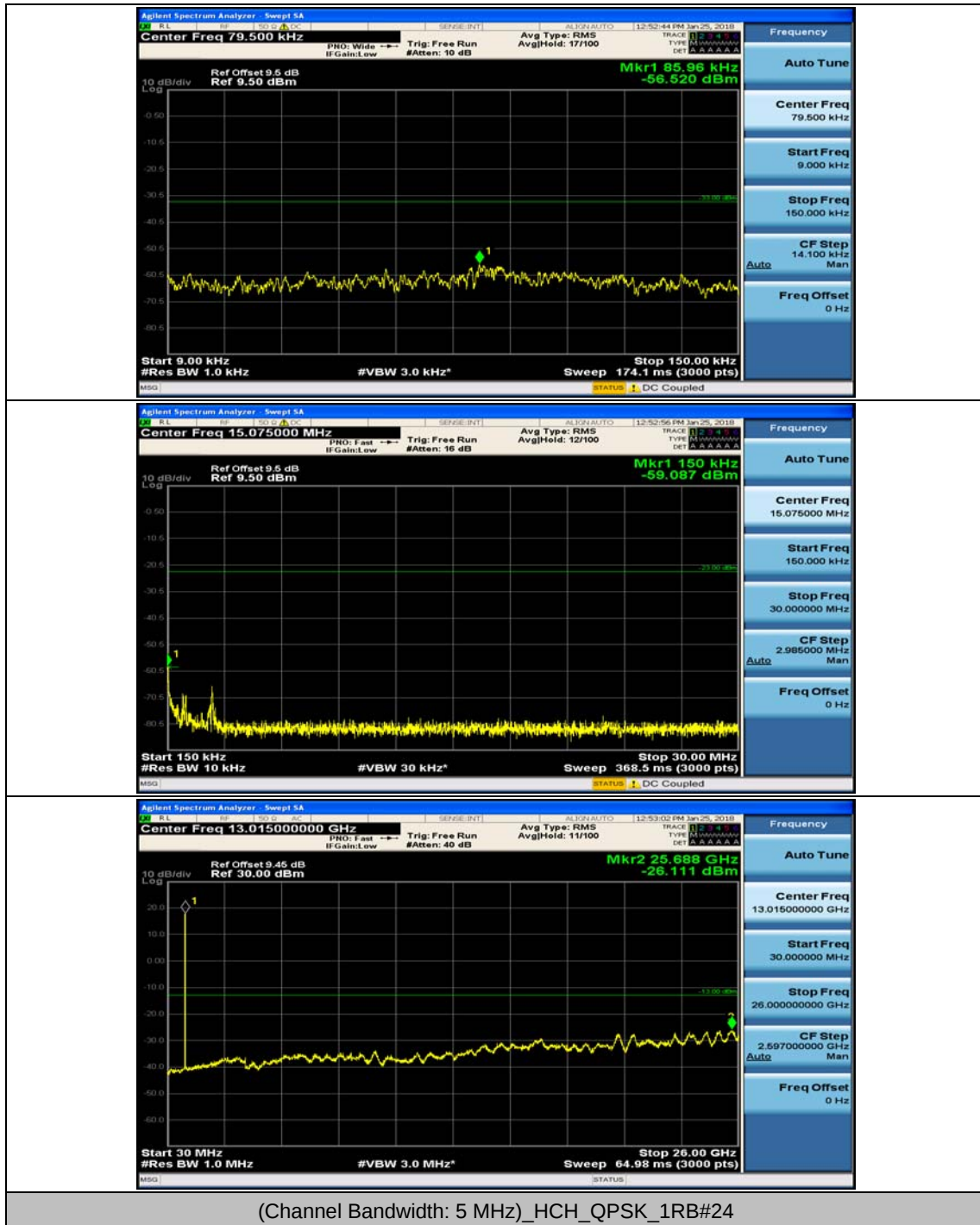
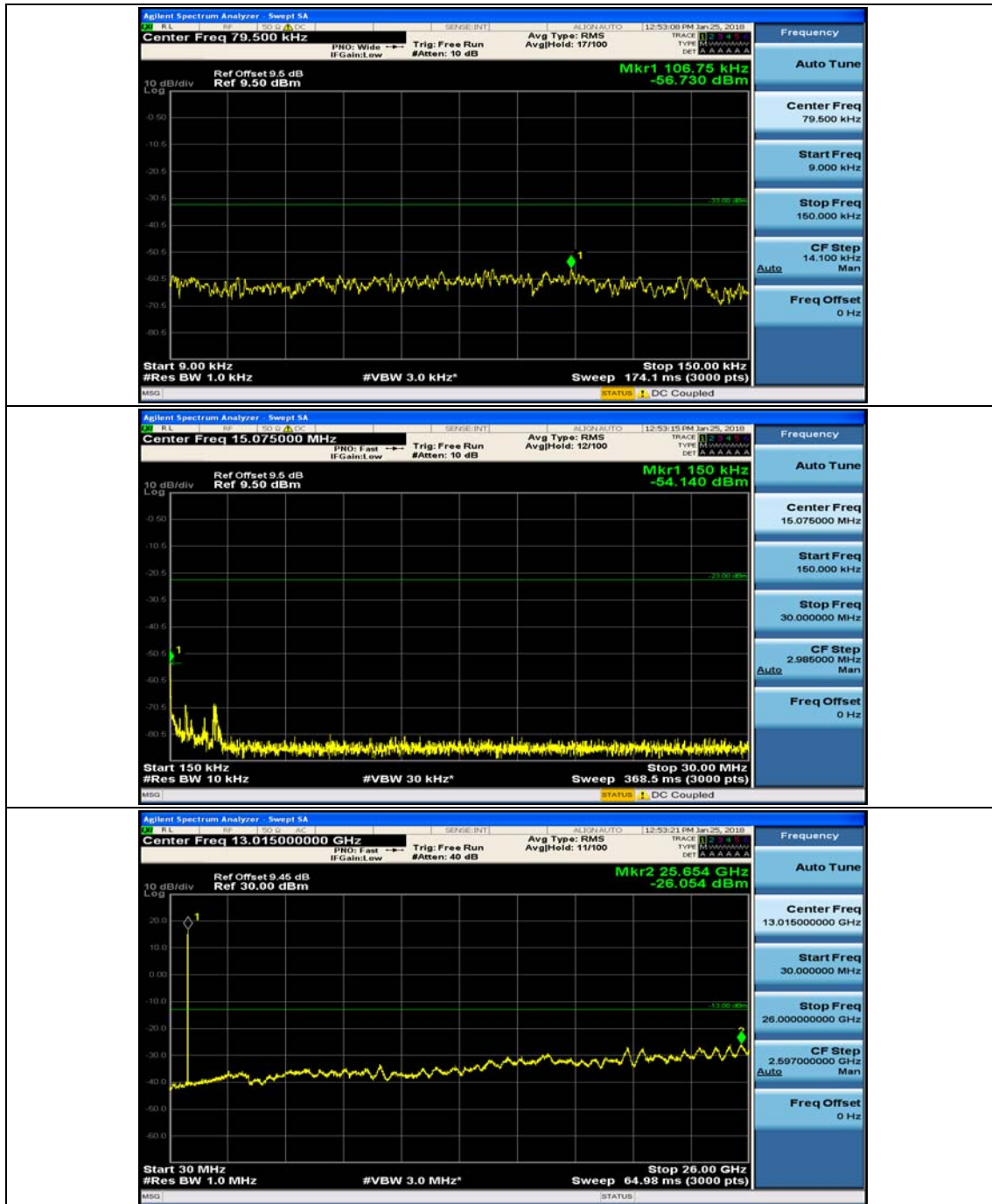
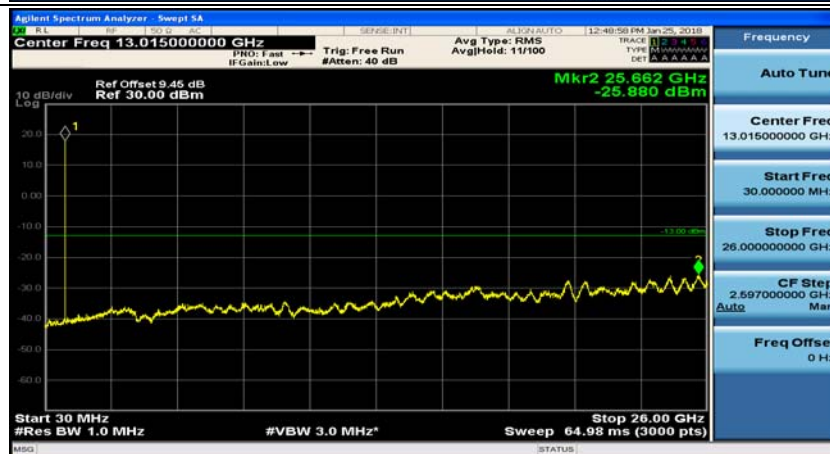
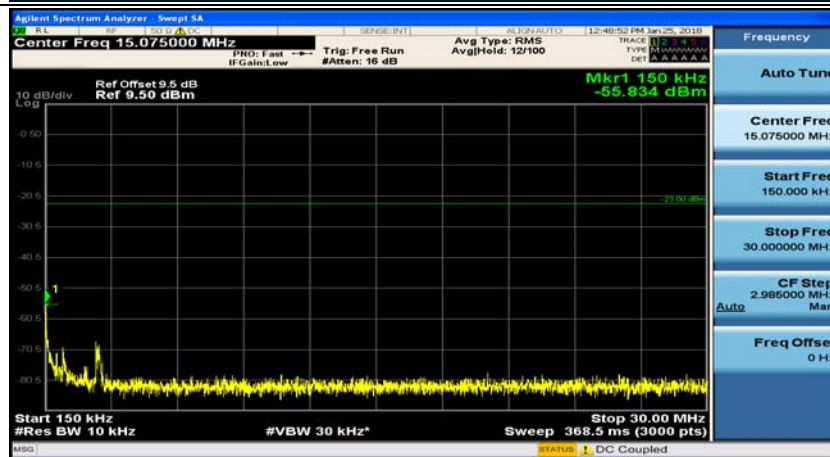
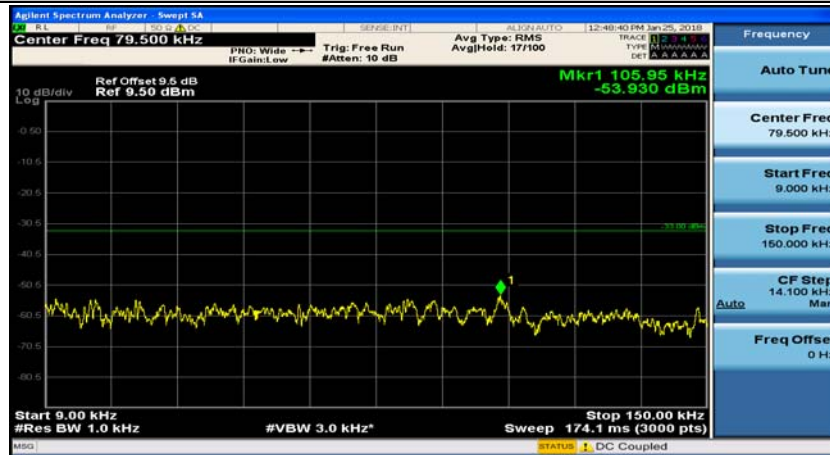


