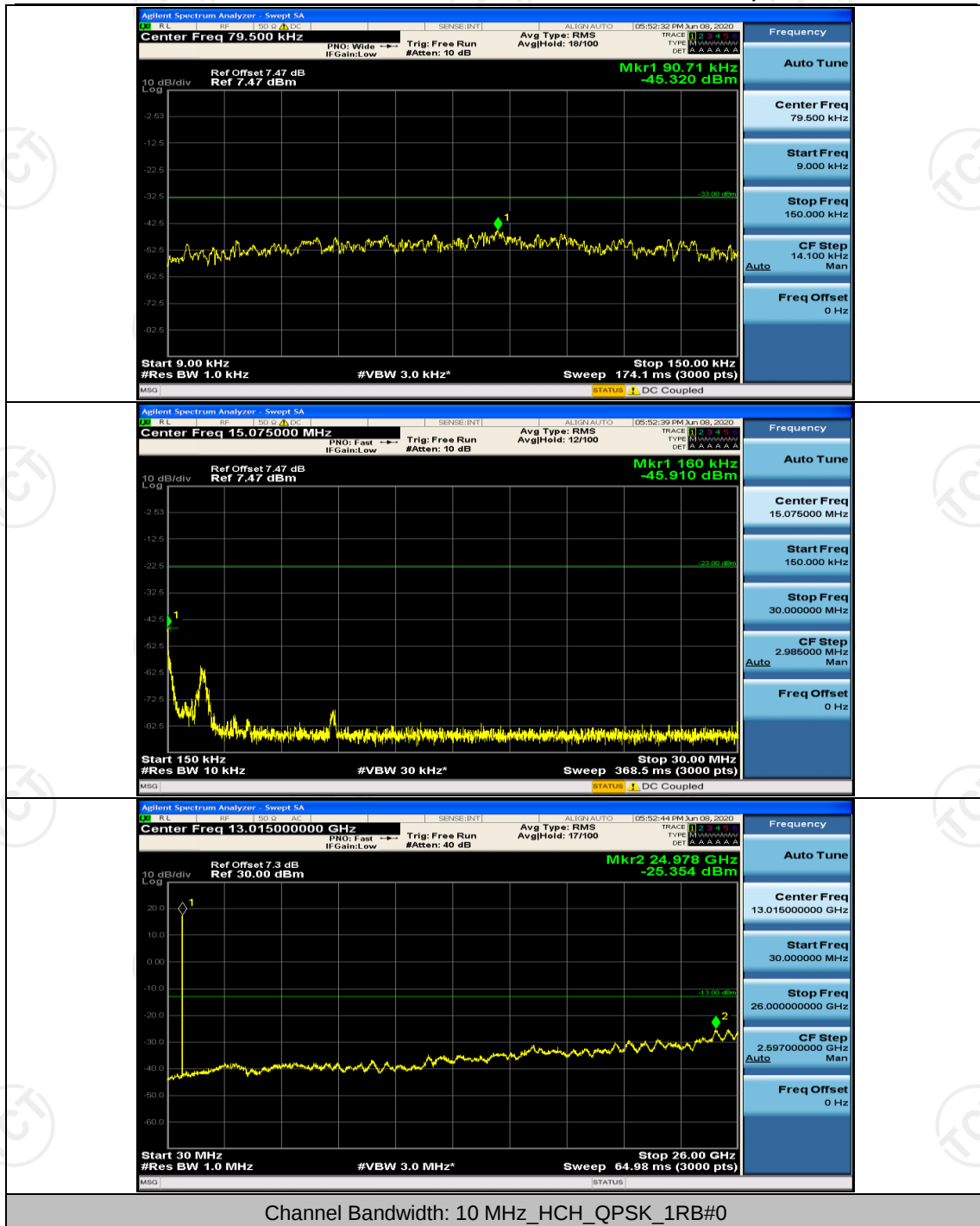
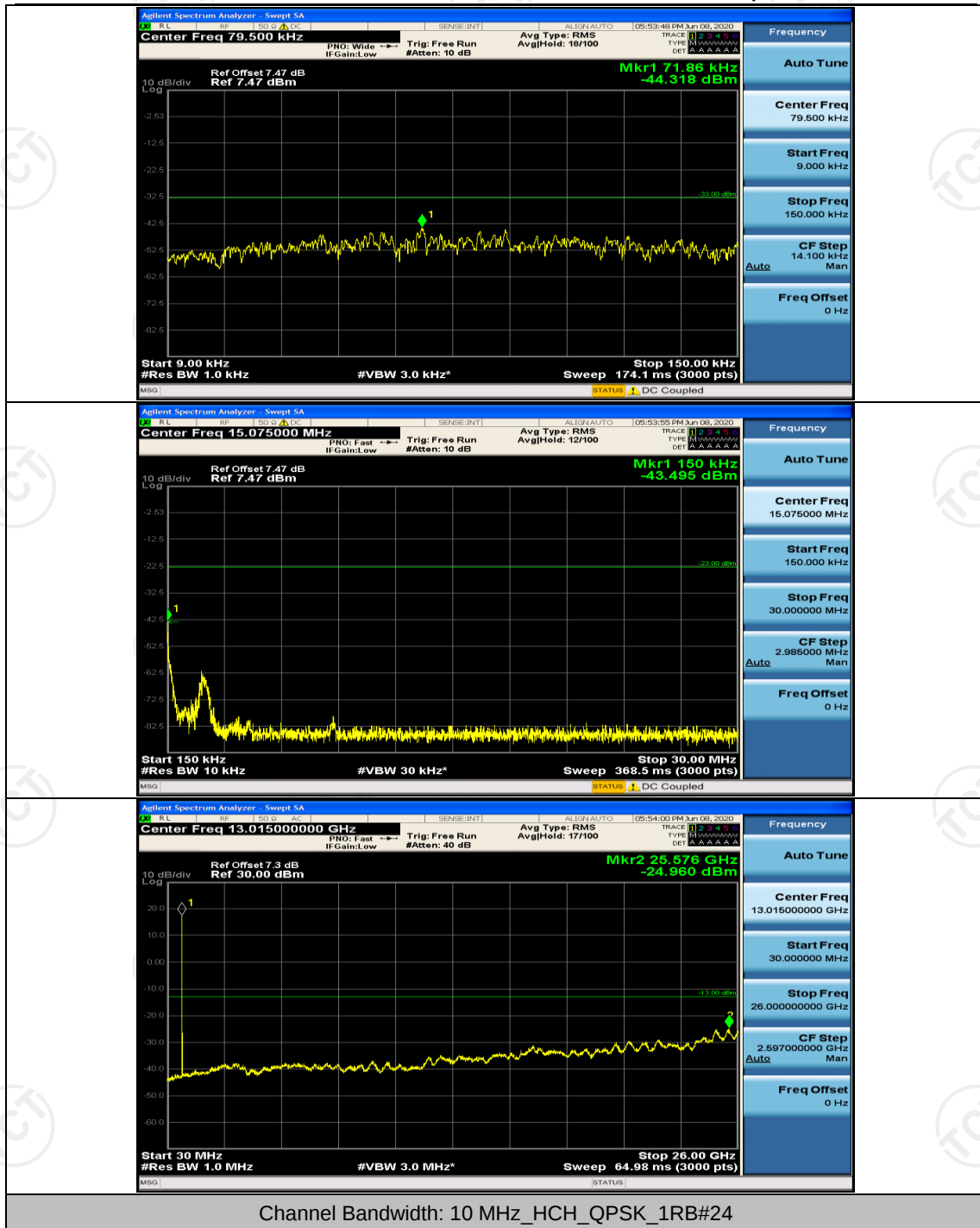
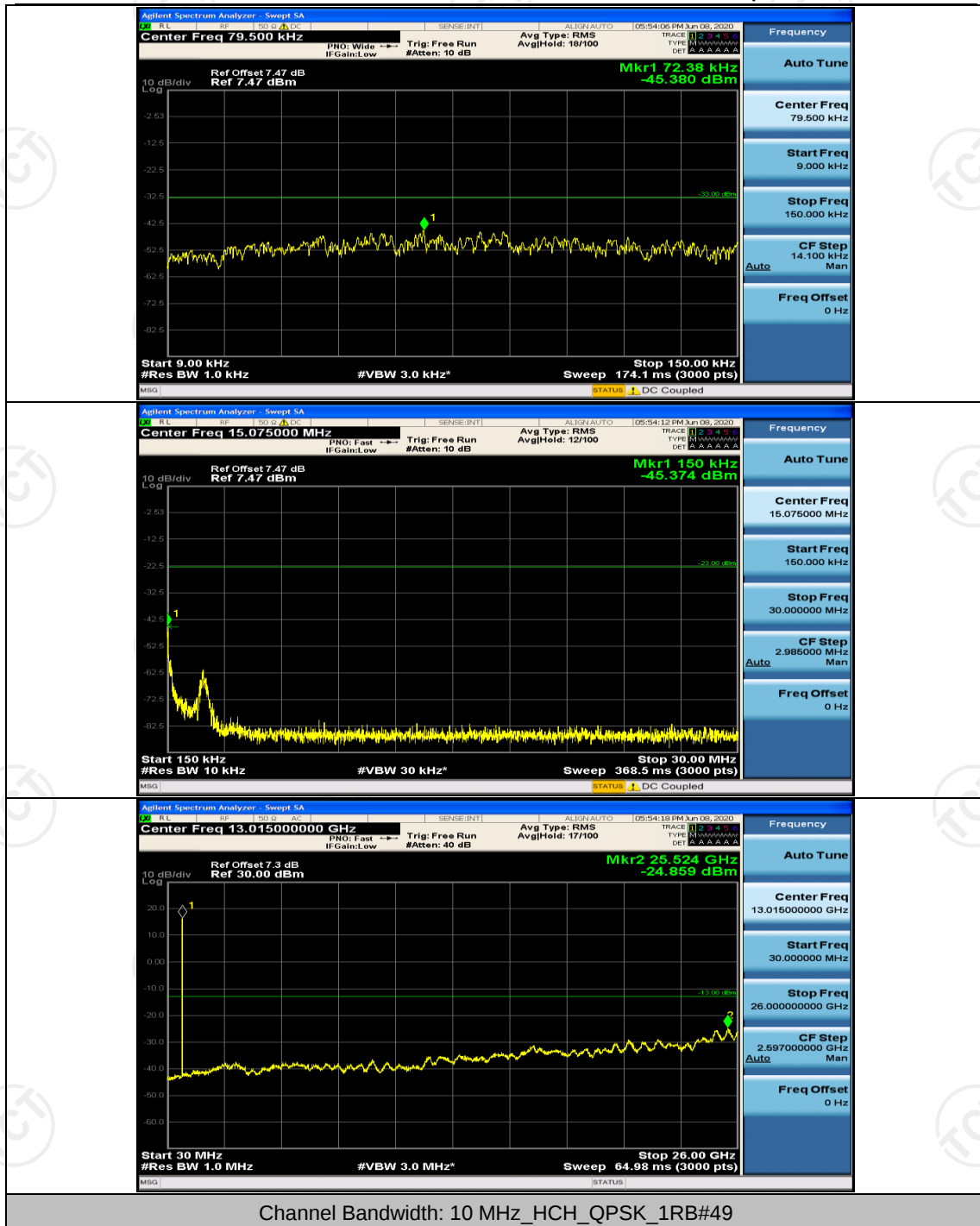
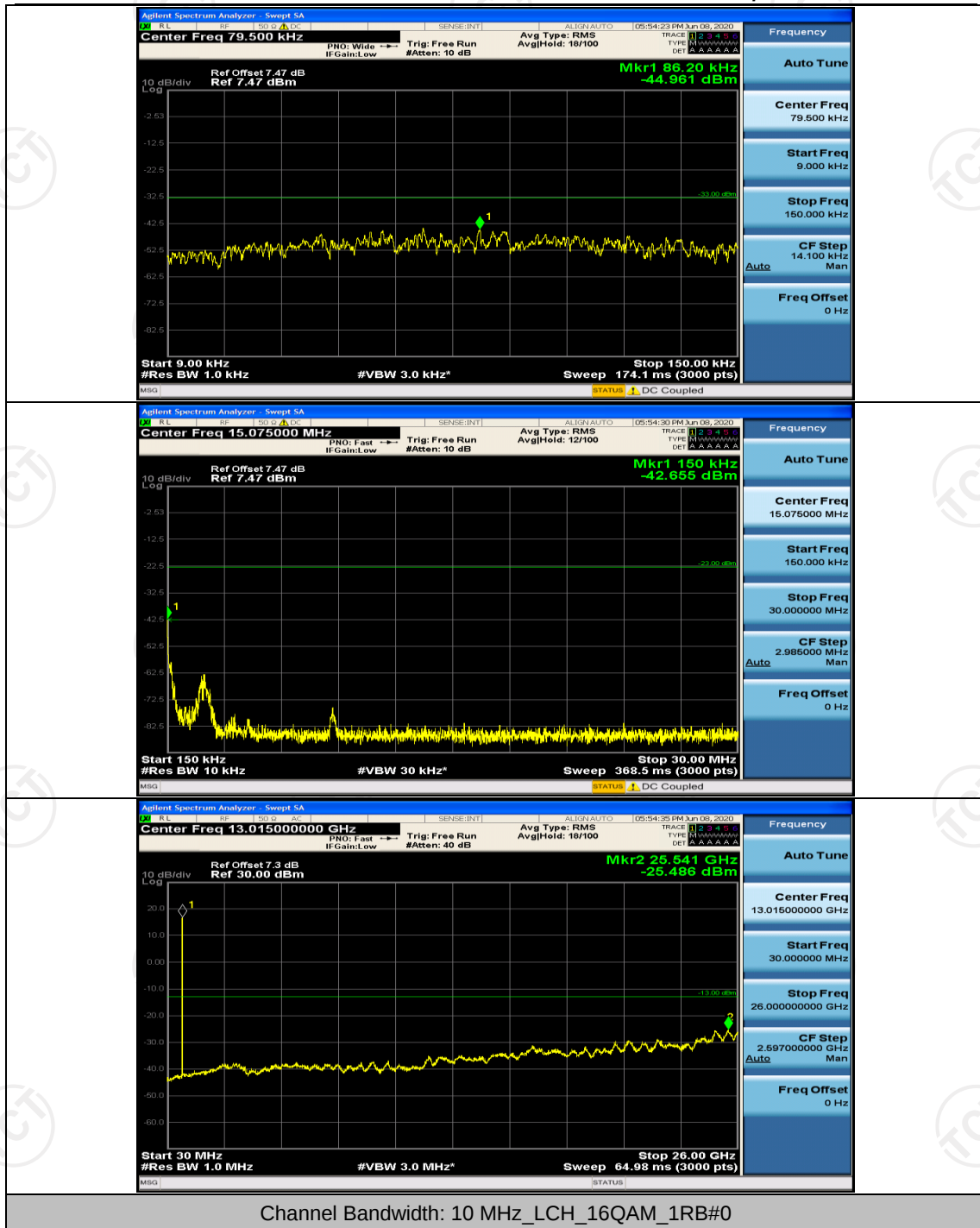
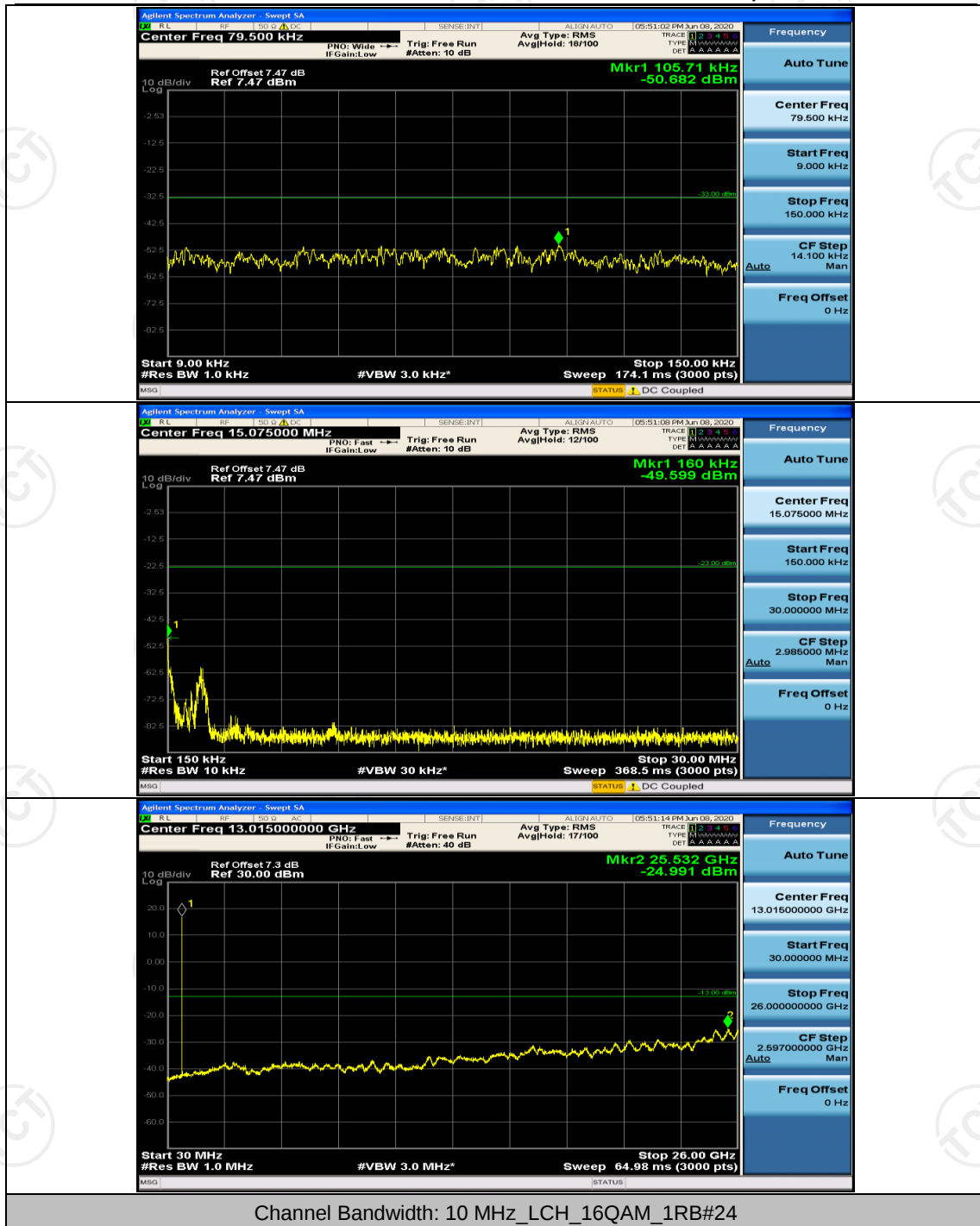


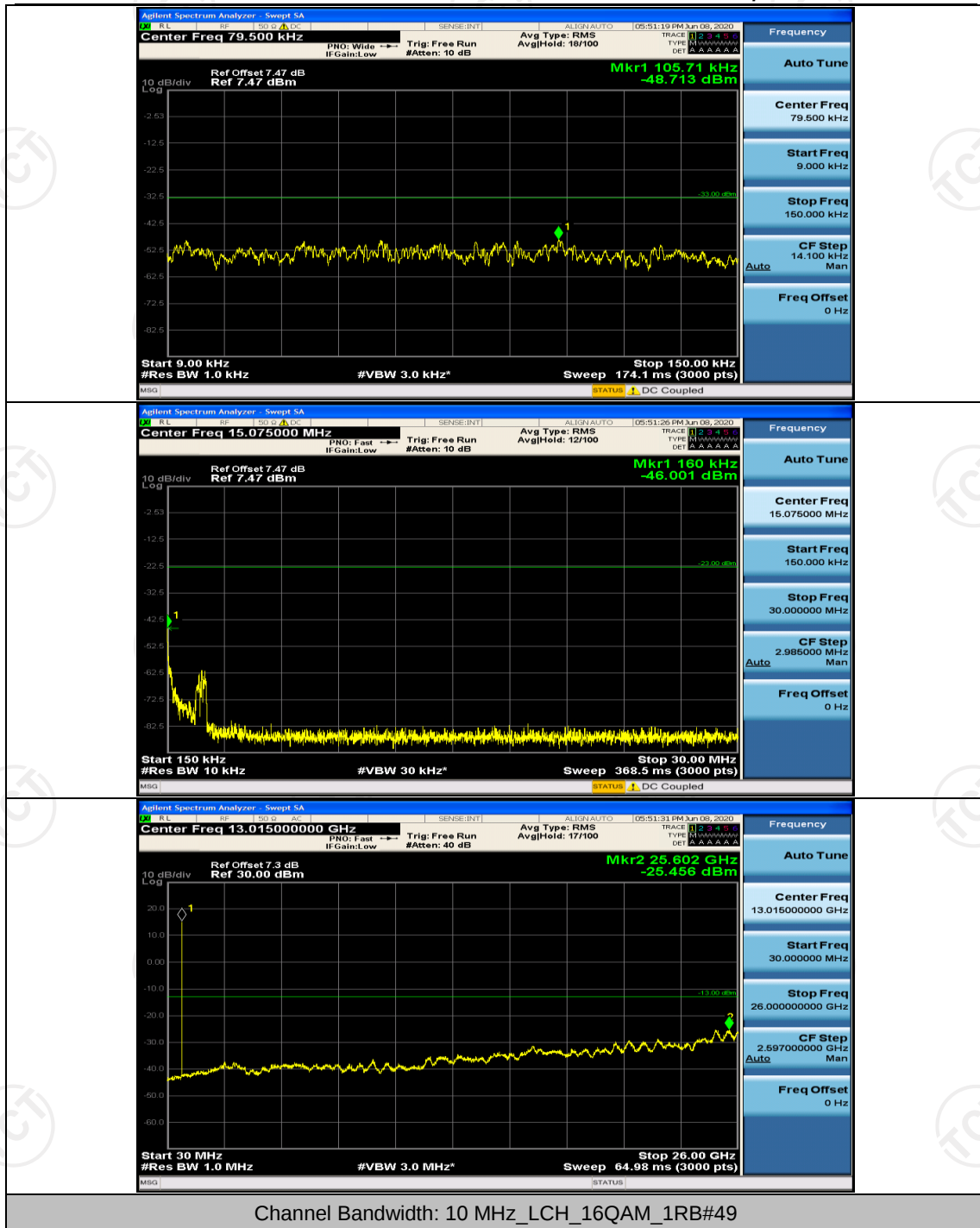


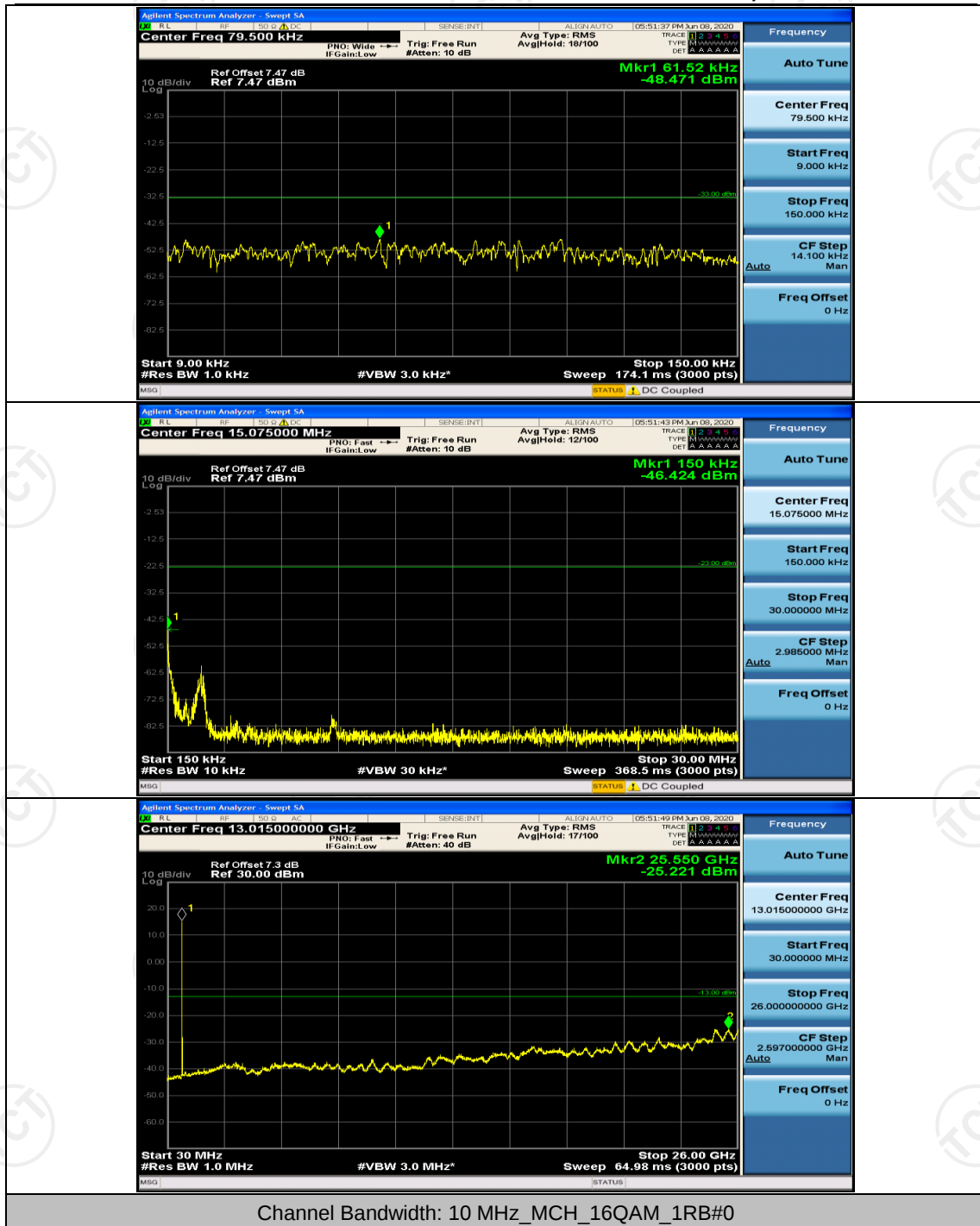


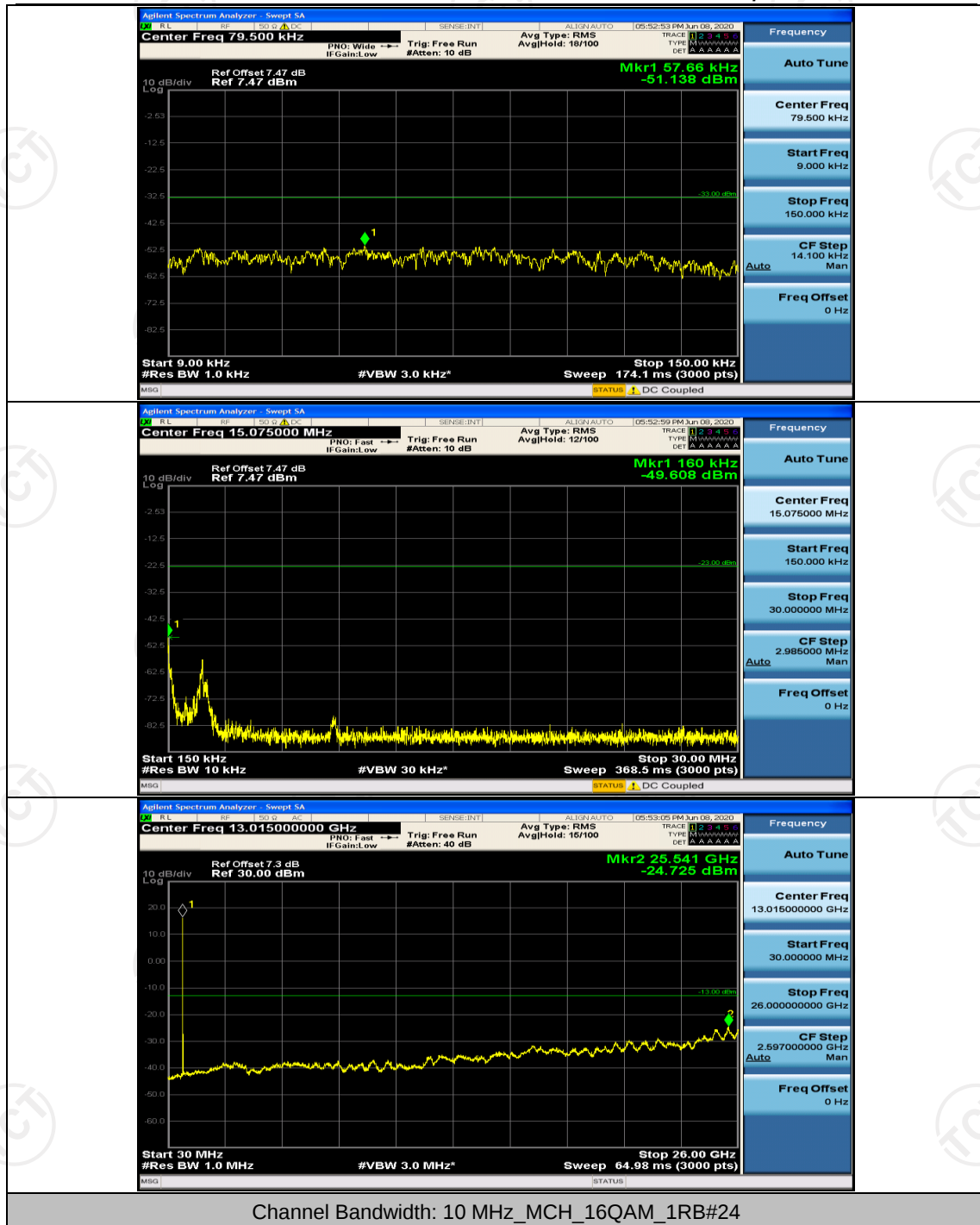


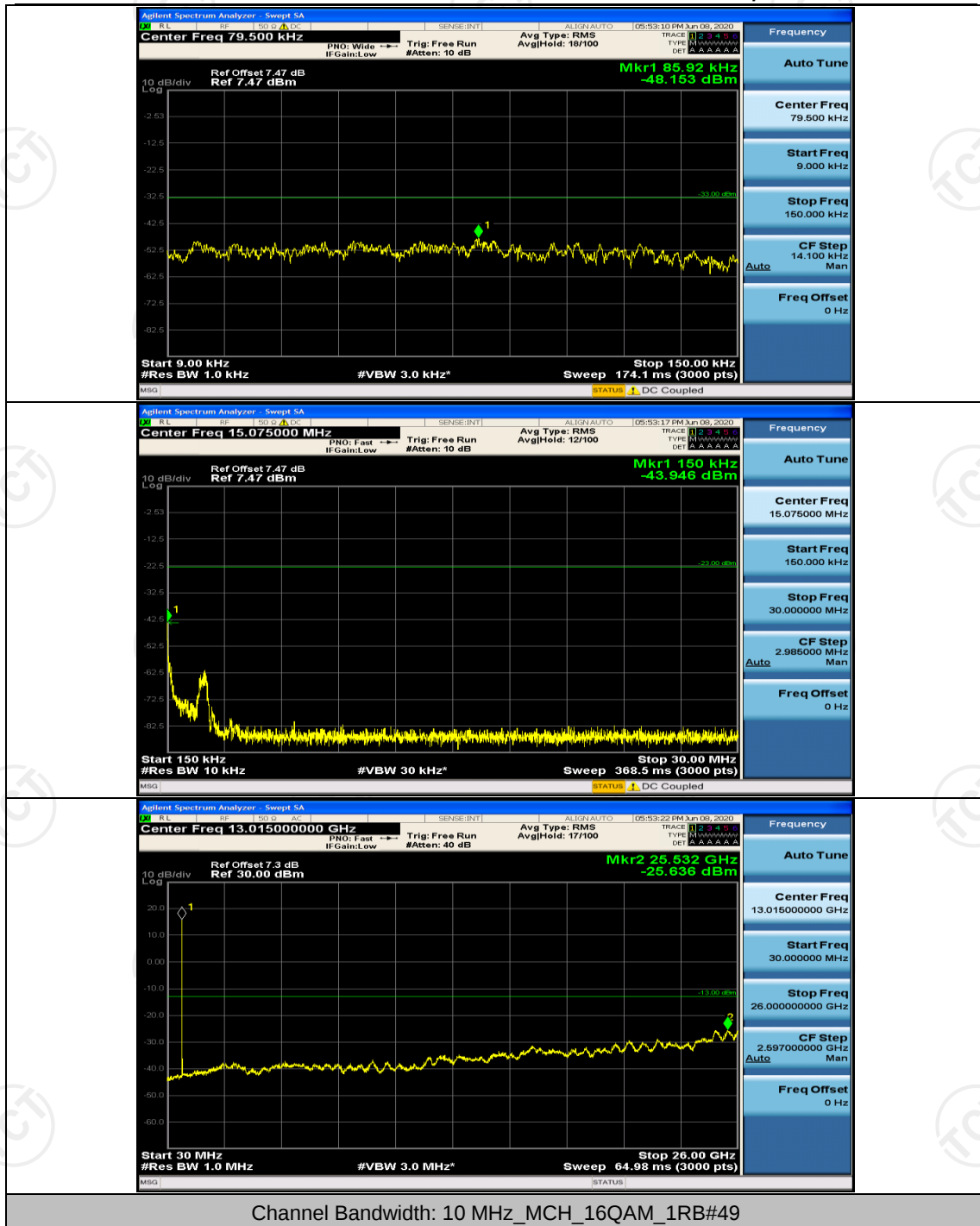


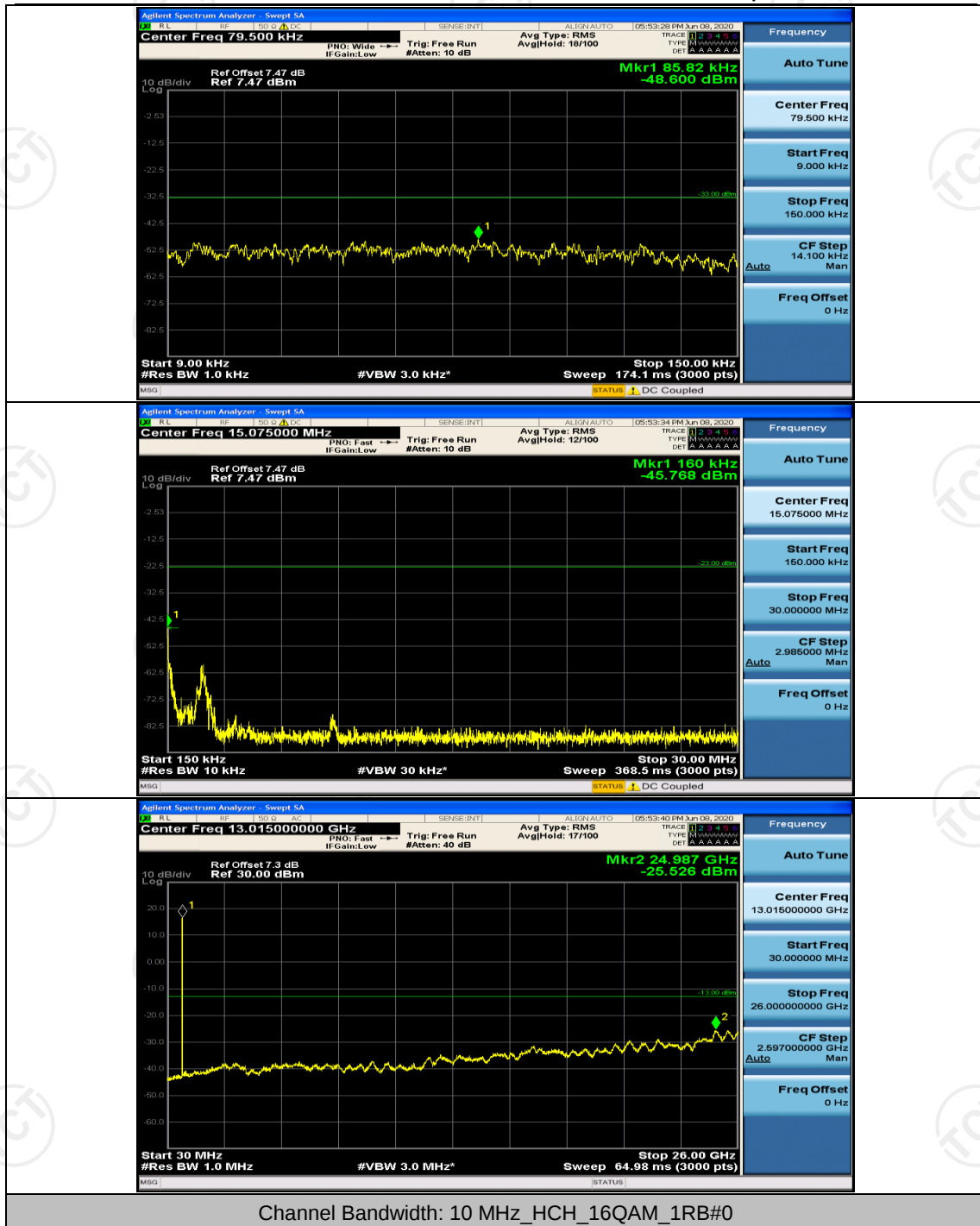


