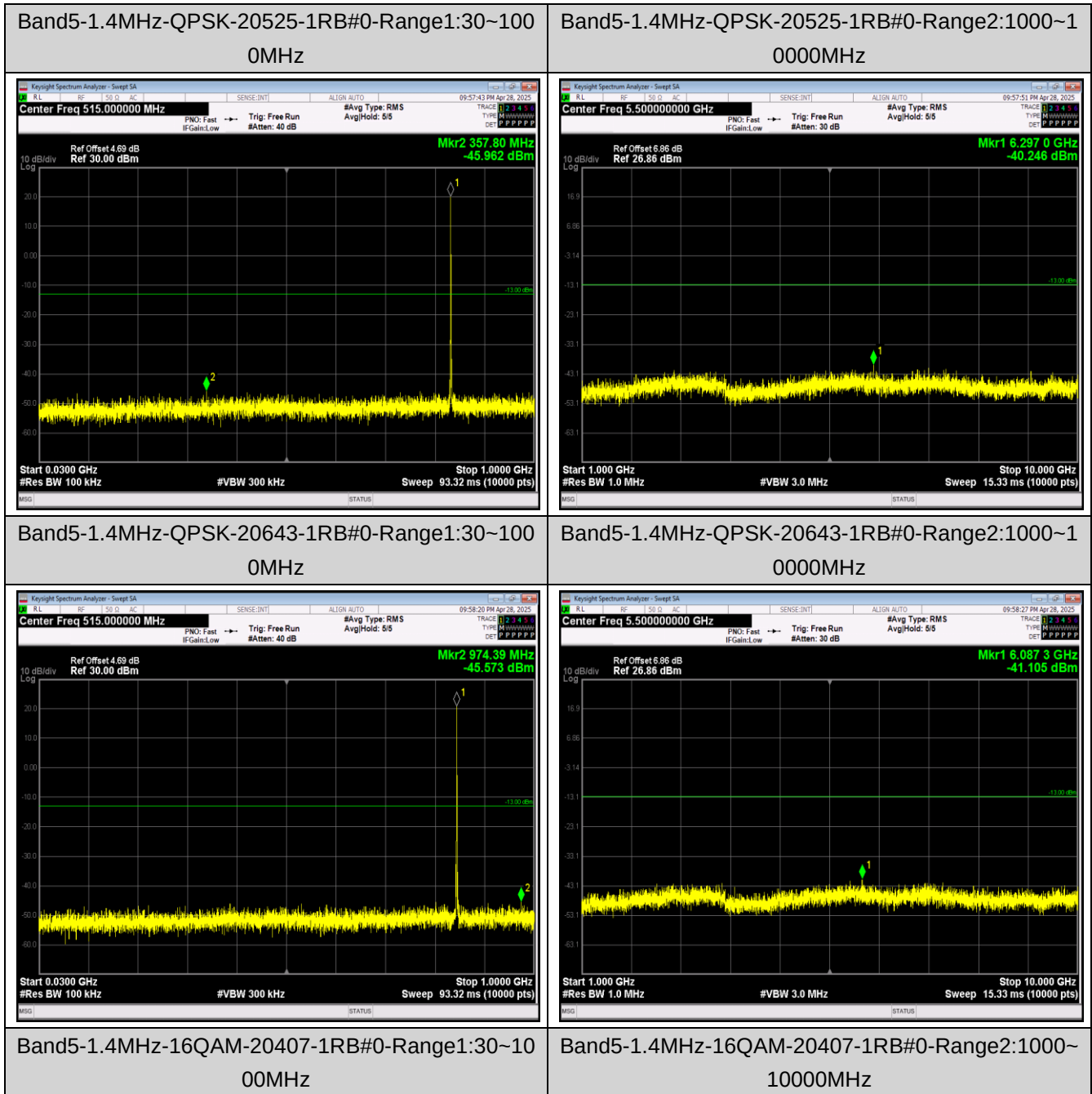
