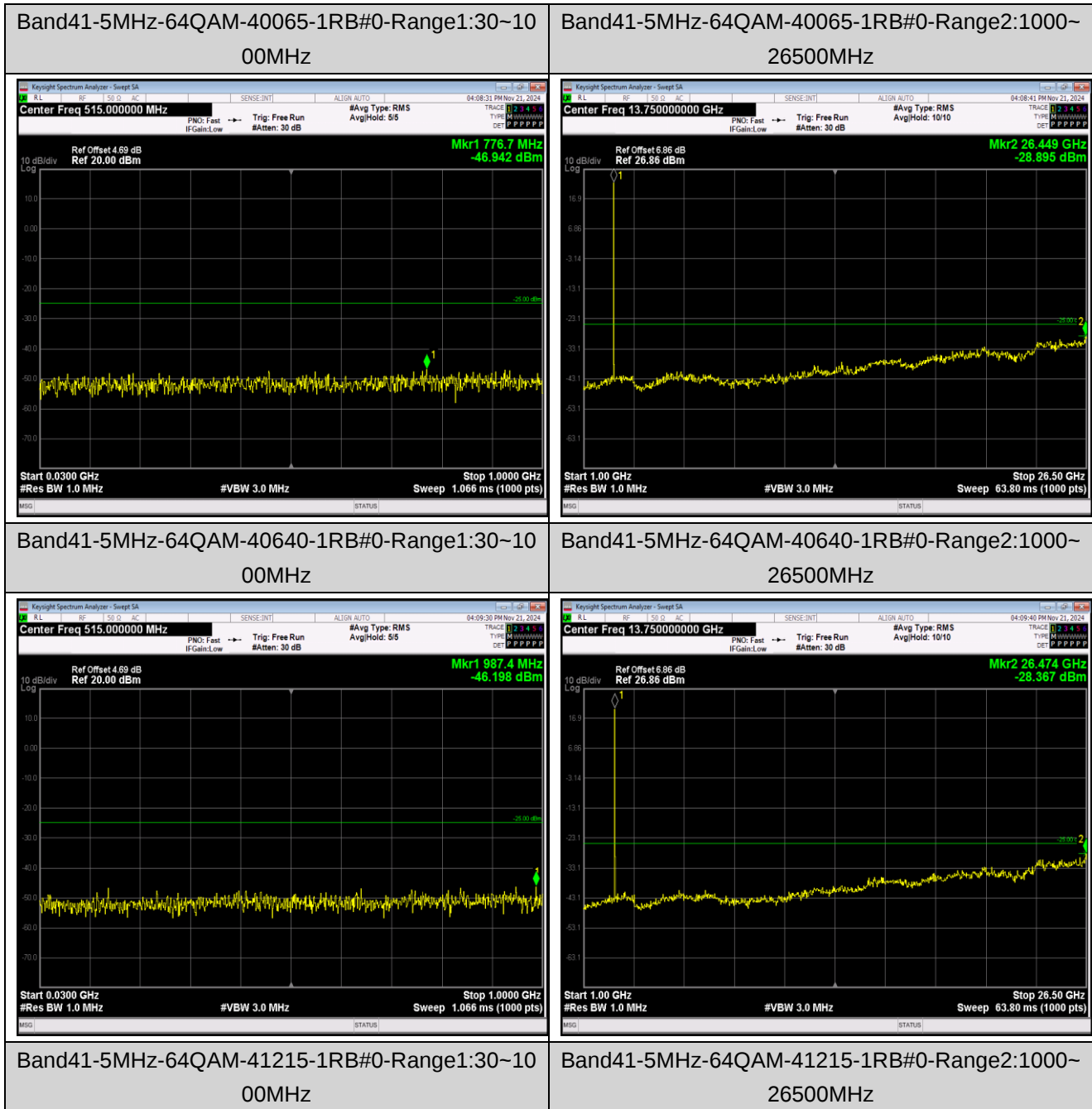
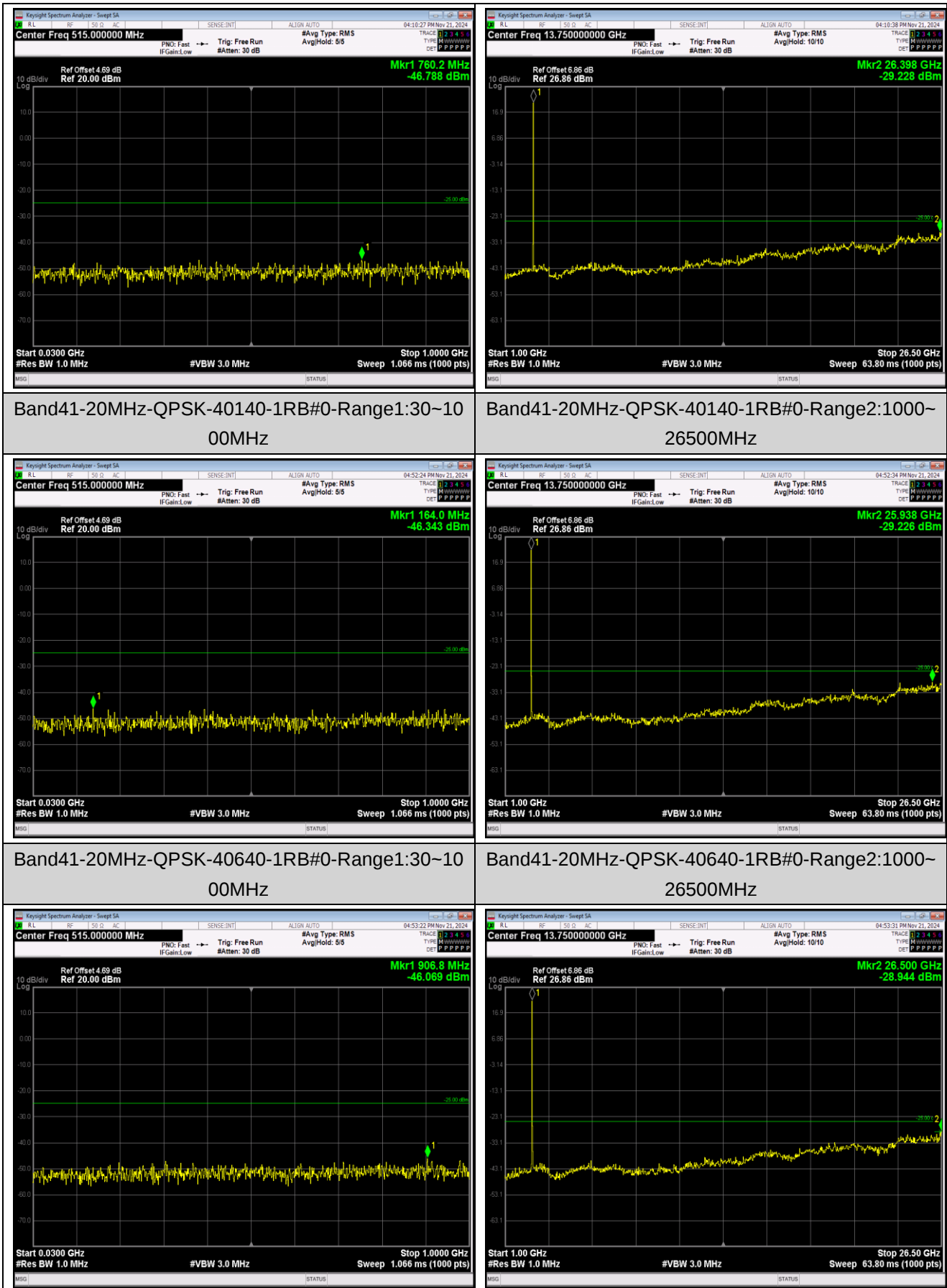
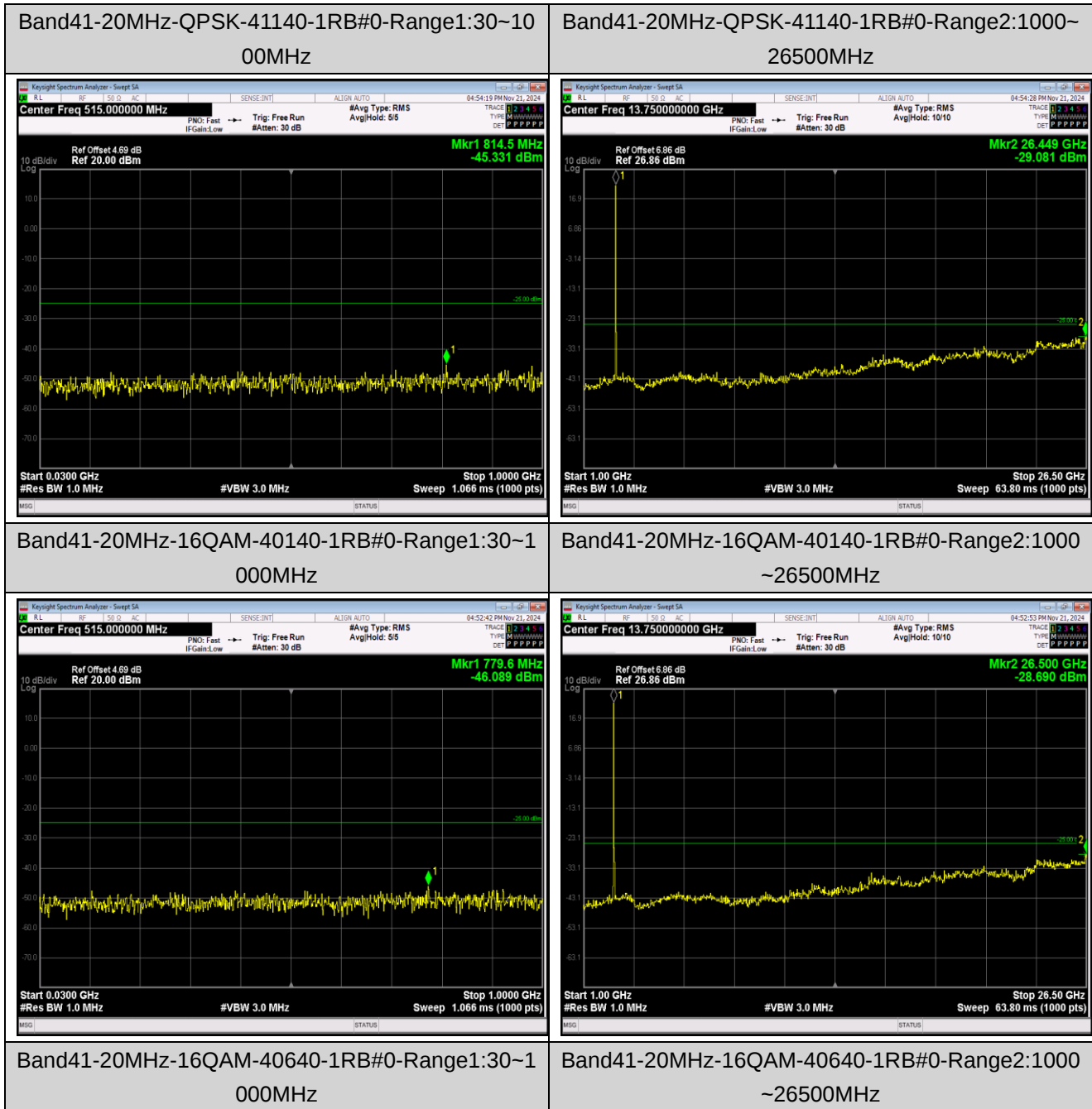
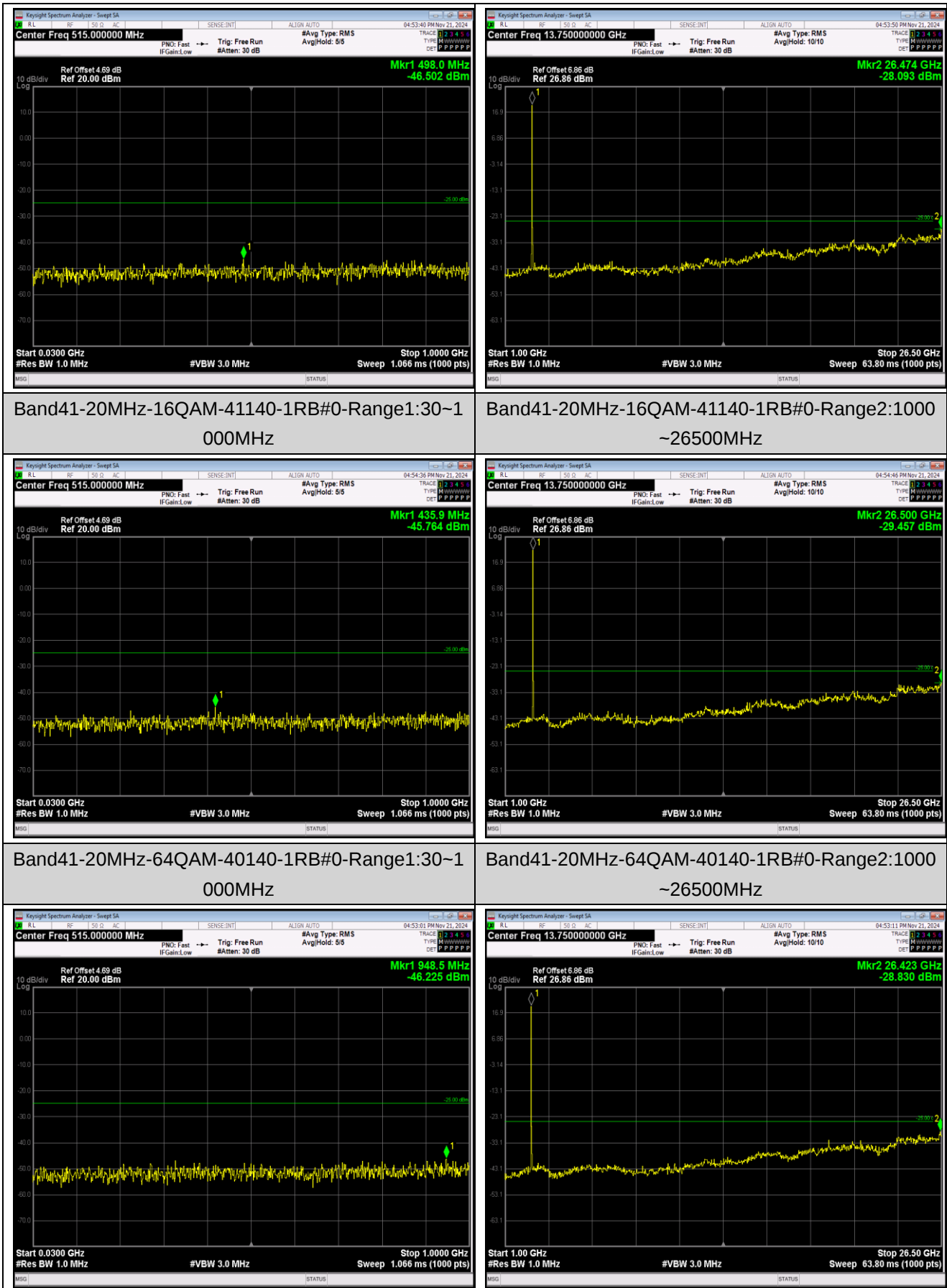
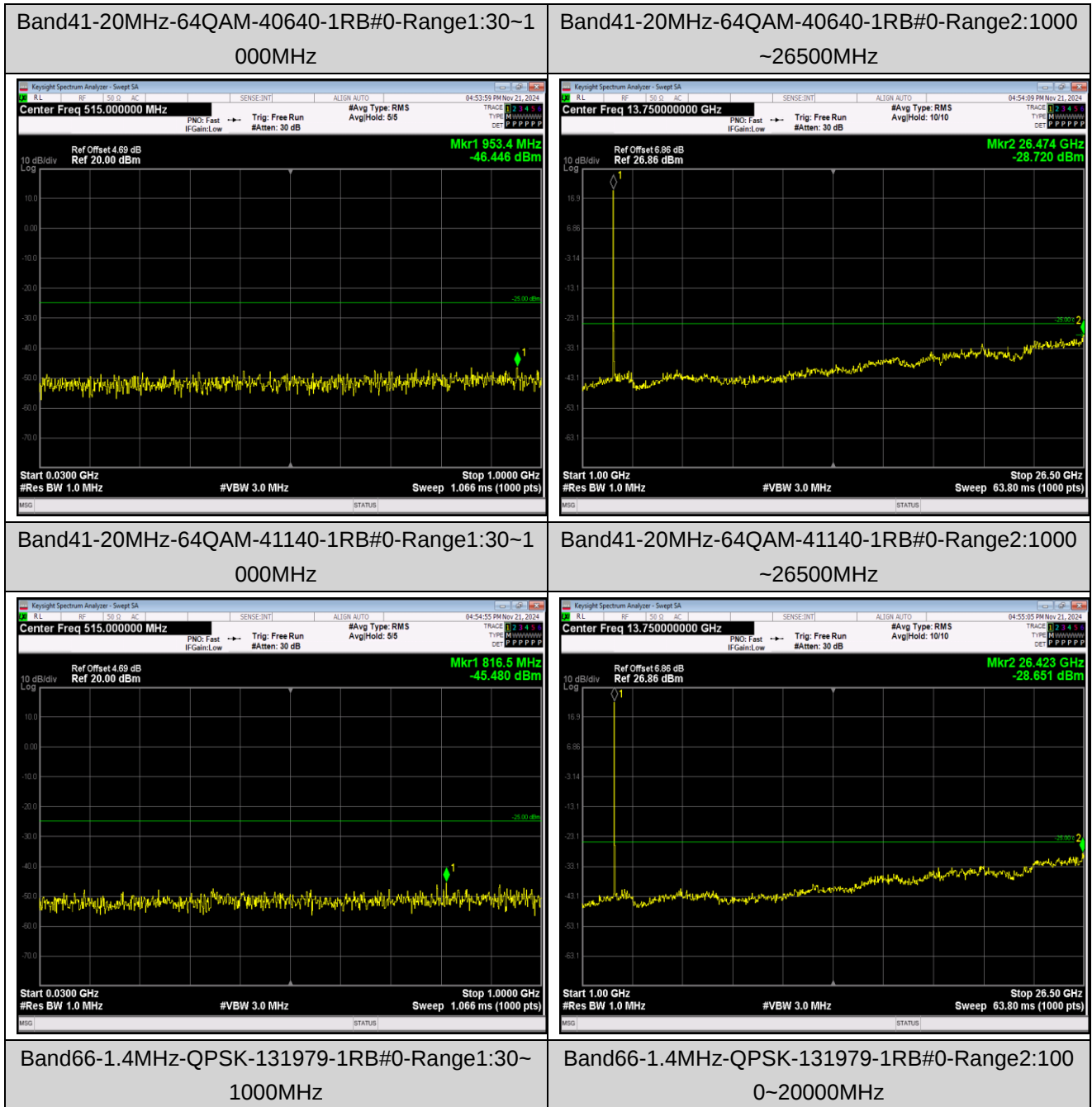


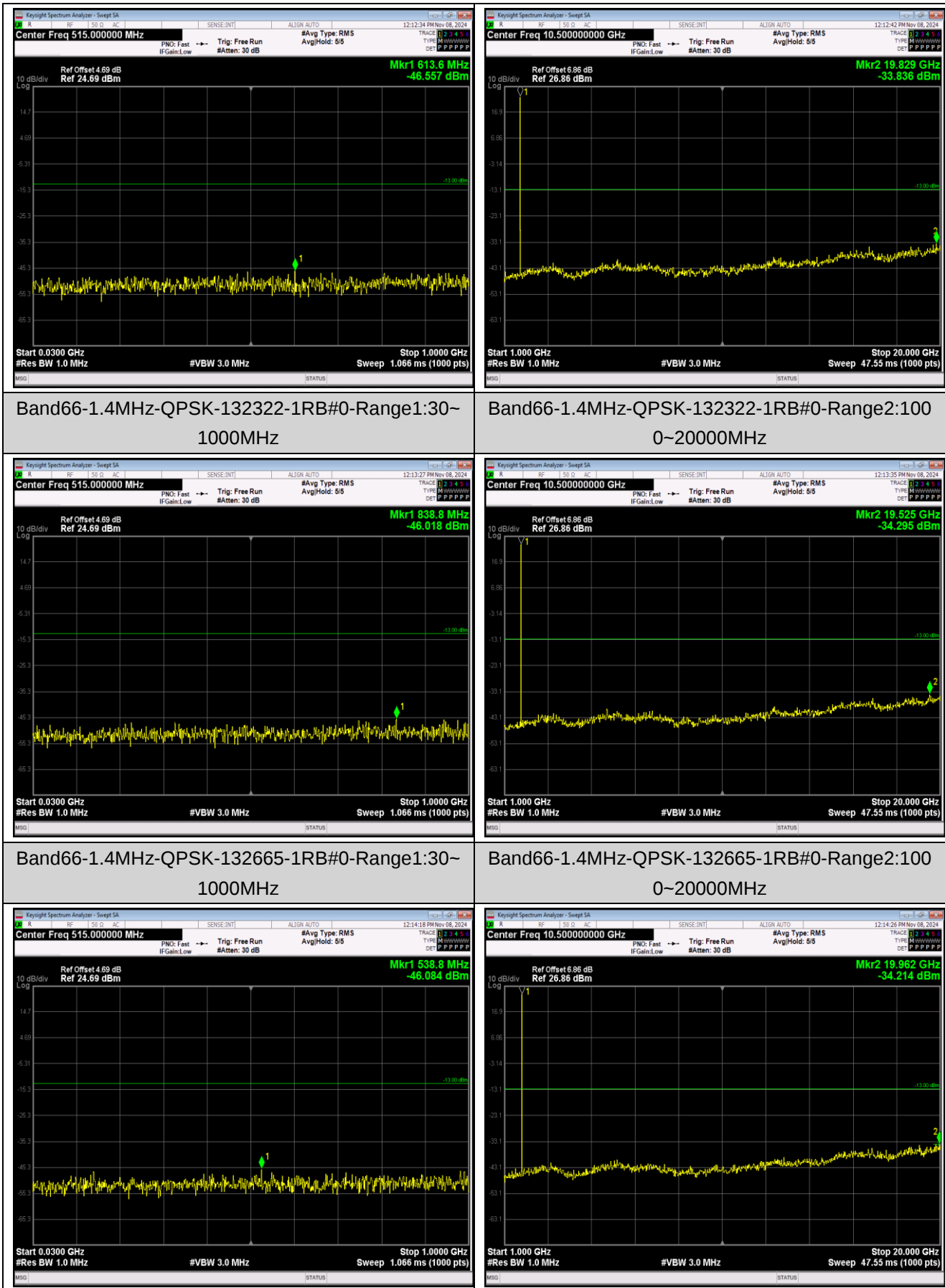


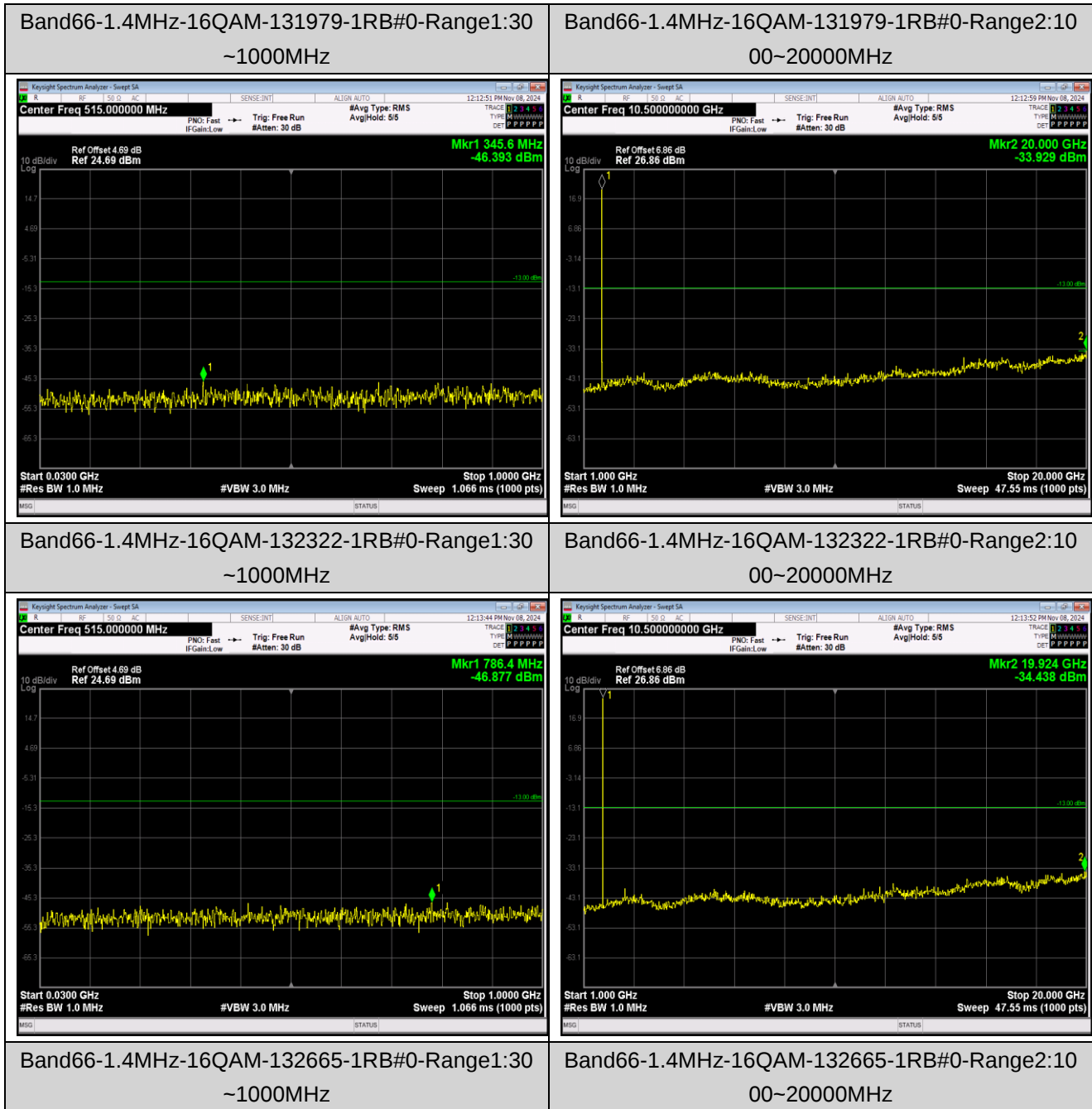


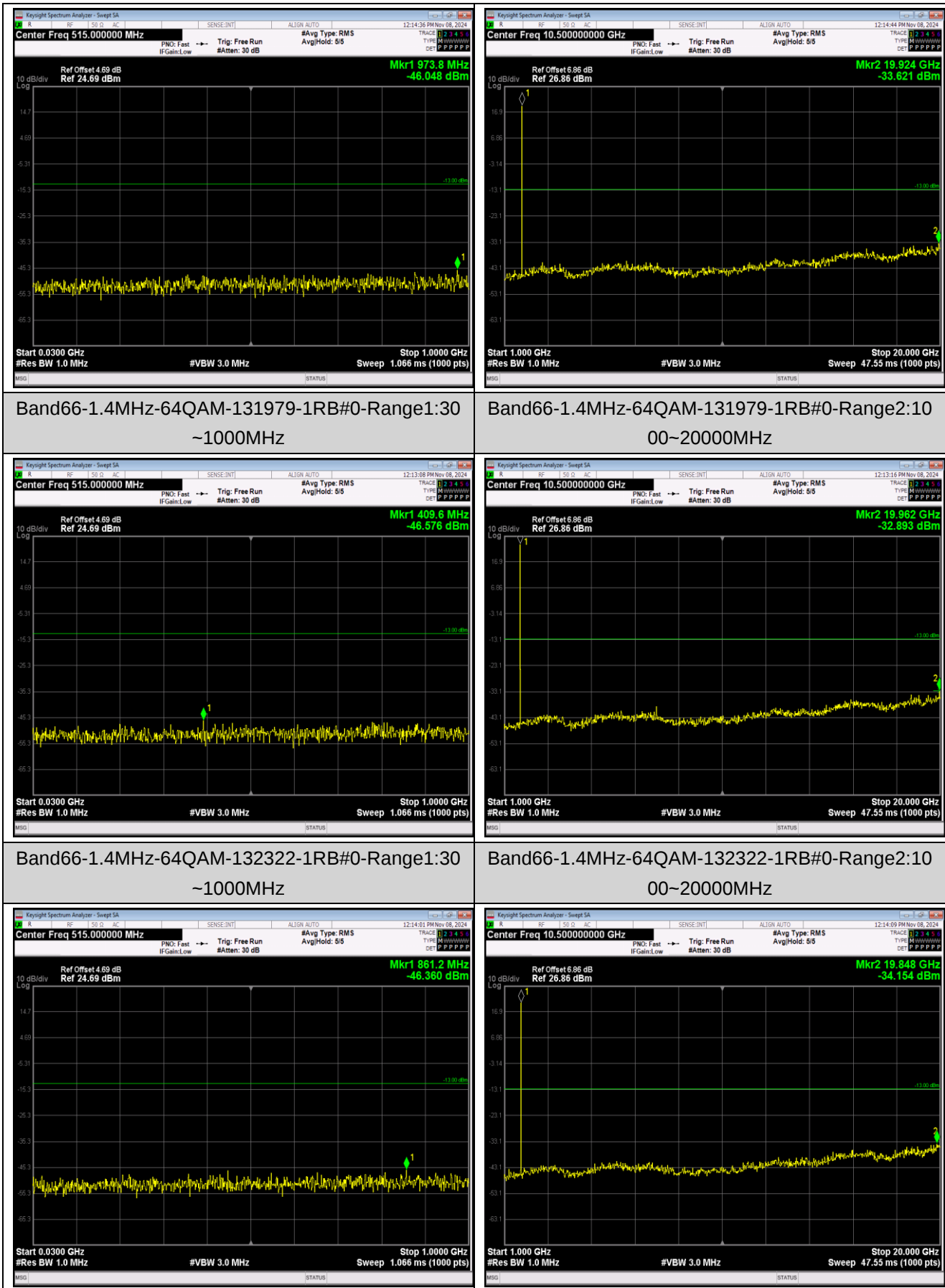


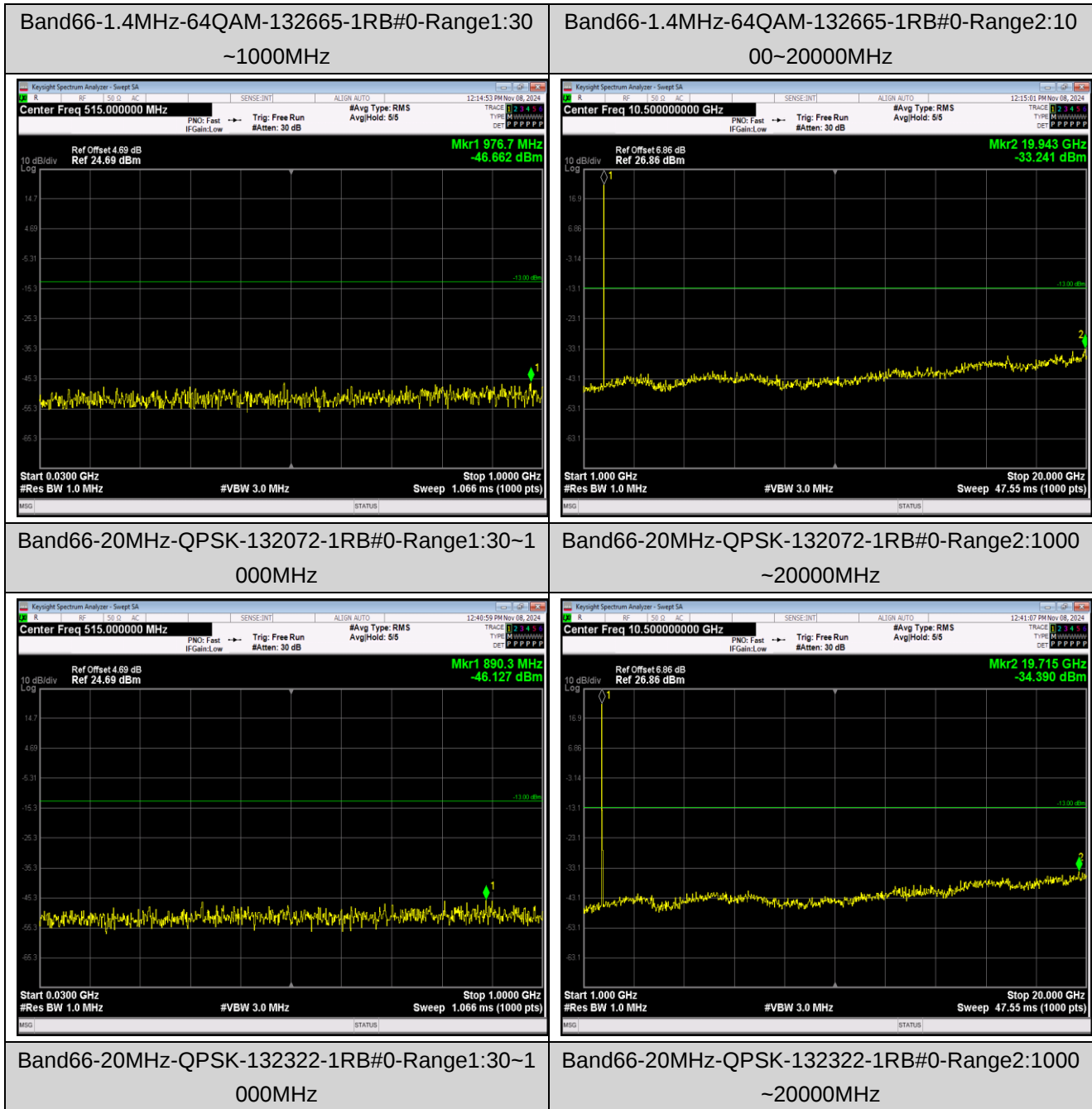


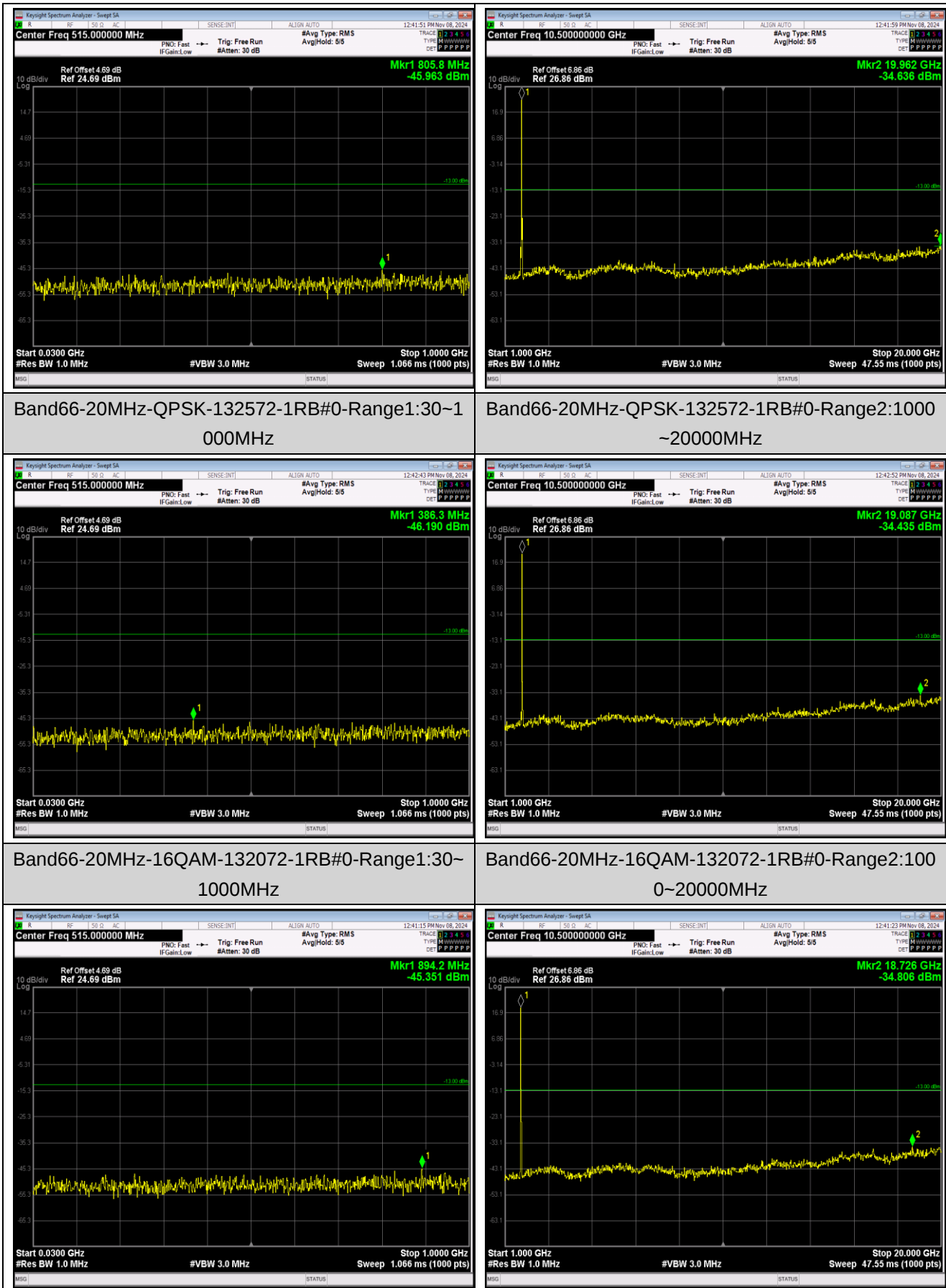


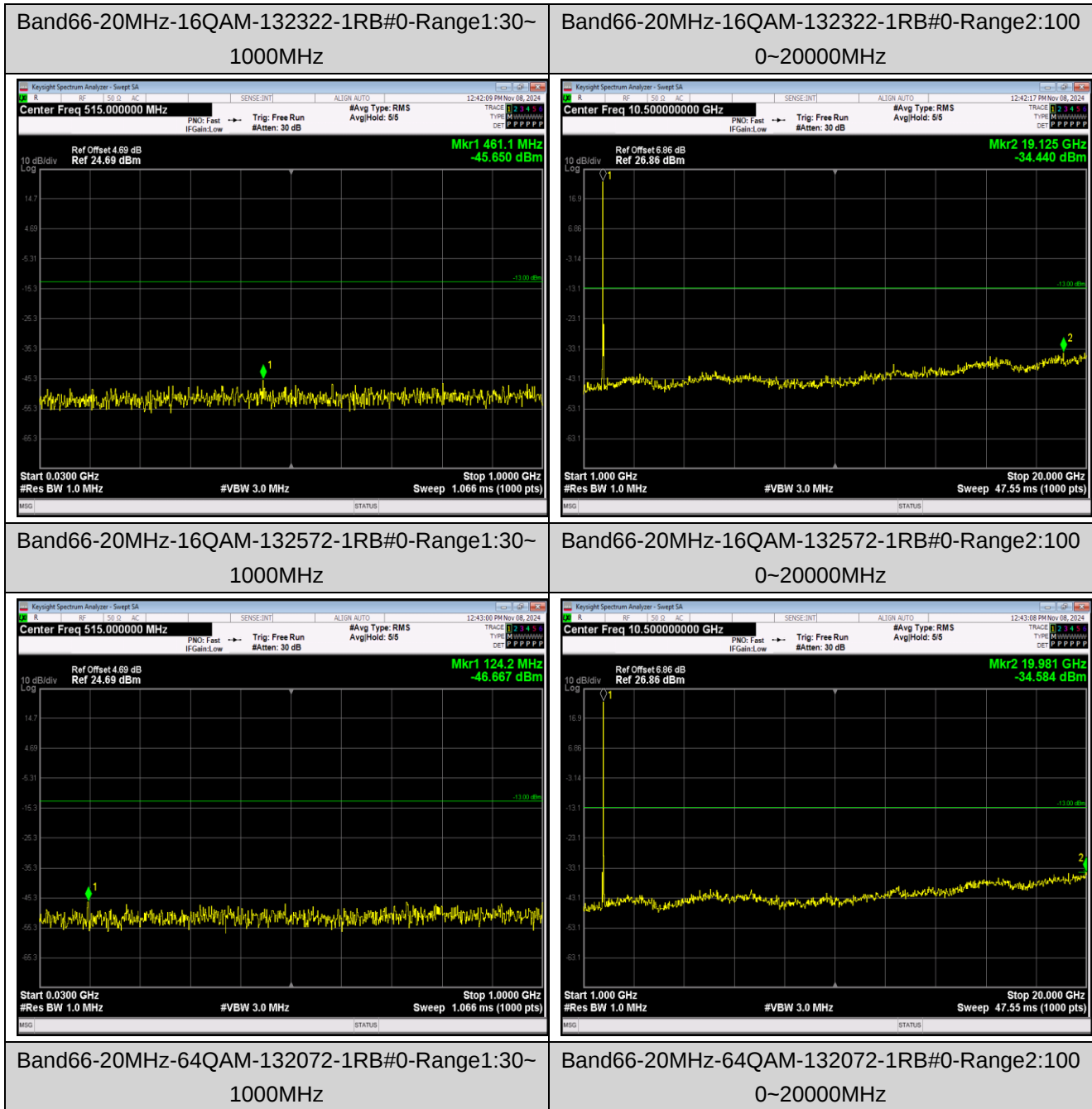


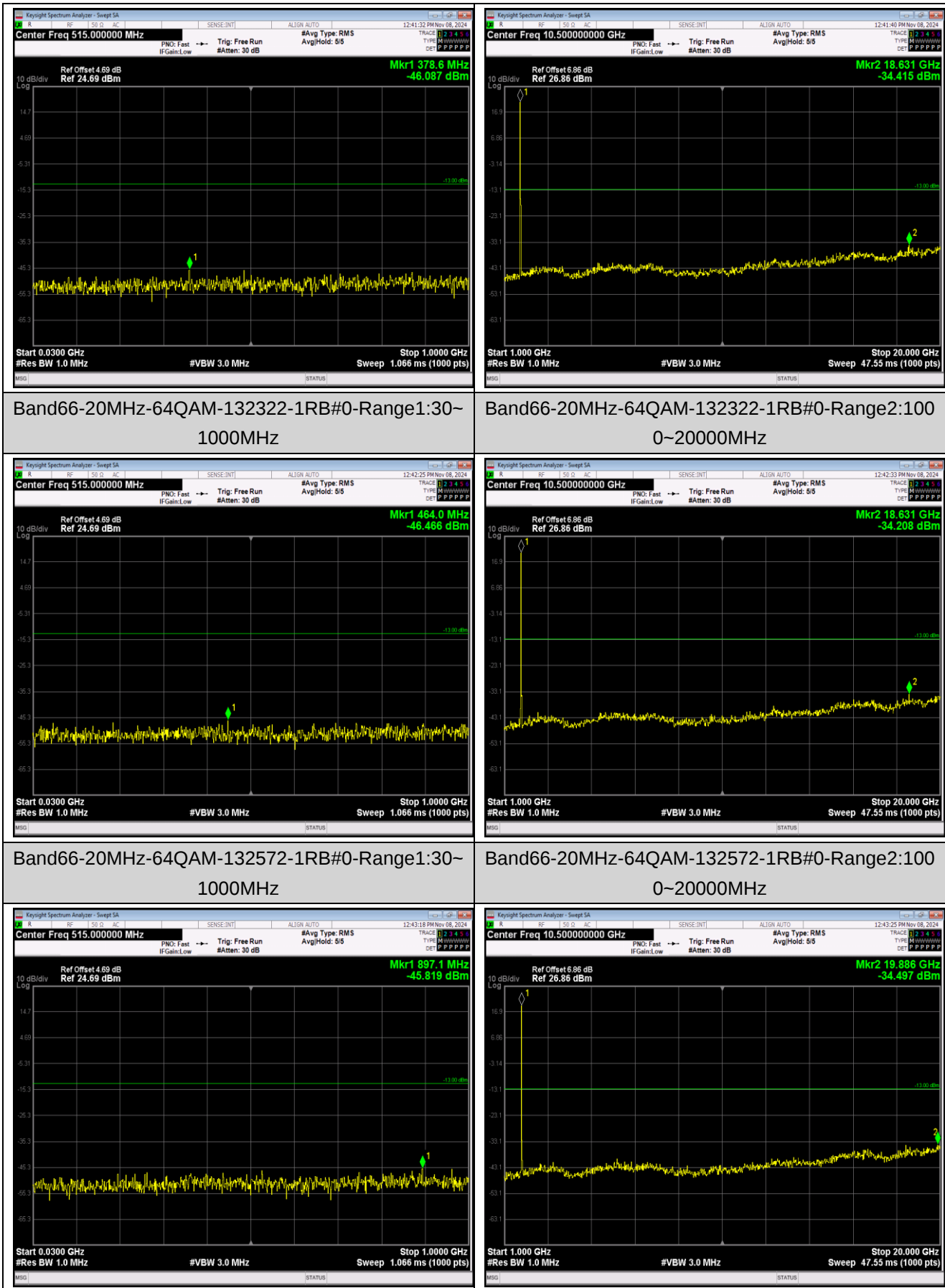












Appendix F: Frequency Stability

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	23.89	0.009424	Within authorized band for Band 7	Pass
	-20	18.63	0.007349		
	-10	14.22	0.005609		
	0	-34.88	-0.013759		
	10	-17.80	-0.007022		
	20	-23.29	-0.009187		
	30	-20.26	-0.007992		
	40	22.20	0.008757		
	50	-11.00	-0.004339		
16QAM					
3.87	-30	-22.09	-0.008714	Within authorized band for Band 7	Pass
	-20	-17.38	-0.006856		
	-10	7.62	0.003006		
	0	-15.25	-0.006016		
	10	-26.38	-0.010406		
	20	16.67	0.006576		
	30	17.85	0.007041		
	40	15.36	0.006059		
	50	-18.01	-0.007105		
64QAM					
3.87	-30	16.22	0.006398	Within authorized band for Band 7	Pass
	-20	-19.28	-0.007606		
	-10	-20.10	-0.007929		
