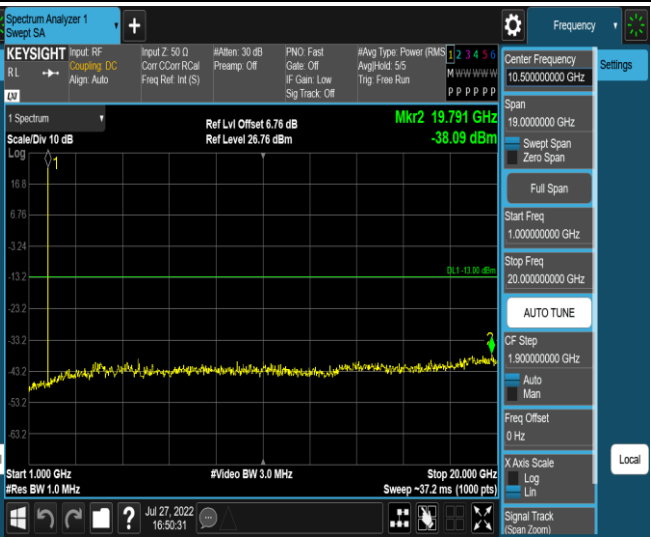
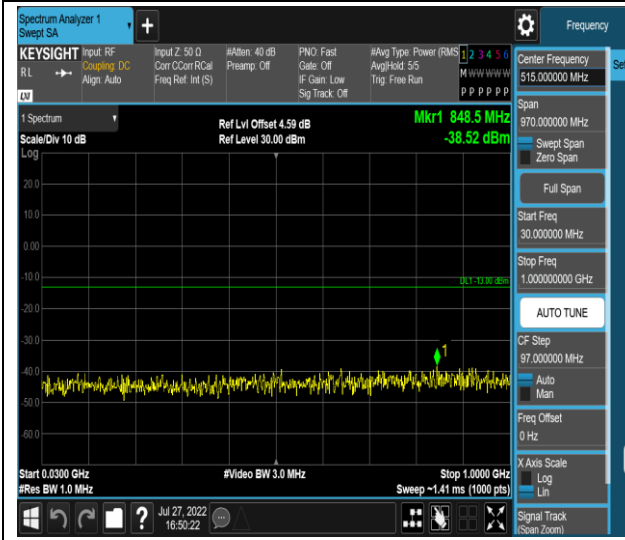


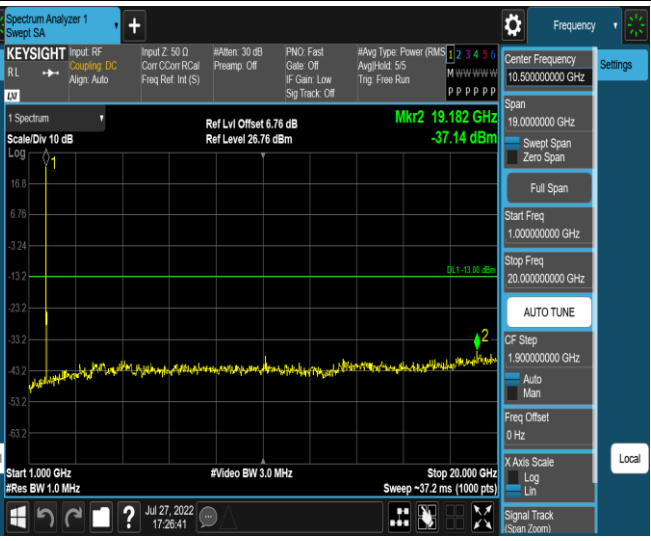
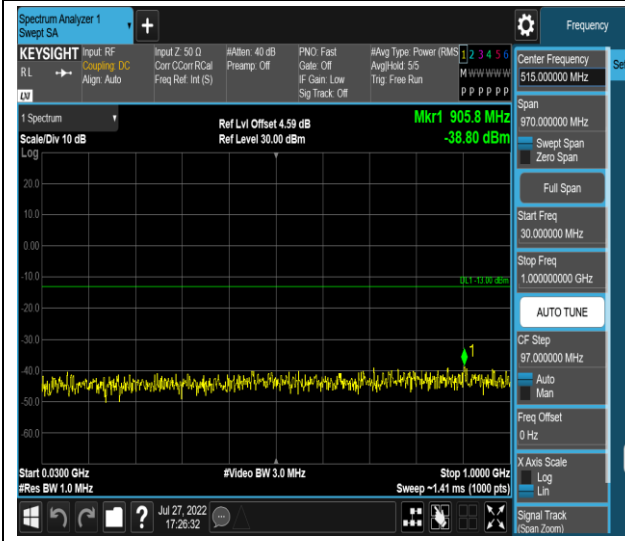
Band66-1.4MHz-16QAM-132665-1RB#0-Range1:3  
0~1000MHz