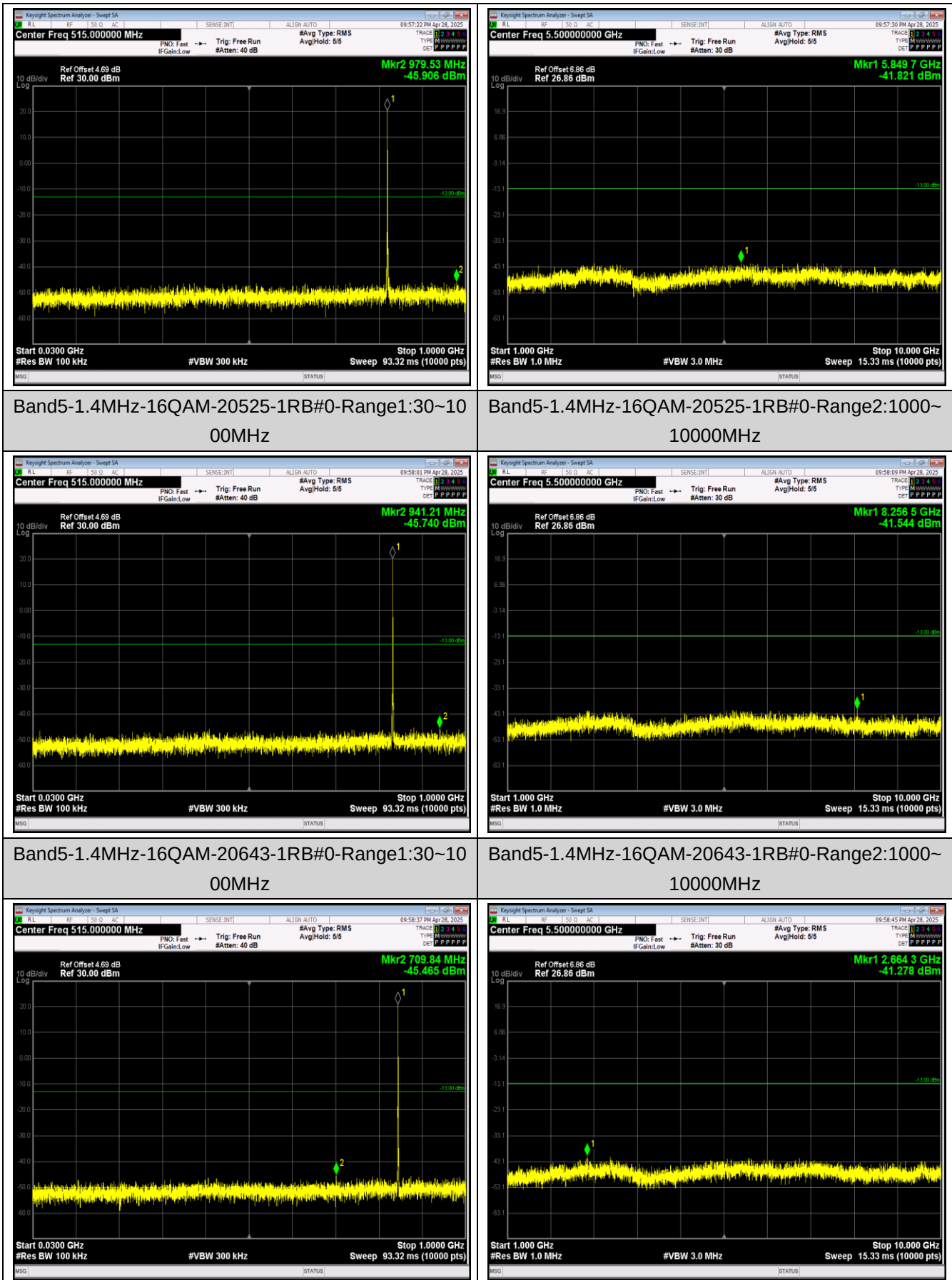
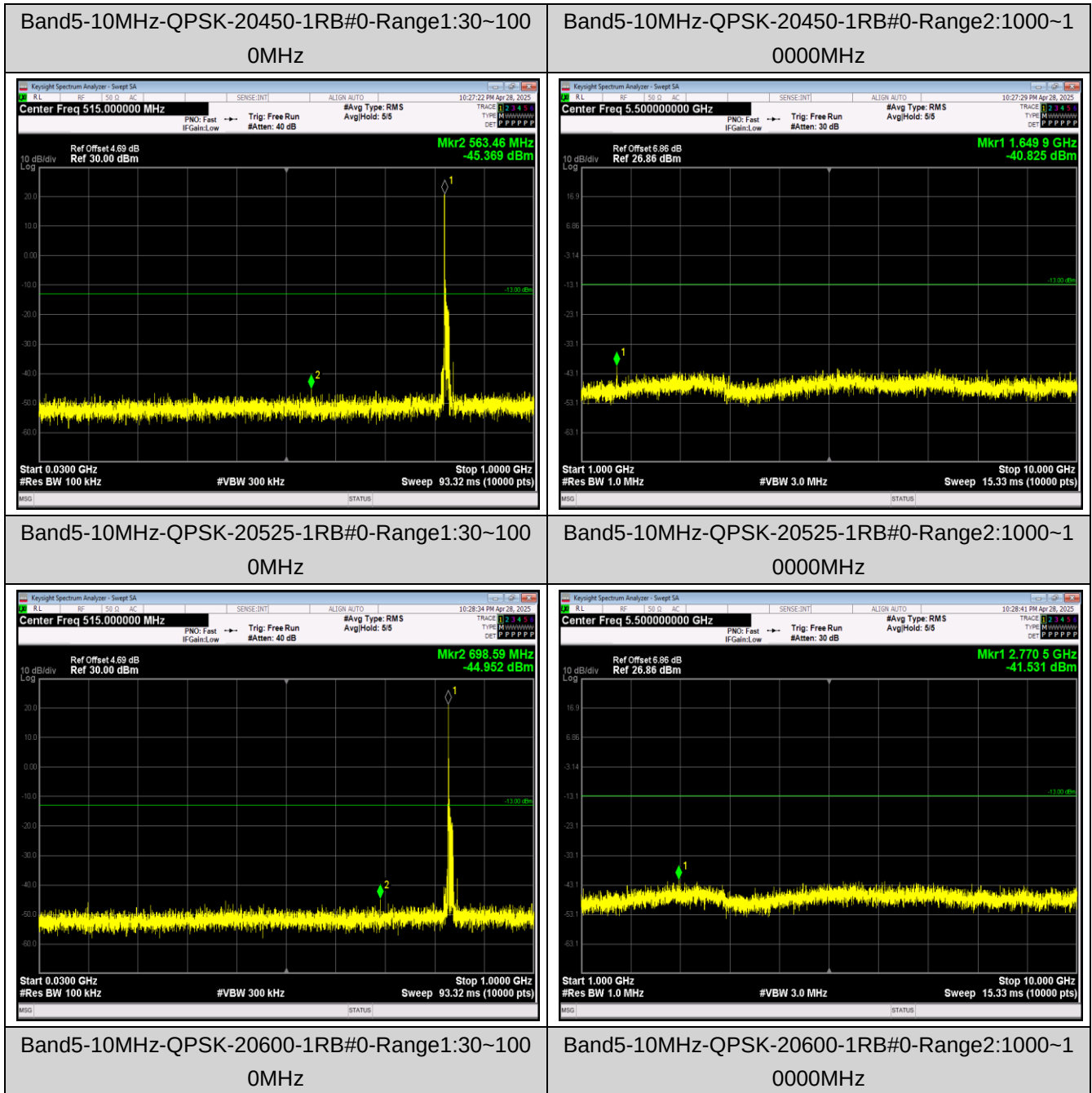
