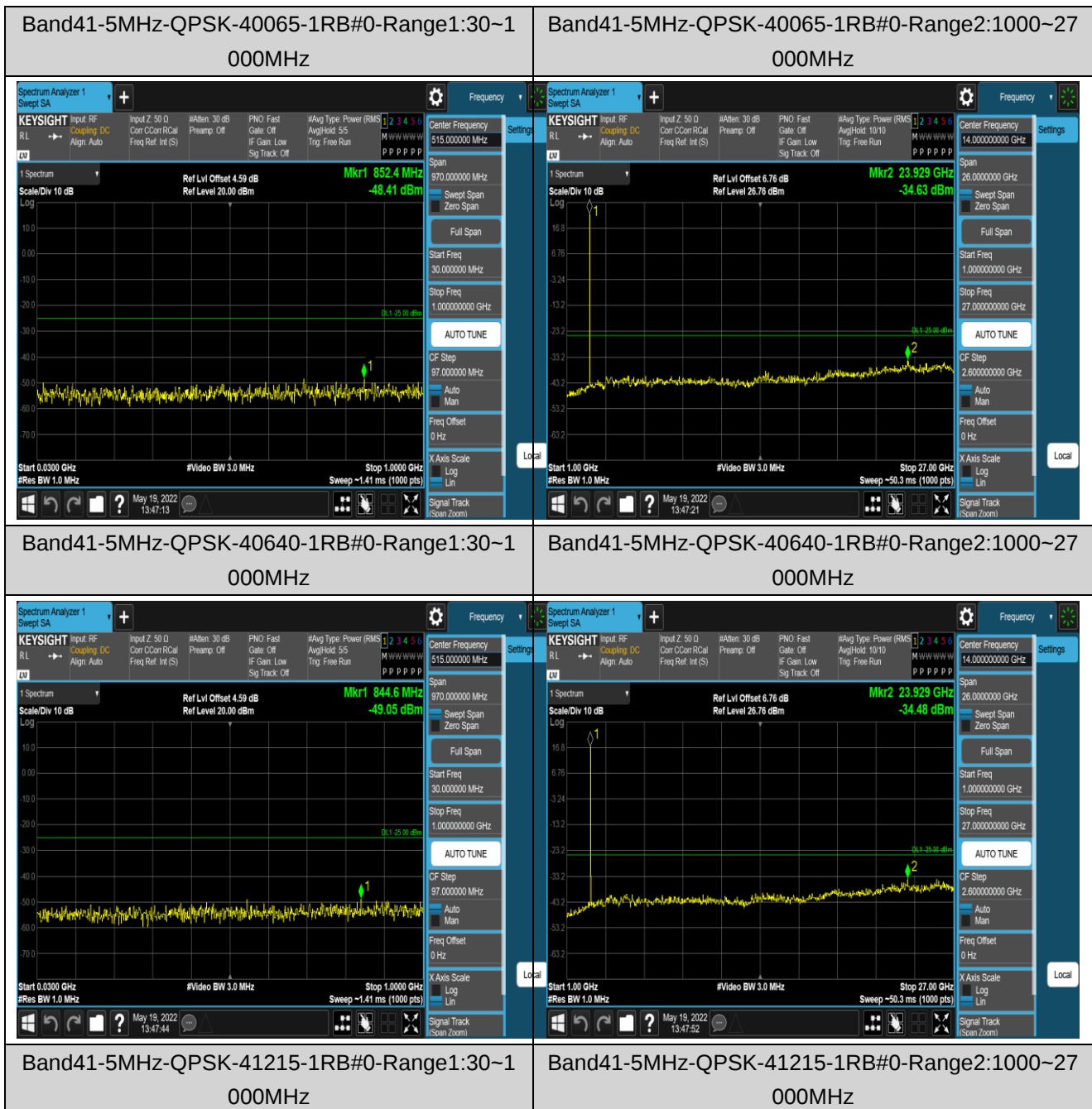
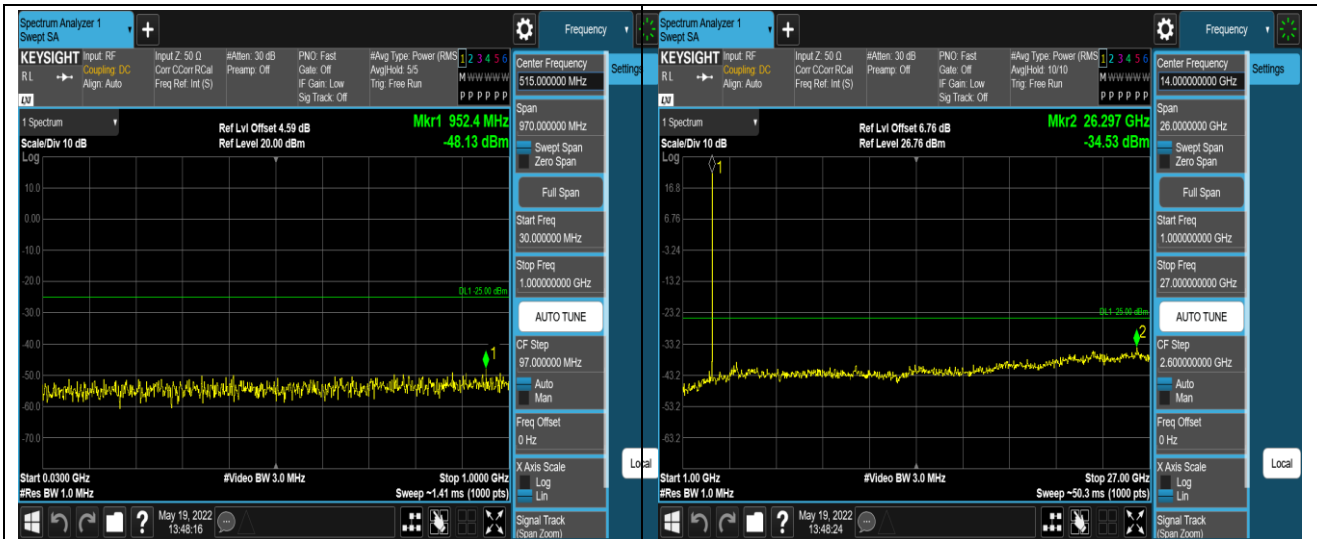
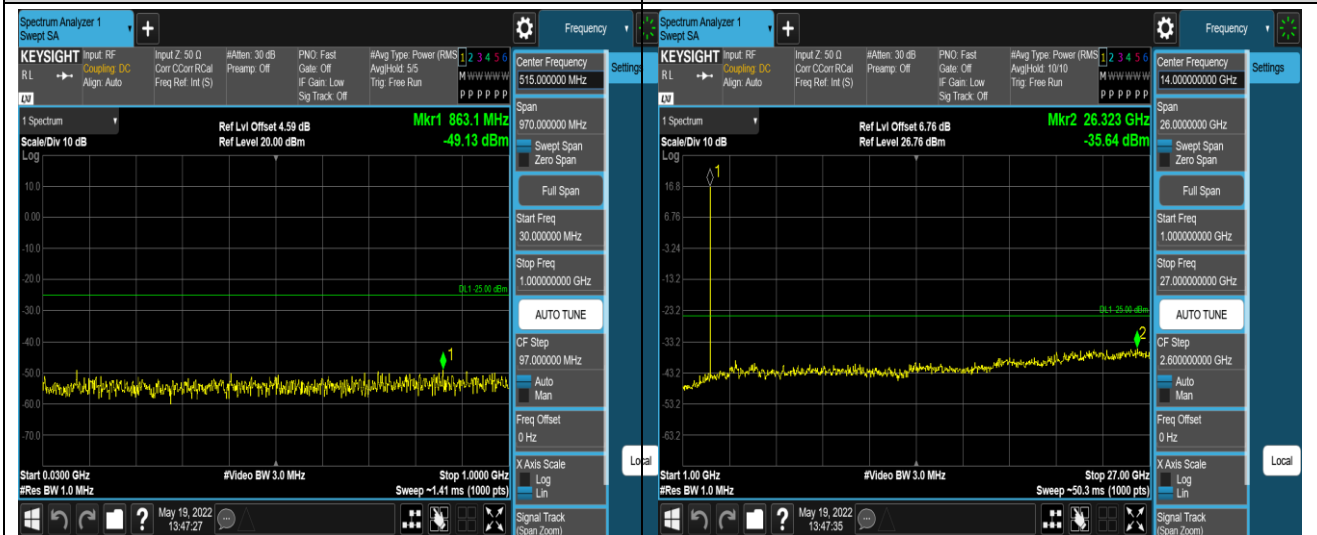






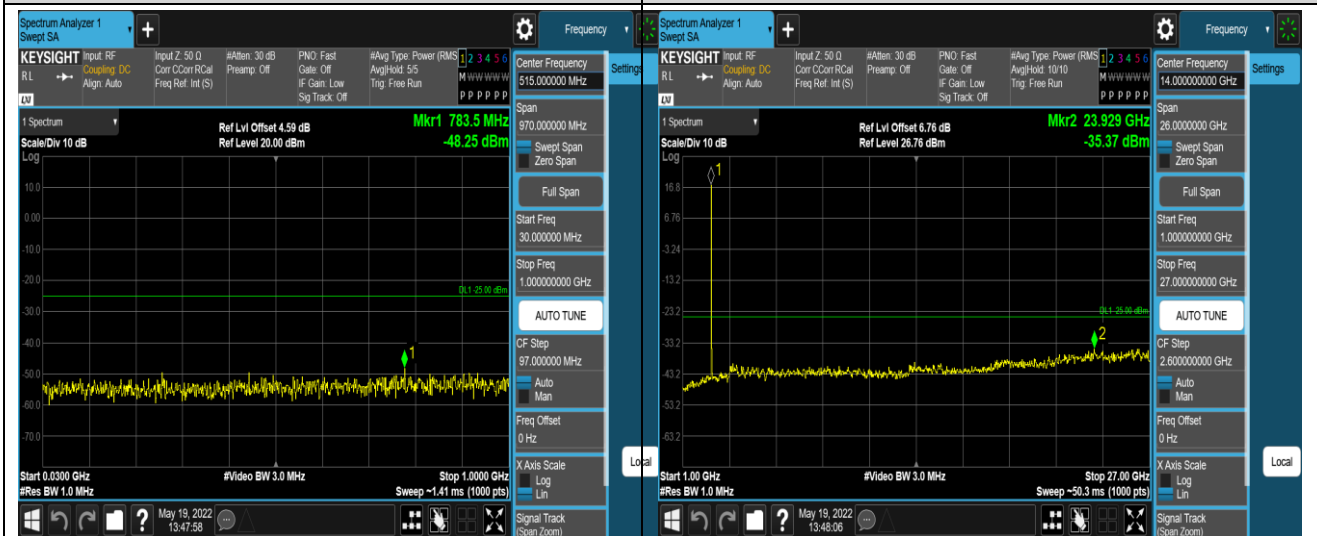
Band41-5MHz-16QAM-40065-1RB#0-Range1:30~1000MHz

Band41-5MHz-16QAM-40065-1RB#0-Range2:1000~27000MHz



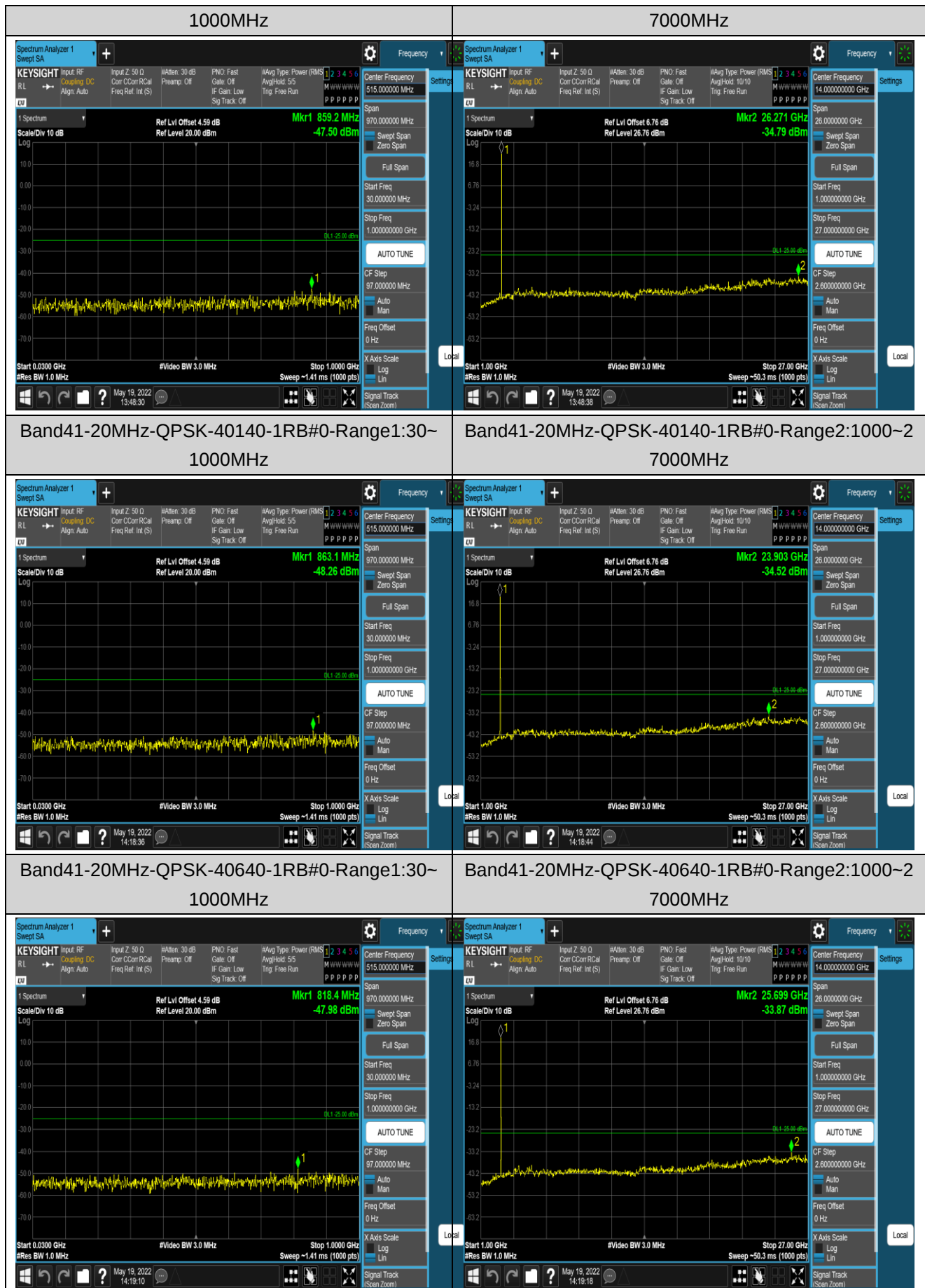
Band41-5MHz-16QAM-40640-1RB#0-Range1:30~1000MHz

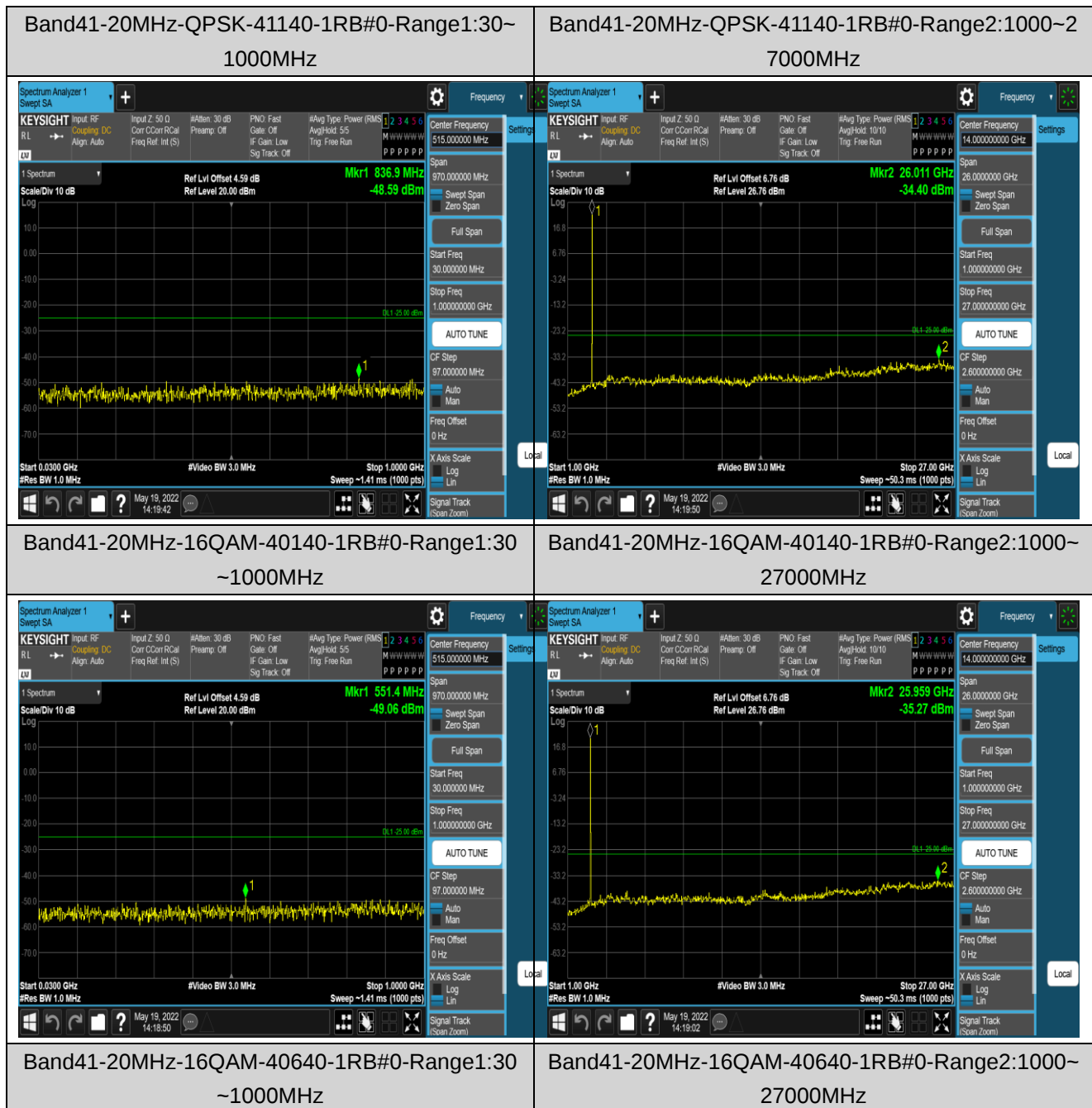
Band41-5MHz-16QAM-40640-1RB#0-Range2:1000~27000MHz

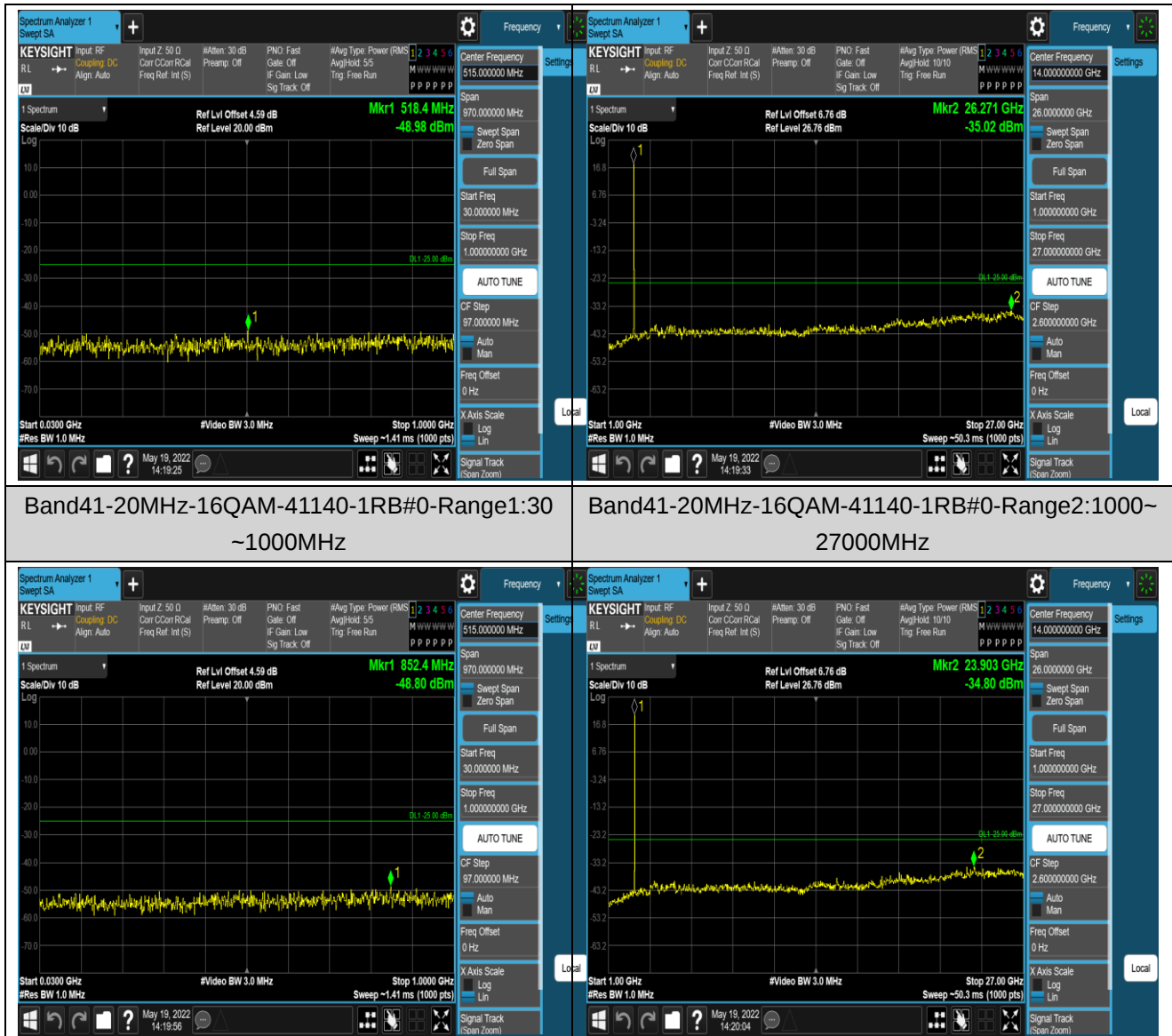


Band41-5MHz-16QAM-41215-1RB#0-Range1:30~1000MHz

Band41-5MHz-16QAM-41215-1RB#0-Range2:1000~27000MHz







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	-10.90	-0.005798	Within authorized band for Band 2	Pass
