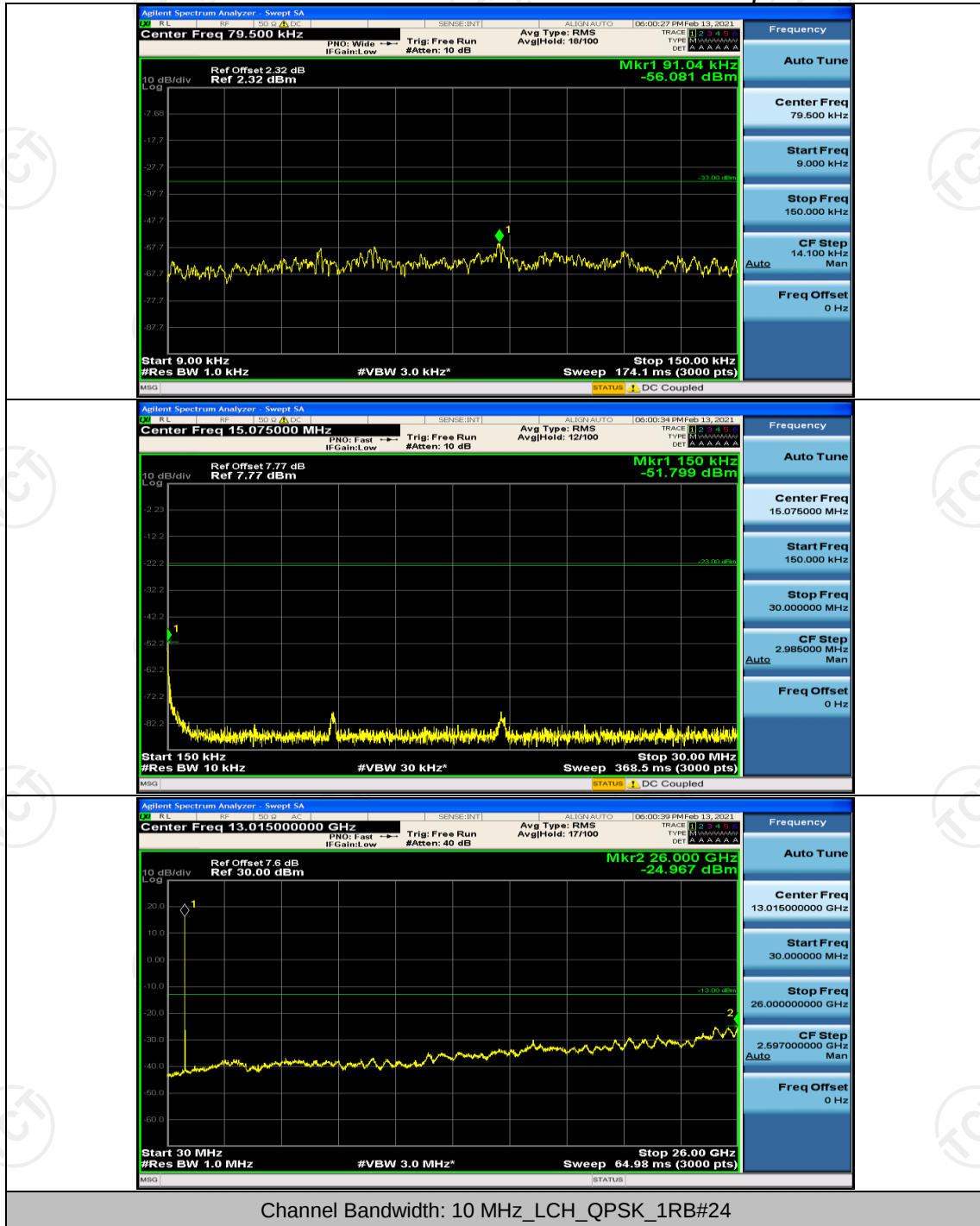
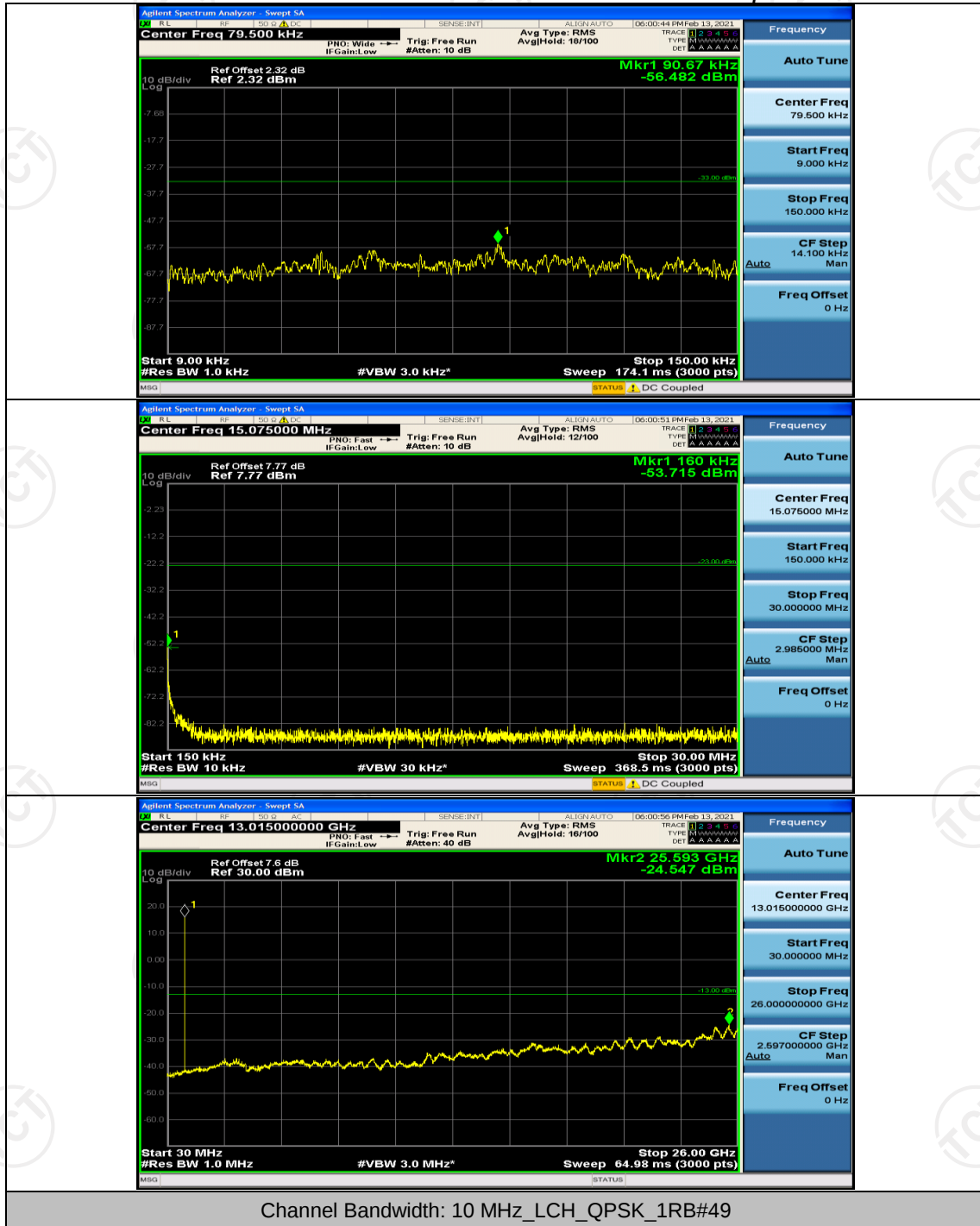
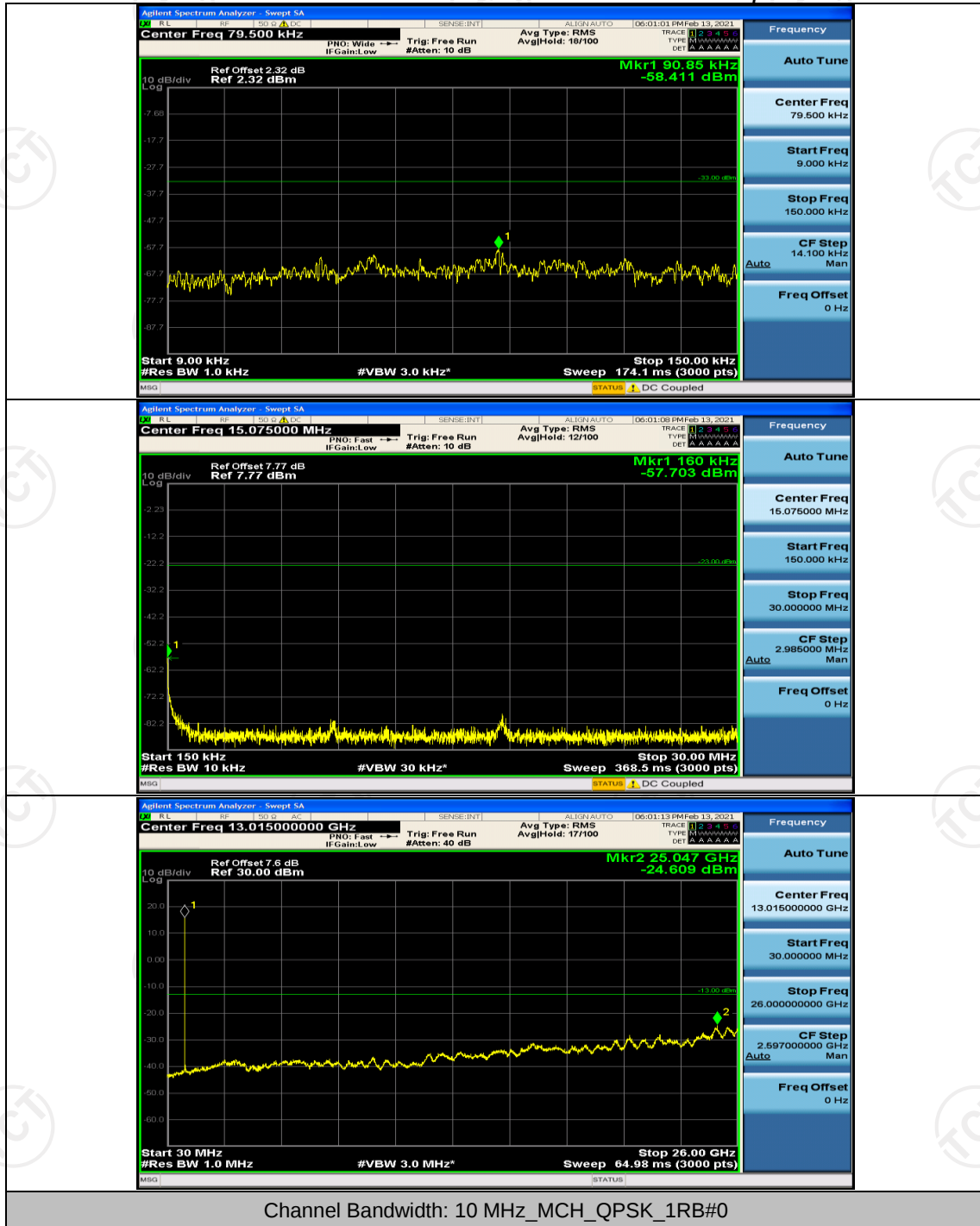
