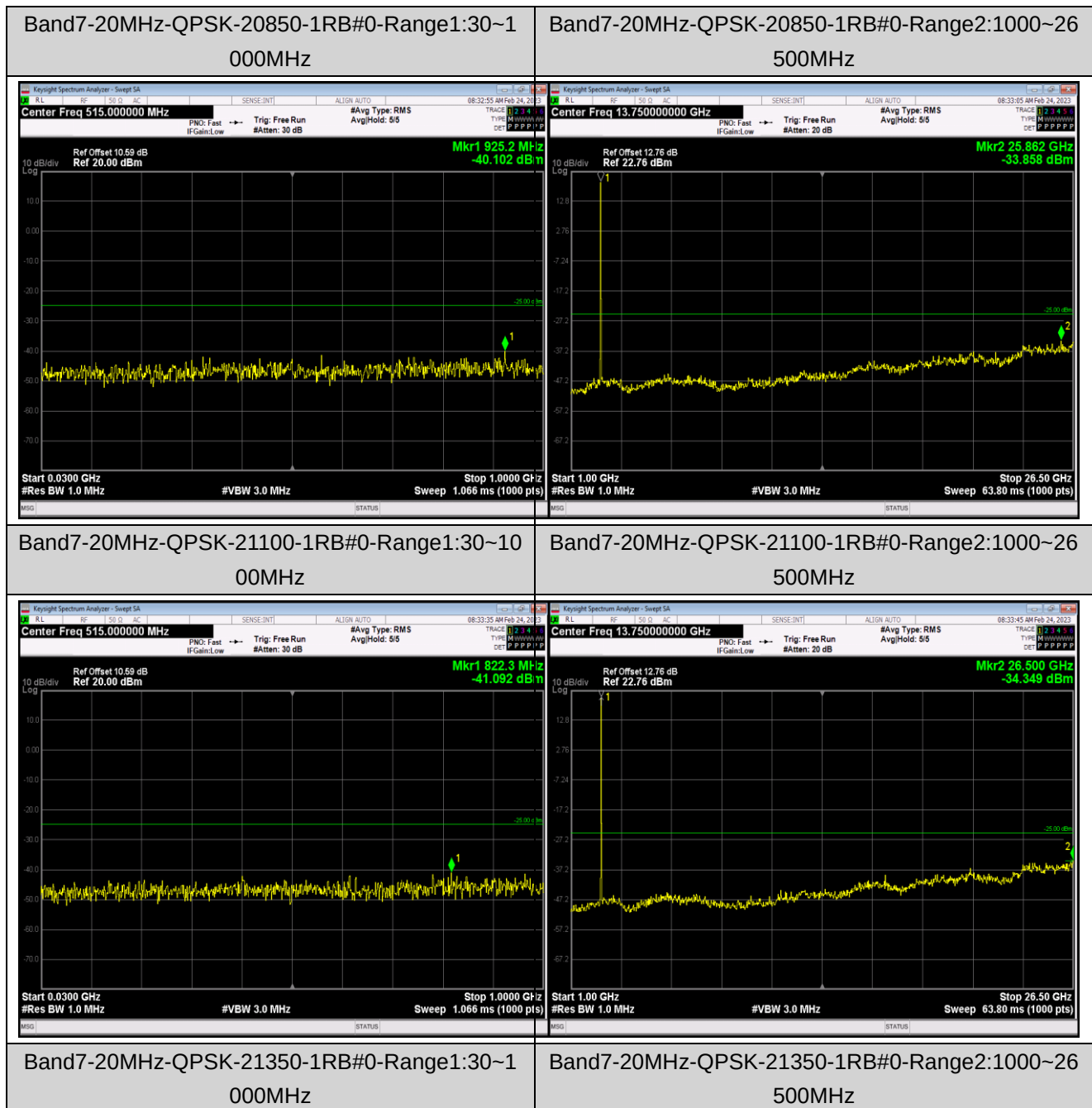
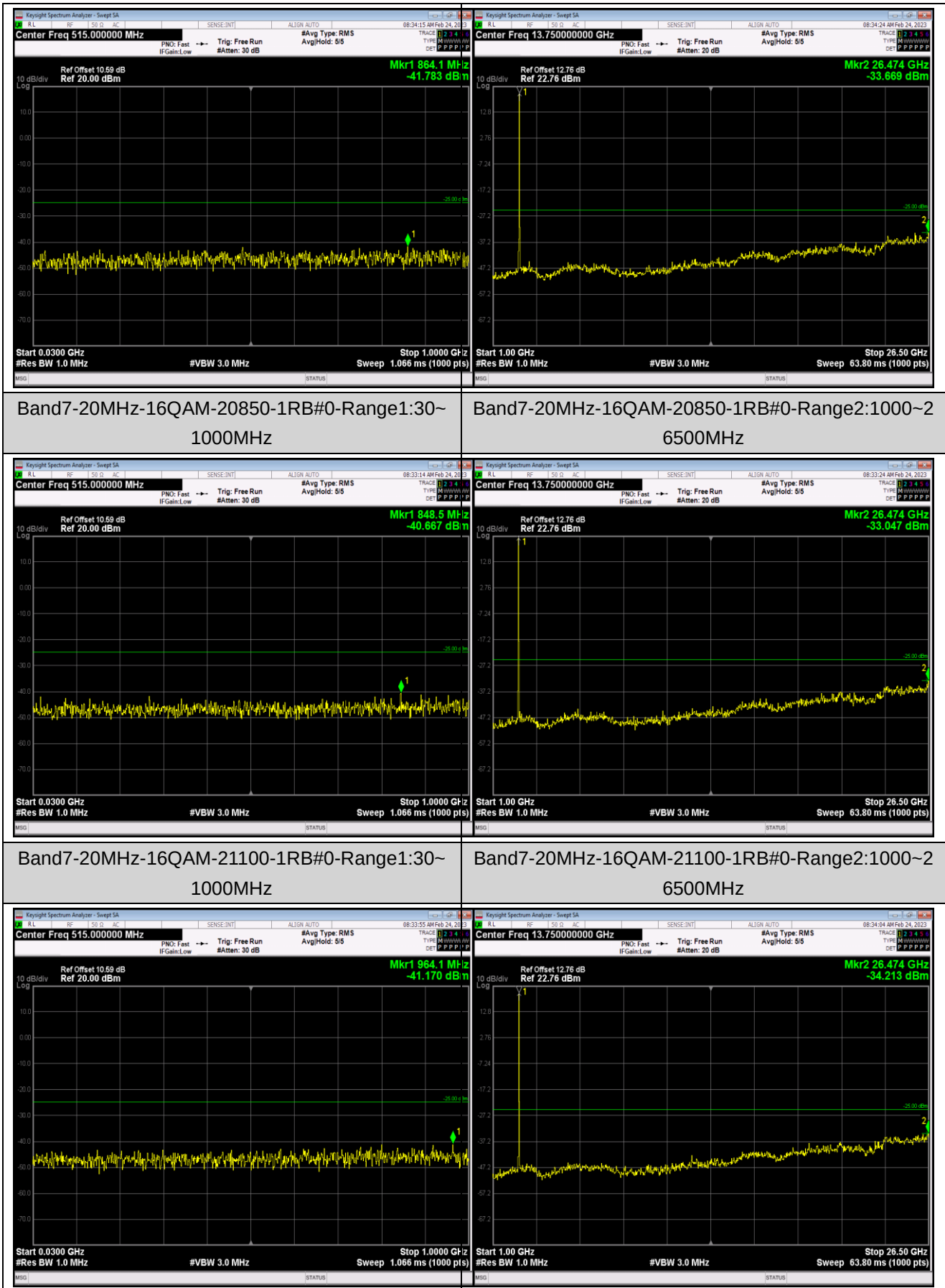
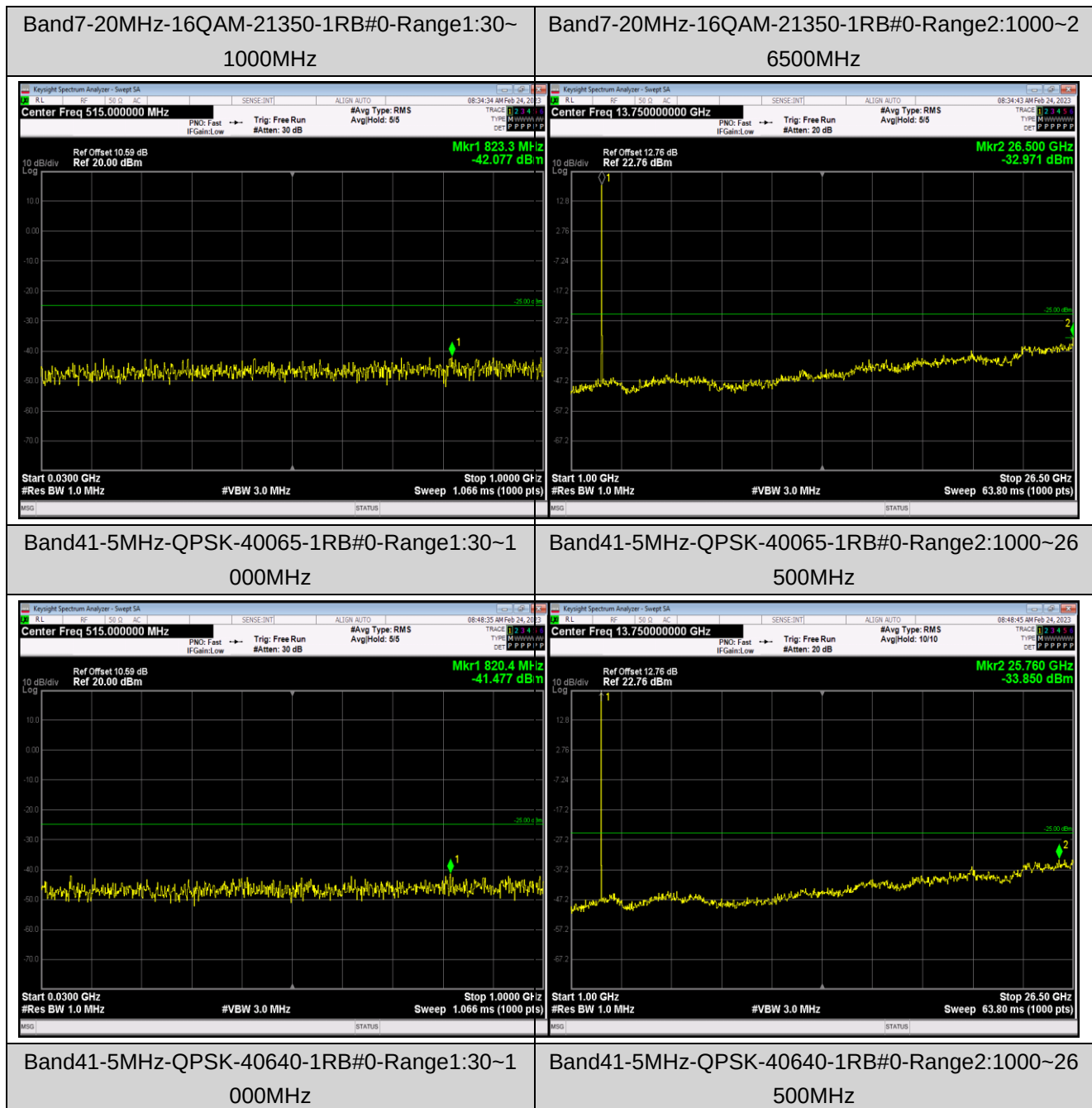
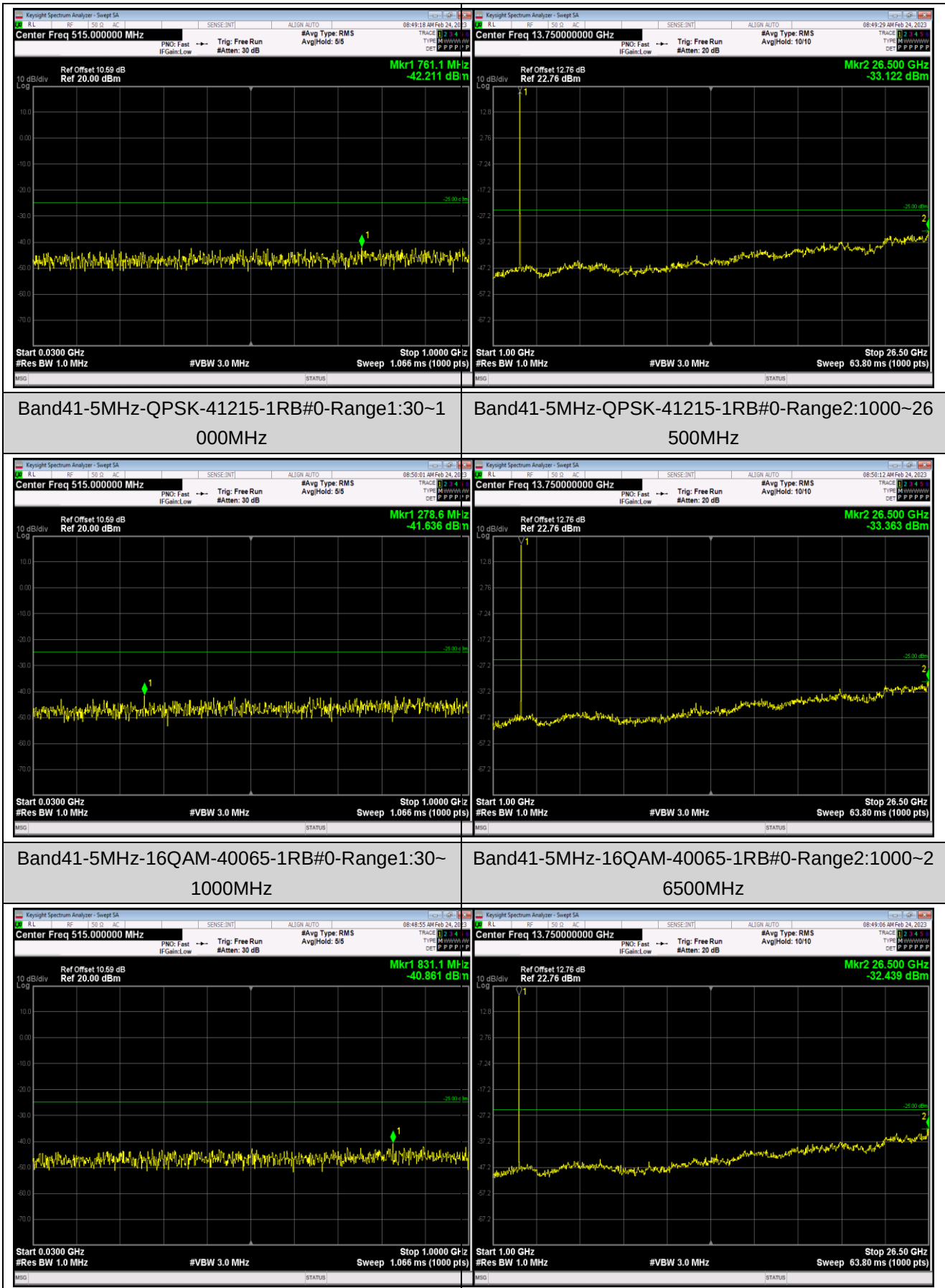
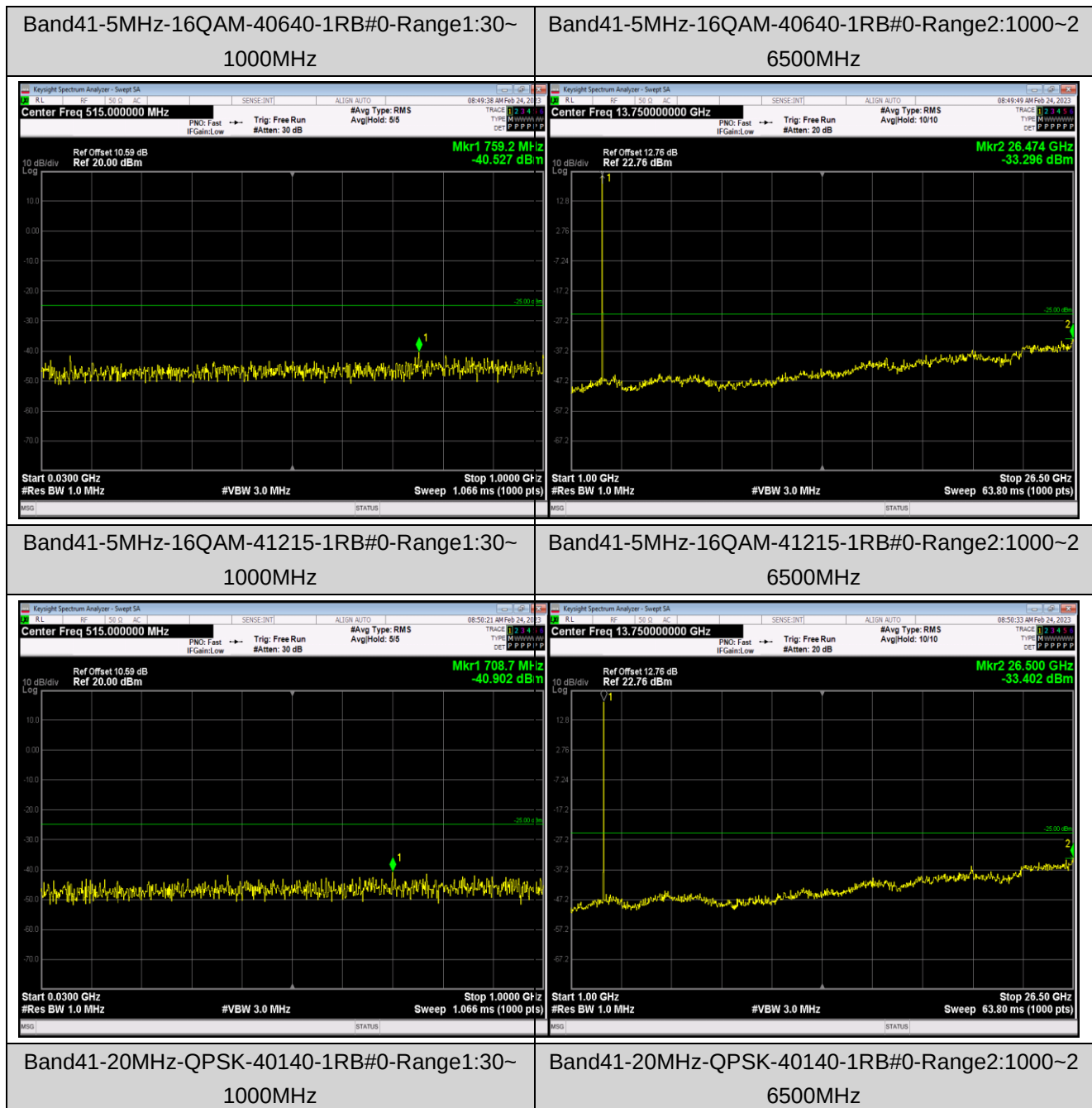


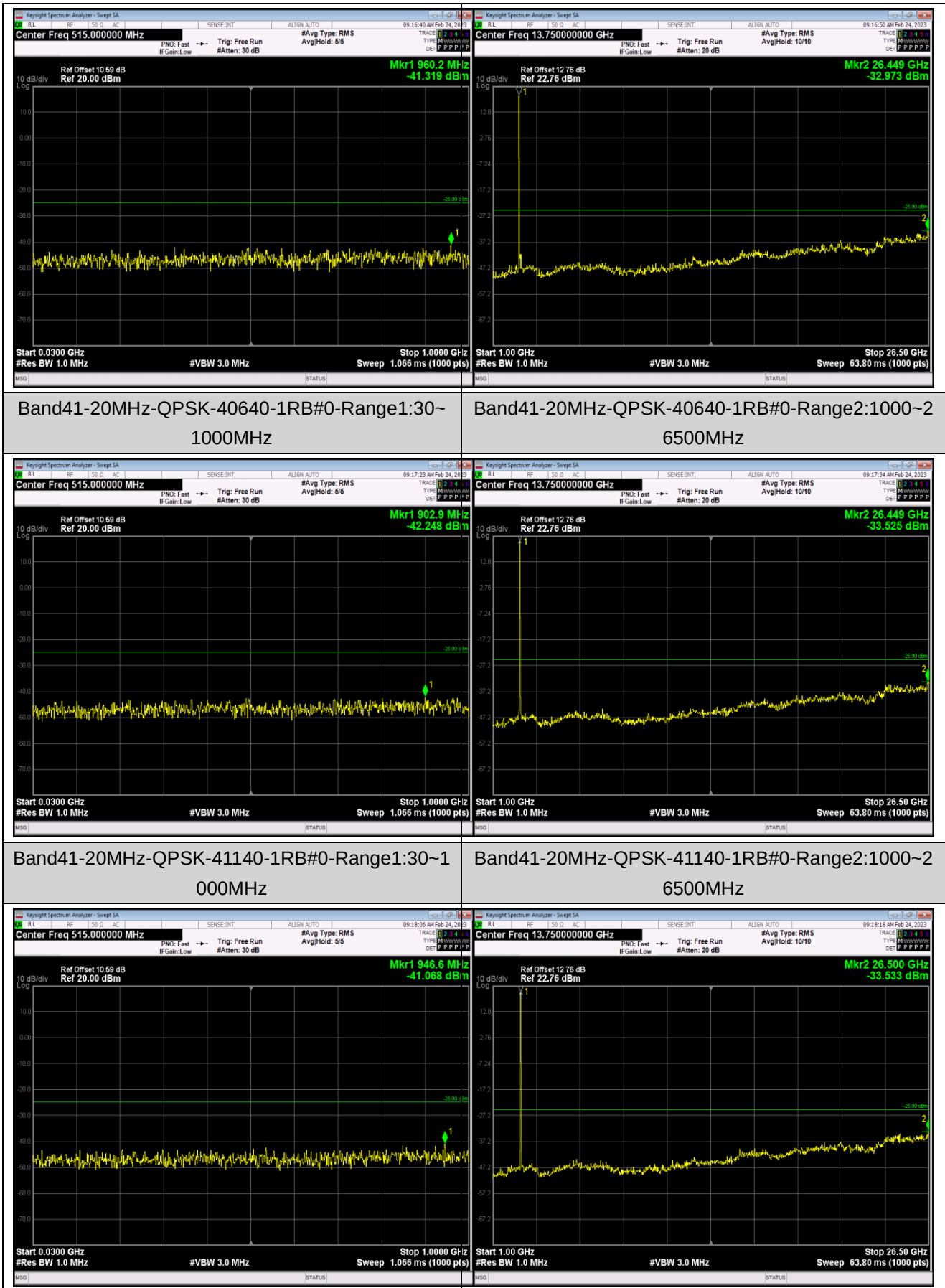


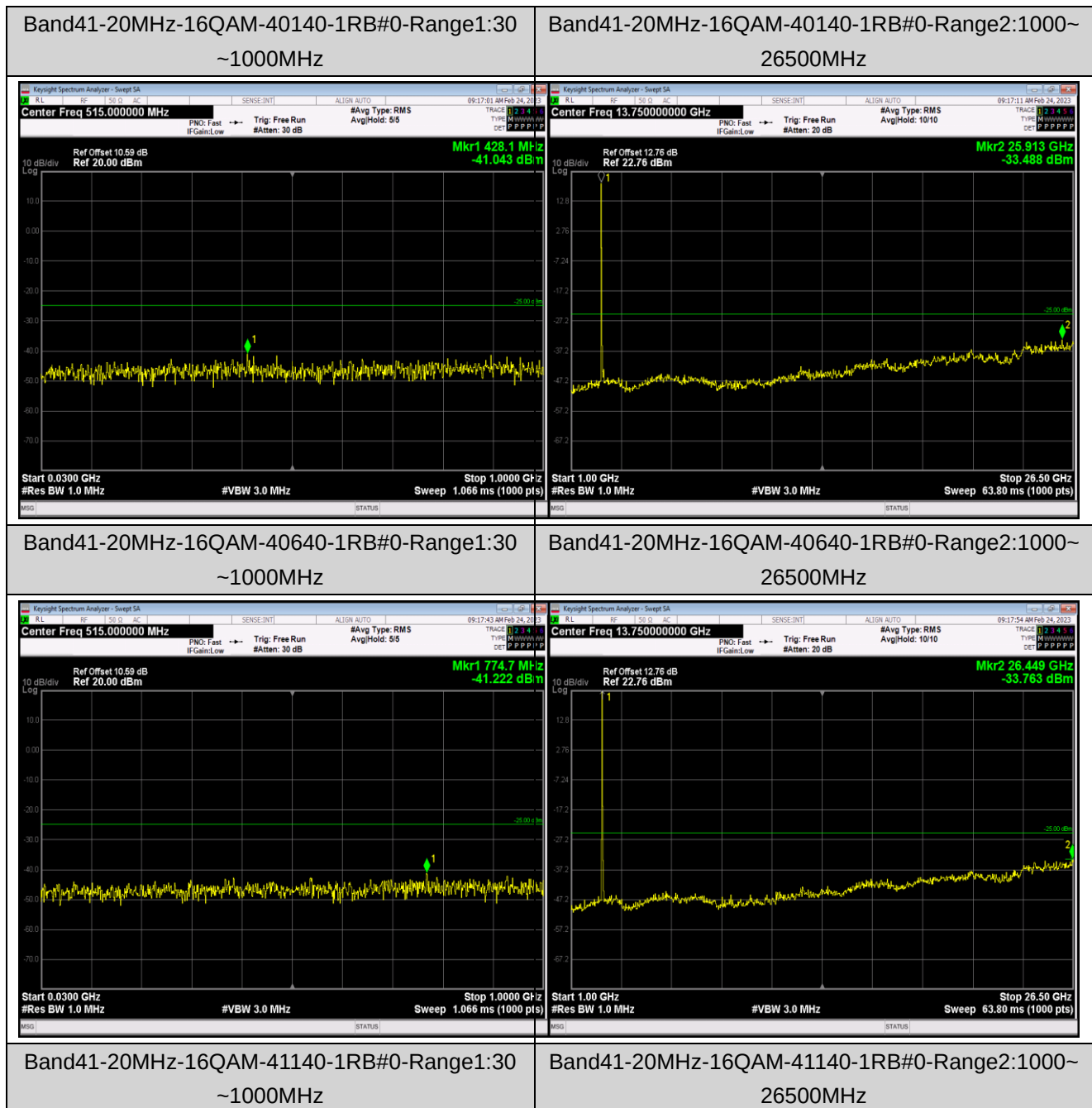


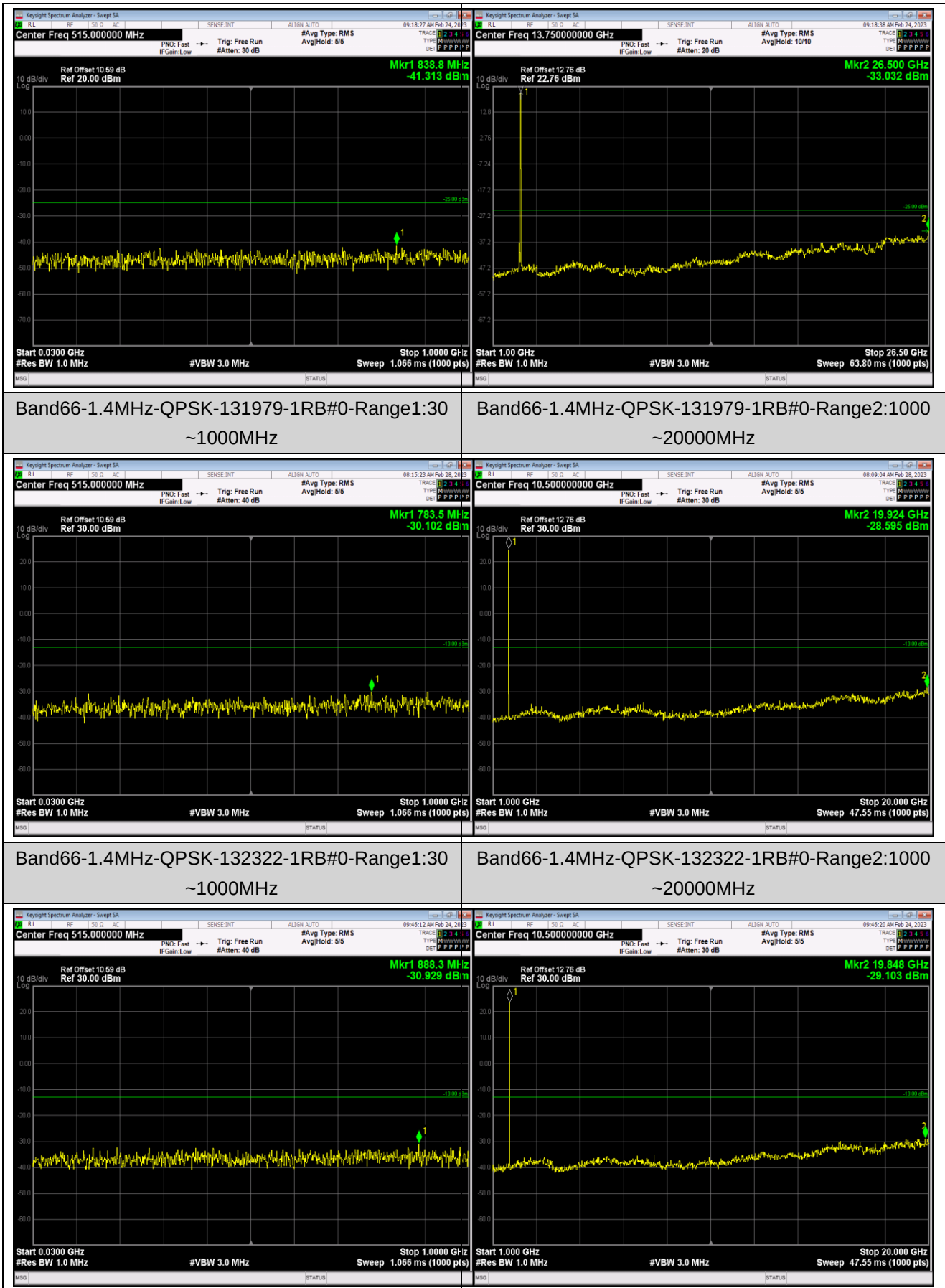










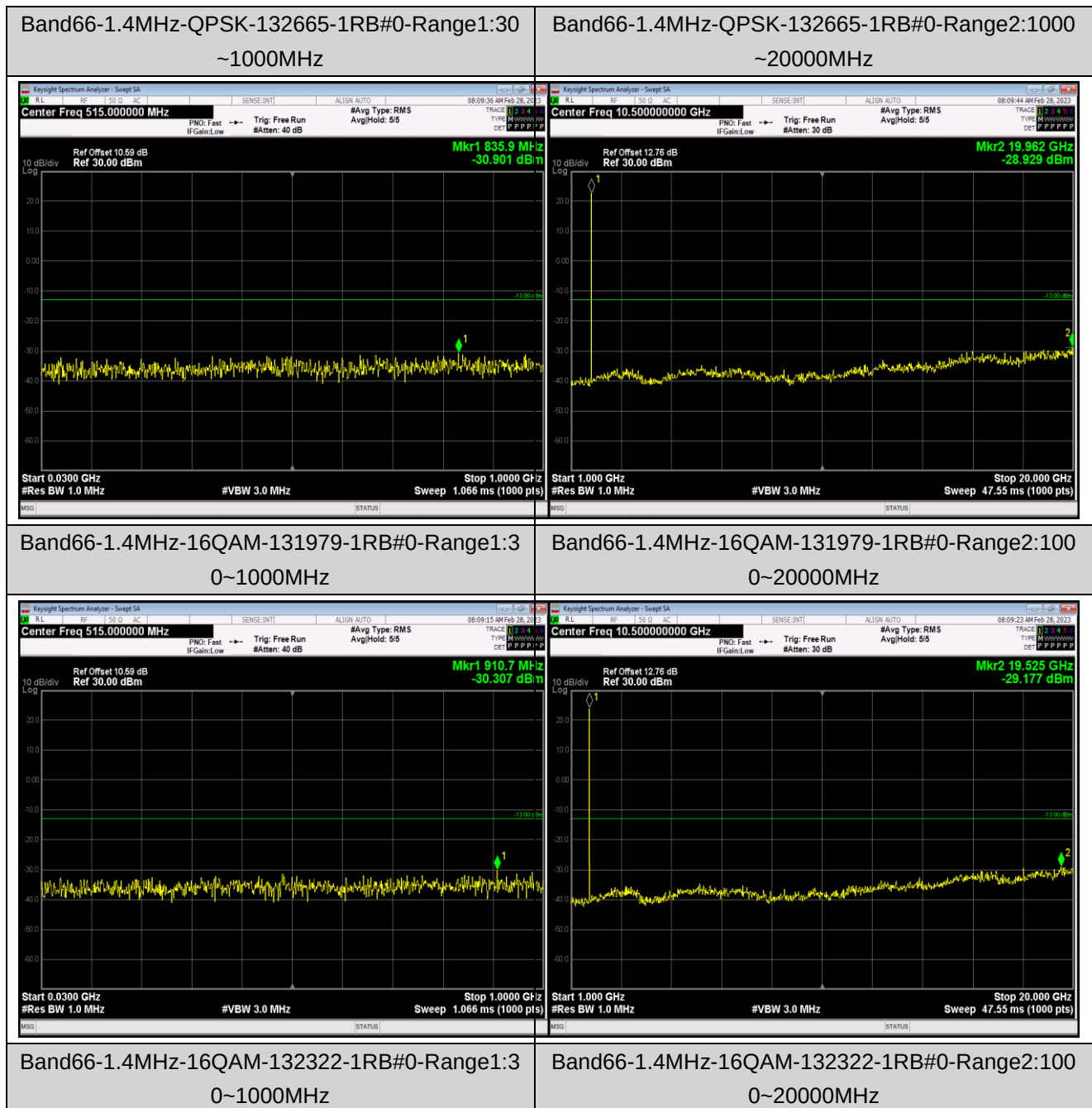


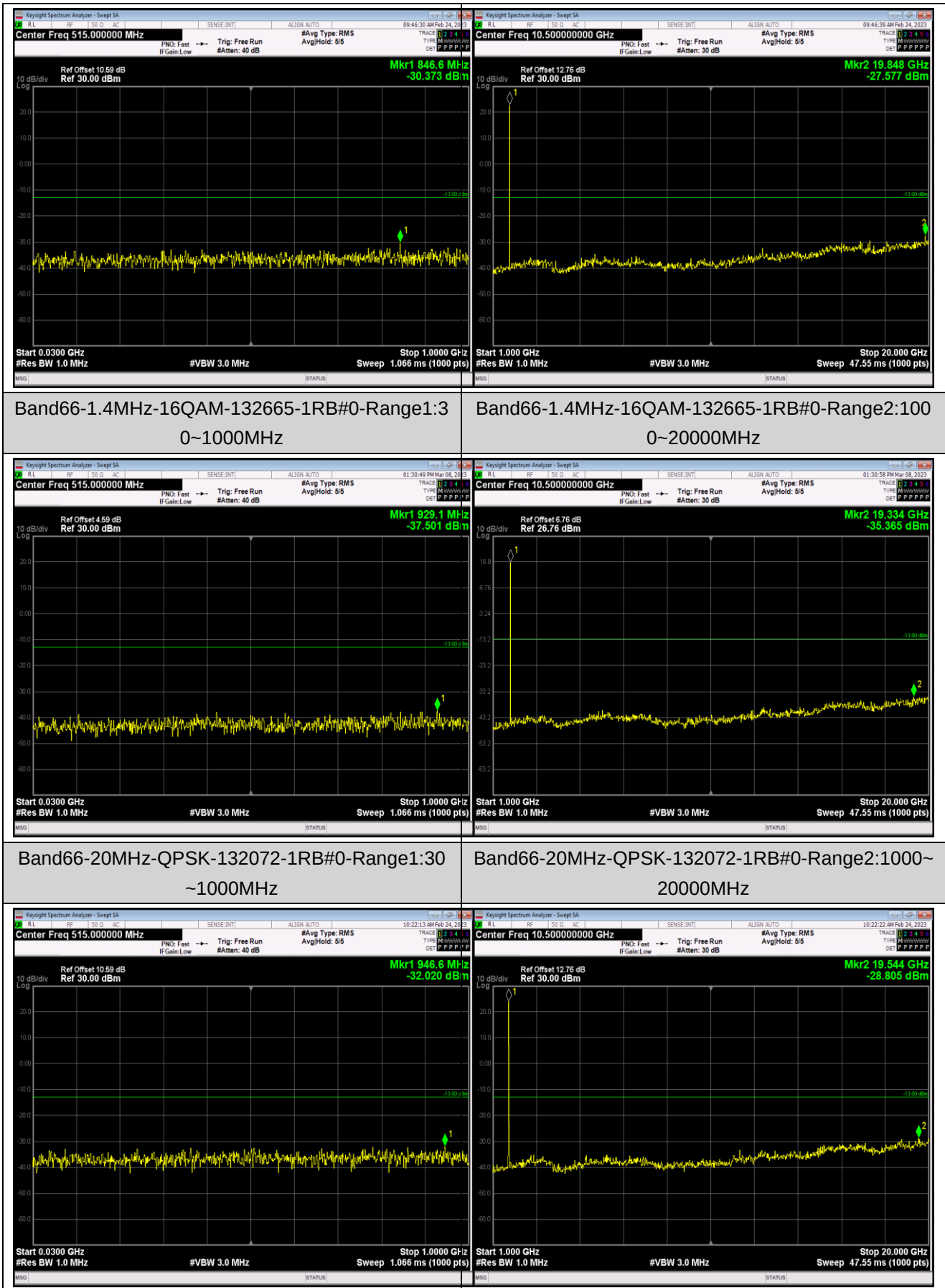
Band66-1.4MHz-QPSK-131979-1RB#0-Range1:30
~1000MHz

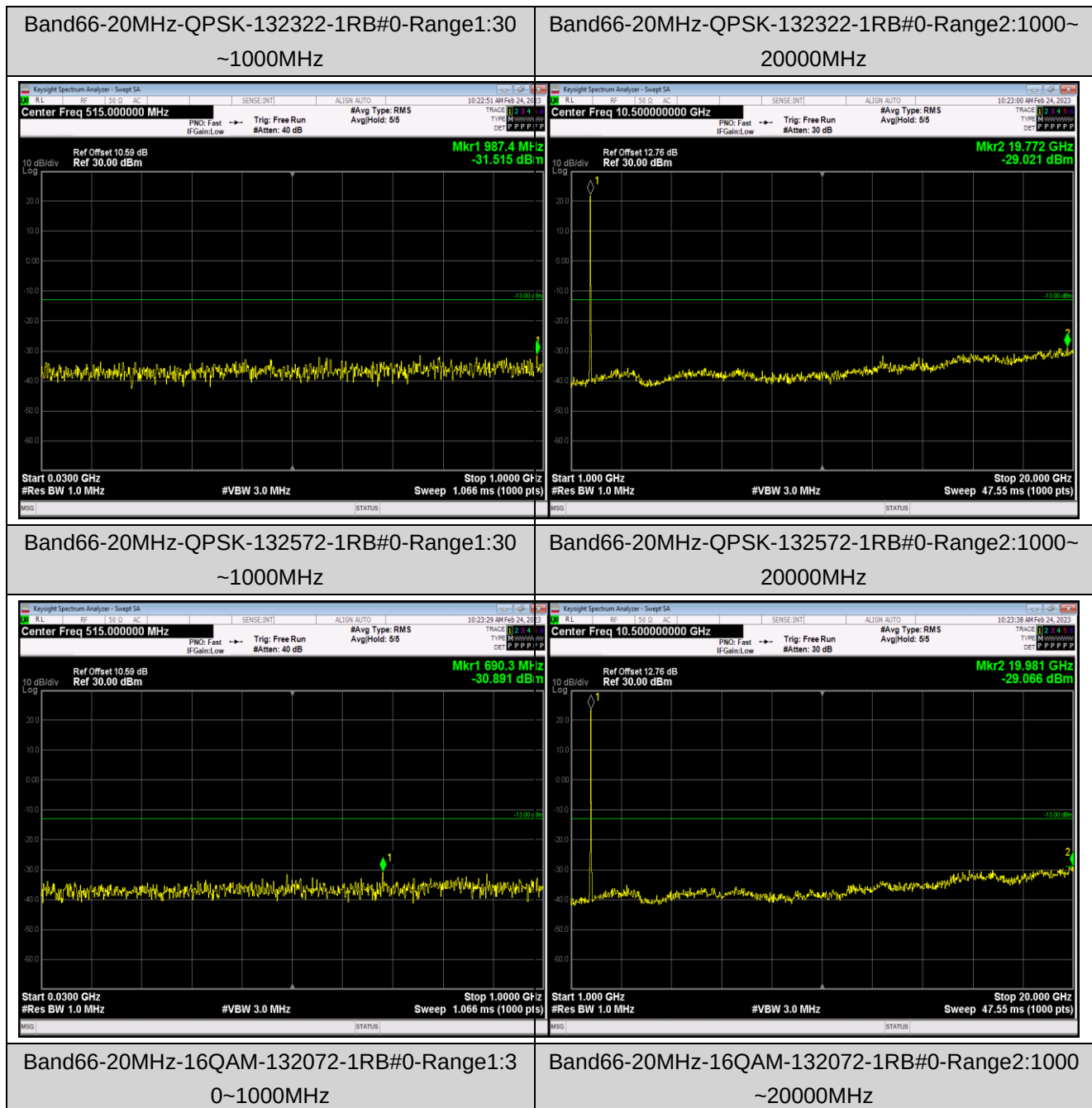
Band66-1.4MHz-QPSK-131979-1RB#0-Range2:1000
~20000MHz

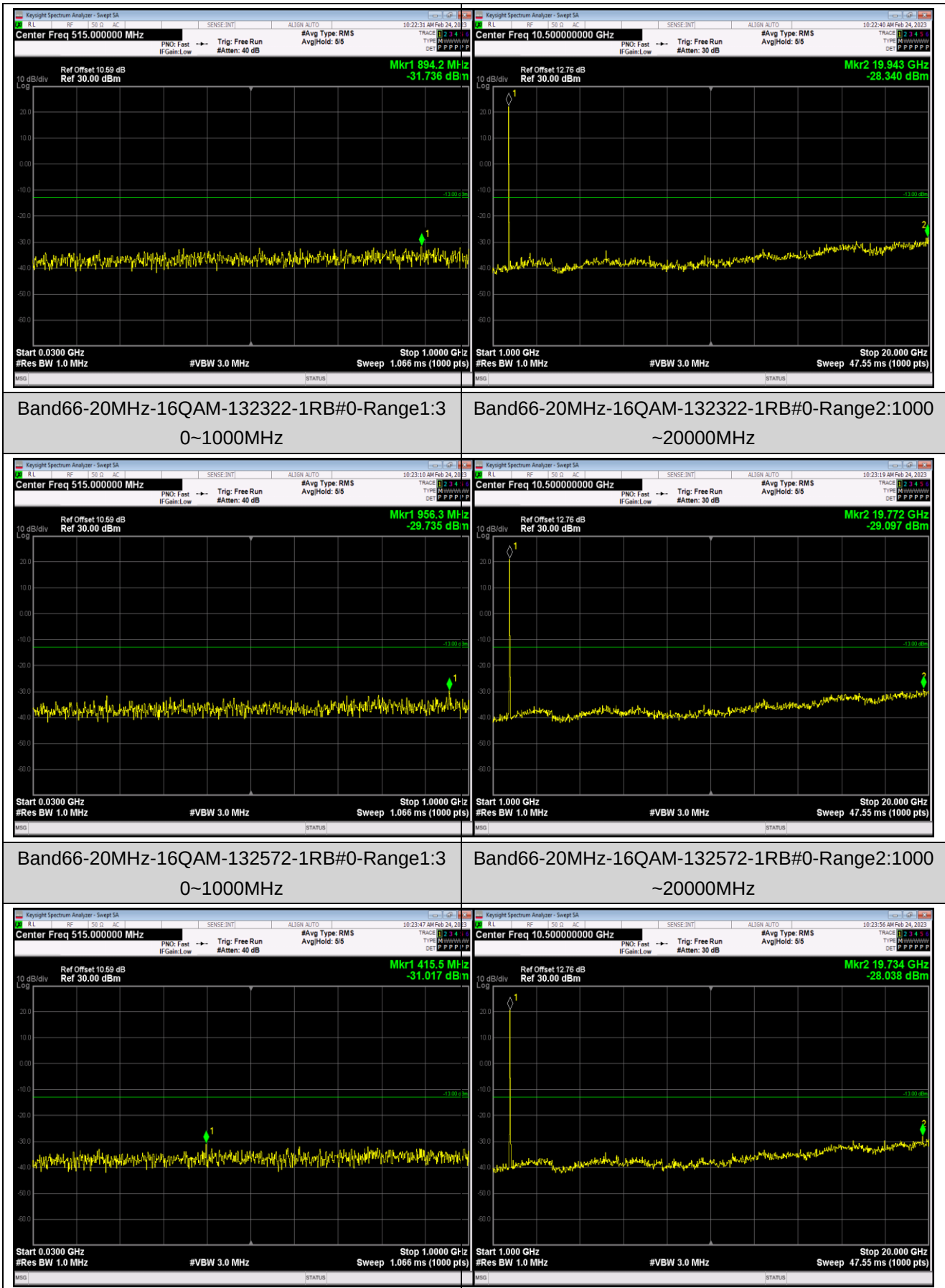
Band66-1.4MHz-QPSK-132322-1RB#0-Range1:30
~1000MHz

