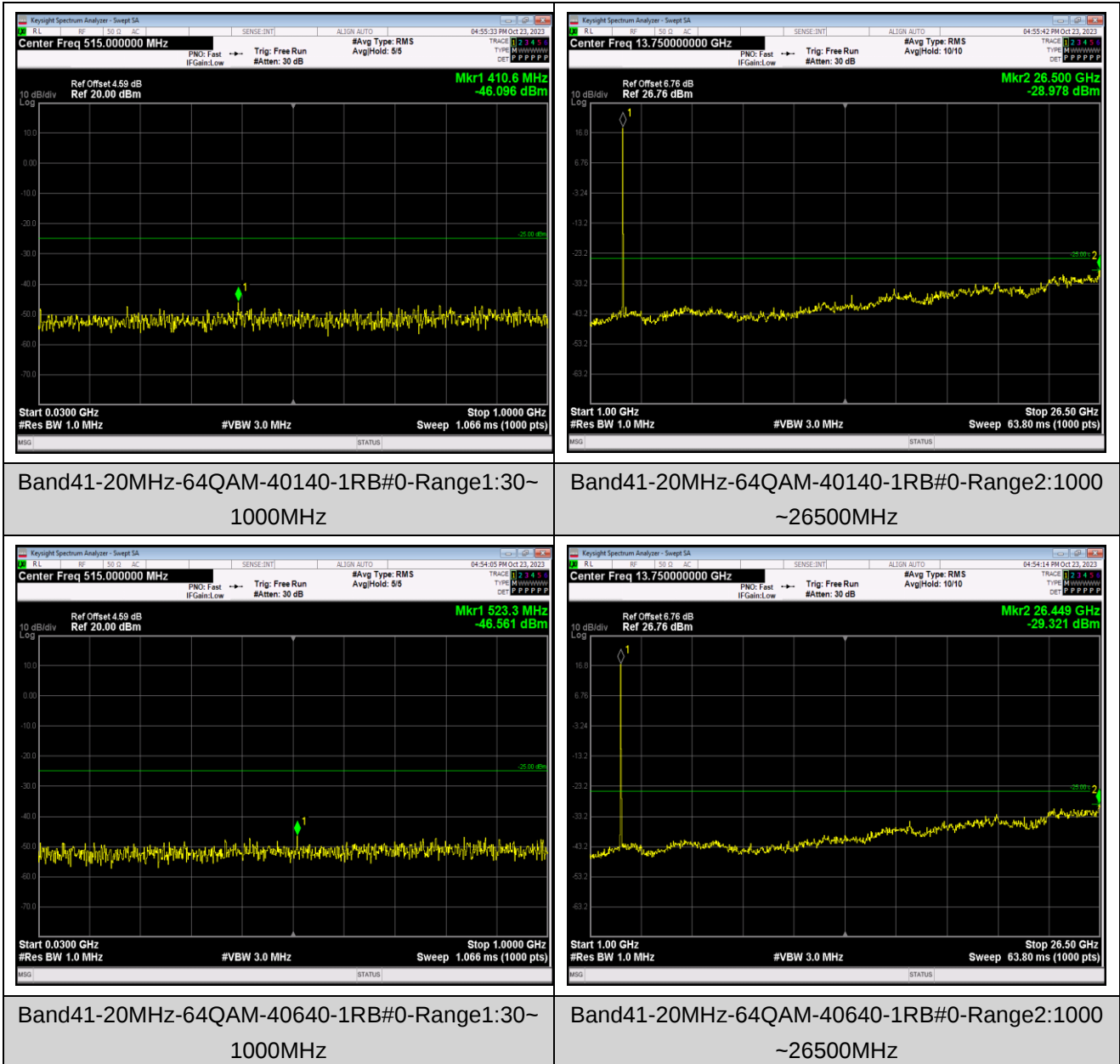
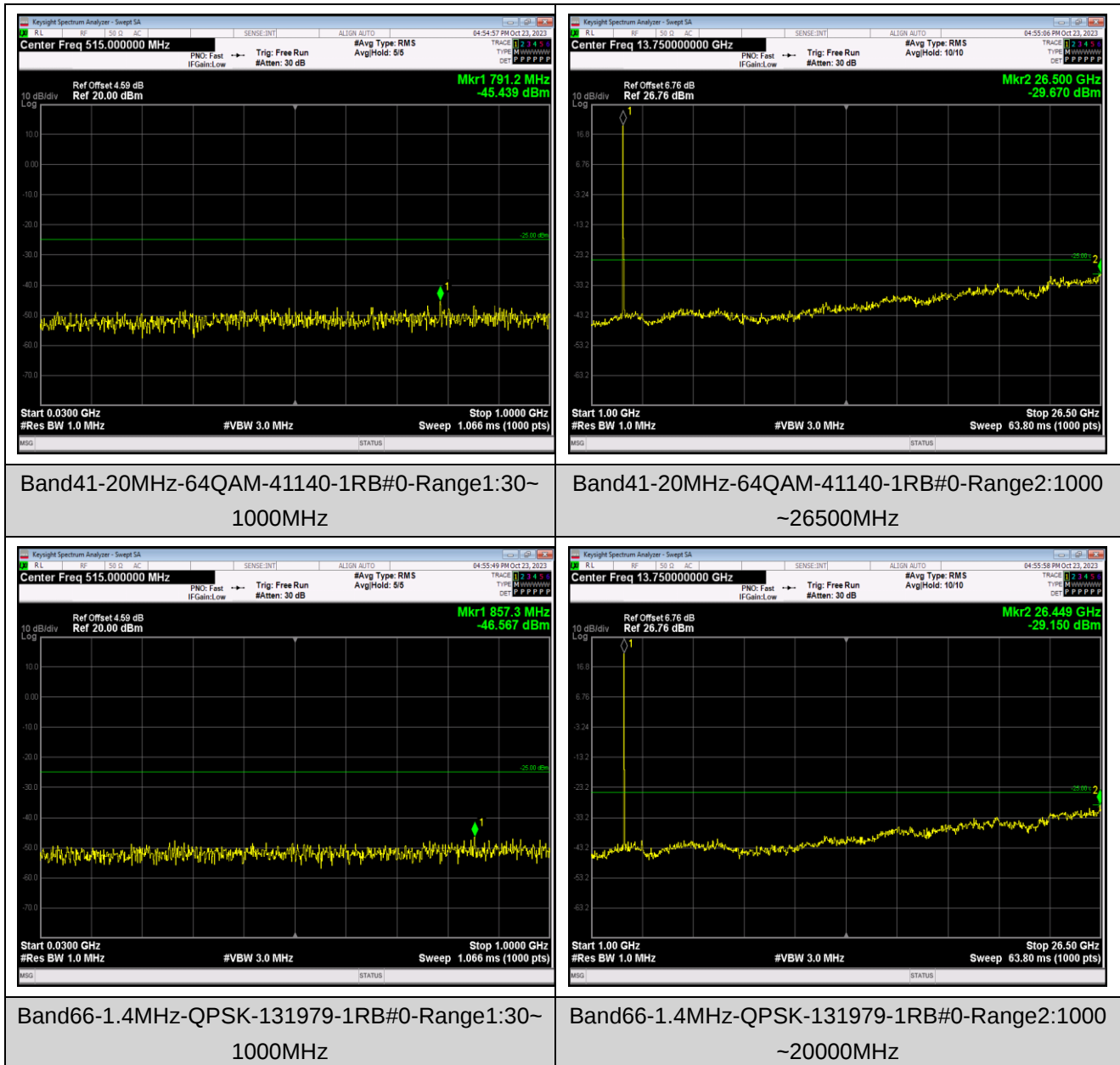
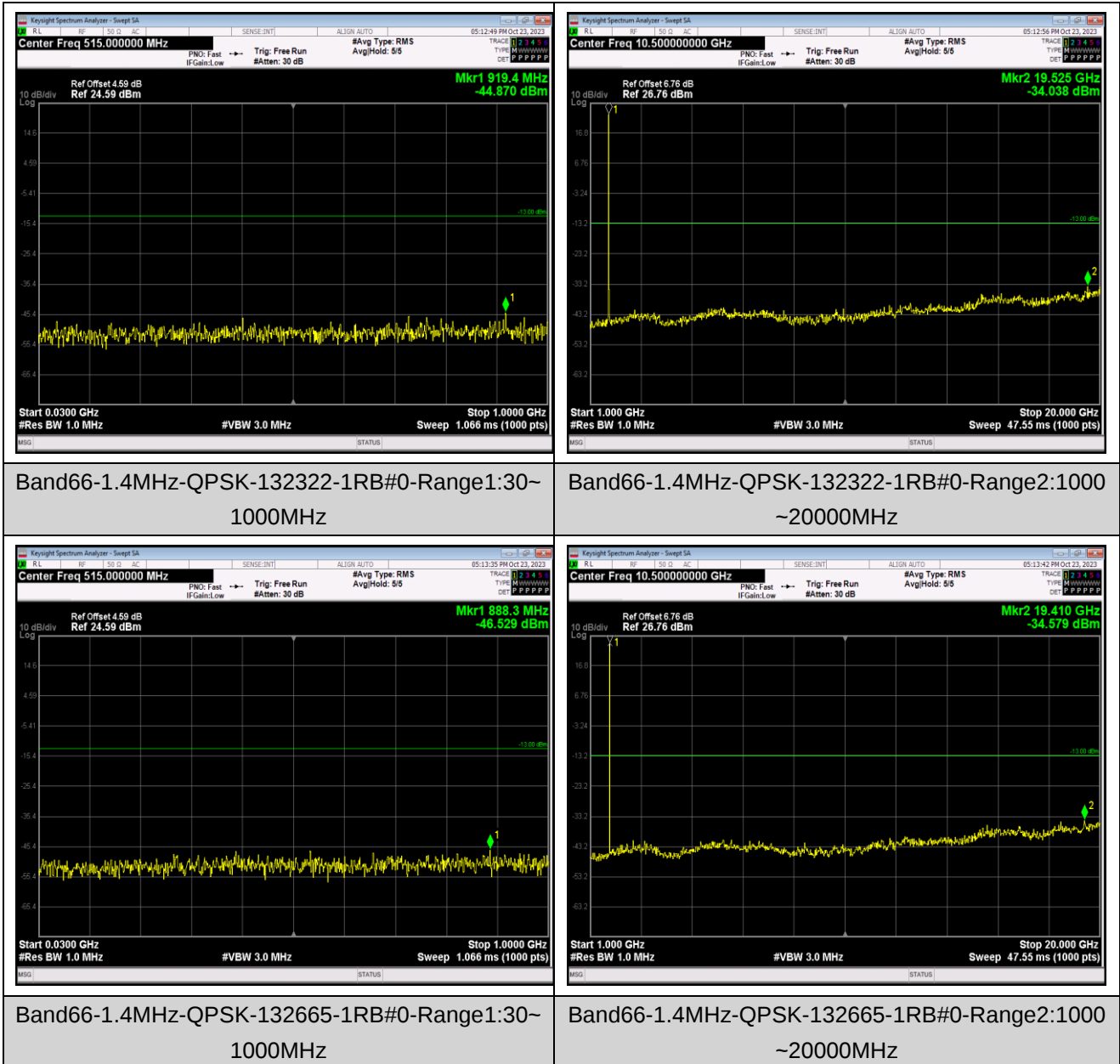
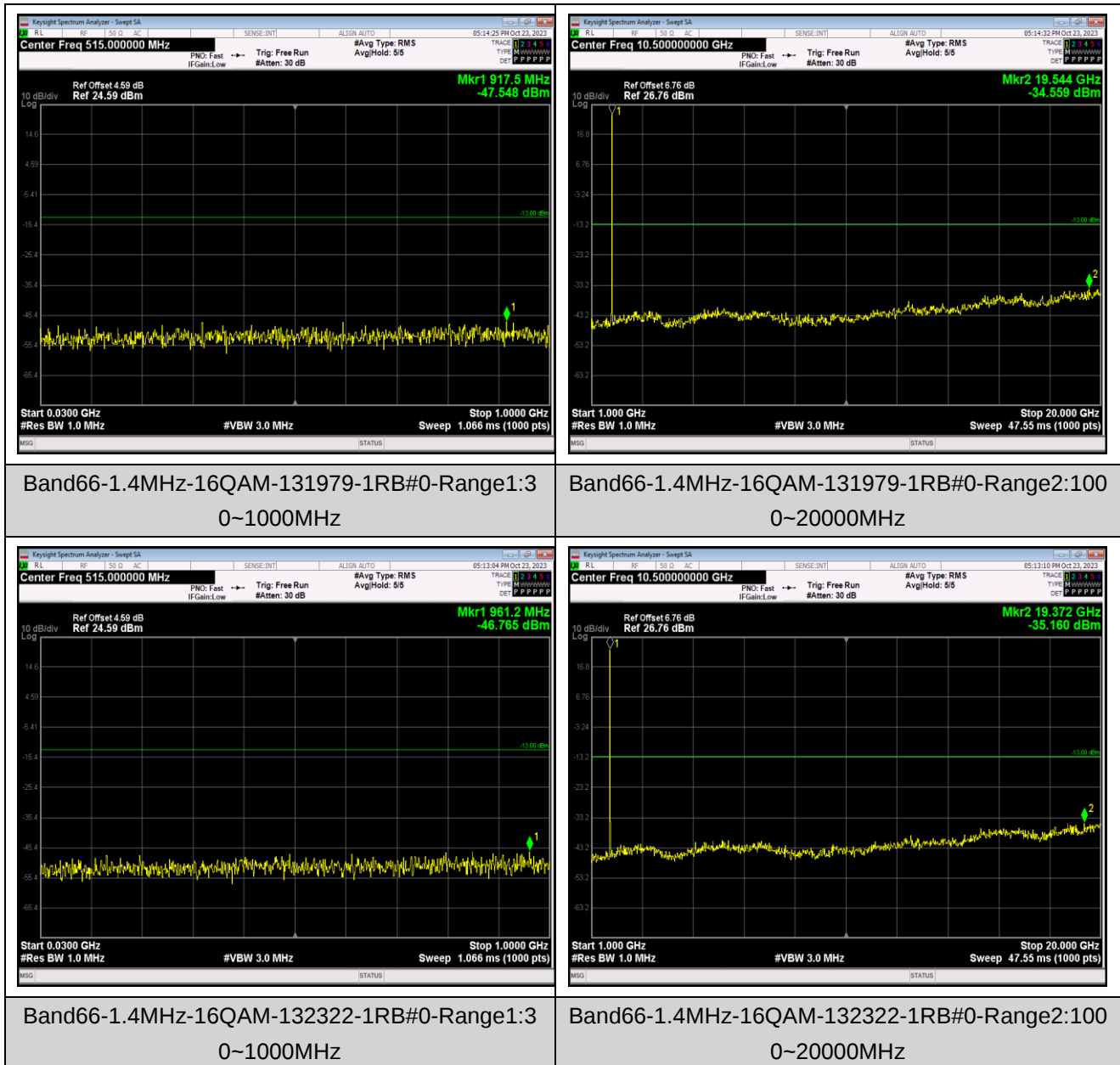
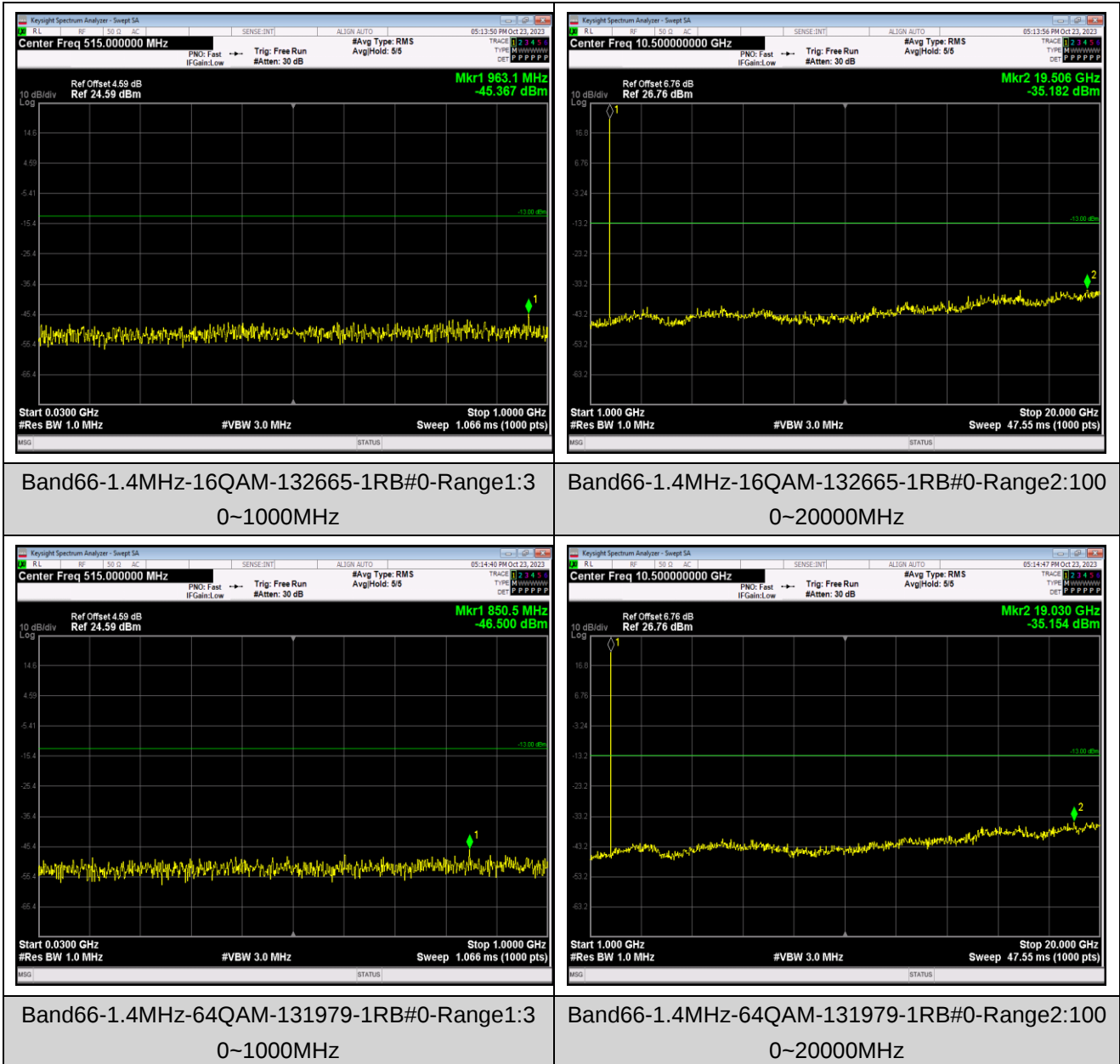


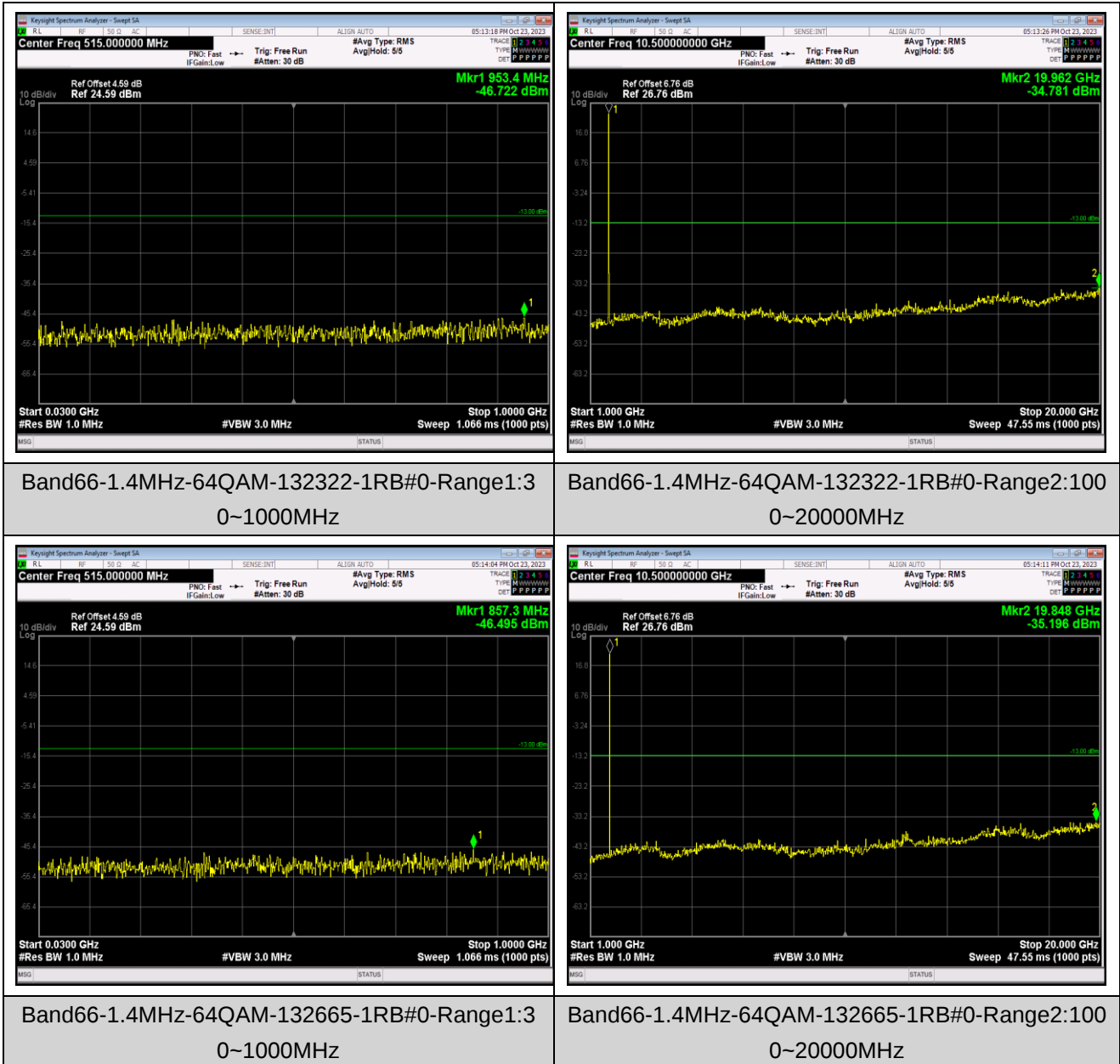


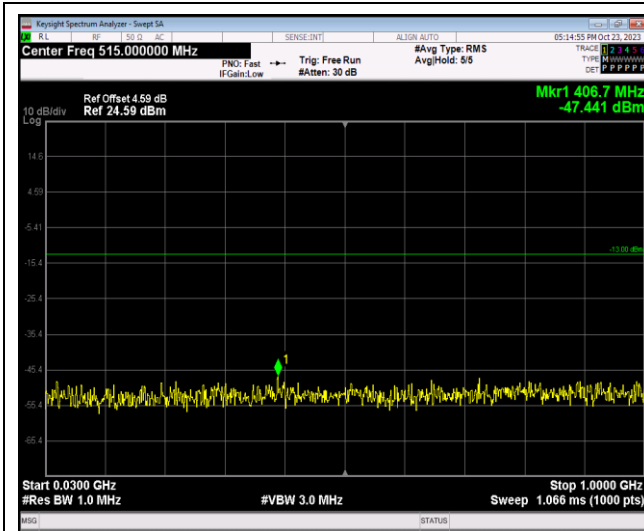




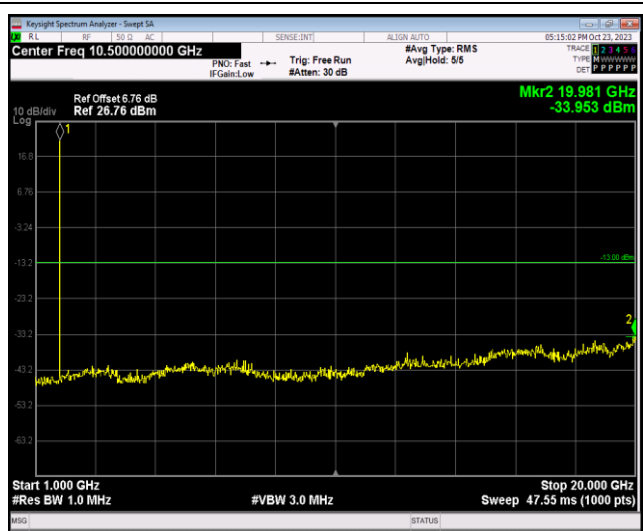




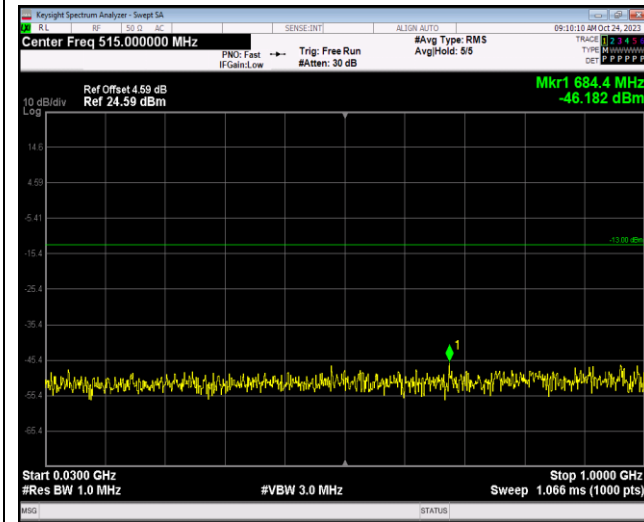




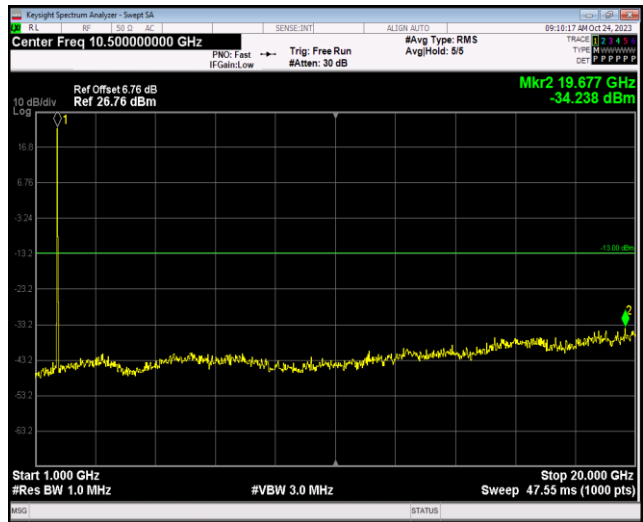
Band66-20MHz-QPSK-132072-1RB#0-Range1:30~1000MHz



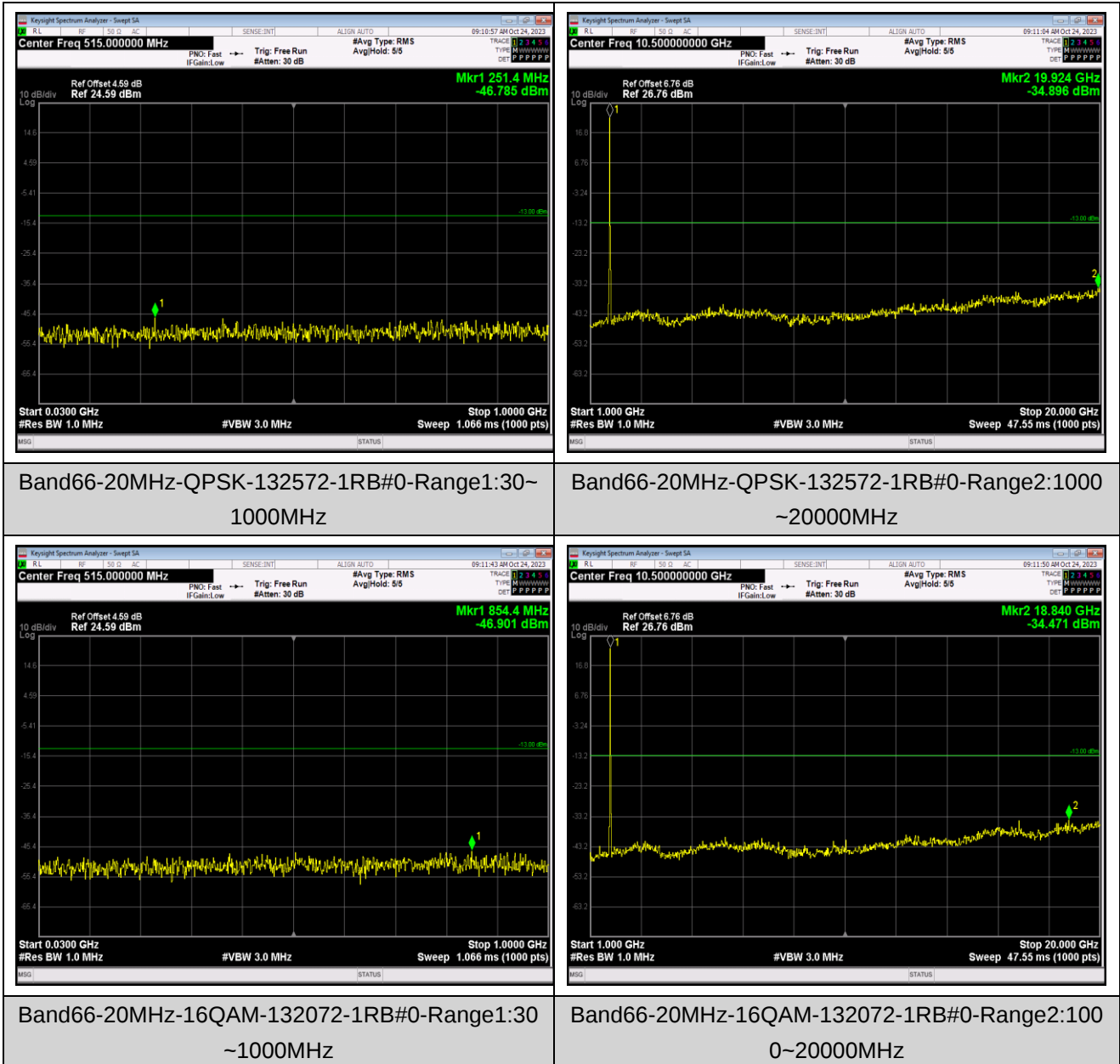
Band66-20MHz-QPSK-132072-1RB#0-Range2:1000~20000MHz

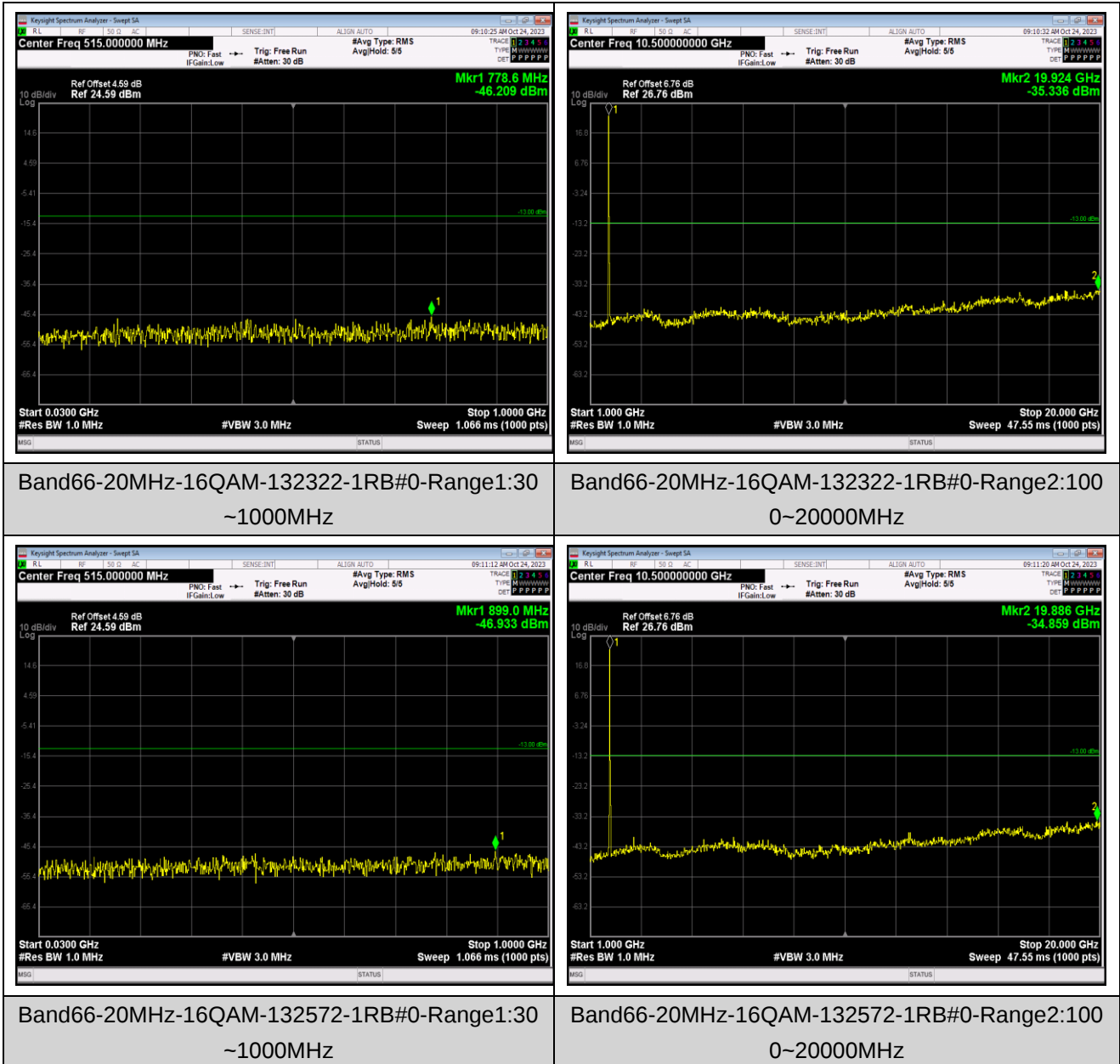


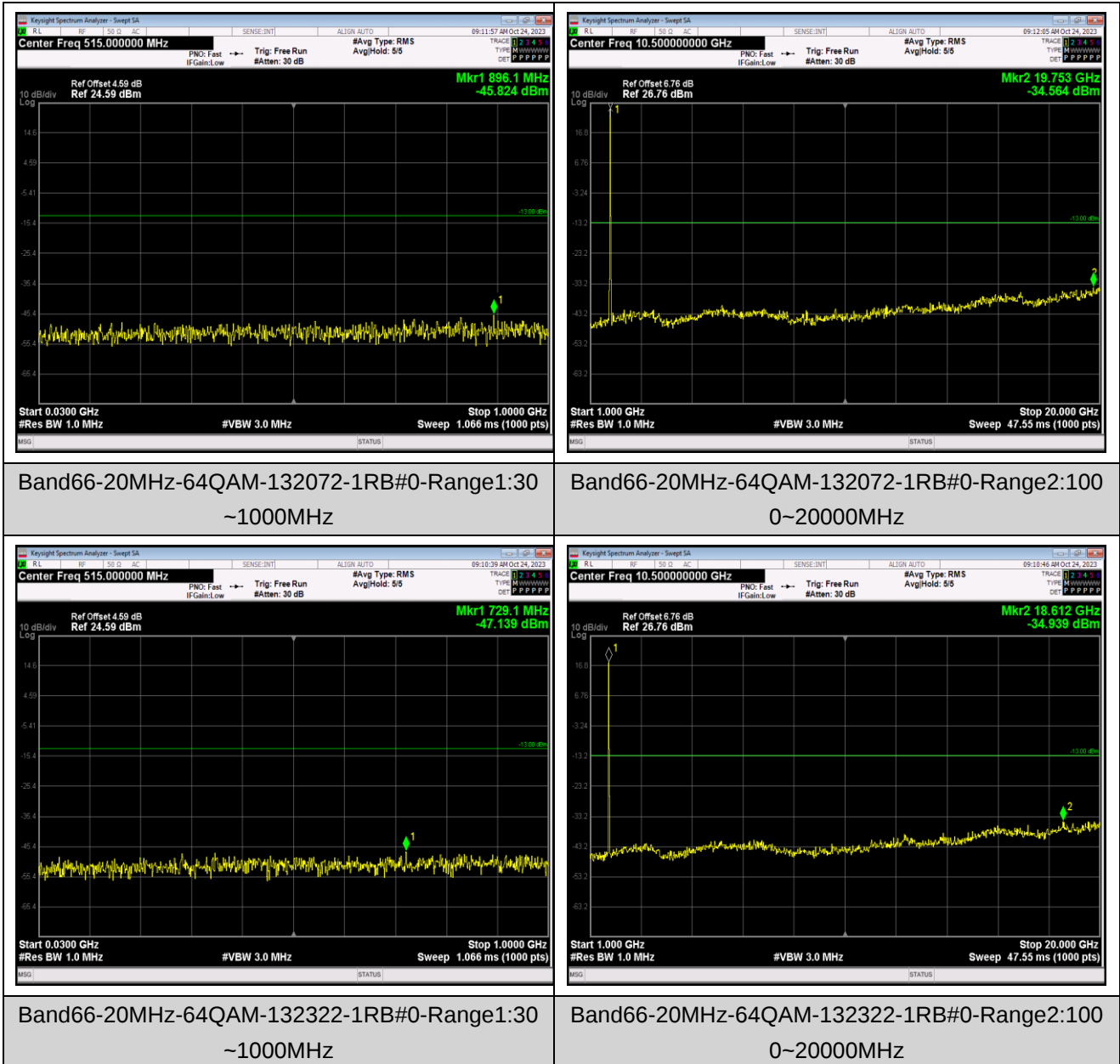
Band66-20MHz-QPSK-132322-1RB#0-Range1:30~1000MHz

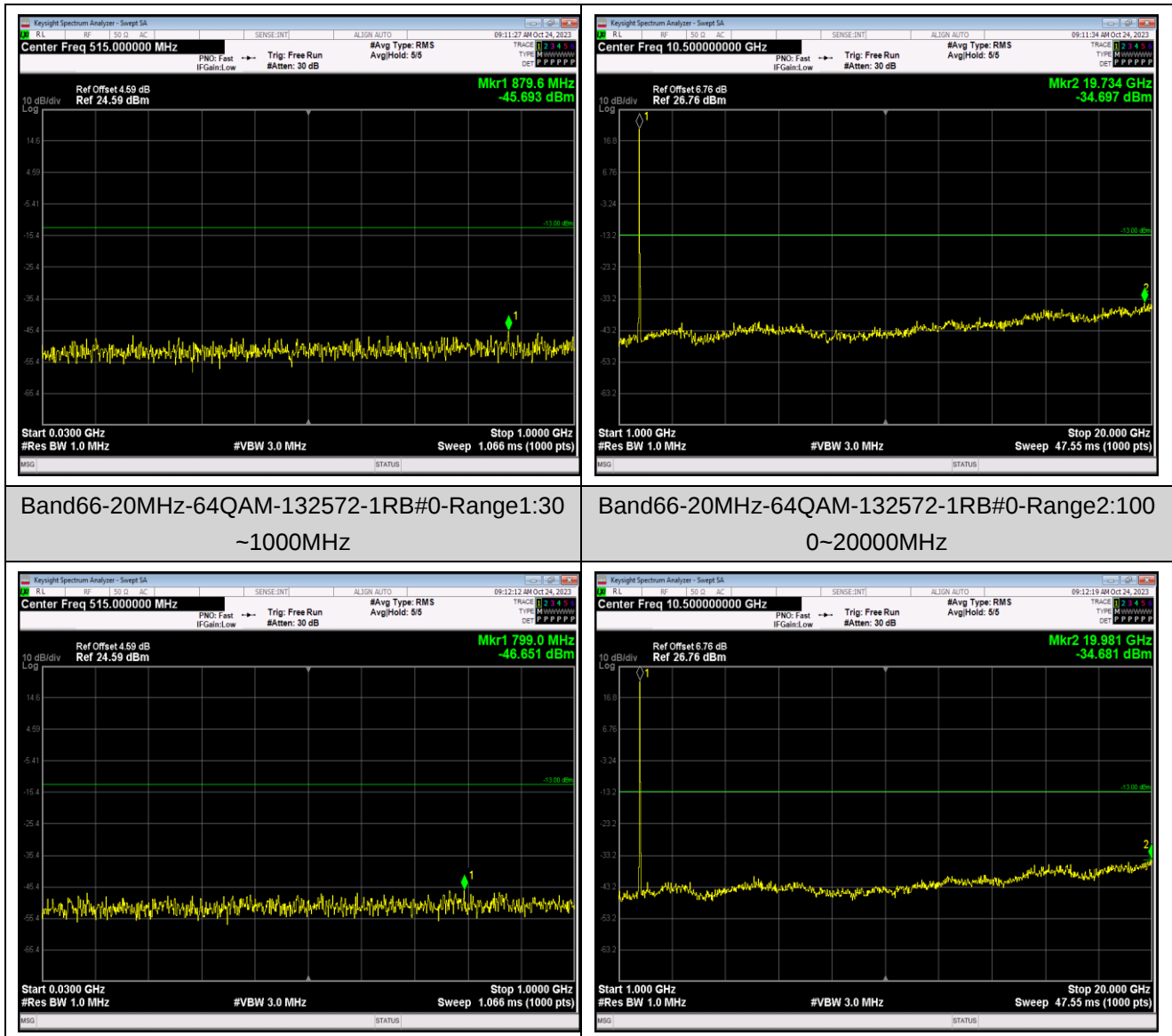


Band66-20MHz-QPSK-132322-1RB#0-Range2:1000~20000MHz









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					
3.87	-30	-10.36	-0.005511	Within authorized band for Band 2	Pass
	-20	-14.19	-0.007548		
	-10	-6.05	-0.003218		
	0	13.06	0.006947		
	10	-7.94	-0.004223		
	20	-7.84	-0.004170		
	30	8.85	0.004707		
	40	9.60	0.005106		
	50	6.44	0.003426		
16QAM					
3.87	-30	-7.35	-0.003910	Within authorized band for Band 2	Pass
	-20	-6.45	-0.003431		
	-10	-11.23	-0.005973		
	0	-9.48	-0.005043		
	10	-10.37	-0.005516		
	20	-2.70	-0.001436		
	30	-2.52	-0.001340		
	40	-7.82	-0.004160		
	50	-8.07	-0.004293		
64QAM					
3.87	-30	-11.20	-0.005957	Within authorized band for Band 2	Pass
