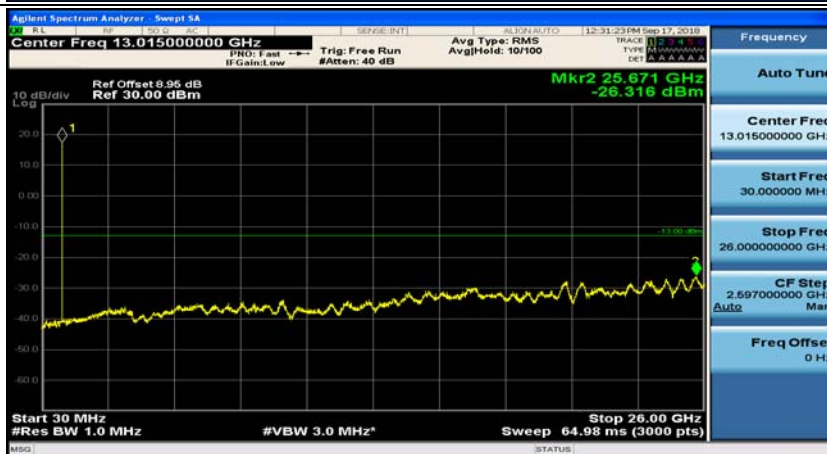
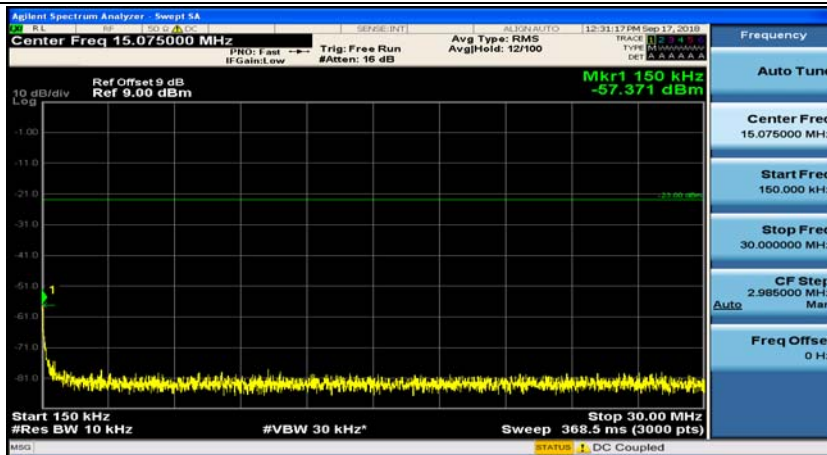
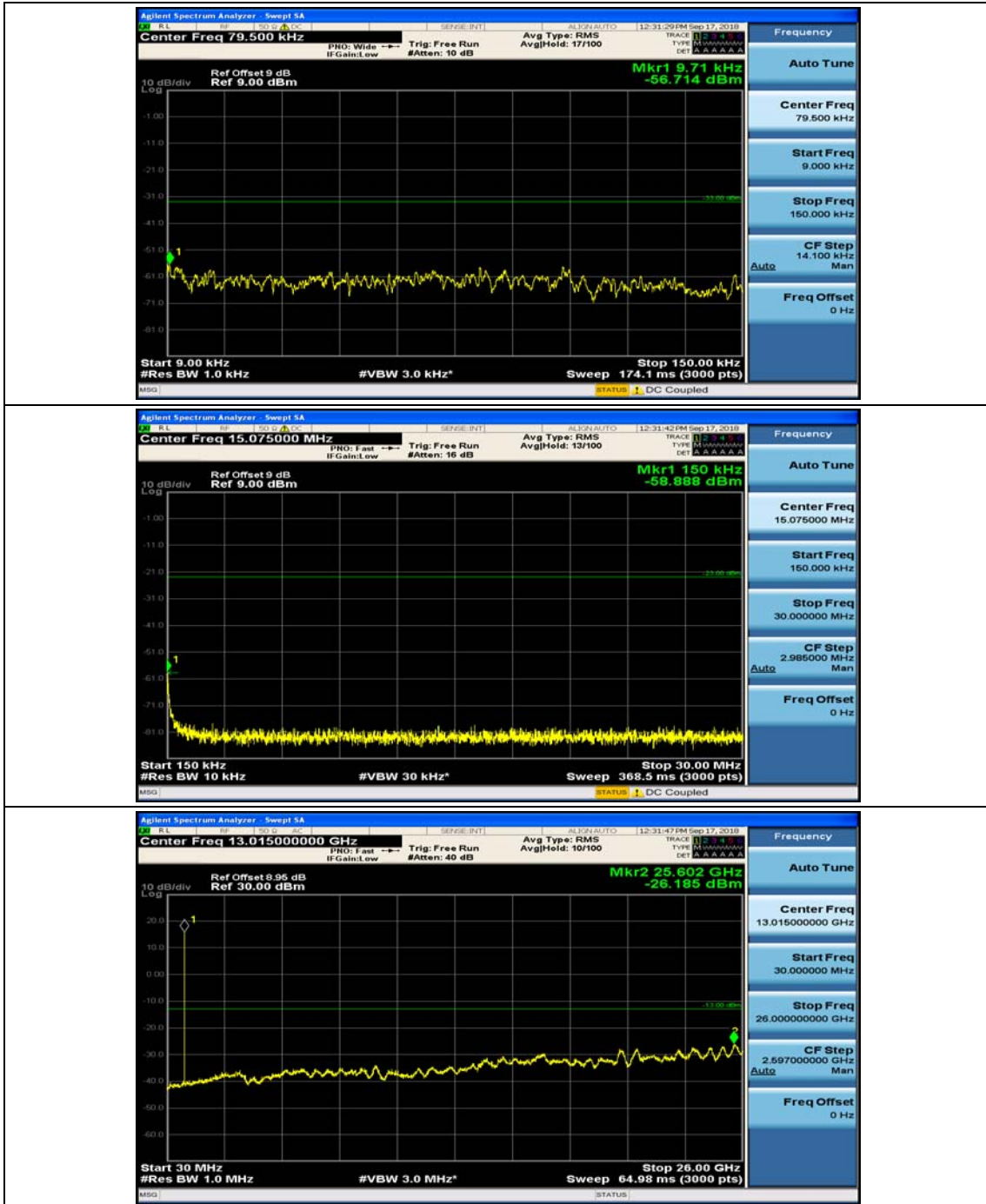


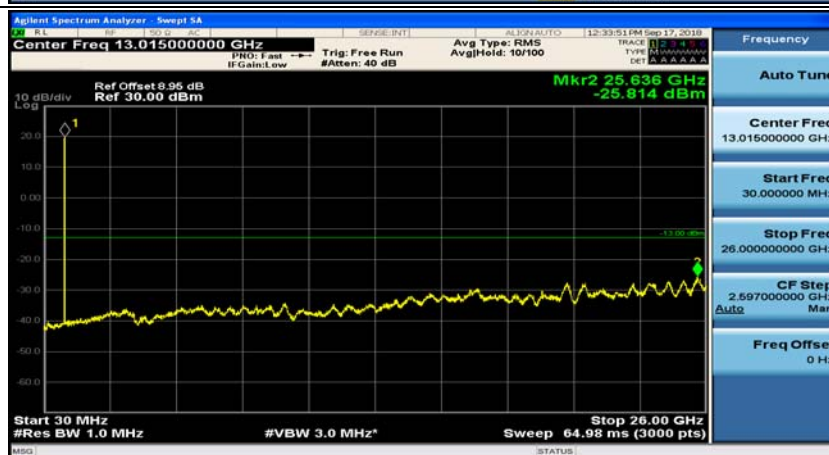
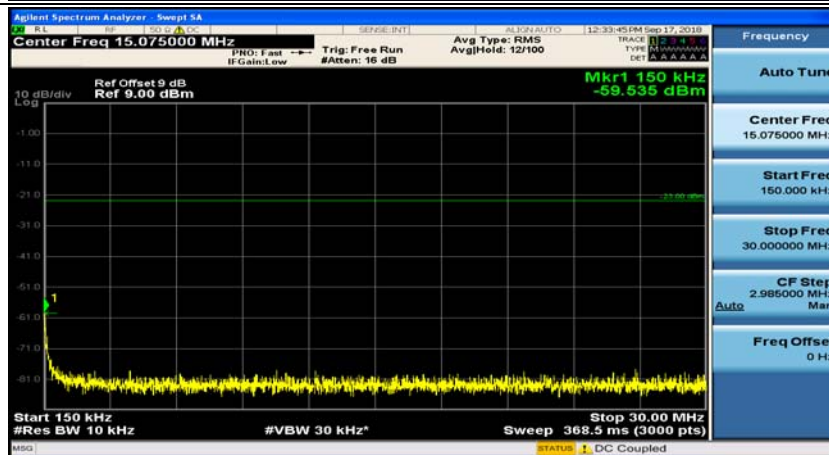
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



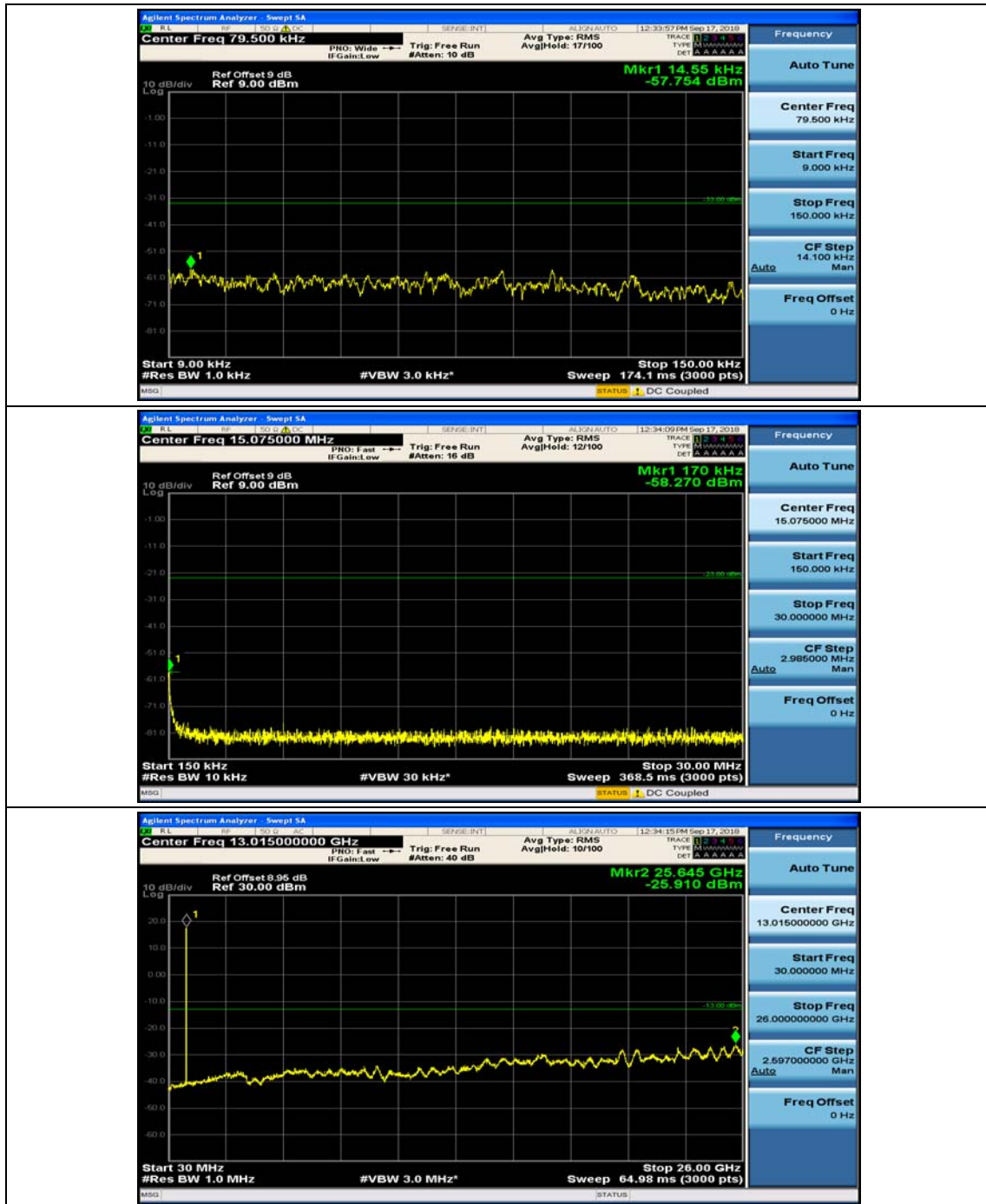
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7



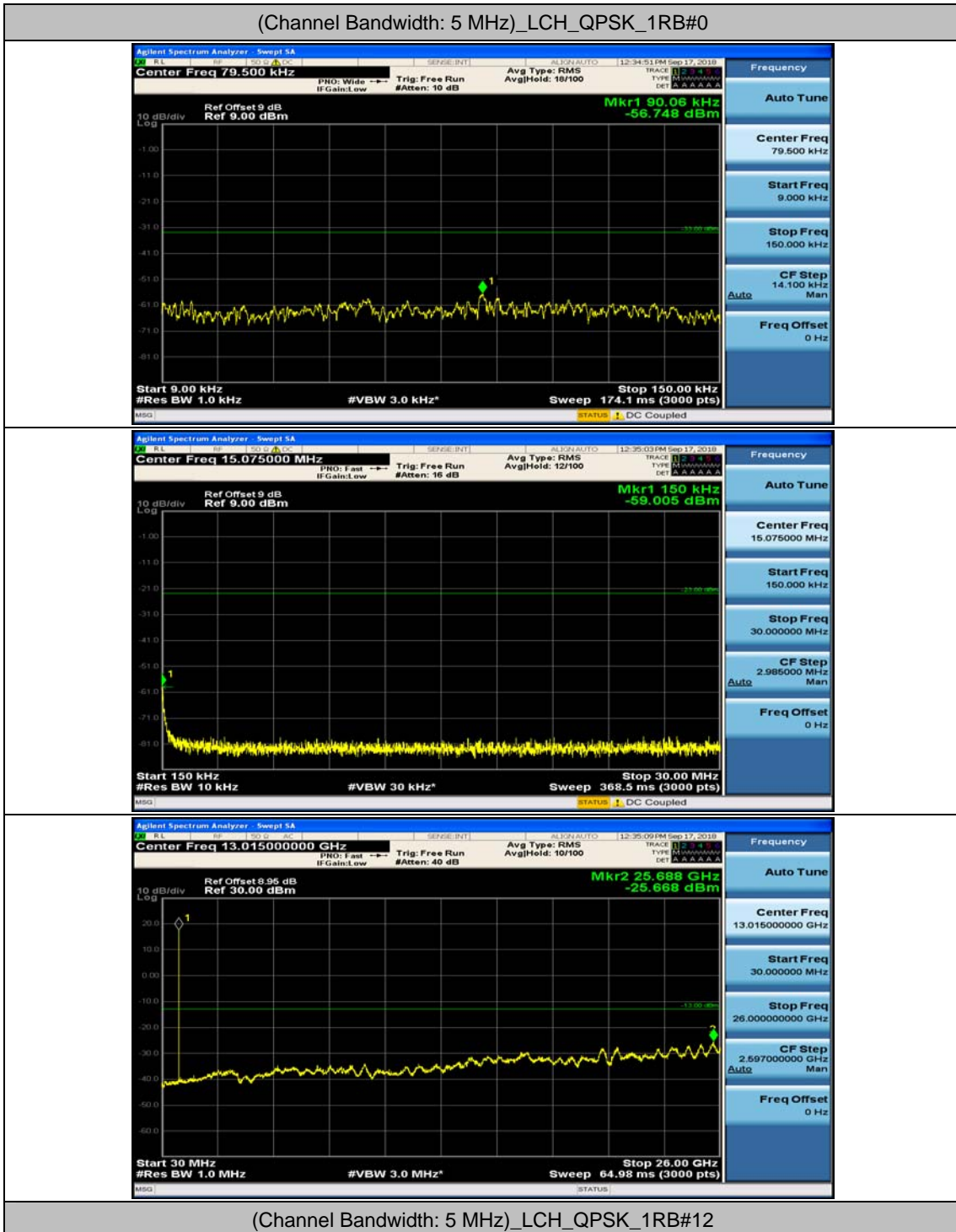
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0

