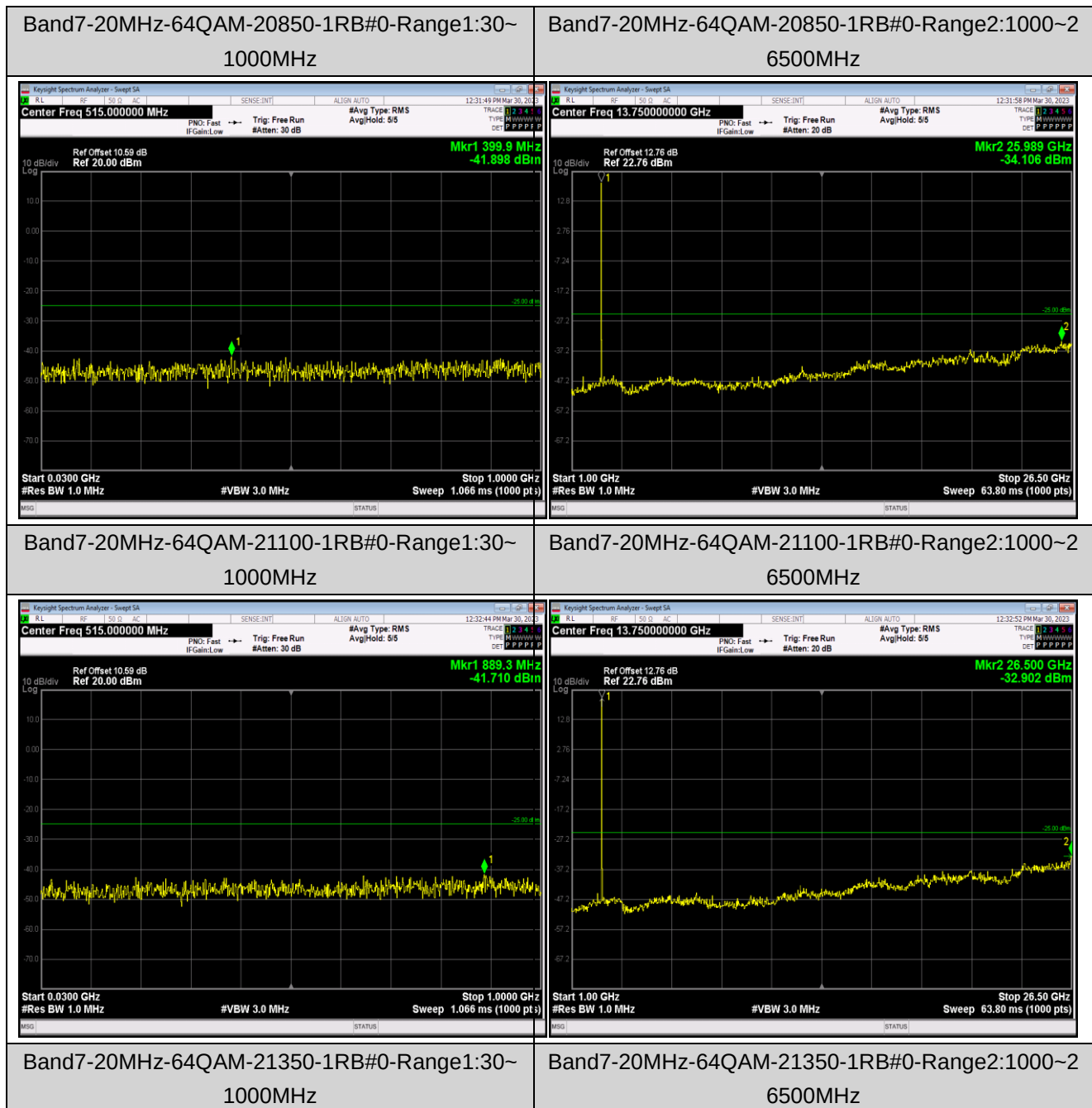
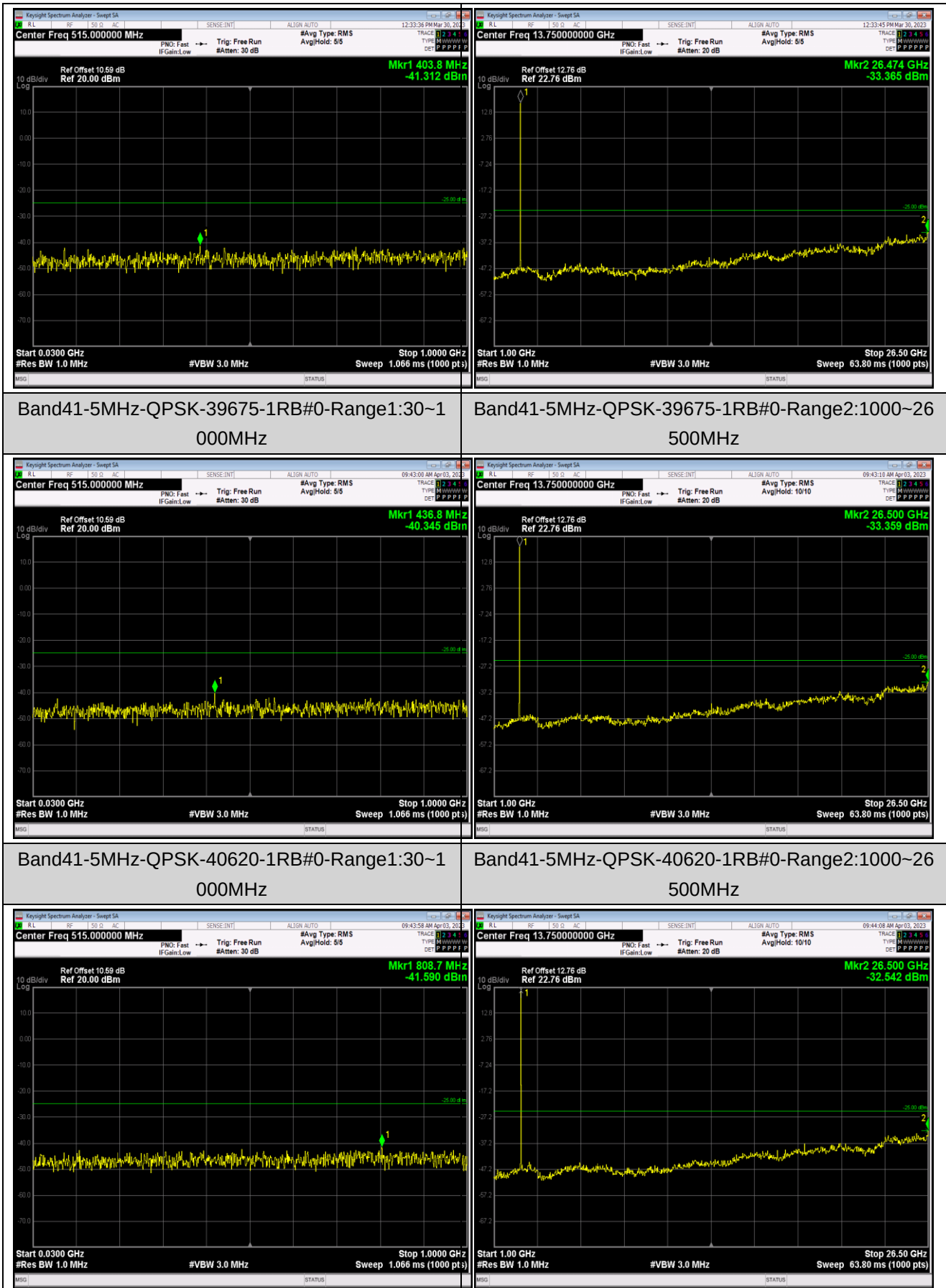
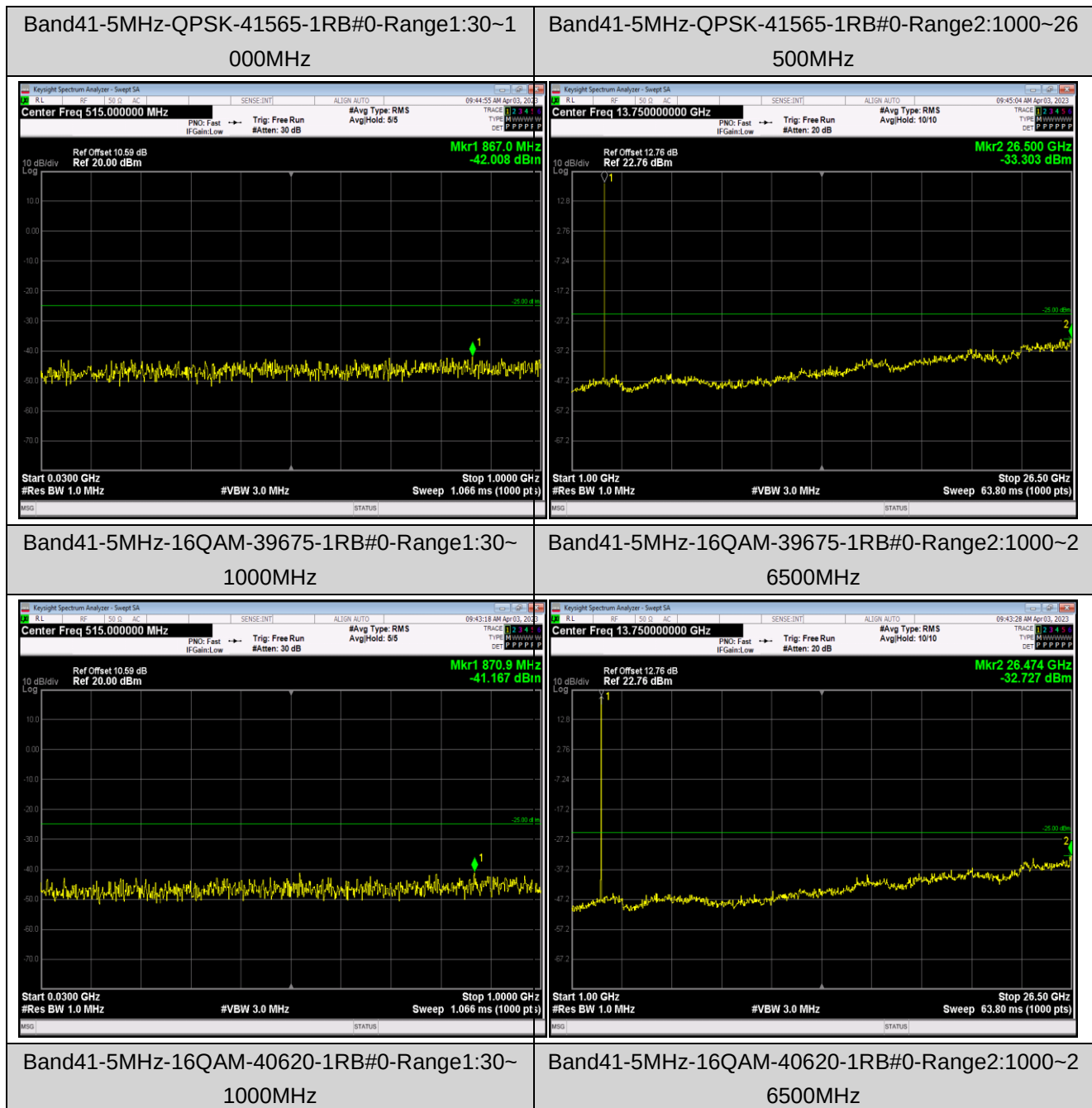
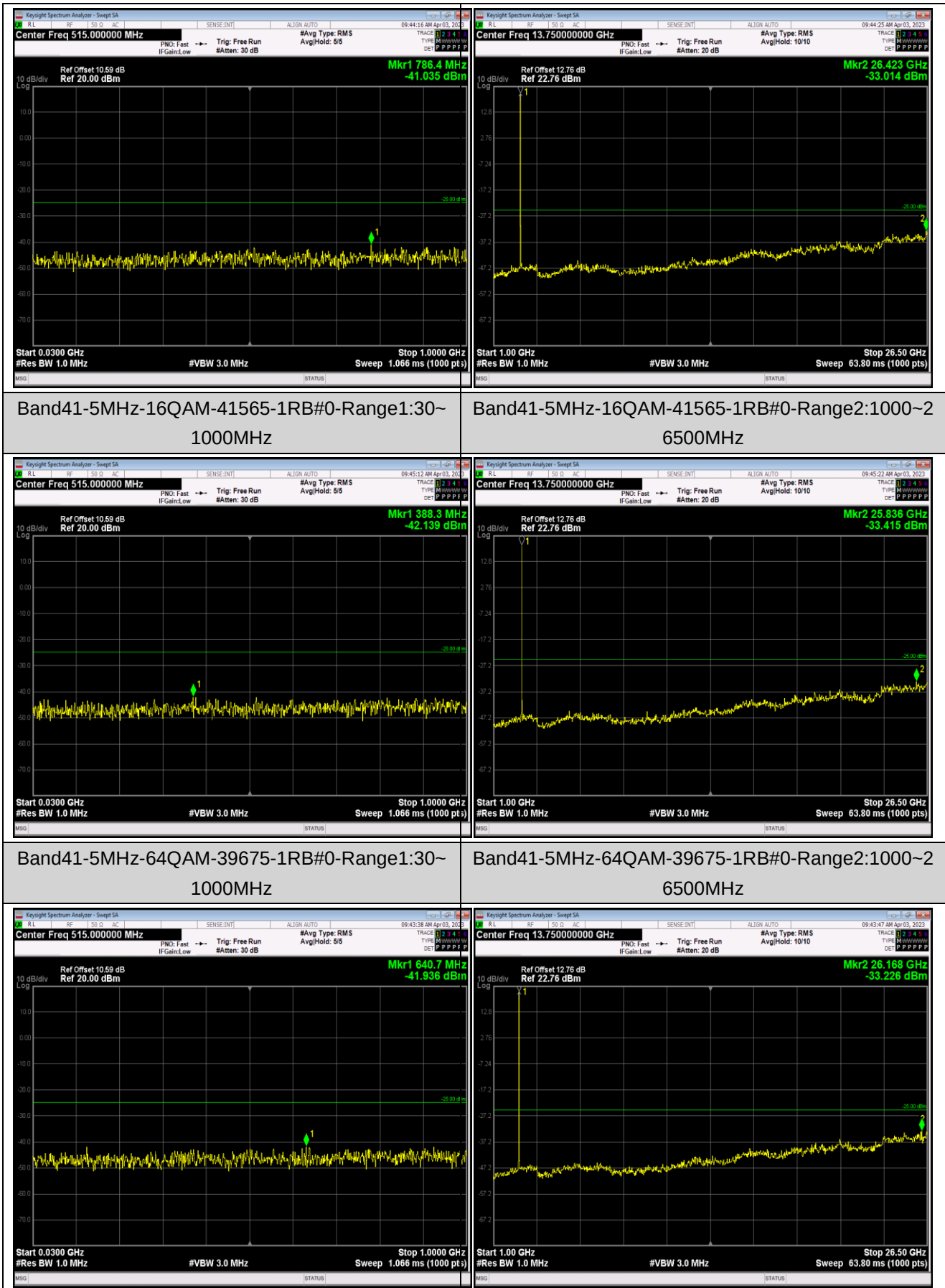
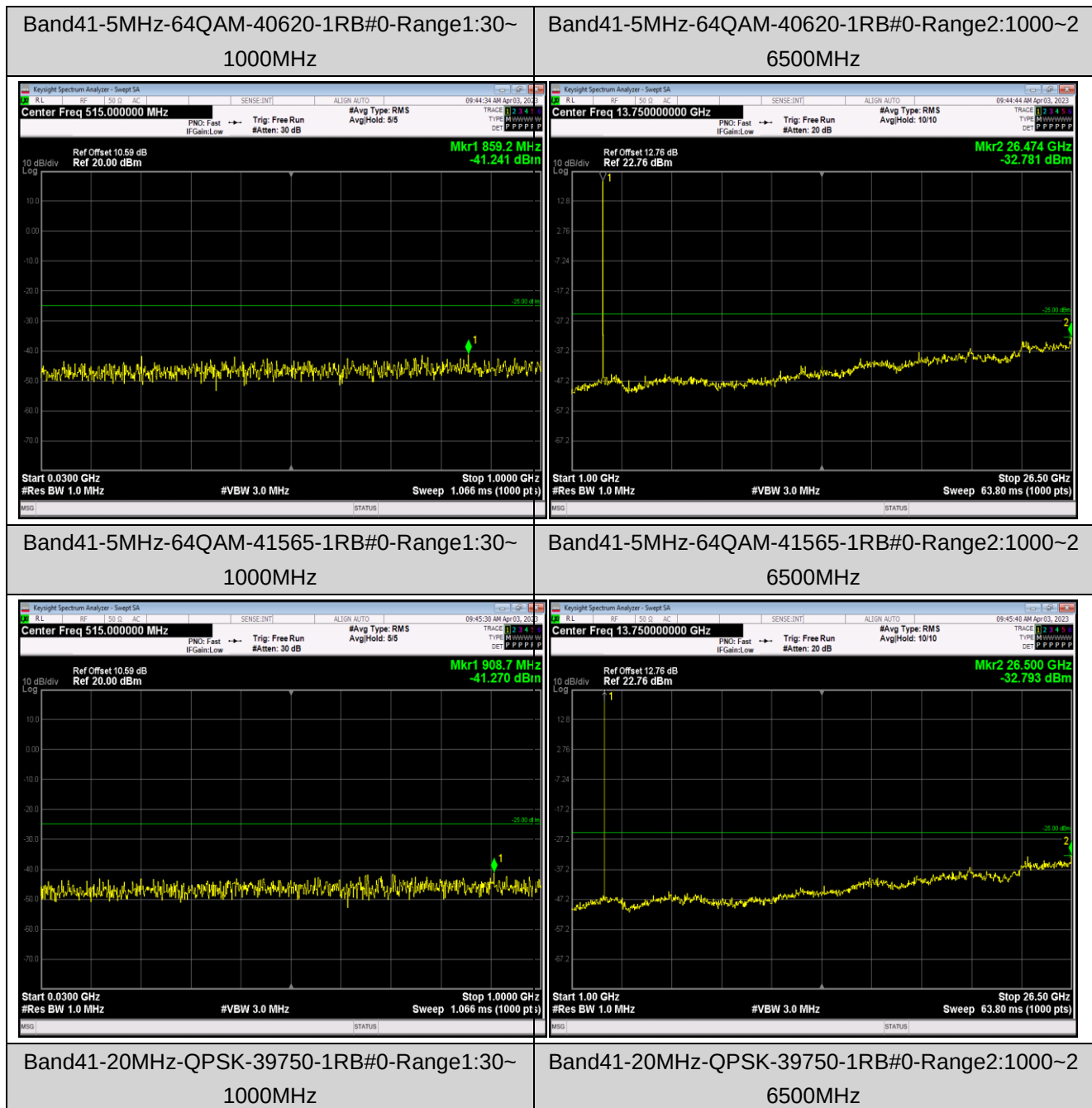


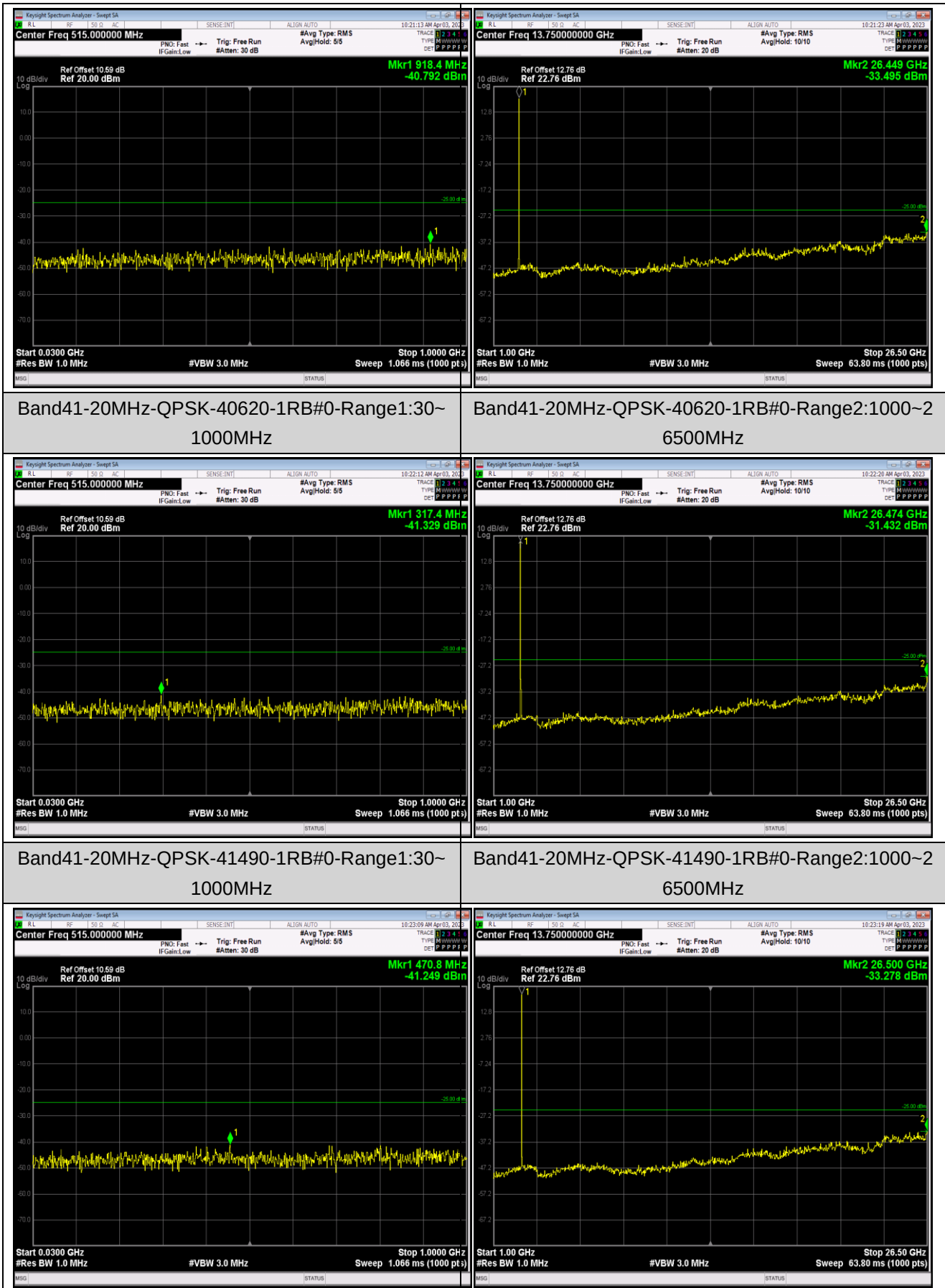


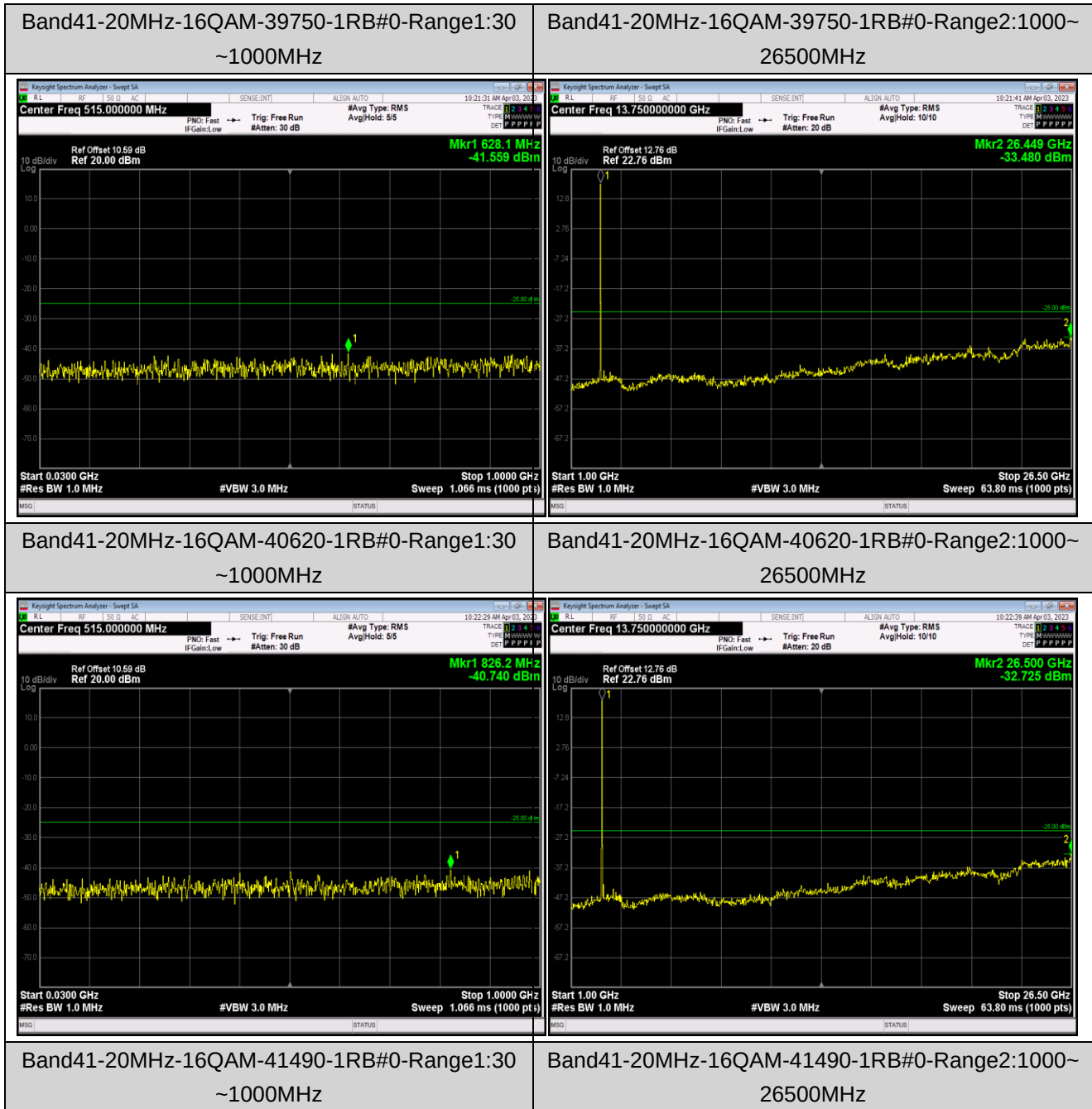


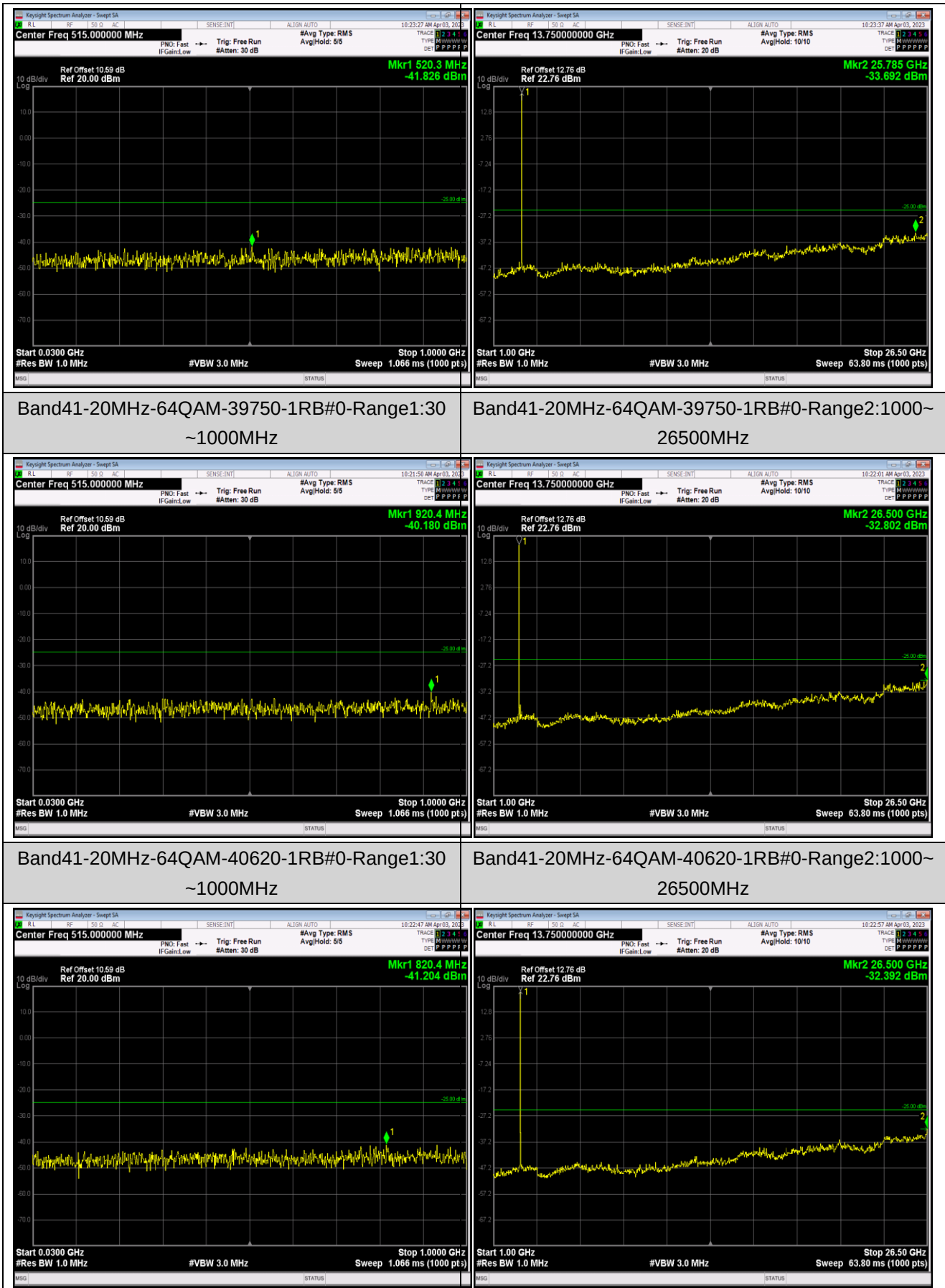


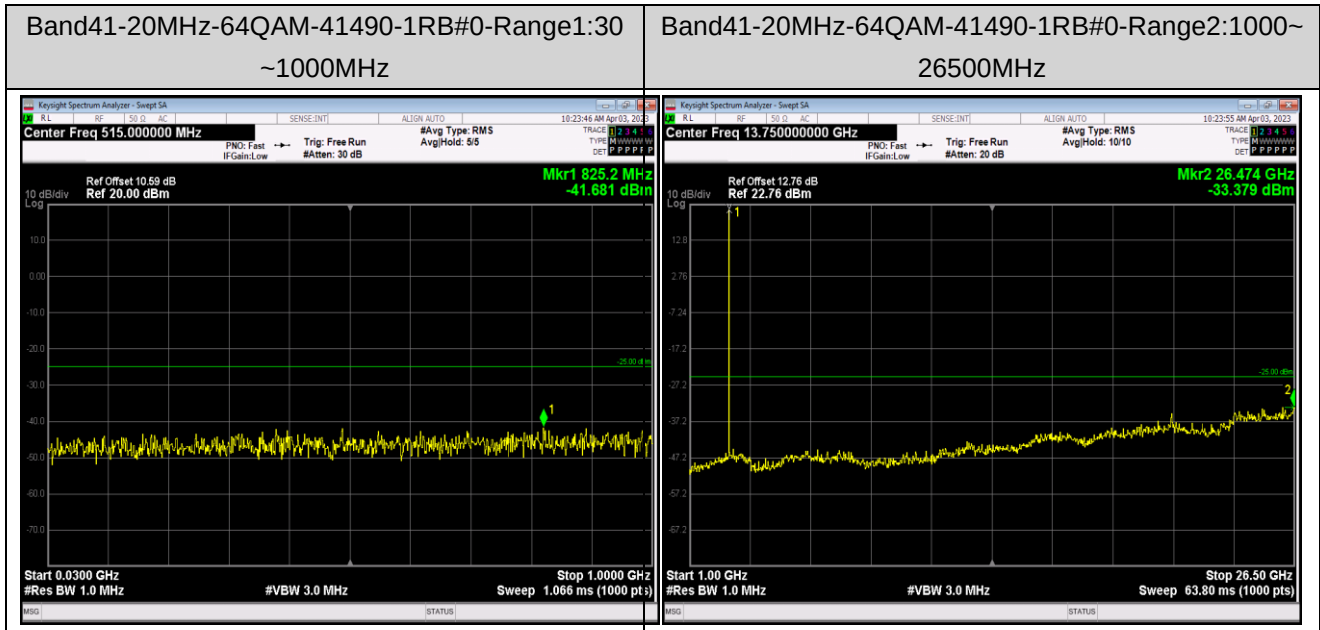












Appendix F: Frequency Stability

Test Result