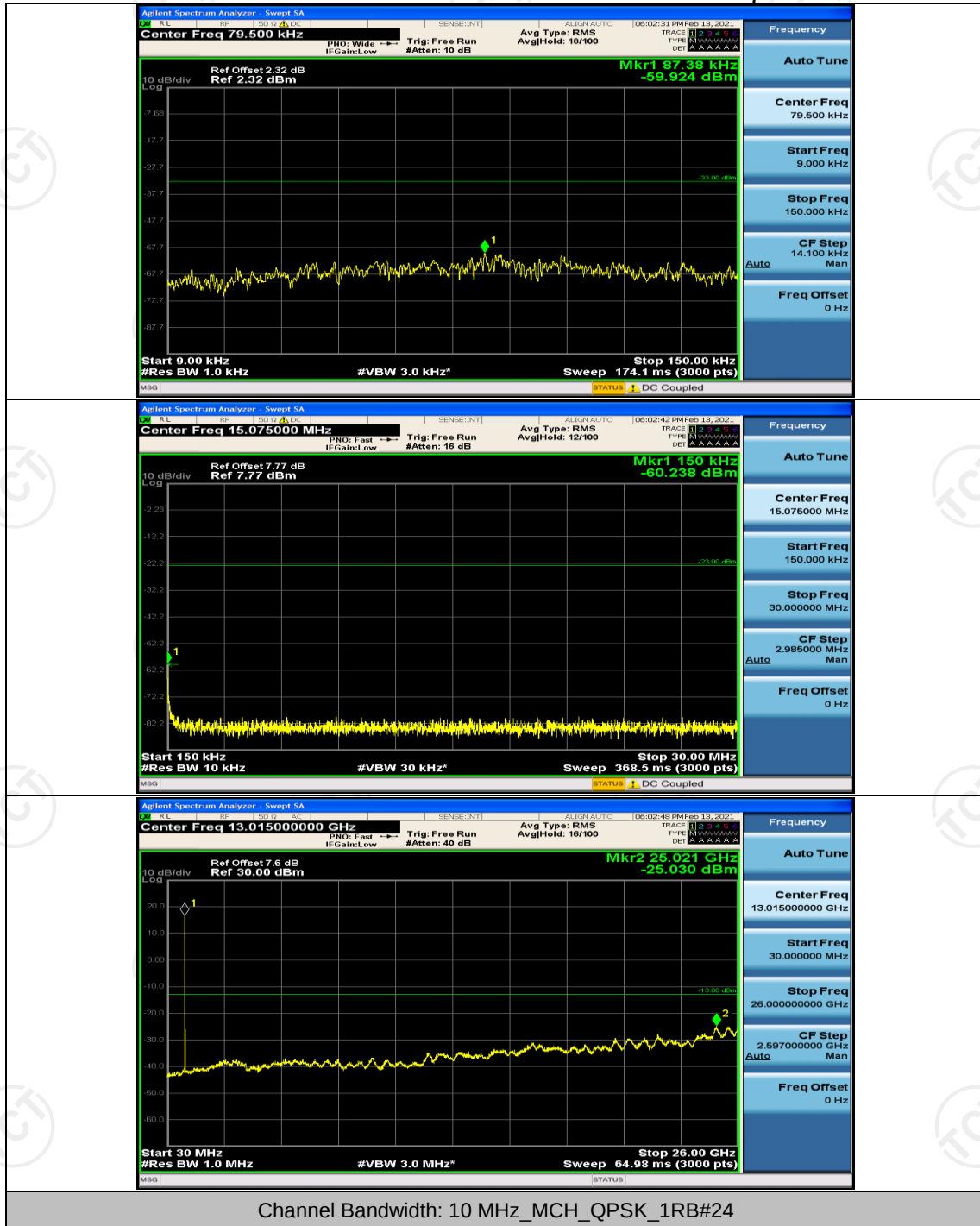
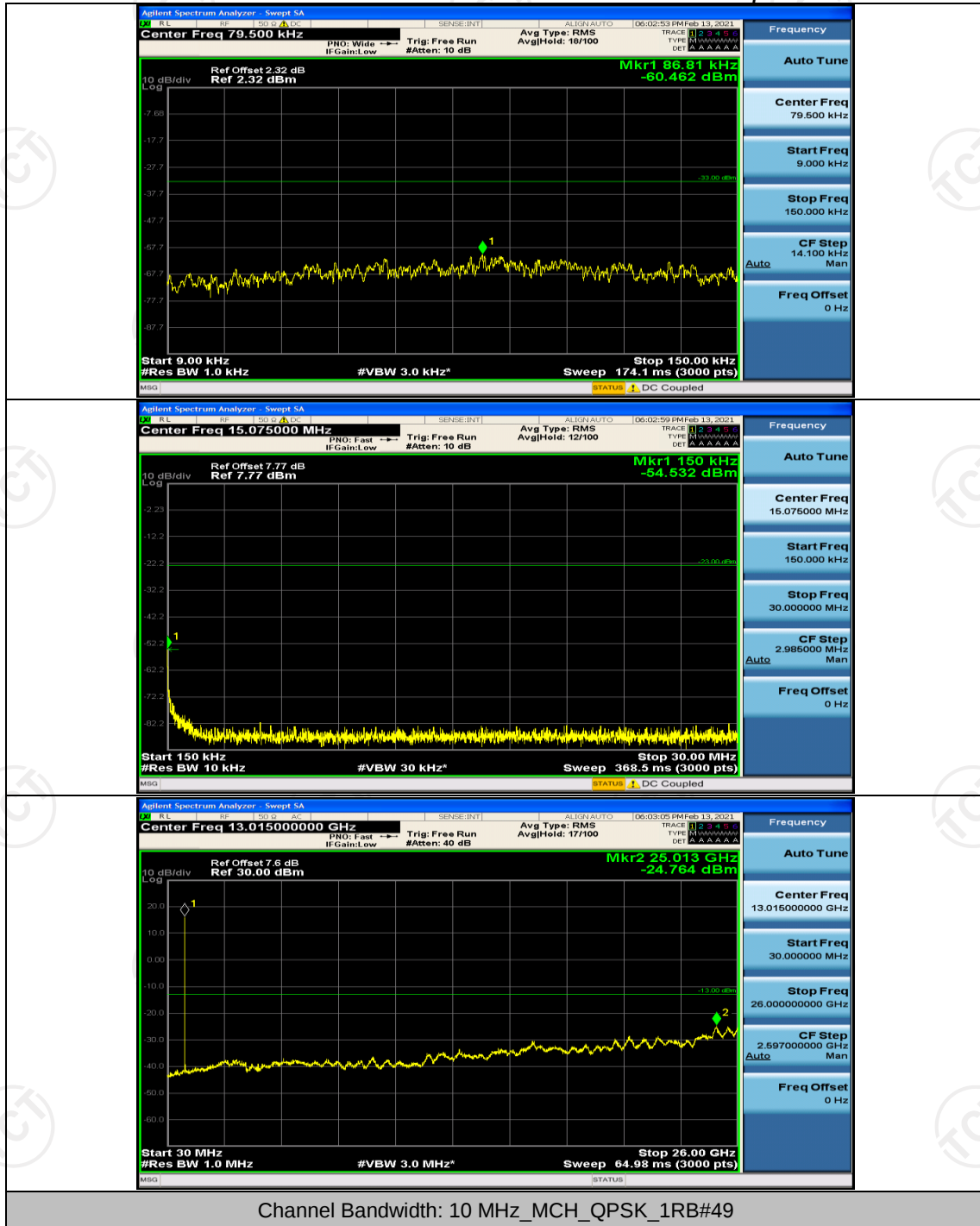