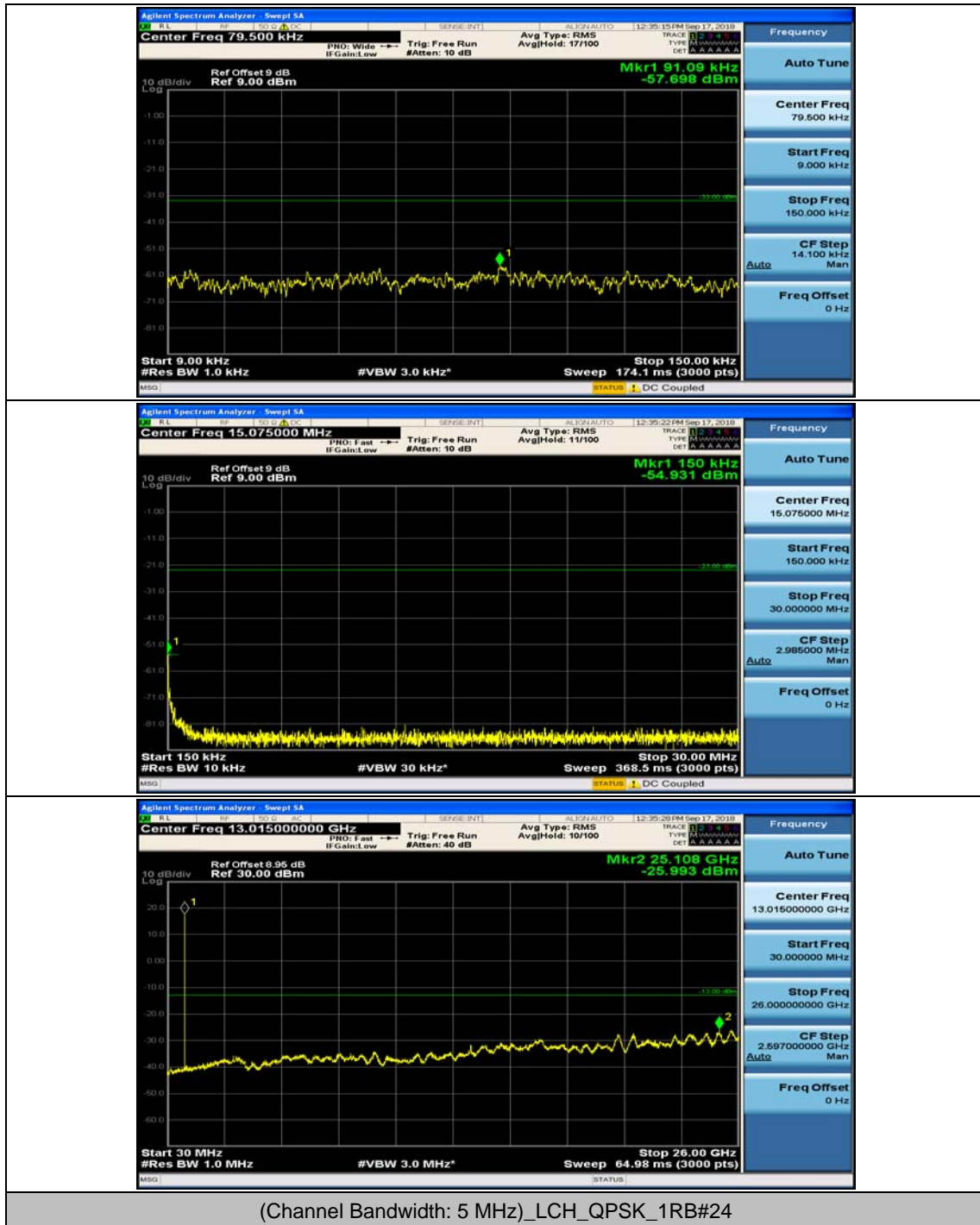


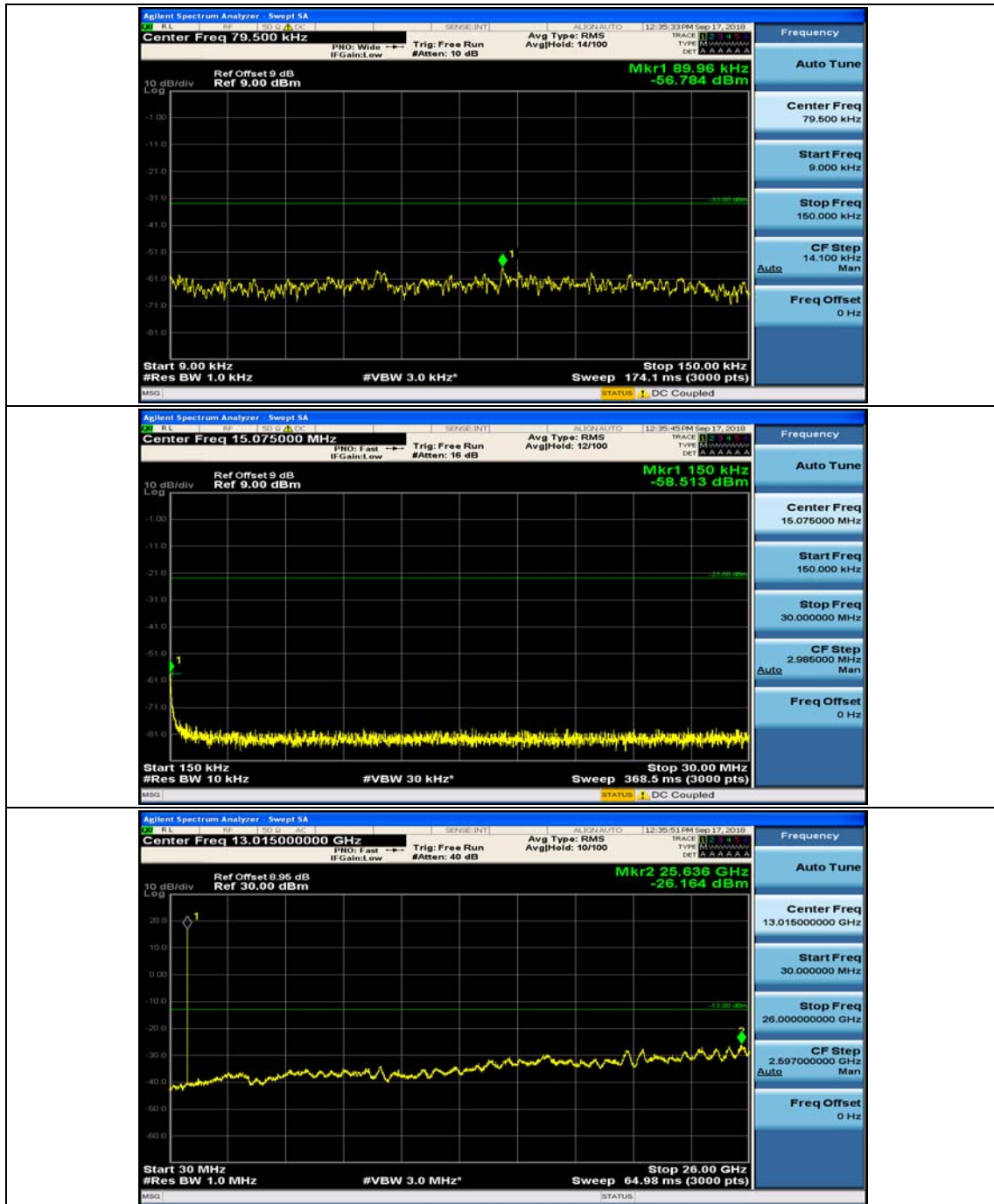
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7



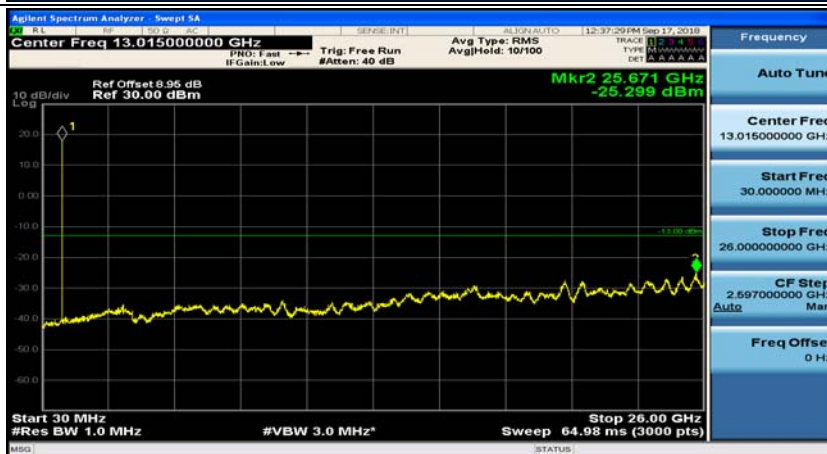
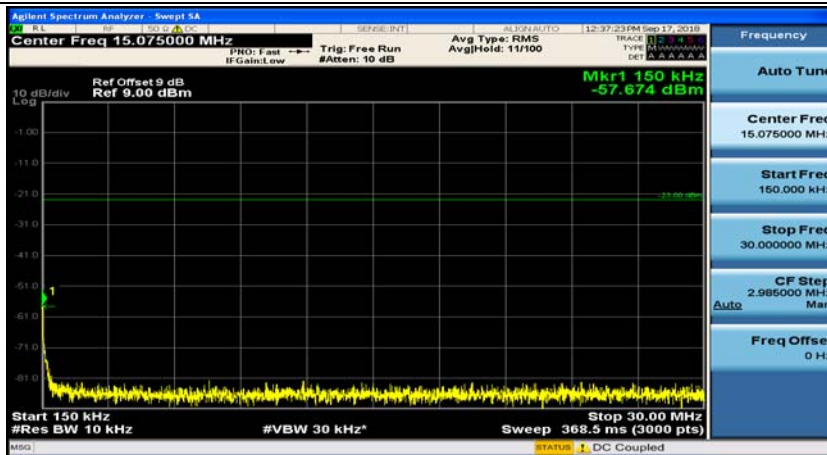
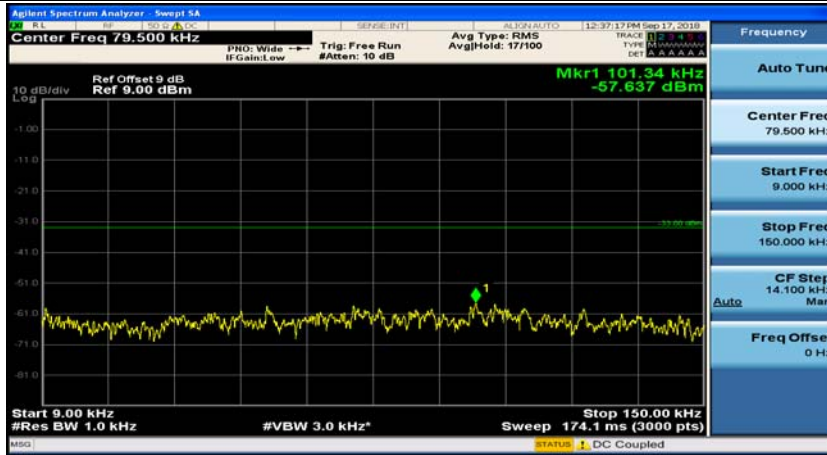
Channel Bandwidth: 5 MHz



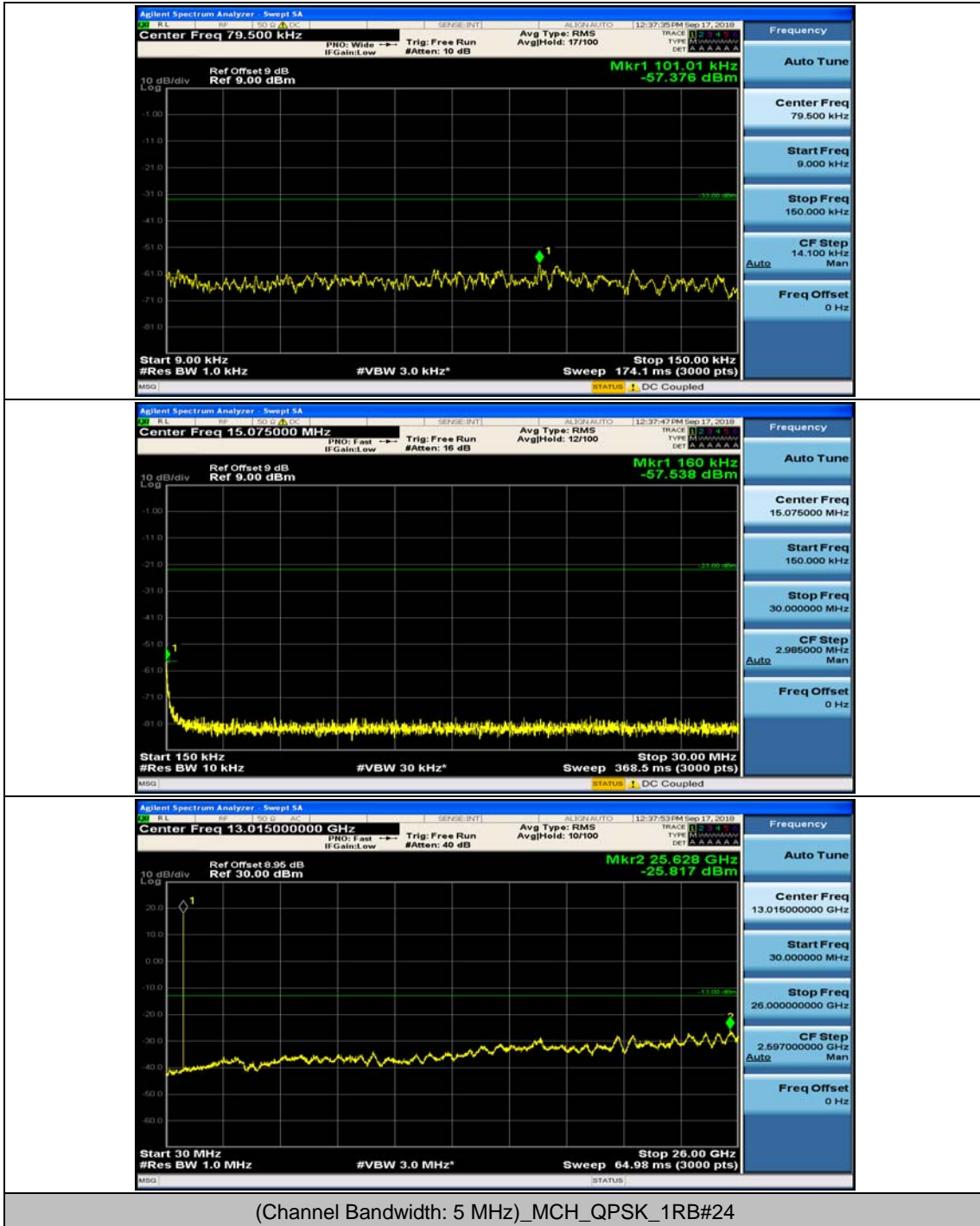


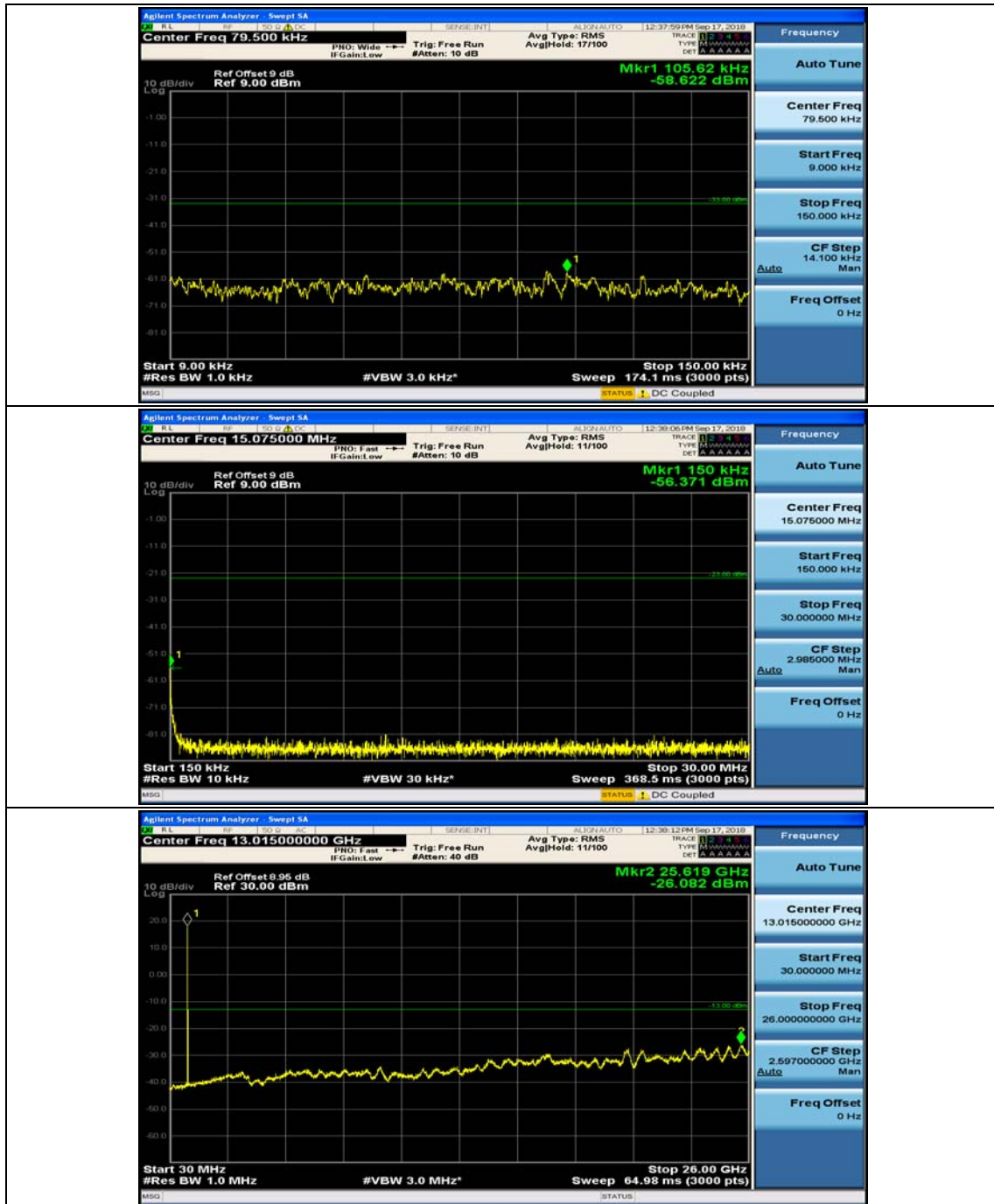


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

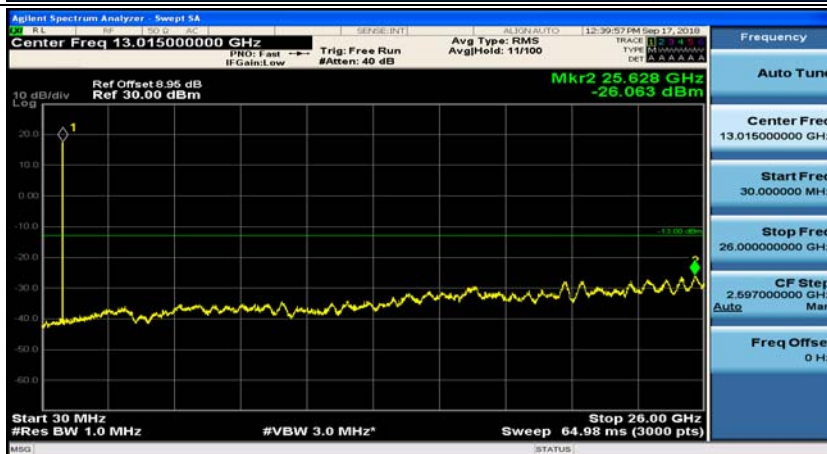
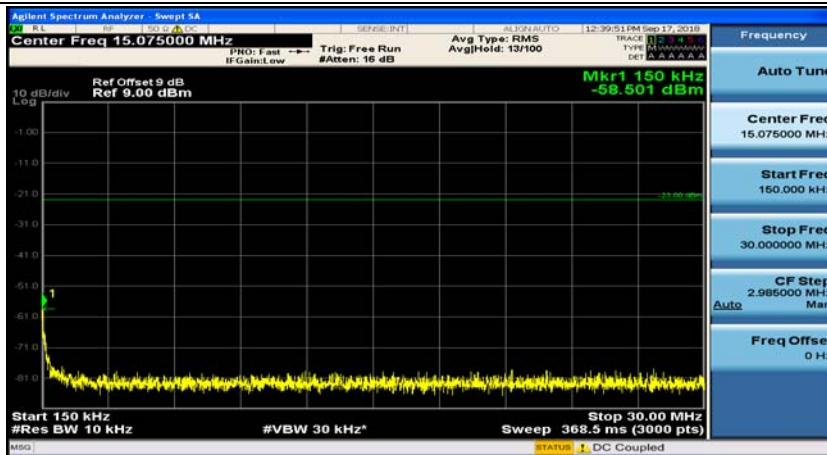
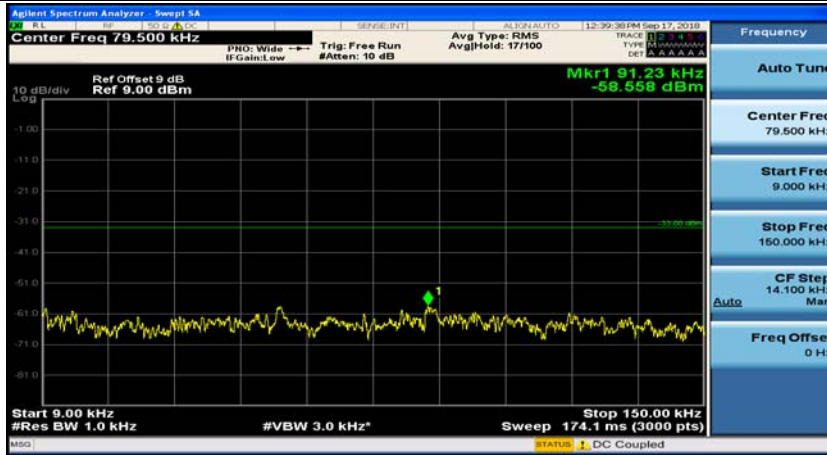