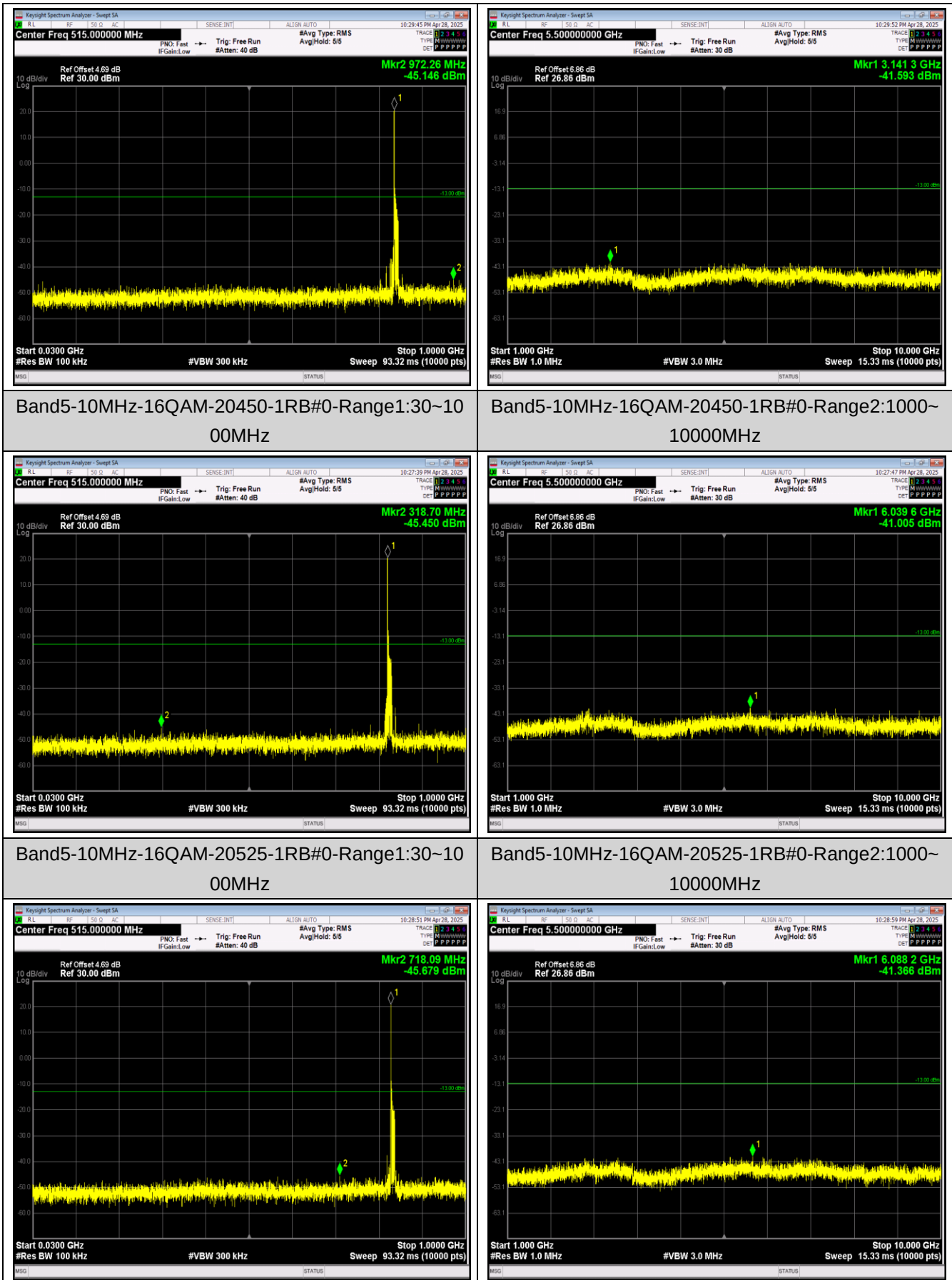


