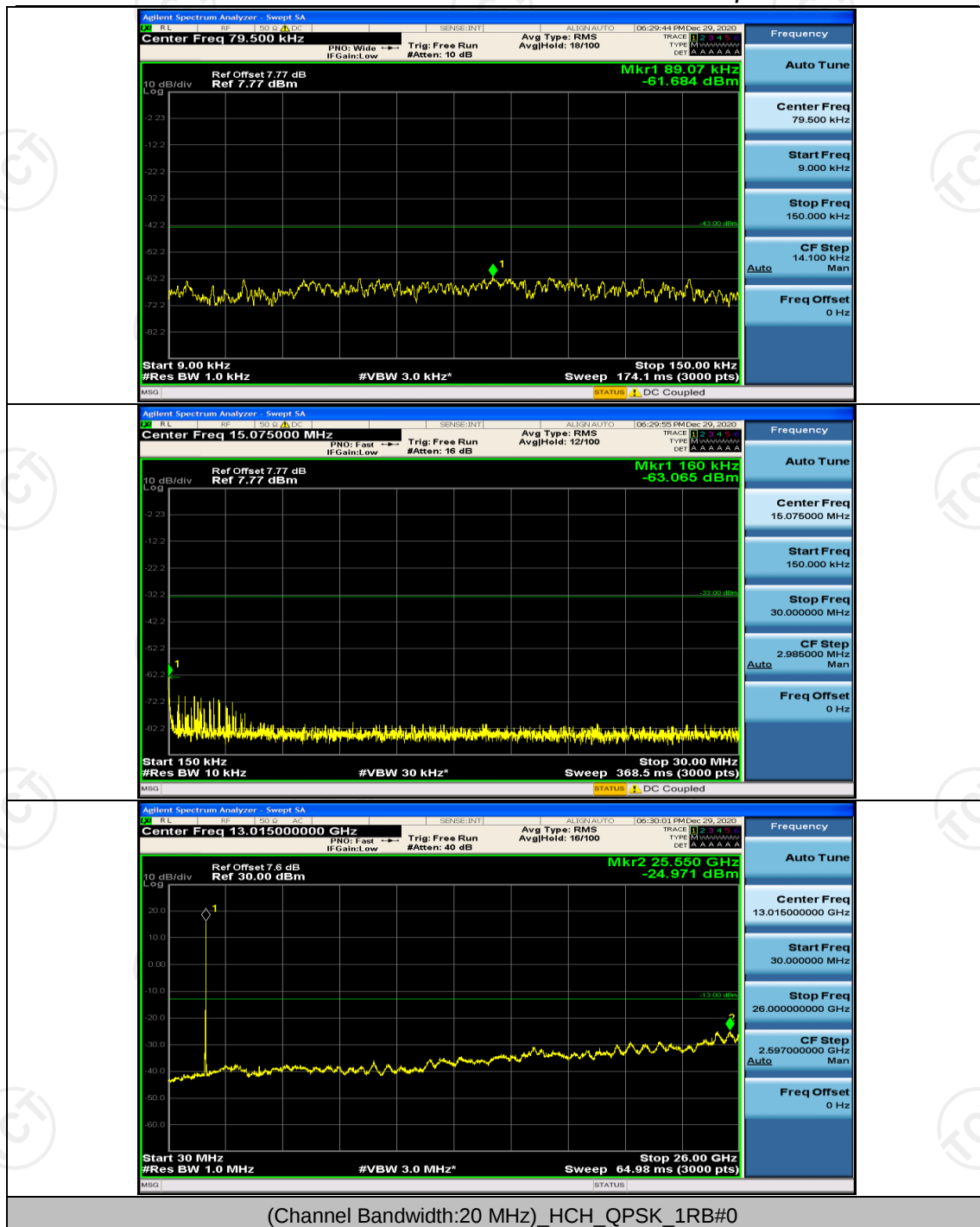
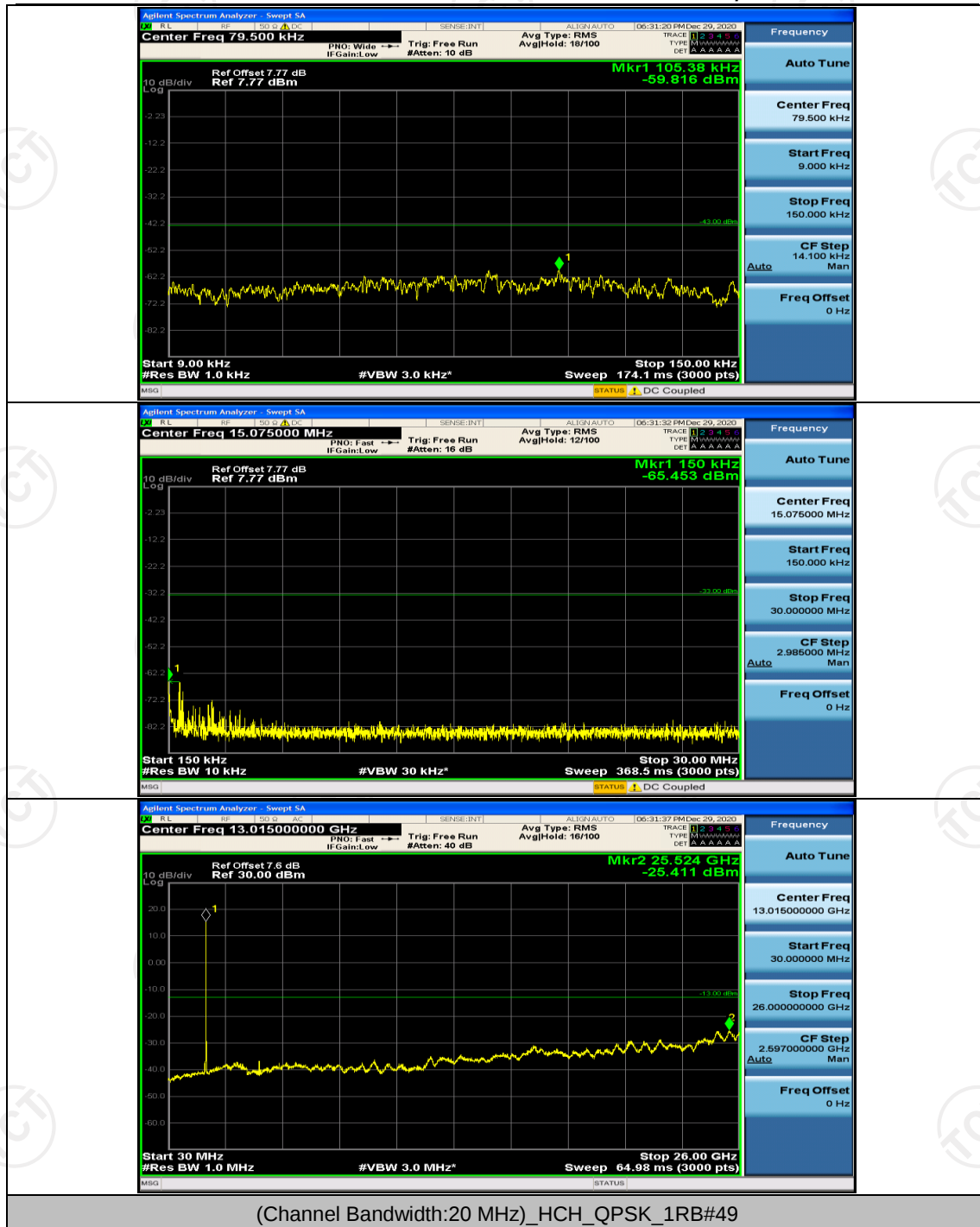
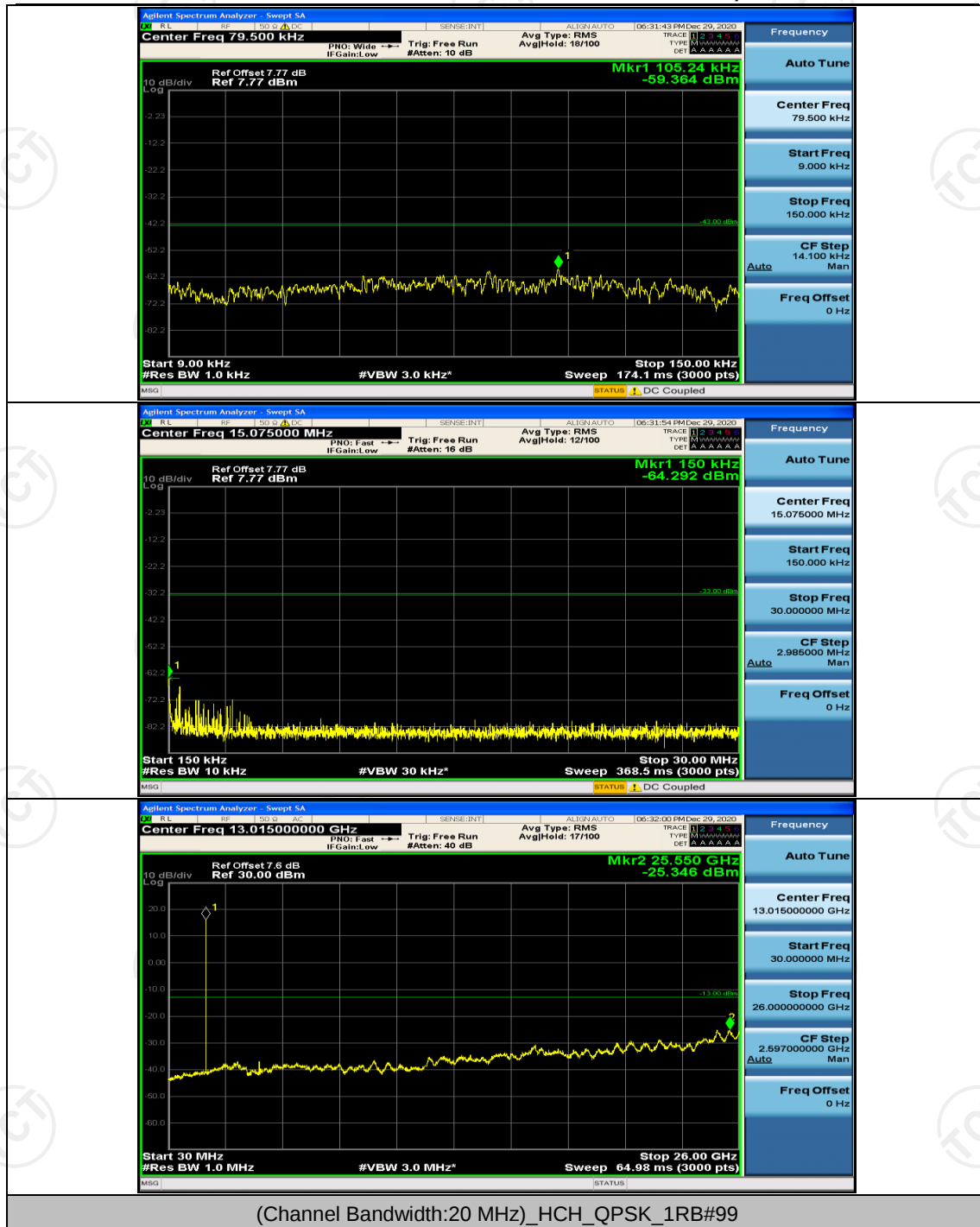
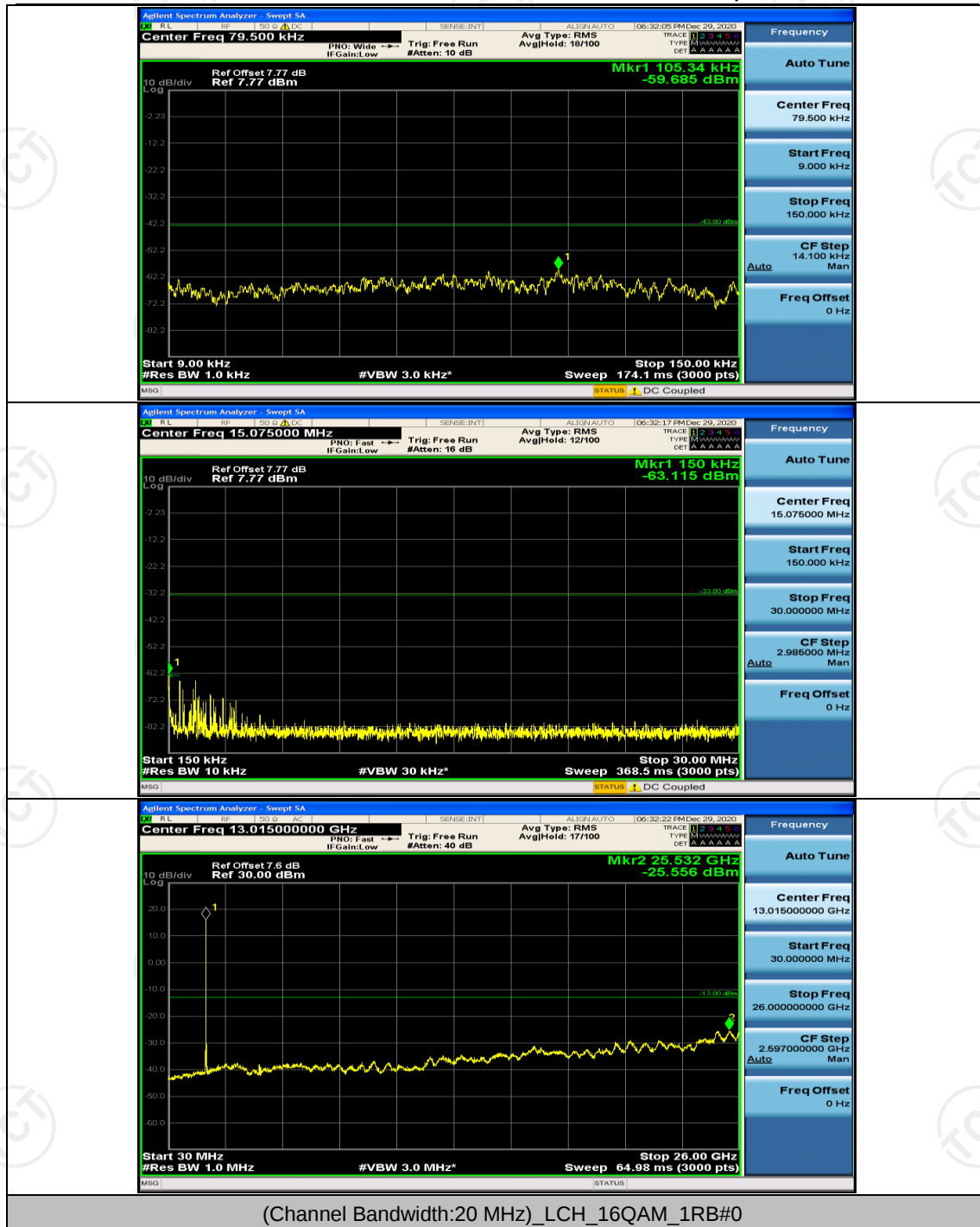
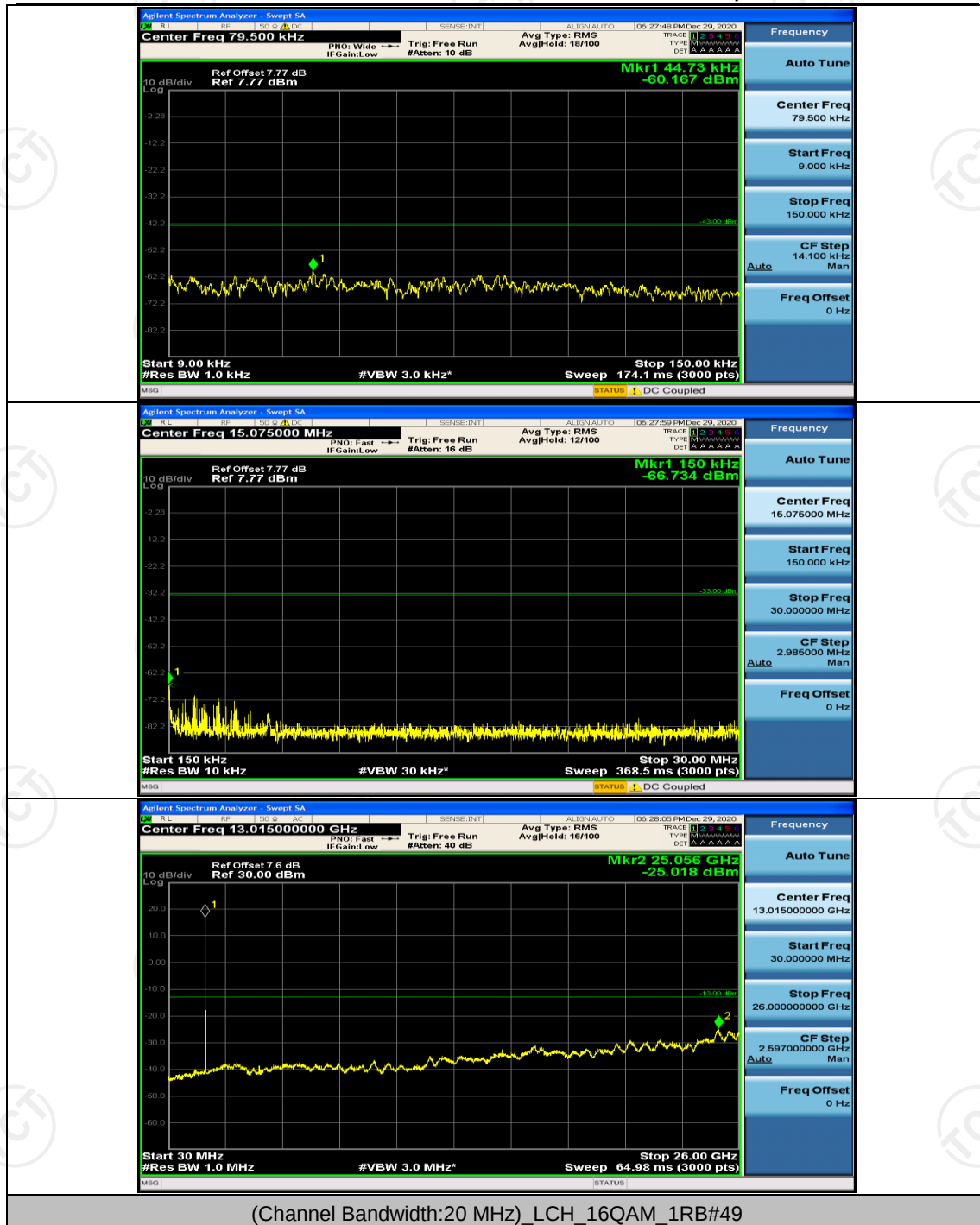


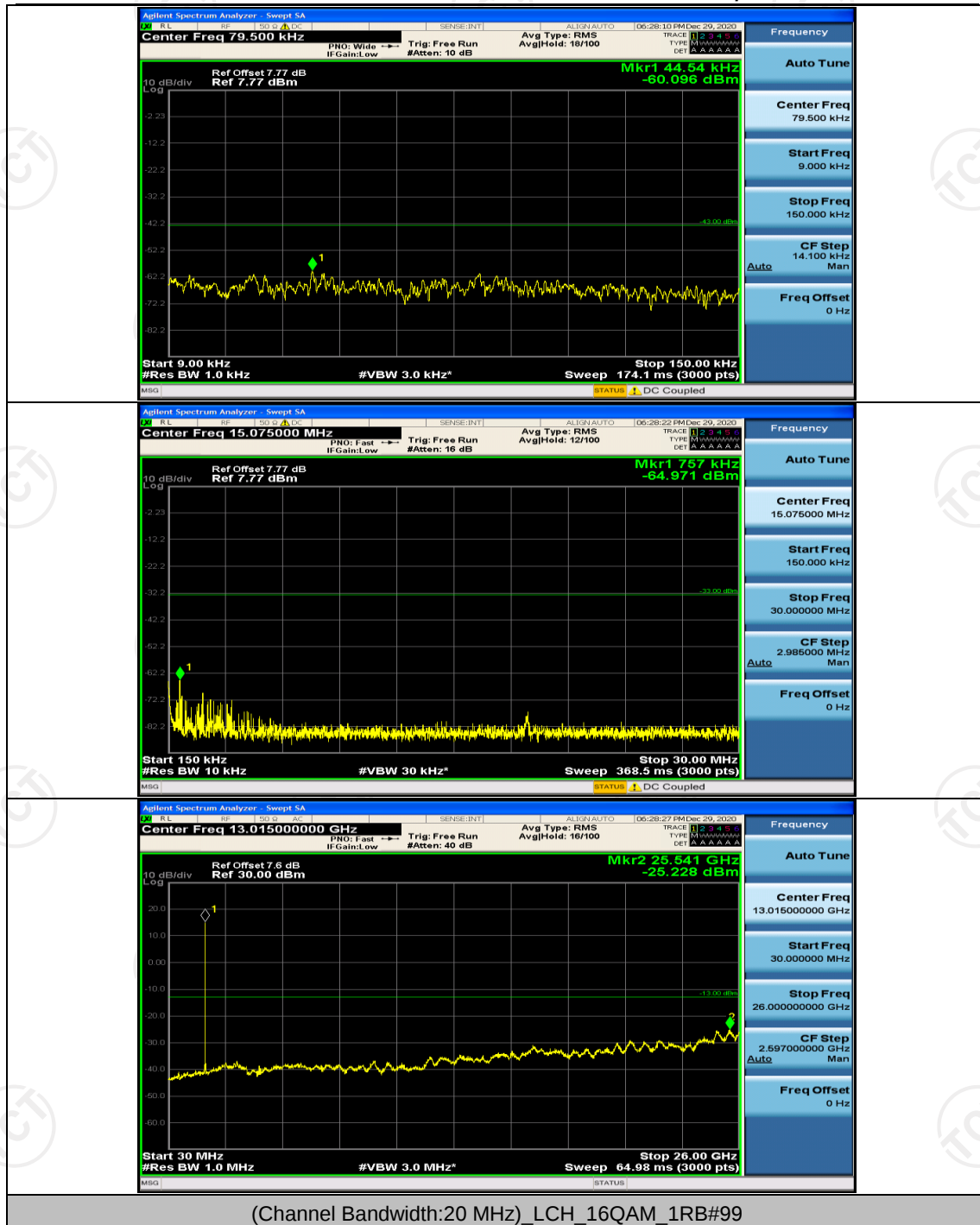


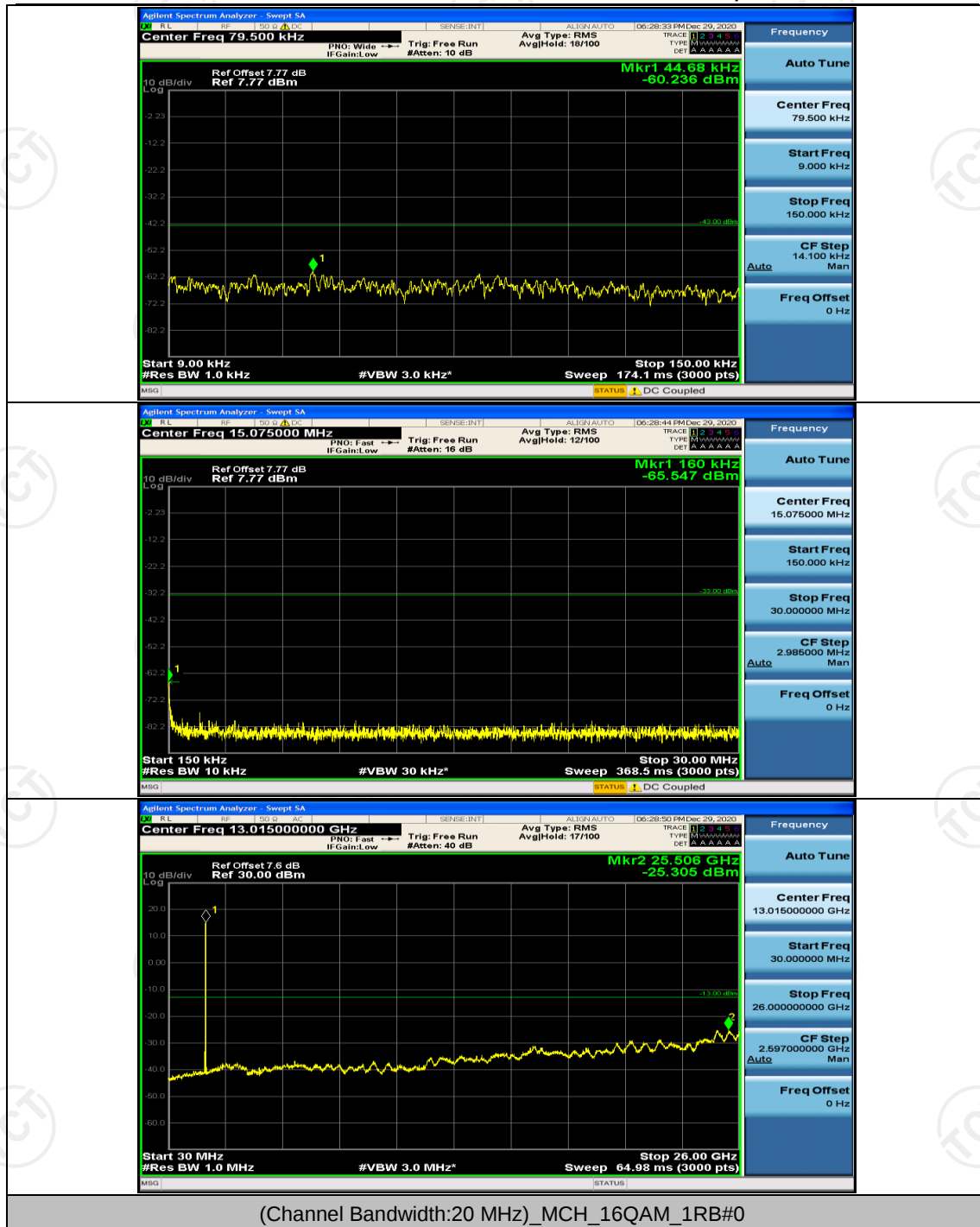


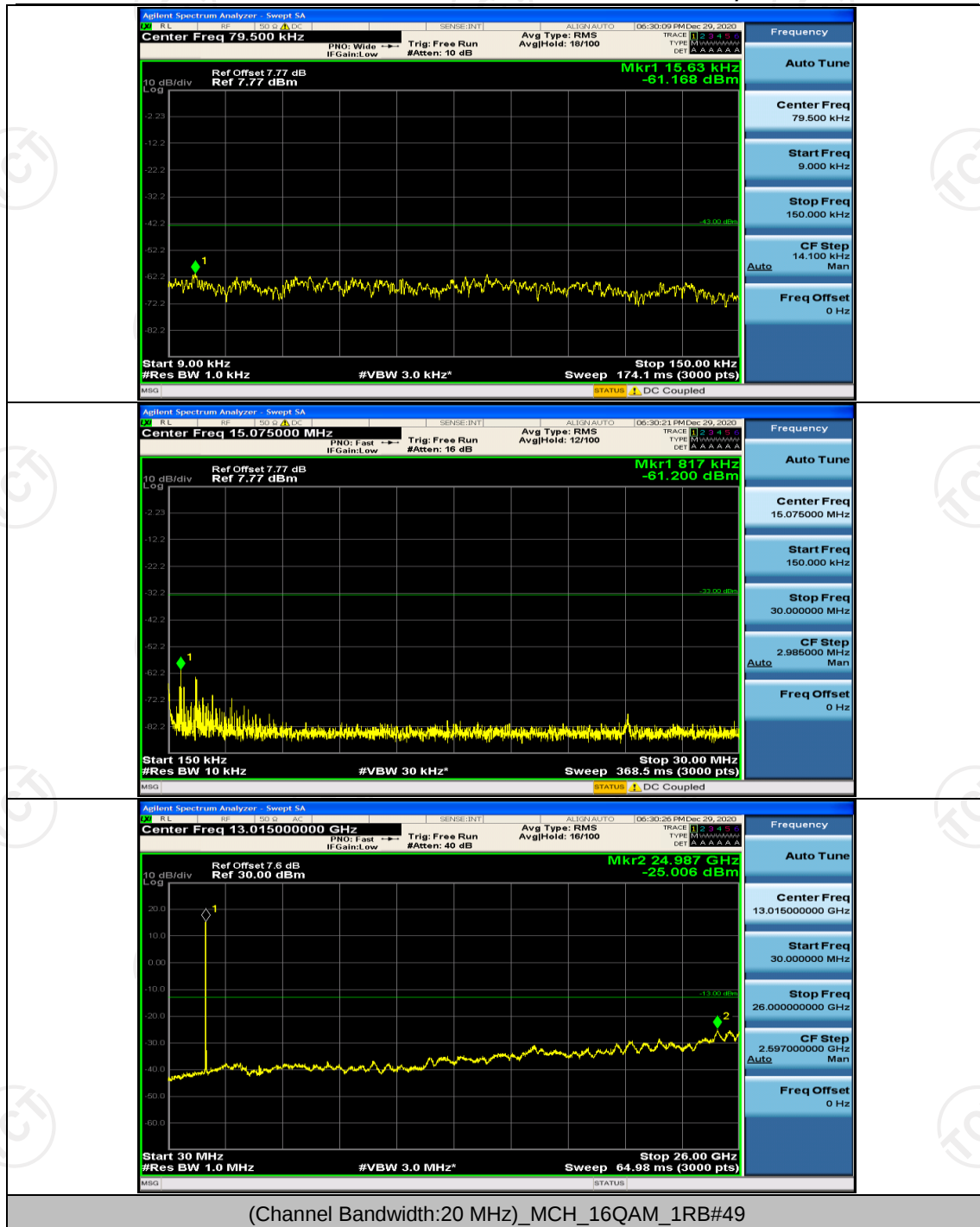


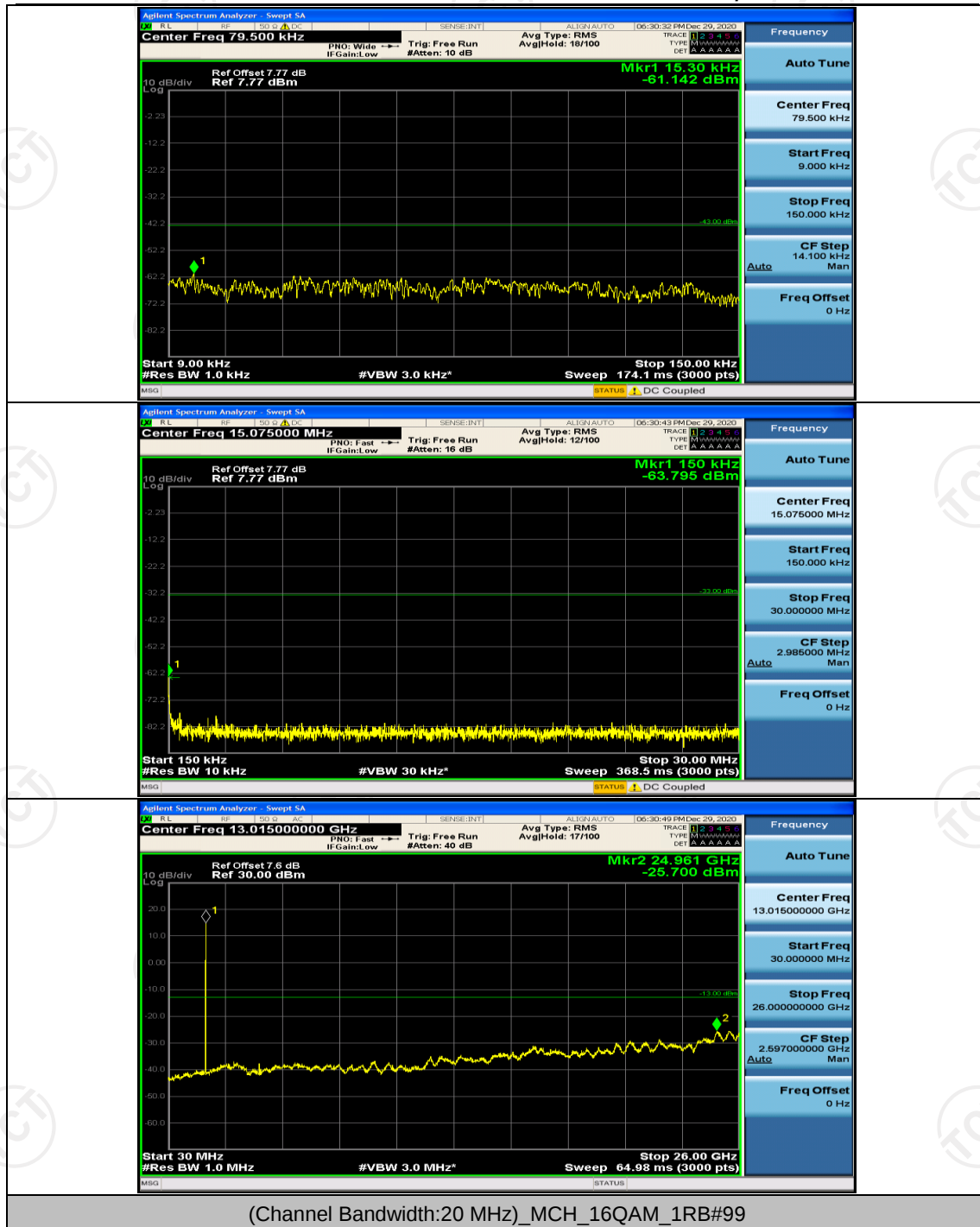


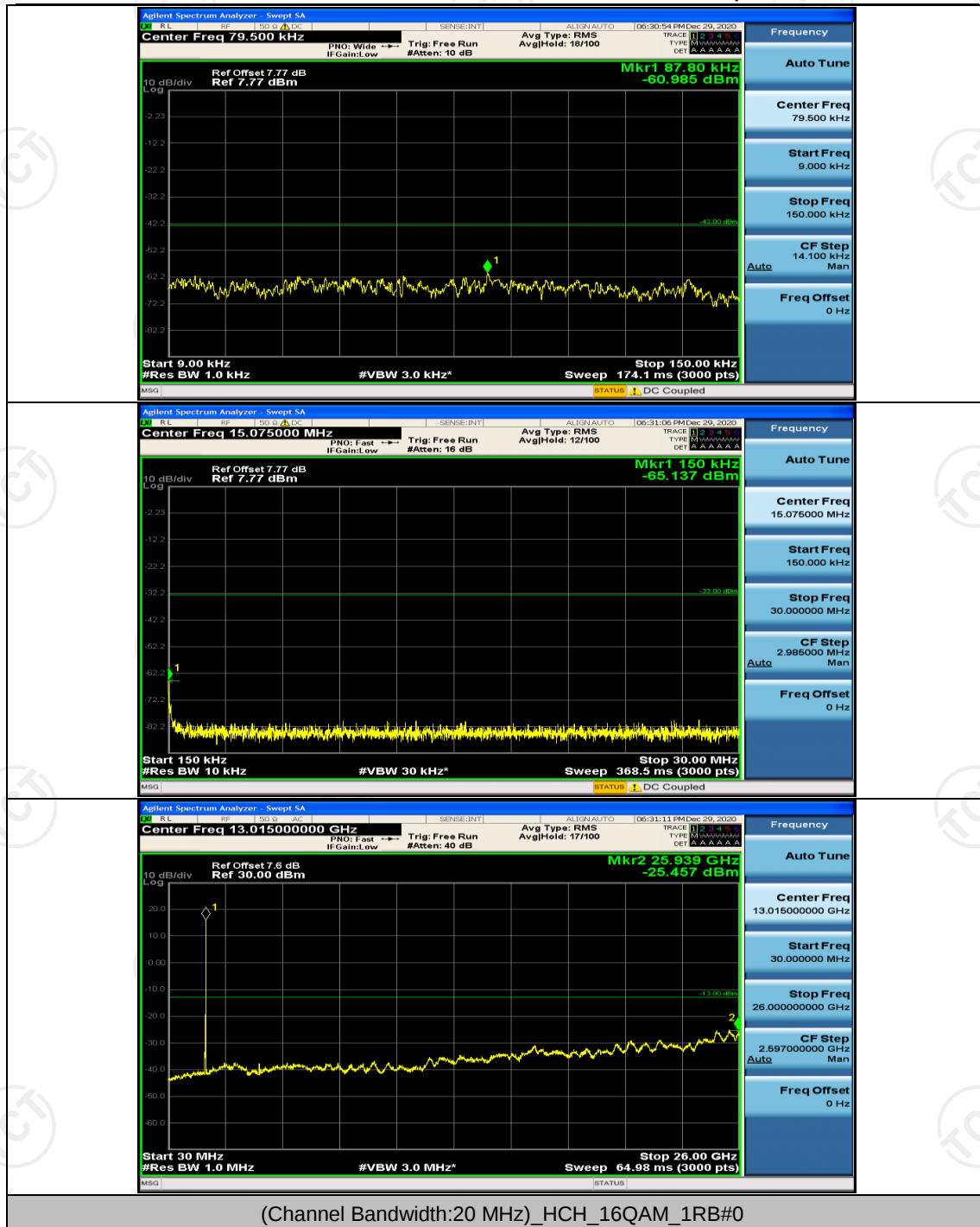