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

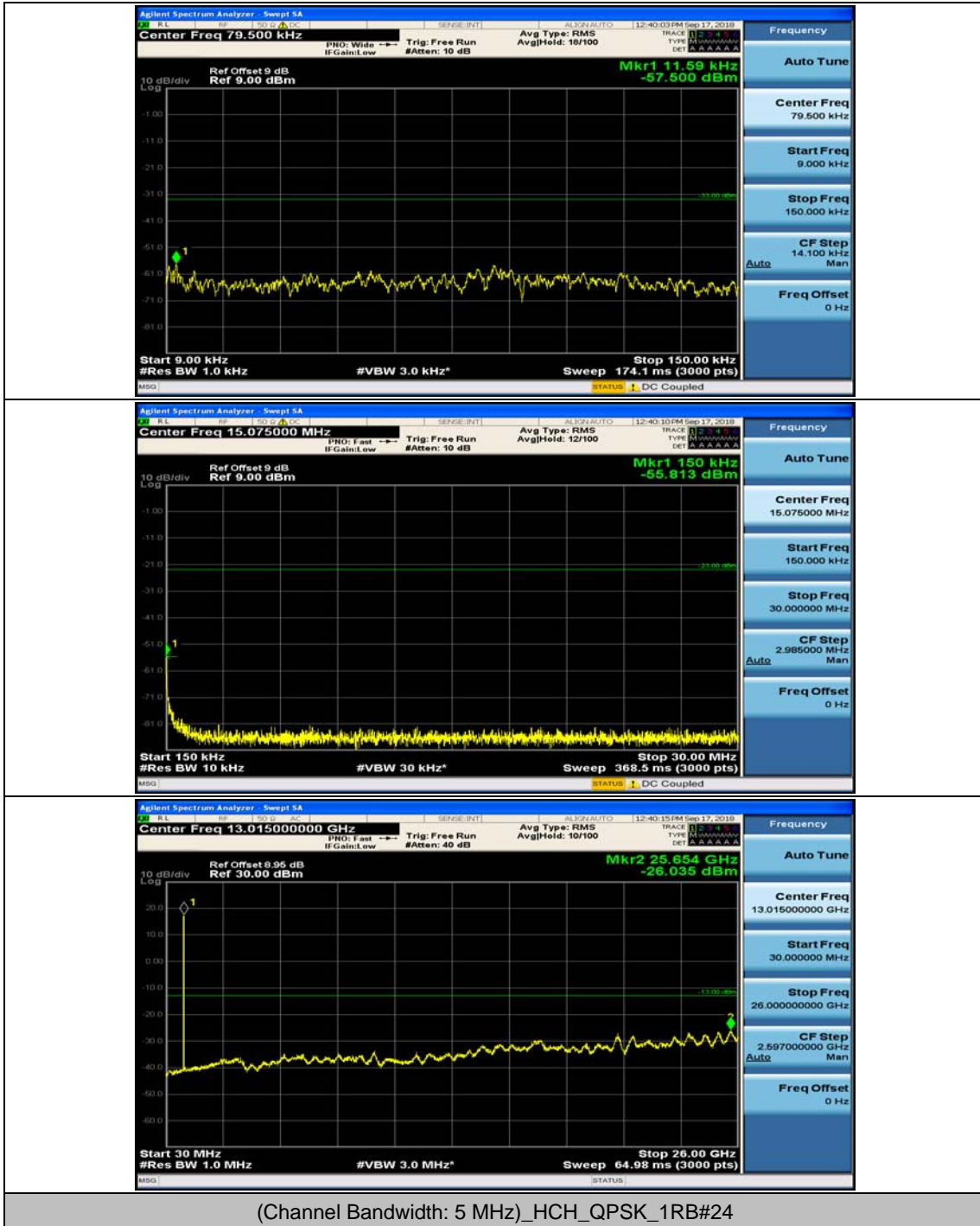


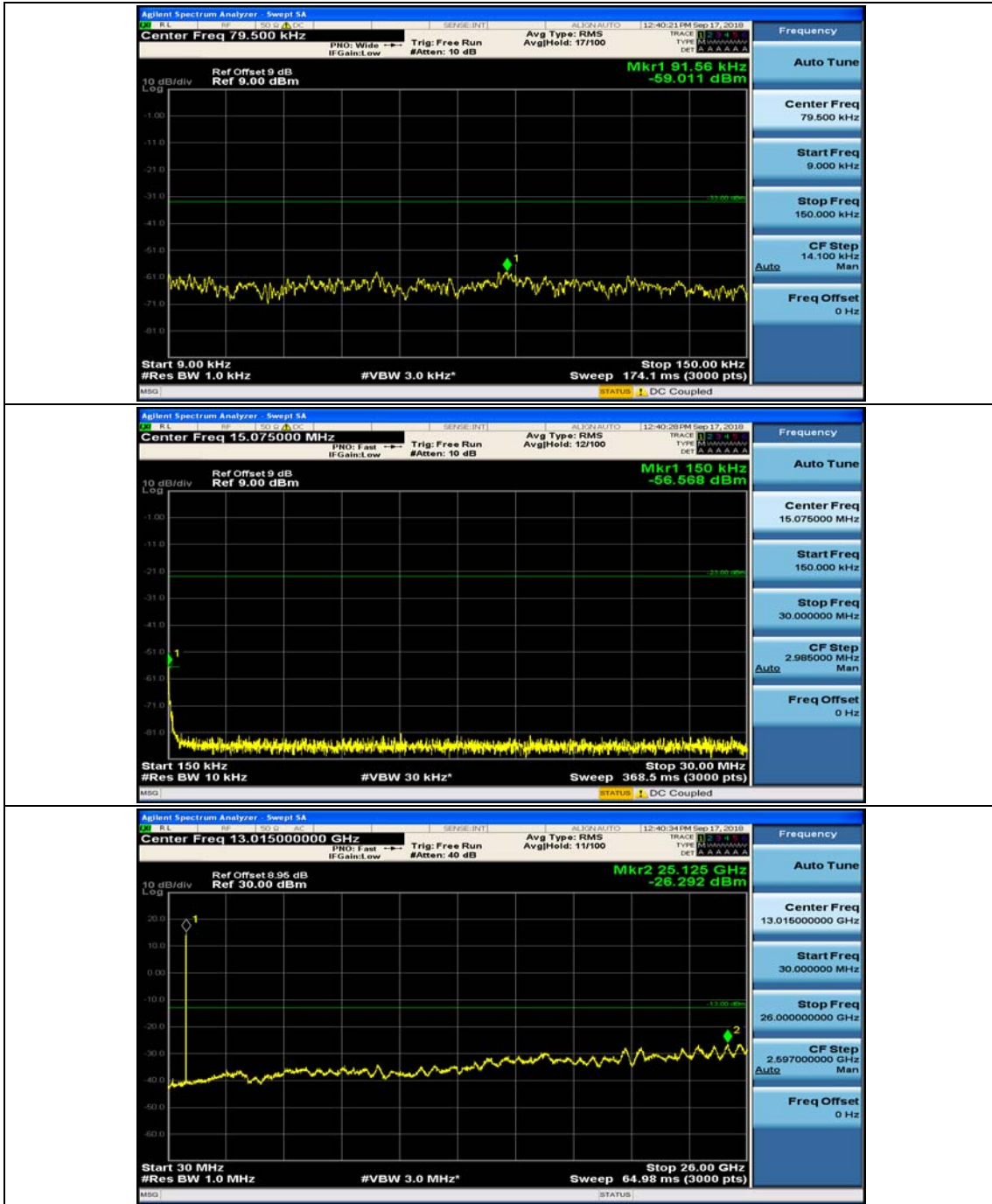


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

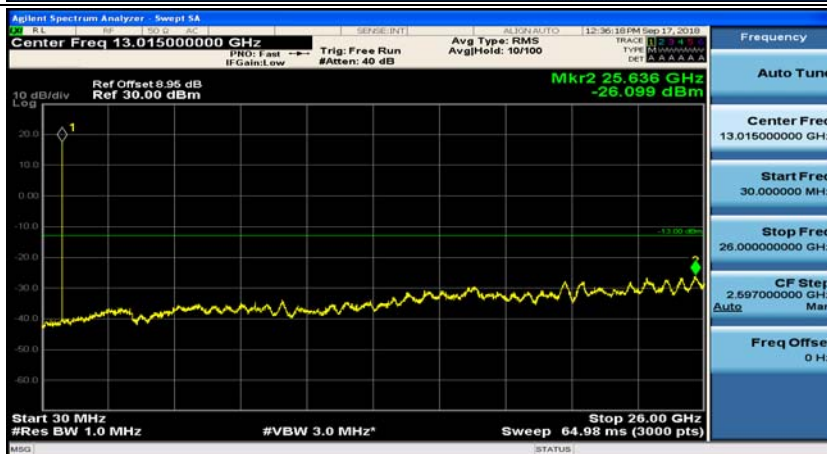
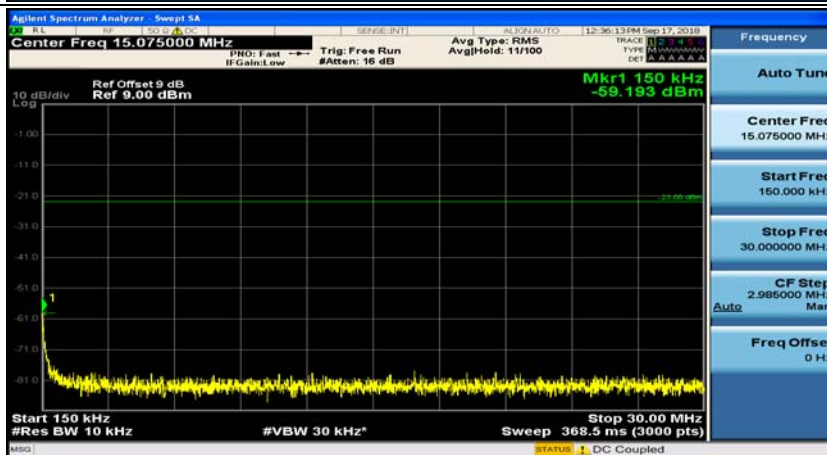
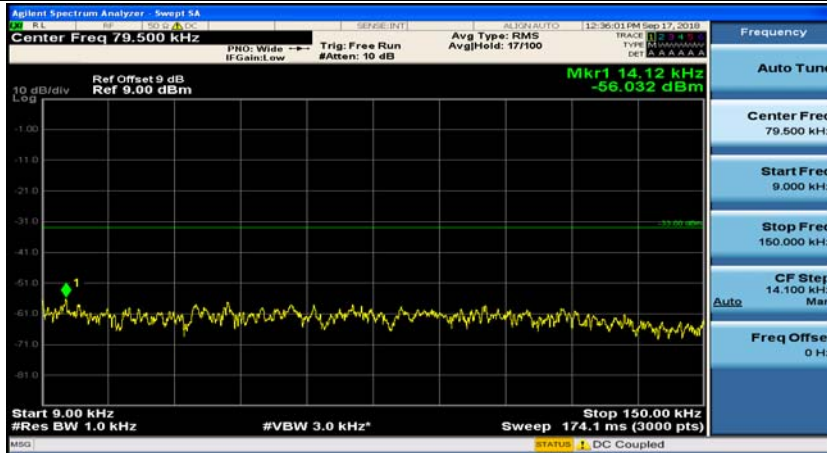


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

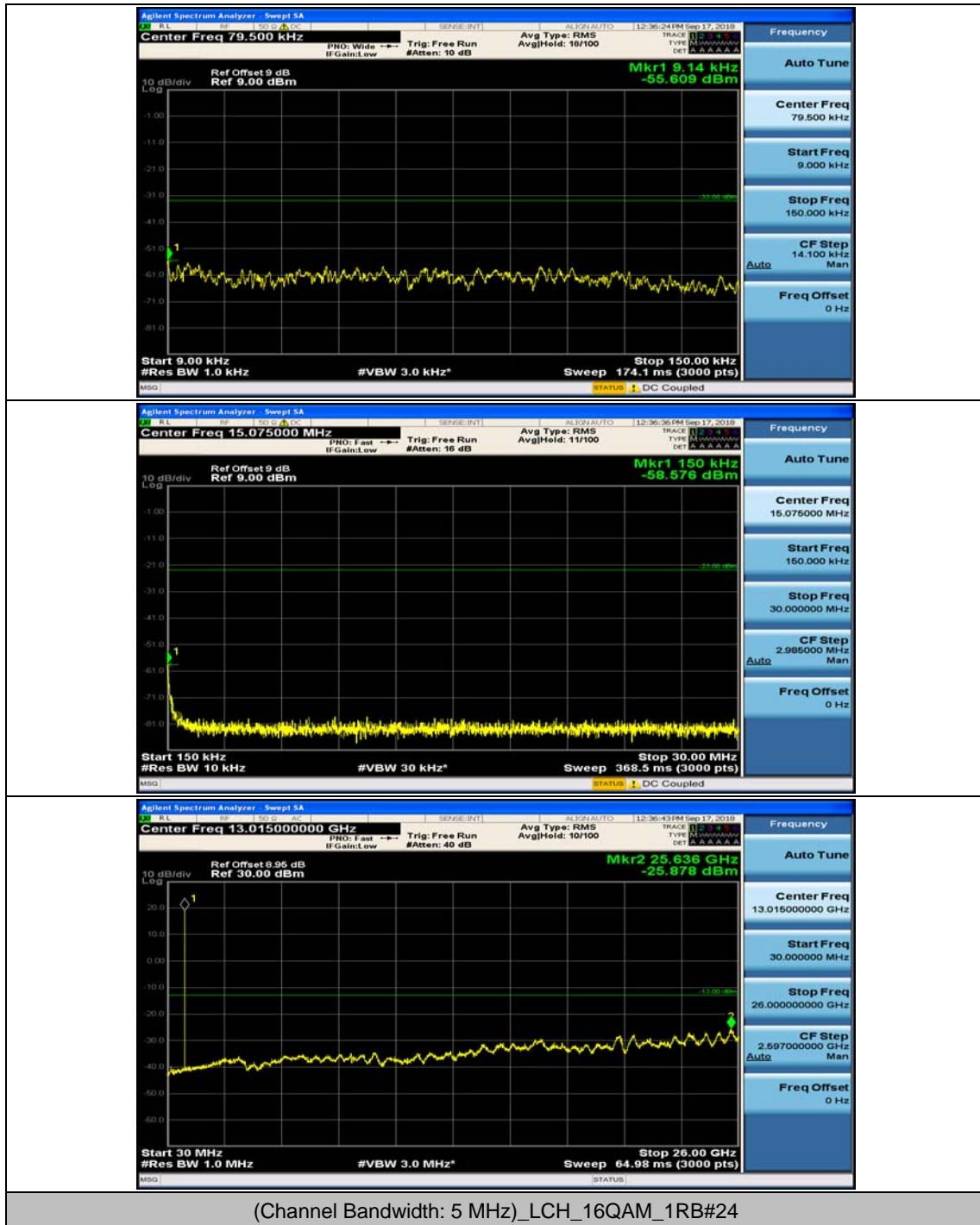


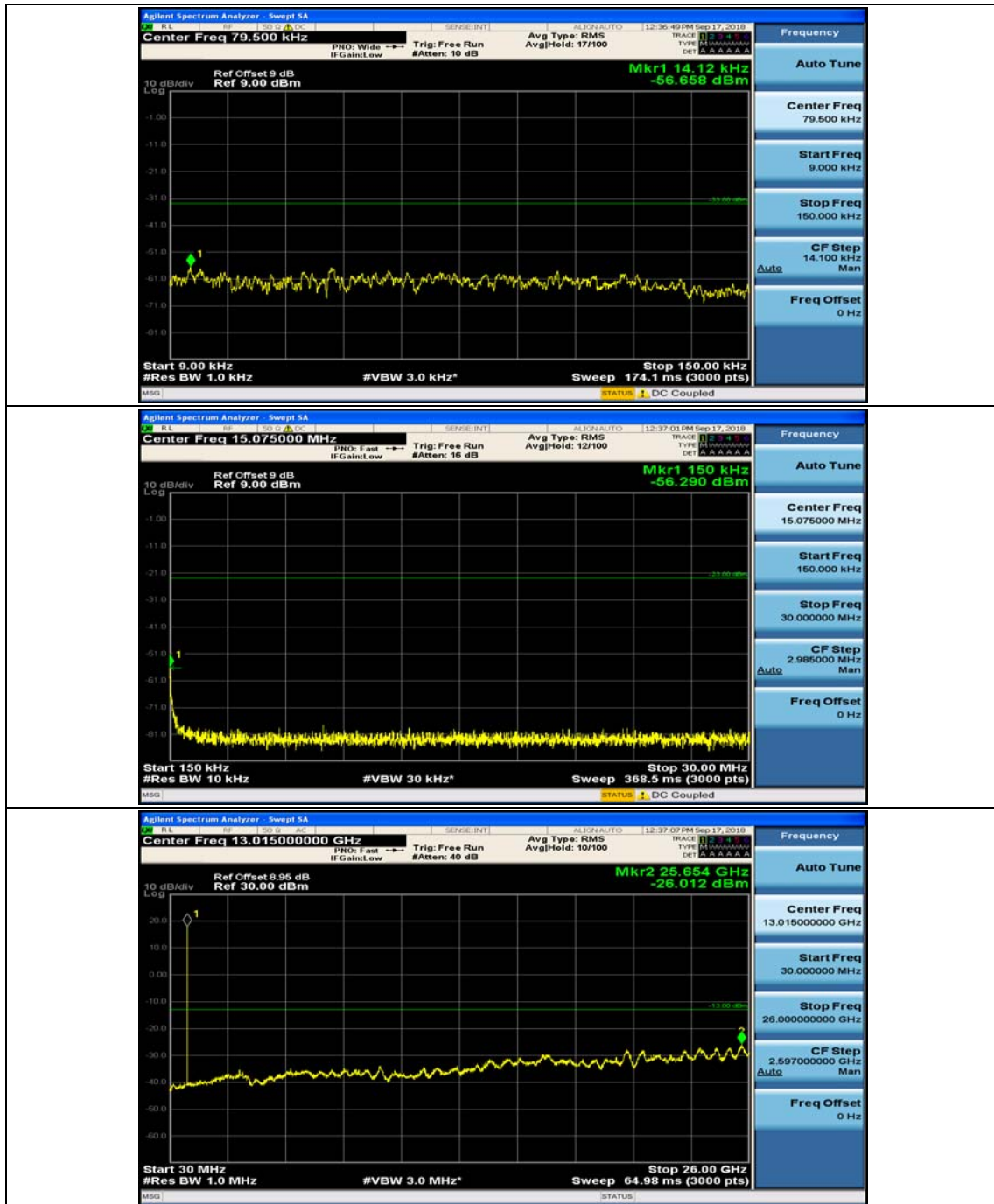


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

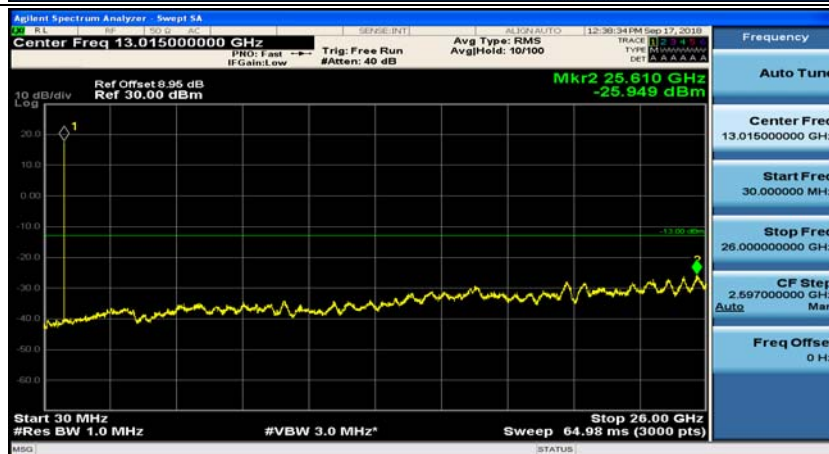
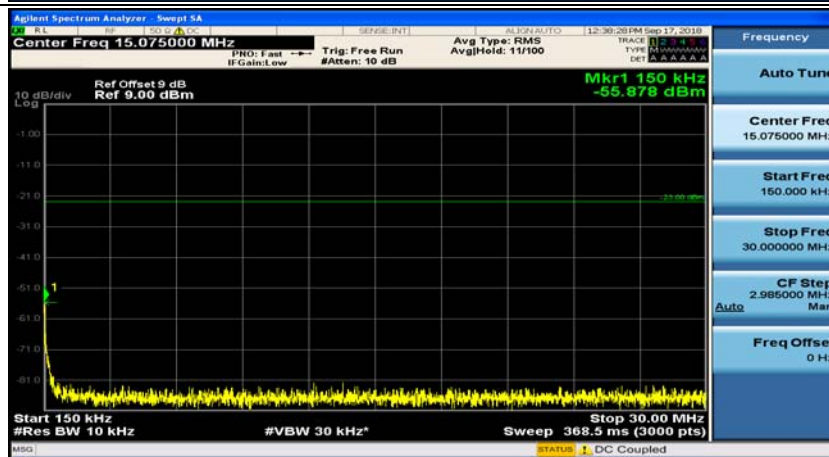
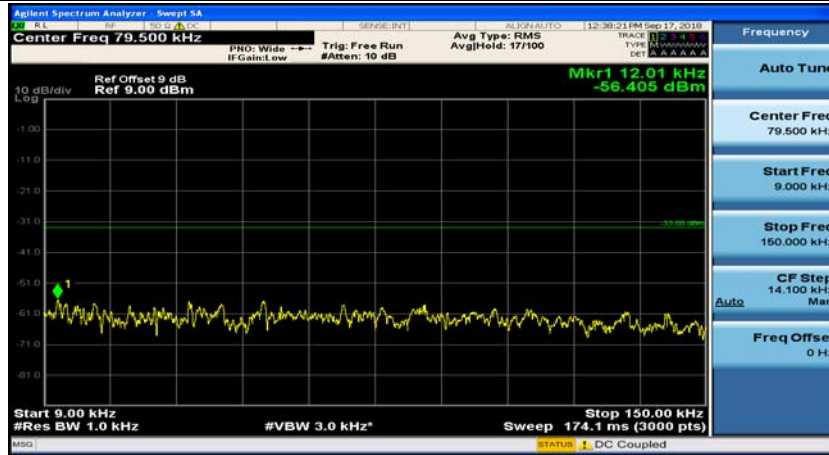


