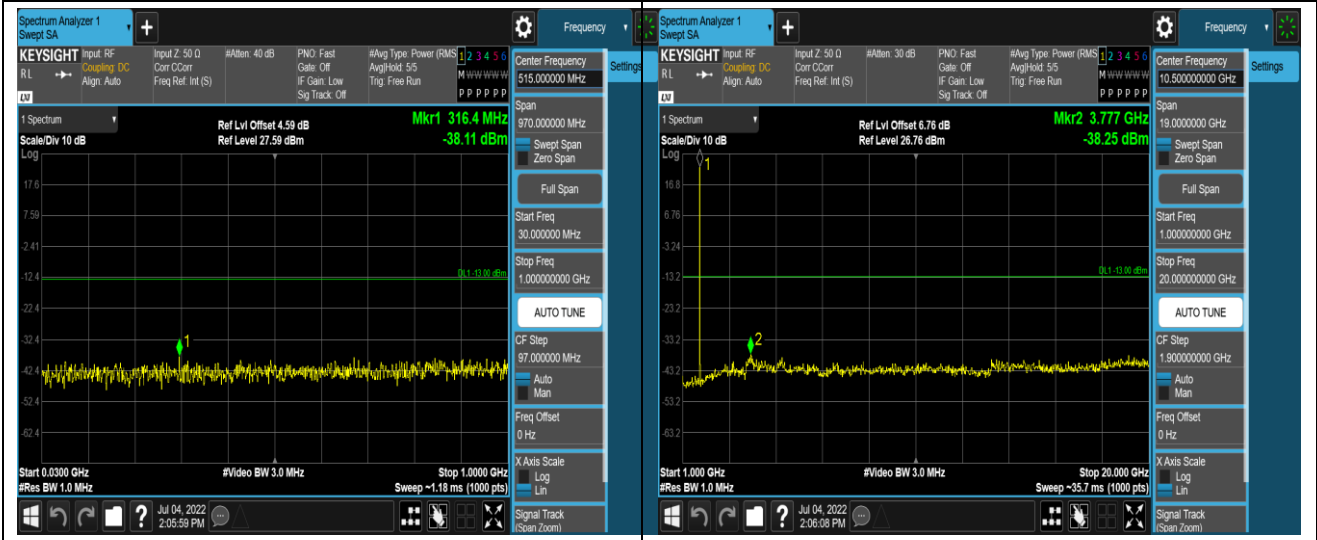


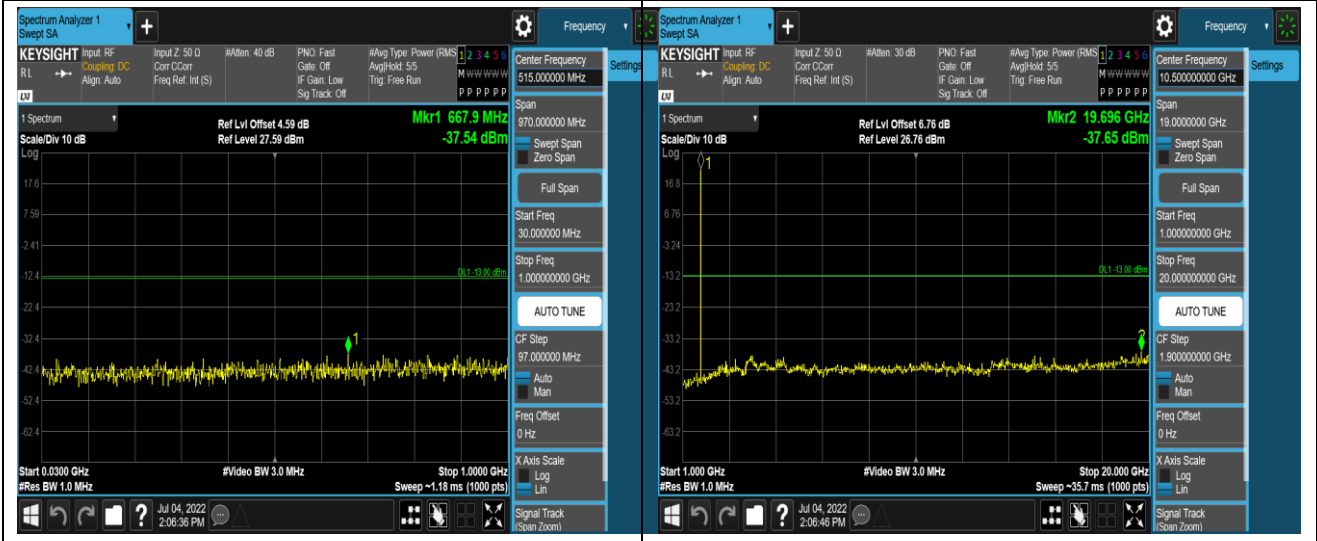
Band66-1.4MHz-QPSK-131979-1RB#0-Range1:30
~1000MHz

