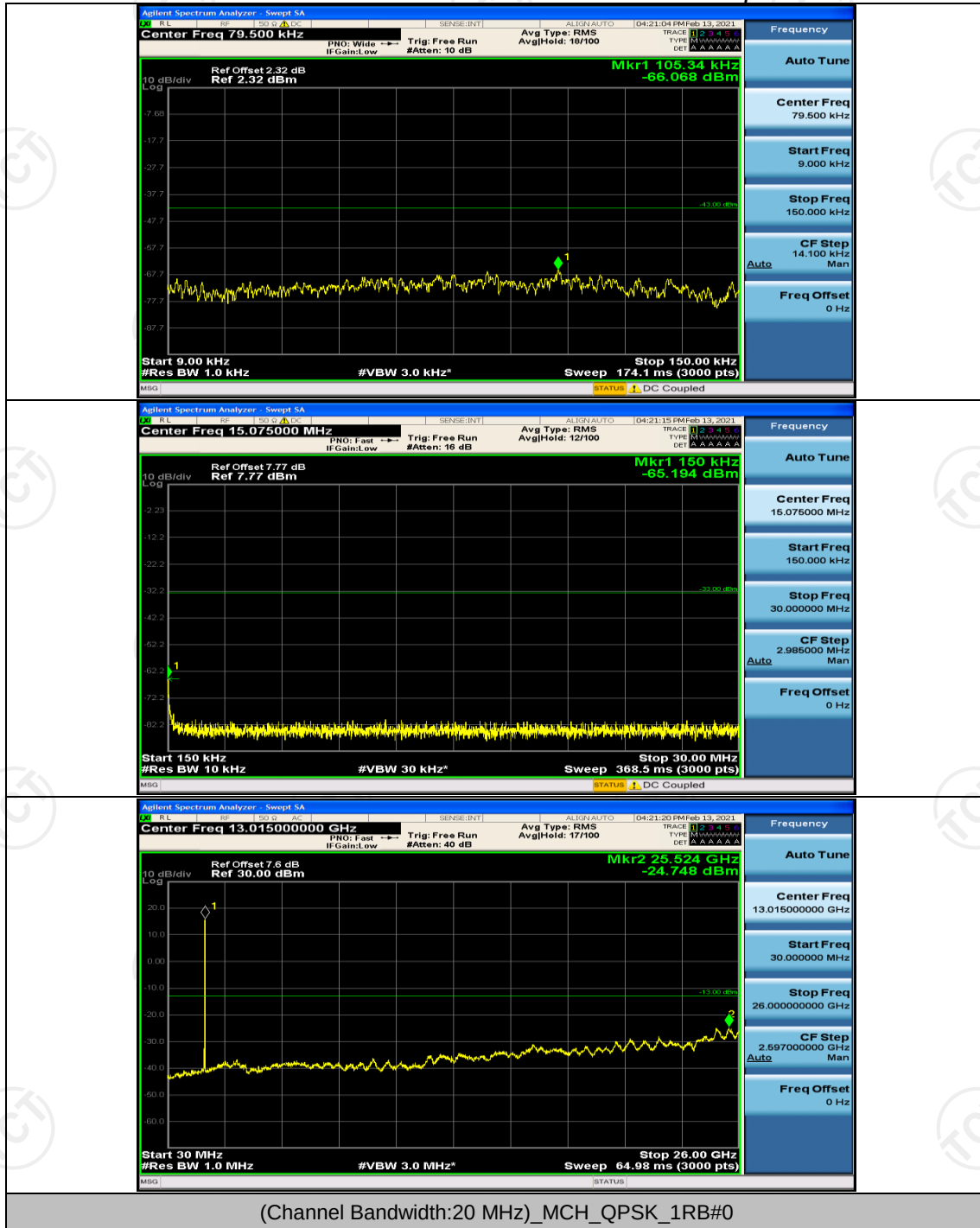
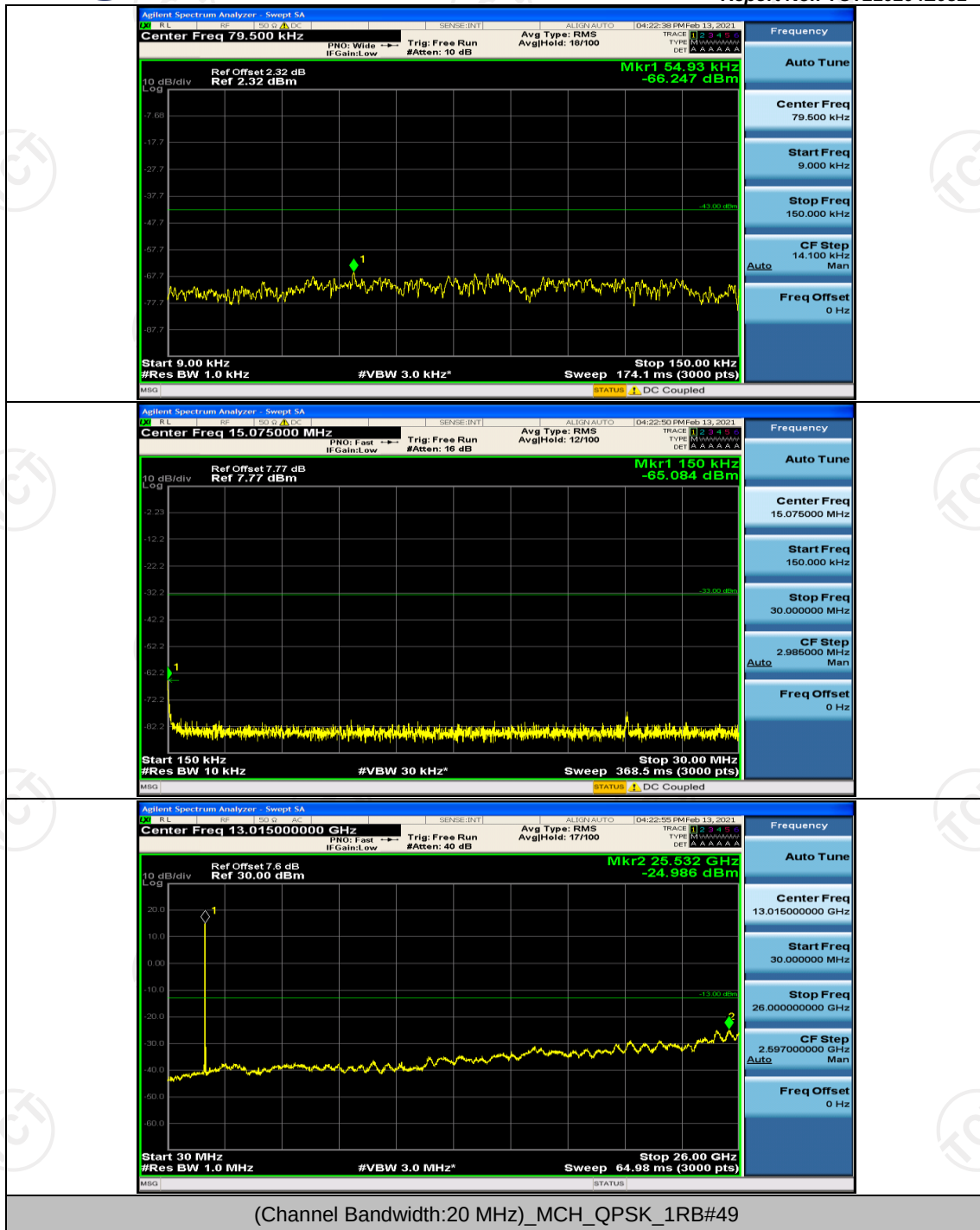
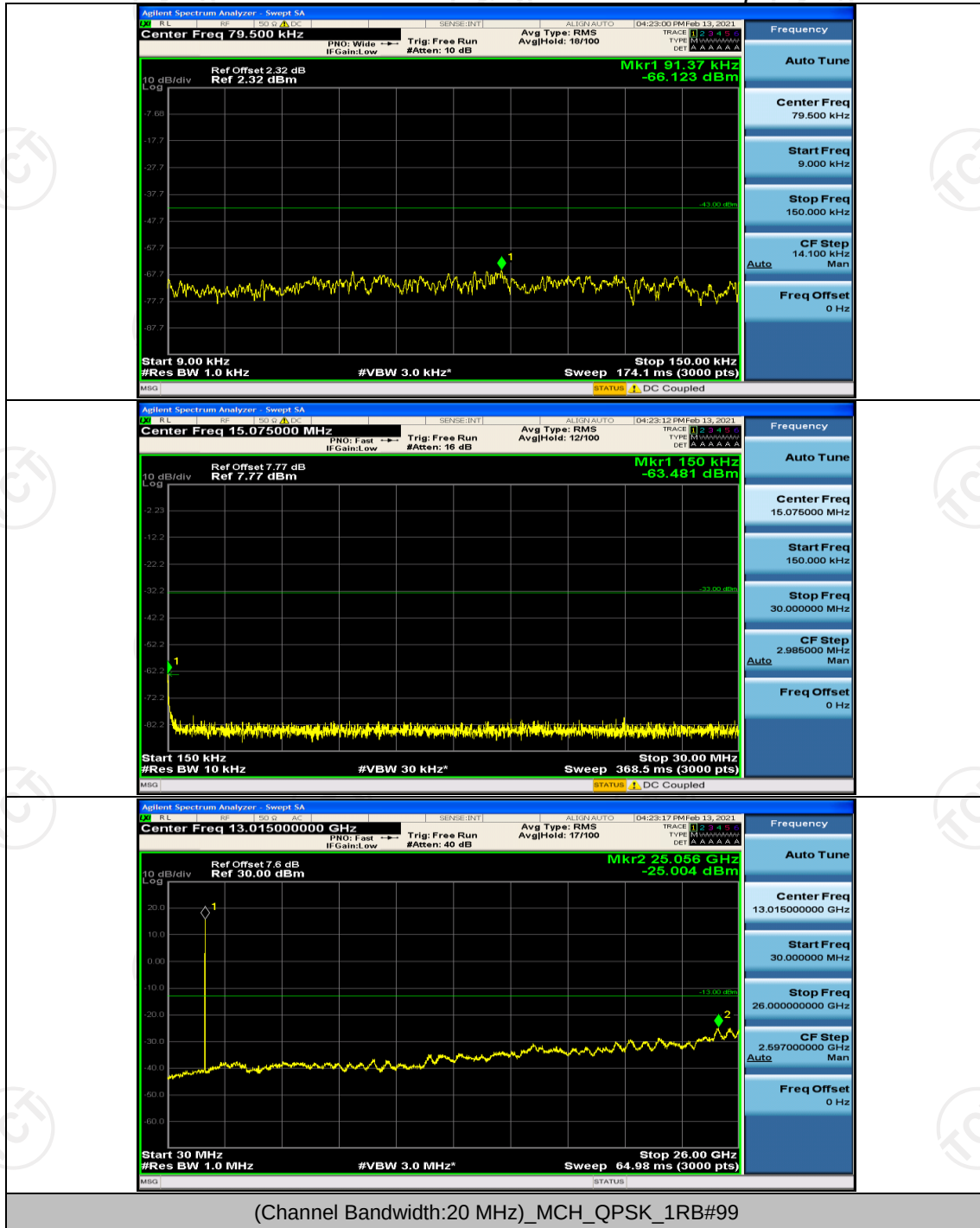