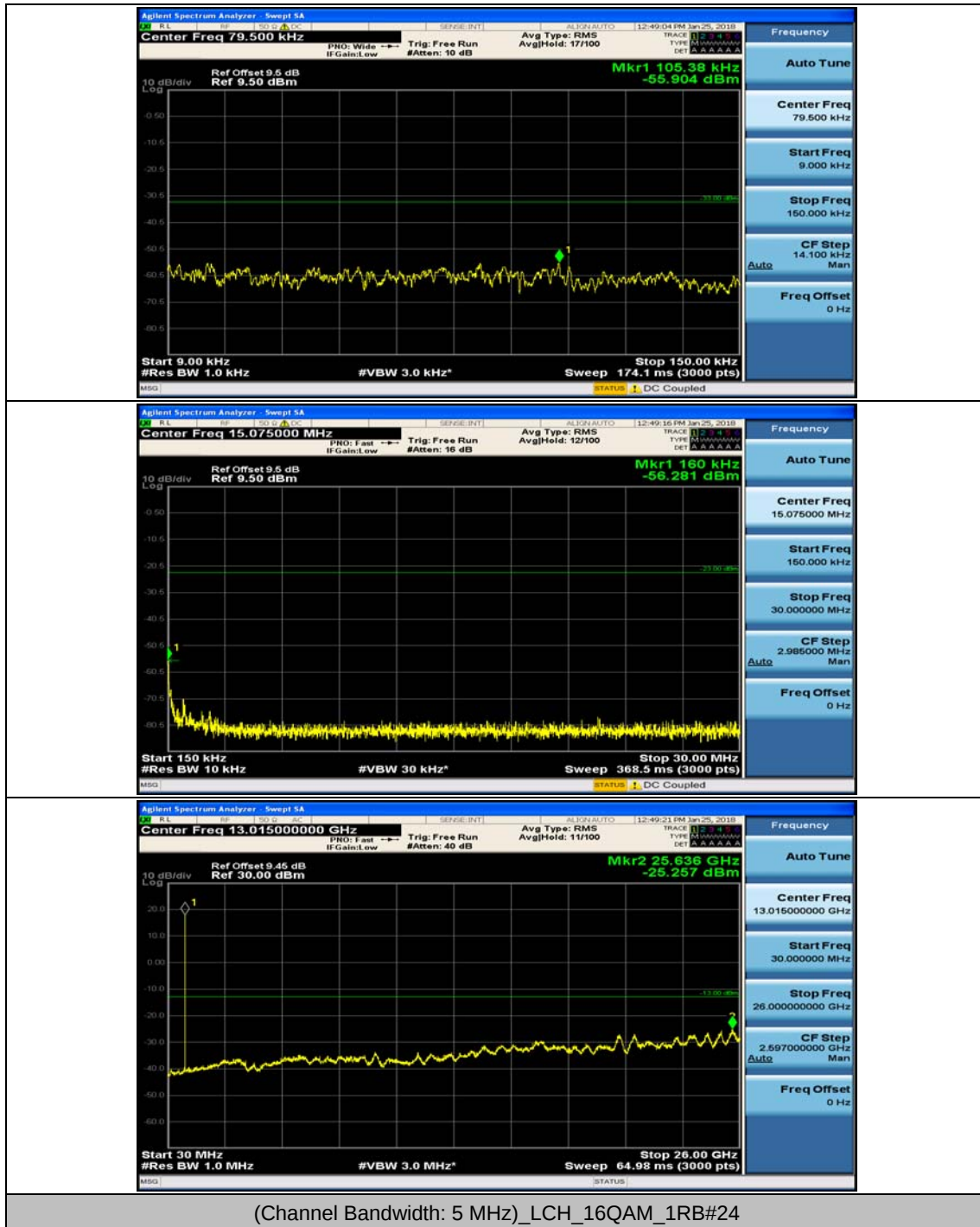


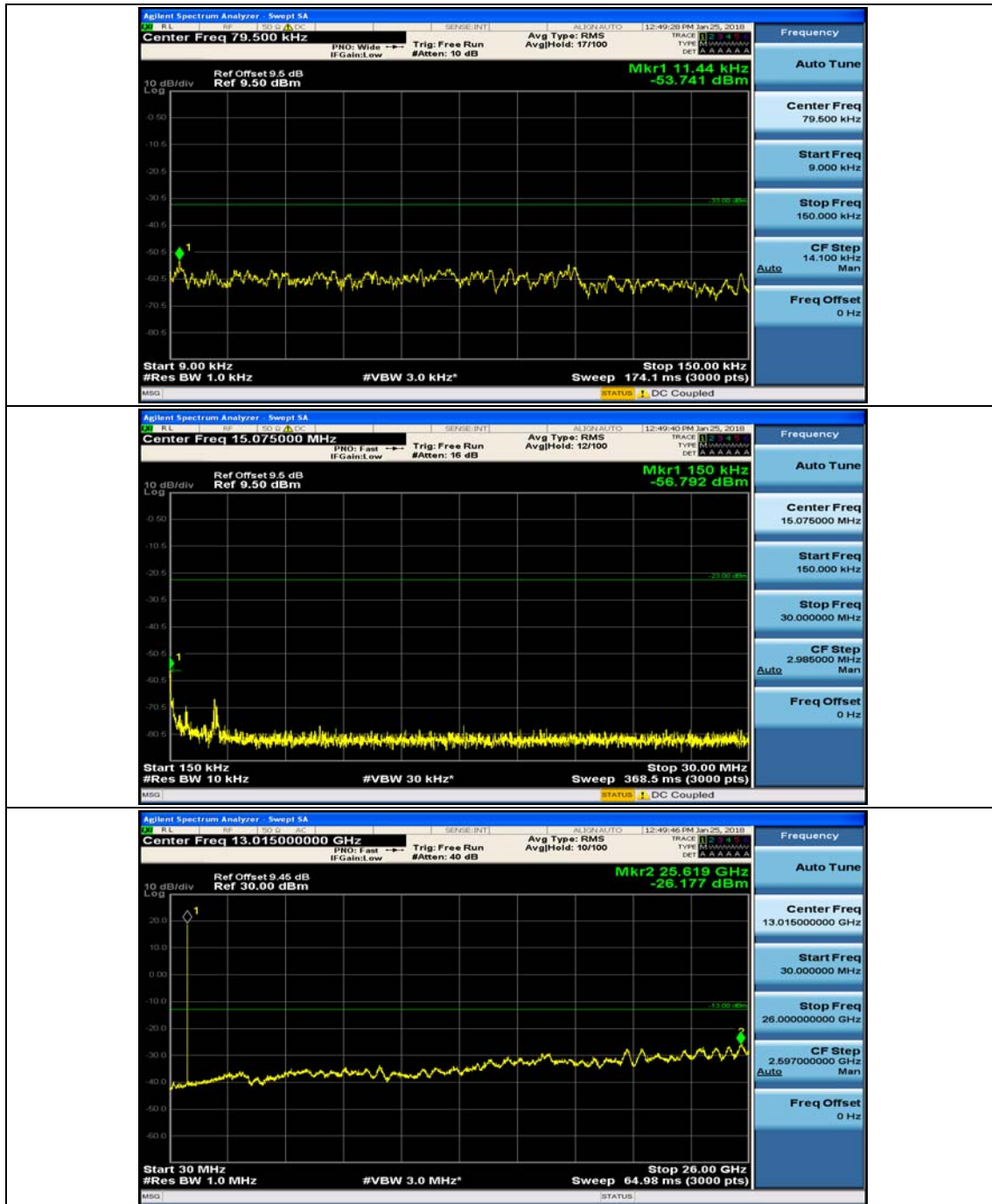


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

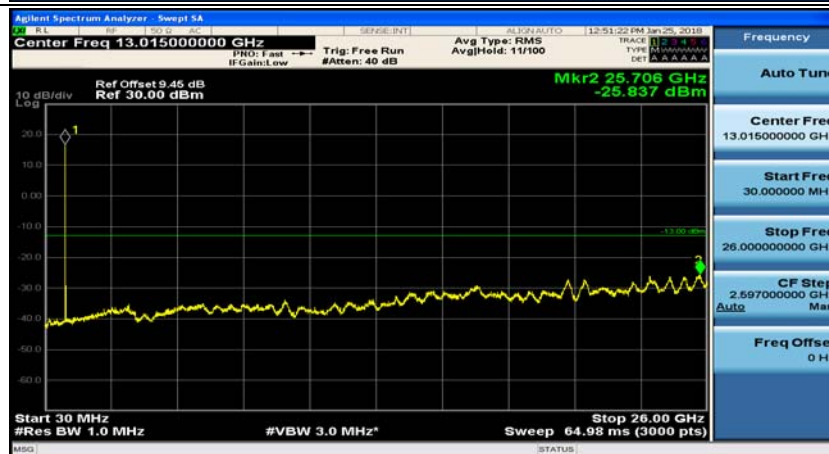
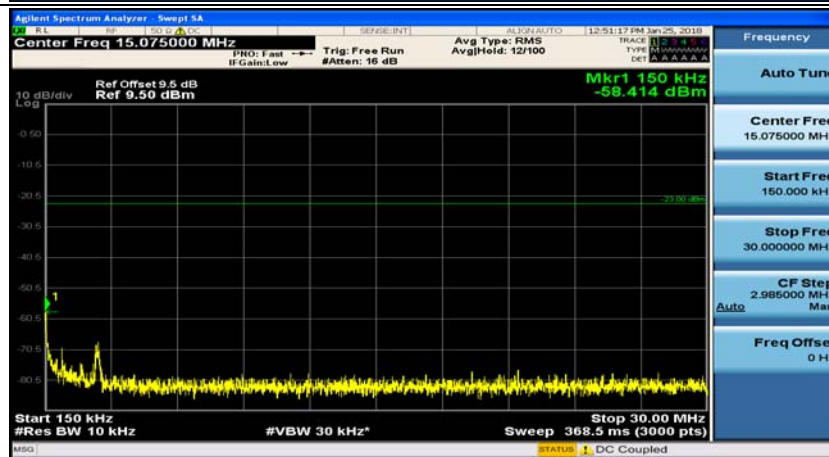


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

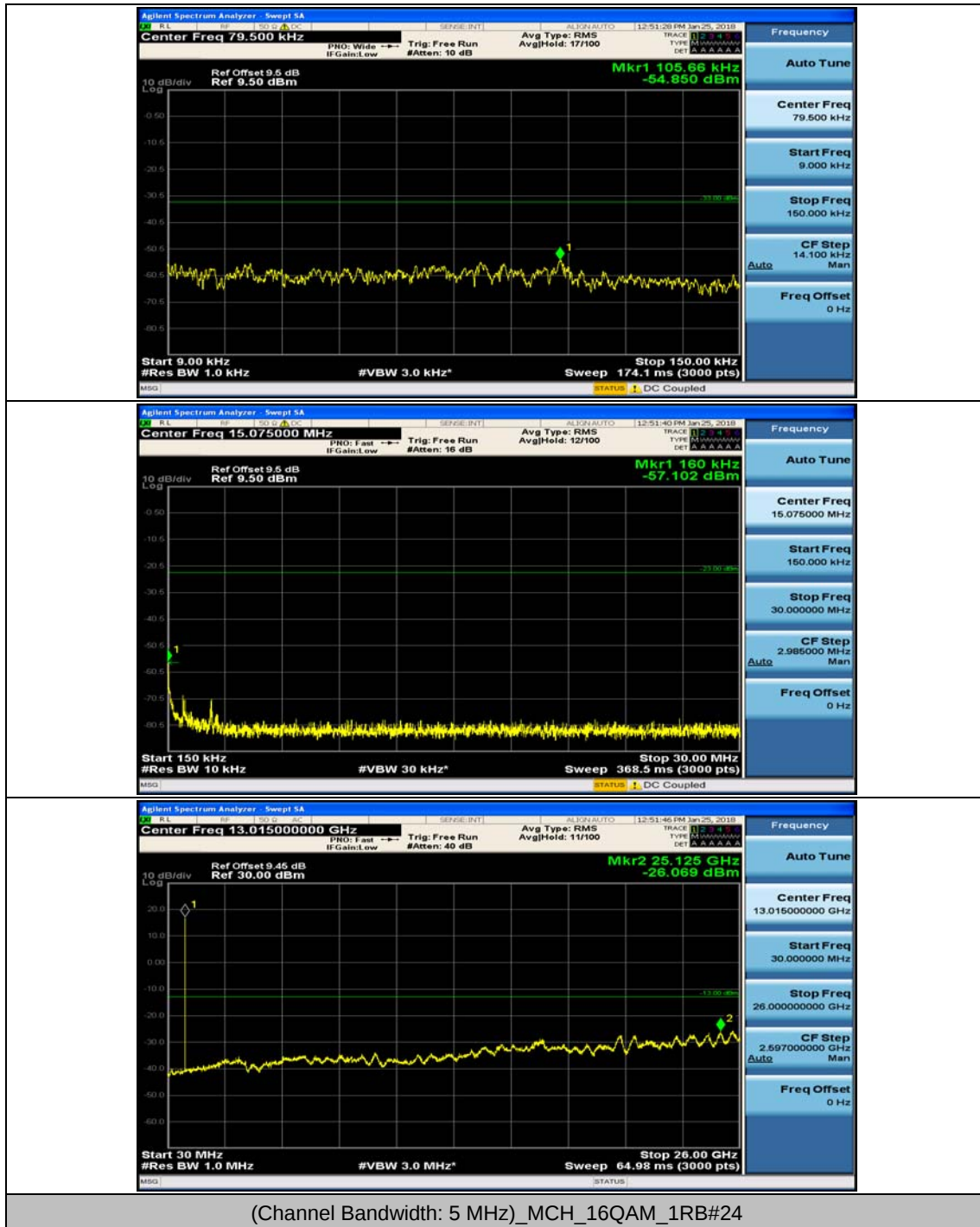


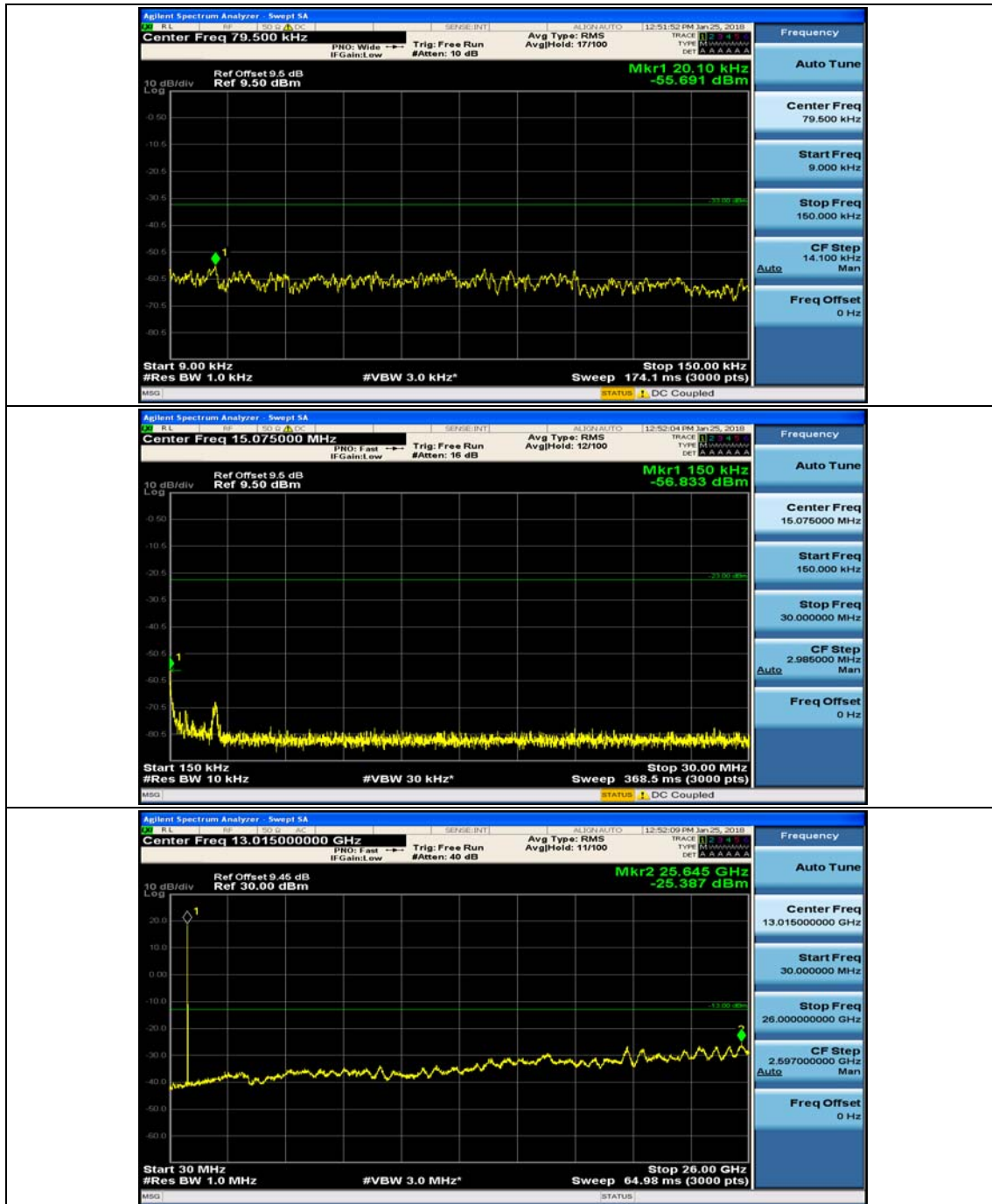


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

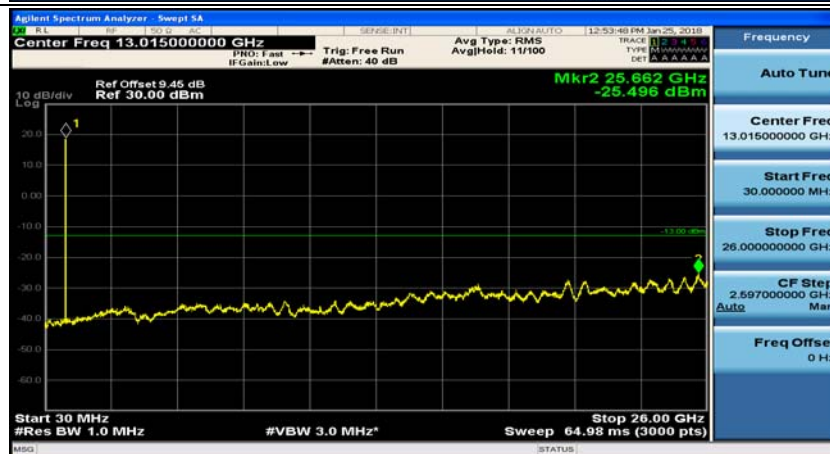
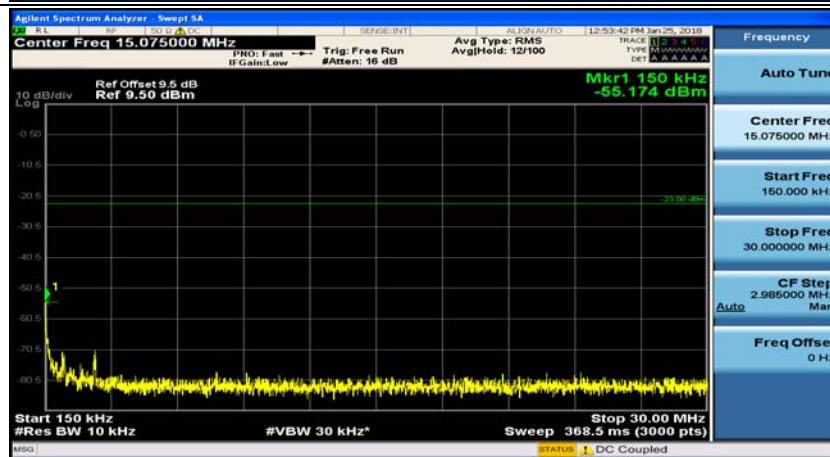
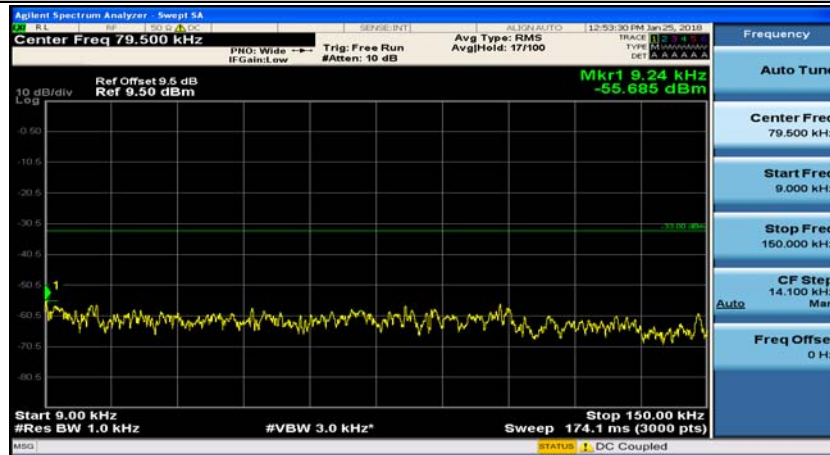