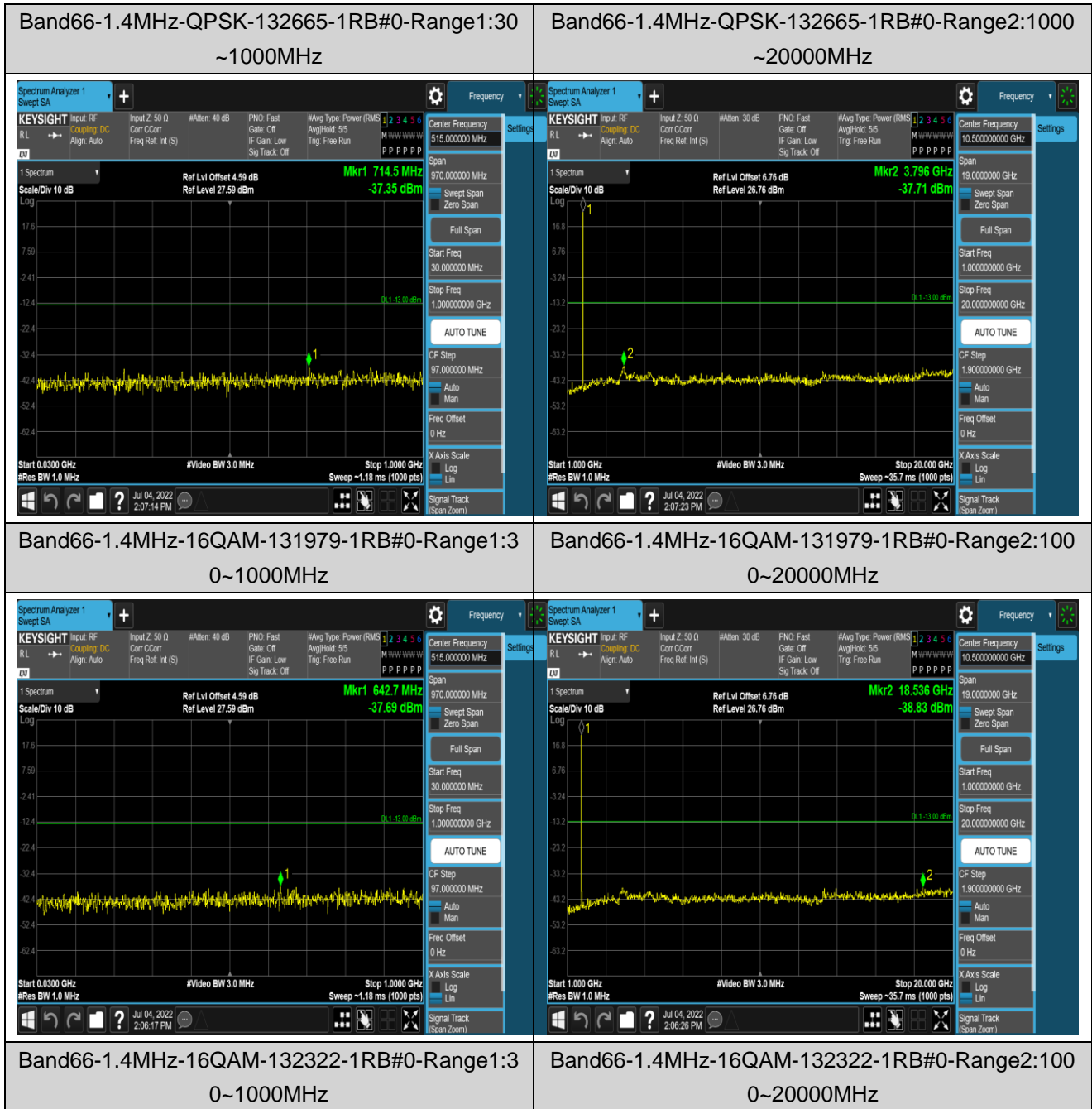
Band66-1.4MHz-QPSK-131979-1RB#0-Range2:1000
~20000MHz

