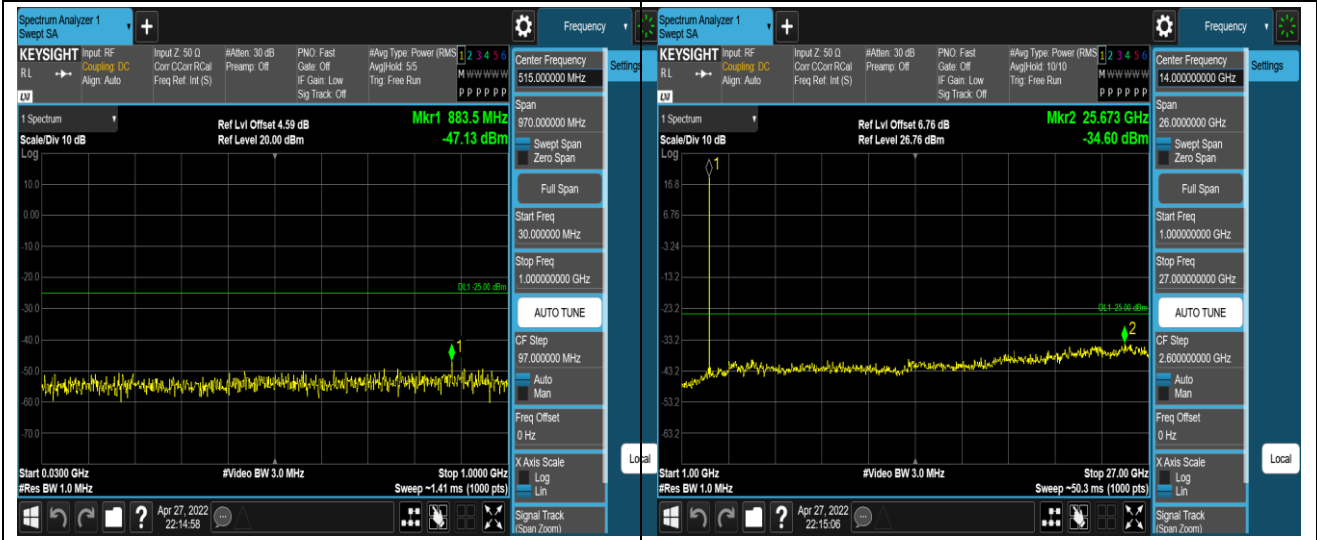


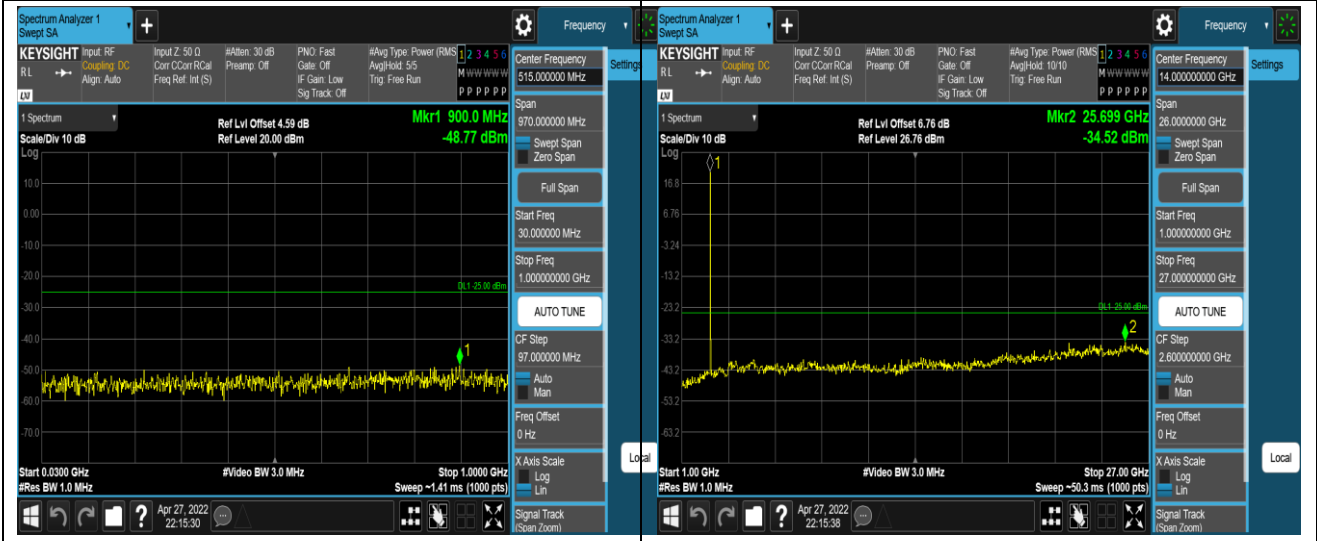
Band41-5MHz-QPSK-40065-1RB#0-Range1:30~1000MHz