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

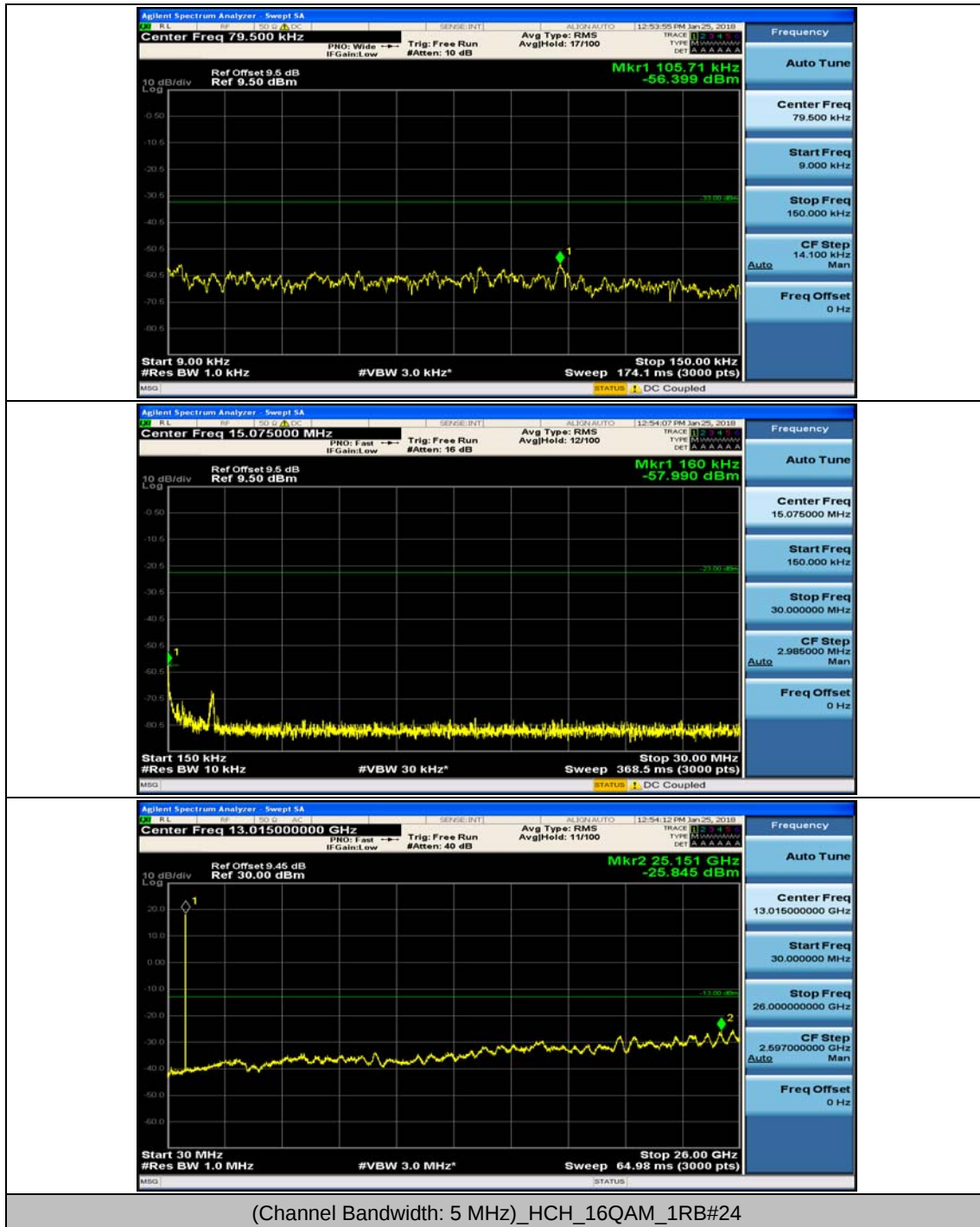


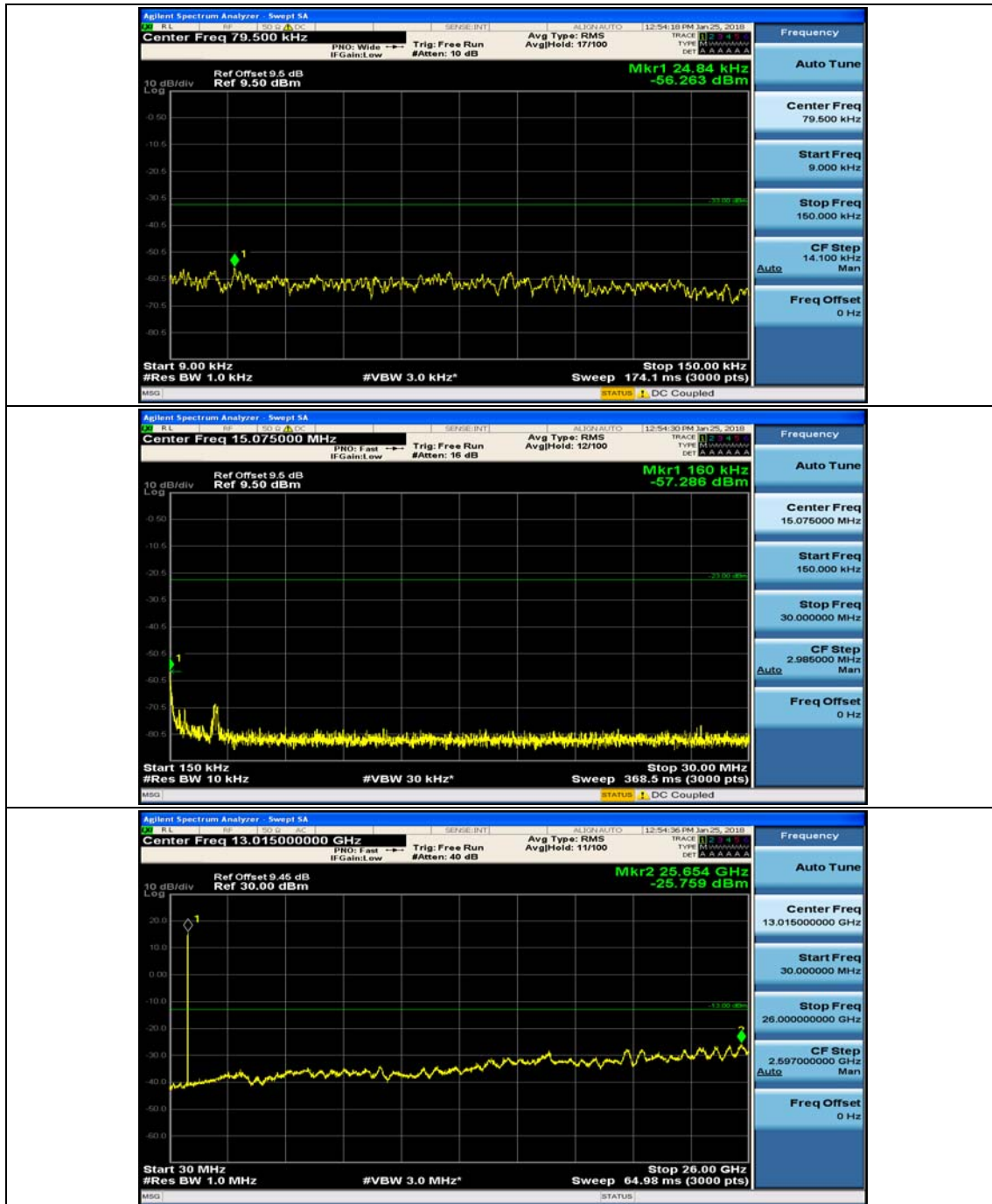


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

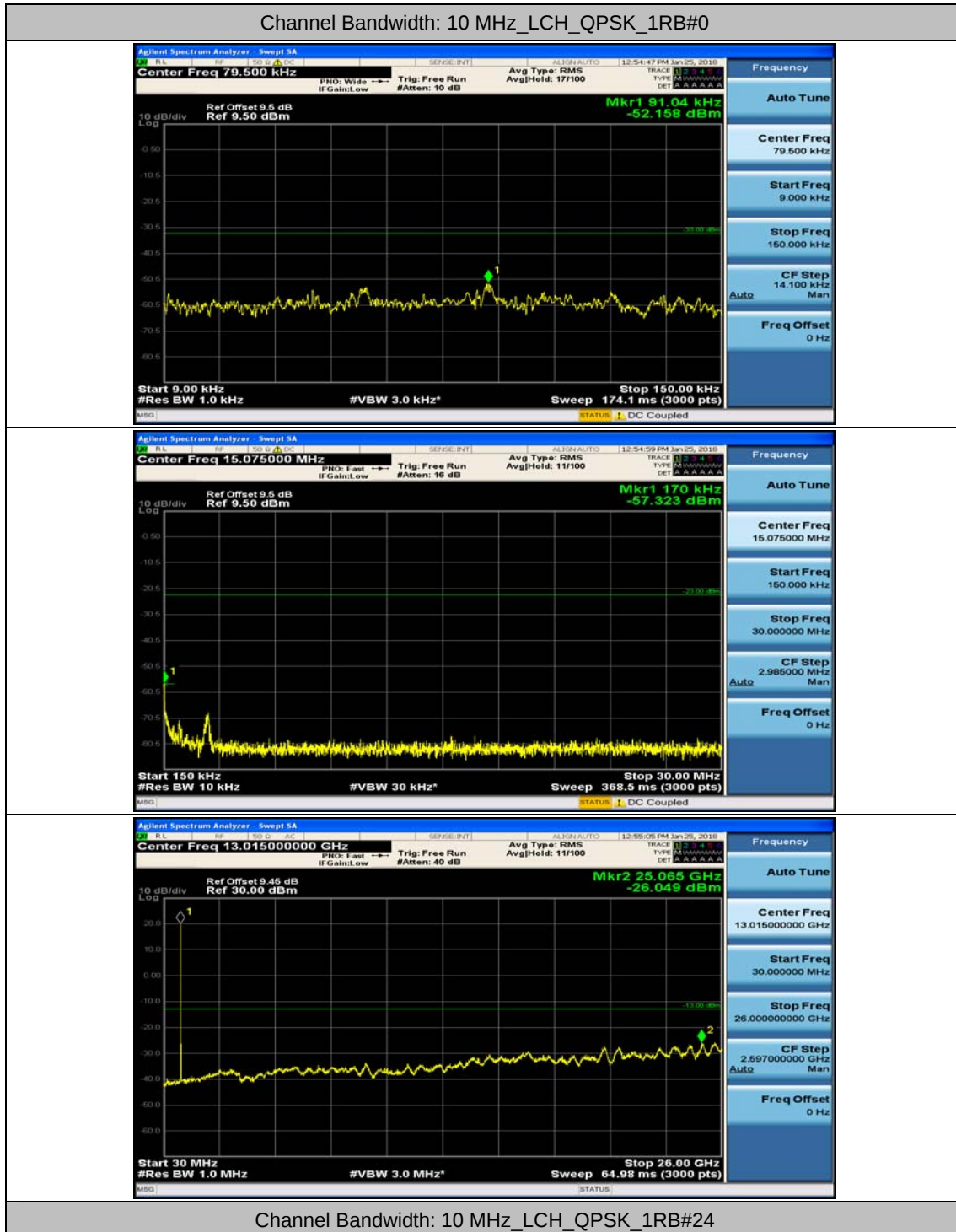


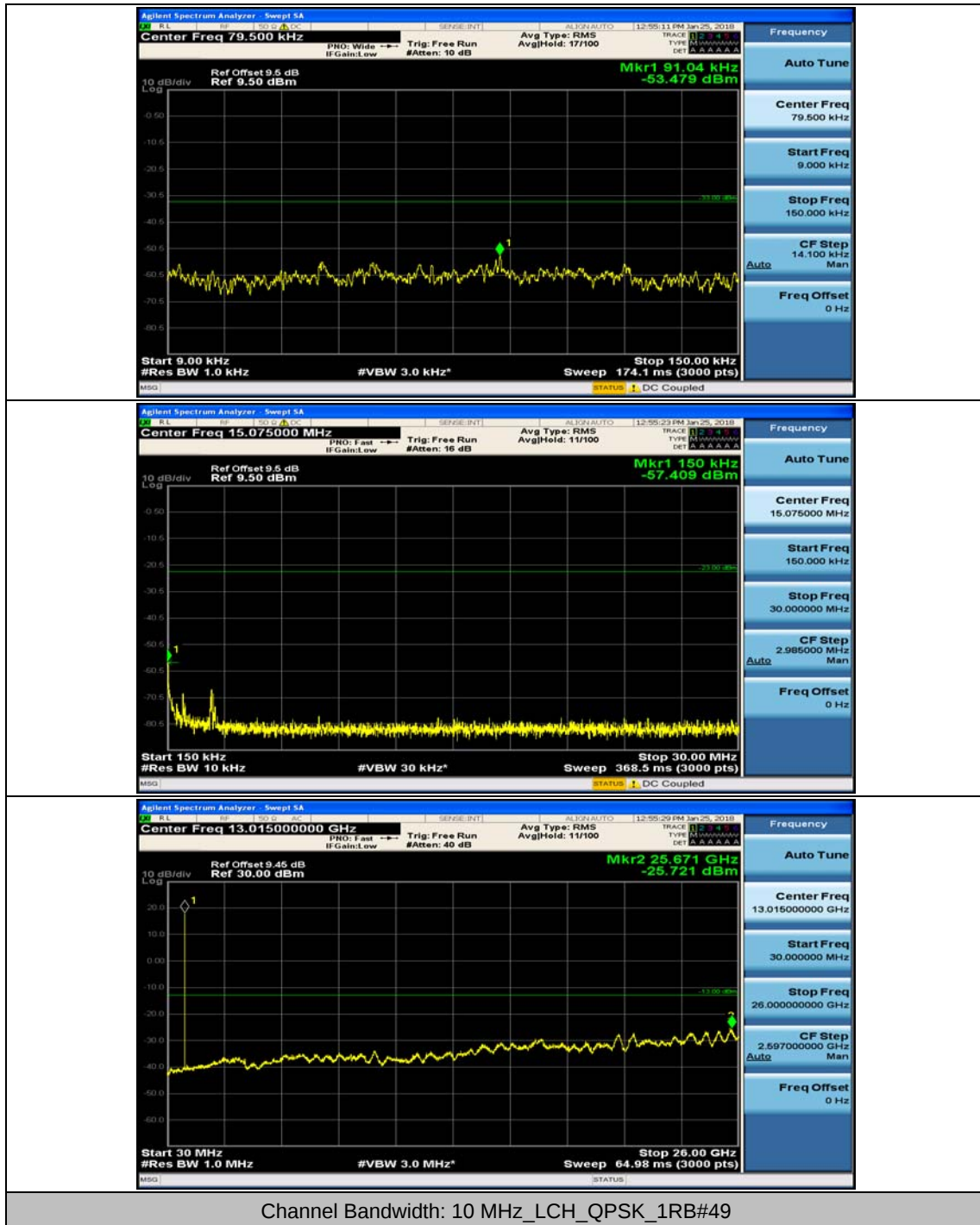
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

