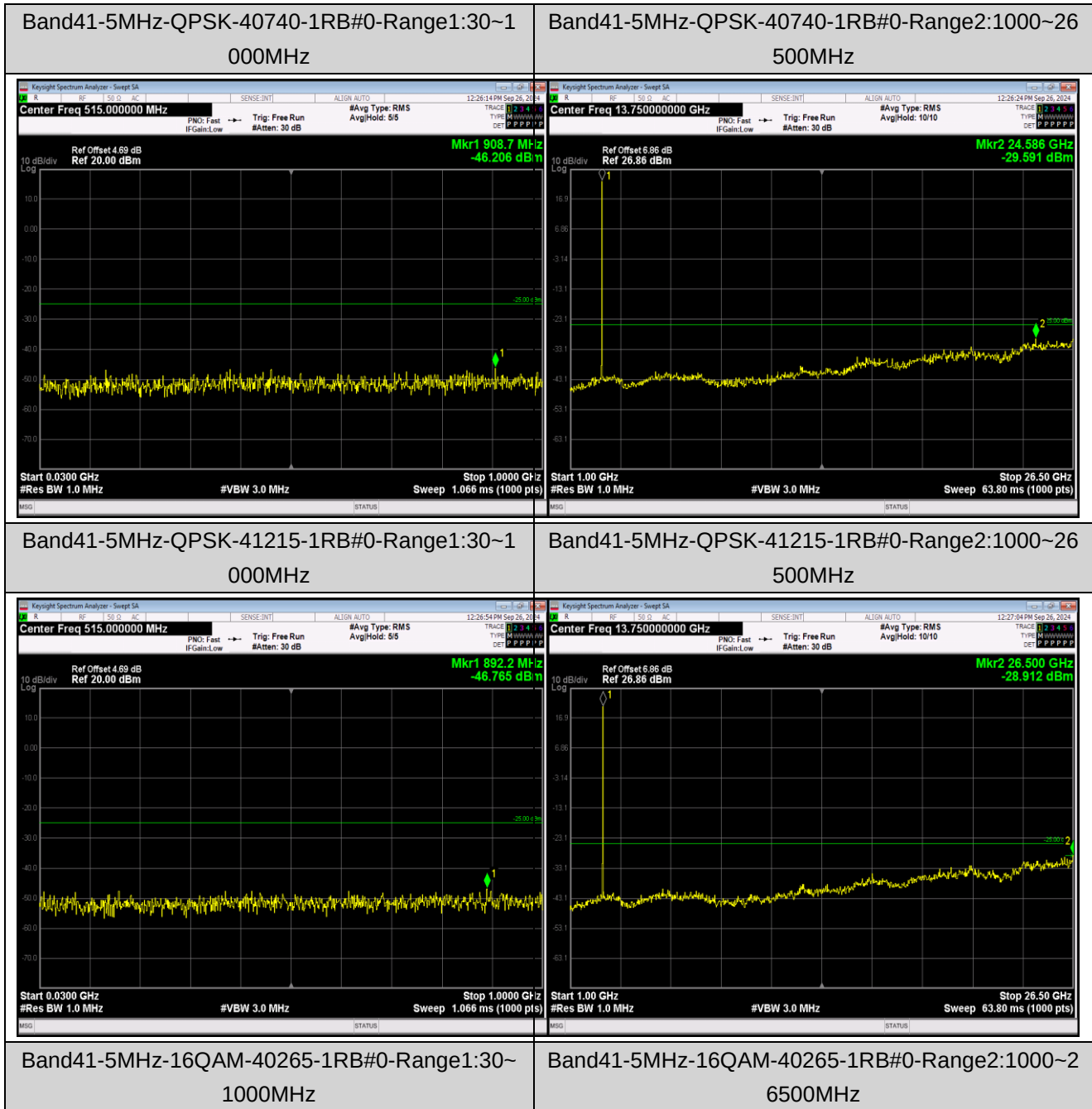
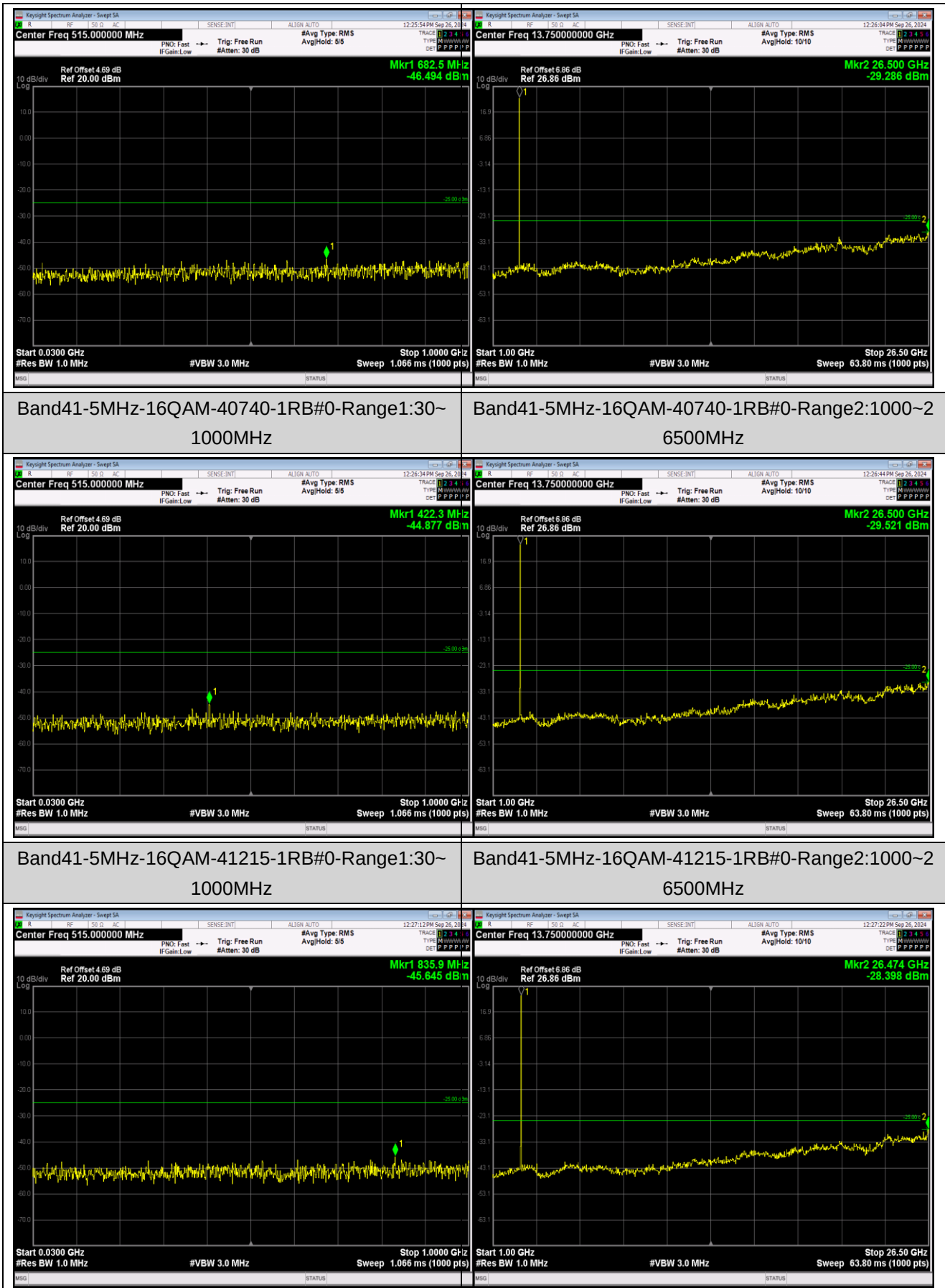
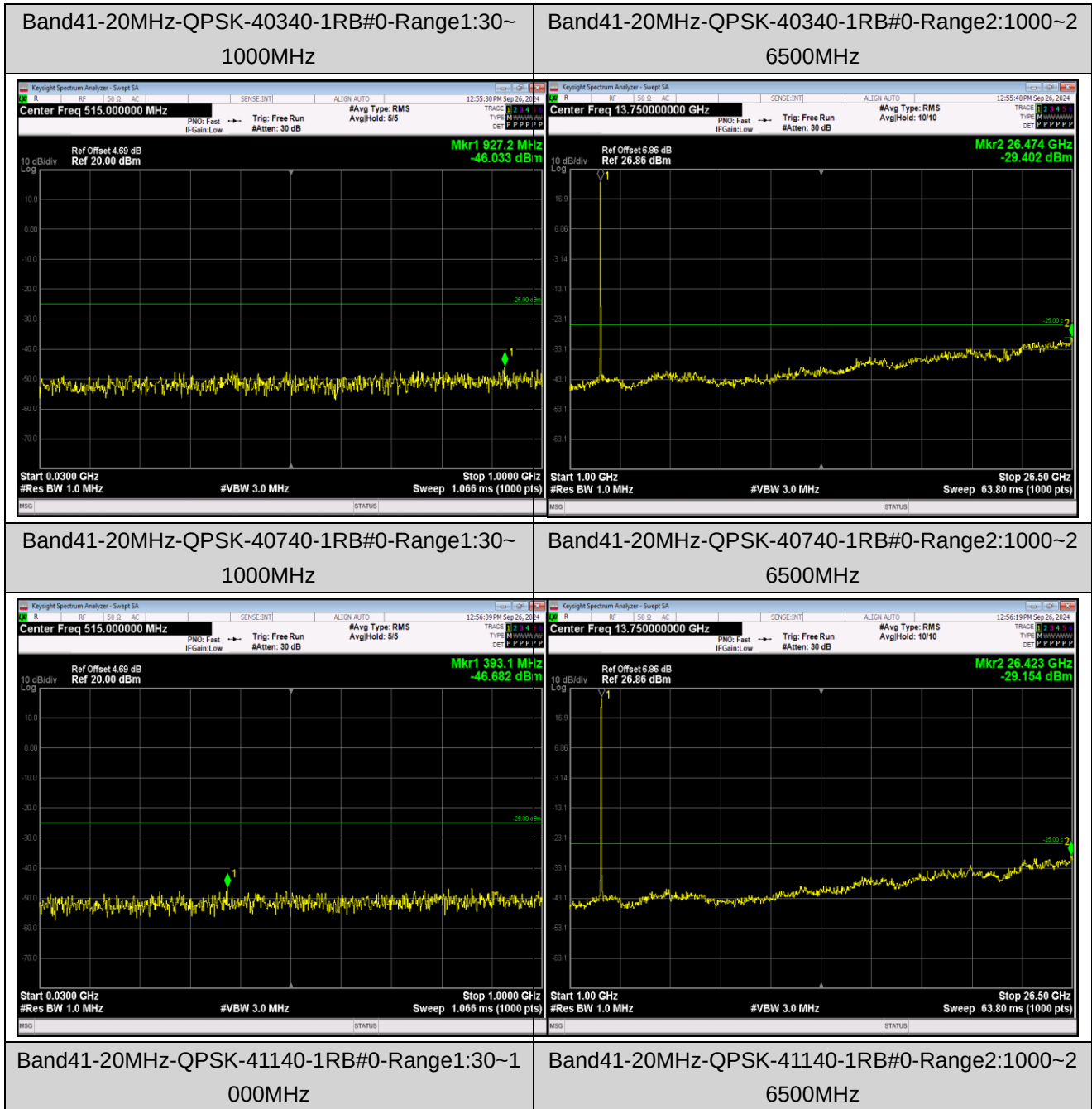
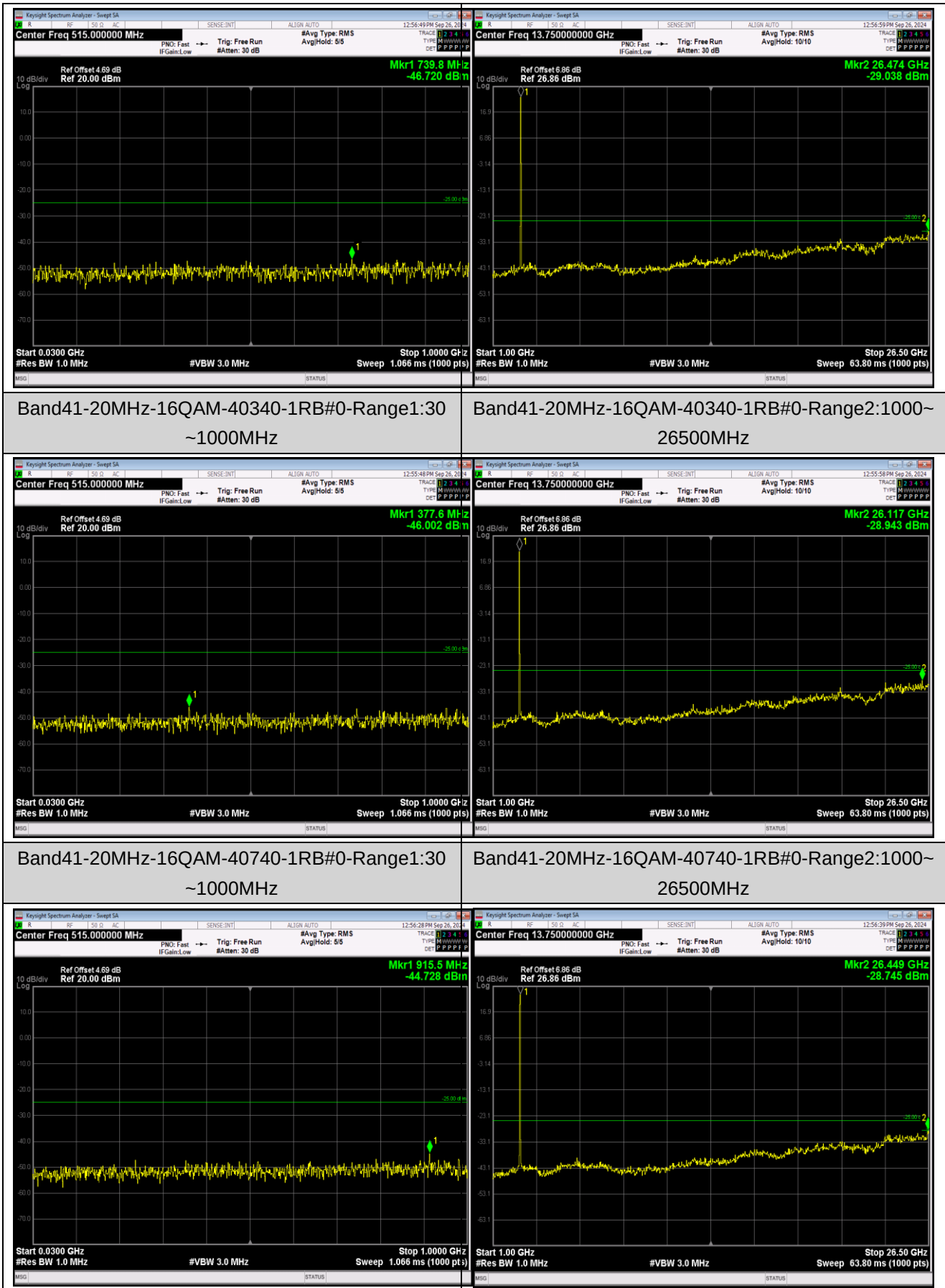
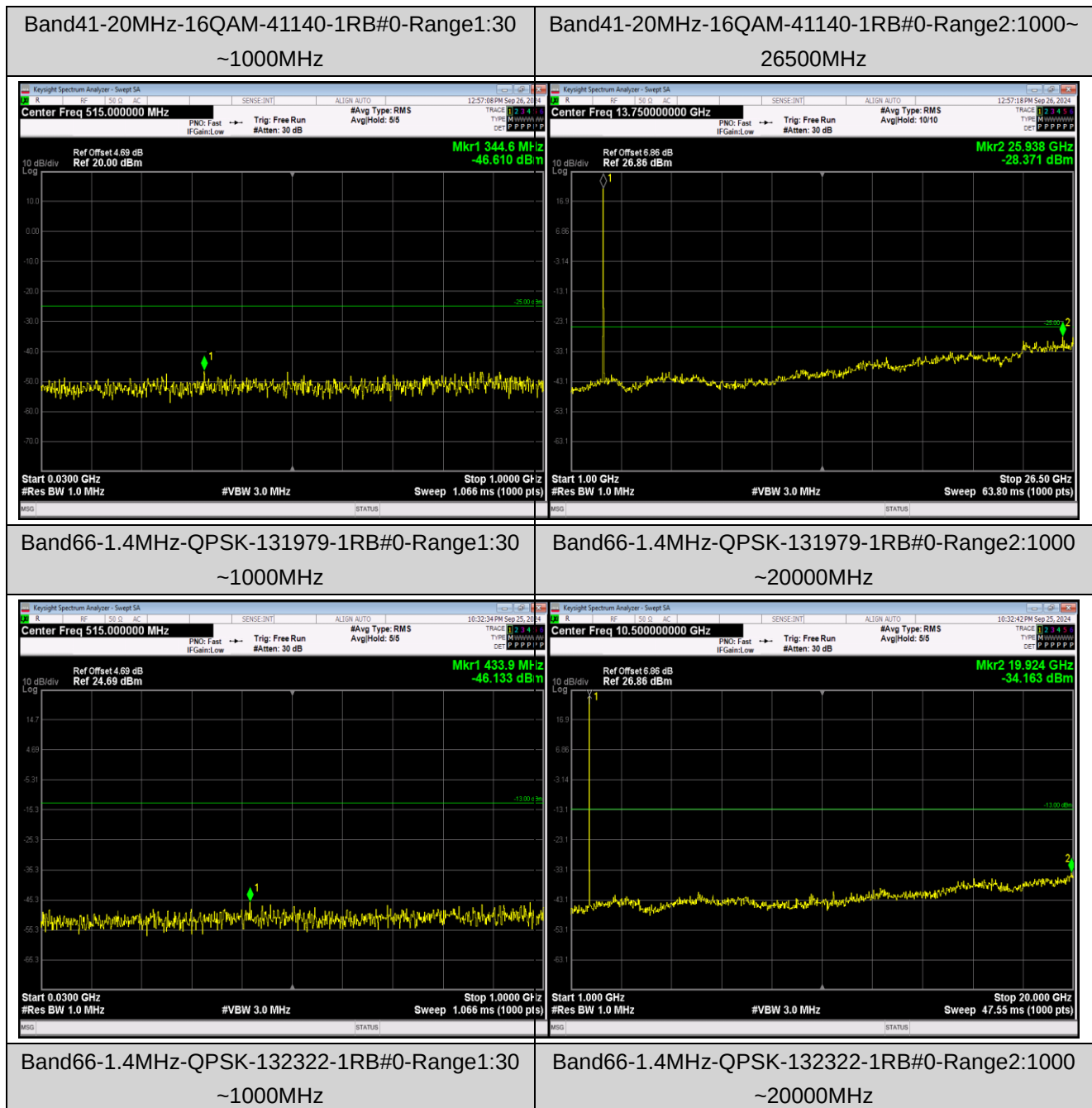


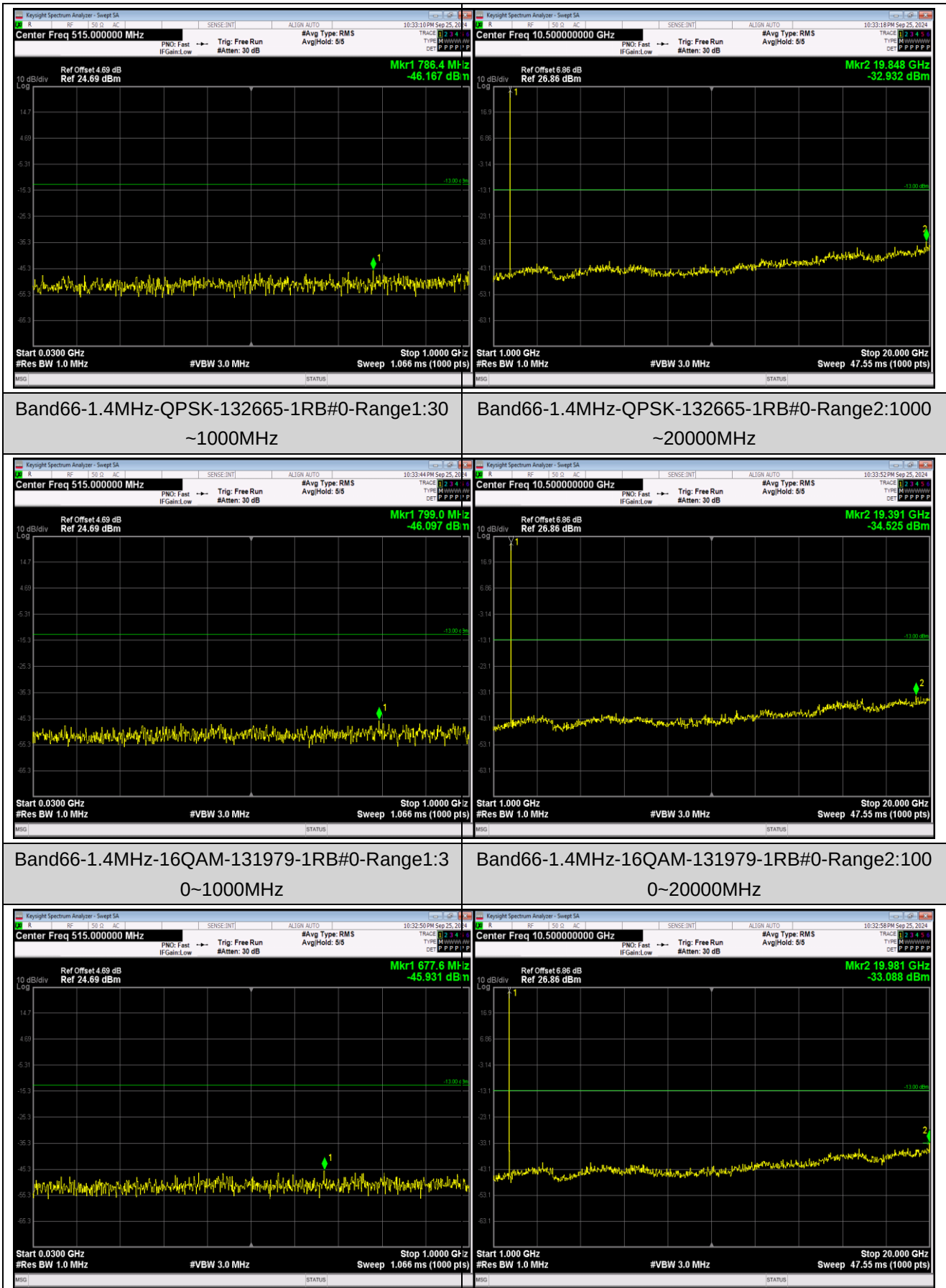


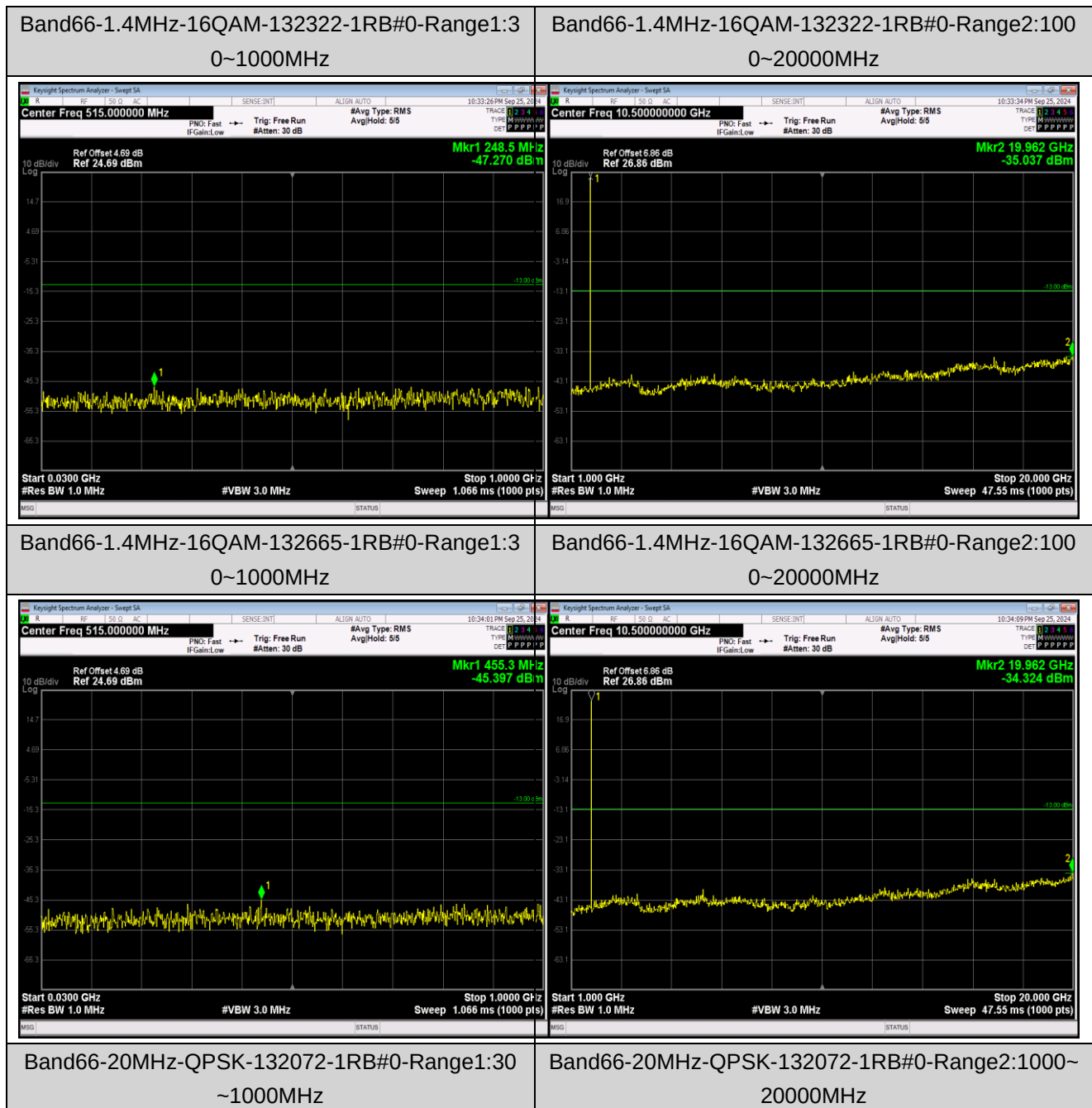


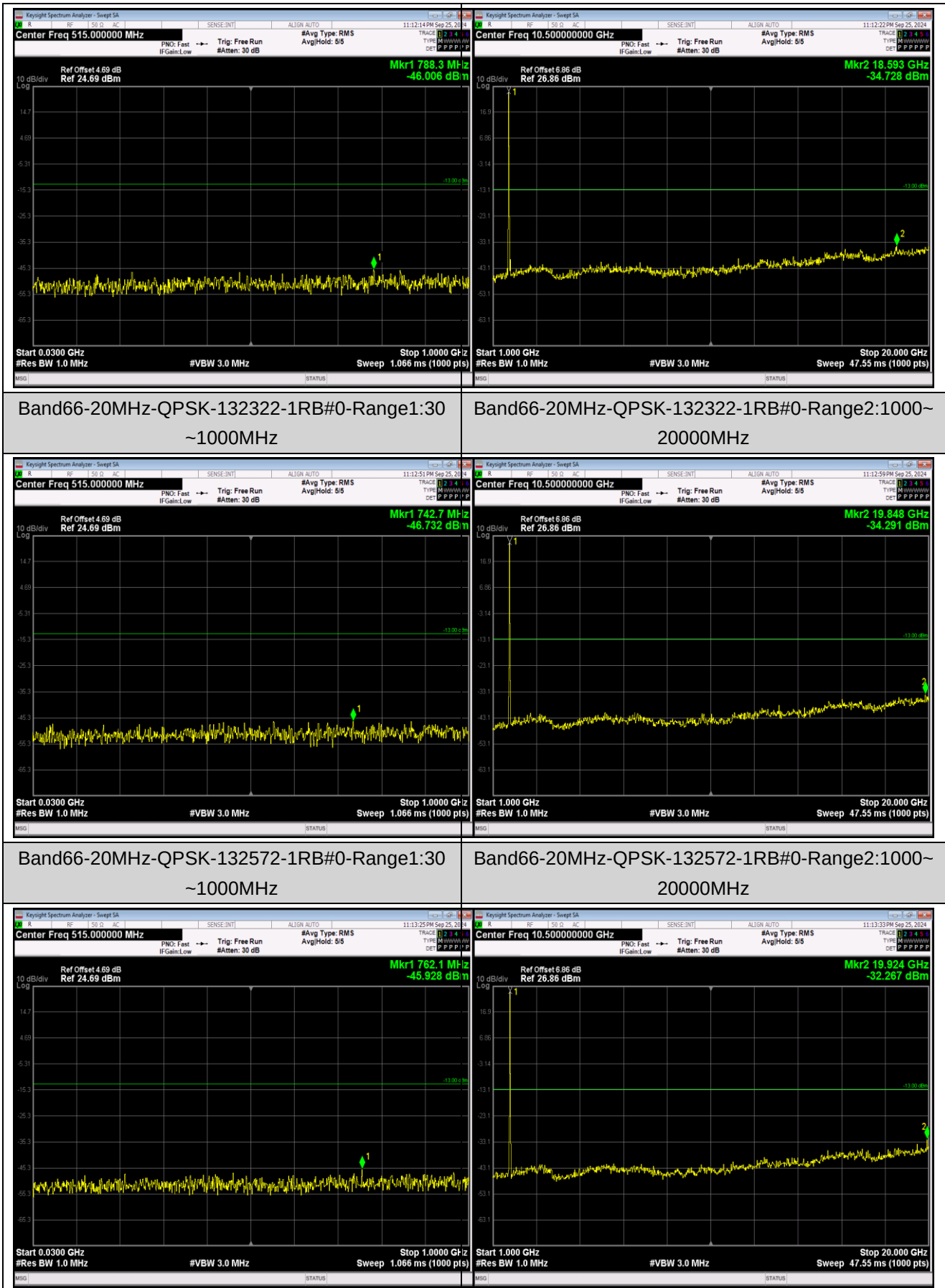


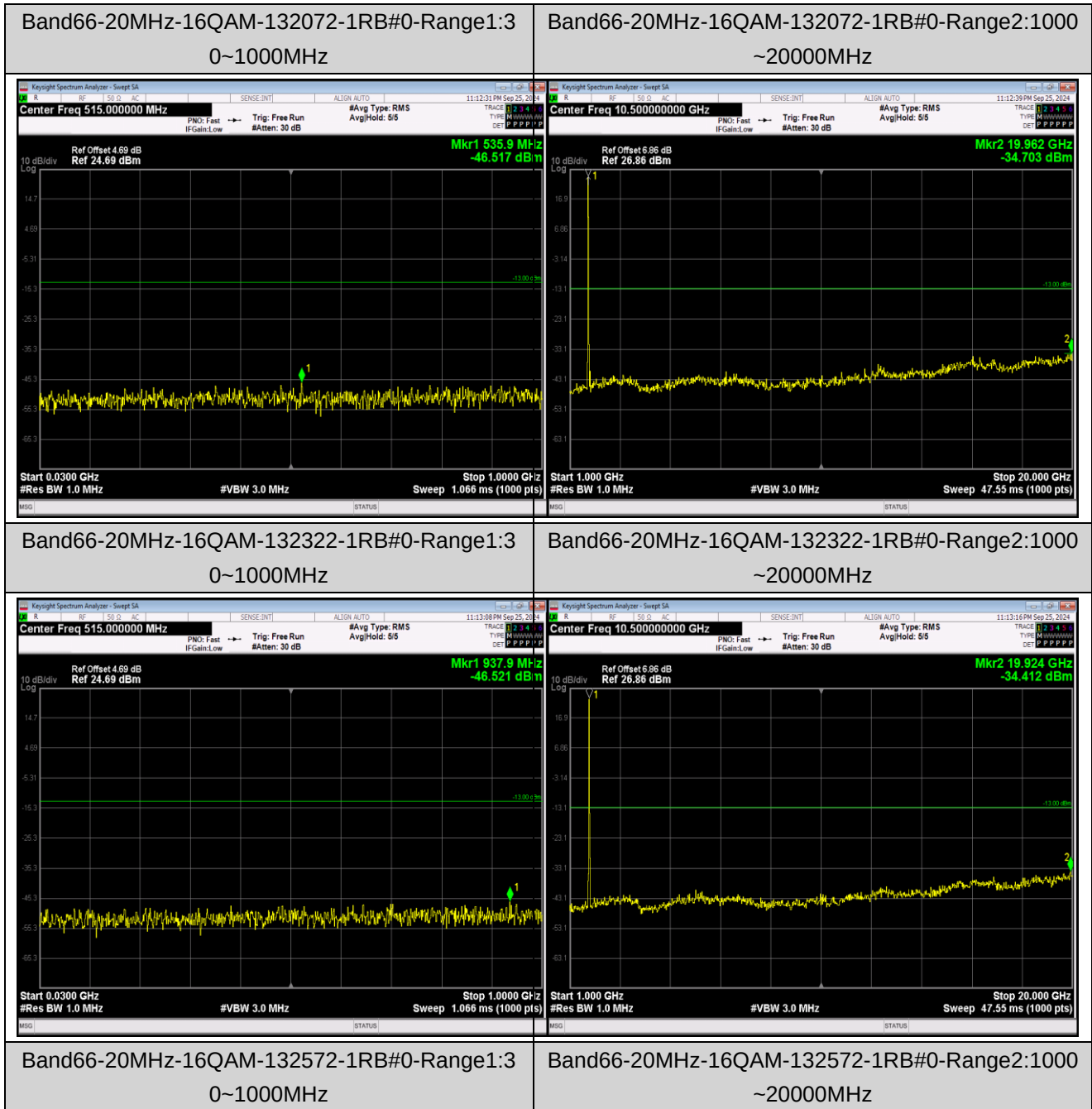


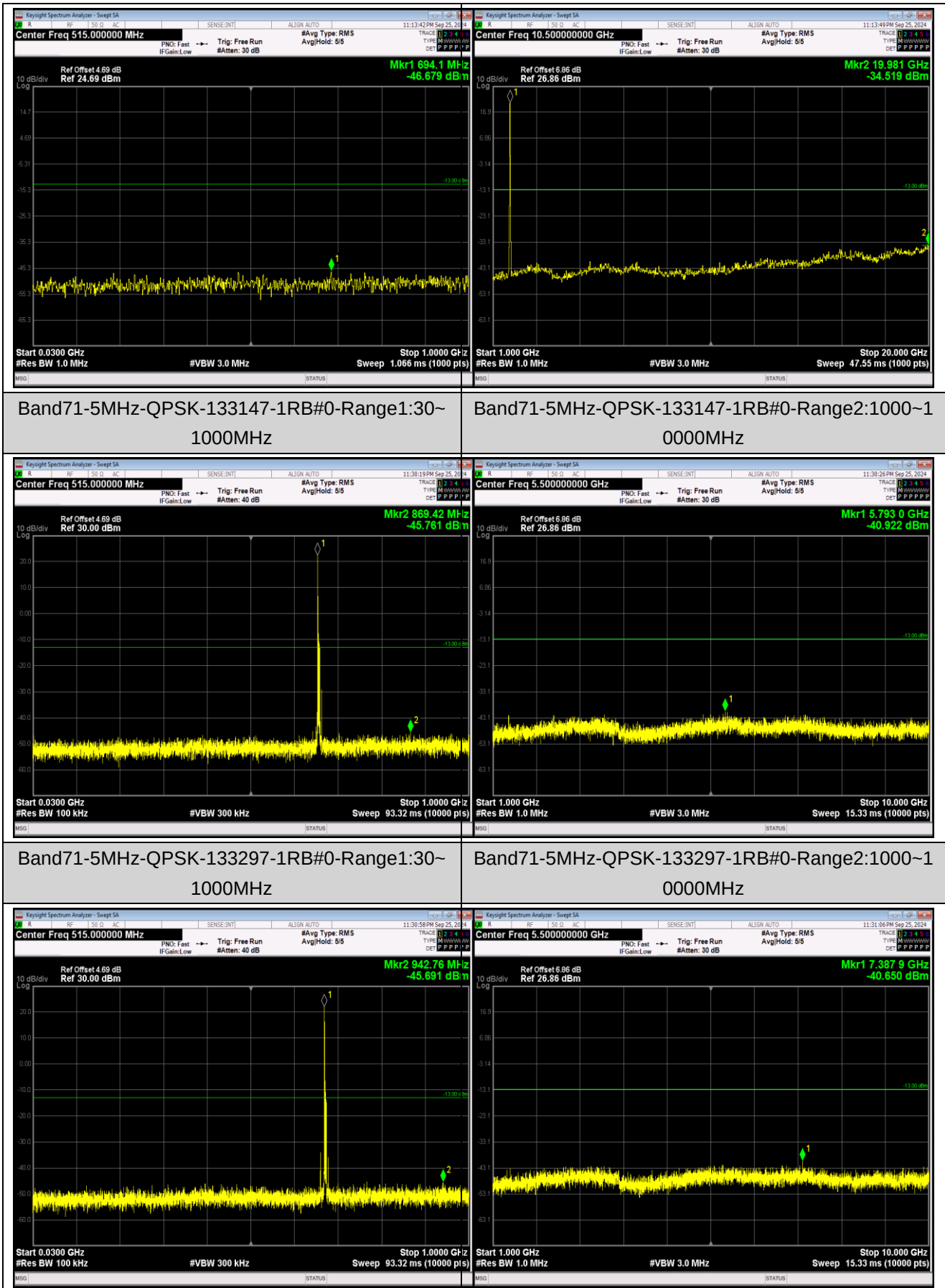


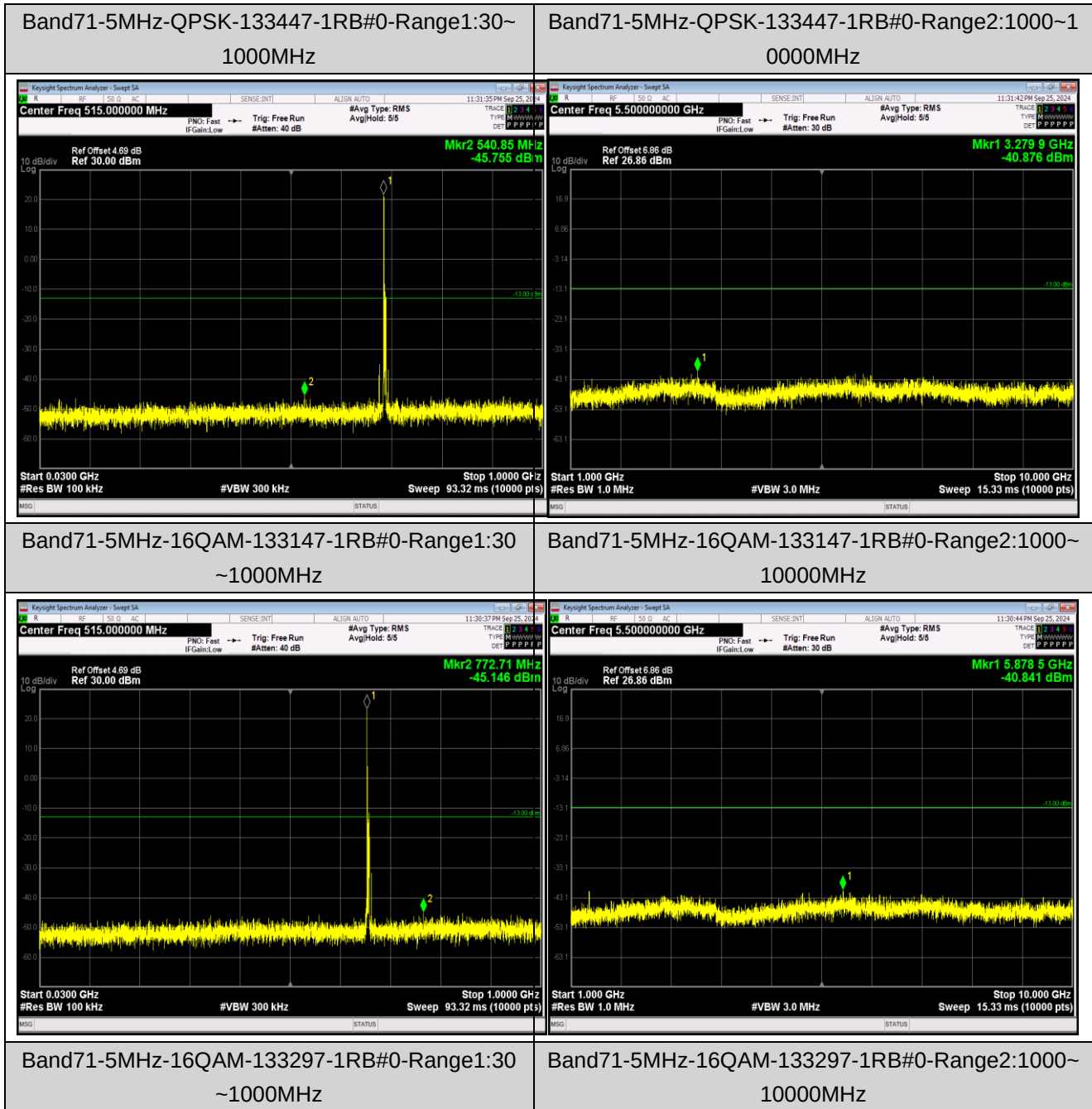


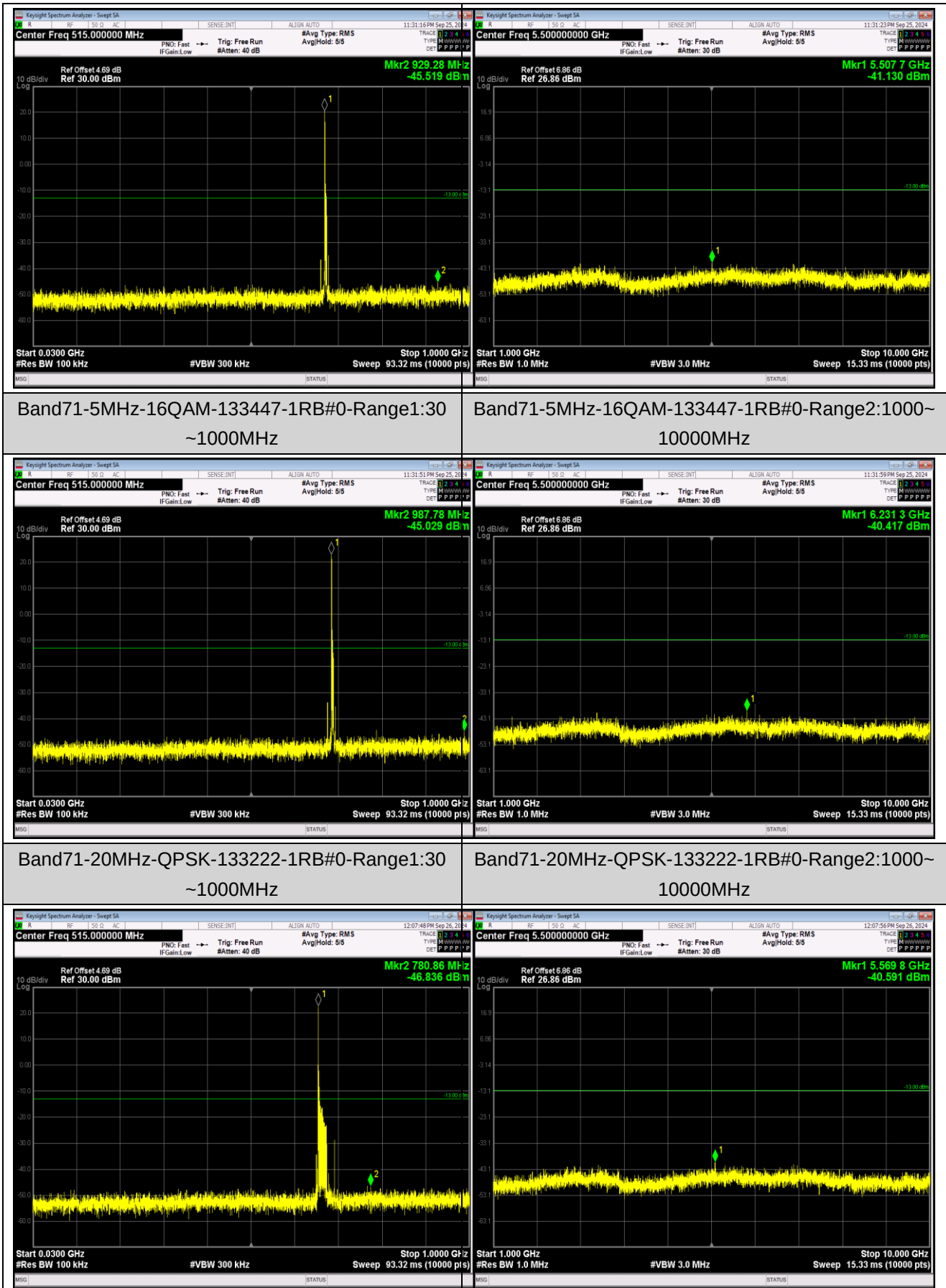


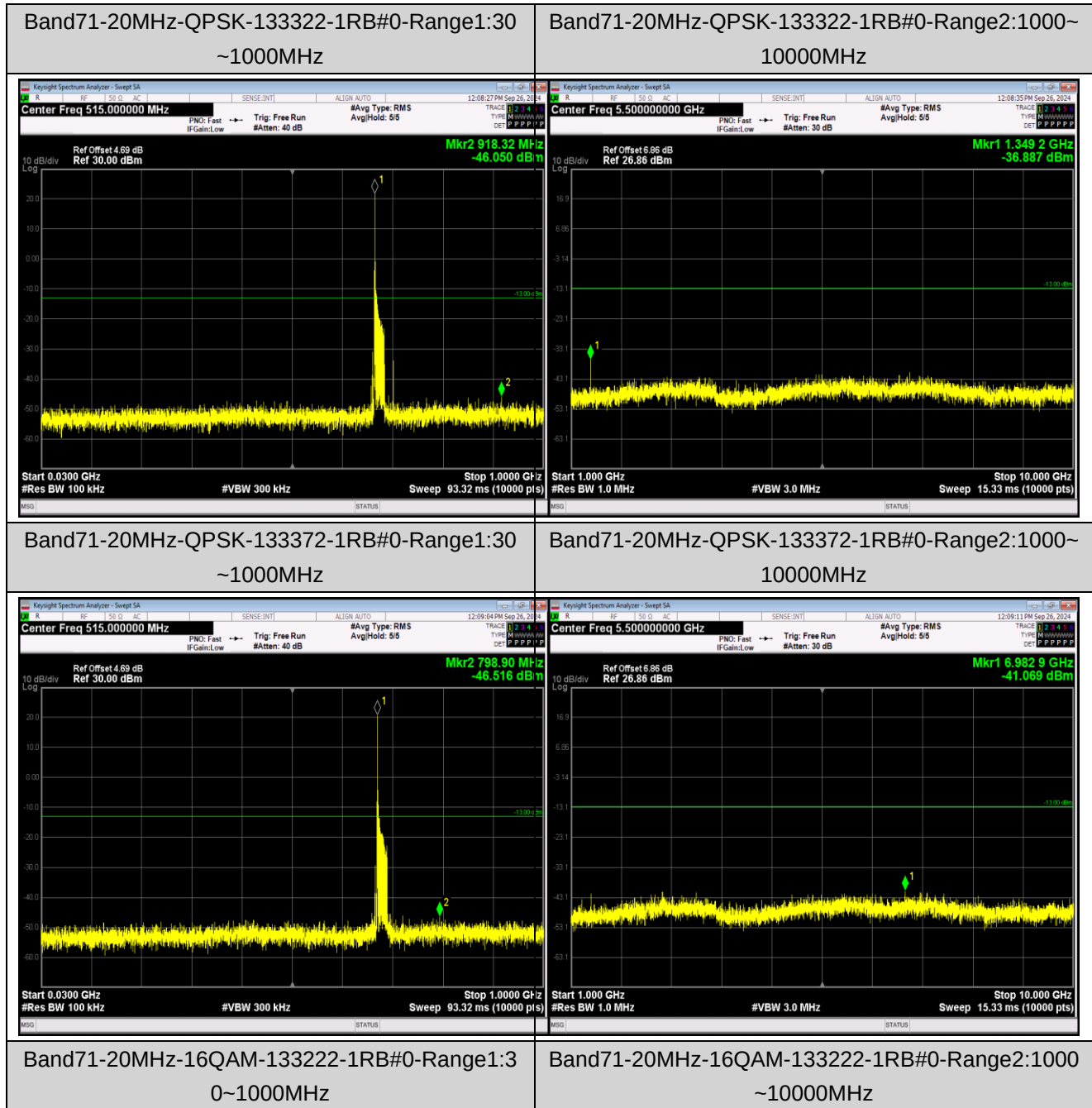


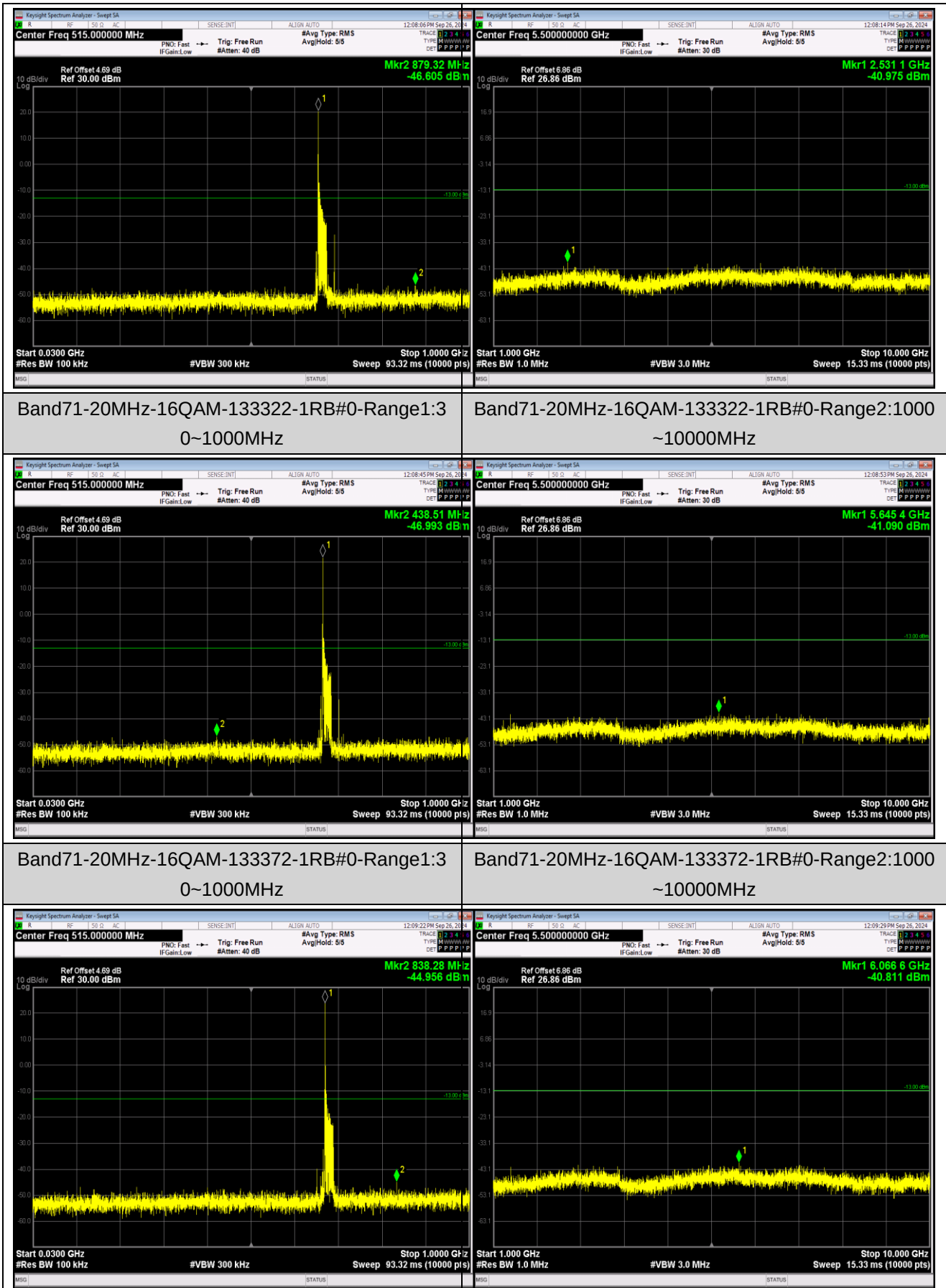












Appendix F: Frequency Stability

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					
3.85	-30	-36.72	-0.014485	Within authorized band for Band 7	Pass
	-20	-54.82	-0.021625		
	-10	-18.27	-0.007207		
	0	-28.01	-0.011049		
	10	-38.72	-0.015274		
	20	-44.73	-0.017645		
	30	-55.32	-0.021822		
	40	-28.41	-0.011207		
	50	-21.56	-0.008505		
16QAM					
3.85	-30	43.62	0.017207	Within authorized band for Band 7	Pass
	-20	26.87	0.010600		
