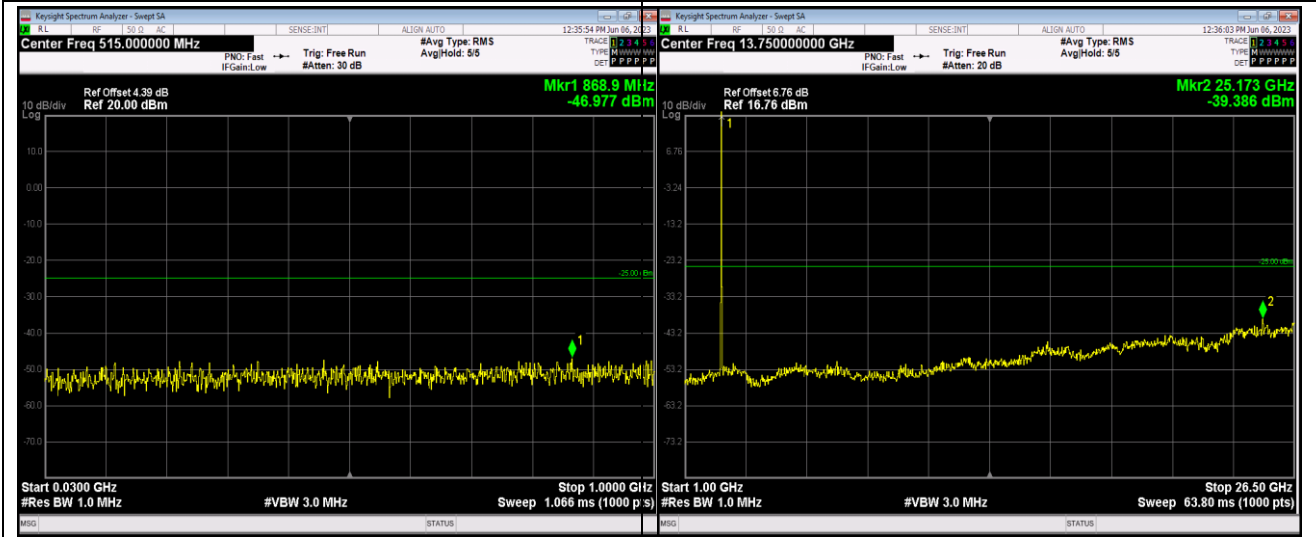


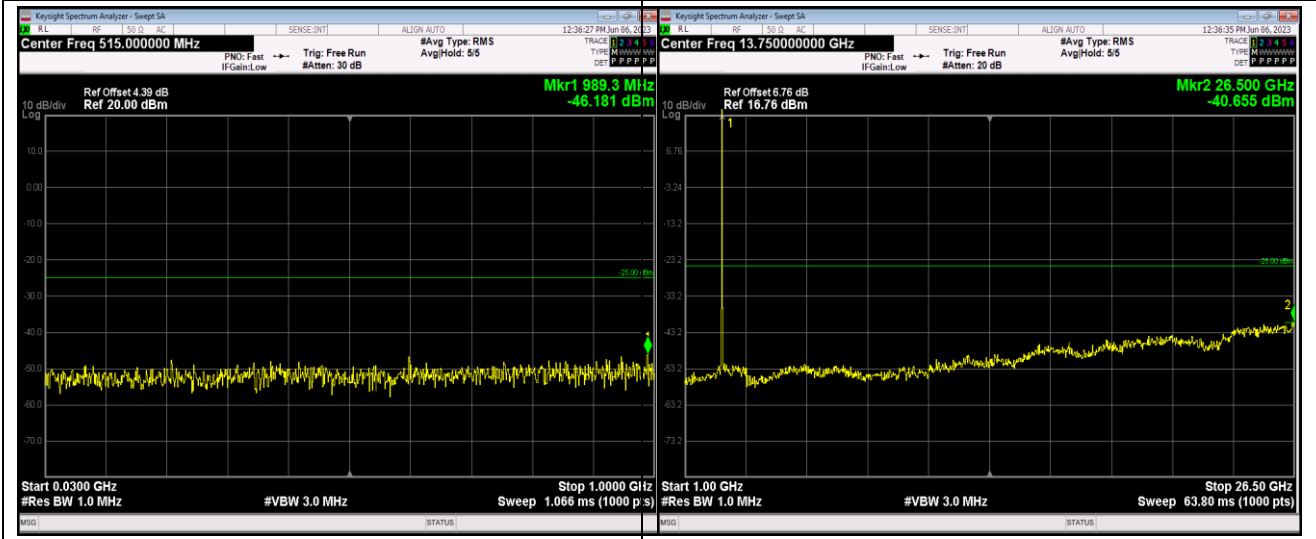
Band7-20MHz-QPSK-21100-1RB#0-Range1:30~1000MHz