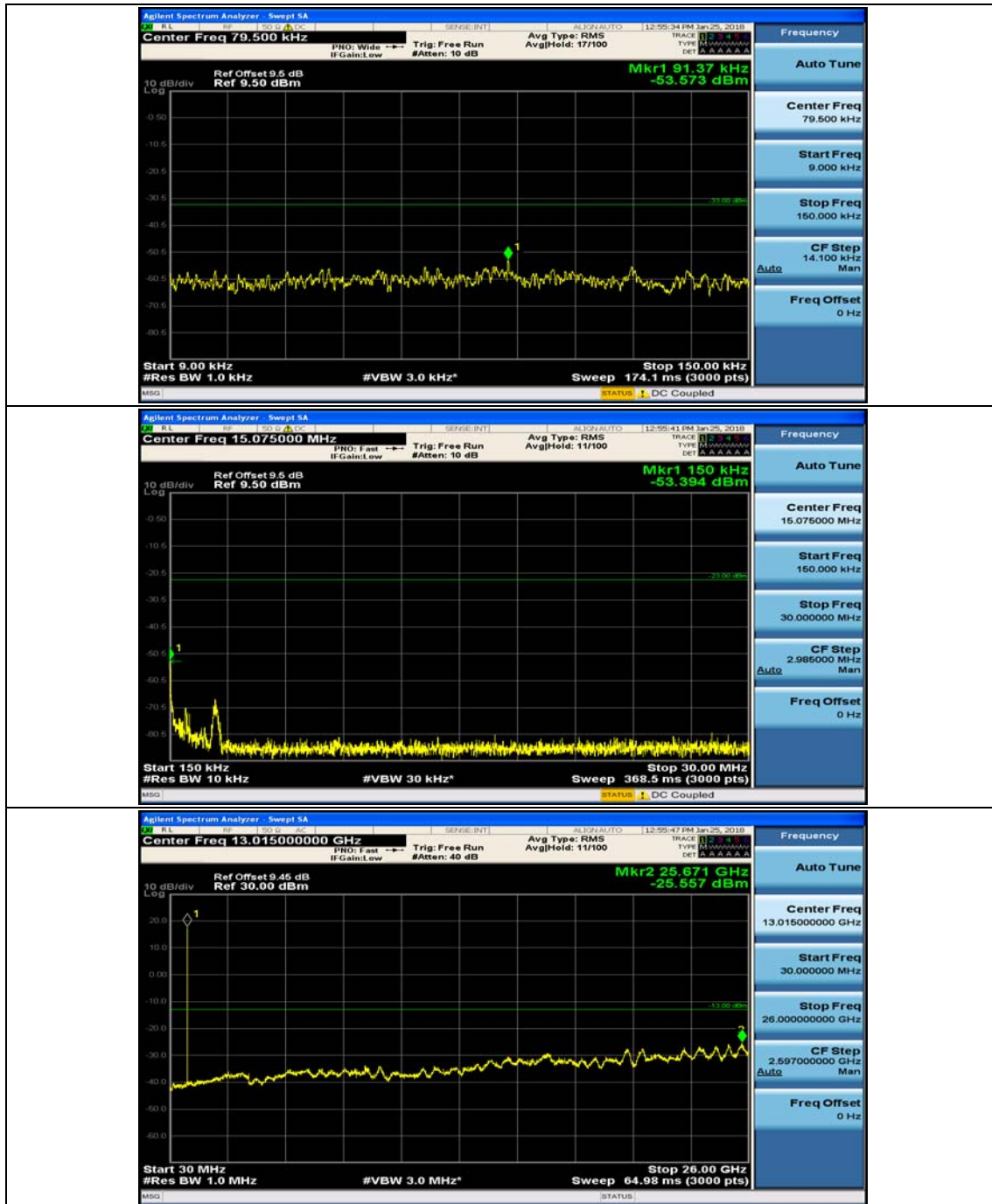




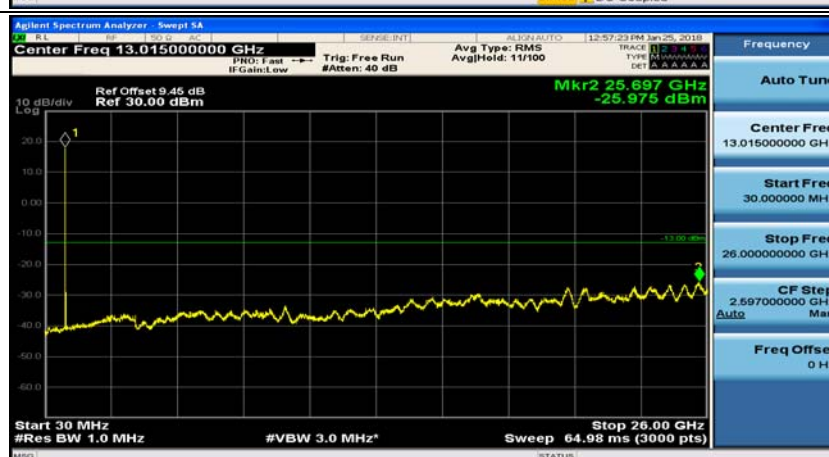
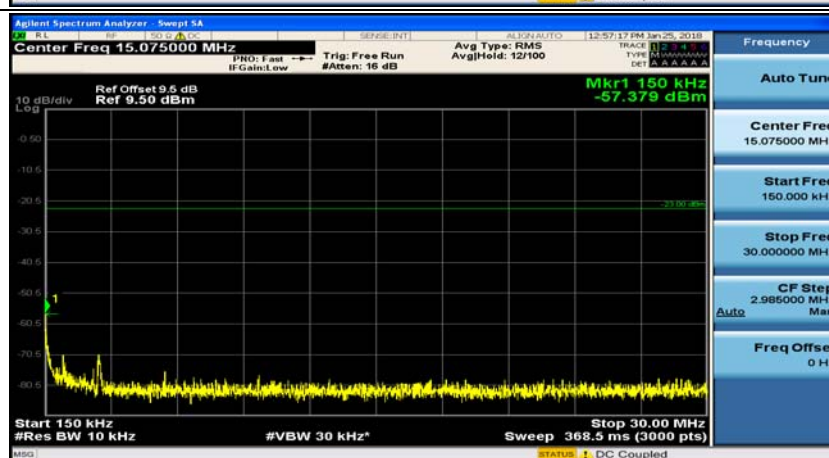
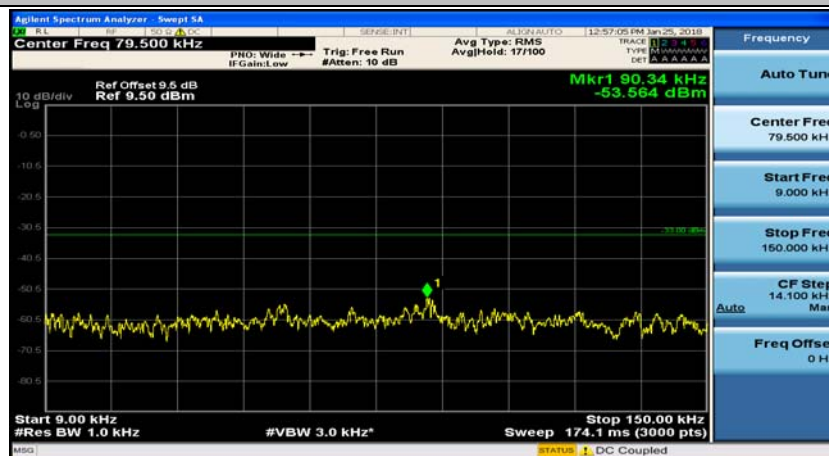
Channel Bandwidth: 10 MHz