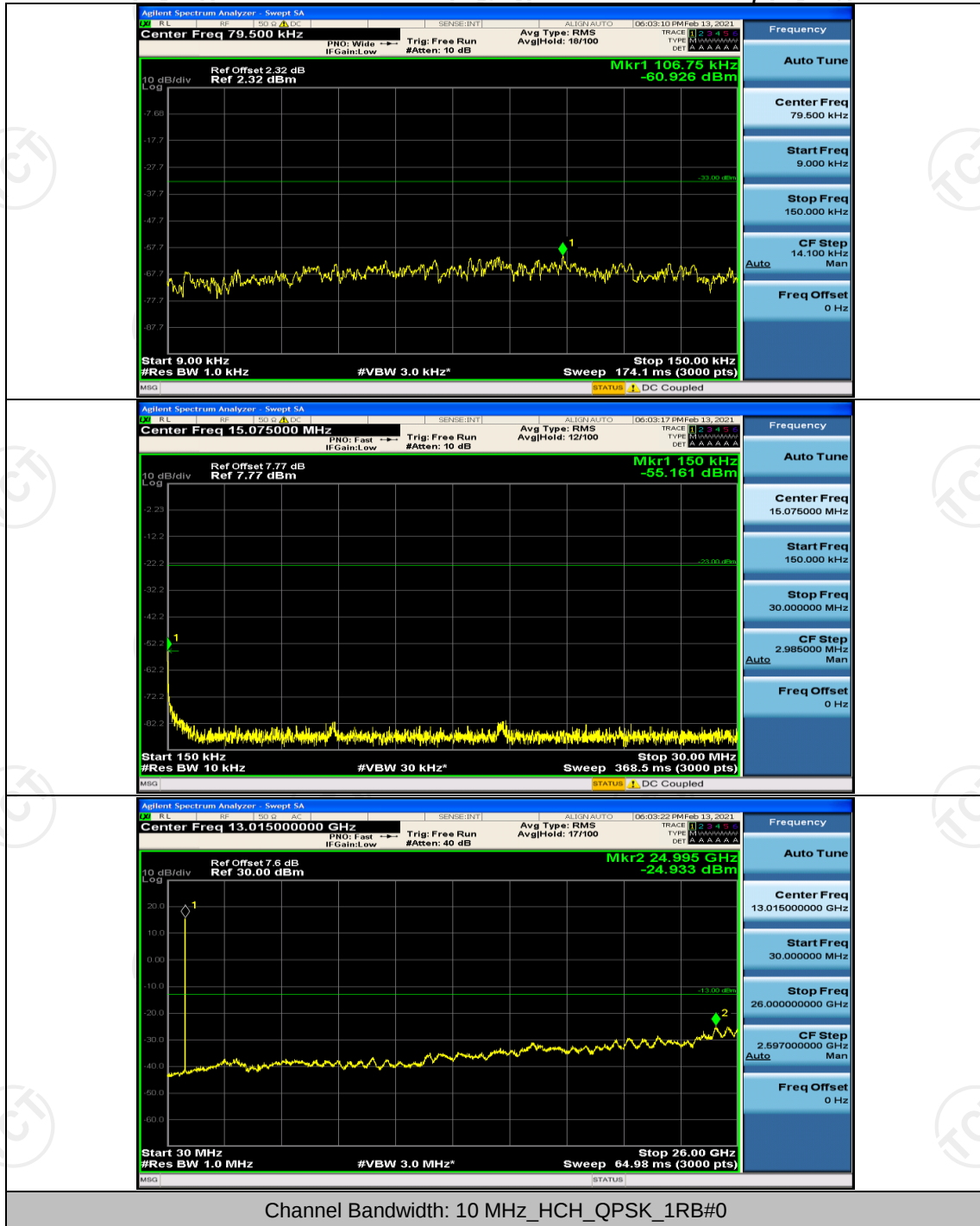


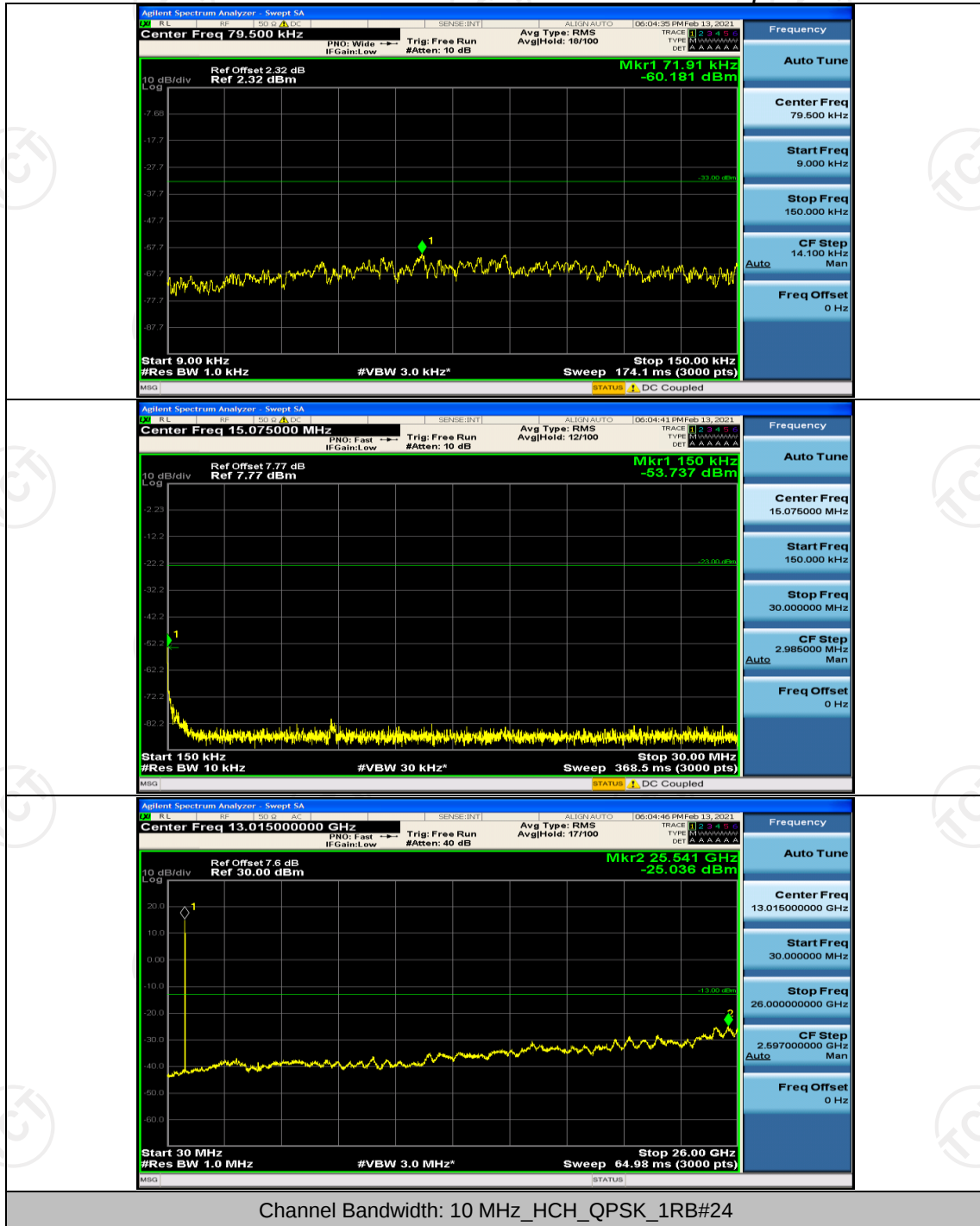


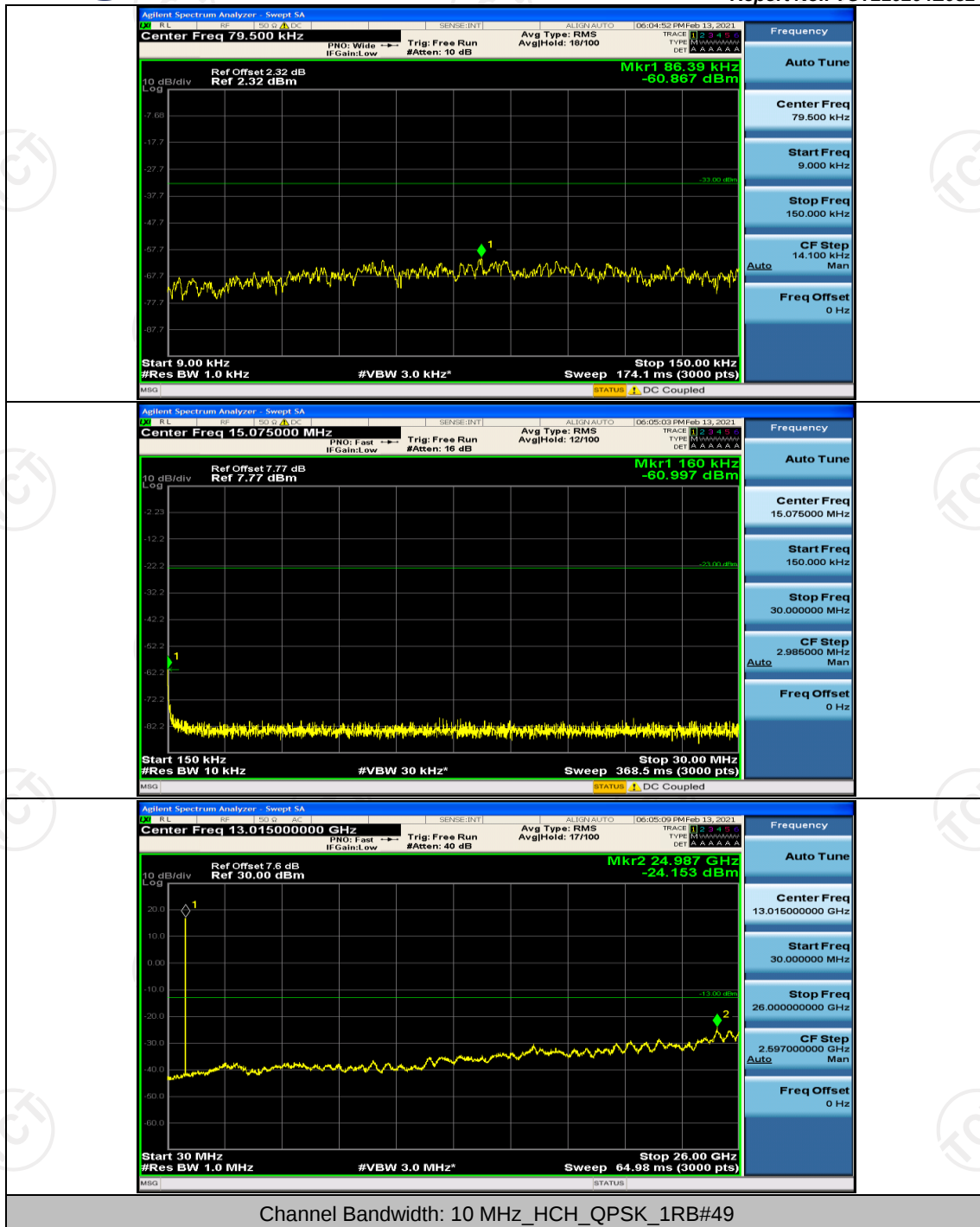


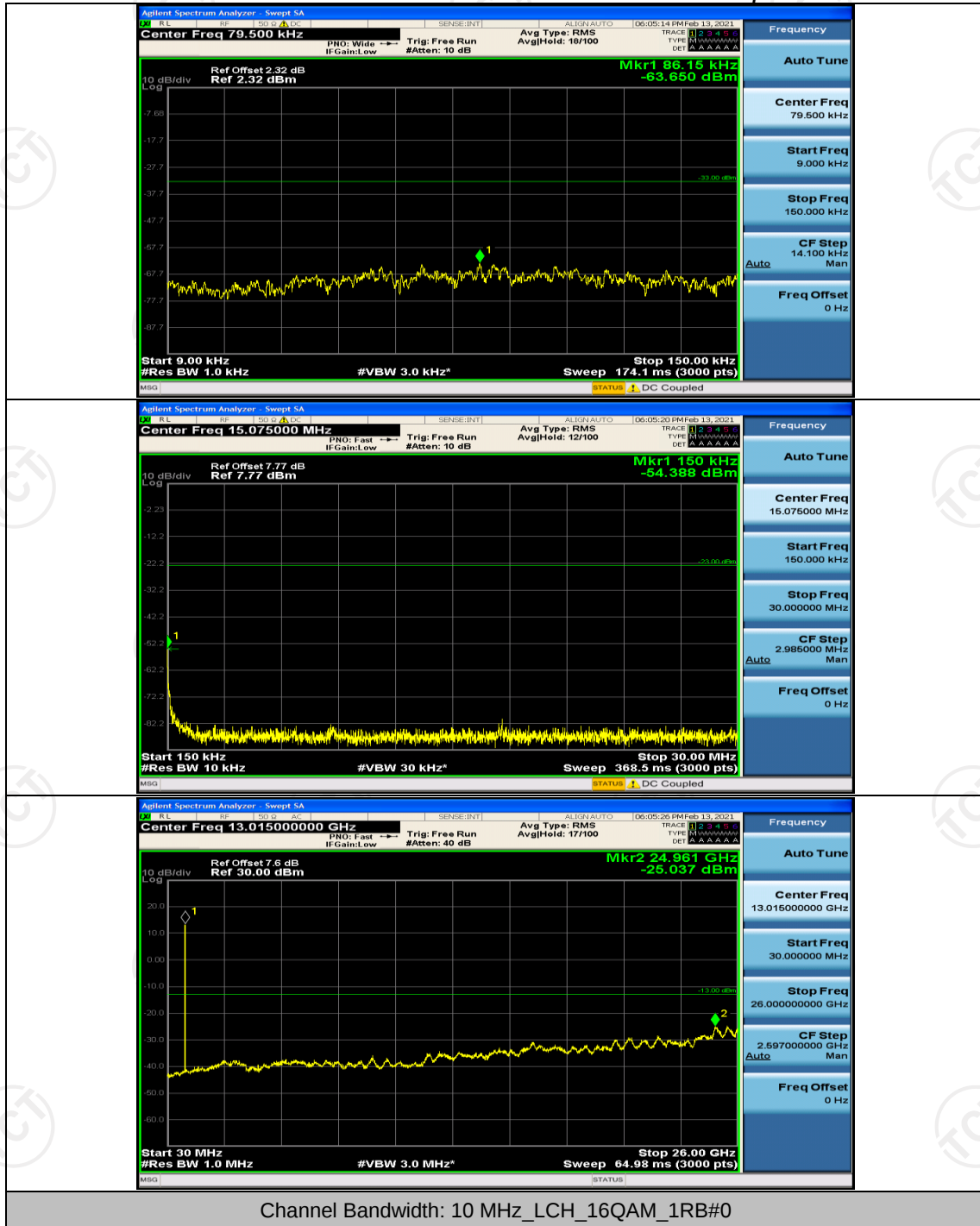


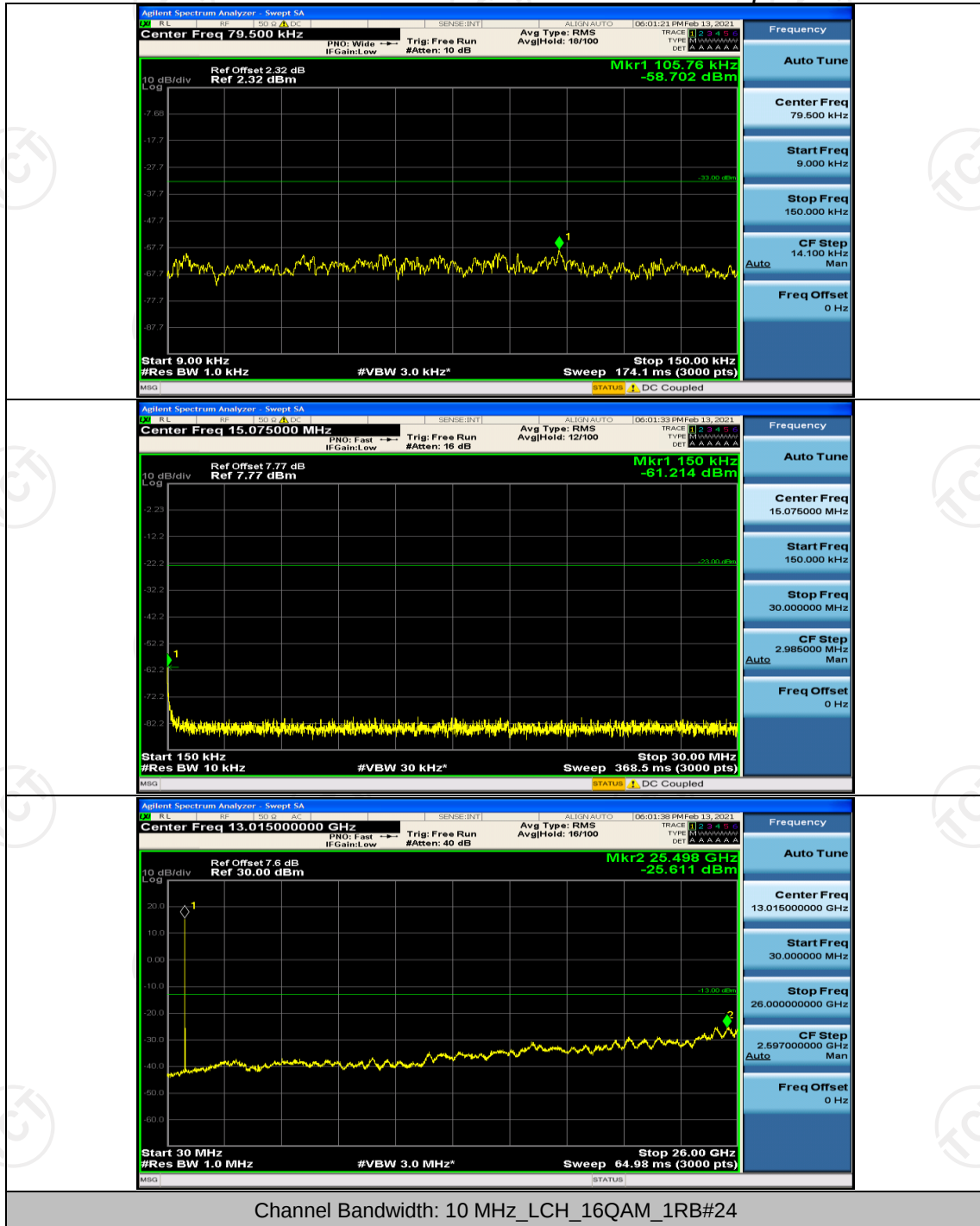


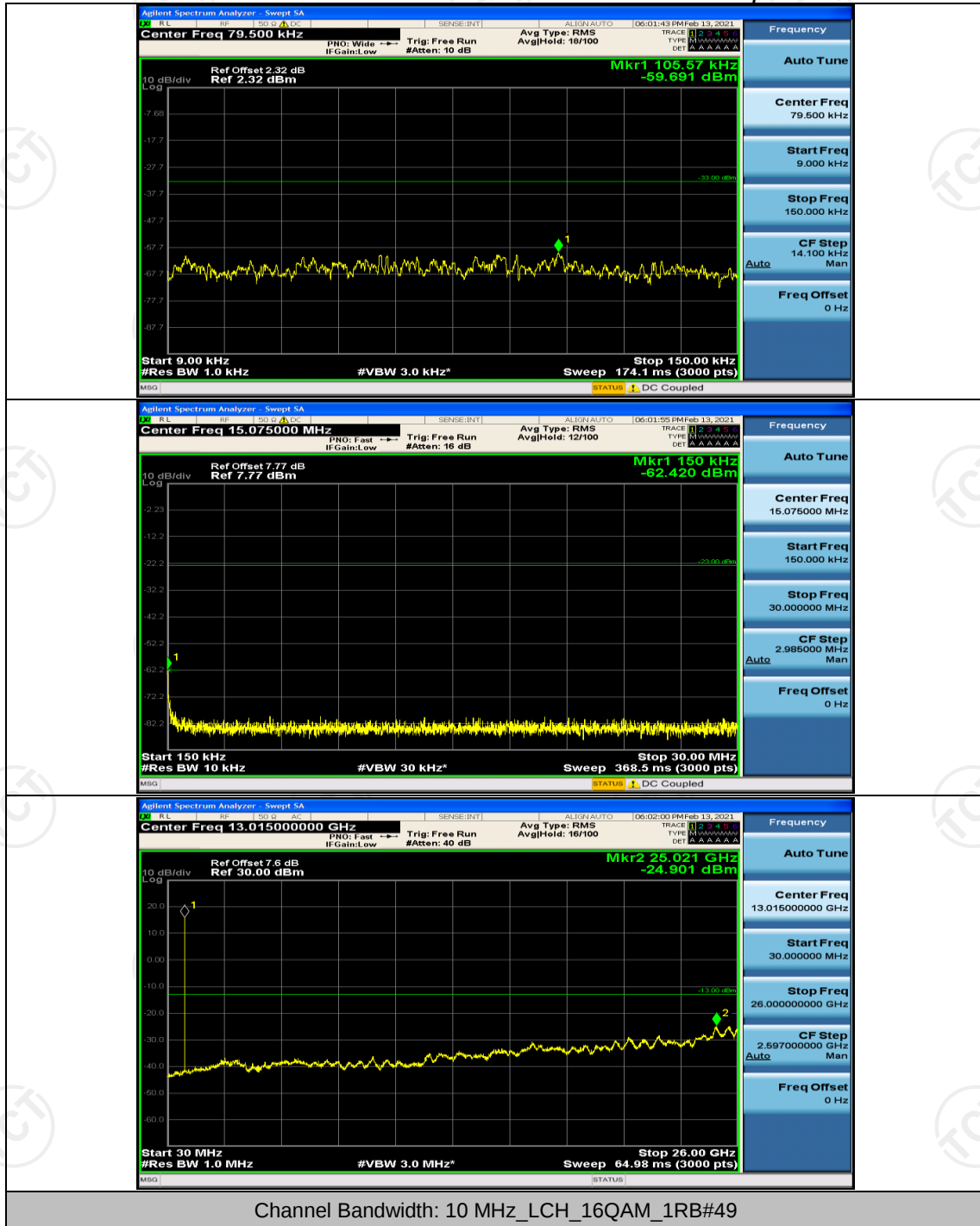


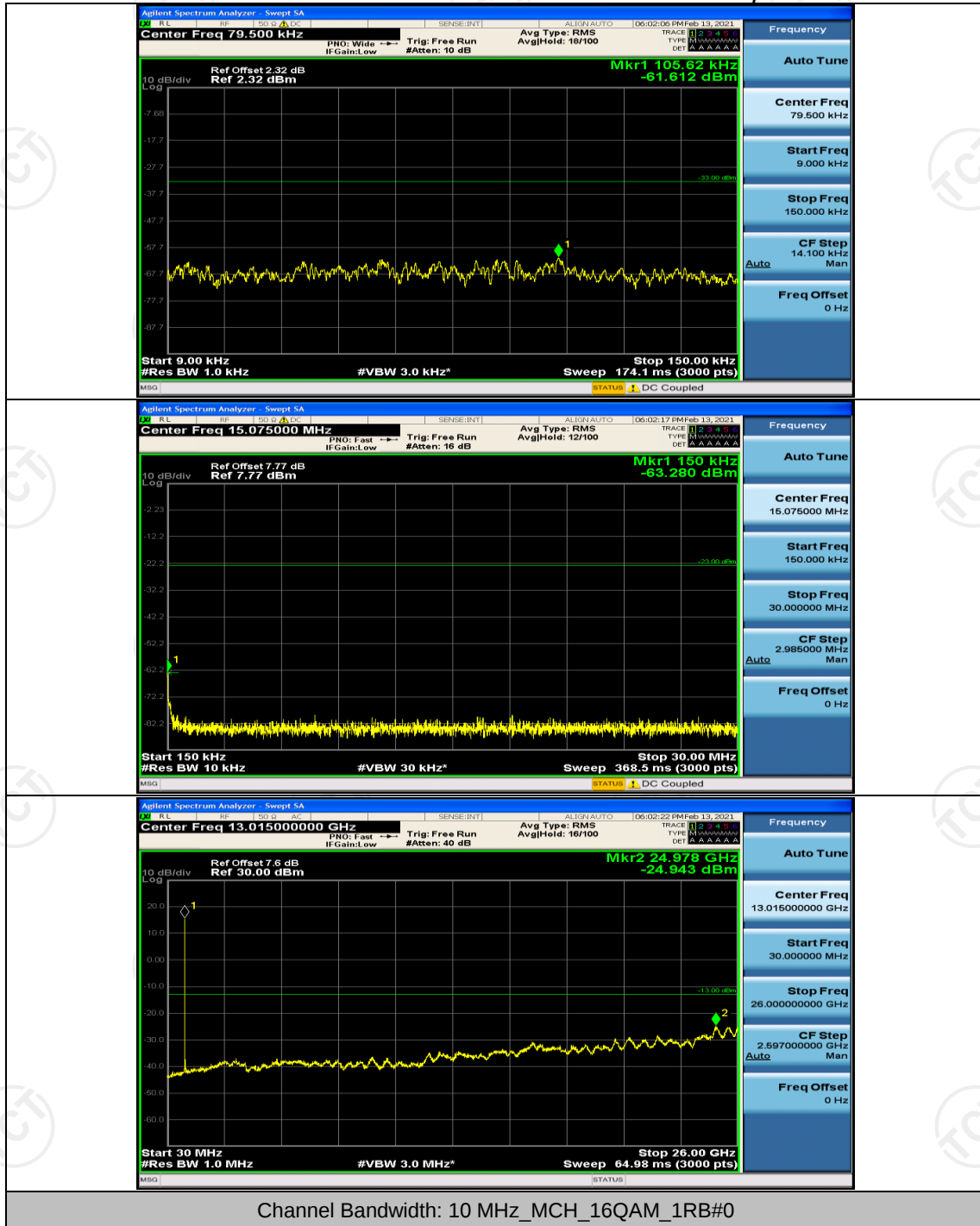


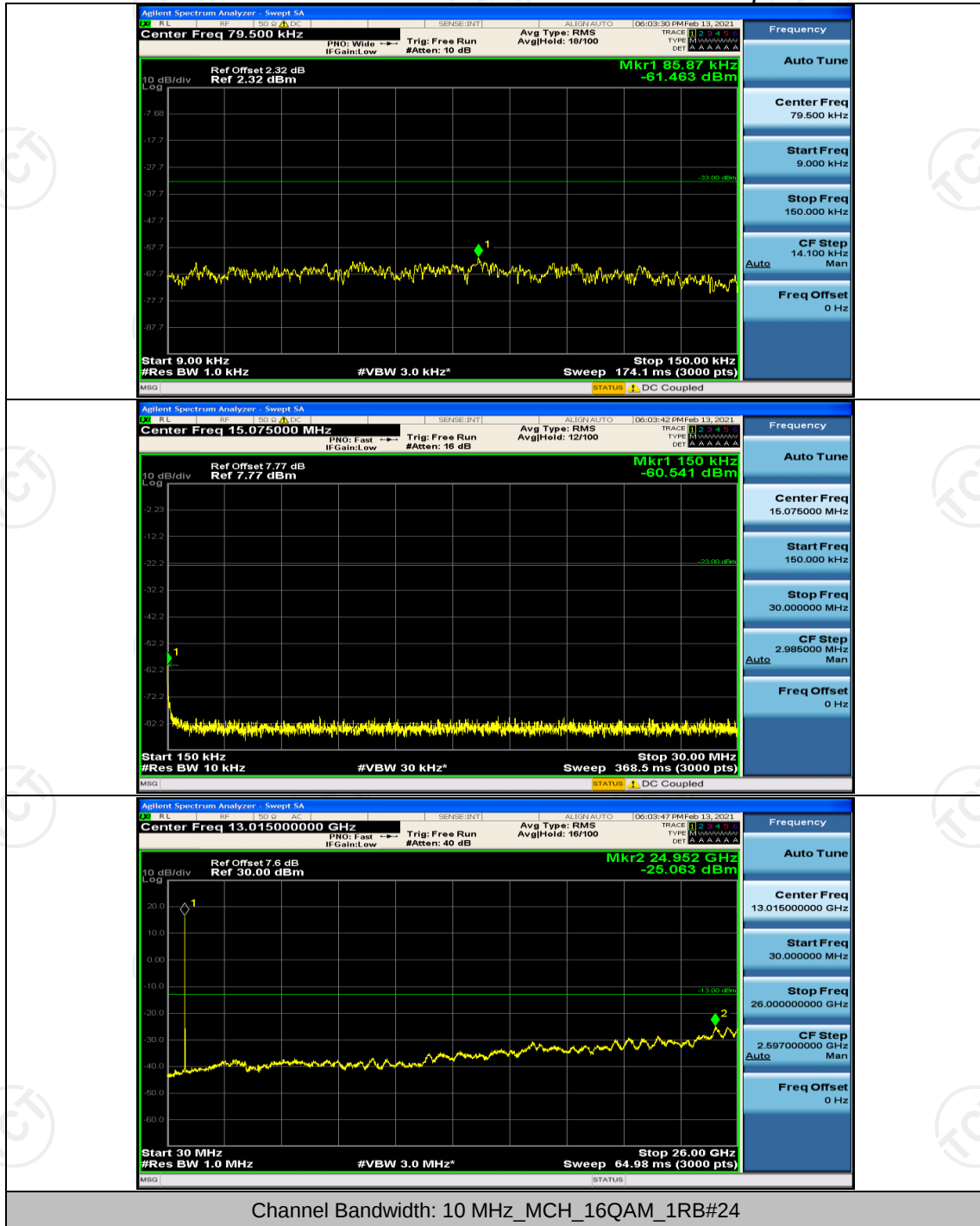


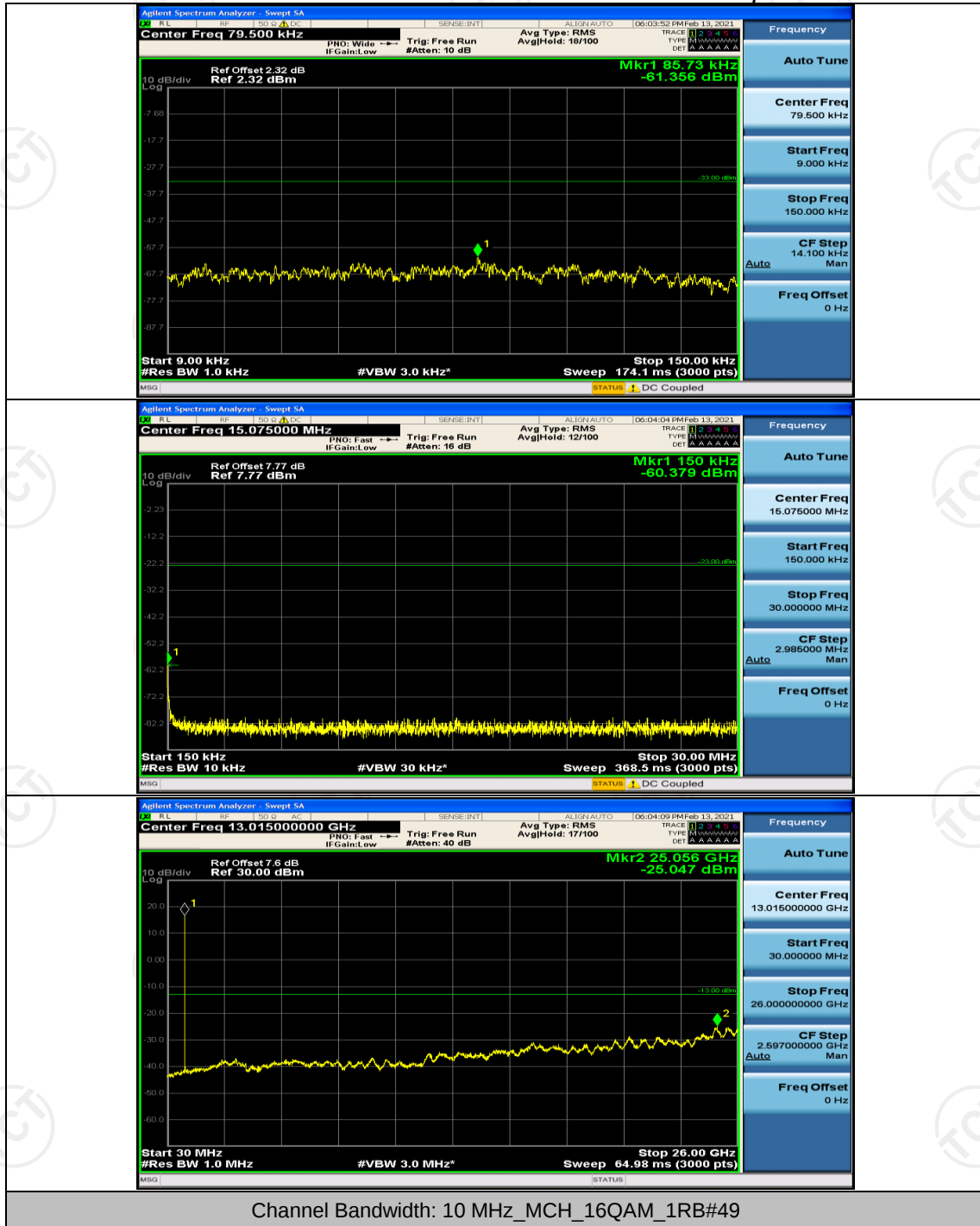


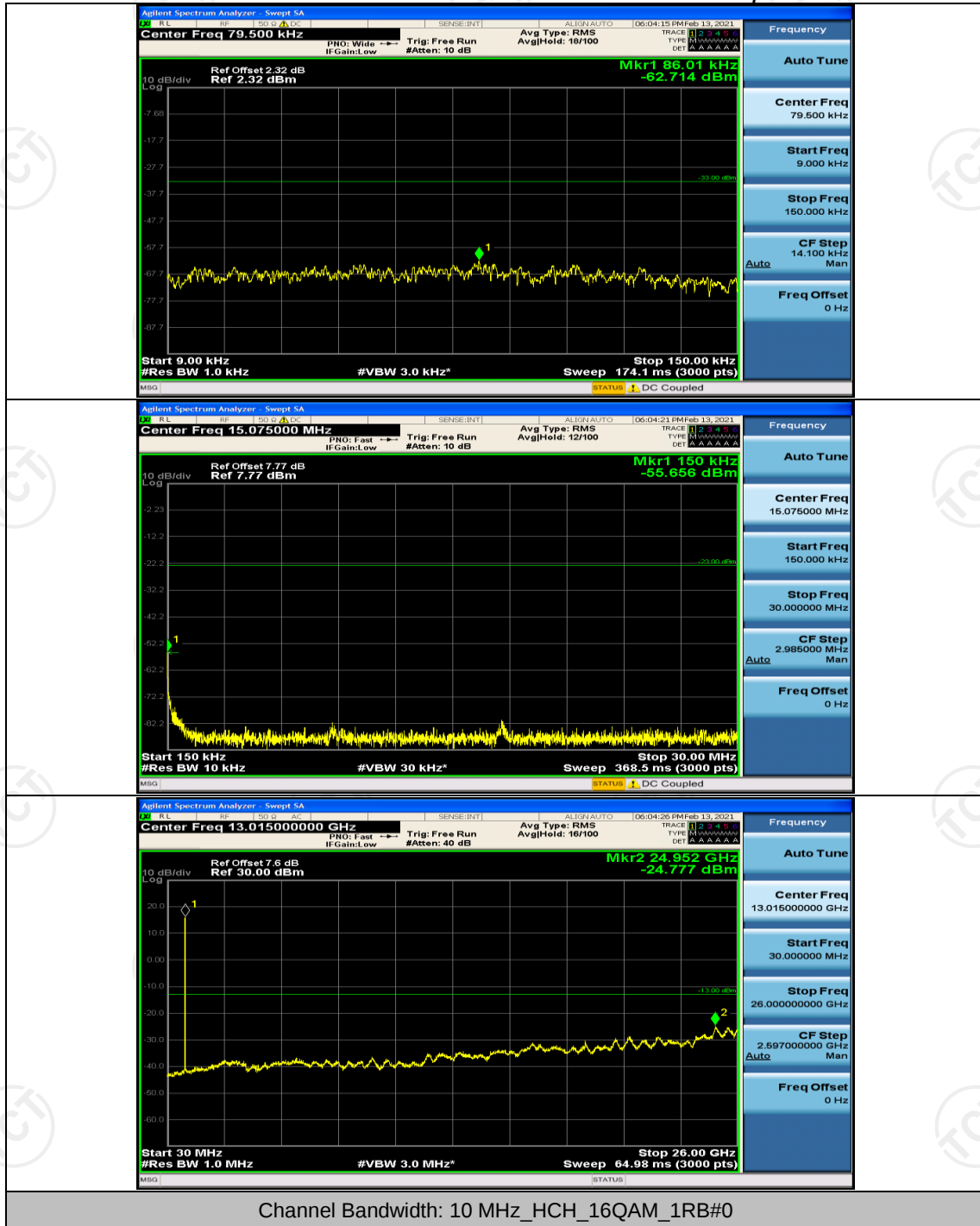


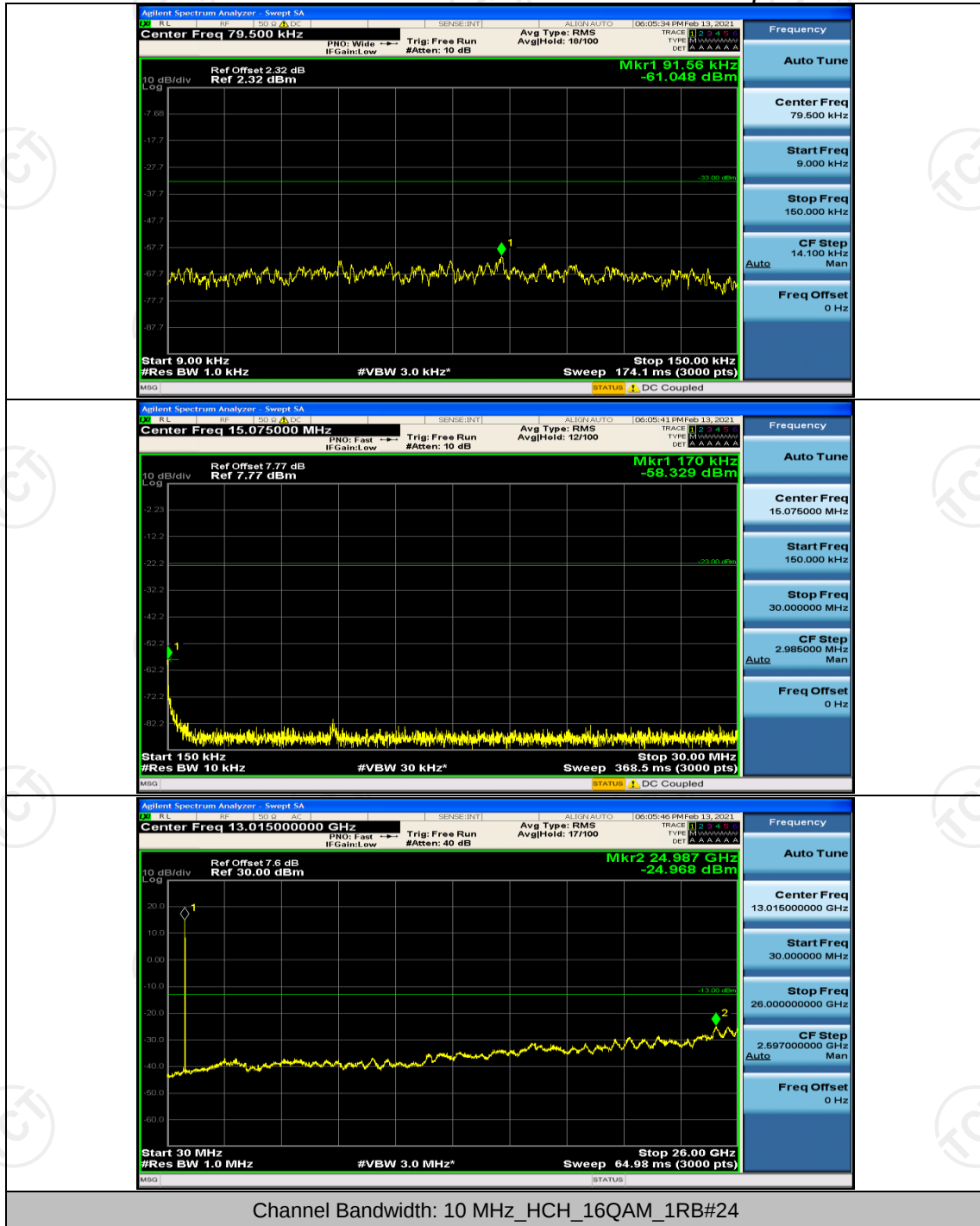


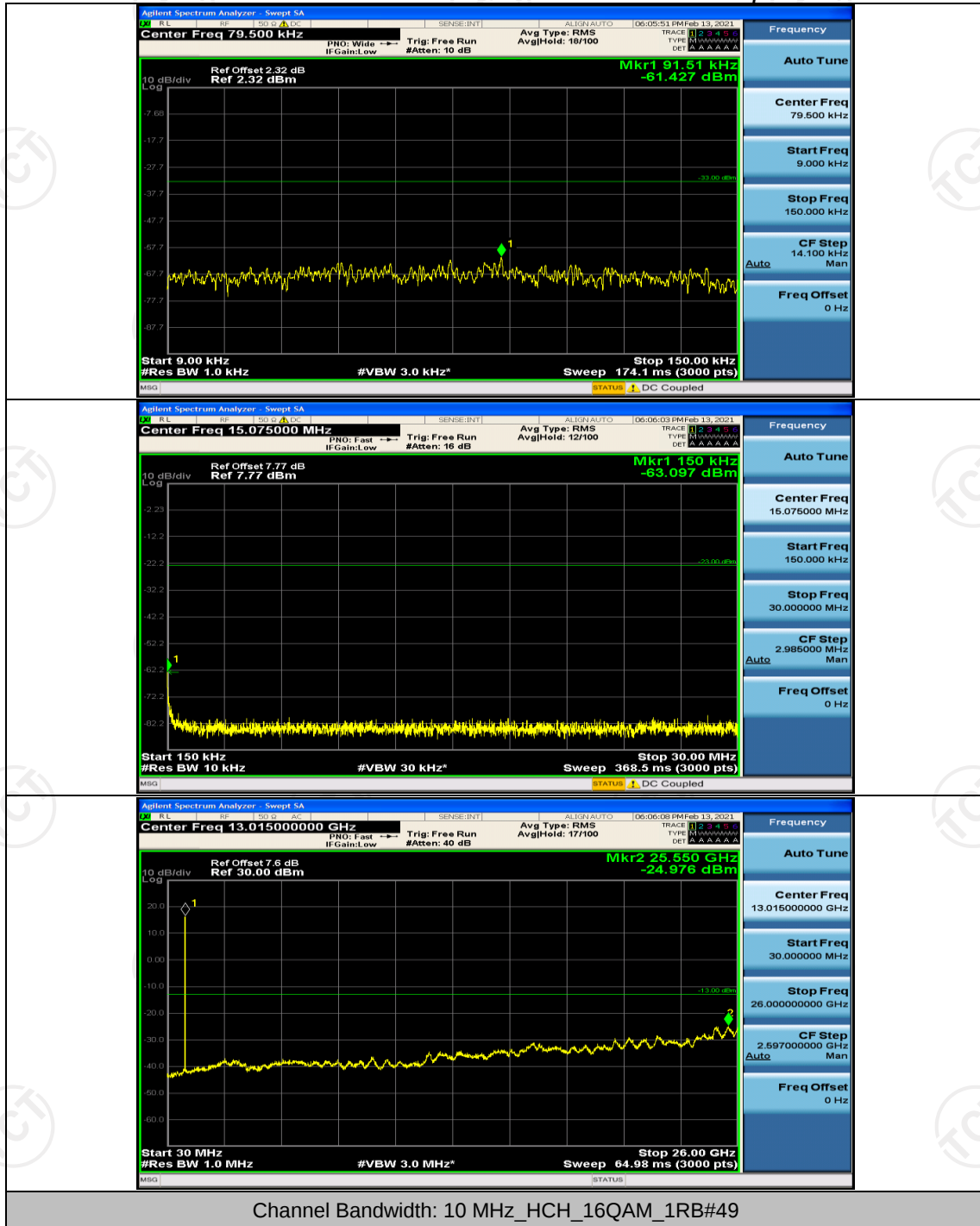


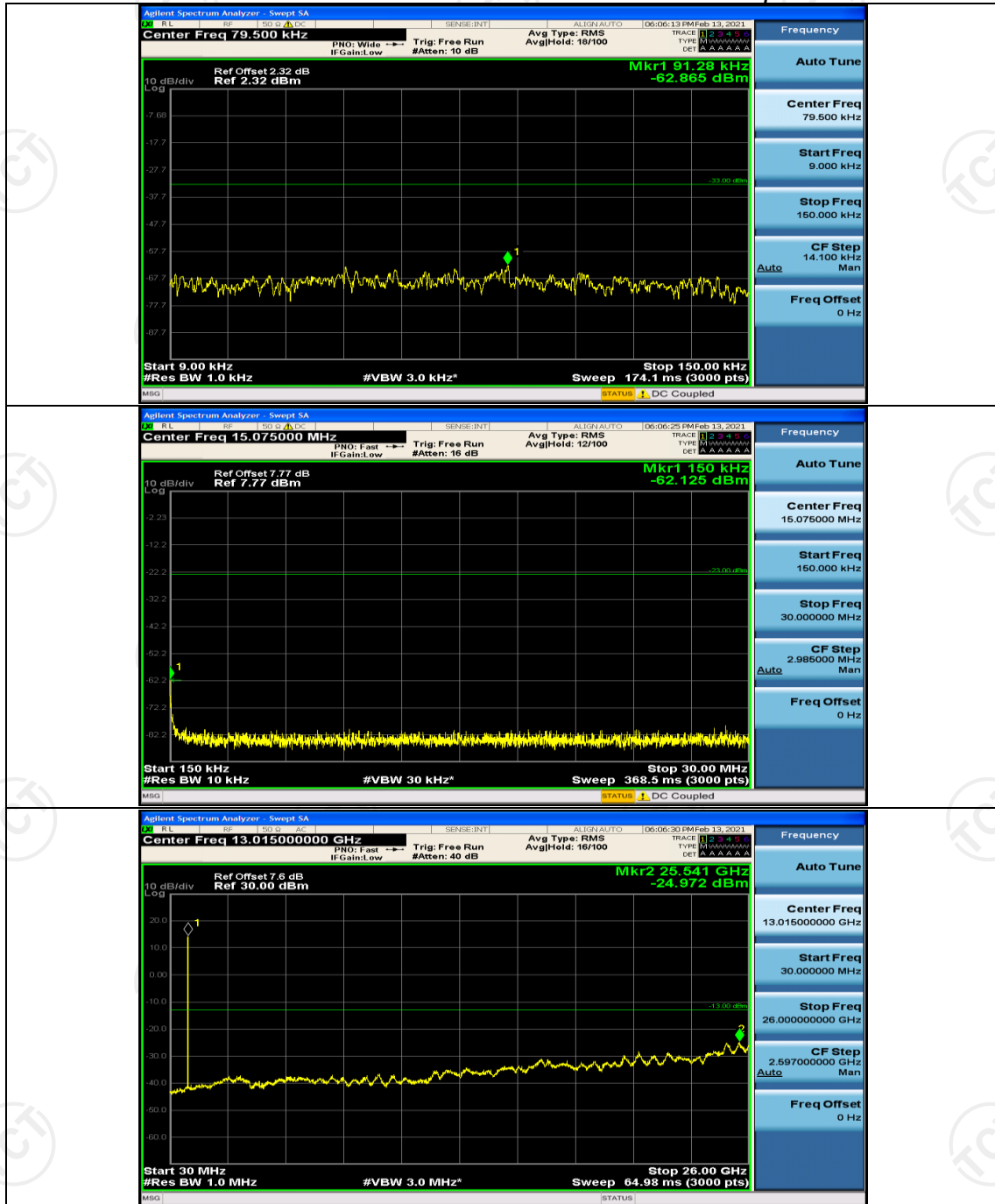












