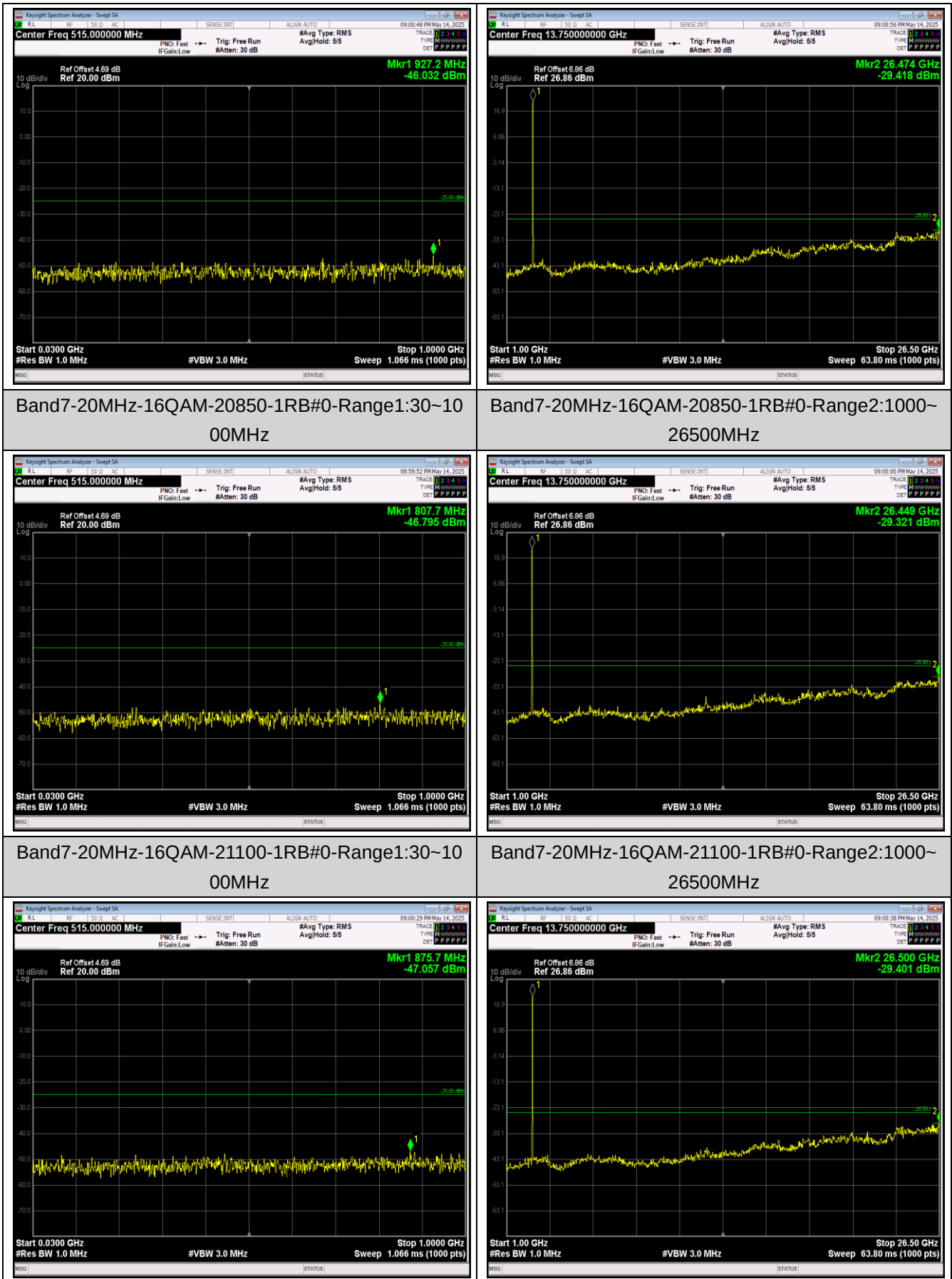
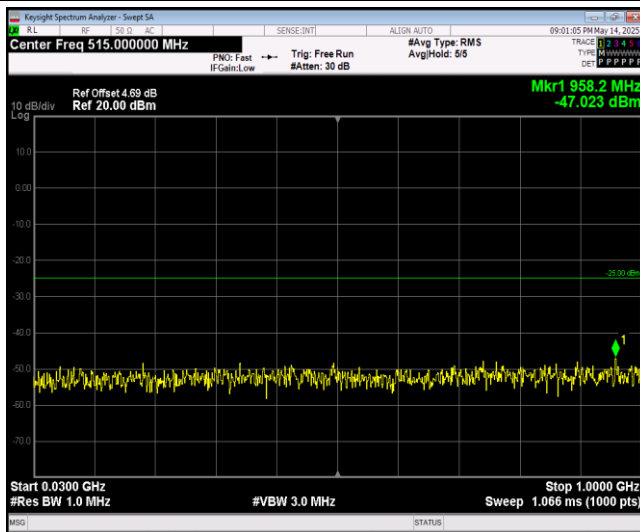
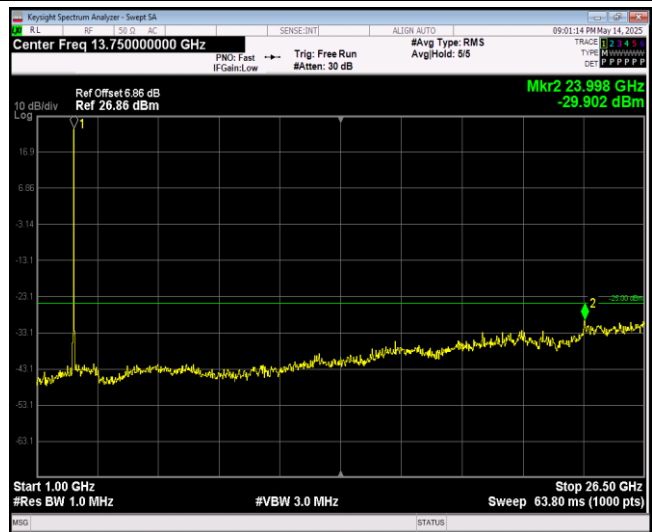