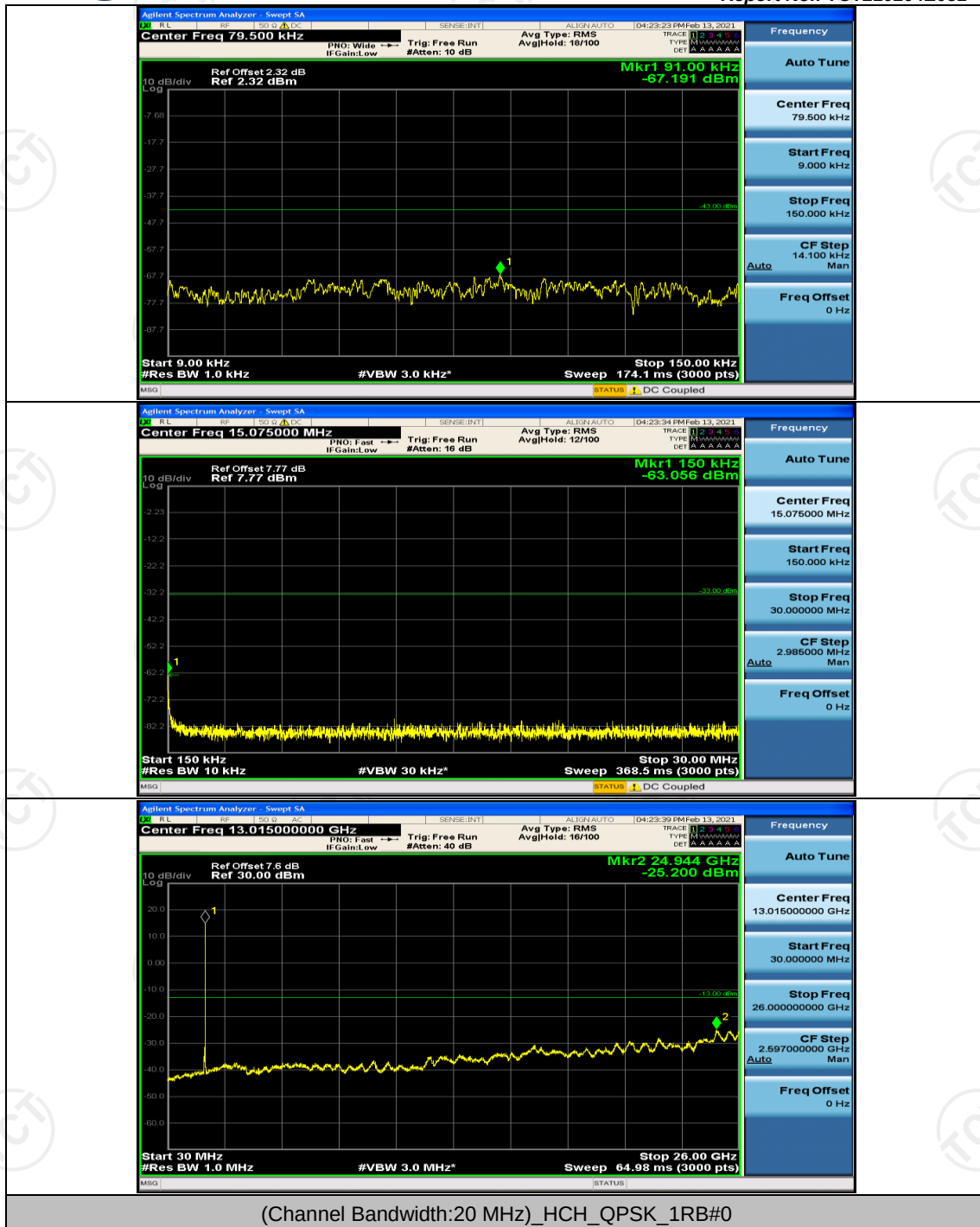
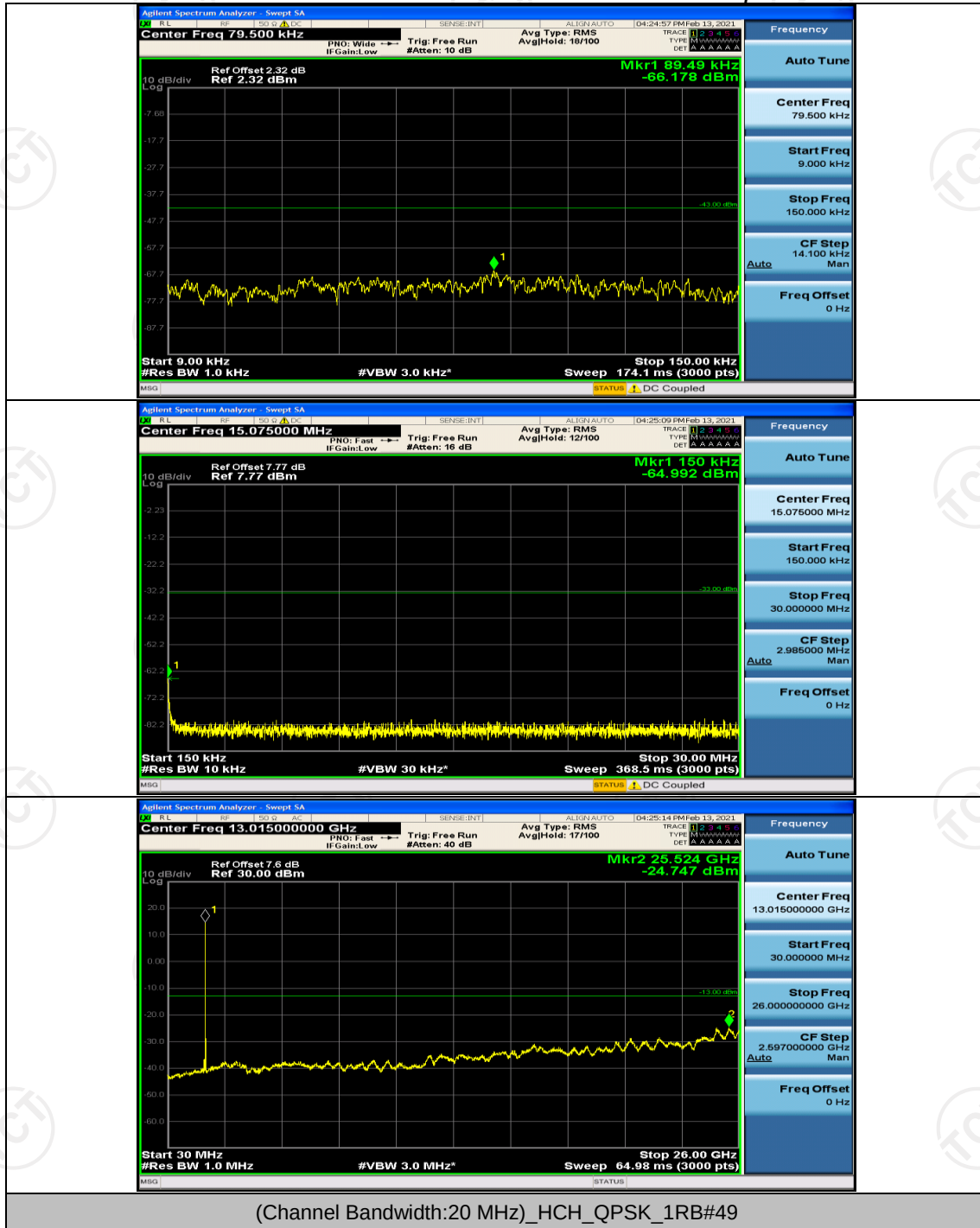