	-10	43.20	0.017041		
	0	7.85	0.003097		
	10	28.70	0.011321		
	20	40.00	0.015779		
	30	17.62	0.006951		
	40	32.06	0.012647		
	50	45.05	0.017771		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	45.30	0.017870	Within authorized band for Band 7	Pass
	3.85	22.17	0.008746		
	4.40	-21.72	-0.008568		
16QAM					
25	3.00	-11.56	-0.004560	Within authorized band for Band 7	Pass
	3.85	-28.32	-0.011172		
	4.40	19.23	0.007586		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	44.12	0.062360	Within authorized band for Band 12	Pass
	-20	46.85	0.066219		
	-10	2.65	0.003746		
	0	4.66	0.006587		
	10	6.42	0.009074		
	20	7.61	0.010756		
	30	11.27	0.015929		
	40	11.70	0.016537		
	50	14.85	0.020989		
16QAM					
3.85	-30	39.37	0.055647	Within authorized band for Band 12	Pass
	-20	45.20	0.063887		
	-10	2.93	0.004141		
	0	9.77	0.013809		
	10	15.62	0.022078		
	20	20.11	0.028424		
	30	23.95	0.033852		
	40	29.31	0.041428		
	50	31.23	0.044141		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	35.63	0.050360	Within authorized band for Band 12	Pass
	3.85	21.60	0.030530		