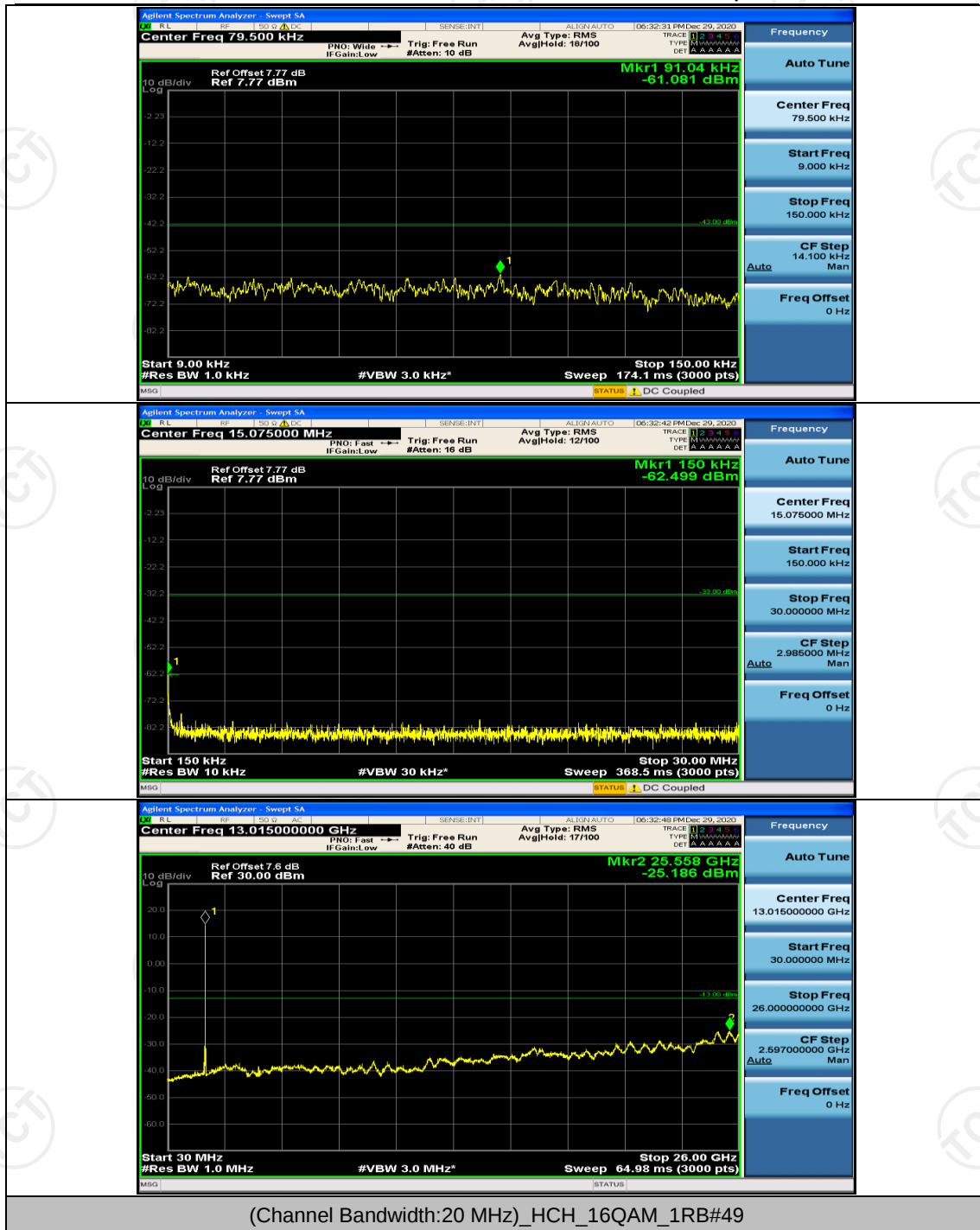


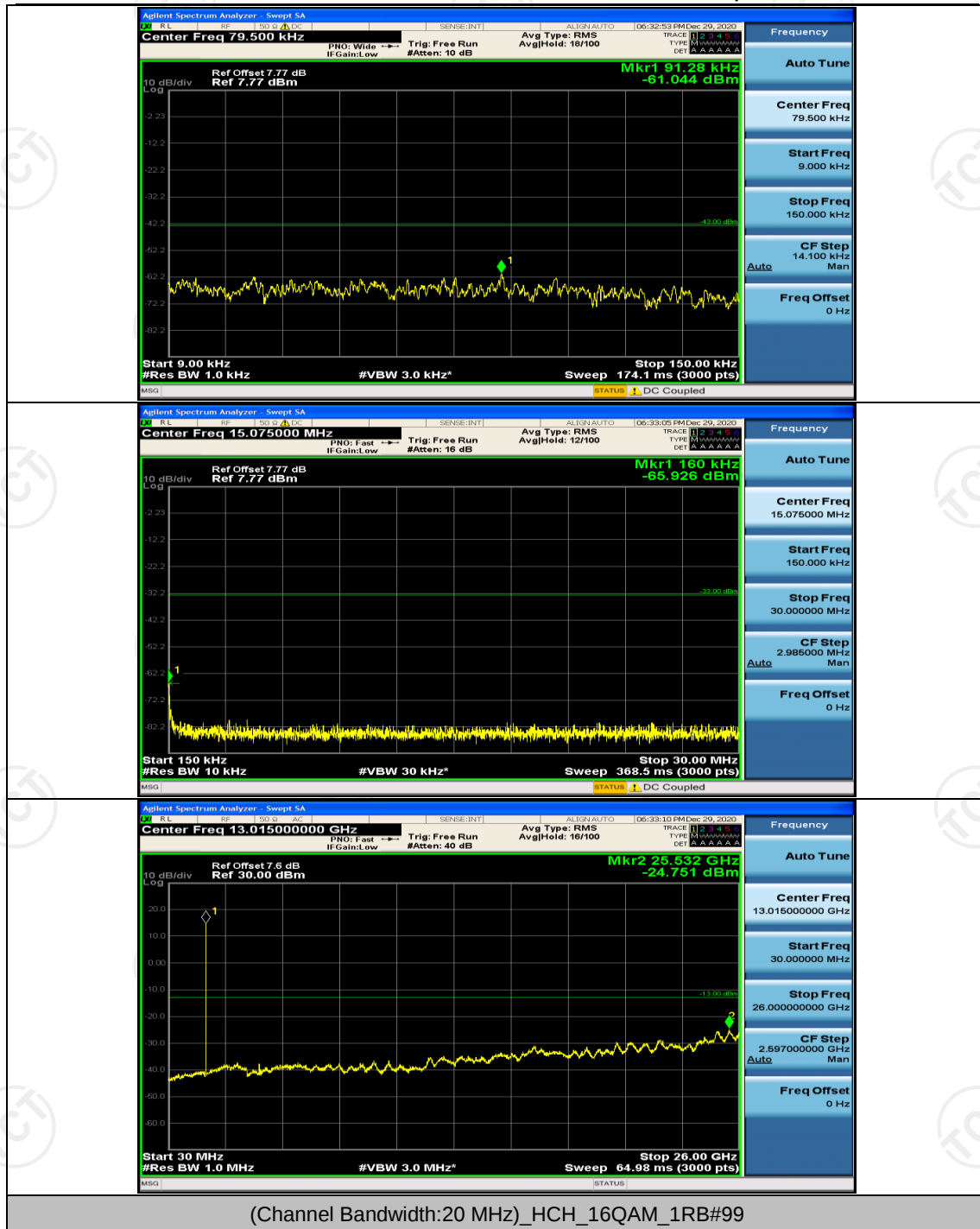


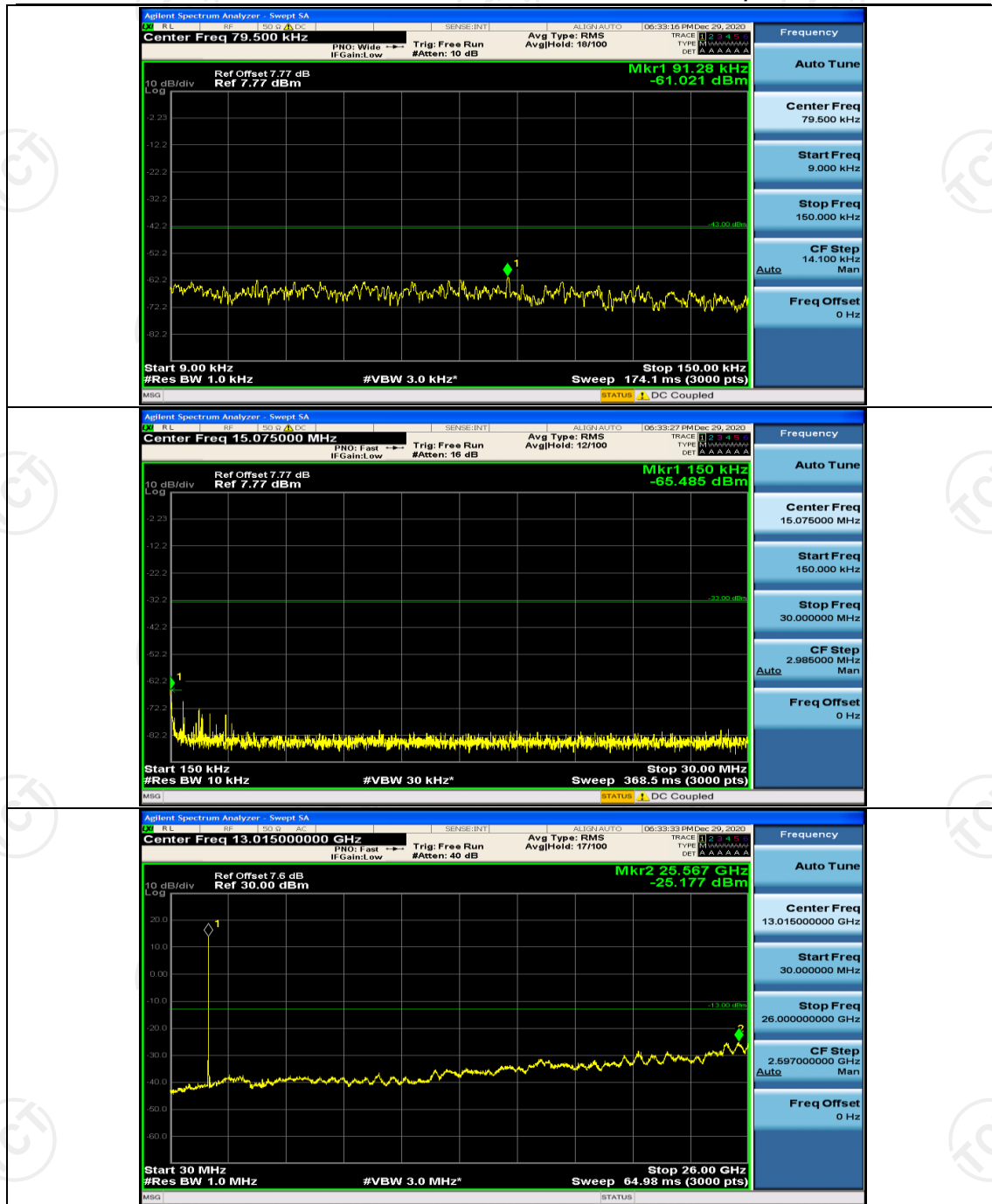












Appendix F: Frequency Stability

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	3.6	25	-42.84	-0.025018	± 2.5	PASS
		3.8	25	-45.89	-0.026798	± 2.5	PASS
		4.35	25	-50.47	-0.029471	± 2.5	PASS
	MCH	3.6	25	-4.99	-0.002915	± 2.5	PASS
		3.8	25	19.01	0.010973	± 2.5	PASS