	0	-35.09	-0.013842		
	10	-24.46	-0.009649		
	20	-13.76	-0.005428		
	30	-16.59	-0.006544		
	40	-18.20	-0.007179		
	50	-9.31	-0.003673		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	-24.18	-0.009538	Within authorized band for Band 7	Pass
	3.87	-19.43	-0.007665		
	4.45	-27.17	-0.010718		
16QAM					
25	3.00	6.28	0.002477	Within authorized band for Band 7	Pass
	3.87	-14.51	-0.005724		
	4.45	-15.08	-0.005949		
64QAM					
25	3.00	-21.31	-0.008406	Within authorized band for Band 7	Pass
	3.87	-21.11	-0.008327		
	4.45	-16.89	-0.006663		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 12 part:

Reference Frequency: LTE Band 12(10MHz) Middle channel=23095 Frequency=707.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-13.85	-0.019576	Within authorized band for Band 12	Pass
	-20	-8.61	-0.012170		
	-10	-9.64	-0.013625		
	0	-7.34	-0.010375		
	10	-3.72	-0.005258		
	20	-3.22	-0.004551		
	30	-13.00	-0.018375		
	40	-4.86	-0.006869		
	50	-2.42	-0.003420		
16QAM					
3.87	-30	-7.87	-0.011124	Within authorized band for Band 12	Pass
	-20	-7.21	-0.010191		
	-10	-2.95	-0.004170		
	0	-11.34	-0.016028		
	10	-2.92	-0.004127		
	20	-6.15	-0.008693		
	30	-10.56	-0.014926		
	40	-4.26	-0.006021		
