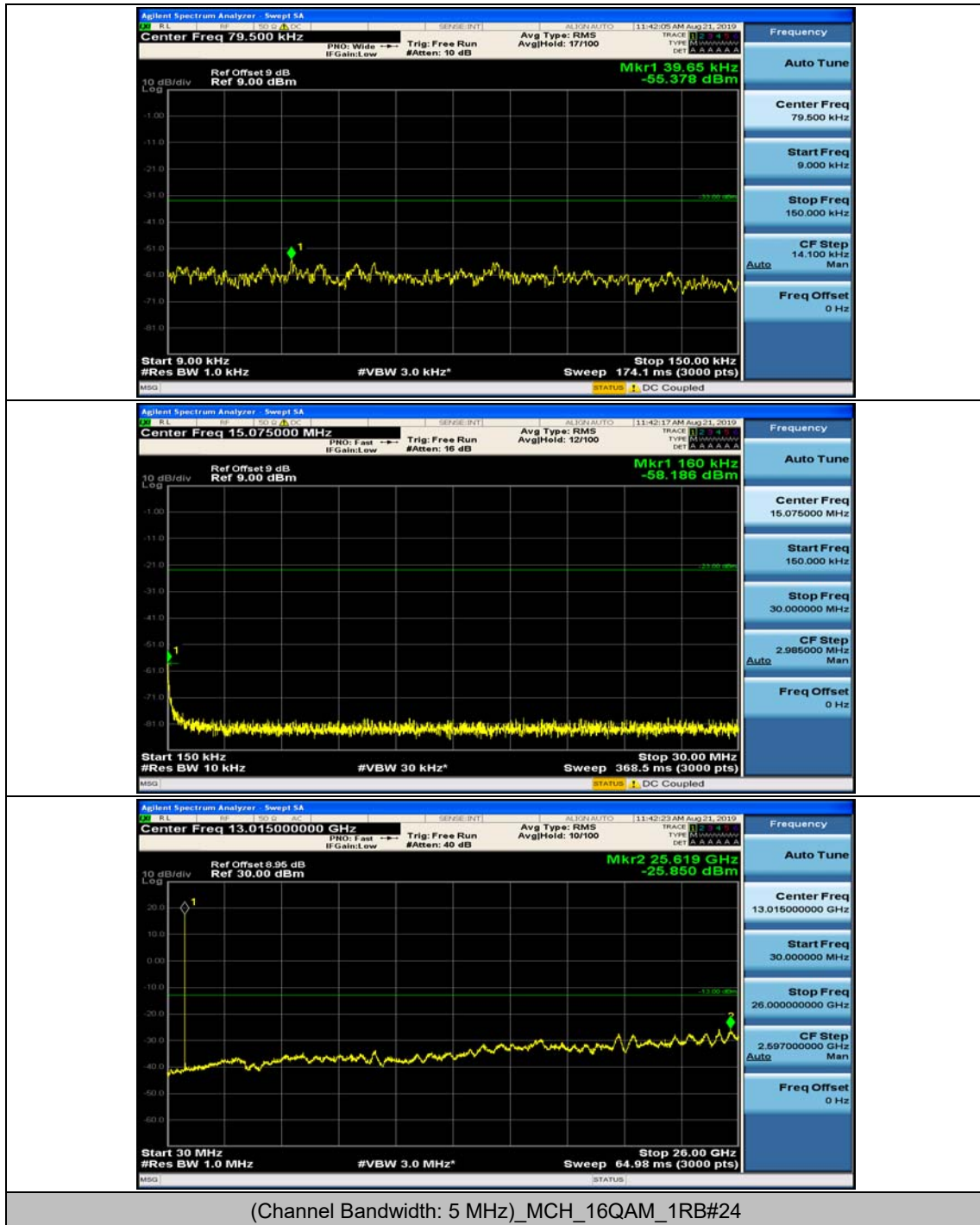




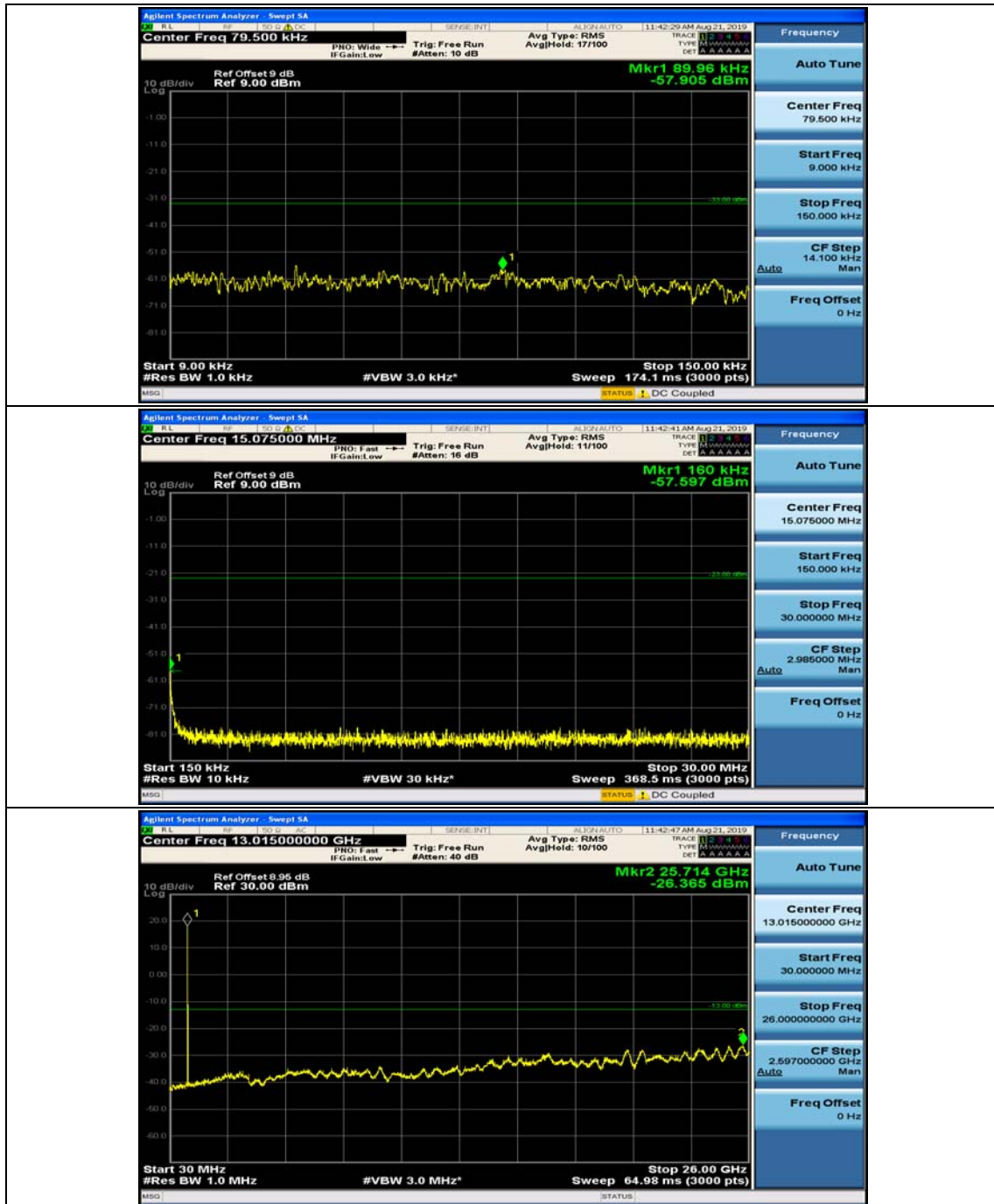
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



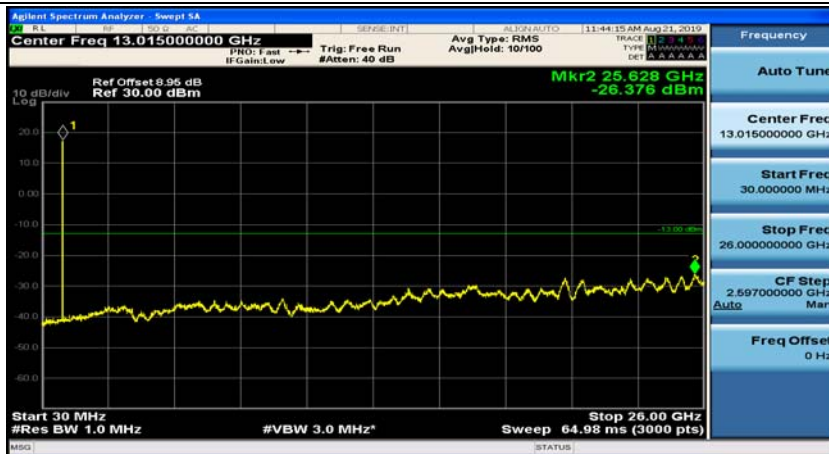
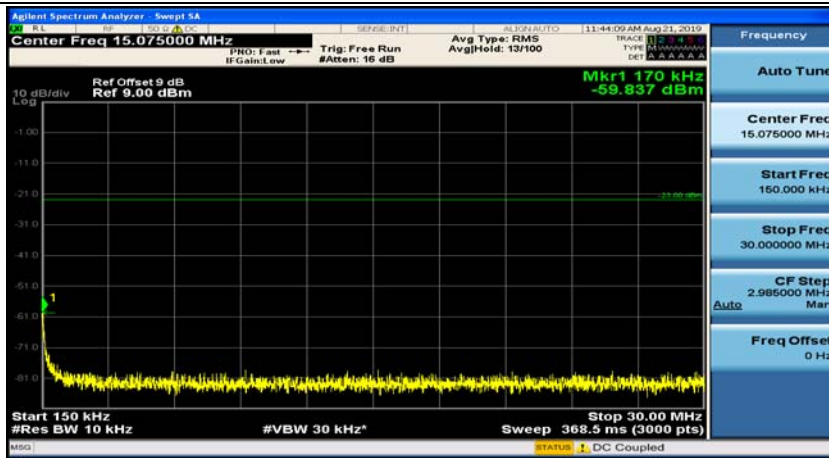
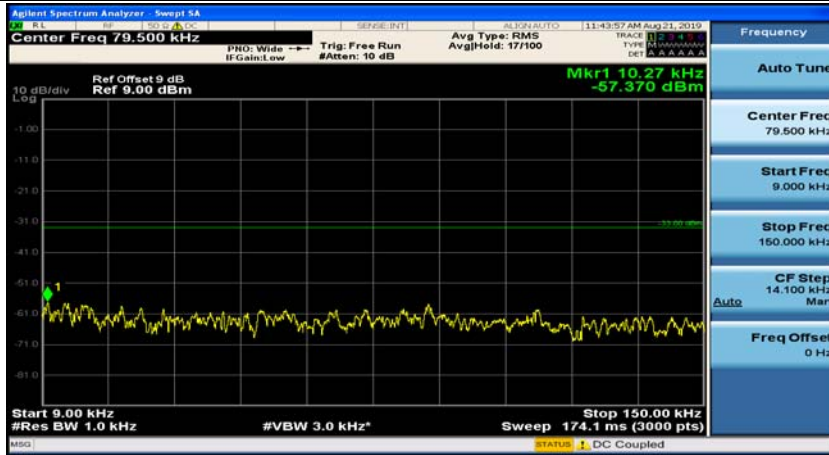
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12