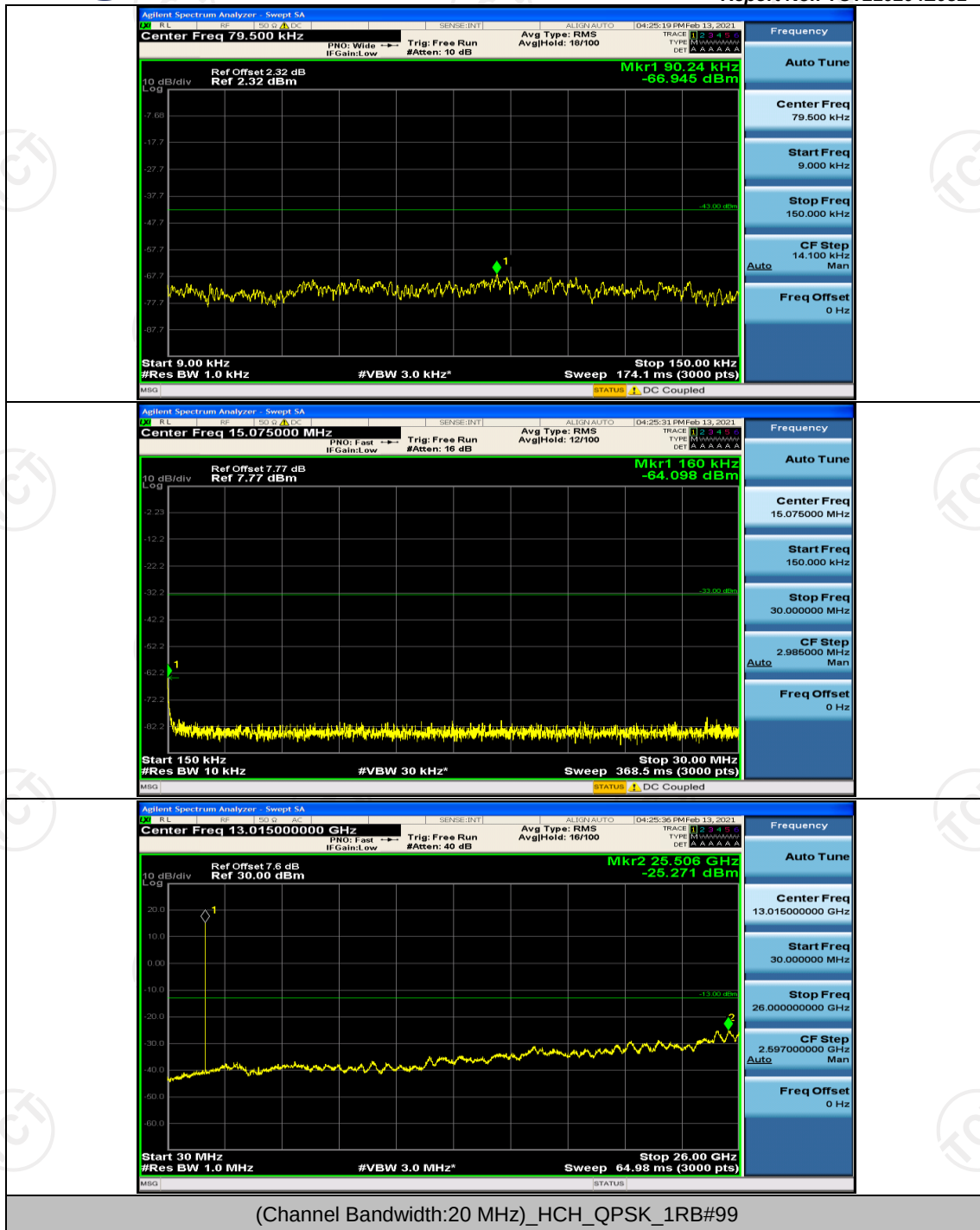


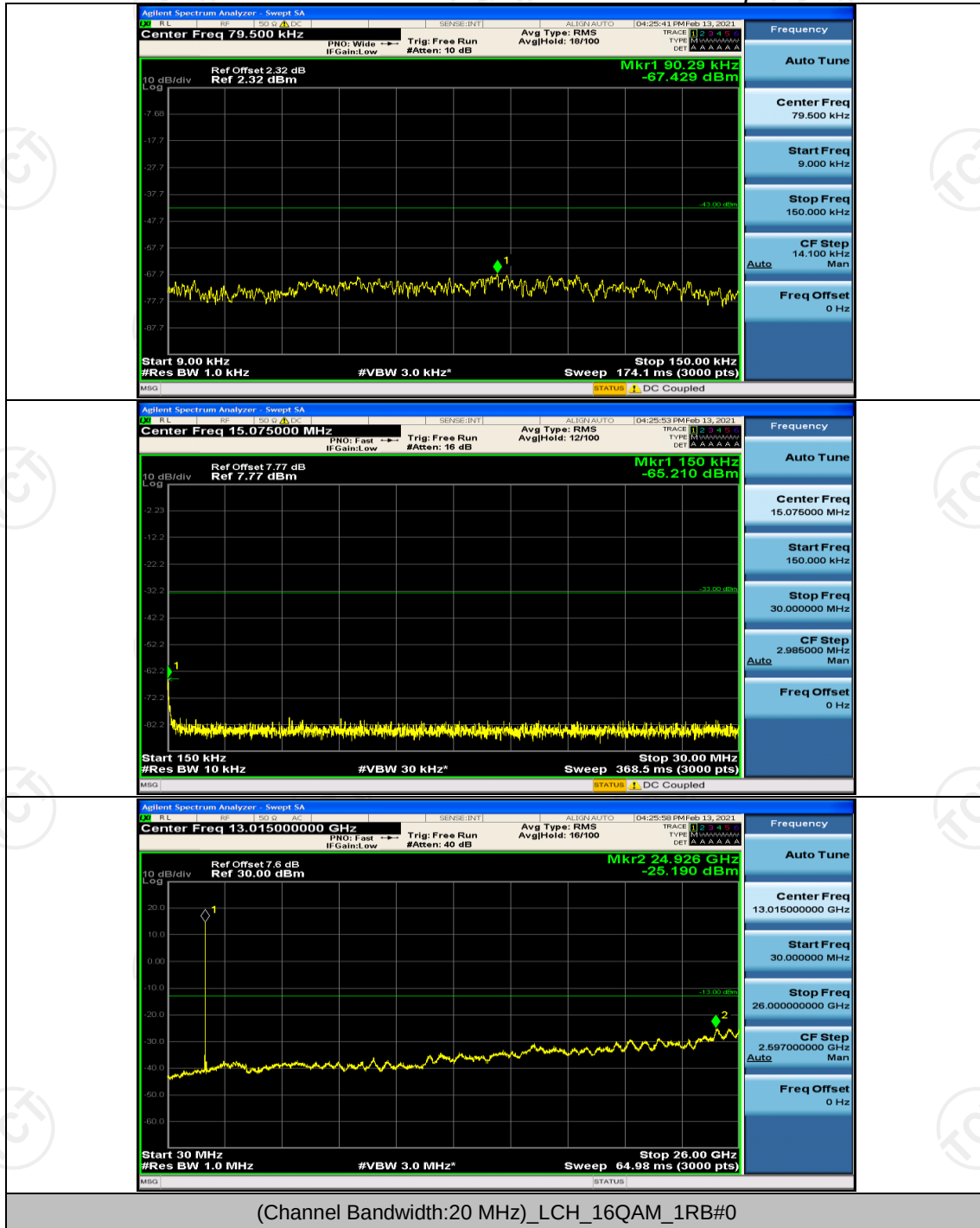


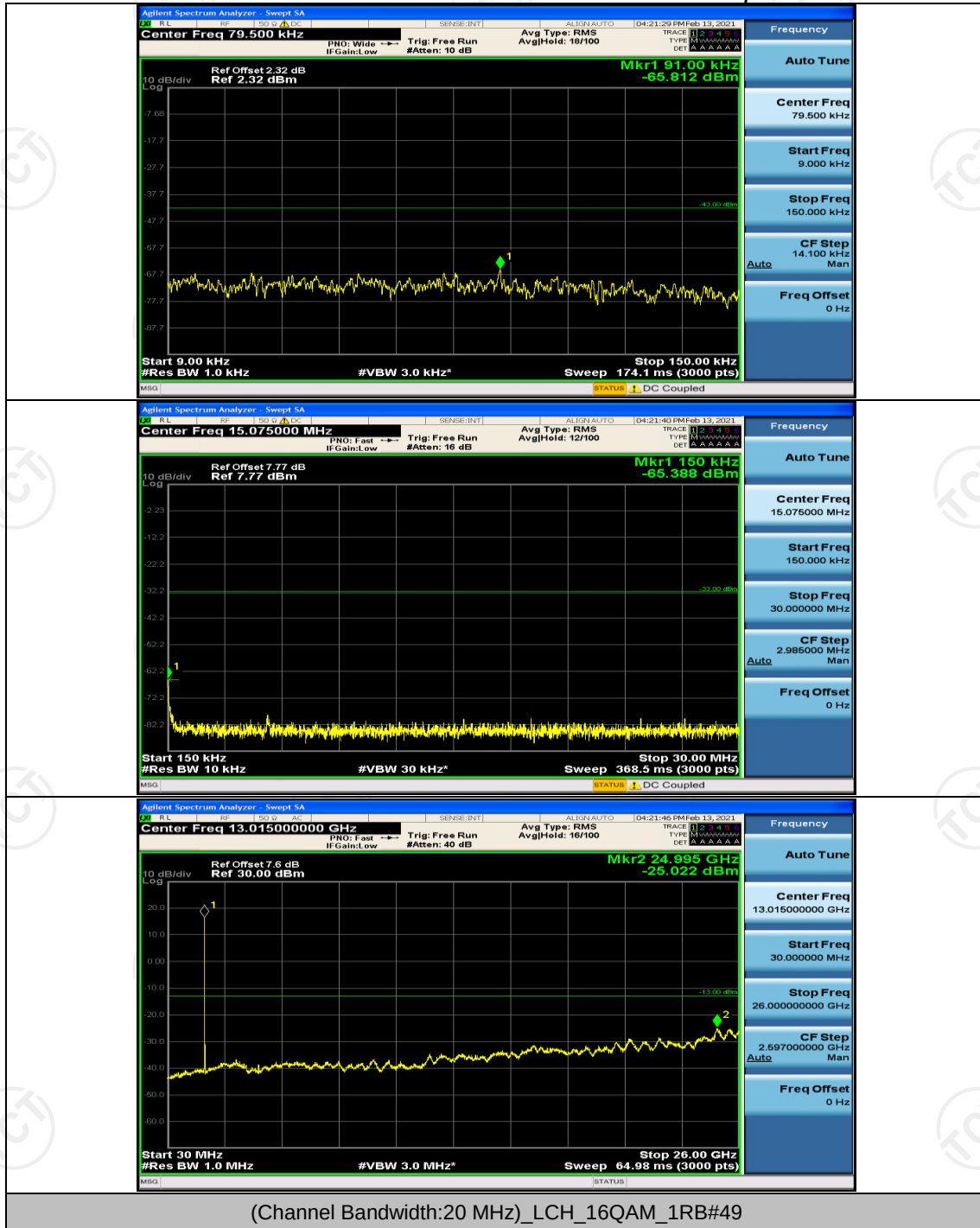


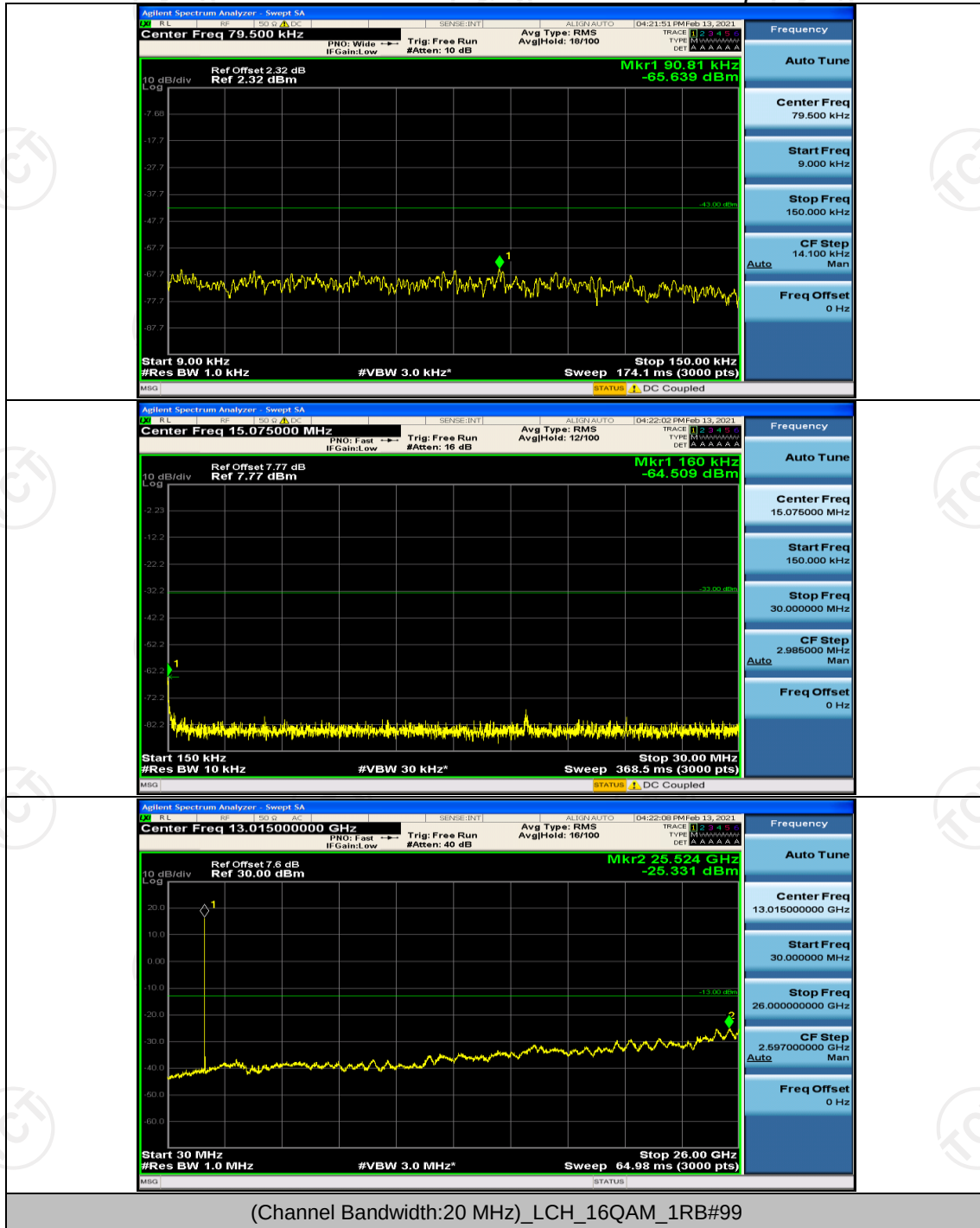


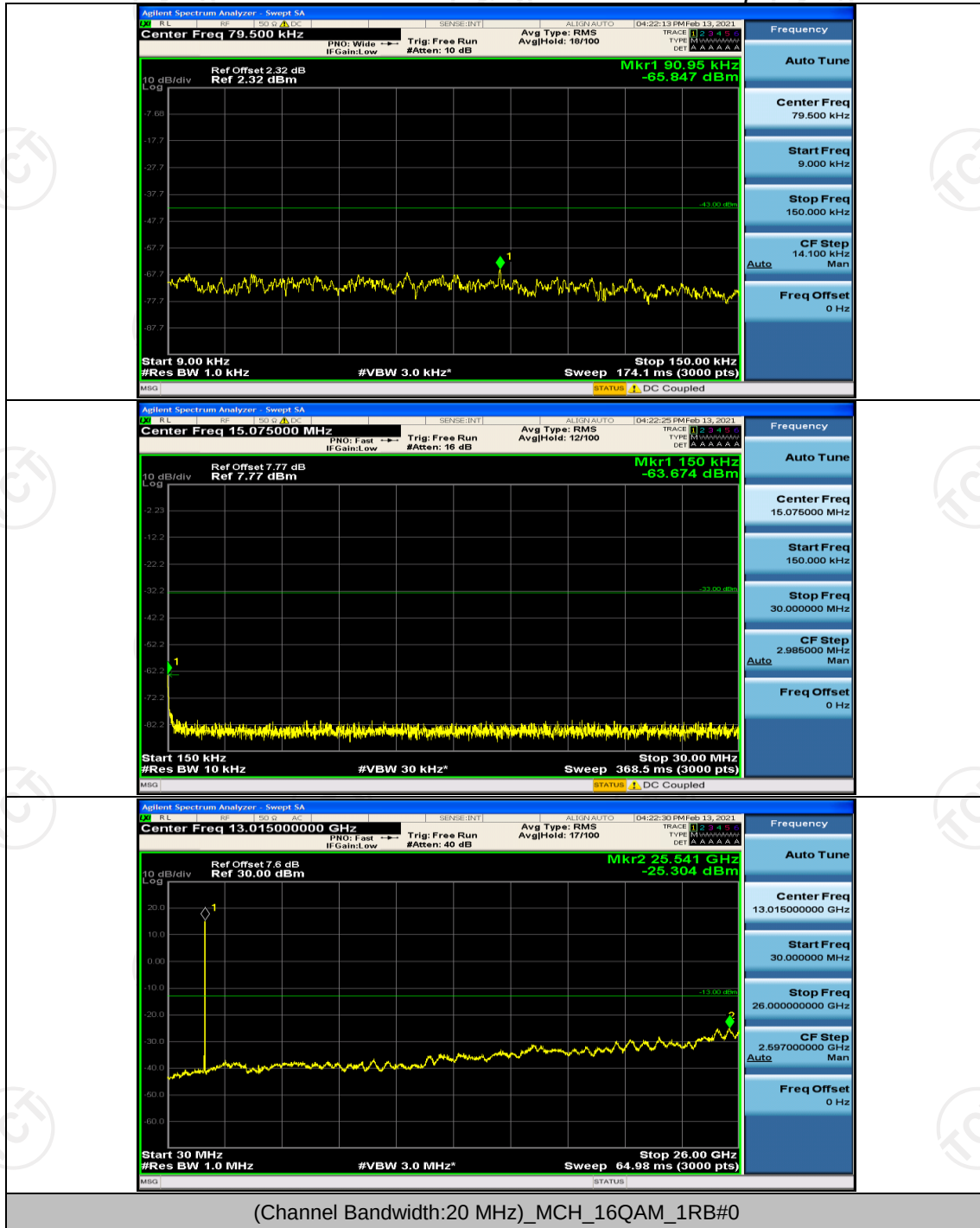


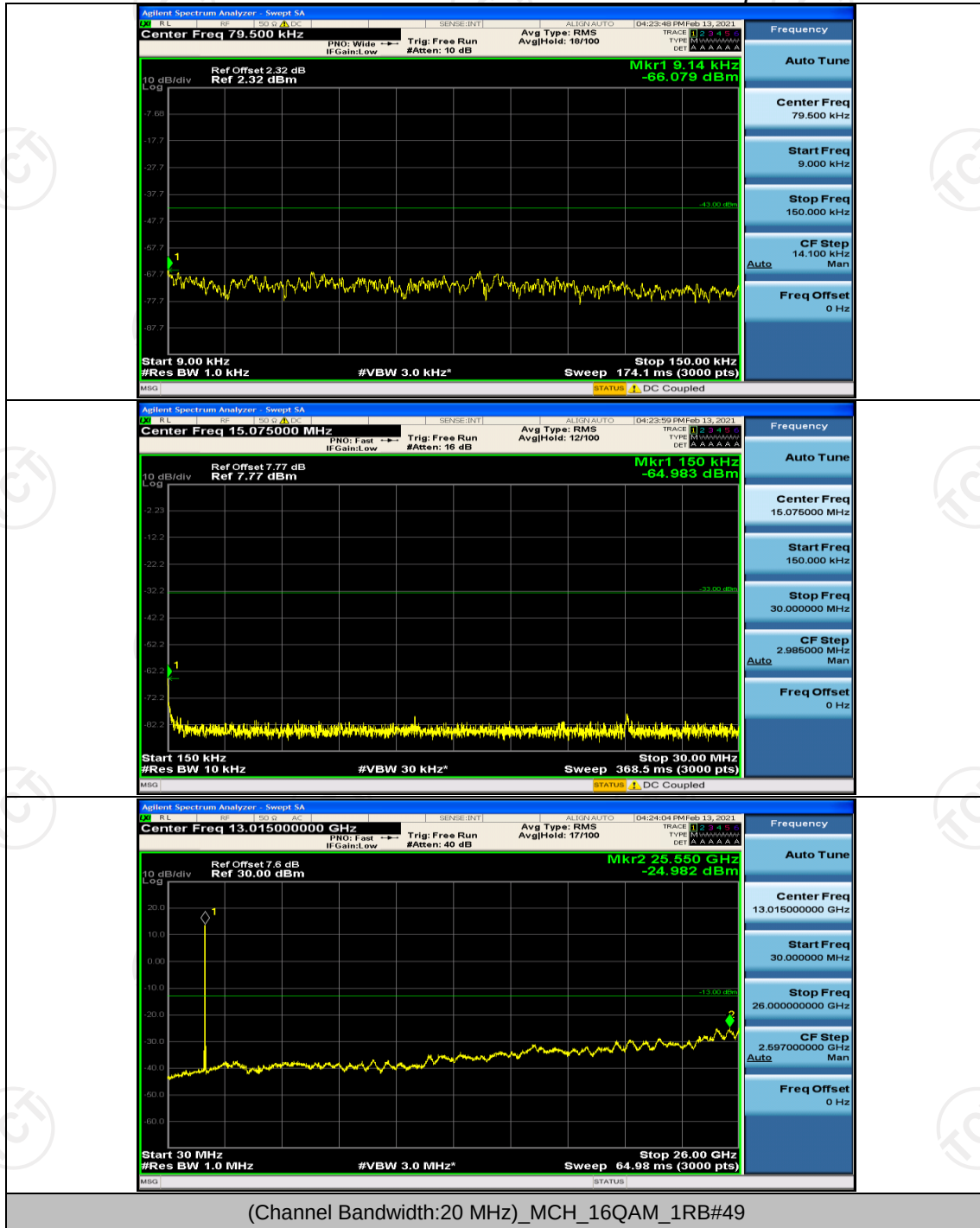


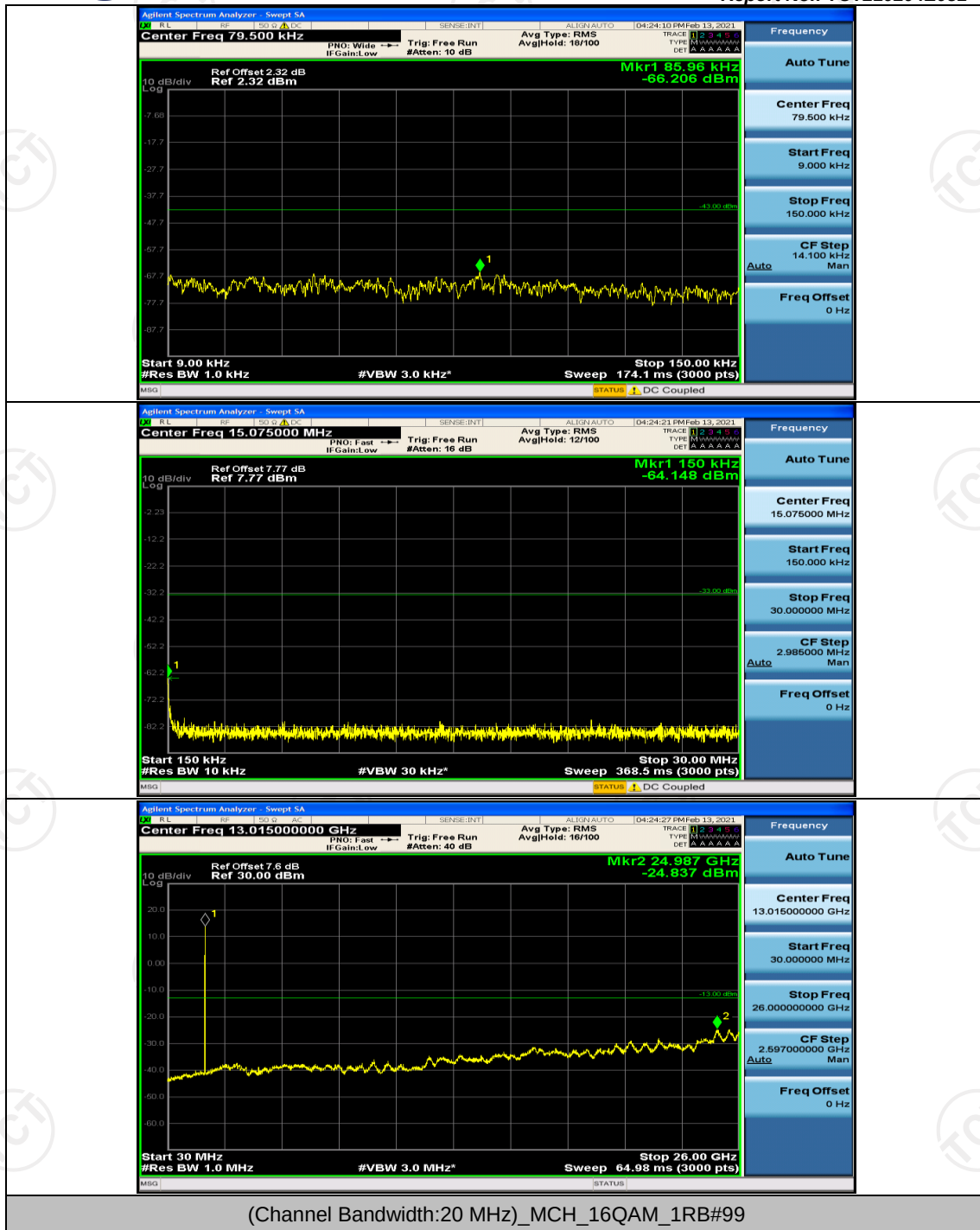


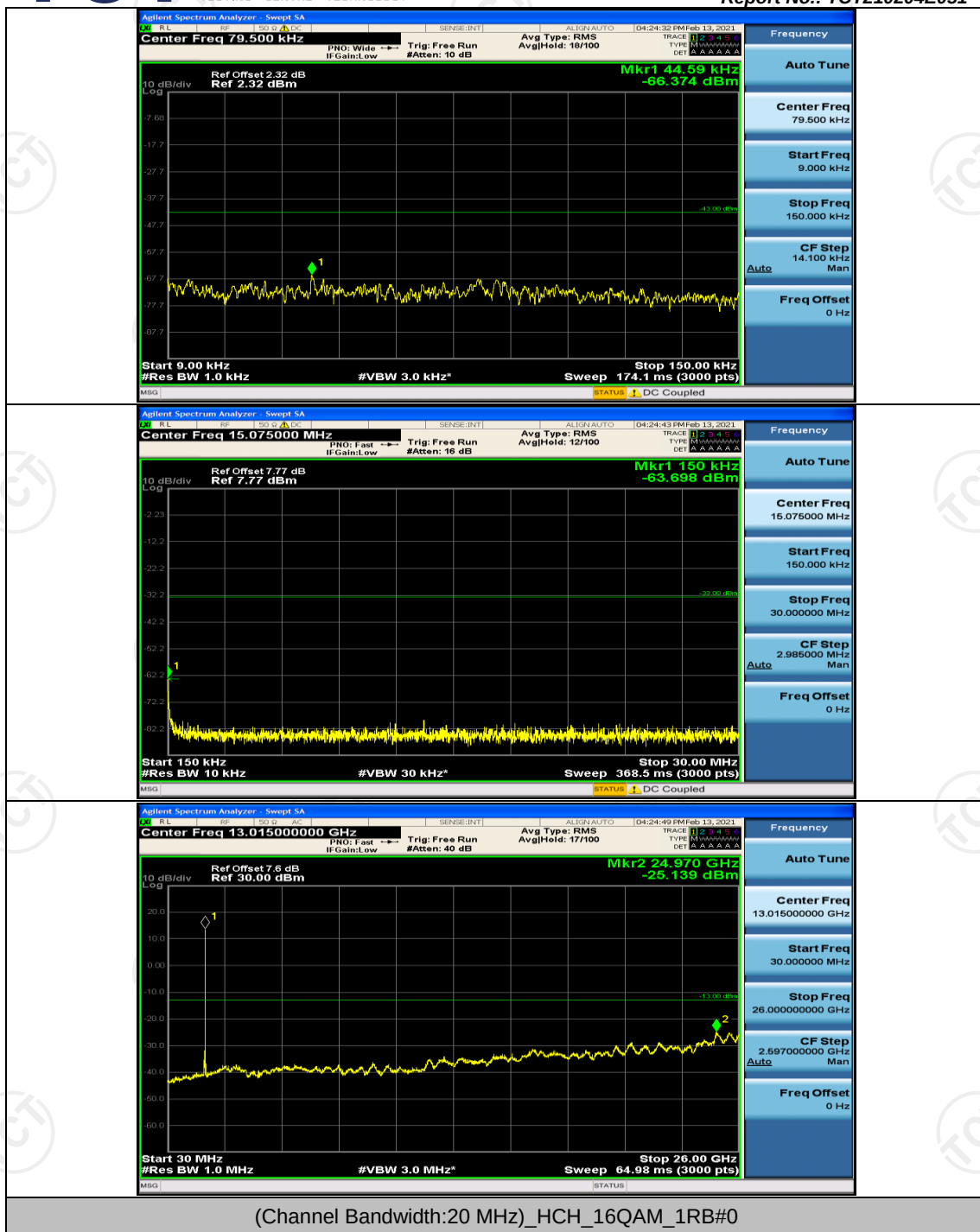


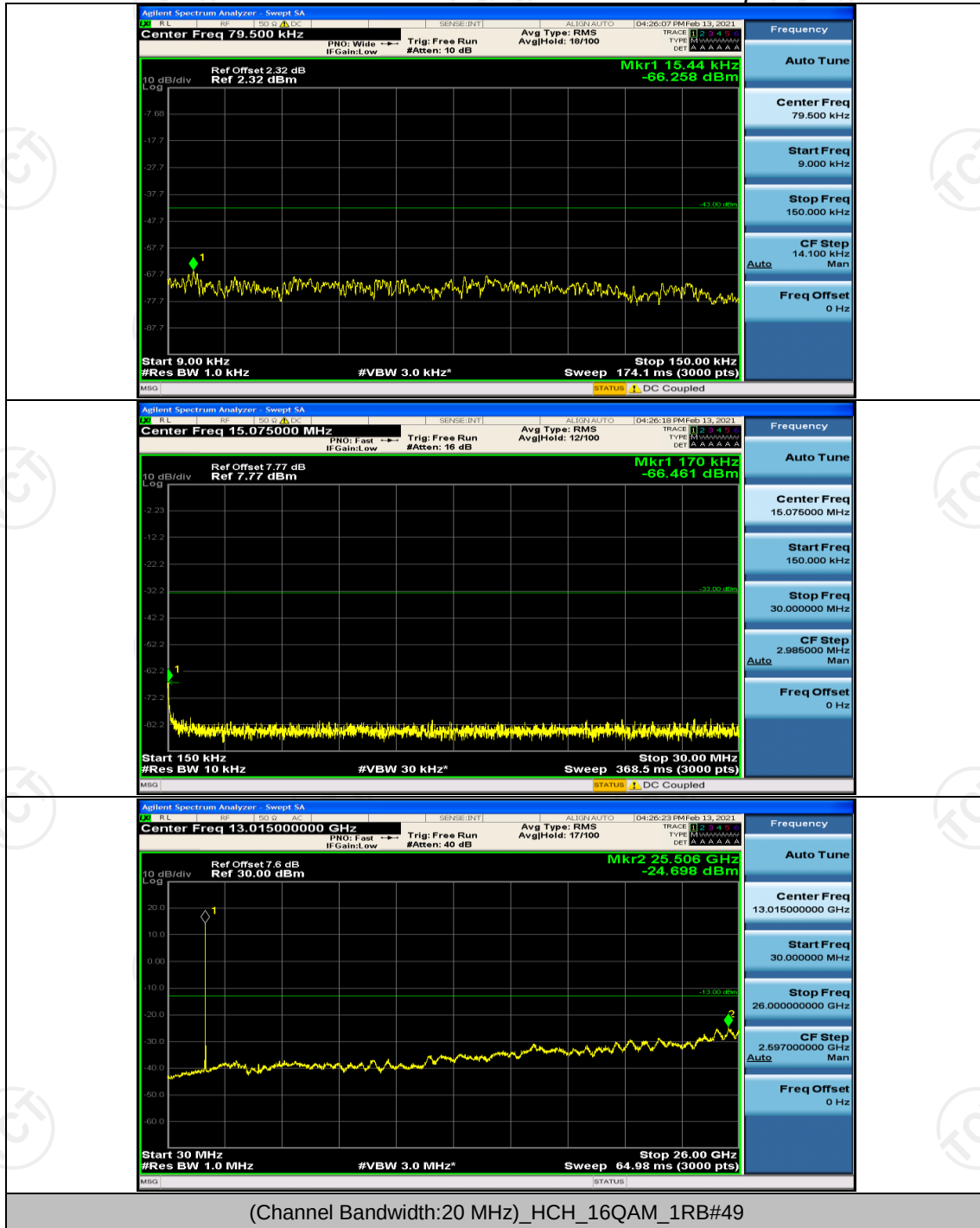


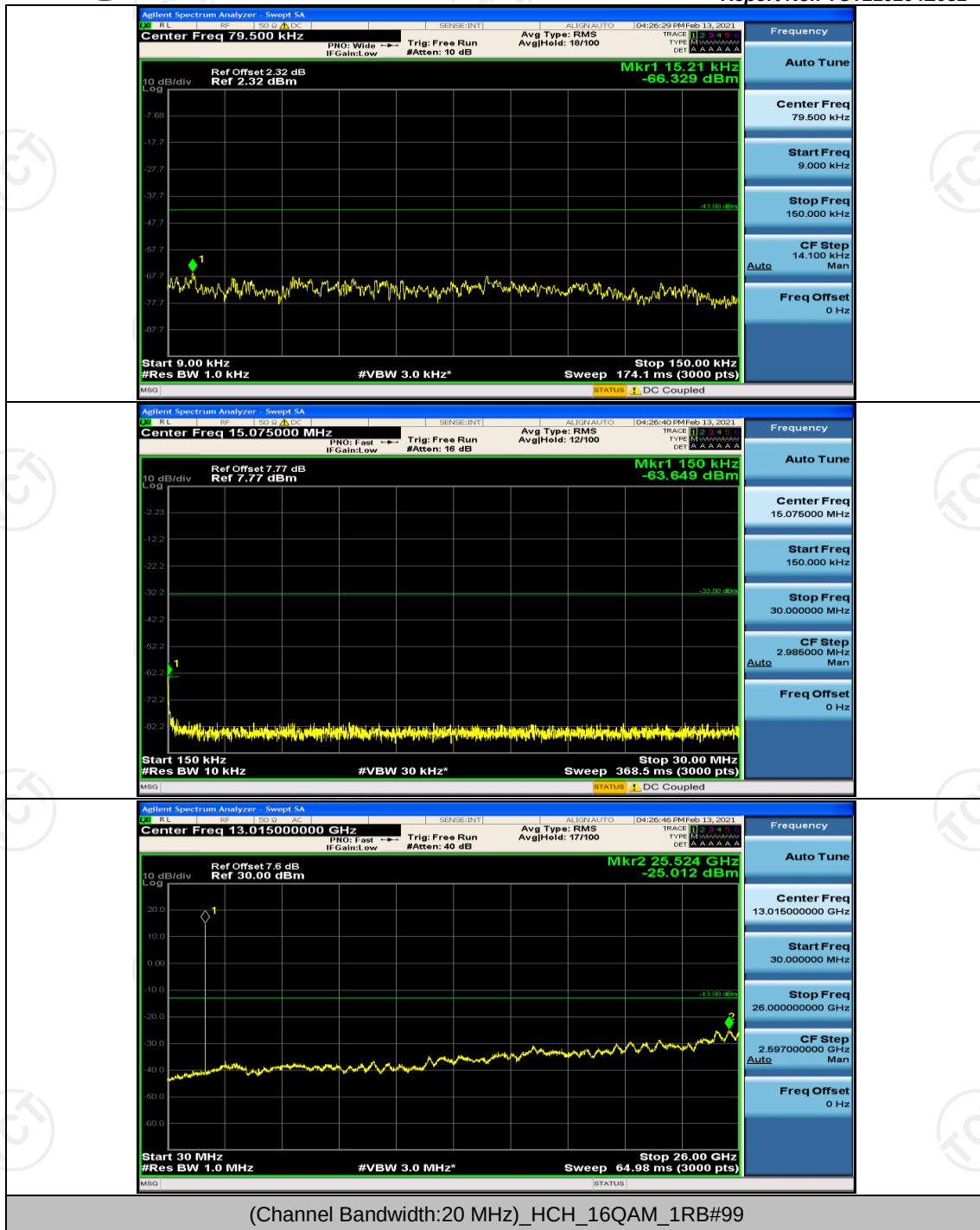


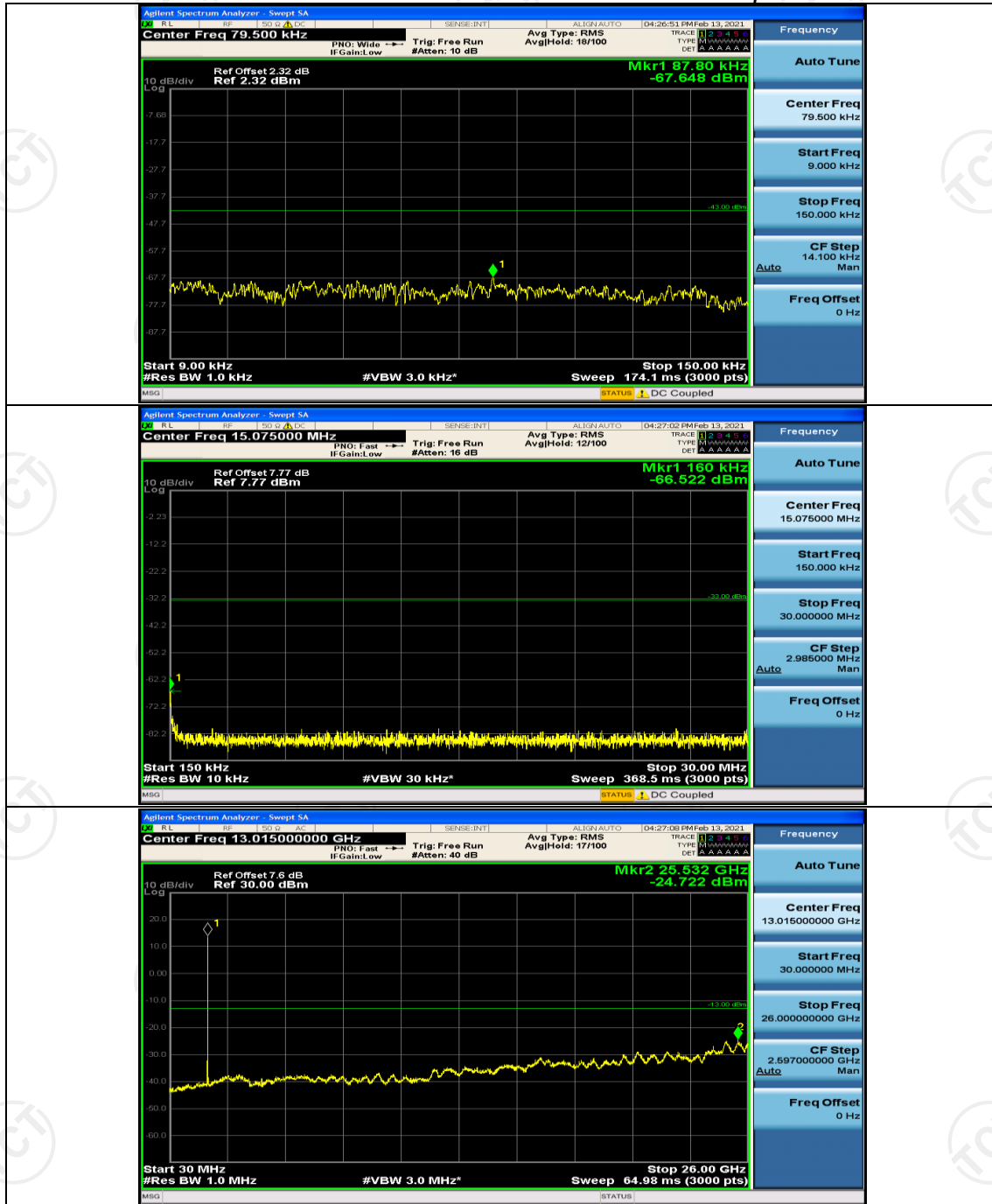












Appendix F: Frequency Stability

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	10.70	0.006248	± 2.5	PASS