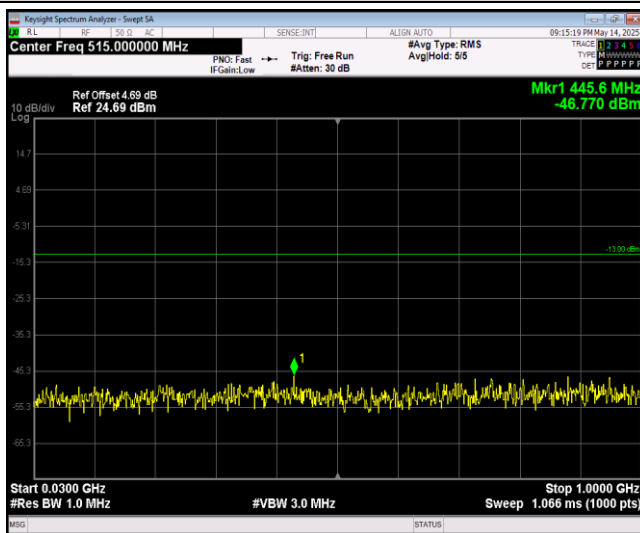
Band7-20MHz-16QAM-21350-1RB#0-Range1:30~1000MHz



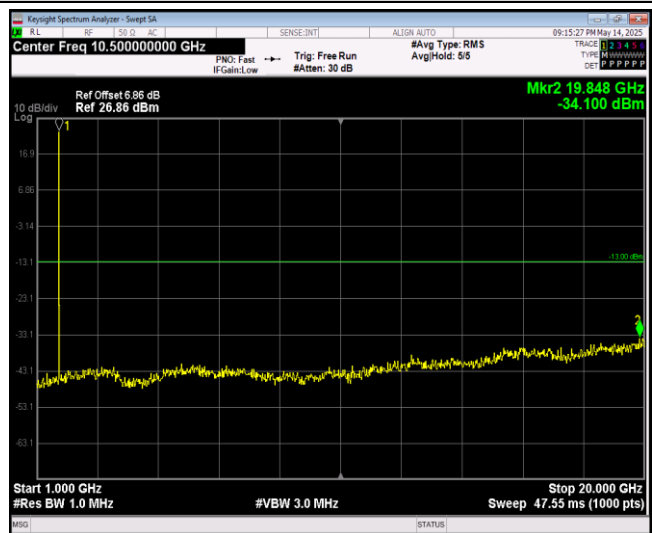
Band7-20MHz-16QAM-21350-1RB#0-Range2:1000~26500MHz