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

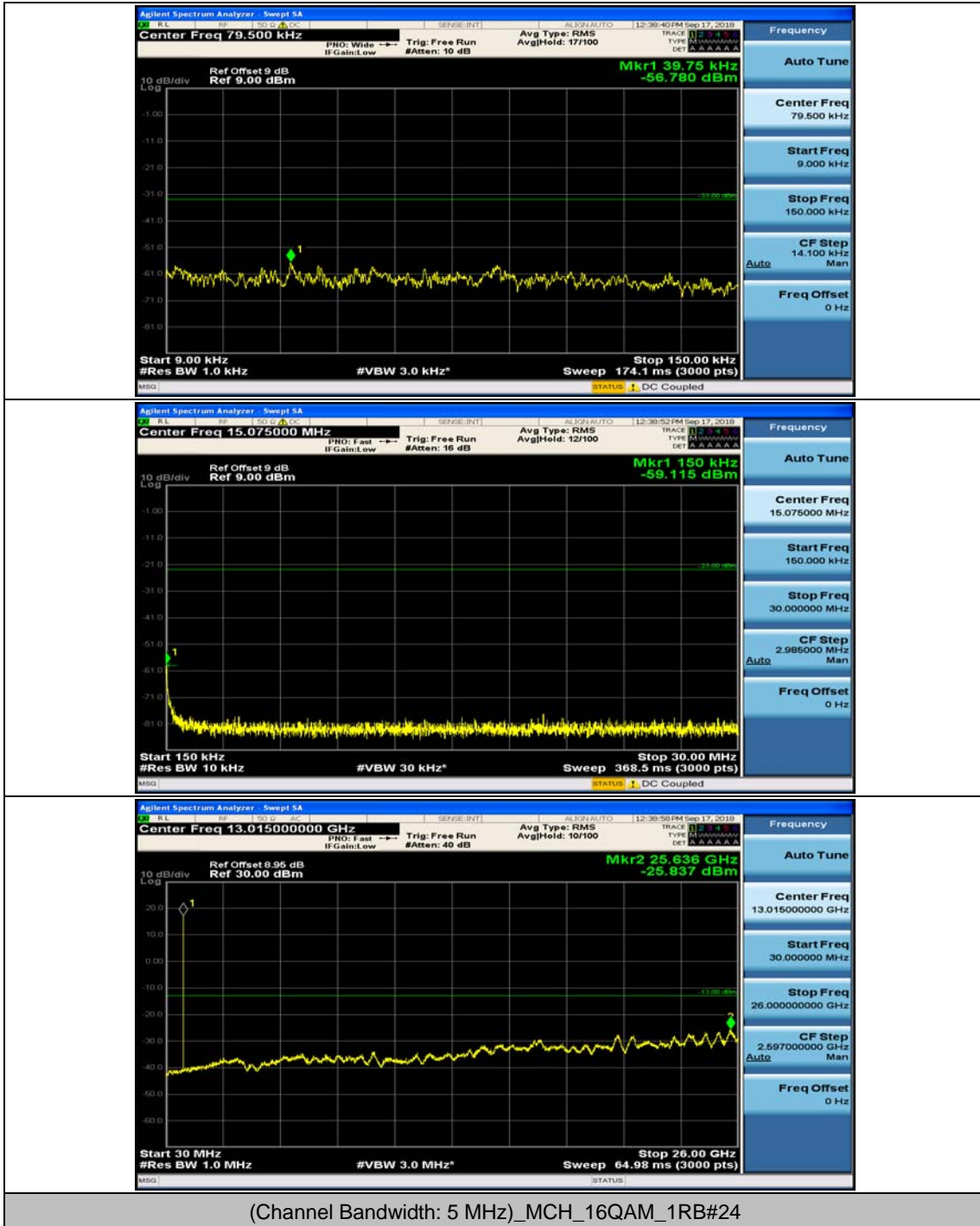


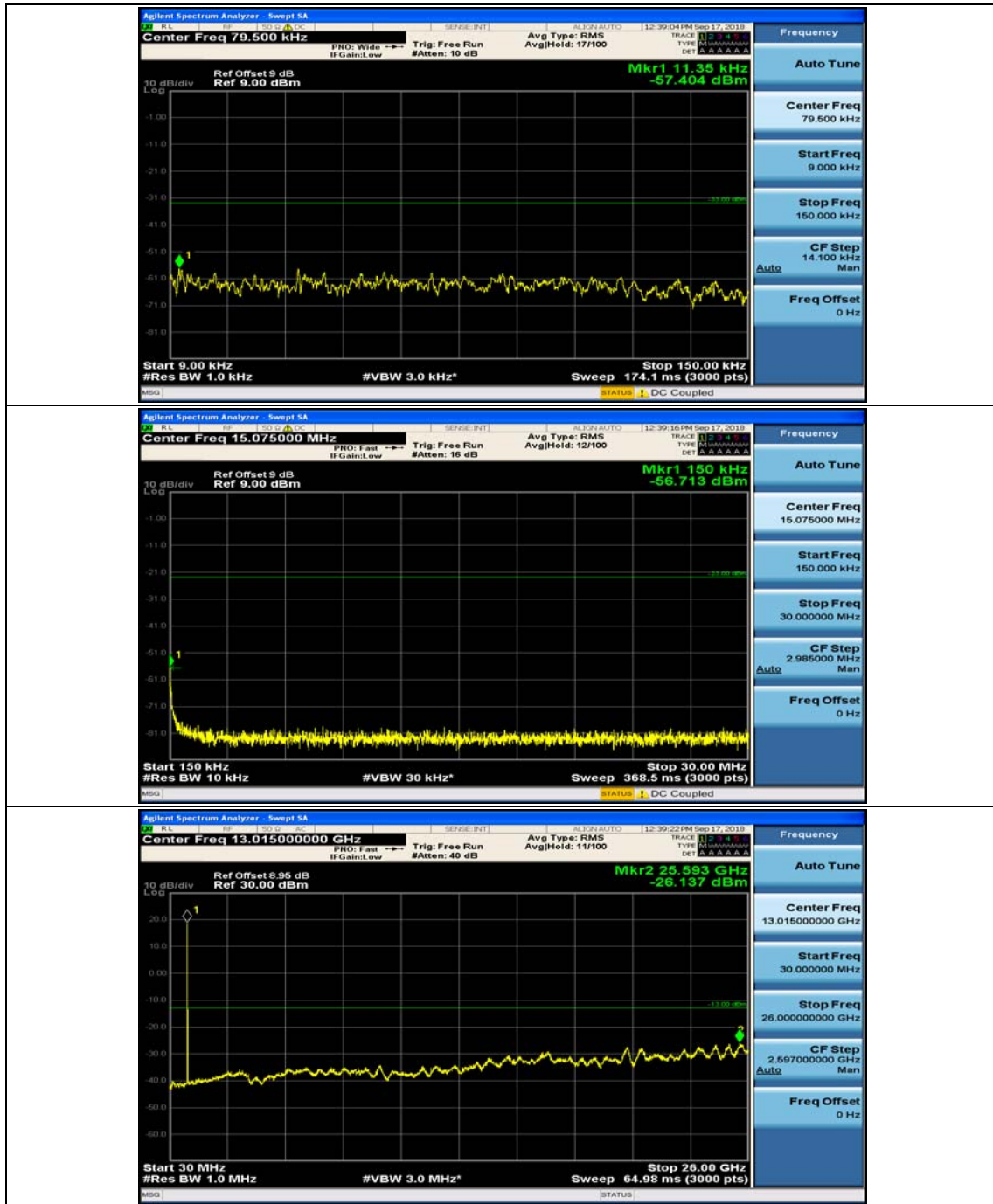


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

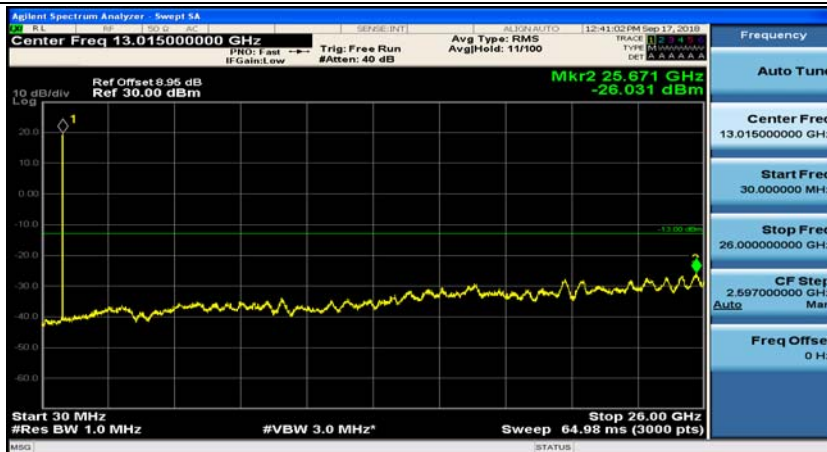
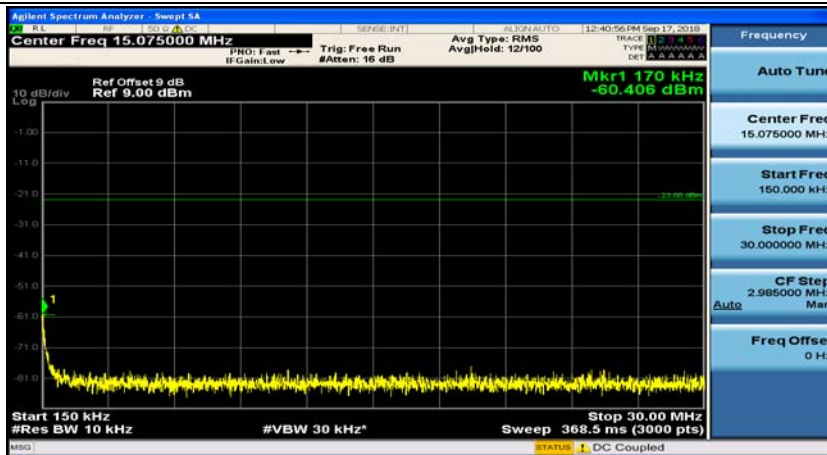