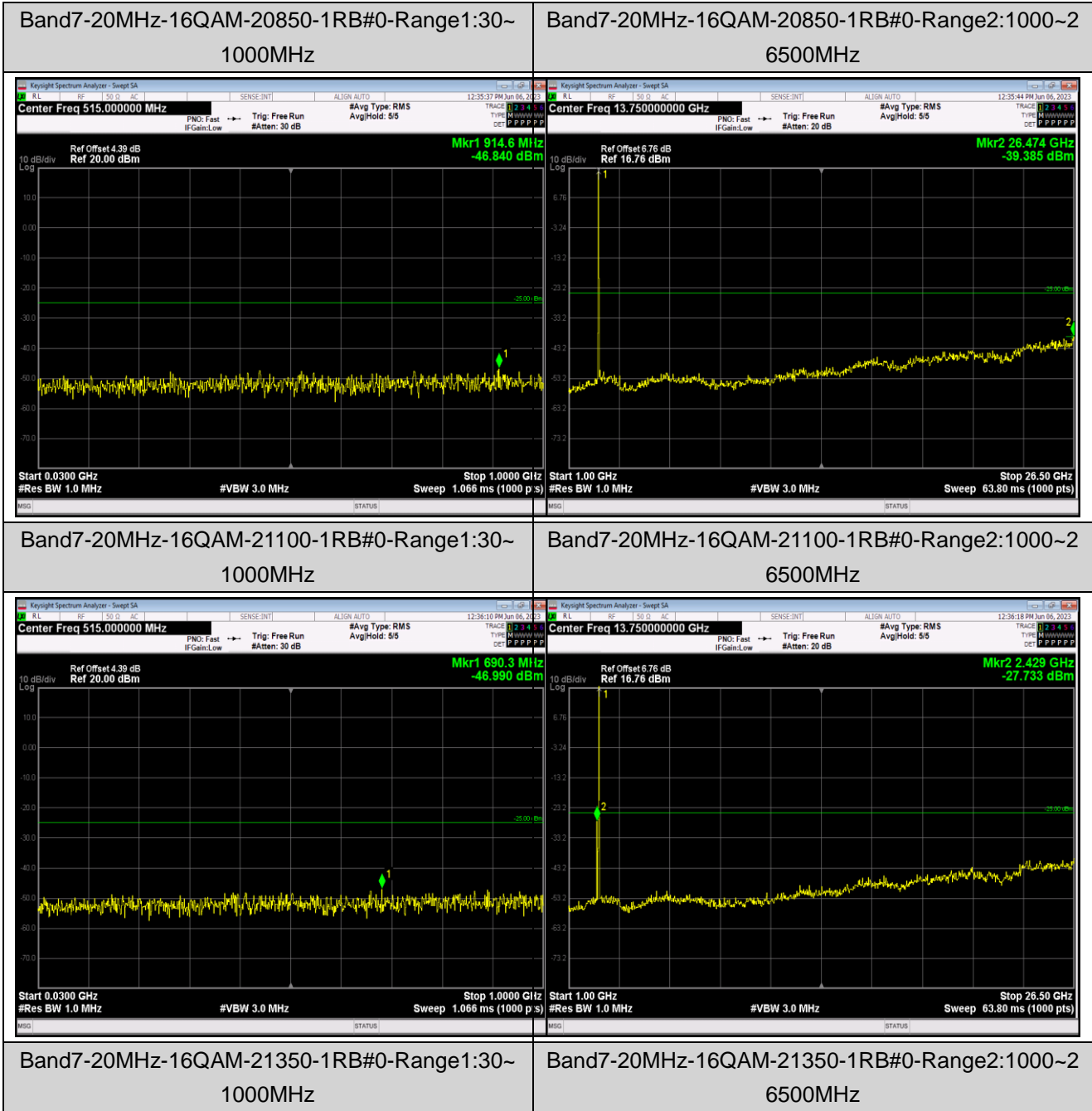
Band7-20MHz-QPSK-21100-1RB#0-Range2:1000~26500MHz