		3.85	25	-29.28	-0.017117	± 2.5	PASS
		4.45	25	-5.91	-0.003410	± 2.5	PASS
	MCH	3.35	25	31.76	0.018121	± 2.5	PASS
		3.85	25	21.46	0.012244	± 2.5	PASS
		4.45	25	13.26	0.007567	± 2.5	PASS
	HCH	3.35	25	10.16	0.005796	± 2.5	PASS
		3.85	25	22.04	0.012566	± 2.5	PASS
		4.45	25	-3.63	-0.002097	± 2.5	PASS
16QAM	LCH	3.35	25	-17.54	-0.010123	± 2.5	PASS
		3.85	25	-24.48	-0.014128	± 2.5	PASS
		4.45	25	-21.03	-0.012138	± 2.5	PASS
	MCH	3.35	25	29.23	0.016667	± 2.5	PASS
		3.85	25	20.80	0.011862	± 2.5	PASS
		4.45	25	0.92	0.000522	± 2.5	PASS
	HCH	3.35	25	19.21	0.010956	± 2.5	PASS
		3.85	25	2.79	0.001590	± 2.5	PASS
		4.45	25	-29.80	-0.017199	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	3.85	-30	-20.76	-0.012128	± 2.5	PASS
		3.85	-20	-29.61	-0.017092	± 2.5	PASS
		3.85	-10	-40.18	-0.023194	± 2.5	PASS
		3.85	0	-36.11	-0.020840	± 2.5	PASS
		3.85	10	-20.08	-0.011593	± 2.5	PASS
		3.85	20	-14.79	-0.008646	± 2.5	PASS
		3.85	30	-14.99	-0.008764	± 2.5	PASS
		3.85	40	2.86	0.001672	± 2.5	PASS
		3.85	50	-19.00	-0.011105	± 2.5	PASS
	MCH	3.85	-30	-31.04	-0.018137	± 2.5	PASS