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

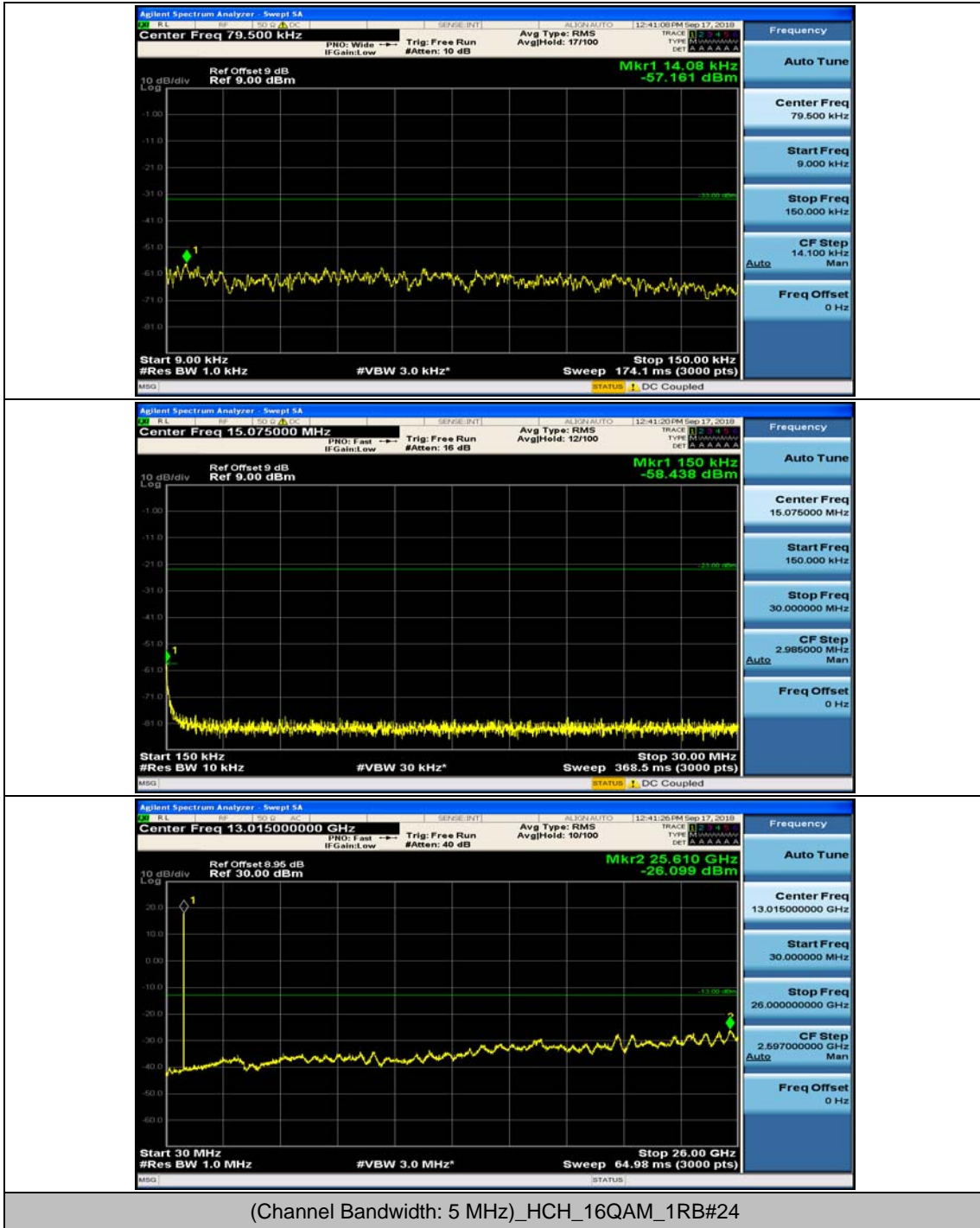


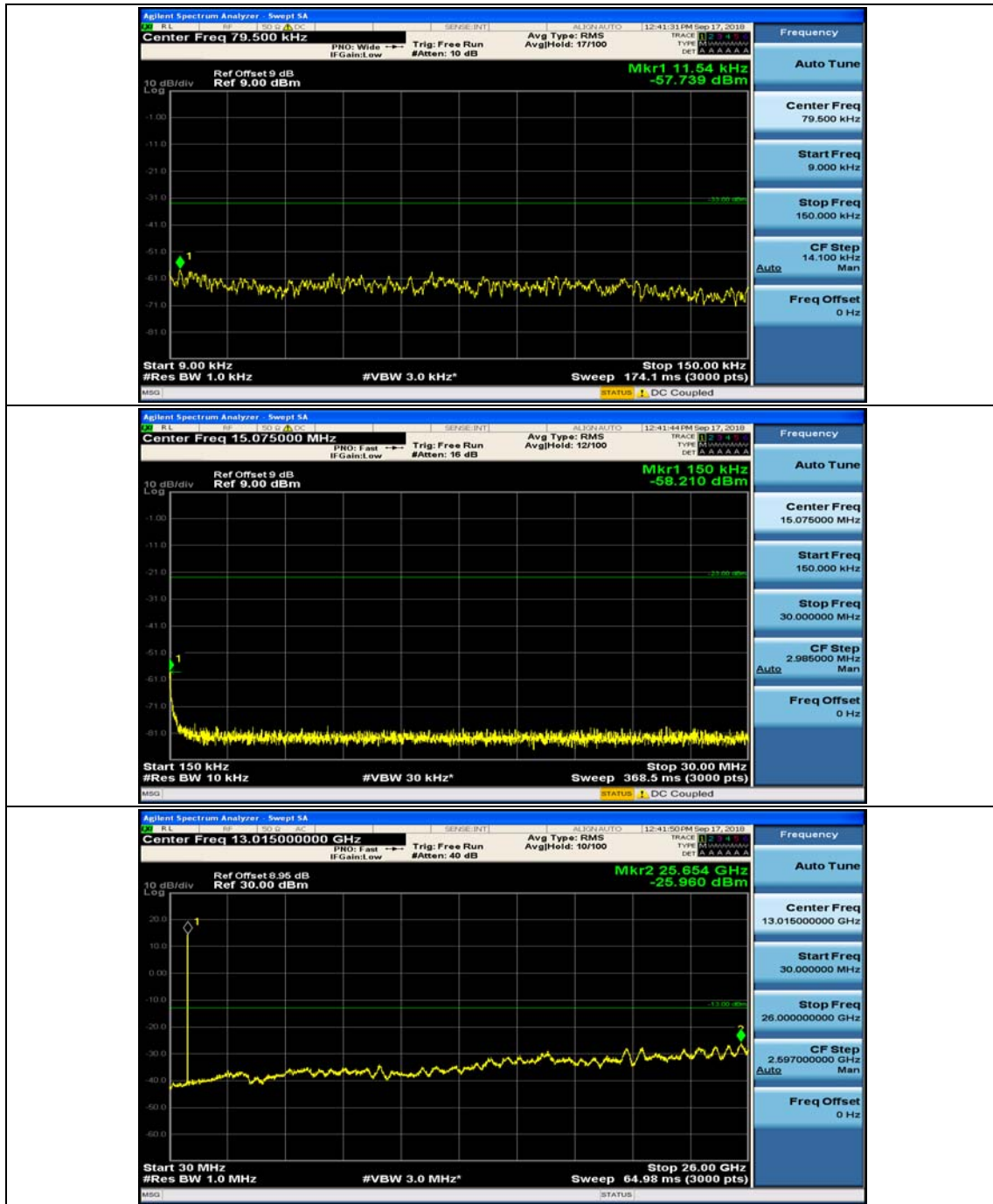


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

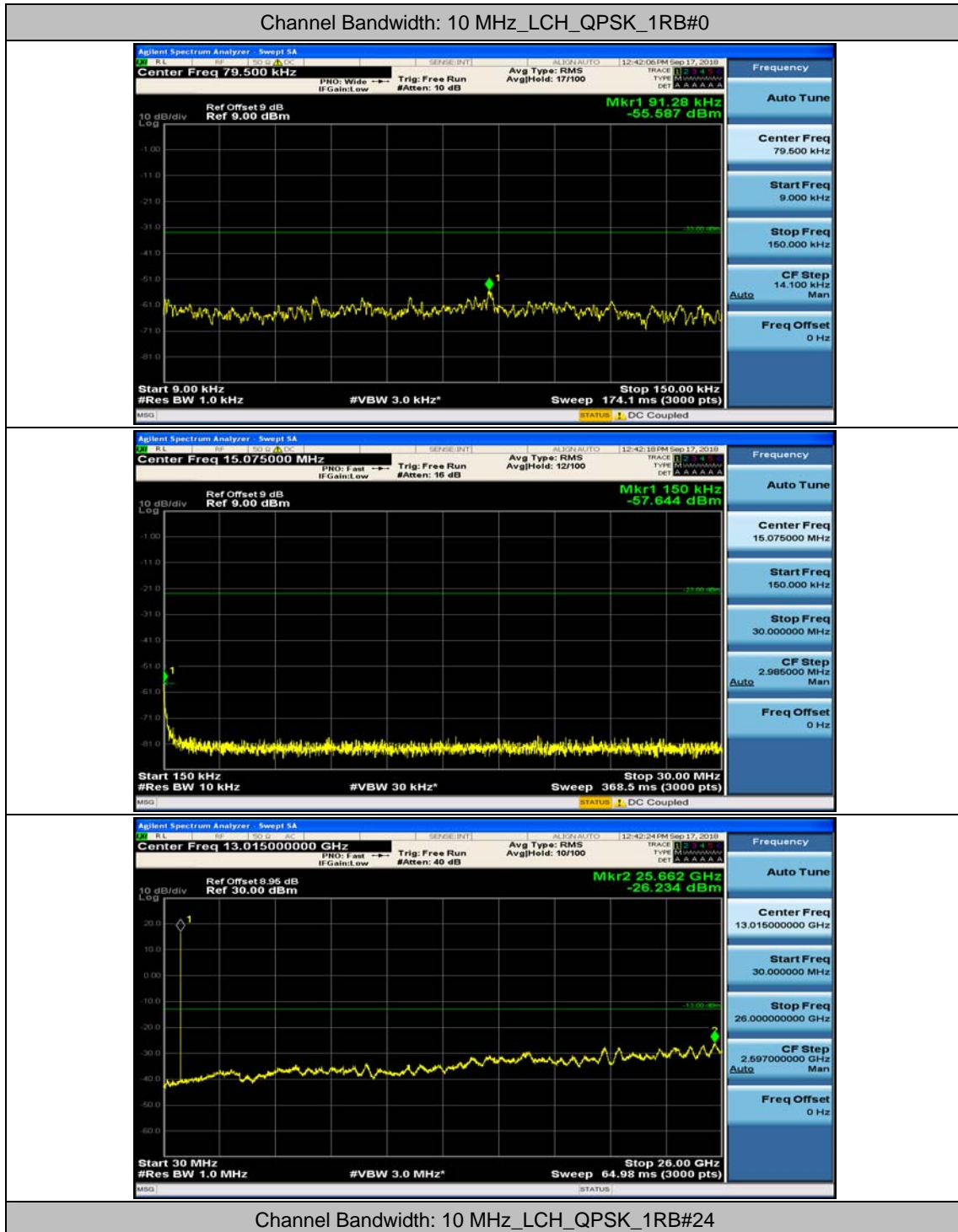


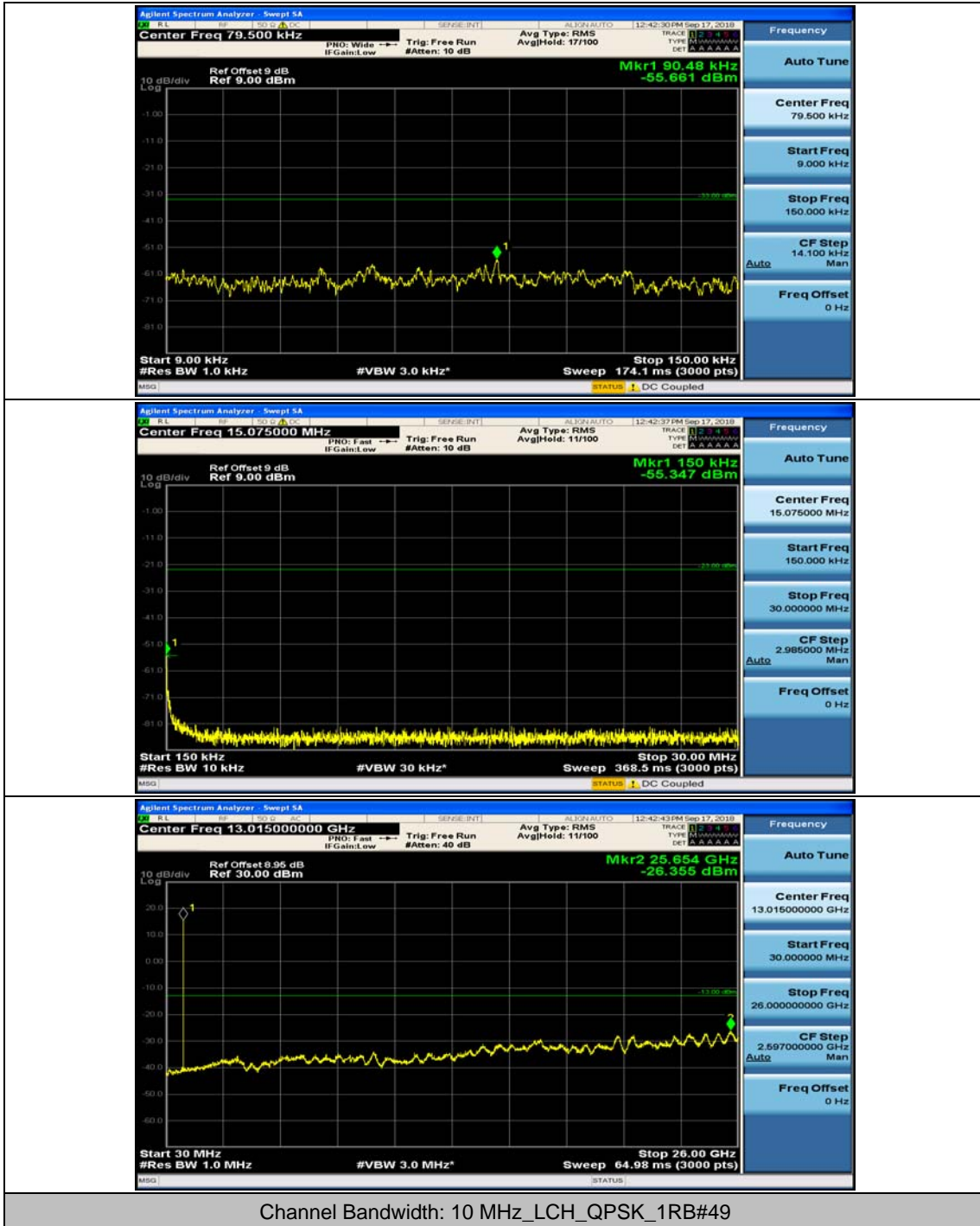
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

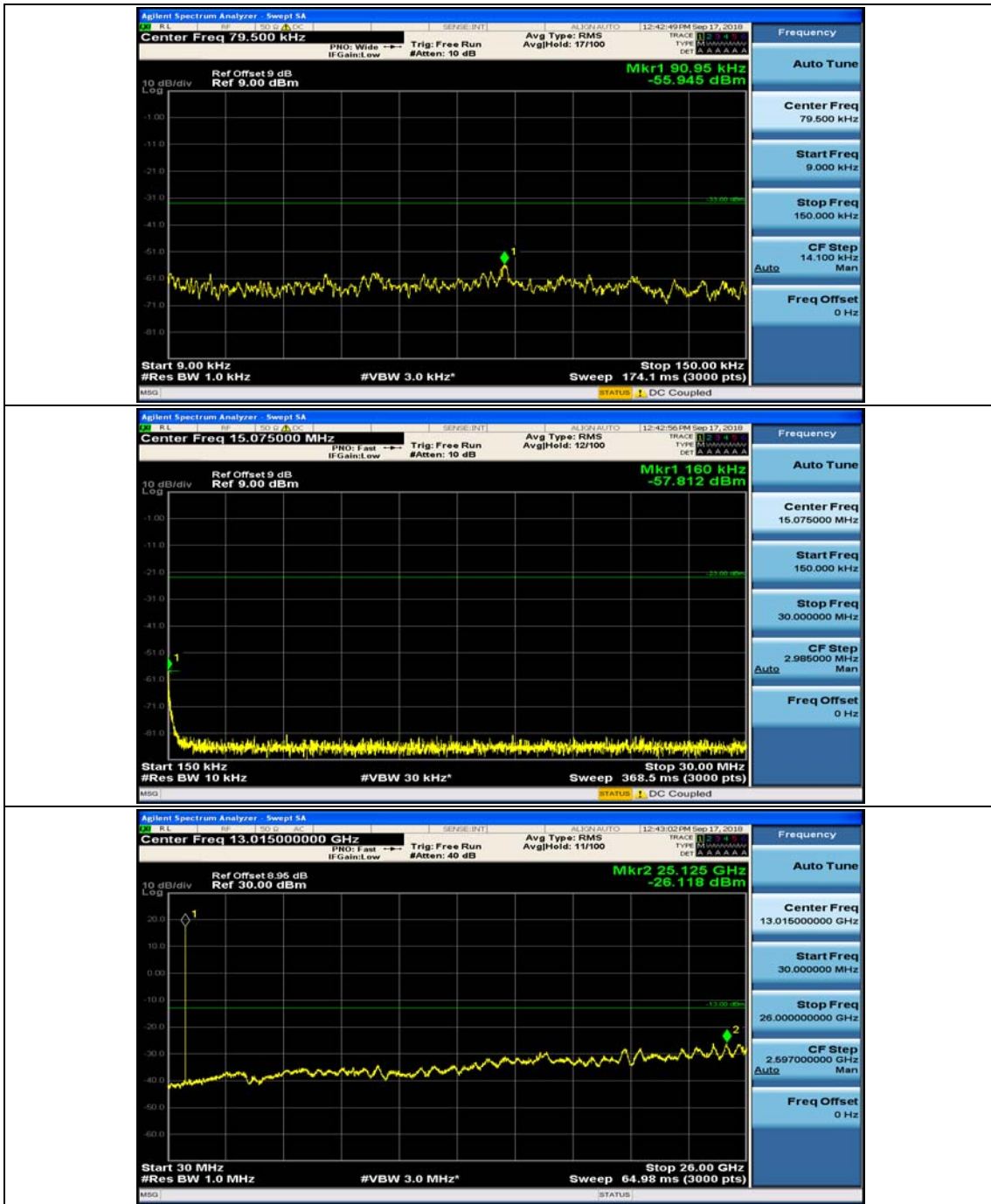




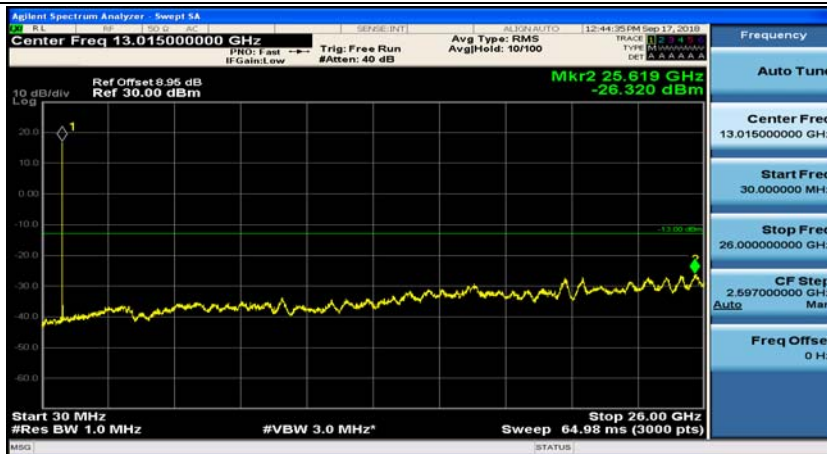
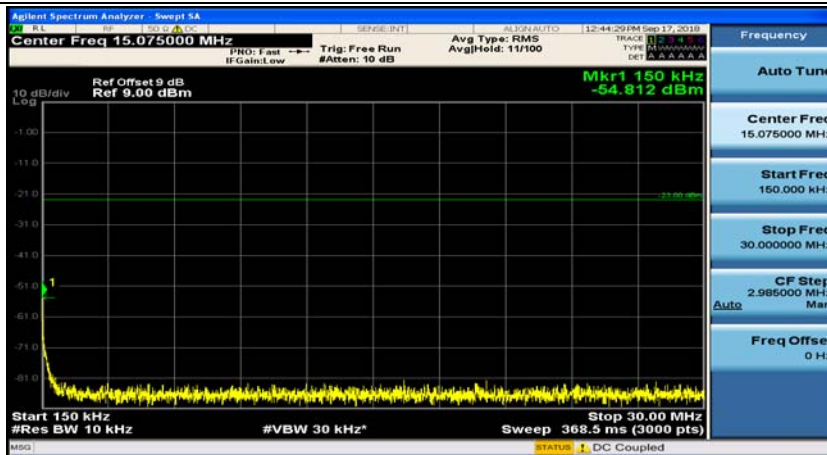
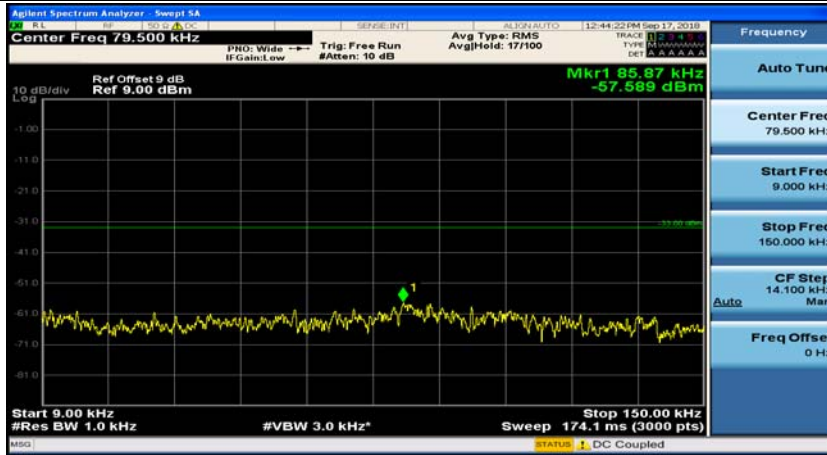
Channel Bandwidth: 10 MHz



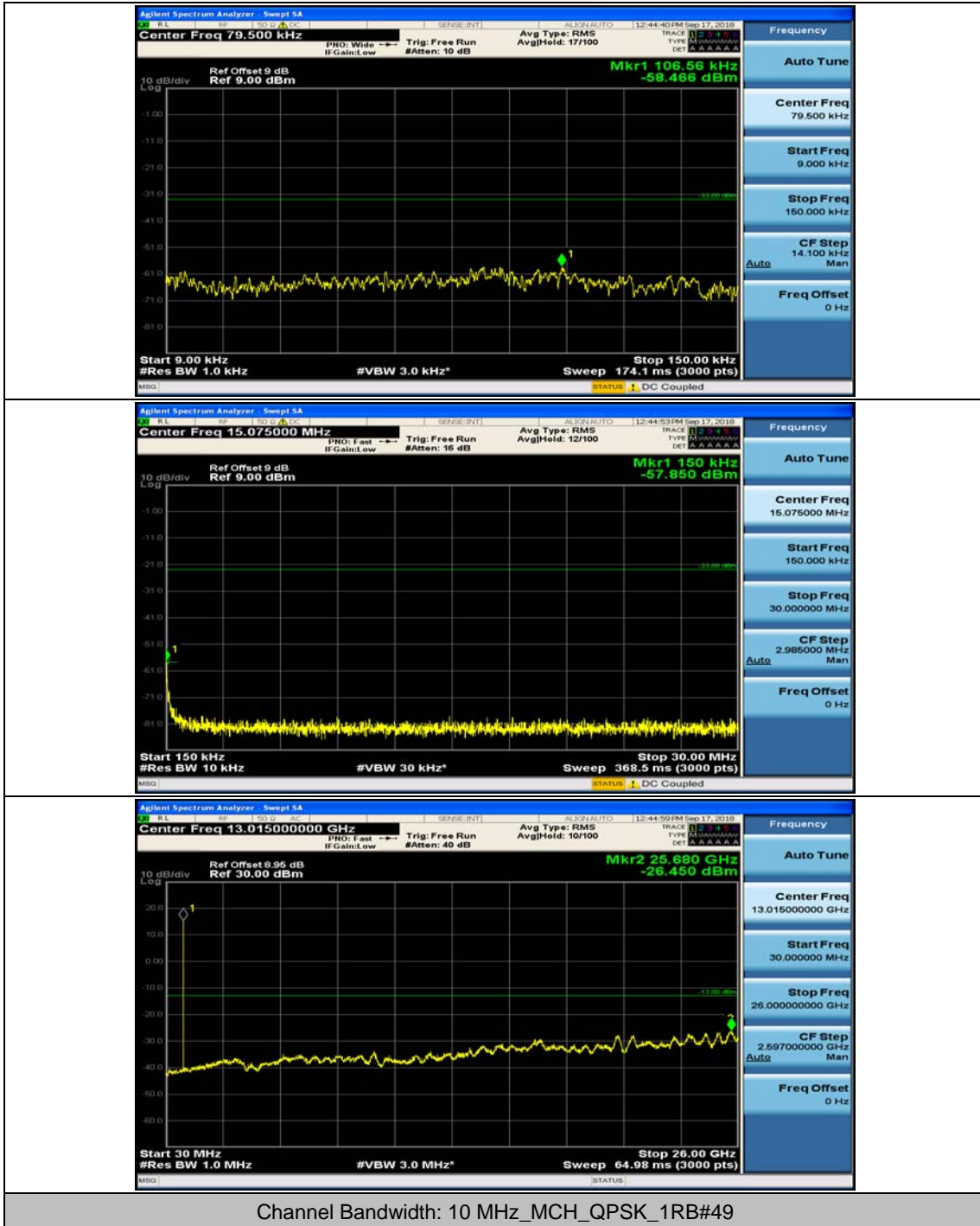


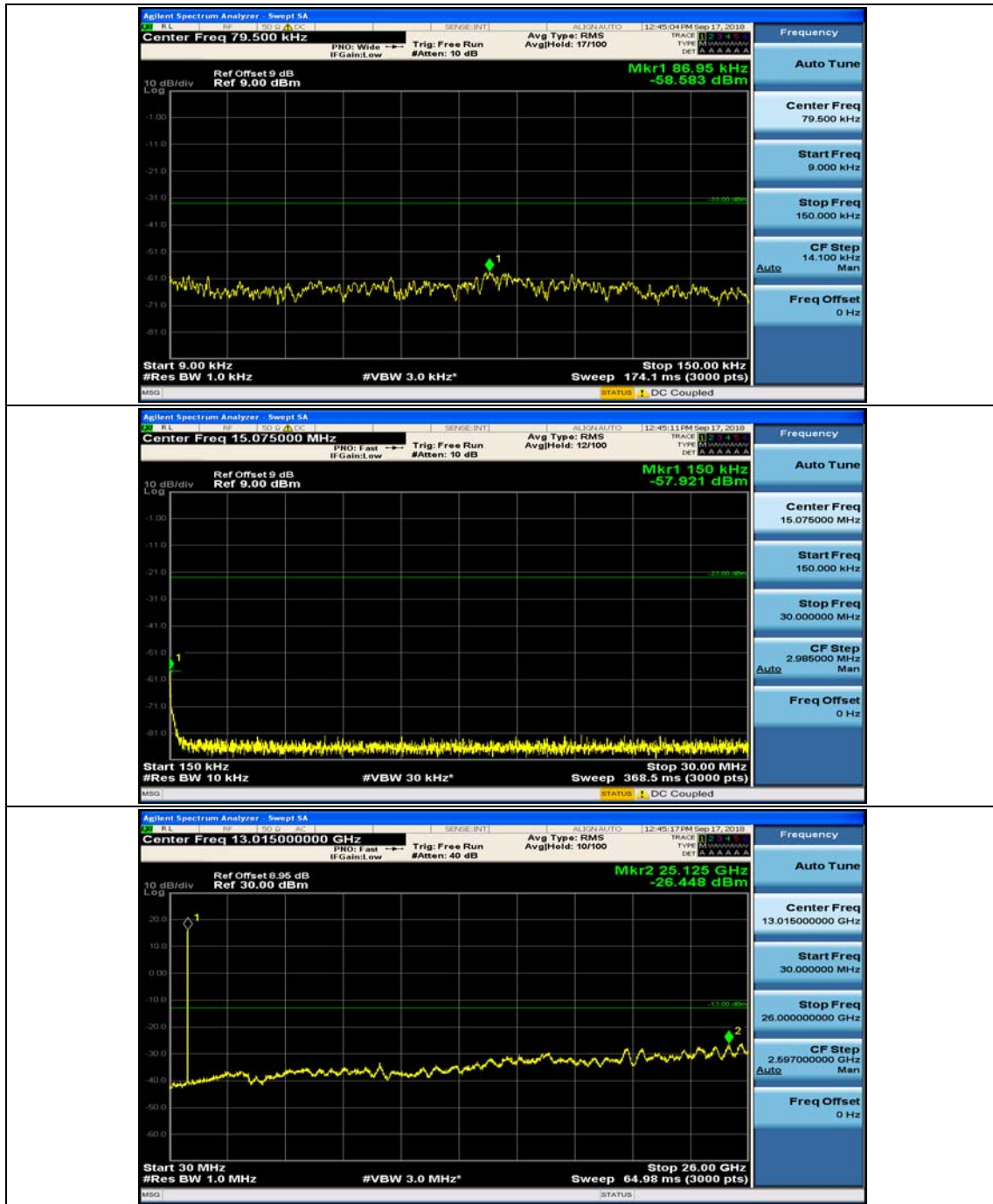


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

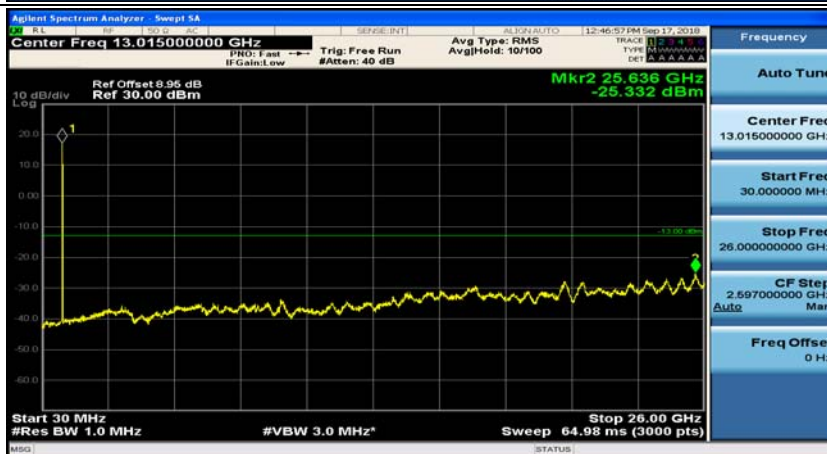
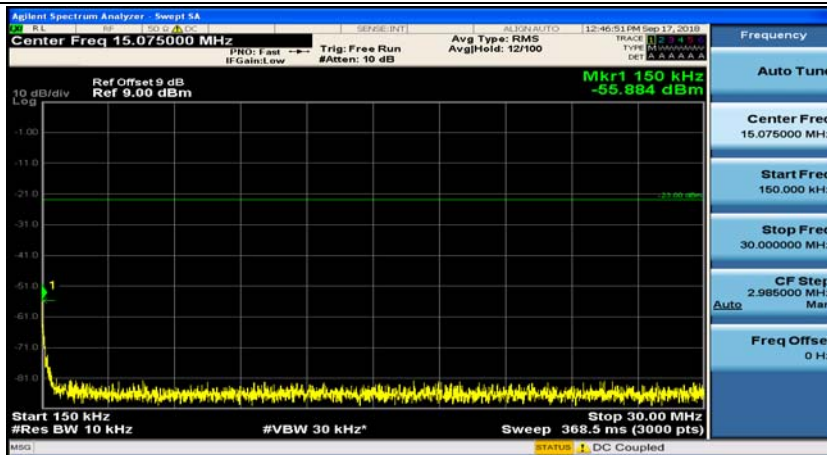
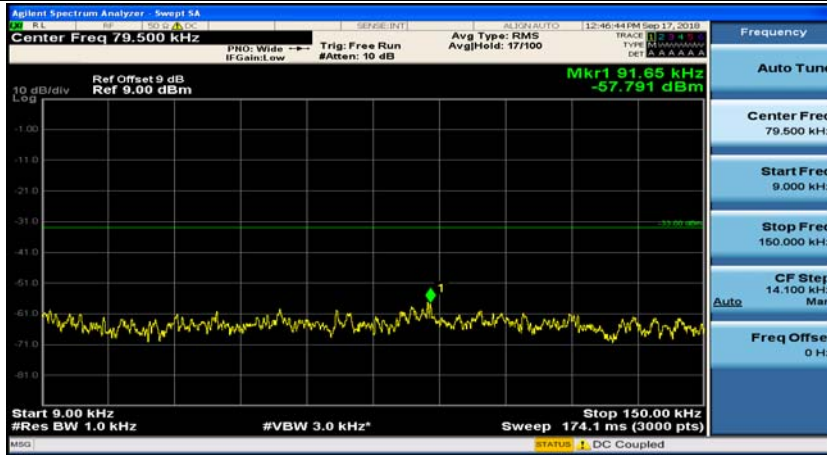