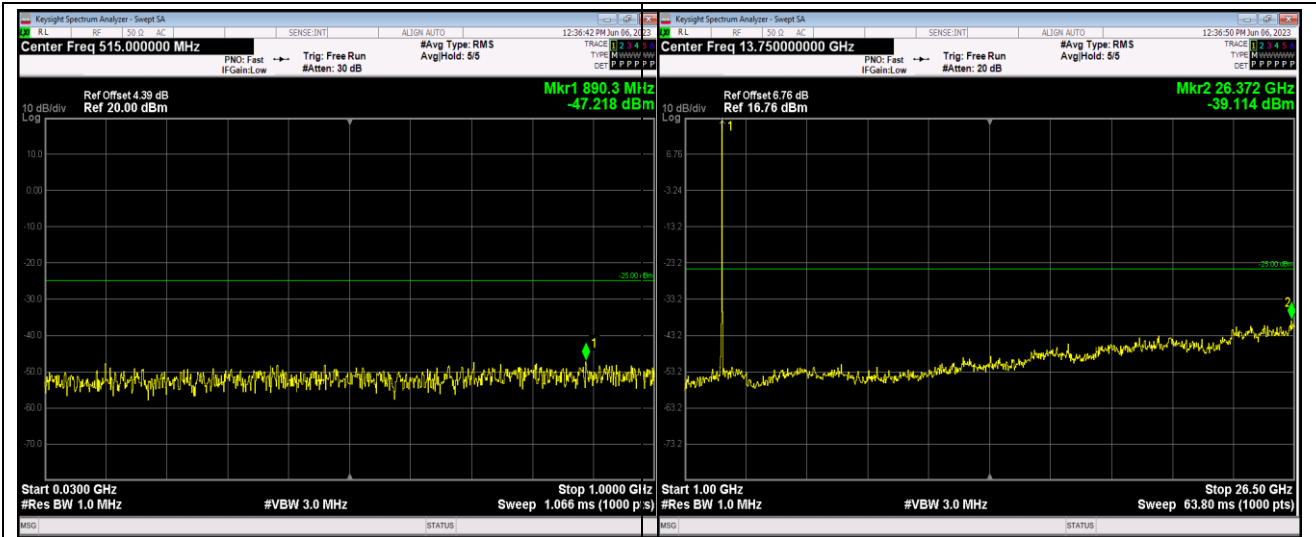


Band7-20MHz-QPSK-21350-1RB#0-Range1:30~1000MHz

Band7-20MHz-QPSK-21350-1RB#0-Range2:1000~26500MHz

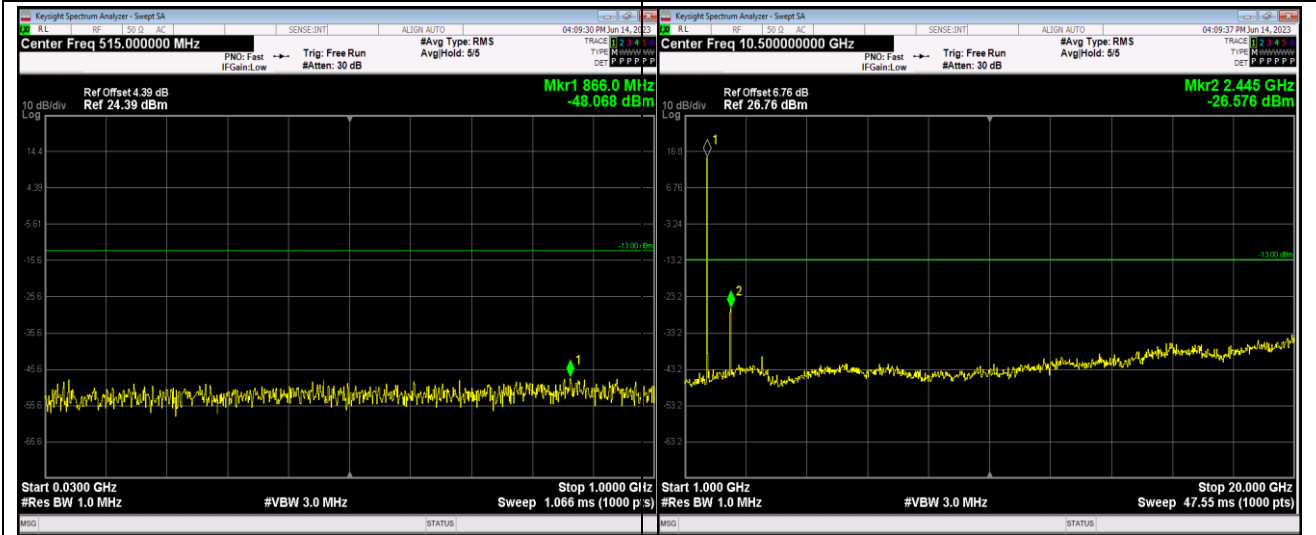






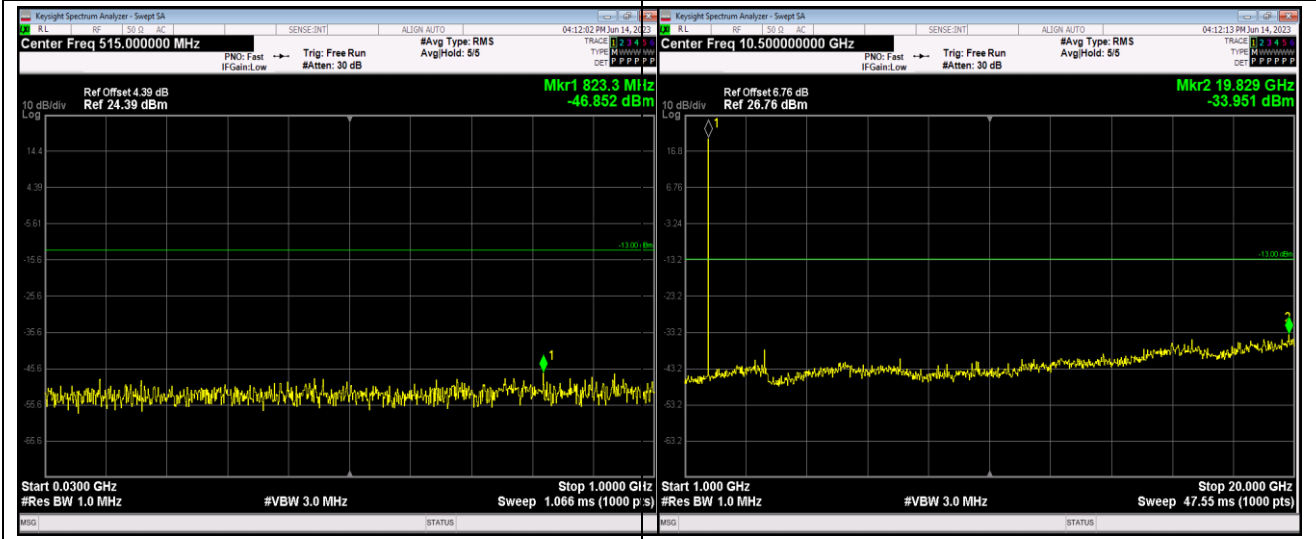
Band66-1.4MHz-QPSK-131979-1RB#0-Range1:30  
~1000MHz