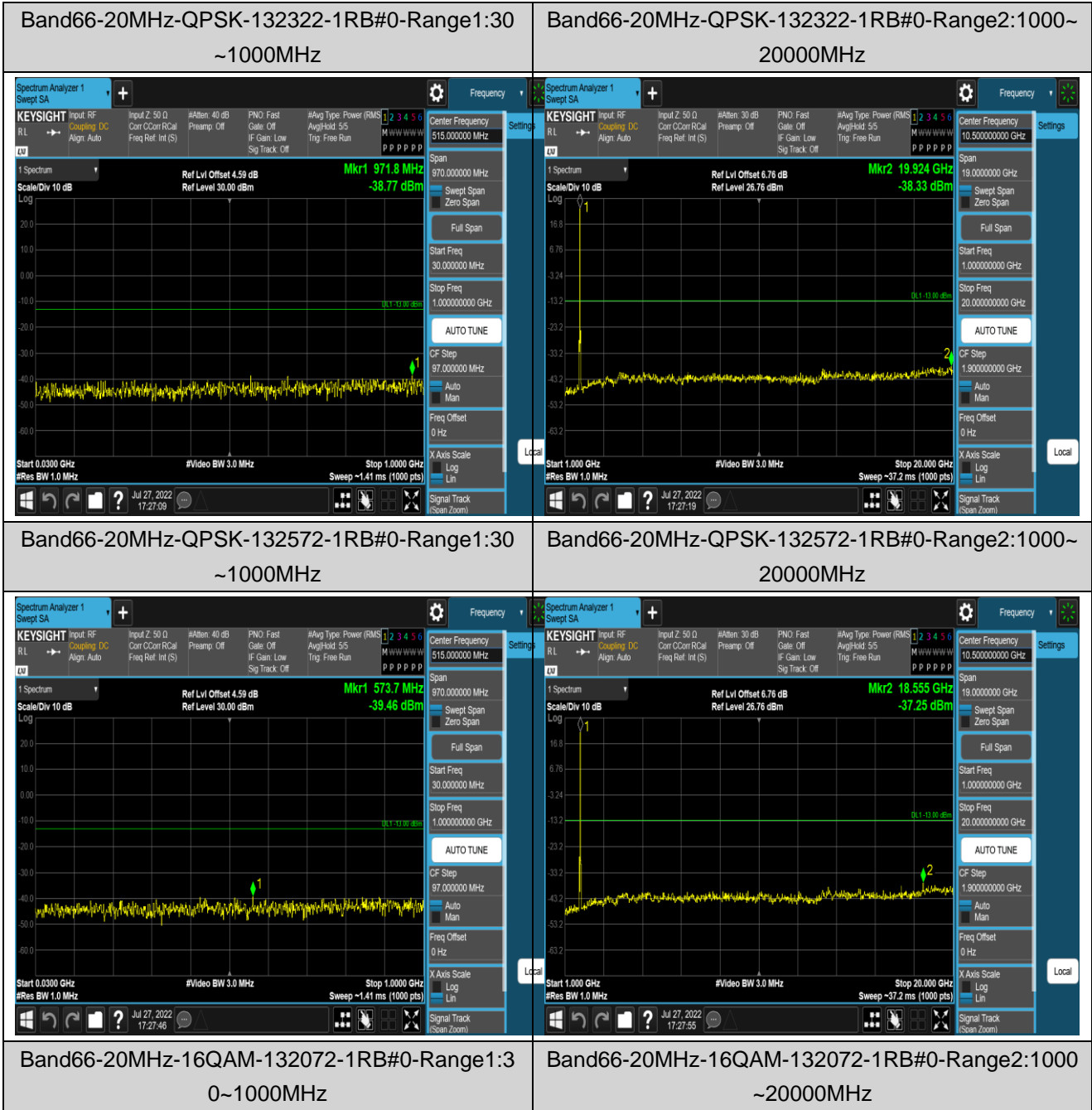
Band66-1.4MHz-16QAM-132665-1RB#0-Range2:100  
0~20000MHz