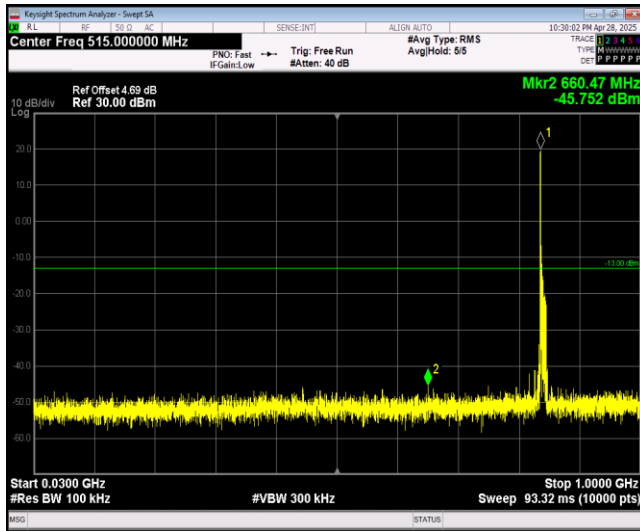




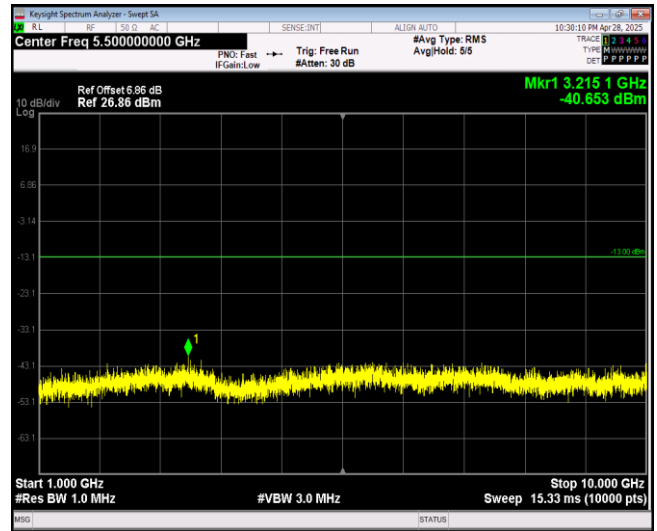




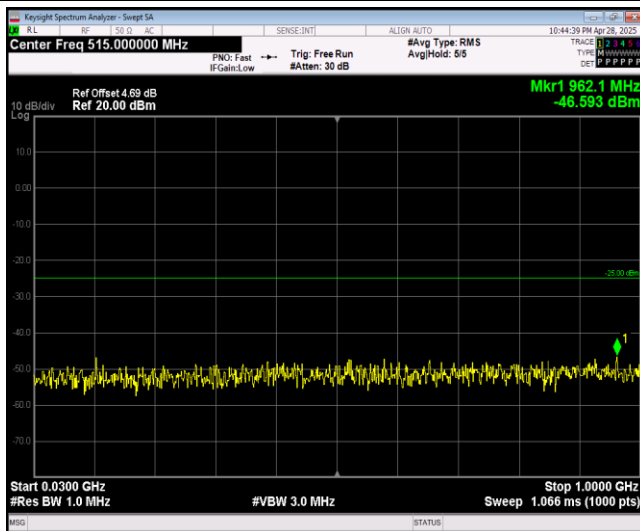
Band5-10MHz-16QAM-20600-1RB#0-Range1:30~1000MHz



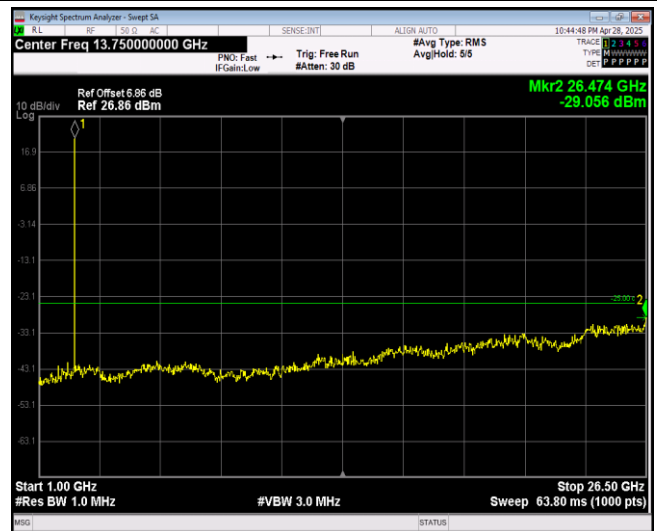
Band5-10MHz-16QAM-20600-1RB#0-Range2:1000~10000MHz



Band7-5MHz-QPSK-20775-1RB#0-Range1:30~1000MHz



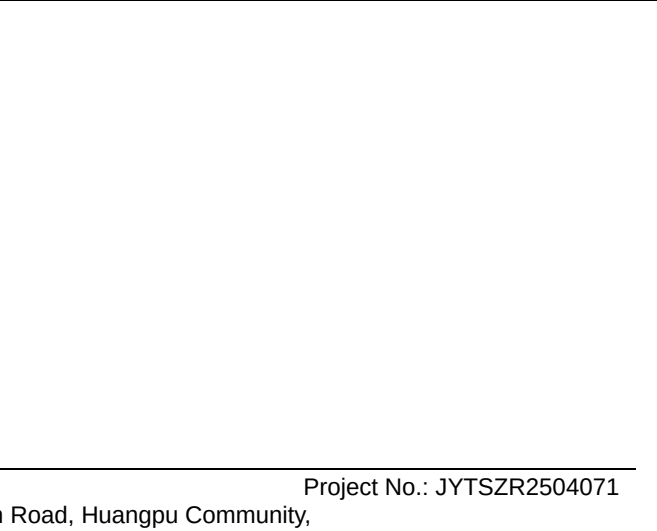
Band7-5MHz-QPSK-20775-1RB#0-Range2:1000~26500MHz