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



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

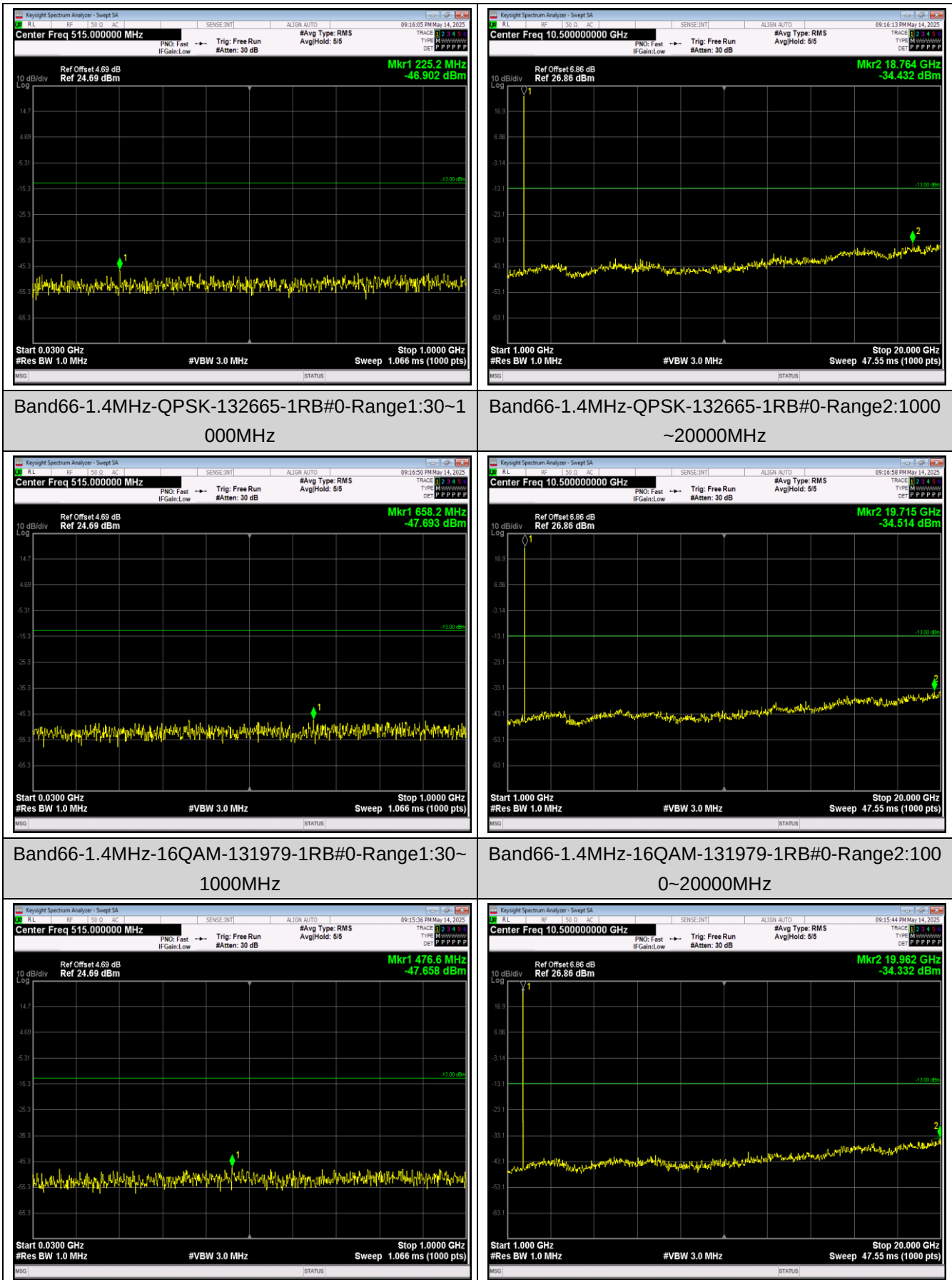


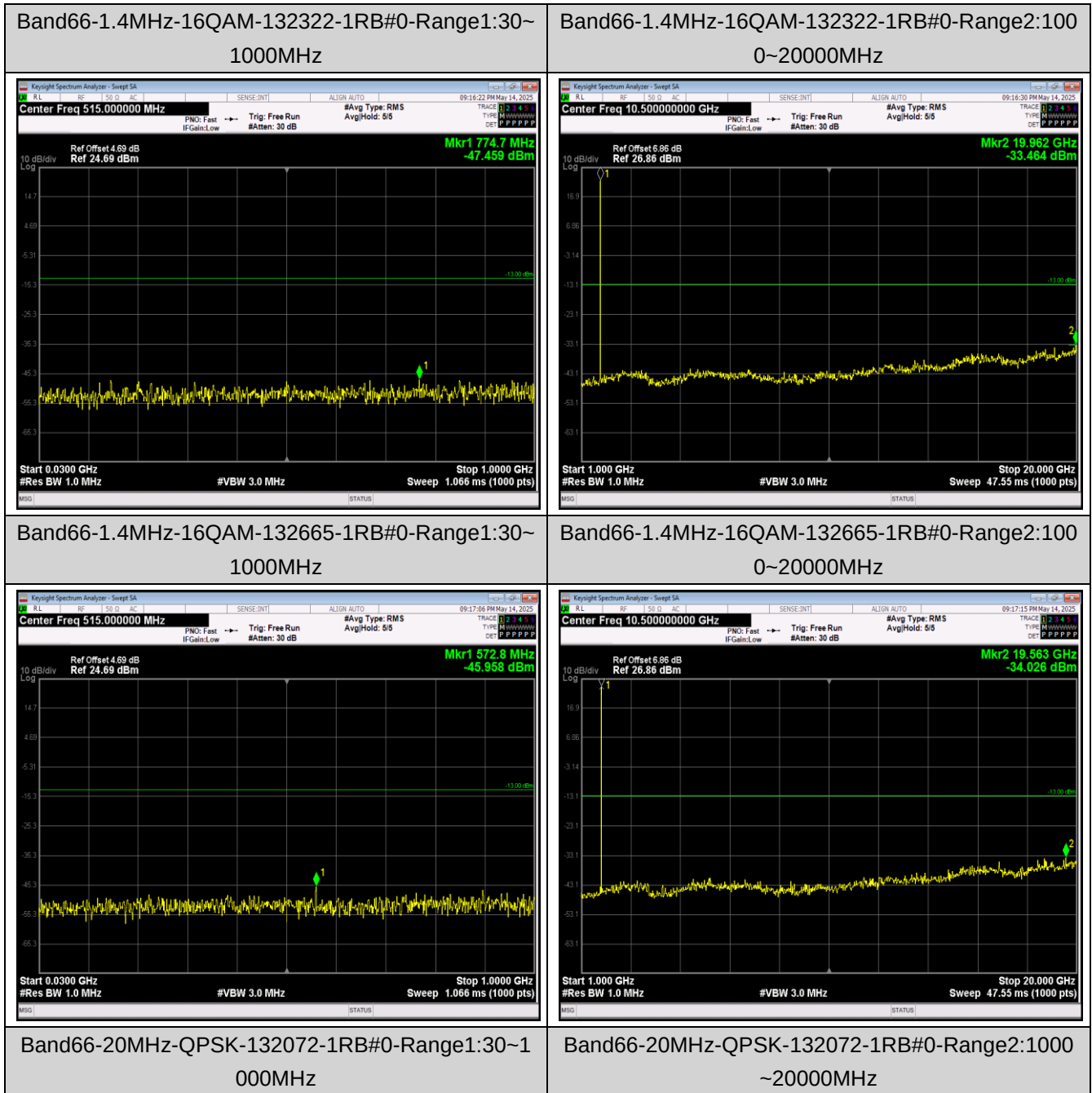
Band66-1.4MHz-QPSK-132322-1RB#0-Range1:30~1000MHz

