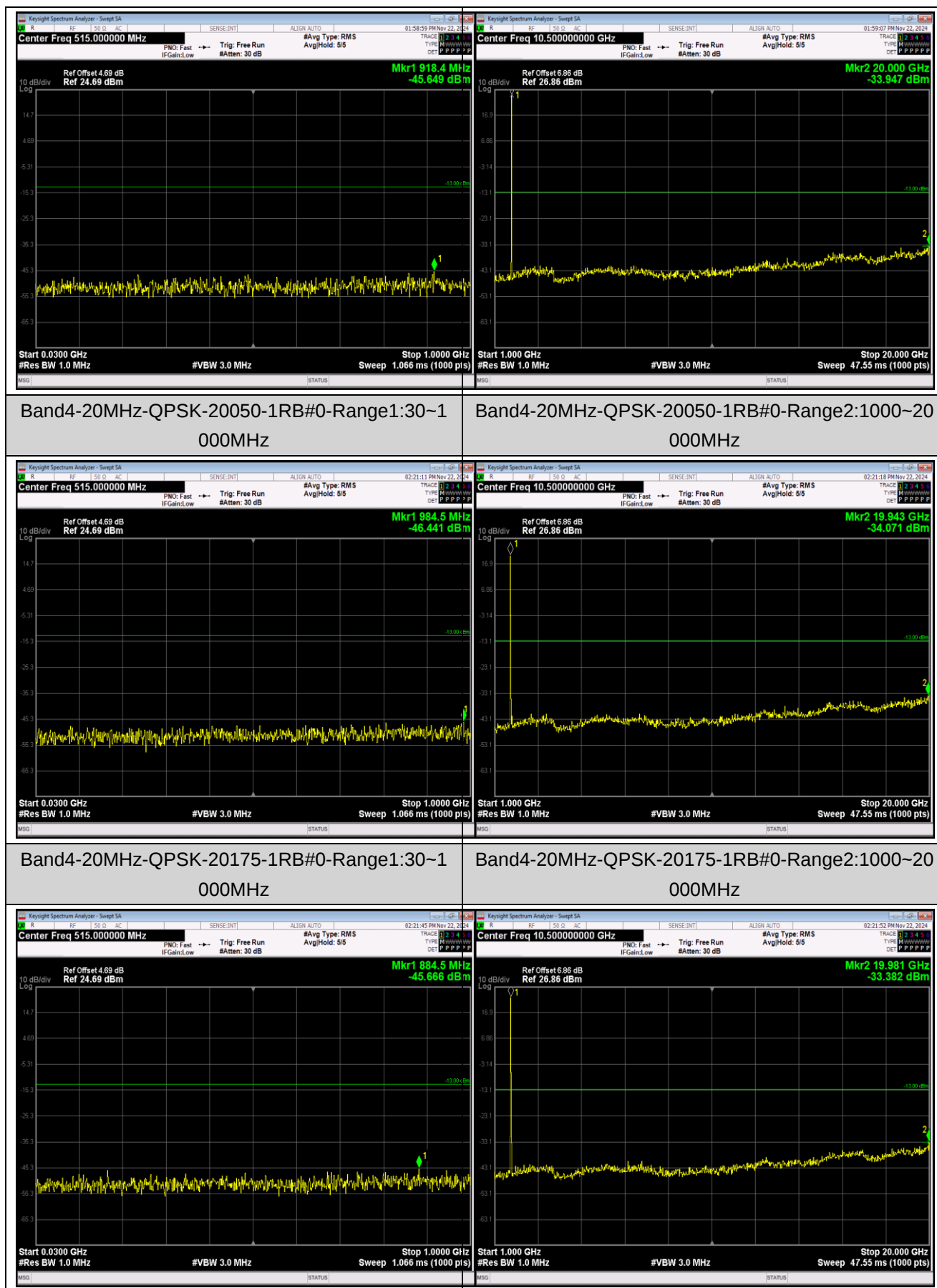
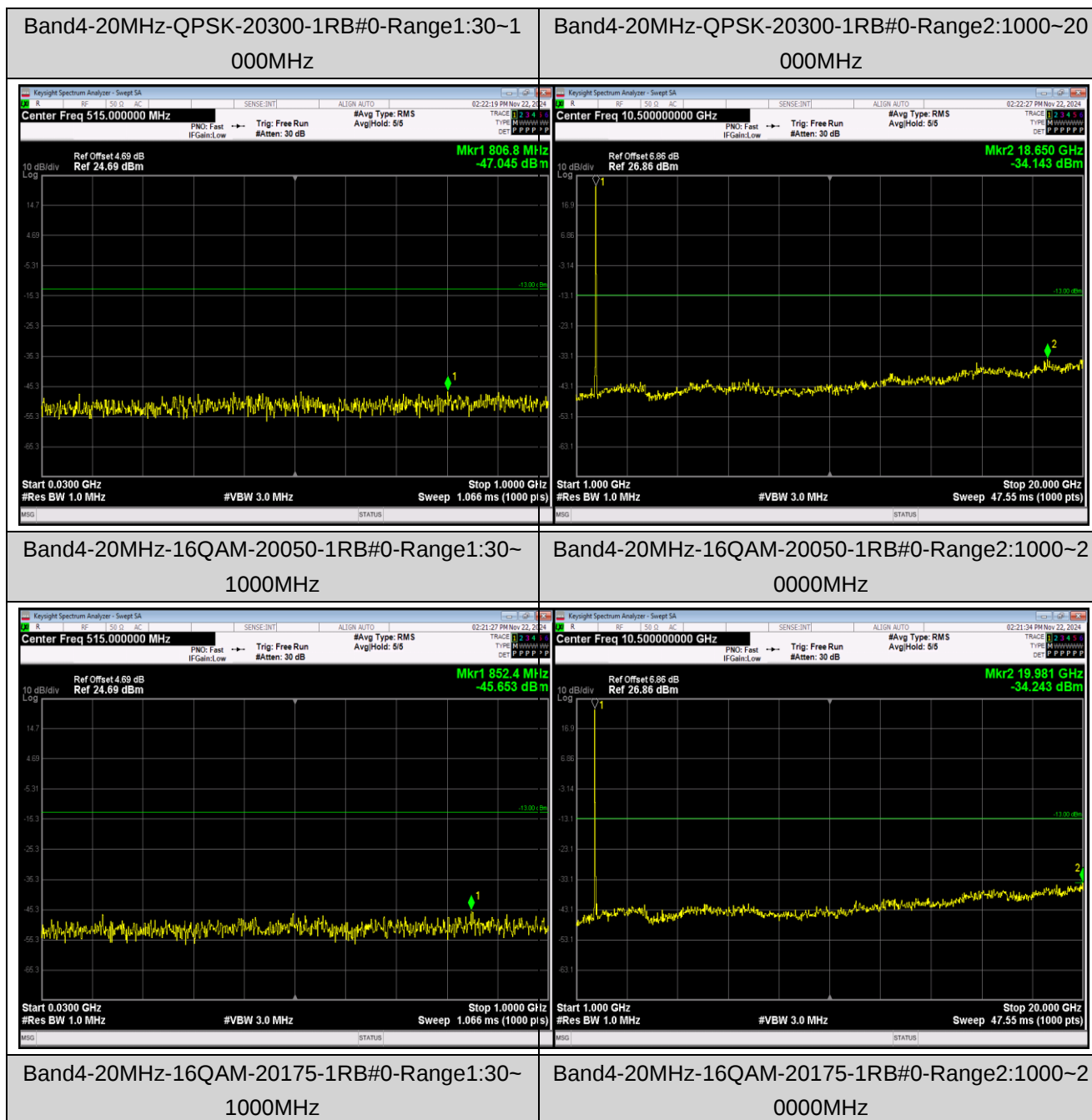
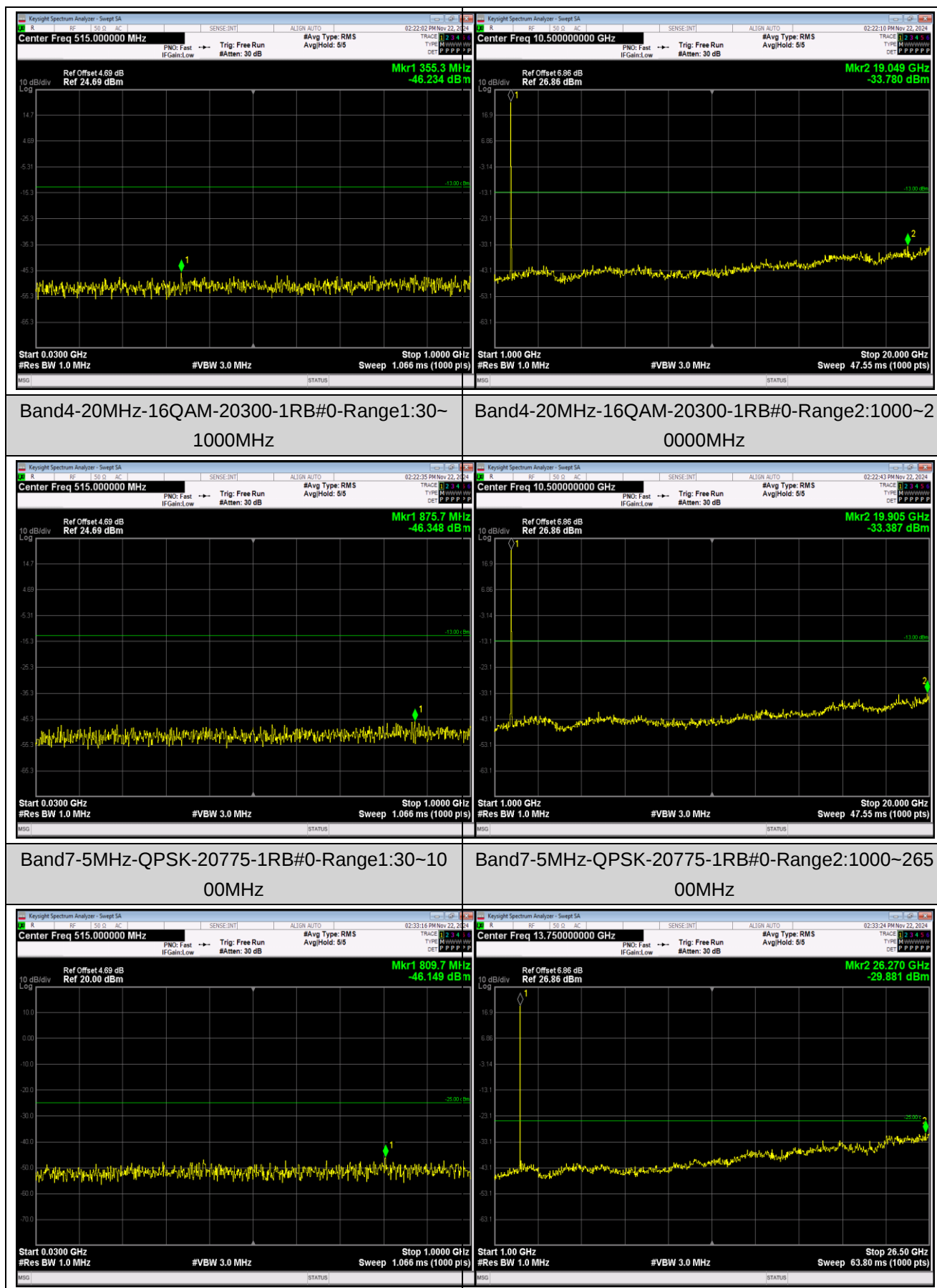
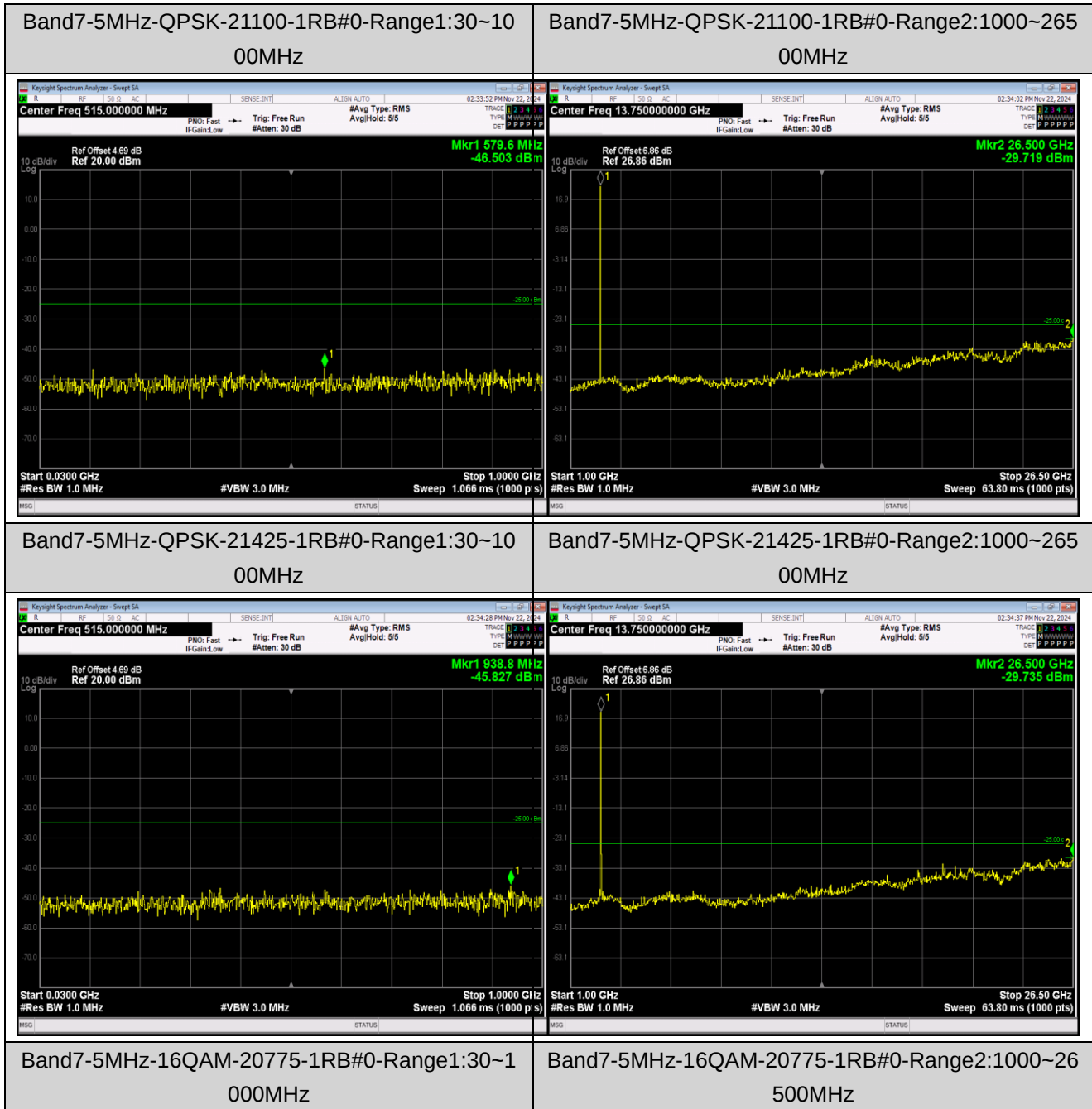
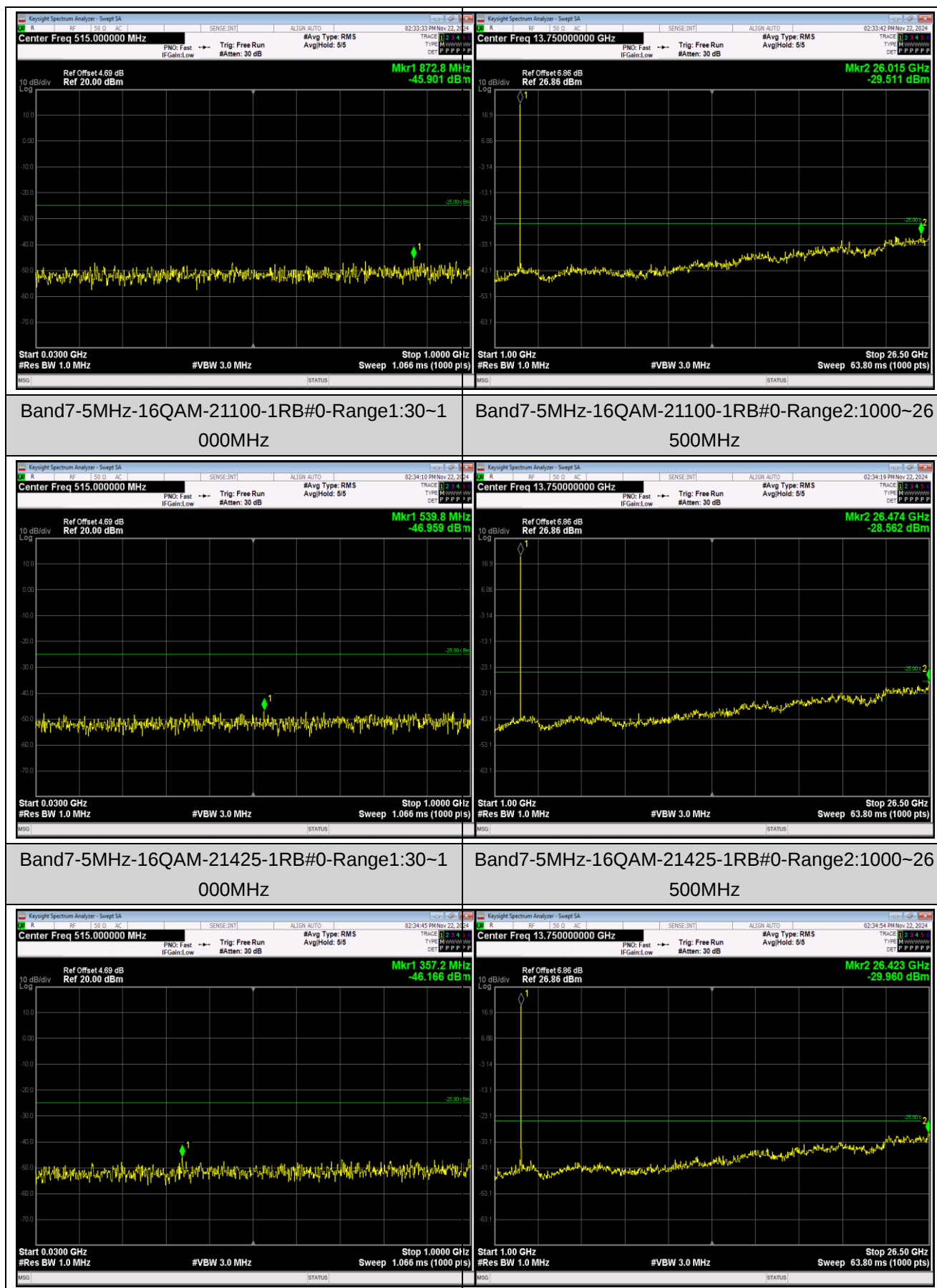


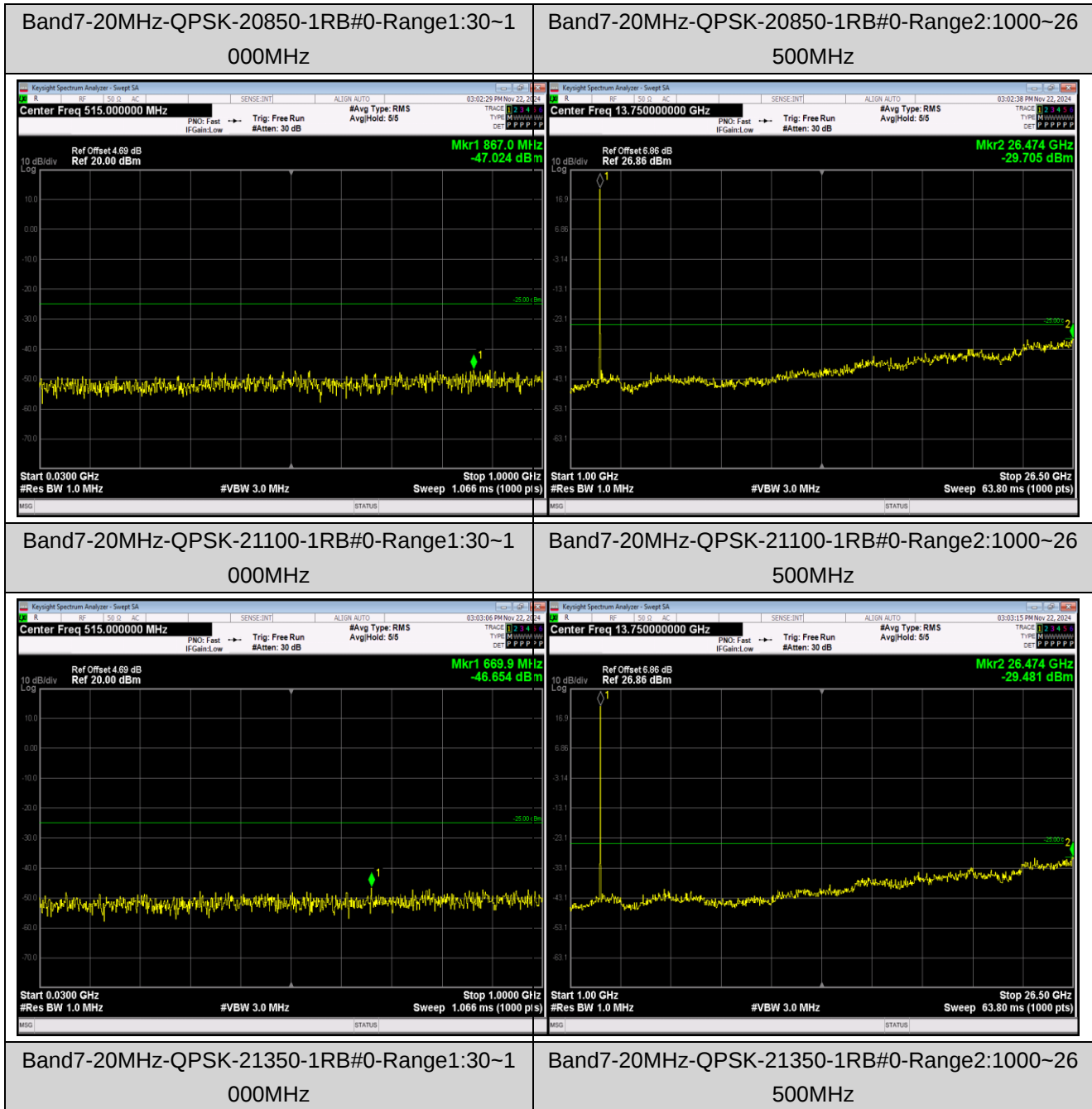


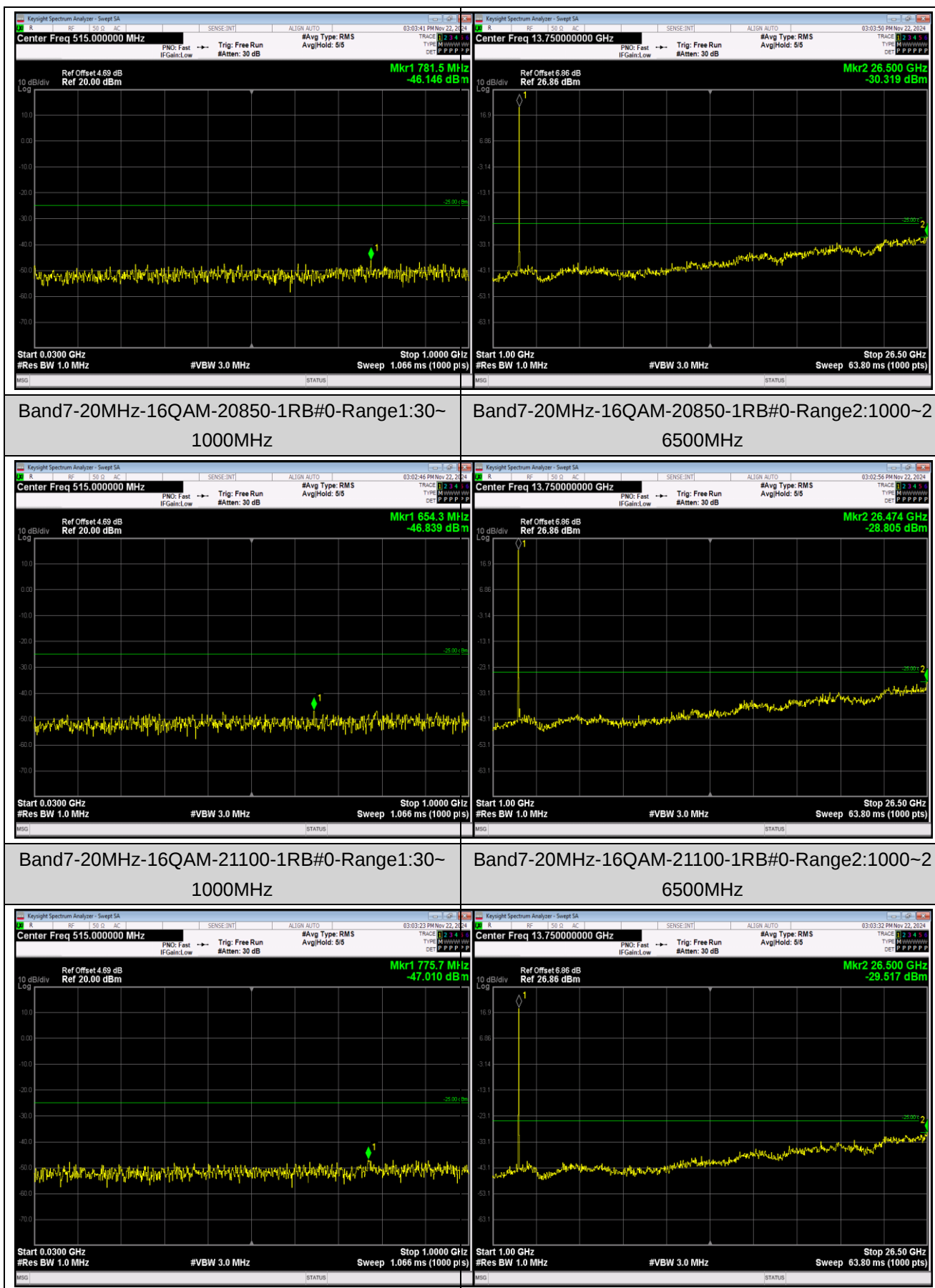










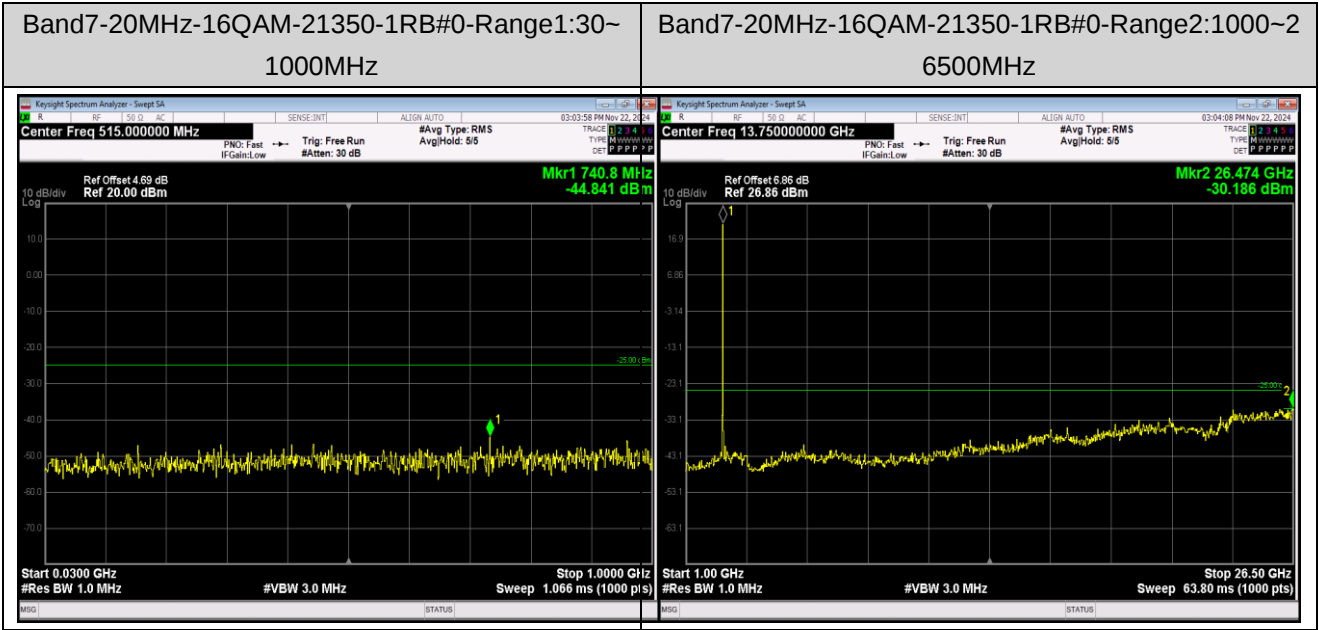


Band7-20MHz-16QAM-20850-1RB#0-Range1:30~1000MHz

Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~26500MHz