		4.35	25	33.33	0.019239	± 2.5	PASS
	HCH	3.6	25	38.87	0.022434	± 2.5	PASS
		3.8	25	41.30	0.023838	± 2.5	PASS
		4.35	25	8.08	0.004665	± 2.5	PASS
16QAM	LCH	3.6	25	23.32	0.013324	± 2.5	PASS
		3.8	25	32.42	0.018523	± 2.5	PASS
		4.35	25	4.85	0.002771	± 2.5	PASS
	MCH	3.6	25	16.47	0.009409	± 2.5	PASS
		3.8	25	12.47	0.007118	± 2.5	PASS
		4.35	25	9.76	0.005567	± 2.5	PASS
	HCH	3.6	25	8.30	0.004734	± 2.5	PASS
		3.8	25	-6.59	-0.003759	± 2.5	PASS
		4.35	25	-21.97	-0.012683	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	3.8	-30	0.84	0.000493	± 2.5	PASS
		3.8	-20	14.45	0.008244	± 2.5	PASS
		3.8	-10	12.04	0.006873	± 2.5	PASS
		3.8	0	12.27	0.007004	± 2.5	PASS
		3.8	10	13.35	0.007616	± 2.5	PASS
		3.8	20	-16.22	-0.009483	± 2.5	PASS
		3.8	30	-23.32	-0.013630	± 2.5	PASS
		3.8	40	-8.15	-0.004766	± 2.5	PASS
		3.8	50	-20.03	-0.011707	± 2.5	PASS