		3.85	-20	-29.44	-0.016799	± 2.5	PASS

		3.85	-10	-1.93	-0.001102	± 2.5	PASS
		3.85	0	-10.99	-0.006269	± 2.5	PASS
		3.85	10	-19.41	-0.011077	± 2.5	PASS
		3.85	20	-10.79	-0.006226	± 2.5	PASS
		3.85	30	-10.51	-0.006069	± 2.5	PASS
		3.85	40	-40.10	-0.023144	± 2.5	PASS
		3.85	50	-31.06	-0.017926	± 2.5	PASS
	HCH	3.85	-30	17.18	0.009798	± 2.5	PASS
		3.85	-20	-24.55	-0.014343	± 2.5	PASS
		3.85	-10	-28.07	-0.016399	± 2.5	PASS
		3.85	0	-35.81	-0.020921	± 2.5	PASS
		3.85	10	-35.38	-0.020670	± 2.5	PASS
		3.85	20	0.93	0.000530	± 2.5	PASS
		3.85	30	-15.44	-0.008799	± 2.5	PASS
		3.85	40	-25.69	-0.014645	± 2.5	PASS
		3.85	50	-27.21	-0.015510	± 2.5	PASS
16QAM	LCH	3.85	-30	3.66	0.002114	± 2.5	PASS
		3.85	-20	1.00	0.000578	± 2.5	PASS
		3.85	-10	32.62	0.018826	± 2.5	PASS
		3.85	0	11.92	0.006878	± 2.5	PASS
		3.85	10	6.84	0.003947	± 2.5	PASS
		3.85	20	16.49	0.009642	± 2.5	PASS
		3.85	30	2.56	0.001497	± 2.5	PASS
		3.85	40	31.20	0.018238	± 2.5	PASS
		3.85	50	19.47	0.011381	± 2.5	PASS
	MCH	3.85	-30	-4.32	-0.002464	± 2.5	PASS
		3.85	-20	7.11	0.004154	± 2.5	PASS
		3.85	-10	-10.27	-0.006001	± 2.5	PASS
		3.85	0	11.82	0.006904	± 2.5	PASS
		3.85	10	28.47	0.016633	± 2.5	PASS
		3.85	20	37.72	0.021774	± 2.5	PASS
		3.85	30	20.26	0.011692	± 2.5	PASS
		3.85	40	8.94	0.005161	± 2.5	PASS
		3.85	50	30.07	0.017356	± 2.5	PASS
	HCH	3.85	-30	-34.03	-0.019643	± 2.5	PASS
		3.85	-20	-24.55	-0.014343	± 2.5	PASS
		3.85	-10	-28.07	-0.016399	± 2.5	PASS
		3.85	0	-35.81	-0.020921	± 2.5	PASS
		3.85	10	-35.38	-0.020670	± 2.5	PASS
		3.85	20	19.83	0.011302	± 2.5	PASS
		3.85	30	8.35	0.004762	± 2.5	PASS
		3.85	40	37.39	0.021315	± 2.5	PASS

		3.85	50	11.32	0.006450	± 2.5	PASS
--	--	------	----	-------	----------	-------	------