	4.40	41.36	0.058459		
16QAM					
25	3.00	21.56	0.030473	Within authorized band for Band 12	Pass
	3.85	16.85	0.023816		
	4.40	30.58	0.043223		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 13 part:

Reference Frequency: LTE Band 13(10MHz) Middle channel=23230 Frequency=782.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	12.22	0.015627	Within authorized band for Band 13	Pass
	-20	4.46	0.005703		
	-10	-4.68	-0.005985		
	0	-6.72	-0.008593		
	10	-9.50	-0.012148		
	20	-12.19	-0.015588		
	30	-14.66	-0.018747		
	40	-14.82	-0.018951		
	50	-17.50	-0.022379		
16QAM					
3.85	-30	1.37	0.001752	Within authorized band for Band 13	Pass
	-20	8.40	0.010742		
	-10	16.61	0.021240		
	0	21.70	0.027749		
	10	22.02	0.028159		
	20	20.24	0.025882		
	30	12.79	0.016355		
	40	9.66	0.012353		
	50	10.64	0.013606		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	17.75	0.022698	Within authorized band for Band 13	Pass
	3.85	17.12	0.021893		
	4.40	15.76	0.020153		
16QAM					
25	3.00	-15.85	-0.020269	Within authorized band for Band 13	Pass
	3.85	-19.08	-0.024399		
	4.40	-8.96	-0.011458		
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					
3.85	-30	6.52	0.003463	Within authorized band for Band 25	Pass
	-20	-18.67	-0.009918		
	-10	-32.77	-0.017408		
	0	-45.69	-0.024271		
	10	-14.79	-0.007857		
	20	-27.98	-0.014863		
	30	-35.02	-0.018603		
	40	-39.38	-0.020919		
	50	-48.17	-0.025588		
16QAM					
3.85	-30	-11.49	-0.006104	Within authorized band for Band 25	Pass
	-20	20.86	0.011081		
	-10	30.07	0.015973		
	0	8.54	0.004537		
	10	16.71	0.008876		
	20	29.15	0.015485		
	30	40.94	0.021748		
	40	47.28	0.025116		
	50	56.16	0.029833		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	26.31	0.013976	Within authorized band for Band 25	Pass
	3.85	41.13	0.021849		
	4.40	18.41	0.009780		
16QAM					
25	3.00	-40.14	-0.021323	Within authorized band for Band 25	Pass
	3.85	-49.34	-0.026210		
	4.40	-28.88	-0.015341		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-4.56	-0.005568	Within authorized band for Band 26	Pass
	-20	-4.59	-0.005604		
	-10	-6.82	-0.008327		
	0	-5.15	-0.006288		