	-20	-6.47	-0.003441		
	-10	-8.64	-0.004596		
	0	-12.09	-0.006431		
	10	-5.39	-0.002867		
	20	3.88	0.002064		
	30	-12.33	-0.006559		
	40	-6.92	-0.003681		
	50	-4.25	-0.002261		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-16.31	-0.008676	Within authorized band for Band 2	Pass
	3.87	-17.92	-0.009532		
	4.45	9.13	0.004856		
16QAM					
25	3.45	-7.84	-0.004170	Within authorized band for Band 2	Pass
	3.87	-10.71	-0.005697		
	4.45	2.76	0.001468		
64QAM					
25	3.45	-8.57	-0.004559	Within authorized band for Band 2	Pass
	3.87	-9.70	-0.005160		
	4.45	-11.06	-0.005883		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-5.24	-0.002067	Within authorized band for Band 7	Pass
	-20	-9.01	-0.003554		
	-10	-4.89	-0.001929		
	0	-12.73	-0.005022		
	10	-16.02	-0.006320		
	20	-14.65	-0.005779		
	30	-7.68	-0.003030		
	40	-13.43	-0.005298		
	50	-5.22	-0.002059		
16QAM					
3.87	-30	-12.02	-0.004742	Within authorized band for Band 7	Pass
	-20	-16.44	-0.006485		
	-10	-7.08	-0.002793		
	0	-15.76	-0.006217		
	10	-17.42	-0.006872		
	20	-16.82	-0.006635		
	30	-8.83	-0.003483		
	40	-5.14	-0.002028		
	50	5.44	0.002146		
64QAM					
3.87	-30	-13.66	-0.005389	Within authorized band for Band 7	Pass
	-20	-9.21	-0.003633		
	-10	-13.32	-0.005254		
	0	2.92	0.001152		
	10	-12.89	-0.005085		
	20	-10.69	-0.004217		
	30	-12.56	-0.004955		
	40	-13.50	-0.005325		
	50	-3.82	-0.001507		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	12.69	0.005006	Within authorized band for Band 7	Pass