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

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

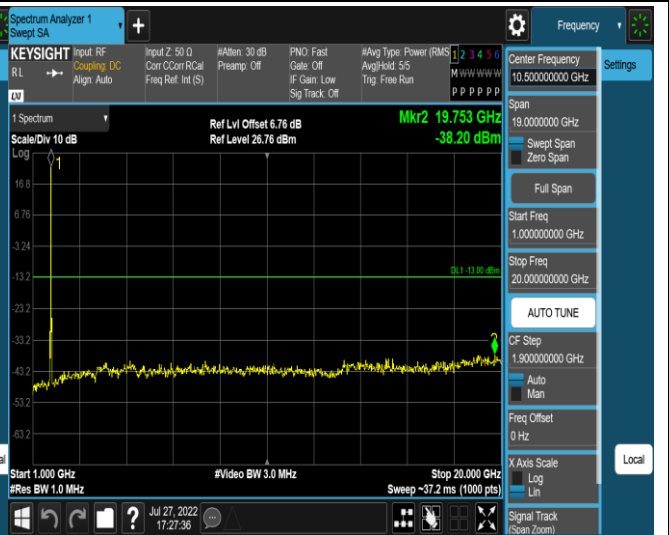
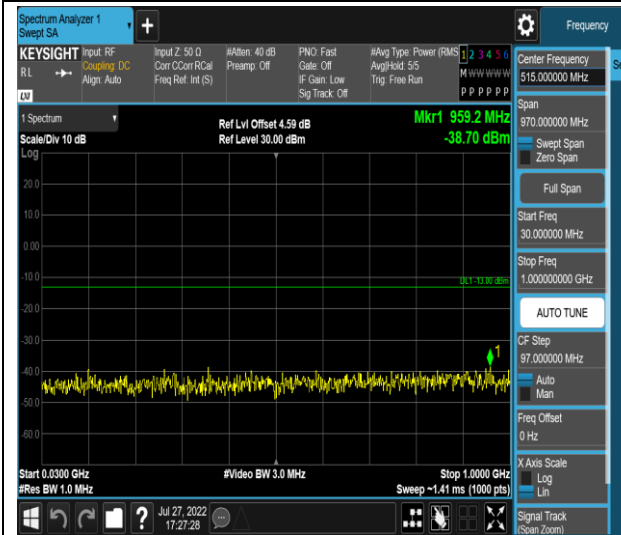