Band7-20MHz-16QAM-21100-1RB#0-Range1:30~1000MHz

Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~26500MHz



Appendix F: Frequency Stability

Test Result

LTE Band 2 part:

Reference Frequency: LTE Band 2 (10MHz) Middle channel=18900 Frequency=1880.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	57.05	0.030346	Within authorized band for Band 2	Pass
	-20	55.69	0.029622		
	-10	29.55	0.015718		
	0	34.22	0.018202		
	10	24.96	0.013277		
	20	55.82	0.029691		
	30	37.64	0.020021		
	40	-6.94	-0.003691		
	50	33.27	0.017697		
16QAM					
3.70	-30	-15.39	-0.008186	Within authorized band for Band 2	Pass
	-20	-3.49	-0.001856		
	-10	18.73	0.009963		
	0	37.61	0.020005		
	10	10.74	0.005713		
	20	27.49	0.014622		
	30	45.23	0.024059		
	40	16.34	0.008691		
	50	26.05	0.013856		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	43.59	0.023186	Within authorized band for Band 2	Pass
	3.70	37.24	0.019809		
	4.20	33.83	0.017995		
16QAM					
25	3.50	28.01	0.014899	Within authorized band for Band 2	Pass
	3.70	39.73	0.021133		
	4.20	41.94	0.022309		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 4 part:

Reference Frequency: LTE Band 4(10MHz) Middle channel=20175 Frequency=1732.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	15.91	0.009183	Within authorized band for Band 4	Pass
	-20	34.48	0.019902		
	-10	30.56	0.017639		
	0	9.40	0.005426		