	3.87	-10.67	-0.004209		
	4.45	-7.24	-0.002856		
16QAM					
25	3.45	-5.36	-0.002114	Within authorized band for Band 7	Pass
	3.87	-10.09	-0.003980		
	4.45	-3.99	-0.001574		
64QAM					
25	3.45	5.08	0.002004	Within authorized band for Band 7	Pass
	3.87	9.73	0.003838		
	4.45	-13.09	-0.005164		
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	-3.93	-0.005555	Within authorized band for Band 12	Pass
	-20	-5.25	-0.007420		
	-10	-4.73	-0.006686		
	0	-4.58	-0.006473		
	10	2.30	0.003251		
	20	-9.10	-0.012862		
	30	-7.54	-0.010657		
	40	-4.79	-0.006770		
	50	-2.26	-0.003194		
16QAM					
3.87	-30	-7.44	-0.010516	Within authorized band for Band 12	Pass
	-20	-5.82	-0.008226		
	-10	-5.42	-0.007661		
	0	-5.72	-0.008085		
	10	-7.74	-0.010940		
	20	-7.80	-0.011025		
	30	-7.07	-0.009993		
	40	-3.60	-0.005088		
	50	3.08	0.004353		
64QAM					
3.87	-30	-5.59	-0.007901	Within authorized band for Band 12	Pass
	-20	0.90	0.001272		
	-10	-4.08	-0.005767		
	0	-6.31	-0.008919		
	10	-8.63	-0.012198		
	20	4.05	0.005724		
	30	-1.85	-0.002615		
	40	-4.98	-0.007039		
	50	4.22	0.005965		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-2.89	-0.004085	Within authorized band for Band 12	Pass
	3.87	-8.27	-0.011689		
	4.45	-5.16	-0.007293		
16QAM					
25	3.45	-7.90	-0.011166	Within authorized band for Band 12	Pass
	3.87	-2.70	-0.003816		
	4.45	-7.52	-0.010629		
64QAM					