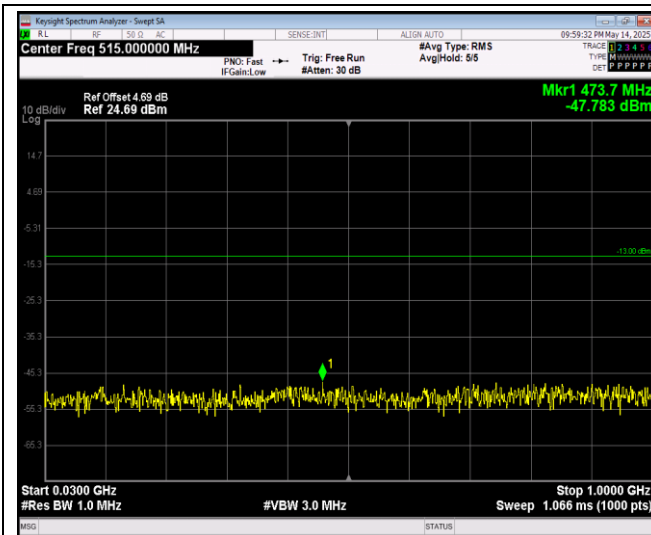


Band66-1.4MHz-QPSK-132322-1RB#0-Range2:1000~20000MHz

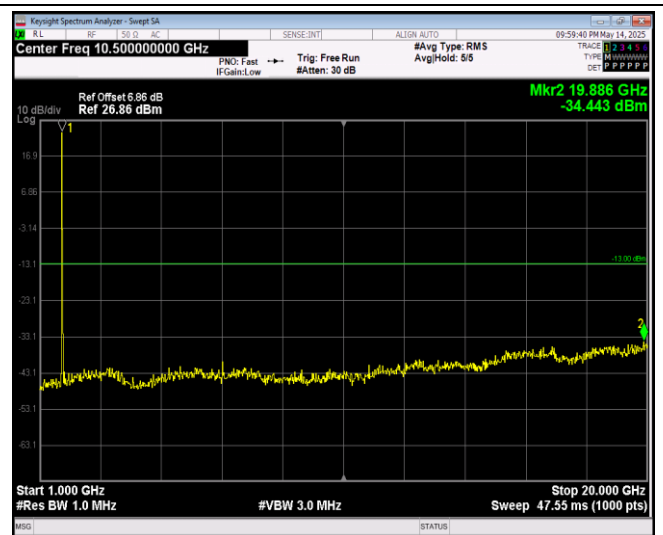




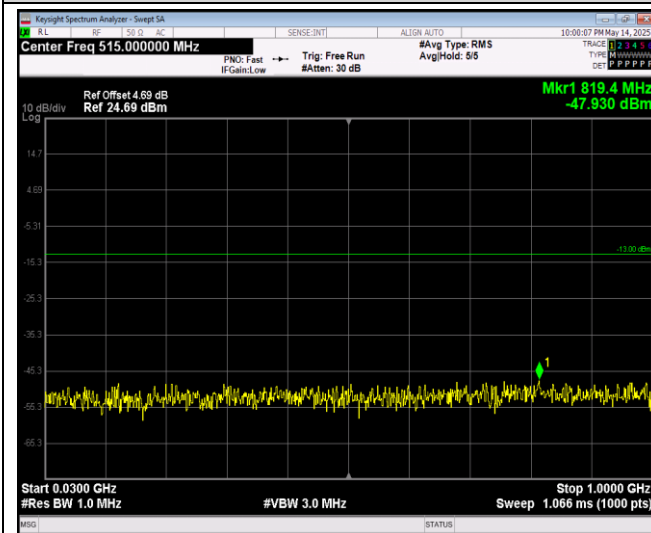




Band66-20MHz-QPSK-132322-1RB#0-Range1:30~1000MHz



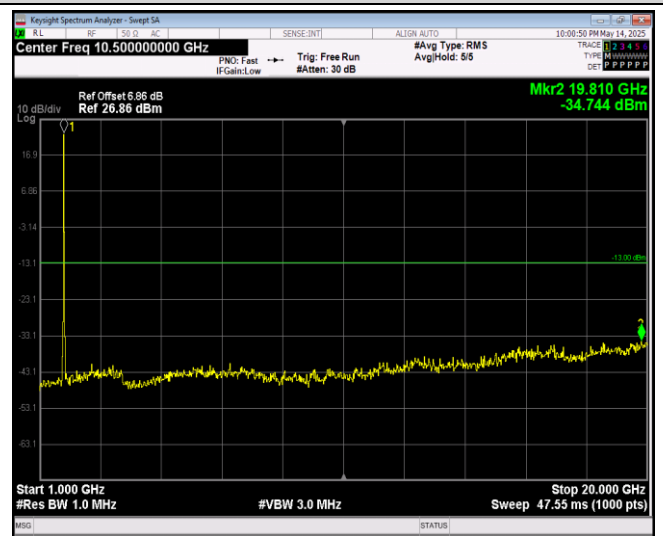
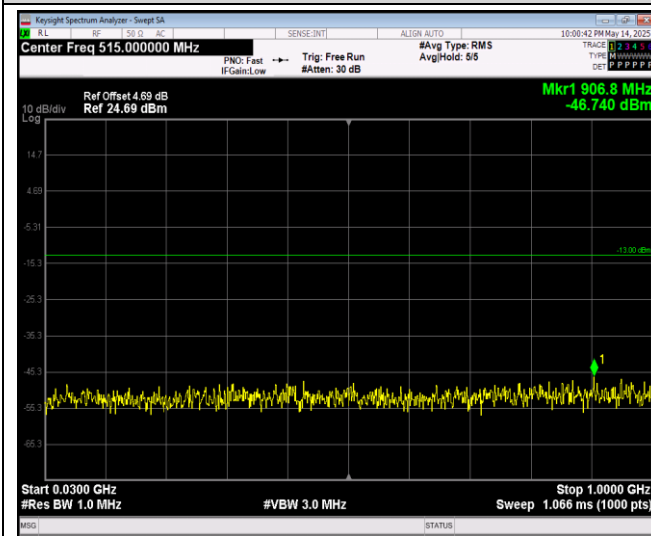
Band66-20MHz-QPSK-132322-1RB#0-Range2:1000
~20000MHz