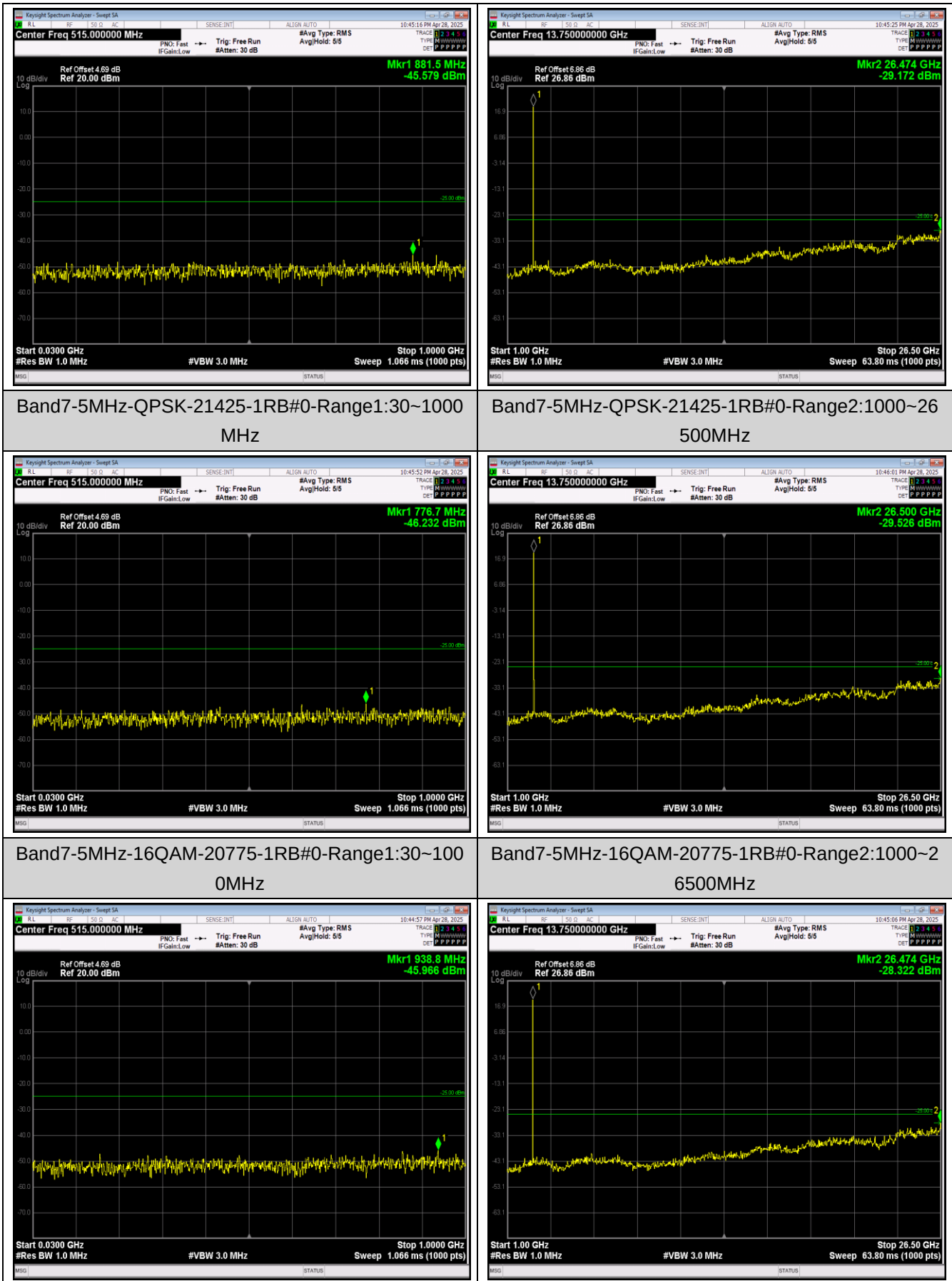


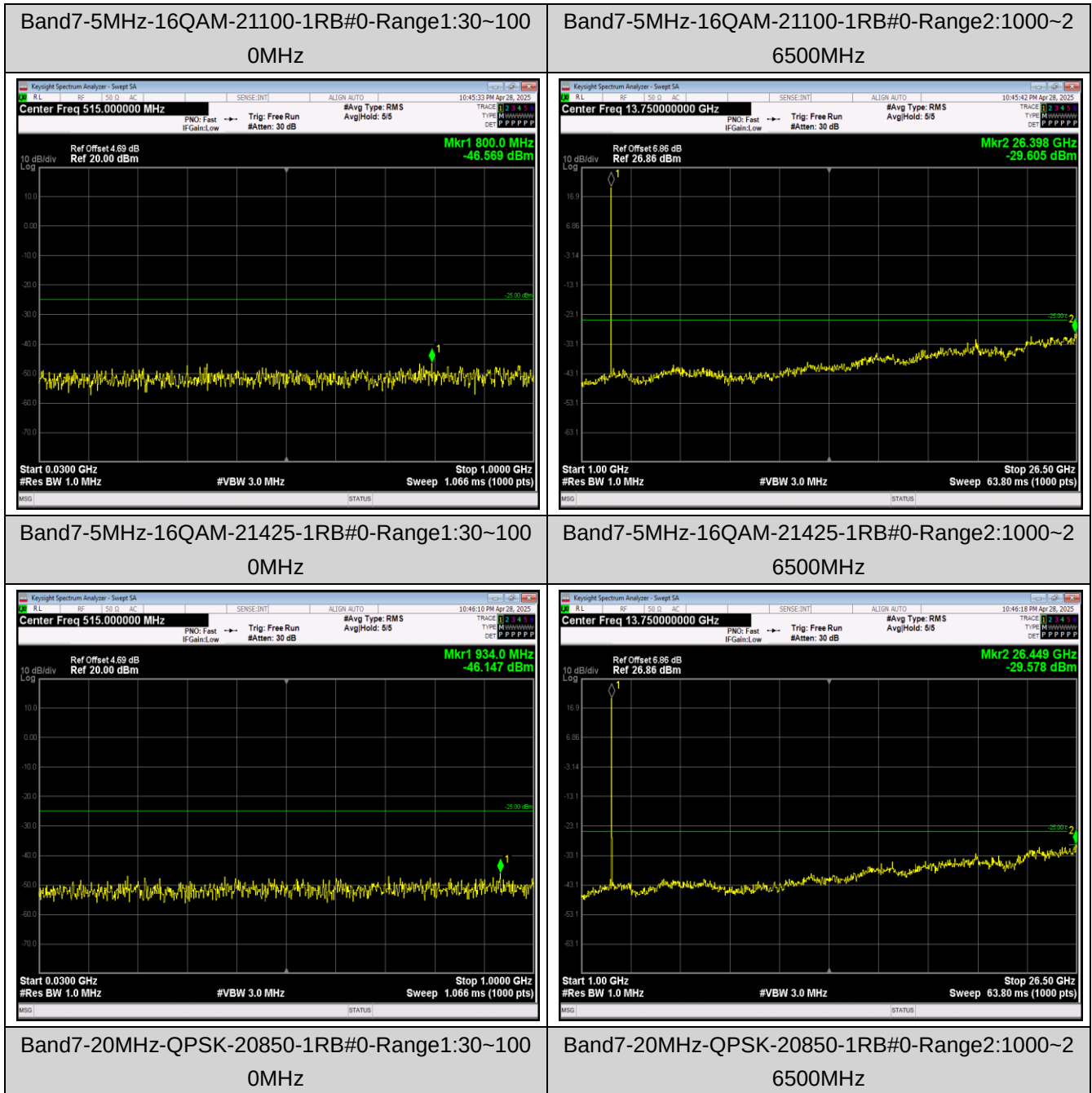
Band7-5MHz-QPSK-21100-1RB#0-Range1:30~1000MHz