	-20	-8.34	-0.004436		
	-10	-15.82	-0.008415		
	0	-9.60	-0.005106		
	10	-14.25	-0.007580		
	20	1.99	0.001059		
	30	-9.66	-0.005138		
	40	-9.37	-0.004984		
	50	9.20	0.004894		
16QAM					
3.87	-30	13.40	0.007128	Within authorized band for Band 2	Pass
	-20	10.36	0.005511		
	-10	-10.34	-0.005500		
	0	-7.71	-0.004101		
	10	8.24	0.004383		
	20	7.82	0.004160		
	30	-11.80	-0.006277		
	40	7.07	0.003761		
	50	10.17	0.005410		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	12.16	0.006468	Within authorized band for Band 2	Pass
	3.87	-13.22	-0.007032		
	4.45	-10.36	-0.005511		
16QAM					
25	3.45	6.02	0.003202	Within authorized band for Band 2	Pass
	3.87	-16.25	-0.008644		
	4.45	-3.62	-0.001926		
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					
3.87	-30	-8.67	-0.005004	Within authorized band for Band 4	Pass
	-20	-4.11	-0.002372		
	-10	-6.08	-0.003509		
	0	-5.48	-0.003163		
	10	-5.78	-0.003336		
	20	4.35	0.002511		
	30	-8.74	-0.005045		
	40	-2.59	-0.001495		
	50	1.66	0.000958		
16QAM					
3.87	-30	-3.62	-0.002089	Within authorized band for Band 4	Pass
	-20	-2.32	-0.001339		
	-10	6.15	0.003550		
	0	-5.09	-0.002938		
	10	-5.32	-0.003071		
	20	-4.55	-0.002626		
	30	4.12	0.002378		
	40	-1.65	-0.000952		
	50	-2.62	-0.001512		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-6.58	-0.003798	Within authorized band for Band 4	Pass