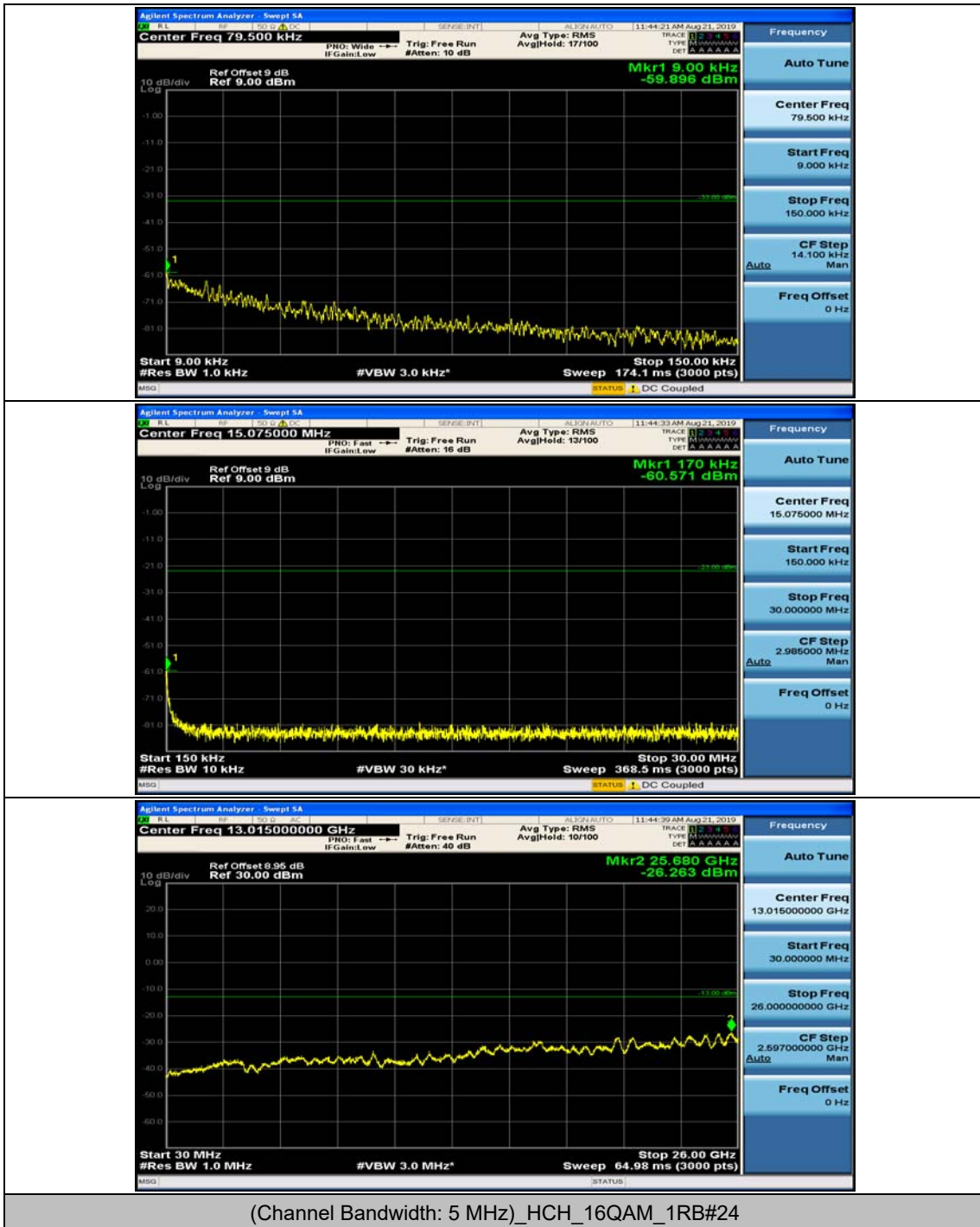
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