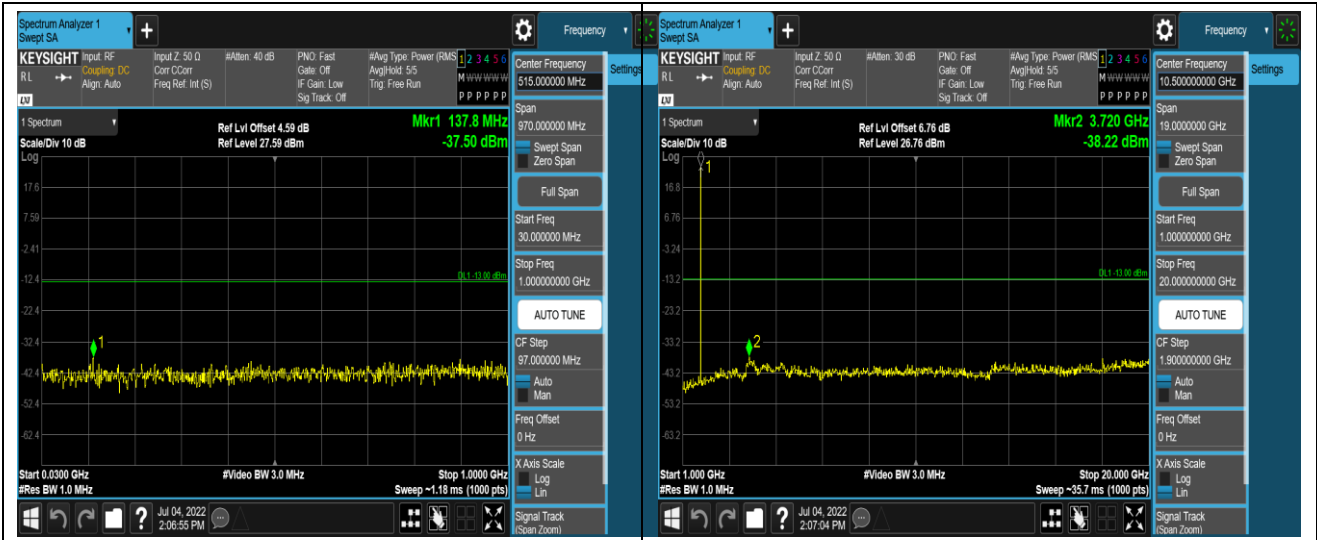


Band66-1.4MHz-QPSK-132322-1RB#0-Range1:30
~1000MHz

Band66-1.4MHz-QPSK-132322-1RB#0-Range2:1000
~20000MHz