LTE Band 7 part:

Reference Frequency: LTE Band 7(10MHz) Middle channel=21100 Frequency=2535.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-4.96	-0.001957	Within authorized band for Band 7	Pass
	-20	-20.43	-0.008059		
	-10	13.25	0.005227		
	0	-15.23	-0.006008		
	10	-8.63	-0.003404		
	20	-3.56	-0.001404		
	30	-2.65	-0.001045		
	40	7.17	0.002828		
	50	-12.79	-0.005045		
16QAM					
3.87	-30	5.72	0.002256	Within authorized band for Band 7	Pass
	-20	18.97	0.007483		
	-10	19.90	0.007850		
	0	5.12	0.002020		
	10	-9.61	-0.003791		
	20	3.60	0.001420		
	30	12.06	0.004757		
	40	-19.87	-0.007838		
	50	-5.11	-0.002016		
64QAM					
3.87	-30	-16.91	-0.006671	Within authorized band for Band 7	Pass
	-20	-18.30	-0.007219		
	-10	15.52	0.006122		
	0	-12.96	-0.005112		
	10	-14.26	-0.005625		
	20	18.64	0.007353		
	30	-4.03	-0.001590		
	40	-9.21	-0.003633		
	50	-13.66	-0.005389		
Voltage					
Temperature	Power supplied	Frequency error		Limit (ppm)	Result

(°C)	(Vdc)	Hz	ppm		
QPSK					
25	3.45	12.83	0.005061	Within authorized band for Band 7	Pass
	3.87	-12.86	-0.005073		
	4.45	-9.21	-0.003633		
16QAM					
25	3.45	17.91	0.007065	Within authorized band for Band 7	Pass
	3.87	5.56	0.002193		
	4.45	-18.74	-0.007393		
64QAM					
25	3.45	-13.96	-0.005507	Within authorized band for Band 7	Pass
	3.87	-16.89	-0.006663		