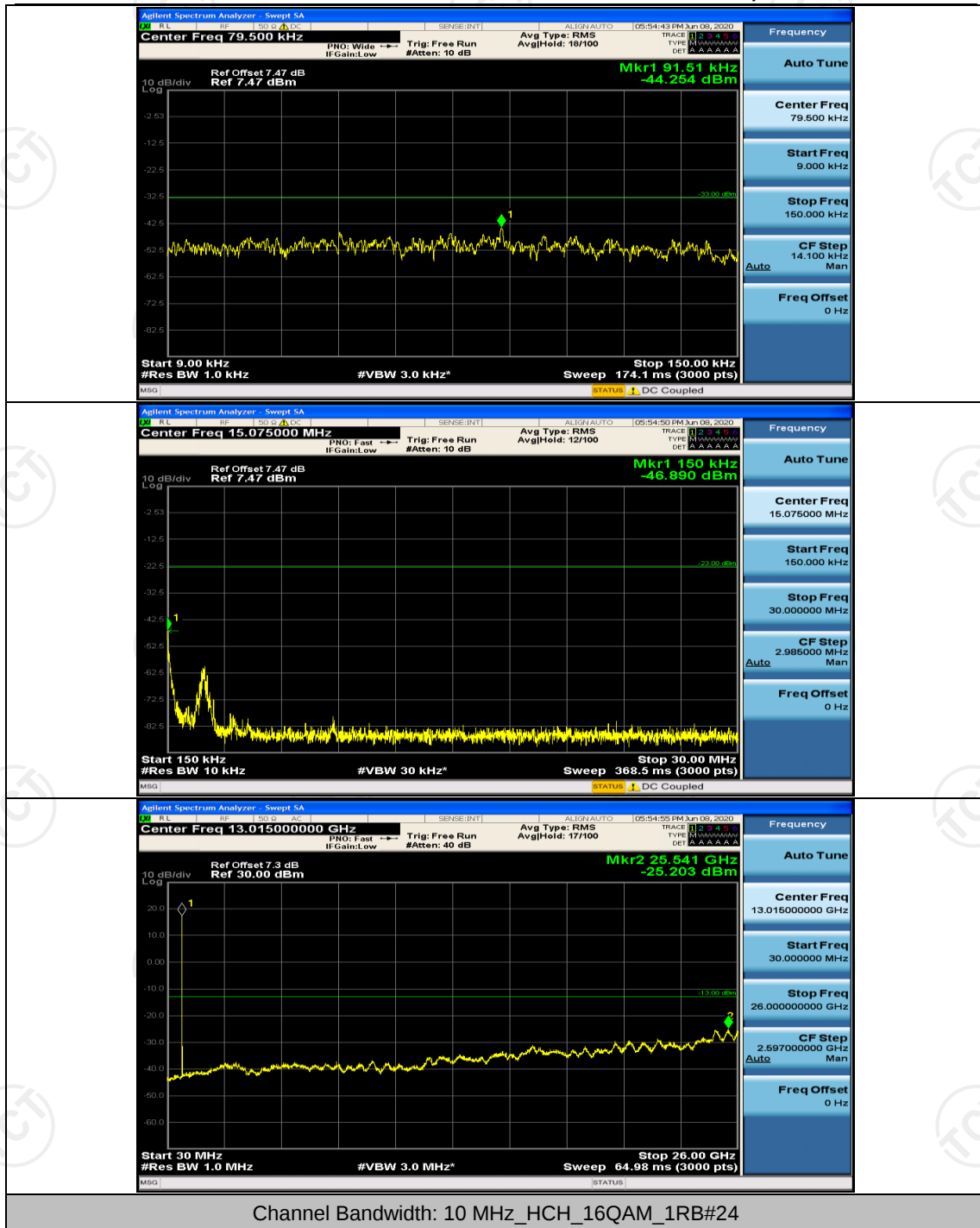


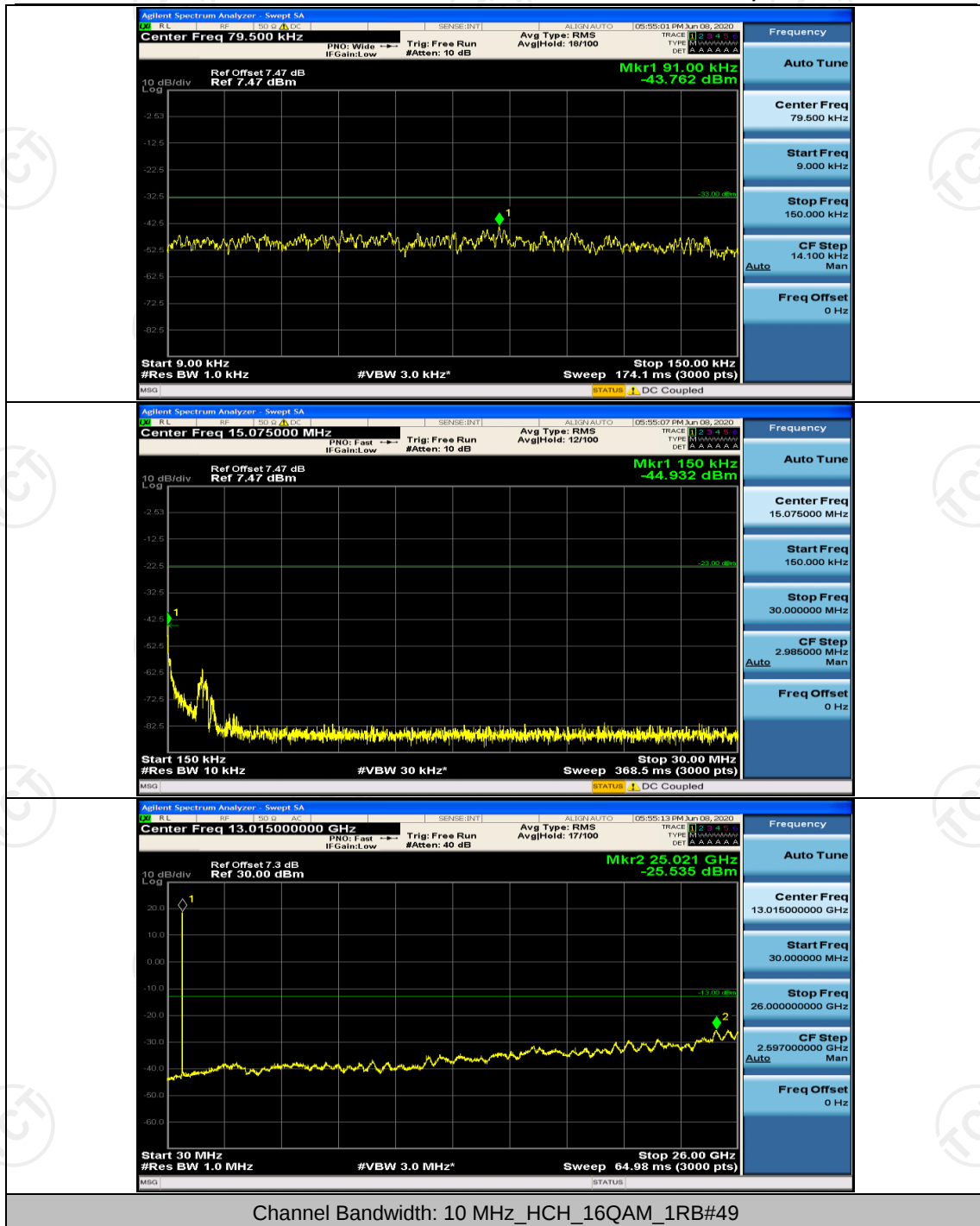


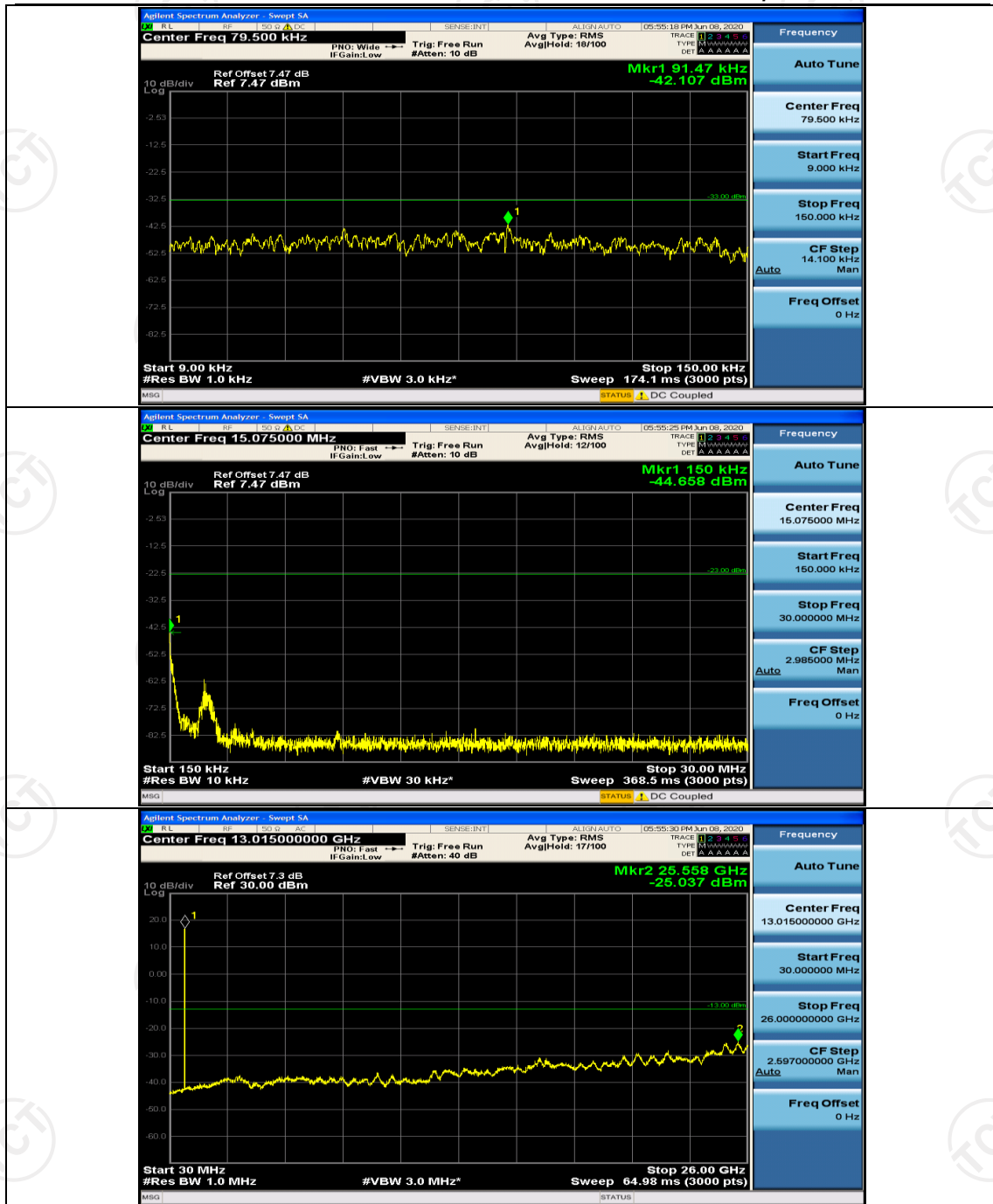












Appendix F: Frequency Stability

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	3.4	25	-1.72	-0.002451	± 2.5	PASS
		3.7	25	-0.89	-0.001268	± 2.5	PASS
		4.2	25	-0.01	-0.000020	± 2.5	PASS
	MCH	3.4	25	0.01	0.000020	± 2.5	PASS
		3.7	25	-0.73	-0.001031	± 2.5	PASS