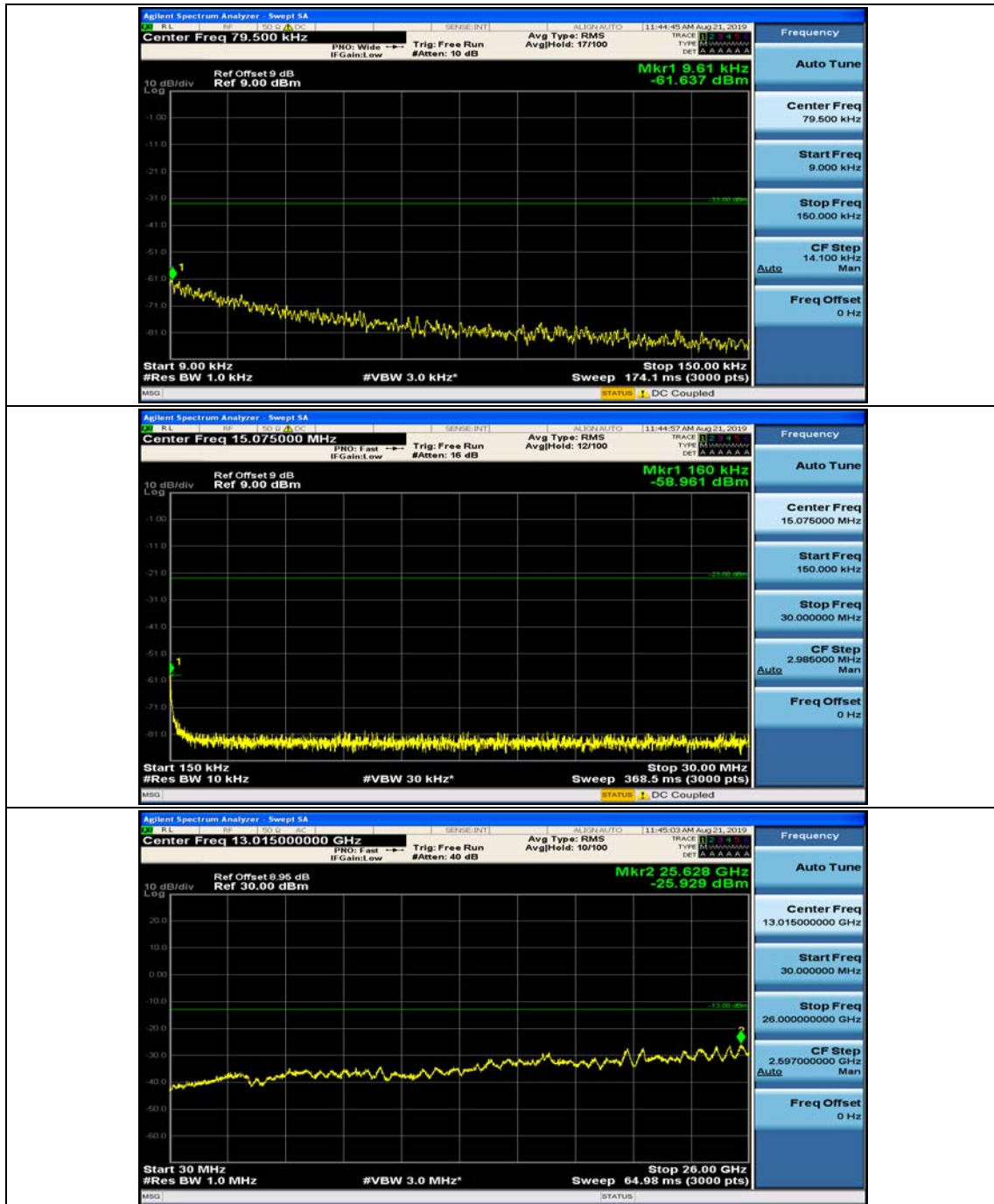


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

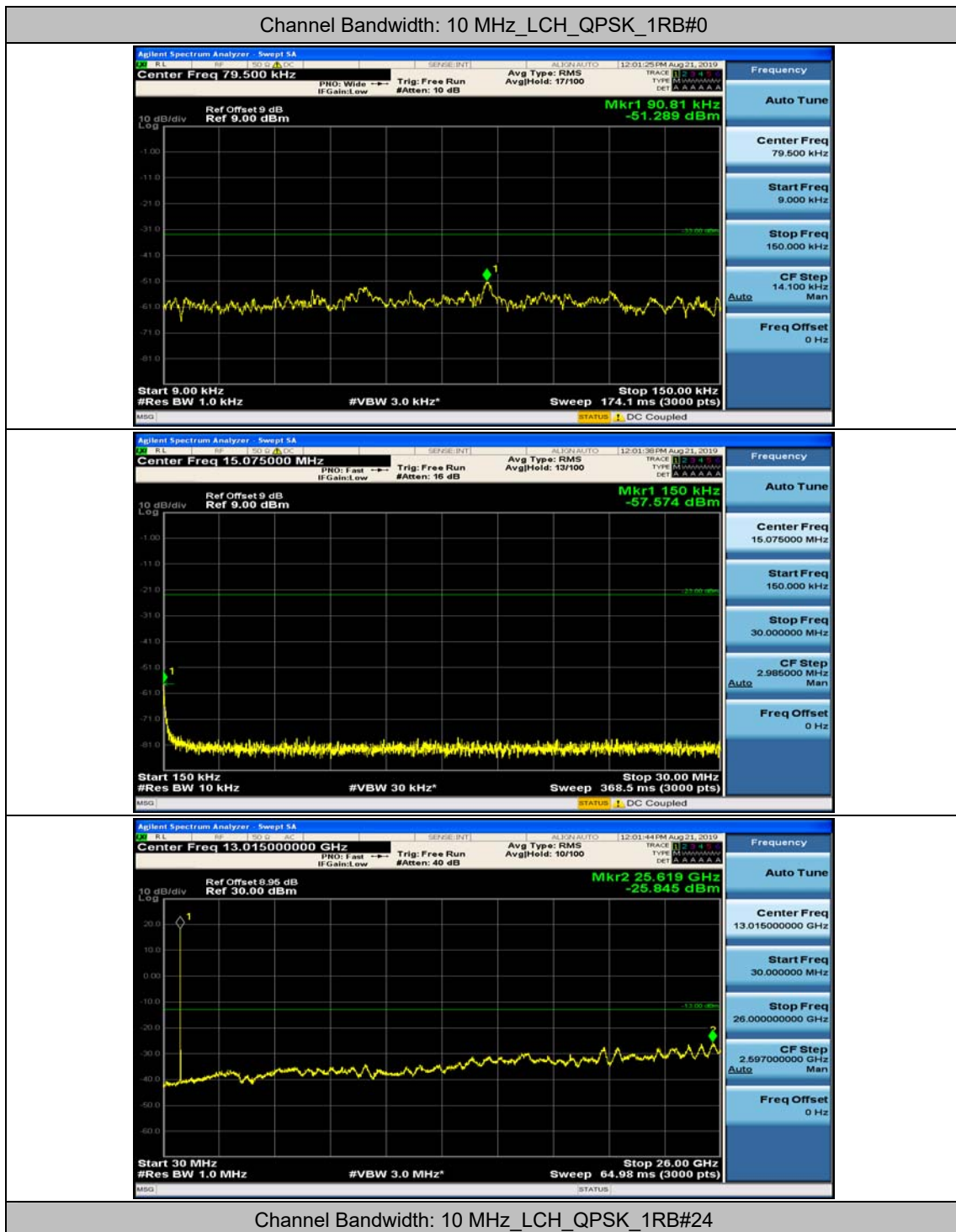


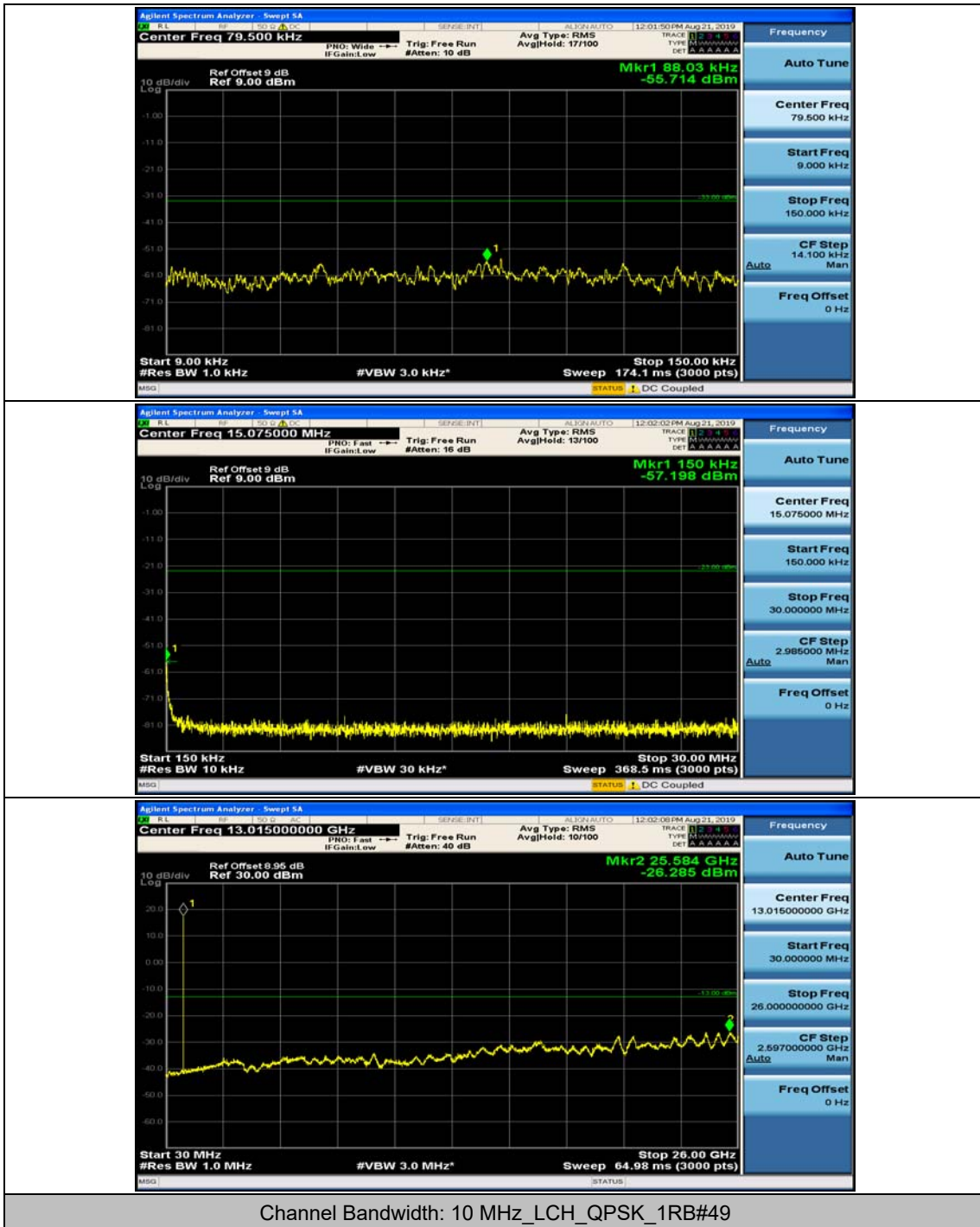
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

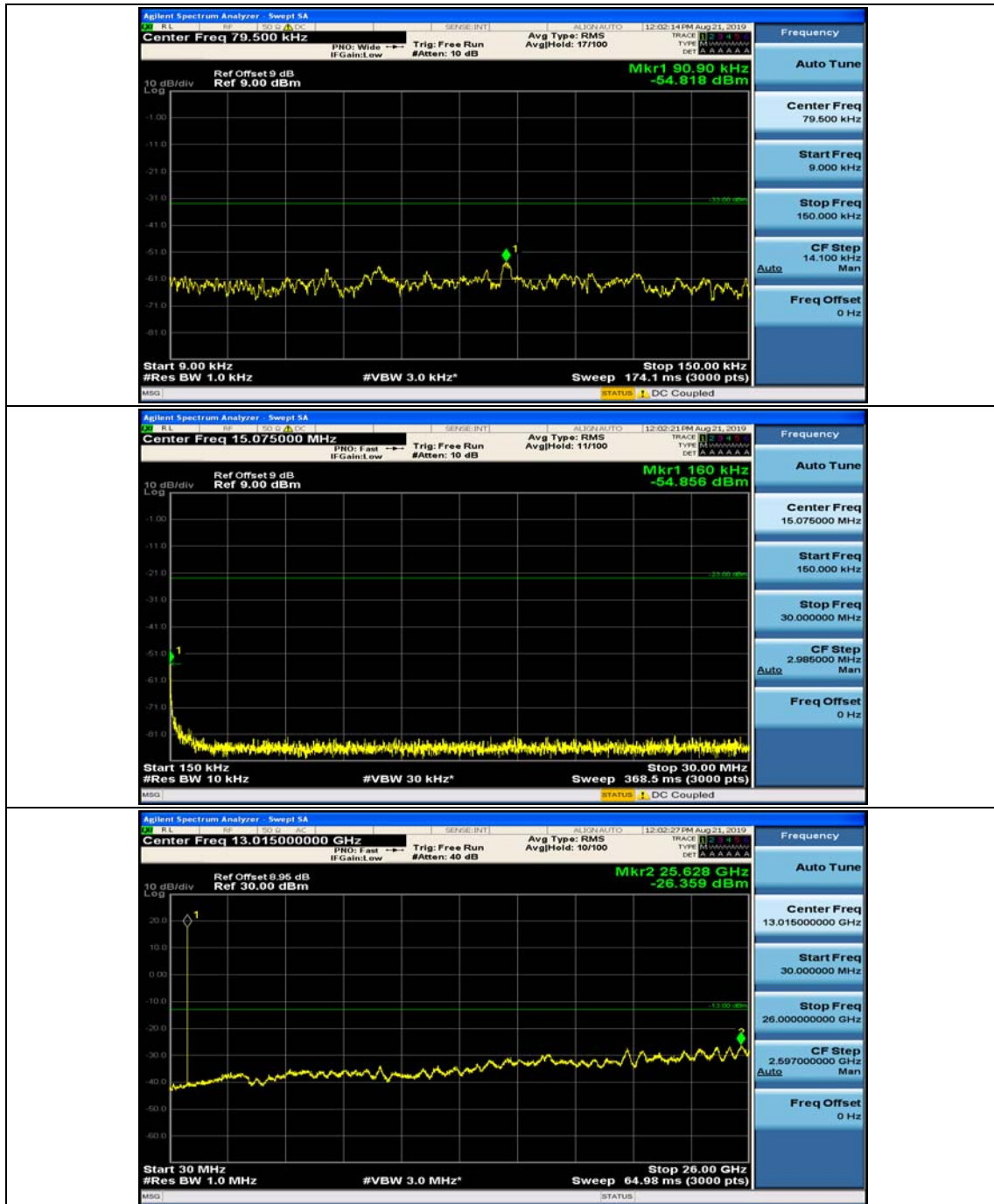




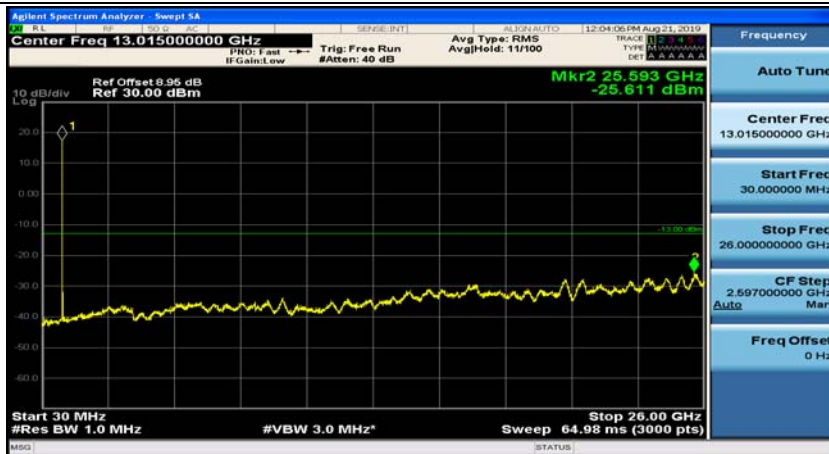
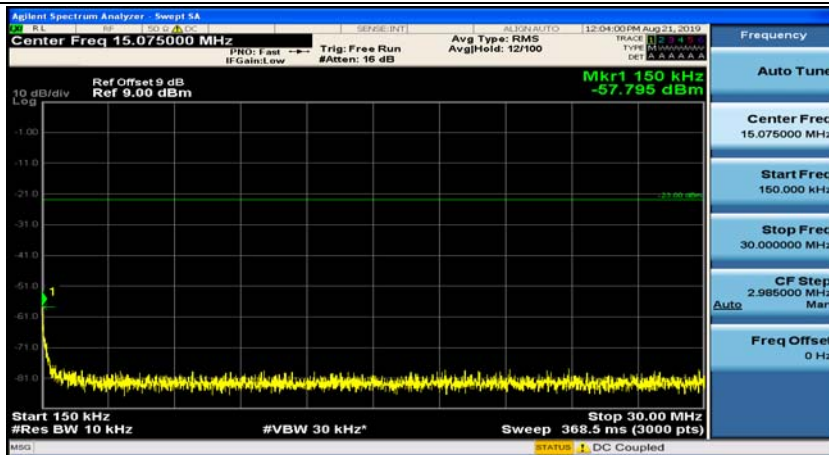
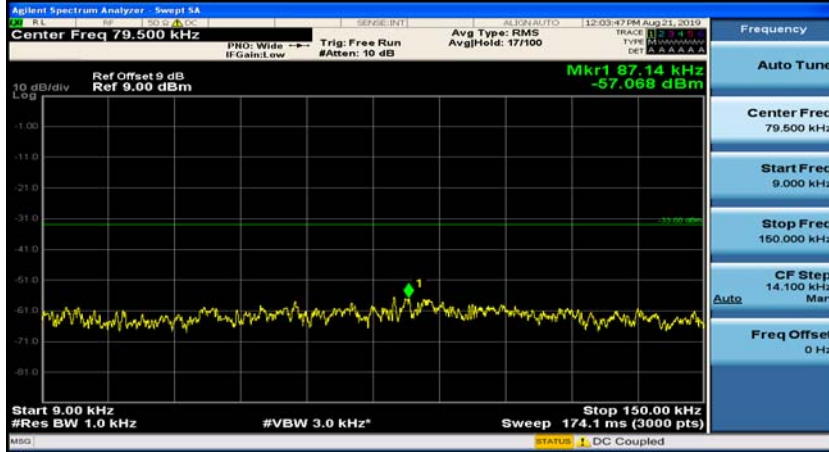
Channel Bandwidth: 10 MHz