Band66-1.4MHz-QPSK-132322-1RB#0-Range2:1000
~20000MHz









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	11.87	0.006314	Within authorized band for Band 2	Pass
	-20	16.75	0.008910		
	-10	15.44	0.008213		
	0	21.47	0.011420		
	10	26.72	0.014213		
	20	29.71	0.015803		
	30	30.74	0.016351		
	40	35.46	0.018862		
	50	36.49	0.019410		
16QAM					
3.70	-30	13.70	0.007287	Within authorized band for Band 2	Pass
	-20	-9.93	-0.005282		
	-10	-17.87	-0.009505		
	0	-30.08	-0.016000		
	10	-37.48	-0.019936		
	20	-45.09	-0.023984		
	30	-49.97	-0.026580		
	40	-7.54	-0.004011		
	50	-11.46	-0.006096		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	15.89	0.008452	Within authorized band for Band 2	Pass
	3.70	32.20	0.017128		
	4.20	14.73	0.007835		
16QAM					
25	3.50	34.29	0.018239	Within authorized band for Band 2	Pass
	3.70	40.51	0.021548		
	4.20	27.37	0.014559		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 5 part:

Reference Frequency: LTE Band 5(10MHz) Middle channel=20525 Frequency=836.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	-14.10	-0.016856	±2.5	Pass
	-20	-11.93	-0.014262		
	-10	-11.29	-0.013497		
	0	-7.04	-0.008416		
	10	-7.08	-0.008464		
	20	-3.89	-0.004650		
	30	-2.55	-0.003048		
	40	2.32	0.002773		
	50	-4.03	-0.004818		
16QAM					
3.70	-30	-10.23	-0.012230	±2.5	Pass
	-20	-13.25	-0.015840		
	-10	-16.89	-0.020191		
	0	-19.15	-0.022893		