25	3.45	-5.85	-0.008269	Within authorized band for Band 12	Pass
	3.87	-2.39	-0.003378		
	4.45	-2.88	-0.004071		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-4.58	-0.005857	Within authorized band for Band 13	Pass
	-20	-4.92	-0.006292		
	-10	-8.35	-0.010678		
	0	1.16	0.001483		
	10	-2.19	-0.002801		
	20	-5.22	-0.006675		
	30	-8.03	-0.010269		
	40	-6.27	-0.008018		
	50	-5.89	-0.007532		
16QAM					
3.87	-30	-4.75	-0.006074	Within authorized band for Band 13	Pass
	-20	-4.16	-0.005320		
	-10	-7.72	-0.009872		
	0	-9.40	-0.012020		
	10	-3.39	-0.004335		
	20	-6.34	-0.008107		
	30	-7.84	-0.010026		
	40	-7.51	-0.009604		
	50	1.32	0.001688		
64QAM					
3.87	-30	-3.62	-0.004629	Within authorized band for Band 13	Pass
	-20	-7.05	-0.009015		
	-10	-6.04	-0.007724		
	0	2.80	0.003581		
	10	-5.69	-0.007276		
	20	-3.66	-0.004680		
	30	-10.91	-0.013951		
	40	-6.48	-0.008286		
	50	-5.64	-0.007212		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-4.41	-0.005639	Within authorized band for Band 13	Pass
	3.87	3.19	0.004079		
	4.45	-4.99	-0.006381		
16QAM					
25	3.45	-4.65	-0.005946	Within authorized band for Band 13	Pass
	3.87	-7.67	-0.009808		
	4.45	-6.64	-0.008491		
64QAM					
25	3.45	-6.11	-0.007813	Within authorized band for Band 13	Pass
	3.87	-7.91	-0.010115		
	4.45	-9.58	-0.012251		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 17 part:

Reference Frequency: LTE Band 17(10MHz) Middle channel=23790 Frequency=710.0MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-5.98	-0.008423	Within authorized band for Band 17	Pass
	-20	-5.95	-0.008380		
	-10	-5.81	-0.008183		
	0	-4.12	-0.005803		
	10	-2.99	-0.004211		
	20	-4.41	-0.006211		
	30	-3.45	-0.004859		
	40	-6.05	-0.008521		
	50	-5.62	-0.007915		
16QAM					
3.87	-30	-1.75	-0.002465	Within authorized band for Band 17	Pass
	-20	-8.08	-0.011380		
	-10	-4.63	-0.006521		
	0	-6.05	-0.008521		
	10	-5.76	-0.008113		
	20	-8.30	-0.011690		
	30	-7.77	-0.010944		
	40	-4.79	-0.006746		
	50	-6.87	-0.009676		
64QAM					
3.87	-30	-3.39	-0.004775	Within authorized band for Band 17	Pass
	-20	-1.92	-0.002704		
	-10	-4.58	-0.006451		
	0	-3.38	-0.004761		
	10	-4.35	-0.006127		
	20	-6.27	-0.008831		
	30	-3.93	-0.005535		
	40	-4.59	-0.006465		
	50	-9.00	-0.012676		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-8.24	-0.011606	Within authorized band for Band 17	Pass
	3.87	-3.73	-0.005254		
	4.45	-3.78	-0.005324		
16QAM					
25	3.45	-4.81	-0.006775	Within authorized band for Band 17	Pass
	3.87	-7.58	-0.010676		
	4.45	-6.71	-0.009451		
64QAM					
25	3.45	-5.85	-0.008239	Within authorized band for Band 17	Pass
	3.87	-2.65	-0.003732		
	4.45	-3.50	-0.004930		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 26(Part90) 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	-5.72	-0.006984	±2.5	Pass
	-20	-6.08	-0.007424		
	-10	-2.68	-0.003272		
	0	-7.81	-0.009536		
	10	-4.33	-0.005287		
	20	-5.19	-0.006337		