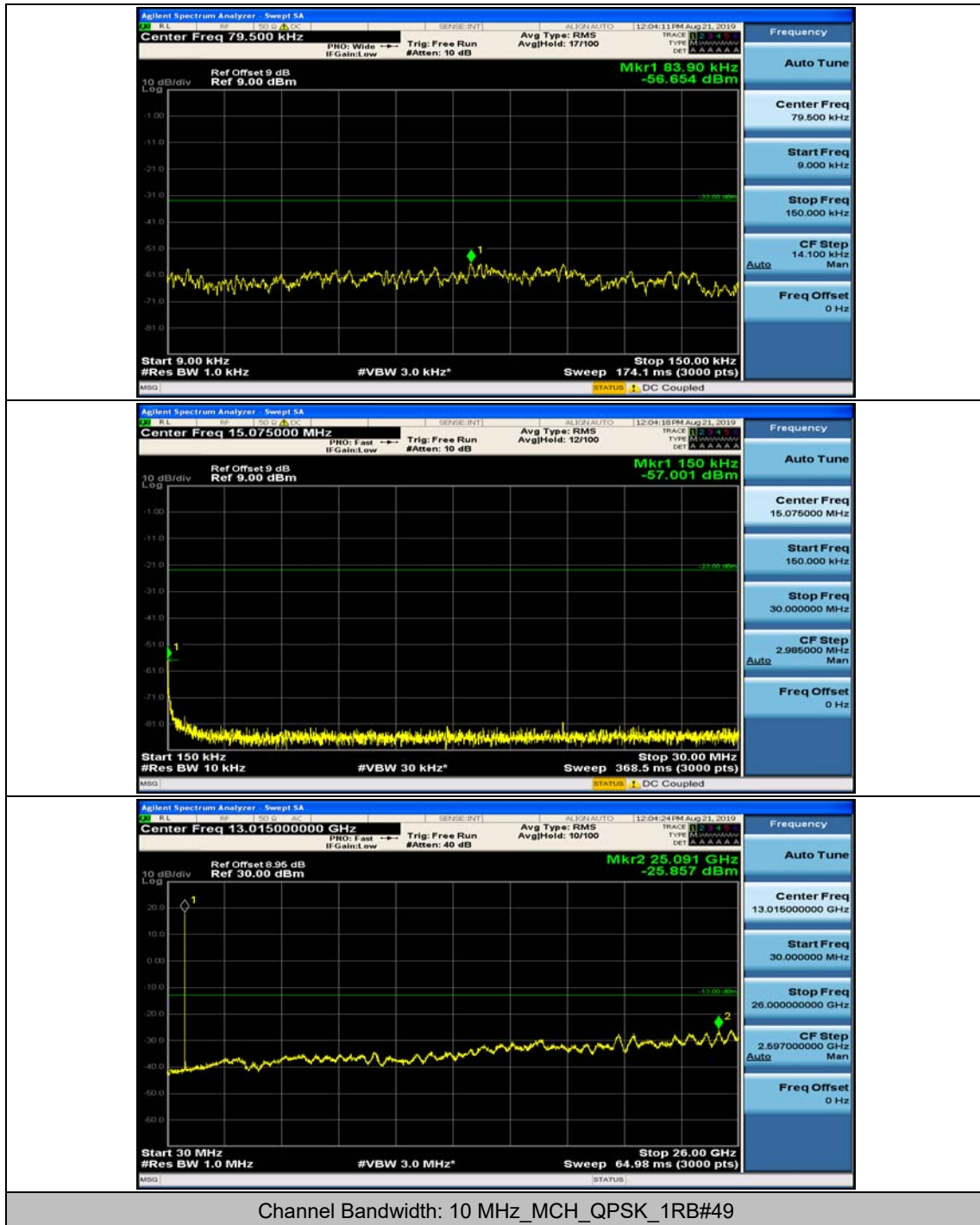


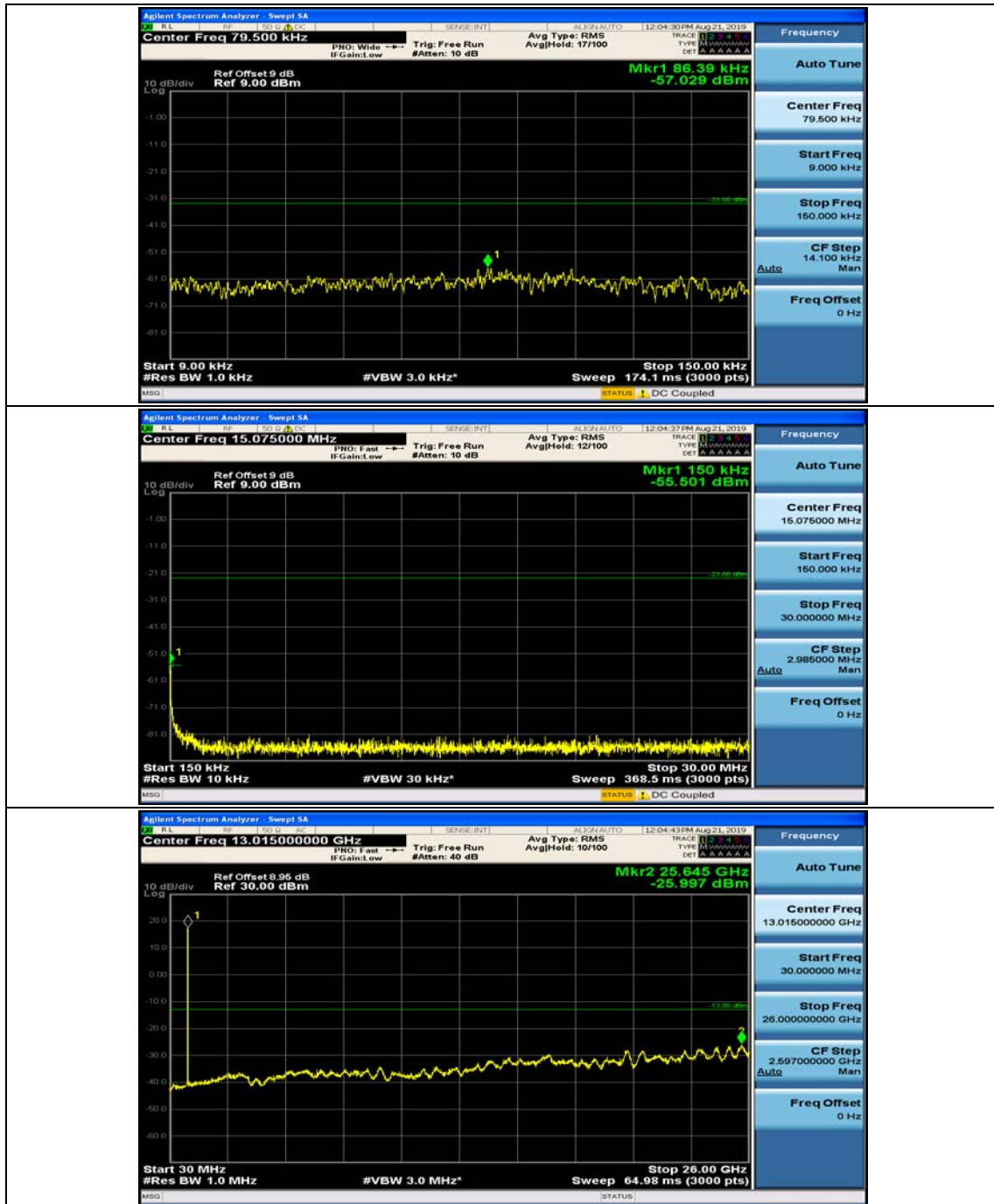


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

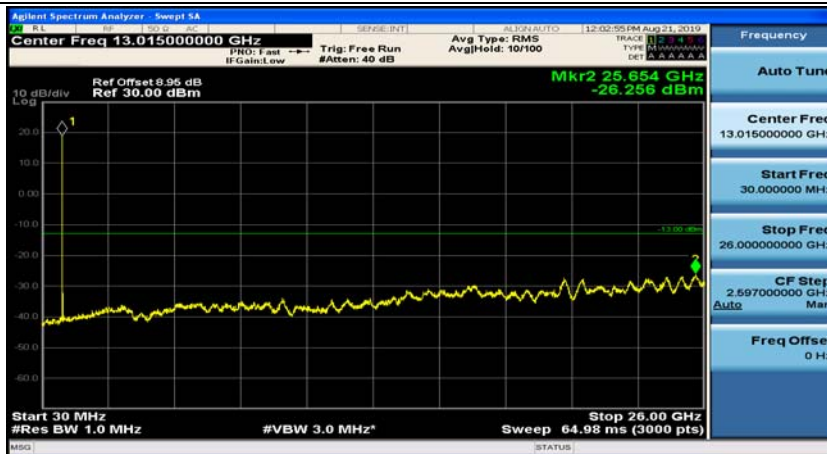
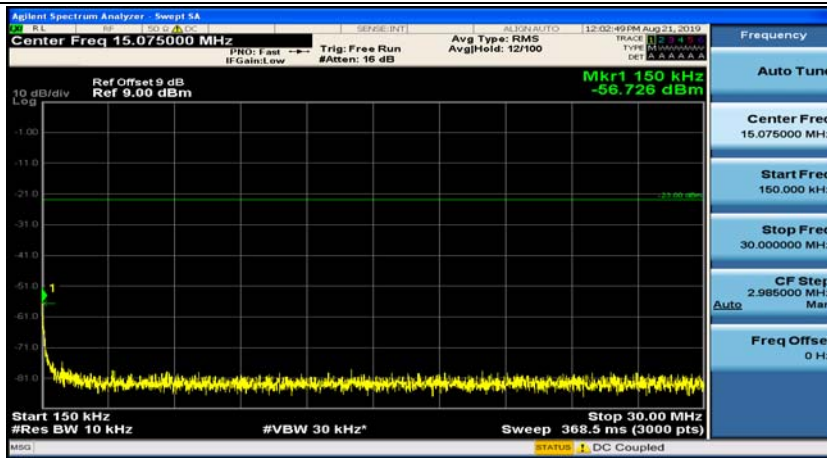
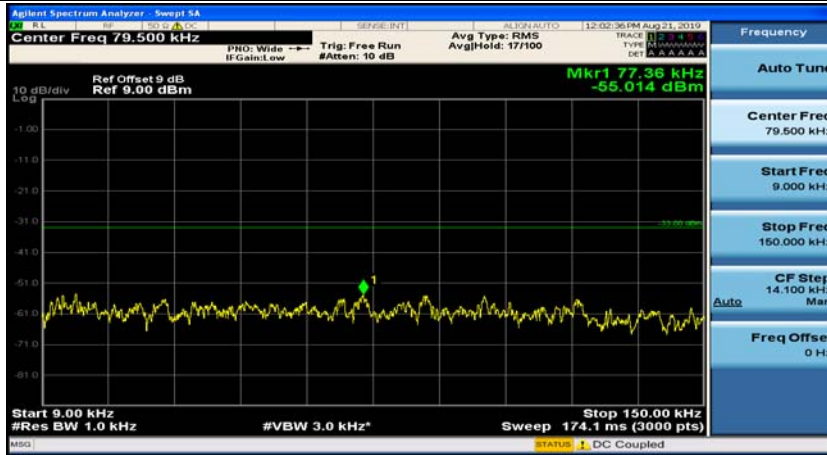