	10	-6.28	-0.007668		
	20	-5.14	-0.006276		
	30	-5.72	-0.006984		
	40	-5.45	-0.006654		
	50	-5.72	-0.006984		
16QAM					
3.85	-30	25.21	0.030781	Within authorized band for Band 26	Pass
	-20	34.36	0.041954		
	-10	42.39	0.051758		
	0	-2.00	-0.002442		
	10	4.98	0.006081		
	20	10.69	0.013053		
	30	14.72	0.017973		
	40	17.85	0.021795		
	50	21.19	0.025873		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	-6.82	-0.008327	Within authorized band for Band 26	Pass
	3.85	-9.57	-0.011685		
	4.40	-6.27	-0.007656		
16QAM					
25	3.00	3.98	0.004860	Within authorized band for Band 26	Pass
	3.85	-5.71	-0.006972		
	4.40	16.35	0.019963		
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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	12.32	0.014728	Within authorized band for Band 26	Pass
	-20	9.50	0.011357		
	-10	9.03	0.010795		
	0	9.50	0.011357		
	10	9.77	0.011680		
	20	14.86	0.017764		
	30	17.71	0.021172		
	40	21.30	0.025463		
	50	24.19	0.028918		
16QAM					
3.85	-30	15.36	0.018362	Within authorized band for Band 26	Pass
	-20	27.05	0.032337		