	MCH	3.8	-30	-35.48	-0.020477	± 2.5	PASS
		3.8	-20	-0.07	-0.000041	± 2.5	PASS
		3.8	-10	1.13	0.000652	± 2.5	PASS
		3.8	0	-1.86	-0.001073	± 2.5	PASS
		3.8	10	-4.69	-0.002708	± 2.5	PASS

		3.8	20	-15.31	-0.008835	± 2.5	PASS
		3.8	30	-3.32	-0.001916	± 2.5	PASS
		3.8	40	-23.72	-0.013690	± 2.5	PASS
		3.8	50	-10.10	-0.005829	± 2.5	PASS
	HCH	3.8	-30	13.09	0.007469	± 2.5	PASS
		3.8	-20	3.26	0.001883	± 2.5	PASS
		3.8	-10	-3.92	-0.002262	± 2.5	PASS
		3.8	0	-12.65	-0.007299	± 2.5	PASS
		3.8	10	-17.64	-0.010181	± 2.5	PASS
		3.8	20	-35.20	-0.020068	± 2.5	PASS
		3.8	30	-1.09	-0.000620	± 2.5	PASS
		3.8	40	-32.13	-0.018315	± 2.5	PASS
		3.8	50	-11.17	-0.006369	± 2.5	PASS
16QAM	LCH	3.8	-30	12.60	0.007191	± 2.5	PASS
		3.8	-20	10.97	0.006407	± 2.5	PASS
		3.8	-10	0.41	0.000242	± 2.5	PASS
		3.8	0	-7.04	-0.004110	± 2.5	PASS