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

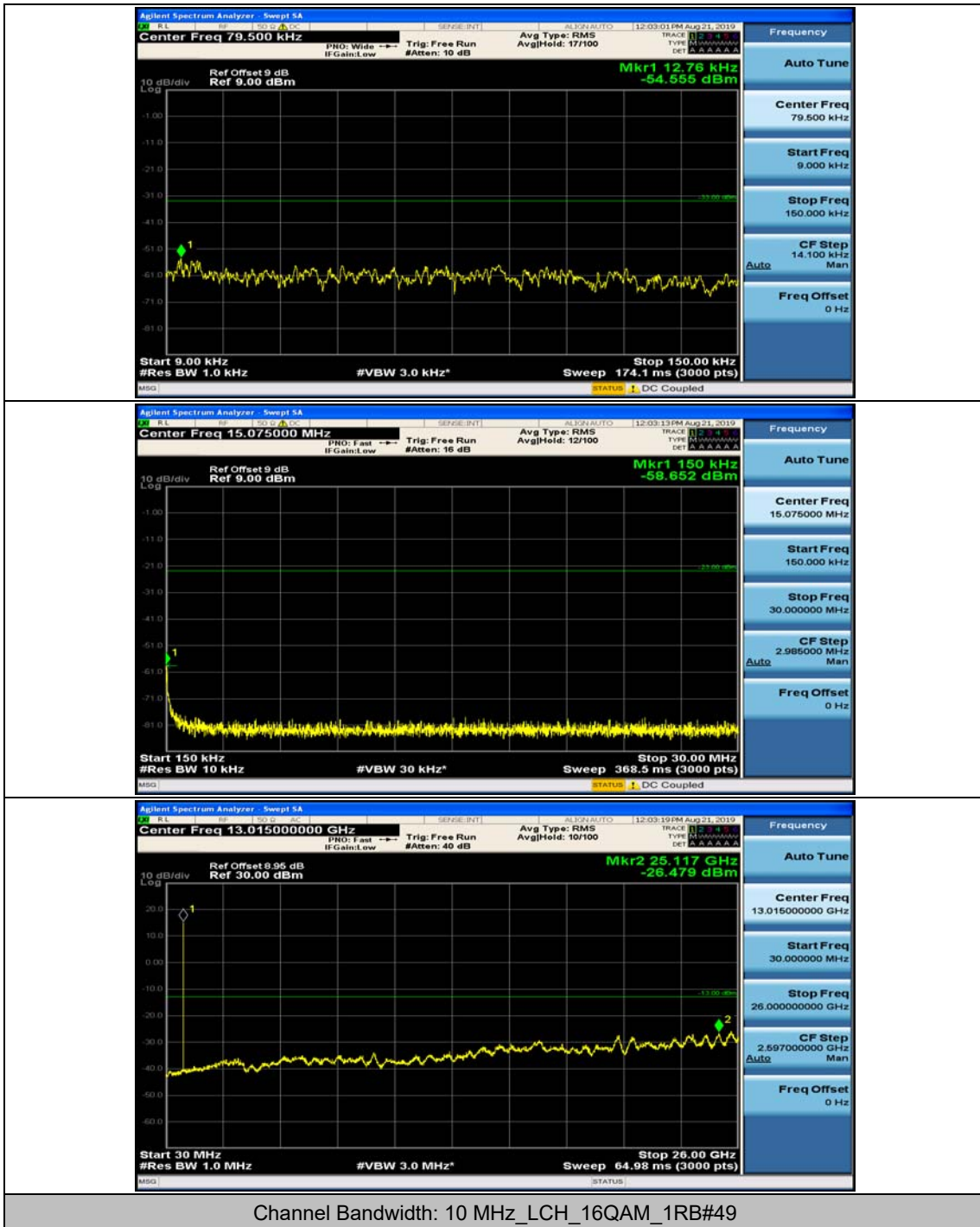


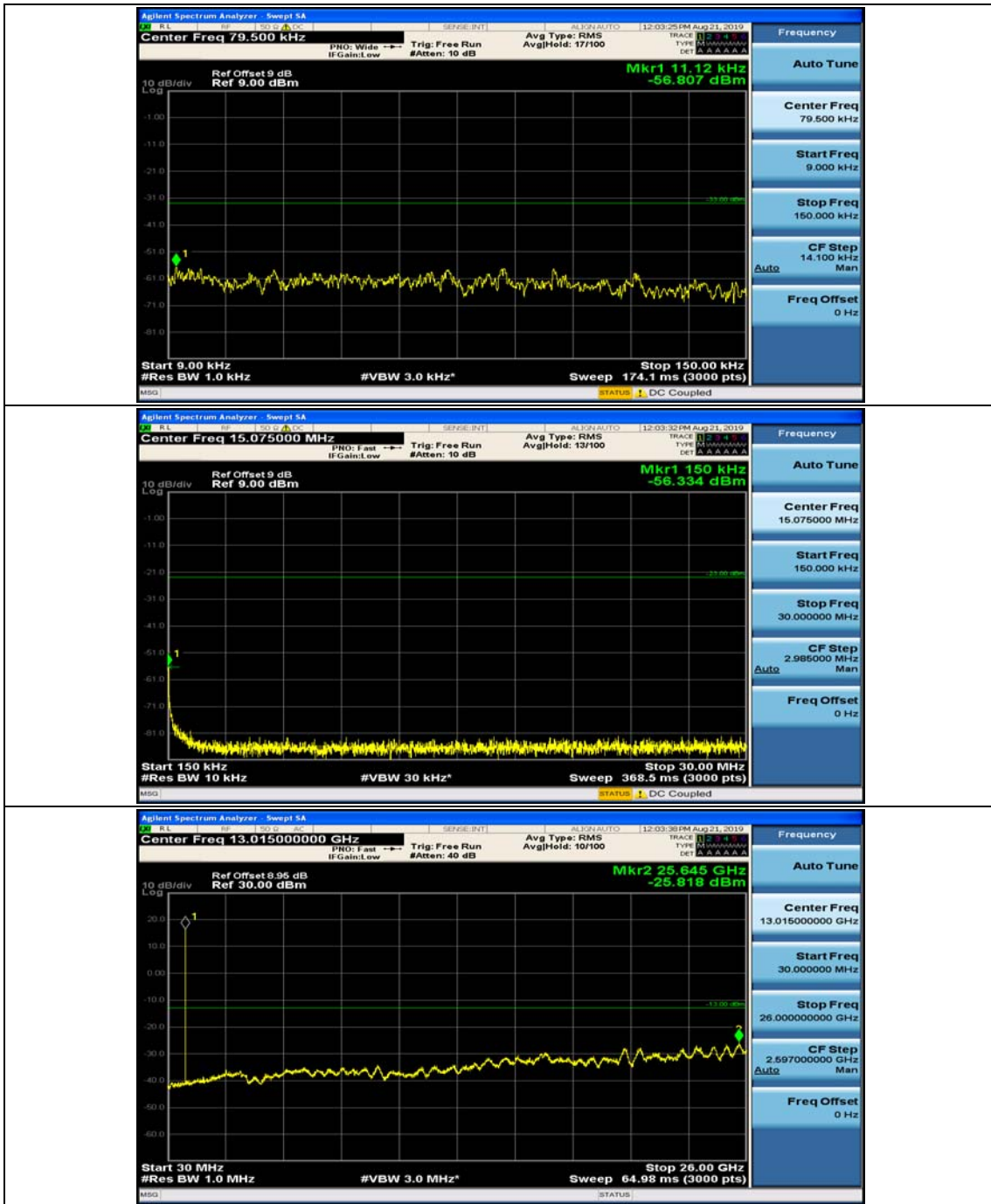


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

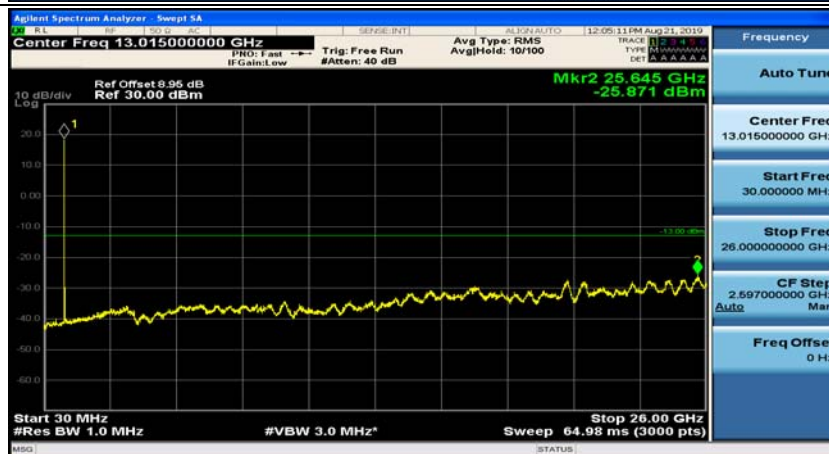
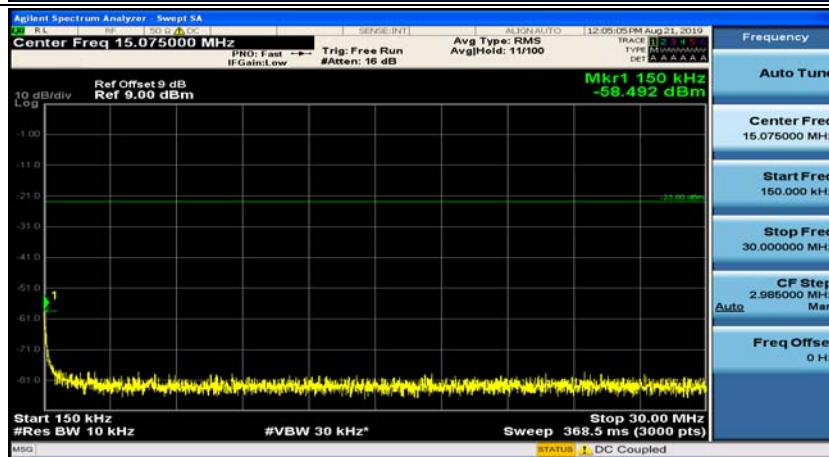