		4.2	25	-2.35	-0.003349	± 2.5	PASS
	HCH	3.4	25	0.29	0.000404	± 2.5	PASS
		3.7	25	-2.25	-0.003140	± 2.5	PASS
		4.2	25	-1.86	-0.002651	± 2.5	PASS
16QAM	LCH	3.4	25	-1.44	-0.002060	± 2.5	PASS
		3.7	25	-2.66	-0.003793	± 2.5	PASS
		4.2	25	-0.60	-0.000842	± 2.5	PASS
	MCH	3.4	25	-0.20	-0.000281	± 2.5	PASS
		3.7	25	-1.60	-0.002265	± 2.5	PASS
		4.2	25	-0.76	-0.001072	± 2.5	PASS
	HCH	3.4	25	-1.12	-0.001577	± 2.5	PASS
		3.7	25	-0.69	-0.000960	± 2.5	PASS
		4.2	25	-0.17	-0.000243	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	3.7	-30	-0.36	-0.000505	± 2.5	PASS
		3.7	-20	0.23	0.000320	± 2.5	PASS
		3.7	-10	-0.11	-0.000160	± 2.5	PASS
		3.7	0	-0.74	-0.001041	± 2.5	PASS
		3.7	10	-1.37	-0.001922	± 2.5	PASS
		3.7	20	-0.19	-0.000266	± 2.5	PASS
		3.7	30	0.06	0.000082	± 2.5	PASS
		3.7	40	0.60	0.000859	± 2.5	PASS
	MCH	3.7	50	-1.16	-0.001652	± 2.5	PASS