	10	-22.39	-0.026766		
	20	-25.45	-0.030424		
	30	-27.97	-0.033437		
	40	-27.85	-0.033293		
	50	-29.61	-0.035397		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-10.70	-0.012791	±2.5	Pass
	3.70	5.76	0.006886		
	4.20	-12.72	-0.015206		
16QAM					
25	3.50	1.76	0.002104	±2.5	Pass
	3.70	1.82	0.002176		
	4.20	-4.62	-0.005523		
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	35.26	0.013909	Within authorized band for Band 7	Pass
	-20	21.41	0.008446		
	-10	9.03	0.003562		
	0	-13.66	-0.005389		
	10	-26.62	-0.010501		
	20	-35.68	-0.014075		
	30	-47.24	-0.018635		
	40	-12.50	-0.004931		
	50	-16.72	-0.006596		
16QAM					
3.70	-30	-32.00	-0.012623	Within authorized band for Band 7	Pass
	-20	-30.06	-0.011858		
	-10	-25.08	-0.009893		
	0	-20.60	-0.008126		
	10	-22.33	-0.008809		
	20	-27.92	-0.011014		
	30	-25.65	-0.010118		
	40	-27.75	-0.010947		
	50	-27.61	-0.010892		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	45.85	0.018087	Within authorized band for Band 7	Pass
	3.70	40.90	0.016134		
	4.20	45.62	0.017996		
16QAM					
25	3.50	-30.90	-0.012189	Within authorized band for Band 7	Pass
	3.70	-30.31	-0.011957		
	4.20	-28.40	-0.011203		
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=40640 Frequency=2595.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	40.24	0.015507	Within authorized band for Band 41	Pass
	-20	46.99	0.018108		