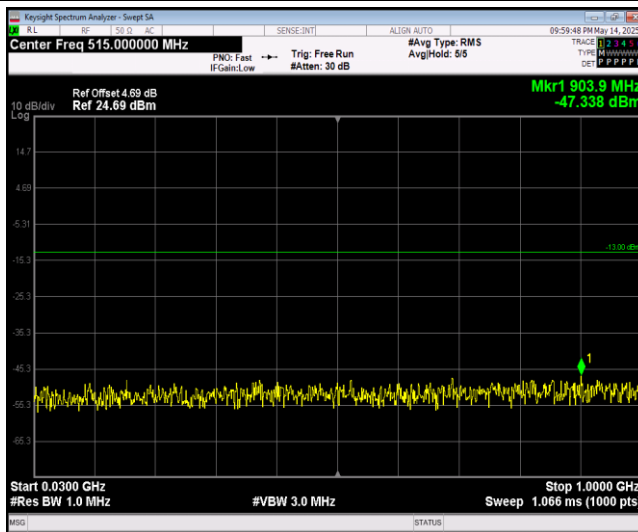
Band66-20MHz-QPSK-132572-1RB#0-Range1:30~1000MHz



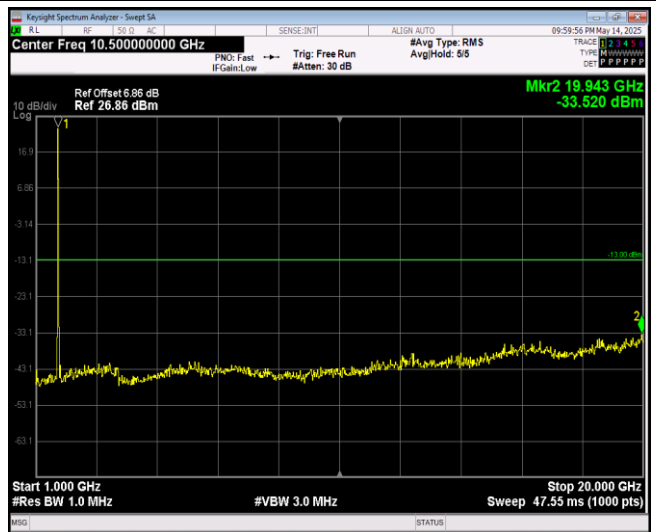
Band66-20MHz-QPSK-132572-1RB#0-Range2:1000
~20000MHz



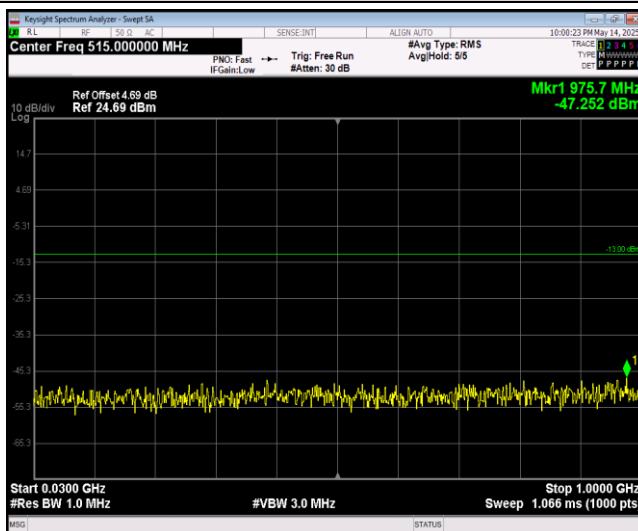
Band66-20MHz-16QAM-132072-1RB#0-Range1:30~1000MHz