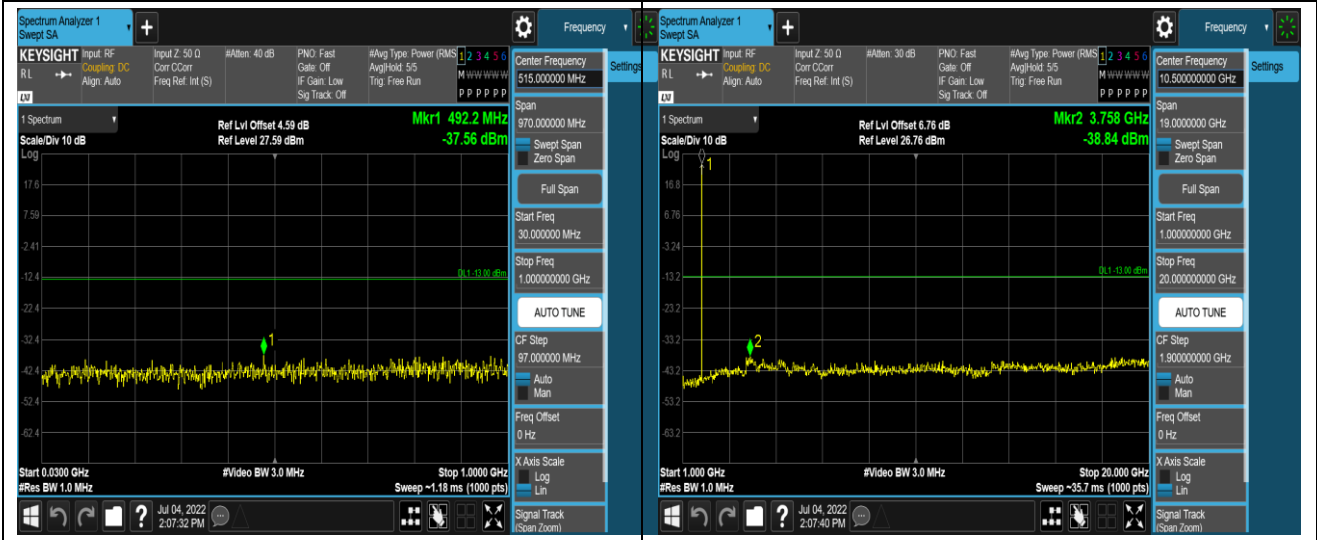






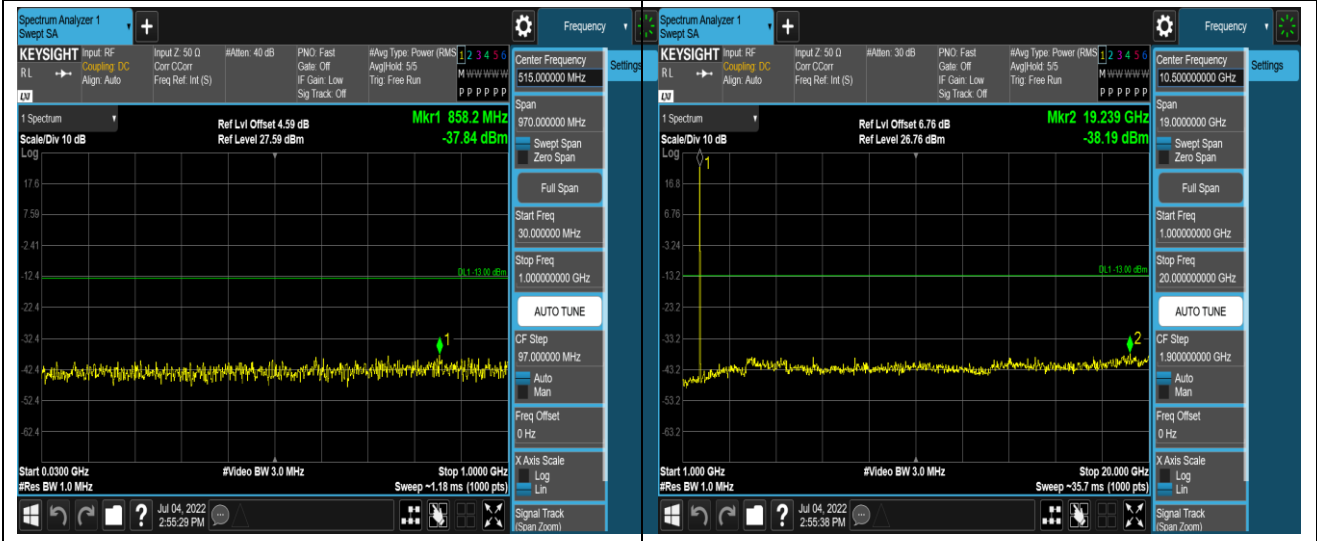
Band66-1.4MHz-16QAM-132665-1RB#0-Range1:3
0~1000MHz

