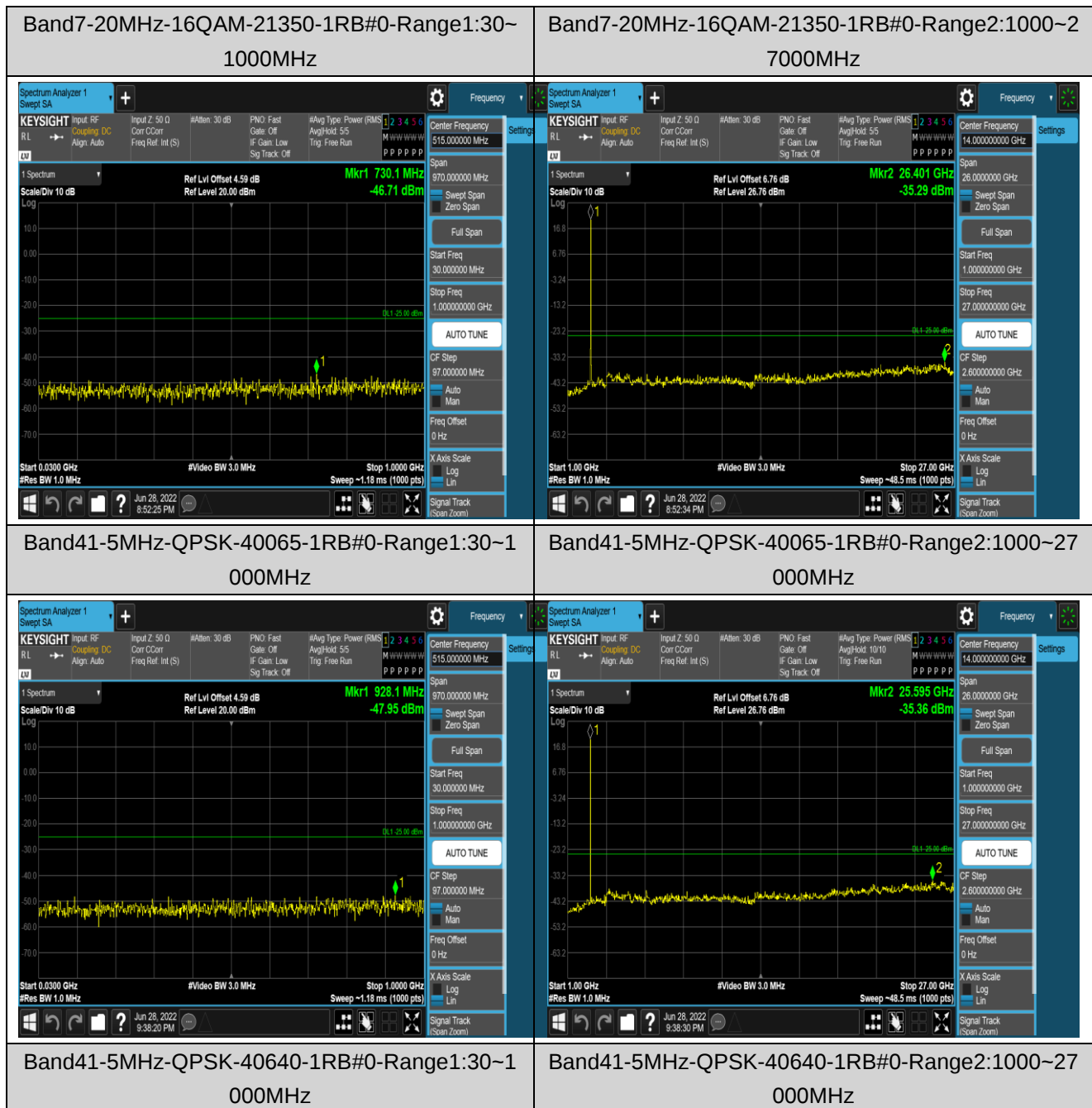
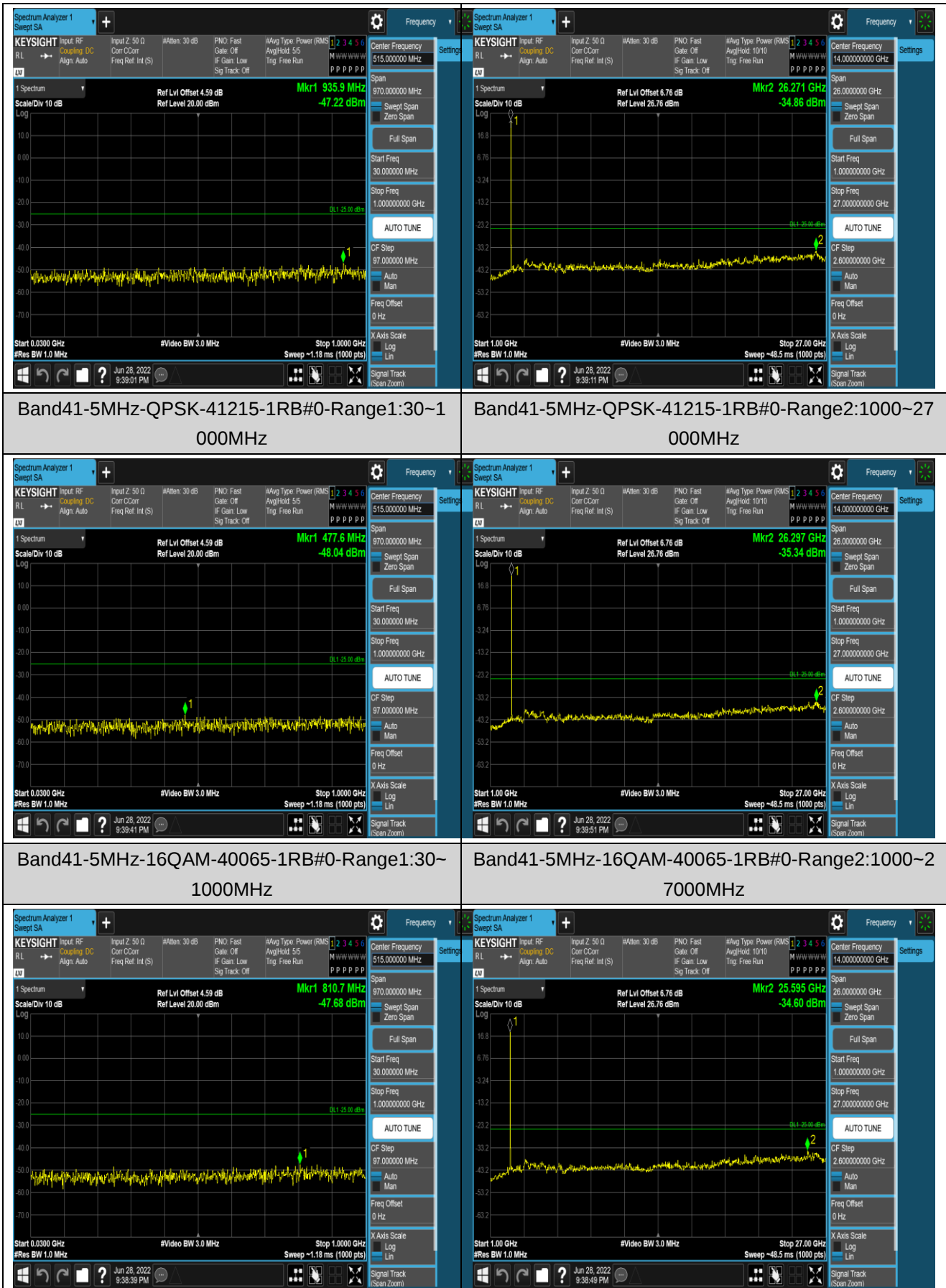




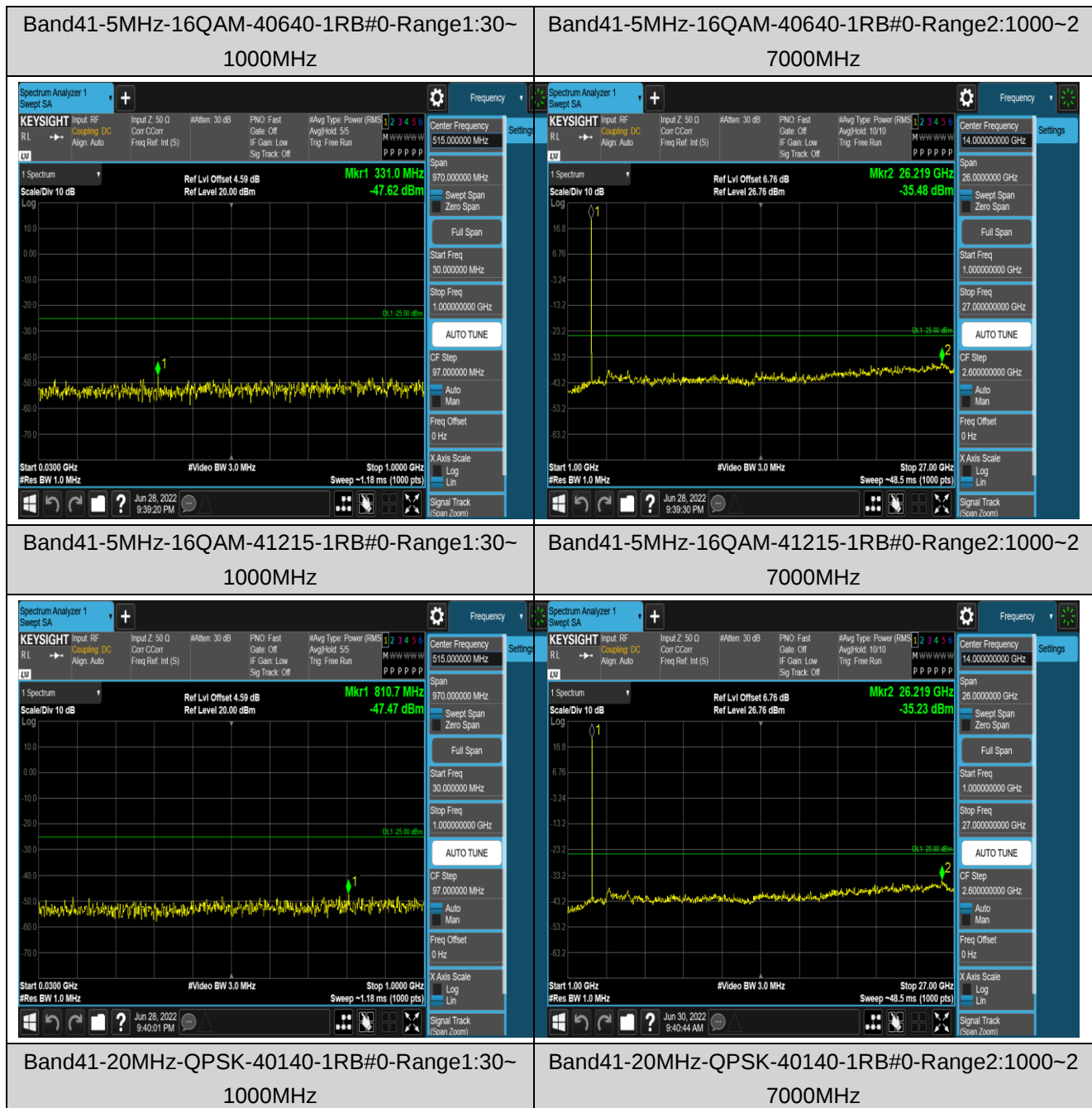


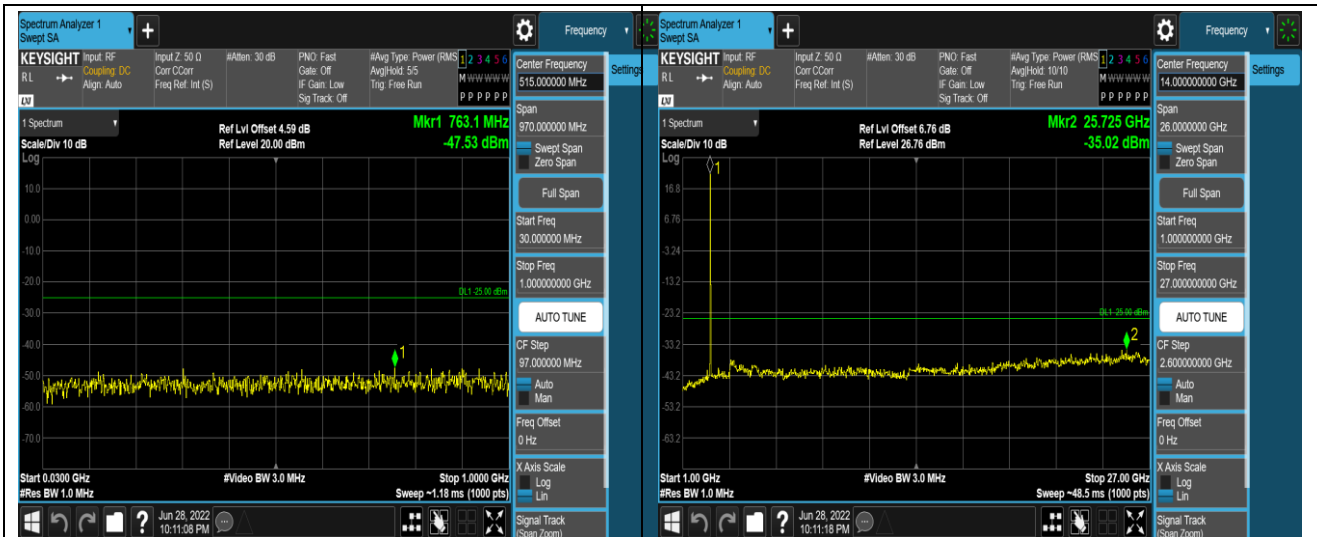
JianYan Testing Group Shenzhen Co., Ltd.

No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

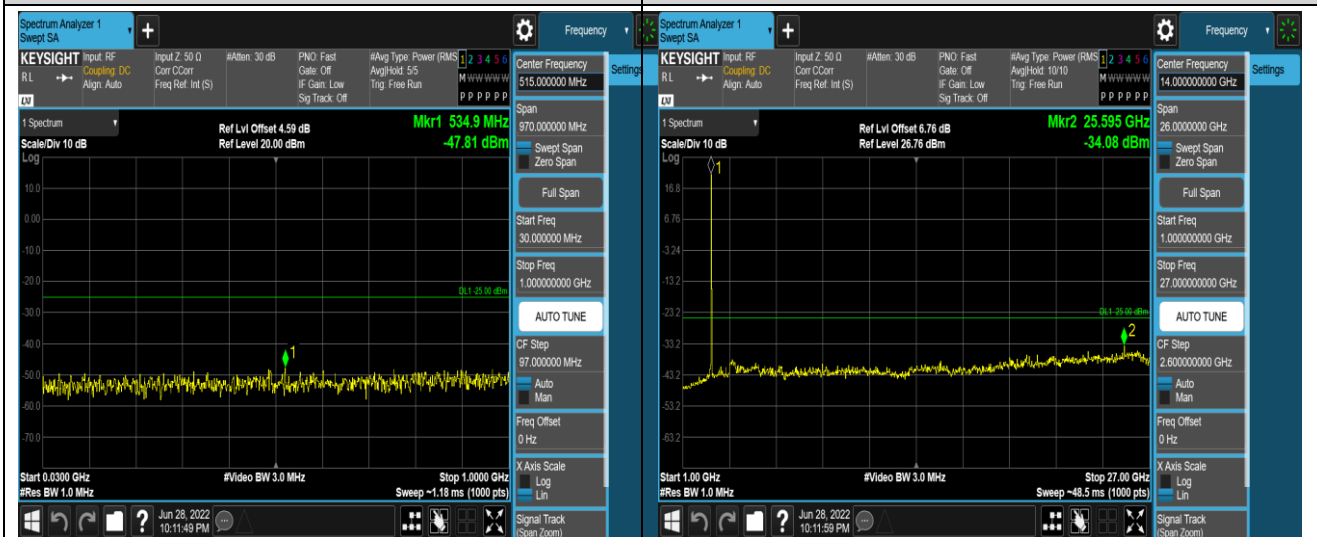
Project No.: JYTSZR2206017





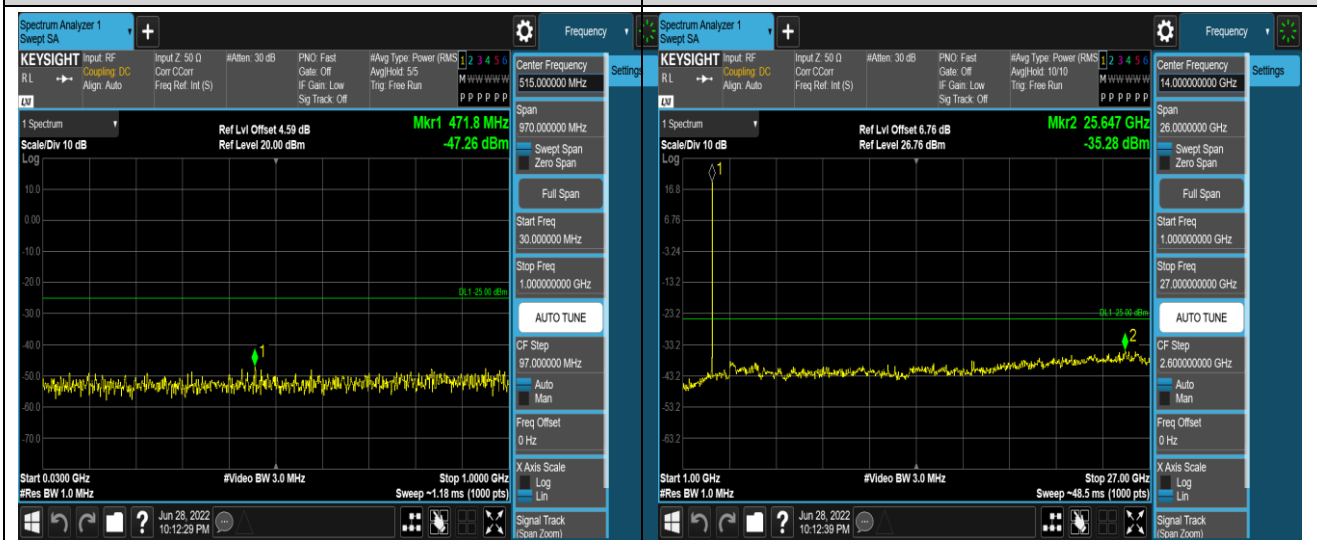
Band41-20MHz-QPSK-40640-1RB#0-Range1:30~1000MHz

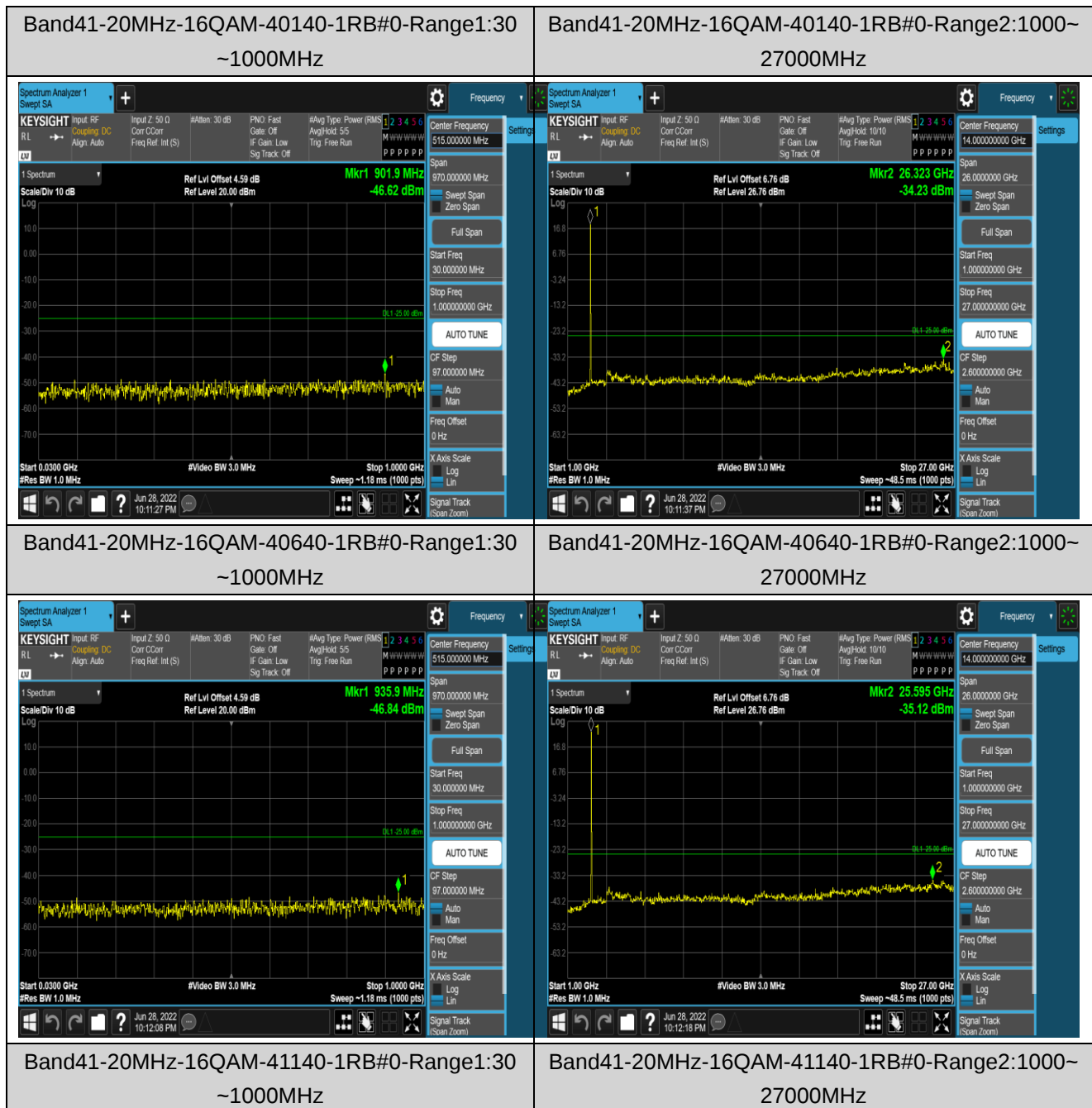
Band41-20MHz-QPSK-40640-1RB#0-Range2:1000~27000MHz

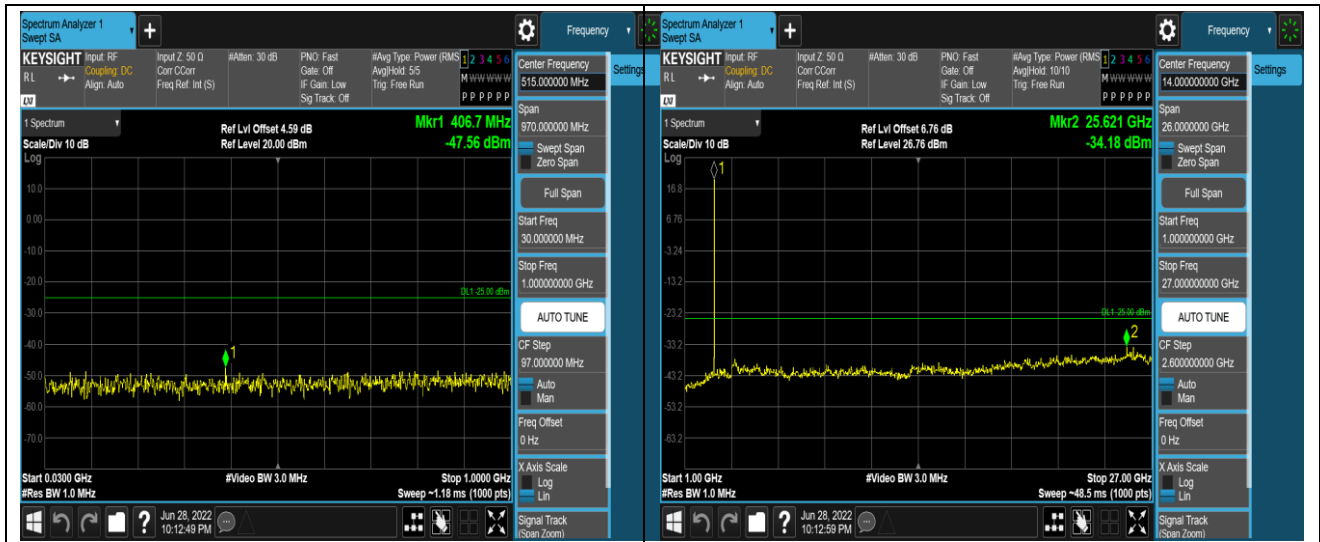