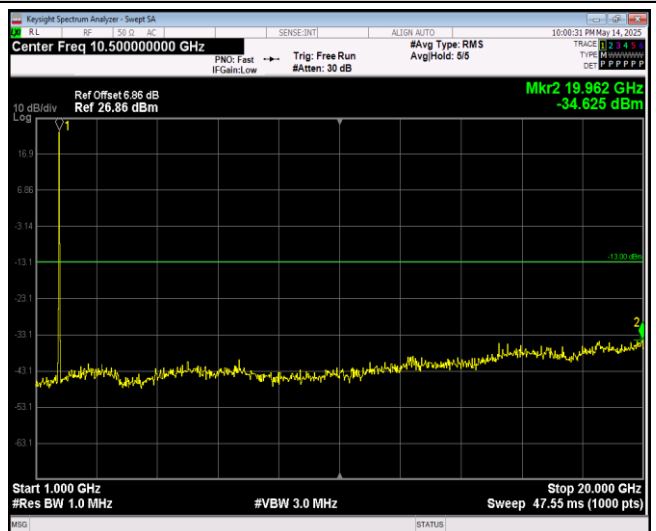
Band66-20MHz-16QAM-132072-1RB#0-Range2:1000~20000MHz



Band66-20MHz-16QAM-132322-1RB#0-Range1:30~1000MHz



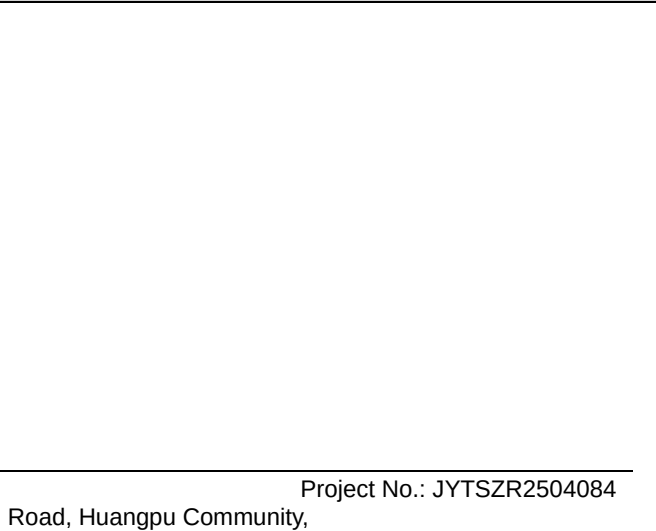
Band66-20MHz-16QAM-132322-1RB#0-Range2:1000~20000MHz