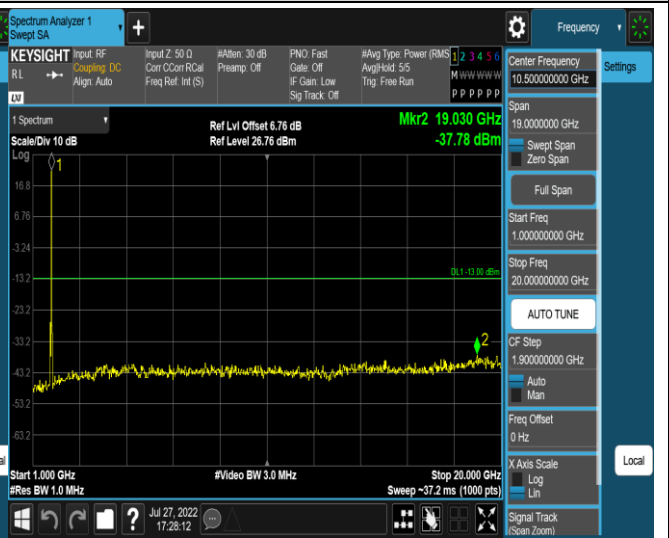
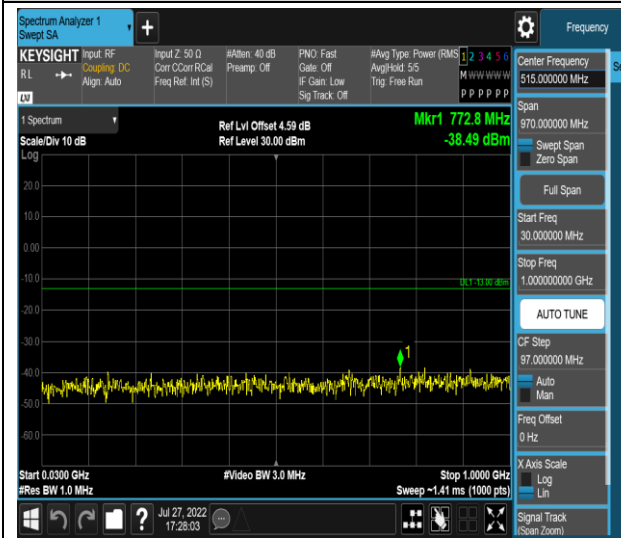
Band66-20MHz-16QAM-132322-1RB#0-Range1:3  
0~1000MHz

Band66-20MHz-16QAM-132322-1RB#0-Range2:1000  
~20000MHz



Band66-20MHz-16QAM-132572-1RB#0-Range1:3  
0~1000MHz

Band66-20MHz-16QAM-132572-1RB#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	-6.98	-0.003713	Within authorized band for Band 2	Pass
	-20	8.93	0.004750		
	-10	6.21	0.003303		
	0	11.13	0.005920		
	10	6.31	0.003356		
	20	9.37	0.004984		
	30	11.80	0.006277		
	40	7.15	0.003803		
	50	9.31	0.004952		
16QAM					
3.87	-30	8.83	0.004697	Within authorized band for Band 2	Pass
	-20	-7.60	-0.004043		
	-10	10.04	0.005340		
	0	4.82	0.002564		
	10	9.20	0.004894		
	20	9.16	0.004872		
	30	12.25	0.006516		
	40	12.80	0.006809		
	50	7.27	0.003867		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	10.96	0.005830	Within authorized band for Band 2	Pass
	3.87	11.76	0.006255		
	4.45	4.05	0.002154		
16QAM					
25	3.45	13.53	0.007197	Within authorized band for Band 2	Pass
	3.87	-5.94	-0.003160		
	4.45	9.50	0.005053		

*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		
<b>QPSK</b>					
3.87	-30	-1.66	-0.001984	±2.5	Pass
	-20	-3.76	-0.004495		
	-10	-4.65	-0.005559		
	0	-4.46	-0.005332		
	10	-3.02	-0.003610		
	20	-7.78	-0.009301		
	30	-5.41	-0.006467		
	40	-6.90	-0.008249		
	50	-2.75	-0.003288		
<b>16QAM</b>					
3.87	-30	-7.80	-0.009325	±2.5	Pass
	-20	3.23	0.003861		
	-10	-7.42	-0.008870		
	0	-3.72	-0.004447		
	10	1.93	0.002307		
	20	-4.53	-0.005415		
	30	-5.21	-0.006228		
	40	-6.62	-0.007914		
	50	-1.57	-0.001877		
<b>Voltage</b>					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
<b>QPSK</b>					
25	3.45	-4.69	-0.005607	±2.5	Pass
	3.87	-2.89	-0.003455		
	4.45	-4.91	-0.005870		
<b>16QAM</b>					
25	3.45	-4.52	-0.005403	±2.5	Pass
	3.87	-6.15	-0.007352		
	4.45	-7.90	-0.009444		