Band41-20MHz-QPSK-41140-1RB#0-Range1:30~1000MHz

Band41-20MHz-QPSK-41140-1RB#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	-1.80	-0.000957	Within authorized band for Band 2	Pass
	-20	-13.26	-0.007053		
	-10	4.95	0.002633		
	0	-3.42	-0.001819		
	10	4.63	0.002463		
	20	-10.77	-0.005729		
	30	-5.72	-0.003043		
	40	-8.57	-0.004559		
	50	-12.17	-0.006473		
16QAM					
3.87	-30	-10.51	-0.005590	Within authorized band for Band 2	Pass
	-20	9.48	0.005043		
	-10	-7.07	-0.003761		
	0	4.26	0.002266		
	10	-4.18	-0.002223		
	20	6.65	0.003537		
	30	-13.23	-0.007037		
	40	4.71	0.002505		
	50	10.30	0.005479		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-19.63	-0.010441	Within authorized band for Band 2	Pass
	3.87	6.97	0.003707		
	4.45	-8.28	-0.004404		
16QAM					
25	3.45	-9.30	-0.004947	Within authorized band for Band 2	Pass
	3.87	-7.98	-0.004245		
	4.45	-5.39	-0.002867		
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	-4.86	-0.002805	Within authorized band for Band 4	Pass
	-20	5.84	0.003371		
	-10	-13.07	-0.007544		
	0	4.62	0.002667		
	10	8.07	0.004658		
	20	4.11	0.002372		
	30	-7.82	-0.004514		
	40	4.53	0.002615		
	50	7.58	0.004375		