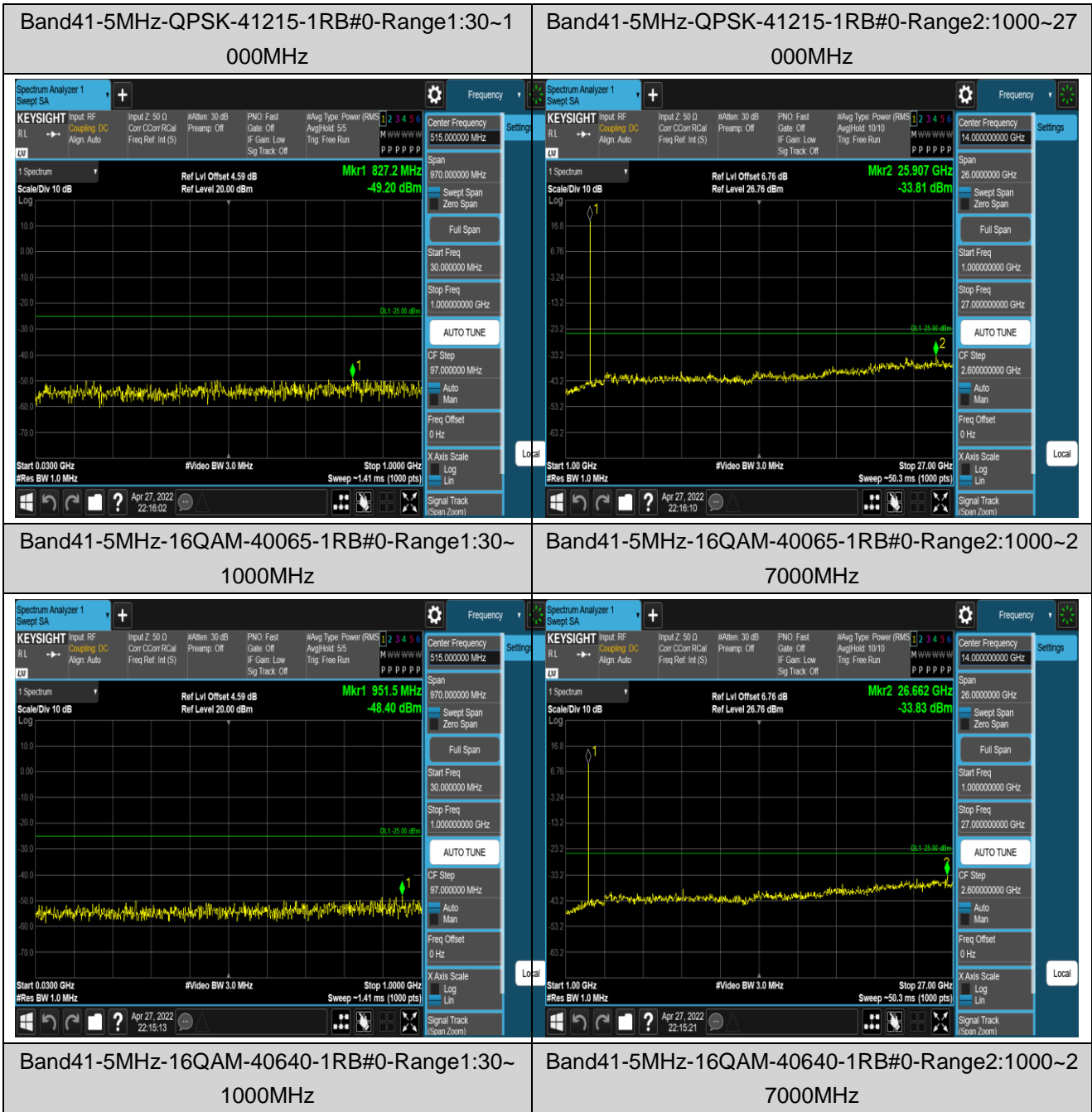
Band41-5MHz-QPSK-40065-1RB#0-Range2:1000~27000MHz