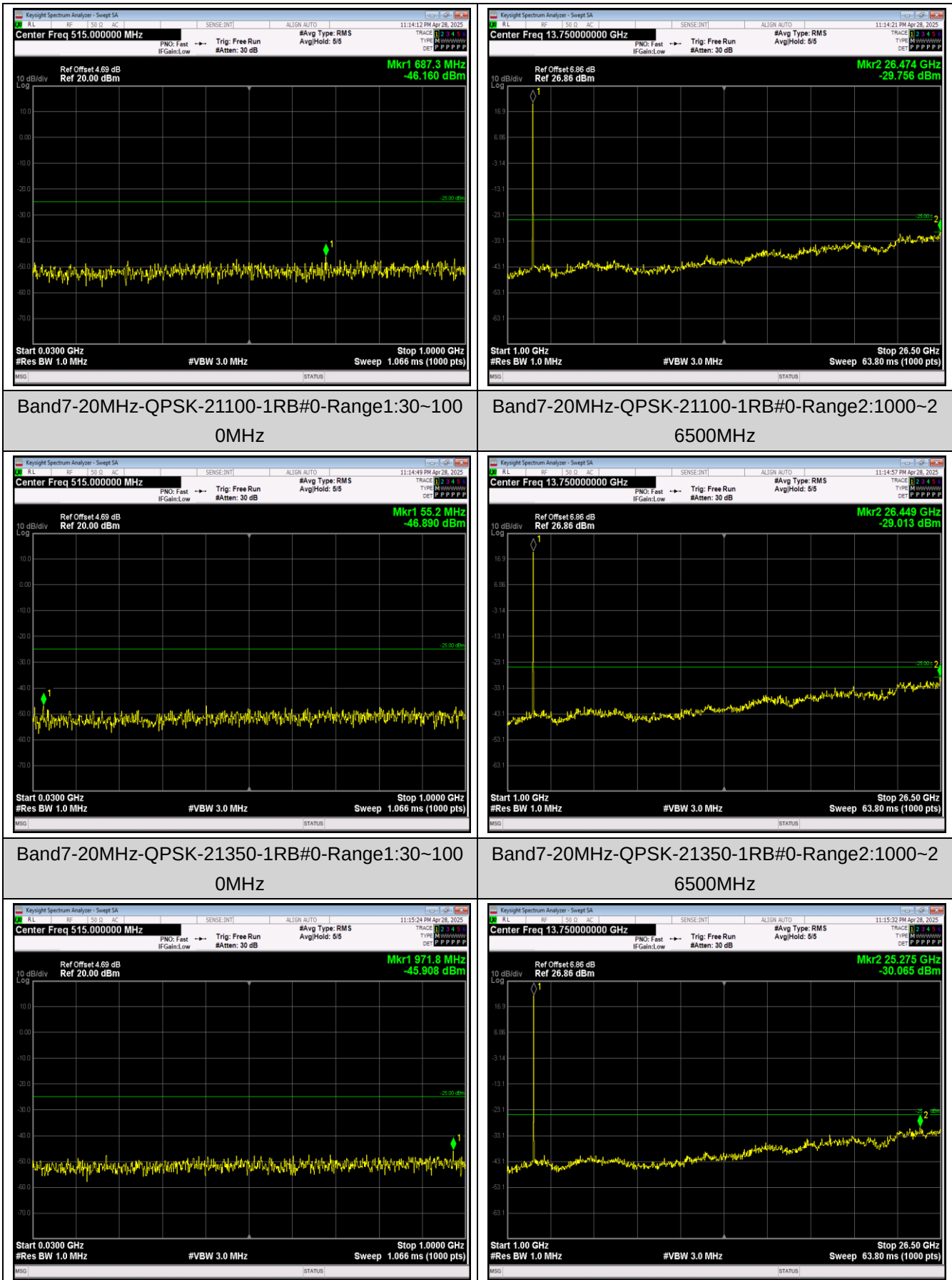


Band7-5MHz-QPSK-21100-1RB#0-Range2:1000~26500MHz

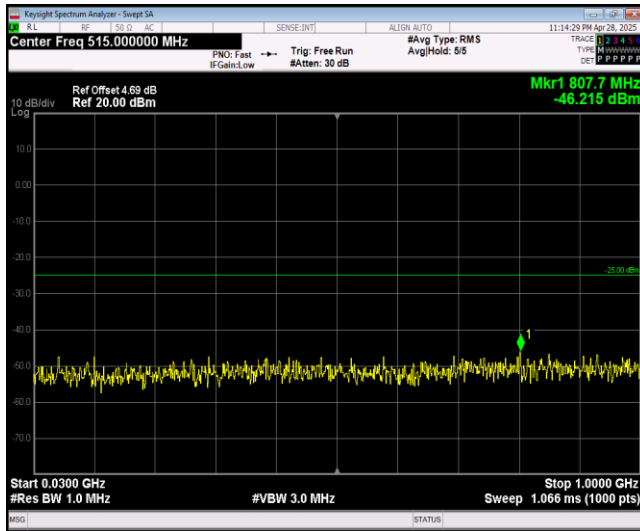




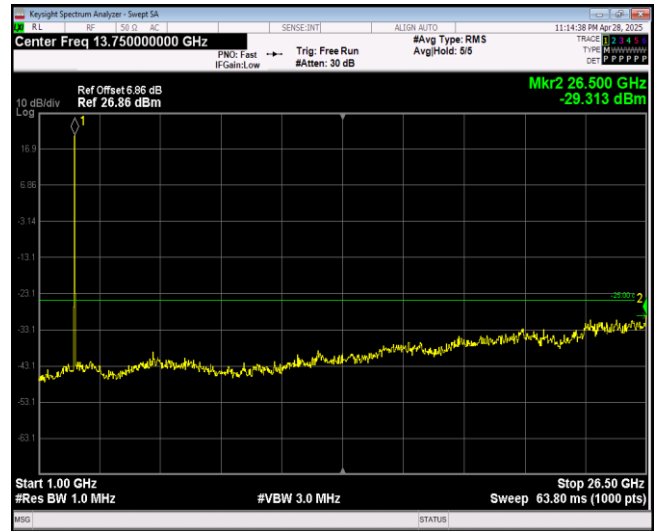




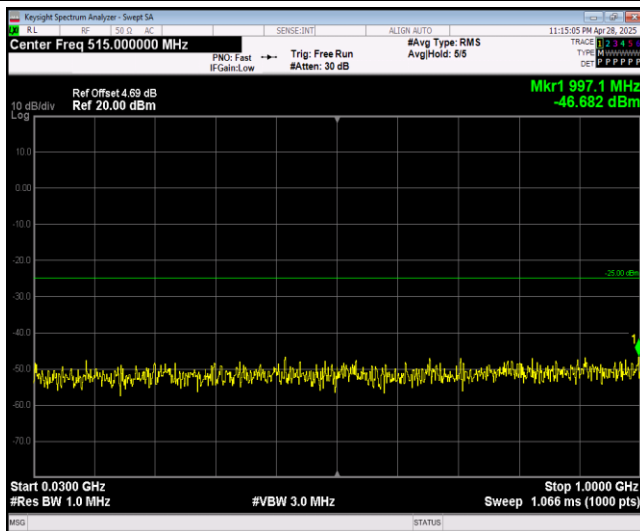