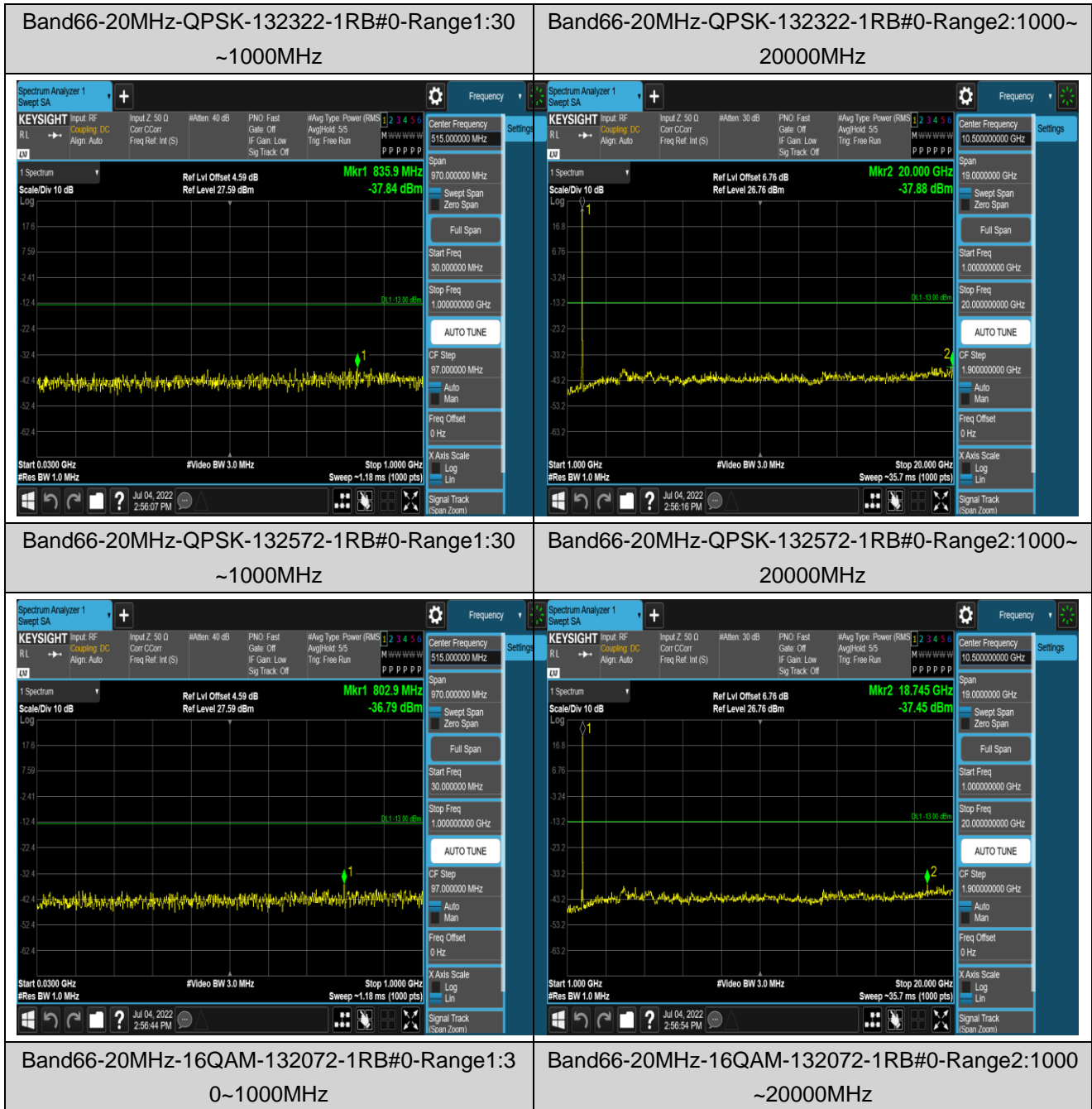
Band66-1.4MHz-16QAM-132665-1RB#0-Range2:100
0~20000MHz