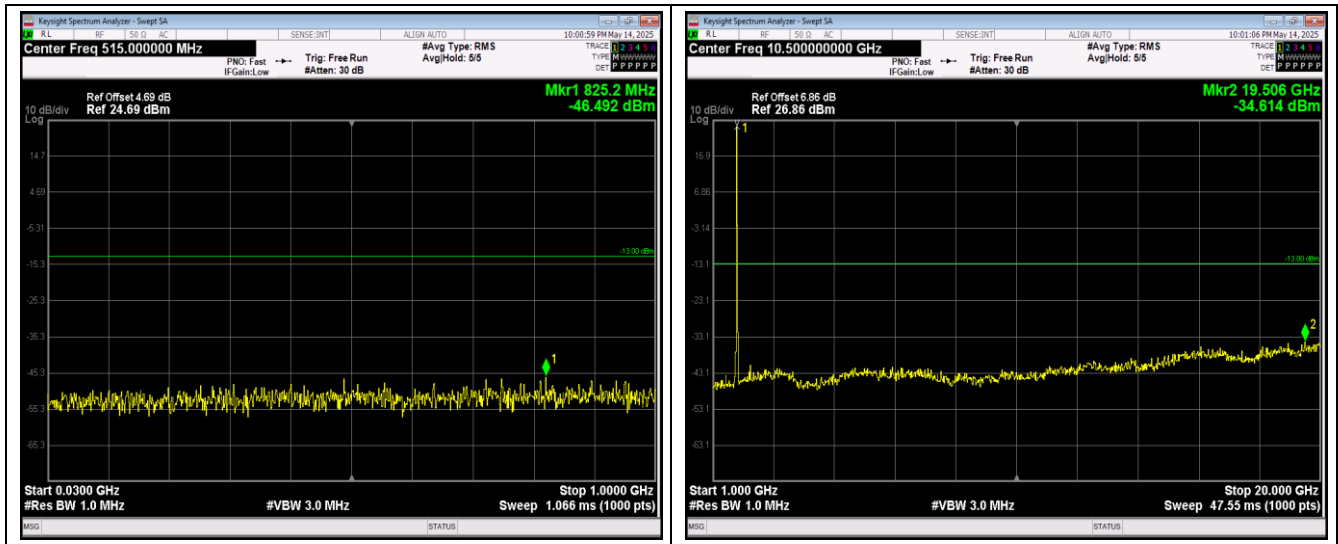


Band66-20MHz-16QAM-132572-1RB#0-Range1:30~1000MHz



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	11.63	0.006186	Within authorized band for Band 2	Pass
	-20	13.85	0.007367		
	-10	-9.70	-0.005160		
	0	-199.73	-0.106239		
	10	3.78	0.002011		
	20	20.38	0.010840		
	30	-5.74	-0.003053		
	40	4.36	0.002319		
	50	2.88	0.001532		
16QAM					
3.87	-30	-9.54	-0.005074	Within authorized band for Band 2	Pass
	-20	-21.24	-0.011298		
	-10	-18.78	-0.009989		
	0	-17.05	-0.009069		
	10	-19.54	-0.010394		
	20	-20.44	-0.010872		
	30	-16.09	-0.008559		
	40	-20.99	-0.011165		
	50	11.03	0.005867		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-44.47	-0.023654	Within authorized band for Band 2	Pass
	3.87	-29.73	-0.015814		
	4.45	-3.56	-0.001894		
16QAM					
25	3.50	-15.06	-0.008011	Within authorized band for Band 2	Pass
	3.87	-5.15	-0.002739		
	4.45	-39.17	-0.020835		
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	-9.81	-0.011727	±2.5	Pass
	-20	-3.05	-0.003646		
	-10	11.32	0.013533		
	0	23.90	0.028571		
	10	35.73	0.042714		
	20	-6.07	-0.007256		
	30	5.19	0.006204		
	40	13.49	0.016127		
	50	19.15	0.022893		
16QAM					
3.87	-30	-15.92	-0.019032	±2.5	Pass
	-20	-35.82	-0.042821		
	-10	-13.39	-0.016007		
	0	-16.22	-0.019390		
	10	-30.81	-0.036832		
	20	-47.54	-0.056832		
	30	-13.66	-0.016330		
	40	-30.01	-0.035876		
	50	-42.96	-0.051357		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-4.86	-0.005810	±2.5	Pass
	3.87	-51.23	-0.061243		
	4.45	-15.13	-0.018087		
16QAM					
25	3.50	24.99	0.029874	±2.5	Pass
	3.87	27.94	0.033401		
	4.45	4.68	0.005595		
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	9.24	0.003645	Within authorized band for Band 7	Pass
	-20	-12.55	-0.004951		
	-10	-20.79	-0.008201		
	0	7.90	0.003116		
	10	7.21	0.002844		
	20	11.54	0.004552		
	30	9.18	0.003621		
	40	-13.53	-0.005337		
	50	8.87	0.003499		
16QAM					
3.87	-30	-50.53	-0.019933	Within authorized band for Band 7	Pass
	-20	-37.08	-0.014627		
	-10	-18.71	-0.007381		
	0	-33.33	-0.013148		
	10	-52.67	-0.020777		
	20	-28.71	-0.011325		
	30	-9.20	-0.003629		
	40	-15.51	-0.006118		
	50	-43.20	-0.017041		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-40.68	-0.016047	Within authorized band for Band 7	Pass
	3.87	-49.78	-0.019637		
	4.45	-50.78	-0.020032		
16QAM					
25	3.50	-24.88	-0.009815	Within authorized band for Band 7	Pass
	3.87	-20.73	-0.008178		
	4.45	-36.98	-0.014588		
Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.					

LTE Band 66 part:

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.: JYTSZR2504084

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	10.23	0.005862	Within authorized band for Band 66	Pass
	-20	9.14	0.005238		
	-10	-4.38	-0.002510		
	0	15.46	0.008860		
	10	9.04	0.005181		
	20	-26.66	-0.015278		
	30	-8.24	-0.004722		
	40	-9.54	-0.005467		
	50	6.07	0.003479		
16QAM					
3.87	-30	-16.09	-0.009221	Within authorized band for Band 66	Pass
	-20	-28.07	-0.016086		
	-10	-13.12	-0.007519		
	0	-10.66	-0.006109		
	10	-17.81	-0.010206		
	20	-22.26	-0.012756		
	30	-27.24	-0.015610		
	40	-28.72	-0.016458		
	50	-24.26	-0.013903		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.50	-18.25	-0.013610	Within authorized band for Band 66	Pass
	3.87	-37.26	-0.021352		
	4.45	4.45	0.002550		
16QAM					
25	3.50	-11.36	-0.006510	Within authorized band for Band 66	Pass
	3.87	11.14	0.006384		
	4.45	-19.51	-0.011181		
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
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