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

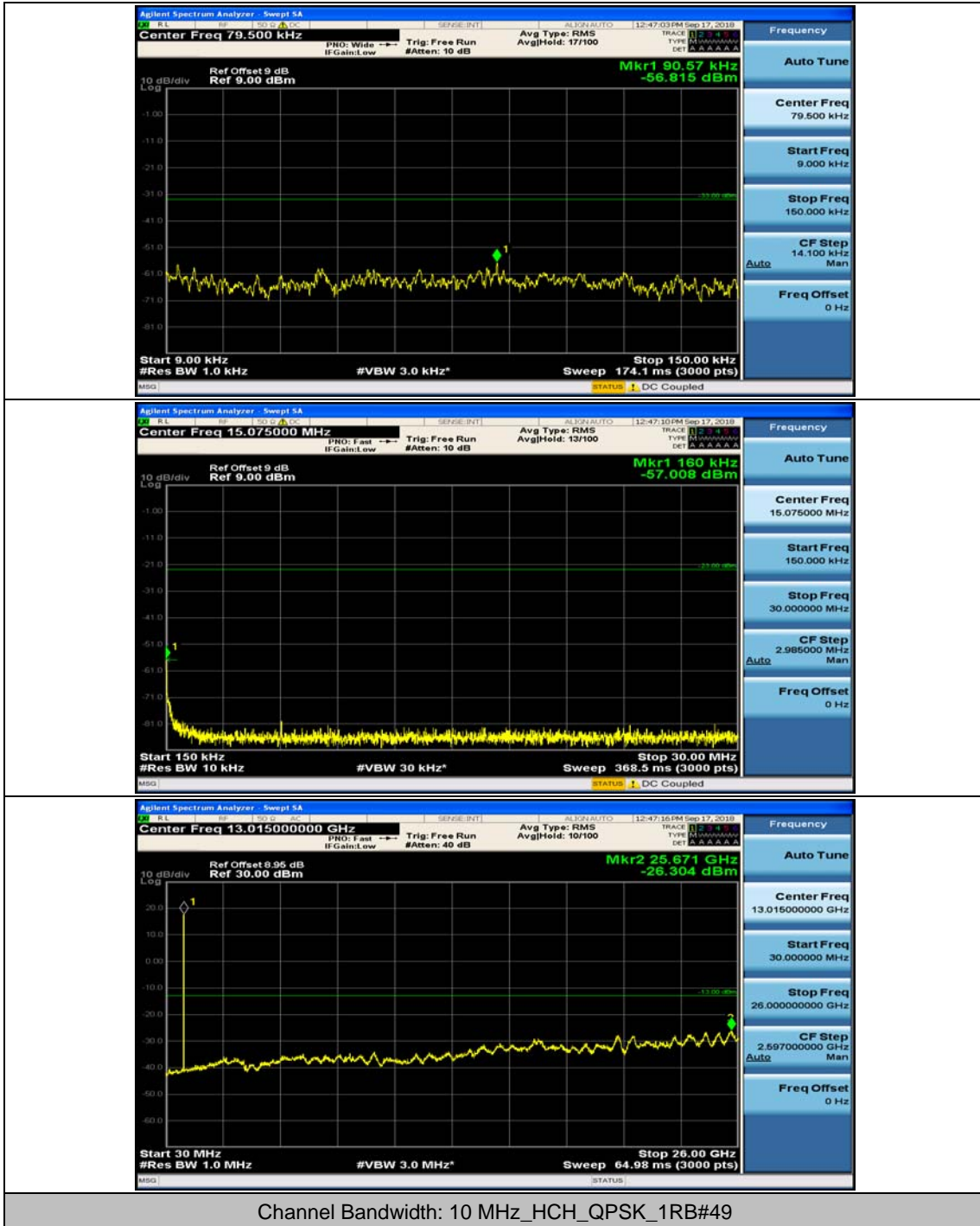


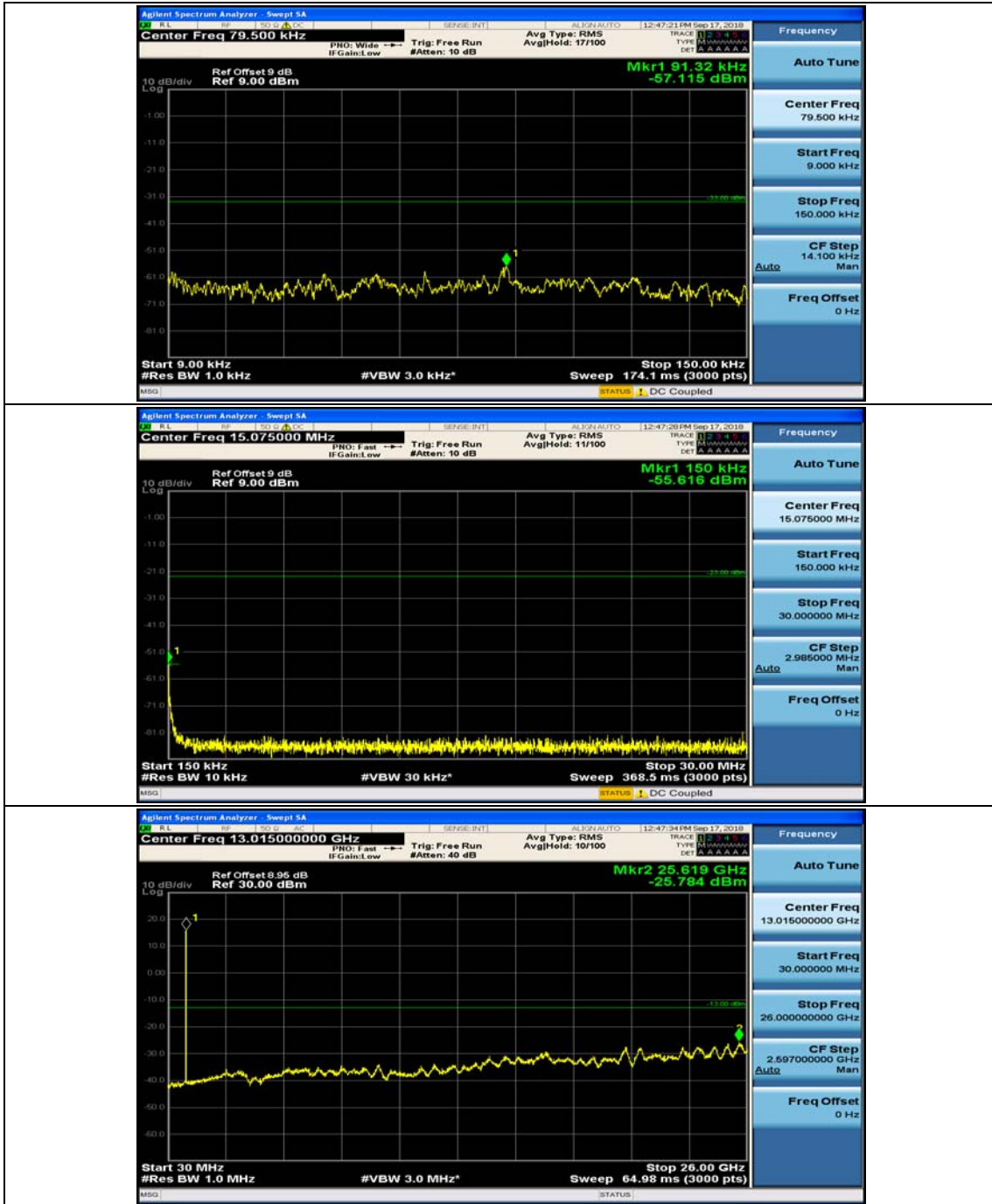


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

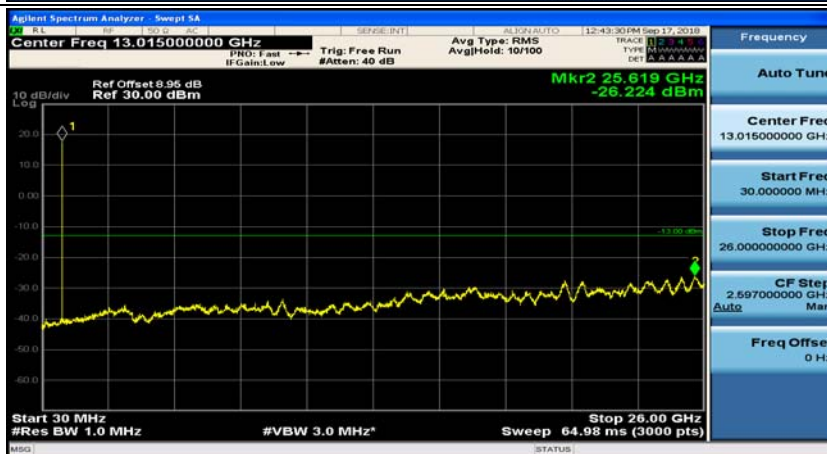
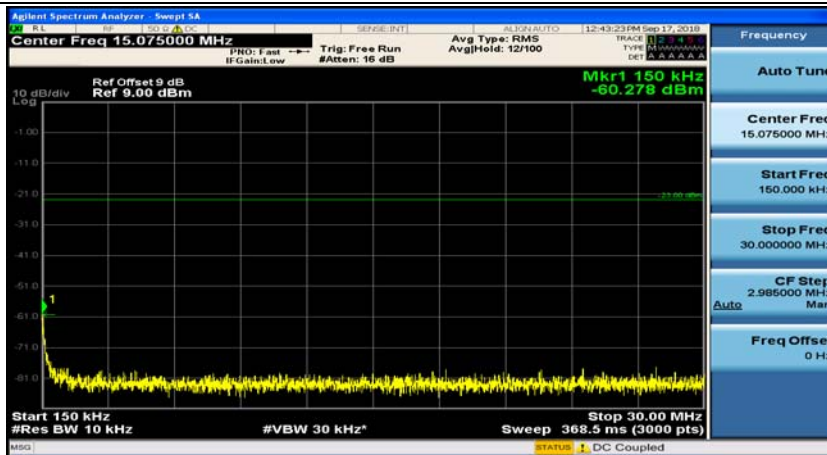
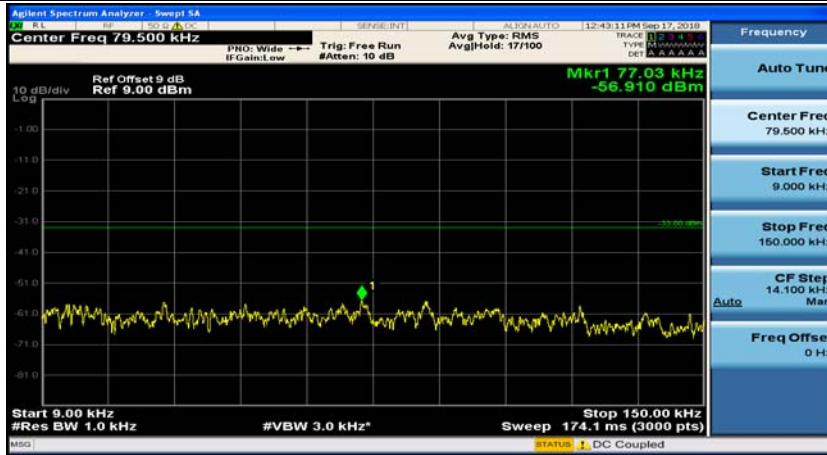