		3.7	-30	-0.14	-0.000204	± 2.5	PASS
		3.7	-20	-1.60	-0.002287	± 2.5	PASS
		3.7	-10	-1.99	-0.002839	± 2.5	PASS
		3.7	0	-2.27	-0.003247	± 2.5	PASS
		3.7	10	-2.10	-0.003002	± 2.5	PASS
		3.7	20	-0.26	-0.000364	± 2.5	PASS
		3.7	30	-0.84	-0.001193	± 2.5	PASS
	3.7	40	-0.83	-0.001173	± 2.5	PASS	

	HCH	3.7	50	0.50	0.000708	± 2.5	PASS
		3.7	-30	-0.63	-0.000890	± 2.5	PASS
		3.7	-20	0.26	0.000364	± 2.5	PASS
		3.7	-10	0.16	0.000222	± 2.5	PASS
		3.7	0	-0.03	-0.000040	± 2.5	PASS
		3.7	10	-0.11	-0.000162	± 2.5	PASS
		3.7	20	-1.40	-0.001960	± 2.5	PASS
		3.7	30	-1.70	-0.002380	± 2.5	PASS
		3.7	40	-1.79	-0.002500	± 2.5	PASS
16QAM	LCH	3.7	50	-1.32	-0.001840	± 2.5	PASS
		3.7	-30	-1.53	-0.002163	± 2.5	PASS
		3.7	-20	-0.62	-0.000861	± 2.5	PASS
		3.7	-10	-0.01	-0.000020	± 2.5	PASS
		3.7	0	-0.21	-0.000300	± 2.5	PASS