*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	-15.32	-0.006043	Within authorized band for Band 7	Pass
	-20	5.89	0.002323		
	-10	-13.86	-0.005467		
	0	12.75	0.005030		
	10	-15.74	-0.006209		
	20	-16.44	-0.006485		
	30	-16.99	-0.006702		
	40	-11.33	-0.004469		
	50	-14.76	-0.005822		
16QAM					
3.87	-30	7.14	0.002817	Within authorized band for Band 7	Pass
	-20	9.84	0.003882		
	-10	-15.28	-0.006028		
	0	-4.58	-0.001807		
	10	13.36	0.005270		
	20	-11.64	-0.004592		
	30	-14.73	-0.005811		
	40	-6.69	-0.002639		
	50	7.74	0.003053		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-15.75	-0.006213	Within authorized band for Band 7	Pass
	3.87	-9.77	-0.003854		
	4.45	-14.68	-0.005791		
16QAM					
25	3.45	-14.75	-0.005819	Within authorized band for Band 7	Pass
	3.87	-15.31	-0.006039		
	4.45	-16.48	-0.006501		

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	-10.99	-0.004238	Within authorized band for Band 41	Pass
	-20	-8.34	-0.003216		
	-10	-9.83	-0.003791		
	0	-15.16	-0.005847		
	10	-9.31	-0.003590		
	20	-11.62	-0.004481		
	30	1.54	0.000594		
	40	-5.25	-0.002025		
	50	3.00	0.001157		
16QAM					
3.87	-30	-5.42	-0.002090	Within authorized band for Band 41	Pass
	-20	-15.92	-0.006140		
	-10	-13.42	-0.005175		
	0	-8.25	-0.003182		
	10	-16.68	-0.006433		
	20	-6.25	-0.002410		
	30	-6.72	-0.002592		
	40	-4.32	-0.001666		
	50	-7.95	-0.003066		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-8.21	-0.003166	Within authorized band for Band 41	Pass
	3.87	-7.78	-0.003000		
	4.45	-3.19	-0.001230		
16QAM					
25	3.45	-10.37	-0.003999	Within authorized band for Band41	Pass
	3.87	-13.85	-0.005341		
	4.45	-7.31	-0.002819		
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	3.49	0.002000	Within authorized band for Band 66	Pass
	-20	-10.71	-0.006138		
	-10	-8.80	-0.005043		
	0	4.32	0.002476		
	10	-10.60	-0.006074		
	20	10.46	0.005994		
	30	-8.08	-0.004630		
	40	9.28	0.005318		
	50	7.88	0.004516		
16QAM					
3.87	-30	9.18	0.005261	Within authorized band for Band 66	Pass
	-20	-11.73	-0.006722		
	-10	8.20	0.004699		
	0	-9.11	-0.005221		
	10	12.42	0.007117		
	20	13.55	0.007765		
	30	-6.28	-0.003599		
	40	-10.97	-0.006287		
	50	-11.12	-0.006372		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.45	-13.75	-0.007880	Within authorized band for Band 66	Pass
	3.87	-9.08	-0.005203		
	4.45	-4.63	-0.002653		
16QAM					
25	3.45	-10.89	-0.006241	Within authorized band for Band 66	Pass
	3.87	-9.18	-0.005261		
	4.45	-14.69	-0.008418		
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
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	40620	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40620	100RB#0	PASS	PASS
Band66	20MHz	QPSK	132322	100RB#0	PASS	PASS
Band66	20MHz	16QAM	132322	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