	50	-14.09	-0.019915		
64QAM					
3.87	-30	-2.98	-0.004212	Within authorized band for Band 12	Pass
	-20	-11.80	-0.016678		
	-10	-12.43	-0.017569		
	0	-10.29	-0.014544		
	10	-7.51	-0.010615		
	20	-6.88	-0.009724		
	30	-4.08	-0.005767		
	40	-11.00	-0.015548		
	50	-8.93	-0.012622		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	-10.04	-0.014191	Within authorized band for Band 12	Pass
	3.87	-10.84	-0.015322		
	4.45	-10.99	-0.015534		
16QAM					
25	3.00	-7.80	-0.011025	Within authorized band for Band 12	Pass
	3.87	-8.98	-0.012693		
	4.45	-3.65	-0.005159		
64QAM					
25	3.00	-9.01	-0.012735	Within authorized band for Band 12	Pass
	3.87	-14.53	-0.020537		
	4.45	-4.09	-0.005781		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 25 part:

Reference Frequency: LTE Band 25(10MHz) Middle channel=26365 Frequency=1882.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-14.51	-0.007708	Within authorized band for Band 25	Pass
	-20	-12.23	-0.006497		
	-10	-15.02	-0.007979		
	0	-17.52	-0.009307		
	10	-17.95	-0.009535		
	20	-18.05	-0.009588		
	30	-2.89	-0.001535		
	40	-12.15	-0.006454		
	50	-18.75	-0.009960		
16QAM					
3.87	-30	-11.54	-0.006130	Within authorized band for Band 25	Pass
	-20	-14.98	-0.007958		