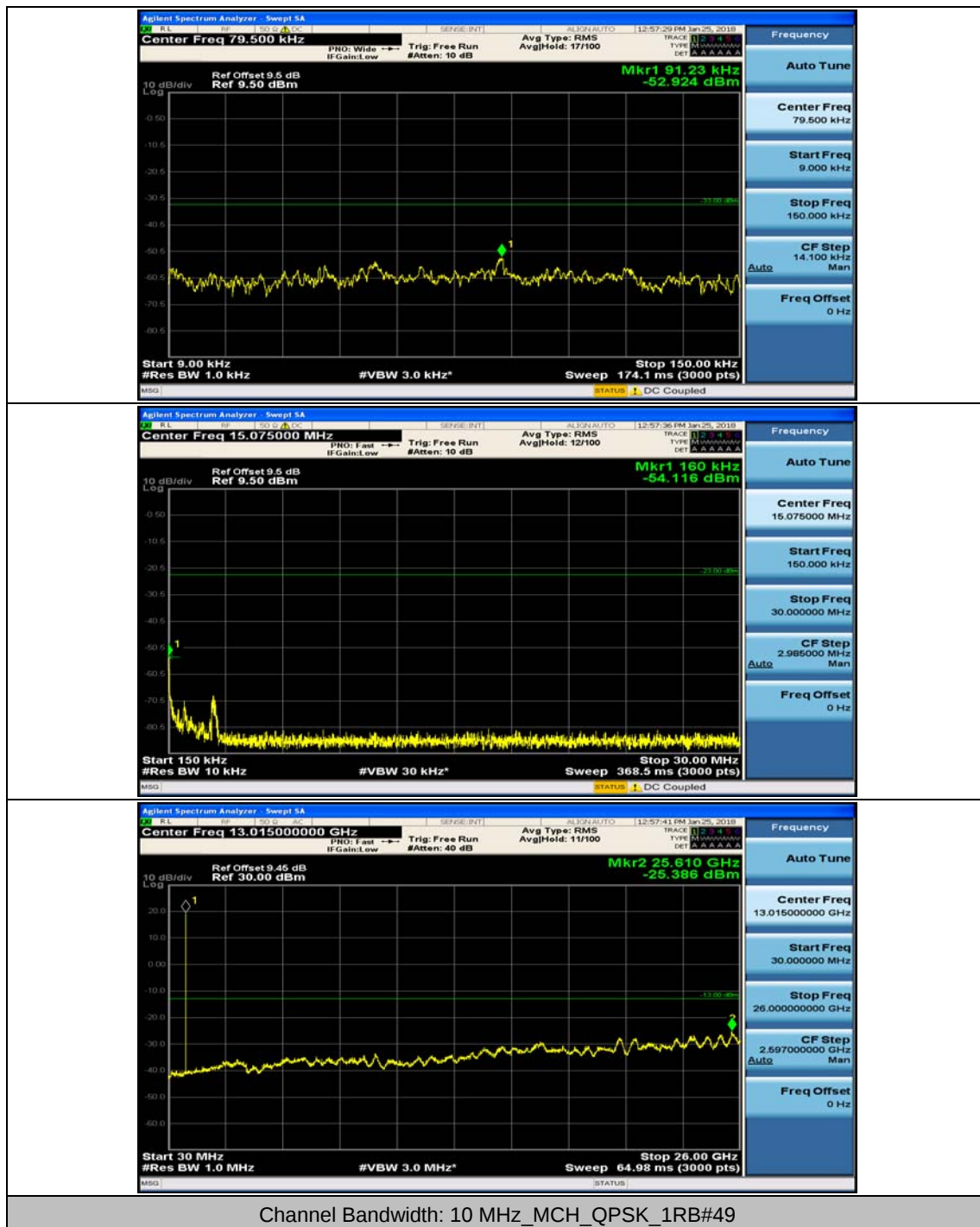


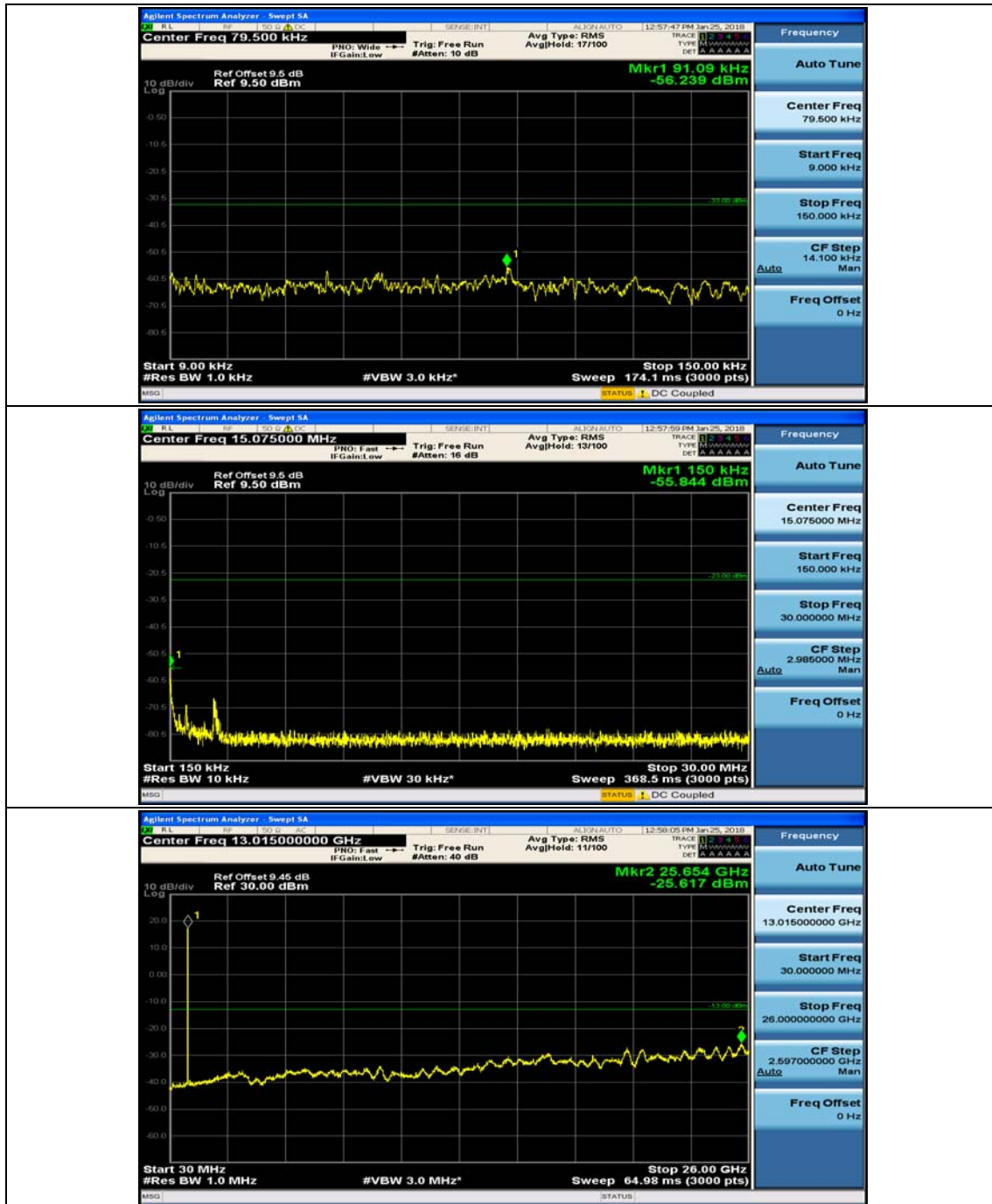


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

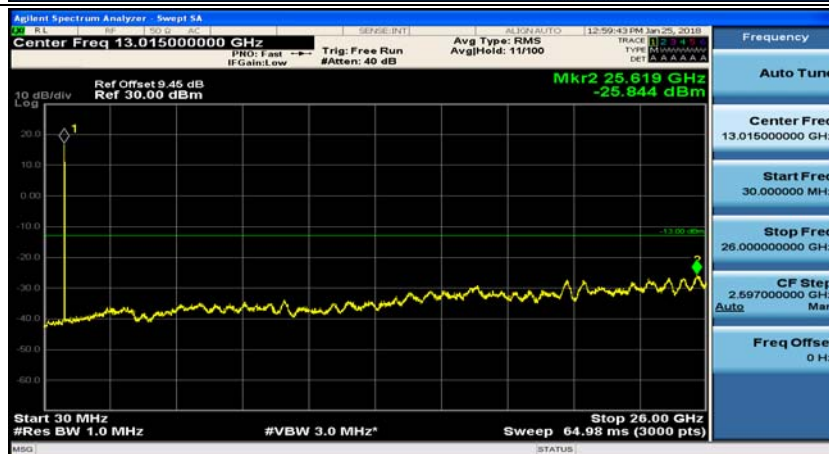
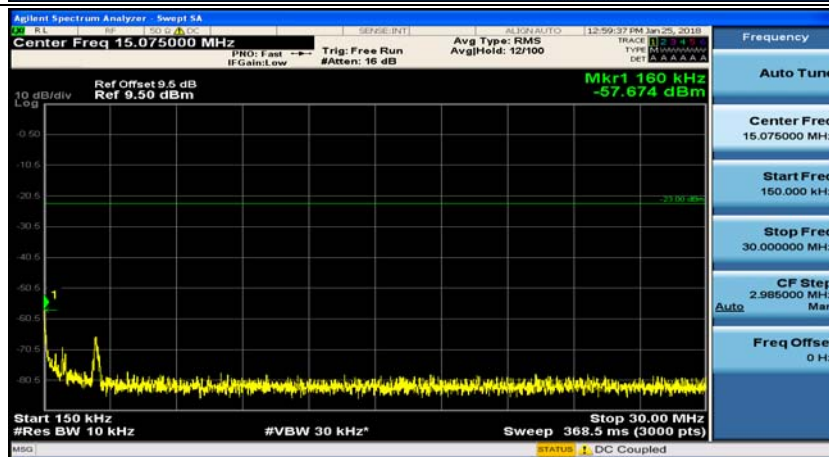


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

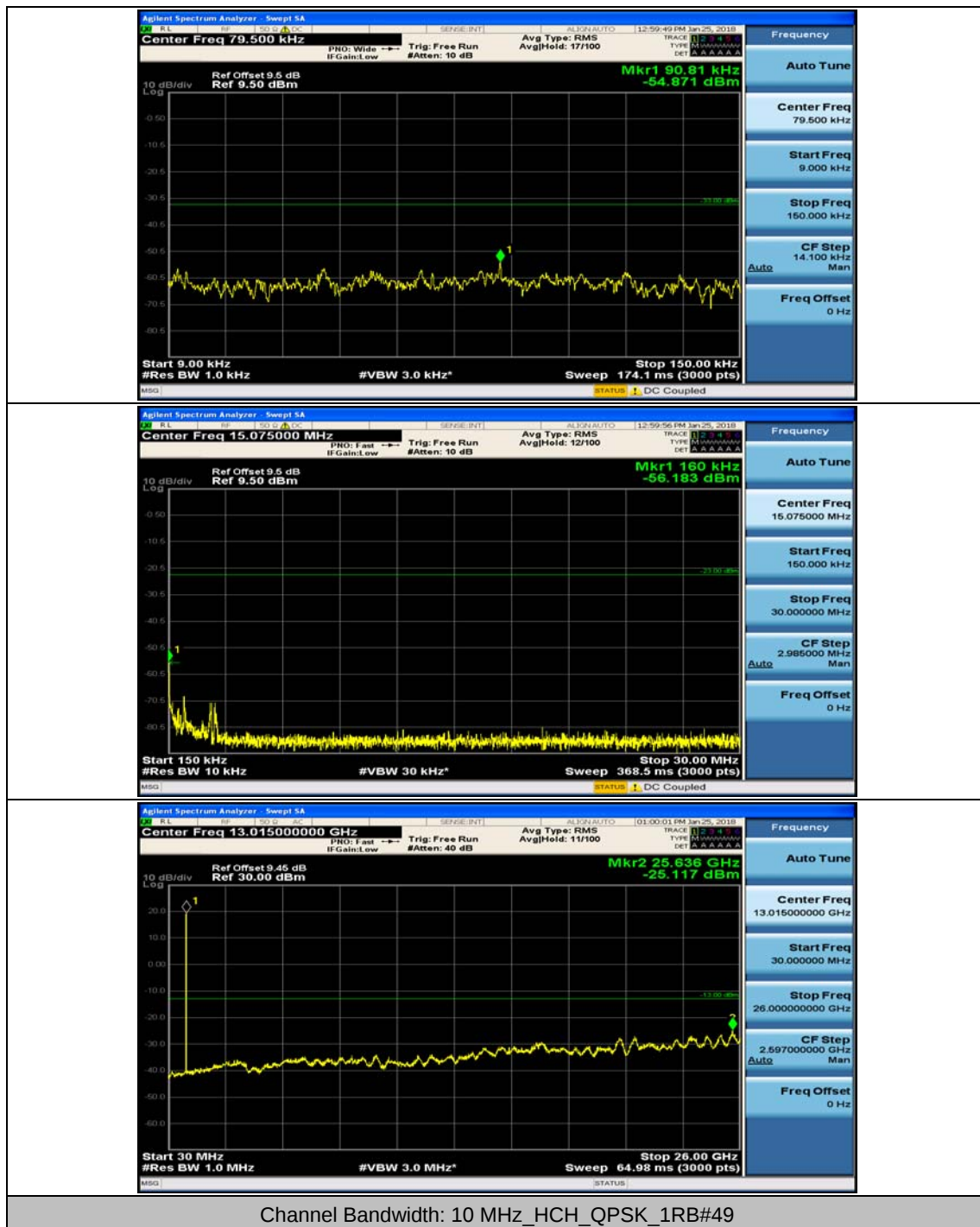


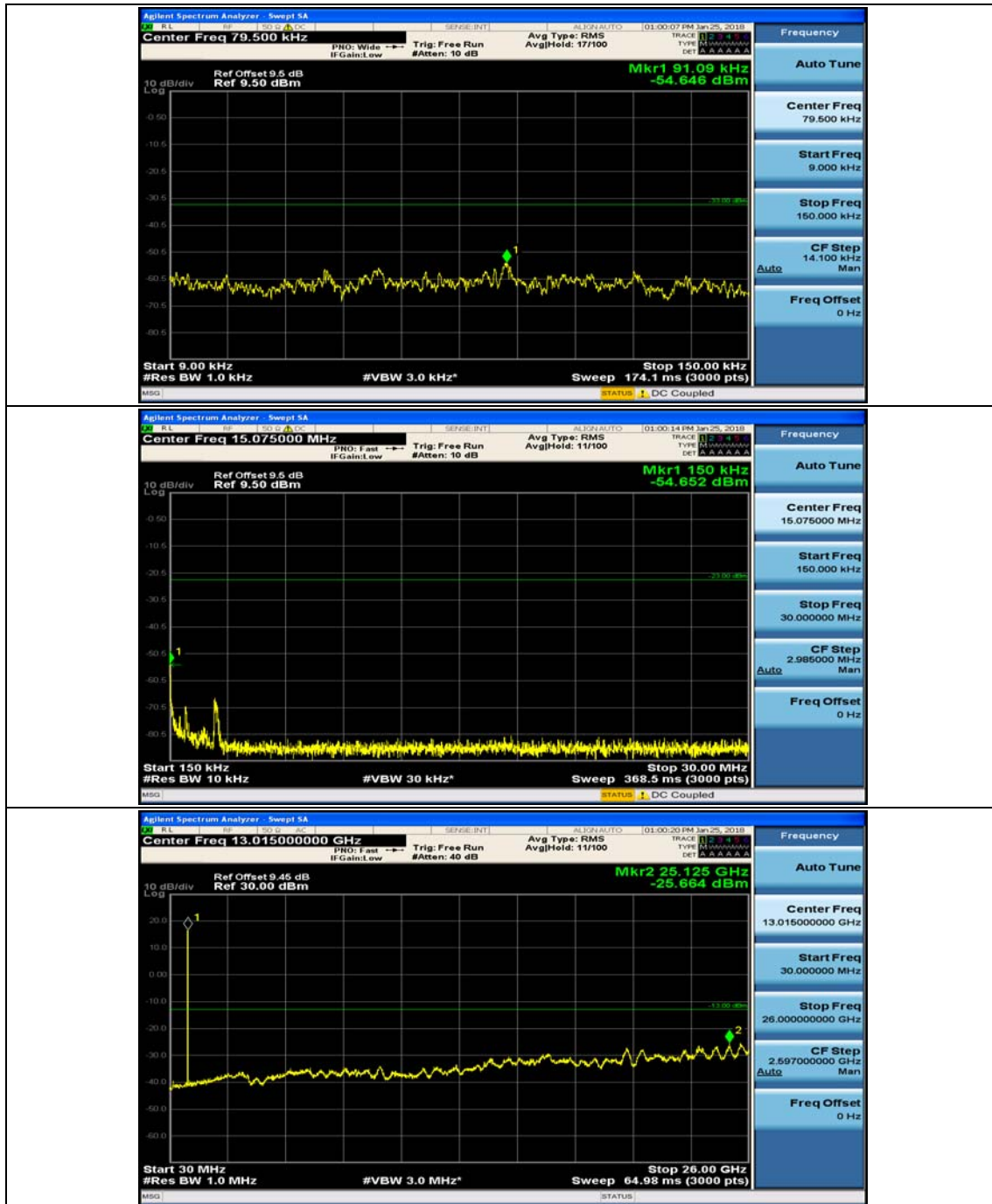


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0

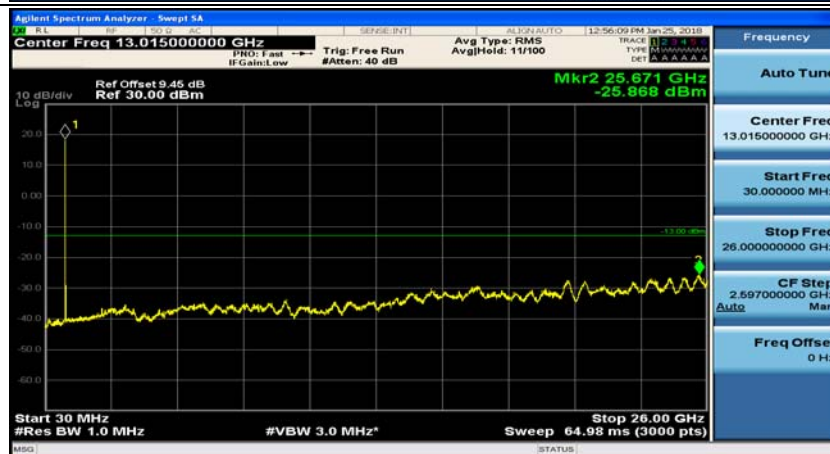
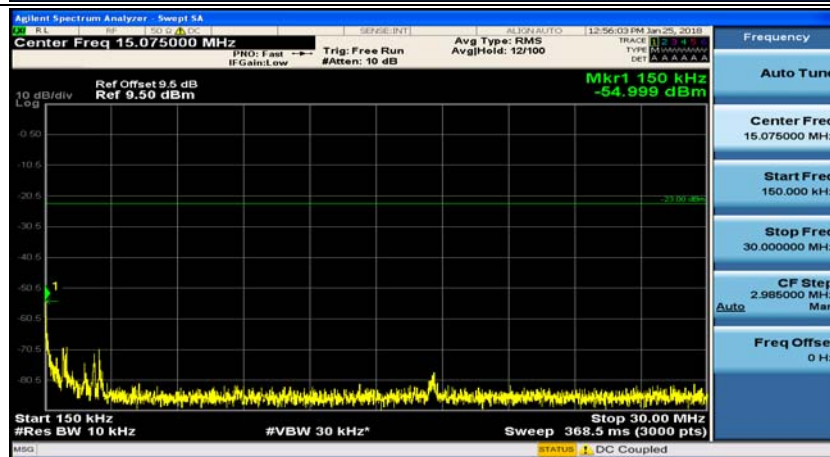
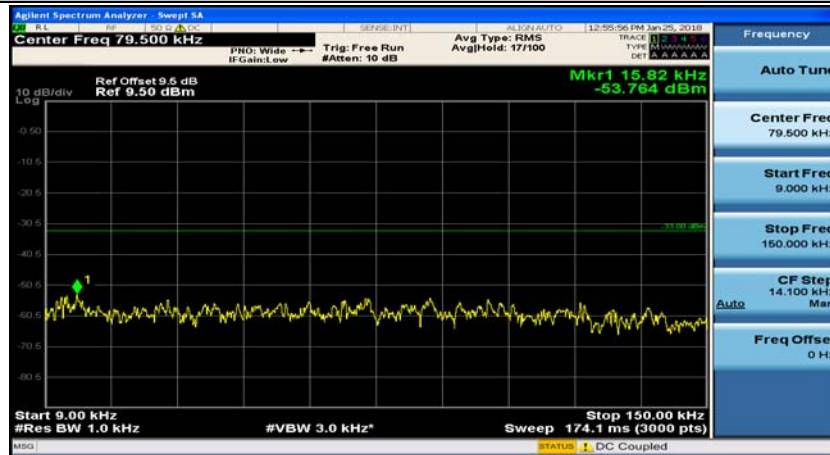