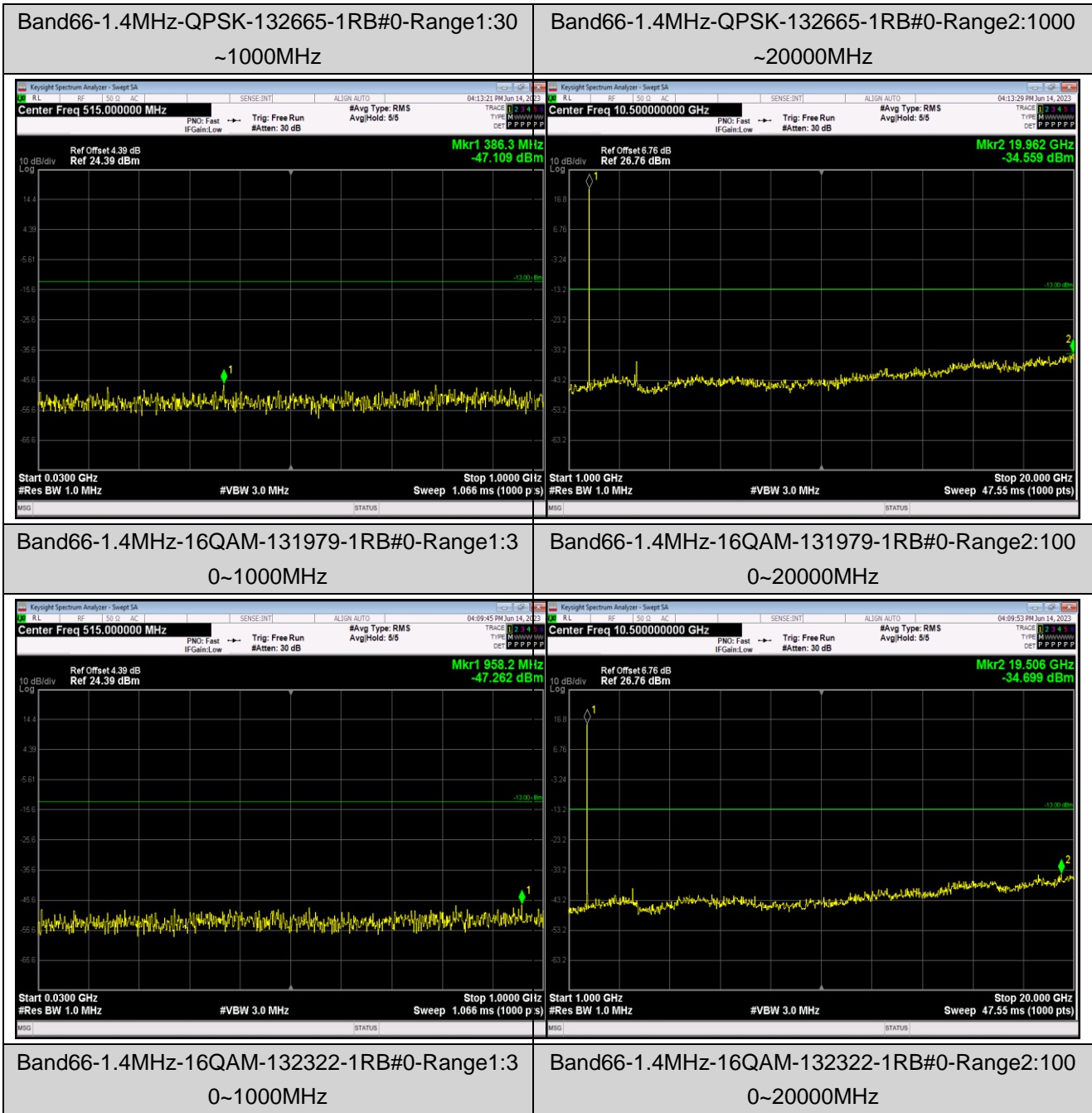
Band66-1.4MHz-QPSK-131979-1RB#0-Range2:1000  
~20000MHz