	-10	-16.97	-0.009015		
	0	-19.05	-0.010120		
	10	-5.92	-0.003145		
	20	-4.49	-0.002385		
	30	3.48	0.001849		
	40	-18.10	-0.009615		
	50	-16.94	-0.008999		
64QAM					
3.87	-30	-9.88	-0.005248	Within authorized band for Band 25	Pass
	-20	-13.32	-0.007076		
	-10	-10.61	-0.005636		
	0	-14.31	-0.007602		
	10	-6.15	-0.003267		
	20	2.40	0.001275		
	30	-12.85	-0.006826		
	40	-8.43	-0.004478		
	50	-4.02	-0.002135		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	-11.10	-0.005896	Within authorized band for Band 25	Pass
	3.87	-18.63	-0.009896		
	4.45	-13.65	-0.007251		
16QAM					
25	3.00	-4.26	-0.002263	Within authorized band for Band 25	Pass
	3.87	5.38	0.002858		
	4.45	-12.30	-0.006534		
64QAM					
25	3.00	-10.46	-0.005556	Within authorized band for Band 25	Pass
	3.87	-15.29	-0.008122		
	4.45	-12.16	-0.006459		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 26 part:

Reference Frequency: LTE Band 26(10MHz) Middle channel=26740 Frequency=819.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-8.55	-0.010440	Within authorized band for Band 26	Pass
	-20	-11.94	-0.014579		
	-10	-8.96	-0.010940		
	0	-8.11	-0.009902		
	10	-9.31	-0.011368		
	20	-8.11	-0.009902		
	30	-2.40	-0.002930		