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

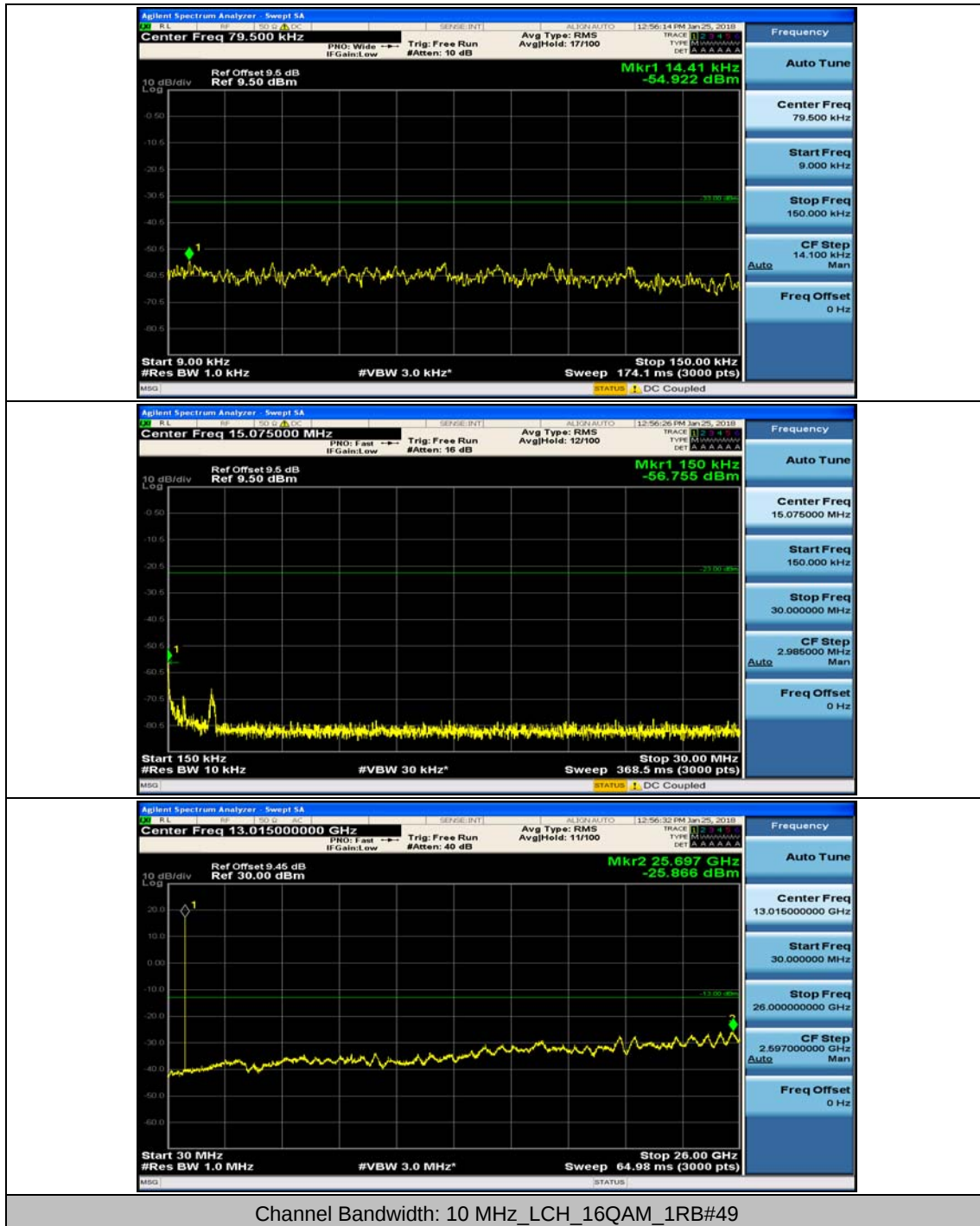


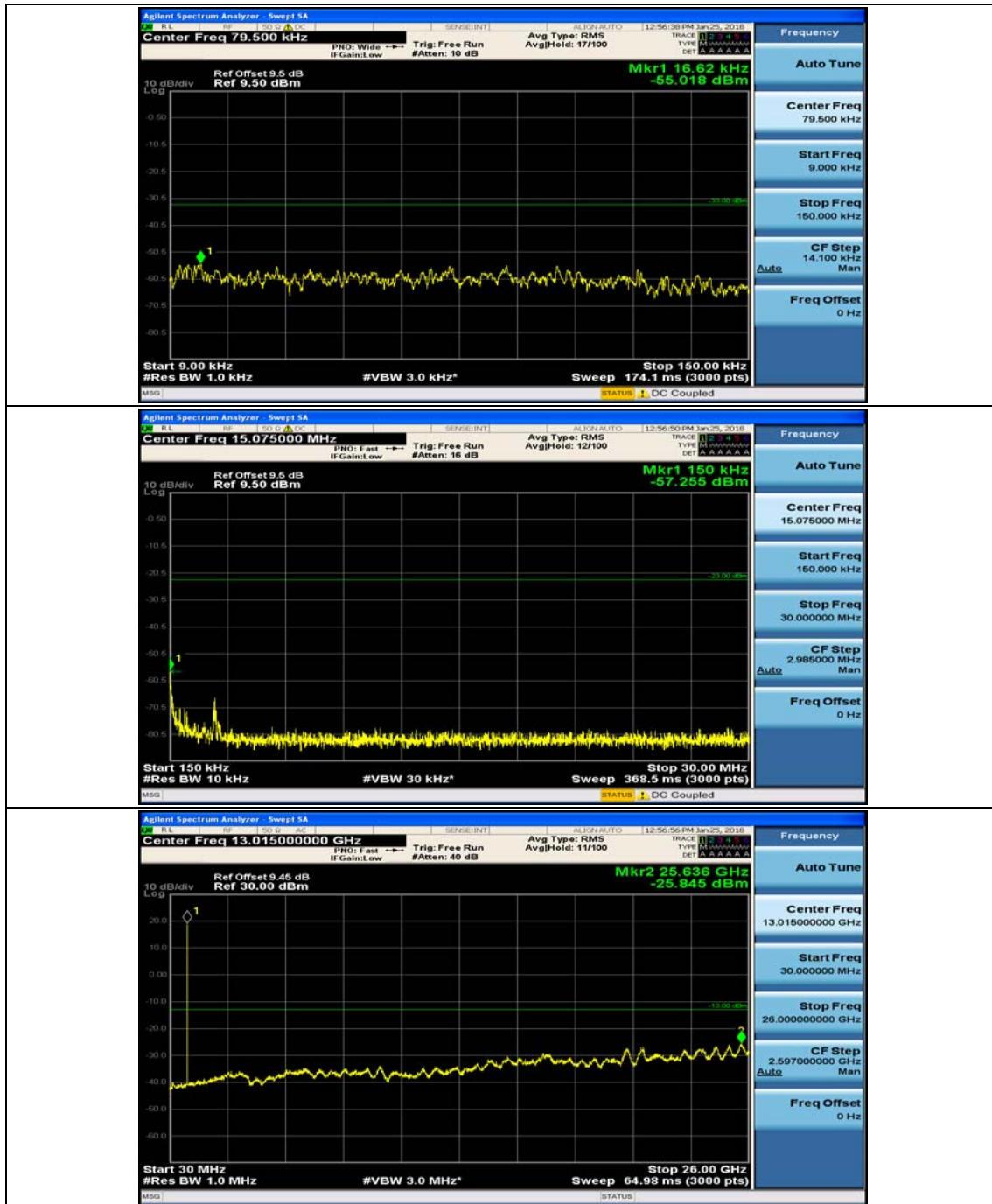


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

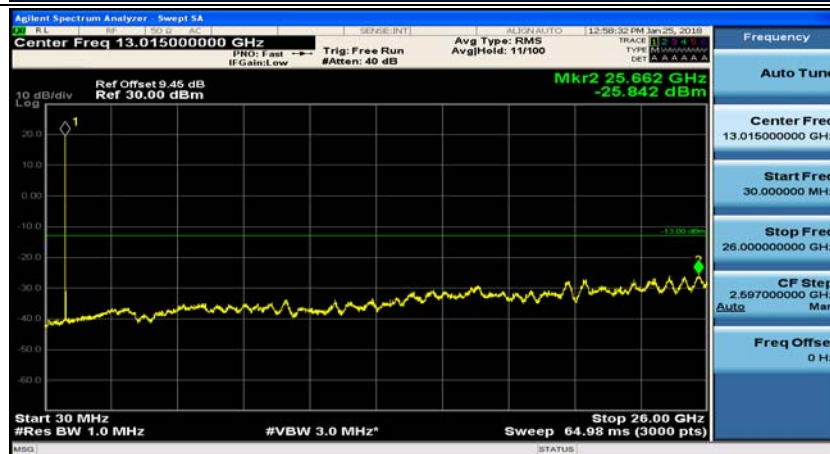
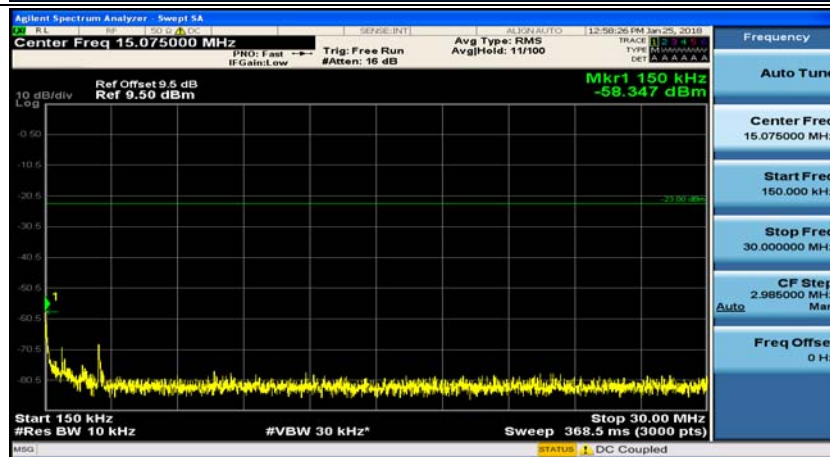