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

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

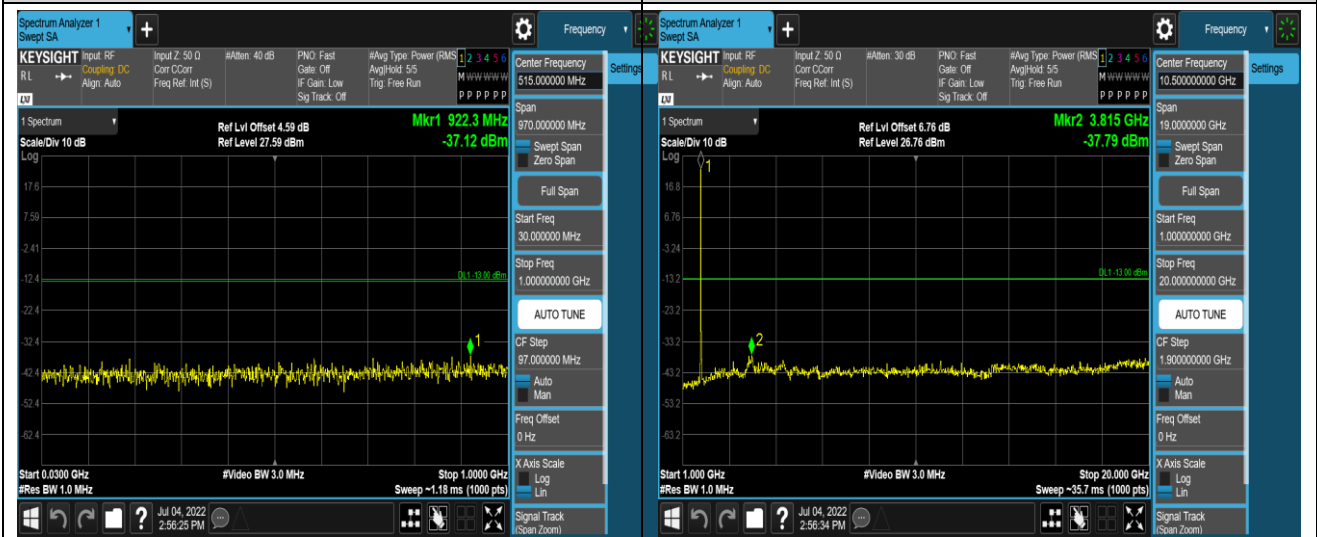






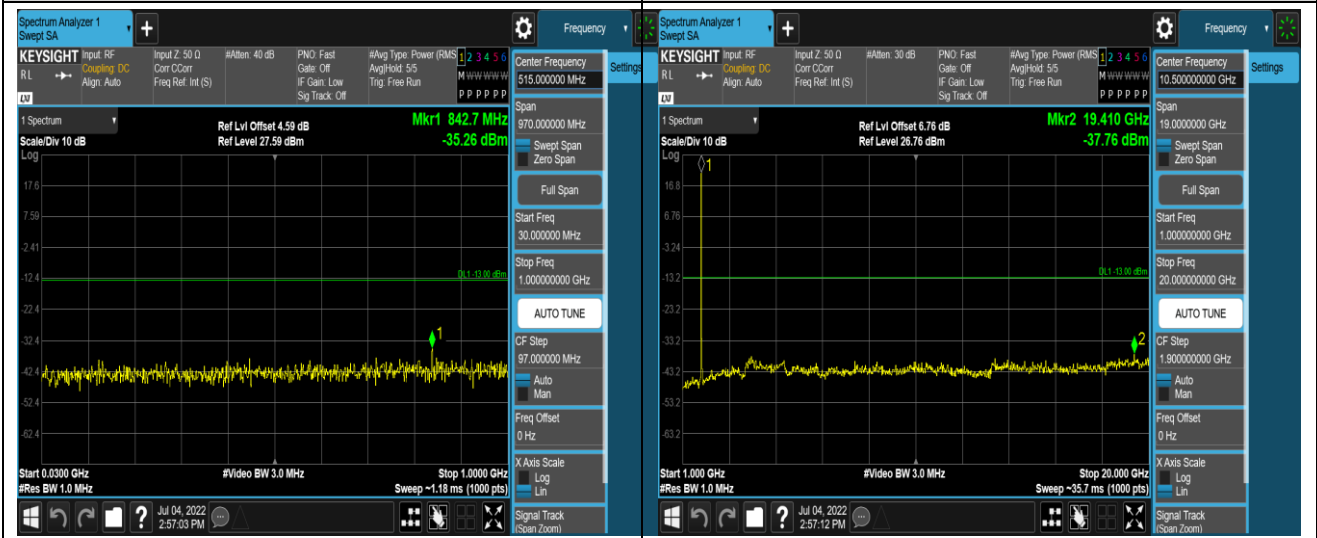
Band66-20MHz-16QAM-132322-1RB#0-Range1:3
0~1000MHz

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	15.05	0.008005	Within authorized band for Band 2	Pass
	-20	13.06	0.006947		
	-10	20.20	0.010745		
	0	13.58	0.007223		
	10	17.77	0.009452		
	20	14.55	0.007739		
	30	11.92	0.006340		
	40	16.74	0.008904		
	50	17.21	0.009154		
16QAM					
3.87	-30	11.06	0.005883	Within authorized band for Band 2	Pass
	-20	10.51	0.005590		
	-10	12.73	0.006771		
	0	18.35	0.009761		
	10	18.71	0.009952		
	20	11.66	0.006202		
	30	14.52	0.007723		
	40	12.43	0.006612		
	50	11.96	0.006362		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	17.05	0.009069	Within authorized band for Band 2	Pass
	3.87	14.38	0.007649		
	4.45	12.69	0.006750		
16QAM					
25	3.50	12.30	0.006543	Within authorized band for Band 2	Pass
	3.87	15.25	0.008112		
	4.45	15.62	0.008309		