	40	-9.01	-0.011001		
	50	-5.05	-0.006166		
16QAM					
3.87	-30	-7.81	-0.009536	Within authorized band for Band 26	Pass
	-20	-8.28	-0.010110		
	-10	-7.04	-0.008596		
	0	-6.25	-0.007631		
	10	-4.16	-0.005079		
	20	-12.60	-0.015385		
	30	-12.95	-0.015812		
	40	-11.04	-0.013480		
	50	-8.57	-0.010464		
64QAM					
3.87	-30	-13.89	-0.016960	Within authorized band for Band 26	Pass
	-20	-8.98	-0.010965		
	-10	-10.90	-0.013309		
	0	-9.24	-0.011282		
	10	-11.53	-0.014078		
	20	-10.53	-0.012857		
	30	-5.28	-0.006447		
	40	-9.63	-0.011758		
	50	-8.07	-0.009853		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	-6.34	-0.007741	Within authorized band for Band 26	Pass
	3.87	-9.83	-0.012002		
	4.45	-11.73	-0.014322		
16QAM					
25	3.00	-10.41	-0.012711	Within authorized band for Band 26	Pass
	3.87	-13.18	-0.016093		
	4.45	-12.90	-0.015751		
64QAM					
25	3.00	-11.47	-0.014005	Within authorized band for Band 26	Pass
	3.87	-10.09	-0.012320		
	4.45	-14.51	-0.017717		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 26 part:

Reference Frequency: LTE Band 26(10MHz) Middle channel=26915 Frequency=836.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-11.60	-0.013867	Within authorized band for Band 26	Pass