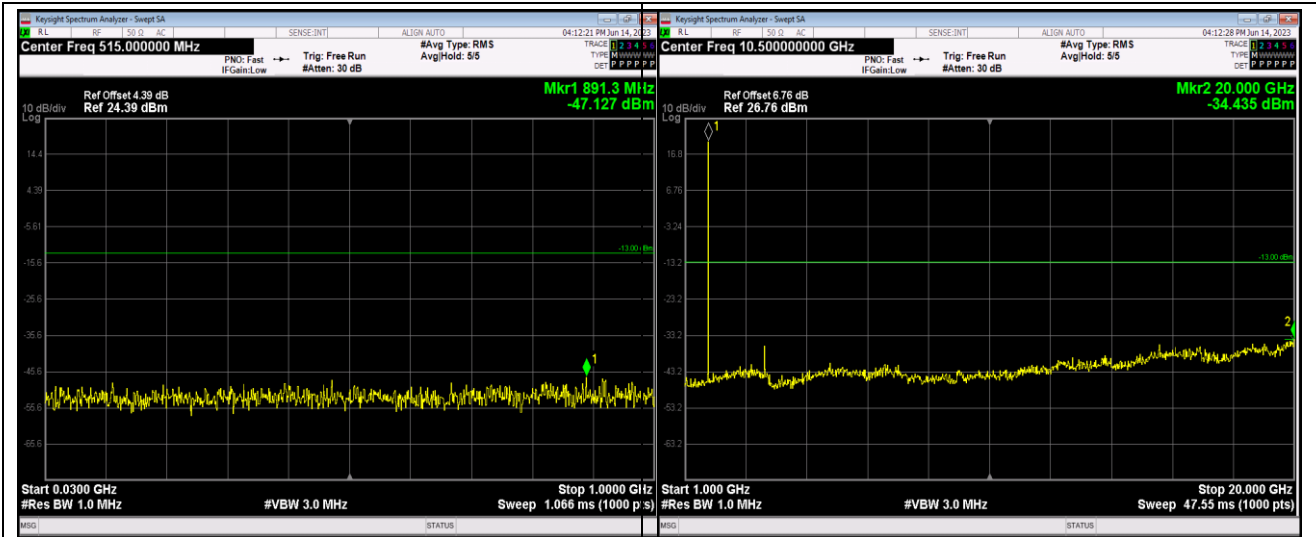


Band66-1.4MHz-QPSK-132322-1RB#0-Range1:30  
~1000MHz

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

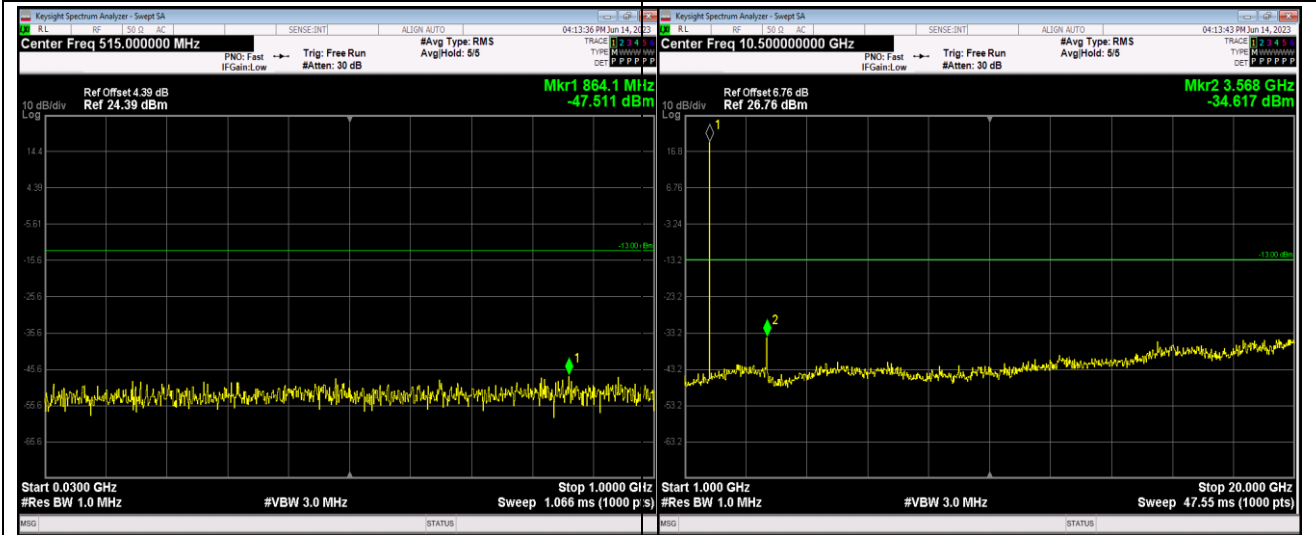






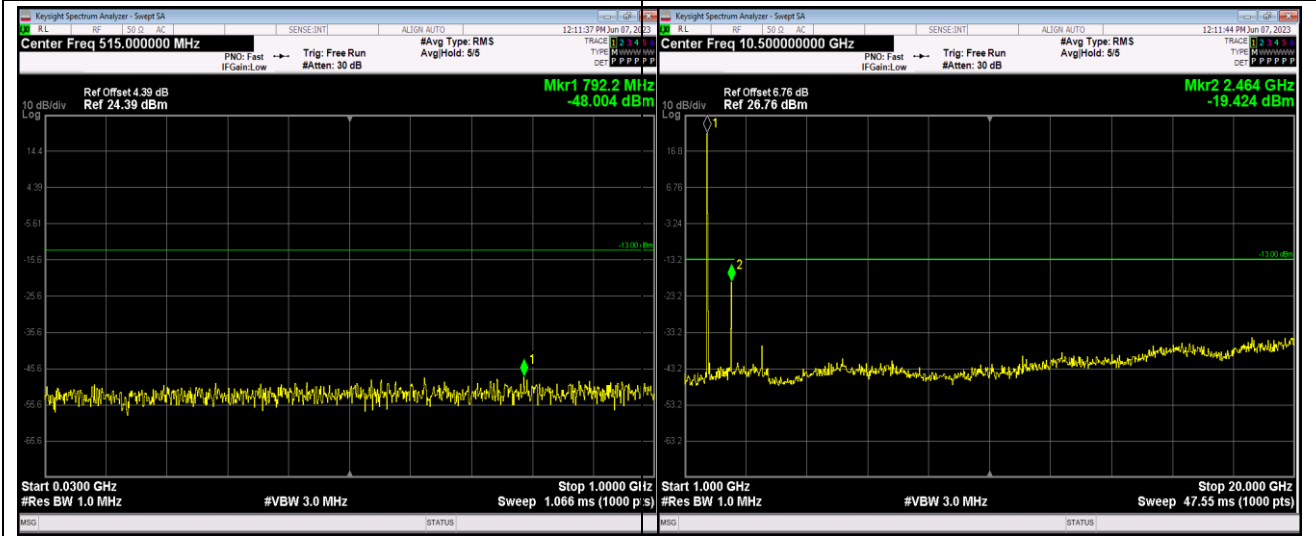
Band66-1.4MHz-16QAM-132665-1RB#0-Range1:3  
0~1000MHz