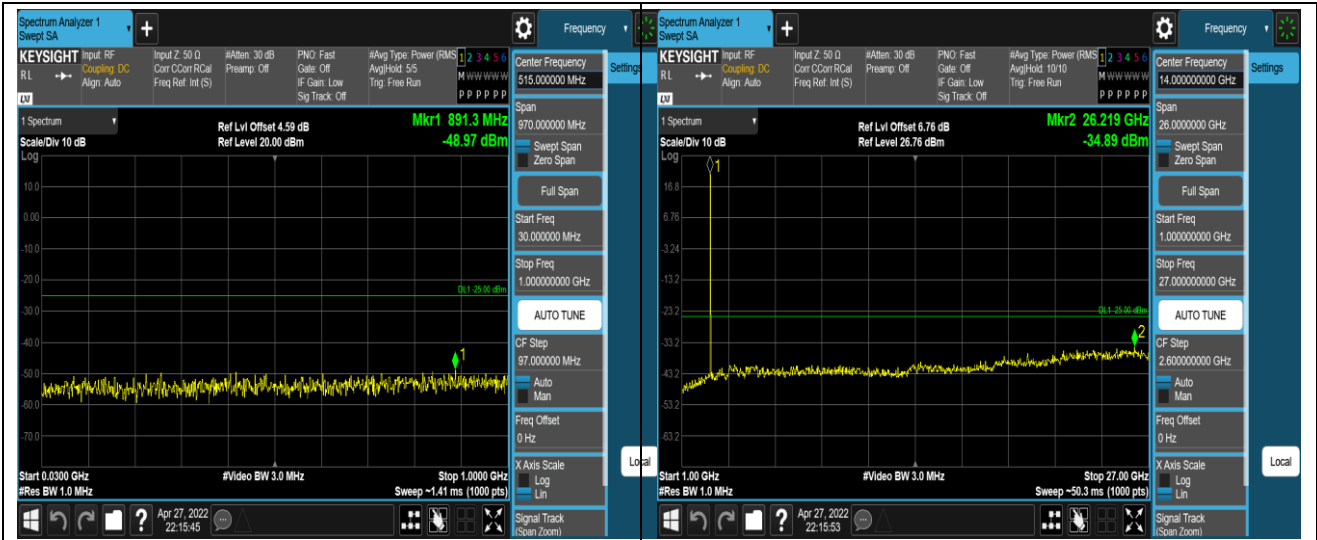


Band41-5MHz-QPSK-40640-1RB#0-Range1:30~1000MHz

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

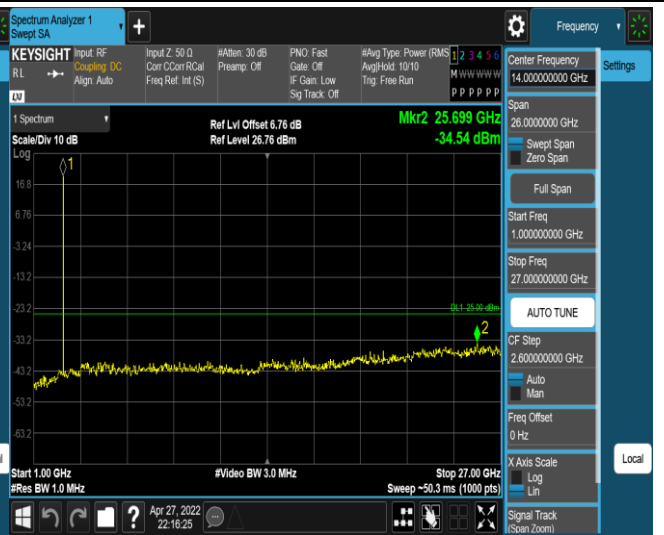






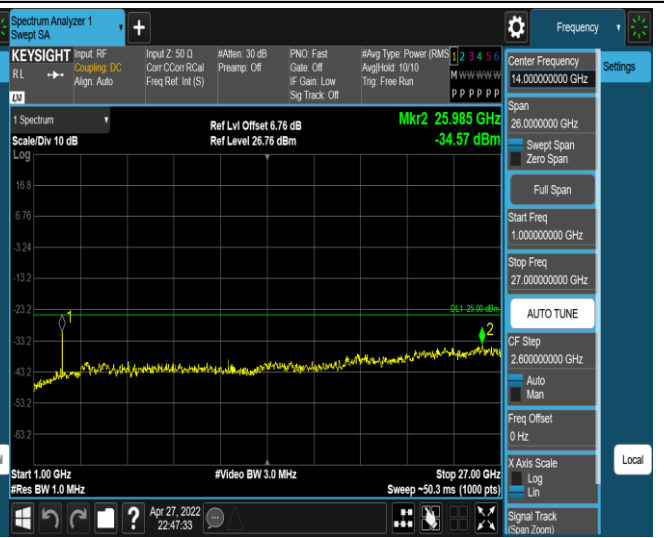
Band41-5MHz-16QAM-41215-1RB#0-Range1:30~1000MHz