	3.87	-9.84	-0.005680		
	4.45	-6.78	-0.003913		
16QAM					
25	3.45	2.05	0.001183	Within authorized band for Band 4	Pass
	3.87	4.03	0.002326		
	4.45	-4.81	-0.002776		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.87	-30	-2.76	-0.003299	±2.5	Pass
	-20	-6.51	-0.007782		
	-10	-2.15	-0.002570		
	0	-7.28	-0.008703		
	10	-4.84	-0.005786		
	20	-7.08	-0.008464		
	30	-7.48	-0.008942		
	40	-5.68	-0.006790		
	50	-4.42	-0.005284		
16QAM					
3.87	-30	-4.48	-0.005356	±2.5	Pass
	-20	-5.99	-0.007161		
	-10	-4.16	-0.004973		
	0	-3.19	-0.003814		
	10	-3.46	-0.004136		
	20	-2.53	-0.003025		
	30	-2.65	-0.003168		
	40	-5.29	-0.006324		
	50	-5.71	-0.006826		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-5.48	-0.006551	±2.5	Pass
	3.87	-4.09	-0.004889		
	4.45	-2.99	-0.003574		
16QAM					
25	3.45	-7.04	-0.008416	±2.5	Pass
	3.87	1.49	0.001781		
	4.45	-5.87	-0.007017		
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					
3.87	-30	-18.00	-0.007101	Within authorized band for Band 7	Pass
	-20	-16.12	-0.006359		
	-10	10.79	0.004256		
	0	-13.79	-0.005440		
	10	-7.47	-0.002947		
	20	-10.11	-0.003988		
	30	-7.34	-0.002895		
	40	-8.23	-0.003247		
	50	-10.07	-0.003972		
16QAM					
3.87	-30	-10.13	-0.003996	Within authorized band for Band 7	Pass
	-20	-16.71	-0.006592		
	-10	-6.72	-0.002651		
	0	-4.78	-0.001886		