	30	-3.25	-0.003968		
	40	-1.66	-0.002027		
	50	-4.68	-0.005714		
16QAM					
3.87	-30	-6.49	-0.007924	±2.5	Pass
	-20	-2.96	-0.003614		
	-10	-7.05	-0.008608		
	0	-6.62	-0.008083		
	10	-2.39	-0.002918		
	20	-7.05	-0.008608		
	30	-5.74	-0.007009		
	40	-3.09	-0.003773		
	50	-1.69	-0.002063		
64QAM					
3.87	-30	-5.45	-0.006654	±2.5	Pass
	-20	-4.55	-0.005556		
	-10	-4.21	-0.005140		
	0	-4.95	-0.006044		
	10	-4.29	-0.005238		
	20	-6.11	-0.007460		
	30	-4.75	-0.005800		
	40	-3.35	-0.004090		
	50	-4.63	-0.005653		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-8.25	-0.010073	±2.5	Pass
	3.87	-6.31	-0.007705		
	4.45	-5.99	-0.007314		
16QAM					
25	3.45	-2.68	-0.003272	±2.5	Pass
	3.87	-5.21	-0.006361		
	4.45	-3.95	-0.004823		
64QAM					
25	3.45	-5.26	-0.006422	±2.5	Pass
	3.87	-4.18	-0.005104		
	4.45	-7.02	-0.008571		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 26(Part22) 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	-7.32	-0.008751	±2.5	Pass
	-20	-4.65	-0.005559		
	-10	-3.71	-0.004435		
	0	-7.75	-0.009265		
	10	-6.57	-0.007854		
	20	-6.82	-0.008153		
	30	-5.21	-0.006228		
	40	-4.26	-0.005093		
	50	-3.73	-0.004459		
16QAM					
3.87	-30	-7.02	-0.008392	±2.5	Pass
	-20	-3.96	-0.004734		
	-10	-5.99	-0.007161		
	0	-1.80	-0.002152		
	10	-6.59	-0.007878		
	20	-6.98	-0.008344		
	30	-4.61	-0.005511		
	40	-4.16	-0.004973		
	50	-4.46	-0.005332		
64QAM					
3.87	-30	-5.29	-0.006324	±2.5	Pass