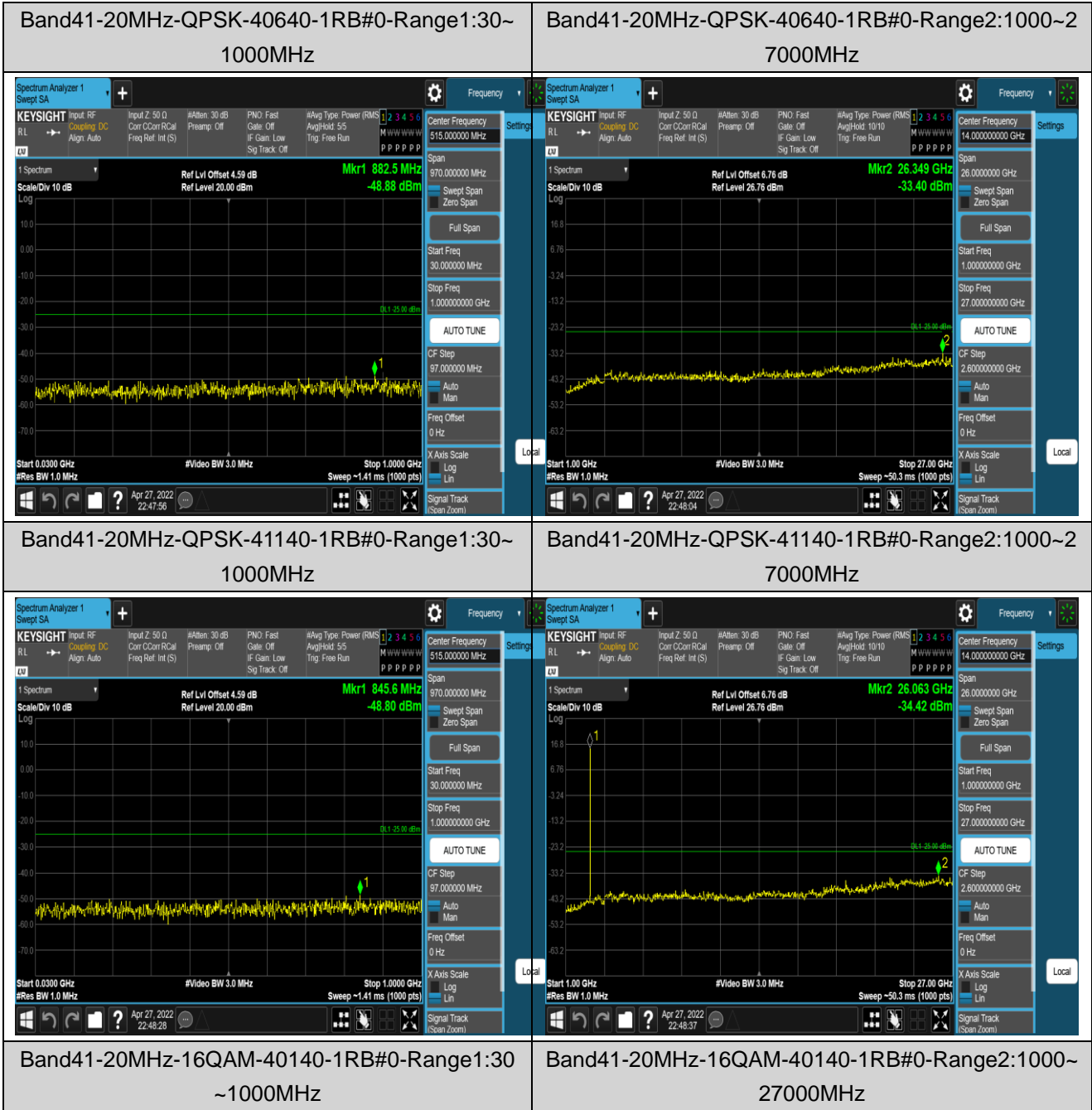
Band41-5MHz-16QAM-41215-1RB#0-Range2:1000~27000MHz