		3.7	10	-0.10	-0.000140	± 2.5	PASS
		3.7	20	0.46	0.000654	± 2.5	PASS
		3.7	30	-0.94	-0.001349	± 2.5	PASS
		3.7	40	-1.34	-0.001922	± 2.5	PASS
	MCH	3.7	50	-0.67	-0.000961	± 2.5	PASS
		3.7	-30	-0.84	-0.001203	± 2.5	PASS
		3.7	-20	-1.04	-0.001476	± 2.5	PASS
		3.7	-10	-0.72	-0.001011	± 2.5	PASS
		3.7	0	-1.07	-0.001516	± 2.5	PASS
		3.7	10	-0.67	-0.000950	± 2.5	PASS
		3.7	20	-1.42	-0.002002	± 2.5	PASS
		3.7	30	-1.24	-0.001759	± 2.5	PASS
		3.7	40	-0.77	-0.001092	± 2.5	PASS
	HCH	3.7	50	-1.32	-0.001860	± 2.5	PASS
		3.7	-30	-0.62	-0.000877	± 2.5	PASS
		3.7	-20	-2.10	-0.003002	± 2.5	PASS
		3.7	-10	-2.63	-0.003758	± 2.5	PASS
		3.7	0	-1.16	-0.001654	± 2.5	PASS
		3.7	10	-1.97	-0.002818	± 2.5	PASS
		3.7	20	-1.37	-0.001920	± 2.5	PASS
		3.7	30	-1.92	-0.002680	± 2.5	PASS
		3.7	40	-0.40	-0.000560	± 2.5	PASS
		3.7	50	-0.76	-0.001060	± 2.5	PASS