Band7-20MHz-16QAM-20850-1RB#0-Range1:30~1000MHz



Band7-20MHz-16QAM-20850-1RB#0-Range2:1000~26500MHz



Band7-20MHz-16QAM-21100-1RB#0-Range1:30~1000MHz



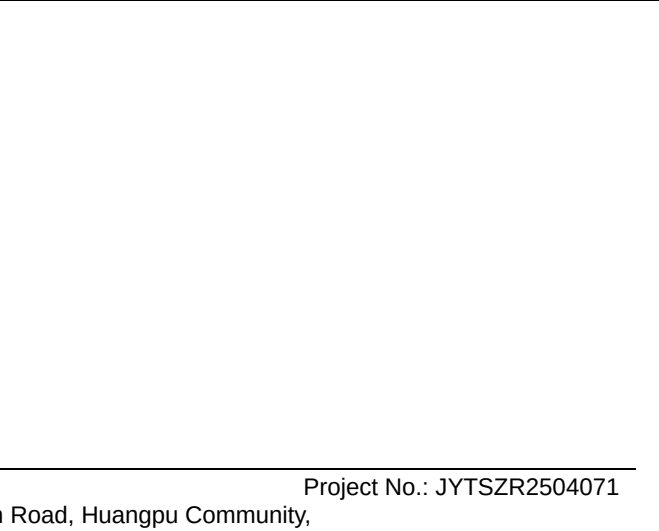
Band7-20MHz-16QAM-21100-1RB#0-Range2:1000~26500MHz