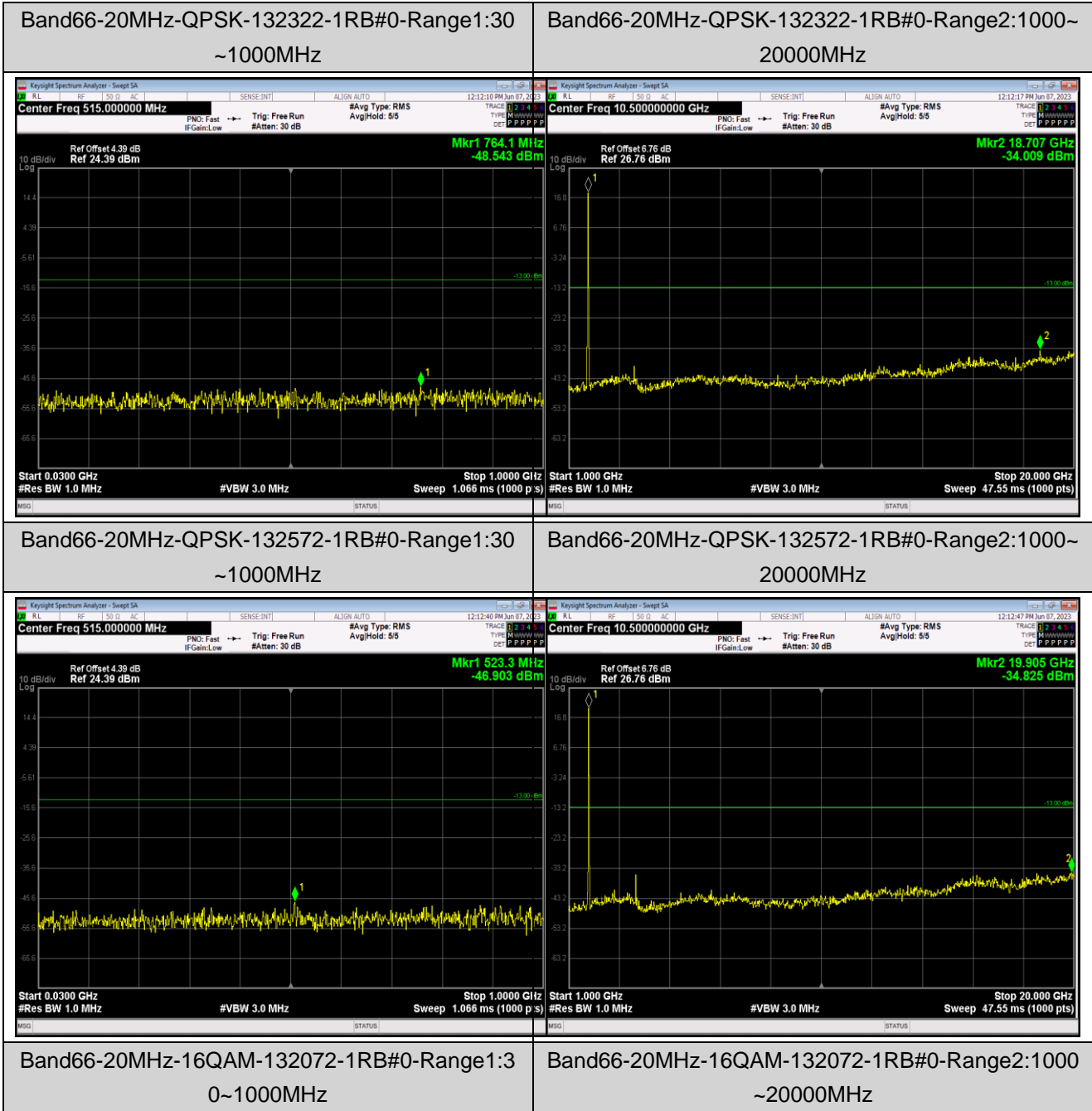
Band66-1.4MHz-16QAM-132665-1RB#0-Range2:100  
0~20000MHz