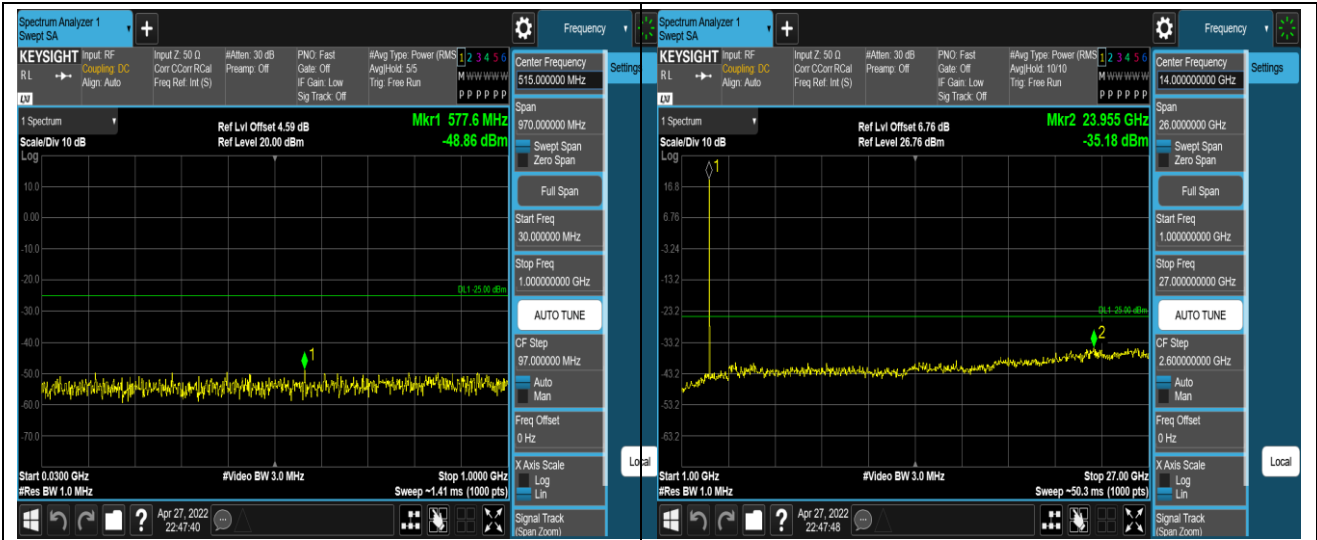


Band41-20MHz-QPSK-40140-1RB#0-Range1:30~1000MHz

Band41-20MHz-QPSK-40140-1RB#0-Range2:1000~27000MHz

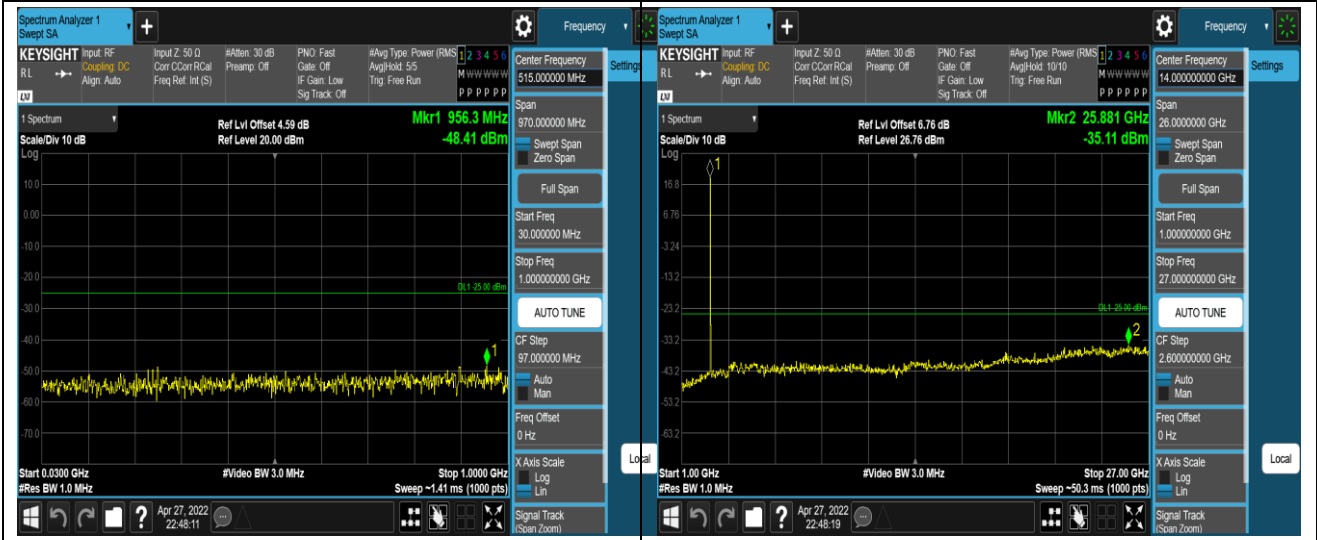






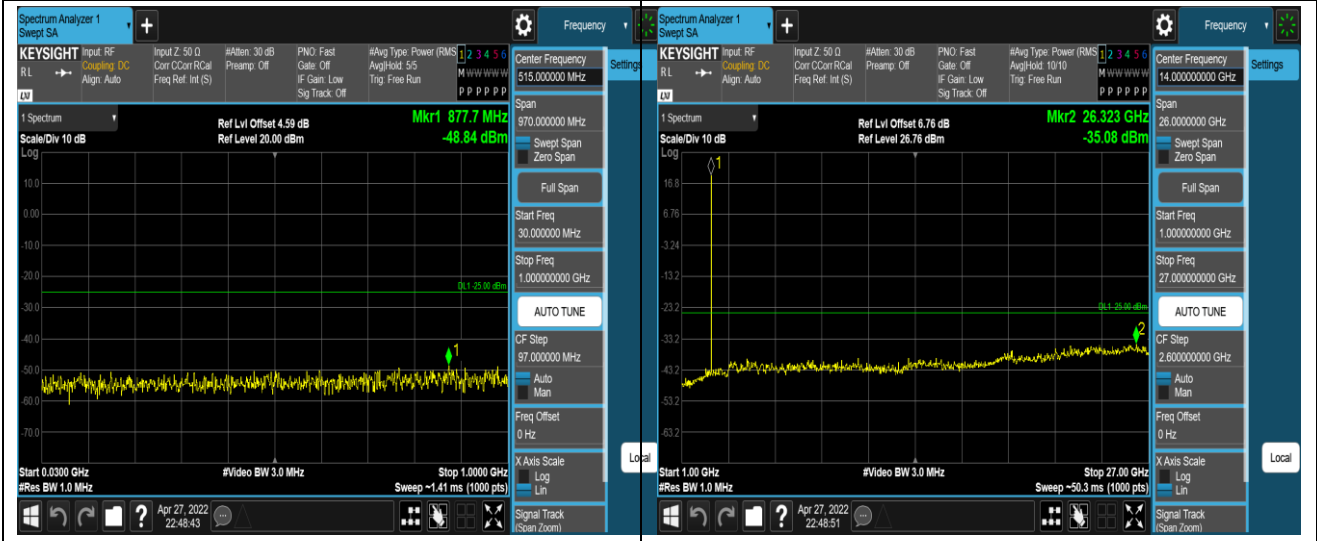
Band41-20MHz-16QAM-40640-1RB#0-Range1:30
~1000MHz

Band41-20MHz-16QAM-40640-1RB#0-Range2:1000~
27000MHz



Band41-20MHz-16QAM-41140-1RB#0-Range1:30
~1000MHz

Band41-20MHz-16QAM-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					
3.85	-30	-7.88	-0.004191	Within authorized band for Band 2	Pass
	-20	-11.00	-0.005851		
	-10	-9.87	-0.005250		
	0	-14.29	-0.007601		
	10	-13.69	-0.007282		
	20	-13.53	-0.007197		
	30	-11.76	-0.006255		
	40	-12.33	-0.006559		