	10	-7.17	-0.002828		
	20	-11.12	-0.004387		
	30	6.41	0.002529		
	40	-11.01	-0.004343		
	50	-6.61	-0.002607		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-16.28	-0.006422	Within authorized band for Band 7	Pass
	3.87	-9.50	-0.003748		
	4.45	-5.91	-0.002331		
16QAM					
25	3.45	-10.77	-0.004249	Within authorized band for Band 7	Pass
	3.87	-13.42	-0.005294		
	4.45	-13.89	-0.005479		
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	-3.56	-0.001372	Within authorized band for Band 41	Pass
	-20	-7.65	-0.002948		
	-10	-11.83	-0.004559		
	0	-5.72	-0.002204		
	10	-9.27	-0.003572		
	20	3.81	0.001468		
	30	4.84	0.001865		
	40	8.87	0.003418		
	50	-6.31	-0.002432		
16QAM					
3.87	-30	-7.70	-0.002967	Within authorized band for Band 41	Pass
	-20	-7.91	-0.003048		
	-10	-5.08	-0.001958		
	0	-8.40	-0.003237		
	10	-6.95	-0.002678		
	20	-3.20	-0.001233		
	30	-7.10	-0.002736		
	40	-4.45	-0.001715		
	50	-10.86	-0.004185		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-7.31	-0.002817	Within authorized band for Band 41	Pass
	3.87	-7.01	-0.002701		
	4.45	-9.47	-0.003649		
16QAM					
25	3.45	8.20	0.003160	Within authorized band for Band41	Pass
	3.87	-4.82	-0.001857		
	4.45	-8.51	-0.003279		
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
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

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