	-20	-7.68	-0.009181		
	-10	-12.15	-0.014525		
	0	-9.16	-0.010950		
	10	-11.01	-0.013162		
	20	-8.38	-0.010018		
	30	-7.48	-0.008942		
	40	-9.74	-0.011644		
	50	-7.80	-0.009325		
16QAM					
3.87	-30	-9.70	-0.011596	Within authorized band for Band 26	Pass
	-20	-11.00	-0.013150		
	-10	-11.72	-0.014011		
	0	-11.90	-0.014226		
	10	-11.39	-0.013616		
	20	-9.91	-0.011847		
	30	-8.48	-0.010137		
	40	-9.53	-0.011393		
	50	-11.66	-0.013939		
64QAM					
3.87	-30	-9.37	-0.011201	Within authorized band for Band 26	Pass
	-20	-11.49	-0.013736		
	-10	-10.21	-0.012206		
	0	-7.80	-0.009325		
	10	-13.02	-0.015565		
	20	-6.21	-0.007424		
	30	-9.56	-0.011429		
	40	-13.07	-0.015625		
	50	-5.91	-0.007065		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	-5.65	-0.006754	Within authorized band for Band 26	Pass
	3.87	-11.07	-0.013234		
	4.45	-7.32	-0.008751		
16QAM					
25	3.00	-10.57	-0.012636	Within authorized band for Band 26	Pass
	3.87	-8.11	-0.009695		
	4.45	-9.68	-0.011572		
64QAM					
25	3.00	-12.30	-0.014704	Within authorized band for Band 26	Pass
	3.87	-10.39	-0.012421		
	4.45	-10.56	-0.012624		
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					
3.87	-30	-10.71	-0.004127	Within authorized band for Band 41	Pass