	4.45	9.90	0.003905		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 41 part:

Reference Frequency: LTE Band 41 (10MHz) Middle channel=40620 Frequency=2593.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	5.45	0.002102	Within authorized band for Band 41	Pass
	-20	-3.23	-0.001246		
	-10	5.55	0.002140		
	0	6.75	0.002603		
	10	-2.39	-0.000922		
	20	7.57	0.002919		
	30	10.56	0.004073		
	40	3.53	0.001361		
	50	-3.82	-0.001473		
16QAM					
3.87	-30	-5.21	-0.002009	Within authorized band for Band 41	Pass
	-20	6.19	0.002387		
	-10	-9.31	-0.003590		
	0	-7.02	-0.002707		
	10	-7.81	-0.003012		
	20	-9.03	-0.003482		
	30	-4.43	-0.001708		
	40	4.61	0.001778		
	50	8.70	0.003355		
64QAM					
3.87	-30	-7.74	-0.002985	Within authorized band for Band 41	Pass
	-20	4.05	0.001562		
	-10	-10.86	-0.004188		
	0	8.03	0.003097		
	10	-5.92	-0.002283		
	20	-6.92	-0.002669		
	30	-7.40	-0.002854		
	40	4.13	0.001593		
	50	6.35	0.002449		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-4.82	-0.001859	Within authorized band for Band 41	Pass
	3.87	-5.59	-0.002156		
	4.45	7.51	0.002896		
16QAM					
25	3.45	-6.21	-0.002395	Within authorized band for Band41	Pass
	3.87	-7.98	-0.003078		
	4.45	-5.02	-0.001936		
64QAM					
25	3.45	5.55	0.002140	Within authorized band for Band 41	Pass
	3.87	-5.65	-0.002179		
	4.45	-7.27	-0.002804		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

Appendix G: Modulation Characteristics

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS	PASS
Band7	20MHz	64QAM	21100	100RB#0	PASS	PASS
Band41	20MHz	QPSK	40620	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40620	100RB#0	PASS	PASS
Band41	20MHz	64QAM	40620	100RB#0	PASS	PASS

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report

Test Graphs