	10	29.45	0.016999		
	20	43.40	0.025051		
	30	-3.26	-0.001882		
	40	5.71	0.003296		
	50	28.35	0.016364		
16QAM					
3.70	-30	25.96	0.014984	Within authorized band for Band 4	Pass
	-20	41.33	0.023856		
	-10	47.44	0.027382		
	0	36.35	0.020981		
	10	27.17	0.015683		
	20	-7.82	-0.004514		
	30	15.18	0.008762		
	40	8.30	0.004791		
	50	35.59	0.020543		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	8.43	0.004866	Within authorized band for Band 4	Pass
	3.70	-18.71	-0.010799		
	4.20	8.41	0.004854		
16QAM					
25	3.50	31.10	0.017951	Within authorized band for Band 4	Pass
	3.70	25.61	0.014782		
	4.20	11.09	0.006401		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

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					
3.70	-30	44.70	0.017633	Within authorized band for Band 7	Pass
	-20	25.25	0.009961		
	-10	45.60	0.017988		
	0	29.77	0.011744		
	10	17.07	0.006734		
	20	26.56	0.010477		
	30	27.01	0.010655		
	40	51.34	0.020252		
	50	56.66	0.022351		
16QAM					
3.70	-30	49.31	0.019452	Within authorized band for Band 7	Pass
	-20	32.09	0.012659		
	-10	34.82	0.013736		
	0	37.59	0.014828		
	10	39.47	0.015570		
	20	27.27	0.010757		
	30	49.74	0.019621		
	40	31.64	0.012481		
	50	31.80	0.012544		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	63.17	0.024919	Within authorized band for Band 7	Pass
	3.70	60.81	0.023988		
	4.20	50.61	0.019964		
16QAM					
25	3.50	9.30	0.003669	Within authorized band for Band 7	Pass
	3.70	26.14	0.010312		
	4.20	-17.32	-0.006832		
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
Band2	20MHz	QPSK	18900	100RB#0	PASS	PASS
Band2	20MHz	16QAM	18900	100RB#0	PASS	PASS
Band4	20MHz	QPSK	20175	100RB#0	PASS	PASS
Band4	20MHz	16QAM	20175	100RB#0	PASS	PASS
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	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