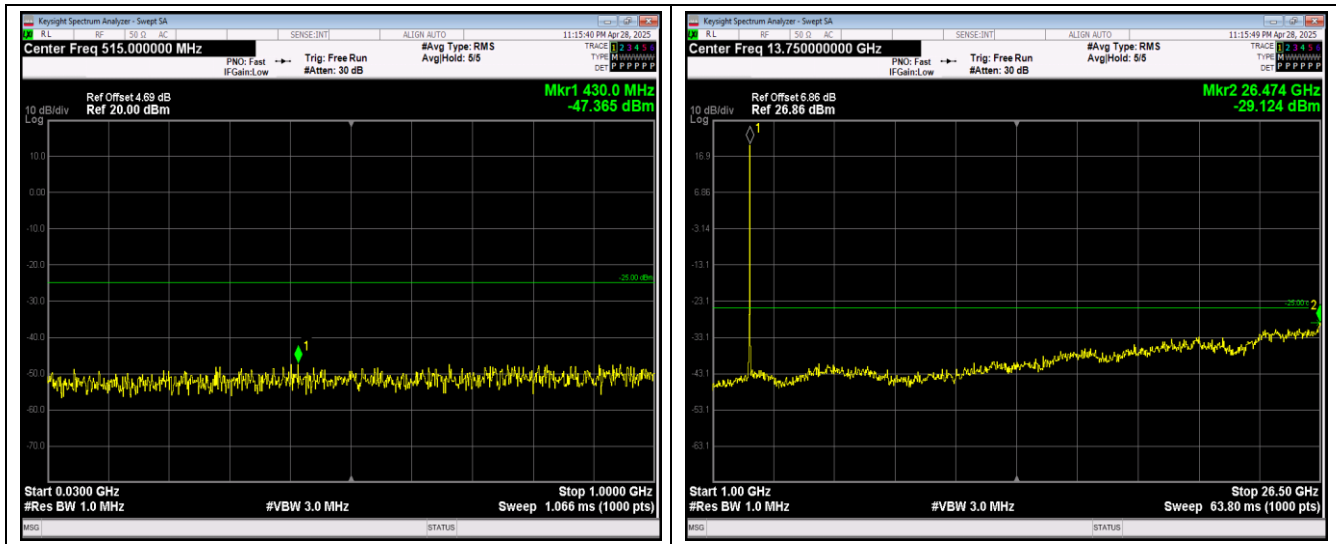


Band7-20MHz-16QAM-21350-1RB#0-Range1:30~1000MHz



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





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	-27.68	-0.014723	Within authorized band for Band 2	Pass
	-20	-3.83	-0.002037		
	-10	-29.67	-0.015782		
	0	-58.57	-0.031154		
	10	-27.07	-0.014399		
	20	-43.07	-0.022910		
	30	-10.03	-0.005335		
	40	-18.75	-0.009973		
	50	-32.42	-0.017245		
16QAM					
3.70	-30	-50.45	-0.026835	Within authorized band for Band 2	Pass
	-20	-48.29	-0.025686		
	-10	-47.61	-0.025324		
	0	-51.13	-0.027197		
	10	-46.46	-0.024713		
	20	-42.37	-0.022537		
	30	-48.32	-0.025702		
	40	-49.34	-0.026245		
	50	-52.27	-0.027803		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.30	19.37	0.010303	Within authorized band for Band 2	Pass
	3.70	29.93	0.015920		
	4.25	8.80	0.004681		
16QAM					
25	3.30	-45.73	-0.024324	Within authorized band for Band 2	Pass
	3.70	-45.32	-0.024106		
	4.25	-45.48	-0.024191		
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	22.40	0.012929	Within authorized band for Band 4	Pass
	-20	6.37	0.003677		
	-10	-23.13	-0.013351		
	0	-26.42	-0.015250		
	10	-22.30	-0.012872		
	20	9.76	0.005633		
	30	-18.22	-0.010517		
	40	-35.08	-0.020248		
	50	-13.39	-0.007729		
16QAM					
3.70	-30	-32.66	-0.018851	Within authorized band for Band 4	Pass
	-20	-35.28	-0.020364		
	-10	-30.30	-0.017489		
	0	-35.76	-0.020641		
	10	-39.54	-0.022823		
	20	-41.00	-0.023665		
	30	-44.93	-0.025934		
	40	-46.43	-0.026799		
	50	-13.18	-0.007608		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.30	22.76	0.013137	Within authorized band for Band 4	Pass
	3.70	-4.22	-0.002436		
	4.25	41.51	0.023960		
16QAM					
25	3.30	-29.24	-0.016877	Within authorized band for Band 4	Pass
	3.70	-16.94	-0.009778		
	4.25	-36.88	-0.021287		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
3.70	-30	-6.25	-0.007472	±2.5	Pass
	-20	-11.47	-0.013712		
	-10	-18.50	-0.022116		
	0	-18.93	-0.022630		
	10	-18.84	-0.022522		
	20	-16.75	-0.020024		
	30	-14.99	-0.017920		
	40	-14.76	-0.017645		
	50	-12.55	-0.015003		
16QAM					
3.70	-30	-15.56	-0.018601	±2.5	Pass
	-20	-15.38	-0.018386		
	-10	-13.90	-0.016617		
	0	-13.13	-0.015696		
	10	-11.09	-0.013258		
	20	-10.06	-0.012026		
	30	-11.69	-0.013975		
	40	-14.15	-0.016916		
	50	-13.19	-0.015768		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.30	1.96	0.002343	±2.5	Pass
	3.70	17.44	0.020849		
	4.25	5.22	0.006240		
16QAM					
25	3.30	-15.35	-0.018350	±2.5	Pass
	3.70	-15.55	-0.018589		
	4.25	-16.24	-0.019414		
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	17.55	0.006923	Within authorized band for Band 7	Pass
	-20	23.96	0.009452		
	-10	34.23	0.013503		
	0	42.64	0.016821		
	10	-29.04	-0.011456		
	20	-36.69	-0.014473		
	30	-37.85	-0.014931		
	40	-43.46	-0.017144		
	50	-56.62	-0.022335		
16QAM					
3.70	-30	6.35	0.002505	Within authorized band for Band 7	Pass
	-20	12.12	0.004781		
	-10	10.30	0.004063		
	0	8.87	0.003499		
	10	9.00	0.003550		
	20	7.57	0.002986		
	30	6.18	0.002438		
	40	10.29	0.004059		
	50	-7.42	-0.002927		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
QPSK					
25	3.30	48.74	0.019227	Within authorized band for Band 7	Pass
	3.70	6.48	0.002556		
	4.25	19.97	0.007878		
16QAM					
25	3.30	-7.20	-0.002840	Within authorized band for Band 7	Pass
	3.70	-13.66	-0.005389		
	4.25	7.72	0.003045		
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

Remark: All bandwidth and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