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

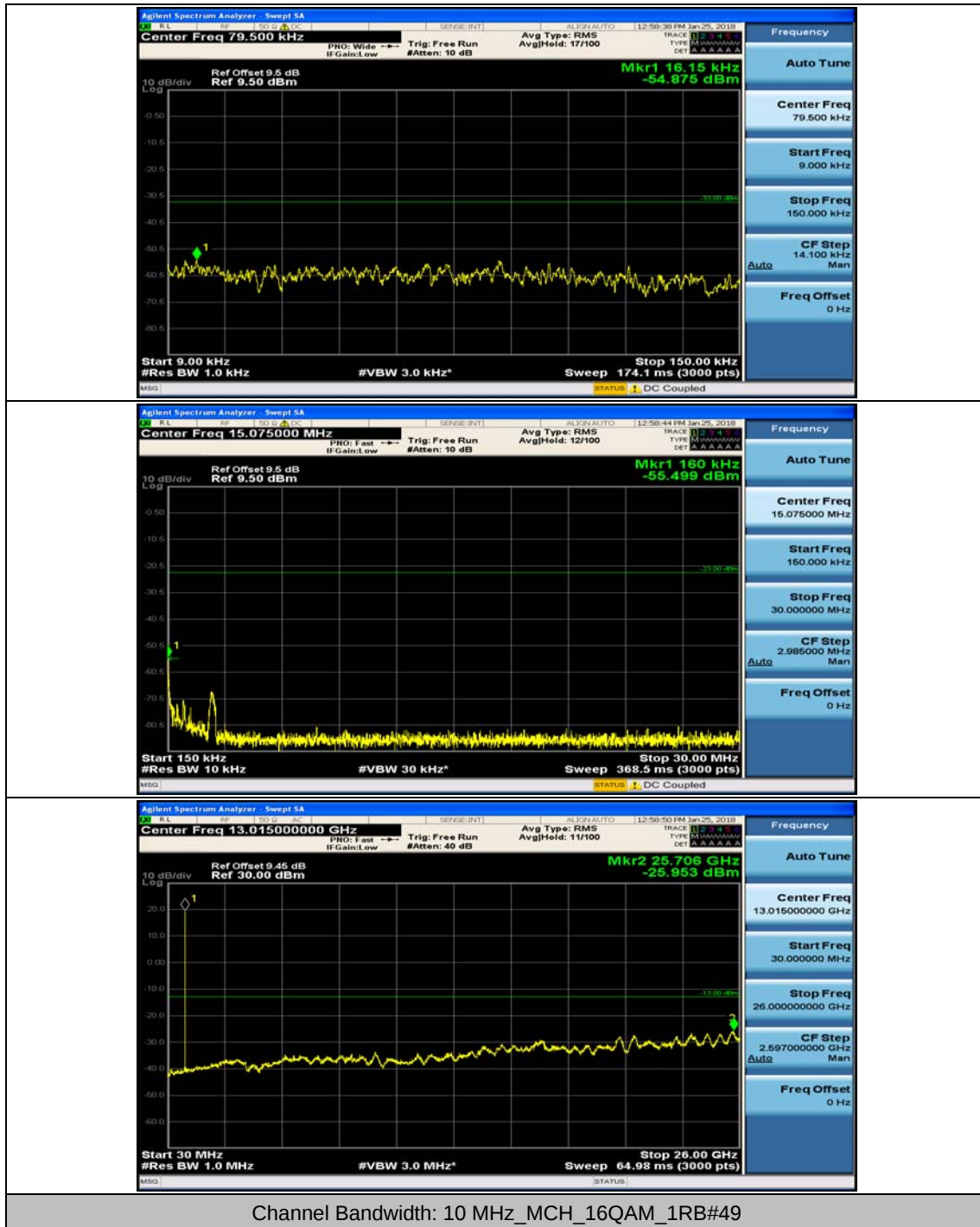


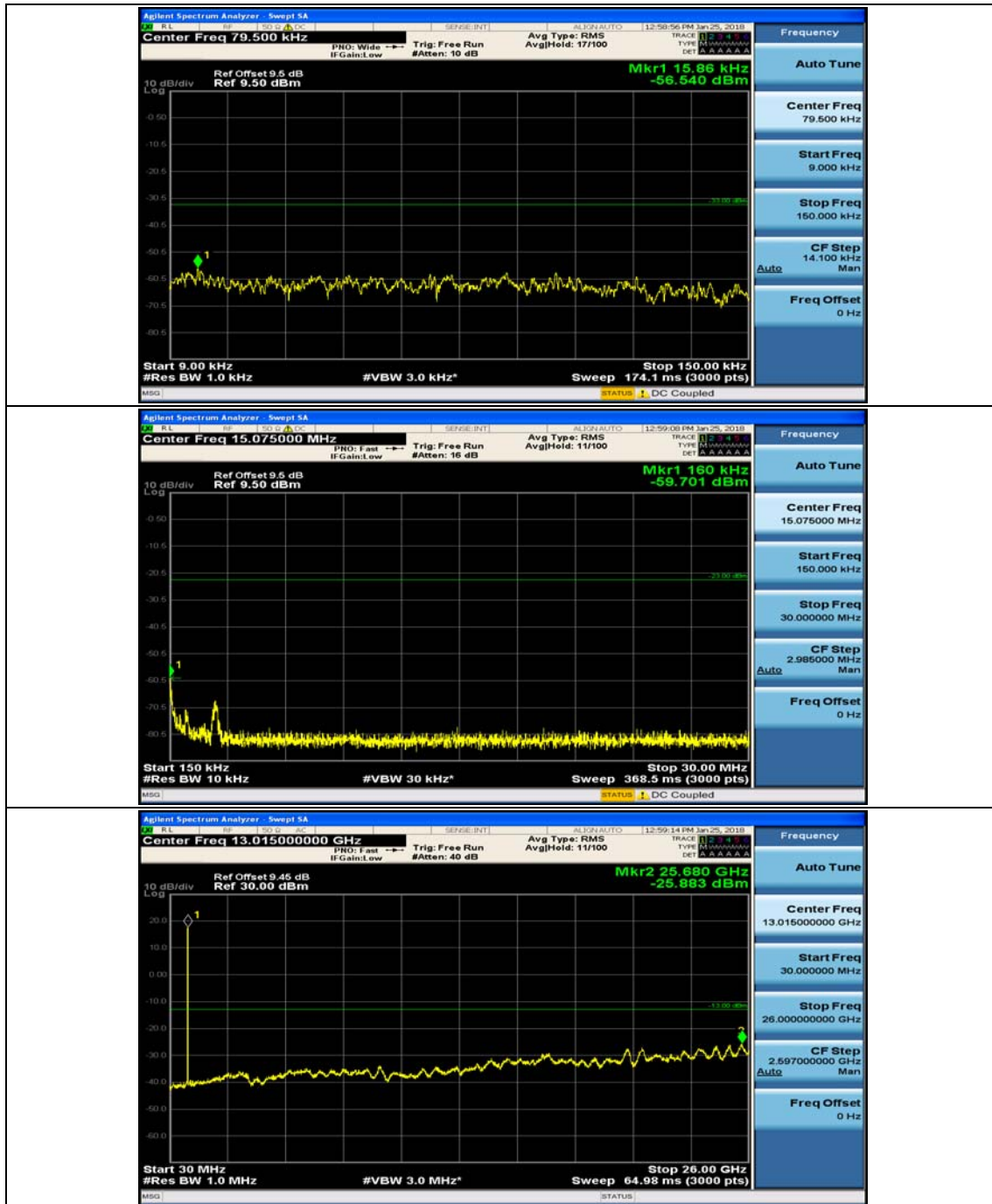


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

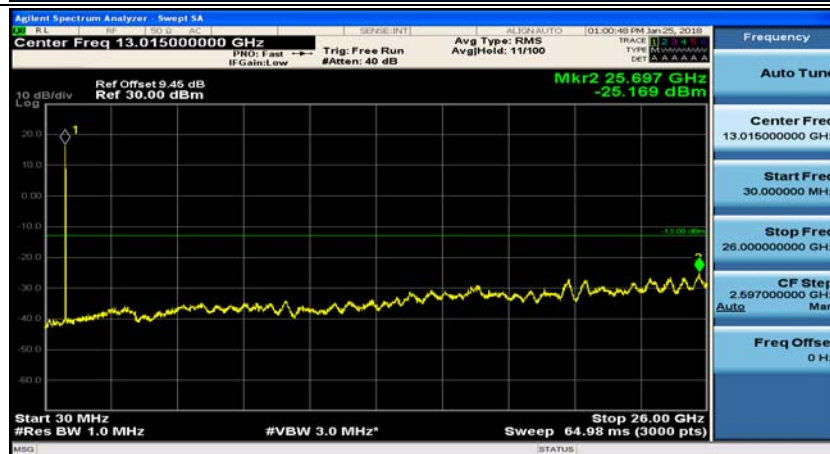
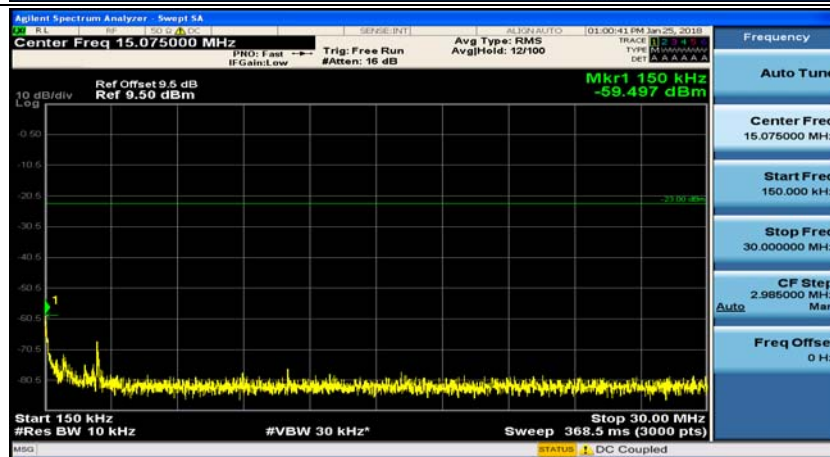


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

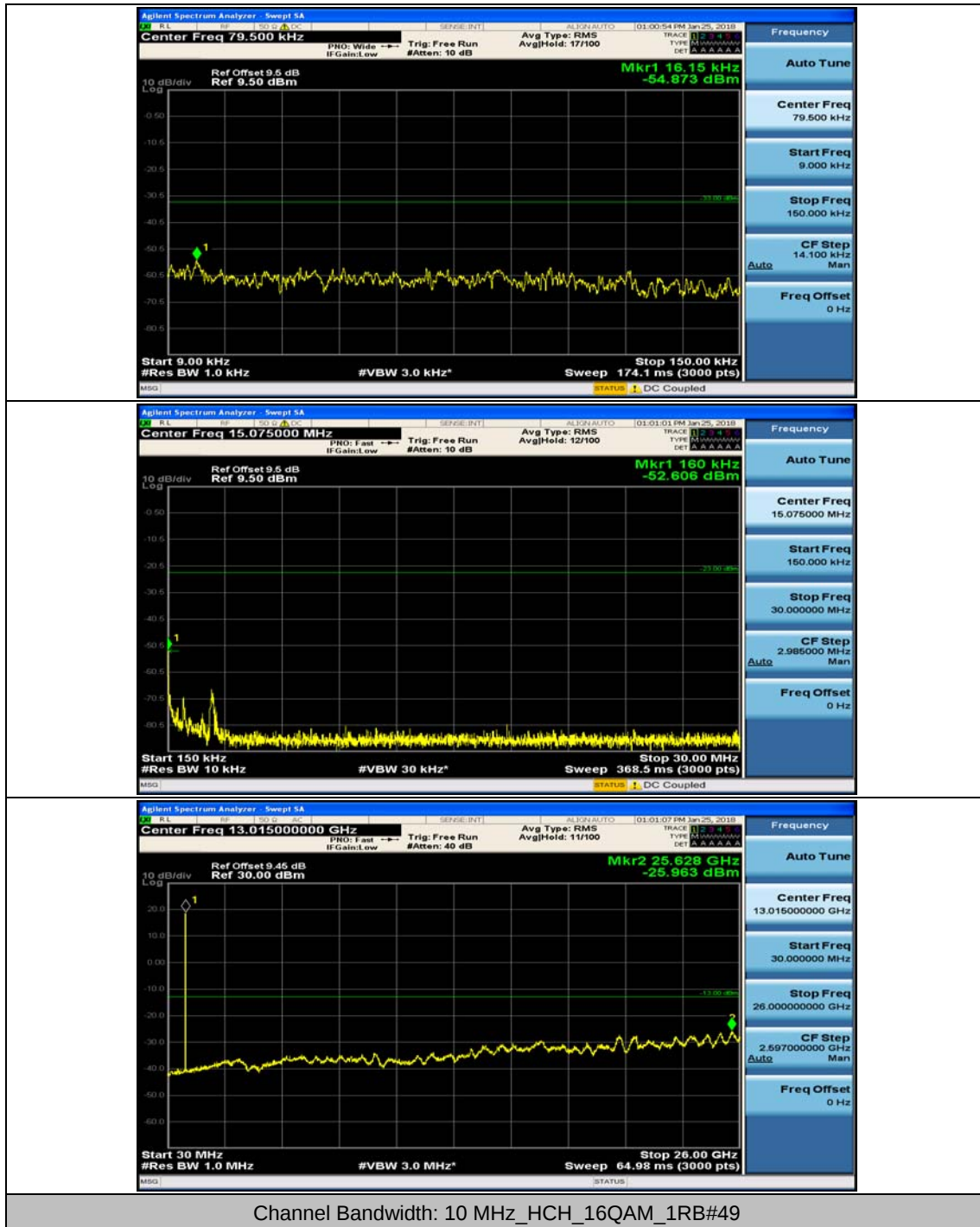


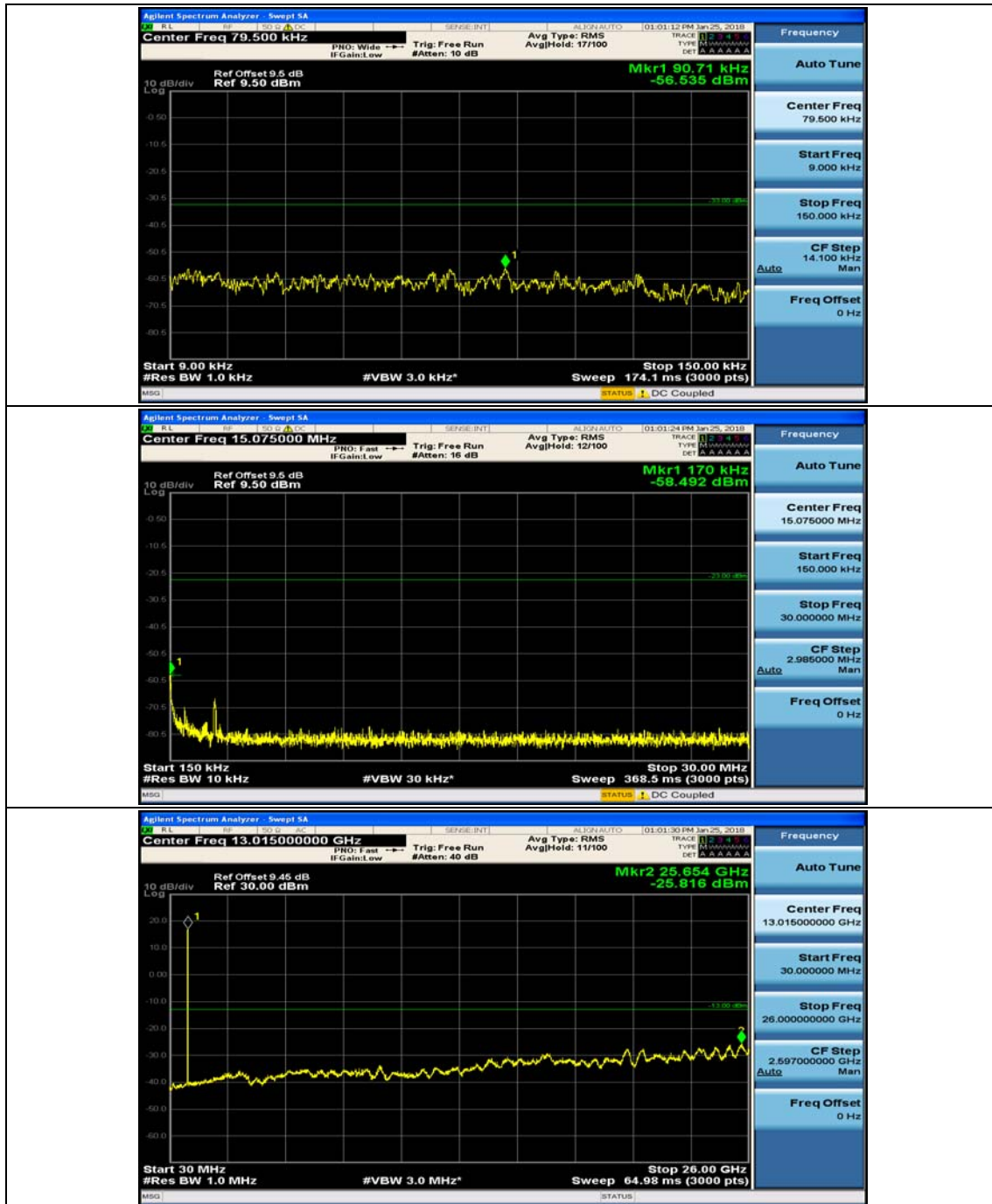


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24





Appendix E: 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	2.02	0.002449	± 2.5	PASS
		VN	TN	-1.1	-0.001334	± 2.5	PASS
		VH	TN	-0.34	-0.000406	± 2.5	PASS
	MCH	VL	TN	-1.64	-0.001961	± 2.5	PASS
		VN	TN	-1.62	-0.001937	± 2.5	PASS
		VH	TN	4.45	0.005246	± 2.5	PASS
	HCH	VL	TN	0.14	0.000165	± 2.5	PASS
		VN	TN	-1.95	-0.002299	± 2.5	PASS
		VH	TN	-0.88	-0.001067	± 2.5	PASS
16QAM	LCH	VL	TN	4.49	0.005444	± 2.5	PASS
		VN	TN	-0.37	-0.000449	± 2.5	PASS
		VH	TN	4.38	0.005236	± 2.5	PASS
	MCH	VL	TN	-0.34	-0.000406	± 2.5	PASS
		VN	TN	0.61	0.000729	± 2.5	PASS
		VH	TN	-1.06	-0.001250	± 2.5	PASS
	HCH	VL	TN	4.64	0.005470	± 2.5	PASS
		VN	TN	2.99	0.003525	± 2.5	PASS
		VH	TN	2.02	0.002449	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.84	0.002231	± 2.5	PASS
		VN	-20	-1.31	-0.001588	± 2.5	PASS
		VN	-10	1	0.001213	± 2.5	PASS
		VN	0	-0.58	-0.000703	± 2.5	PASS
		VN	10	2.69	0.003262	± 2.5	PASS
		VN	20	3.18	0.003856	± 2.5	PASS
		VN	30	0.75	0.000909	± 2.5	PASS
		VN	40	-0.91	-0.001103	± 2.5	PASS
		VN	50	3.67	0.004450	± 2.5	PASS
	MCH	VN	-30	0.33	0.000395	± 2.5	PASS
		VN	-20	2.14	0.002558	± 2.5	PASS
		VN	-10	-1.07	-0.001279	± 2.5	PASS