	-20	-13.90	-0.005356		
	-10	-15.99	-0.006162		
	0	-21.17	-0.008158		
	10	5.18	0.001996		
	20	-12.04	-0.004640		
	30	-4.38	-0.001688		
	40	-15.89	-0.006123		
	50	-15.35	-0.005915		
16QAM					
3.87	-30	-21.92	-0.008447	Within authorized band for Band 41	Pass
	-20	-15.35	-0.005915		
	-10	-13.03	-0.005021		
	0	-19.37	-0.007464		
	10	-15.11	-0.005823		
	20	-14.26	-0.005495		
	30	-16.08	-0.006197		
	40	-5.12	-0.001973		
	50	-20.38	-0.007854		
64QAM					
3.87	-30	-10.06	-0.003877	Within authorized band for Band 41	Pass
	-20	-23.35	-0.008998		
	-10	-20.67	-0.007965		
	0	-18.90	-0.007283		
	10	-23.36	-0.009002		
	20	-21.40	-0.008247		
	30	-18.44	-0.007106		
	40	-18.65	-0.007187		
	50	-7.24	-0.002790		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	-15.55	-0.005992	Within authorized band for Band 41	Pass
	3.87	-18.61	-0.007171		
	4.45	5.81	0.002239		
16QAM					
25	3.00	-14.88	-0.005734	Within authorized band for Band41	Pass
	3.87	-22.60	-0.008709		
	4.45	-18.31	-0.007056		
64QAM					
25	3.00	-19.14	-0.007376	Within authorized band for Band41	Pass
	3.87	-10.57	-0.004073		
	4.45	-19.64	-0.007568		
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					