	-20	-3.09	-0.003694		
	-10	-5.31	-0.006348		
	0	-2.99	-0.003574		
	10	-6.07	-0.007256		
	20	-4.31	-0.005152		
	30	-6.98	-0.008344		
	40	-6.75	-0.008069		
	50	-6.02	-0.007197		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-4.42	-0.005284	±2.5	Pass
	3.87	-6.19	-0.007400		
	4.45	-7.51	-0.008978		
16QAM					
25	3.45	-5.84	-0.006981	±2.5	Pass
	3.87	-6.02	-0.007197		
	4.45	-5.05	-0.006037		
64QAM					
25	3.45	-1.87	-0.002236	±2.5	Pass
	3.87	-4.42	-0.005284		
	4.45	-4.78	-0.005714		
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	-3.75	-0.001445	Within authorized band for Band 41	Pass
	-20	-5.46	-0.002104		
	-10	-3.75	-0.001445		
	0	-5.45	-0.002100		
	10	-2.75	-0.001060		
	20	-4.99	-0.001923		
	30	-9.13	-0.003518		
	40	6.84	0.002636		
	50	-7.25	-0.002794		
16QAM					
3.87	-30	7.97	0.003071	Within authorized band for Band 41	Pass
	-20	-4.85	-0.001869		
	-10	5.26	0.002027		
	0	-9.68	-0.003730		
	10	-10.46	-0.004031		
	20	-4.75	-0.001830		
	30	-4.06	-0.001565		
	40	-7.47	-0.002879		
	50	-3.71	-0.001430		
64QAM					
3.87	-30	-7.94	-0.003060	Within authorized band for Band 41	Pass
	-20	-7.01	-0.002701		
	-10	-8.40	-0.003237		
	0	-3.96	-0.001526		
	10	5.64	0.002173		
	20	-2.88	-0.001110		
	30	2.78	0.001071		
	40	-9.40	-0.003622		
	50	4.86	0.001873		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-5.51	-0.002123	Within authorized band for Band 41	Pass
	3.87	-8.80	-0.003391		
	4.45	-8.27	-0.003187		
16QAM					