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

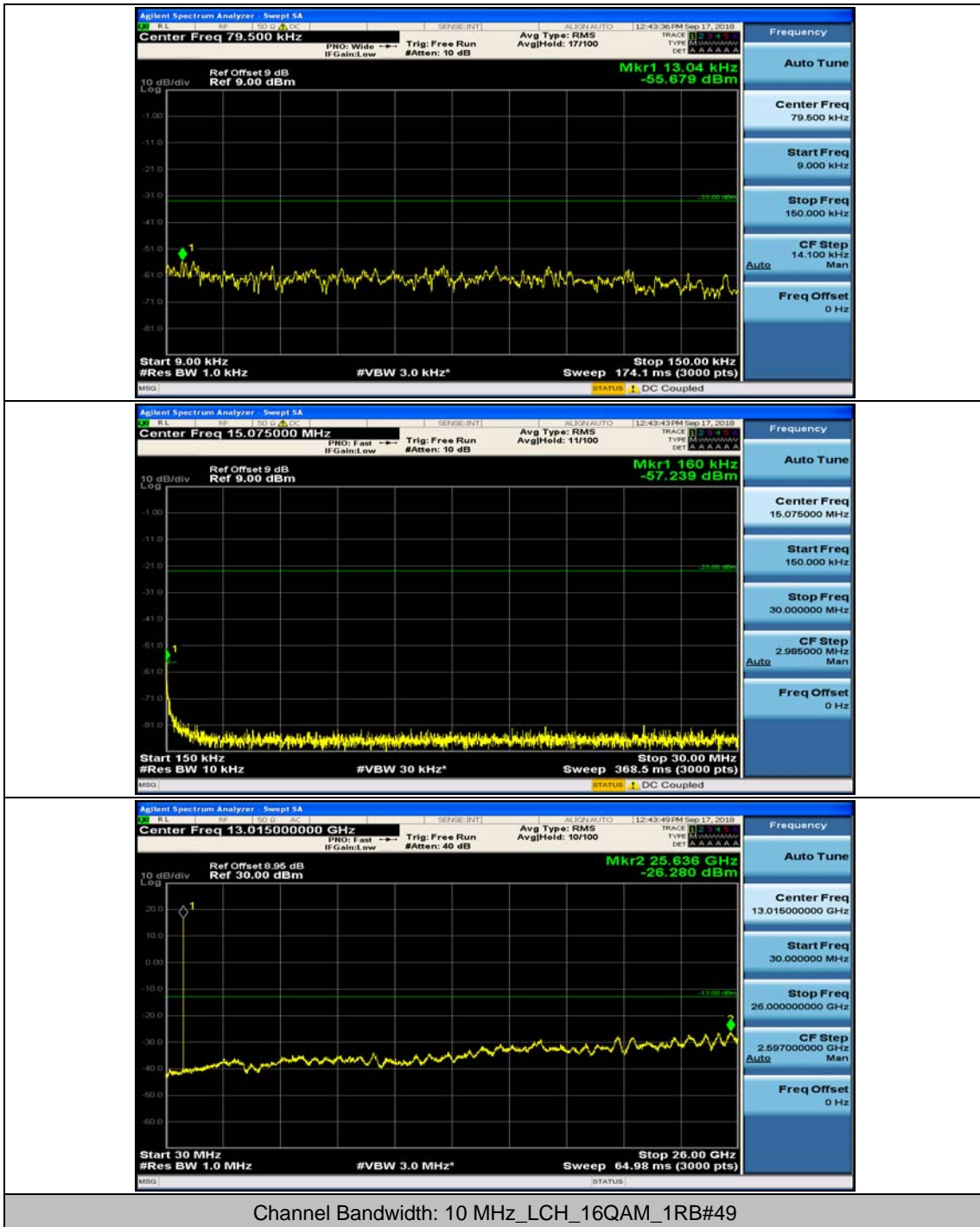


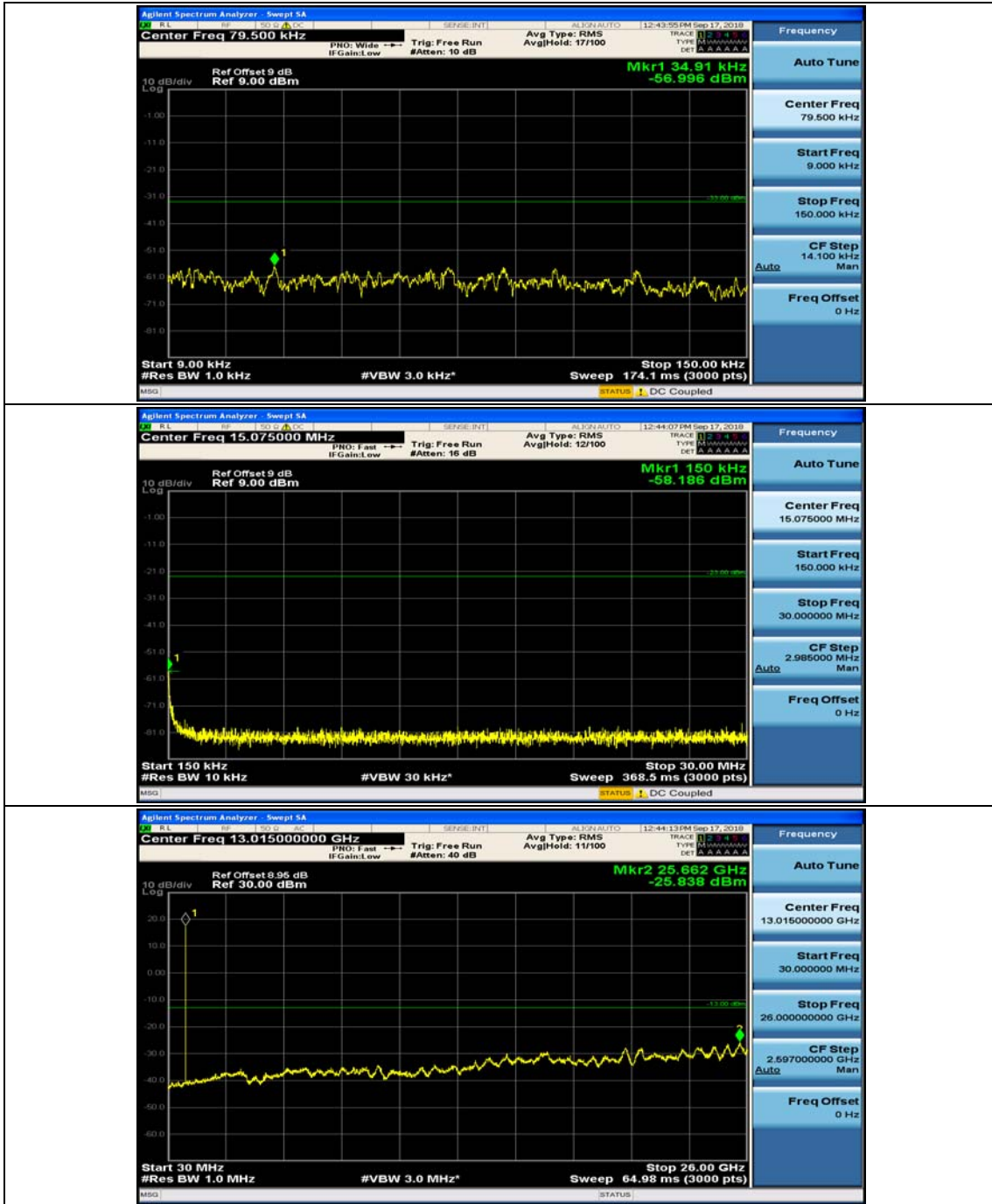


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

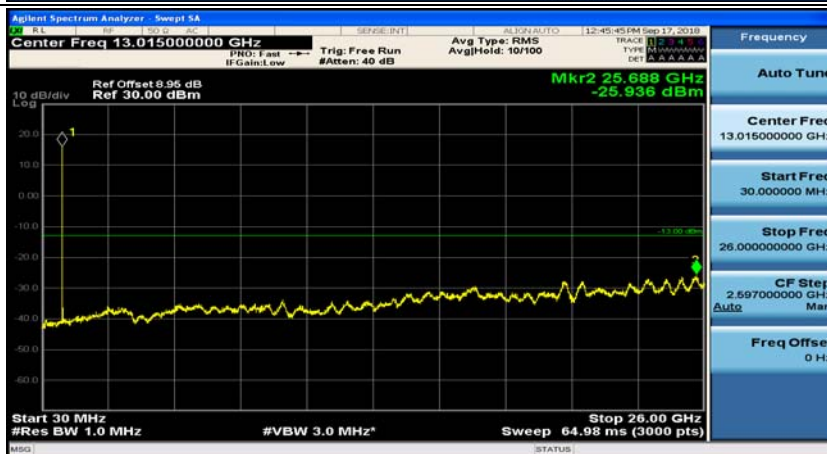
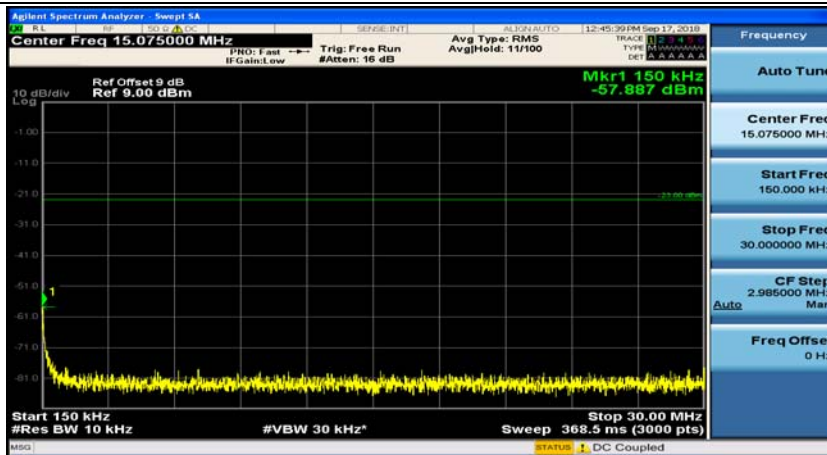
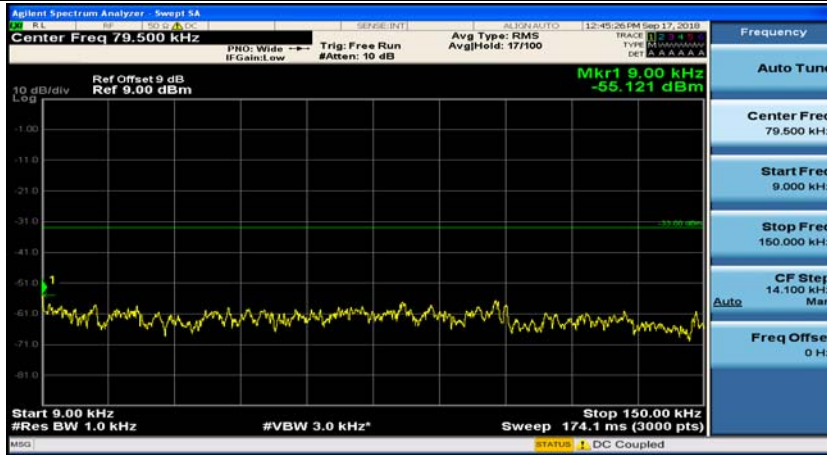


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

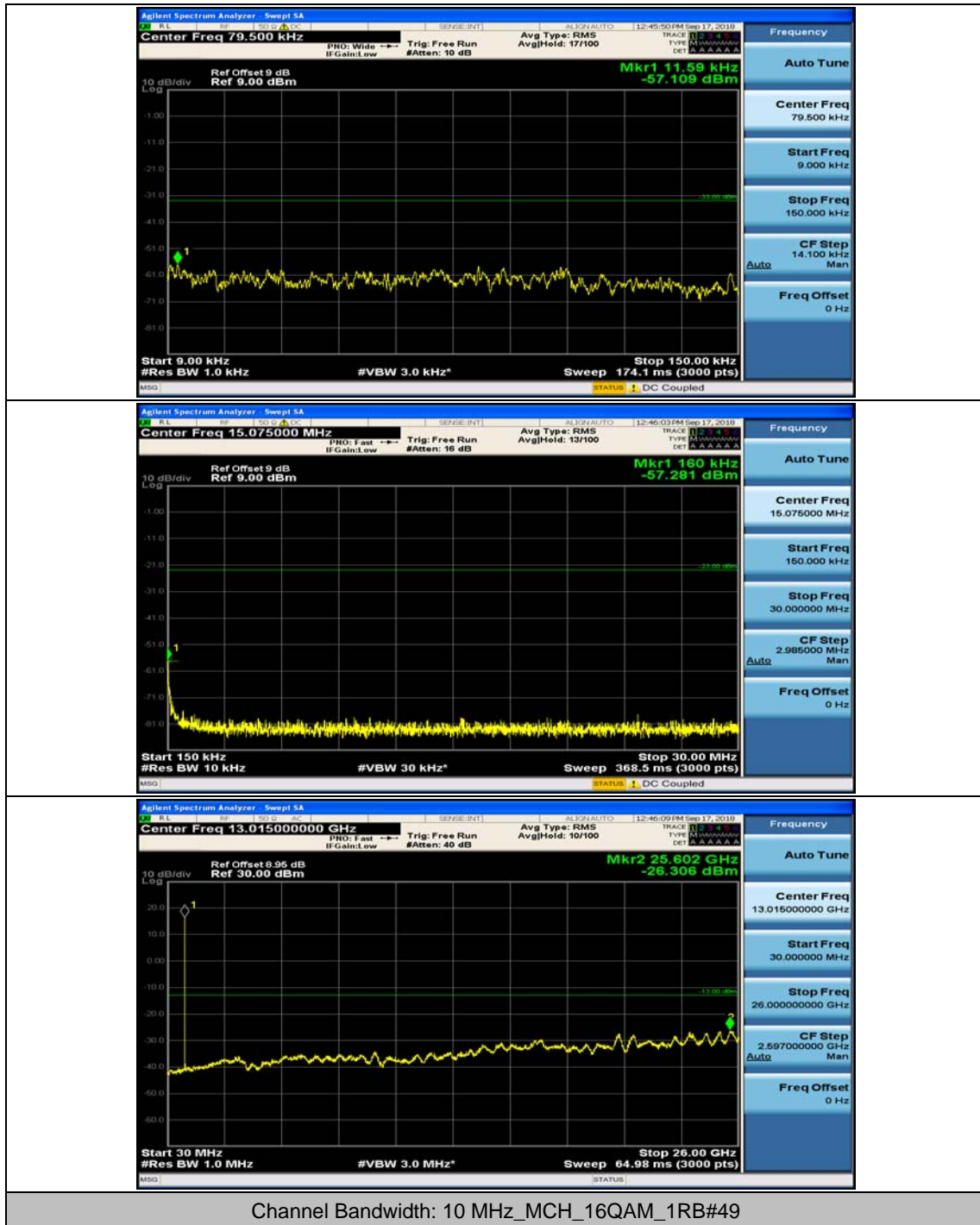


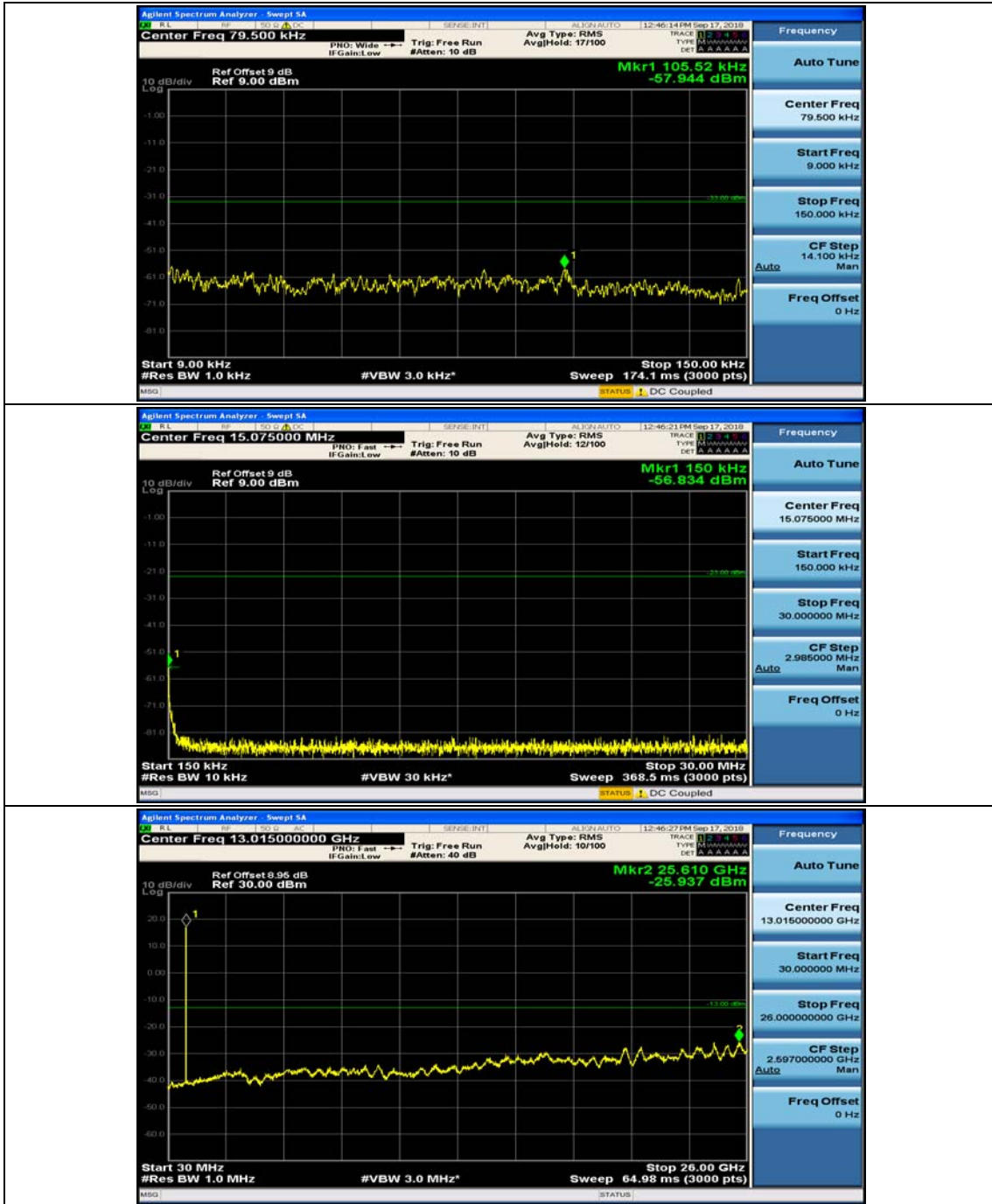


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

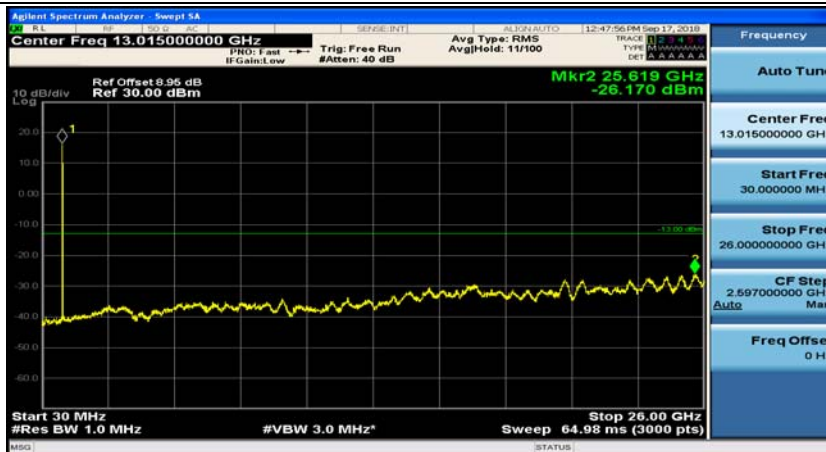
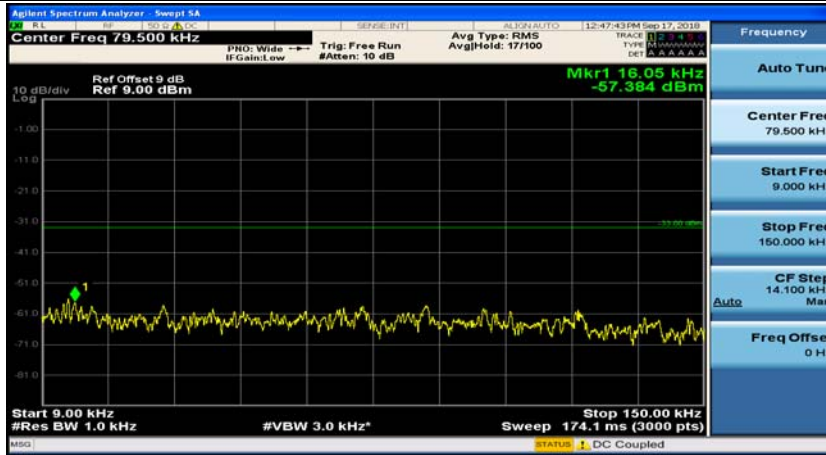