3.87	-30	-9.74	-0.005582	Within authorized band for Band 66	Pass
	-20	-12.96	-0.007427		
	-10	-16.01	-0.009175		
	0	-12.26	-0.007026		
	10	-13.83	-0.007926		
	20	-12.85	-0.007364		
	30	-16.55	-0.009484		
	40	-12.76	-0.007312		
	50	2.90	0.001662		
16QAM					
3.87	-30	-14.36	-0.008229	Within authorized band for Band 66	Pass
	-20	-13.22	-0.007576		
	-10	-13.22	-0.007576		
	0	-11.69	-0.006699		
	10	-13.39	-0.007673		
	20	-11.43	-0.006550		
	30	6.12	0.003507		
	40	-5.46	-0.003129		
	50	-11.89	-0.006814		
64QAM					
3.87	-30	-11.70	-0.006705	Within authorized band for Band 66	Pass
	-20	-14.98	-0.008585		
	-10	-11.52	-0.006602		
	0	10.46	0.005994		
	10	-11.60	-0.006648		
	20	4.89	0.002802		
	30	9.14	0.005238		
	40	-14.72	-0.008436		
	50	16.19	0.009278		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	2.63	0.001507	Within authorized band for Band 66	Pass
	3.87	4.84	0.002774		
	4.45	-11.54	-0.006613		
16QAM					
25	3.00	6.94	0.003977	Within authorized band for Band 66	Pass
	3.87	-12.79	-0.007330		
	4.45	-13.98	-0.008011		
64QAM					
25	3.00	-10.57	-0.006057	Within authorized band for Band 66	Pass
	3.87	10.81	0.006195		
	4.45	-15.81	-0.009060		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					