25	3.45	-9.53	-0.003672	Within authorized band for Band41	Pass
	3.87	-5.82	-0.002243		
	4.45	-2.13	-0.000821		
64QAM					
25	3.45	-5.28	-0.002035	Within authorized band for Band41	Pass
	3.87	-4.61	-0.001776		
	4.45	-7.45	-0.002871		
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	2.86	0.001639	Within authorized band for Band 66	Pass
	-20	7.82	0.004481		
	-10	8.50	0.004871		
	0	5.44	0.003117		
	10	5.32	0.003049		
	20	-2.78	-0.001593		
	30	1.93	0.001106		
	40	4.62	0.002648		
	50	4.55	0.002607		
16QAM					
3.87	-30	5.48	0.003140	Within authorized band for Band 66	Pass
	-20	8.13	0.004659		
	-10	-7.98	-0.004573		
	0	6.27	0.003593		
	10	6.42	0.003679		
	20	-8.15	-0.004670		
	30	6.74	0.003862		
	40	7.45	0.004269		
	50	-5.29	-0.003032		
64QAM					
3.87	-30	7.22	0.004138	Within authorized band for Band 66	Pass
	-20	6.75	0.003868		
	-10	-6.29	-0.003605		
	0	4.46	0.002556		
	10	-7.10	-0.004069		
	20	8.58	0.004917		
	30	5.68	0.003255		
	40	5.78	0.003312		
	50	4.69	0.002688		

Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-4.92	-0.002819	Within authorized band for Band 66	Pass
	3.87	-5.05	-0.002894		
	4.45	6.22	0.003564		
16QAM					
25	3.45	7.37	0.004223	Within authorized band for Band 66	Pass
	3.87	-6.78	-0.003885		
	4.45	5.78	0.003312		
64QAM					
25	3.45	-3.09	-0.001771	Within authorized band for Band 66	Pass
	3.87	-9.66	-0.005536		
	4.45	5.75	0.003295		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					