		VN	0	-0.65	-0.000777	± 2.5	PASS
		VN	10	3.86	0.004614	± 2.5	PASS
		VN	20	1.74	0.002080	± 2.5	PASS
		VN	30	-1.87	-0.002236	± 2.5	PASS
		VN	40	0.49	0.000586	± 2.5	PASS
		VN	50	-1.4	-0.001674	± 2.5	PASS
	HCH	VN	-30	2.2	0.002593	± 2.5	PASS
		VN	-20	1.51	0.001780	± 2.5	PASS
		VN	-10	4.85	0.005717	± 2.5	PASS
		VN	0	3.78	0.004456	± 2.5	PASS
		VN	10	3.98	0.004692	± 2.5	PASS
		VN	20	4.88	0.005753	± 2.5	PASS
		VN	30	-0.26	-0.000306	± 2.5	PASS
		VN	40	-0.71	-0.000837	± 2.5	PASS
		VN	50	-2	-0.002358	± 2.5	PASS
16QAM	LCH	VN	-30	-1.3	-0.001576	± 2.5	PASS
		VN	-20	2.15	0.002607	± 2.5	PASS
		VN	-10	-0.19	-0.000230	± 2.5	PASS
		VN	0	-0.23	-0.000279	± 2.5	PASS
		VN	10	2.07	0.002510	± 2.5	PASS
		VN	20	-0.63	-0.000764	± 2.5	PASS
		VN	30	4.97	0.006026	± 2.5	PASS
		VN	40	1.22	0.001479	± 2.5	PASS
		VN	50	-0.44	-0.000534	± 2.5	PASS
	MCH	VN	-30	2.37	0.002794	± 2.5	PASS
		VN	-20	-0.01	-0.000012	± 2.5	PASS
		VN	-10	4.76	0.005611	± 2.5	PASS
		VN	0	0.06	0.000071	± 2.5	PASS
		VN	10	0.13	0.000153	± 2.5	PASS
		VN	20	2.41	0.002841	± 2.5	PASS
		VN	30	0.11	0.000130	± 2.5	PASS
		VN	40	0.55	0.000648	± 2.5	PASS
		VN	50	2.72	0.003206	± 2.5	PASS
	HCH	VN	-30	-1.74	-0.002051	± 2.5	PASS
		VN	-20	-1.04	-0.001226	± 2.5	PASS
		VN	-10	4.61	0.005434	± 2.5	PASS
		VN	0	-1.01	-0.001191	± 2.5	PASS
		VN	10	4.78	0.005635	± 2.5	PASS
		VN	20	2.94	0.003466	± 2.5	PASS
		VN	30	3.96	0.004668	± 2.5	PASS
		VN	40	-0.31	-0.000365	± 2.5	PASS

		VN	50	-1.89	-0.002228	± 2.5	PASS
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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	0.16	0.000194	± 2.5	PASS
		VN	TN	-0.94	-0.001139	± 2.5	PASS
		VH	TN	0.26	0.000315	± 2.5	PASS
	MCH	VL	TN	-1.66	-0.001984	± 2.5	PASS
		VN	TN	3.39	0.004053	± 2.5	PASS
		VH	TN	2	0.002391	± 2.5	PASS
	HCH	VL	TN	0.38	0.000448	± 2.5	PASS
		VN	TN	2.93	0.003457	± 2.5	PASS
		VH	TN	0.23	0.000271	± 2.5	PASS
16QAM	LCH	VL	TN	3.74	0.004531	± 2.5	PASS
		VN	TN	3.26	0.003949	± 2.5	PASS
		VH	TN	0.74	0.000896	± 2.5	PASS
	MCH	VL	TN	0.47	0.000562	± 2.5	PASS
		VN	TN	2.22	0.002654	± 2.5	PASS
		VH	TN	2.1	0.002510	± 2.5	PASS
	HCH	VL	TN	1.1	0.001298	± 2.5	PASS
		VN	TN	2.54	0.002997	± 2.5	PASS
		VH	TN	4.07	0.004802	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.75	-0.002120	± 2.5	PASS
		VN	-20	4.86	0.005887	± 2.5	PASS
		VN	-10	1.58	0.001914	± 2.5	PASS
		VN	0	4.05	0.004906	± 2.5	PASS
		VN	10	2.71	0.003283	± 2.5	PASS
		VN	20	2.93	0.003549	± 2.5	PASS
		VN	30	1.18	0.001429	± 2.5	PASS
		VN	40	0.54	0.000654	± 2.5	PASS
		VN	50	4.64	0.005621	± 2.5	PASS
	MCH	VN	-30	3.89	0.004650	± 2.5	PASS
		VN	-20	-0.07	-0.000084	± 2.5	PASS
		VN	-10	2.18	0.002606	± 2.5	PASS
		VN	0	-0.87	-0.001040	± 2.5	PASS
		VN	10	0.32	0.000383	± 2.5	PASS

		VN	20	1.04	0.001243	± 2.5	PASS
		VN	30	-1.28	-0.001530	± 2.5	PASS
		VN	40	2.64	0.003156	± 2.5	PASS
		VN	50	1.28	0.001530	± 2.5	PASS
	HCH	VN	-30	-0.44	-0.000519	± 2.5	PASS
		VN	-20	4.94	0.005829	± 2.5	PASS
		VN	-10	2.4	0.002832	± 2.5	PASS
		VN	0	3.48	0.004106	± 2.5	PASS
		VN	10	3.97	0.004684	± 2.5	PASS
		VN	20	-1.16	-0.001369	± 2.5	PASS
		VN	30	3.63	0.004283	± 2.5	PASS
		VN	40	3.05	0.003599	± 2.5	PASS
		VN	50	1.42	0.001676	± 2.5	PASS
		VN	-30	-0.41	-0.000490	± 2.5	PASS
		VN	-20	0.87	0.001040	± 2.5	PASS
		VN	-10	1.04	0.001243	± 2.5	PASS
		VN	0	3.42	0.004088	± 2.5	PASS
		VN	10	0.73	0.000873	± 2.5	PASS
16QAM	LCH	VN	20	-1.56	-0.001865	± 2.5	PASS
		VN	30	-1.86	-0.002224	± 2.5	PASS
		VN	40	0.45	0.000538	± 2.5	PASS
		VN	50	-0.41	-0.000490	± 2.5	PASS
	MCH	VN	-30	1.81	0.002136	± 2.5	PASS
		VN	-20	0.64	0.000755	± 2.5	PASS
		VN	-10	4.28	0.005050	± 2.5	PASS
		VN	0	2.86	0.003375	± 2.5	PASS
		VN	10	2.39	0.002820	± 2.5	PASS
		VN	20	-0.04	-0.000047	± 2.5	PASS
		VN	30	2.42	0.002855	± 2.5	PASS
		VN	40	4.87	0.005746	± 2.5	PASS
		VN	50	3.35	0.003953	± 2.5	PASS
	HCH	VN	-30	-1.02	-0.001204	± 2.5	PASS
		VN	-20	2.38	0.002808	± 2.5	PASS
		VN	-10	-1.8	-0.002124	± 2.5	PASS
		VN	0	0.76	0.000897	± 2.5	PASS
		VN	10	0.91	0.001074	± 2.5	PASS
		VN	20	1.38	0.001628	± 2.5	PASS
		VN	30	2.7	0.003186	± 2.5	PASS
		VN	40	0.76	0.000897	± 2.5	PASS
		VN	50	-0.92	-0.001086	± 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	3.59	0.004344	± 2.5	PASS
		VN	TN	4.32	0.005227	± 2.5	PASS
		VH	TN	0.78	0.000944	± 2.5	PASS
	MCH	VL	TN	0.98	0.001172	± 2.5	PASS
		VN	TN	2.49	0.002977	± 2.5	PASS
		VH	TN	3.65	0.004363	± 2.5	PASS
	HCH	VL	TN	-0.35	-0.000413	± 2.5	PASS
		VN	TN	4.4	0.005198	± 2.5	PASS
		VH	TN	4.22	0.004985	± 2.5	PASS
16QAM	LCH	VL	TN	0.91	0.001101	± 2.5	PASS
		VN	TN	2.31	0.002795	± 2.5	PASS
		VH	TN	4.42	0.005348	± 2.5	PASS
	MCH	VL	TN	-0.72	-0.000861	± 2.5	PASS
		VN	TN	2.63	0.003144	± 2.5	PASS
		VH	TN	-1.41	-0.001686	± 2.5	PASS
	HCH	VL	TN	4.99	0.005895	± 2.5	PASS
		VN	TN	4.35	0.005139	± 2.5	PASS
		VH	TN	4.11	0.004855	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.78	-0.000944	± 2.5	PASS
		VN	-20	2.9	0.003509	± 2.5	PASS
		VN	-10	0.98	0.001186	± 2.5	PASS
		VN	0	1.84	0.002226	± 2.5	PASS
		VN	10	2.82	0.003412	± 2.5	PASS
		VN	20	0.31	0.000375	± 2.5	PASS
		VN	30	1.12	0.001355	± 2.5	PASS
		VN	40	5	0.006050	± 2.5	PASS
		VN	50	-0.58	-0.000702	± 2.5	PASS
	MCH	VN	-30	-1.59	-0.001901	± 2.5	PASS
		VN	-20	3.91	0.004674	± 2.5	PASS
		VN	-10	4.94	0.005906	± 2.5	PASS
		VN	0	2.6	0.003108	± 2.5	PASS
		VN	10	1.64	0.001961	± 2.5	PASS
		VN	20	-1.72	-0.002056	± 2.5	PASS
		VN	30	1.3	0.001554	± 2.5	PASS

		VN	40	2	0.002391	± 2.5	PASS
		VN	50	0.66	0.000789	± 2.5	PASS
	HCH	VN	-30	-1.23	-0.001453	± 2.5	PASS
		VN	-20	2.52	0.002977	± 2.5	PASS
		VN	-10	3.95	0.004666	± 2.5	PASS
		VN	0	2.04	0.002410	± 2.5	PASS
		VN	10	4.35	0.005139	± 2.5	PASS
		VN	20	2.73	0.003225	± 2.5	PASS
		VN	30	4.38	0.005174	± 2.5	PASS
		VN	40	-0.14	-0.000165	± 2.5	PASS
		VN	50	1.4	0.001654	± 2.5	PASS
16QAM	LCH	VN	-30	3.75	0.004483	± 2.5	PASS
		VN	-20	3.75	0.004483	± 2.5	PASS
		VN	-10	2.75	0.003288	± 2.5	PASS
		VN	0	-1.57	-0.001877	± 2.5	PASS
		VN	10	1.68	0.002008	± 2.5	PASS
		VN	20	0.7	0.000837	± 2.5	PASS
		VN	30	-0.34	-0.000406	± 2.5	PASS
		VN	40	-1.84	-0.002200	± 2.5	PASS
		VN	50	0	0.000000	± 2.5	PASS
	MCH	VN	-30	2.54	0.003001	± 2.5	PASS
		VN	-20	4.35	0.005139	± 2.5	PASS
		VN	-10	-1.45	-0.001713	± 2.5	PASS
		VN	0	4.44	0.005245	± 2.5	PASS
		VN	10	-0.99	-0.001170	± 2.5	PASS
		VN	20	0.22	0.000260	± 2.5	PASS
		VN	30	1.82	0.002150	± 2.5	PASS
		VN	40	4.65	0.005493	± 2.5	PASS
		VN	50	2.09	0.002469	± 2.5	PASS
	HCH	VN	-30	3.9	0.004607	± 2.5	PASS
		VN	-20	-1.95	-0.002304	± 2.5	PASS
		VN	-10	-0.42	-0.000496	± 2.5	PASS
		VN	0	-1.58	-0.001867	± 2.5	PASS
		VN	10	-1.69	-0.001996	± 2.5	PASS
		VN	20	2.66	0.003142	± 2.5	PASS
		VN	30	2.72	0.003213	± 2.5	PASS
		VN	40	0.55	0.000650	± 2.5	PASS
		VN	50	3.06	0.003615	± 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	-1.48	-0.001785	± 2.5	PASS
		VN	TN	-2	-0.002413	± 2.5	PASS
		VH	TN	3.47	0.004186	± 2.5	PASS
	MCH	VL	TN	3.37	0.004029	± 2.5	PASS
		VN	TN	-0.53	-0.000634	± 2.5	PASS
		VH	TN	-0.14	-0.000167	± 2.5	PASS
	HCH	VL	TN	2.72	0.003223	± 2.5	PASS
		VN	TN	0.36	0.000427	± 2.5	PASS
		VH	TN	3.01	0.003566	± 2.5	PASS
16QAM	LCH	VL	TN	4.02	0.004849	± 2.5	PASS
		VN	TN	0.82	0.000989	± 2.5	PASS
		VH	TN	-0.49	-0.000591	± 2.5	PASS
	MCH	VL	TN	4.3	0.005140	± 2.5	PASS
		VN	TN	4.85	0.005798	± 2.5	PASS
		VH	TN	4.74	0.005666	± 2.5	PASS
	HCH	VL	TN	1.32	0.001564	± 2.5	PASS
		VN	TN	4.19	0.004964	± 2.5	PASS
		VH	TN	-0.41	-0.000486	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	-0.95	-0.001146	± 2.5	PASS
		VN	-20	1.82	0.002195	± 2.5	PASS
		VN	-10	-0.44	-0.000531	± 2.5	PASS
		VN	0	3.08	0.003715	± 2.5	PASS
		VN	10	-1.44	-0.001737	± 2.5	PASS
		VN	20	3.71	0.004475	± 2.5	PASS
		VN	30	3.85	0.004644	± 2.5	PASS
		VN	40	0.62	0.000748	± 2.5	PASS
		VN	50	0.64	0.000772	± 2.5	PASS
	MCH	VN	-30	2.8	0.003347	± 2.5	PASS
		VN	-20	1.36	0.001626	± 2.5	PASS
		VN	-10	-1.05	-0.001255	± 2.5	PASS
		VN	0	4.76	0.005690	± 2.5	PASS
		VN	10	-1.46	-0.001745	± 2.5	PASS
		VN	20	-1.38	-0.001650	± 2.5	PASS
		VN	30	3.21	0.003837	± 2.5	PASS
		VN	40	3.79	0.004531	± 2.5	PASS
		VN	50	4.64	0.005547	± 2.5	PASS

	HCH	VN	-30	4.24	0.005024	± 2.5	PASS
		VN	-20	2.52	0.002986	± 2.5	PASS
		VN	-10	1.7	0.002014	± 2.5	PASS
		VN	0	3.33	0.003945	± 2.5	PASS
		VN	10	-1.46	-0.001730	± 2.5	PASS
		VN	20	-0.08	-0.000095	± 2.5	PASS
		VN	30	4.42	0.005237	± 2.5	PASS
		VN	40	0.69	0.000818	± 2.5	PASS
		VN	50	0.17	0.000201	± 2.5	PASS
QPSK	LCH	VN	-30	0.37	0.000442	± 2.5	PASS
		VN	-20	3.45	0.004124	± 2.5	PASS
		VN	-10	-0.02	-0.000024	± 2.5	PASS
		VN	0	-1.47	-0.001757	± 2.5	PASS
		VN	10	3.82	0.004567	± 2.5	PASS
		VN	20	2.37	0.002833	± 2.5	PASS
		VN	30	-0.72	-0.000861	± 2.5	PASS
		VN	40	-1.88	-0.002247	± 2.5	PASS
		VN	50	2.07	0.002475	± 2.5	PASS
	MCH	VN	-30	3.97	0.004704	± 2.5	PASS
		VN	-20	2.8	0.003318	± 2.5	PASS
		VN	-10	3.8	0.004502	± 2.5	PASS
		VN	0	0.25	0.000296	± 2.5	PASS
		VN	10	-1.92	-0.002275	± 2.5	PASS
		VN	20	4.83	0.005723	± 2.5	PASS
		VN	30	1.22	0.001445	± 2.5	PASS
		VN	40	0.75	0.000889	± 2.5	PASS
		VN	50	3	0.003555	± 2.5	PASS
	HCH	VN	-30	4.98	0.005900	± 2.5	PASS
		VN	-20	0.95	0.001126	± 2.5	PASS
		VN	-10	-1.5	-0.001777	± 2.5	PASS
		VN	0	4.18	0.004953	± 2.5	PASS
		VN	10	0.56	0.000664	± 2.5	PASS
		VN	20	0.44	0.000521	± 2.5	PASS
		VN	30	-0.32	-0.000379	± 2.5	PASS
		VN	40	-0.95	-0.001126	± 2.5	PASS
		VN	50	4.68	0.005545	± 2.5	PASS