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					
3.87	-30	-6.39	-0.007639	±2.5	Pass
	-20	6.57	0.007854		
	-10	-6.22	-0.007436		
	0	-4.08	-0.004877		
	10	-4.41	-0.005272		
	20	-5.75	-0.006874		
	30	-3.20	-0.003825		
	40	-6.79	-0.008117		
	50	-4.31	-0.005152		
16QAM					
3.87	-30	-3.82	-0.004567	±2.5	Pass
	-20	-7.48	-0.008942		
	-10	-4.46	-0.005332		
	0	-6.51	-0.007782		
	10	-8.70	-0.010400		
	20	-6.77	-0.008093		
	30	3.20	0.003825		
	40	-6.81	-0.008141		
	50	-5.38	-0.006432		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-8.00	-0.009564	±2.5	Pass
	3.87	-6.47	-0.007735		
	4.45	-6.19	-0.007400		
16QAM					
25	3.50	-5.41	-0.006467	±2.5	Pass
	3.85	-4.08	-0.004877		
	4.40	-5.65	-0.006754		

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	10.53	0.004154	Within authorized band for Band 7	Pass
	-20	-15.54	-0.006130		
	-10	-20.81	-0.008209		
	0	10.46	0.004126		
	10	12.46	0.004915		
	20	18.18	0.007172		
	30	-23.33	-0.009203		
	40	13.70	0.005404		
	50	-18.81	-0.007420		
16QAM					
3.87	-30	-15.72	-0.006201	Within authorized band for Band 7	Pass
	-20	-15.38	-0.006067		
	-10	-13.25	-0.005227		
	0	-18.77	-0.007404		
	10	15.45	0.006095		
	20	-13.00	-0.005128		
	30	18.55	0.007318		
	40	-11.57	-0.004564		
	50	-22.07	-0.008706		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	16.35	0.006450	Within authorized band for Band 7	Pass
	3.87	-11.72	-0.004623		
	4.45	-13.22	-0.005215		
16QAM					
25	3.50	14.62	0.005767	Within authorized band for Band 7	Pass
	3.87	17.61	0.006947		
	4.45	-14.23	-0.005613		

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	7.71	0.002971	Within authorized band for Band 41	Pass
	-20	-7.44	-0.002867		
	-10	-11.40	-0.004393		
	0	-8.21	-0.003164		
	10	9.07	0.003495		
	20	-14.62	-0.005634		
	30	-8.96	-0.003453		
	40	-7.47	-0.002879		
	50	-8.81	-0.003395		
16QAM					
3.87	-30	7.11	0.002740	Within authorized band for Band 41	Pass
	-20	11.57	0.004459		
	-10	11.19	0.004312		
	0	14.96	0.005765		
	10	-11.34	-0.004370		
	20	13.46	0.005187		
	30	13.76	0.005303		
	40	9.04	0.003484		
	50	6.34	0.002443		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	9.07	0.003495	Within authorized band for Band 41	Pass
	3.87	11.49	0.004428		
	4.45	-8.34	-0.003214		
16QAM					
25	3.50	5.95	0.002293	Within authorized band for Band41	Pass
	3.87	8.80	0.003391		
	4.45	-10.79	-0.004158		
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	7.04	0.004034	Within authorized band for Band 66	Pass
	-20	7.94	0.004550		
	-10	7.65	0.004384		
	0	13.43	0.007696		
	10	7.85	0.004499		
	20	6.65	0.003811		
	30	10.41	0.005966		
	40	9.41	0.005393		
	50	8.37	0.004797		
16QAM					
3.87	-30	9.37	0.005370	Within authorized band for Band 66	Pass
	-20	-8.53	-0.004888		
	-10	-6.37	-0.003650		
	0	9.97	0.005713		
	10	-9.40	-0.005387		
	20	9.76	0.005593		
	30	10.43	0.005977		
	40	14.26	0.008172		
	50	-4.43	-0.002539		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	10.04	0.005754	Within authorized band for Band 66	Pass
	3.87	13.45	0.007708		
	4.45	7.17	0.004109		
16QAM					
25	3.50	13.36	0.007656	Within authorized band for Band 66	Pass
	3.87	6.82	0.003908		
	4.45	11.34	0.006499		

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	40640	100RB#0	PASS	PASS
Band41	20MHz	16QAM	40640	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