	50	-15.11	-0.008037		
16QAM					
3.85	-30	-13.65	-0.007261	Within authorized band for Band 2	Pass
	-20	-13.38	-0.007117		
	-10	-11.47	-0.006101		
	0	-13.46	-0.007160		
	10	-5.41	-0.002878		
	20	-13.78	-0.007330		
	30	-12.87	-0.006846		
	40	-7.68	-0.004085		
	50	-2.66	-0.001415		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-12.56	-0.006681	Within authorized band for Band 2	Pass
	3.85	-14.88	-0.007915		
	4.40	-14.71	-0.007824		
16QAM					
25	3.45	-4.41	-0.002346	Within authorized band for Band 2	Pass
	3.85	-3.76	-0.002000		
	4.40	-15.65	-0.008324		

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					
3.85	-30	-11.32	-0.006534	Within authorized band for Band 4	Pass
	-20	-15.11	-0.008722		
	-10	-6.27	-0.003619		
	0	-10.99	-0.006343		
	10	-4.65	-0.002684		
	20	-12.22	-0.007053		
	30	-13.12	-0.007573		
	40	-13.06	-0.007538		
	50	-9.33	-0.005385		
16QAM					
3.85	-30	-12.47	-0.007198	Within authorized band for Band 4	Pass
	-20	-11.50	-0.006638		
	-10	-4.94	-0.002851		
	0	-5.22	-0.003013		
	10	-9.26	-0.005345		
	20	-10.40	-0.006003		
	30	-10.57	-0.006101		
	40	-4.61	-0.002661		
	50	-10.37	-0.005986		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-13.09	-0.007556	Within authorized band for Band 4	Pass
	3.85	-8.75	-0.005051		
	4.40	-10.80	-0.006234		
16QAM					
25	3.45	-8.18	-0.004722	Within authorized band for Band 4	Pass
	3.85	-8.48	-0.004895		
	4.40	-10.74	-0.006199		