	-10	39.25	0.015125		
	0	53.67	0.020682		
	10	49.52	0.019083		
	20	48.54	0.018705		
	30	52.51	0.020235		
	40	-20.74	-0.007992		
	50	-22.40	-0.008632		
16QAM					
3.70	-30	8.73	0.003364	Within authorized band for Band 41	Pass
	-20	7.08	0.002728		
	-10	9.58	0.003692		
	0	13.15	0.005067		
	10	22.60	0.008709		
	20	18.68	0.007198		
	30	26.78	0.010320		
	40	32.32	0.012455		
	50	30.80	0.011869		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	32.20	0.012408	Within authorized band for Band 41	Pass
	3.70	31.80	0.012254		
	4.20	33.35	0.012852		
16QAM					
25	3.50	-20.01	-0.007711	Within authorized band for Band41	Pass
	3.70	-27.25	-0.010501		
	4.20	-20.63	-0.007950		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 66 part:

Reference Frequency: LTE Band 66 (10MHz) Middle channel=132322 Frequency=1745.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	24.16	0.013845	Within authorized band for Band 66	Pass
	-20	32.17	0.018436		
	-10	44.47	0.025484		
	0	7.51	0.004304		
	10	16.32	0.009352		
	20	25.86	0.014819		
	30	29.88	0.017123		
	40	43.50	0.024928		
	50	12.62	0.007232		
16QAM					
3.70	-30	18.41	0.010550	Within authorized band for Band 66	Pass
	-20	10.90	0.006246		
	-10	8.55	0.004900		
	0	5.65	0.003238		
	10	-10.16	-0.005822		
	20	-6.05	-0.003467		
	30	-13.12	-0.007519		
	40	-14.95	-0.008567		
	50	-12.93	-0.007410		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-39.81	-0.022814	Within authorized band for Band 66	Pass
	3.70	-19.34	-0.011083		
	4.20	16.15	0.009255		
16QAM					
25	3.50	30.98	0.017754	Within authorized band for Band 66	Pass
	3.70	20.74	0.011885		
	4.20	22.54	0.012917		
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
Band5	10MHz	QPSK	20525	50RB#0	PASS	PASS
Band5	10MHz	16QAM	20525	50RB#0	PASS	PASS
Band7	20MHz	QPSK	21100	100RB#0	PASS	PASS
Band7	20MHz	16QAM	21100	100RB#0	PASS	PASS
Band41	20MHz	QPSK	40640	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40640	100RB#0	PASS	PASS
Band66	20MHz	QPSK	132322	100RB#0	PASS	PASS
Band66	20MHz	16QAM	132322	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