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

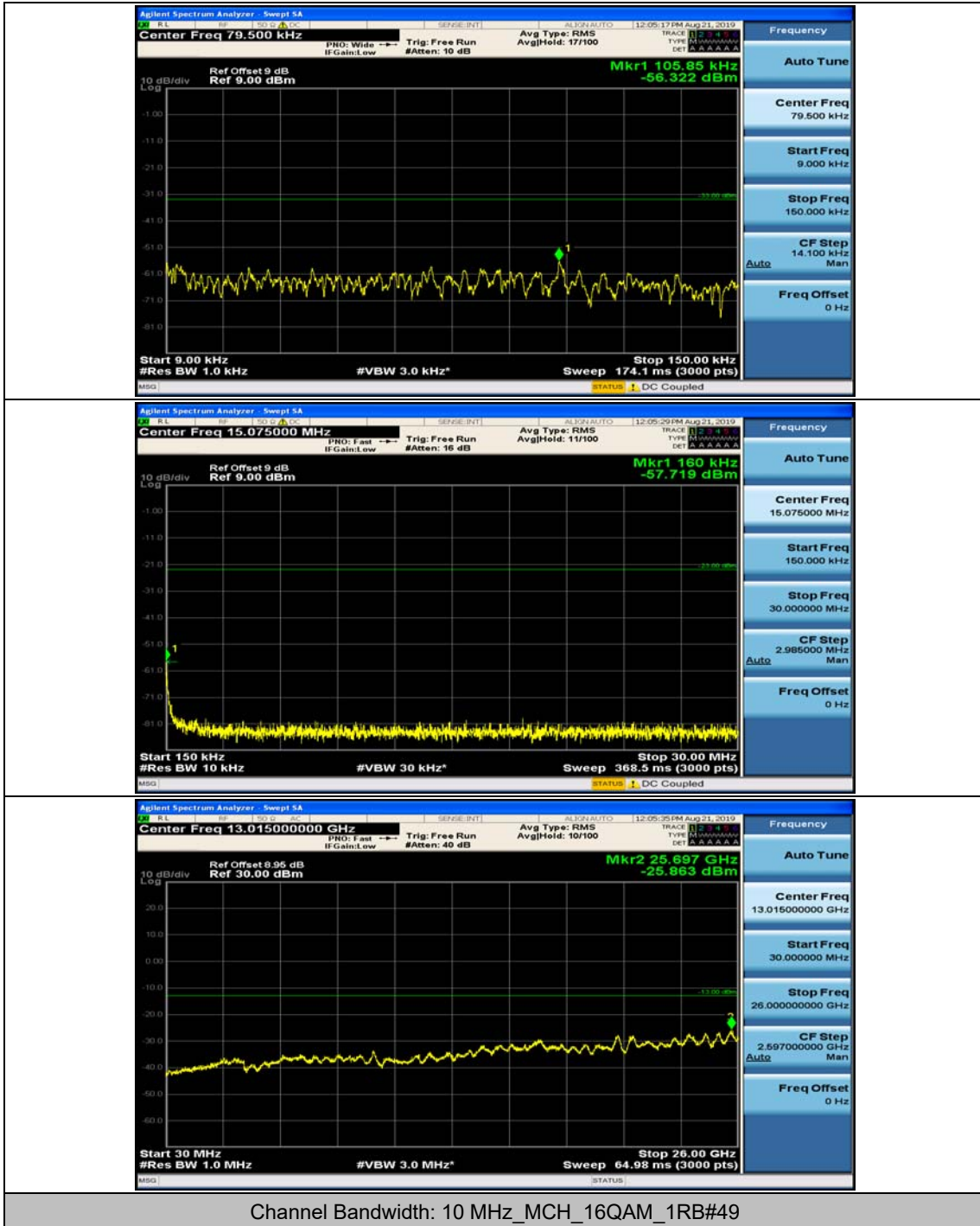


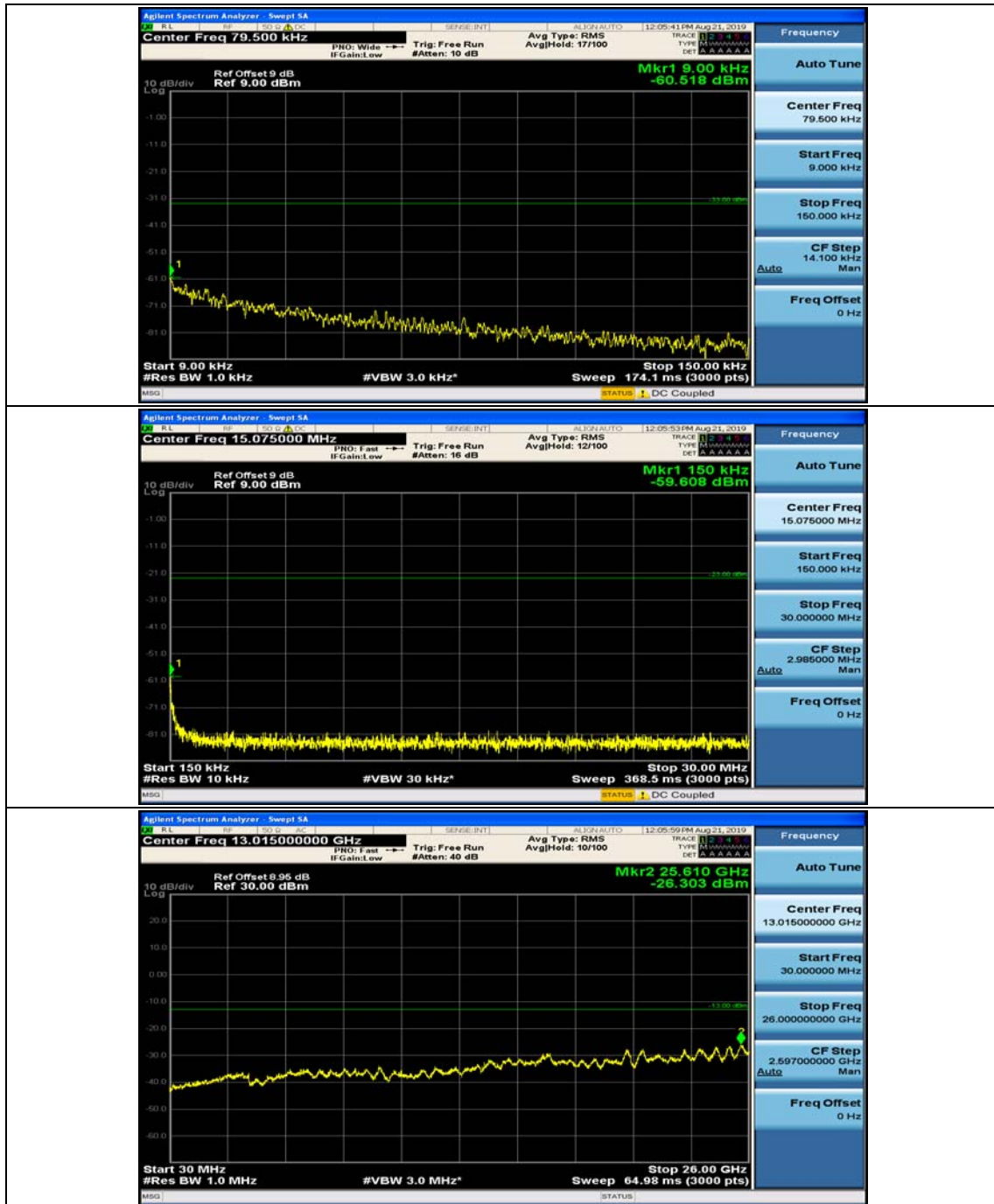


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

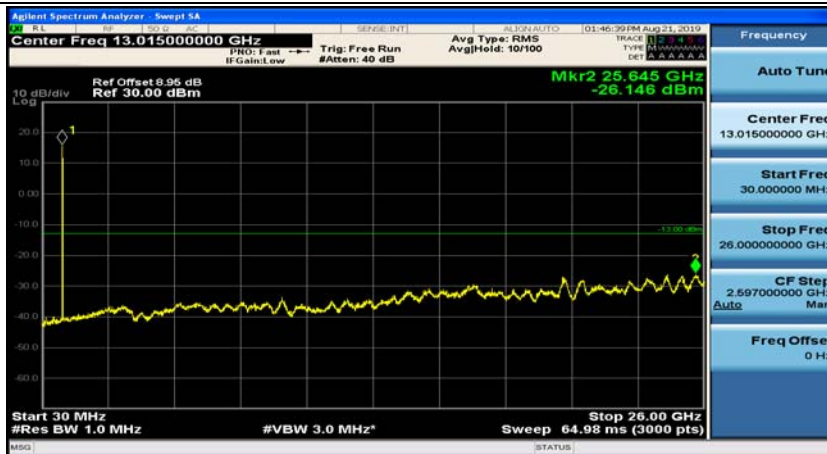
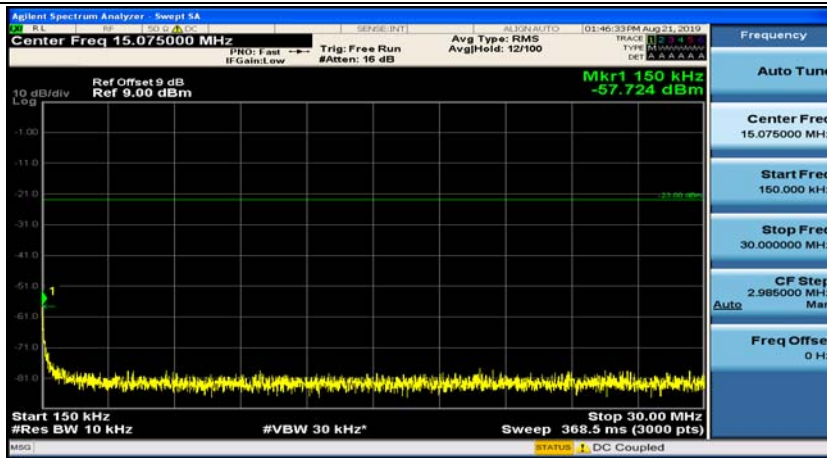
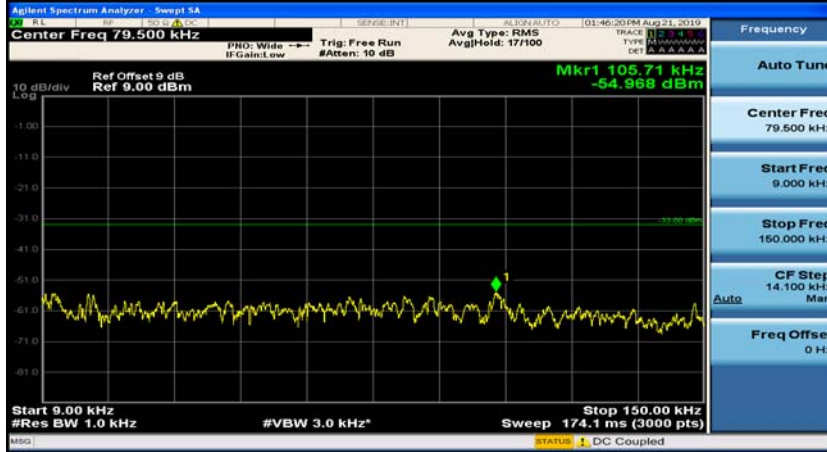