16QAM					
3.87	-30	7.28	0.004202	Within authorized band for Band 4	Pass
	-20	-3.19	-0.001841		
	-10	-11.77	-0.006794		
	0	6.15	0.003550		
	10	3.88	0.002240		
	20	6.84	0.003948		
	30	3.98	0.002297		
	40	-3.02	-0.001743		
	50	2.33	0.001345		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-9.61	-0.005547	Within authorized band for Band 4	Pass
	3.87	-5.81	-0.003354		
	4.45	-9.53	-0.005501		
16QAM					
25	3.45	-6.05	-0.003492	Within authorized band for Band 4	Pass
	3.87	7.04	0.004063		
	4.45	-5.15	-0.002973		
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	-4.65	-0.005559	±2.5	Pass
	-20	-5.48	-0.006551		
	-10	-5.04	-0.006025		
	0	-5.01	-0.005989		
	10	-5.55	-0.006635		
	20	-5.38	-0.006432		
	30	-5.22	-0.006240		
	40	-4.63	-0.005535		
	50	-3.23	-0.003861		
16QAM					
3.87	-30	-3.18	-0.003802	±2.5	Pass
	-20	-4.86	-0.005810		
	-10	-6.71	-0.008022		
	0	-2.93	-0.003503		
	10	-5.12	-0.006121		
	20	-5.68	-0.006790		
	30	-4.22	-0.005045		
	40	-4.52	-0.005403		
	50	-2.45	-0.002929		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-4.11	-0.004913	±2.5	Pass
	3.87	3.96	0.004734		
	4.45	-7.10	-0.008488		
16QAM					
25	3.45	1.99	0.002379	±2.5	Pass