	-10	40.50	0.048416		
	0	9.56	0.011429		
	10	17.24	0.020610		
	20	25.13	0.030042		
	30	34.26	0.040956		
	40	39.24	0.046910		
	50	45.55	0.054453		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	18.61	0.022247	Within authorized band for Band 26	Pass
	3.85	16.38	0.019582		
	4.40	18.42	0.022020		
16QAM					
25	3.00	38.48	0.046001	Within authorized band for Band 26	Pass
	3.85	28.15	0.033652		
	4.40	2.52	0.003013		
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=40740 Frequency=2605.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	39.88	0.015309	Within authorized band for Band 41	Pass
	-20	36.74	0.014104		
	-10	37.62	0.014441		
	0	30.40	0.011670		
	10	29.20	0.011209		
	20	38.25	0.014683		
	30	38.34	0.014718		
	40	33.72	0.012944		
	50	25.42	0.009758		
16QAM					
3.85	-30	41.18	0.015808	Within authorized band for Band 41	Pass
	-20	-11.57	-0.004441		
	-10	13.26	0.005090		
	0	25.06	0.009620		
	10	47.46	0.018219		
	20	17.45	0.006699		
	30	28.60	0.010979		
	40	39.45	0.015144		
	50	49.51	0.019006		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	54.12	0.020775	Within authorized band for Band 41	Pass
	3.85	18.83	0.007228		
	4.40	46.35	0.017793		
16QAM					
25	3.00	46.41	0.017816	Within authorized band for Band41	Pass
	3.85	35.58	0.013658		
	4.40	22.56	0.008660		
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					
3.85	-30	-16.45	-0.009427	Within authorized band for Band 66	Pass
	-20	-33.99	-0.019479		
	-10	-15.34	-0.008791		
	0	-34.13	-0.019559		
	10	-44.40	-0.025444		
	20	-49.50	-0.028367		
	30	-23.65	-0.013553		
	40	-29.87	-0.017117		
	50	-33.43	-0.019158		
16QAM					
3.85	-30	10.71	0.006138	Within authorized band for Band 66	Pass
	-20	22.83	0.013083		
	-10	37.71	0.021610		
	0	14.33	0.008212		
	10	25.89	0.014837		
	20	-3.46	-0.001983		
	30	15.72	0.009009		
	40	38.08	0.021822		
	50	12.39	0.007100		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	23.42	0.013421	Within authorized band for Band 66	Pass
	3.85	6.92	0.003966		
	4.40	7.42	0.004252		
16QAM					
25	3.00	-29.81	-0.017083	Within authorized band for Band 66	Pass
	3.85	-38.80	-0.022235		
	4.40	-16.77	-0.009610		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 71 part:

Reference Frequency: LTE Band 71 (10MHz) Middle channel=133297 Frequency=680.5MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-7.93	-0.011653	Within authorized band for Band 71	Pass
	-20	-16.16	-0.023747		
	-10	-24.79	-0.036429		
	0	-30.60	-0.044967		
	10	-33.09	-0.048626		
	20	-37.09	-0.054504		
	30	-38.15	-0.056062		
	40	-40.98	-0.060220		
	50	-40.80	-0.059956		
16QAM					
3.85	-30	-23.99	-0.035253	Within authorized band for Band 71	Pass
	-20	-14.56	-0.021396		
	-10	-6.29	-0.009243		
	0	3.23	0.004747		
	10	9.47	0.013916		
	20	16.16	0.023747		
	30	20.21	0.029699		
	40	25.51	0.037487		
	50	27.91	0.041014		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.00	13.79	0.020265	Within authorized band for Band 71	Pass
	3.85	12.29	0.018060		
	4.40	3.82	0.005614		
16QAM					
25	3.00	-41.36	-0.060779	Within authorized band for Band 71	Pass
	3.85	-43.36	-0.063718		
	4.40	-31.79	-0.046716		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					