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

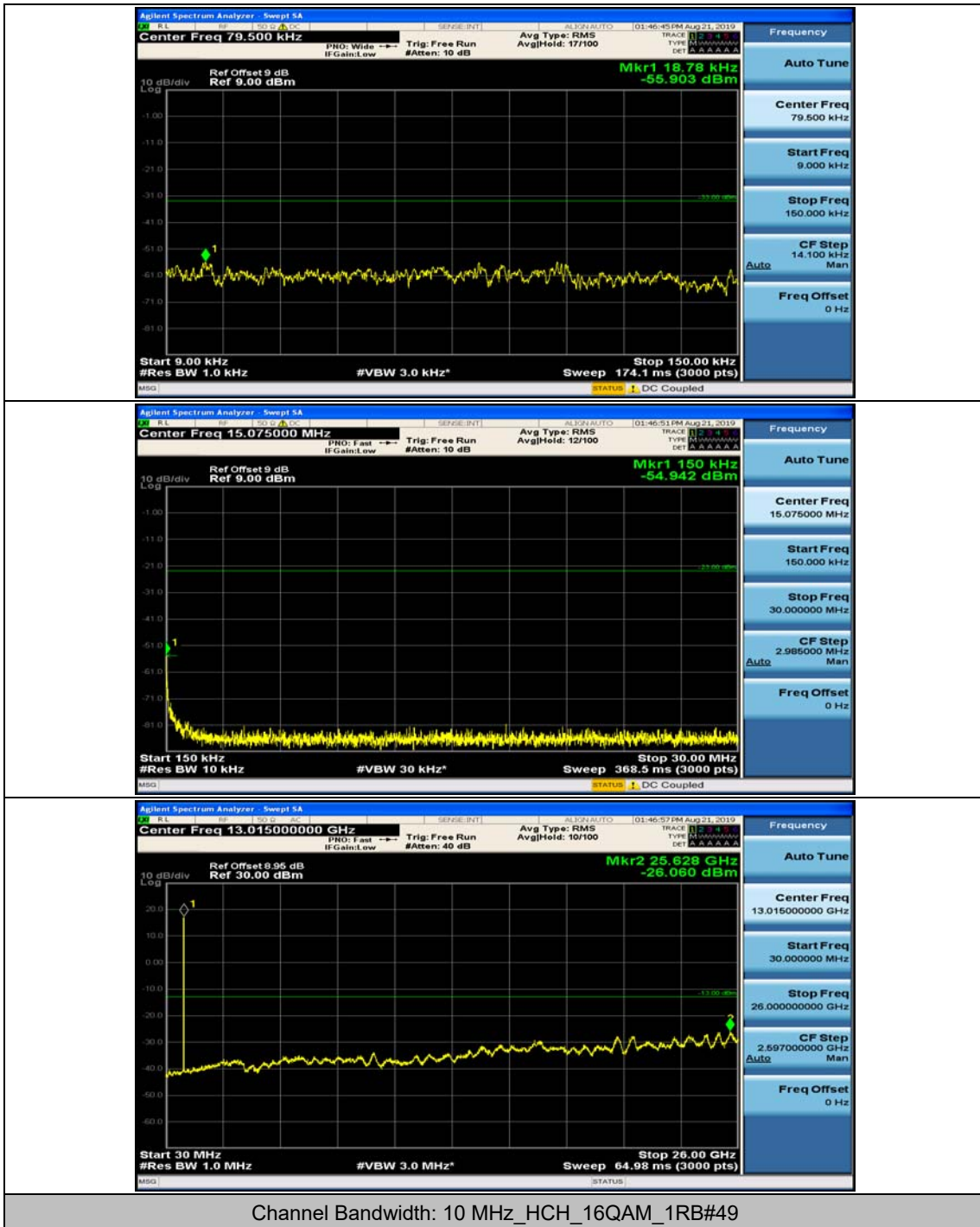


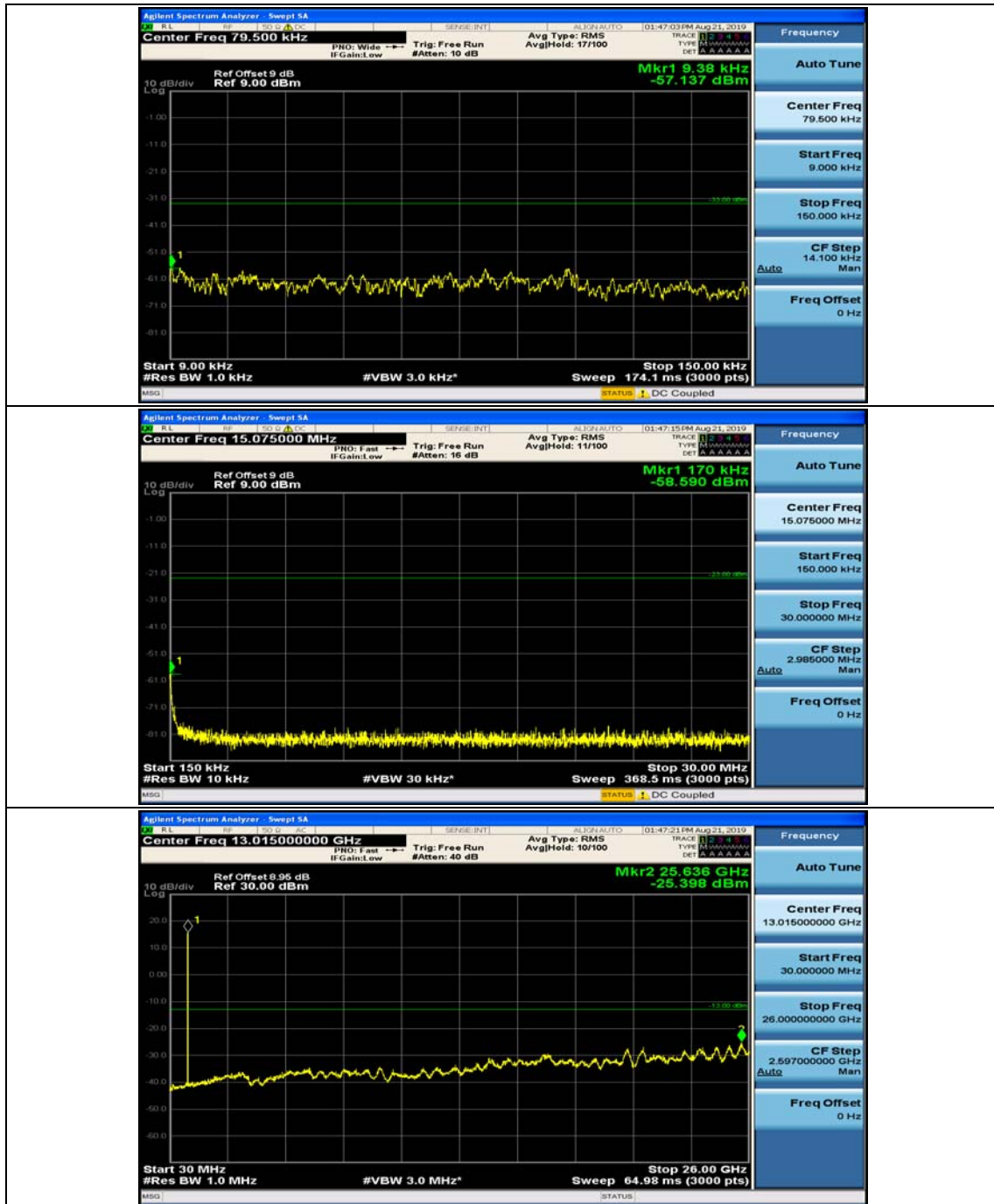


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24





Appendix F: Frequency Stability

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-0.5	-0.000606	± 2.5	PASS
		VN	TN	4.3	0.005214	± 2.5	PASS
		VH	TN	-0.07	-0.000085	± 2.5	PASS
	MCH	VL	TN	-2	-0.002391	± 2.5	PASS
		VN	TN	-1.19	-0.001423	± 2.5	PASS
		VH	TN	1.09	0.001303	± 2.5	PASS
	HCH	VL	TN	0.82	0.000967	± 2.5	PASS
		VN	TN	1.75	0.002063	± 2.5	PASS
		VH	TN	2.31	0.002723	± 2.5	PASS
16QAM	LCH	VL	TN	-0.94	-0.001140	± 2.5	PASS
		VN	TN	-0.27	-0.000327	± 2.5	PASS
		VH	TN	4.75	0.005760	± 2.5	PASS
	MCH	VL	TN	1.16	0.001387	± 2.5	PASS
		VN	TN	0.18	0.000215	± 2.5	PASS
		VH	TN	0.57	0.000681	± 2.5	PASS
	HCH	VL	TN	-0.81	-0.000955	± 2.5	PASS
		VN	TN	2.33	0.002747	± 2.5	PASS
		VH	TN	0.18	0.000212	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.65	0.003213	± 2.5	PASS
		VN	-20	1.6	0.001940	± 2.5	PASS
		VN	-10	-1.13	-0.001370	± 2.5	PASS
		VN	0	4.73	0.005735	± 2.5	PASS
		VN	10	3.55	0.004305	± 2.5	PASS
		VN	20	4.51	0.005469	± 2.5	PASS
		VN	30	0.94	0.001140	± 2.5	PASS
		VN	40	0.73	0.000885	± 2.5	PASS
		VN	50	0.13	0.000158	± 2.5	PASS
	MCH	VN	-30	2.45	0.002929	± 2.5	PASS

		VN	-20	0.76	0.000909	± 2.5	PASS
		VN	-10	2.7	0.003228	± 2.5	PASS
		VN	0	4.04	0.004830	± 2.5	PASS
		VN	10	0	0.000000	± 2.5	PASS
		VN	20	1.72	0.002056	± 2.5	PASS
		VN	30	2	0.002391	± 2.5	PASS
		VN	40	0.58	0.000693	± 2.5	PASS
		VN	50	-1.24	-0.001482	± 2.5	PASS
	HCH	VN	-30	2.41	0.002841	± 2.5	PASS
		VN	-20	-1.66	-0.001957	± 2.5	PASS
		VN	-10	4.47	0.005269	± 2.5	PASS
		VN	0	-0.7	-0.000825	± 2.5	PASS
		VN	10	1.58	0.001863	± 2.5	PASS
		VN	20	3.03	0.003572	± 2.5	PASS
		VN	30	2.65	0.003124	± 2.5	PASS
		VN	40	4.4	0.005187	± 2.5	PASS
		VN	50	1.81	0.002134	± 2.5	PASS
		16QAM	LCH	VN	-30	0.55	0.000667
VN	-20			0.93	0.001128	± 2.5	PASS
VN	-10			-0.66	-0.000800	± 2.5	PASS
VN	0			4.38	0.005311	± 2.5	PASS
VN	10			0.16	0.000194	± 2.5	PASS
VN	20			0.63	0.000764	± 2.5	PASS
VN	30			3.99	0.004838	± 2.5	PASS
VN	40			-1.09	-0.001322	± 2.5	PASS
VN	50			2.87	0.003480	± 2.5	PASS
MCH	VN		-30	2.78	0.003277	± 2.5	PASS
	VN		-20	4.14	0.004880	± 2.5	PASS
	VN		-10	2.93	0.003454	± 2.5	PASS
	VN		0	2.88	0.003395	± 2.5	PASS
	VN		10	3.77	0.004444	± 2.5	PASS
	VN		20	4.14	0.004880	± 2.5	PASS
	VN		30	-0.5	-0.000589	± 2.5	PASS
	VN		40	3.38	0.003984	± 2.5	PASS
	VN		50	-0.98	-0.001155	± 2.5	PASS
HCH	VN		-30	3.44	0.004055	± 2.5	PASS
	VN		-20	-0.89	-0.001049	± 2.5	PASS
	VN		-10	0.58	0.000684	± 2.5	PASS
	VN		0	1.28	0.001509	± 2.5	PASS
	VN		10	4.18	0.004928	± 2.5	PASS
	VN		20	0.84	0.000990	± 2.5	PASS

		VN	30	4.95	0.005835	± 2.5	PASS
		VN	40	3.96	0.004668	± 2.5	PASS
		VN	50	1.46	0.001721	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.3	0.003998	± 2.5	PASS
		VN	TN	1.86	0.002253	± 2.5	PASS
		VH	TN	0.06	0.000073	± 2.5	PASS
	MCH	VL	TN	1.34	0.001602	± 2.5	PASS
		VN	TN	-0.94	-0.001124	± 2.5	PASS
		VH	TN	3.92	0.004686	± 2.5	PASS
	HCH	VL	TN	4.05	0.004779	± 2.5	PASS
		VN	TN	0.18	0.000212	± 2.5	PASS
		VH	TN	2.63	0.003103	± 2.5	PASS
16QAM	LCH	VL	TN	2.95	0.003574	± 2.5	PASS
		VN	TN	1.7	0.002059	± 2.5	PASS
		VH	TN	2.13	0.002580	± 2.5	PASS
	MCH	VL	TN	4.72	0.005643	± 2.5	PASS
		VN	TN	1.84	0.002200	± 2.5	PASS
		VH	TN	2.89	0.003455	± 2.5	PASS
	HCH	VL	TN	2.71	0.003198	± 2.5	PASS
		VN	TN	-0.99	-0.001168	± 2.5	PASS
		VH	TN	0.63	0.000743	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.78	0.003368	± 2.5	PASS
		VN	-20	0.19	0.000230	± 2.5	PASS
		VN	-10	-1.44	-0.001744	± 2.5	PASS
		VN	0	-0.4	-0.000485	± 2.5	PASS
		VN	10	1.34	0.001623	± 2.5	PASS
		VN	20	4.64	0.005621	± 2.5	PASS
		VN	30	-1.78	-0.002156	± 2.5	PASS
		VN	40	-0.72	-0.000872	± 2.5	PASS
		VN	50	3.73	0.004518	± 2.5	PASS
	MCH	VN	-30	3.6	0.004304	± 2.5	PASS
		VN	-20	4.76	0.005690	± 2.5	PASS