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

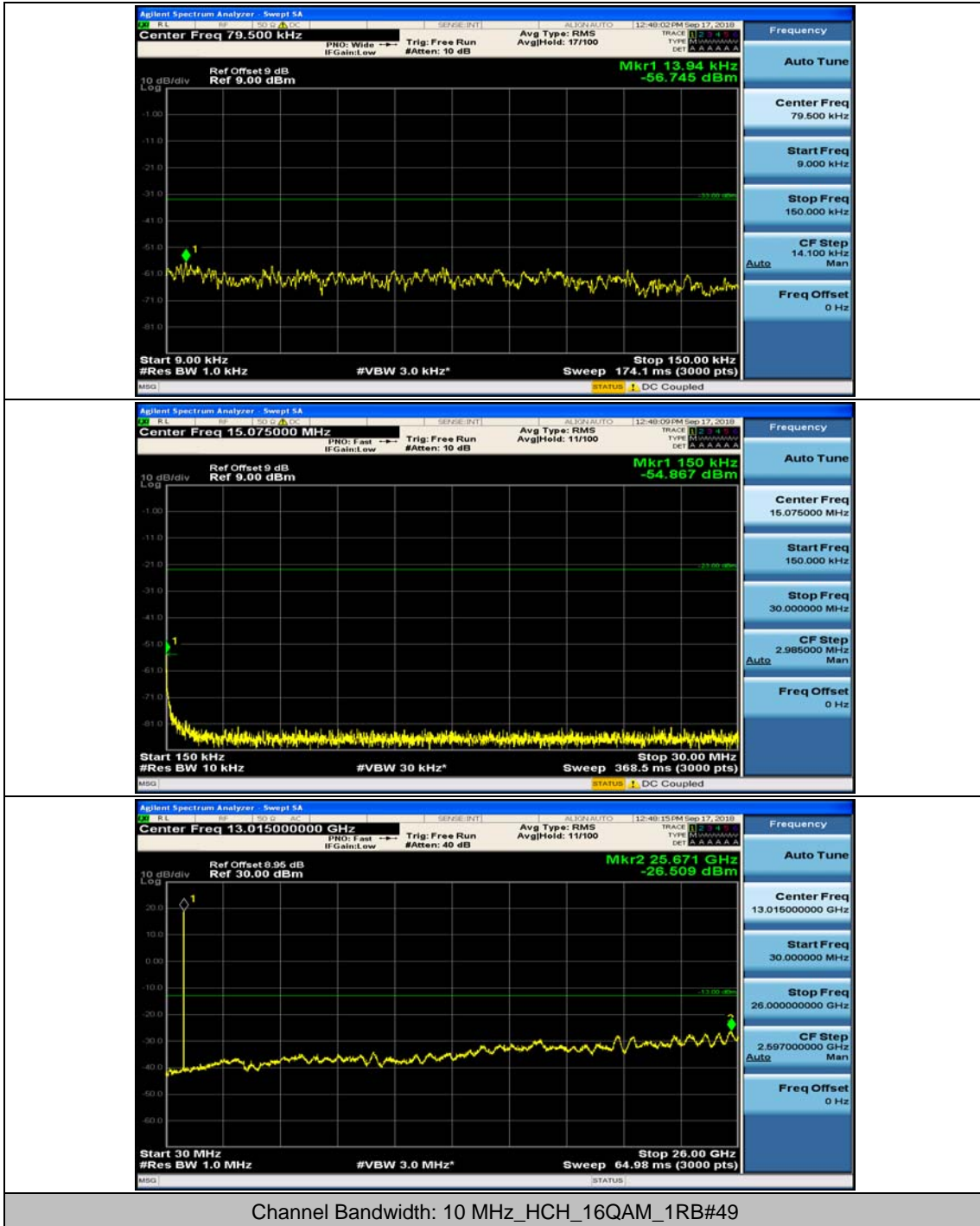


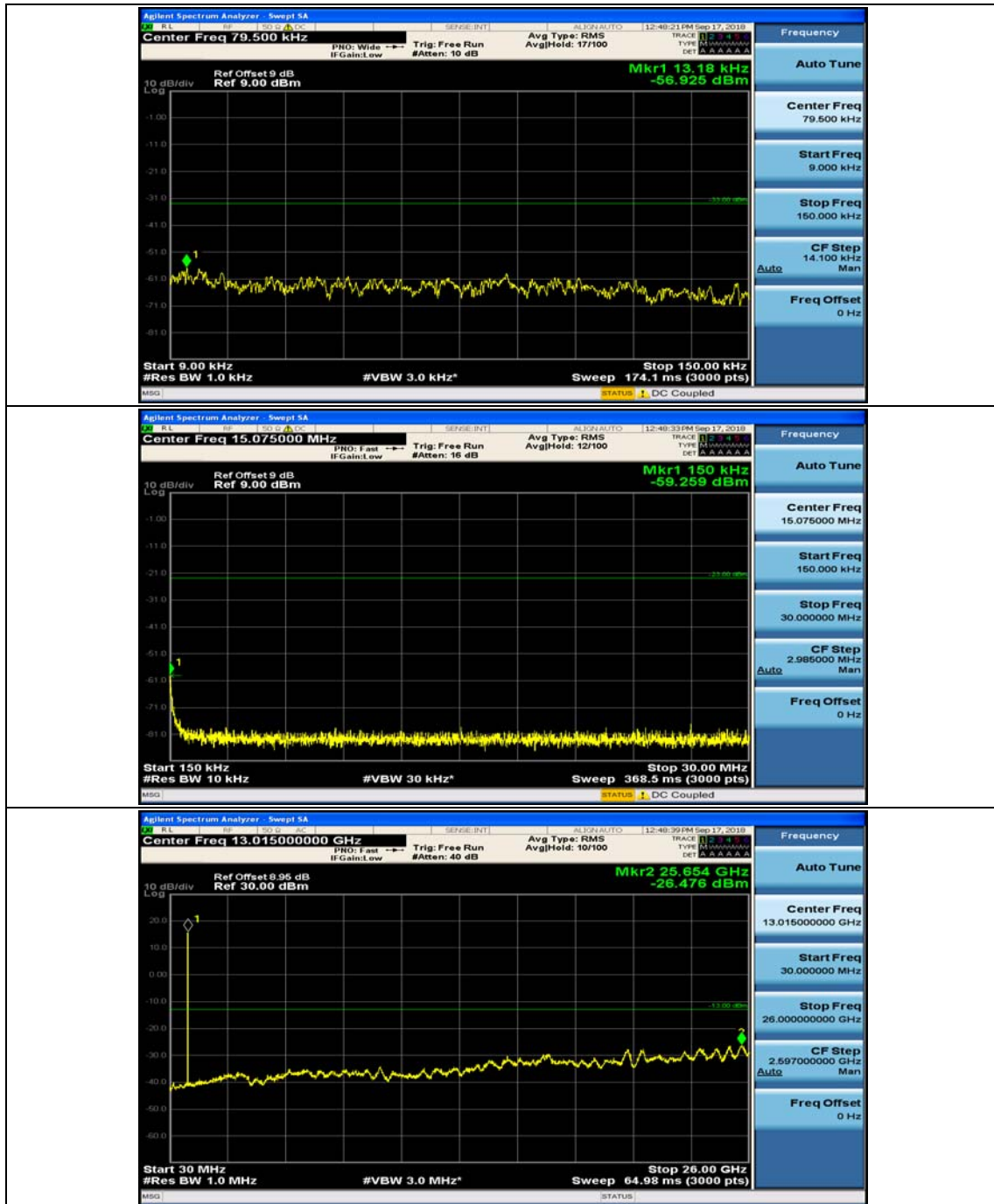


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



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	0.19	0.000230	± 2.5	PASS
		VN	TN	3.19	0.003868	± 2.5	PASS
		VH	TN	2.88	0.003492	± 2.5	PASS
	MCH	VL	TN	4.75	0.005678	± 2.5	PASS
		VN	TN	-1.85	-0.002212	± 2.5	PASS
		VH	TN	-1.62	-0.001937	± 2.5	PASS
	HCH	VL	TN	-0.14	-0.000165	± 2.5	PASS
		VN	TN	-0.45	-0.000530	± 2.5	PASS
		VH	TN	3.45	0.004067	± 2.5	PASS
16QAM	LCH	VL	TN	0.49	0.000594	± 2.5	PASS
		VN	TN	-1.19	-0.001443	± 2.5	PASS
		VH	TN	3.11	0.003771	± 2.5	PASS
	MCH	VL	TN	-0.57	-0.000681	± 2.5	PASS
		VN	TN	2.21	0.002642	± 2.5	PASS
		VH	TN	3.84	0.004591	± 2.5	PASS
	HCH	VL	TN	4.1	0.004833	± 2.5	PASS
		VN	TN	0.81	0.000955	± 2.5	PASS
		VH	TN	-0.8	-0.000943	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.7	-0.002061	± 2.5	PASS
		VN	-20	1.91	0.002316	± 2.5	PASS
		VN	-10	-0.35	-0.000424	± 2.5	PASS
		VN	0	-0.37	-0.000449	± 2.5	PASS
		VN	10	1.75	0.002122	± 2.5	PASS
		VN	20	0.46	0.000558	± 2.5	PASS
		VN	30	1.11	0.001346	± 2.5	PASS
		VN	40	-1.86	-0.002255	± 2.5	PASS
		VN	50	0.17	0.000206	± 2.5	PASS
	MCH	VN	-30	-1.42	-0.001698	± 2.5	PASS

	VN	-20	-0.46	-0.000550	± 2.5	PASS	
		-10	-0.9	-0.001076	± 2.5	PASS	
		0	-0.95	-0.001136	± 2.5	PASS	
		10	2.67	0.003192	± 2.5	PASS	
		20	2.76	0.003299	± 2.5	PASS	
		30	2.95	0.003527	± 2.5	PASS	
		40	3.12	0.003730	± 2.5	PASS	
		50	0.72	0.000861	± 2.5	PASS	
	HCH	VN	-30	0.04	0.000047	± 2.5	PASS
		VN	-20	-0.39	-0.000460	± 2.5	PASS
		VN	-10	1.79	0.002110	± 2.5	PASS
		VN	0	2.71	0.003195	± 2.5	PASS
		VN	10	-0.34	-0.000401	± 2.5	PASS
		VN	20	-0.97	-0.001143	± 2.5	PASS
		VN	30	4.76	0.005611	± 2.5	PASS
		VN	40	0.46	0.000542	± 2.5	PASS
		VN	50	0.81	0.000955	± 2.5	PASS
		16QAM	LCH	VN	-30	1	0.001213
VN	-20			0.46	0.000558	± 2.5	PASS
VN	-10			1.39	0.001685	± 2.5	PASS
VN	0			4.49	0.005444	± 2.5	PASS
VN	10			1.8	0.002183	± 2.5	PASS
VN	20			-0.06	-0.000073	± 2.5	PASS
VN	30			4.6	0.005578	± 2.5	PASS
VN	40			2.52	0.003056	± 2.5	PASS
VN	50			-0.56	-0.000679	± 2.5	PASS
MCH	VN		-30	0.13	0.000153	± 2.5	PASS
	VN		-20	4.36	0.005140	± 2.5	PASS
	VN		-10	2.87	0.003383	± 2.5	PASS
	VN		0	-0.77	-0.000908	± 2.5	PASS
	VN		10	2.62	0.003089	± 2.5	PASS
	VN		20	0.91	0.001073	± 2.5	PASS
	VN		30	4.38	0.005163	± 2.5	PASS
	VN		40	-0.8	-0.000943	± 2.5	PASS
	VN		50	3.37	0.003973	± 2.5	PASS
HCH	VN		-30	2.03	0.002393	± 2.5	PASS
	VN		-20	4.62	0.005446	± 2.5	PASS
	VN		-10	-1.01	-0.001191	± 2.5	PASS
	VN		0	3.93	0.004633	± 2.5	PASS
	VN		10	1.37	0.001615	± 2.5	PASS
	VN		20	3.25	0.003831	± 2.5	PASS

		VN	30	3.04	0.003584	± 2.5	PASS
		VN	40	-1.62	-0.001910	± 2.5	PASS
		VN	50	-0.01	-0.000012	± 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	2.84	0.003440	± 2.5	PASS
		VN	TN	0.74	0.000896	± 2.5	PASS
		VH	TN	1.32	0.001599	± 2.5	PASS
	MCH	VL	TN	1.94	0.002319	± 2.5	PASS
		VN	TN	-1.67	-0.001996	± 2.5	PASS
		VH	TN	-0.12	-0.000143	± 2.5	PASS
	HCH	VL	TN	3.11	0.003670	± 2.5	PASS
		VN	TN	0.77	0.000909	± 2.5	PASS
		VH	TN	1.55	0.001829	± 2.5	PASS
16QAM	LCH	VL	TN	4.53	0.005488	± 2.5	PASS
		VN	TN	3.68	0.004458	± 2.5	PASS
		VH	TN	4.07	0.004930	± 2.5	PASS
	MCH	VL	TN	3.47	0.004148	± 2.5	PASS
		VN	TN	3.01	0.003598	± 2.5	PASS
		VH	TN	4.99	0.005965	± 2.5	PASS
	HCH	VL	TN	0.95	0.001121	± 2.5	PASS
		VN	TN	4.24	0.005003	± 2.5	PASS
		VH	TN	0.48	0.000566	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.16	0.003828	± 2.5	PASS
		VN	-20	4.45	0.005391	± 2.5	PASS
		VN	-10	-0.75	-0.000909	± 2.5	PASS
		VN	0	0.17	0.000206	± 2.5	PASS
		VN	10	1.02	0.001236	± 2.5	PASS
		VN	20	0.42	0.000509	± 2.5	PASS
		VN	30	2.69	0.003259	± 2.5	PASS
		VN	40	4.23	0.005124	± 2.5	PASS
		VN	50	1.55	0.001878	± 2.5	PASS
	MCH	VN	-30	-0.59	-0.000705	± 2.5	PASS
		VN	-20	4.03	0.004818	± 2.5	PASS

		VN	-10	2.83	0.003383	± 2.5	PASS		
		VN	0	0.5	0.000598	± 2.5	PASS		
		VN	10	3.98	0.004758	± 2.5	PASS		
		VN	20	2.28	0.002726	± 2.5	PASS		
		VN	30	-1.06	-0.001267	± 2.5	PASS		
		VN	40	3.42	0.004088	± 2.5	PASS		
		VN	50	1.18	0.001411	± 2.5	PASS		
	HCH	VN	-30	3.05	0.003599	± 2.5	PASS		
		VN	-20	2.48	0.002926	± 2.5	PASS		
		VN	-10	4.79	0.005652	± 2.5	PASS		
		VN	0	0.39	0.000460	± 2.5	PASS		
		VN	10	1.57	0.001853	± 2.5	PASS		
		VN	20	0.2	0.000236	± 2.5	PASS		
		VN	30	-1.95	-0.002301	± 2.5	PASS		
		VN	40	-0.9	-0.001062	± 2.5	PASS		
		VN	50	0.77	0.000909	± 2.5	PASS		
		16QAM	LCH	VN	-30	3.64	0.004351	± 2.5	PASS
				VN	-20	0.04	0.000048	± 2.5	PASS
VN	-10			3.6	0.004304	± 2.5	PASS		
VN	0			-0.32	-0.000383	± 2.5	PASS		
VN	10			3.48	0.004160	± 2.5	PASS		
VN	20			-1.81	-0.002164	± 2.5	PASS		
VN	30			4	0.004782	± 2.5	PASS		
VN	40			4.55	0.005439	± 2.5	PASS		
VN	50			1.67	0.001996	± 2.5	PASS		
MCH	VN		-30	-1.73	-0.002041	± 2.5	PASS		
	VN		-20	-1.72	-0.002029	± 2.5	PASS		
	VN		-10	1.68	0.001982	± 2.5	PASS		
	VN		0	3.38	0.003988	± 2.5	PASS		
	VN		10	1.83	0.002159	± 2.5	PASS		
	VN		20	1.09	0.001286	± 2.5	PASS		
	VN		30	-1.6	-0.001888	± 2.5	PASS		
	VN		40	0.22	0.000260	± 2.5	PASS		
	VN		50	0.15	0.000177	± 2.5	PASS		
HCH	VN	-30	3.83	0.004519	± 2.5	PASS			
	VN	-20	1.99	0.002348	± 2.5	PASS			
	VN	-10	1.09	0.001286	± 2.5	PASS			
	VN	0	3.33	0.003929	± 2.5	PASS			
	VN	10	-0.51	-0.000602	± 2.5	PASS			
	VN	20	1.99	0.002348	± 2.5	PASS			
	VN	30	-0.41	-0.000484	± 2.5	PASS			

		VN	40	2.49	0.002938	± 2.5	PASS
		VN	50	2.47	0.002914	± 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	-0.6	-0.000726	± 2.5	PASS
		VN	TN	0.61	0.000738	± 2.5	PASS
		VH	TN	0.64	0.000774	± 2.5	PASS
	MCH	VL	TN	2.32	0.002773	± 2.5	PASS
		VN	TN	2.2	0.002630	± 2.5	PASS
		VH	TN	3.41	0.004077	± 2.5	PASS
	HCH	VL	TN	-0.42	-0.000496	± 2.5	PASS
		VN	TN	4.49	0.005304	± 2.5	PASS
		VH	TN	2.05	0.002422	± 2.5	PASS
16QAM	LCH	VL	TN	2.25	0.002722	± 2.5	PASS
		VN	TN	3.88	0.004694	± 2.5	PASS
		VH	TN	-0.86	-0.001041	± 2.5	PASS
	MCH	VL	TN	0.06	0.000072	± 2.5	PASS
		VN	TN	1.16	0.001387	± 2.5	PASS
		VH	TN	3.16	0.003778	± 2.5	PASS
	HCH	VL	TN	-0.65	-0.000768	± 2.5	PASS
		VN	TN	1.97	0.002327	± 2.5	PASS
		VH	TN	0.08	0.000095	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.58	0.003122	± 2.5	PASS
		VN	-20	4.33	0.005239	± 2.5	PASS
		VN	-10	2.11	0.002553	± 2.5	PASS
		VN	0	1.99	0.002408	± 2.5	PASS
		VN	10	2.57	0.003109	± 2.5	PASS
		VN	20	1.6	0.001936	± 2.5	PASS
		VN	30	4	0.004840	± 2.5	PASS
		VN	40	-1.03	-0.001246	± 2.5	PASS
		VN	50	-0.6	-0.000726	± 2.5	PASS
	MCH	VN	-30	4.98	0.005953	± 2.5	PASS
		VN	-20	0.49	0.000586	± 2.5	PASS
		VN	-10	2.87	0.003431	± 2.5	PASS

	VN	0	2.62	0.003132	± 2.5	PASS			
		10	3.78	0.004519	± 2.5	PASS			
		20	2.92	0.003491	± 2.5	PASS			
		30	3.22	0.003849	± 2.5	PASS			
		40	1.28	0.001530	± 2.5	PASS			
		50	3.67	0.004387	± 2.5	PASS			
	HCH	VN	-30	3.85	0.004548	± 2.5	PASS		
		VN	-20	0.71	0.000839	± 2.5	PASS		
		VN	-10	3.59	0.004241	± 2.5	PASS		
		VN	0	0.36	0.000425	± 2.5	PASS		
		VN	10	0.43	0.000508	± 2.5	PASS		
		VN	20	3.35	0.003957	± 2.5	PASS		
		VN	30	0.32	0.000378	± 2.5	PASS		
		VN	40	1.25	0.001477	± 2.5	PASS		
		VN	50	0.17	0.000201	± 2.5	PASS		
		16QAM	LCH	VN	-30	3.9	0.004662	± 2.5	PASS
				VN	-20	4.51	0.005392	± 2.5	PASS
				VN	-10	1.19	0.001423	± 2.5	PASS
VN	0			-1.54	-0.001841	± 2.5	PASS		
VN	10			2.6	0.003108	± 2.5	PASS		
VN	20			1.35	0.001614	± 2.5	PASS		
VN	30			1.68	0.002008	± 2.5	PASS		
VN	40			0.94	0.001124	± 2.5	PASS		
VN	50			3.7	0.004423	± 2.5	PASS		
MCH	VN		-30	0.33	0.000390	± 2.5	PASS		
	VN		-20	3.14	0.003709	± 2.5	PASS		
	VN		-10	0.36	0.000425	± 2.5	PASS		
	VN		0	-1.87	-0.002209	± 2.5	PASS		
	VN		10	-0.41	-0.000484	± 2.5	PASS		
	VN		20	-0.67	-0.000791	± 2.5	PASS		
	VN		30	3.98	0.004702	± 2.5	PASS		
	VN		40	-1.46	-0.001725	± 2.5	PASS		
	VN		50	-0.64	-0.000756	± 2.5	PASS		
HCH	VN		-30	-1.69	-0.001996	± 2.5	PASS		
	VN		-20	3.75	0.004430	± 2.5	PASS		
	VN		-10	2.19	0.002587	± 2.5	PASS		
	VN		0	-1.84	-0.002174	± 2.5	PASS		
	VN		10	4.06	0.004796	± 2.5	PASS		
	VN		20	-0.73	-0.000862	± 2.5	PASS		
	VN		30	0.06	0.000071	± 2.5	PASS		
	VN		40	-0.42	-0.000496	± 2.5	PASS		

		VN	50	2.55	0.003012	± 2.5	PASS
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Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.61	0.003148	± 2.5	PASS
		VN	TN	-0.85	-0.001025	± 2.5	PASS
		VH	TN	4.75	0.005730	± 2.5	PASS
	MCH	VL	TN	-1.12	-0.001339	± 2.5	PASS
		VN	TN	-1.25	-0.001494	± 2.5	PASS
		VH	TN	4.66	0.005571	± 2.5	PASS
	HCH	VL	TN	-0.9	-0.001066	± 2.5	PASS
		VN	TN	0.11	0.000130	± 2.5	PASS
		VH	TN	-1.92	-0.002275	± 2.5	PASS
16QAM	LCH	VL	TN	-0.26	-0.000314	± 2.5	PASS
		VN	TN	1.52	0.001834	± 2.5	PASS
		VH	TN	-0.3	-0.000362	± 2.5	PASS
	MCH	VL	TN	-0.05	-0.000060	± 2.5	PASS
		VN	TN	2.55	0.003048	± 2.5	PASS
		VH	TN	-0.58	-0.000693	± 2.5	PASS
	HCH	VL	TN	4.33	0.005130	± 2.5	PASS
		VN	TN	-0.6	-0.000711	± 2.5	PASS
		VH	TN	1.45	0.001718	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	-1.14	-0.001375	± 2.5	PASS
		VN	-20	0.17	0.000205	± 2.5	PASS
		VN	-10	-1.87	-0.002256	± 2.5	PASS
		VN	0	1.13	0.001363	± 2.5	PASS
		VN	10	2.29	0.002762	± 2.5	PASS
		VN	20	-1.94	-0.002340	± 2.5	PASS
		VN	30	2.78	0.003353	± 2.5	PASS
		VN	40	-1.59	-0.001918	± 2.5	PASS
		VN	50	1.22	0.001472	± 2.5	PASS
	MCH	VN	-30	3.85	0.004603	± 2.5	PASS
		VN	-20	-0.26	-0.000311	± 2.5	PASS
		VN	-10	1.92	0.002295	± 2.5	PASS
		VN	0	-1.8	-0.002152	± 2.5	PASS

		VN	10	3.39	0.004053	± 2.5	PASS
		VN	20	2.61	0.003120	± 2.5	PASS
		VN	30	3.34	0.003993	± 2.5	PASS
		VN	40	2.23	0.002666	± 2.5	PASS
		VN	50	-1.49	-0.001781	± 2.5	PASS
	HCH	VN	-30	0.92	0.001090	± 2.5	PASS
		VN	-20	2.16	0.002559	± 2.5	PASS
		VN	-10	3.58	0.004242	± 2.5	PASS
		VN	0	2.6	0.003081	± 2.5	PASS
		VN	10	3.14	0.003720	± 2.5	PASS
		VN	20	3.82	0.004526	± 2.5	PASS
		VN	30	-0.14	-0.000166	± 2.5	PASS
		VN	40	3.35	0.003969	± 2.5	PASS
		VN	50	4.57	0.005415	± 2.5	PASS
		QPSK	LCH	VN	-30	3.73	0.004459
VN	-20			0.5	0.000598	± 2.5	PASS
VN	-10			3.98	0.004758	± 2.5	PASS
VN	0			2.86	0.003419	± 2.5	PASS
VN	10			-0.89	-0.001064	± 2.5	PASS
VN	20			1.07	0.001279	± 2.5	PASS
VN	30			-1.86	-0.002224	± 2.5	PASS
VN	40			4.04	0.004830	± 2.5	PASS
VN	50			2.36	0.002821	± 2.5	PASS
MCH	VN		-30	3.39	0.004017	± 2.5	PASS
	VN		-20	1.39	0.001647	± 2.5	PASS
	VN		-10	4.74	0.005616	± 2.5	PASS
	VN		0	2.25	0.002666	± 2.5	PASS
	VN		10	3.25	0.003851	± 2.5	PASS
	VN		20	1.37	0.001623	± 2.5	PASS
	VN		30	-0.36	-0.000427	± 2.5	PASS
	VN		40	-1.83	-0.002168	± 2.5	PASS
	VN		50	-1.53	-0.001813	± 2.5	PASS
HCH	VN		-30	-0.83	-0.000983	± 2.5	PASS
	VN		-20	4.17	0.004941	± 2.5	PASS
	VN		-10	-1.96	-0.002322	± 2.5	PASS
	VN		0	-1.67	-0.001979	± 2.5	PASS
	VN		10	2.29	0.002713	± 2.5	PASS
	VN		20	4.62	0.005474	± 2.5	PASS
	VN		30	-1.05	-0.001244	± 2.5	PASS
	VN		40	4.65	0.005509	± 2.5	PASS
	VN		50	4.04	0.004787	± 2.5	PASS