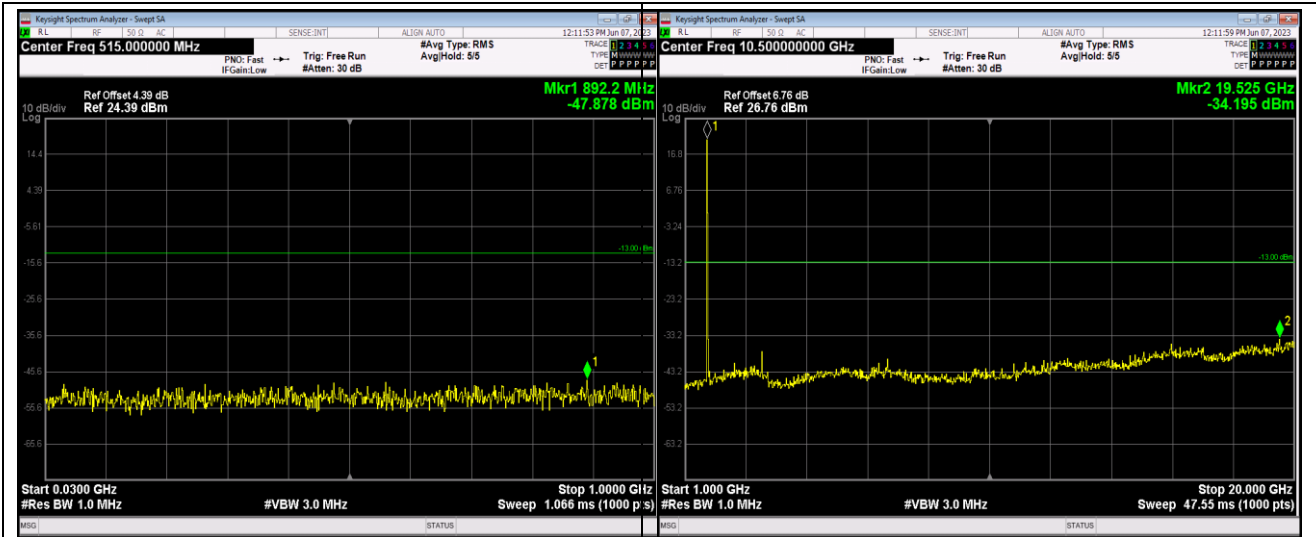


Band66-20MHz-QPSK-132072-1RB#0-Range1:30  
~1000MHz

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

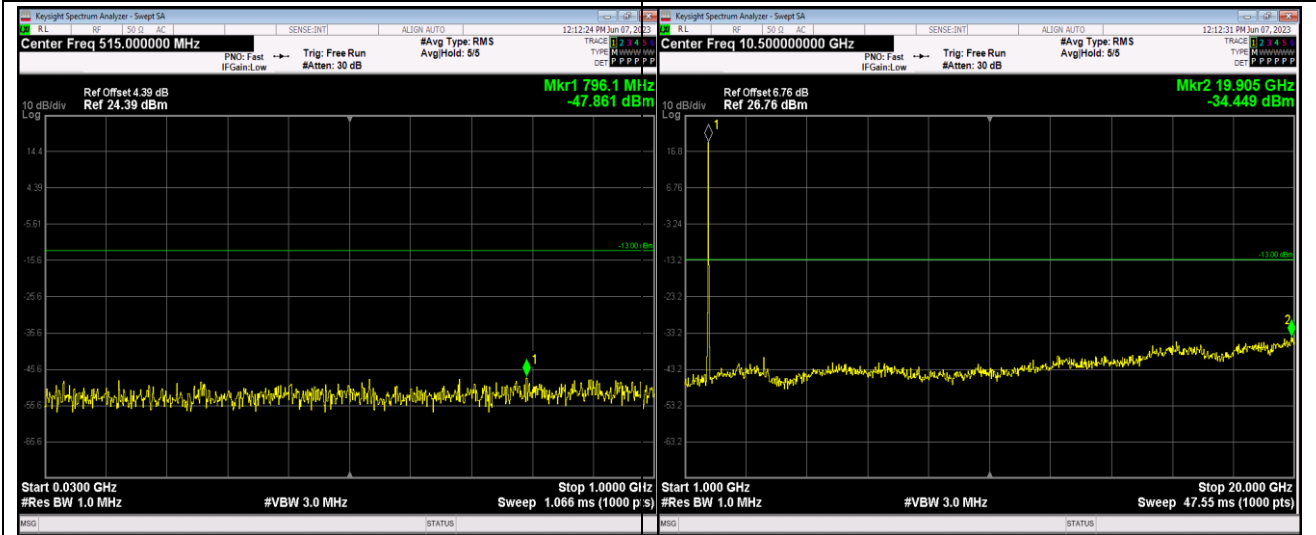






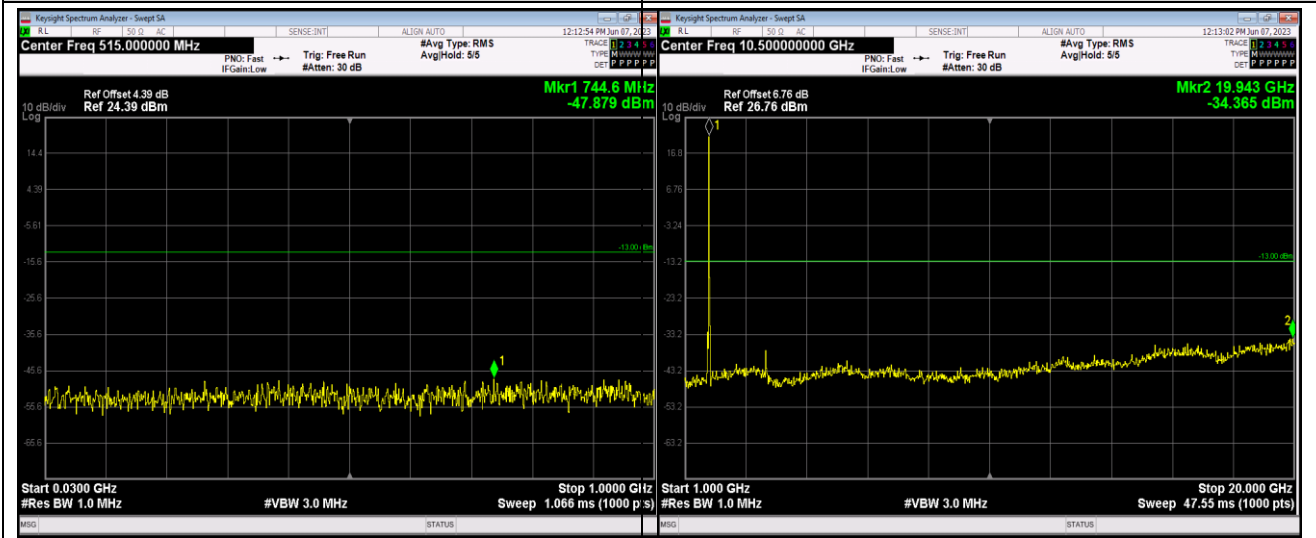
Band66-20MHz-16QAM-132322-1RB#0-Range1:3  
0~1000MHz