		VN	-10	0.95	0.001136	± 2.5	PASS	
		VN	0	3.21	0.003837	± 2.5	PASS	
		VN	10	-0.76	-0.000909	± 2.5	PASS	
		VN	20	2.7	0.003228	± 2.5	PASS	
		VN	30	3.58	0.004280	± 2.5	PASS	
		VN	40	1.29	0.001542	± 2.5	PASS	
		VN	50	-1.68	-0.002008	± 2.5	PASS	
	HCH	VN	-30	1.03	0.001215	± 2.5	PASS	
		VN	-20	1.47	0.001735	± 2.5	PASS	
		VN	-10	2.59	0.003056	± 2.5	PASS	
		VN	0	0.25	0.000295	± 2.5	PASS	
		VN	10	-0.65	-0.000767	± 2.5	PASS	
		VN	20	3.88	0.004578	± 2.5	PASS	
		VN	30	-1.16	-0.001369	± 2.5	PASS	
	QPSK	LCH	VN	40	3.4	0.004012	± 2.5	PASS
			VN	50	-0.26	-0.000307	± 2.5	PASS
			VN	-30	2.88	0.003443	± 2.5	PASS
			VN	-20	-1.13	-0.001351	± 2.5	PASS
VN			-10	3.86	0.004614	± 2.5	PASS	
VN			0	3.28	0.003921	± 2.5	PASS	
VN			10	3.65	0.004363	± 2.5	PASS	
VN			20	3.17	0.003790	± 2.5	PASS	
VN			30	2.57	0.003072	± 2.5	PASS	
MCH		VN	40	1.14	0.001363	± 2.5	PASS	
		VN	50	2.16	0.002582	± 2.5	PASS	
		VN	-30	0.7	0.000826	± 2.5	PASS	
		VN	-20	3.69	0.004354	± 2.5	PASS	
		VN	-10	4.18	0.004932	± 2.5	PASS	
		VN	0	1.04	0.001227	± 2.5	PASS	
		VN	10	-0.15	-0.000177	± 2.5	PASS	
		VN	20	0.87	0.001027	± 2.5	PASS	
		VN	30	1.24	0.001463	± 2.5	PASS	
HCH	VN	40	-0.42	-0.000496	± 2.5	PASS		
	VN	50	2.15	0.002537	± 2.5	PASS		
	VN	-30	-1.14	-0.001345	± 2.5	PASS		
	VN	-20	3.87	0.004566	± 2.5	PASS		
	VN	-10	2.91	0.003434	± 2.5	PASS		
	VN	0	1.41	0.001664	± 2.5	PASS		
	VN	10	-0.46	-0.000543	± 2.5	PASS		
		VN	20	-0.15	-0.000177	± 2.5	PASS	
		VN	30	2.56	0.003021	± 2.5	PASS	

		VN	40	1.28	0.001510	± 2.5	PASS
		VN	50	3.86	0.004555	± 2.5	PASS

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	2.05	0.002480	± 2.5	PASS
		VN	TN	2.26	0.002734	± 2.5	PASS
		VH	TN	-1	-0.001210	± 2.5	PASS
	MCH	VL	TN	2.77	0.003311	± 2.5	PASS
		VN	TN	4.54	0.005427	± 2.5	PASS
		VH	TN	1.18	0.001411	± 2.5	PASS
	HCH	VL	TN	1	0.001181	± 2.5	PASS
		VN	TN	-1.87	-0.002209	± 2.5	PASS
		VH	TN	2.82	0.003331	± 2.5	PASS
16QAM	LCH	VL	TN	1.28	0.001549	± 2.5	PASS
		VN	TN	0.5	0.000605	± 2.5	PASS
		VH	TN	2.86	0.003460	± 2.5	PASS
	MCH	VL	TN	0.15	0.000179	± 2.5	PASS
		VN	TN	0.62	0.000741	± 2.5	PASS
		VH	TN	-1.6	-0.001913	± 2.5	PASS
	HCH	VL	TN	4.15	0.004903	± 2.5	PASS
		VN	TN	1.31	0.001548	± 2.5	PASS
		VH	TN	3.09	0.003650	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.21	-0.001464	± 2.5	PASS
		VN	-20	0.49	0.000593	± 2.5	PASS
		VN	-10	3.58	0.004332	± 2.5	PASS
		VN	0	-0.56	-0.000678	± 2.5	PASS
		VN	10	-0.06	-0.000073	± 2.5	PASS
		VN	20	4.73	0.005723	± 2.5	PASS
		VN	30	-0.94	-0.001137	± 2.5	PASS
		VN	40	0.79	0.000956	± 2.5	PASS
		VN	50	-1.02	-0.001234	± 2.5	PASS
	MCH	VN	-30	2.36	0.002821	± 2.5	PASS
		VN	-20	2.5	0.002989	± 2.5	PASS
		VN	-10	4.71	0.005631	± 2.5	PASS

	VN	0	-1.81	-0.002164	± 2.5	PASS			
		10	-0.46	-0.000550	± 2.5	PASS			
		20	-0.93	-0.001112	± 2.5	PASS			
		30	2.36	0.002821	± 2.5	PASS			
		40	1.03	0.001231	± 2.5	PASS			
		50	-1.52	-0.001817	± 2.5	PASS			
	HCH	VN	-30	3.99	0.004714	± 2.5	PASS		
		VN	-20	-0.02	-0.000024	± 2.5	PASS		
		VN	-10	3.55	0.004194	± 2.5	PASS		
		VN	0	4.59	0.005422	± 2.5	PASS		
		VN	10	-0.06	-0.000071	± 2.5	PASS		
		VN	20	3.54	0.004182	± 2.5	PASS		
		VN	30	-1.1	-0.001299	± 2.5	PASS		
		VN	40	0.23	0.000272	± 2.5	PASS		
		VN	50	0.79	0.000933	± 2.5	PASS		
		16QAM	LCH	VN	-30	1	0.001195	± 2.5	PASS
				VN	-20	-0.18	-0.000215	± 2.5	PASS
				VN	-10	2.14	0.002558	± 2.5	PASS
VN	0			4.73	0.005655	± 2.5	PASS		
VN	10			0.25	0.000299	± 2.5	PASS		
VN	20			2.02	0.002415	± 2.5	PASS		
VN	30			1.86	0.002224	± 2.5	PASS		
VN	40			3.1	0.003706	± 2.5	PASS		
VN	50			-0.13	-0.000155	± 2.5	PASS		
MCH	VN		-30	0.84	0.000992	± 2.5	PASS		
	VN		-20	4.53	0.005351	± 2.5	PASS		
	VN		-10	0.69	0.000815	± 2.5	PASS		
	VN		0	0.78	0.000921	± 2.5	PASS		
	VN		10	3.82	0.004513	± 2.5	PASS		
	VN		20	3.25	0.003839	± 2.5	PASS		
	VN		30	1.97	0.002327	± 2.5	PASS		
	VN		40	3.28	0.003875	± 2.5	PASS		
	VN		50	0.17	0.000201	± 2.5	PASS		
HCH	VN		-30	2.57	0.003036	± 2.5	PASS		
	VN		-20	-0.45	-0.000532	± 2.5	PASS		
	VN		-10	-1.69	-0.001996	± 2.5	PASS		
	VN		0	-1.68	-0.001985	± 2.5	PASS		
	VN		10	-1.9	-0.002245	± 2.5	PASS		
	VN		20	0.85	0.001004	± 2.5	PASS		
	VN		30	1.21	0.001429	± 2.5	PASS		
	VN		40	1.84	0.002174	± 2.5	PASS		

		VN	50	0.91	0.001075	± 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	1.21	0.001460	± 2.5	PASS
		VN	TN	2.95	0.003559	± 2.5	PASS
		VH	TN	3.95	0.004765	± 2.5	PASS
	MCH	VL	TN	-0.2	-0.000239	± 2.5	PASS
		VN	TN	-0.88	-0.001052	± 2.5	PASS
		VH	TN	-0.1	-0.000120	± 2.5	PASS
	HCH	VL	TN	-1.69	-0.002002	± 2.5	PASS
		VN	TN	2.1	0.002488	± 2.5	PASS
		VH	TN	0.47	0.000557	± 2.5	PASS
16QAM	LCH	VL	TN	-1.62	-0.001954	± 2.5	PASS
		VN	TN	1.42	0.001713	± 2.5	PASS
		VH	TN	-0.89	-0.001074	± 2.5	PASS
	MCH	VL	TN	1.05	0.001255	± 2.5	PASS
		VN	TN	2.6	0.003108	± 2.5	PASS
		VH	TN	4.51	0.005392	± 2.5	PASS
	HCH	VL	TN	0.29	0.000344	± 2.5	PASS
		VN	TN	2.1	0.002488	± 2.5	PASS
		VH	TN	2.25	0.002666	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	3.21	0.003872	± 2.5	PASS
		VN	-20	-1.45	-0.001749	± 2.5	PASS
		VN	-10	1.52	0.001834	± 2.5	PASS
		VN	0	-0.12	-0.000145	± 2.5	PASS
		VN	10	-0.58	-0.000700	± 2.5	PASS
		VN	20	4.48	0.005404	± 2.5	PASS
		VN	30	2.09	0.002521	± 2.5	PASS
		VN	40	0.18	0.000217	± 2.5	PASS
		VN	50	4.72	0.005694	± 2.5	PASS
	MCH	VN	-30	2.16	0.002582	± 2.5	PASS
		VN	-20	0.61	0.000729	± 2.5	PASS
		VN	-10	3.37	0.004029	± 2.5	PASS
		VN	0	4.92	0.005882	± 2.5	PASS

		VN	10	1.57	0.001877	± 2.5	PASS
		VN	20	4.34	0.005188	± 2.5	PASS
		VN	30	-1.97	-0.002355	± 2.5	PASS
		VN	40	-0.92	-0.001100	± 2.5	PASS
		VN	50	2.2	0.002630	± 2.5	PASS
	HCH	VN	-30	-1.57	-0.001860	± 2.5	PASS
		VN	-20	-0.74	-0.000877	± 2.5	PASS
		VN	-10	2.78	0.003294	± 2.5	PASS
		VN	0	4.61	0.005462	± 2.5	PASS
		VN	10	-1.26	-0.001493	± 2.5	PASS
		VN	20	0.22	0.000261	± 2.5	PASS
		VN	30	-0.35	-0.000415	± 2.5	PASS
		VN	40	1.62	0.001919	± 2.5	PASS
		VN	50	3.7	0.004384	± 2.5	PASS
		QPSK	LCH	VN	-30	0.8	0.000956
VN	-20			3.7	0.004423	± 2.5	PASS
VN	-10			0.35	0.000418	± 2.5	PASS
VN	0			3.23	0.003861	± 2.5	PASS
VN	10			3.19	0.003814	± 2.5	PASS
VN	20			-1.64	-0.001961	± 2.5	PASS
VN	30			2.07	0.002475	± 2.5	PASS
VN	40			-1.96	-0.002343	± 2.5	PASS
VN	50			0.71	0.000849	± 2.5	PASS
MCH	VN		-30	-0.89	-0.001055	± 2.5	PASS
	VN		-20	1.23	0.001457	± 2.5	PASS
	VN		-10	-0.91	-0.001078	± 2.5	PASS
	VN		0	-1.18	-0.001398	± 2.5	PASS
	VN		10	-1.81	-0.002145	± 2.5	PASS
	VN		20	2.52	0.002986	± 2.5	PASS
	VN		30	-0.56	-0.000664	± 2.5	PASS
	VN		40	1.11	0.001315	± 2.5	PASS
	VN		50	0.72	0.000853	± 2.5	PASS
HCH	VN		-30	3.18	0.003768	± 2.5	PASS
	VN		-20	1.38	0.001635	± 2.5	PASS
	VN		-10	-1.58	-0.001872	± 2.5	PASS
	VN		0	1	0.001185	± 2.5	PASS
	VN		10	3.22	0.003815	± 2.5	PASS
	VN		20	3.42	0.004052	± 2.5	PASS
	VN		30	-0.64	-0.000758	± 2.5	PASS
	VN		40	-1.9	-0.002251	± 2.5	PASS
	VN		50	4.67	0.005533	± 2.5	PASS