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 (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.85	-30	-5.74	-0.006862	±2.5	Pass
	-20	-9.18	-0.010974		
	-10	-12.79	-0.015290		
	0	-11.92	-0.014250		
	10	-6.17	-0.007376		
	20	-10.61	-0.012684		
	30	-11.12	-0.013293		
	40	-11.12	-0.013293		
	50	-8.91	-0.010652		
16QAM					
3.85	-30	-7.45	-0.008906	±2.5	Pass
	-20	-5.22	-0.006240		
	-10	-6.15	-0.007352		
	0	-9.58	-0.011452		
	10	-8.77	-0.010484		
	20	-3.03	-0.003622		
	30	-3.75	-0.004483		
	40	-8.60	-0.010281		
	50	-6.61	-0.007902		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-7.51	-0.008978	±2.5	Pass
	3.85	-8.74	-0.010448		
	4.40	-7.02	-0.008392		
16QAM					
25	3.45	-11.42	-0.013652	±2.5	Pass
	3.85	-11.27	-0.013473		
	4.40	-9.17	-0.010962		

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					
3.85	-30	-14.28	-0.005633	Within authorized band for Band 7	Pass
	-20	-12.26	-0.004836		
	-10	-12.60	-0.004970		
	0	-18.81	-0.007420		
	10	-16.38	-0.006462		
	20	-11.39	-0.004493		
	30	-14.05	-0.005542		
	40	-6.49	-0.002560		
	50	-6.35	-0.002505		
16QAM					
3.85	-30	-12.46	-0.004915	Within authorized band for Band 7	Pass
	-20	-13.65	-0.005385		
	-10	-3.09	-0.001219		
	0	-12.92	-0.005097		
	10	-10.97	-0.004327		
	20	11.06	0.004363		
	30	-10.36	-0.004087		
	40	-10.49	-0.004138		
	50	-10.27	-0.004051		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-7.82	-0.003085	Within authorized band for Band 7	Pass
	3.85	-12.80	-0.005049		
	4.40	-11.59	-0.004572		
16QAM					
25	3.45	-19.94	-0.007866	Within authorized band for Band 7	Pass
	3.85	-15.19	-0.005992		
	4.40	-16.88	-0.006659		

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					
3.85	-30	-7.94	-0.003060	Within authorized band for Band 41	Pass
	-20	-7.80	-0.003006		
	-10	-5.22	-0.002012		
	0	-8.41	-0.003241		
	10	-6.90	-0.002659		
	20	-10.56	-0.004069		
	30	-5.31	-0.002046		
	40	-9.61	-0.003703		
	50	-7.11	-0.002740		
16QAM					
3.85	-30	-2.65	-0.001021	Within authorized band for Band 41	Pass
	-20	5.29	0.002039		
	-10	-2.43	-0.000936		
	0	-7.22	-0.002782		
	10	-12.33	-0.004751		
	20	-6.41	-0.002470		
	30	-2.39	-0.000921		
	40	-18.15	-0.006994		
	50	-38.21	-0.014724		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-8.04	-0.003098	Within authorized band for Band 41	Pass
	3.85	-6.48	-0.002497		
	4.40	-8.31	-0.003202		
16QAM					
25	3.45	-9.77	-0.003765	Within authorized band for Band41	Pass
	3.85	-9.77	-0.003765		
	4.40	-8.21	-0.003164		

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