Appendix F: Frequency Stability

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	3.35	25	33.35	0.039345	± 2.5	PASS
		3.85	25	-0.04	-0.000051	± 2.5	PASS
		4.45	25	13.49	0.015917	± 2.5	PASS
	MCH	3.35	25	18.51	0.021842	± 2.5	PASS
		3.85	25	5.62	0.006721	± 2.5	PASS
		4.45	25	37.04	0.044275	± 2.5	PASS
	HCH	3.35	25	-9.86	-0.011783	± 2.5	PASS
		3.85	25	-16.24	-0.019410	± 2.5	PASS
		4.45	25	-23.27	-0.027824	± 2.5	PASS
16QAM	LCH	3.35	25	-26.94	-0.032201	± 2.5	PASS
		3.85	25	6.68	0.008101	± 2.5	PASS
		4.45	25	3.16	0.003779	± 2.5	PASS
	MCH	3.35	25	13.76	0.016451	± 2.5	PASS
		3.85	25	-12.70	-0.015186	± 2.5	PASS
		4.45	25	3.60	0.004362	± 2.5	PASS
	HCH	3.35	25	19.56	0.023660	± 2.5	PASS
		3.85	25	28.22	0.034149	± 2.5	PASS
		4.45	25	39.70	0.048030	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	3.85	-30	-3.23	-0.003865	± 2.5	PASS
		3.85	-20	-4.21	-0.005028	± 2.5	PASS
		3.85	-10	-7.38	-0.008824	± 2.5	PASS
		3.85	0	-8.85	-0.010586	± 2.5	PASS
		3.85	10	-8.71	-0.010415	± 2.5	PASS
		3.85	20	-24.22	-0.029367	± 2.5	PASS
		3.85	30	-24.63	-0.029870	± 2.5	PASS
		3.85	40	-30.18	-0.036600	± 2.5	PASS
		3.85	50	-33.96	-0.041179	± 2.5	PASS