		3.8	10	-13.82	-0.008069	± 2.5	PASS
		3.8	20	-38.37	-0.022427	± 2.5	PASS
		3.8	30	-38.18	-0.022319	± 2.5	PASS
		3.8	40	-17.25	-0.010085	± 2.5	PASS
		3.8	50	-41.74	-0.024401	± 2.5	PASS
	MCH	3.8	-30	12.89	0.007526	± 2.5	PASS
		3.8	-20	-15.42	-0.008901	± 2.5	PASS
		3.8	-10	-41.63	-0.024028	± 2.5	PASS
		3.8	0	-19.47	-0.011238	± 2.5	PASS
		3.8	10	-7.78	-0.004492	± 2.5	PASS
		3.8	20	-18.51	-0.010684	± 2.5	PASS
		3.8	30	-9.20	-0.005309	± 2.5	PASS
		3.8	40	-10.43	-0.006019	± 2.5	PASS
		3.8	50	-40.43	-0.023334	± 2.5	PASS
	HCH	3.8	-30	-5.95	-0.003435	± 2.5	PASS
		3.8	-20	-21.96	-0.012674	± 2.5	PASS
		3.8	-10	-29.04	-0.016762	± 2.5	PASS
		3.8	0	-28.48	-0.016243	± 2.5	PASS
		3.8	10	-3.33	-0.001901	± 2.5	PASS
		3.8	20	-0.97	-0.000554	± 2.5	PASS
		3.8	30	-30.97	-0.017654	± 2.5	PASS
		3.8	40	-8.07	-0.004599	± 2.5	PASS
		3.8	50	-37.08	-0.021136	± 2.5	PASS