	3.87	-4.45	-0.005320		
	4.45	-5.19	-0.006204		
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	-8.25	-0.003254	Within authorized band for Band 7	Pass
	-20	-3.18	-0.001254		
	-10	-7.45	-0.002939		
	0	-14.15	-0.005582		
	10	7.52	0.002966		
	20	9.47	0.003736		
	30	-11.83	-0.004667		
	40	-10.34	-0.004079		
	50	-4.23	-0.001669		
16QAM					
3.87	-30	-10.37	-0.004091	Within authorized band for Band 7	Pass
	-20	-9.14	-0.003606		
	-10	-9.47	-0.003736		
	0	-15.98	-0.006304		
	10	-10.49	-0.004138		
	20	7.44	0.002935		
	30	5.45	0.002150		
	40	-10.84	-0.004276		
	50	6.90	0.002722		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-7.55	-0.002978	Within authorized band for Band 7	Pass
	3.87	13.45	0.005306		
	4.45	-16.55	-0.006529		
16QAM					
25	3.45	-9.13	-0.003602	Within authorized band for Band 7	Pass
	3.87	9.54	0.003763		
	4.45	-13.56	-0.005349		
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	-7.52	-0.002898	Within authorized band for Band 41	Pass
	-20	-7.64	-0.002944		
	-10	-11.06	-0.004262		
	0	-7.72	-0.002975		
	10	-2.90	-0.001118		
	20	5.06	0.001950		
	30	-8.43	-0.003249		
	40	-4.59	-0.001769		
	50	2.80	0.001079		
16QAM					
3.87	-30	-4.23	-0.001630	Within authorized band for Band 41	Pass
	-20	-2.43	-0.000936		
	-10	-8.08	-0.003114		
	0	-4.52	-0.001742		
	10	-6.59	-0.002539		
	20	-6.59	-0.002539		
	30	-7.94	-0.003060		
	40	-9.93	-0.003827		
	50	-5.22	-0.002012		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-12.36	-0.004763	Within authorized band for Band 41	Pass
	3.87	5.38	0.002073		
	4.45	-10.71	-0.004127		
16QAM					
25	3.45	5.22	0.002012	Within authorized band for Band41	Pass
	3.87	-6.98	-0.002690		
	4.45	7.37	0.002840		
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