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					
3.70	-30	6.48	0.003447	Within authorized band for Band 2	Pass
	-20	5.82	0.003096		
	-10	7.91	0.004207		
	0	9.01	0.004793		
	10	10.27	0.005463		
	20	5.58	0.002968		
	30	-5.41	-0.002878		
	40	-16.71	-0.008888		
	50	-31.69	-0.016856		
16QAM					
3.70	-30	-29.24	-0.015553	Within authorized band for Band 2	Pass
	-20	-32.42	-0.017245		
	-10	-36.28	-0.019298		
	0	-36.88	-0.019617		
	10	-41.94	-0.022309		
	20	-40.61	-0.021601		
	30	-42.59	-0.022654		
	40	-46.48	-0.024723		
	50	-48.77	-0.025941		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-12.02	-0.006394	Within authorized band for Band 2	Pass
	3.70	-12.40	-0.006596		
	4.20	-6.38	-0.003394		
16QAM					
25	3.50	-19.93	-0.010601	Within authorized band for Band 2	Pass
	3.70	-5.66	-0.003011		
	4.20	-23.59	-0.012548		

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					
3.70	-30	28.28	0.016323	Within authorized band for Band 4	Pass
	-20	31.09	0.017945		
	-10	32.82	0.018944		
	0	37.69	0.021755		
	10	41.60	0.024012		
	20	41.38	0.023885		
	30	5.51	0.003180		
	40	3.78	0.002182		
	50	7.37	0.004254		
16QAM					
3.70	-30	-4.68	-0.002701	Within authorized band for Band 4	Pass
	-20	-6.98	-0.004029		
	-10	-7.14	-0.004121		
	0	-9.63	-0.005558		
	10	-9.77	-0.005639		
	20	-11.19	-0.006459		
	30	-14.59	-0.008421		
	40	-11.63	-0.006713		
	50	-11.26	-0.006499		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	19.15	0.011053	Within authorized band for Band 4	Pass
	3.70	18.28	0.010551		
	4.20	23.96	0.013830		
16QAM					
25	3.50	3.49	0.002014	Within authorized band for Band 4	Pass
	3.70	4.79	0.002765		
	4.20	-4.11	-0.002372		

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					
3.70	-30	26.68	0.031895	±2.5	Pass
	-20	28.81	0.034441		
	-10	28.48	0.034047		
	0	28.14	0.033640		
	10	27.07	0.032361		
	20	27.17	0.032481		
	30	25.65	0.030663		
	40	24.09	0.028799		
	50	23.62	0.028237		
16QAM					
3.70	-30	19.41	0.023204	±2.5	Pass
	-20	18.70	0.022355		
	-10	17.67	0.021124		
	0	17.94	0.021447		
	10	17.72	0.021184		
	20	15.95	0.019068		
	30	16.34	0.019534		
	40	15.19	0.018159		
	50	15.23	0.018207		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	18.05	0.021578	±2.5	Pass
	3.70	12.70	0.015182		
	4.20	26.54	0.031727		
16QAM					
25	3.50	21.10	0.025224	±2.5	Pass
	3.70	24.23	0.028966		
	4.20	20.73	0.024782		

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					
3.70	-30	9.13	0.003602	Within authorized band for Band 7	Pass
	-20	16.01	0.006316		
	-10	14.58	0.005751		
	0	20.86	0.008229		
	10	19.53	0.007704		
	20	22.62	0.008923		
	30	24.46	0.009649		
	40	28.65	0.011302		
	50	22.09	0.008714		
16QAM					
3.70	-30	9.36	0.003692	Within authorized band for Band 7	Pass
	-20	10.24	0.004039		
	-10	10.86	0.004284		
	0	9.13	0.003602		
	10	-8.88	-0.003503		
	20	6.42	0.002533		
	30	-6.68	-0.002635		
	40	-7.87	-0.003105		
	50	-11.69	-0.004611		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	41.89	0.016525	Within authorized band for Band 7	Pass
	3.70	24.25	0.009566		
	4.20	-8.85	-0.003491		
16QAM					
25	3.50	22.86	0.009018	Within authorized band for Band 7	Pass
	3.70	24.86	0.009807		
	4.20	19.48	0.007684		

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		
<b>QPSK</b>					
3.70	-30	19.07	0.010928	Within authorized band for Band 66	Pass
	-20	20.63	0.011822		
	-10	18.04	0.010338		
	0	19.35	0.011089		
	10	19.20	0.011003		
	20	20.20	0.011576		
	30	19.07	0.010928		
	40	19.77	0.011330		
	50	23.26	0.013330		
<b>16QAM</b>					
3.70	-30	15.96	0.009146	Within authorized band for Band 66	Pass
	-20	21.13	0.012109		
	-10	20.16	0.011553		
	0	23.62	0.013536		
	10	28.60	0.016390		
	20	29.38	0.016837		
	30	33.45	0.019169		
	40	-17.97	-0.010298		
	50	-18.00	-0.010315		
<b>Voltage</b>					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
<b>QPSK</b>					
25	3.50	16.51	0.009461	Within authorized band for Band 66	Pass
	3.70	13.16	0.007542		
	4.20	17.02	0.009754		
<b>16QAM</b>					
25	3.50	21.59	0.012372	Within authorized band for Band 66	Pass
	3.70	18.51	0.010607		
	4.20	16.79	0.009622		

*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
Band2	20MHz	64QAM	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
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