	MCH	3.85	-30	-45.46	-0.053705	± 2.5	PASS
		3.85	-20	-8.77	-0.010359	± 2.5	PASS

		3.85	-10	-20.13	-0.023777	± 2.5	PASS
		3.85	0	14.20	0.016761	± 2.5	PASS
		3.85	10	24.92	0.029790	± 2.5	PASS
		3.85	20	-4.29	-0.005130	± 2.5	PASS
		3.85	30	-12.96	-0.015494	± 2.5	PASS
		3.85	40	-12.12	-0.014485	± 2.5	PASS
		3.85	50	-16.47	-0.019683	± 2.5	PASS
	HCH	3.85	-30	-3.71	-0.004429	± 2.5	PASS
		3.85	-20	-25.46	-0.030715	± 2.5	PASS
		3.85	-10	-39.87	-0.048092	± 2.5	PASS
		3.85	0	-5.59	-0.006747	± 2.5	PASS
		3.85	10	-14.86	-0.017929	± 2.5	PASS
		3.85	20	-11.57	-0.013642	± 2.5	PASS
		3.85	30	-33.36	-0.039325	± 2.5	PASS
		3.85	40	2.72	0.003204	± 2.5	PASS
		3.85	50	-9.00	-0.010607	± 2.5	PASS
16QAM	LCH	3.85	-30	-13.23	-0.015819	± 2.5	PASS
		3.85	-20	6.35	0.007694	± 2.5	PASS
		3.85	-10	10.23	0.012390	± 2.5	PASS
		3.85	0	23.25	0.028160	± 2.5	PASS
		3.85	10	24.50	0.029685	± 2.5	PASS
		3.85	20	23.79	0.028846	± 2.5	PASS
		3.85	30	34.30	0.041595	± 2.5	PASS
		3.85	40	46.58	0.056478	± 2.5	PASS
		3.85	50	17.04	0.020659	± 2.5	PASS
	MCH	3.85	-30	-42.83	-0.050536	± 2.5	PASS
		3.85	-20	-19.43	-0.022922	± 2.5	PASS
		3.85	-10	-39.45	-0.046553	± 2.5	PASS
		3.85	0	-15.39	-0.018162	± 2.5	PASS
		3.85	10	-17.21	-0.020306	± 2.5	PASS
		3.85	20	2.50	0.002993	± 2.5	PASS
		3.85	30	23.22	0.027755	± 2.5	PASS
		3.85	40	39.53	0.047250	± 2.5	PASS
		3.85	50	5.38	0.006430	± 2.5	PASS
	HCH	3.85	-30	27.52	0.033341	± 2.5	PASS
		3.85	-20	9.73	0.011784	± 2.5	PASS
		3.85	-10	-8.31	-0.010068	± 2.5	PASS
		3.85	0	-15.51	-0.018785	± 2.5	PASS
		3.85	10	-19.63	-0.023775	± 2.5	PASS
		3.85	20	9.17	0.010809	± 2.5	PASS
		3.85	30	19.48	0.022968	± 2.5	PASS
		3.85	40	33.13	0.039055	± 2.5	PASS

		3.85	50	39.63	0.046711	± 2.5	PASS
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